The Online Encyclopedia of Integer Sequence (Offline Mirror)

Africamonkey

2018 年 3 月 1 日

1 简介

这是一本什么书 本工具书为 OEIS (http://oeis.org) 的一部分离线镜像，包含了许多常见的整数数列。

本书包含的数列 本工具书包含了 *2017 年 12 月 5 日及之前更新的* 、*编号范围为 A000001 - A296122 的* 、*有公式的* 、*单调不下降的* 、*非负的* 数列。

数列的排序方式 本书数列的排序方式是：设原数列为 a 。将 a 前导 0 的项以及前导 1 的项删去后得到数列 b 。本书将新构造的数列 b 按字典序排序。数列 b 将会在原数列中用下划线标注。

2 正文

[A103376] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 3, 4, 4, 4, 4, 4, 4, 4, 4, 5, 7, 8, 8, 8, 8, 8, 8, 8, 9, 12, 15, 16, 16, 16, 16, 16, 16, 17, 21, 27, 31, 32, 32, 32, 32, 33, 38, 48, 58, 63, 64, 64, 64, 65, 71, 86, 106, 121, 127, 128, 128, 129, 136, 157, 192, 227, 248, 255, 256, 257, 265, 293
a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=1, a(8)=1, a(9)=1, a(n)=a(n-8)+a(n-9). - Harvey P. Dale, May 07 2015
[A174631] 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 3, 3, 3, 4, 4, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 10, 11, 11, 12, 13, 14, 15, 17, 18, 19, 21, 22, 24, 26, 28, 30, 33, 35, 38, 41, 44, 47, 51, 54, 59, 63, 68, 73, 79, 85, 91, 98, 105, 113, 122, 131, 141, 152, 163, 176, 189, 203, 219, 235, 253, 272, 293, 315, 339, 364, 392, 421, 453, 487, 524, 564, 607, 652, 702, 755, 812, 873, 939, 1010, 1086, 1168, 1256
a(n)=Floor[(alpha^n-beta^n)/(alpha-beta)]
[A025781] 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 3, 3, 4, 4, 4, 5, 5, 6, 6, 6, 7, 7, 8, 8, 9, 10, 10, 11, 11, 12, 13, 13, 14, 14, 15, 16, 17, 18, 18, 19, 20, 21, 22, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=2, a(6)=2, a(7)=2, a(8)=2, a(9)=2, a(10)=3, a(11)=3, a(12)=4, a(13)=4, a(14)=4, a(15)=5, a(16)=5, a(17)=6, a(n)=a(n-1)+a(n-5)-a(n-6)+a(n-12)-a(n-13)-a(n-17)+a(n-18). - Harvey P. Dale, May 11 2014
[A079954] 0, 1, 2, 2, 2, 2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 42, 42, 42, 42, 42, 42, 42, 42, 42, 42, 42, 42, 42
a(n) = (n-1-(2/3)*(4^e_4-1)-(-1)^e_2*(n-1-2*(4^e_4-1)))/2 where e_4=floor(log[4](n)) and e_2=floor(log[2](n))=floor(log[4](n^2)) - Antonio G. Astudillo (afg_astudillo(AT)hotmail.com), Feb 22 2003
[A025775] 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 3, 4, 5, 5, 5, 6, 7, 7, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, 45, 47, 48, 49, 51, 53, 54, 55, 57, 59, 60, 62, 64, 66, 67, 69, 71, 73, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100
a(n) = floor((n^2+16*n+90+22*cos(n*Pi/2))/88). - Tani Akinari, May 03 2014
a(n) = +a(n-1) +a(n-4) -a(n-5) +a(n-11) -a(n-12) -a(n-15) +a(n-16). - R. J. Mathar, Aug 21 2014
[A229977] 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 4, 4, 5, 5, 6, 7, 7, 8, 10, 11, 12, 14, 16, 18, 20, 23, 26, 30, 34, 38, 43, 49, 56, 63, 72, 81, 92, 105, 119, 134, 152, 173, 196, 222, 252, 286, 324, 367, 416, 472, 535, 607, 688, 780, 885, 1003
a(n) = round((3/sqrt(7))^n).
[A255405] 1, 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 4, 4, 5, 6, 6, 7, 8, 9, 11, 12, 14, 16, 18, 20, 23, 26, 29, 33, 37, 42, 47, 53, 60, 68, 77, 87, 98, 111, 125, 141, 159, 180, 203, 229, 258, 292, 329, 371, 419, 473, 534, 602, 680, 767, 865, 977, 1102, 1244, 1403, 1584, 1787, 2016, 2275, 2567
a(n) = floor((2/sqrt(Pi))^n).
[A029083] 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 29, 31, 34, 36, 39, 41, 44, 46, 49, 51, 55, 58, 62, 65, 70, 73, 77, 80, 85, 88, 93, 97, 103, 107, 113, 118, 124, 128
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=2, a(5)=2, a(6)=2, a(7)=2, a(8)=3, a(9)=3, a(10)=4, a(11)=5, a(12)=6, a(13)=6, a(14)=7, a(15)=8, a(16)=9, a(17)=9, a(18)=10, a(19)=11, a(20)=13, a(21)=14, a(22)=16, a(23)=17, a(24)=19, a(25)=20, a(n)=a(n-1)+a(n-4)-a(n-5)+a(n-10)-a(n-12)- a(n-14)+ a(n-16)-a(n-21)+a(n-22)+a(n-25)-a (n-26). - Harvey P. Dale, Dec 22 2013
[A025774] 1, 1, 1, 1, 2, 2, 2, 2, 3, 4, 4, 4, 5, 6, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 36, 38, 39, 40, 42, 44, 45, 46, 48, 50, 52, 53, 55, 57, 59, 60, 62
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=2, a(5)=2, a(6)=2, a(7)=2, a(8)=3, a(9)=4, a(10)=4, a(11)=4, a(12)=5, a(13)=6, a(n)=a(n-1)+a(n-4)-a(n-5)+ a(n-9)-a(n-10)-a(n-13)+a (n-14). - Harvey P. Dale, Nov 11 2013
a(n) = floor(((n^2+14*n+76)+18*cos((n-1)*Pi/2))/72). - Tani Akinari, May 02 2014
[A001156] 1, 1, 1, 1, 2, 2, 2, 2, 3, 4, 4, 4, 5, 6, 6, 6, 8, 9, 10, 10, 12, 13, 14, 14, 16, 19, 20, 21, 23, 26, 27, 28, 31, 34, 37, 38, 43, 46, 49, 50, 55, 60, 63, 66, 71, 78, 81, 84, 90, 98, 104, 107, 116, 124, 132, 135, 144, 154, 163, 169, 178, 192, 201, 209, 220, 235, 247, 256
a(n) = f(n,1,3) with f(x,y,z) = if x<y then 0^x else f(x-y,y,z)+f(x,y+z,z+2). - Reinhard Zumkeller, Nov 08 2009
[A029126] 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 3, 4, 4, 5, 5, 5, 5, 6, 7, 7, 8, 9, 10, 11, 12, 13, 13, 14, 15, 16, 17, 18, 20, 21, 23, 25, 26, 27, 28, 30, 31, 33, 35, 37, 39, 41, 44, 46, 48, 50, 52, 54, 56, 59, 62, 65, 68, 71, 74, 77, 80
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=2, a(8)=2, a(9)=2, a(10)=2, a(11)=3, a(12)=4, a(13)=4, a(14)=5, a(15)=5, a(16)=5, a(17)=5, a(18)=6, a(19)=7, a(20)=7, a(21)=8, a(22)=9, a(23)=10, a(24)=11, a(25)=12, a(26)=13, a(27)=13, a(28)=14, a(29)=15, a(30)=16, a(n)=a(n-1)+ a(n-7)-a(n-8)+a(n-11)-a(n-13)-a(n-18)+a(n-20)-a(n-23)+a(n-24)+ a(n-30)- a(n-31). - Harvey P. Dale, Mar 10 2015
[A241086] 0, 1, 1, 1, 1, 1, 2, 2, 2, 2, 3, 4, 4, 5, 5, 6, 7, 8, 9, 11, 12, 14, 15, 17, 19, 21, 24, 27, 31, 34, 38, 42, 47, 51, 57, 62, 70, 77, 85, 93, 104, 114, 125, 137, 150, 164, 180, 196, 214, 234, 255, 279, 304, 332, 360, 393, 426, 464, 502, 545, 589, 640, 691, 749
a(15) counts these 7 partitions: 8421, 7521, 7431, 654, 6531, 6432, 54321.
[A098527] 1, 1, 1, 2, 2, 2, 2, 3, 4, 5, 7, 9, 11, 13, 16, 20, 25, 32, 41, 52, 65, 81, 101, 126, 158, 199, 251, 316, 397, 498, 624, 782, 981, 1232, 1548, 1945, 2443, 3067, 3849, 4830, 6062, 7610, 9555, 11998, 15065, 18914, 23744, 29806, 37416, 46971, 58969, 74034, 92948
a(n)=a(n-1)+a(n-7); a(n)=sum{k=0..floor(n/3), binomial(n-3k, floor(k/2))}.
[A060824] 2, 2, 2, 2, 4, 6, 8, 14, 18, 20, 38, 52, 60, 112, 150, 170, 320, 432, 492, 924, 1244, 1414, 2658, 3582, 4074, 7656, 10314, 11728, 22042, 29698, 33772, 63470, 85512, 97240, 182752, 246222, 279994, 526216, 708968, 806208, 1515176, 2041392, 2321386

a(n)=2*a(n-3)+3*a(n-6)-a(n-9)-a(n-12) - Antonio G. Astudillo (afg_astudillo(AT)hotmail.com), Jan 12 2003

[A171869] 1, 2, 2, 2, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296

a(n) = 2^(n-4) if n > = 5.

[A025771] 1, 1, 1, 2, 2, 2, 3, 3, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 40, 42, 43, 45, 47, 48, 50, 52, 53, 55, 57, 59, 61, 63, 65, 67

a(n)= +a(n-1) +a(n-3) -a(n-4) +a(n-11) -a(n-12) -a(n-14) +a(n-15). - R. J. Mathar, Aug 21 2014

[A025770] 1, 1, 1, 2, 2, 2, 3, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 35, 37, 38, 40, 42, 43, 45, 47, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 75, 77, 79, 82, 84, 86, 89, 91, 93, 96, 99, 101, 104, 107, 109, 112, 115, 117, 120, 123, 126, 129

a(n) = floor((3*n^2+42*n+196-40*cos(2*(n+1)*Pi/3))/180). - Tani Akinari, May 03 2014

a(n)= +a(n-1) +a(n-3) -a(n-4) +a(n-10) -a(n-11) -a(n-13) +a(n-14). - R. J. Mathar, Aug 21 2014

[A029060] 1, 1, 1, 2, 2, 2, 3, 3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 37, 40, 43, 47, 50, 53, 57, 60, 63, 67, 71, 75, 80, 85, 90, 95, 100, 105, 110, 115, 121, 127, 133, 140, 147, 154

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=2, a(6)=3, a(7)=3, a(8)=3, a(9)=4, a(10)=5, a(11)=6, a(12)=7, a(13)=8, a(14)=9, a(15)=10, a(16)=11, a(17)=12, a(18)=13, a(19)=14, a(20)=16, a(21)=18, a(22)=20, a(23)=22, a(24)=24, a(n)=a(n-1)+a(n-3)-a(n-4)+a(n-10)-a(n-12)-a(n-13)+a(n-15)- a(n-21)+ a(n-22)+a(n-24)-a(n-25). - Harvey P. Dale, Jan 11 2014

[A025778] 1, 1, 1, 1, 1, 2, 2, 2, 3, 3, 4, 4, 4, 5, 5, 6, 7, 7, 8, 8, 9, 10, 10, 11, 12, 13, 14, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36, 38, 39, 41, 42, 43, 45, 46, 48, 50, 51, 53, 54, 56

a(n)= +a(n-1) +a(n-5) -a(n-6) +a(n-8) -a(n-9) -a(n-13) +a(n-14). - R. J. Mathar, Aug 21 2014

a(n) = floor(n*(n+14)/80+1). - Tani Akinari, Oct 12 2014

[A029099] 1, 1, 1, 1, 1, 2, 2, 2, 3, 3, 4, 4, 5, 6, 6, 7, 8, 9, 10, 10, 12, 13, 14, 15, 17, 19, 20, 21, 23, 25, 27, 28, 31, 33, 35, 37, 40, 43, 45, 47, 51, 54, 57, 59, 63, 67, 70, 73, 78, 82, 86, 89, 94, 99, 103, 107, 113, 118, 123

a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=2, a(6)=2, a(7)=2, a(8)=3, a(9)=3, a(10)=4, a(11)=4, a(12)=5, a(13)=6, a(14)=6, a(15)=7, a(16)=8, a(17)=9, a(18)=10, a(19)=10, a(20)=12, a(21)=13, a(22)=14, a(23)=15, a(24)=17, a(25)=19, a(n)=a(n-1)+a(n-5)-a(n-6)+a(n-8)-a(n-9)+a(n-12)-2*a(n-13)+a(n-14)-a(n-17)+a(n-18)-a(n-20)+a(n-21)+a(n-25)-a(n-26). - Harvey P. Dale, Oct 18 2012

[A086936] 1, 2, 2, 2, 3, 3, 4, 4, 5, 6, 7, 7, 8, 8, 9, 10, 11, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 19, 20, 20, 21, 21, 22, 23, 24, 25, 26, 26, 27, 28, 29, 29, 30, 30, 31, 32, 33, 33, 34, 35, 36, 37, 38, 38, 39, 40, 41, 42, 43, 43, 44, 44, 45, 46, 47, 48, 49, 49, 50, 51, 52, 52, 53, 53

a(n)=sum{k=0..n, (1+mu(if(prime(k), k, 1)))/2} [offset 0] - Paul Barry, May 10 2005

[A224710] 0, 0, 0, 0, 0, 0, 1, 1, 1, 2, 2, 2, 3, 3, 4, 5, 5, 5, 6, 7, 7, 8, 8, 8, 9, 9, 10, 11, 11, 12, 13, 13, 13, 14, 15, 15, 16, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 23, 24, 24, 25, 25, 25, 26, 26, 26, 27, 27, 28, 29, 30, 31, 32, 33, 33, 34, 34, 35, 36, 36

a(n) = n - 2 - primepi(2n-4) for n>1. - Anthony Browne, May 03 2016

[A210469] 0, 0, 0, 0, 1, 1, 1, 2, 2, 2, 3, 3, 4, 5, 5, 5, 6, 7, 7, 8, 8, 8, 9, 9, 10, 11, 11, 12, 13, 13, 13, 14, 15, 15, 16, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 23, 24, 24, 25, 25, 25, 26, 26, 26, 27, 27, 28, 29, 30, 31, 32, 33, 33, 34, 34, 35, 36, 36, 36

a(n) = n - primepi(2n).

[A025769] 1, 1, 1, 2, 2, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 30, 32, 33, 35, 37, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 61, 63, 65, 68, 70, 72, 75, 77, 80, 83, 85, 88

a(n) = floor((x^2+12x+c)/48) with 51 <= c <= 58. - M. F. Hasler, Sep 16 2012

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=2, a(6)=3, a(7)=3, a(8)=4, a(9)=5, a(10)=5, a(11)=6, a(n)=a(n-1)+a(n-3)-a(n-4)+a(n-8)-a(n-9)- a(n-11)+ a(n-12). - Harvey P. Dale, Nov 29 2012

[A090184] 0, 1, 1, 1, 2, 2, 2, 3, 3, 4, 5, 5, 6, 7, 9, 10, 11, 13, 14, 17, 19, 22, 25, 28, 33, 37, 41, 43, 49, 55, 65, 73, 82, 86, 97, 109, 122, 129, 145, 163, 171, 193, 217, 244, 257, 289, 325, 342, 365, 385, 433, 487, 513, 577, 649, 683, 730, 769, 865, 973, 1025, 1094, 1153

a(2^i * 3^j) = floor(2^(i-1) * 3^(j-1) + 1), i*j>0.

[A226503] 1, 1, 1, 1, 1, 2, 2, 2, 3, 3, 4, 5, 5, 7, 8, 9, 12, 13, 16, 20, 22, 28, 33, 38, 48, 55, 66, 81, 93, 114, 136, 159, 195, 229, 273, 331, 388, 468, 560, 661, 799, 948, 1129, 1359, 1609, 1928, 2307, 2738, 3287, 3916, 4666, 5594, 6654, 7953, 9510, 11320, 13547, 16164

a(n) = a(n-3) + a(n-5), a(1) = a(2) = a(3) = a(4) = a(5) = 1.

[A029054] 1, 1, 1, 2, 2, 2, 3, 3, 4, 6, 6, 7, 9, 9, 10, 12, 13, 15, 18, 19, 21, 24, 25, 27, 31, 33, 36, 41, 43, 46, 51, 53, 57, 63, 66, 71, 78, 81, 86, 93, 97, 103, 111, 116, 123, 132, 137, 144, 154, 160, 168, 179, 186, 195, 207

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=2, a(6)=3, a(7)=3, a(8)=4, a(9)=6, a(10)=6, a(11)=7, a(12)=9, a(13)=9, a(14)=10, a(15)=12, a(16)=13, a(17)=15, a(18)=18, a(19)=19, a(20)=21, a(n)=a(n-1)+ a(n-3)- a(n-4)+ a(n-8)-a(n-10)-a(n-11)+a(n-13)-a(n-17)+a(n-18)+a(n-20)-a(n-21). - Harvey P. Dale, May 09 2013

[A025773] 1, 1, 1, 1, 2, 2, 2, 3, 4, 4, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 26, 27, 28, 30, 32, 33, 34, 36, 38, 39, 41, 43, 45, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 69, 71, 73, 75

a(n) = floor((n^2+12*n+50+14*cos(n*Pi/2))/56). - Tani Akinari, May 01 2014

a(n)= +a(n-1) +a(n-4) -a(n-5) +a(n-7) -a(n-8) -a(n-11) +a(n-12). - R. J. Mathar, Aug 21 2014

[A289139] 0, 0, 1, 2, 2, 2, 3, 4, 4, 5, 6, 6, 6, 7, 8, 8, 9, 10, 10, 10, 11, 12, 12, 13, 14, 14, 14, 15, 16, 16, 17, 18, 18, 18, 19, 20, 20, 21, 22, 22, 22, 23, 24, 24, 25, 26, 26, 26, 27, 28, 28, 29, 30, 30, 30, 31, 32, 32, 33, 34, 34, 34, 35, 36, 36, 37, 38, 38, 38, 39, 40, 40

a(n + 7*k) = a(n) + 4*k.

a(n) = 1/147*Sum_{k=0..n-1}{25*(k mod 7)+4*[(k+1) mod 7]-17*[(k+2) mod 7] +4*[(k+3) mod 7]+25*[(k+4) mod 7]+4*[(k+5) mod 7]-17*[(k+6) mod 7]}. - Paolo P. Lava, Jun 26 2017

[A025768] 1, 1, 1, 2, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 21, 22, 23, 25, 27, 28, 30, 32, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 54, 56, 58, 61, 63, 65, 68, 71, 73, 76, 79, 81, 84, 87, 90, 93, 96

a(n) = round((n+3)*(n+8)/42).

a(n)= +a(n-1) +a(n-3) -a(n-4) +a(n-7) -a(n-8) -a(n-10) +a(n-11). - R. J. Mathar, Aug 21 2014

[A000929] 1, 1, 1, 2, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 20, 22, 23, 26, 28, 29, 32, 35, 37, 41, 45, 47, 51, 55, 58, 63, 68, 72, 77, 82, 86, 92, 98, 103, 111, 118, 123, 131, 139, 145, 154, 164, 171, 180, 190, 198, 208, 219, 229, 241, 253, 264, 278, 291

a(n) = p(n,1) with p(n,k) = if k<=n then p(n-k,k)+p(n,2*k+1) else 0^n. - Reinhard Zumkeller, Mar 18 2009

[A029051] 1, 1, 1, 2, 2, 2, 3, 4, 4, 5, 7, 7, 8, 10, 11, 12, 14, 16, 17, 19, 22, 24, 26, 29, 32, 34, 37, 41, 44, 47, 52, 56, 59, 64, 69, 73, 78, 84, 89, 94, 101, 107, 113, 120, 127, 134, 141, 149, 157, 165, 174, 183, 192, 201, 211

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=2, a(6)=3, a(7)=4, a(8)=4, a(9)=5, a(10)=7, a(11)=7, a(12)=8, a(13)=10, a(14)=11, a(15)=12, a(16)=14, a(17)=16, a(18)=17, a(19)=19, a(20)=22, a(n)=a(n-1)+a(n-3)-a(n-4)+a(n-7)-a(n-8)- a(n-13)+ a(n-14)-a(n-17)+a(n-18)+a(n-20)-a (n-21). - Harvey P. Dale, May 06 2013

[A079398] 0, 1, 1, 1, 1, 1, 2, 2, 2, 3, 4, 4, 5, 7, 8, 9, 12, 15, 17, 21, 27, 32, 38, 48, 59, 70, 86, 107, 129, 156, 193, 236, 285, 349, 429, 521, 634, 778, 950, 1155, 1412, 1728, 2105, 2567, 3140, 3833, 4672, 5707, 6973, 8505, 10379, 12680, 15478, 18884, 23059, 28158, 34362

a(0)=0, a(1)=1, a(2)=1, a(3)=1, a(n) = a(n-3) + a(n-4) for n>3. - Colin Barker, Sep 18 2013

a(n) = Sum_{k=0..floor((n-1)/2)} binomial(floor((n-k-1)/3), k)} (offset 0).

a(n) = Sum_{k=0..floor(n/2)} binomial(floor((n-k-1)/3), k)}-0^n (offset 0). (End)

[A130084] 1, 2, 2, 2, 3, 4, 4, 6, 7, 8, 10, 13, 16, 20, 26, 32, 40, 51, 64, 80, 100, 126, 159, 200, 252, 317, 399, 502, 631, 795, 1000, 1259, 1585, 1996, 2512, 3163, 3982, 5012, 6310, 7944, 10000, 12590, 15849, 19953, 25119, 31623, 39811, 50119, 63096, 79433, 100000

a(n) = ceiling(10^((n-1)/10))

[A274759] 0, 1, 1, 1, 1, 2, 2, 2, 3, 4, 4, 6, 7, 8, 12, 14, 15, 23, 27, 29, 44, 52, 56, 85, 100, 108, 164, 193, 208, 316, 372, 401, 609, 717, 773, 1174, 1382, 1490, 2263, 2664, 2872, 4362, 5135, 5536, 8408, 9898, 10671, 16207, 19079, 20569, 31240, 36776, 39648, 60217, 70888, 76424, 116072, 136641

a(3n) = a(3n-3) + a(3n-6) + a(3n-9) + a(3n-12).

a(3n + 2) = a(3n + 1) + a(3n - 2).

a(3n + 3) = a(3n + 1) + a(3n - 1).

a(3n + 4) = a(3n + 1) + a(3n).
[A029049] 1, 1, 1, 2, 2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33, 37, 40, 43, 47, 51, 55, 60, 65, 70, 75, 80, 86, 92, 98, 105, 112, 119, 126, 134, 142, 150, 159, 168, 177, 187, 197, 207, 218, 229, 240, 252
a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=2, a(6)=3, a(7)=4, a(8)=5, a(9)=6, a(10)=7, a(11)=8, a(12)=9, a(13)=10, a(14)=12, a(15)=14, a(16)=16, a(17)=18, a(18)=20, a(n)=a(n-1)+a(n-3)-a(n-4)+a(n-7)- a(n-9)- a(n-10)+a(n-12)-a(n-15)+a(n-16)+a(n-18)-a(n-19) [Harvey P. Dale, Mar 10 2012]
a(n) = floor((504*((floor((n+2)/2)-2*floor((n+2)/4))*(-1^floor(n/4))+2*n^3+57*n^2+480*n+2088)/2016). - Tani Akinari, Jun 28 2013
[A096748] 1, 2, 2, 2, 3, 4, 5, 6, 8, 10, 13, 16, 21, 26, 34, 42, 55, 68, 89, 110, 144, 178, 233, 288, 377, 466, 610, 754, 987, 1220, 1597, 1974, 2584, 3194, 4181, 5168, 6765, 8362, 10946, 13530, 17711, 21892, 28657, 35422, 46368, 57314, 75025, 92736, 121393, 150050
a(n)=a(n-2)+a(n-4); a(n)=2F((n+1)/2)(1-(-1)^n)/2+F((n+4)/2)(1+(-1)^n)/2;
a(n)=sum{k=0..n, binomial(floor((n-k)/2), floor(k/2))} - Paul Barry, Jul 24 2004
[A098523] 1, 1, 2, 2, 2, 3, 4, 6, 8, 10, 13, 17, 23, 31, 41, 54, 71, 94, 125, 166, 220, 291, 385, 510, 676, 896, 1187, 1572, 2082, 2758, 3654, 4841, 6413, 8495, 11253, 14907, 19748, 26161, 34656, 45909, 60816, 80564, 106725, 141381, 187290, 248106
a(n)=a(n-1)+a(n-5); a(n)=sum{k=0..floor(n/2), binomial(n-2k, floor(k/2))}.
[A029046] 1, 1, 1, 2, 2, 2, 2, 4, 4, 5, 7, 7, 8, 11, 11, 13, 16, 17, 19, 23, 24, 27, 31, 33, 36, 42, 44, 48, 54, 57, 61, 69, 72, 78, 86, 90, 96, 106, 110, 118, 128, 134, 142, 154, 160, 170, 182, 190, 200, 215, 223, 235, 250, 260
a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=2, a(6)=4, a(7)=4, a(8)=5, a(9)=7, a(10)=7, a(11)=8, a(12)=11, a(13)=11, a(14)=13, a(15)=16, a(16)=17, a(17)=19, a(n)=a(n-1)+a(n-3)-a(n-4)+a(n-6)-a(n-7)+a(n-8)- 2*a(n-9)+ a(n-10)-a(n-11)+a(n-12)-a(n-14)+a(n-15)+a(n-17)-a(n-18). - Harvey P. Dale, Apr 05 2014
[A182539] 0, 1, 1, 2, 2, 2, 4, 6, 6, 6, 8, 10, 18, 26, 28, 38, 54, 54, 72, 90, 90, 106, 124, 126, 150, 174, 192, 202, 202, 210, 220, 238, 238, 270, 304, 306, 338, 370, 372, 406, 438, 438, 472, 506, 514, 554, 556, 598, 630, 646, 696, 698, 746, 794, 828, 846, 902, 910, 912, 922, 938, 962, 1004, 1006, 1070
a(0)=0, a(1)=1, a(n) = a(n-1) + (a(n-2) AND n), where AND is the bitwise AND operator.
[A077943] 1, 2, 2, 2, 4, 8, 12, 16, 24, 40, 64, 96, 144, 224, 352, 544, 832, 1280, 1984, 3072, 4736, 7296, 11264, 17408, 26880, 41472, 64000, 98816, 152576, 235520, 363520, 561152, 866304, 1337344, 2064384, 3186688, 4919296, 7593984, 11722752, 18096128, 27934720, 43122688
a(0)=1, a(1)=2, a(2)=2, a(n)=2*a(n-1)-2*a(n-2)+2*a(n-3) [From Harvey P. Dale, Nov 30 2011]
[A295680] 0, 0, 0, 2, 2, 2, 4, 8, 12, 18, 30, 50, 80, 128, 208, 338, 546, 882, 1428, 2312, 3740, 6050, 9790, 15842, 25632, 41472, 67104, 108578, 175682, 284258, 459940, 744200, 1204140, 1948338, 3152478, 5100818, 8253296, 13354112, 21607408, 34961522, 56568930
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 0, a(1) = 0, a(2) = 0, a(3) = 2.
[A130707] 1, 2, 2, 2, 4, 10, 22, 44, 86, 170, 340, 682, 1366, 2732, 5462, 10922, 21844, 43690, 87382, 174764, 349526, 699050, 1398100, 2796202, 5592406, 11184812, 22369622, 44739242, 89478484, 178956970, 357913942, 715827884, 1431655766, 2863311530
a(n)=2^n/3 + 4(-1)^n*(1/3)*cos((2n+1)Pi/3). - Emeric Deutsch, Jul 27 2007
a(n)=(1/3)*[(1/2)-(1/2)*I*sqrt(3)]^n+(1/3)*[(1/2)+(1/2)*I*sqrt(3)]^n+(1/3)*2^n+(1/3)*I*[(1/2)-(1/2)*I*sqrt(3)]^n*sqrt(3)-(1/3)*I*[(1/2)+(1/2)*I*sqrt(3)]^n*sqrt(3
with n>=0 [From Paolo P. Lava, May 10 2010]
[A260786] 2, 2, 2, 4, 10, 32, 122, 544, 2770, 15872, 101042, 707584, 5405530, 44736512, 398721962, 3807514624, 38783024290, 419730685952, 4809759350882, 58177770225664, 740742376475050, 9902996106248192, 138697748786275802, 2030847773013704704, 31029068327114173810, 493842960380415967232
a(0)=a(1)=2; thereafter a(n) = (1/4)*Sum{k=1..n} binomial(n-1, k-1)*a(k-1)*a(n-k).
[A142974] 1, 2, 2, 2, 4, 12, 34, 86, 200, 440, 934, 1938, 3964, 8036, 16202, 32558, 65296, 130800, 261838, 523946, 1048196, 2096732, 4193842, 8388102, 16776664, 33553832, 67108214, 134217026, 268434700, 536870100, 1073740954, 2147482718
a(n) = 2^n - n(n-1) (if offset is 0). - Emeric Deutsch, Aug 09 2008
[A122946] 0, 0, 2, 2, 2, 10, 18, 26, 66, 138, 242, 506, 1058, 2026, 4050, 8282, 16386, 32586, 65714, 131258, 261602, 524458, 1049490, 2095898, 4193730, 8391690, 16775282, 33550202, 67116962, 134218090, 268418898, 536886746, 1073759106, 2147434698
a(n)=(1/7)*2^(-2 + n/2)* (7*2^(n/2) - 7*Cos[n*(Pi - ArcTan[Sqrt[7]])] + 5*Sqrt[7]* Sin[n*(-Pi + ArcTan[Sqrt[7]])]) - Zak Seidov, Oct 26 2006
[A025777] 1, 1, 1, 1, 1, 2, 2, 3, 3, 3, 4, 4, 5, 5, 6, 7, 7, 8, 8, 9, 10, 11, 12, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 34, 35, 36, 38, 39, 41, 42, 44, 46, 47, 49, 50, 52, 54, 56, 58, 59, 61, 63
a(n)= +a(n-1) +a(n-5) -a(n-6) +a(n-7) -a(n-8) -a(n-12) +a(n-13). - R. J. Mathar, Aug 21 2014
[A115384] 0, 1, 2, 2, 3, 3, 3, 4, 5, 5, 5, 6, 6, 7, 8, 8, 9, 9, 9, 10, 10, 11, 12, 12, 12, 13, 14, 14, 15, 15, 15, 16, 17, 17, 17, 18, 18, 19, 20, 20, 20, 21, 22, 22, 23, 23, 23, 24, 24, 25, 26, 26, 27, 27, 27, 28, 29, 29, 29, 30, 30, 31, 32, 32, 33, 33, 33, 34, 34, 35, 36, 36, 36, 37, 38, 38
a(n) = Sum_{i=1..n} (S2(n) mod 2), where S2 = binary weight; lim a(n)/n = 1/2. More generally, consider a(n) = Sum_{i=1..n} (F(Sk(n)) mod m), where Sk(n) is sum of digits of n, n in base k; F(t) is an arithmetic function; m integer. How does lim a(n)/n depend on F(t)? - Ctibor O. Zizka, Feb 25 2008
[A029122] 1, 1, 1, 1, 1, 1, 1, 2, 2, 3, 3, 4, 4, 4, 5, 5, 6, 6, 8, 8, 9, 10, 11, 12, 12, 14, 14, 16, 17, 19, 20, 21, 23, 24, 26, 27, 30, 31, 33, 35, 37, 39, 41, 44, 46, 49, 51, 54, 56, 59, 62, 65, 68, 71, 75, 78, 82, 85, 89, 92, 96
a(n) = floor((n^3+42*n^2+525*n+3744)/4158+1/6*(1+(-1)^(n+9*floor(n/9)))*(1-floor((-9*floor(n/9)+n)/3))). - Tani Akinari, Jul 07 2013
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=2, a(8)=2, a(9)=3, a(10)=3, a(11)=4, a(12)=4, a(13)=4, a(14)=5, a(15)=5, a(16)=6, a(17)=6, a(18)=8, a(19)=8, a(20)=9, a(21)=10, a(22)=11, a(23)=12, a(24)=12, a(25)=14, a(26)=14, a(27)=16, a(n)=a(n-1)+a(n-7)-a(n-8)+ a(n-9)- a(n-10)+a(n-11)-a(n-12)-a(n-16)+a(n-17)-a(n-18)+ a(n-19)- a(n-20)+ a(n-21)+a(n-27)-a(n-28). - Harvey P. Dale, Feb 27 2015
[A110654] 0, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 18, 18, 19, 19, 20, 20, 21, 21, 22, 22, 23, 23, 24, 24, 25, 25, 26, 26, 27, 27, 28, 28, 29, 29, 30, 30, 31, 31, 32, 32, 33, 33, 34, 34, 35, 35, 36, 36, 37, 37, 38
a(n) = floor(n/2) + n mod 2.
a(n) = a(n-1) + a(n-2) - a(n-3) for n > 2, a(2) = a(1) = 1, a(0) = 0. - Reinhard Zumkeller, May 22 2006
a(-1-n) = -a(n). (End)
a(n) = floor((n+1)/2) = |Sum_{m=1..n} Sum_{k=1..m} (-1)^k|, where |x| is the absolute value of x. - William A. Tedeschi, Mar 21 2008
a(n) = 1/4 - (-1)^n/4 + n/2. - Paolo P. Lava, Oct 03 2008
a(n) = ceiling(n/2) = smallest integer >= n/2. - M. F. Hasler, Nov 17 2008
[A025766] 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 22, 23, 25, 26, 28, 29, 31, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 59, 61, 64, 66, 69, 71, 74, 76, 79, 81, 84, 87, 90, 93, 96
a(n) = +a(n-1) +a(n-2) -a(n-3) +a(n-11) -a(n-12) -a(n-13) +a(n-14). - R. J. Mathar, Jun 04 2013
[A029030] 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 23, 25, 29, 31, 35, 37, 41, 43, 47, 49, 54, 57, 63, 67, 73, 77, 83, 87, 93, 97, 104, 109, 117, 123, 132, 138, 147, 153, 162, 168, 178, 185, 196, 204
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-10) - 2*a(n-12) + a(n-14) - a(n-21) + a(n-22) + a(n-23) - a(n-24). - Matthew House, 07 May 2017
[A225875] 1, 2, 2, 3, 3, 4, 4, 5, 6, 6, 7, 7, 8, 8, 9, 10, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 16, 16, 17, 18, 18, 19, 19, 20, 20, 21, 22, 22, 23, 23, 24, 24, 25, 26, 26, 27, 27, 28, 28, 29, 30, 30, 31, 31, 32, 32, 33, 34, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 40, 41, 42, 42, 43
a(n+1) = 1 + 4*floor(n/7) + [0,1,1,2,2,3,3].
a(n) = n - floor(3*n/7). - Wesley Ivan Hurt, Sep 29 2017
[A025765] 1, 1, 2, 2, 3, 3, 4, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 49, 51, 54, 56, 59, 61, 64, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 100, 103, 107, 110
a(n)= +a(n-1) +a(n-2) -a(n-3) +a(n-9) -a(n-10) -a(n-11) +a(n-12). - R. J. Mathar, Mar 22 2011
[A029026] 1, 1, 2, 2, 3, 3, 4, 4, 6, 6, 8, 9, 11, 12, 14, 15, 18, 19, 22, 24, 27, 29, 33, 35, 40, 42, 47, 50, 55, 58, 64, 67, 74, 78, 85, 90, 97, 102, 110, 115, 124, 130, 139, 146, 156, 163, 174, 181, 193, 201, 213, 222, 235, 244
a(0)=1, a(1)=1, a(2)=2, a(3)=2, a(4)=3, a(5)=3, a(6)=4, a(7)=4, a(8)=6, a(9)=6, a(10)=8, a(11)=9, a(12)=11, a(13)=12, a(14)=14, a(15)=15, a(16)=18, a(17)=19, a(18)=22, a(19)=24, a(20)=27, a(21)=29, a(n)= a(n-1)+ a(n-2)-a(n-3)+a(n-8)-a(n-9)-a(n-10)+2*a(n-11)- a(n-12)-a(n-13)+ a(n-14)-a(n-19)+a(n-20)+a(n-21)-a(n-22). - Harvey P. Dale, Nov 02 2015
[A214656] 0, 0, 1, 1, 2, 2, 3, 3, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 10, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 16, 16, 17, 17, 18, 19, 19, 20, 20, 21, 21, 22, 22, 23, 24, 24, 25, 25, 26, 26, 27, 28, 28, 29, 29, 30, 30, 31, 31, 32, 33, 33, 34, 34, 35, 35, 36, 36, 37, 38, 38, 39
a(n) = floor(a*n), n>=0, with a = -y_0(1) given in the comment section.

[A098294] 0, 1, 2, 2, 3, 3, 4, 5, 5, 6, 6, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12, 13, 13, 14, 15, 15, 16, 16, 17, 17, 18, 19, 19, 20, 20, 21, 22, 22, 23, 23, 24, 24, 25, 26, 26, 27, 27, 28, 29, 29, 30, 30, 31, 32, 32, 33, 33, 34, 34, 35, 36, 36, 37, 37, 38, 39, 39, 40, 40, 41, 41, 42, 43, 43, 44
a(n) = ceiling(tau*n) with tau := log(3)/log(2) - 1 = 0.584962501..., n>=0.
a(n) = floor(1 + n * log(3)/log(2)) - n, n >= 1. - Mike Winkler, Dec 31 2010
[A253671] 1, 1, 2, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 26, 26, 27, 28, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 40, 40
a(n+2) = a(n+1) + (0, 1, 0, followed by a sequence of period 11: repeat 1, 0, 1, 1, 0, 1, 1, 0, 1, 0, 1).
a(n) = a(n-1) + a(n-11) - a(n-12) for n>15. - Colin Barker, Jan 22 2015
[A209081] 1, 1, 2, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 26, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 34, 35, 36, 36, 37, 38
a(n) = floor(n-(n-1)^n/n^(n-1)).
[A083479] 0, 1, 1, 1, 2, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 10, 10, 11, 12, 13, 13, 14, 15, 16, 17, 17, 18, 19, 20, 21, 21, 22, 23, 24, 25, 26, 26, 27, 28, 29, 30, 31, 31, 32, 33, 34, 35, 36, 37, 37, 38, 39, 40, 41, 42, 43, 43, 44, 45, 46, 47, 48, 49, 50, 50, 51, 52, 53, 54, 55, 56, 57, 57
a(n) = ((n+2)-ceiling(sqrt(4*n))). - Gregory R. Bryant, Apr 01 2013
[A084630] 1, 1, 1, 2, 2, 3, 3, 4, 5, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 25, 26, 28, 30, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 56, 58, 60, 63, 65, 68, 70, 73, 76, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 115, 118, 121, 125, 128, 132, 135
a(n)=floor(n^2/42+13n/42)+1
[A283371] 0, 1, 1, 2, 2, 3, 3, 4, 5, 6, 6, 7, 7, 8, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 15, 16, 17, 18, 19, 19, 19, 20, 21, 21, 21, 22, 22, 23, 23, 24, 25, 25, 26, 27, 27, 28, 29, 30, 31, 31, 31, 32, 32, 33, 34, 35, 36, 36, 37, 37, 38, 39, 40, 41, 41, 41, 42, 43, 43, 43, 43, 44, 44, 45, 46, 47, 48, 48, 49, 50, 50
a(n) » n/log n. In particular, lim inf a(n) * (log n)/n >= 1/2. - Charles R Greathouse IV, Mar 06 2017
[A156253] 1, 2, 2, 3, 3, 4, 5, 6, 6, 7, 8, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 23, 24, 24, 25, 26, 26, 27, 27, 28, 29, 30, 30, 31, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 41, 42, 42, 43, 44, 44, 45, 45, 46, 47, 47, 48, 49, 50
a(n) should be asymptotic to 2n/3.
[A060151] 1, 2, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 19, 19, 20, 21, 22, 22, 23, 24, 25, 26, 26, 27, 28, 29, 30, 30, 31, 32, 33, 34, 34, 35, 36, 37, 38, 38, 39, 40, 41, 42, 43, 43, 44, 45, 46, 47, 47, 48, 49, 50, 51, 51, 52, 53, 54, 55, 56, 56, 57
a(n) = n - n/log n + O(1). - Charles R Greathouse IV, Oct 29 2016
[A097330] 1, 1, 1, 2, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 14, 15, 15, 16, 18, 19, 20, 21, 21, 22, 23, 24, 26, 27, 29, 30, 30, 31, 33, 34, 35, 36, 36, 37, 39, 40, 41, 42, 44, 45, 48, 49, 50, 51, 51, 52, 53, 54, 54, 55, 56, 57, 63, 64, 65, 66, 68, 69, 69, 70, 74, 75, 75, 76, 78, 79
a(n)=if n<3 then 1, otherwise (prime((n+n mod 2)/2)+1)/2-n mod 2.
[A062049] 2, 2, 3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 34, 35, 36, 38, 39, 41, 43, 44, 46, 47, 49, 50, 52, 53, 55, 57, 58, 60, 61, 63, 65, 66, 68, 70, 71, 73, 75, 76, 78, 80, 82, 83, 85, 87, 88, 90, 92, 94, 95, 97, 99, 101, 103
a(n) < (1/2)*prime(n) for n>3.
[A025764] 1, 1, 2, 2, 3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 16, 17, 19, 20, 22, 24, 26, 28, 30, 32, 34, 36, 39, 41, 44, 46, 49, 51, 54, 57, 60, 63, 66, 69, 72, 75, 79, 82, 86, 89, 93, 96, 100, 104, 108, 112, 116, 120, 124, 128
a(n) = +a(n-1) +a(n-2) -a(n-3) +a(n-7) -a(n-8) -a(n-9) +a(n-10). - R. J. Mathar, Jun 04 2013
[A076678] 1, 1, 2, 2, 3, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 15, 17, 19, 21, 23, 25, 28, 30, 33, 35, 38, 41, 44, 47, 50, 54, 57, 61, 64, 69, 72, 77, 80, 85, 89, 94, 98, 103, 108, 113, 118, 123, 129, 134, 140, 145, 152, 157, 164, 169, 177, 182, 190, 195, 203, 209, 217, 223, 231, 238
a(n) is asymptotic to n^2/16
[A210024] 1, 1, 1, 1, 1, 2, 2, 3, 3, 4, 5, 6, 7, 9, 11, 13, 16, 19, 23, 27, 33, 39, 47, 57, 68, 81, 97, 116, 139, 167, 199, 239, 286, 342, 409, 489, 585, 700, 838, 1002, 1199, 1434, 1716, 2053, 2456, 2938, 3515, 4205, 5030, 6018, 7199, 8612, 10302, 12325, 14744, 17638
a(n) = floor(n^(2n)/Sum_{v=0..n-1}((-1)^v * binomial(n,v) * (n-v)^(2n)))
[A005686] 0, 1, 1, 1, 1, 1, 2, 2, 3, 3, 4, 5, 6, 8, 9, 12, 14, 18, 22, 27, 34, 41, 52, 63, 79, 97, 120, 149, 183, 228, 280, 348, 429, 531, 657, 811, 1005, 1240, 1536, 1897, 2347, 2902, 3587, 4438, 5484, 6785, 8386, 10372, 12824, 15856, 19609, 24242, 29981, 37066, 45837
a(n) = Sum_{k=0..floor(n/2)} binomial(floor((n+3k-3)/5), k). - Paul Barry, Jul 10 2004
a(n) = a(n-2) + a(n-5). - Michael Somos, Jul 15 2004
[A174619] 1, 1, 1, 2, 2, 3, 3, 4, 5, 6, 8, 10, 13, 17, 21, 28, 34, 45, 55, 72, 89, 116, 144, 188, 233, 305, 377, 494, 610, 799, 987, 1292, 1597, 2090, 2584, 3382, 4181, 5473, 6765, 8856, 10946, 14329, 17711, 23184, 28657, 37512, 46368, 60696, 75025, 98209, 121393, 158906, 196418, 257115, 317811
a(n)= 2*a(n-2) -a(n-4) +a(n-8). G.f. -x*(1+x)*(x^3-x^2+1) / ((x^4-x^2+1)*(x^4+x^2-1)). - R. J. Mathar, Jan 27 2011
[A130083] 1, 2, 2, 3, 3, 4, 5, 6, 8, 10, 13, 17, 22, 28, 36, 47, 60, 78, 100, 130, 167, 216, 279, 360, 465, 600, 775, 1000, 1292, 1669, 2155, 2783, 3594, 4642, 5995, 7743, 10000, 12916, 16682, 21545, 27826, 35939, 46416, 59949, 77427, 100000, 129155, 166811, 215444
a(n) = ceiling(10^((n-1)/9))
[A080087] 0, 0, 1, 1, 2, 2, 3, 3, 4, 6, 7, 8, 9, 9, 10, 12, 13, 14, 15, 16, 16, 18, 19, 20, 22, 24, 24, 25, 25, 26, 31, 32, 33, 33, 35, 37, 38, 39, 40, 41, 43, 44, 46, 46, 47, 47, 51, 53, 55, 55, 56, 57, 58, 62, 63, 64, 65, 66, 68, 69, 69, 71, 75, 76, 76, 77, 81, 82, 84, 84, 86, 87, 89, 90
a(n) = sum_{k=1..L} floor(prime(n) /5^k), where L = log(p_n)/log(5).
[A129526] 2, 2, 3, 3, 5, 5, 8, 9, 14, 16, 26, 31, 49, 64, 99, 133, 209, 291, 455, 657, 1022, 1510, 2359, 3545, 5536, 8442, 13201, 20319, 31836, 49353, 77436, 120711, 189674, 296854, 467160, 733363, 1155647, 1818594, 2869378, 4524081, 7146483
a(n) = [Fib(floor(n/2)+2)+(1/n) * sum_{d divides n} phi(n/d)*(Fib(d-1)+Fib(d+1))]/2. - Petros Hadjicostas, Jan 04 2017 (with help from Lingyun Zhang).
[A000358] 1, 2, 2, 3, 3, 5, 5, 8, 10, 15, 19, 31, 41, 64, 94, 143, 211, 329, 493, 766, 1170, 1811, 2787, 4341, 6713, 10462, 16274, 25415, 39651, 62075, 97109, 152288, 238838, 375167, 589527, 927555, 1459961, 2300348, 3626242, 5721045, 9030451, 14264309, 22542397, 35646312, 56393862, 89264835, 141358275
a(n) = (1/n) * sum_{ d divides n } totient(n/d) [Fib(d-1)+Fib(d+1)].
[A130841] 1, 1, 1, 2, 2, 3, 3, 5, 6, 8, 8, 12, 12, 15, 17, 23, 23, 31, 31, 41, 44, 52, 52, 69, 73, 85, 91, 109, 109, 136, 136, 162, 170, 193, 199, 248, 248, 279, 291, 344, 344, 406, 406, 466, 493, 545, 545, 646, 655, 740, 763, 860, 860, 986, 1002, 1132, 1163, 1272, 1272, 1484
a(n) = sum over sequences (n_1,n_2,...,n_k) such that 2 <= n_1 <= n_2 <= ... <= n_k and n1*n2*...*nk=n of the product of j from 1 to k of a(n_j-1). The program, in J, implements this formula. (It works by factorizing n and then grouping the factors in all distinct ways. This J code handles the a(1) case without requiring any exception case.)
[A052473] 2, 2, 3, 3, 5, 12, 37, 128, 464, 1718, 6437, 24312, 92380, 352718, 1352080, 5200302, 20058302, 77558762, 300540197, 1166803112, 4537567652, 17672631902, 68923264412, 269128937222, 1052049481862, 4116715363802, 16123801841552
a(n) = 2 + (2^(-5 + 2*n) gamma(-(3/2) + n))/(sqrt(pi) gamma(-1 + n)).
[A094117] 0, 1, 1, 2, 2, 3, 3, 10, 16, 23, 29, 36, 42, 49, 49, 50, 50, 51, 51, 52, 52, 59, 65, 72, 78, 85, 91, 98, 98, 99, 99, 100, 100, 101, 101, 108, 114, 121, 127, 134, 140, 147, 147, 148, 148, 149, 149, 150, 150, 199, 247, 296, 344, 393, 441, 490, 532, 575, 617, 660, 702, 745
a(7^k)=(49^k-1)/16
[A029111] 1, 1, 1, 1, 1, 1, 2, 2, 3, 4, 4, 4, 5, 5, 6, 7, 8, 9, 11, 11, 12, 13, 14, 15, 18, 19, 21, 23, 24, 25, 28, 29, 32, 35, 37, 39, 43, 44, 47, 50, 53, 56, 61, 63, 67, 71, 74, 77, 83, 86, 91, 96, 100, 104, 111, 114, 120, 126
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=2, a(7)=2, a(8)=3, a(9)=4, a(10)=4, a(11)=4, a(12)=5, a(13)=5, a(14)=6, a(15)=7, a(16)=8, a(17)=9, a(18)=11, a(19)=11, a(20)=12, a(21)=13, a(22)=14, a(23)=15, a(n)=a(n-1)+a(n-6)-a(n-7)+a(n-8)-a(n-10)-a(n-14)+a(n-16)- a(n-17)+ a(n-18)+ a(n-23)-a (n-24). - Harvey P. Dale, Jan 02 2016
[A076502] 1, 1, 2, 2, 3, 4, 4, 4, 5, 6, 7, 7, 8, 8, 8, 9, 9, 10, 11, 12, 12, 13, 14, 14, 15, 15, 15, 16, 17, 17, 17, 18, 18, 19, 20, 21, 21, 21, 22, 23, 24, 24, 25, 26, 26, 27, 27, 27, 28, 29, 30, 30, 31, 31, 31, 32, 32, 33, 33, 33, 34, 34, 35, 36, 37, 37, 38, 38, 38, 39, 39, 40, 41, 42, 42, 42
a(n) is asymptotic to c*n with c=0.5698..is the positive root of x^3-x^2+2*x-1
[A066997] 2, 2, 3, 4, 4, 4, 5, 6, 7, 8, 8, 8, 8, 8, 9, 10, 11, 12, 13, 14, 15, 16, 16, 16, 16, 16, 16, 16, 16, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 33, 34, 35, 36, 37, 38, 39, 40
a(n) = 1+k+2^(m-1) for k < 2^(m-1) and 2^m otherwise, where m = floor(log2(n)) and k = n-2^m. Also: write n in binary; drop first bit; "OR" new first bit with each remaining bit; append 1 as new first bit; convert to integer; add 1.

[A006165] 1, 1, 2, 2, 3, 4, 4, 4, 5, 6, 7, 8, 8, 8, 8, 8, 9, 10, 11, 12, 13, 14, 15, 16, 16, 16, 16, 16, 16, 16, 16, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
a(1)=1, a(n)=n-a(n-a(a(n-1))). - Benoit Cloitre, Nov 08 2002
[A038128] 0, 0, 1, 1, 2, 2, 3, 4, 4, 5, 5, 6, 6, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12, 13, 13, 14, 15, 15, 16, 16, 17, 17, 18, 19, 19, 20, 20, 21, 21, 22, 23, 23, 24, 24, 25, 25, 26, 27, 27, 28, 28, 29, 30, 30, 31, 31, 32, 32, 33, 34, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 40, 41, 42, 42, 43
a(n) = floor(n*0.5772156649...). - Typo fixed by Karl V. Keller, Jr., Jul 27 2015
[A098295] 0, 1, 1, 2, 2, 3, 4, 4, 5, 5, 6, 7, 7, 8, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 22, 23, 23, 24, 25, 25, 26, 26, 27, 28, 28, 29, 29, 30, 31, 31, 32, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 40, 41, 42, 42, 43, 43
a(n) = ceiling(tau*n)-1 with tau:=log(3)/log(2)-1 = 0.584962501... n>=1.
[A074840] 0, 1, 1, 2, 2, 3, 4, 4, 5, 5, 6, 7, 7, 8, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 25, 26, 26, 27, 28, 28, 29, 29, 30, 31, 31, 32, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 41, 41, 42, 42, 43, 43
a(1) = 0. b(n) = n - a(n). If (a(n) + 1) / b(n) < sqrt(2), then a(n+1) = a(n) + 1, else a(n+1) = a(n).
a(n) = floor(n*(2-sqrt(2))). - Vladeta Jovovic, Oct 04 2003
a(n) = 2*n - ceiling(n*sqrt(2)). - Clark Kimberling, Sep 09 2011
[A256502] 1, 1, 2, 2, 3, 4, 4, 5, 5, 6, 7, 7, 8, 8, 9, 10, 10, 11, 11, 12, 13, 13, 14, 14, 15, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 28, 29, 30, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 41, 41
a(n) = floor(n/{sum{1/k^2, k = 1..n}).
[A019446] 1, 2, 2, 3, 4, 4, 5, 5, 6, 7, 7, 8, 9, 9, 10, 10, 11, 12, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 18, 19, 20, 20, 21, 22, 22, 23, 23, 24, 25, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 31, 32, 33, 33, 34, 34, 35, 36, 36, 37, 38, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 44, 45, 46, 46
a(1)=1; a(n) = n+1 - a(a(n-1)). - Benoit Cloitre, Nov 06 2002
[A101803] 0, 1, 1, 2, 2, 3, 4, 4, 5, 6, 6, 7, 7, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 20, 21, 22, 22, 23, 23, 24, 25, 25, 26, 27, 27, 28, 28, 29, 30, 30, 31, 32, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 40, 40, 41, 41, 42, 43, 43, 44, 44, 45, 46
a(n) = round(n*phi) where phi is the smaller golden ratio value, .618033988749895....
[A004523] 0, 0, 1, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 18, 18, 19, 20, 20, 21, 22, 22, 23, 24, 24, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 32, 32, 33, 34, 34, 35, 36, 36, 37, 38, 38, 39, 40, 40, 41, 42, 42, 43, 44, 44, 45, 46
a(n) = floor(2*n/3).
a(0) = a(1) = 0; for n>1, a(n) = n - 1 - floor(a(n-1)/2). - Benoit Cloitre, Nov 26 2002
a(n) = a(n-1) + (1/2)((-1)^floor((2*n+2)/3)+1), with a(0)=0. - Mario Catalani (mario.catalani(AT)unito.it), Oct 20 2003
a(n) = Sum_{k=0..n-1} (Fibonacci(k) mod 2). - Paul Barry, May 31 2005
a(n) = 2*(-1 + Sum_{k=0..n} (1/9*(-2*(k mod 3) + ((k+1) mod 3) + 4*((k+2) mod 3))) + (((n+2) mod 3) mod 2). - Paolo P. Lava, Oct 02 2008
a(n) = ceiling(2*(n-1)/3) = n-1-floor((n-1)/3). - Bruno Berselli, Jan 18 2017
[A038372] 1, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 18, 19, 20, 21, 21, 22, 22, 22, 23, 24, 24, 25, 26, 26, 27, 28, 28, 29, 30
a(n) >= ceiling(2n/3). For large n, 0.6725n <= a(n) <= 0.6736n (see Guy).
[A265133] 0, 1, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 11, 12, 13, 13, 14, 15, 15, 16, 17, 18, 18, 19, 20, 20, 21, 22, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 35, 36, 36, 37, 38, 38, 39, 40, 40, 41, 42, 42, 43, 44, 45, 45, 46, 47, 47, 48, 49, 49, 50, 51, 51, 52, 53, 54, 54, 55
a(n) = floor(n*log(2)).
[A064506] 0, 1, 2, 2, 3, 4, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 11, 12, 13, 14, 14, 15, 16, 16, 17, 18, 18, 19, 20, 21, 21, 22, 23, 23, 24, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 32, 33, 33, 34, 35, 35, 36, 37, 38, 38, 39, 40, 40, 41, 42, 42, 43, 44, 45, 45, 46, 47, 47, 48, 49, 50, 50, 51, 52
a(n) = floor((sqrt(2*n*(n+1) + 1) - 1) / 2)
[A272206] 1, 2, 2, 3, 4, 4, 5, 6, 7, 7, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 32, 32, 33, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 45
a(n) = round(sum_{i=1..n}(i*prime(i)) / sum_{i=1..n}prime(i)).
[A103354] 1, 1, 2, 2, 3, 4, 4, 5, 6, 7, 8, 8, 9, 10, 11, 12, 13, 14, 15, 16, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 64, 65, 66, 67
a(n) is approximately n/(1+log_2(n)/n).
a(n) = floor(LambertW(log(2)*2^n)/log(2)) = floor(n - log_2(n) + log_2(n)/(n log(2)) + O((log(n)/n)^2)) = floor(n - log_2(n) + 1.5*log_2(n)/n) at least for all n < 10^7. - M. F. Hasler, Dec 14 2007
[A097950] 1, 1, 1, 2, 2, 3, 4, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
a(n) = n - 3 for n > 7. [Charles R Greathouse IV, Oct 27 2011]
[A211524] 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 2, 2, 3, 4, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 18, 20, 22, 23, 25, 27, 29, 31, 33, 35, 37, 40, 42, 44, 47, 49, 52, 55, 57, 60, 63, 66, 69, 72, 75, 78, 82, 85, 88, 92, 95, 99, 103, 106, 110, 114, 118, 122, 126, 130, 134, 139
a(n) = a(n-1)+a(n-3)-a(n-4)+a(n-5)-a(n-6)-a(n-8)+a(n-9).
[A008672] 1, 1, 1, 2, 2, 3, 4, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 18, 20, 22, 23, 25, 27, 29, 31, 33, 35, 37, 40, 42, 44, 47, 49, 52, 55, 57, 60, 63, 66, 69, 72, 75, 78, 82, 85, 88, 92, 95, 99, 103, 106, 110, 114, 118, 122, 126, 130, 134, 139, 143, 147, 152, 156, 161, 166
a(n) = round((n+3)*(n+6)/30).
a(n) = floor(n^2/30 + 3*n/10 + 1). - Michael Somos, Nov 25 2002
a(n) = a(-9 - n). - Michael Somos, Nov 16 2005
a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=3, a(6)=4, a(7)=4, a(8)=5, a(n) = a(n-1)+a(n-3)-a(n-4)+a(n-5)-a(n-6)-a(n-8)+a(n-9). - Harvey P. Dale, Feb 07 2012
[A029043] 1, 1, 1, 2, 2, 3, 4, 4, 5, 6, 7, 9, 10, 11, 13, 15, 17, 19, 21, 23, 26, 29, 32, 35, 38, 42, 46, 50, 54, 58, 63, 68, 73, 79, 84, 90, 97, 103, 110, 117, 124, 132, 140, 148, 157, 166, 175, 185, 195, 205, 216, 227, 238, 250
a(n) = floor((n^3+30*n^2+371*n+1188-330*floor((n+2)/3))/990). - Tani Akinari, Jun 28 2013
[A029041] 1, 1, 1, 2, 2, 3, 4, 4, 5, 7, 8, 9, 11, 12, 14, 17, 18, 20, 24, 26, 29, 33, 35, 39, 44, 47, 51, 57, 61, 66, 73, 77, 83, 91, 96, 103, 112, 118, 126, 136, 143, 152, 163, 171, 181, 194, 203, 214, 228, 238, 251, 266, 277, 291, 308, 321, 336, 354, 368, 385, 405
a(n) = floor((n^3+27*n^2+204*n+700+10*[3*n+29,4,0][(n mod 3)+1])/810). - Tani Akinari, Oct 01 2014
[A173633] 1, 1, 1, 2, 2, 3, 4, 4, 6, 6, 7, 8, 8, 10, 10, 11, 12, 12, 14, 14, 15, 16, 16, 18, 18, 19, 20, 20, 22, 22, 23, 24, 24, 26, 26, 27, 28, 28, 30, 30, 31, 32, 32, 34, 34, 35, 36, 36, 38, 38, 39
a(n)=a(n-2)+a(n-3)-Floor[a(n-3)/4]-Floor[a(n-4)/2]-Floor[a(n-5)/4]
[A029040] 1, 1, 1, 2, 2, 3, 4, 4, 6, 7, 8, 10, 11, 13, 15, 17, 20, 22, 25, 28, 31, 35, 38, 42, 47, 51, 56, 61, 66, 72, 78, 84, 91, 98, 105, 113, 121, 129, 138, 147, 157, 167, 177, 188, 199, 211, 223, 235, 249, 262, 276, 291, 305
a(n) = floor((2*n^3+51*n^2+384*n+1368+180*(1+(-1)^floor((n+1)/2))*(-1)^floor(n/4))/1440). - Tani Akinari, Jun 28 2013
[A262699] 1, 2, 2, 3, 4, 4, 8, 8, 16, 16, 32, 32, 64, 64, 128, 128, 256, 256, 512, 512, 1024, 1024, 2048, 2048, 4096, 4096, 8192, 8192, 16384, 16384, 32768, 32768, 65536, 65536, 131072, 131072, 262144, 262144, 524288, 524288, 1048576, 1048576
a(n) = 2^ceiling(n/2-1) for n>4.
[A069928] 1, 1, 2, 2, 3, 4, 5, 5, 5, 5, 6, 6, 7, 8, 9, 9, 10, 10, 11, 12, 13, 14, 15, 15, 15, 15, 16, 16, 17, 18, 19, 19, 20, 20, 21, 21, 22, 23, 24, 24, 25, 26, 27, 28, 29, 30, 31, 31, 32, 32, 33, 33, 34, 35, 36, 37, 38, 38, 39, 40, 41, 42, 42, 42, 43, 44, 45, 46, 47, 48, 49, 49, 50, 50
a(n)=Card(k: 1<=k<=n : sigma(k) == 0 (mod tau(k)) : lim n -> infinity a(n)/n=C=0, 8...
[A274616] 0, 1, 1, 2, 2, 3, 4, 5, 5, 6, 7, 7, 8, 9, 9, 10, 11, 11, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 45, 45, 46, 47, 47
a(n) = a(n-1) + a(n-3) - a(n-4) for n>5.
a(n) = 2*(3*n + sqrt(3)*sin((2*Pi*n)/3)) / 9. - Colin Barker, Mar 08 2017
[A257175] 0, 1, 2, 2, 3, 4, 5, 5, 6, 7, 7, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 16, 17, 17, 18, 19, 19, 20, 21, 22, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 33, 34, 34, 35, 36, 36, 37, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 45, 46, 46, 47, 48, 48, 49, 50, 51, 51, 52, 53, 53, 54, 55, 56, 56, 57

a(n) = ceil((sqrt(2n^2 + 2n + 1) - 1)/2). - Charles R Greathouse IV, Apr 17 2015
[A076538] 0, 1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 10, 11, 12, 13, 13, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 21, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 29, 30, 31, 32, 32, 33, 34, 35, 35, 36, 37, 38, 38, 39, 40, 40, 41, 42, 43, 43, 44, 45, 46, 46, 47, 48, 48, 49, 50, 51, 51, 52, 53
a(1) = 0. b(n) = n - a(n). If (a(n) + 1) / b(n) < e, then a(n+1) = a(n) + 1, else a(n+1) = a(n).
a(n) = floor(n*exp(1)/(exp(1)+1)). - Vladeta Jovovic, Oct 04 2003
[A066530] 1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 11, 11, 12, 13, 14, 14, 15, 16, 17, 17, 18, 19, 20, 20, 21, 22, 23, 23, 24, 25, 26, 26, 27, 28, 29, 29, 30, 31, 32, 32, 33, 34, 35, 35, 36, 37, 38, 38, 39, 40, 41, 41, 42, 43, 44, 44, 45, 46, 47, 47, 48, 49, 50, 50, 51, 52, 53, 53, 54, 55
a(n) = floor((3*n + 5)/4).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>4, with a(0)=1, a(1)=2, a(2)=2, a(3)=3, a(4)=4. - Harvey P. Dale, Apr 01 2013
a(n) = (6*n+7+2*cos(n*Pi/2)+cos((n+1)*Pi)+2*sin(n*Pi/2))/8. - Wesley Ivan Hurt, Oct 01 2017
[A039960] 1, 1, 1, 1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 11, 11, 12, 13, 14, 14, 15, 16, 17, 18, 18, 19, 20, 21, 21, 22, 23, 24, 25, 25, 26, 27, 28, 29, 29, 30, 31, 32, 33, 33, 34, 35, 36, 37, 37, 38, 39, 40, 41, 42, 42, 43, 44, 45, 46, 46, 47, 48, 49, 50, 50, 51, 52, 53, 54, 55, 55, 56, 57
a(n) = floor(log_n(n!)) for n>1.
[A105235] 1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 11, 11, 12, 13, 14, 15, 16, 17, 18, 18, 19, 20, 21, 21, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 30, 30, 31, 32, 33, 33, 34, 35, 36, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 47, 48, 49, 50, 50, 51, 52, 53, 53, 54, 55, 56, 56, 57, 58
a(n)=sum{k=0..n, binomial(abs(mu(2k)), abs(mu(k)))
[A241730] 0, 0, 0, 0, 1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 20, 21, 22, 24, 25, 27, 28, 29, 31, 32, 34, 35, 37, 39, 40, 42, 43, 45, 46, 48, 50, 51, 53, 55, 56, 58, 60, 61, 63, 65, 66, 68, 70, 72, 73, 75, 77, 79, 80, 82, 84, 86, 88, 89, 91, 93, 95, 97, 99, 100, 102, 104, 106
a(n) = floor(log(n!)/log(10)) - floor(log(n)/log(10)) for n > 0.
[A011884] 0, 0, 0, 0, 0, 0, 0, 1, 1, 2, 2, 3, 4, 5, 5, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 19, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 45, 47, 50, 52, 55, 58, 61, 63, 66, 69, 72, 75, 79, 82, 85, 88, 92, 95, 99, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 151, 155, 160
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=0, a(5)=0, a(6)=0, a(7)=1, a(8)=1, a(9)=2, a(10)=2, a(11)=3, a(12)=4, a(13)=5, a(14)=5, a(15)=6, a(16)=7, a(17)=8, a(18)=9, a(19)=11, a(20)=12, a(21)=13, a(22)=14, a(23)=16, a(24)=17, a(25)=19, a(26)=20, a(27)=22, a(28)=24, a(29)=26, a(30)=28, a(31)=30, a(32)=32, a(n)=2*a(n-1)-a(n-2)+a(n-31)- 2*a(n-32)+ a(n-33). - Harvey P. Dale, Jan 23 2016
[A165684] 0, 0, 0, 0, 1, 1, 1, 2, 2, 3, 4, 5, 5, 7, 8, 9, 11, 13, 13, 17, 18, 20, 23, 26, 27, 32, 34, 37, 41, 46, 47, 54, 57, 61, 67, 73, 75, 84, 88, 94, 101, 109, 112, 123, 129, 136, 145, 155, 159, 173, 180, 189, 200, 212, 218, 234, 243, 254, 267, 282, 289, 308, 319
a(n) = 1/1080*n^3 + 1/45*n^2 + O(n). (from g.f.) - Ralf Stephan, Jun 20 2014
[A028391] 0, 0, 1, 2, 2, 3, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 12, 13, 14, 15, 16, 17, 18, 19, 20, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65
a(n) = ceiling(n - sqrt(n)), as follows from ceiling(-x) = -floor(x). [Corrected by M. F. Hasler, Feb 21 2010]
[A289188] 2, 2, 3, 4, 5, 6, 7, 8, 8, 9, 10, 11, 12, 13, 14, 14, 15, 16, 17, 18, 18, 19, 20, 21, 22, 23, 23, 24, 25, 26, 27, 27, 28, 29, 30, 31, 31, 32, 33, 34, 35, 35, 36, 37, 38, 39, 39, 40, 41, 42, 43, 43, 44, 45, 46, 47, 47, 48, 49, 50, 51, 51
a(n) = a(n-5) + 4 for n > 26.
[A011878] 0, 0, 0, 0, 0, 0, 1, 1, 2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 37, 39, 42, 44, 47, 50, 53, 56, 59, 62, 65, 68, 72, 75, 79, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 123, 127, 132, 136, 141, 146, 151
a(n) = +2*a(n-1) -a(n-2) +a(n-25) -2*a(n-26) +a(n-27).
[A000115] 1, 1, 2, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 16, 18, 20, 22, 24, 26, 29, 31, 34, 36, 39, 42, 45, 48, 51, 54, 58, 61, 65, 68, 72, 76, 80, 84, 88, 92, 97, 101, 106, 110, 115, 120, 125, 130, 135, 140, 146, 151, 157, 162, 168, 174, 180, 186, 192, 198, 205, 211, 218, 224, 231, 238
a(n) = round((n+4)^2/20).
a(n) = a(-8 - n) for all n in Z. - Michael Somos, May 28 2014
[A033552] 1, 1, 2, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 17, 19, 22, 24, 27, 30, 34, 37, 41, 44, 49, 53, 58, 62, 68, 73, 80, 85, 92, 98, 106, 113, 121, 128, 137, 145, 155, 163, 175, 184, 197, 207, 220, 232, 246, 259, 274, 287, 304, 318, 336, 351, 371, 388, 409, 427, 449, 469
a(n) = f(n,1,1) with f(m,k,c) = if c>m then 0^m else f(m-c,k,c) + f(m,k+1,2*c*(2*k+1)/(k+2)). [From Reinhard Zumkeller, Apr 09 2010]
[A029015] 1, 1, 2, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 18, 21, 24, 27, 30, 33, 37, 41, 46, 50, 55, 60, 66, 72, 78, 84, 91, 98, 106, 114, 122, 131, 140, 150, 160, 170, 181, 192, 204, 216, 229, 242, 256, 270, 285, 300, 316, 332, 349, 366, 384, 403, 422, 442, 462, 483
a(0)=1, a(1)=1, a(2)=2, a(3)=2, a(4)=3, a(5)=4, a(6)=5, a(7)=6, a(8)=7, a(9)=8, a(10)=10, a(11)=12, a(12)=14, a(13)=16, a(14)=18, a(15)=21, a(16)=24, a(17)=27, a(18)=30, a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-5) - a(n-6) - a(n-7) + a(n-8) + a(n-11) - a(n-12) - a(n-13) + a(n-14) - a(n-16) + a(n-17) + a(n-18) - a(n-19). - Harvey P. Dale, Dec 24 2011
a(n) = floor((2*n^3 + 57*n^2 + 466*n + 1622)/1320 + (-1)^n/16). - Tani Akinari, May 19 2014
[A000008] 1, 1, 2, 2, 3, 4, 5, 6, 7, 8, 11, 12, 15, 16, 19, 22, 25, 28, 31, 34, 40, 43, 49, 52, 58, 64, 70, 76, 82, 88, 98, 104, 114, 120, 130, 140, 150, 160, 170, 180, 195, 205, 220, 230, 245, 260, 275, 290, 305, 320, 341, 356, 377, 392, 413, 434, 455, 476, 497, 518, 546
a(n) = a(n-2) +a(n-5) -a(n-7) +a(n-10) -a(n-12) -a(n-15) +a(n-17) +1. - Michael Somos, Apr 01 2003
a(-18-n) = -a(n). - Michael Somos, Apr 01 2003
[A011873] 0, 0, 0, 0, 0, 1, 1, 2, 2, 3, 4, 5, 6, 7, 9, 10, 12, 13, 15, 17, 19, 21, 23, 25, 27, 30, 32, 35, 37, 40, 43, 46, 49, 52, 56, 59, 63, 66, 70, 74, 78, 82, 86, 90, 94, 99, 103, 108, 112, 117, 122, 127, 132, 137, 143, 148, 154, 159, 165, 171, 177, 183, 189
a(n) = +2*a(n-1) -a(n-2) +a(n-5) -2*a(n-6) +a(n-7) -a(n-10) +2*a(n-11) -a(n-12) +a(n-15) -2*a(n-16) +a(n-17).
[A173151] 1, 1, 2, 2, 3, 4, 5, 6, 7, 9, 10, 12, 13, 16, 17, 20, 21, 25, 26, 30, 31, 36, 37, 42, 43, 49, 50, 56, 57, 64, 65, 72, 73, 81, 82, 90, 91, 100, 101, 110, 111, 121, 122, 132, 133, 144, 145, 156, 157, 169, 170
a(n) = a(n-1)-floor[a(n-1)/2]+a(n-2)-floor[a(n-5)/2].
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-5) - a(n-6) + a(n-7) for n > 6.
a(n) = ((-1)^n*(11 - 2*n) + 2*n*(n + 5) + 4*sin(Pi*n/2) - 4*cos(Pi*n/2) + 25)/32. - Ilya Gutkovskiy, Jun 03 2016
[A008673] 1, 1, 1, 2, 2, 3, 4, 5, 6, 7, 9, 10, 12, 14, 16, 19, 21, 24, 27, 30, 34, 38, 42, 46, 51, 56, 61, 67, 73, 79, 86, 93, 100, 108, 116, 125, 134, 143, 153, 163, 174, 185, 197, 209, 221, 235, 248, 262, 277, 292
a(n) = floor((n^3+24*n^2+171*n+630)/630). - Tani Akinari, Jul 08 2013
a(n) = a(n-1)+a(n-3)-a(n-4)+a(n-5)-a(n-6)+a(n-7)-2*a(n-8)+a(n-9)-a(n-10)+a(n-11)-a(n-12)+a(n-13)+a(n-15)-a(n-16). - David Neil McGrath, Feb 14 2015
[A242634] 0, 1, 1, 2, 2, 3, 4, 5, 6, 7, 9, 10, 13, 14, 18, 19, 24, 25, 31, 32, 40, 41, 50, 51, 63, 64, 77, 78, 95, 96, 114, 115, 138, 139, 163, 164, 194, 195, 226, 227, 266, 267, 307, 308, 357, 358, 408, 409, 471, 472, 535, 536, 612, 613, 690, 691, 785, 786, 881, 882
a(n) = a(n-2) + a(floor(n/2)) unless n=1.
[A088567] 1, 1, 1, 2, 2, 3, 4, 5, 6, 7, 9, 10, 13, 14, 18, 19, 24, 25, 31, 32, 40, 41, 50, 51, 63, 64, 77, 78, 95, 96, 114, 115, 138, 139, 163, 164, 194, 195, 226, 227, 266, 267, 307, 308, 357, 358, 408, 409, 471, 472, 535, 536, 612, 613, 690, 691, 785, 786, 881, 882, 995, 996, 1110, 1111
a(0)=1, a(1)=1; and for m >= 1, a(2m) = a(2m-1) + a(m) - 1, a(2m+1) = a(2m) + 1.
[A029014] 1, 1, 2, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 20, 23, 26, 29, 33, 37, 42, 46, 51, 56, 62, 68, 74, 81, 88, 96, 104, 112, 121, 130, 140, 150, 161, 172, 184, 196, 209, 222, 236, 250, 265, 281, 297, 314, 331, 349, 368, 387
a(0)=1, a(1)=1, a(2)=2, a(3)=2, a(4)=3, a(5)=4, a(6)=5, a(7)=6, a(8)=7, a(9)=9, a(10)=11, a(11)=13, a(12)=15, a(13)=17, a(14)=20, a(15)=23, a(16)=26, a(n)=a(n-1)+a(n-2)-a(n-3)+a(n-5)-a(n-6)-a(n-7)+a(n-8)+ a(n-9)-a(n-10)-a(n-11)+a(n-12)-a(n-14)+a(n-15)+a(n-16)-a(n-17) [From Harvey P. Dale, Mar 03 2012]
[A011872] 0, 0, 0, 0, 0, 1, 1, 2, 2, 3, 4, 5, 6, 8, 9, 11, 12, 14, 16, 18, 20, 22, 24, 26, 29, 31, 34, 36, 39, 42, 45, 48, 52, 55, 59, 62, 66, 70, 74, 78, 82, 86, 90, 95, 99, 104, 108, 113, 118, 123, 128, 134, 139, 145, 150, 156, 162, 168, 174, 180, 186, 192, 199, 205, 212, 218, 225, 232
a(n) = +2*a(n-1) -a(n-2) +a(n-19) -2*a(n-20) +a(n-21). [From R. J. Mathar, Apr 15 2010]
[A029013] 1, 1, 2, 2, 3, 4, 5, 6, 8, 9, 12, 13, 16, 18, 21, 24, 28, 31, 36, 39, 45, 49, 55, 60, 67, 73, 81, 87, 96, 103, 113, 121, 132, 141, 153, 163, 176, 187, 201, 213, 229, 242, 259, 273, 291, 307, 326, 343, 364, 382, 405, 424
a(0)=1, a(1)=1, a(2)=2, a(3)=2, a(4)=3, a(5)=4, a(6)=5, a(7)=6, a(8)=8, a(9)=9, a(10)=12, a(11)=13, a(12)=16, a(13)=18, a(14)=21, a(15)=24, a(n)=a(n-1)+a(n-2)-a(n-3)+a(n-5)-a(n-6)-a(n-7)+2*a(n-8)-a(n-9)- a(n-10)+ a(n-11)-a(n-13)+a(n-14)+a(n-15)-a(n-16). - Harvey P. Dale, Aug 26 2012
[A000009] 1, 1, 1, 2, 2, 3, 4, 5, 6, 8, 10, 12, 15, 18, 22, 27, 32, 38, 46, 54, 64, 76, 89, 104, 122, 142, 165, 192, 222, 256, 296, 340, 390, 448, 512, 585, 668, 760, 864, 982, 1113, 1260, 1426, 1610, 1816, 2048, 2304, 2590, 2910, 3264, 3658, 4097, 4582, 5120, 5718, 6378

a(0)=1. a(n)= 2*(Sum_{k=1} (-1)^(k+1) a(n-k^2)) + sigma(n) where
[A179241] 1, 1, 1, 2, 2, 3, 4, 5, 6, 8, 10, 12, 15, 19, 24, 29, 36, 45, 56, 69, 85, 105, 130, 161, 200, 247, 305, 377, 466, 577, 713, 881, 1089, 1347, 1665, 2058, 2544, 3144, 3887, 4805, 5939, 7341, 9074, 11216, 13864, 17137, 21183, 26183, 32364, 40005, 49449, 61122
a(n) = floor((sqrt(5)-1)^n).
[A130082] 1, 2, 2, 3, 4, 5, 6, 8, 10, 14, 18, 24, 32, 43, 57, 75, 100, 134, 178, 238, 317, 422, 563, 750, 1000, 1334, 1779, 2372, 3163, 4217, 5624, 7499, 10000, 13336, 17783, 23714, 31623, 42170, 56235, 74990, 100000, 133353, 177828, 237138, 316228, 421697
a(n) = ceiling(10^((n-1)/8))
[A192660] 1, 1, 1, 2, 2, 3, 4, 5, 6, 8, 11, 14, 17, 22, 29, 36, 46, 59, 76, 96, 122, 156, 199, 253, 321, 409, 521, 662, 842, 1072, 1364, 1735, 2206, 2807, 3571, 4542, 5777, 7349, 9349, 11892, 15126, 19241, 24476, 31133, 39602, 50375, 64079, 81509, 103681, 131885
a(n) = floor(sqrt(Lucas(n))).
[A173692] 0, 1, 1, 1, 1, 1, 2, 2, 3, 4, 5, 6, 8, 11, 14, 19, 25, 33, 43, 57, 76, 100, 133, 176, 233, 308, 408, 541, 716, 949, 1257
a(n) = a(n-2) +a(n-3) +a(n-7) -a(n-9) -a(n-10). - R. J. Mathar, Mar 11 2012
[A029012] 1, 1, 2, 2, 3, 4, 5, 7, 8, 10, 12, 14, 17, 19, 23, 26, 30, 34, 38, 43, 48, 54, 60, 66, 73, 80, 88, 96, 105, 114, 124, 134, 145, 156, 168, 181, 194, 208, 222, 237, 253, 269, 287, 304, 323, 342, 362, 383, 404, 427, 450
a(n) = floor((2*n^3+45*n^2+298*n+956)/840+(-1)^n/16). - Tani Akinari, Oct 15 2014
[A112192] 1, 1, 2, 2, 3, 4, 5, 7, 8, 10, 13, 16, 20, 24, 30, 36, 43, 52, 61, 73, 86, 102, 120, 140, 165, 192, 224, 260, 301, 348, 401, 462, 530, 608, 696, 796, 909, 1035, 1178, 1338, 1518, 1720, 1945, 2198, 2480, 2796, 3148, 3540, 3978, 4464, 5006, 5606, 6273, 7012
a(n) = number of partitions of n into parts == +-1, +-2, +-5 (mod 12). - Michael Somos, Sep 30 2015
[A255575] 1, 1, 1, 2, 2, 3, 4, 5, 7, 9, 12, 15, 20, 26, 33, 43, 56, 72, 92, 119, 153, 197, 253, 325, 419, 539, 693, 891, 1146, 1474, 1896, 2439, 3136, 4034, 5188, 6672, 8581, 11036, 14194, 18254, 23476, 30192, 38830, 49938, 64225, 82598, 106227, 136616, 175698, 225961, 290603, 373737
a(n) = floor(((sqrt(sqrt(3))^3)/sqrt(Pi))^n).
[A134816] 1, 1, 1, 2, 2, 3, 4, 5, 7, 9, 12, 16, 21, 28, 37, 49, 65, 86, 114, 151, 200, 265, 351, 465, 616, 816, 1081, 1432, 1897, 2513, 3329, 4410, 5842, 7739, 10252, 13581, 17991, 23833, 31572, 41824, 55405, 73396, 97229, 128801, 170625, 226030, 299426, 396655
a(0)=a(1)=a(2)=1, a(n)=a(n-2)+a(n-3) for n>=3. - Robert FERREOL, Oct 16 2017
[A228361] 0, 0, 1, 2, 2, 3, 4, 5, 7, 9, 12, 16, 21, 28, 37, 49, 65, 86, 114, 151, 200, 265, 351, 465, 616, 816, 1081, 1432, 1897, 2513, 3329, 4410, 5842, 7739, 10252, 13581, 17991, 23833, 31572, 41824, 55405, 73396, 97229, 128801, 170625, 226030, 299426, 396655, 525456
a(n) = a(n-2) +a(n-3) for n>2.
[A072493] 1, 1, 1, 1, 2, 2, 3, 4, 5, 7, 9, 12, 16, 22, 29, 39, 52, 69, 92, 123, 164, 218, 291, 388, 517, 690, 920, 1226, 1635, 2180, 2907, 3876, 5168, 6890, 9187, 12249, 16332, 21776, 29035, 38713, 51618, 68824, 91765, 122353, 163138, 217517, 290023, 386697
a(n) = ceiling(c*(4/3)^n-1/2) where c=0.389324199524937508840138455...
[A173674] 0, 1, 1, 1, 1, 1, 2, 2, 3, 4, 5, 7, 10, 13, 18, 25, 35, 48, 66, 91, 125, 173, 238, 329, 454, 626, 864, 1193, 1646, 2272, 3136, 4329, 5975, 8247, 11383, 15711, 21686, 29932, 41315, 57026, 78711, 108643, 149958, 206983, 285694, 394337, 544295, 751278, 1036972
a(n)= +a(n-1) +a(n-4) +a(n-15) -a(n-16) -a(n-19). - R. J. Mathar, Sep 10 2016
[A228693] 1, 1, 2, 2, 3, 4, 5, 8, 9, 16, 17, 32, 33, 64, 65, 128, 129, 256, 257, 512, 513, 1024, 1025, 2048, 2049, 4096, 4097, 8192, 8193, 16384, 16385, 32768, 32769, 65536, 65537, 131072, 131073, 262144, 262145, 524288, 524289, 1048576, 1048577, 2097152, 2097153, 4194304, 4194305, 8388608, 8388609, 16777216, 16777217
a(n) = 3*a(n-2)-2*a(n-4) for n>4. G.f.: -(x^4+x^3+x^2-x-1) / ((x-1)*(x+1)*(2*x^2-1)). - Colin Barker, Sep 08 2013
[A014535] 0, 1, 1, 1, 1, 1, 2, 2, 3, 4, 5, 8, 14, 23, 32, 43, 63, 97, 149, 224, 332, 489, 727, 1116, 1776, 2897, 4782, 7895, 12909, 20752, 32670, 50426, 76767, 116206, 176289, 269615, 416774, 650647, 1023035, 1614864, 2551783, 4028217, 6344749, 9966479, 15614300, 24407844
a(0) = 0, a(1) = 1, a(n) = sum_{k=ceiling(n/3)..floor(n/2)} binomial(k, 3*k - n)*a(k) - Jean-François Alcover, Jul 29 2014, after Steven Finch.
[A011868] 0, 0, 0, 0, 0, 1, 2, 2, 3, 4, 6, 7, 8, 10, 12, 14, 16, 18, 20, 22, 25, 28, 30, 33, 36, 40, 43, 46, 50, 54, 58, 62, 66, 70, 74, 79, 84, 88, 93, 98, 104, 109, 114, 120, 126, 132, 138, 144, 150, 156, 163, 170, 176, 183, 190
a(n) = +2*a(n-1) -a(n-2) +a(n-15) -2*a(n-16) +a(n-17). [From R. J. Mathar, Apr 15 2010]
[A029011] 1, 1, 2, 2, 3, 4, 6, 7, 9, 10, 13, 15, 19, 21, 25, 28, 33, 37, 43, 47, 54, 59, 67, 73, 82, 89, 99, 107, 118, 127, 140, 150, 164, 175, 190, 203, 220, 234, 252, 267, 287, 304, 326, 344, 367, 387, 412, 434, 461, 484, 513, 538, 569, 596, 629, 658, 693, 724, 761, 794
a(n) = -a(-14-n).
a(n) = a(n-2) + a(n-5) + a(n-6) - a(n-7) - a(n-8) - a(n-11) + a(n-13) + 1.
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-5) - 2*a(n-7) + a(n-9) - a(n-11) + a(n-12) + a(n-13) - a(n-14). - David Neil McGrath, Dec 06 2014
[A213816] 1, 1, 1, 2, 2, 3, 4, 6, 7, 11, 13, 20, 24, 37, 44, 68, 81, 125, 149, 230, 274, 423, 504, 778, 927, 1431, 1705, 2632, 3136, 4841, 5768, 8904, 10609, 16377, 19513, 30122, 35890, 55403, 66012, 101902, 121415, 187427, 223317, 344732, 410744, 634061, 755476, 1166220
a(1) = a(2) = a(3) = 1; for n>1:
a(2n) = a(2n-1) + a(2n-3),
a(2n+1) = a(2n-1) + a(2n-2).
[A130081] 1, 2, 2, 3, 4, 6, 8, 10, 14, 20, 27, 38, 52, 72, 100, 139, 194, 269, 373, 518, 720, 1000, 1390, 1931, 2683, 3728, 5180, 7197, 10000, 13895, 19307, 26827, 37276, 51795, 71969, 100000, 138950, 193070, 268270, 372760, 517948, 719686, 1000000, 1389496
a(n) = ceiling(10^((n-1)/7))
[A001611] 1, 2, 2, 3, 4, 6, 9, 14, 22, 35, 56, 90, 145, 234, 378, 611, 988, 1598, 2585, 4182, 6766, 10947, 17712, 28658, 46369, 75026, 121394, 196419, 317812, 514230, 832041, 1346270, 2178310, 3524579, 5702888, 9227466, 14930353, 24157818
a(n) = 2*a(n-1) - a(n-3). - Tanya Khovanova, Jul 13 2007
a(0) = 1, a(1) = 2, a(n) = a(n - 2) + a(n - 1) - 1.
a(1) = 2; a(n+1)=floor(a(n)*(sqrt(5)+1)/2). - Roland Schroeder (florola(AT)gmx.de), Aug 05 2010
[A214448] 1, 2, 2, 3, 4, 6, 9, 15, 25, 44, 80, 148, 281, 544, 1070, 2139, 4343, 8946, 18676, 39495, 84545, 183102, 400981, 887517, 1984548, 4481308, 10215173, 23498233, 54529901, 127618907, 301130984, 716214216
a(n) = ceiling(n!^(1/4)).
[A023105] 1, 2, 2, 3, 4, 7, 12, 23, 44, 87, 172, 343, 684, 1367, 2732, 5463, 10924, 21847, 43692, 87383, 174764, 349527, 699052, 1398103, 2796204, 5592407, 11184812, 22369623, 44739244, 89478487, 178956972, 357913943, 715827884, 1431655767, 2863311532
a(n) = floor((2^n+10)/6).
a(n) = (2^n + 9 - (-1)^n)/6 for n > 0. [David S. Dodson, Jan 06 2013]
a(0)=1, a(1)=2. a(n) = 2*a(n-1)-2 if n is even, a(n) = 2*a(n-1)-1 if n is odd. - Vincenzo Librandi, Apr 21 2012
a(n) = +2*a(n-1) +a(n-2) -2*a(n-3). [Joerg Arndt, Apr 21 2012]
[A289199] 0, 0, 2, 2, 3, 5, 5, 6, 7, 7, 9, 10, 10, 12, 12, 14, 14, 15, 17, 17, 18, 19, 19, 21, 22, 22, 24, 24, 26, 26, 27, 29, 29, 30, 31, 31, 33, 34, 34, 36, 36, 38, 38, 39, 41, 41, 42, 43, 43, 45, 46, 46, 48, 48, 50, 50, 51, 53, 53, 54, 55, 55, 57, 58, 58, 60, 60, 62, 62, 63, 65
a(n + 13*k) = a(n) + 12*k.
a(n) = 12n/13 + O(1). - Charles R Greathouse IV, Jun 29 2017
a(n) = a(n-1) + a(n-13) - a(n-14) for n>13.
[A011971] 1, 1, 2, 2, 3, 5, 5, 7, 10, 15, 15, 20, 27, 37, 52, 52, 67, 87, 114, 151, 203, 203, 255, 322, 409, 523, 674, 877, 877, 1080, 1335, 1657, 2066, 2589, 3263, 4140, 4140, 5017, 6097, 7432, 9089, 11155, 13744, 17007, 21147, 21147, 25287, 30304
a(n,k) = Sum_{i=0..k} binomial(k,i)*Bell(n-k+i). - Vladeta Jovovic, Oct 15 2006
[A098180] 1, 2, 2, 3, 5, 6, 6, 7, 9, 10, 10, 11, 13, 14, 14, 15, 17, 18, 18, 19, 21, 22, 22, 23, 25, 26, 26, 27, 29, 30, 30, 31, 33, 34, 34, 35, 37, 38, 38, 39, 41, 42, 42, 43, 45, 46, 46, 47, 49, 50, 50, 51, 53, 54, 54, 55, 57, 58, 58, 59, 61, 62, 62, 63, 65, 66, 66, 67, 69, 70, 70, 71
a(n) = sqrt(2)*sin(Pi*n/2+Pi/4)/2+n+1/2.
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4), n>3.
a(n) = (2n+1-(-1)^((n+1)*(n+2)/2))/2.
[A290273] 2, 2, 3, 5, 7, 8, 13, 18, 25, 34, 49, 69, 95, 134, 188, 264, 368, 517, 725, 1015, 1422, 1993, 2794, 3913, 5484, 7685, 10769, 15089, 21144, 29630, 41518, 58178, 81523, 114237, 160075, 224308, 314317, 440442, 617177, 864830, 1211861, 1698141, 2379551, 3334390, 4672376

a(n) = a(n-2) + a(n-3) + a(n-4) - a(n-6).
[A097333] 1, 2, 2, 3, 5, 7, 10, 15, 22, 32, 47, 69, 101, 148, 217, 318, 466, 683, 1001, 1467, 2150, 3151, 4618, 6768, 9919, 14537, 21305, 31224, 45761, 67066, 98290, 144051, 211117, 309407, 453458, 664575, 973982, 1427440, 2092015, 3065997, 4493437, 6585452
a(n) = a(n-1) + a(n-3);
a(n) = a(n-1) + a(n-2) - a(n-5).
[A147997] 1, 1, 1, 2, 2, 3, 5, 7, 11, 18, 28, 45, 73, 117, 189, 306, 494, 799, 1293, 2091, 3383, 5474, 8856, 14329, 23185, 37513, 60697, 98210, 158906, 257115, 416021, 673135, 1089155, 1762290, 2851444, 4613733, 7465177, 12078909
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-4) - a(n-5) for n > 4.
[A062724] 2, 2, 3, 5, 7, 12, 18, 30, 47, 77, 123, 200, 322, 522, 843, 1365, 2207, 3572, 5778, 9350, 15127, 24477, 39603, 64080, 103682, 167762, 271443, 439205, 710647, 1149852, 1860498, 3010350, 4870847, 7881197, 12752043, 20633240, 33385282
a(n)=3*Fibonacci(n-1)+Fibonacci(n-2)+(n mod 2), n>0 [From Gary Detlefs, Dec 29 2010]
[A157176] 1, 2, 2, 3, 5, 8, 8, 16, 16, 24, 40, 64, 64, 128, 128, 192, 320, 512, 512, 1024, 1024, 1536, 2560, 4096, 4096, 8192, 8192, 12288, 20480, 32768, 32768, 65536, 65536, 98304, 163840, 262144, 262144, 524288, 524288, 786432, 1310720, 2097152, 2097152
a(n+6) = 8*a(n).
[A152948] 2, 2, 3, 5, 8, 12, 17, 23, 30, 38, 47, 57, 68, 80, 93, 107, 122, 138, 155, 173, 192, 212, 233, 255, 278, 302, 327, 353, 380, 408, 437, 467, 498, 530, 563, 597, 632, 668, 705, 743, 782, 822, 863, 905, 948, 992, 1037, 1083, 1130, 1178, 1227, 1277, 1328, 1380
a(n) = a(n-1) + n-2 (with a(1)=2). - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A293419] 0, 2, 2, 3, 5, 8, 12, 19, 30, 49, 78, 126, 204, 330, 534, 863, 1396, 2259, 3655, 5913, 9568, 15480, 25048, 40528, 65575, 106102, 171676, 277777, 449453, 727230, 1176683, 1903912, 3080595, 4984507, 8065101, 13049607, 21114707, 34164313, 55279019, 89443332
a(n) = ceiling(F(n)*sqrt(2)).
[A293643] 0, 1, 1, 2, 2, 3, 5, 8, 13, 21, 33, 54, 87, 140, 227, 366, 593, 959, 1551, 2509, 4059, 6568, 10627, 17195, 27821, 45015, 72836, 117851, 190687, 308538, 499224, 807762, 1306986, 2114747, 3421733, 5536479, 8958212, 14494691, 23452902, 37947592, 61400493
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.
a(n) = ceiling(3*F(n)/5).
[A226956] 1, 1, 2, 2, 3, 5, 9, 15, 24, 38, 61, 99, 161, 261, 422, 682, 1103, 1785, 2889, 4675, 7564, 12238, 19801, 32039, 51841, 83881, 135722, 219602, 355323, 574925, 930249, 1505175, 2435424, 3940598, 6376021, 10316619, 16692641, 27009261, 43701902, 70711162, 114413063, 185124225, 299537289
a(n) = 2*a(n-1) - a(n-2) + a(n-4).
a(n) = 3*a(n-3) + 5*a(n-6) + a(n-9) (plus many similar by telescoping the fundamental recurrence).
[A049873] 2, 2, 3, 5, 10, 19, 36, 67, 125, 233, 435, 812, 1516, 2830, 5283, 9862, 18410, 34367, 64155, 119762, 223567, 417346, 779085, 1454365, 2714951, 5068163, 9461046, 17661506, 32969800, 61546717, 114892974, 214477654, 400378391
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A078445] 2, 2, 3, 5, 11, 23, 29, 31, 53, 67, 79, 89, 97, 107, 149, 163, 223, 229, 241, 271, 277, 283, 307, 313, 347, 353, 373, 379, 401, 433, 443, 449, 479, 521, 541, 547, 557, 571, 601, 631, 659, 673, 683, 769, 797, 811, 821, 839, 853, 857, 881, 907, 953, 971, 1033, 1051
a(n) = floor((Sum_{x=1..k} prime(x))/k) where k = 1, 2, ... prime(k) <= n.
[A159915] 0, 0, 0, 1, 2, 2, 3, 6, 8, 8, 10, 15, 18, 18, 21, 28, 32, 32, 36, 45, 50, 50, 55, 66, 72, 72, 78, 91, 98, 98, 105, 120, 128, 128, 136, 153, 162, 162, 171, 190, 200, 200, 210, 231, 242, 242, 253, 276, 288, 288, 300, 325, 338, 338, 351, 378, 392, 392, 406, 435, 450, 450
a(n)=3a(n-1)-5a(n-2)+7a(n-3)-7a(n-4)+5a(n-5)-3a(n-6)+a(n-7) for n>7
[A215450] 0, 1, 2, 2, 3, 6, 8, 9, 16, 18, 23, 23, 26, 33, 35, 45, 55, 71, 87, 94, 111, 128, 132, 140, 152, 172, 186, 198, 210, 224, 244, 249, 264, 294, 325, 341, 344, 360, 393, 425, 434, 454, 491, 525, 530, 538, 541, 573, 604, 649, 687, 687, 733, 749, 785, 804, 805, 826, 870, 904
a(0)=0, a(1)=1, a(n) = a(n-1) + (a(0)+...+a(n-1)) mod n.
[A019465] 2, 2, 3, 6, 8, 24, 27, 108, 112, 560, 565, 3390, 3396, 23772, 23779, 190232, 190240, 1712160, 1712169, 17121690, 17121700, 188338700, 188338711, 2260064532, 2260064544, 29380839072, 29380839085
a(2*k) = 2*k! + Sum_{j=0..k-1} k!/j! = 2*k! + k*e*Gamma(k,1).
a(2*k+1) = 2*(k+1)! + Sum_{j=0..k-1} (k+1)!/j! = 2*(k+1)! + k*(k+1)*e*Gamma(k,1).
[A163493] 1, 2, 2, 3, 6, 9, 15, 30, 54, 97, 189, 360, 675, 1304, 2522, 4835, 9358, 18193, 35269, 68568, 133737, 260802, 509132, 995801, 1948931, 3816904, 7483636, 14683721, 28827798, 56637969, 111347879, 219019294, 431043814, 848764585, 1672056525
a(n) = sum(binomial(2*k-1, k)*binomial(n-2*k,k) + binomial(2*k, k)*binomial(n-2*k-1, k), k=0..floor(n/3)). - Joel B. Lewis, May 21 2011
[A070550] 1, 2, 2, 3, 6, 10, 15, 24, 40, 65, 104, 168, 273, 442, 714, 1155, 1870, 3026, 4895, 7920, 12816, 20737, 33552, 54288, 87841, 142130, 229970, 372099, 602070, 974170, 1576239, 2550408, 4126648, 6677057, 10803704, 17480760, 28284465, 45765226
a(n) = (1+3*i)/10*(-i)^n + (1-3*i)/10*(i)^n + (2+sqrt(5))/5*((1+sqrt(5))/2)^n + (2-sqrt(5))/5*((1-sqrt(5))/2)^n, where i = sqrt(-1). - Sergei N. Gladkovskii, Jul 16 2013
a(n+1)*a(n+3) = a(n)*a(n+2) + a(n+1)*a(n+2) for all n in Z. - Michael Somos, Jan 19 2014
[A102762] 1, 2, 2, 3, 6, 11, 18, 27, 38, 51, 66, 83, 102, 123, 146, 171, 198, 227, 258, 291, 326, 363, 402, 443, 486, 531, 578, 627, 678, 731, 786, 843, 902, 963, 1026, 1091, 1158, 1227, 1298, 1371, 1446, 1523, 1602, 1683, 1766, 1851, 1938, 2027, 2118, 2211, 2306, 2403, 2502, 2603, 2706, 2811, 2918, 3027, 3138, 3251, 3366
a(n) = a(1) + a(2) + a(n-1) + 2*sqrt(a(1)*a(2) + a(1)*a(n-1) + a(2)*a(n-1)) = 1 + a(n-1) + 2*(sqrt(-2 + a(n-1))) (Descartes' curvature-theorem)
a(n) = n^2 - 4*n + 6 for n > 1. a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 4. G.f.: -(x^4 + 4*x^3 - 7*x^2 + 5*x - 1)/(x - 1)^3. - Colin Barker, Jan 07 2013
[A049853] 1, 2, 2, 3, 6, 11, 19, 33, 58, 102, 179, 314, 551, 967, 1697, 2978, 5226, 9171, 16094, 28243, 49563, 86977, 152634, 267854, 470051, 824882, 1447567, 2540303, 4457921, 7823106, 13728594, 24092003, 42278518, 74193627
a(n)=2*a(n-1)-a(n-2)+a(n-3); 3 initial terms required.
a(n)=a(n-1)+a(n-2)+a(n-4) for n>3. [Reinhard Zumkeller, Aug 06 2011]
[A103687] 1, 1, 2, 2, 3, 6, 12, 36, 156, 520, 1920, 5760, 12600, 39900, 210140, 844984, 2871876, 8784783, 29392449, 123405524, 726794464, 3669378736, 20998365592, 139906305272, 770298602024, 4979077340664, 35706521898618, 187318543647373, 1117410697347693, 7335115455487050, 46292557037334300
a(n) = permanent(m), where the n X n matrix m is defined by m(i,j) = 1 or 0, depending on whether i+j+1 is prime or composite respectively. - T. D. Noe, Oct 16 2007
[A032908] 2, 2, 3, 6, 14, 35, 90, 234, 611, 1598, 4182, 10947, 28658, 75026, 196419, 514230, 1346270, 3524579, 9227466, 24157818, 63245987, 165580142, 433494438, 1134903171, 2971215074, 7778742050, 20365011075, 53316291174, 139583862446, 365435296163, 956722026042
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = 3*a(n - 1) - a(n - 2) - 1. - N. Sato, Jan 21 2010
a(n+1) = (3*a(n) + sqrt(5*a(n)^2 - 10*a(n) + 1) - 1)/2 for n >= 1. (End)
a(n) = 1+(2^(-1-n)*((3-sqrt(5))^n*(1+sqrt(5))+(-1+sqrt(5))*(3+sqrt(5))^n))/sqrt(5). - Colin Barker, Nov 02 2016
[A291102] 2, 2, 3, 7, 9, 13, 19, 24, 39, 63, 87, 124, 183, 272, 405, 593, 867, 1261, 1869, 2760, 4046, 5936, 8712, 12817, 18861, 27720, 40711, 59792, 87915, 129250, 189946, 279118, 410135, 602803, 886008, 1302157, 1913622, 2812220, 4133091, 6074385, 8927330, 13119959
a(n) = a(n-2) + a(n-3) + a(n-4) + a(n-5) - a(n-7) - 2*a(n-8) - a(n-9) + 2*a(n-10) + a(n-11) - a(n-14) for n > 14.
[A227300] 1, 2, 2, 3, 7, 11, 16, 28, 48, 77, 126, 211, 349, 573, 947, 1568, 2588, 4271, 7058, 11661, 19256, 31804, 52538, 86779, 143329, 236744, 391046, 645900, 1066850, 1762163, 2910634, 4807590, 7940870, 13116238, 21664568, 35784145, 59105987, 97627533, 161254953, 266350689
a(n) = sum(k=0..floor((n-1)/3), binomial(2*n-2-5*k,k) + binomial(2*n-3-5*k,k)) for n>=2; a(1)=1. - John Molokach, Jul 11 2013
a(n) = a(n-1) + 2*a(n-3) - a(n-6), starting with {1, 2, 2, 3, 7, 11}. - T. D. Noe, Jul 11 2013
a(n) = sum(k=0..floor((2n-1)/3) binomial(2n-k-2-3*floor(k/2),floor(k/2))). - John Molokach, Jul 29 2013
[A087522] 2, 2, 3, 7, 31, 31, 127, 127, 1279, 3583, 5119, 6143, 8191, 8191, 81919, 131071, 131071, 131071, 524287, 524287, 14680063, 14680063, 109051903, 109051903, 654311423, 738197503, 738197503, 2147483647, 2147483647, 2147483647, 2147483647
a(n) « 37^n by Xylouris' improvement to Linnik's theorem. - Charles R Greathouse IV, Dec 10 2013
[A001131] 0, 1, 2, 2, 3, 8, 14, 20, 35, 64, 122, 260, 586, 1296, 2708, 5400, 10468, 19888, 37580, 71960, 140612, 279264, 560544, 1133760, 2310316, 4750368, 9876264, 20788880, 44282696, 95241664, 206150208, 447470464, 970862029, 2100029344

a(1) = 1, a(2) = 2 and for n>2: a(n) = Sum_[n/4 <= m <= n/2] binomial(2m,n-2m)*a(m), John Moon, as quoted in Ruskey. - Jonathan Vos Post, Jun 17 2005.

[A060790] 1, 2, 2, 3, 15, 38, 110, 323, 927, 2682, 7754, 22403, 64751, 187134, 540822, 1563011, 4517183, 13054898, 37729362, 109039875, 315131087, 910745750, 2632104062, 7606921923, 21984412383, 63536130986, 183622826522, 530679817859, 1533693138351, 4432455434478

a(n) = 2a(n-1)+2a(n-2)+2a(n-3)-a(n-4).

[A090168] 0, 1, 2, 2, 4, 4, 5, 6, 7, 7, 9, 9, 10, 11, 12, 12, 14, 14, 15, 16, 17, 17, 19, 19, 20, 21, 22, 22, 24, 24, 25, 26, 27, 27, 29, 29, 30, 31, 32, 32, 34, 34, 35, 36, 37, 37, 39, 39, 40, 41, 42, 42, 44, 44, 45, 46, 47, 47, 49, 49, 50, 51, 52, 52, 54, 54, 55, 56, 57, 57, 59, 59, 60

a(n) = a(n-2) + a(n-3) - a(n-5).

[A131055] 1, 2, 2, 4, 4, 6, 6, 8, 8, 10, 10, 12, 12, 14, 14, 16, 16, 18, 18, 20, 20, 22, 22, 24, 24, 26, 26, 28, 28, 30, 30, 32, 32, 34, 34, 36, 36, 38, 38, 40, 40, 42, 42, 44, 44, 46, 46, 48, 48, 50, 50, 52, 52, 54, 54, 56, 56, 58, 58, 60, 60, 62, 62, 64, 64, 66, 66, 68, 68, 70, 70, 72

a(n) = 1+sum{i=0..n}{1-(-1)^i-[i!^2 mod (i+1)]*[(i+1)!^2 mod (i+2)]}, with n>=0. - Paolo P. Lava, Jul 24 2007

a(n) = ((-1)^n+2*n-1)/2 for n>1. a(n) = a(n-1)+a(n-2)-a(n-3) for n>1. G.f.: x*(x^3-x^2+x+1)/((x-1)^2*(x+1)). - Colin Barker, Oct 28 2012

[A029010] 1, 1, 2, 2, 4, 4, 6, 6, 9, 9, 12, 13, 17, 18, 22, 24, 29, 31, 36, 39, 45, 48, 55, 59, 67, 71, 80, 85, 95, 100, 111, 117, 129, 136, 149, 157, 171, 180, 195, 205, 221, 232, 249, 261, 280, 293, 313, 327, 349, 364, 387, 403, 428, 445, 471, 490, 518, 538, 567, 589, 620, 643, 675, 700

a(n) = floor((420+(n+9)*(2*n^2+36*n+91+33*(-1)^n))/1056). - Tani Akinari, Jul 04 2013

[A029009] 1, 1, 2, 2, 4, 4, 6, 6, 9, 10, 13, 14, 18, 20, 24, 26, 31, 34, 40, 43, 50, 54, 62, 66, 75, 80, 90, 96, 107, 114, 126, 134, 147, 156, 170, 180, 196, 207, 224, 236, 255, 268, 288, 302, 324, 340, 363, 380, 405, 424, 450

a(0)=1, a(1)=1, a(2)=2, a(3)=2, a(4)=4, a(5)=4, a(6)=6, a(7)=6, a(8)=9, a(9)=10, a(10)=13, a(11)=14, a(12)=18, a(13)=20, a(14)=24, a(15)=26, a(n)=a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7)+a(n-9)-a(n-10)- a(n-11)+ a(n-12)-a(n-13)+a(n-14)+a(n-15)-a (n-16). [Harvey P. Dale, May 05 2012]

[A045674] 1, 1, 2, 2, 4, 4, 6, 8, 12, 16, 20, 32, 38, 64, 72, 128, 140, 256, 272, 512, 532, 1024, 1056, 2048, 2086, 4096, 4160, 8192, 8264, 16384, 16512, 32768, 32908, 65536, 65792, 131072, 131344, 262144, 262656, 524288, 524820, 1048576, 1049600

a(2n) = a(n) + 2^(n-1), a(2n+1) = 2^n. - Ralf Stephan, Nov 01 2003

[A264788] 2, 2, 4, 4, 6, 10, 10, 12, 16, 16, 18, 22, 22, 24, 28, 28, 30, 34, 34, 36, 40, 40, 42, 46, 46, 48, 52, 52, 54, 58, 58, 60, 64, 64, 66, 70, 70, 72, 76, 76, 78, 82, 82, 84, 88, 88, 90, 94, 94, 96, 100, 100, 102, 106, 106, 108, 112, 112, 114, 118, 118, 120, 124

a(n) = a(n-1) + a(n-3) - a(n-4) for n>5.

[A253412] 1, 2, 2, 4, 4, 7, 9, 13, 18, 25, 36, 49, 70, 97, 137, 191, 268, 376, 526, 738, 1033, 1449, 2029, 2844, 3985, 5584, 7825, 10964, 15365, 21529, 30169, 42274, 59238, 83008, 116316, 162991, 228393, 320041, 448462, 628417, 880580, 1233929, 1729066, 2422885, 3395113, 4757463

a(n) = a(n-2) + a(n-3) + a(n-4) - a(n-6), for n >= 6, with a(1) = 1, a(2) = a(3) = 2, a(4) = a(5) = 4, a(6) = 7. - Andrew Woods, Jan 02 2015

[A131572] 0, 1, 2, 2, 4, 4, 8, 8, 16, 16, 32, 32, 64, 64, 128, 128, 256, 256, 512, 512, 1024, 1024, 2048, 2048, 4096, 4096, 8192, 8192, 16384, 16384, 32768, 32768, 65536, 65536, 131072, 131072, 262144, 262144, 524288, 524288, 1048576, 1048576

a(n) = 2*a(n-2), n>2.

[A000013] 1, 1, 2, 2, 4, 4, 8, 10, 20, 30, 56, 94, 180, 316, 596, 1096, 2068, 3856, 7316, 13798, 26272, 49940, 95420, 182362, 349716, 671092, 1290872, 2485534, 4794088, 9256396, 17896832, 34636834, 67110932, 130150588, 252648992, 490853416

a(n) = Sum_{ d divides n } (phi(2d)*2^(n/d))/(2n) for n>0. - Michael Somos, Oct 20 1999

[A063776] 2, 2, 4, 4, 8, 12, 20, 32, 60, 104, 188, 344, 632, 1172, 2192, 4096, 7712, 14572, 27596, 52432, 99880, 190652, 364724, 699072, 1342184, 2581112, 4971068, 9586984, 18512792, 35791472, 69273668, 134217728, 260301176, 505290272, 981706832

a(n) = 1/n * Sum_{d divides n and d is odd} 2^(n/d) * phi(d).

[A059015] 1, 1, 2, 2, 4, 5, 6, 6, 9, 11, 13, 14, 16, 17, 18, 18, 22, 25, 28, 30, 33, 35, 37, 38, 41, 43, 45, 46, 48, 49, 50, 50, 55, 59, 63, 66, 70, 73, 76, 78, 82, 85, 88, 90, 93, 95, 97, 98, 102, 105, 108, 110, 113, 115, 117, 118, 121, 123, 125, 126, 128, 129, 130, 130, 136, 141

a(n) = b(n)+1, with b(2n) = b(n)+b(n-1)+n, b(2n+1) = 2b(n)+n. - Ralf Stephan, Sep 13 2003

a(n) = 2 + (m+1)*(n+1) - 2^(m+1) + (1/2)*sum_{j=1..m+1} (floor(n/2^j)*(2n + 2 - (1 + floor(n/2^j))*2^j) - floor(n/2^j + 1/2)*(2n + 2 - floor(n/2^j + 1/2)*2^j.

a(2^m-1) = 2 + (m-2)*2^(m-1)

a(n) = 1 + (m+1)*(n+1) - (p^(m+1)-1)/(p-1) + (1/2)*sum_{j=1..m+1} (floor(n/p^j)*(2n + 2 - (1 + floor(n/p^j))*p^j) - floor(n/p^j + (p-d-1)/p)*(2n + 2 + ((p-2*d-2)/p - floor(n/p^j + (p-d-1)/p))*p^j)).

a(n) = H(n,p) - (n+1)*F(n,p,d+1) + (1/2)*sum_{j=1..m+1} ((floor(n/p^j + (p-d-1)/p)^2 - floor(n/p^j)^2)*p^j - (((p - 2*d-2)/p)*floor(n/p^j + (p-d-1)/p) + floor(n/p^j))*p^j), where H(n,p) = sum of number of digits in the base p representations of 0 to n and F(n,p,d) = number of digits >=d in the base p representation of n.

a(p^m-1) = 1 + (d+1)*m*p^(m-1) - (p^m-1)/(p-1).

[A120326] 2, 2, 4, 5, 7, 8, 10, 11, 13, 15, 16, 17, 19, 20, 22, 24, 26, 27, 28, 30, 31, 32, 34, 36, 37, 39, 40, 42, 43, 45, 46, 48, 50, 51, 53, 54, 55, 56, 58, 60, 62, 63, 65, 66, 68, 69, 70, 71, 73, 74, 76, 78, 79, 81, 83, 85, 87, 88, 89, 91, 92, 94, 95, 97, 98, 100, 101, 102, 104, 105

a(n) = sum_{k=1..n} (prime(k) mod 3).

[A036406] 0, 1, 1, 2, 2, 4, 5, 7, 8, 11, 13, 16, 18, 22, 25, 29, 32, 37, 41, 46, 50, 56, 61, 67, 72, 79, 85, 92, 98, 106, 113, 121, 128, 137, 145, 154, 162, 172, 181, 191, 200, 211, 221, 232, 242, 254, 265, 277, 288, 301, 313, 326, 338, 352, 365, 379, 392

a(n) = (1/16)*(2n^2 + 9 - 5(-1)^n - 2(-1)^floor(n/2) + 2(-1)^floor((n-1)/2)). - Ralf Stephan, Jun 10 2005

a(0)=0, a(1)=1, a(2)=1, a(3)=2, a(4)=2, a(5)=4, a(n)=2*a(n-1)-a(n-2)+ a(n-4)- 2*a(n-5)+a (n-6). - Harvey P. Dale, Jun 21 2011

[A029007] 1, 1, 2, 2, 4, 5, 7, 8, 11, 13, 17, 19, 24, 27, 33, 37, 44, 49, 57, 63, 73, 80, 91, 99, 112, 122, 136, 147, 163, 176, 194, 208, 228, 244, 266, 284, 308, 328, 354, 376, 405, 429, 460, 486, 520, 549, 585, 616, 655, 689

a(0)=1, a(1)=1, a(2)=2, a(3)=2, a(4)=4, a(5)=5, a(6)=7, a(7)=8, a(8)=11, a(9)=13, a(10)=17, a(11)=19, a(n)=a(n-1)+a(n-2)-a(n-3)+a(n-4)- 2*a(n-6)+ a(n-8)-a(n-9)+a(n-10)+a(n-11)-a(n-12). - Harvey P. Dale, Dec 06 2013

a(n) = floor((2*n^3+36*n^2+193*n+525)/480+(n+1)*(-1)^n/32). - Tani Akinari, Sep 30 2014

a(n) = -a(-12-n) for all n in Z. - Michael Somos, Sep 30 2014

[A137200] 1, 1, 2, 2, 4, 5, 7, 9, 13, 18, 25, 34, 47, 65, 90, 124, 171, 236, 326, 450, 621, 857, 1183, 1633, 2254, 3111, 4294, 5927, 8181, 11292, 15586, 21513, 29694, 40986, 56572, 78085, 107779, 148765, 205337, 283422, 391201, 539966, 745303, 1028725, 1419926, 1959892

a(n) = a(n-1) + a(n-4) for n>4; g.f.: (1+x^2+x^4)/(1-x-x^4). Also a(n) = a(n-2) + a(n-4) + a(n-5).

[A166515] 0, 1, 2, 2, 4, 5, 8, 8, 12, 13, 18, 18, 24, 25, 32, 32, 40, 41, 50, 50, 60, 61, 72, 72, 84, 85, 98, 98, 112, 113, 128, 128, 144, 145, 162, 162, 180, 181, 200, 200, 220, 221, 242, 242, 264, 265, 288, 288, 312, 313, 338, 338, 364, 365, 392, 392, 420, 421, 450, 450, 480

a(n) = (2n^2+6n+5)/16 + (2n-1)*(-1)^n/16 - sqrt(2)*cos(Pi*n/2+Pi/4)/4.

[A193146] 1, 1, 2, 2, 4, 5, 8, 10, 15, 20, 29, 39, 55, 75, 105, 144, 200, 275, 381, 525, 726, 1001, 1383, 1908, 2635, 3636, 5020, 6928, 9564, 13200, 18221, 25149, 34714, 47914, 66136, 91285, 126000, 173914, 240051

a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-6) with a(n) = 0 for n = -5, -4, -3, -2, -1 and a(0) = 1.

[A157162] 1, 1, 1, 1, 2, 2, 4, 5, 8, 10, 18, 24, 40, 52, 88, 125, 210, 286, 492, 702, 1144, 1638, 2786, 3986, 6704, 9640, 16096, 23964, 39650, 57794, 97108, 144245, 236880, 353010, 589298, 880828, 1459960, 2179068, 3604880, 5471094, 9030450, 13561742, 22542396, 34277634

a(n) = (- sum(d*a(d)^(n/d), d|n with 1<=d<n) + L(n))/n, n>=2, a(1)=1.

a(n) = - sum((d/n)*(a(d))^(n/d),d|n with 1<=d<n) + sum(((-1)^(m-1))*(1/m)*sum(M0(p)*F(2)^e(1)*...*F(n+1)^e(n),p=(1^e(1),...,n^e(n)) from P(n,m)), m=1..n) for n>=2; a(1)=F(2)=1. See recurrence 1 for the set P(n,m). The M0 numbers are m!/product(e(j)!,j=1..n).

[A006206] 1, 1, 1, 1, 2, 2, 4, 5, 8, 11, 18, 25, 40, 58, 90, 135, 210, 316, 492, 750, 1164, 1791, 2786, 4305, 6710, 10420, 16264, 25350, 39650, 61967, 97108, 152145, 238818, 374955, 589520, 927200, 1459960, 2299854, 3626200, 5720274, 9030450, 14263078

a(n) = (1/n) * sum_{d|n} mu(n/d) * (Fib(d-1)+Fib(d+1)) = (1/n) * sum_{d|n} mu(n/d) * Lucas(d). Hence Lucas(n) = sum_{d|n} d*a(d).

a(n) = round((1/n)*sum_{d|n} mu(n)*phi^(n/d))). - David Broadhurst.

[A095719] 1, 1, 2, 2, 4, 5, 8, 11, 18, 25, 40, 59, 90, 137, 210, 319, 492, 754, 1164, 1798, 2786, 4317, 6710, 10438, 16266, 25377, 39650, 62013, 97108, 152212, 238822, 375058, 589520, 927365, 1459960, 2300097, 3626211, 5720649, 9030450, 14263675

a(n) = sum(floor(C(n-k, k)/(k+1)), k=0..n/2);

[A093333] 0, 1, 1, 2, 2, 4, 5, 8, 12, 19, 30, 47, 75, 118, 188, 297, 472, 748, 1188, 1885, 2992, 4749, 7538, 11966, 18994, 30151, 47861, 75975, 120602, 191444, 303898, 482408, 765774, 1215591, 1929629, 3063096, 4862361, 7718517, 12252381, 19449443, 30874065
a(n) = c*2^(2n/3)+O(1) where c = 0.460059421168603639247011945010383052611033510222466141611719800044251170577443497647017497388556 0.... - Benoit Cloitre, Dec 17 2006
[A099574] 1, 1, 2, 2, 4, 5, 9, 11, 18, 23, 37, 48, 74, 97, 147, 195, 290, 387, 568, 763, 1108, 1495, 2152, 2915, 4167, 5662, 8047, 10962, 15506, 21168, 29825, 40787, 57280, 78448, 109870, 150657, 210521, 288969, 403020, 553677, 770963, 1059932, 1473898
a(n)=sum{k=0..floor(n/2), sum{j=0..floor(k/2), binomial(n-k-j, j)}}.
[A124280] 1, 1, 2, 2, 4, 5, 9, 12, 20, 28, 45, 65, 102, 150, 232, 345, 529, 792, 1208, 1816, 2761, 4161, 6314, 9530, 14444, 21821, 33049, 49956, 75628, 114356, 173077, 261761, 396110, 599150, 906576, 1371377, 2074913, 3138864
a(n) = sum{k=0..floor(n/2), sum{j=0..n-2k, C(j,n-2k-j)C(k,n-2k-j)}}.
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4), a(0)=1, a(1)=1, a(2)=2, a(3)=2. - Carl Najafi, May 06 2014
[A088518] 1, 1, 1, 2, 2, 4, 5, 9, 12, 21, 29, 50, 71, 121, 175, 296, 434, 730, 1082, 1812, 2709, 4521, 6807, 11328, 17157, 28485, 43359, 71844, 109830, 181674, 278769, 460443, 708840, 1169283, 1805291, 2974574, 4604363, 7578937, 11758552, 19337489, 30064037
a(n) is asymptotic to c*phi^n/sqrt(n) where phi=(1+sqrt(5))/2 and c=0.86.... - Benoit Cloitre, Nov 19 2003
[A127968] 1, 2, 2, 4, 5, 9, 13, 22, 34, 56, 89, 145, 233, 378, 610, 988, 1597, 2585, 4181, 6766, 10946, 17712, 28657, 46369, 75025, 121394, 196418, 317812, 514229, 832041, 1346269, 2178310, 3524578, 5702888, 9227465, 14930353, 24157817, 39088170, 63245986, 102334156
a(n) = (5 - 5*(-1)^n + 2^(-n)*sqrt(5)*(-(1-sqrt(5))^(1+n) + (1+sqrt(5))^(1+n))) / 10.
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>3.
[A147678] 1, 2, 2, 4, 5, 10, 12, 24, 27, 54, 58, 116, 121, 242, 248, 496, 503, 1006, 1014, 2028, 2037, 4074, 4084, 8168, 8179, 16358, 16370, 32740, 32753, 65506, 65520, 131040, 131055, 262110, 262126, 524252, 524269, 1048538, 1048556, 2097112, 2097131
a(n) = 4*a(n-2) - 5*a(n-4) + 2*a(n-6).
a(n) = 2*a(n-1) - (n mod 2)*(a(n-1) - (n-3)/2). - Reinhard Zumkeller, Apr 22 2009
[A178113] 1, 2, 2, 4, 5, 10, 13, 26, 35, 70, 96, 192, 267, 534, 750, 1500, 2123, 4246, 6046, 12092, 17303, 34606, 49721, 99442, 143365, 286730, 414584, 829168, 1201917, 2403834, 3492117, 6984234, 10165779, 20331558, 29643870, 59287740, 86574831, 173149662
a(n)=sum{k=0..n, C(floor(n/2),floor(k/2))*((1+(-1)^(n-k))/2)*C(k+1,floor((k+1)/2).
[A114851] 0, 0, 1, 1, 2, 2, 4, 5, 10, 14, 27, 41, 78, 126, 237, 399, 745, 1292, 2404, 4259, 7915, 14242, 26477, 48197, 89721, 164766, 307294, 568191, 1061969, 1974266, 3698247, 6905523, 12964449, 24295796, 45711211, 85926575, 161996298, 305314162, 576707409, 1089395667
a(n+2) = 1 + a(n) + Sum_{i=0..n} a(i)*a(n-i), with a(0) = a(1) = 0.
[A291055] 1, 2, 2, 4, 6, 8, 13, 17, 27, 40, 57, 86, 122, 184, 269, 395, 582, 849, 1255, 1843, 2708, 3982, 5841, 8597, 12631, 18566, 27286, 40082, 58929, 86598, 127279, 187052, 274872, 404001, 593732, 872606, 1282416, 1884660, 2769856, 4070718, 5982611, 8792345
a(n) = a(n-2) + a(n-3) + a(n-4) + a(n-5) - a(n-7) - 2*a(n-8) - a(n-9) + 2*a(n-10) + a(n-11) - a(n-14) for n > 14.
[A293640] 0, 1, 1, 1, 2, 2, 4, 6, 9, 14, 22, 36, 58, 94, 151, 244, 395, 639, 1034, 1673, 2706, 4379, 7085, 11463, 18548, 30010, 48558, 78568, 127125, 205692, 332816, 538508, 871324, 1409832, 2281155, 3690986, 5972141, 9663127, 15635268, 25298395, 40933662, 66232057
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.
a(n) = ceiling(2*F(n)/5).
[A293552] 0, 1, 1, 1, 1, 1, 2, 2, 4, 6, 9, 14, 23, 36, 59, 95, 153, 247, 400, 646, 1046, 1692, 2737, 4428, 7165, 11592, 18757, 30349, 49105, 79453, 128558, 208010, 336568, 544578, 881145, 1425722, 2306867, 3732588, 6039455, 9772043, 15811497, 25583539, 41395036, 66978574
a(n) = a(n-1) + a(n-2) + a(n-6) - a(n-7) - a(n-8) for n >= 9.
a(n) = ceiling(F(n)/4).
[A293546] 0, 1, 1, 2, 2, 4, 6, 9, 14, 23, 37, 60, 96, 156, 252, 407, 658, 1065, 1723, 2788, 4510, 7298, 11808, 19105, 30912, 50017, 80929, 130946, 211874, 342820, 554694, 897513, 1452206, 2349719, 3801925, 6151644, 9953568, 16105212, 26058780, 42163991, 68222770
a(n) = a(n-1) + a(n-2) + a(n-8) - a(n-9) - a(n-10) for n >= 11.
a(n) = ceiling(2F(n)/3).
[A173495] 1, 1, 2, 2, 4, 6, 9, 15, 24, 38, 62, 100, 161, 261, 422, 682, 1104, 1786, 2889, 4675, 7564, 12238, 19802, 32040, 51841, 83881, 135722, 219602, 355324, 574926, 930249, 1505175, 2435424, 3940598, 6376022, 10316620, 16692641, 27009261, 43701902, 70711162
a(n) = ceiling(Lucas(n)/2).
[A262258] 1, 2, 2, 4, 6, 10, 16, 24, 40, 56, 96, 128, 224, 288, 512, 640, 1152, 1408, 2560, 3072, 5632, 6656, 12288, 14336, 26624, 30720, 57344, 65536, 122880, 139264, 262144, 294912, 557056, 622592, 1179648, 1310720, 2490368, 2752512, 5242880, 5767168, 11010048, 12058624
a(1)=1, a(2)=2, a(n) = (2^floor((n-1)/2)*(floor(n/2)-(1/2)*(floor((n-3)/2)) for n>2.
a(n) = 2^(n/2-3)*(n+4) for n>2 and even.
a(n) = 2^((n-9)/2)*(4*n+4) for n>2 and odd.
a(n) = 4*a(n-2)-4*a(n-4) for n>6.
[A293633] 1, 1, 2, 2, 4, 6, 10, 16, 26, 41, 67, 108, 175, 283, 458, 740, 1198, 1938, 3136, 5074, 8210, 13283, 21493, 34776, 56269, 91045, 147314, 238358, 385672, 624030, 1009702, 1633732, 2643434, 4277165, 6920599, 11197764, 18118363, 29316127, 47434490, 76750616
a(n) = a(n-1) + a(n-2) + a(n-6) - a(n-7) - a(n-8) for n >= 9.
a(n) = floor(1/2 + 3*F(n)/4).
[A163733] 1, 1, 2, 2, 4, 6, 10, 16, 26, 42, 68, 110, 178, 288, 466, 754, 1220, 1974, 3194, 5168, 8362, 13530, 21892, 35422, 57314, 92736, 150050, 242786, 392836, 635622, 1028458, 1664080, 2692538, 4356618, 7049156, 11405774, 18454930, 29860704, 48315634, 78176338
a(n) = round(phi^(k-1)) - round(phi^(k-1)/sqrt(5)), phi = (1 + sqrt(5))/2 (conjecture). [Federico Provvedi, Mar 26 2013]
[A198834] 0, 0, 2, 2, 4, 6, 10, 16, 26, 42, 68, 110, 178, 288, 466, 754, 1220, 1974, 3194, 5168, 8362, 13530, 21892, 35422, 57314, 92736, 150050, 242786, 392836, 635622, 1028458, 1664080, 2692538, 4356618, 7049156, 11405774, 18454930, 29860704, 48315634, 78176338
a(n)=a(n-1)+a(n-2) for n>3.
[A000016] 1, 1, 1, 2, 2, 4, 6, 10, 16, 30, 52, 94, 172, 316, 586, 1096, 2048, 3856, 7286, 13798, 26216, 49940, 95326, 182362, 349536, 671092, 1290556, 2485534, 4793492, 9256396, 17895736, 34636834, 67108864, 130150588, 252645136, 490853416
a(n) = Sum_{odd d divides n} (phi(d)*2^(n/d))/(2*n), n>0.
[A060553] 2, 2, 4, 6, 10, 16, 32, 52, 104, 192, 376, 720, 1440, 2800, 5600, 11072, 22112, 43968, 87936, 175296, 350592, 700160, 1400192, 2798336, 5596672, 11188992, 22377984, 44747776, 89495040, 178973696, 357947392, 715860992, 1431721984, 2863378432, 5726754816
a(n) = (2^(n-1)+2^(floor(n/3) + (n mod 3)mod 2))/3 + 2^floor((n-1)/2).
[A293673] 0, 1, 1, 2, 2, 4, 6, 10, 17, 27, 44, 71, 115, 186, 302, 488, 790, 1278, 2067, 3345, 5412, 8757, 14169, 22926, 37094, 60020, 97114, 157134, 254249, 411383, 665632, 1077015, 1742647, 2819662, 4562310, 7381972, 11944282, 19326254, 31270535, 50596789, 81867324
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + a(n-5) + 2 a(n-6) - a(n-7) - 2 a(n-8) + a(n-9) + a(n-10) for n >= 11.
a(n) = floor(1/2 + 4*F(n)/5).
[A293505] 0, 0, 0, 1, 2, 2, 4, 6, 10, 17, 28, 44, 72, 116, 188, 305, 494, 798, 1292, 2090, 3382, 5473, 8856, 14328, 23184, 37512, 60696, 98209, 158906, 257114, 416020, 673134, 1089154, 1762289, 2851444, 4613732, 7465176, 12078908, 19544084, 31622993, 51167078
a(n) = a(n-1) + a(n-2) + a(n-6) - a(n-7) - a(n-8) for n >= 9.
a(n) = floor(1/2 + F(n)/2).
[A063886] 1, 2, 2, 4, 6, 12, 20, 40, 70, 140, 252, 504, 924, 1848, 3432, 6864, 12870, 25740, 48620, 97240, 184756, 369512, 705432, 1410864, 2704156, 5408312, 10400600, 20801200, 40116600, 80233200, 155117520, 310235040, 601080390, 1202160780
a(n) = sum{k=0..n, (k+1)binomial(n, (n-k)/2) (1-cos((k+1)*Pi/2) (1+(-1)^(n-k))/(n+k+2)) }. - Paul Barry, Oct 12 2004
a(n) = 2^n*product_{k=0..n-1} (k/n+1/n)^((-1)^k). - Peter Luschny, Dec 02 2013
[A003000] 1, 2, 2, 4, 6, 12, 20, 40, 74, 148, 284, 568, 1116, 2232, 4424, 8848, 17622, 35244, 70340, 140680, 281076, 562152, 1123736, 2247472, 4493828, 8987656, 17973080, 35946160, 71887896, 143775792, 287542736, 575085472, 1150153322, 2300306644
a(2n+1) = 2*a(2*n), a(2*n) = 2*a(2*n-1) - a(n).
a(0)=1; a(n)=2*a(n-1)-(1/2)*(1+(-1)^n)*a([n/2]). - Farideh Firoozbakht, Jun 10 2004

[A238014] 1, 1, 2, 2, 4, 6, 12, 20, 48, 84, 216, 408, 1104, 2280, 6288, 14128, 40256, 96240, 287904, 714016, 2246592, 5750112, 18900672, 49973568, 169592576, 466175808, 1618212224, 4637091200, 16393123072, 48926588544, 176264622336, 545058738944, 2008508679168
a(n) = Sum_{lambda : partitions(n)} chess(lambda), where chess(lambda) is the number of chess tableaux of shape lambda.
[A052953] 2, 2, 4, 6, 12, 22, 44, 86, 172, 342, 684, 1366, 2732, 5462, 10924, 21846, 43692, 87382, 174764, 349526, 699052, 1398102, 2796204, 5592406, 11184812, 22369622, 44739244, 89478486, 178956972, 357913942, 715827884, 1431655766, 2863311532
a(2n) = 2*a(n-1)-2, a(2n+1) = 2*a(2n). - Lee Hae-hwang, Oct 11 2002
[A128209] 1, 2, 2, 4, 6, 12, 22, 44, 86, 172, 342, 684, 1366, 2732, 5462, 10924, 21846, 43692, 87382, 174764, 349526, 699052, 1398102, 2796204, 5592406, 11184812, 22369622, 44739244, 89478486, 178956972, 357913942, 715827884, 1431655766, 2863311532, 5726623062
a(n)=1+2^n/3-(-1)^n/3.
[A181926] 1, 1, 2, 2, 4, 6, 13, 27, 70, 191, 609, 2130, 8526, 38156, 194000, 1109673, 7176149, 52238676, 429004471, 3970438003, 41454181730, 488046132076, 6482590679282, 97134793638750, 1641654359781521, 31285014253070731, 672372121341768918, 16299021330860540657
a(n) = sum(fibonomial(k,n-k),k=ceiling(n/2)..n).
[A069925] 1, 1, 1, 2, 2, 4, 6, 16, 18, 40, 62, 160, 210, 448, 660, 2048, 2570, 5184, 9198, 24672, 32508, 76032, 121574, 344064, 405000, 1005888, 1569780, 4511520, 6066336, 12672000, 23091222, 67004160, 85342752, 200422656, 289531200, 892477440
a(n) = phi(2^n+1)/(2*n).
[A067953] 0, 1, 1, 2, 2, 4, 7, 13, 23, 39, 69, 122, 211, 339, 564, 1001, 1764, 2630, 4565, 7192, 10151, 17202, 26152, 43543, 79126, 117496, 156229, 227302, 295011, 422040, 1004905, 1423445, 2210752, 2796140, 5225780, 6546101, 9921635, 14947534
a(n) = b(0, n), where b(m, n) satisfies b(m, n) = 1 + sum{b(i, j): m<i<j<n i+j=prime(n)}.
[A049868] 1, 2, 2, 4, 7, 14, 26, 49, 91, 170, 317, 592, 1105, 2063, 3851, 7189, 13420, 25052, 46766, 87301, 162970, 304226, 567917, 1060165, 1979074, 3694457, 6896666, 12874423, 24033463, 44864717, 83751677, 156344314, 291857374
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A032441] 1, 2, 2, 4, 7, 16, 37, 92, 232, 596, 1541, 4006, 10441, 27262, 71254, 186356, 487579, 1276004, 3339821, 8742472, 22885996, 59912932, 156848617, 410626154, 1075018897, 2814412826, 7368190922, 19290113572
a(0)=1, a(1)=2, a(2)=2, a(3)=4, a(4)=7, a(5)=16, a(n)=4*a(n-1)- 2*a(n-2)- 6*a(n-3)+4*a(n-4)+2*a(n-5)-a(n-6). - Harvey P. Dale, Feb 02 2015
[A238184] 1, 1, 1, 1, 2, 2, 4, 7, 16, 37, 107, 282, 1020, 2879, 12507, 39347, 179231, 687974, 3225246, 14955561, 75999551, 392585613, 2271201137, 12183159188, 81562521256, 446611878413, 3336304592155, 19202329389234, 152803821604669, 958953289839930, 7835058287650579
a(n) = Sum_{lambda : partitions(n)} ncc(lambda)^2, where ncc(k) is the number of nonconsecutive chess tableaux of shape k.
[A104221] 0, 0, 0, 2, 2, 4, 8, 12, 20, 34, 54, 88, 144, 232, 376, 610, 986, 1596, 2584, 4180, 6764, 10946, 17710, 28656, 46368, 75024, 121392, 196418, 317810, 514228, 832040, 1346268, 2178308, 3524578, 5702886, 9227464, 14930352, 24157816, 39088168
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-4) - a(n-5). - Eric W. Weisstein, Sep 03 2017
[A123024] 1, 1, 2, 2, 4, 8, 12, 28, 60, 112, 284, 652, 1404, 3776, 9228, 22028, 62092, 160448, 414540, 1216012, 3302604, 9092272, 27622844, 78446956, 227652828, 713772368, 2110379772, 6405093068, 20668461340, 63385346912, 200011067244
a(n) = (a(n-2)+a(n-3)/(n*(n - 1)) output= a(n)*n!
[A171648] 1, 2, 2, 4, 8, 16, 24, 48, 80, 160, 256, 512, 832, 1664, 2688, 5376, 8704, 17408, 28160, 56320, 91136, 182272, 294912, 589824, 954368, 1908736, 3088384, 6176768, 9994240, 19988480, 32342016, 64684032, 104660992, 209321984, 338690048, 677380096, 1096024064
a(n) = 2*a(n-2) + 4*a(n-4) for n>4.
[A090129] 1, 2, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456
a(n) = 2^(n-2) if n >= 3, 1 for n=1 and 2 for n=2 (see the order comment above).
[A108774] 1, 1, 2, 2, 4, 8, 16, 48, 160, 448, 2048, 6400, 31232, 125952, 604160, 3119104, 15638528, 93478912, 550141952, 3367698432, 24049516544, 146207539200, 1203934593024, 7615928598528, 67190404415488, 468355947429888, 4196459066949632, 33260378783744000
a(n) = Sum_{lambda : partitions(n)} chess(lambda)^2, where chess(k) is the number of standard Young tableaux (SYT) with cell(i,j)+i+j == 1 mod 2. - Alois P. Heinz, Jun 30 2012
[A007971] 0, 1, 2, 2, 4, 8, 18, 42, 102, 254, 646, 1670, 4376, 11596, 31022, 83670, 227268, 621144, 1706934, 4713558, 13072764, 36398568, 101704038, 285095118, 801526446, 2259520830, 6385455594, 18086805002, 51339636952, 146015545604
a(0)=0, a(1)=1, a(2)=2, then a(n)= (1/2) *(a(1)*a(n-1)+a(2)*a(n-2)+....+a(n-1)*a(1)). - Benoit Cloitre, Oct 24 2003
a(n) = 2^(1-n)*Sum_{k=1..n} (binomial(k,n-k)*a000108(k-1)*3^(n-k)), n>0. - Vladimir Kruchinin, Feb 05 2011
[A100048] 0, 1, 2, 2, 4, 9, 16, 29, 56, 106, 198, 373, 704, 1325, 2494, 4698, 8848, 16661, 31376, 59089, 111276, 209554, 394634, 743177, 1399552, 2635641, 4963450, 9347186, 17602652, 33149377, 62427024, 117562789, 221394656, 416931194, 785166286
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - a(n-4).
a(n) = |u(n)|^2, where {u(n)} is the Lucas-type sequence defined by the recurrence u(0) = 0, u(1) = 1 and u(n) = P*u(n-1) - u(n-2) for n >= 2, where P = 1/2*(sqrt(7) + i).
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), where alpha = (1 + sqrt(2))/2 and beta = (1 - sqrt(2))/2 and T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = bottom left entry of the 2 X 2 matrix T(n, M), where M is the 2 X 2 matrix [0, 1/4; 1, 1].
[A152732] 0, 0, 2, 2, 4, 10, 18, 36, 74, 146, 292, 586, 1170, 2340, 4682, 9362, 18724, 37450, 74898, 149796, 299594, 599186, 1198372, 2396746, 4793490, 9586980, 19173962, 38347922, 76695844, 153391690, 306783378, 613566756, 1227133514, 2454267026, 4908534052
a(n) = (1/21)*(3*2^n + 18*Cos[(2*n*Pi)/3] + 2*Sqrt[3]*Sin[(2*n*Pi)/3]). - Zak Seidov, Dec 12 2008
[A100088] 1, 2, 2, 4, 10, 20, 38, 76, 154, 308, 614, 1228, 2458, 4916, 9830, 19660, 39322, 78644, 157286, 314572, 629146, 1258292, 2516582, 5033164, 10066330, 20132660, 40265318, 80530636, 161061274, 322122548, 644245094, 1288490188, 2576980378
a(0)=1; a(n)=2*a(n-1)+period 4:repeat 0,-2,0,2.
a(n) = 2a(n-1) - a(n-2) + 2a(n-3).
[A132824] 1, 2, 2, 4, 10, 24, 54, 116, 242, 496, 1006, 2028, 4074, 8168, 16358, 32740, 65506, 131040, 262110, 524252, 1048538, 2097112, 4194262, 8388564, 16777170, 33554384, 67108814, 134217676, 268435402, 536870856, 1073741766, 2147483588, 4294967234, 8589934528
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3) for n>3. - Colin Barker, Jun 06 2014
[A284016] 1, 2, 2, 4, 10, 28, 84, 264, 858, 2860, 9724, 33592, 117572, 416024, 1485800, 5348880, 19389690, 70715340, 259289580, 955277400, 3534526380, 13128240840, 48932534040, 182965127280, 686119227300, 2579808294648, 9723892802904, 36734706144304, 139067101832008, 527495903500720, 2004484433302736
a(n) = (2*4^n*Gamma(n+1/2))/(sqrt(Pi)*Gamma(n+2)) for n>= -1. - Ralf Steiner, Apr 02 2017
[A260878] 2, 2, 4, 11, 36, 127, 463, 1717, 6436, 24311, 92379, 352717, 1352079, 5200301, 20058301, 77558761, 300540196, 1166803111, 4537567651, 17672631901, 68923264411, 269128937221, 1052049481861, 4116715363801, 16123801841551, 63205303218877, 247959266474053
a(n) = C(2*n-1,n)+1. - Vladimir Kruchinin, Feb 26 2017
[A213032] 0, 0, 0, 1, 2, 2, 5, 5, 7, 11, 14, 14, 20, 20, 24, 31, 36, 36, 45, 45, 51, 61, 68, 68, 80, 80, 88, 101, 110, 110, 125, 125, 135, 151, 162, 162, 180, 180, 192, 211, 224, 224, 245, 245, 259, 281, 296, 296, 320, 320, 336, 361, 378, 378, 405, 405, 423, 451
a(n) = a(n-1)+2*a(n-6)-2*a(n-7)-a(n-12)+a(n-13).
[A097896] 1, 2, 2, 5, 5, 12, 13, 29, 34, 71, 89, 176, 233, 441, 610, 1115, 1597, 2840, 4181, 7277, 10946, 18735, 28657, 48416, 75025, 125489, 196418, 326003, 514229, 848424, 1346269, 2211077, 3524578, 5768423, 9227465, 15061424, 24157817, 39350313
a(2*n-1) = Fibonacci(2*n-1), a(2*n) = 2^(n-1)+Fibonacci(2*n). - Vladeta Jovovic, Sep 05 2004
a(n)= +a(n-1) +3*a(n-2) -2*a(n-3) -2*a(n-4). G.f.: -x*(-1-x+x^3+3*x^2)/ ((2*x^2-1) * (x^2+x-1)). - R. J. Mathar, Feb 06 2010
[A122205] 1, 1, 1, 2, 2, 5, 5, 12, 17, 31, 31, 96, 96, 197, 324, 629, 629, 1695, 1695, 4374, 6266, 10671, 10671, 34402, 38776, 73274, 109371, 223510, 223510, 634267, 634267, 1527075, 2172013, 3699717, 4557494, 12736034, 12736034, 25473763, 38283071
a(1) = 1, for n>1, a(n) = sum_{d|n, d<n} a(n-d).
[A007988] 2, 2, 5, 6, 11, 12, 20, 22, 32, 36, 49, 54, 71, 78, 98, 108, 132, 144, 173, 188, 221, 240, 278, 300, 344, 370, 419, 450, 505, 540, 602, 642, 710, 756, 831, 882, 965, 1022, 1112, 1176, 1274, 1344, 1451, 1528, 1643, 1728, 1852, 1944, 2078, 2178

a(2)=2, a(3)=2, a(4)=5, a(5)=6, a(6)=11, a(7)=12, a(8)=20, a(9)=22; for n>9, a(n) = a(n-1)+ 2*a(n-2)-a(n-3)-2*a(n-4)-a(n-5)+2*a(n-6)+a(n-7)-a(n-8). - Harvey P. Dale, Apr 04 2013
a(n) = floor((n+1)*(27*(-1)^n+41+16*n+2*n^2)/144). - Tani Akinari, Jun 26 2013
[A181716] 0, 1, 2, 2, 5, 6, 12, 17, 30, 46, 77, 122, 200, 321, 522, 842, 1365, 2206, 3572, 5777, 9350, 15126, 24477, 39602, 64080, 103681, 167762, 271442, 439205, 710646, 1149852, 1860497, 3010350, 4870846, 7881197, 12752042, 20633240, 33385281
a(n) = a(n-1) + a(n-2) + (-1)^n = 2a(n-2) + a(n-3).
[A098600] 1, 2, 2, 5, 6, 12, 17, 30, 46, 77, 122, 200, 321, 522, 842, 1365, 2206, 3572, 5777, 9350, 15126, 24477, 39602, 64080, 103681, 167762, 271442, 439205, 710646, 1149852, 1860497, 3010350, 4870846, 7881197, 12752042, 20633240, 33385281, 54018522
a(n) = sum{k = 0..n, binomial(k, n-k) + binomial(k-1, n-k-1)}.
a(n) = Lucas(n) - (-1)^n. - Paul Barry, Dec 01 2004
a(n) = (-(-1)^n+(1/2*(1-sqrt(5)))^n+(1/2*(1+sqrt(5)))^n).
a(n) = 2*a(n-2)+a(n-3) for n>2.
[A080880] 1, 2, 2, 5, 6, 17, 22, 65, 86, 257, 342, 1025, 1366, 4097, 5462, 16385, 21846, 65537, 87382, 262145, 349526, 1048577, 1398102, 4194305, 5592406, 16777217, 22369622, 67108865, 89478486, 268435457, 357913942, 1073741825, 1431655766, 4294967297
a(2n)=(4^n+2)/3, a(2n+1)=4^n+1.
a(n) = 5/6 + 5/12*2^n - 1/6*(- 1)^n - 1/12*(- 2)^n [From Richard Choulet, Dec 07 2008]
a(n + 4) = 5*a(n + 2) - 4*a(n) [From Richard Choulet, Dec 06 2008]
[A188623] 1, 2, 2, 5, 7, 8, 12, 15, 17, 22, 26, 29, 35, 40, 44, 51, 57, 62, 70, 77, 83, 92, 100, 107, 117, 126, 134, 145, 155, 164, 176, 187, 197, 210, 222, 233, 247, 260, 272, 287, 301, 314, 330, 345, 359, 376, 392, 407, 425, 442, 458, 477, 495, 512, 532, 551, 569, 590, 610, 629, 651, 672, 692, 715, 737, 758, 782, 805, 827, 852, 876, 899, 925, 950, 974, 1001
a(3*k) = (3*k^2 + 3*k - 2)/2,
a(3*k+1) = (3*k^2 + 5*k + 2)/2,
a(3*k+2) = (3*k^2 + 7*k + 4)/2.
a(n) = (n*(n + 3) - 4*(-1)^floor(2*n/3 + 1/3) - 2)/6. [Bruno Berselli, Feb 03 2016]
[A036378] 1, 1, 2, 2, 5, 7, 13, 23, 43, 75, 137, 255, 464, 872, 1612, 3030, 5709, 10749, 20390, 38635, 73586, 140336, 268216, 513708, 985818, 1894120, 3645744, 7027290, 13561907, 26207278, 50697537, 98182656, 190335585, 369323305, 717267168, 1394192236
a(n) = primepi(2^(n+1))-primepi(2^n).
[A293674] 0, 2, 2, 5, 8, 13, 21, 35, 57, 92, 149, 241, 391, 633, 1024, 1658, 2682, 4341, 7024, 11365, 18389, 29754, 48143, 77897, 126041, 203939, 329980, 533919, 863899, 1397819, 2261719, 3659538, 5921257, 9580796, 15502054, 25082850, 40584904, 65667754, 106252659
a(n) = floor(e*F(n)).
[A052531] 2, 2, 5, 8, 17, 32, 65, 128, 257, 512, 1025, 2048, 4097, 8192, 16385, 32768, 65537, 131072, 262145, 524288, 1048577, 2097152, 4194305, 8388608, 16777217, 33554432, 67108865, 134217728, 268435457, 536870912, 1073741825, 2147483648
a(n) = 2^n + Sum(1/2*_alpha^(-n), _alpha = RootOf(-1+_Z^2)).
a(n+1) = 2*a(n) + periodic sequence of length 2: repeat[-2, 1]. - Paul Curtz, Jan 03 2017
[A060405] 2, 2, 5, 9, 19, 40, 88, 198, 455, 1061, 2501, 5940, 14182, 33982, 81625, 196389, 473039, 1140260, 2749988, 6634458, 16009555, 38638441, 93261961, 225122760, 543443402, 1311905882, 3167087405, 7645809249, 18458266699, 44561632000
a(n) = 3*a(n-1)-3*a(n-3)-a(n-4). G.f.: (2-4*x-x^2)/((1-x-x^2)*(1-2*x-x^2)). [Colin Barker, Jun 22 2012]
[A110182] 1, 1, 2, 2, 5, 9, 26, 66, 199, 575, 1790, 5542, 17945, 58733, 198880, 685296, 2429281, 8778321, 32491940, 122503412, 471379771, 1844669495, 7346727298, 29712688698, 122054603983, 508548201863, 2149211636944, 9204566602696, 39944636660655
a(n)=sum{k=0..floor(n/2), sum{j=0..floor((n-2k)/2), C(n-2k, j)C(n-2k-j, j)k^j}}
[A081374] 1, 2, 2, 5, 10, 22, 43, 86, 170, 341, 682, 1366, 2731, 5462, 10922, 21845, 43690, 87382, 174763, 349526, 699050, 1398101, 2796202, 5592406, 11184811, 22369622, 44739242, 89478485, 178956970, 357913942, 715827883, 1431655766, 2863311530, 5726623061
a(n)=2*a(n-1)-a(n-3)+2*a(n-4).
[A227999] 1, 1, 1, 1, 2, 2, 5, 11, 25, 97, 220, 1396, 6053, 30467, 249431, 1381913, 19850884, 160799404, 1942868797, 36133524445, 458473480079, 13521902050025, 220176552243482, 7006033824529130, 276364333237297549, 7470025110120086101, 460097285931623600317, 17010560092754291510533, 1372227474279446678113082
a(n) = a(3-n) for all n in Z. - Michael Somos, Apr 25 2017
[A049680] 2, 2, 5, 11, 27, 67, 170, 436, 1127, 2927, 7625, 19901, 52002, 135982, 355745, 930931, 2436527, 6377807, 16695530, 43706576, 114420627, 299549527, 784218605, 2053091161, 5375030402, 14071960442, 36840786845, 96450296411
a(n) = 4*a(n-1) - 3*a(n-2) - 2*a(n-3) + a(n-4) for n>3. (End)
[A033550] 2, 2, 2, 5, 15, 43, 118, 316, 836, 2199, 5769, 15117, 39592, 103670, 271430, 710633, 1860483, 4870831, 12752026, 33385264, 87403784, 228826107, 599074557, 1568397585, 4106118220, 10749957098, 28143753098, 73681302221, 192900153591
a(n) = 3a(n-1)-a(n-2)+n-1. G.f.: (2-8x+11x^2-4x^3)/((1-3x+x^2)(1-x)^2).
a(n) = [3/2+(1/2)*sqrt(5)]^n-n+[3/2-(1/2)*sqrt(5)]^n, with n>=0. - Paolo P. Lava, Jun 12 2008
[A010762] 0, 0, 1, 2, 2, 6, 6, 8, 12, 15, 15, 24, 24, 28, 35, 40, 40, 54, 54, 60, 70, 77, 77, 96, 96, 104, 117, 126, 126, 150, 150, 160, 176, 187, 187, 216, 216, 228, 247, 260, 260, 294, 294, 308, 330, 345, 345, 384, 384, 400, 425, 442, 442, 486, 486, 504, 532, 551
a(n) = a(n-2) +a(n-3) -a(n-5) +a(n-6) -a(n-8) -a(n-9) +a(n-11). - Clark Kimberling, May 18 2012
[A039722] 1, 2, 2, 6, 6, 10, 10, 22, 22, 34, 34, 54, 54, 74, 74, 118, 118, 162, 162, 230, 230, 298, 298, 406, 406, 514, 514, 662, 662, 810, 810, 1046, 1046, 1282, 1282, 1606, 1606, 1930, 1930, 2390, 2390, 2850, 2850, 3446, 3446, 4042, 4042, 4854, 4854, 5666, 5666, 6694
a(1)=1, a(2)=2, a(2m+1)=a(2m), a(2m+2)=a(2m+1)+2a(m+1) {m is a positive integer.}
[A082542] 2, 2, 6, 6, 10, 14, 18, 18, 22, 30, 30, 38, 42, 42, 46, 54, 58, 62, 66, 70, 74, 78, 82, 90, 98, 102, 102, 106, 110, 114, 126, 130, 138, 138, 150, 150, 158, 162, 166, 174, 178, 182, 190, 194, 198, 198, 210, 222, 226, 230, 234, 238, 242, 250, 258, 262, 270, 270, 278
a(n+1) = p + (-1/p) = p + (-1)^{(p-1)/2)}, where p is the n-th odd prime and (a/b) denotes the value of Legendre symbol. - Lekraj Beedassy, Mar 17 2005
[A032302] 1, 2, 2, 6, 6, 10, 18, 22, 30, 42, 66, 78, 110, 138, 186, 254, 318, 402, 522, 654, 822, 1074, 1306, 1638, 2022, 2514, 3058, 3798, 4662, 5658, 6882, 8358, 10062, 12186, 14610, 17534, 21150, 25146, 29994, 35694, 42446, 50178, 59514, 70110, 82758, 97602, 114570, 134262
a(n) = (1/3) [x^n] QPochhammer(-2,x). - Vladimir Reshetnikov, Nov 20 2015
[A007040] 2, 2, 6, 6, 10, 20, 28, 46, 78, 122, 198, 324, 520, 842, 1366, 2206, 3570, 5780, 9348, 15126, 24478, 39602, 64078, 103684, 167760, 271442, 439206, 710646, 1149850, 1860500, 3010348, 4870846, 7881198, 12752042, 20633238, 33385284, 54018520
a(n) = a(n-2) + 2*a(n-3) + a(n-4), n >= 7. - David W. Wilson
a(n) = n*Sum_{k=1..n} binomial(2*k, n-2*k)/k, n > 1, a(0)=0, a(1)=2. - Vladimir Kruchinin, Oct 12 2011
[A060549] 0, 1, 2, 2, 6, 6, 12, 14, 28, 28, 60, 60, 120, 124, 248, 248, 504, 504, 1008, 1016, 2032, 2032, 4080, 4080, 8160, 8176, 16352, 16352, 32736, 32736, 65472, 65504, 131008, 131008, 262080, 262080, 524160, 524224, 1048448, 1048448, 2097024, 2097024
a(n) = 2^ceiling(n/2) - 2^(floor((n+3)/6) + d(n)), with d(n)=1 if n mod 6=1 else d(n)=0.
[A099577] 1, 1, 2, 2, 6, 7, 13, 15, 38, 47, 85, 104, 245, 313, 558, 706, 1594, 2080, 3674, 4753, 10429, 13817, 24246, 31875, 68497, 91804, 160301, 213345, 451166, 610247, 1061413, 1426503, 2978230, 4058629, 7036859, 9533213, 19694622, 27007760
a(n)=sum{k=0..floor(n/2), sum{j=0..floor(k/2), binomial(n-k+j, j)}
[A136513] 0, 0, 2, 2, 6, 8, 12, 16, 26, 30, 38, 44, 56, 60, 74, 82, 96, 108, 128, 138, 154, 166, 188, 196, 220, 238, 262, 278, 304, 324, 344, 366, 398, 416, 452, 468, 506, 526, 562, 588, 616, 644, 686, 714, 754, 780, 824, 848, 894, 930, 976, 1008, 1056, 1090, 1134, 1170
a(n) = 2 * Sum(floor(sqrt((n/2)^2 - k^2))), k = 1 ... floor(n/2)
[A052957] 2, 2, 6, 8, 20, 32, 72, 128, 272, 512, 1056, 2048, 4160, 8192, 16512, 32768, 65792, 131072, 262656, 524288, 1049600, 2097152, 4196352, 8388608, 16781312, 33554432, 67117056, 134217728, 268451840, 536870912, 1073774592, 2147483648
a(1)=2, a(2)=6, a(0)=2, 4*a(n)-2*a(n+1)-2*a(n+2)+a(n+3) = 0.
a(n) = 2^n + Sum_{alpha} 1/2*alpha^(-n) where alpha ranges over the roots of -1+2*x^2.
a(n) = 2^(n/2)+2^n for n even.
a(n) = 2^n for n odd.

[A080460] 2, 2, 6, 10, 14, 14, 18, 22, 26, 26, 30, 34, 38, 38, 42, 46, 50, 50, 54, 58, 62, 62, 66, 70, 74, 74, 78, 82, 86, 86, 90, 94, 98, 98, 102, 106, 110, 110, 114, 118, 122, 122, 126, 130, 134, 134, 138, 142, 146, 146, 150, 154, 158, 158, 162, 166, 170, 170
a(n) = 2+4*(n-2-floor((n-2)/4)).
a(n) = a(n-1) + a(n-4) - a(n-5) for n > 5.
a(n) = (6*n - (-1)^n + 2*sqrt(2)*sin(Pi*n/2+Pi/4) - 5)/2. (End)
[A077017] 2, 2, 6, 10, 14, 22, 26, 34, 38, 46, 58, 62, 74, 82, 86, 94, 106, 118, 122, 134, 142, 146, 158, 166, 178, 194, 202, 206, 214, 218, 226, 254, 262, 274, 278, 298, 302, 314, 326, 334, 346, 358, 362, 382, 386, 394, 398, 422, 446, 454, 458, 466, 478, 482, 502, 514
a(n) = 2*prime(n) for n>2.
a(n)=2*prime(n-1) for n>2. - Farideh Firoozbakht, Apr 22 2006
[A248800] 2, 2, 6, 10, 18, 26, 38, 50, 66, 82, 102, 122, 146, 170, 198, 226, 258, 290, 326, 362, 402, 442, 486, 530, 578, 626, 678, 730, 786, 842, 902, 962, 1026, 1090, 1158, 1226, 1298, 1370, 1446, 1522, 1602, 1682, 1766, 1850, 1938, 2026, 2118
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Colin Barker, Oct 15 2014
[A019310] 0, 2, 2, 6, 10, 22, 38, 82, 154, 318, 614, 1250, 2462, 4962, 9842, 19766, 39378, 78910, 157502, 315322, 630030, 1260674, 2520098, 5041446, 10080430, 20163322, 40321682, 80648326, 161286810, 322583462, 645147158, 1290314082, 2580588786, 5161216950
a(n) = 2a(n-1) + (-1)^n a(ceiling(n/2)) for n >= 2.
a(n) = a(n-1) + 2*a(n-2) if n >=4 even. a(n) = a(n-1) + 2*a(n-2) + 2*a((n-1)/2) if n>=7 == 3 (mod 4). Michael Somos, Jan 23 2014
[A014113] 0, 2, 2, 6, 10, 22, 42, 86, 170, 342, 682, 1366, 2730, 5462, 10922, 21846, 43690, 87382, 174762, 349526, 699050, 1398102, 2796202, 5592406, 11184810, 22369622, 44739242, 89478486, 178956970, 357913942
a(0) = 0 and if n>=1, a(n) = 2^n - a(n-1).
a(n) = (2^(n+1) - 2*(-1)^n)/3. - Ralf Stephan, Jul 18 2013
[A208900] 2, 2, 6, 10, 26, 50, 114, 226, 482, 962, 1986, 3970, 8066, 16130, 32514, 65026, 130562, 261122, 523266, 1046530, 2095106, 4190210, 8384514, 16769026, 33546242, 67092482, 134201346, 268402690, 536838146, 1073676290, 2147418114, 4294836226, 8589803522
a(n) = 2^n + 2 - 2^(floor(n/2)+1).
a(n) = 3*a(n-1) - 6*a(n-3) + 4*a(n-4), a(0) = 2, a(1) = 2, a(2) = 6, a(3) = 10.
[A027375] 0, 2, 2, 6, 12, 30, 54, 126, 240, 504, 990, 2046, 4020, 8190, 16254, 32730, 65280, 131070, 261576, 524286, 1047540, 2097018, 4192254, 8388606, 16772880, 33554400, 67100670, 134217216, 268419060, 536870910, 1073708010, 2147483646, 4294901760
a(n) = sum(d|n, mu(d)*2^(n/d)).
a(p) = 2^p-2 for p prime. - R. J. Mathar, Aug 13 2006
a(n) = 2^n - O(2^(n/2)). - Charles R Greathouse IV, Apr 28 2016
[A059727] 0, 2, 2, 6, 12, 30, 72, 182, 462, 1190, 3080, 8010, 20880, 54522, 142506, 372710, 975156, 2552006, 6679640, 17484942, 45771990, 119825862, 313697232, 821252306, 2150037792, 5628825650, 14736381842, 38580227142, 101004149532, 264431978670
a(n) = Fibonacci(n) + (1/5)*(Lucas(2*n) - 2*(-1)^n).
[A051890] 2, 2, 6, 14, 26, 42, 62, 86, 114, 146, 182, 222, 266, 314, 366, 422, 482, 546, 614, 686, 762, 842, 926, 1014, 1106, 1202, 1302, 1406, 1514, 1626, 1742, 1862, 1986, 2114, 2246, 2382, 2522, 2666, 2814, 2966, 3122, 3282, 3446, 3614, 3786, 3962
a(n) = 4*binomial(n, 2) + 2. - Francois Jooste (phukraut(AT)hotmail.com), Mar 05 2003
a(n) = 4*n + a(n-1) - 4 for n > 0, a(0)=2. - Vincenzo Librandi, Aug 06 2010
a(n) = 2*(n^2 - n +1) = 2*(n-1)^2 + 2(n-1) + 2 = 222 read in base n-1 (for n > 3). - Jason Kimberley, Oct 20 2011
[A002203] 2, 2, 6, 14, 34, 82, 198, 478, 1154, 2786, 6726, 16238, 39202, 94642, 228486, 551614, 1331714, 3215042, 7761798, 18738638, 45239074, 109216786, 263672646, 636562078, 1536796802, 3710155682, 8957108166, 21624372014, 52205852194, 126036076402, 304278004998
a(n) = (1+sqrt(2))^n+(1-sqrt(2))^n. - Mario Catalani (mario.catalani(AT)unito.it), Mar 17 2003
a(n) = [x^n] ((1 + 2*x + sqrt(1 + 4*x + 8*x^2))/2)^n for n >= 1. - Peter Bala, Jun 23 2015
[A142710] 2, 2, 6, 14, 38, 112, 276, 814, 1998, 5702, 14226, 39404, 99908, 270922, 695106, 1859134, 4807518, 12748472, 33128916, 87394454, 227792678, 599050102, 1564242906, 4106054164, 10733283588, 28143585362, 73614464826, 192899714414, 504751433798, 1322156172352
a(n) = +2*a(n-1) +7*a(n-2) -12*a(n-3) -11*a(n-4) +16*a(n-5) -4*a(n-6), n>6. [R. J. Mathar, Jun 14 2010]
[A244049] 0, 0, 0, 2, 2, 7, 7, 13, 16, 23, 23, 38, 38, 47, 55, 69, 69, 89, 89, 110, 120, 133, 133, 168, 173, 188, 200, 227, 227, 268, 268, 298, 312, 331, 343, 397, 397, 418, 434, 483, 483, 536, 536, 575, 607, 632, 632, 707, 714, 756, 776, 821, 821, 886, 902
a(n) = a(n - 1) if and only if n is prime.
[A267214] 0, 2, 2, 7, 9, 13, 16, 26, 30, 37, 45, 57, 64, 76, 86, 101, 113, 127, 140, 160, 174, 191, 209, 231, 248, 270, 290, 315, 337, 361, 384, 414, 438, 465, 493, 525, 552, 584, 614, 649, 681, 715, 748, 788, 822, 859, 897, 939, 976, 1018, 1058, 1103, 1145, 1189
a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8) for n>7.
[A107386] 0, 1, 1, 2, 2, 7, 9, 16, 20, 29, 35, 46, 54, 67, 77, 92, 104, 121, 135, 154, 170, 191, 209, 232, 252, 277, 299, 326, 350, 379, 405, 436, 464, 497, 527, 562, 594, 631, 665, 704, 740, 781, 819, 862, 902, 947, 989, 1036, 1080, 1129
a(n)= n^2/2-3*n/2+1-(-1)^n, n>2. - N. J. A. Sloane, Sep 28 2009
[A094116] 0, 1, 1, 2, 2, 7, 11, 16, 20, 25, 25, 26, 26, 27, 27, 32, 36, 41, 45, 50, 50, 51, 51, 52, 52, 77, 101, 126, 150, 175, 195, 216, 236, 257, 277, 302, 326, 351, 375, 400, 420, 441, 461, 482, 502, 527, 551, 576, 600, 625, 625, 626, 626, 627, 627, 632, 636, 641, 645, 650
a(5^k)=(25^k-1)/12
[A192921] 1, 2, 2, 7, 16, 44, 113, 298, 778, 2039, 5336, 13972, 36577, 95762, 250706, 656359, 1718368, 4498748, 11777873, 30834874, 80726746, 211345367, 553309352, 1448582692, 3792438721, 9928733474, 25993761698, 68052551623, 178163893168, 466439127884, 1221153490481
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3).
a(n) = F(n-4)*F(n) + F(n-1)*F(n+2), where F(-4)=-3, F(-3)=2, F(-2)=-1, F(-1)=1. - Bruno Berselli, Nov 03 2015
a(n) = (2^(-n)*(-3*(-2)^n-(-4+sqrt(5))*(3+sqrt(5))^n+(3-sqrt(5))^n*(4+sqrt(5))))/5. - Colin Barker, Oct 01 2016
[A203579] 2, 2, 7, 17, 57, 177, 577, 1857, 6017, 19457, 62977, 203777, 659457, 2134017, 6905857, 22347777, 72318977, 234029057, 757334017, 2450784257, 7930904577, 25664946177, 83053510657, 268766806017, 869747654657, 2814562533377, 9108115685377, 29474481504257
a(n) = 2^(n-1)*L(n) + 1.
[A243022] 1, 1, 2, 2, 7, 18, 61, 198, 694, 2446, 8873, 32556, 121243, 455986, 1731459, 6625258, 25527571, 98947914, 385587017, 1509702496, 5936181673, 23430706276, 92805006308, 368747893980, 1469408091637, 5870927247410
a(n) = sum(i=0..n/2, binomial(n-1,i)*binomial(2*n-4*i-2,n-2*i))/(n-1), n>1, a(0)=-1, a(1)=1.
[A202736] 2, 2, 8, 10, 32, 44, 128, 186, 512, 772, 2048, 3172, 8192, 12952, 32768, 52666, 131072, 213524, 524288, 863820, 2097152, 3488872, 8388608, 14073060, 33554432, 56708264, 134217728, 228318856, 536870912, 918624304, 2147483648, 3693886906
a(n) = 2^n*(1-(((-1)^n+1)*Gamma((n+1)/2))/(2*sqrt(Pi)*Gamma((n+2)/2))). - Peter Luschny, Sep 10 2014
a(n) = ((-8*n+16)*a(n-3)+(4*n-4)*a(n-2)+(2*n-2)*a(n-1))/n. (End)
[A087955] 1, 2, 2, 8, 12, 34, 62, 152, 304, 698, 1458, 3248, 6924, 15210, 32734, 71440, 154432, 336018, 727874, 1581496, 3429100, 7445714, 16151518, 35059560, 76068400, 165095562, 358241202, 777459488, 1687087532, 3661224794, 7945027902
a(n) = a(n-1) + 3a(n-2) - a(n-3) for n>3; G.f.: (1+x-3x^2+x^3)/(1-x-3x^2+x^3).
[A228661] 2, 2, 8, 14, 38, 80, 194, 434, 1016, 2318, 5366, 12320, 28418, 65378, 150632, 346766, 798662, 1838960, 4234946, 9751826, 22456664, 51712142, 119082134, 274218560, 631464962, 1454120642, 3348515528, 7710877454, 17756424038, 40889056400
a(n) = a(n-1) +3*a(n-2).
a(n)=-2/13*sqrt(13)*(-1/2*sqrt(13)+1/2)^n + 2/13*sqrt(13)*(1/2*sqrt(13)+1/2)^n. - Tom Edgar, Aug 31 2013
[A175395] 0, 2, 2, 8, 18, 50, 128, 338, 882, 2312, 6050, 15842, 41472, 108578, 284258, 744200, 1948338, 5100818, 13354112, 34961522, 91530450, 239629832, 627359042, 1642447298, 4299982848, 11257501250, 29472520898, 77160061448, 202007663442, 528862928882, 1384581123200, 3624880440722, 9490060198962, 24845300156168, 65045840269538, 170292220652450, 445830821687808, 1167200244410978, 3055769911545122, 8000109490224392, 20944558559128050
a(n) = 2*(-2*(-1)^n+(1/2*(3-sqrt(5)))^n+(1/2*(3+sqrt(5)))^n)/5. - Colin Barker, Sep 28 2016
[A242658] 2, 2, 8, 20, 38, 62, 92, 128, 170, 218, 272, 332, 398, 470, 548, 632, 722, 818, 920, 1028, 1142, 1262, 1388, 1520, 1658, 1802, 1952, 2108, 2270, 2438, 2612, 2792, 2978, 3170, 3368, 3572, 3782, 3998, 4220, 4448, 4682, 4922, 5168, 5420, 5678, 5942, 6212, 6488, 6770, 7058, 7352

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A080040] 2, 2, 8, 20, 56, 152, 416, 1136, 3104, 8480, 23168, 63296, 172928, 472448, 1290752, 3526400, 9634304, 26321408, 71911424, 196465664, 536754176, 1466439680, 4006387712, 10945654784, 29904084992, 81699479552, 223207129088
a(n) = (1+sqrt(3))^n+(1-sqrt(3))^n.
a(n) = [x^n] (1 + x + sqrt(1 + 2*x + 3*x^2))^n for n >= 1. - Peter Bala, Jun 29 2015
[A060823] 2, 2, 8, 20, 60, 170, 492, 1414, 4074, 11728, 33772, 97240, 279994, 806208, 2321386, 6684162, 19246280, 55417452, 159568196, 459458306, 1322957468, 3809304206, 10968454314, 31582405472, 90937912212, 261845282320, 753953441490
a(n)=2*a(n-1)+3*a(n-2)-a(n-3)-a(n-4) - Antonio G. Astudillo (afg_astudillo(AT)lycos.com), Mar 22 2003
[A290604] 2, 2, 9, 16, 37, 72, 149, 296, 597, 1192, 2389, 4776, 9557, 19112, 38229, 76456, 152917, 305832, 611669, 1223336, 2446677, 4893352, 9786709, 19573416, 39146837, 78293672, 156587349, 313174696, 626349397, 1252698792, 2505397589, 5010795176, 10021590357
a(n) = (2^(n+2) + 2*(-1)^n)/3 + 2^n - (3-(-1)^n)/2.
[A066966] 0, 2, 2, 10, 12, 30, 40, 82, 110, 190, 260, 422, 570, 860, 1160, 1690, 2252, 3170, 4190, 5760, 7540, 10142, 13164, 17450, 22442, 29300, 37410, 48282, 61170, 78132, 98310, 124444, 155582, 195310, 242722, 302570, 373882, 462954, 569130, 700570, 856970
a(n) = 2*Sum_{k=1..floor{n/2}} sigma(k)*numbpart(n-2*k).
[A102446] 2, 2, 10, 18, 58, 130, 362, 882, 2330, 5858, 15178, 38610, 99322, 253762, 651050, 1666098, 4270298, 10934690, 28015882, 71754642, 183818170, 470836738, 1206109418, 3089456370, 7913894042, 20271719522, 51927295690, 133014173778, 340723356538, 872780051650
a(n) = (2^(-n)*(-(1-sqrt(17))^(1+n) + (1+sqrt(17))^(1+n)))/sqrt(17). - Colin Barker, Dec 22 2016
[A102345] 2, 2, 10, 26, 82, 242, 730, 2186, 6562, 19682, 59050, 177146, 531442, 1594322, 4782970, 14348906, 43046722, 129140162, 387420490, 1162261466, 3486784402, 10460353202, 31381059610, 94143178826, 282429536482, 847288609442
a(n) = 3a(n-2) + 2a(n-1).
[A140431] 0, 2, 2, 12, 22, 92, 222, 772, 2102, 6732, 19342, 59732, 175782, 534172, 1588862, 4793892, 14327062, 43090412, 129052782, 387595252, 1161911942, 3487483452, 10458955102, 31383855812, 94137586422, 282440721292, 847266239822
a(n) = (1-(-2)^n+3^n)/3 for n>0. a(n) = 2*a(n-1)+5*a(n-2)-6*a(n-3) for n>3. G.f.: 2*x*(1-x-x^2)/((1-x)*(1+2*x)*(1-3*x)). [Colin Barker, Sep 21 2012]
[A122007] 0, 2, 2, 12, 24, 90, 234, 756, 2160, 6642, 19602, 59292, 176904, 532170, 1593594, 4785156, 14346720, 43053282, 129133602, 387440172, 1162241784, 3486843450, 10460294154, 31381236756, 94143001680, 282430067922, 847288078002, 2541867422652, 7625595890664
a(n) = 3^(n/2-1)+3^(n-2) for n>1 and even.
a(n) = 3^(n-2)-3^((n-3)/2) for n>1 and odd.
[A173785] 2, 2, 18, 98, 338, 882, 1922, 3698, 6498, 10658, 16562, 24642, 35378, 49298, 66978, 89042, 116162, 149058, 188498, 235298, 290322, 354482, 428738, 514098, 611618, 722402, 847602, 988418, 1146098, 1321938, 1517282, 1733522, 1972098, 2234498
a(n) = 2*(n^2-n+1)^2.
[A038623] 2, 2, 37, 127, 347, 1087, 3109, 8419, 24317, 64553, 175211, 480881, 1304707, 3523901, 9558533, 25874843, 70115473, 189961529, 514272533, 1394193607, 3779851091, 10246935679, 27788566133, 75370121191, 204475052401, 554805820711, 1505578023841, 4086199302113
a(n) = exp(n + 1 + o(1)). - Charles R Greathouse IV, Oct 15 2016
[A025784] 1, 1, 1, 1, 1, 1, 1, 2, 3, 3, 3, 3, 3, 3, 4, 5, 6, 6, 6, 6, 6, 7, 8, 9, 10, 10, 10, 10, 11, 12, 13, 14, 15, 15, 15, 16, 17, 18, 19, 20, 21, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=2, a(8)=3, a(9)=3, a(10)=3, a(11)=3, a(12)=3, a(13)=3, a(14)=4, a(15)=5, a(n)= a(n-1)+ a(n-7)- a(n-9)-a(n-15)+a(n-16). - Harvey P. Dale, Jul 14 2015
[A029110] 1, 1, 1, 1, 1, 1, 2, 3, 3, 3, 3, 3, 5, 6, 7, 7, 7, 7, 9, 11, 12, 13, 13, 13, 16, 18, 20, 21, 22, 22, 25, 28, 30, 32, 33, 34, 38, 41, 44, 46, 48, 49, 54, 58, 61, 64, 66, 68, 74, 79, 83, 86, 89, 91, 98, 104, 109, 113, 116, 119
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=2, a(7)=3, a(8)=3, a(9)=3, a(10)=3, a(11)=3, a(12)=5, a(13)=6, a(14)=7, a(15)=7, a(16)=7, a(17)=7, a(18)=9, a(19)=11, a(20)=12, a(21)=13, a(22)=13, a(23)=13, a(24)=16, a(25)=18, a(n)=a(n-1)+a(n-6)-a(n-8)+a(n-12)-2*a(n-13)+ a(n-14)- a(n-18)+a(n-20)+a(n-25)-a(n-26). - Harvey P. Dale, May 25 2013
[A029120] 1, 1, 1, 1, 1, 1, 1, 2, 3, 3, 3, 3, 4, 4, 5, 6, 7, 7, 7, 8, 9, 10, 11, 12, 14, 14, 15, 16, 18, 19, 20, 22, 24, 25, 26, 28, 31, 32, 34, 36, 39, 40, 42, 45, 48, 50, 52, 55, 59, 61, 64, 67, 71, 73, 76, 80, 85, 88, 91, 95, 100
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=2, a(8)=3, a(9)=3, a(10)=3, a(11)=3, a(12)=4, a(13)=4, a(14)=5, a(15)=6, a(16)=7, a(17)=7, a(18)=7, a(19)=8, a(20)=9, a(21)=10, a(22)=11, a(23)=12, a(24)=14, a(25)=14, a(26)=15, a(27)=16; for n>27, a(n) = a(n-1) +a(n-7) -a(n-9) +a(n-12) -a(n-13) -a(n-15) +a(n-16) -a(n-19) +a(n-21) +a(n-27) -a(n-28). - Harvey P. Dale, Aug 13 2013
[A025776] 1, 1, 1, 1, 1, 2, 3, 3, 3, 3, 4, 5, 6, 6, 6, 7, 8, 9, 10, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 28, 30, 31, 32, 33, 35, 37, 39, 40, 41, 43, 45, 47, 49, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70
a(n)= +a(n-1) +a(n-5) -a(n-7) -a(n-11) +a(n-12). - R. J. Mathar, Aug 21 2014
[A211535] 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 2, 3, 3, 3, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 21, 23, 24, 25, 27, 29, 31, 32, 34, 36, 38, 40, 42, 44, 46, 48, 51, 53, 55, 57, 60, 63, 65, 67, 70, 73, 76, 78, 81, 84, 87, 90, 93, 96, 99, 102, 106, 109
a(n) = a(n-1) + a(n-4) - a(n-6) - a(n-9) + a(n-10).
[A279521] 0, 1, 1, 2, 3, 3, 3, 4, 5, 6, 7, 7, 7, 7, 7, 8, 9, 10, 11, 12, 13, 14, 15, 15, 15, 15, 15, 15, 15, 15, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 31, 32, 33, 34, 35, 36, 37, 38
a(n) = (n + 2^(h-1) - 1)*He + (-1)^He * (2^h - 1), where h = log2(n)/ and is the height of the binary tree, He = H(-n + 3*2^(h-1) - 1) and H is the Heaviside step function (i.e., H(x) = 1 if x>=0 and H(x) = 0 if x<0).
[A076896] 1, 1, 2, 3, 3, 3, 4, 5, 6, 7, 7, 7, 8, 8, 8, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 16, 16, 17, 17, 18, 19, 19, 19, 20, 20, 21, 22, 22, 23, 24, 25, 25, 26, 27, 27, 28, 28, 29, 30, 31, 31, 32, 33, 33, 34, 34, 35, 36, 36, 36, 37, 37, 38, 39, 39, 39, 40, 41, 41, 42, 43, 43, 44, 44
a(n) is asymptotic to 6/10 *n
[A029133] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 3, 4, 4, 4, 4, 4, 4, 5, 6, 7, 8, 9, 9, 10, 10, 10, 11, 12, 13, 15, 16, 17, 18, 19, 19, 21, 22, 23, 25, 27, 28, 30, 31, 32, 34, 36, 37, 40, 42, 44, 46, 48, 49, 52, 54, 56, 59, 62, 64, 68, 70
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=1, a(8)=1, a(9)=2, a(10)=3, a(11)=3, a(12)=4, a(13)=4, a(14)=4, a(15)=4, a(16)=4, a(17)=4, a(18)=5, a(19)=6, a(20)=7, a(21)=8, a(22)=9, a(23)=9, a(24)=10, a(25)=10, a(26)=10, a(27)=11, a(28)=12, a(29)=13, a(30)=15, a(31)=16, a(n)=a(n-1)+a(n-9)-a(n-11)+a(n-12)-a(n-13)- a(n-19)+ a(n-20)- a(n-21)+ a(n-23)+ a(n-31)-a(n-32). - Harvey P. Dale, Mar 08 2014
[A266977] 1, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 18, 18, 19, 19, 20, 20, 21, 21, 22, 22, 23, 23, 24, 24, 25, 25, 26, 26, 27, 27, 28, 28, 29, 29, 30, 30, 31, 31, 32, 32, 33, 33, 34, 34, 35, 35, 36
a(n) = (2*n+(-1)^n+7)/4 for n>0.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A214672] 0, 0, 1, 1, 2, 3, 3, 4, 4, 5, 5, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 17, 17, 18, 18, 19, 19, 20, 21, 21, 22, 22, 23, 23, 24, 24, 25, 26, 26, 27, 27, 28, 28, 29, 29, 30, 31, 31, 32, 32, 33, 33, 34, 35, 35, 36
a(n) = floor((2*n+1)*a/2), n>=0, with a/2 = -y_0(0) = 2*Pi*log(phi)/(Pi^2 + (2*log(phi))^2), with phi:=(1+sqrt(5))/2. a/2 is approximately 0.2800649542.
[A057355] 0, 0, 1, 1, 2, 3, 3, 4, 4, 5, 6, 6, 7, 7, 8, 9, 9, 10, 10, 11, 12, 12, 13, 13, 14, 15, 15, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 28, 29, 30, 30, 31, 31, 32, 33, 33, 34, 34, 35, 36, 36, 37, 37, 38, 39, 39, 40, 40, 41, 42, 42, 43, 43
a(n) = -1 + Sum_{k=0..n} (1/50)*(3*(k mod 5) - 7*((k+1) mod 5) + 13*((k+2) mod 5) - 7*((k+3) mod 5) + 13*((k+4) mod 5)) - Paolo P. Lava, Nov 17 2008
[A171975] 0, 1, 1, 2, 3, 3, 4, 4, 5, 6, 6, 7, 7, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 15, 16, 17, 17, 18, 18, 19, 20, 20, 21, 22, 22, 23, 23, 24, 25, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 31, 32, 33, 33, 34, 34, 35, 36, 36, 37, 37, 38, 39, 39, 40, 41, 41, 42, 42, 43, 44, 44, 45, 45
a(n) = floor(n*sqrt(6)/4).
[A057363] 0, 0, 1, 1, 2, 3, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 17, 18, 19, 19, 20, 20, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 28, 29, 30, 30, 31, 32, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 40, 40, 41, 41, 42, 43, 43, 44, 44
a(n) = a(n-1) + a(n-13) - a(n-14).
[A060143] 0, 0, 1, 1, 2, 3, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 30, 31, 32, 32, 33, 33, 34, 35, 35, 36, 37, 37, 38, 38, 39, 40, 40, 41, 42, 42, 43, 43, 44, 45, 45
a(n) = floor(phi(n)), where phi=(sqrt(5)-1)/2. [Corrected by Casey Mongoven, Jul 18 2008]

a(F_n) = F_{n-1} if F_n is the n-th Fibonacci number.
a(n) = floor(n*phi) - n, where phi = (1+sqrt(5))/2. - William A. Tedeschi, Mar 06 2008
[A005206] 0, 1, 1, 2, 3, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 9, 10, 11, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 30, 31, 32, 32, 33, 33, 34, 35, 35, 36, 37, 37, 38, 38, 39, 40, 40, 41, 42, 42, 43, 43, 44, 45, 45, 46, 46, 47
a(n) = floor((n+1)*tau) - n - 1 where tau = (1+sqrt(5))/2; or a(n) = floor(sigma*(n+1)) where sigma = (sqrt(5)-1)/2.
a(0)=0, a(1)=1, a(n) = n - a(floor(n/tau)). - Benoit Cloitre, Nov 27 2002
a(n + a(n)) = n. - Pierre Letouzey, Sep 09 2015
a(n) + a(a(n+1) - 1) = n. - Pierre Letouzey, Sep 09 2015
a(0) = 0, a(n+1) = a(n) + d(n) and d(0) = 1, d(n+1)=1-d(n)*d(a(n)). - Pierre Letouzey, Sep 09 2015
[A057365] 0, 0, 1, 1, 2, 3, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 9, 10, 11, 11, 12, 13, 13, 14, 14, 15, 16, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 22, 23, 24, 24, 25, 26, 26, 27, 27, 28, 29, 29, 30, 30, 31, 32, 32, 33, 34, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 40, 41, 42, 42, 43, 43, 44, 45
a(n) = a(n-1) + a(n-21) - a(n-22).
[A096386] 0, 0, 1, 2, 3, 3, 4, 4, 5, 6, 7, 7, 8, 8, 9, 10, 11, 11, 12, 12, 13, 14, 15, 15, 16, 16, 17, 18, 19, 19, 20, 20, 21, 22, 23, 23, 24, 24, 25, 26, 27, 27, 28, 28, 29, 30, 31, 31, 32, 32, 33, 34, 35, 35, 36, 36, 37, 38, 39, 39, 40, 40, 41, 42, 43, 43, 44, 44, 45, 46, 47, 47, 48, 48
a(n) = [n/2] + [(n+3)/6] = [n/3] + [(n+2)/6] + [(n+4)/6].
a(-n) = -a(n-1)-1.
a(n) = 4 + a(n-6).
a(n) = Sum_{k=0..n} (1/90)*(-11*(k mod 6)+19*((k+1) mod 6)+4*((k+2) mod 6)+4*((k+3) mod 6)-11*((k+4) mod 6)+19*((k+5) mod 6)))-1. - Paolo P. Lava, Jun 25 2007
[A076895] 1, 1, 2, 3, 3, 4, 4, 5, 6, 7, 7, 8, 9, 10, 10, 11, 11, 12, 12, 13, 14, 15, 15, 16, 16, 17, 17, 18, 19, 20, 20, 21, 22, 23, 23, 24, 25, 26, 26, 27, 27, 28, 28, 29, 30, 31, 31, 32, 33, 34, 34, 35, 36, 37, 37, 38, 38, 39, 39, 40, 41, 42, 42, 43, 43, 44, 44, 45, 46, 47, 47, 48, 48
a(n) is asymptotic to (2/3)*n.
[A274017] 1, 2, 3, 3, 4, 4, 6, 6, 9, 11, 16, 20, 32, 42, 65, 95, 144, 212, 330, 494, 767, 1171, 1812, 2788, 4342, 6714, 10463, 16275, 25416, 39652, 62076, 97110, 152289, 238839, 375168, 589528, 927556, 1459962, 2300349, 3626243, 5721046, 9030452, 14264310, 22542398, 35646313, 56393863, 89264836, 141358276, 223959712
a(n) = 1 + (1/n) * Sum_{d|n} totient(n/d)*(Fibonacci(d-1)+Fibonacci(d+1)).
[A110533] 0, 0, 0, 0, 0, 2, 3, 3, 4, 4, 10, 10, 12, 12, 14, 21, 24, 24, 27, 27, 40, 40, 44, 44, 48, 60, 65, 65, 70, 70, 90, 90, 96, 96, 102, 119, 126, 126, 133, 133, 160, 160, 168, 168, 176, 198, 207, 207, 216, 216, 250, 250, 260, 260, 270, 297, 308, 308, 319, 319, 360, 360, 372
a(n) = +a(n-2) +a(n-5) -a(n-7) +a(n-10) -a(n-12) -a(n-15) +a(n-17).
[A088023] 1, 2, 3, 3, 4, 5, 5, 5, 6, 7, 8, 8, 8, 9, 9, 9, 10, 11, 12, 12, 13, 14, 14, 14, 14, 15, 16, 16, 16, 17, 17, 17, 18, 19, 20, 20, 21, 22, 22, 22, 23, 24, 25, 25, 25, 26, 26, 26, 26, 27, 28, 28, 29, 30, 30, 30, 30, 31, 32, 32, 32, 33, 33, 33
a(n)=2a(n/2)-1 if a=2^k else a(n)=a(2^k-n+1)+n-2^(k-1) if 2^(k-1)<n<2^k. (Ed.)
[A123070] 0, 1, 1, 2, 3, 3, 4, 5, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 11, 12, 13, 13, 14, 14, 15, 16, 16, 17, 18, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 24, 25, 26, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 32, 33, 34, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 40, 41, 42, 42, 43, 44
a(0) = 0; a(n+1) = a(n) + d(n) where:
[A057361] 0, 0, 1, 1, 2, 3, 3, 4, 5, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 11, 12, 13, 13, 14, 15, 15, 16, 16, 17, 18, 18, 19, 20, 20, 21, 21, 22, 23, 23, 24, 25, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 36, 37, 38, 38, 39, 40, 40, 41, 41, 42, 43, 43, 44, 45, 45
a(0)=0, a(1)=0, a(2)=1, a(3)=1, a(4)=2, a(5)=3, a(6)=3, a(7)=4, a(8)=5, a(n)=a(n-1)+a(n-8)-a(n-9). - Harvey P. Dale, Jul 18 2013
[A074065] 0, 1, 1, 2, 3, 3, 4, 5, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 12, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 20, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 32, 33, 34, 34, 35, 36, 36, 37, 38, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 45, 45, 46, 46
a(1) = 0. b(n) = n - a(n). If (a(n) + 1) / b(n) < sqrt(3), then a(n+1) = a(n) + 1, else a(n+1) = a(n).
a(n) = floor(n*(3-sqrt(3))/2). - Vladeta Jovovic, Oct 04 2003
[A194640] 0, 1, 1, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 8, 9, 10, 10, 11, 12, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 20, 21, 22, 22, 23, 24, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 32, 33, 34, 34, 35, 36, 36, 37, 38, 38, 39, 39, 40, 41, 41, 42, 43, 43
a(n) = arg max_{k=0..n} Stirling2(n,k) * k! * C(n,k) for n!=2, a(2) = 1.
[A131737] 0, 1, 1, 1, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 9, 10, 11, 11, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 45
a(n)=(1/9)*Sum{k=0..n}{5*(k mod 3)+2*((k+1) mod 3)-((k+2) mod 3)}-1+(C(2*n,n) mod 2)+{C((n+1)^2,n+3) mod 2}, with n>=0. - Paolo P. Lava, Oct 07 2008 (corrected by Johannes W. Meijer, Jun 27 2011)
[A004396] 0, 1, 1, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 9, 10, 11, 11, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 25, 26, 27, 27, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 41, 41, 42, 43, 43, 44, 45, 45, 46, 47, 47
a(n) = floor((2*n + 1)/3).
a(n) = a(n-1) + (1/2)*((-1)^floor((4*n+2)/3) + 1), a(0) = 0. - Mario Catalani (mario.catalani(AT)unito.it), Oct 20 2003
a(n) = 2n/3 - cos(2*Pi*n/3 + Pi/3)/3 + sqrt(3)*sin(2*Pi*n/3 + Pi/3)/9. - Paul Barry, Mar 18 2004
a(n) = a(n-1) + a(n-3) - a(n-4) for n>3.
a(n) = floor(n/3) + ceiling(n/3). - Jonathan Vos Post, Mar 19 2006
a(n) = floor((2*n^2+4*n+2)/(3*n+4)). - Gary Detlefs, Jul 13 2010
[A175406] 1, 1, 2, 3, 3, 4, 5, 5, 6, 7, 7, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 25, 26, 27, 28, 28, 29, 30, 30, 31, 32, 32, 33, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 41, 41, 42, 43, 44, 44, 45, 46, 46, 47, 48, 48, 49, 50, 50, 51
a(n) = n log 2 + O(1). Conjecture: a(n) = floor((n + 1/2) log 2). - Charles R Greathouse IV, Apr 03 2012
[A013928] 0, 1, 2, 3, 3, 4, 5, 6, 6, 6, 7, 8, 8, 9, 10, 11, 11, 12, 12, 13, 13, 14, 15, 16, 16, 16, 17, 17, 17, 18, 19, 20, 20, 21, 22, 23, 23, 24, 25, 26, 26, 27, 28, 29, 29, 29, 30, 31, 31, 31, 31, 32, 32, 33, 33, 34, 34, 35, 36, 37, 37, 38, 39, 39, 39, 40, 41, 42, 42, 43, 44, 45, 45, 46, 47, 47
a(n) = Sum_{k = 1..n-1} mu(k)^2. - Vladeta Jovovic, May 18 2001
a(n) = Sum_{k = 0..n} if(k <= n-1, mu(n - k) mod 2, else 0; a(n + 1) = Sum_{k = 0..n} mu(n - k + 1) mod 2. - Paul Barry, May 10 2005
a(n + 1) = Sum_{k = 0..n, abs(mu(n - k + 1)). - Paul Barry, Jul 20 2005
a(n) = Sum_{k = 1..floor(sqrt(n))} mu(k)*floor(n/k^2). - Benoit Cloitre, Oct 25 2009
[A061288] 1, 1, 2, 3, 3, 4, 5, 6, 6, 7, 8, 8, 9, 10, 10, 11, 12, 13, 13, 14, 15, 15, 16, 17, 18, 18, 19, 20, 20, 21, 22, 22, 23, 24, 25, 25, 26, 27, 27, 28, 29, 30, 30, 31, 32, 32, 33, 34, 35, 35, 36, 37, 37, 38, 39, 39, 40, 41, 42, 42, 43, 44, 44, 45, 46, 47, 47, 48, 49, 49, 50, 51, 51
a(n) = floor(sqrt(n*(n+1)/2)). - Zak Seidov, May 25 2015
[A057353] 0, 0, 1, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 18, 19, 20, 21, 21, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 30, 30, 31, 32, 33, 33, 34, 35, 36, 36, 37, 38, 39, 39, 40, 41, 42, 42, 43, 44, 45, 45, 46, 47, 48, 48, 49, 50, 51, 51, 52, 53, 54
a(n) = -1 + Sum_{k=0..n}{(1/8)*((k mod 4)+((k+1) mod 4)-((k+2) mod 4)+3*((k+3) mod 4)} - Paolo P. Lava, Nov 17 2008
a(n) = 1/8*(6*n + 2*cos((Pi*n)/2) + cos(Pi*n) - 2*sin((Pi*n)/2) - 3). - Ilya Gutkovskiy, Sep 18 2015
a(4n) = a(4n+1). - Altug Alkan, Sep 26 2015
[A076539] 0, 1, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 18, 19, 20, 21, 21, 22, 23, 24, 25, 25, 26, 27, 28, 28, 29, 30, 31, 31, 32, 33, 34, 34, 35, 36, 37, 37, 38, 39, 40, 40, 41, 42, 43, 43, 44, 45, 46, 47, 47, 48, 49, 50, 50, 51, 52, 53, 53, 54, 55
a(1) = 0, b(n) = n - a(n), if (a(n) + 1) / b(n) < pi, then a(n+1) = a(n) + 1, else a(n+1) = a(n).
a(n) = floor(n*Pi/(Pi+1)). - Vladeta Jovovic, Oct 04 2003
[A074184] 1, 1, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 17, 18, 19, 19, 20, 21, 22, 22, 23, 24, 25, 26, 26, 27, 28, 29, 30, 30, 31, 32, 33, 34, 34, 35, 36, 37, 38, 38, 39, 40, 41, 42, 43, 43, 44, 45, 46, 47, 47, 48, 49, 50, 51, 51, 52, 53, 54, 55, 56, 56, 57
a(n) = ceiling(log_n(n!)) for n>1.
[A187329] 0, 0, 1, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 22, 22, 23, 24, 25, 25, 26, 27, 28, 29, 29, 30, 31, 32, 32, 33, 34, 35, 35, 36, 37, 38, 38, 39, 40, 41, 42, 42, 43, 44, 45, 45, 46, 47, 48, 48, 49, 50, 51, 51, 52, 53, 54, 55, 55, 56, 57, 58, 58, 59, 60, 61, 61, 62, 63, 64, 64, 65, 66, 67, 67, 68, 69, 70, 71, 71, 72, 73, 74, 74, 75, 76, 77, 77, 78, 79, 80, 80, 81, 82, 83, 84, 84, 85, 86, 87, 87, 88, 89, 90, 90, 91

a(n) = floor((3-sqrt(5))*n).

[A066508] 1, 1, 2, 3, 3, 4, 5, 6, 6, 7, 8, 9, 10, 10, 11, 12, 13, 14, 15, 16, 16, 17, 18, 19, 20, 21, 22, 23, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 57, 58, 59, 60, 61, 62, 63, 64

a(n) = n - log(n)^2/2 + O(1) as n -> infinity. - Robert Israel, Jan 05 2016

[A091960] 1, 2, 3, 3, 4, 5, 6, 7, 8, 8, 9, 10, 11, 11, 12, 13, 14, 14, 15, 15, 16, 17, 18, 18, 19, 20, 21, 22, 23, 23, 24, 25, 26, 26, 27, 27, 28, 29, 30, 31, 32, 32, 33, 34, 35, 35, 36, 36, 37, 38, 39, 39, 40, 41, 42, 42, 43, 44, 45, 46, 47, 47, 48, 49, 50, 50, 51, 51, 52, 53, 54, 55, 56

a(n) is asymptotic to 3/4*n.

[A011883] 0, 0, 0, 0, 0, 0, 1, 1, 1, 2, 3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 18, 20, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 42, 44, 46, 49, 52, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 85, 88, 91, 95, 99, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 143, 147, 151, 156, 161, 165

a(n) = +2*a(n-1) -a(n-2) +a(n-15) -2*a(n-16) +a(n-17). G.f.: x^6*(x^2-x+1)*(x^4-x^2+1) / ((1-x)^3*(1+x^4+x^3+x^2+x)*(1+x+x^2)*(1-x+x^3-x^4+x^5-x^7+x^8)). [From R. J. Mathar, Apr 15 2010]

[A034886] 1, 1, 1, 1, 2, 3, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 29, 30, 31, 33, 34, 36, 37, 39, 41, 42, 44, 45, 47, 48, 50, 52, 53, 55, 57, 58, 60, 62, 63, 65, 67, 68, 70, 72, 74, 75, 77, 79, 81, 82, 84, 86, 88, 90, 91, 93, 95, 97, 99, 101, 102

a(n) = floor(log(n!)/log(10)) + 1

a(n) = ceiling(log10(1) + log10(2) + ... + log10(n)), where log10 is the logarithm base 10. [From Dmitry Kamenetsky, Nov 05 2010]

[A025767] 1, 1, 1, 2, 3, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15, 17, 18, 20, 22, 24, 26, 28, 30, 33, 35, 37, 40, 43, 45, 48, 51, 54, 57, 60, 63, 67, 70, 73, 77, 81, 84, 88, 92, 96, 100, 104, 108, 113, 117, 121, 126, 131, 135, 140, 145, 150, 155, 160, 165, 171, 176, 181, 187, 193, 198

a(n) = floor(n^2/24+n/3+1).

a(n) = sum{k=0..floor(n/4), floor((n-4k+3)/3)}. - Paul Barry, Jan 20 2006

a(-8 - n) = a(n). - Michael Somos, Nov 09 2007

a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8). - David Neil McGrath, Aug 30 2014

[A091848] 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 15, 17, 18, 21, 22, 25, 26, 29, 30, 33, 35, 38, 40, 44, 45, 49, 51, 55, 57, 61, 63, 68, 70, 75, 77, 82, 84, 90, 92, 98, 100, 106, 108, 114, 117, 123, 126, 133, 135, 142, 145, 152, 155, 162, 165

a(n) = n^2/24 - O(n). - Charles R Greathouse IV, Aug 25 2017

[A011877] 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 36, 38, 41, 44, 46, 49, 52, 55, 58, 61, 65, 68, 71, 75, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 119, 123, 128, 133, 137, 142, 147, 152, 157, 162, 168, 173, 178, 184, 189

a(n) = +2*a(n-1) -a(n-2) +a(n-3) -2*a(n-4) +a(n-5) -a(n-6) +2*a(n-7) -a(n-8) +a(n-9) -2*a(n-10) +a(n-11) -a(n-12) +2*a(n-13) -a(n-14) +a(n-15) -2*a(n-16) +a(n-17) -a(n-18) +2*a(n-19) -a(n-20) +a(n-21) -2*a(n-22) +a(n-23). G.f.: x^6*(1-x+x^2-x^3+x^6-x^9+x^10-x^11+x^12) / ((1-x)^3*(1+x+x^2)*(x^2+1)*(x^4+1)*(x^4-x^2+1)*(x^8-x^4+1)). [From R. J. Mathar, Apr 15 2010]

[A029064] 1, 1, 1, 1, 2, 3, 3, 4, 5, 6, 7, 8, 10, 11, 13, 15, 17, 19, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 57, 62, 67, 72, 78, 84, 90, 97, 104, 111, 118, 126, 135, 143, 152, 161, 171, 181, 191, 202, 213, 225, 237, 249, 262

a(n) = floor((2*n^3+51*n^2+388*n+1680)/1680). - Tani Akinari, May 23 2014

a(-17 - n) = -a(n). - Michael Somos, May 23 2014

[A011876] 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 3, 4, 5, 6, 7, 9, 10, 11, 13, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 37, 40, 43, 45, 48, 51, 54, 57, 61, 64, 67, 71, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 115, 119, 124, 129, 133, 138, 143, 148, 153, 159, 164, 169, 175, 180, 186, 192, 198

a(n) = +2*a(n-1) -a(n-2) +a(n-23) -2*a(n-24) +a(n-25). [From R. J. Mathar, Apr 15 2010]

[A029034] 1, 1, 1, 2, 3, 3, 4, 5, 7, 8, 9, 11, 14, 15, 17, 20, 24, 26, 29, 33, 38, 41, 45, 50, 57, 61, 66, 73, 81, 86, 93, 101, 111, 118, 126, 136, 148, 156, 166, 178, 192, 202, 214, 228, 244, 256, 270, 286, 305, 319, 335, 354

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=3, a(5)=3, a(6)=4, a(7)=5, a(8)=7, a(9)=8, a(10)=9, a(11)=11, a(12)=14, a(13)=15, a(14)=17, a(15)=20, a(n)=a(n-1)+a(n-3)-a(n-5)-a(n-7)+2*a(n-8)-a(n-9)-a(n-11)+ a(n-13)+ a(n-15)-a(n-16). - Harvey P. Dale, Jul 21 2013

[A115339] 1, 1, 2, 3, 3, 4, 5, 7, 8, 11, 13, 18, 21, 29, 34, 47, 55, 76, 89, 123, 144, 199, 233, 322, 377, 521, 610, 843, 987, 1364, 1597, 2207, 2584, 3571, 4181, 5778, 6765, 9349, 10946, 15127, 17711, 24476, 28657, 39603, 46368, 64079, 75025, 103682, 121393, 167761

a(n+2) = a(n) + a(n-2).

[A157725] 2, 3, 3, 4, 5, 7, 10, 15, 23, 36, 57, 91, 146, 235, 379, 612, 989, 1599, 2586, 4183, 6767, 10948, 17713, 28659, 46370, 75027, 121395, 196420, 317813, 514231, 832042, 1346271, 2178311, 3524580, 5702889, 9227467, 14930354, 24157819, 39088171, 63245988, 102334157

a(0) = 2, a(1) = 3, a(n) = a(n - 2) + a(n - 1) - 2. - Reinhard Zumkeller, Jul 30 2013

[A029033] 1, 1, 1, 2, 3, 3, 4, 6, 7, 8, 10, 12, 14, 16, 19, 22, 25, 28, 32, 36, 40, 45, 50, 55, 61, 67, 73, 80, 88, 95, 103, 112, 121, 130, 140, 151, 162, 173, 185, 198, 211, 224, 239, 254, 269, 285, 302, 319, 337, 356, 375, 395

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=3, a(5)=3, a(6)=4, a(7)=6, a(8)=7, a(9)=8, a(10)=10, a(11)=12, a(12)=14, a(13)=16, a(14)=19, a(n) = a(n-1) + a(n-3) - a(n-5) - a(n-10) + a(n-12) + a(n-14) - a(n-15). - Harvey P. Dale, Feb 26 2012

[A123552] 1, 1, 1, 2, 3, 3, 4, 6, 7, 8, 11, 14, 16, 20, 26, 31, 37, 47, 58, 69, 85, 106, 128, 155, 192, 235, 284, 348, 428, 520, 633, 777, 949, 1154, 1411, 1727, 2104, 2566, 3139, 3832, 4671, 5706, 6972, 8504, 10378, 12679, 15477, 18883, 23058, 28157, 34361, 41942, 51216, 62519

a(n) = a(n-1) + a(n-3) - a(n-5) for n >= 5, with a(0)=a(1)=a(2)=1, a(3)=2, a(4)=3.

a(n) = a(n-3) + a(n-4) + 1 for n >= 4, with a(0)=a(1)=a(2)=1, a(3)=2.

[A228362] 0, 0, 0, 1, 2, 3, 3, 4, 6, 8, 10, 13, 18, 24, 31, 41, 55, 73, 96, 127, 169, 224, 296, 392, 520, 689, 912, 1208, 1601, 2121, 2809, 3721, 4930, 6531, 8651, 11460, 15182, 20112, 26642, 35293, 46754, 61936, 82047, 108689, 143983, 190737

a(0)=a(1)=a(2)=0; a(3)=1; a(4)=2; a(5)= a(6)=3; a(7)=4; a(n)= a(n-3) + a(n-4) + a(n-5).

[A078467] 0, 1, 2, 3, 3, 4, 6, 9, 12, 16, 22, 31, 43, 59, 81, 112, 155, 214, 295, 407, 562, 776, 1071, 1478, 2040, 2816, 3887, 5365, 7405, 10221, 14108, 19473, 26878, 37099, 51207, 70680, 97558, 134657, 185864, 256544, 354102, 488759, 674623, 931167, 1285269

a(n) = a(n-1) + a(n-4); a(0)=0, a(1)=1, a(2)=2, a(3)=3

a(n+1)=sum{k=0..n, binomial(n-k, floor(k/3))} - Paul Barry, Jul 06 2004

[A036410] 1, 1, 1, 2, 3, 3, 5, 6, 7, 9, 11, 12, 15, 17, 19, 22, 25, 27, 31, 34, 37, 41, 45, 48, 53, 57, 61, 66, 71, 75, 81, 86, 91, 97, 103, 108, 115, 121, 127, 134, 141, 147, 155, 162, 169, 177, 185, 192, 201, 209, 217, 226, 235, 243, 253, 262, 271, 281

a(n)= +a(n-1) +a(n-2) -a(n-4) -a(n-5) +a(n-6). G.f. (-1-x^4+x^2) / ((1+x)*(1+x+x^2)*(x-1)^3). - R. J. Mathar, Jan 22 2011

[A008670] 1, 1, 1, 2, 3, 3, 5, 6, 7, 9, 11, 12, 16, 18, 20, 24, 28, 30, 36, 40, 44, 50, 56, 60, 69, 75, 81, 90, 99, 105, 117, 126, 135, 147, 159, 168, 184, 196, 208, 224, 240, 252, 272, 288, 304, 324, 344, 360, 385, 405, 425, 450, 475, 495, 525, 550, 575, 605, 635, 660, 696, 726, 756

a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=3, a(5)=3, a(6)=5, a(7)=6, a(8)=7, a(9)=9, a(10)=11, a(11)=12, a(12)=16, a(13)=18, a(n)=a(n-1)+a(n-3)- a(n-5)+ a(n-6)-2*a(n-7)+a(n-8)-a(n-9)+a(n-11)+a(n-13)-a(n-14) [From Harvey P. Dale, Feb 07 2012]

[A179492] 1, 1, 2, 3, 3, 5, 6, 9, 12, 15, 20, 27, 36, 47, 63, 83, 109, 144, 190, 251, 331, 436, 575, 759, 1001, 1319, 1739, 2293, 3023, 3985, 5254, 6927, 9132, 12039, 15871, 20923, 27583, 36363, 47938, 63197, 83313, 109833, 144794, 190884, 251644, 331745

a(n) = floor((1+1/Pi)^n). [From R. J. Mathar, Jul 20 2010]

[A049855] 2, 3, 3, 5, 10, 18, 31, 54, 95, 167, 293, 514, 902, 1583, 2778, 4875, 8555, 15013, 26346, 46234, 81135, 142382, 249863, 438479, 769477, 1350338, 2369678, 4158495, 7297650, 12806483, 22473811, 39438789, 69210250, 121455522

a(n)=2*a(n-1)-a(n-2)+a(n-3); 3 initial terms required.

[A020878] 2, 3, 3, 6, 7, 13, 18, 31, 47, 78, 123, 201, 322, 523, 843, 1366, 2207, 3573, 5778, 9351, 15127, 24478, 39603, 64081, 103682, 167763, 271443, 439206, 710647, 1149853, 1860498, 3010351, 4870847, 7881198, 12752043, 20633241, 33385282, 54018523, 87403803

a(n) = ((1 - sqrt(5))/2)^n + ((1 + sqrt(5))/2)^n for n even.

a(n) = ((1 - sqrt(5))/2)^n + ((1 + sqrt(5))/2)^n + 2 for n odd.

a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>3.

[A049875] 2, 3, 3, 6, 11, 22, 41, 77, 143, 267, 498, 930, 1736, 3241, 6050, 11294, 21083, 39357, 73470, 137151, 256028, 477943, 892205, 1665533, 3109151, 5804040, 10834752, 20225886, 37756883, 70483054, 131574974, 245618951, 458511731

a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.

[A127582] 2, 3, 3, 7, 31, 31, 127, 127, 1279, 3583, 5119, 6143, 8191, 8191, 81919, 131071, 131071, 131071, 524287, 524287, 14680063, 14680063, 109051903, 109051903, 654311423, 738197503, 738197503, 2147483647, 2147483647, 2147483647

a(n) « 37^n by Xylouris' improvement to Linnik's theorem. - Charles R Greathouse IV, Dec 10 2013

[A102678] 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 4, 4, 4, 4, 4, 4, 5, 6, 7, 8, 8, 8, 8, 8, 8, 8, 9, 10, 11, 12, 12, 12, 12, 12, 12, 12, 13, 14, 15, 16, 16, 16, 16, 16, 16, 16, 17, 18, 19, 20, 20, 20, 20, 20, 20, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 34, 36, 38, 39, 40, 41, 42, 43, 44, 46, 48

a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/10^j + 2/5)*(2n + 2 - (1/5 + floor(n/10^j + 2/5))*10^j) - floor(n/10^j)*(2n + 2 - (1+floor(n/10^j)) * 10^j)), where m = floor(log_10(n)).

a(10^m-1) = 4*m*10^(m-1).

[A029132] 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 4, 4, 4, 4, 4, 4, 4, 5, 6, 8, 9, 10, 10, 10, 10, 10, 11, 12, 14, 16, 18, 19, 20, 20, 20, 21, 22, 24, 26, 29, 31, 33, 34, 35, 36, 37, 39, 41, 44, 47, 50, 52, 54, 56, 58, 60, 62, 65, 68, 72, 75

a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=1, a(8)=1, a(9)=2, a(10)=3, a(11)=4, a(12)=4, a(13)=4, a(14)=4, a(15)=4, a(16)=4, a(17)=4, a(18)=5, a(19)=6, a(20)=8, a(21)=9, a(22)=10, a(23)=10, a(24)=10, a(25)=10, a(26)=10, a(27)=11, a(28)=12, a(29)=14, a(30)=16, a(n)=a(n-1)+ a(n-9)- a(n-12)- a(n-19)+ a(n-22)+a(n-30)-a(n-31). - Harvey P. Dale, Dec 05 2015

[A072229] 0, 0, 0, 0, 1, 2, 3, 4, 4, 4, 4, 5, 6, 7, 8, 8, 8, 8, 9, 10, 11, 12, 12, 12, 12, 13, 14, 15, 16, 16, 16, 16, 17, 18, 19, 20, 20, 20, 20, 21, 22, 23, 24, 24, 24, 24, 25, 26, 27, 28, 28, 28, 28, 29, 30, 31, 32, 32, 32, 32, 33, 34, 35, 36, 36, 36, 36, 37, 38, 39, 40, 40, 40, 40, 41, 42

a(n) = 4 floor(n/7) + [0,0,0,0,1,2,3][n%7 + 1]. [Formula corrected by Franklin T. Adams-Watters, Apr 13 2009]

a(n) = a(n-1) + a(n-7) - a(n-8).

[A135414] 1, 1, 2, 3, 4, 4, 4, 5, 6, 6, 7, 8, 9, 9, 9, 10, 11, 12, 12, 12, 13, 14, 14, 15, 16, 17, 17, 17, 18, 19, 19, 20, 21, 22, 22, 22, 23, 24, 25, 25, 25, 26, 27, 27, 28, 29, 30, 30, 30, 31, 32, 33, 33, 33, 34, 35, 35, 36, 37, 38, 38, 38, 39, 40, 40, 41, 42, 43, 43, 43, 44, 45, 46, 46

a(n)=2+floor(n*phi)+floor((n+1)*phi)-floor((n+3)*phi) where phi=(sqrt(5)-1)/2

[A099479] 0, 1, 2, 3, 4, 4, 4, 5, 6, 7, 8, 8, 8, 9, 10, 11, 12, 12, 12, 13, 14, 15, 16, 16, 16, 17, 18, 19, 20, 20, 20, 21, 22, 23, 24, 24, 24, 25, 26, 27, 28, 28, 28, 29, 30, 31, 32, 32, 32, 33, 34, 35, 36, 36, 36, 37, 38, 39, 40, 40, 40, 41, 42, 43, 44, 44, 44, 45, 46, 47, 48, 48, 48, 49

a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - 2*a(n-4) + 2*a(n-5) - a(n-6).

a(n) = -cos(Pi*2n/3 + Pi/3)/6 - sqrt(3)*sin(Pi*2n/3 + Pi/3)/18 - sqrt(3)*cos(Pi*n/3 + Pi/6)/6 - sin(Pi*n/3 + Pi/6)/2 + 2(n+1)/3.

a(n) = Sum_{k=0..floor(n/2)} C(n-k, k)*(-1)^k*(4*2^(n-1-2k)/3 - (-1)^n/6 - 1/2).

[A267530] 0, 2, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 18, 18, 19, 19, 20, 20, 21, 21, 22, 22, 23, 23, 24, 24, 25, 25, 26, 26, 27, 27, 28, 28, 29, 29, 30, 30, 31, 31, 32, 32, 33, 33, 34, 34, 35, 35, 36

a(n) = a(n-1)+a(n-2)-a(n-3) for n>4.

[A050292] 0, 1, 1, 2, 3, 4, 4, 5, 5, 6, 6, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 15, 15, 16, 16, 17, 17, 18, 19, 20, 20, 21, 21, 22, 22, 23, 24, 25, 25, 26, 26, 27, 27, 28, 29, 30, 30, 31, 32, 33, 33, 34, 35, 36, 36, 37, 37, 38, 38, 39, 40, 41, 41, 42, 43, 44, 44, 45, 46, 47, 47, 48, 48, 49, 49, 50, 51, 52, 52, 53, 54

a(1)=1, a(n) = n - a(floor(n/2));

a(n) = sum(k=>0, (-1)^k*floor(n/2^k)), - Benoit Cloitre, Jun 03 2003

a(2^n) = (2^(n+1) + (-1)^n)/3. - Vladimir Shevelev, Apr 15 2010

[A096336] 0, 0, 0, 1, 1, 1, 2, 3, 4, 4, 5, 5, 6, 7, 8, 9, 10, 10, 11, 12, 13, 14, 15, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 55, 56, 57

a(n) is usually n-floor(log_2((n+1)n/2 + 1)), but is this number plus 1 if n = 2^e+b for nonnegative integers e, b such that 2b-a(b) <= e-3.

[A110532] 0, 0, 1, 1, 2, 3, 4, 4, 5, 5, 7, 7, 8, 8, 9, 10, 11, 11, 12, 12, 14, 14, 15, 15, 16, 17, 18, 18, 19, 19, 21, 21, 22, 22, 23, 24, 25, 25, 26, 26, 28, 28, 29, 29, 30, 31, 32, 32, 33, 33, 35, 35, 36, 36, 37, 38, 39, 39, 40, 40, 42, 42, 43, 43, 44, 45, 46, 46, 47, 47, 49, 49, 50, 50

a(n) = 7n/10 + O(1). - Charles R Greathouse IV, Jun 11 2015

[A094500] 1, 2, 3, 4, 4, 5, 6, 6, 7, 8, 8, 9, 10, 11, 11, 12, 13, 13, 14, 15, 15, 16, 17, 17, 18, 19, 20, 20, 21, 22, 22, 23, 24, 24, 25, 26, 26, 27, 28, 29, 29, 30, 31, 31, 32, 33, 33, 34, 35, 36, 36, 37, 38, 38, 39, 40, 40, 41, 42, 42, 43, 44, 45, 45, 46, 47, 47, 48, 49, 49, 50, 51, 51

a(n) = n*log(2) + O(1). - Charles R Greathouse IV, Sep 02 2015

[A080820] 1, 2, 3, 4, 4, 5, 6, 6, 7, 8, 9, 9, 10, 11, 11, 12, 13, 14, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 26, 26, 27, 28, 28, 29, 30, 31, 31, 32, 33, 33, 34, 35, 35, 36, 37, 38, 38, 39, 40, 40, 41, 42, 43, 43, 44, 45, 45, 46, 47, 48, 48, 49, 50, 50, 51, 52, 52

a(n)=ceil(sqrt(n*(n+1)/2)) - C. Ronaldo (aga_new_ac(AT)hotmail.com), Dec 19 2004

[A234604] 2, 3, 4, 4, 5, 6, 6, 7, 17, 35, 62, 103, 164, 256, 391, 589, 880, 1303, 1919, 2814, 4112, 5993, 8716, 12655, 18353, 26591, 38499, 55710, 80583, 116523, 168453, 243485, 351889, 508506, 734776, 1061672, 1533938, 2216216

a(n) = floor(c) for the solutions to c = exp(1 + n/c) at n = 0 to 7, and the floor of the stable upper values of c for n>=8.

[A107079] 1, 2, 3, 4, 4, 5, 6, 7, 7, 7, 8, 9, 9, 10, 11, 12, 12, 13, 13, 14, 14, 15, 16, 17, 17, 17, 18, 18, 18, 19, 20, 21, 21, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 30, 30, 30, 31, 32, 32, 32, 32, 33, 33, 34, 34, 35, 35, 36, 37, 38, 38, 39, 40, 40, 40, 41, 42, 43, 43, 44, 45, 46, 46, 47

a(n) = sum{k=0..n-1, moebius_mu(n-k-1) mod 2}.

[A037915] 1, 1, 2, 3, 4, 4, 5, 6, 7, 7, 8, 9, 10, 10, 11, 12, 13, 13, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 22, 22, 23, 24, 25, 25, 26, 27, 28, 28, 29, 30, 31, 31, 32, 33, 34, 34, 35, 36, 37, 37, 38, 39, 40, 40, 41, 42, 43, 43, 44, 45, 46, 46, 47, 48, 49, 49, 50, 51, 52, 52, 53, 54, 55

a(n) = 1 + floor(3*n/4).

a(n) = (1/8)*(6*n + 5 + (-1)^n - 2*(-1)^floor((n-1)/2)). - Ralf Stephan, Jun 10 2005

[A090223] 0, 0, 1, 2, 3, 4, 4, 5, 6, 7, 8, 8, 9, 10, 11, 12, 12, 13, 14, 15, 16, 16, 17, 18, 19, 20, 20, 21, 22, 23, 24, 24, 25, 26, 27, 28, 28, 29, 30, 31, 32, 32, 33, 34, 35, 36, 36, 37, 38, 39, 40, 40, 41, 42, 43, 44, 44, 45, 46, 47, 48, 48, 49, 50, 51, 52, 52, 53, 54, 55, 56, 56, 57, 58

a(n) = floor(4*n/5).

[A171974] 0, 1, 2, 3, 4, 4, 5, 6, 7, 8, 8, 9, 10, 11, 12, 13, 13, 14, 15, 16, 17, 17, 18, 19, 20, 21, 22, 22, 23, 24, 25, 26, 26, 27, 28, 29, 30, 31, 31, 32, 33, 34, 35, 35, 36, 37, 38, 39, 40, 40, 41, 42, 43, 44, 44, 45, 46, 47, 48, 48, 49, 50, 51, 52, 53, 53, 54, 55, 56, 57, 57, 58, 59

a(n) = floor(n*sqrt(6)/3).

[A280471] 2, 3, 4, 4, 5, 6, 7, 8, 9, 9, 10, 11, 12, 13, 13, 14, 15, 16, 17, 17, 18, 19, 20, 21, 21, 22, 23, 24, 25, 25, 26, 27, 28, 29, 29, 30, 31, 32, 33, 33, 34, 35, 36, 37, 38, 38, 39, 40, 41, 42, 42, 43, 44, 45, 46, 47, 48, 49, 50, 50, 51, 52, 53, 54, 54, 55, 56, 57

a(n) = ceiling((log_10 5)/(log_10 (1+2/(n-2)))) for integer n >= 3.

[A105598] 1, 2, 3, 4, 4, 5, 6, 7, 8, 9, 10, 11, 11, 12, 13, 14, 15, 16, 17, 18, 18, 19, 20, 21, 22, 23, 24, 24, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 39, 39, 40, 41, 42, 43, 44, 45, 45, 46, 47, 48, 49, 50, 51, 52, 52, 53, 54, 54, 55, 56, 57, 58, 58, 59, 60, 61, 62

a(n)=sum{k=0..n, binomial(abs(mu(k)), abs(mu(floor(k/2))))}

[A103750] 1, 1, 1, 2, 3, 4, 4, 5, 7, 11, 14, 17, 20, 28, 39, 53, 65, 82, 107, 148, 196, 253, 319, 419, 558, 745, 964, 1244, 1615, 2141, 2825, 3698, 4787, 6244, 8196, 10805, 14135, 18427, 24014, 31489, 41332, 54172, 70711, 92357, 120849, 158482, 207547, 271412, 354628, 464045

a(n) = a(n-1) -a(n-3) +2*a(n-4).

[A193768] 2, 3, 4, 4, 6, 7, 7, 8, 10, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67

a(n) = n, except for n = 1, 2, 3, 5, 6 or 9. For the exceptions a(n) = n+1.

a(n) = 2*a(n-1)-a(n-2) for n>11. - Colin Barker, Oct 05 2014

[A248517] 0, 0, 0, 1, 1, 2, 3, 4, 4, 6, 7, 8, 9, 10, 11, 14, 14, 15, 17, 18, 19, 22, 23, 24, 25, 27, 28, 31, 32, 33, 36, 37, 37, 40, 41, 44, 46, 47, 48, 51, 52, 53, 56, 57, 58, 63, 64, 65, 66, 68, 70, 73, 74, 75, 78, 81, 82, 85, 86, 87, 90, 91, 92, 97, 97, 100, 103, 104, 105, 108, 111

a(n) = Sum_{i=1..n-1} floor(floor(i/2)/(n-i)). - Wesley Ivan Hurt, Jan 30 2016

[A102676] 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 5, 5, 5, 5, 5, 6, 7, 8, 9, 10, 10, 10, 10, 10, 10, 11, 12, 13, 14, 15, 15, 15, 15, 15, 15, 16, 17, 18, 19, 20, 20, 20, 20, 20, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 34, 36, 38, 40, 41, 42, 43, 44, 45, 47, 49, 51, 53, 55, 56, 57, 58, 59, 60, 62

a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/10^j + 1/2)*(2n + 2 - floor(n/10^j + 1/2)*10^j - floor(n/10^j)*(2n + 2 - (1+floor(n/10^j))*10^j)), where m = floor(log_10(n)).

a(10^m-1) = 5*m*10^(m-1).

[A079411] 1, 1, 2, 3, 4, 5, 5, 6, 6, 7, 7, 8, 9, 10, 10, 11, 12, 13, 14, 15, 16, 17, 17, 18, 19, 20, 20, 21, 22, 23, 24, 25, 25, 26, 26, 27, 27, 28, 29, 30, 30, 31, 31, 32, 33, 34, 34, 35, 35, 36, 36, 37, 38, 39, 39, 40, 40, 41, 42, 43, 43, 44, 44, 45, 46, 47, 47, 48, 49, 50, 51, 52, 53, 54

a(n) is asymptotic to n*(sqrt(3)-1); Conjecture: (a(n)-n*(sqrt(3)-1))/log(n) is bounded.

[A072932] 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66
a(n) is asymptotic to C*n with C a rational constant = 91/100; also a(100k)=91k
[A102674] 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 6, 6, 6, 6, 7, 8, 9, 10, 11, 12, 12, 12, 12, 12, 13, 14, 15, 16, 17, 18, 18, 18, 18, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 34, 36, 38, 40, 41, 42, 43, 44, 46, 48, 50, 52, 54, 56, 57, 58, 59, 60, 62, 64, 66, 68, 70, 72, 73, 74, 75, 76, 78
a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/10^j + 3/5)*(2n + 2 + (1/5 - floor(n/10^j + 3/5))*10^j) - floor(n/10^j)*(2n + 2 - (1 + floor(n/10^j)) * 10^j)), where m = floor(log_10(n)).
a(10^m - 1) = 6*m*10^(m-1).
[A082287] 1, 2, 3, 4, 5, 6, 6, 7, 8, 9, 10, 10, 11, 12, 12, 13, 14, 14, 15, 15, 16, 17, 18, 18, 19, 20, 20, 21, 21, 22, 22, 23, 24, 24, 25, 26, 26, 27, 28, 28, 29, 30, 30, 30, 31, 32, 33, 33, 34, 34, 35, 35, 36, 36, 37, 38, 38, 39, 39, 40, 40, 41, 42, 42, 42, 43, 44, 44, 45, 45, 46, 46, 47
a(n) is the least k such that sum_{p<=k}floor(k/p)>=n where p runs through the primes. [From Benoit Cloitre, Nov 08 2009]
[A145569] 0, 1, 2, 3, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 12, 13, 14, 15, 16, 17, 18, 18, 19, 20, 21, 22, 23, 24, 24, 25, 26, 27, 28, 29, 30, 30, 31, 32, 33, 34, 35, 36, 36, 37, 38, 39, 40, 41, 42, 42, 43, 44, 45, 46, 47, 48, 48, 49, 50, 51, 52, 53, 54, 54, 55, 56, 57, 58, 59, 60, 60, 61, 62, 63, 64
a(n) = number of positive numbers <= n relatively prime to 7, n >= 1. a(0)=1.
a(n) = (1/49)*Sum_{k=0..n}(9*(k mod 7) + 2*((k+1) mod 7) + 2*((k+2) mod 7) + 2*((k+3) mod 7) + 2*((k+4) mod 7) + 2*((k+5) mod 7) - 5*((k+6) mod 7)), with n >= 0. - Paolo P. Lava, Feb 11 2009
a(n) = ceiling(6*n/7) = n - floor(n/7). - Wesley Ivan Hurt, Sep 29 2017
[A171970] 0, 1, 2, 3, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 12, 13, 14, 15, 16, 17, 18, 19, 19, 20, 21, 22, 23, 24, 25, 25, 26, 27, 28, 29, 30, 31, 32, 32, 33, 34, 35, 36, 37, 38, 38, 39, 40, 41, 42, 43, 44, 45, 45, 46, 47, 48, 49, 50, 51, 51, 52, 53, 54, 55, 56, 57, 58, 58, 59, 60, 61, 62, 63
a(n) = floor(n*sqrt(3)/2).
[A064524] 0, 0, 1, 2, 3, 4, 5, 6, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 60, 61, 62, 63, 64, 65, 66, 67, 68
a(n) = n - floor(CubicRoot(n)).
[A102672] 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 7, 7, 7, 8, 9, 10, 11, 12, 13, 14, 14, 14, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30, 32, 34, 36, 38, 39, 40, 41, 43, 45, 47, 49, 51, 53, 55, 56, 57, 58, 60, 62, 64, 66, 68, 70, 72, 73, 74, 75, 77, 79, 81, 83, 85, 87, 89, 90, 91, 92, 94
a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/10^j + 7/10)*(2n + 2 + (2/5 - floor(n/10^j + 7/10))*10^j) - floor(n/10^j)*(2n + 2 - (1 + floor(n/10^j)) * 10^j)), where m = floor(log_10(n)).
a(10^m - 1) = 7*m*10^(m-1).
[A209900] 1, 1, 2, 3, 4, 5, 6, 7, 7, 8, 9, 10, 11, 12, 13, 13, 14, 15, 16, 17, 18, 19, 20, 20, 21, 22, 23, 24, 25, 26, 26, 27, 28, 29, 30, 31, 32, 32, 33, 34, 35, 36, 37, 38, 39, 39, 40, 41, 42, 43, 44, 45, 45, 46, 47, 48, 49, 50, 51, 52, 52, 53, 54, 55, 56, 57, 58, 58
a(n) = floor(n*(1-(1-1/n)^(2n))).
[A097043] 1, 1, 2, 3, 4, 5, 6, 7, 7, 8, 9, 10, 11, 12, 13, 13, 14, 15, 16, 17, 18, 19, 20, 21, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66
a(1)=1; a(n) = n - a(floor(sqrt(n))) for n > 1.
a(n)=n-sqrt(n)+O(n^(1/4)) - Benoit Cloitre, Jul 23 2009
[A060431] 1, 2, 3, 4, 5, 6, 7, 7, 8, 9, 10, 11, 12, 13, 14, 14, 15, 16, 17, 18, 19, 20, 21, 21, 22, 23, 23, 24, 25, 26, 27, 27, 28, 29, 30, 31, 32, 33, 34, 34, 35, 36, 37, 38, 39, 40, 41, 41, 42, 43, 44, 45, 46, 46, 47, 47, 48, 49, 50, 51, 52, 53, 54, 54, 55, 56, 57, 58, 59, 60, 61, 61
a(n) is asymptotic to (1/zeta(3))*n - Benoit Cloitre, Jun 13 2007
[A238401] 0, 0, 1, 1, 2, 3, 4, 5, 6, 7, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63
a(n) = n - log n + O(1). - Charles R Greathouse IV, Feb 26 2014
[A102670] 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 8, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 32, 34, 35, 36, 38, 40, 42, 44, 46, 48, 50, 52, 53, 54, 56, 58, 60, 62, 64, 66, 68, 70, 71, 72, 74, 76, 78, 80, 82, 84, 86, 88, 89, 90, 92, 94, 96, 98, 100, 102, 104, 106, 107, 108
a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/10^j + 0.8)*(2n + 2 + ((3/5) - floor(n/10^j + 4/5))*10^j) - floor(n/10^j)*(2n + 2 - (1 + floor(n/10^j)) * 10^j)), where m = floor(log_10(n)).
a(10^m - 1) = 8*m*10^(m-1).
a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/10^j + (10-d)/10) *(2n + 2 + ((5-d)/5 - floor(n/10^j + (10-d)/10))*10^j) - floor(n/10^j)*(2n + 2 - (1 + floor(n/10^j)) * 10^j)), where m = floor(log_10(n)).
a(n) = (n+1)*F(n,d) + (1/2)*Sum_{j=1..m+1} ((((5-d)/5)*floor(n/10^j + (10-d)/10) + floor(n/10^j))*10^j - (floor(n/10^j + (10-d)/10)^2 - floor(n/10^j)^2)*10^j), where m = floor(log_10(n)) and F(n,d) = number of digits >= d in the decimal representation of n.
a(10^m - 1) = (10-d)*m*10^(m-1).
[A081600] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 108, 109, 110
a(n) = n - floor(n/10). - Bruno Berselli, Jun 24 2014
[A061069] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 10, 11, 12, 13, 13, 14, 14, 15, 16, 17, 18, 19, 19, 20, 20, 20, 21, 22, 23, 24, 24, 25, 26, 27, 27, 28, 29, 29, 29, 30, 30, 31, 32, 33, 34, 34, 34, 35, 36, 37, 37, 38, 38, 39, 39, 39, 40, 40, 40, 41, 42, 42, 43, 44, 44, 45, 46, 47, 47, 47, 47, 48
a(n)=Length[Union[Table[DivisorSigma[1, w], {w, 1, n}]]]
[A139179] 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70
a(n) = n - floor[n^(1/4)].
[A159062] 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 16, 17, 18, 19, 20, 21, 22, 22, 23, 24, 25, 26, 27, 27, 28, 29, 30, 31, 32, 32, 33, 34, 35, 36, 37, 37, 38, 39, 40, 41, 41, 42, 43, 44, 45, 45, 46, 47, 48, 49, 49, 50, 51, 52, 53, 53, 54, 55, 56, 57, 57, 58, 59, 60, 61, 61, 62
a(n) is the nearest integer to 2*n*(1+binomial(2*n,n)/(2^(2*n)))-((n*binomial(2*n,n))/(2^(2*n-1)))^2.
[A214701] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66
a(n)/n tends to 0.98208.. approximately when n increases. - Michel Marcus, Jul 07 2015
[A056064] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 39, 39

[A001477] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n.
a(0) = 0, a(n) = a(n-1) + 1.
a(0)=0, a(1)=1, a(n) = 2*a(n-1) - a(n-2). - Jaume Oliver Lafont, May 07 2008
a(n+1) = det(C(i+1,j), 1 <= i,j <= n), where C(n,k) are binomial coefficients. - Mircea Merca, Apr 06 2013
a(n-1) = floor(n/e^(1/n)) for n > 0. - Richard R. Forberg, Jun 22 2013
a(n) = floor(cot(1/(n+1))). - Clark Kimberling, Oct 08 2014
[A087156] 0, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n-1+[(n+1) mod n], with n>=1. - Paolo P. Lava, Nov 06 2009
a(n) = n mod sigma_k(n), where sigma_k is the k divisor sigma function. -Enrique Pérez Herrero, Nov 11 2009
a(n+1) = floor((n+sqrt(n^2+8n))/2). - Philippe Deléham, Oct 03 2011
a(n) = n mod n^2. - Andrew Secunda, Aug 21 2015
[A244581] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 92, 93, 94, 95, 96, 97, 98, 99, 100
a(n) = n-1 for n < 90, a(n) = n+1 for 90 < n < 106. - M. F. Hasler, Jan 18 2015
[A277112] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 69, 70
a(n) = floor(n*(1+sqrt(5))/Pi).
[A247064] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64
a(n) = floor(n*32/31).
[A246103] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 105, 110, 117, 126, 135, 144, 153, 162, 171, 180, 192, 204, 216, 228, 240, 256, 272, 288, 304, 320, 336, 352, 368, 384, 405, 432, 459, 486, 513, 540, 576, 612, 648, 684, 720, 768, 816, 864, 912, 960, 1024, 1088, 1152, 1216, 1280, 1344, 1408, 1472, 1539, 1620, 1728, 1836, 1944, 2052, 2160, 2304, 2448, 2592, 2736, 2880, 3072, 3264, 3456, 3648, 3840, 4096, 4352, 4608, 4864, 5120, 5376, 5632, 5888, 6156
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A160546] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74
a(n) = a(n-1) + a(n-28) - a(n-29) for n > 29.
[A246099] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 108, 117, 126, 135, 144, 153, 162, 171, 180, 192, 204, 216, 228, 240, 256, 272, 288, 304, 320, 336, 352, 378, 405, 432, 459, 486, 513, 540, 576, 612, 648, 684, 720, 768, 816, 864, 912, 960, 1024, 1088, 1152, 1216, 1296, 1377, 1458, 1539, 1620, 1728, 1836, 1944, 2052, 2160, 2304, 2448, 2592, 2736, 2880, 3072, 3264, 3456, 3648, 3888, 4131, 4374, 4617, 4864, 5184, 5508, 5832, 6156, 6480, 6912, 7344, 7776, 8208, 8640, 9216, 9792, 10368, 10944, 11664, 12393, 13122, 13851, 14592, 15552, 16524, 17496, 18468, 19456, 20736, 22032, 23328
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A246095] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 76, 80, 84, 88, 92, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 192, 204, 216, 228, 240, 256, 272, 288, 304, 324, 351, 378, 405, 432, 459, 486, 513, 540, 576, 612, 648, 684, 720, 768, 816, 864, 912, 972
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A246102] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 64, 68, 72, 76, 80, 85, 90, 95, 100, 108, 117, 126, 135, 144, 156, 168, 180, 192, 208, 224, 240, 256, 272, 288, 304, 320, 340, 360, 380, 405, 432, 468, 504, 540, 576, 624, 672, 720, 768, 832, 896, 960, 1024, 1088, 1152, 1216, 1280, 1360, 1440, 1520, 1620, 1728, 1872, 2016, 2160, 2304, 2496, 2688, 2880, 3072, 3328, 3584, 3840, 4096
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A246091] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 76, 80, 84, 90, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 192, 204, 216, 228, 240, 256, 272, 297, 324, 351, 378, 405, 432, 459, 486, 513, 540, 576, 612, 648, 684, 720, 768, 816, 891, 972, 1053, 1134, 1215, 1296, 1377, 1458, 1539, 1620
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A246098] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 64, 68, 72, 76, 80, 85, 90, 99, 108, 117, 126, 135, 144, 156, 168, 180, 192, 208, 224, 240, 256, 272, 288, 304, 324, 351, 378, 405, 432, 468, 504, 540, 576, 624, 672, 720, 768, 832, 896, 960, 1024, 1088, 1152, 1216, 1296, 1404, 1512, 1620, 1728, 1872, 2016, 2160, 2304, 2496, 2688, 2880, 3072, 3328, 3584, 3840, 4096, 4352, 4608, 4864, 5184
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A132264] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 192, 196, 200, 204, 208, 212, 216, 220, 224, 228, 232, 236, 300, 305, 310, 315
a(k*p^m)=k^(m+1)*p^(m(m+1)/2), for 0<k<p.
[A081330] 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 70, 72, 73, 74, 75, 76, 78, 80, 81, 82
a(n) » exp(n^(1/4)). - Charles R Greathouse IV, Aug 22 2011
[A246087] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 78, 84, 90, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 192, 204, 216, 234, 252, 270, 297, 324, 351, 378, 405, 432, 459, 486, 513, 540, 576, 612, 648, 702, 756, 810, 891, 972, 1053, 1134, 1215, 1296
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-16) for all n >= 39.
[A246094] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 27, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 64, 68, 72, 76, 81, 90, 99, 108, 117, 126, 135, 144, 156, 168, 180, 192, 208, 224, 240, 256, 272, 297, 324, 351, 378, 405, 432, 468, 504, 540, 576, 624, 672, 720, 768, 832, 896, 972, 1053, 1134, 1215, 1296, 1404, 1512, 1620, 1728, 1872, 2016, 2160, 2304, 2496, 2688, 2916, 3159, 3402, 3645, 3888, 4212, 4536, 4860, 5184, 5616, 6048, 6480, 6912, 7488
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A274399] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70
a(n) = floor(n*Pi/floor(Pi)) = floor(n*Pi/3).
[A246101] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 56, 60, 65, 70, 75, 80, 85, 90, 99, 108, 120, 132, 144, 160, 176, 192, 208, 224, 240, 260, 280, 300, 325, 350, 375, 400, 432, 480, 528, 576, 640, 704, 768, 832, 896, 960, 1040, 1120, 1200, 1300, 1400, 1500, 1625, 1750, 1920
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A132263] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 176, 180, 184, 188, 192, 196, 200, 204, 208, 212, 216, 275, 280, 285, 290, 295, 300, 305, 310
a(k*11^m)=k^(m+1)*11^(m(m+1)/2), for 0<k<11.
[A246083] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 66, 72, 78, 84, 90, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 198, 216, 234, 252, 270, 297, 324, 351, 378, 405, 432, 459, 486, 513, 540, 594, 648, 702, 756, 810, 891, 972, 1053, 1134, 1215, 1296, 1377, 1458
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-15) for all n >= 25.

[A246090] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 27, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 64, 68, 72, 81, 90, 99, 108, 117, 126, 135, 144, 156, 168, 180, 192, 208, 224, 243, 270, 297, 324, 351, 378, 405, 432, 468, 504, 540, 576, 624, 672, 729, 810, 891, 972, 1053, 1134, 1215, 1296, 1404, 1512, 1620, 1728, 1872, 2016, 2187, 2430, 2673, 2916, 3159, 3402, 3645, 3888, 4212, 4536
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A246097] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 56, 60, 65, 70, 75, 81, 90, 99, 108, 120, 132, 144, 160, 176, 192, 208, 224, 240, 260, 280, 300, 325, 360, 396, 432, 480, 528, 576, 640, 704, 768, 832, 896, 960, 1040, 1120, 1200, 1300, 1440, 1584, 1728, 1920, 2112, 2304, 2560, 2816, 3072, 3328, 3584, 3840, 4160, 4480, 4800, 5200, 5760, 6336, 6912, 7680, 8448, 9216, 10240, 11264, 12288, 13312, 14336, 15360, 16640, 17920, 19200, 20800, 23040
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A067080] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 250, 255, 260, 265, 270, 275, 280, 285, 290, 295, 360, 366, 372
a(n) = product{0<=k<=floor(log_10(n)), floor(n/10^k)}, n>=1.
a(n) = n*a(floor(n/10));
a(n*10^m) = n^m*10^(m(m+1)/2)*a(n).
a(k*10^m) = k^(m+1)*10^(m(m+1)/2), for 0<k<10.
a(n) = O(n^((1+log_10(n))/2)). (End)
[A246079] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 66, 72, 78, 84, 90, 99, 108, 117, 126, 135, 144, 156, 168, 180, 198, 216, 234, 252, 270, 297, 324, 351, 378, 405, 432, 468, 504, 540, 594, 648, 702, 756, 810, 891, 972, 1053, 1134, 1215, 1296, 1404
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-14) for all n >= 33.
[A246086] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 27, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 66, 72, 81, 90, 99, 108, 117, 126, 135, 144, 156, 168, 180, 198, 216, 243, 270, 297, 324, 351, 378, 405, 432, 468, 504, 540, 594, 648, 729, 810, 891, 972, 1053, 1134, 1215, 1296, 1404, 1512, 1620, 1782, 1944, 2187, 2430, 2673, 2916, 3159, 3402, 3645, 3888, 4212
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-13) for all n >= 32.
[A246093] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 56, 60, 65, 72, 81, 90, 99, 108, 120, 132, 144, 160, 176, 192, 208, 224, 243, 270, 297, 324, 360, 396, 432, 480, 528, 576, 640, 704, 768, 832, 896, 972, 1080, 1188, 1296, 1440, 1584, 1728, 1920, 2112, 2304, 2560, 2816, 3072, 3328, 3584, 3888, 4320, 4752, 5184
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A132033] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 36, 38, 40, 42, 44, 46, 48, 50, 52, 81, 84, 87, 90, 93, 96, 99, 102, 105, 144, 148, 152, 156, 160, 164, 168, 172, 176, 225, 230, 235, 240, 245, 250, 255, 260, 265, 324, 330, 336, 342, 348, 354, 360, 366, 372
a(k*9^m)=k^(m+1)*9^(m(m+1)/2), for 0<k<9.
[A160543] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71
a(n) = a(n-1)+a(n-16)-a(n-17). G.f. x*(1 +x +x^2 +x^3 +x^4 +x^5 +x^6 +x^7 +x^8 +x^9 +x^10 +x^11 +x^12 +x^13 +x^14 +x^15 +x^16) / ((1+x) *(1+x^2) *(1+x^4) *(1+x^8) *(x-1)^2). - R. J. Mathar, Sep 30 2013
[A246076] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 28, 30, 33, 36, 40, 44, 48, 52, 56, 60, 66, 72, 80, 88, 96, 104, 112, 120, 132, 144, 160, 176, 192, 208, 224, 240, 264, 288, 320, 352, 384, 416, 448, 480, 528, 576, 640, 704, 768, 832, 896, 960, 1056, 1152, 1280, 1408, 1536, 1664, 1792
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 2*a(n-8) for all n >= 25.
[A246082] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 42, 45, 48, 54, 60, 66, 72, 81, 90, 99, 108, 117, 126, 135, 144, 162, 180, 198, 216, 243, 270, 297, 324, 351, 378, 405, 432, 486, 540, 594, 648, 729, 810, 891, 972, 1053, 1134, 1215, 1296, 1458, 1620, 1782
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-12) for all n >= 20.
[A246089] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 56, 63, 72, 81, 90, 99, 108, 120, 132, 144, 160, 176, 192, 216, 243, 270, 297, 324, 360, 396, 432, 480, 528, 576, 648, 729, 810, 891, 972, 1080, 1188, 1296, 1440, 1584, 1728, 1944, 2187, 2430, 2673, 2916, 3240, 3564, 3888, 4320, 4752, 5184, 5832, 6561, 7290
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A246100] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 21, 24, 28, 32, 36, 40, 45, 50, 55, 60, 66, 72, 78, 84, 96, 112, 128, 144, 160, 180, 200, 225, 250, 275, 300, 330, 360, 396, 448, 512, 576, 640, 720, 800, 900, 1000, 1125, 1250, 1375, 1500, 1650, 1800, 2048, 2304, 2560, 2880, 3200, 3600, 4000, 4500, 5000, 5625, 6250, 6875, 7500, 8250, 9216, 10240, 11520, 12800, 14400, 16000, 18000, 20000, 22500, 25000, 28125, 31250, 34375, 37500, 41250, 46080, 51200, 57600, 64000, 72000, 80000, 90000, 100000, 112500, 125000, 140625, 156250
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A048340] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 34, 51, 68, 85, 102, 119, 136, 153, 170, 187, 204, 221, 238, 255, 273, 546, 819, 1092, 1365, 1638, 1911, 2184, 2457, 2730, 3003, 3276, 3549, 3822, 4095, 4369, 8738, 13107, 17476, 21845, 26214, 30583
a(n) = 17*a(n-15) - 16*a(n-30) for n > 29.
a(n) = (n - 15*floor((n-1)/15))*(16^floor((n+14)/15) - 1)/15. - Ilya Gutkovskiy, May 30 2016
[A246096] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 21, 24, 28, 32, 36, 40, 45, 50, 55, 60, 66, 72, 84, 96, 112, 128, 144, 160, 180, 200, 225, 250, 275, 300, 336, 384, 448, 512, 576, 640, 720, 800, 900, 1000, 1125, 1250, 1375, 1536, 1792, 2048, 2304, 2560, 2880, 3200, 3600, 4000, 4500, 5000, 5625, 6250, 7168, 8192, 9216, 10240, 11520, 12800, 14400, 16000, 18000, 20000, 22500, 25000
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
[A132032] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 32, 34, 36, 38, 40, 42, 44, 46, 72, 75, 78, 81, 84, 87, 90, 93, 128, 132, 136, 140, 144, 148, 152, 156, 200, 205, 210, 215, 220, 225, 230, 235, 288, 294, 300, 306, 312, 318, 324, 330, 392, 399, 406, 413, 420, 427, 434
a(k*8^m)=k^(m+1)*8^(m(m+1)/2), for 0<k<8.
[A247160] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 80
a(n) = floor(n*16/15).
a(n) = a(n-1) + a(n-15) - a(n-16). - Colin Barker, Sep 11 2014
[A246075] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 26, 28, 32, 36, 40, 44, 48, 52, 56, 64, 72, 80, 88, 96, 104, 112, 128, 144, 160, 176, 192, 208, 224, 256, 288, 320, 352, 384, 416, 448, 512, 576, 640, 704, 768, 832, 896, 1024, 1152, 1280, 1408, 1536, 1664, 1792, 2048, 2304, 2560, 2816, 3072, 3328, 3584, 4096
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 2*a(n-7) for all n >= 14.
[A246078] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 20, 22, 24, 27, 30, 33, 36, 40, 44, 48, 54, 60, 66, 72, 81, 90, 99, 108, 120, 132, 144, 162, 180, 198, 216, 243, 270, 297, 324, 360, 396, 432, 486, 540, 594, 648, 729, 810, 891, 972, 1080, 1188, 1296, 1458, 1620, 1782, 1944, 2187, 2430, 2673, 2916, 3240, 3564, 3888, 4374
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-11) for all n >= 26.
[A246085] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 21, 24, 27, 30, 33, 36, 40, 44, 48, 54, 63, 72, 81, 90, 99, 108, 120, 132, 144, 162, 189, 216, 243, 270, 297, 324, 360, 396, 432, 486, 567, 648, 729, 810, 891, 972, 1080, 1188, 1296, 1458, 1701, 1944, 2187, 2430, 2673, 2916, 3240, 3564, 3888, 4374, 5103, 5832, 6561, 7290, 8019, 8748, 9720, 10692
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-10) for all n >= 25.
[A048339] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 32, 48, 64, 80, 96, 112, 128, 144, 160, 176, 192, 208, 224, 241, 482, 723, 964, 1205, 1446, 1687, 1928, 2169, 2410, 2651, 2892, 3133, 3374, 3616, 7232, 10848, 14464, 18080, 21696, 25312, 28928, 32544
a(n) = 16*a(n-14) - 15*a(n-28) for n > 27.

a(n) = (n - 14*floor((n-1)/14))*(15^floor((n+13)/14) - 1)/14. - Ilya Gutkovskiy, May 30 2016

[A269445] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175

a(n) = 2*a(n-1) - a(n-2) + a(n-13) - 2*a(n-14) + a(n-15).

[A246092] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 18, 21, 24, 28, 32, 36, 40, 45, 50, 55, 63, 72, 84, 96, 112, 128, 144, 160, 180, 200, 225, 252, 288, 336, 384, 448, 512, 576, 640, 720, 800, 900, 1008, 1152, 1344, 1536, 1792, 2048, 2304, 2560, 2880, 3200, 3600, 4032, 4608, 5376, 6144, 7168, 8192, 9216, 10240, 11520, 12800, 14400, 16128, 18432, 21504, 24576, 28672

a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).

a(n) = 4*a(n-11) for all n >= 36.

[A048338] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180, 195, 211, 422, 633, 844, 1055, 1266, 1477, 1688, 1899, 2110, 2321, 2532, 2743, 2955, 5910, 8865, 11820, 14775, 17730, 20685, 23640, 26595, 29550, 32505, 35460

a(n) = 15*a(n-13) - 14*a(n-26) for n > 25.

a(n) = (n - 13*floor((n-1)/13))*(14^floor((n+12)/13) - 1)/13. - Ilya Gutkovskiy, May 30 2016

[A132031] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 28, 30, 32, 34, 36, 38, 40, 63, 66, 69, 72, 75, 78, 81, 112, 116, 120, 124, 128, 132, 136, 175, 180, 185, 190, 195, 200, 205, 252, 258, 264, 270, 276, 282, 288, 343, 350, 357, 364, 371, 378, 385, 448, 456, 464, 472, 480, 488

a(k*7^m)=k^(m+1)*7^(m(m+1)/2), for 0<k<7.

[A011760] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69

a(n) = n + sign(floor(n/13)). - Wesley Ivan Hurt, Jan 12 2013

[A180004] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 75

a(n)= +a(n-1) +a(n-26) -a(n-27). [From R. J. Mathar, Aug 31 2010]

[A113763] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77

a(n) = n+floor((2n-1)/24) = n+quotient(2n-1, 24)

[A221912] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 125, 130, 135, 140, 145, 150, 155

a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=0, a(5)=0, a(6)=0, a(7)=0, a(8)=0, a(9)=0, a(10)=0, a(11)=0, a(12)=1, a(13)=2, a(n)=2*a(n-1)- a(n-2)+ a(n-12)- 2*a(n-13)+ a(n-14). - Harvey P. Dale, Mar 23 2015

[A008730] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 186, 192, 198, 204

a(n) = sum(floor(j/12), {j,0,n+12}), a(n-12) = (1/2)*floor(n/12)*(2n-10-12*floor(n/12)). - Mitch Harris, Sep 08 2008

[A246074] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 28, 32, 36, 40, 44, 48, 56, 64, 72, 80, 88, 96, 112, 128, 144, 160, 176, 192, 224, 256, 288, 320, 352, 384, 448, 512, 576, 640, 704, 768, 896, 1024, 1152, 1280, 1408, 1536, 1792, 2048, 2304, 2560, 2816, 3072, 3584, 4096, 4608, 5120, 5632, 6144, 7168, 8192, 9216

a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).

a(n) = 2*a(n-6) for all n >= 12.

[A246081] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 21, 24, 27, 30, 33, 36, 42, 48, 54, 63, 72, 81, 90, 99, 108, 126, 144, 162, 189, 216, 243, 270, 297, 324, 378, 432, 486, 567, 648, 729, 810, 891, 972, 1134, 1296, 1458, 1701, 1944, 2187, 2430, 2673, 2916, 3402, 3888, 4374, 5103, 5832, 6561, 7290, 8019, 8748

a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).

a(n) = 3*a(n-9) for all n >= 15.

[A048337] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 28, 42, 56, 70, 84, 98, 112, 126, 140, 154, 168, 183, 366, 549, 732, 915, 1098, 1281, 1464, 1647, 1830, 2013, 2196, 2380, 4760, 7140, 9520, 11900, 14280, 16660, 19040, 21420, 23800, 26180, 28560, 30941, 61882

a(n) = 14*a(n-12) - 13*a(n-24) for n > 23.

a(n) = (n - 12*floor((n-1)/12))*(13^floor((n+11)/12) - 1)/12. - Ilya Gutkovskiy, May 30 2016

[A246088] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 18, 21, 24, 28, 32, 36, 40, 45, 54, 63, 72, 84, 96, 112, 128, 144, 162, 189, 216, 252, 288, 336, 384, 448, 512, 576, 648, 756, 864, 1008, 1152, 1344, 1536, 1792, 2048, 2304, 2592, 3024, 3456, 4032, 4608, 5376, 6144, 7168, 8192, 9216, 10368, 12096, 13824, 16128, 18432, 21504, 24576, 28672, 32768, 36864, 41472

a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).

a(n) = 4*a(n-10) for all n >= 32.

[A193457] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 20, 25, 30, 36, 42, 49, 56, 64, 72, 81, 100, 125, 150, 180, 216, 252, 294, 343, 392, 448, 512, 625, 750, 900, 1080, 1296, 1512, 1764, 2058, 2401, 2744, 3136, 3750, 4500, 5400, 6480, 7776, 9072, 10584, 12348, 14406

a(n) =

[A183224] 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101

a(n)=n+Floor[1/2+(n/5+1/5)^(1/2)].

[A008729] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 171, 177, 183, 189, 195, 201, 207, 213, 219

a(n) = sum(floor(j/11), {j,0,n+11}), a(n-11) = (1/2)*floor(n/11)*(2n-9-11*floor(n/11)). [Mitch Harris, Sep 08 2008]

a(n) = 2*a(n-1) - a(n-2) + a(n-11) - 2*a(n-12) + a(n-13) for n > 12.

[A143290] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 17, 23, 31, 41, 53, 67, 83, 101, 121, 143, 168, 198, 236, 285, 348, 428, 528, 651, 800, 978, 1188, 1434, 1722, 2061, 2464, 2948, 3534, 4247, 5116, 6174, 7458, 9009, 10873, 13103, 15762, 18927

a(n) = 2*a(n-1) -a(n-2) +a(n-11) -a(n-13) -a(n-23). - Vincenzo Librandi, Jun 05 2013

[A048336] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 26, 39, 52, 65, 78, 91, 104, 117, 130, 143, 157, 314, 471, 628, 785, 942, 1099, 1256, 1413, 1570, 1727, 1885, 3770, 5655, 7540, 9425, 11310, 13195, 15080, 16965, 18850, 20735, 22621, 45242, 67863, 90484, 113105

a(n) = 13*a(n-11) - 12*a(n-22) for n > 21.

a(n) = (n - 11*floor((n-1)/11))*(12^floor((n+10)/11) - 1)/11. - Ilya Gutkovskiy, May 30 2016

[A114801] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 20, 22, 30, 33, 40, 44, 50, 55, 60, 66, 70, 77, 80, 88, 90, 99, 100, 121, 123, 124, 125, 126, 127, 128, 129, 131, 132, 134, 135, 136, 137, 138, 139, 141, 142, 143, 145, 146, 147, 148, 149, 151, 152, 153, 154, 156, 157, 158

a(0) = 1, a(1) = 2, for n>2: a(n) = least k > a(n-1) such that k is not an element of {Concatenate(a(i), a(j))} for any distinct a(i) <= a(n-1) and a(j) <= a(n-1).

[A114802] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 20, 22, 30, 33, 40, 44, 50, 55, 60, 66, 70, 77, 80, 88, 90, 99, 100, 121, 131, 141, 151, 161, 171, 181, 191, 200, 212, 232, 242, 252, 262, 272, 282, 292, 300, 313, 323, 343, 353, 363, 373, 383, 393, 400, 414, 424, 434, 454

a(0) = 1, a(1) = 2, for n>2: a(n) = least k > a(n-1) such that k is not an element of {Concatenate[a(h),a(i),a(j)]} or {Concatenate[a(i),a(j)]} for any three distinct a(h), a(i), and a(j), where h, i, j < n.

[A064222] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 21, 22, 32, 33, 43, 44, 54, 55, 65, 66, 76, 77, 87, 88, 98, 99, 100, 110, 111, 211, 221, 222, 322, 332, 333, 433, 443, 444, 544, 554, 555, 655, 665, 666, 766, 776, 777, 877, 887, 888, 988, 998, 999, 1000, 1100, 1110, 1111, 2111

a(n+1) = (d+0^d)*10^floor(Log10(a(n)+1)) + (1-0^d)*floor(a(n)/10), where d = (a(n)+1) mod 10. - Reinhard Zumkeller, Oct 31 2007

[A132030] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 24, 26, 28, 30, 32, 34, 54, 57, 60, 63, 66, 69, 96, 100, 104, 108, 112, 116, 150, 155, 160, 165, 170, 175, 216, 222, 228, 234, 240, 246, 294, 301, 308, 315, 322, 329, 384, 392, 400, 408, 416, 424, 486, 495, 504, 513, 522, 531, 600

a(k*6^m) = k^(m+1)*6^(m(m+1)/2), for 0<k<6.

[A288327] 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 24, 39, 56, 75, 96, 119, 144, 171, 200, 231, 528, 897, 1344, 1875, 2496, 3213, 4032, 4959, 6000, 7161, 16896, 29601, 45696, 65625, 89856, 118881, 153216, 193401, 240000, 293601, 709632, 1272843, 2010624, 2953125, 4133376

a(n)=1 for n<1 otherwise a(n) = n*a(n-10).

[A183223] 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 96, 97, 98, 99, 100, 101, 102
a(n)=n+Floor[1/2+(2n/9+2/9)^(1/2)].
[A160542] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71
a(n) = a(n-10) + 11, n>10. - R. J. Mathar, May 20 2009
[A004775] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 76, 77
a(n) = a(n-1) + a(n-7) - a(n-8) for n>12; a(n) = a(n-7) + 8 for n>11.
a(n) = (56*n - 105 + (n mod 7) + ((n+1) mod 7) - 6*((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) + ((n+6) mod 7))/49 for n>4. (End)
a(1) = 0, a(2) = 1, a(3) = 2, a(4) = 3, a(7*n + k + 4) = 8*n + k + 3, n >= 0, 1 <= k < 8. - Yosu Yurramendi, Aug 09 2016
[A154314] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 16, 17, 18, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 36, 37, 39, 40, 41, 43, 44, 49, 50, 52, 53, 54, 56, 60, 62, 67, 68, 70, 71, 72, 74, 76, 77, 78, 79, 80, 81, 82, 84, 85, 90, 91, 93, 94, 108, 109, 111, 112, 117, 118, 120, 121, 122
a(n) » n^1.58..., where the exponent is log(3)/log(2). - Charles R Greathouse IV, Mar 17 2014
[A239348] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 16, 17, 18, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 36, 37, 39, 40, 41, 43, 44, 49, 50, 52, 53, 54, 56, 60, 62, 67, 68, 70, 71, 72, 74, 76, 77, 79, 80, 81, 82, 84, 85, 90, 91, 93, 94, 109, 111, 112, 117, 118, 121, 122, 124
a(n) » n^1.58..., where the exponent is log(3)/log(2). - Charles R Greathouse IV, Mar 17 2014
[A011875] 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 34, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 67, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 111, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 166, 171, 177, 183, 189, 195, 201, 207
a(n) = +2*a(n-1) -a(n-2) +a(n-11) -2*a(n-12) +a(n-13). G.f.: x^6*(x^2-x+1) / ((1-x)^3*(1+x^10+x^9+x^8+x^7+x^6+x^5+x^4+x^3+x^2+x)). [R. J. Mathar, Apr 15 2010]
[A057890] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, 20, 21, 24, 27, 28, 30, 31, 32, 33, 34, 36, 40, 42, 45, 48, 51, 54, 56, 60, 62, 63, 64, 65, 66, 68, 72, 73, 80, 84, 85, 90, 93, 96, 99, 102, 107, 108, 112, 119, 120, 124, 126, 127, 128, 129, 130, 132, 136, 144, 146
a(7*2^n-4*n-4) = 4^n + 1, a(10*2^n-4*n-6) = 2*4^n + 1. - Gheorghe Coserea, Apr 05 2017
[A080672] 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35, 36, 38, 39, 40, 42, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 69, 70, 72, 74, 75, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87, 88, 90, 91, 92, 93
a(n) = a(n-162). - Charles R Greathouse IV, Sep 14 2015
a(n) = 35n/27 + O(1). - Charles R Greathouse IV, Sep 14 2015
[A102685] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123
a(n) = (1/2)*sum_{j=1..m+1} (floor((n/10^j)+0.9)*(2n + 2 + (0.8 - floor((n/10^j)+0.9))*10^j) - floor(n/10^j)*(2n + 2 - (floor(n/10^j)+1) * 10^j)), where m = floor(log_10(n)).
a(10^m-1) = 9*m*10^(m-1). (This is the total number of nonzero digits occurring in all the numbers with <= m digits.)
[A117804] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120
a(n) = dn + 1 - (10^d - 1)/9 where d is the number of decimal digits in n, i.e., d = floor(log10(n)) + 1.
a(10^n) = (9*n-1)*(10^n-1)/9 + n + 1. (This is the total number of digits necessary to write down all the numbers with <= n places.)
[A088235] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133
a(1) = 1; a(n+1) = a(n) + floor(Log[10, a(n)]) + 1
[A064223] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136
a(1) = 1; a(n + 1) = a(n) + ceil(log10(a(n) + 1)) for n > 0. - corrected by Harry J. Smith, Sep 10 2009
[A131242] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 156, 162, 168, 174, 180, 186, 192, 198
a(n) = (1/2)*floor(n/10)*(2n-8-10*floor(n/10)).
[A008728] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 156, 162, 168, 174, 180, 186, 192, 198, 204, 210, 217, 224, 231, 238
a(n) = sum(floor(j/10), {j,0,n+10}), a(n-10) = (1/2)floor(n/10)*(2n-8-10*floor(n/10)). [Mitch Harris, Sep 08 2008]
[A083292] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 250, 256, 262, 268, 274, 280, 286, 292, 298, 304, 360, 367, 374
a(n)= +a(n-1) +2*a(n-10) -2*a(n-11) -a(n-20) +a(n-21). - R. J. Mathar, Feb 20 2011
[A246077] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 21, 24, 28, 32, 36, 42, 48, 56, 64, 72, 84, 96, 112, 128, 144, 168, 192, 224, 256, 288, 336, 384, 448, 512, 576, 672, 768, 896, 1024, 1152, 1344, 1536, 1792, 2048, 2304, 2688, 3072, 3584, 4096, 4608, 5376, 6144, 7168, 8192, 9216
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 2*a(n-5) for all n >= 16.
[A246084] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 18, 21, 24, 28, 32, 36, 45, 54, 63, 72, 84, 96, 112, 135, 162, 189, 216, 252, 288, 336, 405, 486, 567, 648, 756, 864, 1008, 1215, 1458, 1701, 1944, 2268, 2592, 3024, 3645, 4374, 5103, 5832, 6804, 7776, 9072, 10935, 13122, 15309, 17496, 20412, 23328, 27216, 32805, 39366, 45927
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-7) for all n >= 26.
[A193456] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20, 25, 30, 36, 42, 49, 56, 64, 80, 100, 125, 150, 180, 216, 252, 294, 343, 400, 500, 625, 750, 900, 1080, 1296, 1512, 1764, 2058, 2500, 3125, 3750, 4500, 5400, 6480, 7776, 9072, 10584, 12500, 15625, 18750, 22500, 27000
a(n) =
[A143289] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 22, 30, 40, 52, 66, 82, 100, 120, 143, 171, 207, 254, 315, 393, 491, 612, 759, 935, 1144, 1392, 1688, 2045, 2480, 3014, 3672, 4483, 5480, 6700, 8185, 9984, 12156, 14774, 17930, 21740, 26349, 31936
a(n) = 2*a(n-1) -a(n-2) +a(n-10) -a(n-12) -a(n-21). - Vincenzo Librandi, Jun 05 2013
[A064807] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 18, 19, 20, 21, 24, 27, 28, 30, 36, 37, 38, 39, 40, 42, 45, 46, 48, 50, 54, 55, 56, 57, 60, 63, 64, 66, 70, 72, 73, 74, 75, 76, 78, 80, 81, 82, 84, 90, 91, 92, 93, 95, 96, 99, 100, 102, 108, 109, 110, 111, 112, 114, 117, 118
a(n) = a(n-1321) + 2520. - Charles R Greathouse IV, Dec 26 2013
[A033075] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 21, 23, 32, 34, 43, 45, 54, 56, 65, 67, 76, 78, 87, 89, 98, 101, 121, 123, 210, 212, 232, 234, 321, 323, 343, 345, 432, 434, 454, 456, 543, 545, 565, 567, 654, 656, 676, 678, 765, 767, 787, 789, 876
a(n) » n^3.53267..., where the exponent is log 10/log k and k is the largest root of x^5 - x^4 - 4x^3 + 3x^2 + 3x - 1. - Charles R Greathouse IV, Mar 11 2014
[A048335] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 133, 266, 399, 532, 665, 798, 931, 1064, 1197, 1330, 1464, 2928, 4392, 5856, 7320, 8784, 10248, 11712, 13176, 14640, 16105, 32210, 48315, 64420, 80525, 96630, 112735, 128840
a(n) = 12*a(n-10) - 11*a(n-20) for n > 19.
a(n) = (n - 10*floor((n-1)/10))*(11^floor((n+9)/10) - 1)/10. - Ilya Gutkovskiy, May 30 2016
[A008817] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 97, 104, 111, 118, 125, 132, 139, 146, 153, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 261
a(0)=1, a(1)=2, a(2)=3, a(3)=4, a(4)=5, a(5)=6, a(6)=7, a(7)=8, a(8)=9, a(9)=10, a(10)=13, a(11)=16, a(n)=2*a(n-1)-a(n-2)+a(n-10)-2*a(n-11)+ a(n-12). - Harvey P. Dale, Jul 31 2014
[A081385] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 17, 18, 19, 20, 26, 27, 28, 29, 30, 36, 37, 38, 39, 40, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65
a(n) = [p(n)/2 + 1/2].

[A037124] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, 20000, 30000, 40000, 50000, 60000, 70000, 80000, 90000, 100000
a(n) = ((n mod 9) + 1) * 10^floor(n/9). E.g., a(39) = ((39 mod 9) + 1) * 10^floor(39/9) = (3 + 1) * 10^4 = 40000. - Carl R. White, Jan 08 2004
a(n+1) = a(n) + a(n - n mod 9). - Reinhard Zumkeller, May 26 2008
a(n) = (10^floor((n - 1)/9))*(n - 9*floor((n - 1)/9)). - José de Jesús Camacho Medina, Nov 10 2014
a(n) = 10*a(n-9).
[A134817] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 21, 43, 87, 175, 526, 1579, 6317, 25269, 126346, 758077, 4548463, 31839242, 254713937, 2292425434, 22924254341, 252166797752, 3026001573025, 39338020449326, 550732286290565, 8260984294358476
a(n) = a(n-1)*floor(log(a(n-1)) + 1) + 1.
[A132271] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 306, 312, 318, 324, 330, 336, 342, 348, 354, 360, 427
a(k*p^m-j)=(k*p^m-j+1)*k^m*p^(m(m-1)/2), for 0<k<p, 0<j<p, m>=1, a(p^m)=p^(m(m+1)/2)*product{0<=k<=m, 1+1/p^k}, m>=1.
[A114806] 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 22, 36, 52, 70, 90, 112, 136, 162, 190, 440, 756, 1144, 1610, 2160, 2800, 3536, 4374, 5320, 12760, 22680, 35464, 51520, 71280, 95200, 123760, 157464, 196840, 484880, 884520, 1418560, 2112320, 2993760, 4093600
a(0) = 1, a(n) = n for 1<=n<=9, a(n) = n*a(n-9) for n>=10.
[A055649] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 500
a(n) = a(n-1) + a(n-11) - a(n-12). (End)
[A057717] 0, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70
a(n) = ceiling(log_10(a(n) + 1)) + n.
[A183222] 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102
a(n)=n-1+Ceiling[1/2+((n+1)/4)^(1/2)].
[A065039] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70
a(10*n)=10*n+a(n); a(n*10^m)=10*n*(10^m-1)/9+a(n).
a(k*10^m)=k*(10^(m+1)-1)/2, 0<=k<10, m>=0.
a(n)=10/9*n+O(log(n)), a(n+1)-a(n)=O(log(n)); this follows from the inequalities below.
a(n)<=(10*n-1)/9; equality holds for powers of 10.
a(n)>=(10*n-9)/9-floor(log_10(n)); equality holds for n=10^m-1, m>0.
a(n) = sum(d_(k)*RU(k+1),k=0..nod(n)-1), with the notation nod(n)and d_k given in a comment above, and RU(k)is the repunit (10^k-1)/9 (k times 1). - Wolfdieter Lang, May 04 2010
[A067251] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 86, 87, 88, 89, 91, 92, 93, 94, 95, 96, 97, 98, 99, 101, 102, 103, 104
a(n) = n + floor((n-1)/9).
a(n) = a(n-1) + a(n-9) - a(n-10) for n>10.
[A052382] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 86, 87, 88, 89, 91, 92, 93, 94, 95, 96, 97, 98, 99, 111, 112, 113, 114
a(n+1) = f(a(n)) with f(x) = 1 + if x mod 10 < 9 then x else 10*f([x/10]). - Reinhard Zumkeller, Nov 15 2009
a(n) = Sum_{j=0..m-1} (1 + b(j) mod 9)*10^j, where m = floor(log_9(8*n + 1)), b(j) = floor((8*n + 1 - 9^m)/(8*9^j)).
a(k*(9^n - 1)/8) = k*(10^n - 1)/9, k=1..9.
a((17*9^n - 9)/8) = 2*10^n - 1.
a((9^n - 1)/8 - 1) = 10^(n-1) - 1, n > 1.
a(n) <= (10^log_9(8*n + 1)-1)/9, equality holds for n=(9^k-1)/8, k>0.
[A069570] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 41, 42, 43, 44, 45, 46, 47, 48, 49, 61, 62, 63, 64, 65, 66, 67, 68, 69, 81, 82, 83, 84, 85, 86, 87, 88, 89, 111, 112, 113, 114, 115, 116, 117, 118, 119, 121, 122, 123, 124, 125
a(n) % 10 = (n-1) % 9 + 1. - M. F. Hasler, Sep 27 2016
[A009994] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 28, 29, 33, 34, 35, 36, 37, 38, 39, 44, 45, 46, 47, 48, 49, 55, 56, 57, 58, 59, 66, 67, 68, 69, 77, 78, 79, 88, 89, 99, 111, 112, 113, 114, 115, 116, 117, 118, 119, 122
a(n) » exp(n^(1/10)). - Charles R Greathouse IV, Mar 15 2014
[A167619] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 111, 112, 113, 114, 115, 116, 117, 118, 119, 236, 315, 324, 612, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1236, 1315, 1324, 1612, 2136, 2312, 3115, 3124, 3212, 4384, 5175, 6112, 7735
a(n) < 10^n, since 11...1 is always a member of this sequence; for n > 18, a(n) > n^1.0479 because 0s are not allowed in the decimal expansion.
[A074779] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81
a(n) seems to be asymptotic to c*n with c=1.207...
[A008727] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 141, 147, 153, 159, 165, 171, 177, 183, 189, 196, 203, 210, 217, 224, 231, 238, 245, 252
a(n) = sum_{j=0..n+9} floor(j/9), a(n-9) = (1/2)*floor(n/9)*(2*n-7-9*floor(n/9)). - Mitch Harris, Sep 08 2008
[A279080] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19, 22, 25, 28, 32, 36, 41, 46, 52, 58, 65, 73, 82, 92, 103, 115, 128, 143, 159, 177, 197, 219, 244, 272, 303, 337, 375, 417, 464, 516, 574, 638, 709, 788, 876, 974, 1083, 1204, 1338, 1487, 1653, 1837, 2042, 2269
a(n) = floor(a(n-1)*10/9) + 1.
[A175772] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 16, 20, 25, 31, 38, 46, 55, 67, 81, 98, 119, 145, 177, 216, 263, 320, 389, 473, 575, 699, 850, 1034, 1258, 1530, 1862, 2265, 2755, 3351, 4076, 4958, 6031, 7336
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=1, a(8)=1, a(9)=2, a(10)=3, a(11)=4, a(12)=5, a(13)=6, a(14)=7, a(15)=8, a(16)=9, a(17)=11, a(n)=a(n-1)+a(n-9)+a(n-17)-a(n-18). - Harvey P. Dale, Jul 13 2014
[A219955] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 14, 17, 18, 22, 24, 26, 30, 33, 34, 36, 38, 42, 46, 48, 50, 51, 54, 56, 58, 60, 62, 66, 69, 70, 72, 74, 76, 78, 81, 82, 84, 86, 87, 90, 94, 96, 98, 102, 104, 105, 106, 108, 110, 111, 114, 116, 118, 120, 122, 123, 126, 130, 132
a(n) < 1.5n + O(n/log n). - Charles R Greathouse IV, Dec 04 2012
[A143288] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 15, 21, 29, 39, 51, 65, 81, 99, 120, 146, 180, 225, 284, 360, 456, 575, 720, 895, 1106, 1362, 1676, 2065, 2550, 3156, 3912, 4851, 6011, 7437, 9184, 11321, 13936, 17141, 21077, 25919, 31881, 39222, 48254
a(n) = 2a(n-1) - a(n-2) + a(n-9) - a(n-11) - a(n-19). - Charles R Greathouse IV, Jun 04 2013
[A227858] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 22, 33, 44, 55, 66, 77, 88, 99, 101, 111, 121, 131, 141, 151, 161, 171, 181, 191, 202, 212, 222, 232, 242, 252, 262, 272, 282, 292, 303, 313, 323, 333, 343, 353, 363, 373, 383, 393, 404, 414, 424, 434, 444, 454, 464, 474, 484, 494, 505, 515, 525, 535, 545, 555, 565, 575, 585, 595, 606, 616, 626
a(n) = 10n + O(1). - Charles R Greathouse IV, Nov 01 2013
[A010785] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 22, 33, 44, 55, 66, 77, 88, 99, 111, 222, 333, 444, 555, 666, 777, 888, 999, 1111, 2222, 3333, 4444, 5555, 6666, 7777, 8888, 9999, 11111, 22222, 33333, 44444, 55555, 66666, 77777, 88888, 99999, 111111, 222222, 333333, 444444, 555555, 666666
a(0)=0, a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=5, a(6)=6, a(7)=7, a(8)=8, a(9)=9, a(10)=11, a(11)=22, a(12)=33, a(13)=44, a(14)=55, a(15)=66, a(16)=77, a(17)=88, a(n)=11*a(n-9)-10*a(n-18). - Harvey P. Dale, Dec 28 2011

a(n) = (n-9*floor((n-1)/9))*(10^floor((n+8)/9)-1)/9. - José de Jesús Camacho Medina, Nov 06 2014
[A083115] 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 22, 33, 111, 121, 131, 141, 151, 161, 171, 191, 212, 222, 313, 1111, 1221, 1331, 2112, 3113, 11111, 11211, 11311, 11411, 11511, 11711, 12121, 12221, 13131, 21112, 21212, 31113, 111111, 112211, 121121
a(n) » 3^n. - Charles R Greathouse IV, May 15 2013
[A174234] 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 12, 12, 13, 24, 24, 30, 30, 40, 40, 42, 42, 60, 60, 70, 70, 84, 84, 90, 90, 120, 120, 126, 126, 168, 168, 180, 180, 240, 240, 240, 240, 336, 336, 336, 336, 420, 420, 420, 420, 560
a(n)=e^{Theta(sqrt[3]{n (log(n))^2})}.
[A193455] 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 16, 20, 25, 30, 36, 42, 49, 64, 80, 100, 125, 150, 180, 216, 256, 320, 400, 500, 625, 750, 900, 1080, 1296, 1600, 2000, 2500, 3125, 3750, 4500, 5400, 6480, 8000, 10000, 12500, 15625, 18750, 22500, 27000, 32400, 40000, 50000
a(n) =
a(25) = 256 [C = 4 below]
a(1:24) = m^(C-R) * (m+1)^R
[A190876] 1, 2, 3, 4, 5, 6, 7, 8, 9, 19, 29, 39, 49, 59, 69, 79, 89, 99, 109, 119, 129, 139, 149, 159, 169, 179, 189, 199, 209, 219, 229, 239, 249, 259, 269, 279, 289, 299, 309, 319, 329, 339, 349, 359, 369, 379, 389, 399, 409, 419, 429, 439, 449, 459, 469, 479, 489, 499, 509, 519, 529, 539, 549, 559, 569, 579, 589, 599, 609
a(n) = 2*a(n-1) -a(n-2). - Vincenzo Librandi, Jul 12 2012
[A051885] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 19, 29, 39, 49, 59, 69, 79, 89, 99, 199, 299, 399, 499, 599, 699, 799, 899, 999, 1999, 2999, 3999, 4999, 5999, 6999, 7999, 8999, 9999, 19999, 29999, 39999, 49999, 59999, 69999, 79999, 89999, 99999, 199999, 299999, 399999, 499999
a(n) = ((n mod 9) + 1)*10^floor(n/9) - 1 = a(n-1) + 10^floor((n-1)/9). - Henry Bottomley, Apr 24 2001
[A102491] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 120, 121, 122, 123, 124, 125, 126
a(1) = 0; a(n+1) = 20*a(n/10+1) if n == 0 (mod 10) else a(n+1) = a(n) + 1. (End)
[A052383] 0, 2, 3, 4, 5, 6, 7, 8, 9, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 88, 89
a(1) = 1, a(n+1) = f(a(n)+1,a(n)+1) where f(x,y) = if x<10 and x<>1 then y else if x mod 10 = 1 then f(y+1,y+1) else f(floor(x/10),y). - Reinhard Zumkeller, Mar 02 2008
a(n) = replace all nonzero digits d by d+1 in base-9 representation of n-1. - Reinhard Zumkeller, Oct 07 2014
[A132029] 1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 22, 24, 26, 28, 45, 48, 51, 54, 57, 80, 84, 88, 92, 96, 125, 130, 135, 140, 145, 180, 186, 192, 198, 204, 245, 252, 259, 266, 273, 320, 328, 336, 344, 352, 405, 414, 423, 432, 441, 1000, 1020, 1040, 1060, 1080, 1210, 1232, 1254, 1276
a(k*5^m)=k^(m+1)*5^(m(m+1)/2), for 0<k<5.
[A276822] 1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 30, 31, 40, 41, 42, 50, 51, 52, 53, 60, 61, 62, 63, 64, 70, 71, 72, 73, 74, 75, 80, 81, 82, 83, 84, 85, 86, 100, 101, 102, 103, 104, 105, 106, 107, 108, 200, 300, 301, 400, 401, 402, 500, 501, 502, 503, 600, 601, 602, 603, 604, 700, 701, 702, 703, 704, 705, 800, 801, 802
a(n+74) = 11 a(n+37) - 10 a(n) for n >= 10. - Robert Israel, Mar 30 2017
[A114800] 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 33, 48, 65, 84, 105, 128, 153, 360, 627, 960, 1365, 1848, 2415, 3072, 3825, 9360, 16929, 26880, 39585, 55440, 74865, 98304, 126225, 318240, 592515, 967680, 1464645, 2106720, 2919735, 3932160, 5175225, 13366080
a(n) = 1 for n<1, else a(n) = n*a(n-8).
[A174141] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 150, 151, 152, 153, 154
a(n+10) = a(n) + 25 for n >= 1.
a(n)= +a(n-1) +a(n-10) -a(n-11). G.f. x^2*(1+x+x^2+x^3+x^4+x^5+x^6+x^7+x^8+16*x^9) / ((1+x)*(1+x+x^2+x^3+x^4)*(x^4-x^3+x^2-x+1)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A069510] 1, 2, 3, 4, 5, 6, 7, 8, 9, 55, 111, 1111, 11111, 111111, 1111111, 11111111, 111111111, 1111111111, 11111111111, 111111111111, 1111111111111, 11111111111111, 111111111111111, 1111111111111111, 11111111111111111, 111111111111111111, 1111111111111111111
a(n) = {10^(n - 8) - 1}/9 for n >10.
a(n) = 11*a(n-1) - 10*a(n-2) for n > 12.
[A135480] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 81, 512, 2401, 5748, 10553, 16816, 24537, 33716, 44353, 56448, 139982, 170003, 202940, 238793, 277562, 319247, 363848, 411365, 461798, 515147, 857103
a(n) = 1/10*(n-(n mod 10))*(729*n^2-14879*n+75971)+ (n mod 10).
[A280658] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 91, 92, 93, 94, 95, 96, 97, 98, 99, 181, 182, 183, 184, 185, 186, 187, 188, 189, 271, 272, 273, 274, 275, 276, 277, 278, 279, 361, 362, 363, 364, 365, 366, 367, 368, 369, 451, 452, 453, 454, 455, 456, 457, 458, 459, 541, 542, 543, 544, 545, 546, 547, 548, 549, 631, 632, 633
a(n) = 10*n-19-9*((n-2) mod 9) for n > 1.
[A240237] 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 101, 110, 121, 132, 143, 154, 165, 176, 187, 198, 202, 211, 220, 231, 242, 253, 264, 275, 286, 297, 303, 312, 321, 330, 341, 352, 363, 374, 385, 396, 404, 413, 422, 431, 440, 451, 462, 473, 484, 495, 505, 514, 523, 532, 541, 550, 561, 572, 583, 594, 606, 615
a(n) = n for 0 <= n <= 9;
a(n) = 10*n + |floor(n/10) - (n mod 10)| for 10 <= n <= 99.
[A183221] 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105
a(n)=n+Floor[1/2+(2n/7)^(1/2)].
[A007095] 0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74
a(0)=0 a(n)=10*a(n/9) if n==0 (mod 9) a(n)=a(n-1)+1 otherwise. - Benoit Cloitre, Dec 22 2002
[A168183] 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 80
a(n) = a(n-1) + a(n-8) - a(n-9), n>9.
a(n) = n + floor((n-1)/8). (End)
[A047594] 0, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 74, 75, 76
a(n) = a(n-7) + 8 for n>7. (End)
a(n) = n + floor((n-2)/7). - Wesley Ivan Hurt, Sep 11 2015
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (56*n - 35 + (n mod 7) + ((n+1) mod 7) + ((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) - 6*((n+5) mod 7) + ((n+6) mod 7))/49.
a(7k) = 8k-1, a(7k-1) = 8k-2, a(7k-2) = 8k-3, a(7k-3) = 8k-4, a(7k-4) = 8k-5, a(7k-5) = 8k-6, a(7k-6) = 8k-8. (End)
[A004774] 0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 74, 75, 76, 77
a(n) = a(n-1)+a(n-7)-a(n-8) for n>8.
a(1) = 0, a(2) = 1, a(7*n + k + 2) = 8*n + k + 1, n >= 0, 1 <= k < 8. - Yosu Yurramendi, Aug 09 2016
[A011871] 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 15, 17, 19, 21, 23, 25, 28, 30, 33, 36, 39, 42, 45, 48, 51, 55, 58, 62, 66, 70, 74, 78, 82, 86, 91, 95, 100, 105, 110, 115, 120, 125, 130, 136, 141, 147, 153, 159, 165, 171, 177, 183, 190, 196, 203, 210, 217, 224, 231, 238
a(n) = +2*a(n-1) -a(n-2) +a(n-9) -2*a(n-10) +a(n-11). G.f.: x^5*(x^2-x+1) / ((1-x)^3*(1+x+x^2)*(x^6+x^3+1)). - R. J. Mathar, Apr 15 2010
a(n) = floor((1/3) * sum_{i=1..n} floor(i/3)). - Wesley Ivan Hurt, Jun 06 2014
[A008726] 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 18, 20, 22, 24, 27, 30, 33, 36, 39, 42, 45, 48, 52, 56, 60, 64, 68, 72, 76, 80, 85, 90, 95, 100, 105, 110, 115, 120, 126, 132, 138, 144, 150, 156, 162, 168, 175, 182, 189, 196, 203, 210, 217, 224, 232, 240, 248, 256, 264, 272, 280
a(n) = sum(floor(j/8), {j,0,n+8}), a(n-8) = (1/2)floor(n/8)*(2n-6-8*floor(n/8)). - Mitch Harris, Sep 08 2008
a(n) = 2*a(n-1) - a(n-2) + a(n-8) - 2*a(n-9) + a(n-10). - R. J. Mathar, Apr 20 2010

[A279079] 0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 19, 22, 25, 29, 33, 38, 43, 49, 56, 64, 73, 83, 94, 106, 120, 136, 154, 174, 196, 221, 249, 281, 317, 357, 402, 453, 510, 574, 646, 727, 818, 921, 1037, 1167, 1313, 1478, 1663, 1871, 2105, 2369, 2666, 3000, 3376, 3799
a(n) = floor(a(n-1)*9/8) + 1.
[A029750] 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 20, 24, 28, 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320, 384, 448, 512, 640, 768, 896, 1024, 1280, 1536, 1792, 2048, 2560, 3072, 3584, 4096, 5120, 6144, 7168, 8192, 10240
a(n) = 2a(n-4) for n > 7. - Charles R Greathouse IV, Feb 18 2013
[A246080] 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 18, 21, 24, 30, 36, 45, 54, 63, 72, 90, 108, 135, 162, 189, 216, 270, 324, 405, 486, 567, 648, 810, 972, 1215, 1458, 1701, 1944, 2430, 2916, 3645, 4374, 5103, 5832, 7290, 8748, 10935, 13122, 15309, 17496, 21870, 26244
a(n) = (qd+r) * d^(C-R) * (d+1)^R, where r = (n-Cp) mod q, Q = floor((R-Cp)/q), R = Q mod (C+1), and d = floor (Q/(C+1)).
a(n) = 3*a(n-6) for all n >= 10.
[A173925] 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 19, 24, 30, 37, 45, 56, 69, 85, 105, 130, 161, 199, 246, 304, 376, 465, 575, 711, 879, 1086, 1343, 1660, 2052, 2537, 3137, 3879, 4796, 5929, 7330, 9062, 11203, 13850, 17123
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=1, a(8)=2, a(9)=3, a(10)=4, a(11)=5, a(12)=6, a(13)=7, a(14)=8, a(15)=10, a(n)= a(n-1)+ a(n-8)+a(n-15)-a(n-16) [From Harvey P. Dale, Apr 02 2012]
[A143287] 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 14, 20, 28, 38, 50, 64, 80, 99, 123, 155, 198, 255, 329, 423, 540, 684, 861, 1080, 1354, 1700, 2139, 2696, 3400, 4285, 5392, 6772, 8490, 10630, 13300, 16637, 20812, 26036, 32568, 40726, 50902, 63582, 79372
a(n) = 2*a(n-1) - a(n-2) + a(n-8) - a(n-10) - a(n-17). - Vincenzo Librandi, Jun 05 2013
[A048334] 0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 20, 30, 40, 50, 60, 70, 80, 91, 182, 273, 364, 455, 546, 637, 728, 820, 1640, 2460, 3280, 4100, 4920, 5740, 6560, 7381, 14762, 22143, 29524, 36905, 44286, 51667, 59048, 66430, 132860, 199290, 265720, 332150, 398580
a(n) = 10*a(n-8) -9*a(n-16). - R. J. Mathar, Mar 14 2015
[A114799] 1, 1, 2, 3, 4, 5, 6, 7, 8, 18, 30, 44, 60, 78, 98, 120, 288, 510, 792, 1140, 1560, 2058, 2640, 6624, 12240, 19800, 29640, 42120, 57624, 76560, 198720, 379440, 633600, 978120, 1432080, 2016840, 2756160, 7352640, 14418720, 24710400, 39124800
a(n) = 1 for n<1, else a(n) = n*a(n-7).
[A183220] 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106
a(n)=n+Floor[1/2+(n/3)^(1/2)]
[A052421] 0, 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79
a(n) = replace digits d > 7 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A248375] 0, 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95
a(n) = n + floor(n/8) = a(n-1) + a(n-8) - a(n-9). [Bruno Berselli, Oct 06 2014]
[A277050] 0, 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75
a(n) = floor(2*n/sqrt(Pi)).
[A182768] 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 76, 77, 78
a(n)=floor(n*(1+e^(-2))).
[A047592] 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 81
a(n) = n - 1 + floor((n+6)/7). - Benoit Cloitre, Jul 11 2009
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (56*n - 28 + (n mod 7) + ((n+1) mod 7) + ((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) - 6*((n+6) mod 7))/49.
a(7k) = 8k-1, a(7k-1) = 8k-2, a(7k-2) = 8k-3, a(7k-3) = 8k-4, a(7k-4) = 8k-5, a(7k-5) = 8k-6, a(7k-6) = 8k-7. (End)
[A187320] 0, 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 86, 87, 89, 90, 91, 92, 93, 94, 95, 97, 98, 99, 100, 101, 102, 103, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 121, 122, 123, 124, 125, 126, 127, 128, 130, 131, 132, 133, 134, 135, 136
a(n)=floor((pi-2)n).
[A047306] 0, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = n + floor((n-2)/6). (End)
a(n) = (42*n-27+3*cos(n*Pi)-12*cos(n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/36.
a(6k) = 7k-1, a(6k-1) = 7k-2, a(6k-2) = 7k-3, a(6k-3) = 7k-4, a(6k-4) = 7k-5, a(6k-5) = 7k-7. (End)
[A271108] 0, 2, 3, 4, 5, 6, 7, 9, 10, 11, 14, 16, 18, 20, 22, 25, 28, 31, 34, 37, 41, 44, 47, 51, 54, 57, 61, 64, 67, 71, 75, 79, 83, 86, 89, 92, 95, 98, 101, 105, 109, 113, 118, 123, 129, 135, 141, 147, 154, 160, 165, 171, 178, 185, 191, 197, 204, 208
a(0) = 0, a(n) = a(n-1) + S(n), where S(n) is the number of syllables in n.
[A073518] 0, 1, 1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 13, 14, 15, 17, 19, 19, 21, 23, 23, 25, 26, 28, 31, 32, 33, 34, 35, 36, 40, 42, 44, 44, 47, 48, 50, 52, 53, 55, 57, 58, 61, 61, 63, 63, 67, 71, 72, 73, 74, 76, 77, 80, 82, 84, 86, 86, 88, 89, 90, 93, 98, 99, 100, 101, 105, 107, 110, 111, 112
a(n) = round(cotan(Pi/prime(n)) or a(n) = round(1/tan(Pi/prime(n)).
[A211543] 0, 0, 0, 0, 1, 1, 1, 2, 3, 4, 5, 6, 7, 9, 11, 12, 14, 16, 18, 21, 23, 25, 28, 31, 34, 37, 40, 43, 47, 51, 54, 58, 62, 66, 71, 75, 79, 84, 89, 94, 99, 104, 109, 115, 121, 126, 132, 138, 144, 151, 157, 163, 170, 177, 184, 191, 198, 205, 213, 221, 228, 236, 244
a(n) = a(n-1) + a(n-3) - a(n-4) + a(n-5) - a(n-6) - a(n-8) + a(n-9).
[A031876] 0, 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 160
a(0) = 0, a(1) = 1, a(n) = 2*a(n-1) - a(n-2) if n not a perfect cube, else a(n) = 2*a(n-1) - a(n-2) + 1 if n is a perfect cube.
a(n) = -1/4*floor(n^(1/3))*(floor(n^(1/3))^3+2*floor(n^(1/3))^2+floor(n^(1/3))-4*(n+1)). - John M. Campbell, Mar 22 2016
a(n) = (3/4)*n^(4/3) + O(n). - Charles R Greathouse IV, Aug 23 2017
[A174738] 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 19, 21, 24, 27, 30, 33, 36, 39, 42, 46, 50, 54, 58, 62, 66, 70, 75, 80, 85, 90, 95, 100, 105, 111, 117, 123, 129, 135, 141, 147, 154, 161, 168, 175, 182, 189, 196, 204, 212, 220, 228, 236
a(n) = round(n*(n-5)/14).
a(n) = floor((n-2)*(n-3)/14).
a(n) = ceil((n+1)*(n-6)/14).
a(n) = a(n-7) + n-6, n>6.
a(n) = +2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9). - R. J. Mathar, Nov 30 2010
[A011867] 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 19, 21, 24, 27, 30, 33, 36, 39, 42, 46, 50, 54, 58, 62, 66, 70, 75, 80, 85, 90, 95, 100, 105, 111, 117, 123, 129, 135, 141, 147, 154, 161, 168, 175, 182, 189, 196, 204, 212, 220, 228, 236, 244, 252, 261, 270, 279, 288, 297
a(n) = +2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9). G.f.: x^5 / ((1-x)^3*(x^6+x^5+x^4+x^3+x^2+x+1)). [From R. J. Mathar, Apr 15 2010]
[A008725] 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 19, 21, 24, 27, 30, 33, 36, 39, 42, 46, 50, 54, 58, 62, 66, 70, 75, 80, 85, 90, 95, 100, 105, 111, 117, 123, 129, 135, 141, 147, 154, 161, 168, 175, 182, 189, 196, 204, 212, 220, 228, 236, 244, 252, 261, 270, 279, 288, 297, 306
a(n) = sum(floor(j/7), {j,0,n+7}), a(n-7) = (1/2)floor(n/7)*(2n-5 -7*floor(n/7)). - Mitch Harris, Sep 08 2008
a(n) = +2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9). - R. J. Mathar, Apr 20 2010

[A275673] 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 17, 19, 22, 25, 28, 31, 34, 37, 41, 45, 49, 53, 57, 61, 66, 71, 76, 81, 86, 91, 97, 103, 109, 115, 121, 127, 134, 141, 148, 155, 162, 169, 177, 185, 193, 201, 209, 217, 226, 235, 244, 253, 262, 271, 281, 291, 301, 311, 321
a(n) = 2*a(n-1)-a(n-2)+a(n-6)-2*a(n-7)+a(n-8) for n>8.
[A279078] 0, 1, 2, 3, 4, 5, 6, 7, 9, 11, 13, 15, 18, 21, 25, 29, 34, 39, 45, 52, 60, 69, 79, 91, 105, 121, 139, 159, 182, 209, 239, 274, 314, 359, 411, 470, 538, 615, 703, 804, 919, 1051, 1202, 1374, 1571, 1796, 2053, 2347, 2683, 3067, 3506, 4007, 4580, 5235, 5983, 6838
a(n) = floor(a(n-1)*8/7) + 1.
[A193286] 1, 2, 3, 4, 5, 6, 7, 9, 12, 16, 20, 25, 30, 36, 48, 64, 80, 100, 125, 150, 192, 256, 320, 400, 500, 625, 768, 1024, 1280, 1600, 2000, 2500, 3125, 4096, 5120, 6400, 8000, 10000, 12500, 16384, 20480, 25600, 32000, 40000, 50000, 65536, 81920, 102400, 128000, 160000, 200000, 262144, 327680
a(n) = 4*a(n-6) for n >= 27.
a(n) = a(8;9;15;21;27) = 9; 12; 48; 192; 768 - corresponding to [C=2;2;3;4;5 below].
a(n=1:27) = Q^(C-R) * (Q+1)^R where C = floor((n+2)/6 [minimum value 1], R = n+2 mod C, and Q = floor((n+2)/c)-2.
a(n>=28) = 4^(C-R) * 5^R, where C = floor(n+2/6), R = (n+2) mod 6.
[A005708] 1, 1, 1, 1, 1, 1, 2, 3, 4, 5, 6, 7, 9, 12, 16, 21, 27, 34, 43, 55, 71, 92, 119, 153, 196, 251, 322, 414, 533, 686, 882, 1133, 1455, 1869, 2402, 3088, 3970, 5103, 6558, 8427, 10829, 13917, 17887, 22990, 29548, 37975, 48804, 62721, 80608, 103598, 133146, 171121, 219925, 282646
a(n) = term (1,1) in the 6 X 6 matrix [1,1,0,0,0,0; 0,0,1,0,0,0; 0,0,0,1,0,0; 0,0,0,0,1,0; 0,0,0,0,0,1]^n. - Alois P. Heinz, Jul 27 2008
[A143286] 0, 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 7, 9, 13, 19, 27, 37, 49, 63, 80, 102, 132, 173, 228, 300, 392, 508, 654, 839, 1076, 1382, 1778, 2289, 2945, 3783, 4850, 6207, 7934, 10135, 12943, 16526, 21095, 26915, 34320, 43733, 55692, 70882, 90174, 114673, 145778
a(n) = 2*a(n-1) - a(n-2) + a(n-7) - a(n-9) - a(n-15). - Vincenzo Librandi, Jun 05 2013
[A048333] 0, 1, 2, 3, 4, 5, 6, 7, 9, 18, 27, 36, 45, 54, 63, 73, 146, 219, 292, 365, 438, 511, 585, 1170, 1755, 2340, 2925, 3510, 4095, 4681, 9362, 14043, 18724, 23405, 28086, 32767, 37449, 74898, 112347, 149796, 187245, 224694, 262143, 299593, 599186, 898779
a(n) = 9*a(n-7) - 8*a(n-14) for n > 13.
[A272576] 0, 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 60, 61, 62, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 76, 77, 80, 81, 82, 83, 84, 85, 86, 87, 90
a(n) = a(n-1) + a(n-8) - a(n-9).
[A007094] 0, 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 60, 61, 62, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 76, 77, 100, 101, 102
a(0) = 0; a(n) = 10*a(n/8) if n == 0 (mod 8); a(n) = a(n-1) + 1 otherwise. - Benoit Cloitre, Dec 22 2002
[A078779] 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 26, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 44, 46, 47, 51, 52, 53, 55, 57, 58, 59, 60, 61, 62, 65, 66, 67, 68, 69, 70, 71, 73, 74, 76, 77, 78, 79, 82, 83, 84, 85, 86, 87, 89, 91, 92, 93, 94, 95, 97, 101
a(n) = (Pi^2/7)*n + O(sqrt(n)). - Vladimir Shevelev, Jun 08 2016
[A047593] 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 58, 59, 60, 61, 62, 63, 66, 67, 68, 69, 70, 71, 74, 75, 76, 77, 78, 79, 82, 83, 84, 85, 86, 87
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-3-3*cos(n*Pi)-4*sqrt(3)*cos((1+4*n)*Pi/6)-12*sin((1-2*n)*Pi/6))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-4, a(6k-4) = 8k-5, a(6k-5) = 8k-6. (End)
[A074946] 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 16, 17, 18, 19, 22, 23, 24, 26, 27, 29, 30, 31, 34, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 53, 56, 58, 59, 60, 61, 62, 63, 66, 67, 71, 73, 74, 75, 78, 79, 80, 82, 83, 84, 86, 88, 89, 94, 96, 97, 99, 100, 101, 102, 103, 104, 105, 106
a(n) seems to be asymptotic to c*n*log(log(n)) with 1.128 < c < 1.13.
[A008814] 1, 2, 3, 4, 5, 6, 7, 10, 13, 16, 19, 22, 25, 28, 33, 38, 43, 48, 53, 58, 63, 70, 77, 84, 91, 98, 105, 112, 121, 130, 139, 148, 157, 166, 175, 186, 197, 208, 219, 230, 241, 252, 265, 278, 291, 304, 317, 330, 343, 358
a(n) = 2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9). [R. H. Hardin, Nov 16 2011]
[A275910] 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 25, 29, 30, 31, 32, 33, 34, 38, 39, 40, 41, 42, 43, 47, 48, 49, 50, 51, 52, 56, 57, 58, 59, 60, 61, 65, 66, 67, 68, 69, 70, 74, 75, 76, 77, 78, 79, 83, 84, 85, 86, 87, 88, 92, 93, 94, 95, 96, 97, 101, 102, 103, 104, 105, 106, 110, 111
a(n) = a(n-1)+a(n-6)-a(n-7) for n>7.
[A132028] 1, 2, 3, 4, 5, 6, 7, 16, 18, 20, 22, 36, 39, 42, 45, 64, 68, 72, 76, 100, 105, 110, 115, 144, 150, 156, 162, 196, 203, 210, 217, 512, 528, 544, 560, 648, 666, 684, 702, 800, 820, 840, 860, 968, 990, 1012, 1034, 1728, 1764, 1800, 1836, 2028, 2067, 2106, 2145, 2352
a(k*4^m)=k^(m+1)*4^(m(m+1)/2), for 0<k<4.
[A085158] 1, 1, 2, 3, 4, 5, 6, 7, 16, 27, 40, 55, 72, 91, 224, 405, 640, 935, 1296, 1729, 4480, 8505, 14080, 21505, 31104, 43225, 116480, 229635, 394240, 623645, 933120, 1339975, 3727360, 7577955, 13404160, 21827575, 33592320, 49579075, 141639680
a(n)=1 for n<1 otherwise a(n)=n*a(n-6)
[A052419] 0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 80, 81, 82, 83, 84, 85, 86, 88, 89
a(n) = replace digits d > 6 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A047421] 0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75
a(n) = n + floor(n/7) = a(n-1) + a(n-7) - a(n-8). [Bruno Berselli, Oct 06 2014]
[A004777] 0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77
a(n) = floor((n-1)*8/7). - M. F. Hasler, Nov 02 2013
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (56*n - 77 + (n mod 7) + ((n+1) mod 7) + ((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) - 6*((n+6) mod 7))/49.
a(7k) = 8k-2, a(7k-1) = 8k-3, a(7k-2) = 8k-4, a(7k-3) = 8k-5, a(7k-4) = 8k-6, a(7k-5) = 8k-7, a(7k-6) = 8k-8. (End)
[A059561] 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 80, 81
a(n) = floor(n*log(Pi)). - Michel Marcus, Jan 04 2015
[A000378] 0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 61, 62, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83
a(n) = 6n/5 + O(log n). - Charles R Greathouse IV, Mar 14 2014
[A187396] 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 86, 87, 88, 89, 90, 91, 92, 94, 95, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106, 108, 109, 110, 111, 112, 113, 115, 116
a(n)=floor(s*n), where s=4-sqrt(10).
[A047304] 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 64, 65, 66
a(n)=n-1+floor((n+5)/6) [From Benoit Cloitre, Jul 11 2009]
[A004765] 0, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83
a(1) = 0, a(2) = 1, a(3) = 2, a(4) = 3, a(2^(m+1)+2^m+k+2) = 2^(m+2) + k, m >= 0, 0 <= k < (2^(m+1)+2^m). - Yosu Yurramendi, Aug 08 2016
[A247063] 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 80, 81, 82, 83, 84, 85, 86, 88, 89, 90, 91, 92, 93, 96
a(n) = a(n-1) + a(n-13) - a(n-14). - Colin Barker, Sep 11 2014
[A032798] 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84
a(n) = a(n-1) + a(n-11) - a(n-12) for n > 12.

[A068398] 1, 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23, 25, 27, 28, 30, 32, 33, 35, 37, 38, 40, 42, 44, 46, 47, 49, 51, 53, 55, 57, 59, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 103, 105, 107, 109, 111, 113, 115, 117, 120
a(n) = floor(log(n!*2^n)/log(10))+1
[A080671] 2, 3, 4, 5, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35, 36, 38, 39, 40, 42, 44, 45, 46, 48, 50, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 69, 70, 72, 74, 75, 76, 78, 80, 81, 82, 84, 85, 86, 87, 88, 90, 92, 93, 94, 95, 96, 98
a(n+22) = a(n)+30.
a(n) = 30*floor(n/22) + floor(15*f(n)/11) + floor(f(n+2)/15) + floor(f(n-3)/20) + floor(f(n+11)/21), where f(n) = n mod 22. (end)
[A066022] 1, 1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 15, 17, 18, 20, 21, 23, 25, 27, 28, 30, 32, 34, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 88, 90, 92, 94, 96, 98, 101, 103, 105, 107, 109, 112, 114, 116, 118, 121, 123, 125
a(n) = floor(n*log(n)/log(10)) + 1. Not correct in PARI for n=100, n=1000, ... See my PARI program.
[A184115] 2, 3, 4, 5, 6, 8, 9, 11, 13, 14, 16, 18, 20, 22, 24, 27, 29, 31, 34, 36, 39, 42, 45, 48, 50, 54, 57, 60, 63, 66, 70, 73, 77, 81, 84, 88, 92, 96, 100, 104, 109, 113, 117, 122, 126, 131, 136, 141, 146, 150, 156, 161, 166, 171, 176, 182, 187, 193, 199, 204, 210, 216, 222, 228, 234, 241, 247, 253, 260, 266, 273, 280, 287, 294, 300, 308, 315, 322, 329, 336, 344, 351, 359, 367, 374, 382, 390, 398, 406, 414
a(n) = n + ceiling(n^2/25).
[A134030] 1, 2, 3, 4, 5, 6, 8, 9, 11, 13, 15, 18, 20, 23, 26, 28, 32, 35, 38, 42, 46, 49, 54, 58, 62, 67, 71, 76, 81, 86, 92, 97, 103, 109, 115, 121, 127, 134, 140, 147, 154, 161, 168, 176, 183, 191, 199, 207, 215, 223, 232, 240, 249, 258, 267, 277, 286
a(n) = Round(n/(4*tan(Pi/n)).
[A047424] 0, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, 16, 18, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 34, 35, 36, 37, 38, 40, 42, 43, 44, 45, 46, 48, 50, 51, 52, 53, 54, 56, 58, 59, 60, 61, 62, 64, 66, 67, 68, 69, 70, 72, 74, 75, 76, 77, 78, 80, 82, 83, 84, 85, 86
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6) for n>6.
a(n) = (12*n-12-sqrt(3)*cos((1-4*n)*Pi/6)-3*sqrt(3)*cos((1+2*n)*Pi/6))/9.
a(6k) = 8k-2, a(6k-1) = 8k-3, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-6, a(6k-5) = 8k-8. (End)
[A087721] 2, 3, 4, 5, 6, 8, 10, 11, 12, 16, 20, 21, 22, 23, 24, 25, 30, 32, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 52, 54, 56, 58, 60, 61, 62, 64, 66, 68, 71, 72, 73, 77, 78, 79, 80, 82, 83, 85, 87, 88, 90, 91, 92, 93, 94, 96, 101, 106, 108, 109, 111, 114, 115, 118, 120, 122, 123
a(n) =a(n - a(n-1)) + a(n - a(n-2)).
[A000933] 0, 0, 0, 0, 1, 1, 1, 2, 3, 4, 5, 6, 8, 10, 11, 13, 16, 18, 20, 23, 26, 29, 32, 35, 39, 43, 46, 50, 55, 59, 63, 68, 73, 78, 83, 88, 94, 100, 105, 111, 118, 124, 130, 137, 144, 151, 158, 165, 173, 181, 188, 196, 205, 213, 221, 230, 239, 248, 257, 266, 276, 286, 295, 305
a(n) = ceiling ((n-3)*(n-4)/12) if n>=3.
a(1)=0, a(2)=0, a(3)=0, a(4)=0, a(5)=1, a(6)=1, a(7)=1, a(8)=2, a(9)=3, a(n) = 2*a(n-1) - 2*a(n-2) + 3*a(n-3) - 3*a(n-4) + 2*a(n-5) - 2*a(n-6) + a(n-7). - Harvey P. Dale, Dec 18 2011
[A253012] 1, 1, 1, 2, 3, 4, 5, 6, 8, 10, 11, 13, 16, 18, 20, 23, 26, 29, 32, 35, 39, 43, 46, 50, 55, 59, 63, 68, 73, 78, 83, 88, 94, 100, 105, 111, 118, 124, 130, 137, 144, 151, 158, 165, 173, 181, 188, 196, 205, 213, 221, 230, 239, 248, 257, 266, 276, 286, 295, 305
a(n) = a(-3-n) for all n in Z.
a(n) - 2*a(n+1) + a(n+2) is a period 12 integer sequence.
a(n) - 2*a(n+1) + 2*a(n+2) - 2*a(n+3) + a(n+4) = 1 if n == 1 (mod 3) else 0.
[A036409] 0, 1, 1, 1, 2, 3, 4, 5, 6, 8, 10, 11, 14, 16, 18, 21, 24, 27, 30, 33, 37, 41, 44, 49, 53, 57, 62, 67, 72, 77, 82, 88, 94, 99, 106, 112, 118, 125, 132, 139, 146, 153, 161, 169, 176, 185, 193, 201, 210, 219, 228, 237, 246, 256, 266, 275, 286, 296
a(n) = +2 a(n-1) -a(n-2) +a(n-11) -2 a(n-12) +a(n-13). - R. J. Mathar, Mar 11 2012
a(m + 11 k) = a(m) + 11 k^2 + 2 m k. - Robert Israel, Apr 06 2016
[A274039] 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112
a(n) = 2*(n-6), n>=9. - R. J. Mathar, Jun 09 2016
[A011866] 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 23, 26, 29, 32, 35, 38, 42, 46, 50, 54, 58, 62, 66, 71, 76, 81, 86, 91, 96, 102, 108, 114, 120, 126, 132, 138, 145, 152, 159, 166, 173, 180, 188, 196, 204, 212, 220, 228, 236, 245, 254, 263, 272, 281, 290, 300, 310
a(n) = +2*a(n-1) -a(n-2) +a(n-13) -2*a(n-14) +a(n-15). [From R. J. Mathar, Apr 15 2010]
[A174709] 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 56, 60, 65, 70, 75, 80, 85, 90, 96, 102, 108, 114, 120, 126, 133, 140, 147, 154, 161, 168, 176, 184, 192
a(n) = round(n*(n-4)/12) = round((2*n^2-8*n-1)/24).
a(n) = floor((n-2)^2/12).
a(n) = ceil((n+1)*(n-5)/12).
a(n) = a(n-6) +n -5, n>5.
a(n) = +2*a(n-1) -a(n-2) +a(n-6) -2*a(n-7) +a(n-8).
[A008724] 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 21, 24, 27, 30, 33, 36, 40, 44, 48, 52, 56, 60, 65, 70, 75, 80, 85, 90, 96, 102, 108, 114, 120, 126, 133, 140, 147, 154, 161, 168, 176, 184, 192, 200, 208, 216, 225, 234, 243, 252, 261, 270, 280, 290, 300, 310, 320, 330, 341, 352
a(n) = a(n-6) + n - 3 . - Paul Barry, Jul 14 2004
a(n) = sum_{j=0..n+2} floor(j/6), a(n-2) = (1/2)floor(n/6)*(2n - 4 - 6*floor(n/6)). - Mitch Harris, Sep 08 2008
[A029032] 1, 1, 1, 2, 3, 4, 5, 6, 8, 10, 12, 14, 17, 20, 23, 27, 31, 35, 40, 45, 51, 57, 63, 70, 78, 86, 94, 103, 113, 123, 134, 145, 157, 170, 183, 197, 212, 227, 243, 260, 278, 296, 315, 335, 356, 378, 400, 423, 448, 473
a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(4)=3, a(5)=4, a(6)=5, a(7)=6, a(8)=8, a(9)=10, a(10)=12, a(11)=14, a(12)=17, a(n)=a(n-1)+a(n-3)-a(n-6)- a(n-7)+ a(n-10)+a(n-12)-a (n-13). - Harvey P. Dale, Jan 04 2012
[A279077] 0, 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 18, 22, 26, 31, 37, 44, 52, 61, 72, 85, 100, 117, 137, 160, 187, 219, 256, 299, 349, 408, 477, 557, 650, 759, 886, 1034, 1207, 1409, 1644, 1919, 2239, 2613, 3049, 3558, 4152, 4845, 5653, 6596, 7696, 8979, 10476, 12223, 14261
a(n) = floor(a(n-1)*7/6) + 1.
[A029747] 1, 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 24, 32, 40, 48, 64, 80, 96, 128, 160, 192, 256, 320, 384, 512, 640, 768, 1024, 1280, 1536, 2048, 2560, 3072, 4096, 5120, 6144, 8192, 10240, 12288, 16384, 20480, 24576, 32768
a(n) = if n<5 then n+1 else 2*a(n-3). - Reinhard Zumkeller, Aug 23 2006
[A179053] 0, 1, 2, 3, 4, 5, 6, 8, 10, 14, 19, 28, 42, 64, 99, 155, 245, 391, 626, 1007, 1622, 2618, 4229, 6835, 11051, 17872, 28908, 46765, 75657, 122406, 198046, 320435, 518464, 838881, 1357326, 2196187, 3553492, 5749658
a(n)=round(Fibonacci(n+2)/11+3*n/5+43/110).
a(n)=floor(Fibonacci(n+2)/11+3*n/5+48/55).
a(n)=ceil(Fibonacci(n+2)/11+3*n/5-1/11).
a(n)=a(n-10)+Fibonacci(n-3)+6, n>9.
a(n)=2*a(n-1)-a(n-3)+a(n-10)-2*a(n-11)+a(n-13), n>12.
[A003520] 1, 1, 1, 1, 1, 2, 3, 4, 5, 6, 8, 11, 15, 20, 26, 34, 45, 60, 80, 106, 140, 185, 245, 325, 431, 571, 756, 1001, 1326, 1757, 2328, 3084, 4085, 5411, 7168, 9496, 12580, 16665, 22076, 29244, 38740, 51320, 67985, 90061, 119305, 158045, 209365, 277350, 367411, 486716, 644761
a(n) = sum(j=0..(n-1)/4, binomial(n-1+(-4)*j,j)).
a(n) = term (1,1) in the 5 X 5 matrix [1,1,0,0,0; 0,0,1,0,0; 0,0,0,1,0; 0,0,0,0,1; 1,0,0,0,0]^n. - Alois P. Heinz, Jul 27 2008
[A143285] 0, 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 6, 8, 12, 18, 26, 36, 48, 63, 83, 111, 150, 203, 273, 364, 482, 636, 839, 1108, 1464, 1933, 2548, 3352, 4402, 5774, 7568, 9914, 12980, 16983, 22204, 29008, 37870, 49408, 64425, 83963, 109373, 142406, 185331, 241088, 313486
a(n) = 2*a(n-1) -a(n-2) +a(n-6) -a(n-8) -a(n-13). - Vincenzo Librandi, Jun 05 2013
[A048332] 0, 1, 2, 3, 4, 5, 6, 8, 16, 24, 32, 40, 48, 57, 114, 171, 228, 285, 342, 400, 800, 1200, 1600, 2000, 2400, 2801, 5602, 8403, 11204, 14005, 16806, 19608, 39216, 58824, 78432, 98040, 117648, 137257, 274514, 411771, 549028, 686285, 823542, 960800
a(n) = 8*a(n-6) - 7*a(n-12) for n > 11.
a(n) = (n - 6*floor((n-1)/6))*(7^floor((n+5)/6) - 1)/6. - Ilya Gutkovskiy, May 30 2016

[A119336] 1, 2, 3, 4, 5, 6, 8, 16, 45, 130, 341, 804, 1730, 3460, 6555, 12016, 21845, 40410, 77540, 155080, 320001, 669526, 1398101, 2884776, 5858126, 11716252, 23166783, 45536404, 89478485, 176565486, 350739488, 701478976, 1410132405, 2841788170
a(n)=sum{k=0..n, sum{j=0..n-k, C(k,3j)C(n-k,3j)}}
a(0)=1, a(1)=2, a(2)=3, a(3)=4, a(4)=5, a(n)=6*a(n-1)-15*a(n-2)+ 20*a(n-3)- 15*a(n-4)+6*a(n-5). - Harvey P. Dale, Dec 25 2015
[A272574] 0, 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50, 51, 54, 55, 56, 57, 58, 59, 60, 63, 64, 65, 66, 67, 68, 69, 72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85, 86, 87, 90
a(n) = a(n-1) + a(n-7) - a(n-8).
a(n) = (63*n - 12 - 12*(n mod 7) + 2*((-n-1) mod 7))/49. - Wesley Ivan Hurt, Dec 25 2016
[A047422] 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 41, 42, 43, 44, 45, 46, 49, 50, 51, 52, 53, 54, 57, 58, 59, 60, 61, 62, 65, 66, 67, 68, 69, 70, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 85, 86
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-21-3*cos(n*Pi)-4*sqrt(3)*cos((1+4*n)*Pi/6)-12*sin((1-2*n)*Pi/6))/18.
a(6k) = 8k-2, a(6k-1) = 8k-3, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-6, a(6k-5) = 8k-7. (End)
[A008813] 1, 2, 3, 4, 5, 6, 9, 12, 15, 18, 21, 24, 29, 34, 39, 44, 49, 54, 61, 68, 75, 82, 89, 96, 105, 114, 123, 132, 141, 150, 161, 172, 183, 194, 205, 216, 229, 242, 255, 268, 281, 294, 309, 324, 339, 354, 369, 384, 401, 418
a(n) = 2*a(n-1) -a(n-2) +a(n-6) -2*a(n-7) +a(n-8). [From R. H. Hardin, Nov 16 2011]
[A178715] 1, 2, 3, 4, 5, 6, 9, 12, 16, 20, 27, 36, 48, 64, 81, 108, 144, 192, 256, 324, 432, 576, 768, 1024, 1296, 1728, 2304, 3072, 4096, 5184, 6912, 9216, 12288, 16384, 20736, 27648, 36864, 49152, 65536, 82944, 110592, 147456, 196608, 262144, 331776, 442368, 589824, 786432, 1048576, 1327104, 1769472, 2359296, 3145728, 4194304
a(n) = 4*a(n-5) for n>=16.
a(n) =
[A113444] 1, 1, 1, 1, 1, 2, 3, 4, 5, 6, 9, 13, 18, 24, 31, 43, 60, 83, 113, 151, 206, 283, 389, 532, 721, 982, 1342, 1837, 2512, 3422, 4665, 6367, 8699, 11886, 16218, 22126, 30195, 41226, 56299, 76849, 104883, 143147, 195404, 266776, 364175, 497092, 678503, 926164
a(n) = a(n-1) + 2*a(n-5) - a(n-6).
a(n) = 11*a(n-5) -45*a(n-10) +90*a(n-15) -90*a(n-20) +37*a(n-25)-a(n-30).
[A007093] 0, 1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 25, 26, 30, 31, 32, 33, 34, 35, 36, 40, 41, 42, 43, 44, 45, 46, 50, 51, 52, 53, 54, 55, 56, 60, 61, 62, 63, 64, 65, 66, 100, 101, 102, 103, 104, 105, 106, 110, 111, 112, 113, 114, 115, 116, 120
a(0) = 0, a(n) = 10*a(n/7) if n==0 (mod 7), a(n) = a(n-1)+1 otherwise. - Benoit Cloitre, Dec 22 2002
[A047423] 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, 26, 27, 28, 29, 30, 34, 35, 36, 37, 38, 42, 43, 44, 45, 46, 50, 51, 52, 53, 54, 58, 59, 60, 61, 62, 66, 67, 68, 69, 70, 74, 75, 76, 77, 78, 82, 83, 84, 85, 86, 90, 91, 92, 93, 94, 98, 99, 100, 101, 102
a(n+1) = 3*floor(n/5) + n + 2. - Gary Detlefs, Mar 12 2010
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (8*n + 2 - 3*((n+4) mod 5))/5.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-5, a(5k-4) = 8k-6. (End)
[A212774] 0, 1, 2, 3, 4, 5, 6, 10, 11, 15, 16, 20, 22, 25, 26, 30, 31, 35, 36, 40, 41, 50, 51, 55, 56, 60, 61, 65, 66, 75, 76, 80, 81, 85, 86, 90, 91, 100, 102, 120, 122, 150, 153, 200, 204, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950
a(n) = (n-41)*50 for n >= 46.
[A057436] 1, 2, 3, 4, 5, 6, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 31, 32, 33, 34, 35, 36, 41, 42, 43, 44, 45, 46, 51, 52, 53, 54, 55, 56, 61, 62, 63, 64, 65, 66, 111, 112, 113, 114, 115, 116, 121, 122, 123, 124, 125, 126, 131, 132, 133, 134, 135, 136, 141, 142, 143
a(n+1) = 1 + (if a(n) mod 10 < 6 then a(n) else a(a(n)10)*10), a(0)=1. - Reinhard Zumkeller, Jul 13 2007
[A276529] 1, 1, 1, 1, 1, 1, 2, 3, 4, 5, 6, 13, 20, 27, 34, 41, 89, 137, 185, 233, 281, 610, 939, 1268, 1597, 1926, 4181, 6436, 8691, 10946, 13201, 28657, 44113, 59569, 75025, 90481, 196418, 302355, 408292, 514229, 620166, 1346269, 2072372, 2798475, 3524578, 4250681, 9227465
a(n) + a(n+10) = 7*a(n+5).
a(5-n) = a(n).
[A085157] 1, 1, 2, 3, 4, 5, 6, 14, 24, 36, 50, 66, 168, 312, 504, 750, 1056, 2856, 5616, 9576, 15000, 22176, 62832, 129168, 229824, 375000, 576576, 1696464, 3616704, 6664896, 11250000, 17873856, 54286848, 119351232, 226606464, 393750000, 643458816
a(n) = 1 for n<1 otherwise a(n) = n*a(n-5).
[A052414] 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88, 89
a(n) = replace digits d > 5 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A183218] 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107
a(n)=n+Floor[1/2+(n/2)^(1/2)].
[A047595] 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = n - 1 + floor(n/7). (End)
a(n) = a(n-7) + 8 for n>7.
a(n) = (56*n - 70 - 6*(n mod 7) + ((n+1) mod 7) + ((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) + ((n+6) mod 7))/49.
a(7*k) = 8*k-1, a(7*k-1) = 8*k-3, a(7*k-2) = 8*k-4, a(7*k-3) = 8*k-5, a(7*k-4) = 8*k-6, a(7*k-5) = 8*k-7, a(7*k-6) = 8*k-8. (End)
[A047368] 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 77
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (42*n-57-3*cos(Pi*n)-4*sqrt(3)*cos((4*n+1)*Pi/6)-12*sin((1-2*n)*Pi/6))/36.
a(6k) = 7k-2, a(6k-1) = 7k-3, a(6k-2) = 7k-4, a(6k-3) = 7k-5, a(6k-4) = 7k-6, a(6k-5) = 7k-7. (End)
[A187394] 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 89, 90, 91, 92, 93, 94, 96, 97, 98, 99, 100, 101, 103, 104, 105, 106, 107, 108, 110, 111, 112, 113, 114, 115, 117
a(n) = floor(s*n), where s = 4 - sqrt(8).
[A187392] 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 78, 79, 80, 81, 82, 83, 85, 86, 87, 88, 89, 91, 92, 93, 94, 95, 96, 98, 99, 100, 101, 102, 104, 105, 106, 107, 108, 109, 111, 112, 113, 114, 115, 117, 118
a(n)=floor(s*n), where s=1+sqrt(8)-sqrt(7).
[A108120] 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81, 83, 84, 85
a(n) = floor(n*1/sin(1))
[A187390] 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 86, 87, 88, 89, 90, 92, 93, 94, 95, 96, 98, 99, 100, 101, 102, 104, 105, 106, 107, 108, 110, 111, 112, 113, 114, 116, 117, 118, 119
a(n) = floor(s*n), where s=1+sqrt(7)-sqrt(6).
[A047253] 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 85, 86
a(n) = 5 + a(n-5).

a(n) = n-1+floor((n+4)/5). [Benoit Cloitre, Jul 11 2009]
[A204878] 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 29, 31, 32, 33, 35, 37, 38, 39, 41, 43, 44, 45, 47, 49, 50, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105
a(38+k)=49+2k for all k>0 (up to occurrence of an odd perfect number, known to be > 10^300, if it exists). - M. F. Hasler, Feb 09 2012
[A218444] 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 15, 16, 17, 18, 20, 21, 23, 24, 25, 27, 29, 30, 32, 33, 35, 36, 37, 38, 40, 42, 44, 46, 47, 48, 51, 52, 53, 54, 55, 57, 60, 61, 63, 64, 66, 67, 70, 71, 72, 74, 76, 77, 79, 81, 83, 84, 85, 86, 88, 90, 92, 94, 96, 97, 101, 102, 103, 104, 105
a(n)=sum_{k>=0}floor(n/(5*k+1))
[A004764] 0, 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86
a(n) = n - 1, 1 <= n <= 6, a(2^(m+2) + 2^m + k + 2) = 2^(m+2) + 2^(m+1) + 2^m + k, m >= 0, 0 <= k < (2^(m+2) + 2^m). - Yosu Yurramendi, Aug 08 2016
[A032797] 1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 51, 52, 53, 54, 56, 57, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 70, 71, 73, 74, 75, 76, 78, 79, 80, 81, 82, 84, 85, 86
a(n) = a(n-1) + a(n-9) - a(n-10) for n > 10.
[A001967] 0, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 33, 34, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 54, 55, 56, 57, 59, 60, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 73, 75, 76, 77, 78, 80, 81, 82, 83
a(n) = floor((n+3/4)*(sqrt(5)-1)). - R. J. Mathar, Feb 14 2011
[A047203] 0, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 32, 33, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 47, 48, 49, 50, 52, 53, 54, 55, 57, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 70, 72, 73, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89
a(n) = floor((5n-2)/4). - Gary Detlefs, Mar 06 2010
a(n) = floor((15n-5)/12). - Gary Detlefs, Mar 07 2010
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (10*n-7+(-1)^n+2*(-1)^((2*n+3+(-1)^n)/4))/8.
[A107750] 0, 1, 2, 3, 4, 5, 7, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 45, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 61, 63, 64, 65, 67, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 87, 88, 89, 91, 92, 93
a(n) = n - sign(floor(n/3)) + floor((1/2)*sum_{i=1..n} (ceiling((i+2)/3) - floor((i+2)/3))). - Wesley Ivan Hurt, Jun 16 2014
a(n) = a(n-1) + a(n-3) - a(n-4) for n>3.
[A079734] 2, 3, 4, 5, 7, 8, 9, 11, 12, 13, 20, 21, 33, 34, 54, 55, 88, 89, 143, 144, 232, 233, 376, 377, 609, 610, 986, 987, 1596, 1597, 2583, 2584, 4180, 4181, 6764, 6765, 10945, 10946, 17710, 17711, 28656, 28657, 46367, 46368, 75024, 75025, 121392, 121393
a(n) = 2*a(n-2) - a(n-6) for n>14. - Colin Barker, Dec 02 2014
[A078174] 2, 3, 4, 5, 7, 8, 9, 11, 13, 15, 16, 17, 19, 21, 23, 25, 27, 29, 31, 32, 33, 35, 37, 39, 41, 42, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 64, 65, 67, 69, 71, 73, 75, 77, 78, 79, 81, 83, 84, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 110, 111, 113, 114, 115
a(n) « n log n/(log log n)^k for any k. - Charles R Greathouse IV, May 30 2013
[A014567] 1, 2, 3, 4, 5, 7, 8, 9, 11, 13, 16, 17, 19, 21, 23, 25, 27, 29, 31, 32, 35, 36, 37, 39, 41, 43, 47, 49, 50, 53, 55, 57, 59, 61, 63, 64, 65, 67, 71, 73, 75, 77, 79, 81, 83, 85, 89, 93, 97, 98, 100, 101, 103, 107, 109, 111, 113, 115, 119, 121, 125, 127, 128, 129, 131, 133
a(n) « n log n. Can this be improved? - Charles R Greathouse IV, Feb 13 2013
a(n) » n log log log n, see Luca. - Charles R Greathouse IV, Feb 17 2014
[A289995] 1, 2, 3, 4, 5, 7, 8, 9, 11, 16, 17, 23, 25, 27, 29, 31, 41, 47, 59, 71, 79, 81, 101, 107, 125, 127, 137, 149, 167, 179, 191, 197, 227, 239, 241, 256, 269, 281, 311, 347, 359, 419, 431, 461, 521, 569, 599, 617, 641, 659, 727, 809, 821, 827, 839, 857, 881, 1019, 1031, 1049
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 21 2017
[A107684] 0, 1, 2, 3, 4, 5, 7, 8, 9, 15, 16, 17, 31, 32, 33, 63, 64, 65, 127, 128, 129, 255, 256, 257, 511, 512, 513, 1023, 1024, 1025, 2047, 2048, 2049, 4095, 4096, 4097, 8191, 8192, 8193, 16383, 16384, 16385, 32767, 32768, 32769, 65535, 65536, 65537, 131071
a(n) = if n<=2 then n else 2^(floor(n/3)+1) + n mod 3 - 1. - Reinhard Zumkeller, Jun 05 2005
[A245231] 0, 2, 3, 4, 5, 7, 8, 10, 10, 12, 13, 14, 15, 17, 18, 20, 20, 22, 23, 24, 25, 27, 28, 30, 30, 32, 33, 34, 35, 37, 38, 40, 40, 42, 43, 44, 45, 47, 48, 50, 50, 52, 53, 54, 55, 57, 58, 60, 60, 62, 63, 64, 65, 67, 68, 70, 70, 72, 73, 74, 75, 77, 78, 80, 80, 82, 83, 84, 85, 87, 88, 90, 90, 92, 93, 94, 95, 97, 98, 100
a(n) = floor(5*n/4) - 1 if n == 1, 4 or 5 mod 8,
a(n) = floor(5*n/4) otherwise.
a(n+8) = a(n) + 10.
[A047503] 0, 2, 3, 4, 5, 7, 8, 10, 11, 12, 13, 15, 16, 18, 19, 20, 21, 23, 24, 26, 27, 28, 29, 31, 32, 34, 35, 36, 37, 39, 40, 42, 43, 44, 45, 47, 48, 50, 51, 52, 53, 55, 56, 58, 59, 60, 61, 63, 64, 66, 67, 68, 69, 71, 72, 74, 75, 76, 77, 79, 80, 82, 83, 84, 85, 87
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-21+3*cos(n*Pi)+2*sqrt(3)*cos((1+4*n)*Pi/6)-6*sin((1-2*n)*Pi/6))/18.
a(6k) = 8k-1, a(6k-1) = 8k-3, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-6, a(6k-5) = 8k-8. (End)
[A211540] 0, 0, 0, 0, 0, 1, 1, 2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70, 75, 80, 85, 91, 96, 102, 108, 114, 120, 127, 133, 140, 147, 154, 161, 169, 176, 184, 192, 200, 208, 217, 225, 234, 243, 252, 261, 271, 280, 290
a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6).
a(n) = 3k^2-6k+3 (for n=6k-3), 3k^2-5k+2 (for n=6k-2), 3k^2-4k+1 (for n=6k-1), 3k^2-3k+1 (for n=6k), 3k^2-2k (for n=6k+1), 3k^2-k (for n=6k+2). - Ece Uslu, Esin Becenen, Dec 31 2015
[A001399] 1, 1, 2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70, 75, 80, 85, 91, 96, 102, 108, 114, 120, 127, 133, 140, 147, 154, 161, 169, 176, 184, 192, 200, 208, 217, 225, 234, 243, 252, 261, 271, 280, 290, 300, 310, 320, 331, 341
a(n) = round((n+3)^2/12). Note that this cannot be of the form (2i+1)/2, so ties never arise.
a(n) = 1 + a(n-2) + a(n-3) - a(n-5) for all n in Z. - Michael Somos, Sep 04 2006
a(n) = a(-6 - n) for all n in Z. - Michael Somos, Sep 04 2006
a(n) = 17/72 + (n+1)*(n+5)/12 + (-1)^n/8 + (2/9)*cos(2*n*Pi/3). - Benoit Cloitre, Feb 09 2003
a(n) = 6*t(floor(n/6))+(n%6)*(floor(n/6)+1)+(n mod 6==0?1:0), where t(n)=n*(n+1)/2 a(n)=ceil(1/12*n^2+1/2*n)+(n mod 6==0?1:0). - Jon Perry, Jun 17 2003
a(n) = sum(i=0, floor(n/3), 1+floor((n-3*i)/2)). - Jon Perry, Jun 27 2003
[A069905] 0, 0, 0, 1, 1, 2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 19, 21, 24, 27, 30, 33, 37, 40, 44, 48, 52, 56, 61, 65, 70, 75, 80, 85, 91, 96, 102, 108, 114, 120, 127, 133, 140, 147, 154, 161, 169, 176, 184, 192, 200, 208, 217, 225, 234, 243, 252, 261, 271, 280, 290, 300, 310, 320, 331, 341
a(n) = round(n^2/12).
a(n) = floor((n^2+6)/12). - Washington Bomfim, Jul 03 2012
a(-n) = a(n). - Michael Somos, Sep 04 2013
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6), n>5. - Wesley Ivan Hurt, Oct 16 2015
[A029006] 1, 1, 2, 3, 4, 5, 7, 8, 10, 12, 14, 16, 20, 22, 26, 30, 34, 38, 44, 48, 54, 60, 66, 72, 81, 87, 96, 105, 114, 123, 135, 144, 156, 168, 180, 192, 208, 220, 236, 252, 268, 284, 304, 320, 340, 360, 380, 400, 425, 445
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=5, a(6)=7, a(7)=8, a(8)=10, a(9)=12, a(10)=14, a(11)=16, a(12)=20, a(13)=22, a(14)=26, a(15)=30, a(16)=34, a(17)=38, a(n)=a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6)+ a(n-12)- a(n-13)- a(n-14)+a(n-16)+a(n-17)-a(n-18). - Harvey P. Dale, Nov 01 2015
[A029004] 1, 1, 2, 3, 4, 5, 7, 8, 10, 12, 15, 17, 21, 24, 28, 32, 37, 41, 47, 52, 59, 65, 73, 80, 89, 97, 107, 116, 127, 137, 150, 161, 175, 188, 203, 217, 234, 249, 267, 284, 304, 322, 344, 364, 387, 409, 434, 457, 484, 509
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=5, a(6)=7, a(7)=8, a(8)=10, a(9)=12, a(10)=15, a(11)=17, a(12)=21, a(13)=24, a(14)=28, a(15)=32, a(n)=a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6)+a(n-10)-a(n-11)- a(n-12)+ a(n-14)+a(n-15)-a(n-16). - Harvey P. Dale, Jun 01 2013
a(n) = floor((2*n^3+48*n^2+327*n+927+9*(n+1)*(-1)^n)/720). - Tani Akinari, Jul 07 2013
[A029003] 1, 1, 2, 3, 4, 5, 7, 8, 10, 13, 15, 18, 22, 25, 29, 34, 38, 43, 50, 55, 62, 70, 77, 85, 95, 103, 113, 125, 135, 147, 161, 173, 187, 203, 217, 233, 252, 268, 287, 308, 327, 348, 372, 393, 417, 444, 468, 495, 525, 552, 582, 615, 645, 678, 715, 748, 785, 825, 862, 902, 946, 986, 1030

a(n) = floor(2/27*(floor(n/3) + 1)*cos(2*Pi*n/3) + (2*n^3 + 45*n^2 + 290*n + 744)/648). - Tani Akinari, Jul 07 2013

[A116470] 0, 1, 2, 3, 4, 5, 7, 8, 11, 13, 18, 21, 29, 34, 47, 55, 76, 89, 123, 144, 199, 233, 322, 377, 521, 610, 843, 987, 1364, 1597, 2207, 2584, 3571, 4181, 5778, 6765, 9349, 10946, 15127, 17711, 24476, 28657, 39603, 46368, 64079, 75025, 103682, 121393, 167761

a(0) = 0, a(1) = 1, a(2) = 2, a(3) = 3, a(4) = 4, a(5) = 5, a(6) = 7, a(n) = a(n-2) + a(n-4) for n>6. a(2n) = Lucas[n+1] = Fibonacci[n] + Fibonacci[n+2] for n>1. a(2n+1) = Fibonacci[n+3] for n>2.

[A258085] 0, 1, 2, 3, 4, 5, 7, 8, 12, 13, 20, 21, 33, 34, 54, 55, 88, 89, 143, 144, 232, 233, 376, 377, 609, 610, 986, 987, 1596, 1597, 2583, 2584, 4180, 4181, 6764, 6765, 10945, 10946, 17710, 17711, 28656, 28657, 46367, 46368, 75024, 75025, 121392, 121393, 196417

a(n) = 2*a(n-2) - a(n-6) for n>8.

[A047504] 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 15, 17, 18, 19, 20, 21, 23, 25, 26, 27, 28, 29, 31, 33, 34, 35, 36, 37, 39, 41, 42, 43, 44, 45, 47, 49, 50, 51, 52, 53, 55, 57, 58, 59, 60, 61, 63, 65, 66, 67, 68, 69, 71, 73, 74, 75, 76, 77, 79, 81, 82, 83, 84, 85, 87

a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6) for n>6.

a(n) = (12*n-9+sqrt(3)*(3*sin(n*Pi/3)+sin(2*n*Pi/3)))/9.

a(6k) = 8k-1, a(6k-1) = 8k-3, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-6, a(6k-5) = 8k-7. (End)

[A036408] 0, 1, 1, 1, 1, 2, 3, 4, 5, 7, 9, 10, 13, 15, 17, 20, 23, 26, 29, 33, 37, 40, 45, 49, 53, 58, 63, 68, 73, 79, 85, 90, 97, 103, 109, 116, 123, 130, 137, 145, 153, 160, 169, 177, 185, 194, 203, 212, 221, 231, 241, 250, 261, 271, 281, 292, 303, 314, 325

a(n)= +2*a(n-1) -a(n-2) +a(n-10) -2*a(n-11) +a(n-12). G.f. -x*(1-x+x^7-x^9+x^10+x^3) / ((1+x)*(x^4+x^3+x^2+x+1)*(x^4-x^3+x^2-x+1)*(x-1)^3). - R. J. Mathar, Jan 22 2011

[A274583] 1, 2, 3, 4, 5, 7, 9, 10, 13, 16, 17, 21, 25, 26, 31, 36, 37, 43, 49, 50, 57, 64, 65, 73, 81, 82, 91, 100, 101, 111, 121, 122, 133, 144, 145, 157, 169, 170, 183, 196, 197, 211, 225, 226, 241, 256, 257, 273, 289, 290, 307, 324, 325, 343, 361, 362, 381, 400, 401, 421, 441, 442, 463, 484, 485

a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7).

a(n) = 1 + 10*n/9 - n^2/9 + (n/3 - 8/9)*floor(n/3) + (n/3 - 4/9)*floor((n+1)/3). - Vaclav Kotesovec, Jun 29 2016

[A188551] 1, 2, 3, 4, 5, 7, 9, 11, 12, 14, 17, 20, 23, 24, 27, 31, 35, 39, 40, 44, 49, 54, 59, 60, 65, 71, 77, 83, 84, 90, 97, 104, 111, 112, 119, 127, 135, 143, 144, 152, 161, 170, 179, 180, 189, 199, 209, 219, 220, 230, 241, 252, 263, 264, 275, 287, 299, 311, 312, 324, 337, 350, 363, 364, 377, 391, 405, 419, 420, 434, 449, 464, 479, 480

a(n)= +a(n-1) +2*a(n-5) -2*a(n-6) -a(n-10) +a(n-11). G.f. x*(1+x)*(1+x^2)*(x^2-x+1)*(x^3-x-1) / ((x^4+x^3+x^2+x+1)^2*(x-1)^3). - R. J. Mathar, Apr 12 2011

[A184112] 2, 3, 4, 5, 7, 9, 11, 12, 15, 17, 19, 21, 24, 27, 30, 32, 36, 39, 42, 45, 49, 53, 57, 60, 65, 69, 73, 77, 82, 87, 92, 96, 102, 107, 112, 117, 123, 129, 135, 140, 147, 153, 159, 165, 172, 179, 186, 192, 200, 207, 214, 221, 229, 237, 245, 252, 261, 269, 277, 285, 294, 303, 312, 320, 330, 339, 348, 357, 367, 377, 387, 396, 407, 417, 427, 437, 448, 459, 470, 480, 492, 503, 514, 525, 537, 549, 561, 572, 585, 597

a(n) = +2 a(n-1) -a(n-2) +a(n-8) -2 a(n-9) +a(n-10). - R. J. Mathar, Mar 11 2012

[A032515] 0, 1, 2, 3, 4, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 77, 81, 85, 89, 93, 97, 101, 105, 109, 113, 117, 121, 125, 129, 133, 137, 141, 145, 149, 153, 157, 161, 165, 169, 174, 179, 184, 189, 194, 199

a(0) = 0, a(n) = a(n - 1) + floor(n^(2/5)). - Alonso del Arte, Jun 18 2017

a(n) = (5/7)*n^(7/5) + O(n). - Charles R Greathouse IV, Jun 25 2017

[A008732] 1, 2, 3, 4, 5, 7, 9, 11, 13, 15, 18, 21, 24, 27, 30, 34, 38, 42, 46, 50, 55, 60, 65, 70, 75, 81, 87, 93, 99, 105, 112, 119, 126, 133, 140, 148, 156, 164, 172, 180, 189, 198, 207, 216, 225, 235, 245, 255, 265

a(n)=a(n-5)+n+1. - Paul Barry, Jul 14 2004

a(n) = sum(floor(j/5), {j,0,n+5}), a(n-5) = (1/2)floor(n/5)*(2n-3-5*floor(n/5)) - Mitch Harris, Sep 08 2008

[A130520] 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 7, 9, 11, 13, 15, 18, 21, 24, 27, 30, 34, 38, 42, 46, 50, 55, 60, 65, 70, 75, 81, 87, 93, 99, 105, 112, 119, 126, 133, 140, 148, 156, 164, 172, 180, 189, 198, 207, 216, 225, 235, 245, 255, 265, 275, 286, 297, 308, 319, 330, 342, 354, 366

a(n) = 1/2*floor(n/5)*(2n-3-5*floor(n/5)).

a(n) = floor((n-1)(n-2)/10). [Mitch Harris, Sep 08 2008]

a(n) = round(n*(n-3)/10) = ceiling((n+1)*(n-4)/10) = round((n^2-3*n-1)/10). [Mircea Merca, Nov 28 2010]

a(n) = a(n-5)+n-4, n>4. [Mircea Merca, Nov 28 2010]

[A005706] 1, 2, 3, 4, 5, 7, 9, 11, 13, 15, 18, 21, 24, 27, 30, 34, 38, 42, 46, 50, 55, 60, 65, 70, 75, 82, 89, 96, 103, 110, 119, 128, 137, 146, 155, 166, 177, 188, 199, 210, 223, 236, 249, 262, 275, 290, 305, 320, 335, 350, 368, 386, 404, 422, 440, 461, 482, 503, 524, 545

a(n) = a(n-1) + a([n/5]).

a(n) = [x^(5*n)] Product_{k>=0} 1/(1 - x^(5^k)). - Ilya Gutkovskiy, Jun 05 2017

[A008740] 1, 2, 3, 4, 5, 7, 9, 11, 13, 16, 19, 22, 25, 28, 32, 36, 40, 44, 49, 54, 59, 64, 69, 75, 81, 87, 93, 100, 107, 114, 121, 128, 136, 144, 152, 160, 169, 178, 187, 196, 205, 215, 225, 235, 245, 256, 267, 278

a(n)=a(n-4)+n - Paul Barry, Jul 14 2004

a(n)= +2*a(n-1) -a(n-2) +a(n-9) -2*a(n-10) +a(n-11).

a(n)=floor((n^2+6*n+12)/9). - Tani Akinari, Aug 19 2013

[A076677] 1, 1, 2, 3, 4, 5, 7, 9, 11, 14, 17, 20, 24, 28, 32, 37, 42, 48, 54, 60, 67, 74, 82, 90, 99, 108, 117, 127, 137, 148, 159, 171, 183, 196, 209, 223, 237, 251, 266, 281, 297, 313, 330, 347, 365, 383, 402, 421, 441, 461, 482, 503, 524, 546, 568, 591, 614, 638, 662

a(n) is asymptotic to n^2/4

[A029001] 1, 1, 2, 3, 4, 5, 7, 9, 11, 14, 17, 20, 24, 28, 33, 38, 44, 50, 57, 64, 72, 81, 90, 100, 111, 122, 134, 147, 161, 175, 191, 207, 224, 242, 261, 281, 302, 324, 347, 371, 396, 422, 450, 478, 508, 539, 571, 604, 639

a(n) = floor((n+12)*(2*n^2+15*n+42)/504). - Tani Akinari, Jul 06 2013

a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=5, a(6)=7, a(7)=9, a(8)=11, a(9)=14, a(10)=17, a(11)=20, a(12)=24, a(n)=a(n-1)+a(n-2)-a(n-4)- a(n-5)+ a(n-6)+a(n-7)-a(n-8)-a(n-9)+a(n-11)+a(n-12)-a(n-13). - Harvey P. Dale, Nov 13 2013

[A279076] 0, 1, 2, 3, 4, 5, 7, 9, 11, 14, 17, 21, 26, 32, 39, 47, 57, 69, 83, 100, 121, 146, 176, 212, 255, 307, 369, 443, 532, 639, 767, 921, 1106, 1328, 1594, 1913, 2296, 2756, 3308, 3970, 4765, 5719, 6863, 8236, 9884, 11861, 14234, 17081, 20498, 24598, 29518, 35422

a(n) = floor(a(n-1)*6/5) + 1.

[A122129] 1, 1, 1, 2, 3, 4, 5, 7, 9, 12, 15, 19, 24, 30, 37, 46, 57, 69, 84, 102, 123, 148, 177, 211, 252, 299, 353, 417, 491, 576, 675, 789, 920, 1071, 1244, 1442, 1670, 1929, 2224, 2562, 2946, 3381, 3876, 4437, 5072, 5791, 6602, 7517, 8551, 9714, 11021, 12493, 14145

a(n) = number of partitions of n into parts that are either odd or == +/-4 (mod 20). - Michael Somos, Jun 28 2015

[A233522] 1, 1, 1, 1, 2, 3, 4, 5, 7, 9, 12, 16, 22, 29, 38, 50, 67, 89, 118, 156, 207, 274, 363, 481, 638, 845, 1119, 1482, 1964, 2602, 3447, 4566, 6049, 8013, 10615, 14062, 18629, 24678, 32691, 43306, 57369, 75998, 100676, 133367, 176674, 234043, 310041, 410717

a(n) = a(n-1) + a(n-4) - a(n-9) for all n in Z.

[A055167] 1, 1, 1, 1, 2, 3, 4, 5, 7, 9, 13, 17, 23, 30, 39, 50, 65, 83, 107, 136, 174, 219, 278, 348, 437, 544, 678, 839, 1039, 1279, 1574, 1929, 2362, 2881, 3511, 4264, 5174, 6258, 7560, 9107, 10959, 13152, 15766, 18855, 22522, 26844, 31960, 37973, 45066, 53386, 63167, 74615, 88038

a(n)=sum_{0 <= a < n/3} sum_{0 <= b < n/3} g(n, a, b) with for 1 <= n <= 4, g(n, a, b)=1 if a=b=1 and g(n, a, b)=0 otherwise; for n >= 5: g(n, b, 1)=sum_{a = 0..b, b-a even } g(n-1, a, b), (b >= 1); g(n, a, b)=g(n-1, a, b-1), (2 <= b <= a); g(n, a, b)=g(n-1, a, b-1), (b-a >= 2 text{even}, a >= 0); g(n, a, b)=g(n-1, a+1, b), (b-a >= 1 text{odd}, a >= 0); g(n, a, b)=0 (otherwise).

[A047502] 2, 3, 4, 5, 7, 10, 11, 12, 13, 15, 18, 19, 20, 21, 23, 26, 27, 28, 29, 31, 34, 35, 36, 37, 39, 42, 43, 44, 45, 47, 50, 51, 52, 53, 55, 58, 59, 60, 61, 63, 66, 67, 68, 69, 71, 74, 75, 76, 77, 79, 82, 83, 84, 85, 87, 90, 91, 92, 93, 95, 98, 99, 100, 101, 103

a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.

a(n) = (40*n - 15 - 2*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) - 7*((n+4) mod 5))/25.

a(5k) = 8k-1, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-5, a(5k-4) = 8k-6. (End)

[A144430] 2, 3, 4, 5, 7, 10, 11, 13, 16, 17, 19, 22, 23, 25, 28, 29, 31, 34, 35, 37, 40, 41, 43, 46, 47, 49, 52, 53, 55, 58, 59, 61, 64, 65, 67, 70, 71, 73, 76, 77, 79, 82, 83, 85, 88, 89, 91, 94, 95, 97, 100, 101, 103, 106, 107, 109, 112, 113, 115, 118, 119, 121, 124, 125, 127, 130

a(n) = a(n-3)+6, n>5.

[A089597] 1, 1, 1, 2, 3, 4, 5, 7, 10, 12, 14, 18, 23, 27, 31, 38, 46, 52, 59, 69, 80, 90, 100, 114, 130, 143, 157, 176, 196, 214, 233, 257, 283, 306, 330, 360, 392, 421, 451, 488, 527, 562, 599, 643, 689, 732, 776, 828, 883, 933, 985, 1046, 1109, 1168, 1229, 1299, 1372, 1440, 1510
a(n)= +3*a(n-1) -5*a(n-2) +8*a(n-3) -11*a(n-4) +13*a(n-5) -15*a(n-6) +16*a(n-7) -15*a(n-8) +13*a(n-9) -11*a(n-10) +8*a(n-11) -5*a(n-12) +3*a(n-13) -a(n-14). - R. J. Mathar, Dec 18 2014
[A052335] 1, 1, 1, 2, 3, 4, 5, 7, 10, 13, 17, 22, 28, 36, 46, 58, 73, 91, 114, 141, 173, 213, 261, 318, 387, 469, 567, 683, 821, 984, 1176, 1403, 1671, 1984, 2351, 2781, 3284, 3869, 4550, 5343, 6264, 7330, 8565, 9993, 11642, 13543, 15733, 18252, 21148, 24471, 28282, 32646, 37640, 43348, 49867, 57302, 65776, 75426, 86405, 98882
a(n) = p(n,1,1) with p(n,t,k) = if t<0 then 0 else if k<=n then p(n-k,t-1,k)+p(n,k+1,k+1) else 0^n. [Reinhard Zumkeller, Jan 20 2010]
[A160333] 1, 1, 1, 1, 2, 3, 4, 5, 7, 10, 13, 17, 23, 32, 44, 59, 79, 107, 146, 198, 267, 361, 490, 665, 900, 1217, 1648, 2234, 3027, 4098, 5548, 7515, 10181, 13789, 18672, 25287, 34251, 46392, 62830, 85090, 115243, 156087, 211402, 286311, 387765, 525180, 711295, 963355, 1304728
a(n) = a(n-1) - a(n-2) + a(n-3) + a(n-5) + a(n-7) + a(n-9). - Joerg Arndt, Oct 04 2017
a(n)=1 for 0 <= n <= 3, a(n) = a(n-1) + a(n-4) for 4 <= n <= 9, and a(n) = a(n-4) + a(n-5) + ... + a(n-10) for n >= 10. - Robert FERREOL, Oct 04 2017
[A255216] 1, 1, 1, 2, 3, 4, 5, 7, 10, 14, 18, 25, 34, 45, 61, 82, 110, 147, 198, 266, 357, 479, 642, 862, 1156, 1552, 2082, 2793, 3748, 5028, 6746, 9051, 12143, 16292, 21859, 29327, 39346, 52788, 70823, 95019, 127482, 171035, 229468, 307863, 413042, 554155, 743477, 997479, 1338258
a(n) = floor((3/sqrt(5))^n).
[A099559] 0, 1, 2, 3, 4, 5, 7, 10, 14, 19, 25, 33, 44, 59, 79, 105, 139, 184, 244, 324, 430, 570, 755, 1000, 1325, 1756, 2327, 3083, 4084, 5410, 7167, 9495, 12579, 16664, 22075, 29243, 38739, 51319, 67984, 90060, 119304, 158044, 209364, 277349, 367410, 486715
a(n)=2a(n-1)-a(n-2)+a(n-5)-a(n-6).
[A247084] 0, 1, 1, 1, 1, 2, 3, 4, 5, 7, 10, 14, 19, 26, 27, 32, 42, 50, 59, 64, 70, 75, 89, 99, 106, 118, 135, 153, 160, 170, 179, 188, 195, 203, 220, 237, 252, 257, 261, 273, 282, 296, 305, 317, 329, 346, 354, 365, 379, 392, 404, 418, 437, 451, 459, 472, 486, 496, 514
a(n) = 1 + Sum_{k=0..n-4} digsum(a(k)).
a(n) = a(n-1) + digsum(a(n-4)).
[A003269] 0, 1, 1, 1, 1, 2, 3, 4, 5, 7, 10, 14, 19, 26, 36, 50, 69, 95, 131, 181, 250, 345, 476, 657, 907, 1252, 1728, 2385, 3292, 4544, 6272, 8657, 11949, 16493, 22765, 31422, 43371, 59864, 82629, 114051, 157422, 217286, 299915, 413966, 571388, 788674, 1088589, 1502555, 2073943
a(n) = a(n-3) + a(n-4) + a(n-5) + a(n-6) for n>4.
a(n) = floor(d*c^n + 1/2) where c is the positive real root of -x^4+x^3+1 and d is the positive real root of 283*x^4-18*x^2-8*x-1 (c=1.38027756909761411... and d=0.3966506381592033124...). - Benoit Cloitre, Nov 30 2002
a(n) = term (1,2) in the 4 X 4 matrix [1,1,0,0; 0,0,1,0; 0,0,0,1; 1,0,0,0]^n. - Alois P. Heinz, Jul 27 2008
a(n+1) = Sum_{k=0..n} C((n+3*k)/4,k)*((1+(-1)^(n-k))/2 + cos(Pi*n/2))/2;
a(n+1) = Sum_{k=0..n} C(k,floor((n-k)/3))(2*cos(2*Pi*(n-k)/3)+1)/3. (End)
a(n) = Sum_{j=0..(n-1)/3} binomial(n-1-3*j,j). - Vladimir Kruchinin, May 23 2011
[A206739] 1, 1, 1, 1, 1, 2, 3, 4, 5, 7, 10, 14, 19, 26, 37, 52, 72, 99, 138, 193, 269, 373, 518, 722, 1006, 1399, 1944, 2705, 3766, 5241, 7290, 10141, 14112, 19638, 27323, 38012, 52889, 73593, 102398, 142470, 198225, 275809, 383760, 533954, 742923, 1033685, 1438254
a(n) = sum(k=0..n, T(n,k)), where T(n, m)=sum(i=1..(n-m)/3, binomial(m, i)*T((n-m)/3,i)), T(n,n)=1. - Vladimir Kruchinin, Mar 21 2015
[A275174] 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 4, 5, 7, 10, 14, 33, 53, 74, 96, 141, 209, 300, 714, 1151, 1611, 2094, 3083, 4578, 6579, 15665, 25257, 35355, 45959, 67673, 100497, 144431, 343906, 554491, 776186, 1008991, 1485711, 2206346, 3170896, 7550257, 12173533, 17040724
a(n) = 23*a(n-7) - 23*a(n-14) + a(n-21).
[A130080] 1, 2, 3, 4, 5, 7, 10, 15, 22, 32, 47, 69, 100, 147, 216, 317, 465, 682, 1000, 1468, 2155, 3163, 4642, 6813, 10000, 14678, 21545, 31623, 46416, 68130, 100000, 146780, 215444, 316228, 464159, 681293, 1000000, 1467800, 2154435, 3162278, 4641589
a(n) = ceiling(10^((n-1)/6))
[A006456] 1, 1, 1, 1, 2, 3, 4, 5, 7, 11, 16, 22, 30, 43, 62, 88, 124, 175, 249, 354, 502, 710, 1006, 1427, 2024, 2870, 4068, 5767, 8176, 11593, 16436, 23301, 33033, 46832, 66398, 94137, 133462, 189211, 268252, 380315, 539192, 764433, 1083764, 1536498, 2178364
a(n) = 1, if n = 0; a(n)=Sum(1 <= k^2 <= n, a(n-k^2)), if n > 0. - David W. Wilson
[A143284] 0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5, 7, 11, 17, 25, 35, 48, 66, 92, 129, 180, 249, 342, 468, 640, 875, 1195, 1629, 2216, 3009, 4080, 5526, 7477, 10107, 13649, 18415, 24823, 33433, 44995, 60513, 81330, 109241, 146644, 196742, 263813, 353570, 473640, 634201
a(n) = 2*a(n-1)-a(n-2)+a(n-5)-a(n-7)-a(n-11). - Vincenzo Librandi, Jun 05 2013
[A268199] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 4, 5, 7, 13, 25, 45, 125, 233, 419, 805, 2252, 8343, 23554, 55889, 195533, 514781, 1769117, 6540689, 31873013, 162776741, 568710437, 1840702289, 10169970946, 53308101423, 363030298268, 1933899726085, 12286029791291
a(n) = a(8-n) for all n in Z. - Michael Somos, Nov 16 2016
[A133476] 0, 1, 2, 3, 4, 5, 7, 14, 36, 93, 220, 474, 948, 1807, 3381, 6385, 12393, 24786, 50559, 103702, 211585, 427351, 854702, 1698458, 3368259, 6690150, 13333932, 26667864, 53457121, 107232053, 214978335, 430470899, 860941798, 1720537327, 3437550076, 6869397265
a(n) = 5a(n-1) - 10a(n-2) + 10a(n-3) - 5a(n-4) + 2a(n-5).
a(n) = round((2/5)*(2^(n-1)+phi^n*cos(Pi*(n-2)/5))), where phi is the golden ratio, round(x) is the nearest to x integer. - Vladimir Shevelev, Jun 18 2017
[A131023] 1, 2, 3, 4, 5, 7, 14, 37, 101, 256, 593, 1267, 2534, 4825, 8921, 16384, 30581, 58975, 117950, 242461, 504605, 1048576, 2156201, 4371451, 8742902, 17308657, 34085873, 67108864, 132623405, 263652487, 527304974, 1059392917, 2133134741
a(1) = 1, a(2) = 2, a(3) = 3, a(4) = 4; for n > 4, a(n) = 5*a(n-1) - 9*a(n-2) + 6*a(n-3).
[A171979] 1, 1, 2, 3, 4, 5, 8, 8, 12, 14, 19, 21, 30, 31, 42, 50, 62, 69, 91, 99, 126, 144, 175, 198, 246, 275, 331, 379, 452, 509, 612, 686, 811, 922, 1076, 1219, 1428, 1604, 1863, 2108, 2434, 2739, 3162, 3551, 4075, 4593, 5240, 5885, 6721, 7527, 8556, 9597, 10870
a(n) = p(n,0,1,1) with p(n,i,j,k) = if k<=n then p(n-k,i,j+1,k) +p(n,max(i,j),1,k+1) else (if j<i or n>0 then 0 else 1).
[A047602] 0, 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 53, 56, 57, 58, 59, 60, 61, 64, 65, 66, 67, 68, 69, 72, 73, 74, 75, 76, 77, 80, 81, 82, 83, 84, 85, 88
a(n) = floor((8/7)*floor(7*(n-1)/6)). - Bruno Berselli, May 03 2016
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-39-3*cos(n*Pi)-4*sqrt(3)*cos((4*n+1)*Pi/6)-12*sin((1-2*n)*Pi/6))/18.
a(6k) = 8k-3, a(6k-1) = 8k-4, a(6k-2) = 8k-5, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A047369] 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 57, 58, 59, 60, 61, 64, 65, 66, 67, 68, 71, 72, 73, 74, 75, 78, 79, 80, 81, 82, 85, 86, 87, 88, 89, 92
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 7 for n > 5.
a(n) = n + 2*floor((n-1)/5), a(n) = 7*n/5 - 2*(1 + ((n+4) mod 5))/5.
a(5*k) = 7*k-2, a(5*k-1) = 7*k-3, a(5*k-2) = 7*k-4, a(5*k-3) = 7*k-5, a(5*k-4) = 7*k-6. (End)
[A047247] 2, 3, 4, 5, 8, 9, 10, 11, 14, 15, 16, 17, 20, 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, 35, 38, 39, 40, 41, 44, 45, 46, 47, 50, 51, 52, 53, 56, 57, 58, 59, 62, 63, 64, 65, 68, 69, 70, 71, 74, 75, 76, 77, 80, 81, 82, 83, 86, 87, 88, 89, 92, 93, 94, 95, 98, 99
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (6n-1-i^(2n)-(1-i)*i^(-n)-(1+i)*i^n)/4 where i = sqrt(-1).
[A087278] 0, 1, 2, 3, 4, 5, 8, 9, 10, 15, 16, 17, 24, 25, 26, 35, 36, 37, 48, 49, 50, 63, 64, 65, 80, 81, 82, 99, 100, 101, 120, 121, 122, 143, 144, 145, 168, 169, 170, 195, 196, 197, 224, 225, 226, 255, 256, 257, 288, 289, 290, 323, 324, 325, 360, 361, 362, 399, 400, 401
a(n) = floor(n/3)*(floor(n/3) + 2) + n mod 3.
[A044051] 1, 2, 3, 4, 5, 8, 9, 11, 14, 16, 17, 23, 26, 32, 33, 37, 43, 47, 50, 54, 60, 64, 65, 77, 83, 95, 98, 110, 116, 128, 129, 137, 149, 157, 163, 171, 183, 191, 194, 202, 214, 222, 228, 236, 248, 256, 257, 281, 293, 317, 323, 347, 359, 383
a(n)=2^(2*m-2-p)+1+p*(1-(-1)^n)*2^(m-1)+(1/2)*sum(k=1...(m-1-p), (floor((n-(3-p)*2^(m-1))/2^(m-1-k)) mod 2)*(2^k+2^(2*m-1-p-k)) - Hieronymus Fischer, Feb 18 2012
[A029000] 1, 1, 2, 3, 4, 5, 8, 9, 12, 15, 18, 21, 27, 30, 36, 42, 48, 54, 64, 70, 80, 90, 100, 110, 125, 135, 150, 165, 180, 195, 216, 231, 252, 273, 294, 315, 343, 364, 392, 420, 448, 476, 512, 540, 576, 612, 648, 684, 729, 765, 810, 855, 900, 945, 1000, 1045, 1100

a(n) = floor(1/18*(-3*floor((n + 2)/3) + 3*floor(n/3) + 2)*(floor(n/3) + 1) + 1/432*(n + 6)*(2*n^2 + 24*n + 47+9*(-1)^n) + 7/36). - Tani Akinari, Jul 04 2013

[A094103] 1, 1, 2, 3, 4, 5, 8, 9, 13, 16, 22, 26, 37, 43, 60, 71, 98, 115, 160, 187, 259, 304, 420, 492, 681, 797, 1102, 1291, 1784, 2089, 2888, 3381, 4673, 5472, 7562, 8854, 12237, 14327, 19800, 23183, 32038, 37511, 51840, 60695, 83879, 98208, 135720, 158904, 219601

a(1)=1, a(2)=1, a(3)=2, a(4)=3, a(5)=4, a(6)=5, a(7)=8, a(n)=a(n-2)+ a(n-3)+a(n-4)-a(n-5)-a(n-7) [From Harvey P. Dale, Oct 09 2011]

[A047597] 0, 2, 3, 4, 5, 8, 10, 11, 12, 13, 16, 18, 19, 20, 21, 24, 26, 27, 28, 29, 32, 34, 35, 36, 37, 40, 42, 43, 44, 45, 48, 50, 51, 52, 53, 56, 58, 59, 60, 61, 64, 66, 67, 68, 69, 72, 74, 75, 76, 77, 80, 82, 83, 84, 85, 88, 90, 91, 92, 93, 96, 98, 99, 100, 101

a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.

a(n) = a(n-5) + 8 for n > 5.

a(n) = (40*n - 50 + 3*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 2*((n+3) mod 5) - 7*((n+4) mod 5))/25.

a(5k) = 8k-3, a(5k-1) = 8k-4, a(5k-2) = 8k-5, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)

[A211544] 0, 0, 0, 1, 2, 3, 4, 5, 8, 10, 12, 15, 17, 21, 25, 28, 32, 36, 41, 46, 51, 56, 61, 68, 74, 80, 87, 93, 101, 109, 116, 124, 132, 141, 150, 159, 168, 177, 188, 198, 208, 219, 229, 241, 253, 264, 276, 288, 301, 314, 327, 340, 353, 368, 382, 396, 411, 425, 441

a(n) = a(n-1) + a(n-3) - a(n-4) + a(n-5) - a(n-6) - a(n-8) + a(n-9).

[A110539] 1, 1, 2, 3, 4, 5, 8, 10, 15, 23, 35, 58, 101, 193, 381, 817, 1820, 4298, 10550, 27037, 71715, 197062, 558923, 1635948, 4932931, 15313467, 48883315, 160311731, 539527417, 1861545528, 6578404569, 23788920636, 87961893345, 332339327570

a(n) = Sum_{k=1..floor((n+1)/2)} Sum_{j=1..min(n-2k+2, k)} ceiling(j^(n-2k+2)/(n-2k+2)^j)*ceiling(j^k/k^j).

[A186041] 2, 3, 4, 5, 8, 11, 13, 14, 17, 18, 20, 23, 25, 26, 28, 29, 32, 33, 35, 38, 39, 41, 43, 44, 46, 47, 48, 50, 53, 56, 58, 59, 60, 62, 63, 65, 67, 68, 71, 73, 74, 77, 78, 80, 81, 83, 86, 88, 89, 92, 93, 95, 98, 101, 102, 103, 104, 107, 108, 109, 110, 113, 116, 118, 119, 122

a(n) = a(n-57) + 105.

a(n) = a(n-1) + a(n-57) - a(n-58).

[A008812] 1, 2, 3, 4, 5, 8, 11, 14, 17, 20, 25, 30, 35, 40, 45, 52, 59, 66, 73, 80, 89, 98, 107, 116, 125, 136, 147, 158, 169, 180, 193, 206, 219, 232, 245, 260, 275, 290, 305, 320, 337, 354, 371, 388, 405, 424, 443, 462

a(n) = 2*a(n-1) -a(n-2) +a(n-5) -2*a(n-6) +a(n-7). [From R. H. Hardin, Nov 16 2011]

[A135318] 1, 1, 1, 2, 3, 4, 5, 8, 11, 16, 21, 32, 43, 64, 85, 128, 171, 256, 341, 512, 683, 1024, 1365, 2048, 2731, 4096, 5461, 8192, 10923, 16384, 21845, 32768, 43691, 65536, 87381, 131072, 174763, 262144, 349525

a(n) = (((-i)^(n+1)-i^(n+1))*2*i*sqrt(2)+3*(1+(-1)^(n+1))*2^((n+2)/2)+(1-(-1)^(n+1))*2^((n+5)/2))/(12*sqrt(2)), where i=sqrt(-1). (End)

a(2n) = 2*a(2n-1) - a(2n-2); a(2n+1) = a(2n) + a(2n-2). - Richard R. Forberg, Aug 19 2013

[A189761] 1, 2, 3, 4, 5, 8, 11, 21, 29, 55, 76, 144, 199, 377, 521, 987, 1364, 2584, 3571, 6765, 9349, 17711, 24476, 46368, 64079, 121393, 167761, 317811, 439204, 832040, 1149851, 2178309, 3010349, 5702887, 7881196, 14930352, 20633239, 39088169, 54018521, 102334155

a(n) = 3*a(n-2)-a(n-4) for n>9.

[A113439] 1, 1, 1, 1, 2, 3, 4, 5, 8, 12, 17, 23, 34, 50, 72, 101, 146, 212, 306, 436, 627, 905, 1305, 1871, 2689, 3872, 5577, 8014, 11521, 16576, 23858, 34309, 49337, 70968, 102108, 146868, 211233, 303832, 437080, 628708, 904306, 1300737, 1871065, 2691401

a(n) = a(n-1) + 2*a(n-4) - a(n-5).

a(n) = 9*a(n-4) - 28*a(n-8) + 38*a(n-12) - 20*a(n-16) +a(n-20).

[A292325] 2, 3, 4, 5, 8, 13, 20, 29, 40, 56, 80, 115, 164, 230, 320, 445, 620, 864, 1200, 1660, 2290, 3155, 4344, 5975, 8206, 11252, 15408, 21078, 28810, 39344, 53680, 73173, 99662, 135640, 184480, 250740, 340578, 462316, 627200, 850420, 1152480, 1561043, 2113420

a(n) = 2*a(n-1) - a(n-2) + 2*a(n-5) - 2*a(n-6) - a(n-10) for n >= 11.

[A108014] 0, 2, 3, 4, 5, 8, 14, 24, 39, 62, 99, 160, 260, 422, 683, 1104, 1785, 2888, 4674, 7564, 12239, 19802, 32039, 51840, 83880, 135722, 219603, 355324, 574925, 930248, 1505174, 2435424, 3940599, 6376022, 10316619, 16692640, 27009260, 43701902

a(n) = (1/2)*[Lucas(n+1) + 2*cos((n+4)*Pi/3)].

a(0)=0, a(1)=2, a(2)=3, a(3)=4, a(n) = 2*a(n-1)-a(n-2)+a(n-4). [Harvey P. Dale, Aug 19 2011]

[A047603] 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 25, 26, 27, 28, 29, 33, 34, 35, 36, 37, 41, 42, 43, 44, 45, 49, 50, 51, 52, 53, 57, 58, 59, 60, 61, 65, 66, 67, 68, 69, 73, 74, 75, 76, 77, 81, 82, 83, 84, 85, 89, 90, 91, 92, 93, 97, 98, 99, 100, 101

a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.

a(n) = a(n-5) + 8 for n>5.

a(n) = (40*n - 45 + 3*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) - 12*((n+4) mod 5))/25.

a(5k) = 8k-3, a(5k-1) = 8k-4, a(5k-2) = 8k-5, a(5k-3) = 8k-6, a(5k-4) = 8k-7. (End)

a(n) = n + 3*floor((n-1)/5). - Wesley Ivan Hurt, Aug 08 2016

[A047362] 2, 3, 4, 5, 9, 10, 11, 12, 16, 17, 18, 19, 23, 24, 25, 26, 30, 31, 32, 33, 37, 38, 39, 40, 44, 45, 46, 47, 51, 52, 53, 54, 58, 59, 60, 61, 65, 66, 67, 68, 72, 73, 74, 75, 79, 80, 81, 82, 86, 87, 88, 89, 93, 94, 95, 96, 100, 101, 102, 103, 107, 108, 109, 110

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

a(n) = (14*n-7-3*(i^(2*n)+(1-i)*i^(-n)+(1+i)*i^n))/8 where i=sqrt(-1).

[A081869] 2, 3, 4, 5, 9, 10, 11, 21, 22, 23, 45, 46, 91, 92, 183, 365, 729, 1457, 2913, 5825, 11649, 11650, 23299, 46597, 93193, 186385, 186386, 372771, 745541, 1491081, 2982161, 5964321, 5964322, 11928643, 23857285, 47714569, 95429137, 95429138, 190858275

a(n)=s(n)*2^c(n) where c(n) is an integer sequence and s(n) converges to 1.42200496164156575847059 5....

[A038201] 1, 1, 1, 1, 1, 2, 3, 4, 5, 9, 12, 14, 15, 29, 41, 50, 55, 105, 146, 175, 190, 365, 511, 616, 671, 1287, 1798, 2163, 2353, 4516, 6314, 7601, 8272, 15873, 22187, 26703, 29056, 55759, 77946, 93819, 102091, 195910, 273856, 329615, 358671, 688286, 962142

a(n) = a(n-1)+a(n-2) if n=4*m+1, a(n) = a(n-1)+a(n-4) if n=4*m+2, a(n) = a(n-1)+a(n-6) if n=4*m+3 and a(n) = a(n-1)+a(n-8) if n=4*m.

a(n) = 3*a(n-4)+3*a(n-8)-4*a(n-12)-a(n-16)+a(n-20).

a(n-1) = sequence(sequence(T(n,k), k=2..5), n>=2) with a(0)=1; T(n,k) = sum(T(n-1,k1), k1 = 6-k..5) with T(1,1) = T(1,2) = T(1,3) = T(1,4) = 0 and T(1,5) = 1; n>=1 and 1 <= k <= 5. [Steinbach]

[A191321] 1, 1, 1, 1, 2, 3, 4, 5, 9, 14, 20, 27, 47, 74, 109, 153, 262, 415, 622, 894, 1516, 2410, 3653, 5335, 8988, 14323, 21883, 32330, 54213, 86543, 133004, 198229, 331233, 529462, 817432, 1226719, 2044151, 3270870, 5068346, 7648526, 12716872, 20365398, 31651555, 47984938, 79636493, 127621431

a(n) = Sum_{m=0..n} ((m+1)*Sum_{i=0..floor((n+1)/4)-m-1)} ((binomial(2*m+3*i+1,i)*(binomial(n-3*(m+1)-4*i,m+1)))/(m+i+1)))+1. - Vladimir Kruchinin, Mar 12 2016

[A065885] 2, 3, 4, 5, 9, 25, 26, 64, 169, 441, 1156, 3025, 7921, 20736, 54289, 142129, 372100, 974169, 2550409, 6677056, 17480761, 45765225, 119814916, 313679521, 821223649, 2149991424, 5628750625, 14736260449, 38580030724, 101003831721, 264431464441, 692290561600, 1812440220361

a(n) = 2*a(n-1)+2*a(n-2)-a(n-3) for n>10.

[A007092] 0, 1, 2, 3, 4, 5, 10, 11, 12, 13, 14, 15, 20, 21, 22, 23, 24, 25, 30, 31, 32, 33, 34, 35, 40, 41, 42, 43, 44, 45, 50, 51, 52, 53, 54, 55, 100, 101, 102, 103, 104, 105, 110, 111, 112, 113, 114, 115, 120, 121, 122, 123, 124, 125, 130, 131, 132, 133, 134, 135

a(0)=0, a(n) = 10*a(n/6) if n==0 (mod 6), and a(n) = a(n-1)+1 otherwise. - Benoit Cloitre, Dec 22 2002

a(n) = Sum{d(i)*10^i: i=0,1,...,m}, where Sum{d(i)*6^i: i=1,2,...,m} = n, and d(i) in {0,1,...,5}. - Karol Bacik, Sep 25 2012

[A047596] 2, 3, 4, 5, 10, 11, 12, 13, 18, 19, 20, 21, 26, 27, 28, 29, 34, 35, 36, 37, 42, 43, 44, 45, 50, 51, 52, 53, 58, 59, 60, 61, 66, 67, 68, 69, 74, 75, 76, 77, 82, 83, 84, 85, 90, 91, 92, 93, 98, 99, 100, 101, 106, 107, 108, 109, 114, 115, 116, 117, 122, 123

a(n) = 2*n-1-i^(n*(n+1))-(1+(-1)^n)/2, where i=sqrt(-1). [Bruno Berselli, Jul 17 2012]

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

[A199502] 1, 2, 3, 4, 5, 10, 11, 12, 13, 18, 19, 20, 21, 30, 31, 36, 37, 38, 39, 48, 49, 54, 55, 56, 57, 70, 71, 80, 81, 86, 87, 88, 89, 102, 103, 112, 113, 118, 119, 120, 121, 138, 139, 152, 153, 162, 163, 168, 169, 170, 171, 188, 189, 202, 203, 212, 213, 218, 219, 220, 221

a(n+2) - a(n) = r(n+1) = 2, 2, 2, 6, 6, 2, 2, n=1,2,3,...

[A140730] 1, 2, 3, 4, 5, 10, 15, 20, 25, 50, 75, 100, 125, 250, 375, 500, 625, 1250, 1875, 2500, 3125, 6250, 9375, 12500, 15625, 31250, 46875, 62500, 78125, 156250, 234375, 312500, 390625, 781250, 1171875, 1562500, 1953125, 3906250, 5859375, 7812500

a(n+1) = a(n) + a(n - n mod 4).

a(n) = (n+1-4*floor(n/4))*5^floor(n/4). - Luce ETIENNE, Aug 05 2015

a(n) = 5*a(n-4) for n>3; a(n) = n+1 for n<5. - Bruno Berselli, Aug 05 2015
[A033077] 1, 2, 3, 4, 5, 10, 17, 18, 25, 32, 61, 104, 111, 154, 197, 370, 629, 666, 925, 1184, 2221, 3776, 3999, 5554, 7109, 13330, 22661, 23994, 33325, 42656, 79981, 135968, 143967, 199954, 255941, 479890, 815813, 863802, 1199725, 1535648, 2879341, 4894880, 5182815
a(n) = 6*a(n-5)+a(n-10)-6*a(n-15) for n>15. - Colin Barker, Jun 01 2015
[A190912] 1, 2, 3, 4, 5, 10, 19, 36, 69, 134, 263, 516, 1013, 1990, 3911, 7688, 15113, 29710, 58407, 114824, 225737, 443786, 872459, 1715208, 3372009, 6629194, 13032651, 25621516, 50370573, 99025938, 194679867, 382730540, 752428429, 1479235342, 2908100111, 5717174284
a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=5, a(6)=10, a(n)=2*a(n-1)-a(n-6) [From Harvey P. Dale, May 23 2011]
[A111666] 2, 3, 4, 5, 10, 27, 68, 173, 450, 1179, 3084, 8069, 21122, 55299, 144772, 379013, 992266, 2597787, 6801092, 17805485, 46615362, 122040603, 319506444, 836478725, 2189929730, 5733310467, 15010001668, 39296694533, 102880081930
a(0)=2, a(1)=3, a(2)=4, a(3)=5, a(4)=10, a(5)=27, a(n)=3*a(n-1)-a(n-2)+ a(n-4)- 3*a(n-5)+a(n-6). - Harvey P. Dale, Jan 24 2015
[A084545] 1, 2, 3, 4, 5, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 31, 32, 33, 34, 35, 41, 42, 43, 44, 45, 51, 52, 53, 54, 55, 111, 112, 113, 114, 115, 121, 122, 123, 124, 125, 131, 132, 133, 134, 135, 141, 142, 143, 144, 145, 151, 152, 153, 154, 155, 211, 212, 213, 214, 215, 221, 222
a(n) = Sum_{j=0..m-1} (1 + b(j) mod 5)*10^j, where m = floor(log_5(4*n+1)), b(j) = floor((4*n+1-5^m)/(4*5^j)).
a(k*(5^n-1)/4) = k*(10^n-1)/9, for k = 1,2,3,4,5.
a((9*5^n-5)/4) = (14*10^n-5)/9 = 10^n + 5*(10^n-1)/9.
a((5^n-1)/4 - 1) = 5*(10^(n-1)-1)/9, n>1.
a(n) <= (10^log_5(4*n+1)-1)/9, equality holds for n=(5^k-1)/4, k>0.
a(n) > (5/10)*(10^log_5(4*n+1)-1)/9, n>0.
[A132027] 1, 2, 3, 4, 5, 12, 14, 16, 27, 30, 33, 48, 52, 56, 75, 80, 85, 216, 228, 240, 294, 308, 322, 384, 400, 416, 729, 756, 783, 900, 930, 960, 1089, 1122, 1155, 1728, 1776, 1824, 2028, 2080, 2132, 2352, 2408, 2464, 3375, 3450, 3525, 3840, 3920, 4000, 4335
a(k*3^m)=k^(m+1)*3^(m(m+1)/2), for k=1 or 2.
a(n)<=b(n), where b(n)=n^(1+floor(log_3(n)))/3^(1/2*(1+floor(log_3(n)))*floor(log_3(n))); equality holds if n is a power of 3 or two times a power of 3.
a(n)=O(n^((1+log_3(n))/2)).
[A106006] 0, 0, 1, 2, 3, 4, 6, 6, 7, 8, 10, 10, 12, 12, 13, 15, 16, 16, 18, 18, 20, 21, 22, 22, 24, 25, 26, 27, 28, 28, 31, 31, 32, 33, 34, 35, 37, 37, 38, 39, 41, 41, 43, 43, 44, 46, 47, 47, 49, 49, 51, 52, 53, 53, 55, 56, 57, 58, 59, 59, 62, 62, 63, 64, 65, 66, 68, 68, 69, 70, 72, 72, 74, 74, 75
a(n) = kn + O(1), where k = 31/30. - Charles R Greathouse IV, Dec 04 2013
[A239492] 0, 0, 2, 3, 4, 6, 6, 8, 9, 10, 12, 12, 14, 15, 16, 18, 18, 20, 21, 22, 24, 24, 26, 27, 28, 30, 30, 32, 33, 34, 36, 36, 38, 39, 40, 42, 42, 44, 45, 46, 48, 48, 50, 51, 52, 54, 54, 56, 57, 58, 60, 60, 62, 63, 64, 66, 66, 68, 69, 70, 72, 72, 74, 75, 76, 78, 78, 80, 81, 82, 84, 84, 86, 87, 88, 90, 90
a(n) = max(min{x*y, (5-x)*(n-y)) | 0 <= x <= 5, 0 <= y <= n).
a(n) = n + floor(n/5) - [n == 1 mod 5]. - Ralf Stephan, Mar 29 2014
a(n) = 6*floor(n/5) + [0,0,2,3,4][n%5]. - Ralf Stephan, Mar 29 2014
a(n) = n - 1 + floor(n/5) + ceiling((n-1)/5) - floor((n-1)/5). Wesley Ivan Hurt, Mar 29 2014
[A052413] 0, 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81, 82, 83, 84, 86, 87, 88, 89
a(n) = replace digits d > 4 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A004776] 0, 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 76, 78
a(n) = n + floor((n-6)/7). - M. F. Hasler, Nov 02 2013
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8; a(n) = a(n-7) + 8 for n>7.
a(n) = (56*n - 63 + (n mod 7) - 6*((n+1) mod 7) + ((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) + ((n+6) mod 7))/49.
a(7k) = 8k-1, a(7k-1) = 8k-2, a(7k-2) = 8k-4, a(7k-3) = 8k-5, a(7k-4) = 8k-6, a(7k-5) = 8k-7, a(7k-6) = 8k-8. (End)
[A183217] 2, 3, 4, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 93
a(n)= n+Floor[1/2+(2n/3)^(1/2)].
[A047303] 0, 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 76
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = n + 1 + floor((n-2)/6) - ceiling((n-1)/6) + floor((n-1)/6) - ceiling(n/6) + floor(n/6). (End)
a(n) = (42*n - 51 + 3*cos(n*Pi) + 4*sqrt(3)*cos((1-4*n)*Pi/6) + 12*sin((1+2*n)*Pi/6))/36.
a(6k) = 7k-1, a(6k-1) = 7k-3, a(6k-2) = 7k-4, a(6k-3) = 7k-5, a(6k-4) = 7k-6, a(6k-5) = 7k-7. (End)
[A047226] 0, 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 78, 79
a(n) = floor(6*(n-1)/5).
a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.
a(n) = n - 1 + floor((n-1)/5). (End)
[A059537] 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 78, 79, 80, 81, 82, 84, 85
a(n) = floor(n*zeta(3)). - Michel Marcus, Jan 04 2015
[A187388] 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53, 54, 55, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 69, 70, 71, 72, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 86, 87, 88, 89, 91, 92, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 107, 109
a(n)=floor(s*n), where s=1+sqrt(6)-sqrt(5).
[A260816] 0, 0, 0, 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 45, 46, 47, 49, 50, 52, 53, 54, 56, 57, 58, 60, 61, 62, 64, 65, 66, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80
a(n) = floor(log(C(n)).
[A277644] 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 48, 50, 51, 52, 53, 55, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 86
a(n) = floor(n*sqrt(6)/2).
[A115180] 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 32, 33, 34, 35, 37, 38, 39, 40, 41, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 58, 59, 60, 61, 62, 64, 65, 66, 67, 69, 70, 71, 72, 74, 75, 76, 77, 79, 80, 81, 82, 83, 85, 86, 87, 88
a(n) = floor(n * 1.234567891011121314...).
[A047201] 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 51, 52, 53, 54, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 79, 81, 82, 83, 84, 86, 87
a(n) = 5+a(n-4).
a(n) = n-1+floor((n+3)/4). - Benoit Cloitre, Jul 11 2009
a(n) = floor((15n-1)/12). - Gary Detlefs, Mar 07 2010
a(n) = a(n-1) + a(n-4) - a(n-5), n>5.
a(n) = (10*n-5-(-1)^n+2*(-1)^((2*n+5-(-1)^n)/4))/8. (End)
[A001959] 0, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, 45, 46, 47, 49, 50, 51, 52, 54, 55, 56, 58, 59, 60, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 82, 84, 85, 86, 88
a(n) = floor((n+2/3)*(sqrt(13)-1)/2). - R. J. Mathar, Feb 14 2011
[A013939] 0, 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 17, 19, 20, 21, 23, 24, 26, 28, 30, 31, 33, 34, 36, 37, 39, 40, 43, 44, 45, 47, 49, 51, 53, 54, 56, 58, 60, 61, 64, 65, 67, 69, 71, 72, 74, 75, 77, 79, 81, 82, 84, 86, 88, 90, 92, 93, 96, 97, 99, 101, 102, 104, 107, 108, 110, 112
a(n) = Sum_{k <= n} omega(k).

a(n) = Sum_{k = 1..n} floor(n/prime(k)).
a(n) = Sum_{k=1..n} pi(floor(n/k)). - Vladeta Jovovic, Jun 18 2006
a(n) = n log log n + O(n). - Charles R Greathouse IV, Jan 11 2012
[A004763] 0, 1, 2, 3, 4, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 96, 97, 98, 99
a(1) = 0, a(2) = 1, a(3) = 2, a(2^m+k+2) = 2^m + 2^(m-1) + k, m >= 1, 0 <= k < 2^m. - Yosu Yurramendi, Aug 08 2016
[A004772] 0, 2, 3, 4, 6, 7, 8, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 42, 43, 44, 46, 47, 48, 50, 51, 52, 54, 55, 56, 58, 59, 60, 62, 63, 64, 66, 67, 68, 70, 71, 72, 74, 75, 76, 78, 79, 80, 82, 83, 84, 86, 87, 88, 90
a(n) = floor((4*n-2)/3). - Gary Detlefs, Jan 02 2012
a(n) = n + ceiling((n-1)/3) - 1. - Arkadiusz Wesolowski, Sep 18 2012
a(n) = 4 + a(n-3).
a(n) = (12*n -9 - 3*cos(2*(n-1)*Pi/3) + sqrt(3)*sin(2*(n-1)*Pi/3))/9. (End)
a(n) = ceiling(4*(n-1)/3). - Jean-François Alcover, Mar 07 2014
[A023758] 0, 1, 2, 3, 4, 6, 7, 8, 12, 14, 15, 16, 24, 28, 30, 31, 32, 48, 56, 60, 62, 63, 64, 96, 112, 120, 124, 126, 127, 128, 192, 224, 240, 248, 252, 254, 255, 256, 384, 448, 480, 496, 504, 508, 510, 511, 512, 768, 896, 960, 992, 1008, 1016, 1020, 1022, 1023
a(n) = 2^s(n) - 2^((s(n)^2 + s(n) - 2n)/2) where s(n) = ceiling((-1 + sqrt(1+8n))/2). - Sam Alexander, Jan 08 2005
a(n+1) = (2^(n - r(r-1)/2) - 1) 2^(r(r+1)/2 - n), where r=round(sqrt(2n)). - M. F. Hasler, May 06 2009
[A029748] 1, 2, 3, 4, 6, 7, 8, 12, 14, 16, 24, 28, 32, 48, 56, 64, 96, 112, 128, 192, 224, 256, 384, 448, 512, 768, 896, 1024, 1536, 1792, 2048, 3072, 3584, 4096, 6144, 7168, 8192, 12288, 14336, 16384, 24576, 28672, 32768, 49152, 57344, 65536, 98304, 114688, 131072
a(n) = 2*a(n-3) for n>5. G.f.: -(x^5+2*x^4+2*x^3+3*x^2+2*x+1) / (2*x^3-1). - Colin Barker, Jul 19 2013
[A065904] 2, 3, 4, 6, 7, 9, 10, 11, 12, 13, 14, 19, 20, 21, 22, 23, 24, 26, 29, 31, 32, 37, 38, 39, 40, 41, 42, 43, 44, 49, 50, 52, 53, 54, 59, 60, 61, 62, 64, 65, 70, 72, 73, 74, 75, 77, 79, 80, 82, 83, 85, 87, 89, 93, 94, 95, 96, 97, 99, 100, 101, 103, 108, 109, 111, 116, 119, 121
a(n) = n-th integer i such that i^4 - 2 has one prime factor > i.
[A047519] 1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 14, 15, 17, 18, 19, 20, 22, 23, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 38, 39, 41, 42, 43, 44, 46, 47, 49, 50, 51, 52, 54, 55, 57, 58, 59, 60, 62, 63, 65, 66, 67, 68, 70, 71, 73, 74, 75, 76, 78, 79, 81, 82, 83, 84, 86, 87
a(n) = a(n-1) + a(n-6) - a(n-7), for n > 7.
a(n) = (24*n-15-3*cos(n*Pi)-2*sqrt(3)*cos((1-4*n)*Pi/6)+6*sin((1+2*n)
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-6, a(6k-5) = 8k-7. (End)
[A214857] 1, 2, 3, 4, 6, 7, 9, 10, 11, 13, 14, 16, 17, 18, 20, 21, 23, 24, 25, 27, 28, 30, 31, 33, 34, 35, 37, 38, 40, 41, 42, 44, 45, 47, 48, 50, 51, 52, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 69, 71, 72, 74, 75, 76, 78, 79, 81, 82, 83, 85, 86, 88, 89, 91, 92, 93, 95, 96, 98, 99, 100
a(n) = floor((1 + sqrt(1+8*n^2))/2). - Ralf Stephan, Jan 30 2014
[A230748] 2, 3, 4, 6, 7, 9, 10, 12, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 40, 42, 43, 45, 46, 48, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 71, 72, 74, 75, 76, 78, 79, 81, 82, 84, 85, 87, 88, 89, 91, 92
a(n) = floor(1/(1-1/2^(1/n))).
a(n) = n/log(2) + O(1). - Charles R Greathouse IV, Oct 31 2013
[A078607] 1, 2, 3, 4, 6, 7, 9, 10, 12, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 40, 42, 43, 45, 46, 48, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 71, 72, 74, 75, 76, 78, 79, 81, 82, 84, 85, 87, 88, 89, 91, 92, 94, 95, 97, 98, 100, 101, 102
a(n) = ceiling(1/(2^(1/n)-1)). For most n, a(n) is the nearest integer to n/log(2), but there are exceptions, including n=777451915729368.
[A079057] 0, 1, 2, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 20, 21, 22, 24, 25, 27, 29, 31, 32, 35, 36, 38, 40, 42, 43, 46, 47, 49, 51, 53, 55, 57, 58, 60, 62, 65, 66, 69, 70, 72, 74, 76, 77, 79, 80, 82, 84, 86, 87, 90, 92, 95, 97, 99, 100, 103, 104, 106, 108, 109, 111, 114, 115, 117, 119
a(n)=n*log(log(n)) + O(n)
[A111333] 1, 2, 3, 4, 6, 7, 9, 10, 12, 15, 16, 19, 21, 22, 24, 27, 30, 31, 34, 36, 37, 40, 42, 45, 49, 51, 52, 54, 55, 57, 64, 66, 69, 70, 75, 76, 79, 82, 84, 87, 90, 91, 96, 97, 99, 100, 106, 112, 114, 115, 117, 120, 121, 126, 129, 132, 135, 136, 139, 141, 142, 147, 154, 156, 157
a(n) = ceiling((prime_n)/2). - Robert G. Wilson v, Nov 07 2005
[A064313] 0, 0, 1, 1, 2, 3, 4, 6, 7, 9, 11, 13, 15, 17, 20, 22, 25, 28, 31, 34, 38, 41, 45, 49, 53, 57, 62, 66, 71, 76, 81, 86, 91, 97, 102, 108, 114, 120, 127, 133, 140, 146, 153, 160, 168, 175, 183, 190, 198, 206, 214, 223, 231, 240, 249, 258, 267, 276, 286, 295, 305, 315
a(n) = floor[n/(4*tan(pi/n))].
[A011865] 0, 0, 0, 0, 1, 1, 2, 3, 4, 6, 7, 9, 11, 13, 15, 17, 20, 22, 25, 28, 31, 35, 38, 42, 46, 50, 54, 58, 63, 67, 72, 77, 82, 88, 93, 99, 105, 111, 117, 123, 130, 136, 143, 150, 157, 165, 172, 180, 188, 196, 204, 212, 221, 229, 238, 247, 256, 266, 275, 285, 295, 305, 315, 325, 336
a(n) = +2*a(n-1) -a(n-2) +a(n-3) -2*a(n-4) +a(n-5) -a(n-6) +2*a(n-7) -a(n-8) +a(n-9) -2*a(n-10) +a(n-11).
[A253186] 0, 0, 1, 2, 3, 4, 6, 7, 9, 11, 13, 15, 18, 20, 23, 26, 29, 32, 36, 39, 43, 47, 51, 55, 60, 64, 69, 74, 79, 84, 90, 95, 101, 107, 113, 119, 126, 132, 139, 146, 153, 160, 168, 175, 183, 191, 199, 207, 216, 224, 233, 242, 251, 260, 270, 279, 289, 299, 309, 319, 330
a(n) = floor(n/2) + floor((n^2 + 6)/12).
[A249020] 1, 1, 2, 3, 4, 6, 7, 9, 11, 13, 16, 18, 21, 24, 27, 31, 34, 38, 42, 46, 51, 55, 60, 65, 70, 76, 81, 87, 93, 99, 106, 112, 119, 126, 133, 141, 148, 156, 164, 172, 181, 189, 198, 207, 216, 226, 235, 245, 255, 265, 276, 286, 297, 308, 319, 331, 342, 354, 366
a(n) = a(-5-n) for all n in Z.
a(n) = a(n-5) + n for all n in Z.
a(n) + a(n+4) = min(a(n+1) + a(n+3), a(n+2) + a(n+2)) + 1 for all n in Z.
[A173254] 1, 1, 2, 3, 4, 6, 7, 9, 11, 13, 16, 19, 22, 26, 29, 33, 37, 41, 46, 51, 56, 62, 67, 73, 79, 85, 92, 99, 106, 114, 121, 129, 137, 145, 154, 163, 172, 182, 191, 201, 211, 221, 232, 243, 254, 266, 277, 289, 301, 313, 326
a(n)=a(n-1)+a(n-2)-Floor[a(n-2)/2]-Floor[a(n-4)/2]
[A097987] 1, 2, 3, 4, 6, 7, 9, 11, 14, 18, 19, 22, 23, 27, 31, 38, 43, 46, 47, 49, 54, 59, 62, 67, 71, 79, 81, 83, 86, 94, 98, 103, 107, 118, 121, 127, 131, 134, 139, 142, 151, 158, 162, 163, 166, 167, 179, 191, 199, 206, 211, 214, 223, 227, 239, 242, 243, 251, 254, 262, 263, 271
a(n)=1, 2, 4, p^k, 2*p^k, with prime p == 3 (mod 4).
[A047518] 2, 3, 4, 6, 7, 10, 11, 12, 14, 15, 18, 19, 20, 22, 23, 26, 27, 28, 30, 31, 34, 35, 36, 38, 39, 42, 43, 44, 46, 47, 50, 51, 52, 54, 55, 58, 59, 60, 62, 63, 66, 67, 68, 70, 71, 74, 75, 76, 78, 79, 82, 83, 84, 86, 87, 90
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
[A055802] 1, 1, 1, 2, 3, 4, 6, 7, 10, 11, 15, 16, 21, 22, 28, 29, 36, 37, 45, 46, 55, 56, 66, 67, 78, 79, 91, 92, 105, 106, 120, 121, 136, 137, 153, 154, 171, 172, 190, 191, 210, 211, 231, 232, 253, 254, 276, 277, 300, 301, 325, 326, 351, 352, 378, 379, 406, 407, 435
a(n) = (2*n^2+2*(-1)^n*n-6*n-11*(-1)^n+11)/16 for n>2.
a(n) = (n^2-2*n)/8 for n>2 and even.
a(n) = (n^2-4*n+11)/8 for n odd.
[A134519] 1, 2, 3, 4, 6, 7, 10, 11, 15, 16, 21, 22, 28, 29, 36, 37, 45, 46, 55, 56, 66, 67, 78, 79, 91, 92, 105, 106, 120, 121, 136, 137, 153, 154, 171, 172, 190, 191, 210, 211, 231, 232, 253, 254, 276, 277, 300, 301, 325, 326, 351, 352, 378, 379, 406, 407, 435, 436, 465, 466
a(n) = (16+4*n+2*n^2)/16 for n even, a(n) = (3+4*n+n^2)/8 for n odd. G.f.: -x*(x^4-x^3-x^2+x+1) / ((x-1)^3*(x+1)^2). - Colin Barker, Jul 17 2013
[A036405] 0, 1, 1, 2, 3, 4, 6, 7, 10, 12, 15, 18, 21, 25, 28, 33, 37, 42, 47, 52, 58, 63, 70, 76, 83, 90, 97, 105, 112, 121, 129, 138, 147, 156, 166, 175, 186, 196, 207, 218, 229, 241, 252, 265, 277, 290, 303, 316, 330, 343, 358, 372, 387, 402, 417, 433, 448
a(n) = +2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9). G.f.: x*(1+x)*(x^2-x+1)*(x^4-x^3+x^2-x+1) / ((x^6+x^5+x^4+x^3+x^2+x+1)*(1-x)^3). [R. J. Mathar, Jul 06 2010]
[A226538] 1, 1, 2, 3, 4, 6, 7, 11, 12, 19, 20, 32, 33, 53, 54, 87, 88, 142, 143, 231, 232, 375, 376, 608, 609, 985, 986, 1595, 1596, 2582, 2583, 4179, 4180, 6763, 6764, 10944, 10945, 17709, 17710, 28655, 28656, 46366, 46367, 75023, 75024, 121391, 121392, 196416, 196417
a(n) = a(n-1) + a(n-3)*(1-(-1)^n)/2 + (1+(-1)^n)/2. - Paolo P. Lava, Jun 27 2013
[A047420] 0, 1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 22, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35, 36, 38, 40, 41, 42, 43, 44, 46, 48, 49, 50, 51, 52, 54, 56, 57, 58, 59, 60, 62, 64, 65, 66, 67, 68, 70, 72, 73, 74, 75, 76, 78, 80, 81, 82, 83, 84, 86, 88

a(n+1) = 6*floor(n/3)+(n mod 3). - Gary Detlefs, Mar 09 2010
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6) for n>6.
a(n) = (12*n-18+sqrt(3)*(3*sin(n*Pi/3)+sin(2*n*Pi/3)))/9.
a(6k) = 8k-2, a(6k-1) = 8k-4, a(6k-2) = 8k-5, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A047229] 0, 2, 3, 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 26, 27, 28, 30, 32, 33, 34, 36, 38, 39, 40, 42, 44, 45, 46, 48, 50, 51, 52, 54, 56, 57, 58, 60, 62, 63, 64, 66, 68, 69, 70, 72, 74, 75, 76, 78, 80, 81, 82, 84
a(n) = (6*(n-1)-(1+(-1)^n)*(-1)^(n*(1+(-1)^n)/4))/4; also a(n) = (6*(n-1)-(-i)^n-i^n)/4, where i is the imaginary unit. - Bruno Berselli, Nov 08 2010
a(n) = floor((6*n-5)/4)+floor(1/2*cos((n+2)*Pi/2)+1/2). - Gary Detlefs, Oct 28 2011 and corrected by Aleksey A. Solomein, Feb 08 2016
a(n) = a(n-1) + a(n-4) - a(n-5), n>4. - Gionata Neri, Apr 15 2015
a(n) = -a(2 - n) for all n in Z. - Michael Somos, Oct 05 2015
a(n) = n + 2*floor((n-2)/4) + floor(f(n+2)/3), where f(n) = n mod 4. - Aleksey A. Solomein, Feb 08 2016
a(n) = (3*n-3-cos(n*Pi/2))/2. - Wesley Ivan Hurt, Oct 02 2017
[A055562] 2, 3, 4, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 21, 22, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 57, 58, 60, 61, 63, 64, 66, 67, 69, 70, 72, 73, 75, 76, 78, 79, 81, 82, 84, 85, 87, 88, 90, 91, 93, 94, 96, 98, 99, 101, 102, 104, 105
a(2n) = 3n+1 + (floor(log_2 n) mod 2), n >= 1; a(2n+1) = 3n+3, n >= 0 - Jeffrey Shallit, Jun 08, 2000.
[A235933] 1, 2, 3, 4, 6, 8, 9, 11, 12, 13, 16, 17, 18, 19, 22, 23, 24, 26, 27, 29, 31, 32, 33, 34, 36, 37, 38, 39, 41, 43, 44, 46, 47, 48, 51, 52, 53, 54, 57, 58, 59, 61, 62, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 78, 79, 81, 82, 83, 86, 87, 88, 89, 92, 93, 94, 96, 97, 99
a(n) = a(n-1) + a(n-20) - a(n-21) for n > 21. [Bruno Berselli, Mar 27 2014]
[A278580] 1, 2, 3, 4, 6, 8, 9, 12, 13, 16, 18, 24, 25, 26, 27, 29, 31, 32, 35, 36, 39, 41, 47, 48, 49, 50, 52, 54, 55, 58, 59, 62, 64, 70, 71, 72, 73, 75, 77, 78, 81, 82, 85, 87, 93, 94, 95, 96, 98, 100, 101, 104, 105, 108, 110, 116, 117, 118, 119, 121, 123, 124, 127, 128, 131, 133, 139, 140, 141, 142, 144, 146
a(n+11) = a(n) + 23.
a(n) = a(n-1) + a(n-11) - a(n-12) for n>12.
[A036407] 0, 1, 1, 1, 2, 3, 4, 6, 8, 9, 12, 14, 16, 19, 22, 25, 29, 33, 36, 41, 45, 49, 54, 59, 64, 70, 76, 81, 88, 94, 100, 107, 114, 121, 129, 137, 144, 153, 161, 169, 178, 187, 196, 206, 216, 225, 236, 246, 256, 267, 278, 289, 301, 313, 324, 337, 349
a(n) = +2*a(n-1) -a(n-2) +a(n-9) -2*a(n-10) +a(n-11).
[A083854] 0, 1, 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 25, 27, 32, 36, 48, 49, 50, 54, 64, 72, 75, 81, 96, 98, 100, 108, 121, 128, 144, 147, 150, 162, 169, 192, 196, 200, 216, 225, 242, 243, 256, 288, 289, 294, 300, 324, 338, 361, 363, 384, 392, 400, 432, 441, 450, 484, 486, 507
a(n) is bounded below by 0.137918...*n^2 where 0.137918... = 3*(3-2*sqrt(2))*(2-sqrt(3)); the error appears to be O(n).
[A121539] 0, 2, 3, 4, 6, 8, 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 24, 26, 27, 28, 30, 32, 34, 35, 36, 38, 40, 42, 43, 44, 46, 47, 48, 50, 51, 52, 54, 56, 58, 59, 60, 62, 63, 64, 66, 67, 68, 70, 72, 74, 75, 76, 78, 79, 80, 82, 83, 84, 86, 88, 90, 91, 92, 94, 96, 98, 99, 100
a(n) = 1.5n + O(log n). - Charles R Greathouse IV, Sep 23 2012
[A047418] 0, 2, 3, 4, 6, 8, 10, 11, 12, 14, 16, 18, 19, 20, 22, 24, 26, 27, 28, 30, 32, 34, 35, 36, 38, 40, 42, 43, 44, 46, 48, 50, 51, 52, 54, 56, 58, 59, 60, 62, 64, 66, 67, 68, 70, 72, 74, 75, 76, 78, 80, 82, 83, 84, 86, 88, 90, 91, 92, 94, 96, 98, 99, 100, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 45 - 2*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 2*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5*k) = 8*k-2, a(5*k-1) = 8*k-4, a(5*k-2) = 8*k-5, a(5*k-3) = 8*k-6, a(5*k-4) = 8*k-8. (End)
[A184103] 1, 2, 3, 4, 6, 8, 10, 11, 14, 16, 18, 20, 23, 26, 29, 31, 35, 38, 41, 44, 48, 52, 56, 59, 64, 68, 72, 76, 81, 86, 91, 95, 101, 106, 111, 116, 122, 128, 134, 139, 146, 152, 158, 164, 171, 178, 185, 191, 199, 206, 213, 220, 228, 236, 244, 251, 260, 268, 276, 284, 293, 302, 311, 319, 329, 338, 347, 356, 366, 376, 386, 395, 406, 416, 426, 436, 447, 458, 469, 479
a(n)=n-1+ceiling(n^2/4).
a(n) = +2 a(n-1) -a(n-2) +a(n-8) -2 a(n-9) +a(n-10). - R. J. Mathar, Mar 11 2012
[A004271] 0, 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104
a(n) = 2*n - 4 + floor(3/n) + krondelta_{n,2}, n > 0. - Wesley Ivan Hurt, May 23 2013
[A068670] 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154
a(n) = sum(i=1..n, ceiling(log_10(1 + prime(i)))). - Daniel Forgues, Apr 02 2014
[A113769] 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 47, 51, 55, 59, 63, 67, 71, 75, 79, 83, 87, 91, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 176, 182, 188, 194, 200, 206, 212, 218, 224, 230, 236, 242, 248, 254
a(1) = 1, a(n+1) = a(n) + round(cuberoot(a(n))).
[A097602] 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 19, 22, 25, 29, 33, 37, 41, 45, 49, 54, 59, 64, 70, 76, 82, 88, 94, 100, 107, 114, 121, 129, 137, 145, 153, 161, 169, 178, 187, 196, 206, 216, 226, 236, 246, 256, 267, 278, 289, 301, 313, 325, 337, 349, 361, 374, 387, 400, 414, 428
a(9*n+1) = (3*n+1)^2; a(9*n+4) = (3*n+2)^2. - Vladeta Jovovic, Aug 30 2004
[A011862] 0, 0, 0, 0, 1, 2, 3, 4, 6, 8, 10, 12, 14, 17, 20, 23, 26, 30, 34, 38, 42, 46, 51, 56, 61, 66, 72, 78, 84, 90, 96, 103, 110, 117, 124, 132, 140, 148, 156, 164, 173, 182, 191, 200, 210, 220, 230, 240, 250, 261, 272, 283, 294, 306, 318, 330, 342, 354, 367, 380, 393, 406, 420
a(n) = +2*a(n-1) -a(n-2) +a(n-9) -2*a(n-10) +a(n-11). G.f.: x^4*(x^4+1)/ ((1-x)^3 * (1+x+x^2) * (x^6+x^3+1)). [From R. J. Mathar, Apr 15 2010]
[A007183] 0, 0, 0, 1, 2, 3, 4, 6, 8, 10, 12, 15, 16, 19, 22, 25, 27, 30, 32, 35, 37, 40, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114
a(n) = 3 * n - 27 for n >= 23 [from Hammer and Simeone]. - Sean A. Irvine, Nov 12 2017
[A130519] 0, 0, 0, 0, 1, 2, 3, 4, 6, 8, 10, 12, 15, 18, 21, 24, 28, 32, 36, 40, 45, 50, 55, 60, 66, 72, 78, 84, 91, 98, 105, 112, 120, 128, 136, 144, 153, 162, 171, 180, 190, 200, 210, 220, 231, 242, 253, 264, 276, 288, 300, 312, 325, 338, 351, 364, 378, 392, 406, 420, 435, 450
a(n) = +2*a(n-1) -1*a(n-2) +1*a(n-4) -2*a(n-5) +1*a(n-6).
a(n) = floor((n-1)^2/8). - Mitch Harris, Sep 08 2008
a(n) = round(n*(n-2)/8) = round((n^2-2*n-1)/8) = ceiling((n+1)*(n-3)/8). - Mircea Merca, Nov 28 2010
a(n) = a(n-4)+n-3, n>3. - Mircea Merca, Nov 28 2010
a(n) = a(2-n) for all n in Z. - Michael Somos, Oct 14 2011
a(n) = Sum_{i=1..ceiling(n/2)-1} (i mod 2) * (n - 2*i - 1). - Wesley Ivan Hurt, Jan 23 2014
[A001972] 1, 2, 3, 4, 6, 8, 10, 12, 15, 18, 21, 24, 28, 32, 36, 40, 45, 50, 55, 60, 66, 72, 78, 84, 91, 98, 105, 112, 120, 128, 136, 144, 153, 162, 171, 180, 190, 200, 210, 220, 231, 242, 253, 264, 276, 288, 300, 312, 325, 338, 351, 364, 378, 392, 406, 420, 435, 450, 465
a(n) = a(n-1)+a(n-4)-a(n-5)+1. a(n)=floor((n+3)^2/8) - Michael Somos, Apr 21 2000.
a(n)=sum{k=0..n, floor((k+4)/4)}=n+1+sum{k=0..n, floor(k/4)}. - Paul Barry, Aug 19 2003
a(n) = a(n-4) + n + 1. - Paul Barry, Jul 14 2004
a(n) = sum(j=0..n+4, floor(j/4)), a(n-4) = (1/2)*floor(n/4)*(2*n-2-4*floor(n/4)) [Mitch Harris, Sep 08 2008]
a(n)+a(n+1)+a(n+2)+a(n+3) = (n+4)*(n+5)/2. - Amarnath Murthy, Apr 26 2004
a(n) = floor((n+1)/(1-e^(-8/(n+1)))). - Richard R. Forberg, Aug 07 2013
[A005705] 1, 2, 3, 4, 6, 8, 10, 12, 15, 18, 21, 24, 28, 32, 36, 40, 46, 52, 58, 64, 72, 80, 88, 96, 106, 116, 126, 136, 148, 160, 172, 184, 199, 214, 229, 244, 262, 280, 298, 316, 337, 358, 379, 400, 424, 448, 472, 496, 524, 552, 580, 608, 640, 672, 704, 736, 772, 808, 844
a(n) = a(n-1) + a(floor(n/4)).
[A184109] 2, 3, 4, 6, 8, 10, 13, 16, 18, 22, 25, 28, 32, 36, 40, 45, 50, 54, 60, 65, 70, 76, 82, 88, 95, 102, 108, 116, 123, 130, 138, 146, 154, 163, 172, 180, 190, 199, 208, 218, 228, 238, 249, 260, 270, 282, 293, 304, 316, 328, 340, 353, 366, 378, 392, 405, 418, 432, 446, 460, 475, 490, 504, 520, 535, 550, 566, 582, 598, 615, 632, 648, 666, 683, 700, 718, 736, 754, 773, 792, 810, 830, 849, 868, 888, 908, 928, 949, 970, 990
a(n) = +2 a(n-1) -a(n-2) +a(n-9) -2 a(n-10) +a(n-11). - R. J. Mathar, Mar 11 2012
[A214780] 2, 3, 4, 6, 8, 10, 13, 16, 19, 22, 25, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 236, 242, 248, 254, 260, 266

a(n+1) = a(n) + log a(n) + O(1). a(n) ~ n log n. - Charles R Greathouse IV, Jul 30 2012
a(n) = n log n + n log log n + O(n) so a(n) = prime(n) + O(n). - Thomas Ordowski, May 07 2013
[A024174] 0, 0, 1, 2, 3, 4, 6, 8, 10, 13, 16, 19, 22, 25, 29, 33, 37, 42, 47, 52, 57, 62, 68, 74, 80, 87, 94, 101, 108, 115, 123, 131, 139, 148, 157, 166, 175, 184, 194, 204, 214, 225, 236, 247, 258, 269, 281, 293, 305, 318, 331, 344, 357, 370, 384, 398, 412, 427, 442
a(n) = floor((n - 3)(15n^3 + 15n^2 - 10n - 8)/(120n(n + 1))]. - Ivan Neretin, Nov 25 2016
[A022796] 1, 2, 3, 4, 6, 8, 10, 13, 16, 19, 23, 27, 31, 36, 41, 46, 52, 58, 64, 71, 78, 85, 93, 101, 109, 117, 126, 135, 144, 154, 164, 174, 185, 196, 207, 219, 231, 243, 256, 269, 282, 296, 310, 324, 339, 354, 369, 384, 400, 416, 432, 449, 466, 483, 501, 519
a(n) = n + 1 + Sum_({k=0..n} floor((n-k)/Pi.
a(n) <= floor(binomial(n+1, 2)/Pi) + n+1. - David A. Corneth, Mar 26 2017
[A008748] 1, 1, 2, 3, 4, 6, 8, 10, 13, 16, 19, 23, 27, 31, 36, 41, 46, 52, 58, 64, 71, 78, 85, 93, 101, 109, 118, 127, 136, 146, 156, 166, 177, 188, 199, 211, 223, 235, 248, 261, 274, 288, 302, 316, 331, 346, 361, 377, 393, 409, 426, 443, 460, 478, 496, 514, 533, 552, 571
a(n) = 1 + floor(n(n+1)/6). - Michael Somos, Jun 16 1999
a(n) = 1 + a(n-1) + a(n-3) - a(n-4) if n>4; a(n) = n if n=1..4. - Michael Somos, Jun 16 1999
a(-1-n) = a(n). - Michael Somos, Sep 06 2013
[A109965] 1, 1, 2, 3, 4, 6, 8, 10, 13, 16, 20, 24, 28, 33, 38, 44, 50, 57, 64, 72, 80, 88, 97, 106, 116, 126, 137, 148, 160, 172, 185, 198, 212, 226, 241, 256, 272, 288, 304, 321, 338, 356, 374, 393, 412, 432, 452, 473, 494, 516, 538, 561, 584, 608, 632, 657, 682, 708, 734
a(2^(j+1)+j+2*k)=2^(2*j)+2^j*(2*k+1)+k*(k-1);
a(2^(j+1)+j+2*k+1)=2^(2*j)+2^j*(2*k+2)+k^2;
a(2^(j+1)+j-1)=2^(2*j); j=0..infinity; k=0..(2^j-1). (End)
[A008669] 1, 1, 2, 3, 4, 6, 8, 10, 13, 16, 20, 24, 29, 34, 40, 47, 54, 62, 71, 80, 91, 102, 114, 127, 141, 156, 172, 189, 207, 226, 247, 268, 291, 315, 340, 367, 395, 424, 455, 487, 521, 556, 593, 631, 671, 713, 756, 801, 848, 896, 947, 999, 1053, 1109, 1167, 1227, 1289
a(n) = round((n+3)*(2*n+9)*(n+9)/360).
a(n)=a(n-1)+a(n-2)-a(n-4)-a(n-7)+a(n-9)+a(n-10)-a(n-11). - David Neil McGrath, Sep 15 2014
[A123015] 1, 2, 3, 4, 6, 8, 10, 13, 17, 21, 26, 33, 41, 50, 62, 77, 94, 115, 142, 174, 212, 260, 319, 389, 475, 582, 711, 867, 1060, 1296, 1581, 1930, 2359, 2880, 3514, 4292, 5242, 6397, 7809, 9537, 11642, 14209, 17349, 21182, 25854, 31561, 38534, 47039, 57418, 70098, 85576
a(n) = a(n-3)+a(n-4)+3. - Ralf Stephan, Nov 12 2006
[A239100] 0, 1, 1, 2, 3, 4, 6, 8, 10, 13, 17, 22, 28, 37, 47, 59, 75, 96, 120, 153, 194, 242, 309, 391, 487, 619, 784, 976, 1241, 1570, 1954, 2485, 3143, 3911, 4971, 6288, 7824, 9945, 12578, 15650, 19893, 25159, 31303, 39787, 50320, 62608, 79577, 100642, 125218, 159157
a(3r+1) = floor(107*2^(r-3)/7)-2,
a(3r+2) = floor((17*2^r-6)/7)-1; initial terms are shown in sequence.
[A003107] 1, 1, 2, 3, 4, 6, 8, 10, 14, 17, 22, 27, 33, 41, 49, 59, 71, 83, 99, 115, 134, 157, 180, 208, 239, 272, 312, 353, 400, 453, 509, 573, 642, 717, 803, 892, 993, 1102, 1219, 1350, 1489, 1640, 1808, 1983, 2178, 2386, 2609, 2854, 3113, 3393, 3697, 4017, 4367, 4737
a(n) = f(n,1,1) with f(x,y,z) = if x<y then 0^x else f(x-y,y,z)+f(x,y+z,y). - Reinhard Zumkeller, Nov 11 2009
[A217123] 2, 3, 4, 6, 8, 10, 14, 18, 22, 26, 32, 38, 44, 50, 58, 66, 74, 82, 92, 102, 112, 122, 134, 146, 158, 170, 184, 198, 212, 226, 242, 258, 274, 290, 308, 326, 344, 362, 382, 402, 422, 442, 464, 486, 508, 530, 554, 578, 602, 626, 652, 678
a(n) = (13-(-1)^n+2*(-i)^n+2*i^n+2*n^2)/8, where i=sqrt(-1). G.f.: x*(x^7-2*x^6-x^5+2*x^4-x^3+x-2)/((x-1)^3*(x+1)*(x^2+1)). [Colin Barker, Oct 04 2012]
[A060469] 1, 2, 3, 4, 6, 8, 11, 13, 16, 18, 23, 25, 28, 30, 35, 37, 40, 42, 47, 49, 52, 54, 59, 61, 64, 66, 71, 73, 76, 78, 83, 85, 88, 90, 95, 97, 100, 102, 107, 109, 112, 114, 119, 121, 124, 126, 131, 133, 136, 138, 143, 145, 148, 150, 155, 157, 160, 162, 167, 169, 172, 174
a(n) = a(n-1)+a(n-4)-a(n-5) for n>9. - Colin Barker, Feb 27 2015
[A211522] 0, 0, 0, 1, 2, 3, 4, 6, 8, 11, 13, 16, 19, 23, 27, 31, 35, 40, 45, 51, 56, 62, 68, 75, 82, 89, 96, 104, 112, 121, 129, 138, 147, 157, 167, 177, 187, 198, 209, 221, 232, 244, 256, 269, 282, 295, 308, 322, 336, 351, 365, 380, 395, 411, 427, 443, 459, 476
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-5) - a(n-6) - a(n-7) + a(n-8).
[A211536] 0, 0, 0, 2, 3, 4, 6, 8, 11, 14, 17, 21, 24, 29, 34, 39, 44, 49, 56, 63, 69, 76, 83, 92, 100, 108, 117, 126, 136, 146, 156, 167, 177, 189, 201, 213, 225, 237, 251, 265, 278, 292, 306, 322, 337, 352, 368, 384, 401, 418, 435, 453, 470, 489, 508, 527, 546
a(n) = a(n-1) + a(n-4) - a(n-6) - a(n-9) + a(n-10).
[A290743] 2, 3, 4, 6, 8, 11, 14, 18, 22, 27, 32, 38, 44, 51, 58, 66, 74, 83, 92, 102, 112, 123, 134, 146, 158, 171, 184, 198, 212, 227, 242, 258, 274, 291, 308, 326, 344, 363, 382, 402, 422, 443, 464, 486, 508, 531, 554, 578, 602, 627, 652, 678, 704, 731, 758
a(n) = binomial(n+1,2) - (s-p)*binomial(m+1,2) - p*binomial(m+2,2) + s where s=2, m=floor(n/s), p=n-m*s. - Andrew Howroyd, Aug 14 2017
a(n) = (2*n^2 + 16) / 8 for n even.
a(n) = (2*n^2 + 14) / 8 for n odd.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 4.
[A177339] 0, 0, 0, 0, 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, 22, 27, 33, 40, 47, 55, 64, 74, 85, 97, 110, 124, 139, 156, 174, 193, 213, 235, 258, 283, 309, 337, 366, 397, 430, 465, 501, 539, 579, 621, 665, 711, 759, 809, 861, 916, 973
a(n)=round((2*n+1)*(2*n^2+2*n-15)/528).
a(n)=floor((n+5)*(2*n^2-7*n+21)/264).
a(n)=ceil((n-4)*(2*n^2+11*n+30)/264).
a(n)=round(n*(n-2)*(2*n+7)/264).
a(n)=a(n-44)+(n+1)*(n-44)+665, n>43.
a(n)= +2*a(n-1) -2*a(n-3) +a(n-4) +a(n-11) -2*a(n-12) +2*a(n-14) -a(n-15) with G.f. x^5*(1-x^2+x^4) / ((1+x) *(x^10+x^9+x^8+x^7+x^6+x^5+x^4+x^3+x^2+x+1) *(x-1)^4). - R. J. Mathar, Dec 13 2010
[A075535] 1, 1, 2, 3, 4, 6, 8, 11, 14, 18, 22, 28, 34, 42, 50, 61, 72, 86, 100, 118, 136, 158, 180, 208, 236, 270, 304, 346, 388, 438, 488, 549, 610, 682, 754, 840, 926, 1026, 1126, 1244, 1362, 1498, 1634, 1792, 1950, 2130, 2310, 2518, 2726, 2962, 3198, 3468, 3738, 4042
a(1)=a(2)=1; a(2n)=a(2n-1)+a(n); a(2n+1)=a(2n)+a(n); n>=3 a(n)=a(n-1)+a(floor(n/2)).
[A238383] 1, 2, 3, 4, 6, 8, 11, 14, 18, 22, 28, 34, 43, 52, 65, 78, 97, 116, 144, 172, 213, 254, 314, 374, 462, 550, 679, 808, 997, 1186, 1463, 1740, 2146, 2552, 3147, 3742, 4614, 5486, 6764, 8042, 9915, 11788, 14533, 17278, 21301, 25324, 31220, 37116, 45757
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-6) - a(n-7), a(0) = 1, a(1) = 2, a(2) = 3, a(3) = 4, a(4) = 6, a(5) = 8, a(6) = 11.
[A175870] 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, 23, 29, 35, 43, 52, 62, 73, 86, 100, 116, 133, 152, 173, 196, 220, 247, 276, 307, 340, 376, 414, 455, 498, 544, 593, 645, 699, 757, 818, 882, 949, 1020, 1094, 1172, 1253, 1338, 1427, 1520, 1616, 1717, 1822
a(n)=round((2*n+1)*(2*n^2+2*n+95)/288)
a(n)=floor((n+1)*(2*n^2+n+95)/144)
a(n)=ceil((2*n^3+3*n^2+96*n)/144)
a(n)=a(n-24)+(n+1)*(n-24)+220
[A114829] 1, 2, 3, 4, 6, 8, 11, 14, 18, 23, 29, 36, 44, 53, 63, 74, 87, 101, 117, 135, 155, 177, 201, 227, 256, 287, 321, 358, 398, 442, 489, 540, 595, 654, 717, 785, 858, 936, 1019, 1107, 1201, 1301, 1408, 1521, 1641, 1768, 1903, 2046, 2197, 2356, 2524, 2701, 2888, 3085, 3292, 3510, 3739, 3979, 4231
a(1) = 1, a(n+1) = a(n) + floor(GeometricMean[a(1),a(2),...,a(n)]). a(n+1) = a(n) + [((a(1)*a(2)*,...,*a(n))^(1/n)].
[A175869] 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, 23, 29, 36, 44, 53, 63, 75, 88, 103, 119, 137, 157, 179, 202, 228, 256, 286, 318, 353, 390, 430, 472, 517, 565, 616, 670, 727, 787, 850, 917, 987, 1061, 1138, 1219, 1304, 1393, 1485, 1582, 1683, 1788, 1897
a(n)=round((2*n+1)*(n^2+n+42)/138)
a(n)=floor((2*n^3+3*n^2+85*n+90)/138)
a(n)=ceil((2*n^3+3*n^2+85*n-6)/138)
a(n)=a(n-23)+(n+1)*(n-23)+202
[A279075] 0, 1, 2, 3, 4, 6, 8, 11, 14, 18, 23, 29, 37, 47, 59, 74, 93, 117, 147, 184, 231, 289, 362, 453, 567, 709, 887, 1109, 1387, 1734, 2168, 2711, 3389, 4237, 5297, 6622, 8278, 10348, 12936, 16171, 20214, 25268, 31586, 39483, 49354, 61693, 77117, 96397, 120497
a(n) = floor(a(n-1)*5/4) + 1.

[A094707] 0, 0, 1, 1, 2, 3, 4, 6, 8, 11, 14, 19, 24, 32, 40, 53, 66, 87, 108, 142, 176, 231, 286, 375, 464, 608, 752, 985, 1218, 1595, 1972, 2582, 3192, 4179, 5166, 6763, 8360, 10944, 13528, 17709, 21890, 28655, 35420, 46366, 57312, 75023, 92734, 121391, 150048, 196416
a(n)=a(n-1)+a(n+2)-a(n-3)+a(n-4)-a(n-5).
a(n)=sum{k=0..n, Fib(floor(k/2))}.
a(n)=-2-(sqrt(5)/2-1/2)^(n/2)((2sqrt(5)/5-1)cos(pi*n/2)+sqrt(4sqrt(5)/5-8/5)sin(pi*n/2)) -(sqrt(5)/2+1/2)^(n/2)((sqrt(sqrt(5)/5+2/5)-sqrt(5)/5-1/2)(-1)^n-sqrt(sqrt(5)/5+2/5) -sqrt(5)/5-1/2);
[A175868] 0, 1, 2, 3, 4, 6, 8, 11, 15, 20, 25, 32, 40, 49, 59, 71, 84, 99, 116, 135, 155, 178, 203, 230, 259, 291, 325, 362, 402, 445, 490, 539, 591, 646, 704, 766, 831, 900, 973, 1050, 1130, 1215, 1304, 1397, 1494, 1596, 1702, 1813, 1929, 2050, 2175
a(n)=round((2*n+1)*(2*n^2+2*n+69)/240).
a(n)=floor((2*n^3+3*n^2+70*n+72)/120).
a(n)=ceil((2*n^3+3*n^2+70*n-3)/120).
a(n)=a(n-20)+(n+1)*(n-20)+155.
a(0)=0, a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=6, a(6)=8, a(7)=11, a(8)=15, a(9)=20, a(10)=25, a(11)=32, a(12)=40, a(n)=3*a(n-1)-3*a(n-2)+a(n-3)+a(n-10)-3*a(n-11)+3*a(n-12)-a(n-13). - Harvey P. Dale, Jun 10 2011
[A175864] 0, 1, 2, 3, 4, 6, 8, 11, 15, 20, 26, 33, 41, 50, 61, 73, 87, 103, 121, 140, 162, 186, 212, 240, 271, 304, 340, 379, 421, 466, 514, 565, 619, 677, 738, 803, 872, 945, 1021, 1102, 1187, 1276, 1369, 1467, 1569, 1676, 1788, 1905, 2027, 2154, 2286
a(n)=round((2*n+1)*(n^2+n+30)/114)
a(n)=floor((2*n^3+3*n^2+61*n+78)/114)
a(n)=ceil((2*n^3+3*n^2+61*n-18)/114)
a(n)=round((2*n^3+3*n^2+61*n)/114)
a(n)=a(n-19)+(n+1)*(n-19)+140 , n>18
[A100673] 1, 2, 3, 4, 6, 8, 11, 15, 20, 26, 34, 44, 56, 71, 90, 114, 144, 182, 230, 291, 367, 463, 584, 737, 929, 1171, 1476, 1860, 2344, 2954, 3723, 4691, 5911, 7448, 9385, 11825, 14899, 18772, 23652, 29800, 37546, 47306, 59603, 75096, 94616, 119209, 150195, 189235
a(0) = 1, a(n) = Floor((2*a(n-1)*(a(n-1)+1)*(a(n-1)+2))^(1/3))
[A023434] 0, 1, 1, 2, 3, 4, 6, 8, 11, 15, 20, 27, 36, 48, 64, 85, 113, 150, 199, 264, 350, 464, 615, 815, 1080, 1431, 1896, 2512, 3328, 4409, 5841, 7738, 10251, 13580, 17990, 23832, 31571, 41823, 55404, 73395, 97228, 128800, 170624, 226029, 299425, 396654, 525455
a(0)=0, a(1)=1, a(2)=1 then for n>2 a(n)=ceiling(r*a(n-1)) where r is the positive root of x^3-x-1=0. - Benoit Cloitre, Jun 19 2004
a(n) = Sum_{1<=k<=(n+2)/3} binomial[Floor[(n+2-k)/2],k]. This formula counts even run-types by length. - David Callan, Jul 14 2006
a(n) = a(n-2) + a(n-3) + 1. - M. Dols (markdols(AT)yahoo.com), Feb 01 2010
[A003411] 1, 2, 3, 4, 6, 8, 11, 15, 21, 29, 40, 55, 76, 105, 145, 200, 276, 381, 526, 726, 1002, 1383, 1909, 2635, 3637, 5020, 6929, 9564, 13201, 18221, 25150, 34714, 47915, 66136, 91286, 126000, 173915, 240051, 331337, 457337, 631252, 871303, 1202640, 1659977
a(n) = a(n-1) + a(n-4), n >= 5.
[A057048] 1, 2, 3, 4, 6, 8, 11, 16, 23, 32, 45, 64, 91, 128, 181, 256, 362, 512, 724, 1024, 1448, 2048, 2896, 4096, 5793, 8192, 11585, 16384, 23170, 32768, 46341, 65536, 92682, 131072, 185364, 262144, 370728, 524288, 741455, 1048576
a(2n-1) = 2^n, n > 0. - M. F. Hasler, Feb 20 2012
[A164090] 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 96, 128, 192, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288, 16384, 24576, 32768, 49152, 65536, 98304, 131072, 196608, 262144, 393216, 524288, 786432, 1048576, 1572864, 2097152, 3145728
a(n) = (7-(-1)^n)*2^(1/4*(2*n-1+(-1)^n))/4.
[A029744] 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 96, 128, 192, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288, 16384, 24576, 32768, 49152, 65536, 98304, 131072, 196608, 262144, 393216, 524288, 786432, 1048576, 1572864, 2097152, 3145728, 4194304
a(0)=1, a(1)=1 and a(n) = a(n-2) * (floor(a(n-1)/a(n-2)) + 1). - Benoit Cloitre, Aug 13 2002
a(n) = sqrt((17-(-1)^n)*2^(n-4)) for n>=2. - Anton Zakharov, Jul 24 2016
[A179042] 0, 1, 2, 3, 4, 6, 8, 12, 18, 27, 41, 64, 100, 159, 254, 407, 654, 1054, 1700, 2746, 4438, 7175, 11603, 18768, 30360, 49117, 79466, 128571, 208024, 336582, 544592, 881160, 1425738, 2306883, 3732605, 6039472, 9772060
a(n)=round(Fibonacci(n+2)/4+n/2).
a(n)=floor(Fibonacci(n+2)/4+n/2+1/4).
a(n)=ceil(Fibonacci(n+2)/4+n/2-1/4).
a(n)=round(Fibonacci(n+2)/4+n/2-1/4).
a(n)=a(n-6)+Fibonacci(n-1)+3, n>5.
a(n)=2*a(n-1)-a(n-3)+a(n-6)-2*a(n-7)+a(n-9), n>8.
[A000029] 1, 2, 3, 4, 6, 8, 13, 18, 30, 46, 78, 126, 224, 380, 687, 1224, 2250, 4112, 7685, 14310, 27012, 50964, 96909, 184410, 352698, 675188, 1296858, 2493726, 4806078, 9272780, 17920860, 34669602, 67159050, 130216124, 252745368, 490984488
a(n) = Sum_{ d divides n } phi(d)*2^(n/d)/(2*n) + either 2^((n-1)/2) if n odd or 2^(n/2-1)+2^(n/2-2) if n even.
[A084239] 1, 2, 3, 4, 6, 8, 13, 20, 32, 52, 90, 152, 268, 472, 845, 1520, 2766, 5044, 9277, 17112, 31724, 59008, 110162, 206260, 387282, 729096, 1375654, 2601640, 4929378, 9358944, 17797100, 33904324, 64678112, 123580884, 236413054, 452902072
a(n) = constant term of prod(i=1, n, 1+t^(i-.5(n+1))) for odd n and a(n) = constant term of (1+t^(.5))*prod(i=1, n, 1+t^(i-.5(n+1))) for even n.
[A047419] 1, 2, 3, 4, 6, 9, 10, 11, 12, 14, 17, 18, 19, 20, 22, 25, 26, 27, 28, 30, 33, 34, 35, 36, 38, 41, 42, 43, 44, 46, 49, 50, 51, 52, 54, 57, 58, 59, 60, 62, 65, 66, 67, 68, 70, 73, 74, 75, 76, 78, 81, 82, 83, 84, 86, 89, 90, 91, 92, 94, 97, 98, 99, 100, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 40 - 2*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) - 7*((n+4) mod 5))/25.
a(5*k) = 8*k-2, a(5*k-1) = 8*k-4, a(5*k-2) = 8*k-5, a(5*k-3) = 8*k-6, a(5*k-4) = 8*k-7. (End)
[A047300] 2, 3, 4, 6, 9, 10, 11, 13, 16, 17, 18, 20, 23, 24, 25, 27, 30, 31, 32, 34, 37, 38, 39, 41, 44, 45, 46, 48, 51, 52, 53, 55, 58, 59, 60, 62, 65, 66, 67, 69, 72, 73, 74, 76, 79, 80, 81, 83, 86, 87, 88, 90, 93, 94, 95, 97, 100, 101, 102, 104, 107, 108, 109, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-5-i^(2*n)-(1-3*i)*i^(-n)-(1+3*i)*i^n)/8 where i=sqrt(-1).
[A189887] 1, 1, 2, 3, 4, 6, 9, 11, 12, 14, 17, 19, 20, 22, 25, 27, 28, 30, 33, 35, 36, 38, 41, 43, 44, 46, 49, 51, 52, 54, 57, 59, 60, 62, 65, 67, 68, 70, 73, 75, 76, 78, 81, 83, 84, 86, 89, 91, 92, 94, 97, 99, 100, 102, 105, 107, 108, 110, 113, 115, 116, 118, 121, 123, 124, 126, 129, 131, 132, 134, 137, 139, 140, 142, 145, 147, 148, 150, 153, 155
a(n) = (1/4+i/4)*((-11+11*i)-i*(-i)^n+i^n)+2*n for n>3, where i=sqrt(-1). a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>7. G.f.: x*(x^6+x^5+x^4-x^3+2*x^2-x+1) / ((x-1)^2*(x^2+1)). - Colin Barker, Jul 24 2013
[A179970] 0, 1, 2, 3, 4, 6, 9, 11, 12, 14, 17, 19, 25, 27, 36, 38, 44, 46, 49, 51, 57, 59, 68, 70, 76, 78, 100, 102, 108, 110, 145, 147, 153, 155, 177, 179, 185, 187, 196, 198, 204, 206, 228, 230, 236, 238, 273, 275, 281, 283, 305, 307, 313, 315, 401, 403, 409, 411, 433, 435
a(n) = 4*m - m mod 2 + 1 + 2*(1 - n mod 2).
[A000792] 1, 1, 2, 3, 4, 6, 9, 12, 18, 27, 36, 54, 81, 108, 162, 243, 324, 486, 729, 972, 1458, 2187, 2916, 4374, 6561, 8748, 13122, 19683, 26244, 39366, 59049, 78732, 118098, 177147, 236196, 354294, 531441, 708588, 1062882, 1594323, 2125764, 3188646, 4782969
a(3n) = 3^n; a(3*n+1) = 4*3^(n-1) for n > 0; a(3*n+2) = 2*3^n.
a(n) = 3*a(n-3) if n > 4. - Henry Bottomley, Nov 29 2001
a(n) = if n <= 2 then n else a(n-1) + Max{gcd(a(i), a(j))| 0 < i < j < n}. - Reinhard Zumkeller, Feb 08 2002
a(n) = 3^(n - 2 - 2*floor((n-1)/3))*2^(2 - (n-1) mod 3) for n > 1. - Hieronymus Fischer, Nov 11 2007
a(n) = 3^floor(n/3)/(1 - (n mod 3)/4), n > 1. - Kiyoshi Akima (k_akima(AT)hotmail.com), Aug 31 2009
a(n) = 3^(floor((n-2)/3))*(2 + ((n-2) mod 3)), n > 1. - Kiyoshi Akima (k_akima(AT)hotmail.com), Aug 31 2009
[A175848] 0, 1, 2, 3, 4, 6, 9, 13, 17, 23, 30, 38, 47, 58, 71, 86, 102, 121, 142, 165, 190, 218, 249, 283, 319, 359, 402, 448, 497, 550, 607, 668, 732, 801, 874, 951, 1032, 1118, 1209, 1305, 1405, 1511, 1622, 1738, 1859, 1986, 2119, 2258, 2402, 2553, 2710

a(n)=round((2*n+1)*(2*n^2+2*n+51)/192);
a(n)=floor((2*n^3+3*n^2+52*n+60)/96);
a(n)=ceil((2*n^3+3*n^2+52*n-9)/96);
a(n)=a(n-16)+(n+1)*(n-16)+102.
a(n) = 3 a(n-1) -3 a(n-2) +a(n-3) +a(n-8) -3 a(n-9) +3 a(n-10) -a(n-11). - R. J. Mathar, Mar 11 2012
[A016028] 1, 2, 3, 4, 6, 9, 13, 18, 24, 31, 39, 48, 58, 69, 81, 94, 108, 123, 139, 156, 174, 193, 213, 234, 256, 279, 303, 328, 354, 381, 409, 438, 468, 499, 531, 564, 598, 633, 669, 706, 744, 783, 823, 864, 906, 949, 993, 1038, 1084, 1131, 1179
a(n) = binomial(n,2) - 3*n + 9, n>=3. a(n-3) = n^2/2 - 7*n/2 + 9, n>=4. - Milan Janjic, Dec 28 2007
[A219282] 1, 1, 1, 2, 3, 4, 6, 9, 13, 18, 25, 35, 49, 68, 93, 126, 170, 229, 308, 413, 551, 731, 965, 1269, 1664, 2177, 2842, 3701, 4806, 6222, 8031, 10337, 13272, 17003, 21740, 27745, 35343, 44936, 57021, 72213, 91274, 115149, 145010, 182309, 228841, 286819, 358964, 448614, 559857, 697694
a(n) = sum_{k=0..floor((sqrt(8*n+1)-3)/2)} C(n-1-C(k+1,2),k), for n>=1.
[A098578] 0, 1, 2, 3, 4, 6, 9, 13, 18, 25, 35, 49, 68, 94, 130, 180, 249, 344, 475, 656, 906, 1251, 1727, 2384, 3291, 4543, 6271, 8656, 11948, 16492, 22764, 31421, 43370, 59863, 82628, 114050, 157421, 217285, 299914, 413965, 571387, 788673, 1088588, 1502554
a(n) = a(n-1) + a(n-4) + 1.
[A050811] 2, 3, 4, 6, 9, 13, 18, 26, 35, 48, 65, 87, 115, 152, 199, 258, 333, 427, 545, 692, 875, 1102, 1381, 1725, 2145, 2659, 3285, 4046, 4967, 6080, 7423, 9037, 10974, 13293, 16065, 19370, 23304, 27977, 33519, 40080, 47833, 56981, 67757, 80431, 95316
a(n) = round(exp(Pi*sqrt(2*n/3))/(4*n*sqrt(3))). - Alonso del Arte, May 21 2011
[A001521] 1, 2, 3, 4, 6, 9, 13, 19, 27, 38, 54, 77, 109, 154, 218, 309, 437, 618, 874, 1236, 1748, 2472, 3496, 4944, 6992, 9888, 13984, 19777, 27969, 39554, 55938, 79108, 111876, 158217, 223753, 316435, 447507, 632871, 895015, 1265743, 1790031, 2531486, 3580062, 5062972
a(n) = floor(sqrt(2)^(n-1)) + floor(sqrt(2)^(n-2)), n>1. - Ralf Stephan, Sep 18 2004
[A003143] 1, 1, 2, 3, 4, 6, 9, 13, 19, 27, 38, 54, 77, 109, 155, 219, 310, 438, 621, 877, 1243, 1755, 2486, 3510, 4973, 7021, 9947, 14043, 19894, 28086, 39789, 56173, 79579, 112347, 159158, 224694, 318317, 449389, 636635, 898779, 1273270, 1797558
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-5) + 2*a(n-6) - 2*a(n-7) for n > 7. - Chai Wah Wu, May 25 2016
[A247083] 0, 1, 1, 1, 2, 3, 4, 6, 9, 13, 19, 28, 32, 42, 52, 57, 63, 70, 82, 91, 98, 108, 118, 135, 144, 154, 163, 172, 182, 192, 202, 213, 225, 229, 235, 244, 257, 267, 277, 291, 306, 322, 334, 343, 350, 360, 370, 378, 387, 397, 415, 433, 452, 462, 472, 483, 495, 508, 523, 541, 554, 564, 574
a(n) = 1 + Sum_{k=0..n-3} digsum(a(k)).
[A068921] 1, 1, 2, 3, 4, 6, 9, 13, 19, 28, 41, 60, 88, 129, 189, 277, 406, 595, 872, 1278, 1873, 2745, 4023, 5896, 8641, 12664, 18560, 27201, 39865, 58425, 85626, 125491, 183916, 269542, 395033, 578949, 848491, 1243524, 1822473, 2670964, 3914488, 5736961
a(n) = sum(binomial(n-2j+1,j), j=0..floor(n/2)). (End)
[A000930] 1, 1, 1, 2, 3, 4, 6, 9, 13, 19, 28, 41, 60, 88, 129, 189, 277, 406, 595, 872, 1278, 1873, 2745, 4023, 5896, 8641, 12664, 18560, 27201, 39865, 58425, 85626, 125491, 183916, 269542, 395033, 578949, 848491, 1243524, 1822473, 2670964, 3914488, 5736961, 8407925
a(n) = Sum_{i=0..floor(n/3)} binomial(n-2*i, i).
a(n) = a(n-2) + a(n-3) + a(n-4) for n>3.
a(n) = Sum_{k=0..n} binomial(floor((n+2k-2)/3), k). - Paul Barry, Jul 06 2004
a(n) = Sum_{k=0..n} binomial(k, floor((n-k)/2))(1+(-1)^(n-k))/2. - Paul Barry, Jan 12 2006
a(n) = Sum_{k=0..n} binomial((n+2k)/3,(n-k)/3)*(2*cos(2*Pi*(n-k)/3)+1)/3. - Paul Barry, Dec 15 2006
a(n) = term (1,1) in matrix [1,1,0; 0,0,1; 1,0,0]^n. - Alois P. Heinz, Jun 20 2008
[A117791] 1, 1, 2, 3, 4, 6, 9, 13, 20, 30, 45, 68, 102, 153, 230, 345, 518, 778, 1168, 1754, 2634, 3955, 5939, 8918, 13391, 20108, 30194, 45339, 68081, 102230, 153508, 230507, 346128, 519744, 780445, 1171912, 1759737, 2642412, 3967832, 5958076, 8946616
a(n) = a(n-1) + a(n-2) - a(n-4) + a(n-6). - Ilya Gutkovskiy, Nov 16 2016
[A078620] 1, 1, 1, 1, 2, 3, 4, 6, 9, 14, 21, 31, 46, 70, 106, 161, 245, 375, 576, 885, 1364, 2107, 3261, 5058, 7856, 12223, 19045, 29715, 46423, 72610, 113696, 178215, 279620, 439127, 690223, 1085782, 1709350, 2693004, 4245644, 6697857, 10573035
a(n) = Floor((1/n)(Sum_{i=1, ..., n} Fibonacci(n))
[A073941] 1, 1, 1, 2, 3, 4, 6, 9, 14, 21, 31, 47, 70, 105, 158, 237, 355, 533, 799, 1199, 1798, 2697, 4046, 6069, 9103, 13655, 20482, 30723, 46085, 69127, 103691, 155536, 233304, 349956, 524934, 787401, 1181102, 1771653, 2657479, 3986219, 5979328, 8968992
a(n) = ceiling(c*(3/2)^n-1/2) where c = 0.360504556196614959101544662866 5... - Benoit Cloitre, Nov 22 2002
[A005428] 1, 1, 2, 3, 4, 6, 9, 14, 21, 31, 47, 70, 105, 158, 237, 355, 533, 799, 1199, 1798, 2697, 4046, 6069, 9103, 13655, 20482, 30723, 46085, 69127, 103691, 155536, 233304, 349956, 524934, 787401, 1181102, 1771653, 2657479, 3986219, 5979328, 8968992, 13453488, 20180232, 30270348, 45405522, 68108283, 102162425, 153243637, 229865456, 344798184
a(0) = 1; a(n) = Ceiling((1 + Sum_{k=0..n-1} a(k)) / 2). - Don Reble, Apr 23 2003
a(1) = 1, s(1) = 2, and for n>1, a(n) = floor((3*a(n-1) + s(n-1) - 1) / 2), s(n) = (s(n-1) + a(n)) mod 3. - Max Alekseyev, Mar 28 2009
a(n) = floor(1 + (sum of preceding terms)/2). - M. F. Hasler, Oct 14 2012
[A179041] 0, 1, 2, 3, 4, 6, 9, 14, 21, 33, 52, 82, 130, 208, 334, 538, 867, 1400, 2262, 3656, 5911, 9560, 15464, 25017, 40473, 65482, 105947, 171420, 277357, 448767, 726114, 1174871, 1900974, 3075834, 4976797, 8052619
a(n)=round(Fibonacci(n+2)/3+3*n/8-1/24).
a(n)=floor(Fibonacci(n+2)/3+3*n/8+1/4).
a(n)=ceil(Fibonacci(n+2)/3+3*n/8-1/3).
a(n)=a(n-8)+Fibonacci(n-1)+Fibonacci(n-3)+3, n>7.
a(n)=2*a(n-1)-a(n-3)+a(n-8)-2*a(n-9)+a(n-11), n>10.
[A103481] 1, 1, 2, 3, 4, 6, 9, 16, 31, 69, 168, 447, 1274, 3862, 12351, 41472, 145661, 533745, 2036158, 8071795, 33192800, 141351726, 622384741, 2829417288, 13263528363, 64038928741, 318121600708, 1624347614751, 8517247764150, 45822087138894
a(n)=sum{k=0..floor(n/2), k^(n-2k)+1-0^(n-2k)}; a(n)=sum{k=0..floor(n/2), k^(n-2k)}+floor((n+1)/2).
[A275173] 1, 1, 1, 1, 1, 1, 2, 3, 4, 6, 9, 22, 36, 51, 82, 129, 321, 529, 753, 1217, 1921, 4786, 7891, 11236, 18166, 28681, 71462, 117828, 167779, 271266, 428289, 1067137, 1759521, 2505441, 4050817, 6395649, 15935586, 26274979, 37413828, 60490982, 95506441, 237966646
a(n) = 16*a(n-5) - 16*a(n-10) + a(n-15). - G. C. Greubel, Jul 20 2016
[A047417] 2, 3, 4, 6, 10, 11, 12, 14, 18, 19, 20, 22, 26, 27, 28, 30, 34, 35, 36, 38, 42, 43, 44, 46, 50, 51, 52, 54, 58, 59, 60, 62, 66, 67, 68, 70, 74, 75, 76, 78, 82, 83, 84, 86, 90, 91, 92, 94, 98, 99, 100, 102, 106, 107, 108, 110, 114, 115, 116, 118, 122, 123
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-5-i^(2*n)-(1-2*i)*i^(-n)-(1+2*i)*i^n)/4 with i=sqrt(-1).
[A072944] 2, 3, 4, 6, 10, 16, 24, 40, 64, 96, 160, 256, 384, 640, 1024, 1536, 2560, 4096, 6144, 10240, 16384, 24576, 40960, 65536, 98304, 163840, 262144, 393216, 655360, 1048576, 1572864, 2621440, 4194304, 6291456, 10485760, 16777216, 25165824
a(1)=2, a(2)=3, a(3)=4, a(4)=6, a(5)=10 and for n> 5 a(n) = 4*a(n-3)
[A018142] 1, 2, 3, 4, 6, 10, 16, 25, 40, 63, 100, 158, 251, 398, 631, 1000, 1585, 2512, 3981, 6310, 10000, 15849, 25119, 39811, 63096, 100000, 158489, 251189, 398107, 630957, 1000000, 1584893, 2511886, 3981072, 6309573
a(n) = round(10^(n/5)). - Wesley Ivan Hurt, Jun 23 2015
[A293632] 1, 1, 2, 3, 4, 6, 10, 16, 26, 42, 67, 108, 175, 283, 458, 741, 1198, 1938, 3136, 5074, 8210, 13284, 21493, 34776, 56269, 91045, 147314, 238359, 385672, 624030, 1009702, 1633732, 2643434, 4277166, 6920599, 11197764, 18118363, 29316127, 47434490, 76750617
a(n) = 2 a(n-1) - a(n-2) + a(n-3) - a(n-4) + a(n-5) - a(n-7) for n >= 8.
a(n) = floor(3F(n)/4).
[A060163] 0, 2, 3, 4, 6, 10, 17, 28, 44, 66, 95, 132, 178, 234, 301, 380, 472, 578, 699, 836, 990, 1162, 1353, 1564, 1796, 2050, 2327, 2628, 2954, 3306, 3685, 4092, 4528, 4994, 5491, 6020, 6582, 7178, 7809, 8476, 9180, 9922, 10703, 11524, 12386, 13290, 14237
a(n) = n + 2 + binomial(n,3) (with different offset). - Zerinvary Lajos, Jul 23 2006
[A024490] 1, 2, 3, 4, 6, 10, 17, 28, 45, 72, 116, 188, 305, 494, 799, 1292, 2090, 3382, 5473, 8856, 14329, 23184, 37512, 60696, 98209, 158906, 257115, 416020, 673134, 1089154, 1762289, 2851444, 4613733, 7465176, 12078908, 19544084, 31622993, 51167078, 82790071

a(n) = sum{k=0..n} Fib(k+1)*2*sin(Pi*(n-k)/3+Pi/3)/sqrt(3). - Paul Barry, May 18 2004
a(n) = sum{k=0..floor(n/2), C(n-k+1,k+1)*(1+(-1)^k)/2}. - Paul Barry, Jul 05 2007
[A056469] 2, 3, 4, 6, 10, 18, 34, 66, 130, 258, 514, 1026, 2050, 4098, 8194, 16386, 32770, 65538, 131074, 262146, 524290, 1048578, 2097154, 4194306, 8388610, 16777218, 33554434, 67108866, 134217730, 268435458, 536870914, 1073741826, 2147483650
a(n) = Floor(2^(n-1)+2). - Vincenzo Librandi, Sep 21 2011
a(n) = 3*a(n-1)-2*a(n-2) for n>2. G.f.: -(x^2+3*x-2) / ((x-1)*(2*x-1)). - Colin Barker, Mar 22 2013
[A003099] 1, 2, 3, 4, 6, 11, 22, 43, 79, 137, 231, 397, 728, 1444, 3018, 6386, 13278, 26725, 51852, 97243, 177671, 320286, 579371, 1071226, 2053626, 4098627, 8451288, 17742649, 37352435, 77926452, 159899767, 321468048, 632531039, 1219295320, 2308910353, 4314168202
a(n)*sqrt(n)/2^n is bounded: lim sup a(n)*sqrt(n)/2^n = 0.82... and lim inf a(n)*sqrt(n)/2^n = 0.58... - Benoit Cloitre, Nov 14 2003
[A245481] 1, 2, 3, 4, 6, 12, 13, 26, 39, 52, 78, 156, 169, 338, 507, 676, 1014, 2028, 2197, 4394, 6591, 8788, 13182, 26364, 28561, 57122, 85683, 114244, 171366, 342732, 371293, 742586, 1113879, 1485172, 2227758, 4455516, 4826809, 9653618, 14480427, 19307236, 28960854
a(n) = 13*a(n-6). G.f.: -x*(12*x^5+6*x^4+4*x^3+3*x^2+2*x+1) / (13*x^6-1). - Colin Barker, Jul 30 2014
[A078495] 1, 1, 1, 1, 1, 1, 1, 2, 3, 4, 6, 12, 24, 72, 144, 288, 864, 3456, 10368, 41472, 124416, 497664, 2985984, 17915904, 71663616, 429981696, 2579890176, 20639121408, 185752092672, 1486016741376, 8916100448256, 106993205379072
a(n) = 144 * a(n-6) * a(n-10) / a(n-16), a(n) = a(6-n) for all n in Z.
[A161701] 1, 2, 3, 4, 6, 12, 28, 64, 135, 262, 473, 804, 1300, 2016, 3018, 4384, 6205, 8586, 11647, 15524, 20370, 26356, 33672, 42528, 53155, 65806, 80757, 98308, 118784, 142536, 169942, 201408, 237369, 278290, 324667, 377028, 435934, 501980, 575796, 658048
a(n) = C(n,0) + C(n,1) + C(n,4) + C(n,5).
[A038504] 0, 1, 2, 3, 4, 6, 12, 28, 64, 136, 272, 528, 1024, 2016, 4032, 8128, 16384, 32896, 65792, 131328, 262144, 523776, 1047552, 2096128, 4194304, 8390656, 16781312, 33558528, 67108864, 134209536, 268419072, 536854528, 1073741824
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3), n > 3. - Paul Curtz, Mar 01 2008
a(n) = Sum_{k=0..floor(n/4)} binomial(n, 4*k+1).
a(n) = Sum_{k=0..n} binomial(n, k)*(sin(Pi*k/2)/2 + (1 - (-1)^k)/4).
a(n) = 2^(n-2) + 2^((n-2)/2)*sin(Pi*n/4) - 0^n/4. (End)
a(n; t, s) = a(n-1; t, s) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A047549] 0, 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34, 35, 36, 39, 40, 41, 42, 43, 44, 47, 48, 49, 50, 51, 52, 55, 56, 57, 58, 59, 60, 63, 64, 65, 66, 67, 68, 71, 72, 73, 74, 75, 76, 79, 80, 81, 82, 83, 84, 87, 88
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-33+3*cos(n*Pi)+4*sqrt(3)*cos((1-4*n)*Pi/6)+12*sin((1+
a(6k) = 8k-1, a(6k-1) = 8k-4, a(6k-2) = 8k-5, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A047337] 0, 1, 2, 3, 4, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 49, 50, 51, 52, 53, 56, 57, 58, 59, 60, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 77, 78
a(n) = 7*floor((n-1)/5) + ((n-1) mod 5). - Gary Detlefs, Mar 09 2010
a(n) = floor((7/6)*floor(6*(n-1)/5)). - Bruno Berselli, May 03 2016
[A047227] 1, 2, 3, 4, 7, 8, 9, 10, 13, 14, 15, 16, 19, 20, 21, 22, 25, 26, 27, 28, 31, 32, 33, 34, 37, 38, 39, 40, 43, 44, 45, 46, 49, 50, 51, 52, 55, 56, 57, 58, 61, 62, 63, 64, 67, 68, 69, 70, 73, 74, 75, 76, 79, 80, 81, 82, 85, 86, 87, 88, 91, 92, 93, 94, 97, 98
a(n) = floor((n+2)/4) + floor((n+1)/4) + floor(n/4) + 2*floor((n-1)/4) + floor((n+3)/4).
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (6n-5-i^(2n)+(1+i)*i^(1-n)+(1-i)*i^(n-1))/4 where i=sqrt(-1).
[A074215] 1, 2, 3, 4, 7, 8, 9, 11, 13, 14, 16, 17, 19, 21, 22, 23, 26, 27, 28, 29, 31, 32, 33, 34, 37, 38, 39, 41, 43, 44, 46, 47, 49, 51, 52, 53, 57, 58, 59, 61, 62, 63, 64, 67, 68, 69, 71, 73, 74, 76, 77, 79, 81, 82, 83, 86, 87, 88, 89, 92, 93, 94, 97, 98, 99, 101
a(n) is probably asymptotic to c*n with c=1.55(8).....
[A047202] 2, 3, 4, 7, 8, 9, 12, 13, 14, 17, 18, 19, 22, 23, 24, 27, 28, 29, 32, 33, 34, 37, 38, 39, 42, 43, 44, 47, 48, 49, 52, 53, 54, 57, 58, 59, 62, 63, 64, 67, 68, 69, 72, 73, 74, 77, 78, 79, 82, 83, 84, 87, 88, 89, 92, 93, 94, 97, 98, 99, 102, 103, 104, 107, 108
a(n) = a(n-1) + a(n-3) - a(n-4) for n>3.
a(n) = (15*n-3-6*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-1, a(3k-1) = 5k-2, a(3k-2) = 5k-3. (End)
a(n) = 2*n - floor((n-1)/3) - ((n-1) mod 3). - Wesley Ivan Hurt, Sep 26 2017
[A050271] 1, 2, 3, 4, 7, 8, 9, 14, 15, 16, 23, 24, 25, 34, 35, 36, 47, 48, 49, 62, 63, 64, 79, 80, 81, 98, 99, 100, 119, 120, 121, 142, 143, 144, 167, 168, 169, 194, 195, 196, 223, 224, 225, 254, 255, 256, 287, 288, 289, 322, 323, 324, 359, 360, 361, 398, 399, 400
a(n) = floor((n + 4)/3)^2 + ((n + 1) mod 3) - 2. - Ivan Neretin, Feb 08 2017
a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7) for n>7.
[A047547] 0, 2, 3, 4, 7, 8, 10, 11, 12, 15, 16, 18, 19, 20, 23, 24, 26, 27, 28, 31, 32, 34, 35, 36, 39, 40, 42, 43, 44, 47, 48, 50, 51, 52, 55, 56, 58, 59, 60, 63, 64, 66, 67, 68, 71, 72, 74, 75, 76, 79, 80, 82, 83, 84, 87, 88, 90, 91, 92, 95, 96, 98, 99, 100, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n>5.
a(n) = (40*n - 40 - 7*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 2*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-4, a(5k-2) = 8k-5, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A097110] 1, 2, 3, 4, 7, 8, 15, 16, 31, 32, 63, 64, 127, 128, 255, 256, 511, 512, 1023, 1024, 2047, 2048, 4095, 4096, 8191, 8192, 16383, 16384, 32767, 32768, 65535, 65536, 131071, 131072, 262143, 262144, 524287, 524288, 1048575, 1048576, 2097151, 2097152
a(n) = 3*a(n-2) - 2*a(n-4);
a(n) = (1+sqrt(2)/2)*(sqrt(2))^n + (1/2-sqrt(2)/2)*(-sqrt(2))^n - (1+(-1)^n)/2;
a(n) = Sum_{k=0..n} binomial(floor(n/2), floor(k/2)).
a(n) = 2^floor((n+2)/2) - 1 + (n mod 2). - Reinhard Zumkeller, Jan 18 2005
[A120611] 1, 2, 3, 4, 7, 8, 15, 19, 20, 27, 31, 32, 47, 48, 66, 72, 90, 111, 115, 116, 123, 127, 128, 175, 183, 187, 188, 242, 245, 253, 254, 384, 610, 613, 614, 617, 618, 624, 690, 826, 836, 862, 865, 866, 869, 870, 891, 922, 925, 926, 929, 930, 982, 985, 986, 989, 990
a(1) = 1, a(2) = 2, for n>=2, a(n+1) = a(n) + sum_{1<=k<n, a(k) divides a(n)} a(k).
[A047548] 1, 2, 3, 4, 7, 9, 10, 11, 12, 15, 17, 18, 19, 20, 23, 25, 26, 27, 28, 31, 33, 34, 35, 36, 39, 41, 42, 43, 44, 47, 49, 50, 51, 52, 55, 57, 58, 59, 60, 63, 65, 66, 67, 68, 71, 73, 74, 75, 76, 79, 81, 82, 83, 84, 87, 89
a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.
[A047340] 0, 2, 3, 4, 7, 9, 10, 11, 14, 16, 17, 18, 21, 23, 24, 25, 28, 30, 31, 32, 35, 37, 38, 39, 42, 44, 45, 46, 49, 51, 52, 53, 56, 58, 59, 60, 63, 65, 66, 67, 70, 72, 73, 74, 77, 79, 80, 81, 84, 86, 87, 88, 91, 93, 94, 95, 98, 100, 101, 102, 105, 107, 108, 109, 112
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (14n-17-i^(2n)-(3-i)*i^(-n)-(3+i)*i^n)/8 where i=sqrt(-1).
[A038197] 1, 1, 1, 1, 2, 3, 4, 7, 9, 10, 19, 26, 30, 56, 75, 85, 160, 216, 246, 462, 622, 707, 1329, 1791, 2037, 3828, 5157, 5864, 11021, 14849, 16886, 31735, 42756, 48620, 91376, 123111, 139997, 263108, 354484, 403104, 757588, 1020696, 1160693, 2181389
a(n) = a(n-1)+a(n-2) if n=3*m+1, a(n) = a(n-1)+a(n-4) if n=3*m+2, a(n) = a(n-1)+a(n-6) if n=3*m. Also: a(n) = 2*a(n-3)+3*a(n-6)-a(n-9)-a(n-12).
a(n-1) = sequence(sequence(T(n,k), k=2..4), n>=2) with a(0)=1; T(n,k) = sum(T(n-1,k1), k1 = 5-k..4) with T(1,1) = T(1,2) = T(1,3) = 0 and T(1,4) = 1; n>=1 and 1 <= k <= 4. [Steinbach]
[A236337] 2, 3, 4, 7, 9, 11, 15, 18, 21, 26, 30, 34, 40, 45, 50, 57, 63, 69, 77, 84, 91, 100, 108, 116, 126, 135, 144, 155, 165, 175, 187, 198, 209, 222, 234, 246, 260, 273, 286, 301, 315, 329, 345, 360, 375, 392, 408, 424, 442, 459, 476, 495, 513, 531, 551, 570, 589
a(n) = 2*a(n-3) - a(n-6) + 3 = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5).
[A117450] 1, 1, 2, 3, 4, 7, 9, 12, 15, 18, 23, 27, 32, 37, 42, 49, 55, 62, 69, 76, 85, 93, 102, 111, 120, 131, 141, 152, 163, 174, 187, 199, 212, 225, 238, 253, 267, 282, 297, 312, 329, 345, 362, 379, 396, 415, 433, 452, 471, 490, 511

a(n)=2a(n-1)-a(n-2)+a(n-5)-2a(n-6)+a(n-7); a(n)=sum{k=0..n, C(n-k,L(k/5))}, where L(j/p) is the Legendre symbol of j and p; a(n)=(1/10-sqrt(5)/50)*cos(4*pi*n/5+2*pi/5)+sqrt(1/10+sqrt(5)/50)*sin(4*pi*n/5+2*pi/5) -(1/10+sqrt(5)/50)*cos(2*pi*n/5+pi/5)+sqrt(1/10-sqrt(5)/50)*sin(2*pi*n/5+pi/5) +(n^2+n+3)/5.

[A241131] 0, 1, 1, 2, 3, 4, 7, 9, 13, 18, 26, 32, 47, 60, 79, 104, 137, 173, 227, 285, 365, 461, 583, 724, 912, 1129, 1403, 1729, 2137, 2611, 3211, 3906, 4765, 5777, 7010, 8450, 10213, 12263, 14738, 17637, 21113, 25158, 30008, 35638, 42333, 50130, 59346, 70035, 82663

a(6) counts these 7 partitions: 51, 411, 321, 3111, 2211, 21111, 111111.

[A295619] 1, 2, 3, 4, 7, 9, 16, 21, 37, 50, 87, 121, 208, 297, 505, 738, 1243, 1853, 3096, 4693, 7789, 11970, 19759, 30705, 50464, 79121, 129585, 204610, 334195, 530613, 864808, 1379037, 2243845, 3590114, 5833959, 9358537, 15192496, 24419961, 39612457, 63770274

a(n) = a(n-1) + 3*a(n-2) - 2*a(n-3) - 2*a(n-4), where a(0) = 1, a(1) = 2, a(2) = 3, a(3) = 4.

[A080724] 2, 3, 4, 7, 10, 11, 12, 13, 14, 15, 16, 19, 22, 25, 28, 31, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119

a(a(n)) = 3*n+4, n >= 0.

[A047546] 2, 3, 4, 7, 10, 11, 12, 15, 18, 19, 20, 23, 26, 27, 28, 31, 34, 35, 36, 39, 42, 43, 44, 47, 50, 51, 52, 55, 58, 59, 60, 63, 66, 67, 68, 71, 74, 75, 76, 79, 82, 83, 84, 87, 90, 91, 92, 95, 98, 99, 100, 103, 106, 107, 108, 111, 114, 115, 116, 119, 122, 123

a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>4.

a(n) = (4*n-2+I^(1-n)+I^(n-1))/2 where I=sqrt(-1).

[A266530] 0, 0, 1, 2, 3, 4, 7, 10, 11, 12, 15, 18, 23, 28, 35, 42, 43, 44, 47, 50, 55, 60, 67, 74, 79, 84, 95, 106, 123, 140, 155, 170, 171, 172, 175, 178, 183, 188, 195, 202, 207, 212, 223, 234, 251, 268, 283, 298, 303, 308, 319, 330, 347, 364, 383, 402, 423, 444, 483, 522, 571, 620, 651, 682, 683, 684, 687, 690, 695, 700

a(n) = (a(n-1) + a(n+1))/2, if n is an odd number greater than 1.

[A266510] 0, 0, 1, 2, 3, 4, 7, 10, 11, 12, 15, 18, 23, 28, 35, 42, 43, 44, 47, 50, 55, 60, 67, 74, 79, 84, 95, 106, 123, 140, 155, 170, 171, 172, 175, 178, 183, 188, 195, 202, 207, 212, 223, 234, 251, 268, 283, 298, 303, 308, 319, 330, 347, 364, 387, 410, 439, 468, 503, 538, 579, 620, 651, 682, 683, 684, 687, 690, 695, 700

a(n) = (a(n-1) + a(n+1))/2, if n is an odd number greater than 1.

[A266540] 0, 0, 1, 2, 3, 4, 7, 10, 11, 12, 15, 18, 23, 28, 35, 42, 43, 44, 47, 50, 55, 60, 67, 74, 83, 92, 103, 114, 127, 140, 155, 170, 171, 172, 175, 178, 183, 188, 195, 202, 211, 220, 231, 242, 255, 268, 283, 298, 315, 332, 351, 370, 391, 412, 435, 458, 483, 508, 535, 562, 591, 620, 651, 682, 683, 684, 687, 690, 695, 700

a(n) = (a(n-1) + a(n+1))/2, if n is an odd number greater than 1.

[A139759] 1, 1, 2, 3, 4, 7, 10, 11, 20, 31, 42, 73, 110, 183, 292, 473, 762, 1235, 1992, 3209, 5198, 8407, 13604, 22011, 35614, 57625, 93238, 150863, 244100, 394963, 639054, 1034017, 1673070, 2707089, 4380158, 7087241, 11467398, 18554639, 30022036, 48576675

a(n) = a(n-1) + a(n-2) + gcd(n,a(n-1)) - gcd(n,a(n-2)).

[A008811] 0, 1, 2, 3, 4, 7, 10, 13, 16, 21, 26, 31, 36, 43, 50, 57, 64, 73, 82, 91, 100, 111, 122, 133, 144, 157, 170, 183, 196, 211, 226, 241, 256, 273, 290, 307, 324, 343, 362, 381, 400, 421, 442, 463, 484, 507, 530, 553, 576

a(n) = 2*a(n-1) -a(n-2) +a(n-4) -2*a(n-5) +a(n-6) [From R. H. Hardin , Nov 15 2011]

a(n) = (-2*(1+(-1)^n)*(-1)^floor(n/2)+2*n^2+5-(-1)^n)/8. - Tani Akinari, Jul 24 2013

[A144678] 1, 2, 3, 4, 7, 10, 13, 16, 22, 28, 34, 40, 50, 60, 70, 80, 95, 110, 125, 140, 161, 182, 203, 224, 252, 280, 308, 336, 372, 408, 444, 480, 525, 570, 615, 660, 715, 770, 825, 880, 946, 1012, 1078, 1144, 1222, 1300, 1378, 1456, 1547, 1638, 1729, 1820, 1925, 2030, 2135

a(n) = sum_{i=1..n+8} floor(i/4) * floor((n+8-i)/4). - Wesley Ivan Hurt, Jul 21 2014

[A008824] 1, 2, 3, 4, 7, 10, 13, 18, 23, 28, 33, 40, 47, 54, 63, 72, 81, 90, 101, 112, 123, 136, 149, 162, 175, 190, 205, 220, 237, 254, 271, 288, 307, 326, 345, 366, 387, 408, 429, 452, 475, 498, 523, 548, 573, 598, 625, 652

a(0)=1, a(1)=2, a(2)=3, a(3)=4, a(4)=7, a(5)=10, a(6)=13, a(7)=18, a(8)=23, a(n)=2*a(n-1)-a(n-2)+a(n-7)-2*a(n-8)+a(n-9). - Harvey P. Dale, Apr 26 2014

[A267459] 1, 2, 3, 4, 7, 10, 15, 20, 27, 34, 43, 52, 63, 74, 87, 100, 115, 130, 147, 164, 183, 202, 223, 244, 267, 290, 315, 340, 367, 394, 423, 452, 483, 514, 547, 580, 615, 650, 687, 724, 763, 802, 843, 884, 927, 970, 1015, 1060, 1107, 1154, 1203, 1252, 1303, 1354

a(n) = (2*n^2-4*n+(-1)^n+11)/4 for n>0.

a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.

[A082766] 1, 1, 2, 3, 4, 7, 10, 17, 24, 41, 58, 99, 140, 239, 338, 577, 816, 1393, 1970, 3363, 4756, 8119, 11482, 19601, 27720, 47321, 66922, 114243, 161564, 275807, 390050, 665857, 941664, 1607521, 2273378, 3880899, 5488420, 9369319, 13250218, 22619537

a(2n) = a(2n-1) + a(2n-2); a(2n+1) = a(2n) + a(2n-2)

[A218495] 1, 1, 1, 2, 3, 4, 7, 10, 17, 26, 39, 58, 89, 133, 195, 289, 420, 610, 875, 1253, 1778, 2514, 3527, 4937, 6879, 9516, 13115, 18012, 24625, 33503, 45432, 61402, 82677, 110913, 148286, 197722, 262768, 348100, 459791, 605780, 795874, 1042791, 1362800, 1776777

a(n) = [x^(n^2)] Product_{k>=1} 1/(1 - x^(k^3)). - Ilya Gutkovskiy, Jun 05 2017

[A166012] 1, 2, 3, 4, 7, 10, 17, 26, 43, 68, 111, 178, 289, 466, 755, 1220, 1975, 3194, 5169, 8362, 13531, 21892, 35423, 57314, 92737, 150050, 242787, 392836, 635623, 1028458, 1664081, 2692538, 4356619, 7049156, 11405775, 18454930, 29860705, 48315634, 78176339

a(n) = 2*Fibonacci(n) + (1+(-1)^n)/2.

a(n) = 2*Fibonacci(n) + [(n+1)mod 2]. - Gary Detlefs, Dec 29, 2010

a(n) = a(n-1)+2*a(n-2)-a(n-3)-a(n-4) for n>3.

a(n) = (1/2+(-1)^n/2-(2*((1/2*(1-sqrt(5)))^n-(1/2*(1+sqrt(5)))^n))/sqrt(5)).

[A140827] 1, 1, 2, 3, 4, 7, 11, 15, 26, 41, 56, 97, 153, 209, 362, 571, 780, 1351, 2131, 2911, 5042, 7953, 10864, 18817, 29681, 40545, 70226, 110771, 151316, 262087, 413403, 564719, 978122, 1542841, 2107560, 3650401, 5757961, 7865521, 13623482, 21489003, 29354524, 50843527, 80198051, 109552575

a(n) = 4*a(n-3) - a(n-6).

a(n) = a(n-1)+a(n-3) if 3 |(n-1), else a(n)=a(n-1)+a(n-2), with n>1.

a(n)^2 = 1+3*a(n-1)^2 if n==2 (mod 3).

[A141001] 1, 1, 1, 2, 3, 4, 7, 11, 16, 21, 26, 32, 38, 44, 51, 59, 67, 75, 84, 94, 104, 114, 125, 137, 149, 161, 174, 188, 202, 216, 231, 247, 263, 279, 296, 314, 332, 350, 369, 389, 409, 429, 450, 472, 494, 516, 539, 563, 587, 611, 636, 662, 688, 714, 741, 769, 797

a(n) = (1/8+i/8) * ((-5+5*i) + (-i)^(1+n) + i^n + (1-i)*n + (1-i)*n^2) for n>8 where i=sqrt(-1).

a(n) = 3*a(n-1) - 4*a(n-2) + 4*a(n-3) - 3*a(n-4) + a(n-5) for n>9.

[A196382] 0, 0, 2, 3, 4, 7, 11, 16, 24, 36, 53, 78, 115, 169, 248, 364, 534, 783, 1148, 1683, 2467, 3616, 5300, 7768, 11385, 16686, 24455, 35841, 52528, 76984, 112826, 165355, 242340, 355167, 520523, 762864, 1118032, 1638556, 2401421, 3519454, 5158011

a(n) = +2*a(n-1) -a(n-2) +a(n-3) -a(n-4), n>=5.

[A120415] 1, 1, 1, 2, 3, 4, 7, 11, 16, 25, 39, 59, 91, 141, 216, 332, 512, 787, 1210, 1863, 2866, 4408, 6783, 10436, 16054, 24700, 38002, 58464, 89947, 138385, 212903, 327550, 503937, 775304, 1192801, 1835123, 2823330, 4343681, 6682741, 10281375

a(n) = a(n-1) + a(n-3) + a(n-6).

[A023361] 1, 1, 1, 2, 3, 4, 7, 11, 16, 25, 40, 61, 94, 147, 227, 351, 546, 846, 1309, 2030, 3147, 4876, 7558, 11715, 18154, 28136, 43609, 67586, 104748, 162346, 251610, 389958, 604381, 936699, 1451743, 2249991, 3487153, 5404570, 8376292, 12982016, 20120202, 31183350

a(n) = a(n-1) + a(n-3) + a(n-6) + a(n-10) + ... Gregory L. Simay, Jun 09 2016

[A113435] 1, 1, 1, 2, 3, 4, 7, 11, 16, 26, 41, 62, 98, 154, 237, 371, 581, 901, 1406, 2197, 3418, 5329, 8317, 12956, 20196, 31501, 49096, 76532, 119338, 186029, 289997, 452141, 704861, 1098826, 1713111, 2670692, 4163483, 6490879, 10119152, 15775426

a(n) = a(n-1) + 2*a(n-3) - a(n-4) = 7*a(n-3) - 5*a(n-6) + 11*a(n-9) - a(n-12).

[A165407] 1, 1, 1, 2, 3, 4, 7, 11, 16, 27, 43, 65, 108, 173, 267, 440, 707, 1105, 1812, 2917, 4597, 7514, 12111, 19196, 31307, 50503, 80380, 130883, 211263, 337284, 548547, 885831, 1417582, 2303413, 3720995, 5965622, 9686617, 15652239, 25130844, 40783083

a(n)=sum{k=0..n, if(n<=3k, C((n+k)/2,k)*((3k-n)/2+1)(1+(-1)^(n-k))/(2(k+1))};

[A293672] 0, 1, 1, 2, 3, 4, 7, 11, 17, 28, 44, 72, 116, 187, 302, 488, 790, 1278, 2068, 3345, 5412, 8757, 14169, 22926, 37095, 60020, 97115, 157135, 254249, 411384, 665632, 1077016, 1742648, 2819663, 4562310, 7381972, 11944282, 19326254, 31270536, 50596789, 81867324

a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.

a(n) = ceiling(4*F(n)/5).

[A173173] 0, 1, 1, 1, 2, 3, 4, 7, 11, 17, 28, 45, 72, 117, 189, 305, 494, 799, 1292, 2091, 3383, 5473, 8856, 14329, 23184, 37513, 60697, 98209, 158906, 257115, 416020, 673135, 1089155, 1762289, 2851444, 4613733, 7465176, 12078909, 19544085, 31622993, 51167078, 82790071

a(n) = ceiling(Fibonacci(n)/2). - Mircea Merca, Jan 04 2010
a(n) = a(n-1) +a(n-2) +a(n-3) -a(n-4) -a(n-5) - Joerg Arndt, Apr 24 2011
[A192669] 1, 1, 1, 2, 3, 4, 7, 11, 17, 28, 46, 76, 124, 204, 337, 557, 923, 1535, 2556, 4266, 7131, 11939, 20019, 33611, 56504, 95096, 160218, 270199, 456095, 770547, 1302837, 2204486, 3732769, 6324750, 10723278, 18191510, 30878276, 52440601, 89104745, 151475242, 257620263, 438335394, 746126537
a(n) = floor(sqrt(Motzkin(n))).
[A293638] 0, 0, 0, 0, 1, 1, 2, 3, 4, 7, 11, 18, 29, 47, 75, 122, 197, 319, 517, 836, 1353, 2189, 3542, 5731, 9274, 15005, 24279, 39284, 63562, 102846, 166408, 269254, 435662, 704916, 1140577, 1845493, 2986070, 4831563, 7817634, 12649197, 20466831, 33116028, 53582859
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + a(n-5) + 2 a(n-6) - a(n-7) - 2 a(n-8) + a(n-9) + a(n-10) for n >= 11.
a(n) = floor(1/2 + F(n)/5).
[A169985] 1, 2, 3, 4, 7, 11, 18, 29, 47, 76, 123, 199, 322, 521, 843, 1364, 2207, 3571, 5778, 9349, 15127, 24476, 39603, 64079, 103682, 167761, 271443, 439204, 710647, 1149851, 1860498, 3010349, 4870847, 7881196, 12752043, 20633239, 33385282, 54018521, 87403803
a(n) = round(sqrt(F(2n) + 2*F(2n-1))), for n>=0, allowing F(-1) = 1. Also phi^n -> sqrt(F(2n) + 2*F(2n-1)), within < 0.02% by n = 4, therefore converging rapidly. - Richard R. Forberg, Jun 23 2014
[A254729] 1, 1, 2, 3, 4, 7, 11, 18, 29, 47, 76, 123, 199, 322, 521, 843, 1364, 2207, 3571, 5778, 9349, 15127, 24476, 39603, 64079, 103682, 167761, 271443, 439204, 710647, 1149851, 1860498, 3010349, 4870847, 7881196, 12752043, 20633239, 33385282, 54018521, 87403803
a(n) = a(n-1) + a(n-2) for n >= 6.
[A293544] 0, 0, 0, 1, 1, 2, 3, 4, 7, 11, 18, 30, 48, 78, 126, 203, 329, 532, 861, 1394, 2255, 3649, 5904, 9552, 15456, 25008, 40464, 65473, 105937, 171410, 277347, 448756, 726103, 1174859, 1900962, 3075822, 4976784, 8052606, 13029390, 21081995, 34111385, 55193380
a(n) = a(n-1) + a(n-2) - a(n-4) + a(n-5) + a(n-6) for n >= 7.
a(n) = floor(F(n)/3).
[A292324] 2, 3, 4, 7, 12, 19, 28, 42, 64, 97, 144, 212, 312, 459, 672, 979, 1422, 2062, 2984, 4308, 6206, 8925, 12816, 18376, 26310, 37620, 53728, 76648, 109230, 155507, 221184, 314325, 446320, 633249, 897804, 1271993, 1800942, 2548242, 3603468, 5092747, 7193604
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-4) - 2*a(n-5) - a(n-8) for n >= 9.
[A289919] 2, 3, 4, 7, 12, 19, 30, 48, 76, 119, 186, 290, 450, 696, 1074, 1653, 2538, 3889, 5948, 9081, 13842, 21068, 32022, 48609, 73700, 111618, 168868, 255232, 385410, 581479, 876576, 1320411, 1987516, 2989583, 4493910, 6750968, 10135584, 15208443, 22807902
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - 2*a(n-4) - a(n-6) for n >= 7.
[A293411] 1, 2, 3, 4, 7, 12, 19, 30, 49, 80, 129, 208, 337, 546, 883, 1428, 2311, 3740, 6051, 9790, 15841, 25632, 41473, 67104, 108577, 175682, 284259, 459940, 744199, 1204140, 1948339, 3152478, 5100817, 8253296, 13354113, 21607408, 34961521, 56568930, 91530451
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 1, a(1) = 2, a(2) = 3, a(3) = 4.
[A227047] 0, 0, 1, 1, 2, 3, 4, 7, 12, 19, 31, 50, 80, 130, 211, 341, 552, 893, 1444, 2337, 3782, 6119, 9901, 16020, 25920, 41940, 67861, 109801, 177662, 287463, 465124, 752587, 1217712, 1970299, 3188011, 5158310, 8346320, 13504630, 21850951, 35355581, 57206532, 92562113, 149768644
a(n) = a(n-1) +a(n-3) +a(n-5) +a(n-6). - Joerg Arndt, Jun 30 2013
[A107031] 1, 2, 3, 4, 7, 12, 25, 56, 145, 422, 1389, 5072, 20283, 87996, 412663, 2087868, 11361831, 66155642, 409567833, 2680486870, 18465061963, 133504614880, 1011121118741, 8008145020804, 66201411633209, 570006877641976
a(n)=sum{k=0..floor(n/2), (k-1)*C(k(n-2k), n-2k)-(k-2)*sum{j=0..n-k, C(k(n-2k), j)}}
[A023162] 1, 2, 3, 4, 7, 13, 14, 17, 23, 26, 34, 37, 43, 46, 47, 53, 67, 73, 74, 83, 86, 94, 97, 103, 106, 107, 113, 127, 134, 137, 146, 157, 163, 166, 167, 173, 193, 194, 197, 206, 214, 223, 226, 227, 233, 254, 257, 263, 274, 277, 283, 293, 307, 313, 314, 317, 326, 334
a(n) seems to be asymptotic to c*n*log(n) where c=1.5... - Benoit Cloitre, Jan 10 2003
[A031149] 0, 1, 2, 3, 4, 7, 13, 16, 19, 38, 57, 136, 253, 487, 604, 721, 1442, 2163, 5164, 9607, 18493, 22936, 27379, 54758, 82137, 196096, 364813, 702247, 870964, 1039681, 2079362, 3119043, 7446484, 13853287, 26666893, 33073696, 39480499, 78960998, 118441497, 282770296
a(8+7k) = (8+5 sqrt(10)/2) e1^k + (8-5 sqrt(10)/2) e2^k. - Robert Israel, Feb 16 2016
[A266498] 2, 3, 4, 7, 13, 22, 38, 66, 115, 198, 344, 595, 1031, 1786, 3093, 5357, 9279, 16071, 27836, 48213, 83508, 144640, 250524, 433920, 751571, 1301759, 2254713, 3905278, 6764140, 11715834, 20292419, 35147501, 60877257, 105442502, 182631770, 316327505, 547895310, 948982514, 1643685930, 2846947542
a(n) = round(sqrt(2*3^n+1/4)).
[A270440] 2, 3, 4, 7, 13, 23, 44, 84, 161, 313, 609, 1189, 2327, 4562, 8958, 17614, 34673, 68318, 134724, 265878, 525066, 1037554, 2051390, 4057939, 8030892, 15900354, 31493446, 62400953, 123682583, 245223436, 486342641, 964809156, 1914483817, 3799849586, 7543612064, 14979070587, 29749371096, 59095356237, 117410567231
a(n) = ceiling((8*binomial(2*n,n)+1)^(1/2)+1)/2). The above conjecture is true asymptotically. Using Stirling's formula for the approximation of n!, we get binomial(2*n,n) ~ 2^(2n)/(Pi*n)^(1/2) and inserting this in the formula for a(n) results in the above approximation for a(n). - Chai Wah Wu, Mar 23 2016
[A049876] 2, 3, 4, 7, 13, 25, 47, 88, 164, 306, 571, 1066, 1990, 3715, 6935, 12946, 24167, 45114, 84217, 157213, 293479, 547855, 1022714, 1909162, 3563948, 6653037, 12419626, 23184466, 43279843, 80793097, 150821354, 281547331, 525581408
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A290992] 0, 0, 0, 1, 2, 3, 4, 7, 14, 27, 48, 82, 140, 242, 420, 726, 1250, 2153, 3720, 6446, 11184, 19408, 33676, 58431, 101378, 175861, 304988, 528800, 916714, 1589091, 2754612, 4775074, 8277754, 14350253, 24878304, 43131381, 74777890, 129645147, 224770632
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - 2*a(n-5) + a(n-6) + a(n-8).
[A027362] 1, 1, 1, 2, 3, 4, 7, 16, 21, 48, 93, 128, 315, 448, 675, 2048, 3825, 5376, 13797, 24576, 27783, 95232, 182183, 262144, 629145, 1290240, 1835001, 3670016, 9256395, 11059200, 28629151, 67108864, 97327197, 250675200, 352149525, 704643072, 1857283155, 3616800768
a(2^k) = 2^(2^k-k-1) from L. Levine 2011, Theorem 1.3.
[A119330] 1, 2, 3, 4, 7, 18, 49, 120, 265, 554, 1155, 2476, 5455, 12138, 26881, 58992, 128689, 280466, 612579, 1341268, 2940151, 6443778, 14111857, 30886632, 67590649, 147934010, 323850531, 709047292, 1552412671, 3398703066, 7440375937
a(n)=4a(n-1)-6a(n-2)+4a(n-3)+a(n-4); a(n)=sum{k=0..n, sum{j=0..n-k, C(k,2j)C(n-k,2j)*2^j}}.
[A047453] 0, 1, 2, 3, 4, 8, 9, 10, 11, 12, 16, 17, 18, 19, 20, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36, 40, 41, 42, 43, 44, 48, 49, 50, 51, 52, 56, 57, 58, 59, 60, 64, 65, 66, 67, 68, 72, 73, 74, 75, 76, 80, 81, 82, 83, 84, 88, 89, 90, 91, 92, 96, 97, 98, 99, 100, 104
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 70 + 3*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) - 12*((n+4) mod 5))/25.
a(5k) = 8k-4, a(5k-1) = 8k-5, a(5k-2) = 8k-6, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A047338] 1, 2, 3, 4, 8, 9, 10, 11, 15, 16, 17, 18, 22, 23, 24, 25, 29, 30, 31, 32, 36, 37, 38, 39, 43, 44, 45, 46, 50, 51, 52, 53, 57, 58, 59, 60, 64, 65, 66, 67, 71, 72, 73, 74, 78, 79, 80, 81, 85, 86, 87, 88, 92, 93, 94, 95, 99, 100, 101, 102, 106, 107, 108, 109
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-15-3*i^(2n)-(3-3*i)*i^(-n)-(3+3*i)*i^n)/8 where i=sqrt(-1).
[A069811] 0, 1, 2, 3, 4, 8, 9, 10, 11, 15, 16, 20, 21, 25, 29, 30, 31, 35, 36, 40, 44, 48, 49, 53, 54, 58, 59, 63, 64, 73, 74, 75, 79, 83, 87, 91, 92, 96, 100, 104, 105, 114, 115, 119, 123, 127, 128, 132, 133, 137, 141, 145, 146, 150, 154, 158, 162, 166, 167, 176, 177, 181
a(n) = n*Log(Log(n))^2 + O(n*Log(log(n))).
[A047228] 2, 3, 4, 8, 9, 10, 14, 15, 16, 20, 21, 22, 26, 27, 28, 32, 33, 34, 38, 39, 40, 44, 45, 46, 50, 51, 52, 56, 57, 58, 62, 63, 64, 68, 69, 70, 74, 75, 76, 80, 81, 82, 86, 87, 88, 92, 93, 94, 98, 99, 100, 104, 105, 106, 110, 111, 112, 116, 117, 118, 122, 123, 124
a(n) = 2*n-1-cos(2*n*Pi/3)+sin(2*n*Pi/3)/sqrt(3). (End)
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(3k) = 6k-2, a(3k-1) = 6k-3, a(3k-2) = 6k-4. (End)
[A244151] 2, 3, 4, 8, 9, 14, 15, 20, 21, 26, 27, 32, 33, 38, 39, 44, 45, 50, 51, 56, 57, 62, 63, 68, 69, 74, 75, 80, 81, 86, 87, 92, 93, 98, 99, 104, 105, 110, 111, 116, 117, 122, 123, 128, 129, 134, 135, 140, 141, 146, 147, 152, 153, 158, 159, 164, 165, 170, 171, 176, 177, 182, 183, 188, 189, 194, 195, 200, 201, 206, 207, 212, 213
a(2n) = 6(n-1)+2 a(2n+1) = 6(n-1)+3 for n>1. - Robert G. Wilson v, Jun 23 2014
a(n) = a(n-1)+a(n-2)-a(n-3) for n>6. - Colin Barker, Jun 26 2014
[A047456] 0, 2, 3, 4, 8, 10, 11, 12, 16, 18, 19, 20, 24, 26, 27, 28, 32, 34, 35, 36, 40, 42, 43, 44, 48, 50, 51, 52, 56, 58, 59, 60, 64, 66, 67, 68, 72, 74, 75, 76, 80, 82, 83, 84, 88, 90, 91, 92, 96, 98, 99, 100, 104, 106, 107, 108, 112, 114, 115, 116, 120, 122, 123

a(n) = (-11-(-1)^n-(2-i)*(-i)^n-(2+i)*i^n+8*n)/4 where i=sqrt(-1). - Colin Barker, May 14 2012
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 16 2012
[A207644] 1, 1, 2, 3, 4, 8, 10, 17, 30, 42, 55, 116, 172, 220, 391, 683, 1024, 1616, 2050, 3675, 6520, 9504, 12505, 22421, 35572, 56918, 85701, 138110, 202765, 326231, 503632, 860497, 1376870, 1927446, 2818531, 4892966, 7784671, 11432772, 17287295, 30423457, 46453786, 71810414
a(n) = 1 + Sum_{k=1..[n/2]} Product_{j=1..k} floor((n-k-j+1) / j).
[A115271] 1, 2, 3, 4, 8, 12, 16, 20, 29, 38, 47, 56, 72, 88, 104, 120, 145, 170, 195, 220, 256, 292, 328, 364, 413, 462, 511, 560, 624, 688, 752, 816, 897, 978, 1059, 1140, 1240, 1340, 1440, 1540, 1661, 1782, 1903, 2024, 2168, 2312, 2456, 2600, 2769, 2938
a(n) = sum{k=0..n, floor((k+4)/2)^2}.
a(n) = 2*a(n-1)-a(n-2)+2*a(n-4)-4*a(n-5)+ 2*a(n-6)- a(n-8)+2*a(n-9)-a(n-10) with a(0)=1, a(1)=2, a(2)=3, a(3)=4, a(4)=8, a(5)=12, a(6)=16, a(7)=20, a(8)=29, a(9)=38. - Harvey P. Dale, Jun 07 2011
a(n) = (2*n^3+18*n^2+61*n+75+3*(n+3)*(-1)^n+6*(n+4-(n+2)*(-1)^n)*(-1)^((2*n-1+(-1)^n)/4))/96. - Luce ETIENNE, Mar 17 2015
[A189375] 1, 2, 3, 4, 8, 12, 16, 20, 30, 40, 50, 60, 80, 100, 120, 140, 175, 210, 245, 280, 336, 392, 448, 504, 588, 672, 756, 840, 960, 1080, 1200, 1320, 1485, 1650, 1815, 1980, 2200, 2420, 2640, 2860, 3146, 3432, 3718, 4004, 4368
a(n) = (2*n^4+56*n^3+538*n^2+2044*n+2469+3*((2*n^2+28*n+89)*(-1)^n+(4*(-1)^((2*n-1+(-1)^n)/4)*(n^2+16*n+57-(n^2+12*n+29)*(-1)^n))))/3072. - Luce ETIENNE, Jun 25 2015
[A133464] 1, 2, 3, 4, 8, 12, 16, 32, 48, 64, 128, 192, 256, 512, 768, 1024, 2048, 3072, 4096, 8192, 12288, 16384, 32768, 49152, 65536, 131072, 196608, 262144, 524288, 786432, 1048576, 2097152, 3145728, 4194304, 8388608, 12582912, 16777216, 33554432
a(n+1) = a(n) + a(n - n mod 3). - Reinhard Zumkeller, May 26 2008
[A126042] 1, 1, 1, 2, 3, 4, 8, 13, 19, 38, 64, 98, 196, 337, 531, 1062, 1851, 2974, 5948, 10468, 17060, 34120, 60488, 99658, 199316, 355369, 590563, 1181126, 2115577, 3540464, 7080928, 12731141, 21430267, 42860534, 77306428, 130771376
a(n) = Sum_{k=0..n} binomial(3*floor((n+2k)/3) - 2k, floor((n+2k)/3)-k)*(k+1)/(2*floor((n+2k)/3) - k + 1)(2*cos(2*Pi*(n-k)/3) + 1)/3;
[A189740] 1, 2, 3, 4, 8, 15, 28, 53, 102, 196, 377, 726, 1399, 2696, 5196, 10015, 19304, 37209, 71722, 138248, 266481, 513658, 990107, 1908492, 3678736, 7090991, 13668324, 26346541, 50784590, 97890444, 188689897, 363711470, 701076399, 1351368208, 2604845972
a(1)=1, a(2)=2, a(3)=3, a(4)=4, a(5)=8, a(n)=2*a(n-1)-a(n-5). - Harvey P. Dale, May 23 2011
[A129284] 2, 3, 4, 8, 20, 44, 92, 188, 380, 856, 2148, 5024, 17616, 58768, 176320, 755904, 3305920, 13885184, 69634816, 348174336, 2385273856, 14652403712, 102566830080, 849285738496, 6035962949632, 44017806979072, 308166534991872, 2380768960708608, 23410894780694528
a(n+1)=a(n)+a'(n), with a(0)=2. [From Paolo P. Lava, Feb 08 2010]
[A047454] 1, 2, 3, 4, 9, 10, 11, 12, 17, 18, 19, 20, 25, 26, 27, 28, 33, 34, 35, 36, 41, 42, 43, 44, 49, 50, 51, 52, 57, 58, 59, 60, 65, 66, 67, 68, 73, 74, 75, 76, 81, 82, 83, 84, 89, 90, 91, 92, 97, 98, 99, 100, 105, 106, 107, 108, 113, 114, 115, 116, 121, 122, 123
a(n) = (-5-(-1)^n-(1-i)*(-i)^n-(1+i)*i^n+4*n)/2 where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 15 2012
[A081870] 1, 2, 3, 4, 9, 10, 11, 12, 25, 26, 27, 28, 29, 30, 31, 63, 64, 65, 66, 67, 135, 136, 137, 275, 276, 277, 278, 279, 280, 281, 282, 283, 567, 568, 569, 570, 571, 1143, 1144, 1145, 1146, 1147, 2295, 2296, 2297, 2298, 2299, 4599, 4600, 4601, 4602, 4603, 9207, 9208
a(n)=r(n)*2^b(n) where b(n) is an integer sequence and r(n) converges to 1.124922752241150441104513529....
[A047339] 2, 3, 4, 9, 10, 11, 16, 17, 18, 23, 24, 25, 30, 31, 32, 37, 38, 39, 44, 45, 46, 51, 52, 53, 58, 59, 60, 65, 66, 67, 72, 73, 74, 79, 80, 81, 86, 87, 88, 93, 94, 95, 100, 101, 102, 107, 108, 109, 114, 115, 116, 121, 122, 123, 128, 129, 130, 135, 136, 137, 142
a(n+1) = 7*floor(n/3)+(n mod 3)+2. - Gary Detlefs, Mar 09 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-15-12*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-3, a(3k-1) = 7k-4, a(3k-2) = 7k-5. (End)
[A081871] 1, 2, 3, 4, 9, 10, 21, 22, 45, 91, 183, 184, 369, 370, 741, 742, 1485, 1486, 2973, 5947, 11895, 23791, 47583, 95167, 190335, 380671, 761343, 1522687, 3045375, 3045376, 6090753, 12181507, 24363015, 48726031, 97452063, 194904127, 389808255, 779616511, 1559233023, 3118466047, 6236932095
a(n)=r(n)*2^b(n) where b(n) is an integer sequence and r(n) converges to 1.452148914690155834251....
[A212989] 1, 2, 3, 4, 9, 11, 13, 15, 24, 27, 30, 33, 46, 50, 54, 58, 75, 80, 85, 90, 111, 117, 123, 129, 154, 161, 168, 175, 204, 212, 220, 228, 261, 270, 279, 288, 325, 335, 345, 355, 396, 407, 418, 429, 474, 486, 498, 510, 559, 572, 585, 598, 651, 665, 679, 693
a(n) = a(n-1)+2*a(n-3)-2*a(n-4)-a(n-7)+a(n-8).
[A211546] 0, 0, 0, 2, 3, 4, 9, 11, 13, 21, 24, 27, 38, 42, 46, 60, 65, 70, 87, 93, 99, 119, 126, 133, 156, 164, 172, 198, 207, 216, 245, 255, 265, 297, 308, 319, 354, 366, 378, 416, 429, 442, 483, 497, 511, 555, 570, 585, 632, 648, 664, 714, 731, 748, 801, 819
a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7).
[A181287] 0, 1, 2, 3, 4, 9, 14, 19, 24, 49, 74, 99, 124, 249, 374, 499, 624, 1249, 1874, 2499, 3124, 6249, 9374, 12499, 15624, 31249, 46874, 62499, 78124, 156249, 234374, 312499, 390624, 781249, 1171874, 1562499, 1953124, 3906249, 5859374, 7812499, 9765624, 19531249, 29296874, 39062499, 48828124, 97656249, 146484374, 195312499
a(n) = a(n-1)+5*a(n-4)-5*a(n-5). G.f.: x^2*(x+1)*(x^2+1) / ((x-1)*(5*x^4-1)). [Colin Barker, Feb 01 2013]
[A217787] 1, 1, 1, 1, 2, 3, 4, 9, 14, 19, 43, 67, 91, 206, 321, 436, 987, 1538, 2089, 4729, 7369, 10009, 22658, 35307, 47956, 108561, 169166, 229771, 520147, 810523, 1100899, 2492174, 3883449, 5274724, 11940723, 18606722, 25272721, 57211441, 89150161, 121088881
a(n) = a(3-n) for all n in Z.
a(n+3) + a(n-3) = 5*a(n) for all n in Z.
a(n+1) + a(n-1) = a(n) * (2 + [n mod 3 == 0]) for all n in Z.
[A033076] 1, 2, 3, 4, 9, 15, 21, 46, 78, 109, 234, 390, 546, 1171, 1953, 2734, 5859, 9765, 13671, 29296, 48828, 68359, 146484, 244140, 341796, 732421, 1220703, 1708984, 3662109, 6103515, 8544921, 18310546, 30517578, 42724609, 91552734, 152587890, 213623046, 457763671
a(n) = 5*a(n-3)+a(n-6)-5*a(n-9) for n>11. - Colin Barker, Jun 01 2015
[A124753] 1, 1, 1, 1, 2, 3, 4, 9, 15, 22, 52, 91, 140, 340, 612, 969, 2394, 4389, 7084, 17710, 32890, 53820, 135720, 254475, 420732, 1068012, 2017356, 3362260, 8579560, 16301164, 27343888, 70068713, 133767543, 225568798, 580034052
a(n) = ((mod(n,3)+1)*C(4*floor(n/3)+mod(n,3), floor(n/3))/ (3*floor(n/3) + 1 + mod(n, 3))). - Paul Barry, Dec 14 2006
[A258274] 1, 2, 3, 4, 9, 19, 44, 94, 194, 294, 394, 494, 594, 694, 794, 894, 994, 1094, 1194, 1294, 1394, 1494, 1594, 1694, 1794, 1894, 1994, 2094, 2194, 2294, 2394, 2494, 2594, 2694, 2794, 2894, 2994
a(n) = 100*n - 706 for n >= 8. G.f.: x*(1+4*x^4+5*x^5+15*x^6 +25*x^7 +50*x^8)/(1-x)^2. - Robert Israel, May 31 2015
[A174139] 0, 1, 2, 3, 4, 10, 11, 12, 13, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 35, 36, 37, 38, 39, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 60, 61, 62, 63, 64, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 85, 86, 87, 88, 89, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 110, 111, 112
a(15+n) = a(n) + 25 for n >= 1.
a(n)= +a(n-1) +a(n-15) -a(n-16).G.f. x^2*(1 +x +x^2 +x^3 +6*x^4 +x^5 +x^6 +x^7 +x^8 +6*x^9 +x^10 +x^11 +x^12 +x^13+x^14) / ((1+x+x^2) *(x^4+x^3+x^2+x+1) *(x^8-x^7+x^5-x^4+x^3-x+1) *(x-1)^2). - R. J. Mathar, Oct 08 2011
[A293292] 0, 1, 2, 3, 4, 10, 11, 12, 13, 14, 20, 21, 22, 23, 24, 30, 31, 32, 33, 34, 40, 41, 42, 43, 44, 50, 51, 52, 53, 54, 60, 61, 62, 63, 64, 70, 71, 72, 73, 74, 80, 81, 82, 83, 84, 90, 91, 92, 93, 94, 100, 101, 102, 103, 104, 110, 111, 112, 113, 114, 120, 121, 122, 123, 124, 130
a(n) = a(n-1) + a(n-5) - a(n-6).
a(n) = (n-1) + 5*floor((n-1)/5) = 10*floor((n-1)/5) + ((n-1) mod 5).
[A007091] 0, 1, 2, 3, 4, 10, 11, 12, 13, 14, 20, 21, 22, 23, 24, 30, 31, 32, 33, 34, 40, 41, 42, 43, 44, 100, 101, 102, 103, 104, 110, 111, 112, 113, 114, 120, 121, 122, 123, 124, 130, 131, 132, 133, 134, 140, 141, 142, 143, 144, 200, 201, 202, 203, 204, 210, 211, 212, 213
a(0)=0 a(n)=10*a(n/5) if n==0 (mod 5) a(n)=a(n-1)+1 otherwise. - Benoit Cloitre, Dec 22 2002
[A047455] 2, 3, 4, 10, 11, 12, 18, 19, 20, 26, 27, 28, 34, 35, 36, 42, 43, 44, 50, 51, 52, 58, 59, 60, 66, 67, 68, 74, 75, 76, 82, 83, 84, 90, 91, 92, 98, 99, 100, 106, 107, 108, 114, 115, 116, 122, 123, 124, 130, 131, 132, 138, 139, 140, 146, 147, 148, 154, 155, 156
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-21-15*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-4, a(3k-1) = 8k-5, a(3k-2) = 8k-6. (End)

[A259561] 0, 1, 2, 3, 4, 10, 11, 29, 40, 76, 199, 521, 1364, 3571, 9349, 24476, 64079, 167761, 439204, 1149851, 3010349, 7881196, 20633239, 54018521, 141422324, 370248451, 969323029, 2537720636, 6643838879, 17393796001, 45537549124, 119218851371, 312119004989, 817138163596
a(n) = 3*a(n-1)-a(n-2) for n>11. - Colin Barker, Jun 30 2015
[A229593] 0, 2, 3, 4, 10, 12, 14, 24, 27, 30, 44, 48, 52, 70, 75, 80, 102, 108, 114, 140, 147, 154, 184, 192, 200, 234, 243, 252, 290, 300, 310, 352, 363, 374, 420, 432, 444, 494, 507, 520, 574, 588, 602, 660, 675, 690, 752, 768
a(n) = (n-1)*floor(n/3). - Laurance L. Y. Lau, Jun 22 2015
[A049548] 0, 1, 2, 3, 4, 10, 12, 21, 32, 53, 128, 213, 512, 853, 2048, 3413, 8192, 13653, 32768, 54613, 131072, 218453, 524288, 873813, 2097152, 3495253, 8388608, 13981013, 33554432, 55924053, 134217728, 223696213, 536870912, 894784853, 2147483648
a(n) = 5*a(n-2)-4*a(n-4) for n>5; g.f.: x*(32*x^10+16*x^9-12*x^8-12*x^7-17*x^6-x^4-6*x^3-2*x^2+2*x+1) / ((x-1)*(x+1)*(2*x-1)*(2*x+1)). - Colin Barker, Sep 13 2014
[A007661] 1, 1, 2, 3, 4, 10, 18, 28, 80, 162, 280, 880, 1944, 3640, 12320, 29160, 58240, 209440, 524880, 1106560, 4188800, 11022480, 24344320, 96342400, 264539520, 608608000, 2504902400, 7142567040, 17041024000, 72642169600
a(n) = prod(i=0..floor((n-1)/3), n-3*i). - M. F. Hasler, Feb 16 2008
[A084544] 1, 2, 3, 4, 11, 12, 13, 14, 21, 22, 23, 24, 31, 32, 33, 34, 41, 42, 43, 44, 111, 112, 113, 114, 121, 122, 123, 124, 131, 132, 133, 134, 141, 142, 143, 144, 211, 212, 213, 214, 221, 222, 223, 224, 231, 232, 233, 234, 241, 242, 243, 244, 311, 312, 313, 314, 321
a(n) = Sum_{j=0..m-1} (1 + b(j) mod 4)*10^j,
a(k*(4^n-1)/3) = k*(10^n-1)/9, k = 1,2,3,4.
a((7*4^n-4)/3) = (13*10^n-4)/9 = 10^n + 4*(10^n-1)/9.
a((4^n-1)/3 - 1) = 4*(10^(n-1)-1)/9, n>1.
a(n) <= (10^log_4(3*n+1)-1)/9, equality holds for n=(4^k-1)/3, k>0.
a(n) > (4/10)*(10^log_4(3*n+1)-1)/9, n>0.
[A295721] 1, 2, 3, 4, 11, 13, 32, 41, 89, 122, 243, 349, 656, 973, 1757, 2666, 4679, 7217, 12408, 19369, 32801, 51658, 86507, 137141, 227744, 362837, 598773, 957514, 1572671, 2521993, 4127432, 6633041, 10826009, 17426282, 28383363, 45744109, 74389616, 120002653
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = -1, a(1) = 2, a(2) = 3, a(3) = 4.
[A139763] 1, 2, 3, 4, 11, 22, 43, 84, 171, 342, 683, 1364, 2731, 5462, 10923, 21844, 43691, 87382, 174763, 349524, 699051, 1398102, 2796203, 5592404, 11184811, 22369622
a(n+1)-2a(n)=period 4:repeat 0, -1, -2, 3.
a(n)=2*a(n-1)+(1/4)*{-5*(n mod 4)+[(n+1) mod 4]+[(n+2) mod 4]+3*[(n+3) mod 4]}, a(0)=1 and n>=1 - Paolo P. Lava, Jun 03 2008
a(n)=-(1/2*I)*I^n+(1/3)*(-1)^n+(2/3)*2^n+(1/2*I)*(-I)^n, with n>=0 and I=(-1)^(1/2) - Paolo P. Lava, Jun 03 2008
[A221172] 2, 3, 4, 11, 26, 63, 152, 367, 886, 2139, 5164, 12467, 30098, 72663, 175424, 423511, 1022446, 2468403, 5959252, 14386907, 34733066, 83853039, 202439144, 488731327, 1179901798, 2848534923, 6876971644, 16602478211, 40081928066, 96766334343, 233614596752
a(n)=(1/4)*(5*sqrt(2)*((1+sqrt(2))^n-(1-sqrt(2))^n)-4*((1+sqrt(2))^n+(1-sqrt(2))^n)). [Paolo P. Lava, Jan 04 2013]
[A081350] 1, 2, 3, 4, 15, 16, 35, 36, 63, 64, 99, 100, 143, 144, 195, 196, 255, 256, 323, 324, 399, 400, 483, 484, 575, 576, 675, 676, 783, 784, 899, 900, 1023, 1024, 1155, 1156, 1295, 1296, 1443, 1444, 1599, 1600, 1763, 1764, 1935, 1936, 2115, 2116, 2303, 2304, 2499
a(0)=1, a(1)=2, a(n)=(n-1)*(n+(-1)^n), n>1.
[A107241] 1, 2, 3, 4, 20, 69, 238, 863, 3264, 12100, 44861, 166662, 619591, 2301800, 8551800, 31774561, 118060082, 438649107, 1629796276, 6055504952, 22499207241, 83595676570, 310599326171, 1154030334396, 4287794153932, 15931278338957
a(n)= 3*a(n-1) +2*a(n-2) +2*a(n-3) +6*a(n-4) -16*a(n-5) -2*a(n-6) +6*a(n-7) -2*a(n-8) +2*a(n-9) +a(n-10) -a(n-11). G.f.: (1-x-5*x^2-11*x^3-8*x^4-x^5-x^6-7*x^7+x^8+4*x^9)/((x-1) *(x^4+x^3-3*x^2-3*x +1) *(x^6-x^5+2*x^4-2*x^3-2*x^2-x-1). [From R. J. Mathar, Aug 11 2009]
[A187322] 0, 0, 2, 3, 5, 5, 7, 8, 10, 10, 12, 13, 15, 15, 17, 18, 20, 20, 22, 23, 25, 25, 27, 28, 30, 30, 32, 33, 35, 35, 37, 38, 40, 40, 42, 43, 45, 45, 47, 48, 50, 50, 52, 53, 55, 55, 57, 58, 60, 60, 62, 63, 65, 65, 67, 68, 70, 70, 72, 73, 75, 75, 77, 78, 80, 80, 82, 83, 85, 85, 87, 88, 90, 90, 92, 93, 95, 95, 97
a(n) = (10*n-5+3*cos(n*Pi)+2*(cos(n*Pi/2)-sin(n*Pi/2)))/8. - Luce ETIENNE, Aug 14 2017
a(n) = a(n-1) + a(n-4) - a(n-5) for n>4.
[A108962] 1, 1, 2, 3, 5, 5, 9, 11, 16, 20, 28, 34, 47, 57, 75, 92, 119, 143, 183, 220, 277, 332, 412, 491, 605, 718, 874, 1036, 1252, 1475, 1772, 2082, 2483, 2909, 3450, 4027, 4755, 5533, 6499, 7545, 8826, 10213, 11904, 13741, 15955, 18372, 21262, 24422
a(n, m) ~ exp(Pi*sqrt((2*m+1)*n/(3*(m+2)))) * (2*m+1)^(1/4) / (2*3^(1/4)*(m+2)^(3/4)*n^(3/4)).
[A128054] 0, 0, 1, 2, 3, 5, 6, 6, 7, 8, 9, 11, 12, 12, 13, 14, 15, 17, 18, 18, 19, 20, 21, 23, 24, 24, 25, 26, 27, 29, 30, 30, 31, 32, 33, 35, 36, 36, 37, 38, 39, 41, 42, 42, 43, 44, 45, 47, 48, 48, 49, 50, 51, 53, 54, 54, 55, 56, 57, 59, 60, 60, 61, 62, 63, 65, 66, 66
a(n)=cos(2*pi*n/3)/6-sqrt(3)*sin(2*pi*n/3)/6+cos(pi*n/3)/2-sqrt(3)*sin(pi*n/3)/6+(3n-2)/3.
[A052406] 0, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 86, 87, 88, 89
a(n) = replace digits d > 3 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A047588] 0, 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (56*n - 56 + (n mod 7) + ((n+1) mod 7) - 6*((n+2) mod 7) + ((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) + ((n+6) mod 7))/49.
a(7*k) = 8*k-1, a(7*k-1) = 8*k-2, a(7*k-2) = 8*k-3, a(7*k-3) = 8*k-5, a(7*k-4) = 8*k-6, a(7*k-5) = 8*k-7, a(7*k-6) = 8*k-8. (End)
[A032775] 0, 1, 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, 80, 82, 83
a(n) = -1 + Sum_{k=1..n} {(1/90)*(22*(k mod 6)-8*[(k+1) mod 6]+7*[(k+2) mod 6]+7*[(k+3) mod 6]+7*[(k+4) mod 6]+7*[(k+5) mod 6]}, with n>=1. [Paolo P. Lava, Sep 03 2010]
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (42*n-45-3*cos(n*Pi)+12*cos(n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/36.
a(6k) = 7k-1, a(6k-1) = 7k-2, a(6k-2) = 7k-4, a(6k-3) = 7k-5, a(6k-4) = 7k-6, a(6k-5) = 7k-7. (End)
[A181092] 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80
a(n) = n + sqrt(n) + O(n^(1/4)). - Charles R Greathouse IV, Nov 15 2012
[A000037] 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99
a(n) = n + floor(1/2 + sqrt(n)).
a(n) = n + floor(sqrt(n + floor(sqrt n))).
[A001068] 0, 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 50, 51, 52, 53, 55, 56, 57, 58, 60, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 73, 75, 76, 77, 78, 80, 81, 82, 83, 85, 86, 87, 88
a(n) = (10*n+2*(-1)^((n-1)n/2)+(-1)^n-3)/8.
a(n) = a(n-1) + a(n-4) - a(n-5) for n>4.
a(n) = n + floor(n/4). (End)
[A038129] 0, 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 34, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 54, 55, 56, 57, 59, 60, 61, 62, 64, 65, 66, 68, 69, 70, 71, 73, 74, 75, 76, 78, 79, 80, 81, 83, 84, 85, 86, 88, 89
a(n)=floor(n*1.2599210498..)
a(n)=floor(n*2^(1/3)) - Benoit Cloitre, Apr 16 2003
[A062071] 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 34, 36, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 51, 52, 53, 54, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 69, 70, 72, 73, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89, 90
a(n) = Sum_{i=1..n} floor(n/i^i). - Wesley Ivan Hurt, Sep 15 2017

[A182777] 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 34, 35, 36, 38, 39, 40, 41, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 55, 57, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 79, 81, 82, 83, 84, 86
a(n)=floor(n*(3-sqrt(3))).
[A214988] 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 31, 33, 34, 35, 36, 38, 39, 40, 41, 43, 44, 45, 47, 48, 49, 50, 52, 53, 54, 55, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 75, 76, 77, 78, 80, 81, 82, 83, 85, 86
a(n) = floor(t*n), where t=sqrt((1+sqrt(5))/2).
[A287770] 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 47, 48, 49, 51, 52, 53, 54, 56, 57, 58, 59, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 74, 75, 76, 77, 79, 80, 81, 82, 84
a(n) = floor(n*r), where r = (15 - sqrt(5))/10. - Michel Dekking, Oct 11 2017
[A047587] 0, 2, 3, 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, 18, 19, 21, 22, 23, 24, 26, 27, 29, 30, 31, 32, 34, 35, 37, 38, 39, 40, 42, 43, 45, 46, 47, 48, 50, 51, 53, 54, 55, 56, 58, 59, 61, 62, 63, 64, 66, 67, 69, 70, 71, 72, 74, 75, 77, 78, 79, 80, 82, 83, 85, 86, 87
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-15+3*cos(n*Pi)-2*sqrt(3)*cos((1-4*n)*Pi/6)-6*sin((1+2*n)*Pi/6))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-5, a(6k-4) = 8k-6, a(6k-5) = 8k-8. (End)
[A036537] 1, 2, 3, 5, 6, 7, 8, 10, 11, 13, 14, 15, 17, 19, 21, 22, 23, 24, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 46, 47, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 65, 66, 67, 69, 70, 71, 73, 74, 77, 78, 79, 82, 83, 85, 86, 87, 88, 89, 91, 93, 94, 95, 97, 101, 102
a(n) « n. - Charles R Greathouse IV, Feb 25 2017
[A120486] 1, 2, 3, 5, 6, 7, 8, 10, 13, 14, 15, 17, 18, 19, 20, 24, 25, 28, 29, 31, 32, 33, 34, 36, 41, 42, 45, 47, 48, 49, 50, 54, 55, 56, 57, 63, 64, 65, 66, 68, 69, 70, 71, 73, 76, 77, 78, 82, 89, 94, 95, 97, 98, 101, 102, 104, 105, 106, 107, 109, 110, 111, 114, 122, 123, 124, 125, 127, 128
a(n) = 3n log(n) / Pi^2 + O(n). - Griffin N. Macris, Jan 28 2017
[A063752] 1, 2, 3, 5, 6, 7, 8, 11, 13, 17, 19, 21, 23, 24, 27, 28, 29, 31, 32, 37, 41, 43, 47, 53, 54, 59, 61, 67, 68, 69, 71, 73, 79, 83, 89, 96, 97, 101, 103, 107, 109, 112, 113, 124, 125, 127, 128, 131, 133, 137, 139, 141, 149, 151, 157, 163, 167, 173, 179, 181, 189, 191
a(n) seems to be asymptotic to c*n*log(n) with c=1.07....(all primes are in the sequence since cototient(p)=1). - Benoit Cloitre, Sep 08 2002
[A187328] 0, 1, 2, 3, 5, 6, 7, 9, 10, 11, 12, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 34, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 49, 50, 51, 53, 54, 55, 56, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87, 89, 90, 91, 93, 94, 95, 96, 98, 99, 100, 102, 103, 104, 106, 107, 108, 109, 111, 112, 113, 115, 116, 117, 118, 120, 121, 122, 124, 125, 126, 127, 129, 130, 131, 133, 134, 135, 137, 138, 139, 140, 142, 143, 144, 146, 147, 148, 149, 151, 152, 153, 155
a(n)=floor((2-1/sqrt(2))n).
[A045671] 0, 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 44, 45, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 61, 63, 64, 65, 66, 67, 69, 70
a(n) = (1+sqrt(17))/4*n+O(1). - Benoit Cloitre, Apr 23 2008
[A184480] 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 48, 49, 50, 52, 53, 54, 56, 57, 58, 59, 61, 62, 63, 65, 66, 67, 69, 70, 71, 72, 74, 75, 76, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89, 91, 92, 93, 95, 96, 97, 99, 100, 101, 102, 104, 105, 106, 108, 109, 110, 112, 113, 114, 115, 117, 118, 119, 121, 122, 123, 125, 126, 127, 128, 130, 131, 132, 134, 135, 136, 138, 139, 140, 142, 143, 144, 145, 147, 148, 149, 151, 152, 153, 155, 156
a(n)=floor[n*(-1+sqrt(13))/2].
[A164087] 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23, 24, 26, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 42, 43, 44, 45, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 61, 63, 64, 65, 66, 68, 69, 70, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94
a(n) = floor(4*n*pi/(4*pi-3)).
[A187386] 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 42, 43, 44, 46, 47, 48, 50, 51, 52, 54, 55, 56, 57, 59, 60, 61, 63, 64, 65, 67, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 86, 88, 89, 90, 92, 93, 94, 96, 97, 98, 100, 101, 102, 104, 105
a(n)=floor(s*n), where s=1+sqrt(3)-sqrt(2).
[A195291] 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 45, 46, 47, 49, 50, 51, 53, 54, 55, 57, 58, 59, 61, 62, 63, 65, 66, 67, 69, 70, 71, 73, 74, 75, 77, 78, 79, 81, 82, 83, 85, 86, 87, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100
a(n) = a(n-1) + a(n-303) - a(n-304). [Charles R Greathouse IV, Sep 18 2011]
[A042968] 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 45, 46, 47, 49, 50, 51, 53, 54, 55, 57, 58, 59, 61, 62, 63, 65, 66, 67, 69, 70, 71, 73, 74, 75, 77, 78, 79, 81, 82, 83, 85, 86, 87, 89, 90, 91, 93, 94, 95, 97, 98, 99, 101, 102
a(n) = +1*a(n-1) +1*a(n-3) -1*a(n-4).
a(n) = 4 + a(n-3).
a(n) = n-1+floor((n+2)/3). - Benoit Cloitre, Jul 11 2009
a(n) = floor((4*n-1)/3). - Gary Detlefs, May 14 2011
a(n) = 2*n - ceil(2*n/3) + 1. - Arkadiusz Wesolowski, Sep 21 2012
a(n) = (12*n+6+3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9. - Wesley Ivan Hurt, Sep 30 2017
[A047332] 0, 2, 3, 5, 6, 7, 9, 10, 12, 13, 14, 16, 17, 19, 20, 21, 23, 24, 26, 27, 28, 30, 31, 33, 34, 35, 37, 38, 40, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 70, 72, 73, 75, 76, 77, 79
a(n) = a(n-5)+7. O.g.f.: x^2*(2+x+2*x^2+x^3+x^4)/((-1+x)^2*(x^4+x^3+x^2+x+1)). - R. J. Mathar, Apr 19 2008
[A080637] 2, 3, 5, 6, 7, 9, 11, 12, 13, 14, 15, 17, 19, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 35, 37, 39, 41, 43, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 96, 97, 98, 99, 100, 101, 102
a(3*2^k - 1 + j) = 4*2^k - 1 + 3j/2 + |j|/2 for k >= 0, -2^k <= j < 2^k.
a(2n+1) = 2*a(n) + 1, a(2n) = a(n) + a(n-1) + 1.
[A074780] 1, 2, 3, 5, 6, 7, 9, 13, 14, 15, 17, 19, 21, 23, 25, 26, 27, 29, 31, 34, 35, 37, 38, 39, 41, 42, 43, 45, 46, 47, 49, 51, 53, 57, 59, 61, 62, 63, 65, 67, 69, 71, 73, 74, 75, 79, 81, 82, 83, 85, 86, 87, 89, 91, 93, 94, 95, 97, 98, 101, 102, 103, 105, 106, 107, 109, 111, 113
a(n) seems to be asymptotic to c*n with c=1.7...
[A259444] 2, 3, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76
a(n) = n + sqrt(n) + O(n^(1/3)). - Charles R Greathouse IV, Aug 18 2015
[A085971] 2, 3, 5, 6, 7, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78
a(n) = n + o(sqrt n). - Charles R Greathouse IV, Oct 19 2015
[A004762] 0, 1, 2, 3, 5, 6, 7, 10, 11, 12, 13, 14, 15, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98
a(1) = 0, a(2) = 1, a(3) = 2, a(4) = 3, a(2^(m+1) + 2^m + k + 2) = 2^(m+2) + 2^m + k, m >= 0, 0 <= k < (2^(m+1) + 2^m). - Yosu Yurramendi, Aug 08 2016
[A047586] 2, 3, 5, 6, 7, 10, 11, 13, 14, 15, 18, 19, 21, 22, 23, 26, 27, 29, 30, 31, 34, 35, 37, 38, 39, 42, 43, 45, 46, 47, 50, 51, 53, 54, 55, 58, 59, 61, 62, 63, 66, 67, 69, 70, 71, 74, 75, 77, 78, 79, 82, 83, 85, 86, 87, 90, 91, 93, 94, 95, 98, 99, 101, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 5 + 3*(n mod 5) + 3*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) - 7*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-3, a(5k-3) = 8k-5, a(5k-4) = 8k-6. (End)
[A049386] 1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44
a(n)=Ceiling[Log[2, Prime[2^n]]]
[A047450] 0, 1, 2, 3, 5, 6, 8, 9, 10, 11, 13, 14, 16, 17, 18, 19, 21, 22, 24, 25, 26, 27, 29, 30, 32, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 48, 49, 50, 51, 53, 54, 56, 57, 58, 59, 61, 62, 64, 65, 66, 67, 69, 70, 72, 73, 74, 75, 77, 78, 80, 81, 82, 83, 85, 86, 88
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-33-3*cos(n*Pi)-2*sqrt(3)*cos((1-4*n)*Pi/6)+6*sin((1+2*n) *Pi/6))/18.

a(6k) = 8k-2, a(6k-1) = 8k-3, a(6k-2) = 8k-5, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A087057] 2, 3, 5, 6, 8, 9, 10, 12, 13, 15, 16, 17, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 34, 36, 37, 39, 40, 42, 43, 44, 46, 47, 49, 50, 51, 53, 54, 56, 57, 58, 60, 61, 63, 64, 66, 67, 68, 70, 71, 73, 74, 75, 77, 78, 80, 81, 83, 84, 85, 87, 88, 90, 91, 92, 94, 95, 97, 98, 99, 101
a(n) = ceiling(n*sqrt(2)). - Vincenzo Librandi, Oct 22 2011
[A184580] 1, 2, 3, 5, 6, 8, 9, 10, 12, 13, 15, 16, 18, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 35, 36, 37, 39, 40, 42, 43, 44, 46, 47, 49, 50, 51, 53, 54, 56, 57, 59, 60, 61, 63, 64, 66, 67, 68, 70, 71, 73, 74, 76, 77, 78, 80, 81, 83, 84, 85, 87, 88, 90, 91, 92, 94, 95, 97, 98, 100, 101, 102, 104, 105, 107, 108, 109, 111, 112, 114, 115, 117, 118, 119, 121, 122, 124, 125, 126, 128, 129, 131, 132, 133, 135, 136, 138, 139, 141, 142, 143, 145, 146, 148, 149, 150, 152, 153, 155, 156, 158, 159, 160, 162, 163, 165, 166, 167, 169
a(n) = floor[(n-1/4)*sqrt(2)].
[A184622] 1, 2, 3, 5, 6, 8, 9, 10, 12, 13, 15, 16, 18, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 35, 36, 37, 39, 40, 42, 43, 44, 46, 47, 49, 50, 51, 53, 54, 56, 57, 59, 60, 61, 63, 64, 66, 67, 68, 70, 71, 73, 74, 76, 77, 78, 80, 81, 83, 84, 85, 87, 88, 90, 91, 93, 94, 95, 97, 98, 100, 101, 102, 104, 105, 107, 108, 109, 111, 112, 114, 115, 117, 118, 119, 121, 122, 124, 125, 126, 128, 129, 131, 132, 134, 135, 136, 138, 139, 141, 142, 143, 145, 146, 148, 149, 150, 152, 153, 155, 156, 158, 159, 160, 162, 163, 165, 166, 167, 169
a(n)=floor(nr+h), where r=sqrt(2), h=-1/3.
[A161188] 2, 3, 5, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 20, 21, 23, 24, 25, 27, 28, 29, 30, 32, 33, 34, 36, 37, 38, 39, 40, 42, 43, 44, 45, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 85, 86, 87, 88, 89
a(n) = floor(sqrt(prime(n))) + n. - Ilya Gutkovskiy, Feb 16 2017
[A093001] 2, 3, 5, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 20, 22, 23, 25, 26, 28, 29, 30, 32, 33, 35, 36, 37, 39, 40, 42, 43, 45, 46, 47, 49, 50, 52, 53, 54, 56, 57, 59, 60, 62, 63, 64, 66, 67, 69, 70, 71, 73, 74, 76, 77, 78, 80, 81, 83, 84, 86, 87, 88, 90, 91, 93, 94, 95, 97, 98, 100, 101
a(n) = ceiling((-1 + sqrt(8n^2 + 8n + 1))/2). - Joshua Zucker, May 08 2006
[A226721] 2, 3, 5, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 21, 22, 23, 25, 26, 28, 29, 31, 32, 33, 35, 36, 38, 39, 41, 42, 43, 45, 46, 48, 49, 51, 52, 53, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 71, 72, 73, 75, 76, 78, 79, 81, 82, 83, 85, 86, 88, 89, 91, 92, 93, 95
a(n) = floor(n*(1 + log_c(b)).
[A224996] 2, 3, 5, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 21, 22, 24, 25, 26, 28, 29, 31, 32, 34, 35, 37, 38, 39, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 57, 58, 60, 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 75, 77, 78, 80, 81, 83, 84, 86, 87, 88, 90, 91, 93, 94, 96, 97
a(n) = floor(n/log(2)-1/2). - Andrey Zabolotskiy, Dec 01 2017
[A248758] 0, 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 37, 39, 40, 42, 43, 44, 46, 47, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 71, 72, 74, 75, 77, 78, 80, 81, 83, 84, 85, 87, 88, 90, 91, 93, 94, 96
a(n) = ceiling(n*Pi^(1/3)).
[A267528] 1, 1, 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 47, 48, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65, 66, 68, 69, 71, 72, 74, 75, 77, 78, 80, 81, 83, 84, 86, 87, 89, 90, 92, 93, 95, 96, 98
a(n) = a(n-1)+a(n-2)-a(n-3) for n>4.
[A007494] 0, 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 47, 48, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65, 66, 68, 69, 71, 72, 74, 75, 77, 78, 80, 81, 83, 84, 86, 87, 89, 90, 92, 93, 95, 96, 98, 99, 101, 102, 104, 105, 107
a(n) = 3*n/2 if n even, otherwise (3*n+1)/2.
a(n) = (6*n+1)/4 - (-1)^n/4; a(n) = Sum_{k=0..n-1} (1 + (-1)^(k/2)*cos(k*Pi/2)). - Paul Barry, Aug 18 2007
a(n) = 3*n - a(n-1) - 1 (with a(0)=0). - Vincenzo Librandi, Nov 18 2010
a(n) = n + ceiling(n/2). - Arkadiusz Wesolowski, Sep 18 2012
a(n) = 2n - floor(n/2) = floor((3n+1)/2) = n + (n + (n mod 2))/2. - Wesley Ivan Hurt, Oct 19 2013
a(n) = n + floor(n/2) + (n mod 2). - Bruno Berselli, Apr 04 2016
[A005097] 1, 2, 3, 5, 6, 8, 9, 11, 14, 15, 18, 20, 21, 23, 26, 29, 30, 33, 35, 36, 39, 41, 44, 48, 50, 51, 53, 54, 56, 63, 65, 68, 69, 74, 75, 78, 81, 83, 86, 89, 90, 95, 96, 98, 99, 105, 111, 113, 114, 116, 119, 120, 125, 128, 131, 134, 135, 138, 140, 141, 146, 153, 155, 156
a(n) = floor(prime(n+1)/2) from Waldemar Puszkarz (see Mathematica field). - Bruno Berselli, Apr 20 2015
[A102781] 0, 1, 2, 3, 5, 6, 8, 9, 11, 14, 15, 18, 20, 21, 23, 26, 29, 30, 33, 35, 36, 39, 41, 44, 48, 50, 51, 53, 54, 56, 63, 65, 68, 69, 74, 75, 78, 81, 83, 86, 89, 90, 95, 96, 98, 99, 105, 111, 113, 114, 116, 119, 120, 125, 128, 131, 134, 135, 138, 140, 141, 146, 153, 155, 156
a(n) = prime_n - floor((prime_n)/2) - 1. Giovanni Teofilatto, Nov 05 2005
[A184590] 2, 3, 5, 6, 8, 10, 11, 13, 14, 16, 17, 19, 21, 22, 24, 25, 27, 29, 30, 32, 33, 35, 36, 38, 40, 41, 43, 44, 46, 48, 49, 51, 52, 54, 55, 57, 59, 60, 62, 63, 65, 67, 68, 70, 71, 73, 74, 76, 78, 79, 81, 82, 84, 86, 87, 89, 90, 92, 93, 95, 97, 98, 100, 101, 103, 104, 106, 108, 109, 111, 112, 114, 116, 117, 119, 120, 122, 123, 125, 127, 128, 130, 131, 133, 135, 136, 138, 139, 141, 142, 144, 146, 147, 149, 150, 152, 154, 155, 157, 158, 160, 161, 163, 165, 166, 168, 169, 171, 173, 174, 176, 177, 179, 180, 182, 184, 185, 187, 188, 190
a(n)=floor[(n*e+1)/(e-1)].
[A047448] 0, 2, 3, 5, 6, 8, 10, 11, 13, 14, 16, 18, 19, 21, 22, 24, 26, 27, 29, 30, 32, 34, 35, 37, 38, 40, 42, 43, 45, 46, 48, 50, 51, 53, 54, 56, 58, 59, 61, 62, 64, 66, 67, 69, 70, 72, 74, 75, 77, 78, 80, 82, 83, 85, 86, 88, 90, 91, 93, 94, 96, 98, 99, 101, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 40 + 3*(n mod 5) - 2*((n+1) mod 5) + 3*((n+2) mod 5) - 2*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-5, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A099267] 2, 3, 5, 6, 8, 10, 11, 13, 14, 16, 18, 19, 21, 23, 24, 26, 27, 29, 31, 32, 34, 35, 37, 39, 40, 42, 44, 45, 47, 48, 50, 52, 53, 55, 57, 58, 60, 61, 63, 65, 66, 68, 69, 71, 73, 74, 76, 78, 79, 81, 82, 84, 86, 87, 89, 90, 92, 94, 95, 97, 99, 100, 102, 103, 105, 107, 108, 110
a(n) = floor(n*phi + 2 - phi) where phi = (1 + sqrt(5))/2.
[A080276] 1, 2, 3, 5, 6, 8, 10, 12, 14, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 123, 125
a(n) = round(LambertW(3^((4*n-3)/2)*log(3)/2)/log(3)) = round(LambertW(x*exp((4*n-3)*x))/(2*x)), where x=log(sqrt(3)). - Antonio G. Astudillo (afg_astudillo(AT)hotmail.com), Feb 13 2003
[A011864] 0, 0, 0, 0, 1, 1, 2, 3, 5, 6, 8, 10, 12, 14, 16, 19, 21, 24, 27, 31, 34, 38, 42, 46, 50, 54, 59, 63, 68, 73, 79, 84, 90, 96, 102, 108, 114, 121, 127, 134, 141, 149, 156, 164, 172, 180, 188, 196, 205, 213, 222, 231, 241, 250, 260, 270, 280, 290, 300, 311, 321, 332, 343, 355
a(n) = +2*a(n-1) -a(n-2) +a(n-11) -2*a(n-12) +a(n-13). G.f.: x^4*(x^2-x+1)*(1+x^4)/ ((1-x)^3 * (1+x+x^2+x^3+x^4+x^5+x^6+x^7+x^8+x^9+x^10)). [From R. J. Mathar, Apr 15 2010]
[A249013] 0, 0, 1, 2, 3, 5, 6, 8, 10, 12, 15, 17, 20, 23, 26, 30, 33, 37, 41, 45, 50, 54, 59, 64, 69, 75, 80, 86, 92, 98, 105, 111, 118, 125, 132, 140, 147, 155, 163, 171, 180, 188, 197, 206, 215, 225, 234, 244, 254, 264, 275, 285, 296, 307, 318, 330, 341, 353, 365
a(n) = a(-3-n) for all n in Z.
a(n) = a(n-5) + n-1 for all n in Z.
a(n) + a(n+4) = min(a(n+1) + a(n+3), a(n+2) + a(n+2)) + 1 for all n in Z.
[A001971] 0, 0, 1, 1, 2, 3, 5, 6, 8, 10, 13, 15, 18, 21, 25, 28, 32, 36, 41, 45, 50, 55, 61, 66, 72, 78, 85, 91, 98, 105, 113, 120, 128, 136, 145, 153, 162, 171, 181, 190, 200, 210, 221, 231, 242, 253, 265, 276, 288, 300, 313, 325, 338, 351, 365, 378, 392, 406, 421, 435, 450
a(n) = floor((n^2+4)/8). - Paul Weisenhorn, Jun 05 2009
a(n) = a(-n) for all n in Z. - Michael Somos, Aug 29 2015
[A188064] 1, 2, 3, 5, 6, 8, 10, 16, 17, 19, 21, 27, 29, 35, 41, 65, 66, 68, 70, 76, 78, 84, 90, 114, 116, 122, 128, 152, 158, 182, 206, 326, 327, 329, 331, 337, 339, 345, 351, 375, 377, 383, 389, 413, 419, 443, 467, 587, 589, 595, 601, 625, 631, 655, 679, 799, 805, 829, 853, 973, 997, 1117
a(n)=sum(k=0,n,wt(k)!) where wt(k) is the Hamming weight of k.
[A268226] 2, 3, 5, 6, 8, 11, 12, 14, 15, 17, 20, 21, 23, 24, 26, 29, 30, 32, 33, 35, 38, 39, 41, 42, 44, 47, 48, 50, 51, 53, 56, 57, 59, 60, 62, 65, 66, 68, 69, 71, 74, 75, 77, 78, 80, 83, 84, 86, 87, 89, 92, 93, 95, 96, 98, 101, 102, 104, 105, 107, 110, 111, 113, 114
a(n) = a(n-1)+a(n-5)-a(n-6) for n>6.
[A247588] 1, 2, 3, 5, 6, 8, 11, 13, 15, 17, 21, 25, 27, 31, 34, 39, 43, 48, 52, 56, 63, 67, 73, 80, 84, 90, 96, 104, 111, 117, 126, 132, 140, 147, 154, 165, 172, 183, 189, 198, 210, 219, 229, 237, 247, 260, 270, 282, 292, 302

a(n) = Sum (j=0 .. n(1 - sqrt(2)/2), n - j - floor(sqrt(2*j*n - j^2))). - Anton Nikonov, Oct 06 2014
[A275341] 1, 2, 3, 5, 6, 8, 11, 13, 15, 18, 20, 23, 25, 28, 30, 33, 37, 39, 42, 46, 49, 52, 55, 58, 61, 64, 68, 71, 74, 78, 82, 85, 89, 92, 95, 99, 103, 107, 110, 114, 118, 121, 126, 129, 133
a(n) is the positions of ones in round(im(zetazero(n + 1))/(2*Pi)) - round(im(zetazero(n))/(2*Pi)), where n starts at 1.
[A216293] 2, 3, 5, 6, 8, 15, 16, 17, 23, 25, 26, 27, 28, 33, 34, 35, 37, 38, 40, 44, 49, 50, 52, 54, 56, 57, 59, 60, 65, 67, 70, 73, 75, 76, 91, 94, 97, 99, 101, 110, 112, 115, 118, 121, 122, 123, 127, 128, 129, 132, 136, 143, 149, 154, 155, 157, 161, 162, 172, 174
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A047449] 1, 2, 3, 5, 6, 9, 10, 11, 13, 14, 17, 18, 19, 21, 22, 25, 26, 27, 29, 30, 33, 34, 35, 37, 38, 41, 42, 43, 45, 46, 49, 50, 51, 53, 54, 57, 58, 59, 61, 62, 65, 66, 67, 69, 70, 73, 74, 75, 77, 78, 81, 82, 83, 85, 86, 89, 90, 91, 93, 94, 97, 98, 99, 101, 102, 105, 106
a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=6, a(6)=9, a(n)=a(n-1)+a(n-5)-a(n-6). - Harvey P. Dale, Mar 05 2015
[A047331] 2, 3, 5, 6, 9, 10, 12, 13, 16, 17, 19, 20, 23, 24, 26, 27, 30, 31, 33, 34, 37, 38, 40, 41, 44, 45, 47, 48, 51, 52, 54, 55, 58, 59, 61, 62, 65, 66, 68, 69, 72, 73, 75, 76, 79, 80, 82, 83, 86, 87, 89, 90, 93, 94, 96, 97, 100, 101, 103, 104, 107, 108, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-3-3*i^(2*n)-(1-i)*i^(-n)-(1+i)*i^n)/8 where i=sqrt(-1).
[A290564] 1, 2, 3, 5, 6, 9, 10, 13, 15, 21, 23, 27, 29, 33, 39, 43, 45, 52, 56, 61, 67, 71, 78, 85, 90, 95, 102, 110, 117, 124, 131, 137, 145, 153, 163, 167, 180, 190, 196, 201, 211, 218, 233, 241, 252, 261, 271, 281, 290, 302, 314, 320, 329, 344, 355, 371, 385, 393, 407, 416, 423, 443
a(n) = pi(2n^2) - pi(n^2).
[A117142] 1, 2, 3, 5, 6, 9, 10, 14, 15, 20, 21, 27, 28, 35, 36, 44, 45, 54, 55, 65, 66, 77, 78, 90, 91, 104, 105, 119, 120, 135, 136, 152, 153, 170, 171, 189, 190, 209, 210, 230, 231, 252, 253, 275, 276, 299, 300, 324, 325, 350, 351, 377, 378, 405, 406, 434, 435, 464, 465
a(n) = (2*n^2 + 10*n + 3 + (-1)^n * (2*n - 3))/16. - Birkas Gyorgy, Feb 20 2011
[A025523] 1, 2, 3, 5, 6, 9, 10, 14, 16, 19, 20, 28, 29, 32, 35, 43, 44, 52, 53, 61, 64, 67, 68, 88, 90, 93, 97, 105, 106, 119, 120, 136, 139, 142, 145, 171, 172, 175, 178, 198, 199, 212, 213, 221, 229, 232, 233, 281, 283, 291, 294, 302, 303, 323, 326, 346, 349, 352, 353, 397, 398, 401
a(n) = 1 + Sum_{k = 2 to n} a([n/k]) [From Mitchell Lee (worthawholephan(AT)gmail.com), Jul 26 2010]
[A008747] 1, 1, 2, 3, 5, 6, 9, 11, 14, 17, 21, 24, 29, 33, 38, 43, 49, 54, 61, 67, 74, 81, 89, 96, 105, 113, 122, 131, 141, 150, 161, 171, 182, 193, 205, 216, 229, 241, 254, 267, 281, 294, 309, 323, 338, 353, 369, 384, 401, 417, 434, 451, 469, 486, 505, 523, 542, 561
a(n) = ceiling((n+1)^2/6).
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=6, a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6) for n > 5. - Harvey P. Dale, Sep 05 2012
a(n) = a(-2-n) for all n in Z. - Michael Somos, Oct 25 2016
[A028309] 1, 1, 2, 3, 5, 6, 9, 11, 15, 18, 23, 27, 33, 38, 45, 51, 59, 66, 75, 83, 93, 102, 113, 123, 135, 146, 159, 171, 185, 198, 213, 227, 243, 258, 275, 291, 309, 326, 345, 363, 383, 402, 423, 443, 465, 486, 509, 531, 555
a(n) = (1/8) * (2*n^2 + 3*(-1)^n + 6*n + 4). - Ralf Stephan, Apr 29 2014
[A026810] 0, 0, 0, 0, 1, 1, 2, 3, 5, 6, 9, 11, 15, 18, 23, 27, 34, 39, 47, 54, 64, 72, 84, 94, 108, 120, 136, 150, 169, 185, 206, 225, 249, 270, 297, 321, 351, 378, 411, 441, 478, 511, 551, 588, 632, 672, 720, 764, 816, 864, 920, 972, 1033, 1089, 1154, 1215, 1285, 1350
a(n) = round(n^3+3n^2-9n[n odd])/144, where [...] denotes the Iverson bracket [true] = 1 and [false] = 0. - Washington Bomfim, Jul 03 2012
a(n) = (n^3 + 3*n^2 - 9*n)/144 + a(m) - (m^3 + 3*m^2 - 9*m)/144 if n = 12k + m and m is odd. For example, a(23) = a(12*1 + 11) = (23^3 + 3*23^2 - 9*23)/144 + a(11) - (11^3 + 3*11^2 - 9*11)/144 = 94.
a(n) = (n^3 + 3*n^2)/144 + a(m) - (m^3 + 3*m^2)/144 if n = 12k + m and m is even. For example, a(22) = a(12*1 + 10) = (22^3 + 3*22^2)/144 + a(10) - (10^3 + 3*10^2)/144 = 84. (End)
[A001400] 1, 1, 2, 3, 5, 6, 9, 11, 15, 18, 23, 27, 34, 39, 47, 54, 64, 72, 84, 94, 108, 120, 136, 150, 169, 185, 206, 225, 249, 270, 297, 321, 351, 378, 411, 441, 478, 511, 551, 588, 632, 672, 720, 764, 816, 864, 920, 972, 1033, 1089, 1154, 1215, 1285, 1350, 1425, 1495
a(n) = 1+(a(n-2)+a(n-3)+a(n-4))-(a(n-5)+a(n-6)+a(n-7))+a(n-9). - Norman J. Meluch (norm(AT)iss.gm.com), Mar 09 2000
a(n) = round(((n+4)^3 + 3*(n+4)^2 -9*(n+4)*((n+4) mod 2))/144). - Washington Bomfim, Jul 03 2012
a(n) = a(n-1)+a(n-2)-2*a(n-5)+a(n-8)+a(n-9)-a(n-10). - David Neil McGrath, Sep 12 2014
a(n) = -a(-10-n) for all n in Z. - Michael Somos, Dec 29 2014
a(n) - a(n+1) - a(n+3) + a(n+4) = 0 if n odd else floor(n / 4) + 2 for all n in Z. - Michael Somos, Dec 29 2014
a(n) = n^3/144 + n^2/24 - 7*n/144 + 1 + floor(n/4)/4 + floor(n/3)/3 + (n+5)*floor(n/2)/8 + floor((n+1)/4)/4. - Vaclav Kotesovec, Aug 18 2015
[A008770] 1, 1, 2, 3, 5, 6, 9, 11, 15, 19, 24, 29, 37, 44, 53, 63, 75, 87, 102, 117, 135, 154, 175, 197, 223, 249, 278, 309, 343, 378, 417, 457, 501, 547, 596, 647, 703, 760, 821, 885, 953, 1023, 1098, 1175, 1257
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=6, a(6)=9, a(7)=11, a(8)=15, a(n)=2*a(n-1)-a(n-2)+a(n-3)-a(n-4)-a(n-5)+a(n-6)-a(n-7)+2*a(n-8)-a(n-9). - Harvey P. Dale, Oct 02 2012
[A008769] 1, 1, 2, 3, 5, 6, 9, 11, 16, 19, 25, 30, 39, 45, 56, 65, 79, 90, 107, 121, 142, 159, 183, 204, 233, 257, 290, 319, 357, 390, 433, 471, 520, 563, 617, 666, 727, 781, 848, 909, 983, 1050, 1131, 1205, 1294
a(n) = 1 + 5*n/72 - n^2/12 + n^3/72 + 1/2*floor(n/4) + 1/3*floor(n/3) + (1/4 + n/4)*floor(n/2) + 1/2*floor((1 + n)/4) + 1/3*floor((1 + n)/3). - Vaclav Kotesovec, Apr 29 2014
a(n) = round((n+1)*(2*n^2+4*n+83+9*(-1)^n)/144). - Tani Akinari, May 13 2014
[A283768] 2, 3, 5, 6, 9, 12, 15, 16, 18, 19, 22, 25, 28, 29, 31, 32, 34, 35, 38, 41, 42, 44, 45, 47, 48, 51, 54, 55, 57, 58, 60, 61, 64, 67, 70, 71, 73, 74, 77, 80, 83, 84, 86, 87, 89, 90, 93, 96, 97, 99, 100, 102, 103, 106, 109, 110, 112, 113, 115, 116, 119, 122, 125
a(n+1) - a(n) is in {1,2,3} for every n.
[A008768] 1, 1, 2, 3, 5, 6, 9, 12, 16, 20, 26, 32, 40, 48, 58, 69, 82, 95, 111, 128, 147, 167, 190, 214, 241, 269, 300, 333, 369, 406, 447, 490, 536, 584, 636, 690, 748, 808, 872, 939, 1010, 1083, 1161, 1242, 1327, 1415, 1508, 1604, 1705, 1809, 1918, 2031, 2149, 2270
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=6, a(6)=9, a(7)=12, a(8)=16, a(n)=2*a(n-1)-a(n-2)+a(n-3)-a(n-4)-a(n-5)+a(n-6)-a(n-7)+2*a(n-8)-a(n-9). - Harvey P. Dale, Jul 06 2011
a(n) = floor((2*n^3+9*n^2+72*n+160)/144). - Tani Akinari, May 13 2014
[A212584] 1, 1, 2, 3, 5, 6, 9, 12, 18, 24, 34, 46, 65, 89, 124, 170, 236, 325, 450, 620, 857, 1182, 1633, 2253, 3111, 4293, 5927, 8180, 11292, 15585, 21513, 29693, 40986, 56571, 78085, 107778, 148765, 205336, 283422, 391200, 539966, 745302, 1028725, 1419925, 1959892
a(n) = a(n-2) + a(n-4) + a(n-5) + 1, a(0..4) = {1,1,2,3,5}.
a(n) = g(n) + sum(j=0..n-4, g(j) * sum(k=1..(n-j)/4, binomial(n-j-3*k-1, k-1))), g(j) = if(j<3,1,2) + floor(j/2).
[A131761] 0, 1, 2, 3, 5, 6, 9, 19, 30, 51, 101, 150, 249, 499, 750, 1251, 2501, 3750, 6249, 12499, 18750, 31251, 62501, 93750, 156249, 312499, 468750, 781251, 1562501, 2343750, 3906249, 7812499, 11718750, 19531251, 39062501, 58593750, 97656249, 195312499, 292968750
a(n) = a(n-1)-a(n-2)+5*a(n-3)-5*a(n-4)+5*a(n-5) for n>7. - Colin Barker, Nov 04 2014
[A047447] 2, 3, 5, 6, 10, 11, 13, 14, 18, 19, 21, 22, 26, 27, 29, 30, 34, 35, 37, 38, 42, 43, 45, 46, 50, 51, 53, 54, 58, 59, 61, 62, 66, 67, 69, 70, 74, 75, 77, 78, 82, 83, 85, 86, 90, 91, 93, 94, 98, 99, 101, 102, 106, 107, 109, 110, 114, 115, 117, 118, 122, 123
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (1+i)*(4*n-4*n*i+2*i-2-(1-i)*i^(2*n)+i^(1-n)-i^n)/4 where i=sqrt(-1).
[A003238] 1, 1, 2, 3, 5, 6, 10, 11, 16, 19, 26, 27, 40, 41, 53, 61, 77, 78, 104, 105, 134, 147, 175, 176, 227, 233, 275, 294, 350, 351, 438, 439, 516, 545, 624, 640, 774, 775, 881, 924, 1069, 1070, 1265, 1266, 1444, 1521, 1698, 1699
a(n) = 1 + sum of a(i) such that n == 1 (mod i). - Jon Perry, Nov 20 2012
[A053436] 2, 3, 5, 6, 10, 11, 18, 19, 30, 31, 47, 48, 70, 71, 100, 101, 138, 139, 185, 186, 242, 243, 310, 311, 390, 391, 483, 484, 590, 591, 712, 713, 850, 851, 1005, 1006, 1178, 1179, 1370, 1371, 1582, 1583, 1815, 1816, 2070, 2071, 2348, 2349, 2650, 2651
a(n) = a(n-1) +3 a(n-2) -3 a(n-3) -3 a(n-4) +3 a(n-5) +a(n-6) -a(n-7). - R. J. Mathar, Mar 11 2012
a(n) = (2*n^3+3*n^2+91*n+93-3*(n^2+n-1)*(-1)^n)/96. - Luce ETIENNE, Oct 22 2014
[A138587] 0, 1, 2, 3, 5, 6, 10, 11, 21, 22, 42, 43, 85, 86, 170, 171, 341, 342, 682, 683, 1365, 1366, 2730, 2731, 5461, 5462, 10922, 10923, 21845, 21846, 43690, 43691, 87381, 87382, 174762, 174763, 349525, 349526, 699050, 699051, 1398101, 1398102, 2796202, 2796203, 5592405
a(n+8) == a(n) (mod 10), n > 1.

a(2*n+1) - a(2*n) = 1.
a(n) = -a(n-1) +a(n-2) +a(n-3) +2*a(n-4) +2*a(n-5), n>6.
[A161715] 1, 2, 3, 5, 6, 10, 15, 30, 171, 886, 3359, 10143, 26072, 59502, 123931, 240048, 438261, 761754, 1270123, 2043641, 3188202, 4840994, 7176951, 10416034, 14831391, 20758446, 28604967, 38862163, 52116860, 69064806, 90525155, 117456180
a(n) = C(n,0) + C(n,1) + C(n,3) - 3*C(n,4) + 9*C(n,5) - 21*C(n,6) + 50*C(n,7).
[A127524] 1, 1, 2, 3, 5, 6, 11, 12, 20, 25, 42, 43, 81, 82, 150, 192, 287, 288, 563, 564, 982, 1277, 2182, 2183, 3658, 3785, 7108, 8659, 13101, 13102, 27827, 27828, 47768, 61025, 102355, 105689, 170882, 170883, 329651, 421547, 606283, 606284, 1193038, 1193039, 2158117
a(1) = 1; a(n+1) = Sum_{d|n} C(a(n/d) + d-1, d).
[A038196] 1, 1, 1, 2, 3, 5, 6, 11, 14, 25, 31, 56, 70, 126, 157, 283, 353, 636, 793, 1429, 1782, 3211, 4004, 7215, 8997, 16212, 20216, 36428, 45425, 81853, 102069, 183922, 229347, 413269, 515338, 928607, 1157954, 2086561, 2601899, 4688460, 5846414
a(n)=a(n-1)+a(n-2) if n is odd, a(n)=a(n-1)+a(n-4) if n is even. Also: a(n)=2a(n-2)+a(n-4)-a(n-6).
[A078913] 1, 1, 2, 3, 5, 6, 11, 17, 19, 36, 55, 58, 113, 171, 176, 347, 523, 529, 1052, 1581, 1592, 3173, 4765, 4782, 9547, 14329, 14348, 28677, 43025, 43061, 86086, 129147, 129202, 258349, 387551, 387609, 775160, 1162769, 1162882, 2325651, 3488533, 3488704
a(3n) is asymptotic to c*3^n, a(3n+1) to 2*c*3^n, a(3n+2) to 3*c*3^n where c=0.7294077182495580205611557145496836187642515585056 16....
[A127525] 1, 1, 2, 3, 5, 6, 12, 13, 24, 33, 60, 61, 142, 143, 289, 447, 699, 700, 1558, 1559, 3518, 5375, 8977, 8978, 17179, 20305, 40471, 54808, 98182, 98183, 242068, 242069, 477002, 695051, 1183654, 1510612, 2629806, 2629807, 5057173, 7928654, 12366025
a(1) = 1; a(n+1) = sum_{d|n} a(n/d)^d.
[A047373] 0, 1, 2, 3, 5, 7, 8, 9, 10, 12, 14, 15, 16, 17, 19, 21, 22, 23, 24, 26, 28, 29, 30, 31, 33, 35, 36, 37, 38, 40, 42, 43, 44, 45, 47, 49, 50, 51, 52, 54, 56, 57, 58, 59, 61, 63, 64, 65, 66, 68, 70, 71, 72, 73, 75, 77, 78, 79, 80, 82, 84, 85, 86, 87, 89, 91, 92
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 7 for n > 5.
a(n) = (35*n - 50 - 3*(n mod 5) + 2*((n+1) mod 5) + 2*((n+2) mod 5) + 2*((n+3) mod 5) - 3*((n+4) mod 5))/25.
a(5*k) = 7*k-2, a(5*k-1) = 7*k-4, a(5*k-2) = 7*k-5, a(5*k-3) = 7*k-6, a(5*k-4) = 7*k-7. (End)
[A186042] 1, 2, 3, 5, 7, 8, 9, 11, 13, 14, 15, 17, 18, 19, 20, 21, 23, 25, 26, 27, 28, 29, 31, 32, 33, 35, 37, 38, 39, 41, 43, 44, 45, 47, 48, 49, 50, 51, 53, 55, 56, 57, 58, 59, 61, 62, 63, 65, 67, 68, 69, 71, 73, 74, 75, 77, 78, 79, 80, 81, 83, 85, 86, 87, 88, 89, 91, 92, 93, 95, 97
a(n) = a(n-22) + 30.
a(n) = a(n-1) + a(n-22) - a(n-23).
[A047255] 1, 2, 3, 5, 7, 8, 9, 11, 13, 14, 15, 17, 19, 20, 21, 23, 25, 26, 27, 29, 31, 32, 33, 35, 37, 38, 39, 41, 43, 44, 45, 47, 49, 50, 51, 53, 55, 56, 57, 59, 61, 62, 63, 65, 67, 68, 69, 71, 73, 74, 75, 77, 79, 80, 81, 83, 85, 86, 87, 89, 91, 92, 93, 95, 97, 98, 99, 101, 103, 104
a(n) = {n | n == 1, 2, 3, 5 (mod 6)}.
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4), for n>4.
a(n) = (6n - 4 + i^(1-n) + i^(n-1))/4, where i=sqrt(-1).
[A187332] 2, 3, 5, 7, 8, 9, 12, 13, 15, 17, 18, 19, 22, 23, 25, 27, 28, 29, 32, 33, 35, 37, 38, 39, 42, 43, 45, 47, 48, 49, 52, 53, 55, 57, 58, 59, 62, 63, 65, 67, 68, 69, 72, 73, 75, 77, 78, 79, 82, 83, 85, 87, 88, 89, 92, 93, 95, 97, 98, 99, 102, 103, 105, 107, 108
a(n) = a(n-1) + a(n-6) - a(n-7) for n > 7.
[A076798] 1, 2, 3, 5, 7, 8, 10, 11, 12, 14, 20, 21, 22, 25, 28, 33, 35, 37, 38, 39, 44, 45, 47, 49, 50, 52, 55, 56, 58, 59, 61, 63, 64, 71, 72, 78, 83, 84, 85, 88, 89, 93, 94, 96, 98, 100, 101, 104, 105, 106, 109, 114, 116, 117, 120, 121, 122, 125, 133, 134, 138, 140, 141, 142
a(n) = Sum_{k=1..n} floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(pi/6) and frac(y) = y - floor(y).
[A184588] 2, 3, 5, 7, 8, 10, 11, 13, 15, 16, 18, 19, 21, 22, 24, 26, 27, 29, 30, 32, 34, 35, 37, 38, 40, 41, 43, 45, 46, 48, 49, 51, 52, 54, 56, 57, 59, 60, 62, 64, 65, 67, 68, 70, 71, 73, 75, 76, 78, 79, 81, 83, 84, 86, 87, 89, 90, 92, 94, 95, 97, 98, 100, 102, 103, 105, 106, 108, 109, 111, 113, 114, 116, 117, 119, 121, 122, 124, 125, 127, 128, 130, 132, 133, 135, 136, 138, 140, 141, 143, 144, 146, 147, 149, 151, 152, 154, 155, 157, 158, 160, 162, 163, 165, 166, 168, 170, 171, 173, 174, 176, 177, 179, 181, 182, 184, 185, 187, 189, 190
a(n)=floor[(n+1/2)*e/(e-1)].
[A047488] 0, 2, 3, 5, 7, 8, 10, 11, 13, 15, 16, 18, 19, 21, 23, 24, 26, 27, 29, 31, 32, 34, 35, 37, 39, 40, 42, 43, 45, 47, 48, 50, 51, 53, 55, 56, 58, 59, 61, 63, 64, 66, 67, 69, 71, 72, 74, 75, 77, 79, 80, 82, 83, 85, 87, 88, 90, 91, 93, 95, 96, 98, 99, 101, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 35 - 2*(n mod 5) - 2*((n+1) mod 5) + 3*((n+2) mod 5) - 2*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-3, a(5k-2) = 8k-5, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A047222] 0, 2, 3, 5, 7, 8, 10, 12, 13, 15, 17, 18, 20, 22, 23, 25, 27, 28, 30, 32, 33, 35, 37, 38, 40, 42, 43, 45, 47, 48, 50, 52, 53, 55, 57, 58, 60, 62, 63, 65, 67, 68, 70, 72, 73, 75, 77, 78, 80, 82, 83, 85, 87, 88, 90, 92, 93, 95, 97, 98, 100, 102, 103, 105, 107
a(n) = floor((5*n-4)/3). - Gary Detlefs, Oct 28 2011
a(n) = 2*n - 2 - floor(n/3). - Wesley Ivan Hurt, Nov 07 2013
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (15*n-15-3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-2, a(3k-1) = 5k-3, a(3k-2) = 5k-5. (End)
a(n) = n - 1 + floor((2n-1)/3). - Wesley Ivan Hurt, Dec 27 2016
[A060107] 0, 2, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 20, 22, 24, 26, 27, 29, 31, 32, 34, 36, 38, 39, 41, 43, 44, 46, 48, 50, 51, 53, 55, 56, 58, 60, 62, 63, 65, 67, 68, 70, 72, 74, 75, 77, 79, 80, 82, 84, 86, 87, 89, 91, 92, 94, 96, 98, 99, 101, 103, 104, 106, 108, 110, 111, 113, 115
a(n) = a(n-7) + 12 for n>7.
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (84*n - 91 - 2*(n mod 7) + 5*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) + 5*((n+4) mod 7) - 2*((n+5) mod 7) - 2*((n+6) mod 7))/49.
a(7k) = 12k-2, a(7k-1) = 12k-4, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-10, a(7k-6) = 12k-12. (End)
[A083028] 0, 2, 3, 5, 7, 8, 11, 12, 14, 15, 17, 19, 20, 23, 24, 26, 27, 29, 31, 32, 35, 36, 38, 39, 41, 43, 44, 47, 48, 50, 51, 53, 55, 56, 59, 60, 62, 63, 65, 67, 68, 71, 72, 74, 75, 77, 79, 80, 83, 84, 86, 87, 89, 91, 92, 95, 96, 98, 99, 101, 103, 104, 107, 108, 110, 111
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (84*n - 84 - 9*(n mod 7) + 5*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) + 5*((n+4) mod 7) - 2*((n+5) mod 7) + 5*((n+6) mod 7))/49.
a(7k) = 12k-1, a(7k-1) = 12k-4, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-10, a(7k-6) = 12k-12. (End)
[A287893] 0, 0, 0, 1, 2, 3, 5, 7, 8, 11, 13, 15, 18, 21, 24, 28, 32, 35, 40, 44, 48, 53, 58, 63, 69, 75, 80, 87, 93, 99, 106, 113, 120, 128, 136, 143, 152, 160, 168, 177, 186, 195, 205, 215, 224, 235, 245, 255, 266, 277, 288, 300, 312, 323, 336, 348, 360, 373, 386
a(n) = 2*a(n-1) - a(n-2) + a(n-9) - 2*a(n-10) + a(n-11) for n>10.
a(n) = floor(n*(n+2)/9). - Alois P. Heinz, Jun 02 2017
[A245227] 0, 2, 3, 5, 7, 9, 10, 12, 13, 15, 17, 18, 19, 21, 22, 25, 26, 27, 29, 30, 32, 34, 35, 37, 38, 40, 42, 43, 44, 46, 47, 50, 51, 52, 54, 55, 57, 59, 60, 62, 63, 65, 67, 68, 69, 71, 72, 75, 76, 77, 79, 80, 82, 84, 85, 87, 88, 90, 92, 93, 94, 96, 97, 100, 101, 102
a(n) = floor(25/16*n) - 1 if n == 2,4,9,13, or 15 mod 16 or if n = 1 or 3
a(n) = floor(25/16*n) otherwise
a(n+16) = a(n) + 25 for n > 3.
[A083033] 0, 2, 3, 5, 7, 9, 10, 12, 14, 15, 17, 19, 21, 22, 24, 26, 27, 29, 31, 33, 34, 36, 38, 39, 41, 43, 45, 46, 48, 50, 51, 53, 55, 57, 58, 60, 62, 63, 65, 67, 69, 70, 72, 74, 75, 77, 79, 81, 82, 84, 86, 87, 89, 91, 93, 94, 96, 98, 99, 101, 103, 105, 106, 108, 110, 111
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (84*n - 84 + 5*(n mod 7) - 2*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) + 5*((n+4) mod 7) - 2*((n+5) mod 7) - 2*((n+6) mod 7))/49.
a(7k) = 12k-2, a(7k-1) = 12k-3, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-10, a(7k-6) = 12k-12. (End)
[A022847] 0, 2, 3, 5, 7, 9, 10, 12, 14, 16, 17, 19, 21, 23, 24, 26, 28, 29, 31, 33, 35, 36, 38, 40, 42, 43, 45, 47, 48, 50, 52, 54, 55, 57, 59, 61, 62, 64, 66, 68, 69, 71, 73, 74, 76, 78, 80, 81, 83, 85, 87, 88, 90, 92, 94, 95, 97, 99, 100, 102, 104, 106, 107, 109, 111, 113
a(n+1) - a(n) = 1 or 2. Philippe Deléham, Mar 09 2013

[A047371] 0, 2, 3, 5, 7, 9, 10, 12, 14, 16, 17, 19, 21, 23, 24, 26, 28, 30, 31, 33, 35, 37, 38, 40, 42, 44, 45, 47, 49, 51, 52, 54, 56, 58, 59, 61, 63, 65, 66, 68, 70, 72, 73, 75, 77, 79, 80, 82, 84, 86, 87, 89, 91, 93, 94, 96, 98, 100, 101, 103, 105, 107, 108, 110
a(n) = floor((7n-6)/4). [Gary Detlefs, Mar 06 2010]
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = i^(-n)*((14*n-15)*i^n+i-1-(1+i)*i^(2*n)+i^(-n))/8 where i=sqrt(-1).
[A190785] 0, 2, 3, 5, 7, 9, 11, 12, 14, 15, 17, 19, 21, 23, 24, 26, 27, 29, 31, 33, 35, 36, 38, 39, 41, 43, 45, 47, 48, 50, 51, 53, 55, 57, 59, 60, 62, 63, 65, 67, 69, 71, 72, 74, 75, 77, 79, 81, 83, 84, 86, 87, 89, 91, 93, 95, 96, 98, 99, 101, 103, 105, 107, 108, 110
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8; G.f.: (2+x+2*x^2+2*x^3+2*x^4+2*x^5+x^6) / ((x^6+x^5+x^4+x^3+x^2+x+1)*(x-1)^2). - R. J. Mathar, May 26 2011
a(n) = 2*n-floor(2*n/7)-floor(((n-4) mod 7)/5). - Rolf Pleisch, Jun 11 2011
a(n) = a(n-7) + 12 for n>7.
a(n) = (84*n - 77 - 2*(n mod 7) - 2*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) + 5*((n+4) mod 7) - 2*((n+5) mod 7) + 5*((n+6) mod 7))/49.
a(7*k) = 12*k-1, a(7*k-1) = 12*k-3, a(7*k-2) = 12*k-5, a(7*k-3) = 12*k-7, a(7*k-4) = 12*k-9, a(7*k-5) = 12*k-10, a(7*k-6) = 12*k-12. (End)
[A004274] 0, 1, 2, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131
a(n) = 2*n - 3 + floor(2/n), n > 0. - Wesley Ivan Hurt, May 23 2013
a(n) = 2*a(n-1) - a(n-2) for n > 4.
[A004280] 1, 2, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131
a(n) = 2*n - 3 + floor(2/n). - Wesley Ivan Hurt, May 23 2013
[A095737] 2, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 25, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269
a(n) =if (2^n-1)/(Prime[m]^2-n^2-1)=Integer then n
[A046654] 0, 1, 2, 3, 5, 7, 9, 11, 13, 15, 18, 20, 23, 25, 28, 31, 34, 36, 39, 42, 45, 48, 52, 55, 58, 61, 65, 68, 71, 75, 78, 82, 85, 89, 92, 96, 99, 103, 107, 110, 114, 118, 122, 125, 129, 133, 137, 141, 145, 148, 152, 156, 160, 164, 168, 172, 176, 180
a(n) = n*log(n) - n + O(log(n)). - Arkadiusz Wesolowski, Oct 18 2013
a(n) = round(LogGamma(n + 1)). - Mats Granvik, Roger L. Bagula, Aug 06 2016
[A280724] 1, 2, 3, 5, 7, 9, 11, 13, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 73, 77, 81, 85, 89, 93, 97, 101, 105, 109, 113, 117, 121, 125, 129, 133, 137, 141, 145, 149, 153, 157, 161, 165, 169, 173, 177, 181, 185, 189, 193, 197, 201, 205, 209, 213, 217, 221, 225, 229, 233, 237, 241, 245
a(n) = 1 + Sum_{k=1..n} floor(log_3(k)) + 1.
[A129895] 1, 2, 3, 5, 7, 9, 11, 13, 15, 18, 21, 25, 29, 33, 37, 41, 45, 50, 55, 61, 67, 73, 79, 85, 91, 98, 105, 113, 121, 129, 137, 145, 153, 162, 171, 181, 191, 201, 211, 221, 231, 242, 253, 265, 277, 289, 301, 313, 325, 338, 351, 365, 379, 393, 407, 421, 435, 450, 465, 481
a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=7, a(6)=9, a(7)=11, a(8)=13, a(n)= 2*a(n-1)- 2*a(n-3)+ 2*a(n-5)-2*a(n-7)+a(n-8). - Harvey P. Dale, May 16 2014
[A022554] 0, 1, 2, 3, 5, 7, 9, 11, 13, 16, 19, 22, 25, 28, 31, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 131, 137, 143, 149, 155, 161, 167, 173, 179, 185, 191, 197, 203, 210, 217, 224, 231, 238, 245, 252, 259, 266, 273, 280
a(0)=0, a(1)=1; a(n) = 2 a(n-1) - a(n-2) if n is not a perfect square; a(n) = 2 a(n-1) - a(n-2) + 1 if n is a perfect square.
a(n) = floor(sqrt(n)) * (n-1/6*(2*floor(sqrt(n))+5)*(floor(sqrt(n))-1)). - Yong Kong (ykong(AT)curagen.com), Mar 10 2001
a(n) = 2/3 n^(3/2) - 1/2 n + O(sqrt(n)). - Charles R Greathouse IV, Jan 12 2012
[A097046] 1, 2, 3, 5, 7, 9, 11, 13, 16, 19, 22, 25, 28, 31, 34, 39, 44, 49, 54, 59, 64, 69, 74, 79, 86, 93, 100, 107, 114, 121, 128, 135, 142, 149, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 255, 264, 273, 284, 295, 306, 317, 328, 339, 350, 361, 372, 383, 394, 405
a(1)=1; a(n) = a(n-1) + a(floor(sqrt(n))) for n > 1.
[A011861] 0, 0, 0, 0, 1, 2, 3, 5, 7, 9, 11, 13, 16, 19, 22, 26, 30, 34, 38, 42, 47, 52, 57, 63, 69, 75, 81, 87, 94, 101, 108, 116, 124, 132, 140, 148, 157, 166, 175, 185, 195, 205, 215, 225, 236, 247, 258, 270, 282, 294, 306, 318, 331, 344, 357, 371, 385, 399, 413, 427, 442, 457, 472
a(n) = +3*a(n-1) -4*a(n-2) +4*a(n-3) -4*a(n-4) +4*a(n-5) -4*a(n-6) +4*a(n-7) -3*a(n-8) +a(n-9).
[A241907] 1, 2, 3, 5, 7, 9, 11, 14, 17, 20, 23, 26, 29, 33, 36, 40, 44, 48, 52, 56, 60, 65, 69, 74, 78, 83, 88, 93, 98, 103, 108, 114, 119, 124, 130, 136, 141, 147, 153, 159, 165, 171, 177, 183, 189, 196, 202, 209, 215, 222, 229, 235, 242, 249, 256, 263, 270, 277, 284, 292, 299, 306, 314, 321, 329, 336, 344, 352, 360, 367, 375, 383, 391, 399, 408, 416, 424, 432, 441, 449, 457, 466, 474, 483, 492, 500, 509, 518, 527, 536, 545, 554, 563, 572, 581, 590, 599, 609, 618, 627, 637, 646, 656, 665, 675, 685, 694, 704, 714, 724, 734, 744, 753, 764, 774, 784, 794, 804, 814, 825, 835, 845, 856, 866, 877, 887, 898, 908, 919, 930, 940, 951, 962, 973, 984, 995, 1006
a(n) = floor(Catalan(2*n) / Catalan(n)^2).
[A056834] 0, 0, 0, 1, 2, 3, 5, 7, 9, 11, 14, 17, 20, 24, 28, 32, 36, 41, 46, 51, 57, 63, 69, 75, 82, 89, 96, 104, 112, 120, 128, 137, 146, 155, 165, 175, 185, 195, 206, 217, 228, 240, 252, 264, 276, 289, 302, 315, 329, 343, 357, 371, 386, 401, 416, 432, 448
a(n)= +2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9).
[A071423] 1, 2, 3, 5, 7, 9, 12, 15, 18, 22, 26, 30, 34, 39, 44, 49, 55, 61, 67, 74, 81, 88, 95, 103, 111, 119, 128, 137, 146, 156, 166, 176, 186, 197, 208, 219, 231, 243, 255, 268, 281, 294, 307, 321, 335, 349, 364, 379, 394, 410, 426, 442, 458, 475, 492, 509, 527, 545
a(n) = 0.5 log 2/log 10 * n^2 + O(n)
[A062781] 0, 0, 0, 1, 2, 3, 5, 7, 9, 12, 15, 18, 22, 26, 30, 35, 40, 45, 51, 57, 63, 70, 77, 84, 92, 100, 108, 117, 126, 135, 145, 155, 165, 176, 187, 198, 210, 222, 234, 247, 260, 273, 287, 301, 315, 330, 345, 360, 376, 392
a(n)=P(n, 4), where: P[n, k] = n*Floor[n/(k - 1)] - (1/2)(k - 1)(Floor[n/(k - 1)]*(Floor[n/(k - 1)] + 1)) recursion: a(n)=a(n-3)+n-3; a(1)=a(2)=a(3)=0
a(n)=1/2*floor((n-1)/3)*(2n-3-3*floor((n-1)/3)). G.f.: g(x)=x^4/((1-x^3)(1-x)^2). - Hieronymus Fischer, Jun 01 2007
[A130518] 0, 0, 0, 1, 2, 3, 5, 7, 9, 12, 15, 18, 22, 26, 30, 35, 40, 45, 51, 57, 63, 70, 77, 84, 92, 100, 108, 117, 126, 135, 145, 155, 165, 176, 187, 198, 210, 222, 234, 247, 260, 273, 287, 301, 315, 330, 345, 360, 376, 392, 408, 425, 442, 459, 477, 495, 513, 532, 551, 570
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5).
a(n) = round(n*(n-1)/6) = round((n^2-n-1)/6) = floor(n*(n-1)/6) = ceil((n+1)*(n-2)/6). [Mircea Merca, Nov 28 2010]
a(n) = a(n-3)+n-2, n>2. [Mircea Merca, Nov 28 2010]
a(n) = (3*n*(n-1) - (-1)^n*((1+i*sqrt(3))^(n-2)+(1-i*sqrt(3))^(n-2))/2^(n-3) - 2)/18, where i=sqrt(-1). [Bruno Berselli, Nov 30 2014]
[A001840] 0, 1, 2, 3, 5, 7, 9, 12, 15, 18, 22, 26, 30, 35, 40, 45, 51, 57, 63, 70, 77, 84, 92, 100, 108, 117, 126, 135, 145, 155, 165, 176, 187, 198, 210, 222, 234, 247, 260, 273, 287, 301, 315, 330, 345, 360, 376, 392, 408, 425, 442, 459, 477, 495, 513, 532, 551, 570, 590
a(3*k-1) = k*(3*k + 1)/2;
a(3*k) = 3*k*(k + 1)/2;
a(3*k+1) = (k + 1)*(3*k + 2)/2.
a(n) = a(n-3)+n for n>2, a(0)=0, a(1)=1, a(2)=2. - Paul Barry, Jul 14 2004
a(n) = binomial(n+3, 3)/(n+3) + cos(2*Pi*(n-1)/3)/9 + sqrt(3)sin(2*Pi*(n-1)/3)/9 - 1/9. - Paul Barry, Jan 01 2005
a(n) = Sum_{k=0..n} k*(cos(2*Pi*(n-k)/3+Pi/3)/3+sqrt(3)*sin(2*Pi*(n-k)/3+Pi/3)/3+1/3).
[A005704] 1, 2, 3, 5, 7, 9, 12, 15, 18, 23, 28, 33, 40, 47, 54, 63, 72, 81, 93, 105, 117, 132, 147, 162, 180, 198, 216, 239, 262, 285, 313, 341, 369, 402, 435, 468, 508, 548, 588, 635, 682, 729, 783, 837, 891, 954, 1017, 1080, 1152, 1224, 1296, 1377, 1458, 1539, 1632
a(n) = a(n-1)+a(floor(n/3)).
a(n) mod 3 = binomial(2n, n) mod 3. - Benoit Cloitre, Jan 04 2004
[A283968] 1, 2, 3, 5, 7, 9, 12, 15, 19, 23, 27, 32, 37, 42, 48, 54, 61, 68, 75, 83, 91, 100, 109, 118, 128, 138, 148, 159, 170, 182, 194, 206, 219, 232, 245, 259, 273, 288, 303, 318, 334, 350, 367, 384, 401, 419, 437, 455, 474, 493, 513, 533, 553, 574, 595, 617, 639
a(n) = a(n-1) + 1 + floor(n*(3 + sqrt(5))/2), a(0) = 1.
[A039825] 2, 3, 5, 7, 9, 12, 16, 20, 24, 29, 35, 41, 47, 54, 62, 70, 78, 87, 97, 107, 117, 128, 140, 152, 164, 177, 191, 205, 219, 234, 250, 266, 282, 299, 317, 335, 353, 372, 392, 412, 432, 453, 475, 497, 519, 542, 566, 590, 614, 639
a(n) = sum_{k=0..n} ((1/12)*((k mod 4) + 4*((k+1) mod 4) + ((k+2) mod 4) - 2*((k+3) mod 4))) + a(n-1), with a(0)=2. - Paolo P. Lava, Aug 24 2007

[A080000] 1, 1, 1, 1, 1, 2, 3, 5, 7, 9, 12, 16, 24, 35, 50, 70, 96, 135, 190, 270, 383, 539, 759, 1065, 1500, 2116, 2985, 4212, 5932, 8356, 11770, 16585, 23381, 32953, 46445, 65445, 92216, 129951, 183129, 258091, 363719, 512566, 722316, 1017886, 1434445, 2021476
a(n) = a(n-1)+2*a(n-5)-a(n-6)+a(n-7)-a(n-10).
[A280429] 1, 2, 3, 5, 7, 9, 17, 21, 25, 51, 59, 67, 141, 157, 173, 367, 399, 431, 913, 977, 1041, 2195, 2323, 2451, 5141, 5397, 5653, 11799, 12311, 12823, 26649, 27673, 28697, 59419, 61467, 63515, 131101, 135197, 139293, 286751, 294943, 303135, 622625, 639009, 655393
a(n) = (2^k)*(n-5) + 2k + 5 with k = floor((n-1)/3).
[A202267] 0, 1, 2, 3, 5, 7, 10, 11, 12, 13, 15, 17, 20, 21, 22, 23, 25, 27, 30, 31, 32, 33, 35, 37, 50, 51, 52, 53, 55, 57, 70, 71, 72, 73, 75, 77, 100, 101, 102, 103, 105, 107, 110, 111, 112, 113, 115, 117, 120, 121, 122, 123, 125, 127, 130, 131, 132, 133, 135, 137, 150
a(n) = (b_m(n)+1) mod 10 + floor((b_m(n)+2)/5) + floor((b_m(n)+1)/5) - 2*floor(b_m(n)/5))*10^m + sum_{j=0..m-1} (b_j(n) mod 6 + floor((b_j(n)+1)/6) + floor((b_j(n)+2)/6) - 2*floor(b_j(n)/6)))*10^j, where n>1, b_j(n)) = floor((n-1-6^m)/6^j), m = floor(log_6(n-1)).
a(1*6^n+1) = 1*10^n.
a(2*6^n+1) = 2*10^n.
a(3*6^n+1) = 3*10^n.
a(4*6^n+1) = 5*10^n.
a(5*6^n+1) = 7*10^n.
[A047487] 2, 3, 5, 7, 10, 11, 13, 15, 18, 19, 21, 23, 26, 27, 29, 31, 34, 35, 37, 39, 42, 43, 45, 47, 50, 51, 53, 55, 58, 59, 61, 63, 66, 67, 69, 71, 74, 75, 77, 79, 82, 83, 85, 87, 90, 91, 93, 95, 98, 99, 101, 103, 106, 107, 109, 111, 114, 115, 117, 119, 122, 123
a(n) = (-3-(-1)^n+i*(-i)^n-i*i^n+8*n)/4 where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 17 2012
[A010062] 1, 2, 3, 5, 7, 10, 12, 14, 17, 19, 22, 25, 28, 31, 36, 38, 41, 44, 47, 52, 55, 60, 64, 65, 67, 70, 73, 76, 79, 84, 87, 92, 96, 98, 101, 105, 109, 114, 118, 123, 129, 131, 134, 137, 140, 143, 148, 151, 156, 160, 162, 165, 169, 173, 178, 182, 187, 193, 196, 199, 204
a(n) = (n/2)*log n + O(n*sqrt(log n * loglog n)), where log means log_2. In particular, a(n) ~ (n/2)*log n. [Stolarsky]
[A211520] 0, 0, 0, 1, 2, 3, 5, 7, 10, 12, 16, 19, 24, 27, 33, 37, 44, 48, 56, 61, 70, 75, 85, 91, 102, 108, 120, 127, 140, 147, 161, 169, 184, 192, 208, 217, 234, 243, 261, 271, 290, 300, 320, 331, 352, 363, 385, 397, 420, 432, 456, 469, 494, 507, 533, 547, 574
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7).
a(n) = (6*n^2-10*n+3+(2*n-7)*(-1)^n-4*(-1)^((2*n-3-(-1)^n)/4))/32. - Luce ETIENNE, Dec 31 2015
a(n) = Sum_{k=1..floor(n/2)} floor((n-k)/2). - Wesley Ivan Hurt, Apr 01 2017
[A072831] 1, 1, 2, 3, 5, 7, 10, 13, 16, 19, 22, 26, 29, 33, 37, 41, 45, 49, 53, 57, 62, 66, 70, 75, 80, 84, 89, 94, 98, 103, 108, 113, 118, 123, 128, 133, 139, 144, 149, 154, 160, 165, 170, 176, 181, 187, 192, 198, 203, 209, 215, 220, 226, 232, 238, 243, 249, 255, 261, 267
a(n) = floor(log(n!)/log(2)) + 1.
[A022335] 1, 2, 3, 5, 7, 10, 13, 17, 21, 25, 30, 35, 41, 47, 54, 61, 68, 76, 84, 93, 102, 112, 122, 132, 143, 154, 166, 178, 191, 204, 217, 231, 245, 260, 275, 291, 307, 323, 340, 357, 375, 393, 412, 431, 450, 470, 490, 511, 532, 554, 576, 598, 621, 644, 668, 692, 717, 742, 767, 793
a(n) = sum(i=0..n, 1 + floor(log(2^i)/log(5))). - Michel Marcus, Oct 02 2013
[A022780] 1, 2, 3, 5, 7, 10, 13, 17, 21, 26, 31, 36, 42, 48, 55, 62, 70, 78, 87, 96, 105, 115, 125, 136, 147, 159, 171, 184, 197, 210, 224, 238, 253, 268, 284, 300, 317, 334, 351, 369, 387, 406, 425, 445, 465, 486, 507, 529, 551, 573, 596, 619, 643, 667, 692
a(n) = n + 1 + Sum{floor[(n - k)/sqrt(5)], k = 0..n}.
[A033638] 1, 1, 2, 3, 5, 7, 10, 13, 17, 21, 26, 31, 37, 43, 50, 57, 65, 73, 82, 91, 101, 111, 122, 133, 145, 157, 170, 183, 197, 211, 226, 241, 257, 273, 290, 307, 325, 343, 362, 381, 401, 421, 442, 463, 485, 507, 530, 553, 577, 601, 626, 651, 677, 703, 730, 757, 785, 813, 842
a(n) = ceiling((n^2+3)/4) = ((7 + (-1)^n)/2 + n^2)/4.
a(0) = a(1) = 1, a(n) = 1 + floor(a(n-1)/2). - Benoit Cloitre, Nov 06 2002
a(n) = a(n-2) + n - 1. - Paul Barry, Jul 14 2004
a(0) = 1; a(1) = 1; for n > 1 a(n) = a(n-1) + round(sqrt(a(n-1))). - Jonathan Vos Post, Jan 19 2006
a(n) = floor((n^2)/4) + 1.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 3. - Philippe Deléham, Nov 03 2008
[A177337] 0, 0, 0, 0, 0, 1, 2, 3, 5, 7, 10, 13, 17, 22, 27, 33, 40, 48, 57, 67, 78, 90, 103, 118, 134, 151, 170, 190, 212, 235, 260, 287, 315, 345, 377, 411, 447, 485, 525, 567, 611, 658, 707, 758, 812, 868, 927, 988, 1052, 1119, 1188
a(n)=round((2*n+1)*(2*n^2+2*n-19)/432).
a(n)=floor((n+5)*(2*n^2-7*n+17)/216).
a(n)=ceil((n-4)*(2*n^2+11*n+26)/216).
a(n)=round((2*n^3+3*n^2-18*n)/216).
a(n)=a(n-36)+(n+1)*(n-36)+447 , n>35.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-18) -3*a(n-19) +3*a(n-20) -a(n-21) with g.f. x^5*(1-x+x^3-x^4+x^5-x^6+x^7-x^9+x^10) / ((1+x) *(1+x+x^2) *(x^2-x+1) *(x^6+x^3+1) *(x^6-x^3+1) *(x-1)^4). - R. J. Mathar, Dec 13 2010
[A117143] 1, 2, 3, 5, 7, 10, 13, 17, 22, 27, 33, 41, 48, 57, 68, 78, 90, 105, 118, 134, 153, 170, 190, 214, 235, 260, 289, 315, 345, 380, 411, 447, 488, 525, 567, 615, 658, 707, 762, 812, 868, 931, 988, 1052, 1123, 1188, 1260, 1340, 1413, 1494, 1583, 1665, 1755, 1854
a(n)=(2*floor((n+2)/3)*(14*floor((n+2)/3)^2-(10*n+21)*floor((n+2)/3)+2*(n^2+5*n+7))-(1-(-1)^floor((n+2)/3))*(-1)^(n+2-floor((n+2)/3)))/16. - Luce ETIENNE, May 12 2015
[A177332] 0, 0, 0, 0, 1, 2, 3, 5, 7, 10, 13, 17, 22, 28, 35, 43, 52, 62, 73, 85, 99, 114, 131, 149, 169, 191, 214, 239, 266, 295, 326, 359, 394, 432, 472, 514, 559, 606, 656, 708, 763, 821, 882, 946, 1013, 1083, 1156, 1232, 1311, 1394, 1480
a(n)=round(n*(n+1)*(2*n+1)/174).
a(n)=floor((n+4)*(2*n^2-5*n+21)/174).
a(n)=ceil((n-3)*(2*n^2+9*n+28)/174).
a(n)=a(n-29)+(n+1)*(n-29)+266 , n>28.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-29) -3*a(n-30) +3*a(n-31) -a(n-32). - R. J. Mathar, Dec 13 2010
[A103232] 1, 2, 3, 5, 7, 10, 13, 18, 23, 29, 37, 46, 55, 66, 80, 95, 111, 128, 147, 170, 196, 223, 252, 282, 314, 349, 390, 435, 482, 531, 584, 637, 693, 751, 814, 885, 962, 1045, 1130, 1217, 1309, 1405, 1501, 1601, 1704, 1809, 1924, 2049, 2182
a(n) = int(q3(n-1) + 1.5*iqr(n-1) + 1), where q3(n-1) is the third quartile of the first n-1 terms and iqr(n-1) is the interquartile range of the first n-1 terms.
[A026811] 0, 0, 0, 0, 0, 1, 1, 2, 3, 5, 7, 10, 13, 18, 23, 30, 37, 47, 57, 70, 84, 101, 119, 141, 164, 192, 221, 255, 291, 333, 377, 427, 480, 540, 603, 674, 748, 831, 918, 1014, 1115, 1226, 1342, 1469, 1602, 1747, 1898, 2062, 2233, 2418, 2611, 2818, 3034, 3266, 3507, 3765
a(n) = round(((n^4+10*(n^3+n^2)-75*n -45*n*(-1)^n)) / 2880). - Washington Bomfim, Jul 03 2012
[A001401] 1, 1, 2, 3, 5, 7, 10, 13, 18, 23, 30, 37, 47, 57, 70, 84, 101, 119, 141, 164, 192, 221, 255, 291, 333, 377, 427, 480, 540, 603, 674, 748, 831, 918, 1014, 1115, 1226, 1342, 1469, 1602, 1747, 1898, 2062, 2233, 2418, 2611, 2818, 3034, 3266, 3507, 3765, 4033, 4319
a(n) = 1+(a(n-2)+a(n-3)+a(n-4))-(a(n-6)+(2*a(n-7))+a(n-8))+(a(n-10)+a(n-11)+a(n-12))-a(n-14). - Norman J. Meluch (norm(AT)iss.gm.com), Mar 09 2000
a(n) = round(((n+5)^4+10*((n+5)^3+(n+5)^2)-75*(n+5)-45*(n+5)*(-1)^(n+5))/2880). - Washington Bomfim, Jul 03 2012
a(n) = a(n-1)+a(n-2)-a(n-5)-a(n-6)-a(n-7)+a(n-8)+a(n-9)+a(n-10)-a(n-13)-a(n-14)+a(n+15). - David Neil McGrath, Sep 13 2014
[A173538] 1, 1, 2, 3, 5, 7, 10, 14, 18, 23, 28, 34, 40, 47, 53, 61, 68, 77, 85, 94, 103, 113, 123, 134, 146, 158, 171, 184, 198, 212, 227, 241, 257, 272, 289, 305, 322, 339, 357, 375, 394, 414, 434, 455, 476, 498, 520, 543, 565, 589, 612
a(n)=a(n-1)+a(n-2)-Floor[a(n-2)/4]-Floor[a(n-3)/2]-Floor[a(n-4)/4]
[A177277] 0, 0, 0, 0, 1, 2, 3, 5, 7, 10, 14, 18, 23, 29, 36, 44, 53, 63, 75, 88, 102, 118, 135, 154, 175, 197, 221, 247, 275, 305, 337, 371, 408, 447, 488, 532, 578, 627, 679, 733, 790, 850, 913, 979, 1048, 1120, 1196, 1275, 1357, 1443, 1532
a(n)=round((2*n+1)*(2*n^2+2*n-3)/336).
a(n)=floor((n+4)*(2*n^2-5*n+18)/168).
a(n)=ceil((n-3)*(2*n^2+9*n+25)/168).
a(n)=round(n*(n+2)*(2*n-1)/168).

a(n)=a(n-28)+(n+1)*(n-28)+275 , n>27.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-14) -3*a(n-15) +3*a(n-16) -a(n-17) with g.f. x^4*(1-x+x^3-x^4+x^5-x^7+x^8) / ((1+x)*(x^6+x^5+x^4+x^3+x^2+x+1)*(x^6-x^5+x^4-x^3+x^2-x+1)*(x-1)^4). [R. J. Mathar, Dec 12 2010]
[A175846] 0, 1, 2, 3, 5, 7, 10, 14, 19, 25, 32, 41, 51, 63, 77, 92, 110, 130, 152, 177, 204, 234, 267, 303, 342, 384, 430, 479, 532, 589, 649, 714, 783, 856, 934, 1016, 1103, 1195, 1292, 1394, 1501, 1614, 1732, 1856, 1986, 2121, 2263, 2411, 2565, 2726, 2893
a(n)=round((2*n+1)*(n^2+n+28)/90).
a(n)=floor((n+1)*(2*n^2+n+56)/90).
a(n)=ceil((2*n^3+3*n^2+57*n)/90).
a(n)=a(n-15)+(n+1)*(n-15)+92.
a(n) = +2 a(n-1) -a(n-2) +a(n-3) -2 a(n-4) +2 a(n-5) -2 a(n-6) +a(n-7) -a(n-8) +2 a(n-9) -a(n-10). - R. J. Mathar, Mar 11 2012
[A175842] 0, 1, 2, 3, 5, 7, 10, 14, 19, 25, 33, 42, 53, 66, 80, 97, 116, 137, 161, 187, 216, 248, 283, 321, 363, 408, 457, 510, 566, 627, 692, 761, 835, 913, 996, 1084, 1177, 1275, 1379, 1488, 1603, 1724, 1850, 1983, 2122, 2267, 2419, 2577, 2742, 2914, 3093
a(n)=round((2*n+1)*(2*n^2+2*n+45)/168).
a(n)=floor((2*n^3+3*n^2+46*n+60)/84).
a(n)=ceil((2*n^3+3*n^2+46*n-15)/84).
a(n)=a(n-14)+(n+1)*(n-14)+80 , n>13.
a(n) = 3 a(n-1) -3 a(n-2) +a(n-3) +a(n-14) -3 a(n-15) +3 a(n-16) -a(n-17). - R. J. Mathar, Mar 11 2012
[A065094] 1, 2, 3, 5, 7, 10, 14, 20, 27, 36, 48, 63, 82, 106, 136, 173, 218, 273, 341, 423, 522, 641, 784, 955, 1158, 1399, 1685, 2023, 2421, 2889, 3437, 4079, 4828, 5701, 6716, 7893, 9257, 10834, 12655, 14754, 17169, 19944, 23128, 26775, 30948, 35716, 41157
a(1) = 1, a(n+1) = a(n) + floor((a(1) + a(2) + ... + a(n))/n)
[A002062] 0, 2, 3, 5, 7, 10, 14, 20, 29, 43, 65, 100, 156, 246, 391, 625, 1003, 1614, 2602, 4200, 6785, 10967, 17733, 28680, 46392, 75050, 121419, 196445, 317839, 514258, 832070, 1346300, 2178341, 3524611, 5702921, 9227500, 14930388, 24157854, 39088207, 63246025
a(n) = 2*a(n-1)-a(n-3)-1. - Kieren MacMillan, Nov 08 2008
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). - Emmanuel Vantieghem, May 19 2016
[A120446] 1, 1, 1, 1, 2, 3, 5, 7, 10, 14, 21, 31, 46, 67, 98, 143, 210, 308, 452, 662, 970, 1421, 2083, 3053, 4475, 6558, 9611, 14085, 20643, 30254, 44340, 64983, 95237, 139576, 204559, 299796, 439373, 643932, 943728, 1383100, 2027032, 2970760, 4353861, 6380893
a(n) = a(n-1) + a(n-4) + a(n-6).
[A082531] 1, 1, 1, 1, 2, 3, 5, 7, 10, 14, 21, 32, 48, 70, 101, 148, 219, 325, 479, 704, 1033, 1519, 2238, 3300, 4860, 7149, 10516, 15478, 22792, 33560, 49404, 72713, 107022, 157536, 231914, 341405, 502561, 739758, 1088915, 1602917, 2359580, 3473411, 5112955
a(n) appears to be asymptotic to A*B^n where A=0.6669534571610166311663863 2... B=1.4720291570331278863609 2648...
[A278706] 1, 1, 1, 2, 3, 5, 7, 10, 16, 24, 36, 54, 81, 123, 185, 278, 419, 631, 951, 1432, 2156, 3248, 4892, 7368, 11097, 16713, 25173, 37914, 57103, 86005, 129535, 195098, 293844, 442568, 666568, 1003942, 1512073, 2277387, 3430053, 5166126, 7780887, 11719071, 17650511
a(n) = - a(-6-n) for all n in Z.
[A001742] 1, 2, 3, 5, 7, 11, 12, 13, 15, 17, 21, 22, 23, 25, 27, 31, 32, 33, 35, 37, 51, 52, 53, 55, 57, 71, 72, 73, 75, 77, 111, 112, 113, 115, 117, 121, 122, 123, 125, 127, 131, 132, 133, 135, 137, 151, 152, 153, 155, 157, 171, 172, 173, 175, 177, 211, 212, 213, 215
a(n) = sum_{j=0..m-1} ((2*b_j(n)+1) mod 10 + 2*floor(b_j(n)/5) - floor((b_j(n)+3)/5) - floor((b_j(n)+4)/5))*10^j, where b_j(n)) = floor((4*n+1-5^m)/(4*5^j)), m = floor(log_5(4*n+1)).
a(1*(5^n-1)/4) = 1*(10^n-1)/9.
a(2*(5^n-1)/4) = 2*(10^n-1)/9.
a(3*(5^n-1)/4) = 1*(10^n-1)/3.
a(4*(5^n-1)/4) = 5*(10^n-1)/9.
a(5*(5^n-1)/4) = 7*(10^n-1)/9.
[A038179] 2, 3, 5, 7, 11, 13, 17, 19, 23, 25, 29, 31, 35, 37, 41, 43, 47, 49, 53, 55, 59, 61, 65, 67, 71, 73, 77, 79, 83, 85, 89, 91, 95, 97, 101, 103, 107, 109, 113, 115, 119, 121, 125, 127, 131, 133, 137, 139, 143, 145, 149, 151
a(n) = (1/9)*(4*n^3+3*n^2+1 - kronecker(-3,n+1)). - Ralf Stephan, Jun 01 2014
a(n) = floor((41/21-(3 mod n))^(-3*n+5))+3*n-4 (n>0).
a(n+1) = 3*n-((n mod 2)+1) mod n (n>0). (End)
[A030059] 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 30, 31, 37, 41, 42, 43, 47, 53, 59, 61, 66, 67, 70, 71, 73, 78, 79, 83, 89, 97, 101, 102, 103, 105, 107, 109, 110, 113, 114, 127, 130, 131, 137, 138, 139, 149, 151, 154, 157, 163, 165, 167, 170, 173, 174, 179, 181, 182, 186, 190, 191, 193
a(n) < n*Pi^2/3 infinitely often; a(n) > n*Pi^2/3 infinitely often. - Charles R Greathouse IV, Sep 07 2017
[A000040] 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271
a(n) = n log n + n log log n + (n/log n)*(log log n - log n - 2) + O(n (log log n)^2/ (log n)^2). [Cipolla, see also Cesàro or the "Prime number theorem" Wikipedia article for more terms in the expansion]
a(n) = {n| n! mod n^2 = n(n-1)}, n <> 4.
a(n) = {n| n!*h(n) mod n = n-1}, n<>4, where h(n) = sum(1/k, k=1..n). (End)
[A069675] 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 307, 401, 409, 503, 509, 601, 607, 701, 709, 809, 907, 1009, 2003, 3001, 4001, 4003, 4007, 5003, 5009, 6007, 7001, 8009, 9001, 9007, 10007, 10009
a(n) » 10^(n/24). - Charles R Greathouse IV, Sep 14 2015
[A124590] 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 97, 101, 103, 107, 109, 127, 131, 137, 149, 151, 157, 163, 167, 173, 179, 191, 193, 197, 223, 227, 229, 233, 239, 251, 257, 263, 269, 271, 277, 281, 307, 311, 313, 331, 347, 349, 353, 367
a(n) » n log^2 n. - Charles R Greathouse IV, Jan 31 2017
[A124589] 2, 3, 5, 7, 11, 13, 17, 19, 29, 37, 41, 43, 59, 67, 71, 79, 97, 101, 103, 107, 109, 127, 137, 149, 163, 179, 191, 193, 197, 223, 227, 229, 239, 269, 277, 281, 307, 311, 313, 347, 349, 379, 397, 419, 431, 439, 457, 461, 463, 487, 499, 521, 569, 599, 613, 617, 641, 643, 659
a(n) » n log^2 n. Infinite under standard conjectures. - Charles R Greathouse IV, Jun 01 2016
[A061166] 2, 3, 5, 7, 11, 13, 17, 72, 332, 1139, 3129, 7361, 15469, 29837, 53797, 91850, 149910, 235571, 358397, 530235, 765551, 1081789, 1499753, 2044012, 2743328, 3631107, 4745873, 6131765, 7839057, 9924701, 12452893, 15495662, 19133482, 23455907
a(n) = (23n^6-537n^5+4925n^4-22515n^3+53732n^2-61548n+27360)/720.
[A005728] 1, 2, 3, 5, 7, 11, 13, 19, 23, 29, 33, 43, 47, 59, 65, 73, 81, 97, 103, 121, 129, 141, 151, 173, 181, 201, 213, 231, 243, 271, 279, 309, 325, 345, 361, 385, 397, 433, 451, 475, 491, 531, 543, 585, 605, 629, 651, 697, 713, 755, 775, 807, 831, 883, 901, 941, 965
a(n) = 1 + Sum_{i=1..n} phi(i).
a(n) = n(n+3)/2 - Sum(k = 2 to n, a([n/k])). - David W. Wilson, May 25, 2002
a(n) = a(n-1) + phi(n) with a(0) = 1. - Arkadiusz Wesolowski, Oct 13 2012
[A136185] 1, 2, 3, 5, 7, 11, 14, 20, 25, 33, 40, 51, 60, 74, 86, 103, 118, 139, 157, 182, 204, 233, 259, 293, 323, 362, 397, 441, 481, 531, 576, 632, 683, 745, 802, 871, 934, 1010, 1080, 1163, 1240, 1331, 1415, 1514, 1606, 1713, 1813, 1929, 2037, 2162, 2279, 2413, 2539
a(n) = (n^3 + 12*n^2 + c*n + d)/72, where c = 12 or 3 for n even/odd, and d = 72, 56 or 64 for n = 0, 1 or 2 (mod 3), according to the Liedahl paper. - M. F. Hasler, Jan 13 2015
[A001402] 1, 1, 2, 3, 5, 7, 11, 14, 20, 26, 35, 44, 58, 71, 90, 110, 136, 163, 199, 235, 282, 331, 391, 454, 532, 612, 709, 811, 931, 1057, 1206, 1360, 1540, 1729, 1945, 2172, 2432, 2702, 3009, 3331, 3692, 4070, 4494, 4935, 5427, 5942, 6510, 7104, 7760, 8442, 9192
a(n) = 1+(a(n-2)+a(n-3)+a(n-4))-(2*a(n-7)+2*a(n-8)+a(n-9))+(a(n-11)+2*a(n-12)+2*a(n-13))- (a(n-16)+a(n-17)+a(n-18))+(a(n-20)). - Norman J. Meluch (norm(AT)iss.gm.com), Mar 09 2000
a(n) = (167 +(2325 +(15400 +(47250 +54000*m +4500*r)*m +3150*r +150*r^2)*m+ X(r))*m+ Y(r))*m/6+ Z(r) where m = floor(n/60), r = n mod 60 and X, Y, Z are functions of r (see Maple program below). - Alois P. Heinz, Aug 23 2011

a(n) = floor((2 +3*(floor(n/3) +floor(-n/3))) *(floor(n/3)+1)/54 +(6*n^5 +315*n^4 +6160*n^3 +55125*n^2 +219905*n +485700)/518400 +(n+1) *(n+20) *(-1)^n/768). - Tani Akinari, Aug 05 2013
a(n) = a(n-1) + a(n-2) - a(n-5) - 2*a(n-7) + a(n-9) + a(n-10) + a(n-11) + a(n-12) - 2*a(n-14) - a(n-16) + a(n-19) + a(n-20) - a(n-21). - David Neil McGrath, Apr 11 2015
[A008636] 1, 1, 2, 3, 5, 7, 11, 15, 21, 28, 38, 49, 65, 82, 105, 131, 164, 201, 248, 300, 364, 436, 522, 618, 733, 860, 1009, 1175, 1367, 1579, 1824, 2093, 2400, 2738, 3120, 3539, 4011, 4526, 5102, 5731, 6430, 7190, 8033, 8946, 9953, 11044, 12241, 13534, 14950, 16475, 18138
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) - a(n-8) + a(n-10) + a(n-11) + 2*a(n-12) - 2*a(n-16) - a(n-17) - a(n-18) + a(n-20) + a(n-21) + a(n-23) - a(n-26) - a(n-27) + a(n-28). - David Neil McGrath, Apr 11 2015
[A008637] 1, 1, 2, 3, 5, 7, 11, 15, 22, 29, 40, 52, 70, 89, 116, 146, 186, 230, 288, 352, 434, 525, 638, 764, 919, 1090, 1297, 1527, 1801, 2104, 2462, 2857, 3319, 3828, 4417, 5066, 5812, 6630, 7564, 8588, 9749, 11018, 12450, 14012, 15765, 17674, 19805, 22122
a(n) = floor((-1)^n*((n+1)*(-1)^(floor((n+2)/3))+(2*n+3)*(-1)^(floor((n+1)/3))+(n+2)*(-1)^(floor(n/3)))/972+(n+2)*((-1)^n+1)*(-1)^(n/2)/512+(n+18)*(6*n^6+648*n^5+27018*n^4+545616*n^3+5481213*n^2+25163028*n+39226571)/1219276800+(n+1)*(n^2+53*n+826)*(-1)^n/36864+1/2). (See link.) - Tani Akinari, Oct 26 2012
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) - a(n-9) + a(n-11) + 2*a(n-12) + a(n-13) + a(n-15) - a(n-16) - a(n-17) - 2*a(n-18) - a(n-19) - a(n-20) + a(n-21) + a(n-23) + 2*a(n-24) + a(n-25) - a(n-27) - a(n-29) - a(n-31) + a(n-34) + a(n-35) - a(n-36). - David Neil McGrath, Apr 14 2015
[A008638] 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 41, 54, 73, 94, 123, 157, 201, 252, 318, 393, 488, 598, 732, 887, 1076, 1291, 1549, 1845, 2194, 2592, 3060, 3589, 4206, 4904, 5708, 6615, 7657, 8824, 10156, 11648, 13338, 15224, 17354, 19720, 22380, 25331, 28629, 32278
a(n) = floor((30*n^8 + 5400*n^7 + 405300*n^6 + 16443000*n^5 + 390533640*n^4 + 5486840100*n^3 + 43691213950*n^2 + 175052776500*n + 256697834389)/438939648000 + (n + 1)*(2*n^2 + 133*n + 2597)*(-1)^n/147456 + (-1)^n*((n + 1)*(n + 47)*(-1)^floor(n/3 + 2/3) + (2*n^2 + 90*n + 127)*(-1)^floor(n/3 + 1/3) + (n + 2)*(n + 40)*(-1)^floor(n/3))/17496 + 1/256*((-1)^((2*n + (-1)^n - 1)/4)*floor((n + 2)/2)) + 1/2). - Tani Akinari, Oct 20 2012
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) - a(n-10) + 2*a(n-12) + a(n-13) + a(n-14) + a(n-15) - a(n-17) - a(n-18) - a(n-19) - 2*a(n-20) - a(n-21) - a(n-22) + a(n-23) + a(n-24) + 2*a(n-25) + a(n-26) + a(n-27) + a(n-28) - a(n-30) - a(n-31) - a(n-32) - 2*a(n-33) + a(n-35) + a(n-38) + a(n-40) - a(n-43) - a(n-44) + a(n-45). - David Neil McGrath, Apr 19 2015
[A026816] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 55, 75, 97, 128, 164, 212, 267, 340, 423, 530, 653, 807, 984, 1204, 1455, 1761, 2112, 2534, 3015, 3590, 4242, 5013, 5888, 6912, 8070, 9418, 10936, 12690, 14663, 16928, 19466
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) - a(n-11) + a(n-12) + a(n-13) + a(n-14) + 2*a(n-15) - a(n-18) - a(n-19) - a(n-20) - a(n-21) - 3*a(n-22) + a(n-25) + a(n-26) + 2*a(n-27) + 2*a(n-28) + a(n-29) + a(n-30) - 3*a(n-33) - a(n-34) - a(n-35) - a(n-36) - a(n-37) + 2*a(n-40) + a(n-41) + a(n-42) + a(n-43) - a(n-44) - a(n-48) - a(n-50) + a(n-53) + a(n-54) - a(n-55). - David Neil McGrath, Jul 26 2015
[A008639] 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 55, 75, 97, 128, 164, 212, 267, 340, 423, 530, 653, 807, 984, 1204, 1455, 1761, 2112, 2534, 3015, 3590, 4242, 5013, 5888, 6912, 8070, 9418, 10936, 12690, 14663, 16928, 19466, 22367, 25608, 29292, 33401, 38047
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) - a(n-11) + a(n-12) + a(n-13) + a(n-14) + 2*a(n-15) - a(n-18) - a(n-19) - a(n-20) - a(n-21) - 3*a(n-22) + a(n-25) + a(n-26) + 2*a(n-27) + 2*a(n-28) + a(n-29) + a(n-30) - 3*a(n-33) - a(n-34) - a(n-35) - a(n-36) - a(n-37) + 2*a(n-40) + a(n-41) + a(n-42) + a(n-43) - a(n-44) - a(n-48) - a(n-50) + a(n-53) + a(n-54) - a(n-55). - David Neil McGrath, Apr 28 2015
[A008640] 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 76, 99, 131, 169, 219, 278, 355, 445, 560, 695, 863, 1060, 1303, 1586, 1930, 2331, 2812, 3370, 4035, 4802, 5708, 6751, 7972, 9373, 11004, 12866, 15021, 17475, 20298, 23501, 27169, 31316, 36043, 41373, 47420, 54218, 61903, 70515, 80215, 91058, 103226, 116792, 131970, 148847
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) + a(n-14) + 2*a(n-15) + a(n-16) - a(n-19) - a(n-20) - a(n-21) - 2*a(n-22) - a(n-23) - a(n-24) - a(n-26) + 2*a(n-27) + 2*a(n-28) + 2*a(n-29) + 2*a(n-30) + a(n-31) + a(n-32) - a(n-34) - a(n-35) - 2*a(n-36) - 2*a(n-37) - 2*a(n-38) - 2*a(n-39) + a(n-40) + a(n-42) + a(n-43) + 2*a(n-44) + a(n-45) + a(n-46) + a(n-47) - a(n-50) - 2*a(n-51) - a(n-52) + a(n-59) + a(n-61) - a(n-64) - a(n-65) + a(n-66). - David Neil McGrath, Jul 27 2015
[A008641] 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 77, 100, 133, 172, 224, 285, 366, 460, 582, 725, 905, 1116, 1380, 1686, 2063, 2503, 3036, 3655, 4401, 5262, 6290, 7476, 8877, 10489, 12384, 14552, 17084, 19978, 23334, 27156, 31570, 36578, 42333, 48849, 56297
a(n) = a(n-1) + a(n-2) - a(n-5) - a(n-7) + a(n-12) - a(n-13) + 2*a(n-15) + a(n-16) + a(n-17) - a(n-20) - a(n-21) - 2*a(n-22) - a(n-23) - a(n-24) - 2*a(n-26) + a(n-28) + 2*a(n-29) + 2*a(n-30) + 2*a(n-31) + 2*a(n-32) + a(n-33) + a(n-34) - a(n-36) - 2*a(n-37) - a(n-38) - 4*a(n-39) - a(n-40) - 2*a(n-41) - a(n-42) + a(n-44) + a(n-45) + 2*a(n-46) + 2a(n-47) + 2*a(n-48) + 2*a(n-49) + a(n-50) - 2*a(n-52) - a(n-54) - a(n-55) - 2*a(n-56) - a(n-57) - a(n-58) + a(n-61) + a(n-62) + 2*a(n-63) - a(n-65) + a(n-66) - a(n-71) - a(n-73) + a(n-76) + a(n-77) - a(n-78). - David Neil McGrath, Jul 28 2015
[A000041] 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 77, 101, 135, 176, 231, 297, 385, 490, 627, 792, 1002, 1255, 1575, 1958, 2436, 3010, 3718, 4565, 5604, 6842, 8349, 10143, 12310, 14883, 17977, 21637, 26015, 31185, 37338, 44583, 53174, 63261, 75175, 89134, 105558, 124754, 147273, 173525
a(n) < exp((2/3)^(1/2) Pi sqrt(n)) (Ayoub, p. 197).
a(n) = Sum_{i=0..n-1} P(i, n-i), where P(x, y) is the number of partitions of x into at most y parts and P(0, y)=1. - Jon Perry, Jun 16 2003
a(n) = determinant of the n X n Toeplitz matrix:
a(n) = Sum_{k=-inf..+inf} (-1)^k a(n-k(3k-1)/2) with a(0)=1 and a(negative)=0. The sum can be restricted to the (finite) range from k = (1-sqrt(1-24n))/6 to (1+sqrt(1-24n))/6), since all terms outside this range are zero. - Jos Koot, Jun 01 2016
[A052955] 1, 2, 3, 5, 7, 11, 15, 23, 31, 47, 63, 95, 127, 191, 255, 383, 511, 767, 1023, 1535, 2047, 3071, 4095, 6143, 8191, 12287, 16383, 24575, 32767, 49151, 65535, 98303, 131071, 196607, 262143, 393215, 524287, 786431, 1048575, 1572863, 2097151, 3145727
a(n) = -1+Sum((1/4)*(3+4*alpha)*alpha^(-1-n), where alpha = RootOf(-1+2*Z^2))
a(n) = 2^(n/2)(3*sqrt(2)/4+1-(3*sqrt(2)/4-1)(-1)^n)-1. - Paul Barry, May 23 2004
a(n) = (5-(-1)^n)/2*2^floor(n/2)-1. - Hieronymus Fischer, Feb 03 2012
a(2n+1) = (a(2n) + a(2n+2))/2. Combined with a(n) = 2*a(n-2) + 1, n>=2 and a(0) = 1, this specifies the sequence. - Richard R. Forberg, Nov 30 2013
a(n) = ((5-(-1)^n)/2)*2^((2*n-1+(-1)^n)/4)-1. - Luce ETIENNE, Sep 20 2014
a(0) = 1; a(1) = 2; a(n) = 1 + 2 * a(n-2), n >= 2. - Daniel Forgues, Feb 24 2015
[A239054] 1, 2, 3, 5, 7, 11, 15, 25, 35, 55, 77, 125, 175, 275, 385, 625, 875, 1375, 1925, 3125, 4375, 6675, 9625, 15625, 21875, 34375, 48125, 78125, 109375, 171875, 240625, 390625, 546875, 859375, 1203125, 1953125, 2734375, 4296875, 6015625, 9765625
a(n) = 5^(n/4), if n is congruent to 0 {mod 4} and n >= 8.
a(n) = 7*5^((n-5)/4), if n is congruent to 1 {mod 4} and n >= 8.
a(n) = 11*5^((n-6)/4), if n is congruent to 2 {mod 4} and n >= 8.
a(n) = 11*7*5^((n-11)/4), if n is congruent to 3 {mod 4} and n >= 8.
[A253062] 0, 1, 2, 3, 5, 7, 11, 16, 23, 34, 49, 70, 103, 148, 211, 310, 445, 634, 931, 1336, 1903, 2794, 4009, 5710, 8383, 12028, 17131, 25150, 36085, 51394, 75451, 108256, 154183, 226354, 324769, 462550, 679063, 974308, 1387651, 2037190, 2922925, 4162954, 6111571
a(n) = a(n-1)+3*a(n-3)-3*a(n-4) for n>10.
[A112088] 2, 3, 5, 7, 11, 16, 24, 36, 54, 81, 122, 183, 274, 411, 617, 925, 1388, 2082, 3123, 4684, 7026, 10539, 15809, 23713, 35570, 53355, 80032, 120048, 180072, 270108, 405162, 607743, 911615, 1367422, 2051133, 3076700, 4615050, 6922575, 10383862
a(1)=2; a(n)=floor((5+sum(a(1) to a(n-1)))/2). - Graeme McRae, Jun 09 2006
[A076805] 2, 3, 5, 7, 11, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 127, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281, 283, 293, 307
a(n) » n^1.0044, where the exponent is log(r)/log(10) with r the larger root of x^2 - 10x + 1. [Charles R Greathouse IV, Nov 09 2011]
[A055500] 1, 1, 2, 3, 5, 7, 11, 17, 23, 37, 59, 89, 139, 227, 359, 577, 929, 1499, 2423, 3919, 6337, 10253, 16573, 26821, 43391, 70207, 113591, 183797, 297377, 481171, 778541, 1259701, 2038217, 3297913, 5336129, 8633983, 13970093, 22604069
a(n) is asymptotic to C*phi^n where phi=(1+sqrt(5))/2 and C=0.258616379018607009651019225764954566 77... - Benoit Cloitre, Apr 21 2003
a(n) >= prime(n-1) for n > 1, by Ishikawa's theorem. - Jonathan Sondow, Sep 21 2013
[A002379] 1, 1, 2, 3, 5, 7, 11, 17, 25, 38, 57, 86, 129, 194, 291, 437, 656, 985, 1477, 2216, 3325, 4987, 7481, 11222, 16834, 25251, 37876, 56815, 85222, 127834, 191751, 287626, 431439, 647159, 970739, 1456109, 2184164, 3276246, 4914369, 7371554, 11057332
a(n) = b(n) - (-2/3)^n where b(n) is defined by the recursion b(0):=2, b(1):=5/6, b(n+1):=(5/6)*b(n) + b(n-1). - Hieronymus Fischer, Dec 31 2008
a(n) = (1/2)*(b(n) + sqrt(b(n)^2 - (-4)^n)) (with b(n) as defined above). - Hieronymus Fischer, Dec 31 2008

[A072465] 1, 1, 1, 2, 3, 5, 7, 11, 17, 26, 40, 61, 94, 144, 221, 339, 520, 798, 1224, 1878, 2881, 4420, 6781, 10403, 15960, 24485, 37564, 57629, 88412, 135638, 208090, 319243, 489769, 751383, 1152740, 1768485, 2713135, 4162377, 6385743, 9796737
a(n) = a(n-1) + a(n-2) - a(n-6);
[A293637] 0, 1, 1, 1, 1, 1, 2, 3, 5, 7, 11, 18, 29, 47, 76, 122, 198, 320, 517, 837, 1353, 2190, 3543, 5732, 9274, 15005, 24279, 39284, 63563, 102846, 166408, 269254, 435662, 704916, 1140578, 1845493, 2986071, 4831564, 7817634, 12649198, 20466831, 33116029, 53582860
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.
a(n) = ceiling(F(n)/5).
[A291660] 2, 3, 5, 7, 11, 18, 30, 49, 79, 127, 205, 332, 538, 871, 1409, 2279, 3687, 5966, 9654, 15621, 25275, 40895, 66169, 107064, 173234, 280299, 453533, 733831, 1187363, 1921194, 3108558, 5029753, 8138311, 13168063, 21306373, 34474436, 55780810, 90255247, 146036057, 236291303
a(3n) + a(3n+1) = a(3n+2).
a(n) = (1/15)*2^(-n-1)*((30-9*sqrt(5))*(1-sqrt(5))^n + (1+sqrt(5))^n*(30 + 9*sqrt(5)) + 5*2^(n+1)*sqrt(3)*sin(n*Pi/3)).
[A061165] 2, 3, 5, 7, 11, 22, 48, 100, 192, 341, 567, 893, 1345, 1952, 2746, 3762, 5038, 6615, 8537, 10851, 13607, 16858, 20660, 25072, 30156, 35977, 42603, 50105, 58557, 68036, 78622, 90398, 103450, 117867, 133741, 151167, 170243, 191070, 213752
a(n) = (3n^4-34n^3+141n^2-206n+144)/24.
a(1)=2, a(2)=3, a(3)=5, a(4)=7, a(5)=11, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Oct 05 2012
[A114421] 1, 2, 3, 5, 7, 11, 26, 51, 95, 161, 319, 806, 1887, 3895, 6923, 14993, 42718, 111333, 237595, 463841, 1064503, 3118414, 8795307, 19720385, 41281849, 103256791, 314959814, 905916621, 2110081195, 4499721541, 11668017383
a(n) = n##### = prime(n)*((n-5)#####) = Prod[i == n mod 5, to n] prime(i). Notationally, prime(0) = 1; (-n)##### = 0#### = 1.
[A118950] 2, 3, 5, 7, 12, 13, 15, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 42, 43, 45, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62, 63, 65, 67, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 82, 83, 85, 87, 92, 93, 95, 97, 102, 103, 105, 107, 112
a(n) = n + O(n^k) with k = log 6/log 10 = 0.77815.... - Charles R Greathouse IV, Sep 15 2015
[A260181] 2, 3, 5, 7, 12, 13, 15, 17, 22, 23, 25, 27, 32, 33, 35, 37, 42, 43, 45, 47, 52, 53, 55, 57, 62, 63, 65, 67, 72, 73, 75, 77, 82, 83, 85, 87, 92, 93, 95, 97, 102, 103, 105, 107, 112, 113, 115, 117, 122, 123, 125, 127, 132, 133, 135, 137, 142, 143, 145, 147
a(n) = a(n-1)+a(n-4)-a(n-5), n>5.
a(n) = (5*n-4-(-1)^n+((3-(-1)^n)/2)*(-1)^((2*n+5-(-1)^n)/4))/2.
[A179781] 1, 1, 1, 2, 3, 5, 7, 12, 14, 27, 31, 54, 63, 119, 123, 240, 255, 490, 511, 990, 1015, 2015, 2047, 4020, 4092, 8127, 8176, 16254, 16383, 32607, 32767, 65280, 65503, 130815, 131061, 261576, 262143, 523775, 524223, 1047540, 1048575, 2096003, 2097151, 4192254
a(n) = Sum_{d | n} moebius(n/d)*2^(floor(d/2)) (see Baek et al. page 9). - Michel Marcus, Dec 09 2014
[A078912] 1, 1, 2, 3, 5, 7, 12, 15, 27, 32, 59, 66, 125, 137, 262, 277, 539, 566, 1105, 1137, 2242, 2301, 4543, 4609, 9152, 9277, 18429, 18566, 36995, 37257, 74252, 74529, 148781, 149320, 298101, 298667, 596768, 597873, 1194641, 1195778, 2390419, 2392661
a(2n) is asymptotic to c*2^n and a(2n+1) to c*2^(n+1) where c=1.14147011562626318730578487228102392422856384213213612463664....
[A275592] 1, 1, 2, 3, 5, 7, 12, 16, 26, 35, 56, 74, 117, 154, 241, 317, 492, 645, 998, 1306, 2014, 2634, 4053, 5296, 8139, 10630, 16321, 21310, 32699, 42684, 65472, 85452, 131038, 171012, 262198, 342161, 524552, 684497, 1049300, 1369216, 2098849, 2738710, 4198011
a(2k) = Sum_{j=0..k} c(j)*q(2k - 2j).
a(n) = 2*a(n-2) + q(n) - q(n-2).
[A002965] 0, 1, 1, 1, 2, 3, 5, 7, 12, 17, 29, 41, 70, 99, 169, 239, 408, 577, 985, 1393, 2378, 3363, 5741, 8119, 13860, 19601, 33461, 47321, 80782, 114243, 195025, 275807, 470832, 665857, 1136689, 1607521, 2744210, 3880899, 6625109, 9369319, 15994428, 22619537
a(n) = 2*a(n-2) + a(n-4) if n>3; a(0)=0, a(1)=a(2)=a(3)=1.
a(2n) = a(2n-1) + a(2n-2) and a(2n+1) = 2a(2n) - a(2n-1).
a(0)=0, a(1)=1, a(n) = a(n-1) + a(2*[(n-2)/2]). - Franklin T. Adams-Watters, Jan 31 2006
a(n) = (((sqrt(2) - 2)*(-1)^n + 2 + sqrt(2))*(1 + sqrt(2))^(floor(n/2)) - ((2 + sqrt(2))*(-1)^n -2 + sqrt(2))*(1 - sqrt(2))^(floor(n/2)))/8. - Ilya Gutkovskiy, Jul 18 2016
[A257863] 1, 1, 2, 3, 5, 7, 12, 18, 29, 45, 72, 112, 178, 279, 441, 693, 1094, 1721, 2714, 4273, 6735, 10607, 16715, 26329, 41485, 65352, 102965, 162209, 255560, 402613, 634306, 999306, 1574368, 2480323, 3907638, 6156268, 9698906, 15280112, 24073063, 37925860, 59750293
a(n) = a(n-1) + a(n-2) - a(n-5) + a(n-6).
[A169986] 1, 2, 3, 5, 7, 12, 18, 30, 47, 77, 123, 200, 322, 522, 843, 1365, 2207, 3572, 5778, 9350, 15127, 24477, 39603, 64080, 103682, 167762, 271443, 439205, 710647, 1149852, 1860498, 3010350, 4870847, 7881197, 12752043, 20633240, 33385282
a(n) = 3*Fibonacci(n-1) + Fibonacci(n-2) + (n mod 2), n>0. - Gary Detlefs, Dec 29 2010
[A143642] 1, 2, 3, 5, 7, 12, 19, 26, 45, 71, 97, 168, 265, 362, 627, 989, 1351, 2340, 3691, 5042, 8733, 13775, 18817, 32592, 51409, 70226, 121635, 191861, 262087, 453948, 716035, 978122, 1694157, 2672279, 3650401, 6322680, 9973081, 13623482, 23596563, 37220045
a(n) = 4*a(n-3) - a(n-6) for n>6.
[A293543] 0, 1, 1, 1, 1, 2, 3, 5, 7, 12, 19, 30, 48, 78, 126, 204, 329, 533, 862, 1394, 2255, 3649, 5904, 9553, 15456, 25009, 40465, 65473, 105937, 171410, 277347, 448757, 726103, 1174860, 1900963, 3075822, 4976784, 8052606, 13029390, 21081996, 34111385, 55193381
a(n) = a(n-1) + a(n-2) + a(n-8) - a(n-9) - a(n-10) for n >= 11.
a(n) = floor(F(n)/3).
[A168484] 2, 3, 5, 7, 13, 14, 16, 18, 24, 25, 27, 29, 35, 36, 38, 40, 46, 47, 49, 51, 57, 58, 60, 62, 68, 69, 71, 73, 79, 80, 82, 84, 90, 91, 93, 95, 101, 102, 104, 106, 112, 113, 115, 117, 123, 124, 126, 128, 134, 135, 137, 139, 145, 146, 148, 150, 156, 157, 159, 161, 167, 168
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. (End)
a(n) = (22*n - 21 - 5*i^(2*n) - (3-5*i)*i^(-n) - (3+5*i)*i^n)/8 where i = sqrt(-1). - Wesley Ivan Hurt, Jun 07 2016
[A092621] 2, 3, 5, 7, 13, 17, 29, 31, 43, 47, 59, 67, 71, 79, 83, 97, 103, 107, 113, 131, 139, 151, 163, 167, 179, 193, 197, 211, 241, 269, 281, 311, 349, 389, 421, 431, 439, 443, 463, 467, 479, 487, 509, 541, 569, 599, 607, 613, 617, 631, 643, 647, 659, 683, 701, 709
a(n) » n^1.28 because of the digit restriction
[A236340] 1, 2, 3, 5, 7, 13, 19, 33, 51, 85, 135, 221, 355, 577, 931, 1509, 2439, 3949, 6387, 10337, 16723, 27061, 43783, 70845, 114627, 185473, 300099, 485573, 785671, 1271245, 2056915, 3328161, 5385075, 8713237, 14098311, 22811549
a(0)=1, a(1)=2, a(2)=3, a(3)=5, a(4)=7 for n>=5, a(n) = 2*a(n-2) + a(n-3).
[A064336] 2, 3, 5, 7, 13, 23, 31, 47, 61, 83, 109, 139, 173, 211, 251, 293, 337, 389, 449, 509, 577, 647, 719, 797, 883, 977, 1069, 1171, 1277, 1381, 1493, 1619, 1747, 1879, 2017, 2161, 2311, 2467, 2621, 2777, 2939, 3109, 3271, 3461, 3643, 3833, 4027, 4231, 4451, 4673
a(1) = 2, a(n+1) = MAX {prime p | p <= a(n) + p(n)} (where p(n) is the n-th prime number)
[A100532] 2, 3, 5, 7, 17, 32, 61, 117, 227, 437, 842, 1623, 3129, 6031, 11625, 22408, 43193, 83257, 160483, 309341, 596274, 1149355, 2215453, 4270423, 8231505, 15866736, 30584117, 58952781, 113635139, 219038773, 422210810, 813837503, 1568722225, 3023809311, 5828579849
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4) where n >= 5 and a(1)=2, a(2)=3, a(3) = 5 and a(4) = 7.
[A046034] 2, 3, 5, 7, 22, 23, 25, 27, 32, 33, 35, 37, 52, 53, 55, 57, 72, 73, 75, 77, 222, 223, 225, 227, 232, 233, 235, 237, 252, 253, 255, 257, 272, 273, 275, 277, 322, 323, 325, 327, 332, 333, 335, 337, 352, 353, 355, 357, 372, 373, 375, 377, 522, 523, 525, 527, 532
a(n) = sum_{j=0..m-1} ((2*b(j)+1) mod 8 + floor(b(j)/4) - floor((b(j)-1)/4))*10^j, where m = floor(log_4(3*n+1)), b(j) = floor((3*n+1-4^m)/(3*4^j)).
a(1*(4^n-1)/3) = 2*(10^n-1)/9.
a(2*(4^n-1)/3) = 1*(10^n-1)/3.
a(3*(4^n-1)/3) = 5*(10^n-1)/9.
a(4*(4^n-1)/3) = 7*(10^n-1)/9.
a(n) <= 2*(10^log_4(3*n+1)-1)/9, equality holds for n = (4^k-1)/3, k>0.
[A114420] 1, 2, 3, 5, 7, 22, 39, 85, 133, 506, 1131, 2635, 4921, 20746, 48633, 123845, 260813, 1224014, 2966613, 8297615, 18517723, 89353022, 234362427, 688702045, 1648077347, 8667243134, 23670605127, 70936310635, 176344276129
a(n) = n#### = prime(n)*((n-4)####) = Prod[i == n mod 4, to n] prime(i). Notationally, prime(0) = 1; (-n)#### = 0#### = 1.
[A106116] 2, 3, 5, 7, 23, 29, 37, 43, 47, 53, 59, 67, 73, 79, 83, 89, 97, 223, 227, 229, 233, 239, 257, 263, 269, 277, 283, 293, 337, 347, 349, 353, 359, 367, 373, 379, 383, 389, 397, 433, 439, 443, 449, 457, 463, 467, 479, 487, 499, 523, 547, 557, 563, 569, 577, 587, 593

a(n) » n^k with k = log 10/log 8 = 1.107.... - Charles R Greathouse IV, Jan 02 2013

[A211681] 2, 3, 5, 7, 23, 37, 53, 73, 237, 373, 537, 737, 2373, 3737, 5373, 7373, 23737, 37373, 53737, 73737, 237373, 373737, 537373, 737373, 2373737, 3737373, 5373737, 7373737, 23737373, 37373737, 53737373, 73737373, 237373737, 373737373, 537373737, 737373737

a(1+8*k) = 2*10^(2k) + 37*sum_{j=0..k-1} 10^(2j),
a(2+8*k) = 3*10^(2k) + 73*sum_{j=0..k-1} 10^(2j),
a(3+8*k) = 5*10^(2k) + 37*sum_{j=0..k-1} 10^(2j),
a(4+8*k) = 7*10^(2k) + 37*sum_{j=0..k-1} 10^(2j),
a(5+8*k) = 23*10^(2k) + 73*sum_{j=0..k-1} 10^(2j),
a(6+8*k) = 37*10^(2k) + 37*sum_{j=0..k-1} 10^(2j),

[A047372] 1, 2, 3, 5, 8, 9, 10, 12, 15, 16, 17, 19, 22, 23, 24, 26, 29, 30, 31, 33, 36, 37, 38, 40, 43, 44, 45, 47, 50, 51, 52, 54, 57, 58, 59, 61, 64, 65, 66, 68, 71, 72, 73, 75, 78, 79, 80, 82, 85, 86, 87, 89, 92, 93, 94, 96, 99, 100, 101, 103, 106, 107, 108, 110

a(n) = (14*n+(3*i-1)*(-i)^n-(3*i+1)*i^n-(-1)^n-13)/8, i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

[A047254] 2, 3, 5, 8, 9, 11, 14, 15, 17, 20, 21, 23, 26, 27, 29, 32, 33, 35, 38, 39, 41, 44, 45, 47, 50, 51, 53, 56, 57, 59, 62, 63, 65, 68, 69, 71, 74, 75, 77, 80, 81, 83, 86, 87, 89, 92, 93, 95, 98, 99, 101, 104, 105, 107, 110, 111, 113, 116, 117, 119, 122, 123, 125, 128, 129

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (6*n-2-cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 6k-1, a(3k-1) = 6k-3, a(3k-2) = 6k-4. (End)

[A181155] 2, 3, 5, 8, 9, 12, 14, 15, 17, 20, 22, 23, 26, 27, 29, 32, 33, 36, 38, 39, 42, 43, 45, 48, 50, 51, 53, 56, 57, 60, 62, 63, 65, 68, 70, 71, 74, 75, 77, 80, 82, 83, 85, 88, 89, 92, 94, 95, 98, 99, 101, 104, 105, 108, 110, 111, 113, 116, 118, 119, 122, 123, 125, 128, 129, 132

a(a(n)-1) = 2*a(n)-1. - Benoit Cloitre, Oct 07 2010

[A047605] 0, 2, 3, 5, 8, 10, 11, 13, 16, 18, 19, 21, 24, 26, 27, 29, 32, 34, 35, 37, 40, 42, 43, 45, 48, 50, 51, 53, 56, 58, 59, 61, 64, 66, 67, 69, 72, 74, 75, 77, 80, 82, 83, 85, 88, 90, 91, 93, 96, 98, 99, 101, 104, 106, 107, 109, 112, 114, 115, 117, 120, 122, 123

a(n) = 2*(n-1)-(i^(n*(n+1))+1)/2, where i=sqrt(-1). (End)
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.

[A277625] 2, 3, 5, 8, 10, 12, 13, 17, 21, 26, 29, 33, 34, 37, 50, 55, 65, 70, 72, 82, 89, 101, 109, 122, 135, 144, 145, 169, 170, 197, 226, 228, 233, 257, 290, 305, 325, 357, 360, 362, 377, 401, 408, 442, 485, 528, 530, 577, 610, 626, 677, 701, 730, 747, 785, 842, 901, 962, 985, 987

a(n) = n^2 - 2*n^(5/3) - O(n^(3/2)). - Charles R Greathouse IV, Nov 03 2016

[A183871] 2, 3, 5, 8, 10, 14, 17, 21, 26, 30, 36, 41, 47, 54, 60, 68, 75, 83, 92, 100, 110, 119, 129, 140, 150, 162, 173, 185, 198, 210, 224, 237, 251, 266, 280, 296, 311, 327, 344, 360, 378, 395, 413, 432, 450, 470, 489, 509, 530, 550, 572, 593, 615, 638, 660, 684, 707, 731, 756, 780, 806, 831, 857, 884, 910, 938, 965, 993, 1022, 1050, 1080, 1109, 1139, 1170, 1200, 1232, 1263, 1295, 1328, 1360

a(n) = floor((n+1)*(n+4)/5). [Bruno Berselli, Mar 05 2014]

[A211542] 0, 0, 1, 2, 3, 5, 8, 10, 14, 17, 22, 26, 32, 36, 44, 49, 57, 63, 73, 79, 90, 97, 109, 117, 130, 138, 153, 162, 177, 187, 204, 214, 232, 243, 262, 274, 294, 306, 328, 341, 363, 377, 401, 415, 440, 455, 481, 497, 524, 540, 569, 586, 615, 633, 664, 682, 714

a(n) = a(n-2) + a(n-3) + a(n-4) - a(n-5) - a(n-6) - a(n-7) + a(n-9).

[A087279] 0, 2, 3, 5, 8, 10, 15, 17, 24, 26, 35, 37, 48, 50, 63, 65, 80, 82, 99, 101, 120, 122, 143, 145, 168, 170, 195, 197, 224, 226, 255, 257, 288, 290, 323, 325, 360, 362, 399, 401, 440, 442, 483, 485, 528, 530, 575, 577, 624, 626, 675, 677, 728, 730, 783, 785, 840

a(1) = 0; a(2*k+1) = a(2*k) + 2*k-1; a(2*k) = a(2*k-1) + 2.
a(n-1) = floor((n+1)/2)^2+(-1)^(n mod 2).

[A078444] 2, 3, 5, 8, 11, 14, 17, 20, 25, 29, 33, 38, 41, 44, 49, 55, 59, 63, 68, 71, 75, 80, 85, 92, 98, 101, 104, 107, 110, 119, 128, 133, 137, 143, 149, 153, 159, 164, 169, 175, 179, 185, 191, 194, 197, 204, 216, 224, 227, 230, 235, 239, 245, 253, 259, 265, 269, 273, 278

a(n) = floor(sqrt(prime(n)*prime(n+1))).

[A054925] 0, 0, 1, 2, 3, 5, 8, 11, 14, 18, 23, 28, 33, 39, 46, 53, 60, 68, 77, 86, 95, 105, 116, 127, 138, 150, 163, 176, 189, 203, 218, 233, 248, 264, 281, 298, 315, 333, 352, 371, 390, 410, 431, 452, 473, 495, 518, 541, 564, 588, 613, 638, 663, 689, 716, 743, 770, 798

a(n + 4) = a(n) + 2*n + 3. - Michael Somos, Mar 01 2014

[A096777] 1, 2, 3, 5, 8, 11, 15, 20, 25, 31, 38, 45, 53, 62, 71, 81, 92, 103, 115, 128, 141, 155, 170, 185, 201, 218, 235, 253, 272, 291, 311, 332, 353, 375, 398, 421, 445, 470, 495, 521, 548, 575, 603, 632, 661, 691, 722, 753, 785, 818, 851, 885, 920, 955, 991, 1028

a(n) = floor(n/3) * (3*floor(n/3) + 2*(n mod 3) - 1) + n mod 3 + 0^(n mod 3). - Reinhard Zumkeller, Dec 29 2007
a(n) = floor((n-2)^2/3) + n. - Christopher Hunt Gribble, Mar 06 2014

[A008762] 1, 2, 3, 5, 8, 11, 15, 20, 26, 33, 41, 50, 61, 73, 86, 101, 118, 136, 156, 178, 202, 228, 256, 286, 319, 354, 391, 431, 474, 519, 567, 618, 672, 729, 789, 852, 919, 989, 1062, 1139, 1220, 1304, 1392

a(0)=1, a(1)=2, a(2)=3, a(3)=5, a(4)=8, a(5)=11, a(6)=15, a(7)=20, a(8)=26, a(n)=2*a(n-1)-a(n-2)+a(n-3)-a(n-4)-a(n-5)+a(n-6)-a(n-7)+2*a(n-8)-a(n-9). - Harvey P. Dale, Mar 19 2013

[A175831] 0, 1, 2, 3, 5, 8, 11, 16, 22, 29, 38, 49, 61, 76, 93, 112, 134, 159, 186, 217, 251, 288, 329, 374, 422, 475, 532, 593, 659, 730, 805, 886, 972, 1063, 1160, 1263, 1371, 1486, 1607, 1734, 1868, 2009, 2156, 2311, 2473, 2642, 2819, 3004, 3196, 3397, 3606

a(n)=round((2*n+1)*(2*n^2+2*n+41)/144).
a(n)=floor((n+1)*(2*n^2+n+41)/72).
a(n)=ceil((2*n^3+3*n^2+42*n)/72).
a(n)=a(n-12)+(n+1)*(n-12)+61.

[A070228] 1, 1, 2, 3, 5, 8, 11, 16, 23, 31, 42, 58, 82, 114, 156, 217, 299, 417, 583, 814, 1136, 1589, 2224, 3116, 4369, 6136, 8623, 12128, 17064, 24023, 33839, 47689, 67227, 94805, 133738, 188710, 266351, 376019, 530941, 749820, 1059097, 1496144, 2113802, 2986770, 4220666

a(n) = 1 - Sum_{x=2..n} Moebius(n)*floor(2^(n/x)-1). - Robert G. Wilson v, Jan 20 2015

[A173599] 1, 1, 2, 3, 5, 8, 11, 16, 23, 31, 43, 57, 77, 101, 133, 174, 226, 293, 378, 486, 624, 800, 1023, 1307, 1669, 2129, 2714, 3458, 4405, 5609, 7139, 9085, 11560, 14706, 18706, 23792, 30258, 38478, 48929, 62216, 79108, 100583, 127886, 162597, 206726, 262829, 334154, 424833, 540115, 686677, 873006

a(n)=a(n-1)+a(n-2)-Floor[a(n-2)/4]-Floor[a(n-4)/2]-Floor[a(n-6)/4]

[A091498] 1, 2, 3, 5, 8, 11, 17, 23, 31, 41, 54, 68, 88, 109, 135, 165, 202, 241, 291, 344, 407, 477, 559, 646, 751, 862, 990, 1129, 1288, 1456, 1651, 1857, 2089, 2338, 2617, 2911, 3244, 3594, 3982, 4395, 4851, 5330, 5862, 6420, 7031, 7677, 8382, 9120, 9929, 10775

a(0)=1, a(1)=2, a(2)=3, a(3)=5, a(4)=8, a(5)=11, a(6)=17, a(7)=23, a(8)=31, a(9)=41, a(10)=54, a(11)=68, a(12)=88, a(13)=109, a(14)=135, a(15)=165, a(16)=202, a(17)=241, a(18)=291, a(19)=344, a(20)=407, a(n)=a(n-1)+ a(n-2)- a(n-5)-2*a(n-7)+a(n-9)+a(n-10)+a(n-11)+a(n-12)-2*a(n-14)-a(n-16)+ a(n-19)+ a(n-20)-a (n-21). - Harvey P. Dale, Dec 09 2012

[A084624] 1, 2, 3, 5, 8, 12, 16, 22, 28, 36, 45, 56, 68, 81, 96, 114, 133, 154, 177, 202, 230, 260, 292, 327, 365, 406, 449, 496, 545, 598, 654, 714, 777, 843, 913, 988, 1066, 1148, 1234, 1324, 1419, 1518, 1621, 1729, 1842, 1960, 2082, 2210, 2342, 2480, 2623, 2772, 2926

a(n)=floor(n^3/60+n^2/5+47n/60)+1

[A028955] 0, 2, 3, 5, 8, 12, 17, 18, 20, 23, 27, 30, 32, 38, 45, 47, 48, 50, 53, 57, 62, 68, 72, 75, 80, 83, 92, 93, 95, 98, 102, 107, 108, 113, 120, 122, 125, 128, 137, 138, 147, 152, 153, 155, 158, 162, 167, 170, 173, 180, 183, 188, 192, 197, 200, 207, 212, 218, 227, 228

a(x, y) = (4x^2 + 2xy + 4y^2)/2; x, y any integer.

[A089071] 1, 2, 3, 5, 8, 12, 17, 23, 30, 38, 47, 57, 68, 80, 93, 107, 122, 138, 155, 173, 192, 212, 233, 255, 278, 302, 327, 353, 380, 408, 437, 467, 498, 530, 563, 597, 632, 668, 705, 743, 782, 822, 863, 905, 948, 992, 1037, 1083, 1130, 1178, 1227, 1277, 1328, 1380

a(n) = a(n-1) + n - 2 for n>=3.
a(n) = n + 1 - 0^n + C(n-1,2). (End)

[A177205] 0, 0, 0, 1, 2, 3, 5, 8, 12, 17, 23, 30, 38, 48, 60, 73, 88, 105, 124, 145, 169, 195, 223, 254, 288, 325, 365, 408, 454, 503, 556, 613, 673, 737, 805, 877, 953, 1034, 1119, 1208, 1302, 1401, 1505, 1614, 1728, 1847, 1971, 2101, 2237, 2378, 2525

a(n)=round(n*(n+1)*(2*n+1)/102).
a(n)=floor((2*n^3+3*n^2+n+36)/102).

a(n)=ceil((2*n^3+3*n^2+n-36)/102).
a(n)=a(n-17)+(n+1)*(n-17)+105 , n>16.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-17) -3*a(n-18) +3*a(n-19) -a(n-20) with g.f. x^3 *(1+x) *(x^12-2*x^11+2*x^10-x^9+x^8-x^7+x^6-x^5+x^4-x^3+2*x^2-2*x+1) / ((x^16+x^15+x^14+x^13+x^12+x^11+x^10+x^9+x^8+x^7+x^6+x^5+x^4+x^3+x^2+x+1) *(x-1)^4). - R. J. Mathar, Dec 13 2010
[A175829] 0, 1, 2, 3, 5, 8, 12, 17, 23, 31, 41, 52, 66, 82, 100, 121, 145, 172, 202, 235, 272, 313, 357, 406, 459, 516, 578, 645, 717, 794, 876, 964, 1058, 1157, 1263, 1375, 1493, 1618, 1750, 1889, 2035, 2188, 2349, 2518, 2694, 2879, 3072, 3273, 3483, 3702, 3930
a(n)=round((2*n+1)*(n^2+n+18)/66).
a(n)=floor((n+1)*(2*n^2+n+36)/66).
a(n)=ceil((2*n^3+3*n^2+37*n)/66).
a(n)=a(n-11)+(n+1)*(n-11)+52, n>10.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-11) -3*a(n-12) +3*a(n-13) -a(n-14). [R. J. Mathar, Dec 06 2010]
[A175827] 0, 1, 2, 3, 5, 8, 12, 17, 24, 33, 43, 56, 71, 88, 108, 131, 157, 186, 219, 256, 296, 341, 390, 443, 501, 564, 632, 705, 784, 869, 959, 1056, 1159, 1268, 1384, 1507, 1637, 1774, 1919, 2072, 2232, 2401, 2578, 2763, 2957, 3160, 3372, 3593, 3824, 4065, 4315
a(n)=round((2*n+1)*(2*n^2+2*n+27)/120).
a(n)=floor((2*n^3+3*n^2+28*n+36)/60).
a(n)=ceil((2*n^3+3*n^2+28*n-9)/60).
a(n)=a(n-10)+(n+1)*(n-10)+43.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-10) -3*a(n-11) +3*a(n-12) -a(n-13). [R. J. Mathar, Dec 06 2010]
[A175539] 1, 2, 3, 5, 8, 12, 17, 25, 36, 51, 73, 104, 148, 210, 297, 421, 596, 843, 1193, 1688, 2388, 3378, 4778, 6758, 9558, 13518, 19118, 27037, 38237, 54076, 76476, 108154, 152953, 216309, 305908, 432620, 611818, 865242, 1223637, 1730485, 2447276, 3460971
a(n) = ceil(sqrt(2)*a(n-1)) with a(1)=1. - Benoit Cloitre, Oct 16 2012
[A173564] 1, 1, 2, 3, 5, 8, 12, 18, 26, 36, 50, 68, 92, 124, 165, 220, 291, 385, 508, 670, 882, 1161, 1526, 2005, 2633, 3457, 4536, 5952, 7807, 10239, 13426, 17604, 23080, 30258, 39665, 51995, 68155, 89335, 117096, 153480, 201168, 263669, 345586, 452949, 593664, 778091, 1019808, 1336613, 1751830, 2296030, 3009281
a(n)=a(n-1)+a(n-2)-Floor[a(n-3)/4]-Floor[a(n-4)/2]-Floor[a(n-5)/4]
[A200310] 0, 1, 2, 3, 5, 8, 12, 18, 26, 37, 53, 76, 108, 154, 218, 309, 437, 620, 876, 1242, 1754, 2485, 3509, 4972, 7020, 9946, 14042, 19893, 28085, 39788, 56172, 79578, 112346, 159157, 224693, 318316, 449388, 636634, 898778, 1273269, 1797557, 2546540, 3595116, 5093082, 7190234, 10186165, 14380469
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)+2*a(n-6)-2*a(n-7).
a(n) = floor((29+5(-1^n)*2^((2n-7-(-1^n)/4)/7)-1. (End)
[A136275] 1, 2, 3, 5, 8, 12, 18, 26, 38, 55, 79, 114, 164, 235, 337, 483, 692, 991, 1418, 2029, 2903, 4154, 5944, 8504, 12167, 17408, 24906, 35633, 50980, 72936, 104348, 149289, 213585, 305572, 437175, 625457, 894827, 1280209, 1831566, 2620379, 3748915
a(n) = ceil(a(n-1)*log5(10)). [Max Alekseyev, May 14 2009]
[A077868] 1, 2, 3, 5, 8, 12, 18, 27, 40, 59, 87, 128, 188, 276, 405, 594, 871, 1277, 1872, 2744, 4022, 5895, 8640, 12663, 18559, 27200, 39864, 58424, 85625, 125490, 183915, 269541, 395032, 578948, 848490, 1243523, 1822472, 2670963, 3914487, 5736960, 8407924, 12322412
a(n-3)=Sum(binomial(n-r, r)), r=1, 2, ... which is the case t=3 and k=2 in the general case of t-strings and k blocks: a(n-3, k, t) = Sum(binomial(n-r*(t-1), r)*S2(n-r*(t-1)-1, k-1)), r=1, 2, ... - Augustine O. Munagi, Apr 11 2005
a(n)=a(n-1)+a(n-2)-a(n-5) for n>4. a(n)=a(n-2)+a(n-3)+a(n-4)+2 for n>3. G.f.: 1/((1-x)*(1-x-x^3)- Paul Weisenhorn Oct 28 2011.
[A061419] 1, 2, 3, 5, 8, 12, 18, 27, 41, 62, 93, 140, 210, 315, 473, 710, 1065, 1598, 2397, 3596, 5394, 8091, 12137, 18206, 27309, 40964, 61446, 92169, 138254, 207381, 311072, 466608, 699912, 1049868, 1574802, 2362203, 3543305, 5314958, 7972437, 11958656
a(n) = ceiling((a(n-1) + a(n-2))*9/10) - Franklin T. Adams-Watters, May 01 2006
[A124062] 1, 1, 2, 3, 5, 8, 12, 19, 29, 44, 67, 101, 152, 228, 341, 509, 758, 1127, 1673, 2480, 3672, 5431, 8025, 11848, 17479, 25769, 37968, 55912, 82297, 121081, 178074, 261803, 384781, 565368, 830500, 1219691, 1790901, 2629140, 3859083, 5663565, 8310696
a(n) = a(n-1) +a(n-2) +a(n-3) -a(n-4) -a(n-5) -a(n-6). - Joel B. Lewis, Nov 06 2006
[A060961] 1, 1, 1, 2, 3, 5, 8, 12, 19, 30, 47, 74, 116, 182, 286, 449, 705, 1107, 1738, 2729, 4285, 6728, 10564, 16587, 26044, 40893, 64208, 100816, 158296, 248548, 390257, 612761, 962125, 1510678, 2371987, 3724369, 5847808, 9181920, 14416967, 22636762, 35543051
a(n) = a(n-1) + a(n-3) + a(n-5).
a(n) = sum(m=floor((n+1)/2)..n, (sum(j=0..2*m-n, binomial(j,3*n-5*m+2*j)*binomial(2*m-n,j)))), n>0, a(0)=1. - Vladimir Kruchinin, Mar 11 2013
[A225393] 1, 1, 2, 3, 5, 8, 12, 19, 30, 47, 74, 116, 183, 288, 453, 713, 1122, 1766, 2779, 4373, 6882, 10830, 17043, 26820, 42206, 66419, 104522, 164484, 258845, 407339, 641021, 1008761, 1587466, 2498162, 3931305, 6186612, 9735741, 15320931, 24110227, 37941757
a(n) = a(n-1) + a(n-2) - a(n-6) + a(n-8). - Ilya Gutkovskiy, Nov 16 2016
[A179018] 0, 1, 2, 3, 5, 8, 12, 19, 30, 47, 75, 120, 192, 309, 498, 803, 1297, 2096, 3388, 5479, 8862, 14335, 23191, 37520, 60704, 98217, 158914, 257123, 416029, 673144, 1089164
a(n)=round(Fibonacci(n+2)/2+(n-1)/3).
a(n)=round(Fibonacci(n+2)/2+n/3-1/2).
a(n)=floor(Fibonacci(n+2)/2+n/3-1/6).
a(n)=ceil(Fibonacci(n+2)/2+n/3-1/2).
a(n)=a(n-3)+Fibonacci(n)+1, n>2.
a(n)=2*a(n-1)-2*a(n-4)+a(n-6), n>5.
[A088795] 1, 2, 3, 5, 8, 13, 20, 30, 43, 60, 81, 107, 138, 175, 218, 268, 325, 390, 463, 545, 636, 737, 848, 970, 1103, 1248, 1405, 1575, 1758, 1955, 2166, 2392, 2633, 2890, 3163, 3453, 3760, 4085, 4428, 4790, 5171, 5572, 5993, 6435, 6898, 7383, 7890, 8420, 8973
a(n)=-1/16-3*n^2/8+17*n/12+n^3/12+(-1)^n/16. [From R. J. Mathar, Jul 22 2009]
[A173597] 1, 1, 2, 3, 5, 8, 13, 20, 31, 47, 70, 104, 154, 227, 334, 489, 716, 1046, 1528, 2229, 3251, 4739, 6906, 10063, 14661, 21358, 31112, 45318, 66008, 96142, 140028, 203946, 297035, 432613, 630068, 917646, 1336476, 1946466, 2834861, 4128729, 6013131, 8757595, 12754659, 18576026, 27054324, 39402205, 57385786, 83577258, 121722786, 177278325, 258189982
a(n)=a(n-1)+a(n-2)-Floor[a(n-4)/4]-Floor[a(n-5)/2]-Floor[a(n-6)/4]
[A059923] 1, 2, 3, 5, 8, 13, 20, 31, 48, 74, 114, 176, 271, 417, 642, 988, 1521, 2341, 3603, 5545, 8533, 13131, 20207, 31096, 47853, 73639, 113320, 174383, 268350, 412951, 635471, 977896, 1504837, 2315721, 3563551, 5483776, 8438716, 12985930, 19983416
a(n) = floor(x^n), where x=1.53885131519173... - Paul D. Hanna, Feb 21 2003
[A225394] 1, 1, 2, 3, 5, 8, 13, 20, 32, 51, 81, 129, 205, 326, 519, 826, 1314, 2091, 3327, 5294, 8424, 13404, 21328, 33937, 54000, 85924, 136721, 217548, 346159, 550803, 876429, 1394560, 2219002, 3530841, 5618219, 8939622, 14224586, 22633938, 36014767, 57306132
a(n) = a(n-1) + a(n-2) - a(n-7) + a(n-9). - Ilya Gutkovskiy, Nov 16 2016
[A293644] 0, 1, 1, 1, 2, 3, 5, 8, 13, 20, 33, 53, 86, 140, 226, 366, 592, 958, 1550, 2509, 4059, 6568, 10627, 17194, 27821, 45015, 72836, 117851, 190687, 308537, 499224, 807761, 1306985, 2114747, 3421732, 5536479, 8958211, 14494690, 23452901, 37947592, 61400493
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + a(n-5) + 2 a(n-6) - a(n-7) - 2 a(n-8) + a(n-9) + a(n-10) for n >= 11.
a(n) = floor(1/2 + 3*F(n)/5).
[A117760] 1, 1, 1, 2, 3, 5, 8, 13, 21, 33, 53, 85, 136, 218, 349, 559, 895, 1433, 2295, 3675, 5885, 9424, 15091, 24166, 38698, 61969, 99234, 158908, 254467, 407490, 652533, 1044932, 1673299, 2679533, 4290863, 6871162, 11003117, 17619812, 28215439, 45182718
a(n)=a(n-1)+a(n-3)+a(n-5)+a(n-7); a(0)=0, a(1)=1, a(2)=1, a(3)=1, a(4)=2, a(5)=3, a(6)=5.
[A147660] 1, 1, 2, 3, 5, 8, 13, 21, 34, 54, 87, 140, 225, 362, 582, 936, 1505, 2420, 3892, 6259, 10065, 16186, 26029, 41858, 67313, 108248, 174077, 279938, 450176, 723941, 1164190, 1872167, 3010685, 4841568, 7785863, 12520667, 20134840, 32379408
a(n)=Coefficient_Expansion(1/(-1 + x^2 - x^9 - x^10 + x^11)).
[A225396] 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 88, 142, 229, 369, 595, 959, 1546, 2492, 4017, 6475, 10438, 16826, 27123, 43722, 70479, 113611, 183139, 295217, 475885, 767119, 1236583, 1993351, 3213249, 5179704, 8349597, 13459412, 21696349, 34974155, 56377758, 90880011
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=8, a(6)=13, a(7)=21, a(8)=34, a(9)=55, a(10)=88, a(11)=142, a(n)=a(n-1)+a(n-2)- a(n-10)+ a(n-12). - Harvey P. Dale, Apr 12 2014

[A000045] 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155
a(n)=F(n) has the property: F(n)*F(m) + F(n+1)*F(m+1) = F(n+m+1). - Miklos Kristof, Nov 13 2003
a(n-1) = Sum_{k=0..n} (-1^k*binomial(n-ceiling(k/2), floor(k/2)). - Benoit Cloitre, May 05 2005
a(n) = denominator of continued fraction [1,1,1,...] (with n ones); e.g., 2/3 = continued fraction [1,1,1]; where barover[1] = [1,1,1,...] = 0.6180339.... - Gary W. Adamson, Nov 29 2007
a(n) = Sum_{l_1=0..n+1} Sum_{l_2=0..n}...Sum_{l_i=0..n-i}... Sum_{l_n=0..1} delta(l_1,l_2,...,l_i,...,l_n), where delta(l_1,l_2,...,l_i,...,l_n) = 0 if any l_i + l_(i+1) >= 2 for i=1..n-1 and delta(l_1,l_2,...,l_i,...,l_n) = 1 otherwise. - Thomas Wieder, Feb 25 2009
a(n+1) = 2^n sqrt(Product_{k=1..n} cos(k Pi/(n+1))^2+1/4)) (Kasteleyn's formula specialized). - Sarah-Marie Belcastro (smbelcas(AT)toroidalsnark.net), Jul 04 2009
a(n) = 2*a(n-2) + a(n-3), n > 2. - Gary Detlefs, Sep 08 2010
[A020695] 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155, 165580141
a(n) = Fibonacci(n+3); a(n) = a(n-1) + a(n-2).
a(n) = (2^(-n)*((1-sqrt(5))^n*(-2+sqrt(5))+(1+sqrt(5))^n*(2+sqrt(5))))/sqrt(5). - Colin Barker, Jun 05 2016
[A132916] 0, 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 21892, 39603, 72441, 133936, 245980, 452357, 832273, 1530610, 2815240, 5178123, 9523973, 17517336, 32219432, 59260741, 108997509, 200477682
a(n) = sum a(n-k), k= 1 ... [n^(1/3)] for n>=2; a(0)=0; a(1)=1.
[A109609] 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 234, 378, 612, 990, 1602, 2592, 4194, 6786, 10980, 17766, 28746, 46512, 75259, 121771, 197030, 318801, 515831, 834632, 1350463, 2185095, 3535558, 5720653, 9256211, 14976864, 24233076, 39209940
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(5)=8, a(6)=13, a(7)=21, a(8)=34, a(9)=55, a(10)=89, a(11)=144, a(12)=234, a(13)=378, a(n)=a(n-1)+ a(n-2)+ a(n-12)-a(n-13)-a(n-14). - Harvey P. Dale, Sep 20 2013
[A207976] 2, 3, 5, 8, 13, 21, 34, 56, 92, 152, 251, 414, 684, 1130, 1867, 3084, 5095, 8418, 13908, 22979, 37966, 62727, 103638, 171232, 282911, 467429, 772292, 1275990, 2108206, 3483204, 5754993, 9508472, 15710018
a(1) = 2, a(2) = 3; a(n+1) = floor(a(n)^(1+1/n)) for n > 1.
a(n) = 1 + floor(q^n), where q = lim a(n+1)/a(n) = 1.652213...
a(2) = 3; a(n) = floor(exp((n/(n-1)) * log a(n-1))) for n > 2.
[A229194] 1, 1, 1, 2, 3, 5, 8, 13, 21, 35, 58, 97, 163, 275, 466, 793, 1353, 2315, 3969, 6817, 11726, 20195, 34816, 60073, 103724, 179195, 309724, 535537, 926275, 1602515, 2773034, 4799353, 8307516, 14381675, 24899377, 43112257, 74651790, 129271235, 223862687, 387682633, 671402698, 1162785755, 2013837368, 3487832977, 6040770648, 10462450355, 18120829034, 31385253913, 54359521280, 94151567435, 163072632198
a(n) = round(2^((n-3)/2) + 3^((n-3)/2)).
[A236212] 0, 0, 0, 0, 0, 0, 1, 1, 2, 3, 5, 8, 13, 21, 36, 63, 113, 206, 386, 736, 1433, 2849, 5773, 11919, 25059, 53613, 116658, 258032, 579856, 1323273, 3065246, 7204159, 17172291, 41498712, 101635485, 252180415, 633710357, 1612310803, 4151993262, 10819115820
a(n) = [xi(n)] for n > 0.
[A041247] 1, 1, 2, 3, 5, 8, 13, 21, 475, 496, 971, 1467, 2438, 3905, 6343, 10248, 231799, 242047, 473846, 715893, 1189739, 1905632, 3095371, 5001003, 113117437, 118118440, 231235877, 349354317, 580590194, 929944511, 1510534705, 2440479216, 55201077457, 57641556673
a(n) = 488*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 13 2013
[A293639] 0, 0, 0, 0, 1, 2, 3, 5, 8, 13, 22, 35, 57, 93, 150, 244, 394, 638, 1033, 1672, 2706, 4378, 7084, 11462, 18547, 30010, 48557, 78567, 127124, 205691, 332816, 538507, 871323, 1409831, 2281154, 3690986, 5972140, 9663126, 15635267, 25298394, 40933662, 66232056
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.
a(n) = floor(2*F(n)/5).
[A004697] 0, 0, 0, 0, 0, 0, 1, 2, 3, 5, 8, 13, 22, 36, 58, 94, 152, 246, 399, 646, 1045, 1691, 2736, 4427, 7164, 11592, 18756, 30348, 49104, 79452, 128557, 208010, 336567, 544577, 881144, 1425721, 2306866, 3732588, 6039454
a(n) = floor(Fibonacci(n)/4).
a(n) = ceil(Fibonacci(n)/4-3/4).
a(n) = round(Fibonacci(n)/4-3/8).
a(n) = sum(k=1..n-2,round(Fibonacci(n)/4));
a(n) = a(n-6)+Fibonacci(n-3), n>5. (End)
a(n)= +2*a(n-1) -a(n-2) +a(n-3) -a(n-4) +a(n-5) -a(n-7). - R. J. Mathar, Jan 08 2011
[A124429] 1, 1, 1, 2, 3, 5, 8, 13, 22, 36, 61, 102, 172, 292, 493, 841, 1429, 2439, 4169, 7124, 12216, 20930, 35940, 61749, 106155, 182749, 314638, 542338, 935195, 1613593, 2786037, 4811920, 8316435, 14378247, 24870062, 43036264, 74496224, 129008514
a(n) = Sum_{k=0..[n/3]} C([(n-k)/2],k)*C([(n-k+1)/2],k)).
[A005683] 1, 2, 3, 5, 8, 13, 22, 37, 63, 108, 186, 322, 559, 973, 1697, 2964, 5183, 9071, 15886, 27835, 48790, 85545, 150021, 263136, 461596, 809812, 1420813, 2492945, 4374273, 7675598, 13468787, 23634817, 41474548, 72780553, 127718046, 224125677, 393308019, 690200668
a(3)=1, a(4)=2, a(5)=3, a(6)=5, a(7)=8, a(8)=13, a(n)=2*a(n-1)- a(n-4)- a(n-6). - Harvey P. Dale, Jun 20 2011
[A288382] 1, 2, 3, 5, 8, 13, 22, 39, 72, 137, 266, 523, 1036, 2061, 4110, 8207, 16400, 32785, 65554, 131091, 262164, 524309, 1048598, 2097175, 4194328, 8388633, 16777242
a(n) = -1 + 2^(n-3) + n for n>2.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3) for n>5.
[A257418] 2, 3, 5, 8, 13, 23, 41, 77, 145, 281, 545, 1073, 2113, 4193, 8321, 16577, 33025, 65921, 131585, 262913, 525313, 1050113, 2099201, 4197377, 8392705, 16783361, 33562625, 67121153, 134234113, 268460033, 536903681, 1073790977, 2147549185, 4295065601, 8590065665
a(n) = (2^n+2^(n/2)*(1+(-1)^n+3*sqrt(2)*(1-(-1)^n)/4)+2)/2 for n>1. (Johan Nilsson)
a(0) = 2, a(1) = 3, a(n+1) = 2*a(n)-2^(floor((n-1)/2))-1.
[A132915] 0, 1, 1, 1, 2, 3, 5, 8, 13, 26, 47, 86, 159, 292, 537, 988, 1976, 3793, 7294, 14051, 27114, 52252, 100711, 194128, 374205, 748410, 1469706, 2887160, 5673609, 11153090, 21931975, 43115540, 84761374, 166635588, 327597567, 644042044, 1288084088
a(n) = sum a(n-k), k= 1 ... [sqrt(n)] for n>=2; a(0)=0; a(1)=1.
[A158083] 2, 3, 5, 8, 13, 30, 39, 48, 57, 66, 75, 84, 93, 102, 111, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 255, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435
a(n)=If[n <= 4, a[n - 1] + a[n - 2], If[n == 5, a[n - 1] + a[n - 2] + 9, a[n - 1] + 9]].
[A041957] 1, 2, 3, 5, 8, 13, 47, 389, 436, 1261, 13046, 14307, 84581, 183469, 2653147, 5489763, 30101962, 35591725, 386019212, 807630149, 1193649361, 10356825037, 32264124472, 42620949509, 74885073981, 117506023490, 192391097471, 502288218432, 22293072708479
a(n) = 22485463805950*a(n-28) - a(n-56) for n>55. - Vincenzo Librandi, Dec 27 2013
[A041101] 1, 1, 2, 3, 5, 8, 13, 190, 203, 393, 596, 989, 1585, 2574, 37621, 40195, 77816, 118011, 195827, 313838, 509665, 7449148, 7958813, 15407961, 23366774, 38774735, 62141509, 100916244, 1474968925, 1575885169, 3050854094, 4626739263, 7677593357, 12304332620
a(n) = 198*a(n-7) + a(n-14). - Vincenzo Librandi, Dec 11 2013
[A041809] 1, 1, 2, 3, 5, 8, 13, 528, 541, 1069, 1610, 2679, 4289, 6968, 283009, 289977, 572986, 862963, 1435949, 2298912, 3734861, 151693352, 155428213, 307121565, 462549778, 769671343, 1232221121, 2001892464, 81307919681, 83309812145, 164617731826, 247927543971
a(n) = 536*a(n-7) + a(n-14) for n>13. - Vincenzo Librandi, Dec 24 2013
[A293641] 0, 0, 0, 1, 1, 2, 3, 5, 8, 14, 22, 36, 58, 93, 151, 244, 395, 639, 1034, 1672, 2706, 4378, 7084, 11463, 18547, 30010, 48557, 78567, 127124, 205692, 332816, 538508, 871324, 1409831, 2281155, 3690986, 5972141, 9663127, 15635268, 25298394, 40933662, 66232056
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + a(n-5) + 2 a(n-6) - a(n-7) - 2 a(n-8) + a(n-9) + a(n-10) for n >= 11.
a(n) = floor(1/2 + 2*F(n)/5).
[A293553] 0, 0, 0, 0, 1, 1, 2, 3, 5, 8, 14, 22, 36, 58, 94, 152, 247, 399, 646, 1045, 1691, 2736, 4428, 7164, 11592, 18756, 30348, 49104, 79453, 128557, 208010, 336567, 544577, 881144, 1425722, 2306866, 3732588, 6039454, 9772042, 15811496, 25583539, 41395035, 66978574

a(n) = a(n-1) + a(n-2) + a(n-6) - a(n-7) - a(n-8) for n >= 9.
a(n) = floor(1/2 + F(n)/4).
[A131132] 1, 1, 2, 3, 5, 8, 14, 22, 36, 58, 94, 152, 247, 399, 646, 1045, 1691, 2736, 4428, 7164, 11592, 18756, 30348, 49104, 79453, 128557, 208010, 336567, 544577, 881144, 1425722, 2306866, 3732588, 6039454, 9772042, 15811496, 25583539, 41395035, 66978574, 108373609
a(n) = (number of compositions of n consisting of only 1 or 2 or 6) - (number of compositions with only 7 or ((1 or 2) and 7)) - (number of compositions with only 8 or ((1 or 2) and 8)). The "or" is inclusive. - _Gregory l. Simay_, May 25 2017
[A293545] 0, 0, 0, 1, 2, 3, 5, 8, 14, 22, 36, 59, 96, 155, 251, 406, 658, 1064, 1722, 2787, 4510, 7297, 11807, 19104, 30912, 50016, 80928, 130945, 211874, 342819, 554693, 897512, 1452206, 2349718, 3801924, 6151643, 9953568, 16105211, 26058779, 42163990, 68222770
a(n) = a(n-1) + a(n-2) + a(n-8) - a(n-9) - a(n-10) for n >= 11.
a(n) = floor(2F(n)/3).
[A078843] 1, 2, 3, 5, 8, 14, 23, 39, 64, 103, 169, 269, 427, 676, 1065, 1669, 2628, 4104, 6414, 10023, 15608, 24281, 37733, 58503, 90616, 140187, 216625, 334527, 516126, 795632, 1225641, 1886570, 2901796, 4460359, 6851532, 10518476, 16138642, 24748319
a(n) = a(n-1) + appi3(n-k,[3^n/2^k]), where k = ceil(n*c) with c = log(5/3)/log(5/2) = 0.557492950650240067298570731908359234 43... and appi3(k,n) is the number of k-almost-primes not divisible by 3 and not exceeding n. - Max Alekseyev, Jan 06 2008
[A120400] 1, 1, 2, 3, 5, 8, 14, 23, 39, 65, 109, 182, 305, 510, 854, 1429, 2392, 4003, 6700, 11213, 18767, 31409, 52568, 87980, 147248, 246441, 412456, 690306, 1155330, 1933616, 3236194, 5416251, 9064901, 15171458, 25391689, 42496763, 71124646, 119037660
a(n) = a(n-1) + a(n-2) + a(n-6).
[A000621] 1, 1, 1, 2, 3, 5, 8, 14, 23, 39, 65, 110, 184, 310, 520, 876, 1471, 2475, 4159, 6996, 11759, 19775, 33244, 55902, 93984, 158030, 265696, 446746, 751128, 1262940, 2123444, 3570318, 6002983, 10093259, 16970431, 28533590, 47975381, 80664329, 135626284, 228037752
a(n) = T(2*n-1,1), where T(n,m) = Sum_{i=1..n-m} binomial(i+m-1,i)*((1+(-1)^(n-m))/2)*T((n-m)/2,i), n > m, T(n,n)=1. - Vladimir Kruchinin, Mar 18 2015
[A246360] 1, 2, 3, 5, 8, 14, 23, 41, 68, 122, 203, 365, 608, 1094, 1823, 3281, 5468, 9842, 16403, 29525, 49208, 88574, 147623, 265721, 442868, 797162, 1328603, 2391485, 3985808, 7174454, 11957423, 21523361, 35872268, 64570082, 107616803, 193710245, 322850408, 581130734
a(1) = 1, a(2n) = (3^n+1)/2, a(2n+1) = (5 * 3^(n-1)+1)/2.
[A191388] 1, 1, 2, 3, 5, 8, 14, 23, 41, 69, 125, 214, 393, 682, 1267, 2223, 4171, 7385, 13976, 24935, 47544, 85377, 163863, 295900, 571216, 1036471, 2011130, 3664548, 7143068, 13063637, 25568085, 46912433, 92152906, 169570215, 334194418, 616530391, 1218694221, 2253451666, 4466410838
a(n) = 1+Sum_{i=0..(n-1)/2}(Sum_{k=0..i}((k+1)*binomial(2*i-k,i-k)*binomial(n-2*i-1,k+1))/(i+1)). - Vladimir Kruchinin, Mar 27 2016
[A062692] 2, 3, 5, 8, 14, 23, 41, 71, 127, 226, 412, 747, 1377, 2538, 4720, 8800, 16510, 31042, 58636, 111013, 210871, 401428, 766150, 1465020, 2807196, 5387991, 10358999, 19945394, 38458184, 74248451, 143522117, 277737797, 538038783, 1043325198
a(n) = Sum_{m=1..n} 1/m sum_{d | m } mu(d)*2^{m/d}.
[A290075] 1, 1, 2, 3, 5, 8, 14, 24, 44, 80, 152, 288, 560, 1088, 2144, 4224, 8384, 16640, 33152, 66048, 131840, 263168, 525824, 1050624, 2100224, 4198400, 8394752, 16785408, 33566720, 67125248, 134242304, 268468224, 536920064, 1073807360, 2147581952, 4295098368
a(n) = 2^(n/2-1) + 2^(n-4) for n>2 and even.
a(n) = 3*2^((n-5)/2) + 2^(n-4) for n>2 and odd.
[A104882] 1, 1, 2, 3, 5, 8, 14, 24, 45, 85, 170, 351, 749, 1656, 3758, 8776, 21013, 51473, 129018, 329939, 860901, 2288528, 6192526, 17047248, 47693661, 135554549, 391099370, 1144867871, 3398656893, 10226072720, 31173964942, 96240485104, 300777706053
a(n)=sum{k=0..floor(n/2), sum{j=0..k, (n-2k)^(k-j)}}.
[A192633] 1, 2, 3, 5, 8, 14, 25, 45, 82, 151, 280, 522, 978, 1839, 3474, 6587, 12533, 23919, 45773, 87811, 168830, 325246, 627706, 1213418, 2349157, 4554139, 8839854, 17178532, 33418850, 65077059, 126842635, 247443779, 483100446, 943899893, 1845533988, 3610834385, 7069128528, 13847830787
a(n) = sum(floor(sqrt(binomial(2*k,k)/(k+1))),k=0..n).
[A178833] 1, 2, 3, 5, 8, 14, 25, 49, 96, 199, 413, 894, 1924, 4261, 9392, 21205, 47534, 108492, 246313, 568003, 1302431, 3024429, 6990985, 16343338, 38026783, 89322813, 208986625, 493184761, 1159317065, 2745547588, 6480141829, 15399987104
a(n) = SUM[i=1..n] SUM[k=1..floor(i/2)] a(k)*a(i-k), with a(1) = 1.
[A104880] 1, 1, 2, 3, 5, 8, 14, 26, 53, 117, 280, 721, 1989, 5844, 18188, 59652, 205305, 739041, 2775190, 10846975, 44039765, 185391480, 807776210, 3637193486, 16900721837, 80939650565, 399061251260, 2023408865997, 10540656630133, 56362743769012
a(0)=1, a(1)=1, a(n)=n+sum{k=2..floor(n/2), (k^(n-2k+1)-1)/(k-1)}, n>1.
[A110536] 1, 2, 3, 5, 8, 15, 27, 57, 142, 381, 1110, 3484, 11678, 41566, 156319, 618829, 2570651, 11174315, 50704149, 239641306, 1177394450, 6002778135, 31706648191, 173250478087, 977993291266, 5696294311736, 34193455142322, 211311452026745
a(n) = Sum_{k=1..n} ceiling(k^n/n^k).
[A049861] 0, 2, 3, 5, 8, 15, 28, 53, 99, 185, 345, 644, 1202, 2244, 4189, 7820, 14598, 27251, 50871, 94964, 177275, 330930, 617767, 1153223, 2152791, 4018745, 7502034, 14004500, 26143046, 48802803, 91103140, 170067734, 317475711
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A215525] 1, 1, 2, 3, 5, 8, 16, 17, 18, 36, 54, 57, 73, 81, 84, 100, 105, 205, 305, 405, 413, 429, 634, 734, 788, 824, 842, 926, 928, 1854, 2782, 3606, 6388, 6424, 9206, 9611, 10453, 11381, 11384, 17772, 18560, 18965, 30349, 30351, 36775, 37204, 37633, 38559, 38560, 75764
a(0)=a(1)=1, for n>=2, a(n) = a(n-1) + a(a(n-2) mod n).
[A093000] 2, 3, 5, 8, 16, 38, 101, 284, 852, 2694, 8935, 30952, 111598, 417560, 1617204, 6468816, 26671611, 113158064, 493244565, 2205856753, 10108505545, 47413093714, 227385209453, 1113955476429, 5569777382146, 28400403557929
a(n) = ceiling[(-1 + sqrt(1 + 8n! + 4n^2 + 4n))/2] and ignoring the -1 outside the sqrt and + 1 inside gives the approximate formula in the comment. - Joshua Zucker, May 08 2006
[A205303] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 3, 5, 8, 18, 21, 44, 60, 174, 372, 1344, 2556, 12984, 24048, 82224, 160848, 904032, 1967328, 14812992, 43671744, 374004864, 1108847232, 8442489600, 18677267712, 211090572288, 612702392832, 6883734979584
a(11-n) = a(n).
a(n+7) * a(n-6) = -a(n+6) * a(n-5) + 13 * a(n+3) * a(n-2). [see Grammaticos et al., Equation (3.2) for the general form of this equation.]
a(n+7) * a(n-7) = a(n+5) * a(n-5) + 13 * a(n+1) * a(n-1).
[A135568] 1, 2, 3, 5, 8, 19, 41, 101, 240, 614, 1782, 5024, 15492, 48859, 150069, 470216, 1557591, 5405758, 18319515, 64600395, 229331402, 797199637, 2862671427, 10330509932, 38308974332, 148638820408
a(n) = floor(product of the first n primes/n!).
[A041457] 1, 1, 2, 3, 5, 8, 21, 29, 166, 195, 361, 3444, 3805, 26274, 30079, 296985, 327064, 624049, 3447309, 4071358, 11590025, 15661383, 27251408, 42912791, 70164199, 113076990, 3462473899, 3575550889, 7038024788
a(n) = 3532638098*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Dec 18 2013
[A041157] 1, 2, 3, 5, 8, 21, 386, 793, 1179, 1972, 3151, 8274, 152083, 312440, 464523, 776963, 1241486, 3259935, 59920316, 123100567, 183020883, 306121450, 489142333, 1284406116, 23608452421, 48501310958, 72109763379, 120611074337, 192720837716, 506052749769
a(n) = 394*a(n-6)-a(n-12). G.f.: -(x^10-2*x^9+3*x^8-5*x^7+8*x^6 -21*x^5 -8*x^4 -5*x^3-3*x^2-2*x-1) / (x^12-394*x^6+1). - Colin Barker, Jul 18 2012
[A042785] 1, 2, 3, 5, 8, 21, 1268, 2557, 3825, 6382, 10207, 26796, 1617967, 3262730, 4880697, 8143427, 13024124, 34191675, 2064524624, 4163240923, 6227765547, 10391006470, 16618772017, 43628550504, 2634331802257, 5312292155018, 7946623957275, 13258916112293
a(n) = 1276*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 23 2013
[A041731] 1, 1, 2, 3, 5, 8, 29, 37, 103, 140, 523, 663, 1186, 1849, 3035, 4884, 188627, 193511, 382138, 575649, 957787, 1533436, 5558095, 7091531, 19741157, 26832688, 100239221, 127071909, 227311130, 354383039, 581694169, 936077208, 36152628073, 37088705281
a(n) = 191662*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Dec 23 2013
[A041569] 1, 2, 3, 5, 8, 37, 82, 119, 1986, 2105, 6196, 26889, 33085, 59974, 93059, 246092, 8460187, 17166466, 25626653, 42793119, 68419772, 316472207, 701364186, 1017836393, 16986746474, 18004582867, 52995912208, 229988231699, 282984143907, 512972375606
a(n) = 8553246*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 20 2013]
[A042471] 1, 1, 2, 3, 5, 8, 45, 53, 98, 1719, 1817, 12621, 14438, 258067, 272505, 530572, 2925365, 3455937, 6381302, 9837239, 16218541, 26055780, 1423230661, 1449286441, 2872517102, 4321803543, 7194320645, 11516124188, 64774941585, 76291065773, 141066007358

a(n) = 1439449202*a(n-22) - a(n-44) for n>43. - Vincenzo Librandi, Jan 23 2014
[A041871] 1, 2, 3, 5, 8, 45, 98, 1319, 1417, 5570, 6987, 33518, 40505, 74023, 336597, 410620, 1568457, 1979077, 27296458, 56571993, 310156423, 366728416, 676884839, 1043613255, 2764111349, 117136289913, 237036691175, 354172981088, 591209672263, 945382653351
a(n) = 118179903168*a(n-25) + a(n-50) for n>49. - Vincenzo Librandi, Dec 26 2013
[A042667] 1, 2, 3, 5, 8, 61, 69, 268, 873, 4633, 135230, 680783, 2177579, 7213520, 9391099, 72951213, 82342312, 155293525, 237635837, 630565199, 36810417379, 74251399957, 111061817336, 185313217293, 296375034629, 2259938459696, 2556313494325, 9928878942671
a(n) = 37048053216*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Jan 26 2014
[A047606] 1, 2, 3, 5, 9, 10, 11, 13, 17, 18, 19, 21, 25, 26, 27, 29, 33, 34, 35, 37, 41, 42, 43, 45, 49, 50, 51, 53, 57, 58, 59, 61, 65, 66, 67, 69, 73, 74, 75, 77, 81, 82, 83, 85, 89, 90, 91, 93, 97, 98, 99, 101, 105, 106, 107, 109, 113, 114, 115, 117, 121, 122, 123
a(n) = 2*n-3+(3-(-1)^n)*(1-i^(n*(n+1)))/4, where i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A047370] 2, 3, 5, 9, 10, 12, 16, 17, 19, 23, 24, 26, 30, 31, 33, 37, 38, 40, 44, 45, 47, 51, 52, 54, 58, 59, 61, 65, 66, 68, 72, 73, 75, 79, 80, 82, 86, 87, 89, 93, 94, 96, 100, 101, 103, 107, 108, 110, 114, 115, 117, 121, 122, 124, 128, 129, 131, 135, 136, 138, 142
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4, with a(1)=2, a(2)=3, a(3)=5, a(4)=9. - Harvey P. Dale, Apr 29 2013
a(n) = 7*floor((n-1)/3)+2^((n-1) mod 3)+1. - Gary Detlefs, May 25 2014
a(n) = (1/9)*(21*n+4*sqrt(3)*sin((2*Pi*n)/3)-6*cos((2*Pi*n)/3)-12). - Alexander R. Povolotsky, May 25 2014
a(3k) = 7k-2, a(3k-1) = 7k-4, a(3k-2) = 7k-5. - Wesley Ivan Hurt, Jun 10 2016
[A060482] 1, 2, 3, 5, 9, 13, 21, 29, 45, 61, 93, 125, 189, 253, 381, 509, 765, 1021, 1533, 2045, 3069, 4093, 6141, 8189, 12285, 16381, 24573, 32765, 49149, 65533, 98301, 131069, 196605, 262141, 393213, 524285, 786429, 1048573, 1572861, 2097149, 3145725
a(n) = a(n-1)+2*a(n-2)-2*a(n-3) for n>5. G.f.: x*(2*x^4-x^2+x+1) / ((x-1)*(2*x^2-1)). [Colin Barker, Jan 12 2013]
[A079962] 1, 1, 1, 2, 3, 5, 9, 14, 22, 36, 58, 94, 153, 247, 399, 646, 1045, 1691, 2737, 4428, 7164, 11592, 18756, 30348, 49105, 79453, 128557, 208010, 336567, 544577, 881145, 1425722, 2306866, 3732588, 6039454, 9772042, 15811497, 25583539, 41395035
a(n) = a(n-1) + a(n-3) + a(n-5) + a(n-6).
a(n) + a(n+2) + a(n+4) = Fibonacci(n+5). - Mark Dols, Aug 20 2010
a(n) = round(Fibonacci(n+3)/4). - Mircea Merca, Jan 04 2011
[A293547] 0, 1, 1, 1, 2, 3, 5, 9, 14, 23, 37, 59, 96, 155, 251, 407, 658, 1065, 1723, 2787, 4510, 7297, 11807, 19105, 30912, 50017, 80929, 130945, 211874, 342819, 554693, 897513, 1452206, 2349719, 3801925, 6151643, 9953568, 16105211, 26058779, 42163991, 68222770
a(n) = a(n-1) + a(n-2) - a(n-4) + a(n-5) + a(n-6) for n >= 7.
a(n) = floor(1/2 + 2*F(n)/3).
[A124502] 1, 1, 2, 3, 5, 9, 14, 23, 37, 60, 98, 158, 256, 414, 670, 1085, 1755, 2840, 4595, 7435, 12031, 19466, 31497, 50963, 82460, 133424, 215884, 349308, 565192, 914500, 1479693, 2394193, 3873886, 6268079, 10141965, 16410045, 26552010, 42962055, 69514065, 112476120
a(n+5) = a(n) + Fibonacci(n+5), n>5.
a(n) = 12*a(n-5) - 10*a(n-10) - a(n-15). - Gary Detlefs, Dec 10 2010
[A173714] 0, 1, 2, 3, 5, 9, 14, 23, 38, 61, 99, 161, 260, 421, 682, 1103, 1785, 2889, 4674, 7563, 12238, 19801, 32039, 51841, 83880, 135721, 219602, 355323, 574925, 930249, 1505174
a(0)= 0, a(1)=1, a(n)=a(n-1)+a(n-2)+1 if n mod 3 =2, else a(n)=a(n-1)+a(n-2).
a(n) = a(n-1) +a(n-2) +(1+(-1)^Fib(n+1))/2.
a(n) = Fibonacci(n) + floor(Fibonacci(n+1)/2). - Gary Detlefs, Dec 10 2010
[A026008] 1, 1, 2, 3, 5, 9, 14, 28, 42, 90, 132, 297, 429, 1001, 1430, 3432, 4862, 11934, 16796, 41990, 58786, 149226, 208012, 534888, 742900, 1931540, 2674440, 7020405, 9694845, 25662825, 35357670, 94287120, 129644790, 347993910, 477638700, 1289624490, 1767263190
a(2n) = C(2n+2, n+1)/(n+2), a(2n+1) = 3C(2n+2, n)/(n+3). - Ralf Stephan, Apr 30 2004
[A101461] 1, 1, 1, 2, 3, 5, 9, 14, 28, 48, 90, 165, 297, 572, 1001, 2002, 3640, 7072, 13260, 25194, 48450, 90440, 177650, 326876, 653752, 1225785, 2414425, 4601610, 8947575, 17298645, 33266625, 65132550, 124062000, 245642760, 463991880, 927983760
a(n) = (m+1)*binomial(n+1, (n-m)/2)/(n+1) where m = floor(sqrt(n+2) - (1 + (-1)^floor(n + sqrt(n+2) - 1))/2). a(n) seems to be slightly less than 2^n/n.
[A147877] 1, 1, 2, 3, 5, 9, 15, 25, 43, 70, 113, 181, 283, 436, 666, 999, 1483, 2179, 3166, 4556, 6504, 9200, 12918, 18011, 24938, 34308, 46928, 63815, 86324, 116187, 155626, 207502, 275491, 364226, 479660, 629305, 822655, 1071694, 1391531, 1801041, 2323958, 2989883
a(n) = p(2n) - p(2n-1) - Sum_{j=0..n-2} p(j).
[A005517] 1, 2, 3, 5, 9, 15, 25, 45, 75, 125, 225, 375, 625, 1125, 1875, 3125, 5625, 9375, 15625, 28125, 46875, 78125, 140625, 234375, 390625, 703125, 1171875, 1953125, 3515625, 5859375, 9765625, 17578125, 29296875, 48828125
a(1)=1; a(2)=2; a(n) = 3*5^((n-3)/3) if n=0 (mod 3); a(n)=5^((n-1)/3) if n>=4 and n=1 (mod 3); a(n)=9*5^((n-5)/3) if n>=5 and n = 2 (mod 3) (see the Gutman and Ivic 1994 paper). - Emeric Deutsch, Apr 15 2012
a(n+3) = 5*a(n) for n >= 3 under plausible assumptions about growth of prime numbers. - David W. Wilson, Jul 05 2001
[A079971] 1, 1, 2, 3, 5, 9, 15, 26, 44, 75, 128, 218, 372, 634, 1081, 1843, 3142, 5357, 9133, 15571, 26547, 45260, 77164, 131557, 224292, 382396, 651948, 1111508, 1895013, 3230813, 5508222, 9390983, 16010713, 27296709, 46538235, 79343166, 135272384
a(n) = Sum_{k=0..n} Sum_{j=floor((5*k-n)/4)..k} C(j,n-5*k+4*j)*C(k,j). - Vladimir Kruchinin, Dec 15 2011
[A073031] 1, 1, 2, 3, 5, 9, 15, 26, 44, 75, 129, 220, 377, 644, 1101, 1883, 3219, 5505, 9412, 16093, 27517, 47049, 80448, 137553, 235195, 402148, 687611, 1175712, 2010288, 3437288, 5877241, 10049189, 17182590, 29379620, 50234693, 85893702
a(n) = a(n-1) + a(n-2) + a(n-5) + a(n-10), a(0)=1.
[A286887] 2, 3, 5, 9, 15, 26, 44, 76, 130, 223, 382, 655, 1123, 1925, 3300, 5657, 9698, 16625, 28500, 48857, 83755, 143580, 246137, 421949, 723341, 1240013, 2125736, 3644118, 6247058, 10709240, 18358693, 31472038, 53952053, 92489213, 158552901, 271804912, 465951173
a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-6) for n > 6.
[A239909] 1, 1, 2, 3, 5, 9, 15, 26, 45, 77, 133, 229, 394, 679, 1169, 2013, 3467, 5970, 10281, 17705, 30489, 52505, 90418, 155707, 268141, 461761, 795191, 1369386, 2358197, 4061013, 6993405, 12043229, 20739450, 35715071, 61504345, 105915637, 182395603, 314100514
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-4) for n>4.
[A005169] 1, 1, 1, 2, 3, 5, 9, 15, 26, 45, 78, 135, 234, 406, 704, 1222, 2120, 3679, 6385, 11081, 19232, 33379, 57933, 100550, 174519, 302903, 525734, 912493, 1583775, 2748893, 4771144, 8281088, 14373165, 24946955, 43299485, 75153286, 130440740, 226401112, 392955956, 682038999, 1183789679, 2054659669, 3566196321, 6189714276
a(n) = c * x^(-n) + O((5/3)^n), where c = 0.312363324596741... and x = 0.576148769142756... (Odlyzko Wilf 1988). - Vaclav Kotesovec, Jul 18 2013
[A232866] 1, 2, 3, 5, 9, 16, 27, 42, 61, 84, 111, 142, 177, 216, 259, 306, 357, 412, 471, 534, 601, 672, 747, 826, 909, 996, 1087, 1182, 1281, 1384, 1491, 1602, 1717, 1836, 1959, 2086, 2217, 2352, 2491, 2634, 2781, 2932, 3087, 3246, 3409, 3576, 3747, 3922, 4101, 4284
a(n+4) = 2*n^2 + n + 6 for n >= 1 (conjectured).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n >= 8 (conjectured).
[A137402] 1, 1, 2, 3, 5, 9, 16, 28, 48, 81, 136, 229, 388, 661, 1129, 1928, 3287, 5594, 9510, 16164, 27484, 46757, 79577, 135454, 230552, 392355, 667620, 1135924, 1932721, 3288563, 5595805, 9522067, 16203273, 27572144, 46917243, 79834375, 135845607, 231154212
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=5, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+ a(n-5). - Harvey P. Dale, Aug 22 2011
[A079960] 1, 1, 2, 3, 5, 9, 16, 28, 49, 85, 148, 258, 450, 785, 1369, 2387, 4162, 7257, 12654, 22065, 38475, 67089, 116983, 203983, 355685, 620208, 1081457, 1885737, 3288160, 5733565, 9997618, 17432848, 30397660, 53004405, 92423790, 161159378
a(n) = a(n-1) + a(n-2) + a(n-5) + a(n-6).
[A005314] 0, 1, 2, 3, 5, 9, 16, 28, 49, 86, 151, 265, 465, 816, 1432, 2513, 4410, 7739, 13581, 23833, 41824, 73396, 128801, 226030, 396655, 696081, 1221537, 2143648, 3761840, 6601569, 11584946, 20330163, 35676949, 62608681, 109870576, 192809420, 338356945, 593775046
a(n) = Sum [k=0..n, C(n-k, 2k+1)].
a(n) = Sum(binomial(n-k, 2k+1), {k=0...floor((n-1)/3)}). - Richard Ollerton (r.ollerton(AT)uws.edu.au), May 12 2004
a(n) = sum_{k=0..n} binomial(n-floor((k+1)/2), n-floor((3k-1)/2)). - John Molokach, Jul 21 2013
a(n) = sum(binomial(n-floor((4n+15-6k+(-1)^k)/12), n-floor((4n+15-6k+(-1)^k)/12)-floor((2n-1)/3)+k-1),k,1,floor((2n+2)/3)). - John Molokach, Jul 24 2013

[A114834] 1, 2, 3, 5, 9, 16, 28, 50, 90, 162, 293, 529, 956, 1728, 3124, 5648, 10211, 18462, 33380, 60352, 109119, 197293, 356716, 644961, 1166123, 2108412, 3812120, 6892514, 12462029, 22532007, 40739059, 73658371, 133178227, 240793271, 435366958, 787166465
a(1) = 1, a(2) = 2, for n>2: a(n+1) = a(n) + floor(RMS[a(n),a(n-1)]). a(n+1) = a(n) + floor[Sqrt[[a(n)^2]+[a(n-1)^2]/2]].
[A054650] 1, 1, 1, 2, 3, 5, 9, 16, 28, 51, 93, 171, 315, 585, 1092, 2048, 3855, 7282, 13797, 26214, 49932, 95325, 182361, 349525, 671089, 1290555, 2485513, 4793490, 9256395, 17895697, 34636833, 67108864, 130150524, 252645135, 490853405, 954437177, 1857283155, 3616814565
a(n) = round(hypergeometric([-n/2+1/2, -n/2+1], [3/2], 1)). - Peter Luschny, Sep 18 2014
[A192804] 1, 1, 1, 2, 3, 5, 9, 16, 29, 53, 97, 178, 327, 601, 1105, 2032, 3737, 6873, 12641, 23250, 42763, 78653, 144665, 266080, 489397, 900141, 1655617, 3045154, 5600911, 10301681, 18947745, 34850336, 64099761, 117897841, 216847937, 398845538
a(n) = 2*a(n-1)-a(n-4).
a(n) = a(n-1)+a(n-2)+a(n-3)-1. - Alzhekeyev Ascar M, Feb 05 2012
[A050253] 1, 1, 1, 2, 3, 5, 9, 16, 29, 54, 101, 191, 365, 702, 1359, 2647, 5181, 10187, 20113, 39856, 79243, 158036, 316053, 633689, 1273559, 2565136, 5177043, 10468199, 21204379, 43022215, 87423573, 177906552, 362531425, 739700055, 1511091377
a(n) = sum(k=1..n, ((sum(j=0..k, C(j,n-k-j)*C(k,j)))*C(n-k,k-1))/k). - Vladimir Kruchinin, Nov 21 2014
[A182558] 0, 1, 2, 3, 5, 9, 16, 29, 54, 103, 199, 388, 762, 1505, 2983, 5928, 11802, 23528, 46948, 93743, 187270, 374234, 748036, 1495461, 2990058, 5978894, 11956059, 23909673, 47815889, 95626889, 191246864, 382483950, 764954071, 1529888585, 3059749513
a(0)=0, a(1)=1, a(n) = a(n-1)*2 - floor(sqrt(a(n-2))).
[A107250] 1, 1, 2, 3, 5, 9, 16, 30, 54, 104, 191, 372, 692, 1357, 2550, 5021, 9508, 18773, 35766, 70755, 135461, 268365, 515849, 1023092, 1973159, 3916831, 7575470, 15048428, 29175431, 57990158, 112665488, 224048847, 436089113, 867581269, 1691392152
a(n)=sum{k=0..floor(n/2), C(floor((2n-3k-2)/2), floor((n-2k)/2))}
[A072176] 1, 1, 2, 3, 5, 9, 16, 30, 56, 106, 201, 382, 727, 1384, 2636, 5021, 9565, 18222, 34715, 66137, 126001, 240052, 457338, 871304, 1659978, 3162533, 6025150, 11478911, 21869232, 41664520, 79377833, 151227961, 288114394, 548905795
a(0)=0, a(1)=1, a(2)=1, a(3)=2, a(4)=3, a(n)=2*a(n-1)+a(n-2)-2*a(n-3)- a(n-4)+a(n-5). - Harvey P. Dale, Jun 23 2011
[A049858] 0, 1, 2, 3, 5, 9, 17, 32, 60, 112, 209, 390, 728, 1359, 2537, 4736, 8841, 16504, 30809, 57513, 107363, 200421, 374138, 698426, 1303794, 2433871, 4543454, 8481540, 15833003, 29556423, 55174760, 102998057, 192272694, 358927051
a(n) = 2*a(n-1) -a(n-3) +a(n-4); 4 initial terms required.
[A092483] 1, 1, 1, 2, 3, 5, 9, 17, 32, 60, 114, 218, 418, 803, 1549, 2995, 5802, 11263, 21900, 42648, 83163, 162366, 317352, 620906, 1215941, 2383244, 4674825, 9176508, 18025284, 35429006, 69677045, 137106444, 269928311, 531676976, 1047716394
a(n)=floor(sum(j=1, n-1, j*a(j))/(n-1))
[A000051] 2, 3, 5, 9, 17, 33, 65, 129, 257, 513, 1025, 2049, 4097, 8193, 16385, 32769, 65537, 131073, 262145, 524289, 1048577, 2097153, 4194305, 8388609, 16777217, 33554433, 67108865, 134217729, 268435457, 536870913, 1073741825, 2147483649
a(n) = 2*a(n-1) - 1 = 3*a(n-1) - 2*a(n-2).
a(0) = 1, then a(n) = (Sum i=0..n-1 a(i)) - (n-2). - Gerald McGarvey, Jul 10 2004
a(n) is the a(n-1)-th odd number for n >= 1. - Jaroslav Krizek, Apr 25 2009
[A094373] 1, 2, 3, 5, 9, 17, 33, 65, 129, 257, 513, 1025, 2049, 4097, 8193, 16385, 32769, 65537, 131073, 262145, 524289, 1048577, 2097153, 4194305, 8388609, 16777217, 33554433, 67108865, 134217729, 268435457, 536870913, 1073741825, 2147483649, 4294967297, 8589934593
a(n) = (2^n-0^n)/2 + 1.
a(n) = 3*a(n-1) - 2*a(n-2).
a(2*n) = 2*a(2*n-1)-1, n>0.
a(n) = 2*a(n-1)-1 for n>1, a(0)=1, a(1)=2. [Philippe Deléham, Sep 25 2009]
[A110113] 0, 1, 2, 3, 5, 9, 17, 34, 71, 154, 346, 802, 1914, 4693, 11800, 30379, 79963, 214925, 589223, 1645994, 4681037, 13541446, 39817560, 118925810, 360577616, 1109158545, 3459636358, 10936941299, 35026082521, 113588037953
a(n)=sum{k=0..n, ((1+sqrt(4(k-n)+1))/2)^n/sqrt(4(k-n)+1)-((1-sqrt(4(k-n)+1))/2)^n/sqrt(4(k-n)+1)}
[A097332] 1, 2, 3, 5, 9, 18, 39, 90, 217, 540, 1375, 3563, 9361, 24872, 66707, 180341, 490913, 1344380, 3701159, 10237541, 28436825, 79288844, 221836403, 622599626, 1752360041, 4945087838, 13988490339, 39658308815, 112666081617
a(n)=sum{k=0..n, (-1)^(n+k)binomial(n, k)sum{i=0..k, Catalan(k-i)2^i}}.
[A099236] 1, 2, 3, 5, 9, 18, 39, 91, 226, 594, 1643, 4763, 14419, 45444, 148714, 504150, 1766930, 6390720, 23815168, 91306968, 359694457, 1454213026, 6027213531, 25583995337, 111118605583, 493407322280, 2238131105770, 10363617299670, 48954143141361
a(n)=sum{j=0..n, sum{k=0..n-j, binomial(j(n-j-k), k)}}
[A077643] 1, 2, 3, 5, 9, 19, 39, 79, 157, 310, 621, 1246, 2491, 4980, 9958, 19924, 39844, 79672, 159365, 318736, 637457, 1274916, 2549816, 5099651, 10199363, 20398663, 40797299, 81594571, 163189087, 326378438, 652756861, 1305513511, 2611026987
a(n) = Sum_{j=0..-1+2^n} abs(mu(2^n + j)).
a(n)/2^n approaches 1/Zeta(2), so limiting sequence is floor(2^n/Zeta(2)), n >= 0. - Wouter Meeussen, May 25 2003
[A123389] 2, 3, 5, 9, 19, 42, 101, 241, 615, 1783, 5024, 15492, 48860, 150069, 470216, 1557591, 5405759, 18319515, 64600395, 229331403, 797199638, 2862671427, 10330509932, 38308974332, 148638820408, 577404648509, 2202691807275, 8417429406373, 31637924320505, 119169514940569
a(n) = round((Product_{k=1..n} prime(k))/factorial(n)).
[A110542] 1, 2, 3, 5, 9, 19, 48, 140, 458, 1635, 6272, 25580, 110130, 497832, 2352807, 11584809, 59251847, 313995514, 1720289573, 9725340014, 56636885799, 339259270680, 2087446695738, 13177129073994, 85244657070582, 564567565446106
a(n)=sum{k=0..n, sum{j=0..n-k, C((k-1)*(n-k)-(k-2)*j, j)*C(j, n-k-j)}}
[A047604] 2, 3, 5, 10, 11, 13, 18, 19, 21, 26, 27, 29, 34, 35, 37, 42, 43, 45, 50, 51, 53, 58, 59, 61, 66, 67, 69, 74, 75, 77, 82, 83, 85, 90, 91, 93, 98, 99, 101, 106, 107, 109, 114, 115, 117, 122, 123, 125, 130, 131, 133, 138, 139, 141, 146, 147, 149, 154, 155, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 8*n/3-2-cos(2*n*Pi/3)+5*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 8k-3, a(3k-1) = 8k-5, a(3k-2) = 8k-6. (End)
[A079251] 2, 3, 5, 10, 12, 14, 22, 24, 26, 28, 30, 32, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 190, 192, 194, 196, 198, 200, 202, 204
a(n)=b(n-1)+2, with b(0)=0, b(2n)=2b(n)+1+3[n>1], b(2n+1)=2b(n)+1+5[n>0]. - Ralf Stephan, Oct 07 2003
[A120610] 2, 3, 5, 10, 13, 33, 63, 126, 187, 442, 869, 1753, 3506, 5257, 12269, 24538, 36805, 85876, 171755, 343507, 687019, 1374038, 2061055, 4809126, 9618252, 14427378, 28854567, 62518388, 125036840, 250073665, 500147342, 1000294687, 2000589376
a(1) = 2, a(2) = 3, for n>=2, a(n+1) = a(n) + sum_{1<=k<n, a(k) does not divide a(n)} a(k).
[A133335] 1, 2, 3, 5, 10, 15, 25, 50, 75, 125, 250, 375, 625, 1250, 1875, 3125, 6250, 9375, 15625, 31250, 46875, 78125, 156250, 234375, 390625, 781250, 1171875, 1953125, 3906250, 5859375, 9765625, 19531250
a(n) = 5*a(n-3). G.f.: -(3*x^2+2*x+1)/(5*x^3-1). [Colin Barker, Oct 11 2012]
[A199594] 0, 0, 0, 2, 3, 5, 10, 18, 31, 56, 100, 177, 315, 561, 997, 1773, 3154, 5609, 9975, 17741, 31552, 56114, 99798, 177489, 315660, 561395, 998430, 1775687, 3158023, 5616480, 9988795, 17764868, 31594456, 56190096, 99932940, 177728697, 316086865, 562154046
a(n)=a(n-1)+a(n-2)+a(n-3)-a(n-5) for n>7.
a(n)=2*a(n-1)-a(n-4)-a(n-5)+a(n-6) for n>8.
[A002661] 1, 2, 3, 5, 10, 18, 35, 63, 126, 231, 462, 858, 1716, 3218, 6435, 12155, 24310, 46189, 92378, 176358, 352716, 676039, 1352078, 2600150, 5200300, 10029150, 20058300, 38779380, 77558760, 150270098, 300540195, 583401555, 1166803110, 2268783825, 4537567650
a(n) = ceiling(binomial(n + 1, floor((n + 1) / 2)) / 2). - Sean A. Irvine, May 21 2014; corrected by Matthew House, Jul 29 2015
[A237250] 2, 3, 5, 10, 18, 37, 67, 138, 250, 515, 933, 1922, 3482, 7173, 12995, 26770, 48498, 99907, 180997, 372858, 675490, 1391525, 2520963, 5193242, 9408362, 19381443, 35112485, 72332530, 131041578, 269948677, 489053827, 1007462178, 1825173730, 3759900035
a(n) = 4*a(n-2)-a(n-4).
[A293353] 1, 2, 3, 5, 10, 19, 37, 74, 148, 296, 592, 1183, 2365, 4729, 9458, 18915, 37829, 75657, 151314, 302628, 605255, 1210509, 2421018, 4842036, 9684072, 19368144, 38736288, 77472576, 154945151, 309890301, 619780601, 1239561202, 2479122404, 4958244807, 9916489614

a(n) = ceiling(r*2^n), where r = Euler's constant (0.577216...).
[A293328] 1, 2, 3, 5, 10, 19, 37, 74, 148, 296, 592, 1183, 2365, 4730, 9460, 18919, 37838, 75675, 151349, 302698, 605396, 1210792, 2421583, 4843166, 9686331, 19372661, 38745321, 77490642, 154981283, 309962566, 619925132, 1239850263, 2479700525, 4959401050, 9918802099
a(n) = ceiling(r*2^n), where r = sqrt(1/3).
[A057755] 1, 1, 2, 3, 5, 10, 20, 39, 78, 155, 309, 617, 1234, 2467, 4933, 9865, 19729, 39457, 78914, 157827, 315653, 631306, 1262612, 2525223, 5050446, 10100891, 20201782, 40403563, 80807125, 161614249, 323228497, 646456994, 1292913987, 2585827973
a(n) = floor(lg(F_n)+1) (F_n is the n-th Fermat number) [From Ivan Panchenko, Sep 06 2009]
[A262482] 2, 3, 5, 10, 20, 40, 79, 158, 316, 631, 1261, 2521, 5042, 10083, 20165, 40330, 80660, 161320, 322639, 645278, 1290556, 2581111, 5162221, 10324441, 20648882, 41297763, 82595525, 165191050, 330382100, 660764200, 1321528399, 2643056798, 5286113596
a(n) = 1+floor((2^(n+3)/13).
[A293323] 1, 2, 3, 5, 10, 20, 40, 80, 159, 317, 633, 1266, 2532, 5063, 10126, 20252, 40504, 81007, 162014, 324028, 648056, 1296112, 2592223, 5184445, 10368890, 20737780, 41475559, 82951118, 165902236, 331804472, 663608943, 1327217885, 2654435770, 5308871539
a(n) = ceiling(r*2^n), where r = (-1+sqrt(5))/2.
[A014626] 0, 1, 2, 3, 5, 10, 21, 42, 78, 135, 220, 341, 507, 728, 1015, 1380, 1836, 2397, 3078, 3895, 4865, 6006, 7337, 8878, 10650, 12675, 14976, 17577, 20503, 23780, 27435, 31496, 35992, 40953, 46410, 52395, 58941, 66082, 73853, 82290, 91430, 101311
a(n) = (n^4-6*n^3+11*n^2-6*n)/24 + n.
[A024494] 1, 2, 3, 5, 10, 21, 43, 86, 171, 341, 682, 1365, 2731, 5462, 10923, 21845, 43690, 87381, 174763, 349526, 699051, 1398101, 2796202, 5592405, 11184811, 22369622, 44739243, 89478485, 178956970, 357913941, 715827883, 1431655766, 2863311531, 5726623061, 11453246122
a(n) = (1/3)*(2^n+2*cos((n-2)*Pi/3)).
a(n) = sum{k=0..n, 2^k*2sin(-Pi*(n-k)/3+Pi/3)/sqrt(3)} (offset 0). - Paul Barry, May 18 2004
a(n) = 3a(n-1)-3a(n-2)+2a(n-3). - Paul Curtz, Nov 20 2007
[A101163] 1, 2, 3, 5, 10, 24, 64, 182, 542, 1685, 5473, 18594, 66063, 245078, 947057, 3802469, 15826392, 68158314, 303273906, 1392503108, 6590530876, 32117814629, 160998508095, 829301391150, 4385370872477, 23786062734932, 132224164567459
a(n)=sum{k=0..floor(n/2), if(k=n-k, 1, 2T(n-2k, (k+2)/2)) where T(n, k)=(n/2)sum{j=0..floor(n/2), C(n-j, j)(-1)^j*(2k)^(n-2j)}.
[A011827] 2, 3, 5, 10, 25, 70, 190, 471, 1060, 2189, 4203, 7592, 13027, 21400, 33868, 51901, 77334, 112423, 159905, 223062, 305789, 412666, 549034, 721075, 935896, 1201617, 1527463, 1923860, 2402535, 2976620, 3660760, 4471225, 5426026
a(n+1)= (2*n^6 -6*n^5 +5*n^4 +60*n^3 -7*n^2 +306*n +720)/360 fits terms up to 5426026. [Frank Ellermann]
[A260304] 2, 3, 5, 10, 25, 75, 250, 875, 3125, 11250, 40625, 146875, 531250, 1921875, 6953125, 25156250, 91015625, 329296875, 1191406250, 4310546875, 15595703125, 56425781250, 204150390625, 738623046875, 2672363281250, 9668701171875, 34981689453125, 126564941406250
a(n) = ((5 + 2*sqrt(5))*((5 - sqrt(5))/2)^n + (5 - 2*sqrt(5))*((5 + sqrt(5))/2)^n)/5.
[A011828] 2, 3, 5, 10, 26, 95, 457, 2246, 9705, 35926, 115688, 331201, 859587, 2054860, 4582126, 9627831, 19217260, 36679253, 67308375, 119286676, 204940824, 342425909, 557944719, 888630900, 1386246251, 2121866592, 3191757298
a(n+1) = (12*n^10 -112*n^9 +351*n^8 -132*n^7 +378*n^6 -2856*n^5 +4839*n^4 +56812*n^3 -5580*n^2 +309168*n +725760)/362880 fits terms up to 3191757298. [Frank Ellermann]
[A204518] 0, 1, 2, 3, 5, 10, 27, 49, 98, 267, 485, 970, 2643, 4801, 9602, 26163, 47525, 95050, 258987, 470449, 940898, 2563707, 4656965, 9313930, 25378083, 46099201, 92198402, 251217123, 456335045, 912670090, 2486793147, 4517251249, 9034502498, 24616714347
a(n) = 10*a(n-3)-a(n-6) for n>7; G.f.: -x^2*(x+1)*(3*x^4+7*x^3-2*x^2-x-1) / (x^6-10*x^3+1). - Colin Barker, Sep 18 2014
[A055498] 0, 1, 2, 3, 5, 11, 17, 29, 47, 79, 127, 211, 347, 563, 911, 1481, 2393, 3877, 6271, 10151, 16427, 26591, 43019, 69623, 112643, 182279, 294923, 477209, 772139, 1249361, 2021501, 3270863, 5292367, 8563237, 13855607, 22418849, 36274471
a(n+1) = nextprime(a(n) + a(n-1)) where nextprime(n) is smallest prime >= n.
a(n) is asymptotic to c*phi^n where phi = (1 + sqrt(5))/2 and c = 1.08654127504498856237 5... - Benoit Cloitre, May 02 2004
[A007755] 1, 2, 3, 5, 11, 17, 41, 83, 137, 257, 641, 1097, 2329, 4369, 10537, 17477, 35209, 65537, 140417, 281929, 557057, 1114129, 2384897, 4227137, 8978569, 16843009, 35946497, 71304257, 143163649, 286331153, 541073537, 1086374209, 2281701377, 4295098369
a(n+2) ~ 2^n.
[A070865] 2, 3, 5, 11, 19, 29, 41, 59, 79, 101, 127, 157, 191, 227, 269, 313, 359, 409, 461, 521, 587, 659, 733, 809, 887, 967, 1049, 1151, 1259, 1373, 1489, 1607, 1733, 1861, 1993, 2129, 2267, 2411, 2557, 2707, 2861, 3019, 3181, 3347, 3517, 3691, 3877, 4073, 4271
a(n) » n^2. - Charles R Greathouse IV, Apr 30 2015
[A060696] 1, 1, 2, 3, 5, 11, 23, 63, 153, 489, 1329, 4785, 14235, 56475, 181215, 780255, 2672145, 12348945, 44781345, 220253985, 840523635, 4370620275, 17465201775, 95498916975, 397983749625, 2278224696825, 9867844134225, 58917607974225
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(n) = (n-2)a(n-2)+(n-3)!! for n >= 4
[A076051] 2, 3, 5, 11, 23, 63, 153, 489, 1329, 4785, 14235, 56475, 181215, 780255, 2672145, 12348945, 44781345, 220253985, 840523635, 4370620275, 17465201775, 95498916975, 397983749625, 2278224696825, 9867844134225, 58917607974225
a(n) = o(n)+ e(n) where; o(n)=the product of odd numbers from 1 to n e(n)=the product of even numbers from 2 to n.
a(1)=2, a(2)=3, a(3)=5, a(n) = (n-1)*a(n-2) + (n-2)!! for n >= 4.
[A098179] 1, 2, 3, 5, 11, 27, 63, 135, 271, 527, 1023, 2015, 4031, 8127, 16383, 32895, 65791, 131327, 262143, 523775, 1047551, 2096127, 4194303, 8390655, 16781311, 33558527, 67108863, 134209535, 268419071, 536854527, 1073741823, 2147516415
a(n) = 2^n+2^(n/2)cos(pi*n/4)-1; a(n) = 5a(n-1)-10a(n-2)+10a(n-3)-4a(n-4).
[A006721] 1, 1, 1, 1, 1, 2, 3, 5, 11, 37, 83, 274, 1217, 6161, 22833, 165713, 1249441, 9434290, 68570323, 1013908933, 11548470571, 142844426789, 2279343327171, 57760865728994, 979023970244321, 23510036246274433, 771025645214210753
a(4 - n) = a(n). a(n+2) * a(n-2) = 2 * a(n+1) * a(n-1) - a(n)^2 if n is even. a(n+2) * a(n-2) = 3 * a(n+1) * a(n-1) - a(n)^2 if n is odd.
[A233231] 2, 3, 5, 12, 29, 51, 122, 291, 509, 1212, 2885, 5043, 12002, 28563, 49925, 118812, 282749, 494211, 1176122, 2798931, 4892189, 11642412, 27706565, 48427683, 115248002, 274266723, 479384645, 1140837612, 2714960669, 4745418771, 11293128122, 26875339971
a(n) = a(n-1) + 10*a(n-3) - 10*a(n-4) - a(n-6) + a(n-7) for n>6. [Bruno Berselli, Dec 09 2013]
[A179238] 1, 2, 3, 5, 13, 18, 31, 80, 111, 191, 493, 684, 1177, 3038, 4215, 7253, 18721, 25974, 44695, 115364, 160059, 275423, 710905, 986328, 1697233, 4380794, 6078027, 10458821, 26995669, 37454490, 64450159, 166354808, 230804967, 397159775
a(1) = 1; a(n+1) = a(n) + a(n-1) if n == (0,1) mod 3.
a(n+1) = 2*a(n) + a(n-1) if n == 2 mod 3.
a(n) = +6*a(n-3) +a(n-6). G.f.: x*(1+2*x+3*x^2-x^3+x^4)/(1-6*x^3-x^6). - R. J. Mathar, Jul 06 2010
[A041385] 1, 2, 3, 5, 13, 18, 31, 80, 2271, 4622, 6893, 11515, 29923, 41438, 71361, 184160, 5227841, 10639842, 15867683, 26507525, 68882733, 95390258, 164272991, 423936240, 12034487711, 24492911662, 36527399373, 61020311035, 158568021443, 219588332478
a(n) = 2302*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 16 2013
[A142881] 0, 1, 2, 3, 5, 13, 21, 34, 89, 144, 233, 610, 987, 1597, 4181, 6765, 10946, 28657, 46368, 75025, 196418, 317811, 514229, 1346269, 2178309, 3524578, 9227465, 14930352, 24157817, 63245986, 102334155, 165580141, 433494437, 701408733, 1134903170
a(n) = If[Mod[n, 3] == 2, 2*a(n - 1) + a(n - 2), If[Mod[n, 3] == 1, a(n - 1) + a(n - 2), 2*a(n - 1) - a(n - 2)]].
a(n) = 7*a(n-3)-a(n-6). G.f.: -x^2*(x^4+2*x^3-3*x^2-2*x-1) / (x^6-7*x^3+1). [Colin Barker, Jan 08 2013]
a(0) = 0, a(1) = 1, after which, if n is a multiple of 3, a(n) = 2*a(n-1) - a(n-2), else, if n is of the form 3k+1, a(n) = a(n-1) + a(n-2), and otherwise [when n is of the form 3k+2], a(n) = 2*a(n-1) + a(n-2). - Antti Karttunen, Jan 29 2016, after the original name of the sequence.
[A048736] 1, 1, 1, 1, 2, 3, 5, 13, 22, 41, 111, 191, 361, 982, 1693, 3205, 8723, 15042, 28481, 77521, 133681, 253121, 688962, 1188083, 2249605, 6123133, 10559062, 19993321, 54419231, 93843471, 177690281, 483649942, 834032173, 1579219205, 4298430243, 7412446082, 14035282561, 38202222241, 65877982561
a(n) = 9*a(n-3) - a(n-6) - 3 - (ceiling(n/3) - floor(n/3)), with a(0) = a(1) = a(2) = a(3) = 1, a(4) = 2, a(5) = 3. - Michael Somos
a(n) = 10*a(n-3) - 10*a(n-6) + a(n-9).
a(n) = a(3-n) for all n in Z. - Michael Somos, Feb 05 2012
[A041519] 1, 1, 2, 3, 5, 13, 31, 75, 106, 181, 287, 468, 15263, 15731, 30994, 46725, 77719, 202163, 482045, 1166253, 1648298, 2814551, 4462849, 7277400, 237339649, 244617049, 481956698, 726573747, 1208530445, 3143634637, 7495799719, 18135234075, 25631033794

a(n) = 15550*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 19 2013
[A042695] 1, 1, 2, 3, 5, 13, 57, 70, 127, 578, 1283, 1861, 3144, 5005, 8149, 477647, 485796, 963443, 1449239, 2412682, 6274603, 27511094, 33785697, 61296791, 278972861, 619242513, 898215374, 1517457887, 2415673261, 3933131148, 230537279845, 234470410993
a(n) = 482652*a(n-15) + a(n-30) for n>29. - Vincenzo Librandi, Jan 26 2014
[A041047] 1, 2, 3, 5, 13, 135, 283, 418, 701, 1820, 18901, 39622, 58523, 98145, 254813, 2646275, 5547363, 8193638, 13741001, 35675640, 370497401, 776670442, 1147167843, 1923838285, 4994844413, 51872282415
a(n) = 140*a(n-5) + a(n-10). - Vincenzo Librandi, Dec 10 2013
[A041639] 1, 2, 3, 5, 13, 473, 959, 1432, 2391, 6214, 226095, 458404, 684499, 1142903, 2970305, 108073883, 219118071, 327191954, 546310025, 1419812004, 51659542169, 104738896342, 156398438511, 261137334853, 678673108217, 24693369230665, 50065411569547
a(n) = 478*a(n-5) + a(n-10) for n>9. - Vincenzo Librandi, Dec 22 2013
[A042907] 1, 2, 3, 5, 13, 811, 1635, 2446, 4081, 10608, 661777, 1334162, 1995939, 3330101, 8656141, 540010843, 1088677827, 1628688670, 2717366497, 7063421664, 440649509665, 888362440994, 1329011950659, 2217374391653, 5763760733965, 359570539897483, 724904840528931
a(n) = 816*a(n-5) + a(n-10) for n>9. - Vincenzo Librandi, Feb 01 2014
[A232162] 0, 0, 2, 3, 5, 14, 30, 62, 139, 305, 660, 1444, 3158, 6887, 15037, 32842, 71698, 156538, 341799, 746273, 1629384, 3557592, 7767594, 16959611, 37029365, 80849350, 176525142, 385422198, 841524755, 1837371729, 4011688220, 8759056412
a(n) = a(n-1)+a(n-2)+3*a(n-3)+a(n-4). G.f.: -x^2*(x+2) / (x^4+3*x^3+x^2+x-1). - Colin Barker, Dec 31 2013
[A114411] 1, 2, 3, 5, 14, 33, 65, 238, 627, 1495, 6902, 19437, 55315, 282982, 835791, 2599805, 14998046, 49311669, 158588105, 1004869082, 3501128499, 11576931665, 79384657478, 290593665417, 1030346918185, 7700311775366, 29349960207117
a(n) = n### = prime(n)*((n-3)###) = Prod[i == n mod 3, to n] prime(i). Notationally, prime(0) = 1; (-n)### = 0### = 1.
[A259596] 1, 2, 3, 5, 17, 31, 48, 79, 271, 494, 765, 1259, 4319, 7873, 12192, 20065, 68833, 125474, 194307, 319781, 1097009, 1999711, 3096720, 5096431, 17483311, 31869902, 49353213, 81223115, 278635967, 507918721, 786554688, 1294473409, 4440692161, 8094829634
a(n) = 16*a(n-4) - a(n-8) for n>7. - Colin Barker, Jul 21 2015
[A041293] 1, 1, 2, 3, 5, 18, 23, 41, 64, 105, 2584, 2689, 5273, 7962, 13235, 47667, 60902, 108569, 169471, 278040, 6842431, 7120471, 13962902, 21083373, 35046275, 126222198, 161268473, 287490671, 448759144, 736249815, 18118754704, 18855004519, 36973759223, 55828763742
a(n) = 2648*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 15 2013
[A041713] 1, 2, 3, 5, 18, 23, 64, 151, 668, 1487, 3642, 5129, 19029, 24158, 43187, 110532, 4243403, 8597338, 12840741, 21438079, 77154978, 98593057, 274341092, 647275241, 2863442056, 6374159353, 15611760762, 21985920115, 81569521107, 103555441222
a(n) = 4286590*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Dec 23 2013
[A042555] 1, 2, 3, 5, 18, 41, 223, 933, 4888, 10709, 37015, 47724, 84739, 217202, 12248051, 24713304, 36961355, 61674659, 221985332, 505645323, 2750211947, 11506493111, 60282677502, 132071848115, 456498221847, 588570069962, 1045068291809, 2678706653580
a(n) = 12332790*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 25 2014
[A041891] 1, 1, 2, 3, 5, 18, 59, 1257, 3830, 12747, 16577, 29324, 45901, 75225, 3205351, 3280576, 6485927, 9766503, 16252430, 58523793, 191823809, 4086823782, 12452295155, 41443709247, 53896004402, 95339713649, 149235718051, 244575431700, 10421403849451, 10665979281151
a(n) = 3251252*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 26 2013
[A041195] 1, 2, 3, 5, 23, 28, 51, 130, 2651, 5432, 8083, 13515, 62143, 75658, 137801, 351260, 7163001, 14677262, 21840263, 36517525, 167910363, 204427888, 372338251, 949104390, 19354426051, 39657956492, 59012382543, 98670339035, 453693738683, 552364077718
a(n) = 2702*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 12 2013
[A042669] 1, 2, 3, 5, 28, 33, 457, 490, 2907, 3397, 6304, 16005, 934594, 1885193, 2819787, 4704980, 26344687, 31049667, 429990358, 461040025, 2735190483, 3196230508, 5931420991, 15059072490, 879357625411, 1773774323312, 2653131948723, 4426906272035, 24787663308898
a(n) = 940898*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 20 2013
[A041585] 1, 1, 2, 3, 5, 28, 89, 117, 323, 440, 1643, 8655, 10298, 18953, 29251, 48204, 1668187, 1716391, 3384578, 5100969, 8485547, 47528704, 151071659, 198600363, 548272385, 746872748, 2788890629, 14691325893, 17480216522, 32171542415, 49651758937, 81823301352
a(n) = 1697438*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 20 2013]
[A060301] 2, 3, 5, 30, 180, 300, 450, 1080, 1800, 2700, 3000, 4500, 6480, 6750, 10800, 16200, 18000, 27000, 30000, 38880, 40500, 45000, 64800, 67500, 97200, 101250, 108000, 162000, 180000, 233280, 243000, 270000, 300000, 388800, 405000, 450000, 583200
a(n) is of the form 2^b*3^c*5^d where either b+c+d=1, or where each of b, c and d are positive and the largest of the three is an odd number less than the sum of the other two. For n>3: a(n) is 30 times a power of 6 times a power of 10 times a power of 15.
[A041977] 1, 1, 2, 3, 5, 33, 38, 565, 2298, 2863, 62421, 65284, 323557, 4595082, 4918639, 34106916, 39025555, 73132471, 112158026, 185290497, 8264939894, 8450230391, 16715170285, 25165400676, 41880570961, 276448826442, 318329397403, 4733060390084, 19250570957739
a(n) = 8377097920*a(n-20) - a(n-40) for n>39. [Bruno Berselli, Jan 11 2014]
[A041443] 1, 2, 3, 5, 38, 385, 2733, 3118, 5851, 14820, 450451, 915722, 1366173, 2281895, 17339438, 175676275, 1247073363, 1422749638, 2669823001, 6762395640, 205541692201, 417845780042, 623387472243, 1041233252285, 7912020238238, 80161435634665, 569042069680893
a(n) = 456302*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 18 2013
[A042469] 1, 1, 2, 3, 5, 43, 48, 91, 139, 230, 12559, 12789, 25348, 38137, 63485, 546017, 609502, 1155519, 1765021, 2920540, 159474181, 162394721, 321868902, 484263623, 806132525, 6933323823, 7739456348, 14672780171, 22412236519, 37085016690, 2025003137779
a(n) = 12698*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 23 2014
[A041791] 1, 2, 3, 5, 48, 53, 101, 255, 10301, 20857, 31158, 52015, 499293, 551308, 1050601, 2652510, 107151001, 216954512, 324105513, 541060025, 5193645738, 5734705763, 10928351501, 27591408765, 1114584702101, 2256760812967, 3371345515068, 5628106328035
a(n) = 10402*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 24 2013
[A041131] 1, 1, 2, 3, 5, 83, 88, 171, 259, 430, 7139, 7569, 14708, 22277, 36985, 614037, 651022, 1265059, 1916081, 3181140, 52814321, 55995461, 108809782, 164805243, 273615025, 4542645643, 4816260668, 9358906311, 14175166979, 23534073290, 390720339619, 414254412909
a(n) = 86*a(n-5) + a(n-10). - Vincenzo Librandi, Dec 11 2013
[A041343] 1, 1, 2, 3, 5, 133, 138, 271, 409, 680, 18089, 18769, 36858, 55627, 92485, 2460237, 2552722, 5012959, 7565681, 12578640, 334610321, 347188961, 681799282, 1028988243, 1710787525, 45509463893, 47220251418, 92729715311, 139949966729, 232679682040
a(n) = 136*a(n-5) + a(n-10). - Vincenzo Librandi, Dec 16 2013
[A041655] 1, 1, 2, 3, 5, 183, 188, 371, 559, 930, 34039, 34969, 69008, 103977, 172985, 6331437, 6504422, 12835859, 19340281, 32176140, 1177681321, 1209857461, 2387538782, 3597396243, 5984935025, 219055057143, 225039992168, 444095049311, 669135041479, 1113230090790
a(n) = 186*a(n-5) + a(n-10) for n>9. - Vincenzo Librandi, Dec 22 2013
[A187327] 0, 0, 1, 2, 3, 6, 6, 7, 8, 9, 12, 12, 13, 14, 15, 18, 18, 19, 20, 21, 24, 24, 25, 26, 27, 30, 30, 31, 32, 33, 36, 36, 37, 38, 39, 42, 42, 43, 44, 45, 48, 48, 49, 50, 51, 54, 54, 55, 56, 57, 60, 60, 61, 62, 63, 66, 66, 67, 68, 69, 72, 72, 73, 74, 75, 78, 78, 79, 80, 81, 84, 84, 85, 86, 87, 90, 90, 91, 92, 93, 96, 96, 97, 98, 99, 102, 102, 103, 104, 105, 108, 108, 109, 110, 111, 114, 114, 115, 116, 117, 120, 120, 121, 122, 123, 126, 126, 127, 128, 129, 132, 132, 133, 134, 135, 138, 138, 139, 140, 141, 144
a(n)=floor(n/5)+floor(2n/5)+floor(3n/5).
a(n)= +a(n-1) +a(n-5) -a(n-6). G.f. (x^4*(1+x+x^2+3*x^3)) / ((x^4+x^3+x^2+x+1)*(x-1)^2). - R. J. Mathar, Mar 18 2011
[A187326] 0, 0, 2, 3, 6, 6, 8, 9, 12, 12, 14, 15, 18, 18, 20, 21, 24, 24, 26, 27, 30, 30, 32, 33, 36, 36, 38, 39, 42, 42, 44, 45, 48, 48, 50, 51, 54, 54, 56, 57, 60, 60, 62, 63, 66, 66, 68, 69, 72, 72, 74, 75, 78, 78, 80, 81, 84, 84, 86, 87, 90, 90, 92, 93, 96, 96, 98, 99, 102, 102, 104, 105, 108, 108, 110, 111, 114, 114, 116, 117
a(n) = +1*a(n-1) +1*a(n-4) -1*a(n-5). - Joerg Arndt, Apr 01 2011
a(n) = (6*(n-1)+(1+(-1)^n)*(2+i^n))/4, where i=sqrt(-1). - Bruno Berselli, Mar 08 2011
a(n) = (3*n-4+gcd(4,n))/2. - Jose Eduardo Blazek, Mar 22 2014
a(n+1)=a(n)+(3+gcd(4,n+1)-gcd(4,n))/2 and a(0)=0. - Jose Eduardo Blazek, Mar 23 2014
a(n+4) = a(n) + 6. - Michael Somos, Feb 23 2014
[A060464] 0, 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 60, 61, 62, 63, 64, 65, 66, 69, 70, 71, 72, 73, 74, 75, 78, 79, 80, 81, 82, 83, 84, 87, 88, 89, 90, 91
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8; a(n) = a(n-7) + 9 for n>7.

a(n) = (63*n - 63 + 2*(n mod 7) + 2*((n+1) mod 7) - 12*((n+2) mod 7) + 2*((n+3) mod 7) + 2*((n+4) mod 7) + 2*((n+5) mod 7) + 2*((n+6) mod 7))/49.
a(7k) = 9k-1, a(7k-1) = 9k-2, a(7k-2) = 9k-3, a(7k-3) = 9k-6, a(7k-4) = 9k-7, a(7k-5) = 9k-8, a(7k-6) = 9k-9. (End)

[A047505] 0, 1, 2, 3, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 35, 38, 39, 40, 41, 42, 43, 46, 47, 48, 49, 50, 51, 54, 55, 56, 57, 58, 59, 62, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 78, 79, 80, 81, 82, 83, 86, 87, 88

a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-27-3*cos(n*Pi)+12*cos(n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-5, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)

[A047287] 0, 1, 2, 3, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 34, 35, 36, 37, 38, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 55, 56, 57, 58, 59, 62, 63, 64, 65, 66, 69, 70, 71, 72, 73, 76, 77, 78

a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6. Vincenzo Librandi, May 15 2012
a(n) = (7n - 5 - 2*(n mod 5)/5. - Wesley Ivan Hurt, Dec 28 2016

[A047246] 0, 1, 2, 3, 6, 7, 8, 9, 12, 13, 14, 15, 18, 19, 20, 21, 24, 25, 26, 27, 30, 31, 32, 33, 36, 37, 38, 39, 42, 43, 44, 45, 48, 49, 50, 51, 54, 55, 56, 57, 60, 61, 62, 63, 66, 67, 68, 69, 72, 73, 74, 75, 78, 79, 80, 81, 84, 85, 86, 87, 90, 91, 92, 93, 96, 97, 98

a(n) = floor((6/5)*floor(5*(n-1)/4)). - Bruno Berselli, May 03 2016
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (6n-9-i^(2n)-(1-i)*i^(-n)-(1+i)*i^n)/4 where i=sqrt(-1).

[A003605] 0, 2, 3, 6, 7, 8, 9, 12, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120

a(3n)=3a(n), a(3n+1)=2a(n)+a(n+1), a(3n+2)=a(n)+2a(n+1), n>0. Also a(n+1)-2*a(n)+a(n-1)= { 2 if n=3^k, -2 if n=2*3^k, otherwise 0}, n>1. - Michael Somos, May 03 2000.
a(n) = abs(2*3^floor(log_3(n)) - n) + 2n - 3^floor(log_3(n)) for n>=1. - Theodore Lamort de Gail, Sep 12 2017

[A132188] 1, 2, 3, 6, 7, 8, 9, 12, 17, 18, 19, 22, 23, 24, 25, 32, 33, 38, 39, 42, 43, 44, 45, 48, 57, 58, 63, 66, 67, 68, 69, 76, 77, 78, 79, 90, 91, 92, 93, 96, 97, 98, 99, 102, 107, 108, 109, 116, 129, 138, 139, 142, 143, 148, 149, 152, 153, 154, 155, 158

a(n) = Sum [sqrt(n/k)]^2, where the sum is over all squarefree k not exceeding n.

[A059590] 0, 1, 2, 3, 6, 7, 8, 9, 24, 25, 26, 27, 30, 31, 32, 33, 120, 121, 122, 123, 126, 127, 128, 129, 144, 145, 146, 147, 150, 151, 152, 153, 720, 721, 722, 723, 726, 727, 728, 729, 744, 745, 746, 747, 750, 751, 752, 753, 840, 841, 842, 843, 846, 847, 848, 849, 864, 865

a(n) = a(n - mbs(n)) + (1 + floor(log(n) / log(2)))!. - David A. Corneth, Aug 21 2016

[A047560] 0, 2, 3, 6, 7, 8, 10, 11, 14, 15, 16, 18, 19, 22, 23, 24, 26, 27, 30, 31, 32, 34, 35, 38, 39, 40, 42, 43, 46, 47, 48, 50, 51, 54, 55, 56, 58, 59, 62, 63, 64, 66, 67, 70, 71, 72, 74, 75, 78, 79, 80, 82, 83, 86, 87, 88

a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.

[A047223] 1, 2, 3, 6, 7, 8, 11, 12, 13, 16, 17, 18, 21, 22, 23, 26, 27, 28, 31, 32, 33, 36, 37, 38, 41, 42, 43, 46, 47, 48, 51, 52, 53, 56, 57, 58, 61, 62, 63, 66, 67, 68, 71, 72, 73, 76, 77, 78, 81, 82, 83, 86, 87, 88, 91, 92, 93, 96, 97, 98, 101, 102, 103, 106, 107

a(n) = 2*floor((n-1)/3)+n. - Gary Detlefs, Dec 22 2011
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (15*n-12-6*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-2, a(3k-1) = 5k-3, a(3k-2) = 5k-4. (End)

[A047561] 1, 2, 3, 6, 7, 9, 10, 11, 14, 15, 17, 18, 19, 22, 23, 25, 26, 27, 30, 31, 33, 34, 35, 38, 39, 41, 42, 43, 46, 47, 49, 50, 51, 54, 55, 57, 58, 59, 62, 63, 65, 66, 67, 70, 71, 73, 74, 75, 78, 79, 81, 82, 83, 86, 87, 89

a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.

[A047285] 0, 2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 20, 21, 23, 24, 27, 28, 30, 31, 34, 35, 37, 38, 41, 42, 44, 45, 48, 49, 51, 52, 55, 56, 58, 59, 62, 63, 65, 66, 69, 70, 72, 73, 76, 77, 79, 80, 83, 84, 86, 87, 90, 91, 93, 94, 97, 98, 100, 101, 104, 105, 107, 108, 111

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-13+3*i^(2*n)+(1+i)*i^(-n)+(1-i)*i^n)/8 where i=sqrt(-1).

[A053438] 1, 2, 3, 6, 7, 10, 11, 14, 15, 18, 19, 22, 23, 26, 27, 30, 31, 34, 35, 38, 39, 42, 43, 46, 47, 50, 51, 54, 55, 58, 59, 62, 63, 66, 67, 70, 71, 74, 75, 78, 79, 82, 83, 86, 87, 90, 91, 94, 95, 98, 99, 102, 103, 106, 107, 110, 111, 114, 115, 118, 119, 122

a(n) = 2*n -(1+(-1^n))/2 (with a different offset). - Frank Ellermann, Feb 12 2002

[A042964] 2, 3, 6, 7, 10, 11, 14, 15, 18, 19, 22, 23, 26, 27, 30, 31, 34, 35, 38, 39, 42, 43, 46, 47, 50, 51, 54, 55, 58, 59, 62, 63, 66, 67, 70, 71, 74, 75, 78, 79, 82, 83, 86, 87, 90, 91, 94, 95, 98, 99, 102, 103, 106, 107, 110, 111, 114, 115, 118, 119, 122, 123, 126, 127

a(n) = a(n-1) + 2 + (-1)^n. (End)
a(n) = 2n if n is odd else n = 2n - 1. - Amarnath Murthy, Oct 16 2003
a(n) = (2 + (-1)^n + (-1)^(n+1))*n - (1 + (-1)^n)/2, n >= 1. - Paolo P. Lava, Feb 15 2008
a(n) = (3 + (-1)^(n-1))/2 + 2*(n-1) = 2n + 2 - (n mod 2). - Hieronymus Fischer, Oct 20 2007
a(n) = 4*n - a(n-1) - 3 (with a(1) = 2). - Vincenzo Librandi, Nov 17 2010
a(n) = 2*n + ((-1)^(n-1) - 1)/2. - Gary Detlefs, Oct 29 2013

[A073170] 0, 0, 1, 2, 3, 6, 7, 10, 11, 14, 19, 20, 25, 28, 29, 32, 37, 42, 43, 48, 51, 52, 57, 60, 65, 72, 75, 76, 79, 80, 83, 96, 99, 104, 105, 114, 115, 120, 125, 128, 133, 138, 139, 148, 149, 152, 153, 164, 175, 178, 179, 182, 187, 188, 197, 202, 207, 212, 213, 218, 221

a(n)=Min{x; composite[x]-x=n}

[A069813] 1, 2, 3, 6, 7, 10, 13, 16, 19, 24, 27, 32, 37, 42, 47, 54, 59, 66, 73, 80, 87, 96, 103, 112, 121, 130, 139, 150, 159, 170, 181, 192, 203, 216, 227, 240, 253, 266, 279, 294, 307, 322, 337, 352, 367, 384, 399, 416, 433, 450, 467, 486, 503, 522, 541, 560, 579

a(n) = round((-25 + 9*(-1)^n + 8*exp(-2/3*i*n*Pi) + 8*exp((2*i*n*Pi)/3) + 6*n^2)/36), where i=sqrt(-1).

[A130404] 1, 2, 3, 6, 7, 12, 13, 20, 21, 30, 31, 42, 43, 56, 57, 72, 73, 90, 91, 110, 111, 132, 133, 156, 157, 182, 183, 210, 211, 240, 241, 272, 273, 306, 307, 342, 343, 380, 381, 420, 421, 462, 463, 506, 507, 552, 553, 600, 601, 650, 651, 702, 703, 756, 757, 812, 813

a(1) = 1; for n > 1, a(n) = a(n-1)+1 if n is odd, a(n) = a(n-1)+(n-1) if n is even.
a(1) = 1; a(n) = a(n-1)+n^(n mod 2) = 1/4*(n^2+2n+4+(n mod 2)*(2n-1)). - Rolf Pleisch, Feb 04 2008
a(n) = (2*(n-1)*(n+2)+(2*n-3)*(-1)^n+7)/8 - Bruno Berselli, Mar 31 2011

[A075427] 1, 2, 3, 6, 7, 14, 15, 30, 31, 62, 63, 126, 127, 254, 255, 510, 511, 1022, 1023, 2046, 2047, 4094, 4095, 8190, 8191, 16382, 16383, 32766, 32767, 65534, 65535, 131070, 131071, 262142, 262143, 524286, 524287, 1048574, 1048575, 2097150, 2097151

a(0) = 1; for n>=1, a(2*n) = 2^(n+1)-1, a(2*n-1) = 2^(n+1)-2; a(n) = 2^floor((n+3)/2)-3/2+(-1)^n/2. - Benoit Cloitre, Sep 17 2002 [corrected by _Robert Ferreol_, Jan 26 2011]
a(n) = (-1)^n/2-3/2+2^(n/2)*(1+sqrt(2)+(1-sqrt(2))*(-1)^n). - Paul Barry, Apr 22 2004

[A245479] 1, 2, 3, 6, 7, 14, 21, 42, 49, 98, 147, 294, 343, 686, 1029, 2058, 2401, 4802, 7203, 14406, 16807, 33614, 50421, 100842, 117649, 235298, 352947, 705894, 823543, 1647086, 2470629, 4941258, 5764801, 11529602, 17294403, 34588806, 40353607, 80707214, 121060821

a(n) = 7*a(n-4). G.f.: -x*(2*x+1)*(3*x^2+1) / (7*x^4-1). - Colin Barker, Jul 30 2014
a(n) appears to satisfy x*Prod_{n>=0} (1 + a(2^n+1)x^(2^n)) = Sum_{n>=1} a(n)x^n.

[A109976] 1, 2, 3, 6, 7, 16, 19, 46, 66, 159, 274, 667, 1320, 3263, 7156, 18084, 42794, 111018, 278752, 743889, 1959482, 5383395, 14761634, 41740307, 118517301, 344580865, 1009349749, 3013665637, 9081346743, 27808754039, 86015003997, 269796018547

a(n)=sum{k=1..floor((n+1)/2), sigma(k-1, n-2k+2)}

[A119746] 1, 2, 3, 6, 7, 19, 38, 49, 118, 197, 440, 716, 992, 1268, 1544, 1820, 2040, 2313, 9524, 12113, 33210, 45596, 60298, 74944, 89646, 102032, 116678, 129067, 684624, 826077, 1219334, 2189180, 2203807, 7807703, 15615406, 18789059, 50019871, 100039302

a(1)=1, a(2)=2, for n>=2, a(n+1) = a(n) + sum_{1<=k<n, gcd(a(n),a(k))=1} a(k).

[A047286] 1, 2, 3, 6, 8, 9, 10, 13, 15, 16, 17, 20, 22, 23, 24, 27, 29, 30, 31, 34, 36, 37, 38, 41, 43, 44, 45, 48, 50, 51, 52, 55, 57, 58, 59, 62, 64, 65, 66, 69, 71, 72, 73, 76, 78, 79, 80, 83, 85, 86, 87, 90, 92, 93, 94, 97, 99, 100, 101, 104, 106, 107, 108, 111

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-11+i^(2n)+(1+3i)*i^(-n)+(1-3i)*i^n)/8 where i=sqrt(-1).

[A047244] 0, 2, 3, 6, 8, 9, 12, 14, 15, 18, 20, 21, 24, 26, 27, 30, 32, 33, 36, 38, 39, 42, 44, 45, 48, 50, 51, 54, 56, 57, 60, 62, 63, 66, 68, 69, 72, 74, 75, 78, 80, 81, 84, 86, 87, 90, 92, 93, 96, 98, 99, 102, 104, 105, 108, 110, 111, 114, 116, 117, 120, 122, 123
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (6*n-7-2*cos(2*n*Pi/3))/3.
a(3k) = 6k-3, a(3k-1) = 6k-4, a(3k-2) = 6k-6. (End)
[A047403] 0, 2, 3, 6, 8, 10, 11, 14, 16, 18, 19, 22, 24, 26, 27, 30, 32, 34, 35, 38, 40, 42, 43, 46, 48, 50, 51, 54, 56, 58, 59, 62, 64, 66, 67, 70, 72, 74, 75, 78, 80, 82, 83, 86, 88, 90, 91, 94, 96, 98, 99, 102, 104, 106, 107, 110, 112, 114, 115, 118, 120, 122, 123, 126, 128
a(n) = 2*n - ((n mod 4) == 2).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-9+i^(2*n)+i^(1-n)-i^(1+n))/4, where i=sqrt(-1).
[A082667] 0, 1, 2, 3, 6, 8, 10, 15, 18, 21, 28, 32, 36, 45, 50, 55, 66, 72, 78, 91, 98, 105, 120, 128, 136, 153, 162, 171, 190, 200, 210, 231, 242, 253, 276, 288, 300, 325, 338, 351, 378, 392, 406, 435, 450, 465, 496, 512, 528, 561, 578, 595, 630, 648, 666, 703, 722, 741
a(n) = a(n-1) + 2a(n-3) - 2a(n-4) - a(n-6) + a(n-7), (with 0,0,0 prefixed as in the Comments section). - Clark Kimberling, Apr 15 2012
a(n) = floor((n + 1)/3)*(n - floor((n + 1)/3)). - Wesley Ivan Hurt, Jun 06 2014
[A097383] 0, 2, 3, 6, 8, 11, 13, 17, 20, 24, 27, 31, 34, 38, 41, 46, 50, 55, 59, 64, 68, 73, 77, 82, 86, 91, 95, 100, 104, 109, 113, 119, 124, 130, 135, 141, 146, 152, 157, 163, 168, 174, 179, 185, 190, 196, 201, 207, 212, 218, 223, 229, 234, 240, 245, 251, 256, 262, 267, 273
a(n) = min_{1<=k<=n-1} n + a(k) + a(n-1-k).
[A211519] 0, 1, 2, 3, 6, 8, 11, 15, 19, 23, 29, 34, 40, 47, 54, 61, 70, 78, 87, 97, 107, 117, 129, 140, 152, 165, 178, 191, 206, 220, 235, 251, 267, 283, 301, 318, 336, 355, 374, 393, 414, 434, 455, 477, 499, 521, 545, 568, 592, 617, 642, 667, 694, 720, 747, 775
a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6).
[A198442] 0, 0, 2, 3, 6, 8, 12, 15, 20, 24, 30, 35, 42, 48, 56, 63, 72, 80, 90, 99, 110, 120, 132, 143, 156, 168, 182, 195, 210, 224, 240, 255, 272, 288, 306, 323, 342, 360, 380, 399, 420, 440, 462, 483, 506, 528, 552, 575, 600, 624, 650, 675, 702, 728, 756, 783, 812
a(n) = (2*n^2-5-3*(-1)^n)/8.
a(2n) = n^2-1. a(2n+1) = n(n+1).
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) with n>=4.
a(n) = a(-n) for all n in Z. a(0) = -1. - Michael Somos, Jan 09 2015
[A035106] 1, 2, 3, 6, 8, 12, 15, 20, 24, 30, 35, 42, 48, 56, 63, 72, 80, 90, 99, 110, 120, 132, 143, 156, 168, 182, 195, 210, 224, 240, 255, 272, 288, 306, 323, 342, 360, 380, 399, 420, 440, 462, 483, 506, 528, 552, 575, 600, 624, 650, 675, 702, 728, 756, 783, 812, 840
a(n+2) = (2*n^2+12*n+3*(-1)^n+13)/8, i.e., a(n+2) = (n+2)*(n+4)/4 if n is even and (n+1)*(n+5)/4 if n is odd. - Vladeta Jovovic, Oct 23 2001
a(1)=1, a(2)=2, a(3)=3, a(4)=6, a(5)=8; for n>5, a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). - Harvey P. Dale, May 03 2012
a(n) = floor(n/2)*(1 + ceiling(n/2)), a(1) = 1. - Arkadiusz Wesolowski, Sep 25 2012
a(n) = ceil((n-1)(n+3)/4), n > 1. - Wesley Ivan Hurt, Jun 14 2013
[A049194] 1, 2, 3, 6, 8, 12, 18, 27, 39, 58, 85, 125, 183, 269, 394, 578, 847, 1242, 1820, 2668, 3910, 5731, 8399, 12310, 18041, 26441, 38751, 56793, 83234, 121986, 178779, 262014, 384000, 562780, 824794, 1208795, 1771575, 2596370, 3805165, 5576741
a(n) = (8/9 + (1/18)*(748 - 36*sqrt(93))^(1/3) + (1/18)*(748 + 36*sqrt(93))^(1/3)) * (1/3 + (1/6)*(116 - 12*sqrt(93))^(1/3) + (1/6)*(116 + 12*sqrt(93))^(1/3))^n
[A003405] 1, 1, 2, 3, 6, 8, 13, 19, 30, 41, 59, 80, 113, 149, 202, 264, 350, 447, 578, 730, 928, 1155, 1444, 1777, 2193, 2667, 3249, 3915, 4721, 5635, 6728, 7967, 9432, 11083, 13016, 15191, 17717, 20544, 23801, 27440, 31604, 36234, 41501, 47345, 53954, 61260, 69480, 78546, 88699
a(n) = p(n,8) + p(n-4,8) + p(n-7,8) + 2p(n-8,8) + p(n-9,8) + p(n-12,8) + p(n-16,8) where p(n,k) is the number of partitions of n into at most k parts. - Sean A. Irvine, Apr 22 2015
[A133586] 1, 2, 3, 6, 8, 16, 21, 42, 55, 110, 144, 288, 377, 754, 987, 1974, 2584, 5168, 6765, 13530, 17711, 35422, 46368, 92736, 121393, 242786, 317811, 635622, 832040, 1664080, 2178309, 4356618, 5702887, 11405774, 14930352, 29860704, 39088169, 78176338, 102334155
a(n) = (2^(-2-n)*((1-sqrt(5))^n*(-5+sqrt(5)) - (-1-sqrt(5))^n*(-3+sqrt(5)) - (-1+sqrt(5))^n*(3+sqrt(5)) + (1+sqrt(5))^n*(5+sqrt(5))))/sqrt(5). - Colin Barker, Mar 28 2016
[A047404] 1, 2, 3, 6, 9, 10, 11, 14, 17, 18, 19, 22, 25, 26, 27, 30, 33, 34, 35, 38, 41, 42, 43, 46, 49, 50, 51, 54, 57, 58, 59, 62, 65, 66, 67, 70, 73, 74, 75, 78, 81, 82, 83, 86, 89, 90, 91, 94, 97, 98, 99, 102, 105, 106, 107, 110, 113, 114, 115, 118, 121, 122, 123
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (4*n-4+i^(1-n)-i^(1+n))/2 where i = sqrt(-1).
[A047284] 2, 3, 6, 9, 10, 13, 16, 17, 20, 23, 24, 27, 30, 31, 34, 37, 38, 41, 44, 45, 48, 51, 52, 55, 58, 59, 62, 65, 66, 69, 72, 73, 76, 79, 80, 83, 86, 87, 90, 93, 94, 97, 100, 101, 104, 107, 108, 111, 114, 115, 118, 121, 122, 125, 128, 129, 132, 135, 136, 139, 142
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-9+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-4, a(3k-2) = 7k-5. (End)
[A077121] 1, 2, 3, 6, 9, 12, 15, 19, 23, 28, 32, 37, 42, 47, 53, 59, 65, 71, 77, 83, 90, 97, 104, 111, 118, 126, 133, 141, 149, 157, 165, 173, 182, 190, 199, 208, 217, 226, 235, 244, 253, 263, 273, 282, 292, 302, 312, 323, 333, 344, 354, 365, 375, 386, 397, 408, 420
a(n) = floor(n^(3/2))+1.
[A008810] 0, 1, 2, 3, 6, 9, 12, 17, 22, 27, 34, 41, 48, 57, 66, 75, 86, 97, 108, 121, 134, 147, 162, 177, 192, 209, 226, 243, 262, 281, 300, 321, 342, 363, 386, 409, 432, 457, 482, 507, 534, 561, 588, 617, 646, 675, 706, 737, 768, 801, 834, 867, 902, 937, 972, 1009, 1046
a(-n) = a(n) = ceiling(n^2/3).
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5), n>4. - Harvey P. Dale, Jun 20 2011
[A144677] 1, 2, 3, 6, 9, 12, 18, 24, 30, 40, 50, 60, 75, 90, 105, 126, 147, 168, 196, 224, 252, 288, 324, 360, 405, 450, 495, 550, 605, 660, 726, 792, 858, 936, 1014, 1092, 1183, 1274, 1365, 1470, 1575, 1680, 1800, 1920, 2040, 2176, 2312, 2448, 2601, 2754, 2907, 3078, 3249, 3420
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
a(n) = ((2 + floor(n/3))^3 - floor((n+4)/3) + floor((n+4)/3)^3 - floor((n+5)/3) + floor((n+5)/3)^3 - floor((n+6)/3))/6. (End)
[A008823] 1, 2, 3, 6, 9, 14, 19, 24, 31, 38, 47, 56, 65, 76, 87, 100, 113, 126, 141, 156, 173, 190, 207, 226, 245, 266, 287, 308, 331, 354, 379, 404, 429, 456, 483, 512, 541, 570, 601, 632, 665, 698, 731, 766, 801, 838, 875
a(n) = floor(n*(2*n+3)/5)+1. - Tani Akinari, Jun 15 2014
a(0)=1, a(1)=2, a(2)=3, a(3)=6, a(4)=9, a(5)=14, a(6)=19, a(n)= 2*a(n-1)- a(n-2)+a(n-5)-2*a(n-6)+a(n-7). - Harvey P. Dale, Jan 02 2016
[A261243] 1, 1, 2, 3, 6, 9, 14, 19, 26, 33, 42, 51, 62, 73, 86, 99, 114, 129, 146, 163, 182, 201, 222, 243, 266, 289, 314, 339, 366, 393, 422, 451, 482, 513, 546, 579, 614, 649, 686, 723, 762, 801, 842, 883, 926
a(n) = ceiling(((n-2)^2)/2) + 1, n >= 2, a(1) = 1.
a(n) = (1/2)*(n-2)^2+1 if n is even, a(n) = (ceiling((n-2)/2))^2 + (floor((n-2)/2))^2 + 1 if n is odd >= 3, and a(1) = 1.
[A061925] 1, 2, 3, 6, 9, 14, 19, 26, 33, 42, 51, 62, 73, 86, 99, 114, 129, 146, 163, 182, 201, 222, 243, 266, 289, 314, 339, 366, 393, 422, 451, 482, 513, 546, 579, 614, 649, 686, 723, 762, 801, 842, 883, 926, 969, 1014, 1059, 1106, 1153, 1202, 1251, 1302, 1353, 1406
a(n) = floor((n^2+3)/2). - Gary Detlefs, Feb 13 2010
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
a(n) = (2*n^2 - (-1)^n+5)/4. - Bruno Berselli, Sep 29 2011
[A073736] 1, 2, 3, 6, 9, 14, 19, 26, 33, 42, 55, 64, 79, 96, 107, 126, 149, 166, 187, 216, 237, 260, 295, 320, 349, 392, 421, 452, 499, 530, 565, 626, 661, 702, 765, 810, 853, 922, 973, 1020, 1095, 1152, 1201, 1286, 1345, 1398, 1485, 1556, 1621, 1712, 1785, 1854, 1951
a(n) = Sum_{m<=n, m=n (mod 3)} p_m, where p_m is the m-th prime; that is, a(3n+k) = p_(3n) + p_(3(n-1)) + p_(3(n-2)) + ... + p_k, for 0<=k<3, where a(0)=1 and the 0th prime is taken to be 1.
[A084628] 1, 2, 3, 6, 9, 14, 20, 28, 39, 52, 68, 87, 110, 138, 171, 209, 253, 303, 361, 427, 501, 585, 678, 783, 899, 1027, 1169, 1325, 1496, 1683, 1887, 2109, 2350, 2611, 2893, 3198, 3526, 3878, 4257, 4662, 5096, 5559, 6053, 6580, 7140, 7735, 8366, 9035, 9744, 10494
a(n)=floor(n^4/840+11n^3/420+179n^2/840+319n/420)+1

[A228364] 0, 0, 1, 1, 2, 3, 6, 9, 14, 22, 32, 48, 70, 101, 146, 208, 296, 419, 590, 829, 1160, 1619, 2254, 3130, 4338, 6000, 8284, 11419, 15716, 21600, 29648, 40645, 55658, 76135, 104042, 142045, 193758, 264078, 359636, 489408, 665538, 904449, 1228342, 1667216, 2261592
a(0)=a(1)=0, a(2)=1, a(3)=2, a(4)=3, a(5)=6; for n>5, a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-2*a(n-5)-a(n-6).
[A018060] 1, 1, 2, 3, 6, 9, 14, 23, 36, 56, 88, 138, 216, 338, 529, 828, 1296, 2028, 3174, 4968, 7776, 12170, 19047, 29810, 46656, 73020, 114283, 178863, 279936, 438123, 685700, 1073179, 1679616, 2628741, 4114202, 6439074, 10077696, 15772446, 24685212, 38634446
a(n) = floor(6^(n/4)). - Wesley Ivan Hurt, Aug 28 2015
[A080239] 1, 1, 2, 3, 6, 9, 15, 24, 40, 64, 104, 168, 273, 441, 714, 1155, 1870, 3025, 4895, 7920, 12816, 20736, 33552, 54288, 87841, 142129, 229970, 372099, 602070, 974169, 1576239, 2550408, 4126648, 6677056, 10803704, 17480760, 28284465, 45765225, 74049690
a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-5) - a(n-6).
a(n) = Sum_{j=0..floor(n/2)} Sum_{k=0..floor((n-j)/2)} binomial(n-j-2k, j-2k} for n>=0.
a(n) = 8*a(n-4) - 8*a(n-8) + a(n-12), n>12. - Gary Detlefs, Dec 10 2010
a(n) = Sum_{k=0..floor((n-1)/4)} Fibonacci(n-4*k). - Johannes W. Meijer, Apr 19 2012
[A114323] 1, 2, 3, 6, 9, 15, 25, 39, 63, 99, 158, 251, 398, 630, 999, 1584, 2511, 3981, 6309, 9999, 15848, 25118, 39810, 63095, 99999, 158489, 251188, 398107, 630957, 999999, 1584893, 2511886, 3981071, 6309573, 9999999, 15848931, 25118864, 39810717
a(n) = ceiling((10^n)^(1/5))-1.
[A293631] 0, 0, 1, 2, 3, 6, 9, 15, 25, 41, 66, 108, 174, 282, 457, 740, 1197, 1938, 3135, 5073, 8209, 13283, 21492, 34776, 56268, 91044, 147313, 238358, 385671, 624030, 1009701, 1633731, 2643433, 4277165, 6920598, 11197764, 18118362, 29316126, 47434489, 76750616
a(n) = a(n-1) + a(n-2) + a(n-6) - a(n-7) - a(n-8) for n >= 8.
a(n) = floor(F(n)/4).
[A018158] 1, 2, 3, 6, 9, 15, 26, 45, 77, 131, 225, 387, 665, 1143, 1964, 3375, 5801, 9971, 17137, 29455, 50625, 87013, 149556, 257052, 441813, 759375, 1305193, 2243329, 3855770, 6627189, 11390625, 19577887, 33649922
a(n) = ceiling(15^(n/5)). - Wesley Ivan Hurt, Dec 28 2013
[A062114] 0, 1, 2, 3, 6, 9, 16, 25, 42, 67, 110, 177, 288, 465, 754, 1219, 1974, 3193, 5168, 8361, 13530, 21891, 35422, 57313, 92736, 150049, 242786, 392835, 635622, 1028457, 1664080, 2692537, 4356618, 7049155, 11405774, 18454929, 29860704, 48315633
a(n+1)=sum(k=0, n, binomial(n-floor(k/2), floor(k/2))) - Benoit Cloitre, May 05 2005
a(n)=(1/2)*[(-1)^n-1]+(2/5)*sqrt(5)*{[(1/2)+(1/2)*sqrt(5)]^n-[(1/2)-(1/2)*sqrt(5)]^n}, with n>=0 [From Paolo P. Lava, Jan 13 2009]
a(n)=a(n-1)+2*a(n-2)-a(n-3)-a(n-4), n>3[From Harvey P. Dale, Nov 02 2011]
[A275548] 1, 1, 2, 3, 6, 9, 16, 25, 43, 68, 113, 181, 298, 479, 781, 1260, 2048, 3308, 5364, 8672, 14048, 22720, 36782, 59502, 96305, 155807, 252136, 407943, 660113, 1068056, 1728210, 2796266, 4524531, 7320797, 11845394, 19166191, 31011673, 50177864, 81189642, 131367506
a(2k) = p(k) + Sum_{j=0..(k-1)} p(j)*F(2k - 2j).
a(2k+1) = a(2k) + a(2k-1).
a(2k) = a(2k-1) + a(2k-2) + p(k) - p(k-1).
[A260710] 1, 1, 2, 3, 6, 9, 16, 25, 43, 69, 116, 188, 313, 511, 846, 1386, 2288, 3756, 6191, 10174, 16756, 27552, 45357, 74604, 122787, 201996, 332414, 546901, 899946, 1480699, 2436459, 4008858, 6596366, 10853563, 17858788, 29384804, 48350401, 79555943, 130902711
a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-5) - a(n-7).
[A056768] 1, 1, 2, 3, 6, 9, 17, 23, 40, 87, 111, 219, 336, 413, 614, 1083, 1850, 2198, 3630, 5007, 5861, 9282, 12488, 19232, 33439, 43709, 49871, 64671, 73506, 94625, 221265, 279516, 394170, 441250, 766262, 853692, 1175344, 1608014, 1975108, 2675925
a(n) = [x^prime(n)] Product_{k>=1} 1/(1 - x^prime(k)). - Ilya Gutkovskiy, Jun 05 2017
[A079289] 1, 1, 2, 3, 6, 9, 17, 26, 47, 73, 128, 201, 345, 546, 923, 1469, 2456, 3925, 6509, 10434, 17199, 27633, 45344, 72977, 119345, 192322, 313715, 506037, 823848, 1329885, 2161925, 3491810, 5670119, 9161929, 14864816, 24026745, 38957097, 62983842
a(n) = a(n-2) + a(n-1) + floor(2^(n/2-2))*(1-(-1)^(n+1))/2 for n>1.
[A038754] 1, 2, 3, 6, 9, 18, 27, 54, 81, 162, 243, 486, 729, 1458, 2187, 4374, 6561, 13122, 19683, 39366, 59049, 118098, 177147, 354294, 531441, 1062882, 1594323, 3188646, 4782969, 9565938, 14348907, 28697814, 43046721, 86093442, 129140163, 258280326, 387420489
a(n) = a(n-1)*a(n-2)/a(n-3) with a(0)=1, a(1)=2, a(2)=3.
a(2n) = (3/2)*a(2n-1) = 3^n, a(2n+1) = 2*a(2n) = 2*3^n.
a(1)=1, a(n)=2*a(n-1) if a(n-1) is odd, or a(n)=3/2*a(n-1) if a(n-1) is even. - Benoit Cloitre, Apr 27 2003
a(n) = (1/6)*(5-(-1)^n)*3^floor(n/2); a(2n) = a(2n-1) + a(2n-2) + a(2n-3); a(2n+1) = a(2n) + a(2n-1). - Benoit Cloitre, Apr 27 2003
a(n) = sqrt(3)(2+sqrt(3))(sqrt(3))^n/6-sqrt(3)(2-sqrt(3))(-sqrt(3))^n/6. - Paul Barry, Sep 16 2003
a(n+1) = a(n) + a(n - n mod 2). - Reinhard Zumkeller, May 26 2008
[A182522] 1, 1, 2, 3, 6, 9, 18, 27, 54, 81, 162, 243, 486, 729, 1458, 2187, 4374, 6561, 13122, 19683, 39366, 59049, 118098, 177147, 354294, 531441, 1062882, 1594323, 3188646, 4782969, 9565938, 14348907, 28697814, 43046721, 86093442, 129140163, 258280326, 387420489
a(n) = (3-(1+(-1)^n)*(3-2*sqrt(3))/2)*sqrt(3)^(n-3) for n>0, a(0)=1. - Bruno Berselli, Mar 19 2013
a(0) = 1, a(1) = 1, a(n) = a(n-1) + a(n-2) if n is odd, and a(n) = a(n-1) + a(n-2) + a(n-3) if n is even. - Jon Perry, Mar 19 2013
[A095718] 1, 2, 3, 6, 9, 18, 30, 56, 101, 186, 339, 630, 1167, 2182, 4092, 7710, 14561, 27594, 52425, 99862, 190647, 364722, 699045, 1342176, 2581107, 4971024, 9586975, 18512790, 35791386, 69273666, 134217720, 260301046, 505290269, 981706808
a(n) = sum(floor(C(n, k)/(k+1)), k=0..n)
[A161704] 1, 2, 3, 6, 9, 18, 59, 190, 513, 1186, 2435, 4566, 7977, 13170, 20763, 31502, 46273, 66114, 92227, 125990, 168969, 222930, 289851, 371934, 471617, 591586, 734787, 904438, 1104041, 1337394, 1608603, 1922094, 2282625, 2695298, 3165571, 3699270
a(n) = C(n,0) + C(n,1) + 2*C(n,3) - 4*C(n,4) + 12*C(n,5).
[A193196] 1, 1, 2, 3, 6, 9, 19, 29, 57, 94, 172, 280, 519, 833, 1472, 2433, 4185, 6800, 11666, 18816, 31686, 51340, 84929, 136561, 225476, 359746, 586133, 936243, 1511650, 2397400, 3856698, 6084186, 9711492, 15299490, 24247456, 38016261, 60079125, 93752706, 147284928
a(n) = sum(prod(j=2..m, min(C[j-1], C[j]))) where the sum is over all partitions C[1..m] (m parts) of n, see example. - Joerg Arndt, Sep 03 2014
[A286954] 0, 2, 3, 6, 10, 11, 14, 14, 30, 62, 66, 99, 143, 212, 343, 478, 697, 992, 1501, 2246, 3251, 4776, 6969, 10283, 15210, 22297, 32727, 47984, 70644, 103961, 152706, 224382, 329508, 484451, 712274, 1046736, 1538164, 2260109, 3321932, 4882574, 7175738, 10545581
a(n) = a(n-2) + a(n-3) + a(n-4) + a(n-5) - a(n-7) - 2*a(n-8) - a(n-9) + 2*a(n-10) + a(n-11) - a(n-14) for n > 14.
[A047402] 2, 3, 6, 10, 11, 14, 18, 19, 22, 26, 27, 30, 34, 35, 38, 42, 43, 46, 50, 51, 54, 58, 59, 62, 66, 67, 70, 74, 75, 78, 82, 83, 86, 90, 91, 94, 98, 99, 102, 106, 107, 110, 114, 115, 118, 122, 123, 126, 130, 131, 134, 138, 139, 142, 146, 147, 150, 154, 155, 158
a(n) = a(n-3)+8. - Herman Jamke (hermanjamke(AT)fastmail.fm), Sep 14 2006
a(n) = 1+2*[-1/2-(1/2)*I*sqrt(3)]^(-2)*[-1/2-(1/2)*I*sqrt(3))^(n-1)+2*[-1/2+(1/2)*I*sqrt(3)]^(-2)*[-1/2+(1/2)*I*sqrt(3)]^(n-1)+(8/3)*(n-1)-(4/9)*I*sqrt(3)*[-1/2+(1/2)*I*sqrt(3)]^(n-1)+2*[-1/2-(1/2)*I*sqrt(3)]^(n-1)+2*[-1/2+(1/2)*I*sqrt(3)]^(n-1)+(4/9)*I*sqrt(3)*[-1/2-(1/2)*I*sqrt(3)]^(n-1)+[-1/2-(1/2)*I*sqrt(3)]^(-1)*[-1/2-(1/2)*I *sqrt(3)]^(n-1)+[-1/2+(1/2)*I*sqrt(3)]^(-1)*[-1/2+(1/2)*I*sqrt(3)]^(n-1), for n>=1 where I=sqrt(-1). - Paolo P. Lava, Oct 01 2008
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-15-3*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-5, a(3k-2) = 8k-6. (End)
[A001635] 0, 2, 3, 6, 10, 11, 21, 30, 48, 72, 110, 171, 260, 401, 613, 942, 1445, 2216, 3401, 5216, 8004, 12278, 18837, 28899, 44335, 68018, 104349, 160089, 245601, 376791, 578057, 886830, 1360538, 2087279, 3202216, 4912704, 7536863, 11562737, 17739062, 27214520
a(n) = a(n-2) + a(n-3) + a(n-4) + a(n-5), n >= 6.
a(n) = Sum_{k=0..n} C(2n+1, 2k+1)2^k. - Pat Costello (pat.costello(AT)eku.edu), May 20 2003
[A140785] 2, 3, 6, 10, 12, 15, 18, 20, 28, 30, 35, 40, 42, 45, 49, 56, 60, 63, 70, 72, 77, 80, 84, 90, 100, 102, 105, 108, 110, 120, 130, 133, 138, 143, 150, 154, 161, 165, 168, 175, 180, 187, 192, 195, 198, 208, 221, 225, 228, 230, 238, 240, 242, 252, 259, 266, 270, 273
a(n) = (p(n+1)-p(n)+1) * floor(p(n+1)/(p(n+1)-p(n)+1)), where p(n) is the n-th prime.
[A102366] 1, 1, 2, 3, 6, 10, 15, 21, 28, 84, 120, 165, 220, 286, 364, 455, 1820, 2380, 3060, 3876, 4845, 5985, 7315, 8855, 10626, 53130, 65780, 80730, 98280, 118755, 142506, 169911, 201376, 237336, 278256, 324632, 1947792, 2324784, 2760681, 3262623, 3838380

a(n) = binomial(n, floor(sqrt(n))). [From Paul D. Hanna, Jun 25 2011]
[A269403] 0, 2, 3, 6, 10, 16, 21, 28, 36, 46, 55, 66, 78, 92, 105, 120, 136, 154, 171, 190, 210, 232, 253, 276, 300, 326, 351, 378, 406, 436, 465, 496, 528, 562, 595, 630, 666, 704, 741, 780, 820, 862, 903, 946, 990, 1036, 1081, 1128, 1176, 1226, 1275, 1326, 1378, 1432, 1485
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6).
a(n) = (2*n^2 + 2*n + 2*sin((Pi*n)/2) - (-1)^n + 1)/4.
[A001636] 0, 2, 3, 6, 10, 17, 21, 38, 57, 92, 143, 225, 351, 555, 868, 1366, 2142, 3365, 5282, 8296, 13023, 20451, 32108, 50417, 79160, 124295, 195159, 306431, 481139, 755462, 1186184, 1862486, 2924375, 4591702, 7209646, 11320209, 17774393, 27908418, 43820325
a(n) = a(n-2)+a(n-3)+a(n-4)+a(n-5)+a(n-6), n>=7.
[A099517] 1, 1, 2, 3, 6, 10, 17, 27, 44, 71, 116, 188, 305, 493, 798, 1291, 2090, 3382, 5473, 8855, 14328, 23183, 37512, 60696, 98209, 158905, 257114, 416019, 673134, 1089154, 1762289, 2851443, 4613732, 7465175, 12078908, 19544084, 31622993, 51167077
a(n) = 2*a(n-1)-2*a(n-3)+2*a(n-4)-a(n-6).
a(n) = sum{k=0..floor(n/3), binomial(n-2*k, k)*(-1)^k*(2^(n-3*k)+0^(n-3*k))/2}.
[A001610] 0, 2, 3, 6, 10, 17, 28, 46, 75, 122, 198, 321, 520, 842, 1363, 2206, 3570, 5777, 9348, 15126, 24475, 39602, 64078, 103681, 167760, 271442, 439203, 710646, 1149850, 1860497, 3010348, 4870846, 7881195, 12752042, 20633238, 33385281, 54018520
a(n) = F(n)+F(n+2)-1 where F(n) is the n-th Fibonacci number. - Zerinvary Lajos, Jan 31 2008
a(n) = -1+(1/2)*[1/2+(1/2)*sqrt(5)]^n+(1/2)*[1/2+(1/2)*sqrt(5)]^n*sqrt(5)-(1/2)*sqrt(5)*[1/2-(1/2) *sqrt(5)]^n+(1/2)*[1/2-(1/2)*sqrt(5)]^n, with n>=0. - Paolo P. Lava, Sep 29 2008
a(n) = Sum{i=1,...,floor((n+1)/2)}((n+1)/i)*C(n-i,i-1). In more general case of polynomials Q_n(x)=a(n,x) (see our comment) we have Q_n(x)=Sum{i=1,...,floor((n+1)/2)}((n+1)/i)*C(n-i,i-1)*x^(i-1). - Vladimir Shevelev, Apr 23 2010
a(0)=0, a(1)=2, a(2)=3; for n>=3, a(n) = 2*a(n-1)-a(n-3). - George F. Johnson, Jan 28 2013
[A245437] 0, 0, 0, 0, 0, 1, 1, 2, 3, 6, 10, 17, 29, 50, 86, 147, 252, 432, 741, 1270, 2177, 3732, 6398, 10968, 18802, 32232, 55255, 94723, 162382, 278369, 477204, 818064, 1402395, 2404105, 4121322, 7065122, 12111635, 20762798, 35593360, 61017175, 104600848, 179315699
a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-6) for n>5.
[A123908] 1, 1, 2, 3, 6, 10, 17, 30, 52, 90, 156, 271, 470, 815, 1414, 2453, 4255, 7381, 12804, 22211, 38529, 66836, 115940, 201120, 348881, 605201, 1049837, 1821143, 3159121, 5480100, 9506282, 16490465, 28605867, 49622350, 86079461, 149321296
a(n) = a(n - 2) + 2a(n - 3) + 2a(n - 4) + a(n - 5)
[A215006] 0, 1, 2, 3, 6, 10, 18, 30, 51, 84, 139, 227, 371, 603, 980, 1589, 2576, 4172, 6756, 10936, 17701, 28646, 46357, 75013, 121381, 196405, 317798, 514215, 832026, 1346254, 2178294, 3524562, 5702871, 9227448, 14930335, 24157799, 39088151, 63245967, 102334136, 165580121
a(n) = a(n-1) +a(n-2) +floor(n/2) -1 with n>1, a(0)=0, a(1)=1.
[A172516] 2, 3, 6, 10, 18, 30, 60, 108, 180, 360, 720, 1260, 2520, 5040, 9240, 17640, 35280, 65520, 131040, 257040, 498960, 982800, 1884960, 3603600, 7207200, 14414400, 28274400, 56548800, 110270160, 220540320, 428828400, 845404560, 1690809120
a(n) <= 2 * a(n-1)
[A102702] 2, 3, 6, 10, 18, 31, 54, 93, 160, 274, 468, 797, 1354, 2295, 3882, 6554, 11046, 18587, 31230, 52401, 87812, 146978, 245736, 410425, 684818, 1141611, 1901454, 3164458, 5262330, 8744599, 14521158, 24097797, 39965224, 66241330, 109731132
a(0)=2, a(1)=3, a(2)=6, a(3)=10, a(n)=2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4). - Harvey P. Dale, Apr 21 2014
[A181532] 0, 1, 1, 2, 3, 6, 10, 18, 31, 55, 96, 169, 296, 520, 912, 1601, 2809, 4930, 8651, 15182, 26642, 46754, 82047, 143983, 252672, 443409, 778128, 1365520, 2396320, 4205249, 7379697, 12950466, 22726483, 39882198, 69988378, 122821042, 215535903
a(0) = 0, a(1) = 1, a(2) = 1; a(n) = a(n-1) + a(n-2) + a(n-4).
[A060945] 1, 1, 2, 3, 6, 10, 18, 31, 55, 96, 169, 296, 520, 912, 1601, 2809, 4930, 8651, 15182, 26642, 46754, 82047, 143983, 252672, 443409, 778128, 1365520, 2396320, 4205249, 7379697, 12950466, 22726483, 39882198, 69988378, 122821042, 215535903, 378239143, 663763424, 1164823609
a(n) = a(n-1) + a(n-2) + a(n-4).
a(n) = Sum_{k=0..floor(n/2)} sum_{i=0..n-k} C(i, n-k-i)*C(2*i-n+k, 3*k-2*n+2*i). - Paul Barry, Oct 24 2005
[A023359] 1, 1, 2, 3, 6, 10, 18, 31, 56, 98, 174, 306, 542, 956, 1690, 2983, 5272, 9310, 16448, 29050, 51318, 90644, 160118, 282826, 499590, 882468, 1558798, 2753448, 4863696, 8591212, 15175514, 26805983, 47350056, 83639030, 147739848, 260967362
a(n) = (n=0) + sum(a(n-2^k), k=0...) - Len Smiley, May 07 2001
a(n) seems to be asymptotic to A*B^n where A=0.332198... B=1.766398... - Benoit Cloitre, Dec 17 2002. More accurately: B=1.76639811455017359722848839244009973023206928795707277527828507440838434..., A=0.58679374529351144845013208294162259198824401250194713608555348275
- Vaclav Kotesovec, Apr 30 2014
[A089985] 2, 3, 6, 10, 18, 34, 66, 130, 258, 514, 1026, 2050, 4098, 8194, 16386, 32770, 65538, 131074, 262146, 524290, 1048578, 2097154, 4194306, 8388610, 16777218, 33554434, 67108866, 134217730, 268435458, 536870914, 1073741826, 2147483650
a(n) = 2^(n-1)+2, n>2.
[A079959] 1, 1, 2, 3, 6, 10, 19, 33, 60, 106, 191, 340, 610, 1089, 1950, 3485, 6236, 11150, 19946, 35670, 63802, 114107, 204091, 365018, 652857, 1167652, 2088402, 3735179, 6680529, 11948378, 21370166, 38221375, 68360472, 122265404, 218676571
a(n) = a(n-1)+a(n-2)+a(n-4)+a(n-6) G.f.: -1/(x^6+x^4+x^2+x-1)
[A028495] 1, 1, 2, 3, 6, 10, 19, 33, 61, 108, 197, 352, 638, 1145, 2069, 3721, 6714, 12087, 21794, 39254, 70755, 127469, 229725, 413908, 745889, 1343980, 2421850, 4363921, 7863641, 14169633, 25532994, 46008619, 82904974, 149389218, 269190547, 485064009, 874055885
a(n) = sum(1/7*(1+2*_alpha)*_alpha^(-1-n), _alpha=RootOf(_Z^3-2*_Z^2-_Z+1)).
a(n) = a(n-1) + sum(a(n-2k), k=1..floor(n/2)). - Floor van Lamoen, Oct 29 2005
a(n) = 5*a(n-2)-6*a(n-4)+a(n-6). - Floor van Lamoen, Nov 02 2005
[A191519] 1, 1, 2, 3, 6, 10, 19, 33, 62, 110, 205, 368, 683, 1235, 2286, 4153, 7674, 13986, 25813, 47150, 86949, 159077, 293176, 537014, 989267, 1813659, 3339940, 6127355, 11280954, 20706414, 38114723, 69988457, 128809594, 236602202, 435400253, 799958582, 1471961037
a(n-1)=sum(m=floor((n+1)/2)..n, ((2*m-n)*sum(j=0..m, binomial(j,n+2*j-3*m)*binomial(m,j)))/m). [Vladimir Kruchinin, Mar 09 2013]
[A214002] 1, 1, 2, 3, 6, 10, 20, 31, 65, 101, 216, 336, 728, 1128, 2472, 3823, 8451, 13051, 29050, 44803, 100298, 154518, 347568, 534964, 1208220, 1858156, 4211312, 6472168, 14712960, 22597760, 51507280, 79067375, 180642391, 277164295, 634551606, 973184313, 2232223626, 3422117190, 7862669700, 12049586631
a(n) = sum((-1)^h*binomial(n-4*h-1, ceiling(n/2)-1)*binomial(ceiling(n/2), h), h=0..floor((n-1)/4)).
[A030436] 1, 1, 2, 3, 6, 10, 20, 34, 68, 116, 232, 396, 792, 1352, 2704, 4616, 9232, 15760, 31520, 53808, 107616, 183712, 367424, 627232, 1254464, 2141504, 4283008, 7311552, 14623104, 24963200, 49926400, 85229696
a(0)=a(1)=1, a(2)=2, a(3)=3, a(n)=4*a(n-2)-2*a(n-4). - Harvey P. Dale, May 11 2011
a(n) = (2+sqrt(2+sqrt(2)))/8*(sqrt(2+sqrt(2)))^n + (2-sqrt(2+sqrt(2)))/8*(-sqrt(2+sqrt(2)))^n + (2+sqrt(2-sqrt(2)))/8*(sqrt(2-sqrt(2)))^n + (2-sqrt(2-sqrt(2)))/8*(-sqrt(2-sqrt(2)))^n. - Sergei N. Gladkovskii, Aug 23 2012
[A061551] 1, 1, 2, 3, 6, 10, 20, 35, 69, 124, 241, 440, 846, 1560, 2977, 5525, 10490, 19551, 36994, 69142, 130532, 244419, 460737, 863788, 1626629, 3052100, 5743674, 10782928, 20283121, 38092457, 71632290, 134560491, 252989326, 475313762
a(n) = sum(b(n,i)) where b(n,0) = b(n,9) = 0, b(0,1)=1, b(0, n)=0 if n!=1 and b(n,i) = b(n-1,i) + b(n+1,i) if 0 < n < 9.
a(n) = 7*a(n-2) - 15*a(n-4) + 10*a(n-6) - a(n-8). (End)
a(n) = a(n-1) + 3*a(n-2) - 2*a(n-3) - a(n-4), for n > 3, with {a(k)}={1,1,2,3}, k=0,1,2,3. - L. Edson Jeffery, Mar 18 2011
[A178381] 1, 1, 2, 3, 6, 10, 20, 35, 70, 125, 250, 450, 900, 1625, 3250, 5875, 11750, 21250, 42500, 76875, 153750, 278125, 556250, 1006250, 2012500, 3640625, 7281250, 13171875, 26343750, 47656250, 95312500, 172421875, 344843750
a(n) =5*a(n-2) - 5*a(n-4) for n>=5 with a(0)=1, a(1)=1, a(2)=2, a(3)=3 and a(4)=6.
[A037031] 1, 2, 3, 6, 10, 20, 35, 70, 126, 210, 462, 792, 1716, 3003, 5005, 8008, 19448, 31824, 75582, 125970, 203490, 319770, 817190, 1307504, 2042975, 3124550, 4686825, 6906900, 20030010, 30045015, 84672315, 129024480, 193536720, 286097760
a(n) = C(n, pi(n)).
[A001405] 1, 1, 2, 3, 6, 10, 20, 35, 70, 126, 252, 462, 924, 1716, 3432, 6435, 12870, 24310, 48620, 92378, 184756, 352716, 705432, 1352078, 2704156, 5200300, 10400600, 20058300, 40116600, 77558760, 155117520, 300540195, 601080390, 1166803110
a(n) = Max C(n, k), 1 <= k <= n.

a(0) = 1; a(2*m+2) = 2*a(2*m+1); a(2*m+1) = sum((-1)^k*a(k)*a(2m-k), k = 0..2*m). - Len Smiley, Dec 09 2001
a(n) = Sum_{k=0..floor(n/2)} binomial(n, k)*binomial(1, n-2k). - Paul Barry, May 13 2005
a(n) = Sum_{k=0..floor((n+1)/2)} (binomial(n+1, k)(cos((n-2*k+1)*Pi/2) + sin((n-2*k+1)*Pi/2)));
a(n) = Sum_{k=0..n+1}, (binomial(n+1, (n-k+1)/2)*(1-(-1)^(n-k))*(cos(k*Pi/2) + sin(k*Pi))/2). (End)
a(n) = Sum_{k=floor(n/2)..n} (binomial(n,n-k) - binomial(n,n-k-1)). - Paul Barry, Sep 06 2007
[A210736] 1, 1, 1, 2, 3, 6, 10, 20, 35, 70, 126, 252, 462, 924, 1716, 3432, 6435, 12870, 24310, 48620, 92378, 184756, 352716, 705432, 1352078, 2704156, 5200300, 10400600, 20058300, 40116600, 77558760, 155117520, 300540195, 601080390, 1166803110, 2333606220, 4537567650
a(n) = (-1)^floor(n/2)*hypergeom2F1([1-n, -n],[1],-1). - Peter Luschny, Sep 01 2012
[A173125] 1, 1, 2, 3, 6, 10, 20, 35, 70, 127, 254, 474, 948, 1807, 3614, 6995, 13990, 27370, 54740, 107883, 215766, 427351, 854702, 1698458, 3396916, 6765175, 13530350, 26985675, 53971350, 107746282, 215492564, 430470899, 860941798, 1720537327, 3441074654
a(n) = 2*a(n-1)+3*a(n-2)-6*a(n-3)-a(n-4)+2*a(n-5). - Colin Barker, Sep 14 2014
[A005418] 1, 2, 3, 6, 10, 20, 36, 72, 136, 272, 528, 1056, 2080, 4160, 8256, 16512, 32896, 65792, 131328, 262656, 524800, 1049600, 2098176, 4196352, 8390656, 16781312, 33558528, 67117056, 134225920, 268451840, 536887296, 1073774592, 2147516416, 4295032832
a(n) = 2^(n-2) + 2^([n/2]-1).
a(n) = 2*a(n-1)+2*a(n-2)-4*a(n-3) - Jaume Oliver Lafont, Dec 05 2008
a(2*n) = 2*a(2*n-1) and a(2*n+1) = a(2*n) + 4^(n-1) with a(1) = 1. - Johannes W. Meijer, Aug 26 2013
[A045690] 1, 1, 2, 3, 6, 10, 20, 37, 74, 142, 284, 558, 1116, 2212, 4424, 8811, 17622, 35170, 70340, 140538, 281076, 561868, 1123736, 2246914, 4493828, 8986540, 17973080, 35943948, 71887896, 143771368, 287542736, 575076661, 1150153322, 2300289022
a(2n) = 2*a(2n-1) - a(n) for n >= 1; a(2n+1) = 2*a(2n) for n >= 1.
[A007148] 1, 2, 3, 6, 10, 20, 37, 74, 143, 284, 559, 1114, 2206, 4394, 8740, 17418, 34696, 69194, 137971, 275280, 549258, 1096286, 2188333, 4369162, 8724154, 17422652, 34797199, 69505908, 138845926, 277383872, 554189329, 1107297290, 2212558942
a(n) = 2^(n-2) + (1/(4n)) * Sum_{d|n} phi(2d)*2^(n/d). - N. J. A. Sloane, Sep 25 2012
[A215067] 1, 1, 1, 2, 3, 6, 10, 21, 37, 80, 146, 322, 602, 1347, 2563, 5798, 11181, 25512, 49720, 114236, 224540, 518848, 1027038, 2384538, 4748042, 11068567, 22150519, 51817118, 104146733, 244370806, 493012682, 1159883685, 2347796965
a(2*n) = Sum_{k=0..n} binomial(n+k-1,n-k) * binomial(n,k)/(n-k+1);
a(2*n+1) = Sum_{k=0..n} binomial(n+k+1,n-k) * binomial(n,k)/(n-k+1).
a(n) = 3_F_2([-r,1-r-2*m,1+r+m],[(3-m)/2,(4-m)/2],1/4)*r^(1-m) for n>0 where m = n mod 2 and r = floor(n/2). - Peter Luschny, Aug 03 2012
[A242563] 0, 0, 2, 3, 6, 10, 21, 42, 86, 171, 342, 682, 1365, 2730, 5462, 10923, 21846, 43690, 87381, 174762, 349526, 699051, 1398102, 2796202, 5592405, 11184810, 22369622, 44739243, 89478486, 178956970, 357913941, 715827882, 1431655766, 2863311531, 5726623062, 11453246122
a(n+3) = 3*2^n - a(n), a(0)=a(1)=0, a(2)=2.
a(n+1) = 2*a(n) + period 6: repeat 0, 2, -1, 0, -2, 1. a(0)=0.
a(n+6) = a(n) + 21*2^n, a(0)=a(1)=0, a(2)=2, a(3)=3, a(4)=6, a(5)=10.
a(n) = 1/3*((-1)^n - 2*cos((n*Pi)/3) + 2^n). - Alexander R. Povolotsky, Jun 02 2014
[A137208] 2, 3, 6, 10, 22, 38, 86, 150, 342, 598, 1366, 2390, 5462, 9558, 21846, 38230, 87382, 152918, 349526, 611670, 1398102, 2446678, 5592406, 9786710, 22369622, 39146838, 89478486, 156587350, 357913942, 626349398, 1431655766, 2505397590, 5726623062, 10021590358
a(n) = (2/3)+(5/4)*2^n+(1/12)*(-2)^n, with n>=0. - Paolo P. Lava, Jun 09 2008
[A218155] 2, 3, 6, 11, 14, 15, 18, 23, 26, 27, 30, 35, 38, 39, 42, 47, 50, 51, 54, 59, 62, 63, 66, 71, 74, 75, 78, 83, 86, 87, 90, 95, 98, 99, 102, 107, 110, 111, 114, 119, 122, 123, 126, 131, 134, 135, 138, 143, 146, 147, 150, 155, 158, 159, 162, 167, 170, 171, 174
a(n) = 2a(n-1) - 2a(n-2) + 2a(n-3) - a(n-4). - Charles R Greathouse IV, Nov 09 2012
a(n)= {m>1|C(m,4)==0 (mod C(m,2))}. - Gary Detlefs, Jan 11 2014
[A076307] 1, 2, 3, 6, 11, 15, 21, 28, 36, 46, 56, 66, 79, 92, 105, 120, 137, 153, 171, 190, 210, 232, 254, 276, 301, 326, 351, 378, 407, 435, 465, 496, 528, 562, 596, 630, 667, 704, 741, 780, 821, 861, 903, 946, 990, 1036, 1082, 1128, 1177, 1226, 1275, 1326, 1379, 1431
a(n) = n*(n-1)/2 + b(n) where b repeats the period (1, 1, 0, 0, 1, 0, 0, 0, 0, 1, 1, 0) of length 12.
a(n) = +2*a(n-1) -a(n-2) +a(n-12) -2*a(n-13) +a(n-14).
[A059100] 2, 3, 6, 11, 18, 27, 38, 51, 66, 83, 102, 123, 146, 171, 198, 227, 258, 291, 326, 363, 402, 443, 486, 531, 578, 627, 678, 731, 786, 843, 902, 963, 1026, 1091, 1158, 1227, 1298, 1371, 1446, 1523, 1602, 1683, 1766, 1851, 1938, 2027, 2118, 2211, 2306, 2403
a(n) = ((n-2)^2 + 2*(n+1)^2)/3. - Reinhard Zumkeller, Feb 13 2009
a(n) = 2*n+a(n-1)-1 with a(0)=2. - Vincenzo Librandi, Aug 07 2010
[A291725] 2, 3, 6, 11, 18, 30, 50, 81, 130, 208, 330, 520, 816, 1275, 1984, 3077, 4758, 7337, 11286, 17322, 26532, 40563, 61908, 94336, 143540, 218112, 331008, 501749, 759726, 1149159, 1736534, 2621751, 3954826, 5960902, 8977686, 13511461, 20320854, 30542064, 45875998
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - 2*a(n-4) - a(n-6) for n >= 7.
[A039827] 1, 2, 3, 6, 11, 19, 26, 34, 44, 54, 65, 77, 90, 104, 119, 135, 152, 170, 189, 209, 230, 252, 275, 299, 324, 350, 377, 405, 434, 464, 495, 527, 560, 594, 629, 665, 702, 740, 779, 819, 860, 902, 945, 989, 1034, 1080, 1127, 1175, 1224, 1274
a(n) = n*(n+1)/2 - 1 for n >= 9.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 11.
[A131269] 1, 2, 3, 6, 11, 20, 35, 60, 101, 168, 277, 454, 741, 1206, 1959, 3178, 5151, 8344, 13511, 21872, 35401, 57292, 92713, 150026, 242761, 392810, 635595, 1028430, 1664051, 2692508, 4356587, 7049124, 11405741, 18454896, 29860669, 48315598, 78176301, 126491934
a(n) = a(n-2)+a(n-1)+n-2 with n>1, a(0)=1, a(1)=2. [Alex Ratushnyak, May 02 2012]
[A079976] 1, 1, 2, 3, 6, 11, 20, 36, 65, 118, 214, 388, 703, 1274, 2309, 4185, 7585, 13747, 24915, 45156, 81841, 148329, 268832, 487232, 883061, 1600463, 2900685, 5257212, 9528190, 17268926, 31298264, 56725087, 102808753, 186330956, 337706899
a(n) = a(n-1)+a(n-2)+a(n-4)+a(n-5).
[A186546] 1, 1, 1, 2, 3, 6, 11, 20, 37, 69, 129, 242, 456, 861, 1635, 3113, 5946, 11386, 21854, 42038, 81019, 156416, 302460, 585712, 1135739, 2204982, 4285715, 8338678, 16240318, 31658209, 61765576, 120601144, 235656667, 460799447, 901634095, 1765300397, 3458294143, 6778702259
a(n) = floor(sqrt(binomial(2*n,n)/(n+1)))
[A079969] 1, 1, 2, 3, 6, 11, 21, 38, 70, 128, 236, 434, 799, 1469, 2702, 4969, 9140, 16811, 30921, 56872, 104604, 192396, 353872, 650872, 1197141, 2201885, 4049898, 7448923, 13700706, 25199527, 46349157, 85249390, 156798074, 288396620, 530444084
a(n) = a(n-1)+a(n-2)+a(n-4)+a(n-5)+a(n-6) G.f.: -1/(x^6+x^5+x^4+x^2+x-1)
[A049856] 0, 0, 1, 1, 2, 3, 6, 11, 21, 39, 73, 136, 254, 474, 885, 1652, 3084, 5757, 10747, 20062, 37451, 69912, 130509, 243629, 454797, 848997, 1584874, 2958580, 5522960, 10310043, 19246380, 35928380, 67069677, 125203017, 233724034, 436306771, 814480202, 1520439387
a(n) = 2*a(n-1) -a(n-3) +a(n-4); 4 initial terms required.
[A113409] 1, 1, 2, 3, 6, 11, 21, 39, 74, 141, 271, 521, 1004, 1939, 3756, 7291, 14176, 27599, 53805, 105031, 205268, 401573, 786328, 1541037, 3022528, 5932657, 11652617, 22901865, 45037432, 88616807, 174454943, 343606183, 677074350, 1334744305
a(n) = Sum_{k=0..floor(n/2)} C(n-k, k)*C(k, floor(k/2)).
a(n) = Sum_{k=0..n} C((n+k)/2, k)*C(floor((n-k)/2), floor((n-k)/4)).
[A092684] 1, 1, 2, 3, 6, 11, 21, 39, 74, 141, 272, 527, 1026, 2002, 3914, 7659, 14996, 29369, 57531, 112727, 220963, 433342, 850386, 1670011, 3282259, 6456475, 12711413, 25047465, 49396116, 97490480, 192552549, 380565123, 752619506, 1489234257
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k,k)*a(k). - Vladeta Jovovic, May 07 2006
[A123341] 1, 1, 2, 3, 6, 11, 22, 42, 81, 156, 312, 613, 1226, 2430, 4818, 9555, 19110, 38064, 76128, 151944, 303275, 605324, 1210648, 2418866, 4832914, 9656273, 19293436, 38548808, 77097616, 154119104, 308238208, 616324472, 1232345669, 2464086014
a(1) = a(2) = 1, for p an odd prime, a(p) = 2a(p-1), otherwise a(n) = 2a(n-1) - a(n - pi(n) - 1).
[A002083] 1, 1, 1, 2, 3, 6, 11, 22, 42, 84, 165, 330, 654, 1308, 2605, 5210, 10398, 20796, 41550, 83100, 166116, 332232, 664299, 1328598, 2656866, 5313732, 10626810, 21253620, 42505932, 85011864, 170021123, 340042246, 680079282, 1360158564
a(1)=1, else a(n) is sum of floor(n/2) previous terms.
a(n) is the permanent of the (n-1) X (n-1) matrix with (i, j) entry = 1 if i-1 <= j <= 2*i-1 and = 0 otherwise. - David Callan, Nov 02 2005

[A005578] 1, 1, 2, 3, 6, 11, 22, 43, 86, 171, 342, 683, 1366, 2731, 5462, 10923, 21846, 43691, 87382, 174763, 349526, 699051, 1398102, 2796203, 5592406, 11184811, 22369622, 44739243, 89478486, 178956971, 357913942, 715827883, 1431655766
a(n) = ceiling(2^n/3).
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3).
a(n) = (2^(n+1)+3+(-1)^n)/6. - Vladeta Jovovic, Jul 02 2002
a(n) = sum_{k=0..n, (-1)^k*sum{j=0..n-k, if(mod(j-k, 2)=0, binomial(n-k, j), 0}}. - Paul Barry, Jan 25 2005
[A063895] 1, 1, 1, 1, 2, 3, 6, 11, 22, 43, 88, 179, 372, 774, 1631, 3448, 7347, 15713, 33791, 72923, 158021, 343495, 749102, 1638103, 3591724, 7893802, 17387931, 38379200, 84875596, 188036830, 417284181, 927469845, 2064465341, 4601670625, 10270463565, 22950838755
a(n) = (sum a(i)*a(j), i+j=n, i<j)+(if n=2k, (a(k)-1)*a(k)/2), n>2. a(1)=a(2)=1.
[A192652] 1, 2, 3, 6, 11, 22, 44, 86, 169, 332, 652, 1280, 2513, 4932, 9688, 19040, 37439, 73658, 144985, 285530, 562589, 1108994, 2187050, 4314894, 8516372, 16815264, 33213075, 65624052, 129705457, 256441194, 507160201, 1003284894, 1985269126, 3929390078, 7779228124, 15404540776
a(n) = sum(floor(sqrt(binomial(2*k,k)/(k+1)))*floor(sqrt(binomial(2*n-2*k,n-k)/(n-k+1))),k=0..n).
[A007477] 1, 1, 1, 2, 3, 6, 11, 22, 44, 90, 187, 392, 832, 1778, 3831, 8304, 18104, 39666, 87296, 192896, 427778, 951808, 2124135, 4753476, 10664458, 23981698, 54045448, 122041844, 276101386, 625725936, 1420386363, 3229171828, 7351869690, 16760603722, 38258956928, 87437436916, 200057233386, 458223768512, 1050614664580
a(n) = sum(a(k) * a(n-2-k)), n>1.
a(n) = sum_{k=0..n-2} binomial(2*k+2,n-k-2)*binomial(n-k-2,k)/(k+1), n>1, a(0)=1, a(1)=1. - Vladimir Kruchinin, Nov 22 2014
[A001190] 0, 1, 1, 1, 2, 3, 6, 11, 23, 46, 98, 207, 451, 983, 2179, 4850, 10905, 24631, 56011, 127912, 293547, 676157, 1563372, 3626149, 8436379, 19680277, 46026618, 107890609, 253450711, 596572387, 1406818759, 3323236238, 7862958391, 18632325319, 44214569100
a(2n-1) = a(1)a(2n-2) + a(2)a(2n-3) + ... + a(n-1)a(n), a(2n) = a(1)a(2n-1) + a(2)a(2n-2) + ... + a(n-1)a(n+1) + a(n)(a(n)+1)/2.
[A090344] 1, 1, 2, 3, 6, 11, 23, 47, 102, 221, 493, 1105, 2516, 5763, 13328, 30995, 72556, 170655, 403351, 957135, 2279948, 5449013, 13063596, 31406517, 75701508, 182902337, 442885683, 1074604289, 2612341856, 6361782007, 15518343597, 37912613631, 92758314874
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k, k)*binomial(2*k, k)/(k+1)). - Paul Barry, Nov 13 2004
a(n) = 1 + Sum_{k=1..n-1} a(k-1)a(n-k-1). - Henry Bottomley, Feb 22 2005
[A217312] 1, 1, 2, 3, 6, 11, 23, 48, 107, 244, 578, 1402, 3485, 8826, 22729, 59340, 156766, 418319, 1125956, 3053400, 8334578, 22881070, 63135802, 175000959, 487042069, 1360440914, 3812681435, 10717405374, 30209571942, 85368323429, 241801775480, 686366436772
a(n) = 1+Sum_{k=0..(n-1)/2}((k+1)*Sum_{i=0..n-2*k-1}(((Sum_{j=0..i}((-1)^(j-i)*binomial(k+i+1,i-j)*binomial(k+2*j,j)))*binomial(n-k-i-1,k+1))/(k+i+1))). - Vladimir Kruchinin, Mar 12 2016
[A047750] 1, 2, 3, 6, 11, 24, 48, 110, 231, 546, 1183, 2856, 6324, 15504, 34884, 86526, 197087, 493350, 1134705, 2861430, 6633315, 16829280, 39268320, 100134216, 234930276, 601661144, 1418201268, 3645533040, 8627761528, 22249511328
a(n) = sum of top row terms in M^n, M = the infinite square production matrix:
[A107113] 1, 1, 2, 3, 6, 11, 24, 52, 125, 307, 809, 2190, 6249, 18348, 56016, 176272, 571113, 1906091, 6517283, 22879944, 82144248, 301617448, 1131401427, 4327790902, 16886037207, 67073179408, 271242546501, 1115489848809, 4662462489619
a(n)=sum{k=0..floor(n/2), sum{j=0..k, binomial((n-2k)(k+1), k-j)*binomial(k+j, j)}/(k+1)}
[A185265] 1, 2, 3, 6, 12, 22, 39, 70, 127, 231, 419, 759, 1375, 2492, 4517, 8187, 14838, 26892, 48739, 88335, 160099, 290164, 525894, 953132, 1727460, 3130855, 5674373, 10284254, 18639219, 33781788, 61226235, 110966650, 201116358, 364504015, 660628396, 1197325296, 2170036700, 3932982369, 7128151480
a(n) = a(n-1) + a(n-2) + a(n-4) + a(n-5) for n>5.
[A289920] 1, 2, 3, 6, 12, 22, 42, 80, 151, 287, 544, 1031, 1956, 3708, 7031, 13333, 25280, 47936, 90895, 172350, 326806, 619677, 1175008, 2228011, 4224672, 8010672, 15189552, 28801880, 54613096, 103555397, 196358029, 372327066, 705993241, 1338679088, 2538355336
a(n) = a(n-1) + a(n-2) + 2*a(n-3) - a(n-4) - a(n-6) for n >= 7.
[A154324] 1, 1, 2, 3, 6, 12, 23, 43, 74, 124, 195, 300, 441, 637, 890, 1226, 1647, 2187, 2848, 3673, 4664, 5874, 7305, 9021, 11024, 13390, 16121, 19306, 22947, 27147, 31908, 37348, 43469, 50405, 58158, 66879, 76570, 87400, 99371, 112671, 127302, 143472, 161183, 180664
a(n) = Sum_{k=0..floor(n/2)} (1 + C(k+1,2)*C(n-2k+1,2)).
a(n) = (2895 + 945*(-1)^n + (1786-90*(-1)^n)*n - 30*(3+(-1)^n)*n^2 + 40*n^3 + 30*n^4 + 4*n^5)/3840.
a(n) = (2*n^5+15*n^4+20*n^3-60*n^2+848*n+1920)/1920 for n even.
a(n) = (2*n^5+15*n^4+20*n^3-30*n^2+938*n+975)/1920 for n odd. (End)
[A001630] 0, 0, 1, 2, 3, 6, 12, 23, 44, 85, 164, 316, 609, 1174, 2263, 4362, 8408, 16207, 31240, 60217, 116072, 223736, 431265, 831290, 1602363, 3088654, 5953572, 11475879, 22120468, 42638573, 82188492, 158423412, 305370945, 588621422, 1134604271, 2187020050
a(n) = 2*a(n-1) - a(n-5) with n>4, a(0)=a(1)=0, a(2)=1, a(3)=2, a(4)=3. [Vincenzo Librandi, Dec 21 2010]
[A293363] 1, 2, 3, 6, 12, 23, 45, 89, 178, 355, 710, 1420, 2840, 5679, 11357, 22714, 45427, 90853, 181705, 363409, 726818, 1453635, 2907270, 5814540, 11629080, 23258160, 46516320, 93032640, 186065280, 372130559, 744261118, 1488522236, 2977044472, 5954088944
a(n) = ceiling(r*2^n), where r = log 2.
[A293340] 1, 1, 2, 3, 6, 12, 24, 48, 95, 189, 377, 754, 1507, 3014, 6028, 12055, 24110, 48219, 96438, 192875, 385750, 771500, 1542999, 3085997, 6171993, 12343986, 24687972, 49375943, 98751886, 197503772, 395007543, 790015085, 1580030169, 3160060338, 6320120675
a(n) = ceiling(r*2^n), where r = 1/e.
[A098011] 1, 1, 2, 3, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472
a(n) = 3*2^(n-4) for n>3; a(1)=a(2)=1, a(3)=2. - Emeric Deutsch, May 19 2006
a(n) = 2^(n-4)+2^(n-3) for n>3. - Jaroslav Krizek, Aug 17 2009
a(0) = 1, a(2) = 1, a(3) = 2, for n>3: a(n) = sum_(i=2..n-1) a(i). - Jaroslav Krizek, Nov 16 2009
a(n) = ceiling(2^{n-2}) - floor(2^{n-4}). - Martin Grymel, Oct 17 2012
[A042950] 2, 3, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472, 6442450944
a(n) = 2*a(n-1), n>1; a(0)=2, a(1)=3.
a(0) = 2, a(n) = 3*2^(n-1) = 2^n + 2^(n-1) for n >= 1. - Jaroslav Krizek, Aug 17 2009
a(n) = 2^(n+1) - 2^(n-1), for n >0. - Ilya Gutkovskiy, Aug 8 2015
[A187741] 1, 1, 1, 2, 3, 6, 12, 24, 60, 120, 360, 720, 2520, 5040, 20160, 40320, 181440, 362880, 1814400, 3628800, 19958400, 39916800, 239500800, 479001600, 3113510400, 6227020800, 43589145600, 87178291200, 653837184000, 1307674368000, 10461394944000, 20922789888000
a(2*n) = (n+1)!/2, a(2*n-1) = n!, for n>0 with a(0)=1.
[A192805] 1, 1, 1, 2, 3, 6, 12, 25, 53, 113, 242, 519, 1114, 2392, 5137, 11033, 23697, 50898, 109323, 234814, 504356, 1083305, 2326829, 4997793, 10734754, 23057167, 49524466, 106373552, 228479649, 490751217, 1054084065, 2264066146, 4862985491
a(n)=2*a(n-1)+a(n-2)-a(n-3)-a(n-4).
[A019525] 2, 3, 6, 12, 27, 60, 138, 315, 726, 1668, 3843, 8844, 20370, 46899, 108006, 248700, 572715, 1318812, 3036954, 6993387, 16104246, 37084404, 85397139, 196650348, 452841762, 1042792803, 2401318086, 5529696492, 12733650747, 29322740220
a(n) = 2*a(n-1) + 2*a(n-2) - 3*a(n-3).
a(n) = (78 + (13-5*sqrt(13))*((1-sqrt(13))/2)^n + ((1+sqrt(13))/2)^n*(13+5*sqrt(13))) / 78. - Colin Barker, Aug 03 2017
[A082395] 1, 1, 2, 3, 6, 12, 27, 63, 154, 386, 989, 2574, 6787, 18085, 48622, 131719, 359194, 985186, 2715973, 7521568, 20915257, 58373587, 163462816, 459136810, 1293223231, 3651864607, 10336625732, 29321683083, 83344398534, 237344961292
a(n) = Sum_{k=1..n}(-1)^(k+1)*binomial(n, k)*binomial(k-1, floor(k/2)). - Vladeta Jovovic, Sep 18 2003
[A155996] 1, 2, 3, 6, 13, 25, 50, 101, 201, 402, 804, 1608, 3217, 6434, 12868, 25736, 51472, 102944, 205887, 411775, 823550, 1647099, 3294199, 6588397, 13176795, 26353589, 52707179, 105414357, 210828714, 421657428, 843314857, 1686629713, 3373259426
a(n) = -floor(2^(-2 + n)*Pi) + floor(2^(-1 + n)*Pi), n>=0. - Mariusz Iwaniuk, Apr 30 2017
[A086514] 1, 2, 3, 6, 13, 26, 47, 78, 121, 178, 251, 342, 453, 586, 743, 926, 1137, 1378, 1651, 1958, 2301, 2682, 3103, 3566, 4073, 4626, 5227, 5878, 6581, 7338, 8151, 9022, 9953, 10946, 12003, 13126, 14317, 15578, 16911, 18318, 19801, 21362, 23003, 24726

a(n)+ n-2 = {a(n-1) +a(n+1)}/2
a(n) = (n^3-6*n^2+14*n-6)/3.
a(n)-4*a(n-1)+6*a(n-2)-4*a(n-3)+a(n-4) = 0 with n>4. For n=9, 121-4*78+6*47-4*26+13 = 0.
[A079662] 1, 2, 3, 6, 13, 26, 50, 96, 184, 350, 661, 1242, 2324, 4332, 8047, 14902, 27521, 50700, 93191, 170942, 312974, 572030, 1043852, 1902044, 3461067, 6289972, 11417576, 20702328, 37498589, 67856074, 122677727, 221599538, 399962369, 721333090
a(n) = Sum_{k=1..floor((n+2)/3)} k*binomial(n-k+1, 2*k-1). - Vladeta Jovovic, Apr 10 2004
[A290991] 0, 0, 1, 2, 3, 6, 13, 26, 50, 96, 184, 351, 669, 1278, 2447, 4692, 9004, 17285, 33182, 63687, 122208, 234461, 449774, 862776, 1655010, 3174766, 6090231, 11683285, 22413104, 42997349, 82486280, 158241688, 303570021, 582365698, 1117202719, 2143225358
a(n) = 4*a(n-1) - 6*a(n-2) + 5*a(n-3) - 3*a(n-4) + a(n-5) + a(n-6).
[A007910] 1, 2, 3, 6, 13, 26, 51, 102, 205, 410, 819, 1638, 3277, 6554, 13107, 26214, 52429, 104858, 209715, 419430, 838861, 1677722, 3355443, 6710886, 13421773, 26843546, 53687091, 107374182, 214748365, 429496730, 858993459, 1717986918, 3435973837, 6871947674
a(1) = 1, a(2n+1) = 2*a(2n) and a(2n) = 2*a(2n-1) + (-1)^n.
a(n) = (4*2^n+cos(Pi*n/2)+2sin(Pi*n/2))/5. - Paul Barry, Dec 17 2003
a(n) = round(2^(n+1)/5). [Mircea Merca, Dec 27 2010]
[A293315] 2, 3, 6, 13, 26, 52, 104, 207, 414, 828, 1657, 3314, 6627, 13255, 26510, 53020, 106039, 212079, 424158, 848316, 1696632, 3393263, 6786526, 13573053, 27146106, 54292211, 108584423, 217168846, 434337692, 868675383, 1737350766, 3474701533, 6949403065
a(n) = floor(1/2 + r*2^n), where r = (1+sqrt(5))/2.
[A132045] 1, 2, 3, 6, 13, 28, 59, 122, 249, 504, 1015, 2038, 4085, 8180, 16371, 32754, 65521, 131056, 262127, 524270, 1048557, 2097132, 4194283, 8388586, 16777193, 33554408, 67108839, 134217702, 268435429, 536870884, 1073741795, 2147483618, 4294967265, 8589934560
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3) for n>3.
a(0)=1, a(n) = 2^n - n + 1 for n > 0. - Jon E. Schoenfield, Jun 15 2017
[A287128] 2, 3, 6, 13, 29, 65, 145, 323, 719, 1599, 3555, 7903, 17567, 39047, 86791, 192911, 428783, 953055, 2118351, 4708447, 10465439, 23261471, 51703135, 114920255, 255432575, 567748479, 1261931199, 2804887039, 6234405887, 13857177215, 30800266111, 68459569919
a(n) = 3*a(n-1) - 2*a(n-2) + 2*a(n-3) - 4*a(n-4) + 2*a(n-5), where a(0) = 2, a(1) =3, a(2) = 6, a(3)=13, a(4) = 29..
[A286062] 2, 3, 6, 13, 29, 65, 146, 328, 737, 1656, 3721, 8361, 18787, 42214, 94854, 213135, 478910, 1076101, 2417977, 5433145, 12208166, 27431500, 61638021, 138499376, 311205273, 699271901, 1571249699, 3530566026, 7933109850, 17825536027, 40053615878, 89999657933
a(n) = 2*a(n-1) + a(n-2) - a(n-3), where a(0) = 2, a(1) =3, a(2) = 6.
[A174191] 1, 2, 3, 6, 13, 30, 71, 170, 409, 986, 2379, 5742, 13861, 33462, 80783, 195026, 470833, 1136690, 2744211, 6625110, 15994429, 38613966, 93222359, 225058682, 543339721, 1311738122, 3166815963, 7645370046, 18457556053, 44560482150, 107578520351
a(n)=2*a(n-1)+a(n-2)-2, with a(0)=1, a(1)=2.
a(n)=1+(1/4)*sqrt(2)*{[1+sqrt(2)]^n-[1-sqrt(2)]^n}, with n>=0 [From Paolo P. Lava, Mar 17 2010]
[A052937] 2, 3, 6, 13, 30, 71, 170, 409, 986, 2379, 5742, 13861, 33462, 80783, 195026, 470833, 1136690, 2744211, 6625110, 15994429, 38613966, 93222359, 225058682, 543339721, 1311738122, 3166815963, 7645370046, 18457556053, 44560482150, 107578520351, 259717522850
a(2)=6, a(1)=3, a(0)=2, -a(n)-2*a(n+1)+a(n+2)+2=0.
a(n) = (1+(-(1-sqrt(2))^(1+n)+(1+sqrt(2))^(1+n))/(2*sqrt(2))). - Colin Barker, Mar 16 2016
[A005554] 1, 2, 3, 6, 13, 30, 72, 178, 450, 1158, 3023, 7986, 21309, 57346, 155469, 424206, 1164039, 3210246, 8893161, 24735666, 69051303, 193399578, 543310782, 1530523638, 4322488212, 12236130298, 34713220977, 98677591278
a(n) = (-1)^n*2*hypergeometric([2-n,5/2],[4],4), for n>1. - Peter Luschny, Aug 15 2012
a(n) = (2*Sum_{j=0..(n+2)/2}(binomial(n,j)*binomial(n-j+1,n-2*j+2)))/n. - Vladimir Kruchinin, Oct 04 2015
[A220699] 0, 0, 1, 2, 3, 6, 13, 32, 85, 246, 757, 2480, 8537, 30858, 116229, 455668, 1850417, 7774102, 33679941, 150291472, 689170529, 3244125554, 15649195077, 77287580604, 390271482145, 2013310674830, 10599283282021
a(0)=a(1)=0, a(2)=1, a(n) = 2*a(n-1)+(n-5)*a(n-2)-(n-5)*a(n-3).
[A291401] 1, 2, 3, 6, 14, 32, 67, 134, 266, 538, 1110, 2304, 4760, 9770, 19991, 40931, 83976, 172519, 354452, 727830, 1493768, 3065341, 6291208, 12914136, 26511196, 54423052, 111715200, 229312168, 470697488, 966192481, 1983312305, 4071174986, 8356928055, 17154242334
a(n) = a(n-1) + a(n-2) + a(n-4) + 4*a(n-5) + 6*a(n-6) + 4*a(n-7) + a(n-8) for n >= 9.
[A093467] 1, 2, 3, 6, 14, 35, 90, 234, 611, 1598, 4182, 10947, 28658, 75026, 196419, 514230, 1346270, 3524579, 9227466, 24157818, 63245987, 165580142, 433494438, 1134903171, 2971215074, 7778742050, 20365011075, 53316291174, 139583862446
a(n) = 3*a(n-1)-a(n-2)-1, n > 3. - Robert G. Wilson v, Apr 08 2004
[A246640] 2, 3, 6, 14, 35, 90, 234, 611, 1598, 4182, 10947, 28658, 75026, 196419, 514230, 1346270, 3524579, 9227466, 24157818, 63245987, 165580142, 433494438, 1134903171, 2971215074, 7778742050, 20365011075, 53316291174, 139583862446, 365435296163, 956722026042, 2504730781962
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3), n >= 1, with a(-2) = 3, a(-1) = 2 and a(0) = 2.
a(n) = 1+(2^(-1-n)*((3-sqrt(5))^n*(-1+sqrt(5))+(1+sqrt(5))*(3+sqrt(5))^n))/sqrt(5). - Colin Barker, Nov 02 2016
[A255353] 2, 3, 6, 15, 24, 40, 104, 168, 273, 714, 1155, 1870, 4895, 7920, 12816, 33552, 54288, 87841, 229970, 372099, 602070, 1576239, 2550408, 4126648, 10803704, 17480760, 28284465, 74049690, 119814915, 193864606, 507544127, 821223648, 1328767776
a(n) = 8*a(n-3) - 8*a(n-6) + a(n-9) for n>9.
[A100249] 1, 1, 2, 3, 6, 15, 29, 63, 160, 333, 749, 1914, 4135, 9490, 24335, 53791, 125104, 321521, 721887, 1694914, 4362855, 9907851, 23429158, 60379623, 138320021, 328917615, 848432824, 1957091277, 4674847097, 12067450014, 27992976565
a(n) = Sum_{k=0..[2n/3]} C(n+k-[k/2], k)*(n-k-[k/2])/(n+k-[k/2]), with a(0)=1. G.f. A(x) satisfies: A(x^2) = ((1+x)/(2*x-(1-sqrt(1-4*x^3)))-(1-x)/(2*x+(1-sqrt(1+4*x^3)))).
[A052102] 0, 1, 2, 3, 6, 15, 36, 81, 180, 405, 918, 2079, 4698, 10611, 23976, 54189, 122472, 276777, 625482, 1413531, 3194478, 7219287, 16315020, 36870633, 83324700, 188307261, 425559582, 961731063, 2173436226, 4911794235, 11100267216, 25085727621
a(n) = 3 * a(n-1) - 3 * a(n-2) + 3 * a(n-3), n >2
[A115098] 2, 3, 6, 15, 42, 123, 366, 1095, 3282, 9843, 29526, 88575, 265722, 797163, 2391486, 7174455, 21523362, 64570083, 193710246, 581130735, 1743392202, 5230176603, 15690529806, 47071589415, 141214768242, 423644304723, 1270932914166
a(n) = (3^n+3)/2.
[A078344] 1, 2, 3, 6, 17, 43, 109, 278, 708, 1803, 4592, 11695, 29785, 75857, 193194, 492030, 1253111, 3191446, 8128033, 20700623, 52720725, 134270106, 341961560, 870913951, 2218059568, 5648994647, 14386962813, 36640979841, 93317917142
a(n) is asymptotic to a*b^n where a = 0.157045052450758415043729 2... and b is the real root of: x^3 - 2*x^2 - x - 1; b = 2.546818276884082079135997..
a(n) = 2*a(n-1)+a(n-2)+a(n-3) for n>4. G.f.: x*(3*x^3+2*x^2-1) / (x^3+x^2+2*x-1). - Colin Barker, Jun 24 2013
[A000341] 1, 2, 3, 6, 26, 96, 210, 1106, 3759, 12577, 74072, 423884, 2333828, 16736611, 99838851, 630091746, 4525325020, 38848875650, 342245714017, 3335164762941, 31315463942337, 241353231085002, 2350106537365732, 17903852593938447, 158065352670318614, 1815064841856534244, 20577063085601738871, 276081763499377227299
a(n) = permanent(m), where the n X n matrix m is defined by m(i,j) = 1 or 0, depending on whether 2i+2j-1 is prime or composite, respectively. - T. D. Noe, Feb 10 2007
[A047534] 0, 1, 2, 3, 7, 8, 9, 10, 11, 15, 16, 17, 18, 19, 23, 24, 25, 26, 27, 31, 32, 33, 34, 35, 39, 40, 41, 42, 43, 47, 48, 49, 50, 51, 55, 56, 57, 58, 59, 63, 64, 65, 66, 67, 71, 72, 73, 74, 75, 79, 80, 81, 82, 83, 87, 88, 89
a(n) = a(n-1) + a(n-5) - a(n-6), for n > 6.
[A047361] 0, 1, 2, 3, 7, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23, 24, 28, 29, 30, 31, 35, 36, 37, 38, 42, 43, 44, 45, 49, 50, 51, 52, 56, 57, 58, 59, 63, 64, 65, 66, 70, 71, 72, 73, 77, 78, 79, 80, 84, 85, 86, 87, 91, 92, 93, 94, 98, 99, 100, 101, 105, 106, 107, 108, 112
a(n) = 7*floor(n/4) + (n mod 4), with offset 0 and a(0) = 0. - Gary Detlefs, Mar 09 2010
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-23-3*i^(2*n)-(3-3*i)*i^(-n)-(3+3*i)*i^n)/8, where i=sqrt(-1).
[A047245] 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, 20, 21, 25, 26, 27, 31, 32, 33, 37, 38, 39, 43, 44, 45, 49, 50, 51, 55, 56, 57, 61, 62, 63, 67, 68, 69, 73, 74, 75, 79, 80, 81, 85, 86, 87, 91, 92, 93, 97, 98, 99, 103, 104, 105, 109, 110, 111, 115, 116, 117, 121, 122, 123

a(n) = ceiling(n/3) + ceiling((n-1)/3) + ceiling((n-2)/3) + 3*ceiling((n-3)/3).
a(n) = 3*floor((n-1)/3) + n. [Gary Detlefs, Dec 22 2011]
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*n-3 + ((2*n-3) mod 3). (End)
a(n) = 2*n-2-cos(2*n*Pi/3)+sin(2*n*Pi/3)/sqrt(3).
a(3k) = 6k-3, a(3k-1) = 6k-4, a(3k-2) = 6k-5. (End)
[A088340] 0, 2, 3, 7, 8, 10, 11, 13, 16, 17, 18, 20, 21, 23, 25, 27, 29, 31, 34, 35, 36, 39, 40, 41, 44, 46, 48, 49, 50, 52, 53, 59, 60, 62, 63, 69, 70, 71, 72, 76, 77, 78, 79, 82, 84, 86, 88, 89, 90, 92, 93, 99, 100, 101, 104, 105, 107, 108, 110, 111, 114, 115, 116, 118, 124, 125
a(n) appears to be asymptotic to 2*n and a(n)=2n for infinitely many values of n such as n=164, 178, 260, 276, 1200, 1208, 1290, ...
[A047532] 0, 2, 3, 7, 8, 10, 11, 15, 16, 18, 19, 23, 24, 26, 27, 31, 32, 34, 35, 39, 40, 42, 43, 47, 48, 50, 51, 55, 56, 58, 59, 63, 64, 66, 67, 71, 72, 74, 75, 79, 80, 82, 83, 87, 88, 90, 91, 95, 96, 98, 99, 103, 104, 106, 107, 111, 112, 114, 115, 119, 120, 122, 123
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = 2*n+(1+i)*(4*i-4+(1-i)*i^(2n)+i^(-n)-i^(1+n))/4 where i=sqrt(-1).
[A233998] 2, 3, 7, 8, 12, 13, 17, 18, 22, 23, 27, 28, 32, 33, 37, 38, 42, 43, 47, 48, 50, 52, 53, 57, 58, 62, 63, 67, 68, 72, 73, 75, 77, 78, 82, 83, 87, 88, 92, 93, 97, 98, 102, 103, 107, 108, 112, 113, 117, 118, 122, 123, 127, 128, 132, 133, 137, 138, 142, 143, 147, 148, 152, 153, 157, 158
a(n) = 2.4 n + O(log n). - Charles R Greathouse IV, Dec 19 2013
[A047221] 2, 3, 7, 8, 12, 13, 17, 18, 22, 23, 27, 28, 32, 33, 37, 38, 42, 43, 47, 48, 52, 53, 57, 58, 62, 63, 67, 68, 72, 73, 77, 78, 82, 83, 87, 88, 92, 93, 97, 98, 102, 103, 107, 108, 112, 113, 117, 118, 122, 123, 127, 128, 132, 133, 137, 138, 142, 143, 147, 148, 152, 153
a(n) = -3+(1/2)*Sum_{k=0..n}{5-3*(-1)^k}. - Paolo P. Lava, Feb 29 2008
a(n) = 5*(n-1)-a(n-1) (with a(1)=2). - Vincenzo Librandi, Aug 05 2010
a(n) = (10*n-3*(-1)^n-5)/4.
a(n) = 5 * (floor(n-1)/2) + 3 - n mod 2. - Reinhard Zumkeller, Nov 27 2012
[A033082] 1, 2, 3, 7, 8, 13, 29, 34, 55, 119, 136, 221, 477, 546, 887, 1911, 2184, 3549, 7645, 8738, 14199, 30583, 34952, 56797, 122333, 139810, 227191, 489335, 559240, 908765, 1957341, 2236962, 3635063, 7829367, 8947848, 14540253, 31317469, 35791394, 58161015
a(n) = 4*a(n-3)+a(n-6)-4*a(n-9) for n>9. - Colin Barker, Jun 01 2015
[A047533] 1, 2, 3, 7, 9, 10, 11, 15, 17, 18, 19, 23, 25, 26, 27, 31, 33, 34, 35, 39, 41, 42, 43, 47, 49, 50, 51, 55, 57, 58, 59, 63, 65, 66, 67, 71, 73, 74, 75, 79, 81, 82, 83, 87, 89, 90, 91, 95, 97, 98, 99, 103, 105, 106, 107, 111, 113, 114, 115, 119, 121, 122, 123
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-7+i^(2*n)+(1+2*i)*i^(-n)+(1-2*i)*i^n)/4 where i=sqrt(-1).
[A047359] 0, 2, 3, 7, 9, 10, 14, 16, 17, 21, 23, 24, 28, 30, 31, 35, 37, 38, 42, 44, 45, 49, 51, 52, 56, 58, 59, 63, 65, 66, 70, 72, 73, 77, 79, 80, 84, 86, 87, 91, 93, 94, 98, 100, 101, 105, 107, 108, 112, 114, 115, 119, 121, 122, 126, 128, 129, 133, 135, 136, 140
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-27-9*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-4, a(3k-1) = 7k-5, a(3k-2) = 7k-7. (End)
[A294263] 0, 0, 0, 2, 3, 7, 9, 11, 13, 20, 23, 32, 36, 47, 52, 57, 62, 67, 72, 87, 93, 110, 117, 124, 131, 151, 159, 181, 190, 214, 224, 234, 244, 271, 282, 293, 304, 334, 346, 358, 370, 403, 416, 451, 465, 502, 517, 532, 547, 562, 577, 618, 634, 650, 666, 682, 698
a(n) = Sum_{i=2..floor(n/2)} (n - i) * mu(i)^2.
[A212985] 1, 2, 3, 7, 9, 11, 18, 21, 24, 34, 38, 42, 55, 60, 65, 81, 87, 93, 112, 119, 126, 148, 156, 164, 189, 198, 207, 235, 245, 255, 286, 297, 308, 342, 354, 366, 403, 416, 429, 469, 483, 497, 540, 555, 570, 616, 632, 648, 697, 714, 731, 783, 801, 819, 874
a(n) = a(n-1)+2*a(n-3)-2*a(n-4)-a(n-6)+a(n-7).
[A262775] 0, 2, 3, 7, 9, 13, 15, 19, 21, 27, 33, 37, 39, 49, 51, 55, 57, 63, 67, 69, 81, 85, 99, 105, 109, 111, 117, 121, 123, 127, 135, 141, 147, 153, 175, 177, 189, 195, 201, 207, 211, 219, 247, 249, 261, 265, 267, 273, 279, 285, 289, 301, 303, 307, 315, 327, 337
a(0)=0, a(1)=2; for n>1, a(n) is the smallest integer k>a(n-1) such that k a(j) mod a(j-1) for all j<n.
[A294283] 0, 0, 2, 3, 7, 9, 15, 18, 21, 24, 33, 37, 48, 53, 66, 72, 78, 84, 90, 96, 113, 120, 139, 147, 155, 163, 185, 194, 218, 228, 254, 265, 276, 287, 316, 328, 340, 352, 384, 397, 410, 423, 458, 472, 509, 524, 563, 579, 595, 611, 627, 643, 686, 703, 720, 737, 754
a(n) = Sum_{i=1..floor((n-1)/2)} (n - i) * mu(i)^2.
[A211539] 0, 0, 2, 3, 7, 9, 15, 18, 26, 30, 40, 45, 57, 63, 77, 84, 100, 108, 126, 135, 155, 165, 187, 198, 222, 234, 260, 273, 301, 315, 345, 360, 392, 408, 442, 459, 495, 513, 551, 570, 610, 630, 672, 693, 737, 759, 805, 828, 876, 900, 950, 975, 1027, 1053
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = (1/16) * (6n^2 + 2n - 3 + (2n+3)*(-1)^n). G.f.: (x^3+2x^2)/((1+x)^2*(1-x)^3). - Ralf Stephan, Mar 10 2014
[A291740] 1, 2, 3, 7, 9, 18, 25, 47, 65, 118, 165, 290, 408, 702, 992, 1677, 2379, 3966, 5643, 9300, 13266, 21654, 30954, 50116, 71770, 115388, 165504, 264475, 379863, 603792, 868267, 1373621, 1977413, 3115222, 4488843, 7045205, 10160427, 15892794, 22937999, 35769390
a(n) = a(n-1) + a(n-2) + 2*a(n-4) - 3*a(n-5) + a(n-6) - 3*a(n-7) - a(n-9) for n >= 10.
[A225202] 1, 1, 2, 3, 7, 9, 20, 29, 52, 80, 143, 217, 376, 588, 977, 1563, 2583, 4116, 6764, 10854, 17688, 28512, 46367, 74763, 121385, 196040, 317756, 513616, 832039, 1345192, 2178308, 3522981, 5702741, 9224880, 14930324, 24153416, 39088168, 63239220, 102333776, 165569166, 267914295, 433476128, 701408732
a(n) is the Möbius transform of Fibonacci(n+1).
[A207643] 1, 1, 2, 3, 7, 9, 26, 31, 71, 129, 262, 291, 1222, 1333, 2198, 5139, 11881, 12673, 39594, 41923, 117326, 251841, 354292, 371163, 1870453, 2598577, 3456926, 7103955, 16665859, 17283113, 72923314, 75437911, 165990152, 335534913, 422310802, 695765699, 3589651696
a(n) = 1 + Sum_{k=1..[n/2]} Product_{j=1..k} floor((n-j) / j).
[A047531] 2, 3, 7, 10, 11, 15, 18, 19, 23, 26, 27, 31, 34, 35, 39, 42, 43, 47, 50, 51, 55, 58, 59, 63, 66, 67, 71, 74, 75, 79, 82, 83, 87, 90, 91, 95, 98, 99, 103, 106, 107, 111, 114, 115, 119, 122, 123, 127, 130, 131, 135, 138, 139, 143, 146, 147, 151, 154, 155, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n > 4.
a(n) = (24*n + 5*sqrt(3)*sin(2*Pi*n/3) + 3*cos(2*Pi*n/3) - 12)/9. - Ilya Gutkovskiy, May 30 2016
a(3k) = 8k-1, a(3k-1) = 8k-5, a(3k-2) = 8k-6. - Wesley Ivan Hurt, Jun 10 2016
[A266813] 0, 0, 2, 3, 7, 10, 14, 19, 26, 31, 39, 47, 56, 65, 76, 86, 99, 111, 124, 138, 154, 168, 185, 202, 220, 238, 258, 277, 299, 320, 342, 365, 390, 413, 439, 465, 492, 519, 548, 576, 607, 637, 668, 700, 734, 766, 801, 836, 872, 908, 946, 983, 1023, 1062, 1102
a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8) for n>7.
[A088163] 0, 1, 2, 3, 7, 10, 15, 31, 42, 63, 127, 170, 255, 511, 682, 1023, 2047, 2730, 4095, 8191, 10922, 16383, 32767, 43690, 65535, 131071, 174762, 262143, 524287, 699050, 1048575, 2097151, 2796202, 4194303, 8388607, 11184810, 16777215, 33554431, 44739242, 67108863
a(n) = 5*a(n-3)-4*a(n-6) for n>5.
[A271713] 2, 3, 7, 10, 18, 23, 35, 42, 58, 67, 87, 98, 122, 135, 163, 178, 210, 227, 263, 282, 322, 343, 387, 410, 458, 483, 535, 562, 618, 647, 707, 738, 802, 835, 903, 938, 1010, 1047, 1123, 1162, 1242, 1283, 1367, 1410, 1498, 1543, 1635, 1682, 1778, 1827, 1927, 1978, 2082, 2135, 2243, 2298
a(n) = (3/2)*n^2 + O(n). - Charles R Greathouse IV, Apr 12 2016
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5. - Wesley Ivan Hurt, Apr 13 2016
[A295723] 0, 1, 2, 3, 7, 10, 21, 31, 60, 91, 167, 258, 457, 715, 1236, 1951, 3315, 5266, 8837, 14103, 23452, 37555, 62031, 99586, 163665, 263251, 431012, 694263, 1133467, 1827730, 2977581, 4805311, 7815660, 12620971, 20502167, 33123138, 53756377, 86879515, 140898036
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 0, a(1) = 1, a(2) = 2, a(3) = 3.
[A291241] 1, 2, 3, 7, 10, 22, 32, 67, 99, 200, 299, 588, 887, 1708, 2595, 4913, 7508, 14018, 21526, 39725, 61251, 111922, 173173, 313752, 486925, 875702, 1362627, 2434747, 3797374, 6746350, 10543724, 18636343, 29180067, 51340988, 80521055, 141089508, 221610563
a(n) = a(n-1) + 4*a(n-2) - 3*a(n-3) - 4*a(n-4) + a(n-5) + a(n-6) for n >= 7.
[A062113] 1, 2, 3, 7, 10, 24, 34, 82, 116, 280, 396, 956, 1352, 3264, 4616, 11144, 15760, 38048, 53808, 129904, 183712, 443520, 627232, 1514272, 2141504, 5170048, 7311552, 17651648, 24963200, 60266496, 85229696, 205762688, 290992384, 702517760
a(n) = 4*a(n-2)-2*a(n-4). G.f.: (1+2*x-x^2-x^3)/(1-4*x^2+2*x^4). [Colin Barker, Apr 20 2012]

[A174060] 0, 1, 2, 3, 7, 11, 15, 19, 23, 32, 41, 50, 59, 68, 77, 86, 102, 118, 134, 150, 166, 182, 198, 214, 230, 255, 280, 305, 330, 355, 380, 405, 430, 455, 480, 505, 541, 577, 613, 649, 685, 721, 757, 793, 829, 865, 901, 937, 973, 1022, 1071, 1120, 1169, 1218, 1267, 1316
a(n) = (1/6)*m*(6*m*n - (m+1)*(3*m^2+m-1)) with m = floor(sqrt(n)). - Yalcin Aktar, Jan 30 2012
[A092353] 1, 2, 3, 7, 11, 15, 24, 33, 42, 58, 74, 90, 115, 140, 165, 201, 237, 273, 322, 371, 420, 484, 548, 612, 693, 774, 855, 955, 1055, 1155, 1276, 1397, 1518, 1662, 1806, 1950, 2119, 2288, 2457, 2653, 2849, 3045, 3270, 3495, 3720, 3976, 4232, 4488, 4777, 5066, 5355, 5679
a(n) = Sum(i=1..n+3, floor(i/3)^2). - Enrique Pérez Herrero, Mar 20 2012
[A189374] 1, 2, 3, 7, 11, 15, 25, 35, 45, 65, 85, 105, 140, 175, 210, 266, 322, 378, 462, 546, 630, 750, 870, 990, 1155, 1320, 1485, 1705, 1925, 2145, 2431, 2717, 3003, 3367, 3731, 4095, 4550, 5005, 5460, 6020, 6580, 7140, 7820
a(n) = (2*a(n-1) + 2*a(n-2) + (8+n)*a(n-3))/n with a(0)=1, a(1)=2, a(2)=3 and a(3)=7.
a(n) = (floor(n/3)+1)*(floor(n/3)+2)*(floor(n/3)+3)*(3*floor(n/3)+4*(4-(3*floor((n+3)/3)-n)))/24. - Luce ETIENNE, Jun 29 2015
[A180516] 0, 1, 2, 3, 7, 11, 15, 31, 47, 63, 127, 191, 255, 511, 767, 1023, 2047, 3071, 4095, 8191, 12287, 16383, 32767, 49151, 65535, 131071, 196607, 262143, 524287, 786431, 1048575, 2097151, 3145727, 4194303, 8388607, 12582911, 16777215, 33554431, 50331647, 67108863, 134217727, 201326591, 268435455, 536870911, 805306367, 1073741823, 2147483647, 3221225471
a(n) = a(n-1)+4*a(n-3)-4*a(n-4). G.f.: x^2*(x^2+x+1) / ((x-1)*(4*x^3-1)). [Colin Barker, Feb 01 2013]
[A245738] 2, 3, 7, 11, 20, 32, 54, 87, 143, 231, 376, 608, 986, 1595, 2583, 4179, 6764, 10944, 17710, 28655, 46367, 75023, 121392, 196416, 317810, 514227, 832039, 1346267, 2178308, 3524576, 5702886, 9227463, 14930351, 24157815, 39088168, 63245984, 102334154, 165580139, 267914295, 433494435, 701408732, 1134903168, 1836311902
a(n) = (-20 + sqrt(5)*(-(1-sqrt(5))^(1+n) + (1+sqrt(5))^(1+n))/2^n) / 10 for n even.
a(n) = (-10 + sqrt(5)*(-(1-sqrt(5))^(1+n) + (1+sqrt(5))^(1+n))/2^n) / 10 for n odd.
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>6. (End)
a(n) = Sum_{i=1..floor((n-1)/2)} C(n-i,i). - Wesley Ivan Hurt, Sep 19 2017
[A133044] 1, 2, 3, 7, 11, 20, 36, 61, 110, 191, 335, 591, 1032, 1816, 3185, 5586, 9811, 17207, 30203, 53004, 93004, 163229, 286430, 502655, 882111, 1547967, 2716528, 4767152, 8365761, 14680930, 25763171, 45211271, 79340235, 139232356, 244335860, 428779421, 752455502, 1320467391
a(n) = a(n-1) + p(n+4)^2
[A037078] 0, 1, 2, 3, 7, 11, 21, 34, 65, 102, 196, 308, 588, 925, 1766, 2775, 5299, 8327, 15897, 24982, 47693, 74946, 143080, 224840, 429240, 674521, 1287722, 2023563, 3863167, 6070691, 11589501, 18212074, 34768505, 54636222, 104305516, 163908668
a(0)=0, a(1)=1, a(2)=2, a(3)=3, a(4)=7, a(n)=3*a(n-2)+a(n-3)-3*a(n-5). - Harvey P. Dale, Aug 23 2013
[A007481] 1, 2, 3, 7, 11, 25, 39, 89, 139, 317, 495, 1129, 1763, 4021, 6279, 14321, 22363, 51005, 79647, 181657, 283667, 646981, 1010295, 2304257, 3598219, 8206733, 12815247, 29228713, 45642179, 104099605, 162557031, 370756241, 578955451, 1320467933
a(n) = 3*a(n-2) + 2*a(n-4).
[A005246] 1, 1, 1, 2, 3, 7, 11, 26, 41, 97, 153, 362, 571, 1351, 2131, 5042, 7953, 18817, 29681, 70226, 110771, 262087, 413403, 978122, 1542841, 3650401, 5757961, 13623482, 21489003, 50843527, 80198051, 189750626, 299303201, 708158977, 1117014753
a(n) = a(2 - n) for all n in Z. - Michael Somos, Nov 15 2006
a(2*m) = sum((-1)^p*binomial(m-p,p)*4^(m-2*p),p=0..floor(m/2))-3*sum((-1)^p*binomial(m-1-p,p)*4^(m-1-2*p),p=0..floor((m-1)/2)). a(2*m+1)=sum((-1)^p*binomial(m-p,p)*4^(m-2*p),p=0..floor(m/2))-2*sum((-1)^p*binomial(m-1-p,p)*4^(m-1-2*p),p=0..floor((m-1)/2)). [Richard Choulet, Feb 24 2010]
a(n) = ((sqrt(2)+sqrt(3)+(-1)^n*(sqrt(2)-sqrt(3)))*sqrt(2+(2-sqrt(3))^n*(2+ sqrt(3))-(-2+sqrt(3))*(2+ sqrt(3))^n))/(4*sqrt(3)). - Gerry Martens, Jun 06 2015
[A116406] 1, 1, 2, 3, 7, 11, 26, 42, 99, 163, 382, 638, 1486, 2510, 5812, 9908, 22819, 39203, 89846, 155382, 354522, 616666, 1401292, 2449868, 5546382, 9740686, 21977516, 38754732, 87167164, 154276028, 345994216, 614429672, 1374282019, 2448023843
a(n)=sum{k=0..floor(n/2), binomial(n-1,k)}; - Paul Barry, Oct 06 2007
[A107857] 1, 1, 2, 3, 7, 11, 28, 45, 117, 189, 494, 799, 2091, 3383, 8856, 14329, 37513, 60697, 158906, 257115, 673135, 1089155, 2851444, 4613733, 12078909, 19544085, 51167078, 82790071, 216747219, 350704367, 918155952, 1485607537, 3889371025
a(2n+2) = (1/2)*(Fib(3n+2) + 1), a(2n+1) = (1/2)*(Fib(3n+1) + 1).
[A138000] 2, 3, 7, 11, 29, 53, 107, 211, 431, 853, 1709, 3433, 6857, 13709, 27427, 54851, 109717, 219409, 438827, 877651, 1755319, 3510623, 7021249, 14042491, 28084997, 56169977, 112339957, 224679913, 449359829, 898719707
a(n) > a(n-1) and a(n) <= nextprime((Sum_{i=1..n-1}a(i))-(-1)^n); but in fact a(n) ~ Sum_{i=1..n-1}a(i) and thus a(n) ~ constant*2^n.
[A289977] 0, 0, 0, 1, 1, 2, 3, 7, 12, 23, 41, 77, 140, 258, 470, 861, 1570, 2867, 5225, 9526, 17352, 31607, 57547, 104766, 190684, 347029, 631476, 1148985, 2090427, 3803044, 6918379, 12585209, 22892932, 41641932, 75744383, 137772396, 250592150, 455792833, 829016539
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-5) - a(n-6) + a(n-8).
[A036538] 2, 3, 7, 12, 23, 45, 89, 178, 356, 707, 1409, 2822, 5639, 11273, 22546, 45088, 90165, 180315, 360637, 721258, 1442491, 2884973, 5769941, 11539858, 23079721, 46159395
a(n) = number of 1s in f(tau(k)) mapped across k = 1..2^n, with f(x):= 1-sign(log_2 x - floor(log_2 x)). - Michael De Vlieger, Mar 01 2017
[A090596] 1, 1, 2, 3, 7, 12, 24, 45, 91, 176, 352, 693, 1387, 2752, 5504, 10965, 21931, 43776, 87552, 174933, 349867, 699392, 1398784, 2796885, 5593771, 11186176, 22372352, 44741973, 89483947, 178962432, 357924864, 715838805, 1431677611, 2863333376, 5726666752, 11453289813, 22906579627, 45813071872, 91626143744, 183252112725
a(n) = {2^{n-3}+2^{[n/2]-2^{n (mod 2)}+ {[n/2] (mod 2)}(-1)^{n-1}}/3. - Slavik Jablan, Dec 20 2003
[A259593] 2, 3, 7, 12, 26, 45, 97, 168, 362, 627, 1351, 2340, 5042, 8733, 18817, 32592, 70226, 121635, 262087, 453948, 978122, 1694157, 3650401, 6322680, 13623482, 23596563, 50843527, 88063572, 189750626, 328657725, 708158977, 1226567328, 2642885282, 4577611587
a(n) = 4*a(n-2) - a(n-4) for n>3. - Colin Barker, Jul 21 2015
[A099163] 1, 1, 2, 3, 7, 12, 27, 49, 106, 199, 419, 804, 1663, 3237, 6618, 13003, 26383, 52156, 105299, 209001, 420586, 836991, 1680747, 3350548, 6718807, 13408957, 26864282, 53653539, 107428471, 214660524, 429638859, 858763489, 1718359018, 3435371767
a(n)=a(n-1)+3a(n-2)-2a(n-3); a(n)=((sqrt(5)-1)/2)^n(3/10+sqrt(5)/10)+((-sqrt(5)-1)/2)^n(3/10-sqrt(5)/10)+2^(n+1)/5; a(n)=sum{k=0..n, (-1)^(n-k)Fib(n-k+1)(2^(k-1)+0^k/2-sum{j=0..k, C(k, j)j(-1)^j})}.
a(n) = Sum_{k=-[n/5]..[n/5]} C(n, [(n-5*k)/2]).
a(n) = 2*Sum_{k=-[n/10]..[n/10]} C(n, [n/2]-5*k) - fibonacci(n+1). (End)
[A182692] 2, 3, 7, 12, 28, 48, 113, 195, 461, 798, 1888, 3270, 7736, 13399, 31702, 54909, 129916, 225021, 532405, 922152, 2181835, 3779049, 8941325, 15486829, 36642230, 63466204, 150162650, 260089339, 615377983, 1065865932
a(n)=floor(s*a(n-1)) if n odd, a(n)=floor(r*a(n-1)) if n even, where r=sqrt(3), s=(r+3)/2, a(1)=floor(s).
[A047749] 1, 1, 1, 2, 3, 7, 12, 30, 55, 143, 273, 728, 1428, 3876, 7752, 21318, 43263, 120175, 246675, 690690, 1430715, 4032015, 8414640, 23841480, 50067108, 142498692, 300830572, 859515920, 1822766520, 5225264024, 11124755664, 31983672534
a(n) = upper left term in M^n, M = the infinite square production matrix:
[A100982] 1, 1, 2, 3, 7, 12, 30, 85, 173, 476, 961, 2652, 8045, 17637, 51033, 108950, 312455, 663535, 1900470, 5936673, 13472296, 39993895, 87986917, 257978502, 820236724, 1899474678, 5723030586, 12809477536, 38036848410, 84141805077, 248369601964
a(n) = binomial(floor(5*(n-2)/3), n-2) - Sum_{i=2..n-1} binomial(floor((3*(n-i)+b)/2), n-i)*a(i), where b assumes different integer values within the sum at intervals of 5 or 6 terms. (Conjecture)
[A100764] 1, 2, 3, 7, 13, 19, 25, 31, 37, 43, 49, 55, 61, 67, 73, 79, 85, 91, 97, 103, 109, 115, 121, 127, 133, 139, 145, 151, 157, 163, 169, 175, 181, 187, 193, 199, 205, 211, 217, 223, 229, 235, 241, 247, 253, 259, 265, 271, 277, 283, 289, 295, 301, 307, 313, 319, 325
a(n+4) = a(4) + 6n for n > 4; a(n) = 6n - 17, n >3.
[A271827] 1, 2, 3, 7, 13, 23, 41, 73, 129, 227, 399, 701, 1231, 2161, 3793, 6657, 11683, 20503, 35981, 63143, 110809, 194457, 341249, 598851, 1050911, 1844221, 3236383, 5679457, 9966753, 17490433, 30693571, 53863463, 94523789, 165877687, 291095049
a(n) = 1+2*Sum_{k=1..n} Sum_{j=0..(n-k)/2} binomial(k+1,j)*binomial(n-k-j-1,n-k-2*j), a(1)=2.
[A075058] 1, 2, 3, 7, 13, 23, 47, 97, 193, 383, 769, 1531, 3067, 6133, 12269, 24533, 49069, 98129, 196247, 392503, 785017, 1570007, 3140041, 6280067, 12560147, 25120289, 50240587, 100481167, 200962327, 401924639, 803849303, 1607698583, 3215397193, 6430794373
a(n) = (greatest prime) <= Sum(a(i),(i,0,n-1))+1.

[A256494] 0, 1, 1, 2, 3, 7, 13, 26, 51, 103, 205, 410, 819, 1639, 3277, 6554, 13107, 26215, 52429, 104858, 209715, 419431, 838861, 1677722, 3355443, 6710887, 13421773, 26843546, 53687091, 107374183, 214748365, 429496730, 858993459, 1717986919, 3435973837, 6871947674, 13743895347, 27487790695, 54975581389, 109951162778
a(n) = 2 * a(n - 1) + r((n - 1) % 4); r = array(1, -1, 0, -1).
a(n) = 2*a(n-1)+a(n-4)-2*a(n-5) for n>5.
a(n) = (5+5*(-1)^n-(1+2*i)*(-i)^n-(1-i*2)*i^n+2^(1+n))/20 for n>0 where i=sqrt(-1).
[A088172] 1, 2, 3, 7, 13, 26, 53, 106, 211, 422, 845, 1689, 3379, 6758, 13515, 27031, 54061, 108122, 216245, 432489, 864979, 1729958, 3459915, 6919830, 13839661, 27679322, 55358643, 110717287, 221434573, 442869146, 885738293, 1771476586, 3542953171
a(n+1) = 2*a(n) + 0 or +-1. - Robert G. Wilson v, Sep 27 2003
[A113843] 0, 2, 3, 7, 13, 29, 53, 103, 199, 389, 751, 1447, 2789, 5381, 10369, 19991, 38543, 74287, 143197, 276019, 532061, 1025579, 1976857, 3810517, 7345031, 14158009, 27290429, 52604017, 101397487, 195449957, 376741891, 726193373, 1399782719, 2698167947, 5200885961
a(-n) = a(0) = 0, a(1) = 2, for n>1: a(n) = smallest prime > a(n-1)+a(n-2)+a(n-3)+a(n-4).
[A124430] 1, 1, 2, 3, 7, 13, 31, 61, 144, 296, 714, 1534, 3761, 8303, 20495, 46115, 114461, 261445, 651114, 1503207, 3749017, 8726147, 21788311, 51072555, 127698665, 301244477, 754496298, 1790598079, 4494019431, 10726676701, 26983034009
a(n) = Sum_{k=0..[n/2]} a(k)*C([n/2],k)*C([(n+1)/2],k) for n>0, with a(0)=1.
[A171416] 1, 1, 2, 3, 7, 13, 31, 65, 156, 351, 849, 1993, 4866, 11733, 28921, 70997, 176560, 438979, 1100302, 2761797, 6969909, 17625015, 44742636, 113822415, 290416803, 742486655, 1902767481, 4885201701, 12567065582, 32382099109, 83580301371
a(n)=if(n=0,1,if(n=1,1,a(n-2)+sum{k=1..n-1, a(k-1)*a(n-k-1})).
[A237255] 2, 3, 7, 13, 33, 62, 158, 297, 757, 1423, 3627, 6818, 17378, 32667, 83263, 156517, 398937, 749918, 1911422, 3593073, 9158173, 17215447, 43879443, 82484162, 210239042, 395205363, 1007315767, 1893542653, 4826339793, 9072507902, 23124383198, 43468996857
a(n) = 5*a(n-2)-a(n-4).
[A056953] 1, 1, 2, 3, 7, 13, 34, 73, 209, 501, 1546, 4051, 13327, 37633, 130922, 394353, 1441729, 4596553, 17572114, 58941091, 234662231, 824073141, 3405357682, 12470162233, 53334454417, 202976401213, 896324308634, 3535017524403, 16083557845279, 65573803186921
a(0)=1; a(1)=1; a(n)=a(n-1)+n*a(n-2)/2.
a(n) = Sum_{k=0..[n/2]} k!*C([n/2],k)*C([(n+1)/2],k). - Paul D. Hanna, Oct 31 2006
[A225879] 1, 1, 2, 3, 7, 14, 23, 51, 102, 167, 371, 742, 1215, 2699, 5398, 8839, 19635, 39270, 64303, 142843, 285686, 467799, 1039171, 2078342, 3403199, 7559883, 15119766, 24757991, 54997523, 109995046, 180112335, 400102427, 800204854, 1310302327, 2910712035, 5821424070
a(n) = 7*a(n-3) + 2*a(n-6) for n>5. (End)
[A293326] 2, 3, 7, 14, 28, 55, 111, 222, 443, 887, 1774, 3547, 7094, 14189, 28378, 56756, 113512, 227023, 454047, 908093, 1816187, 3632374, 7264748, 14529495, 29058991, 58117981, 116235962, 232471924, 464943848, 929887697, 1859775393, 3719550787, 7439101574
a(n) = floor(1/2 + r*2^n), where r = sqrt(3).
[A113822] 1, 1, 2, 3, 7, 14, 35, 85, 226, 600, 1658, 4622, 13141, 37699, 109419, 320017, 943329, 2797788, 8346030, 25019401, 75340824, 227777899, 691146578, 2104028507, 6424449318, 19670277332, 60378290912, 185763773723, 572764664975
a(2n) = 1 + C(a(n)+1, 2) + sum_{k=1}^{n/2-1} a(k)*a(2n-k). a(2n+1) = 1 + sum_{k=1}^{(n-1)/2} a(k)*a(2n+1-k), with a(0)=0.
[A165433] 1, 1, 2, 3, 7, 14, 39, 97, 308, 897, 3139, 10304, 38997, 140893, 570002, 2230599, 9567979, 40091222, 181203603, 805962157, 3819522284, 17912075229, 88646095447, 435959031488, 2245454002137, 11530035000169, 61627679281154
a(n)=sum{k=0..floor(n/2), C(n-k,k)*(2k)!/(k!*2^k)}.
[A276600] 0, 2, 3, 7, 15, 20, 42, 88, 117, 245, 513, 682, 1428, 2990, 3975, 8323, 17427, 23168, 48510, 101572, 135033, 282737, 592005, 787030, 1647912, 3450458, 4587147, 9604735, 20110743, 26735852, 55980498, 117214000, 155827965, 326278253, 683173257, 908231938
a(n) = 6*a(n-3)-a(n-6) for n>6.
[A001276] 2, 3, 7, 15, 27, 41, 62, 85, 115, 150, 186, 229, 274, 323, 380, 443, 509, 577, 653, 733, 818, 912, 1010, 1114, 1222, 1331, 1448, 1572, 1704, 1845, 1994, 2138, 2289, 2445, 2609, 2774, 2948, 3127, 3311, 3502, 3699, 3900, 4112, 4324, 4546, 4775, 5016, 5255, 5493
a(n) = li(prime(n)^2) + O(n^2/exp((log n)^(4/7 - e))) for any e > 0.
[A020873] 2, 3, 7, 15, 29, 53, 95, 171, 313, 585, 1115, 2159, 4229, 8349, 16567, 32979, 65777, 131345, 262451, 524631, 1048957, 2097573, 4194767, 8389115, 16777769, 33555033, 67109515, 134218431, 268436213, 536871725, 1073742695, 2147484579, 4294968289, 8589935649
a(n) = 2^n + n^2 - n + 1.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4). G.f.: (2 - 7*x + 10*x^2 - 7*x^3) / ((2*x-1)*(x-1)^3). - R. J. Mathar, May 31 2010
[A052321] 1, 1, 2, 3, 7, 15, 35, 81, 195, 473, 1171, 2924, 7396, 18848, 48446, 125311, 326145, 853188, 2242616, 5919197, 15683008, 41694334, 111195166, 297393668, 797475499, 2143631474, 5775002574, 15590201095, 42168292074, 114260967888, 310124721255, 843053354234
a(n) satisfies a = SHIFT_RIGHT(EULER(a-b)) where b(3)=1, b(k)=0 if k != 3.
[A045629] 1, 1, 2, 3, 7, 15, 44, 128, 415, 1367, 4654, 16080, 56450, 200170, 716728, 2585850, 9393119, 34319667, 126047906, 465076160, 1723097066, 6407856892, 23910271224, 89493903438, 335912741682, 1264106399934, 4768448177636, 18027218147818
a(n) = (1/2n) * Sum_{d|n} (phi(n/d)*C(2d-1, d-1) + phi(2n/d)*2^(d-1)). - Christian G. Bower
[A289844] 1, 2, 3, 7, 16, 31, 64, 134, 274, 567, 1168, 2405, 4967, 10232, 21094, 43505, 89672, 184892, 381203, 785886, 1620327, 3340606, 6887304, 14199737, 29275538, 60357622, 124439898, 256558196, 528948160, 1090536002, 2248364880, 4635470266, 9556979689, 19703689739
a(n) = a(n-1) + a(n-2) + 4*a(n-3) - 2*a(n-4) - 6*a(n-7) + a(n-8) + 4*a(n-10) - a(n-13).
[A081207] 1, 2, 3, 7, 16, 37, 89, 216, 529, 1307, 3248, 8111, 20339, 51176, 129143, 326717, 828374, 2104361, 5354979, 13647682, 34830191, 89000157, 227674188, 583017657, 1494365341, 3833592212, 9842373849, 25287895051, 65016153154, 167264946727
a(n) = Sum_{k=0..n} (binomial(floor((n+k)/2), k))^2.
[A114582] 1, 1, 2, 3, 7, 16, 40, 100, 256, 663, 1741, 4620, 12376, 33416, 90853, 248515, 683429, 1888449, 5240509, 14598709, 40810390, 114447429, 321885675, 907723460, 2566079622, 7270598910, 20643413513, 58727234739, 167373377361
a(n)=sum(k=1..n/3+1, (k*sum(j=0..n-2*k+3, binomial(j,k+2*j-n-3)*binomial(n-2*k+3,j)))/(n-2*k+3)*(-1)^(k-1)). [From Vladimir Kruchinin, Oct 22 2011]
[A268539] 0, 2, 3, 7, 17, 25, 28, 38, 58, 72, 77, 93, 123, 143, 150, 172, 212, 238, 247, 275, 325, 357, 368, 402, 462, 500, 513, 553, 623, 667, 682, 728, 808, 858, 875, 927, 1017, 1073, 1092, 1150, 1250, 1312, 1333, 1397, 1507, 1575, 1598, 1668, 1788, 1862, 1887, 1963, 2093, 2173
a(n) = a(-n+1) = 3*a(n-1) - 5*a(n-2) + 7*a(n-3) - 7*a(n-4) + 5*a(n-5) - 3*a(n-6) + a(n-7) for n>6.
a(n) = (3*(n-1)*n + (2*n-1)*(-1)^((n-2)*(n-1)/2) - 1)/4. Therefore:
a(4*k) = k*(12*k -5),
a(4*k+1) = k*(12*k +5),
a(4*k+2) = k*(12*k+11)+2 = (3*k+2)*(4*k+1),
a(4*k+3) = k*(12*k+13)+3 = (3*k+1)*(4*k+3).
[A158498] 1, 2, 3, 7, 17, 36, 67, 113, 177, 262, 371, 507, 673, 872, 1107, 1381, 1697, 2058, 2467, 2927, 3441, 4012, 4643, 5337, 6097, 6926, 7827, 8803, 9857, 10992, 12211, 13517, 14913, 16402, 17987, 19671, 21457, 23348, 25347, 27457, 29681
a(n) = (1/2)*(n^3 - 6*n^2 + 13*n - 6).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Feb 19 2017
[A135364] 1, 2, 3, 7, 17, 40, 93, 216, 502, 1167, 2713, 6307, 14662, 34085, 79238, 184206, 428227, 995507, 2314273, 5380032, 12507057, 29075380, 67592058, 157132471, 365288677, 849193147, 1974134558, 4589306057, 10668842202
a(n+1) = a(n) + a(n-1) + (n-1)*a(1) + (n-2)*a(2) + ... + 2*a(n-2) for n>=3.
a(0) = 1, a(n) = term (1,3) in the 1 X 3 matrix [7,3,2].[3,1,0; -2,0,1; 1,0,0]^(n-1) (n>0). - Alois P. Heinz, Jul 24 2008
[A005248] 2, 3, 7, 18, 47, 123, 322, 843, 2207, 5778, 15127, 39603, 103682, 271443, 710647, 1860498, 4870847, 12752043, 33385282, 87403803, 228826127, 599074578, 1568397607, 4106118243, 10749957122, 28143753123, 73681302247, 192900153618, 505019158607, 1322157322203
a(n) = Fibonacci(2*n-1) + Fibonacci(2*n+1).
a(n) = a(k)*a(n - k) - a(n - 2k) for all k, i.e., a(n) = 2*a(n) - a(n) = 3*a(n - 1) - a(n - 2) = 7*a(n - 2) - a(n - 4) = 18*a(n - 3) - a(n - 6) = 47*a(n - 4) - a(n - 8) etc., a(2n) = a(n)^2 - 2. - Henry Bottomley, May 08 2001
a(0)=2, a(1)=3, a(n) = 3*a(n-1) - a(n-2) = a(-n). - Michael Somos, Jun 28 2003

a(n) = phi^(2*n)+phi^(-2*n) where phi=(sqrt(5)+1)/2, the golden ratio. E.g. a(4)=47 because phi^(8) + phi^(-8)=47. - Dennis P. Walsh, Jul 24 2003
a(n) = (floor((3+sqrt(5))^n) + 1)/2^n. - Lekraj Beedassy, Oct 22 2004
a(n) = 1/(n+1/2)*Sum_{k=0...n} B(2k)*L(2n+1-2k)*binomial(2n+1, 2k) where B(2k) is the (2k)-th Bernoulli number. - Benoit Cloitre, Nov 02 2005
[A052919] 2, 3, 7, 19, 55, 163, 487, 1459, 4375, 13123, 39367, 118099, 354295, 1062883, 3188647, 9565939, 28697815, 86093443, 258280327, 774840979, 2324522935, 6973568803, 20920706407, 62762119219, 188286357655, 564859072963
a(n) = 4*a(n-1) -3*a(n-2). Vincenzo Librandi, Jun 22 2012
[A127581] 2, 3, 7, 23, 31, 127, 127, 383, 1279, 3583, 5119, 6143, 8191, 73727, 81919, 131071, 131071, 524287, 524287, 14680063, 14680063, 14680063, 109051903, 109051903, 654311423, 738197503, 738197503, 2147483647, 2147483647, 2147483647
a(n) « 37^n by Xylouris' improvement to Linnik's theorem. - Charles R Greathouse IV, Dec 10 2013
[A006720] 1, 1, 1, 1, 2, 3, 7, 23, 59, 314, 1529, 8209, 83313, 620297, 7869898, 126742987, 1687054711, 47301104551, 1123424582771, 32606721084786, 1662315215971057, 61958046554226593, 4257998884448335457, 334806306946199122193, 23385756731869683322514, 3416372868727801226636179
a(n+1)/a(n) seems to be asymptotic to C^n with C=1.226..... - Benoit Cloitre, Aug 07 2002. Confirmed by Hone - see below.
a(n) = (a(n-1)*a(n-3) + a(n-2)^2)/a(n-4); a(0) = a(1) = a(2) = a(3) = 1; exact formula is a(n) = A*B^n*sigma (z_0+nk)/(sigma (k))^(n^2), where sigma is the Weierstrass sigma function associated to the elliptic curve y^2 = 4*x^3-4*x+1, A = 1/sigma(z_0) = 0.112724016-0.824911687*i, B = sigma(k)*sigma (z_0)/sigma (z_0+k) = 0.215971963+0.616028193*i, k = 1.859185431, z_0 = 0.204680500+1.225694691*i, sigma(k) = 1.555836426, all to 9 decimal places. This is a special case of a general formula for 4th order bilinear recurrences. The Somos-4 sequence corresponds to the sequence of points (2n-3)P on the curve, where P = (0, 1). - Andrew Hone, Oct 12 2005
[A163834] 2, 3, 7, 23, 87, 343, 1367, 5463, 21847, 87383, 349527, 1398103, 5592407, 22369623, 89478487, 357913943, 1431655767, 5726623063, 22906492247, 91625968983, 366503875927, 1466015503703, 5864062014807, 23456248059223, 93824992236887, 375299968947543
a(n) = 5*a(n-1) - 4*a(n-2).
[A283776] 1, 2, 3, 8, 9, 10, 11, 15, 16, 17, 18, 23, 24, 25, 26, 30, 31, 32, 33, 38, 39, 40, 41, 45, 46, 47, 48, 53, 54, 55, 60, 61, 62, 63, 68, 69, 70, 75, 76, 77, 78, 83, 84, 85, 90, 91, 92, 93, 98, 99, 100, 105, 106, 107, 108, 112, 113, 114, 115, 120, 121, 122, 123
a(n+1) - a(n) is in {1,4,5} for every n.
[A047476] 0, 1, 2, 3, 8, 9, 10, 11, 16, 17, 18, 19, 24, 25, 26, 27, 32, 33, 34, 35, 40, 41, 42, 43, 48, 49, 50, 51, 56, 57, 58, 59, 64, 65, 66, 67, 72, 73, 74, 75, 80, 81, 82, 83, 88, 89, 90, 91, 96, 97, 98, 99, 104, 105, 106, 107, 112, 113, 114, 115, 120, 121, 122
a(n) = 8 * floor(n/4) + (n mod 4), with offset 0.. a(0)=0. - Gary Detlefs, Mar 09 2010
a(n) = (-7 - (-1)^n - (1-i)*(-i)^n - (1+i)*i^n + 4*n)/2, where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5). - Vincenzo Librandi, May 16 2012
[A037462] 0, 1, 2, 3, 8, 9, 10, 11, 16, 17, 18, 19, 24, 25, 26, 27, 64, 65, 66, 67, 72, 73, 74, 75, 80, 81, 82, 83, 88, 89, 90, 91, 128, 129, 130, 131, 136, 137, 138, 139, 144, 145, 146, 147, 152, 153, 154, 155, 192, 193, 194, 195, 200, 201, 202, 203, 208, 209, 210
a(0) = 0; a(n) = 8*a(n/4) if n == 0 (mod 4) else a(n) = a(n-1) + 1. (End)
[A047360] 1, 2, 3, 8, 9, 10, 15, 16, 17, 22, 23, 24, 29, 30, 31, 36, 37, 38, 43, 44, 45, 50, 51, 52, 57, 58, 59, 64, 65, 66, 71, 72, 73, 78, 79, 80, 85, 86, 87, 92, 93, 94, 99, 100, 101, 106, 107, 108, 113, 114, 115, 120, 121, 122, 127, 128, 129, 134, 135, 136, 141
a(n) = 7*floor(n/3)+(n mod 3)+1, with offset 0. - Gary Detlefs, Mar 09 2010
a(n) = 4*floor((n-1)/3)+n. - Gary Detlefs, Dec 22 2011
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-24-12*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-4, a(3k-1) = 7k-5, a(3k-2) = 7k-6. (End)
[A047243] 2, 3, 8, 9, 14, 15, 20, 21, 26, 27, 32, 33, 38, 39, 44, 45, 50, 51, 56, 57, 62, 63, 68, 69, 74, 75, 80, 81, 86, 87, 92, 93, 98, 99, 104, 105, 110, 111, 116, 117, 122, 123, 128, 129, 134, 135, 140, 141, 146, 147, 152, 153, 158, 159, 164, 165, 170, 171, 176, 177, 182, 183
a(n)=6*n-a(n-1)-7 (with a(1)=2) [From Vincenzo Librandi, Aug 05 2010]
[A247375] 0, 1, 2, 3, 8, 9, 18, 19, 32, 33, 50, 51, 72, 73, 98, 99, 128, 129, 162, 163, 200, 201, 242, 243, 288, 289, 338, 339, 392, 393, 450, 451, 512, 513, 578, 579, 648, 649, 722, 723, 800, 801, 882, 883, 968, 969, 1058, 1059, 1152, 1153, 1250, 1251, 1352, 1353
a(n) = 1 + (2*n*(n-1) + (2*n-3)*(-1)^n - 1)/4.
[A030439] 0, 1, 2, 3, 8, 9, 26, 27, 80, 81, 242, 243, 728, 729, 2186, 2187, 6560, 6561, 19682, 19683, 59048, 59049, 177146, 177147, 531440, 531441, 1594322, 1594323, 4782968, 4782969, 14348906, 14348907, 43046720, 43046721, 129140162, 129140163, 387420488, 387420489
a(n) = 4*a(n-2)-3*a(n-4); g.f.: -x*(x^2-2*x-1) / ((x-1)*(x+1)*(3*x^2-1)). - Colin Barker, Sep 13 2014
a(n) = 3^floor(n/2) -1 +(n mod 2). - Alois P. Heinz, Sep 14 2014
[A047474] 0, 2, 3, 8, 10, 11, 16, 18, 19, 24, 26, 27, 32, 34, 35, 40, 42, 43, 48, 50, 51, 56, 58, 59, 64, 66, 67, 72, 74, 75, 80, 82, 83, 88, 90, 91, 96, 98, 99, 104, 106, 107, 112, 114, 115, 120, 122, 123, 128, 130, 131, 136, 138, 139, 144, 146, 147, 152, 154, 155
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-33-12*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-5, a(3k-1) = 8k-6, a(3k-2) = 8k-8. (End)
[A057543] 1, 1, 2, 3, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(n)=2n
[A190650] 1, 2, 3, 8, 10, 12, 14, 16, 27, 30, 33, 36, 39, 42, 45, 128, 136, 144, 152, 160, 168, 176, 184, 192, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 432, 444, 456, 468, 480, 492, 504, 516, 528, 540, 552, 564, 576, 686, 700, 714, 728, 742, 756, 770, 784, 798, 812, 826, 840, 854, 868, 882, 1024, 1040, 1056, 1072, 1088, 1104, 1120, 1136, 1152, 1168, 1184, 1200, 1216, 1232, 1248, 1264, 1280
a(1) = 1; for n>1, a(n) = n*a(floor(sqrt(n)).
a(n) <= n^2/2 for n > 1. Equality holds for n = 2^2^k.
[A132327] 1, 2, 3, 8, 10, 12, 21, 24, 27, 80, 88, 96, 130, 140, 150, 192, 204, 216, 399, 420, 441, 528, 552, 576, 675, 702, 729, 2240, 2320, 2400, 2728, 2816, 2904, 3264, 3360, 3456, 4810, 4940, 5070, 5600, 5740, 5880, 6450, 6600, 6750, 8832, 9024, 9216, 9996, 10200
a(k*3^m-j)=(k*3^m-j+1)*3^m*p^(m(m-1)/2), for 0<k<3, 0<j<3, m>=1, a(3^m)=3^(m(m+1)/2)*product{0<=k<=m, 1+1/3^k}, m>=1.
[A093353] 2, 3, 8, 10, 18, 21, 32, 36, 50, 55, 72, 78, 98, 105, 128, 136, 162, 171, 200, 210, 242, 253, 288, 300, 338, 351, 392, 406, 450, 465, 512, 528, 578, 595, 648, 666, 722, 741, 800, 820, 882, 903, 968, 990, 1058, 1081, 1152, 1176, 1250, 1275, 1352, 1378, 1458
a(n) = (n+1)*(2*n+1-(-1)^n)/4. - Paul Barry, Mar 31 2008
a(n) = (n+1)*floor((n+1)/2). - Wesley Ivan Hurt, Jan 26 2013
a(n) = Sum_{i=1..floor((n+1)/2)} i + Sum_{i=ceiling((n+1)/2)..n} i. - Wesley Ivan Hurt, Jun 08 2013
[A098844] 1, 2, 3, 8, 10, 18, 21, 64, 72, 100, 110, 216, 234, 294, 315, 1024, 1088, 1296, 1368, 2000, 2100, 2420, 2530, 5184, 5400, 6084, 6318, 8232, 8526, 9450, 9765, 32768, 33792, 36992, 38080, 46656, 47952, 51984, 53352, 80000, 82000, 88200, 90300
a(n) = product_{k=0..floor(log_2(n))} floor(n/2^k), n>=1.
a(n*2^m) = n^m*2^(m(m+1)/2)*a(n).
a(n) >= c(n)*(n+1)^((1 + log_2(n+1))/2) for n != 2,
a(n) > c*(n+1)^((1 + log_2(n+1))/2)
a(n) = O(n^((1+log_2(n))/2)). (End)
[A010786] 1, 2, 3, 8, 10, 36, 42, 128, 216, 600, 660, 3456, 3744, 9408, 18900, 61440, 65280, 279936, 295488, 1152000, 2116800, 4878720, 5100480, 31850496, 41472000, 93450240, 163762560, 568995840, 589317120, 3265920000, 3374784000
a(n) = product{1<=k<=n} floor(n/k).
[A041075] 1, 1, 2, 3, 8, 11, 19, 30, 379, 409, 788, 1197, 3182, 4379, 7561, 11940, 150841, 162781, 313622, 476403, 1266428, 1742831, 3009259, 4752090, 60034339, 64786429, 124820768, 189607197, 504035162, 693642359, 1197677521, 1891319880, 23893516081, 25784835961
a(n) = 398*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 11 2013
[A041893] 1, 1, 2, 3, 8, 11, 19, 30, 1279, 1309, 2588, 3897, 10382, 14279, 24661, 38940, 1660141, 1699081, 3359222, 5058303, 13475828, 18534131, 32009959, 50544090, 2154861739, 2205405829, 4360267568, 6565673397, 17491614362, 24057287759, 41548902121, 65606189880
a(n) = 1298*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 26 2013

[A295333] 1, 2, 3, 8, 11, 19, 49, 68, 117, 302, 419, 721, 1861, 2582, 4443, 11468, 15911, 27379, 70669, 98048, 168717, 435482, 604199, 1039681, 2683561, 3723242, 6406803, 16536848, 22943651, 39480499, 101904649, 141385148, 243289797, 627964742, 871254539, 1499219281, 3869693101, 5368912382, 9238605483
a(n) = 6*a(n-3) + a(n-6), for n >= 6, with inputs a(0)..a(5).
[A042263] 1, 1, 2, 3, 8, 11, 19, 106, 125, 606, 731, 4261, 4992, 9253, 23498, 32751, 56249, 89000, 4506249, 4595249, 9101498, 13696747, 36494992, 50191739, 86686731, 483625394, 570312125, 2764873894, 3335186019, 19440803989, 22775990008, 42216793997
a(n) = 4562498*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 19 2014
[A048788] 0, 1, 2, 3, 8, 11, 30, 41, 112, 153, 418, 571, 1560, 2131, 5822, 7953, 21728, 29681, 81090, 110771, 302632, 413403, 1129438, 1542841, 4215120, 5757961, 15731042, 21489003, 58709048, 80198051, 219105150, 299303201, 817711552, 1117014753
a(n) = 4*a(n-2) - a(n-4). - Vincenzo Librandi, Dec 10 2013
a(n) = ((r + (-1)^n/r)*s^n/2^(n/2) - (1/r + (-1)^n*r)*2^(n/2)/s^n)*sqrt(6)/12, where r = 1 + sqrt(2), s = 1 + sqrt(3). - Vladimir Reshetnikov, May 11 2016
[A041123] 1, 2, 3, 8, 11, 30, 491, 1012, 1503, 4018, 5521, 15060, 246481, 508022, 754503, 2017028, 2771531, 7560090, 123732971, 255026032, 378759003, 1012544038, 1391303041, 3795150120, 62113704961, 128022560042
a(n) = 502*a(n-6)-a(n-12). G.f.: -(x^2-2*x-1)*(x^8+4*x^6+15*x^4+4*x^2+1)/ (x^12-502*x^6+1). [Colin Barker, Jul 18 2012]
[A042045] 1, 2, 3, 8, 11, 30, 1391, 2812, 4203, 11218, 15421, 42060, 1950181, 3942422, 5892603, 15727628, 21620231, 58968090, 2734152371, 5527272832, 8261425203, 22050123238, 30311548441, 82673220120, 3833279673961, 7749232568042, 11582512242003, 30914257052048
a(n) = 1402*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Jan 13 2014
[A041587] 1, 1, 2, 3, 8, 11, 74, 233, 4035, 12338, 78063, 90401, 258865, 349266, 608131, 957397, 33159629, 34117026, 67276655, 101393681, 270064017, 371457698, 2498810205, 7867888313, 136252911526, 416626622891, 2636012648872, 3052639271763, 8741291192398, 11793930464161
a(n) = 33767760*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 20 2013]
[A134683] 1, 2, 3, 8, 12, 32, 48, 128, 192, 512, 768, 2048, 3072, 8192, 12288, 32768, 49152, 131072, 196608, 524288, 786432, 2097152, 3145728, 8388608, 12582912, 33554432, 50331648, 134217728, 201326592, 536870912, 805306368, 2147483648, 3221225472
a(n) = 4*a(n-2), n>2. Gary W. Adamson, Jul 08 2012
a(n) = 2^(n-3)*(7-(-1)^n), n>0. - R. J. Mathar, Jul 22 2012
[A142880] 0, 1, 2, 3, 8, 13, 21, 55, 89, 144, 377, 610, 987, 2584, 4181, 6765, 17711, 28657, 46368, 121393, 196418, 317811, 832040, 1346269, 2178309, 5702887, 9227465, 14930352, 39088169, 63245986, 102334155, 267914296, 433494437, 701408733, 1836311903
a(n) = 2*a(n-1)+a(n-2) if n == 1 (mod3).
a(n) = a(n-1)+a(n-2) if n == 0 (mod 3).
a(n) = 2*a(n-1)-a(n-2) if n == 2 (mod 3).
[A004138] 1, 2, 3, 8, 13, 24, 37, 66, 107, 186, 303, 516, 849, 1436, 2377, 3998, 6639, 11134, 18531, 31024, 51701, 86464, 144205, 241018, 402163, 671906, 1121463, 1873244, 3127129, 5222724, 8719537, 14561622, 24312695, 40600230, 67790379, 113201160, 189016701, 315627944, 527024245, 880037810, 1469467515
a(n) = a(n-1)+a(n-2)-a(n-3)+2*a(n-4)+2 for n >= 5. [Rawlins]
[A213046] 2, 3, 8, 13, 25, 41, 71, 116, 193, 314, 514, 834, 1356, 2197, 3562, 5767, 9339, 15115, 24465, 39590, 64067, 103668, 167748, 271428, 439190, 710631, 1149836, 1860481, 3010333, 4870829, 7881179, 12752024, 20633221, 33385262, 54018502, 87403782, 141422304
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) + a(n-5).
a(n) = (-9/4 + (3*(-1)^n)/4 + (2^(-n)*((1-t)^n*(-5+2*t) + (1+t)^n*(5+2*t)))/t + (-1-n)/2) where t=sqrt(5). - Colin Barker, Feb 09 2017
[A151889] 2, 3, 8, 13, 34, 55, 144, 233, 610, 987, 2584, 4181, 10946, 17711, 46368, 75025, 196418, 317811, 832040, 1346269, 3524578, 5702887, 14930352, 24157817, 63245986, 102334155, 267914296, 433494437, 1134903170, 1836311903
a(2k-1) = Fib(3k-1), a(2k) = Fib(3k).
[A294566] 1, 2, 3, 8, 13, 38, 63, 188, 313, 938, 1563, 4688, 7813, 23438, 39063, 117188, 195313, 585938, 976563, 2929688, 4882813, 14648438, 24414063, 73242188, 122070313, 366210938, 610351563, 1831054688, 3051757813, 9155273438, 15258789063, 45776367188, 76293945313
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3) for n > 3.
a(n) = (3*5^(n/2) + 5)/10 for n even.
a(n) = (5^((n-1)/2) + 1)/2 for n odd.
[A171237] 2, 3, 8, 14, 25, 42, 70, 115, 188, 306, 497, 806, 1306, 2115, 3424, 5542, 8969, 14514, 23486, 38003, 61492, 99498, 160993, 260494, 421490, 681987, 1103480, 1785470, 2888953, 4674426, 7563382, 12237811, 19801196, 32039010, 51840209, 83879222
a(0)=2, a(1)=3, a(n)=3+a(n-1)+a(n-2) n>=2
[A080877] 1, 1, 2, 3, 8, 14, 40, 72, 208, 376, 1088, 1968, 5696, 10304, 29824, 53952, 156160, 282496, 817664, 1479168, 4281344, 7745024, 22417408, 40553472, 117379072, 212340736, 614604800, 1111830528, 3218112512, 5821620224, 16850255872
a(n + 4) = 6*a(n + 2) - 4*a(n) [From Richard Choulet, Dec 06 2008]
a(n) = (- 1/20*5^(1/2) + 1/16*5^(1/2)*2^(1/2) - 1/16*2^(1/2) + 1/4)*(sqrt(3 + sqrt(5)))^n + (1/20*5^(1/2) + 1/16*5^(1/2)*2^(1/2) + 1/16*2^(1/2) + 1/4)*(sqrt(3 - sqrt(5)))^n + (- 1/20*5^(1/2) - 1/16*5^(1/2)*2^(1/2) + 1/16*2^(1/2) + 1/4)*(- (sqrt(3 + sqrt(5))))^n + (1/20*5^(1/2) - 1/16*5^(1/2)*2^(1/2) - 1/16*2^(1/2) + 1/4)*(- (sqrt(3 - sqrt(5))))^n [From Richard Choulet, Dec 07 2008]
[A128035] 1, 1, 2, 3, 8, 15, 24, 42, 72, 117, 190, 308, 504, 819, 1330, 2160, 3504, 5678, 9198, 14877, 24080, 38976, 63074, 102051, 165144, 267200, 432354, 699570, 1131928, 1831524, 2963460, 4794987, 7758464, 12553464, 20311940, 32865420, 53177364
a(n) = n * ceiling[(a(n-1)+a(n-2))/n].
[A291400] 0, 1, 2, 3, 8, 15, 26, 52, 100, 193, 378, 726, 1396, 2699, 5210, 10065, 19444, 37528, 72448, 139890, 270104, 521547, 1007026, 1944336, 3754132, 7248558, 13995676, 27023186, 52176848, 100743849, 194517966, 375578833, 725174524, 1400180233, 2703493026
a(n) = a(n-2) + 2*a(n-3) + 2*a(n-4) + 4*a(n-5) + 6*a(n-6) + 4*a(n-7) + a(n-8) for n >= 9.
[A179991] 2, 3, 8, 15, 28, 49, 84, 141, 234, 385, 630, 1027, 1670, 2711, 4396, 7123, 11536, 18677, 30232, 48929, 79182, 128133, 207338, 335495, 542858, 878379, 1421264, 2299671, 3720964, 6020665, 9741660, 15762357, 25504050, 41266441, 66770526, 108037003, 174807566
a(n) = F(n)+sum(i; i=1 to n)+sum((F(k)*sum(j;j=1 to k-n-1); k=0 to n-4))+2F(n-3).
a(n) = 2^(-n)*(-3*2^n+(1-sqrt(5))^(1+n) + (1+sqrt(5))^n + sqrt(5)*(1+sqrt(5))^n - 2^n*n).
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
[A099920] 0, 2, 3, 8, 15, 30, 56, 104, 189, 340, 605, 1068, 1872, 3262, 5655, 9760, 16779, 28746, 49096, 83620, 142065, 240812, 407353, 687768, 1159200, 1950650, 3277611, 5499704, 9216519, 15426870, 25793240, 43080608, 71884197, 119835652
a(n) = sum{k=0..n, F(n-k)*(L(k-1)+0^k)};
a(n) = sum{k=0..n+1, F(n-k)*binomial(n-k+1, k)*binomial(1, (k+1)/2)*(1-(-1)^k)/2}.
a(0)=0, a(1)=2, a(2)=3, a(3)=8, a(n) = 2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4). - Harvey P. Dale, Jan 18 2012
[A128022] 1, 2, 3, 8, 15, 30, 63, 128, 252, 510, 1012, 2028, 4056, 8120, 16230, 32464, 64923, 129852, 259711, 519420, 1038828, 2077658, 4155318, 8310648, 16621300, 33242586, 66485178, 132970348, 265940701, 531881400, 1063762799, 2127525600
a(1)=1, a(n) = n * ceiling(sum{k=1 to n-1} a(k) /n).
[A195095] 1, 2, 3, 8, 15, 30, 63, 128, 252, 510, 1023, 2040, 4095, 8190, 16365, 32768, 65535, 131040, 262143, 524280, 1048509, 2097150, 4194303, 8388480, 16777200, 33554430, 67108608, 134217720, 268435455, 536870370, 1073741823, 2147483648, 4294966269, 8589934590
a(2^n) = 2^(2^n - 1).
a(p) = 2^(p-1) for odd prime p.
a(n) = floor(2^(n-1)/n)*n unless n=3k, k>4. - M. F. Hasler, Sep 08 2011
[A166920] 0, 2, 3, 8, 15, 32, 63, 128, 255, 512, 1023, 2048, 4095, 8192, 16383, 32768, 65535, 131072, 262143, 524288, 1048575, 2097152, 4194303, 8388608, 16777215, 33554432, 67108863, 134217728, 268435455, 536870912, 1073741823, 2147483648, 4294967295
a(n) = 2^n - (1+(-1)^n)/2.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3).
a(n) = Sum_{k=1..n+1} Sum_{i=0..n+1} C(n-k,i). - Wesley Ivan Hurt, Sep 22 2017
[A242510] 1, 2, 3, 8, 15, 32, 67, 138, 289, 600, 1249, 2600, 5409, 11258, 23427, 48752, 101455, 211128, 439363, 914322, 1902721, 3959600, 8240001, 17147600, 35684481, 74260082, 154536643, 321593688, 669242575, 1392706512, 2898248707
a(n) = a(n-1) +2*a(n-2) +a(n-3) -a(n-4). - Fung Lam, May 18 2014

[A132862] 1, 1, 2, 3, 8, 15, 36, 63, 192, 405, 1080, 2079, 6048, 12285, 31752, 59535, 193536, 433755, 1224720, 2488563, 7620480, 16253055, 44008272, 86266215, 274337280, 602791875, 1671742800, 3341878155, 10081895040, 21210236775, 56710659600
a(0) = 1; a(1) = 1; a(n) = n * a(nl) * a(n-1-nl) with nl = min(b-1,n-b/2) and b = 2^floor(log_2(n)).
[A006882] 1, 1, 2, 3, 8, 15, 48, 105, 384, 945, 3840, 10395, 46080, 135135, 645120, 2027025, 10321920, 34459425, 185794560, 654729075, 3715891200, 13749310575, 81749606400, 316234143225, 1961990553600, 7905853580625, 51011754393600
a(n) = prod(i=0..floor((n-1)/2), n-2*i).
a(n) = 2^{[1+2*n-cos(n*Pi)]/4}*Pi^{[cos(n*Pi)-1]/4}*Gamma(1+1/2*n). - Paolo P. Lava, Jul 24 2007
a(n) = n!/a(n-1). - Vaclav Kotesovec, Sep 17 2012
a(n) * a(n+3) = a(n+1) * (a(n+2) + a(n)). a(n) * a(n+1) = (n+1)!. - Michael Somos, Dec 29 2012
a(2*n) = 2^n*a(n)*a(n-1). a(2^n) = 2^(2^n - 1) * 1!! * 3!! * 7!! * ... * (2^(n-1) - 1)!!. - Peter Bala, Nov 01 2016
[A219751] 0, 0, 0, 0, 2, 3, 8, 16, 36, 76, 164, 348, 740, 1564, 3300, 6940, 14564, 30492, 63716, 132892, 276708, 575260, 1194212, 2475804, 5126372, 10602268, 21903588, 45205276, 93206756, 192005916, 395196644, 812762908, 1670265060, 3430008604, 7038974180, 14435862300
a(n) = (2^(n-5)*(3*n+16)+4*(-1)^n)/9 with n>3, a(0)=a(1)=a(2)=a(3)=0. [Bruno Berselli, Nov 29 2012]
[A121133] 1, 1, 2, 3, 8, 16, 38, 80, 180, 384, 840, 1792, 3856, 8192, 17440, 36864, 77888, 163840, 344192, 720896, 1507584, 3145728, 6554112, 13631488, 28312576, 58720256, 121636864, 251658240, 520097792, 1073741824, 2214600704, 4563402752, 9395257344, 19327352832
a(n) = 2^(n-5)*(n+2) for n>3 and even.
a(n) = 2^(n-5)*(n+2)+2^((n-5)/2) for n>3 and odd.
a(n) = 4*a(n-1)-2*a(n-2)-8*a(n-3)+8*a(n-4) for n>4.
[A005648] 1, 1, 2, 3, 8, 16, 50, 133, 440, 1387, 4752, 16159, 56822, 200474, 718146, 2587018, 9398520, 34324174, 126068558, 465093571, 1723176308, 6407924300, 23910576230, 89494164973, 335913918902, 1264107416466
a(n) = (Sum_{d|n} phi(n/d)*C(2*d, d))/(4*n) + C(2*k, k)/2, where k = floor(n/2). - Michael Somos
[A292401] 2, 3, 8, 17, 34, 71, 144, 289, 578, 1147, 2264, 4449, 8706, 16975, 32992, 63937, 123586, 238323, 458600, 880753, 1688482, 3231639, 6175728, 11785313, 22460802, 42754283, 81290424, 154396097, 292953858, 555334047, 1051781312, 1990373249, 3763583618
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-4) - 2*a(n-5) - s(n-6) for n >= 7.
[A219788] 2, 3, 8, 17, 39, 87, 196, 440, 989, 2222, 4993, 11219, 25209, 56644, 127278, 285991, 642616, 1443945, 3244515, 7290359, 16381288, 36808420, 82707769, 185842670, 417584689, 938304279, 2108350577, 4737420744, 10644887786, 23918845739, 53745158520, 120764274993
a(n) = 2a(n-1) + a(n-2) - a(n-3). - Charles R Greathouse IV, Nov 28 2012
[A232165] 0, 1, 2, 3, 8, 18, 37, 82, 181, 392, 856, 1873, 4086, 8919, 19480, 42530, 92853, 202742, 442665, 966496, 2110240, 4607473, 10059866, 21964555, 47957080, 104708706, 228619317, 499163818, 1089866333, 2379596808, 5195573912, 11343933537, 24768164206, 54078416287
a(n) = a(n-1)+a(n-2)+3*a(n-3)+a(n-4). G.f.: -x*(x+1) / (x^4+3*x^3+x^2+x-1). - Colin Barker, Jan 01 2014
[A129955] 2, 3, 8, 18, 40, 88, 192, 416, 896, 1920, 4096, 8704, 18432, 38912, 81920, 172032, 360448, 753664, 1572864, 3276800, 6815744, 14155776, 29360128, 60817408, 125829120, 260046848, 536870912, 1107296256, 2281701376, 4697620480
a(0) = 2, a(1) = 3; for n > 1, a(n) = (n+6)*2^(n-2).
[A272642] 1, 2, 3, 8, 18, 42, 97, 225, 521, 1207, 2796, 6477, 15004, 34757, 80515, 186514, 432062, 1000877, 2318544, 5370936, 12441840, 28821677, 66765773, 154663743, 358280483, 829961192, 1922615417, 4453762510, 10317196211, 23899913257, 55364446116, 128252427562, 297098342519, 688232003132
a(n) = 2*a(n-1) + a(n-2) - a(n-4) - a(n-5). - Vincenzo Librandi, May 08 2016
[A041205] 1, 1, 2, 3, 8, 19, 27, 46, 73, 1506, 1579, 3085, 4664, 12413, 29490, 41903, 71393, 113296, 2337313, 2450609, 4787922, 7238531, 19264984, 45768499, 65033483, 110801982, 175835465, 3627511282, 3803346747, 7430858029, 11234204776, 29899267581, 71032739938
a(n) = 1552*a(n-9) + a(n-18). - Vincenzo Librandi, Dec 13 2013
[A041281] 1, 2, 3, 8, 19, 46, 65, 176, 4289, 8754, 13043, 34840, 82723, 200286, 283009, 766304, 18674305, 38114914, 56789219, 151693352, 360175923, 872045198, 1232221121, 3336487440, 81307919681, 165952326802, 247260246483, 660472819768, 1568205886019, 3796884591806
a(n) = 4354*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 14 2013
[A078343] 1, 2, 3, 8, 19, 46, 111, 268, 647, 1562, 3771, 9104, 21979, 53062, 128103, 309268, 746639, 1802546, 4351731, 10506008, 25363747, 61233502, 147830751, 356895004, 861620759, 2080136522, 5021893803, 12123924128, 29269742059, 70663408246, 170596558551
a(n) is asymptotic to (1/4)*(8-5*sqrt(2))*(1+sqrt(2))^n.
[A042697] 1, 1, 2, 3, 8, 19, 84, 103, 2968, 3071, 15252, 33575, 82402, 115977, 198379, 314356, 18431027, 18745383, 37176410, 55921793, 149019996, 353961785, 1564867136, 1918828921, 55292076924, 57210905845, 284135700304, 625482306453, 1535100313210, 2160582619663
a(n) = 18629406*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 26 2014
[A042905] 1, 2, 3, 8, 19, 141, 301, 743, 1044, 2831, 176566, 355963, 532529, 1421021, 3374571, 25043018, 53460607, 131964232, 185424839, 502813910, 31359887259, 63222588428, 94582475687, 252387539802, 599357555291, 4447890426839, 9495138408969, 23438167244777
a(n) = 177610*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Feb 01 2014
[A029895] 1, 1, 2, 3, 8, 20, 58, 169, 526, 1667, 5448, 18084, 61108, 208960, 723354, 2527074, 8908546, 31630390, 113093022, 406680465, 1470597342, 5342750699, 19499227828, 71442850111, 262754984020, 969548468960, 3589093760726
a(n) equals the central coefficient of q in the central q-binomial coefficients for n>0: a(n) = [q^([n^2/2])] Product_{i=1..n} (1-q^(n+i))/(1-q^i), with a(0)=1. - Paul D. Hanna, Feb 15 2007
[A073268] 1, 1, 2, 3, 8, 20, 58, 179, 576, 1902, 6426, 22092, 77026, 271702, 967840, 3476555, 12578728, 45800278, 167693698, 617037126, 2280467586, 8461771342, 31510700712, 117725789124, 441141656810, 1657559677646, 6243810767912
a(0)=1, a(n) = Sum_{i=0..[log2(n)]} Cat(n-(2^i))
[A127905] 0, 1, 2, 3, 8, 25, 66, 168, 456, 1269, 3490, 9581, 26544, 73944, 206220, 576045, 1613264, 4527661, 12725946, 35818135, 100950440, 284869263, 804726934, 2275500998, 6440230392, 18242735800, 51714552656
a(n)=n*sum{k=0..floor((n-1)/3), C(n-1,3k)*C(3k,k)/(2k+1)}; a(n)=sum{k=0..floor((n-1)/3), (3k+1)*C(n,3k+1)*C(3k,k)/(2k+1)}; a(n)=sum{k=0..n-1, sum{j=0..floor(k/3), C(k,3j)*C(3j+1,j)}};
[A041399] 1, 1, 2, 3, 8, 27, 35, 167, 1538, 1705, 3243, 17920, 57003, 815962, 2504889, 13340407, 15845296, 29185703, 278516623, 1143252195, 1421768818, 5408558649, 12238886116, 17647444765, 29886330881, 47533775646, 1360832048969, 1408365824615, 2769197873584
a(n) = 1390718379850*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Dec 17 2013
[A041657] 1, 1, 2, 3, 8, 35, 43, 766, 809, 4002, 8813, 12815, 21628, 34443, 1261576, 1296019, 2557595, 3853614, 10264823, 44912906, 55177729, 982934299, 1038112028, 5135382411, 11308876850, 16444259261, 27753136111, 44197395372, 1618859369503, 1663056764875
a(n) = 1283204*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 22 2013
[A041789] 1, 2, 3, 8, 35, 218, 253, 471, 1666, 2137, 3803, 24955, 103623, 232201, 335824, 903849, 36489784, 73883417, 110373201, 294629819, 1288892477, 8027984681, 9316877158, 17344861839, 61351462675, 78696324514, 140047787189, 918983047648, 3815979977781
a(n) = 36825608*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Dec 24 2013
[A042553] 1, 2, 3, 8, 43, 51, 706, 1463, 2169, 23153, 25322, 73797, 984683, 1058480, 6277083, 13612646, 19889729, 53392104, 3009847553, 6073087210, 9082934763, 24238956736, 130277718443, 154516675179, 2138994495770, 4432505666719, 6571500162489, 70147507291609
a(n) = 3029737282*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 25 2014
[A042139] 1, 2, 3, 8, 43, 1040, 5243, 11526, 16769, 45064, 2179841, 4404746, 6584587, 17573920, 94454187, 2284474408, 11516826227, 25318126862, 36834953089, 98988033040, 4788260539009, 9675509111058, 14463769650067, 38603048411192, 207479011706027, 5018099329355840
a(n) = 2196610*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 15 2014
[A042365] 1, 1, 2, 3, 8, 59, 244, 791, 2617, 11259, 81430, 174119, 255549, 429668, 685217, 36060952, 36746169, 72807121, 109553290, 291913701, 2152949197, 8903710489, 28864080664, 95495952481, 410847890588, 2971431186597, 6353710263782, 9325141450379, 15678851714161
a(n) = 36490620*a(n-15) + a(n-30) for n>29. - Vincenzo Librandi, Jan 20 2014
[A042815] 1, 1, 2, 3, 8, 67, 142, 209, 351, 560, 33951, 34511, 68462, 102973, 274408, 2298237, 4870882, 7169119, 12040001, 19209120, 1164587201, 1183796321, 2348383522, 3532179843, 9412743208, 78834125507, 167080994222
a(n) = 34302*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 30 2014

[A047475] 1, 2, 3, 9, 10, 11, 17, 18, 19, 25, 26, 27, 33, 34, 35, 41, 42, 43, 49, 50, 51, 57, 58, 59, 65, 66, 67, 73, 74, 75, 81, 82, 83, 89, 90, 91, 97, 98, 99, 105, 106, 107, 113, 114, 115, 121, 122, 123, 129, 130, 131, 137, 138, 139, 145, 146, 147, 153, 154, 155
a(n) = 1+8*floor((n-1)/3)+((n-1) mod 3). - Alois P. Heinz, May 13 2012
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-30-15*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-5, a(3k-1) = 8k-6, a(3k-2) = 8k-7. (End)
[A047358] 2, 3, 9, 10, 16, 17, 23, 24, 30, 31, 37, 38, 44, 45, 51, 52, 58, 59, 65, 66, 72, 73, 79, 80, 86, 87, 93, 94, 100, 101, 107, 108, 114, 115, 121, 122, 128, 129, 135, 136, 142, 143, 149, 150, 156, 157, 163, 164, 170
a(n)=7*n-a(n-1)-9, n>1 [From Vincenzo Librandi, Aug 05 2010]
[A057569] 0, 2, 3, 9, 11, 21, 24, 38, 42, 60, 65, 87, 93, 119, 126, 156, 164, 198, 207, 245, 255, 297, 308, 354, 366, 416, 429, 483, 497, 555, 570, 632, 648, 714, 731, 801, 819, 893, 912, 990, 1010, 1092, 1113, 1199, 1221, 1311, 1334, 1428, 1452, 1550
a(n) = a(1 - n) for all n in Z. - Michael Somos, Jan 13 2012
a(n) = n*(5*n - 2)/8 for n even.
a(n) = (5*n - 3)*(n - 1)/8 for n odd.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5.
[A295857] 0, 0, 2, 3, 9, 14, 31, 49, 96, 153, 281, 450, 795, 1277, 2200, 3541, 5997, 9666, 16175, 26097, 43296, 69905, 115249, 186178, 305523, 493749, 807464, 1305309, 2129157, 3442658, 5604583, 9063625, 14733744, 23830137, 38694953, 62590626, 101547723, 164269421
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 0, a(1) = 0, a(2) = 2, a(3) = 3.
[A237254] 1, 2, 3, 9, 14, 43, 67, 206, 321, 987, 1538, 4729, 7369, 22658, 35307, 108561, 169166, 520147, 810523, 2492174, 3883449, 11940723, 18606722, 57211441, 89150161, 274116482, 427144083, 1313370969, 2046570254, 6292738363, 9805707187, 30150320846, 46981965681
a(n) = 5*a(n-2)-a(n-4).
[A220123] 1, 1, 2, 3, 9, 16, 35, 65, 143, 281, 590, 1174, 2440, 4925, 10142, 20563, 42178, 85819, 175632, 357875, 731536, 1491966, 3047879, 6218844, 12699982, 25919176, 52922491, 108022099, 220541999, 450186874, 919074255, 1876149465, 3830134125, 7818778884, 15961716918
a(n) = a(n-1)+a(n-2)+5*a(n-4)-a(n-5)+a(n-6)-a(n-8). - Caleb Wagner, Nov 06 2013
[A156066] 2, 3, 9, 16, 52, 93, 303, 542, 1766, 3159, 10293, 18412, 59992, 107313, 349659, 625466, 2037962, 3645483, 11878113, 21247432, 69230716, 123839109, 403506183, 721787222, 2351806382, 4206884223, 13707332109, 24519518116, 79892186272
a(1..4) = (2,3,9,16); a(n>4) = 6*a(n-2) - a(n-4).
[A079992] 1, 1, 2, 3, 9, 19, 49, 100, 233, 503, 1166, 2580, 5884, 13092, 29622, 66281, 149569, 335524, 755737, 1697149, 3819301, 8582469, 19306314, 43397191, 97600441, 219421360, 493425528, 1109386496, 2494606984, 5608933040, 12612101201
a(n) = a(n-1) +3*a(n-2) -a(n-3) +a(n-4) +a(n-5) +3*a(n-6) -5*a(n-7) -9*a(n-8) +a(n-9) +a(n-10) +a(n-11) -a(n-12) +a(n-13) +a(n-14).
[A073950] 1, 2, 3, 9, 30, 81, 225, 702, 2187, 6561, 19602, 59049, 177633, 532170, 1594323, 4782969, 14351094, 43046721, 129127041, 387400806, 1162261467, 3486784401, 10460294154, 31381059609, 94143533121, 282430067922, 847288609443, 2541865828329, 7625599079310
a(n; t, s) = a(n-1; t, s) + a(n-1; t+2, s+2t+1) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A281270] 0, 0, 1, 2, 3, 9, 30, 81, 242, 838, 2799, 9365, 33616, 122937, 449698, 1696724, 6558855, 25559806, 101294687, 409363758, 1673735259, 6928460475, 29115833976, 123835124242, 532449210893, 2317382872404, 10199542298725, 45345006540851, 203704505953902, 924427259637953, 4234544300812834
a(n) = 1 + a(n-1) + 2*Sum_{k=2..n-3} k*a(k) + Sum_{k=2..n-3} a(k)*a(n-1-k) for n>=2.
[A007090] 0, 1, 2, 3, 10, 11, 12, 13, 20, 21, 22, 23, 30, 31, 32, 33, 100, 101, 102, 103, 110, 111, 112, 113, 120, 121, 122, 123, 130, 131, 132, 133, 200, 201, 202, 203, 210, 211, 212, 213, 220, 221, 222, 223, 230, 231, 232, 233, 300, 301, 302, 303, 310, 311, 312
a(n) = Sum{d(i)*10^i: i=0, 1, ..., m}, where Sum{d(i)*4^i: i=0, 1, ..., m} is the base 4 representation of n.
a(0) = 0, a(n) = 10*a(n/4) if n==0 (mod 4), a(n) = a(n-1)+1 otherwise. - Benoit Cloitre, Dec 22 2002
[A278742] 1, 2, 3, 10, 11, 12, 20, 30, 100, 110, 200, 300, 1000, 1100, 2000, 2100, 3000, 10000, 20000, 30000, 100000, 110000, 120000, 200000, 300000, 1000000, 1100000, 2000000, 3000000, 10000000, 11000000, 20000000, 21000000, 30000000, 100000000, 200000000, 300000000
a(n+17) = 10000*a(n) for any n>0.
a(17k+1) = 10^(4k), k >= 0. - N. J. A. Sloane, Jan 06 2017
[A032804] 2, 3, 10, 11, 14, 15, 42, 43, 46, 47, 58, 59, 62, 63, 170, 171, 174, 175, 186, 187, 190, 191, 234, 235, 238, 239, 250, 251, 254, 255, 682, 683, 686, 687, 698, 699, 702, 703, 746, 747, 750, 751, 762, 763, 766, 767, 938, 939, 942
a(0) = 0, a(2*n) = 4*a(n-1) + 3, a(2*n+1) = 4*a(n)+2. - Robert Israel, May 05 2014
[A047473] 2, 3, 10, 11, 18, 19, 26, 27, 34, 35, 42, 43, 50, 51, 58, 59, 66, 67, 74, 75, 82, 83, 90, 91, 98, 99, 106, 107, 114, 115, 122, 123, 130, 131, 138, 139, 146, 147, 154, 155, 162, 163, 170, 171, 178, 179, 186, 187, 194, 195, 202, 203, 210, 211, 218, 219, 226, 227, 234
a(n) = 8*n - a(n-1) - 11 for n>1, a(1)=2. - Vincenzo Librandi, Aug 06 2010
a(n) = 4*n - 7/2 - 3*(-1)^n/2.
a(1)=2, a(2)=3, a(3)=10; for n>3, a(n) = a(n-1) + a(n-2) - a(n-3). - Harvey P. Dale, Sep 28 2012
[A281366] 1, 2, 3, 10, 11, 20, 21, 100, 110, 200, 210, 1000, 1100, 2000, 2100, 10000, 11000, 20000, 21000, 100000, 110000, 200000, 210000, 1000000, 1100000, 2000000, 2100000, 10000000, 11000000, 20000000, 21000000, 100000000, 110000000, 200000000, 210000000
a(n) = 10*a(n-4) for n>7. (End)
[A193652] 0, 1, 2, 3, 10, 11, 42, 43, 170, 171, 682, 683, 2730, 2731, 10922, 10923, 43690, 43691, 174762, 174763, 699050, 699051, 2796202, 2796203, 11184810, 11184811, 44739242, 44739243, 178956970, 178956971, 715827882, 715827883, 2863311530, 2863311531, 11453246122
a(n) = 2 * (4^floor(n/2) - 1) / 3 + n mod 2.
[A023856] 2, 3, 10, 13, 28, 34, 60, 70, 110, 125, 182, 203, 280, 308, 408, 444, 570, 615, 770, 825, 1012, 1078, 1300, 1378, 1638, 1729, 2030, 2135, 2480, 2600, 2992, 3128, 3570, 3723, 4218, 4389, 4940, 5130, 5740, 5950, 6622, 6853, 7590, 7843, 8648, 8924, 9800, 10100, 11050, 11375
a(n) = (n+2)*(4*n^2+13*n+6-3(n+2)(-1)^n)/48.
a(n)=sum(k=1..(2*n+1+(-1)^(n+1))/4, (n-k+1)(k-1)), with n>=3. - Paolo P. Lava, Jan 31 2007
a(n) = sum_{i=1..ceil(n/2)} i*(n-i+2) = -ceil(n/2)*(ceil(n/2)+1)*(2*ceil(n/2)-3n-5)/6. - Wesley Ivan Hurt, Sep 20 2013
[A187767] 0, 2, 3, 10, 15, 35, 63, 138, 255, 527, 1023, 2083, 4095, 8255, 16383, 32906, 65535, 131327, 262143, 524815, 1048575, 2098175, 4194303, 8390691, 16777215, 33558527, 67108863, 134225983, 268435455, 536887295, 1073741823, 2147516554, 4294967295, 8590000127, 17179869183
a(1) = 0; a(n) = 2^(n-1)-1 if n is odd, 2^(n-1)+a(n/2) if n is even (conjectured).
[A226881] 0, 0, 2, 3, 10, 15, 41, 63, 162, 255, 637, 1023, 2509, 4095, 9907, 16383, 39202, 65535, 155381, 262143, 616665, 1048575, 2449867, 4194303, 9740685, 16777215, 38754731, 67108863, 154276027, 268435455, 614429671, 1073741823, 2448023842, 4294967295, 9756737701
a(n) = Sum_{i=1..floor(n/2)} C(n,i). - Wesley Ivan Hurt, Mar 14 2015
[A027913] 1, 1, 2, 3, 10, 15, 50, 77, 266, 414, 1452, 2277, 8074, 12727, 45474, 71955, 258570, 410346, 1481108, 2355962, 8533660, 13599915, 49402850, 78855339, 287134346, 458917850, 1674425300, 2679183405, 9792273690, 15683407785
a(n) = GegenbauerC(floor(n/2), -n, -1/2). - Emanuele Munarini, Oct 18 2016
[A081204] 1, 2, 3, 10, 15, 56, 84, 330, 495, 2002, 3003, 12376, 18564, 77520, 116280, 490314, 735471, 3124550, 4686825, 20030010, 30045015, 129024480, 193536720, 834451800, 1251677700, 5414950296, 8122425444, 35240152720, 52860229080, 229911617056
a(n) = binomial(ceiling((n)/2) + n, n).
a(n) = sum{k=0..floor(n/2), binomial(n+k-1, k)}. - Paul Barry, Jul 06 2004
[A213391] 0, 1, 2, 3, 10, 17, 24, 43, 62, 81, 118, 155, 192, 253, 314, 375, 466, 557, 648, 775, 902, 1029, 1198, 1367, 1536, 1753, 1970, 2187, 2458, 2729, 3000, 3331, 3662, 3993, 4390, 4787, 5184, 5653, 6122, 6591, 7138, 7685, 8232, 8863, 9494, 10125
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)-a(n-5)+2*a(n-6)-a(n-7).
[A143609] 2, 3, 10, 17, 58, 99, 338, 577, 1970, 3363, 11482, 19601, 66922, 114243, 390050, 665857, 2273378, 3880899, 13250218, 22619537, 77227930, 131836323, 450117362, 768398401, 2623476242, 4478554083, 15290740090, 26102926097, 89120964298, 152139002499
a(n) = (2+sqrt(2)+(-1)^n*(-2+sqrt(2)))*((-1+sqrt(2))^n+(1+sqrt(2))^n)/(4*sqrt(2)). - Colin Barker, Mar 27 2016

[A264038] 0, 2, 3, 10, 20, 47, 98, 210, 435, 902, 1848, 3775, 7670, 15542, 31403, 63330, 127500, 256367, 514938, 1033450, 2072675, 4154702, 8324528, 16673535, 33386670, 66837422, 133778523, 267724810, 535721060, 1071881327, 2144473298, 4290096450, 8582053395, 17167117142, 34339105128, 68686091455, 137384934950, 274790503142, 549614391563, 1099282801650
a(n) = 2*a(n-1)+2*a(n-2)-3*a(n-3)-2*a(n-4) for n > 3.
[A059929] 0, 2, 3, 10, 24, 65, 168, 442, 1155, 3026, 7920, 20737, 54288, 142130, 372099, 974170, 2550408, 6677057, 17480760, 45765226, 119814915, 313679522, 821223648, 2149991425, 5628750624, 14736260450, 38580030723, 101003831722, 264431464440, 692290561601
a(n) = ((7+3*sqrt(5))/10)*((3+sqrt(5))/2)^(n-1) + ((7-3*sqrt(5))/10)*((3-sqrt(5))/2)^(n-1) + (3/5)*(-1)^(n-1). - Tim Monahan, Aug 09 2011
a(n) = (Lucas(n+1)^2 - Fibonacci(n+1)^2)/4. - Vincenzo Librandi, Aug 02 2014
[A052929] 2, 3, 10, 27, 82, 243, 730, 2187, 6562, 19683, 59050, 177147, 531442, 1594323, 4782970, 14348907, 43046722, 129140163, 387420490, 1162261467, 3486784402, 10460353203, 31381059610, 94143178827, 282429536482, 847288609443, 2541865828330, 7625597484987
a(n) = 3^n + (1+(-1)^n)/2. [Bruno Berselli, Aug 27 2013]
a(n) = Sum_{k=0..n} (-1)^k + 2^k*binomial(n,k). [Bruno Berselli, Aug 27 2013]
[A084380] 2, 3, 10, 29, 66, 127, 218, 345, 514, 731, 1002, 1333, 1730, 2199, 2746, 3377, 4098, 4915, 5834, 6861, 8002, 9263, 10650, 12169, 13826, 15627, 17578, 19685, 21954, 24391, 27002, 29793, 32770, 35939, 39306, 42877, 46658, 50655, 54874, 59321, 64002
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 24 2012
[A286814] 2, 3, 10, 29, 82, 227, 618, 1661, 4418, 11651, 30506, 79389, 205522, 529635, 1359434, 3476989, 8865026, 22538755, 57157578, 144615709, 365127634, 920110051, 2314564522, 5812911741, 14576950082, 36503608707, 91294323178, 228049363229, 569017421650, 1418290058723
a(n) = ((1-sqrt(2))^n*(4-sqrt(2)*n)+(1+sqrt(2))^n*(4+sqrt(2)*n))/4;
a(n) = LucasL(n, 2) + n*Fibonacci(n, 2).
a(n) = 4*a(n-1)-2*a(n-2)-4*a(n-3)-a(n-4).
[A131764] 1, 2, 3, 10, 30, 102, 335, 1170, 4080, 14560, 52377, 190650, 698870, 2581110, 9586395, 35791358, 134215680, 505290270, 1908866960, 7233629130, 27487764474, 104715392730, 399822314775, 1529755308210, 5864061663920, 22517998136832, 86607683851185, 333599972392960, 1286742745883790, 4969489243995030, 19215358392200893, 74382032555280450, 288230376084602880
a(n) = (1/n) * Sum(moebius(n/d)*2^(2*d-1), d in divisors(n)).
[A057146] 2, 3, 10, 33, 109, 354, 1148, 3716, 12026, 38918, 125943, 407562, 1318899, 4268047, 13811692, 44695576, 144637922, 468058148, 1514667986, 4901568568, 15861809082, 51329892437, 166107021206, 537533612162, 1739495309150, 5629125066952, 18216231370504
a(n) = floor((1+sqrt(5))^n) for n>0, a(0)=2. - Artur Jasinski, Nov 22 2006
[A007932] 1, 2, 3, 11, 12, 13, 21, 22, 23, 31, 32, 33, 111, 112, 113, 121, 122, 123, 131, 132, 133, 211, 212, 213, 221, 222, 223, 231, 232, 233, 311, 312, 313, 321, 322, 323, 331, 332, 333, 1111, 1112, 1113, 1121, 1122, 1123, 1131, 1132, 1133, 1211, 1212, 1213, 1221
a(n) = sum_{j=0..m-1} (1 + b(j) mod 3)*10^j,
a(k*(3^n-1)/2) = k*(10^n-1)/9, k=1,2,3.
a((5*3^n-3)/2) = (4*10^n-1)/3 = 10^n+(10^n-1)/3.
a((3^n-1)/2 - 1) = (10^(n-1)-1)/3, n>1.
a(n) <= (10^log_3(2*n+1)-1)/9, equality holds for n=(3^k-1)/2, k>0.
a(n) > (3/10)*(10^log_3(2*n+1)-1)/9, n>0.
[A042665] 1, 2, 3, 11, 14, 25, 239, 981, 2201, 5383, 12967, 18350, 104717, 123067, 596985, 1317037, 25620688, 206282541, 438185770, 644468311, 18483298478, 19127766789, 56738832056, 473038423237, 9044468873559, 18561976170355, 83292373554979, 101854349725334, 592564122181649
a(n) = 7160451322946242510 06*a(n-40) - a(n-80) for n>79. - Vincenzo Librandi, Jan 26 2012
[A041029] 1, 2, 3, 11, 14, 39, 326, 691, 1017, 3742, 4759, 13260, 110839, 234938, 345777, 1272269, 1618046, 4508361, 37684934, 79878229, 117563163, 432567718, 550130881, 1532829480, 12812766721, 27158362922
a(n) = 340*a(n-6)-a(n-12). G.f.: -(x^10- 2*x^9+ 3*x^8 -11*x^7 +14*x^6 -39*x^5 -14*x^4 -11*x^3 -3*x^2 -2*x -1)/(x^12-340*x^6+1). [Colin Barker, Jul 16 2012]
[A041235] 1, 2, 3, 11, 14, 95, 109, 422, 531, 1484, 33179, 67842, 101021, 370905, 471926, 3202461, 3674387, 14225622, 17900009, 50025640, 1118464089, 2286953818, 3405417907, 12503207539, 15908625446, 107954960215, 123863585661, 479545717198, 603409302859
a(n) = 33710*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 13 2013
[A041637] 1, 2, 3, 11, 14, 165, 344, 1541, 1885, 7196, 23473, 30669, 146149, 322967, 3698786, 4021753, 15764045, 19785798, 55335641, 2011868874, 4079073389, 6090942263, 22351900178, 28442842441, 335223167029, 698889176499, 3130779873025, 3829669049524, 14619787021597
a(n) = 2031654672*a(n-19) + a(n-38) for n>37. [Bruno Berselli, Dec 22 2013]
[A147655] 1, 2, 3, 11, 17, 40, 86, 153, 283, 547, 1069, 1737, 3238, 5340, 9574, 17251, 27897, 45845, 78601, 126725, 207153, 353435, 550422, 881454, 1393870, 2239938, 3473133, 5546789, 8762663, 13341967, 20676253, 31774563, 48248485, 74174759, 111904363, 170184798
a(n) = [x^n] Product_{k>=1} 1+prime(k)*x^k. - Alois P. Heinz, Sep 05 2014
[A041955] 1, 2, 3, 11, 25, 36, 61, 646, 707, 1353, 3413, 11592, 15005, 41602, 1845493, 3732588, 5578081, 20466831, 46511743, 66978574, 113490317, 1201881744, 1315372061, 2517253805, 6349879671, 21566892818, 27916772489, 77400437796, 3433536035513, 6944472508822
a(n) = 1860498*a(n-14) - a(n-28) for n>27 Vincenzo Librandi, Dec 27 2013
[A157161] 1, 2, 3, 11, 25, 79, 245, 869, 2692, 9544, 32065, 115381, 400023, 1462730, 5165327, 19165035, 68635477, 255546242, 930138521, 3491772737, 12810761323, 48334512920, 178987624513, 678272753284, 2528210175630, 9616904064021, 36047930953482, 137654448221760, 518401146543811
a(n) = sum((d/n)*(-a(d)^(n/d)),d|n with 1<d<n) + sum(((-1)^(m-1))*(1/m)*sum(M0(p)*C(1)^e(1)*...*C(n)^e(n), p=(1^e(1),...,n^e(n)) from P(n,m)), m=1..n-1), n>=2; a(1)=C(1)=1. The exponents e(j)>=0 satisfy sum(j*e(j),j=1..n)=n and sum(e(j),j=1..m). If e_j=0 then part j does not appear. The M0 numbers are m!/product(e(j)!,j=1..n).
[A041811] 1, 1, 2, 3, 11, 25, 161, 347, 1202, 1549, 2751, 4300, 174751, 179051, 353802, 532853, 1952361, 4437575, 28577811, 61593197, 213357402, 274950599, 488308001, 763258600, 31018652001, 31781910601, 62800562602, 94582473203, 346547982211, 787678437625
a(n) = 177502*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 24 2013
[A248161] 2, 3, 11, 26, 71, 183, 482, 1259, 3299, 8634, 22607, 59183, 154946, 405651, 1062011, 2780378, 7279127, 19056999, 49891874, 130618619, 341963987, 895273338, 2343856031, 6136294751, 16065028226, 42058789923, 110111341547
a(n) = -(F(n)^2 + F(n+1)^2 + F(n+2)^2 - F(n+3)^2).
[A046224] 1, 2, 3, 11, 40, 147, 546, 2046, 7722, 29315, 111826, 428298, 1646008, 6344366, 24515700, 94942620, 368404110, 1431985635, 5574725970, 21732560850, 84828633120, 331488081210, 1296712152060, 5077282282020, 19897457591700, 78039200913102, 306302623291476
a(n) = Sum_{k=1..n-2} (2*k+1)*binomial(2*n-k-5,n-3), n>2; a(1)=1, a(2)=2. - Vladimir Kruchinin, Sep 27 2011
a(n) = (5*n-9)/(8*n-12)*binomial(2*n-2,n-1), n>2; a(1)=1, a(2)=2. - Eric Werley, Sep 16 2015
[A041345] 1, 1, 2, 3, 11, 47, 152, 199, 351, 550, 14651, 15201, 29852, 45053, 165011, 705097, 2280302, 2985399, 5265701, 8251100, 219794301, 228045401, 447839702, 675885103, 2475495011, 10577865147, 34209090452, 44786955599, 78996046051, 123783001650
a(n) = 15002*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 16 2013
[A041441] 1, 2, 3, 11, 58, 69, 472, 541, 3177, 10072, 13249, 36570, 1110349, 2257268, 3367617, 12360119, 65168212, 77528331, 530338198, 607866529, 3569670843, 11316879058, 14886549901, 41089978860, 1247585915701, 2536261810262, 3783847725963, 13887804988151
a(n) = 1123598*a(n-12) - a(n-24) for n>23. [Bruno Berselli, Dec 18 2013]
[A081347] 1, 2, 3, 12, 13, 30, 31, 56, 57, 90, 91, 132, 133, 182, 183, 240, 241, 306, 307, 380, 381, 462, 463, 552, 553, 650, 651, 756, 757, 870, 871, 992, 993, 1122, 1123, 1260, 1261, 1406, 1407, 1560, 1561, 1722, 1723, 1892, 1893, 2070, 2071, 2256, 2257, 2450, 2451
a(n) = ((1+2*n^2)+(1-2*n)*(-1)^n)/2.
[A289870] 1, 2, 3, 12, 15, 30, 35, 56, 63, 90, 99, 132, 143, 182, 195, 240, 255, 306, 323, 380, 399, 462, 483, 552, 575, 650, 675, 756, 783, 870, 899, 992, 1023, 1122, 1155, 1260, 1295, 1406, 1443, 1560, 1599, 1722, 1763, 1892, 1935, 2070, 2115, 2256, 2303, 2450, 2499
a(n) = (n + 1)*(n - 1 + (n mod 2)).
[A290168] 0, 0, 2, 3, 12, 15, 36, 42, 80, 90, 150, 165, 252, 273, 392, 420, 576, 612, 810, 855, 1100, 1155, 1452, 1518, 1872, 1950, 2366, 2457, 2940, 3045, 3600, 3720, 4352, 4488, 5202, 5355, 6156, 6327, 7220, 7410, 8400
a(n) = (1/16)*(-1)^n*n*(1 + (-1)^(n+1) + 2*(1 + (-1)^n)*n + 2*(-1)^n*n^2).

[A123761] 1, 2, 3, 12, 15, 60, 60, 240, 360, 1440, 1800, 7200, 7200, 28800, 43200, 172800, 216000, 864000, 864000, 3456000, 5184000, 20736000, 25920000, 103680000, 103680000, 414720000, 622080000, 2488320000, 3110400000, 12441600000
a(n) = 120*a(n-6) for n>=7. G.f.: (60*x^6-60*x^5-15*x^4-12*x^3-3*x^2-2*x-1) / (120*x^6-1). - Colin Barker, May 08 2014
[A105045] 0, 1, 2, 3, 12, 20, 91, 154, 713, 1209, 5610, 9515, 44164, 74908, 347699, 589746, 2737425, 4643057, 21551698, 36554707, 169676156, 287794596, 1335857547, 2265802058, 10517184217, 17838621865, 82801616186, 140443172859, 651895745268, 1105706761004, 5132364345955
a(n)=1/2 + 1/2*(4-sqrt(15))^(1/2*(n-1))*(4-sqrt(15))^(1/4*(-1)^(n-1))*(4-sqrt(15))^(-1/4)-1/4*(-1)^(n-1)*(4-sqrt(15))^(1/2*(n-1))*(4-sqrt(15))^(1/4*(-1)^(n-1))*(4-sqrt(15))^(-1/4) + 1/10*(4 + sqrt(15))^(-1/4)*sqrt(15)*(4 + sqrt(15))^(1/2*(n-1))*(4 + sqrt(15))^(1/4*(-1)^(n-1))-1/12 *(4 + sqrt(15))^(-1/4)*(-1)^(n-1)*sqrt(15)*(4 + sqrt(15))^(1/2*(n-1))*(4 + sqrt(15))^(1/4*(-1)^(n-1)) + 1/2*(4 + sqrt(15))^(-1/4)*(4 + sqrt(15))^(1/2*(n-1))*(4 + sqrt(15))^(1/4*(-1)^(n-1)) + 1/12*(-1)^(n-1)*sqrt(15)*(4-sqrt(15))^(1/2*(n-1))*(4-sqrt(15))^(1/4*(-1)^(n-1))*(4 -sqrt(15))^(-1/4)-1/4*(4 + sqrt(15))^(-1/4)*(-1)^(n-1)*(4 + sqrt(15))^(1/2*(n-1))*(4 + sqrt(15))^(1/4*(-1)^(n-1))-1/10*sqrt(15)*(4-sqrt(15))^(1/2*(n-1))*(4-sqrt(15))^(1/4*(-1)^(n-1))*(4-sqrt(15))^(-1/4)-[C(2*n,n) mod 2], with n>=0 [From Paolo P. Lava, Aug 28 2009]
a(n)=((15+r)*(4+r)^((n-1)/2)+(15-r)*(4-r)^((n-1)/2)+30)/60; n odd
a(n)=((45+11*r)*(4+r)^((n-2)/2)+(45-11*r)*(4-r)^((n-2)/2)+30)/60; n even
a(0)=0, a(1)=1, a(2)=2, a(3)=3, a(4)=12, a(5)=20, a(n)=a(n-1)+ 8*a(n-2)- 8*a(n-3)-a(n-4)+a (n-5) [From Harvey P. Dale, Nov 10 2011]
[A099429] 0, 0, 2, 3, 12, 25, 66, 147, 344, 765, 1710, 3751, 8196, 17745, 38234, 81915, 174768, 371365, 786438, 1660239, 3495260, 7340025, 15379122, 32156323, 67108872, 139810125, 290805086, 603979767, 1252698804, 2594876065, 5368709130, 11095332171, 22906492256
a(n) = sum{k=0..n, J(n-k)*(2^(k-1)-(-1)^k+0^k/2)}.
a(n) = sum{k=0..n+1, J(n-k)*binomial(n-k+1, k)*binomial(1, (k+1)/2)*(1-(-1)^k)/2}.
[A049601] 0, 0, 2, 3, 12, 25, 76, 182, 504, 1275, 3410, 8811, 23256, 60580, 159094, 415715, 1089648, 2850645, 7466468, 19541994, 51170460, 133951675, 350713222, 918141623, 2403786672, 6293097000, 16475700746, 43133687427, 112925875764
a(n) = (Fibonacci(2*n)+(-1)^n*Fibonacci(n))/2. - Vladeta Jovovic, Aug 30 2004
[A249490] 2, 3, 12, 28, 63, 113, 208, 296, 473, 657, 946, 1236, 1661, 2071, 2688, 3228, 4059, 4811, 5898, 6858, 8209, 9433, 11116, 12572, 14637, 16395, 18872, 21046, 23935, 26405, 29836, 32742, 36695, 40007, 44480, 48254, 53405, 57681, 63488, 68284, 74791, 80149, 87374
a(n) = Sum_{m=0..floor((n-1)/2)} prime((n-m)(n-m-1)/2+m+1).
[A215602] 2, 3, 12, 28, 77, 198, 522, 1363, 3572, 9348, 24477, 64078, 167762, 439203, 1149852, 3010348, 7881197, 20633238, 54018522, 141422323, 370248452, 969323028, 2537720637, 6643838878, 17393796002, 45537549123, 119218851372, 312119004988, 817138163597, 2139295485798, 5600748293802, 14662949395603, 38388099893012, 100501350283428
a(n) = ((-1)^n+(2^(-1-n)*((3-sqrt(5))^n*(-5+sqrt(5))+(3+sqrt(5))^n*(5+sqrt(5)))) / sqrt(5)). - Colin Barker, Oct 01 2016
[A247651] 1, 2, 3, 12, 30, 60, 210, 840, 2520, 7560, 27720, 83160, 240240, 840840, 2702700, 10810800, 36756720, 122522400, 465585120, 1551950400, 4888643760, 19554575040, 74959204320, 257002986240, 936990054000, 3480248772000
a(n) = Max[(n+1)!/(Prod_j(m_j!)(n-m+1)!)] over all partitions of n.
[A135522] 2, 3, 12, 33, 102, 303, 912, 2733, 8202, 24603, 73812, 221433, 664302, 1992903, 5978712, 17936133, 53808402, 161425203, 484275612, 1452826833, 4358480502, 13075441503, 39226324512, 117678973533, 353036920602, 1059110761803
a(n) = (5*3^n + 3*(-1)^n)/4. (End)
[A107240] 1, 2, 3, 12, 37, 118, 407, 1368, 4617, 15642, 52891, 178916, 605325, 2047726, 6927407, 23435376, 79281105, 268206130, 907335091, 3069492092, 10384017717, 35128880742, 118840150983, 402033352264, 1360069089113, 4601080768074
a(n)= 3*a(n-1) +a(n-2) +3*a(n-3) -7*a(n-4) +a(n-5) -a(n-6) +a(n-7). G.f.: (x^3-x^2+3*x-1)*(1+x)^2/((x-1)*(x^3+x^2+3*x-1)*(x^3-x^2-x-1)). [R. J. Mathar, Aug 11 2009]
[A229117] 2, 3, 13, 20, 37, 78, 119, 218, 457, 696, 1273, 2666, 4059, 7422, 15541, 23660, 43261, 90582, 137903, 252146, 527953, 803760, 1469617, 3077138, 4684659, 8565558, 17934877, 27304196, 49923733, 104532126, 159140519, 290976842
a(n) = a(n-1) + 6*a(n-3) - 6*a(n-4) - a(n-6) + a(n-7) if n>9. - Michael Somos, Dec 25 2016
[A133201] 0, 1, 2, 3, 13, 23, 33, 133, 233, 333, 1333, 2333, 3333, 13333, 23333, 33333, 133333, 233333, 333333, 1333333, 2333333, 3333333, 13333333, 23333333, 33333333, 133333333, 233333333, 333333333, 1333333333, 2333333333, 3333333333
a(n) = a(n-1)+10*a(n-3)-10*a(n-4). G.f.: x*(x^2+x+1) / ((x-1)*(10*x^3-1)). [Colin Barker, Feb 01 2013]
[A228278] 2, 3, 13, 35, 112, 337, 1034, 3154, 9637, 29431, 89895, 274564, 838609, 2561372, 7823242, 23894643, 72981777, 222909351, 680835436, 2079486057, 6351405998, 19399196250, 59251261117, 180972030923, 552745635451, 1688259428536
a(n) = a(n-1) +5*a(n-2) +4*a(n-3) -a(n-5)
[A206776] 2, 3, 13, 45, 161, 573, 2041, 7269, 25889, 92205, 328393, 1169589, 4165553, 14835837, 52838617, 188187525, 670239809, 2387094477, 8501763049, 30279478101, 107841960401, 384084837405, 1367938433017, 4871984973861, 17351831787617, 61799465310573
a(n) = ((3-sqrt(17))^n+(3+sqrt(17))^n)/2^n.
a(n) = [x^n] ((1 + 3*x + sqrt(1 + 6*x + 17*x^2))/2)^n for n >= 1. - Peter Bala, Jun 23 2015
a(n) = (-2)^n * a(-n) for all n in Z. - Michael Somos, Oct 13 2016
[A281500] 2, 3, 14, 15, 62, 63, 254, 255, 1022, 1023, 4094, 4095, 16382, 16383, 65534, 65535, 262142, 262143, 1048574, 1048575, 4194302, 4194303, 16777214, 16777215, 67108862, 67108863, 268435454, 268435455, 1073741822, 1073741823, 4294967294, 4294967295, 17179869182, 17179869183
a(n) = 5*a(n-2) - 4*a(n-4) for n>3. (End)
a(n) = (3 + (-1)^n)*(2^(n + 1) - 1)/2.
a(n) = 4^((n + 1 + ((n + 1) mod 2))/2) - 1 - ((n + 1) mod 2). (End)
a(2*k) = 4^(k + 1) - 2, a(2*k+1) = a(2*k) + 1 = 4^(k+1) - 1.
[A041869] 1, 2, 3, 14, 17, 48, 2033, 4114, 6147, 28702, 34849, 98400, 4167649, 8433698, 12601347, 58839086, 71440433, 201719952, 8543678417, 17289076786, 25832755203, 120620097598, 146452852801, 413525803200, 17514536587201, 35442598977602, 52957135564803
a(n) = 2050*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 26 2013
[A041010] 1, 2, 3, 14, 17, 82, 99, 478, 577, 2786, 3363, 16238, 19601, 94642, 114243, 551614, 665857, 3215042, 3880899, 18738638, 22619537, 109216786, 131836323, 636562078, 768398401, 3710155682, 4478554083, 21624372014, 26102926097
a(n) = 6*a(n-2) - a(n-4).
a(2n) = a(2n-1) + a(2n-2), a(2n+1) = 4*a(2n) + a(2n-1).
[A188289] 0, 2, 3, 14, 45, 167, 609, 2270, 8517, 32207, 122463, 467843, 1794195, 6903353, 26635773, 103020254, 399300165, 1550554583, 6031074183, 23493410759, 91638191235, 357874310213, 1399137067683, 5475504511859, 21447950506395, 84083979575117
a(n) = binomial(2n,n) - (-1)^n - sum(binomial(2k, n-1), k=0..n-1)
a(n) = sum(binomial(n+k,k)*(sum((-1)^r binomial(n-k,r), r=n-k..n), k=1..n)
a(n) = (-1)^n 2^(-(1+n)) (1-2^(1+n)+((-2)^n)*binomial(2+2*n,1+n)*2F1(1,2+2*n;2+n)(-1)
[A070207] 1, 2, 3, 14, 50, 181, 657, 2383, 8644, 31355, 113736, 412562, 1496513, 5428399, 19690785, 71425666, 259086967, 939803018, 3409008654, 12365718965, 44854977221, 162705378247, 590191808148, 2140841158159, 7765612469020, 28168711531526, 102178200690777
a(0)=1, a(1)=2, a(2)=3, a(n) = 3*a(n-1)+2*a(n-2)+a(n-3). - Harvey P. Dale, Feb 01 2013
[A041167] 1, 1, 2, 3, 14, 87, 362, 449, 811, 1260, 23491, 24751, 48242, 72993, 340214, 2114277, 8797322, 10911599, 19708921, 30620520, 570878281, 601498801, 1172377082, 1773875883, 8267880614, 51381159567, 213792518882, 265173678449, 478966197331, 744139875780
a(n) = 24302*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 12 2013
[A042071] 1, 1, 2, 3, 14, 213, 227, 440, 1987, 2427, 6841, 9268, 43913, 53181, 97094, 1509591, 6135458, 7645049, 13780507, 21425556, 999356083, 1020781639, 2020137722, 3040919361, 14183815166, 215798146851, 229981962017, 445780108868, 2013102397489, 2458882506357
a(n) = 1013136590*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Jan 13 2014
[A172012] 2, 3, 15, 54, 207, 783, 2970, 11259, 42687, 161838, 613575, 2326239, 8819442, 33437043, 126769455, 480619494, 1822166847, 6908359023, 26191577610, 99299809899, 376474162527, 1427321917278, 5411388239415, 20516130470079, 77782556128482, 294896059795683
a(0)=2, a(1)=3, a(n) = 3*a(n-1)+3*a(n-2). [Harvey P. Dale, Aug 24 2011]
a(n) = [x^n] ((1 + 3*x + sqrt(1 + 6*x + 21*x^2))/2)^n for n >= 1. - Peter Bala, Jun 23 2015

[A076801] 1, 2, 3, 16, 17, 20, 22, 24, 26, 29, 31, 32, 34, 38, 40, 43, 44, 46, 48, 50, 52, 53, 57, 58, 60, 61, 64, 66, 67, 69, 70, 75, 76, 80, 83, 85, 87, 90, 91, 93, 95, 101, 102, 106, 107, 110, 118, 126, 129, 130, 134, 135, 138, 142, 143, 145, 146, 149, 151, 154, 156, 161
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(e/5) and frac(y) = y - floor(y).
[A122656] 0, 0, 2, 3, 16, 20, 54, 63, 128, 144, 250, 275, 432, 468, 686, 735, 1024, 1088, 1458, 1539, 2000, 2100, 2662, 2783, 3456, 3600, 4394, 4563, 5488, 5684, 6750, 6975, 8192, 8448, 9826, 10115, 11664, 11988, 13718, 14079, 16000, 16400, 18522, 18963, 21296, 21780
a(n) = (n*(1-(-1)^n+2*(-1+(-1)^n)*n+2*n^2))/8. G.f.: x^2*(x^4+x^3+7*x^2+x+2) / ((x-1)^4*(x+1)^3). - Colin Barker, Sep 20 2013
[A072684] 2, 3, 16, 31, 103, 235, 674, 1669, 4526, 11595, 30769, 79885, 210226, 548623, 1439156, 3763159, 9859523, 25800519, 67566130, 176858881, 463073602, 1212259843, 3173871101, 8309086201, 21753819938, 56951673915, 149102333944
a(n)=2*a(n-1)+3*a(n-2)-4*a(n-3)+a(n-4)+3*(-1)^n.
[A073997] 1, 2, 3, 16, 76, 272, 1008, 4096, 16576, 65792, 261888, 1048576, 4197376, 16781312, 67104768, 268435456, 1073790976, 4295032832, 17179803648, 68719476736, 274878693376, 1099512676352, 4398045462528, 17592186044416, 70368756760576, 281474993487872, 1125899890065408, 4503599627370496, 1801439871080
a(n; t, s) = a(n-1; t, s) + a(n-1; t-1, s-(t-1)) + a(n-1; t-2, s-2(t-2)) + a(n-1; t-3, s-3(t-3)) where t is the trace and s is the subtrace. Note that all operations involving operands t or s are carried out over GF(4).
[A041295] 1, 1, 2, 3, 17, 20, 37, 57, 1405, 1462, 2867, 4329, 24512, 28841, 53353, 82194, 2026009, 2108203, 4134212, 6242415, 35346287, 41588702, 76934989, 118523691, 2921503573, 3040027264, 5961530837, 9001558101, 50969321342, 59970879443, 110940200785, 170911080228
a(n) = 1442*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 15 2013
[A042699] 1, 1, 2, 3, 17, 54, 71, 267, 605, 5712, 12029, 41799, 53828, 203283, 1070243, 1273526, 2343769, 3617295, 212146879, 215764174, 427911053, 643675227, 3646287188, 11582536791, 15228823979, 57269008728, 129766841435, 1225170581643, 2580108004721, 8965494595806
a(n) = 214490648*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 27 2014
[A288492] 1, 2, 3, 18, 95, 440, 1897, 7882, 32139, 129804, 521741, 2092046, 8378383, 33533968, 134176785, 536789010, 2147319827, 8589606932, 34359083029, 137437642774, 549753192471, 2199018012696, 8796082536473, 35184351117338, 140737446412315, 562949869535260
a(n) = 2 - 5*2^(n-2) + 2^(2*n-3) + n for n>2.
a(n) = 8*a(n-1) - 21*a(n-2) + 22*a(n-3) - 8*a(n-4) for n>6.
[A042265] 1, 1, 2, 3, 20, 23, 43, 66, 3343, 3409, 6752, 10161, 67718, 77879, 145597, 223476, 11319397, 11542873, 22862270, 34405143, 229293128, 263698271, 492991399, 756689670, 38327474899, 39084164569, 77411639468, 116495804037, 776386463690, 892882267727
a(n) = 3386*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Jan 19 2014
[A041093] 1, 2, 3, 20, 23, 66, 947, 1960, 2907, 19402, 22309, 64020, 918589, 1901198, 2819787, 18819920, 21639707, 62099334, 891030383, 1844160100, 2735190483, 18255302998, 20990493481, 60236289960, 864298552921, 1788833395802, 2653131948723, 17707625088140
a(n) = 970*a(n-6)-a(n-12). G.f.: -(x^10-2*x^9+3*x^8-20*x^7+23*x^6-66*x^5-23*x^4-20*x^3-3*x^2-2*x-1)/((x^4-10*x^2+1)*(x^8+10*x^6+99*x^4+10*x^2+1)). [Colin Barker, Jul 18 2012]
[A042781] 1, 2, 3, 20, 23, 273, 842, 1115, 3072, 7259, 24849, 32108, 56957, 89065, 146022, 235087, 2026718, 40769447, 328182294, 368951741, 697134035, 1066085776, 1763219811, 2829305587, 10251136572, 23331578731, 56914294034, 80245872765, 297651912329, 3354416908384
a(n) = 5044115425671470*a(n-34) - a(n-68) for n>67. - Vincenzo Librandi, Jan 29 2014
[A041567] 1, 2, 3, 20, 63, 83, 229, 541, 770, 1311, 11258, 125149, 261556, 1171373, 2604302, 29818695, 241153862, 270972557, 512126419, 1295225395, 3102577209, 4397802604, 16295985021, 102173712730, 118469697751, 339113108232, 11648315377639, 23635743863510
a(n) = 11766785075390*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Dec 20 2013
[A267652] 2, 3, 20, 92, 448, 2160, 10432, 50368, 243200, 1174272, 5669888, 27376640, 132186112, 638251008, 3081748480, 14879997952, 71846985728, 346907934720, 1675019681792, 8087710466048, 39050920591360, 188554524229632, 910421779283968, 4395905214054400, 21225307973353472, 102484852749631488
a(n) = 2^(n-5/2)*((1+4*sqrt(2))*(1-sqrt(2))^n - (1-4*sqrt(2))*(1+sqrt(2))^n).
[A042441] 1, 2, 3, 20, 103, 123, 1579, 1702, 10089, 62236, 72325, 206886, 11244169, 22695224, 33939393, 226331582, 1165597303, 1391928885, 17868743923, 19260672808, 114172107963, 704293320586, 818465428549, 2341224177684, 127244571023485, 256830366224654
a(n) = 11316494*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 22 2014
[A032810] 2, 3, 22, 23, 32, 33, 222, 223, 232, 233, 322, 323, 332, 333, 2222, 2223, 2232, 2233, 2322, 2323, 2332, 2333, 3222, 3223, 3232, 3233, 3322, 3323, 3332, 3333, 22222, 22223, 22232, 22233, 22322, 22323, 22332, 22333, 23222, 23223
a(n) is Theta(n^(log_2 10)); there are about n^(log_10 2) members of this sequence up to n. - Charles R Greathouse IV, Mar 18 2010
[A154254] 2, 3, 22, 59, 114, 187, 278, 387, 514, 659, 822, 1003, 1202, 1419, 1654, 1907, 2178, 2467, 2774, 3099, 3442, 3803, 4182, 4579, 4994, 5427, 5878, 6347, 6834, 7339, 7862, 8403, 8962, 9539, 10134, 10747, 11378, 12027, 12694, 13379, 14082, 14803, 15542
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). (End)
[A041787] 1, 2, 3, 23, 49, 366, 415, 1196, 48255, 97706, 145961, 1119433, 2384827, 17813222, 20198049, 58209320, 2348570849, 4755351018, 7103921867, 54482804087, 116069530041, 866969514374, 983039044415, 2833047603204, 114304943172575, 231442933948354
a(n) = 48670*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 24 2013
[A195241] 1, 2, 3, 23, 59, 111, 179, 263, 363, 479, 611, 759, 923, 1103, 1299, 1511, 1739, 1983, 2243, 2519, 2811, 3119, 3443, 3783, 4139, 4511, 4899, 5303, 5723, 6159, 6611, 7079, 7563, 8063, 8579, 9111, 9659, 10223, 10803, 11399, 12011, 12639, 13283, 13943
a(n) = 8*n^2-20*n+11 for n>1; a(0)=1, a(1)=2.
[A041459] 1, 1, 2, 3, 23, 141, 1010, 1151, 2161, 3312, 101521, 104833, 206354, 311187, 2384663, 14619165, 104718818, 119337983, 224056801, 343394784, 10525900321, 10869295105, 21395195426, 32264490531, 247246629143, 1515744265389, 10857456486866, 12373200752255
a(n) = 103682*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 18 2013
[A032811] 2, 3, 24, 25, 35, 36, 266, 267, 277, 278, 387, 388, 398, 399, 2928, 2929, 2939, 2940, 3049, 3050, 3060, 3061, 4259, 4260, 4270, 4271, 4380, 4381, 4391, 4392, 32210, 32211, 32221, 32222, 32331, 32332, 32342, 32343, 33541, 33542, 33552, 33553, 33662, 33663
a(1)=2, a(2)=3; a(n) = 11*a(floor(n/2))+2 for n odd, otherwise a(n) = 11*a(floor((n-1)/2))+3. - Bruno Berselli, May 28 2012
[A041659] 1, 1, 2, 3, 26, 29, 55, 84, 3079, 3163, 6242, 9405, 81482, 90887, 172369, 263256, 9649585, 9912841, 19562426, 29475267, 255364562, 284839829, 540204391, 825044220, 30241796311, 31066840531, 61308636842, 92375477373, 800312455826, 892687933199
a(n) = 3134*a(n-8) - a(n-16) for n>15 Vincenzo Librandi, Dec 22 2013
[A042043] 1, 2, 3, 26, 29, 84, 3893, 7870, 11763, 101974, 113737, 329448, 15268345, 30866138, 46134483, 399942002, 446076485, 1292094972, 59882445197, 121056985366, 180939430563, 1568572429870, 1749511860433, 5067596150736, 234858934794289, 474785465739314
a(n) = 3922*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Jan 13 2014
[A001094] 0, 1, 2, 3, 28, 125, 366, 847, 1688, 3033, 5050, 7931, 11892, 17173, 24038, 32775, 43696, 57137, 73458, 93043, 116300, 143661, 175582, 212543, 255048, 303625, 358826, 421227, 491428, 570053, 657750, 755191, 863072, 982113, 1113058
a(0)=0, a(1)=1, a(2)=2, a(3)=3, a(4)=28, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5) [From Harvey P. Dale, Feb 02 2012]
[A041053] 1, 1, 2, 3, 32, 35, 67, 102, 1087, 1189, 2276, 3465, 36926, 40391, 77317, 117708, 1254397, 1372105, 2626502, 3998607, 42612572, 46611179, 89223751, 135834930, 1447573051, 1583407981, 3030981032, 4614389013
a(0)=1, a(1)=1, a(2)=2, a(3)=3, a(4)=32, a(5)=35, a(6)=67, a(7)=102, a(n)=34*a(n-4)-a(n-8). - Harvey P. Dale, Jun 15 2015
[A212763] 0, 2, 3, 32, 40, 162, 189, 512, 576, 1250, 1375, 2592, 2808, 4802, 5145, 8192, 8704, 13122, 13851, 20000, 21000, 29282, 30613, 41472, 43200, 57122, 59319, 76832, 79576, 101250, 104625, 131072, 135168, 167042, 171955, 209952, 215784
a(n) = a(n-1) +4*a(n-2) -4*a(n-3) -6*a(n-4) +6*a(n-5) +4*a(n-6) -4*a(n-7) -a(n-8) +a(n-9).
a(n) = (n+1)*(2*n^3+3*n^2+3*n+1-(3*n^2+3*n+1)*(-1)^n)/16. - Luce ETIENNE, Oct 01 2015
[A041895] 1, 1, 2, 3, 32, 195, 1982, 2177, 4159, 6336, 270271, 276607, 546878, 823485, 8781728, 53513853, 543920258, 597434111, 1141354369, 1738788480, 74170470529, 75909259009, 150079729538, 225988988547, 2409969615008, 14685806678595, 149268036400958
a(n) = 274430*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 26 2013
[A042663] 1, 2, 3, 35, 493, 528, 1021, 2570, 6161, 14892, 21053, 35945, 524283, 5803058, 6327341, 18457740, 1076876261, 2172210262, 3249086523, 37912162015, 534019354733, 571931516748, 1105950871481, 2783833259710, 6673617390901, 16131068041512, 22804685432413
a(n) = 1083203602*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 26 2014
[A041329] 1, 2, 3, 38, 41, 120, 3161, 6442, 9603, 121678, 131281, 384240, 10121521, 20627282, 30748803, 389612918, 420361721, 1230336360, 32409107081, 66048550522, 98457657603, 1247540441758, 1345998099361, 3939536640480, 103773950751841, 211487438144162

a(n) = 3202*a(n-6) - a(n-12). - Vincenzo Librandi, Dec 15 2013
[A041501] 1, 2, 3, 47, 50, 147, 4754, 9655, 14409, 225790, 240199, 706188, 22838215, 46382618, 69220833, 1084695113, 1153915946, 3392527005, 109714780106, 222822087217, 332536867323, 5210875097062, 5543411964385, 16297699025832, 527069780791009, 1070437260607850
a(n) = 4804*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 19 2013
[A041133] 1, 1, 2, 3, 50, 53, 103, 156, 2599, 2755, 5354, 8109, 135098, 143207, 278305, 421512, 7022497, 7444009, 14466506, 21910515, 365034746, 386945261, 751980007, 1138925268, 18974784295, 20113709563, 39088493858, 59202203421, 986323748594, 1045525952015
a(n) = 52*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A041249] 1, 1, 2, 3, 68, 71, 139, 210, 4759, 4969, 9728, 14697, 333062, 347759, 680821, 1028580, 23309581, 24338161, 47647742, 71985903, 1631337608, 1703323511, 3334661119, 5037984630, 114170322979, 119208307609, 233378630588, 352586938197, 7990291270922
a(n) = 70*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 13 2013
[A041401] 1, 1, 2, 3, 86, 89, 175, 264, 7567, 7831, 15398, 23229, 665810, 689039, 1354849, 2043888, 58583713, 60627601, 119211314, 179838915, 5154700934, 5334539849, 10489240783, 15823780632, 453555098479, 469378879111, 922933977590, 1392312856701, 39907693965218
a(n) = 88*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 17 2013
[A041589] 1, 1, 2, 3, 104, 107, 211, 318, 11023, 11341, 22364, 33705, 1168334, 1202039, 2370373, 3572412, 123832381, 127404793, 251237174, 378641967, 13125064052, 13503706019, 26628770071, 40132476090, 1391132957131, 1431265433221, 2822398390352, 4253663823573
a(n) = 106*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 20 2013
[A041813] 1, 1, 2, 3, 122, 125, 247, 372, 15127, 15499, 30626, 46125, 1875626, 1921751, 3797377, 5719128, 232562497, 238281625, 470844122, 709125747, 28835874002, 29544999749, 58380873751, 87925873500, 3575415813751, 3663341687251, 7238757501002, 10902099188253
a(n) = 124*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 24 2013
[A042701] 1, 1, 2, 3, 176, 179, 355, 534, 31327, 31861, 63188, 95049, 5576030, 5671079, 11247109, 16918188, 992502013, 1009420201, 2001922214, 3011342415, 176659782284, 179671124699, 356330906983, 536002031682, 31444448744539, 31980450776221, 63424899520760
a(n) = 178*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 21 2013
[A236680] 1, 2, 4, 4, 4, 4, 8, 8, 16, 32, 64, 64, 64, 64, 128, 128, 256, 512, 1024, 1024, 1024, 1024, 2048, 2048, 4096, 8192, 16384, 16384, 16384, 16384, 32768, 32768, 65536, 131072, 262144, 262144, 262144, 262144, 524288, 524288, 1048576, 2097152, 4194304
a(n) = 16*a(n-8) = 2*a(n-1) - 2*a(n-2) + 4*a(n-4) - 8*a(n-5) + 8*a(n-6).
[A140201] 0, 1, 2, 4, 4, 5, 6, 8, 8, 9, 10, 12, 12, 13, 14, 16, 16, 17, 18, 20, 20, 21, 22, 24, 24, 25, 26, 28, 28, 29, 30, 32, 32, 33, 34, 36, 36, 37, 38, 40, 40, 41, 42, 44, 44, 45, 46, 48, 48, 49, 50, 52, 52, 53, 54, 56, 56, 57, 58, 60, 60, 61, 62, 64, 64, 65, 66, 68, 68, 69, 70, 72, 72, 73, 74
a(n) = a(n-1) + a(n-4) - a(n-5) for n>4.
a(n) = n when n+1 is not a multiple of 4, and a(n) = n+1 when n+1 is a multiple of 4. - Dennis P. Walsh, Aug 06 2012
a(n) = (4*n+1-i^(2*n)+(-i)^(1+n)+i^(1+n))/4 where i=sqrt(-1). - Wesley Ivan Hurt, Jun 04 2016
a(n) = n+1-(sign((n+1) mod 4) mod 3). - Wesley Ivan Hurt, Sep 26 2017
[A147534] 1, 1, 2, 4, 4, 5, 7, 7, 8, 10, 10, 11, 13, 13, 14, 16, 16, 17, 19, 19, 20, 22, 22, 23, 25, 25, 26, 28, 28, 29, 31, 31, 32, 34, 34, 35, 37, 37, 38, 40, 40, 41, 43, 43, 44, 46, 46, 47, 49, 49, 50, 52, 52, 53, 55, 55, 56, 58, 58, 59, 61, 61, 62, 64, 64, 65, 67, 67, 68, 70, 70, 71
a(1)=1, a(2)=1, a(3)=2, a(4)=4, a(n)=a(n-1)+a(n-3)-a(n-4) for n>4. - Harvey P. Dale, Dec 09 2012
a(n) = (3*n - 2 - cos(2*n*Pi/3) + sqrt(3)*sin(2*n*Pi/3))/3. - Wesley Ivan Hurt, Jul 24 2016
a(n) = 1 + floor((n-1)/3) + floor(2*(n-1)/3). - Wesley Ivan Hurt, Jul 25 2016
a(n) = n - sign((n-1) mod 3). - Wesley Ivan Hurt, Sep 25 2017
[A111138] 0, 0, 1, 1, 2, 4, 4, 5, 7, 10, 10, 11, 13, 16, 20, 20, 21, 23, 26, 30, 35, 35, 36, 38, 41, 45, 50, 56, 56, 57, 59, 62, 66, 71, 77, 84, 84, 85, 87, 90, 94, 99, 105, 112, 120, 120, 121, 123, 126, 130, 135, 141, 148, 156, 165, 165, 166, 168, 171, 175, 180, 186, 193, 201
a(N)=Comb(T,2)+Comb(R,3). - Gerald Hillier, Nov 18 2017
[A014684] 1, 1, 2, 4, 4, 6, 6, 8, 9, 10, 10, 12, 12, 14, 15, 16, 16, 18, 18, 20, 21, 22, 22, 24, 25, 26, 27, 28, 28, 30, 30, 32, 33, 34, 35, 36, 36, 38, 39, 40, 40, 42, 42, 44, 45, 46, 46, 48, 49, 50, 51, 52, 52, 54, 55, 56, 57, 58, 58, 60, 60, 62, 63, 64, 65, 66, 66, 68, 69, 70, 70, 72
a(n) = phi(n!)/phi((n-1)!). - Vladeta Jovovic, Nov 30 2002
[A187323] 0, 0, 1, 2, 4, 4, 6, 6, 8, 9, 10, 10, 13, 13, 14, 15, 17, 17, 19, 19, 21, 22, 23, 23, 26, 26, 27, 28, 30, 30, 32, 32, 34, 35, 36, 36, 39, 39, 40, 41, 43, 43, 45, 45, 47, 48, 49, 49, 52, 52, 53, 54, 56, 56, 58, 58, 60, 61, 62, 62, 65, 65, 66, 67, 69, 69, 71, 71, 73, 74, 75, 75, 78, 78, 79, 80, 82, 82, 84, 84, 86, 87, 88, 88, 91, 91, 92, 93, 95, 95, 97, 97, 99, 100, 101, 101, 104, 104, 105, 106, 108, 108, 110, 110, 112, 113, 114, 114, 117, 117, 118, 119, 121, 121, 123, 123, 125, 126, 127, 127, 130
a(n)=floor(n/2)+floor(n/3)+floor(n/4).
[A014246] 1, 2, 4, 4, 6, 7, 8, 9, 10, 12, 12, 14, 15, 16, 17, 18, 20, 20, 21, 23, 24, 25, 26, 28, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 45, 45, 47, 48, 48, 50, 51, 53, 53, 55, 56, 56, 58, 59, 61, 61, 62, 64, 64, 66, 67, 69, 69, 70, 72, 72, 74, 75, 77, 77, 78, 80, 80, 82
a(n) = floor(e * n) - floor(e/(e-1) * n). - Franklin T. Adams-Watters, Nov 02 2006
[A063224] 0, 2, 4, 4, 6, 8, 8, 10, 12, 12, 14, 16, 16, 18, 20, 20, 22, 24, 24, 26, 28, 28, 30, 32, 32, 34, 36, 36, 38, 40, 40, 42, 44, 44, 46, 48, 48, 50, 52, 52, 54, 56, 56, 58, 60, 60, 62, 64, 64, 66
a(n) = (n-1) + floor((n-1)/3) + ((n-1) mod 3). - Bruno Berselli, Apr 04 2016
[A076466] 1, 2, 4, 4, 8, 10, 13, 16, 23, 30, 38, 40, 41, 42, 54, 60, 69, 72, 87, 100, 116, 122, 129, 144, 163, 182, 202, 208, 213, 240, 263, 288, 312, 318, 321, 324, 352, 362, 373, 400, 431, 462, 494, 504, 513, 552, 587, 624, 660, 670, 677, 728, 767, 810, 850, 860, 865
a(n) is asymptotic to 4n^2/15; a(n)=4n^2/15 if n is of the form 30*(2k+1) hence a(60k+30) = 1800*(2k+1)^2
[A076342] 2, 4, 4, 8, 12, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 60, 60, 68, 72, 72, 80, 84, 88, 96, 100, 104, 108, 108, 112, 128, 132, 136, 140, 148, 152, 156, 164, 168, 172, 180, 180, 192, 192, 196, 200, 212, 224, 228, 228, 232, 240, 240, 252, 256, 264, 268, 272
a(n) = p-(-1/p) = p+(-1)^{(p+1)/2} for an odd prime p. {(a/b) stands for the value of the Legendre symbol}. - Lekraj Beedassy, Oct 22 2004
[A135268] 1, 1, 2, 4, 4, 8, 12, 18, 24, 30, 30, 40, 48, 60, 72, 84, 96, 112, 128, 146, 164, 184, 204, 226, 248, 272, 296, 322, 336, 364, 392, 422, 452, 484, 516, 550, 584, 620, 656, 694, 732, 772, 812, 854, 896, 940, 984, 1030, 1076, 1124, 1172
a(n) = c*n*(n-1), where c ~ 0.48....
[A089887] 1, 2, 4, 4, 8, 16, 32, 64, 64, 128, 256, 512, 1024, 2048, 4096, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456
a(n) = 2^(n-n^(1/2)).
[A114215] 0, 1, 2, 4, 4, 9, 12, 25, 30, 64, 80, 169, 208, 441, 546, 1156, 1428, 3025, 3740, 7921, 9790, 20736, 25632, 54289, 67104, 142129, 175682, 372100, 459940, 974169, 1204140, 2550409, 3152478, 6677056, 8253296, 17480761, 21607408, 45765225
a(n) = F(n)-F((n-2)/2)^2 if n is even; a(n)=F(n)-F((n-1)/2)^2 if n is odd; here F(n) is the Fibonacci sequence with F(0)=F(1)=1.
a(n) = 2*a(n-2)+2*a(n-4)-a(n-6). G.f.: -x^2*(x+1)*(x^3-x^2-x-1) / ((x^2-x-1)*(x^2+1)*(x^2+x-1)). - Colin Barker, Mar 29 2014
[A052405] 0, 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 74, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 87, 88, 89
a(n) » n^k with k = log(10)/log(9) = 1.0479.... - Charles R Greathouse IV, Oct 16 2012
a(n) = replace digits d > 2 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A047573] 0, 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = n + floor((n-4)/7). (End)
a(n) = a(n-7) + 8 for n>7.
a(n) = (56*n - 49 + (n mod 7) + ((n+1) mod 7) + ((n+2) mod 7) - 6*((n+3) mod 7) + ((n+4) mod 7) + ((n+5) mod 7) + ((n+6) mod 7))/49.
a(7*k) = 8*k-1, a(7*k-1) = 8*k-2, a(7*k-2) = 8*k-3, a(7*k-3) = 8*k-4, a(7*k-4) = 8*k-6, a(7*k-5) = 8*k-7, a(7*k-6) = 8*k-8. (End)
[A047318] 0, 1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 74, 75, 76, 77, 78, 79, 81, 82, 83
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = n + floor((n-4)/6). (End)

a(n) = (42*n-39+3*cos(n*Pi)-4*sqrt(3)*cos((1+4*n)*Pi/6)+12*sin((1-2*n)*Pi/6))/36.
a(6k) = 7k-1, a(6k-1) = 7k-2, a(6k-2) = 7k-3, a(6k-3) = 7k-5, a(6k-4) = 7k-6, a(6k-5) = 7k-7. (End)
[A047263] 0, 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 82, 83, 84, 85
a(n) = a(n-5) + 6 for n > 5. - R. J. Mathar, Feb 25 2008
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6. - Harvey P. Dale, Oct 05 2014
a(n) = n + floor((n-4)/5).
a(n) = (6*n - 4 - ((n+1) mod 5))/5.
a(5k) = 6k-1, a(5k-1) = 6k-2, a(5k-2) = 6k-4, a(5k-3) = 6k-5, a(5k-4) = 6k-6. (End)
[A127428] 0, 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 80, 81, 82, 83, 84, 86, 87, 88, 89, 90, 92, 93
a(n) - n = a([(n+2)/5]).
[A001963] 0, 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 50, 52, 53, 54, 55, 57, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 70, 72, 73, 74, 75, 76, 78, 79, 80, 81, 83
a(n) = floor((n+1/4)*(sqrt(5)-1)). - R. J. Mathar, Feb 14 2011
[A146215] 1, 2, 4, 5, 6, 7, 8, 10, 11, 12, 14, 16, 17, 18, 21, 22, 23, 24, 28, 29, 30, 32, 34, 35, 36, 37, 38, 40, 41, 42, 44, 46, 47, 48, 51, 52, 53, 54, 58, 59, 60, 64, 65, 66, 67, 68, 70, 71, 72, 74, 76, 77, 78, 81, 82, 83, 84, 88, 89, 90, 96, 97, 98, 100, 101, 102
a(1) = 1 a(n+1) = a(n) + mod(a(n), P), where P is the lowest prime such that mod(a(n), P) is nonzero.
[A047571] 0, 2, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 18, 20, 21, 22, 23, 24, 26, 28, 29, 30, 31, 32, 34, 36, 37, 38, 39, 40, 42, 44, 45, 46, 47, 48, 50, 52, 53, 54, 55, 56, 58, 60, 61, 62, 63, 64, 66, 68, 69, 70, 71, 72, 74, 76, 77, 78, 79, 80, 82, 84, 85, 86, 87, 88, 90
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6) for n>6.
a(n) = (8*n - 2*sqrt(3)*sin(Pi*(n+1)/3) + 2*sin(2*Pi*(n+1)/3)/sqrt(3) - 4)/6. - Ilya Gutkovskiy, May 30 2016
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-4, a(6k-4) = 8k-6, a(6k-5) = 8k-8. - Wesley Ivan Hurt, Jun 16 2016
[A276706] 1, 2, 4, 5, 6, 7, 8, 10, 14, 16, 20, 22, 26, 28, 32, 34, 38, 40, 44, 46, 50, 52, 56, 58, 62, 64, 68, 70, 74, 76, 80, 82, 86, 88, 92, 94, 98, 100, 104, 106, 110, 112, 116, 118, 122, 124, 128, 130, 134, 136, 140, 142, 146, 148, 152, 154, 158, 160, 164, 166
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
a(n) = (6*n-27-(-1)^n)/2 for n>6.
[A103838] 2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79
a(n) = n + [log(n + [log(n)])], apart from some initial exceptions. - David W. Wilson, Mar 29 2005
[A265187] 0, 1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 57, 59, 60, 61, 62, 64, 65, 66, 67, 68, 70, 71, 72, 73, 75, 76, 77, 78, 79, 81, 82, 83, 84
a(n) = a(n-1) + a(n-9) - a(n-10) for n>10.
[A184738] 1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 43, 44, 46, 47, 48, 49, 51, 52, 53, 54, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89, 90, 91, 93, 94, 95, 96, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 111, 112, 114, 115, 116, 117, 119, 120, 121, 122, 124, 125, 126, 127, 129, 130, 131, 132, 133, 135, 136, 137, 138, 140, 141, 142, 143, 145, 146, 147, 148
a(n)=floor(nr+h), where r=-1+sqrt(5), h=1/2.
[A032769] 0, 1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 34, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 54, 55, 56, 57, 59, 60, 61, 62, 64, 65, 66, 67, 69, 70, 71, 72, 74, 75, 76, 77, 79, 80, 81, 82, 84, 85
a(n) = (1/8)*(10*n-1-(-1)^n-2*(-1)^(n/2-1/2). - Ralf Stephan, Jun 09 2005
a(n) = floor((5*n-4)/4). - Gary Detlefs, Mar 06 2010
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (10*n-11+i^(2*n)+(1+i)*I^(-n)+(1-i)*i^n)/8 where i=sqrt(-1).
[A047572] 1, 2, 4, 5, 6, 7, 9, 10, 12, 13, 14, 15, 17, 18, 20, 21, 22, 23, 25, 26, 28, 29, 30, 31, 33, 34, 36, 37, 38, 39, 41, 42, 44, 45, 46, 47, 49, 50, 52, 53, 54, 55, 57, 58, 60, 61, 62, 63, 65, 66, 68, 69, 70, 71, 73, 74, 76, 77, 78, 79, 81, 82, 84, 85, 86, 87
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-9-3*cos(n*Pi)-6*cos(n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-4, a(6k-4) = 8k-6, a(6k-5) = 8k-7. (End)
[A255165] 0, 1, 2, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
a(n) = Sum_{k=2..n} floor(log(n)/log(k)), n>=1.
[A047570] 2, 4, 5, 6, 7, 10, 12, 13, 14, 15, 18, 20, 21, 22, 23, 26, 28, 29, 30, 31, 34, 36, 37, 38, 39, 42, 44, 45, 46, 47, 50, 52, 53, 54, 55, 58, 60, 61, 62, 63, 66, 68, 69, 70, 71, 74, 76, 77, 78, 79, 82, 84, 85, 86, 87, 90, 92, 93, 94, 95, 98, 100, 101, 102, 103, 106
a(n) = a(n-1) + a(n-5) - a(n-6).
[A059921] 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75
a(n) = floor(n^(1+1/n)). - M. F. Hasler, Nov 03 2014
[A062289] 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = if n=1 then 2 else max{min{2*i, a(n-i+1) + i}: 1 < i <= n}.
[A276216] 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76
a(n) = n + floor(n^(r/s)); the complement is given by n + floor(n^(s/r)).
[A030124] 2, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 76, 77, 78
a(n) = n + sqrt(2n) + o(n^(1/2)). - M. F. Hasler, Jun 04 2008 [proved in Jubin's paper].
[A004773] 0, 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 20, 21, 22, 24, 25, 26, 28, 29, 30, 32, 33, 34, 36, 37, 38, 40, 41, 42, 44, 45, 46, 48, 49, 50, 52, 53, 54, 56, 57, 58, 60, 61, 62, 64, 65, 66, 68, 69, 70, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90
a(0) = 0, a(n+1) = a(n) + a(n) mod 4 + 0^(a(n) mod 4). - Reinhard Zumkeller, Mar 23 2003
a(n) = floor(n/3) + n. - Gary Detlefs, Mar 20 2010
a(n) = (12*n-3+3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9. - Wesley Ivan Hurt, Sep 30 2017
[A059553] 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 46, 47, 48, 50, 51, 52, 54, 55, 56, 58, 59, 60, 62, 63, 64, 66, 67, 69, 70, 71, 73, 74, 75, 77, 78, 79, 81, 82, 83, 85, 86, 88, 89, 90, 92, 93, 94, 96
a(n) = floor(n*Gamma(2/3)). - Michel Marcus, Jan 04 2015
[A079709] 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 18, 20, 21, 22, 25, 27, 28, 29, 30, 32, 33, 34, 36, 37, 38, 40, 41, 42, 45, 46, 48, 49, 50, 52, 54, 56, 57, 58, 60, 61, 64, 65, 66, 68, 69, 70, 72, 73, 75, 76, 77, 78, 81, 82, 84, 85, 86, 88, 90, 92, 93, 94, 96, 98, 100, 101, 102, 104, 105
a(n) is asymptotic to c*n where c=1.51...
[A003511] 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 42, 43, 45, 46, 47, 49, 50, 51, 53, 54, 56, 57, 58, 60, 61, 62, 64, 65, 66, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 86, 87, 88, 90, 91, 92, 94, 95, 96
a(n) = floor(n*(1+sqrt(3))/2). - Michel Marcus, Jan 05 2015
[A059567] 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 42, 43, 45, 46, 47, 49, 50, 51, 53, 54, 56, 57, 58, 60, 61, 62, 64, 65, 66, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 86, 87, 88, 90, 91, 92, 94, 95, 97
a(n) = floor(n*(1 - log(log(2)))). - Michel Marcus, Jan 04 2015

[A260483] 1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 26, 27, 28, 30, 31, 32, 34, 35, 37, 38, 39, 41, 42, 43, 45, 46, 48, 49, 50, 52, 53, 54, 56, 57, 59, 60, 61, 63, 64, 65, 67, 68, 70, 71, 72, 74, 75, 76, 78, 79, 81, 82, 83, 85
a(n) = floor(n*e^(1/Pi)).
[A004128] 0, 1, 2, 4, 5, 6, 8, 9, 10, 13, 14, 15, 17, 18, 19, 21, 22, 23, 26, 27, 28, 30, 31, 32, 34, 35, 36, 40, 41, 42, 44, 45, 46, 48, 49, 50, 53, 54, 55, 57, 58, 59, 61, 62, 63, 66, 67, 68, 70, 71, 72, 74, 75, 76, 80, 81, 82, 84, 85, 86, 88, 89, 90, 93, 94, 95, 97, 98, 99, 101, 102
a(n) = sum{k>=0, floor(n/3^k)}. a(n)=sum{0<=k<=floor(log_3(n)), floor(n/3^k)}, n>=1. - Hieronymus Fischer, Aug 14 2007
a(k*3^m) = k*(3^(m+1)-1)/2, 0<=k<3, m>=0. - Hieronymus Fischer, Aug 14 2007
a(n) <= (3n-1)/2; equality holds for powers of 3. - Hieronymus Fischer, Aug 14 2007
a(n) >= (3n-2)/2-floor(log_3(n)); equality holds for n=3^m-1, m>0. - Hieronymus Fischer, Aug 14 2007
[A023717] 0, 1, 2, 4, 5, 6, 8, 9, 10, 16, 17, 18, 20, 21, 22, 24, 25, 26, 32, 33, 34, 36, 37, 38, 40, 41, 42, 64, 65, 66, 68, 69, 70, 72, 73, 74, 80, 81, 82, 84, 85, 86, 88, 89, 90, 96, 97, 98, 100, 101, 102, 104, 105, 106, 128, 129, 130, 132, 133
a(n)=Sum{d(i)*4^i: i=0, 1, ..., m}, where Sum{d(i)*3^i: i=0, 1, ..., m} is the base 3 representation of n. - Clark Kimberling
a(3n)=4a(n); a(3n+1)=4a(n)+1; a(3n+2)=4a(n)+2; a(n)=4*a(floor(n/3))+n-3*floor(n/3) - Benoit Cloitre, Apr 27 2003
[A087118] 0, 2, 4, 5, 6, 8, 9, 11, 12, 13, 14, 16, 17, 19, 23, 24, 25, 27, 28, 29, 30, 32, 33, 35, 39, 47, 48, 49, 51, 55, 56, 57, 59, 60, 61, 62, 64, 65, 67, 71, 79, 95, 96, 97, 99, 103, 111, 112, 113, 115, 119, 120, 121, 123, 124, 125, 126, 128, 129, 131, 135, 143, 159, 191
a((n^3 - n)/6 + 2) = 2^n for n >= 1.
a((n^3 - n)/6 + 2 + n) = 2^n + 2^(n-1) for n >= 2.
a((n^3 - n)/6 + 2 + n + n-1) = 2^n + 2^(n-1) + 2^(n-2) for n >= 3.
a(n) < 2*2^((6*n)^(1/3)) and limsup a(n)/2^((6*n)^(1/3)) = 2.
a(n) > 1/2 * 2^((6*n)^(1/3)) for n>=3 and 1/2 <= liminf a(n)/(2^((6*n)^(1/3))) <= 1.
[A047317] 1, 2, 4, 5, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 34, 36, 37, 39, 40, 41, 43, 44, 46, 47, 48, 50, 51, 53, 54, 55, 57, 58, 60, 61, 62, 64, 65, 67, 68, 69, 71, 72, 74, 75, 76, 78, 79
a(n) = +1*a(n-1) +1*a(n-5) -1*a(n-6).
a(n) = floor((7*n-1)/5). [Gary Detlefs, May 14 2001]
[A247161] 1, 2, 4, 5, 6, 8, 9, 11, 12, 13, 16, 17, 18, 20, 21, 22, 24, 25, 27, 28, 29, 32, 33, 34, 36, 37, 38, 40, 41, 43, 44, 45, 48, 49, 50, 52, 53, 54, 56, 57, 59, 60, 61, 64, 65, 66, 68, 69, 70, 72, 73, 75, 76, 77, 80, 81, 82, 84, 85, 86, 88, 89, 91, 92, 93, 96, 97, 98, 100, 101, 102, 104, 105, 107, 108, 109, 112
a(n) = floor(12*n/11) + floor((4*n+1)/11).
a(n) = a(n-1) + a(n-11) - a(n-12). - Colin Barker, Sep 11 2014
[A080086] 0, 1, 1, 2, 4, 5, 6, 8, 9, 13, 14, 17, 18, 19, 21, 23, 27, 28, 31, 32, 34, 36, 40, 42, 46, 48, 49, 50, 53, 54, 61, 62, 66, 67, 71, 72, 75, 80, 81, 84, 86, 88, 93, 94, 95, 97, 102, 108, 110, 111, 112, 115, 116, 123, 126, 129, 131, 134, 136, 138, 139, 143, 151, 152, 153
a(n) = sum_{k=1..L} floor(prime(n) / 3^k), where L = log(p_n)/log(3).
[A047262] 0, 2, 4, 5, 6, 8, 10, 11, 12, 14, 16, 17, 18, 20, 22, 23, 24, 26, 28, 29, 30, 32, 34, 35, 36, 38, 40, 41, 42, 44, 46, 47, 48, 50, 52, 53, 54, 56, 58, 59, 60, 62, 64, 65, 66, 68, 70, 71, 72, 74, 76, 77, 78, 80, 82, 83, 84, 86, 88, 89, 90, 92, 94, 95, 96, 98
a(n) = 3*n/2-1-sin(Pi*n/2)/2. (End)
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (6n - 4 - i^(1-n) + i^(1+n))/4 where i = sqrt(-1).
[A047434] 0, 2, 4, 5, 6, 8, 10, 12, 13, 14, 16, 18, 20, 21, 22, 24, 26, 28, 29, 30, 32, 34, 36, 37, 38, 40, 42, 44, 45, 46, 48, 50, 52, 53, 54, 56, 58, 60, 61, 62, 64, 66, 68, 69, 70, 72, 74, 76, 77, 78, 80, 82, 84, 85, 86, 88, 90, 92, 93, 94, 96, 98, 100, 101, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 35 + 3*(n mod 5) + 3*((n+1) mod 5) - 2*((n+2) mod 5) - 2*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A065502] 2, 4, 5, 6, 8, 10, 12, 14, 15, 16, 18, 20, 22, 24, 25, 26, 28, 30, 32, 34, 35, 36, 38, 40, 42, 44, 45, 46, 48, 50, 52, 54, 55, 56, 58, 60, 62, 64, 65, 66, 68, 70, 72, 74, 75, 76, 78, 80, 82, 84, 85, 86, 88, 90, 92, 94, 95, 96, 98, 100, 102, 104, 105, 106, 108, 110, 112, 114
a(n) = 10*floor(n/6)+s(n mod 6)-floor(((n-1)mod 6)/5), where s(n) = n+1+floor((n+1)/3). - Gary Detlefs, Oct 05 2013
[A206926] 2, 4, 5, 6, 9, 10, 11, 12, 13, 18, 19, 20, 22, 25, 26, 37, 38, 41, 44, 50, 52, 75, 77, 83, 89, 101, 105, 150, 154, 166, 178, 203, 211, 300, 308, 333, 357, 406, 422, 601, 617, 666, 715, 812, 845, 1202, 1235, 1332, 1430, 1625, 1690, 2405, 2470, 2665, 2860, 3250
a(6(k+1)+4) = 2a(6k+4) + floor(37*2^(k+5)/63) mod 2.
a(6(k+1)+5) = 2a(6k+5) + floor(41*2^(k+1)/63) mod 2.
a(6(k+1)+6) = 2a(6k+6) + floor(41*2^(k+5)/63) mod 2.
a(6(k+1)+7) = 2a(6k+7) + floor(37*2^(k+2)/63) mod 2.
a(6(k+1)+8) = 2a(6k+8) + floor(37*2^(k+4)/63) mod 2.
a(6(k+1)+9) = 2a(6k+9) + floor(41*2^(k+4)/63) mod 2.
[A069470] 0, 1, 2, 4, 5, 6, 9, 10, 11, 13, 15, 16, 19, 20, 21, 24, 25, 26, 29, 30, 32, 35, 36, 37, 40, 41, 42, 44, 46, 47, 52, 53, 54, 56, 57, 58, 62, 63, 64, 66, 68, 69, 73, 74, 75, 79, 80, 81, 84, 85, 87, 89, 90, 91, 94, 96, 98, 100, 101, 102, 107, 108, 109, 112, 113, 114, 118
a(n) <= floor((2*n*floor((1 + 2*sqrt(2*n))/2))/(1+floor((1+2*sqrt(2*n))/2))). (End)
[A047435] 1, 2, 4, 5, 6, 9, 10, 12, 13, 14, 17, 18, 20, 21, 22, 25, 26, 28, 29, 30, 33, 34, 36, 37, 38, 41, 42, 44, 45, 46, 49, 50, 52, 53, 54, 57, 58, 60, 61, 62, 65, 66, 68, 69, 70, 73, 74, 76, 77, 78, 81, 82, 84, 85, 86, 89, 90, 92, 93, 94, 97, 98, 100, 101, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6. a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 30 + 3*(n mod 5) + 3*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) - 7*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-6, a(5k-4) = 8k-7. (End)
[A047315] 2, 4, 5, 6, 9, 11, 12, 13, 16, 18, 19, 20, 23, 25, 26, 27, 30, 32, 33, 34, 37, 39, 40, 41, 44, 46, 47, 48, 51, 53, 54, 55, 58, 60, 61, 62, 65, 67, 68, 69, 72, 74, 75, 76, 79, 81, 82, 83, 86, 88, 89, 90, 93, 95, 96, 97, 100, 102, 103, 104, 107, 109, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-1-i^(2*n)-(3-i)*i^(-n)-(3+i)*i^n)/8 where i=sqrt(-1).
[A288429] 2, 4, 5, 6, 9, 13, 18, 26, 38, 55, 80, 117, 171, 250, 366, 536, 785, 1150, 1685, 2469, 3618, 5302, 7770, 11387, 16688, 24457, 35843, 52530, 76986, 112828, 165357, 242342, 355169, 520525, 762866, 1118034, 1638558, 2401423, 3519456, 5158013, 7559435, 11078890
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4), where a(0) = 2, a(1) = 4, a(2) = 5. a(3) = 6.
[A047433] 2, 4, 5, 6, 10, 12, 13, 14, 18, 20, 21, 22, 26, 28, 29, 30, 34, 36, 37, 38, 42, 44, 45, 46, 50, 52, 53, 54, 58, 60, 61, 62, 66, 68, 69, 70, 74, 76, 77, 78, 82, 84, 85, 86, 90, 92, 93, 94, 98, 100, 101, 102, 106, 108, 109, 110, 114, 116, 117, 118, 122, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-3-i^(2*n)-(2-i)*i^(-n)-(2+i)*i^n)/4 where i=sqrt(-1).
[A187325] 0, 0, 1, 2, 4, 5, 7, 7, 9, 10, 12, 12, 15, 15, 16, 18, 20, 20, 22, 22, 25, 26, 27, 27, 30, 31, 32, 33, 35, 35, 38, 38, 40, 41, 42, 43, 46, 46, 47, 48, 51, 51, 53, 53, 55, 57, 58, 58, 61, 61, 63, 64, 66, 66, 68, 69, 71, 72, 73, 73, 77, 77, 78, 79, 81, 82, 84, 84, 86, 87
a(n) = floor(n/2)+floor(n/3)+floor(n/4)+floor(n/5).
a(n) = -a(n-1) -a(n-2) +a(n-4) +2*a(n-5) +2*a(n-6) +a(n-7) -a(n-9) -a(n-10) -a(n-11).
[A079726] 1, 2, 4, 5, 7, 8, 9, 10, 12, 13, 14, 16, 17, 19, 20, 21, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 36, 37, 39, 40, 41, 43, 44, 45, 46, 48, 49, 50, 52, 53, 55, 56, 57, 58, 60, 61, 62, 63, 65, 66, 67, 69, 70, 72, 73, 74, 76, 77, 79, 80, 81, 83, 84, 85, 86, 88, 89, 90, 92, 93, 95, 96
a(n) is conjectured to be asymptotic to 4/3*n.
[A047498] 0, 1, 2, 4, 5, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 20, 21, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 36, 37, 39, 40, 41, 42, 44, 45, 47, 48, 49, 50, 52, 53, 55, 56, 57, 58, 60, 61, 63, 64, 65, 66, 68, 69, 71, 72, 73, 74, 76, 77, 79, 80, 81, 82, 84, 85, 87, 88
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-27+3*cos(n*Pi)+6*cos(n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/18.
a(6k) = 8k-1, a(6k-1) = 8k-3, a(6k-2) = 8k-4, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)

[A026367] 1, 2, 4, 5, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 20, 21, 23, 24, 26, 27, 29, 30, 31, 32, 34, 35, 37, 38, 39, 40, 42, 43, 45, 46, 48, 49, 51, 52, 53, 54, 56, 57, 59, 60, 61, 62, 64, 65, 67, 68, 69, 70, 72, 73, 75, 76, 77, 78, 80, 81, 83, 84, 86
a(n) = a(n-1)+2 if n is in the set 2A+1, a(n) = a(n-1)+1 if n is not in 2A+1 where 2A+1 = {2a(1)+1,2a(2)+1,2a(3)+1,...} = {3,5,9,11,15,17,19,21,25,27,31,33,...}.
a(n) = (1+sqrt(3))/2*n+O(1) For example, a(3) = a(2)+2 = 2+2 = 4 since 3 is in 2A+1. a(10) = a(9)+1 = 12+1 = 13 since 10 is not in 2A+1. - Benoit Cloitre, Apr 23 2008
[A014132] 2, 4, 5, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79
a(n) = n + round(sqrt(2*n)).
a(a(n)) = n + 2*floor(1/2 + sqrt(2n)) + 1.
a(n) = ((t+2)^2 + i - j)/2, where
[A276220] 1, 2, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 50, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 83, 84
a(n) = n + floor(n^s), n >= 1; the complement is given by n + floor(n^(1/s)), n >= 2.
[A047381] 0, 1, 2, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16, 18, 19, 21, 22, 23, 25, 26, 28, 29, 30, 32, 33, 35, 36, 37, 39, 40, 42, 43, 44, 46, 47, 49, 50, 51, 53, 54, 56, 57, 58, 60, 61, 63, 64, 65, 67, 68, 70, 71, 72, 74, 75, 77, 78
a(n)= floor((7/5)(n-1)). [Gary Detlefs, Feb 20 2010]
a(n)= +a(n-1) +a(n-5) -a(n-6). G.f. x^2*(1+x+2*x^2+x^3+2*x^4) / ((x^4+x^3+x^2+x+1)*(x-1)^2). - R. J. Mathar, Mar 11 2011
[A184014] 2, 4, 5, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 138
a(n) = n + floor(sqrt(e*n))
[A066344] 1, 2, 4, 5, 7, 8, 10, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 30, 31, 32, 34, 35, 37, 38, 40, 41, 42, 44, 45, 47, 48, 50, 51, 52, 54, 55, 57, 58, 60, 61, 62, 64, 65, 67, 68, 70, 71, 72, 74, 75, 77, 78, 80, 81, 82, 84, 85, 87, 88, 90, 91, 92, 94, 95, 97, 98, 100
a(n) = floor(n*log_5(10)).
[A059549] 1, 2, 4, 5, 7, 8, 10, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 30, 31, 32, 34, 35, 37, 38, 40, 41, 43, 44, 45, 47, 48, 50, 51, 53, 54, 55, 57, 58, 60, 61, 63, 64, 65, 67, 68, 70, 71, 73, 74, 76, 77, 78, 80, 81, 83, 84, 86, 87, 88, 90, 91, 93, 94, 96, 97, 98, 100
a(n) = floor(n*(1 + 1/log(10))). - Michel Marcus, Jan 04 2015
[A155902] 0, 1, 2, 4, 5, 7, 8, 10, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 30, 31, 32, 34, 35, 37, 38, 40, 41, 43, 44, 45, 47, 48, 50, 51, 53, 54, 55, 57, 58, 60, 61, 63, 64, 65, 67, 68, 70, 71, 73, 74, 76, 77, 78, 80, 81, 83, 84, 86, 87, 88, 90, 91, 93, 94, 96, 97, 98, 100, 101
a(n) = floor(n*(sqrt(13)-1)/6) + n = floor(n*(sqrt(13)+5)/6).
[A240977] 0, 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 21, 23, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 43, 45, 46, 48, 49, 51, 52, 54, 55, 57, 58, 60, 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76, 77, 79, 80, 82, 83, 84
a(n) = floor(n*(Pi^1/3)).
[A127450] 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 46, 48, 49, 51, 52, 54, 55, 57, 58, 60, 61, 63, 64, 66, 67, 68, 70, 71, 73, 74, 76, 77, 79, 80, 82, 83, 85, 86, 88, 89, 90, 92, 93, 95, 96, 98, 99, 101, 102
a(n) = floor(n/(e^Pi - Pi^e))
[A059564] 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 28, 29, 31, 32, 34, 35, 36, 38, 39, 41, 42, 44, 45, 47, 48, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65, 66, 68, 69, 71, 72, 73, 75, 76, 78, 79, 81, 82, 84, 85, 87, 88, 90, 91, 93, 94, 96, 97, 99, 100, 102, 103
a(n) = floor(n*(e^2+1)/(e^2-e+1)). - Michel Marcus, Jan 05 2015
[A001651] 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41, 43, 44, 46, 47, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76, 77, 79, 80, 82, 83, 85, 86, 88, 89, 91, 92, 94, 95, 97, 98, 100, 101, 103, 104
a(n) = 3 + a(n-2) for n > 2.
a(n) = a(n-1) + a(n-2) - a(n-3) for n > 3.
a(2*n+1) = 3*n+1, a(2*n) = 3*n-1.
a(n) = (4-n)*a(n-1) + 2*a(n-2) + (n-3)*a(n-3) (from the Carlitz et al. article).
a(n) = floor((3*n-1)/2). [Corrected by Gary Detlefs]
a(1) = 1, a(n) = 2*a(n-1) - 3*floor(a(n-1)/3). - Benoit Cloitre, Aug 17 2002
[A229973] 1, 2, 4, 5, 7, 8, 10, 11, 14, 16, 17, 19, 20, 22, 23, 25, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41, 43, 44, 46, 47, 49, 50, 53, 55, 56, 58, 59, 61, 62, 64, 67, 68, 70, 71, 73, 74, 76, 77, 79, 80, 82, 83, 85, 86, 88, 89, 92, 94, 95, 97, 98, 100, 101, 103, 106
a(n+24) = a(n) + 39.
a(n)= 39*floor((n-1)/24) + f(n) + floor(11*f(n)/25) + 2*floor(f(n)/8) - 2*floor(((n-1)mod 8)/7) + 40*floor(f(n-1)/23), where f(n) = n mod 24.
[A204399] 0, 2, 4, 5, 7, 8, 10, 12, 13, 15, 16, 18, 20, 21, 23, 24, 26, 27, 29, 31, 32, 34, 35, 37, 39, 40, 42, 43, 45, 46, 48, 50, 51, 53, 54, 56, 58, 59, 61, 62, 64, 65, 67, 69, 70, 72, 73, 75, 77, 78, 80, 81, 83, 85, 86, 88, 89, 91, 92, 94, 96, 97, 99, 100, 102, 104
a(n) = ceil(n lg 3). [Charles R Greathouse IV, Jan 15 2012]
[A020914] 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 16, 18, 20, 21, 23, 24, 26, 27, 29, 31, 32, 34, 35, 37, 39, 40, 42, 43, 45, 46, 48, 50, 51, 53, 54, 56, 58, 59, 61, 62, 64, 65, 67, 69, 70, 72, 73, 75, 77, 78, 80, 81, 83, 85, 86, 88, 89, 91, 92, 94, 96, 97, 99, 100, 102, 104, 105, 107
a(n) = floor(1 + n*log(3)/log(2)) - K. Spage, Oct 22 2009
[A047496] 0, 2, 4, 5, 7, 8, 10, 12, 13, 15, 16, 18, 20, 21, 23, 24, 26, 28, 29, 31, 32, 34, 36, 37, 39, 40, 42, 44, 45, 47, 48, 50, 52, 53, 55, 56, 58, 60, 61, 63, 64, 66, 68, 69, 71, 72, 74, 76, 77, 79, 80, 82, 84, 85, 87, 88, 90, 92, 93, 95, 96, 98, 100, 101, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 30 - 2*(n mod 5) + 3*((n+1) mod 5) - 2*((n+2) mod 5) - 2*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A223735] 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 16, 20, 23, 24, 25, 28, 31, 32, 36, 37, 39, 40, 44, 47, 48, 52, 55, 56, 58, 60, 63, 64, 68, 71, 72, 76, 79, 80, 84, 85, 87, 88, 92, 95, 96, 100, 103, 104, 108, 111, 112, 116, 119, 120, 124, 127, 128, 130, 132, 135, 136, 140, 143, 144
a(n) has no representation as a^2 + b^2 + c^2 with 0 < a <= b <= c and gcd(a,b,c) = 1.
[A123663] 0, 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 17, 18, 20, 22, 24, 25, 27, 29, 31, 32, 34, 36, 38, 40, 41, 43, 45, 47, 49, 50, 52, 54, 56, 58, 60, 61, 63, 65, 67, 69, 71, 72, 74, 76, 78, 80, 82, 84, 85, 87, 89, 91, 93, 95, 97, 98, 100, 102, 104, 106, 108, 110, 112, 113, 115, 117, 119
a(n) = 2n - ceiling(2*sqrt(n)). - Julian F. Fleron, Nov 29 2016
[A229968] 1, 2, 4, 5, 7, 8, 10, 13, 14, 16, 17, 19, 20, 23, 25, 26, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41, 43, 46, 47, 49, 50, 52, 53, 56, 58, 59, 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76, 79, 80, 82, 83, 85, 86, 89, 91, 92, 94, 95, 97, 98, 100, 101, 103, 104, 106
a(n+20) = a(n) + 33.
a(n) = 33*floor((n-1)/20) + f(n) + floor(8*f(n)/19) + 2*floor(f(n)/7) - floor(f(n+12)/19) + 32*floor(f(n-1)/19), where f(n) = n mod 20.
a(n) = a(n-1)+a(n-20)-a(n-21). G.f.: x*(x^20 +x^19 +2*x^18 +x^17 +2*x^16 +x^15 +2*x^14 +3*x^13 +x^12 +2*x^11 +x^10 +2*x^9 +x^8 +3*x^7 +2*x^6 +x^5 +2*x^4 +x^3 +2*x^2 +x +1) / ((x -1)^2*(x +1)*(x^2 +1)*(x^4 -x^3 +x^2 -x +1)*(x^4 +x^3 +x^2 +x +1)*(x^8 -x^6 +x^4 -x^2 +1)). - Colin Barker, Oct 08 2013
[A029749] 1, 2, 4, 5, 7, 8, 10, 14, 16, 20, 28, 32, 40, 56, 64, 80, 112, 128, 160, 224, 256, 320, 448, 512, 640, 896, 1024, 1280, 1792, 2048, 2560, 3584, 4096, 5120, 7168, 8192, 10240, 14336, 16384, 20480, 28672, 32768, 40960, 57344, 65536, 81920, 114688, 131072
a(n) = 2*a(n-3) for n>4. G.f.: -(3*x^4+3*x^3+4*x^2+2*x+1) / (2*x^3-1). - Colin Barker, Jul 19 2013
[A006693] 2, 4, 5, 7, 8, 10, 25, 53, 62, 134, 574, 2431, 13147, 27167, 229073, 315416, 435474, 771789, 1522716, 3853889, 7878986, 7922488, 8844776, 9182596, 9388467, 14781524, 135097360, 1374449987, 1561240840, 4408239956, 11166053604, 12014224315
a(n) = floor(1/A(n)) where A(1) = 3/7, A(n+1) = (1/a(n) - A(n)) * (a(n) + 1). - Sean A. Irvine, Jun 17 2017
[A072920] 1, 2, 4, 5, 7, 8, 12, 14, 16, 17, 19, 20, 24, 26, 28, 29, 35, 36, 46, 48, 50, 51, 53, 56, 60, 62, 66, 67, 69, 70, 80, 83, 85, 88, 90, 91, 95, 100, 102, 103, 105, 106, 110, 112, 116, 117, 123, 125, 129, 131, 133, 134, 136, 138, 144, 146, 150, 151, 163, 164, 170, 175

a(n) appears to be asymptotic to (zeta(2)-1)*n*Log(n) where zeta(2)-1 = Pi^2/6-1 = 0.6449.....Example: a(10^5)/10^5/log(10^5) = 0.6449(1.....

[A032924] 1, 2, 4, 5, 7, 8, 13, 14, 16, 17, 22, 23, 25, 26, 40, 41, 43, 44, 49, 50, 52, 53, 67, 68, 70, 71, 76, 77, 79, 80, 121, 122, 124, 125, 130, 131, 133, 134, 148, 149, 151, 152, 157, 158, 160, 161, 202, 203, 205, 206, 211, 212, 214, 215, 229, 230, 232, 233, 238, 239

a(1)=1, a(n+1) = f(a(n)+1,f(a(n)+1) where f(x,y) = if x<3 and x<>0 then y else if x mod 3 = 0 then f(y+1,y+1) else f(floor(x/3),y). - Reinhard Zumkeller, Mar 02 2008

a(2n) = a(2n-1)+1, n>0. - Zak Seidov, Jul 27 2009

a(2n+1) = 3*a(n)+1. - Robert Israel, Aug 05 2015

[A159615] 2, 4, 5, 7, 9, 10, 11, 13, 15, 17, 19, 20, 21, 22, 23, 25, 27, 29, 31, 33, 35, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 97, 99, 101, 103, 105, 107, 109, 111

a(2n+1)=2a(n)+1.

a(2n)=3n+1+j,if n=2^k+j; a(2n)=(10n-4j)/3,if n=2^k+2^(k-1)+j, where 0<=j<=2^(k-1)-1.

[A047497] 1, 2, 4, 5, 7, 9, 10, 12, 13, 15, 17, 18, 20, 21, 23, 25, 26, 28, 29, 31, 33, 34, 36, 37, 39, 41, 42, 44, 45, 47, 49, 50, 52, 53, 55, 57, 58, 60, 61, 63, 65, 66, 68, 69, 71, 73, 74, 76, 77, 79, 81, 82, 84, 85, 87, 89, 90, 92, 93, 95, 97, 98, 100, 101, 103

a(n) = floor((8n-3)/5). [Gary Detlefs, Mar 07 2010]

a(n) = +a(n-1) +a(n-5) -a(n-6). G.f.: x*(1+x+2*x^2+x^3+2*x^4+x^5)/ ((x^4+x^3+x^2+x+1) * (x-1)^2). [R. J. Mathar, Mar 23 2010]

[A184656] 1, 2, 4, 5, 7, 9, 10, 12, 14, 15, 17, 18, 20, 22, 23, 25, 27, 28, 30, 31, 33, 35, 36, 38, 39, 41, 43, 44, 46, 48, 49, 51, 52, 54, 56, 57, 59, 60, 62, 64, 65, 67, 69, 70, 72, 73, 75, 77, 78, 80, 82, 83, 85, 86, 88, 90, 91, 93, 94, 96, 98, 99, 101, 103, 104, 106, 107, 109, 111, 112, 114, 115, 117, 119, 120, 122, 124, 125, 127, 128, 130, 132, 133, 135, 137, 138, 140, 141, 143, 145, 146, 148, 149, 151, 153, 154, 156, 158, 159, 161, 162, 164, 166, 167, 169, 171, 172, 174, 175, 177, 179, 180, 182, 183, 185, 187, 188, 190, 192, 193

a(n)=floor(nr+h), where r=(1+sqrt(5))/2, h=-1/2.

[A047212] 0, 2, 4, 5, 7, 9, 10, 12, 14, 15, 17, 19, 20, 22, 24, 25, 27, 29, 30, 32, 34, 35, 37, 39, 40, 42, 44, 45, 47, 49, 50, 52, 54, 55, 57, 59, 60, 62, 64, 65, 67, 69, 70, 72, 74, 75, 77, 79, 80, 82, 84, 85, 87, 89, 90, 92, 94, 95, 97, 99, 100, 102, 104, 105, 107

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.

a(n) = floor((5*n-3)/3). [Gary Detlefs, May 14 2011]

a(n) = n + ceiling(2*(n-1)/3) - 1. - Arkadiusz Wesolowski, Sep 18 2012

a(n) = (15*n-12+3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.

a(3k) = 5k-1, a(3k-1) = 5k-3, a(3k-2) = 5k-5. (End)

[A083120] 0, 2, 4, 5, 7, 9, 10, 12, 14, 16, 17, 19, 21, 22, 24, 26, 28, 29, 31, 33, 34, 36, 38, 40, 41, 43, 45, 46, 48, 50, 52, 53, 55, 57, 58, 60, 62, 64, 65, 67, 69, 70, 72, 74, 76, 77, 79, 81, 82, 84, 86, 88, 89, 91, 93, 94, 96, 98, 100, 101, 103, 105, 106, 108, 110

a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.

a(n) = (84*n - 77 + 5*(n mod 7) - 2*((n+1) mod 7) - 2*((n+2) mod 7) + 5*((n+3) mod 7) - 2*((n+4) mod 7) - 2*((n+5) mod 7) - 2*((n+6) mod 7))/49.

a(7k) = 12k-2, a(7k-1) = 12k-3, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-8, a(7k-5) = 12k-10, a(7k-6) = 12k-12. (End)

[A001614] 1, 2, 4, 5, 7, 9, 10, 12, 14, 16, 17, 19, 21, 23, 25, 26, 28, 30, 32, 34, 36, 37, 39, 41, 43, 45, 47, 49, 50, 52, 54, 56, 58, 60, 62, 64, 65, 67, 69, 71, 73, 75, 77, 79, 81, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 122

a(n) = 2*n - floor((1+ sqrt(8*n-7))/2).

a(1) = 1; then a(n) = a(n-1)+1 if a(n-1) is a square, a(n) = a(n-1)+2 otherwise. For example, a(21)=36 is a square therefore a(22)=36+1=37 which is not a square so a(23)=37+2=39 ... - Benoit Cloitre, Feb 07 2007

a(n)^2 = a(n*(n+1)/2). - Ivan N. Ianakiev, Aug 15 2013

a(n) = 2*n-round(sqrt(2*n)). - Gerald Hillier, Apr 15 2015

[A083026] 0, 2, 4, 5, 7, 9, 11, 12, 14, 16, 17, 19, 21, 23, 24, 26, 28, 29, 31, 33, 35, 36, 38, 40, 41, 43, 45, 47, 48, 50, 52, 53, 55, 57, 59, 60, 62, 64, 65, 67, 69, 71, 72, 74, 76, 77, 79, 81, 83, 84, 86, 88, 89, 91, 93, 95, 96, 98, 100, 101, 103, 105, 107, 108, 110

a(n) = a(n-1) + a(n-7) - a(n-8) for n > 8.

a(n) = (84*n - 70 - 2*(n mod 7) - 2*((n+1) mod 7) - 2*((n+2) mod 7) + 5*((n+3) mod 7) - 2*((n+4) mod 7) - 2*((n+5) mod 7) + 5*((n+6) mod 7))/49.

a(7k) = 12k-1, a(7k-1) = 12k-3, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-8, a(7k-5) = 12k-10, a(7k-6) = 12k-12. (End)

[A047379] 0, 2, 4, 5, 7, 9, 11, 12, 14, 16, 18, 19, 21, 23, 25, 26, 28, 30, 32, 33, 35, 37, 39, 40, 42, 44, 46, 47, 49, 51, 53, 54, 56, 58, 60, 61, 63, 65, 67, 68, 70, 72, 74, 75, 77, 79, 81, 82, 84, 86, 88, 89, 91, 93, 95, 96

a(n) = floor(floor((7n + 2)/2)/2).

a(n) = floor((7n-5)/4). - Gary Detlefs, Mar 07 2010

a(n) = a(n-1) + a(n-4) - a(n-5), n>5;

a(n) = (14*n-13-(-1)^n+2*i^n*(-1)^((3+(-1)^n)/4))/8, where i = sqrt(-1);

[A049039] 1, 2, 4, 5, 7, 9, 11, 12, 14, 16, 18, 20, 22, 24, 26, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 121, 123, 125

a(n) = 2n - 1 - floor(log_2(n)). a(2^n-1) = 2^(n+1) - (n+2), the Eulerian numbers

a(0)=0, a(2n) = a(n) + 2n - 1, a(2n+1) = a(n) + 2n + 1. - Ralf Stephan, Oct 11 2003

[A005152] 0, 1, 2, 4, 5, 7, 9, 11, 12, 15, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100

a(n) = 2n-6 for n >= 11.

[A060831] 0, 1, 2, 4, 5, 7, 9, 11, 12, 15, 17, 19, 21, 23, 25, 29, 30, 32, 35, 37, 39, 43, 45, 47, 49, 52, 54, 58, 60, 62, 66, 68, 69, 73, 75, 79, 82, 84, 86, 90, 92, 94, 98, 100, 102, 108, 110, 112, 114, 117, 120, 124, 126, 128, 132, 136, 138, 142, 144, 146, 150, 152, 154, 160

a(n) = n + floor(n/3) + floor(n/5) + floor(n/7) + floor(n/9) + ...

[A185546] 1, 2, 4, 5, 7, 9, 11, 13, 15, 18, 20, 23, 26, 29, 32, 35, 38, 41, 44, 48, 51, 55, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 99, 103, 108, 112, 117, 121, 126, 131, 136, 140, 145, 150, 155, 161, 166, 171, 176, 182, 187, 192, 198, 203, 209, 215, 220, 226, 232, 238, 244, 250

a(n) = floor((1/2)*(n+1)^(3/2)).

[A058577] 2, 4, 5, 7, 9, 11, 14, 16, 20, 23, 27, 31, 36, 42, 48, 54, 61, 69, 78, 87, 97, 108, 121, 134, 148, 163, 180, 198, 218, 239, 261, 286, 312, 340, 370, 403, 438, 475, 515, 558, 603, 652, 704, 759, 819, 882, 949, 1020, 1096, 1177, 1263, 1354, 1451, 1553, 1662, 1778

a(n) = floor(e^(x^0.5)).

[A071917] 0, 1, 2, 4, 5, 7, 9, 11, 14, 18, 21, 25, 28, 31, 35, 40, 44, 48, 52, 56, 61, 67, 72, 78, 84, 90, 97, 104, 110, 117, 124, 131, 138, 146, 154, 163, 172, 181, 190, 200, 209, 219, 228, 237, 247, 257, 266, 275, 285, 295, 306, 318, 329, 341, 354, 367, 381, 395, 408, 421

a(n) = sum over primes p from 3 to 2n-1 of min(p-1, 2n+1-p)/2.

a(n) = a(n-1) + pi(2*n-1) - pi(n) for n>0, a(0) = 0. - Alois P. Heinz, Feb 03 2017

[A000788] 0, 1, 2, 4, 5, 7, 9, 12, 13, 15, 17, 20, 22, 25, 28, 32, 33, 35, 37, 40, 42, 45, 48, 52, 54, 57, 60, 64, 67, 71, 75, 80, 81, 83, 85, 88, 90, 93, 96, 100, 102, 105, 108, 112, 115, 119, 123, 128, 130, 133, 136, 140, 143, 147, 151, 156, 159, 163, 167, 172, 176, 181, 186

a(0) = 0, a(2n) = a(n)+a(n-1)+n, a(2n+1) = 2a(n)+n+1. - Ralf Stephan, Sep 13 2003

a(n)=n*log_2(n)/2 + O(n); a(2^n)=n*2^(n-1)+1. - Benoit Cloitre, Sep 25 2003 (The first result is due to Bellman and Shapiro, - N. J. A. Sloane, Mar 24 2014)

a(n)=n*log_2(n)/2+n*F(log_2(n)) where F is a nowhere differentiable continuous function of period 1 (see Allouche Shallit). - Benoit Cloitre, Jun 08 2004

a(4^n-2) = n(4^n-2).

a(n) = (1/2)*Sum_{j=1..m+1} (floor(n/2^j + 1/2)*(2n + 2 - floor(n/2^j + 1/2))*2^j - floor(n/2^j)*(2n + 2 - (1 + floor(n/2^j)) * 2^j)), where m=floor(log_2(n)).

a(2^m-1) = m*2^(m-1).

[A288511] 2, 4, 5, 7, 9, 12, 17, 23, 33, 48, 70, 103, 152, 228, 343, 515, 779, 1180, 1787, 2715, 4124, 6264, 9526, 14483, 22025, 33504, 50957, 77519, 117929, 179396, 272930, 415215, 631680, 961032, 1462067, 2224347, 3384083, 5148432, 7832727, 11916547, 18129540

a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - 4*a(n-4) + 4*a(n-5) - 4*a(n-6) + 4*a(n-7) - 4*a(n-8) + 4*a(n-9) - 3*a(n-10) + 2*a(n-11) - 3*a(n-12) + 2*a(n-13) for n >= 16, where a(0)=2, a(1)=4, a(2)=5, a(3)=7, a(4)=9, a(5)=12, a(6)=17, a(7)=23, a(8)=33, a(9)=48, a(10)=70, a(11)=103, a(12)=152, a(13)=228, a(14)=343, a(15)=515.

[A193494] 0, 1, 2, 4, 5, 7, 9, 13, 14, 16, 18, 22, 24, 28, 32, 40, 41, 43, 45, 49, 51, 55, 59, 67, 69, 73, 77, 85, 89, 97, 105, 121, 122, 124, 126, 130, 132, 136, 140, 148, 150, 154, 158, 166, 170, 178, 186, 202, 204, 208, 212, 220, 224, 232, 240, 256, 260
a(n) = O(n^{lg 3});
a(n) = 2^{nu(n)-1} + a(n-1) when n>0 and has nu(n) 1-bits in binary;
[A080725] 2, 4, 5, 7, 10, 11, 13, 14, 15, 16, 19, 20, 22, 25, 28, 31, 32, 33, 34, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 55, 58, 59, 60, 61, 64, 65, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 106, 109, 112, 113, 114, 115, 118, 119, 121
a(a(n)) = 3*n+1, n >= 1.
[A014370] 1, 2, 4, 5, 7, 10, 11, 13, 16, 20, 21, 23, 26, 30, 35, 36, 38, 41, 45, 50, 56, 57, 59, 62, 66, 71, 77, 84, 85, 87, 90, 94, 99, 105, 112, 120, 121, 123, 126, 130, 135, 141, 148, 156, 165, 166, 168, 171, 175, 180, 186, 193, 201, 210, 220, 221, 223, 226, 230, 235, 241
a(n) = b(n) * (b(n) + 1) * (b(n) + 2) / 6 + c(n) * (c(n) + 1) / 2, where b(n) = [sqrt(2 * n) - 1/2] and c(n) = n - b(n) * (b(n) + 1) / 2 - Robert A. Stump (bee_ess107(AT)msn.com), Sep 20 2002
[A047495] 2, 4, 5, 7, 10, 12, 13, 15, 18, 20, 21, 23, 26, 28, 29, 31, 34, 36, 37, 39, 42, 44, 45, 47, 50, 52, 53, 55, 58, 60, 61, 63, 66, 68, 69, 71, 74, 76, 77, 79, 82, 84, 85, 87, 90, 92, 93, 95, 98, 100, 101, 103, 106, 108, 109, 111, 114, 116, 117, 119, 122, 124
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (1+i)*(4*n-4*n*i+i-1+i^(1-n)-i^n)/4 where i=sqrt(-1).
[A007997] 0, 0, 1, 1, 2, 4, 5, 7, 10, 12, 15, 19, 22, 26, 31, 35, 40, 46, 51, 57, 64, 70, 77, 85, 92, 100, 109, 117, 126, 136, 145, 155, 166, 176, 187, 199, 210, 222, 235, 247, 260, 274, 287, 301, 316, 330, 345, 361, 376, 392, 409, 425, 442, 460, 477, 495, 514, 532, 551, 571, 590, 610
a(n) = a(n-3) + n - 2, a(0)=0, a(1)=0, a(2)=1 [Offset 0]. - Paul Barry, Jul 14 2004
a(n+5) = sum_{k=0..floor(n/2)} C(n-k,L(k/3)), where L(j/p) is the Legendre symbol of j and p. - Paul Barry, Mar 16 2006
a(3)=0, a(4)=0, a(5)=1, a(6)=1, a(7)=2, a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5). - Harvey P. Dale, Jan 21 2014
a(n) = (n^2 - 7*n + 14 - 2*(-1)^(2^(n + 1 - 3*floor((n+1)/3))))/6. - Luce ETIENNE, Dec 27 2014
[A211523] 0, 0, 1, 2, 4, 5, 7, 10, 13, 17, 20, 24, 29, 34, 40, 45, 51, 58, 65, 73, 80, 88, 97, 106, 116, 125, 135, 146, 157, 169, 180, 192, 205, 218, 232, 245, 259, 274, 289, 305, 320, 336, 353, 370, 388, 405, 423, 442, 461, 481, 500, 520, 541, 562, 584, 605, 627
a(n) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7).
[A168639] 0, 1, 2, 4, 5, 7, 10, 15, 21, 29, 40, 56, 78, 108, 149, 206, 285, 394, 544, 751, 1037, 1432, 1977, 2729, 3767, 5200, 7178, 9908, 13676, 18877, 26056, 35965, 49642, 68520, 94577, 130543, 180186, 248707, 343285, 473829, 654016, 902724, 1246010, 1719840, 2373857, 3276582
a(n)= 2*a(n-1) -a(n-2) +a(n-4) -a(n-5). - R. J. Mathar, Dec 02 2009
[A288349] 1, 2, 4, 5, 7, 11, 12, 14, 18, 26, 27, 29, 33, 41, 57, 58, 60, 64, 72, 88, 120, 121, 123, 127, 135, 151, 183, 247, 248, 250, 254, 262, 278, 310, 374, 502, 503, 505, 509, 517, 533, 565, 629, 757, 1013, 1014, 1016, 1020, 1028, 1044, 1076, 1140, 1268, 1524, 2036
a(n) = 2^t + 2^(n-t*(t-1)/2) - t - 2, where t = floor(sqrt(2*n) + 1/2), n>=1.
[A056527] 2, 4, 5, 7, 11, 13, 14, 16, 20, 22, 23, 25, 29, 31, 32, 34, 38, 40, 41, 43, 47, 49, 50, 52, 56, 58, 59, 61, 65, 67, 68, 70, 74, 76, 77, 79, 83, 85, 86, 88, 92, 94, 95, 97, 101, 103, 104, 106, 110, 112, 113, 115, 119, 121, 122, 124, 128, 130, 131, 133, 137, 139, 140
a(n)=a(n-1)+a(n-4)-a(n-5) for n>5. - Harvey P. Dale, Apr 05 2015
[A147991] 1, 2, 4, 5, 7, 11, 13, 14, 16, 20, 22, 32, 34, 38, 40, 41, 43, 47, 49, 59, 61, 65, 67, 95, 97, 101, 103, 113, 115, 119, 121, 122, 124, 128, 130, 140, 142, 146, 148, 176, 178, 182, 184, 194, 196, 200, 202, 284, 286, 290, 292, 302, 304, 308, 310, 338, 340, 344, 346
a(n) = 3*a(n/2) - 1 if n>=2 is even, 3*a((n-1)/2) + 1 if n is odd, a(0)=0. - Robert Israel, May 05 2014
[A097581] 2, 4, 5, 7, 11, 13, 23, 25, 47, 49, 95, 97, 191, 193, 383, 385, 767, 769, 1535, 1537, 3071, 3073, 6143, 6145, 12287, 12289, 24575, 24577, 49151, 49153, 98303, 98305, 196607, 196609, 393215, 393217, 786431, 786433, 1572863, 1572865
a(n) = -a(n-1) + 2*a(n-2) + 2*a(n-3).
[A085624] 2, 4, 5, 8, 8, 10, 11, 14, 14, 16, 17, 20, 20, 22, 23, 26, 26, 28, 29, 32, 32, 34, 35, 38, 38, 40, 41, 44, 44, 46, 47, 50, 50, 52, 53, 56, 56, 58, 59, 62, 62, 64, 65, 68, 68, 70, 71, 74, 74, 76, 77, 80, 80, 82, 83, 86, 86, 88, 89, 92, 92, 94, 95, 98, 98, 100
a(n) = 1+(6*n+(1+(-1)^n)*i^n+2*(-1)^n)/4, where i=sqrt(-1). - Bruno Berselli, Jul 09 2012
[A130048] 1, 2, 4, 5, 8, 9, 10, 11, 13, 14, 15, 16, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 78, 79, 80, 81, 82, 83, 84, 85
a(1)=1, a(2)=2, b(1)=0, b(2)=3; for n>=3, let x=Floor(n/2) and y=n-x+1. Then a(n)=least positive integer not among a(1),a(2),...,a(n-1), b(1),b(2),...b(n-1) and b(n)=a(1)+a(2)+...+a(x) if n is even, b(n)=a(y)+a(y+1)+...+a(n) if n is odd.
[A004761] 0, 1, 2, 4, 5, 8, 9, 10, 11, 16, 17, 18, 19, 20, 21, 22, 23, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 128, 129
a(1)=0, a(2)=1 and for k>1: a(2*k-1) = a(2*k-2)+1, a(2*k) = 2*a(k+1). - Reinhard Zumkeller, Jan 09 2002, corrected by Robert Israel, Mar 31 2017
a(1) = 0, a(2) = 1, a(2^m+k+2) = 2^(m+1)+k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Jul 30 2016
[A004754] 2, 4, 5, 8, 9, 10, 11, 16, 17, 18, 19, 20, 21, 22, 23, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 128, 129, 130, 131
a(2n) = 2a(n), a(2n+1) = 2a(n) + 1 + [n==0].
a(2^m+k) = 2^(m+1) + k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Aug 08 2016
[A047380] 1, 2, 4, 5, 8, 9, 11, 12, 15, 16, 18, 19, 22, 23, 25, 26, 29, 30, 32, 33, 36, 37, 39, 40, 43, 44, 46, 47, 50, 51, 53, 54, 57, 58, 60, 61, 64, 65, 67, 68, 71, 72, 74, 75, 78, 79, 81, 82, 85, 86, 88, 89, 92, 93, 95, 96, 99, 100, 102, 103, 106, 107, 109, 110
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (14*n-11-3*I^(2*n)-(1+I)*I^(-n-1)-(1-I)*I^(n+1))/8 where I=sqrt(-1).
[A002541] 0, 1, 2, 4, 5, 8, 9, 12, 14, 17, 18, 23, 24, 27, 30, 34, 35, 40, 41, 46, 49, 52, 53, 60, 62, 65, 68, 73, 74, 81, 82, 87, 90, 93, 96, 104, 105, 108, 111, 118, 119, 126, 127, 132, 137, 140, 141, 150, 152, 157, 160, 165, 166, 173, 176, 183, 186, 189, 190, 201, 202, 205
a(n) = -n + Sum_{k=1..n} tau(k). - Vladeta Jovovic, Oct 17 2002
a(n) = Sum_{i=2..n} floor(n/i). - Jon Perry, Feb 02 2004
a(n) = Sum_{i=2..n} ceiling((n+1)/2)) - n + 1. - Jon Perry, May 26 2004
a(n) = -Sum_{i=1..n} floor((n-2i+1)/(n-i+1)). - Wesley Ivan Hurt, May 08 2016
a(n) = Sum_{i=1..floor(n/2)} floor((n-i)/i). - Wesley Ivan Hurt, Nov 16 2017
[A101881] 1, 2, 4, 5, 8, 9, 13, 14, 19, 20, 26, 27, 34, 35, 43, 44, 53, 54, 64, 65, 76, 77, 89, 90, 103, 104, 118, 119, 134, 135, 151, 152, 169, 170, 188, 189, 208, 209, 229, 230, 251, 252, 274, 275, 298, 299, 323, 324, 349, 350, 376, 377, 404, 405, 433, 434, 463, 464, 494
a(n) = (1/16)*(2*n^2 + 18*n + 15 + (2*n+1)*(-1)^n). - Ralf Stephan, Mar 09 2014
[A280050] 0, 1, 2, 4, 5, 8, 9, 13, 16, 21, 22, 28, 29, 36, 41, 49, 50, 59, 60, 70, 77, 88, 89, 101, 106, 119, 128, 142, 143, 158, 159, 175, 186, 203, 210, 228, 229, 248, 261, 281, 282, 303, 304, 326, 341, 364, 365, 389, 396, 421, 438, 464, 465, 492, 503, 531, 550, 579, 580, 610, 611, 642, 663, 695, 708, 741, 742, 776, 799, 834, 835
a(p^k) = a(p^k-1) + p^(k-1), for p is prime.
[A160545] 1, 2, 4, 5, 8, 10, 11, 13, 16, 17, 19, 20, 22, 23, 25, 26, 29, 31, 32, 34, 37, 38, 40, 41, 43, 44, 46, 47, 50, 52, 53, 55, 58, 59, 61, 62, 64, 65, 67, 68, 71, 73, 74, 76, 79, 80, 82, 83, 85, 86, 88, 89, 92, 94, 95, 97, 100, 101, 103, 104, 106, 107, 109, 110, 113, 115, 116
a(n+12) = a(n) + 21.
a(n) = 21*floor((n-1)/12)+f(n)+floor(f(n)/2)+2^floor(f(n)/4)+floor(((n+5) mod 12)/11)+floor(((n+3) mod 12)/11), where f(n)= (n-1) mod 12. - Gary Detlefs, Sep 22 2013
[A047261] 2, 4, 5, 8, 10, 11, 14, 16, 17, 20, 22, 23, 26, 28, 29, 32, 34, 35, 38, 40, 41, 44, 46, 47, 50, 52, 53, 56, 58, 59, 62, 64, 65, 68, 70, 71, 74, 76, 77, 80, 82, 83, 86, 88, 89, 92, 94, 95, 98, 100, 101, 104, 106, 107, 110, 112, 113, 116, 118, 119, 122, 124
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (6*n-1-2*cos(2*n*Pi/3))/3.
a(3k) = 6k-1, a(3k-1) = 6k-2, a(3k-2) = 6k-4. (End)
[A047612] 0, 2, 4, 5, 8, 10, 12, 13, 16, 18, 20, 21, 24, 26, 28, 29, 32, 34, 36, 37, 40, 42, 44, 45, 48, 50, 52, 53, 56, 58, 60, 61, 64, 66, 68, 69, 72, 74, 76, 77, 80, 82, 84, 85, 88, 90, 92, 93, 96, 98, 100, 101, 104, 106, 108, 109, 112, 114, 116, 117, 120, 122, 124
a(n) = 2*n-2-(1+(-1)^n)*(1+i^n)/4, where i=sqrt(-1). (End)

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A186349] 1, 2, 4, 5, 8, 10, 13, 15, 19, 22, 26, 29, 34, 38, 43, 47, 53, 58, 64, 69, 76, 82, 89, 95, 103, 110, 118, 125, 134, 142, 151, 159, 169, 178, 188, 197, 208, 218, 229, 239, 251, 262, 274, 285, 298, 310, 323, 335, 349, 362, 376, 389, 404, 418, 433, 447, 463, 478, 494, 509, 526, 542, 559, 575, 593, 610, 628, 645, 664, 682, 701, 719, 739, 758, 778, 797, 818, 838, 859, 879, 901, 922, 944, 965, 988, 1010
a(n) = n + floor((n^2-1)/8).
a(n) = n + ceiling(n^2/8) - 1. - Wesley Ivan Hurt, Jun 28 2013
a(n) = (2*n*(n+8)-(1+(-1)^n)*(5+2*i^(n*(n+1)))-2)/16 where i=sqrt(-1). - Bruno Berselli, Jul 05 2013
[A126026] 0, 1, 2, 4, 5, 8, 10, 13, 17, 20, 24, 28, 33, 38, 43, 49, 55, 61, 68, 75, 82, 90, 97, 106, 114, 123, 133, 142, 152, 162, 173, 184, 195, 207, 219, 231, 244, 257, 270, 284, 297, 312, 326, 341, 357, 372, 388, 404, 421, 438, 455, 473, 491, 509, 528, 547, 566
a(n) = floor((n^2 + 14*n/3 + 1)/6).
[A094958] 1, 2, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 512, 640, 1024, 1280, 2048, 2560, 4096, 5120, 8192, 10240, 16384, 20480, 32768, 40960, 65536, 81920, 131072, 163840, 262144, 327680, 524288, 655360, 1048576, 1310720, 2097152
a(1)=1, a(2)=2, a(3)=4, for n>=0, a(2n+3) = 4*2^n, a(2n+4) = 5*2^n.
[A288523] 2, 4, 5, 8, 11, 16, 25, 36, 55, 84, 125, 192, 291, 440, 673, 1020, 1551, 2364, 3589, 5464, 8315, 12640, 19241, 29268, 44519, 67748, 103053, 156784, 238547, 362888, 552113, 839980, 1277887, 1944204, 2957845, 4499976, 6846251, 10415664, 15846201, 24108164
a(n) = a(n-1) + a(n-2) + a(n-3) - 2*a(n-4) for n >= 5, where a(0) = 2, a(1) = 4, a(2) = 5, a(3) = 8, a(4) = 11.
[A080588] 0, 2, 4, 5, 8, 12, 13, 14, 16, 17, 18, 19, 20, 24, 28, 29, 32, 36, 40, 44, 48, 49, 50, 51, 52, 53, 54, 55, 56, 60, 61, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 84, 88, 92, 96, 100, 104, 108, 112, 113, 114, 115, 116, 120, 124, 125
a(a(n)) = 4n. a(2^k) = 2^(k+1).
[A288668] 2, 4, 5, 8, 13, 18, 29, 44, 65, 102, 153, 232, 357, 538, 821, 1252, 1897, 2894, 4401, 6688, 10189, 15490, 23565, 35868, 54545, 82998, 126281, 192088, 292277, 444650, 676453, 1029204, 1565753, 2382110, 3624161, 5513616, 8388381, 12761938, 19415613, 29538700
a(n) = a(n-2) + 2*a(n-3) for n >= 3, where a(0) = 2, a(2) = 4, a(3) = 5.
[A264800] 1, 1, 2, 4, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155
a(n) = a(n-1) - a(n-2) for n>6.
[A160967] 0, 1, 2, 4, 5, 8, 16, 21, 32, 64, 85, 128, 256, 341, 512, 1024, 1365, 2048, 4096, 5461, 8192, 16384, 21845, 32768, 65536, 87381, 131072, 262144, 349525, 524288, 1048576, 1398101, 2097152, 4194304, 5592405, 8388608, 16777216, 22369621, 33554432
a(n+6) = 5*a(n+3) - 4*a(n) for n >= 1. - Robert Israel, Jan 01 2015
[A152603] 1, 2, 4, 5, 8, 41, 60, 70, 410, 412, 416, 418, 452, 454, 458, 470, 472, 476, 478, 812, 814, 818, 830, 832, 836, 838, 872, 874, 878, 2101, 2210, 2300, 2302, 3002, 3003, 4011, 5110, 6101, 6410, 6500, 7002, 9020, 9200, 20020, 30020, 30021, 40110
a(n) = b(n)*10^[3n/52] = c(n)*10^(3n/52) with (except for smaller initial terms) 20 < b(n) < 611 and c(52k+23) = 9.89... < c(n) < c(52k) = 91.1... for all integers k>0. [From M. F. Hasler, Oct 16 2009]
[A047613] 1, 2, 4, 5, 9, 10, 12, 13, 17, 18, 20, 21, 25, 26, 28, 29, 33, 34, 36, 37, 41, 42, 44, 45, 49, 50, 52, 53, 57, 58, 60, 61, 65, 66, 68, 69, 73, 74, 76, 77, 81, 82, 84, 85, 89, 90, 92, 93, 97, 98, 100, 101, 105, 106, 108, 109, 113, 114, 116, 117, 121, 122, 124
a(n) = 2*n-2-((-1)^n+i^(n*(n+1)))/2, where i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A089221] 1, 2, 4, 5, 9, 10, 13, 14, 16, 19, 21, 25, 28, 29, 31, 34, 38, 39, 44, 46, 47, 50, 53, 56, 60, 62, 63, 65, 68, 70, 78, 80, 83, 84, 89, 90, 94, 98, 100, 103, 107, 108, 114, 115, 117, 118, 126, 132, 134, 135, 137, 140, 142, 147, 150, 153, 156, 157, 162, 164, 166, 171, 178
a(n) = Floor[Sqrt[((Prime[n]+PrimePi[n])/2)^2+Prime[n]*PrimePi[n]]]
[A282737] 1, 2, 4, 5, 9, 10, 15, 16, 22, 23, 30, 31, 39, 40, 49, 50, 60, 61, 72, 73, 85, 86, 99, 100, 114, 115, 130, 131, 147, 148, 165, 166, 184, 185, 204, 205, 225, 226, 247, 248, 270, 271, 294, 295, 319, 320, 345, 346, 372, 373, 400, 401, 429, 430, 459, 460, 490, 491, 522, 523, 555, 556, 589, 590, 624
a(n) = (n^2 + 14*n) / 8 for n>1 and even.
a(n) = (n^2 + 12*n - 5) / 8 for n>1 and odd.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>4. (End)
a(n) = Sum_{k=0..n} k*(k+1)/2 mod (k+2) for n>=2. - Paolo P. Lava, Apr 11 2017
[A047378] 2, 4, 5, 9, 11, 12, 16, 18, 19, 23, 25, 26, 30, 32, 33, 37, 39, 40, 44, 46, 47, 51, 53, 54, 58, 60, 61, 65, 67, 68, 72, 74, 75, 79, 81, 82, 86, 88, 89, 93, 95, 96, 100, 102, 103, 107, 109, 110, 114, 116, 117, 121, 123, 124, 128, 130, 131, 135, 137, 138, 142
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-9-9*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-3, a(3k-2) = 7k-5. (End)
[A211521] 0, 0, 1, 2, 4, 5, 9, 11, 16, 18, 25, 28, 36, 39, 49, 53, 64, 68, 81, 86, 100, 105, 121, 127, 144, 150, 169, 176, 196, 203, 225, 233, 256, 264, 289, 298, 324, 333, 361, 371, 400, 410, 441, 452, 484, 495, 529, 541, 576, 588, 625, 638, 676, 689, 729, 743
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-5) - a(n-6) + a(n-7).
a(n) = (2*n^2-5*n+4-(n-2)*(-1)^n+(-1)^((2*n-1+(-1)^n)/4)-(-1)^((6*n-5+(-1)^n)/4))/8. - Luce ETIENNE, Dec 31 2015
[A077882] 0, 1, 1, 2, 4, 5, 9, 14, 20, 33, 49, 74, 116, 173, 265, 406, 612, 937, 1425, 2162, 3300, 5013, 7625, 11614, 17652, 26865, 40881, 62170, 94612, 143933, 218953, 333158, 506820, 771065, 1173137, 1784706, 2715268, 4130981, 6284681, 9561518, 14546644, 22130881, 33669681
a(n) = a(n-1)+a(n-2)+a(n-3)-2*a(n-4) - Roger L. Bagula, Mar 25 2005
a(n+1)=sum{k=0..n, sum{j=0..floor(k/2), C(j, k-2j)2^(k-2j)}}; - Paul Barry, Jul 18 2005
[A067298] 1, 1, 2, 4, 5, 9, 28, 32, 36, 64, 256, 284, 300, 328, 584, 2704, 2960, 3072, 3184, 3440, 6144, 31168, 33872, 34896, 35680, 36704, 39408, 70576, 380608, 411776, 422592, 429760, 436928, 447744, 478912
a(n, m)= sum(C(2, 2; j)C(2, 2; n-j), j=0..m) if n>=m>=0 else 0.
[A003278] 1, 2, 4, 5, 10, 11, 13, 14, 28, 29, 31, 32, 37, 38, 40, 41, 82, 83, 85, 86, 91, 92, 94, 95, 109, 110, 112, 113, 118, 119, 121, 122, 244, 245, 247, 248, 253, 254, 256, 257, 271, 272, 274, 275, 280, 281, 283, 284, 325, 326, 328, 329, 334, 335, 337, 338, 352, 353
a(2k + 2) = a(2k + 1) + 1, a(2^k + 1) = 2*a(2^k).
a(n) = b(n+1) with b(0)=1, b(2n)=3b(n)-2, b(2n+1)=3b(n)-1. - Ralf Stephan, Aug 23 2003
[A091856] 1, 2, 4, 5, 10, 11, 22, 23, 46, 47, 94, 95, 100, 101, 202, 203, 210, 211, 422, 423, 426, 427, 434, 435, 438, 439, 878, 879, 882, 883, 1766, 1767, 1770, 1771, 1778, 1779, 1782, 1783, 3566, 3567, 3570, 3571, 7142, 7143, 7146, 7147, 7154, 7155, 7158, 7159
a(2n) = a(2n-1) + 1, a(2n+1) = a(2n) + LeastPrimeFactor(a(2n)).
[A083416] 1, 2, 4, 5, 10, 11, 22, 23, 46, 47, 94, 95, 190, 191, 382, 383, 766, 767, 1534, 1535, 3070, 3071, 6142, 6143, 12286, 12287, 24574, 24575, 49150, 49151, 98302, 98303, 196606, 196607, 393214, 393215, 786430, 786431, 1572862, 1572863
a(2*n) = 3*2^(n-1)-1, a(2*n+1) = 3*2^n-2.
a(n) = 3*2^((2*n-(-1)^n-3)/4)+((-1)^n-3)/2. - Bruno Berselli, Feb 17 2011
[A047611] 2, 4, 5, 10, 12, 13, 18, 20, 21, 26, 28, 29, 34, 36, 37, 42, 44, 45, 50, 52, 53, 58, 60, 61, 66, 68, 69, 74, 76, 77, 82, 84, 85, 90, 92, 93, 98, 100, 101, 106, 108, 109, 114, 116, 117, 122, 124, 125, 130, 132, 133, 138, 140, 141, 146, 148, 149, 154, 156, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-15-12*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-3, a(3k-1) = 8k-4, a(3k-2) = 8k-6. (End)
[A097132] 1, 2, 4, 5, 10, 12, 25, 30, 64, 77, 166, 200, 433, 522, 1132, 1365, 2962, 3572, 7753, 9350, 20296, 24477, 53134, 64080, 139105, 167762, 364180, 439205, 953434, 1149852, 2496121, 3010350, 6534928, 7881197, 17108662, 20633240, 44791057
a(n)=a(n-1)+3a(n-2)-3a(n-3)-a(n-4)+a(n-5);
[A253198] 0, 1, 2, 4, 5, 10, 16, 25, 42, 68, 109, 178, 288, 465, 754, 1220, 1973, 3194, 5168, 8361, 13530, 21892, 35421, 57314, 92736, 150049, 242786, 392836, 635621, 1028458, 1664080, 2692537, 4356618, 7049156, 11405773, 18454930, 29860704, 48315633, 78176338, 126491972, 204668309, 331160282, 535828592
a(n) = a(n-1) + a(n-2) - (-1)^(a(n-1) + a(n-2))), a(0)=0, a(1)=1.
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-4) - a(n-5) for n>4. - Colin Barker, Mar 28 2015

[A049332] 2, 4, 5, 10, 17, 34, 65, 130, 257, 514, 1025, 2050, 4097, 8194, 16385, 32770, 65537, 131074, 262145, 524290, 1048577, 2097154, 4194305, 8388610, 16777217, 33554434, 67108865, 134217730, 268435457, 536870914, 1073741825, 2147483650
a(n) = (3/2-(-1)^n/2+2^n). a(n) = 2*a(n-1)+a(n-2)-2*a(n-3). G.f.: (2-5*x^2)/((1-x)*(1+x)*(1-2*x)). - Colin Barker, Apr 18 2012
[A245478] 1, 2, 4, 5, 10, 20, 25, 50, 100, 125, 250, 500, 625, 1250, 2500, 3125, 6250, 12500, 15625, 31250, 62500, 78125, 156250, 312500, 390625, 781250, 1562500, 1953125, 3906250, 7812500, 9765625, 19531250, 39062500, 48828125, 97656250, 195312500, 244140625, 488281250
a(3j + i) = 2^(i-1)*5^j for i = 1,2,3 and j >= 0.
a(n) = 5*a(n-3). G.f.: -x*(4*x^2+2*x+1) / (5*x^3-1). - Colin Barker, Aug 01 2014
[A292412] 1, 1, 2, 4, 5, 11, 13, 29, 34, 76, 89, 199, 233, 521, 610, 1364, 1597, 3571, 4181, 9349, 10946, 24476, 28657, 64079, 75025, 167761, 196418, 439204, 514229, 1149851, 1346269, 3010349, 3524578, 7881196, 9227465, 20633239, 24157817, 54018521, 63245986, 141422324
a(n) = 3*a(n-2) - a(n-4) for n>4. (End)
[A000063] 1, 1, 2, 4, 5, 14, 14, 39, 42, 132, 132, 424, 429, 1428, 1430, 4848, 4862, 16796, 16796, 58739, 58786, 208012, 208012, 742768, 742900, 2674426, 2674440, 9694416, 9694845, 35357670, 35357670, 129643318, 129644790, 477638700, 477638700, 1767258328, 1767263190, 6564120288
a(n) = Catalan(floor(n/2) - 1) - Catalan(n/4 - 1) - Catalan (n/6 - 1), where Catalan(x) = 0 for noninteger x (from Guy's 1958 paper). - Joseph Myers, Jun 21 2012
[A267460] 0, 2, 4, 6, 6, 8, 8, 10, 10, 12, 12, 14, 14, 16, 16, 18, 18, 20, 20, 22, 22, 24, 24, 26, 26, 28, 28, 30, 30, 32, 32, 34, 34, 36, 36, 38, 38, 40, 40, 42, 42, 44, 44, 46, 46, 48, 48, 50, 50, 52, 52, 54, 54, 56, 56, 58, 58, 60, 60, 62, 62, 64, 64, 66, 66, 68
a(n) = (2*n-(-1)^n+5)/2 for n>1.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>4.
[A030118] 1, 1, 2, 4, 6, 7, 7, 7, 8, 10, 12, 13, 13, 13, 14, 16, 18, 19, 19, 19, 20, 22, 24, 25, 25, 25, 26, 28, 30, 31, 31, 31, 32, 34, 36, 37, 37, 37, 38, 40, 42, 43, 43, 43, 44, 46, 48, 49, 49, 49, 50, 52, 54, 55, 55, 55, 56, 58, 60, 61, 61, 61, 62, 64, 66, 67, 67, 67, 68, 70, 72, 73
a(n)=(1/30)*{37*(n mod 6)+2*[(n+1) mod 6]-3*[(n+2) mod 6]-3*[(n+3) mod 6]+2*[(n+4) mod 6]+7*[(n+5) mod 6]}+6*sum{k=0..n}{1/3*(cos(2*Pi*k/3)+1/2)*(1+(-1)^k}-6, with n>=0. - Paolo P. Lava, Jun 01 2007
a(n) = n iff n is either 1 or 2 mod 6. - Jon Perry, Nov 02 2014
[A147613] 2, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = floor(-LambertW(-1,-1/3*ln(2)*2^(3/2-n))/ln(2)+1/2). - Nicolas Normand (Nicolas.Normand(at)polytech.univ-nantes.fr), Nov 29 2017
[A047513] 0, 1, 2, 4, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, 20, 22, 23, 24, 25, 26, 28, 30, 31, 32, 33, 34, 36, 38, 39, 40, 41, 42, 44, 46, 47, 48, 49, 50, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 70, 71, 72, 73, 74, 76, 78, 79, 80, 81, 82, 84, 86, 87, 88
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - 2*a(n-4) + 2*a(n-5) - a(n-6), n>6.
a(n) = (24*n-24-2*sqrt(3)*(cos((1-4*n)*Pi/6)-3*cos((2*n+1)*Pi/6)))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-4, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A229785] 1, 2, 4, 6, 7, 8, 9, 10, 12, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 31, 32, 33, 34, 36, 38, 40, 42, 43, 44, 45, 46, 48, 50, 52, 54, 55, 56, 58, 60, 61, 62, 63, 64, 66, 68, 70, 72, 73, 74, 76, 78, 79, 80, 81, 82, 84, 86, 88, 90, 91, 92, 94, 96, 97, 98, 100, 102, 103, 104
a(n)=(3/2)n+O(1). More precisely, let b(n)=3*n-2*a(n); then b(n) satisfies the following recurrence modulo 12: b(n)=1,2,1,0,1,2,3,4,3,2,1 for n=1,2,3,4,5,6,7,8,9,10,11. Then for k>=1 we have b(12k)=b(4k), b(12k+1)=b(4k+1), b(12k+2)=b(4k+2), b(12k+2)=b(4k+2), b(12k+3)=b(4k+2)-1, b(12k+4)=b(4k+2)-2, b(12k+5)=b(4k+2)-1, b(12k+6)=b(4k+2), b(12k+7)=4-b(4k+3), b(12k+8)=4-b(4k+4), b(12k+9)=4-b(4k+3), b(12k+10)=4-b(4k+2), b(12k+11)=b(4k+3).
[A183858] 2, 4, 6, 7, 8, 10, 11, 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 114, 115, 116, 117
a(n) = n+floor(sqrt(3n)).
[A080645] 1, 2, 4, 6, 7, 8, 10, 12, 13, 14, 15, 16, 18, 20, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 36, 38, 40, 42, 44, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107
a(1)=1, a(2)=2, a(3)=4; then for k>=1, abs(j)<=2^k: a(3*2^k+j)=4*2^k+3/2*j+abs(j)/2.
[A047237] 0, 1, 2, 4, 6, 7, 8, 10, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 31, 32, 34, 36, 37, 38, 40, 42, 43, 44, 46, 48, 49, 50, 52, 54, 55, 56, 58, 60, 61, 62, 64, 66, 67, 68, 70, 72, 73, 74, 76, 78, 79, 80, 82, 84, 85, 86, 88, 90, 91, 92, 94, 96, 97
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>4.
a(n) = (6n-8+i^(1-n)-i^(1+n))/4 where i=sqrt(-1).
[A047511] 0, 2, 4, 6, 7, 8, 10, 12, 14, 15, 16, 18, 20, 22, 23, 24, 26, 28, 30, 31, 32, 34, 36, 38, 39, 40, 42, 44, 46, 47, 48, 50, 52, 54, 55, 56, 58, 60, 62, 63, 64, 66, 68, 70, 71, 72, 74, 76, 78, 79, 80, 82, 84, 86, 87, 88, 90, 92, 94, 95, 96, 98, 100, 102, 103
a(0)=0, a(1)=2, a(2)=4, a(3)=6, a(4)=7, a(5)=8, a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6. - Harvey P. Dale, May 09 2014
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 25 + 3*(n mod 5) - 2*((n+1) mod 5) - 2*((n+2) mod 5) - 2*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-4, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A096750] 1, 1, 1, 1, 2, 4, 6, 7, 8, 12, 21, 33, 44, 55, 76, 119, 185, 263, 351, 480, 706, 1066, 1551, 2156, 2982, 4269, 6281, 9162, 13013, 18252, 25921, 37513, 54449, 78045, 110626, 157124, 225490, 325403, 467576, 666960, 949661, 1358381, 1951976, 2803811
a(n) = 2*a(n-1)-2*a(n-2)+a(n-3)+a(n-4).
[A247000] 1, 2, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 21, 23, 24, 26, 28, 29, 31, 33, 34, 36, 38, 39, 41, 43, 44, 46, 48
a(n) = a(n-1)+a(n-3)-a(n-4) for n>4.
[A047512] 1, 2, 4, 6, 7, 9, 10, 12, 14, 15, 17, 18, 20, 22, 23, 25, 26, 28, 30, 31, 33, 34, 36, 38, 39, 41, 42, 44, 46, 47, 49, 50, 52, 54, 55, 57, 58, 60, 62, 63, 65, 66, 68, 70, 71, 73, 74, 76, 78, 79, 81, 82, 84, 86, 87, 89, 90, 92, 94, 95, 97, 98, 100, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6. (End)
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 20 + 3*(n mod 5) - 2*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-4, a(5k-3) = 8k-6, a(5k-4) = 8k-7. (End)
[A026273] 1, 2, 4, 6, 7, 9, 10, 12, 14, 15, 17, 19, 20, 22, 23, 25, 27, 28, 30, 31, 33, 35, 36, 38, 40, 41, 43, 44, 46, 48, 49, 51, 53, 54, 56, 57, 59, 61, 62, 64, 65, 67, 69, 70, 72, 74, 75, 77, 78, 80, 82, 83, 85, 86, 88, 90, 91, 93, 95, 96, 98, 99
a(n)=floor[r*(n-2*r+3)], where r=golden ratio.
[A184658] 1, 2, 4, 6, 7, 9, 10, 12, 14, 15, 17, 19, 20, 22, 23, 25, 27, 28, 30, 32, 33, 35, 36, 38, 40, 41, 43, 44, 46, 48, 49, 51, 53, 54, 56, 57, 59, 61, 62, 64, 66, 67, 69, 70, 72, 74, 75, 77, 78, 80, 82, 83, 85, 87, 88, 90, 91, 93, 95, 96, 98, 99, 101, 103, 104, 106, 108, 109, 111, 112, 114, 116, 117, 119, 121, 122, 124, 125, 127, 129, 130, 132, 133, 135, 137, 138, 140, 142, 143, 145, 146, 148, 150, 151, 153, 154, 156, 158, 159, 161, 163, 164, 166, 167, 169, 171, 172, 174, 176, 177, 179, 180, 182, 184, 185, 187, 188, 190, 192, 193
a(n)=floor(nr+h), where r=(1+sqrt(5))/2, h=-1/3.
[A189518] 1, 2, 4, 6, 7, 9, 10, 12, 14, 15, 17, 19, 20, 22, 24, 25, 27, 28, 30, 32, 33, 35, 37, 38, 40, 41, 43, 45, 46, 49, 50, 51, 53, 55, 56, 58, 59, 61, 63, 64, 67, 68, 69, 71, 73, 74, 76, 77, 80, 81, 82, 84, 86, 87, 89, 91, 92, 94, 95, 98, 99, 100, 102, 104, 105, 107, 109, 111, 112, 113, 116, 117, 118, 120, 122, 123, 125, 126, 129, 130, 131, 134, 135, 136, 138
a(n)=n+[n/e]+[n/(e+1)],
[A080711] 2, 4, 6, 7, 9, 10, 12, 15, 16, 18, 21, 22, 24, 25, 26, 27, 30, 31, 33, 34, 35, 36, 39, 40, 42, 45, 48, 51, 52, 53, 54, 57, 58, 60, 63, 66, 69, 70, 71, 72, 75, 76, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 90, 93, 96, 97, 98, 99, 102, 103, 105, 106, 107, 108, 109, 110, 111, 112
a(a(n)) = 3*(n+2).
[A184732] 1, 2, 4, 6, 7, 9, 11, 12, 14, 15, 17, 19, 20, 22, 24, 25, 27, 28, 30, 32, 33, 35, 36, 38, 40, 41, 43, 45, 46, 48, 49, 51, 53, 54, 56, 57, 59, 61, 62, 64, 66, 67, 69, 70, 72, 74, 75, 77, 79, 80, 82, 83, 85, 87, 88, 90, 91, 93, 95, 96, 98, 100, 101, 103, 104, 106, 108, 109, 111, 113, 114, 116, 117, 119, 121, 122, 124, 125, 127, 129, 130, 132, 134, 135, 137, 138, 140, 142, 143, 145, 146, 148, 150, 151, 153, 155, 156, 158, 159, 161, 163, 164, 166, 168, 169, 171, 172, 174, 176, 177, 179, 180, 182, 184, 185, 187, 189, 190, 192, 193

a(n)=floor(nr+h), where r=(1+sqrt(5))/2, h=-1/4.
[A032793] 1, 2, 4, 6, 7, 9, 11, 12, 14, 16, 17, 19, 21, 22, 24, 26, 27, 29, 31, 32, 34, 36, 37, 39, 41, 42, 44, 46, 47, 49, 51, 52, 54, 56, 57, 59, 61, 62, 64, 66, 67, 69, 71, 72, 74, 76, 77, 79, 81, 82, 84, 86, 87, 89, 91, 92, 94, 96, 97, 99, 101, 102, 104, 106, 107, 109
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = -1 + Sum_{k=1..n} {(1/9)*(2*(k mod 3)+8*[(k+1) mod 3]+5*[(k+2) mod 3]}, with n>=1. - Paolo P. Lava, Sep 03 2010
a(n) = floor((5*n-2)/3). [Gary Detlefs, May 14 2011]
a(n) = (15*n-9+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-1, a(3k-1) = 5k-3, a(3k-2) = 5k-4. (End)
[A083088] 1, 2, 4, 6, 7, 9, 11, 12, 14, 16, 18, 19, 21, 23, 24, 26, 28, 30, 31, 33, 35, 36, 38, 40, 41, 43, 45, 47, 48, 50, 52, 53, 55, 57, 59, 60, 62, 64, 65, 67, 69, 70, 72, 74, 76, 77, 79, 81, 82, 84, 86, 88, 89, 91, 93, 94, 96, 98, 100, 101, 103, 105, 106, 108, 110, 111, 113, 115
a(n) = floor(n*x/(x-1)) + 1, n>=0, where x=1+sqrt(2).
a(n) = floor(n/sqrt(2)) + n + 1.
[A083089] 0, 2, 4, 6, 7, 9, 11, 12, 14, 16, 18, 19, 21, 23, 24, 26, 28, 30, 31, 33, 35, 36, 38, 40, 42, 43, 45, 47, 48, 50, 52, 54, 55, 57, 59, 60, 62, 64, 66, 67, 69, 71, 72, 74, 76, 78, 79, 81, 83, 84, 86, 88, 90, 91, 93, 95, 96, 98, 100, 102, 103, 105, 107, 108, 110
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (84*n - 63 - 2*(n mod 7) - 2*((n+1) mod 7) + 5*((n+2) mod 7) - 2*((n+3) mod 7) - 2*((n+4) mod 7) - 2*((n+5) mod 7) + 5*((n+6) mod 7))/49.
a(7k) = 12k-1, a(7k-1) = 12k-3, a(7k-2) = 12k-5, a(7k-3) = 12k-6, a(7k-4) = 12k-8, a(7k-5) = 12k-10, a(7k-6) = 12k-12. (End)
a(n) = 2*n - 2 - floor(2*(n-1)/7). - Wesley Ivan Hurt, Sep 29 2017
[A047293] 0, 2, 4, 6, 7, 9, 11, 13, 14, 16, 18, 20, 21, 23, 25, 27, 28, 30, 32, 34, 35, 37, 39, 41, 42, 44, 46, 48, 49, 51, 53, 55, 56, 58, 60, 62, 63, 65, 67, 69, 70, 72, 74, 76, 77, 79, 81, 83, 84, 86, 88, 90, 91, 93, 95, 97, 98, 100, 102, 104, 105, 107, 109, 111
a(n) = floor(ceiling((7n + 2)/2)/2).
a(n) = 2n-2-floor((n-1)/4). - Gary Detlefs, Mar 27 2010
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (14n-11+i^(2n)+(1-i)*i^(-n)+(1+i)*i^n)/8 where i=sqrt(-1).
[A184585] 2, 4, 6, 7, 9, 11, 13, 15, 16, 18, 20, 22, 24, 25, 27, 29, 31, 33, 34, 36, 38, 40, 42, 44, 45, 47, 49, 51, 53, 54, 56, 58, 60, 62, 63, 65, 67, 69, 71, 72, 74, 76, 78, 80, 82, 83, 85, 87, 89, 91, 92, 94, 96, 98, 100, 101, 103, 105, 107, 109, 110, 112, 114, 116, 118, 119, 121, 123, 125, 127, 129, 130, 132, 134, 136, 138, 139, 141, 143, 145, 147, 148, 150, 152, 154, 156, 157, 159, 161, 163, 165, 167, 168, 170, 172, 174, 176, 177, 179, 181, 183, 185, 186, 188, 190, 192, 194, 195, 197, 199, 201, 203, 205, 206, 208, 210, 212, 214, 215, 217
a(n)=floor[(n+1/3)(1+r)], where r=sqrt(5).
[A047510] 2, 4, 6, 7, 10, 12, 14, 15, 18, 20, 22, 23, 26, 28, 30, 31, 34, 36, 38, 39, 42, 44, 46, 47, 50, 52, 54, 55, 58, 60, 62, 63, 66, 68, 70, 71, 74, 76, 78, 79, 82, 84, 86, 87, 90, 92, 94, 95, 98, 100, 102, 103, 106, 108, 110, 111, 114, 116, 118, 119, 122, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-1-i^(2*n)-i^(-n)-i^n)/4 where i=sqrt(-1).
[A047412] 0, 1, 2, 4, 6, 8, 9, 10, 12, 14, 16, 17, 18, 20, 22, 24, 25, 26, 28, 30, 32, 33, 34, 36, 38, 40, 41, 42, 44, 46, 48, 49, 50, 52, 54, 56, 57, 58, 60, 62, 64, 65, 66, 68, 70, 72, 73, 74, 76, 78, 80, 81, 82, 84, 86, 88, 89, 90, 92, 94, 96, 97, 98, 100, 102, 104, 105
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 55 - 2*(n mod 5) - 2*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5*k) = 8*k-2, a(5*k-1) = 8*k-4, a(5*k-2) = 8*k-6, a(5*k-3) = 8*k-7, a(5*k-4) = 8*k-8. (End)
[A184012] 2, 4, 6, 8, 9, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 34, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 87, 88, 89, 90, 92, 93, 94, 95, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106, 107, 108, 110, 111, 112, 113, 114, 115, 116, 117, 118, 120, 121, 122
a(n) = n + floor(sqrt(5n-4))
[A184638] 1, 2, 4, 6, 8, 9, 11, 13, 15, 16, 18, 20, 22, 23, 25, 27, 28, 30, 32, 34, 35, 37, 39, 41, 42, 44, 46, 47, 49, 51, 53, 54, 56, 58, 60, 61, 63, 65, 67, 68, 70, 72, 73, 75, 77, 79, 80, 82, 84, 86, 87, 89, 91, 93, 94, 96, 98, 99, 101, 103, 105, 106, 108, 110, 112, 113, 115, 117, 119, 120, 122, 124, 125, 127, 129, 131, 132, 134, 136, 138, 139, 141, 143, 144, 146, 148, 150, 151, 153, 155, 157, 158, 160, 162, 164, 165, 167, 169, 170, 172, 174, 176, 177, 179, 181, 183, 184, 186, 188, 190, 191, 193, 195, 196, 198, 200
a(n)=floor(nr+h), where r=sqrt(3), h=-1/2.
[A047294] 1, 2, 4, 6, 8, 9, 11, 13, 15, 16, 18, 20, 22, 23, 25, 27, 29, 30, 32, 34, 36, 37, 39, 41, 43, 44, 46, 48, 50, 51, 53, 55, 57, 58, 60, 62, 64, 65, 67, 69, 71, 72, 74, 76, 78, 79, 81, 83, 85, 86, 88, 90, 92, 93, 95, 97, 99, 100, 102, 104, 106, 107, 109, 111
a(n) = ceiling(floor((7*n - 5)/2)/2).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (-9 -(-1)^n + (1+i)*(-i)^n + (1-i)*i^n + 14*n)/8 where i=sqrt(-1). - Colin Barker, May 14 2012
[A228246] 1, 2, 4, 6, 8, 9, 11, 13, 15, 16, 18, 20, 22, 24, 26, 28, 29, 31, 33, 35, 37, 39, 41, 43, 44, 46, 48, 50, 52, 54, 56, 58, 60, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 105, 107, 109, 111, 113, 115, 117, 119
a(n) = round(2*n*(1-4^(-n)*Binom(2*n,n))); a(n) = 2*n*(1-1/sqrt(pi*n)) +
[A184587] 2, 4, 6, 8, 9, 11, 13, 15, 17, 18, 20, 22, 24, 26, 28, 29, 31, 33, 35, 37, 38, 40, 42, 44, 46, 47, 49, 51, 53, 55, 56, 58, 60, 62, 64, 66, 67, 69, 71, 73, 75, 76, 78, 80, 82, 84, 85, 87, 89, 91, 93, 94, 96, 98, 100, 102, 104, 105, 107, 109, 111, 113, 114, 116, 118, 120, 122, 123, 125, 127, 129, 131, 132, 134, 136, 138, 140, 142, 143, 145, 147, 149, 151, 152, 154, 156, 158, 160, 161, 163, 165, 167, 169, 170, 172, 174, 176, 178, 179, 181, 183, 185, 187, 189, 190, 192, 194, 196, 198, 199, 201, 203, 205, 207, 208, 210, 212, 214, 216, 217
a(n)=floor[(n+1/2)s], where s=(5+sqrt(5))/4.
[A225773] 2, 4, 6, 8, 9, 11, 13, 15, 18, 20, 22, 24, 25, 27, 29, 31, 34, 36, 38, 40, 41, 43, 45, 47, 50, 52, 54, 56, 57, 59, 61, 63
a(1) = 2
a(n) = a(n-1) + 2 + (mod(a(n-1)+1, 8) == 0) - (mod(a(n-1), 8) == 0)
[A276138] 0, 2, 4, 6, 8, 9, 20, 22, 24, 26, 28, 29, 40, 42, 44, 46, 48, 49, 60, 62, 64, 66, 68, 69, 80, 82, 84, 86, 88, 89, 90, 92, 94, 96, 98, 99, 200, 202, 204, 206, 208, 209, 220, 222, 224, 226, 228, 229, 240, 242, 244, 246, 248, 249, 260, 262, 264, 266
a(6n-6+k) = 10 a(n) + a(k) for k = 1..6. - Robert Israel, Aug 24 2016
[A214671] 0, 2, 4, 6, 8, 10, 11, 13, 15, 17, 19, 21, 22, 24, 26, 28, 30, 31, 33, 35, 37, 39, 41, 42, 44, 46, 48, 50, 52, 53, 55, 57, 59, 61, 63, 64, 66, 68, 70, 72, 74, 75, 77, 79, 81, 83, 85, 86, 88, 90, 92, 94, 95, 97, 99, 101, 103, 105, 106, 108, 110, 112, 114, 116, 117, 119
a(n) = floor((k+1/2)*alpha), with alpha/2 = x_0(0) defined in the comment section.
[A228295] 0, 2, 4, 6, 8, 10, 12, 14, 15, 17, 19, 21, 23, 25, 27, 28, 30, 32, 34, 36, 38, 40, 41, 43, 45, 47, 49, 51, 53, 54, 56, 58, 60, 62, 64, 66, 68, 69, 71, 73, 75, 77, 79, 81, 82, 84, 86, 88, 90, 92, 94, 95, 97, 99, 101, 103, 105, 107, 108, 110, 112, 114, 116, 118, 120, 121
a(n) = ceil(12^(1/4) * n).
[A184592] 2, 4, 6, 8, 10, 12, 14, 15, 17, 19, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 40, 42, 44, 45, 47, 49, 51, 53, 55, 57, 59, 60, 62, 64, 66, 68, 70, 72, 74, 75, 77, 79, 81, 83, 85, 87, 89, 90, 92, 94, 96, 98, 100, 102, 104, 105, 107, 109, 111, 113, 115, 117, 119, 120, 122, 124, 126, 128, 130, 132, 134, 135, 137, 139, 141, 143, 145, 147, 149, 150, 152, 154, 156, 158, 160, 162, 164, 165, 167, 169, 171, 173, 175, 177, 179, 180, 182, 184, 186, 188, 190, 192, 194, 195, 197, 199, 201, 203, 205, 207, 209, 210, 212, 214, 216, 218, 220, 222, 224, 225
a(n)=floor[(n*(pi-1)+1)/(pi-2)].
[A214673] 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 109, 111, 113, 115, 117, 119, 121, 123, 125
a(n) = floor((2*k+1)*tau/2), n>=0, with tau/2 = rho(0) defined in the comment section.
[A004275] 0, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104
a(n) = floor((2*n^2)/(1 + n)). - Enrique Pérez Herrero, Apr 05 2010

a(n) = 2n - 2 + floor(2/(n+1)) = max(n, 2n-2) = 2n - 1 + sgn(1-n). Also, a(0)=0, a(1)=1, a(n) = 2n-2 for n > 1. - Wesley Ivan Hurt, Nov 05 2013
[A005843] 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120
a(0) = 0, a(1) = 2, a(n) = 2a(n-1) - a(n-2). - Jaume Oliver Lafont, May 07 2008
a(n) = Sum_{k=1..n} floor(6n/4^k + 1/2). - Vladimir Shevelev, Jun 04 2009
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Dec 23 2011
[A004277] 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132
a(n) = sum{k=0..floor(n/2), binomial(n-k-1)(-1)^k*2^(n-2k)}. - Paul Barry, Jan 16 2005
[A276106] 1, 1, 1, 1, 1, 1, 1, 2, 4, 6, 8, 10, 12, 14, 17, 23, 33, 47, 65, 87, 113, 144, 184, 240, 320, 432, 584, 784, 1041, 1369, 1793, 2353, 3105, 4121, 5489, 7314, 9724, 12886, 17032, 22490, 29716, 39326, 52129, 69167, 91777, 121695, 161217, 213423, 282465, 373920, 495216, 656160, 869632, 1152544, 1527184
a(n) = a(n-1) + a(n-7) + a(n-8) for n > 7.
[A278453] 0, 1, 2, 4, 6, 8, 10, 12, 15, 17, 19, 22, 25, 27, 30, 33, 35, 38, 41, 44, 47, 50, 53, 56, 59, 62, 65, 68, 71, 75, 78, 81, 84, 88, 91, 94, 98, 101, 104, 108, 111, 114, 118, 121, 125, 128, 132, 135, 139, 142, 146, 149, 153, 157, 160, 164, 167, 171, 175, 178, 182, 186, 189, 193, 197, 201, 204, 208, 212, 216
a(n) = round(n*log_c((n+1)*log_c((n+2)*log_c(...)))). - Andrey Zabolotskiy, Nov 30 2016
[A011860] 0, 0, 0, 0, 1, 2, 4, 6, 8, 10, 12, 15, 18, 22, 26, 30, 34, 38, 43, 48, 54, 60, 66, 72, 78, 85, 92, 100, 108, 116, 124, 132, 141, 150, 160, 170, 180, 190, 200, 211, 222, 234, 246, 258, 270, 282, 295, 308, 322, 336, 350, 364, 378, 393, 408, 424, 440, 456, 472, 488, 505
a(n) = +2*a(n-1) -a(n-2) +a(n-7) -2*a(n-8) +a(n-9). G.f.: x^4*(x^2+1)/ ((1-x)^3 * (1+x+x^2+x^3+x^4+x^5+x^6)). [R. J. Mathar, Apr 15 2010]
[A259278] 1, 1, 1, 1, 1, 1, 2, 4, 6, 8, 10, 12, 15, 21, 31, 45, 63, 85, 112, 148, 200, 276, 384, 532, 729, 989, 1337, 1813, 2473, 3389, 4650, 6368, 8694, 11844, 16130, 21992, 30031, 41049, 56111, 76649, 104623, 142745, 194768, 265848, 363008, 495768, 677040, 924408, 1261921
a(n) = a(n-1) + a(n-6) + a(n-7).
[A049445] 1, 2, 4, 6, 8, 10, 12, 16, 18, 20, 21, 24, 32, 34, 36, 40, 42, 48, 55, 60, 64, 66, 68, 69, 72, 80, 81, 84, 92, 96, 108, 110, 115, 116, 120, 126, 128, 130, 132, 136, 138, 144, 155, 156, 160, 162, 168, 172, 180, 184, 185, 192, 204, 205, 212, 216, 220, 222, 228
a(n) seems to be asymptotic to c*n*log(n) where 0.7 < c < 0.8. - Benoit Cloitre, Jan 22 2003
[A090778] 1, 2, 4, 6, 8, 10, 12, 16, 18, 20, 24, 32, 36, 40, 42, 48, 50, 54, 60, 64, 72, 80, 84, 96, 100, 108, 114, 120, 126, 128, 136, 144, 156, 160, 162, 168, 180, 192, 200, 216, 220, 228, 240, 250, 252, 256, 272, 288, 294, 300, 312, 320, 324, 336, 342, 360, 378, 384, 400
a(n) seems to be asymptotic to c*n^2 with c=0.11.....
[A112421] 2, 4, 6, 8, 10, 12, 16, 20, 24, 28, 32, 36, 42, 48, 54, 60, 66, 72, 80, 88, 96, 104, 112, 120, 130, 140, 150, 160, 170, 180, 192, 204, 216, 228, 240, 252, 266, 280, 294, 308, 322, 336, 352, 368, 384, 400, 416, 432, 450, 468, 486, 504, 522, 540, 560, 580, 600
a(n) = 2*j*(n-3*j-3), where j=floor(n/6). - Jon E. Schoenfield, Dec 20 2013
[A182766] 2, 4, 6, 8, 10, 13, 15, 17, 19, 21, 23, 26, 28, 30, 32, 34, 36, 39, 41, 43, 45, 47, 49, 52, 54, 56, 58, 60, 62, 65, 67, 69, 71, 73, 76, 78, 80, 82, 84, 86, 89, 91, 93, 95, 97, 99, 102, 104, 106, 108, 110, 112, 115, 117, 119, 121, 123, 125, 128, 130, 132, 134, 136, 138, 141, 143, 145, 147, 149, 152, 154, 156, 158, 160, 162, 165, 167
a(n) = floor(s*n), where s = 5 - 2*sqrt(2).
[A061168] 0, 1, 2, 4, 6, 8, 10, 13, 16, 19, 22, 25, 28, 31, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 103, 108, 113, 118, 123, 128, 133, 138, 143, 148, 153, 158, 163, 168, 173, 178, 183, 188, 193, 198, 203, 208, 213, 218, 223, 228, 233, 238, 243, 248
a(n) = Sum_{k=1..n} floor(log_2(k)) = (n+1)*floor(log_2(n)) - 2*(2^floor(log_2(n)) - 1). - Diego Torres (torresvillarroel(AT)hotmail.com), Oct 29 2002
[A165453] 0, 1, 2, 4, 6, 8, 10, 13, 16, 19, 22, 25, 28, 32, 36, 40, 44, 48, 52, 56, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 116, 122, 128, 134, 140, 146, 152, 158, 164, 170, 176, 182, 189, 196, 203, 210, 217, 224, 231, 238, 245, 252, 259, 266, 273, 280, 288, 296, 304
a(0)=0, a(n) = max(min(a(n-1)+x, n+a(n-x))), where the maximum is taken over all values for x from 1 to n.
[A056827] 0, 0, 0, 1, 2, 4, 6, 8, 10, 13, 16, 20, 24, 28, 32, 37, 42, 48, 54, 60, 66, 73, 80, 88, 96, 104, 112, 121, 130, 140, 150, 160, 170, 181, 192, 204, 216, 228, 240, 253, 266, 280, 294, 308, 322, 337, 352, 368, 384, 400, 416, 433, 450, 468, 486, 504
a(n) = floor((1/2) * sum_{i=1..n+1} (ceiling(i/3) + floor(i/3) - 1)). - Wesley Ivan Hurt, Jun 06 2014
[A085577] 1, 1, 2, 4, 6, 8, 10, 13, 17, 20, 25, 29, 34, 40, 45, 52, 58, 65, 73, 80, 89, 97, 106, 116, 125, 136, 146, 157, 169, 180, 193, 205, 218, 232, 245, 260, 274, 289, 305, 320, 337, 353, 370, 388, 405, 424, 442, 461, 481, 500, 521, 541, 562, 584, 605, 628, 650
a(n) approaches n^2/5 as n -> infinity.
a(n) = 2*a(n-1)-a(n-2)+a(n-5)-2*a(n-6)+a(n-7) for n>8.
[A121832] 1, 1, 1, 1, 1, 2, 4, 6, 8, 10, 13, 19, 29, 43, 61, 84, 116, 164, 236, 340, 485, 685, 965, 1365, 1941, 2766, 3936, 5586, 7916, 11222, 15929, 22631, 32153, 45655, 64793, 91944, 130504, 185288, 263096, 373544, 530281, 752729, 1068521, 1516905
a(n) = a(n-1) + a(n-5) + a(n-6).
[A288732] 2, 4, 6, 8, 10, 14, 18, 22, 26, 34, 42, 50, 58, 74, 90, 106, 122, 154, 186, 218, 250, 314, 378, 442, 506, 634, 762, 890, 1018, 1274, 1530, 1786, 2042, 2554, 3066, 3578, 4090, 5114, 6138, 7162
a(n) = a(n-1) + 2*a(n-4) - 2*a(n-5) for n >= 5, where a(0) = 2, a(2) = 4, a(3) = 6, a(4) = 8, a(5) = 10.
[A226722] 1, 2, 4, 6, 8, 11, 12, 15, 17, 18, 21, 22, 25, 27, 29, 31, 33, 35, 37, 39, 41, 44, 45, 47, 50, 51, 54, 56, 58, 60, 61, 64, 66, 68, 70, 73, 74, 76, 78, 80, 83, 84, 87, 89, 90, 93, 95, 97, 99, 101, 103, 105, 107, 109, 112, 113, 116, 117, 119, 122, 123, 126
a(n) = 1 + n + floor(n*log_3(2)) + floor(n*log_5(2).
[A054683] 0, 2, 4, 6, 8, 11, 13, 15, 17, 19, 20, 22, 24, 26, 28, 31, 33, 35, 37, 39, 40, 42, 44, 46, 48, 51, 53, 55, 57, 59, 60, 62, 64, 66, 68, 71, 73, 75, 77, 79, 80, 82, 84, 86, 88, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 110, 112, 114, 116, 118, 121, 123, 125, 127, 129, 130
a(n) = n * 2 for the first 5 numbers; a(n) = n * 2 + 1 for the second 5 numbers (recurrence)
[A184809] 2, 4, 6, 8, 11, 13, 15, 17, 20, 22, 24, 26, 28, 31, 33, 35, 37, 40, 42, 44, 46, 48, 51, 53, 55, 57, 60, 62, 64, 66, 68, 71, 73, 75, 77, 80, 82, 84, 86, 88, 91, 93, 95, 97, 100, 102, 104, 106, 109, 111, 113, 115, 117, 120, 122, 124, 126, 129, 131, 133, 135
a(n) = n + floor(r*n), where r = sqrt(3/2).
[A077473] 1, 2, 4, 6, 8, 11, 13, 18, 21, 24, 27, 28, 30, 32, 35, 37, 40, 43, 45, 50, 51, 59, 62, 64, 73, 76, 79, 82, 83, 86, 87, 93, 96, 99, 100, 103, 106, 108, 110, 112, 113, 117, 118, 121, 123, 126, 127, 131, 137, 139, 140, 143, 145, 146, 148, 154, 155, 157, 163, 165, 166
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(5/9) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 2.8... - Benoit Cloitre
[A011858] 0, 0, 0, 1, 2, 4, 6, 8, 11, 14, 18, 22, 26, 31, 36, 42, 48, 54, 61, 68, 76, 84, 92, 101, 110, 120, 130, 140, 151, 162, 174, 186, 198, 211, 224, 238, 252, 266, 281, 296, 312, 328, 344, 361, 378, 396, 414, 432, 451, 470, 490, 510, 530, 551, 572, 594, 616, 638, 661, 684
a(1-n) = a(n). a(n) = a(n-5) + 2*n - 6 for all n in Z. - Michael Somos, Jul 04 2011
a(n) = a(n-1) + a(n-5) - a(n-6) + 2 for all n in Z. - Michael Somos, Jul 06 2011
a(n) = (1/5) * (n^2 - n + [0,0,-2,-1,-2](mod 5)). - Ralf Stephan, Aug 11 2013
a(n) - 2*a(n+1) + a(n+2) = (n == 1 (mod 5)) + (n == 3 (mod 5)) for all n in Z. - Michael Somos, Oct 19 2014
[A084627] 1, 1, 2, 4, 6, 8, 11, 14, 18, 22, 28, 34, 40, 48, 57, 66, 77, 88, 101, 115, 130, 146, 163, 182, 203, 224, 248, 272, 299, 327, 357, 388, 421, 456, 494, 533, 574, 617, 662, 709, 759, 810, 864, 921, 980, 1041, 1105, 1171, 1240, 1311, 1386, 1463, 1542, 1625, 1711
a(n)=floor(n^3/120+n^2/8+37n/60)+1
[A039823] 1, 2, 4, 6, 8, 11, 15, 19, 23, 28, 34, 40, 46, 53, 61, 69, 77, 86, 96, 106, 116, 127, 139, 151, 163, 176, 190, 204, 218, 233, 249, 265, 281, 298, 316, 334, 352, 371, 391, 411, 431, 452, 474, 496, 518, 541, 565, 589, 613, 638, 664, 690, 716, 743, 771, 799, 827
a(n) = (n*(n+1)+i^(n*(n+1))+3)/4, where i=sqrt(-1). - Bruno Berselli, Jul 25 2012
a(n) = 3*a(n-1)-4*a(n-2)+4*a(n-3)-3*a(n-4)+a(n-5) for n>5. - Wesley Ivan Hurt, Sep 25 2015
a(n) = ceiling((n^2+n+1)/4). - Bob Selcoe, Sep 26 2015
[A079972] 1, 1, 1, 1, 2, 4, 6, 8, 11, 17, 27, 41, 60, 88, 132, 200, 301, 449, 669, 1001, 1502, 2252, 3370, 5040, 7543, 11297, 16919, 25329, 37912, 56752, 84968, 127216, 190457, 285121, 426841, 639025, 956698, 1432276, 2144238, 3210104, 4805827, 7194801
a(n) = a(n-1) + a(n-4) + a(n-5).
a(n)=sum(k=0..n, sum(j=floor((n-k)/4)..floor((n-k)/3), binomial(k,j)*binomial(j,n-k-3*j))); [From Vladimir Kruchinin, May 26 2011]

[A006998] 0, 1, 2, 4, 6, 8, 12, 14, 16, 24, 26, 28, 32, 40, 48, 52, 54, 56, 64, 72, 80, 96, 100, 104, 108, 110, 112, 128, 136, 144, 160, 176, 192, 200, 204, 208, 216, 218, 220, 224, 240, 256, 272
a(n) = a([2n/3]) + a([(2n+1)/3]).
[A007694] 1, 2, 4, 6, 8, 12, 16, 18, 24, 32, 36, 48, 54, 64, 72, 96, 108, 128, 144, 162, 192, 216, 256, 288, 324, 384, 432, 486, 512, 576, 648, 768, 864, 972, 1024, 1152, 1296, 1458, 1536, 1728, 1944, 2048, 2304, 2592, 2916, 3072, 3456, 3888, 4096
a(n) is approximately exp(sqrt(2*log(2)*log(3)*n))/sqrt(3/2). - Charles R Greathouse IV, Nov 10 2015
[A082662] 1, 2, 4, 6, 8, 12, 16, 20, 24, 28, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 144, 160, 176, 192, 208, 224, 240, 256, 272, 288, 304, 320, 336, 352, 368, 384, 400, 416, 432, 448, 464, 480, 496, 512, 544, 576, 608, 640, 672, 704, 736, 768, 800
a(1) = 1. a(3*2^m + k - 2) = 2^(2m+1) + (k-1)*2^(m+1), where m >= 0, k=1..(3*2^m).
[A061553] 2, 4, 6, 8, 12, 16, 20, 28, 36, 44, 54, 72, 92, 104, 138, 176, 212, 268, 332, 416, 508, 628, 776, 968, 1192, 1480, 1836, 2288, 2812, 3472, 4292, 5312, 6572, 8120, 10028, 12388, 15300, 18860, 23276, 28740, 35468, 43732, 53954, 66540, 82016, 101044
a(n) := |c(n, 0)| + |c(n, 1)| + ... + |c(n, n(n+1)/2)| where c(n, j) are the coefficients of the polynomial P(n, x) := (1-x)(1-x^2)(1-x^3)...(1-x^n)
[A288603] 2, 4, 6, 8, 12, 18, 28, 44, 70, 112, 180, 290, 468, 756, 1222, 1976, 3196, 5170, 8364, 13532, 21894, 35424, 57316, 92738, 150052, 242788, 392838, 635624, 1028460, 1664082, 2692540, 4356620, 7049158, 11405776, 18454932, 29860706, 48315636, 78176340, 126491974
a(n) = 2*a(n-1) - a(n-3) for n >= 3, where a(0) = 2, a(1) = 4, a(2) = 6, a(3) = 8.
[A283769] 2, 4, 6, 8, 13, 15, 17, 19, 21, 26, 28, 30, 32, 39, 41, 43, 45, 52, 54, 56, 58, 65, 67, 69, 71, 78, 80, 82, 84, 89, 91, 93, 95, 97, 102, 104, 106, 108, 110, 115, 117, 119, 121, 128, 130, 132, 134, 141, 143, 145, 147, 154, 156, 158, 160, 167, 169, 171, 173
a(n+1) - a(n) is in {2,5,7} for every n.
[A213506] 1, 1, 2, 4, 6, 8, 13, 17, 23, 31, 40, 50, 65, 79, 97, 119, 143, 169, 203, 237, 277, 323, 373, 427, 492, 558, 633, 717, 807, 903, 1014, 1128, 1254, 1392, 1539, 1695, 1870, 2050, 2246, 2458, 2682, 2918, 3178, 3446, 3734, 4042, 4366, 4706, 5075, 5455, 5860
a(n) = sum_{r+s+t=n, r >= s >= t >= 0}((t+1)+(1/2)*min{t,r-s}*(2t+1-min{t,r-s}).
a(n) = floor((n^4+26*n^3+234*n^2+(909-64*(n mod 3))*n+1701)/1728+(n+1)*(-1)^n/64). [Tani Akinari, Jun 28 2014 - see PARI code]
[A192333] 0, 2, 4, 6, 8, 15, 17, 19, 21, 23, 30, 32, 34, 36, 38, 45, 47, 49, 51, 53, 60, 62, 64, 66, 68, 75, 77, 79, 81, 83, 90, 92, 94, 96, 98, 105, 107, 109, 111, 113, 120, 122, 124, 126, 128, 135, 137, 139, 141, 143, 150, 152, 154, 156, 158, 165
a(n) = 5*floor((n-1)/5) + 2*n - 2.
[A014263] 0, 2, 4, 6, 8, 20, 22, 24, 26, 28, 40, 42, 44, 46, 48, 60, 62, 64, 66, 68, 80, 82, 84, 86, 88, 200, 202, 204, 206, 208, 220, 222, 224, 226, 228, 240, 242, 244, 246, 248, 260, 262, 264, 266, 268, 280, 282, 284, 286, 288, 400, 402, 404, 406, 408, 420, 422, 424
a(n) = ((2*b_m(n)) mod 8 + 2)*10^m + sum_{j=0..m-1} ((2*b_j(n)) mod 10)*10^j, where n>1, b_j(n)) = floor((n-1-5^m)/5^j), m = floor(log_5(n-1)).
a(1*5^n+1) = 2*10^n.
a(2*5^n+1) = 4*10^n.
a(3*5^n+1) = 6*10^n.
a(4*5^n+1) = 8*10^n.
a(n) = 2*10^log_5(n-1) for n=5^k+1,
[A210380] 1, 2, 4, 6, 9, 10, 11, 15, 18, 20, 21, 24, 26, 28, 32, 34, 36, 38, 40, 42, 50, 52, 54, 56, 58, 60, 62, 64, 72, 74, 76, 78, 80, 82, 84, 86, 88, 99, 101, 103, 105, 107, 109, 111, 114, 116, 118, 129, 130, 133, 135, 137, 139, 141, 143, 145, 152, 159, 160, 163, 167
a(n) <= (32/11)n - 2. Erdos conjectures that a(n) >= (32/11)n - k for some fixed k.
[A047411] 1, 2, 4, 6, 9, 10, 12, 14, 17, 18, 20, 22, 25, 26, 28, 30, 33, 34, 36, 38, 41, 42, 44, 46, 49, 50, 52, 54, 57, 58, 60, 62, 65, 66, 68, 70, 73, 74, 76, 78, 81, 82, 84, 86, 89, 90, 92, 94, 97, 98, 100, 102, 105, 106, 108, 110, 113, 114, 116, 118, 121, 122, 124, 126, 129, 130
a(n) = a(n-4)+8.
a(n) = a(n-1) + a(n-4) - a(n-5) for n > 5. - R. J. Mathar, Feb 11 2010
a(n) = (8n-7-i^(2n)+i^(1-n)-i^(1+n))/4 where i=sqrt(-1).
a(n) = (8*n-7-cos(n*Pi)+2*sin(n*Pi/2))/4. - Wesley Ivan Hurt, Oct 05 2017
[A252169] 2, 4, 6, 9, 11, 13, 15, 18, 20, 22, 24, 27, 29, 31, 33, 36, 38, 40, 42, 45, 47, 49, 51, 54, 56, 58, 60, 63, 65, 67, 69, 72, 74, 76, 78, 81, 83, 85, 87, 90, 92, 94, 96, 99, 101, 103, 105, 108, 110, 112, 114, 117, 119, 121, 124, 126, 128, 130
a(n) = floor(n*sqrt(Pi*phi)) = floor(n*sqrt(Pi*(1+sqrt(5))/2)).
[A059566] 2, 4, 6, 9, 11, 13, 15, 18, 20, 22, 25, 27, 29, 31, 34, 36, 38, 41, 43, 45, 47, 50, 52, 54, 57, 59, 61, 63, 66, 68, 70, 72, 75, 77, 79, 82, 84, 86, 88, 91, 93, 95, 98, 100, 102, 104, 107, 109, 111, 114, 116, 118, 120, 123, 125, 127, 129, 132, 134, 136, 139, 141, 143
a(n) = floor(n*e^gamma/(e^gamma-1)). - Michel Marcus, Jan 04 2015
[A059545] 2, 4, 6, 9, 11, 13, 16, 18, 20, 23, 25, 27, 29, 32, 34, 36, 39, 41, 43, 46, 48, 50, 52, 55, 57, 59, 62, 64, 66, 69, 71, 73, 75, 78, 80, 82, 85, 87, 89, 92, 94, 96, 99, 101, 103, 105, 108, 110, 112, 115, 117, 119, 122, 124, 126, 128, 131, 133, 135, 138, 140, 142, 145, 147
a(n) = floor(n*log(10)). - Stefan Steinerberger, May 09 2006
[A187339] 2, 4, 6, 9, 11, 13, 16, 18, 20, 23, 25, 27, 30, 32, 34, 36, 39, 41, 43, 46, 48, 50, 53, 55, 57, 60, 62, 64, 66, 69, 71, 73, 76, 78, 80, 83, 85, 87, 90, 92, 94, 96, 99, 101, 103, 106, 108, 110, 113, 115, 117, 120, 122, 124, 126, 129, 131, 133, 136, 138, 140, 143, 145
a(n)=floor((7+sqrt(5))*n/4).
[A047292] 2, 4, 6, 9, 11, 13, 16, 18, 20, 23, 25, 27, 30, 32, 34, 37, 39, 41, 44, 46, 48, 51, 53, 55, 58, 60, 62, 65, 67, 69, 72, 74, 76, 79, 81, 83, 86, 88, 90, 93, 95, 97, 100, 102, 104, 107, 109, 111, 114, 116, 118, 121, 123, 125, 128, 130, 132, 135, 137, 139, 142, 144
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = floor((7*n-1)/3). [Gary Detlefs, May 14 2011]
a(n) = 2*n + ceiling(n/3) - 1. - Arkadiusz Wesolowski, Sep 19 2012
a(n) = (21*n-6-3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-3, a(3k-2) = 7k-5. (End)
[A184627] 2, 4, 6, 9, 11, 13, 16, 18, 20, 23, 25, 28, 30, 32, 35, 37, 39, 42, 44, 46, 49, 51, 54, 56, 58, 61, 63, 65, 68, 70, 73, 75, 77, 80, 82, 84, 87, 89, 91, 94, 96, 99, 101, 103, 106, 108, 110, 113, 115, 117, 120, 122, 125, 127, 129, 132, 134, 136, 139, 141, 143, 146, 148, 151, 153, 155, 158, 160, 162, 165, 167, 170, 172, 174, 177, 179, 181, 184, 186, 188, 191, 193, 196, 198, 200, 203, 205, 207, 210, 212, 214, 217, 219, 222, 224, 226, 229, 231, 233, 236, 238, 240, 243, 245, 248, 250, 252, 255, 257, 259, 262, 264, 267, 269, 271, 274, 276, 278, 281, 283
a(n)=floor((n-h)*s+h), where s=(3+sqrt(3))/2 and h=1/4.
[A224995] 2, 4, 6, 9, 11, 14, 16, 19, 21, 24, 26, 29, 31, 34, 36, 38, 41, 43, 46, 48, 51, 53, 56, 58, 61, 63, 66, 68, 71, 73, 75, 78, 80, 83, 85, 88, 90, 93, 95, 98, 100, 103, 105, 108, 110, 112, 115, 117, 120, 122, 125, 127, 130, 132, 135, 137, 140, 142, 145, 147, 149
a(n) = floor(n/log(3/2)-1/2) for n>1. - Andrey Zabolotskiy, Dec 01 2017
[A091626] 1, 2, 4, 6, 9, 11, 14, 16, 19, 22, 25, 27, 31, 33, 36, 39, 43, 45, 49, 51, 55, 58, 61, 63, 68, 71, 74, 77, 81, 83, 88, 90, 94, 97, 100, 103, 109, 111, 114, 117, 122, 124, 129, 131, 135, 139, 142, 144, 150, 153, 157, 160, 164, 166, 171, 174, 179, 182, 185, 187
a(n) = a(n-1) + ceiling(tau(n)/2) + 1, n>1. - Vladeta Jovovic, Jun 12 2004
[A276223] 2, 4, 6, 9, 11, 14, 17, 19, 22, 24, 27, 30, 33, 35, 38, 41, 44, 47, 49, 52, 55, 58, 61, 64, 67, 70, 73, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 143, 146, 149, 152, 155, 158, 161, 165, 168, 171, 174
a(n) = n + floor(n^(Pi/e)); the complement is given by n + floor(n^(e/Pi)).
[A054519] 1, 2, 4, 6, 9, 11, 15, 17, 21, 24, 28, 30, 36, 38, 42, 46, 51, 53, 59, 61, 67, 71, 75, 77, 85, 88, 92, 96, 102, 104, 112, 114, 120, 124, 128, 132, 141, 143, 147, 151, 159, 161, 169, 171, 177, 183, 187, 189, 199, 202, 208, 212, 218, 220, 228, 232, 240, 244, 248
a(n) = Sum_{i=1..n+1} ceiling((n+1)/(i+1)). - Wesley Ivan Hurt, Sep 15 2017
[A014011] 1, 2, 4, 6, 9, 12, 15, 18, 21, 24, 28, 32, 36, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 96, 102, 108, 114, 120, 126, 133, 140, 147, 154, 161, 168, 176, 184, 192, 200, 208, 216, 225, 234, 243, 252, 261, 270, 280, 290, 300, 310, 320, 330, 341, 352, 363, 374, 385
a(n) = max{(k+1)*(n-a(k)): 1<=k<n}, a(1) = 1. - Reinhard Zumkeller, Jul 10 2013
[A083652] 1, 2, 4, 6, 9, 12, 15, 18, 22, 26, 30, 34, 38, 42, 46, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 136, 142, 148, 154, 160, 166, 172, 178, 184, 190, 196, 202, 208, 214, 220, 226, 232, 238, 244, 250, 256, 262, 268, 274, 280, 286, 292
a(n) = 2 + (n+1)*ceiling(log_2(n+1)) - 2^ceiling(log_2(n+1)).

[A294060] 0, 0, 1, 2, 4, 6, 9, 12, 15, 18, 22, 26, 31, 36, 42, 48, 54, 60, 66, 72, 79, 86, 94, 102, 110, 118, 127, 136, 146, 156, 167, 178, 189, 200, 212, 224, 236, 248, 261, 274, 287, 300, 314, 328, 343, 358, 374, 390, 406, 422, 438, 454, 471, 488, 505, 522, 539, 556
a(n) = Sum_{i=1..floor(n/2)} (n - 2i) * mu(i)^2.
[A036441] 2, 4, 6, 9, 12, 15, 20, 25, 30, 35, 42, 49, 56, 63, 70, 77, 88, 99, 110, 121, 132, 143, 156, 169, 182, 195, 208, 221, 238, 255, 272, 289, 306, 323, 342, 361, 380, 399, 418, 437, 460, 483, 506, 529, 552, 575, 598, 621, 644, 667, 696, 725, 754, 783, 812, 841, 870
a(n) = p(m)*(n+2-p(m)), where p(k) is the k-th prime and m is the smallest index such that n+2 <= p(m) + p(m+1). - Max Alekseyev, Oct 21 2008
[A257637] 0, 1, 2, 4, 6, 9, 12, 16, 17, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120
a(9) = 17.
[A033291] 1, 2, 4, 6, 9, 12, 16, 20, 24, 28, 30, 35, 40, 45, 50, 54, 60, 66, 72, 78, 84, 91, 98, 105, 112, 119, 126, 133, 136, 144, 152, 160, 168, 176, 184, 192, 198, 207, 216, 225, 234, 243, 252, 261, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 374, 385, 396, 407, 418, 429, 440, 451, 462
a(n) = q(n)*n-q(n)*floor(q(n)*(q(n)+1)/6) with q(n) = ceil((1/2)*(-1+sqrt(1+8*(n)))).
[A002620] 0, 0, 1, 2, 4, 6, 9, 12, 16, 20, 25, 30, 36, 42, 49, 56, 64, 72, 81, 90, 100, 110, 121, 132, 144, 156, 169, 182, 196, 210, 225, 240, 256, 272, 289, 306, 324, 342, 361, 380, 400, 420, 441, 462, 484, 506, 529, 552, 576, 600, 625, 650, 676, 702, 729, 756, 784, 812
a(n) = (2*n^2-1+(-1)^(n))/8. - Paul Barry, May 27 2003
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Jaume Oliver Lafont, Dec 05 2008
a(-n) = a(n) for all n in Z.
a(n) = a(n-1) + a(n-2) - a(n-3) + 1 [with a(-1) = a(0) = a(1) = 0], a(2k) = k^2, a(2k-1) = k(k-1). - Henry Bottomley, Mar 08 2000
a(n) = Sum_{k=1..n} floor(k/2). - Yong Kong (ykong(AT)curagen.com), Mar 10 2001
a(n) = n*floor((n-1)/2) - floor((n-1)/2)*(floor((n-1)/2)+ 1); a(n) = a(n-2) + n-2 with a(1) = 0, a(2) = 0. - Santi Spadaro, Jul 13 2001
[A087811] 1, 2, 4, 6, 9, 12, 16, 20, 25, 30, 36, 42, 49, 56, 64, 72, 81, 90, 100, 110, 121, 132, 144, 156, 169, 182, 196, 210, 225, 240, 256, 272, 289, 306, 324, 342, 361, 380, 400, 420, 441, 462, 484, 506, 529, 552, 576, 600, 625, 650, 676, 702, 729, 756, 784, 812, 841
a(n) = (n + n mod 2)*(n + 2 - n mod 2)/4.
a(1) = 1, a(2) = 2, a(n) = n + a(n - 2). - Alonso del Arte, Jun 18 2005
a(n) = (C(n+2,2)-floor((n+2)/2))/2. - Mircea Merca, Nov 23 2013
a(n) = ((-1)^n*(-1 + (-1)^n*(1 + 2*n*(2 + n))))/8. - Fred Daniel Kline, Jan 06 2015
a(n) = Product_{k=1...n-1}(1 + 2 / (k + k mod 2)), n>=1. - Fred Daniel Kline, Oct 30 2016
[A224813] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 6, 9, 12, 16, 20, 25, 30, 36, 42, 49, 56, 64, 80, 100, 130, 169, 221, 289, 374, 484, 616, 784, 980, 1225, 1505, 1849, 2279, 2809, 3498, 4356, 5478, 6889, 8715, 11025, 13965, 17689, 22344, 28224, 35448, 44521, 55704, 69696, 87120, 108900, 136290, 170569, 213934, 268324, 337218, 423801, 533169, 670761, 843570
a(n) = a(n-1) +a(n-7) -a(n-8) +a(n-9) -a(n-10) +a(n-11) -a(n-12) +a(n-13) +3*a(n-14) -2*a(n-15) +2*a(n-16) -a(n-17) +a(n-18) -3*a(n-21) +2*a(n-22) -4*a(n-23) +2*a(n-24) -3*a(n-25) -3*a(n-28) +a(n-29) -2*a(n-30) +3*a(n-35) -a(n-36) +3*a(n-37) +a(n-42) -a(n-49).
[A224812] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 6, 9, 12, 16, 20, 25, 30, 36, 42, 49, 63, 81, 108, 144, 192, 256, 336, 441, 567, 729, 918, 1156, 1462, 1849, 2365, 3025, 3905, 5041, 6532, 8464, 10948, 14161, 18207, 23409, 29988, 38416, 49196, 63001, 80822, 103684, 133308, 171396, 220662, 284089, 365638, 470596, 605052, 777924, 999306, 1283689, 1648515
a(n) = a(n-1) +a(n-7) -a(n-8) +a(n-9) -a(n-10) +a(n-11) +3*a(n-12) -2*a(n-13) +2*a(n-14) -a(n-15) +a(n-16) -2*a(n-19) +a(n-20) -2*a(n-21) -3*a(n-24) +a(n-25) -2*a(n-26) +a(n-31) +a(n-36).
[A224811] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 6, 9, 12, 16, 20, 25, 30, 36, 48, 64, 88, 121, 165, 225, 300, 400, 520, 676, 884, 1156, 1530, 2025, 2700, 3600, 4800, 6400, 8480, 11236, 14840, 19600, 25900, 34225, 45325, 60025, 79625, 105625, 140075, 185761, 246101, 326041, 431676, 571536, 756756, 1002001, 1327326, 1758276, 2329782, 3087049, 4090296, 5419584
a(n) = a(n-1) +a(n-5) -a(n-6) +a(n-7) -a(n-8) +a(n-9) +2*a(n-10) -a(n-11) +a(n-12) -2*a(n-15) +a(n-16) -2*a(n-17) -a(n-20) +a(n-25).
[A224808] 1, 1, 1, 1, 1, 1, 1, 2, 4, 6, 9, 12, 16, 20, 25, 35, 49, 70, 100, 140, 196, 266, 361, 494, 676, 936, 1296, 1800, 2500, 3450, 4761, 6555, 9025, 12445, 17161, 23711, 32761, 45250, 62500, 86250, 119025, 164220, 226576, 312732, 431649, 595899, 822649, 1135564, 1567504, 2163456, 2985984
a(n) = a(n-1) + a(n-5) - a(n-6) + a(n-7) + 2*a(n-8) - a(n-9) + a(n-10) - a(n-13) + a(n-16).
[A022778] 1, 2, 4, 6, 9, 12, 16, 21, 26, 32, 38, 45, 52, 60, 69, 78, 88, 98, 109, 120, 132, 145, 158, 172, 186, 201, 217, 233, 250, 267, 285, 303, 322, 342, 362, 383, 404, 426, 448, 471, 495, 519, 544, 569, 595, 621, 648, 676, 704, 733, 762, 792, 823, 854
a(n) = n + 1 + Sum{floor[(n - k)/sqrt(3)], k = 0..n}.
[A224809] 1, 1, 1, 1, 1, 2, 4, 6, 9, 12, 16, 24, 36, 54, 81, 117, 169, 247, 361, 532, 784, 1148, 1681, 2460, 3600, 5280, 7744, 11352, 16641, 24381, 35721, 52353, 76729, 112462, 164836, 241570, 354025, 518840, 760384, 1114416, 1633284
a(n) = a(n-1) + a(n-3) - a(n-4) + a(n-5) + a(n-6) - a(n-9).
[A229093] 0, 0, 1, 2, 4, 6, 9, 12, 17, 22, 27, 34, 41, 48, 57, 66, 75, 86, 97, 108, 121, 134, 147, 162, 177, 192, 209, 226, 243, 262, 281, 300, 321, 342, 363, 386, 409, 432, 457, 482, 507, 534, 561, 588, 617, 646, 675, 706, 737, 768, 801, 834, 867, 902, 937, 972, 1009, 1046
a(n) = ceiling((n-1)^2/3), a(0) = 0, a(4) = 4.
[A102379] 0, 1, 2, 4, 6, 9, 12, 17, 22, 29, 36, 46, 56, 69, 82, 100, 118, 141, 164, 194, 224, 261, 298, 345, 392, 449, 506, 576, 646, 729, 812, 913, 1014, 1133, 1252, 1394, 1536, 1701, 1866, 2061, 2256, 2481, 2706, 2968, 3230, 3529, 3828, 4174, 4520, 4913
a(n) = a(n-1) + a([n/2]) + 1, a(1) = 0
[A238374] 1, 2, 4, 6, 9, 12, 17, 22, 30, 38, 51, 64, 85, 106, 140, 174, 229, 284, 373, 462, 606, 750, 983, 1216, 1593, 1970, 2580, 3190, 4177, 5164, 6761, 8358, 10942, 13526, 17707, 21888, 28653, 35418, 46364, 57310, 75021, 92732, 121389, 150046, 196414, 242782
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-5), a(0) = 1, a(1) = 2, a(2) = 4, a(3) = 6, a(4) = 9.
[A267161] 0, 2, 4, 6, 9, 12, 18, 20, 31, 35, 48, 50, 69, 73, 94, 96, 123, 127, 156, 158, 193, 197, 234, 236, 279, 283, 328, 330, 381, 385, 438, 440, 499, 503, 564, 566, 633, 637, 706, 708, 783, 787, 864, 866, 949, 953, 1038, 1040, 1131, 1135, 1228, 1230, 1329, 1333
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7) for n>12.
[A255977] 1, 2, 4, 6, 9, 13, 17, 22, 27, 33, 40, 47, 55, 64, 73, 83, 93, 104, 116, 128, 141, 154, 168, 183, 198, 214, 231, 248, 266, 284, 303, 323, 343, 364, 386, 408, 431, 454, 478, 503, 528, 554, 580, 607, 635, 663, 692, 722, 752, 783, 814, 846, 879, 912, 946, 980
a(n) = n + 1 + Sum{floor[(n - k)/tau], k = 0..n}, where tau = (1 + sqrt(5))/2.
[A087483] 1, 2, 4, 6, 9, 13, 17, 22, 28, 34, 41, 49, 57, 66, 76, 86, 97, 109, 121, 134, 148, 162, 177, 193, 209, 226, 244, 262, 281, 301, 321, 342, 364, 386, 409, 433, 457, 482, 508, 534, 561, 589, 617, 646, 676, 706, 737, 769, 801, 834, 868, 902, 937, 973, 1009, 1046, 1084
a(n) = n + 1 - floor(n/3) + Sum_{i=1..n} floor(2i/3).
[A006697] 1, 2, 4, 6, 9, 13, 17, 22, 28, 35, 43, 51, 60, 70, 81, 93, 106, 120, 135, 151, 167, 184, 202, 221, 241, 262, 284, 307, 331, 356, 382, 409, 437, 466, 496, 527, 559, 591, 624, 658, 693, 729, 766, 804, 843, 883, 924, 966, 1009, 1053, 1098, 1144, 1191, 1239
a(n) = sum(k=0,n,min(2^k,n-k+1)) = 2^(m+1)-1 + (n-m)(n-m+1)/2 with m = [n+1-LambertW(2^(n+1) * log(2)) / log(2)] = integer part of the solution to 2^m = n+1-m. (conjectured). - M. F. Hasler, Dec 14 2007
[A247179] 0, 0, 2, 4, 6, 9, 13, 18, 23, 29, 35, 42, 50, 58, 67, 76, 87, 98, 109, 121, 134, 147, 161, 176, 191, 207, 224, 241, 259, 277, 296, 316, 337, 358, 379, 402, 424, 448, 472, 497, 523, 549, 575, 603, 631, 660, 689, 719, 749, 781, 812, 845, 878, 912, 946, 981, 1017, 1053, 1090
a(n) = Floor((n/tan(Pi/n)) - Pi*((n/2)-1)).
[A175780] 0, 0, 0, 0, 0, 1, 2, 4, 6, 9, 13, 18, 24, 31, 39, 48, 58, 70, 83, 98, 114, 132, 152, 174, 198, 224, 252, 282, 314, 349, 386, 426, 468, 513, 561, 612, 666, 723, 783, 846, 912, 982, 1055, 1132, 1212, 1296, 1384, 1476, 1572, 1672, 1776
a(n)=round((2*n+1)*(2*n^2+2*n-37)/288).
a(n)=floor((2*n+11)*(n-2)^2/144).
a(n)=ceil((2*n-9)*(n+3)^2/144).
a(n)=a(n-24)+(n+1)(n-24)+198 , n>23.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-12) -3*a(n-13) +3*a(n-14) -a(n-15). [R. J. Mathar, Dec 06 2010]
[A114830] 1, 2, 4, 6, 9, 13, 18, 24, 31, 39, 48, 59, 71, 85, 101, 119, 139, 162, 187, 215, 246, 280, 318, 359, 404, 453, 507, 565, 628, 697, 771, 851, 937, 1029, 1128, 1234, 1348, 1470, 1600, 1738, 1885, 2042, 2209, 2386, 2574, 2773, 2984, 3207, 3443, 3692, 3955, 4232, 4524, 4831, 5154, 5494, 5851, 6226, 6620

a(1) = 1, a(n+1) = a(n) + ceiling(GeometricMean[a(1),a(2),...,a(n)]). a(n+1) = a(n) + ceiling[((a(1)*a(2)*,...,*a(n))^(1/n)].
[A177239] 0, 0, 0, 0, 1, 2, 4, 6, 9, 13, 18, 24, 31, 39, 49, 60, 73, 87, 103, 121, 141, 163, 187, 213, 242, 273, 307, 343, 382, 424, 469, 517, 568, 622, 680, 741, 806, 874, 946, 1022, 1102, 1186, 1274, 1366, 1463, 1564, 1670, 1780, 1895, 2015, 2140
a(n)=round((2*n+1)*(2*n^2+2*n-15)/240).
a(n)=floor((n+4)*(2*n^2-5*n+6)/120).
a(n)=ceil((n-3)*(2*n^2+9*n+13)120).
a(n)=round(n*(n-2)*(2*n+7)/120).
a(n)=a(n-20)+(n+1)*(n-20)+141, n>19.
a(n)= +2*a(n-1) -2*a(n-3) +a(n-4) +a(n-5) -2*a(n-6) +2*a(n-8) -a(n-9) with g.f. x^4 / ((1+x)*(x^4+x^3+x^2+x+1)*(x-1)^4). - R. J. Mathar, Dec 12 2010
[A001304] 1, 2, 4, 6, 9, 13, 18, 24, 31, 39, 49, 60, 73, 87, 103, 121, 141, 163, 187, 213, 242, 273, 307, 343, 382, 424, 469, 517, 568, 622, 680, 741, 806, 874, 946, 1022, 1102, 1186, 1274, 1366, 1463, 1564, 1670, 1780, 1895, 2015, 2140, 2270, 2405, 2545, 2691, 2842
a(n) = floor((n+8)*(2*n^2+11*n+18)/120). - Tani Akinari, May 14 2014
[A000064] 1, 2, 4, 6, 9, 13, 18, 24, 31, 39, 50, 62, 77, 93, 112, 134, 159, 187, 218, 252, 292, 335, 384, 436, 494, 558, 628, 704, 786, 874, 972, 1076, 1190, 1310, 1440, 1580, 1730, 1890, 2060, 2240, 2435, 2640, 2860, 3090, 3335, 3595, 3870, 4160, 4465, 4785, 5126
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) + a(n-5) - 2*a(n-6) + 2*a(n-8) - a(n-9) + a(n-10) - 2*a(n-11) + 2*a(n-13) - a(n-14) - a(n-15) + 2*a(n-16) - 2*a(n-18) + a(n-19). - Fung Lam, May 07 2014
[A088575] 1, 1, 2, 4, 6, 9, 13, 18, 24, 31, 40, 50, 63, 77, 95, 114, 138, 163, 194, 226, 266, 307, 357, 408, 471, 535, 612, 690, 785, 881, 995, 1110, 1248, 1387, 1550, 1714, 1908, 2103, 2329, 2556, 2822, 3089, 3396, 3704, 4061, 4419, 4827, 5236, 5707, 6179, 6714, 7250, 7862
a(n) = a(n-1)+a(floor(n/2))+(1-(-1)^n)/2, n>1. - Vladeta Jovovic, Dec 02 2003
[A177189] 0, 0, 0, 1, 2, 4, 6, 9, 13, 18, 24, 32, 41, 52, 64, 78, 94, 112, 132, 155, 180, 208, 238, 271, 307, 346, 388, 434, 483, 536, 592, 652, 716, 784, 856, 933, 1014, 1100, 1190, 1285, 1385, 1490, 1600, 1716, 1837, 1964, 2096, 2234, 2378, 2528, 2684
a(n)=round((2*n+1)*(2*n^2+2*n+3)/192).
a(n)=floor((n+3)*(2*n^2-3*n+13)/96).
a(n)=ceil((n-2)*(2*n^2+7*n+18)/96).
a(n)=round((2*n^3+3*n^2+4*n)/96).
a(n)=a(n-16)+(n+1)*(n-16)+94 , n>15.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-8) -3*a(n-9) +3*a(n-10) -a(n-11) with g.f. x^3*(1-x+x^2+x^4-x^3) / ((1+x)*(1+x^2)*(1+x^4)*(x-1)^4). - R. J. Mathar, Dec 13 2010
[A081659] 1, 2, 4, 6, 9, 13, 19, 28, 42, 64, 99, 155, 245, 390, 624, 1002, 1613, 2601, 4199, 6784, 10966, 17732, 28679, 46391, 75049, 121418, 196444, 317838, 514257, 832069, 1346299, 2178340, 3524610, 5702920, 9227499, 14930387, 24157853, 39088206
a(n) = (sqrt(5)*(1+sqrt(5))^(n+1)-sqrt(5)*(1-sqrt(5))^(n+1))/(10*2^n)+n.
[A003402] 1, 1, 2, 4, 6, 9, 14, 19, 27, 37, 49, 64, 84, 106, 134, 168, 207, 253, 309, 371, 445, 530, 626, 736, 863, 1003, 1163, 1343, 1543, 1766, 2017, 2291, 2597, 2935, 3305, 3712, 4161, 4647, 5181, 5763, 6394, 7079, 7825, 8627, 9497, 10436, 11445, 12531, 13702, 14952
a(n) = a(n-1) + b(n), b(n) = b(n-2) + c(n) - e(n), c(n) = c(n-3) + 2e(n), e(n) = e(n - 4) + f(n), f(n) = f(n - 5) + g(n), g(n) = g(n - 6), g(0) = 1, all functions are 0 for negative indexes. [From Miller paper.] - Sean A. Irvine, Apr 22 2015
[A119737] 1, 2, 4, 6, 9, 14, 20, 30, 45, 69, 104, 165, 255, 405, 642, 1029, 1640, 2645, 4243, 6852, 11040, 17840, 28787, 46567, 75227, 121685, 196725, 318269, 514688, 832760, 1346990, 2179417, 3525722, 5704642, 9229228, 14933176, 24160642, 39092592
a(n) also equals n + sum{k=1..n-2} Fibonacci(k) floor(n/(k+2)), for n >= 2.
[A157679] 0, 1, 2, 4, 6, 9, 15, 25, 35, 49, 70, 100, 160, 256, 416, 676, 936, 1296, 1800, 2500, 3550, 5041, 7171, 10201, 16261, 25921, 41377, 66049, 107169, 173889, 282309, 458329, 634349
a(0) = 0, a(1) = 1
a(n) = 1 + a(floor((n-1)/2) + a(ceiling((n-1)/2) + a(floor((n-1)/2)*a(ceiling((n-1)/2) = (1+a(floor((n-1)/2))*(1+a(ceiling((n-1)/2))
[A006498] 1, 1, 1, 2, 4, 6, 9, 15, 25, 40, 64, 104, 169, 273, 441, 714, 1156, 1870, 3025, 4895, 7921, 12816, 20736, 33552, 54289, 87841, 142129, 229970, 372100, 602070, 974169, 1576239, 2550409, 4126648, 6677056, 10803704, 17480761, 28284465, 45765225
a(n) = round((-1/5*sqrt(5)-1/5)*(-2*1/(-sqrt(5)+1))^n/(-sqrt(5)+1)+(1/5*sqrt(5)-1/5)*(-2*1/(sqrt(5)+1))^n/(sqrt(5)+1)). G.f.: 1/(1-x-x^2)/(1+x^2). - Vladeta Jovovic, May 03 2002
a(n) = (-i)^n*sum{k=0..n, U(n-2k, i/2)} with i^2=-1. - Paul Barry, Nov 15 2003
a(n) = sum{k=0..floor(n/2), (-1)^k*F(n-2k+1)}. - Paul Barry, Oct 12 2007
a(n+1)*a(n+3) = a(n)*a(n+2) + a(n+1)*a(n+2) for all n in Z. - Michael Somos, Jan 19 2014
a(n) = Sum_{j=0..floor(n/3)} Sum_{k=0..j} binomial(n-3j,k)*binomial(j,k)*2^k. - Tony Foster III, Sep 18 2017
[A074677] 0, 1, 1, 1, 2, 4, 6, 9, 15, 25, 40, 64, 104, 169, 273, 441, 714, 1156, 1870, 3025, 4895, 7921, 12816, 20736, 33552, 54289, 87841, 142129, 229970, 372100, 602070, 974169, 1576239, 2550409, 4126648, 6677056, 10803704, 17480761, 28284465, 45765225, 74049690
a(n) = a(n-1) + a(n-3) + a(n-4) for n>3, a(0)=0, a(1)=1, a(2)=1, a(3)=1.
[A110538] 1, 2, 4, 6, 9, 16, 25, 42, 78, 152, 317, 706, 1685, 4234, 11173, 30850, 88804, 265936, 826931, 2665434, 8892534, 30664346, 109149206, 400544458, 1513655722, 5884263058, 23508569872, 96437400910, 405880177443
a(n) = Sum_{k=1..n} Sum_{j=1..min(n-k+1,k)} ceiling(j^(n-k+1)/(n-k+1)^j)*ceiling(j^k/k^j).
[A244470] 1, 1, 2, 4, 6, 9, 17, 25, 40, 72, 106, 169, 305, 449, 716, 1292, 1902, 3033, 5473, 8057, 12848, 23184, 34130, 54425, 98209, 144577, 230548, 416020, 612438, 976617, 1762289, 2594329, 4137016, 7465176, 10989754, 17524681, 31622993, 46553345
a(n)=4*a(n-3)+a(n-6). - Harvey P. Dale, Apr 08 2015
[A079143] 2, 4, 6, 9, 20, 25, 42, 49, 110, 121, 156, 169, 272, 289, 342, 361, 506, 529, 812, 841, 930, 961, 1332, 1369, 1640, 1681, 1806, 1849, 2162, 2209, 2756, 2809, 3422, 3481, 3660, 3721, 4422, 4489, 4970, 5041, 5256, 5329, 6162, 6241, 6806, 6889, 7832, 7921
a(n) = prime(ceiling(n/2))*(prime(ceiling(n/2)) - (n mod 2))
[A187333] 0, 0, 2, 4, 6, 10, 10, 12, 14, 16, 20, 20, 22, 24, 26, 30, 30, 32, 34, 36, 40, 40, 42, 44, 46, 50, 50, 52, 54, 56, 60, 60, 62, 64, 66, 70, 70, 72, 74, 76, 80, 80, 82, 84, 86, 90, 90, 92, 94, 96, 100, 100, 102, 104, 106, 110, 110, 112, 114, 116, 120, 120, 122, 124, 126, 130, 130, 132, 134, 136, 140, 140, 142, 144, 146, 150
a(n)=floor(n/5)+floor(2n/5)+floor(3n/5)+floor(4n/5).
[A047410] 2, 4, 6, 10, 12, 14, 18, 20, 22, 26, 28, 30, 34, 36, 38, 42, 44, 46, 50, 52, 54, 58, 60, 62, 66, 68, 70, 74, 76, 78, 82, 84, 86, 90, 92, 94, 98, 100, 102, 106, 108, 110, 114, 116, 118, 122, 124, 126, 130, 132, 134, 138, 140, 142, 146, 148, 150, 154, 156, 158
a(n) = 2*floor((n-1)/3) + 2*n. - Gary Detlefs, Mar 18 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4, with a(1)=2, a(2)=4, a(3)=6, a(4)=10. - Harvey P. Dale, Oct 06 2014
a(n) = 2*(12*n-6-3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-4, a(3k-2) = 8k-6. (End)
[A006093] 1, 2, 4, 6, 10, 12, 16, 18, 22, 28, 30, 36, 40, 42, 46, 52, 58, 60, 66, 70, 72, 78, 82, 88, 96, 100, 102, 106, 108, 112, 126, 130, 136, 138, 148, 150, 156, 162, 166, 172, 178, 180, 190, 192, 196, 198, 210, 222, 226, 228, 232, 238, 240, 250, 256, 262, 268, 270
a(n) = (p-1)! mod p where p is the n-th prime, by Wilson's theorem. - Jonathan Sondow, Jul 13 2010
[A152919] 1, 2, 4, 6, 10, 12, 18, 20, 28, 30, 40, 42, 54, 56, 70, 72, 88, 90, 108, 110, 130, 132, 154, 156, 180, 182, 208, 210, 238, 240, 270, 272, 304, 306, 340, 342, 378, 380, 418, 420, 460, 462, 504, 506, 550, 552, 598, 600, 648, 650, 700, 702, 754, 756, 810, 812, 868
a(n)= If[n == 1, 1, If[Mod[n, 2] == 0, n^2/4 + n/2, n^2/4 + n - 5/4]].
[A002088] 0, 1, 2, 4, 6, 10, 12, 18, 22, 28, 32, 42, 46, 58, 64, 72, 80, 96, 102, 120, 128, 140, 150, 172, 180, 200, 212, 230, 242, 270, 278, 308, 324, 344, 360, 384, 396, 432, 450, 474, 490, 530, 542, 584, 604, 628, 650, 696, 712, 754, 774, 806, 830, 882, 900, 940, 964
a(n) = (3n^2)/(Pi^2) + O(n log n).
a(n) = (1/2)*sum{k>=1} mu(k)*floor(n/k)*floor(1+n/k). - Benoit Cloitre, Apr 11 2003
[A002491] 1, 2, 4, 6, 10, 12, 18, 22, 30, 34, 42, 48, 58, 60, 78, 82, 102, 108, 118, 132, 150, 154, 174, 192, 210, 214, 240, 258, 274, 282, 322, 330, 360, 372, 402, 418, 442, 454, 498, 510, 540, 570, 612, 622, 648, 672, 718, 732, 780, 802, 840, 870, 918
a(n+1) = 1 + [..[[[n*3/2]5/4]7/6]9/8]...(2k+1)/2k]...] (Birkas Gyorgy, Mar 07 2011)

[A293821] 1, 1, 2, 4, 6, 10, 12, 20, 23, 35, 38, 56, 60, 84, 88, 120, 125, 165, 170, 220, 226, 286, 292, 364, 371, 455, 462, 560, 568, 680, 688, 816, 825, 969, 978, 1140, 1150, 1330, 1340, 1540, 1551, 1771, 1782, 2024, 2036, 2300, 2312, 2600, 2613, 2925, 2938, 3276, 3290, 3654, 3668, 4060
a(n) = (1/96)*(-3*(-1 + (-1)^n + 4*i*(-i)^n - 4*i*i^n) + (7 - 15*(-1)^n)*n + 3*(-1 + (-1)^n)*n^2 + 2*n^3) where i=sqrt(-1).
[A133871] 2, 4, 6, 10, 12, 20, 24, 34, 44, 64, 78, 116, 148, 208, 286, 410, 556, 808, 1120, 1620, 2308, 3352, 4784, 6980, 10064, 14680, 21296, 31128, 45276, 66288, 96712, 141654, 207156, 303716, 444748, 652612, 956884, 1404920, 2062080, 3029564, 4450120
a(n) = sum of squares of coefficients in Product_{k=1..n} (1-x^k). - Paul D. Hanna, Nov 30 2010
[A267452] 1, 2, 4, 6, 10, 13, 19, 24, 30, 37, 46, 53, 63, 73, 84, 95, 108, 120, 135, 149, 164, 180, 198, 214, 233, 252, 272, 292, 314, 335, 359, 382, 406, 431, 458, 483, 511, 539, 568, 597, 628, 658, 691, 723, 756, 790, 826, 860, 897, 934, 972, 1010, 1050, 1089, 1131
a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8) for n>7.
[A140652] 1, 2, 4, 6, 10, 13, 19, 24, 31, 38, 48, 55, 67, 78, 90, 102, 118, 131, 149, 164, 182, 201, 223, 240, 263, 286, 310, 333, 361, 384, 414, 441, 471, 502, 534, 562, 598, 633, 669, 702, 742, 777, 819, 858, 898, 941, 987, 1026, 1073, 1118, 1166, 1213, 1265, 1312
a(n) = Sum_{i=1..n} i - floor(n/(i+1)). - Wesley Ivan Hurt, Sep 13 2017
[A191113] 1, 2, 4, 6, 10, 14, 16, 22, 28, 38, 40, 46, 54, 62, 64, 82, 86, 110, 112, 118, 136, 150, 158, 160, 182, 184, 190, 214, 244, 246, 254, 256, 326, 328, 334, 342, 352, 406, 438, 446, 448, 470, 472, 478, 542, 544, 550, 568, 598, 630, 638, 640, 726, 730, 734, 736, 758, 760, 766, 854, 974, 976, 982, 1000, 1014, 1022, 1024, 1054, 1216
a(1)=1, and if x is in a then 3x-2 and 4x-2 are in a; the terms of a are listed in without repetitions, in increasing order.
[A128422] 0, 0, 0, 2, 4, 6, 10, 14, 18, 24, 30, 36, 44, 52, 60, 70, 80, 90, 102, 114, 126, 140, 154, 168, 184, 200, 216, 234, 252, 270, 290, 310, 330, 352, 374, 396, 420, 444, 468, 494, 520, 546, 574, 602, 630, 660, 690, 720, 752, 784, 816, 850, 884, 918, 954, 990, 1026
a(n) = floor(n/3)(2n-3(floor(n/3)+1)).
a(n) = ceil(n^2/3) - n. - Charles R Greathouse IV, Jun 06 2013
a(n) = floor((n - 1)(n - 2) / 3). - Christopher Hunt Gribble, Oct 13 2009
[A024204] 0, 2, 4, 6, 10, 14, 19, 24, 30, 37, 44, 53, 61, 71, 81, 92, 103, 115, 128, 141, 156, 170, 186, 202, 219, 236, 254, 273, 292, 313, 333, 355, 377, 400, 423, 447, 472, 497, 524, 550, 578, 606, 635, 664, 694, 725, 756, 789, 821, 855, 889, 924, 959, 995, 1032
a(n) = floor[(n^4+5n^3+7n^2+2n)/(3n^2+11n+9)]. - Neven Juric (neven.juric(AT)apis-it.hr), neven.juric(AT)apis-it.hr, May 17 2007
a(n) = floor((n^3+2*n^2)/(3*n+2)). [Gary Detlefs, Jul 13 2010]
[A008804] 1, 2, 4, 6, 10, 14, 20, 26, 35, 44, 56, 68, 84, 100, 120, 140, 165, 190, 220, 250, 286, 322, 364, 406, 455, 504, 560, 616, 680, 744, 816, 888, 969, 1050, 1140, 1230, 1330, 1430, 1540, 1650, 1771, 1892, 2024, 2156, 2300, 2444, 2600, 2756, 2925, 3094, 3276, 3458
a(n) = -a(-8 - n) for all n in Z. - Michael Somos, Feb 05 2011
[A088954] 1, 2, 4, 6, 10, 14, 20, 26, 36, 46, 60, 74, 94, 114, 140, 166, 202, 238, 284, 330, 390, 450, 524, 598, 692, 786, 900, 1014, 1154, 1294, 1460, 1626, 1827, 2028, 2264, 2500, 2780, 3060, 3384, 3708, 4088, 4468, 4904, 5340, 5844, 6348, 6920, 7492, 8148, 8804, 9544
a(0)=1, a(1)=2, a(2)=4, a(3)=6, a(4)=10, a(5)=14, a(6)=20, a(7)=26, a(8)=36, a(9)=46, a(10)=60, a(11)=74, a(12)=94, a(13)=114, a(14)=140, a(15)=166, a(16)=202, a(17)=238, a(18)=284, a(19)=330, a(20)=390, a(21)=450, a(22)=524, a(23)=598, a(24)=692, a(25)=786, a(26)=900, a(27)=1014, a(28)=1154, a(29)=1294, a(30)=1460, a(31)=1626, a(n)=2*a(n-1)-2*a(n-3)+ 2*a(n-4)- 2*a(n-5)+ 2*a(n-7)-2*a(n-9)+2*a(n-11)-2*a(n-12)+2*a(n-13)-2*a(n-15)+2*a(n-16)-2*a(n-17)+ 2*a(n-19)- 2*a(n-20)+ 2*a(n-21)-2*a(n-23)+2*a(n-25)-2*a(n-27)+2*a(n-28)-2*a(n-29)+ 2*a(n-31)-a(n-32). - Harvey P. Dale, Feb 12 2013
[A000123] 1, 2, 4, 6, 10, 14, 20, 26, 36, 46, 60, 74, 94, 114, 140, 166, 202, 238, 284, 330, 390, 450, 524, 598, 692, 786, 900, 1014, 1154, 1294, 1460, 1626, 1828, 2030, 2268, 2506, 2790, 3074, 3404, 3734, 4124, 4514, 4964, 5414, 5938, 6462, 7060, 7658, 8350, 9042
a(n) = Sum_{i=0..n} a(floor(i/2)) [O'Shea].
[A277277] 1, 2, 4, 6, 10, 14, 20, 28, 36, 44, 56, 72, 92, 116, 148, 188, 240, 304, 388, 492, 628, 796, 1016, 1288, 1644, 2084, 2660, 3372, 4304, 5456, 6964, 8828, 11268, 14284, 18232, 23112, 29500, 37396, 47732, 60508, 77232, 97904, 124964, 158412, 202196, 256316, 327160, 414728, 529356, 671044, 856516
a(n) = a(n-2)+a(n-4) for n>9.
[A048670] 2, 4, 6, 10, 14, 22, 26, 34, 40, 46, 58, 66, 74, 90, 100, 106, 118, 132, 152, 174, 190, 200, 216, 234, 258, 264, 282, 300, 312, 330, 354, 378, 388, 414, 432, 450, 476, 492, 510, 538, 550, 574, 600, 616, 642, 660, 686, 718, 742, 762, 798, 810, 834, 858, 876, 908, 926
a(n) « n^2*(log n)^2, see Iwaniec. - Charles R Greathouse IV, Sep 08 2012
a(n) >= (2e^gamma + o(1)) n log^2 n log log log n / (log log n)^2, see Pintz.
[A027383] 1, 2, 4, 6, 10, 14, 22, 30, 46, 62, 94, 126, 190, 254, 382, 510, 766, 1022, 1534, 2046, 3070, 4094, 6142, 8190, 12286, 16382, 24574, 32766, 49150, 65534, 98302, 131070, 196606, 262142, 393214, 524286, 786430, 1048574, 1572862, 2097150, 3145726
a(n+2) = 2*a(n) + 2.
a(n) = 2^floor((n+2)/2) + 2^floor((n+1)/2) - 2. - Quim Castellsaguer (qcastell(AT)pie.xtec.es)
a(n) = 2^(n/2)(3 + 2sqrt(2) + (3-2sqrt(2))(-1)^n)/2 - 2. - Paul Barry, Apr 23 2004
a(n) = 2*((a(n-2)+1) mod (a(n-1)+1)), n > 1. - Pierre Charland, Dec 12 2010
a(n) = 2^((2*n + 3*(1-(-1)^n))/4)*3^((1+(-1)^n)/2) - 2. - Luce ETIENNE, Sep 01 2014
[A113118] 2, 4, 6, 10, 14, 26, 46, 86, 166, 326, 634, 1262, 2518, 5006, 10006, 19946, 39874, 79738, 159398, 318778, 637502, 1274998, 2549978, 5099902, 10199786, 20399534, 40799062, 81598082, 163196134, 326392258, 652784498, 1305568942, 2611137838
a(n) = 2 * (largest prime <= a(n-1)), by Bertrand's postulate.
[A175826] 0, 1, 2, 4, 6, 10, 15, 22, 30, 41, 54, 70, 88, 110, 135, 164, 196, 233, 274, 320, 370, 426, 487, 554, 626, 705, 790, 882, 980, 1086, 1199, 1320, 1448, 1585, 1730, 1884, 2046, 2218, 2399, 2590, 2790, 3001, 3222, 3454, 3696, 3950, 4215, 4492, 4780, 5081, 5394
a(n)=round((2*n+1)*(2*n^2+2*n+27)/96).
a(n)=floor((n+1)*(2*n^2+n+27)/48).
a(n)=ceil((2*n^3+3*n^2+28*n)/48).
a(n)=a(n-8)+(n+1)*(n-8)+30.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-4) -3*a(n-5) +3*a(n-6) -a(n-7). [R. J. Mathar, Dec 06 2010]
[A239288] 0, 1, 2, 4, 6, 10, 15, 22, 33, 48, 69, 102, 147, 210, 309, 444, 633, 930, 1335, 1902, 2793, 4008, 5709, 8382, 12027, 17130, 25149, 36084, 51393, 75450, 108255, 154182, 226353, 324768, 462549, 679062, 974307, 1387650, 2037189, 2922924, 4162953, 6111570
a(0) = 0, a(n) = max{k + k*a(n - k) | 1 <= k <= n}.
[A192447] 0, 2, 4, 6, 10, 16, 22, 28, 36, 46, 56, 66, 78, 92, 106, 120, 136, 154, 172, 190, 210, 232, 254, 276, 300, 326, 352, 378, 406, 436, 466, 496, 528, 562, 596, 630, 666, 704, 742, 780, 820, 862, 904, 946, 990, 1036, 1082, 1128, 1176, 1226, 1276, 1326, 1378, 1432
a(n)=n*(n-1)/2 if this is even and a(n)=(n*(n-1)/2)+1 otherwise.
[A065795] 1, 2, 4, 6, 10, 16, 26, 42, 72, 124, 218, 390, 706, 1292, 2388, 4436, 8292, 15578, 29376, 55592, 105532, 200858, 383220, 732756, 1403848, 2694404, 5179938, 9973430, 19229826, 37125562, 71762396, 138871260, 269021848, 521666984
a(n) = 1/2*sum_{i=1..n} (f(i) - 1) where f(i) = 1/i * sum_{d divides i and d is odd} 2^(i/d) * phi(d).
[A023557] 0, 1, 1, 2, 4, 6, 10, 16, 27, 43, 70, 113, 183, 297, 480, 777, 1257, 2034, 3291, 5326, 8617, 13943, 22560, 36503, 59063, 95566, 154630, 250196, 404826, 655022, 1059848, 1714870, 2774718, 4489588, 7264307
a(n)= a(n-1)+a(n-2)+1 if n mod 4 = 0, else a(n)=a(n-1)+a(n-2), with offset 0 [From Gary Detlefs, Dec 05 2010]
[A293671] 0, 0, 0, 1, 2, 4, 6, 10, 16, 27, 44, 71, 115, 186, 301, 488, 789, 1277, 2067, 3344, 5412, 8756, 14168, 22925, 37094, 60020, 97114, 157134, 254248, 411383, 665632, 1077015, 1742647, 2819662, 4562309, 7381972, 11944281, 19326253, 31270535, 50596788, 81867324
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.
a(n) = floor(4*F(n)/5).
[A173434] 0, 0, 0, 1, 2, 4, 6, 10, 16, 27, 44, 72, 116, 188, 304, 493, 798, 1292, 2090, 3382, 5472, 8855, 14328, 23184, 37512, 60696, 98208, 158905, 257114, 416020, 673134, 1089154, 1762288, 2851443, 4613732, 7465176
a(n)= 2*a(n-1) -2*a(n-3) +2*a(n-4) -a(n-6). - R. J. Mathar, Mar 01 2010
[A288599] 2, 4, 6, 10, 16, 28, 50, 90, 164, 300, 550, 1010, 1856, 3412, 6274, 11538, 21220, 39028, 71782, 132026, 242832, 446636, 821490, 1510954, 2779076, 5111516, 9401542, 17292130, 31805184, 58498852, 107596162, 197900194, 363995204, 669491556, 1231386950
a(n) = 2*a(n-1) - a(n-4) for n >= 4, where a(0) = 2, a(1) = 4, a(2) = 6, a(3) = 10, a(4) = 16.

[A004695] 0, 0, 0, 1, 1, 2, 4, 6, 10, 17, 27, 44, 72, 116, 188, 305, 493, 798, 1292, 2090, 3382, 5473, 8855, 14328, 23184, 37512, 60696, 98209, 158905, 257114, 416020, 673134, 1089154, 1762289, 2851443, 4613732, 7465176, 12078908, 19544084, 31622993, 51167077, 82790070, 133957148
a(n) = Fibonacci(n)/2 - (1-cos(2Pi*n/3))/3. - Paul Barry, Oct 06 2003
a(n+2) = Sum_{k=0..floor(n/3)} F(n-3*k).
a(n+2) = Sum_{k=0..n} if(mod(n-k, 3)=0, F(k), 0). (End)
a(n+2) = Sum_{k=0..n} F(k)*(cos(2*Pi*(n-k)/3+Pi/3)/3+sqrt(3)*sin(2*Pi*(n-k)/3+Pi/3)/3+1/3). - Paul Barry, Apr 16 2005
a(n) = a(n-1)+a(n-2)+1 if n mod 3 = 0, else a(n) = a(n-1)+a(n-2). - Gary Detlefs, Dec 05 2010
a(n) = Fibonacci(n-2)+floor(Fibonacci(n-3)/2). - Gary Detlefs, Mar 28 2011
[A079961] 1, 1, 1, 2, 4, 6, 10, 17, 28, 46, 77, 128, 212, 352, 585, 971, 1612, 2677, 4445, 7380, 12254, 20347, 33784, 56095, 93141, 154652, 256785, 426368, 707945, 1175477, 1951771, 3240736, 5380943, 8934559, 14835011, 24632167, 40899440, 67909746
a(n) = a(n-1)+a(n-3)+a(n-4)+a(n-6).
[A288465] 2, 4, 6, 10, 18, 32, 58, 106, 194, 356, 654, 1202, 2210, 4064, 7474, 13746, 25282, 46500, 85526, 157306, 289330, 532160, 978794, 1800282, 3311234, 6090308, 11201822, 20603362, 37895490, 69700672, 128199522, 235795682, 433695874, 797691076, 1467182630
a(n) = 2*a(n-1) - a(n-4), where a(0) = 2, a(1) = 4, a(2) = 6. a(3) = 10.
[A115269] 1, 2, 4, 6, 11, 16, 24, 32, 46, 60, 80, 100, 130, 160, 200, 240, 295, 350, 420, 490, 581, 672, 784, 896, 1036, 1176, 1344, 1512, 1716, 1920, 2160, 2400, 2685, 2970, 3300, 3630, 4015, 4400, 4840, 5280, 5786, 6292, 6864, 7436, 8086, 8736, 9464, 10192, 11011, 11830
a(n) = Sum_{k=0..n} Sum_{j=0..n} [j<=k]*floor((k-j+4)/4)*[j<=n-k]*floor((n-k-j+4)/4).
a(n) = 2*a(n-1) -2*a(n-3) +3*a(n-4) -4*a(n-5) +4*a(n-7) -3*a(n-8) +2*a(n-9) -2*a(n-11) +a(n-12).
a(n) = (2*(n^4+24*n^3+197*n^2+636*n)+3*(431+(2*n^2+24*n+65)*(-1)^n)+24*((n+7)*(-1)^((2*n-1+(-1)^n)/4)-(n+5)*(-1)^((6*n-1+(-1)^n)/4)))/1536. - Luce ETIENNE, Mar 03 2015
[A014217] 1, 1, 2, 4, 6, 11, 17, 29, 46, 76, 122, 199, 321, 521, 842, 1364, 2206, 3571, 5777, 9349, 15126, 24476, 39602, 64079, 103681, 167761, 271442, 439204, 710646, 1149851, 1860497, 3010349, 4870846, 7881196, 12752042, 20633239, 33385281, 54018521, 87403802
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4).
a(2n-1) = (Fibonacci(4n+1)-2)/Fibonacci(2n+2). - Gary Detlefs, Feb 16 2011
a(n) = floor(Fibonacci(2n+3)/Fibonacci(n+3)). - Gary Detlefs, Feb 28 2011
a(2n) = Fibonacci(2*n-1)+Fibonacci(2*n+1)-1. - Gary Detlefs, Mar 10 2011
a(n) = ((-1)^(1+n)-1)/2 + ((1-sqrt(5))/2)^n + ((1+sqrt(5))/2)^n. - Colin Barker, Nov 05 2017
[A131298] 1, 1, 2, 4, 6, 11, 18, 30, 50, 82, 135, 221, 361, 589, 959, 1560, 2535, 4116, 6679, 10832, 17560, 28457, 46103, 74674, 120928, 195802, 316995, 513148, 830608, 1344372, 2175796, 3521249, 5698477
a(n) = Sum_{k=0..floor(n/2)} C(n-k+1,k) - C(k,n-2k+1).
[A026385] 1, 1, 2, 4, 6, 11, 20, 33, 59, 104, 178, 314, 549, 952, 1669, 2913, 5074, 8872, 15482, 27007, 47172, 82325, 143675, 250848, 437822, 764198, 1334041, 2328512, 4064457, 7094833, 12384034, 21616716, 37732990, 65863651
a(n) = a(n-2) + 3*a(n-3) + a(n-4) for n>3. - Vincenzo Librandi, Jun 19 2014
[A199926] 0, 0, 0, 1, 1, 1, 2, 4, 6, 11, 20, 35, 62, 111, 197, 350, 623, 1108, 1970, 3504, 6232, 11083, 19711, 35056, 62346, 110881, 197200, 350716, 623741, 1109311, 1972887, 3508739, 6240221, 11098106, 19737755, 35103195, 62430317
a(n)=a(n-1)+a(n-2)+a(n-3)-a(n-5) for n>7.
a(n)=2*a(n-1)-a(n-4)-a(n-5)+a(n-6) for n>8.
[A049870] 1, 2, 4, 6, 11, 20, 38, 71, 133, 248, 463, 864, 1613, 3011, 5621, 10493, 19588, 36566, 68260, 127425, 237872, 444050, 828935, 1547423, 2888668, 5392451, 10066414, 18791583, 35079383, 65484803, 122244437, 228201074, 425996728
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A084979] 1, 2, 4, 6, 11, 22, 44, 66, 111, 121, 141, 161, 212, 232, 242, 272, 292, 323, 343, 383, 414, 464, 474, 545, 565, 616, 626, 636, 656, 747, 838, 848, 878, 898, 929, 969, 1111, 1221, 1441, 1661, 2112, 2222, 2332, 2552, 2772, 2882, 3223, 3883, 4114, 4444, 4554
a(n) » n^k, where k = log_3(10) = 2.0959....
[A098895] 2, 4, 6, 12, 16, 24, 48, 60, 120, 240, 288, 384, 576, 1152, 2304, 2688, 5376, 8064, 16128, 20160, 40320, 46080, 92160, 184320, 368640, 737280, 983040, 1966080, 3932160, 4423680, 6635520, 13271040, 15925248, 31850496, 63700992, 127401984
a(n) = a(n-1) * (1 + 1/k(n)), where k(n) is the p(n)-adic valuation of the n-th superior highly composite number N(n), with p(n) = N(n)/N(n-1) and N(0)=1.
[A225566] 2, 4, 6, 12, 18, 24, 36, 48, 60, 80, 100, 120, 150, 180, 210, 252, 294, 336, 392, 448, 504, 576, 648, 720, 810, 900, 990, 1100, 1210, 1320, 1452, 1584, 1716, 1872, 2028, 2184, 2366, 2548, 2730, 2940, 3150, 3360, 3600, 3840, 4080, 4352, 4624, 4896, 5202, 5508, 5814, 6156, 6498, 6840, 7220, 7600, 7980, 8400, 8820, 9240, 9702
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8) for n>8.
[A068911] 1, 2, 4, 6, 12, 18, 36, 54, 108, 162, 324, 486, 972, 1458, 2916, 4374, 8748, 13122, 26244, 39366, 78732, 118098, 236196, 354294, 708588, 1062882, 2125764, 3188646, 6377292, 9565938, 19131876, 28697814, 57395628, 86093442, 172186884
a(n) = 2^((3+(-1)^n)/2)*3^((2*n-3-(-1)^n)/4)-((1-(-1)^(2^n)))/6. - Luce ETIENNE, Aug 30 2014
a(n) = 2*a(n-1) if n is even, a(n-1)+a(n-2) if n is odd. - Vincenzo Librandi, Feb 26 2016
[A068018] 1, 2, 4, 6, 12, 18, 40, 62, 148, 234, 576, 918, 2284, 3650, 9112, 14574, 36420, 58266, 145648, 233030, 582556, 932082, 2330184, 3728286, 9320692, 14913098, 37282720, 59652342, 149130828, 238609314, 596523256, 954437198, 2386092964
a(n)=2^n/4-(-2)^n/36+2*n/3-2/9; ogf=z(1-3z^2)/[(1-4z^2)(1-z)^2]
[A279245] 1, 2, 4, 6, 12, 20, 40, 64, 128, 208, 416, 672, 1344, 2176, 4352, 7040, 14080, 22784, 45568, 73728, 147456, 238592, 477184, 772096, 1544192, 2498560, 4997120, 8085504, 16171008, 26165248, 52330496, 84672512, 169345024, 274006016, 548012032, 886702080
a(n) = 2a(n-2) + 4a(n-4). - Charles R Greathouse IV, Dec 13 2016
[A292320] 1, 1, 2, 4, 6, 12, 22, 36, 67, 122, 209, 377, 681, 1193, 2130, 3823, 6764, 12043, 21531, 38252, 68076, 121456, 216126, 384691, 685636, 1220767, 2173346, 3871747, 6894873, 12276852, 21866387, 38941846, 69344928, 123500513, 219943018, 391676701, 697538335
a(n) = a(n-1) + 4*a(n-3) - 2*a(n-4) - 3*a(n-6) + a(n-7) + a(n-9) for n >= 10.
[A002182] 1, 2, 4, 6, 12, 24, 36, 48, 60, 120, 180, 240, 360, 720, 840, 1260, 1680, 2520, 5040, 7560, 10080, 15120, 20160, 25200, 27720, 45360, 50400, 55440, 83160, 110880, 166320, 221760, 277200, 332640, 498960, 554400, 665280, 720720, 1081080, 1441440, 2162160
a(n+1) < a(n) * (1+log(a(n))^-c) for some positive c (see Erdős). - David A. Corneth, May 16 2016
[A068010] 1, 1, 2, 4, 6, 12, 24, 44, 88, 176, 344, 688, 1376, 2736, 5472, 10944, 21856, 43712, 87424, 174784, 349568, 699136, 1398144, 2796288, 5592576, 11184896, 22369792, 44739584, 89478656, 178957312, 357914624, 715828224, 1431656448, 2863312896
a(0)=1, a(1)=1, a(n) = 2*a(n-1) if 3 does not divide n-1 and a(n) = 2*a(n-1)-(2^((n-1)/3)) if 3 divides n-1.
a(n) = (2^n + 2^((n + 1 + (4/sqrt(3))*cos(((4*n)+1)*Pi/6))/3))/3. - Fred Galvin
a(0)=1, a(1)=1, a(2)=2, a(n) = 2*a(n-3) + 2^(n - 2), n>=3. - Baris Arslan, Mar 27 2017
[A291738] 1, 1, 2, 4, 6, 13, 23, 43, 76, 138, 244, 444, 795, 1444, 2600, 4705, 8474, 15307, 27583, 49797, 89800, 162088, 292388, 527663, 951922, 1717692, 3098937, 5591589, 10088361, 18202665, 32841990, 59256835, 106914493, 192904396, 348050363, 627980316, 1133045001
a(n) = a(n-1) + a(n-3) + a(n-4) + 4* a(n-6) + 6*a(n-8) + 4*a(n-10) + a(n-12) for n >= 13.
[A095698] 1, 2, 4, 6, 14, 18, 46, 54, 146, 162, 454, 486, 1394, 1458, 4246, 4374, 12866, 13122, 38854, 39366, 117074, 118098, 352246, 354294, 1058786, 1062882, 3180454, 3188646, 9549554, 9565938, 28665046, 28697814, 86027906, 86093442, 258149254
a(1) = 1; Conjectured: For k >= 1, a(2k) = a(2k-1) + 2^(k-1) and a(2k+1) = 2*a(2k-1) + a(2k) (needs proof or a reference).
a(2n) = 2 * 3^(n - 1) for n >= 1. a(2n + 1) = 2 * 3^n - 2^n for n >= 0. - Joel B. Lewis, May 16 2009
[A062112] 0, 1, 1, 2, 4, 6, 14, 20, 48, 68, 164, 232, 560, 792, 1912, 2704, 6528, 9232, 22288, 31520, 76096, 107616, 259808, 367424, 887040, 1254464, 3028544, 4283008, 10340096, 14623104, 35303296, 49926400, 120532992, 170459392, 411525376
a(0)=0, a(1)=1, a(2)=1, a(3)=2, a(n)=4*a(n-2)-2*a(n-4). - Harvey P. Dale, May 24 2013
[A151794] 2, 4, 6, 14, 26, 54, 106, 214, 426, 854, 1706, 3414, 6826, 13654, 27306, 54614, 109226, 218454, 436906, 873814, 1747626, 3495254, 6990506, 13981014, 27962026, 55924054, 111848106, 223696214, 447392426, 894784854, 1789569706, 3579139414, 7158278826, 14316557654
a(n) = (4*(-1)^n+5*2^n)/6 for n>1. - Colin Barker, Jun 12 2015

[A286850] 2, 4, 6, 16, 20, 52, 80, 176, 296, 592, 1104, 2064, 3936, 7296, 14048, 25984, 49600, 92736, 175872, 330240, 623232, 1175296, 2213632, 4176128, 7863808, 14838784, 27948544, 52707328, 99320832, 187257856, 352940032, 665276416, 1254090752, 2363805696, 4455927808
a(n) = 2*a(n-2)+2*a(n-3)+4*a(n-4)-8*a(n-6) for n>6.
[A279480] 1, 2, 4, 6, 16, 28, 46, 82, 88, 106, 180, 198, 210, 228, 238, 276, 312, 352, 430, 442, 466, 498, 540, 556, 568, 600, 616, 690, 732, 738, 742, 760, 768, 772, 786, 810, 856, 928, 936, 952, 966, 996, 1038, 1150, 1152
a(n) » n log^2 n. - Charles R Greathouse IV, Dec 13 2016
[A019464] 1, 1, 2, 4, 6, 18, 21, 84, 88, 440, 445, 2670, 2676, 18732, 18739, 149912, 149920, 1349280, 1349289, 13492890, 13492900, 148421900, 148421911, 1781062932, 1781062944, 23153818272, 23153818285, 324153455990
a(n+1) = (1/2) *a(n)*(n+1 mod 2)*(n+2)+1/2*(n mod 2)*(2*a(n)+n+1). - Francois Jooste (pin(AT)myway.com), Jun 25 2003
[A245766] 2, 4, 6, 20, 26, 52, 62, 100, 114, 164, 182, 244, 266, 340, 366, 452, 482, 580, 614, 724, 762, 884, 926, 1060, 1106, 1252, 1302, 1460, 1514, 1684, 1742, 1924, 1986, 2180, 2246, 2452, 2522, 2740, 2814, 3044, 3122, 3364, 3446, 3700, 3786, 4052, 4142, 4420
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5), n>4.
a(n) = (2n + 2)*floor((n + 1)/2) + (2n - 2)*floor((n - 1)/2).
[A047542] 0, 1, 2, 4, 7, 8, 9, 10, 12, 15, 16, 17, 18, 20, 23, 24, 25, 26, 28, 31, 32, 33, 34, 36, 39, 40, 41, 42, 44, 47, 48, 49, 50, 52, 55, 56, 57, 58, 60, 63, 64, 65, 66, 68, 71, 72, 73, 74, 76, 79, 80, 81, 82, 84, 87, 88, 89, 90, 92, 95, 96, 97, 98, 100, 103, 104
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 50 - 7*(n mod 5) - 2*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-4, a(5k-2) = 8k-6, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A047351] 0, 1, 2, 4, 7, 8, 9, 11, 14, 15, 16, 18, 21, 22, 23, 25, 28, 29, 30, 32, 35, 36, 37, 39, 42, 43, 44, 46, 49, 50, 51, 53, 56, 57, 58, 60, 63, 64, 65, 67, 70, 71, 72, 74, 77, 78, 79, 81, 84, 85, 86, 88, 91, 92, 93, 95, 98, 99, 100, 102, 105, 106, 107, 109, 112
a(n) = n-3+(6*n+(2-(-1)^n)(1-2*i^(n(n+1)))+1)/8, where i=sqrt(-1). - Bruno Berselli, Dec 03 2012
a(0)=0, a(1)=1, a(2)=2, a(3)=4, a(4)=7, a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Harvey P. Dale, Jun 04 2013
[A047540] 0, 2, 4, 7, 8, 10, 12, 15, 16, 18, 20, 23, 24, 26, 28, 31, 32, 34, 36, 39, 40, 42, 44, 47, 48, 50, 52, 55, 56, 58, 60, 63, 64, 66, 68, 71, 72, 74, 76, 79, 80, 82, 84, 87, 88, 90, 92, 95, 96, 98, 100, 103, 104, 106, 108, 111, 112, 114, 116, 119, 120, 122, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-7+i^(2*n)+i^(-n)+i^n)/4 where i=sqrt(-1).
[A047236] 1, 2, 4, 7, 8, 10, 13, 14, 16, 19, 20, 22, 25, 26, 28, 31, 32, 34, 37, 38, 40, 43, 44, 46, 49, 50, 52, 55, 56, 58, 61, 62, 64, 67, 68, 70, 73, 74, 76, 79, 80, 82, 85, 86, 88, 91, 92, 94, 97, 98, 100, 103, 104, 106, 109, 110, 112, 115, 116, 118, 121, 122, 124
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (6*n-5-cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 6k-2, a(3k-1) = 6k-4, a(3k-2) = 6k-5. (End)
[A229829] 1, 2, 4, 7, 8, 11, 13, 14, 16, 17, 19, 22, 23, 26, 28, 29, 31, 32, 34, 37, 38, 41, 43, 44, 46, 47, 49, 52, 53, 56, 58, 59, 61, 62, 64, 67, 68, 71, 73, 74, 76, 77, 79, 82, 83, 86, 88, 89, 91, 92, 94, 97, 98, 101, 103, 104, 106, 107, 109, 112, 113, 116, 118, 119
a(n+8) = a(n) + 15.
a(n) = 15*floor((n-1)/8) +2*f(n) +floor(2*phi*(f(n+1)+2)) -2*floor(phi*(f(n+1)+2)), where f(n) = (n-1) mod 8 and phi=(1+sqrt(5))/2.
a(n) = 15*floor((n-1)/8) +2*f(n) +floor((2*f(n)+5)/5) -floor((f(n)+2)/3), where f(n) = (n-1) mod 8.
a(n) = a(n-1) +a(n-8) -a(n-9) for n>9. [Bruno Berselli, Oct 01 2013]
[A000069] 1, 2, 4, 7, 8, 11, 13, 14, 16, 19, 21, 22, 25, 26, 28, 31, 32, 35, 37, 38, 41, 42, 44, 47, 49, 50, 52, 55, 56, 59, 61, 62, 64, 67, 69, 70, 73, 74, 76, 79, 81, 82, 84, 87, 88, 91, 93, 94, 97, 98, 100, 103, 104, 107, 109, 110, 112, 115, 117, 118, 121, 122, 124, 127, 128
a(1) = 1; for n>1: a(2*n) = 6*n-3 -a(n), a(2*n+1) = a(n+1) + 2*n. - Corrected by Vladimir Shevelev, Sep 25 2011
[A001839] 0, 0, 1, 1, 2, 4, 7, 8, 12, 13, 17, 20, 26, 28, 35, 37, 44, 48, 57, 60, 70, 73, 83, 88, 100, 104, 117, 121, 134, 140, 155, 160, 176, 181, 197, 204, 222, 228, 247, 253, 272, 280, 301, 308, 330, 337, 359, 368, 392, 400, 425, 433, 458, 468, 495, 504, 532, 541, 569, 580, 610, 620, 651, 661, 692, 704, 737, 748, 782, 793
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-6) - a(n-7) - a(n-8) + a(n-9). - Eric W. Weisstein, Jul 13 2017
[A236217] 1, 2, 4, 7, 8, 13, 14, 16, 17, 19, 23, 26, 28, 29, 31, 32, 34, 37, 38, 41, 43, 46, 47, 49, 52, 53, 56, 58, 59, 61, 62, 64, 67, 68, 71, 73, 74, 76, 79, 82, 83, 86, 89, 91, 92, 94, 97, 98, 101, 103, 104, 106, 107, 109, 112, 113, 116, 118, 119, 122, 124, 127, 128
a(n) = a(n-1) + a(n-80) - a(n-81) for n > 81. [Bruno Berselli, Mar 25 2014]
[A047541] 1, 2, 4, 7, 9, 10, 12, 15, 17, 18, 20, 23, 25, 26, 28, 31, 33, 34, 36, 39, 41, 42, 44, 47, 49, 50, 52, 55, 57, 58, 60, 63, 65, 66, 68, 71, 73, 74, 76, 79, 81, 82, 84, 87, 89, 90, 92, 95, 97, 98, 100, 103, 105, 106, 108, 111, 113, 114, 116, 119, 121, 122, 124
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (1+i)*(n*(4-4*i)+3*i-3+i^(-n)-i^(1+n))/4 where i=sqrt(-1).
[A022848] 0, 2, 4, 7, 9, 11, 13, 16, 18, 20, 22, 25, 27, 29, 31, 34, 36, 38, 40, 42, 45, 47, 49, 51, 54, 56, 58, 60, 63, 65, 67, 69, 72, 74, 76, 78, 80, 83, 85, 87, 89, 92, 94, 96, 98, 101, 103, 105, 107, 110, 112, 114, 116, 119, 121, 123, 125, 127, 130, 132, 134, 136
a(n+1) - a(n) = 2 or 3. - Philippe Deléham, Mar 09 2013
[A043000] 2, 4, 7, 9, 11, 13, 16, 19, 21, 23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 54, 56, 59, 61, 63, 65, 67, 70, 72, 74, 76, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126
a(n) = sum{i=2,...,n} floor(log_i(i*n)); a(n)=n*log_2(n)+O(n). - Vladimir Shevelev, Jun 03 2011
[A047349] 0, 2, 4, 7, 9, 11, 14, 16, 18, 21, 23, 25, 28, 30, 32, 35, 37, 39, 42, 44, 46, 49, 51, 53, 56, 58, 60, 63, 65, 67, 70, 72, 74, 77, 79, 81, 84, 86, 88, 91, 93, 95, 98, 100, 102, 105, 107, 109, 112, 114, 116, 119, 121, 123, 126, 128, 130, 133, 135, 137, 140, 142
a(n+1) = floor(n/3)+2*n. - Gary Detlefs, Mar 27 2010
a(n) = n + floor(4*(n-1)/3) - 1. - Arkadiusz Wesolowski, Sep 18 2012
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-24-3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-3, a(3k-1) = 7k-5, a(3k-2) = 7k-7. (End)
[A182761] 2, 4, 7, 9, 11, 14, 16, 19, 21, 23, 26, 28, 30, 33, 35, 38, 40, 42, 45, 47, 50, 52, 54, 57, 59, 61, 64, 66, 69, 71, 73, 76, 78, 80, 83, 85, 88, 90, 92, 95, 97, 100, 102, 104, 107, 109, 111, 114, 116, 119, 121, 123, 126, 128, 131, 133
a(n)=floor(n*(7-5^(1/2))/2).
[A081841] 0, 2, 4, 7, 9, 11, 14, 16, 19, 21, 24, 26, 28, 31, 33, 36, 38, 40, 43, 45, 48, 50, 52, 55, 57, 60, 62, 65, 67, 69, 72, 74, 77, 79, 81, 84, 86, 89, 91, 94, 96, 98, 101, 103, 106, 108, 110, 113, 115, 118, 120, 123, 125, 127, 130, 132, 135, 137, 139, 142, 144, 147, 149, 151
a(1)=0; for n>=1 a(n)=floor(r*n-(4*r-1)/(r+1)) where r=1+sqrt(2)
[A059542] 2, 4, 7, 9, 12, 14, 17, 19, 21, 24, 26, 29, 31, 34, 36, 39, 41, 43, 46, 48, 51, 53, 56, 58, 61, 63, 65, 68, 70, 73, 75, 78, 80, 83, 85, 87, 90, 92, 95, 97, 100, 102, 105, 107, 109, 112, 114, 117, 119, 122, 124, 127, 129, 131, 134, 136, 139, 141, 144, 146, 149, 151
a(n) = floor(n*(1+1/log(2))). - Michel Marcus, Jan 04 2015
[A047211] 2, 4, 7, 9, 12, 14, 17, 19, 22, 24, 27, 29, 32, 34, 37, 39, 42, 44, 47, 49, 52, 54, 57, 59, 62, 64, 67, 69, 72, 74, 77, 79, 82, 84, 87, 89, 92, 94, 97, 99, 102, 104, 107, 109, 112, 114, 117, 119, 122, 124, 127, 129, 132, 134, 137, 139, 142, 144, 147, 149, 152, 154, 157, 159, 162, 164, 167, 169, 172, 174, 177, 179, 182, 184
a(n) = a(n-1) +a(n-2) -a(n-3).
a(n) = (10*n-3-(-1)^n)/4, (n>=1). [Corrected by Bruno Berselli, Sep 20 2010]
a(n) = 5*floor((n-1)/2) +3 +(-1)^n. - Gary Detlefs, Mar 02 2010
a(n) = 5*n-a(n-1)-4 (with a(1)=2). - Vincenzo Librandi, Nov 18 2010
a(n) = floor((5*n-1)/2). - Gary Detlefs, May 14 2011
a(n) = 2*n + floor((n-1)/2). - Arkadiusz Wesolowski, Sep 19 2012
[A189677] 2, 4, 7, 9, 12, 14, 17, 19, 22, 25, 28, 30, 33, 35, 37, 40, 42, 45, 48, 51, 53, 56, 58, 61, 63, 66, 68, 71, 74, 76, 79, 81, 84, 86, 89, 91, 94, 97, 100, 102, 105, 107, 109, 112, 114, 117, 120, 123, 125, 128, 130, 133, 135, 138, 140, 143, 146, 148, 151, 153, 156, 158, 161, 163, 166, 169, 172, 174, 176, 179, 181, 184, 186, 189, 192, 195, 197, 200, 202, 205, 207, 210, 212, 215

a(n)=n+[n*arctan(1/2)]+[n*arctan(2)].
[A087733] 0, 1, 1, 2, 4, 7, 9, 12, 14, 17, 19, 22, 26, 31, 35, 40, 46, 53, 59, 66, 74, 83, 91, 100, 108, 117, 125, 134, 144, 155, 165, 176, 186, 197, 207, 218, 230, 243, 255, 268, 280, 293, 305, 318, 332, 347, 361, 376, 392, 409, 425, 442, 460, 479, 497, 516, 534, 553, 571
a(0)=0, a(2n+1) = -a(n)-a(n+1)+n^2+n, a(2n+1) = -2a_n+n^2+2n+1. - Ralf Stephan, Oct 16 2003
[A184735] 2, 4, 7, 9, 12, 15, 17, 20, 23, 25, 28, 30, 33, 36, 38, 41, 43, 46, 49, 51, 54, 57, 59, 62, 64, 67, 70, 72, 75, 78, 80, 83, 85, 88, 91, 93, 96, 98, 101, 104, 106, 109, 112, 114, 117, 119, 122, 125, 127, 130, 132, 135, 138, 140, 143, 146, 148, 151, 153, 156, 159, 161, 164, 167, 169, 172, 174, 177, 180, 182, 185, 187, 190, 193, 195, 198, 201, 203, 206, 208, 211, 214, 216, 219, 221, 224, 227, 229, 232, 235, 237, 240, 242, 245, 248, 250, 253, 256, 258, 261, 263, 266, 269, 271, 274, 276, 279, 282, 284, 287, 290, 292, 295, 297, 300, 303, 305, 308, 311, 313
a(n)=floor(n*s+h-h*s), where s=(3+sqrt(5))/2, h=1/3.
[A184583] 2, 4, 7, 9, 12, 15, 17, 20, 23, 25, 28, 30, 33, 36, 38, 41, 43, 46, 49, 51, 54, 57, 59, 62, 64, 67, 70, 72, 75, 78, 80, 83, 85, 88, 91, 93, 96, 98, 101, 104, 106, 109, 112, 114, 117, 119, 122, 125, 127, 130, 132, 135, 138, 140, 143, 146, 148, 151, 153, 156, 159, 161, 164, 167, 169, 172, 174, 177, 180, 182, 185, 187, 190, 193, 195, 198, 201, 203, 206, 208, 211, 214, 216, 219, 222, 224, 227, 229, 232, 235, 237, 240, 242, 245, 248, 250, 253, 256, 258, 261, 263, 266, 269, 271, 274, 276, 279, 282, 284, 287, 290, 292, 295, 297, 300, 303, 305, 308, 311, 313
a(n)=floor[(n-1/5)(1+r)], where r=(1+sqrt(5))/2.
[A212988] 1, 1, 2, 4, 7, 9, 12, 16, 21, 25, 30, 36, 43, 49, 56, 64, 73, 81, 90, 100, 111, 121, 132, 144, 157, 169, 182, 196, 211, 225, 240, 256, 273, 289, 306, 324, 343, 361, 380, 400, 421, 441, 462, 484, 507, 529, 552, 576, 601, 625, 650, 676, 703, 729, 756, 784
a(n) = 2*a(n-1)-a(n-2)+a(n-4)-2*a(n-5)+a(n-6).
[A077597] 0, 2, 4, 7, 9, 13, 15, 19, 22, 26, 28, 34, 36, 40, 44, 49, 51, 57, 59, 65, 69, 73, 75, 83, 86, 90, 94, 100, 102, 110, 112, 118, 122, 126, 130, 139, 141, 145, 149, 157, 159, 167, 169, 175, 181, 185, 187, 197, 200, 206, 210, 216, 218, 226, 230, 238, 242, 246, 248, 260
a(n) = Sum_{k = 1..n} floor((n+1)/k). - N. J. A. Sloane, Oct 28 2008
[A036386] 0, 1, 2, 4, 7, 9, 13, 16, 20, 26, 31, 40, 50, 61, 78, 93, 119, 150, 189, 242, 310, 400, 525, 684, 900, 1190, 1581, 2117, 2836, 3807, 5136, 6948, 9425, 12811, 17437, 23788, 32517, 44512, 60971, 83640, 114899, 157948, 217336, 299360, 412635, 569193, 785753, 1085319, 1500140, 2074794, 2870849, 3974425, 5504966
a(n) = Sum_{j=2..n+1} pi(floor(2^(n/j))). The summation starts with squares(j=2); for arbitrary range (=y), the y^(1/j) argument has to be used.
[A097433] 2, 4, 7, 9, 15, 18, 24, 26, 32, 41, 43, 52, 57, 60, 66, 74, 83, 86, 94, 100, 103, 111, 117, 125, 137, 142, 145, 151, 154, 159, 179, 185, 193, 196, 210, 213, 222, 230, 236, 244, 253, 255, 270, 272, 278, 281, 298, 315, 321, 323, 329, 337, 340, 354, 363, 371, 380
a(n) = floor(sqrt(2*p(n)^2)), where p(n) = n-th prime. - N. J. A. Sloane, Feb 23 2015
[A047539] 2, 4, 7, 10, 12, 15, 18, 20, 23, 26, 28, 31, 34, 36, 39, 42, 44, 47, 50, 52, 55, 58, 60, 63, 66, 68, 71, 74, 76, 79, 82, 84, 87, 90, 92, 95, 98, 100, 103, 106, 108, 111, 114, 116, 119, 122, 124, 127, 130, 132, 135, 138, 140, 143, 146, 148, 151, 154, 156, 159
a(n) = floor((8*n-2)/3). - Gary Detlefs, Mar 13 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-9+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-4, a(3k-2) = 8k-6. (End)
[A276209] 2, 4, 7, 10, 12, 15, 18, 21, 24, 27, 30, 34, 37, 40, 43, 47, 50, 53, 57, 60, 64, 67, 71, 74, 78, 81, 85, 88, 92, 96, 99, 103, 107, 110, 114, 118, 122, 125, 129, 133, 137, 141, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200, 204
a(n) = n + floor(n^(s/r)), with complement given by n + floor(n^(r/s)).
[A033627] 1, 2, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175
a(n) = 3*n - 5, for n > 2.
a(n) = 2*a(n-1) - a(n-2), for n > 4;
[A088236] 0, 1, 2, 4, 7, 10, 14, 18, 23, 28, 33, 39, 45, 51, 57, 63, 69, 76, 83, 90, 97, 104, 111, 118, 125, 132, 140, 148, 156, 164, 172, 180, 188, 196, 204, 212, 220, 228, 236, 244, 252, 260, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359
a(1) = 1; a(n+1) = a(n) + floor(Log[2, a(n)]) + 1.
[A014616] 2, 4, 7, 10, 14, 18, 23, 28, 34, 40, 47, 54, 62, 70, 79, 88, 98, 108, 119, 130, 142, 154, 167, 180, 194, 208, 223, 238, 254, 270, 287, 304, 322, 340, 359, 378, 398, 418, 439, 460, 482, 504, 527, 550, 574, 598, 623, 648, 674, 700, 727, 754, 782, 810, 839, 868
a(n) = floor((n^2 + 6*n + 1)/4).
[A184674] 1, 2, 4, 7, 10, 14, 18, 23, 28, 34, 40, 47, 54, 62, 70, 79, 88, 98, 108, 119, 130, 142, 154, 167, 180, 194, 208, 223, 238, 254, 270, 287, 304, 322, 340, 359, 378, 398, 418, 439, 460, 482, 504, 527, 550, 574, 598, 623, 648, 674, 700, 727, 754, 782, 810, 839, 868, 898, 928, 959, 990, 1022, 1054, 1087, 1120, 1154, 1188, 1223, 1258, 1294, 1330, 1367, 1404
a(n) = n+floor((n/2-1/(2*n))^2).
[A227353] 0, 1, 2, 4, 7, 10, 14, 18, 23, 29, 35, 42, 49, 57, 66, 75, 85, 95, 106, 118, 130, 143, 156, 170, 185, 200, 216, 232, 249, 267, 285, 304, 323, 343, 364, 385, 407, 429, 452, 476, 500, 525, 550, 576, 603, 630, 658, 686, 715, 745, 775, 806, 837, 869, 902, 935
a(n) = 2*a(n-1) - a(n-2) + a(n-5) - 2a(n-6) + a(n-7).
[A183136] 0, 1, 2, 4, 7, 10, 14, 18, 23, 29, 35, 42, 50, 58, 67, 76, 86, 97, 108, 120, 132, 145, 159, 173, 188, 204, 220, 237, 254, 272, 291, 310, 330, 351, 372, 394, 416, 439, 463, 487, 512, 537, 563, 590, 617, 645, 674, 703, 733, 763, 794, 826, 858
a(n) = [1/r]+[2/r]+...+[n/r], where r = golden ratio = (1+sqrt(5))/2 and []=floor.
[A144873] 0, 0, 2, 4, 7, 10, 14, 18, 24, 28, 35, 40, 47, 54, 62, 70, 80, 88, 98, 108, 120, 130, 142, 154, 168, 180, 194, 208, 223, 238, 255, 270, 288, 304, 322, 340, 359, 378, 398, 418, 440, 460, 482, 504, 527, 550, 574, 598, 624, 648, 675, 700, 727, 754, 782, 810, 840, 868, 898, 928
a(n)=2*a(n-1)-a(n-2)+a(n-40)-2*a(n-41)+a(n-42). [From R. J. Mathar, Feb 13 2009]
[A007980] 1, 2, 4, 7, 10, 14, 19, 24, 30, 37, 44, 52, 61, 70, 80, 91, 102, 114, 127, 140, 154, 169, 184, 200, 217, 234, 252, 271, 290, 310, 331, 352, 374, 397, 420, 444, 469, 494, 520, 547, 574, 602, 631, 660, 690, 721, 752, 784, 817, 850, 884, 919, 954, 990, 1027, 1064
a(n) = a(n-1) + a(n-3) -a(n-4) + 2 = a(-3-n) for all n in Z. - Michael Somos, Jun 07 2003
a(n) = ceiling((n+1)*(n+2)/3). - Paul Boddington, Jan 26 2004
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5) for n>4.
a(n) = floor(floor((n+2)^3/3)/(n+3)+1/3). - Bruno Berselli, Jan 24 2017
[A022776] 1, 2, 4, 7, 10, 14, 19, 24, 30, 37, 45, 53, 62, 72, 82, 93, 105, 118, 131, 145, 160, 175, 191, 208, 225, 243, 262, 282, 302, 323, 345, 367, 390, 414, 439, 464, 490, 517, 544, 572, 601, 630, 660, 691, 723, 755, 788, 822, 856, 891, 927, 964, 1001
a(n) = 1+sum(k=1,n-1,ceiling(r*k)) where r=1/sqrt(2). - Benoit Cloitre, Jan 24 2009
[A023536] 1, 2, 4, 7, 10, 14, 19, 25, 31, 38, 46, 55, 65, 75, 86, 98, 111, 125, 140, 155, 171, 188, 206, 225, 245, 266, 287, 309, 332, 356, 381, 407, 434, 462, 490, 519, 549, 580, 612, 645, 679, 714, 750, 786, 823, 861, 900, 940, 981, 1023, 1066, 1110, 1155
a(n) = (n(n + 5) - 4)/2 - Sum_{k=2..n} floor(1/2 + sqrt(2(k + 2))). - Jan Hagberg (jan.hagberg(AT)stat.su.se), Oct 16 2002
a(n) = (n+1)(n+2)/2 - Sum_{k=1..n+1} floor((sqrt(8k+1)-1)/2);
a(n) = Sum_{k=1..n+1} k-floor((sqrt(8k+1)-1)/2). (End)
[A177237] 0, 0, 0, 0, 1, 2, 4, 7, 10, 14, 19, 25, 33, 42, 52, 64, 77, 92, 109, 128, 149, 172, 197, 225, 255, 288, 324, 362, 403, 447, 494, 545, 599, 656, 717, 781, 849, 921, 997, 1077, 1161, 1249, 1342, 1439, 1541, 1648, 1759, 1875, 1996, 2122, 2254
a(n)=round((n-2)*(n+3)*(2*n+1)/114).
a(n)=floor((2*n^3+3*n^2-11*n+42)/114).
a(n)=ceil((2*n^3+3*n^2-11*n-54)/114).
a(n)=round((2*n^3+3*n^2-11*n)/114).
a(n)=a(n-19)+(n+1)*(n-19)+128 , n>18.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-19) -3*a(n-20) +3*a(n-21) -a(n-22) with G.f. x^4*(1+x)*(x^4-x^3+x^2-x+1)*(x^8-x^7+x^6-x^4+x^2-x+1) / (x^18+x^17+x^16+x^15+x^14+x^13+x^12+x^11+x^10+x^9+x^8+x^7+x^6+x^5+x^4+x^3+x^2+x+1) *(x-1)^4). [R. J. Mathar, Dec 13 2010]
[A079963] 1, 1, 1, 1, 2, 4, 7, 10, 14, 21, 34, 55, 86, 131, 200, 310, 485, 757, 1174, 1815, 2810, 4362, 6778, 10524, 16323, 25310, 39260, 60924, 94549, 146706, 227599, 353093, 547826, 850005, 1318859, 2046257, 3174775, 4925699, 7642389, 11857510
a(n) = a(n-1)+a(n-4)+a(n-5)+a(n-6) G.f.: -1/(x^6+x^5+x^4+x-1)

[A160790] 0, 1, 2, 4, 7, 10, 16, 20, 30, 35, 50, 56, 77, 84, 112, 120, 156, 165, 210, 220, 275, 286, 352, 364, 442, 455, 546, 560, 665, 680, 800, 816, 952, 969, 1122, 1140, 1311, 1330, 1520, 1540, 1750, 1771, 2002, 2024, 2277, 2300, 2576, 2600, 2900, 2925, 3250, 3276, 3627, 3654, 4032, 4060, 4466, 4495, 4930, 4960, 5425
a(n) = +a(n-1) +3*a(n-2) -3*a(n-3) -3*a(n-4) +3*a(n-5) +a(n-6) -a(n-7).
a(n) = (2*n+3+(-1)^n)*(2*n+3-3*(-1)^n)*(2*n+15+5*(-1)^n)/384. - Luce ETIENNE, Mar 31 2015
[A034744] 1, 2, 4, 7, 10, 20, 26, 48, 72, 120, 178, 316, 466, 780, 1240, 2025, 3194, 5268, 8362, 13670, 21944, 35600, 57314, 93156, 150075, 243252, 392972, 636454, 1028458, 1665600, 2692538, 4358718, 7049512, 11408968, 18455060, 29866716, 48315634, 78184700, 126492904
a(n) = sum(Fibonacci(d)*Fibonacci(n/d), d|n). [Emanuele Munarini, Feb 14 2014]
[A025703] 1, 2, 4, 7, 11, 15, 20, 26, 33, 40, 48, 57, 67, 78, 89, 101, 114, 128, 142, 157, 173, 190, 208, 226, 245, 265, 286, 307, 329, 352, 376, 400, 425, 451, 478, 506, 534, 563, 593, 624, 655, 687, 720, 754, 789, 824, 860, 897, 935, 973, 1012, 1052, 1093, 1135, 1177, 1220
a(n) = n + 1 + Sum(j= 1 .. n, floor(j*log[6](4))). - Robert Israel, May 10 2015
[A077169] 1, 2, 4, 7, 11, 15, 20, 26, 33, 41, 50, 60, 71, 83, 96, 110, 125, 141, 158, 176, 195, 215, 236, 258, 281, 305, 330, 356, 383, 411, 440, 470, 501, 533, 566, 600, 635, 671, 708, 746, 785, 825, 866, 908, 951, 995, 1040, 1086, 1133, 1181, 1230, 1280, 1331, 1383
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), n >= 7.
[A293239] 1, 2, 4, 7, 11, 15, 21, 28, 35, 43, 53, 64, 76, 88, 102, 117, 133, 149, 167, 186, 206, 226, 248, 271, 295, 319, 345, 372, 400, 428, 458, 489, 521, 553, 587, 622, 658, 694, 732, 771, 811, 851, 893, 936, 980, 1024, 1070, 1117, 1165, 1213, 1263, 1314, 1366, 1418
a(n) = (5 + (-1)^n + (1-i)*(-i)^n + (1+i)*i^n + 2*n + 4*n^2) / 8 for n>7 where i=sqrt(-1).
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6) for n>6.
[A067744] 2, 4, 7, 11, 16, 20, 26, 31, 37, 43, 50, 56, 64, 71, 79, 86, 95, 103, 112, 120, 129, 139, 148, 158, 168, 178, 188, 199, 209, 220, 231, 243, 254, 266, 277, 289, 301, 314, 326, 338, 351, 364, 377, 390, 404, 417, 431, 444, 458, 472, 487, 501, 515, 530, 545, 560
a(n) = round(((2*Pi/(3^(3/2)))*((6*n-5)/6))^(3/2)).
[A024224] 0, 2, 4, 7, 11, 16, 22, 28, 35, 43, 51, 60, 70, 81, 93, 105, 118, 132, 146, 161, 177, 194, 212, 230, 249, 269, 289, 310, 332, 355, 379, 403, 428, 454, 480, 507, 535, 564, 594, 624, 655, 687, 719, 752, 786, 821, 857, 893, 930, 968, 1006, 1045, 1085, 1126, 1168, 1210, 1253, 1297, 1341, 1386, 1432
a(n) = floor((3 n^2 + 5 n - 6)/8).
a(8*k+j) = 24*k^2 + (5 + 6*j) k + b(j), where b(j) = -1,0,2,4,7,11,16,22 for j = 0..7. (End)
[A254835] 2, 4, 7, 11, 16, 22, 29, 37, 46, 56, 67, 79, 92, 106, 121, 133, 136, 144, 153, 161, 170, 180, 187, 197, 206, 216, 225, 233, 242, 248, 259, 269, 278, 286, 295, 305, 314, 322, 331, 341, 350, 358, 367, 377, 386, 394, 403, 413, 422, 430, 439, 449, 458, 466, 475, 485, 494, 502
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>21.
[A000124] 1, 2, 4, 7, 11, 16, 22, 29, 37, 46, 56, 67, 79, 92, 106, 121, 137, 154, 172, 191, 211, 232, 254, 277, 301, 326, 352, 379, 407, 436, 466, 497, 529, 562, 596, 631, 667, 704, 742, 781, 821, 862, 904, 947, 991, 1036, 1082, 1129, 1177, 1226, 1276, 1327, 1379
a(n+3) = 3*a(n+2)-3*a(n+1)+a(n) and a(1) = 1, a(2) = 2, a(3) = 4. - Artur Jasinski, Oct 21 2008
a(n) = a(n-1)+n. E.g.f.:(1+x+x^2/2)*exp(x). - Geoffrey Critzer, Mar 10 2009
a(n) = sum(k=0..n+1, binomial(n+1, 2(k-n))). - Paul Barry, Aug 29 2004
a(n) = binomial(n+2,1)-2*binomial(n+1,1)+binomial(n+2,2). - Zerinvary Lajos, May 12 2006
a(n) = Sum_{l_1=0..n+1} Sum_{l_2=0..n}...Sum_{l_i=0..n-i}...Sum_{l_n=0..1} delta(l_1,l_2,...,l_i,...,l_n) where delta(l_1,l_2,...,l_i,...,l_n) = 0 if any l_i != l_(i+1) and l_(i+1) != 0 and delta(l_1,l_2,...,l_i,...,l_n) = 1 otherwise. (End)
a(n) = 2*a(n-1)-a(n-2)+1. - Eric Werley, Jun 27 2011
[A152947] 1, 1, 2, 4, 7, 11, 16, 22, 29, 37, 46, 56, 67, 79, 92, 106, 121, 137, 154, 172, 191, 211, 232, 254, 277, 301, 326, 352, 379, 407, 436, 466, 497, 529, 562, 596, 631, 667, 704, 742, 781, 821, 862, 904, 947, 991, 1036, 1082, 1129, 1177, 1226, 1276, 1327, 1379
a(n) = a(n-1) + n - 2 for n>1, a(1) = 1. - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3. - Wesley Ivan Hurt, Jun 20 2016
[A212369] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 16, 22, 29, 37, 46, 56, 68, 85, 112, 156, 226, 333, 490, 712, 1016, 1421, 1949, 2630, 3512, 4676, 6256, 8464, 11620, 16187, 22811, 32366, 46005, 65225, 91967, 128786, 179140, 247861, 341885, 471332, 651041, 902679
a(n) = a(n-1) + Sum_{k=1..n-10} a(k)*a(n-10-k) if n>0; a(0) = 1.
[A212368] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 16, 22, 29, 37, 46, 57, 73, 99, 142, 211, 317, 473, 694, 997, 1402, 1937, 2648, 3614, 4967, 6917, 9782, 14023, 20284, 29438, 42647, 61457, 87963, 125093, 177074, 250157, 353692, 501658, 714768, 1023296, 1470843
a(n) = a(n-1) + Sum_{k=1..n-9} a(k)*a(n-9-k) if n>0; a(0) = 1.
[A212367] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 16, 22, 29, 37, 47, 62, 87, 129, 197, 302, 457, 677, 980, 1392, 1957, 2752, 3907, 5630, 8237, 12187, 18123, 26927, 39810, 58472, 85381, 124234, 180677, 263375, 385538, 567036, 837306, 1239408, 1835867, 2717386, 4016173
a(n) = a(n-1) + Sum_{k=1..n-8} a(k)*a(n-8-k) if n>0; a(0) = 1.
[A175777] 0, 0, 0, 0, 1, 2, 4, 7, 11, 16, 22, 29, 38, 48, 60, 74, 90, 108, 128, 150, 175, 202, 232, 265, 301, 340, 382, 427, 476, 528, 584, 644, 708, 776, 848, 924, 1005, 1090, 1180, 1275, 1375, 1480, 1590, 1705, 1826, 1952, 2084, 2222, 2366, 2516, 2672
a(n)=round((2*n+1)*(2*n^2+2*n-21)/192).
a(n)=floor((n-1)*(2*n^2+5*n-15)/96).
a(n)=ceil((n+2)*(2*n^2-n-18)/96).
a(n)=round(n*(n+4)*(2*n-5)/96).
a(n)=a(n-16)+(n+1)(n-16)+90 , n>15.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-8) -3*a(n-9) +3*a(n-10) -a(n-11). [R. J. Mathar, Dec 06 2010]
[A212366] 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 16, 22, 29, 38, 52, 76, 117, 184, 288, 442, 662, 972, 1414, 2063, 3047, 4572, 6952, 10645, 16303, 24857, 37672, 56821, 85541, 128948, 195103, 296548, 452501, 692053, 1058990, 1619311, 2473171, 3773889, 5757885, 8791090
a(n) = a(n-1) + Sum_{k=1..n-7} a(k)*a(n-7-k) if n>0; a(0) = 1.
[A175776] 0, 0, 0, 0, 1, 2, 4, 7, 11, 16, 22, 30, 39, 50, 63, 78, 95, 114, 135, 159, 185, 214, 246, 281, 319, 360, 405, 453, 505, 561, 621, 685, 753, 825, 902, 983, 1069, 1160, 1256, 1357, 1463, 1575, 1692, 1815, 1944, 2079, 2220, 2367, 2520, 2680, 2846
a(n)=round((2*n+1)*(n^2+n-14)/90).
a(n)=floor((n-2)*(2*n^2+7*n-13)/90).
a(n)=ceil((n+3)*(2*n^2-3*n-18)/90).
a(n)=a(n-15)+(n+1)(n-15)+78, n>14.
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=1, a(5)=2, a(6)=4, a(7)=7, a(8)=11, a(9)=16, a(10)=22, a(11)=30, a(12)=39, a(13)=50, a(14)=63, a(15)=78, a(16)=95, a(17)=114, a(n)=3*a(n-1)-3*a(n-2)+a(n-3)+a(n-15)- 3*a(n-16)+ 3*a(n-17)-a(n-18) [From Harvey P. Dale, May 04 2012]
[A177176] 0, 0, 0, 1, 2, 4, 7, 11, 16, 22, 30, 39, 50, 63, 78, 95, 115, 137, 162, 190, 221, 255, 292, 333, 377, 425, 477, 533, 593, 658, 727, 801, 880, 964, 1053, 1147, 1247, 1352, 1463, 1580, 1703, 1832, 1968, 2110, 2259, 2415, 2578, 2748, 2925, 3110, 3302
a(n)=round(n*(n+1)*(2*n+1)/78).
a(n)=floor((n+3)*(2*n^2-3*n+10)/78).
a(n)=ceil((n-2)*(2*n^2+7*n+15)/78).
a(n)=a(n-13)+(n+1)*(n-13)+63 , n>12.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-13) -3*a(n-14) +3*a(n-15) -a(n-16) with g.f. x^3*(1+x)*(x^2-x+1)*(x^6-x^5+x^4-x^3+x^2-x+1) / (x^12+x^11+x^10+x^9+x^8+x^7+x^6+x^5+x^4+x^3+x^2+x+1)*(x-1)^4). - R. J. Mathar, Dec 13 2010
[A212365] 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 16, 22, 30, 43, 66, 106, 172, 275, 429, 656, 996, 1522, 2360, 3714, 5897, 9376, 14852, 23410, 36788, 57828, 91187, 144413, 229561, 365678, 582766, 928280, 1477877, 2353062, 3749721, 5983631, 9562565, 15300700, 24501417
a(n) = a(n-1) + Sum_{k=1..n-6} a(k)*a(n-6-k) if n>0; a(0) = 1.
[A131075] 1, 2, 4, 7, 11, 16, 22, 30, 46, 92, 232, 628, 1652, 4096, 9544, 21000, 43912, 87824, 169120, 315952, 578096, 1048576, 1913440, 3567072, 6874336, 13748672, 28384384, 59797312, 126906176, 268435456, 561834112, 1158971520, 2353246336
a(1) = 1, a(2) = 2, a(3) = 4, a(4) = 7, a(5) = 11; for n > 5, a(n) = 6*a(n-1)-14*a(n-2)+16*a(n-3)-10*a(n-4)+4*a(n-5).
[A181120] 0, 0, 0, 1, 2, 4, 7, 11, 16, 23, 31, 41, 53, 67, 83, 102, 123, 147, 174, 204, 237, 274, 314, 358, 406, 458, 514, 575, 640, 710, 785, 865, 950, 1041, 1137, 1239, 1347, 1461, 1581, 1708, 1841, 1981, 2128, 2282, 2443, 2612, 2788, 2972, 3164, 3364, 3572

a(n)=round((2*n^3+3*n^2-6*n)/72)
a(n)=round((4*n^3+6*n^2-12*n-7)/144)
a(n)=floor((2*n^3+3*n^2-6*n+9)/72)
a(n)=ceil((2*n^3+3*n^2-6*n+9-16)/72)
a(n)=a(n-6)+(n^2-5*n+8)/2 , n>5
[A000601] 1, 2, 4, 7, 11, 16, 23, 31, 41, 53, 67, 83, 102, 123, 147, 174, 204, 237, 274, 314, 358, 406, 458, 514, 575, 640, 710, 785, 865, 950, 1041, 1137, 1239, 1347, 1461, 1581, 1708, 1841, 1981, 2128, 2282, 2443, 2612, 2788, 2972, 3164, 3364, 3572, 3789, 4014
a(0)=1, a(1)=2, a(2)=4, a(3)=7, a(4)=11, a(5)=16, a(6)=23, a(n) = 2*a(n-1) - a(n-3) - a(n-4) + 2*a(n-6) - a(n-7). - Harvey P. Dale, Mar 17 2013
a(-7 - n) = -a(n). - Michael Somos, May 28 2014
[A065095] 1, 2, 4, 7, 11, 16, 23, 33, 46, 62, 83, 110, 144, 186, 238, 303, 383, 481, 600, 744, 918, 1128, 1380, 1681, 2039, 2464, 2968, 3563, 4264, 5088, 6054, 7184, 8503, 10040, 11827, 13901, 16304, 19082, 22289, 25986, 30240, 35128, 40736, 47161, 54512
a(1) = 1, a(n+1) = a(n) + ceil((a(1) + a(2) + ... + a(n))/n)
[A005253] 1, 1, 1, 1, 2, 4, 7, 11, 16, 23, 34, 52, 81, 126, 194, 296, 450, 685, 1046, 1601, 2452, 3753, 5739, 8771, 13404, 20489, 31327, 47904, 73252, 112004, 171245, 261813, 400285
a(n-1) = Sum{k=0..floor(n/5)} binomial(n-3k, 2k). - Paul Barry, Sep 16 2004
[A212364] 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 16, 23, 35, 57, 96, 161, 264, 425, 682, 1106, 1821, 3030, 5055, 8412, 13956, 23145, 38487, 64261, 107673, 180762, 303651, 510187, 857692, 1443597, 2433495, 4108299, 6943862, 11746362, 19883655, 33681015, 57096874, 96874214
a(n) = a(n-1) + Sum_{k=1..n-5} a(k)*a(n-5-k) if n>0; a(0) = 1.
[A129339] 1, 2, 4, 7, 11, 16, 23, 37, 74, 175, 431, 1024, 2291, 4825, 9650, 18571, 34955, 65536, 124511, 242461, 484922, 989527, 2038103, 4194304, 8565755, 17308657, 34617314, 68703187, 135812051, 268435456, 532087943, 1059392917, 2118785834
a(1) = 1, a(2) = 2, a(3) = 4, a(4) = 7; for n > 4, a(n) = 5*a(n-1) - 9*a(n-2) + 6*a(n-3).
[A011912] 0, 0, 0, 0, 0, 2, 4, 7, 11, 16, 24, 33, 44, 57, 72, 91, 112, 136, 163, 193, 228, 266, 308, 354, 404, 460, 520, 585, 655, 730, 812, 899, 992, 1091, 1196, 1309, 1428, 1554, 1687, 1827, 1976, 2132, 2296, 2468, 2648
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-5) - 3*a(n-6) + 3*a(n-7) - a(n-8).
[A120118] 2, 4, 7, 11, 16, 26, 43, 71, 116, 186, 300, 487, 792, 1287, 2087, 3382, 5484, 8898, 14438, 23423, 37993, 61625, 99965, 162165, 263065, 426736, 692229, 1122903, 1821538, 2954849, 4793266, 7775472, 12613097, 20460538, 33190414, 53840404
a(n) = a(n-1) + a(n-3) + 2a(n-5) - a(n-8) - a(n-10).
[A266448] 1, 2, 4, 7, 11, 17, 21, 31, 35, 49, 53, 71, 75, 97, 101, 127, 131, 161, 165, 199, 203, 241, 245, 287, 291, 337, 341, 391, 395, 449, 453, 511, 515, 577, 581, 647, 651, 721, 725, 799, 803, 881, 885, 967, 971, 1057, 1061, 1151, 1155, 1249, 1253, 1351, 1355
a(n) = (2*n^2+2*n+(-1)^n*(7-2*n)+5)/4 for n>2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>7.
[A084267] 1, 2, 4, 7, 11, 17, 24, 33, 44, 57, 72, 89, 109, 131, 156, 184, 215, 250, 288, 330, 376, 426, 480, 538, 601, 668, 740, 817, 899, 987, 1080, 1179, 1284, 1395, 1512, 1635, 1765, 1901, 2044, 2194, 2351, 2516, 2688, 2868, 3056, 3252, 3456, 3668, 3889, 4118, 4356
a(n)=sum{k=0..n, floor(C(k+4, 4)/C(k+2, 2))}
[A177116] 0, 0, 0, 1, 2, 4, 7, 11, 17, 24, 33, 44, 57, 72, 90, 110, 133, 159, 188, 221, 257, 297, 341, 389, 441, 498, 559, 625, 696, 772, 854, 941, 1034, 1133, 1238, 1349, 1467, 1591, 1722, 1860, 2005, 2158, 2318, 2486, 2662, 2846, 3038, 3239, 3448, 3666, 3893
a(n)=round((n-2)*(n+3)*(2*n+1)/66).
a(n)=floor((2*n^3+3*n^2-11*n+18)/66).
a(n)=ceil((2*n^3+3*n^2-11*n-30)/66).
a(n)=round(n*(2*n^2+3*n-11)/66).
a(n)=a(n-11)+(n+1)*(n-11)+44 , n>10.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-11) -3*a(n-12) +3*a(n-13) -a(n-14). [R. J. Mathar, Dec 10 2010]
[A175822] 0, 1, 2, 4, 7, 11, 17, 24, 34, 46, 61, 79, 100, 125, 153, 186, 223, 265, 312, 364, 422, 485, 555, 631, 714, 804, 901, 1006, 1118, 1239, 1368, 1506, 1653, 1809, 1975, 2150, 2336, 2532, 2739, 2957, 3186, 3427, 3679, 3944, 4221, 4511, 4814, 5130, 5460, 5803, 6161
a(n)=round((2*n+1)*(n^2+n+12)/42).
a(n)=floor((n+1)*(2*n^2+n+24)/42).
a(n)=ceil((2*n^3+3*n^2+25*n)/42).
a(n)=a(n-7)+(n+1)*(n-7)+24 , n>6.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-7) -3*a(n-8) +3*a(n-9) -a(n-10). [R. J. Mathar, Dec 06 2010]
[A028291] 1, 2, 4, 7, 11, 17, 25, 35, 48, 64, 84, 108, 137, 171, 211, 258, 312, 374, 445, 525, 616, 718, 832, 959, 1100, 1256, 1428, 1617, 1824, 2050, 2297, 2565, 2856, 3171, 3511, 3878, 4273, 4697, 5152, 5639, 6160, 6716, 7309, 7940, 8611, 9324, 10080, 10881, 11729
a(n) = round((n+1)*(n^3+23*n^2+173*n+451)/720). - Tani Akinari, Jun 05 2014
a(n) - 2*a(n-1) + a(n+3) + a(n+4) - 2*a(n+6) + a(n+7) = 1 if n == 3 (mod 5) else 0. - Michael Somos, Jun 05 2014
a(n) = a(-12 - n) for all n in Z. - Michael Somos, May 14 2015
[A289060] 2, 4, 7, 11, 17, 25, 36, 51, 70, 93, 120, 151, 186, 225, 268, 315, 366, 421, 480, 543, 610, 681, 756, 835, 918, 1005, 1096, 1191, 1290, 1393, 1500, 1611, 1726, 1845, 1968, 2095, 2226, 2361, 2500, 2643, 2790, 2941, 3096, 3255, 3418, 3585, 3756, 3931, 4110
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n >= 8, where a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 11, a(4) = 17, a(5) = 25, a(6) = 36, a(7) = 51.
a(n) = 30 - 11*n + 2*n^2 for n>4. - Colin Barker, Jul 02 2017
[A006999] 0, 1, 2, 4, 7, 11, 17, 26, 40, 61, 92, 139, 209, 314, 472, 709, 1064, 1597, 2396, 3595, 5393, 8090, 12136, 18205, 27308, 40963, 61445, 92168, 138253, 207380, 311071, 466607, 699911, 1049867, 1574801, 2362202, 3543304, 5314957, 7972436
a(n) = floor((3a(n-1)+2)/2).
a(n) = -1 + floor(c*(3/2)^n) where c=1.08151366858984487730463398859954940871073704154202495479029559158562266648498965092241102655548894 0... - Benoit Cloitre, Jan 10 2002
[A005252] 1, 1, 1, 1, 2, 4, 7, 11, 17, 27, 44, 72, 117, 189, 305, 493, 798, 1292, 2091, 3383, 5473, 8855, 14328, 23184, 37513, 60697, 98209, 158905, 257114, 416020, 673135, 1089155, 1762289, 2851443, 4613732, 7465176, 12078909, 19544085, 31622993
a(n) = 2*a(n-1)-a(n-2)+a(n-4); a(0) = a(1) = a(2) = a(3) = 1 . - Philippe Deléham, May 01 2006
[A023428] 1, 1, 1, 1, 1, 1, 2, 4, 7, 11, 17, 27, 45, 77, 132, 224, 378, 640, 1093, 1881, 3250, 5622, 9732, 16874, 29332, 51126, 89313, 156283, 273842, 480474, 844220, 1485472, 2617335, 4617243
a(0)=1. a(n) = a(n-1)+sum_{k=2..n-4} a(k)*a(n-4-k).
[A129929] 1, 2, 4, 7, 11, 17, 29, 58, 129, 292, 639, 1333, 2666, 5188, 9999, 19388, 38166, 76332, 154261, 312703, 632171, 1271107, 2542214, 5066717, 10087066, 20099107, 40123189, 80246378, 160689174, 321892577, 644617194, 1290066428, 2580132856
a(n)=5a(n-1)-10a(n-2)+10a(n-3)-5a(n-4)+2a(n-5). - R. J. Mathar, Mar 06 2008
[A073738] 1, 2, 4, 7, 11, 18, 24, 35, 43, 58, 72, 89, 109, 130, 152, 177, 205, 236, 266, 303, 337, 376, 416, 459, 505, 556, 606, 659, 713, 768, 826, 895, 957, 1032, 1096, 1181, 1247, 1338, 1410, 1505, 1583, 1684, 1764, 1875, 1957, 2072, 2156, 2283, 2379, 2510, 2608
a(n) = Sum_{m<=n, m=n (mod 2)} p_m, where p_m is the m-th prime; that is, a(2n+k) = p_(2n+k) + p_(2(n-1)+k) + p_(2(n-2)+k) +... +p_k, for 0<=k<2, where a(0)=1 and the 0th prime is taken to be 1.
[A289131] 2, 4, 7, 11, 18, 28, 43, 65, 96, 142, 205, 299, 426, 616, 871, 1253, 1764, 2530, 3553, 5087, 7134, 10204, 14299, 20441, 28632, 40918, 57301, 81875, 114642, 163792, 229327, 327629, 458700, 655306, 917449, 1310663, 1834950, 2621380, 3669955, 5242817, 7339968
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 2*a(n-4) + 2*a(n-5) for n >= 6, a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 11, a(4) = 18, a(5) = 28.
a(n) = -(3*n)/2 + 7*2^(n/2) - 4 for n>0 and even.
a(n) = (-3*n + 5*2^((n + 3)/2) - 9) / 2 for n odd.
[A091838] 1, 2, 4, 7, 11, 18, 29, 47, 76, 121, 199, 310, 521, 841, 1364, 2207, 3571, 5776, 9349, 15125, 24476, 39601, 64079, 103682, 167761, 271441, 439204, 710645, 1149851, 1860496
a(n) < 2^(n-1)

a(n) <= F(n) + F(n-2) - m where F(i) is the i-th Fibonacci number and m=2 if n is in the set {2i | i >= 0} - {2^j, 3x2^j | j >= 0} - Dirk Nowotka (nowotka(AT)utu.fi), May 16 2004
a(n) seems to be asymptotic to phi^n where phi=(1+sqrt(5))/2.
[A288219] 2, 4, 7, 11, 18, 29, 47, 76, 123, 199, 322, 521, 843, 1364, 2207, 3571, 5778, 9349, 15127, 24476, 39603, 64079, 103682, 167761, 271443, 439204, 710647, 1149851, 1860498, 3010349, 4870847, 7881196, 12752043, 20633239, 33385282, 54018521, 87403803, 141422324
a(n) = a(n-1) + a(n-2) for n >= 3, where a(0) = 2, a(1) = 4, a(2) = 7.
[A293418] 0, 1, 1, 2, 4, 7, 11, 18, 29, 48, 77, 125, 203, 329, 533, 862, 1395, 2258, 3654, 5912, 9567, 15479, 25047, 40527, 65574, 106101, 171675, 277776, 449452, 727229, 1176682, 1903911, 3080594, 4984506, 8065100, 13049606, 21114706, 34164312, 55279018, 89443331
a(n) = floor(F(n)*sqrt(2)).
[A289077] 2, 4, 7, 11, 18, 30, 47, 74, 114, 176, 269, 411, 625, 950, 1441, 2185, 3310, 5013, 7589, 11487, 17384, 26306, 39804, 60225, 91120, 137860, 208573, 315552, 477400, 722254, 1092691, 1653113, 2500967, 3783660, 5724223, 8660047, 13101596, 19821099, 29986891
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + 2*a(n-4) + a(n-5) -2*a(n-6) + a(n-7) for n >= 7, a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 11, a(4) = 18, a(5) = 30, a(6) = 47.
[A289004] 2, 4, 7, 11, 18, 31, 52, 89, 151, 257, 438, 748, 1277, 2179, 3719, 6348, 10837, 18499, 31579, 53908, 92027, 157099, 268182, 457812, 781531, 1334153, 2277532, 3887973, 6637157, 11330291, 19341939, 33018621, 56366084, 96222539, 164261491, 280410777, 478689212
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-4) - a(n-5) + a(n-7) - a(n-8) - a(n-10) for n >= 10, where a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 11, a(4) = 18, a(5) = 31, a(6) = 52, a(7) = 89, a(9) = 151, a(9) = 257.
[A000570] 1, 1, 2, 4, 7, 11, 18, 31, 53, 89, 149, 251, 424, 715, 1204, 2028, 3418, 5761, 9708, 16358, 27565, 46452, 78279, 131910, 222285, 374581, 631222, 1063696, 1792472, 3020560, 5090059, 8577449, 14454177, 24357268, 41045336, 69167021, 116555915
a(n) = a(n-5) + a(n-4) + a(n-3) + a(n-1). - Jon E. Schoenfield, Aug 07 2006
[A192670] 1, 1, 1, 2, 4, 7, 11, 19, 33, 56, 94, 160, 271, 461, 785, 1337, 2279, 3890, 6644, 11357, 19426, 33246, 56930, 97535, 167177, 286665, 491745, 843842, 1448530, 2487302, 4272238, 7340067, 12614059, 21682694, 37279415, 64108676, 110268453, 189700207, 326408942, 561733093, 966869803
a(n) = floor(sqrt(trinomial(2*n,n))).
[A118647] 2, 4, 7, 11, 19, 33, 57, 97, 166, 285, 489, 838, 1436, 2462, 4221, 7236, 12404, 21264, 36453, 62491, 107127, 183646, 314822, 539695, 925191, 1586041, 2718927, 4661017, 7990313, 13697676, 23481725, 40254377, 69007488, 118298524, 202797424
a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-6). - suggested by Jon E. Schoenfield
[A000802] 1, 2, 4, 7, 11, 19, 34, 50, 82, 146, 274, 529, 785, 1297, 2321, 4369, 8465, 16657, 33041, 65809, 131344, 196880, 327952, 590096, 1114384, 2162960, 4260112, 8454416, 16843024, 33620240, 67174672, 134283536, 268501264, 536936720, 1073807632, 2147549456, 4295033104
a(n) = sum(min(2^k,2^(2^(n-k))-1),k=0..n). - Sean A. Irvine, Jun 24 2011
[A236392] 0, 1, 1, 2, 4, 7, 11, 19, 34, 59, 100, 172, 299, 517, 889, 1532, 2647, 4570, 7880, 13591, 23455, 40475, 69826, 120463, 207848, 358624, 618739, 1067513, 1841833, 3177820, 5482811, 9459670, 16321156, 28159607, 48584899, 83825395, 144627314, 249531427, 430526620, 742804724, 1281590779, 2211180253, 3815038217, 6582238444, 11356600255
a(n) = a(n-1) + a(n-3) + 2*a(n-4), a(0) = 0, a(1) = 1, a(2) = 1, a(3) = 2, a(4) = 4. - Philippe Deléham, Jan 25 2014
[A080005] 1, 1, 1, 2, 4, 7, 11, 19, 35, 62, 107, 186, 328, 578, 1012, 1771, 3107, 5455, 9568, 16774, 29417, 51603, 90513, 158741, 278404, 488301, 856448, 1502116, 2634532, 4620700, 8104269, 14214069, 24929981, 43724610, 76688540, 134503903, 235906039
a(n) = a(n-1) + a(n-2) + a(n-4) + a(n-5) - 2*a(n-6) + a(n-8) - a(n-10), n>9.
[A160393] 1, 2, 4, 7, 11, 20, 34, 58, 100, 172, 298, 516, 893, 1547, 2679, 4640, 8036, 13918, 24107, 41754, 72320, 125262, 216960, 375786, 650880, 1127357, 1952639, 3382070, 5857917, 10146210, 17573751, 30438629, 52721251, 91315885, 158163753, 273947655, 474491257, 821842965
a(n) = ceiling(sqrt((3^n-1)/2)).
[A288380] 2, 4, 7, 11, 20, 38, 70, 130, 245, 461, 866, 1630, 3070, 5780, 10883, 20495, 38596, 72682, 136874, 257762, 485417, 914137, 1721506, 3241946, 6105242, 11497412, 21651967, 40775059, 76787732, 144606926, 272324270, 512842018, 965785885, 1818771365, 3425116610
a(n) = 3*a(n-1) - 3*a(n-2) + 3*a(n-3) - 3*a(n-4) + a(n-5) for n >= 1, where a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 11, a(4) = 20.
[A033054] 1, 2, 4, 7, 12, 13, 14, 21, 22, 23, 37, 40, 43, 64, 67, 70, 111, 112, 113, 120, 121, 122, 129, 130, 131, 192, 193, 194, 201, 202, 203, 210, 211, 212, 334, 337, 340, 361, 364, 367, 388, 391, 394, 577, 580, 583, 604, 607, 610, 631
a(3n+3) = 9a(n)+4.
[A267529] 1, 2, 4, 7, 12, 18, 26, 35, 46, 58, 72, 87, 104, 122, 142, 163, 186, 210, 236, 263, 292, 322, 354, 387, 422, 458, 496, 535, 576, 618, 662, 707, 754, 802, 852, 903, 956, 1010, 1066, 1123, 1182, 1242, 1304, 1367, 1432, 1498, 1566, 1635, 1706, 1778, 1852, 1927
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>4.
[A005521] 1, 2, 4, 7, 12, 18, 26, 35, 46, 60, 75, 93, 113, 134, 157, 183, 212, 242, 275, 310, 346, 385, 426, 470, 518, 568, 619, 672, 726, 782, 845, 910, 978, 1047, 1121, 1196, 1274, 1355, 1438, 1524, 1613, 1703, 1798
a(n+1) = a(n) + (prime(n+1) - 1)/2 for odd primes prime(n+1).
[A173722] 0, 0, 1, 2, 4, 7, 12, 18, 26, 36, 49, 64, 82, 103, 128, 156, 188, 224, 265, 310, 360, 415, 476, 542, 614, 692, 777, 868, 966, 1071, 1184, 1304, 1432, 1568, 1713, 1866, 2028, 2199, 2380, 2570, 2770, 2980, 3201, 3432, 3674, 3927, 4192, 4468, 4756, 5056, 5369
a(n) = Sum_{k=0..n} round(k^2/8).
a(n) = round((2*n^3+3*n^2+4*n)/48).
a(n) = round((2*n+1)*(2*n^2+2*n+3)/96).
a(n) = floor((n+2)*(2*n^2-n+6)/48).
a(n) = ceiling((2*n^3+3*n^2+4*n-9)/48).
a(n) = a(n-4)+n*(n-3)/2+2, n>3.
[A175812] 0, 1, 2, 4, 7, 12, 18, 27, 38, 52, 69, 90, 114, 143, 176, 214, 257, 306, 360, 421, 488, 562, 643, 732, 828, 933, 1046, 1168, 1299, 1440, 1590, 1751, 1922, 2104, 2297, 2502, 2718, 2947, 3188, 3442, 3709, 3990, 4284, 4593, 4916, 5254, 5607, 5976, 6360, 6761, 7178
a(n)=round((2*n+1)*(2*n^2+2*n+17)/72).
a(n)=floor((n+1)*(2*n^2+n+17)/36).
a(n)=ceil((2*n^3+3*n^2+18*n)/36).
a(n)=round((2*n^3+3*n^2+18*n)/36).
a(n)=a(n-6)+(n+1)*(n-6)+18 , n>5.
a(n)=2*a(n-1)-a(n-3)-a(n-4)+2*a(n-6)-a(n-7), n>6. - Mircea Merca, Jan 09 2011
[A002621] 1, 2, 4, 7, 12, 18, 27, 38, 53, 71, 94, 121, 155, 194, 241, 295, 359, 431, 515, 609, 717, 837, 973, 1123, 1292, 1477, 1683, 1908, 2157, 2427, 2724, 3045, 3396, 3774, 4185, 4626, 5104, 5615, 6166, 6754, 7386, 8058, 8778, 9542, 10358, 11222, 12142, 13114
a(n) = +2*a(n-1) - a(n-3) - 2*a(n-5) + 2*a(n-6) + a(n-8) - 2*a(n-10) + a(n-11).
a(n)=floor((n+1)*(9*(-1)^n + n^3 + 21*n^2 + 145*n + 350)/576 + 1/2). - Tani Akinari, Nov 10 2012
[A103231] 1, 2, 4, 7, 12, 19, 29, 42, 59, 80, 107, 140, 180, 228, 285, 351, 429, 519, 622, 740, 874, 1025, 1195, 1385, 1597, 1832, 2092, 2379, 2695, 3041, 3419, 3831, 4279, 4766, 5293, 5862, 6476, 7137, 7847, 8609, 9425, 10298, 11230, 12224, 13282, 14407, 15603
a(n) = int(m(n-1) + 3s(n-1) + 1), where m(n-1) is the arithmetic mean of the first n-1 terms and s(n-1) is the sample standard deviation of the first n-1 terms
[A002622] 1, 2, 4, 7, 12, 19, 29, 42, 60, 83, 113, 150, 197, 254, 324, 408, 509, 628, 769, 933, 1125, 1346, 1601, 1892, 2225, 2602, 3029, 3509, 4049, 4652, 5326, 6074, 6905, 7823, 8837, 9952, 11178, 12520, 13989, 15591, 17338, 19236, 21298, 23531, 25949, 28560, 31378, 34412
a(n)= 2*a(n-1) -a(n-3) -a(n-5) +2*a(n-8) -a(n-11) -a(n-13) +2*a(n-15) -a(n-16).
a(n) = round((n+1)*(6*n^4+234*n^3+3326*n^2+20674*n+50651+675*(-1)^n)/86400). - Tani Akinari, May 05 2014
[A000070] 1, 2, 4, 7, 12, 19, 30, 45, 67, 97, 139, 195, 272, 373, 508, 684, 915, 1212, 1597, 2087, 2714, 3506, 4508, 5763, 7338, 9296, 11732, 14742, 18460, 23025, 28629, 35471, 43820, 53963, 66273, 81156, 99133, 120770, 146785, 177970, 215308, 259891, 313065, 376326, 451501
a(n) = (1/n)*Sum_{k=1..n} (sigma(k)+1)*a(n-k), n > 1, a(0)=1. - Vladeta Jovovic, Aug 22 2002
[A287525] 2, 4, 7, 12, 19, 31, 49, 80, 129, 210, 339, 549, 887, 1436, 2323, 3760, 6083, 9843, 15925, 25768, 41693, 67462, 109155, 176617, 285771, 462388, 748159, 1210548, 1958707, 3169255, 5127961, 8297216, 13425177, 21722394, 35147571, 56869965, 92017535, 148887500
a(n) = a(n-1) + a(n-2) - a(n-3) +a(n-4) + a(n-5) for n >= 6, where a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 12, a(4) = 19, a(5) = 31.

[A244472] 1, 2, 4, 7, 12, 19, 31, 50, 81, 131, 212, 343, 555, 898, 1453, 2351, 3804, 6155, 9959, 16114, 26073, 42187, 68260, 110447, 178707, 289154, 467861, 757015, 1224876, 1981891, 3206767, 5188658, 8395425, 13584083, 21979508, 35563591, 57543099
a(n) = a(n-1)+a(n-2), n>5. - Colin Barker, Jul 10 2015
[A279890] 0, 1, 1, 2, 4, 7, 12, 19, 31, 50, 82, 133, 216, 349, 565, 914, 1480, 2395, 3876, 6271, 10147, 16418, 26566, 42985, 69552, 112537, 182089, 294626, 476716, 771343, 1248060, 2019403, 3267463, 5286866, 8554330, 13841197, 22395528, 36236725, 58632253, 94868978, 153501232, 248370211, 401871444, 650241655, 1052113099, 1702354754
a(n) = 2*a(n-1) - 2*a(n-3) + 2*a(n-4) - a(n-6).
a(n) = (9*sqrt(5)*(((1 + sqrt(5))/2)^n - ((1 - sqrt(5))/2)^n) + 5*((-1)^n + 2*cos(Pi*n/3) - 3))/30.
[A289115] 2, 4, 7, 12, 20, 32, 50, 77, 116, 174, 260, 386, 571, 843, 1242, 1827, 2685, 3943, 5787, 8490, 12452, 18259, 26770, 39244, 57526, 84320, 123589, 181141, 265488, 389105, 570275, 835793, 1224929, 1795236, 2631062, 3856025, 5651296, 8282394, 12138456, 17789790
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - 2*a(n-4) + a(n-5) for n >= 10, a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 12, a(4) = 20, a(5) = 32, a(6) = 50, a(7) = 77, a(8) = 116, a(9) = 174.
[A000071] 0, 0, 1, 2, 4, 7, 12, 20, 33, 54, 88, 143, 232, 376, 609, 986, 1596, 2583, 4180, 6764, 10945, 17710, 28656, 46367, 75024, 121392, 196417, 317810, 514228, 832039, 1346268, 2178308, 3524577, 5702886, 9227464, 14930351, 24157816, 39088168
a(0) = -1, a(1) = 0; thereafter a(n) = a(n-1) + a(n-2) + 1.
a(n) = 2*a(n-1) - a(n-3). - R. H. Hardin, Apr 02 2011
a(n) = -1 + (A*B^n + C*D^n)/10, with A, C = 5 +- 3*sqrt(5), B, D = (1 +- sqrt(5))/2. - Ralf Stephan, Mar 02 2003
a(1) = 0, a(2) = 0, a(3) = 1, then a(n) = ceiling(phi*a(n-1)) where phi is the golden ratio (1 + sqrt(5))/2. - Benoit Cloitre, May 06 2003
a(n) = Sum_{k = 0..floor((n-2)/2)} binomial(n-k-2, k+1). - Paul Barry, Sep 23 2004
a(n+3) = Sum_{k = 0..floor(n/3)} binomial(n-2k, k)(-1)^k*2^(n-3k). - Paul Barry, Oct 20 2004
[A179111] 0, 0, 0, 0, 0, 0, 0, 1, 2, 4, 7, 12, 20, 33, 54, 88, 143, 233, 378, 613, 993, 1608, 2603, 4213, 6818, 11033, 17853, 28889, 46745, 75637, 122385, 198025, 320413, 518441, 838857, 1357301, 2196161, 3553466, 5749631, 9303101
a(n)=round(Fibonacci(n+2)/11-n/10-83/220).
a(n)=floor(Fibonacci(n+2)/11-n/10-4/55).
a(n)=ceil(Fibonacci(n+2)/11-n/10-15/22).
a(n)=a(n-10)+Fibonacci(n-3)-1, n>10.
a(n)=2*a(n-1)-a(n-3)+a(n-10)-2*a(n-11)+a(n-13), n>11.
[A100671] 1, 2, 4, 7, 12, 21, 37, 64, 111, 193, 335, 581, 1007, 1745, 3023, 5236, 9069, 15708, 27207, 47124, 81622, 141374, 244867, 424122, 734601, 1272367, 2203805, 3817103, 6611417, 11451311, 19834253, 34353934, 59502759, 103061802, 178508278, 309185407, 535524834
a(0) = 1, a(n) = Floor(Sqrt(3*a(n-1)*(a(n-1)+1))).
[A005251] 0, 1, 1, 1, 2, 4, 7, 12, 21, 37, 65, 114, 200, 351, 616, 1081, 1897, 3329, 5842, 10252, 17991, 31572, 55405, 97229, 170625, 299426, 525456, 922111, 1618192, 2839729, 4983377, 8745217, 15346786, 26931732, 47261895, 82938844, 145547525
a(n) = 2*a(n-1)-a(n-2)+a(n-3).
a(n+1) = Sum(binomial(n-k, 2k), {k=0...n}). - Richard Ollerton (r.ollerton(AT)uws.edu.au), May 12 2004
[A103197] 1, 2, 4, 7, 12, 21, 37, 65, 115, 208, 386, 727, 1367, 2536, 4630, 8376, 15217, 28170, 53620, 104843, 208547, 416448, 824990, 1608138, 3071813, 5747106, 10561032, 19177849, 34734782, 63495907, 118601911, 228454377, 454988025, 932297291
a(n) = Sum_{k>1} (x/(1-x))^Fibonacci(k).
[A000709] 1, 2, 4, 7, 12, 21, 38, 68, 124, 229, 428, 806, 1530, 2919, 5591, 10750, 20730, 40077, 77653, 150752, 293161, 570963, 1113524, 2174315, 4250367, 8317036, 16289636, 31931697, 62642861, 122980015, 241595101, 474910732, 934088141, 1838227618, 3619356631
a(n) = int (1/sqrt(log(u)), u=1..2^(n-1))))). - Based on Alois P. Heinz's Maple program, Alonso del Arte, Oct 24 2014
[A288133] 1, 2, 4, 7, 12, 21, 38, 71, 136, 265, 522, 1035, 2060, 4109, 8206, 16399, 32784, 65553, 131090, 262163, 524308, 1048597, 2097174, 4194327, 8388632, 16777241, 33554458, 67108891, 134217756, 268435485
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3) for n>4.
[A289107] 2, 4, 7, 12, 22, 37, 62, 102, 167, 272, 442, 717, 1162, 1882, 3047, 4932, 7982, 12917, 20902, 33822, 54727, 88552, 143282, 231837, 375122, 606962, 982087, 1589052, 2571142, 4160197, 6731342, 10891542, 17622887, 28514432, 46137322, 74651757, 120789082
a(n) = 2*a(n-1) - a(n-3) for n >= 5, a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 12, a(4) = 22.
a(n) = -3 + 2^(-1-n)*sqrt(5)*(-(1-sqrt(5))^(1 + n) + (1+sqrt(5))^(1+n)) for n>1. - Colin Barker, Jun 28 2017
[A257932] 1, 1, 2, 4, 7, 12, 22, 38, 67, 118, 207, 363, 638, 1119, 1964, 3447, 6049, 10615, 18629, 32691, 57369, 100676, 176674, 310041, 544085, 954802, 1675561, 2940405, 5160051, 9055258, 15890871, 27886534, 48937456, 85879249, 150707576, 264473359, 464118392, 814471000, 1429296968
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-5) - a(n-7).
[A287439] 2, 4, 7, 12, 22, 38, 68, 120, 212, 376, 664, 1176, 2080, 3680, 6512, 11520, 20384, 36064, 63808, 112896, 199744, 353408, 625280, 1106304, 1957376, 3463168, 6127360, 10841088, 19181056, 33936896, 60044288, 106235904, 187962368, 332560384, 588396544
a(n) = 2*a(n-2) + 2*a(n-3) for n >= 3, where a(0) = 2, a(2) = 4, a(3) = 7.
[A254685] 1, 1, 2, 4, 7, 12, 22, 39, 69, 123, 219, 389, 692, 1231, 2189, 3893, 6924, 12314, 21900, 38949, 69270, 123195, 219100, 389665, 693011, 1232506, 2191987, 3898404, 6933232, 12330612, 21929742, 39001599, 69363549, 123361658, 219396194, 390191659, 693947912
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-5).
[A288317] 2, 4, 7, 12, 22, 40, 75, 139, 262, 489, 922, 1726, 3252, 6097, 11479, 21540, 40531, 76096, 143130, 268816, 505483, 949575, 1785262, 3354205, 6305358, 11847874, 22270276, 41848977, 78658699, 147817204, 277825071, 522110308, 981292414, 1844155992, 3465987547
a(n) = a(n-1) + 3*a(n-2) - 2*a(n-3) - a(n-4) for n >= 4, where a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 12.
[A099604] 1, 1, 2, 4, 7, 12, 23, 40, 72, 131, 233, 420, 756, 1355, 2438, 4381, 7868, 14144, 25413, 45661, 82058, 147444, 264943, 476092, 855483, 1537236, 2762296, 4963591, 8919173, 16027012, 28799164, 51749715, 92989886, 167094985, 300255720
a(n) = 2*a(n-2) + 3*a(n-3) - 2*a(n-5) - a(n-6) for n>=6.
[A002466] 1, 1, 2, 4, 7, 13, 17, 30, 60, 107, 197, 257, 454, 908, 1619, 2981, 3889, 6870, 13740, 24499, 45109, 58849, 103958, 207916, 370723, 682597, 890513, 1573110, 3146220, 5609843, 10329173, 13475393, 23804566, 47609132, 84889091, 156302789
a(1) = a(2) = 1, a(3) = 2, a(5*k+2) = a(5*k+1) + a(5*k-1), a(5*k+3) = a(5*k+2) + a(5*k+1), a(5*k+b) = a(5*k+b-1) + a(5*k+b-2) + a(5*k+b-3) for b=-1,0,1 [From Domoryad]. - Sean A. Irvine, Apr 21 2016
[A165753] 0, 0, 0, 0, 1, 1, 2, 4, 7, 13, 20, 34, 56, 93, 150, 244, 396, 643, 1043, 1689, 2733, 4425, 7161, 11587, 18754, 30344, 49100, 79449, 128552, 208007, 336563, 544573, 881140, 1425715, 2306860, 3732583, 6039449, 9772038, 15811490, 25583533, 41395029
a(n) = k * phi^n + O(n), for k = 1/sqrt(80).
[A026625] 1, 1, 2, 4, 7, 13, 21, 36, 58, 96, 155, 253, 409, 664, 1074, 1740, 2815, 4557, 7373, 11932, 19306, 31240, 50547, 81789, 132337, 214128, 346466, 560596, 907063, 1467661, 2374725, 3842388, 6217114, 10059504, 16276619, 26336125, 42612745, 68948872, 111561618
a(n) = 2^(-1-n)*(-5*((-2)^n + 3*2^n) - (-15+sqrt(5))*(1+sqrt(5))^n + (1-sqrt(5))^n*(15+sqrt(5))) / 5 for n>1.
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>5.
[A281362] 1, 2, 4, 7, 13, 22, 38, 63, 105, 172, 282, 459, 747, 1212, 1966, 3185, 5159, 8352, 13520, 21881, 35411, 57302, 92724, 150037, 242773, 392822, 635608, 1028443, 1664065, 2692522, 4356602, 7049139, 11405757, 18454912, 29860686, 48315615, 78176319, 126491952
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) + a(n-5) for n>4.
[A114832] 1, 2, 4, 7, 13, 23, 40, 70, 121, 210, 364, 631, 1093, 1894, 3281, 5683, 9844, 17050, 29532, 51151, 88597, 153455, 265792, 460366, 797377, 1381098, 2392132, 4143295, 7176398, 12429886, 21529195, 37289660, 64587586, 111868981, 193762759
a(1) = 1, a(2) = 2, for n > 2: a(n+1) = a(n) + ceiling(HarmonicMean(a(n), a(n-1))). a(n+1) = a(n) + ceiling((2*a(n)*a(n-1))/(a(n) + a(n-1))).
[A260917] 1, 1, 2, 4, 7, 13, 23, 41, 74, 132, 236, 422, 754, 1348, 2409, 4305, 7694, 13750, 24573, 43915, 78481, 140255, 250652, 447944, 800528, 1430636, 2556712, 4569140, 8165581, 14592837, 26079086, 46606340, 83290915, 148850489, 266013023, 475396009, 849587598, 1518311204, 2713397556, 4849154954, 8666000202
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-6) - a(n-7).
[A287381] 2, 4, 7, 13, 23, 42, 75, 136, 244, 441, 793, 1431, 2576, 4645, 8366, 15080, 27167, 48961, 88215, 158970, 286439, 516164, 930072, 1675961, 3019941, 5441791, 9805712, 17669353, 31838986, 57371980, 103380599, 186285573, 335674791, 604865338, 1089929347

a(n) = a(n-1) + 2*a(n-2) - a(n-3), where a(0) = 2, a(1) = 4, a(2) = 7.
[A000073] 0, 0, 1, 1, 2, 4, 7, 13, 24, 44, 81, 149, 274, 504, 927, 1705, 3136, 5768, 10609, 19513, 35890, 66012, 121415, 223317, 410744, 755476, 1389537, 2555757, 4700770, 8646064, 15902591, 29249425, 53798080, 98950096, 181997601, 334745777, 615693474, 1132436852
a(n) = j*c^n + k*r1^n + l*r2^n where c is the tribonacci constant (c = 1.8392867552...), real root of x^3-x^2-x-1=0, and r1 and r2 are the two other roots (complex), r1 = m+pI and r2 = m-pI, where m = (1-c)/2 (m = -0.4196433776...) and p = ((3*c-5)*(c+1)/4)^(1/2) (p=0.6062907292...), and where j = 1/((c-m)^2+p^2) (= 0.1828035330...), k = a+bI, and l = a-bI, where a = -j/2 (a = -0.0914017665...) and b = (c-m)/(2*p*((c-m)^2+p^2)(b = 0.3405465308...). - Philippe LALLOUET (philip.lallouet(AT)wanadoo.fr), Jun 23 2007
a(n+1) = 3*c*((1/3)*(a+b+1))^n/(c^2-2*c+4) where a=(19+3*sqrt(33))^(1/3), b=(19-3*sqrt(33))^(1/3), c=(586+102*sqrt(33))^(1/3). Round off to the nearest integer. - Al Hakanson (hawkuu(AT)gmail.com), Feb 02 2009
a(n) = 3*((a+b+1)/3)^n/(a^2+b^2+4) where a=(19+3*sqrt(33))^(1/3), b=(19-3*sqrt(33))^(1/3). Round off to the nearest integer. - Anton Nikonov
a(n) = Sum_{k=1..n} Sum_{i=k..n, mod(4*k-i,3)=0} binomial(k,(4*k-i)/3)*(-1)^((i-k)/3)*binomial(n-i+k-1,k-1)). - Vladimir Kruchinin, Aug 18 2010
a(n) = 2*a(n-2) + 2*a(n-3) + a(n-4). - Gary Detlefs, Sep 13 2010
a(n) = 2*a(n-1) - a(n-4), with a(0)=a(1)=0, a(2)=a(3)=1. - Vincenzo Librandi, Dec 20 2010
[A265826] 1, 1, 2, 4, 7, 13, 24, 45, 84, 157, 293, 547, 1021, 1906, 3558, 6642, 12399, 23146, 43208, 80659, 150571, 281080, 524709, 979506, 1828503, 3413376, 6371955, 11894912, 22204949, 41451316, 77379669, 144449290, 269652192, 503375992, 939682290
a(0) = 1
a(n) = Sum_{k=1..n, a(n-k)*ceiling(sin(k))}
[A059633] 1, 2, 4, 7, 13, 24, 45, 84, 157, 293, 547, 1021, 1906, 3558, 6642, 12399, 23146, 43208, 80659, 150571, 281080, 524709, 979506, 1828503, 3413377, 6371957, 11894917, 22204960, 41451340, 77379720, 144449397, 269652414
a(n) = Sum_{k=0..n+1} C(k+1, n-k+1)F(n-k+1) [offset 0]. - Paul Barry, Feb 23 2005
[A086445] 1, 2, 4, 7, 13, 24, 46, 89, 175, 346, 688, 1371, 2737, 5468, 10930, 21853, 43699, 87390, 174772, 349535, 699061, 1398112, 2796214, 5592417, 11184823, 22369634, 44739256, 89478499, 178956985, 357913956, 715827898, 1431655781, 2863311547
a(n) = 2*2^n/3+(-1)^n/12+n/2+1/4.
a(0) = 1, a(n) = floor(2*a(n-1) - n/2 + 1) for n>0. - Gerald McGarvey, Aug 31 2004
[A079958] 1, 1, 2, 4, 7, 13, 25, 46, 86, 161, 300, 560, 1046, 1952, 3644, 6803, 12699, 23706, 44254, 82611, 154215, 287883, 537408, 1003212, 1872757, 3495988, 6526172, 12182800, 22742368, 42454552, 79252477, 147945385, 276178586, 515559248
a(n) = a(n-1)+a(n-2)+a(n-3)+a(n-6) G.f.: -1/(x^6+x^3+x^2+x-1)
[A108361] 1, 1, 2, 4, 7, 13, 25, 47, 90, 172, 329, 629, 1202, 2294, 4374, 8330, 15847, 30115, 57172, 108434, 205473, 389019, 735927, 1391121, 2627720, 4960134, 9356707, 17639323, 33234036, 62580444, 117776828, 221542596, 416524573, 782743029
a(n) = sum{k=0..floor(n/2)} (sum{j=0..n-2k} C(k, j) * C(n-k-j, k) * floor((j+2)/2)).
[A103204] 2, 4, 7, 13, 25, 49, 97, 193, 385, 769, 1537, 3073, 6145, 12289, 24577, 49153, 98305, 196609, 393217, 786433, 1572865, 3145729, 6291457, 12582913, 25165825, 50331649, 100663297, 201326593, 402653185, 805306369, 1610612737, 3221225473
a(n) = 3*2^(n-2) + 1 for n>1. - Ralf Stephan, May 18 2007
[A293314] 2, 4, 7, 13, 26, 52, 104, 208, 415, 829, 1657, 3314, 6628, 13255, 26510, 53020, 106040, 212079, 424158, 848316, 1696632, 3393264, 6786527, 13573053, 27146106, 54292212, 108584423, 217168846, 434337692, 868675384, 1737350767, 3474701533, 6949403066
a(n) = ceiling(r*2^n), where r = (1+sqrt(5))/2.
[A023431] 1, 1, 1, 2, 4, 7, 13, 26, 52, 104, 212, 438, 910, 1903, 4009, 8494, 18080, 38656, 82988, 178802, 386490, 837928, 1821664, 3970282, 8673258, 18987930, 41652382, 91539466, 201525238, 444379907, 981384125, 2170416738, 4806513660
a(n+1)=a(n)+a(0)a(n-2)+a(1)a(n-3)+...+a(n-2)a(0). - Michael Somos, Jul 13 2003
[A112740] 1, 2, 4, 7, 13, 26, 58, 147, 423, 1366, 4880, 19039, 80281, 362914, 1747598, 8918299, 48024291, 271891710, 1613325844, 10005690695, 64702147429, 435311589418, 3041246276098, 22024930755299, 165082467634303, 1278742554953574
a(n)=sum{k=0..n, sum{j=0..k, (2-0^j)*(n-1)^(k-j)}}.
[A136408] 1, 2, 4, 7, 13, 27, 55, 107, 211, 427, 859, 1707, 3403, 6827, 13675, 27307, 54571, 109227, 218539, 436907, 873643, 1747627, 3495595, 6990507, 13980331, 27962027, 55925419, 111848107, 223693483, 447392427, 894790315, 1789569707, 3579128491
a(n)=(1/3)+(5/6)*2^n-(1/12)*[I*sqrt(2)]^n-(1/12)*[-I*sqrt(2)]^n, with n>0= and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A280430] 2, 4, 7, 14, 19, 34, 63, 76, 137, 248, 282, 502, 891, 980, 1718, 3000, 3233, 5594, 9646, 10256, 17565, 30000, 31597, 53690, 91033, 95214, 160803, 271108, 282054, 474060, 795677, 824334, 1380142, 2308114, 2383139, 3977364, 6631898, 6828316, 11366227
a(n) = n + Sum_{0..k} (((n-2)/(1+Beta^2)) + (2/(Beta-alpha)))alpha^k + (((Beta^2(n-2))/(1+Beta^2)) - (2/(Beta-alpha)))Beta^k + 2 where alpha = (1+sqrt(5))/2, beta = (1-sqrt(5))/2, n = number of letters in each chromosome, and k = floor(2(n-1)/3).
[A217730] 1, 2, 4, 7, 14, 24, 48, 82, 164, 280, 560, 956, 1912, 3264, 6528, 11144, 22288, 38048, 76096, 129904, 259808, 443520, 887040, 1514272, 3028544, 5170048, 10340096, 17651648, 35303296, 60266496, 120532992, 205762688, 411525376, 702517760, 1405035520, 2398545664, 4797091328, 8189147136, 16378294272, 27959497216
a(n) = 4*a(n-2) - 2*a(n-4) for n>=4, a(0)=1, a(1)=2, a(2)=4, a(3)=7.
a(n)*a(n+1)-a(n-1)*a(n+2) = (1-(-1)^n)*2^floor(n/2-1) for n>0. [Bruno Berselli, Mar 22 2013]
[A287185] 2, 4, 7, 14, 25, 47, 88, 166, 311, 586, 1097, 2068, 3877, 7301, 13699, 25778, 48397, 91033, 170969, 321496, 603938, 1135456, 2133310, 4010306, 7535386, 14164226, 26616463, 50028064, 94013615, 176700655, 332068907, 624115579, 1172907376, 2204415644
a(n) = 3*a(n-2) + a(n-3) + a(n-5) - 3*a(n-6) - a(n-7), where a(0) = 2, a(1) = 4, a(2) = 7, a(3) = 14, a(4) = 25, a(5) = 47, a(6) = 88, a(7) = 166.
[A026010] 1, 2, 4, 7, 14, 25, 50, 91, 182, 336, 672, 1254, 2508, 4719, 9438, 17875, 35750, 68068, 136136, 260338, 520676, 999362, 1998724, 3848222, 7696444, 14858000, 29716000, 57500460, 115000920, 222981435, 445962870, 866262915, 1732525830, 3370764540
a(2n) = (3n + 1)/(2n + 1) C(2n + 1, n), n>=0 a(2n-1) = a(2n)/2, n>=1 - Herbert Kociemba, May 08 2004
a(n) = sum{k=0..n, C(floor((n+k)/2), floor(k/2))} - Paul Barry, Jul 15 2004
[A097596] 1, 1, 2, 4, 7, 14, 26, 48, 89, 165, 304, 559, 1029, 1893, 3482, 6404, 11779, 21666, 39850, 73296, 134813, 247961, 456072, 838847, 1542881, 2837801, 5219530, 9600212, 17657543, 32477286, 59735042, 109869872, 202082201, 371687117
a(n) = (r3^n-r2^n-r1^n)/(r3-r2-r1) r1=-0.419643377607080569‘-0.606290729207199419‘ I r2=-0.419643377607080569‘+0.606290729207199419‘ I r3=1.83928675521416113‘
[A257792] 1, 1, 2, 4, 7, 14, 26, 49, 92, 174, 328, 618, 1166, 2197, 4143, 7811, 14726, 27764, 52344, 98687, 186058, 350784, 661347, 1246865, 2350768, 4432000, 8355837, 15753609, 29700940, 55996428, 105572414, 199040101, 375258649, 707490872, 1333862213, 2514786376
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-5) - a(n-8) + a(n-9).
[A253511] 1, 2, 4, 7, 14, 26, 49, 93, 176, 333, 630, 1192, 2255, 4267, 8073, 15274, 28900, 54679, 103455, 195741, 370348, 700713, 1325774, 2508412, 4746007, 8979617, 16989761, 32145244, 60819967, 115073582, 217723390, 411940547, 779406450, 1474665262, 2790120139
a(n) = a(n-1) + Sum_{k>=0} a(n-(1+2^k)), with a(-1) = a(0) = 1 and a(n) = 0 for n < -1.
[A052535] 1, 1, 2, 4, 7, 14, 26, 50, 95, 181, 345, 657, 1252, 2385, 4544, 8657, 16493, 31422, 59864, 114051, 217286, 413966, 788674, 1502555, 2862617, 5453761, 10390321, 19795288, 37713313, 71850128, 136886433, 260791401, 496850954, 946583628
a(n)=sum{k=0..floor(n/2), binomial(2n-3k, k)}. - Paul Barry, Jan 21 2005
[A079968] 1, 1, 2, 4, 7, 14, 27, 51, 98, 187, 357, 683, 1305, 2494, 4767, 9110, 17411, 33276, 63596, 121544, 232293, 443954, 848478, 1621597, 3099169, 5923081, 11320094, 21634776, 41348026, 79023662, 151028714, 288643577, 551650823, 1054305916
a(n) = a(n-1)+a(n-2)+a(n-3)+a(n-5)+a(n-6) G.f.: -1/(x^6+x^5+x^3+x^2+x-1)
[A171231] 2, 4, 7, 14, 27, 54, 107, 214, 427, 854, 1707, 3414, 6827, 13654, 27307, 54614, 109227, 218454, 436907, 873814, 1747627, 3495254, 6990507, 13981014, 27962027, 55924054, 111848107, 223696214, 447392427, 894784854, 1789569707
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3), n>=3.
a(n) - a(n-2) = 5*2^n.
a(n) = ceil((5/3)*(2^n)). - Wesley Ivan Hurt, Jun 28 2013
[A293325] 2, 4, 7, 14, 28, 56, 111, 222, 444, 887, 1774, 3548, 7095, 14189, 28378, 56756, 113512, 227024, 454047, 908094, 1816187, 3632374, 7264748, 14529496, 29058991, 58117982, 116235963, 232471925, 464943849, 929887697, 1859775394, 3719550787, 7439101574

a(n) = ceiling(r*2^n), where r = sqrt(3).
[A113405] 0, 0, 0, 1, 2, 4, 7, 14, 28, 57, 114, 228, 455, 910, 1820, 3641, 7282, 14564, 29127, 58254, 116508, 233017, 466034, 932068, 1864135, 3728270, 7456540, 14913081, 29826162, 59652324, 119304647, 238609294, 477218588, 954437177, 1908874354, 3817748708
a(n) = 2a(n-1)-a(n-3)+2a(n-4).
a(n) = round(2^n/9). - Ross Drewe, Sep 03 2009
[A293336] 0, 1, 2, 4, 7, 14, 29, 57, 114, 229, 458, 916, 1832, 3664, 7327, 14654, 29309, 58617, 117234, 234469, 468937, 937875, 1875750, 3751500, 7502999, 15005998, 30011996, 60023993, 120047985, 240095971, 480191942, 960383883, 1920767767, 3841535534, 7683071068
a(n) = floor(1/2 + r*2^n), where r = sqrt(1/5).
[A013326] 1, 2, 4, 7, 14, 31, 68, 146, 313, 674, 1453, 3130, 6740, 14515, 31262, 67331, 145012, 312314, 672637, 1448674, 3120041, 6719698, 14472356, 31169423, 67130254, 144579863, 311384740, 670635970, 1444363025
a(0)=1, a(1)=2, a(2)=4, a(3)=7, a(n)=3*a(n-1)-3*a(n-2)+3*a(n-3)-a(n-4). - Harvey P. Dale, May 22 2013
[A259592] 1, 2, 4, 7, 15, 26, 56, 97, 209, 362, 780, 1351, 2911, 5042, 10864, 18817, 40545, 70226, 151316, 262087, 564719, 978122, 2107560, 3650401, 7865521, 13623482, 29354524, 50843527, 109552575, 189750626, 408855776, 708158977, 1525870529, 2642885282, 5694626340
a(n) = 4*a(n-2) - a(n-4) for n>3. - Colin Barker, Jul 21 2015
[A291220] 1, 1, 2, 4, 7, 15, 27, 55, 101, 199, 370, 718, 1347, 2595, 4898, 9397, 17803, 34066, 64682, 123561, 234917, 448289, 852979, 1626689, 3096695, 5903316, 11241426, 21424775, 40805833, 77759648, 148118585, 282229961, 537636210, 1024373916, 1951472023, 3718072991
a(n) = a(n-1) + 4*a(n-2) - 3*a(n-3) - 5*a(n-4) + 3*a(n-5) + 4*a(n-6) - a(n-7) - a(n-8) for n >= 9.
[A136336] 1, 2, 4, 7, 15, 27, 59, 107, 235, 427, 939, 1707, 3755, 6827, 15019, 27307, 60075, 109227, 240299, 436907, 961195, 1747627, 3844779, 6990507, 15379115, 27962027, 61516459, 111848107, 246065835, 447392427, 984263339, 1789569707, 3937053355, 7158278827
a(n) = (8 + (-2)^n + 21*2^n) / 24 for n>0.
[A129682] 1, 1, 2, 4, 7, 15, 30, 60, 123, 249, 506, 1030, 2093, 4257, 8658, 17606, 35807, 72821, 148096, 301188, 612531, 1245717, 2533444, 5152318, 10478383, 21310119, 43338854, 88139182, 179250591, 364545863, 741384936, 1507770834, 3066386677, 6236177973, 12682652180
a(n) = a(n-1) + a(n-2) + a(n-3) + 2*r(n-3), where r(n) = r(n-1) + r(n-2) + a(n-2);
a(n)=2*a(n-1)+a(n-3)-2*a(n-4)+a(n-5)-a(n-6) - Robert Gerbicz, May 09 2008
[A276027] 1, 1, 1, 2, 4, 7, 18, 43, 93, 266, 702, 1687, 5136, 14405, 36898, 117016, 341842, 914064, 2983027, 8972121, 24743851, 82478973, 253555061, 715745648, 2424954125, 7582390623, 21796481477, 74805170349, 237095926682, 691568408221, 2398418942361, 7686495623620
a(n) = f(0, n, 0) where f(a, b, c) is the number of ways to reach one number beginning with a zeros, b ones, and c twos.
[A291403] 0, 2, 4, 7, 20, 42, 92, 214, 472, 1062, 2396, 5361, 12052, 27074, 60764, 136497, 306520, 688292, 1545768, 3471224, 7795184, 17505588, 39311608, 88280985, 198250312, 445204610, 999783508, 2245185343, 5041947516, 11322557726, 25426742788, 57100105470
a(n) = 2*a(n-2) + 4*a(n-3) + 3*a(n-4) + 4*a(n-5) + 6*a(n-6) + 4*a(n-7) + a(n-8) for n >= 9.
[A047466] 0, 1, 2, 4, 8, 9, 10, 12, 16, 17, 18, 20, 24, 25, 26, 28, 32, 33, 34, 36, 40, 41, 42, 44, 48, 49, 50, 52, 56, 57, 58, 60, 64, 65, 66, 68, 72, 73, 74, 76, 80, 81, 82, 84, 88, 89, 90, 92, 96, 97, 98, 100, 104, 105, 106, 108, 112, 113, 114, 116, 120, 121, 122
a(n) = 2*n-4+(3-(-1)^n)*(1-i^(n*(n+1)))/4, where i=sqrt(-1). [Bruno Berselli, Jul 18 2012]
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A003485] 1, 2, 4, 8, 9, 10, 12, 16, 17, 18, 20, 24, 25, 26, 28, 32, 33, 34, 36, 40, 41, 42, 44, 48, 49, 50, 52, 56, 57, 58, 60, 64, 65, 66, 68, 72, 73, 74, 76, 80, 81, 82, 84, 88, 89, 90, 92, 96, 97, 98, 100, 104, 105, 106, 108, 112, 113, 114, 116, 120, 121, 122, 124
a(n) = ceil((n+1)/4) + ceil((n)/4) + 2*ceil((n-1)/4) + 4*ceil((n-2)/4). - Johannes W. Meijer, Jun 07 2011
a(0)=1, a(1)=2, a(2)=4, a(3)=8, a(4)=9, a(n)=a(n-1)+a(n-4)-a(n-5). - Harvey P. Dale, Jun 13 2011
[A136803] 0, 1, 2, 4, 8, 9, 11, 13, 15, 16, 17, 18, 21, 22, 23, 25, 26, 29, 30, 31, 32, 34, 35, 36, 42, 44, 46, 49, 50, 52, 57, 58, 59, 60, 61, 62, 64, 67, 68, 70, 72, 73, 79, 81, 84, 88, 89, 92, 95, 98, 99, 100, 104, 111, 113, 114, 116, 117, 118, 120, 121, 122, 123, 124
a(n) + a(131-n) = 257 for n>1.
[A233999] 1, 2, 4, 8, 9, 11, 15, 16, 18, 22, 23, 25, 29, 30, 32, 36, 37, 39, 43, 44, 46, 49, 50, 51, 53, 57, 58, 60, 64, 65, 67, 71, 72, 74, 78, 79, 81, 85, 86, 88, 92, 93, 95, 98, 99, 100, 102, 106, 107, 109, 113, 114, 116, 120, 121, 123, 127, 128, 130, 134, 135, 137, 141, 142, 144, 148, 149
a(n) = 16n/7 + O(log n). - Charles R Greathouse IV, Jan 12 2017
[A047350] 1, 2, 4, 8, 9, 11, 15, 16, 18, 22, 23, 25, 29, 30, 32, 36, 37, 39, 43, 44, 46, 50, 51, 53, 57, 58, 60, 64, 65, 67, 71, 72, 74, 78, 79, 81, 85, 86, 88, 92, 93, 95, 99, 100, 102, 106, 107, 109, 113, 114, 116, 120, 121, 123, 127, 128, 130, 134, 135, 137, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n > 4.
a(n) = a(n-3) + 7 for n > 3. (End)
a(n) = (21*n - 21 - 6*cos(2*n*Pi/3) + 4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-3, a(3k-1) = 7k-5, a(3k-2) = 7k-6. (End)
[A136805] 0, 1, 2, 4, 8, 9, 13, 15, 16, 17, 18, 19, 21, 25, 26, 30, 32, 33, 34, 35, 36, 37, 38, 42, 49, 50, 52, 53, 55, 60, 64, 66, 68, 69, 70, 71, 72, 74, 76, 77, 79, 81, 84, 87, 93, 97, 98, 100, 103, 104, 106, 107, 109, 110, 115, 117, 120, 121, 123, 128, 129, 132, 135
a(n) + a(32771-n) = 65537 for n>1.
[A048715] 0, 1, 2, 4, 8, 9, 16, 17, 18, 32, 33, 34, 36, 64, 65, 66, 68, 72, 73, 128, 129, 130, 132, 136, 137, 144, 145, 146, 256, 257, 258, 260, 264, 265, 272, 273, 274, 288, 289, 290, 292, 512, 513, 514, 516, 520, 521, 528, 529, 530, 544, 545, 546, 548, 576, 577, 578, 580
a(n) XOR 6*a(n) = 7*a(n); 3*a(n) XOR 4*a(n) = 7*a(n); 3*a(n) XOR 5*a(n) = 6*a(n); (conjectures). - Paul D. Hanna, Jan 22 2006
[A028982] 1, 2, 4, 8, 9, 16, 18, 25, 32, 36, 49, 50, 64, 72, 81, 98, 100, 121, 128, 144, 162, 169, 196, 200, 225, 242, 256, 288, 289, 324, 338, 361, 392, 400, 441, 450, 484, 512, 529, 576, 578, 625, 648, 676, 722, 729, 784, 800, 841, 882, 900, 961, 968, 1024
a(n) is asymptotic to c*n^2 with c = 2/(1+sqrt(2))^2 = 0.3431457.... - Benoit Cloitre, Sep 17 2002
[A079931] 1, 2, 4, 8, 9, 16, 20, 22, 23, 32, 33, 36, 39, 42, 43, 46, 47, 50, 51, 55, 59, 60, 63, 69, 74, 77, 80, 82, 87, 92, 94, 97, 100, 102, 105, 107, 111, 113, 114, 117, 119, 122, 126, 128, 129, 134, 141, 142, 146, 147, 150, 151, 154, 157, 160, 162, 165, 167, 168, 171, 175
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(1/sqrt(Pi)) and frac(y) = y - floor(y).
[A047464] 0, 2, 4, 8, 10, 12, 16, 18, 20, 24, 26, 28, 32, 34, 36, 40, 42, 44, 48, 50, 52, 56, 58, 60, 64, 66, 68, 72, 74, 76, 80, 82, 84, 88, 90, 92, 96, 98, 100, 104, 106, 108, 112, 114, 116, 120, 122, 124, 128, 130, 132, 136, 138, 140, 144, 146, 148, 152, 154, 156
a(n) = 2*floor((n-1)/3)+2*n-2. [Gary Detlefs, Mar 18 2010]
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-15-3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-4, a(3k-1) = 8k-6, a(3k-2) = 8k-8. (End)
[A047235] 2, 4, 8, 10, 14, 16, 20, 22, 26, 28, 32, 34, 38, 40, 44, 46, 50, 52, 56, 58, 62, 64, 68, 70, 74, 76, 80, 82, 86, 88, 92, 94, 98, 100, 104, 106, 110, 112, 116, 118, 122, 124, 128, 130, 134, 136, 140, 142, 146, 148, 152, 154, 158, 160, 164, 166, 170, 172, 176, 178, 182, 184, 188, 190, 194, 196, 200, 202, 206
a(n) = 3n + 5..n odd, 3n + 4..n even a(n) = 6*floor((n+1)/2) + 3 + (-1)^n. - Gary Detlefs, Mar 02 2010
a(n) = 6*n - a(n-1) - 6 (with a(1) = 2). - Vincenzo Librandi, Aug 05 2010
a(n+1) = a(n) + (a(n) mod 6). - M. F. Hasler, Jan 14 2014
[A074330] 2, 4, 8, 10, 14, 18, 26, 28, 32, 36, 44, 48, 56, 64, 80, 82, 86, 90, 98, 102, 110, 118, 134, 138, 146, 154, 170, 178, 194, 210, 242, 244, 248, 252, 260, 264, 272, 280, 296, 300, 308, 316, 332, 340, 356, 372, 404, 408, 416, 424, 440, 448, 464, 480, 512, 520, 536
a(0)=0, a(2n) = 2a(n-1) + a(n) + 2, a(2n+1) = 3a(n) + 2. G.f. 1/(1-x) * prod(k>=0, 1 + 2x^2^k). - Ralf Stephan, Oct 07 2003
[A083655] 0, 1, 2, 4, 8, 10, 16, 32, 36, 64, 128, 136, 256, 512, 528, 1024, 2048, 2080, 4096, 8192, 8256, 16384, 32768, 32896, 65536, 131072, 131328, 262144, 524288, 524800, 1048576, 2097152, 2098176, 4194304, 8388608, 8390656, 16777216, 33554432
a(0)=0, a(1)=1, a(2)=2; then for n>=1, a(3n)=2^(2n), a(3n+1)=2^(2n+1), a(3n+2)=2^(2n+1)+2^n - Graeme McRae, Aug 11 2007
[A099942] 1, 2, 4, 8, 10, 20, 22, 44, 46, 92, 94, 188, 190, 380, 382, 764, 766, 1532, 1534, 3068, 3070, 6140, 6142, 12284, 12286, 24572, 24574, 49148, 49150, 98300, 98302, 196604, 196606, 393212, 393214, 786428, 786430, 1572860, 1572862, 3145724, 3145726
a(0)=1; for n > 0, a(n) = a(n-1)*(1 + n mod 2) + 2*((n+1) mod 2).

[A235700] 1, 2, 4, 8, 11, 12, 14, 18, 21, 22, 24, 28, 31, 32, 34, 38, 41, 42, 44, 48, 51, 52, 54, 58, 61, 62, 64, 68, 71, 72, 74, 78, 81, 82, 84, 88, 91, 92, 94, 98, 101, 102, 104, 108, 111, 112, 114, 118, 121, 122, 124, 128, 131, 132, 134, 138, 141, 142, 144, 148, 151, 152, 154, 158, 161, 162, 164, 168, 171, 172, 174, 178, 181, 182, 184, 188, 191
a(n) = 2^(n-1 mod 4) + 10*floor((n-1)/4).
a(n) = (-10+(1+2*i)*(-i)^n+(1-2*i)*i^n+10*n)/4 where i=sqrt(-1). a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4). G.f.: x*(2*x^3+2*x^2+1) / ((x-1)^2*(x^2+1)). - Colin Barker, Jan 16 2014
[A078649] 2, 4, 8, 11, 13, 16, 18, 22, 26, 28, 31, 35, 38, 40, 44, 48, 51, 53, 56, 58, 62, 65, 67, 70, 74, 78, 80, 83, 85, 89, 92, 94, 97, 99, 103, 107, 110, 112, 115, 119, 121, 124, 126, 130, 133, 135, 138, 140, 144, 148, 150, 153, 157, 160, 162, 165, 167, 171, 175, 178, 180
a(n) is probably asymptotic to 3*n.
[A086790] 1, 2, 4, 8, 11, 15, 19, 23, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222, 226, 230
a(n) = floor(4*n-6+9/(n+1)-2/(n+1)^2). For n>=8 a(n)=4*n-6 - Benoit Cloitre, Aug 06 2003
[A242313] 1, 2, 4, 8, 11, 16, 21, 22, 31, 32, 41, 42, 44, 51, 61, 62, 64, 71, 81, 82, 84, 88, 91, 101, 102, 111, 121, 122, 124, 128, 131, 141, 142, 151, 161, 162, 164, 168, 171, 176, 181, 182, 191, 201, 202, 204, 211, 221, 222, 231, 241, 242, 244, 248, 251, 256, 261
a(n) = 5n + O(log n). - Charles R Greathouse IV, May 14 2014
[A295674] 1, 2, 4, 8, 11, 17, 29, 48, 76, 122, 199, 323, 521, 842, 1364, 2208, 3571, 5777, 9349, 15128, 24476, 39602, 64079, 103683, 167761, 271442, 439204, 710648, 1149851, 1860497, 3010349, 4870848, 7881196, 12752042, 20633239, 33385283, 54018521, 87403802
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 1, a(1) = 2, a(2) = 4, a(3) = 8.
[A053439] 1, 2, 4, 8, 11, 18, 22, 32, 37, 50, 56, 72, 79, 98, 106, 128, 137, 162, 172, 200, 211, 242, 254, 288, 301, 338, 352, 392, 407, 450, 466, 512, 529, 578, 596, 648, 667, 722, 742, 800, 821, 882, 904, 968, 991, 1058, 1082, 1152, 1177, 1250, 1276
a(n) = Sum_{k=0..n} binomial(n, k mod 2). - Paul Barry, Jul 24 2003
[A159693] 1, 2, 4, 8, 11, 20, 24, 40, 45, 70, 76, 112, 119, 168, 176, 240, 249, 330, 340, 440, 451, 572, 584, 728, 741, 910, 924, 1120, 1135, 1360, 1376, 1632, 1649, 1938, 1956, 2280, 2299, 2660, 2680, 3080, 3101, 3542, 3564, 4048, 4071, 4600, 4624, 5200, 5225, 5850
a(n) = (n^3+3*n^2+8*n+r(n))/24, where r(n) = 3*n+9 if n is odd, 3*n^2 if n is even.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7). - R. J. Mathar, Apr 20 2009
a(n) = (2*n^3+9*n^2+19*n+9+3*(n^2-n-3)*(-1)^n)/48. - Luce ETIENNE, Dec 29 2014
[A118286] 2, 4, 8, 12, 14, 16, 20, 24, 26, 28, 32, 36, 38, 40, 44, 48, 50, 52, 56, 60, 62, 64, 68, 72, 74, 76, 80, 84, 86, 88, 92, 96, 98, 100, 104, 108, 110, 112, 116, 120, 122, 124, 128, 132, 134, 136, 140, 144, 146, 148, 152, 156, 158, 160, 164, 168, 170, 172, 176, 180, 182
a(n) = (-2+(-i)^n+i^n+6*n)/2, where i = sqrt(-1). - Colin Barker, Oct 19 2015
[A007590] 0, 0, 2, 4, 8, 12, 18, 24, 32, 40, 50, 60, 72, 84, 98, 112, 128, 144, 162, 180, 200, 220, 242, 264, 288, 312, 338, 364, 392, 420, 450, 480, 512, 544, 578, 612, 648, 684, 722, 760, 800, 840, 882, 924, 968, 1012, 1058, 1104, 1152, 1200, 1250, 1300, 1352, 1404
a(n+1) = Sum_{k=1..n} k + mod(k, 2). Therefore a(n) = Sum_{k=1..n} 2*floor(k/2). - William A. Tedeschi, Mar 19 2008
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - R. H. Hardin, Mar 28 2011
a(n) = (2*n^2 + (-1)^n - 1)/4. - Bruno Berselli, Mar 28 2011
a(n) = ceiling((n^2-1)/2) = binomial(n+1, 2) - ceiling(n/2). - Wesley Ivan Hurt, Mar 08 2014, Jun 14 2013
a(n) = binomial(n,2) + floor(n/2). - Bruno Berselli, Jun 08 2017
[A080476] 1, 2, 4, 8, 12, 18, 24, 32, 40, 50, 60, 72, 84, 98, 112, 128, 144, 162, 180, 200, 220, 242, 264, 288, 312, 338, 364, 392, 420, 450, 480, 512, 544, 578, 612, 648, 684, 722, 760, 800, 840, 882, 924, 968, 1012, 1058, 1104, 1152, 1200, 1250, 1300, 1352, 1404, 1458
a(n+3) = 2*a(n+2)-a(n+1) if n even, a(n+3) = 2*a(n+2)-a(n+1)+2 if n odd, with a(1)=1, a(2)=2, a(3)=4 - Yosu Yurramendi, Sep 12 2008
a(n)= 2*a(n-1)-2*a(n-3)+a(n-4) for n>5. G.f.: x*(x^4-2*x^3-1) / ((x-1)^3*(x+1)). - Colin Barker, Aug 08 2013
[A284122] 0, 2, 4, 8, 12, 18, 26, 38, 56, 84, 128, 198, 310, 490, 780, 1248, 2004, 3226, 5202, 8398, 13568, 21932, 35464, 57358, 92782, 150098, 242836, 392888, 635676, 1028514, 1664138, 2692598, 4356680, 7049220, 11405840, 18454998, 29860774, 48315706, 78176412, 126492048, 204668388, 331160362, 535828674
a(n) = 2*(-2+(2^(-1-n)*((1-sqrt(5))^n*(1+sqrt(5)) + (-1+sqrt(5))*(1+sqrt(5))^n)) / sqrt(5) + n) for n>1.
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
[A006501] 1, 2, 4, 8, 12, 18, 27, 36, 48, 64, 80, 100, 125, 150, 180, 216, 252, 294, 343, 392, 448, 512, 576, 648, 729, 810, 900, 1000, 1100, 1210, 1331, 1452, 1584, 1728, 1872, 2028, 2197, 2366, 2548, 2744, 2940, 3150, 3375, 3600, 3840, 4096, 4352, 4624, 4913, 5202
a(n) = [(n+3)/3] * [(n+4)/3] * [(n+5)/3]. - Reinhard Zumkeller, May 18 2004
a(n-3) = sum(k=0..n, [k/3][(k+1)/3]). - Mitch Harris, Dec 02 2004
[A224814] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 12, 18, 27, 36, 48, 64, 80, 100, 125, 175, 245, 343, 490, 700, 1000, 1400, 1960, 2744, 3724, 5054, 6859, 9386, 12844, 17576, 24336, 33696, 46656, 64800, 90000, 125000, 172500, 238050, 328509, 452295, 622725, 857375, 1182275, 1630295, 2248091, 3106141, 4291691, 5929741, 8190250, 11312500, 15625000, 21562500
a(n) = a(n-1) +a(n-4) -a(n-6) +a(n-7) -3*a(n-9) +4*a(n-10) +5*a(n-12) -2*a(n-13) +3*a(n-15) -8*a(n-16) +a(n-18) -4*a(n-19) +3*a(n-21) -4*a(n-22) -3*a(n-24) -5*a(n-27) +8*a(n-28) +7*a(n-30) -2*a(n-31) -9*a(n-33) +2*a(n-34) +5*a(n-36) +4*a(n-37) +a(n-39) -6*a(n-40) -3*a(n-42) +2*a(n-43) +2*a(n-45) +a(n-46) -a(n-48) -a(n-49) +a(n-52).
[A224810] 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 12, 18, 27, 36, 48, 64, 96, 144, 216, 324, 486, 729, 1053, 1521, 2197, 3211, 4693, 6859, 10108, 14896, 21952, 32144, 47068, 68921, 100860, 147600, 216000, 316800, 464640, 681472, 998976
a(n) = a(n-1) -a(n-3) +2*a(n-4) -2*a(n-6) +4*a(n-7) +2*a(n-9) +2*a(n-10) +4*a(n-12) -2*a(n-13) +2*a(n-15) -4*a(n-16) -2*a(n-18) -2*a(n-19) -a(n-21) -a(n-22) -a(n-24)
[A006500] 1, 2, 4, 8, 12, 18, 27, 45, 75, 125, 200, 320, 512, 832, 1352, 2197, 3549, 5733, 9261, 14994, 24276, 39304, 63580, 102850, 166375, 269225, 435655, 704969, 1140624, 1845504, 2985984, 4831488, 7817616, 12649337, 20466953, 33116057, 53582633
a(n) = F(floor(n/3) + 3)^(n mod 3)*F(floor(n/3) + 2)^(3 - (n mod 3)) where F(n) is the n-th Fibonacci number. - David Nacin, Feb 29 2012
[A011908] 0, 0, 0, 0, 0, 2, 4, 8, 12, 19, 27, 38, 50, 66, 84, 105, 129, 156, 188, 223, 263, 306, 355, 408, 467, 530, 600, 675, 756, 843, 936, 1037, 1144, 1259, 1380, 1510, 1647, 1793, 1946, 2109, 2280, 2460, 2649, 2847
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-13) -3*a(n-14) +3*a(n-15) -a(n-16). G.f.: x^5*(2-2*x+2*x^2-2*x^3+3*x^4-2*x^5+2*x^6-2*x^7+3*x^8-2*x^9+x^10) / ((-1+x)^4*(1+x^12+x^11+x^10+x^9+x^8+x^7+x^6+x^5+x^4+x^3+x^2+x)). [From R. J. Mathar, Apr 15 2010]
[A037168] 2, 4, 8, 12, 20, 24, 32, 36, 44, 56, 60, 72, 80, 84, 92, 104, 116, 120, 132, 140, 144, 156, 164, 176, 192, 200, 204, 212, 216, 224, 252, 260, 272, 276, 296, 300, 312, 324, 332, 344, 356, 360, 380, 384, 392, 396, 420, 444, 452, 456
a(n) = 2 * prime(n) - 2 = 2 * phi(prime(n)). - Alonso del Arte, Jun 30 2013
[A014557] 0, 0, 0, 0, 0, 0, 2, 4, 8, 12, 20, 28, 40, 52, 70, 88, 112, 136, 168, 200, 240, 280, 330, 380, 440, 500, 572, 644, 728, 812, 910, 1008, 1120, 1232, 1360, 1488, 1632, 1776, 1938, 2100, 2280, 2460, 2660, 2860, 3080, 3300, 3542, 3784, 4048, 4312
a(n) = binomial(n,3) - floor(n/2 * floor(((n-1)/2)^2)). - Alexander Adamchuk, Nov 29 2006
[A263615] 2, 4, 8, 12, 20, 28, 44, 59, 89, 115, 167, 209, 293, 357, 485, 578, 764, 894, 1154, 1330, 1682, 1914, 2378, 2677, 3275, 3653, 4409, 4879, 5819, 6395, 7547, 8244, 9638, 10472, 12140, 13128, 15104, 16264, 18584, 19935, 22637, 24199, 27323, 29117, 32705, 34753, 38849, 41174, 45824, 48450
a(n) = (2*n*(3*n^3-14*n^2+147*n+272)+(4*n^3-30*n^2+128*n-27)*(-1)^n-741)/768.
[A131770] 1, 2, 4, 8, 12, 20, 32, 52, 72, 104, 156, 228, 332, 436, 592, 820, 1152, 1588, 2180, 2772, 3592, 4744, 6332, 8512, 11284, 14876, 18468, 23212, 29544, 38056, 49340, 64216, 82684, 105896, 129108, 158652, 196708, 246048, 310264, 392948, 498844, 627952
a(n) = a(n-1) + a(n - t(n)) where t(n) = [(sqrt(8n + 17) - 3)/2] for n>0, with a(0)=1.
[A081410] 1, 1, 2, 4, 8, 12, 21, 35, 56, 92, 150, 242, 393, 637, 1030, 1668, 2700, 4368, 7069, 11439, 18508, 29948, 48458, 78406, 126865, 205273, 332138, 537412, 869552, 1406964, 2276517, 3683483, 5960000, 9643484, 15603486, 25246970, 40850457
a(n)=floor(C*F(n))+b(n) where C=(9-sqrt(5))/4, F(n) is the n-th Fibonacci number and b(n) is the 6-periodic sequence (0, 0, -1, -1, 0, -1)
a(1)=1, a(2)=1, a(3)=2, a(4)=4, a(5)=8, a(n)=a(n-1)+a(n-2)+a(n-3)- a(n-4)- a(n-5). - Harvey P. Dale, Feb 01 2013
[A171647] 1, 2, 4, 8, 12, 24, 32, 64, 80, 160, 192, 384, 448, 896, 1024, 2048, 2304, 4608, 5120, 10240, 11264, 22528, 24576, 49152, 53248, 106496, 114688, 229376, 245760, 491520, 524288, 1048576, 1114112, 2228224, 2359296, 4718592, 4980736, 9961472
a(n) = +4*a(n-2) -4*a(n-4). G.f.: x*(1+2*x)/(-1+2*x^2)^2. [R. J. Mathar, Dec 06 2010]

a(n) = (2*n-(-1)^n+1)*2^((2*n+(-1)^n-9)/4). [Bruno Berselli, Dec 07 2010]
[A279312] 1, 2, 4, 8, 12, 24, 40, 80, 128, 256, 416, 832, 1344, 2688, 4352, 8704, 14080, 28160, 45568, 91136, 147456, 294912, 477184, 954368, 1544192, 3088384, 4997120, 9994240, 16171008, 32342016, 52330496
a(n) = 2a(n-2) + 4a(n-4). - Charles R Greathouse IV, Dec 13 2016
[A030503] 2, 4, 8, 13, 19, 27, 36, 46, 58, 71, 85, 101, 118, 136, 156, 177, 199, 223, 248, 274, 302, 331, 361, 393, 426, 460, 496, 533, 571, 611, 652, 694, 738, 783, 829, 877, 926, 976, 1028, 1081, 1135, 1191, 1248, 1306, 1366, 1427, 1489, 1553, 1618
a(n) = ceil (binomial (n, w) * 2^w / (2*n + 1))
[A245094] 1, 2, 4, 8, 13, 20, 24, 27, 33, 36, 42, 45, 51, 54, 60, 63, 69, 72, 78, 81, 87, 90, 96, 99, 105, 108, 114, 117, 123, 126, 132, 135, 141, 144, 150, 153, 159, 162, 168, 171, 177, 180, 186, 189, 195, 198, 204, 207, 213, 216, 222, 225, 231, 234, 240, 243, 249, 252, 258, 261, 267
a(n) = 3*((-1)^n+6*n-5)/4 for n>5.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>8.
[A084684] 1, 2, 4, 8, 13, 20, 28, 38, 49, 62, 76, 92, 109, 128, 148, 170, 193, 218, 244, 272, 301, 332, 364, 398, 433, 470, 508, 548, 589, 632, 676, 722, 769, 818, 868, 920, 973, 1028, 1084, 1142, 1201, 1262, 1324, 1388, 1453, 1520, 1588, 1658, 1729, 1802, 1876, 1952, 2029, 2108, 2188, 2270, 2353, 2438, 2524, 2612, 2701, 2792, 2884, 2978, 3073, 3170, 3268, 3368, 3469, 3572
a(n) = (6*n^2 + 9 - (-1)^n)/8. - Charles R Greathouse IV, Sep 10 2014
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). - Colin Barker, Sep 11 2014
a(n) = a(-n) for all n in Z. - Michael Somos, Feb 08 2015
[A011907] 0, 0, 0, 0, 0, 2, 4, 8, 13, 20, 28, 39, 52, 68, 87, 109, 134, 163, 195, 232, 273, 319, 369, 425, 485, 552, 624, 702, 786, 876, 974, 1078, 1190, 1309, 1436, 1570, 1713, 1864, 2024, 2193, 2371, 2558, 2755, 2961
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-25) -3*a(n-26) +3*a(n-27) -a(n-28). G.f.: x^5*(2-2*x+2*x^2-x^3+x^4-x^5+2*x^6-x^7+x^8+x^12-x^13+2*x^14-x^15+x^16-x^17+2*x^18-2*x^19+3*x^20-2*x^21+x^22) / ((-1+x)^4*(1+x^4+x^3+x^2+x)*(x^20+x^15+x^10+x^5+1)). [From R. J. Mathar, Apr 15 2010]
[A172131] 0, 0, 0, 1, 2, 4, 8, 13, 20, 29, 40, 53, 69, 87, 108, 133, 161, 193, 229, 269, 313, 362, 415, 473, 537, 606, 681, 762, 849, 942, 1042, 1148, 1261, 1382, 1510, 1646, 1790, 1942, 2102, 2271, 2448, 2634, 2830, 3035, 3250, 3475, 3710, 3955, 4211, 4477, 4754
a(n) = sum(k=0..n,floor(k^2/9)).
a(n) = round((2*n^3+3*n^2-15*n-9)/54).
a(n) = round((2*n^3+3*n^2-15*n-8)/54).
a(n) = floor((2*n^3+3*n^2-15*n+18)/54).
a(n) = ceil((2*n^3+3*n^2-15*n-34)/54).
a(n) = a(n-9)+(n-4)^2+4, n>8.
[A173721] 0, 0, 1, 2, 4, 8, 13, 20, 29, 41, 55, 72, 93, 117, 145, 177, 214, 255, 301, 353, 410, 473, 542, 618, 700, 789, 886, 990, 1102, 1222, 1351, 1488, 1634, 1790, 1955, 2130, 2315, 2511, 2717, 2934, 3163, 3403, 3655, 3919, 4196, 4485, 4787, 5103, 5432, 5775, 6132
a(n) = sum(k=0..n,round(k^2/7)).
a(n) = round((2*n^3+3*n^2+n)/42).
a(n) = a(n-7)+(n-3)^2+4, n>6.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-7) -3*a(n-8) +3*a(n-9) -a(n-10).
a(n) = n*(n+1)*(2*n+1)/42 - b(n)/7 where b(n) = 0, 1, -2, 0, 2, -1, 0,.. with period length 7. (End)
[A061866] 0, 0, 0, 1, 2, 4, 8, 13, 20, 30, 42, 57, 76, 98, 124, 155, 190, 230, 276, 327, 384, 448, 518, 595, 680, 772, 872, 981, 1098, 1224, 1360, 1505, 1660, 1826, 2002, 2189, 2388, 2598, 2820, 3055, 3302, 3562, 3836, 4123, 4424, 4740, 5070, 5415, 5776, 6152, 6544, 6953, 7378, 7820
a(n) = (binomial(n,3)+2*floor(n/3))/3. - Claude Morin, Mar 06 2012
[A026039] 2, 4, 8, 13, 21, 31, 44, 61, 81, 106, 135, 169, 209, 254, 306, 364, 429, 502, 582, 671, 768, 874, 990, 1115, 1251, 1397, 1554, 1723, 1903, 2096, 2301, 2519, 2751, 2996, 3256, 3530, 3819, 4124, 4444, 4781, 5134, 5504, 5892, 6297, 6721, 7163, 7624, 8105, 8605, 9126, 9667, 10229, 10813, 11418, 12046, 12696, 13369
a(n)=(n + 3)*(2*n^2 + 9*n + 22)/30 - 1/5 - (- 1/25*((5 - 5^(1/2))^(1/2) - (5 + 5^(1/2))^(1/2))*2^(1/2))*sin(2*n*Pi/5) - (1/25*((5 - 5^(1/2))^(1/2) + (5 + 5^(1/2))^(1/2))*2^(1/2))*sin(4*n*Pi/5) [From Richard Choulet, Dec 14 2008]
a(n) = round((2*n-1)*(n^2-n+6)/30) = floor((2*n^3-3*n^2+13*n)/30) = ceil((n-1)*(2*n^2-n+12)/30) = round((n-1)*(2*n^2-n+12)/30) [From Mircea Merca, Dec 03 2010]
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-5) -3*a(n-6) +3*a(n-7) -a(n-8). G.f.: -x^3*(-2+2*x-2*x^2+x^3-2*x^4+3*x^5-3*x^6+x^7) / ((x^4+x^3+x^2+x+1)*(x-1)^4) [From R. J. Mathar, May 24 2010]
a(n) = a(n-5)+n^2-6*n+13 , n>5 , a(1)=0, a(2)=1 [From Mircea Merca, Dec 03 2010]
[A164480] 1, 2, 4, 8, 13, 21, 34, 55, 88, 142, 229, 370, 598, 967, 1564, 2530, 4093, 6622, 10714, 17335, 28048, 45382, 73429, 118810, 192238, 311047, 503284, 814330, 1317613, 2131942, 3449554, 5581495, 9031048, 14612542, 23643589, 38256130, 61899718, 100155847
a(n) = 2*a(n-1) - a(n-3) for n>6.
[A134035] 2, 4, 8, 13, 21, 39, 64, 138, 236, 551, 963, 2315, 4078, 9892, 17468, 42481, 75069, 182691, 322900, 785970, 1389248, 3381731, 5977491, 14550695, 25719658, 62608228, 110665760, 269388997, 476169765, 1159120239, 2048851480
a(n) = +a(n-1) +6*a(n-2) -6*a(n-3) -8*a(n-4) +8*a(n-5) +3*a(n-6) -3*a(n-7). G.f.: x*(2+2*x-8*x^2-7*x^3+4*x^5+3*x^6) / ((1+x)*(3*x^4-5*x^2+1)*(x-1)^2). [From R. J. Mathar, May 24 2010]
[A164413] 1, 2, 4, 8, 13, 22, 36, 58, 94, 152, 246, 398, 644, 1042, 1686, 2728, 4414, 7142, 11556, 18698, 30254, 48952, 79206, 128158, 207364, 335522, 542886, 878408, 1421294, 2299702, 3720996, 6020698, 9741694, 15762392, 25504086, 41266478, 66770564, 108037042
a(n) = 2*(((1 - sqrt(5))/2)^n + ((1 + sqrt(5))/2)^n) for n>4.
a(n) = a(n-1) + a(n-2) for n>6.
[A227910] 1, 2, 4, 8, 13, 24, 40, 71, 119, 216, 372, 678, 1215, 2240, 4102, 7674, 14299, 27000, 50952, 96896, 184397, 352684, 675174, 1296843, 2493711, 4806062, 9272764, 17920843, 34669585, 67159032, 130216106, 252745349, 490984469, 954637538, 1857545280, 3617214660, 7048675939, 13744694906
a(n) = (Sum_{m=3..n} (1/n*sum_{d|gcd(m,n)} phi(d)*binomial(n/d,m/d)) + binomial(floor(m/2)+floor((n-m)/2), floor(m/2)))/2.
[A288925] 2, 4, 8, 13, 26, 47, 89, 159, 300, 548, 1021, 1868, 3471, 6383, 11821, 21766, 40264, 74237, 137198, 253091, 467549, 862823, 1593492, 2941192, 5431149, 10025712, 18511691, 34173995, 63096749, 116485582, 215065980, 397050165, 733058402, 1353371815, 2498656993
a(n) = a(n-1) + a(n-2) + 3*a(n-4) - 2*a(n-5) for n >= 5, where a(0) = 2, a(1) = 4, a(2) = 8, a(3) = 13, a(4) = 26.
[A128309] 2, 4, 8, 14, 16, 22, 26, 28, 32, 38, 42, 44, 50, 52, 56, 62, 64, 70, 74, 76, 82, 84, 88, 94, 98, 100, 104, 110, 112, 118, 122, 124, 128, 134, 138, 140, 146, 148, 152, 158, 162, 164, 168, 174, 176, 182, 186, 188, 194, 196, 200, 206, 208, 214, 218, 220, 224, 230, 234, 236, 242
a(n) = 4n + O(1). - Charles R Greathouse IV, Mar 22 2013
[A140164] 1, 2, 4, 8, 14, 20, 26, 32, 38, 44, 50, 56, 62, 68, 74, 80, 86, 92, 98, 104, 110, 116, 122, 128, 134, 140, 146, 152, 158, 164, 170, 176, 182, 188, 194, 200, 206, 212, 218, 224, 230, 236, 242, 248, 254, 260, 266, 272, 278, 284, 290, 296, 302, 308, 314, 320, 326
a(n) = 2*(3n-5), n >= 3, if offset is 0 instead of 1. - Daniel Forgues, Jul 17 2016
[A014206] 2, 4, 8, 14, 22, 32, 44, 58, 74, 92, 112, 134, 158, 184, 212, 242, 274, 308, 344, 382, 422, 464, 508, 554, 602, 652, 704, 758, 814, 872, 932, 994, 1058, 1124, 1192, 1262, 1334, 1408, 1484, 1562, 1642, 1724, 1808, 1894, 1982, 2072, 2164, 2258, 2354, 2452, 2552
a(n) = a(n-1) + 2*n (with a(0) = 2). - Vincenzo Librandi, Nov 20 2010
a(0) = 2, a(1) = 4, a(2) = 8, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 14 2011
a(n + 1) = n^2 + 3*n + 4. - Alonso del Arte, Apr 12 2015
a(n) = Sum_{i=n-2..n+2} i*(i+1)/5. - Bruno Berselli, Oct 20 2016
[A084626] 1, 2, 4, 8, 14, 22, 33, 47, 66, 91, 121, 158, 204, 258, 323, 399, 487, 590, 708, 843, 996, 1170, 1365, 1583, 1827, 2097, 2397, 2728, 3091, 3490, 3927, 4403, 4921, 5483, 6092, 6751, 7462, 8227, 9050, 9933, 10879, 11891, 12972, 14125, 15353, 16660, 18048
a(n) = floor(n^4/360+n^3/20+119*n^2/360+19*n/20)+1
[A015128] 1, 2, 4, 8, 14, 24, 40, 64, 100, 154, 232, 344, 504, 728, 1040, 1472, 2062, 2864, 3948, 5400, 7336, 9904, 13288, 17728, 23528, 31066, 40824, 53408, 69568, 90248, 116624, 150144, 192612, 246256, 313808, 398640, 504886, 637592, 802936, 1008448
a(n) = (1/n)*Sum_{k=1..n} (sigma(2*k) - sigma(k))*a(n-k). - Vladeta Jovovic, Dec 05 2004

[A123655] 1, 2, 4, 8, 14, 24, 40, 64, 101, 156, 236, 352, 518, 752, 1080, 1536, 2162, 3018, 4180, 5744, 7840, 10632, 14328, 19200, 25591, 33932, 44776, 58816, 76918, 100176, 129952, 167936, 216240, 277476, 354864, 452392, 574958, 728568, 920600, 1160064
a(n) is odd iff n is an odd square. If n>2 is a power of 2 then the highest power of 2 dividing a(n) is (n/2)^3. - Michael Somos, Feb 18 2007
[A019274] 0, 0, 2, 4, 8, 14, 24, 40, 66, 108, 176, 286, 464, 752, 1218, 1972, 3192, 5166, 8360, 13528, 21890, 35420, 57312, 92734, 150048, 242784, 392834, 635620, 1028456, 1664078, 2692536, 4356616, 7049154, 11405772, 18454928, 29860702, 48315632
a(n) = sum_{k=0..n} (2 - 2*0^(n-k))*F(k)}. - Paul Barry, Oct 24 2007
a(n) = F(n) + F(n+3) - 2, n>=-1 (where F(n) is the n-th Fibonacci number). - Zerinvary Lajos, Jan 31 2008
a(1)=0, a(2)=0, a(3)=2, a(n) = 2*a(n-1) - a(n-3). - Harvey P. Dale, Oct 16 2012
[A164406] 1, 2, 4, 8, 14, 24, 41, 68, 111, 180, 289, 460, 728, 1146, 1795, 2800, 4352, 6742, 10414, 16044, 24659, 37818, 57885, 88440, 134899, 205448, 312448, 474548, 719861, 1090734, 1650908, 2496260, 3770910, 5691360, 8582653, 12932512, 19472363, 29298540, 44053525
a(n) = Sum_{i=0..floor((n+1)/2)} (n+1-2i) * C(n+1-2i,i). - Wesley Ivan Hurt, Nov 17 2017
[A178982] 0, 0, 0, 1, 2, 4, 8, 14, 24, 41, 68, 112, 184, 300, 488, 793, 1286, 2084, 3376, 5466, 8848, 14321, 23176, 37504, 60688, 98200, 158896, 257105, 416010, 673124, 1089144, 1762278, 2851432, 4613721, 7465164, 12078896, 19544072, 31622980
a(n)=round(Fibonacci(n+2)/2-(n+2)/3).
a(n)=round(Fibonacci(n+2)/2-n/3-1/2).
a(n)=floor(Fibonacci(n+2)/2-n/3-1/2).
a(n)=ceil(Fibonacci(n+2)/2-(n+1)/3-1/2).
a(n)=a(n-3)+Fibonacci(n)-1, n>3.
a(n)=2*a(n-1)-2*a(n-4)+a(n-6), n>5.
[A066456] 1, 1, 2, 4, 8, 14, 25, 40, 65, 97, 146, 206, 292, 394, 533, 694, 905, 1145, 1450, 1792, 2216, 2686, 3257, 3884, 4633, 5449, 6410, 7450, 8660, 9962, 11461, 13066, 14897, 16849, 19058, 21404, 24040, 26830, 29945, 33232, 36881, 40721, 44962, 49414, 54308, 59434
a(n) = (n^4 - 8*n^3 + 52*n^2 - 112*n + 128) / 64 for n even.
a(n) = (n^4 - 8*n^3 + 54*n^2 - 120*n + 137) / 64 for n odd.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n>8.
[A020956] 1, 2, 4, 8, 14, 25, 42, 71, 117, 193, 315, 514, 835, 1356, 2198, 3562, 5768, 9339, 15116, 24465, 39591, 64067, 103669, 167748, 271429, 439190, 710632, 1149836, 1860482, 3010333, 4870830, 7881179, 12752025, 20633221, 33385263, 54018502, 87403783, 141422304
a(n) = 2^(-2-n)*((-2)^n - 5*2^n + 2*(1-t)^(1+n) + 2*(1+t)^n + 2*t*(1+t)^n - 2^(1+n)*n) where t=sqrt(5). - Colin Barker, Feb 09 2017
[A164391] 1, 2, 4, 8, 14, 25, 44, 77, 134, 233, 405, 703, 1220, 2117, 3673, 6372, 11054, 19176, 33265, 57705, 100101, 173645, 301221, 522526, 906422, 1572363, 2727565, 4731484, 8207665, 14237766, 24698130, 42843633, 74320480, 128923094, 223641776, 387949454, 672972561
a(n) = 1.6443631... * 1.7346913...^n + O(1), where 1.7346913... is the real root of x^5 - x^3 - 2x^2 - 2x - 1. [Charles R Greathouse IV, Jan 18 2012]
[A164392] 1, 2, 4, 8, 14, 25, 44, 78, 137, 241, 423, 743, 1304, 2289, 4017, 7050, 12372, 21712, 38102, 66865, 117340, 205918, 361361, 634145, 1112847, 1952911, 3427120, 6014177, 10554145, 18521234, 32502500, 57037912, 100094558, 175653705, 308250764, 540942382
a(n) = 2^n for n<4; otherwise, a(n) = a(n-1)+a(n-2)+a(n-4)+1. (End)
[A199925] 0, 0, 0, 1, 2, 4, 8, 14, 25, 45, 80, 142, 253, 450, 800, 1423, 2531, 4501, 8005, 14237, 25320, 45031, 80087, 142433, 253314, 450514, 801230, 1424971, 2534282, 4507169, 8015908, 14256129, 25354235, 45091990, 80195185, 142625502, 253656548
a(n)=a(n-1)+a(n-2)+a(n-3)-a(n-5) for n>7.
a(n)=2*a(n-1)-a(n-4)-a(n-5)+a(n-6) for n>8.
[A164388] 1, 2, 4, 8, 14, 25, 45, 80, 142, 253, 450, 800, 1423, 2531, 4501, 8005, 14237, 25320, 45031, 80087, 142433, 253314, 450514, 801230, 1424971, 2534282, 4507169, 8015908, 14256129, 25354235, 45091990, 80195185, 142625502, 253656548, 451123000, 802313060
a(n)=2^n for n<4, a(4)=14, a(5)=25, a(6)=45, a(7)=80, a(8)=142, a(n)=a(n-1)+a(n-2)+a(n-3))-a(n-5). - Harvey P. Dale, Feb 15 2013
[A027557] 1, 2, 4, 8, 14, 26, 44, 78, 130, 224, 370, 626, 1028, 1718, 2810, 4656, 7594, 12506, 20356, 33374, 54242, 88640, 143906, 234594, 380548, 619238, 1003882, 1631312, 2643386, 4291082, 6950852, 11274702, 18258322, 29598560
a(n) = a(n-1) + 3a(n-2) - 2a(n-3) - 2a(n-4); g.f. (1+x-x^2) / (1-x-x^2)(1-2x^2).
[A135491] 1, 2, 4, 8, 14, 26, 48, 88, 162, 298, 548, 1008, 1854, 3410, 6272, 11536, 21218, 39026, 71780, 132024, 242830, 446634, 821488, 1510952, 2779074, 5111514, 9401540, 17292128, 31805182, 58498850, 107596160, 197900192, 363995202, 669491554, 1231386948, 2264873704
a(n) = a(n-1) + a(n-2) + a(n-3).
a(n) = nearest integer to b*c^n, where b = 1.2368... and c = 1.839286755... is the real root of x^3-x^2-x-1 = 0. - N. J. A. Sloane, Jan 06 2010
[A257934] 1, 1, 2, 4, 8, 14, 26, 48, 89, 163, 300, 552, 1016, 1868, 3436, 6320, 11625, 21381, 39326, 72332, 133040, 244698, 450070, 827808, 1522577, 2800455, 5150840, 9473872, 17425168, 32049880, 58948920, 108423968, 199422769, 366795657, 674642394, 1240860820, 2282298872, 4197802086, 7720961778
a(n)= a(n-1) + a(n-2) + a(n-3) + a(n-4) - a(n-5) - a(n-6) - a(n-7).
[A258000] 1, 1, 2, 4, 8, 14, 26, 48, 89, 164, 302, 557, 1028, 1896, 3496, 6448, 11893, 21935, 40455, 74613, 137613, 253807, 468108, 863354, 1592327, 2936808, 5416499, 9989915, 18424893, 33981939, 62674564, 115593785, 213195313, 393206621, 725210344, 1337541166
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4) - a(n-5) - a(n-6) - a(n-7) + a(n-9)
[A068912] 1, 2, 4, 8, 14, 28, 48, 96, 164, 328, 560, 1120, 1912, 3824, 6528, 13056, 22288, 44576, 76096, 152192, 259808, 519616, 887040, 1774080, 3028544, 6057088, 10340096, 20680192, 35303296, 70606592, 120532992, 241065984, 411525376, 823050752, 1405035520, 2810071040
a(n) = 4*a(n-2) - 2*a(n-4).
[A187813] 0, 1, 2, 4, 8, 14, 30, 32, 38, 42, 44, 54, 60, 62, 74, 84, 90, 98, 102, 104, 108, 110, 114, 128, 138, 140, 150, 152, 158, 164, 168, 174, 180, 182, 194, 198, 200, 212, 224, 228, 230, 234, 240, 242, 252, 270, 278, 282, 284, 294, 308, 312, 314, 318, 332, 338, 348
a(n+1) = 1 + min (p > a(n) | p is prim AND ((q := p+1 - 2^floor(log_2(p+1)) = 0) OR (2^floor(log_2(q)) <> q)))
a(n) > Prime(n), for n > 5.
a(n - m) < Prime(n), for n > 1, where m := i*(i-1)/2 + j - 1, i := floor(log_2(Prime(n))), j := floor(log_2(Prime(n) - 2^i)).
a(n - m) < Prime(n), for n > 32, where m := i*(i-1)/2 + j - 16 with i and j above.
[A033623] 1, 2, 4, 8, 15, 16, 32, 51, 64, 85, 106, 128, 150, 171, 219, 237, 247, 256, 279, 297, 455, 512, 537, 557, 594, 643, 803, 863, 998, 1024, 1051, 1070, 1112, 1169, 1333, 1345, 1620, 1866, 2048, 2076, 2085, 2185, 2372
a(n)=smallest natural not the exclusive-or of at most three a(k) for k<n.
[A026474] 1, 2, 4, 8, 15, 22, 29, 36, 43, 50, 57, 64, 71, 78, 85, 92, 99, 106, 113, 120, 127, 134, 141, 148, 155, 162, 169, 176, 183, 190, 197, 204, 211, 218, 225, 232, 239, 246, 253, 260, 267, 274, 281, 288, 295, 302, 309, 316, 323, 330, 337, 344, 351, 358, 365, 372
a(n) = 7*n-20 for n>3. a(n) = 2*a(n-1)-a(n-2) for n>5. G.f.: x*(1+x^2+2*x^3+3*x^4)/(1-x)^2. - Colin Barker, Sep 19 2012
[A082562] 1, 2, 4, 8, 15, 24, 35, 48, 63, 80, 99, 120, 143, 168, 195, 224, 255, 288, 323, 360, 399, 440, 483, 528, 575, 624, 675, 728, 783, 840, 899, 960, 1023, 1088, 1155, 1224, 1295, 1368, 1443, 1520, 1599, 1680, 1763, 1848, 1935, 2024, 2115, 2208, 2303, 2400, 2499
a(n) = n^2-1 for n>2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>5.
[A204555] 1, 2, 4, 8, 15, 26, 41, 63, 89, 126, 166, 222, 279, 358, 435, 541, 641, 778, 904, 1076, 1231, 1442, 1629, 1883, 2105, 2406, 2666, 3018, 3319, 3726, 4071, 4537, 4929, 5458, 5900, 6496, 6991, 7658, 8209, 8951, 9561, 10382, 11054, 11958, 12695, 13686, 14491
a(n) = {(14*n^3+15*n^2+49*n+111)-(3*n^2-15*n+15)(-1)^n}/96.
[A000125] 1, 2, 4, 8, 15, 26, 42, 64, 93, 130, 176, 232, 299, 378, 470, 576, 697, 834, 988, 1160, 1351, 1562, 1794, 2048, 2325, 2626, 2952, 3304, 3683, 4090, 4526, 4992, 5489, 6018, 6580, 7176, 7807, 8474, 9178, 9920, 10701, 11522, 12384, 13288, 14235, 15226
a(n) = (n+1)*(n^2-n+6)/6 = (n^3 + 5*n + 6) / 6.
a(n) = binomial(n,3)+binomial(n,2)+binomial(n,1)+binomial(n,0). [Peter C. Heinig (algorithms(AT)gmx.de), Oct 19 2006]
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-1).
[A129961] 1, 2, 4, 8, 15, 26, 42, 64, 94, 140, 232, 464, 1092, 2744, 6840, 16384, 37384, 81296, 169120, 338240, 654192, 1232288, 2280864, 4194304, 7761376, 14635712, 28384384, 56768768, 116566080, 243472256, 511907712, 1073741824, 2232713344
a(1) = 1, a(2) = 2, a(3) = 4, a(4) = 8, a(5) = 15; for n > 5, a(n) = 6*a(n-1)-14*a(n-2)+16*a(n-3)-10*a(n-4)+4*a(n-5).

[A179001] 0, 0, 0, 0, 1, 2, 4, 8, 15, 26, 44, 73, 121, 198, 323, 526, 855, 1387, 2248, 3641, 5896, 9544, 15447, 24999, 40455, 65463, 105927, 171399, 277336, 448745, 726091, 1174847, 1900950, 3075809, 4976771, 8052592, 13029376, 21081981, 34111370, 55193365, 89304750
a(n)=round(Fibonacci(n+2)/3-3*n/8-11/24).
a(n)=round(Fibonacci(n+2)/3-3*n/8-1/3).
a(n)=floor(Fibonacci(n+2)/3-3*n/8-1/6).
a(n)=ceil(Fibonacci(n+2)/3-3*n/8-3/4).
a(n)=a(n-8)+Fibonacci(n-1)+Fibonacci(n-3)-3, n>8.
a(n)=2*a(n-1)-a(n-3)+a(n-8)-2*a(n-9)+a(n-11), n>10.
[A125513] 2, 4, 8, 15, 26, 48, 89, 165, 305, 561, 1034, 1908, 3521, 6496, 11982, 22101, 40770, 75210, 138741, 255934, 472117, 870911, 1606567, 2963628, 5466988, 10084919, 18603592, 34317946, 63306130, 116780470, 215424285, 397391986, 733066807
a(n) = a(n-1) + a(n-2) + a(n-4) + 2a(n-5) - a(n-7) - a(n-10).
[A000126] 1, 2, 4, 8, 15, 27, 47, 80, 134, 222, 365, 597, 973, 1582, 2568, 4164, 6747, 10927, 17691, 28636, 46346, 75002, 121369, 196393, 317785, 514202, 832012, 1346240, 2178279, 3524547, 5702855, 9227432, 14930318, 24157782, 39088133, 63245949
a(n) = 2*a(n-1)-a(n-3)+1. - Franklin T. Adams-Watters, Jan 13 2006
a(n+1) = 1+sum{k=0..n, F(k+2)-1}=sum{k=0..n, F(k+2)}-n=F(n+4)-n-2. - Paul Barry, Mar 06 2008
a(0)=1, a(1)=2, a(2)=4, a(3)=8, a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). - Harvey P. Dale, May 05 2011
[A289692] 0, 1, 2, 4, 8, 15, 27, 48, 85, 150, 264, 464, 815, 1431, 2512, 4409, 7738, 13580, 23832, 41823, 73395, 128800, 226029, 396654, 696080, 1221536, 2143647, 3761839, 6601568, 11584945
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
[A029907] 0, 1, 2, 4, 8, 15, 28, 51, 92, 164, 290, 509, 888, 1541, 2662, 4580, 7852, 13419, 22868, 38871, 65920, 111556, 188422, 317689, 534768, 898825, 1508618, 2528836, 4233872, 7080519, 11828620, 19741179, 32916068, 54835556, 91276202, 151814645, 252318312
a(n+1) = sum{k=0..n, sum{j=0..floor(k/2), binomial(n-j, j)}}. - Paul Barry, Oct 23 2004
[A005682] 1, 2, 4, 8, 15, 28, 51, 92, 165, 294, 522, 924, 1632, 2878, 5069, 8920, 15686, 27570, 48439, 85080, 149405, 262320, 460515, 808380, 1418916, 2490432, 4370944, 7671188, 13462945, 23627078, 41464296, 72766972, 127700055, 224101844, 393276447, 690158844, 1211153337
a(n) = 2a(n-1) - a(n-4) - a(n-6). - John W. Layman
[A114833] 0, 1, 2, 4, 8, 15, 28, 51, 93, 168, 304, 550, 995, 1799, 3253, 5882, 10635, 19229, 34767, 62861, 113656, 205497, 371550, 671782, 1214618, 2196094, 3970654, 7179153, 12980288, 23469047, 42433278, 76721609, 138716724, 250807167, 453472612, 819902445, 1482426947, 2680306255, 4846135343
a(1) = 1, a(2) = 2, for n>2: a(n+1) = a(n) + ceiling(RMS[a(n),a(n-1)]). a(n+1) = a(n) + ceiling[Sqrt[[a(n)^2]+[a(n-1)^2]/2]].
[A008937] 0, 1, 2, 4, 8, 15, 28, 52, 96, 177, 326, 600, 1104, 2031, 3736, 6872, 12640, 23249, 42762, 78652, 144664, 266079, 489396, 900140, 1655616, 3045153, 5600910, 10301680, 18947744, 34850335, 64099760, 117897840, 216847936, 398845537, 733591314, 1349284788
a(n) = 1 + a(n-1) + a(n-2) + a(n-3). E.g., a(11) = 1 +600 + 326 + 177 = 1104. - Philippe LALLOUET (philip.lallouet(AT)orange.fr), Oct 29 2007
a(n) = term (4,1) in the 4 X 4 matrix [1,1,0,0; 1,0,1,0; 1,0,0,0; 1,0,0,1]^n. - Alois P. Heinz, Jul 24 2008
a(n) = Sum_{j=0..floor(n/2)} Sum_{k=0..j} binomial(n-2j,k+1)*binomial(j,k)*2^k. - Tony Foster III, Sep 08 2017
a(n) = Sum_{k=0..floor(n/2)} (n-2*k)*hypergeom([-k,-n+2*k+1], [2], 2). - Peter Luschny, Nov 09 2017
[A049864] 1, 1, 1, 2, 4, 8, 15, 28, 52, 97, 181, 338, 631, 1178, 2199, 4105, 7663, 14305, 26704, 49850, 93058, 173717, 324288, 605368, 1130077, 2109583, 3938086, 7351463, 13723420, 25618337, 47823297, 89274637, 166654357, 311103754, 580756168, 1084132616
a(n) = 2*a(n-1) - a(n-3) + a(n-4); 4 initial terms required.
[A217733] 1, 2, 4, 8, 15, 29, 54, 103, 192, 364, 680, 1285, 2405, 4536, 8501, 16014, 30040, 56544, 106135, 199673, 374950, 705155, 1324524, 2490416, 4678728, 8795773, 16526601, 31066048, 58375577, 109724746, 206192780, 387549816, 728303087, 1368842229, 2572459078, 4834829775, 9086219464
a(n) = a(n-1)+3*a(n-2)-2*a(n-3)-a(n-4) for n>=4, a(0)=1, a(1)=2, a(2)=4, a(3)=8.
[A000078] 0, 0, 0, 1, 1, 2, 4, 8, 15, 29, 56, 108, 208, 401, 773, 1490, 2872, 5536, 10671, 20569, 39648, 76424, 147312, 283953, 547337, 1055026, 2033628, 3919944, 7555935, 14564533, 28074040, 54114452, 104308960, 201061985, 387559437, 747044834, 1439975216, 2775641472
a(n) = term (1,4) in the 4 X 4 matrix [1,1,0,0; 1,0,1,0; 1,0,0,1; 1,0,0,0]^n. - Alois P. Heinz, Jun 12 2008
a(n) = sum(k=1..n, sum(i=k..n mod(5*k-i,4)=0 binomial(k,(5*k-i)/4)*(-1)^((i-k)/4)*binomial(n-i+k-1,k-1))), n>0. - Vladimir Kruchinin, Aug 18 2010
a(n) = 2*a(n-1) - a(n-5), n>=5. - Bob Selcoe, Jul 06 2014
[A293335] 1, 1, 2, 4, 8, 15, 29, 58, 115, 229, 458, 916, 1832, 3664, 7328, 14655, 29309, 58618, 117235, 234469, 468938, 937875, 1875750, 3751500, 7503000, 15005999, 30011997, 60023993, 120047986, 240095971, 480191942, 960383884, 1920767767, 3841535534, 7683071068
a(n) = ceiling(r*2^n), where r = sqrt(1/5).
[A217777] 1, 2, 4, 8, 15, 30, 55, 110, 200, 400, 725, 1450, 2625, 5250, 9500, 19000, 34375, 68750, 124375, 248750, 450000, 900000, 1628125, 3256250, 5890625, 11781250, 21312500, 42625000, 77109375, 154218750, 278984375, 557968750, 1009375000, 2018750000, 3651953125
a(n) = 5*a(n-2) - 5*a(n-4) for n>=4, a(0) = 1, a(1) = 2, a(2) = 4, a(3) = 8.
[A026023] 1, 2, 4, 8, 15, 30, 56, 112, 210, 420, 792, 1584, 3003, 6006, 11440, 22880, 43758, 87516, 167960, 335920, 646646, 1293292, 2496144, 4992288, 9657700, 19315400, 37442160, 74884320, 145422675, 290845350, 565722720, 1131445440, 2203961430, 4407922860
a(2n) = C(2n+2, n), a(2n+1) = 2*a(2n).
[A079967] 1, 1, 2, 4, 8, 15, 30, 58, 113, 220, 429, 835, 1627, 3169, 6173, 12024, 23422, 45623, 88869, 173107, 337194, 656817, 1279409, 2492150, 4854439, 9455922, 18419114, 35878442, 69887326, 136132954, 265172275, 516526919, 1006138588, 1959849178
a(n) = a(n-1)+a(n-2)+a(n-3)+a(n-4)+a(n-6).
[A192655] 1, 1, 2, 4, 8, 15, 30, 58, 113, 220, 429, 839, 1644, 3224, 6333, 12454, 24516, 48307, 95263, 188003, 371276, 733660, 1450551, 2869395, 5678697, 11243247, 22269228, 44124136, 87456792, 173399153, 343896178, 682223096, 1353744488, 2686899408, 5334139244, 10591802387
a(n) = floor(sqrt(binomial(2*n,n));
[A191497] 0, 0, 0, 0, 1, 2, 4, 8, 15, 30, 60, 120, 241, 482, 964, 1928, 3855, 7710, 15420, 30840, 61681, 123362, 246724, 493448, 986895, 1973790, 3947580, 7895160, 15790321, 31580642, 63161284, 126322568, 252645135
a(n+4) = 2^n - a(n).
a(n) = 2*a(n-1) - a(n-4) + 2*a(n-5).
a(4*n+4) = 16*a(4*n) + (-1)^n.
[A052325] 1, 1, 1, 1, 1, 2, 4, 8, 15, 30, 60, 122, 249, 513, 1061, 2210, 4620, 9708, 20472, 43337, 92023, 196018, 418653, 896485, 1924154, 4139014, 8921349, 19266067, 41679483, 90318082, 196020800, 426055601, 927317334, 2020949226, 4409764169
a(n) satisfies a = SHIFT_RIGHT(WEIGH(a-b)) where b(3)=1, b(k)=0 if k != 3.
[A048718] 0, 1, 2, 4, 8, 16, 17, 32, 33, 34, 64, 65, 66, 68, 128, 129, 130, 132, 136, 256, 257, 258, 260, 264, 272, 273, 512, 513, 514, 516, 520, 528, 529, 544, 545, 546, 1024, 1025, 1026, 1028, 1032, 1040, 1041, 1056, 1057
a(n) XOR 14*a(n) = 15*a(n); 3*a(n) XOR 9*a(n) = 10*a(n); 3*a(n) XOR 13*a(n) = 14*a(n); 5*a(n) XOR 9*a(n) = 12*a(n); 5*a(n) XOR 11*a(n) = 14*a(n); 6*a(n) XOR 11*a(n) = 13*a(n); 7*a(n) XOR 9*a(n) = 14*a(n); 7*a(n) XOR 10*a(n) = 13*a(n); 7*a(n) XOR 11*a(n) = 12*a(n); 12*a(n) XOR 21*a(n) = 25*a(n); 12*a(n) XOR 37*a(n) = 41*a(n); etc. (conjectures). - Paul D. Hanna, Jan 22 2006
[A076057] 2, 4, 8, 16, 18, 32, 38, 46, 48, 62, 66, 80, 90, 102, 120, 138, 158, 160, 180, 212, 242, 278, 324, 364, 436, 482, 574, 576, 658, 736, 738, 882, 892, 900
a(n) seems to be asymptotic to c*n^2 with 1/2<c<1
[A001856] 1, 2, 4, 8, 16, 21, 42, 51, 102, 112, 224, 235, 470, 486, 972, 990, 1980, 2002, 4004, 4027, 8054, 8078, 16156, 16181, 32362, 32389, 64778, 64806, 129612, 129641, 259282, 259313, 518626, 518658, 1037316, 1037349, 2074698, 2074734, 4149468
a(1)=1, a(2)=2, a(2n+1) = 2a(2n), a(2n+2) = a(2n+1) + r(n), where r(n) = smallest positive number not of form a(j) - a(i) with 1 <= i < j <= 2n+1.
[A002081] 2, 4, 8, 16, 22, 24, 28, 36, 42, 44, 48, 56, 62, 64, 68, 76, 82, 84, 88, 96, 102, 104, 108, 116, 122, 124, 128, 136, 142, 144, 148, 156, 162, 164, 168, 176, 182, 184, 188, 196, 202, 204, 208, 216, 222, 224, 228, 236, 242, 244, 248, 256, 262, 264, 268, 276, 282
a(n) = Sum_{k=0..n}{1/6*(8*(k mod 4)-((k+1) mod 4)+2*((k+2) mod 4)+11*((k+3) mod 4))}-4. - Paolo P. Lava, Aug 01 2007
a(n + 4) = a(n) + 20 for n > 3. - Reinhard Zumkeller, Sep 15 2011
a(n) = 5*n+(1/2)*(3+(-1)^n)*(-1)^(n(n+1)/2). - Bruno Berselli, Sep 15 2011

[A102039] 1, 2, 4, 8, 16, 22, 24, 28, 36, 42, 44, 48, 56, 62, 64, 68, 76, 82, 84, 88, 96, 102, 104, 108, 116, 122, 124, 128, 136, 142, 144, 148, 156, 162, 164, 168, 176, 182, 184, 188, 196, 202, 204, 208, 216, 222, 224, 228, 236, 242, 244, 248, 256, 262, 264, 268, 276, 282
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>5. G.f.: x*(5*x^4+2*x^3+2*x^2+1) / ((x-1)^2*(x^2+1)). - Colin Barker, Sep 20 2014
a(n) = (-10 - (1-i/2)*(-i)^n - (1+i/2)*i^n + 5*n) for n>1, where i = sqrt(-1). - Colin Barker, Oct 18 2015
[A045844] 1, 2, 4, 8, 16, 22, 24, 28, 36, 42, 46, 52, 57, 64, 70, 77, 84, 92, 101, 102, 104, 108, 116, 122, 124, 128, 136, 142, 146, 152, 157, 164, 170, 177, 184, 192, 201, 203, 206, 212, 214, 218, 226, 232, 235, 240, 244, 248, 256, 262, 268, 276, 283, 291, 300, 303, 306
a(0) = 1; a(n) = a(n-1) + MaxDigit(a(n-1)) for n > 0 where MaxDigit(x) is the largest digit in decimal notation for an integer x.
[A007612] 1, 2, 4, 8, 16, 23, 28, 29, 31, 35, 43, 50, 55, 56, 58, 62, 70, 77, 82, 83, 85, 89, 97, 104, 109, 110, 112, 116, 124, 131, 136, 137, 139, 143, 151, 158, 163, 164, 166, 170, 178, 185, 190, 191, 193, 197, 205, 212, 217, 218, 220, 224, 232, 239, 244, 245, 247, 251
a(1) = 1, a(n+1) = a(n) + a(n) mod 9. - Reinhard Zumkeller, Mar 23 2003
a(6n+1)=27n+1, a(6n+2)=27n+2, a(6n+3)=27n+4, a(6n+4)=27n+8, a(6n+5)=27n+16, a(6n+6)=27n+23. - Franklin T. Adams-Watters, Mar 13 2006
[A219675] 0, 1, 2, 4, 8, 16, 23, 28, 38, 49, 62, 70, 77, 91, 101, 103, 107, 115, 122, 127, 137, 148, 161, 169, 185, 199, 218, 229, 242, 250, 257, 271, 281, 292, 305, 313, 320, 325, 335, 346, 359, 376, 392, 406, 416, 427, 440, 448, 464, 478, 497, 517, 530, 538, 554, 568
a(n) = Sum_{k=0..n-1} digsum(a(k)) + 1.
a(n) = a(n-1) + digsum(a(n-1)).
[A294364] 1, 2, 4, 8, 16, 23, 37, 56, 94, 152, 250, 401, 649, 1046, 1696, 2744, 4444, 7187, 11629, 18812, 30442, 49256, 79702, 128957, 208657, 337610, 546268, 883880, 1430152, 2314031, 3744181, 6058208, 9802390, 15860600, 25662994, 41523593, 67186585, 108710174, 175896760, 284606936
a(n) = (9/2)*fibonacci(n) + (-1)^n - sqrt(3)*sin(n*Pi/3).
[A008233] 0, 0, 0, 0, 1, 2, 4, 8, 16, 24, 36, 54, 81, 108, 144, 192, 256, 320, 400, 500, 625, 750, 900, 1080, 1296, 1512, 1764, 2058, 2401, 2744, 3136, 3584, 4096, 4608, 5184, 5832, 6561, 7290, 8100, 9000, 10000, 11000, 12100, 13310, 14641, 15972, 17424, 19008, 20736
a(n) = +2*a(n-1) -a(n-2) +3*a(n-4) -6*a(n-5) +3*a(n-6) -3*a(n-8) +6*a(n-9) -3*a(n-10) +a(n-12) -2*a(n-13) +a(n-14). G.f. -x^4*(1+x^6+x^2+2*x^3+x^4) / ((1+x)^3*(x^2+1)^3*(x-1)^5). - R. J. Mathar, Feb 20 2011
[A224815] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 24, 36, 54, 81, 108, 144, 192, 256, 384, 576, 864, 1296, 1944, 2916, 4374, 6561, 9477, 13689, 19773, 28561, 41743, 61009, 89167, 130321, 192052, 283024, 417088, 614656, 900032, 1317904, 1929788, 2825761
a(n) = a(n-1)+a(n-3)-2*a(n-4)+2*a(n-5)+2*a(n-7)-6*a(n-8)+6*a(n-9)+6*a(n-11) +a(n-12)-a(n-13)-a(n-15)+13*a(n-16)-13*a(n-17)-13*a(n-19)+15*a(n-20)-15*a(n-21)-15*a(n-23)-6*a(n-24)+6*a(n-25)+6*a(n-27)+3*a(n-28)-3*a(n-29)-3*a(n-31)-2*a(n-32)+2*a(n-33)+2*a(n-35)+8*a(n-36)-8*a(n-37)-8*a(n-39)+3*a(n-40)-3*a(n-41)-3*a(n-43)-a(n-44)+a(n-45)+a(n-47)-a(n-48)+a(n-49)+a(n-51).
[A031923] 1, 2, 4, 8, 16, 24, 36, 54, 81, 135, 225, 375, 625, 1000, 1600, 2560, 4096, 6656, 10816, 17576, 28561, 46137, 74529, 120393, 194481, 314874, 509796, 825384, 1336336, 2161720, 3496900, 5656750, 9150625, 14807375, 23961025, 38773295, 62742241, 101515536
a(n) = F(floor((n-1)/4) + 3)^(n-1 mod 4)*F(floor((n-1)/4) + 2)^(4 - (n-1 mod 4)) where F(n) is the n-th Fibonacci number. - David Nacin, Mar 07 2012
a(n) = a(n-1) + a(n-2) - 2*a(n-4) + 2*a(n-5) + 2*a(n-6) + 2*a(n-8) - 2*a(n-9) - 2*a(n-10) + a(n-12) - a(n-13) - a(n-14). - David Nacin, Mar 07 2012
[A138278] 1, 2, 4, 8, 16, 24, 40, 80, 120, 200, 400, 600, 1000, 2000, 3000, 5000, 10000, 15000, 25000, 50000, 75000, 125000, 250000, 375000, 625000, 1250000, 1875000, 3125000, 6250000, 9375000, 15625000, 31250000, 46875000, 78125000, 156250000, 234375000, 390625000
a(n) = 5*a(n-3), n>5. G.f.: (3*x^3+6*x^4+4*x^5+1+2*x+4*x^2)/(1-5*x^3). [From R. J. Mathar, Mar 23 2010]
[A089827] 2, 4, 8, 16, 24, 48, 80, 160, 320, 640, 1280, 2560, 3840, 7680, 15360, 30720, 61440, 122880, 184320, 368640, 737280, 1474560, 2949120, 5898240, 11796480, 23592960, 47185920, 94371840, 188743680, 377487360, 566231040
a(n) = if n and n-2 are primes then (if n=7 then a(n-1)*5/3 else a(n-1)*3/2) else a(n-2)*2.
[A236292] 1, 2, 4, 8, 16, 27, 48, 75, 118, 178, 265, 377, 544, 760, 1048, 1437, 1949, 2611, 3480, 4594, 6024, 7867, 10184, 13122, 16823, 21484, 27258, 34495, 43425, 54499, 68105, 84870, 105322, 130412, 160832, 197932, 242776, 297145, 362535, 441464, 536064, 649703
a(n) = (d(n), f(2), f(3),..., f(n-1))*(1,2,3,...,n-1), where d(n) = (number of divisors of n) = (number of constant partitions of n), and f(k) = number of nonconstant partitions of n, for k = 2,3,...,n-1.
[A104899] 2, 4, 8, 16, 28, 32, 64, 128, 256, 512, 1024, 2048, 3100, 4096, 8192, 16384, 32768, 65536, 118458, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296
a(5)=28; a(13)=3100; a(19)=118458 If n<5 then a(n)=2^n, if 5<n<13 then a(n)=2^(n-1), if 13<n<19 then a(n)=2^(n-2) and if 19<n<30 then a(n)=2^(n-3).
[A260881] 1, 2, 4, 8, 16, 28, 46, 70, 102, 140, 190, 250, 318, 398, 496, 602, 724, 862, 1018, 1192, 1382, 1584, 1816, 2070, 2340, 2630, 2956, 3300, 3668, 4064, 4484, 4934, 5416, 5918, 6468, 7042, 7640, 8274, 8962, 9674, 10418, 11202, 12022, 12884, 13786, 14712, 15704, 16742, 17812, 18924, 20096
a(n) = 1 + Sum_{i=1..n}(n-i+1)*phi(i) + Sum_{i=0..floor((n-4)/2)}2*(n-2*i-3)*phi(i+2), where phi is the Euler phi function.
[A276677] 1, 2, 4, 8, 16, 28, 48, 76, 120, 180, 272, 396, 584, 836, 1216, 1724, 2488, 3508, 5040, 7084, 10152, 14244, 20384, 28572, 40856, 57236, 81808, 114572, 163720, 229252, 327552, 458620, 655224, 917364, 1310576, 1834860, 2621288, 3669860, 5242720, 7339868
a(0) = 1, a(n) = 2*a(n-1) - 4*C(n-1), where:
a(0) = 1; for n >= 1, a(n) = 6*2^floor(n/2) + 8*2^floor((n-1)/2) - (4*n+8).
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + 2*a(n-4) for n>4.
a(n) = -4+2^((n-1)/2)*(7-7*(-1)^n+5*sqrt(2)+5*(-1)^n*sqrt(2))-4*(1+n) for n>0. Therefore:
a(n) = 5*2^(n/2+1)-8-4*n for n>0 and even;
a(n) = 7*2^((n+1)/2)-8-4*n for n>0 and odd. (End)
[A209410] 1, 2, 4, 8, 16, 28, 49, 91, 169, 312, 576, 1056, 1936, 3564, 6561, 12069, 22201, 40826, 75076, 138096, 254016, 467208, 859329, 1580535, 2907025, 5346880, 9834496, 18088448, 33269824, 61192712, 112550881, 207013417, 380757169, 700321570, 1288092100
a(n) = t[floor(n/2)+2]*t[floor((n+1)/2)+2] where t(n) is the n-th tribonacci number.
a(n) = a(n-1) + 2*a(n-3) + 2*a(n-5) + 2*a(n-6) - a(n-8) - a(n-9).
[A208531] 2, 4, 8, 16, 28, 52, 89, 147, 224, 324, 445, 589, 758, 954, 1179, 1435, 1724, 2048, 2409, 2809, 3250, 3734, 4263, 4839, 5464, 6140, 6869, 7653, 8494, 9394, 10355, 11379, 12468, 13624, 14849, 16145, 17514, 18958, 20479, 22079
a(n) = (2*n^3+3*n^2+n-366)/6 for n>8.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>12.
[A255937] 1, 1, 2, 4, 8, 16, 28, 56, 108, 204, 332, 664, 1114, 2228, 4078, 7018, 11402, 22804, 40638, 81276, 140490, 230328, 391544, 783088, 1287034, 2273676, 3903626, 6837760, 10368184, 20736368, 34081198, 68162396
a(p) = 2*a(p-1) for prime p. - Jon E. Schoenfield, Apr 01 2015
[A085583] 1, 2, 4, 8, 16, 29, 51, 83, 131, 196, 286, 402, 554, 743, 981, 1269, 1621, 2038, 2536, 3116, 3796, 4577, 5479, 6503, 7671, 8984, 10466, 12118, 13966, 16011, 18281, 20777, 23529, 26538, 29836, 33424, 37336, 41573, 46171, 51131, 56491, 62252, 68454, 75098
a(n) = (2*n^4-4*n^3+28*n^2-2*n+81-6*n*(-1)^n+15*(-1)^n)/96.
[A046127] 0, 2, 4, 8, 16, 30, 52, 84, 128, 186, 260, 352, 464, 598, 756, 940, 1152, 1394, 1668, 1976, 2320, 2702, 3124, 3588, 4096, 4650, 5252, 5904, 6608, 7366, 8180, 9052, 9984, 10978, 12036, 13160, 14352, 15614, 16948, 18356, 19840, 21402, 23044
a(n)=n(n^2-3n+8)/3 (n>0).
a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: 2*x*(1-2*x+2*x^2)/(1-x)^4. [Colin Barker, Jan 28 2012]
[A054668] 1, 2, 4, 8, 16, 30, 56, 104, 192, 354, 652, 1200, 2208, 4062, 7472, 13744, 25280, 46498, 85524, 157304, 289328, 532158, 978792, 1800280, 3311232, 6090306, 11201820, 20603360, 37895488, 69700670, 128199520
a(1) = 1, a(n) = term (4,2) in the 4 X 4 matrix [1,1,0,0; 1,0,1,0; 1,0,0,0; 2,0,0,1]^n (n > 1). - Alois P. Heinz, Jul 24 2008
[A027559] 1, 2, 4, 8, 16, 30, 58, 106, 200, 360, 668, 1190, 2182, 3858, 7012, 12328, 22256, 38958, 69962, 122042, 218248, 379656, 676636, 1174390, 2087222, 3615906, 6411716, 11090504, 19627984, 33907134, 59912410, 103385482, 182429768
a(n) = a(n-1) + 4*a(n-2) - 3*a(n-3) - 3*a(n-4).
a(0) = 1; for n>0 odd, a(n) = 7 * 3^floor(n/2) - F(n+4); for n>0 even, a(n) = 4 * 3^floor(n/2) - F(n+4) where F(n) is the n-th Fibonacci number. - Barry Guiduli (guiduli(AT)gmail.com), Jun 23 2005
[A135492] 2, 4, 8, 16, 30, 58, 112, 216, 416, 802, 1546, 2980, 5744, 11072, 21342, 41138, 79296, 152848, 294624, 567906, 1094674, 2110052, 4067256, 7839888, 15111870, 29129066, 56148080, 108228904, 208617920, 402123970, 775118874, 1494089668, 2879950432
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4).

[A027423] 1, 1, 2, 4, 8, 16, 30, 60, 96, 160, 270, 540, 792, 1584, 2592, 4032, 5376, 10752, 14688, 29376, 41040, 60800, 96000, 192000, 242880, 340032, 532224, 677376, 917280, 1834560, 2332800, 4665600, 5529600, 7864320, 12165120, 16422912
a(n) <= a(n+1) <= 2*a(n) - Benoit Cloitre, Sep 07 2002
[A216212] 1, 2, 4, 8, 16, 30, 60, 110, 220, 400, 800, 1450, 2900, 5250, 10500, 19000, 38000, 68750, 137500, 248750, 497500, 900000, 1800000, 3256250, 6512500, 11781250, 23562500, 42625000, 85250000, 154218750, 308437500, 557968750, 1115937500, 2018750000, 4037500000
a(n) = 5*a(n-2) - 5*a(n-4), a(0) = 1, a(1)= 2, a(2) = 4, a(3) = 8, a(4) = 16.
[A051039] 1, 2, 4, 8, 16, 31, 46, 61, 76, 91, 106, 121, 136, 151, 166, 181, 196, 211, 226, 241, 256, 271, 286, 301, 316, 331, 346, 361, 376, 391, 406, 421, 436, 451, 466, 481, 496, 511, 526, 541, 556, 571, 586, 601, 616, 631, 646, 661, 676, 691, 706, 721, 736, 751
a(n) = 15*n-59 for n>4. a(n) = 2*a(n-1)-a(n-2) for n>6. G.f.: x*(7*x^5+4*x^4+2*x^3+x^2+1)/(x-1)^2. [Colin Barker, Sep 19 2012]
[A000127] 1, 2, 4, 8, 16, 31, 57, 99, 163, 256, 386, 562, 794, 1093, 1471, 1941, 2517, 3214, 4048, 5036, 6196, 7547, 9109, 10903, 12951, 15276, 17902, 20854, 24158, 27841, 31931, 36457, 41449, 46938, 52956, 59536, 66712, 74519, 82993, 92171, 102091, 112792, 124314, 136698
a(n) = Sum_{k=0..2} C(n, 2k). - Joel Sanderi (sanderi(AT)itstud.chalmers.se), Sep 08 2004
a(n) = (n^4 - 6*n^3 + 23*n^2 - 18*n + 24)/24.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), n > 4. - Harvey P. Dale, Aug 24 2011
[A007800] 1, 2, 4, 8, 16, 31, 59, 111, 207, 384, 710, 1310, 2414, 4445, 8181, 15053, 27693, 50942, 93704, 172356, 317020, 583099, 1072495, 1972635, 3628251, 6673404, 12274314, 22575994, 41523738, 76374073, 140473833, 258371673, 475219609, 874065146
a(1)=1, a(2)=2, a(3)=4, a(4)=8, a(5)=16, a(n)=3*a(n-1)-2*a(n-2)+0*a(n-3)- a(n-4)+ a(n-5). - Harvey P. Dale, Apr 24 2013
[A107066] 1, 2, 4, 8, 16, 31, 60, 116, 224, 432, 833, 1606, 3096, 5968, 11504, 22175, 42744, 82392, 158816, 306128, 590081, 1137418, 2192444, 4226072, 8146016, 15701951, 30266484, 58340524, 112454976, 216763936, 417825921, 805385358, 1552430192, 2992405408, 5768046880
a(n) = 2a(n-1)-a(n-5); a(n) = sum{k=0..floor(n/5), C(n-4k, k)2^(n-2k)(-1)^k}.
[A210003] 1, 2, 4, 8, 16, 31, 60, 116, 224, 433, 837, 1618, 3128, 6047, 11690, 22599, 43688, 84457, 163271, 315633, 610177, 1179585, 2280356, 4408350, 8522156, 16474904, 31849037, 61570080, 119026354, 230099960, 444825787, 859930531, 1662404788, 3213735970, 6212746113
a(n) = 2^n if n<5, and a(n) = 2*a(n-1) -a(n-4) +a(n-5) otherwise.
[A209888] 1, 2, 4, 8, 16, 31, 60, 116, 225, 436, 845, 1637, 3172, 6146, 11909, 23075, 44711, 86633, 167863, 325256, 630226, 1221144, 2366125, 4584673, 8883398, 17212733, 33351899, 64623621, 125216632, 242623433, 470114310, 910907331, 1765000872, 3419917668, 6626533192
a(n) = 2^n if n<5, and a(n) = 2*(a(n-1)+a(n-4)) -a(n-3) -a(n-5) otherwise.
[A210021] 1, 2, 4, 8, 16, 31, 60, 116, 225, 437, 849, 1649, 3202, 6217, 12071, 23438, 45510, 88368, 171586, 333171, 646922, 1256136, 2439055, 4735945, 9195847, 17855697, 34670640, 67320433, 130716961, 253814826, 492835556, 956945224, 1858113016, 3607922263, 7005549684
a(n) = 2^n if n<5, and a(n) = 2*a(n-1) -a(n-3) +a(n-4) +a(n-5) otherwise.
[A152718] 1, 1, 1, 1, 2, 4, 8, 16, 31, 60, 117, 228, 444, 865, 1685, 3282, 6393, 12453, 24257, 47250, 92038, 179280, 349218, 680239, 1325032, 2581019, 5027546, 9793116, 19075931, 37157851, 72379476, 140987393, 274628197, 534946033, 1042017030, 2029736504, 3953707240
a(n)=1, n<4. a(4)=2, a(5)=4. a(n)=2*a(n-1)-a(n-2)+2a(n-3)-a(n-4)+a(n-5), n>5.
[A192656] 1, 2, 4, 8, 16, 31, 61, 119, 232, 452, 881, 1720, 3364, 6588, 12921, 25375, 49891, 98198, 193461, 381464, 752740, 1486400, 2936951, 5806346, 11485043, 22728290, 44997518, 89121654, 176578446, 349977599, 693873777, 1376096873, 2729841361, 5416740769, 10750880013, 21342682400
a(n) = sum(floor(sqrt(binomial(2*k,k))),k=0..n).
[A001591] 0, 0, 0, 0, 1, 1, 2, 4, 8, 16, 31, 61, 120, 236, 464, 912, 1793, 3525, 6930, 13624, 26784, 52656, 103519, 203513, 400096, 786568, 1546352, 3040048, 5976577, 11749641, 23099186, 45411804, 89277256, 175514464, 345052351, 678355061, 1333610936, 2621810068
a(n) = Sum_{k=1..n} (Sum_{r=0..k} (binomial(k,r) * Sum_{m=0..r} (binomial(r,m) * Sum_{j=0..m} (binomial(m,j)*binomial(j,n-m-k-j-r))))), n > 0. - Vladimir Kruchinin, Aug 30 2010
a(n) = 2*a(n-1) - a(n-6) with initial values 0, 0, 0, 0, 1, 1. - Vincenzo Librandi, Dec 19 2010
[A008382] 0, 0, 0, 0, 0, 1, 2, 4, 8, 16, 32, 48, 72, 108, 162, 243, 324, 432, 576, 768, 1024, 1280, 1600, 2000, 2500, 3125, 3750, 4500, 5400, 6480, 7776, 9072, 10584, 12348, 14406, 16807, 19208, 21952, 25088, 28672
a(n)= +2*a(n-1) -a(n-2) +4*a(n-5) -8*a(n-6) +4*a(n-7) -6*a(n-10) +12*a(n-11) -6*a(n-12) +4*a(n-15) -8*a(n-16) +4*a(n-17) -a(n-20) +2*a(n-21) -a(n-22). - R. J. Mathar, May 08 2013
[A208742] 2, 4, 8, 16, 32, 48, 72, 108, 162, 243, 405, 675, 1125, 1875, 3125, 5000, 8000, 12800, 20480, 32768, 53248, 86528, 140608, 228488, 371293, 599781, 968877, 1565109, 2528253, 4084101, 6612354, 10705716, 17333064, 28063056, 45435424, 73498480, 118894600
a(n) = F(floor(n/5) + 3)^(n mod 5)*F(floor(n/5) + 2)^(5 - (n mod 5)) where F(n) is the n-th Fibonacci number.
a(n) = a(n-1) + a(n-2) - 3*a(n-5) + 3*a(n-6) + 3*a(n-7) + 6*a(n-10) - 6*a(n-11) - 6*a(n-12) + 3*a(n-15) - 3*a(n-16) - 3*a(n-17) - a(n-20) + a(n-21) + a(n-22).
[A217833] 0, 1, 2, 4, 8, 16, 32, 49, 64, 81, 98, 121, 128, 162, 196, 225, 242, 256, 324, 361, 392, 441, 450, 484, 512, 625, 648, 722, 784, 841, 882, 900, 968, 1024, 1156, 1225, 1250, 1296, 1444, 1521, 1568, 1681, 1682, 1764, 1800, 1936, 2048, 2209, 2304, 2312, 2450
a(n) = min(2*a(k+1), n^2) for n>=2 and a(k) <= a(n-1)/2 < a(k+1).
[A135493] 2, 4, 8, 16, 32, 62, 122, 240, 472, 928, 1824, 3586, 7050, 13860, 27248, 53568, 105312, 207038, 407026, 800192, 1573136, 3092704, 6080096, 11953154, 23499282, 46198372, 90823608, 178554512, 351028928, 690104702, 1356710122, 2667221872
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4) + a(n-5).
[A216241] 1, 2, 4, 8, 16, 32, 62, 124, 236, 472, 890, 1780, 3340, 6680, 12502, 25004, 46732, 93464, 174554, 349108, 651740, 1303480, 2432918, 4865836, 9080956, 18161912, 33892954, 67785908, 126494956, 252989912, 472095062, 944190124, 1761901676, 3523803352, 6375544410, 13151088820
a(n) = 6*a(n-2) - 9*a(n-4) + 2*a(n-6).
a(n) = 2^n for n<6.
a(2*n+1) = 2*a(2*n).
[A111663] 1, 2, 4, 8, 16, 32, 62, 124, 248, 494, 988, 1976, 3952, 7904, 15808, 31616, 63232, 126464, 252926, 505852, 1011704, 2023406, 4046812, 8093624, 16187248, 32374496, 64748992, 129497984, 258995968, 517991936, 1035983870, 2071967740
a(0)=1, a(1)=2, a(2)=4, a(3)=8, a(4)=16, a(5)=32, a(6)=62, a(7)=124, a(8)=248, a(9)=494, a(n) = 2*a(n-1)+a(n-3)-2*a(n-4)-a(n-6)+2*a(n-7)+ a(n-9)- 2*a(n-10). [Harvey P. Dale, May 04 2012]
[A051040] 1, 2, 4, 8, 16, 32, 63, 94, 125, 156, 187, 218, 249, 280, 311, 342, 373, 404, 435, 466, 497, 528, 559, 590, 621, 652, 683, 714, 745, 776, 807, 838, 869, 900, 931, 962, 993, 1024, 1055, 1086, 1117, 1148, 1179, 1210, 1241, 1272, 1303, 1334, 1365, 1396, 1427
a(n) = 31*n-154 for n>5. a(n) = 2*a(n-1)-a(n-2) for n>7. G.f.: x*(15*x^6+8*x^5+4*x^4+2*x^3+x^2+1)/(x-1)^2. [Colin Barker, Sep 19 2012]
[A006261] 1, 2, 4, 8, 16, 32, 63, 120, 219, 382, 638, 1024, 1586, 2380, 3473, 4944, 6885, 9402, 12616, 16664, 21700, 27896, 35443, 44552, 55455, 68406, 83682, 101584, 122438, 146596, 174437, 206368, 242825, 284274, 331212, 384168, 443704
a(n) = binomial(n+1, 5) + binomial(n+1, 3) + binomial(n+1, 1). - Len Smiley, Oct 20 2001
a(n) = (n^5 - 5*n^4 + 25*n^3 + 5*n^2 + 94*n + 120)/120. - Reinhard Zumkeller, Jun 17 2009
[A001949] 0, 0, 0, 0, 0, 1, 2, 4, 8, 16, 32, 63, 124, 244, 480, 944, 1856, 3649, 7174, 14104, 27728, 54512, 107168, 210687, 414200, 814296, 1600864, 3147216, 6187264, 12163841, 23913482, 47012668, 92424472, 181701728, 357216192, 702268543, 1380623604, 2714234540
a(n) = sum(k=1..n-4, sum(j=0..(n-k-4)/5, (-1)^j*binomial(n-5*j-5,k-1)*binomial(n-k-5*j-4,j),j,0,(n-k-4)/5)). [Vladimir Kruchinin, Oct 19 2011]
[A210031] 1, 2, 4, 8, 16, 32, 63, 124, 244, 480, 944, 1857, 3653, 7186, 14136, 27808, 54703, 107610, 211687, 416424, 819176, 1611457, 3170007, 6235937, 12267137, 24131522, 47470763, 93382976, 183700022, 361368844, 710873303, 1398407365, 2750902517, 5411487988
a(n) = 2^n if n<6, and a(n) = 2*a(n-1) -a(n-5) +a(n-6) otherwise.
[A001592] 0, 0, 0, 0, 0, 1, 1, 2, 4, 8, 16, 32, 63, 125, 248, 492, 976, 1936, 3840, 7617, 15109, 29970, 59448, 117920, 233904, 463968, 920319, 1825529, 3621088, 7182728, 14247536, 28261168, 56058368, 111196417, 220567305, 437513522, 867844316, 1721441096, 3414621024
a(n) = 2*a(n-1)-a(n-7) with initial values 0, 0, 0, 0, 0, 1, 1. - Vincenzo Librandi, Dec 19 2010
[A208743] 2, 4, 8, 16, 32, 64, 96, 144, 216, 324, 486, 729, 1215, 2025, 3375, 5625, 9375, 15625, 25000, 40000, 64000, 102400, 163840, 262144, 425984, 692224, 1124864, 1827904, 2970344, 4826809, 7797153, 12595401, 20346417, 32867289, 53093313, 85766121, 138859434
a(n) = F(floor(n/6) + 3)^(n mod 6)*F(floor(n/6) + 2)^(6 - (n mod 6)) where F(n) is the n-th Fibonacci number.
a(n) = a(n-1) + a(n-2) - 5*a(n-6) + 5*a(n-7) + 5*a(n-8) + 15*a(n-12) - 15*a(n-13) - 15*a(n-14) + 15*a(n-18) - 15*a(n-19) - 15*a(n-20) - 5*a(n-24) + 5*a(n-25) + 5*a(n-26) - a(n-30) + a(n-31) + a(n-32).

[A008859] 1, 2, 4, 8, 16, 32, 64, 127, 247, 466, 848, 1486, 2510, 4096, 6476, 9949, 14893, 21778, 31180, 43796, 60460, 82160, 110056, 145499, 190051, 245506, 313912, 397594, 499178, 621616, 768212, 942649, 1149017, 1391842, 1676116, 2007328
a(n) = sum(binomial(n+1, 2k), k=0..3). - Len Smiley, Oct 20 2001
a(n) = (n^6-9*n^5+55*n^4-75*n^3+304*n^2+444*n+720)/720. - Gerry Martens , May 04 2016
[A208127] 1, 2, 4, 8, 16, 32, 64, 127, 252, 495, 969, 1886, 3655, 7054, 13562, 25978, 49602, 94440, 179380, 340001, 643276, 1215178, 2292431, 4319603, 8131123, 15292302, 28738320, 53970713, 101297742, 190028125, 356319648, 667866054
a(n) = |f^n({s})| where f(M) = {x/2 : x in M} union {3x+1 : x in M} and s is an arbitrary irrational number.
[A172316] 1, 2, 4, 8, 16, 32, 64, 127, 252, 500, 992, 1968, 3904, 7744, 15361, 30470, 60440, 119888, 237808, 471712, 935680, 1855999, 3681528, 7302616, 14485344, 28732880, 56994048, 113052416, 224248833, 444816138, 882329660
a(n) = Sum_{j=0..floor(n/(k+1))} ((-1)^j*binomial(n-k*j,n-(k+1)*j)*2^(n-(k+1)*j)) with k=6.
[A066178] 1, 1, 2, 4, 8, 16, 32, 64, 127, 253, 504, 1004, 2000, 3984, 7936, 15808, 31489, 62725, 124946, 248888, 495776, 987568, 1967200, 3918592, 7805695, 15548665, 30972384, 61695880, 122895984, 244804400, 487641600
a(n) = sum(i=n-7..n-1, a(i)).
[A089889] 1, 2, 4, 8, 16, 32, 64, 128, 192, 384, 768, 1536, 3072, 6144, 12288, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 5242880, 10485760, 20971520, 41943040, 83886080, 167772160, 335544320, 671088640, 1342177280
a(n) = n^(1/2) * 2^(n-n^(1/2)).
[A008860] 1, 2, 4, 8, 16, 32, 64, 128, 255, 502, 968, 1816, 3302, 5812, 9908, 16384, 26333, 41226, 63004, 94184, 137980, 198440, 280600, 390656, 536155, 726206, 971712, 1285624, 1683218, 2182396, 2804012, 3572224, 4514873, 5663890, 7055732
a(n) = sum(binomial(n+1, 2k-1) for k=1..4) = (n^6 -14*n^5 +112*n^4 -350*n^3 +1099*n^2 +364*n +3828)*n/5040 +1.
[A079262] 0, 0, 0, 0, 0, 0, 0, 1, 1, 2, 4, 8, 16, 32, 64, 128, 255, 509, 1016, 2028, 4048, 8080, 16128, 32192, 64256, 128257, 256005, 510994, 1019960, 2035872, 4063664, 8111200, 16190208, 32316160, 64504063, 128752121, 256993248, 512966536, 1023897200, 2043730736
a(1)..a(9) = 1, 1, 2, 4, 8, 16, 32, 64, 128. a(10) and following are given by 63*2^(n-8)+(1/2+sqrt(5/4))^(n-6)/sqrt(5)-(1/2-sqrt(5/4))^(n-6)/sqrt(5). Offset 10. a(10)=255. - Al Hakanson (hawkuu(AT)gmail.com), Feb 14 2009
[A172318] 1, 2, 4, 8, 16, 32, 64, 128, 256, 511, 1020, 2036, 4064, 8112, 16192, 32320, 64512, 128768, 257025, 513030, 1024024, 2043984, 4079856, 8143520, 16254720, 32444928, 64761088, 129265151, 258017272, 515010520, 1027977056
a(n) = sum((-1)^j*binomial(n-k*j,n-(k+1)*j)*2^(n-(k+1)*j),j=0..floor(n/(k+1))) with k=8.
[A104144] 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 511, 1021, 2040, 4076, 8144, 16272, 32512, 64960, 129792, 259328, 518145, 1035269, 2068498, 4132920, 8257696, 16499120, 32965728, 65866496, 131603200, 262947072, 525375999, 1049716729, 2097364960
a(n) = sum_{k=1..9} a(n-k) for n>8, a(8)=1, a(n)=0 for n=0..7.
[A008862] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1023, 2036, 4017, 7814, 14913, 27824, 50643, 89846, 155382, 262144, 431910, 695860, 1097790, 1698160, 2579130, 3850756, 5658537, 8192524, 11698223, 16489546, 22964087, 31621024, 43081973, 58115146
a(0)=1, a(1)=2, a(2)=4, a(3)=8, a(4)=16, a(5)=32, a(6)=64, a(7)=128, a(8)=256, a(9)=512, a(n)=10*a(n-1)-45*a(n-2)+120*a(n-3)-210*a(n-4)+252*a(n-5)-210*a(n-6)+ 120*a(n-7)-45*a(n-8)+10*a(n-9)-a(n-10). - Harvey P. Dale, Mar 18 2012
[A172319] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1023, 2044, 4084, 8160, 16304, 32576, 65088, 130048, 259840, 519168, 1037313, 2072582, 4141080, 8274000, 16531696, 33030816, 65996544, 131863040, 263466240, 526413312, 1051789311
a(n)=sum((-1)^j*binomial(n-k*j,n-(k+1)*j)*2^(n-(k+1)*j),j=0..floor(n/(k+1))). a(n+10)=2*a(n+9)-a(n).
[A122265] 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1023, 2045, 4088, 8172, 16336, 32656, 65280, 130496, 260864, 521472, 1042432, 2083841, 4165637, 8327186, 16646200, 33276064, 66519472, 132973664, 265816832, 531372800, 1062224128
a(n) = Sum_{j=1..10} a(n-j) for n>=10; a(n) = 0 for 0<=n<=8, a(9) = 1 (follows from the minimal polynomial of M; a Maple program based on this recurrence relation is much slower than the given Maple program, based on the definition).
[A008863] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2047, 4083, 8100, 15914, 30827, 58651, 109294, 199140, 354522, 616666, 1048576, 1744436, 2842226, 4540386, 7119516, 10970272, 16628809, 24821333, 36519556, 53009102, 75973189, 107594213, 150676186, 208791332
a(0)=1, a(1)=2, a(2)=4, a(3)=8, a(4)=16, a(5)=32, a(6)=64, a(7)=128, a(8)=256, a(9)=512, a(10)=1024, a(n)=11*a(n-1)-55*a(n-2)+ 165*a(n-3)- 330*a(n-4)+462*a(n-5)-462*a(n-6)+330*a(n-7)-165*a(n-8)+55*a(n-9)- 11*a(n-10)+ a(n-11). - Harvey P. Dale, Apr 25 2012
[A172320] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2047, 4092, 8180, 16352, 32688, 65344, 130624, 261120, 521984, 1043456, 2085888, 4169729, 8335366, 16662552, 33308752, 66584816, 133104288, 266077952, 531894784, 1063267584
a(n)=sum((-1)^j*binomial(n-k*j,n-(k+1)*j)*2^(n-(k+1)*j),j=0..floor(n/(k+1))) with k=10.
a(n+11)=2*a(n+10)-a(n).
[A219531] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4095, 8178, 16278, 32192, 63019, 121670, 230964, 430104, 784626, 1401292, 2449868, 4194304, 7036530, 11576916, 18696432, 29666704, 46295513, 71116846, 107636402, 160645504, 236618693, 344212906, 494889092
a(n) = 1 + (n^11 - 44*n^10 + 935*n^9 - 11550*n^8 + 94083*n^7 - 497112*n^6 + 1870385*n^5 - 3920950*n^4 + 8550916*n^3 + 4429656*n^2 + 29400480*n)/11!.
a(n) = 2*a(n - 1), for 1 <= n <= 11 with a(0) = 1, a(n) = 2*a(n - 1) - C(n - 1, 11), for n > 11. - Mohamed
[A219615] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8191, 16369, 32647, 64839, 127858, 249528, 480492, 910596, 1695222, 3096514, 5546382, 9740686, 16777216, 28354132, 47050564, 76717268, 123012781, 194129627, 301766029, 462411533, 699030226, 1043243132
a(n) = (n^12 - 54n^11 + 1397n^10 - 21450n^9 + 218823n^8 - 1508562n^7 + 7374191n^6 - 23551110n^5 + 58206676n^4 - 48306984n^3 + 173699712n^2 + 312888960n)/479001600. - Charles R Greathouse IV, Nov 27 2012
a(0)=1, a(1)=2, a(2)=4, a(3)=8, a(4)=16, a(5)=32, a(6)=64, a(7)=128, a(8)=256, a(9)=512, a(10)=1024, a(11)=2048, a(12)=4096, a(n)= 13*a(n-1)- 78*a(n-2)+286*a(n-3)-715*a(n-4)+1287*a(n-5)-1716*a(n-6)+ 1716*a(n-7)- 1287*a(n-8)+715*a(n-9)-286*a(n-10)+78*a(n-11)-13*a(n-12)+a(n-13). - Harvey P. Dale, Nov 29 2012
[A219676] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16383, 32752, 65399, 130238, 258096, 507624, 988116, 1898712, 3593934, 6690448, 12236830, 21977516, 38754732, 67108864, 114159428, 190876696, 313889477, 508019104, 809785133, 1272196666
a(n) = 1 +(n^13 -65*n^12 +2015*n^11 -37609*n^10 +470613*n^9 -4081935*n^8 +25378925*n^7 -110205667*n^6 +351042406*n^5 -657328100*n^4 +1303568760*n^3 +771653376*n^2 +4546558080*n)/13!. - corrected by Mokhtar Mohamed, Dec 01 2012
a(n) = 2*a(n-1), for 1 <= n <= 13, with a(0) = 1, a(n) = 2*a(n-1) - C(n-1, 13), for n > 13.
[A220051] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32767, 65519, 130918, 261156, 519252, 1026876, 2014992, 3913704, 7507638, 14198086, 26434916, 48412432, 87167164, 154276028, 268435456, 459312152, 773201629, 1281220733, 2091005866
a(n) = 1 + (n^14 - 77*n^13 + 2821*n^12 - 6288*n^11 + 947947*n^10 - 10081071*n^9 + 77889383*n^8 - 435638203*n^7 + 1793239448*n^6 - 5043110072*n^5 + 1111159696*n^4 - 8346754416*n^3 + 30605906304*n^2 + 57424792320*n)/14!.
a(n) = 2*a(n-1), for 1 <= n <= 14, with a(0) = 1, a(n) = 2*a(n-1) - C(n-1,14), for n> 14.
[A249169] 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65535, 131069, 262136, 524268, 1048528, 2097040, 4194048, 8388032, 16775936, 33551616, 67102720, 134204416, 268406784, 536809472, 1073610752, 2147205120, 4294377472, 8588689409
a(n) = a(n-1) + a(n-2) + ... + a(n-16).
[A011782] 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648
a(0) = 1, a(n) = 2^(n-1).
a(0) = 1 and for n>0, a(n) = sum of all previous terms.
a(n) = Sum{k=0..n, binomial(n, 2*k)}. - Paul Barry, Feb 25 2003
a(n) = Sum{k=0..n, binomial(n,k)*(1+(-1)^k)/2}. - Paul Barry, May 27 2003
a(n) = floor((1+2^n)/2). - Toby Bartels (toby+sloane(AT)math.ucr.edu), Aug 27 2003
a(n) = sum{k=0..n, (-1)^(n-k)*binomial(k+1, n-k)*binomial(2*k, k)}. - Paul Barry, Mar 18 2005
[A166444] 0, 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648
a(n) = (1-n) * a(n-1) + 2 * Sum_{k=1..n-1} a(k) * a(n-k) if n>1. - Michael Somos, Jul 23 2011

[A000079] 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592
a(n) = 2^n.
a(0) = 1; a(n) = 2*a(n-1).
a(n)= Sum_{k=0..n} binomial(n, k).
a(n) = StirlingS2(n+1,2) + 1. - Ross La Haye, Jan 09 2008
a(n+2)=6a(n+1)-8a(n), n=1,2,3,... with a(1)=1, a(2)=2. - Yosu Yurramendi, Aug 06 2008
a(n) = ka(n-1) + (4-2k)a(n-2) for any integer k and n > 1, with a(0) = 1, a(1) = 2. - Jaume Oliver Lafont, Dec 05 2008
[A275065] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 3072, 9216, 27648, 82944, 248832, 746496, 2239488, 6718464, 20155392, 60466176, 241864704, 967458816, 3869835264, 15479341056, 61917364224, 247669456896, 990677827584, 3962711310336
a(n) = Product_{i=0..9} floor((n+i)/10)!.
[A275064] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1536, 4608, 13824, 41472, 124416, 373248, 1119744, 3359232, 10077696, 40310784, 161243136, 644972544, 2579890176, 10319560704, 41278242816, 165112971264, 660451885056, 2641807540224
a(n) = Product_{i=0..8} floor((n+i)/9)!.
[A275063] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 128, 256, 768, 2304, 6912, 20736, 62208, 186624, 559872, 1679616, 6718464, 26873856, 107495424, 429981696, 1719926784, 6879707136, 27518828544, 110075314176, 550376570880, 2751882854400, 13759414272000
a(n) = Product_{i=0..7} floor((n+i)/8)!.
[A210544] 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 128, 257, 524, 1106, 2470, 5924, 15262, 41690, 118595, 345861, 1023028, 3050590, 9146312, 27567958, 83678750, 256632743, 798853376, 2537255097, 8264988956, 27723246374, 95941707086, 342355797248
a(n) = 1 if n<=7 else sum{i=0..n-7}(binomial(n-7,i)*a(i))
[A264791] 1, 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 128, 384, 1152, 3456, 10368, 31104, 93312, 279936, 1119744, 4478976, 17915904, 71663616, 286654464, 1146617856, 4586471424, 22932357120, 114661785600, 573308928000, 2866544640000, 14332723200000, 71663616000000
a(n) = Product_{i=0..6} floor((n+i)/7)!. - Alois P. Heinz, Jul 12 2016
[A117302] 1, 2, 4, 8, 16, 32, 64, 129, 258, 516, 1032, 2064, 4128, 8256, 16513, 33026, 66052, 132104, 264208, 528416, 1056832, 2113665, 4227330, 8454660, 16909320, 33818640, 67637280, 135274560, 270549121, 541098242
a(n) = (2^(n + 6) - 2^(Mod[n - 1, 7]))/(2^7 - 1), where Mod[,7] is the remaining part of the number when divided by 7. In the followings we present the formula based on the theory we used to define our sequence as a Mathematica code. The above formula is a lot easier to use, but the Mathematica code has an important mathematical meaning in it.
a(n) = floor(2^(n+6)/127). - Mircea Merca, Dec 22 2010
[A084638] 1, 1, 2, 4, 8, 16, 32, 64, 129, 265, 558, 1200, 2610, 5682, 12288, 26292, 55587, 116179, 240366, 493108, 1004780, 2036692, 4112144, 8278552, 16631717, 33364381, 66863358, 133903816, 268037862, 536371734, 1073120208, 2146715436, 4294024647, 8588785575
a(n) = Sum_{k=0..3, C(n, 2*k)} + 2*Sum_{k=4..floor(n/2), C(n, 2*k)}.
a(n) = (n^6-15*n^5+115*n^4-405*n^3+964*n^2-660*n+720)/720 + 2*Sum_{k=4..floor(n/2), C(n, 2k)}.
[A210543] 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 129, 267, 582, 1364, 3454, 9338, 26429, 76929, 227579, 680113, 2050000, 6242818, 19284165, 60754153, 196341570, 654012814, 2251195713, 8005274899, 29325473071, 110181281435, 422565983725
a(n) = 1 if n<=6 else sum{i=0..n-6}(binomial(n-6,i)*a(i))
[A264701] 1, 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 64, 192, 576, 1728, 5184, 15552, 46656, 186624, 746496, 2985984, 11943936, 47775744, 191102976, 955514880, 4777574400, 23887872000, 119439360000, 597196800000, 2985984000000, 17915904000000, 107495424000000, 644972544000000
a(n) = Product_{i=0..5} floor((n+i)/6)!. - Alois P. Heinz, Jul 12 2016
[A195904] 1, 2, 4, 8, 16, 32, 65, 130, 260, 520, 1040, 2080, 4161, 8322, 16644, 33288, 66576, 133152, 266305, 532610, 1065220, 2130440, 4260880, 8521760, 17043521, 34087042, 68174084, 136348168, 272696336, 545392672, 1090785345, 2181570690, 4363141380, 8726282760
a(n) = floor(2^(n+5)/63).
[A084637] 1, 1, 2, 4, 8, 16, 32, 65, 136, 293, 642, 1410, 3072, 6606, 14004, 29295, 60592, 124187, 252742, 511672, 1031912, 2075452, 4166408, 8353165, 16732664, 33498977, 67040458, 134134046, 268333872, 536748474, 1073595228, 2147309211, 4294760928, 8589691767
a(n) = sum{k=0..2, C(n, 2*k)} + sum{k=6..n, C(n, k)};
a(n) = 2^n-n(n^4-10*n^3+55*n^2-110*n+184)/120.
[A210542] 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 65, 138, 315, 782, 2090, 5885, 17112, 50743, 152705, 466760, 1455562, 4658963, 15392116, 52663709, 186632887, 683133153, 2570929570, 9900731604, 38864321047, 155126476313, 629028834312, 2592051975917
a(n) = 1 if n<=5 else sum{i=0..n-5}(binomial(n-5,i)*a(i))
[A264656] 1, 1, 1, 1, 1, 2, 4, 8, 16, 32, 96, 288, 864, 2592, 7776, 31104, 124416, 497664, 1990656, 7962624, 39813120, 199065600, 995328000, 4976640000, 24883200000, 149299200000, 895795200000, 5374771200000, 32248627200000, 193491763200000, 1354442342400000
a(n) = Product_{i=0..4} floor((n+i)/5)!. - Alois P. Heinz, Jul 12 2016
[A119610] 1, 2, 4, 8, 16, 33, 66, 132, 264, 528, 1057, 2114, 4228, 8456, 16912, 33825, 67650, 135300, 270600, 541200, 1082401, 2164802, 4329604, 8659208, 17318416, 34636833, 69273666, 138547332, 277094664, 554189328, 1108378657, 2216757314
a(n) = floor(2^(n+4)/31), which is obtained by letting p=5 in the formula above.
a(n) = +2*a(n-1) +a(n-5) -2*a(n-6). (End)
[A121485] 1, 1, 2, 4, 8, 16, 33, 66, 136, 274, 562, 1138, 2327, 4725, 9645, 19613, 39997, 81397, 165906, 337773, 688260, 1401565, 2855432, 5815477, 11846941, 24129498, 49152840, 100116607, 203936639, 415394872, 846143795, 1723513075, 3510704795
a(n) = a(n-1)+4*a(n-2)-2*a(n-3)-4*a(n-4)+a(n-6) for n>6. - Colin Barker, Sep 11 2015
[A098588] 1, 2, 4, 8, 16, 33, 68, 140, 288, 592, 1217, 2502, 5144, 10576, 21744, 44705, 91912, 188968, 388512, 798768, 1642241, 3376394, 6941756, 14272024, 29342816, 60327873, 124032140, 255006036, 524284096, 1077911008, 2216149889
a(n) = sum{k=0..floor(n/4), sum{i=0..n, binomial(n-4k, i)binomial(i, k)}}.
[A084636] 1, 1, 2, 4, 8, 16, 33, 71, 157, 349, 768, 1662, 3534, 7398, 15291, 31297, 63595, 128555, 258930, 520240, 1043540, 2090956, 4186757, 8379499, 16766313, 33541481, 67093588, 134199826, 268414602, 536846754, 1073713983, 2147451717
a(n)=sum{k=0..2, C(n, 2k)}+2*sum{k=3..floor(n/2), C(n, 2k)}; a(n)=(n^4-6n^3+23n^2-18n+24)/24+2*sum{k=3..floor(n/2), C(n, 2k)}.
[A210541] 1, 1, 1, 1, 2, 4, 8, 16, 33, 73, 177, 467, 1309, 3813, 11409, 34999, 110510, 361194, 1226930, 4334048, 15877297, 60049447, 233426007, 929616461, 3786970033, 15777120457, 67260334185, 293617319221, 1312868943154, 6010792180952
a(n) = 1 if n<=4 else sum{i=0..n-4}(binomial(n-4,i)*a(i))
[A273972] 1, 2, 4, 8, 16, 34, 68, 128, 256, 544, 1088, 2056, 4112, 8738, 17476, 32768, 65536, 139264, 278528, 526336, 1052672, 2236928, 4473856, 8388736, 16777472, 35652128, 71304256, 134744072, 269488144, 572662306, 1145324612, 2147483648, 4294967296, 9126805504
a(2*n+2) = 2*a(2*n+1). - Paul Curtz, Nov 16 2016
[A288170] 2, 4, 8, 16, 34, 70, 144, 292, 590, 1186, 2380, 4768, 9546, 19102, 38216, 76444, 152902, 305818, 611652, 1223320, 2446658, 4893334, 9786688, 19573396, 39146814, 78293650, 156587324, 313174672, 626349370, 1252698766, 2505397560, 5010795148, 10021590326
a(n) = 3*a(n-1) - a(n-2) - 4*a(n-3) + 2*a(n-4) for n >= 4, where a(0) = 2, a(1) = 4, a(2) = 8, a(3) = 16, a(4) = 34, a(5) = 70 .
a(n) = (3 + (-1)^n + 7*2^(1+n) - 6*n) / 6 for n>0. - Colin Barker, Sep 29 2017
[A288260] 2, 4, 8, 16, 34, 72, 152, 324, 690, 1468, 3128, 6664, 14194, 30240, 64424, 137244, 292386, 622900, 1327016, 2827072, 6022786, 12830904, 27334904, 58234164, 124061778, 264300652, 563064920, 1199550904, 2555517778, 5444263440, 11598433928, 24709250700
a(n) = 2*a(n-1) + 2*a(n-3) - 3*a(n-4), where a(0) = 2, a(1) = 4, a(2) = 8, a(3) = 16.
[A288176] 2, 4, 8, 16, 34, 72, 156, 336, 730, 1580, 3432, 7440, 16154, 35040, 76060, 165024, 358162, 777172, 1686632, 3659984, 7942706, 17236024, 37404156, 81169520, 176145962, 382250364, 829518728, 1800123856, 3906429674, 8477282512, 18396447676, 39921865536
a(n) = 2*a(n-1) + 2*a(n-2) - 4*a(n-3) + a(n-4), where a(0) = 2, a(1) = 4, a(2) = 8, a(3) = 16.
[A209971] 0, 2, 4, 8, 16, 34, 76, 176, 416, 994, 2388, 5752, 13872, 33474, 80796, 195040, 470848, 1136706, 2744228, 6625128, 15994448, 38613986, 93222380, 225058704, 543339744, 1311738146, 3166815988, 7645370072, 18457556080, 44560482178, 107578520380, 259717522880
a(n) = (-(1-sqrt(2))^n + (1+sqrt(2))^n) / (2*sqrt(2)) + n.

a(n) = 4*a(n-1) - 4*a(n-2) + a(n-4) for n>3.
[A166354] 1, 1, 2, 4, 8, 16, 34, 78, 200, 568, 1806, 6282, 24052, 99100, 443178, 2107966, 10775664, 58092112, 334087750, 2012990930, 12863046636, 85662585604, 602124105122, 4391793687974, 33676375206568, 266989039507576
a(n)=sum{k=0..n, C(n,k)*G(k/2)(1+(-1)^k)/2} where
[A162428] 1, 2, 4, 8, 16, 37, 87, 210, 523, 1352, 3579, 9715, 26956, 76367, 220408, 648044, 1940191, 5907256, 18279257, 57449874, 183261022, 592970009, 1945136089, 6465415945, 21764630304, 74168652771, 255759582378, 892121078978
a(n) = Sum_{k=0..n} Sum_{m=k*(k+1)/2..k*(k+1)/2+k} [x^m] S(x)^(n-k) for n>=1 where S(x) = Sum_{n>=0} x^((n+1)(n+2)/2-1).
[A264635] 1, 1, 1, 1, 2, 4, 8, 16, 48, 144, 432, 1296, 5184, 20736, 82944, 331776, 1658880, 8294400, 41472000, 207360000, 1244160000, 7464960000, 44789760000, 268738560000, 1881169920000, 13168189440000, 92177326080000, 645241282560000, 5161930260480000
a(n) = Product_{i=0..3} floor((n+i)/4)!. - Alois P. Heinz, Jul 12 2016
[A083593] 1, 2, 4, 8, 17, 34, 68, 136, 273, 546, 1092, 2184, 4369, 8738, 17476, 34952, 69905, 139810, 279620, 559240, 1118481, 2236962, 4473924, 8947848, 17895697, 35791394, 71582788, 143165576, 286331153, 572662306, 1145324612, 2290649224
a(n) = 2*a(n-1) +a(n-4) -2*a(n-5).
a(n) = -1/4+[1/20-(1/10)*I]*I^n+(1/12)*(-1)^n+(16/15)*2^n+[1/20+(1/10)*I]*(-I)^n, with n>=0 and I=sqrt(-1). - Paolo P. Lava, Jun 10 2008
a(n) = floor((2^(n+5)+1)/30). - Tani Akinari, Jul 09 2013
a(n) = 2*a(n-1) + floor(((n-1) mod 4) /3), with a(0)=1. - Andres Cicuttin, Mar 29 2016
a(n) = 2*a(n-1) + 1 - ceiling[(n mod 4)/4], with a(0)=1. - Andres Cicuttin, Mar 29 2016
[A267045] 1, 2, 4, 8, 17, 34, 69, 138, 277, 554, 1109, 2218, 4437, 8874, 17749, 35498, 70997, 141994, 283989, 567978, 1135957, 2271914, 4543829, 9087658, 18175317, 36350634, 72701269, 145402538, 290805077, 581610154, 1163220309, 2326440618, 4652881237, 9305762474
a(n) = (2*(-1)^n+13*2^n-6)/12 for n>1.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3) for n>2.
[A266446] 1, 2, 4, 8, 17, 34, 69, 138, 277, 555, 1110, 2220, 4440, 8881, 17762, 35525, 71050, 142101, 284202, 568405, 1136810, 2273621, 4547242, 9094485, 18188970, 36377941, 72755882, 145511765, 291023530, 582047061, 1164094122, 2328188245, 4656376490, 9312752981
a(n) = (-(-1)^n+6661*2^(n-10)-3)/6 for n>10.
[A293331] 2, 4, 8, 17, 35, 71, 143, 286, 572, 1144, 2289, 4579, 9158, 18317, 36635, 73271, 146542, 293085, 586171, 1172343, 2344687, 4689374, 9378748, 18757497, 37514995, 75029990, 150059981, 300119963, 600239927, 1200479854, 2400959708, 4801919417, 9603838834
a(n) = floor(r*2^n), where r = sqrt(5).
[A292322] 1, 2, 4, 8, 17, 36, 73, 152, 317, 653, 1355, 2812, 5818, 12061, 25001, 51786, 107323, 222409, 460824, 954942, 1978840, 4100398, 8496827, 17606974, 36484494, 75602461, 156661630, 324629762, 672690133, 1393931744, 2888469094, 5985414154, 12402824741
a(n) = a(n-1) + a(n-2) + 4*a(n-3) - 2*a(n-4) - a(n-5) - 3*a(n-6) + a(n-7) + a(n-9) for n >= 10.
[A008999] 1, 2, 4, 8, 17, 36, 76, 160, 337, 710, 1496, 3152, 6641, 13992, 29480, 62112, 130865, 275722, 580924, 1223960, 2578785, 5433292, 11447508, 24118976, 50816737, 107066766, 225581040, 475281056, 1001378849
a(n) = sum(m=0..n, sum(j=0..(n-m)/3, binomial(n-m+(-3)*j,j)*binomial(n-3*j,m))). [Vladimir Kruchinin, May 23 2011]
[A262735] 0, 1, 1, 2, 4, 8, 17, 36, 77, 165, 354, 760, 1632, 3505, 7528, 16169, 34729, 74594, 160220, 344136, 739169, 1587660, 3410133, 7324621, 15732546, 33791920, 72581632, 155898017, 334853200, 719230865, 1544835281, 3318150210, 7127051636, 15308187336
a(n) = 2*a(n-1)+a(n-2)-a(n-3)-a(n-4) for n>3. - Wesley Ivan Hurt, Oct 10 2015
a(n) = a(n-1)+2*a(n-2)+a(n-3)-1, n>=3. - R. J. Mathar, Nov 07 2015
[A002955] 1, 1, 1, 2, 4, 8, 17, 36, 79, 175, 395, 899, 2074, 4818, 11291, 26626, 63184, 150691, 361141, 869057, 2099386, 5088769, 12373721, 30173307, 73771453, 180800699, 444101658, 1093104961, 2695730992, 6659914175, 16481146479, 40849449618
a(n) satisfies a=SHIFT_RIGHT(EULER(a-b)) where b(2)=1, b(k)=0 if k != 2.
[A137255] 1, 2, 4, 8, 17, 36, 80, 178, 409, 942, 2212, 5204, 12377, 29472, 70592, 169198, 406801, 978426, 2357092, 5679488, 13696385, 33032892, 79703120, 192321034, 464168041, 1120302822, 2704242244, 6527724428, 15758096777, 38040729336, 91834772480
a(n)=(3/8)3^(n/2)*[1+(-1)^n]+(5/24)*3^((n+1)/2)*[1-(-1)^n]+(1/8)*[1+sqrt(2)]^(n+1)+(1/8)*[1-sqrt(2)]^(n+1). - Emeric Deutsch, Mar 31 2008
[A203019] 0, 0, 1, 1, 1, 2, 4, 8, 17, 37, 82, 185, 423, 978, 2283, 5373, 12735, 30372, 72832, 175502, 424748, 1032004, 2516347, 6155441, 15101701, 37150472, 91618049, 226460893, 560954047, 1392251012, 3461824644, 8622571758, 21511212261, 53745962199
a(n) = Sum_{m=0..(n-1)/2}((binomial(2*m+1,m)*Sum_{k=0..n-2*m-2}(binomial(k,n-2*m-k-2)*binomial(2*m+k,k)*(-1)^(n-k)))/(2*m+1)). - Vladimir Kruchinin, Mar 12 2016
[A004148] 1, 1, 1, 2, 4, 8, 17, 37, 82, 185, 423, 978, 2283, 5373, 12735, 30372, 72832, 175502, 424748, 1032004, 2516347, 6155441, 15101701, 37150472, 91618049, 226460893, 560954047, 1392251012, 3461824644, 8622571758, 21511212261, 53745962199, 134474581374
a(n+1) = a(n) + a(1)*a(n-2) + a(2)*a(n-3) + ... + a(n-1)*a(0).
a(n) = Sum_{k=ceiling((n+1)/2)..n} (binomial(k, n-k)*binomial(k, n-k+1)/k) for n >= 1. - Emeric Deutsch, Nov 12 2003 This formula counts (i) disjoint-diagonal dissections by number of diagonals, (ii) peak-less Motzkin paths by number of up steps, (iii) UUU- and DDD-free Dyck paths by number of ascents. - David Callan, Mar 23 2004
a(n,m) = Sum_{k=0..n} Sum_{j=0..k} C(n-k+j+m,n-k)*m/(n-k+j+m) * C(n-k,k-j)*C(k-j,j).
[A214999] 2, 4, 8, 17, 38, 84, 187, 418, 934, 2088, 4668, 10437, 23337, 52183, 116684, 260913, 583419, 1304564, 2917093, 6522818, 14585464, 32614088, 72927317, 163070438, 364636584, 815352188, 1823182917, 4076760937, 9115914583
a(n) = [x*a(n-1)], where x=sqrt(5), a(0) = [x].
[A084635] 1, 1, 2, 4, 8, 17, 38, 86, 192, 419, 894, 1872, 3864, 7893, 16006, 32298, 64960, 130375, 261310, 523300, 1047416, 2095801, 4192742, 8386814, 16775168, 33552107, 67106238, 134214776, 268432152, 536867229, 1073737734, 2147479122
a(n)=2^n-n(n^2-3n+8)/6; a(n)=1+C(n, 2)+sum{k=4..n, C(n, k)}.
[A154222] 1, 2, 4, 8, 17, 38, 87, 200, 457, 1034, 2315, 5132, 11277, 24590, 53263, 114704, 245777, 524306, 1114131, 2359316, 4980757, 10485782, 22020119, 46137368, 96469017, 201326618, 419430427, 872415260, 1811939357, 3758096414, 7784628255, 16106127392, 33285996577
a(n) = (1/4)*(4*(n+1) + (n-1)*2^n + 0^n).
a(n) = 6*a(n-1) - 13*a(n-2) + 12*a(n-3) - 4*a(n-4) for n>4.
a(n) = (4 - 2^n + (4+2^n)*n)/4 for n>0.
[A006196] 0, 1, 1, 1, 2, 4, 8, 17, 38, 87, 203, 482, 1160, 2822, 6929, 17149, 42736, 107144, 270060, 683940, 1739511, 4441255, 11378814, 29245927, 75386341, 194838673, 504802508, 1310843123, 3411070837, 8893590439, 23230151744, 60780377599, 159281030250
a(n)=T(n,1),a(0)=0, T(n,m)=sum(j=0..m-1, binomial(m,j)* sum(k=0..floor((n+j)/2)-m, T(n-k-m,k+m-j)*T(k+m-j,m-j))), n>m, T(n,n)=1. - Vladimir Kruchinin, May 04 2012
[A100131] 1, 2, 4, 8, 17, 38, 88, 208, 497, 1194, 2876, 6936, 16737, 40398, 97520, 235424, 568353, 1372114, 3312564, 7997224, 19306993, 46611190, 112529352, 271669872, 655869073, 1583407994, 3822685036, 9228778040, 22280241089, 53789260190
a(n)=sUm{k=0..n, sum{j=0..n-k, C(k, j)*C(n-j, k)*mod(j+1, 2)}}; - Paul Barry, May 31 2005
[A086615] 1, 2, 4, 8, 17, 38, 89, 216, 539, 1374, 3562, 9360, 24871, 66706, 180340, 490912, 1344379, 3701158, 10237540, 28436824, 79288843, 221836402, 622599625, 1752360040, 4945087837, 13988490338, 39658308814, 112666081616
a(n)=sum{k=0..floor((n+1)/2), binomial(n+1, 2k+1)binomial(2k, k)/(k+1)} - Paul Barry, Nov 29 2004
a(n) = n + 1 + sum_k a(k-1)a(n-k-1), starting from a(n)=0 for n negative. - Henry Bottomley, Feb 22 2005
a(n)=sum{k=0..n, sum{j=0..n-k, C(j)C(n-k, 2j)}}; - Paul Barry, Aug 19 2005
[A081124] 1, 2, 4, 8, 17, 38, 90, 224, 585, 1594, 4520, 13288, 40409, 126782, 409646, 1360512, 4637681, 16202034, 57941164, 211860488, 791272129, 3015807254, 11719800674, 46401584096, 187039192185, 767058993386, 3198568491792, 13553864902504
a(n) = Sum_{k=0..n} C(n, k)*floor(k/2)!.
[A210540] 1, 1, 1, 2, 4, 8, 17, 40, 104, 291, 857, 2634, 8455, 28424, 100117, 368465, 1410903, 5599073, 22968514, 97267342, 424927846, 1913764155, 8877181958, 42358589064, 207639979365, 1044360973987, 5384167878948, 28429186870051, 153638182314504
a(n) = 1 if n<=3 else sum{i=0..n-3}(binomial(n-3,i)*a(i))

[A291583] 1, 2, 4, 8, 18, 36, 72, 144, 292, 586, 1172, 2344, 4696, 9396, 18792, 37584, 75186, 150380, 300764, 601528, 1203092, 2406200, 4812408, 9624816, 19249704, 38499446, 76998908, 153997824, 307995792, 615991660, 1231983352, 2463966720, 4927933732, 9855867616
a(n) = c * 2^n, where c = Product_{k>=2} 1/(1 - 2^(1-k^2)) = 1.147374019070625079101237889272899035897980088529928128690625767436689335822 2...
[A288206] 2, 4, 8, 18, 38, 80, 164, 334, 674, 1356, 2720, 5450, 10910, 21832, 43676, 87366, 174746, 349508, 699032, 1398082, 2796182, 5592384, 11184788, 22369598, 44739218, 89478460, 178956944, 357913914, 715827854, 1431655736, 2863311500, 5726623030, 11453246090
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 2*a(n-4), where a(0) = 2, a(1) = 4, a(2) = 8, a(3) = 18.
a(n) = (-3 + (-1)^(1+n) + 2^(4+n) - 6*n) / 6. - Colin Barker, Sep 29 2017
[A288309] 2, 4, 8, 18, 40, 92, 210, 484, 1112, 2562, 5896, 13580, 31266, 72004, 165800, 381810, 879208, 2024636, 4662258, 10736164, 24722936, 56931426, 131100232, 301894508, 695195202, 1600878724, 3686464328, 8489100498, 19548493480, 45015794972, 103661275410
a(n) = 2*a(n-1) + 2*a(n-2) - 3*a(n-3), where a(0) = 2, a(1) = 4, a(2) = 8.
a(n) = (2^(1-n)*(13*2^n + (13-4*sqrt(13))*(1-sqrt(13))^n + (1+sqrt(13))^n*(13+4*sqrt(13)))) / 39. - Colin Barker, Jun 09 2017
[A078678] 1, 2, 4, 8, 18, 42, 100, 242, 592, 1460, 3624, 9042, 22656, 56970, 143688, 363348, 920886, 2338566, 5949148, 15157874, 38674978, 98803052, 252701484, 646990518, 1658066668, 4252908542, 10917422860, 28046438252, 72099983802, 185469011130
a(n) = sum(binomial(n - k + 2*floor(k/3), floor(k/3))^2, k=0..n+floor(n/2)).
a(n) = sum(binomial(n-k,k)^2*(2*n^2 - 6*n*k + 6*k^2)/(n-k)^2), k=0..floor(n/2)).
a(n) = [x^n y^n](1+x*y+x^2*y^2)/(1-x-y+x*y-x^2*y^2). - Gheorghe Coserea, Jul 18 2016
[A052327] 1, 1, 2, 4, 8, 18, 43, 102, 251, 625, 1584, 4055, 10509, 27451, 72307, 191697, 511335, 1370995, 3693452, 9991671, 27133149, 73934800, 202096673, 553999573, 1522651908, 4195087022, 11583820212, 32052475655, 88860186023
a(n) satisfies a = SHIFT_RIGHT(EULER(a-b)) where b(4)=1, b(k)=0 if k != 4.
[A100132] 1, 2, 4, 8, 18, 44, 112, 288, 740, 1896, 4848, 12384, 31624, 80752, 206208, 526592, 1344784, 3434272, 8770368, 22397568, 57198368, 146071744, 373034240, 952645120, 2432840256, 6212924032, 15866403584, 40519208448, 103476899968
a(n)=sum{k=0..floor(n/2), C(n-k, k)2^(n-3k/2)(1+(-1)^k)/2} - Paul Barry, Jan 22 2005
[A139784] 0, 0, 0, 0, 1, 2, 4, 8, 19, 38, 76, 152, 315, 630, 1260, 2520, 5083, 10166, 20332, 40664, 81499, 162998, 325996, 651992, 1304667, 2609334, 5218668, 10437336, 20877403, 41754806, 83509612, 167019224, 334049371, 668098742, 1336197484, 2672394968
a(4n+s) = 2^s*(-1/45+7*16^n/90-4^n/18), s=0,1,2,3. - R. J. Mathar, May 18 2008
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=1, a(5)=2, a(6)=4, a(7)=8, a(8)=19, a(n)=2*a(n-1)+5*a(n-4)-10*a(n-5)-4*a(n-8)+8*a(n-9). - Harvey P. Dale, Jan 21 2013
[A099526] 1, 2, 4, 8, 19, 44, 100, 224, 505, 1142, 2584, 5840, 13195, 29816, 67384, 152288, 344161, 777770, 1757692, 3972248, 8976979, 20287268, 45847612, 103611968, 234154873, 529171550, 1195885936, 2702607776, 6107680171, 13802874992
a(n)=2a(n-1)+3a(n-4); a(n)=sum{k=0..floor(n/4), binomial(n-3k, k)3^(n-3k)(2/3)^(n-4k)}.
[A288476] 2, 4, 8, 20, 44, 108, 244, 588, 1348, 3212, 7428, 17580, 40868, 96332, 224644, 528236, 1234148, 2897804, 6777924, 15900844, 37216932, 87264460, 204330500, 478954476, 1121747556, 2628904460, 6157985732, 14430108460, 33804242468, 79208704844, 185565457796
a(n) = a(n-1) + 4*a(n-2) - 2*a(n-3), where a(0) = 2, a(1) = 4, a(2) = 8.
[A115219] 0, 0, 2, 4, 8, 20, 52, 132, 332, 836, 2108, 5316, 13404, 33796, 85212, 214852, 541724, 1365892, 3443932, 8683460, 21894300, 55203844, 139189852, 350950468, 884879388, 2231116932, 5625492956, 14184003780, 35763259292, 90172756228, 227359757660
a(n+3) = 3*a(n+2) - 2*a(n+1) + 2*a(n). - G. C. Greubel, Feb 05 2016
[A123611] 1, 2, 4, 8, 20, 52, 160, 492, 1620, 5408, 18504, 64132, 225440, 800048, 2865720, 10341208, 37568340, 137270956, 504176992, 1860277044, 6892335720, 25631327688, 95640894056, 357975249028, 1343650267296, 5056424257552
a(n) = (1/n) * Sum_{d | n} phi(n/d) * binomial(2*d, d) for n>0. - Andrew Howroyd, Apr 02 2017
[A113180] 1, 2, 4, 8, 20, 56, 160, 448, 1240, 3440, 9632, 27200, 77216, 219840, 627200, 1793024, 5136480, 14743232, 42390400, 122064640, 351951232, 1015990528, 2936079360, 8493340672, 24591589120, 71262291456, 206666232832, 599778166784
a(n) = Sum_{k=0..floor(n/2)} C(n-2k,k)*C(n-3k,k)*2^(n-3k).
[A217975] 2, 4, 8, 22, 46, 128, 268, 746, 1562, 4348, 9104, 25342, 53062, 147704, 309268, 860882, 1802546, 5017588, 10506008, 29244646, 61233502, 170450288, 356895004, 993457082, 2080136522, 5790292204, 12123924128, 33748296142, 70663408246, 196699484648
a(n) = 6*a(n - 2) - a(n - 4) with a(1)=2, a(2)=4, a(3)=8, a(4)=22. - Sture Sjöstedt, Oct 16 2012
a(n) = a(-n+1) = ((4+sqrt(2))*(1-(-1)^n*sqrt(2))^(2*floor(n/2))+(4-sqrt(2))*(1+(-1)^n*sqrt(2))^(2*floor(n/2)))/4. - Bruno Berselli, Oct 25 2012
[A291405] 0, 2, 4, 8, 24, 52, 120, 290, 672, 1592, 3760, 8824, 20800, 48976, 115296, 271588, 639488, 1505816, 3546032, 8350064, 19662944, 46302800, 109033952, 256754760, 604609280, 1423740736, 3352643712, 7894846528, 18590881280, 43778039424, 103089066752
a(n) = 2*a(n-2) + 4*a(n-3) + 4*a(n-4) + 5*a(n-5) + 12*a(n-6) + 8*a(n-7) + 2*a(n-8) for n >= 9.
[A026097] 1, 2, 4, 8, 24, 72, 216, 648, 1944, 5832, 17496, 52488, 157464, 472392, 1417176, 4251528, 12754584, 38263752, 114791256, 344373768, 1033121304, 3099363912, 9298091736, 27894275208, 83682825624, 251048476872, 753145430616, 2259436291848
a(n) = 3*a(n-1) for n>3. G.f.: (4*x^3+2*x^2+x-1) / (3*x-1). - Colin Barker, Jun 15 2013
[A264557] 1, 1, 1, 2, 4, 8, 24, 72, 216, 864, 3456, 13824, 69120, 345600, 1728000, 10368000, 62208000, 373248000, 2612736000, 18289152000, 128024064000, 1024192512000, 8193540096000, 65548320768000, 589934886912000, 5309413982208000, 47784725839872000
a(n) = Product_{i=0..2} ceiling((n-i)/3)!. - Alois P. Heinz, Jul 09 2016
[A066535] 1, 2, 4, 8, 24, 112, 544, 2368, 9328, 34802, 129064, 491768, 1938336, 7801744, 31553344, 127083328, 509145568, 2035437440, 8148505828, 32728127192, 131880275664, 532597541344, 2153312518240, 8710505815360, 35250721087168, 142743029326162, 578472382307304
a(n) equals the coefficient of x^n in the n-th power of Jacobi theta_3(x) where theta_3(x) = 1 + 2*Sum_{n>=1} x^(n^2). - Paul D. Hanna, Oct 25 2009
[A102000] 1, 2, 4, 8, 32, 80, 208, 560, 1552, 4144, 11152, 30128, 81424, 219440, 592016, 1597616, 4310800, 11629616, 31377808, 84661168, 228421648, 616292144, 1662802576, 4486362800, 12104509712, 32658782768, 88115674000, 237742180784
a(n) = right term of M^n * [1 1 1 1], where M = the 4X4 matrix that generates the D_4 lattice, [1 1 1 1 / 2 0 0 0 / 0 2 0 0 / 0 0 2 0]. a(n) = a(n-1) + 2*a(n-2) + 4*a(n-3) + 8*a(n-4), n>3.
[A068620] 1, 2, 4, 8, 56, 272, 1184, 4736, 17536, 65792, 254464, 1015808, 4130816, 16781312, 67641344, 270565376, 1077968896, 4295032832, 17146445824, 68585259008, 274609995776, 1099512676352, 4400196091904, 17600784367616, 70385932435456, 281474993487872
a(n; t, s) = a(n-1; t, s) + a(n-1; t+3, s+3t+1) + a(n-1; t+2, s+2t) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A267457] 1, 2, 4, 8, 84, 168, 1364, 2728, 21844, 43688, 349524, 699048, 5592404, 11184808, 89478484, 178956968, 1431655764, 2863311528, 22906492244, 45812984488, 366503875924, 733007751848, 5864062014804, 11728124029608, 93824992236884, 187649984473768
a(n) = 17*a(n-2)-16*a(n-4) for n>5.
[A047465] 1, 2, 4, 9, 10, 12, 17, 18, 20, 25, 26, 28, 33, 34, 36, 41, 42, 44, 49, 50, 52, 57, 58, 60, 65, 66, 68, 73, 74, 76, 81, 82, 84, 89, 90, 92, 97, 98, 100, 105, 106, 108, 113, 114, 116, 121, 122, 124, 129, 130, 132, 137, 138, 140, 145, 146, 148, 153, 154, 156
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. - Vincenzo Librandi, May 16 2012
a(n) = 8*n/3-3-cos(2*n*Pi/3)+5*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 8k-4, a(3k-1) = 8k-6, a(3k-2) = 8k-7. (End)
[A047348] 2, 4, 9, 11, 16, 18, 23, 25, 30, 32, 37, 39, 44, 46, 51, 53, 58, 60, 65, 67, 72, 74, 79, 81, 86, 88, 93, 95, 100, 102, 107, 109, 114, 116, 121, 123, 128, 130, 135, 137, 142, 144, 149, 151, 156, 158, 163, 165, 170
a(n) = +a(n-1) +a(n-2) -a(n-3). G.f.: x*(2+2*x+3*x^2)/((1+x)*(x-1)^2). [R. J. Mathar, Dec 16 2009]
a(n) = 7*floor((n-1)/2) +3 +(-1)^n. [Gary Detlefs, Mar 02 2010]
a(n) = 7*n-a(n-1) -8 with n>1, a(1)=2. [Vincenzo Librandi, Aug 05 2010]
[A266257] 1, 2, 4, 9, 11, 20, 22, 35, 37, 54, 56, 77, 79, 104, 106, 135, 137, 170, 172, 209, 211, 252, 254, 299, 301, 350, 352, 405, 407, 464, 466, 527, 529, 594, 596, 665, 667, 740, 742, 819, 821, 902, 904, 989, 991, 1080, 1082, 1175, 1177, 1274, 1276, 1377, 1379
a(n) = ((n+1)^2-(-1)^n*(n-1))/2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
[A241200] 2, 4, 9, 12, 19, 23, 32, 37, 48, 54, 67, 74, 89, 97, 114, 123, 142, 152, 173, 184, 207, 219, 244, 257, 284, 298, 327, 342, 373, 389, 422, 439, 474, 492, 529, 548, 587, 607, 648, 669, 712, 734, 779, 802, 849, 873, 922, 947, 998, 1024, 1077, 1104, 1159, 1187

a(n) = (-11-5*(-1)^n-2*(-15+(-1)^n)*n+6*n^2)/16. G.f.: x*(x^2-2)*(x^2+x+1) / ((x-1)^3*(x+1)^2). - Colin Barker, Apr 18 2014 and Apr 29 2015
[A092530] 0, 2, 4, 9, 12, 20, 24, 35, 40, 54, 60, 77, 84, 104, 112, 135, 144, 170, 180, 209, 220, 252, 264, 299, 312, 350, 364, 405, 420, 464, 480, 527, 544, 594, 612, 665, 684, 740, 760, 819, 840, 902, 924, 989, 1012, 1080, 1104, 1175, 1200, 1274, 1300, 1377, 1404, 1484
a(0) = 0, a(2n) = a(2n-1) + n, a(2n-1) = a(2n-2) + 3n-1. - Amarnath Murthy, Jul 04 2004
[A266596] 0, 2, 4, 9, 15, 20, 30, 35, 49, 54, 72, 77, 99, 104, 130, 135, 165, 170, 204, 209, 247, 252, 294, 299, 345, 350, 400, 405, 459, 464, 522, 527, 589, 594, 660, 665, 735, 740, 814, 819, 897, 902, 984, 989, 1075, 1080, 1170, 1175, 1269, 1274, 1372, 1377, 1479
a(n) = (n^2+4*n+(-1)^n*(n-3)-3)/2 for n>0.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A058296] 2, 4, 9, 15, 21, 30, 39, 45, 56, 64, 72, 81, 93, 102, 108, 120, 134, 144, 154, 165, 176, 186, 195, 205, 225, 231, 240, 254, 266, 274, 282, 300, 312, 324, 342, 351, 363, 376, 386, 399, 414, 426, 436, 446, 459, 465, 483, 495, 506, 522, 544, 560, 570, 582, 596
a(1)=2, a(n) = (p(2n-2) + p(2n-1))/2 for n>1, where p(i) is the i-th prime.
[A080004] 1, 1, 1, 2, 4, 9, 15, 25, 46, 84, 156, 280, 501, 909, 1647, 2990, 5408, 9773, 17695, 32033, 58000, 104976, 189968, 343860, 622409, 1126617, 2039201, 3690898, 6680644, 12092173, 21887215, 39616409, 71706406, 129790404, 234923948
a(n) = a(n-1)+a(n-3)+a(n-4)+4*a(n-5)-a(n-6)+a(n-7)-a(n-9)-a(n-10).
[A082894] 2, 4, 9, 16, 30, 66, 126, 256, 513, 1020, 2046, 4092, 8190, 16380, 32775, 65536, 131070, 262152, 524286, 1048580, 2097144, 4194300, 8388606, 16777224, 33554425, 67108860, 134217729, 268435468, 536870910, 1073741820, 2147483646
a(n) = n*floor((floor(n/2)+2^n) / n).
[A060401] 2, 4, 9, 16, 65, 66, 427, 848, 2529, 2530, 27731, 27732, 360373, 360374, 360375, 720736, 12252257, 12252258, 232792579, 232792580, 232792581, 232792582, 5354228903, 5354228904, 26771144425, 26771144426, 80313433227, 80313433228, 2329089562829, 2329089562830
a(n) = n + lcm(seq(i, i=1..n)).
[A007502] 1, 2, 4, 9, 17, 33, 61, 112, 202, 361, 639, 1123, 1961, 3406, 5888, 10137, 17389, 29733, 50693, 86204, 146246, 247577, 418299, 705479, 1187857, 1997018, 3352636, 5621097, 9412937, 15744681, 26307469, 43912648
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-4) for n>3, a(0)=1, a(1)=2, a(2)=4, a(3)=9. - Harvey P. Dale, Jul 13 2011
[A115451] 1, 1, 2, 4, 9, 17, 34, 68, 137, 273, 546, 1092, 2185, 4369, 8738, 17476, 34953, 69905, 139810, 279620, 559241, 1118481, 2236962, 4473924, 8947849, 17895697, 35791394, 71582788, 143165577, 286331153, 572662306, 1145324612, 2290649225, 4581298449, 9162596898
a(n) = a(n-1) + a(n-2) + a(n-3) + 2*a(n-4);
a(n) = Sum_{k=0..n} (2^(n-k+1)-1)(-1)^k} - Sum_{k=0..floor(n/2)} (2^(n-2k)-1)(-1)^k}.
[A291728] 1, 2, 4, 9, 17, 35, 70, 142, 285, 576, 1160, 2340, 4716, 9510, 19171, 38653, 77926, 157110, 316747, 638599, 1287479, 2595698, 5233196, 10550681, 21271280, 42885152, 86460984, 174314476, 351436368, 708532813, 1428476905, 2879960190, 5806303628, 11706120825
a(n) = a(n-1) + a(n-2) + a(n-3) + 2*(a(n-4) + a(n-6) for n >= 7.
[A103321] 1, 2, 4, 9, 18, 35, 68, 130, 246, 463, 867, 1617, 3007, 5579, 10332, 19107, 35295, 65140, 120137, 221444, 407999, 751453, 1383641, 2547116, 4688106, 8627504, 15875390, 29209560, 53739655, 98864470, 181872110, 334561861, 615423932
a(0)=1, a(1)=2, a(2)=4, a(3)=9, a(4)=18, a(5)=35, a(n)=2*a(n-1)+a(n-3)- 2*a(n-4)-a(n-5)-a(n-6). - Harvey P. Dale, Nov 06 2011
[A101351] 2, 4, 9, 18, 36, 71, 140, 276, 545, 1078, 2136, 4239, 8424, 16760, 33377, 66522, 132668, 264727, 528468, 1055340, 2108097, 4212014, 8417264, 16823583, 33629456, 67230256, 134414145, 268753266, 537385140, 1074573863, 2148829916, 4297145604, 8593459169
a(n) = 4*a(n-1) -4*a(n-2) -a(n-3) +2*a(n-4). G.f.: x*(2-4*x+x^2)/((x-1) * (2*x-1) * (1-x-x^2)). - R. J. Mathar, Feb 06 2010
a(n) = ((1+sqrt(5))^n-(1-sqrt(5))^n)/(2^n*sqrt(5)) + 2^n - 1. - Colin Barker, Nov 02 2016
[A293333] 2, 4, 9, 18, 36, 72, 143, 286, 572, 1145, 2290, 4579, 9159, 18318, 36636, 73271, 146543, 293086, 586172, 1172344, 2344687, 4689374, 9378749, 18757498, 37514995, 75029991, 150059982, 300119964, 600239927, 1200479854, 2400959709, 4801919417, 9603838835
a(n) = floor(1/2 + r*2^n), where r = sqrt(5).
[A033138] 1, 2, 4, 9, 18, 36, 73, 146, 292, 585, 1170, 2340, 4681, 9362, 18724, 37449, 74898, 149796, 299593, 599186, 1198372, 2396745, 4793490, 9586980, 19173961, 38347922, 76695844, 153391689, 306783378, 613566756, 1227133513, 2454267026
a(n) = 2*a(n-1) + a(n-3) - 2*a(n-4). -John W. Layman
a(n) = floor(2^(n+2)/7). - Gary Detlefs, Sep 06 2010
a(n) = floor((4*2^n - 1)/7) = ceiling((4*2^n - 4)/7) = round((4*2^n - 2)/7) = round((8*2^n - 5)/14); a(n) = a(n-3) + 2^(n-1), n>3. - Mircea Merca, Dec 28 2010
a(n) = 4/7*2^n - 5/21*cos(2/3*Pi*n) + 1/21*3^(1/2)*sin(2/3*Pi*n)-1/3. - Leonid Bedratyuk, May 13 2012
[A155803] 0, 0, 0, 1, 2, 4, 9, 18, 36, 73, 146, 292, 585, 1170, 2340, 4681, 9362, 18724, 37449, 74898, 149796, 299593, 599186, 1198372, 2396745, 4793490, 9586980, 19173961, 38347922, 76695844, 153391689, 306783378, 613566756, 1227133513, 2454267026, 4908534052
a(n)= 2*a(n-1)+a(n-3)-2*a(n-4). G.f.: x^3/((x-1)*(2*x-1)*(1+x+x^2)). [R. J. Mathar, Jul 23 2009]
a(n)=floor(2^n/7) [Mircea Merca, Dec 22 2010]
[A293352] 0, 1, 2, 4, 9, 18, 36, 73, 147, 295, 591, 1182, 2364, 4728, 9457, 18914, 37828, 75656, 151313, 302627, 605254, 1210508, 2421017, 4842035, 9684071, 19368143, 38736287, 77472575, 154945150, 309890300, 619780600, 1239561201, 2479122403, 4958244806, 9916489613
a(n) = floor((r*2^n)), where r = Euler's constant (0.577216...).
[A293327] 0, 1, 2, 4, 9, 18, 36, 73, 147, 295, 591, 1182, 2364, 4729, 9459, 18918, 37837, 75674, 151348, 302697, 605395, 1210791, 2421582, 4843165, 9686330, 19372660, 38745320, 77490641, 154981282, 309962565, 619925131, 1239850262, 2479700524, 4959401049, 9918802098
a(n) = ceiling(r*2^n), where r = sqrt(1/3).
[A081253] 2, 4, 9, 18, 37, 74, 149, 298, 597, 1194, 2389, 4778, 9557, 19114, 38229, 76458, 152917, 305834, 611669, 1223338, 2446677, 4893354, 9786709, 19573418, 39146837, 78293674, 156587349, 313174698, 626349397, 1252698794, 2505397589
a(n) = floor(2^n*7/3)
a(n) = 2*a(n-1) for even n, otherwise a(n) = 2*a(n-1)+1, with a(1)=2. [Bruno Berselli, Jun 19 2014]
[A206927] 2, 4, 9, 18, 37, 75, 150, 300, 601, 1202, 2405, 4811, 9622, 19244, 38489, 76978, 153957, 307915, 615830, 1231660, 2463321, 4926642, 9853285, 19706571, 39413142, 78826284, 157652569, 315305138, 630610277, 1261220555
a(n) = 37*2^(1+n mod 6)*(2^(6*floor(n/6))-1)/63 + floor(37*2^(n mod 6)/2^5).
a(n) = floor((37*2^(n+1)/63)) mod 2^(n+1).
a(n+1) = 2a(n) + floor(37*2^(n+2)/63) mod 2.
[A219755] 0, 0, 0, 0, 1, 2, 4, 9, 18, 39, 80, 169, 350, 731, 1516, 3149, 6522, 13503, 27912, 57649, 118934, 245155, 504868, 1038869, 2135986, 4388487, 9009984, 18486009, 37904078, 77672299, 159072860, 325602269, 666117610, 1362061391, 2783775096, 5686854849, 11612318982
a(n) = (2^(n-5)*(3*n+38)-(3*n-14)*(-1)^n)/27 with n>3, a(0)=a(1)=a(2)=a(3)=0. [Bruno Berselli, Nov 29 2012]
[A289846] 1, 2, 4, 9, 18, 39, 80, 170, 353, 744, 1553, 3262, 6824, 14313, 29970, 62823, 131596, 275782, 577777, 1210704, 2536657, 5315210, 11136700, 23334969, 48893202, 102446199, 214654136, 449764562, 942387569, 1974580920, 4137324929, 8668915558, 18163921856
a(n) = a(n-1) + 3*a(n-2) - a(n-3) - a(n-4).
[A038044] 1, 1, 2, 4, 9, 18, 40, 80, 168, 340, 698, 1396, 2844, 5688, 11456, 22948, 46072, 92144, 184696, 369392, 739536, 1479232, 2959860, 5919720, 11842696, 23685473, 47376634, 94753940, 189519576, 379039152, 758102900, 1516205800
a(1)=1, a(n+1)=sum(d|n, a(d)*a(n/d)); a(prime(k)+1)=2*a(prime(k)); a(n) is asymptotic to c*2^n where c=0.353030198... - Benoit Cloitre, Aug 29 2004
[A081490] 1, 2, 4, 9, 19, 36, 62, 99, 149, 214, 296, 397, 519, 664, 834, 1031, 1257, 1514, 1804, 2129, 2491, 2892, 3334, 3819, 4349, 4926, 5552, 6229, 6959, 7744, 8586, 9487, 10449, 11474, 12564, 13721, 14947, 16244, 17614, 19059, 20581, 22182, 23864, 25629
a(n)=(n-2)^2 + a(n-1)+1, n>1. - Gary Detlefs, Jun 29 2010
a(1)=1, a(2)=2, a(3)=4, a(4)=9, a(n)=4a(n-1)-6a(n-2)+4a(n-3)-a(n-4). - Harvey P. Dale, Apr 30 2011
[A292478] 1, 2, 4, 9, 19, 36, 66, 127, 256, 513, 998, 1916, 3717, 7311, 14396, 28134, 54719, 106624, 208577, 408426, 798340, 1558049, 3041323, 5942916, 11618026, 22703871, 44346624, 86617729, 169226638, 330675804, 646109597, 1262265767, 2465931324, 4817687118
a(n) = 4*a(n-1) - 8*a(n-2) + 11*a(n-3) - 8*a(n-4) + 4*a(n-5) - a(n-6) for n >= 7.
[A262864] 1, 2, 4, 9, 19, 38, 76, 153, 307, 614, 1228, 2457, 4915, 9830, 19660, 39321, 78643, 157286, 314572, 629145, 1258291, 2516582, 5033164, 10066329, 20132659, 40265318, 80530636, 161061273, 322122547, 644245094, 1288490188, 2576980377, 5153960755, 10307921510

a(n) = 3*a(n-1)-3*a(n-2)+3*a(n-3)-2*a(n-4) for n>3.
[A293322] 0, 1, 2, 4, 9, 19, 39, 79, 158, 316, 632, 1265, 2531, 5062, 10125, 20251, 40503, 81006, 162013, 324027, 648055, 1296111, 2592222, 5184444, 10368889, 20737779, 41475558, 82951117, 165902235, 331804471, 663608942, 1327217884, 2654435769, 5308871538
a(n) = floor((r*2^n)), where r = (-1+sqrt(5))/2.
[A267157] 1, 2, 4, 9, 19, 39, 79, 159, 319, 639, 1278, 2557, 5114, 10229, 20458, 40917, 81834, 163669, 327338, 654677, 1309354, 2618709, 5237418, 10474837, 20949674, 41899349, 83798698, 167597397, 335194794, 670389589, 1340779178, 2681558357, 5363116714, 10726233429
a(n) = (-(-1)^n+959*2^(n-7)-3)/6 for n>7.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3) for n>4.
[A054135] 2, 4, 9, 19, 39, 79, 159, 319, 639, 1279, 2559, 5119, 10239, 20479, 40959, 81919, 163839, 327679, 655359, 1310719, 2621439, 5242879, 10485759, 20971519, 41943039, 83886079, 167772159, 335544319, 671088639, 1342177279
a(1)=1, a(n) = Sum_i=1..n-1 a(i) + n for n>1 - Gerald McGarvey, Sep 06 2004
[A099568] 1, 2, 4, 9, 19, 39, 80, 163, 330, 666, 1341, 2695, 5409, 10846, 21733, 43526, 87140, 174409, 349007, 698291, 1396988, 2794571, 5590014, 11181306, 22364485, 44731715, 89467453, 178940802, 357890245, 715793154, 1431604868, 2863236937
a(n) = 3*a(n-1)-2*a(n-2)+a(n-3)-2*a(n-4).
a(n) = sum{k=0..n, sum{j=0..floor(n/3), binomial(n-2j, k+j)}}.
[A084172] 1, 2, 4, 9, 19, 40, 82, 167, 337, 678, 1360, 2725, 5455, 10916, 21838, 43683, 87373, 174754, 349516, 699041, 1398091, 2796192, 5592394, 11184799, 22369609, 44739230, 89478472, 178956957, 357913927, 715827868, 1431655750, 2863311515
a(n)=2^(n+2)/3-(-1)^n/12-(2*n+1)/4.
a(n+2)=a(n+1)+2*a(n)+n, a(0)=0, a(1)=2.
a(n+1) = 2*a(n) + floor(n/2). Franklin T. Adams-Watters, Oct 17 2013
[A141683] 1, 1, 2, 4, 9, 19, 41, 88, 189, 406, 872, 1873, 4023, 8641, 18560, 39865, 85626, 183916, 395033, 848491, 1822473, 3914488, 8407925, 18059374, 38789712, 83316385, 178955183, 384377665, 825604416, 1773314929, 3808901426
a(n)=a(n-1)+2*a(n-2)+a(n-3), n>4. G.f.: x*(1-x^2-x^3)/(1-x-2*x^2-x^3). [Colin Barker, Feb 01 2012]
[A275862] 1, 1, 2, 4, 9, 19, 41, 89, 194, 424, 927, 2026, 4429, 9682, 21166, 46272, 101157, 221143, 483449, 1056887, 2310503, 5051084, 11042380, 24140196, 52773864, 115371090, 252217431, 551382781, 1205400317, 2635174646, 5760862444, 12594055635, 27532377118
a(n) = floor(3*a(n-1)/2) + floor(3*a(n-2)/2).
[A089941] 1, 2, 4, 9, 19, 42, 90, 197, 424, 923, 1989, 4315, 9300, 20129, 43374, 93724, 201888, 435713, 938218, 2022972, 4354569, 9382489, 20190181, 43477688, 93534469, 201326672, 433017364, 931701321, 2003520121, 4309597827, 9265723250
a(n)=sum{k=0..n, Bin(n+k, floor((n-k)/2))}.
[A192923] 0, 1, 2, 4, 9, 19, 42, 91, 200, 437, 959, 2101, 4609, 10106, 22168, 48620, 106649, 233928, 513126, 1125541, 2468901, 5415578, 11879209, 26057330, 57157443, 125376341, 275016369, 603255761
a(n) = 2*a(n-1) + 2*a(n-2) - 3*a(n-3) - a(n-4).
[A192673] 1, 1, 2, 4, 9, 19, 42, 92, 203, 453, 1018, 2300, 5224, 11919, 27301, 62750, 144662, 334392, 774802, 1799089, 4185524, 9754468, 22769099, 53225213, 124585182, 291975928, 685044632, 1608962053, 3782645385, 8901012965, 20962890607, 49409138924, 116543063346, 275086432485
a(n) = floor(sqrt(largeSchroder(n))).
[A289845] 1, 2, 4, 9, 19, 43, 91, 202, 433, 952, 2055, 4494, 9737, 21236, 46099, 100403, 218164, 474833, 1032256, 2245929, 4883690, 10623848, 23103985, 50255443, 109298635, 237734446, 517055409, 1124617945, 2446001258, 5320100761, 11571106298, 25167245524, 54738437517
a(n) = a(n-1) + 3*a(n-2) - a(n-3) + a(n-4) - a(n-5) - 2*a(n-6) - a(n-8).
[A052328] 1, 1, 2, 4, 9, 19, 46, 110, 273, 684, 1747, 4505, 11763, 30956, 82153, 219437, 589747, 1593170, 4324445, 11787195, 32251520, 88548011, 243877256, 673605521, 1865445693, 5178574184, 14408195935, 40170674295, 112213616851
a(n) satisfies a = SHIFT_RIGHT(EULER(a-b)) where b(5)=1, b(k)=0 if k != 5.
[A101338] 1, 2, 4, 9, 20, 41, 77, 134, 219, 340, 506, 727, 1014, 1379, 1835, 2396, 3077, 3894, 4864, 6005, 7336, 8877, 10649, 12674, 14975, 17576, 20502, 23779, 27434, 31495, 35991, 40952, 46409, 52394, 58940, 66081, 73852, 82289, 91429, 101310, 111971
a(n) = n^4/24 + n^3/12 - n^2/24 + 11*n/12 + 1.
a(0)=1, a(1)=2, a(2)=4, a(3)=9, a(4)=20, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Harvey P. Dale, May 21 2013
[A179744] 1, 2, 4, 9, 20, 43, 90, 185, 376, 759, 1526, 3061, 6132, 12275, 24562, 49137, 98288, 196591, 393198, 786413, 1572844, 3145707, 6291434, 12582889, 25165800, 50331623, 100663270, 201326565, 402653156, 805306339, 1610612706, 3221225441
a(0) = 1, a(1) = 2; a(n) = 2*a(n-1) + (n-2) for n>1.
[A109975] 1, 2, 4, 9, 20, 44, 96, 208, 448, 960, 2048, 4352, 9216, 19456, 40960, 86016, 180224, 376832, 786432, 1638400, 3407872, 7077888, 14680064, 30408704, 62914560, 130023424, 268435456, 553648128, 1140850688, 2348810240
a(n) = 2^(n-3)*(n+6) with n>1, a(0)=1, a(1)=2 (see the PARI code). - Bruno Berselli, Jun 27 2012
[A129988] 1, 2, 4, 9, 20, 44, 96, 209, 456, 999, 2198, 4854, 10752, 23877, 53142, 118517, 264816, 592744, 1328880, 2983565, 6707396, 15096727, 34014866, 76712042, 173150400, 391119273, 884066890, 1999489733, 4524624820, 10243526452, 23200473632
a(n)= +6*a(n-1) -13*a(n-2) +12*a(n-3) -3*a(n-4) -2*a(n-5), n>5.- R. J. Mathar, Feb 11 2016
[A008998] 1, 2, 4, 9, 20, 44, 97, 214, 472, 1041, 2296, 5064, 11169, 24634, 54332, 119833, 264300, 582932, 1285697, 2835694, 6254320, 13794337, 30424368, 67103056, 148000449, 326425266, 719953588, 1587907625, 3502240516, 7724434620, 17036776865, 37575794246
a(n) = sum{k=0..floor(n/3), binomial(n-2k, k)2^(n-3k)}. - Paul Barry, Oct 20 2004
[A227978] 1, 2, 4, 9, 20, 45, 102, 231, 520, 1161, 2570, 5643, 12300, 26637, 57358, 122895, 262160, 557073, 1179666, 2490387, 5242900, 11010069, 23068694, 48234519, 100663320, 209715225, 436207642, 905969691, 1879048220, 3892314141, 8053063710, 16642998303
a(n) = 6*a(n-1) -13*a(n-2) +12*a(n-3) -4*a(n-4) for n>5.
[A138164] 1, 1, 2, 4, 9, 20, 47, 109, 262, 622, 1516, 3653, 8988, 21883, 54213, 133004, 331233, 817432, 2044151, 5068346, 12716872, 31651555, 79636493, 198843284, 501466519, 1255489165, 3172569392, 7961388439, 20152910577, 50674576772
a(n) = top left term of M^n. a(n+1) = sum of top row terms of M^n. Example: top row of M^3 = (4, 3, 1, 1), where a(3) = 4 and a(4) = 9 = (4 + 3 + 1 + 1). - Gary W. Adamson, Jul 07 2011
[A052329] 1, 1, 2, 4, 9, 20, 47, 113, 281, 706, 1807, 4671, 12224, 32247, 85782, 229683, 618767, 1675618, 4559263, 12457483, 34168574, 94040433, 259637564, 718892281, 1995739380, 5553867981, 15490305017, 43293762352, 121235084565
a(n) satisfies a=SHIFT_RIGHT(EULER(a-b)) where b(6)=1, b(k)=0 if k != 6.
[A124497] 1, 1, 2, 4, 9, 20, 48, 116, 288, 724, 1849, 4768, 12423, 32628, 86342, 229952, 616042, 1659012, 4489101, 12199521, 33284546, 91140797, 250396629, 690043032, 1907022197, 5284167884, 14677681554, 40862469713, 114001697975
a(n) = Sum_{m=1..n+2} (binomial(3*m,m)*Sum_{k=0..n-m}((binomial(2*m+2*k,k)* binomial(n-m-k,2*m+k))/(2*m+k+1))) + Sum_{k=0..n/2}((binomial(2*k,k)*binomial(n-k,k))/(k+1)). - Vladimir Kruchinin, Apr 24 2016
[A286983] 1, 2, 4, 9, 20, 48, 117, 294, 748, 1925, 4984, 12960, 33785, 88218, 230580, 603057, 1577836, 4129232, 10807885, 28291230, 74060636, 193882317, 507572784, 1328814144, 3478834225, 9107631218, 23843966692, 62424118809, 163428146948, 427859929200, 1120151005029, 2932592057430
a(n) = 3*a(n-1) + a(n-2) - 5*a(n-3) - a(n-4) + a(n-5) for n>5.
[A018105] 1, 2, 4, 9, 21, 44, 96, 206, 441, 944, 2020, 4326, 9261, 19824, 42439, 90849, 194481, 416324, 891223, 1907838, 4084101, 8742815, 18715701, 40064612, 85766121, 183599118, 393029741, 841356858, 1801088541, 3855581491, 8253624572, 17668494033, 37822859361
a(n) = floor((21)^(n/4)). - Wesley Ivan Hurt, Apr 24 2017
[A061439] 2, 4, 9, 21, 46, 99, 215, 464, 999, 2154, 4641, 9999, 21544, 46415, 99999, 215443, 464158, 999999, 2154434, 4641588, 9999999, 21544346, 46415888, 99999999, 215443469, 464158883, 999999999, 2154434690, 4641588833, 9999999999
a(n)=ceil(10^(n/3))-1 - Antonio G. Astudillo (afg_astudillo(AT)lycos.com), Mar 30 2003
[A027711] 0, 1, 2, 4, 9, 21, 47, 101, 212, 440, 907, 1859, 3791, 7699, 15586, 31476, 63445, 127689, 256671, 515433, 1034248, 2073968, 4156791, 8327911, 16679007, 33395527, 66851750, 133801708, 267762321, 535781757, 1071979535
a(n)= +4*a(n-1) -5*a(n-2) +2*a(n-3) +a(n-4) -2*a(n-5).

[A084634] 1, 2, 4, 9, 21, 48, 106, 227, 475, 978, 1992, 4029, 8113, 16292, 32662, 65415, 130935, 261990, 524116, 1048385, 2096941, 4194072, 8388354, 16776939, 33554131, 67108538, 134217376, 268435077, 536870505, 1073741388, 2147483182, 4294966799, 8589934063
a(n)=2^(n+1)-(n^2+n+2)/2; a(n)=1+n+n(n-1)/2+2*sum{k=3..n, C(n, k)}.
a(n)=5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4). - R. J. Mathar, Apr 07 2008
[A119967] 1, 1, 2, 4, 9, 21, 49, 113, 259, 595, 1376, 3202, 7479, 17499, 40986, 96116, 225755, 531115, 1251310, 2951556, 6968883, 16468775, 38951925, 92204241, 218426037, 517799861, 1228280392, 2915346934, 6923469409, 16450694861, 39107365561
a(n) = sum{k=0..floor(n/2), C(n,2k)*C(k,floor(k/2))}.
[A052921] 1, 2, 4, 9, 21, 49, 114, 265, 616, 1432, 3329, 7739, 17991, 41824, 97229, 226030, 525456, 1221537, 2839729, 6601569, 15346786, 35676949, 82938844, 192809420, 448227521, 1042002567, 2422362079, 5631308624, 13091204281, 30433357674
a(n) = Sum(1/23*(8-5*_alpha+7*_alpha^2)*_alpha^(-1-n), _alpha=RootOf(-1+3*_Z-2*_Z^2+_Z^3))
[A275864] 1, 1, 2, 4, 9, 21, 50, 118, 279, 661, 1566, 3711, 8795, 20843, 49396, 117064, 277432, 657492, 1558206, 3692830, 8751726, 20740926, 49154420, 116492243, 276077771, 654283356, 1550601878, 3674808723, 8709017668, 20639710651, 48914547197, 115923763079
a(n) = floor(r*a(n-1)) + floor(r*a(n-2)), where r = 5/3, a(0) = 1, a(1) = 1.
[A024537] 1, 2, 4, 9, 21, 50, 120, 289, 697, 1682, 4060, 9801, 23661, 57122, 137904, 332929, 803761, 1940450, 4684660, 11309769, 27304197, 65918162, 159140520, 384199201, 927538921, 2239277042, 5406093004, 13051463049, 31509019101, 76069501250, 183648021600
a(n) = 2*a(n-1) + a(n-2) - 1. - Christian G. Bower
a(n) = 3*a(n-1) - a(n-2) - a(n-3).
a(n) = (1/4)*(2 + (1-sqrt(2))^(n+1) + (1+sqrt(2))^(n+1)). - Herbert Kociemba, Jun 02 2004
a(n) = 1 + sum_{k=1..floor((n+1)/2)} C(n+1,2*k)*2^(k-1). - Andrew Woods, Jan 03 2015
[A171842] 1, 1, 2, 4, 9, 21, 50, 120, 289, 697, 1682, 4060, 9801, 23661, 57122, 137904, 332929, 803761, 1940450, 4684660, 11309769, 27304197, 65918162, 159140520, 384199201, 927538921, 2239277042, 5406093004, 13051463049, 31509019101, 76069501250, 183648021600, 443365544449, 1070379110497
a(n) = 3*a(n-1)-a(n-2)-a(n-3). G.f.: (1-2*x)/((1-x)*(1-2*x-x^2)). - Colin Barker, Apr 01 2012
a(n) = (2+(1-sqrt(2))^n+(1+sqrt(2))^n)/4. - Colin Barker, Mar 16 2016
[A091964] 1, 2, 4, 9, 21, 50, 121, 296, 730, 1812, 4521, 11328, 28485, 71844, 181674, 460443, 1169283, 2974574, 7578937, 19337489, 49401526, 126350742, 323495259, 829033334, 2126454271, 5458711430, 14023219126, 36049991901, 92734505565
a(n) = Sum_{k=0..n} C(n-floor(k/2), floor((k+1)/2)) * C(n-floor((k+1)/2), floor(k/2)). - Paul D. Hanna, Mar 24 2005
a(n) = Sum_{k=0..n} C(floor((n+k)/2),k)*C(floor((n+k+1)/2),k)). - Paul D. Hanna, Oct 31 2006
[A176334] 1, 1, 2, 4, 9, 21, 51, 124, 305, 755, 1879, 4698, 11792, 29694, 74984, 189811, 481498, 1223713, 3115200, 7942134, 20275362, 51823246, 132604193, 339644739, 870745187, 2234208932, 5737129623, 14742751524, 37909928908, 97543380598
a(n)=sum{k=0..floor(n/2), sum{j=0..n-k, C(j,n-2k)*C(j,k)*(-1)^(n-k-j)}}.
[A005207] 1, 2, 4, 9, 21, 51, 127, 322, 826, 2135, 5545, 14445, 37701, 98514, 257608, 673933, 1763581, 4615823, 12082291, 31628466, 82798926, 216761547, 567474769, 1485645049, 3889431721, 10182603746, 26658304492, 69792188337
a(n) = 4*a(n-1) - 3*a(n-2) - 2*a(n-3) + a(n-4).
a(n) = (w^(2*n-1) + w^(1-2*n) + w^(n+1) - (-w)^(-1-n))/(4*w-2) where w = (1+sqrt(5))/2.
a(n) = 2/5*Sum_{k=1..4} (sin(Pi*k/5)^2*(1+2*cos(Pi*k/5))^n). - Herbert Kociemba, May 31 2004
[A094287] 1, 2, 4, 9, 21, 51, 127, 323, 835, 2188, 5798, 15510, 41822, 113531, 309937, 850118, 2340918, 6466953, 17913087, 49726649, 138287113, 385126811, 1073832695, 2996974774, 8370739326, 23394528640, 65415732100, 182989086965
a(n) = (2/7)*Sum_{k=1..6} sin(Pi*k/7)^2(1+2*cos(Pi*k/7))^n.
[A094288] 1, 2, 4, 9, 21, 51, 127, 323, 835, 2188, 5798, 15511, 41835, 113633, 310557, 853333, 2355861, 6531062, 18171848, 50722229, 141973073, 398351055, 1120056347, 3155043447, 8901325751, 25147423616, 71127785002, 201381834019
a(n)=(1/4)*Sum_{k=1..7} sin(Pi*k/8)^2(1+2*cos(Pi*k/8))^n.
[A001006] 1, 1, 2, 4, 9, 21, 51, 127, 323, 835, 2188, 5798, 15511, 41835, 113634, 310572, 853467, 2356779, 6536382, 18199284, 50852019, 142547559, 400763223, 1129760415, 3192727797, 9043402501, 25669818476, 73007772802, 208023278209, 593742784829
a(n) = (-1/2) Sum_(-3)^i C(1/2, i) C(1/2, j); i+j=n+2, i >= 0, j >= 0.
a(n) = (3/2)^(n+2) * Sum_{k >= 1} 3^(-k) * Catalan(k-1) * binomial(k, n+2-k). [Doslic et al.]
a(n+2) - a(n+1) = a(0)*a(n) + a(1)*a(n-1) + ... + a(n)*a(0). [Bernhart]
a(n) = (1/(n+1)) * Sum_{i} (n+1)!/(i!*(i+1)!*(n-2*i)!). [Bernhart]
a(n) = sum((-1)^j*binomial(n+1, j)*binomial(2n-3j, n), j=0..floor(n/3))/(n+1). - Emeric Deutsch, Mar 13 2004
a(n)=(1/(2*pi))*int(x^n*sqrt((3-x)*(1+x)),x,-1,3) is the moment representation. - Paul Barry, Sep 10 2007
[A086246] 0, 1, 1, 1, 2, 4, 9, 21, 51, 127, 323, 835, 2188, 5798, 15511, 41835, 113634, 310572, 853467, 2356779, 6536382, 18199284, 50852019, 142547559, 400763223, 1129760415, 3192727797, 9043402501, 25669818476, 73007772802, 208023278209, 593742784829, 1697385471211, 4859761676391, 13933569346707
a(n) + a(n-1) = a(0)*a(n) + a(1)*a(n-1) + ... + a(n)*a(0), n > 2.
a(n) = Sum_{k=1..n} binomial(2*k-2, k-1)*(-1)^(n-k)*binomial(n-2, n-k)/k. - Vladimir Kruchinin, May 27 2014
[A289666] 0, 1, 2, 4, 9, 21, 52, 134, 355, 957, 2608, 7154, 19701, 54379, 150302, 415762, 1150609, 3185147, 8818620, 24418128, 67615743, 187239359, 518506932, 1435875288, 3976322869, 11011542937, 30494088494, 84446895364, 233857897749, 647620493541
a(n) = 4*a(n-1) - 3*a(n-2) - a(n-3) - a(n-5) for n>5. - Colin Barker, Jul 26 2017
[A084261] 1, 1, 2, 4, 9, 21, 52, 134, 361, 1009, 2926, 8768, 27121, 86373, 282864, 950866, 3277169, 11564353, 41739130, 153919324, 579411641, 2224535125, 8703993420, 34681783422, 140637608089, 580019801201, 2431509498406, 10355296410712
a(n) = Sum_{k=0..floor(n/2)} C(n, 2k)*k!.
a(n) = Sum_{k=0..n} C(n, k)*(k/2)!*((1+(-1)^k)/2) .
[A055094] 0, 1, 2, 4, 9, 22, 52, 72, 146, 313, 738, 1156, 2829, 6772, 9520, 18496, 53643, 75154, 162438, 312328, 600116, 1513186, 4023888, 4737152, 9741609, 23182093, 38478994, 76286020, 166236537, 311977264, 921787428, 1212203072, 2962424994
a(n) = qrs2bincode(n)
[A290996] 1, 2, 4, 9, 22, 55, 136, 330, 789, 1872, 4433, 10510, 24968, 59409, 141470, 336935, 802340, 1910166, 4546845, 10822176, 25758097, 61308650, 145928764, 347350473, 826795942, 1968018151, 4684451824, 11150316882, 26540849109, 63174538224, 150372815489
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - a(n-4) for n >= 4.
[A055588] 1, 2, 4, 9, 22, 56, 145, 378, 988, 2585, 6766, 17712, 46369, 121394, 317812, 832041, 2178310, 5702888, 14930353, 39088170, 102334156, 267914297, 701408734, 1836311904, 4807526977, 12586269026, 32951280100, 86267571273
a(n) = ((((3 + sqrt(5))/2)^n - ((3 - sqrt(5))/2)^n)/sqrt(5)) + 1.
a(n) = 4a(n-1) - 4a(n-2) + a(n-3);
a(n) = Sum_{k=0..floor(n/3)} binomial(n-k, 2k)2^(n-3k). (End)
a(n) = Fibonacci(2n) + 1;
a(n) = Sum_{k=0..n} Fibonacci(2k+2)(2*0^(n-k)-1);
a(n) = Sum_{k=0..2n+1} ((-1)^(k+1))*fibonacci(k). - Michel Lagneau, Feb 03 2014
[A091561] 1, 2, 4, 9, 22, 56, 146, 388, 1048, 2869, 7942, 22192, 62510, 177308, 506008, 1451866, 4185788, 12119696, 35227748, 102753800, 300672368, 882373261, 2596389190, 7658677856, 22642421206, 67081765932, 199128719896, 592179010350
a(n)=2*a(n-1)+a(1)*a(n-3)+a(2)*a(n-4)+...+a(n-3)*a(1) for n>1.
[A143017] 1, 2, 4, 9, 22, 56, 147, 396, 1088, 3036, 8582, 24524, 70727, 205594, 601756, 1771937, 5245544, 15602496, 46606356, 139753120, 420520000, 1269361000, 3842722454, 11663928644, 35490451807, 108232655126, 330760284892
a(n)=(1/n)Sum[2*binom(n,2k)*binom(n-k,k-1)+n*binom(n,2k+1)*binom(n-k,k)/(n-k) G.f. G(x) satisfies xG^3 +(4x-2)G^2 +(4x-1)G + x = 0.
[A099754] 2, 4, 9, 22, 57, 154, 429, 1222, 3537, 10354, 30549, 90622, 269817, 805354, 2407869, 7207222, 21588897, 64701154, 193972389, 581655022, 1744440777, 5232273754, 15694724109, 47079978022, 141231545457, 423677859154, 1271000023029
a(n) = (3^n+1)/2+2^n.

[A105633] 1, 2, 4, 9, 22, 57, 154, 429, 1223, 3550, 10455, 31160, 93802, 284789, 871008, 2681019, 8298933, 25817396, 80674902, 253106837, 796968056, 2517706037, 7977573203, 25347126630, 80738862085, 257778971504, 824798533933
a(n) = 2*a(n-1) + Sum(a(i)*(a(n-1-i)-a(n-2-i)),i=1..n-2). a(n) = Sum((-1)^i * binomial(n+1-i,i) * binomial(2*(n+1)-3*i,n-2*i) /(n+1-i), i=0..[n/2]). - I. Tasoulas (jtas(AT)unipi.gr), Feb 15 2006
a(n) = sum{k=0..floor(n/2), sum{j=0..n-k, C(n-k,j)(0^(j+k)+(1/(j+0^j))*C(j,k)*C(j,k+1))}}. - Paul Barry, Jun 30 2009
[A099241] 1, 2, 4, 9, 22, 57, 155, 441, 1311, 4066, 13130, 44046, 153144, 550706, 2044248, 7819897, 30779570, 124487688, 516723174, 2198726181, 9581247648, 42717268934, 194688593966, 906331074605, 4306472500778, 20871165469241, 103106015116437
a(n)=sum{k=0..n, sum{j=0..n-k, binomial(k(n-k)-(k-1)(j-1), j)}
[A249563] 1, 1, 2, 4, 9, 22, 57, 156, 447, 1335, 4140, 13290, 44055, 150494, 528860, 1909010, 7068879, 26820161, 104156616, 413634176, 1678323602, 6952182325, 29378908664, 126568357635, 555540596435, 2482857618713, 11292588202568, 52241502972732, 245700673227652, 1174263543570678, 5700387781450739
a(n,k,i,l) = aup(n,k,i,l) + adown(n,k,i,l)
a(n) = sum(sum(sum(a(n,k,j,m) for m in [1..k]) for j in [1..k]) for k in [1..n])
[A059019] 1, 1, 2, 4, 9, 22, 58, 163, 483, 1494, 4783, 15740, 52956, 181391, 630533, 2218761, 7888266, 28291588, 102237141, 371884771, 1360527143, 5002837936, 18479695171, 68539149518, 255137783916, 952914971191, 3569834343547, 13410481705795
a(n) = the upper left term in M^n, M = an infinite square production matrix in which a column of (1,1,0,0,0,...) is prepended to an infinite lower triangular matrix of all 1's and the rest zeros, as follows:
a(n) = Sum_{k=1..n-1} (Sum_{j=0..min(k,n-k)} binomial(k,j)*j*binomial(2*n-2*k-j-1, n-k-j) /(n-k)) + 1. - Vladimir Kruchinin, Oct 02 2013
[A024427] 1, 1, 2, 4, 9, 22, 58, 164, 495, 1587, 5379, 19195, 71872, 281571, 1151338, 4902687, 21696505, 99598840, 473466698, 2327173489, 11810472444, 61808852380, 333170844940, 1847741027555, 10532499571707, 61649191750137, 370208647200165, 2278936037262610
a(n) = sum(stirling2(n+1-i,i), i=0..n). - Zerinvary Lajos, Jan 31 2008
[A092920] 1, 1, 2, 4, 9, 22, 58, 164, 496, 1601, 5502, 20075, 77531, 315947, 1354279, 6087421, 28611385, 140239297, 715116827, 3785445032, 20760746393, 117759236340, 689745339984, 4165874930885, 25911148634728, 165775085602106
a(n) = leftmost column terms of M^n*V, where M = an infinite tridiagonal matrix with all 1's in the super and subdiagonals and (1,1,2,3,4,5,...) as the main diagonal; and the rest zeros. V = vector [1,0,0,0,...]. - Gary W. Adamson, Jun 16 2011
[A193361] 0, 0, 1, 2, 4, 9, 22, 59, 170, 525, 1716, 5917, 21362, 80533, 315516, 1281913, 5383622, 23330405, 104084736, 477371217, 2246811730, 10839493637, 53528916508, 270318789249, 1394426035918, 7341439399397, 39413238225512, 215607783811041, 1200938739448842
a(0)=a(1)=0, a(2)=1, a(n) = 2*a(n-1)+(n-4)*a(n-2)-(n-4)*a(n-3).
[A159329] 2, 4, 9, 23, 54, 125, 290, 674, 1567, 3643, 8469, 19688, 45769, 106400, 247350, 575019, 1336757, 3107583, 7224254, 16794353, 39042134, 90761950, 210995935, 490506039, 1140288197, 2650848448, 6162474989, 14326016268, 33303947274
a(0)=2, a(1)=4, a(2):=9, a(3):=23, a(4):=54 and for n>=2 a(n+3)=3*a(n+2)-2*a(n+1)+a(n)
[A159330] 2, 4, 9, 23, 55, 126, 292, 679, 1579, 3671, 8534, 19839, 46120, 107216, 249247, 579429, 1347009, 3131416, 7279659, 16923154, 39341560, 91458031, 212614127, 494267879, 1149033414, 2671178611, 6209736884, 14435886844, 33559365375
a(0)=2, a(1)=4, a(2)=9, a(3)=23, a(4)=55, a(5)=126, a(6)=292 and for n>=4 a(n+3)=3*a(n+2)-2*a(n+1)+a(n)
[A159331] 2, 4, 9, 23, 55, 126, 293, 680, 1581, 3676, 8546, 19867, 46185, 107367, 249598, 580245, 1348906, 3135826, 7289911, 16946987, 39396965, 91586832, 212913553, 494963960, 1150651606, 2674940451, 6218482101, 14456217007, 33606627270
a(0)=2, a(1)=4, a(2)=9, a(3)=23, a(4)=55, a(5)=126, a(6)=293, a(7)=680, a(8)=1581 and for n>=6 a(n+3):=3*a(n+2)-2*a(n+1)+a(n)
[A190277] 1, 1, 2, 4, 9, 23, 62, 174, 497, 1433, 4150, 12044, 34989, 101695, 295642, 859566, 2499277, 7267081, 21130538, 61441732, 178655937, 519483767, 1510520966, 4392195390, 12771343961, 37135696841
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3) - 2*a(n-4) for n > 4.
[A058585] 1, 1, 2, 4, 9, 23, 63, 177, 514, 1526, 4624, 14230, 44357, 139779, 444557, 1425151, 4600338, 14939849, 48778197, 160019884, 527200711, 1743607825, 5786756469, 19266336882, 64331275266, 215377539119, 722840378041, 2431459847363
a(n) = floor(u(n)) where u(n) has g.f. (1/2)*(5-3*x-2*x^2-sqrt(9-30*x-11*x^2+12*x^3+4*x^4)).
[A135307] 1, 1, 2, 4, 9, 23, 63, 178, 514, 1515, 4545, 13827, 42540, 132124, 413741, 1304891, 4141198, 13214815, 42375461, 136478383, 441285890, 1431925180, 4661485203, 15219836738, 49827678840, 163535624722, 537962562453, 1773437280323
a(n) is the sum of top row terms in M^(n-1), where M = the following infinite square production matrix:
[A164039] 1, 2, 4, 9, 23, 64, 186, 551, 1645, 4926, 14768, 44293, 132867, 398588, 1195750, 3587235, 10761689, 32285050, 96855132, 290565377, 871696111, 2615088312, 7845264914, 23535794719, 70607384133, 211822152374, 635466457096
a(0) = 1; a(n+1) = 3*a(n) - n.
a(n) = (3^n + 2*n + 3)/4.
a(n) = 5*a(n-1)-7*a(n-2)+3*a(n-3).
[A014137] 1, 2, 4, 9, 23, 65, 197, 626, 2056, 6918, 23714, 82500, 290512, 1033412, 3707852, 13402697, 48760367, 178405157, 656043857, 2423307047, 8987427467, 33453694487, 124936258127, 467995871777, 1757900019101, 6619846420553, 24987199492705, 94520750408709, 358268702159069
a(n) = Sum_{k=0..n} (2k)!/(k!)^2/(k+1). - Alexander Adamchuk, Jul 11 2006
[A093156] 1, 2, 4, 9, 24, 63, 177, 514, 1527, 4625, 14230, 44358, 139779, 444558, 1425151, 4600339, 14939849, 48778197, 160019885, 527200711, 1743607826, 5786756470, 19266336882, 64331275266, 215377539119, 722840378042, 2431459847364
a(n) is the nearest integer to u(n) (with round(0.5)=0), where u(n) has o.g.f.: U(x) = (5 - 3*x - 2*x^2 - sqrt(9 - 30*x - 11*x^2 + 12*x^3 + 4*x^4))/2. [Riordan Shannon]
[A200966] 1, 2, 4, 9, 24, 68, 204, 642, 2096, 7026, 24026, 83454, 293562, 1043488, 3741954, 13520253, 49171485, 179859763, 661240417, 2442023860, 9055315765, 33701442548, 125845246605, 471346884115, 1770306347204, 6665954191204, 25159152509961
a(n) = Sum_{i=0..(n-1)} (Sum_{j=0..(i/3)} binomial(i-3*j,j))*binomial(2*(n-i)-2,n-i-1))/(n-i)), n>0.
[A081913] 1, 2, 4, 9, 24, 72, 224, 688, 2048, 5888, 16384, 44288, 116736, 301056, 761856, 1896448, 4653056, 11272192, 27000832, 64028672, 150470656, 350748672, 811597824, 1865416704, 4261412864, 9680453632, 21877489664, 49207574528
a(n)=2^n(n^3-3n^2+2n+48)/48 G.f.: (1-6x+12x^2-7x^3)/(1-2x)^4
[A005001] 0, 1, 2, 4, 9, 24, 76, 279, 1156, 5296, 26443, 142418, 820988, 5034585, 32679022, 223578344, 1606536889, 12086679036, 94951548840, 777028354999, 6609770560056, 58333928795428, 533203744952179, 5039919483399502, 49191925338483848, 495150794633289137
a(0) = 0; for n >= 0, a(n+1) = 1 + Sum_{j=1..n} (C(n, j)-C(n, j+1))*a(j).
[A192801] 1, 2, 4, 9, 25, 84, 312, 1199, 4637, 17906, 68976, 265249, 1019069, 3913484, 15026092, 57690143, 221487945, 850350482, 3264725772, 12534190569, 48122302705, 184755243892, 709328262928, 2723314511871, 10455585321989, 40141990468066
a(n) = 7*a(n-1)-15*a(n-2)+11*a(n-3).
[A047463] 2, 4, 10, 12, 18, 20, 26, 28, 34, 36, 42, 44, 50, 52, 58, 60, 66, 68, 74, 76, 82, 84, 90, 92, 98, 100, 106, 108, 114, 116, 122, 124, 130, 132, 138, 140, 146, 148, 154, 156, 162, 164, 170, 172, 178, 180, 186, 188, 194, 196, 202, 204, 210, 212, 218, 220, 226, 228, 234
a(n)=8*n-a(n-1)-10, with a(1)=2. - Vincenzo Librandi, Aug 06 2010
a(n) = 4*n-(-1)^n-3.
[A053417] 0, 2, 4, 10, 14, 24, 30, 48, 60, 76, 92, 110, 130, 154, 178, 208, 230, 264, 288, 330, 364, 406, 442, 482, 522, 564, 614, 664, 712, 766, 812, 874, 922, 990, 1050, 1112, 1176, 1240, 1312, 1382, 1452, 1530, 1598, 1684, 1750, 1840, 1920, 2008, 2092, 2182, 2266
a(n)/(n/2)^2 -> Pi*2/sqrt(3).
[A137928] 2, 4, 10, 16, 26, 36, 50, 64, 82, 100, 122, 144, 170, 196, 226, 256, 290, 324, 362, 400, 442, 484, 530, 576, 626, 676, 730, 784, 842, 900, 962, 1024, 1090, 1156, 1226, 1296, 1370, 1444, 1522, 1600, 1682, 1764, 1850, 1936, 2026, 2116, 2210, 2304, 2402, 2500, 2602, 2704, 2810
a(n) = 2 * ceiling(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
a(n) = n^2 + (n mod 2). - Bruno Berselli, Oct 03 2017
[A006584] 0, 0, 0, 2, 4, 10, 16, 28, 40, 60, 80, 110, 140, 182, 224, 280, 336, 408, 480, 570, 660, 770, 880, 1012, 1144, 1300, 1456, 1638, 1820, 2030, 2240, 2480, 2720, 2992, 3264, 3570, 3876, 4218, 4560, 4940, 5320
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6). - Jaume Oliver Lafont, Dec 05 2008
a(n) = n*(2*n^2-5-3*(-1)^n)/24. - Luce ETIENNE, Apr 03 2015

a(n) = Sum_{i=1..n} floor(i*(n-i)/2). - Wesley Ivan Hurt, May 07 2016

[A280186] 0, 0, 0, 0, 2, 4, 10, 16, 28, 40, 60, 80, 110, 140, 182, 224, 280, 336, 408, 480, 570, 660, 770, 880, 1012, 1144, 1300, 1456, 1638, 1820, 2030, 2240, 2480, 2720, 2992, 3264, 3570, 3876, 4218, 4560, 4940, 5320, 5740, 6160, 6622, 7084, 7590, 8096, 8648, 9200

a(n) = C((n+1)/2, 3) + C((n-1)/2, 2)*C((n+1)/2,1) when n is odd.

a(n) = C(n/2, 3) + C(n/2, 2)*C(n/2, 1) when n is even.

a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>5.

a(n) = n*(n - 1)*(n - 2)/12 for n even.

a(n) = (n - 1)*(n + 1)*(n - 3)/12 for n odd.

[A032246] 2, 4, 10, 16, 28, 42, 64, 90, 126, 168, 224, 288, 370, 462, 576, 704, 858, 1030, 1232, 1456, 1716, 2002, 2330, 2688, 3094, 3536, 4032, 4570, 5168, 5814, 6528, 7296, 8140, 9044, 10032, 11088, 12236, 13460, 14784, 16192, 17710, 19320

a(n) = a(5-n) for all n in Z. - Michael Somos, Nov 28 2016

[A077627] 2, 4, 10, 16, 30, 52, 92, 160, 280, 484, 840, 1456, 2524, 4372, 7574, 13120, 22726, 39364, 68182, 118096, 204550, 354292, 613654, 1062880, 1840964, 3188644, 5522896, 9565936, 16568690, 28697812

a(2*m) = 2*(3^m-1); in general a(n) is close to 2*(3^(n/2)-1) and for any n, 0 <= a(n) - 2*(3^(n/2)-1) < 2. Conjecture: a(n)=ceiling(2*(3^(n/2)-1)) except for n=3, 9, 27 and all powers of 3, in this case a(n)=1+ceiling(2*(3^(n/2)-1)). - Benoit Cloitre, Nov 24 2002

[A117862] 2, 4, 10, 16, 34, 52, 106, 160, 322, 484, 970, 1456, 2914, 4372, 8746, 13120, 26242, 39364, 78730, 118096, 236194, 354292, 708586, 1062880, 2125762, 3188644, 6377290, 9565936, 19131874, 28697812, 57395626, 86093440, 172186882, 258280324, 516560650, 774840976

a(n) = 4*3^((n-1)/2)-2 (n odd), 2*3^(n/2)-2 (n even).

[A182248] 0, 2, 4, 10, 18, 28, 36, 46, 54, 72, 84, 106, 122, 140, 156, 174, 206, 240, 260, 298, 338, 364, 404, 430, 470, 504, 532, 570, 602, 636, 668, 702, 734, 800, 836, 906, 978, 1052, 1124, 1166, 1238, 1320, 1364, 1450, 1498, 1580

a(0)=0, a(n)=(a(n-1) OR n) + n, where OR is the bitwise logical inclusive-OR operator.

[A093695] 0, 0, 2, 4, 10, 18, 34, 56, 94, 146, 228, 340, 506, 730, 1050, 1476, 2066, 2844, 3896, 5268, 7090, 9442, 12518, 16454, 21534, 27980, 36210, 46572, 59674, 76056, 96594, 122106, 153852, 193048, 241492, 300974, 374038, 463286, 572304, 704826, 865874, 1060766

a(n) = Sum_p=1^P(n) Sum_i=1^D(p) Sum_j=1^D(p) 1 [subject to: i <> j and d(i,p) <= d(j,p) and d(i,p) <> d(i-1,p) (if i > 1) and d(j,i) <> d(j-1,i) (if j > 1 and if d(j-1,p) has given a contribution to the sum)]; P(n) = number of partitions of n, D(p) = number of digits in partition p, d(i,p) and d(j,p) = digits number i and j in partition p of integer n.

a(n) = Sum_i=1^P(n+1) S(i, n+1)^2 - S(i, n+1), where P(n+1) is the number of integer partitions of n+1 and S(i, n+1) is the number of digits in the set of digits of the i-th partition of n+1. (E.g. the partition [1111233] has the set of digits {1, 2, 3} and would contribute 3^2 - 3 = 6 to the sum.)

[A218008] 0, 0, 2, 4, 10, 18, 38, 68, 138, 250, 502, 922, 1846, 3430, 6862, 12868, 25738, 48618, 97238, 184754, 369510, 705430, 1410862, 2704154, 5408310, 10400598, 20801198, 40116598, 80233198, 155117518, 310235038

a(n) = sum |C(n,k+1)-C(n,k)|, k=0..n-1 = 2*sum C(n,k+1)-C(n,k), k=0..floor((n-1)/2) = 2*(C(n, floor((n+1)/2)) - 1)

[A079162] 0, 1, 2, 4, 10, 18, 46, 82, 210, 374, 958, 1706, 4370, 7782, 19934, 35498, 90930, 161926, 414782, 738634, 1892050, 3369318, 8630686, 15369322, 39369330, 70107974, 179585278, 319801226, 819187730, 1458790182, 3736768094

a(n)=(1/68) * (-1)^n * [5/2 + (1/2) * sqrt(17)]^(-1/4) * [5/2 + (1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2 + (1/2) * sqrt(17)]^(1/2) * n * sqrt(17)-(1/68) * [5/2-(1/2) * sqrt(17)]^(-1/4) * (-1)^n * sqrt(17) * [5/2 -(1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2-(1/2) * sqrt(17)]^(1/ 2) * n + (1/4) * [5/2-(1/2) * sqrt(17)]^(-1/4) * [5/2-(1/2) * sqrt(17)]^[(1/ 4) * (-1)^n] * [5/2-(1/2) * sqrt(17)]^(1/2) * n + (1/4) * [5/2 + (1/2) * sqrt(17)]^(-1/4) * [5/2 + (1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2 + (1/2) * sqrt(17)]^(1/2) * n-(1/4) * (-1)^n * [5/2 + (1/2) * sqrt(17)]^(-1/4) * [5/2 + (1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2 + (1/2) * sqrt(17)]^[(1/2) * n]-(1/4) * [5/2-(1/2) * sqrt(17)]^(-1/ 4) * (-1)^n * [5/2-(1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2-(1/2) * sqrt(17)]^(1/2) * n + (7/68) * [5/2 + (1/2) * sqrt(17)]^(-1/4) * [5/2 + (1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2 + (1/2) * sqrt(17)]^(1/ 2) * n * sqrt(17)-(7/68) * [5/2-(1/2) * sqrt(17)]^(-1/4) * sqrt(17) * [5/2-(1/2) * sqrt(17)]^[(1/4) * (-1)^n] * [5/2-(1/2) * sqrt(17)]^[(1 /2) * n], with n>=0 [From Paolo P. Lava, Oct 06 2008]

[A228705] 1, 2, 4, 10, 19, 28, 40, 60, 85, 110, 140, 182, 231, 280, 336, 408, 489, 570, 660, 770, 891, 1012, 1144, 1300, 1469, 1638, 1820, 2030, 2255, 2480, 2720, 2992, 3281, 3570, 3876, 4218, 4579, 4940, 5320, 5740, 6181, 6622, 7084, 7590, 8119, 8648, 9200, 9800, 10425

a(n) = (n+2)*(2*(n+1)*(n+3)+3*(1+(-1)^n)*i^(n*(n+1)))/24, where i=sqrt(-1). [Bruno Berselli, Sep 07 2013]

a(0)=1, a(1)=2, a(2)=4, a(3)=10, a(4)=19, a(5)=28, a(6)=40, a(7)=60, a(n)=4*a(n-1)-8*a(n-2)+12*a(n-3)-14*a(n-4)+12*a(n-5)-8*a(n-6)+ 4*a(n-7)- a(n-8). - Harvey P. Dale, Apr 10 2014

[A219555] 1, 2, 4, 10, 19, 38, 73, 134, 242, 430, 749, 1282, 2171, 3622, 5979, 9770, 15802, 25334, 40288, 63560, 99554, 154884, 239397, 367800, 561846, 853584, 1290107, 1940304, 2904447, 4328184, 6422164, 9489940, 13967783, 20480534, 29920277, 43557272, 63194864

a(n) = Sum_{i+j=n} [x^i*y^j] 1/2 * Product_{k,m>=0} (1+x^k*y^m).

[A271624] 2, 4, 10, 20, 34, 52, 74, 100, 130, 164, 202, 244, 290, 340, 394, 452, 514, 580, 650, 724, 802, 884, 970, 1060, 1154, 1252, 1354, 1460, 1570, 1684, 1802, 1924, 2050, 2180, 2314, 2452, 2594, 2740, 2890, 3044, 3202, 3364, 3530, 3700, 3874, 4052, 4234, 4420, 4610, 4804, 5002, 5204, 5410, 5620

a(n) = 2 + 2*(n-1)^2. - Tyler Skywalker, Jul 21 2016

[A004647] 1, 2, 4, 10, 20, 40, 100, 200, 400, 1000, 2000, 4000, 10000, 20000, 40000, 100000, 200000, 400000, 1000000, 2000000, 4000000, 10000000, 20000000, 40000000, 100000000, 200000000, 400000000, 1000000000

a(0)=1, a(1)=2, a(2)=4, a(n)=10*a(n-3). - Harvey P. Dale, Aug 16 2012

[A026644] 1, 2, 4, 10, 20, 42, 84, 170, 340, 682, 1364, 2730, 5460, 10922, 21844, 43690, 87380, 174762, 349524, 699050, 1398100, 2796202, 5592404, 11184810, 22369620, 44739242, 89478484, 178956970, 357913940, 715827882, 1431655764, 2863311530, 5726623060

a(2k) = 2*a(2k-1), a(2k+1) = 2*a(2k) + 2. - Peter Shor, Apr 11 2002

a(2n) = 2n-1 + sum_{k=0..2n-1} a(k), n>0; a(2n+1) = 2n+1 + sum_{k=0..n} a(k). - Lee Hae-hwang, Sep 17 2002; corrected by R. J. Mathar, Oct 21 2008

a(n) = 2n + 2*sum_{k=1..n-2} a(k), n>0. - Lee Hae-hwang, Sep 19 2002; corrected by R. J. Mathar, Oct 21 2008

a(n) = -1 + (1/3)*(-1)^(n-1) + (8/3)*2^(n-1) + (C(2*n,n) mod 2). - Paolo P. Lava, Oct 03 2008

a(n+3) = 3*2^(n+2) - 2 - a(n), n>=1, a(1)=2, a(2)=4, a(3)=10 . - Yosu Yurramendi, Jul 05 2016

[A094536] 0, 0, 2, 4, 10, 20, 44, 88, 182, 364, 740, 1480, 2980, 5960, 11960, 23920, 47914, 95828, 191804, 383608, 767500, 1535000, 3070568, 6141136, 12283388, 24566776, 49135784, 98271568, 196547560, 393095120, 786199088, 1572398176, 3144813974

a(0) = 0; a(1) = 0; a(2*n+1) = 2*a(2*n); a(2*n) = 2*a(2*n-1) + 2^n - a(n). - Peter Kagey, Jan 11 2015

[A026395] 1, 2, 4, 10, 20, 50, 100, 250, 500, 1250, 2500, 6250, 12500, 31250, 62500, 156250, 312500, 781250, 1562500, 3906250, 7812500, 19531250, 39062500, 97656250, 195312500, 488281250, 976562500, 2441406250, 4882812500, 12207031250

a(n) = a(n-1) + 2*5^(n/2 -1) if n is even, a(n) = a(n-2) + 2*phi(5^[(n-1)/2]) if n is odd, where phi is the Euler phi function. - Shannon Ezzat (sez10(AT)math.canterbury.ac.nz), Jan 20 2009

[A018003] 1, 2, 4, 10, 21, 46, 100, 215, 464, 1000, 2154, 4641, 10000, 21544, 46415, 100000, 215443, 464158, 1000000, 2154434, 4641588, 10000000, 21544346, 46415888, 100000000, 215443469, 464158883, 1000000000, 2154434690, 4641588833, 10000000000, 21544346900

a(n) = floor(10^(n/3)).

[A165136] 1, 2, 4, 10, 21, 50, 99, 250, 454, 1242, 2223, 6394, 11389, 35002, 62034, 202010, 359483, 1233518, 2203507, 7944100, 14249715, 53810836, 96911168, 382258438, 691048071, 2840120987, 5152403569, 22010733048, 40059670261, 177444599715

a(n) = R(n) - Sum_{d|n,d<n} phi(n/d)*a(d) where R(2*k)=k*(b(k)+b(k+1)), R(2*k+1)=(2*k+1)*b(k+1), b(k)=Sum_{j=1..10} stirling2(k,j). - Andrew Howroyd, Mar 29 2016

[A036954] 2, 4, 10, 22, 34, 46, 58, 67, 79, 94, 103, 139, 145, 157, 166, 169, 172, 181, 190, 193, 199, 205, 211, 214, 229, 277, 283, 295, 298, 307, 313, 349, 367, 373, 391, 394, 409, 421, 433, 439, 463, 466, 478, 505, 517, 523, 529, 535, 541, 547, 556, 559, 571, 577

a(n) = 1 (mod 3) for all n > 1. - M. F. Hasler, Jul 25 2015

[A291397] 1, 2, 4, 10, 22, 46, 97, 209, 452, 972, 2084, 4472, 9608, 20645, 44345, 95238, 204552, 439366, 943734, 2027046, 4353861, 9351633, 20086392, 43143592, 92668072, 199041584, 427521184, 918272425, 1972356577, 4236422746, 9099408124, 19544609858, 41979848918

a(n) = a(n-1) + a(n-2) + a(n-3) + 3*a(n-4) + 3*a(n-5) + a(n-6) for n >= 7.

[A164990] 1, 2, 4, 10, 22, 52, 114, 260, 564, 1256, 2698, 5908, 12588, 27224, 57620, 123432, 259816, 552400, 1157466, 2446004, 5105532, 10735352, 22334524, 46766200, 97021272, 202431152, 418935364, 871425160, 1799558584

a(n) = (n+2)2^(n-3) - (n-2)C(n-3,(n-3)/2), n>1.

[A210460] 1, 2, 4, 10, 23, 53, 123, 285, 660, 1529, 3542, 8205, 19007, 44030, 101996, 236275, 547334, 1267906, 2937120, 6803875, 15761261, 36511157, 84578549, 195927260, 453867933, 1051390708, 2435559643, 5642004185, 13069772820, 30276291184
a(n) = sum(Fibonacci(k)*binomial(k,n-k), k=floor((n-1)/2)+1..n).
[A136427] 0, 1, 2, 4, 10, 24, 48, 92, 188, 388, 772, 1524, 3060, 6164, 12308, 24532, 49108, 98388, 196692, 393044, 786260, 1573204, 3146068, 6290772, 12582228, 25167188, 50333012, 100660564, 201323860, 402658644, 805311828, 1610601812, 3221214548
a(n)=-(2/3)+(2/3)*2^n-[(1/12)*I]*[I*sqrt(2)]^n*sqrt(2)+[(1/12)*I]*sqrt(2)*[-I*sqrt(2)]^n, with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A159328] 2, 4, 10, 24, 56, 130, 302, 702, 1632, 3794, 8820, 20504, 47666, 110810, 257602, 598852, 1392162, 3236384, 7523680, 17490434, 40660326, 94523790, 219741152, 510836202, 1187550092, 2760719024, 6417893090, 14919791314, 34684306786
a(0), a(1)=4, a(2)=10 and for n>=0 a(n+3)=3*a(n+2)-2*a(n+1)+a(n).
[A052912] 1, 2, 4, 10, 24, 56, 132, 312, 736, 1736, 4096, 9664, 22800, 53792, 126912, 299424, 706432, 1666688, 3932224, 9277312, 21888000, 51640448, 121835520, 287447040, 678174976, 1600020992, 3774936064, 8906222080, 21012486144, 49574844416
a(n) = 2*a(n-1) +2*a(n-3).
a(n)=sum{k=0..n, C(k, floor((n-k)/2))2^k(1+(-1)^(n-k))/2}; - Paul Barry, Jan 12 2006
[A165409] 1, 2, 4, 10, 24, 56, 136, 328, 784, 1896, 4576, 11008, 26592, 64192, 154752, 373696, 902144, 2176640, 5255424, 12687488, 30621952, 73931392, 178484736, 430845952, 1040176640, 2511199232, 6062209024, 14635617280, 35333443584, 85300015104
a(n) = sum{k=0..n, if(n<=3k, 2^k*C((n+k)/2,k)*((3k-n)/2+1)(1+(-1)^(n-k))/(2(k+1))}.
[A052542] 1, 2, 4, 10, 24, 58, 140, 338, 816, 1970, 4756, 11482, 27720, 66922, 161564, 390050, 941664, 2273378, 5488420, 13250218, 31988856, 77227930, 186444716, 450117362, 1086679440, 2623476242, 6333631924, 15290740090, 36915112104, 89120964298, 215157040700
a(n) = Sum_(-1/2*(-1+_alpha)*_alpha^(-1-n), _alpha=RootOf(-1+2*_Z+_Z^2))
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k-1, k)2^(n-2k). - Paul Barry, Jan 16 2005
a(n) = round(sqrt(Pell(2n) + Pell(2n-1))). - Richard R. Forberg, Jun 22 2014
[A163271] 0, 2, 4, 10, 24, 58, 140, 338, 816, 1970, 4756, 11482, 27720, 66922, 161564, 390050, 941664, 2273378, 5488420, 13250218, 31988856, 77227930, 186444716, 450117362, 1086679440, 2623476242, 6333631924, 15290740090, 36915112104, 89120964298, 215157040700
a(n) = 2*a(n-1) + a(n-2). - Jacob Antony, Jun 07 2013
[A110236] 1, 2, 4, 10, 24, 58, 143, 354, 881, 2204, 5534, 13940, 35213, 89162, 226238, 575114, 1464382, 3734150, 9534594, 24374230, 62377881, 159793932, 409717004, 1051405260, 2700168229, 6939388478, 17845927498, 45922416814, 118238842174
a(n) = Sum_{k=1..n}k*T(n, k), where T(n, k)=[2/(n+k)]binomial((n+k)/2, k)*binomial((n+k)/2, k-1) for n+k mod 2 = 0 and T(n, k)=0 otherwise.
a(n+1) = sum{k=0..n, sum{j=0..n-k, C(k+j,n-k-j)*C(k,n-k-j)}}. - Paul Barry, Oct 24 2006, index corrected Jul 13 2011
a(n+1) = sum{k=0..,floor(n/2), C(n-k+1,k+1)*C(n-k,k)}; a(n+1):=sum{k=0..n, C(k+1,n-k+1)*C(k,n-k)}. [Paul Barry, Aug 17 2009, indices corrected Jul 13 2011]
a(n) = -f_{n}(-n) with f_1(n)=n and f_{p}(n)= (n+p-1)*(n+p+1-1)^2 *(n+p+2-1)^2*...*(n+p+(p-1)-1)^2/(p!*(p-1)!) +f_{p-1}(n) for p > 1. - Alzhekeyev Ascar M, Jun 27 2011
[A100087] 1, 2, 4, 10, 24, 60, 148, 370, 920, 2300, 5736, 14340, 35808, 89520, 223668, 559170, 1397496, 3493740, 8732920, 21832300, 54575888, 136439720, 341082504, 852706260, 2131706864, 5329267160, 13322959888, 33307399720, 83267756400, 208169391000, 520420803060, 1301052007650
a(n) = sum{k=0..n, k*C(n-1,(n-k)/2)(1+(-1)^(n-k))2^k/(n+k)}. - Paul Barry, Jan 17 2005
[A006575] 1, 2, 4, 10, 24, 60, 156, 410, 1092, 2952, 8052, 22140, 61320, 170820, 478288, 1345210, 3798240, 10761660, 30585828, 87169608, 249055976, 713205900, 2046590844, 5883948540, 16945772184, 48882035160, 141214767876
a(n) = (Sum_{d|n, d odd}mu(d)(3^(n/d)-1))/(2n).
a(n) = (3^n-1)/(2n) for n=2^k and a(n) = (Sum_{d|n, d odd}mu(d)3^(n/d))/(2n) otherwise. (End)
[A089928] 1, 2, 4, 10, 25, 60, 144, 348, 841, 2030, 4900, 11830, 28561, 68952, 166464, 401880, 970225, 2342330, 5654884, 13652098, 32959081, 79570260, 192099600, 463769460, 1119638521, 2703046502, 6525731524, 15754509550, 38034750625, 91824010800
a(n) = ((1+sqrt(2))^(n+2) + (1-sqrt(2))^(n+2) + 2*(-1)^floor(n/2))/8.
a(n) = (-i)^nsum{k=0..floor(n/2), U(n-2k, i)} with i^2=-1;
[A166516] 1, 1, 2, 4, 10, 25, 65, 169, 442, 1156, 3026, 7921, 20737, 54289, 142130, 372100, 974170, 2550409, 6677057, 17480761, 45765226, 119814916, 313679522, 821223649, 2149991425, 5628750625, 14736260450, 38580030724, 101003831722
a(n) = F(2*floor(n/2)+1)*F(2*floor((n-1)/2)+1).
a(n) = F(n)^2*(1-(-1)^n)/2 + F(n-1)*F(n+1)(1+(-1)^n)/2.
a(n+1)*a(n+3) - a(n+2)^2 = F(n+2)^2*(1-(-1)^n)/2.
a(n) = 3*a(n-1) - 3*a(n-3) + a(n-4). - G. C. Greubel, May 15 2016
[A189912] 1, 2, 4, 10, 25, 66, 177, 484, 1339, 3742, 10538, 29866, 85087, 243478, 699324, 2015082, 5822619, 16865718, 48958404, 142390542, 414837699, 1210439958, 3536809521, 10347314544, 30306977757, 88861597426, 260798283502, 766092871654, 2252240916665
a(n) = Sum_{k=0..n}(n!/(((n-k)!*floor(k/2)!^2)*(floor(k/2)+1)).
[A001998] 1, 2, 4, 10, 25, 70, 196, 574, 1681, 5002, 14884, 44530, 133225, 399310, 1196836, 3589414, 10764961, 32291602, 96864964, 290585050, 871725625, 2615147350, 7845353476, 23535971854, 70607649841, 211822683802, 635467254244, 1906400965570, 5719200505225
a(n) = if n mod 2 = 0 then ((3^((n-2)/2)+1)/2)^2 else 3^((n-3)/2)+(1/4)*(3^(n-2)+1).
a(n) = 4*a(n-1)-12*a(n-3)+9*a(n-4), with a(0)=1, a(1)=2, a(2)=4, a(3)=10. - Harvey P. Dale, Apr 10 2013
a(n) = (1+3^n+3^(1/2*(-1+n))*(2-2*(-1)^n+sqrt(3)+(-1)^n*sqrt(3)))/4. - Colin Barker, May 15 2016
[A124419] 1, 1, 1, 2, 4, 10, 25, 75, 225, 780, 2704, 10556, 41209, 178031, 769129, 3630780, 17139600, 87548580, 447195609, 2452523325, 13450200625, 78697155750, 460457244900, 2859220516290, 17754399678409, 116482516809889, 764214897046969, 5277304280371714
a(n) = Q[n](1,1,0), where the polynomials Q[n]=Q[n](t,s,x) are defined by Q[0]=1; Q[n]=t*dQ[n-1]/dt + x*dQ[n-1]/ds + x*dQ[n-1]/dx + t*Q[n-1] if n is odd and Q[n]=x*dQ[n-1]/dt + s*dQ[n-1]/ds + x*dQ[n-1]/dx + s*Q[n-1] if n is even.
[A154322] 1, 2, 4, 10, 26, 62, 133, 260, 471, 802, 1298, 2014, 3016, 4382, 6203, 8584, 11645, 15522, 20368, 26354, 33670, 42526, 53153, 65804, 80755, 98306, 118782, 142534, 169940, 201406, 237367, 278288, 324665, 377026, 435932, 501978, 575794, 658046, 749437, 850708
a(n) = n + 1 + Sum_{k=0..n} binomial(k+1,2) * binomial(n-k+1,2).
a(n) = (n+1)*(n^4 +4*n^3 +n^2 -6*n +120)/120.
a(n) = 6*a(n-1) -15*a(n-2) +20*a(n-3) -15*a(n-4) +6*a(n-5) -a(n-6) for n>5. - Wesley Ivan Hurt, Oct 08 2015
[A217988] 1, 2, 4, 10, 26, 66, 160, 372, 840, 1864, 4096, 8944, 19424, 41952, 90112, 192576, 409728, 868480, 1835008, 3866368, 8125952, 17038848, 35651584, 74449920, 155191296, 322963456, 671088640, 1392504832, 2885672960, 5972680704, 12348030976, 25501384704
a(n) = 6*a(n-1) -14*a(n-2) +16*a(n-3) -8*a(n-4) with n>5.
a(n) = 2^(n-3)*(3*n+2)+((1+i)^n+(1-i)^n)/4, where i=sqrt(-1) and n>1, with a(0)=1, a(1)=2.
[A055819] 1, 2, 4, 10, 26, 68, 178, 466, 1220, 3194, 8362, 21892, 57314, 150050, 392836, 1028458, 2692538, 7049156, 18454930, 48315634, 126491972, 331160282, 866988874, 2269806340, 5942430146, 15557484098, 40730022148, 106632582346
a(n) = 3*a(n-1) - a(n-2) for n > 0.
[A052995] 0, 2, 4, 10, 26, 68, 178, 466, 1220, 3194, 8362, 21892, 57314, 150050, 392836, 1028458, 2692538, 7049156, 18454930, 48315634, 126491972, 331160282, 866988874, 2269806340, 5942430146, 15557484098, 40730022148, 106632582346, 279167724890, 730870592324
a(0)=0, a(1)=2, a(2)=4; for n>0, a(n) - 3*a(n+1) + a(n+2) = 0.
a(n) = Sum(2/5*(-1+4*_alpha)*_alpha^(-1-n), _alpha = RootOf(_Z^2-3*_Z+1)).
a(n) = 1/2*(F(2*n+8) mod F(2*n+2)) for n>2. - Gary Detlefs, Nov 22 2010
a(n) = F(n-3)*F(n-1) + F(n)*F(n+2) for n>0, F(-2)=-1, F(-1)=1. - Bruno Berselli, Nov 03 2015
a(n) = (2^(-n)*((3-sqrt(5))^n*(1+sqrt(5))+(-1+sqrt(5))*(3+sqrt(5))^n))/sqrt(5) for n>0. - Colin Barker, Mar 30 2016
a(n) = Fibonacci(2*n-2) + Lucas(2*n-2) for n>0. - Bruno Berselli, Oct 13 2017
[A025565] 1, 2, 4, 10, 26, 70, 192, 534, 1500, 4246, 12092, 34606, 99442, 286730, 829168, 2403834, 6984234, 20331558, 59287740, 173149662, 506376222, 1482730098, 4346486256, 12754363650, 37461564504, 110125172682, 323990062452, 953883382354
a(n) = n*hypergeom([2-n, 1/2-n/2, 1-n/2], [2, -n], 4). - Peter Luschny, Jul 12 2016

a(n) = (-1)^n*2*hypergeom([3/2, 2-n], [2], 4) for n>1. - Peter Luschny, Jan 30 2017
[A257520] 1, 1, 2, 4, 10, 26, 71, 197, 554, 1570, 4477, 12827, 36895, 106471, 308114, 893804, 2598314, 7567466, 22076405, 64498427, 188689685, 552675365, 1620567764, 4756614062, 13974168191, 41088418151, 120906613076, 356035078102, 1049120176954, 3093337815410
a(n) = ((3*n^2-7*n+3)*a(n-1) +(n-1)*(n-3)*a(n-2) -3*(n-1)*(n-2)*a(n-3)) / (n*(n-2)) for n>2, a(0) = a(1) = 1, a(2) = 2.
[A102407] 1, 1, 2, 4, 10, 26, 72, 206, 606, 1820, 5558, 17206, 53872, 170298, 542778, 1742308, 5627698, 18277698, 59652952, 195541494, 643506310, 2125255036, 7041631854, 23400092142, 77971706848, 260458050034, 872040564850, 2925902656644
a(n) = top left term in M^n, a(n+1) = sum of top row terms in M^n. Example: top row of M^5 = (26, 19, 16, 7, 3, 1, 0, 0, 0,...) where 26 = a(5) and 72 = a(6) = (26 + 19 + 16 + 7 + 3 + 1). - Gary W. Adamson, Jul 11 2011
[A049130] 1, 1, 2, 4, 10, 26, 73, 211, 630, 1918, 5944, 18668, 59311, 190243, 615269, 2004025, 6568174, 21645438, 71681152, 238416580, 796107464, 2667768904, 8968626418, 30240087086, 102238147891, 346514952331, 1177137322768, 4007326361986, 13669068510355, 46711170248183, 159899495303170
a(n) = sum{k=0..floor(n/2), C(n,2k)*C(3k,k)/(2k+1)}; a(n)=sum{k=0..n, C(3k/2,k/2)(1+(-1)^k)/(2(k+1))}. - Paul Barry, Nov 05 2006
[A000085] 1, 1, 2, 4, 10, 26, 76, 232, 764, 2620, 9496, 35696, 140152, 568504, 2390480, 10349536, 46206736, 211799312, 997313824, 4809701440, 23758664096, 119952692896, 618884638912, 3257843882624, 17492190577600, 95680443760576, 532985208200576, 3020676745975552
a(n) = a(n-1) + (n-1)*a(n-2), n>1.
a(n)=Sum_{k=0..[n/2]} n!/((n-2*k)!*2^k*k!).
a(m+n) = Sum_{k>=0} k!*binomial(m, k)*binomial(n, k)*a(m-k)*a(n-k). - Philippe Deléham, Mar 05 2004
a(n) = (n-1)*a(n-2) + a(n-1); e.g. a(7) = 232 = 6*26 + 76.
a(n) = (1/sqrt(2*Pi))*int(exp(-x^2/2)*(x+1)^(n),x=-infinity..infinity) - Groux Roland, Mar 14 2011.
a(n) = sum(s(n,k)*(-1)^(n-k)*2^k*B(k,1/2),k=0..n), where the s(n,k) are (signless) Stirling numbers of the first kind, and the B(n,x) = sum(S(n,k)*x^k,k=0..n) are the Stirling polynomials, where the S(n,k) are the Stirling numbers of the second kind. - Emanuele Munarini, May 16 2014
[A003239] 1, 1, 2, 4, 10, 26, 80, 246, 810, 2704, 9252, 32066, 112720, 400024, 1432860, 5170604, 18784170, 68635478, 252088496, 930138522, 3446167860, 12815663844, 47820447028, 178987624514, 671825133648, 2528212128776, 9536895064400, 36054433810102, 136583761444364, 518401146543812
a(n) = Sum_{d|n} (phi(n/d)*binomial(2d, d))/(2n), n>0.
a(n) = (1/n) Sum_{d|n} (phi(n/d)*binomial(2d-1, d)), n>0.
[A114507] 1, 1, 2, 4, 10, 27, 79, 240, 750, 2387, 7711, 25214, 83315, 277799, 933596, 3159187, 10755190, 36811479, 126594819, 437220744, 1515844359, 5273760446, 18406122609, 64426136558, 226108087891, 795486834627, 2804993559426
a(n) = 1/n*sum(j=ceiling((n+1)/2)..n, C(n,j)*C(4*j-2*n-2,j-1)*(-1)^(n-j)) n>0. [From Vladimir Kruchinin, Mar 07 2011]
[A187256] 1, 2, 4, 10, 28, 82, 248, 770, 2440, 7858, 25644, 84618, 281844, 946338, 3199728, 10885122, 37230352, 127951714, 441633812, 1530242954, 5320853260, 18560408050, 64932101224, 227767796482, 800928670232, 2822814469394, 9969770245948, 35280714655498
a(n) = Sum_{i=0..n/2} ((-1)^i*binomial(n-i,i)*binomial(2*n-4*i+2,n-2*i))/(n-2*i+1)). - Vladimir Kruchinin, Jun 01 2014
[A192653] 1, 2, 4, 10, 28, 82, 264, 866, 2984, 10476, 37500, 135916, 496242, 1821384, 6712394, 24818020, 92016874, 342043052, 1274461144, 4759439600, 17812520318, 66803249358, 251038475982, 945202437760, 3565529448118, 13474452634994, 51010511291144, 193438196953970
a(n) = sum(binomial(n,k)*floor(sqrt(binomial(2*k,k)/(k+1)))*floor(sqrt(binomial(2*n-2*k,n-k)/(n-k+1))),k=0..n).
[A068875] 1, 2, 4, 10, 28, 84, 264, 858, 2860, 9724, 33592, 117572, 416024, 1485800, 5348880, 19389690, 70715340, 259289580, 955277400, 3534526380, 13128240840, 48932534040, 182965127280, 686119227300, 2579808294648, 9723892802904
a(n) = sum of top row terms in M^n, where M is the following infinite square production matrix:
[A135336] 1, 1, 2, 4, 10, 28, 85, 271, 893, 3013, 10351, 36075, 127219, 453097, 1627378, 5887660, 21436354, 78484402, 288779728, 1067263660, 3960081904, 14746806292, 55094725918, 206450572930, 775724723086, 2922060848734
a(n) = Sum_{j=0..floor(n/3)} (-1)^j*(3*j+1)*binomial(2*n-3*j,n)/(n+1).
[A229046] 1, 1, 2, 4, 10, 28, 88, 304, 1144, 4648, 20248, 94024, 463144, 2409928, 13198888, 75848584, 456066664, 2862257608, 18708144808, 127096142344, 895846801384, 6540722530888, 49392459602728, 385251753351304, 3099780861286504, 25698921466247368, 219294936264513448
a(n-1) is the number of set partitions of [n] such that the absolute difference between least elements of consecutive blocks is always > 1. a(4) = 10: 12345, 1234|5, 1235|4, 123|45, 1245|3, 124|35, 124|3|5, 125|34, 12|345, 12|34|5. - Alois P. Heinz, May 22 2017
[A191501] 1, 2, 4, 10, 28, 96, 354, 1372, 5512, 22740, 95768, 410016, 1779210, 7807724, 34589432, 154488460, 694883528, 3144917888, 14311109396, 65439770904, 300534169744, 1385612474536, 6410981989808, 29757955549888, 138534010818650, 646663905140300
a(n)=2*sum(k=1..n, (binomial(2*k-2,k-1) * sum(j=0..k, binomial(j,n-3*k+2*j) * binomial(k,j)))/k), n>0, a(0)=1.
[A243814] 0, 1, 2, 4, 10, 29, 86, 259, 806, 2573, 8332, 27301, 90498, 302933, 1022074, 3472148, 11868242, 40788053, 140851104, 488485195, 1700694884, 5941906864, 20826229564, 73208454375, 258031793698, 911704863957, 3228661787336
a(n) = sum(i=0..(n-1)/2, (-1)^i*binomial(n,i)*binomial(2*n-4*i,n-2*i+1))/n, n>0, a(0)=0.
[A262592] 1, 2, 4, 10, 29, 88, 268, 812, 2449, 7366, 22124, 66406, 199261, 597836, 1793572, 5380792, 16142465, 48427498, 145282612, 435847970, 1307544061, 3922632352, 11767897244, 35303691940, 105911076049, 317733228398, 953199685468, 2859599056702, 8578797170429, 25736391511636
a(n) = 6*a(n-1)-12*a(n-2)+10*a(n-3)-3*a(n-4) for n>3. - Colin Barker, Oct 23 2015
[A135334] 1, 1, 2, 4, 10, 29, 90, 290, 960, 3246, 11164, 38934, 137358, 489341, 1757882, 6360634, 23160528, 84802606, 312041692, 1153271984, 4279311348, 15935808866, 59537435012, 223099337404, 838282693560, 3157706225584
a(n) = 2*(Sum_{j=0..floor((n-1)/2)} (-1)^j*(j+1)*binom(2n-2j-1,n))/(n+1) (n>=1).
[A087161] 1, 2, 4, 10, 30, 98, 330, 1122, 3826, 13058, 44578, 152194, 519618, 1774082, 6057090, 20680194, 70606594, 241065986, 823050754, 2810071042, 9594182658, 32756588546, 111837988866, 381838778370, 1303679135746, 4451038986242
a(n)=((2-sqrt(2))^(n)/(1-sqrt(2))+(2+sqrt(2))^(n)/(1+sqrt(2)))/2+2 (offset 0) - Paul Barry, Aug 26 2003
a(1)=1, a(2)=2, a(3)=4, a(n)=5*a(n-1)-6*a(n-2)+2*a(n-3). - Harvey P. Dale, Oct 12 2015
[A274232] 1, 2, 4, 10, 30, 102, 374, 1430, 5590, 22102, 87894, 350550, 1400150, 5596502, 22377814, 89494870, 357946710, 1431721302, 5726754134, 22906754390, 91626493270, 366504924502, 1466017600854, 5864066209110, 23456256447830, 93825009014102, 375300002501974
a(n) = (8+3*2^(1+n)+4^n)/12 for n>0.
a(n) = 7*a(n-1)-14*a(n-2)+8*a(n-3) for n>3.
[A186021] 1, 2, 4, 10, 30, 104, 406, 1754, 8280, 42294, 231950, 1357140, 8427194, 55288874, 381798644, 2765917090, 20960284294, 165729739608, 1364153612318, 11665484410114, 103448316470744, 949739632313502, 9013431476894646, 88304011710168692, 891917738589610578, 9277180664459998706
a(n+1) = 1 + Sum_{k=0..n} C(n,k)*a(k). - Franklin T. Adams-Watters, Oct 02 2011.
[A071954] 2, 4, 10, 32, 114, 420, 1562, 5824, 21730, 81092, 302634, 1129440, 4215122, 15731044, 58709050, 219105152, 817711554, 3051741060, 11389252682, 42505269664, 158631825970, 592022034212, 2209456310874, 8245803209280, 30773756526242, 114849222895684
a(0)=2, a(1)=4, a(2)=10, a(n) = 5*a(n-1) - 5*a(n-2) + a(n-3) for n > 2.
a(n) = (2+(-(2-sqrt(3))^n+(2+sqrt(3))^n)/sqrt(3)). - Colin Barker, Nov 03 2016
[A103854] 2, 4, 10, 36, 56, 94, 126, 224, 260, 270, 300, 350, 686, 716, 780, 1036, 1070, 1080, 1156, 1174, 1210, 1394, 1416, 1434, 1440, 1460, 1524, 1550, 1576, 1616, 1654, 1660, 1700, 1756, 1860, 1980, 2054, 2084, 2096, 2116, 2224, 2454, 2600, 2664, 2770, 2864
a(n)^6 + 1 is semiprime. (a(n)^2+1) is prime and (a(n)^4 - a(n)^2 + 1) is prime.
[A214429] 0, 1, 2, 4, 11, 15, 18, 23, 37, 44, 49, 57, 78, 88, 95, 106, 134, 147, 156, 170, 205, 221, 232, 249, 291, 310, 323, 343, 392, 414, 429, 452, 508, 533, 550, 576, 639, 667, 686, 715, 785, 816, 837, 869, 946, 980, 1003, 1038, 1122, 1159, 1184, 1222, 1313, 1353
a(n) = 2*a(n-4) - a(n-8) + 15 = a(-1 - n).
[A277867] 1, 2, 4, 11, 16, 47, 64, 191, 256, 767, 1024, 3071, 4096, 12287, 16384, 49151, 65536, 196607, 262144, 786431, 1048576, 3145727, 4194304, 12582911, 16777216, 50331647, 67108864, 201326591, 268435456, 805306367, 1073741824, 3221225471, 4294967296, 12884901887
a(n) = (-2-(-2)^n+2*(-1)^n+5*2^n)/4. (End)
[A283216] 1, 2, 4, 11, 17, 46, 68, 187, 273, 750, 1092, 3003, 4369, 12014, 17476, 48059, 69905, 192238, 279620, 768955, 1118481, 3075822, 4473924, 12303291, 17895697, 49213166, 71582788, 196852667, 286331153, 787410670, 1145324612, 3149642683, 4581298449, 12598570734
a(n) = 4*a(n-2) + a(n-4) - 4*a(n-6) for n>5.
[A283357] 1, 2, 4, 11, 17, 46, 70, 190, 286, 766, 1150, 3070, 4606, 12286, 18430, 49150, 73726, 196606, 294910, 786430, 1179646, 3145726, 4718590, 12582910, 18874366, 50331646, 75497470, 201326590, 301989886, 805306366, 1207959550, 3221225470, 4831838206, 12884901886

a(n) = (-32 - 3*(-2)^n + 21*2^n) / 16 for n>4.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) for n>5.
[A182642] 2, 4, 11, 17, 46, 76, 199, 321, 842, 1364, 3571, 5777, 15126, 24476, 64079, 103681, 271442, 439204, 1149851, 1860497, 4870846, 7881196, 20633239, 33385282, 87403803, 141422324, 370248451, 599074578
a(n)=floor(r^m(n)), where r=(1+sqrt(5))/2 and m(n)
[A039824] 1, 2, 4, 11, 20, 31, 46, 61, 78, 97, 118, 141, 166, 193, 222, 253, 286, 321, 358, 397, 438, 481, 526, 573, 622, 673, 726, 781, 838, 897, 958, 1021, 1086, 1153, 1222, 1293, 1366, 1441, 1518, 1597, 1678, 1761, 1846, 1933, 2022, 2113, 2206, 2301, 2398, 2497
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>9.
[A061152] 1, 2, 4, 11, 23, 51, 107, 216, 430, 839, 1614, 3046, 5684, 10465, 19046, 34321, 61225, 108245, 189779, 330093, 569916, 977139, 1664304, 2817039, 4740000, 7930740, 13198108, 21851556, 36001483, 59035979, 96373100, 156644241, 253550911
a(n)=1/n*Sum_{k=1..n} a(n-k)*b(k), k>0, a(0)=1, b(k)=Sum_{d|k} (-1)^(k/d+1)*d*ithprime(d).
[A006452] 1, 1, 2, 4, 11, 23, 64, 134, 373, 781, 2174, 4552, 12671, 26531, 73852, 154634, 430441, 901273, 2508794, 5253004, 14622323, 30616751, 85225144, 178447502, 496728541, 1040068261, 2895146102, 6061962064, 16874148071, 35331704123
a(n+2) = sqrt(17*a(n)^2 + 6*(sqrt(8*a(n)^2 - 7))*a(n)*sgn(2*n - 1) - 7) with a(0) = 1, a(1) = 1. - Raphie Frank, Feb 08 2013
[A080009] 1, 1, 2, 4, 11, 26, 56, 127, 288, 660, 1500, 3401, 7729, 17565, 39930, 90735, 206176, 468536, 1064750, 2419661, 5498621, 12495505, 28395889, 64529315, 146642077, 333242093, 757288191, 1720927502, 3910785158, 8887207808, 20196062308
a(n) = a(n-1)+a(n-2)+2*a(n-3)+3*a(n-4)+5*a(n-5)+a(n-7)-a(n-8)-a(n-9)-a(n-10).
[A159336] 1, 2, 4, 11, 26, 60, 139, 323, 751, 1746, 4059, 9436, 21936, 50995, 118549, 275593, 640676, 1489391, 3462414, 8049136, 18711971, 43500055, 101125359, 235087938, 546513151, 1270488936, 2953528444, 6866120611, 15961793881, 37106668865
a(0)=1, a(1)=2, a(2)=4, a(3)=11, a(4)=26 and for n >=2 a(n+3)=3*a(n+2)-2*a(n+1)+a(n)
[A099525] 1, 2, 4, 11, 28, 68, 169, 422, 1048, 2603, 6472, 16088, 39985, 99386, 247036, 614027, 1526212, 3793532, 9429145, 23436926, 58254448, 144796331, 359903440, 894570224, 2223529441, 5526769202, 13737249076, 34145086475, 84870480556
a(n)=2a(n-1)+3a(n-3); a(n)=sum{k=0..floor(n/3), binomial(n-2k, k)3^(n-2k)(2/3)^(n-3k)}.
[A099016] 1, 2, 4, 11, 28, 74, 193, 506, 1324, 3467, 9076, 23762, 62209, 162866, 426388, 1116299, 2922508, 7651226, 20031169, 52442282, 137295676, 359444747, 941038564, 2463670946, 6449974273, 16886251874, 44208781348, 115740092171
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3).
a(n) = 3*((3/2-sqrt(5)/2)^n + (3/2+sqrt(5)/2)^n)/5-(-1)^n/5.
a(n) = 3*F(n)^2 + (-1)^n.
[A093960] 1, 2, 4, 11, 29, 76, 199, 521, 1364, 3571, 9349, 24476, 64079, 167761, 439204, 1149851, 3010349, 7881196, 20633239, 54018521, 141422324, 370248451, 969323029, 2537720636, 6643838879, 17393796001, 45537549124, 119218851371, 312119004989, 817138163596
a(n) = F(2n-2) + F(2n-4), where F(k) is k-th Fibonacci number, n > 2.
a(n) = 3*a(n-1)-a(n-2) for n>4. - Colin Barker, Mar 26 2015
[A039300] 1, 2, 4, 11, 31, 92, 274, 821, 2461, 7382, 22144, 66431, 199291, 597872, 1793614, 5380841, 16142521, 48427562, 145282684, 435848051, 1307544151, 3922632452, 11767897354, 35303692061, 105911076181, 317733228542, 953199685624
a(n) = floor((3^n+3)*3/8).
a(n) = (3^(n+1) + 6 + (-1)^(n+1))/8- - Lekraj Beedassy, Jan 07 2005
a(n) = 2*a(n-1)+3*a(n-2)-3 with n>1, a(0)=1, a(1)=1. [Zerinvary Lajos, Dec 14 2008]
a(n) = 3*a(n-1)+ a(n-2) -3*a(n-3). Vincenzo Librandi, Apr 21 2012
[A190452] 1, 1, 2, 4, 11, 31, 106, 372, 1499, 6211, 28606, 135356, 697357, 3688049, 20935006, 121837276, 753159801, 4767863657, 31807384354, 217048147396, 1551200297291, 11327527814191, 86206555248122, 669666314150164, 5399592811359331, 44398500646885851
a(n) = n!*sum(k=1..n, sum(j=floor((4*k-n)/3)..floor((4*k-n)/2), binomial(j,n-4*k+3*j)*12^(j-k)*binomial(k,j)*2^(-n+3*k-2*j))/k!), n>0, a(0)=1.
[A191586] 1, 2, 4, 11, 32, 92, 271, 814, 2464, 7508, 23024, 70952, 219503, 681358, 2121116, 6619571, 20703040, 64873328, 203625604, 640109128, 2014951552, 6350490808, 20037015200, 63284778256, 200063948527, 633007850942, 2004431426716, 6351693835169, 20141013776384
a(n) = Sum_{k=0..n} binomial(n,k)*binomial(floor((n+k)/2),k).
[A135339] 1, 1, 2, 4, 11, 32, 99, 318, 1051, 3550, 12200, 42520, 149930, 533890, 1917181, 6934722, 25243539, 92405718, 339940116, 1256122632, 4660081434, 17350844808, 64814186646, 242838410652, 912333763806, 3436240272972, 12972454874704, 49078874293528, 186051766180496
a(n) = binomial(2*n-2,n-1)/n + (Sum_{j=0..n-2} (-1)^j*(j+3)*binomial(2*n-j-2,n))/(n+1) for n>=1. - Emeric Deutsch, Dec 13 2007
[A220902] 2, 4, 11, 33, 104, 339, 1133, 3861, 13364, 46852, 166022, 593674, 2139552, 7763305, 28337265, 103981965, 383351580, 1419269280, 5274495930, 19669409790, 73580417040, 276043317030, 1038327097314, 3915101867778, 14795310818024, 56028144245304, 212581753906508, 808027815817012
a(n) = Catalan(n) - Catalan(n-1) + Catalan(n-2). - Andrei Asinowski, Dec 16 2015
[A188478] 1, 1, 1, 2, 4, 11, 33, 116, 456, 1999, 9623, 50603, 288287, 1769352, 11636669, 81652911, 608857325, 4807873069, 40080193414, 351751992542, 3241754135966, 31301851579056, 316012152140592, 3329322705562603, 36539984716325869, 417102552119591395, 4944630222121834001, 60791493200390178470
a(n) = sum(binomial(n-1-i, i)*a(i)*a(n-1-i), i=0..(n-1)) with a(0)=1
[A281481] 2, 4, 11, 37, 137, 529, 2081, 8257, 32897, 131329, 524801, 2098177, 8390657, 33558529, 134225921, 536887297, 2147516417, 8590000129, 34359869441, 137439215617, 549756338177, 2199024304129, 8796095119361, 35184376283137, 140737496743937, 562949970198529
a(n) = 7*a(n-1) - 14*a(n-2) + 8*a(n-3) for n>2.
[A134019] 1, 2, 4, 11, 46, 227, 1114, 5231, 23566, 102827, 438274, 1836551, 7601686, 31183427, 127084234, 515429471, 2083077406, 8396552027, 33779262994, 135696871991, 544528258726, 2183337968627, 8749031918554, 35043178292111, 140313885993646, 561679104393227, 2247987182714914, 8995761194057831
a(n) = (1/2)(4^n - 3^(n+1) + 5*2^n - 1) = 3*StirlingS2(n+1,4) + StirlingS2(n+1,2) + 1.
[A132314] 0, 2, 4, 12, 16, 40, 48, 112, 128, 288, 320, 704, 768, 1664, 1792, 3840, 4096, 8704, 9216, 19456, 20480, 43008, 45056, 94208, 98304, 204800, 212992, 442368, 458752, 950272, 983040, 2031616, 2097152, 4325376
a(n) = 4*a(n-2) - 4*a(n-4) for n > 3.
[A198392] 2, 4, 12, 18, 31, 41, 59, 73, 96, 114, 142, 164, 197, 223, 261, 291, 334, 368, 416, 454, 507, 549, 607, 653, 716, 766, 834, 888, 961, 1019, 1097, 1159, 1242, 1308, 1396, 1466, 1559, 1633, 1731, 1809, 1912, 1994, 2102, 2188, 2301, 2391, 2509, 2603, 2726, 2824, 2952
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A168380] 2, 4, 12, 20, 38, 56, 88, 120, 170, 220, 292, 364, 462, 560, 688, 816, 978, 1140, 1340, 1540, 1782, 2024, 2312, 2600, 2938, 3276, 3668, 4060, 4510, 4960, 5472, 5984, 6562, 7140, 7788, 8436, 9158, 9880, 10680, 11480, 12362, 13244, 14212, 15180, 16238, 17296, 18448, 19600, 20850, 22100
a(n) = (n+1)*(3 + 2*n^2 + 4*n - 3*(-1)^n)/12.
a(n)= +2*a(n-1) +a(n-2) -4*a(n-3) +a(n-4) +2*a(n-5) -a(n-6).
[A121569] 1, 2, 4, 12, 20, 54, 88, 232, 986, 1596, 6764, 17710, 28656, 75024, 317810, 1346268, 2178308, 9227464, 24157816, 39088168, 165580140, 433494436, 1836311902, 12586269024, 32951280098, 53316291172, 139583862444, 225851433716
a(n) = Fibonacci[(Prime[n]+3)/2] - 1, n>1. a(n) = Sum[Fibonacci[k], {k,1,(p-1)/2}], p = Prime[n], n>1.
[A099603] 1, 2, 4, 12, 20, 64, 104, 336, 544, 1760, 2848, 9216, 14912, 48256, 78080, 252672, 408832, 1323008, 2140672, 6927360, 11208704, 36272128, 58689536, 189923328, 307302400, 994451456, 1609056256, 5207015424, 8425127936, 27264286720
a(n) = fibonacci(n+1)*2^[(n+1)/2]. a(n) = 6*a(n-2) - 4*a(n-4) for n>4. G.f.: (1+2*x-2*x^2)/(1-6*x^2+4*x^4).
[A291404] 0, 1, 2, 4, 12, 23, 42, 89, 188, 404, 856, 1763, 3652, 7641, 16030, 33612, 70252, 146623, 306334, 640637, 1340024, 2802056, 5857264, 12243403, 25596040, 53515853, 111889138, 233922392, 489039852, 1022399607, 2137493106, 4468804953, 9342779572, 19532522316
a(n) = a(n-2) + 2*a(n-3) + 3*a(n-4) + 8*a(n-5) + 12*a(n-6) + 8*a(n-7) + 2*a(n-8) for n >= 9.
[A079352] 1, 2, 4, 12, 24, 48, 96, 192, 384, 768, 1536, 4608, 9216, 18432, 36864, 73728, 147456, 294912, 589824, 1179648, 2359296, 4718592, 9437184, 28311552, 56623104, 113246208, 226492416, 452984832, 905969664, 1811939328, 3623878656
a(n+1)=3*a(n) for n=3 n of the form 3*2^k - 1, k>=2 . a(n+1)=2*a(n) otherwise. Hence a(n)=3*(3/2)^floor((log(n/3))/log(2))*2^n.
[A089888] 1, 2, 4, 12, 24, 48, 96, 192, 448, 896, 1792, 3584, 7168, 14336, 28672, 61440, 122880, 245760, 491520, 983040, 1966080, 3932160, 7864320, 15728640, 32505856, 65011712, 130023424, 260046848, 520093696, 1040187392
a(n) = (2^(n^(1/2))-n^(1/2))*2^(n-1).

[A233411] 0, 0, 2, 4, 12, 24, 56, 112, 240, 480, 992, 1984, 4032, 8064, 16256, 32512, 65280, 130560, 261632, 523264, 1047552, 2095104, 4192256, 8384512, 16773120, 33546240, 67100672, 134201344, 268419072, 536838144, 1073709056, 2147418112, 4294901760, 8589803520
a(n) = 2^n - 2^ceiling(n/2).
[A135139] 1, 2, 4, 12, 24, 68, 144, 388, 856, 2228, 5056, 12852, 29736, 74372, 174384, 431332, 1020664, 2505428, 5965984, 14568468, 34840776, 84774308, 203340816, 493553092, 1186252696, 2874447092, 6918369664, 16744740852, 40340742504, 97560443588
a(n) = (4/7)*[1+sqrt(2)]^n - (1/7)*sqrt(2)*[1-sqrt(2)]^n - (1/7)*(-2)^n + (4/7)*[1-sqrt(2)]^n + (1/7)*[1 +sqrt(2)]^n*sqrt(2), with n>=0. - Paolo P. Lava, Jun 09 2008
[A096421] 1, 1, 2, 4, 12, 24, 88, 224, 720, 1792, 7200, 16512, 69952, 185984, 608896, 1797120, 7495424, 17936896, 79457792, 211576832, 742306816, 2190231552, 9482688512, 23198867456, 97967427584, 285227057152, 1046412681216, 3019819909120
a(1) = 1 a(n)=sum([1/GCD(n, j)]a(j)a(n-j), {j=1..n-1}). - Farideh Firoozbakht, Aug 09 2004
[A066843] 1, 2, 4, 12, 24, 96, 192, 768, 2304, 9216, 18432, 110592, 221184, 884736, 3538944, 17694720, 35389440, 212336640, 424673280, 2548039680, 10192158720, 40768634880, 81537269760, 652298158080, 1956894474240, 7827577896960, 31310311587840
a(n) = product{p=primes<=n} product{1<=k<=log(n)/log(p)} (1 +1/k)^floor(n/p^k). - Leroy Quet, Mar 20 2007
[A291406] 0, 1, 2, 4, 12, 26, 60, 145, 336, 796, 1880, 4412, 10400, 24488, 57648, 135794, 319744, 752908, 1773016, 4175032, 9831472, 23151400, 54516976, 128377380, 302304640, 711870368, 1676321856, 3947423264, 9295440640, 21889019712, 51544533376, 121377706184
a(n) = 2*a(n-2) + 4*a(n-3) + 4*a(n-4) + 5*a(n-5) + 12*a(n-6) + 8*a(n-7) + 2*a(n-8) for n >= 9.
[A242536] 1, 2, 4, 12, 26, 66, 160, 386, 946, 2292, 5582, 13578, 33016, 80330, 195370, 475236, 1155974, 2811762, 6839416, 16636178, 40466002, 98429844, 239421374, 582370554, 1416562360, 3445657082, 8381242522, 20386597380, 49588514390, 120619477410, 293395730296
a(n) = a(n-1) +3*a(n-2) +2*a(n-3) -2*a(n-4). - Fung Lam, May 18 2014
[A275434] 0, 0, 0, 2, 4, 12, 28, 68, 156, 356, 796, 1764, 3868, 8420, 18204, 39140, 83740, 178404, 378652, 800996, 1689372, 3553508, 7456540, 15612132, 32622364, 68040932, 141674268, 294533348, 611436316, 1267611876, 2624702236, 5428361444, 11214636828
a(n) = - (4/9)*(-1)^n + (3n - 2)*2^n/36 for n>=2; a(1)=0
[A080876] 1, 1, 1, 2, 4, 12, 28, 88, 208, 656, 1552, 4896, 11584, 36544, 86464, 272768, 645376, 2035968, 4817152, 15196672, 35955712, 113429504, 268377088, 846649344, 2003193856, 6319476736, 14952042496, 47169216512, 111603564544
a(n + 4) = 8*a(n + 2) - 4*a(n). - Richard Choulet, Dec 06 2008
a(n) = (1/24*3^(1/2))*((1 + sqrt(3)))^n + (- 1/24*3^(1/2))*((1 - sqrt(3)))^n + (1/2 - 7/24*3^(1/2))*(- (1 + sqrt(3)))^n + (1/2 + 7/24*3^(1/2))*(- ((1 - sqrt(3))))^n. - Richard Choulet, Dec 06 2008
[A059412] 2, 4, 12, 30, 78, 180, 432, 978, 2220, 4926, 10908, 23790, 51750, 111564, 239604, 511758, 1089306, 2309118, 4880946, 10285146, 21619770, 45334776, 94865904, 198116082, 413013684, 859573638, 1786263822, 3706729488, 7681910826
a(n) = psi(n)+sum(psi(n-j)*2^(j-1), j=1..n-1), where psi(n) is number of primitive words of length n over a 2-letter alphabet (expressible in terms of the Moebius function).
[A079472] 0, 2, 4, 12, 30, 80, 208, 546, 1428, 3740, 9790, 25632, 67104, 175682, 459940, 1204140, 3152478, 8253296, 21607408, 56568930, 148099380, 387729212, 1015088254, 2657535552, 6957518400, 18215019650, 47687540548, 124847601996, 326855265438, 855718194320
a(n) = F(n+1)^2 - F(n)^2 - F(n-1)^2. a(1 - n) = -a(n). - Michael Somos, Jun 28 2014
a(n) = (2^(-n)*((-1)^n*2^(1+n)-(3-sqrt(5))^n*(1+sqrt(5))+(-1+sqrt(5))*(3+sqrt(5))^n))/5. - Colin Barker, Sep 27 2016
[A242659] 0, 2, 4, 12, 32, 70, 132, 224, 352, 522, 740, 1012, 1344, 1742, 2212, 2760, 3392, 4114, 4932, 5852, 6880, 8022, 9284, 10672, 12192, 13850, 15652, 17604, 19712, 21982, 24420, 27032, 29824, 32802, 35972, 39340, 42912, 46694, 50692, 54912, 59360
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 3.
[A109388] 2, 4, 12, 32, 80, 240, 672, 1792, 5376, 15360, 42240, 126720, 366080, 1025024, 3075072, 8945664, 25346048, 76038144, 222265344, 635043840, 1905131520, 5588385792, 16066609152, 48199827456, 141764198400, 409541017600
a(n) = binomial(n, floor(n/3))*2^{n-floor(n/3)}.
[A293007] 0, 0, 2, 4, 12, 32, 88, 240, 656, 1792, 4896, 13376, 36544, 99840, 272768, 745216, 2035968, 5562368, 15196672, 41518080, 113429504, 309895168, 846649344, 2313089024, 6319476736, 17265131520, 47169216512, 128868696064, 352075825152, 961889042432
a(n) = ((1-sqrt(3))^n*(1+sqrt(3)) + (-1+sqrt(3))*(1+sqrt(3))^n) / (2*sqrt(3)) for n>0.
a(n) = 2*a(n-1) + 2*a(n-2) for n>2.
[A025178] 0, 2, 4, 12, 32, 90, 252, 714, 2032, 5814, 16700, 48136, 139152, 403286, 1171380, 3409020, 9938304, 29017878, 84844044, 248382516, 727971360, 2135784798, 6272092596, 18435108258, 54228499920, 159636389850, 470256930052, 1386170197704
a(n) is asymptotic to c*3^n/sqrt(n) with c around 1.02... - Benoit Cloitre, Nov 02 2002
a(n) = ((2+n)*a(n-2)+3*(3-n)*a(n-3)+3*(n-1)*a(n-1))/n, a(0)=1, a(1)=0, a(2)=2. - Sergei N. Gladkovskii, Aug 16 2012 [adapted to new offset by Peter Luschny, Nov 04 2015]
a(n) = 2*(n-1)*hypergeom([1-n/2,3/2-n/2],[2],4).
a(n) = (n-1)!*[x^(n-1)](2*exp(x)*BesselI(1,2*x)).
[A087211] 1, 2, 4, 12, 32, 92, 264, 772, 2272, 6732, 20024, 59732, 178512, 534172, 1599784, 4793892, 14370752, 43090412, 129227544, 387595252, 1162610992, 3487483452, 10461751304, 31383855812, 94148771232, 282440721292, 847310979064
a(n)=(3^n+2^n+2*0^n-(-1)^n)/3.
[A039721] 1, 2, 4, 12, 32, 96, 280, 840, 2496, 7488, 22400, 67200, 201408, 604224, 1812112, 5436336, 16307328, 48921984, 146760960, 440282880, 1320833664, 3962500992, 11887458176, 35662374528, 106986989184, 320960967552, 962882499840, 2888647499520, 8665941290112
a(1)=1, a(2)=2, a(2m+1)=3*a(2m)-2*a(m), a(2m+2)=3*a(2m+1) (m is positive integer).
[A010552] 1, 1, 2, 4, 12, 36, 108, 432, 1728, 6912, 27648, 138240, 691200, 3456000, 17280000, 86400000, 518400000, 3110400000, 18662400000, 111974400000, 671846400000, 4031078400000, 28217548800000, 197522841600000, 1382659891200000, 9678619238400000, 67750334668800000
a(0)=1, a(n) = a(n-1)*floor(sqrt(2*n)+1/2)) for n>0. - Alois P. Heinz, May 20 2013
[A226022] 1, 1, 2, 4, 12, 36, 112, 360, 1184, 3968, 13504, 46544, 162144, 570016, 2019648, 7204864, 25856896, 93288576, 338167296, 1231045376, 4498577408, 16496039936, 60681046016, 223860786432, 828040881664, 3070320123392
a(n) = Sum_{k=0..n-1} a(k)a(n-k) for n>3 just like the Catalan sequence formula.
[A241530] 1, 2, 4, 12, 36, 120, 400, 1400, 4900, 17640, 63504, 232848, 853776, 3171168, 11778624, 44169840, 165636900, 625739400, 2363904400, 8982836720, 34134779536, 130332794592, 497634306624, 1907598175392, 7312459672336, 28124844893600, 108172480360000
a(n) = ((8*n-4)*a(n-1)+16*(n-1)*(n-2)*a(n-2))/(n*(n+1)) for n>=2, a(n) = 2^n for n<2. - Alois P. Heinz, Apr 25 2014
[A010551] 1, 1, 1, 2, 4, 12, 36, 144, 576, 2880, 14400, 86400, 518400, 3628800, 25401600, 203212800, 1625702400, 14631321600, 131681894400, 1316818944000, 13168189440000, 144850083840000, 1593350922240000, 19120211066880000, 229442532802560000, 2982752926433280000
a(n) = [n/2]! * [(n+1)/2]! is the number of permutations p of {1, 2, 3, ..., n} such that for every i, i and p(i) have the same parity, i.e., p(i) - i is even. - Avi Peretz (njk(AT)netvision.net.il), Feb 22 2001
a(n) = n!/binomial(n, floor(n/2)). - Paul Barry, Sep 12 2004
a(n) = a(n-1) * (a(n-2) + a(n-3)) / a(n-3) for all n>=3. - Michael Somos, Dec 29 2012
[A193049] 0, 1, 1, 2, 4, 12, 37, 105, 268, 625, 1355, 2772, 5414, 10188, 18605, 33161, 57954, 99683, 169265, 284452, 474066, 784852, 1292567, 2119923, 3465620, 5651323, 9197673, 14947276, 24263704, 39353486, 63787101, 103341963, 167366400, 270986619
a(n)=7*a(n-1)-20*a(n-2)+29*a(n-3)-20*a(n-4)+*a(n-5)+8*a(n-6)-5*a(n-7)+a(n-8).
[A113179] 1, 2, 4, 12, 40, 128, 408, 1328, 4384, 14560, 48576, 162816, 547936, 1850048, 6263680, 21257856, 72298240, 246345728, 840775424, 2873802240, 9835840512, 33704557568, 115622041600, 397032488960, 1364610270720, 4694145256448
a(n)=sum{k=0..floor(n/2), C(n-k, k)C(n-2k, k)2^(n-2k)}.
[A025227] 0, 1, 2, 4, 12, 40, 144, 544, 2128, 8544, 35008, 145792, 615296, 2625792, 11311616, 49124352, 214838528, 945350144, 4182412288, 18593224704, 83015133184, 372090122240, 1673660915712, 7552262979584, 34178799378432, 155096251351040, 705533929816064
a(n) = sum{k=0..n-1, C(k)C(k+1, n-k-1)} - Paul Barry, Feb 23 2005
[A188479] 1, 1, 2, 4, 12, 40, 156, 700, 3520, 19592, 119992, 801272, 5792464, 45071600, 375615696, 3338063600, 31511918816, 314913425280, 3321357021600, 36868596345056, 429672869359360, 5245439731918784, 66941714022827072, 891387254398818752, 12363478873222765568, 178331546692362644992, 2671094825005048612

a(n) = sum(binomial(n-i, i)*a(i)*a(n-1-i), i=0..(n-1)) with a(0)=1
[A133453] 2, 4, 13, 40, 122, 365, 1094, 3280, 9841, 29524, 88574, 265721, 797162, 2391484, 7174453, 21523360, 64570082, 193710245, 581130734, 1743392200, 5230176601, 15690529804, 47071589414, 141214768241, 423644304722, 1270932914164
a(n)=(1/6)*{1/2-(1/2)*I*sqrt(3)}^n+(3/2)*3^n+(1/6)*(-1)^n+(1/6)*{1/2+(1/2)*I*sqrt(3)}^n-(1/6)*I*{1/2-(1/2)*I*sqrt(3)}^n*sqrt(3)+(1/6)*I*{1/2+(1/2)*I*sqrt(3
with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A085422] 1, 2, 4, 13, 40, 125, 392, 1231, 3867, 12148, 38164, 119895, 376661, 1183315, 3717493, 11678848, 36690183, 115265609, 362117590, 1137625960, 3573957358, 11227918180, 35273545269, 110815110683, 348135937628, 1093701304102
a(0) = -1, a(1) = 2, a(n+2) = floor[k*a(n+1)+a(n)], where k = Pi - 1/Pi = 2.82328276....
[A007858] 1, 2, 4, 13, 44, 164, 636, 2559, 10556, 44440, 190112, 824135, 3612244, 15981632, 71277736, 320121747, 1446537564, 6571858168, 30000766128, 137544893940, 633051803120, 2923867281660, 13547594977500, 62955434735505, 293336372858724, 1370149533359784, 6414423856436816
a(n+1) = Sum_{k = 1..n} (binomial(n+k,k)/(n+k)*Sum_{j = 0..k} (binomial(j,n-k-j+1)*binomial(k,j)*(-1)^(n+k-j+1))) + C(n), where C(n) is a Catalan number. - Vladimir Kruchinin, Nov 13 2014
[A245764] 2, 4, 14, 20, 42, 52, 86, 100, 146, 164, 222, 244, 314, 340, 422, 452, 546, 580, 686, 724, 842, 884, 1014, 1060, 1202, 1252, 1406, 1460, 1626, 1684, 1862, 1924, 2114, 2180, 2382, 2452, 2666, 2740, 2966, 3044, 3282, 3364, 3614, 3700, 3962, 4052, 4326, 4420
a(n) = 2*(n^2 + 1) + n*(1 + (-1)^n).
a(n) = (2n + 2)*ceiling((n + 1)/2) + (2n - 2)*ceiling((n - 1)/2).
[A090889] 0, 0, 2, 4, 14, 24, 40, 56, 96, 136, 186, 236, 310, 384, 472, 560, 712, 864, 1034, 1204, 1414, 1624, 1856, 2088, 2392, 2696, 3026, 3356, 3742, 4128, 4544, 4960, 5536, 6112, 6722, 7332, 8014, 8696, 9416, 10136, 10976, 11816, 12698, 13580
a(0)=0, a(2n) = 2a(n) + 2a(n-1) + n(n+1)(2n+1)/3, a(2n+1) = 4a(n) + 2/3*(n+1)(n+2)(n+3).
[A115626] 1, 1, 2, 4, 14, 26, 107, 190, 1234, 2182, 9947, 17414, 126953, 228398, 1039404, 1857419, 19047146, 35215110, 168364007, 307674658, 2378963269, 4429446046, 20237375204, 37371654467, 410117798653, 776233491226, 3797821367602
a(n) = SUM {i = 0 to ceiling(n/2)-1} (binomial(n, i)*a(i)) + [if n is even] binomial(n, n/2)*(a(n/2)-1/2).
[A283353] 1, 2, 4, 14, 28, 62, 124, 254, 508, 1022, 2044, 4094, 8188, 16382, 32764, 65534, 131068, 262142, 524284, 1048574, 2097148, 4194302, 8388604, 16777214, 33554428, 67108862, 134217724, 268435454, 536870908, 1073741822, 2147483644, 4294967294, 8589934588
a(n) = 2^(n + 1) - 4 for n>0 and even.
a(n) = 2^(n + 1) - 2 for n odd.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>3.
[A295909] 2, 4, 14, 30, 82, 160, 386, 718, 1646, 3000, 6742, 12190, 27194, 49024, 109082, 196446, 436726, 786232, 1747406, 3145486, 6990242, 12582624, 27961714, 50331310, 111847742, 201326200, 447392006, 805305918, 1789569226, 3221224960, 7158278282, 12884901310
a(n) = ((-2)^(n + 1) + (-1)^n + 19*2^(n + 1) - 6*n*(n + 4) - 25)/12.
a(n) = 2*a(n-1) + 4*a(n-2) - 10*a(n-3) + a(n-4) + 8*a(n-5) - 4*a(n-6).
[A095977] 2, 4, 14, 32, 82, 188, 438, 984, 2202, 4852, 10622, 23056, 49762, 106796, 228166, 485448, 1029162, 2174820, 4582670, 9631360, 20194802, 42253724, 88235734, 183927992, 382769082, 795364308, 1650380958, 3420066544, 7078742402
a(n) = (1/27)*((3*n + 2)*2^(n + 2) - (6*n + 8)*(-1)^n).
a(n) = Sum_{k=0..floor((n+1)/2)} k*2^k*binomial(n+1-k,k). - Emeric Deutsch, Feb 18 2007
[A079995] 1, 1, 2, 4, 14, 39, 103, 255, 665, 1741, 4605, 12046, 31474, 82206, 215157, 563083, 1473635, 3855111, 10085589, 26386595, 69038554, 180630858, 472594580, 1236463719, 3235013481, 8463923170, 22144596592, 57937977232, 151585883920
a(n) = a(n-1) +2*a(n-2) +3*a(n-3) +4*a(n-4) +6*a(n-5) +13*a(n-6) -9*a(n-7) -11*a(n-8) -7*a(n-9) +5*a(n-10) -a(n-11) -11*a(n-12) +3*a(n-13) +9*a(n-14) +4*a(n-15) -4*a(n-16) -a(n-17) +2*a(n-18) -a(n-19) -a(n-20).
[A152011] 1, 2, 4, 14, 40, 122, 364, 1094, 3280, 9842, 29524, 88574, 265720, 797162, 2391484, 7174454, 21523360, 64570082, 193710244, 581130734, 1743392200, 5230176602, 15690529804, 47071589414, 141214768240, 423644304722
a(n) = 2^n * Product_{k=1..floor((n-1)/2)} (1 + 3*cos(k*Pi/n)^2).
a(n) = (3^n - (-1)^n)/2, n > 0.
a(n) = 2*a(n-1) + 3*a(n-2) for n >= 2, a(1)=2, and a(2)=4. - David Neil McGrath, Sep 04 2014
[A228477] 2, 4, 14, 41, 127, 386, 1181, 3605, 11013, 33635, 102734, 313780, 958385, 2927208, 8940618, 27307464, 83405606, 254747013, 778077691, 2376494562, 7258563605, 22169941573, 67713990833, 206819875427, 631693101322, 1929389878184
a(n) = a(n-1) +5*a(n-2) +4*a(n-3) -a(n-5).
[A152103] 1, 2, 4, 14, 48, 158, 532, 1778, 5952, 19922, 66676, 223166, 746928, 2499950, 8367268, 28005026, 93732096, 313718882, 1050008932, 3514352558, 11762446512, 39368602238, 131765686708, 441016322834, 1476070150464, 4940368363442
a(n) = 2*a(n-1)+4*a(n-2)+2*a(n-3)-a(n-4) for n>5. G.f.: (x^4-4*x^3-4*x^2+1) / (x^4-2*x^3-4*x^2-2*x+1). - Colin Barker, Jan 05 2014
[A181442] 1, 2, 4, 15, 35, 144, 342, 1421, 3381, 14062, 33464, 139195, 331255, 1377884, 3279082, 13639641, 32459561, 135018522, 321316524, 1336545575, 3180705675, 13230437224, 31485740222, 130967826661, 311676696541, 1296447829382, 3085281225184, 12833510467155
a(2*n)=(12+(6+r)*s^n+(6-r)*t^n)/24.
a(2*n+1)=(12+(18+7*r)*s^n+(18-7*r)*t^n)/24.
a(n)=11*a(n-2)-11*a(n-4)+a(n-6).
a(n) = +a(n-1) +10*a(n-2) -10*a(n-3) -a(n-4) +a(n-5).
[A193868] 2, 4, 16, 22, 46, 56, 92, 106, 154, 172, 232, 254, 326, 352, 436, 466, 562, 596, 704, 742, 862, 904, 1036, 1082, 1226, 1276, 1432, 1486, 1654, 1712, 1892, 1954, 2146, 2212, 2416, 2486, 2702, 2776, 3004, 3082, 3322, 3404, 3656, 3742, 4006, 4096, 4372
a(n) = (3+(-1)^n-2*(2+(-1)^n)*n+4*n^2)/2.
a(n) = 2*n^2-3*n+2 for n even.
a(n) = 2*n^2-n+1 for n odd.
[A131475] 0, 0, 2, 4, 16, 24, 54, 72, 128, 160, 250, 300, 432, 504, 686, 784, 1024, 1152, 1458, 1620, 2000, 2200, 2662, 2904, 3456, 3744, 4394, 4732, 5488, 5880, 6750, 7200, 8192, 8704, 9826, 10404, 11664, 12312, 13718, 14440, 16000, 16800
a(n) = +1*a(n-1) +3*a(n-2) -3*a(n-3) -3*a(n-4) +3*a(n-5) +1*a(n-6) -1*a(n-7).
[A144797] 2, 4, 16, 26, 94, 152, 548, 886, 3194, 5164, 18616, 30098, 108502, 175424, 632396, 1022446, 3685874, 5959252, 21482848, 34733066, 125211214, 202439144, 729784436, 1179901798, 4253495402, 6876971644, 24791187976, 40081928066, 144493632454, 233614596752
a(n) = 6*a(n-2)-a(n-4). - Colin Barker, Oct 20 2014
[A274497] 0, 0, 2, 4, 16, 32, 96, 192, 512, 1024, 2560, 5120, 12288, 24576, 57344, 114688, 262144, 524288, 1179648, 2359296, 5242880, 10485760, 23068672, 46137344, 100663296, 201326592, 436207616, 872415232, 1879048192, 3758096384, 8053063680
a(n) = (1/8)*(2n - 1 + (-1)^n)*2^n.
[A103435] 0, 2, 4, 16, 48, 160, 512, 1664, 5376, 17408, 56320, 182272, 589824, 1908736, 6176768, 19988480, 64684032, 209321984, 677380096, 2192048128, 7093616640, 22955425792, 74285318144, 240392339456, 777925951488, 2517421260800
a(n) = Sum_{i=0..n-1}(2^i * Lucas(i)).
a(n) = 2*a(n-1) + 4*a(n-2). - Carmine Suriano, May 13 2010
a(n) = a(-n) * -(-4)^n for all n in Z. - Michael Somos, Sep 20 2014
[A276557] 1, 1, 2, 4, 17, 39, 191, 410, 1771, 13805, 26459, 170897, 556698, 988053, 3019206, 15074481, 70202708, 115639004, 498047289, 1281427052, 2039282754, 7981334946, 19374343049, 71015123687, 380553620426, 862797574415, 1292837481584, 2875949125749, 4270259833946, 9334145396729
a(n) = [x^(prime(n)^2)] Product_{k>=1} 1/(1 - x^(prime(k)^2)).
[A093045] 0, 0, 2, 4, 18, 50, 176, 546, 1806, 5780, 18810, 60698, 196704, 636090, 2059174, 6662420, 21562002, 69772930, 225795088, 730679922, 2364543390, 7651801300, 24761784522, 80130760714, 259308681408, 839140370250, 2715515523446
a(n) = 2(2^n/6+(-1)^n/3)(((1+sqrt(5))/2)^n/sqrt(5)-((1-sqrt(5))/2)^n/sqrt(5)).
[A154140] 2, 4, 19, 29, 114, 172, 667, 1005, 3890, 5860, 22675, 34157, 132162, 199084, 770299, 1160349, 4489634, 6763012, 26167507, 39417725, 152515410, 229743340, 888924955, 1339042317, 5181034322, 7804510564, 30197280979, 45488021069, 176002651554, 265123615852
a(n) = +a(n-1) +6*a(n-2) -6*a(n-3) -a(n-4) +a(n-5).

a(1..4) = (2,4,19,29); a(n) = 6*a(n-2) - a(n-4) + 2, for n > 4. - Ctibor O. Zizka, Nov 10 2009
[A192380] 0, 2, 4, 20, 60, 230, 776, 2792, 9720, 34410, 120780, 425788, 1497716, 5274190, 18562320, 65348560, 230024944, 809742418, 2850375060, 10033806180, 35320352940, 124333050422, 437670231064, 1540664252600, 5423363437800, 19091038878650, 67203259647836
a(n) = 2*a(n-1)+6*a(n-2)-2*a(n-3)-a(n-4). G.f.: 2*x^2 / (x^4+2*x^3-6*x^2-2*x+1). [Colin Barker, Dec 09 2012]
[A274520] 0, 2, 4, 20, 64, 248, 880, 3248, 11776, 43040, 156736, 571712, 2083840, 7597952, 27698944, 100985600, 368164864, 1342243328, 4893475840, 17840411648, 65041678336, 237125826560, 864501723136, 3151758405632, 11490527150080, 41891604733952, 152726372368384
a(n) = 2*a(n-1) + 6*a(n-2).
[A192377] 0, 2, 4, 20, 68, 262, 968, 3624, 13512, 50442, 188236, 702524, 2621836, 9784846, 36517520, 136285264, 508623504, 1898208786, 7084211604, 26438637668, 98670339028, 368242718486, 1374300534872, 5128959421048, 19141537149272, 71437189176090
a(n) = 2*a(n-1) + 6*a(n-2) + 2*a(n-3) - a(n-4). - Colin Barker, Dec 09 2012
[A271944] 0, 2, 4, 22, 56, 250, 732, 2926, 9264, 34866, 115316, 419846, 1422824, 5086122, 17471692, 61823966, 213983072, 752927074, 2616950756, 9179311350, 31978941080, 111975792474, 390606950844, 1366410142030, 4769896907152, 16676981234578, 58239643256916
a(n) = a(n-1) + 9*a(n-2) - a(n-3).
[A155120] 2, 4, 26, 76, 166, 308, 514, 796, 1166, 1636, 2218, 2924, 3766, 4756, 5906, 7228, 8734, 10436, 12346, 14476, 16838, 19444, 22306, 25436, 28846, 32548, 36554, 40876, 45526, 50516, 55858
a(n) = 2*(n^3+n^2+n-1).
[A277091] 0, 2, 4, 36, 128, 760, 3312, 17264, 80896, 403488, 1939520, 9527872, 46209024, 225808256, 1098542848, 5358401280, 26096402432, 127210422784, 619770479616, 3020486878208, 14717760471040, 71722337236992, 349493321068544, 1703099363454976, 8299105221869568, 40441601532108800
a(n) = 2*a(n-1) + 14*a(n-2).
[A168199] 2, 5, 5, 8, 8, 11, 11, 14, 14, 17, 17, 20, 20, 23, 23, 26, 26, 29, 29, 32, 32, 35, 35, 38, 38, 41, 41, 44, 44, 47, 47, 50, 50, 53, 53, 56, 56, 59, 59, 62, 62, 65, 65, 68, 68, 71, 71, 74, 74, 77, 77, 80, 80, 83, 83, 86, 86, 89, 89, 92, 92, 95, 95, 98, 98, 101, 101, 104, 104, 107
a(n) = (6*n + 5 + 3*(-1)^n)/4. - Jon E. Schoenfield, Jun 24 2010
[A081240] 1, 2, 5, 5, 10, 13, 20, 20, 20, 25, 34, 34, 45, 52, 61, 61, 74, 74, 89, 89, 100, 113, 130, 130, 130, 145, 145, 145, 164, 185, 208, 208, 225, 244, 265, 265, 290, 313, 338, 338, 365, 394, 425, 425, 425, 452, 485, 485, 485, 485, 514, 514, 549, 549, 580, 580, 613
a(n) = |sum(i=1..n, sqrt(mu(i))|^2. - Enrique Pérez Herrero, Jul 30 2012
[A112835] 1, 2, 5, 5, 13, 16, 37, 45, 109, 130, 313, 377, 905, 1088, 2617, 3145, 7561, 9090, 21853, 26269, 63157, 75920, 182525, 219413, 527509, 634114, 1524529, 1832625, 4405969, 5296384, 12733489, 15306833, 36800465, 44237570, 106355317
a(-n) = a(-6 + n). a(-1) = a(-2) = 1, a(-3) = 0. a(n) = 2*a(n-2) + 2*a(n-4) + 2*a(n-6) - a(n-8). - Michael Somos, Dec 15 2011
[A206625] 0, 1, 1, 1, 2, 5, 5, 13, 16, 37, 45, 109, 130, 313, 377, 905, 1088, 2617, 3145, 7561, 9090, 21853, 26269, 63157, 75920, 182525, 219413, 527509, 634114, 1524529, 1832625, 4405969, 5296384, 12733489, 15306833, 36800465, 44237570, 106355317
a(-n) = a(n) = 2*a(n-2) + 2*a(n-4) + 2*a(n-6) - a(n-8).
[A271222] 0, 2, 5, 5, 59, 221, 221, 1679, 3866, 16988, 56354, 174452, 174452, 705893, 705893, 10271831, 24620738, 110714180, 239854343, 627274832, 2951797766, 2951797766, 2951797766, 65713916984, 159857095811, 442286632292
a(n)^2 + 2 == 0 (mod 3^n), and a(n) == 2 (mod 3). Representatives of the complete residue system {0, 1, ..., 3^n-1} are taken.
[A239868] 0, 1, 2, 5, 6, 6, 7, 14, 18, 26, 27, 31, 32, 42, 51, 66, 67, 70, 71, 73, 84, 98, 99, 111, 117, 133, 146, 146, 147, 159, 160, 191, 206, 226, 239, 258, 259, 281, 298, 308, 309, 321, 322, 362, 395, 421, 422, 450, 458, 501, 522, 568, 569, 581, 598, 606, 629, 661
a(p) = a(p - 1) + 1 for prime p.
[A057544] 1, 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
a(0)=1, a(1)=1, a(2)=2, a(n)=n+2.
[A047581] 0, 1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 61, 62, 63, 64, 65, 66, 69, 70, 71, 72, 73, 74, 77, 78, 79, 80, 81, 82, 85, 86, 87, 88
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (8*n + (-1)^n - 2*sqrt(3)*sin(Pi*n/3) - 4*sin(2*Pi*(n+1)/3)/sqrt(3) + 2*cos(Pi*n/3) - 7)/6. - Ilya Gutkovskiy, May 30 2016
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-6, a(6k-4) = 8k-7, a(6k-5) = 8k-8. - Wesley Ivan Hurt, Jun 16 2016
[A047579] 0, 2, 5, 6, 7, 8, 10, 13, 14, 15, 16, 18, 21, 22, 23, 24, 26, 29, 30, 31, 32, 34, 37, 38, 39, 40, 42, 45, 46, 47, 48, 50, 53, 54, 55, 56, 58, 61, 62, 63, 64, 66, 69, 70, 71, 72, 74, 77, 78, 79, 80, 82, 85, 86, 87, 88, 90, 93, 94, 95, 96, 98, 101, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 20 + 3*(n mod 5) + 3*((n+1) mod 5) - 7*((n+2) mod 5) - 2*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-3, a(5k-3) = 8k-6, a(5k-4) = 8k-8. (End)
[A047269] 0, 1, 2, 5, 6, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 23, 24, 25, 26, 29, 30, 31, 32, 35, 36, 37, 38, 41, 42, 43, 44, 47, 48, 49, 50, 53, 54, 55, 56, 59, 60, 61, 62, 65, 66, 67, 68, 71, 72, 73, 74, 77, 78, 79, 80, 83, 84, 85, 86, 89, 90, 91, 92, 95, 96, 97
a(n) = (-7+(-1)^n+(1+i)*(-i)^n+(1-i)*i^n+6*n)/4 where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 15 2012
[A074940] 2, 5, 6, 7, 8, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 32, 33, 34, 35, 38, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 83, 86, 87, 88, 89, 92
a(n) = n + O(n^0.631). [Charles R Greathouse IV, Aug 21 2011]
[A080727] 1, 2, 5, 6, 7, 8, 11, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 32, 35, 38, 41, 44, 47, 50, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 83, 86, 89, 92, 95, 98, 101, 104, 107, 110, 113, 116, 119, 122
a(a(n)) = 3*n+2, n >= 0.
[A134026] 2, 5, 6, 7, 8, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131
a(n) = g(n,0,0) with g(n,m,k) = if n=0 then k else if k=3^m-1 then g(n-1,m,3*(k+1)/2+1) else g(n-1,m,k+1).
[A047580] 1, 2, 5, 6, 7, 9, 10, 13, 14, 15, 17, 18, 21, 22, 23, 25, 26, 29, 30, 31, 33, 34, 37, 38, 39, 41, 42, 45, 46, 47, 49, 50, 53, 54, 55, 57, 58, 61, 62, 63, 65, 66, 69, 70, 71, 73, 74, 77, 78, 79, 81, 82, 85, 86, 87, 89
a(n) = a(n-1) + a(n-5) - a(n-6), for n > 6.
[A047324] 0, 2, 5, 6, 7, 9, 12, 13, 14, 16, 19, 20, 21, 23, 26, 27, 28, 30, 33, 34, 35, 37, 40, 41, 42, 44, 47, 48, 49, 51, 54, 55, 56, 58, 61, 62, 63, 65, 68, 69, 70, 72, 75, 76, 77, 79, 82, 83, 84, 86, 89, 90, 91, 93, 96, 97, 98, 100, 103, 104, 105, 107, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n > 5.
a(n) = (14*n - 9 - i^(2*n) + (1 - 3*i)*i^(-n) + (1 + 3*i)*i^n)/8 where i = sqrt(-1).
[A047217] 0, 1, 2, 5, 6, 7, 10, 11, 12, 15, 16, 17, 20, 21, 22, 25, 26, 27, 30, 31, 32, 35, 36, 37, 40, 41, 42, 45, 46, 47, 50, 51, 52, 55, 56, 57, 60, 61, 62, 65, 66, 67, 70, 71, 72, 75, 76, 77, 80, 81, 82, 85, 86, 87, 90, 91, 92, 95, 96, 97, 100, 101, 102, 105, 106, 107, 110, 111
a(n) = 5 + a(n-3) for n>3. - Robert Israel, Sep 02 2014
a(n) = floor((5/4)*floor(4*(n-1)/3)). - Bruno Berselli, May 03 2016
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (15*n-21-6*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-3, a(3k-1) = 5k-4, a(3k-2) = 5k-5. (End)
a(n) = n - 1 + 2*floor((n-1)/3). - Bruno Berselli, Feb 06 2017
[A037453] 1, 2, 5, 6, 7, 10, 11, 12, 25, 26, 27, 30, 31, 32, 35, 36, 37, 50, 51, 52, 55, 56, 57, 60, 61, 62, 125, 126, 127, 130, 131, 132, 135, 136, 137, 150, 151, 152, 155, 156, 157, 160, 161, 162, 175, 176, 177, 180, 181, 182, 185, 186, 187
a(3n)=5a(n), a(3n+1)=5a(n)+1, a(3n+2)=5a(n)+2, where by definition a(0)=0. - Emeric Deutsch, Mar 23 2004
[A047578] 2, 5, 6, 7, 10, 13, 14, 15, 18, 21, 22, 23, 26, 29, 30, 31, 34, 37, 38, 39, 42, 45, 46, 47, 50, 53, 54, 55, 58, 61, 62, 63, 66, 69, 70, 71, 74, 77, 78, 79, 82, 85, 86, 87, 90, 93, 94, 95, 98, 101, 102, 103, 106, 109, 110, 111, 114, 117, 118, 119, 122, 125
a(n) = 2*n - cos(Pi*n/2). - Wesley Ivan Hurt, Oct 22 2013

a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>4.
a(n) = (4*n-I^(-n)-I^n)/2 where I=sqrt(-1).
[A047442] 0, 1, 2, 5, 6, 8, 9, 10, 13, 14, 16, 17, 18, 21, 22, 24, 25, 26, 29, 30, 32, 33, 34, 37, 38, 40, 41, 42, 45, 46, 48, 49, 50, 53, 54, 56, 57, 58, 61, 62, 64, 65, 66, 69, 70, 72, 73, 74, 77, 78, 80, 81, 82, 85, 86, 88, 89, 90, 93, 94, 96, 97, 98, 101, 102, 104
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 50 + 3*(n mod 5) - 7*((n+1) mod 5) + 3*((n+2) mod 5) + 3*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-6, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A047325] 1, 2, 5, 6, 8, 9, 12, 13, 15, 16, 19, 20, 22, 23, 26, 27, 29, 30, 33, 34, 36, 37, 40, 41, 43, 44, 47, 48, 50, 51, 54, 55, 57, 58, 61, 62, 64, 65, 68, 69, 71, 72, 75, 76, 78, 79, 82, 83, 85, 86, 89, 90, 92, 93, 96, 97, 99, 100, 103, 104, 106, 107, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-7-3*i^(2n)+(1-i)*i^(-n)+(1+i)*i^n)/8 where i=sqrt(-1).
[A087943] 2, 5, 6, 8, 10, 11, 14, 15, 17, 18, 20, 22, 23, 24, 26, 29, 30, 32, 33, 34, 35, 38, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 53, 54, 55, 56, 58, 59, 60, 62, 65, 66, 68, 69, 70, 71, 72, 74, 77, 78, 80, 82, 83, 85, 86, 87, 88, 89, 90, 92, 94, 95, 96, 98, 99, 101, 102, 104, 105, 106
a(n) « n^k for any k > 1, where « is the Vinogradov symbol. - Charles R Greathouse IV, Sep 04 2013
[A047441] 0, 2, 5, 6, 8, 10, 13, 14, 16, 18, 21, 22, 24, 26, 29, 30, 32, 34, 37, 38, 40, 42, 45, 46, 48, 50, 53, 54, 56, 58, 61, 62, 64, 66, 69, 70, 72, 74, 77, 78, 80, 82, 85, 86, 88, 90, 93, 94, 96, 98, 101, 102, 104, 106, 109, 110, 112, 114, 117, 118, 120, 122, 125
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-7-i^(2*n)-i^(1-n)+i^(1+n))/4 where i=sqrt(-1).
a(n) = (8*n-7-cos(n*Pi)-2*sin(n*Pi/2))/4. - Wesley Ivan Hurt, Oct 05 2017
[A047267] 0, 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, 24, 26, 29, 30, 32, 35, 36, 38, 41, 42, 44, 47, 48, 50, 53, 54, 56, 59, 60, 62, 65, 66, 68, 71, 72, 74, 77, 78, 80, 83, 84, 86, 89, 90, 92, 95, 96, 98, 101, 102, 104, 107, 108, 110, 113, 114, 116, 119, 120, 122, 125
a(n) = 3*n-3*floor(n/3)-(n^2 mod 3), with offset 0. - Gary Detlefs, Mar 19 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (6*n-5+2*cos(2*n*Pi/3))/3.
a(3k) = 6k-1, a(3k-1) = 6k-4, a(3k-2) = 6k-6. (End)
[A247062] 1, 2, 5, 6, 8, 11, 12, 16, 17, 18, 21, 22, 24, 27, 28, 32, 33, 34, 37, 38, 40, 43, 44, 48, 49, 50, 53, 54, 56, 59, 60, 64, 65, 66, 69, 70, 72, 75, 76, 80, 81, 82, 85, 86, 88, 91, 92, 96, 97, 98, 101, 102, 104, 107, 108, 112
a(n) = a(n-1) + a(n-8) - a(n-9). - Colin Barker, Sep 11 2014
[A042963] 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 21, 22, 25, 26, 29, 30, 33, 34, 37, 38, 41, 42, 45, 46, 49, 50, 53, 54, 57, 58, 61, 62, 65, 66, 69, 70, 73, 74, 77, 78, 81, 82, 85, 86, 89, 90, 93, 94, 97, 98, 101, 102, 105, 106, 109
a(n) = 4*n-a(n-1)-1 (with a(0)=1).
a(n) = a(n-1)+a(n-2)-a(n-3). - Ant King, Nov 17 2010
a(n) = (4n-3-(-1)^n)/2. - Ant King, Nov 17 2010
a(n) = (n mod 2) + 2n - 2. - Wesley Ivan Hurt, Oct 10 2013
[A264120] 0, 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 21, 22, 25, 26, 29, 30, 33, 34, 37, 38, 41, 42, 45, 46, 49, 50, 53, 54, 57, 58, 61, 62, 65, 66, 69, 70, 73, 74, 77, 78, 81, 82, 85, 86, 89, 90, 93, 94, 97, 98, 101, 102, 105, 106, 109, 110, 113, 114, 117, 118, 121, 122
a(1) = 0.
[A078632] 0, 1, 2, 5, 6, 9, 10, 15, 18, 21, 22, 28, 29, 32, 35, 43, 44, 50, 51, 57, 60, 63, 64, 73, 76, 79, 84, 90, 91, 98, 99, 109, 112, 115, 118, 129, 130, 133, 136, 145, 146, 153, 154, 160, 166, 169, 170, 183, 186, 192, 195, 201, 202, 211, 214, 223, 226, 229, 230, 242
a(n) = sum {r > 1, j > 0} floor(n/r^j)
[A032925] 1, 2, 5, 6, 9, 10, 21, 22, 25, 26, 37, 38, 41, 42, 85, 86, 89, 90, 101, 102, 105, 106, 149, 150, 153, 154, 165, 166, 169, 170, 341, 342, 345, 346, 357, 358, 361, 362, 405, 406, 409, 410, 421, 422, 425, 426, 597, 598, 601, 602, 613
a(2n) = 4a(n-1) + 2, a(2n+1) = 4a(n) + 1. - Ralf Stephan, Oct 07 2003, corrected R. J. Mathar, Sep 07 2016
[A244749] 2, 5, 6, 9, 10, 28, 29, 85, 86, 256, 257, 769, 770, 2308, 2309, 6925, 6926, 20776, 20777, 62329, 62330, 186988, 186989, 560965, 560966, 1682896, 1682897, 5048689, 5048690, 15146068, 15146069, 45438205, 45438206, 136314616, 136314617, 408943849, 408943850, 1226831548, 1226831549
a(2n) = 4a(2n - 2) - 3a(2n - 4) and a(2n +1) = a(2n) +1, for n>2.
a(n) = -a(n-1) + 3*a(n-2) + 3*a(n-3) for n>6. - Colin Barker, Jul 11 2014
[A047323] 2, 5, 6, 9, 12, 13, 16, 19, 20, 23, 26, 27, 30, 33, 34, 37, 40, 41, 44, 47, 48, 51, 54, 55, 58, 61, 62, 65, 68, 69, 72, 75, 76, 79, 82, 83, 86, 89, 90, 93, 96, 97, 100, 103, 104, 107, 110, 111, 114, 117, 118, 121, 124, 125, 128, 131, 132, 135, 138, 139, 142
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-3-6*cos(2*n*Pi/3)-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-2, a(3k-2) = 7k-5. (End)
[A050487] 1, 2, 5, 6, 9, 12, 15, 16, 19, 22, 25, 28, 31, 34, 37, 38, 41, 44, 47, 50, 53, 56, 59, 62, 65, 68, 71, 74, 77, 80, 83, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159, 162
a(n) = 3n - 2*(1 + floor(log_2(n)).
[A077471] 1, 2, 5, 6, 10, 11, 14, 18, 19, 23, 27, 29, 30, 35, 36, 39, 55, 56, 60, 62, 64, 73, 75, 78, 79, 83, 84, 87, 95, 99, 104, 111, 113, 121, 122, 126, 133, 134, 141, 143, 147, 151, 152, 161, 162, 165, 169, 171, 173, 175, 176, 179, 182, 183, 186, 189, 197, 202, 205, 207
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(4/7) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 3.3... - Benoit Cloitre
[A007969] 2, 5, 6, 10, 12, 13, 14, 17, 18, 20, 21, 22, 26, 28, 29, 30, 33, 34, 37, 38, 39, 41, 42, 44, 45, 46, 50, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 65, 66, 68, 69, 70, 72, 73, 74, 76, 77, 78, 82, 84, 85, 86, 89, 90, 92, 93, 94, 95, 97, 98, 101, 102, 105, 106, 108, 109
a(n) is in the sequence if a(n) = C*B with integers B >= 1 and C >= 2, such that C*S^2 - B*R^2 = 1 has an integer solution (without loss of generality one may take S and R positive). See the Conway link. - Wolfdieter Lang, Sep 18 2015
[A047440] 2, 5, 6, 10, 13, 14, 18, 21, 22, 26, 29, 30, 34, 37, 38, 42, 45, 46, 50, 53, 54, 58, 61, 62, 66, 69, 70, 74, 77, 78, 82, 85, 86, 90, 93, 94, 98, 101, 102, 106, 109, 110, 114, 117, 118, 122, 125, 126, 130, 133, 134, 138, 141, 142, 146, 149, 150, 154, 157, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-9-9*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-3, a(3k-2) = 8k-6. (End)
[A140144] 1, 2, 5, 6, 11, 12, 19, 20, 29, 30, 41, 42, 55, 56, 71, 72, 89, 90, 109, 110, 131, 132, 155, 156, 181, 182, 209, 210, 239, 240, 271, 272, 305, 306, 341, 342, 379, 380, 419, 420, 461, 462, 505, 506, 551, 552, 599, 600, 649, 650, 701, 702, 755, 756, 811, 812, 869
a(n) = a(n-1)+{[1-(-1)^n]/2}*n+{[1+(-1)^n]/2}, with a(1)=1 a(n)=-(1/8)-(1/4)*(-1)^n*n+(1/8)*(-1)^n+(1/4)*n^2+(3/4)*n, with n>=1. - Paolo P. Lava, Jun 06 2008
a(n) = a(n-1)+2a(n-2)-2a(n-3)-a(n-4)+a(n-5). G.f.: x*(-1-x-x^2+x^3)/ ((1+x)^2*(x-1)^3). - R. J. Mathar, Feb 22 2009
[A030130] 0, 2, 5, 6, 11, 13, 14, 23, 27, 29, 30, 47, 55, 59, 61, 62, 95, 111, 119, 123, 125, 126, 191, 223, 239, 247, 251, 253, 254, 383, 447, 479, 495, 503, 507, 509, 510, 767, 895, 959, 991, 1007, 1015, 1019, 1021, 1022, 1535, 1791, 1919, 1983, 2015, 2031, 2039
a(n) = 2^(g(n))-1-2^(((2*g(n)-1)^2-1-8*n)/8) with g(n)=int((sqrt(8*n-7)+3)/2) for all n>0 and g(0)=1. - Ulrich Schimke (ulrschimke(AT)aol.com)
[A015613] 0, 0, 1, 2, 5, 6, 11, 14, 19, 22, 31, 34, 45, 50, 57, 64, 79, 84, 101, 108, 119, 128, 149, 156, 175, 186, 203, 214, 241, 248, 277, 292, 311, 326, 349, 360, 395, 412, 435, 450, 489, 500, 541, 560, 583, 604, 649, 664, 705, 724, 755, 778, 829, 846, 885, 908, 943
a(n) = sum of phi(e) where e ranges over all nondivisors of n that are between 1 and n. - Joseph L. Pe, Oct 24 2002
[A135013] 1, 2, 5, 6, 11, 14, 21, 22, 31, 36, 47, 50, 63, 70, 85, 86, 103, 112, 131, 136, 157, 168, 191, 194, 219, 232, 259, 266, 295, 310, 341, 342, 375, 392, 427, 436, 473, 492, 531, 536, 577, 598, 641, 652, 697, 720, 767, 770, 819, 844, 895, 908, 961, 988, 1043, 1050, 1107, 1136
a(n) = sum(k>=1, (round(n/2^k))^2). - Alejandro Erickson, Apr 13 2012
a(n) = n^2/3 + O(x) (see MacLeod link). - Michel Marcus, Dec 05 2013

[A239447] 0, 1, 2, 5, 6, 11, 14, 21, 22, 31, 36, 49, 52, 63, 70, 85, 86, 103, 112, 137, 142, 163, 176, 205, 208, 227, 238, 265, 272, 295, 310, 341, 342, 375, 392, 441, 450, 491, 516, 573, 578, 615, 636, 689, 702, 747, 776, 837, 840, 875, 894, 945, 956, 999, 1026, 1085
a(4n) = 6 a(2n) - 5 a(n) - 3 a(n-1) - 1.
a(4n + 1) = 2 a(2n+1) + 4 a(2n) - 6 a(n) - 2 a(n-1) - 1.
a(4n + 2) = 3 a(2n+1) + 3 a(2n) - 6 a(n) - 2 a(n-1) - 1.
a(4n + 3) = 6 a(2n+1) - 8 a(n) - 1.
[A289206] 1, 2, 5, 6, 12, 13, 15, 16, 32, 33, 35, 39, 40, 42, 56, 81, 84, 85, 88, 90, 93, 94, 108, 109, 113, 115, 116, 159, 189, 207, 208, 222, 223, 232, 235, 240, 243, 244, 249, 250, 252, 259, 267, 271, 289, 304, 314, 318, 325, 340, 342, 397, 504, 508, 511, 531, 549
a(n) >= 3n/2 for n > 2.
[A153485] 0, 1, 2, 5, 6, 12, 13, 20, 24, 32, 33, 49, 50, 60, 69, 84, 85, 106, 107, 129, 140, 154, 155, 191, 197, 213, 226, 254, 255, 297, 298, 329, 344, 364, 377, 432, 433, 455, 472, 522, 523, 577, 578, 618, 651, 677, 678, 754, 762, 805, 826
a(n) = Sum_{k=1..n} k * floor((n-k)/k). - Wesley Ivan Hurt, Apr 02 2017
[A113240] 1, 2, 5, 6, 13, 14, 25, 30, 49, 50, 97, 98, 165, 186, 325, 326, 621, 622, 1161, 1230, 2257, 2258, 4481, 4498, 8597, 8858, 17125, 17126, 34077, 34078, 66985, 68014, 133553, 133634, 267057, 267058, 529205, 533306, 1058261, 1058262, 2115133
a(n)=sum{k=0..floor(n/2), floor((n-k+1)/(k+1))*2^k}.
[A215147] 1, 2, 5, 6, 14, 15, 30, 31, 55, 56, 91, 92, 140, 141, 204, 205, 285, 286, 385, 386, 506, 507, 650, 651, 819, 820, 1015, 1016, 1240, 1241, 1496
a(n) = (6*(5+3*(-1)^n)+(13-9*(-1)^n)*n-3*(-3+(-1)^n)*n^2+2*n^3)/48. G.f.: -x*(x^6-x^5-2*x^4+2*x^3-x-1)/((x-1)^4*(x+1)^3). [Colin Barker, Nov 16 2012]
[A166753] 1, 2, 5, 6, 17, 18, 61, 62, 233, 234, 917, 918, 3649, 3650, 14573, 14574, 58265, 58266, 233029, 233030, 932081, 932082, 3728285, 3728286, 14913097, 14913098, 59652341, 59652342, 238609313, 238609314, 954437197, 954437198, 3817748729, 3817748730
a(n) = a(n+1) + 5*a(n+2) - 5*a(n-3) - 4*a(n-4) + 4*a(n-5).
[A136324] 0, 1, 1, 2, 5, 6, 21, 22, 85, 86, 341, 342, 1365, 1366, 5461, 5462, 21845, 21846, 87381, 87382, 349525, 349526, 1398101, 1398102, 5592405, 5592406, 22369621, 22369622, 89478485, 89478486, 357913941
a(n)=5a(n-2)-4a(n-4).
a(n)=1/6 - (1/2)*(-1)^n + (1/4)*2^n + (1/12)*(-2)^n; g.f.: (-3*x^3 + x^2 + x)/(4*x^4 - 5*x^2 + 1). - Lambert Herrgesell (zero815(AT)googlemail.com), Apr 19 2008
[A047483] 0, 1, 2, 5, 7, 8, 9, 10, 13, 15, 16, 17, 18, 21, 23, 24, 25, 26, 29, 31, 32, 33, 34, 37, 39, 40, 41, 42, 45, 47, 48, 49, 50, 53, 55, 56, 57, 58, 61, 63, 64, 65, 66, 69, 71, 72, 73, 74, 77, 79, 80, 81, 82, 85, 87, 88, 89
a(n) = a(n-1) + a(n-5) - a(n-6). Vincenzo Librandi, May 17 2012
[A047388] 0, 1, 2, 5, 7, 8, 9, 12, 14, 15, 16, 19, 21, 22, 23, 26, 28, 29, 30, 33, 35, 36, 37, 40, 42, 43, 44, 47, 49, 50, 51, 54, 56, 57, 58, 61, 63, 64, 65, 68, 70, 71, 72, 75, 77, 78, 79, 82, 84, 85, 86, 89, 91, 92, 93, 96, 98, 99, 100, 103, 105, 106, 107, 110, 112
a(n) = (-19+(-1)^n+(1+3*i)*(-i)^n+(1-3*i)*i^n+14*n)/8 where i=sqrt(-1). - Colin Barker, May 14 2012
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 16 2012
[A283778] 2, 5, 7, 8, 10, 11, 13, 16, 19, 21, 22, 24, 25, 27, 30, 33, 35, 36, 38, 41, 44, 46, 47, 49, 50, 52, 55, 58, 60, 61, 63, 64, 66, 69, 72, 74, 75, 77, 80, 83, 85, 86, 88, 89, 91, 94, 97, 99, 100, 102, 103, 105, 108, 110, 111, 113, 114, 116, 119, 122, 124, 125
a(n+1) - a(n) is in {1,2,3} for every n.
[A047481] 0, 2, 5, 7, 8, 10, 13, 15, 16, 18, 21, 23, 24, 26, 29, 31, 32, 34, 37, 39, 40, 42, 45, 47, 48, 50, 53, 55, 56, 58, 61, 63, 64, 66, 69, 71, 72, 74, 77, 79, 80, 82, 85, 87, 88, 90, 93, 95, 96, 98, 101, 103, 104, 106, 109, 111, 112, 114, 117, 119, 120, 122, 125
a(n) = (1/4+i/4)*((-3+3*i)-i*(-i)^n+i^n+(4-4*i)*n) where i=sqrt(-1).
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4. - Vincenzo Librandi, May 16 2012
a(n) = (-1*((-1)^((n-1)/2-(-1)^n/4-1/4)))/2+2*(n-1)+1/2.
a(n) = cos(n*Pi/2)-1/2*cos((n-1)*Pi/2)-1/2*cos(n*Pi/2)+2*(n-1)+1/2. - Cédric Christian Bernard Gagneux, Mar 05 2014
[A047268] 1, 2, 5, 7, 8, 11, 13, 14, 17, 19, 20, 23, 25, 26, 29, 31, 32, 35, 37, 38, 41, 43, 44, 47, 49, 50, 53, 55, 56, 59, 61, 62, 65, 67, 68, 71, 73, 74, 77, 79, 80, 83, 85, 86, 89, 91, 92, 95, 97, 98, 101, 103, 104, 107, 109, 110, 113, 115, 116, 119, 121, 122, 125
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)
a(n) = 2*n-1-floor((n mod 3)/2). - Gary Detlefs, Jun 01 2012
a(n) = (6*n-4+cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 6k-1, a(3k-1) = 6k-4, a(3k-2) = 6k-5. (End)
[A047482] 1, 2, 5, 7, 9, 10, 13, 15, 17, 18, 21, 23, 25, 26, 29, 31, 33, 34, 37, 39, 41, 42, 45, 47, 49, 50, 53, 55, 57, 58, 61, 63, 65, 66, 69, 71, 73, 74, 77, 79, 81, 82, 85, 87, 89, 90, 93, 95, 97, 98, 101, 103, 105, 106, 109, 111, 113, 114, 117, 119, 121, 122, 125
a(n) = (-5 - (-1)^n + (-i)^n + i^n + 8*n)/4 where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 17 2012
[A163985] 0, 1, 2, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113
a(n) = n for n<3, a(n) = 2*n-1 for n>=3.
[A184737] 2, 5, 7, 9, 11, 13, 16, 18, 20, 22, 24, 27, 29, 31, 33, 35, 38, 40, 42, 44, 46, 49, 51, 53, 55, 57, 60, 62, 64, 66, 69, 71, 73, 75, 77, 80, 82, 84, 86, 88, 91, 93, 95, 97, 99, 102, 104, 106, 108, 110, 113, 115, 117, 119, 121, 124, 126, 128, 130, 133, 135, 137, 139, 141, 144, 146, 148, 150, 152, 155, 157, 159, 161, 163, 166, 168, 170, 172, 174, 177, 179, 181, 183, 186, 188, 190, 192, 194, 197, 199, 201, 203, 205, 208, 210, 212, 214, 216, 219, 221, 223, 225, 227, 230, 232, 234, 236, 238, 241, 243, 245, 247, 250, 252, 254, 256, 258, 261, 263, 265
a(n)=floor(n*s+h-h*s), where s=-1+2^(3/2), h=-1/2.
[A184743] 2, 5, 7, 9, 12, 14, 16, 19, 21, 23, 25, 28, 30, 32, 35, 37, 39, 41, 44, 46, 48, 51, 53, 55, 58, 60, 62, 64, 67, 69, 71, 74, 76, 78, 80, 83, 85, 87, 90, 92, 94, 97, 99, 101, 103, 106, 108, 110, 113, 115, 117, 119, 122, 124, 126, 129, 131, 133, 136, 138, 140, 142, 145, 147, 149, 152, 154, 156, 158, 161, 163, 165, 168, 170, 172, 175, 177, 179
a(n) = floor(n*s + h - h*s), where s = sqrt(Pi)/(sqrt(Pi)-1), h = -1/2.
[A184749] 2, 5, 7, 9, 12, 14, 16, 19, 21, 23, 26, 28, 30, 32, 35, 37, 39, 42, 44, 46, 49, 51, 53, 56, 58, 60, 62, 65, 67, 69, 72, 74, 76, 79, 81, 83, 86, 88, 90, 93, 95, 97, 99, 102, 104, 106, 109, 111, 113, 116, 118, 120, 123, 125, 127, 129, 132, 134, 136, 139, 141, 143, 146, 148, 150, 153, 155, 157, 159, 162, 164, 166, 169, 171, 173, 176, 178, 180, 183, 185, 187, 189, 192, 194, 196, 199, 201, 203, 206, 208, 210, 213, 215, 217, 220, 222, 224, 226, 229, 231, 233, 236, 238, 240, 243, 245, 247, 250, 252, 254, 256, 259, 261, 263, 266, 268, 270, 273, 275, 277
a(n)=floor(n*s+h-h*s), where s=(7+sqrt(5))/4, h=-1/2.
[A047386] 0, 2, 5, 7, 9, 12, 14, 16, 19, 21, 23, 26, 28, 30, 33, 35, 37, 40, 42, 44, 47, 49, 51, 54, 56, 58, 61, 63, 65, 68, 70, 72, 75, 77, 79, 82, 84, 86, 89, 91, 93, 96, 98, 100, 103, 105, 107, 110, 112, 114, 117, 119, 121, 124, 126, 128, 131, 133, 135, 138, 140
a(n+1) = 3*n-2*floor(n/3)-(n^2 mod 3). - Gary Detlefs, Mar 19 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-21+3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-5, a(3k-2) = 7k-7. (End)
[A184007] 2, 5, 7, 9, 12, 14, 17, 19, 21, 24, 26, 28, 31, 33, 35, 38, 40, 43, 45, 47, 50, 52, 54, 57, 59, 61, 64, 66, 69, 71, 73, 76, 78, 80, 83, 85, 87, 90, 92, 95, 97, 99, 102, 104, 106, 109, 111, 114, 116, 118, 121, 123, 125, 128, 130, 132, 135, 137, 140, 142, 144, 147, 149, 151, 154, 156, 158, 161, 163, 166, 168, 170, 173, 175, 177, 180, 182, 185, 187, 189, 192, 194, 196, 199, 201, 203, 206, 208, 211, 213, 215, 218, 220, 222, 225, 227, 229, 232, 234, 237, 239, 241, 244, 246, 248, 251, 253, 255
a(n)=floor(n*s+h-h*s), where s=(3+sqrt(3))/2, h=-1/3.
[A080652] 2, 5, 7, 9, 12, 14, 17, 19, 22, 24, 26, 29, 31, 34, 36, 38, 41, 43, 46, 48, 50, 53, 55, 58, 60, 63, 65, 67, 70, 72, 75, 77, 79, 82, 84, 87, 89, 92, 94, 96, 99, 101, 104, 106, 108, 111, 113, 116, 118, 121, 123, 125, 128, 130, 133, 135, 137, 140, 142, 145
a(n) = floor(n*r + 1/(1+r)) where r = 1+sqrt(2).
[A142879] 0, 1, 2, 5, 7, 9, 25, 34, 43, 120, 163, 206, 575, 781, 987, 2755, 3742, 4729, 13200, 17929, 22658, 63245, 85903, 108561, 303025, 411586, 520147, 1451880, 1972027, 2492174, 6956375, 9448549, 11940723, 33329995, 45270718, 57211441, 159693600
a(n) = 2*a(n - 1) + a(n - 2) if 3 | n, a(n) = a(n - 1) + a(n - 2) if n = 1 mod 3, and a(n) = 2*a(n - 1) - a(n - 2) if n = 2 mod 3.

[A108118] 1, 2, 5, 7, 10, 11, 13, 14, 17, 19, 22, 23, 25, 26, 29, 31, 34, 35, 37, 38, 41, 43, 46, 47, 49, 50, 53, 55, 58, 59, 61, 62, 65, 67, 70, 71, 73, 74, 77, 79, 82, 83, 85, 86, 89, 91, 94, 95, 97, 98, 101, 103, 106, 107, 109, 110, 113, 115, 118, 119, 121, 122, 125, 127, 130, 131
a(n) = 2*a(n-1) - a(n-2) - a(n-3) + 2*a(n-4) - a(n-5) for n>5.
a(n) = a(n-6) + 12 for n>6.
a(n) = (6*n - 3 + cos(n*Pi/3) - cos(n*Pi) - sqrt(3)*sin(n*Pi/3))/3.
a(6k) = 12k-1, a(6k-1) = 12k-2, a(6k-2) = 12k-5, a(6k-3) = 12k-7, a(6k-4) = 12k-10, a(6k-5) = 12k-11. (End)
[A081032] 2, 5, 7, 10, 12, 14, 17, 19, 22, 24, 26, 29, 31, 34, 36, 38, 41, 43, 46, 48, 50, 53, 55, 58, 60, 62, 65, 67, 70, 72, 74, 77, 79, 82, 84, 86
a(n) = [(12n+2)/5]
[A082845] 2, 5, 7, 10, 12, 14, 17, 19, 22, 24, 26, 29, 31, 34, 36, 39, 41, 43, 46, 48, 51, 53, 55, 58, 60, 63, 65, 68, 70, 72, 75, 77, 80, 82, 84, 87, 89, 92, 94, 96, 99, 101, 104, 106, 109, 111, 113, 116, 118, 121, 123, 125, 128, 130, 133, 135, 138, 140, 142, 145, 147, 150, 152
a(n)=1+floor((1+sqrt(2))*n-(2-sqrt(2)))
[A047215] 0, 2, 5, 7, 10, 12, 15, 17, 20, 22, 25, 27, 30, 32, 35, 37, 40, 42, 45, 47, 50, 52, 55, 57, 60, 62, 65, 67, 70, 72, 75, 77, 80, 82, 85, 87, 90, 92, 95, 97, 100, 102, 105, 107, 110, 112, 115, 117, 120, 122, 125, 127, 130, 132, 135, 137, 140, 142, 145, 147, 150, 152, 155, 157
a(n) = floor(5*n/2).
a(n) = 5*n/2 +((-1)^n-1)/4.
a(n) = 5*n - a(n-1) - 8 with a(1)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = 2*n + floor(n/2). - Arkadiusz Wesolowski, Sep 19 2012
[A059536] 2, 5, 7, 10, 12, 15, 17, 20, 22, 25, 28, 30, 33, 35, 38, 40, 43, 45, 48, 51, 53, 56, 58, 61, 63, 66, 68, 71, 73, 76, 79, 81, 84, 86, 89, 91, 94, 96, 99, 102, 104, 107, 109, 112, 114, 117, 119, 122, 124, 127, 130, 132, 135, 137, 140, 142, 145, 147, 150, 153, 155, 158
a(n) = floor(n*zeta(2)/(zeta(2)-1)). - Michel Marcus, Jan 05 2015
[A182771] 2, 5, 7, 10, 12, 15, 18, 20, 23, 25, 28, 30, 33, 36, 38, 41, 43, 46, 48, 51, 54, 56, 59, 61, 64, 67, 69, 72, 74, 77, 79, 82, 85, 87, 90, 92, 95, 97, 100, 103, 105, 108, 110, 113, 115, 118, 121, 123, 126, 128, 131, 134, 136, 139, 141, 144, 146, 149
a(n)=floor(n*(6+sqrt(3))/3).
[A182773] 2, 5, 7, 10, 12, 15, 18, 20, 23, 25, 28, 31, 33, 36, 38, 41, 43, 46, 49, 51, 54, 56, 59, 62, 64, 67, 69, 72, 75, 77, 80, 82, 85, 87, 90, 93, 95, 98, 100, 103, 106, 108, 111, 113, 116, 119, 121, 124, 126, 129, 131, 134, 137, 139, 142
a(n)=floor(n*(1+2^(2/3))).
[A001950] 2, 5, 7, 10, 13, 15, 18, 20, 23, 26, 28, 31, 34, 36, 39, 41, 44, 47, 49, 52, 54, 57, 60, 62, 65, 68, 70, 73, 75, 78, 81, 83, 86, 89, 91, 94, 96, 99, 102, 104, 107, 109, 112, 115, 117, 120, 123, 125, 128, 130, 133, 136, 138, 141, 143, 146, 149, 151, 154, 157
a(n) = n + floor(n*phi). In general, floor(n*phi^m) = Fibonacci(m-1)*n + floor(Fibonacci(m)*n*phi). - Benoit Cloitre, Mar 18 2003
[A047480] 2, 5, 7, 10, 13, 15, 18, 21, 23, 26, 29, 31, 34, 37, 39, 42, 45, 47, 50, 53, 55, 58, 61, 63, 66, 69, 71, 74, 77, 79, 82, 85, 87, 90, 93, 95, 98, 101, 103, 106, 109, 111, 114, 117, 119, 122, 125, 127, 130, 133, 135, 138, 141, 143, 146, 149, 151, 154, 157, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-6-3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-3, a(3k-2) = 8k-6. (End)
[A057347] 2, 5, 7, 10, 13, 16, 18, 21, 24, 26, 29, 32, 35, 37, 40, 43, 46, 48, 51, 54, 56, 59, 62, 65, 67, 70, 73, 76, 78, 81, 84, 86, 89, 92, 95, 97, 100, 103, 106, 108, 111, 114, 116, 119, 122, 125, 127, 130, 133, 136, 138, 141, 144, 146, 149, 152, 155, 157, 160, 163, 166
a(n) = floor((30n - 4)/11), ((14 + 11*n) mod 30) < 11
[A067008] 2, 5, 7, 10, 13, 16, 19, 20, 31, 34, 37, 40, 41, 44, 46, 48, 51, 53, 55, 56, 62, 64, 65, 67, 68, 69, 73, 74, 76, 79, 81, 82, 83, 84, 85, 86, 87, 89, 95, 96, 97, 99, 100, 101, 106, 107, 108, 109, 111, 112, 115, 119, 121, 122, 123, 124, 133, 134, 135, 136, 137, 138, 143
a(n) seems to be asymptotic to c*n with c=2.3.....
[A094065] 0, 2, 5, 7, 10, 13, 16, 19, 22, 26, 29, 32, 36, 39, 42, 46, 49, 53, 57, 60, 64, 67, 71, 75, 78, 82, 86, 90, 93, 97, 101, 105, 109, 113, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 201, 205, 209, 213, 217, 221
a(n) = Floor[Re[-(-2*n-n*Log[n]/2+n*Sqrt[I/Pi+2/n])]]
[A073593] 1, 2, 5, 7, 10, 13, 17, 20, 23, 27, 31, 35, 38, 42, 46, 51, 55, 59, 63, 67, 72, 76, 81, 85, 90, 94, 99, 104, 108, 113, 118, 123, 128, 133, 137, 142, 147, 152, 157, 162, 167, 173, 178, 183, 188, 193, 198, 204, 209, 214, 219, 225, 230, 235, 241, 246, 251, 257, 262
a(n) seems to be asymptotic to n*(log(n)+c) with c=0.3(6)...and maybe c=1/e. - Benoit Cloitre, Sep 07 2002
[A276213] 2, 5, 7, 10, 14, 17, 20, 24, 27, 31, 34, 38, 42, 45, 49, 53, 57, 61, 65, 69, 74, 78, 82, 86, 91, 95, 99, 104, 108, 113, 117, 122, 126, 131, 136, 140, 145, 150, 155, 159, 164, 169, 174, 179, 184, 189, 194, 199, 204, 209, 214, 219, 224, 229, 234, 239, 245, 250
a(n) = n + floor(n^(s/r)); the complement is given by n + floor(n^(r/s)).
[A266594] 1, 2, 5, 7, 10, 16, 19, 29, 32, 46, 49, 67, 70, 92, 95, 121, 124, 154, 157, 191, 194, 232, 235, 277, 280, 326, 329, 379, 382, 436, 439, 497, 500, 562, 565, 631, 634, 704, 707, 781, 784, 862, 865, 947, 950, 1036, 1039, 1129, 1132, 1226, 1229, 1327, 1330, 1432
a(n) = (n^2-(-1)^n*(n-3)+5)/2 for n>0.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A076802] 1, 2, 5, 7, 10, 18, 20, 22, 23, 26, 30, 33, 37, 41, 44, 46, 48, 49, 53, 56, 58, 59, 68, 69, 75, 77, 78, 81, 88, 90, 94, 96, 98, 100, 102, 105, 106, 109, 111, 116, 120, 122, 124, 126, 132, 135, 137, 140, 145, 152, 155, 157, 158, 162, 165, 168, 171, 174, 176, 178
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=gamma and frac(y) = y - floor(y).
[A079933] 1, 2, 5, 7, 11, 12, 19, 22, 27, 33, 37, 39, 42, 44, 53, 54, 60, 62, 68, 69, 75, 77, 78, 83, 86, 87, 91, 94, 97, 100, 101, 105, 106, 110, 113, 115, 116, 120, 121, 125, 129, 131, 132, 137, 141, 144, 148, 149, 152, 155, 157, 166, 171, 173, 178, 179, 184, 186, 189, 191
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(1/sqrt(3)) and frac(y) = y - floor(y).
[A229470] 2, 5, 7, 11, 13, 16, 21, 23, 26, 30, 36, 38, 41, 45, 50, 57, 59, 62, 66, 71, 77, 85, 87, 90, 94, 99, 105, 112, 121, 123, 126, 130, 135, 141, 148, 156, 166, 168, 171, 175, 180, 186, 193, 201, 210, 221, 223, 226, 230, 235, 241, 248, 256, 265, 275, 287, 289, 292, 296, 301, 307, 314, 322, 331, 341, 352, 365, 367, 370, 374, 379, 385
a((n^2+n+2m-2)/2) = (n^3+6n^2+3m^2+11n-3m+6)/6; n+2>=m>=2.
[A184676] 1, 2, 5, 7, 11, 14, 19, 23, 29, 34, 41, 47, 55, 62, 71, 79, 89, 98, 109, 119, 131, 142, 155, 167, 181, 194, 209, 223, 239, 254, 271, 287, 305, 322, 341, 359, 379, 398, 419, 439, 461, 482, 505, 527, 551, 574, 599, 623, 649, 674, 701, 727, 755, 782, 811, 839
a(n) = n+floor((n/2-1/(4*n))^2).
[A216094] 2, 5, 7, 11, 15, 19, 23, 27, 31, 37, 43, 47, 51, 55, 59, 61, 67, 73, 77, 81, 87, 91, 95, 99, 105, 109, 113, 117, 121, 133, 145, 149, 155, 165, 175, 181, 183, 187, 191, 193, 199, 209, 219, 223, 227, 239, 241, 251, 255, 259, 263, 269, 279, 285, 287, 289, 295, 301, 305, 309, 319
a(1)=2; a(n+1) = a(n) + |prime(n+2) - 2*prime(n+1) + prime(n)| + 2.
[A089781] 1, 2, 5, 7, 11, 16, 23, 29, 37, 46, 57, 67, 79, 92, 107, 121, 137, 154, 173, 191, 211, 232, 255, 277, 301, 326, 353, 379, 407, 436, 467, 497, 529, 562, 597, 631, 667, 704, 743, 781, 821, 862, 905, 947, 991, 1036, 1083, 1129, 1177, 1226, 1277
a(n+1) = a(n) + (smallest number coprime with a(n) and not already added). - Reinhard Zumkeller, Aug 15 2015
[A163695] 2, 5, 7, 11, 18, 29, 47, 76, 123, 199, 322, 521, 843, 1364, 2207, 3571, 5778, 9349, 15127, 24476, 39603, 64079, 103682, 167761, 271443, 439204, 710647, 1149851, 1860498, 3010349, 4870847, 7881196, 12752043, 20633239, 33385282, 54018521, 87403803
a(n)=a(n-1)+a(n-2) for n>=5.
[A063217] 2, 5, 7, 12, 14, 17, 21, 24, 26, 31, 33, 36, 40, 43, 45, 50, 52, 55, 59, 62, 64, 69, 71, 74, 78, 81, 83, 88, 90, 93, 97, 100, 102, 107, 109, 112, 116, 119, 121, 126, 128, 131, 135, 138, 140, 145, 147, 150, 154, 157
a(n) = a(n-2)+a(n-3)-a(n-5). G.f.: x*(2 +5*x +5*x^2 +5*x^3 +2*x^4)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A294146] 0, 1, 2, 5, 7, 12, 15, 18, 21, 29, 33, 43, 48, 60, 66, 72, 78, 84, 90, 106, 113, 131, 139, 147, 155, 176, 185, 208, 218, 243, 254, 265, 276, 304, 316, 328, 340, 371, 384, 397, 410, 444, 458, 494, 509, 547, 563, 579, 595, 611, 627, 669, 686, 703, 720, 737
a(n) = Sum_{i=1..floor(n/2)} (n - i) * mu(i)^2.
[A088822] 0, 2, 5, 7, 12, 15, 22, 24, 27, 32, 43, 46, 59, 66, 71, 73, 90, 93, 112, 117, 124, 135, 158, 161, 166, 179, 182, 189, 218, 223, 254, 256, 267, 284, 291, 294, 331, 350, 363, 368, 409, 416, 459, 470, 475, 498, 545, 548, 555, 560, 577, 590, 643, 646, 657, 664, 683
a(n) = Pi^2/12 * n^2/log n + O(n^2/log^2 n). - Charles R Greathouse IV, Feb 19 2014

[A001318] 0, 1, 2, 5, 7, 12, 15, 22, 26, 35, 40, 51, 57, 70, 77, 92, 100, 117, 126, 145, 155, 176, 187, 210, 222, 247, 260, 287, 301, 330, 345, 376, 392, 425, 442, 477, 495, 532, 551, 590, 610, 651, 672, 715, 737, 782, 805, 852, 876, 925, 950, 1001, 1027, 1080, 1107, 1162, 1190, 1247, 1276, 1335
a(n) = 3 + 2*a(n-2) - a(n-4). - Ant King, Aug 23 2011
a(n) = n*(n+1)/6 when n runs through numbers == 0 or 2 mod 3. - Barry E. Williams
a(n) = Sum_{k=1..floor((n+1)/2)} (n-k+1). - Paul Barry, Sep 07 2005
a(n) = 1/2*ceiling(n/2)*ceiling((3*n+1)/2). - Mircea Merca, Jul 13 2012
a(n) = floor((n+1)/2)*((n+1) - (1/2)*floor((n+1)/2) - (1/2)). - Wesley Ivan Hurt, Jan 26 2013
a(n) = Sum_{i = ceiling((n+1)/2)..n} i. - Wesley Ivan Hurt, Jun 08 2013
[A001060] 2, 5, 7, 12, 19, 31, 50, 81, 131, 212, 343, 555, 898, 1453, 2351, 3804, 6155, 9959, 16114, 26073, 42187, 68260, 110447, 178707, 289154, 467861, 757015, 1224876, 1981891, 3206767, 5188658, 8395425, 13584083, 21979508, 35563591, 57543099
a(n) = 2*Fibonacci(n) + Fibonacci(n+3). - Zerinvary Lajos, Oct 05 2007
a(n) = Fibonacci(n+4) - Fibonacci(n-1) for n >= 1. - Ian Stewart, Jun 07 2012
a(n) = Fibonacci(n) + 2*Fibonacci(n+2) = 5*Fibonacci(n) + 2*Fibonacci(n-1). The ratio r(n) := a(n+2)/a(n) satisfies the recurrence r(n+1) = (2*r(n) - 1)/(r(n) - 1). If M denotes the 2 X 2 matrix [2, -1; 1, -1] then [a(n+2), a(n)] = M^n[2, -1]. - Peter Bala, Dec 06 2013
[A042691] 1, 1, 2, 5, 7, 12, 19, 31, 112, 143, 255, 398, 653, 1704, 2357, 4061, 237895, 241956, 479851, 1201658, 1681509, 2883167, 4564676, 7447843, 26908205, 34356048, 61264253, 95620301, 156884554, 409389409, 566273963, 975663372, 57154749539, 58130412911, 115285162450
a(n) = 240252*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 26 2014
[A041793] 1, 2, 5, 7, 12, 19, 107, 447, 554, 7095, 7649, 37691, 196104, 233795, 429899, 663694, 1757287, 4178268, 168888007, 341954282, 852796571, 1194750853, 2047547424, 3242298277, 18259038809, 76278453513, 94537492322, 1210728361377, 1305265853699, 6431791776173
a(n) = 170645294*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Dec 24 2013
[A213044] 1, 1, 2, 5, 7, 12, 22, 34, 56, 94, 150, 244, 399, 643, 1042, 1691, 2733, 4424, 7164, 11588, 18752, 30348, 49100, 79448, 128557, 208005, 336562, 544577, 881139, 1425716, 2306866, 3732582, 6039448, 9772042, 15811490, 25583532, 41395035
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-2*a(n-4)-a(n-5)+a(n-6)+a(n-7).
[A295334] 1, 1, 2, 5, 7, 12, 31, 43, 74, 191, 265, 456, 1177, 1633, 2810, 7253, 10063, 17316, 44695, 62011, 106706, 275423, 382129, 657552, 1697233, 2354785, 4052018, 10458821, 14510839, 24969660, 64450159, 89419819, 153869978, 397159775, 551029753, 948189528, 2447408809, 3395598337, 5843007146
a(n) = 6*a(n-3) + a(n-6), n >= 6, with inputs a(0)..a(5).
[A041033] 1, 1, 2, 5, 7, 12, 103, 115, 218, 551, 769, 1320, 11329, 12649, 23978, 60605, 84583, 145188, 1246087, 1391275, 2637362, 6665999, 9303361, 15969360, 137058241, 153027601, 290085842, 733199285, 1023285127
a(n) = 110*a(n-6)-a(n-12). G.f.: -(x^4-x^3+2*x^2+x+1)*(x^6-6*x^3-1)/((x^4-5*x^2+1)*(x^8+5*x^6+24*x^4+5*x^2+1)). [Colin Barker, Jul 16 2012]
[A041203] 1, 1, 2, 5, 7, 12, 247, 259, 506, 1271, 1777, 3048, 62737, 65785, 128522, 322829, 451351, 774180, 15934951, 16709131, 32644082, 81997295, 114641377, 196638672, 4047414817, 4244053489, 8291468306, 20826990101
a(n) = 254*a(n-6)-a(n-12). G.f.: -(x^4-x^3+2*x^2+x+1)*(x^6-6*x^3-1)/((x^6-16*x^3+1)*(x^6+16*x^3+1)). [Colin Barker, Jul 19 2012]
[A041517] 1, 1, 2, 5, 7, 12, 391, 403, 794, 1991, 2785, 4776, 155617, 160393, 316010, 792413, 1108423, 1900836, 61935175, 63836011, 125771186, 315378383, 441149569, 756527952, 24650044033, 25406571985, 50056616018, 125519804021, 175576420039, 301096224060
a(n) = 398*a(n-6) - a(n-12) for n>11 Vincenzo Librandi, Dec 19 2013
[A041975] 1, 1, 2, 5, 7, 12, 535, 547, 1082, 2711, 3793, 6504, 289969, 296473, 586442, 1469357, 2055799, 3525156, 157162663, 160687819, 317850482, 796388783, 1114239265, 1910628048, 85181873377, 87092501425, 172274374802, 431641251029, 603915625831, 1035556876860
a(n) = 542*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 28 2013
[A160794] 0, 1, 2, 5, 7, 13, 17, 28, 35, 53, 65, 94, 114, 156, 189, 248, 302, 380, 468, 569, 712, 842, 1074, 1235, 1611, 1809, 2418, 2657, 3643, 3925, 5521, 5850, 8433, 8815, 12995, 13436, 20200, 20702, 31647, 32216, 49926, 50566, 79222, 79935, 126302, 127094, 202118
a(2n) = a(2n-1) + sum(fibonacci(j),j=1..n), a(2n+1) = a(2n) + sum(prime(j),j=1..n) + 1 for n >= 1. - Nathaniel Johnston, Jun 16 2011
[A262392] 2, 5, 7, 13, 19, 31, 43, 61, 79, 103, 131, 163, 199, 241, 283, 331, 383, 443, 503, 571, 641, 715, 793, 877, 965, 1063, 1163, 1267, 1373, 1483, 1595, 1723, 1853, 1991, 2129, 2279, 2429, 2587, 2749, 2917, 3089, 3269, 3449, 3641, 3833, 4031, 4229
a(n) = Sum_{k=1..n} prime(k) + n mod 2 + 2 for n>0, a(0)=2 (from Pari code).
[A266259] 0, 2, 5, 7, 14, 16, 27, 29, 44, 46, 65, 67, 90, 92, 119, 121, 152, 154, 189, 191, 230, 232, 275, 277, 324, 326, 377, 379, 434, 436, 495, 497, 560, 562, 629, 631, 702, 704, 779, 781, 860, 862, 945, 947, 1034, 1036, 1127, 1129, 1224, 1226, 1325, 1327, 1430
a(n) = ((n+1)^2+(-1)^n*(n-1))/2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
[A133146] 2, 5, 7, 14, 18, 29, 35, 50, 58, 77, 87, 110, 122, 149, 163, 194, 210, 245, 263, 302, 322, 365, 387, 434, 458, 509, 535, 590, 618, 677, 707, 770, 802, 869, 903, 974, 1010, 1085, 1123, 1202, 1242, 1325, 1367, 1454, 1498, 1589, 1635, 1730, 1778, 1877, 1927, 2030
a(n) = 19/8 +5*n/4 +3*n^2/4 -(-1)^n*(n/4+3/8). - R. J. Mathar, Oct 15 2008
a(0)=2, a(1)=5, a(2)=7, a(3)=14, a(4)=18, a(n)=a(n-1)+2*a(n-2)- 2*a(n-3)- a(n-4)+a(n-5). - Harvey P. Dale, Aug 26 2013
[A228208] 1, 2, 5, 7, 14, 19, 37, 50, 97, 131, 254, 343, 665, 898, 1741, 2351, 4558, 6155, 11933, 16114, 31241, 42187, 81790, 110447, 214129, 289154, 560597, 757015, 1467662, 1981891, 3842389, 5188658, 10059505, 13584083, 26336126, 35563591, 68948873, 93106690
a(n) = 3*a(n-2)-a(n-4).
[A002531] 1, 1, 2, 5, 7, 19, 26, 71, 97, 265, 362, 989, 1351, 3691, 5042, 13775, 18817, 51409, 70226, 191861, 262087, 716035, 978122, 2672279, 3650401, 9973081, 13623482, 37220045, 50843527, 138907099, 189750626, 518408351, 708158977, 1934726305
a(2*n) = a(2*n-1) + a(2*n-2), a(2*n+1) = 2*a(2*n) + a(2*n-1), n>0.
a(n) = ((1+sqrt(3))^n+(1-sqrt(3))^n)/(2*2^floor(n/2)). - Bruno Berselli, Nov 10 2011
a(2*n) = (-1)^n*T(2*n,u) and a(2*n+1) = (-1)^n*1/u*T(2*n+1,u), where u = sqrt(-1/2) and T(n,x) denotes the Chebyshev polynomial of the first kind. - Peter Bala, May 01 2012
[A041387] 1, 2, 5, 7, 19, 45, 1279, 2603, 6485, 9088, 24661, 58410, 1660141, 3378692, 8417525, 11796217, 32009959, 75816135, 2154861739, 4385539613, 10925940965, 15311480578, 41548902121, 98409284820, 2797008877081, 5692427038982, 14181862955045, 19874289994027
a(n) = 1298*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 17 2013
[A041583] 1, 1, 2, 5, 7, 19, 83, 102, 185, 287, 2481, 15173, 17654, 191713, 209367, 1447915, 11792687, 13240602, 25033289, 38273891, 178128853, 394531597, 572660450, 1539852497, 2112512947, 3652365444, 126292938043, 129945303487, 256238241530, 642421786547
a(n) = 128405450990*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Dec 20 2013
[A042931] 1, 1, 2, 5, 7, 33, 40, 73, 332, 405, 1142, 1547, 2689, 168265, 170954, 339219, 849392, 1188611, 5603836, 6792447, 12396283, 56377579, 68773862, 193925303, 262699165, 456624468, 28573416181, 29030040649, 57603456830, 144236954309, 201840411139
a(n) = 28836115346*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Feb 01 2014
[A041875] 1, 2, 5, 7, 33, 700, 2833, 3533, 9899, 23331, 989801, 2002933, 4995667, 6998600, 32990067, 699790007, 2832150095, 3531940102, 9896030299, 23324000700, 989504059699, 2002332120098, 4994168299895, 6996500419993, 32980169979867, 699580069997200
a(n) = 999700*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 26 2013
[A042559] 1, 2, 5, 7, 40, 47, 87, 134, 221, 3007, 3228, 6235, 9463, 15698, 87953, 103651, 295255, 694161, 39168271, 79030703, 197229677, 276260380, 1578531577, 1854791957, 3433323534, 5288115491, 8721439025, 118666822816, 127388261841, 246055084657, 373443346498
a(n) = 39463526*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 25 2014
[A041653] 1, 1, 2, 5, 7, 47, 54, 155, 209, 364, 13313, 13677, 26990, 67657, 94647, 635539, 730186, 2095911, 2826097, 4922008, 180018385, 184940393, 364958778, 914857949, 1279816727, 8593758311, 9873575038, 28340908387, 38214483425, 66555391812, 2434208588657
a(n) = 13522*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 22 2013
[A041125] 1, 2, 5, 7, 54, 61, 176, 413, 6784, 13981, 34746, 48727, 375835, 424562, 1224959, 2874480, 47216639, 97307758, 241832155, 339139913, 2615811546, 2954951459, 8525714464, 20006380387, 328627800656, 677261981699, 1683151764054, 2360413745753, 18206047984325
a(n) = 6960*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 11 2013
[A042257] 1, 1, 2, 5, 7, 68, 75, 143, 2363, 2506, 4869, 46327, 51196, 148719, 199915, 348634, 17631615, 17980249, 35611864, 89203977, 124815841, 1212546546, 1337362387, 2549908933, 42135905315, 44685814248, 86821719563, 826081290315, 912903009878, 2651887310071

a(n) = 17831530*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 19 2014
[A041445] 1, 2, 5, 7, 103, 110, 323, 756, 23003, 46762, 116527, 163289, 2402573, 2565862, 7534297, 17634456, 536567977, 1090770410, 2718108797, 3808879207, 56042417695, 59851296902, 175745011499, 411341319900, 12515984608499, 25443310536898, 63402605682295
a(n) = 23326*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 18 2013
[A042673] 1, 2, 5, 7, 201, 208, 617, 1442, 84253, 169948, 424149, 594097, 17058865, 17652962, 52364789, 122382540, 7150552109, 14423486758, 35997525625, 50421012383, 1447785872349, 1498206884732, 4444199641813, 10386606168358, 606867357406577, 1224121320981512
a(n) = 84870*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 20 2013
[A047620] 0, 1, 2, 5, 8, 9, 10, 13, 16, 17, 18, 21, 24, 25, 26, 29, 32, 33, 34, 37, 40, 41, 42, 45, 48, 49, 50, 53, 56, 57, 58, 61, 64, 65, 66, 69, 72, 73, 74, 77, 80, 81, 82, 85, 88, 89, 90, 93, 96, 97, 98, 101, 104, 105, 106, 109, 112, 113, 114, 117, 120, 121, 122
a(n) = 2*n-3+sin(n*Pi/2). (End)
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (4n-6+I^(1-n)-I^(1+n))/2 where i=sqrt(-1).
[A212591] 0, 1, 2, 5, 8, 9, 10, 21, 32, 33, 34, 37, 40, 41, 42, 85, 128, 129, 130, 133, 136, 137, 138, 149, 160, 161, 162, 165, 168, 169, 170, 341, 512, 513, 514, 517, 520, 521, 522, 533, 544, 545, 546, 549, 552, 553, 554, 597, 640, 641, 642, 645, 648, 649, 650, 661
a(2*n-1) - a(2*n-2) = (2^(2*k+1)+1)/3 and a(2*n) - a(2*n-1) = (2^(2*k+1)+1)/3 with a(0) = a(1) = 0, where n = (2^k)*(2*m-1) for some integers k >= 0 and m > 0.
[A174438] 0, 2, 5, 8, 9, 11, 14, 17, 18, 20, 23, 26, 27, 29, 32, 35, 36, 38, 41, 44, 45, 47, 50, 53, 54, 56, 59, 62, 63, 65, 68, 71, 72, 74, 77, 80, 81, 83, 86, 89, 90, 92, 95, 98, 99, 101, 104, 107, 108, 110, 113, 116, 117, 119, 122, 125, 126, 128, 131, 134, 135, 137
a(n) = 3*(n-floor(n/4))-(3-I^n-(-I)^n-(-1)^n)/4 where I=sqrt(-1), offset=0.
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (18*n-15+i^(2*n)+(3-i)*i^(-n)+(3+i)*i^n)/8 where i=sqrt(-1). (End)
[A047387] 1, 2, 5, 8, 9, 12, 15, 16, 19, 22, 23, 26, 29, 30, 33, 36, 37, 40, 43, 44, 47, 50, 51, 54, 57, 58, 61, 64, 65, 68, 71, 72, 75, 78, 79, 82, 85, 86, 89, 92, 93, 96, 99, 100, 103, 106, 107, 110, 113, 114, 117, 120, 121, 124, 127, 128, 131, 134, 135, 138, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>1.
a(n) = 7*n/3-2+4*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 7k-2, a(3k-1) = 7k-5, a(3k-2) = 7k-6. (End)
[A039770] 1, 2, 5, 8, 10, 12, 17, 32, 34, 37, 40, 48, 57, 60, 63, 74, 76, 85, 101, 108, 114, 125, 126, 128, 136, 160, 170, 185, 192, 197, 202, 204, 219, 240, 250, 257, 273, 285, 292, 296, 304, 315, 364, 370, 380, 394, 401, 432, 438, 444, 451, 456, 468, 489, 504, 505
a(n) seems to be asymptotic to c*n^(3/2) with 1<c<1.3 - Benoit Cloitre, Sep 08 2002
[A047618] 0, 2, 5, 8, 10, 13, 16, 18, 21, 24, 26, 29, 32, 34, 37, 40, 42, 45, 48, 50, 53, 56, 58, 61, 64, 66, 69, 72, 74, 77, 80, 82, 85, 88, 90, 93, 96, 98, 101, 104, 106, 109, 112, 114, 117, 120, 122, 125, 128, 130, 133, 136, 138, 141, 144, 146, 149, 152, 154, 157, 160, 162
a(n) = 3*(n - 1) - floor((n - 1)/3) - ((n - 1)^2 % 3). - Gary Detlefs, Mar 19 2010; corrected by L. Edson Jeffery, Sep 02 2014
a(n) = floor(8*(n-1)/3). - Gary Detlefs, Jan 02 2012
a(n) = a(n-1)+a(n-3)-a(n-4), n>4, with a(1)=0, a(2)=2, a(3)=5, a(4)=8. - L. Edson Jeffery, Sep 02 2014
a(n) = ((8*n-9)+2*sin((2*n*Pi)/3)/sqrt(3))/3. - L. Edson Jeffery, Sep 02 2014
a(3k) = 8k-3, a(3k-1) = 8k-6, a(3k-2) = 8k-8. - Wesley Ivan Hurt, Jun 10 2016
[A236535] 2, 5, 8, 10, 13, 16, 18, 21, 24, 26, 29, 32, 34, 37, 40, 42, 45, 48, 50, 53, 56, 58, 61, 64, 66, 69, 72, 74, 77, 80, 82, 85, 88, 90, 93, 96, 98, 101, 104, 106, 109, 112, 114, 117, 120, 122, 125, 128, 130, 133, 136, 138, 141, 144, 146, 149, 152, 154, 157, 160, 162, 165, 168, 170, 173, 176, 178, 181, 184, 186, 189
a(n) = a(n-1)+a(n-3)-a(n-4).
[A059551] 2, 5, 8, 10, 13, 16, 18, 21, 24, 26, 29, 32, 34, 37, 40, 42, 45, 48, 50, 53, 56, 58, 61, 64, 66, 69, 72, 75, 77, 80, 83, 85, 88, 91, 93, 96, 99, 101, 104, 107, 109, 112, 115, 117, 120, 123, 125, 128, 131, 133, 136, 139, 141, 144, 147, 150, 152, 155, 158, 160, 163
a(n) = floor(n*Gamma(1/3)). - Michel Marcus, Jan 04 2015
[A182769] 2, 5, 8, 10, 13, 16, 18, 21, 24, 27, 29, 32, 35, 37, 40, 43, 46, 48, 51, 54, 56, 59, 62, 64, 67, 70, 73, 75, 78, 81, 83, 86, 89, 92, 94, 97, 100, 102, 105, 108, 110, 113, 116, 119, 121, 124, 127, 129, 132, 135, 138, 140, 143, 146, 148, 151, 154, 157, 159, 162, 165, 167, 170, 173, 175
a(n)=floor(n*(4+sqrt(2))/2).
[A117630] 2, 5, 8, 10, 13, 16, 18, 21, 24, 27, 29, 32, 35, 37, 40, 43, 46, 48, 51, 54, 56, 59, 62, 65, 67, 70, 73, 75, 78, 81, 83, 86, 89, 92, 94, 97, 100, 102, 105, 108, 111, 113, 116, 119, 121, 124, 127, 130, 132, 135, 138, 140, 143, 146, 149, 151, 154, 157, 159, 162, 165
a(n) = floor(n*log(3)/log(3/2)).
[A022843] 0, 2, 5, 8, 10, 13, 16, 19, 21, 24, 27, 29, 32, 35, 38, 40, 43, 46, 48, 51, 54, 57, 59, 62, 65, 67, 70, 73, 76, 78, 81, 84, 86, 89, 92, 95, 97, 100, 103, 106, 108, 111, 114, 116, 119, 122, 125, 127, 130, 133, 135, 138, 141, 144, 146, 149, 152, 154, 157, 160
a(n)/n converges to e because |a(n)/n-e|=|a(n)-n*e|/n < 1/n. - Hieronymus Fischer, Jan 22 2006
[A054088] 2, 5, 8, 10, 13, 16, 19, 21, 24, 27, 30, 32, 35, 38, 40, 43, 46, 49, 51, 54, 57, 60, 62, 65, 68, 71, 73, 76, 79, 81, 84, 87, 90, 92, 95, 98, 101, 103, 106, 109, 112, 114, 117, 120, 122, 125, 128, 131, 133, 136, 139, 142, 144, 147, 150
a(n) = floor(n*(1+sqrt(3))) = n + floor(n*sqrt(3)). - R. J. Mathar, Feb 26 2011
[A186540] 2, 5, 8, 10, 13, 16, 19, 21, 24, 27, 30, 32, 35, 38, 40, 43, 46, 49, 51, 54, 57, 60, 62, 65, 68, 71, 73, 76, 79, 81, 84, 87, 90, 92, 95, 98, 101, 103, 106, 109, 112, 114, 117, 120, 122, 125, 128, 131, 133, 136, 139, 142, 144, 147, 150, 152, 155, 158, 161, 163, 166, 169, 172, 174, 177, 180, 183, 185, 188, 191, 193, 196, 199, 202, 204, 207, 210, 213, 215, 218
a(n)=n+floor(sqrt(3n^2-3/2)).
[A187341] 2, 5, 8, 11, 13, 16, 19, 22, 24, 27, 30, 33, 35, 38, 41, 44, 46, 49, 52, 55, 58, 60, 63, 66, 69, 71, 74, 77, 80, 82, 85, 88, 91, 93, 96, 99, 102, 105, 107, 110, 113, 116, 118, 121, 124, 127, 129, 132, 135, 138, 140, 143, 146, 149, 152, 154, 157, 160, 163, 165, 168
a(n)=floor((5-sqrt(5))n).
[A093609] 2, 5, 8, 11, 13, 16, 19, 22, 25, 27, 30, 33, 36, 38, 41, 44, 47, 50, 52, 55, 58, 61, 63, 66, 69, 72, 75, 77, 80, 83, 86, 88, 91, 94, 97, 100, 102, 105, 108, 111, 114, 116, 119, 122, 125, 127, 130, 133, 136, 139, 141, 144, 147, 150, 152, 155, 158, 161, 164, 166, 169
a(n) = floor (n*(k+1)) where k = 1.781072417...= e^G, G = Euler's gamma constant, .577215664901...
[A059560] 2, 5, 8, 11, 14, 16, 19, 22, 25, 28, 31, 33, 36, 39, 42, 45, 47, 50, 53, 56, 59, 62, 64, 67, 70, 73, 76, 78, 81, 84, 87, 90, 93, 95, 98, 101, 104, 107, 109, 112, 115, 118, 121, 124, 126, 129, 132, 135, 138, 140, 143, 146, 149, 152, 155, 157, 160, 163, 166, 169, 172
a(n) = floor(n*(1-1/log(gamma))). - Michel Marcus, Jan 05 2015
[A022842] 2, 5, 8, 11, 14, 16, 19, 22, 25, 28, 31, 33, 36, 39, 42, 45, 48, 50, 53, 56, 59, 62, 65, 67, 70, 73, 76, 79, 82, 84, 87, 90, 93, 96, 98, 101, 104, 107, 110, 113, 115, 118, 121, 124, 127, 130, 132, 135, 138, 141, 144, 147, 149, 152, 155, 158, 161, 164
a(n) = floor(2*n*sqrt(2)). - Michel Marcus, Oct 31 2017
[A016789] 2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, 41, 44, 47, 50, 53, 56, 59, 62, 65, 68, 71, 74, 77, 80, 83, 86, 89, 92, 95, 98, 101, 104, 107, 110, 113, 116, 119, 122, 125, 128, 131, 134, 137, 140, 143, 146, 149, 152, 155, 158, 161, 164, 167, 170, 173, 176, 179
a(n) = 2*a(n-1) - a(n-2); a(0)=2, a(1)=5. - Philippe Deléham, Nov 03 2008
a(n) = 6*n - a(n-1) + 1 with a(0)=2. - Vincenzo Librandi, Aug 25 2010
[A000093] 0, 1, 2, 5, 8, 11, 14, 18, 22, 27, 31, 36, 41, 46, 52, 58, 64, 70, 76, 82, 89, 96, 103, 110, 117, 125, 132, 140, 148, 156, 164, 172, 181, 189, 198, 207, 216, 225, 234, 243, 252, 262, 272, 281, 291, 301, 311, 322, 332, 343, 353, 364, 374, 385, 396, 407, 419, 430
a(n) = floor(n*sqrt(n)). [Arkadiusz Wesolowski, Jun 01 2011]
[A257984] 2, 5, 8, 11, 15, 18, 21, 24, 27, 30, 33, 37, 40, 43, 46, 49, 52, 55, 59, 62, 65, 68, 71, 74, 77, 81, 84, 87, 90, 93, 96, 99, 103, 106, 109, 112, 115, 118, 121, 125, 128, 131, 134, 137, 140, 143, 147, 150, 153, 156, 159, 162, 165, 169, 172, 175, 178, 181, 184
a(n) = ceiling((n - 1/2)*Pi).
[A184747] 2, 5, 8, 11, 15, 18, 21, 24, 28, 31, 34, 37, 40, 44, 47, 50, 53, 57, 60, 63, 66, 70, 73, 76, 79, 83, 86, 89, 92, 95, 99, 102, 105, 108, 112, 115, 118, 121, 125, 128, 131, 134, 138, 141, 144, 147, 150, 154, 157, 160, 163, 167, 170, 173, 176, 180, 183, 186, 189, 193, 196, 199, 202, 205, 209, 212, 215, 218, 222, 225, 228, 231, 235, 238, 241, 244, 248, 251, 254, 257, 261, 264, 267, 270, 273, 277, 280, 283, 286, 290, 293, 296, 299, 303, 306, 309, 312, 316, 319, 322, 325, 328, 332, 335, 338, 341, 345, 348, 351, 354, 358, 361, 364, 367, 371, 374, 377, 380, 383, 387

a(n)=floor(n*s+h-h*s), where s=1+sqrt(5), h=1/2.
[A032765] 0, 1, 2, 5, 8, 11, 16, 21, 26, 33, 40, 47, 56, 65, 74, 85, 96, 107, 120, 133, 146, 161, 176, 191, 208, 225, 242, 261, 280, 299, 320, 341, 362, 385, 408, 431, 456, 481, 506, 533, 560, 587, 616, 645, 674, 705, 736, 767, 800, 833, 866, 901, 936, 971, 1008
a(n) = n^2 - ceiling(n(n-1)/3). G.f.: [x(1+2x^2-x^3)]/[(1+x+x^2)(1-x)^3]. - Ralf Stephan, May 05 2004
a(n) = Floor [n(n+2)/3]. - Saburo Tamura, sent by Alexandre Wajnberg, Dec 19 2005
[A193767] 2, 5, 8, 12, 14, 17, 21, 24, 26, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159, 162, 165, 168, 171, 174, 177
a(n) = 3n, except for n = 1, 2, 3, 5, 6 or 9. For the exceptions a(n) = 3n-1.
a(n) = 2*a(n-1)-a(n-2) for n>11. - Colin Barker, Oct 05 2014
[A003314] 0, 2, 5, 8, 12, 16, 20, 24, 29, 34, 39, 44, 49, 54, 59, 64, 70, 76, 82, 88, 94, 100, 106, 112, 118, 124, 130, 136, 142, 148, 154, 160, 167, 174, 181, 188, 195, 202, 209, 216, 223, 230, 237, 244, 251, 258, 265, 272, 279, 286, 293, 300, 307, 314, 321, 328, 335
a(1) = 0; a(n) = n + a([n/2]) + a(n-[n/2]). (See the Morris reference.)
[A229154] 1, 2, 5, 8, 12, 16, 21, 27, 33, 40, 48, 56, 65, 75, 85, 96, 108, 120, 133, 147, 161, 176, 192, 208, 225, 243, 261, 280, 300, 320, 341, 363, 385, 408, 432, 456, 481, 507, 533, 560, 588, 616, 645, 675, 705, 736, 768, 800, 833, 867, 901, 936, 972, 1008, 1045
a(n) = floor(n^2/3), a(3) = 2.
a(n) = n^2/3+2/9*cos((2*Pi*n)/3)-2/9. G.f.: -x^2*(x^6-2*x^5+x^4-x^3+2*x^2+1) / ((x-1)^3*(x^2+x+1)). - Colin Barker, Oct 08 2013
[A183861] 1, 2, 5, 8, 12, 17, 22, 28, 35, 42, 50, 59, 68, 78, 89, 100, 112, 125, 138, 152, 167, 182, 198, 215, 232, 250, 269, 288, 308, 329, 350, 372, 395, 418, 442, 467, 492, 518, 545, 572, 600, 629, 658, 688, 719, 750, 782, 815, 848, 882, 917, 952, 988, 1025, 1062, 1100, 1139, 1178, 1218, 1259, 1300, 1342, 1385, 1428, 1472, 1517, 1562, 1608, 1655, 1702
a(n)=n-1+ceiling((-1+n^2)/3).
[A178752] 2, 5, 8, 13, 16, 28, 32, 56, 80, 136, 208, 400, 656, 1232, 2240, 4192, 7744, 14728, 27632, 52664, 99968, 190984, 364768, 699760, 1342256, 2582120, 4971248, 9588880, 18512848, 35795104, 69273728, 134224064, 260301632, 505301920, 981707008
a(n) = sum (1/gcd(n,k) 2^s phi(gcd(n,k)/s), k=0..n-1, s in divisors(gcd(n,k))).
[A290268] 1, 2, 5, 8, 13, 18, 25, 31, 41, 49, 61, 71, 85, 97, 113, 126, 145, 160, 181, 198, 221, 240, 265, 285, 313, 335, 365, 389, 421, 447, 481, 508, 545, 574, 613, 644, 685, 718, 761, 795, 841, 877, 925, 963, 1013, 1053, 1105, 1146, 1201, 1244, 1301, 1346, 1405, 1452
a(n) = n^2/2 + n + 1 - (n mod 2)*(1/2 + floor((n + 1)/8)).
[A000982] 0, 1, 2, 5, 8, 13, 18, 25, 32, 41, 50, 61, 72, 85, 98, 113, 128, 145, 162, 181, 200, 221, 242, 265, 288, 313, 338, 365, 392, 421, 450, 481, 512, 545, 578, 613, 648, 685, 722, 761, 800, 841, 882, 925, 968, 1013, 1058, 1105, 1152, 1201, 1250, 1301, 1352, 1405
a(2*n) = 2*n^2, a(2*n+1) = 2*n^2 + 2*n + 1.
a(n) = (2*n^2 + 1 - (-1)^n) / 4. a(0)=0, a(1)=1, a(n+1) = n+1+max(2*floor(a(n)/2), 3*floor(a(n)/3)). - Benoit Cloitre, Nov 06 2002
a(n) = a(n-2) + 2n - 2. - Paul Barry, Jul 17 2004
a(n) = Sum_{k=0..n} (k^2 - k + 1 - 0^k)*(-1)^(n-k);
a(n) = Sum_{k=0..n} (1 + (-1)^(n-k) - 0^(n-k))*k. (End)
a(0) = 0, a(n+1) = a(n) + 2*floor(n/2) + 1.
[A083704] 0, 0, 1, 2, 5, 8, 13, 19, 25, 33, 41, 51, 61, 73, 86, 99, 114, 129, 146, 163, 182, 202, 222, 244, 266, 290, 315, 340, 367, 394, 423, 452, 483, 515, 547, 581, 615, 651, 687, 725, 764, 803, 844, 885, 928, 971, 1016, 1062, 1108, 1156, 1204, 1254, 1305, 1356, 1409
a(n) = n(n-3)/2 + ceiling(n/sqrt(3))
[A266287] 0, 2, 5, 8, 14, 18, 27, 32, 44, 50, 65, 72, 90, 98, 119, 128, 152, 162, 189, 200, 230, 242, 275, 288, 324, 338, 377, 392, 434, 450, 495, 512, 560, 578, 629, 648, 702, 722, 779, 800, 860, 882, 945, 968, 1034, 1058, 1127, 1152, 1224, 1250, 1325, 1352, 1430
a(n) = (2*n^2+5*n+(-1)^n*(n-1)+1)/4.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
[A006918] 0, 1, 2, 5, 8, 14, 20, 30, 40, 55, 70, 91, 112, 140, 168, 204, 240, 285, 330, 385, 440, 506, 572, 650, 728, 819, 910, 1015, 1120, 1240, 1360, 1496, 1632, 1785, 1938, 2109, 2280, 2470, 2660, 2870, 3080, 3311, 3542, 3795, 4048, 4324, 4600, 4900, 5200, 5525, 5850, 6201, 6552, 6930
a(0)=0, a(1)=1, a(n) = (2/(n-1))*a(n-1) + ((n+3)/(n-1))*a(n-2). - Benoit Cloitre, Jun 28 2004
a(n) = floor(binomial(n+4, 4)/(n+4)) - floor((n+2)/8)(1+(-1)^n)/2. - Paul Barry, Jan 01 2005
a(-4 - n) = -a(n).
a(n) = (n+2)*(2*n*(n+4)-3*(-1)^n+3)/48. - Bruno Berselli, May 21 2011
a(2k) = 2*C(k+2,3). - Jon Perry, Nov 10 2014
[A011842] 0, 0, 0, 0, 1, 2, 5, 8, 14, 21, 30, 41, 55, 71, 91, 113, 140, 170, 204, 242, 285, 332, 385, 442, 506, 575, 650, 731, 819, 913, 1015, 1123, 1240, 1364, 1496, 1636, 1785, 1942, 2109, 2284, 2470, 2665, 2870, 3085
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-8) - 3*a(n-9) + 3*a(n-10) - a(n-11).
a(n) = floor(binomial(n+1,4)/(n+1)). - Gary Detlefs, Nov 23 2011
[A077866] 1, 2, 5, 8, 15, 22, 37, 52, 83, 114, 177, 240, 367, 494, 749, 1004, 1515, 2026, 3049, 4072, 6119, 8166, 12261, 16356, 24547, 32738, 49121, 65504, 98271, 131038, 196573, 262108, 393179, 524250, 786393, 1048536, 1572823, 2097110, 3145685, 4194260, 6291411, 8388562
a(n)=2^(n/2)(3+2sqrt(2)+(3-2sqrt(2))(-1)^n)-n-5. - Paul Barry, Apr 23 2004
a(0)=1, a(1)=2, a(2)=5, a(3)=8, a(n)=2*a(n-1)+a(n-2)-4*a(n-3)+2*a(n-4). - Harvey P. Dale, Feb 16 2013
[A073335] 0, 1, 2, 5, 8, 15, 23, 39, 58, 89, 128, 189, 264, 375, 515, 713, 960, 1301, 1726, 2298, 3011, 3948, 5113, 6625, 8492, 10880, 13825, 17545, 22108, 27823, 34800, 43465, 54003, 66983, 82709, 101960, 125180, 153432, 187397, 228490, 277707, 336972
a(n) = Sum_{k=1..n} bigomega(k)*numbpart(n-k).
[A066629] 1, 2, 5, 8, 15, 24, 41, 66, 109, 176, 287, 464, 753, 1218, 1973, 3192, 5167, 8360, 13529, 21890, 35421, 57312, 92735, 150048, 242785, 392834, 635621, 1028456, 1664079, 2692536, 4356617, 7049154, 11405773, 18454928, 29860703, 48315632
a(0)=1, a(1)=2, a(2)=5, a(3)=8, a(n)=a(n-1)+2*a(n-2)-a(n-3)-a(n-4). - Harvey P. Dale, Oct 09 2011
[A154327] 1, 1, 2, 5, 8, 15, 24, 41, 66, 109, 176, 287, 464, 753, 1218, 1973, 3192, 5167, 8360, 13529, 21890, 35421, 57312, 92735, 150048, 242785, 392834, 635621, 1028456, 1664079, 2692536, 4356617, 7049154, 11405773, 18454928, 29860703, 48315632, 78176337, 126491970, 204668309, 331160280, 535828591, 866988872
a(n) = 0^n - (3 + (-1)^n)/2 + 2*Fibonacci(n+1).
[A081660] 1, 2, 5, 8, 15, 26, 49, 92, 179, 350, 693, 1376, 2743, 5474, 10937, 21860, 43707, 87398, 174781, 349544, 699071, 1398122, 2796225, 5592428, 11184835, 22369646, 44739269, 89478512, 178956999, 357913970, 715827913, 1431655796, 2863311563
a(n) = 2^(n+1)/3+n+(-1)^n/3.
[A080084] 1, 2, 5, 8, 16, 20, 29, 33, 41, 56, 60, 76, 85, 89, 98, 114, 129, 134, 151, 160, 166, 180, 192, 207, 229, 240, 244, 254, 260, 271, 308, 321, 338, 342, 369, 374, 391, 409, 418, 435, 451, 457, 484, 492, 502, 507, 541, 572, 585, 590, 601, 616, 623, 653, 674, 689
a(n) = sum_{m=1..n} sum_{k=1..L} floor(p_n /(p_m)^k), where L = ceiling(log(p_n)/log(p_m)).
[A295998] 1, 2, 5, 8, 16, 23, 41, 56, 93, 124, 199, 262, 413, 541, 844, 1101, 1708, 2223, 3438, 4470, 6901, 8966, 13829, 17960, 27687, 35950, 55405, 71932, 110843, 143898, 221721, 287832, 443479, 575702, 886997, 1151444, 1774036, 2302931, 3548116, 4605907, 7096278
a(0) = 1, a(1) = 2, b(0) = 3, so that a(2) = 5, b(1) = 4.
[A096541] 0, 0, 1, 2, 5, 8, 16, 24, 41, 61, 95, 136, 204, 284, 407, 560, 779, 1050, 1432, 1901, 2543, 3338, 4393, 5698, 7411, 9513, 12226, 15562, 19803, 24993, 31538, 39506, 49456, 61546, 76499, 94603, 116858, 143679, 176431, 215802, 263576, 320796, 389900
a(n) = Sum_{k=1..n} (tau(k)-1)*numbpart(n-k). - Vladeta Jovovic, Jun 26 2004
[A280373] 1, 2, 5, 8, 16, 40, 84, 130, 257, 640, 1344, 2080, 4096, 10240, 21504, 33280, 65536, 163840, 344064, 532480, 1048576, 2621440, 5505024, 8519680, 16777216, 41943040, 88080384, 136314880, 268435456, 671088640, 1409286144, 2181038080, 4294967296, 10737418240
a(n) = 16*a(n-4) for n>3.
[A216307] 2, 5, 8, 17, 23, 26, 35, 37, 38, 44, 50, 56, 59, 65, 73, 101, 110, 112, 122, 128, 143, 149, 154, 155, 161, 175, 197, 206, 233, 239, 254, 269, 290, 296, 308, 320, 331, 332, 353, 373, 392, 401, 407, 413, 425, 428, 464, 467, 479, 490, 499, 500, 511, 527, 530
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012

[A062318] 0, 1, 2, 5, 8, 17, 26, 53, 80, 161, 242, 485, 728, 1457, 2186, 4373, 6560, 13121, 19682, 39365, 59048, 118097, 177146, 354293, 531440, 1062881, 1594322, 3188645, 4782968, 9565937, 14348906, 28697813, 43046720, 86093441, 129140162
a(n) = 2*3^(n/2-1)-1 if n is even; a(n) = 3^(n/2-1/2)-1 if n is odd. - Emeric Deutsch, Feb 03 2005, offset updated
a(n) = 2^((1+(-1)^n)/2) * 3^((2*n-3-(-1)^n)/4) - 1. - Luce ETIENNE, Aug 29 2014
[A259580] 2, 5, 8, 17, 30, 50, 78, 116, 162, 227, 300, 389, 498, 628, 766, 940, 1128, 1347, 1584, 1855, 2146, 2486, 2838, 3236, 3660, 4135, 4626, 5177, 5754, 6392, 7050, 7776, 8524, 9353, 10204, 11127, 12078, 13114, 14170, 15328, 16500, 17775, 19068, 20461, 21900
a(n) = Sum_{m=1..n} Sum_{k=0..m-1} floor((n*k + x)/m), where x = 2.
[A103745] 1, 2, 5, 8, 17, 34, 65, 128, 257, 514, 1029, 2048, 4097, 8194, 16385, 32768, 65537, 131074, 262149, 524296, 1048577, 2097154, 4194305, 8388608, 16777217, 33554434, 67103869, 134217728, 268435457
a(n) = Sum_{ k>= 1, k==n mod 2^k } 2^(k - 1). - N. J. A. Sloane and David Applegate, Mar 22 2005.
[A243094] 1, 2, 5, 8, 19, 44, 92, 201, 444, 965, 2104, 4602, 10045, 21924, 47879, 104540, 228236, 498337, 1088072, 2375657, 5186976, 11325186, 24727205, 53988976, 117878715, 257374492, 561947340, 1226946953, 2678896484, 5849059949, 12770744632, 27883440986, 60880261949
a(n) = a(n-1) + a(n-2) + 3*a(n-3) + a(n-4).
[A104721] 1, 2, 5, 8, 20, 32, 80, 128, 320, 512, 1280, 2048, 5120, 8192, 20480, 32768, 81920, 131072, 327680, 524288, 1310720, 2097152, 5242880, 8388608, 20971520, 33554432, 83886080, 134217728, 335544320, 536870912, 1342177280, 2147483648
a(n)=9*2^n/8+(-2)^n/8-0^n/4
[A245191] 1, 2, 5, 8, 20, 34, 85, 128, 320, 544, 1360, 2056, 5140, 8738, 21845, 32768, 81920, 139264, 348160, 526336, 1315840, 2236928, 5592320, 8388736, 20971840, 35652128, 89130320, 134744072, 336860180, 572662306, 1431655765, 2147483648, 5368709120, 9126805504
a(n) = Sum_{i>=0, i==n mod 2} (binomial(2n+2,n+2+i) mod 2)*2^i.
[A121568] 1, 1, 2, 5, 8, 21, 34, 89, 377, 610, 2584, 6765, 10946, 28657, 121393, 514229, 832040, 3524578, 9227465, 14930352, 63245986, 165580141, 701408733, 4807526976, 12586269025, 20365011074, 53316291173, 86267571272, 225851433717
a(n) = Fibonacci[(Prime[n]-1)/2], n>1.
[A007369] 2, 5, 9, 10, 11, 16, 17, 19, 21, 22, 23, 25, 26, 27, 29, 33, 34, 35, 37, 41, 43, 45, 46, 47, 49, 50, 51, 52, 53, 55, 58, 59, 61, 64, 65, 66, 67, 69, 70, 71, 73, 75, 76, 77, 79, 81, 82, 83, 85, 86, 87, 88, 89, 92, 94, 95, 97, 99, 100, 101, 103, 105, 106, 107, 109, 111, 113
a(n) < 2n + sqrt(8n). - Charles R Greathouse IV, Oct 23 2015
[A100530] 0, 2, 5, 9, 10, 12, 15, 19, 20, 22, 25, 29, 30, 32, 35, 39, 40, 42, 45, 49, 50, 52, 55, 59, 60, 62, 65, 69, 70, 72, 75, 79, 80, 82, 85, 89, 90, 92, 95, 99, 100, 102, 105, 109, 110, 112, 115, 119, 120, 122, 125, 129, 130, 132, 135, 139, 140, 142, 145, 149, 150, 152, 155
a(n) = a(n-1) + Mod[n,4] + 1; a(0)=0.
[A055394] 2, 5, 9, 10, 12, 17, 24, 26, 28, 31, 33, 36, 37, 43, 44, 50, 52, 57, 63, 65, 68, 72, 73, 76, 80, 82, 89, 91, 100, 101, 108, 113, 122, 126, 127, 128, 129, 134, 141, 145, 148, 150, 152, 161, 164, 170, 171, 174, 177, 185, 189, 196, 197, 204, 206, 208, 217, 220, 223
a(n) » n^(6/5). - Charles R Greathouse IV, May 15 2015
[A047619] 1, 2, 5, 9, 10, 13, 17, 18, 21, 25, 26, 29, 33, 34, 37, 41, 42, 45, 49, 50, 53, 57, 58, 61, 65, 66, 69, 73, 74, 77, 81, 82, 85, 89, 90, 93, 97, 98, 101, 105, 106, 109, 113, 114, 117, 121, 122, 125, 129, 130, 133, 137, 138, 141, 145, 146, 149, 153, 154, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-24-3*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-3, a(3k-1) = 8k-6, a(3k-2) = 8k-7. (End)
[A063957] 2, 5, 9, 12, 15, 19, 22, 26, 29, 32, 36, 39, 43, 46, 50, 53, 56, 60, 63, 67, 70, 73, 77, 80, 84, 87, 90, 94, 97, 101, 104, 108, 111, 114, 118, 121, 125, 128, 131, 135, 138, 142, 145, 149, 152, 155, 159, 162, 166, 169, 172, 176, 179, 183, 186, 189, 193, 196, 200
a(n) = round((n - 1/2)*(2 + sqrt(2))) = round(n*3.4142...-1.7071...).
[A184579] 2, 5, 9, 12, 15, 19, 22, 26, 29, 33, 36, 39, 43, 46, 50, 53, 56, 60, 63, 67, 70, 73, 77, 80, 84, 87, 91, 94, 97, 101, 104, 108, 111, 114, 118, 121, 125, 128, 132, 135, 138, 142, 145, 149, 152, 155, 159, 162, 166, 169, 172, 176, 179, 183, 186, 190, 193, 196, 200, 203, 207, 210, 213, 217, 220, 224, 227, 231, 234, 237, 241, 244, 248, 251, 254, 258, 261, 265, 268, 271, 275, 278, 282, 285, 289, 292, 295, 299, 302, 306, 309, 312, 316, 319, 323, 326, 330, 333, 336, 340, 343, 347, 350, 353, 357, 360, 364, 367, 371, 374, 377, 381, 384, 388, 391, 394, 398, 401, 405, 408
a(n)=floor[(n-1/3)(2+sqrt(2))].
[A047385] 2, 5, 9, 12, 16, 19, 23, 26, 30, 33, 37, 40, 44, 47, 51, 54, 58, 61, 65, 68, 72, 75, 79, 82, 86, 89, 93, 96, 100, 103, 107, 110, 114, 117, 121, 124, 128, 131, 135, 138, 142, 145, 149, 152, 156, 159, 163, 166, 170
a(n) = 7*n-a(n-1)-7, n>1. [Vincenzo Librandi, Aug 05 2010]
a(n) = (14*n-(-1)^n-7)/4. - Bruno Berselli, Dec 05 2011
a(n) = 4n - 2 - floor(n/2). - Wesley Ivan Hurt, Oct 16 2013
[A276217] 2, 5, 9, 12, 16, 20, 24, 29, 33, 38, 43, 48, 53, 59, 64, 69, 75, 81, 87, 93, 99, 105, 111, 117, 124, 130, 137, 143, 150, 157, 164, 171, 178, 185, 192, 200, 207, 214, 222, 229, 237, 245, 252, 260, 268, 276, 284, 292, 300, 308, 317, 325, 333, 342, 350, 359
a(n) = n + floor(n^(s/r)); the complement is given by n + floor(n^(r/s)).
[A063203] 2, 5, 9, 13, 17, 19, 25, 27, 31, 35, 39, 41, 47, 49, 53, 57, 61, 63, 69, 71, 75, 79, 83, 85, 91, 93, 97, 101, 105, 107, 113, 115, 119, 123, 127, 129, 135, 137, 141, 145, 149, 151, 157, 159, 163, 167, 171, 173, 179, 181
a(n) = a(n-2)+a(n-3)-a(n-5) for n>6. G.f.: x*(2 +5*x +7*x^2 +6*x^3 +3*x^4 -x^5)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A267531] 0, 2, 5, 9, 13, 18, 23, 29, 35, 42, 49, 57, 65, 74, 83, 93, 103, 114, 125, 137, 149, 162, 175, 189, 203, 218, 233, 249, 265, 282, 299, 317, 335, 354, 373, 393, 413, 434, 455, 477, 499, 522, 545, 569, 593, 618, 643, 669, 695, 722, 749, 777, 805, 834, 863, 893
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 4.
[A120615] 0, 1, 2, 5, 9, 13, 19, 25, 33, 42, 51, 62, 74, 86, 100, 114, 130, 147, 164, 183, 202, 223, 245, 267, 291, 316, 341, 368, 395, 424, 454, 484, 516, 549, 582, 617, 652, 689, 727, 765, 805, 845, 887, 930, 973, 1018, 1064, 1110, 1158, 1206, 1256, 1307, 1358, 1411
a(n)=n*(n-3)/2+ceil(n/phi)
[A038707] 0, 0, 2, 5, 9, 13, 19, 26, 34, 42, 52, 63, 75, 87, 101, 116, 132, 148, 166, 185, 205, 225, 247, 270, 294, 318, 344, 371, 399, 427, 457, 488, 520, 552, 586, 621, 657, 693, 731, 770, 810, 850, 892, 935, 979, 1023, 1069, 1116, 1164, 1212, 1262
a(0)=0, a(1)=0, a(2)=2, a(3)=5, a(4)=9, a(5)=13, a(n)=2*a(n-1)- a(n-2)+ a(n-4)-2*a(n-5)+a(n-6). - Harvey P. Dale, Dec 27 2015
a(n)=Floor(n(1+2*n))/4), - Harvey P. Dale, Dec 27 2015
[A290140] 1, 2, 5, 9, 13, 19, 27, 39, 57, 85, 129, 199, 311, 491, 781, 1249, 2005, 3227, 5203, 8399, 13569, 21933, 35465, 57359, 92783, 150099, 242837, 392889, 635677, 1028515, 1664139, 2692599, 4356681, 7049221, 11405841, 18454999, 29860775, 48315707, 78176413
a(n) = -5 + (2^(-n)*((1-sqrt(5))^n*(1+sqrt(5)) + (-1+sqrt(5))*(1+sqrt(5))^n)) / sqrt(5) + 2*(1+n) for n>2.
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>6.
[A160663] 2, 5, 9, 14, 19, 26, 33, 41, 50, 60, 70, 82, 93, 105, 119, 134, 147, 164, 179, 197, 215, 234, 251, 272, 293, 314, 336, 359, 381, 407, 430, 456, 483, 507, 535, 566, 594, 623, 652, 686, 714, 748, 780, 812, 849, 883, 918, 956, 992, 1030, 1068, 1107, 1141, 1181
a(n) = card(A+A) where A={k^2} k=1..n and A+A = {a,b,a+b where (a,b) in A^2}.
a(n) « n^2/sqrt(log n). - Charles R Greathouse IV, Oct 30 2015
[A266450] 0, 2, 5, 9, 14, 19, 28, 33, 46, 51, 68, 73, 94, 99, 124, 129, 158, 163, 196, 201, 238, 243, 284, 289, 334, 339, 388, 393, 446, 451, 508, 513, 574, 579, 644, 649, 718, 723, 796, 801, 878, 883, 964, 969, 1054, 1059, 1148, 1153, 1246, 1251, 1348, 1353, 1454
a(n) = (2*n^2+2*((-1)^n+3)*n-7*(-1)^n-1)/4 for n>2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>7.
[A132336] 0, 2, 5, 9, 14, 20, 27, 35, 44, 54, 65, 77, 90, 104, 119, 135, 152, 170, 189, 209, 230, 252, 275, 299, 324, 350, 377, 405, 434, 464, 495, 495, 528, 562, 597, 633, 670, 708, 747, 787, 828, 870, 913, 957, 1002, 1048, 1095, 1143, 1192, 1242, 1293, 1345, 1398, 1452
a(n) = n(n+1)/2 - (2r^6+6r^5+5r^4-r^2)/12.
[A272370] 0, 2, 5, 9, 14, 20, 27, 35, 44, 54, 65, 77, 90, 104, 119, 135, 152, 170, 189, 209, 230, 252, 275, 299, 324, 350, 377, 405, 434, 464, 495, 527, 559, 591, 623, 655, 687, 719, 751, 783, 815, 847, 879, 911, 943, 975, 1007, 1039, 1071, 1103, 1135, 1167, 1199, 1231, 1263, 1295
a(n) = (n-1)*(n+2)/2 if n <32 else 32*n-497 if n < 128.

[A000096] 0, 2, 5, 9, 14, 20, 27, 35, 44, 54, 65, 77, 90, 104, 119, 135, 152, 170, 189, 209, 230, 252, 275, 299, 324, 350, 377, 405, 434, 464, 495, 527, 560, 594, 629, 665, 702, 740, 779, 819, 860, 902, 945, 989, 1034, 1080, 1127, 1175, 1224, 1274, 1325, 1377, 1430, 1484, 1539, 1595, 1652, 1710, 1769
a(n) = a(n-1) + n + 1. - Bryan Jacobs (bryanjj(AT)gmail.com), Apr 01 2005
a(n) = 2*t(n) - t(n-1) where t() are the triangular numbers, e.g., a(5) = 2*t(5) - t(4) = 2*15 - 10 = 20. - Jon Perry, Jul 23 2003
a(-3-n) = a(n). - Michael Somos, May 26 2004
a(n) = C(3+n, 2) - C(3+n, 1). - Zerinvary Lajos, Dec 09 2005
a(n) = 3a(n-1) - 3a(n-2) + a(n-3). - Paul Curtz, Jan 02 2008
a(n) = Sum_{k=1..n} (k+1)!/k!. - Gary Detlefs, Aug 03 2010
[A026053] 1, 2, 5, 9, 14, 21, 29, 40, 53, 68, 86, 106, 130, 157, 187, 221, 258, 300, 346, 396, 451, 510, 575, 645, 720, 801, 887, 980, 1079, 1184, 1296, 1414, 1540, 1673, 1813, 1961, 2116, 2280, 2452, 2632, 2821, 3018, 3225, 3441, 3666, 3901, 4145, 4400, 4665, 4940, 5226, 5522, 5830, 6149, 6479, 6821
a(n)=(n + 2)*(n^2 + 10*n + 15)/30 - 1/5*(1 + (- 1/2 + 3/10*5^(1/2))*cos(2*n*Pi/5) + (1/5*2^(1/2)*(5 + 5^(1/2))^(1/2) + 1/10*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(2*n*Pi/5) + (- 1/2 - 3/10*5^(1/2))*cos(4*n*Pi/5) + (- 1/10*2^(1/2)*(5 + 5^(1/2))^(1/2) + 1/5*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(4*n*Pi/5)) [From Richard Choulet, Dec 14 2008]
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3) +a(n-5) -3*a(n-6) +3*a(n-7) -a(n-8). G.f.: -x^2*(-1+x-2*x^2+x^3)/((x^4+x^3+x^2+x+1) * (x-1)^4). [From R. J. Mathar, Oct 05 2009]
[A199935] 0, 0, 2, 5, 9, 14, 22, 36, 60, 99, 161, 260, 420, 680, 1102, 1785, 2889, 4674, 7562, 12236, 19800, 32039, 51841, 83880, 135720, 219600, 355322, 574925, 930249, 1505174, 2435422, 3940596, 6376020, 10316619, 16692641, 27009260, 43701900, 70711160, 114413062, 185124225
a(2)=0, a(3)=0, a(4)=2, a(5)=5, a(6)=9, a(n)=3*a(n-1)-3*a(n-2)+ a(n-3)+ a(n-4)-a(n-5). - Harvey P. Dale, Jul 04 2013
[A090937] 1, 2, 5, 9, 14, 23, 30, 41, 50, 61, 72, 85, 98, 113, 128, 145, 162, 181, 200, 221, 242, 265, 288, 313, 338, 365, 392, 421, 450, 481, 512, 545, 578, 613, 648, 685, 722, 761, 800, 841, 882, 925, 968, 1013, 1058, 1105, 1152, 1201, 1250, 1301, 1352, 1405, 1458
a(2n-1) = 2n^2, a(2n) = 2n^2 + 2n + 1, for n > 4.
[A184535] 1, 2, 5, 9, 15, 21, 29, 38, 48, 60, 72, 86, 101, 117, 135, 153, 173, 194, 216, 240, 264, 290, 317, 345, 375, 405, 437, 470, 504, 540, 576, 614, 653, 693, 735, 777, 821, 866, 912, 960, 1008, 1058, 1109, 1161, 1215, 1269, 1325, 1382, 1440, 1500, 1560, 1622, 1685, 1749, 1815, 1881, 1949, 2018, 2088, 2160, 2232, 2306, 2381
a(n) = floor(1/{(5+n^3)^(1/3)}), where {}=fractional part.
a(n) = floor(3/5*n^2) for n >= 2.
[A195014] 0, 2, 5, 9, 15, 21, 30, 38, 50, 60, 75, 87, 105, 119, 140, 156, 180, 198, 225, 245, 275, 297, 330, 354, 390, 416, 455, 483, 525, 555, 600, 632, 680, 714, 765, 801, 855, 893, 950, 990, 1050, 1092, 1155, 1199, 1265, 1311, 1380, 1428, 1500, 1550, 1625, 1677
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = (10*n^2 + 18*n + 3 + (2*n - 3)*(-1)^n)/16. - Luce ETIENNE, Aug 11 2014
[A176691] 2, 5, 9, 15, 25, 43, 77, 143, 273, 531, 1045, 2071, 4121, 8219, 16413, 32799, 65569, 131107, 262181, 524327, 1048617, 2097195, 4194349, 8388655, 16777265, 33554483, 67108917, 134217783, 268435513, 536870971, 1073741885, 2147483711
a(n) = +4*a(n-1) -5*a(n-2) +2*a(n-3).
[A175287] 0, 1, 2, 5, 9, 16, 25, 38, 54, 75, 100, 131, 167, 210, 259, 316, 380, 453, 534, 625, 725, 836, 957, 1090, 1234, 1391, 1560, 1743, 1939, 2150, 2375, 2616, 2872, 3145, 3434, 3741, 4065, 4408, 4769, 5150, 5550, 5971, 6412, 6875, 7359, 7866, 8395, 8948, 9524, 10125, 10750
a(n) = round((2*n+1)*(2*n^2+2*n+9)/48).
a(n) = floor((n+1)*(2*n^2+n+9)/24).
a(n) = ceiling((2*n^3+3*n^2+10*n)/24).
a(n) = round((2*n^3+3*n^2+10*n)/24).
a(n) = a(n-4)+n^2-3*n+5 , n>3.
a(n) = (2*n*(2*n^2+3*n+10)-9*(-1)^n+9)/48. - Bruno Berselli, Dec 03 2010
[A007979] 1, 2, 5, 9, 16, 25, 39, 56, 79, 107, 142, 183, 233, 290, 357, 433, 520, 617, 727, 848, 983, 1131, 1294, 1471, 1665, 1874, 2101, 2345, 2608, 2889, 3191, 3512, 3855, 4219, 4606, 5015, 5449, 5906
a(n) = floor((2*n^3+3*n^2+24*n+18)/18). - Tani Akinari, Jun 26 2013
[A097701] 1, 2, 5, 9, 16, 25, 39, 56, 80, 109, 147, 192, 249, 315, 396, 489, 600, 726, 874, 1040, 1232, 1446, 1690, 1960, 2265, 2600, 2975, 3385, 3840, 4335, 4881, 5472, 6120, 6819, 7581, 8400, 9289, 10241, 11270, 12369, 13552, 14812, 16164, 17600, 19136
a(n) = floor((n + 1) * (9*(-1)^n + n^3 + 17*n^2 + 95*n + 184)/288 + 1/2). - Tani Akinari, Oct 07 2012
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) - a(n-4) + a(n-5) + 3*a(n-6) - a(n-7) - 2*a(n-8) + a(n-9) for n >= 9, with initial values as shown. - Harvey P. Dale, May 20 2013
a(n) = (6*n*(9*((-1)^n + 31) + n*(n*(n + 18) + 112)) + 243*(-1)^n + 128*cos((2*Pi*n)/3) + 1357)/1728. - Ilya Gutkovskiy, Apr 23 2016
a(n) = 1 + 175*n/288 + 47*n^2/144 + n^3/16 + n^4/288 + (9/16 + n/8)*floor(n/2) + 2*floor(n/3)/9 + floor((n+1)/3)/9. - Vaclav Kotesovec, Apr 24 2016
[A014739] 1, 2, 5, 9, 16, 27, 45, 74, 121, 197, 320, 519, 841, 1362, 2205, 3569, 5776, 9347, 15125, 24474, 39601, 64077, 103680, 167759, 271441, 439202, 710645, 1149849, 1860496, 3010347, 4870845, 7881194, 12752041, 20633237, 33385280, 54018519, 87403801
a(n) = 2*a(n-1) - a(n-3). - Vincenzo Librandi, Dec 31 2010
[A130752] 2, 5, 9, 16, 31, 63, 128, 257, 513, 1024, 2047, 4095, 8192, 16385, 32769, 65536, 131071, 262143, 524288, 1048577, 2097153, 4194304, 8388607, 16777215, 33554432, 67108865, 134217729, 268435456, 536870911, 1073741823, 2147483648, 4294967297, 8589934593
a(0) = 2; a(1) = 5; a(2) = 9; for n > 2, a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3).
a(n) = 2^(n+1) + (2*sin((Pi*n)/3))/sqrt(3). - Colin Barker, Jan 20 2017
[A271318] 1, 1, 2, 5, 9, 16, 33, 67, 126, 239, 477, 946, 1809, 3471, 6858, 13515, 26001, 50100, 98577, 193705, 373734, 721691, 1416933, 2779780, 5372001, 10386841, 20366802, 39915887, 77216409, 149422384, 292749633, 573363693, 1109898126
a(n) = Sum_{k=0..n} Sum_{j=floor(n/2)..(n+k)/2} 4^(j-k)*binomial(k,2*j-n)*binomial((2*j-n)/2,j-k).
[A093694] 1, 2, 5, 9, 17, 27, 46, 69, 108, 158, 234, 331, 476, 657, 915, 1244, 1694, 2262, 3029, 3988, 5257, 6844, 8901, 11461, 14749, 18809, 23958, 30304, 38263, 48018, 60167, 74977, 93276, 115509, 142772, 175759, 215991, 264449, 323216, 393772, 478884
a(n) = Sum_k=1^p(n) (nops(p(k, n)) + 1), where p(n) is the number of partitions of n and nops(p(k, n)) is the number of parts in the k-th partition p(n, k) of n.
a(n) = Sum_k=1^p(n) nops(p(k, n)[subject to: at least one p(l, k, n) = 1]; p(n) = number of partitions of n, p(k, n) = k-th partition, p(l, k, n) = l-th part in the k-th partition p(k, n) of integer n.
[A129696] 1, 2, 5, 9, 17, 29, 50, 83, 138, 226, 370, 602, 979, 1588, 2575, 4171, 6755, 10935, 17700, 28645, 46356, 75012, 121380, 196404, 317797, 514214, 832025, 1346253, 2178293, 3524561, 5702870, 9227447, 14930334, 24157798, 39088150, 63245966
a(n) = Sum_{k=0..floor(n/2)} (Sum_{j=0..n-2*k} Fibonacci(j+1)). (End)
a(n+1) = a(n-1) + a(n) + 1 + floor(n/2) for n>1, a(0)=1, a(1)=2. - Alex Ratushnyak, Jul 30 2012
a(n) = Fibonacci(n+3) - 2 - floor(n/2). - Emeric Deutsch, Nov 22 2014
a(n) = (-5/4 - (-1)^n/4 + (2^(-n)*((1 - t)^n*(-2 + t) + (1 + t)^n*(2 + t)))/t + (-1 - n)/2), where t=sqrt(5). - Colin Barker, Feb 09 2017
[A295724] 0, 0, 1, 2, 5, 9, 18, 31, 57, 96, 169, 281, 482, 795, 1341, 2200, 3669, 5997, 9922, 16175, 26609, 43296, 70929, 115249, 188226, 305523, 497845, 807464, 1313501, 2129157, 3459042, 5604583, 9096393, 14733744, 23895673, 38694953, 62721698, 101547723, 164531565
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 0, a(1) = 0, a(2) = 1, a(3) = 2.
[A077865] 1, 2, 5, 9, 18, 32, 60, 107, 196, 351, 637, 1144, 2068, 3720, 6713, 12086, 21793, 39253, 70754, 127468, 229724, 413907, 745888, 1343979, 2421849, 4363920, 7863640, 14169632, 25532993, 46008618, 82904973, 149389217, 269190546, 485064008, 874055884, 1574993355
a(n)=a(n-1)+2a(n-2)-a(n-3)+1 for n>=3. a(n)=2a(n-1)+a(n-2)-3a(n-3)+a(n-4) for n>=4. - Clark Kimberling, Jun 26 2004
[A289976] 0, 0, 1, 1, 2, 5, 9, 18, 36, 70, 137, 268, 522, 1017, 1980, 3852, 7492, 14568, 28321, 55051, 106999, 207952, 404134, 785366, 1526186, 2965752, 5763103, 11198858, 21761463, 42286357, 82169547, 159668921, 310262351, 602888757, 1171506956, 2276419286
a(n) = 2*a(n-1) + a(n-2) - a(n-3) - 2*a(n-4) - a(n-5) + a(n-6).
[A077947] 1, 1, 2, 5, 9, 18, 37, 73, 146, 293, 585, 1170, 2341, 4681, 9362, 18725, 37449, 74898, 149797, 299593, 599186, 1198373, 2396745, 4793490, 9586981, 19173961, 38347922, 76695845, 153391689, 306783378, 613566757, 1227133513, 2454267026, 4908534053, 9817068105

a(n) = a(n-1)+a(n-2)+2*a(n-3). - Paul Curtz, May 23 2008
a(n) = round(2^(n+2)/7). - Mircea Merca, Dec 28 2010
a(n) = 4*2^n/7 + 3*cos(2*Pi*n/3)/7 + sqrt(3)*sin(2*Pi*n/3)/21. - Paul Barry, Jan 23 2004
a(n) = sum(sum(binomial(k,j)*binomial(j,n-3*k+2*j)*2^(k-j),j,0,k),k,1,n), n>0. - Vladimir Kruchinin, Sep 07 2010
a(n) = 1/14*(2^(n + 3) + (-1)^n*((-1)^floor(n/3) + 4*(-1)^floor((n + 1)/3) + 2*(-1)^floor((n + 2)/3) + (-1)^floor((n + 4)/3))). - John M. Campbell, Dec 23 2016
a(n) = 1/63*(9*2^(2 + n) + (-1)^n*(2 + 9*floor(n/6) - 32*floor((n + 5)/6) + 24*floor((n + 7)/6) + 20*floor((n + 8)/6) - 10*floor((n + 9)/6) - 27*floor((n + 10)/6) + 14*floor((n + 11)/6) + 3*floor((n + 13)/6) - 2*floor((n + 14)/6) + floor((n + 15)/6))). - John M. Campbell, Dec 23 2016
[A293354] 1, 1, 2, 5, 9, 18, 37, 74, 148, 296, 591, 1182, 2364, 4729, 9457, 18914, 37828, 75657, 151314, 302627, 605254, 1210509, 2421018, 4842036, 9684072, 19368144, 38736288, 77472575, 154945150, 309890300, 619780601, 1239561202, 2479122403, 4958244807, 9916489614
a(n) = floor(1/2 + r*2^n), where r = Euler's constant (0.577216...).
[A293329] 1, 1, 2, 5, 9, 18, 37, 74, 148, 296, 591, 1182, 2365, 4730, 9459, 18919, 37837, 75674, 151349, 302698, 605396, 1210791, 2421583, 4843165, 9686330, 19372660, 38745321, 77490641, 154981283, 309962566, 619925131, 1239850262, 2479700525, 4959401049, 9918802098
a(n) = floor(1/2 + r*2^n), where r = sqrt(1/3).
[A014495] 0, 0, 1, 2, 5, 9, 19, 34, 69, 125, 251, 461, 923, 1715, 3431, 6434, 12869, 24309, 48619, 92377, 184755, 352715, 705431, 1352077, 2704155, 5200299, 10400599, 20058299, 40116599, 77558759, 155117519, 300540194, 601080389, 1166803109, 2333606219, 4537567649
a(n) = C(n-1,floor((n-1)/2))-1. - Alois P. Heinz, Oct 03 2012
[A056326] 0, 1, 2, 5, 9, 19, 35, 71, 135, 271, 527, 1055, 2079, 4159, 8255, 16511, 32895, 65791, 131327, 262655, 524799, 1049599, 2098175, 4196351, 8390655, 16781311, 33558527, 67117055, 134225919, 268451839, 536887295, 1073774591, 2147516415, 4295032831, 8590000127
a(n) = 3*a(n-1)-6*a(n-3)+4*a(n-4). G.f.: x^2*(x^2+x-1)/((x-1)*(2*x-1)*(2*x^2-1)). [Colin Barker, Nov 25 2012]
[A062092] 2, 5, 9, 19, 37, 75, 149, 299, 597, 1195, 2389, 4779, 9557, 19115, 38229, 76459, 152917, 305835, 611669, 1223339, 2446677, 4893355, 9786709, 19573419, 39146837, 78293675, 156587349, 313174699, 626349397, 1252698795, 2505397589
a(n) = a(n-1)+2*a(n-2) = (7*2^n-(-1)^n)/3.
[A105309] 1, 1, 2, 5, 9, 20, 41, 85, 178, 369, 769, 1600, 3329, 6929, 14418, 30005, 62441, 129940, 270409, 562725, 1171042, 2436961, 5071361, 10553600, 21962241, 45703841, 95110562, 197926885, 411889609, 857150100, 1783745641, 3712008565
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), where alpha = (1 + sqrt(17))/4 and beta = (1 - sqrt(17))/4 and T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = bottom left entry of the 2 X 2 matrix T(n, M), where M is the 2 X 2 matrix [0, 1; 1, 1/2].
a(n) = U(n-1,(1 + i)/sqrt(8))*U(n-1,(1 - i)/sqrt(8)), where U(n,x) denotes the Chebyshev polynomial of the second kind.
a(n) = abs(((sqrt(4*i - 1) + i)^(n+1) - (i - sqrt(4*i - 1))^(n+1)) / 2^(n+1) / sqrt(4*i - 1))^2. - Daniel Suteu, Dec 20 2016
a(n) = a(-2-n) for all n in Z. - Michael Somos, Dec 20 2016
[A097163] 1, 2, 5, 9, 21, 37, 85, 149, 341, 597, 1365, 2389, 5461, 9557, 21845, 38229, 87381, 152917, 349525, 611669, 1398101, 2446677, 5592405, 9786709, 22369621, 39146837, 89478485, 156587349, 357913941, 626349397, 1431655765, 2505397589
a(n) = 5*2^n/4+(-2)^n/12-1/3.
a(n) = a(n-1)+4*a(n-2)-4*a(n-3).
a(n) = (15*2^n-(-2)^n-8)/24. - Harvey P. Dale, Jun 17 2011
[A194350] 1, 1, 2, 5, 10, 10, 20, 50, 100, 100, 200, 500, 1000, 1000, 2000, 5000, 10000, 10000, 20000, 50000, 100000, 100000, 200000, 500000, 1000000, 1000000, 2000000, 5000000, 10000000, 10000000, 20000000, 50000000
a(1)=1, a(2)=1, a(3)=2, a(4)=5, a(n)=10*a(n-4). G.f.: x*(1+x+2*x^2+5*x^3)/(1-10*x^4). [Colin Barker, Jan 25 2012]
[A245480] 1, 2, 5, 10, 11, 22, 55, 110, 121, 242, 605, 1210, 1331, 2662, 6655, 13310, 14641, 29282, 73205, 146410, 161051, 322102, 805255, 1610510, 1771561, 3543122, 8857805, 17715610, 19487171, 38974342, 97435855, 194871710, 214358881, 428717762, 1071794405, 2143588810
a(n) = 11*a(n-4).
a(n) appears to satisfy x*Prod_{n>=0} (1 + a(2^n+1)x^(2^n)) = Sum_{n>=1} a(n)*x^n.
[A103215] 1, 2, 5, 10, 13, 17, 25, 26, 29, 34, 37, 41, 49, 50, 53, 58, 61, 65, 73, 74, 77, 82, 85, 89, 97, 98, 101, 106, 109, 113, 121, 122, 125, 130, 133, 137, 145, 146, 149, 154, 157, 161, 169, 170, 173, 178, 181, 185, 193, 194, 197, 202, 205, 209, 217, 218, 221, 226
a(1)=1, a(2)=2, a(3)=5, a(4)=10, a(5)=13, a(6)=17, a(7)=25, a(n) = a(n-1)+ a(n-6)-a(n-7) for n>7. - Harvey P. Dale, Feb 19 2015
a(n) = a(n-6) + 24 for n>6.
a(n) = (12*n - 18 + cos(n*Pi/3) - 3*cos(2*n*Pi/3) - cos(n*Pi) + 2*sqrt(3)*sin(n*Pi/3) + 2*sqrt(3)*sin(2*n*Pi/3))/3.
a(6k) = 24k-7, a(6k-1) = 24k-11, a(6k-2) = 24k-14, a(6k-3) = 24k-19, a(6k-4) = 24k-22, a(6k-5) = 24k-23. (End)
[A047617] 2, 5, 10, 13, 18, 21, 26, 29, 34, 37, 42, 45, 50, 53, 58, 61, 66, 69, 74, 77, 82, 85, 90, 93, 98, 101, 106, 109, 114, 117, 122, 125, 130, 133, 138, 141, 146, 149, 154, 157, 162, 165, 170, 173, 178, 181, 186, 189, 194, 197, 202, 205, 210, 213, 218, 221, 226, 229, 234
a(n) = 8*n-a(n-1)-9 (with a(1)=2). [Vincenzo Librandi, Aug 06 2010]
a(n) = 4*n -(5 + (-1)^n)/2. - Arkadiusz Wesolowski, Sep 18 2012
a(1)=2, a(2)=5, a(3)=10, a(n)=a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Feb 23 2016
[A185647] 1, 2, 5, 10, 13, 26, 29, 58, 61, 122, 125, 250, 253, 506, 509, 1018, 1021, 2042, 2045, 4090, 4093, 8186, 8189, 16378, 16381, 32762, 32765, 65530, 65533, 131066, 131069, 262138, 262141, 524282, 524285, 1048570, 1048573, 2097146, 2097149, 4194298, 4194301
a(n) = a(n-1)*2 if n odd.
a(n) = a(n-1)+3 if n even.
a(n) = 3*a(n-2) - 2*a(n-4) with a(0)=1, a(1)=2, a(2)=5, a(3)=10.
[A135042] 1, 2, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250
a(n) = 2*a(n-1) -a(n-2), n>3. - R. J. Mathar, Apr 21 2010, corrected Sep 02 2010
a(n) = 5*(n + 1) for n>=3.
[A215098] 0, 1, 2, 5, 10, 15, 20, 27, 36, 45, 54, 65, 78, 91, 104, 119, 136, 153, 170, 189, 210, 231, 252, 275, 300, 325, 350, 377, 406, 435, 464, 495, 528, 561, 594, 629, 666, 703, 740, 779, 820, 861, 902, 945, 990, 1035, 1080, 1127, 1176, 1225, 1274, 1325, 1378, 1431
a(n) = (n^2+n-1+cos(pi*n/2)+sin(pi*n/2))/2. - Vaclav Kotesovec, Aug 11 2012
[A179207] 1, 2, 5, 10, 15, 22, 29, 38, 47, 58, 69, 82, 95, 110, 125, 142, 159, 178, 197, 218, 239, 262, 285, 310, 335, 362, 389, 418, 447, 478, 509, 542, 575, 610, 645, 682, 719, 758, 797, 838, 879, 922, 965, 1010, 1055, 1102, 1149, 1198, 1247, 1298, 1349, 1402, 1455
a(n) = n - 1 + ceiling((-3 + n^2)/2).
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Joerg Arndt, Apr 02 2011
[A008822] 1, 2, 5, 10, 15, 22, 31, 40, 51, 64, 77, 92, 109, 126, 145, 166, 187, 210, 235, 260, 287, 316, 345, 376, 409, 442, 477, 514, 551, 590, 631, 672, 715, 760, 805, 852, 901, 950, 1001, 1054, 1107, 1162, 1219, 1276
a(n) = ceiling((n+1)*(2*n+1)/3). - Jorg Zurkirchen, Oct 15 2008
a(n) = (n+1)^2 - floor((n+1)*(n+2)/3). - Bruno Berselli, Mar 02 2017
[A267454] 0, 2, 5, 10, 15, 23, 30, 40, 51, 63, 75, 91, 106, 123, 141, 161, 181, 204, 226, 251, 277, 304, 331, 362, 392, 424, 457, 492, 527, 565, 602, 642, 683, 725, 767, 813, 858, 905, 953, 1003, 1053, 1106, 1158, 1213, 1269, 1326, 1383, 1444, 1504, 1566, 1629, 1694
a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8) for n>7.
[A135061] 2, 5, 10, 16, 22, 29, 37, 45, 54, 63, 72, 83, 93, 104, 116, 128, 140, 152, 165, 178, 192, 206, 220, 235, 250, 265, 280, 296, 312, 328, 345, 362, 379, 396, 414, 432, 450, 468, 487, 505, 525, 544, 563, 583, 603, 623, 644, 665, 686, 707, 728, 749, 771, 793, 815, 838, 860, 883, 906, 929, 952, 976, 1000
a(n) = floor(2 n^(3/2)), with the minimum occurring at m = ceil(n^(3/2)). See link for proof. - Robert Israel, Mar 03 2017
[A086849] 2, 5, 10, 16, 23, 31, 41, 52, 64, 77, 91, 106, 123, 141, 160, 180, 201, 223, 246, 270, 296, 323, 351, 380, 410, 441, 473, 506, 540, 575, 612, 650, 689, 729, 770, 812, 855, 899, 944, 990, 1037, 1085, 1135, 1186, 1238, 1291, 1345, 1400, 1456, 1513, 1571, 1630
a(n) = [1/2 + (n+sqrt(n))*(n/2+sqrt(n)/6+1/3) - ([1/2 + sqrt(n)]-sqrt(n))^2*sqrt(n)] - Graeme McRae, Aug 28 2007
a(n) = n^2/2 + 2n*sqrt(n)/3 + O(n). - Charles R Greathouse IV, Aug 28 2016

[A026056] 2, 5, 10, 16, 23, 33, 45, 60, 77, 96, 119, 145, 175, 208, 244, 285, 330, 380, 434, 492, 556, 625, 700, 780, 865, 957, 1055, 1160, 1271, 1388, 1513, 1645, 1785, 1932, 2086, 2249, 2420, 2600, 2788, 2984, 3190, 3405, 3630, 3864, 4107, 4361, 4625, 4900, 5185, 5480, 5787, 6105, 6435, 6776, 7128, 7493
a(n)=(n + 2)*(n + 3)*(n + 13)/30 - 1/5*(2 + (1/2 + 7/10*5^(1/2))*cos(2*n*Pi/5) + (- 1/10*2^(1/2)*(5 + 5^(1/2))^(1/2))*sin(2*n*Pi/5) + (1/2 - 7/10*5^(1/2))*cos(4*n*Pi/5) + (- 1/10*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(4*n*Pi/5)) [From Richard Choulet, Dec 14 2008]
[A267159] 1, 2, 5, 10, 16, 24, 31, 44, 50, 65, 73, 94, 100, 123, 131, 160, 166, 197, 205, 242, 248, 287, 295, 340, 346, 393, 401, 454, 460, 515, 523, 584, 590, 653, 661, 730, 736, 807, 815, 892, 898, 977, 985, 1070, 1076, 1163, 1171, 1264, 1270, 1365, 1373, 1474, 1480
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7) for n>12.
[A084587] 2, 5, 10, 16, 24, 33, 44, 55, 68, 83, 99, 116, 135, 155, 177, 199, 224, 249, 276, 305, 335, 366, 398, 432, 468, 504, 543, 582, 623, 665, 709, 754, 800, 848, 897, 948, 1000, 1053, 1108, 1164, 1222, 1281, 1341, 1403, 1466, 1530, 1596, 1663, 1732, 1802, 1873, 1946
a(n) = (n^2 + 2n)*log(2) + O(1). - Charles R Greathouse IV, Sep 04 2015
[A001859] 0, 2, 5, 10, 16, 24, 33, 44, 56, 70, 85, 102, 120, 140, 161, 184, 208, 234, 261, 290, 320, 352, 385, 420, 456, 494, 533, 574, 616, 660, 705, 752, 800, 850, 901, 954, 1008, 1064, 1121, 1180, 1240, 1302, 1365, 1430, 1496, 1564, 1633, 1704, 1776, 1850, 1925
a(n) = n + floor((3n^2+1)/4).
a(n) = (6n^2 + 8n + 1 - (-1)^n)/8;
a(n) = Sum_{k=0..n} max(k, n-k). (End)
a(0)=0, a(1)=2, a(2)=5, a(3)=10, a(n) = 2*a(n-1) + 0*a(n-2) - 2*a(n-3) + a(n-4). - Harvey P. Dale, Apr 01 2012
a(n) = Sum_{k=1..n} floor((n+k+2)/2). - Wesley Ivan Hurt, Mar 31 2017
[A011903] 0, 0, 0, 0, 1, 2, 5, 10, 16, 24, 34, 47, 62, 81, 104, 130, 160, 194, 233, 276, 325, 380, 440, 506, 578, 657, 742, 835, 936, 1044, 1160, 1284, 1417, 1558, 1709, 1870, 2040, 2220, 2410, 2611, 2822, 3045, 3280
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-7) -3*a(n-8) +3*a(n-9) -a(n-10). G.f.: x^4*(x^5-x^4+2*x^2-x+1) / ((-1+x)^4*(x^6+x^5+x^4+x^3+x^2+x+1)). [From R. J. Mathar, Apr 15 2010]
[A079984] 1, 1, 1, 1, 2, 5, 10, 16, 26, 43, 80, 148, 264, 465, 816, 1444, 2588, 4619, 8214, 14591, 25903, 46071, 82015, 145904, 259492, 461408, 820468, 1459332, 2595687, 4616613, 8210719, 14602409, 25970414, 46189613, 82149988, 146106304, 259853016
a(n) = a(n-1) +a(n-2) +a(n-3) -a(n-4) +a(n-5) +3*a(n-6) -4*a(n-7) -4*a(n-8) -2*a(n-9) +4*a(n-10) +2*a(n-11) -4*a(n-12) +4*a(n-13) +3*a(n-14) -a(n-15) -a(n-16) -a(n-17) +a(n-18) -a(n-19) -a(n-20)
[A002522] 1, 2, 5, 10, 17, 26, 37, 50, 65, 82, 101, 122, 145, 170, 197, 226, 257, 290, 325, 362, 401, 442, 485, 530, 577, 626, 677, 730, 785, 842, 901, 962, 1025, 1090, 1157, 1226, 1297, 1370, 1445, 1522, 1601, 1682, 1765, 1850, 1937, 2026, 2117, 2210, 2305, 2402, 2501
a(n)*a(n-2) = (n-1)^4 + 4. - Reinhard Zumkeller, Feb 12 2009
a(n) = 2*a(n-1) - a(n-2) + 2. a(n) = a(n-1) + 2*n - 1. - Eric Werley, Jun 27 2011
a(n) = (n-1)^2 + 2(n-1) + 2 = 122 read in base n - 1 (for n > 3). - Jason Kimberley, Oct 20 2011
a(n)*a(n+1) = a(n(n+1) + 1) so a(1)a(2) = a(3). More generally, a(n)*a(n+k) = a(n(n+k) + 1) + k^2 - 1. - Jon Perry, Aug 01 2012
a(n) = (n!)^2* [x^n] BesselI(0, 2*sqrt(x))*(1+x). - Peter Luschny, Aug 25 2012
[A248193] 1, 1, 1, 1, 1, 1, 2, 5, 10, 17, 26, 37, 51, 74, 118, 201, 347, 586, 955, 1509, 2351, 3682, 5871, 9545, 15700, 25851, 42292, 68606, 110635, 178190, 287852, 467313, 761957, 1245011, 2033856, 3317230, 5401332, 8787539, 14301168, 23301005, 38016585, 62090615, 101457357, 165778774
a(n) = Sum_{k=0..[n/5]} C(n-5*k, k)^2.
[A246884] 1, 1, 1, 1, 1, 1, 2, 5, 10, 17, 26, 38, 59, 101, 182, 326, 564, 945, 1566, 2622, 4476, 7750, 13455, 23231, 39837, 68101, 116611, 200526, 346137, 598438, 1034227, 1785400, 3080418, 5317009, 9187567, 15893830, 27515434, 47647774, 82513447, 142902640, 247553410, 429020710, 743846284
a(n) = Sum_{k=0..[n/4]} C(n-4*k, k)^2.
[A246883] 1, 1, 1, 1, 2, 5, 10, 17, 27, 46, 86, 165, 308, 558, 1006, 1841, 3421, 6383, 11863, 21966, 40697, 75662, 141099, 263429, 491778, 918104, 1715259, 3208078, 6005818, 11250198, 21082487, 39524241, 74135187, 139128897, 261228200, 490682127, 922015964, 1733127107, 3258939997, 6130162494, 11534742080
a(n) = Sum_{k=0..[n/3]} C(n-3*k, k)^2.
[A007504] 0, 2, 5, 10, 17, 28, 41, 58, 77, 100, 129, 160, 197, 238, 281, 328, 381, 440, 501, 568, 639, 712, 791, 874, 963, 1060, 1161, 1264, 1371, 1480, 1593, 1720, 1851, 1988, 2127, 2276, 2427, 2584, 2747, 2914, 3087, 3266, 3447, 3638, 3831, 4028, 4227, 4438, 4661, 4888
a(n) has the asymptotic expression a(n) ~ n^2 * log(n) / 2. - Ahmed Fares (ahmedfares(AT)my-deja.com), Apr 24 2001 (see Bach Shallit 1996)
a(n) = n^2/2 (log n + log log n - 3/2 + (log log n - 3)/log n + (2 (log log n)^2 - 14 log log n + 27)/(4 log^2 n) + O((log log n/log n)^3)) [Sinha]. - Charles R Greathouse IV, Jun 11 2015
[A011894] 0, 0, 0, 0, 2, 5, 10, 17, 28, 42, 60, 82, 110, 143, 182, 227, 280, 340, 408, 484, 570, 665, 770, 885, 1012, 1150, 1300, 1462, 1638, 1827, 2030, 2247, 2480, 2728, 2992, 3272, 3570, 3885, 4218, 4569, 4940
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-4) -3*a(n-5) +3*a(n-6) -a(n-7);
a(n) = (2*n^3-6*n^2+4*n-3*(1-(-1)^n)*(1-(-1)^((2*n-1+(-1)^n)/4)))/24. - Luce ETIENNE, Jun 26 2014
[A213299] 2, 5, 10, 17, 40, 77, 130, 203, 440, 813, 1350, 2087, 4460, 8197, 13570, 20943, 44680, 82053, 135790, 209527, 446900, 820637, 1358010, 2095383, 4469120, 8206493, 13580230, 20953967, 44691340
a(n) = ((3982 + 2709*k + 567*k^2 + 54*k^3)*10^m - 1980*m - 2200 - 495*k + 162*((n+1) mod 2) * (-1)^m * (-1)^floor(n/2))/891, where m=floor((n-1)/4), k=(n-1) mod 4.
[A177787] 2, 5, 10, 18, 30, 47, 70, 100, 138, 185, 242, 310, 390, 483, 590, 712, 850, 1005, 1178, 1370, 1582, 1815, 2070, 2348, 2650, 2977, 3330, 3710, 4118, 4555, 5022, 5520, 6050, 6613, 7210, 7842, 8510, 9215, 9958, 10740, 11562, 12425, 13330, 14278, 15270
a(n) = 1/6 * n (11 + n^2).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A006327] 0, 2, 5, 10, 18, 31, 52, 86, 141, 230, 374, 607, 984, 1594, 2581, 4178, 6762, 10943, 17708, 28654, 46365, 75022, 121390, 196415, 317808, 514226, 832037, 1346266, 2178306, 3524575, 5702884, 9227462, 14930349, 24157814, 39088166, 63245983, 102334152, 165580138
a(n+3) = Sum_{k=-n+1..n} F(abs(n)+1). - Paul Barry, Oct 24 2007
a(n) = F(4*n) mod F(n+1) = F(n) - (F(n+4)^2 - F(n)^2)/F(2*n+4). - Gary Detlefs, Apr 02 2012
[A185721] 0, 0, 0, 0, 0, 1, 2, 5, 10, 18, 32, 51, 79, 118, 172, 243, 335, 454, 604, 792, 1024, 1306, 1649, 2059, 2548, 3125, 3802, 4591, 5507, 6563, 7776, 9161, 10737, 12523, 14539, 16807, 19349, 22190, 25355, 28871, 32768, 37073, 41821
a(n) = floor[(n/5)^5].
[A246840] 1, 1, 1, 2, 5, 10, 18, 35, 73, 151, 306, 623, 1286, 2668, 5531, 11477, 23889, 49852, 104175, 217936, 456534, 957609, 2010839, 4226417, 8891022, 18719637, 39443860, 83170162, 175484915, 370491775, 782648333, 1654197568, 3498049053, 7400639286, 15664103420, 33168342557, 70260909811
a(n) = Sum_{k=0..[n/2]} C(n-2*k, k)^2.
[A011893] 0, 0, 0, 0, 2, 5, 10, 19, 30, 45, 65, 90, 120, 156, 198, 248, 305, 370, 445, 528, 621, 725, 840, 966, 1104, 1254, 1418, 1595, 1786, 1993, 2214, 2451, 2705, 2976, 3264, 3570, 3894, 4238, 4601, 4984, 5389
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-11) -3*a(n-12) +3*a(n-13) -a(n-14). [R. J. Mathar, Apr 15 2010]
[A104161] 0, 1, 2, 5, 10, 19, 34, 59, 100, 167, 276, 453, 740, 1205, 1958, 3177, 5150, 8343, 13510, 21871, 35400, 57291, 92712, 150025, 242760, 392809, 635594, 1028429, 1664050, 2692507, 4356586, 7049123
a(n) = 2*(Fibonacci(n+2) - 1) - n.
a(n) = a(n-1) + a(n-2) + n-1.
a(n) = (Sum_{k=0..n} (n-k)Fibonacci(k-1) + Fibonacci(k)) - n. - Ross La Haye, May 31 2006
a(0)=0, a(1)=1, a(2)=2, a(3)=5, a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4). - Harvey P. Dale, Sep 06 2012
[A061705] 2, 5, 10, 19, 36, 66, 120, 215, 382, 673, 1178, 2050, 3550, 6121, 10514, 17999, 30720, 52290, 88788, 150427, 254342, 429245, 723190, 1216514, 2043386, 3427661, 5742490, 9609355, 16062492, 26821698, 44744688, 74576735, 124192270, 206650201, 343594514
a(n) = (n+1)*Fibonacci(n) + 2*Fibonacci(n-1).
a(n) = sqrt(5)*((n+1)*(u^n - v^n) + 2*(u^(n-1) - v^(n-1)))/5, where u = (1+sqrt(5))/2, v = (1-sqrt(5))/2.
a(0)=2, a(1)=5, a(2)=10, a(3)=19; for n > 3, a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-4). - Harvey P. Dale, Jun 05 2011
a(n) = n*Fibonacci(n) + Lucas(n) = (n+1)*Fibonacci(n+1) - (n-1)*Fibonacci(n-1). - Bruno Berselli, May 26 2015

[A052944] 0, 2, 5, 10, 19, 36, 69, 134, 263, 520, 1033, 2058, 4107, 8204, 16397, 32782, 65551, 131088, 262161, 524306, 1048595, 2097172, 4194325, 8388630, 16777239, 33554456, 67108889, 134217754, 268435483, 536870940, 1073741853, 2147483678
a(n+1)=2*a(n)-n+2 with a(0)=0. - Pieter Moree, Mar 06 2004
a(0)=0, a(1)=2, a(2)=5, a(n+3) = 4a(n+2) - 5a(n+1) + 2a(n). - Hermann Kremer (Hermann.Kremer(AT)online.de), Mar 16 2004
[A016029] 1, 1, 2, 5, 10, 19, 38, 77, 154, 307, 614, 1229, 2458, 4915, 9830, 19661, 39322, 78643, 157286, 314573, 629146, 1258291, 2516582, 5033165, 10066330, 20132659, 40265318, 80530637, 161061274, 322122547, 644245094
a(n)=[1/5+(1/10)*I]*I^n+(3/5)*2^n+[1/5-(1/10)*I]*(-I)^n, with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 10 2008
[A000712] 1, 2, 5, 10, 20, 36, 65, 110, 185, 300, 481, 752, 1165, 1770, 2665, 3956, 5822, 8470, 12230, 17490, 24842, 35002, 49010, 68150, 94235, 129512, 177087, 240840, 326015, 439190, 589128, 786814, 1046705, 1386930, 1831065, 2408658, 3157789, 4126070, 5374390
a(0) = 1, a(n) = 1/n*Sum_{k=0..n-1} 2*a(k)*sigma_1(n-k)). - Joerg Arndt, Feb 05 2011
a(n) is odd iff n = 2*m and p(m) is odd.
a(n) = 2/n*Sum_{k = 0..n} k*p(k)*p(n-k) for n >= 1.
[A001629] 0, 0, 1, 2, 5, 10, 20, 38, 71, 130, 235, 420, 744, 1308, 2285, 3970, 6865, 11822, 20284, 34690, 59155, 100610, 170711, 289032, 488400, 823800, 1387225, 2332418, 3916061, 6566290, 10996580, 18394910, 30737759, 51310978, 85573315, 142587180, 237387960, 394905492
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-4), n>3.
a(n) = Sum_{k=0..floor(n/2)-1}(k+1)*binomial(n-k-1, k+1). - Emeric Deutsch, Nov 15 2001
a(n) = floor((1/5)*(n-1/sqrt(5))*phi^n + 1/2) where phi=(1+sqrt(5))/2 is the golden ratio. - Benoit Cloitre, Jan 05 2003
a(n) = Sum_{k=0..floor((n-2)/2)} (n-k-1)binomial(n-k-2, k). - Paul Barry, Jan 25 2005
a(n) = (1/5)(n-1/sqrt(5))((1+sqrt(5))/2)^n + (1/5)(n+1/sqrt(5))((1-sqrt(5))/2)^n. - Graeme McRae, Jun 02 2006
a(n) = term (1,3) in the 4 X 4 matrix [2,1,0,0; 1,0,1,0; -2,0,0,1; -1,0,0,0]^n. - Alois P. Heinz, Aug 01 2008
[A293324] 1, 1, 2, 5, 10, 20, 40, 79, 158, 316, 633, 1266, 2531, 5063, 10126, 20252, 40503, 81007, 162014, 324028, 648056, 1296111, 2592222, 5184445, 10368890, 20737779, 41475559, 82951118, 165902236, 331804471, 663608942, 1327217885, 2654435769, 5308871539
a(n) = floor(1/2 + r*2^n), where r = (-1+sqrt(5))/2.
[A084215] 1, 2, 5, 10, 20, 40, 80, 160, 320, 640, 1280, 2560, 5120, 10240, 20480, 40960, 81920, 163840, 327680, 655360, 1310720, 2621440, 5242880, 10485760, 20971520, 41943040, 83886080, 167772160, 335544320, 671088640, 1342177280, 2684354560, 5368709120, 10737418240
a(n) = sum(k=0..n, 2^(n-k)*binomial(1, k/2)*(1+(-1)^k)/2). - Paul Barry, Oct 15 2004
a(n) is the sum of top row terms of M^n, M = an infinite square production matrix as follows:
a(n) = floor(2^(n-2)*5). (* From Taher Jamshidi, Sep 15 2012 *)
a(n) = 2*a(n-1) for n>=3, a(0) = 1, a(1) = 2, a(2) = 5. - Philippe Deléham, Mar 13 2013
[A024810] 1, 2, 5, 10, 20, 40, 81, 162, 325, 651, 1303, 2607, 5215, 10430, 20860, 41721, 83443, 166886, 333772, 667544, 1335088, 2670176, 5340353, 10680707, 21361414, 42722829, 85445659, 170891318, 341782637, 683565275, 1367130551, 2734261102, 5468522204, 10937044409
a(n) = floor(1 / tan(Pi / 2^(n+1))). - Michael Somos, Feb 24 2014
a(n) = floor(4*2^n/Pi). - Clark Kimberling, Oct 10 2017
[A266613] 1, 2, 5, 10, 20, 41, 82, 165, 330, 661, 1322, 2645, 5290, 10581, 21162, 42325, 84650, 169301, 338602, 677205, 1354410, 2708821, 5417642, 10835285, 21670570, 43341141, 86682282, 173364565, 346729130, 693458261, 1386916522, 2773833045, 5547666090, 11095332181
a(n) = (31*2^n-4*((-1)^n+3))/24 for n>2.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3) for n>2.
[A293319] 2, 5, 10, 20, 41, 83, 167, 335, 670, 1340, 2680, 5361, 10723, 21446, 42893, 85787, 171575, 343150, 686301, 1372603, 2745207, 5490415, 10980830, 21961660, 43923321, 87846643, 175693286, 351386573, 702773147, 1405546295, 2811092590, 5622185180, 11244370361
a(n) = floor((r*2^n)), where r = (3+sqrt(5))/2.
[A267589] 1, 2, 5, 10, 20, 41, 83, 167, 335, 671, 1343, 2687, 5375, 10751, 21503, 43007, 86015, 172031, 344063, 688127, 1376255, 2752511, 5505023, 11010047, 22020095, 44040191, 88080383, 176160767, 352321535, 704643071, 1409286143, 2818572287, 5637144575, 11274289151
a(n) = 3*a(n-1)-2*a(n-2) for n>3.
[A129847] 1, 1, 2, 5, 10, 20, 42, 87, 179, 370, 765, 1580, 3264, 6744, 13933, 28785, 59470, 122865, 253838, 524428, 1083466, 2238435, 4624595, 9554390, 19739321, 40781336, 84254032, 174068400, 359624425, 742982225, 1534997482, 3171296957, 6551883314, 13536157460
a(n) = Sum_{k=0..floor(n/2)} Sum_{j=0..n-2k} C(n-j-k,k)*C(2k,j). - Paul Barry, Mar 24 2009
a(n) = a(n-1) + a(n-2) + 2*(n-3) + a(n-4) with a(0) = a(1) = 1, a(2) = 2, a(3) = 5. - Taras Goy, Aug 04 2017
[A051109] 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000, 50000, 100000, 200000, 500000, 1000000, 2000000, 5000000, 10000000, 20000000, 50000000, 100000000, 200000000, 500000000, 1000000000, 2000000000, 5000000000
a(3n)=10^n, a(3n+1)=2*10^n, a(3n+2)=5*10^n
a(n) = [(n%3)^2 + 1]*10^floor(n/3). E.g. a(0) = [(0%3)^2 + 1]*10^floor(0/3) = [0^2 + 1]*10^0 = 1, a(4) = [(4%3)^2 + 1]*10^floor(4/3) = [1^2 + 1]*10^1 = 20, a(8) = [(8%3)^2 + 1]*10^floor(8/3) = [2^2 + 1]*10^2 = 500. - Justin L. Brown (jlbrown(AT)neo.tamu.edu), Jun 17 2004
a(n) = 10*a(n-3) with n>2, a(0)=1, a(1)=2, a(2)=5. - Philippe Deléham, Apr 08 2013
[A261681] 1, 2, 5, 10, 21, 41, 83, 162, 325, 637, 1275, 2509, 5019, 9907, 19815, 39202, 78405, 155381, 310763, 616665, 1233331, 2449867, 4899735, 9740685, 19481371, 38754731, 77509463, 154276027, 308552055, 614429671, 1228859343, 2448023842, 4896047685, 9756737701
a(n) = Sum_{i=1..n+1} C(n,floor(i/2)). - Wesley Ivan Hurt, Nov 22 2017
[A267515] 1, 2, 5, 10, 21, 42, 84, 169, 338, 677, 1354, 2709, 5418, 10836, 21673, 43346, 86693, 173386, 346773, 693546, 1387092, 2774185, 5548370, 11096741, 22193482, 44386965, 88773930, 177547860, 355095721, 710191442, 1420382885, 2840765770, 5681531541, 11363063082
a(n) = 2*a(n-1)+a(n-7)-2*a(n-8) for n>7.
[A243988] 1, 2, 5, 10, 21, 42, 85, 169, 333, 655, 1286, 2519, 4935, 9675, 18982, 37285, 73346, 144509, 285158, 563546, 1115309, 2210243, 4385443, 8710876, 17319387, 34464792, 68634821, 136771603, 272703704, 543995341, 1085620097, 2167267262, 4327886353, 8644663133, 17270784312, 34510656589, 68969830833
a(n)-2^n ~ n/5 * ((1+sqrt(5))/2)^n. - Vaclav Kotesovec, Jul 02 2014
[A000975] 0, 1, 2, 5, 10, 21, 42, 85, 170, 341, 682, 1365, 2730, 5461, 10922, 21845, 43690, 87381, 174762, 349525, 699050, 1398101, 2796202, 5592405, 11184810, 22369621, 44739242, 89478485, 178956970, 357913941, 715827882, 1431655765, 2863311530
a(n) = ceiling(2*(2^n-1)/3).
a(n) = a(n-1) + 2*a(n-2) + 1.
a(n) = 2*2^n/3 - 1/2 - (-1)^n/6.
a(n) = n + 2*Sum_{k = 1..n-2} a(k).
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3). - Paul Barry, Feb 11 2003
a(n) = Sum_{k=0..floor((n-1)/2)} 2^(n-2k-1)}; a(n+1) = Sum_{k=0..floor(n/2)} 2^(n-2k). - Paul Barry, Nov 11 2003
[A266248] 1, 2, 5, 10, 21, 43, 86, 173, 346, 693, 1386, 2773, 5546, 11093, 22186, 44373, 88746, 177493, 354986, 709973, 1419946, 2839893, 5679786, 11359573, 22719146, 45438293, 90876586, 181753173, 363506346, 727012693, 1454025386, 2908050773, 5816101546, 11632203093
a(n) = (65*2^n-8*((-1)^n+3))/48 for n>3.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3) for n>2.
[A267880] 1, 2, 5, 10, 21, 43, 87, 175, 351, 703, 1407, 2815, 5631, 11263, 22527, 45055, 90111, 180223, 360447, 720895, 1441791, 2883583, 5767167, 11534335, 23068671, 46137343, 92274687, 184549375, 369098751, 738197503, 1476395007, 2952790015, 5905580031, 11811160063
a(n) = 3*a(n-1)-2*a(n-2) for n>4.
[A101510] 1, 2, 5, 10, 21, 43, 87, 175, 352, 707, 1417, 2836, 5674, 11353, 22716, 45443, 90886, 181748, 363451, 726870, 1453773, 2907648, 5815315, 11630195, 23259059, 46515887, 93029852, 186060921, 372129424, 744272221, 1488552317, 2977079872
a(n)=sum{k=0..floor(n/2), sum{i=0..n-k, if(mod(i+1, k+1)=0, binomial(n-k, i), 0)}}
[A052540] 1, 1, 2, 5, 10, 21, 45, 95, 201, 426, 902, 1910, 4045, 8566, 18140, 38415, 81351, 172276, 364827, 772590, 1636105, 3464761, 7337285, 15538085, 32904826, 69682176, 147565152, 312497045, 661771440, 1401425856, 2967783605, 6284841605, 13309337626, 28185033001, 59687124002, 126398744025
a(n)=sum(k=0..n, (sum(j=ceiling((-n+3*k+1)/3)..k, binomial(k,j)*binomial(n-3*(k-j)-1,j-1)))+kron_delta(3*k,n)). [Vladimir Kruchinin, May 12 2013]

[A215422] 1, 1, 2, 5, 10, 22, 44, 88, 177, 355, 710, 1421, 2843, 5687, 11374, 22748, 45497, 90995, 181991, 363982, 727965, 1455930, 2911861, 5823723, 11647446, 23294892, 46589786, 93179572, 186359144, 372718289
a(n) = 2^n * log_2 phi + O(1). - Charles R Greathouse IV, Jun 05 2013
[A026633] 1, 2, 5, 10, 22, 44, 90, 180, 362, 724, 1450, 2900, 5802, 11604, 23210, 46420, 92842, 185684, 371370, 742740, 1485482, 2970964, 5941930, 11883860, 23767722, 47535444, 95070890, 190141780, 380283562, 760567124, 1521134250
a(n) = (-1)^n/3 -1 +17*2^(n-2)/3, n>=2. - R. J. Mathar, May 22 2013
[A093370] 0, 1, 2, 5, 10, 22, 44, 91, 182, 369, 738, 1486, 2972, 5962, 11924, 23884, 47768, 95607, 191214, 382568, 765136, 1530552, 3061104, 6122765, 12245530, 24492171, 48984342, 97970902, 195941804, 391888040
a(n)/2^(n-1) seems to converge to a number around 0.73.
[A135098] 1, 2, 5, 10, 22, 44, 92, 184, 376, 752, 1520, 3040, 6112, 12224, 24512, 49024, 98176, 196352, 392960, 785920, 1572352, 3144704, 6290432, 12580864, 25163776, 50327552, 100659200, 201318400, 402644992, 805289984, 1610596352, 3221192704
a(n) = 2^((n-5)/2)*(3*2^((n+1)/2) - (1 - (-1)^n) - (1 + (-1)^n)*sqrt(2)).
[A136488] 1, 2, 5, 10, 22, 44, 92, 184, 376, 752, 1520, 3040, 6112, 12224, 24512, 49024, 98176, 196352, 392960, 785920, 1572352, 3144704, 6290432, 12580864, 25163776, 50327552, 100659200, 201318400, 402644992, 805289984, 1610596352, 3221192704, 6442418176, 12884836352
a(n) = 3*2^(n-2)-2^(n/2-1) for n even.
a(n) = 3*2^(n-2)-2^((n-3)/2) for n odd.
[A045621] 0, 1, 2, 5, 10, 22, 44, 93, 186, 386, 772, 1586, 3172, 6476, 12952, 26333, 52666, 106762, 213524, 431910, 863820, 1744436, 3488872, 7036530, 14073060, 28354132, 56708264, 114159428, 228318856, 459312152, 918624304, 1846943453, 3693886906
a(2*k) = 2*a(2*k-1), a(2*k+1) = 2*a(2*k)+Catalan(k).
a(n+1) = b(0)*b(n)+b(1)*b(n-1)+...+b(n)*b(0), b(k)=C(k, [k/2]).
a(n) = sum(k=0..n-1, C(n, floor(k/2))). - Paul Barry, Aug 05 2004
a(n+1) = 2*a(n)+Catalan(n/2)(1+(-1)^n)/2. - Paul Barry, Aug 05 2004
[A100938] 1, 2, 5, 10, 22, 46, 97, 200, 412, 844, 1729, 3536, 7227, 14754, 30093, 61312, 124782, 253664, 515085, 1044796, 2117158, 4286330, 8671103, 17529304, 35416016, 71518510, 144362774, 291299094, 587617054, 1185060666, 2389424213
a(n) = 1 + Sum_{k=1..n} Sum_{j=0..n-k} binomial(k, j)*a(j).
[A124329] 0, 1, 2, 5, 10, 22, 46, 101, 220, 492, 1104, 2515, 5762, 13327, 30994, 72555, 170654, 403350, 957134, 2279947, 5449012, 13063595, 31406516, 75701507, 182902336, 442885682, 1074604288, 2612341855, 6361782006, 15518343596, 37912613630
a(n) = 2*Sum_{k = 0..(n-1)/2} binomial(2*k+1, k+1)*binomial(n-k, k+1)/(k+2). - Vladimir Kruchinin, Apr 21 2016
[A123491] 1, 2, 5, 10, 22, 48, 112, 274, 715, 1982, 5837, 18180, 59644, 205296, 739032, 2775180, 10846965, 44039754, 185391469, 807776198, 3637193474, 16900721824, 80939650552, 399061251246, 2023408865983, 10540656630118
a(n) = Sum_{k=0..floor(n/2)} ((k+2)^(n-2k)+k)/(k+1).
[A232163] 0, 1, 2, 5, 10, 22, 49, 106, 231, 506, 1104, 2409, 5262, 11489, 25082, 54766, 119577, 261078, 570035, 1244610, 2717456, 5933249, 12954570, 28284797, 61756570, 134838326, 294403857, 642796690, 1403472095, 3064318682, 6690584704
a(n) = a(n-1)+a(n-2)+3*a(n-3)+a(n-4). G.f.: -x*(2*x^2+x+1) / (x^4+3*x^3+x^2+x-1). - Colin Barker, Jan 01 2014
[A174542] 1, 2, 5, 10, 23, 44, 99, 188, 421, 798, 1785, 3382, 7563, 14328, 32039, 60696, 135721, 257114, 574925, 1089154, 2435423, 4613732, 10316619, 19544084, 43701901, 82790070, 185124225, 350704366, 784198803, 1485607536, 3321919439, 6293134512, 14071876561
a(2n) = (1/2)*(Fibonacci(3n+2)-1).
a(2n+1) = (1/2)*(Fibonacci(3n+1)+Fibonacci(3n+3)-1).
a(n) = a(n-1)+4*a(n-2)-4*a(n-3)+a(n-4)-a(n-5) for n>4. - Colin Barker, Oct 26 2014
a(n) = ((sin(Pi*n/2)*sqrt(5/phi) - cos(Pi*n/2)/phi^2)/phi^(3*n/2) + (sqrt(5*phi)*sin(Pi*n/2)^2 + phi^2*cos(Pi*n/2)^2)*phi^(3*n/2))/(2*sqrt(5)) - 1/2, where phi=(1+sqrt(5))/2.
[A284181] 1, 2, 5, 10, 23, 47, 87, 171, 381, 766, 1407, 2751, 6111, 12287, 22527, 44031, 97791, 196607, 360447, 704511, 1564671, 3145727, 5767167, 11272191, 25034751, 50331647, 92274687, 180355071, 400556031, 805306367, 1476395007, 2885681151, 6408896511, 12884901887
a(n) = a(n-1) + 16*a(n-4) - 16*a(n-5) for n>10.
[A291249] 1, 2, 5, 10, 23, 47, 102, 214, 452, 955, 2003, 4223, 8854, 18610, 39032, 81896, 171752, 360103, 754985, 1582497, 3316978, 6951684, 14568692, 30530311, 63977107, 134063288, 280920507, 588643384, 1233430247, 2584481968, 5415381139, 11347029572, 23775710791
a(n) = a(n-1) + 6*a(n-2) - 3*a(n-3) - 14*a(n-4) + 3*a(n-5) + 14*a(n-6) - 3*a(n-7) - 6*a(n-8) + a(n-9) + a(n-10) for n >= 11.
[A087640] 1, 1, 2, 5, 10, 23, 48, 107, 228, 501, 1078, 2353, 5086, 11067, 23972, 52087, 112936, 245225, 531946, 1154685, 2505298, 5437407, 11798616, 25605539, 55563980, 120581981, 261668382, 567850345, 1232273510, 2674156163, 5803126348
a(n) = a(n-1) + 3a(n-2) - a(n-3) for n>3.
[A291247] 1, 2, 5, 10, 24, 49, 112, 238, 526, 1142, 2491, 5442, 11842, 25873, 56344, 122975, 268042, 584633, 1274820, 2779895, 6062306, 13219186, 28827703, 62861754, 137082358, 298927682, 651861824, 1421488867, 3099781932, 6759580078, 14740333285, 32143687954
a(n) = a(n-1) + 5*a(n-2) - 2*a(n-3) - 9*a(n-4) + 2*a(n-5) + 5*a(n-6) - a(n-7) - a(n-8) for n >= 9.
[A026383] 1, 2, 5, 10, 25, 50, 125, 250, 625, 1250, 3125, 6250, 15625, 31250, 78125, 156250, 390625, 781250, 1953125, 3906250, 9765625, 19531250, 48828125, 97656250, 244140625, 488281250, 1220703125, 2441406250, 6103515625, 12207031250
a(2n)=5^n, a(2n+1)=2*5^n. G.f.=(1+2z)/(1-5z^2). - Emeric Deutsch, Jan 25 2004
a(n) = a(n-1)+2a(n-2)+5^floor((n-2)/2); a(n)= sum{k=0..floor(n/2), binomial(floor(n/2), k)2^(n-2k) }. - Paul Barry, Jul 14 2004
a(n+3) = a(n+2)*a(n+1)/a(n). - Reinhard Zumkeller, Mar 04 2011
[A162963] 2, 5, 10, 25, 50, 125, 250, 625, 1250, 3125, 6250, 15625, 31250, 78125, 156250, 390625, 781250, 1953125, 3906250, 9765625, 19531250, 48828125, 97656250, 244140625, 488281250, 1220703125, 2441406250, 6103515625, 12207031250
a(n) = (3-(-1)^n)*5^(1/4*(2*n-1+(-1)^n))/2.
[A074801] 1, 2, 5, 10, 28, 50, 116, 178, 528, 1282, 2794, 4778, 10594, 17166, 33426, 60242, 183072, 304202, 759716, 1288642, 2965286, 6352098, 11776586, 18326642, 48714362, 95769336, 172377654, 417138342, 1004225842, 1633822142, 3266821106, 4706920002, 16520601024
a(n) >= 2^n with equality for n<=2. - Michel Marcus, Mar 19 2017
[A075885] 1, 2, 5, 10, 29, 46, 169, 239, 745, 1450, 4111, 5182, 27157, 33164, 84001, 186496, 610065, 713474, 3061009, 3526553, 13783421, 27380452, 63264389, 71240523, 444872761, 620729126, 1400231613, 2615011102, 9094701085, 10008828958
a(n) = 1 + Sum_{m=1..n} Product_{k=1..m} floor(n/k).
[A155580] 1, 1, 2, 5, 10, 30, 180, 585, 1430, 3575, 9100, 31850, 83300, 220150, 792540, 11888100, 32167800, 87567900, 1576222200, 4334611050, 11971782900, 33194488950, 92367273600, 257858638800, 722004188640, 18050104716000
a(n)=If[IntegerQ[((3*n - 2)/(n + 1))*a(n - 1)], ((3*n - 2)/(n + 1))* a(n - 1),
[A089073] 1, 1, 2, 5, 10, 32, 64, 231, 462, 1792, 3584, 14586, 29172, 122880, 245760, 1062347, 2124694, 9371648, 18743296, 84021990, 168043980, 763363328, 1526726656, 7012604550, 14025209100, 65028489216, 130056978432, 607892634420
a(2k) = 4^k*binomial((3k-1)/2, k)/[2(k+1)], a(2k+1) = 2a(2k).
[A276660] 2, 5, 11, 13, 19, 23, 37, 43, 47, 61, 67, 73, 79, 103, 151, 157, 163, 191, 193, 211, 223, 271, 277, 283, 313, 331, 367, 383, 397, 421, 457, 463, 487, 523, 541, 547, 607, 613, 631, 661, 673, 691, 733, 751, 757, 787, 823, 877, 907, 991, 997, 1051, 1087, 1093, 1123
a(n) » n (log n)^2. - Charles R Greathouse IV, Sep 11 2016
[A228344] 2, 5, 11, 17, 26, 35, 47, 59, 74, 89, 107, 125, 146, 167, 191, 215, 242, 269, 299, 329, 362, 395, 431, 467, 506, 545, 587, 629, 674, 719, 767, 815, 866, 917, 971, 1025, 1082, 1139, 1199, 1259, 1322, 1385, 1451, 1517, 1586, 1655, 1727, 1799, 1874, 1949, 2027
a(n) = (-11+3*(-1)^n+6*n^2)/8. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: x^2*(x-2)*(x^2+x+1) / ((x-1)^3*(x+1)). - Colin Barker, Aug 27 2013
[A274830] 0, 2, 5, 11, 17, 27, 36, 50, 62, 80, 95, 117, 135, 161, 182, 212, 236, 270, 297, 335, 365, 407, 440, 486, 522, 572, 611, 665, 707, 765, 810, 872, 920, 986, 1037, 1107, 1161, 1235, 1292, 1370, 1430, 1512, 1575, 1661, 1727, 1817, 1886, 1980, 2052, 2150, 2225
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5.
a(n) = (14*(n - 1)*n + (2*n - 1)*(-1)^n + 1)/16. Therefore:
a(n) = n*(7*n - 6)/8 for n even,

a(n) = (n - 1)*(7*n - 1)/8 for n odd.
[A038390] 1, 2, 5, 11, 17, 27, 42, 57, 78, 106, 134, 170, 215, 260, 315, 381, 447, 525, 616, 707, 812, 932, 1052, 1188, 1341, 1494, 1665, 1855, 2045, 2255, 2486, 2717, 2970, 3246, 3522, 3822, 4147, 4472, 4823, 5201, 5579, 5985, 6420, 6855, 7320, 7816, 8312, 8840, 9401
a(n) = (2*n^2+2+floor(n/3)*(10*floor(n/3)^2-(8*n-15)*floor(n/3)+2*n^2-8*n+7))/2. - Luce ETIENNE, Sep 14 2015
[A064337] 2, 5, 11, 17, 29, 41, 59, 79, 101, 127, 157, 191, 229, 271, 317, 367, 421, 487, 557, 631, 709, 787, 877, 967, 1061, 1163, 1277, 1381, 1489, 1601, 1721, 1861, 1993, 2131, 2273, 2423, 2579, 2741, 2909, 3079, 3253, 3433, 3617, 3821, 4019, 4217, 4421, 4637
a(1) = 2, a(n+1) = MIN {prime p | p >= a(n) + p(n)} (where p(n) is the n-th prime number)
[A228353] 2, 5, 11, 17, 29, 47, 53, 83, 89, 107, 137, 173, 179, 197, 233, 263, 317, 389, 443, 449, 467, 569, 587, 593, 677, 683, 719, 809, 827, 839, 929, 947, 1097, 1163, 1187, 1223, 1259, 1289, 1367, 1433, 1493, 1523, 1559, 1619, 1637, 1667, 1709, 1847, 1889, 1973, 1979
a(n) » n*log^2 n. - _Charles R Greathouse IV, Jun 04 2015
[A171769] 2, 5, 11, 18, 28, 39, 53, 68, 86, 105, 127, 150, 176, 203, 233, 264, 298, 333, 371, 410, 452, 495, 541, 588, 638, 689, 743, 798, 856, 915, 977, 1040, 1106, 1173, 1243, 1314, 1388, 1463, 1541, 1620, 1702, 1785, 1871, 1958, 2048, 2139, 2233, 2328, 2426, 2525
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). - R. H. Hardin, Nov 13 2011
a(n) = ceil((2*n+1)*n/2). - Andrew Woods, Jun 06 2013
a(n) = round(n/(1-exp(-1/n))). - Richard R. Forberg, Jan 28 2015
[A132455] 1, 1, 2, 5, 11, 18, 30, 45, 80, 147, 330, 882, 1935, 3298, 4676, 7613, 18409, 53724, 141094, 293407, 473604, 639418, 1138534, 3086050, 9159520, 23937239, 54502764, 106105954, 167076383, 237933308, 491988696, 1749801789, 6074959380
a(n) = Sum_{k=0..[n/2]} ([x^n] (x/A(x^2))^(n-2*k+1))^2 for n>0 with a(0)=1.
[A245207] 2, 5, 11, 19, 29, 41, 54, 70, 88, 108, 130, 154, 179, 207, 237, 269, 303, 339, 376, 416, 458, 502, 548, 596, 645, 697, 751, 807, 865, 925, 986, 1050, 1116, 1184, 1254, 1325, 1399, 1475, 1553, 1633, 1715, 1798, 1884, 1972, 2062, 2154, 2248, 2343, 2441, 2541, 2643, 2747, 2853, 2960, 3070
a(n) = floor((n + sqrt(2))^2).
[A160536] 0, 2, 5, 11, 19, 30, 44, 62, 85, 115, 155, 210, 288, 402, 573, 835, 1243, 1886, 2908, 4542, 7165, 11387, 18195, 29186, 46944, 75650, 122069, 197147, 318595, 515070, 832940, 1347230, 2179333, 3525667, 5704043, 9228690, 14931648, 24159186
a(n) = a(n-4) - a(n-3) - 2*a(n-2) + 3*a(n-1) - 2 for n > 3; a(0)=0, a(1)=2, a(2)=5), a(3)=11. - Klaus Brockhaus, May 22 2009
[A139482] 1, 2, 5, 11, 20, 32, 47, 65, 86, 110, 137, 167, 200, 236, 275, 317, 362, 410, 461, 515, 572, 632, 695, 761, 830, 902, 977, 1055, 1136, 1220, 1307, 1397, 1490, 1586, 1685, 1787, 1892, 2000, 2111, 2225
a(n) = (10-9n+3n^2)/2 for n>=2. - Emeric Deutsch, May 03 2008
a(1)=1, a(2)=2, a(3)=5, a(4)=11, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 02 2015
[A050407] 0, 1, 1, 1, 2, 5, 11, 21, 36, 57, 85, 121, 166, 221, 287, 365, 456, 561, 681, 817, 970, 1141, 1331, 1541, 1772, 2025, 2301, 2601, 2926, 3277, 3655, 4061, 4496, 4961, 5457, 5985, 6546, 7141, 7771, 8437, 9140, 9881, 10661, 11481, 12342, 13245, 14191
a(n) = binomial(n-1,3) + binomial(n-1,0), n>=0. - Zerinvary Lajos, Jul 24 2006
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 22 2012
[A100134] 1, 1, 1, 1, 1, 1, 2, 5, 11, 21, 36, 57, 86, 128, 194, 305, 497, 827, 1381, 2287, 3739, 6042, 9693, 15519, 24901, 40126, 64933, 105364, 171112, 277696, 450017, 728201, 1177181, 1902321, 3074733, 4972113, 8044478, 13020029, 21075947, 34114553
a(n) = 3a(n-1)-3a(n-2)+a(n-3)+a(n-6).
[A137356] 1, 1, 1, 1, 1, 2, 5, 11, 21, 36, 58, 92, 149, 250, 431, 750, 1299, 2227, 3784, 6401, 10828, 18364, 31236, 53228, 90741, 154603, 263178, 447702, 761403, 1295022, 2203162, 3749001, 6380241, 10858285, 18478155, 31443013, 53501860, 91034937, 154900529, 263576791
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+a(n-5). - Vincenzo Librandi, Aug 09 2015
a(n) = hypergeom([-(1/5)*n, -(1/5)*n+1/5, 2/5-(1/5)*n, 3/5-(1/5)*n, -(1/5)*n+4/5], [1/3, 2/3, -(1/2)*n, -(1/2)*n+1/2], -3125/108). - Robert Israel, May 26 2017
[A103198] 1, 1, 1, 2, 5, 11, 21, 36, 58, 94, 166, 331, 716, 1574, 3368, 6892, 13447, 25127, 45391, 80428, 142615, 259085, 491855, 982400, 2045001, 4352661, 9291361, 19609786, 40574017, 81973315, 161568281, 311062991, 586764281, 1089615033, 2005257849
a(n) = Sum_{k>0} (x/(1-x))^(k^2).
[A023548] 2, 5, 11, 21, 38, 66, 112, 187, 309, 507, 828, 1348, 2190, 3553, 5759, 9329, 15106, 24454, 39580, 64055, 103657, 167735, 271416, 439176, 710618, 1149821, 1860467, 3010317, 4870814, 7881162, 12752008, 20633203, 33385245, 54018483, 87403764, 141422284
a(n) = Fib(n+3) + F(n+1) - (n+3) for n > 1. - Alex Vinokur (alexvn(AT)barak-online.net), Oct 26 2004
a(n) = (-4 + (2^(-n)*((1-sqrt(5))^n*(-5+2*sqrt(5)) + (1+sqrt(5))^n*(5+2*sqrt(5)))) / sqrt(5) - n). - Colin Barker, Mar 11 2017
a(n) = Sum_{i=1..n} C(n-i+2,i+1) + C(n-i+1,i). - Wesley Ivan Hurt, Sep 13 2017
[A024493] 1, 1, 1, 2, 5, 11, 22, 43, 85, 170, 341, 683, 1366, 2731, 5461, 10922, 21845, 43691, 87382, 174763, 349525, 699050, 1398101, 2796203, 5592406, 11184811, 22369621, 44739242, 89478485, 178956971, 357913942, 715827883, 1431655765, 2863311530
a(n) = (1/3)*(2^n+2*cos(n*Pi/3)).
a(n) = (1/3)*(2^n+b(n)) where b(n) is the 6-periodic sequence {2, 1, -1, -2, -1, 1}. - Benoit Cloitre, May 23 2004
a(n) = Sum_{k=0..n} binomial(n, 3(n-k)). - Paul Barry, Aug 30 2004
[A130781] 1, 1, 2, 5, 11, 22, 43, 85, 170, 341, 683, 1366, 2731, 5461, 10922, 21845, 43691, 87382, 174763, 349525, 699050, 1398101, 2796203, 5592406, 11184811, 22369621, 44739242, 89478485, 178956971, 357913942, 715827883, 1431655765, 2863311530
a(n)=(1/6)*{1/2-(1/2)*I*sqrt(3)}^n+(1/6)*{1/2+(1/2)*I*sqrt(3)}^n+(2/3)*2^n-(1/6)*I*{1/2-(1 /2)*I*sqrt(3)}^n*sqrt(3)+(1/6)*I*{1/2+(1/2)*I*sqrt(3)}^n*sqrt(3), with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A293362] 0, 1, 2, 5, 11, 22, 44, 88, 177, 354, 709, 1419, 2839, 5678, 11356, 22713, 45426, 90852, 181704, 363408, 726817, 1453634, 2907269, 5814539, 11629079, 23258159, 46516319, 93032639, 186065279, 372130558, 744261117, 1488522235, 2977044471, 5954088943
a(n) = floor(r*2^n), where r = log 2.
[A084188] 1, 2, 5, 11, 22, 45, 90, 181, 362, 724, 1448, 2896, 5792, 11585, 23170, 46340, 92681, 185363, 370727, 741455, 1482910, 2965820, 5931641, 11863283, 23726566, 47453132, 94906265, 189812531, 379625062, 759250124
a(n) = floor(sqrt(2)*2^n).
[A266721] 1, 2, 5, 11, 22, 45, 90, 181, 362, 725, 1450, 2901, 5802, 11605, 23210, 46421, 92842, 185685, 371370, 742741, 1485482, 2970965, 5941930, 11883861, 23767722, 47535445, 95070890, 190141781, 380283562, 760567125, 1521134250, 3042268501, 6084537002, 12169074005
a(n) = (-2*(-1)^n+17*2^n-6)/12 for n>1.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3) for n>4.
[A033120] 1, 2, 5, 11, 22, 45, 91, 182, 365, 731, 1462, 2925, 5851, 11702, 23405, 46811, 93622, 187245, 374491, 748982, 1497965, 2995931, 5991862, 11983725, 23967451, 47934902, 95869805, 191739611, 383479222, 766958445, 1533916891
a(3n) = (5*8^n - 5)/7, a(3n+1) = (10*8^n - 3)/7, a(3n+2) = (20*8^n - 6)/7. G.f.: [1+x^2]/[(1-x)(1-2x)(1+x+x^2)]. - Ralf Stephan, May 05 2004
a(n) = a(n-6) + 45*2^(n-6). - Lekraj Beedassy, Sep 12 2006
a(n) = floor((5/7)*2^n). - Tani Akinari, Jul 15 2014
[A147878] 1, 2, 5, 11, 23, 46, 86, 156, 273, 463, 766, 1241, 1969, 3073, 4723, 7157, 10711, 15850, 23206, 33654, 48373, 68955, 97544, 137002, 191125, 264955, 365127, 500349, 682018, 924982, 1248502, 1677530, 2244229, 2989952, 3967732, 5245354, 6909211
a(n) = p(2n) - p(n-1) - 2*Sum_{j=0..n-2} p(j).
[A140992] 0, 1, 2, 5, 11, 23, 46, 89, 168, 311, 567, 1021, 1820, 3217, 5646, 9849, 17091, 29523, 50794, 87081, 148820, 253611, 431087, 731065, 1237176, 2089633, 3523226, 5930669, 9968123, 16730831, 28045222, 46954361, 78524160, 131181407
a(n)= +3*a(n-1) -a(n-2) -3*a(n-3) +a(n-4) +a(n-5). G.f.: -x*(1-x+x^3) / ((x-1)*(x^2+x-1)^2). [From R. J. Mathar, Apr 27 2010]
[A248646] 2, 5, 11, 23, 46, 92, 184, 368, 736, 1472, 2944, 5888, 11776, 23552, 47104, 94208, 188416, 376832, 753664, 1507328, 3014656, 6029312, 12058624, 24117248, 48234496, 96468992, 192937984, 385875968, 771751936, 1543503872, 3087007744, 6174015488, 12348030976
a(n) = 23*2^(n-3) for n > 2.
a(n) = 2*a(n-1) for n > 3.
[A293339] 0, 0, 1, 2, 5, 11, 23, 47, 94, 188, 376, 753, 1506, 3013, 6027, 12054, 24109, 48218, 96437, 192874, 385749, 771499, 1542998, 3085996, 6171992, 12343985, 24687971, 49375942, 98751885, 197503771, 395007542, 790015084, 1580030168, 3160060337, 6320120674

a(n) = floor(r*2^n), where r = 1/e.
[A055010] 0, 2, 5, 11, 23, 47, 95, 191, 383, 767, 1535, 3071, 6143, 12287, 24575, 49151, 98303, 196607, 393215, 786431, 1572863, 3145727, 6291455, 12582911, 25165823, 50331647, 100663295, 201326591, 402653183, 805306367, 1610612735
a(n) = (-1 + 3*2^(n-1))*(1-(C(2*n,n) mod 2)), with n>=0. - Paolo P. Lava, Nov 20 2008
[A153893] 2, 5, 11, 23, 47, 95, 191, 383, 767, 1535, 3071, 6143, 12287, 24575, 49151, 98303, 196607, 393215, 786431, 1572863, 3145727, 6291455, 12582911, 25165823, 50331647, 100663295, 201326591, 402653183, 805306367, 1610612735, 3221225471
a(n) = a(n-1)*2 + 1, a(0)=2.
a(n) = 3*a(n-1) - 2*a(n-2).
[A083329] 1, 2, 5, 11, 23, 47, 95, 191, 383, 767, 1535, 3071, 6143, 12287, 24575, 49151, 98303, 196607, 393215, 786431, 1572863, 3145727, 6291455, 12582911, 25165823, 50331647, 100663295, 201326591, 402653183, 805306367, 1610612735, 3221225471, 6442450943
a(n) = (3*2^n - 2 + 0^n)/2.
a(0) = 1, a(n) = sum of all previous terms + n. - Amarnath Murthy, Jun 20 2004
a(n) = 3*a(n-1)-2*a(n-2) for n>2, a(0)=1, a(1)=2, a(2)=5. - Philippe Deléham, Nov 29 2013
a(n) = (...((((((1)+1)*2+1)*2+1)*2+1)*2+1)...), with n+1 1's, n >= 0.
a(n) = 2*a(n-1) + 1, n >= 2.
a(n) = 2^n + 2^(n-1) - 1, n >= 2. (End)
[A266550] 1, 1, 2, 5, 11, 23, 47, 95, 191, 383, 767, 1535, 3071, 6143, 12287, 24575, 49151, 98303, 196607, 393215, 786431, 1572863, 3145727, 6291455, 12582911, 25165823, 50331647, 100663295, 201326591, 402653183, 805306367, 1610612735, 3221225471, 6442450943, 12884901887
a(n) = 3*a(n-1)-2*a(n-2) for n>2. - Vincenzo Librandi, Jan 01 2016
[A182557] 0, 1, 2, 5, 11, 24, 51, 106, 219, 448, 910, 1841, 3712, 7466, 14992, 30070, 60262, 120697, 241639, 483625, 967741, 1936177, 3873337, 7748065, 15498098, 30998979, 62001894, 124009355, 248026584, 496064303, 992144354, 1984310980, 3968653458, 7937351461, 15874765919
a(0)=0, a(1)=1, a(n) = a(n-1)*2 + floor(sqrt(a(n-2))).
[A027934] 0, 1, 2, 5, 11, 24, 51, 107, 222, 457, 935, 1904, 3863, 7815, 15774, 31781, 63939, 128488, 257963, 517523, 1037630, 2079441, 4165647, 8342240, 16702191, 33433039, 66912446, 133899917, 267921227, 536038872, 1072395555, 2145305339
a(n) = sum(sum(C(n-j,n-2j-k), k=0..n-2j), j=0..floor(n/2)). - Paul Barry, Feb 07 2003
a(n) = sum{j=0..n, sum{k=0..n, binomial(n-k, k+j)}}. - Paul Barry, Aug 29 2004
a(n) = term (1,1) - term (2,2) in the 3x3 matrix [2,0,0; 0,1,1; 0,1,0]^n. - Alois P. Heinz, Jul 28 2008
a(n) = 2^n-(1/2)*[1/2+(1/2)*sqrt(5)]^n-(1/10)*[1/2 +(1/2)*sqrt(5)]^n *sqrt(5) +(1/10)*sqrt(5)*[1/2-(1 /2)*sqrt(5)]^n-(1/2)*[1/2 -(1/2) *sqrt(5)]^n, with n>=0. - Paolo P. Lava, Oct 02 2008
[A286945] 1, 2, 5, 11, 24, 51, 109, 234, 503, 1081, 2322, 4987, 10711, 23006, 49415, 106139, 227976, 489669, 1051759, 2259072, 4852259, 10422163, 22385754, 48082339, 103276009, 221826440, 476460797, 1023389687, 2198137722, 4721377893, 10141043023, 21781936530
a(n) = 2*a(n-1)+a(n-4)+a(n-5) for n>5.
[A111297] 1, 2, 5, 11, 24, 52, 112, 240, 512, 1088, 2304, 4864, 10240, 21504, 45056, 94208, 196608, 409600, 851968, 1769472, 3670016, 7602176, 15728640, 32505856, 67108864, 138412032, 285212672, 587202560, 1207959552, 2483027968, 5100273664
a(n) = 2*a(n-1) + 2^(n-3) for n>2, a(0) = 1, a(1) = 2, a(2) = 5 . - Philippe Deléham, Mar 02 2012
[A077864] 1, 2, 5, 11, 24, 52, 112, 241, 518, 1113, 2391, 5136, 11032, 23696, 50897, 109322, 234813, 504355, 1083304, 2326828, 4997792, 10734753, 23057166, 49524465, 106373551, 228479648, 490751216, 1054084064, 2264066145, 4862985490, 10445201845, 22435238971, 48188628152
a(0)=1, a(1)=2, a(2)=5, a(3)=11, a(n)=2*a(n-1)+a(n-2)-a(n-3)-a(n-4) for n>3. - Philippe Deléham, Oct 25 2006
a(n) = term (4,1) in the 4x4 matrix [1,1,0,0; 2,0,1,0; 1,0,0,0; 1,0,0,1]^(n+1). - Alois P. Heinz, Jul 24 2008
[A018007] 1, 2, 5, 11, 24, 54, 121, 269, 598, 1331, 2960, 6583, 14641, 32561, 72416, 161051, 358174, 796572, 1771561, 3939916, 8762296, 19487171, 43339080, 96385252, 214358881, 476729884, 1060237770, 2357947691, 5244028719, 11662615466, 25937424601, 57684315913
a(n) = round(11^(n/3)). - Wesley Ivan Hurt, Dec 21 2013
[A071879] 1, 1, 1, 2, 5, 11, 24, 57, 141, 349, 871, 2212, 5688, 14730, 38403, 100829, 266333, 706997, 1885165, 5047522, 13565203, 36578497, 98934826, 268342933, 729709432, 1989021256, 5433518806, 14873285506, 40790118487, 112064912455
a(n) = sum(C(n+1, 1+2i)*C(n-2i, i), i=0..floor(n/3))/(n+1). - Emeric Deutsch, Nov 03 2002
a(n) = sum{k=0..floor(n/3), C(n,3k)C(3k,k)/(2k+1)}. - Paul Barry, Sep 07 2006
[A084978] 1, 2, 5, 11, 25, 51, 110, 221, 456, 918, 1864, 3729, 7528, 15057, 30227, 60485, 121205, 242411, 485337, 970675, 1942307, 3884730, 7771327, 15542655, 31089330, 62178686, 124364903, 248730268, 497475717, 994951435, 1989934099, 3979868199
a(n+1) = Sum(k=1..n; Sum(d|k; a(d)).
a(n+1) = 1 + Sum(k=1..n; Sum(d|k; a(d)) or a(n+1) = a(n) + Sum(d|n; a(d)). - Vladeta Jovovic, Aug 08 2004
[A291737] 1, 2, 5, 11, 25, 54, 121, 267, 591, 1310, 2899, 6422, 14218, 31486, 69722, 154389, 341881, 757050, 1676405, 3712200, 8220236, 18202762, 40307892, 89257156, 197649588, 437672056, 969173912, 2146123007, 4752340053, 10523504828, 23303078705, 51601960101
a(n) = a(n-1) + a(n-2) + 2*a(n-3) + 2*a(n-4) + 3*a(n-5) + a(n-6) + 3*a(n-7) + a(n-9) for n >= 10.
[A177795] 0, 1, 2, 5, 11, 25, 55, 120, 258, 550, 1163, 2444, 5108, 10627, 22021, 45474, 93621, 192232, 393779, 804947, 1642355, 3345307, 6803734, 13818636, 28031472, 56798821, 114971348, 232507076, 469801235, 948538807, 1913759614, 3858660525, 7775454390, 15659429797
a(n) = 2*a(n-1) + 2^n-3 - a(n-3) - 2^n-4 + a(n-4).
[A215091] 2, 5, 11, 25, 55, 123, 275, 615, 1375, 3075, 6875, 15373, 34375, 76865, 171875, 384325, 859376, 1921624, 4296881, 9608119, 21484407, 48040595, 107422036, 240202975, 537110180, 1201014874, 2685550900, 6005074370, 13427754501
a(n) = ceiling(x*a(n-1)) if n is odd, a(n) = floor(x*a(n-1) if n is even, where x = sqrt(5) and a(0) = floor(x).
[A228765] 1, 2, 5, 11, 25, 56, 126, 283, 633, 1419, 3178, 7118, 15943, 35710, 79985, 179152, 401270, 898777, 2013107, 4509015, 10099422, 22620977, 50667115, 113485664, 254188460, 569338636, 1275221080, 2856276912
a(n+1) = round(k^n), with k = 7 - 4 sqrt(2) + 2 sqrt(20 - 14 sqrt(2)) = 2.23982.... - Charles R Greathouse IV, Sep 05 2013
[A006054] 0, 0, 1, 2, 5, 11, 25, 56, 126, 283, 636, 1429, 3211, 7215, 16212, 36428, 81853, 183922, 413269, 928607, 2086561, 4688460, 10534874, 23671647, 53189708, 119516189, 268550439, 603427359, 1355888968, 3046654856, 6845771321, 15382308530, 34563733525
a(n+3) = sum(k=1..n, sum(j=0..k, binomial(j,n-3*k+2*j)*(-1)^(j-k)*binomial(k,j)*2^(-n+3*k-j))), a(0)=0, a(1)=0, a(2)=1. - Vladimir Kruchinin, May 05 2011
[A085945] 1, 2, 5, 11, 26, 53, 116, 236, 488, 983, 2006, 4016, 8111, 16238, 32603, 65243, 130778, 261566, 523709, 1047479, 2095988, 4192115, 8386418, 16772858, 33550058, 67100393, 134209001, 268418531, 536853986, 1073707991
a(n) = Sum_{k=1..n} mu(k)*(2^floor(n/k)-1). - Geoffrey Critzer, Jan 03 2012
[A291233] 1, 2, 5, 11, 26, 58, 134, 303, 693, 1576, 3593, 8184, 18645, 42480, 96773, 220481, 502290, 1144350, 2607062, 5939501, 13531493, 30827806, 70232669, 160005808, 364529269, 830479602, 1892019493, 4310445875, 9820165646, 22372546322, 50969693930, 116120429167
a(n) = a(n-1) + 4*a(n-2) - a(n-3) - 4*a(n-4) + a(n-5) + a(n-6) for n >= 7.
[A006138] 1, 2, 5, 11, 26, 59, 137, 314, 725, 1667, 3842, 8843, 20369, 46898, 108005, 248699, 572714, 1318811, 3036953, 6993386, 16104245, 37084403, 85397138, 196650347, 452841761, 1042792802, 2401318085, 5529696491, 12733650746, 29322740219, 67523692457, 155491913114
a(n) = Sum_{k=0..n} C(floor((2n-k)/2),n-k)*3^floor(k/2). - Paul Barry, Feb 02 2007
a(n) = (1/2)*(((1/2)-(1/2)*sqrt(13))^n+((1/2)+(1/2)*sqrt(13))^n)+(3/26)*sqrt(13)*(((1/2)+(1/2)*sqrt(13))^n-((1/2)-(1/2)*sqrt(13))^n). - Paolo P. Lava, Jul 17 2009
[A124217] 1, 1, 2, 5, 11, 26, 61, 143, 336, 789, 1853, 4352, 10221, 24005, 56378, 132409, 310975, 730354, 1715305, 4028555, 9461440, 22221081, 52188297, 122569120, 287865097, 676078233, 1587833266, 3729175645, 8758319459, 20569736330
a(n)=sum{k=0..floor(n/2), sum{j=0..n-k, C(n-k,j)C(j,2(j-k))2^(j-k)}};
[A095981] 0, 0, 1, 2, 5, 11, 26, 61, 147, 357, 879, 2183, 5471, 13811, 35100, 89724, 230562, 595237, 1543191, 4016038, 10487553, 27473602, 72178312, 190127740, 502044221, 1328667241, 3523684572, 9363119781, 24924679832, 66461841934, 177501561659
a(n) = a(n-1) + a(n-2) + 1 + a(2)(1 + a(n-4))+a(3)(1 + a(n-5)) + ... + a(n-2)(1 + a(0)) for n>=3. This recurrence counts plateau-free Motzkin n-paths by location of first return to ground level.

[A082397] 1, 2, 5, 11, 26, 62, 153, 385, 988, 2573, 6786, 18084, 48621, 131718, 359193, 985185, 2715972, 7521567, 20915256, 58373586, 163462815, 459136809, 1293223230, 3651864606, 10336625731, 29321683082, 83344398533, 237344961291
a(n) = Sum_{k=1..n}(-1^(k+1)*binomial(n+1, k+1)*binomial(k, floor((k-1)/2)). E.g.f.: -exp(x)*int(-BesselI(1, 2*x)+BesselI(2, 2*x), x)-exp(x)*(-BesselI(1, 2*x)+BesselI(2, 2*x)). - Vladeta Jovovic, Sep 18 2003
[A051286] 1, 1, 2, 5, 11, 26, 63, 153, 376, 931, 2317, 5794, 14545, 36631, 92512, 234205, 594169, 1510192, 3844787, 9802895, 25027296, 63972861, 163701327, 419316330, 1075049011, 2758543201, 7083830648, 18204064403, 46812088751, 120452857976
a(n) = Sum_{k=0..n} C(n-k, k)^2. Limit_{n->inf} a(n+1)/a(n) = (sqrt(5)+3)/2. G.f.: 1/sqrt((1+x+x^2)*(1-3*x+x^2)). - Paul D. Hanna, May 22 2005
a(n) = sum{k=0..n, sum{j=0..n, (-1)^((n-j)/2)*C((n+j)/2,j)((1+(-1)^(n-j))/2)*C(j,k)}*C(k,k/2)(1+(-1)^k)/2}. [Paul Barry, Mar 31 2010]
[A095892] 1, 1, 1, 2, 5, 11, 26, 66, 173, 469, 1307, 3676, 10506, 30260, 87922, 256990, 756381, 2236409, 6648893, 19846902, 59507503, 179051839, 540778436, 1638019284, 4977317066, 15162490432, 46314401884, 141773634376, 434993794258
a(n) = Sum_{k=0..[n/2]} ([x^n] (x*A(x^2))^(n-2k))^2, where [x^n] f(x) denotes the coefficient of x^n in f(x).
[A212567] 0, 0, 2, 5, 11, 27, 42, 68, 106, 149, 201, 279, 354, 452, 572, 701, 845, 1031, 1212, 1428, 1676, 1937, 2219, 2559, 2892, 3272, 3694, 4133, 4599, 5139, 5670, 6260, 6902, 7565, 8261, 9047, 9822, 10668, 11576, 12509, 13481, 14559, 15624, 16772
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)-a(n-6)+2*a(n-7)+2*a(n-8)-a(n-10).
[A000625] 1, 1, 1, 2, 5, 11, 28, 74, 199, 551, 1553, 4436, 12832, 37496, 110500, 328092, 980491, 2946889, 8901891, 27012286, 82300275, 251670563, 772160922, 2376294040, 7333282754, 22688455980, 70361242924, 218679264772, 681018679604, 2124842137550, 6641338630714, 20792003301836
a(0)=a(1)=1; a(n+1):=[2na(n/3)/3+sum(ja(j)sum(a(i)*a(n-j-i), i=0..n-j), j=1..n)]/n, (n>=2), where a(k)=0 if k not an integer (essentially eq (4) in the Robinson et al. paper). - Emeric Deutsch, May 16 2004
[A190865] 1, 1, 1, 2, 5, 11, 31, 106, 337, 1205, 5021, 20186, 86461, 417847, 1992355, 9860306, 53734241, 292816841, 1633818457, 9855157330, 59926837141, 370352343971, 2439935383271, 16283034762842, 109982177787505, 783404343570301, 5668314772422901, 41412522553362026
a(n) = n!*sum(k=0..n/3, 1/((k)!*(n-3*k)!*6^(k))), n>0, a(0)=1.
[A172297] 2, 5, 11, 41, 116, 197, 312, 435, 684, 1046, 1430, 1892, 2404, 3155, 3977, 9289, 17044, 26575, 38954, 54776, 73661, 96632, 119637, 218363, 361381, 512404, 1179475, 2374678, 3643657, 5111420, 7125412, 9493318, 13246266
a(n) = sum[i=1..n] {i such that the Woodall number i*2^i - 1 is prime}.
[A267527] 1, 2, 5, 11, 87, 175, 1375, 2751, 21887, 43775, 349695, 699391, 5593087, 11186175, 89481215, 178962431, 1431666687, 2863333375, 22906535935, 45813071871, 366504050687, 733008101375, 5864062713855, 11728125427711, 93824995033087, 187649990066175
a(n) = 3*a(n-1)+14*a(n-2)-48*a(n-3)+32*a(n-4) for n>5.
[A042467] 1, 1, 2, 5, 12, 17, 29, 1583, 1612, 3195, 8002, 19199, 27201, 46400, 2532801, 2579201, 5112002, 12803205, 30718412, 43521617, 74240029, 4052483183, 4126723212, 8179206395, 20485136002, 49149478399, 69634614401, 118784092800, 6483975625601, 6602759718401
a(n) = 1600*a(n-7) + a(n-14). - Vincenzo Librandi, Dec 14 2013
[A041889] 1, 1, 2, 5, 12, 17, 46, 247, 293, 1126, 1419, 29506, 30925, 122281, 153206, 888311, 1929828, 2818139, 7566106, 17950351, 25516457, 43466808, 1851122393, 1894589201, 3745711594, 9386012389, 22517736372, 31903748761, 86325233894, 463529918231
a(n) = 1876638850*a(n-22) - a(n-44) for n>43. - Vincenzo Librandi, Dec 26 2013
[A041641] 1, 2, 5, 12, 17, 301, 318, 937, 2192, 5321, 193748, 392817, 979382, 2351581, 3330963, 58977952, 62308915, 183595782, 429500479, 1042596740, 37962983119, 76968562978, 191900109075, 460768781128, 652668890203, 11556139914579, 12208808804782
a(n) = 195940*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 22 2013
[A116728] 1, 2, 5, 12, 19, 26, 33, 40, 47, 54, 61, 68, 75, 82, 89, 96, 103, 110, 117, 124, 131, 138, 145, 152, 159, 166, 173, 180, 187, 194, 201, 208, 215, 222, 229, 236, 243, 250, 257, 264, 271, 278, 285, 292, 299, 306, 313, 320, 327, 334, 341, 348, 355, 362, 369
a(n) = 2*a(n-1) - a(n-2) for n=4. - Colin Barker, Oct 24 2017
[A276478] 1, 2, 5, 12, 19, 34, 45, 56, 77, 98, 127, 148, 169, 206, 239, 280, 311, 350, 393, 440, 495, 534, 593, 644, 697, 770, 827, 896, 957, 1026, 1105, 1168, 1255, 1330, 1417, 1512, 1579, 1678, 1759, 1868, 1969, 2050, 2159, 2256, 2377, 2490, 2585, 2704, 2811, 2942
a(n) = 1 - 3*n - 2*(n-1)*m(n) + 4 * Sum_{k=0..m(n)} floor(sqrt(n^2-k^2)) where m(n) = floor(n*sqrt(3)/2). - Franz Vrabec, Oct 02 2016
[A080838] 0, 0, 0, 2, 5, 12, 21, 36, 54, 80, 110, 150, 195, 252, 315, 392, 476, 576, 684, 810, 945, 1100, 1265, 1452, 1650, 1872, 2106, 2366, 2639, 2940, 3255, 3600, 3960, 4352, 4760, 5202, 5661, 6156, 6669, 7220, 7790, 8400, 9030, 9702, 10395, 11132, 11891
a(n) = n/16*(2n^2-8n+7+(-1)^n). G.f.: (x^5+2x^4)/(1-x)^4/(1+x)^2.
[A244396] 2, 5, 12, 21, 39, 54, 87, 117, 162, 204, 279, 333, 435, 516, 624, 732, 900, 1017, 1224, 1380, 1590, 1785, 2082, 2286, 2616, 2886, 3237, 3543, 4005, 4305, 4830, 5238, 5748, 6204, 6816, 7266, 8004, 8571, 9279, 9879, 10779, 11373, 12360, 13110, 14010, 14835
a(n) = n^3/(6*zeta(3)) + O(n^2). (see (22) in Tomás link).
[A106331] 0, 1, 2, 5, 12, 21, 50, 119, 208, 495, 1178, 2059, 4900, 11661, 20382, 48505, 115432, 201761, 480150, 1142659, 1997228, 4752995, 11311158, 19770519, 47049800, 111968921, 195707962, 465745005, 1108378052, 1937309101, 4610400250
a(n)= +10*a(n-3) -a(n-6). G..f: x^2*(1+2*x+5*x^2+2*x^3+x^4)/(1-10*x^3+x^6). [From R. J. Mathar, May 22 2010]
[A116727] 1, 2, 5, 12, 22, 32, 42, 52, 62, 72, 82, 92, 102, 112, 122, 132, 142, 152, 162, 172, 182, 192, 202, 212, 222, 232, 242, 252, 262, 272, 282, 292, 302, 312, 322, 332, 342, 352, 362, 372, 382, 392, 402, 412, 422, 432, 442, 452, 462, 472, 482, 492, 502, 512, 522
a(n) = 2*a(n-1) - a(n-2) for n=5. - Colin Barker, Oct 24 2017
[A116718] 1, 1, 2, 5, 12, 22, 37, 60, 96, 153, 244, 390, 625, 1004, 1616, 2605, 4204, 6790, 10973, 17740, 28688, 46401, 75060, 121430, 196457, 317852, 514272, 832085, 1346316, 2178358, 3524629, 5702940, 9227520, 14930409, 24157876, 39088230, 63246049, 102334220
a(0)=1, a(1)=1, a(2)=2, a(3)=5, a(4)=12, a(5)=22, a(6)=37, a(n)=3*a(n-1)- 2*a(n-2)- a(n-3)+a (n-4). - Harvey P. Dale, Oct 21 2011
[A026035] 2, 5, 12, 22, 38, 59, 88, 124, 170, 225, 292, 370, 462, 567, 688, 824, 978, 1149, 1340, 1550, 1782, 2035, 2312, 2612, 2938, 3289, 3668, 4074, 4510, 4975, 5472, 6000, 6562, 7157, 7788, 8454, 9158, 9899, 10680, 11500, 12362, 13265, 14212, 15202, 16238
a(n) = (2*n^3 + 4*n - 3 + 3*(-1)^n)/12. - Ralf Stephan, Jan 30 2005.
a(2)=2, a(3)=5, a(4)=12, a(5)=22, a(6)=38; for n>6, a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5). - Harvey P. Dale, May 31 2013
a(n) = binomial(n,3) + floor(n^2/2). - Bruno Berselli, Jun 08 2017
[A116711] 1, 2, 5, 12, 23, 36, 51, 68, 87, 108, 131, 156, 183, 212, 243, 276, 311, 348, 387, 428, 471, 516, 563, 612, 663, 716, 771, 828, 887, 948, 1011, 1076, 1143, 1212, 1283, 1356, 1431, 1508, 1587, 1668, 1751, 1836, 1923, 2012, 2103, 2196, 2291, 2388, 2487, 2588
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3. - Colin Barker, Oct 23 2017
[A115520] 1, 2, 5, 12, 23, 36, 61, 88, 123, 170, 227, 288, 373, 462, 565, 688, 827, 972, 1153, 1340, 1547, 1782, 2039, 2304, 2617, 2938, 3285, 3668, 4079, 4500, 4981, 5472, 5995, 6562, 7163, 7776, 8461, 9158, 9893, 10680, 11507, 12348, 13273, 14212, 15195, 16238, 17327, 18432, 19633
a(n) = binomial(n+1,3) - linear (PORC) correction term which depends on n mod 6.
[A096376] 2, 5, 12, 23, 38, 57, 80, 107, 138, 173, 212, 255, 302, 353, 408, 467, 530, 597, 668, 743, 822, 905, 992, 1083, 1178, 1277, 1380, 1487, 1598, 1713, 1832, 1955, 2082, 2213, 2348, 2487, 2630, 2777, 2928, 3083, 3242, 3405, 3572, 3743, 3918, 4097, 4280, 4467, 4658
a(n) = 2*n^2 + n + 2. - N. J. A. Sloane, Nov 10 2009
a(n) = 4*n + a(n-1) - 1 (with a(0)=2). - Vincenzo Librandi, Nov 16 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A116721] 1, 2, 5, 12, 24, 42, 67, 100, 142, 194, 257, 332, 420, 522, 639, 772, 922, 1090, 1277, 1484, 1712, 1962, 2235, 2532, 2854, 3202, 3577, 3980, 4412, 4874, 5367, 5892, 6450, 7042, 7669, 8332, 9032, 9770, 10547, 11364, 12222, 13122, 14065, 15052, 16084, 17162
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>5. - Colin Barker, Oct 24 2017
[A116713] 1, 2, 5, 12, 24, 45, 83, 154, 290, 555, 1077, 2112, 4172, 8281, 16487, 32886, 65670, 131223, 262313, 524476, 1048784, 2097381, 4194555, 8388882, 16777514, 33554755, 67109213, 134218104, 268435860, 536871345, 1073742287, 2147484142, 4294967822, 8589935151
a(n) = (-4 + 2^n - n + n^2) / 2 for n>2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) for n>6.
[A116731] 1, 2, 5, 12, 25, 46, 77, 120, 177, 250, 341, 452, 585, 742, 925, 1136, 1377, 1650, 1957, 2300, 2681, 3102, 3565, 4072, 4625, 5226, 5877, 6580, 7337, 8150, 9021, 9952, 10945, 12002, 13125, 14316, 15577, 16910, 18317, 19800, 21361, 23002, 24725, 26532
a(n) = (n^3-3*n^2+5*n)/3. - Franklin T. Adams-Watters, Sep 13 2006

[A116722] 1, 2, 5, 12, 25, 47, 82, 135, 212, 320, 467, 662, 915, 1237, 1640, 2137, 2742, 3470, 4337, 5360, 6557, 7947, 9550, 11387, 13480, 15852, 18527, 21530, 24887, 28625, 32772, 37357, 42410, 47962, 54045, 60692, 67937, 75815, 84362, 93615, 103612, 114392, 125995
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4. - Colin Barker, Oct 24 2017
[A116730] 1, 2, 5, 12, 25, 48, 87, 152, 259, 434, 719, 1182, 1933, 3150, 5121, 8312, 13477, 21836, 35363, 57252, 92671, 149982, 242715, 392762, 635545, 1028378, 1663997, 2692452, 4356529, 7049064, 11405679, 18454832, 29860603, 48315530, 78176231, 126491862, 204668197
a(n) = 1 + (2^(1-n)*((1-sqrt(5))^n*(-2+sqrt(5)) + (1+sqrt(5))^n*(2+sqrt(5))))/sqrt(5) - 3*(1 + n).
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
[A166106] 0, 1, 1, 2, 5, 12, 25, 50, 96, 180, 331, 600, 1075, 1908, 3360, 5878, 10225, 17700, 30509, 52390, 89664, 153000, 260375, 442032, 748775, 1265832, 2136000, 3598250, 6052061, 10164540, 17048641, 28559450, 47786400, 79870428, 133359715, 222457608, 370747675
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4) for n>6.
a(n) = (1/25)*2^(-n-1)*(5*((1 - sqrt(5))^(n+1) + (1 + sqrt(5))^(n+1))*n - (25 + sqrt(5))*(1 + sqrt(5))^n + (sqrt(5) - 25)*(1 - sqrt(5))^n), n>2. - Ilya Gutkovskiy, Apr 26 2016
[A067331] 2, 5, 12, 25, 50, 96, 180, 331, 600, 1075, 1908, 3360, 5878, 10225, 17700, 30509, 52390, 89664, 153000, 260375, 442032, 748775, 1265832, 2136000, 3598250, 6052061, 10164540, 17048641, 28559450, 47786400, 79870428, 133359715, 222457608, 370747675, 617363100
a(n) = sum(binom(n+3-i,i)*(n+2-2*i), i=0..[(n+3)/2]). - John M. Campbell, Jan 04 2016
[A116734] 1, 2, 5, 12, 25, 50, 97, 184, 345, 642, 1189, 2196, 4049, 7458, 13729, 25264, 46481, 85506, 157285, 289308, 532137, 978770, 1800257, 3311208, 6090281, 11201794, 20603333, 37895460, 69700641, 128199490, 235795649, 433695840, 797691041
a(0)=0, a(1)=1, a(2)=2, then a(n) = a(n-1) + a(n-2) + a(n-3) + 2*n - 4. [From Gerald McGarvey, Oct 06 2009]
[A116715] 1, 2, 5, 12, 25, 54, 120, 265, 580, 1272, 2796, 6143, 13488, 29619, 65053, 142873, 313771, 689095, 1513390, 3323699, 7299465, 16031000, 35207128, 77321545, 169812767, 372941033, 819049274, 1798787604, 3950478790, 8676000808, 19054143661, 41846514135
a(n) = a(n-1) + a(n-2) + 2*a(n-3) + 3*a(n-4) + a(n-5) for n>5. - Colin Barker, Oct 20 2017
[A221720] 1, 1, 2, 5, 12, 26, 49, 83, 129, 187, 257, 339, 433, 539, 657, 787, 929, 1083, 1249, 1427, 1617, 1819, 2033, 2259, 2497, 2747, 3009, 3283, 3569, 3867, 4177, 4499, 4833, 5179, 5537, 5907, 6289, 6683, 7089, 7507, 7937, 8379, 8833, 9299, 9777, 10267, 10769, 11283, 11809, 12347
a(n) = 6*n^2 - 56*n + 147 for n>6. [Bruno Berselli, Feb 05 2013]
[A027927] 1, 2, 5, 12, 26, 51, 92, 155, 247, 376, 551, 782, 1080, 1457, 1926, 2501, 3197, 4030, 5017, 6176, 7526, 9087, 10880, 12927, 15251, 17876, 20827, 24130, 27812, 31901, 36426, 41417, 46905, 52922, 59501, 66676
a(n) = 1 + binomial(n, 4) + binomial(n-1, 2) = (n^4 - 6n^3 + 23n^2 - 42n + 48)/24.
[A221948] 0, 1, 1, 2, 5, 12, 26, 52, 98, 176, 303, 502, 803, 1244, 1872, 2744, 3928, 5504, 7565, 10218, 13585, 17804, 23030, 29436, 37214, 46576, 57755, 71006, 86607, 104860, 126092, 150656, 178932, 211328, 248281, 290258, 337757, 391308, 451474, 518852, 594074, 677808, 770759, 873670, 987323, 1112540, 1250184, 1401160, 1566416, 1746944, 1943781, 2158010
a(n) = (n-1)*(n^4-14*n^3+111*n^2-354*n+480)/120 for n>1. - Bruno Berselli, Feb 06 2013
[A116717] 1, 2, 5, 12, 26, 52, 98, 177, 310, 531, 895, 1491, 2463, 4044, 6611, 10774, 17520, 28446, 46136, 74771, 121116, 196117, 317485, 513877, 831661, 1345862, 2177873, 3524112, 5702390, 9226936, 14929790, 24157221, 39087538, 63245319, 102333451, 165579399, 267913515
a(n) = -3 + (2^(-1- n)*((1-sqrt(5))^n*(-11+5*sqrt(5)) + (1+sqrt(5))^n*(11+5*sqrt(5)))) / sqrt(5) - n - (1 + n)*(2 + n)/2.
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5) for n>5.
a(n) = 1 + Sum_{k=1..n} Sum_{j=1..k} Sum_{i=1..j-1} Fibonacci(i). - Ehren Metcalfe, Oct 22 2017
[A116725] 1, 2, 5, 12, 26, 52, 99, 184, 340, 632, 1189, 2268, 4382, 8556, 16839, 33328, 66216, 131888, 263113, 525428, 1049906, 2098692, 4196075, 8390632, 16779516, 33557032, 67111789, 134221004, 268439110, 536874972, 1073746319, 2147488608, 4294972752, 8589940576
a(n) = (3*2^n + 2*n - 3*n^2 + n^3) / 6.
a(n) = 6*a(n-1) - 14*a(n-2) + 16*a(n-3) - 9*a(n-4) + 2*a(n-5) for n>5.
[A026622] 1, 2, 5, 12, 26, 54, 110, 222, 446, 894, 1790, 3582, 7166, 14334, 28670, 57342, 114686, 229374, 458750, 917502, 1835006, 3670014, 7340030, 14680062, 29360126, 58720254, 117440510, 234881022, 469762046, 939524094, 1879048190, 3758096382, 7516192766
a(n) = 2*a(n-1) + 2, n>2. - Gary Detlefs, Jun 22 2010
a(n) = 3*a(n-1)-2*a(n-2) for n>3. G.f.: (1-x+x^2+x^3) / ((1-x)*(1-2*x)). - Colin Barker, Feb 17 2016
[A228078] 0, 0, 2, 5, 12, 26, 55, 114, 234, 477, 968, 1958, 3951, 7958, 16006, 32157, 64548, 129474, 259559, 520106, 1041810, 2086205, 4176592, 8359950, 16730847, 33479406, 66987470, 134021309, 268117644, 536356682, 1072909783, 2146137378, 4292788986, 8586410013
a(n) = 4*a(n-1)-4*a(n-2)-a(n-3)+2*a(n-4) for n>3. - Colin Barker, Mar 20 2015
a(n) = (-1+2^n+(((1-sqrt(5))/2)^n-((1+sqrt(5))/2)^n)/sqrt(5)). - Colin Barker, Nov 02 2016
[A125180] 2, 5, 12, 26, 56, 114, 232, 466, 936, 1878, 3758, 7522, 15048, 30098, 60200, 120406, 240818, 481638, 963282, 1926568, 3853138, 7706282, 15412568, 30825142, 61650292, 123300588, 246601178, 493202360, 986404722, 1972809448, 3945618910
a(n)=p(n)+Sum(2^(n-j-1)*p(j),j=1..n-1), where p(k) denotes the k-th prime.
[A073778] 0, 0, 1, 2, 5, 12, 26, 56, 118, 244, 499, 1010, 2027, 4040, 8004, 15776, 30956, 60504, 117845, 228818, 443057, 855732, 1649022, 3171128, 6086626, 11662252, 22309543, 42614178, 81286743, 154856528, 294660040, 560052736, 1063367384, 2017030256
a(n) = sum(k=0..n-2, (k+1)*sum(j=0..k, binomial(j,n-3*k+2*j-2)* binomial(k,j))). [Vladimir Kruchinin, Dec 14 2011]
[A116716] 1, 2, 5, 12, 26, 58, 131, 295, 662, 1487, 3342, 7510, 16874, 37915, 85195, 191432, 430143, 966522, 2171756, 4879892, 10965017, 24638169, 55361464, 124396081, 279515456, 628065528, 1411250432, 3171050937, 7125286777, 16010374058, 35974983957, 80835055196
a(n) = 2*a(n-1) + a(n-3) + a(n-4) - a(n-5) for n>5. - Colin Barker, Oct 20 2017
[A111000] 2, 5, 12, 27, 58, 120, 245, 498, 1006, 2024, 4064, 8149, 16327, 32692, 65435, 130938, 261966, 524051, 1048260, 2096731, 4193743, 8387860, 16776219, 33553102, 67107091, 134215365, 268432305, 536866711, 1073736223, 2147476181
a(n) = 2^n-(4/3)^n+O(1) and more precisely lim n–>infty zeta(zeta(n))-2^n+(4/3)^n+1=gamma where gamma is the Euler-Mascheroni constant. - Benoit Cloitre, Oct 04 2005
[A000325] 1, 1, 2, 5, 12, 27, 58, 121, 248, 503, 1014, 2037, 4084, 8179, 16370, 32753, 65520, 131055, 262126, 524269, 1048556, 2097131, 4194282, 8388585, 16777192, 33554407, 67108838, 134217701, 268435428, 536870883, 1073741794, 2147483617
a(n+1) = 2*a(n) + n - 1, a(0) = 1. - Reinhard Zumkeller, Apr 12 2003
a(n) = [x^n](B(x)^n-B(x)^(n-1)), n>0, a(0)=1, where B(x) = (1+2*x+sqrt(1+4*x^2))/2. - Vladimir Kruchinin, Mar 07 2014
[A076878] 0, 2, 5, 12, 27, 58, 121, 248, 503, 1014, 2037, 4084, 8179, 16370, 32753, 65520, 131055, 262126, 524269, 1048556, 2097131, 4194282, 8388585, 16777192, 33554407, 67108838, 134217701, 268435428, 536870883, 1073741794, 2147483617
a(1)=0; a(n) = 2^n - n for n > 1. - Benoit Cloitre, Nov 28 2002
[A083378] 1, 2, 5, 12, 27, 58, 125, 271, 584, 1259, 2714, 5848, 12599, 27144, 58480, 125992, 271441, 584803, 1259921, 2714417, 5848035, 12599210, 27144176, 58480354, 125992104, 271441761, 584803547, 1259921049, 2714417616, 5848035476
a(n) = floor(cuberoot(10^n/5)).
[A091596] 0, 1, 2, 5, 12, 27, 62, 137, 304, 663, 1442, 3109, 6676, 14259, 30342, 64321, 135928, 286415, 601962, 1262173, 2640860, 5514731, 11495502, 23923065, 49710272, 103148807, 213754162, 442421397, 914668964, 1888990243, 3897285142
a(n) := sum{k=0..floor((n-1)/2), binomial(n-k-1, k)2^k }; a(n)=2a(n-1)+3a(n-2)-4a(n-3)-4a(n-4).
a(n)=(1/9)*(-1)^n*n-(8/27)*(-1)^n+(8/27)*2^n+(1/9)*2^n*n, with n>=0 - Paolo P. Lava, Jun 10 2008
[A291248] 1, 2, 5, 12, 27, 65, 146, 346, 788, 1845, 4239, 9865, 22758, 52818, 122072, 282954, 654528, 1516221, 3508817, 8125763, 18808494, 43550500, 100815652, 233418699, 540371471, 1251079052, 2896357943, 6705591388, 15524220275, 35941069252, 83208225215
a(n) = a(n-1) + 6*a(n-2) - 3*a(n-3) - 12*a(n-4) + 3*a(n-5) + 12*a(n-6) - 3*a(n-7) - 6*a(n-8) + a(n-9) + a(n-10) for n >= 11.
[A118898] 0, 0, 0, 0, 1, 2, 5, 12, 28, 62, 136, 294, 628, 1328, 2787, 5810, 12043, 24840, 51016, 104380, 212848, 432732, 877400, 1774672, 3581605, 7213746, 14502449, 29106100, 58323844, 116702074, 233199000, 465405058, 927744428, 1847359520, 3674769991
a(1)=0,a(2)=0,a(3)=0,a(4)=1,a(5)=2,a(6)=5,a(7)=12,a(8)=28
a(n)=2a(n-1)+a(n-2)-a(n-4)-4a(n-5)-3a(n-6)-2a(n-7)-a(n-8) (End)
[A192657] 1, 2, 5, 12, 28, 62, 138, 300, 646, 1378, 2919, 6148, 12890, 26914, 56010, 116224, 240567, 496854, 1024202, 2107660, 4330651, 8886094, 18210883, 37278902, 76234264, 155750644, 317932560, 648477346, 1321706751, 2692024172, 5479576436, 11146993980, 22663554750, 46054591760

a(n) = sum(floor(sqrt(binomial(2*k,k)))*floor(sqrt(binomial(2*n-2*k,n-k))),k=0..n).
[A045623] 1, 2, 5, 12, 28, 64, 144, 320, 704, 1536, 3328, 7168, 15360, 32768, 69632, 147456, 311296, 655360, 1376256, 2883584, 6029312, 12582912, 26214400, 54525952, 113246208, 234881024, 486539264, 1006632960, 2080374784, 4294967296
a(0)=1, a(n)=(n+3)*2^(n-2), n >= 1. a(n+1) = 2*a(n) + 2^(n-1), n>0.
a(n) = sum_{0<=i_1<=i_2<=n} binomial(n, i_1+i_2). - Benoit Cloitre, Oct 14 2004
a(n) = Sum{k=0..n, C(n, k)*floor((k+2)/2)}. - Paul Barry, Mar 06 2003
a(n) = Sum_{k=0..n} (k+1)*C(n-1,n-k). - Peter Luschny, Apr 20 2015
[A290990] 0, 1, 2, 5, 12, 28, 64, 145, 328, 743, 1686, 3830, 8704, 19781, 44950, 102133, 232048, 527208, 1197808, 2721421, 6183108, 14048151, 31917714, 72517738, 164761792, 374342057, 850512458, 1932380869, 4390407092, 9975090996, 22663602720, 51492150953
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3) + a(n-4).
[A019485] 2, 5, 12, 28, 65, 150, 346, 797, 1836, 4228, 9737, 22422, 51634, 118901, 273804, 630508, 1451921, 3343446, 7699210, 17729549, 40827180, 94015828, 216497369, 498544854, 1148036962, 2643671525, 6087782412, 14018796988
a(n) = -(1/3)+(7/6)*[1/2-(1/2)*sqrt(13)]^n+(7/6)*[1/2+(1/2)*sqrt(13)]^n+(25/78)*sqrt(13)*[1/2+(1/2) *sqrt(13)]^n-(25/78)*[1/2-(1/2)*sqrt(13)]^n *sqrt(13), with n>=0. - Paolo P. Lava, Jul 31 2008
[A018914] 2, 5, 12, 28, 65, 150, 346, 798, 1840, 4242, 9779, 22543, 51967, 119796, 276157, 636604, 1467515, 3382951, 7798460, 17977197, 41441465, 95531857, 220222323, 507661769, 1170274058, 2697743762, 6218903474, 14335965099, 33047609788, 76182140871, 175616894078
a(n) = 3*a(n-1) - 2*a(n-2) + a(n-3) - a(n-6) (holds at least up to n = 1000 but is not known to hold in general).
[A034943] 1, 1, 1, 2, 5, 12, 28, 65, 151, 351, 816, 1897, 4410, 10252, 23833, 55405, 128801, 299426, 696081, 1618192, 3761840, 8745217, 20330163, 47261895, 109870576, 255418101, 593775046, 1380359512, 3208946545
a(n) = 3*a(n-1)-2*a(n-2)+a(n-3).
a(n) = sum{k=0..floor(n/2), binomial(n+k-1, 3*k)}. - Paul Barry, Jul 06 2004
[A181984] 1, 2, 5, 12, 28, 65, 151, 351, 816, 1897, 4410, 10252, 23833, 55405, 128801, 299426, 696081, 1618192, 3761840, 8745217, 20330163, 47261895, 109870576, 255418101, 593775046, 1380359512, 3208946545, 7459895657, 17342153393, 40315615410, 93722435101
a(n) = 3*a(n-1) + 2*a(n-2) - a(n-3).
a(n) satisfies 1 = f(a(n-2), a(n-1), a(n)) where f(u, v, w) = u^3 - 5*v^3 + w^3 + u*v * (7*v -4*u) + u*w * (3*u + 2*w) + v*w * (11*v - 6*w) - 9*u*v*w.
[A255115] 1, 2, 5, 12, 28, 66, 156, 368, 868, 2048, 4832, 11400, 26896, 63456, 149712, 353216, 833344, 1966112, 4638656, 10944000, 25820224, 60917760, 143723520, 339087488, 800010496, 1887468032, 4453111040, 10506243072, 24787422208, 58481066496, 137974619136
a(n+3) = 2*a(n+2) + 2*a(n) with n>1, a(0) = 1, a(1) = 2, a(2)=5.
[A291234] 1, 2, 5, 12, 28, 67, 156, 370, 866, 2044, 4799, 11304, 26574, 62547, 147108, 346149, 814270, 1915795, 4506952, 10603417, 24945414, 58687660, 138068915, 324824928, 764187814, 1797846170, 4229645000, 9950753025, 23410332344, 55075627972, 129572006209
a(n) = a(n-1) + 5*a(n-2) - 2*a(n-3) - 7*a(n-4) + 2*a(n-5) + 5*a(n-6) - a(n-7) - a(n-8) for n >= 9.
[A290073] 1, 2, 5, 12, 29, 60, 125, 252, 509, 1020, 2045, 4092, 8189, 16380, 32765, 65532, 131069, 262140, 524285, 1048572, 2097149, 4194300, 8388605, 16777212, 33554429, 67108860, 134217725, 268435452, 536870909, 1073741820, 2147483645, 4294967292, 8589934589
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>4.
[A131045] 1, 2, 5, 12, 29, 68, 155, 348, 775, 1712, 3745, 8112, 17431, 37252, 79355, 168710, 358037, 758020, 1599675, 3362876, 7041593, 14692956, 30577435, 63531092, 131901879, 273804738, 568366037, 1179585610, 2446603047, 5068970880
a(n)=Sum(binom(n,j)phi(j+1),j=0..n). - Emeric Deutsch, Jul 09 2007
[A291235] 1, 2, 5, 12, 29, 69, 166, 394, 944, 2245, 5365, 12781, 30506, 72734, 173520, 413838, 987130, 2354465, 5615889, 13395047, 31949764, 76206828, 181768094, 433554067, 1034112065, 2466566144, 5883251633, 14032736684, 33470882601, 79834762768, 190421890053
a(n) = a(n-1) + 6*a(n-2) - 3*a(n-3) - 12*a(n-4) + 5*a(n-5) + 12*a(n-6) - 3*a(n-7) - 6*a(n-8) + a(n-9) + a(n-10) for n >= 11.
[A000129] 0, 1, 2, 5, 12, 29, 70, 169, 408, 985, 2378, 5741, 13860, 33461, 80782, 195025, 470832, 1136689, 2744210, 6625109, 15994428, 38613965, 93222358, 225058681, 543339720, 1311738121, 3166815962, 7645370045, 18457556052, 44560482149, 107578520350, 259717522849
a(n) = 2*a(n-1) + a(n-2), a(0)=0, a(1)=1.
a(n) = ((1+sqrt(2))^n -(1-sqrt(2))^n)/(2*sqrt(2)).
a(n) = integer nearest a(n-1)/(sqrt(2) - 1), where a(0) = 1. - Clark Kimberling
a(n) = Sum_{i, j, k >= 0: i+j+2k=n} (i+j+k)!/(i!*j!*k!).
a(n)^2 + a(n+1)^2 = a(2n+1) (1999 Putnam examination).
a(n) = Sum_{k=0..floor(n/2)} binomial(n, 2k+1)2^k. - Paul Barry, May 13 2003
[A215928] 1, 1, 2, 5, 12, 29, 70, 169, 408, 985, 2378, 5741, 13860, 33461, 80782, 195025, 470832, 1136689, 2744210, 6625109, 15994428, 38613965, 93222358, 225058681, 543339720, 1311738121, 3166815962, 7645370045, 18457556052, 44560482149, 107578520350, 259717522849
a(n) = 2*a(n-1) + a(n-2) for n > 2, a(0) = a(1) = 1, a(2) = 2.
a(n) = 1/2*((1+sqrt(2))^(n-1)+(1-sqrt(2))^(n-1))+1/4*sqrt(2)*((1+sqrt(2))^(n-1)-(1-sqrt(2))^(n-1)), for n>0. - Paolo P. Lava, Oct 26 2012
[A089372] 1, 1, 1, 2, 5, 12, 29, 72, 183, 473, 1239, 3282, 8777, 23665, 64261, 175584, 482395, 1331795, 3692891, 10280190, 28719659, 80493514, 226268539, 637767720, 1802113489, 5103874135, 14485789561, 41194844114, 117366166381
a(n) = sum(k=1..(n+3)/2, (k*sum(j=0..n-k+3, binomial(j,n-j+3)*binomial(n-k+3,j))))/(n-k+3)*(-1)^(k-1)). - Vladimir Kruchinin, Oct 22 2011
[A291253] 2, 5, 12, 30, 70, 166, 382, 881, 2002, 4540, 10210, 22891, 51050, 113506, 251430, 555466, 1223680, 2689591, 5898290, 12909880, 28204178, 61515521, 133961048, 291308806, 632628710, 1372170030, 2972790738, 6433570445, 13909116418, 30042364980, 64830556978
a(n) = 2*a(n-1) + 5*a(n-2) - 8*a(n-3) - 9*a(n-4) + 8*a(n-5) + 5*a(n-6) - 2*a(n-7) - a(n-8) for n >= 9.
[A054341] 1, 2, 5, 12, 30, 74, 185, 460, 1150, 2868, 7170, 17904, 44760, 111834, 279585, 698748, 1746870, 4366460, 10916150, 27287944, 68219860, 170541252, 426353130, 1065853432, 2664633580, 6661479944, 16653699860, 41633878200, 104084695500
a(n) is the upper left term of M^n, M = an infinite square production matrix as follows:
[A076883] 1, 2, 5, 12, 30, 75, 187, 467, 1167, 2917, 7292, 18230, 45575, 113937, 284842, 712105, 1780262, 4450655, 11126637, 27816592, 69541480, 173853700, 434634250, 1086585625, 2716464062, 6791160155, 16977900387, 42444750967, 106111877417
a(n)=ceiling(c*(5/2)^n) with c=0.764616658549889336658082750901840888902172 99...
[A092247] 1, 2, 5, 12, 30, 75, 190, 484, 1242, 3206, 8316, 21657, 56591, 148303, 389615, 1025810, 2706014, 7150411, 18923033, 50146688, 133054093, 353426693, 939750924, 2501100209, 6662258807, 17760491578, 47381172431, 126488492584
a(n) is asymptotic to c*exp(n)/sqrt(n) where c=1.261(6)...
[A051163] 1, 2, 5, 12, 30, 76, 194, 496, 1269, 3250, 8337, 21428, 55184, 142376, 367916, 952000, 2466014, 6393372, 16586678, 43054344, 111801908, 290412296, 754543052, 1960808160, 5096293794, 13247503540, 34440553562, 89549255592, 232868582328, 605646682144
a(n) = 1 + Sum_{k=1..n} Sum_{j=0..n-k} C(k, j)*C(n-k, j)*a(j). - Paul D. Hanna, Nov 22 2004
[A051450] 1, 2, 5, 12, 30, 76, 195, 504, 1309, 3410, 8900, 23256, 60813, 159094, 416325, 1089648, 2852242, 7466468, 19546175, 51170460, 133962621, 350713222, 918170280, 2403786672, 6293172025, 16475700746, 43133883845, 112925875764
a(n) = (Fibonacci(2*n)+Fibonacci(n))/2. - Vladeta Jovovic, Jul 17 2004
a(n) = 4*a(n-1)-3*a(n-2)-2*a(n-3)+a(n-4). - Colin Barker, Nov 01 2014
[A038508] 1, 2, 5, 12, 30, 76, 196, 512, 1352, 3600, 9648, 25984, 70240, 190400, 517184, 1406976, 3831936, 10445056, 28488448, 77735936, 212186624, 579320832, 1581966336, 4320477184, 11800692736, 32233951232
a(n)=(3*2^(n+1) - Sqrt[3](1-Sqrt[3])^(n+1) + Sqrt[3](1+Sqrt[3])^(n+1))/12 - Herbert Kociemba, Jun 17 2004
[A002026] 0, 1, 2, 5, 12, 30, 76, 196, 512, 1353, 3610, 9713, 26324, 71799, 196938, 542895, 1503312, 4179603, 11662902, 32652735, 91695540, 258215664, 728997192, 2062967382, 5850674704, 16626415975, 47337954326, 135015505407, 385719506620, 1103642686382, 3162376205180, 9073807670316, 26068895429376
a(n) = sum(b = 1 to (n+1)/2) [n choose (2b-1)][2b choose b]/(b+1).
[A086622] 1, 2, 5, 12, 30, 76, 197, 520, 1398, 3820, 10594, 29768, 84620, 243000, 704045, 2055760, 6043750, 17875020, 53148310, 158773320, 476311940, 1434313960, 4333867170, 13135533552, 39924668220, 121661345656, 371612931492
a(n) = Sum_{k=0..floor(n/2)} C(n-k,k) C(2k,k) 2^(n-2k)/(k+1). - Paul Barry, Nov 13 2004

[A253831] 1, 2, 5, 12, 30, 76, 197, 522, 1418, 3956, 11354, 33554, 102104, 319608, 1027237, 3381714, 11371366, 38946892, 135505958, 477781296, 1703671604, 6132978608, 22256615602, 81327116484, 298938112816, 1104473254912, 4098996843500, 15272792557230, 57106723430892, 214202598271360, 805743355591301
a(n) = Sum_{m=1..n/2}(Sum_{j=0..n-2*m}(((Sum_{k=0..j}((k+1)*binomial(k+m,k+1)*binomial(2*j-k+m-1,j-k)*(-1)^(k)))*2^(n-j-2*m)*binomial(n-m-j,m))/(j+m)))+2^n. - Vladimir Kruchinin, Mar 11 2016
[A188378] 2, 5, 12, 30, 77, 200, 522, 1365, 3572, 9350, 24477, 64080, 167762, 439205, 1149852, 3010350, 7881197, 20633240, 54018522, 141422325, 370248452, 969323030, 2537720637, 6643838880, 17393796002, 45537549125, 119218851372, 312119004990, 817138163597, 2139295485800
a(n) = 2^(-1-n)*(2^(1+n)-(3-sqrt(5))^n*(-1+sqrt(5))+(1+sqrt(5))*(3+sqrt(5))^n). - Colin Barker, Nov 02 2016
[A136704] 0, 1, 2, 5, 12, 30, 78, 205, 546, 1476, 4026, 11070, 30660, 85410, 239144, 672605, 1899120, 5380830, 15292914, 43584804, 124527988, 356602950, 1023295422, 2941974270, 8472886092, 24441017580, 70607383938
a(1)=0; for n>1, if n=odd then a(n)= sum(mu(d)*3^(n/d))/(4n); d|n. If n=even, then a(n)= sum(mu(d)*(3^(n/d)-1))/(4n); d|n, d odd.
[A101785] 1, 1, 1, 2, 5, 12, 30, 79, 213, 584, 1628, 4600, 13138, 37871, 110043, 321978, 947813, 2805104, 8341608, 24912004, 74686460, 224694128, 678143656, 2052640752, 6229616730, 18952875247, 57792705415, 176596786934, 540679385663
a(n) = Sum_{k=0..[(n-1)/2]} C(n-k-1, k)*C(n, 2*k)/(2*k+1) for n>0, with a(0)=1.
[A291239] 2, 5, 12, 31, 74, 184, 442, 1081, 2604, 6323, 15250, 36912, 89074, 215293, 519660, 1255223, 3030106, 7317032, 17664170, 42649553, 102963276, 248587051, 600137378, 1448890464, 3497918306, 8444802101, 20387522508, 49220043535, 118827609578, 286875776920
a(n) = 2*a(n-1) + 4*a(n-2) - 6*a(n-3) - 4*a(n-4) + 2*a(n-5) + a(n-6) for n >= 7.
[A290616] 2, 5, 12, 31, 80, 205, 526, 1350, 3464, 8889, 22810, 58532, 150198, 385420, 989018, 2537899, 6512450, 16711463, 42882940, 110041025, 282373998, 724594076, 1859365870, 4771280299, 12243483684, 31417750230, 80620439004, 206878440932, 530866488090
a(n) = 2*a(n-1) + a(n-2) + 2*a(n-3) - 2*a(n-4) - a(n-6) for n >= 7.
[A110035] 1, 2, 5, 12, 31, 80, 209, 546, 1429, 3740, 9791, 25632, 67105, 175682, 459941, 1204140, 3152479, 8253296, 21607409, 56568930, 148099381, 387729212, 1015088255, 2657535552, 6957518401, 18215019650, 47687540549, 124847601996
a(n)=1/2+(1/5)*[3/2+(1/2)*sqrt(5)]^n+(1/10)*(-1)^n+(1/5)*[3/2+(1/2)*sqrt(5)]^n*sqrt(5)-(1/5)*[3/2 -(1/2)*sqrt(5)]^n*sqrt(5)+(1/5)*[3/2-(1/2)*sqrt(5)]^n, with n>=0 - Paolo P. Lava, Jun 12 2008
[A097893] 1, 2, 5, 12, 31, 82, 223, 616, 1723, 4862, 13815, 39468, 113257, 326198, 942425, 2730032, 7926659, 23061590, 67214399, 196211252, 573590621, 1678941350, 4920076877, 14433305000, 42381641381, 124558477682, 366371703833
a(n) = sum(0<=j<=i<=n, C(i, i-j)*C(j, i-j)). - Benoit Cloitre, Oct 23 2004
a(n) = sum{k=0..n, sum{j=0..n-k, C(k,j)C(n-k,j)C(2j,j)}}; - Paul Barry, Jan 03 2008
a(n) = (n+1)*hypergeom([1/2,(1-n)/2,-n/2],[1,3/2],4). - Peter Luschny, Oct 29 2015
[A093379] 0, 1, 2, 5, 12, 31, 82, 225, 632, 1811, 5262, 15445, 45652, 135591, 404042, 1206665, 3609072, 10805371, 32372422, 97029885, 290914892, 872395151, 2616486402, 7848061105, 23541387112, 70618568931, 211844521982, 635511196325
a(n)=3^n/12-(-1)^n/12+2^n/3-0^n/3;
a(n)=4a(n-1)-a(n-2)-6a(n-3).
[A071359] 0, 1, 1, 2, 5, 12, 31, 83, 227, 634, 1799, 5171, 15027, 44074, 130299, 387880, 1161665, 3497734, 10581819, 32150411, 98057835, 300116888, 921456715, 2837379238, 8760199757, 27112737988, 84103586027, 261435982873, 814257033047
a(n+1) = sum(k=0..n/2, binomial(2*k,k)/(k+1) * sum(i=0..k, binomial(k,i)*binomial(n-i,2*k))).
a(0)=0, a(1)=1, a(2)=1, a(3)=2, a(n) = ((n-2)*a(n-1) +(5*n-7)*a(n-2) +(7*n-20) *a(n-3) +(4*n-14)*a(n-4))/(n+1). - Tani Akinari, Jul 03 2013
[A162434] 1, 2, 5, 12, 32, 82, 218, 598, 1702, 4925, 14496, 43720, 134854, 423988, 1357884, 4425384, 14664610, 49386081, 168884638, 586012116, 2061993475, 7353614415, 26566226591, 97177708497, 359765742126, 1347447717234, 5103618615825
a(n) = Sum_{k=0..n} Sum_{m=k(k+1)/2..k(k+1)/2+k} [x^m] S(x)^(n-k) for n>=1 where S(x) = Sum_{n>=0} x^(n(n+1)/2).
[A115523] 1, 2, 5, 12, 33, 60, 111, 176, 287, 440, 637, 864, 1237, 1652, 2147, 2752, 3555, 4428, 5517, 6700, 8177, 9878, 11785, 13824, 16441, 19214, 22265, 25676, 29685, 33900, 38715, 43776, 49595, 55964, 62821, 69984, 78445, 87248, 96647, 106800, 118167, 129948, 142905, 156332
a(n) = binomial(n+1,4) - presumably quadratic (PORC) correction term which depends on n mod 24.
a(n) = (19958400*(n^4+4*n^3+12*n^2+24*n+24) - (1235*n^2+2*1127*n+215)*m^11 +(74987*n^2+2*69047*n+13541)*m^10 -(1983300*n^2+2*1844700*n+377520)*m^9 +(29983800*n^2+2*28201800*n+6115890)*m^8 - (285731655*n^2+2*272034411*n+63415275)*m^7 +(1784142591*n^2+2*1720539051*n+436295013)*m^6 -(7344548530*n^2+2*7175131810*n+1995595030)*m^5 +(19515989350*n^2+2*19301456350*n+5911801060)*m -(31672473360*n^2+2*31658103312*n+10685562360)*m^3 +(27907182072*n^2+2*28127231352*n+10490664096)*m^2 -(9932634720*n^2+2*10110299040*n+435939840
where m=n-12*floor(n/12). - Luce ETIENNE, Sep 27 2017
[A032124] 2, 5, 12, 33, 90, 261, 756, 2241, 6642, 19845, 59292, 177633, 532170, 1595781, 4785156, 14353281, 43053282, 129153285, 387440172, 1162300833, 3486843450, 10460471301, 31381236756, 94143533121, 282430067922, 847289672325, 2541867422652, 7625600673633
a(n) = (1/6)*((5-(-1)^n)*3^floor(n/2) + 2*3^n). - Ralf Stephan, May 11 2004
a(n) = 3*a(n-1)+3*a(n-2)-9*a(n-3). G.f.: -x*(9*x^2+x-2) / ((3*x-1)*(3*x^2-1)). - Colin Barker, Dec 15 2012
[A221206] 2, 5, 12, 33, 93, 269, 788, 2330, 6947, 20840, 62834, 190240, 577990, 1761279, 5380796, 16475256, 50543777, 155330201, 478096270, 1473591670, 4547602623, 14050145290, 43453847676, 134519899690, 416794664987, 1292425391245, 4010608533780, 12454122695249
a(n) = round(sqrt(10^n / log(10^n))).
[A281489] 1, 1, 1, 2, 5, 12, 33, 93, 276, 833, 2574, 8057, 25565, 81889, 264703, 861889, 2824974, 9311875, 30851395, 102676439, 343112116, 1150785092, 3872588051, 13071583810, 44245023261, 150145281903, 510721124972, 1741020966255, 5947081503460, 20352707950277
a(n) = [x^(n^2)] Product_{j>=0} (1 + x^(2*j+1)).
[A186739] 0, 0, 1, 2, 5, 12, 33, 94, 293, 952, 3297, 11866, 44837, 175364, 713409, 2993142, 12980869, 57878000, 265571905, 1249497906, 6029792197, 29770252412, 150366096353, 775541397006, 4083595516773, 21921047647912, 119927340050465, 667953531248266, 3786064372560357
a(n) = 2*a(n-1)+(n-3)*a(n-2)-(n-3)*a(n-3) with a(0)=a(1)=0, a(2)=1. - Vincenzo Librandi, Dec 24 2012
[A196545] 1, 1, 2, 5, 12, 34, 92, 277, 806, 2500, 7578, 24198, 75370, 243800, 776494, 2545777, 8223352, 27221690, 88984144, 296856400, 979829772, 3287985078, 10934749788, 36912408342, 123519937044, 418650924886, 1408867195252, 4794243983204, 16205061000480
a(1) = 1, a(n>1) = Sum_y Prod_i a(y_i) where the sum is over all partitions of n with at least two parts.
[A003724] 1, 1, 1, 2, 5, 12, 37, 128, 457, 1872, 8169, 37600, 188685, 990784, 5497741, 32333824, 197920145, 1272660224, 8541537105, 59527313920, 432381471509, 3252626013184, 25340238127989, 204354574172160, 1699894200469849, 14594815769038848, 129076687233903673
a(n) = sum(1/2^k*sum((-1)^i*C(k,i)*(k-2*i)^n, i=0..k)/k!, k=1..n). - Vladimir Kruchinin, Aug 22 2010
[A041095] 1, 2, 5, 12, 173, 358, 889, 2136, 30793, 63722, 158237, 380196, 5480981, 11342158, 28165297, 67672752, 975583825, 2018840402, 5013264629, 12045369660, 173648439869, 359342249398, 892332938665, 2144008126728, 30908446712857, 63960901552442, 158830249817741
a(n) = 178*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A220268] 2, 5, 13, 14, 23, 25, 33, 43, 46, 58, 60, 61, 71, 77, 80, 88, 103, 104, 116, 123, 127, 144, 145, 148, 150, 160, 163, 181, 188, 196, 200, 203, 206, 214, 218, 237, 247, 253, 263, 266, 270, 275, 276, 287, 313, 323, 333, 340, 344, 347, 350, 354, 363, 365, 388
a(1) = 2; for n>=2, a(n) = ceil(R_(3/2)(n)/3), where R_v(n) (v>1) are generalized Ramanujan numbers (see Shevelev's link). In particular, for n>=1, {R_(3/2)(n)} = {2, 13, 37, 41, 67, 73, 97, 127, 137, 173, 179, 181, 211, 229, 239, ...}.
[A168486] 2, 5, 13, 16, 24, 27, 35, 38, 46, 49, 57, 60, 68, 71, 79, 82, 90, 93, 101, 104, 112, 115, 123, 126, 134, 137, 145, 148, 156, 159, 167, 170, 178, 181, 189, 192, 200, 203, 211, 214, 222, 225, 233, 236, 244, 247, 255, 258, 266, 269, 277, 280, 288, 291, 299, 302, 310
a(n) = 11*n - a(n-1) - 4 with n>1, a(1)=2.
a(n) = (22*n - 5*(-1)^n - 19)/4.
a(n) = a(n-1) + a(n-2) - a(n-3).
[A235204] 2, 5, 13, 18, 32, 41, 50, 72, 85, 113, 128, 145, 181, 200, 242, 265, 313, 338, 365, 421, 450, 512, 545, 578, 648, 685, 761, 800, 882, 925, 968, 1058, 1105, 1201, 1250, 1301, 1405, 1458, 1568, 1625, 1682, 1800, 1861, 1985, 2048, 2178, 2245, 2312, 2450
a(n) = (2*z^2+1-(-1)^z)/4, where z = ceil(sqrt(2)*n). - Giovanni Resta, Jan 10 2014
[A273462] 0, 2, 5, 13, 19, 31, 41, 56, 81, 103, 136, 171, 201, 235, 280, 335, 384, 444, 505, 560, 626, 693, 772, 869, 966, 1055, 1145, 1229, 1314, 1447, 1578, 1719, 1849, 2008, 2156, 2313, 2479, 2644, 2818, 3000, 3171, 3372, 3560, 3748, 3925, 4142, 4398, 4651, 4890
a(n) = round(Sum_{i=1..n} (prime(i) - Sum_{j=1..n} prime(j)/n)^2/(n - 1)), n > 1.

[A049779] 2, 5, 13, 23, 41, 62, 94, 130, 180, 235, 307, 385, 483, 588, 716, 852, 1014, 1185, 1385, 1595, 1837, 2090, 2378, 2678, 3016, 3367, 3759, 4165, 4615, 5080, 5592, 6120, 6698, 7293, 7941, 8607, 9329, 10070, 10870, 11690, 12572, 13475, 14443, 15433
a(n) = Sum_{k=1..n} k*floor(k/2). - Vladeta Jovovic, Apr 29 2006
a(n) = n^3/6 + n^2/8 - n/24 - 1/16 + (-1)^n * (n/8 + 1/16). - Robert Israel, Jun 08 2015
a(n) = 1/4*(n*(n+1)*(4*n-1)/6 + (-1)^n*floor((n+1)/2)). - Néstor Jofré, Apr 24 2017
[A256491] 2, 5, 13, 23, 43, 59, 79, 97, 113, 157, 173, 211, 239, 257, 281, 331, 373, 389, 433, 461, 479, 523, 569, 607, 659, 691, 719, 751, 769, 811, 911, 947, 997, 1019, 1091, 1103, 1163, 1217, 1249, 1297, 1361, 1381, 1459, 1483, 1511, 1543, 1619, 1723, 1759, 1787, 1831
a(n) = prime(primepi(n)+n-2).
[A072921] 1, 2, 5, 13, 25, 44, 71, 106, 148, 203, 263, 334, 415, 506, 608, 724, 853, 998, 1169, 1357, 1561, 1778, 2018, 2269, 2539, 2828, 3137, 3460, 3796, 4157, 4535, 4930, 5341, 5765, 6212, 6670, 7147, 7643, 8159, 8698, 9268, 9863, 10484, 11122
a(1)=1, a(2)=2; a(n+1)=2a(n)-a(n-1)+sod(a(n)) (sod = "sum of digits"). - Farideh Firoozbakht, Oct 01 2009
[A126656] 1, 2, 5, 13, 27, 62, 125, 266, 538, 1106, 2213, 4509, 9019, 18166, 36365, 73012, 146025, 292658, 585317, 1171783, 2343697, 4689610, 9379221, 18763300, 37526628, 75062278, 150125100, 300268507, 600537015, 1201111598, 2402223197
a(n) is asymptotic to c*2^n where c=1.118656792139919360830375675285583554251806141777100646700242129904614 6... [From Benoit Cloitre, Nov 10 2009]
[A225690] 1, 1, 2, 5, 13, 28, 48, 73, 103, 138, 178, 223, 273, 328, 388, 453, 523, 598, 678, 763, 853, 948, 1048, 1153, 1263, 1378, 1498, 1623, 1753, 1888, 2028, 2173, 2323, 2478, 2638, 2803, 2973, 3148, 3328, 3513, 3703, 3898, 4098, 4303, 4513, 4728, 4948, 5173, 5403, 5638
a(n) = (5*n^2-15*n+6)/2 for n >= 4.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>6. - Colin Barker, Jul 10 2015
[A122491] 0, 0, 0, 2, 5, 13, 28, 58, 114, 218, 407, 747, 1352, 2420, 4292, 7554, 13209, 22969, 39748, 68494, 117590, 201210, 343275, 584087, 991440, 1679208, 2838408, 4789058, 8066669, 13566373, 22782892, 38209762, 64003002, 107083610, 178967807, 298803459, 498404504
a(n) = n * Fibonacci(n) - Fibonacci(n+2) + 1. - Stefan Steinerberger, Feb 22 2008
[A011756] 2, 5, 13, 29, 47, 73, 107, 151, 197, 257, 317, 397, 467, 571, 659, 769, 883, 1019, 1151, 1291, 1453, 1607, 1783, 1987, 2153, 2371, 2593, 2791, 3037, 3307, 3541, 3797, 4073, 4357, 4657, 4973, 5303, 5641, 5939, 6301, 6679, 7019, 7477
a(n) is asymptotic to [n*(n+1)/2] * log [n*(n+1)/2] = [n*(n+1)/2] * [log(n)+log(n+1)-log(2)] ~ (n^2 + n)*(2 log n)/2 ~ (n^2 + n)*(log n). - Jonathan Vos Post, Mar 12 2006
[A218152] 1, 2, 5, 13, 29, 56, 97, 155, 233, 334, 461, 617, 805, 1028, 1289, 1591, 1937, 2330, 2773, 3269, 3821, 4432, 5105, 5843, 6649, 7526, 8477, 9505, 10613, 11804, 13081, 14447, 15905, 17458, 19109, 20861, 22717, 24680, 26753, 28939, 31241
a(n) = a(n-1)+(4-5*n+3*n^2)/2 for n > 0 and a(0)=1.
[A079991] 1, 1, 1, 2, 5, 13, 29, 58, 124, 280, 632, 1406, 3101, 6851, 15217, 33846, 75181, 166823, 370177, 821760, 1824620, 4051056, 8993220, 19964240, 44320545, 98393849, 218438981, 484939834, 1076573833, 2390015565, 5305896445, 11779231650
a(n) = 2*a(n-1) +3*a(n-4) +a(n-6) -8*a(n-7) -a(n-8) -3*a(n-10) +2*a(n-13) +a(n-14).
[A289843] 1, 2, 5, 13, 29, 73, 168, 410, 962, 2317, 5483, 13131, 31193, 74509, 177311, 423025, 1007505, 2402354, 5723761, 13644587, 32514730, 77501115, 184698088, 440216833, 1049148789, 2500520812, 5959478837, 14203542282, 33851496564, 80679640434, 192285583548
a(n) = a(n-1) + 5*a(n-2) - 2*a(n-3) - 6*a(n-4) + a(n-5) + 4*a(n-6) - a(n-8).
[A116699] 1, 2, 5, 13, 30, 61, 112, 190, 303, 460, 671, 947, 1300, 1743, 2290, 2956, 3757, 4710, 5833, 7145, 8666, 10417, 12420, 14698, 17275, 20176, 23427, 27055, 31088, 35555, 40486, 45912, 51865, 58378, 65485, 73221, 81622, 90725, 100568, 111190, 122631, 134932
a(n) = (n^4 + 2*n^3 - 13*n^2 + 34*n)/24. - Franklin T. Adams-Watters, Sep 16 2006
[A282153] 0, 1, 2, 5, 13, 30, 63, 127, 254, 509, 1021, 2046, 4095, 8191, 16382, 32765, 65533, 131070, 262143, 524287, 1048574, 2097149, 4194301, 8388606, 16777215, 33554431, 67108862, 134217725, 268435453, 536870910, 1073741823, 2147483647, 4294967294, 8589934589
a(n) = 4*a(n-1) - 6*a(n-2) + 5*a(n-3) - 2*a(n-4) for n>3. (End)
a(n) = 2^n + ((-1)^floor(n/3) + (-1)^floor((n+1)/3))/2 - 2. Therefore:
a(3*k) = 8^k + (-1)^k - 2,
a(3*k+1) = 2*8^k + (-1)^k - 2,
a(3*k+2) = 4*8^k - 2. (End)
a(n+6*h) = a(n) + 2^n*(64^h - 1) with h>=0. For h=1, a(n+6) = a(n) + 63*2^n.
[A184052] 1, 2, 5, 13, 30, 66, 137, 279, 556, 1104, 2179, 4309, 8518, 16886, 33509, 66643, 132672, 264492, 527639, 1053441, 2104042, 4204242, 8402617, 16797343, 33582724, 67149416, 134274635, 268516909, 536985102, 1073905134, 2147712461, 4295294379, 8590392712, 17180523876, 34360655167, 68720786713
a(n)=3*a(n-1)-2*a(n-2)-2^floor(n/2)+n+1.
[A098501] 1, 2, 5, 13, 31, 49, 70, 93, 121, 151, 186, 223, 265, 309, 358, 409, 465, 523, 586, 651, 721, 793, 870, 949, 1033, 1119, 1210, 1303, 1401, 1501, 1606, 1713, 1825, 1939, 2058, 2179, 2305, 2433, 2566, 2701, 2841, 2983, 3130, 3279, 3433, 3589, 3750, 3913, 4081
a(n) = (1/8) * [14n^2 + 8n + 5 + 3(-1)^n], for n>4.
[A116701] 1, 2, 5, 13, 31, 66, 127, 225, 373, 586, 881, 1277, 1795, 2458, 3291, 4321, 5577, 7090, 8893, 11021, 13511, 16402, 19735, 23553, 27901, 32826, 38377, 44605, 51563, 59306, 67891, 77377, 87825, 99298, 111861, 125581, 140527, 156770, 174383, 193441
a(n) = (n^4 - 4n^3 + 11n^2 - 8n + 12)/12. - Franklin T. Adams-Watters, Sep 16 2006
[A179257] 1, 2, 5, 13, 32, 72, 148, 281, 499, 838, 1343, 2069, 3082, 4460, 6294, 8689, 11765, 15658, 20521, 26525, 33860, 42736, 53384, 66057, 81031, 98606, 119107, 142885, 170318, 201812
a(n) = 1+binomial(n,2)+binomial(n+2,5).
[A116702] 1, 2, 5, 13, 32, 74, 163, 347, 722, 1480, 3005, 6065, 12196, 24470, 49031, 98167, 196454, 393044, 786241, 1572653, 3145496, 6291202, 12582635, 25165523, 50331322, 100662944, 201326213, 402652777, 805305932, 1610612270, 3221224975, 6442450415, 12884901326
a(n) = 3*2^(n-1) + n - (n+1)*(2+n)/2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) for n>4.
[A098156] 1, 2, 5, 13, 32, 76, 176, 400, 896, 1984, 4352, 9472, 20480, 44032, 94208, 200704, 425984, 901120, 1900544, 3997696, 8388608, 17563648, 36700160, 76546048, 159383552, 331350016, 687865856, 1426063360, 2952790016, 6106906624
a(n) = 0^n/2+sum{k=0..n, binomial(-1)^(n-k)*k)}/4+2^n/2+3n*2^(n-1)/4.
a(n) = sum{j=0..n, sum{k=0..n, binomial(n, 2(k-j)}}.
a(n) = sum{k=0..n, sum{i=0..k, C(n, 2i)}}. - Paul Barry, Jan 13 2005
a(n) = 2^(n-3)*(3*n+4) for n>=2. - Philip B. Zhang, May 25 2016
[A267862] 1, 2, 5, 13, 32, 77, 178, 399, 877, 1882, 3959, 8179, 16636, 33333, 65894, 128633, 248169, 473585, 894573, 1673704, 3103334, 5705383, 10405080, 18831761, 33836627, 60378964, 107035022, 188553965, 330166814, 574815804, 995229598, 1714004131, 2936857097
a(n) = [x^n*y^n] 1/((1-x)*(1-y)*Product_{i>0,j>0,gcd(i,j)=1} (1-x^i*y^j)).
[A098586] 2, 5, 13, 32, 78, 189, 457, 1104, 2666, 6437, 15541, 37520, 90582, 218685, 527953, 1274592, 3077138, 7428869, 17934877, 43298624, 104532126, 252362877, 609257881, 1470878640, 3551015162, 8572908965, 20696833093, 49966575152, 120629983398, 291226541949
a(n) = 3*a(n-1) - a(n-2) - a(n-3) with a(0)=2, a(1)=5, a(2)=13. - Hermann Stamm-Wilbrandt, Aug 26 2014
a(n) = 7*a(n-2) - 7*a(n-4) + a(n-6), for n>5. - Hermann Stamm-Wilbrandt, Aug 27 2014
a(n) = (-2+(5-3*sqrt(2))*(1-sqrt(2))^n+(1+sqrt(2))^n*(5+3*sqrt(2)))/4. - Colin Barker, Mar 16 2016
[A255630] 1, 2, 5, 13, 32, 79, 197, 490, 1217, 3025, 7520, 18691, 46457, 115474, 287021, 713413, 1773248, 4407559, 10955357, 27230458, 67683593, 168233257, 418157888, 1039366555, 2583432881, 6421339426, 15960778517, 39671855677, 98607729632
a(n+3) = 2*a(n+2) + 3*a(n) with n > 0, a(0) = 1, a(2) = 2, a(3) = 5.
[A027929] 1, 2, 5, 13, 33, 79, 176, 365, 709, 1300, 2267, 3785, 6085, 9465, 14302, 21065, 30329, 42790, 59281, 80789, 108473, 143683, 187980, 243157, 311261, 394616, 495847, 617905, 764093, 938093, 1143994, 1386321, 1670065, 2000714
a(n) = sum(binomial(n-k, 6-2k), k=0..3). - Len Smiley, Oct 20 2001
a(n) = (3600-3420*n+1684*n^2-525*n^3+115*n^4-15*n^5+n^6)/720. G.f.: x^3*(1-x+x^2)*(1-4*x+7*x^2-4*x^3+x^4)/(1-x)^7. - Colin Barker, May 01 2012
[A088921] 1, 2, 5, 13, 33, 80, 185, 411, 885, 1862, 3853, 7881, 15993, 32284, 64945, 130359, 261293, 523282, 1047397, 2095781, 4192721, 8386792, 16775145, 33552083, 67106213, 134214750, 268432125, 536867201, 1073737705, 2147479092

a(n) = 2^(n+1) - binomial(n+1, 3) - 2*n - 1.
[A005183] 1, 2, 5, 13, 33, 81, 193, 449, 1025, 2305, 5121, 11265, 24577, 53249, 114689, 245761, 524289, 1114113, 2359297, 4980737, 10485761, 22020097, 46137345, 96468993, 201326593, 419430401, 872415233, 1811939329, 3758096385, 7784628225, 16106127361, 33285996545
a(n) = 2*a(n-1)+2^(n-1)-1 (with a(0)=1). - Vincenzo Librandi, Dec 31 2010
[A005348] 1, 2, 5, 13, 33, 81, 193, 449, 1089, 2673, 6561, 15633, 37249, 88209, 216513, 531441, 1266273, 3017169, 7189057, 17537553, 43046721, 102568113, 244390689, 582313617, 1420541793, 3486784401, 8308017153, 19795645809, 47167402977, 115063885233, 282429536481
a(n) = 81*a(n-5) for n >= 21.
[A007443] 2, 5, 13, 33, 83, 205, 495, 1169, 2707, 6169, 13889, 30993, 68701, 151469, 332349, 725837, 1577751, 3413221, 7349029, 15751187, 33616925, 71475193, 151466705, 320072415, 674721797, 1419327223, 2979993519, 6245693407, 13068049163
a(n) = sum_{1 <= k <= n} binomial(n-1,k-1)*prime(k). - M. F. Hasler, Jun 02 2017
[A120925] 1, 2, 5, 13, 33, 83, 209, 527, 1329, 3351, 8449, 21303, 53713, 135431, 341473, 860983, 2170865, 5473575, 13800961, 34797463, 87737617, 221219847, 557779233, 1406373239, 3546000945, 8940814823, 22543189057, 56839939415, 143315069777
a(n)=3a(n-1)-2a(n-2)+2a(n-3); a(0)=1, a(1)=2,a(2)=5. G.f.=(1-z+z^2)/(1-3z+2z^2-2z^3).
[A077939] 1, 2, 5, 13, 33, 84, 214, 545, 1388, 3535, 9003, 22929, 58396, 148724, 378773, 964666, 2456829, 6257097, 15935689, 40585304, 103363394, 263247781, 670444260, 1707499695, 4348691431, 11075326817, 28206844760, 71837707768, 182957587113, 465959726754
a(n)=sum(m=1..n+1, sum(k=0..n-m+1, (sum(j=0..k, binomial(j,n-m-3*k+2*j+1)*binomial(k,j)))* binomial(m+k-1,m-1))). [Vladimir Kruchinin, Oct 11 2011]
[A027931] 1, 2, 5, 13, 34, 88, 221, 530, 1204, 2587, 5270, 10220, 18955, 33775, 58060, 96647, 156299, 246280, 379051, 571103, 843944, 1225258, 1750255, 2463232, 3419366, 4686761, 6348772, 8506630, 11282393, 14822249, 19300198, 24922141
a(n)=sum(binomial(n-k, 8-2k), k=0..4). - Len Smiley, Oct 20 2001
[A103142] 1, 2, 5, 13, 34, 88, 228, 591, 1532, 3971, 10293, 26680, 69156, 179256, 464641, 1204374, 3121801, 8091873, 20974562, 54367172, 140922580, 365278767, 946821848, 2454212215, 6361447625, 16489208080, 42740897848, 110786663616, 287164880785, 744346531114
a(n) = 2*a(n-1) + a(n-2) + a(n-3) + a(n-4).
[A027933] 1, 2, 5, 13, 34, 89, 232, 596, 1490, 3588, 8273, 18228, 38403, 77533, 150438, 281403, 509015, 892926, 1523117, 2532359, 4112704, 6536993, 10186540, 15586342, 23449376, 34731776, 50700937, 73018870, 103843433, 145950389, 202879594, 279108997, 380260541
a(n) = sum(binomial(n-k, 10-2k), k=0..5). - Len Smiley, Oct 20 2001
a(n) = 34 -9161*n/280 -101897*n^3/20160 +794293*n^2/50400 -287*n^5/1280 +438209*n^4/362880 +5593*n^6/172800 -47*n^7/13440 -n^9/80640 +n^8/3780 +n^10/3628800. - R. J. Mathar, Oct 05 2009
[A141448] 0, 1, 2, 5, 13, 34, 89, 232, 605, 1578, 4116, 10736, 28003, 73041, 190515, 496926, 1296147, 3380779, 8818187, 23000741, 59993521, 156482896, 408159020, 1064613385, 2776862948, 7242974718, 18892067685, 49276745441, 128530009618
a(n) = 2*a(n-1)+a(n-2)+a(n-3)+a(n-4)+a(n-5). G.f.: x/(1-2x-x^2-x^3-x^4-x^5). [R. J. Mathar, Nov 28 2008]
a(n+1) = sum(k=1..n, sum(r=0..k, binomial(k,r)*2^(k-r)*sum(m=0..r,(sum(j=0..m, binomial(j,-r+n-m-k-j)*binomial(m,j)))*binomial(r,m)))), a(0)=0, a(1)=1. [Vladimir Kruchinin, May 05 2011]
[A001519] 1, 1, 2, 5, 13, 34, 89, 233, 610, 1597, 4181, 10946, 28657, 75025, 196418, 514229, 1346269, 3524578, 9227465, 24157817, 63245986, 165580141, 433494437, 1134903170, 2971215073, 7778742049, 20365011074, 53316291173, 139583862445, 365435296162, 956722026041
a(n) = a(1-n) for all n in Z.
a(n+2) = (a(n+1)^2+1)/a(n) with a(1)=1, a(2)=2. - Benoit Cloitre, Aug 29 2002
a(n) = (phi^(2n-1)+phi^(1-2n))/sqrt(5) where phi=(1+sqrt(5))/2. - Michael Somos, Oct 28 2002
a(n) = Sum_{k=0..n} binomial(n+k, 2k). - Len Smiley, Dec 09 2001
a(n) = Sum_{k=0..n} C(n, k)*F(k+1). - Benoit Cloitre, Sep 03 2002
a(n) = (1/2)*(3*a(n-1)+sqrt(5*a(n-1)^2-4)). - Benoit Cloitre, Apr 12 2003
[A048575] 2, 5, 13, 34, 89, 233, 610, 1597, 4181, 10946, 28657, 75025, 196418, 514229, 1346269, 3524578, 9227465, 24157817, 63245986, 165580141, 433494437, 1134903170, 2971215073, 7778742049, 20365011074, 53316291173, 139583862445, 365435296162, 956722026041
a(n) = Fib(2n+3). a(n) = 3a(n-1) - a(n-2).
a(n) = [(3/2)+(1/2)*sqrt(5)]^n+(2/5)*[(3/2)+(1/2)*sqrt(5)]^n*sqrt(5)-(2/5)*[(3/2)-(1/2)*sqrt(5)]^n *sqrt(5)+[(3/2)-(1/2)*sqrt(5)]^n, with n>=0. [Paolo P. Lava, Nov 20 2008]
[A122367] 1, 2, 5, 13, 34, 89, 233, 610, 1597, 4181, 10946, 28657, 75025, 196418, 514229, 1346269, 3524578, 9227465, 24157817, 63245986, 165580141, 433494437, 1134903170, 2971215073, 7778742049, 20365011074, 53316291173, 139583862445, 365435296162, 956722026041
a(n) = 3*a(n-1)-a(n-2) with a(0) = 1, a(1) = 2.
a(n) = (2^(-1-n)*((3-sqrt(5))^n*(-1+sqrt(5)) + (1+sqrt(5))*(3+sqrt(5))^n)) / sqrt(5). - Colin Barker, Oct 14 2015
a(n) = Sum_{k=0..n} Sum_{i=0..n} C(k+i-1,k-i). - Wesley Ivan Hurt, Sep 21 2017
[A064780] 2, 5, 13, 34, 94, 255, 693, 1884, 5123, 13923, 37848, 102880, 279659, 760191, 2066413, 5617093, 15268842, 41505017, 112822331, 306682895, 833650539, 2266097112, 6159890600, 16744318683, 45515777208, 123724710091
a(n) = floor(exp(n+1))-floor(exp(n)), n>0.
[A291242] 2, 5, 13, 35, 91, 241, 631, 1662, 4362, 11470, 30127, 79179, 208023, 546633, 1436257, 3773939, 9916134, 26055432, 68461966, 179888381, 472667065, 1241962303, 3263330095, 8574599917, 22530279167, 59199680826, 155550750026, 408719050346, 1073934109927
a(n) = 2*a(n-1) + 4*a(n-2) - 5*a(n-3) - 4*a(n-4) + 2*a(n-5) + a(n-6) for n >= 7.
[A057960] 1, 2, 5, 13, 35, 95, 259, 707, 1931, 5275, 14411, 39371, 107563, 293867, 802859, 2193451, 5992619, 16372139, 44729515, 122203307, 333865643, 912137899, 2492007083, 6808289963, 18600594091, 50817768107, 138836724395
a(n) = sum(b(n, i)) where b(n, 0) = b(n, 6) = 0, b(0, 1) = 1, b(0, n) = 0 if n<> 1 and b(n+1, i) = b(n, i-1) + b(n, i) + b(n, i+1) if 1<=i<=5.
a(n) = ceiling((1+sqrt(3))^(n+2)/12). - Mitch Harris, Apr 26 2006
a(n) = floor(a(n-1)*(a(n-1)+1/2)/a(n-2). - Franklin T. Adams-Watters and Max Alekseyev, Apr 25 2006
a(n) = floor(a(n-1)*(1+3^0, 5)). - Philippe Deléham, Jul 25 2003
[A085810] 1, 2, 5, 13, 35, 96, 266, 741, 2070, 5791, 16213, 45409, 127206, 356384, 998509, 2797678, 7838801, 21963661, 61540563, 172432468, 483144522, 1353740121, 3793094450, 10628012915, 29779028189, 83438979561, 233790820762, 655067316176, 1835457822857, 5142838522138, 14409913303805
a(n) = 4*a(n-1) - 3*a(n-2) - a(n-3);
a(n) = Sum_{k=0..floor(n/2)} (Sum_{j=0..n-k} C(n-k, j)*C(j+k, 2k));
a(n) = Sum_{k=0..floor(n/2)} (Sum_{j=0..n-k} C(n-k, k+j)*C(k, k-j)*2^(n-2k-j));
a(n) = Sum_{k=0..floor(n/2)} (Sum_{j=0..n-2*k} C(n-j, n-2*k-j)*C(k, j)(-1)^j*2^(n-2*k-j)). (End)
[A005773] 1, 1, 2, 5, 13, 35, 96, 267, 750, 2123, 6046, 17303, 49721, 143365, 414584, 1201917, 3492117, 10165779, 29643870, 86574831, 253188111, 741365049, 2173243128, 6377181825, 18730782252, 55062586341, 161995031226, 476941691177
a(n) = Sum_{q=0..n} binomial(q, floor(q/2))*binomial(n-1, q) for n>0. - Emeric Deutsch, Aug 15 2002
a(n+1) = Sum_{k=0..n} (-1)^(n+k)C(n, k)C(2k+1, k+1).
a(n) = 0^n + Sum_{k=0..n-1} (-1)^(n+k-1)C(n-1, k)C(2k+1, k+1). (End)
a(n) = Sum_{l_1=0..n+1} Sum_{l_2=0..n}...Sum_{l_i=0..n-i}...Sum_{l_n=0..1} delta(l_1,l_2,...,l_i,...,l_n) where delta(l_1,l_2,...,l_i,...,l_n) = 0 if any (l_i - l_(i+1))^2 >= 2 for i=1..n-1 and delta(l_1,l_2,..., l_i,...,l_n) = 1 otherwise. - Thomas Wieder, Feb 25 2009
a(n) = Sum_{k=1..n} (k/n * Sum_{j=0..n} binomial(n,j)*binomial(j,2*j-n-k)). - Vladimir Kruchinin, Sep 06 2010
a(0) = 1; a(n+1) = Sum_{t=0..n} n!/((n-t)!*ceiling(t/2)!*floor(t/2)!. - Andrew S. Hays, Feb 02 2011
[A007689] 2, 5, 13, 35, 97, 275, 793, 2315, 6817, 20195, 60073, 179195, 535537, 1602515, 4799353, 14381675, 43112257, 129271235, 387682633, 1162785755, 3487832977, 10462450355, 31385253913, 94151567435, 282446313697, 847322163875
a(n) = 2*a(n-1)+3^(n-1), with a(0)=2. - Vincenzo Librandi, Nov 18 2010
[A085281] 1, 2, 5, 13, 35, 97, 275, 793, 2315, 6817, 20195, 60073, 179195, 535537, 1602515, 4799353, 14381675, 43112257, 129271235, 387682633, 1162785755, 3487832977, 10462450355, 31385253913, 94151567435, 282446313697, 847322163875
a(n)=3^n/3+2^n/2+0^n/6

[A082582] 1, 1, 1, 2, 5, 13, 35, 97, 275, 794, 2327, 6905, 20705, 62642, 190987, 586219, 1810011, 5617914, 17518463, 54857506, 172431935, 543861219, 1720737981, 5459867166, 17369553427, 55391735455, 177040109419, 567019562429, 1819536774089
a(n+1) = a(n) + Sum(a(k)*a(n-k): k=2..n), a(0) = a(1) = 1. - Reinhard Zumkeller, Nov 13 2012
[A086581] 1, 1, 2, 5, 13, 35, 97, 275, 794, 2327, 6905, 20705, 62642, 190987, 586219, 1810011, 5617914, 17518463, 54857506, 172431935, 543861219, 1720737981, 5459867166, 17369553427, 55391735455, 177040109419, 567019562429, 1819536774089
a(n+2) - 2*a(n+1) + a(n) = a(0)*a(n) + a(1)*a(n-1) + ... + a(n)*a(0).
a(n) = 1+sum(k=0..n, sum(i=0..k, C(n-1,k)*C(2i+2,i)*C(i+2,k-2i-1)/(i+1))). - Thomas Baruchel, Jan 19 2015
a(n) = sum(k=0..n, C(2k,k) C(n+k,3k) / (k+1). - Thomas Baruchel, Jan 19 2015
[A059027] 1, 1, 2, 5, 13, 35, 97, 276, 805, 2404, 7343, 22916, 72980, 236857, 782275, 2625265, 8938718, 30834165, 107608097, 379454447, 1350434278, 4845475311, 17512579630, 63703732426, 233063976059, 857067469749, 3166309373615, 11745982220846
a(n) = sum(k=1..n-2, sum(j=max(2*k-n+1,0)..k-1, (binomial(k,j)*((k-j)*binomial(2*n-3*k+j-3,n-1-2*k+j)))/(n-k-1)*2^j))+2^(n-1). - Vladimir Kruchinin, Oct 03 2013
[A234643] 1, 2, 5, 13, 35, 99, 297, 951, 3265, 12047, 47761, 202975, 921281, 4447327, 22737537, 122639583, 695404929, 4132531679, 25667031937, 166211936735, 1119791799425, 7833568488415, 56802921911681, 426267651506655, 3305731721387649, 26457699508131807, 218276886237532033
a(n) = Sum_{k=0..n} Sum_{j=0..k} binomial(k,j) * j^(n-k).
[A036765] 1, 1, 2, 5, 13, 36, 104, 309, 939, 2905, 9118, 28964, 92940, 300808, 980864, 3219205, 10626023, 35252867, 117485454, 393133485, 1320357501, 4449298136, 15038769672, 50973266380, 173214422068, 589998043276, 2014026871496, 6889055189032, 23608722350440
a(n) = (1/(n+1))*sum(j=0..floor(n/2), binomial(n+1, n-2j)*binomial(n+1, j)). G.f. A(z) satisfies A=1+z*A+(z*A)^2+(z*A)^3. - Emeric Deutsch, Nov 29 2003
[A125094] 1, 1, 2, 5, 13, 36, 104, 313, 977, 3152, 10486, 35880, 126039, 453725, 1671322, 6291148, 24170312, 94680426, 377788108, 1534169595, 6335718925, 26589240583, 113323479393, 490203781505, 2150975413846, 9569147610181, 43140286838567
a(n) = Sum_{k=0..n-1} a(k)*C(n-1, floor[n/2 - (-1)^(n-k-1)*(k+1)/2]).
[A135310] 1, 1, 2, 5, 13, 36, 105, 319, 1002, 3235, 10685, 35970, 123045, 426667, 1496782, 5303623, 18956417, 68270576, 247518777, 902708185, 3309559838, 12190954231, 45096739797, 167462013888, 624019924009, 2332697899665
a(n) = Sum_{j=0..floor(n/4)} (-1)^(j)*(5j+1)*binomial(2n-3j,n+j)/(n+j+1).
a(n) = the upper left term in M^n, M = the following production matrix in which a column of (1,1,1,0,0,0,...) is prepended to an infinite lower triangular matrix with all 1's and the rest zeros:
[A135337] 1, 1, 2, 5, 13, 36, 105, 320, 1011, 3289, 10957, 37216, 128435, 449142, 1588228, 5669505, 20403322, 73945553, 269647630, 988642372, 3642310793, 13476857235, 50059454347, 186598634398, 697777187275, 2616919372356, 9840647362248
a(n) = sum of top row terms of M^(n-1), M = an infinite square production matrix as follows, in which a column of [1,1,0,0,0,...] is prepended to an infinite lower triangular matrix of all 1's and the rest zeros:
[A114509] 1, 1, 2, 5, 13, 37, 111, 345, 1104, 3611, 12016, 40548, 138414, 477076, 1657956, 5802920, 20436910, 72369903, 257518806, 920333307, 3302003826, 11888979066, 42944410207, 155576009845, 565127618392, 2057903975752, 7510967300206
a(n) = 1/n*sum(j=ceiling((3*n+2)/5)..n, C(n,j)*C(5*j-3*n-2,j-1) * (-1)^(n-j)), n>0. [From Vladimir Kruchinin, Mar 07 2011]
[A003080] 1, 1, 2, 5, 13, 37, 111, 345, 1105, 3624, 12099, 41000, 140647, 487440, 1704115, 6002600, 21282235, 75890812, 272000538, 979310627, 3540297130, 12845634348, 46764904745, 170767429511, 625314778963, 2295635155206, 8447553316546, 31153444946778, 115122389065883
a(n)=b(2n+1). b shifts left under transform T where Tb = EULER(E_2(b)). E_2(b) has g.f. (B(x^2)+B(x)^2)/2.
[A133448] 2, 5, 13, 40, 121, 365, 1094, 3281, 9841, 29524, 88573, 265721, 797162, 2391485, 7174453, 21523360, 64570081, 193710245, 581130734, 1743392201, 5230176601, 15690529804, 47071589413, 141214768241, 423644304722, 1270932914165, 3812798742493, 11438396227480
a(n)=(1/3)*{1/2-(1/2)*I]*sqrt(3)}^n+(3/2)*3^n-(1/6)*(-1)^n+(1/3)*{1/2+(1/2)*I*sqrt(3)}^n, with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A247981] 2, 5, 13, 41, 137, 149, 229, 293, 397, 509, 661, 677, 709, 761, 809, 877, 881, 1217, 1249, 1277, 1601, 2053, 2633, 3637, 3701, 4481, 4729, 5101, 5449, 5749, 5861, 7121, 7237, 7517, 8009, 8089, 8117, 8377, 9661, 14869, 14897, 18229, 19609, 20369, 20441, 21493, 22349, 23917, 24781, 24977, 25717
a(n) « exp(k^n) for some constant k > 0, see Jones theorem 6.1. In particular this sequence is infinite. - Charles R Greathouse IV, Sep 28 2014
[A228958] 1, 2, 5, 14, 19, 44, 51, 100, 109, 190, 201, 322, 335, 504, 519, 744, 761, 1050, 1069, 1430, 1451, 1892, 1915, 2444, 2469, 3094, 3121, 3850, 3879, 4720, 4751, 5712, 5745, 6834, 6869, 8094, 8131, 9500, 9539, 11060, 11101, 12782, 12825, 14674, 14719, 16744
a(n) = (1/12)*(2*n^3+4*n+3/2+(3*n^2-6*n-3/2)*(-1)^n) [based on Alcover program]
[A076664] 0, 0, 2, 5, 14, 23, 43, 64, 96, 133, 187, 237, 314, 395, 491, 596, 731, 863, 1033, 1201, 1400, 1617, 1869, 2109, 2403, 2712, 3050, 3400, 3805, 4198, 4662, 5127, 5640, 6181, 6763, 7338, 8003, 8684, 9408, 10138, 10957, 11764, 12666, 13572, 14529, 15538
a(n) = Sum_{k=1..n} Sum_{i=1..k-1} (n-k-i+1) mod (n-i+1). - Wesley Ivan Hurt, Sep 13 2017
[A290414] 1, 2, 5, 14, 25, 63, 112, 255, 480, 1023, 1984, 4095, 8064, 16383, 32512, 65535, 130560, 262143, 523264, 1048575, 2095104, 4194303, 8384512, 16777215, 33546240, 67108863, 134201344, 268435455, 536838144, 1073741823, 2147418112, 4294967295, 8589803520
a(n) = 2^(n/2+1)*(2^(n/2) - 1) for n>4 and even.
a(n) = 2^(n+1) - 1 for n>4 and odd.
a(n) = 2*a(n-1) + 3*a(n-2) - 6*a(n-3) - 2*a(n-4) + 4*a(n-5) for n>6.
[A212346] 1, 1, 2, 5, 14, 28, 48, 75, 110, 154, 208, 273, 350, 440, 544, 663, 798, 950, 1120, 1309, 1518, 1748, 2000, 2275, 2574, 2898, 3248, 3625, 4030, 4464, 4928, 5423, 5950, 6510, 7104, 7733
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>6.
[A120328] 2, 5, 14, 29, 50, 77, 110, 149, 194, 245, 302, 365, 434, 509, 590, 677, 770, 869, 974, 1085, 1202, 1325, 1454, 1589, 1730, 1877, 2030, 2189, 2354, 2525, 2702, 2885, 3074, 3269, 3470, 3677, 3890, 4109, 4334, 4565, 4802, 5045, 5294, 5549, 5810, 6077, 6350
a(n) = 3*(2*n + 1) + a(n - 1) (with a(-1) = 2). - Vincenzo Librandi, Nov 13 2010
a(n) = 3n^2 + 6n + 5. - T. D. Noe by way of Alonso del Arte, Oct 29 2012
a(n) = 3*(n + 1)^2 + 2 == 2 (mod 3), hence a(n) is never square.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for all n in Z. (End)
[A212393] 1, 1, 2, 5, 14, 30, 72, 195, 485, 1059, 2065, 3682, 6120, 9620, 14454, 20925, 29367, 40145, 53655, 70324, 90610, 115002, 144020, 178215, 218169, 264495, 317837, 378870, 448300, 526864, 615330, 714497, 825195, 948285, 1084659, 1235240, 1400982, 1582870, 1781920
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>8, a(0)=a(1)=1, a(2)=2, a(3)=5, a(4)=14, a(5)=30, a(6)=72, a(7)=195, a(8)=485.
a(n) = (n-3)*(31*n^3-369*n^2+1454*n-1560)/24 for n>3, a(0)=a(1)=1, a(2)=2, a(3)=5.
[A080039] 1, 2, 5, 14, 33, 82, 197, 478, 1153, 2786, 6725, 16238, 39201, 94642, 228485, 551614, 1331713, 3215042, 7761797, 18738638, 45239073, 109216786, 263672645, 636562078, 1536796801, 3710155682, 8957108165, 21624372014, 52205852193
a(n) = (sqrt(2)+1)^n - (1/2) + (-1)^n*((sqrt(2)-1)^n - (1/2)) for n>0. (End)
[A102714] 2, 5, 14, 36, 95, 248, 650, 1701, 4454, 11660, 30527, 79920, 209234, 547781, 1434110, 3754548, 9829535, 25734056, 67372634, 176383845, 461778902, 1208952860, 3165079679, 8286286176, 21693778850, 56795050373, 148691372270, 389279066436, 1019145827039
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3), a(0) = 2, a(1) = 5, a(2) = 14.
a(n) = (2^(-1-n)*((-1)^n*2^(1+n)+(9-5*sqrt(5))*(3-sqrt(5))^n+(3+sqrt(5))^n*(9+5*sqrt(5))))/5. - Colin Barker, Oct 01 2016
[A038990] 1, 2, 5, 14, 37, 98, 257, 674, 1765, 4622, 12101, 31682, 82945, 217154, 568517, 1488398, 3896677, 10201634, 26708225, 69923042, 183060901, 479259662, 1254718085, 3284894594, 8599965697, 22515002498, 58945041797, 154320122894, 404015326885, 1057725857762
a(0)=1, a(1)=2, a(2)=5, a(3)=14, a(n)=3*a(n-1)-3*a(n-3)+a(n-4). - Harvey P. Dale, Feb 17 2012
a(n) = (-1)*(2^(-1-n)*((-2)^n + 5*2^n - 8*(3-sqrt(5))^n - 8*(3+sqrt(5))^n)) / 5. - Colin Barker, Jul 16 2017
[A077938] 1, 2, 5, 14, 37, 98, 261, 694, 1845, 4906, 13045, 34686, 92229, 245234, 652069, 1733830, 4610197, 12258362, 32594581, 86667918, 230447141, 612751362, 1629285701, 4332217046, 11519222517, 30629233482, 81442123573, 216551925662, 575804441861, 1531045056530
a(n)=sum(k=1..n, sum(j=0..k, binomial(j,n-3*k+2*j)* binomial(k,j)*2^(-n+4*k-2*j))), n>0, a(0)=1. [Vladimir Kruchinin, May 05 2011]
a(n) = 2*a(n-1) + a(n-2) + 2*a(n-3). [Stefan Schuster, Apr 24 2015]
[A292327] 2, 5, 14, 38, 102, 271, 714, 1868, 4858, 12569, 32374, 83058, 212350, 541219, 1375570, 3487384, 8821170, 22266413, 56098206, 141087934, 354268502, 888238903, 2223968666, 5561234916, 13889778218, 34652529473, 86361653126, 215021205770, 534861620718

a(n) = 4*a(n-1) - 2*a(n-2) - 4*a(n-3) - a(n-4) for n >= 5.
[A052945] 1, 2, 5, 14, 38, 104, 284, 776, 2120, 5792, 15824, 43232, 118112, 322688, 881600, 2408576, 6580352, 17977856, 49116416, 134188544, 366609920, 1001596928, 2736413696, 7476021248, 20424869888, 55801782272, 152453304320
a(n)=((2+sqrt3)(1+sqrt3)^n+(2-sqrt3)(1-sqrt3)^n)/2 offset 0. Lead w. one. a(n)=first binomial transform of 2,3,6,9,18... offset 0. Lead w. one. [From Al Hakanson (hawkuu(AT)gmail.com), Jun 29 2009]
[A291729] 2, 5, 14, 39, 106, 290, 794, 2173, 5946, 16272, 44530, 121860, 333480, 912597, 2497400, 6834349, 18702782, 51181767, 140063294, 383295214, 1048920220, 2870460125, 7855260268, 21496593296, 58827270844, 160985870984, 440551640160, 1205607339709, 3299247863502
a(n) = 2*a(n-1) + a(n-2) + 2*a(n-3) + 2*a(n-4) + a(n-6) for n >= 7.
[A142586] 1, 2, 5, 14, 39, 107, 290, 779, 2079, 5522, 14615, 38579, 101634, 267347, 702455, 1844114, 4838079, 12686507, 33254210, 87141659, 228301839, 598026002, 1566300455, 4101923939, 10741568514, 28126975907, 73647747815, 192833044754, 504884940879, 1321888886747
a(0)=1, a(1)=2, a(2)=5, a(3)=14, a(n)=5*a(n-1)-7*a(n-2)+2*a(n-3). - Harvey P. Dale, Aug 08 2011
a(n) = (-2^(-1+n) + ((3-sqrt(5))/2)^n + ((3+sqrt(5))/2)^n) for n>0. - Colin Barker, Jun 05 2017
[A026135] 1, 2, 5, 14, 39, 110, 312, 890, 2550, 7334, 21161, 61226, 177575, 516114, 1502867, 4383462, 12804429, 37452870, 109682319, 321563658, 943701141, 2772060618, 8149661730, 23978203662, 70600640796, 208014215066, 613266903927
a(n) = Sum_{k=0..n} binomial(n-1, k-1)*binomial(k+1, floor((k+1)/2)). - Vladeta Jovovic, Sep 18 2003
[A117189] 1, 2, 5, 14, 40, 114, 324, 920, 2612, 7416, 21056, 59784, 169744, 481952, 1368400, 3885280, 11031424, 31321376, 88930368, 252498816, 716916544, 2035531648, 5779458048, 16409538688, 46591385856, 132286304768, 375598753024, 1066432564736, 3027907856384
a(n) = 4a(n-1)-4a(n-2)+2a(n-3), n>2. - T. D. Noe, Nov 07 2006
a(n) = 2*a(n-1) + sum_{j=1..n-1} j*a(n-j-1), n>=1; with a(0) = 1. - Bob Selcoe, Jun 28 2014
[A075496] 1, 1, 2, 5, 14, 40, 118, 349, 1042, 3112, 9322, 27926, 83738, 251096, 753170, 2259161, 6777134, 20330360, 60990038, 182967002, 548897894, 1646684360, 4940043758, 14820103348, 44460282118, 133380762616, 400142204110, 1200426361234
a(n) is asymptotic to c*3^n where c=0.052473532403527236078834469922176934048617034711904730589975028466575548 68....
[A225691] 1, 1, 2, 5, 14, 41, 110, 245, 450, 739, 1126, 1625, 2250, 3015, 3934, 5021, 6290, 7755, 9430, 11329, 13466, 15855, 18510, 21445, 24674, 28211, 32070, 36265, 40810, 45719, 51006, 56685, 62770, 69275, 76214, 83601, 91450, 99775, 108590, 117909, 127746, 138115, 149030, 160505, 172554
a(n) = (14*n^3-84*n^2+124*n-84)/6 for n >= 6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>6. - Colin Barker, Jul 10 2015
[A116844] 1, 2, 5, 14, 41, 116, 302, 715, 1549, 3106, 5831, 10352, 17525, 28484, 44696, 68021, 100777, 145810, 206569, 287186, 392561, 528452, 701570, 919679, 1191701, 1527826, 1939627, 2440180, 3044189, 3768116
a(n) = (n^6 - 9n^5 + 43n^4 - 99n^3 + 172n^2 - 108n + 144)/144. - Franklin T. Adams-Watters, Sep 16 2006
[A116851] 1, 2, 5, 14, 41, 116, 307, 760, 1779, 3986, 8641, 18282, 38005, 78024, 158791, 321236, 647247, 1300630, 2609029, 5227766, 10467521, 20949692, 41917115, 83855504, 167736331, 335502586, 671040297, 1342121570, 2684290669, 5368636176, 10737335311, 21474742572
a(n) = 5*2^n-(n+2)*(n^3+11*n+24)/12. - R. J. Mathar, Jan 12 2013
[A038989] 1, 2, 5, 14, 41, 118, 341, 986, 2849, 8234, 23797, 68774, 198761, 574430, 1660133, 4797874, 13866113, 40073810, 115815461, 334712894, 967338217, 2795659334, 8079605429, 23350493066, 67484177441, 195032892538, 563655520661, 1628994688214, 4707882025385
a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) - a(n-4) for n>3. - Colin Barker, Jul 16 2017
[A116850] 1, 2, 5, 14, 41, 119, 334, 902, 2351, 5945, 14660, 35408, 84061, 196715, 454778, 1040522, 2359451, 5308589, 11862208, 26345684, 58196201, 127926527, 279970070, 610271534, 1325400391, 2868904289, 6190793084, 13321109912, 28588376501, 61203284435, 130728067570
a(n) = (1/16)*(32-9*2^(1+n) + (8+2^n)*n + (8+2^n)*n^2).
a(n) = 9*a(n-1) - 33*a(n-2) + 63*a(n-3) - 66*a(n-4) + 36*a(n-5) - 8*a(n-6) for n>6.
[A116847] 1, 2, 5, 14, 41, 119, 336, 924, 2492, 6636, 17536, 46137, 121095, 317434, 831571, 2177734, 5702191, 14929519, 39087182, 102332996, 267912946, 701407172, 1836310110, 4807524929, 12586266701, 32951277474, 86267568321, 225851430414, 591286726197, 1548008751831
a(n) = 1 - ((3-sqrt(5))/2)^n/sqrt(5) + ((3+sqrt(5))/2)^n/sqrt(5) - (4*n)/3 + n^2/2 - n^3/6. - Colin Barker, Oct 31 2017
[A116848] 1, 2, 5, 14, 41, 119, 336, 927, 2527, 6870, 18717, 51155, 140120, 384147, 1053147, 2886182, 7906953, 21657679, 59318944, 162475127, 445041287, 1219069014, 3339354501, 9147387195, 25057021032, 68637206987, 188013260835, 515011570790, 1410735630289
a(n) = 6*a(n-1) - 14*a(n-2) + 17*a(n-3) - 10*a(n-4) + 4*a(n-5) for n>5. - Colin Barker, Nov 01 2017
[A122055] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 5, 14, 41, 121, 353, 989, 2393, 9397, 49121, 342793, 2842633, 24619238, 211654405, 1731275594, 11581792513, 107195509553, 1126517154817, 16124559341513, 342648008481505, 8465982933121657, 213444061953471233
a(n) = (3*a(n - 1)a(n - 8) - a(n - 4)*a(n - 5))/a(n - 9)
[A244885] 1, 1, 2, 5, 14, 41, 121, 354, 1021, 2901, 8130, 22513, 61713, 167746, 452789, 1215197, 3246050, 8637641, 22912633, 60624546, 160075117, 421960101, 1110785922, 2920883425, 7673884449, 20146907266, 52863306341, 138644338349, 363489139106, 952695494201
a(n) = Fibonacci(2*n+1) - (n+1)*2^(n-2) for n>0. [Bruno Berselli, Jul 10 2014]
a(n) = ((2^(-1-n)*((3-sqrt(5))^n*(-1+sqrt(5)) + (1+sqrt(5))*(3+sqrt(5))^n))/sqrt(5) - 2^(-2+n)*(1+n)) for n>0.
a(n) = 7*a(n-1)-17*a(n-2)+16*a(n-3)-4*a(n-4) for n>4.
[A116845] 1, 2, 5, 14, 41, 121, 355, 1032, 2973, 8496, 24111, 68017, 190885, 533294, 1484021, 4115186, 11375765, 31358377, 86223943, 236540916, 647556621, 1769374932, 4826148315, 13142564449, 35736448201, 97037995226, 263156279525, 712795854422, 1928547574913
a(n) = 7*a(n-1) - 17*a(n-2) + 17*a(n-3) - 7*a(n-4) + a(n-5) for n>5. - Colin Barker, Oct 19 2017
[A116849] 1, 2, 5, 14, 41, 121, 356, 1044, 3057, 8948, 26192, 76674, 224465, 657137, 1923817, 5632105, 16488346, 48270655, 141315320, 413709331, 1211159679, 3545745012, 10380388294, 30389230117, 88966354626, 260454516946, 762496740130
a(n) = 5*a(n-1) -8*a(n-2) +6*a(n-3) -a(n-4) for n>3. - Vincenzo Librandi, Jun 29 2014
a(n) = 2*a(n-1) + sum_{i=1..n-3} a(n-i-2)*[(i*(i+1)/2)+1].
a(n) = 2*a(n-1) + sum_{i=2..4} a(n-i)*2^(i-2) + sum_({i=5..n-1}, {j=0..i-5}) a(n-i)*(2^(i-2) - sum_[(i-2)!/(j!*(i-2-j)!)]). (End)
[A007051] 1, 2, 5, 14, 41, 122, 365, 1094, 3281, 9842, 29525, 88574, 265721, 797162, 2391485, 7174454, 21523361, 64570082, 193710245, 581130734, 1743392201, 5230176602, 15690529805, 47071589414, 141214768241, 423644304722, 1270932914165, 3812798742494, 11438396227481
a(n) = 3*a(n-1) - 1.
a(n) = 4*a(n-1) - 3*a(n-2) for n > 1, a(0)=1, a(1)=2.
a(n) = Sum_{k=0..floor(n/2)} binomial(n, 2*k)*2^(n-2*k). - Paul Barry, May 08 2003
a(n) = M^n*[1,1,1,0,0,0,...], leftmost column term; where M = an infinite bidiagonal matrix with all 1's in the superdiagonal and (1,2,3,...) in the main diagonal and the rest zeros. - Gary W. Adamson, Jun 23 2011
a(n) = M^n*{1,1,1,0,0,0,...}, top entry term; where M is an infinite bidiagonal matrix with all 1's in the superdiagonal, (1,2,3,...) as the main diagonal, and the rest zeros. - Gary W. Adamson, Jun 24 2011
[A113485] 1, 2, 5, 14, 41, 122, 367, 1114, 3423, 10670, 33841, 109398, 361045, 1217346, 4195267, 14775986, 53172411, 195396310, 732806677, 2802898190, 10926431393, 43381582538, 175311002903, 720640632074, 3011495745175, 12786738800254
a(n) = Sum[Sum[(k+1)^2 binomial[n, 2k+p] k!, {k, 0, Floor[(n-p)/2]}], {p, 3, n}] + Sum[binomial[n, 2k] k!, {k, 0, Floor[n/2]}].
[A054391] 1, 1, 2, 5, 14, 41, 123, 374, 1147, 3538, 10958, 34042, 105997, 330632, 1032781, 3229714, 10109310, 31667245, 99260192, 311294876, 976709394, 3065676758, 9625674442, 30231524869, 94972205349, 298419158008, 937861780439, 2947969125284
a(n) = upper left term of M^n, a(n+1) = sum of top row terms of M^n; M = an infinite square production matrix as follows with a main diagonal of (1, 1, 1, 0, 0, 0,...):
a(n) = Sum_{k=1..n-1} (sum(l=1..k, (binomial(k,l)*l*sum(j=0..n+l-k-1, binomial(j,1-n-2*l+k+2*j)*binomial(n-1+l-k,j)))/(n+l-k-1))) + 1; - Vladimir Kruchinin, Oct 31 2011
[A108626] 1, 2, 5, 14, 41, 124, 383, 1200, 3799, 12122, 38919, 125578, 406865, 1322772, 4313155, 14099524, 46192483, 151628090, 498578411, 1641921014, 5414619739, 17878144968, 59097039545, 195548471268, 647665451911, 2146947613286
a(n) = Sum_{k=0..n} Sum_{i=0..k} C(n, i)^2 * C(n+k-i, k-i).
a(n) = ((5*n-3)*a(n-1) - (6*n-8)*a(n-2) + (2*n-4)*a(n-3) - (n-2)*a(n-4) + (n-3)*a(n-5)) / n. - Thomas Baruchel, Nov 08 2014

[A159772] 1, 1, 2, 5, 14, 41, 124, 384, 1210, 3865, 12482, 40677, 133572, 441468, 1467296, 4900760, 16439370, 55357305, 187050302, 633998079, 2154950454, 7343407521, 25082709012, 85858848820, 294480653064, 1011871145116, 3482837144984
a(n) = sum(k=1..n-1, k*sum(j=0..n-1, binomial(n-1,j)*sum(i=j..n-k+j-1, binomial(j,i-j)*binomial(n-j-1,3*j-n-k-i+1))))/(n-1), n>1. a(0)=0, a(1)=1. - Vladimir Kruchinin, Oct 23 2011
[A159771] 1, 1, 2, 5, 14, 41, 124, 385, 1220, 3929, 12822, 42309, 140922, 473169, 1599864, 5442561, 18615176, 63975857, 220816906, 765121477, 2660426630, 9280204025, 32466050612, 113883898241, 400464335116, 1411407234697, 4984885122974
a(n) = Sum_{k=0..floor(n/2)} 1/(n-k+0^(n-k))*C(n-k,k)*C(n-k,k+1)*2^(n-2k-1). - Paul Barry, Nov 18 2009
[A036766] 1, 1, 2, 5, 14, 41, 125, 393, 1265, 4147, 13798, 46476, 158170, 543050, 1878670, 6542330, 22915999, 80682987, 285378270, 1013564805, 3613262795, 12924536005, 46373266470, 166856922125, 601928551824, 2176616383346, 7888184659826
a(n-4) -625*(733*n-400)*(n-2)*(n-3)*(n-4)*a(n-5)=0. - R. J. Mathar, Aug 04 2015
[A080937] 1, 1, 2, 5, 14, 42, 131, 417, 1341, 4334, 14041, 45542, 147798, 479779, 1557649, 5057369, 16420730, 53317085, 173118414, 562110290, 1825158051, 5926246929, 19242396629, 62479659622, 202870165265, 658715265222, 2138834994142, 6944753544643, 22549473023585
a(n) = 5*a(n-1)-6*a(n-2)+a(n-3) - Herbert Kociemba, Jun 11 2004
[A162746] 1, 2, 5, 14, 42, 132, 427, 1402, 4629, 15290, 50412, 165816, 544253, 1783602, 5839313, 19106766, 62504002, 204457540, 668825279, 2188016442, 7158417217, 23421034442, 76632061852, 250740203864, 820430583305, 2684486330562
a(n)=sum{k=0..floor(n/2), C(n,2k)*2^(n-2k)*F(k+1)}=sum{k=0..n, C(n,k)*2^(n-k)*F(k/2+1)*(1+(-1)^k)/2}.
[A024175] 1, 1, 2, 5, 14, 42, 132, 428, 1416, 4744, 16016, 54320, 184736, 629280, 2145600, 7319744, 24979584, 85262464, 291057920, 993641216, 3392317952, 11581727232, 39541748736, 135002491904, 460924372992, 1573688313856, 5372896120832
a(n) = (1/4)*Sum(r, 1, 7, Sin(r*Pi/8)^2(2Cos(r*Pi/8))^(2n)), n>=1 a(n)= 6a(n-1)-10a(n-2)+4a(n-3), n>=4. - Herbert Kociemba, Jun 11 2004
a(n) = (1/4)*((2+sqrt(2))^(n-1)+(2-sqrt(2))^(n-1)+2^n) for n>=1. [Richard Choulet, Apr 19 2010]
[A058094] 1, 1, 2, 5, 14, 42, 132, 429, 1426, 4806, 16329, 55740, 190787, 654044, 2244153, 7704047, 26455216, 90860572, 312090478, 1072034764, 3682565575, 12650266243, 43456340025, 149282561256, 512821712570, 1761669869321, 6051779569463, 20789398928496, 71416886375493
a(n+1) = 6a(n) - 11a(n-1) + 9a(n-2) - 4a(n-3) - 4a(n-4) + a(n-5) for n >= 5.
[A080938] 1, 1, 2, 5, 14, 42, 132, 429, 1429, 4846, 16645, 57686, 201158, 704420, 2473785, 8704089, 30664890, 108126325, 381478030, 1346396146, 4753200932, 16783118309, 59266297613, 209302921830, 739203970773, 2610763825782, 9221050139566
a(n) = 7*a(n-1)-15*a(n-2)+10*a(n-3)-a(n-4) - Herbert Kociemba, Jun 13 2004
[A120588] 1, 1, 1, 2, 5, 14, 42, 132, 429, 1430, 4862, 16796, 58786, 208012, 742900, 2674440, 9694845, 35357670, 129644790, 477638700, 1767263190, 6564120420, 24466267020, 91482563640, 343059613650, 1289904147324, 4861946401452, 18367353072152
a(n) = Sum_{k=1..n-1} a(k) * a(n-k) if n>1. - Michael Somos, Jul 23 2011
[A000108] 1, 1, 2, 5, 14, 42, 132, 429, 1430, 4862, 16796, 58786, 208012, 742900, 2674440, 9694845, 35357670, 129644790, 477638700, 1767263190, 6564120420, 24466267020, 91482563640, 343059613650, 1289904147324, 4861946401452, 18367353072152, 69533550916004, 263747951750360, 1002242216651368, 3814986502092304
a(n) = binomial(2*n, n)-binomial(2*n, n-1).
a(n) = Sum_{k=0..n-1} a(k)a(n-1-k).
a(n) = Product_{k=2..n} (1 + n/k), if n>1.
a(n+1) = Sum_{i} binomial(n, 2*i)*2^(n-2*i)*a(i). - Touchard
a(n+1) = (1/(n+1))*Sum_{k=0..n} a(n-k)*binomial(2k+1, k+1). - Philippe Deléham, Jan 24 2004
a(n) = Sum_{k=0..n} (-1)^k*2^(n-k)*binomial(n, k)*binomial(k, floor(k/2)). - Paul Barry, Jan 27 2005
[A126569] 1, 2, 5, 14, 42, 132, 430, 1444, 4981, 17594, 63442, 232828, 867146, 3269060, 12446684, 47771496, 184544427, 716658870, 2794956099, 10938266562, 42930256917, 168890693650, 665739119129, 2628578437646, 10393091551794, 41141896235012, 163028816478833
a(n) = leftmost term in M^n * [1,0,0,0,0,0,0,0], where M = the 8x8 matrix [2,-1,0,0,0,0,0,0; -1,2,-1,0,0,0,0,0; 0,-1,2,-1,0,0,0,-1; 0,0,-1,2,-1,0,0,0; 0,0,0,-1,2,-1,0,0; 0,0,0,0,-1,2,-1,0; 0,0,0,0,0,-1,2,0; 0,0,-1,0,0,0,0,2].
a(n) = 16a(n-1)-105a(n-2)+364a(n-3)-714a(n-4)+784(n-5)-440a(n-6)+96a(n-7) -a(n-8). G.f.: -(2*x-1)*(2*x^2-4*x+1)*(x^4-16*x^3+20*x^2-8*x+1) / (1-16*x +105*x^2 -364*x^3+714*x^4-784*x^5+440*x^6-96*x^7+x^8). - R. J. Mathar, May 08 2009
[A276989] 1, 1, 2, 5, 14, 43, 140, 474, 1650, 5863, 21170, 77441, 286372, 1068790, 4020704, 15230470, 58044354, 222401745, 856235030, 3310615055, 12849946406, 50051007940, 195571906140, 766413504375, 3011469930300, 11862075827007, 46830440626612, 185271557066226
a(n) = (Sum_{j=0..(n-1)/2} C(n-1-4*j,j)*C(2*n-4*j-2,n-1))/n.
[A123020] 1, 1, 2, 5, 14, 43, 142, 493, 1766, 6443, 23750, 88045, 327406, 1219531, 4546622, 16958765, 63272054, 236096683, 881049142, 3287968813, 12270563966, 45793762763, 170903438510, 637817894125, 2380363943686, 8883629492011
a(n)=(2-sqrt(3))^n*(1/3-sqrt(3)/6)+(2+sqrt(3))^n*(1/3-sqrt(3)/6)+2^n/3. (End)
[A005317] 1, 2, 5, 14, 43, 142, 494, 1780, 6563, 24566, 92890, 353740, 1354126, 5204396, 20066492, 77575144, 300572963, 1166868646, 4537698722, 17672894044, 68923788698, 269129985796, 1052051579012, 4116719558104, 16123810230158, 63205319996092, 247959300028484
a(n) = sum(k=0..floor(n/2),(-1)^k*C(2*n,n-2*k)), n>0. - Mircea Merca, Jun 20 2011
a(n) = sum[k*(k+1)/2 {k=C(n,r) 0<=r<=n}]. - J. M. Bergot, Sep 04 2013
[A005425] 1, 2, 5, 14, 43, 142, 499, 1850, 7193, 29186, 123109, 538078, 2430355, 11317646, 54229907, 266906858, 1347262321, 6965034370, 36833528197, 199037675054, 1097912385851, 6176578272782, 35409316648435, 206703355298074, 1227820993510153, 7416522514174082
a(n) = (-i*sqrt(2))^n*H(n, i*sqrt(2)), where H(n, x) is the n-th Hermite polynomial and i = sqrt(-1). - Emeric Deutsch, Nov 24 2004
a(n) = Sum_{k=0..[n/2]} 2^{n-3*k}*n!/((n-2*k)!*k!). - Huajun Huang (hua_jun(AT)hotmail.com), Oct 10 2005
a(n) = (1/sqrt(2*Pi))*int(exp(-x^2/2)*(x+2)^n,x=-infinity..infinity). - Groux Roland, Mar 14 2011
[A249562] 1, 1, 2, 5, 14, 43, 143, 509, 1921, 7631, 31725, 137412, 617822, 2874819, 13809305, 68331089, 347657464, 1815839759, 9722708061, 53301771604, 298854490602, 1712023130016, 10011533550216, 59714205975048, 363008132101658, 2247599137530241, 14164805684388087, 90810818671081267, 591921142070249872
a(n,k,i,l) = aup(n,k,i,l) + adown(n,k,i,l) + abar(n,k,i,l)
a(n) = sum(sum(sum(a(n,k,j,m) for m in [0..k]) for j in [1..k]) for k in [1..n])
[A257273] 2, 5, 14, 44, 152, 560, 2144, 8384, 33152, 131840, 525824, 2100224, 8394752, 33566720, 134242304, 536920064, 2147581952, 8590131200, 34360131584, 137439739904, 549757386752, 2199026401280, 8796099313664, 35184384671744, 140737513521152, 562950003752960, 2251799914348544, 9007199456067584
a(n) = 6*a(n-1)-8*a(n-2). - Colin Barker, Apr 27 2015
[A001680] 1, 1, 2, 5, 14, 46, 166, 652, 2780, 12644, 61136, 312676, 1680592, 9467680, 55704104, 341185496, 2170853456, 14314313872, 97620050080, 687418278544, 4989946902176, 37286121988256, 286432845428192, 2259405263572480, 18280749571449664, 151561941235370176
a(n) = n! * sum(k=1..n, 1/k! * sum(j=0..k, C(k,j) * C(j,n-3*k+2*j) * 2^(-n+2*k-j) * 3^(j-k))). [Vladimir Kruchinin, Jan 25 2011]
a(n) = G(n,3) with G(0,i) = 1, G(n,i) = 0 for n>0 and i<1, otherwise G(n,i) = Sum_{j=0..floor(n/i)} G(n-i*j,i-1) * n!/(i!^j*(n-i*j)!*j!). - Alois P. Heinz, Apr 20 2012
[A104585] 0, 2, 5, 15, 22, 40, 51, 77, 92, 126, 145, 187, 210, 260, 287, 345, 376, 442, 477, 551, 590, 672, 715, 805, 852, 950, 1001, 1107, 1162, 1276, 1335, 1457, 1520, 1650, 1717, 1855, 1926, 2072, 2147, 2301, 2380, 2542, 2625, 2795, 2882, 3060, 3151, 3337, 3432, 3626
a(n) = (1/2) * (3*n^2 - n*(-1)^n). - Ralf Stephan, Nov 13 2010.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Vincenzo Librandi, Apr 04 2013
[A290527] 1, 2, 5, 15, 24, 63, 112, 255, 480, 1023, 1984, 4095, 8064, 16383, 32512, 65535, 130560, 262143, 523264, 1048575, 2095104, 4194303, 8384512, 16777215, 33546240, 67108863, 134201344, 268435455, 536838144, 1073741823, 2147418112, 4294967295, 8589803520
a(n) = 2^(n/2+1) * (2^(n/2) - 1) for n>2 and even.
a(n) = 2^(n+1) - 1 for n>2 and odd.
a(n) = 2*a(n-1) + 3*a(n-2) - 6*a(n-3) - 2*a(n-4) + 4*a(n-5) for n>4.
[A290828] 1, 2, 5, 15, 28, 63, 124, 255, 508, 1023, 2044, 4095, 8188, 16383, 32764, 65535, 131068, 262143, 524284, 1048575, 2097148, 4194303, 8388604, 16777215, 33554428, 67108863, 134217724, 268435455, 536870908, 1073741823, 2147483644, 4294967295, 8589934588
a(n) = 2*(2^n - 2) for n>2 and even.
a(n) = 2^(n+1) - 1 for n>2 and odd.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>5.

[A290836] 1, 2, 5, 15, 28, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295, 8589934591
a(n) = 2^(1+n) - 1 for n>4.
a(n) = 3*a(n-1) - 2*a(n-2) for n>6.
[A006451] 0, 2, 5, 15, 32, 90, 189, 527, 1104, 3074, 6437, 17919, 37520, 104442, 218685, 608735, 1274592, 3547970, 7428869, 20679087, 43298624, 120526554, 252362877, 702480239, 1470878640, 4094354882, 8572908965, 23863649055, 49966575152
a(n) = 6a(n-2) - a(n-4) + 2 with a(0)=0, a(1)=2, a(2)=5, a(3)=15. - Zak Seidov, Apr 15 2008
a(n) = 3*a(n-2) + 4*sqrt ((a(n-2)^2 + a(n-2))/2 + 1) + 1 with a(0) = 0, a(1) = 2. - Raphie Frank, Feb 02 2013
a(0)=0, a(1)=2, a(2)=5, a(3)=15, a(4)=32, a(n)=a(n-1)+6*a(n-2)- 6*a(n-3)- a(n-4)+a(n-5). - Harvey P. Dale, Jul 17 2013
a(n) = 7*a(n-2) - 7*a(n-4) + a(n-6), for n>5. - Hermann Stamm-Wilbrandt, Aug 26 2014
[A245961] 0, 0, 0, 0, 2, 5, 15, 35, 80, 171, 355, 715, 1410, 2730, 5208, 9810, 18280, 33745, 61785, 112309, 202840, 364245, 650705, 1157015, 2048532, 3612900, 6349200, 11121300, 19421150, 33820061, 58740915, 101777495, 175945280, 303516015, 522541903, 897942115
a(n) = 3*a(n-1)-5*a(n-3)+3*a(n-5)+a(n-6). G.f.: x^4*(x-2) / (x^2+x-1)^3. - Colin Barker, Aug 11 2014
[A059840] 0, 0, 2, 5, 15, 39, 104, 272, 714, 1869, 4895, 12815, 33552, 87840, 229970, 602069, 1576239, 4126647, 10803704, 28284464, 74049690, 193864605, 507544127, 1328767775, 3478759200, 9107509824, 23843770274, 62423800997, 163427632719
a(n) = Sum_{k=1..n-2} F(k)*F(k+2). - Alexander Adamchuk, May 17 2007
a(n+2) = (3*(-1)^(n+1) - 5 + 2*Lucas(2*n + 3))/10, n >= 0. - Ehren Metcalfe, Aug 21 2017
[A190140] 1, 2, 5, 15, 41, 112, 310, 855, 2356, 6497, 17915, 49395, 136196, 375532, 1035445, 2855010, 7872061, 21705467, 59848025, 165017700, 454999826, 1254561427, 3459175780, 9537912465, 26298684991, 72512809787, 199938041960, 551284948680, 1520046368681
a(n)=sum(k=1..n, sum(j=0..k, binomial(j,n-3*k+2*j) * 3^(k-j) * binomial(k,j) * 2^(-n+3*k-j))), n>0, a(0)=1.
[A292524] 0, 1, 2, 5, 15, 44, 133, 398, 1194, 3582, 10747, 32240, 96720, 290159, 870478, 2611435, 7834305, 23502914, 70508742, 211526225, 634578675, 1903736026, 5711208079, 17133624236, 51400872708, 154202618124, 462607854373, 1387823563119, 4163470689357
a(n) = Sum_{k = 1..n} mu(k) 3^(n - k).
[A139782] 1, 2, 5, 15, 46, 139, 417, 1250, 3749, 11247, 33742, 101227, 303681, 911042, 2733125, 8199375, 24598126, 73794379, 221383137, 664149410, 1992448229, 5977344687, 17932034062, 53796102187, 161388306561, 484164919682, 1452494759045
a(n)=3a(n-1)-a(n-3)+3a(n-4).
[A268407] 1, 2, 5, 15, 48, 160, 548, 1914, 6785, 24335, 88109, 321521, 1181039, 4362855, 16195747, 60379623, 225955264, 848432824, 3195394520, 12067450014, 45685766306, 173350890788, 659126407978, 2510942564760, 9582235262428, 36627111558850, 140214938146148
a(n):= Sum_{k=0..n}((k+1)*fib(k)*binomial(2*n-k,n-k))/(n+1) + C(n), where fib(n) - Fibonacci numbers, C(n) - Catalan numbers. - Vladimir Kruchinin, Feb 27 2016
[A063021] 0, 1, 1, 2, 5, 15, 49, 168, 594, 2150, 7931, 29718, 112814, 432957, 1677050, 6547856, 25742454, 101819100, 404885630, 1617725010, 6491294600, 26147434885, 105691660110, 428578242900, 1742925259725, 7106942278683
a(n) = sum(j=0..(n-1)/3, C(n-1-3*j,j)*C(2*n-3*j-2,n-1))/n, n>0, a(0)=0. - Vladimir Kruchinin, May 24 2011
[A020876] 2, 5, 15, 50, 175, 625, 2250, 8125, 29375, 106250, 384375, 1390625, 5031250, 18203125, 65859375, 238281250, 862109375, 3119140625, 11285156250, 40830078125, 147724609375, 534472656250, 1933740234375, 6996337890625, 25312988281250, 91583251953125
a(n)= 5*a(n-1) -5*a(n-2). G.f.: (2-5*x)/(1-5*x+5*x^2). - R. J. Mathar, Feb 06 2010
[A196836] 2, 5, 15, 50, 177, 650, 2445, 9350, 36177, 141170, 554325, 2186750, 8656377, 34355690, 136617405, 544061750, 2169039777, 8654570210, 34553579685, 138020346350, 551499730377, 2204254480730, 8811785649165, 35231447872550, 140878711512177, 563373614503250
a(n) = (1^n + 2^n + 3^n + 4^n)/2, n>=0.
[A124303] 1, 1, 2, 5, 15, 51, 187, 715, 2795, 11051, 43947, 175275, 700075, 2798251, 11188907, 44747435, 178973355, 715860651, 2863377067, 11453377195, 45813246635, 183252462251, 733008800427, 2932033104555, 11728128223915, 46912504507051, 187650001250987
a(n) = (8 + 3*2^(1+n) + 4^n) / 24 for n>0. - Colin Barker, Nov 03 2017
[A007317] 1, 2, 5, 15, 51, 188, 731, 2950, 12235, 51822, 223191, 974427, 4302645, 19181100, 86211885, 390248055, 1777495635, 8140539950, 37463689775, 173164232965, 803539474345, 3741930523740, 17481709707825, 81912506777200, 384847173838501, 1812610804416698
a(n) = hypergeom([1/2, -n], [2], -4), n=0, 1, 2...; Integral representation as n-th moment of a positive function on a finite interval of the positive half-axis: a(n)=int(x^n*sqrt((5-x)/(x-1))/(2*Pi), x=1..5), n=0, 1, 2... This representation is unique. - Karol A. Penson, Sep 24 2001
a(1)=1, a(n)=1+sum(i=1, n-1, a(i)*a(n-i)). - Benoit Cloitre, Mar 16 2004
a(n) = sum{k=0..n, (-1)^k*3^(n-k)*binomial(n, k)*binomial(k, floor(k/2))} [offset 0]. - Paul Barry, Jan 27 2005
a(n) = upper left term in M^(n-1), M = an infinite square production matrix as follows:
a(n) = JacobiP(n-1,1,-n-1/2,9)/n. - Peter Luschny, Sep 23 2014
[A181768] 1, 1, 2, 5, 15, 51, 188, 731, 2950, 12235, 51822, 223191, 974427, 4302645, 19181100, 86211885, 390248055, 1777495635, 8140539950, 37463689775, 173164232965, 803539474345, 3741930523740, 17481709707825, 81912506777200, 384847173838501, 1812610804416698, 8556895079642921, 40480850291739165, 191884148712996795, 911225151259732188, 4334673398737025619, 20653004146207902678, 98551406393189773875
a(n) = JacobiP(n-1,1,-n-1/2,9)/n for n>0. - Peter Luschny, Sep 23 2014
[A193296] 1, 1, 1, 1, 2, 5, 15, 51, 191, 773, 3338, 15243, 73131, 366815, 1916260, 10394665, 58404853, 339223859, 2033188222, 12556915219, 79807729238, 521399203037, 3497978659977, 24076009827669, 169865542733652, 1227553152971419, 9079751310622581
a(n) = [x^(n-2)] A(x)^(n-1)/(n-1) for n>=2 with a(0)=a(1)=1.
[A000110] 1, 1, 2, 5, 15, 52, 203, 877, 4140, 21147, 115975, 678570, 4213597, 27644437, 190899322, 1382958545, 10480142147, 82864869804, 682076806159, 5832742205057, 51724158235372, 474869816156751, 4506715738447323, 44152005855084346, 445958869294805289, 4638590332229999353, 49631246523618756274
a(n) = Sum_{k=0..n} Stirling2(n, k).
a(n) = exp(-1)*Sum_{k >= 0} k^n/k! [Dobinski]. - Benoit Cloitre, May 19 2002
a(n) is asymptotic to n!*(2 Pi r^2 exp(r))^(-1/2) exp(exp(r)-1) / r^n, where r is the positive root of r exp(r) = n. See, e.g., the Odlyzko reference.
a(n) is asymptotic to b^n*exp(b-n-1/2)*sqrt(b/(b+n)) where b satisfies b*log(b) = n - 1/2 (see Graham, Knuth and Patashnik, Concrete Mathematics, 2nd ed., p. 493). - Benoit Cloitre, Oct 23 2002, corrected by Vaclav Kotesovec, Jan 06 2013
a(n+1) = exp(-1)*Sum_{k>=0} (k+1)^(n)/k!. - Gerald McGarvey, Jun 03 2004
a(n) = Sum_{k=1..n} (1/k!)*(Sum_{i=1..k} (-1)^(k-i)*binomial(k, i)*i^n+0^n). - Paul Barry, Apr 18 2005
[A249892] 1, 1, 2, 5, 15, 52, 207, 923, 4532, 24271, 140581, 874434, 5806557, 40955973, 305544958, 2402139329, 19837601155, 171598571288, 1550865447043, 14611295961047, 143210242799872, 1457573997373131, 15379106145570681, 167962044452359398, 1896100883094424657, 22096376018936592193
a(n) = Sum_{k=0..n} Fibonacci(n-k+1) * k^(n-k).
[A174988] 0, 1, 2, 5, 16, 31, 110, 203, 736, 1345, 4898, 8933, 32560, 59359, 216398, 394475, 1438144, 2621569, 9557570, 17422277, 63517264, 115784095, 422119982, 769472267, 2805304480, 5113721281, 18643356002, 33984519845, 123899107696
a(n) = 8*a(n-2)-9*a(n-4). G.f.: -x*(x-1)*(3*x+1)/(9*x^4-8*x^2+1). [Colin Barker, Jan 05 2013]
[A179992] 2, 5, 16, 37, 78, 151, 278, 493, 852, 1445, 2418, 4007, 6594, 10797, 17616, 28669, 46574, 75567, 122502, 198469, 321412, 520365, 842306, 1363247, 2206178, 3570101, 5777008, 9347893, 15125742, 24474535, 39601238, 64076797, 103679124
a(n)=F(n)+sum(i^2; i=1 to n)+sum(F(k)*sum(j^2; j=0 to n-k-1); k=0 to n-3)).
a(n)-4*a(n-1)+5*a(n-2)-a(n-3)-2*a(n-4)+a(n-5) = 0 with n>5. [From Bruno Berselli, Aug 25 2010]
[A124720] 2, 5, 16, 38, 96, 220, 512, 1144, 2560, 5616, 12288, 26592, 57344, 122816, 262144, 556928, 1179648, 2490112, 5242880, 11009536, 23068672, 48233472, 100663296, 209713152, 436207616, 905965568, 1879048192, 3892305920, 8053063680, 16642981888, 34359738368
a(n) = 2^(n-3)*(n-1)-2^(n/2-2) for n even.
a(n) = 2^(n-3)*n-2^(n-3) for n odd.
a(n) = 4*a(n-1)-2*a(n-2)-8*a(n-3)+8*a(n-4) for n>6.
[A138573] 0, 1, 2, 5, 16, 45, 130, 377, 1088, 3145, 9090, 26269, 75920, 219413, 634114, 1832625, 5296384, 15306833, 44237570, 127848949, 369490320, 1067846845, 3086134658, 8919094697, 25776662080, 74495936025, 215297250946, 622220603405

a(n) = (alpha(1)^n + beta(1)^n - alpha(2)^n - beta(2)^n)/(2*sqrt(5)), where alpha(1), beta(1) are the roots of x^2 - (1 + sqrt(5))*x + 1 = 0, and alpha(2), beta(2) are the roots of x^2 - (1 - sqrt(5))*x + 1 = 0.
a(n) = (((phi + sqrt(phi))^n + (phi - sqrt(phi))^n)/2 - (-1)^n * cos(n*arctan(sqrt(phi))))/sqrt(5), where phi=(1+sqrt(5))/2. - Vladimir Reshetnikov, May 11 2016
[A075887] 1, 2, 5, 16, 45, 171, 421, 1968, 4553, 19225, 57261, 226854, 496309, 3136420, 6764563, 24850336, 84877201, 380461599, 805949533, 4411165990, 9288196621, 48275465722, 154143694937, 527401107276, 1100708161081, 8151403215501
a(n) = 1 + Sum_{m=1..n} Product_{k=1..m} ceiling(n/k) for n>0 and a(0)=1.
[A257970] 1, 2, 5, 16, 48, 144, 432, 1296, 3888, 11664, 34992, 104976, 314928, 944784, 2834352, 8503056, 25509168, 76527504, 229582512, 688747536, 2066242608, 6198727824, 18596183472, 55788550416, 167365651248, 502096953744, 1506290861232, 4518872583696, 13556617751088
a(n) = 3*a(n-1) for n>=5.
a(n) = 16*3^(n-4) for n>=4.
[A011819] 2, 5, 16, 52, 152, 392, 904, 1899, 3694, 6743, 11672, 19318, 30772, 47426, 71024, 103717, 148122, 207385, 285248, 386120, 515152, 678316, 882488, 1135535, 1446406, 1825227, 2283400, 2833706, 3490412, 4269382, 5188192, 6266249
a(n)= (2*n^6 +15*n^5 +50*n^4 +165*n^3 +308*n^2 +540*n +720)/360. [Frank Ellermann]
[A006191] 1, 2, 5, 16, 54, 180, 595, 1964, 6485, 21418, 70740, 233640, 771661, 2548622, 8417525, 27801196, 91821114, 303264540, 1001614735, 3308108744, 10925940965, 36085931638, 119183735880, 393637139280, 1300095153721, 4293922600442
a(n) = 4*a(n-1) - 3*a(n-2) + 2*a(n-3) + a(n-4) for n>4.
[A051960] 2, 5, 16, 55, 196, 714, 2640, 9867, 37180, 140998, 537472, 2057510, 7904456, 30458900, 117675360, 455657715, 1767883500, 6871173870, 26747767200, 104268528210, 406975466040, 1590307356300, 6220814327520, 24357232569150, 95452906901976, 374369872911804
a(n) = Sum_{k=0..(n+1)/2}(binomial(n-k+1,k)*2^(n-2*k+1)*binomial(n,k)). - Vladimir Kruchinin, Sep 30 2015.
a(n) = 4^n*(2+3*n)*Gamma(1/2+n)/(sqrt(Pi)*Gamma(2+n)). - Peter Luschny, Dec 14 2015
[A191241] 1, 1, 2, 5, 16, 56, 204, 759, 2880, 11132, 43732, 174122, 700952, 2847840, 11661592, 48080811, 199433880, 831649380, 3484523460, 14662036550, 61931353880, 262503848400, 1116179957160, 4759795460550, 20351410848288, 87229181620152, 374722175164232, 1613115479264852, 6957700944802160, 3006440677210
a(n)=sum(j=0..(n-1)/3, 2^j*binomial(n-3*j-1,j)*binomial(2*n-3*j-2,n-1))/n, n>0.
[A286946] 1, 1, 2, 5, 16, 57, 286, 1431, 9064, 51398, 359787, 3118155, 25568872, 223727631, 2311852188, 15990310968, 105935810164, 1038449718056, 10903722039589, 185715007642033, 3528585145198628, 46753753173881822, 658243630211230916, 9215410822957232825, 197209791611284782456, 2112570763708981231
a(1) = 1; a(n+1) = Sum_{k=1..n} lcm(a(k),a(n))/a(k).
[A087949] 1, 1, 1, 2, 5, 16, 59, 246, 1131, 5655, 30428, 174835, 1066334, 6870542, 46581883, 331237074, 2463361903, 19112314727, 154364077009, 1295325828045, 11273167827343, 101589943242179, 946577526626181, 9107029927925714, 90359115887726302, 923509462029444933
a(n,m) = Sum_{k=0..n} m*C(n-k+m,k)/(n-k+m) * a(n-k,k) with a(0,m)=1.
[A000111] 1, 1, 1, 2, 5, 16, 61, 272, 1385, 7936, 50521, 353792, 2702765, 22368256, 199360981, 1903757312, 19391512145, 209865342976, 2404879675441, 29088885112832, 370371188237525, 4951498053124096, 69348874393137901, 1015423886506852352, 15514534163557086905, 246921480190207983616, 4087072509293123885
a(2*k) = (-1)^k euler(2k) and a(2k-1) = (-1)^(k-1)2^(2k)(2^(2k)-1) bernoulli(2k)/(2k). - C. Ronaldo (aga_new_ac(AT)hotmail.com), Jan 17 2005
a(n) = 2^n|E(n,1/2) + E(n,1)| where E(n,x) are the Euler polynomials. - Peter Luschny, Jan 25 2009
a(n) = 2^(n+2)*n!*S(n+1)/(Pi)^(n+1), where S(n) = Sum_{k = -inf..inf} 1/(4k+1)^n (see the Elkies reference). - Emeric Deutsch, Aug 17 2009
a(n) = i^(n+1) Sum_{k=1..n+1} Sum_{j=0..k} binomial(k,j)(-1)^j (k-2j)^(n+1) (2i)^(-k) k^{-1}. - Ross Tang (ph.tchaa(AT)gmail.com), Jul 28 2010
a(n) = sum((if evenp(n+k) then (-1)^((n+k)/2)*sum(j!*stirling2(n,j)*2^(1-j)*(-1)^(n+j-k)*binomial(j-1,k-1),j,k,n) else 0),k,1,n), n>0. - Vladimir Kruchinin, Aug 19 2010
a(n) = A(n,i)/(1+i)^(n-1), where i = sqrt(-1) and {A(n,x)}n>=1 = [1,1+x,1+4*x+x^2,1+11*x+11*x^2+x^3,...] denotes the sequence of Eulerian polynomials.
[A033543] 1, 2, 5, 16, 62, 270, 1257, 6096, 30398, 154756, 800834, 4199720, 22269976, 119207942, 643277553, 3495713184, 19113486390, 105074982876, 580435709622, 3220217022144, 17935186513044, 100243540330188, 562080274898250, 3160904659483104, 17823384503589996, 100749266778698280
a(n) = upper left term in M^n, M = an infinite square production matrix as follows (with the main diagonal (2,3,3,3,...)):
[A041283] 1, 2, 5, 17, 22, 61, 83, 310, 703, 1716, 41887, 85490, 212867, 724091, 936958, 2598007, 3534965, 13202902, 29940769, 73084440, 1783967329, 3641019098, 9066005525, 30839035673, 39905041198, 110649118069, 150554159267, 562311595870, 1275177351007
a(n) = 42590*af(n-10) - a(n-20). - Vincenzo Librandi, Dec 14 2013
[A042049] 1, 2, 5, 17, 22, 127, 149, 1617, 1766, 10447, 12213, 47086, 106385, 259856, 12059761, 24379378, 60818517, 206834929, 267653446, 1545102159, 1812755605, 19672658209, 21485413814, 127099727279, 148585141093, 572855150558, 1294295442209, 3161446034976
a(n) = 12166146*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 13 2014
[A023244] 2, 5, 17, 23, 53, 83, 137, 197, 227, 257, 293, 317, 347, 383, 467, 593, 647, 677, 683, 797, 857, 953, 1163, 1193, 1217, 1607, 1877, 1907, 1913, 1997, 2063, 2207, 2237, 2843, 2903, 3023, 3257, 3323, 3557, 3947, 4133, 4253, 4517, 4583, 4643, 4967, 5087, 5387
a(n) == 5 mod 6, for n > 1. John Cerkan, Sep 12 2016
[A219554] 1, 2, 5, 17, 46, 123, 323, 809, 1966, 4660, 10792, 24447, 54344, 118681, 254991, 539852, 1127279, 2323849, 4733680, 9535079, 19005282, 37507802, 73333494, 142112402, 273092320, 520612305, 984944052, 1849920722, 3450476080, 6393203741, 11770416313, 21538246251
a(n) = [x^n*y^n] 1/2 * Product_{i,j>=0} (1+x^i*y^j).
[A074494] 2, 5, 17, 47, 119, 287, 671, 1535, 3455, 7679, 16895, 36863, 79871, 172031, 368639, 786431, 1671167, 3538943, 7471103, 15728639, 33030143, 69206015, 144703487, 301989887, 629145599, 1308622847, 2717908991, 5637144575, 11676942335
a(n) = 3*n * 2^(n-2) - 1 for n>1.
[A133510] 2, 5, 17, 53, 167, 515, 1577, 4793, 14507, 43775, 131837, 396533, 1191647, 3579035, 10745297, 32252273, 96789587, 290434295, 871433957, 2614564013, 7844216327, 23533697555, 70603189817, 211813763753, 635449679867, 1906365816815
a(n) = ((3^(n+1))-(2^(n+1))+((-1)^(n+1))+2)/4.
[A259792] 1, 1, 2, 5, 17, 62, 258, 1050, 4365, 18012, 73945, 301073, 1214876, 4852899, 19187598, 75070201, 290659230, 1113785613, 4224773811, 15866483556, 59011553910, 217410395916, 793635925091, 2871246090593, 10297627606547, 36620869115355, 129166280330900
a(n) = [x^(n^3)] Product_{j>=1} 1/(1-x^(j^3)). - Alois P. Heinz, Jul 10 2015
[A239201] 2, 5, 17, 68, 293, 1310, 5984, 27725, 129773, 612158, 2905322, 13857035, 66361892, 318901523, 1536964313, 7426185908, 35960185373, 174468439958, 847920579938, 4127211830363, 20116566452918, 98172213841553, 479635277636543, 2345731259059238, 11482918774964588, 56260052353307435, 275862429353287079, 1353641461527506630
a(n) = [x^n] (F(x)^n-F(x)^(n-1)), where F(x) = (x^2-x-1)/(x-1).
a(n) = sum(k=1..n, binomial(n-1,n-k)*sum(i=0..n-k, binomial(k,n-k-i)*binomial(k+i-1,k-1)*2^(-n+2*k+i)*(-1)^(n-k-i))), n>0.
[A041455] 1, 1, 2, 5, 17, 260, 797, 1854, 2651, 4505, 137801, 142306, 280107, 702520, 2387667, 36517525, 111940242, 260398009, 372338251, 632736260, 19354426051, 19987162311, 39341588362, 98670339035, 335352605467, 5128959421040, 15722230868587, 36573421158214
a(n) = 140452*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 18 2013
[A226141] 0, 2, 5, 18, 30, 64, 91, 156, 204, 310, 385, 542, 650, 868, 1015, 1304, 1496, 1866, 2109, 2570, 2870, 3432, 3795, 4468, 4900, 5694, 6201, 7126, 7714, 8780, 9455, 10672, 11440, 12818, 13685, 15234, 16206, 17936, 19019
a(n) = sum_{i=1..floor(n/2)} (i^2 + (n-i)^2).
a(n) = ((n/2)^2) * (1 - ceil(n/2) + floor(n/2)) + sum_{i=1..n-1} i^2.
a(n) = n*(8*n^2 - 9*n + 4)/24 + (-1)^n*n^2/8. - Giovanni Resta, May 29 2013
[A295905] 2, 5, 18, 41, 74, 117, 170, 233, 306, 389, 482, 585, 698, 821, 954, 1097, 1250, 1413, 1586, 1769, 1962, 2165, 2378, 2601, 2834, 3077, 3330, 3593, 3866, 4149, 4442, 4745, 5058, 5381, 5714, 6057, 6410, 6773, 7146, 7529, 7922, 8325, 8738, 9161, 9594, 10037, 10490, 10953
a(n) = 5*n^2 - 12*n + 9.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A024025] 1, 2, 5, 18, 65, 218, 693, 2138, 6497, 19602, 58949, 177026, 531297, 1594154, 4782773, 14348682, 43046465, 129139874, 387420165, 1162261106, 3486784001, 10460352762, 31381059125, 94143178298, 282429535905, 847288608818
a(n) = 6*a(n-1) -12*a(n-2) +10*a(n-3) -3*a(n-4) for n>3. - Vincenzo Librandi, Oct 05 2014

[A144721] 2, 5, 18, 67, 250, 933, 3482, 12995, 48498, 180997, 675490, 2520963, 9408362, 35112485, 131041578, 489053827, 1825173730, 6811641093, 25421390642, 94873921475, 354074295258, 1321423259557, 4931618742970, 18405051712323, 68688588106322, 256349300712965
a(n) = ((2-sqrt(3))^n*(-1+2*sqrt(3))+(2+sqrt(3))^n*(1+2*sqrt(3)))/(2*sqrt(3)). - Colin Barker, Oct 12 2015
[A039744] 1, 1, 2, 5, 18, 73, 338, 1656, 8512, 45207, 246448, 1371535, 7764392, 44585180, 259140928, 1521967986, 9020077206, 53885028921, 324176252022, 1962530559999, 11947926290396, 73108804084505, 449408984811980, 2774152288318052, 17190155366056138, 106894140685782646
a(n)=T(n(n+1),2n-2,n), where T(k,p,m) is a recursive function that gives the number of partitions of k into p parts of 0..m. It is defined T(k,p,m) = sum_{i=1..m} T(k-i,p-1,i), with the boundary conditions T(0,p,m)=1 and T(k,0,m)=0 for all positive k, p and m. - T. D. Noe, Dec 19 2006
[A077138] 0, 1, 2, 5, 20, 25, 150, 157, 1256, 1265, 12650, 12661, 151932, 151945, 2127230, 2127245, 34035920, 34035937, 612646866, 612646885, 12252937700, 12252937721, 269564629862, 269564629885, 6469551117240, 6469551117265, 168208329048890
a(0) = 0, a(2n) = 2n*a(2n-1) and a(2n+1) = a(2n) +(2n +1).
[A189734] 2, 5, 20, 65, 230, 785, 2720, 9365, 32330, 111485, 384620, 1326665, 4576430, 15786185, 54454520, 187839965, 647952530, 2235104885, 7709972420, 26595469265, 91740800630, 316458947585, 1091621898320, 3765538534565, 12989186560730, 44806065794285
a(n) = (1-sqrt(6))^(n-1)+(1+sqrt(6))^(n-1)+1/4*sqrt(6)*((1+sqrt(6))^(n-1)-(1-sqrt(6))^(n-1)). - Paolo P. Lava, May 24 2011
[A000131] 2, 5, 21, 61, 214, 669, 2240, 7330, 24695, 83257, 284928, 981079, 3410990, 11937328, 42075242, 149171958, 531866972, 1905842605, 6861162880, 24805692978, 90035940227, 327987890608, 1198853954688, 4395797189206, 16165195705544, 59609156824273, 220373268471398, 816677398144221
a(n) = (Catalan(n-2) - (n/2)*Catalan(n/2 - 1) - n*Catalan(floor(n/2) - 1) - (n/3)*Catalan(n/3 - 1) + n*Catalan(n/4 - 1) + n*Catalan(n/6 - 1))/(2*n), where Catalan(x) = 0 for noninteger x (derived from Guy's 1958 paper). - Joseph Myers, Jun 21 2012
[A042557] 1, 2, 5, 22, 27, 103, 439, 4054, 16655, 54019, 70674, 336715, 744104, 1824923, 102939792, 207704507, 518348806, 2281099731, 2799448537, 10679445342, 45517229905, 420334514487, 1726855287853, 5600900378046, 7327755665899, 34911923041642
a(n) = 103683896*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 25 2014
[A181443] 1, 2, 5, 22, 34, 161, 494, 2365, 3685, 17654, 54281, 260074, 405262, 1941725, 5970362, 28605721, 44575081, 213572042, 656685485, 3146369182, 4902853594, 23490982841, 72229432934, 346072004245, 539269320205, 2583794540414, 7944580937201, 38064774097714, 59314722368902, 284193908462645, 873831673659122, 4186779078744241, 6524080191258961, 31258746136350482, 96113539521566165, 460507633887768742, 717589506316116754
a(4*n)=(42+(21+r)*s^n+(21-r)*t^n)/84.
a(4*n+1)=(42+(63+13*r)*s^n+(63-13*r)*t^n)/84.
a(4*n+2)=(42+(189+41*r)*s^n+(189-41*r)*t^n)/84.
a(4*n+3)=(42+(903+197*r)*s^n+(903-197*r)*t^n)/84.
a(n)=111*a(n-4)-111*a(n-8)+a(n-12).
a(n) = +a(n-1) +110*a(n-4) -110*a(n-5) -a(n-8) +a(n-9). - R. J. Mathar, Jan 05 2011
[A041165] 1, 1, 2, 5, 22, 49, 71, 120, 2231, 2351, 4582, 11515, 50642, 112799, 163441, 276240, 5135761, 5412001, 10547762, 26507525, 116577862, 259663249, 376241111, 635904360, 11822519591, 12458423951, 24280943542, 61020311035, 268362187682, 597744686399
a(n) = 2302*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 12 2013
[A041807] 1, 1, 2, 5, 22, 115, 137, 252, 389, 3753, 4142, 7895, 12037, 68080, 284357, 636794, 921151, 1557945, 63238951, 64796896, 128035847, 320868590, 1411510207, 7378419625, 8789929832, 16168349457, 24958279289, 240792863058, 265751142347, 506544005405
a(n) = 64160102*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Dec 24 2013
[A042933] 1, 1, 2, 5, 22, 181, 203, 790, 993, 30580, 31573, 125299, 156872, 1380275, 5677972, 12736219, 18414191, 31150410, 1949739611, 1980890021, 3930629632, 9842149285, 43299226772, 356235963461, 399535190233, 1554841534160, 1954376724393, 60186143265950, 62140519990343
a(n(= 1968153802*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Feb 01 2014
[A100299] 0, 2, 5, 23, 98, 452, 2139, 10397, 51524, 259430, 1323361, 6824435, 35519686, 186346760, 984400759, 5231789177, 27954506504, 150079713482, 809181079293, 4379654830223, 23787413800490, 129607968854732, 708230837732435, 3880366912218773, 21312485647242828, 117321536967959342
a(n) = sum(C(n-3, 2k-1)*C(n+2k-2, 2k-1)/(2k), k=1..floor((n-2)/2)).
[A041571] 1, 2, 5, 27, 59, 145, 4989, 10123, 25235, 136298, 297831, 731960, 25184471, 51100902, 127386275, 688032277, 1503450829, 3694933935, 127131204619, 257957343173, 643045890965, 3473186797998, 7589419486961, 18652025771920, 641758295732241, 1302168617236402
a(n) = 5048*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 20 2013
[A042259] 1, 1, 2, 5, 27, 86, 199, 1678, 16979, 137510, 291999, 1013507, 5359534, 11732575, 17092109, 28824684, 1458326309, 1487150993, 2945477302, 7378105597, 39836005287, 126886121458, 293608248203, 2475752107082, 25051129319023, 202884786659266
a(n) = 1475418418*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 19 2014
[A286879] 2, 5, 28, 66, 140, 272, 489, 828, 1339, 2088, 3160, 4662, 6726, 9512, 13211, 18048, 24285, 32224, 42210, 54634, 69936, 88608, 111197, 138308, 170607, 208824, 253756, 306270, 367306, 437880, 519087, 612104, 718193, 838704, 975078, 1128850, 1301652, 1495216, 1711377
a(n) = (3*n - 1)*(n^4 - 13*n^3 + 164*n^2 - 572*n + 960)/120 for n > 3.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n > 9.
[A134449] 0, 2, 5, 29, 39, 129, 150, 374, 410, 860, 915, 1707, 1785, 3059, 3164, 5084, 5220, 7974, 8145, 11945, 12155, 17237, 17490, 24114, 24414, 32864, 33215, 43799, 44205, 57255, 57720, 73592, 74120, 93194, 93789, 116469, 117135, 143849, 144590, 175790
a(n) = (n^4+4*n^3-2*n^2-4*n)/16 for n even.
a(n) = (n^4-1)/16 for n odd.
[A042811] 1, 1, 2, 5, 32, 69, 101, 170, 10301, 10471, 20772, 52015, 332862, 717739, 1050601, 1768340, 107151001, 108919341, 216070342, 541060025, 3462430492, 7465921009, 10928351501, 18394272510, 1114584702101, 1132978974611, 2247563676712, 5628106328035
a(n) = 10402*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Jan 30 2014
[A077398] 0, 2, 5, 39, 87, 629, 1394, 10032, 22224, 159890, 354197, 2548215, 5644935, 40611557, 89964770, 647236704, 1433791392, 10315175714, 22850697509, 164395574727, 364177368759, 2620014019925, 5803987202642, 41755828744080, 92499617873520, 665473245885362
a(n) = 16*a(n-2)+a(n-4)+7, n>=3.
a(0)=0, a(1)=2; a(n+2) = (7+16*a(n)+3*sqrt((1+28*a(n)+28*a(n)^2))/2. - Herbert Kociemba, May 12 2008
[A041729] 1, 1, 2, 5, 47, 99, 146, 245, 9456, 9701, 19157, 48015, 451292, 950599, 1401891, 2352490, 90796511, 93149001, 183945512, 461040025, 4333305737, 9127651499, 13460957236, 22588608735, 871828089166, 894416697901, 1766244787067, 4426906272035, 41608401235382
a(n) = 9602*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 23 2013
[A042161] 1, 1, 2, 5, 57, 62, 553, 615, 7318, 15251, 22569, 37820, 1837929, 1875749, 3713678, 9303105, 106047833, 115350938, 1028855337, 1144206275, 13615124362, 28374454999, 41989579361, 70364034360, 3419463228641, 3489827263001, 6909290491642, 17308408246285
a(n) = 1860498*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 16 2014
[A041069] 1, 2, 5, 62, 129, 320, 3969, 8258, 20485, 254078, 528641, 1311360, 16264961, 33841282, 83947525, 1041211582, 2166370689, 5373952960, 66653806209, 138681565378, 344016936965, 4266884808958, 8877786554881, 22022457918720, 273147281579521, 568317021077762
a(n) = 64*a(n-3) + a(n-6). - Vincenzo Librandi, Dec 10 2013
[A042693] 1, 1, 2, 5, 72, 149, 221, 370, 21681, 22051, 43732, 109515, 1576942, 3263399, 4840341, 8103740, 474857261, 482961001, 957818262, 2398597525, 34538183612, 71474964749, 106013148361, 177488113110, 10400323708741, 10577811821851, 20978135530592, 52534082883035
a(n) = 21902*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 21 2013
[A063210] 1, 2, 6, 6, 10, 10, 14, 14, 18, 18, 22, 22, 26, 26, 30, 30, 34, 34, 38, 38, 42, 42, 46, 46, 50, 50, 54, 54, 58, 58, 62, 62, 66, 66, 70, 70, 74, 74, 78, 78, 82, 82, 86, 86, 90, 90, 94, 94, 98, 98
a(n) = (n^2 - n)/floor(n/2) for n >=2. (Excludes leading 1.) - William A. Tedeschi, Mar 20 2008
a(n) = a(n-1)+a(n-2)-a(n-3) for n>4. G.f.: -x*(x^3-3*x^2-x-1) / ((x-1)^2*(x+1)). - Colin Barker, Sep 08 2013
[A025552] 1, 1, 2, 6, 6, 30, 60, 420, 420, 1260, 1260, 13860, 13860, 180180, 360360, 360360, 360360, 6126120, 6126120, 116396280, 116396280, 116396280, 116396280, 2677114440, 2677114440, 13385572200, 13385572200, 40156716600, 40156716600, 1164544781400
a(n) = lcm({1,2,...,n}) / b(n). (End)
[A047555] 0, 1, 2, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 30, 31, 32, 33, 34, 38, 39, 40, 41, 42, 46, 47, 48, 49, 50, 54, 55, 56, 57, 58, 62, 63, 64, 65, 66, 70, 71, 72, 73, 74, 78, 79, 80, 81, 82, 86, 87, 88, 89, 90, 94, 95, 96, 97, 98, 102, 103, 104
a(n) = a(n-1) + a(n-5) - a(n-6).

[A047279] 0, 1, 2, 6, 7, 8, 9, 13, 14, 15, 16, 20, 21, 22, 23, 27, 28, 29, 30, 34, 35, 36, 37, 41, 42, 43, 44, 48, 49, 50, 51, 55, 56, 57, 58, 62, 63, 64, 65, 69, 70, 71, 72, 76, 77, 78, 79, 83, 84, 85, 86, 90, 91, 92, 93, 97, 98, 99, 100, 104, 105, 106, 107, 111, 112
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-17+3*(i^(2n)+(1+i)*i^(-n)+(1-i)*i^n))/8 where i = sqrt(-1).
[A260139] 0, 2, 6, 7, 8, 9, 18, 21, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, 54, 55, 56, 63, 64, 65, 72, 73, 74, 81, 84, 87, 90, 93, 96, 99, 102, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 162, 165, 168, 169, 170, 171, 172
a(n) <= 3n, with equality for indices of the form n = a(k) for some k.
[A267541] 2, 6, 7, 8, 10, 13, 17, 18, 19, 21, 24, 28, 29, 30, 32, 35, 39, 40, 41, 43, 46, 50, 51, 52, 54, 57, 61, 62, 63, 65, 68, 72, 73, 74, 76, 79, 83, 84, 85, 87, 90, 94, 95, 96, 98, 101, 105, 106, 107, 109, 112, 116, 117, 118, 120, 123, 127, 128, 129, 131, 134, 138, 139, 140
a(n) = a(n-1) + a(n-5) - a(n-6).
[A047553] 0, 2, 6, 7, 8, 10, 14, 15, 16, 18, 22, 23, 24, 26, 30, 31, 32, 34, 38, 39, 40, 42, 46, 47, 48, 50, 54, 55, 56, 58, 62, 63, 64, 66, 70, 71, 72, 74, 78, 79, 80, 82, 86, 87, 88, 90, 94, 95, 96, 98, 102, 103, 104, 106, 110, 111, 112, 114, 118, 119, 120, 122, 126
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-5-i^(2*n)+(1-2*i)*i^(-n)+(1+2*i)*i^n)/4 where i=sqrt(-1).
[A047240] 0, 1, 2, 6, 7, 8, 12, 13, 14, 18, 19, 20, 24, 25, 26, 30, 31, 32, 36, 37, 38, 42, 43, 44, 48, 49, 50, 54, 55, 56, 60, 61, 62, 66, 67, 68, 72, 73, 74, 78, 79, 80, 84, 85, 86, 90, 91, 92, 96, 97, 98, 102, 103, 104, 108, 109, 110, 114, 115, 116, 120, 121, 122
a(n) = 2*n - 3 - cos(2*n*Pi/3) + sin(2*n*Pi/3)/sqrt(3). (End)
a(n) = n-1 + 3*floor((n-1)/3). - Philippe Deléham, Apr 21 2009
a(n) = 6*floor(n/3) + (n mod 3). - Gary Detlefs, Mar 09 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(3*k) = 6*k-4, a(3*k-1) = 6*k-5, a(3*k-2) = 6*k-6. (End)
[A080333] 1, 2, 6, 7, 8, 12, 13, 14, 27, 28, 29, 33, 34, 35, 39, 40, 41, 54, 55, 56, 60, 61, 62, 66, 67, 68, 108, 109, 110, 114, 115, 116, 120, 121, 122, 135, 136, 137, 141, 142, 143, 147, 148, 149, 162, 163, 164, 168, 169, 170, 174, 175, 176, 216, 217, 218, 222, 223, 224, 228, 229
a(n) = Sum_{k=0..log_3(n)} 3^k*floor(n/3^k).
a(3^k) = (k+1)*3^k.
a(n) is conjectured to be asymptotic to n*log(n)/log(3). - Klaus Brockhaus, Mar 23 2003
a(n)=n+3*a(floor(n/3)), a(0)=0. - Vladeta Jovovic, Aug 06 2003
[A037454] 0, 1, 2, 6, 7, 8, 12, 13, 14, 36, 37, 38, 42, 43, 44, 48, 49, 50, 72, 73, 74, 78, 79, 80, 84, 85, 86, 216, 217, 218, 222, 223, 224, 228, 229, 230, 252, 253, 254, 258, 259, 260, 264, 265, 266, 288, 289, 290, 294, 295, 296, 300, 301, 302, 432, 433, 434, 438
a(0) = 0; a(n) = 6*a(n/3) if n == 0 (mod 3) else a(n) = a(n-1) + 1. (End)
[A088225] 2, 6, 7, 8, 13, 17, 18, 19, 24, 28, 29, 30, 35, 39, 40, 41, 46, 50, 51, 52, 57, 61, 62, 63, 68, 72, 73, 74, 79, 83, 84, 85, 90, 94, 95, 96, 101, 105, 106, 107, 112, 116, 117, 118, 123, 127, 128, 129, 134, 138, 139, 140, 145, 149, 150, 151, 156, 160, 161, 162, 167, 171
a(n) = -4 + Sum_(k=0..n) ((1/24)*(11*(k mod 4)+29*((k+1) mod 4)+17*((k+2) mod 4)-13*((k+3) mod 4))). - Paolo P. Lava, Feb 29 2008
a(1)=2, a(2)=6, a(3)=7, a(4)=8, a(5)=13; for n>5, a(n) = a(n-1) + a(n-4) - a(n-5). - Harvey P. Dale, Jan 30 2015
a(n) = (-9 - (-1)^n - (7-i)*(-i)^n - (7+i)*i^n + 22*n)/8, where i=sqrt(-1).
[A047554] 1, 2, 6, 7, 9, 10, 14, 15, 17, 18, 22, 23, 25, 26, 30, 31, 33, 34, 38, 39, 41, 42, 46, 47, 49, 50, 54, 55, 57, 58, 62, 63, 65, 66, 70, 71, 73, 74, 78, 79, 81, 82, 86, 87, 89, 90, 94, 95, 97, 98, 102, 103, 105, 106, 110, 111, 113, 114, 118, 119, 121, 122, 126
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = 2*n+(1+i)*(2*i-2-(1-i)*i^(2*n)-i^(1-n)+i^n)/4 where i=sqrt(-1).
[A047277] 0, 2, 6, 7, 9, 13, 14, 16, 20, 21, 23, 27, 28, 30, 34, 35, 37, 41, 42, 44, 48, 49, 51, 55, 56, 58, 62, 63, 65, 69, 70, 72, 76, 77, 79, 83, 84, 86, 90, 91, 93, 97, 98, 100, 104, 105, 107, 111, 112, 114, 118, 119, 121, 125, 126, 128, 132, 133, 135, 139, 140
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 7*n/3-2+cos(2*n*Pi/3)+sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 7k-1, a(3k-1) = 7k-5, a(3k-2) = 7k-7. (End)
[A047552] 2, 6, 7, 10, 14, 15, 18, 22, 23, 26, 30, 31, 34, 38, 39, 42, 46, 47, 50, 54, 55, 58, 62, 63, 66, 70, 71, 74, 78, 79, 82, 86, 87, 90, 94, 95, 98, 102, 103, 106, 110, 111, 114, 118, 119, 122, 126, 127, 130, 134, 135, 138, 142, 143, 146, 150, 151, 154, 158, 159
a(n) = a(n-1) + a(n-3) - a(n-4).
a(n) = (24*n-3-6*cos(2*n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-6. (End)
[A283766] 1, 2, 6, 7, 11, 12, 13, 16, 17, 18, 21, 22, 23, 27, 28, 32, 33, 34, 37, 38, 39, 42, 43, 44, 48, 49, 53, 54, 58, 59, 60, 63, 64, 65, 69, 70, 74, 75, 79, 80, 81, 84, 85, 86, 90, 91, 95, 96, 100, 101, 102, 105, 106, 107, 110, 111, 112, 116, 117, 121, 122, 123
a(n+1) - a(n) is in {1,3,4} for every n.
[A047216] 1, 2, 6, 7, 11, 12, 16, 17, 21, 22, 26, 27, 31, 32, 36, 37, 41, 42, 46, 47, 51, 52, 56, 57, 61, 62, 66, 67, 71, 72, 76, 77, 81, 82, 86, 87, 91, 92, 96, 97, 101, 102, 106, 107, 111, 112, 116, 117, 121, 122, 126, 127, 131, 132, 136, 137, 141, 142, 146, 147
a(n) = 5*n-a(n-1)-7 for n>1, with a(1)=1. - Vincenzo Librandi, Aug 05 2010
a(n) = (10*n-3*(-1)^n-9)/4.
a(n) = a(n-1) + a(n-2) - a(n-3) for n > 3.
a(2k) = 5k-3, a(2k-1) = 5k-4. (End)
[A088227] 2, 6, 7, 11, 15, 19, 20, 24, 28, 32, 33, 37, 41, 45, 46, 50, 54, 58, 59, 63, 67, 71, 72, 76, 80, 84, 85, 89, 93, 97, 98, 102, 106, 110, 111, 115, 119, 123, 124, 128, 132, 136, 137, 141, 145, 149, 150, 154, 158, 162, 163, 167, 171, 175, 176, 180, 184, 188, 189, 193
a(n) = -6 + Sum_{k=0..n} ((1/24)*(-5*(k mod 4)+31*((k+1) mod 4)+13*((k+2) mod 4)+13*((k+3) mod 4))), with n>=1. - Paolo P. Lava, Feb 29 2008
[A078471] 1, 2, 6, 7, 13, 17, 25, 26, 39, 45, 57, 61, 75, 83, 107, 108, 126, 139, 159, 165, 197, 209, 233, 237, 268, 282, 322, 330, 360, 384, 416, 417, 465, 483, 531, 544, 582, 602, 658, 664, 706, 738, 782, 794, 872, 896, 944, 948, 1005, 1036, 1108, 1122, 1176, 1216
a(n) is asymptotic to c*n^2 where c = Pi^2/24.
[A128918] 1, 1, 2, 6, 7, 15, 16, 28, 29, 45, 46, 66, 67, 91, 92, 120, 121, 153, 154, 190, 191, 231, 232, 276, 277, 325, 326, 378, 379, 435, 436, 496, 497, 561, 562, 630, 631, 703, 704, 780, 781, 861, 862, 946, 947, 1035, 1036, 1128, 1129, 1225, 1226, 1326, 1327, 1431, 1432, 1540
a(0)=1, a(1)=1, a(2)=2, a(3)=6, a(4)=7; for n>4, a(n) = a(n-1)+2*a(n-2)-2*a(n-3)- a(n-4)+ a(n-5). - Harvey P. Dale, Mar 31 2012
a(n) = 1/2*(-1)^n*(n+(-1)^n*((n-2)*n+2)-2). - Harvey P. Dale, Mar 31 2012
[A290379] 2, 6, 7, 18, 39, 75, 155, 310, 638, 1295, 2624, 5339, 10853, 22069, 44836, 91134, 185259, 376542, 765331, 1555567, 3161843, 6426646, 13062506, 26550391, 53965428, 109688223, 222948193, 453156469, 921069708, 1872133138, 3805230243, 7734373962, 15720610559
a(n) = a(n-2) + 3*a(n-3) + 4*a(n-4) + 4*a(n-5) + a(n-6) + 2*a(n-7) + 3*a(n-8) + 5*a(n-9) + 4*a(n-10) + 2*a(n-11) for n > 11.
[A220946] 1, 2, 6, 7, 21, 22, 66, 67, 201, 202, 606, 607, 1821, 1822, 5466, 5467, 16401, 16402, 49206, 49207, 147621, 147622, 442866, 442867, 1328601, 1328602, 3985806, 3985807, 11957421, 11957422, 35872266, 35872267, 107616801, 107616802, 322850406, 322850407
a(n) = a(n-1)+1 if n odd, a(n) = a(n-1)*3 if n even.
a(n) = 4*a(n-2) - 3*a(n-4) with a(0)=1, a(1)=2, a(2)=6, a(3)=7.
[A060112] 0, 1, 2, 6, 7, 24, 25, 26, 120, 121, 122, 126, 127, 720, 721, 722, 726, 727, 744, 745, 746, 5040, 5041, 5042, 5046, 5047, 5064, 5065, 5066, 5160, 5161, 5162, 5166, 5167, 40320, 40321, 40322, 40326, 40327, 40344, 40345, 40346, 40440, 40441, 40442
a(n) = PermRevLexRank(CampanoPerm(n))
[A047397] 0, 1, 2, 6, 8, 9, 10, 14, 16, 17, 18, 22, 24, 25, 26, 30, 32, 33, 34, 38, 40, 41, 42, 46, 48, 49, 50, 54, 56, 57, 58, 62, 64, 65, 66, 70, 72, 73, 74, 78, 80, 81, 82, 86, 88, 89, 90, 94, 96, 97, 98, 102, 104, 105, 106, 110, 112, 113, 114, 118, 120, 121, 122
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-11+i^(2*n)+(1+2*i)*i^(-n)+(1-2*i)*i^n)/4, where i=sqrt(-1).
[A047278] 1, 2, 6, 8, 9, 13, 15, 16, 20, 22, 23, 27, 29, 30, 34, 36, 37, 41, 43, 44, 48, 50, 51, 55, 57, 58, 62, 64, 65, 69, 71, 72, 76, 78, 79, 83, 85, 86, 90, 92, 93, 97, 99, 100, 104, 106, 107, 111, 113, 114, 118, 120, 121, 125, 127, 128, 132, 134, 135, 139, 141

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (21*n-15+6*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-5, a(3k-2) = 7k-6. (End)
[A047395] 0, 2, 6, 8, 10, 14, 16, 18, 22, 24, 26, 30, 32, 34, 38, 40, 42, 46, 48, 50, 54, 56, 58, 62, 64, 66, 70, 72, 74, 78, 80, 82, 86, 88, 90, 94, 96, 98, 102, 104, 106, 110, 112, 114, 118, 120, 122, 126, 128, 130, 134, 136, 138, 142, 144, 146, 150, 152, 154, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-12+3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-6, a(3k-2) = 8k-8. (End)
[A247984] 2, 6, 8, 10, 32, 84, 128, 186, 512, 1276, 2048, 3172, 8192, 19816, 32768, 52666, 131072, 310764, 524288, 863820, 2097152, 4899736, 8388608, 14073060, 33554432, 77509464, 134217728, 228318856, 536870912, 1228859344
a(n) = 2^n when n is odd and a(n) = 2^n - (-1)^(n/2)*binomial(n, n/2) when n is even.
[A130205] 1, 2, 6, 8, 11, 17, 21, 26, 34, 40, 47, 57, 65, 74, 86, 96, 107, 121, 133, 146, 162, 176, 191, 209, 225, 242, 262, 280, 299, 321, 341, 362, 386, 408, 431, 457, 481, 506, 534, 560, 587, 617, 645, 674, 706, 736, 767, 801, 833, 866, 902, 936, 971, 1009, 1045, 1082
a(1)=1, a(2)=2; n>2: a(n)=n^2-a(n-1)-a(n-2).
a(n) = floor((n^2+2*n+1)/3) + 1 - (n mod 3). - Ivan Neretin, May 25 2015
[A047238] 0, 2, 6, 8, 12, 14, 18, 20, 24, 26, 30, 32, 36, 38, 42, 44, 48, 50, 54, 56, 60, 62, 66, 68, 72, 74, 78, 80, 84, 86, 90, 92, 96, 98, 102, 104, 108, 110, 114, 116, 120, 122, 126, 128, 132, 134, 138, 140, 144, 146, 150, 152, 156, 158, 162
a(n) = a(n-1) +a(n-2) -a(n-3), a(0)=0, a(1)=2, a(2)=6.
a(n) = (6*n-(-1)^n-7)/2.
a(n)=6*n-a(n-1)-10 (with a(1)=0). - Vincenzo Librandi, Aug 05 2010
a(n) = 2*floor(3*n/2). - Enrique Pérez Herrero, Jul 04 2012
[A064796] 1, 2, 6, 8, 12, 15, 20, 24, 30, 35, 42, 48, 56, 63, 72, 80, 90, 99, 110, 120, 132, 143, 156, 168, 182, 195, 210, 224, 240, 255, 272, 288, 306, 323, 342, 360, 380, 399, 420, 440, 462, 483, 506, 528, 552, 575, 600, 624, 650, 675, 702, 728, 756, 783, 812, 840, 870
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>6. G.f.: -x*(x^5-x^4-2*x^3+2*x^2+1) / ((x-1)^3*(x+1)). - Colin Barker, Aug 28 2013
[A247066] 1, 2, 6, 8, 12, 16, 17, 21, 24, 27, 32, 33, 34, 38, 40, 44, 48, 49, 53, 56, 59, 64, 65, 66, 70, 72, 76, 80, 81, 85, 88, 91, 96, 97, 98, 102, 104, 108, 112, 113, 117, 120, 123, 128, 129, 130, 134, 136, 140, 144, 145, 149, 152, 155, 160, 161, 162, 166, 168, 172, 176, 177, 181, 184, 187, 192, 193, 194, 198
a(n) = a(n-1)+a(n-11)-a(n-12).
[A283233] 2, 6, 8, 12, 16, 18, 22, 24, 28, 32, 34, 38, 42, 44, 48, 50, 54, 58, 60, 64, 66, 70, 74, 76, 80, 84, 86, 90, 92, 96, 100, 102, 106, 110, 112, 116, 118, 122, 126, 128, 132, 134, 138, 142, 144, 148, 152, 154, 158, 160, 164, 168, 170, 174, 176, 180, 184, 186
a(n) = 2*floor(n*r), where r = (1+sqrt(5))/2.
[A087327] 1, 2, 6, 8, 13, 18, 25, 32, 41, 50, 61, 72, 85, 98, 113, 128, 145, 162, 181, 200, 221, 242, 265, 288, 313, 338, 365, 392, 421, 450, 481, 512, 545, 578, 613, 648, 685, 722, 761, 800, 841, 882, 925, 968, 1013, 1058, 1105, 1152, 1201, 1250, 1301, 1352, 1405, 1458
a(n) = ceiling(n^2/2) except for n=3.
a(n) = (2*n^2-(-1)^n+1)/4 for n>3.
a(n) = n^2/2 for even n>3; a(n) = (n^2+1)/2 for odd n>3.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3.
[A022112] 2, 6, 8, 14, 22, 36, 58, 94, 152, 246, 398, 644, 1042, 1686, 2728, 4414, 7142, 11556, 18698, 30254, 48952, 79206, 128158, 207364, 335522, 542886, 878408, 1421294, 2299702, 3720996, 6020698, 9741694, 15762392, 25504086, 41266478, 66770564, 108037042
a(n) = 4*Fibonacci(n+2) - 2*Fibonacci(n+1). - Gary Detlefs Dec 21 2010
a(n) = Fibonacci(n-2) + Fibonacci(n+4). - Gary Detlefs, Mar 31 2012
a(n) = L(n + 3) - L(n). - Bruno Berselli, Jun 15 2017
a(n) = (2^(-n)*((1-sqrt(5))^n*(-5+sqrt(5)) + (1+sqrt(5))^n*(5+sqrt(5)))) / sqrt(5).
a(n) = a(n-1) + a(n-2) for > 1.
[A093005] 1, 2, 6, 8, 15, 18, 28, 32, 45, 50, 66, 72, 91, 98, 120, 128, 153, 162, 190, 200, 231, 242, 276, 288, 325, 338, 378, 392, 435, 450, 496, 512, 561, 578, 630, 648, 703, 722, 780, 800, 861, 882, 946, 968, 1035, 1058, 1128, 1152, 1225, 1250, 1326, 1352, 1431, 1458
a(2*n-1) = n*(2*n-1), a(2*n) = 2*n^2.
a(n) = n * ceiling(n/2). - Wesley Ivan Hurt, Nov 14 2013
[A266074] 0, 2, 6, 8, 16, 18, 30, 32, 48, 50, 70, 72, 96, 98, 126, 128, 160, 162, 198, 200, 240, 242, 286, 288, 336, 338, 390, 392, 448, 450, 510, 512, 576, 578, 646, 648, 720, 722, 798, 800, 880, 882, 966, 968, 1056, 1058, 1150, 1152, 1248, 1250, 1350, 1352, 1456
a(n) = 1/4*(2*n^2 + 2*(-1)^n*n + 6*n - (-1)^n + 1). - Colin Barker, Dec 21 2015
[A005823] 0, 2, 6, 8, 18, 20, 24, 26, 54, 56, 60, 62, 72, 74, 78, 80, 162, 164, 168, 170, 180, 182, 186, 188, 216, 218, 222, 224, 234, 236, 240, 242, 486, 488, 492, 494, 504, 506, 510, 512, 540, 542, 546, 548, 558, 560, 564, 566, 648, 650, 654, 656, 666, 668, 672, 674
a(2n) = 3*a(n)+2, a(2n+1) = 3*a(n+1), a(1) = 0.
[A093968] 0, 1, 2, 6, 8, 20, 24, 56, 64, 144, 160, 352, 384, 832, 896, 1920, 2048, 4352, 4608, 9728, 10240, 21504, 22528, 47104, 49152, 102400, 106496, 221184, 229376, 475136, 491520, 1015808, 1048576, 2162688, 2228224, 4587520, 4718592, 9699328, 9961472
a(n) = 2^((n-4)/2)n((1+sqrt(2)) + (1-sqrt(2))(-1)^n).
a(n) = n*2^floor(n-1)/2. - Anton Zakharov, Jul 25 2016
[A162213] 1, 2, 6, 8, 20, 36, 70, 128, 261, 520, 1034, 2052, 4108, 8204, 16395, 32768, 65552, 131076, 262162, 524300, 1048593, 2097172, 4194326, 8388624, 16777225, 33554456, 67108878, 134217748, 268435484, 536870940, 1073741854, 2147483648
a(n) = n * ceiling(2^(n-1)/n). - Alois P. Heinz, Jul 11 2009
[A134136] 0, 1, 1, 2, 6, 8, 20, 40, 72, 160, 304, 608, 1248, 2432, 4928, 9856, 19584, 39424, 78592, 157184, 314880, 628736, 1258496, 2516992, 5031936, 10067968, 20131840, 40263680, 80535552, 161054720, 322125824, 644251648, 1288470528, 2577006592, 5153947648, 10307895296
a(n) = (6*2^n - (3+i)*(-1+i)^n - (3-i)*(-1-i)^n)/20. - Ivan Neretin, May 27 2015
[A045654] 1, 2, 6, 8, 22, 32, 72, 128, 278, 512, 1056, 2048, 4168, 8192, 16512, 32768, 65814, 131072, 262656, 524288, 1049632, 2097152, 4196352, 8388608, 16781384, 33554432, 67117056, 134217728, 268451968, 536870912, 1073774592, 2147483648
a(0)=1, a(2n) = a(n)+2^(2n), a(2n+1) = 2^(2n+1). - Ralf Stephan, Jun 07 2003
[A122756] 1, 2, 6, 8, 24, 32, 96, 128, 384, 512, 1536, 2048, 6144, 8192, 24576, 32768, 98304, 131072, 393216, 524288, 1572864, 2097152, 6291456, 8388608, 25165824, 33554432, 100663296, 134217728, 402653184, 536870912, 1610612736, 2147483648
a(0)=1, a(1)=2, a(2)=6, a(n)=4*a(n-2) for n>=3. G.f.: (1+2*x+2*x^2)/(1-4*x^2). - Philippe Deléham, Dec 14 2007
a(n) = -sqrt(2)*(1/2)^((-1/2)*(-1)^(n-1))*(-2)^(n-1)+2*2^(n-1)*sqrt(2)*(1/2)^((-1/2)*(-1)^(n-1))-(1/2)*(C(2*n,n) mod 2). [Paolo P. Lava, Nov 19 2008]
a(n-1) = (5*2^n - (-2)^n)/8 for n>1. - Ralf Stephan, Jul 18 2013
[A272614] 1, 2, 6, 8, 28, 40, 104, 144, 496, 672, 1632, 2240, 7872, 11648, 27520, 33536, 120576, 175616, 445952, 629760, 2014208, 2701312, 6453248, 8712192, 33353728, 48881664, 114548736, 144949248, 476561408, 684687360, 1787789312, 2501836800, 8510177280, 11647451136, 27590000640
a(n) = 2^n + Sum_{k=1..n}[floor(((n-k)/k) mod 2) * 2^(n-k)].
[A132269] 1, 2, 6, 8, 30, 36, 56, 64, 270, 300, 396, 432, 728, 784, 960, 1024, 4590, 4860, 5700, 6000, 8316, 8712, 9936, 10368, 18200, 18928, 21168, 21952, 27840, 28800, 31744, 32768, 151470, 156060, 170100, 174960, 210900, 216600, 234000, 240000, 340956, 349272, 374616
a(2^m-1)=2^(m(m+1)/2), a(2^m)=2^(m(m+1)/2)*product{0<=k<=m, 1+1/2^k}, m>=1.
[A152158] 0, 1, 1, 2, 6, 8, 38, 110, 186, 846, 1776, 4314, 13194, 47706, 166452, 500394, 1998462, 3499644, 7496568, 17995500, 77968044, 149950044, 617758308, 917658396, 4624208244, 8294841828, 22167466560, 47051992044, 224391724524
a(n) = a(n-1) + a(n-2)*floor(Pi*10^(n-2) mod 10).
[A282079] 1, 1, 2, 6, 9, 9, 12, 20, 25, 25, 30, 42, 49, 49, 56, 72, 81, 81, 90, 110, 121, 121, 132, 156, 169, 169, 182, 210, 225, 225, 240, 272, 289, 289, 306, 342, 361, 361, 380, 420, 441, 441, 462, 506, 529, 529, 552, 600, 625, 625, 650, 702, 729, 729, 756, 812, 841
a(n) = (2*(1+n)*(2+n) - i*(-i)^n*((1+2*i)+(1+i)*n) + i^n*((2+i)+(1+i)*n))/8 where i=sqrt(-1). - Colin Barker, Feb 06 2017

[A047396] 1, 2, 6, 9, 10, 14, 17, 18, 22, 25, 26, 30, 33, 34, 38, 41, 42, 46, 49, 50, 54, 57, 58, 62, 65, 66, 70, 73, 74, 78, 81, 82, 86, 89, 90, 94, 97, 98, 102, 105, 106, 110, 113, 114, 118, 121, 122, 126, 129, 130, 134, 137, 138, 142, 145, 146, 150, 153, 154, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4, with a(1)=1, a(2)=2, a(3)=6, a(4)=9. - Harvey P. Dale, Sep 30 2012
a(n) = (24*n-21+3*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-6, a(3k-2) = 8k-7. (End)
[A000134] 2, 6, 9, 12, 15, 18, 21, 24, 27, 31, 34, 37, 40, 43, 46, 49, 53, 56, 59, 62, 65, 68, 71, 75, 78, 81, 84, 87, 90, 93, 97, 100, 103, 106, 109, 112, 115, 119, 122, 125, 128, 131, 134, 137, 141, 144, 147, 150, 153, 156, 159, 163, 166, 169, 172, 175, 178, 181, 185, 188
a(n) = Pi*n + O(1). Probably a(n+1) - a(n) is 3 or 4 for all n. - Charles R Greathouse IV, Oct 04 2016
[A120701] 2, 6, 9, 12, 15, 18, 21, 25, 28, 31, 34, 37, 40, 43, 47, 50, 53, 56, 59, 62, 65, 69, 72, 75, 78, 81, 84, 87, 91, 94, 97, 100, 103, 106, 109, 113, 116, 119, 122, 125, 128, 131, 135, 138, 141, 144, 147, 150, 153, 157, 160, 163, 166, 169, 172, 175, 179, 182, 185, 188
a(n) = floor(Pi/arcsin(1/n)).
[A184619] 2, 6, 9, 12, 16, 19, 23, 26, 29, 33, 36, 40, 43, 46, 50, 53, 57, 60, 64, 67, 70, 74, 77, 81, 84, 87, 91, 94, 98, 101, 105, 108, 111, 115, 118, 122, 125, 128, 132, 135, 139, 142, 146, 149, 152, 156, 159, 163, 166, 169, 173, 176, 180, 183, 186, 190, 193, 197, 200, 204, 207, 210, 214, 217, 221, 224, 227, 231, 234, 238, 241, 245, 248, 251, 255, 258, 262, 265, 268, 272, 275, 279, 282, 285, 289, 292, 296, 299, 303, 306, 309, 313, 316, 320, 323, 326, 330, 333, 337, 340, 344, 347, 350, 354, 357, 361, 364, 367, 371, 374, 378, 381, 385, 388, 391, 395, 398, 402, 405, 408
a(n)=floor((n-h)*s+h), where s=2+sqrt(2) and h=1/3.
[A184119] 2, 6, 9, 12, 16, 19, 23, 26, 30, 33, 36, 40, 43, 47, 50, 53, 57, 60, 64, 67, 70, 74, 77, 81, 84, 88, 91, 94, 98, 101, 105, 108, 111, 115, 118, 122, 125, 129, 132, 135, 139, 142, 146, 149, 152, 156, 159, 163, 166, 170, 173, 176, 180, 183, 187, 190, 193, 197, 200, 204, 207, 210, 214, 217, 221, 224, 228, 231, 234, 238, 241, 245, 248, 251, 255, 258, 262, 265, 269, 272, 275, 279, 282, 286, 289, 292, 296, 299, 303, 306, 309, 313, 316, 320, 323, 327, 330, 333, 337, 340
a(n) = floor((2+sqrt(2))*n - sqrt(2)/2). - Michel Dekking, Jan 31 2017
[A047276] 2, 6, 9, 13, 16, 20, 23, 27, 30, 34, 37, 41, 44, 48, 51, 55, 58, 62, 65, 69, 72, 76, 79, 83, 86, 90, 93, 97, 100, 104, 107, 111, 114, 118, 121, 125, 128, 132, 135, 139, 142, 146, 149, 153, 156, 160, 163, 167, 170, 174, 177, 181, 184, 188, 191, 195, 198, 202, 205
a(n) = 7*n-a(n-1)-6 (with a(1)=2). [Vincenzo Librandi, Aug 05 2010]
a(n) = 3*n + floor(n/2) - 1. - Arkadiusz Wesolowski, Sep 19 2012
[A054770] 2, 6, 9, 13, 17, 20, 24, 27, 31, 35, 38, 42, 46, 49, 53, 56, 60, 64, 67, 71, 74, 78, 82, 85, 89, 93, 96, 100, 103, 107, 111, 114, 118, 122, 125, 129, 132, 136, 140, 143, 147, 150, 154, 158, 161, 165, 169, 172, 176, 179, 183, 187, 190, 194, 197, 201, 205, 208, 212
a(n) = [((5+sqrt(5))/2)n]-1 (conjectured by David W. Wilson; proved by Ian Agol (iagol(AT)math.ucdavis.edu), Jun 08 2000)
[A184745] 2, 6, 9, 13, 17, 20, 24, 28, 32, 35, 39, 43, 46, 50, 54, 58, 61, 65, 69, 73, 76, 80, 84, 87, 91, 95, 99, 102, 106, 110, 113, 117, 121, 125, 128, 132, 136, 139, 143, 147, 151, 154, 158, 162, 165, 169, 173, 177, 180, 184, 188, 191, 195, 199, 203, 206, 210, 214, 218, 221, 225, 229, 232, 236, 240, 244, 247, 251, 255, 258, 262, 266, 270, 273, 277, 281, 284, 288, 292, 296, 299, 303, 307, 310, 314, 318, 322, 325, 329, 333, 337, 340, 344, 348, 351, 355, 359, 363, 366, 370, 374, 377, 381, 385, 389, 392, 396, 400, 403, 407, 411, 415, 418, 422, 426, 429, 433, 437, 441, 444
a(n)=floor(n*(e-1/2)+1/2).
[A048162] 1, 1, 2, 6, 9, 13, 20, 31, 49, 78, 125, 201, 324, 523, 845, 1366, 2209, 3573, 5780, 9351, 15129, 24478, 39605, 64081, 103684, 167763, 271445, 439206, 710649, 1149853, 1860500, 3010351, 4870849, 7881198, 12752045, 20633241, 33385284
a(n) = Fibonacci(n+1) + Fibonacci(n-1) + 2, for n>2. - Jessa Lee (jessal(AT)comcast.net), Nov 25 2003
[A184824] 2, 6, 9, 14, 17, 21, 24, 29, 32, 36, 39, 44, 47, 50, 54, 58, 61, 65, 69, 73, 76, 80, 84, 88, 91, 95, 100, 102, 106, 110, 114, 117, 121, 125, 129, 132, 136, 140, 144, 147, 152, 154, 158, 161, 166, 169, 173, 176, 181, 184, 188, 191, 196, 200, 203, 207, 210, 214, 217, 222, 225, 229, 232, 237, 240, 244, 248, 252, 255, 258, 262, 266, 269, 273, 277, 281, 284, 288, 292, 296, 300, 304, 307, 310, 314, 318, 322, 325, 329, 333, 337, 340, 345, 348, 352, 355, 359, 362, 366, 369, 374, 377, 381, 384, 389, 392, 396, 401, 404, 408
a(n) = n + floor(n*p/r) + floor(n*q/r) + floor(n*s/r), where p=t, q=t^2, r=t^3, s=t^4, and t is the tetranacci constant.
[A184836] 2, 6, 9, 14, 17, 21, 24, 30, 33, 37, 40, 45, 48, 52, 55, 61, 64, 68, 71, 76, 79, 83, 87, 92, 95, 99, 102, 107, 110, 113, 118, 122, 125, 129, 133, 137, 140, 145, 149, 153, 156, 160, 164, 168, 171, 176, 180, 184, 187, 191, 195, 199, 202, 207, 211, 215, 218, 223, 226, 229, 234, 238, 242, 245, 249, 253, 257, 260, 265, 269, 273, 276, 280, 284, 288, 292, 296, 300, 304, 307, 311, 315, 319, 323, 327, 331, 335, 338, 342, 345, 349, 353, 358, 361, 365, 368, 373, 376, 381, 384, 389, 392, 396, 399, 404, 407, 412, 415, 420, 423
a(n) = n + floor(n*p/s) + floor(n*q/s) + floor(n*r/s) + floor(n*u/s), where p=t, q=t^2, r=t^3, s=t^4, u=t^5, and t is the pentanacci constant.
[A260699] 0, 1, 2, 6, 9, 15, 20, 28, 34, 45, 53, 66, 76, 91, 102, 120, 133, 153, 168, 190, 206, 231, 249, 276, 296, 325, 346, 378, 401, 435, 460, 496, 522, 561, 589, 630, 660, 703, 734, 780, 813, 861, 896, 946, 982, 1035, 1073
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-6) - a(n-7) - a(n-8) + a(n-9).
a(6*k) = 2*k*(9*k + 1),
a(6*k+2) = 2*(9*k^2 + 7*k + 1),
a(6*k+4) = 18*k^2 + 26*k + 9.
a(n) = n*(n + 1)/2 - (1 + (-1)^n)*floor(n/6 + 2/3)/2. [Bruno Berselli, Nov 18 2015]
[A084265] 1, 2, 6, 9, 15, 20, 28, 35, 45, 54, 66, 77, 91, 104, 120, 135, 153, 170, 190, 209, 231, 252, 276, 299, 325, 350, 378, 405, 435, 464, 496, 527, 561, 594, 630, 665, 703, 740, 780, 819, 861, 902, 946, 989, 1035, 1080, 1128, 1175, 1225, 1274, 1326, 1377, 1431, 1484
a(n) = (n^2+3*n+1)/2+(-1)^n/2.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).
a(n) = Sum_{i=0..n+1} i-(-1)^i. (End)
[A257083] 1, 2, 6, 9, 17, 22, 34, 41, 57, 66, 86, 97, 121, 134, 162, 177, 209, 226, 262, 281, 321, 342, 386, 409, 457, 482, 534, 561, 617, 646, 706, 737, 801, 834, 902, 937, 1009, 1046, 1122, 1161, 1241, 1282, 1366, 1409, 1497, 1542, 1634, 1681, 1777, 1826, 1926, 1977
a(n) = (6*n*(n+1) + (2*n + 1)*(-1)^n + 7)/8. [Bruno Berselli, Jan 05 2016]
[A054974] 1, 2, 6, 9, 17, 23, 36, 46, 65, 80, 106, 127, 161, 189, 232, 268, 321, 366, 430, 485, 561, 627, 716, 794, 897, 988, 1106, 1211, 1345, 1465, 1616, 1752, 1921, 2074, 2262, 2433, 2641, 2831, 3060, 3270, 3521, 3752, 4026, 4279, 4577, 4853, 5176, 5476, 5825, 6150
a(n) = (6 - 6*(-1)^n + (9*(-1)^n-17)*n + 12*n^2 + 2*n^3) / 48.
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>7.
[A072481] 0, 0, 0, 1, 2, 6, 9, 17, 25, 37, 50, 72, 89, 117, 148, 184, 220, 271, 318, 382, 443, 513, 590, 688, 773, 876, 988, 1113, 1237, 1388, 1526, 1693, 1860, 2044, 2241, 2459, 2657, 2890, 3138, 3407, 3665, 3962, 4246, 4571, 4899, 5238, 5596, 5999, 6373, 6787, 7207
a(n) = Sum_{k=1..n}Sum_{d=1..k}(k mod d).
[A028724] 0, 0, 0, 0, 1, 2, 6, 9, 18, 24, 40, 50, 75, 90, 126, 147, 196, 224, 288, 324, 405, 450, 550, 605, 726, 792, 936, 1014, 1183, 1274, 1470, 1575, 1800, 1920, 2176, 2312, 2601, 2754, 3078, 3249, 3610, 3800, 4200, 4410, 4851, 5082, 5566, 5819, 6348, 6624, 7200
a(3-n) = -a(n). - Michael Somos, Jan 27 2008
a(n) = (11*n - 3 - 9*n^2 + 2*n^3 + (-1)^n*(3 - 3*n + n^2))/32. - Benedict W. J. Irwin, Sep 27 2016
a(n) = Sum_{i=1..floor((n-1)/2)} i * (floor((n-1)/2) mod (n-i-1)). - Wesley Ivan Hurt, Nov 17 2017
[A082290] 1, 2, 6, 9, 19, 26, 46, 59, 94, 116, 172, 206, 290, 340, 460, 530, 695, 790, 1010, 1135, 1421, 1582, 1946, 2149, 2604, 2856, 3416, 3724, 4404, 4776, 5592, 6036, 7005, 7530, 8670, 9285, 10615, 11330, 12870, 13695, 15466, 16412, 18436, 19514, 21814, 23036
a(n) = 3*a(n-2) - 2*a(n-4) - 2*a(n-6) + 3*a(n-8) - a(n-10) + 3.
a(n) = a(-9-n) for all n in Z.
a(n) = (6*n^4+108*n^3+666*n^2+1620*n+1251+(4*n^3+54*n^2+236*n+333)*(-1)^n-48*(-1)^((6*n-1+(-1)^n)/4))/1536. - Luce ETIENNE, Oct 23 2014
[A077237] 1, 2, 6, 9, 23, 34, 86, 127, 321, 474, 1198, 1769, 4471, 6602, 16686, 24639, 62273, 91954, 232406, 343177, 867351, 1280754, 3236998, 4779839, 12080641, 17838602, 45085566, 66574569, 168261623
a(n) = 4*a(n-2) - a(n-4). - Matthew House, Feb 11 2017
[A180123] 2, 6, 10, 13, 17, 21, 25, 28, 32, 36, 40, 43, 47, 51, 54, 58, 62, 66, 69, 73, 77, 81, 84, 88, 92, 96, 99, 103, 107, 110, 114, 118, 122, 125, 129, 133, 137, 140, 144, 148, 152, 155, 159, 163, 166, 170, 174, 178, 181, 185, 189, 193, 196, 200, 204, 207, 211, 215, 219
a(n) = least positive integer not yet used;

[A080456] 2, 6, 10, 14, 18, 18, 22, 26, 30, 30, 34, 38, 42, 42, 46, 50, 54, 54, 58, 62, 66, 66, 70, 74, 78, 78, 82, 86, 90, 90, 94, 98, 102, 102, 106, 110, 114, 114, 118, 122, 126, 126, 130, 134, 138, 138, 142, 146, 150, 150, 154, 158, 162, 162, 166, 170, 174, 174
a(n) = -2+4*((n+2) mod (n+1))+Sum_{k=0..n}{(1/2)*[(k mod 4)+((k+1) mod 4)-((k+2) mod 4)+3*((k+3) mod 4)]}. - Paolo P. Lava, Aug 29 2007
a(n) = a(n-1) + a(n-4) - a(n-5) for n > 6.
[A111284] 1, 2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222, 226, 230
a(n) = 4*n-6, n>=2.
a(n^2 - 2n + 3)/2 = Sum_{i=1..n} a(i). - Ivan N. Ianakiev, Apr 24 2013
a(n) = 2*a(n-1) - a(n-2), n>3. - Rick L. Shepherd, Jul 06 2017
[A130824] 0, 2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222, 226, 230
a(n) = 4*n - 2*[(n+2) mod (n+1)], with n>=0. - Paolo P. Lava, Aug 29 2007
[A016825] 2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222, 226, 230, 234
a(n) = 4*n + 2, for n >= 0.
a(n) = a(n-1) + 4.
a(-1-n) = -a(n). (End)
a(n) = 8*n - a(n-1) for n>0, a(0)=2. - Vincenzo Librandi, Nov 20 2010
[A132417] 2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 254, 258, 262, 266, 270, 274, 278, 282, 286, 290, 294, 298, 302, 306, 310, 314, 382, 386, 390, 394, 398, 402, 406, 410, 414
a(n)= +a(n-1) +a(n-16) -a(n-17). - R. J. Mathar, Jul 21 2013
[A185548] 1, 2, 6, 10, 14, 19, 25, 31, 38, 46, 54, 62, 71, 81, 91, 101, 112, 123, 135, 147, 159, 172, 185, 199, 213, 228, 242, 258, 273, 289, 305, 322, 339, 356, 374, 392, 410, 429, 448, 467, 487, 507, 527, 548, 569, 590, 612, 633, 656, 678, 701, 724, 747, 771, 795, 819, 844, 869, 894
a(n) = floor(floor(n^(5/2))^(2/3)).
[A276211] 2, 6, 10, 15, 20, 26, 32, 39, 46, 53, 60, 68, 76, 85, 94, 103, 112, 122, 132, 142, 152, 163, 174, 185, 196, 208, 220, 232, 244, 257, 269, 282, 295, 309, 322, 336, 350, 364, 379, 393, 408, 423, 438, 454, 469, 485, 501, 517, 533, 550, 566, 583, 600, 617, 634
a(n) = n + floor(n^(s/r)); the complement is given by n + floor(n^(r/s)).
[A133931] 2, 6, 10, 15, 21, 29, 40, 56, 80, 117, 175, 267, 414, 650, 1030, 1643, 2633, 4233, 6820, 11004, 17772, 28721, 46435, 75095, 121466, 196494, 317890, 514311, 832125, 1346357, 2178400, 3524672, 5702984, 9227565, 14930455, 24157923, 39088278
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: x*(2-4*x^2-x^3)/((1-x)^2*(1-x-x^2)). [Colin Barker, Jun 10 2012]
[A293408] 0, 1, 2, 6, 10, 15, 22, 30, 40, 50, 62, 75, 89, 104, 121, 139, 158, 179, 200, 223, 247, 273, 299, 327, 356, 386, 418, 451, 485, 520, 556, 594, 633, 673, 714, 757, 801, 846, 892, 940, 989, 1039, 1090, 1143, 1197, 1252, 1308, 1365, 1424, 1484, 1545, 1608, 1671
a(n) = floor(1/2 + (n^2)/tau).
[A183575] 2, 6, 10, 16, 22, 30, 38, 48, 58, 70, 82, 96, 110, 126, 142, 160, 178, 198, 218, 240, 262, 286, 310, 336, 362, 390, 418, 448, 478, 510, 542, 576, 610, 646, 682, 720, 758, 798, 838, 880, 922, 966, 1010, 1056, 1102, 1150, 1198, 1248, 1298, 1350, 1402, 1456, 1510, 1566, 1622, 1680, 1738, 1798, 1858, 1920, 1982, 2046, 2110, 2176, 2242, 2310, 2378, 2448, 2518
a(n) = n-1+ceiling(n^2/2-1).
[A030511] 2, 6, 10, 16, 24, 32, 42, 54, 66, 80, 96, 112, 130, 150, 170, 192, 216, 240, 266, 294, 322, 352, 384, 416, 450, 486, 522, 560, 600, 640, 682, 726, 770, 816, 864, 912, 962, 1014, 1066, 1120, 1176, 1232, 1290, 1350, 1410, 1472, 1536, 1600
a(n) = 2 * (n - 1)^2 / 3 if n==1 (mod 3), a(n) = 2 * n * (n - 2) / 3 otherwise.
a(n) = floor((2/3)*(n-1)^2). - Wesley Ivan Hurt, Jun 19 2013
a(n) = (2*(n - 2)*n - (-1)^floor(2*(n-2)/3) + 1)/3. - Bruno Berselli, Aug 08 2013
a(n) = a(n-1) + 2*floor((n-1)*2/3). - Gionata Neri, Apr 26 2015
a(n) = floor((n-2)*(n-1)/3) + floor((n-1)*n/3) = floor((n-1)*(n+1)/3) + floor((n-1)*(n-3)/3). - Bruno Berselli, Mar 02 2017
[A238377] 1, 2, 6, 10, 17, 24, 34, 44, 57, 70, 86, 102, 121, 140, 162, 184, 209, 234, 262, 290, 321, 352, 386, 420, 457, 494, 534, 574, 617, 660, 706, 752, 801, 850, 902, 954, 1009, 1064, 1122, 1180
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4), a(0) = 1, a(1) = 2, a(2) = 6, a(3) = 10.
[A290220] 0, 2, 6, 10, 18, 26, 34, 42, 58, 70, 78, 94, 106, 114, 130, 142, 150, 166, 178, 186, 202, 214, 222, 238, 250, 258, 274, 286, 294, 310, 322, 330, 346, 358, 366, 382, 394, 402, 418, 430, 438, 454, 466, 474, 490, 502, 510, 526, 538, 546, 562, 574, 582, 598, 610, 618, 634, 646, 654, 670, 682, 690, 706, 718, 726, 742, 754
a(n) = a(n-1) + a(n-3) - a(n-4) for n>6.
[A084481] 2, 6, 10, 18, 38, 84, 186, 410, 904, 1994, 4398, 9700, 21394, 47186, 104072, 229538, 506262, 1116596, 2462730, 5431722, 11980040, 26422810, 58277342, 128534724, 283492258, 625261858, 1379058440, 3041609138, 6708480134, 14796018708, 32633646554, 71975773242
a(n) = 2*a(n-1) + a(n-3) for n>6. - Colin Barker, Mar 28 2017
[A005993] 1, 2, 6, 10, 19, 28, 44, 60, 85, 110, 146, 182, 231, 280, 344, 408, 489, 570, 670, 770, 891, 1012, 1156, 1300, 1469, 1638, 1834, 2030, 2255, 2480, 2736, 2992, 3281, 3570, 3894, 4218, 4579, 4940, 5340, 5740, 6181, 6622, 7106, 7590, 8119, 8648, 9224, 9800
a(2n) = (n+1)(2n^2+4n+3)/3, a(2n+1) = (n+1)(n+2)(2n+3)/3. a(-4-n) = -a(n).
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6). - Jaume Oliver Lafont, Dec 05 2008
a(n) = (n^3 + 6*n^2 + 11*n + 6)/12 + ((n+2)/4)[n even] (the bracket means that the second term is added if and only if n is even). - Benoit Jubin, Mar 31 2012
a(n) = (1/12)*n*(n+1)*(n+2) + (1/4)*(n+1)*(1/2)*(1-(-1)^n), with offset 1. - Yosu Yurramendi, Jun 20 2013
a(n) = Sum_{i=0..n+1} ceiling(i/2) * round(i/2) = Sum_{i=0..n+2} floor(i/2)^2. - Bruno Berselli, Aug 30 2013
a(n) = (n + 2)*(3*(-1)^n + 2*n^2 + 8*n + 9)/24. - Ilya Gutkovskiy, May 04 2016
[A096338] 0, 1, 2, 6, 10, 20, 30, 50, 70, 105, 140, 196, 252, 336, 420, 540, 660, 825, 990, 1210, 1430, 1716, 2002, 2366, 2730, 3185, 3640, 4200, 4760, 5440, 6120, 6936, 7752, 8721, 9690, 10830, 11970, 13300, 14630, 16170, 17710, 19481, 21252, 23276, 25300, 27600
a(n) = sum_{k=1..floor(n/2)+1} (sum_{i=1..k} i*(n-2k+2)) = -(floor(n/2)+1) * (floor(n/2)+2) * (floor(n/2)+3) * (3*floor(n/2) - 2*n)/12. - Wesley Ivan Hurt, Sep 26 2013
[A055895] 1, 2, 6, 10, 22, 34, 78, 130, 278, 522, 1062, 2050, 4190, 8194, 16518, 32810, 65814, 131074, 262734, 524290, 1049654, 2097290, 4196358, 8388610, 16781662, 33554466, 67117062, 134218250, 268451990, 536870914, 1073775726, 2147483650, 4295033110, 8589936650
a(n) = sum(2^d, d divides n) - Olivier Gérard, Jan 01, 2012
[A258143] 1, 2, 6, 10, 25, 41, 98, 162, 381, 637, 1485, 2509, 5811, 9907, 22818, 39202, 89845, 155381, 354521, 616665, 1401291, 2449867, 5546381, 9740685, 21977515, 38754731, 87167163, 154276027, 345994215, 614429671, 1374282018, 2448023842
a(n) = Sum_{m = 1 .. ceiling(n/2)} binomial(n, m), n >= 1.
[A061547] 0, 1, 2, 6, 10, 26, 42, 106, 170, 426, 682, 1706, 2730, 6826, 10922, 27306, 43690, 109226, 174762, 436906, 699050, 1747626, 2796202, 6990506, 11184810, 27962026, 44739242, 111848106, 178956970, 447392426, 715827882, 1789569706
a(n) = (3/8)*2^n + (1/24)*(-2)^n - 2/3.
a(n) = 4*a(n-2) + 2, a(1)=0, a(2)=1.
a(2i+1) = 2*Sum_{j=0..i-1} 4^j = string "2"^i read in base 4.
a(2i+2) = 4^i + 2*Sum_{j=0..i-1}4^j = string "1"*"2"^i read in base 4.
[A193910] 2, 6, 11, 15, 20, 24, 29, 33, 38, 42, 47, 51, 56, 60, 65, 69, 74, 78, 83, 87, 92, 96, 101, 105, 110, 114, 119, 123, 128, 132, 137, 141, 146, 150, 155, 159, 164, 168, 173, 177, 182, 186, 191, 195, 200, 204, 209, 213, 218, 222, 227, 231, 236, 240, 245, 249
a(n) = a(n-2) + 9. [Charles R Greathouse IV, Aug 09 2011]
a(n) = 2 or 6 (mod 9).
[A046691] 1, 2, 6, 11, 17, 24, 32, 41, 51, 62, 74, 87, 101, 116, 132, 149, 167, 186, 206, 227, 249, 272, 296, 321, 347, 374, 402, 431, 461, 492, 524, 557, 591, 626, 662, 699, 737, 776, 816, 857, 899, 942, 986, 1031, 1077, 1124, 1172, 1221, 1271, 1322

a(n) = a(n-1) + n + 2 with a(0) = -1. - Vincenzo Librandi, Nov 18 2010
[A231559] 0, 0, 2, 6, 11, 17, 25, 35, 46, 58, 72, 88, 105, 123, 143, 165, 188, 212, 238, 266, 295, 325, 357, 391, 426, 462, 500, 540, 581, 623, 667, 713, 760, 808, 858, 910, 963, 1017, 1073, 1131, 1190, 1250, 1312, 1376, 1441, 1507, 1575, 1645, 1716, 1788, 1862, 1938
a(n) = (n*(3*n-1) + i^(n*(n+1)) - 1)/4, where i=sqrt(-1).
[A248469] 0, 2, 6, 11, 18, 26, 36, 47, 59, 73, 89, 105, 124, 144, 165, 188, 212, 238, 265, 294, 324, 356, 389, 423, 459, 497, 536, 576, 618, 662, 707, 753, 801, 850, 901, 953, 1007, 1062, 1119, 1177, 1236, 1297, 1360, 1424, 1489, 1556, 1625, 1695, 1766, 1839
a(n) = floor((2*n^2)/e).
[A201993] 1, 2, 6, 11, 18, 26, 37, 49, 63, 79, 97, 116, 138, 161, 186, 213, 241, 272, 304, 338, 374, 412, 451, 492, 535, 580, 627, 676, 726, 778, 832, 888, 946, 1005, 1066, 1130, 1194, 1261, 1330, 1400, 1472, 1546, 1622, 1699, 1779, 1860, 1943, 2028, 2115, 2203, 2293, 2385
a(n) = Smallest k, such that 1 + (sqrt((4*Rho-1)^2 + 16*Rho*(k-1)) - 1) / (4*Rho) >=n with Rho = Pi/(2*sqrt(3)).
[A194455] 2, 6, 11, 18, 29, 48, 83, 150, 281, 540, 1055, 2082, 4133, 8232, 16427, 32814, 65585, 131124, 262199, 524346, 1048637, 2097216, 4194371, 8388678, 16777289, 33554508, 67108943, 134217810, 268435541, 536871000, 1073741915, 2147483742
a(n) = 3*a(n-1)-2*a(n-2)-3 for n>1.
a(n)^2 = 2^(n+1)*(a(n-1)+3)+(3*n+1)^2 for n>2.
[A171516] 1, 2, 6, 11, 20, 34, 57, 94, 154, 251, 408, 662, 1073, 1738, 2814, 4555, 7372, 11930, 19305, 31238, 50546, 81787, 132336, 214126, 346465, 560594, 907062, 1467659, 2374724, 3842386, 6217113, 10059502, 16276618, 26336123, 42612744, 68948870
a(n) = a(n-1) + a(n-2) + 3, n>1; with a(0) = 1, a(1) = 2.
[A083322] 1, 2, 6, 11, 22, 42, 85, 170, 342, 683, 1366, 2730, 5461, 10922, 21846, 43691, 87382, 174762, 349525, 699050, 1398102, 2796203, 5592406, 11184810, 22369621, 44739242, 89478486, 178956971, 357913942, 715827882, 1431655765, 2863311530, 5726623062
a(n)= 2*a(n-1) - a(n-3) + 2*a(n-4). - Paul Curtz, May 26 2011
[A033304] 2, 6, 11, 26, 57, 129, 289, 650, 1460, 3281, 7372, 16565, 37221, 83635, 187926, 422266, 948823, 2131986, 4790529, 10764221, 24186985, 54347662, 122118088, 274396853, 616564132, 1385407029, 3112981337, 6994805571, 15717185450
a(n) = (1-2*cos(1/7*Pi))^(n+1)+(1+2*cos(2/7*Pi))^(n+1)+(1-2*cos(3/7*Pi))^(n+1). - Vladeta Jovovic, Jun 27 2001
[A184884] 1, 1, 2, 6, 11, 27, 60, 132, 301, 669, 1502, 3370, 7543, 16919, 37912, 84968, 190457, 426841, 956698, 2144238, 4805827, 10771315, 24141588, 54108332, 121272549, 271806901, 609198390, 1365390546, 3060236911, 6858880431, 15372743856, 34454786384, 77223188593, 173079605553, 387921692082, 869445237846
a(n)=sum{k=0..floor(n/2), sum{j=0..k, C(2n-4k,j)*C(k,j)2^j}}.
[A267461] 0, 2, 6, 12, 18, 26, 34, 44, 54, 66, 78, 92, 106, 122, 138, 156, 174, 194, 214, 236, 258, 282, 306, 332, 358, 386, 414, 444, 474, 506, 538, 572, 606, 642, 678, 716, 754, 794, 834, 876, 918, 962, 1006, 1052, 1098, 1146, 1194, 1244, 1294, 1346, 1398, 1452
a(n) = (2*n^2+12*n-(-1)^n-7)/4 for n>0.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
[A294062] 0, 2, 6, 12, 18, 26, 36, 48, 60, 72, 86, 102, 118, 136, 156, 178, 200, 224, 248, 274, 300, 328, 358, 390, 422, 454, 488, 522, 556, 592, 630, 670, 710, 752, 796, 842, 888, 936, 986, 1038, 1090, 1144, 1200, 1258, 1316, 1374, 1434, 1496, 1558, 1620, 1682, 1746
a(n) = 2 * Sum_{i=1..n} (n - i) * mu(i)^2.
[A061078] 2, 6, 12, 20, 20, 22, 26, 32, 40, 40, 44, 52, 64, 80, 80, 86, 98, 116, 140, 140, 148, 164, 188, 220, 220, 230, 250, 280, 320, 320, 332, 356, 392, 440, 440, 454, 482, 524, 580, 580, 596, 628, 676, 740, 740, 758, 794, 848, 920, 920, 920, 920, 920, 920, 920, 922
a(5*10^n) = 20*46^n, so a(n) is roughly kn^1.662... where the exponent is log 46/log 10. - Charles R Greathouse IV, Sep 20 2012
[A045619] 0, 2, 6, 12, 20, 24, 30, 42, 56, 60, 72, 90, 110, 120, 132, 156, 182, 210, 240, 272, 306, 336, 342, 360, 380, 420, 462, 504, 506, 552, 600, 650, 702, 720, 756, 812, 840, 870, 930, 990, 992, 1056, 1122, 1190, 1260, 1320, 1332, 1406, 1482, 1560, 1640, 1680
a(n) = n^2 - 2n^(5/3) + O(n^(4/3)). - Charles R Greathouse IV, Aug 27 2013
[A103505] 1, 1, 2, 6, 12, 20, 30, 42, 56, 72, 90, 110, 132, 156, 182, 210, 240, 272, 306, 342, 380, 420, 462, 506, 552, 600, 650, 702, 756, 812, 870, 930, 992, 1056, 1122, 1190, 1260, 1332, 1406, 1482, 1560, 1640, 1722, 1806, 1892, 1980, 2070, 2162, 2256, 2352, 2450
a(n) = 0^n + C(1, n) - C(0, n) + 2*C(n, 2).
[A279019] 0, 0, 2, 6, 12, 20, 30, 42, 56, 72, 90, 110, 132, 156, 182, 210, 240, 272, 306, 342, 380, 420, 462, 506, 552, 600, 650, 702, 756, 812, 870, 930, 992, 1056, 1122, 1190, 1260, 1332, 1406, 1482, 1560, 1640, 1722, 1806, 1892, 1980, 2070, 2162, 2256, 2352, 2450
a(n) = n^2 - 9*n + 20 = (n-4)*(n-5).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>6. - Colin Barker, Dec 05 2016
[A002378] 0, 2, 6, 12, 20, 30, 42, 56, 72, 90, 110, 132, 156, 182, 210, 240, 272, 306, 342, 380, 420, 462, 506, 552, 600, 650, 702, 756, 812, 870, 930, 992, 1056, 1122, 1190, 1260, 1332, 1406, 1482, 1560, 1640, 1722, 1806, 1892, 1980, 2070, 2162, 2256, 2352, 2450, 2550
a(n) = a(n-1)+2*n, a(0) = 0.
a(n)*a(n+1) = a(n*(n+2)); e.g. a(3)*a(4) = 12*20 = 240 = a(3*5). - Charlie Marion, Dec 29 2003
a(0) =0, a(n) = a(n-1)+1+floor(x), where x is the minimal positive solution to fract(sqrt(a(n-1)+1+x)) = 1/2. - Hieronymus Fischer, Dec 31 2008
a(n) = floor(n^5/(n^3+n^2+1)) with offset 1...a(1) = 0. - Gary Detlefs, Feb 11 2010
a(n)^2 + a(n+1)^2 = 2 * a((n+1)^2), for n > 0. - Ivan N. Ianakiev, Apr 08 2013
a(n) = floor(n^2 * e^(1/n)) and a(n-1) = floor(n^2 / e^(1/n)). - Richard R. Forberg, Jun 22 2013
[A214916] 1, 1, 2, 6, 12, 20, 60, 252, 672, 1440, 5400, 27720, 88704, 224640, 982800, 5821200, 21288960, 61102080, 300736800, 1990850400, 8089804800, 25662873600, 138940401600, 1007370302400, 4465572249600, 15397724160000, 90311261040000, 707173952284800, 3375972620697600
a(0) = a(1) = 1, for n>=2, a(n) = n! / a(n-2).
[A184637] 2, 6, 12, 21, 33, 48, 65, 85, 108, 133, 161, 192, 225, 261, 300, 341, 385, 432, 481, 533, 588, 645, 705, 768, 833, 901, 972, 1045, 1121, 1200, 1281, 1365, 1452, 1541, 1633, 1728, 1825, 1925, 2028, 2133, 2241, 2352, 2465, 2581, 2700, 2821, 2945, 3072, 3201, 3333, 3468, 3605, 3745, 3888, 4033, 4181, 4332, 4485, 4641, 4800, 4961, 5125, 5292, 5461, 5633, 5808, 5985, 6165, 6348, 6533, 6721, 6912, 7105, 7301, 7500, 7701, 7905, 8112, 8321, 8533
a(n) = n^2 + floor(n^2/3) with n>2, a(1)=2, a(2)=6. This confirms the g.f. and the recurrence. [Bruno Berselli, Aug 08 2013]
[A011892] 0, 0, 0, 0, 2, 6, 12, 21, 33, 50, 72, 99, 132, 171, 218, 273, 336, 408, 489, 581, 684, 798, 924, 1062, 1214, 1380, 1560, 1755, 1965, 2192, 2436, 2697, 2976, 3273, 3590, 3927, 4284, 4662, 5061, 5483, 5928
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-5) -3*a(n-6) +3*a(n-7) -a(n-8). G.f.: x^4*(x^3+2) / ((-1+x)^4*(x^4+x^3+x^2+x+1)). [From R. J. Mathar, Apr 15 2010]
[A005819] 1, 2, 6, 12, 22, 34, 52, 74, 102, 134, 176, 222, 280, 344, 416, 496, 592, 694, 814, 942, 1082, 1232, 1404, 1584, 1784, 1996, 2226, 2468, 2738, 3016, 3324, 3648, 3992, 4352, 4736, 5132, 5564, 6014, 6488, 6978, 7508, 8050, 8634, 9238, 9866, 10516, 11212
a(n) = -1 + Sum_{i=1..n} (n-i+1)*phi(i) for n>=2, where phi is Euler's totient function (this is conjectured in the Duluck Gouyou-Beauchamps paper, p. 399).
[A131520] 2, 6, 12, 22, 40, 74, 140, 270, 528, 1042, 2068, 4118, 8216, 16410, 32796, 65566, 131104, 262178, 524324, 1048614, 2097192, 4194346, 8388652, 16777262, 33554480, 67108914, 134217780, 268435510, 536870968, 1073741882, 2147483708
a(n) = 2*(n-1) + 2^n.
[A084570] 1, 2, 6, 12, 23, 38, 60, 88, 125, 170, 226, 292, 371, 462, 568, 688, 825, 978, 1150, 1340, 1551, 1782, 2036, 2312, 2613, 2938, 3290, 3668, 4075, 4510, 4976, 5472, 6001, 6562, 7158, 7788, 8455, 9158, 9900, 10680, 11501, 12362, 13266, 14212, 15203, 16238
a(n) = (-1)^n/4 + (2n^3+6n^2+10n+ 9)/12.
a(n) = Sum_{j=0..n} (Sum_{i=0..j} (i+(-1)^i)).
a(n) = ceil((n^3 + 3n^2 + 5n + 3)/6).
[A192969] 1, 2, 6, 12, 23, 41, 71, 120, 200, 330, 541, 883, 1437, 2334, 3786, 6136, 9939, 16093, 26051, 42164, 68236, 110422, 178681, 289127, 467833, 756986, 1224846, 1981860, 3206735, 5188625, 8395391, 13584048, 21979472, 35563554, 57543061, 93106651
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4).
a(0) = 1; a(1) = 2; a(n) = 1 + n + a(n-1) + a(n-2). - Daniel Suteu, Jan 12 2016
[A291014] 0, 0, 2, 6, 12, 23, 48, 105, 228, 486, 1026, 2161, 4548, 9555, 20026, 41874, 87384, 182043, 378648, 786429, 1631120, 3378750, 6990510, 14447045, 29826156, 61516455, 126761190, 260978922, 536870916, 1103567983, 2266788288, 4652881233, 9544371772, 19565962134
a(n) = 6*a(n-1) - 15*a(n-2) + 22*a(n-3) - 21*a(n-4) + 12*a(n-5) - 4*a(n-6) for n >= 7.

[A187272] 0, 2, 6, 12, 24, 40, 72, 112, 192, 288, 480, 704, 1152, 1664, 2688, 3840, 6144, 8704, 13824, 19456, 30720, 43008, 67584, 94208, 147456, 204800, 319488, 442368, 688128, 950272, 1474560, 2031616, 3145728, 4325376, 6684672, 9175040, 14155776, 19398656, 29884416, 40894464, 62914560, 85983232
a(n)/a(n-2) = 2*n/(n-2). (End)
a(2*n) = 3*n*2^n, a(2*n+1) = (2*n+1)*2^(n+1). - Andrew Howroyd, Mar 28 2016
[A029929] 0, 2, 6, 12, 24, 40, 72, 126, 240, 468, 960, 2002, 4248, 9048, 19320, 41190, 87648, 185980, 393552, 830490, 1748040, 3670464, 7690056, 16078702, 33555024, 69905700, 145403232, 301990626, 626350200, 1297438888, 2684355480, 5547667062, 11453247168, 23622321228, 48676297200, 100215904810
a(n) = n*(6+2*(-1)^n+2^n+12*n)/12. G.f.: 2*x*(x^7 -2*x^6 -2*x^5 +x^4 -6*x^3 +3*x^2 +2*x -1) / ((x-1)^3*(x+1)^2*(2*x-1)^2). - Colin Barker, Aug 04 2013
[A111286] 1, 2, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472
a(n)=3*2^(n-2), n>=3.
a(n)=2*a(n-1) for n=3. G.f.: x*(1+2*x^2)/(1-2*x). [Colin Barker, Nov 29 2012]
[A175943] 1, 2, 6, 12, 24, 120, 240, 720, 5040, 10080, 20160, 40320, 120960, 362880, 725760, 3628800, 39916800, 79833600, 159667200, 479001600, 6227020800, 12454041600, 87178291200, 261534873600, 1307674368000, 2615348736000, 5230697472000
a(n) is approximately (n / (e log log n))^(n/log log n). - Charles R Greathouse IV, Sep 12 2012
[A045925] 0, 1, 2, 6, 12, 25, 48, 91, 168, 306, 550, 979, 1728, 3029, 5278, 9150, 15792, 27149, 46512, 79439, 135300, 229866, 389642, 659111, 1112832, 1875625, 3156218, 5303286, 8898708, 14912641, 24961200, 41734339, 69705888, 116311074
a(n) = a(n-1) + a(n-2) + L(n-1). - Gary Detlefs, Dec 29 2012
a(n) = F(2*n)/sum(binomial(n-k,k)/(n-k), k=0..floor(n/2)). - Gary Detlefs, Jan 19 2013
[A128020] 1, 2, 6, 12, 25, 48, 98, 200, 396, 790, 1584, 3168, 6331, 12670, 25335, 50672, 101354, 202698, 405403, 810800, 1621599, 3243196, 6486391, 12972792, 25945575, 51891164, 103782330, 207564644, 415129287, 830258580, 1660517170, 3321034336
a(n) = n * (1+ floor(sum{k=1 to n-1} a(k) /n)).
[A140659] 0, 0, 1, 2, 6, 12, 25, 50, 102, 204, 409, 818, 1638, 3276, 6553, 13106, 26214, 52428, 104857, 209714, 419430, 838860, 1677721, 3355442, 6710886, 13421772, 26843545, 53687090, 107374182, 214748364, 429496729, 858993458, 1717986918, 3435973836
a(2n+1)=2a(2n).
[A232164] 0, 1, 1, 2, 6, 12, 25, 57, 124, 268, 588, 1285, 2801, 6118, 13362, 29168, 63685, 139057, 303608, 662888, 1447352, 3160121, 6899745, 15064810, 32892270, 71816436, 156802881, 342360937, 747505396, 1632091412, 3563482500, 7780451037, 16987713169, 37090703118
a(n) = a(n-1)+a(n-2)+3*a(n-3)+a(n-4). G.f.: -x / (x^4+3*x^3+x^2+x-1). - Colin Barker, Dec 31 2013
[A136515] 0, 2, 6, 12, 26, 38, 56, 74, 96, 128, 154, 188, 220, 262, 304, 344, 398, 452, 506, 562, 616, 686, 754, 824, 894, 976, 1056, 1134, 1224, 1308, 1406, 1500, 1592, 1694, 1804, 1914, 2026, 2136, 2258, 2374, 2504, 2626, 2756, 2892, 3022, 3164, 3300, 3450, 3600
a(n) = 2*Sum(floor(sqrt((n+1/2)^2 - k^2))), k = 1 ... n
[A054454] 1, 2, 6, 12, 26, 50, 97, 180, 332, 600, 1076, 1908, 3361, 5878, 10226, 17700, 30510, 52390, 89665, 153000, 260376, 442032, 748776, 1265832, 2136001, 3598250, 6052062, 10164540, 17048642
a(0)=1, a(1)=2, a(2)=6, a(3)=12, a(4)=26, a(5)=50, a(n)=2*a(n-1)+ 2*a(n-2)- 4*a(n-3)-2*a(n-4)+2*a(n-5)+a(n-6) [From Harvey P. Dale, May 06 2012]
[A084170] 1, 2, 6, 12, 26, 52, 106, 212, 426, 852, 1706, 3412, 6826, 13652, 27306, 54612, 109226, 218452, 436906, 873812, 1747626, 3495252, 6990506, 13981012, 27962026, 55924052, 111848106, 223696212, 447392426, 894784852, 1789569706, 3579139412
a(n) = 2*a(n-1) +a(n-2) -2*a(n-3), n>2.
a(n) = a(n-1)+2*a(n-2)+2, a(0)=1, a(1)=2.
a(n+3) = 15*2^n-2-a(n), n>=0, a(0)=1, a(1)=2, a(2)=6. - Yosu Yurramendi, Jul 05 2016
[A091919] 1, 2, 6, 12, 27, 54, 112, 224, 453, 906, 1818, 3636, 7279, 14558, 29124, 58248, 116505, 233010, 466030, 932060, 1864131, 3728262, 7456536, 14913072, 29826157, 59652314, 119304642, 238609284, 477218583, 954437166, 1908874348, 3817748696
a(n) = 2^(n+4)/9 + (3*n+8)*(-1)^n/36 - (n+4)/4.
[A166963] 1, 2, 6, 12, 27, 61, 138, 309, 694, 1560, 3506, 7877, 17699, 39770, 89363, 200796, 451184, 1013802, 2277993, 5118603, 11501396, 25843403, 58069600, 130481206, 293188608, 658788823, 1480285049
a(n) = 2a(n-1) + a(n-3) + a(n-4) - a(n-5).
[A188476] 1, 1, 2, 6, 12, 27, 65, 150, 353, 843, 2014, 4843, 11713, 28433, 69292, 169470, 415754, 1022868, 2523120, 6238645, 15459561, 38387191, 95497612, 237989801, 594062697, 1485141397, 3718116380, 9320941698, 23396109986, 58795356627, 147920737819
a(n)=sum{k=0..floor(n/2), sum{j=0..n-2k+1, (j/(n-k+2-j))*C(n-k+2-j,n-k+1)*C(n-k+2-j,k+1)*2^(j-1)}}.
[A122746] 1, 2, 6, 12, 28, 56, 120, 240, 496, 992, 2016, 4032, 8128, 16256, 32640, 65280, 130816, 261632, 523776, 1047552, 2096128, 4192256, 8386560, 16773120, 33550336, 67100672, 134209536, 268419072, 536854528, 1073709056, 2147450880, 4294901760, 8589869056
a(n)=2^(n+1)-2^(floor[(n+1)/2]) [From Geoffrey Critzer, Mar 03 2009]
a(n)=2*(a(n-1).bitwiseOR.a(n-2)),a(0)=1,a(1)=2 [Dec 12 2010]
a(0)=1, a(1)=2, a(2)=6, a(n)=2*a(n-1)+2*a(n-2)-4*a(n-3). - Harvey P. Dale, Jun 25 2013
[A093387] 0, 0, 1, 2, 6, 12, 29, 58, 130, 260, 562, 1124, 2380, 4760, 9949, 19898, 41226, 82452, 169766, 339532, 695860, 1391720, 2842226, 5684452, 11576916, 23153832, 47050564, 94101128, 190876696, 381753392, 773201629, 1546403258, 3128164186, 6256328372, 12642301534
a(n+1) = sum{k=2..n, C(n,floor((n-k)/2)}; - Paul Barry, Jan 11 2007
a(2n) = 2*a(2n-1). - Emeric Deutsch, May 30 2011
[A038199] 1, 2, 6, 12, 30, 54, 126, 240, 504, 990, 2046, 4020, 8190, 16254, 32730, 65280, 131070, 261576, 524286, 1047540, 2097018, 4192254, 8388606, 16772880, 33554400, 67100670, 134217216, 268419060, 536870910, 1073708010, 2147483646
a(n) = Sum_{d | n} mu(n/d)(2^d-1). - Paul Barry, Mar 20 2005
[A162214] 1, 2, 6, 12, 30, 60, 126, 248, 504, 1020, 2046, 4092, 8190, 16380, 32760, 65520, 131070, 262134, 524286, 1048560, 2097144, 4194300, 8388606, 16777200, 33554425, 67108860, 134217702, 268435440, 536870910, 1073741820, 2147483646, 4294967264, 8589934584
a(n) = n * floor((2^n-1)/n). - Alois P. Heinz, Jul 11 2009
[A100071] 0, 1, 2, 6, 12, 30, 60, 140, 280, 630, 1260, 2772, 5544, 12012, 24024, 51480, 102960, 218790, 437580, 923780, 1847560, 3879876, 7759752, 16224936, 32449872, 67603900, 135207800, 280816200, 561632400, 1163381400, 2326762800
a(n) = Sum_{k = 0..floor(n/2)} binomial(n,k)*(n - 2*k).
a(n) = n*C(n-1,floor((n-1)/2)); a(n) = Sum_{k = 0..n} C(n,k)*2^(n-k)*C(2*k - 2,k - 1)(-1)^(k-1). - Paul Barry, Jan 11 2007
a(n) = a(n-1)*n/floor(n/2) for n > 0. - Reinhard Zumkeller, Jan 20 2008
a(n) = (floor(n/2) + ceiling(n/2) + 1)!/(floor(n/2)! * ceiling(n/2)!). - Stefan Steinerberger, Nov 04 2008
a(n) = n for n < 3, a(n) = 4*a(n-2) + 2*a(n-1)/(n - 1) for n>=3. - Alexander R. Povolotsky, Aug 17 2012
a(n) = (-1)^(n*(n+1)/2) * Sum_{k = 0..n} (-1)^k*k* binomial(n,k)^2. - Peter Bala, Jul 25 2016
[A073949] 0, 2, 6, 12, 30, 90, 252, 702, 2106, 6480, 19602, 58806, 176904, 532170, 1596510, 4785156, 14351094, 43053282, 129146724, 387400806, 1162202418, 3486725352, 10460294154, 31380882462, 94143001680, 282430067922, 847290203766, 2541867422652, 7625599079310
a(n; t, s) = a(n-1; t, s) + a(n-1; t+2, s+2t+1) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A099576] 1, 2, 6, 12, 35, 72, 210, 440, 1287, 2730, 8008, 17136, 50388, 108528, 319770, 692208, 2042975, 4440150, 13123110, 28614300, 84672315, 185122080, 548354040, 1201610592, 3562467300, 7821594872, 23206929840, 51037462560, 151532656696
a(n)=sum{k=0..n, sum{j=0..floor(k/2), binomial(n+j, j)}.
[A026549] 1, 2, 6, 12, 36, 72, 216, 432, 1296, 2592, 7776, 15552, 46656, 93312, 279936, 559872, 1679616, 3359232, 10077696, 20155392, 60466176, 120932352, 362797056, 725594112, 2176782336, 4353564672, 13060694016, 26121388032
a(n+3) = a(n+2)*a(n+1)/a(n). [Reinhard Zumkeller, Mar 04 2011]
a(n) = ((1/2)*(3-(-1)^n)*6^floor(n/2)), or a(n) = 6*a(n-2). [Vincenzo Librandi, Jun 08 2011]
[A003418] 1, 1, 2, 6, 12, 60, 60, 420, 840, 2520, 2520, 27720, 27720, 360360, 360360, 360360, 720720, 12252240, 12252240, 232792560, 232792560, 232792560, 232792560, 5354228880, 5354228880, 26771144400, 26771144400, 80313433200, 80313433200
a(n) = exp(sum_{k=1..n} sum_{d|k} moebius(d)*log(k/d)). - Peter Luschny, Sep 01 2012

[A277690] 2, 6, 13, 19, 26, 32, 38, 44, 51, 57, 63, 70, 76, 82, 88, 95, 101, 107, 114, 120, 126, 132, 139, 145, 151, 158, 164, 170, 176, 183, 189, 195, 202, 208, 214, 220, 227, 233, 239, 246, 252, 258, 264, 271, 277, 283, 290, 296, 302, 308, 315
a(n) = ceiling(Pi / asin(1/2n)).
[A267874] 1, 2, 6, 13, 22, 33, 46, 61, 78, 97, 118, 141, 166, 193, 222, 253, 286, 321, 358, 397, 438, 481, 526, 573, 622, 673, 726, 781, 838, 897, 958, 1021, 1086, 1153, 1222, 1293, 1366, 1441, 1518, 1597, 1678, 1761, 1846, 1933, 2022, 2113, 2206, 2301, 2398, 2497
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
[A226292] 2, 6, 13, 22, 34, 48, 65, 84, 106, 130, 157, 186, 218, 252, 289, 328, 370, 414, 461, 510, 562, 616, 673, 732, 794, 858, 925, 994, 1066, 1140, 1217, 1296, 1378, 1462, 1549, 1638, 1730, 1824, 1921, 2020, 2122, 2226, 2333, 2442, 2554, 2668, 2785, 2904, 3026, 3150
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>4, a(1)=2, a(2)=6, a(3)=13, a(4)=22.
a(n) = 2*a(n-2)-a(n-4)+10 for n>4, a(1)=2, a(2)=6, a(3)=13, a(4)=22.
a(n) = a(n-1)+a(n-2)-a(n-3)+5 for n>3, a(1)=2, a(2)=6, a(3)=13.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+(-1)^n for n>3, a(1)=2, a(2)=6, a(3)=13.
a(n) = 2*a(n-1)-a(n-2)+2+(1-(-1)^n)/2 for n>2, a(1)=2, a(2)=6.
[A026052] 2, 6, 13, 22, 35, 52, 74, 100, 132, 170, 215, 266, 325, 392, 468, 552, 646, 750, 865, 990, 1127, 1276, 1438, 1612, 1800, 2002, 2219, 2450, 2697, 2960, 3240, 3536, 3850, 4182, 4533, 4902, 5291, 5700, 6130, 6580, 7052, 7546, 8063, 8602, 9165, 9752, 10364, 11000, 11662, 12350, 13065, 13806, 14575
a(n)=(n + 2)*(n^2 + 10*n + 15)/12 - 0.375 + 0.125*(- 1)^n - 0.25*cos(n*Pi/2) [From Richard Choulet, Dec 13 2008]
[A293503] 0, 2, 6, 13, 23, 36, 51, 70, 91, 115, 142, 172, 204, 240, 278, 319, 363, 409, 459, 511, 566, 624, 685, 749, 815, 884, 957, 1031, 1109, 1190, 1273, 1360, 1449, 1541, 1635, 1733, 1833, 1937, 2043, 2152, 2263, 2378, 2495, 2615, 2738, 2864, 2993, 3124, 3259
a(n) = ceiling(r*n^2), where r = sqrt(2).
[A143689] 1, 2, 6, 13, 23, 36, 52, 71, 93, 118, 146, 177, 211, 248, 288, 331, 377, 426, 478, 533, 591, 652, 716, 783, 853, 926, 1002, 1081, 1163, 1248, 1336, 1427, 1521, 1618, 1718, 1821, 1927, 2036, 2148, 2263, 2381, 2502, 2626, 2753, 2883, 3016, 3152, 3291
a(n) = a(n-1)+3*n-2 (with a(0)=1) - Vincenzo Librandi, Nov 25 2010
a(n) = 2*a(n-1)-a(n-2)+3.
[A184533] 2, 6, 13, 24, 37, 54, 73, 96, 121, 150, 181, 216, 253, 294, 337, 384, 433, 486, 541, 600, 661, 726, 793, 864, 937, 1014, 1093, 1176, 1261, 1350, 1441, 1536, 1633, 1734, 1837, 1944, 2053, 2166, 2281, 2400, 2521, 2646, 2773, 2904, 3037, 3174, 3313, 3456, 3601
a(n) = floor[1/{(2+n^3)^(1/3)}], where {}=fractional part.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
a(n) = (6*n^2 - (1-(-1)^n))/4 for n>1.
a(n+1) +a(n) = 3*n^2 + 3*n + 1.
a(n) = floor(1/((n^3+2)^(1/3)-n)). - Charles R Greathouse IV, Aug 23 2011
[A003600] 1, 2, 6, 13, 24, 40, 62, 91, 128, 174, 230, 297, 376, 468, 574, 695, 832, 986, 1158, 1349, 1560, 1792, 2046, 2323, 2624, 2950, 3302, 3681, 4088, 4524, 4990, 5487, 6016, 6578, 7174, 7805, 8472, 9176, 9918, 10699, 11520, 12382, 13286, 14233, 15224
a(n) = binomial(n+2, n-1) + binomial(n, n-1).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 29 2012
[A259577] 1, 2, 6, 13, 26, 44, 72, 108, 156, 215, 290, 381, 486, 610, 758, 924, 1112, 1329, 1566, 1839, 2134, 2456, 2816, 3220, 3640, 4099, 4608, 5153, 5726, 6368, 7020, 7744, 8504, 9305, 10180, 11103, 12042, 13060, 14146, 15296, 16460, 17739, 19026, 20421, 21876
a(n) = sum{sum{floor((n*k + x)/m), k=0..m-1, m=1..n}, where x = 1.
a(n) = n^3 / 4 + O(n^2). - Charles R Greathouse IV, Mar 22 2017
[A192953] 0, 1, 2, 6, 13, 26, 48, 85, 146, 246, 409, 674, 1104, 1801, 2930, 4758, 7717, 12506, 20256, 32797, 53090, 85926, 139057, 225026, 364128, 589201, 953378, 1542630, 2496061, 4038746, 6534864, 10573669, 17108594, 27682326, 44790985, 72473378
a(n)=3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4).
[A275970] 2, 6, 13, 26, 51, 100, 197, 390, 775, 1544, 3081, 6154, 12299, 24588, 49165, 98318, 196623, 393232, 786449, 1572882, 3145747, 6291476, 12582933, 25165846, 50331671, 100663320, 201326617, 402653210, 805306395, 1610612764, 3221225501, 6442450974, 12884901919, 25769803808, 51539607585, 103079215138, 206158430243, 412316860452, 824633720869
a(n) = 2*a(n-1) - n + 2.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-2). (End)
[A289764] 1, 2, 6, 13, 29, 58, 122, 245, 501, 1002, 2026, 4053, 8149, 16298, 32682, 65365, 130901, 261802, 523946, 1047893, 2096469, 4192938, 8387242, 16774485, 33551701, 67103402, 134212266, 268424533, 536859989, 1073719978, 2147461802, 4294923605, 8589890901
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 4*a(n-4) - 6*a(n-5) + 4*a(n-6) for n>5.
[A173009] 0, 1, 2, 6, 13, 29, 60, 124, 251, 507, 1018, 2042, 4089, 8185, 16376, 32760, 65527, 131063, 262134, 524278, 1048565, 2097141, 4194292, 8388596, 16777203, 33554419, 67108850, 134217714, 268435441, 536870897
a(n)=(1/2)*2^n-(1/2)*n-1/2.
a(1)=0, a(2)=1, a(3)=2, a(4)=6, a(n)=3*a(n-1)-a(n-2)-3*a(n-3)+ 2*a(n-4) [From Harvey P. Dale, Nov 16 2011]
[A115217] 1, 2, 6, 13, 30, 62, 133, 270, 558, 1125, 2286, 4590, 9253, 18542, 37230, 74533, 149358, 298862, 598309, 1196910, 2394990, 4790565, 9583470, 19168110, 38340901, 76684142, 153377646, 306759973, 613538670, 1227086702, 2454210853
a(n)=sum{k=0..floor(n/2), sum{j=0..n-k, [j<=k]*2^(k-j)[j<=n-2k]2^(n-2k-j)}}.
[A219753] 0, 0, 0, 0, 1, 2, 6, 13, 31, 68, 151, 327, 706, 1509, 3211, 6796, 14331, 30115, 63106, 131905, 275111, 572676, 1190031, 2469039, 5115426, 10584557, 21874931, 45158908, 93131731, 191884523, 395000226, 812445097, 1669750831, 3429176564, 7037627911, 14433683991
a(n) = (2^(n-5)*(3*n+16)+4*(-1)^n)/9+((1-sqrt(5))^(n-3)-(1+sqrt(5))^(n-3))/(2^(n-3)*sqrt(5)) with n>3, a(0)=a(1)=a(2)=a(3)=0. [Bruno Berselli, Nov 29 2012]
[A239305] 1, 1, 2, 6, 13, 31, 69, 153, 332, 712, 1509, 3169, 6603, 13669, 28142, 57674, 117741, 239587, 486193, 984353, 1989056, 4012636, 8083717, 16266181, 32698903, 65678221, 131827874, 264447198, 530221357, 1062664807, 2129046429
a(n) = sum(k=0..n, ((k*n-1)*sum(i=0..n-k, 2^i*binomial(k+1,n-k-i)*binomial(k+i,k)*(-1)^(n-i+1)))/(k+1)).
[A099232] 0, 1, 2, 6, 13, 32, 72, 169, 386, 894, 2053, 4736, 10896, 25105, 57794, 133110, 306493, 705824, 1625304, 3742777, 8618690, 19847022, 45703093, 105244160, 242353440, 558085921, 1285146242, 2959404006, 6814842733, 15693054752, 36137582952
a(n+1)=sum{k=0..n, C(k+1,n-k+1)3^(n-k)}; - Paul Barry, May 21 2006
a(n) = a(n-1) + 3*a(n-2) + 1, n>1 [From Gary Detlefs, Jun 21 2010]
[A124124] 1, 2, 6, 13, 37, 78, 218, 457, 1273, 2666, 7422, 15541, 43261, 90582, 252146, 527953, 1469617, 3077138, 8565558, 17934877, 49923733, 104532126, 290976842, 609257881, 1695937321, 3551015162, 9884647086, 20696833093, 57611945197, 120629983398, 335787024098
a(n)=a(n-1)+6*a(n-2)-6*a(n-3)-a(n-4)+a(n-5). G.f.: -x*(1+x-2*x^2+x^3+x^4)/((x-1)*(x^2-2*x-1)*(x^2+2*x-1)). [R. J. Mathar, Jul 17 2009]
a(n) = 7*a(n-2) - 7*a(n-4) + a(n-6), for n>6. - Hermann Stamm-Wilbrandt, Aug 27 2014
[A238410] 0, 2, 6, 14, 24, 38, 54, 74, 96, 122, 150, 182, 216, 254, 294, 338, 384, 434, 486, 542, 600, 662, 726, 794, 864, 938, 1014, 1094, 1176, 1262, 1350, 1442, 1536, 1634, 1734, 1838, 1944, 2054, 2166, 2282, 2400, 2522, 2646, 2774, 2904, 3038, 3174, 3314, 3456, 3602, 3750, 3902, 4056, 4214, 4374, 4538, 4704
a(n) = (3*n)^2/6 for n even and a(n) = ((3*n)^2 + 3)/6 for n odd. - Miquel Cerda, Jun 17 2016
a(n) = (6*n^2 - 12*n + 7 + (-1)^n)/4.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Matthew House, Feb 15 2017
[A212964] 0, 0, 0, 2, 6, 14, 26, 44, 68, 100, 140, 190, 250, 322, 406, 504, 616, 744, 888, 1050, 1230, 1430, 1650, 1892, 2156, 2444, 2756, 3094, 3458, 3850, 4270, 4720, 5200, 5712, 6256, 6834, 7446, 8094, 8778, 9500, 10260, 11060, 11900, 12782, 13706
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = sum(k=0..n, floor((k-1)^2/2))). - Enrique Pérez Herrero, Dec 28 2013
a(n) = sum_{i=1..n} floor(i^2/2) - 2*floor(i/2). - Wesley Ivan Hurt, Jul 23 2014
a(n) = (2*n-1)*(2*n^2-2*n-3)/24 - (-1)^n/8. - Robert Israel, Jul 23 2014
[A121968] 1, 2, 6, 14, 27, 46, 72, 106, 149, 202, 266, 342, 431, 534, 652, 786, 937, 1106, 1294, 1502, 1731, 1982, 2256, 2554, 2877, 3226, 3602, 4006, 4439, 4902, 5396, 5922, 6481, 7074, 7702, 8366, 9067, 9806, 10584, 11402, 12261, 13162, 14106, 15094, 16127

a(n) = (6 + n(-1 + n(6 + n)))/6 = C(n+1, 3) + n^2 + 1 = C(n+2, 3) + C(n, 2) + 1.
[A033547] 0, 2, 6, 14, 28, 50, 82, 126, 184, 258, 350, 462, 596, 754, 938, 1150, 1392, 1666, 1974, 2318, 2700, 3122, 3586, 4094, 4648, 5250, 5902, 6606, 7364, 8178, 9050, 9982, 10976, 12034, 13158, 14350, 15612, 16946, 18354, 19838, 21400, 23042, 24766, 26574, 28468
a(n) = n*(n^2+5)/3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Wesley Ivan Hurt, Apr 05 2015
[A290699] 2, 6, 14, 28, 52, 94, 170, 312, 584, 1114, 2158, 4228, 8348, 16566, 32978, 65776, 131344, 262450, 524630, 1048956, 2097572, 4194766, 8389114, 16777768, 33555032, 67109514, 134218430, 268436212, 536871724, 1073742694, 2147484578, 4294968288, 8589935648, 17179870306
a(n) = 2^n - n + n^2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4).
[A249665] 1, 1, 1, 2, 6, 14, 28, 56, 118, 254, 541, 1140, 2401, 5074, 10738, 22711, 48001, 101447, 214446, 453355, 958395, 2025963, 4282685, 9053286, 19138115, 40456779, 85522862, 180789396, 382176531, 807895636, 1707837203, 3610252689, 7631830480
a(n) = a(n-1) + g(n-1) + h(n-1),
a(n) = a(n-1)*b(1) + a(n-2)*b(2) + a(n-3)*b(3) + ... + a(1)*b(n-1).
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)+a(n-4)+a(n-5)-a(n-7)-a(n-8).
[A192966] 0, 1, 2, 6, 14, 30, 59, 110, 197, 343, 585, 983, 1634, 2695, 4420, 7220, 11760, 19116, 31029, 50316, 81535, 132061, 213827, 346141, 560244, 906685, 1467254, 2374290, 3841922, 6216618, 10058975, 16276058, 26335529, 42612115, 68948205, 111560915
a(n) = 4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A095121] 1, 2, 6, 14, 30, 62, 126, 254, 510, 1022, 2046, 4094, 8190, 16382, 32766, 65534, 131070, 262142, 524286, 1048574, 2097150, 4194302, 8388606, 16777214, 33554430, 67108862, 134217726, 268435454, 536870910, 1073741822, 2147483646, 4294967294, 8589934590
a(n) = 2*2^n - 2 + 0^n; a(n) = 3*a(n-1) - 2*a(n-2).
a(0)=1, a(1)=2, a(n) = 2*a(n-1) + 2 for n>1. - Philippe Deléham, Sep 28 2006
a(n) = -2 + 4*2^(n-1) + (binomial(2*n,n) mod 2). - Paolo P. Lava, Nov 19 2008
a(n) = 5*a(n-2) - 4*a(n-4) for n>4 [Because x(n)=f*x(n-1)+g*x(n-2) => x(n)=(f^2+2*g)*x(n-2)-g^2*x(n-4), here with f=3 and g=-2]. - Hermann Stamm-Wilbrandt, Aug 13 2015
[A291409] 2, 6, 14, 31, 66, 136, 272, 534, 1030, 1958, 3678, 6837, 12594, 23016, 41768, 75325, 135084, 241032, 428112, 757236, 1334292, 2342892, 4100676, 7155937, 12453170, 21616242, 37432010, 64675099, 111512574, 191893120, 329605760, 565166682, 967491754, 1653659282
a(n) = 2*a(n-1) + 2*a(n-2) - 2*a(n-3) - 5*a(n-4) - 2*a(n-5) + 4*a(n-6) + 4*a(n-7) + a(n-8) for n >= 9.
[A131352] 1, 2, 6, 14, 32, 72, 160, 352, 768, 1664, 3584, 7680, 16384, 34816, 73728, 155648, 327680, 688128, 1441792, 3014656, 6291456, 13107200, 27262976, 56623104, 117440512, 243269632, 503316480, 1040187392, 2147483648, 4429185024
a(n) = 2^(n-2)*(n+4) for n>1. - _Colin Barker, Jun 05 2012
[A257557] 1, 1, 2, 6, 14, 33, 79, 188, 448, 1068, 2545, 6065, 14454, 34446, 82090, 195633, 466223, 1111080, 2647872, 6310280, 15038353, 35838673, 85408986, 203542550, 485072726, 1156001777, 2754927327, 6565409092, 15646364288, 37287655956, 88862131873
a(n) = Sum_{k=0..n} Sum_{i=0..(n-k)/2} C(2*k,i)*C(n-2*i-1,n-2*i-k).
[A070933] 1, 2, 6, 14, 34, 74, 166, 350, 746, 1546, 3206, 6550, 13386, 27114, 54894, 110630, 222794, 447538, 898574, 1801590, 3610930, 7231858, 14480654, 28983246, 58003250, 116054034, 232186518, 464475166, 929116402, 1858449178, 3717247638, 7434950062, 14870628026, 29742206138, 59485920374, 118973809798, 237950730522, 475905520474
a(n) = S(n,1), where S(n,m)= sum(k=m..n/2, 2*S(n-k,k))+2, S(n,n)=2, S(0,m)=1, S(n,m)=0 for n<m. - Vladimir Kruchinin Sep 07 2014
a(n) = sum_{lambda,mu,nu} (c^{lambda}_{mu,nu})^2, where lambda ranges over all partitions of n, mu and nu range over all partitions satisfying |mu| + |nu| = n, and c^{lambda}_{mu,nu} denotes a Littlewood-Richardson coefficient. - Richard Stanley, Nov 16 2014
[A059570] 1, 2, 6, 14, 34, 78, 178, 398, 882, 1934, 4210, 9102, 19570, 41870, 89202, 189326, 400498, 844686, 1776754, 3728270, 7806066, 16311182, 34020466, 70837134, 147266674, 305718158, 633805938, 1312351118, 2714180722, 5607318414, 11572550770, 23860929422
a(n) = (3*n+4)*2^n/18 - 2*(-1)^n/9.
a(n) = Sum_{j=0..n} Sum_{k=0..n} binomial(n-k, k+j)*2^k. - Paul Barry, Aug 29 2004
a(n) = 3*a(n-1)-4*a(n-3); a(1)=1,a(2)=2,a(3)=6. - Philippe Deléham, Aug 30 2006
[A208902] 2, 6, 14, 34, 78, 182, 414, 942, 2110, 4702, 10366, 22718, 49406, 106878, 229886, 492286, 1049598, 2229758, 4720638, 9964542, 20975614, 44046334, 92282878, 192950270, 402669566, 838885374, 1744863230, 3623927806, 7516258302, 15569354750, 32212385790
a(n) = 2^n * (2 + (n - 1)/2 - (1/2)^(n - 1) - 2 (1 - (1/2)^Floor[n/2]) + (1/2)^(Floor[n/2] + 1) (1 + (-1)^n)).
a(n) = 5*a(n-1) - 6*a(n-2) - 6*a(n-3) + 16*a(n-4) - 8*a(n-5), a(1) = 2, a(2) = 6, a(3) = 14, a(4) = 34, a(5) = 78.
[A099425] 1, 2, 6, 14, 34, 82, 198, 478, 1154, 2786, 6726, 16238, 39202, 94642, 228486, 551614, 1331714, 3215042, 7761798, 18738638, 45239074, 109216786, 263672646, 636562078, 1536796802, 3710155682, 8957108166, 21624372014, 52205852194
a(n) = (1+sqrt(2))^n+(1-sqrt(2))^n-0^n.
a(n) = round((1+sqrt(2))^n). [Bruno Berselli, Feb 04 2013]
[A177790] 1, 2, 6, 14, 34, 84, 208, 518, 1296, 3254, 8196, 20700, 52404, 132942, 337878, 860142, 2192902, 5598144, 14308378, 36610970, 93770358, 240390602, 616787116, 1583765724, 4069672444, 10464501074, 26924530158, 69315481778, 178545361842, 460138256784
a(n) = Sum_{i=0..floor(n/2)} 2*C(n-i,i)^2 + C(n-i,i)*C(n-i-1,i+1) + C(n-i,i)*C(n-i+1,i-1).
a(n) = [x^n y^n] (-(1+x+x^2)*(1+y+y^2) / (-1+x*y+x*y^2+x^2*y+x^2*y^2)).
[A105635] 0, 1, 2, 6, 14, 35, 84, 204, 492, 1189, 2870, 6930, 16730, 40391, 97512, 235416, 568344, 1372105, 3312554, 7997214, 19306982, 46611179, 112529340, 271669860, 655869060, 1583407981, 3822685022, 9228778026, 22280241074, 53789260175
a(n) = term (4,1) in the 4x4 matrix [1,1,0,0; 3,0,1,0; 1,0,0,0; 1,0,0,1]^n. - Alois P. Heinz, Jul 24 2008
[A175654] 1, 2, 6, 14, 36, 86, 210, 500, 1194, 2822, 6660, 15638, 36642, 85604, 199626, 464630, 1079892, 2506550, 5811762, 13462484, 31159914, 72071654, 166599972, 384912086, 888906306, 2052031172, 4735527306, 10925175254, 25198866036, 58108609526, 133973643090
a(n) = 3*a(n-1)+a(n-2)-6*a(n-3) with a(0)=1, a(1)=2 and a(2)=6.
a(n) = ((6+10*A)*A^(-n-1)+(6+10*B)*B^(-n-1))/13-2^n with A = (-1+sqrt(13))/6 and B = (-1-sqrt(13))/6.
[A006864] 0, 1, 2, 6, 14, 37, 92, 236, 596, 1517, 3846, 9770, 24794, 62953, 159800, 405688, 1029864, 2614457, 6637066, 16849006, 42773094, 108584525, 275654292, 699780452, 1776473532, 4509783909, 11448608270, 29063617746
a(n) = 2a(n-1) + 2a(n-2) - 2a(n-3) + a(n-4).
a(n)=sum (sum (binomial(k,j) * sum (binomial(j, i-j)*2^j *binomial(k-j,n-i-3*(k-j))*(-2)^(4*(k-j)-(n-i)), i,j,n-k+j) , j,0,k) , k,1,n), n>0. - Vladimir Kruchinin, Aug 04 2010
[A100067] 1, 2, 6, 14, 38, 92, 240, 590, 1510, 3740, 9476, 23564, 59372, 147968, 371636, 927374, 2324870, 5805740, 14538660, 36322340, 90898228, 227153192, 568235696, 1420236524, 3551943388, 8878506392, 22201466280, 55498465400, 138766221800, 346895496200, 867316299260, 2168213189390
a(n) = sum{k=0..floor(n/2), binomial(n, k)*2^(n-2k)}.
a(n) = sum{k=0..n, binomial(n, (n-k)/2)*(1+(-1)^(n-k)*2^k/2}.
[A026597] 1, 2, 6, 14, 38, 94, 246, 622, 1606, 4094, 10518, 26894, 68966, 176542, 452406, 1158574, 2968198, 7602494, 19475286, 49885262, 127786406, 327327454, 838473078, 2147782894, 5501675206, 14092806782, 36099507606, 92470734734
a(n) = Sum_{k=0..n} binomial(floor((2*n-k-1)/2), n-k)*2^k. - Paul Barry, Feb 11 2005
a(n) = Sum_{k=0..n} binomial(floor((2*n-k)/2),n-k)*4^floor(k/2). - Paul Barry, Feb 02 2007
a(n) = (1/2 + 3*sqrt(17)/34)*(1/2 + sqrt(17)/2)^n + (1/2 - 3*sqrt(17)/34)*(1/2 - sqrt(17)/2)^n. - Antonio Alberto Olivares, Jun 07 2011
[A190788] 1, 1, 2, 6, 14, 38, 94, 248, 628, 1638, 4190, 10872, 27940, 72316, 186260, 481488, 1241512, 3207302, 8274646, 21369496, 55148068, 142396436, 367537484, 948920560, 2449445432, 6323741404, 16324167564, 42143003504
a(n)=sum(k=1..n, sum(i=0..(n-k)/2, binomial((2*i+k-2)/2,i)*4^i*binomial(n-2*i-1,k-1))), n>0, a(0)=1.
[A127546] 2, 6, 14, 38, 98, 258, 674, 1766, 4622, 12102, 31682, 82946, 217154, 568518, 1488398, 3896678, 10201634, 26708226, 69923042, 183060902, 479259662, 1254718086, 3284894594, 8599965698, 22515002498, 58945041798, 154320122894, 404015326886, 1057725857762
a(n) = 2*(F(n)^2+F(n+1)^2+F(n)*F(n+1)). - Emeric Deutsch, Apr 04 2007

[A271895] 1, 2, 6, 14, 40, 100, 276, 712, 1928, 5048, 13536, 35696, 95248, 252064, 670944, 1778656, 4728704, 12546368, 33335616, 88484480, 235033216, 623990656, 1657207296, 4400177920, 11685241088, 31027950080, 82395796992, 218791947776, 580999383040, 1542791775232
a(n) >= 2^n.
[A284701] 2, 6, 14, 46, 137, 354, 905, 2366, 6278, 16681, 44156, 116650, 308180, 814645, 2153984, 5695102, 15056494, 39804582, 105231559, 278204561, 735502187, 1944477640, 5140687360, 13590620330, 35930023287, 94989547620, 251127430313, 663914974741
a(n) = 2*a(n-1) + a(n-2) + 3*a(n-4) + 5*a(n-5) + a(n-6) - 2*a(n-7) - a(n-8) for n>8.
[A293402] 0, 2, 6, 15, 26, 40, 58, 79, 104, 131, 162, 196, 233, 273, 317, 364, 414, 468, 524, 584, 647, 714, 783, 856, 932, 1011, 1094, 1180, 1269, 1361, 1456, 1555, 1657, 1762, 1870, 1982, 2097, 2215, 2336, 2461, 2589
a(n) = floor(1/2 + tau*n^2).
[A256313] 0, 0, 2, 6, 15, 27, 47, 72, 108, 150, 206, 270, 351, 441, 551, 672, 816, 972, 1154, 1350, 1575, 1815, 2087, 2376, 2700, 3042, 3422, 3822, 4263, 4725, 5231, 5760, 6336, 6936, 7586, 8262, 8991, 9747, 10559, 11400, 12300, 13230, 14222, 15246, 16335, 17457
a(n) = (6*n^3+6*n^2-3*n-5+(3*n+1)*(-1)^n+2*((-1)^((2*n-1+(-1)^n)/4)+(-1)^((2*n+1-(-1)^n)/4)))/32. - Luce ETIENNE, Feb 17 2017
[A056520] 1, 2, 6, 15, 31, 56, 92, 141, 205, 286, 386, 507, 651, 820, 1016, 1241, 1497, 1786, 2110, 2471, 2871, 3312, 3796, 4325, 4901, 5526, 6202, 6931, 7715, 8556, 9456, 10417, 11441, 12530, 13686, 14911, 16207, 17576, 19020, 20541, 22141, 23822
a(n) = a(n-1)+n^2.
[A192980] 0, 1, 2, 6, 15, 34, 70, 135, 248, 440, 761, 1292, 2164, 3589, 5910, 9682, 15803, 25726, 41802, 67835, 109980, 178196, 288597, 467256, 756360, 1224169, 1981130, 3205950, 5187783, 8394490, 13583086, 21978447, 35562464, 57541904, 93105425
a(n) = 4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A221719] 0, 2, 6, 15, 34, 74, 157, 328, 678, 1391, 2838, 5766, 11677, 23588, 47554, 95719, 192426, 386450, 775485, 1555152, 3117070, 6245087, 12507886, 25044430, 50135229, 100345484, 200812362, 401821143, 803960098, 1608434426, 3217700893, 6436748056, 12875674422, 25754873423, 51515449734, 103040126934, 206095184221, 412214526260, 824468140690
a(n) = 4*a(n-1)-4*a(n-2)-a(n-3)+2*a(n-4) for n>3. - Colin Barker, Jun 07 2015
a(n) = (-1+3*2^n-(2^(-n)*((1-sqrt(5))^n*(-2+sqrt(5))+(1+sqrt(5))^n*(2+sqrt(5)))))/sqrt(5)). - Colin Barker, Nov 03 2016
[A136302] 2, 6, 15, 35, 81, 188, 437, 1016, 2362, 5491, 12765, 29675, 68986, 160373, 372822, 866706, 2014847, 4683951, 10888865, 25313540, 58846841, 136802308, 318026782, 739322571, 1718716457, 3995531011, 9288482690, 21593102505, 50197873146
a(n+3) = 3*a(n+2)-2*a(n+1)+a(n) (n>=0). - Richard Choulet, Apr 07 2009
[A116404] 1, 1, 2, 6, 15, 35, 84, 204, 493, 1189, 2870, 6930, 16731, 40391, 97512, 235416, 568345, 1372105, 3312554, 7997214, 19306983, 46611179, 112529340, 271669860, 655869061, 1583407981, 3822685022, 9228778026, 22280241075, 53789260175
a(n) = 2*a(n-1) + 2*a(n-3) + a(n-4).
a(n) = Sum_{k=0..floor(n/2)} Sum_{j=0..n-k} C(2k,n-2k-j)*C(n-2k,j)*2^(n-2k-j).
[A084860] 1, 2, 6, 15, 36, 84, 192, 432, 960, 2112, 4608, 9984, 21504, 46080, 98304, 208896, 442368, 933888, 1966080, 4128768, 8650752, 18087936, 37748736, 78643200, 163577856, 339738624, 704643072, 1459617792, 3019898880, 6241124352
a(0)=1, a(n+1)=3*2^(n-2)(n+3)-0^n/4.
[A084798] 1, 2, 6, 15, 36, 84, 195, 451, 1041, 2402, 5539, 12772, 29447, 67893, 156531, 360889, 832045, 1918313, 4422746, 10196812, 23509143, 54201233, 124963024, 288107051, 664241868, 1531435129, 3530782484, 8140354569, 18767899975, 43270113911
a(0)=1, a(n+1) = ceil(x*a(n) + x*ceil(x^n) - ceil(x^(n+1))), where x=2.30553839092543...
[A291414] 2, 6, 15, 37, 89, 212, 500, 1173, 2741, 6388, 14860, 34524, 80138, 185904, 431075, 999280, 2315960, 5366755, 12435075, 28810731, 66748062, 154635086, 358234115, 829886167, 1922494024, 4453566092, 10316878400, 23899399028, 55363614076, 128251081293
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3) - 3*a(n-4) - 3*a(n-5) - a(n-6) for n >= 7.
[A098790] 1, 2, 6, 15, 37, 90, 218, 527, 1273, 3074, 7422, 17919, 43261, 104442, 252146, 608735, 1469617, 3547970, 8565558, 20679087, 49923733, 120526554, 290976842, 702480239, 1695937321, 4094354882, 9884647086, 23863649055, 57611945197
a(n) = 2*a(n-1) + a(n-2) + 1, a(0) = 1, a(1) = 2.
a(n) = (sqrt(2)+1)^n*(3/4+sqrt(2)/4)+(sqrt(2)-1)^n*(3/4-sqrt(2)/4)*(-1)^n-1/2; - Paul Barry, Mar 11 2007
a(0)=1, a(1)=2, a(2)=6, a(n)=3*a(n-1)-a(n-2)-a(n-3). [Harvey P. Dale, Oct 15 2011]
a(n) = 7*a(n-2) - 7*a(n-4) + a(n-6), for n>5. - Hermann Stamm-Wilbrandt, Aug 26 2014
[A290762] 2, 6, 15, 38, 90, 200, 434, 934, 1995, 4237, 8976, 19010, 40300, 85591, 182231, 389094, 833306, 1790141, 3857190, 8334719, 18057605, 39217422, 85357692, 186142694, 406619110, 889555565, 1948564239, 4273011841, 9379101468, 20603197661, 45289832230, 99612356518
a(n) = 6*a(n-1) - 14*a(n-2) + 19*a(n-3) - 21*a(n-4) + 18*a(n-5) - 11*a(n-6) + 7*a(n-7) - 2*a(n-8) + a(n-9) for n > 9.
[A106515] 1, 2, 6, 15, 38, 94, 231, 564, 1372, 3329, 8064, 19512, 47177, 114010, 275430, 665247, 1606534, 3879302, 9366735, 22615356, 54601628, 131825377, 318263328, 768369744, 1855031473, 4478479058, 10812064614, 26102729679, 63017720390
a(n) = Pell(n) + Pell(n+1) - Fibonacci(n). - Ralf Stephan, Jun 02 2007
[A120846] 2, 6, 15, 38, 101, 280, 799, 2322, 6825, 20204, 60083, 179206, 535549, 1602528, 4799367, 14381690, 43112273, 129271252, 387682651, 1162785774, 3487832997, 10462450376, 31385253935, 94151567458, 282446313721, 847322163900
a(0)=2, a(1)=6, a(2)=15, a(3)=38, a(n) = 7*a(n-1)-17*a(n-2)+17*a(n-3)-6*a(n-4). [Harvey P. Dale, Oct 24 2011]
[A246563] 1, 1, 2, 6, 15, 39, 116, 340, 1001, 3041, 9322, 28718, 89363, 279987, 881376, 2788464, 8860677, 28256709, 90407666, 290124182, 933482527, 3010689527, 9731366060, 31516942060, 102259648701, 332347297141, 1081810639970, 3526399820374, 11510355762339, 37616896717155
a(n) = Sum_{k=0..[n/2]} Sum_{j=0..k} C(n-k-j,k)^2 * C(k,j)^2.
[A001654] 0, 1, 2, 6, 15, 40, 104, 273, 714, 1870, 4895, 12816, 33552, 87841, 229970, 602070, 1576239, 4126648, 10803704, 28284465, 74049690, 193864606, 507544127, 1328767776, 3478759200, 9107509825, 23843770274, 62423800998, 163427632719
a(n) = 3a(n-1) - a(n-2) - (-1)^n = -a(-1-n).
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3), a(1)=1, a(2)=2, a(3)=6. - Sture Sjöstedt, Feb 06 2010
a(n) = (Fibonacci(n+2)^2 - Fibonacci(n-1)^2)/4. - Gary Detlefs, Dec 03 2010
a(n) = Sum_{k=0..n} F(k)^2, n >= 0. See the above statement and proof given by Philippe LALLOUET.
a(n)*(-1)^n = Sum_{k=0..n} (-1)^k*F(2*k), n >= 0. - Wolfdieter Lang, Aug 11 2012
a(-1-n) = -a(n) for all n in Z. - Michael Somos, Sep 19 2014
[A178936] 1, 2, 6, 15, 42, 116, 330, 951, 2778, 8180, 24234, 72087, 215034, 642644, 1923018, 5759223, 17258010, 51734708, 155125482, 465219159, 1395342906, 4185399572, 12554940426, 37662304695, 112981880922, 338935576436, 1016786596650, 3050319524631, 9150878043258
a(n) = (8*3^n+12*2^n-(1-(-1)^n)*(5+i^(n+1)))/20, where i=sqrt(-1). - Bruno Berselli, Sep 05 2011
[A045628] 1, 1, 1, 2, 6, 15, 46, 132, 432, 1384, 4735, 16158, 56766, 200473, 718012, 2587000, 9398080, 34324173, 126067124, 465093570, 1723171550, 6407924165, 23910560070, 89494164972, 335913861648, 1264107416450, 4768452532025
a(n) = 1/(4*n) * Sum_{d|n} mu(n/d) * (2*n*binomial(2*floor(d/2), floor(d/2)) + binomial(2*d, d)) for n > 0. - Andrew Howroyd, Sep 28 2017
[A237262] 1, 2, 6, 15, 47, 118, 370, 929, 2913, 7314, 22934, 57583, 180559, 453350, 1421538, 3569217, 11191745, 28100386, 88112422, 221233871, 693707631, 1741770582, 5461548626, 13712930785, 42998681377, 107961675698, 338527902390, 849980474799, 2665224537743
a(n) = 8*a(n-2) - a(n-4).
a(n) = (11*a(n-1)-4*a(n-2))/3 if n is odd; a(n) = (11*a(n-1)-3*a(n-2))/4 if n is even. - R. J. Mathar, Jun 18 2014
[A005996] 2, 6, 16, 30, 54, 84, 128, 180, 250, 330, 432, 546, 686, 840, 1024, 1224, 1458, 1710, 2000, 2310, 2662, 3036, 3456, 3900, 4394, 4914, 5488, 6090, 6750, 7440, 8192, 8976, 9826, 10710, 11664, 12654, 13718
a(1)=2, a(2)=6, a(3)=16, a(4)=30, a(5)=54, a(6)=84, a(n)=2*a(n-1)+a(n-2)- 4*a(n-3)+ a(n-4)+2*a(n-5)-a(n-6). - Harvey P. Dale, Apr 08 2013
[A171218] 0, 2, 6, 16, 32, 58, 94, 144, 208, 290, 390, 512, 656, 826, 1022, 1248, 1504, 1794, 2118, 2480, 2880, 3322, 3806, 4336, 4912, 5538, 6214, 6944, 7728, 8570, 9470, 10432, 11456, 12546, 13702, 14928, 16224, 17594, 19038, 20560, 22160, 23842, 25606
a(n) = -a(-n-1) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5). (End)
[A032091] 2, 6, 16, 32, 60, 100, 160, 240, 350, 490, 672, 896, 1176, 1512, 1920, 2400, 2970, 3630, 4400, 5280, 6292, 7436, 8736, 10192, 11830, 13650, 15680, 17920, 20400, 23120, 26112, 29376, 32946, 36822, 41040, 45600, 50540, 55860, 61600, 67760, 74382, 81466, 89056
a(n) = [(n-5)(n-3)(n-1)^2 + (6n-15) X[2Z](n)]/48, where X[2Z] is the characteristic function of 2Z.

a(n) = (n^4-10*n^3+32*n^2-32*n)/48 if n is even.
a(n) = (n^4-10*n^3+32*n^2-38*n+15)/48 if n is odd.
a(n) = (2*n^4 - 20*n^3 + 64*n^2 + 6*(-1)^n*n - 70*n - 15*(-1)^n + 15)/96. - Ilya Gutkovskiy, Jul 08 2016
[A060354] 0, 1, 2, 6, 16, 35, 66, 112, 176, 261, 370, 506, 672, 871, 1106, 1380, 1696, 2057, 2466, 2926, 3440, 4011, 4642, 5336, 6096, 6925, 7826, 8802, 9856, 10991, 12210, 13516, 14912, 16401, 17986, 19670, 21456, 23347, 25346, 27456, 29680, 32021
a(n) = (n*(n-2)^2+n^2)/2.
a(n) = sum((binomial(0,0*j)+binomial(n,2)),j=0..n). - Zerinvary Lajos, Sep 04 2006
[A159938] 2, 6, 16, 36, 70, 122, 196, 296, 426, 590, 792, 1036, 1326, 1666, 2060, 2512, 3026, 3606, 4256, 4980, 5782, 6666, 7636, 8696, 9850, 11102, 12456, 13916, 15486, 17170, 18972, 20896, 22946, 25126, 27440, 29892, 32486
a(n) = (1/3)*(2*n^3 - 9*n^2 + 19*n - 12), where n is the number of carbons.
[A145126] 1, 2, 6, 16, 36, 71, 127, 211, 331, 496, 716, 1002, 1366, 1821, 2381, 3061, 3877, 4846, 5986, 7316, 8856, 10627, 12651, 14951, 17551, 20476, 23752, 27406, 31466, 35961, 40921, 46377, 52361, 58906, 66046, 73816, 82252, 91391, 101271, 111931, 123411, 135752
a(n) = C(n+3,4)+1. - Zerinvary Lajos, Mar 24 2009
[A005676] 1, 1, 1, 1, 1, 2, 6, 16, 36, 71, 128, 220, 376, 661, 1211, 2290, 4382, 8347, 15706, 29191, 53824, 99009, 182497, 337745, 627401, 1167937, 2174834, 4046070, 7517368, 13951852, 25880583, 48009456, 89090436, 165392856, 307137901
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k, 4k);
a(n) = 4a(n-1)-6a(n-2)+4a(n-3)-a(n-4)+a(n-5). (End)
[A038503] 1, 1, 1, 1, 2, 6, 16, 36, 72, 136, 256, 496, 992, 2016, 4096, 8256, 16512, 32896, 65536, 130816, 261632, 523776, 1048576, 2098176, 4196352, 8390656, 16777216, 33550336, 67100672, 134209536, 268435456, 536887296, 1073774592
a(n) = Sum_{k=0..floor(n/4)} binomial(n, 4k); a(n) = 2^(n-1) + 2^((n-2)/2)(cos(Pi*n/4) - sin(Pi*n/4)). (End)
a(n) = Sum_{k=0..n} binomial(n, 4(n-k)). - Paul Barry, Aug 30 2004
a(n) = Sum_{k=0..floor(n/2)} binomial(n, 2k)(1+(-1)^k)/2. - Paul Barry, Nov 29 2004
a(n; t, s) = a(n-1; t, s) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A079990] 1, 1, 1, 2, 6, 16, 36, 73, 157, 353, 797, 1776, 3916, 8636, 19145, 42504, 94286, 208948, 462907, 1025863, 2274069, 5040891, 11173063, 24763854, 54886846, 121655063, 269646786, 597664017, 1324697483, 2936135519, 6507831521, 14424377636
a(n) = a(n-1) +a(n-2) +2*a(n-3) +a(n-4) +4*a(n-5) +7*a(n-6) -4*a(n-7) -a(n-8) +a(n-9) +7*a(n-10) +3*a(n-11) -7*a(n-12) +2*a(n-13) +3*a(n-14) -3*a(n-16) -2*a(n-17) +a(n-18) -a(n-19) -a(n-20).
[A127902] 1, 1, 1, 1, 2, 6, 16, 36, 75, 163, 391, 991, 2498, 6150, 15016, 37116, 93481, 238137, 607921, 1550401, 3959335, 10155615, 26182267, 67753907, 175713561, 456422121, 1187771521, 3097869841, 8097629671, 21207212047, 55628797891, 146129168651, 384401493333, 1012608918421
a(n) = sum{k=0..floor(n/4), C(n,4k)*C(4k,k)/(3k+1)}.
[A270810] 0, 1, 2, 6, 16, 36, 76, 156, 316, 636, 1276, 2556, 5116, 10236, 20476, 40956, 81916, 163836, 327676, 655356, 1310716, 2621436, 5242876, 10485756, 20971516, 41943036, 83886076, 167772156, 335544316, 671088636, 1342177276, 2684354556, 5368709116, 10737418236, 21474836476
a(n) = 5*2^(n-2)-4 for n>2. - Bruno Berselli, Apr 08 2016
a(n) = 3*a(n-1)-2*a(n-2) for n>4. - Colin Barker, Apr 12 2016
[A257198] 0, 0, 2, 6, 16, 36, 78, 162, 332, 672, 1354, 2718, 5448, 10908, 21830, 43674, 87364, 174744, 349506, 699030, 1398080, 2796180, 5592382, 11184786, 22369596, 44739216, 89478458, 178956942, 357913912, 715827852, 1431655734, 2863311498, 5726623028
a(n) = 2*floor((2*2^n-3*n-1)/6).
a(n) = (-3-(-1)^n+2^(2+n)-6*n)/6.
a(n) = 3*a(n-1)-a(n-2)-3*a(n-3)+2*a(n-4).
[A265106] 0, 1, 2, 6, 16, 36, 80, 178, 394, 870, 1920, 4236, 9344, 20610, 45458, 100262, 221136, 487732, 1075728, 2372594, 5232922, 11541574, 25455744, 56144412, 123830400, 273116546, 602377506, 1328585414, 2930287376, 6462952260, 14254489936, 31439267250, 69341486762
a(n) = 3*a(n-1)-2*a(n-2)+a(n-3)-a(n-4) for n>5. - Colin Barker, Apr 12 2016
[A099099] 1, 1, 1, 2, 6, 16, 37, 80, 172, 377, 839, 1874, 4175, 9274, 20577, 45665, 101393, 225193, 500162, 1110790, 2466760, 5477917, 12164896, 27015092, 59993817, 133231279, 295872778, 657057431, 1459155634, 3240410561, 7196122817
a(n) = sum_{k=0..2n} binomial(k, 4n-3k).
a(n) = 4a(n-1) - 6a(n-2) + 5a(n-3) - a(n-4).
a(n) = sum_{k=0..floor((n+1)/2)} binomial(n+k, 4k). - Paul Barry, May 09 2005
[A074082] 0, 0, 0, 0, 2, 6, 16, 37, 81, 169, 342, 675, 1307, 2491, 4686, 8718, 16066, 29364, 53282, 96065, 172215, 307151, 545286, 963993, 1697701, 2979383, 5211852, 9090060, 15810530, 27429426, 47473828, 81983773, 141286221, 243011173
a(n)=3a(n-1)-5a(n-3)+3a(n-5)+a(n-6) for n>=8.
[A212383] 1, 1, 1, 1, 2, 6, 16, 37, 83, 199, 512, 1343, 3488, 9011, 23488, 62094, 165738, 444160, 1193146, 3216436, 8709766, 23683846, 64611879, 176730460, 484593740, 1332018207, 3669981318, 10133197561, 28032766982, 77688769031, 215665451243, 599644845226
a(n) = Sum_{k=0..n} binomial(2*k-n-1,n-k)*binomial(n+1,3*k-2*n)/(n+1). - Vladimir Kruchinin, Mar 05 2016
[A097813] 1, 2, 6, 16, 38, 84, 178, 368, 750, 1516, 3050, 6120, 12262, 24548, 49122, 98272, 196574, 393180, 786394, 1572824, 3145686, 6291412, 12582866, 25165776, 50331598, 100663244, 201326538, 402653128, 805306310, 1610612676, 3221225410, 6442450880, 12884901822, 25769803708
a(n) = 2a(n-1) + 2n-2, n>0, a(0)=1.
a(n) = 4a(n-1) - 5a(n-2) + 2a(n-3).
[A167821] 0, 0, 2, 6, 16, 38, 86, 188, 402, 846, 1760, 3630, 7438, 15164, 30794, 62342, 125904, 253782, 510758, 1026684, 2061730, 4136990, 8295872, 16627166, 33311646, 66716028, 133582106, 267406998, 535206832, 1071049286, 2143127030, 4287918140, 8578528818
a(n) = 2^n - 2*Fibonacci(n+1).
a(n) = 3*a(n-1) - a(n-2) - 2*a(n-3). - G. C. Greubel, Jun 27 2016
[A265107] 0, 1, 2, 6, 16, 38, 92, 222, 536, 1294, 3124, 7542, 18208, 43958, 106124, 256206, 618536, 1493278, 3605092, 8703462, 21012016, 50727494, 122467004, 295661502, 713790008, 1723241518, 4160273044, 10043787606, 24247848256, 58539484118, 141326816492, 341193117102
a(n) = ((1+sqrt(2))^n*(-5+4*sqrt(2)) + (1-sqrt(2))^n*(5+4*sqrt(2)))/sqrt(2) for n>2.
a(n) = 2*a(n-1)+a(n-2) for n>4.
[A046209] 1, 1, 2, 6, 16, 38, 104, 270, 726, 1960, 5368, 14736, 40880, 113828, 318848, 896670, 2532160, 7174050, 20390552, 58112088, 166037248, 475467916, 1364393896, 3922624800, 11297181456, 32588003000, 94143178098, 272342710380, 788854912240, 2287679084096, 6641649422408, 19302293185470
a(n) = 1/(3*n) * sum(d divides n, gcd(d, 3)*mu(d)*3^(n/d)).
[A273348] 2, 6, 16, 39, 92, 211, 476, 1059, 2332, 5091, 11036, 23779, 50972, 108771, 231196, 489699, 1034012, 2177251, 4572956, 9582819, 20039452, 41826531, 87148316, 181287139, 376555292, 781072611, 1618069276, 3347986659, 6919669532, 14286731491, 29468247836, 60726065379, 125031270172, 257220819171, 528758195996
a(n) = (15*n2^n+29*2^n-2(-1)^n-18)/36.
[A198951] 1, 1, 1, 2, 6, 16, 39, 99, 271, 763, 2146, 6062, 17359, 50337, 147057, 431874, 1275273, 3786649, 11298031, 33846202, 101762937, 306997821, 929038518, 2819426688, 8578433304, 26163061776, 79970186791, 244938841096, 751646959402, 2310683396056, 7115199919151
a(n) = 1/(n + 1)*Sum_{k = 0..floor(n/3)} binomial(n + 1,k)* binomial(n + 1,n - 3*k). Applying Maple's sumrecursion command to this formula gives the above recurrence of Kotesovec.
[A129952] 1, 1, 2, 6, 16, 40, 96, 224, 512, 1152, 2560, 5632, 12288, 26624, 57344, 122880, 262144, 557056, 1179648, 2490368, 5242880, 11010048, 23068672, 48234496, 100663296, 209715200, 436207616, 905969664, 1879048192, 3892314112
a(0) = 1, a(1) = 1; for n > 1, a(n) = n*2^(n-2).
[A057711] 0, 1, 2, 6, 16, 40, 96, 224, 512, 1152, 2560, 5632, 12288, 26624, 57344, 122880, 262144, 557056, 1179648, 2490368, 5242880, 11010048, 23068672, 48234496, 100663296, 209715200, 436207616, 905969664, 1879048192, 3892314112, 8053063680
a(n) = ceiling(n*2^(n-2)).
a(0)=0, a(n) = n*(0^(n-1)+2^(n-1))/2, n>0. a(n) = Sum_{k=0..n} C(n, 2k+1)*(2k+1). E.g.f.: x*exp(x)*cosh(x). - Paul Barry, Apr 06 2003
a(n) = n*2^(n-2)-Sum_{k=0..n} binomial(n, k)*k*(-1)^k. G.f.: x*(1-2*x+2*x^2)/(1-2*x)^2. - Paul Barry, May 07 2004

a(n+1) = ceiling(binomial(n+1,1)*2^(n-1)). - Zerinvary Lajos, Nov 01 2006
a(0)=0, a(1)=1, a(2)=2, a(3)=6, a(n+1) = 4*a(n)-4*a(n-1) for n>=3. - Philippe Deléham, Feb 20 2013
[A293004] 0, 0, 2, 6, 16, 40, 98, 238, 576, 1392, 3362, 8118, 19600, 47320, 114242, 275806, 665856, 1607520, 3880898, 9369318, 22619536, 54608392, 131836322, 318281038, 768398400, 1855077840, 4478554082, 10812186006, 26102926096, 63018038200, 152139002498
a(n) = 3*a(n-1) - a(n-2) - a(n-3) for n > 2.
a(n) = (-2 + (1-sqrt(2))^n + (1+sqrt(2))^n) / 2. (End)
[A265278] 0, 1, 2, 6, 16, 40, 98, 238, 576, 1392, 3362, 8118, 19600, 47320, 114242, 275806, 665856, 1607520, 3880898, 9369318, 22619536, 54608392, 131836322, 318281038, 768398400, 1855077840, 4478554082, 10812186006, 26102926096, 63018038200, 152139002498, 367296043198
a(n) = (-2 + (1-sqrt(2))^n + (1+sqrt(2))^n)/2 for n>1.
a(n) = 3*a(n-1)-a(n-2)-a(n-3) for n>4.
[A111281] 1, 2, 6, 16, 40, 100, 252, 636, 1604, 4044, 10196, 25708, 64820, 163436, 412084, 1039020, 2619764, 6605420, 16654772, 41993004, 105880308, 266964460, 673118772, 1697188012, 4279255412, 10789627756, 27204748468, 68593500716
a(n) = 3*a(n-1)-2*a(n-2)+2*a(n-3).
[A215340] 1, 1, 1, 2, 6, 16, 40, 107, 307, 893, 2597, 7646, 22878, 69162, 210402, 644098, 1984598, 6149428, 19143220, 59840692, 187781992, 591343894, 1868106990, 5918537492, 18800935948, 59869902152, 191081899648, 611138052146, 1958410654202, 6287175115130, 20218209139666, 65120537016867
a(n) = 1/(n + 1)*Sum_{k = 0..floor(n/3)} binomial(n + 1, n - 3*k)*binomial(n + k, n). - Peter Bala, Aug 02 2016
[A102699] 1, 1, 2, 6, 16, 42, 104, 252, 592, 1370, 3112, 6996, 15536, 34244, 74832, 162616, 351136, 754938, 1615208, 3443940, 7314928, 15493676, 32714992, 68918856, 144815456, 303703972, 635554064, 1327816392, 2769049312, 5766417480, 11989472672, 24897569648
a(n) = (n+1)2^(n-1) - 4(n-1)binomial(n-2,(n-2)/2) for n even, a(n) = (n+1)2^(n-1) - (2n-1)binomial(n-1,(n-1)/2) for n odd. - Joseph Myers, Dec 23 2008
[A156664] 1, 2, 6, 16, 42, 108, 274, 688, 1714, 4244, 10458, 25672, 62826, 153372, 373666, 908896, 2207842, 5357348, 12988074, 31464568, 76179354, 184347564, 445923058, 1078290832, 2606699026, 6300077492, 15223631226, 36780894376, 88852528842, 214620169788
a(n) = -2^n + (1-1/sqrt(2))*(1-sqrt(2))^n + (1+1/sqrt(2))*(1+sqrt(2))^n. - Alexander R. Povolotsky, Aug 16 2012
a(n+3) = -2*a(n) - 3*a(n+1) + 4*a(n+2). - Alexander R. Povolotsky, Aug 16 2012
[A025169] 2, 6, 16, 42, 110, 288, 754, 1974, 5168, 13530, 35422, 92736, 242786, 635622, 1664080, 4356618, 11405774, 29860704, 78176338, 204668310, 535828592, 1402817466, 3672623806, 9615053952, 25172538050, 65902560198, 172535142544
a(n) = 3*a(n-1) - a(n-2).
a(n) = Fibonacci(2*n+1) + Lucas(2*n+1). - Bruno Berselli, Oct 13 2017
[A111282] 1, 2, 6, 16, 42, 110, 288, 754, 1974, 5168, 13530, 35422, 92736, 242786, 635622, 1664080, 4356618, 11405774, 29860704, 78176338, 204668310, 535828592, 1402817466, 3672623806, 9615053952, 25172538050, 65902560198, 172535142544
a(n) = 3a(n-1) - a(n-2), n > 3.
a(n) = F(2n+1) + F(2n-2) + 0^n. (End)
[A291142] 0, 1, 2, 6, 16, 43, 114, 300, 784, 2037, 5266, 13554, 34752, 88799, 226210, 574680, 1456352, 3682409, 9292002, 23403102, 58842416, 147713043, 370262930, 926852868, 2317191024, 5786293597, 14433117938, 35964267594, 89528469088, 222666575815, 553319176770
a(n) = 4*a(n-1) - 2 a(n-2) - 4*a(n-3) - a(n-4) for n >= 5.
a(n) = ((1+sqrt(2))^n*(3*sqrt(2) + 2*(-1+sqrt(2))*n) - (1-sqrt(2))^n*(3*sqrt(2) + 2*(1+sqrt(2))*n)) / 16. - Colin Barker, Aug 24 2017
[A027994] 1, 2, 6, 16, 43, 114, 301, 792, 2080, 5456, 14301, 37468, 98137, 256998, 672946, 1761984, 4613239, 12078110, 31621701, 82787980, 216743836, 567446112, 1485598681, 3889356696, 10182482353, 26658108074, 69791870526, 182717549872
a(n) = (2/5)*Sum(k, 1, 4, Sin(2Pi*k/5)Sin(3Pi*k/5)(1+2Cos(Pi*k/5))^(n+1)). - Herbert Kociemba, Jun 02 2004
[A002605] 0, 1, 2, 6, 16, 44, 120, 328, 896, 2448, 6688, 18272, 49920, 136384, 372608, 1017984, 2781184, 7598336, 20759040, 56714752, 154947584, 423324672, 1156544512, 3159738368, 8632565760, 23584608256, 64434348032, 176037912576, 480944521216, 1313964867584
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k, k)*2^(n-k). - Paul Barry, Jul 13 2004
a(n) = ((1 + sqrt(3))^n - (1 - sqrt(3))^n)/(2*sqrt(3)); a(n)=Sum{k=0..n, binomial(n, 2k+1)3^k}.
a(n) = (1/3)*Sum_{k=1..5} sin(Pi*k/2)*sin(2*Pi*k/3)*(1+2*cos(Pi*k/6))^n, n>=1. - Herbert Kociemba, Jun 02 2004
a(n+1) = ((3+sqrt(3))*(1+sqrt(3))^n +(3-sqrt(3))*(1-sqrt(3))^n)/6. - Al Hakanson (hawkuu(AT)gmail.com), Jun 29 2009
a(n) = 2^(n-1)*hypergeom([1-n/2, (1-n)/2], [1-n], -2)) for n>=3. - Peter Luschny, Dec 16 2015
[A105696] 1, 1, 2, 6, 16, 44, 122, 342, 966, 2746, 7846, 22514, 64836, 187288, 542438, 1574666, 4580400, 13347324, 38956182, 113861922, 333226560, 976353876, 2863756158, 8407877394, 24707200854, 72663608178, 213864889770, 629893319902
a(n) = Sum_{k=0..floor(n/2)} (2*C(n-2, k)*C(n-k, k)) - C(1, n).
[A026163] 1, 2, 6, 16, 45, 126, 356, 1008, 2862, 8140, 23188, 66144, 188916, 540216, 1546560, 4432512, 12717513, 36526626, 105016686, 302228080, 870613689, 2510249302, 7244285436, 20924179920, 60487084775, 174994990326, 506669921982
a(n) = -4*(-3)^(1/2)*(-1)^n*((n^3+11*n^2+48*n+45)*hypergeom([1/2, n+2],[1],4/3)+(3*n^2+11*n+15)*hypergeom([1/2, n+3],[1],4/3))/((n+3)*(n+5)*(n+6)*(7+n))
[A005717] 1, 2, 6, 16, 45, 126, 357, 1016, 2907, 8350, 24068, 69576, 201643, 585690, 1704510, 4969152, 14508939, 42422022, 124191258, 363985680, 1067892399, 3136046298, 9217554129, 27114249960, 79818194925, 235128465026, 693085098852, 2044217638456, 6032675068061
a(n) = Sum_{k=0..floor((n-1)/3)} (-1)^k * binomial(n,k) * binomial(2n-2-3k, n-1). - David Callan, Jul 03 2006
a(n) = Sum_{k=0..floor((n-1)/2)} (2k+1)*C(n,2k+1)*C(k).
a(n) = Sum_{k=0..n-1} (Sum_{j=0..floor(k/2)} C(k,2j)*C(2j+1,j)). (End)
a(n) = Sum_{i=0..floor(n/2)} C(n+1,n-i) * C(n-i,i). - Shanzhen Gao, Apr 20 2010
a(n) = GegenbauerC(n,-n-1,-1/2). - Peter Luschny, May 07 2016
a(n) = (-1)^(n+1) * n * hypergeom([3/2, 1-n], [3], 4). - Vladimir Reshetnikov, Sep 28 2016
[A290953] 1, 2, 6, 16, 45, 136, 434, 1436, 4869, 16804, 58795, 208022, 742911, 2674452, 9694858, 35357684, 129644805, 477638716, 1767263207, 6564120438, 24466267039, 91482563660, 343059613671, 1289904147346, 4861946401475, 18367353072176, 69533550916029, 263747951750386, 1002242216651395, 3814986502092332
a(1) = 1 and a(n) = C(n) + n - 2 for n > 1, where C(n) is the n-th Catalan number.
[A098617] 1, 2, 6, 16, 46, 128, 364, 1024, 2902, 8192, 23188, 65536, 185420, 524288, 1483096, 4194304, 11863910, 33554432, 94908420, 268435456, 759257636, 2147483648, 6074027496, 17179869184, 48592102396, 137438953472, 388736403144
a(2*n+1) = 2*8^n.
a(n) = 2^n*sum(j=0..n/2, binomial((n-1)/2,j)). - Vladimir Kruchinin, May 18 2011
[A291036] 2, 6, 16, 46, 132, 376, 1074, 3066, 8752, 24986, 71328, 203624, 581298, 1659462, 4737360, 13524006, 38607732, 110215648, 314638754, 898216794, 2564189568, 7320134930, 20897197344, 59656394448, 170304435554, 486177568038, 1387918211824, 3962167507006
a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) - 2*a(n-4) - a(n-6) for n >= 7.
[A094039] 0, 1, 2, 6, 16, 46, 132, 386, 1136, 3366, 10012, 29866, 89256, 267086, 799892, 2396946, 7185376, 21545206, 64613772, 193797626, 581305496, 1743741726, 5230875652, 15691927906, 47074385616, 141220360646, 423655489532
a(n) = 3^n/6 - (-1)^n/6 + 2^n/6 - 0^n/6.
[A165431] 1, 2, 6, 16, 46, 132, 388, 1152, 3462, 10492, 32036, 98400, 303756, 941576, 2928936, 9138176, 28584006, 89609196, 281466916, 885620576, 2790812196, 8806560056, 27823745016, 88005102336, 278637450396, 883024243032, 2800748951208
a(n)=sum{k=0..n, C(n-k,k)*2^(n-2k)*C(2k,k)}.
a(n) = 2^n*hypergeom([1/2, 1/2-n/2, -n/2],[1, -n],-4) for n>=1. - Peter Luschny, Jul 28 2016
[A190729] 1, 1, 1, 2, 6, 16, 46, 176, 722, 2906, 13106, 66716, 345676, 1849992, 10802156, 66543296, 418075036, 2750329276, 19145683612, 137410493656, 1012831509736, 7785886770656, 62105849642376, 507682088621632, 4271236045340056, 37171085370443576
a(n)=n!*sum(k=0..n, sum(j=floor((n-k)/3)..floor((n-k)/2), binomial(j,n-k-2*j)*binomial(k,j)*2^(-2*n+2*k+3*j)*3^(-j))/k!).
[A151281] 1, 2, 6, 16, 48, 136, 408, 1184, 3552, 10432, 31296, 92544, 277632, 824448, 2473344, 7365120, 22095360, 65920000, 197760000, 590790656, 1772371968, 5299916800, 15899750400, 47578857472, 142736572416, 427357700096, 1282073100288, 3840133464064, 11520400392192, 34517383151616, 103552149454848
a(n) = sum{k=0..n, ((k+1)/(n+k+1))*C(n,(n-k)/2)*(1+(-1)^(n-k))*2^((n-k)/ 2)*2^k};
[A045694] 1, 2, 6, 16, 48, 138, 414, 1226, 3678, 10986, 32958, 98736, 296208, 888210, 2664630, 7992664, 23977992, 71930298, 215790894, 647361696, 1942085088, 5826222306, 17478666918, 52435902018, 157307706054, 471922821954, 1415768465862

a(2n) = 3*a(2n-1) - a(n) for n >= 1; a(2n+1) = 3*a(2n) for n >= 1.
[A214833] 1, 1, 2, 6, 16, 52, 160, 536, 1796, 6216, 21752, 77504, 278720, 1013184, 3712128, 13701204, 50880808, 190003808, 712975648, 2687114976, 10167088608, 38605365712, 147060726688, 561853414896, 2152382687488, 8265949250848, 31817041756880, 122728993889056
a(n) = Sum_{i=1..n-1} a(i)*a(n-i) + Sum_{d|n, 1<d<n} a(d)*a(n/d) for n>1, a(1)=1. [Corrected by M. F. Hasler, May 04 2017]
[A068787] 0, 2, 6, 16, 56, 192, 896, 4096, 17280, 69632, 270336, 1048576, 4130816, 16515072, 66584576, 268435456, 1077903360, 4311744512, 17213423616, 68719476736, 274609995776, 1098437885952, 4395899027456, 17592186044416, 70385915658240, 281543696187392
a(n; t, s) = a(n-1; t, s) + a(n-1; t+3, s+3t+1) + a(n-1; t+2, s+2t) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A204450] 0, 2, 6, 17, 30, 177, 417, 1857, 4302, 19457, 47731, 203777, 509769, 2134017, 5462701, 22347777, 58104062, 234029057, 616919457, 2450784257, 6533317815, 25664946177, 69085604341, 268766806017, 729558799305, 2814562533377
a(n) = sum(binomial(n,k)*L(k)*L(n-k),k=floor(n/2)+1..n), n>=0,
[A014833] 1, 1, 1, 2, 6, 17, 43, 100, 220, 467, 969, 1982, 4018, 8101, 16279, 32648, 65400, 130919, 261973, 524098, 1048366, 2096921, 4194051, 8388332, 16776916, 33554107, 67108513, 134217350, 268435050, 536870477
a(0)=1, a(1)=1, a(2)=1, a(3)=2, a(n)=5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4)
[A130104] 0, 1, 2, 6, 17, 43, 100, 220, 467, 969, 1982, 4018, 8101, 16279, 32648, 65400, 130919, 261973, 524098, 1048366, 2096921, 4194051, 8388332, 16776916, 33554107, 67108513, 134217350, 268435050, 536870477, 1073741359
a(n)=2^(n+1)-C(n+2,2)-0^n.
[A020963] 2, 6, 17, 45, 112, 276, 671, 1627, 3934, 9506, 22957, 55433, 133836, 323120, 780091, 1883319, 4546746, 10976830, 26500425, 63977701, 154455848, 372889420, 900234711, 2173358867, 5246952470, 12667263834
a(n) = 3*a(n-1) - 4*a(n-3) + a(n-4) + a(n-5) for n > 5 (conjectured).
[A109961] 1, 1, 2, 6, 17, 45, 117, 305, 798, 2090, 5473, 14329, 37513, 98209, 257114, 673134, 1762289, 4613733, 12078909, 31622993, 82790070, 216747218, 567451585, 1485607537, 3889371025, 10182505537, 26658145586, 69791931222, 182717648081
a(n)=sum{k=0..floor(n/2), binomial(n+2k, 4k)}.
a(0)=1, a(1)=1, a(2)=2, a(3)=6, a(n)=4*a(n-1)-5*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Dec 11 2013
[A288029] 1, 2, 6, 17, 45, 120, 324, 873, 2349, 6322, 17018, 45809, 123305, 331904, 893400, 2404801, 6473097, 17423890, 46900574, 126244129, 339816309, 914696984, 2462126012, 6627401865, 17839239445, 48018585634, 129253524146, 347916817697, 936501444241, 2520817938240
a(n) = 2*a(n-1)+a(n-2)+2*a(n-3)+a(n-4)-a(n-6) for n>6.
[A190050] 1, 2, 6, 17, 46, 120, 304, 752, 1824, 4352, 10240, 23808, 54784, 124928, 282624, 634880, 1417216, 3145728, 6946816, 15269888, 33423360, 72876032, 158334976, 342884352, 740294656, 1593835520, 3422552064
a(n) = (n^2+5*n+10)*2^(n-4) for n >=1 with a(0)=1.
[A005592] 1, 2, 6, 17, 46, 122, 321, 842, 2206, 5777, 15126, 39602, 103681, 271442, 710646, 1860497, 4870846, 12752042, 33385281, 87403802, 228826126, 599074577, 1568397606, 4106118242, 10749957121, 28143753122, 73681302246, 192900153617, 505019158606, 1322157322202
a(n) = floor(r^(2*n)), where r = golden ratio = (1+sqrt(5))/2.
a(n) = floor(Fibonacci(5*n)/Fibonacci(3*n)). - Gary Detlefs, Mar 11 2011
a(n) = +4*a(n-1) -4*a(n-2) +1*a(n-3). - Joerg Arndt, Mar 11 2011
a(n) = 2*cosh(2*n*arcsinh(1/2)) - 1. - Ilya Gutkovskiy, Oct 31 2016
[A102403] 1, 1, 1, 2, 6, 17, 46, 128, 372, 1109, 3349, 10221, 31527, 98178, 308179, 973911, 3096044, 9894393, 31770247, 102444145, 331594081, 1077022622, 3509197080, 11466710630, 37567784437, 123380796192, 406120349756, 1339571374103
a(n) = 1/n*Sum_{j=ceiling((n+2)/3)..n} binomial(n,j)*binomial(3*j-n-2,j-1)*(-1)^(n-j), n>0. - Vladimir Kruchinin, Mar 07 2011
a(n) is the upper left term in M^n, M = an infinite square production matrix as follows:
[A136776] 1, 2, 6, 17, 48, 135, 379, 1063, 2980, 8352, 23405, 65584, 183769, 514919, 1442785, 4042614, 11327182, 31738101, 88928244, 249171491, 698163131, 1956209807, 5481178344, 15357920824, 43031938457, 120572813012, 337837515853, 946599685919, 2652313383105
a(1)=1, a(2)=2, a(3)=6, a(n) = 4*a(n-1)-3*a(n-2)-a(n-3). - Harvey P. Dale, Sep 17 2013
[A077936] 1, 2, 6, 17, 48, 136, 385, 1090, 3086, 8737, 24736, 70032, 198273, 561346, 1589270, 4499505, 12738896, 36066072, 102109441, 289089922, 818464798, 2317218881, 6560457280, 18573817120, 52585767681, 148879626882, 421504606246, 1193354233937, 3378597307248
a(n) = Sum_{k=0..n} Sum_{j=0..n-k} C(n-j,k)*C(2k,j). - Paul Barry, Mar 24 2009
a(n) = 2*a(n-1) + 2*a(n-2) + a(n-3) with a(0) = 1, a(1) = 2, a(2) = 6. - Taras Goy, Aug 04 2017
[A052536] 1, 2, 6, 17, 49, 141, 406, 1169, 3366, 9692, 27907, 80355, 231373, 666212, 1918281, 5523470, 15904198, 45794313, 131859469, 379674209, 1093228314, 3147825473, 9063802210, 26098178316, 75146709475, 216376326215, 623030800329
a(n) = Sum(-(1/9)*(-2 + r^2 - r)*r^(-1-n)), r = RootOf(1 - 3*x + x^3).
a(0)=1, a(1)=2, a(2)=6, a(n) = 3*a(n-1) - a(n-3) for n >= 3. - Emeric Deutsch, Apr 10 2005
[A026165] 1, 2, 6, 17, 49, 141, 407, 1177, 3411, 9904, 28808, 83931, 244895, 715534, 2093262, 6130767, 17974779, 52751358, 154950378, 455524203, 1340182539, 3945723033, 11624603235, 34268836707, 101081770181, 298320243976, 880875609552
a(n) = Sum_{k=0..n} binomial(n, k)*binomial(k+1, floor(k/2)). - Vladeta Jovovic, Sep 18 2003
[A270863] 0, 1, 2, 6, 17, 50, 147, 434, 1282, 3789, 11200, 33109, 97878, 289354, 855413, 2528850, 7476023, 22101326, 65338038, 193158521, 571033600, 1688143881, 4990651642, 14753839486, 43616704857, 128943855250, 381196100507, 1126928202714, 3331532438042, 9848993360069
a(n) = 3*a(n-1)+a(n-2)-3*a(n-3)-a(n-4) for n > 3, a(0)=0, a(1)=1, a(2)=2, a(3)=6.
[A027914] 1, 2, 6, 17, 50, 147, 435, 1290, 3834, 11411, 34001, 101400, 302615, 903632, 2699598, 8068257, 24121674, 72137547, 215786649, 645629160, 1932081885, 5782851966, 17311097568, 51828203475, 155188936431, 464732722872
a(n) = (1/2) *(Sum(k=0, n, binomial(n, k)*binomial(n-k, k))+3^n);
a(n) = Sum(k=0, n, Sum(i=0, k, binomial(n, i)*binomial(n-i, k)));
a(n) = 3^n/2*(1+c/sqrt(n)+O(n^-1/2)) where c=0.5... (End)
a(n) = n!*Sum(i+j+k=n, 1/(i!*j!*k!)) 0<=i<=n, 0<=k<=j<=n. - Benoit Cloitre, Mar 23 2004
a(n) = [x^n](3*x - 1/(1 - x))^n.
a(n) = (3^n + GegenbauerC(n,-n,-1/2))/2. - Peter Luschny, May 12 2016
[A098703] 0, 1, 2, 6, 17, 50, 148, 441, 1318, 3946, 11825, 35454, 106328, 318929, 956698, 2869950, 8609617, 25828474, 77484812, 232453449, 697358750, 2092073666, 6276216817, 18828643686, 56485920112, 169457742625, 508373199218, 1525119551286
a(n) = (((1 + sqrt(5))^n - (1 - sqrt(5))^n) / (2^n*sqrt(5))) + ((3^n - (((1 + sqrt(5)) / 2)^(n+1) + ((1 - sqrt(5)) / 2)^(n+1))) / 5); a(n) = (3^n + (((1 + sqrt(5)) / 2)^(n-1) + ((1 - sqrt(5)) / 2)^(n-1))) / 5.
a(n) = 4a(n-1) - 2a(n-2) - 3a(n-3).
a(0) = 0, a(1) = 1, a(n) = a(n-1) + a(n-2) + 3^(n-2) for n > 1. - Ross La Haye, Aug 20 2005
[A153773] 1, 2, 6, 17, 51, 152, 456, 1367, 4101, 12302, 36906, 110717, 332151, 996452, 2989356, 8968067, 26904201, 80712602, 242137806, 726413417, 2179240251, 6537720752, 19613162256, 58839486767, 176518460301, 529555380902, 1588666142706, 4765998428117, 14297995284351
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3).
a(n) = (5*3^n + 6 - 3*(-1)^n)/24. (End)
[A059398] 1, 2, 6, 17, 51, 154, 473, 1464, 4568, 14332, 45187, 143024, 454217, 1446604, 4618576, 14777451, 47371177, 152110326, 489165277, 1575211177, 5078690936, 16392526502, 52963765321, 171282782902, 554393341371, 1795821017014
a(n) = (1/2)*sum(binomial(2*k,k)*(-1)^(n-k+1)*sum(binomial(i+k-1,i)*binomial(i,n-k-i+1),i=0..n-k+1),k=0..n+1). - Emanuele Munarini, May 05 2011
[A186239] 1, 1, 2, 6, 17, 51, 163, 533, 1779, 6055, 20908, 73052, 257863, 918139, 3293538, 11891778, 43183835, 157616827, 577902846, 2127539802, 7861397403, 29145629141, 108385383175, 404184619545, 1511132059333, 5663069529201, 21269203639596, 80044555061812
a(n) = 1/n * sum(j=0..n, C(n,j) * sum(i=j..n+j-1, C(j,i-j) * C(n-j,3*j-n-i-1) * 2^(3*j-n-i-1))), n>0.
a(n) is the top left term of M^n, M = an infinite matrix with (1,1,1,...) as diagonals starting at positions (1,2), (1,1), and (2,1); with a diagonal of (2,2,2,...) starting at (3,1). - Gary W. Adamson, Nov 25 2011
[A064842] 0, 2, 6, 18, 36, 66, 106, 162, 232, 322, 430, 562, 716, 898, 1106, 1346, 1616, 1922, 2262, 2642, 3060, 3522, 4026, 4578, 5176, 5826, 6526, 7282, 8092, 8962, 9890, 10882, 11936, 13058, 14246, 15506, 16836, 18242, 19722, 21282, 22920, 24642, 26446, 28338, 30316

a(n) = (2*n^3 - 8*n + 3*(-1)^n + 9)/6. - Luce ETIENNE, Jul 08 2014
[A230137] 0, 2, 6, 18, 44, 110, 252, 588, 1304, 2934, 6380, 14036, 30120, 65260, 138712, 297240, 627248, 1332902, 2796876, 5904516, 12333320, 25899972, 53897096, 112693928, 233776464, 487034300, 1007623032, 2092755528, 4319728784, 8948009624, 18432890160, 38094639664
a(2n) = 2*Sum_{k=n+1..2n} binomial(2n,k)*k + binomial(2n,n)*n.
a(2n+1) = 2*Sum_{k=n+1..2n+1} binomial(2n+1,k)*k.
a(n) = 2*n/(n-1)*a(n-1) +4*(n-3)/(n-2)*a(n-2) -8*a(n-3) for n>2, else a(n) = n*(1+n). - Alois P. Heinz, Oct 10 2013
[A140960] 0, 0, 2, 6, 18, 46, 114, 270, 626, 1422, 3186, 7054, 15474, 33678, 72818, 156558, 334962, 713614, 1514610, 3203982, 6757490, 14214030, 29826162, 62448526, 130489458, 272163726, 566697074, 1178133390, 2445745266, 5070447502, 10498808946, 21713445774, 44858547314
a(n) = 3*a(n-1)-4*a(n-3), n>2.
[A062026] 0, 2, 6, 18, 50, 120, 252, 476, 828, 1350, 2090, 3102, 4446, 6188, 8400, 11160, 14552, 18666, 23598, 29450, 36330, 44352, 53636, 64308, 76500, 90350, 106002, 123606, 143318, 165300, 189720, 216752, 246576, 279378, 315350, 354690, 397602, 444296
a(0)=0, a(1)=2, a(2)=6, a(3)=18, a(4)=50, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Apr 22 2015
[A048495] 1, 2, 6, 18, 50, 130, 322, 770, 1794, 4098, 9218, 20482, 45058, 98306, 212994, 458754, 983042, 2097154, 4456450, 9437186, 19922946, 41943042, 88080386, 184549378, 385875970, 805306370, 1677721602, 3489660930, 7247757314
a(n) - 1 = sum(i=0..n-1, (n-i) * 2^(n-i-1)) = n*2^(n-1) + (n-1)*2^(n-2) + (n-2)*2^(n-3) + ... + 1*(2^0). - Matthew Erbst (matt(AT)erbst.org), Apr 19 2006
a(n) = a(n-1) + (2^n - 2^(n-1)) * n = a(n-1) + n*2^(n-1). - Olivier Gérard, Feb 25 2014.
[A196593] 1, 2, 6, 18, 51, 134, 328, 758, 1677, 3594, 7530, 15530, 31687, 64190, 129420, 260142, 521889, 1045730, 2093806, 4190402, 8384091, 16772022, 33548496, 67102118, 134210101, 268426874, 536861298, 1073731098, 2147471727, 4294954094, 8589920020, 17179853150
a(n) = 6*a(n-1) - 14*a(n-2) + 16*a(n-3) - 9*a(n-4) + 2*a(n-5).
a(n) = 2^(n+2) - (n^3-n^2+10*n+4)/2.
[A078484] 0, 1, 2, 6, 18, 52, 148, 420, 1192, 3384, 9608, 27280, 77456, 219920, 624416, 1772896, 5033760, 14292288, 40579904, 115217984, 327136896, 928835456, 2637230208, 7487852800, 21260161280, 60363694336, 171389837824, 486624896512, 1381667623424, 3922950583296
a(0)=0, a(1)=1, a(2)=2, a(3)=6, a(n) = 4*a(n-1)-4*a(n-2)+2*a(n-3). - Harvey P. Dale, Jul 21 2012
[A077835] 1, 2, 6, 18, 52, 152, 444, 1296, 3784, 11048, 32256, 94176, 274960, 802784, 2343840, 6843168, 19979584, 58333184, 170311872, 497249280, 1451788672, 4238699648, 12375475200, 36131927040, 105492203776, 307999212032, 899246685696, 2625476203008, 7665444201472
a(n)=sum{k=0..n, sum{i=0..floor((n-k)/2), C(n-k-i, i)C(k, n-k-i)}*2^k} - Paul Barry, Apr 26 2005
a(n)= 2*a(n-1)+2*a(n-2)+2*a(n-3) [From Geoffrey Critzer, Feb 07 2009]
[A160175] 1, 2, 6, 18, 54, 160, 476, 1416, 4212, 12528, 37264, 110840, 329688, 980640, 2916864, 8676064, 25806512, 76760160, 228319200, 679123872, 2020019488, 6008445440, 17871816000, 53158809600, 158118181056, 470314504192, 1398926621696, 4161036233088
a(n)=2(a(n-1)+a(n-2)+a(n-3)+a(n-4))
[A025192] 1, 2, 6, 18, 54, 162, 486, 1458, 4374, 13122, 39366, 118098, 354294, 1062882, 3188646, 9565938, 28697814, 86093442, 258280326, 774840978, 2324522934, 6973568802, 20920706406, 62762119218, 188286357654, 564859072962, 1694577218886
a(0) = 1, a(n) = sum_{k=0..n-1} (a(k)+a(n-k-1)). - Benoit Cloitre, Jun 24 2003
a(1) = 2, a(n) = 3*a(n-1). - Vincenzo Librandi, Jan 01 2011
a(n) = LCM(a(n-1), sum_{k=1..n-1} a(k) for n >= 3. - David W. Wilson, Sep 27 2011
a(n) = ((2*n-1)*a(n-1) + (3*n-6)*a(n-2))/(n-1); a(0)=1, a(1)=2. - Sergei N. Gladkovskii, Jul 16 2012
[A008776] 2, 6, 18, 54, 162, 486, 1458, 4374, 13122, 39366, 118098, 354294, 1062882, 3188646, 9565938, 28697814, 86093442, 258280326, 774840978, 2324522934, 6973568802, 20920706406, 62762119218, 188286357654, 564859072962, 1694577218886, 5083731656658, 15251194969974
a(n) = 2*3^n; a(n) = 3a(n-1).
a(n-1) = phi(3^n). - Artur Jasinski, Nov 19 2008
[A238236] 1, 2, 6, 18, 55, 169, 520, 1601, 4930, 15182, 46754, 143983, 443409, 1365520, 4205249, 12950466, 39882198, 122821042, 378239143, 1164823609, 3587185688, 11047081345, 34020543362, 104769516446, 322647744322, 993624581343, 3059961912097, 9423445312544
a(n) = 3*a(n-1) + a(n-2) -2*a(n-3) - a(n-4), a(0) = 1, a(1) = 2, a(2) = 6, a(3) = 18.
[A291730] 2, 6, 18, 56, 168, 510, 1544, 4680, 14176, 42952, 130128, 394252, 1194456, 3618840, 10963960, 33217424, 100638528, 304903688, 923764032, 2798719872, 8479257216, 25689531840, 77831351040, 235804967056, 714416256800, 2164460716896, 6557647800096
a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) + 4*a(n-4) + 2*a(n-6) for n >= 7.
[A291228] 2, 6, 18, 56, 170, 522, 1594, 4880, 14922, 45654, 139642, 427176, 1306690, 3997146, 12227058, 37402144, 114411538, 349980390, 1070575586, 3274847512, 10017625050, 30643508586, 93737246762, 286738430256, 877121205338, 2683078129590, 8207426973258
a(n) = 2*a(n-1) + 4*a(n-2) - 2*a(n-3) - a(n-4) for n >= 5.
[A275857] 1, 2, 6, 18, 56, 175, 548, 1717, 5381, 16865, 52859, 165674, 519267, 1627524, 5101104, 15988252, 50111546, 157063265, 492279150, 1542937247, 4835986551, 15157302067, 47507122597, 148900291588, 466694163381, 1462746914806, 4584648158602, 14369538930774
a(n) = floor(s*a(n-1)) + floor(r*a(n-2)), where r = (1+sqrt(5))/2, s = r/(r-1).
[A111961] 1, 2, 6, 18, 56, 176, 558, 1778, 5686, 18230, 58558, 188366, 606588, 1955044, 6305418, 20347342, 65689088, 212146400, 685342218, 2214556478, 7157409064, 23136645472, 74801223162, 241863933094, 782131232390, 2529458676326
a(n)=sum{k=0..n, sum{j=0..n, C(n, j)*C((j-1)/2, (j-k)/2)*2^(j-k)*(1+(-1)^(j-k))/2}}
a(n)=sum{k=0..n, F(k+1)*sum{i=0..floor((n-k)/2), C(n, i)C(n-i, i+k)/(i+k+1)}}. - Paul Barry, Sep 23 2005
[A125306] 1, 1, 2, 6, 18, 56, 182, 607, 2064, 7132, 24970, 88383, 315748, 1137014, 4122762, 15039631, 55157790, 203255438, 752190764, 2794352648, 10417047964, 38956725596, 146108755556, 549442692378, 2071236137154, 7825588757910
a(n) = sum(sum((2*k+i+1)/(n-k+i+1)*binomial(k-1,k-i)*binomial(2*n-4*k+i,n-3*k),i=0..k),k=0..floor(n/3)); generating function = 1+(C(x)-1)/(1-x/(1+x^2)*(C(x)-1)) in which C(x) is the ogf for the Catalan numbers.
[A125305] 1, 1, 2, 6, 18, 57, 190, 654, 2306, 8290, 30272, 111973, 418666, 1579803, 6008464, 23009240, 88645034, 343334976, 1336105472, 5221667740, 20485272152, 80645855014, 318489386884, 1261428593649, 5009356014722, 19941674099985
a(n) = sum(binomial(n-2*k,k)*catalan(n-2*k),k=0..floor(n/3)); generating function = C(x + x^3), where C(x) is the generating function for the Catalan numbers.
[A081057] 1, 2, 6, 18, 58, 186, 602, 1946, 6298, 20378, 65946, 213402, 690586, 2234778, 7231898, 23402906, 75733402, 245078426, 793090458, 2566494618, 8305351066, 26876680602, 86974765466, 281456253338, 910811568538, 2947448150426
a(n) = 2/5+(3/10-1/10*5^(1/2))*(1-5^(1/2))^n+(3/10+1/10*5^(1/2))*(1+5^(1/2))^n. Recurrence: a(n) = 3*a(n-1)+2*a(n-2)-4*a(n-3). G.f.: (1+x)*(1-2*x)/(1-2*x-4*x^2)/(1-x). - Vladeta Jovovic, Mar 05 2003
[A293067] 0, 0, 2, 6, 18, 58, 194, 658, 2242, 7650, 26114, 89154, 304386, 1039234, 3548162, 12114178, 41360386, 141213186, 482131970, 1646101506, 5620142082, 19188365314, 65513177090, 223675977730, 763677556738, 2607358271490, 8902077972482, 30393595346946
a(n) = 5*a(n-1) - 6*a(n-2) + 2*a(n-3), n >= 3.
a(n) = (4 + (2+sqrt(2))^n*(-4+3*sqrt(2)) - (2-sqrt(2))^n*(4+3*sqrt(2))) / 2 for n>0.
[A085139] 1, 1, 2, 6, 18, 58, 194, 670, 2370, 8546, 31298, 116102, 435346, 1647418, 6283394, 24130174, 93226242, 362098050, 1413098370, 5538138182, 21788069266, 86016385274, 340655956802, 1353023683486, 5388230857538, 21510345134178
a(n)=sum{k=0..floor(n/2), C(n-k,k)C(n-2k)}-sum{k=0..,floor((n-2)/2), C(n-k-2,k)C(n-2k-2)}; [From Paul Barry, Nov 30 2008]
[A036675] 1, 1, 2, 6, 18, 59, 198, 690, 2450, 8878, 32632, 121518, 457262, 1736526, 6646340, 25613086, 99298674, 387021728, 1515594560, 5960406102, 23530528512, 93216984177, 370450977206, 1476458287082, 5900150928510, 23635544130948
a(n) = T(2*n+1,1), where T(n,m) = sum(i=1..n-m, (m*binomial(m+2*i-1,i))/(m+i)*((1+(-1)^(n-m))/2)*T((n-m)/2,i)), n>m, T(n,n)=1. - Vladimir Kruchinin, Mar 18 2015
[A005566] 1, 2, 6, 18, 60, 200, 700, 2450, 8820, 31752, 116424, 426888, 1585584, 5889312, 22084920, 82818450, 312869700, 1181952200, 4491418360, 17067389768, 65166397296, 248817153312, 953799087696, 3656229836168, 14062422446800, 54086240180000, 208618354980000
a(n) = binomial(n, floor(n/2))*binomial(n+1, floor((n+1)/2)).
[A213400] 0, 0, 0, 2, 6, 19, 29, 52, 81, 116, 159, 223, 282, 366, 462, 568, 688, 841, 987, 1170, 1371, 1586, 1821, 2101, 2372, 2692, 3036, 3398, 3786, 4231, 4665, 5160, 5685, 6232, 6811, 7459, 8094, 8802, 9546, 10316, 11124, 12013, 12887, 13846, 14847
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)-a(n-6)+2*a(n-7)+2*a(n-8)-a(n-10).

[A282080] 1, 2, 6, 19, 38, 60, 100, 170, 255, 350, 490, 693, 924, 1176, 1512, 1956, 2445, 2970, 3630, 4455, 5346, 6292, 7436, 8814, 10283, 11830, 13650, 15785, 18040, 20400, 23120, 26248, 29529, 32946, 36822, 41211, 45790, 50540, 55860, 61810, 67991, 74382, 81466, 89309
a(n) = (2*(1+n)*(2+n)*(3+n)*(4+n) + 3*(-i*(-i)^n*((3+8*i) + (4+6*i)*n + (1+i)*n^2) + i^n*((8+3*i) + (6+4*i)*n + (1+i)*n^2)))/96 where i=sqrt(-1). - Colin Barker, Feb 06 2017
[A273180] 1, 2, 6, 19, 38, 102, 307, 614, 1638, 4915, 9830, 26214, 78643, 157286, 419430, 1258291, 2516582, 6710886, 20132659, 40265318, 107374182, 322122547, 644245094, 1717986918, 5153960755, 10307921510, 27487790694, 82463372083, 164926744166, 439804651110
a(n) = 17*a(n-3) - 16*a(n-6) for n>6.
[A214948] 1, 2, 6, 19, 51, 148, 395, 1095, 2945, 8020, 21597, 58518, 157746, 426250, 1149832, 3104236, 8375167, 22603530, 60988687, 164579663, 444082316, 1198312390, 3233419264, 8724918311, 23542640336, 63526028693, 171413973501, 462531951559, 1248062990751, 3367686427976
a(n) = sum(sum(a(i), i in p) , p in P*(n)) where P*(n) is the set of all integer partitions of n excluding {n}, p is a partition of P*(n), i is a part of p.
[A077834] 1, 2, 6, 19, 56, 168, 505, 1514, 4542, 13627, 40880, 122640, 367921, 1103762, 3311286, 9933859, 29801576, 89404728, 268214185, 804642554, 2413927662, 7241782987, 21725348960, 65176046880, 195528140641, 586584421922, 1759753265766, 5279259797299, 15837779391896
a(n) = sum_{k=0..n} (3^k*2*sqrt(3)*cos(2*Pi*(n-k)/3 + Pi/6)/3).
a(n) = 3^(n+2)/13 + 2*sqrt(3)*cos(2*Pi*n/3 + Pi/6)/39 + 2*sqrt(3)*sin(2*Pi*n/3 + Pi/3)/13.
a(0)=1, a(1)=2, a(2)=6, a(n) = 2*a(n-1) + 2*a(n-2) + 3*a(n-3). - Harvey P. Dale, Jan 31 2012
a(n) = 1/52*(4*3^(n + 2) + (-1)^n*(2*(-1)^floor(n/3) + 9*(-1)^floor((1 + n)/3) + 6*(-1)^floor((n + 2)/3) + (-1)^floor((n + 4)/3))). - John M. Campbell, Dec 23 2016
[A111277] 1, 1, 2, 6, 19, 59, 180, 544, 1637, 4917, 14758, 44282, 132855, 398575, 1195736, 3587220, 10761673, 32285033, 96855114, 290565358, 871696091, 2615088291, 7845264892, 23535794696, 70607384109, 211822152349, 635466457070
a(n) = (3^n-2*n+3)/4.
a(n) = +5*a(n-1) -7*a(n-2) +3*a(n-3). - R. J. Mathar, Jun 25 2011
a(n+1) = sum of row 1 terms of M^n, an infinite bidiagonal matrix with all 1's in the superdiagonal and (1,3,0,0,0,...) in the main diagonal, and the rest zeros. Example: a(5) = 59 = (sum of row 1 terms of M^4) = (1 + 40 + 13 + 4 + 1). - Gary W. Adamson, Jun 23 2011
[A052544] 1, 2, 6, 19, 60, 189, 595, 1873, 5896, 18560, 58425, 183916, 578949, 1822473, 5736961, 18059374, 56849086, 178955183, 563332848, 1773314929, 5582216355, 17572253481, 55315679788, 174128175064, 548137914373, 1725482812088
a(n) = 4*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = Sum_{k=0..n} binomial(n+2*k, 3*k), - Richard Ollerton (r.ollerton(AT)uws.edu.au), May 12 2004
a(n) = hypergeom([(n+1)/2, n/2+1, -n], [1/3, 2/3], -4/27). - Peter Luschny, Nov 03 2017
[A204200] 1, 1, 2, 6, 19, 60, 189, 595, 1873, 5896, 18560, 58425, 183916, 578949, 1822473, 5736961, 18059374, 56849086, 178955183, 563332848, 1773314929, 5582216355, 17572253481, 55315679788, 174128175064, 548137914373, 1725482812088
a(n) = 4*a(n-1) - 3*a(n-2) + a(n-3).
[A001169] 1, 2, 6, 19, 61, 196, 629, 2017, 6466, 20727, 66441, 212980, 682721, 2188509, 7015418, 22488411, 72088165, 231083620, 740754589, 2374540265, 7611753682, 24400004911, 78215909841, 250726529556, 803721298537, 2576384425157, 8258779154250, 26474089989299
a(n) = 5a(n-1) - 7a(n-2) + 4a(n-3) for n >= 5.
a(n) = sum(k=0..n-1, sum(i=0..k, binomial(k,i)*binomial(n+2*i-1,4*k-i))). - Emanuele Munarini, May 19 2011
[A018906] 2, 6, 19, 61, 196, 630, 2026, 6516, 20957, 67403, 216786, 697242, 2242518, 7212542, 23197479, 74609345, 239963764, 771788146, 2482278709, 7983677414, 25677658524, 82586271099, 265619708576, 854304579262, 2747673800490, 8837259564290, 28423008798464
a(n) = [a(n-1)^2/a(n-2)+1].
[A014010] 2, 6, 19, 61, 196, 630, 2026, 6516, 20957, 67403, 216786, 697242, 2242518, 7212542, 23197479, 74609345, 239963764, 771788146, 2482278710, 7983677420, 25677658553, 82586271223, 265619709074, 854304581182, 2747673807690, 8837259590742, 28423008894139
a(n) = 3*a(n-1) + a(n-2) - a(n-3) + a(n-4) - 3*a(n-5).
[A138747] 1, 1, 1, 2, 6, 19, 61, 197, 637, 2060, 6662, 21545, 69677, 225337, 728745, 2356778, 7621874, 24649315, 79716449, 257804821, 833746693, 2696355892, 8720076682, 28200927617, 91202445513, 294950796673, 953877628705, 3084862088210, 9976514614558, 32264276654339, 104343409321397, 337448974463477, 1091317708583837, 3529346452933372, 11413987225587534
a(n) = 4*a(n-1) - 3*a(n-2) + 2*a(n-3) - 1*a(n-4); a>4. Let X = the 4 X 4 matrix [0,1,0,0; 0,0,1,0; 0,0,0,1; -1,2,-3,4]. X^n * [1,1,1,1] = [a(n), a(n+1), a(n+2), a(n+3)].
[A052975] 1, 2, 6, 19, 61, 197, 638, 2069, 6714, 21794, 70755, 229725, 745889, 2421850, 7863641, 25532994, 82904974, 269190547, 874055885, 2838041117, 9215060822, 29921113293, 97153242650, 315454594314, 1024274628963, 3325798821581, 10798800928441, 35063486341682
a(n) = sum(1/7*(2-3*_alpha+_alpha^2)*_alpha^(-1-n), _alpha=RootOf(-1+5*_Z-6*_Z^2+_Z^3))
a(n) = (2/7)*Sum(r=1..6, sin(r*3*Pi/7)^2*(2*cos(r*Pi/7))^(2*n)); a(n) = 5*a(n-1)-6*a(n-2)+a(n-3). - Herbert Kociemba, Jun 11 2004
[A035929] 0, 1, 1, 1, 2, 6, 19, 61, 200, 670, 2286, 7918, 27770, 98424, 351983, 1268541, 4602752, 16799894, 61642078, 227239086, 841230292, 3126039364, 11656497518, 43601626146, 163561902392, 615183356156, 2319423532024, 8764535189296, 33187922345210, 125912855167740
a(n), n>0; = upper left term in M^(n-1), M = the infinite square production matrix:
[A026012] 1, 2, 6, 19, 62, 207, 704, 2431, 8502, 30056, 107236, 385662, 1396652, 5088865, 18642420, 68624295, 253706790, 941630580, 3507232740, 13105289370, 49114150020, 184560753390, 695267483664, 2625197720454, 9933364416572, 37660791173152, 143048202990504
a(n) = 3*(3*n^2+3*n+2)*binomial(2*n, n)/((n+1)*(n+2)*(n+3)). - Emeric Deutsch, Oct 26 2003
a(n) = binomial(2*n,n)/(n+1)*hypergeom([-2,n+1/2],[n+2],4). - Peter Luschny, Aug 15 2012
a(n) = binomial(2*n,n) - binomial(2n,n-3). - Mark Spindler, Nov 11 2012
[A191993] 2, 6, 19, 62, 207, 705, 2445, 8622, 30871, 112061, 411765, 1529225, 5731741, 21652623, 82341729, 314889102, 1209849831, 4666707813, 18060052389, 70085525877, 272615721621, 1062509835063, 4148096423409, 16217945020377, 63487732755357, 248806555083495
a(n)=sum(k=0..floor(n/3),(-1)^k*C(2*n,n-3*k))
[A181734] 1, 1, 2, 6, 19, 64, 227, 832, 3126, 11980, 46646, 184003, 733783, 2953434, 11982265, 48949631, 201182110, 831292029, 3451336467, 14390479996, 60232976244, 252992172572, 1066000599632, 4504710385216, 19086728370308, 81069926894797
a(n) = Sum_{k=0..[n/2]} C(n+k, k)*C(n+k+1, n-2k)/(n+1).
[A216447] 1, 1, 2, 6, 19, 64, 228, 841, 3181, 12277, 48156, 191400, 769168, 3120044, 12758080, 52533265, 217637308, 906511243, 3793989118, 15947205096, 67290484581, 284934164506, 1210374907352, 5156562941596, 22027291990432, 94325712634264, 404842107811880
a(n) = [x^n] ((1-x^4)/(1-x-x^3))^(n+1) / (n+1).
[A005654] 1, 2, 6, 19, 66, 236, 868, 3235, 12190, 46252, 176484, 676270, 2600612, 10030008, 38781096, 150273315, 583407990, 2268795980, 8836340260, 34461678394, 134564560988, 526024917288, 2058358034616, 8061901596814, 31602652961516, 123979635837176, 486734861612328
a(n) = (1/2) * (binomial(2*n-1, n) + binomial(n-1, floor(n/2))). - Michael Somos
[A036689] 2, 6, 20, 42, 110, 156, 272, 342, 506, 812, 930, 1332, 1640, 1806, 2162, 2756, 3422, 3660, 4422, 4970, 5256, 6162, 6806, 7832, 9312, 10100, 10506, 11342, 11772, 12656, 16002, 17030, 18632, 19182, 22052, 22650, 24492, 26406, 27722, 29756, 31862, 32580, 36290, 37056, 38612, 39402, 44310
a(n) = prime(n) * (prime(n) - 1).
a(n) = prime(n) * phi(prime(n)). - Artur Jasinski, Jan 23 2008
a(n) = prime(n)! mod (prime(n)^2). - J. M. Bergot, Apr 10 2014
[A060344] 2, 6, 20, 52, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472
a(2)=2, a(3)=6, a(4)=20, a(5)=52, for n>5 a(n) = 3 * 2^(n-1).
[A082045] 1, 2, 6, 20, 59, 150, 336, 680, 1269, 2218, 3674, 5820, 8879, 13118, 18852, 26448, 36329, 48978, 64942, 84836, 109347, 139238, 175352, 218616, 270045, 330746, 401922, 484876, 581015, 691854, 819020, 964256, 1129425, 1316514, 1527638
a(n)=(n^5+10n^3+19n+30)/30.
[A081251] 2, 6, 20, 60, 182, 546, 1640, 4920, 14762, 44286, 132860, 398580, 1195742, 3587226, 10761680, 32285040, 96855122, 290565366, 871696100, 2615088300, 7845264902, 23535794706, 70607384120, 211822152360, 635466457082, 1906399371246
a(n) = a(n-2) + 2*3^(n) for n > 1.

a(n) = floor(3^(n+1)/4). [Mircea Merca, Dec 26 2010]
[A132353] 1, 2, 6, 20, 61, 183, 547, 1640, 4920, 14762, 44287, 132861, 398581, 1195742, 3587226, 10761680, 32285041, 96855123, 290565367, 871696100, 2615088300, 7845264902, 23535794707, 70607384121, 211822152361, 635466457082
a(n)=(1/6)*{1/2-(1/2)*I*sqrt(3)}^n+(3/4)*3^n-(1/12)*(-1)^n+(1/6)*{1/2+(1/2)*I*sqrt(3)}^n-(1/ 6)*I*{1/2-(1/2)*I*sqrt(3)}^n*sqrt(3)+(1/6)*I*{1/2+(1/2)*I*sqrt(3
with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A260696] 1, 1, 2, 6, 20, 62, 172, 471, 1337, 3846, 11030, 31442, 89470, 254934, 727203, 2074435, 5915652, 16866988, 48093810, 137141828, 391072846, 1115164897, 3179915535, 9067592160, 25856510664, 73730732368, 210245631360, 599521974384, 1709555338705, 4874850377793, 13900789573274, 39638539791222
a(n) = 2*a(n-1)+a(n-2)+2*a(n-3)+4*a(n-4)+8*a(n-5)-15*a(n-7)-14*a(n-8)-7*a(n-9) for n>8. - Wesley Ivan Hurt, Dec 29 2015
[A247076] 1, 2, 6, 20, 62, 194, 612, 1922, 6038, 18980, 59646, 187442, 589076, 1851266, 5817894, 18283700, 57459518, 180575906, 567489348, 1783428098, 5604714422, 17613731780, 55354032894, 173959101458, 546694927604, 1718078222594, 5399341807686, 16968314698580
a(n) = 2*a(n-1)+2*a(n-2)+5*a(n-3) for n>3, a(0)=1; a(1)=2, a(2)=6, a(3)=20.
[A177792] 1, 2, 6, 20, 62, 194, 616, 1972, 6344, 20498, 66486, 216352, 705982, 2309246, 7569420, 24857864, 81768144, 269369282, 888569354, 2934666604, 9702925752, 32113058042, 106379839060, 352698604852, 1170271492014, 3885821473458, 12911299418962, 42926732404728
a(n) = 2*Sum_{i=0..floor(n/3)} Sum_{j=0..floor((n-3*i)/2)} C(n-2*i-j,i) * C(n-3*i-j,j) * (Sum_{s=0..min(floor(n/3), floor((2*i+j)/2))} C(n-2*i-j,s) * C(n-2*i-j-s, 2*i+j-2*s) + Sum_{s=0..min(floor(n/3), floor((2*i+j+1)/2))} C(n-2*i-j-1,s) * C(n-2*i-j-s-1, 2*i+j+1-2*s)) if n>0; a(0) = 1.
a(n) = [x^n y^n] (1+x+x^2+x^3)*(1+y+y^2+y^3) / (1-x*y-x*y^2 -x*y^3-x^2*y -x^2*y^2-x^2*y^3 -x^3*y-x^3*y^2 -x^3*y^3).
[A053730] 1, 2, 6, 20, 64, 192, 544, 1472, 3840, 9728, 24064, 58368, 139264, 327680, 761856, 1753088, 3997696, 9043968, 20316160, 45350912, 100663296, 222298112, 488636416, 1069547520, 2332033024, 5066719232, 10972299264, 23689428992
a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3). _ Vincenzo Librandi_, Apr 28 2012
[A220874] 1, 2, 6, 20, 64, 194, 562, 1570, 4258, 11266, 29186, 74242, 185858, 458754, 1118210, 2695170, 6430722, 15204354, 35651586, 82968578, 191758338, 440401922, 1005584386, 2283798530, 5161091074, 11609833474, 26004684802, 58015612930, 128949682178
a(n) = 2+(n-1)*(n^2+n+42)*2^(n-4)/3 for n>0. - R. J. Mathar, Jan 30 2013 (see Maple section).
[A083323] 1, 2, 6, 20, 66, 212, 666, 2060, 6306, 19172, 58026, 175100, 527346, 1586132, 4766586, 14316140, 42981186, 129009092, 387158346, 1161737180, 3485735826, 10458256052, 31376865306, 94134790220, 282412759266, 847255055012
a(n) = 2*StirlingS2(n+1,3) + StirlingS2(n+1,2) + 1. - Ross La Haye, Jan 10 2008
[A111285] 1, 2, 6, 20, 66, 216, 706, 2308, 7546, 24672, 80666, 263740, 862306, 2819336, 9217906, 30138228, 98537866, 322172592, 1053353226, 3443970860, 11260168946, 36815469656, 120369313506, 393551182948, 1286727730586, 4206996000512
a(n) = 4*a(n-1) - 3*a(n-2) + 2*a(n-3), n>=4.
[A285197] 1, 1, 2, 6, 20, 67, 221, 717, 2294, 7258, 22760, 70863, 219353, 675769, 2073674, 6342414, 19345052, 58867195, 178779893, 542042565, 1641058046, 4962262306, 14989121072, 45235277511, 136407241265, 411058035697, 1237981634066, 3726531171222, 11212544793764, 33723901952563
a(n) = 7*a(n-1) - 16*a(n-2) + 13*a(n-3) - 3*a(n-4) for n>3.
a(n) = (1/2 + 3^n/2 + (2^(-n)*((3-sqrt(5))^n - (3+sqrt(5))^n)) / sqrt(5)).
[A291005] 2, 6, 20, 68, 230, 774, 2600, 8732, 29330, 98526, 330980, 1111868, 3735110, 12547374, 42150440, 141596132, 475664450, 1597901526, 5367837140, 18032197268, 60575633990, 203491974774, 683591422280, 2296391457932, 7714277207570, 25914602943726, 87055031555300
a(n) = 5*a(n-1) - 7*a(n-2) + 5*a(n-3) for n >= 4.
[A279557] 1, 1, 2, 6, 20, 68, 233, 805, 2807, 9879, 35073, 125513, 452389, 1641029, 5986994, 21954974, 80884424, 299233544, 1111219334, 4140813374, 15478839554, 58028869154, 218123355524, 821908275548, 3104046382352, 11747506651600, 44546351423300, 169227201341652
a(n) = 1 + Sum_{t=1..n-1} Sum_{k=t+2..n+1} (k-t-1)*(k-t)/(n-t+1) * binomial(2n-k-t+1,n-k+1).
[A217782] 1, 2, 6, 20, 69, 242, 857, 3054, 10930, 39236, 141153, 508598, 1834641, 6623450, 23926334, 86468052, 312587197, 1130277914, 4087621545, 14784539846, 53478888618, 193456813508, 699850536281, 2531866279710, 9159810802849, 33139021206962, 119894215708662
a(n) = 8*a(n-1) - 21*a(n-2) + 20*a(n-3) -5*a(n-4) for n>=4, a(0) = 1, a(1) = 2, a(2) = 6, a(3) = 20.
[A026029] 1, 2, 6, 20, 69, 242, 858, 3068, 11050, 40052, 145996, 534888, 1968685, 7276050, 26993490, 100490220, 375287550, 1405622460, 5278838100, 19873977240, 74994427170, 283595947284, 1074568266756, 4079184055640, 15511924233204, 59083160374952, 225384613313944
a(n) = C(2n,n)-C(2n,n-4). [From Paul Barry, May 11 2009]
[A078483] 1, 1, 2, 6, 20, 69, 243, 869, 3145, 11491, 42312, 156807, 584288, 2187298, 8221257, 31009841, 117331070, 445174418, 1693270531, 6454992143, 24657428519, 94363587324, 361741068087, 1388892123038, 5340282880156, 20560742443041, 79259430563491, 305889059254747
a(n) = the upper left term in M^n, where M is the following infinite square production matrix:
a(n) = sum(m=1..n, m*sum(k=1..n-m, ((sum(j=0..m+k, binomial(j,-2*m-k+2*j)*binomial(m+k,j)))* binomial(n-m-1,k-1))/(m+k)))+1. [Vladimir Kruchinin, Oct 11 2011]
[A275046] 1, 2, 6, 20, 70, 245, 874, 3164, 11577, 42694, 158431, 590873, 2212797, 8315535, 31341163, 118423810, 448455754, 1701534151, 6467049185, 24617030774, 93834205107, 358116770601, 1368283768753, 5233261657558, 20034371696497, 76763164565117, 294357181436313, 1129575035419485
a(n) = [x^n y^n] (1+x^2*y^3+x^2*y^4+x^3*y^4-x^3*y^6) / (1-x-y+x^2*y^3 -x^3*y^3-x^4*y^4-x^3*y^6+x^4*y^6).
[A193653] 1, 2, 6, 20, 70, 248, 882, 3140, 11182, 39824, 141834, 505148, 1799110, 6407624, 22821090, 81278516, 289477726, 1030990208, 3671926074, 13077758636, 46577128054, 165886901432, 590814960402, 2104218684068, 7494285973006, 26691295287152, 95062457807466
a(n)=4*a(n-1)-a(n-2)-2*a(n-3); a(n-1)=(1,1) and (2,2) elements of A^(n-1) where A=(2,1,1;1,2,1;1,1,0) and n>1. - David Neil McGrath, Aug 22 2014
a(n) = (34+(17-3*sqrt(17))*((3-sqrt(17))/2)^n+((3+sqrt(17))/2)^n*(17+3*sqrt(17)))/68. - Colin Barker, Sep 02 2016
[A224514] 1, 2, 6, 20, 70, 251, 911, 3327, 17190, 44744, 164407, 604487, 2223504, 8181175, 30108147, 110820165, 407946421, 1501844193, 5529362694, 20358557249, 74961030414, 276017648570, 1016360893036, 3742540945813, 13781324308298, 50748099850042
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 2, a(2) = 6, a(3) = 20, a(4) = 70.
[A000984] 1, 2, 6, 20, 70, 252, 924, 3432, 12870, 48620, 184756, 705432, 2704156, 10400600, 40116600, 155117520, 601080390, 2333606220, 9075135300, 35345263800, 137846528820, 538257874440, 2104098963720, 8233430727600, 32247603683100, 126410606437752, 495918532948104, 1946939425648112
a(n) = 2^n/n! * Product_{k=0..n-1} (2*k+1).
a(n) = Sum_{k=0..n} binomial(n, k)^2. - Benoit Cloitre, Jan 31 2003
a(n) = 2*Sum_{k=0..(n-1)} a(k)*a(n-k+1)/(k+1). - Philippe Deléham, Jan 01 2004
a(n+1) = Sum_{j=n..n*2+1} binomial(j, n). E.g., a(4) = C(7,3) + C(6,3) + C(5,3) + C(4,3) + C(3,3) = 35 + 20 + 10 + 4 + 1 = 70. - Jon Perry, Jan 20 2004
a(n) = (-1)^(n)*Sum_{j=0..(2*n)} (-1)^j*binomial(2*n, j)^2. - Helena Verrill (verrill(AT)math.lsu.edu), Jul 12 2004
a(n) = Sum_{k=0..n} binomial(2n+1, k)*sin((2n-2k+1)*Pi/2). - Paul Barry, Nov 02 2004
[A095929] 1, 2, 6, 20, 70, 254, 948, 3614, 13990, 54740, 215766, 854702, 3396916, 13530350, 53971350, 215492564, 860941798, 3441074654, 13757249460, 55010542910, 219993856006, 879848932052, 3519064567926, 14075391282830, 56299295324980, 225191238869774
a(n) = 4^n/10*Sum_{r=0..9} Cos(Pi*r/5)^(2*n).
a(n) = 7*a(n-1)-13*a(n-2)+4*a(n-3).
a(n) = (2^(-n)*(8^n+2*(3-sqrt(5))^n+2*(3+sqrt(5))^n))/5. - Colin Barker, Apr 27 2016
[A078482] 0, 1, 2, 6, 20, 70, 254, 948, 3618, 14058, 55432, 221262, 892346, 3630680, 14885042, 61432382, 255025212, 1064190214, 4461325382, 18780710508, 79357572866, 336466650450, 1431007889744, 6103431668830, 26099839562738, 111877997049648, 480635694869218
a(n) = Sum_{m=1..n+1} (C(m,n-m+1)*(sum(i=0..m-1, C(m,i)*C(2*m-i-2,m-1)))* (-1)^(n-m+1))/m), n>0, a(0)=0. - Vladimir Kruchinin, May 21 2011
[A192540] 1, 1, 2, 6, 20, 70, 255, 960, 3707, 14597, 58382, 236522, 968597, 4003061, 16674858, 69936760, 295092057, 1251747436, 5334958079, 22834290248, 98108081192, 422986894605, 1829443421394, 7935301625600, 34510975557383, 150456011512671, 657415433062780
a(n) = [x^n] (1/n)*x/[Product_{k>=1} (1 - x^k)*(1 + x^(2*k))]^n for n>=1.
[A145138] 0, 1, 2, 6, 20, 71, 259, 960, 3597, 13586, 51635, 197223, 756380, 2910707, 11233311, 43460144, 168502849, 654547456, 2546819347, 9924285801, 38723794820, 151278566731, 591628491483, 2316065644414, 9074988880769, 35587925333525, 139666503235814, 548516611541343
a(n) = [x^n] x/((1-x-x^4)*(1-x)^(n-1)).
[A192658] 1, 2, 6, 20, 72, 270, 1040, 4036, 15714, 61226, 238778, 930716, 3628520, 14143922, 55134174, 214941488, 838158510, 3269630046, 12761106790, 49834920864, 194743761948, 761543265544, 2980128724806, 11670402459630, 45734346816026, 179348093549914, 703781965002650
a(n) = sum(binomial(n,k)*floor(sqrt(binomial(2*k,k)))*floor(sqrt(binomial(2*n-2*k,n-k))),k=0..n).

[A104632] 1, 2, 6, 20, 73, 281, 1125, 4635, 19525, 83710, 364070, 1602327, 7123041, 31937010, 144255802, 655804649, 2998354717, 13777825186, 63596593430, 294743653360, 1371017707245, 6398580086645, 29952930770185, 140604572777250, 661708404611603, 3121439743413256, 14756658303857332
a(n) = Sum_{i=0..(2*n+1)/5}((-1)^i*binomial(n,i)*binomial(3*n-5*i,n-1))/n. - Vladimir Kruchinin, Apr 06 2017
[A000898] 1, 2, 6, 20, 76, 312, 1384, 6512, 32400, 168992, 921184, 5222208, 30710464, 186753920, 1171979904, 7573069568, 50305536256, 342949298688, 2396286830080, 17138748412928, 125336396368896, 936222729254912, 7136574106003456, 55466948299223040, 439216305474605056, 3540846129311916032
a(n) = Sum_{k=0..n} binomial(n,2k)*binomial(2k,k)*k!*2^(n-2k). - N. Calkin, Apr 22 2010
a(n) = Sum_{k=0..n} Stirling1(n, k)*2^k*Bell(k). - Vladeta Jovovic, Oct 01 2003
a(n) = Sum_{k=0..floor(n/2)} 2^(n-2k)*C(n,2k)(2k)!/k!. - Paul Barry, Feb 11 2008
a(n) = (2n/e)^(n/2) * exp(sqrt(2n)) / sqrt(2e) * (1 + sqrt(2/n)/3 + O(n^(-1)). - Yen-chi R. Lin, Sep 30 2013
[A228398] 1, 2, 6, 21, 52, 105, 186, 301, 456, 657, 910, 1221, 1596, 2041, 2562, 3165, 3856, 4641, 5526, 6517, 7620, 8841, 10186, 11661, 13272, 15025, 16926, 18981, 21196, 23577, 26130, 28861, 31776, 34881, 38182, 41685, 45396, 49321, 53466, 57837, 62440, 67281, 72366
a(n) = (n-1)*(n^2-3*n+3) for n>2, a(1)=1, a(2)=2. [Bruno Berselli, Aug 22 2013]
[A228394] 1, 2, 6, 21, 61, 146, 302, 561, 961, 1546, 2366, 3477, 4941, 6826, 9206, 12161, 15777, 20146, 25366, 31541, 38781, 47202, 56926, 68081, 80801, 95226, 111502, 129781, 150221, 172986, 198246, 226177, 256961, 290786, 327846, 368341, 412477, 460466, 512526, 568881
a(n) = 1 + (n-1)*n*(3*n^2-11*n+16)/12. [Bruno Berselli, Aug 22 2013]
[A294708] 1, 1, 2, 6, 21, 69, 190, 446, 927, 1745, 3036, 4960, 7701, 11467, 16490, 23026, 31355, 41781, 54632, 70260, 89041, 111375, 137686, 168422, 204055, 245081, 292020, 345416, 405837, 473875, 550146, 635290, 729971, 834877, 950720, 1078236, 1218185, 1371351, 1538542, 1720590
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>10.
a(n) = (1/6)*(786 - 787*n + 333*n^2 - 68*n^3 + 6*n^4) for n>5.
[A294709] 1, 1, 2, 6, 21, 69, 194, 470, 1009, 1969, 3562, 6062, 9813, 15237, 22842, 33230, 47105, 65281, 88690, 118390, 155573, 201573, 257874, 326118, 408113, 505841, 621466, 757342, 916021, 1100261, 1313034, 1557534, 1837185, 2155649, 2516834, 2924902, 3384277, 3899653, 4476002, 5118582
a(n) = (1/60)*(60 + 16*n - 65*n^2 + 70*n^3 - 25*n^4 + 4*n^5).
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A116774] 1, 2, 6, 21, 69, 198, 498, 1121, 2305, 4402, 7910, 13509, 22101, 34854, 53250, 79137, 114785, 162946, 226918, 310613, 418629, 556326, 729906, 946497, 1214241, 1542386, 1941382, 2422981, 3000341, 3688134
a(n) = (n^6 - 3n^5 + 10n^4 - 15n^3 + 79n^2 - 72n + 180)/180. - Franklin T. Adams-Watters, Sep 16 2006
[A116832] 1, 2, 6, 21, 70, 203, 517, 1187, 2504, 4921, 9107, 16009, 26922, 43567, 68177, 103591, 153356, 221837, 314335, 437213, 598030, 805683, 1070557, 1404683, 1821904, 2338049, 2971115, 3741457, 4671986, 5788375, 7119273, 8696527, 10555412, 12734869, 15277751
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>10. - Colin Barker, Oct 23 2017
[A294718] 1, 1, 2, 6, 21, 70, 205, 536, 1264, 2722, 5424, 10122, 17871, 30102, 48703, 76108, 115394, 170386, 245770, 347214, 481497, 656646, 882081, 1168768, 1529380, 1978466, 2532628, 3210706, 4033971, 5026326, 6214515, 7628340, 9300886, 11268754, 13572302, 16255894, 19368157, 22962246
a(n) = (1/360)*(16560 - 13902*n + 4501*n^2 - 825*n^3 + 175*n^4 - 33*n^5 + 4*n^6) for n>2.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>9.
[A294719] 1, 1, 2, 6, 21, 70, 212, 597, 1610, 4248, 11107, 28966, 75552, 197251, 515476, 1348060, 3527067, 9230832, 24162270, 63251763, 165587512, 433503706, 1134914677, 2971229196, 7778759206, 20365031725, 53316315822, 139583891642, 365435330505, 956722066178, 2504730828592, 6557470373721
a(n) = (1/60)*(3*2^(1-n)*(5*2^(n+1) - (3-sqrt(5))^n*(-5+sqrt(5)) + (3+sqrt(5))^n*(5+sqrt(5))) - 190*n + 115*n^2 - 50*n^3 + 5*n^4) for n > 0.
a(n) = 8*a(n-1) - 26*a(n-2) + 45*a(n-3) - 45*a(n-4) + 26*a(n-5) - 8*a(n-6) + a(n-7) for n > 7.
[A116767] 1, 2, 6, 21, 71, 208, 526, 1174, 2370, 4416, 7714, 12783, 20277, 31004, 45946, 66280, 93400, 128940, 174798, 233161, 306531, 397752, 510038, 647002, 812686, 1011592, 1248714, 1529571, 1860241, 2247396
a(1)=1, a(2)=2, a(3)=6, a(4)=21, a(5)=71, a(6)=208, a(7)=526, a(8)=1174, a(9)=2370, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)- 7*a(n-6)+a(n-7) [From Harvey P. Dale, Aug 31 2011]
[A294725] 1, 1, 2, 6, 21, 71, 212, 554, 1289, 2725, 5326, 9758, 16941, 28107, 44864, 69266, 103889, 151913, 217210, 304438, 419141, 567855, 758220, 999098, 1300697, 1674701, 2134406, 2694862, 3373021, 4187891, 5160696, 6315042, 7677089, 9275729, 11142770, 13313126, 15825013, 18720151, 22043972
a(n) = (1/120)*(120 - 40*n + 44*n^2 - 15*n^3 + 15*n^4 - 5*n^5 + n^6).
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>6.
[A116755] 1, 2, 6, 21, 71, 213, 561, 1317, 2809, 5536, 10220, 17865, 29823, 47867, 74271, 111897, 164289, 235774, 331570, 457901, 622119, 832833, 1100045, 1435293, 1851801, 2364636, 2990872, 3749761, 4662911, 5754471
a(n) = (7n^6 - 45n^5 + 175n^4 - 315n^3 + 538n^2 - 360n + 720)/720. - Franklin T. Adams-Watters, Sep 16 2006
[A116833] 1, 2, 6, 21, 71, 213, 564, 1340, 2909, 5860, 11090, 19911, 34179, 56447, 90144, 139782, 211193, 311798, 450910, 640073, 893439, 1228185, 1664972, 2228448, 2947797, 3857336, 4997162, 6413851, 8161211, 10301091, 12904248, 16051274, 19833585, 24354474, 29730230
a(n) = (n^7 + 7*n^6 - 56*n^5 + 490*n^4 - 2051*n^3 + 5803*n^2 - 6714*n + 5040)/2520. - Franklin T. Adams-Watters, Sep 16 2006
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n > 8. - Wesley Ivan Hurt, Oct 09 2017
[A294726] 1, 1, 2, 6, 21, 71, 217, 599, 1514, 3550, 7801, 16193, 31956, 60282, 109214, 190816, 322679, 529823, 847060, 1321888, 2017991, 3019425, 4435575, 6406973, 9112072, 12775076, 17674931, 24155587, 32637646, 43631516, 57752196, 75735822, 98458109, 126954829, 162444470
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n>8.
a(n) = (40320 - 14640*n + 15724*n^2 - 3780*n^3 + 3885*n^4 - 1680*n^5 + 546*n^6 - 60*n^7 + 5*n^8) / 40320.
[A294700] 1, 1, 2, 6, 21, 71, 218, 610, 1585, 3895, 9186, 21022, 47061, 103663, 225618, 486626, 1042305, 2220303, 4708714, 9949294, 20956661, 44022231, 92253162, 192912386, 402622961, 838825351, 1744789138, 3623830750, 7516137525, 15569193055, 32212182306, 66571910722
a(n) = (1/12)*(12 + 4*(3*2^n-4)*n - 5*n^2 - 2*n^3 - n^4).
a(n) = 9*a(n-1) - 34*a(n-2) + 70*a(n-3) - 85*a(n-4) + 61*a(n-5) - 24*a(n-6) + 4*a(n-7) for n>6.
[A294701] 1, 1, 2, 6, 21, 71, 218, 614, 1619, 4065, 9840, 23168, 53393, 120995, 270518, 598218, 1310943, 2851061, 6160652, 13238564, 28311869, 60293463, 127926642, 270533006, 570425771, 1199571401, 2516582888, 5268046344, 11005854249, 22951232075, 47781511790, 99321119378
a(n) = (28 - 32*2^n + 22*n + 7*2^n*n + 2*n^2)/4 for n>1. - Bruno Berselli, Nov 07 2017
a(n) = 7*a(n-1) - 19*a(n-2) + 25*a(n-3) - 16*a(n-4) + 4*a(n-5) for n>4. - Colin Barker, Nov 10 2017
[A116761] 1, 2, 6, 21, 71, 220, 630, 1697, 4365, 10842, 26216, 62071, 144519, 331928, 753834, 1695933, 3784913, 8388838, 18481404, 40501523, 88342827, 191889732, 415236446, 895484281, 1925185941, 4127195570, 8824816080, 18824036847, 40063992335, 85094040112
a(n) = (1/16)*(80 - 41*2^(1+n) + (56+15*2^n)*n + (8+2^n)*n^2) for n>1.
a(n) = 9*a(n-1) - 33*a(n-2) + 63*a(n-3) - 66*a(n-4) + 36*a(n-5) - 8*a(n-6) for n>7.
[A116791] 1, 2, 6, 21, 72, 220, 590, 1409, 3055, 6118, 11474, 20373, 34542, 56304, 88714, 135713, 202301, 294730, 420718, 589685, 813012, 1104324, 1479798, 1958497, 2562731, 3318446, 4255642, 5408821, 6817466, 8526552
a(n) = (n^7 + 35n^6 - 203n^5 + 665n^4 - 686n^3 + 1820n^2 - 1632n + 5040)/5040. - Franklin T. Adams-Watters, Sep 16 2006
[A116775] 1, 2, 6, 21, 72, 221, 605, 1517, 3574, 8065, 17671, 37953, 80424, 168885, 352481, 732581, 1518074, 3139033, 6480187, 13360153, 27514476, 56610861, 116377941, 239059421, 490715582, 1006612721, 2063574895, 4227833137, 8657015344, 17716708965, 36238752201
a(n) = (6*(-44+21*2^n) + (-56+9*2^n)*n + 12*n^2 - 28*n^3) / 24 for n>2.
a(n) = 8*a(n-1) - 26*a(n-2) + 44*a(n-3) - 41*a(n-4) + 20*a(n-5) - 4*a(n-6) for n>8.
[A116747] 1, 2, 6, 21, 72, 230, 689, 1970, 5460, 14833, 39790, 105890, 280367, 739878, 1948186, 5121973, 13451620, 35299782, 92580429, 242705586, 636062896, 1666534337, 4365640346, 11434584546, 29946505947, 78421715110, 205352199014
a(0)=1, a(1)=2, a(2)=6, a(3)=21, a(4)=72, a(5)=230, a(6)=689, a(n)= 9*a(n-1)-33*a(n-2)+64*a(n-3)-71*a(n-4)+45*a(n-5)-15*a(n-6)+2*a(n-7) [From Harvey P. Dale, May 19 2011]
[A116800] 1, 2, 6, 21, 72, 232, 712, 2116, 6155, 17629, 49893, 139851, 388899, 1074280, 2950885, 8066698, 21960083, 59566264, 161060160, 434269077, 1168017399, 3134554480, 8395344424, 22445226508, 59911148129, 159681826564, 425035944306, 1129976852988, 3000770763534
a(n) = 6*a(n-1) - 11*a(n-2) + 4*a(n-3) + 8*a(n-4) - 11*a(n-5) + 3*a(n-6) for n>6. - Colin Barker, Oct 23 2017
[A116796] 1, 2, 6, 21, 72, 236, 745, 2286, 6866, 20285, 59156, 170712, 488401, 1387226, 3916062, 10996581, 30737760, 85573316, 237387961, 656451270, 1810142186, 4978643597, 13661617196, 37409025456, 102238082977, 278920277426, 759695287350, 2066068144821

a(n) = (1/25)*(2^(-n)*(25*2^n + sqrt(5)*(3-sqrt(5))^n - sqrt(5)*(3+sqrt(5))^n + 10*((3-sqrt(5))^n + (3+sqrt(5))^n)*n)).
a(n) = 7*a(n-1) - 17*a(n-2) + 17*a(n-3) - 7*a(n-4) + a(n-5) for n>5.
a(n) = 1 + (2*(n - 1)*Lucas(2*(n - 1)) - Fibonacci(2*(n - 1)))/5. - Ehren Metcalfe, Oct 22 2017
[A116824] 1, 2, 6, 21, 73, 229, 634, 1562, 3481, 7132, 13622, 24531, 42033, 69031, 109306, 167680, 250193, 364294, 519046, 725345, 996153, 1346745, 1794970, 2361526, 3070249, 3948416, 5027062, 6341311, 7930721, 9839643
a(n) = (7n^6 - 78n^5 + 460n^4 - 1500n^3 + 2953n^2 - 2922n + 1440)/360. - Franklin T. Adams-Watters, Sep 16 2006
[A116783] 1, 2, 6, 21, 73, 232, 654, 1639, 3705, 7678, 14798, 26841, 46257, 76324, 121318, 186699, 279313, 407610, 581878, 814493, 1120185, 1516320, 2023198, 2664367, 3466953, 4462006, 5684862, 7175521, 8979041, 11145948
a(n) = (4n^6 - 45n^5 + 250n^4 - 735n^3 + 1276n^2 - 1110n + 540)/180. - Franklin T. Adams-Watters, Sep 16 2006
[A116770] 1, 2, 6, 21, 73, 234, 691, 1910, 5019, 12690, 31147, 74694, 175843, 407810, 934179, 2117958, 4759915, 10617234, 23527867, 51839462, 113639955, 247988802, 538968691, 1167065766, 2518680283, 5419041554, 11626611531, 24880612230
a(n)=2^n*(-99/16+29n/32+3n^2/32)+n^2+4n+6, n>1. [From R. J. Mathar, Aug 05 2008]
[A294796] 1, 1, 2, 6, 21, 73, 236, 700, 1919, 4927, 12006, 28090, 63705, 141109, 307088, 659576, 1402947, 2962699, 6223018, 13018294, 27148925, 56478465, 117258996, 243044020, 503038535, 1039847767, 2147071790, 4428689074, 9126212193, 18789776461, 38653871640, 79455914224
a(n) = -5 + 3*2^(1+n) + (-169/30+2^n)*n - (3*n^2)/2 - (5*n^3)/6 - n^5/30.
a(n) = 10*a(n-1) - 43*a(n-2) + 104*a(n-3) - 155*a(n-4) + 146*a(n-5) - 85*a(n-6) + 28*a(n-7) - 4*a(n-8) for n>7.
[A294705] 1, 1, 2, 6, 21, 73, 236, 720, 2119, 6067, 16886, 45570, 119145, 302189, 745488, 1794596, 4229467, 9788759, 22308538, 50179894, 111624605, 245967345, 537621876, 1166947000, 2517725615, 5403657147, 11544411070, 24563871274, 52078899473, 110061411381, 231931627800
a(n) = 115 - 57*2^(1+n) + (2051/30 + 11*2^n)*n + (37*n^2)/2 + 5*n^3 + (2*n^5)/15.
a(n) = 10*a(n-1) - 43*a(n-2) + 104*a(n-3) - 155*a(n-4) + 146*a(n-5) - 85*a(n-6) + 28*a(n-7) - 4*a(n-8) for n>7.
[A294762] 1, 1, 2, 6, 21, 73, 237, 702, 1881, 4577, 10216, 21158, 41097, 75561, 132523, 223134, 362589, 571137, 875246, 1308934, 1915277, 2748105, 3873897, 5373886, 7346385, 9909345, 13203156, 17393702, 22675681, 29276201, 37458663, 47526942, 59829877, 74766081, 92789082
a(n) = (25200 - 52056*n + 48650*n^2 - 20881*n^3 + 4340*n^4 - 154*n^5 - 70*n^6 + 11*n^7) / 5040 for n>0.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>8.
[A294797] 1, 1, 2, 6, 21, 73, 237, 711, 1988, 5253, 13301, 32673, 78669, 187230, 443398, 1050209, 2497187, 5976456, 14419577, 35101838, 86229874, 213707024, 534022585, 1344450284, 3407215499, 8684458421, 22243751970, 57208235104, 147636483121, 382077767531, 991081141309, 2575597009441
a(n) = (1/120)*(3*2^(2-n)*(5*2^(2+n)*(-1+2^n) - (-5+sqrt(5))*(3+sqrt(5))^n + (3-sqrt(5))^n*(5+sqrt(5))) + 4*(-73+15*2^(1+n))*n - 120*n^2 - 65*n^3 - 3*n^5).
a(n) = 13*a(n-1) - 74*a(n-2) + 243*a(n-3) - 510*a(n-4) + 715*a(n-5) - 678*a(n-6) + 429*a(n-7) - 173*a(n-8) + 40*a(n-9) - 4*a(n-10) for n>9.
[A294799] 1, 1, 2, 6, 21, 73, 238, 721, 2046, 5501, 14158, 35172, 84895, 200133, 462714, 1052727, 2363200, 5245849, 11535354, 25163458, 54518249, 117424881, 251631318, 536828413, 1140787234, 2415828037, 5100146838, 10737245792, 22548348403, 47244338829, 98783858242, 206157933027
a(n) = (1/720)*(-20160*(2^n-1) + 36*(349 + 5*2^(4+n))*n + 1556*n^2 + 1095*n^3 - 115*n^4 + 21*n^5 - n^6) for n>0.
a(n) = 11*a(n-1) - 53*a(n-2) + 147*a(n-3) - 259*a(n-4) + 301*a(n-5) - 231*a(n-6) + 113*a(n-7) - 32*a(n-8) + 4*a(n-9) for n > 9.
[A294693] 1, 1, 2, 6, 21, 73, 238, 722, 2054, 5541, 14323, 35788, 87043, 207201, 484772, 1118334, 2550164, 5759101, 12899521, 28689880, 63419177, 139435017, 305102778, 664755562, 1442788402, 3120497429, 6727583999, 14461863108, 31004177695, 66303416497, 141465316864, 301184381814, 639949891424
a(n) = -n^5/120 + n^4/24 - n^3/24 + (3*2^n + 35)*n^2/24 + (35*2^n + 142)*n/40 - (7*2^n - 8). - Bruno Berselli, Nov 07 2017
[A116757] 1, 2, 6, 21, 73, 238, 724, 2075, 5667, 14892, 37942, 94273, 229453, 548954, 1294440, 3014775, 6946951, 15859864, 35913898, 80740541, 180355281, 400556262, 884998396, 1946157331, 4261413163, 9294577988, 20199768414, 43754979705, 94489280917, 203474076082
a(n) = (1/4)*(-4 + 2^(3+n) - (2+5*2^n)*n + (2+2^n)*n^2).
a(n) = 9*a(n-1) - 33*a(n-2) + 63*a(n-3) - 66*a(n-4) + 36*a(n-5) - 8*a(n-6) for n>6.
[A294800] 1, 1, 2, 6, 21, 73, 238, 726, 2101, 5857, 15926, 42626, 112997, 297861, 782666, 2052958, 5379953, 14091781, 36901646, 96621062, 252971401, 662305301, 1733959342, 4539590666, 11884834161, 31114937393, 81460008218, 213265122686, 558335401141, 1461741128617, 3826888039926, 10018923054526, 26229881196037
a(n) = (1/60)*(-3*2^(2-n)*(15*2^n + 2*(-5+sqrt(5))*(3+sqrt(5))^n - 2*(3-sqrt(5))^n*(5+sqrt(5))) + 80*n - 85*n^2 + 10*n^3 - 5*n^4).
a(n) = 8*a(n-1) - 26*a(n-2) + 45*a(n-3) - 45*a(n-4) + 26*a(n-5) - 8*a(n-6) + a(n-7) for n>6.
[A116754] 1, 2, 6, 21, 73, 239, 734, 2134, 5934, 15918, 41470, 105470, 262910, 644350, 1556478, 3713022, 8761342, 20475902, 47448062, 109117438, 249233406, 565772286, 1277165566, 2868379646, 6412042238, 14272167934, 31641829374, 69893881854, 153863847934, 337641471998
a(n) = (1/128)*(4*(-64 + 65*2^n) - 107*2^n*n + 9*2^(1+n)*n^2 + 2^n*n^3) for n > 2. - Colin Barker, Nov 02 2017
[A116768] 1, 2, 6, 21, 73, 239, 738, 2178, 6220, 17351, 47595, 128985, 346492, 924788, 2456502, 6502017, 17164189, 45219875, 118954134, 312559974, 820560736, 2152792187, 5645155791, 14797355181, 38776269808, 101590174424, 266111693898, 696979788213, 1825297432705
a(n) = 2^(-1-n)*(-7*4^n+5*(3+sqrt(5))^n - sqrt(5)*(3+sqrt(5))^n + (3-sqrt(5))^n*(5+sqrt(5)) + 3*2^(1+n)*n). - Colin Barker, Nov 02 2017
a(n) = 3*n + 5*Fibonacci(2*n - 1) - 7*2^(n - 1). - Ehren Metcalfe, Nov 08 2017
[A294694] 1, 1, 2, 6, 21, 73, 239, 740, 2194, 6298, 17653, 48621, 132199, 356040, 952154, 2533014, 6712221, 17734489, 46753127, 123048884, 323441770, 849373210, 2228871757, 5845630221, 15324795631, 40162310568, 105229244354, 275659639590, 722018109189, 1890931558153, 4951850306303
a(n) = 8*a(n-1) - 25*a(n-2) + 39*a(n-3) - 32*a(n-4) + 13*a(n-5) - 2*a(n-6) for n>7. - Colin Barker, Nov 07 2017
[A294802] 1, 1, 2, 6, 21, 73, 240, 744, 2192, 6192, 16896, 44800, 115968, 294144, 733184, 1800192, 4362240, 10448896, 24772608, 58195968, 135593984, 313589760, 720371712, 1644691456, 3733979136, 8433696768, 18958254080, 42429579264, 94573166592, 210000412672, 464661774336, 1024752353280, 2252978782208
a(n) = 2^(n-6)*(36 - 8*n + n^2 + n^3) for n>1.
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4) for n>5.
[A294695] 1, 1, 2, 6, 21, 73, 240, 748, 2240, 6525, 18653, 52640, 147210, 408957, 1130398, 3112172, 8540753, 23375439, 63830072, 173949534, 473211976, 1285299971, 3486071977, 9442928926, 25548319586, 69046732343, 186416183910, 502821645418, 1355067144205, 3648781579445, 9817397466928
a(n) = 12*a(n-1) - 61*a(n-2) + 172*a(n-3) - 296*a(n-4) + 322*a(n-5) - 221*a(n-6) + 92*a(n-7) - 21*a(n-8) + 2*a(n-9) for n>8. - Colin Barker, Nov 07 2017
[A294803] 1, 1, 2, 6, 21, 73, 241, 754, 2252, 6471, 18003, 48736, 128878, 333949, 850061, 2130078, 5263536, 12845251, 30998743, 74055916, 175309058, 411566361, 958923057, 2218787146, 5101322596, 11660165503, 26508001691, 59961770424, 135006257622, 302660977141, 675786261013, 1503238554166, 3332089315928
a(n) = (1/32)*(256 - 115*2^(1+n) + (80+79*2^n)*n - 2*(5*2^n-8)*n^2 + 2^n*n^3) for n>0.
a(n) = 11*a(n-1) - 51*a(n-2) + 129*a(n-3) - 192*a(n-4) + 168*a(n-5) - 80*a(n-6) + 16*a(n-7) for n>7.
[A294804] 1, 1, 2, 6, 21, 73, 242, 762, 2290, 6610, 18434, 49922, 131842, 340738, 864258, 2156546, 5304322, 12881922, 30932994, 73531394, 173211650, 404684802, 938475522, 2161639426, 4948230146, 11262754818, 25501368322, 57461964802, 128899350530, 287947358210, 640755433474, 1420694650882, 3139352657922, 6915165782018
a(n) = (1/192)*(384 - 51*2^(2+n) + 17*2^(3+n)*n - 27*2^n*n^2 + 5*2^n*n^3) for n>1.
a(n) = 9*a(n-1) - 32*a(n-2) + 56*a(n-3) - 48*a(n-4) + 16*a(n-5) for n>6.
[A294697] 1, 1, 2, 6, 21, 73, 244, 790, 2505, 7839, 24320, 74998, 230243, 704359, 2148620, 6538740, 19859175, 60213343, 182304334, 551269876, 1665215691, 5025508101, 15154701002, 45668771716, 137542144181, 414029250493, 1245760375814, 3746896181970, 11265861084585, 33863485814629
a(n) = 9*a(n-1) - 31*a(n-2) + 52*a(n-3) - 45*a(n-4) + 19*a(n-5) - 3*a(n-6) for n>5. - Colin Barker, Nov 07 2017
[A294765] 1, 1, 2, 6, 21, 74, 245, 744, 2068, 5296, 12608, 28150, 59412, 119341, 229477, 424478, 758491, 1313931, 2213350, 3635214, 5834559, 9169668, 14136101, 21409620, 31899782, 46816226, 67749956, 96772222, 136553926, 190508831, 262964229, 359363130, 486502469, 652812293, 868681386, 1146835318, 1502773465
a(n) = (3628800 - 1447200*n + 1660536*n^2 - 377700*n^3 + 154790*n^4 + 9135*n^5 - 987*n^6 + 1350*n^7 + 60*n^8 + 15*n^9 + n^10) / 3628800.
a(n) = 11*a(n-1) - 55*a(n-2) + 165*a(n-3) - 330*a(n-4) + 462*a(n-5) - 462*a(n-6) + 330*a(n-7) - 165*a(n-8) + 55*a(n-9) - 11*a(n-10) + a(n-11) for n>10.
[A294698] 1, 1, 2, 6, 21, 74, 248, 780, 2309, 6483, 17407, 45028, 112921, 275964, 660030, 1550320, 3586449, 8190493, 18500893, 41399992, 91896773, 202564062, 443789172, 967093220, 2097536909, 4530328551, 9748157339, 20905142940, 44695397953, 95295673696, 202670082154
a(n) = (1/720)*(720*(41 - 5*2^(3+n)) + 6*(2812 + 465*2^n)*n + 2*(2627 + 45*2^n)*n^2 + 765*n^3 + 145*n^4 + 3*n^5 + n^6).
a(n) = 13*a(n-1) - 75*a(n-2) + 253*a(n-3) - 553*a(n-4) + 819*a(n-5) - 833*a(n-6) + 575*a(n-7) - 258*a(n-8) + 68*a(n-9) - 8*a(n-10) for n > 9. (End)
[A294766] 1, 1, 2, 6, 21, 74, 248, 784, 2355, 6785, 18897, 51177, 135358, 350788, 893038, 2237998, 5530485, 13496371, 32566359, 77785039, 184083080, 432004206, 1006097772, 2326777196, 5346673751, 12213795349, 27749494413, 62729986469, 141146690370, 316216935240, 705582559642

a(n) = (1/96)*(-6*(-16+2^n) + (-136+123*2^n)*n - 4*(11+3*2^(1+n))*n^2 + (-8+3*2^n)*n^3 - 4*n^4).
a(n) = 13*a(n-1) - 74*a(n-2) + 242*a(n-3) - 501*a(n-4) + 681*a(n-5) - 608*a(n-6) + 344*a(n-7) - 112*a(n-8) + 16*a(n-9) for n>9.
[A116818] 1, 2, 6, 21, 75, 248, 735, 1952, 4697, 10378, 21320, 41163, 75363, 131808, 221561, 359742, 566561, 868514, 1299754, 1903649, 2734539, 3859704, 5361555, 7340060, 9915417, 13230986, 17456492, 22791511, 29469251, 37760640
a(n) = (12n^7 - 119n^6 + 651n^5 - 1505n^4 + 693n^3 + 6664n^2 - 11436n + 10080)/5040. - Franklin T. Adams-Watters, Sep 16 2006
[A294770] 1, 1, 2, 6, 21, 75, 253, 774, 2130, 5314, 12169, 25895, 51756, 98034, 177282, 307933, 516327, 839223, 1326868, 2046700, 3087767, 4565949, 6630075, 9469032, 13319968, 18477696, 25305411, 34246837, 45839926, 60732236, 79698120, 103657863, 133698909, 171099325, 217353654, 274201314, 343657705
a(n) = (40320 - 22704*n + 33868*n^2 - 16996*n^3 + 6405*n^4 - 616*n^5 + 42*n^6 - 4*n^7 + 5*n^8) / 40320.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n>8.
[A294806] 1, 1, 2, 6, 21, 75, 259, 852, 2669, 7997, 23043, 64190, 173677, 458255, 1183139, 2997544, 7470237, 18349057, 44497747, 106691218, 253229501, 595589331, 1389361107, 3217028796, 7398749581, 16911430725, 38436598499, 86905975142, 195555225549, 438086659607, 977373490243, 2172179704400, 4810363365437
a(n) = (1/24)*(24*(2^(2 + n)-3) + 5*(2^n-16)*n - 6*(2^n+2)*n^2 + (2^n-4)*n^3).
a(n) = 12*a(n-1) - 62*a(n-2) + 180*a(n-3) - 321*a(n-4) + 360*a(n-5) - 248*a(n-6) + 96*a(n-7) - 16*a(n-8) for n>7.
[A116820] 1, 2, 6, 21, 75, 264, 914, 3127, 10621, 35932, 121324, 409301, 1380417, 4655382, 15700590, 52954137, 178609067, 602449564, 2032105066, 6854506171, 23121097405, 77990499392, 263072412420, 887378656761, 2993247393297, 10096624106970, 34057260581510
a(n) = 8*a(n-1) - 23*a(n-2) + 29*a(n-3) - 14*a(n-4) + a(n-5) for n>5. - Colin Barker, Oct 18 2017
[A247416] 2, 6, 21, 75, 273, 1008, 3762, 14158, 53635, 204270, 781378, 2999906, 11553234, 44612760, 172671925, 669679793, 2601913466, 10125418060, 39459828905, 153977743500, 601545298200, 2352559491900, 9209476821105, 36084150102001, 141499349638556, 555292275455022, 2180689496523468, 8569380062230708
a(n) = sum_{m=1..floor(sqrt(n+1))} binomial(2n-m^2+1,n).
[A294817] 1, 1, 2, 6, 21, 76, 270, 927, 3074, 9886, 30985, 95064, 286558, 851203, 2497550, 7252494, 20874861, 59630404, 169225518, 477513639, 1340705306, 3747697726, 10435070737, 28954040496, 80087091646, 220897122571, 607726482470, 1668084221742, 4568859998709, 12489795988636
a(n) = (1/25)*(2^(-1-n)*(-25*2^(1+n) + 75*2^(1+2*n) - 25*(3+sqrt(5))^n - 37*sqrt(5)*(3+sqrt(5))^n + (3-sqrt(5))^n*(-25+37*sqrt(5)) + 20*((3-sqrt(5))^n + (3+sqrt(5))^n)*n)).
a(n) = 9*a(n-1) - 31*a(n-2) + 51*a(n-3) - 41*a(n-4) + 15*a(n-5) - 2*a(n-6) for n>5.
[A294772] 1, 1, 2, 6, 21, 76, 270, 930, 3114, 10196, 32820, 104283, 328048, 1023854, 3175395, 9797833, 30104416, 92174093, 281393563, 856933273, 2604185761, 7899961881, 23928712717, 72385213846, 218724040451, 660278241111, 1991584682200, 6002897801720, 18082374709679
a(n) = (35/16 + (13*3^n)/16 - ((3-sqrt(5))/2)^n - ((3+sqrt(5))/2)^n - (7*n)/6 + (5*n^2)/8 - n^3/12).
a(n) = 10*a(n-1) - 40*a(n-2) + 83*a(n-3) - 97*a(n-4) + 64*a(n-5) - 22*a(n-6) + 3*a(n-7) for n>6.
[A116798] 1, 2, 6, 21, 76, 277, 1012, 3702, 13553, 49642, 181885, 666542, 2442922, 8954133, 32821408, 120310377, 441018216, 1616644946, 5926191305, 21723934190, 79634709513, 291922123258, 1070118922286, 3922810609205, 14380129657444, 52714290239405, 193238646748572
a(n) = 7*a(n-1) - 15*a(n-2) + 11*a(n-3) - 3*a(n-4) for n>4. - Colin Barker, Oct 23 2017
[A279560] 1, 1, 2, 6, 21, 76, 277, 1016, 3756, 13998, 52554, 198568, 754316, 2878552, 11027384, 42384412, 163372325, 631290168, 2444700421, 9485463044, 36866810877, 143508889270, 559399074443, 2183269032876, 8530724152279, 33366805383326, 130633854520329, 511889287682280
a(n) = binomial(2n-2,n-1) + Sum_{k=2..n-2} Sum_{i=1..k-1} Sum_{u=1..i} Sum_{d=0..u-1} ((i-d+1)/(i+1)*binomial(i+d,d)) for n>0, a(0)=1.
[A131792] 1, 1, 2, 6, 21, 76, 280, 1045, 3936, 14925, 56892, 217791, 836706, 3224157, 12456225, 48232162, 187131664, 727309265, 2831193004, 11036424667, 43076087806, 168322335246, 658416150496, 2577945422410, 10102468839284, 39621592646545
a(n) = [x^n] Product_{j=0..n-1} [(1 - x^(2^j+1)) / (1-x)] for n>0, with a(0)=1. - Max Alekseyev, Aug 30 2007.
[A144904] 0, 1, 2, 6, 21, 76, 280, 1045, 3937, 14938, 56993, 218414, 840090, 3241153, 12537263, 48604755, 188799962, 734631798, 2862843281, 11171582151, 43647688211, 170720728344, 668414462009, 2619400928928, 10273572796046, 40325085206853, 158393604268277
a(n) = [x^n] x/((1-x-x^3)*(1-x)^(n-1)).
[A101265] 1, 2, 6, 21, 77, 286, 1066, 3977, 14841, 55386, 206702, 771421, 2878981, 10744502, 40099026, 149651601, 558507377, 2084377906, 7779004246, 29031639077, 108347552061, 404358569166, 1509086724602, 5631988329241, 21018866592361, 78443478040202, 292755045568446
a(n) = 4a(n - 1) - a(n - 2) - 1. - N. Sato, Jan 21 2010
a(n)=(6+(3+r)*(2+r)^(n-1)+(3-r)*(2-r)^(n-1))/12; r=sqrt(3). - Paul Weisenhorn, Jul 01 2010
a(n+1) = a(n) * (a(n) + 1) / a(n-1) for n>1 with a(0)=1, a(1)=1. - Paul D. Hanna, Apr 08 2012
a(n+1) = 2*a(n) + (sqrt(12*a(n)^2 - 12*a(n) + 1) - 1)/2. (End)
[A101879] 1, 1, 2, 6, 21, 77, 286, 1066, 3977, 14841, 55386, 206702, 771421, 2878981, 10744502, 40099026, 149651601, 558507377, 2084377906, 7779004246, 29031639077, 108347552061, 404358569166, 1509086724602, 5631988329241, 21018866592361, 78443478040202, 292755045568446
a(0) = a(1) = 1, for n>1 a(n) = (a(n-1) + a(n-1)^2) / a(n-2). - Seiichi Manyama, Aug 11 2016
a(n) = (6+(3-sqrt(3))*(2+sqrt(3))^n + (2-sqrt(3))^n*(3+sqrt(3)))/12. (End)
a(n) = 4*a(n-1) - a(n-2) - 1. - Seiichi Manyama, Aug 26 2016
a(n) = (a(n-1) + 1)*(a(n-2) + 1) / a(n-3).
[A279561] 1, 1, 2, 6, 21, 77, 287, 1079, 4082, 15522, 59280, 227240, 873886, 3370030, 13027730, 50469890, 195892565, 761615285, 2965576715, 11563073315, 45141073925, 176423482325, 690215089745, 2702831489825, 10593202603775, 41550902139551, 163099562175851
a(n) = 1 + Sum_{i=1..n-1} binomial(2i, i-1).
[A124292] 1, 1, 2, 6, 21, 78, 297, 1143, 4419, 17118, 66366, 257391, 998406, 3873015, 15024609, 58285737, 226111986, 877174110, 3402893997, 13201132950, 51212274057, 198672129783, 770725711035, 2989941920334, 11599136512038, 44997518922327, 174562710686622
a(n) = 6a(n-1) - 9a(n-2) + 3a(n-3). - David Nacin, Feb 11 2012
[A129775] 1, 1, 2, 6, 21, 78, 298, 1157, 4539, 17936, 71251, 284188, 1137076, 4561093, 18333337, 73816489, 297635750, 1201551286, 4855672249, 19640147061, 79501958895, 322037615290, 1305256267511, 5293166568270, 21475362822956, 87166344495561, 353933533606927
a(n) = sum(m=1..n-1, sum(k=1..n-m, k*binomial(m+k-1,m-1)*binomial(2*(n-m),n-m-k))/(n-m))+1, a(0)=1. [Vladimir Kruchinin, Oct 11 2011]
a(n) is the upper left term in M^n, M = an infinite square production matrix with (1, 1, 2, 4, 8, 16,... powers of 2) as the left border, as follows:
[A228396] 1, 2, 6, 22, 63, 145, 288, 516, 857, 1343, 2010, 2898, 4051, 5517, 7348, 9600, 12333, 15611, 19502, 24078, 29415, 35593, 42696, 50812, 60033, 70455, 82178, 95306, 109947, 126213, 144220, 164088, 185941, 209907, 236118, 264710, 295823, 329601, 366192
a(n) = 8 + n*(n^3 -2*n^2 +2*n -19)/6 for n>2, a(1)=1, a(2)=2. [Bruno Berselli, Aug 22 2013]
[A107239] 0, 0, 1, 2, 6, 22, 71, 240, 816, 2752, 9313, 31514, 106590, 360606, 1219935, 4126960, 13961456, 47231280, 159782161, 540539330, 1828631430, 6186215574, 20927817799, 70798300288, 239508933824, 810252920400, 2741065994769
a(n) = 1/4 -1/11*sum((3+7*_R+5*_R^2)/(3*_R^2-2*_R-1)*_R^(-n), _R = RootOf(_Z^3-_Z^2-_Z-1)) -1/44*sum((-1-2*_R-9*_R^2)/(3*_R^2+2*_R+3)*_R^(-n), _R = RootOf(_Z^3+_Z^2+3*_Z-1)). - Robert Israel, Mar 26 2010
[A217528] 1, 2, 6, 22, 78, 254, 766, 2174, 5886, 15358, 38910, 96254, 233470, 557054, 1310718, 3047422, 7012350, 15990782, 36175870, 81264638, 181403646, 402653182, 889192446, 1954545662, 4278190078, 9328132094, 20266876926, 43889197054, 94757715966, 204010946558
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). G.f.: -x*(4*x^3-10*x^2+5*x-1)/((x-1)*(2*x-1)^3). [Colin Barker, Oct 17 2012]
[A106434] 0, 2, 6, 22, 78, 278, 990, 3526, 12558, 44726, 159294, 567334, 2020590, 7196438, 25630494, 91284358, 325114062, 1157910902, 4123960830, 14687704294, 52311034542, 186308512214, 663547605726, 2363259841606, 8416874736270, 29977143892022, 106765181148606
a(n)=-(2/17)*sqrt(17)*[3/2-(1/2)*sqrt(17)]^n+(2/17)*[3/2+(1/2)*sqrt(17)]^n*sqrt(17), with n>=0 - Paolo P. Lava, Jun 12 2008
[A164870] 1, 2, 6, 22, 84, 320, 1212, 4576, 17256, 65048, 245184, 924160, 3483408, 13129952, 49490592, 186544480, 703140672, 2650342784, 9989916864, 37654917376, 141932392320, 534984681344, 2016513669120, 7600829555200, 28649748728064, 107989278831104, 407043163037184
a(n) = 6*a(n-1) - 10*a(n-2) + 6*a(n-3) for n>3. - Colin Barker, Oct 31 2017
[A116705] 1, 2, 6, 22, 86, 321, 1085, 3266, 8797, 21478, 48206, 100728, 198046, 369617, 659505, 1131656, 1876481, 3018946, 4728382, 7230242, 10820046, 15879769, 22896941, 32486742, 45417389, 62639126, 85317142, 114868756, 153005222, 201778521
a(n) = (21*n^8 - 48*n^7 - 966*n^6 + 7728*n^5 - 8211*n^4 - 72912*n^3 + 311556*n^2 - 418608*n + 241920)/60480. - Franklin T. Adams-Watters, Sep 16 2006
[A116706] 1, 2, 6, 22, 86, 330, 1206, 4174, 13726, 43134, 130302, 380414, 1078270, 2978814, 8046590, 21311486, 55468030, 142147582, 359268350, 896794622, 2213543934, 5408292862, 13091995646, 31424774142, 74845257726, 176991240190, 415789744126, 970830381054
a(n) = (24*(-32+39*2^n) - 263*2^(1+n)*n + 165*2^n*n^2 - 13*2^(1+n)*n^3 + 3*2^n*n^4) / 384 for n>1.

a(n) = 11*a(n-1) - 50*a(n-2) + 120*a(n-3) - 160*a(n-4) + 112*a(n-5) - 32*a(n-6) for n>7.
[A165524] 1, 2, 6, 22, 86, 332, 1217, 4140, 12934, 37088, 98115, 241269, 555881, 1208988, 2498732, 4936275, 9367783, 17151454, 30408684, 52373368, 87869112, 143950884, 230755459, 362614022, 559490596, 848821676, 1267845697, 1866525871, 2711186627, 3889002516, 5513499142
a(n) = 12*a(n-1) - 66*a(n-2) + 220*a(n-3) - 495*a(n-4) + 792*a(n-5) - 924*a(n-6) + 792*a(n-7) - 495*a(n-8) + 220*a(n-9) - 66*a(n-10) + 12*a(n-11) - a(n-12) for n>12. - Colin Barker, Oct 31 2017
[A116709] 1, 2, 6, 22, 86, 336, 1290, 4870, 18164, 67234, 247786, 911120, 3346618, 12286942, 45104548, 165573482, 607817410, 2231360192, 8191763970, 30074097062, 110410946820, 405353571346, 1488185247962, 5463619641904, 20058759689642, 73642362774478, 270365534734372
a(n) = 8*a(n-1) - 22*a(n-2) + 25*a(n-3) - 10*a(n-4) + 2*a(n-5) for n>5. - Colin Barker, Oct 20 2017
[A165530] 1, 1, 2, 6, 22, 86, 338, 1314, 5046, 19190, 72482, 272530, 1021734, 3823622, 14293234, 53394370, 199382550, 744348822, 2778471490, 10370520178, 38705706374, 144456761766, 539130777874, 2012086272674, 7509256255862, 28025026831158, 104591035618146
a(n) = (1/18)*(2*(3*2^n - (-3+sqrt(3))*(2+sqrt(3))^n + (2-sqrt(3))^n*(3+sqrt(3))) - 3*2^n*n).
a(n) = 8*a(n-1) - 21*a(n-2) + 20*a(n-3) - 4*a(n-4) for n>3.
[A116707] 1, 2, 6, 22, 86, 338, 1318, 5106, 19718, 76066, 293398, 1131794, 4366374, 16846018, 64995254, 250765298, 967503814, 3732821922, 14401956182, 55565542354, 214382633062, 827129764994, 3191227078902, 12312373271986, 47503525349126, 183277819294562
a(n) = 7*a(n-1) - 16*a(n-2) + 16*a(n-3) - 4*a(n-4) for n>3. - Colin Barker, Oct 20 2017
[A116704] 1, 1, 2, 6, 22, 86, 338, 1318, 5110, 19770, 76466, 295810, 1144530, 4428622, 17136186, 66306722, 256565926, 992749334, 3841316550, 14863484902, 57512368162, 222536820262, 861078033110, 3331832349354, 12892103081874, 49884359171762
a(n) = 7*a(n-1) - 17*a(n-2) + 22*a(n-3) - 13*a(n-4) + 4*a(n-5) for n>6. - Colin Barker, Oct 25 2017
[A107243] 0, 0, 0, 0, 1, 2, 6, 22, 86, 342, 1303, 5024, 19424, 75120, 290416, 1122160, 4337009, 16762634, 64787534, 250400910, 967783566, 3740437902, 14456621263, 55874162432, 215950971648, 834640190272, 3225844698176, 12467736540480
a(n)= 3*a(n-1) +2*a(n-2) +3*a(n-3) +7*a(n-4) +14*a(n-5) -32*a(n-6) -2*a(n-7) +6*a(n-8) -4*a(n-9) -6*a(n-10) +10*a(n-11) +a(n-12) -a(n-13) +a(n-15) -a(n-16). [R. J. Mathar, Aug 11 2009]
[A107244] 0, 0, 0, 0, 0, 1, 2, 6, 22, 86, 342, 1366, 5335, 20960, 82464, 324528, 1277104, 5025200, 19770800, 77789489, 306071370, 1204272270, 4738336974, 18643463374, 73354544590, 288620849614, 1135607911375, 4468164041216, 17580442344960
a(n)= 3*a(n-1) +2*a(n-2) +4*a(n-3) +6*a(n-4) +14*a(n-5) +28*a(n-6) -67*a(n-7) -9*a(n-8) -8*a(n-9) +28*a(n-10) -8*a(n-11) -12*a(n-12) +20*a(n-13) +5*a(n-14) +5*a(n-15) -10*a(n-16) +2*a(n-18) -2*a(n-19) -a(n-21) +a(n-22). [From R. J. Mathar, Aug 11 2009]
[A032351] 1, 1, 2, 6, 22, 88, 366, 1552, 6652, 28696, 124310, 540040, 2350820, 10248248, 44725516, 195354368, 853829272, 3733693872, 16333556838, 71476391800, 312865382004, 1369760107576, 5998008630244, 26268304208032, 115055864102504, 503997820344464, 2207927106851580, 9673223726469136, 42382192892577128, 185702341264971696
a(n) = upper left term in n-th power of the following infinite square production matrix:
a(n) = (Sum_{m=0..n-2} (m+3)*(Sum_{k=0..m/2} Sum_{j=0..m-2*k-1} 2^j * binomial(j+k, k) * binomial(m-j, 2*k+1)) * binomial(2*n-m-2,n) + binomial(2*n,n))/(n+1). - Vladimir Kruchinin, Sep 19 2014
[A214358] 1, 1, 2, 6, 22, 88, 374, 1668, 7744, 37182, 183666, 929480, 4803018, 25274088, 135132886, 732779504, 4023875702, 22346542912, 125368768090, 709852110576, 4053103780006, 23320440656376, 135126739754922, 788061492048436, 4623591001082002, 27277772831911348
a(0) = 1, a(1) = 1, a(2) = 2, a(3) = 6, a(4) = 22, a(5) = 88 and
[A271388] 0, 1, 2, 6, 22, 89, 372, 1570, 6644, 28137, 119182, 504854, 2138586, 9059185, 38375312, 162560418, 688616968, 2917028273, 12356730042, 52343948422, 221732523710, 939274043241, 3978828696652, 16854588829826, 71397184015932, 302443324893529, 1281170483590022, 5427125259253590, 22989671520604354
a(n) = 6*a(n-1) - 8*a(n-2) + 2*a(n-3) + a(n-4).
a(n) = (1/80)*(20*n - 3*(5 + 3*sqrt(5))*(2 - sqrt(5))^n + 3*(3*sqrt(5) - 5)*(2 + sqrt(5))^n + 30).
[A165543] 1, 1, 2, 6, 22, 89, 380, 1678, 7584, 34875, 162560, 766124, 3644066, 17469863, 84324840, 409471090, 1998933556, 9804748548, 48298256084, 238840150970, 1185256302910, 5900843531665, 29464355189120, 147522603762870, 740471407808372, 3725334547101464, 18782663124890072, 94889671255981134
a(n) = sum(m=1..n-1, (m*sum(k=1..n-m, (k*binomial(m+2*k-1,m+k-1)*binomial(2*(n-m)-k-1,n-m-1))/(m+k)))/(n-m))+1 (End)
[A200753] 1, 1, 2, 6, 22, 89, 381, 1694, 7744, 36168, 171831, 827814, 4034589, 19857262, 98555324, 492710856, 2478897620, 12541604830, 63768192378, 325674039636, 1669922290311, 8593644472017, 44369362778645, 229767801472366, 1193126351099007, 6211253430642091
a(n) = Sum_{k=0..[n/2]} (-1)^k * C(n-k, k) * C(3*(n-k), n-k) / (2*(n-k)+1).
[A290954] 1, 2, 6, 23, 65, 177, 506, 1551, 5041, 17049, 59131, 208469, 743491, 2675189, 9695778, 35358815, 129646177, 477640361, 1767265159, 6564122733, 24466269715, 91482566757, 343059617231, 1289904151413, 4861946406095, 18367353077397, 69533550921901, 263747951756961, 1002242216658727, 3814986502100477
a(1) = 1, a(2) = 2, and a(n) = C(n) + (n^3 - 3n^2 + 8n - 21)/3 for n > 2, where C(n) is the n-th Catalan number.
[A217200] 2, 6, 23, 78, 207, 458, 891, 1578, 2603, 4062, 6063, 8726, 12183, 16578, 22067, 28818, 37011, 46838, 58503, 72222, 88223, 106746, 128043, 152378, 180027, 211278, 246431, 285798, 329703, 378482, 432483, 492066, 557603, 629478, 708087, 793838, 887151, 988458
a(0) = 2, a(n) = 3+n+n^2/2+n^3+n^4/2 for n>0.
[A134064] 1, 2, 6, 23, 96, 407, 1716, 7163, 29616, 121487, 495276, 2009603, 8124936, 32761367, 131834436, 529712843, 2125993056, 8525430047, 34166159196, 136858084883, 548012945976, 2193794127527, 8780404589556, 35137304693723, 140596281975696, 562526325893807, 2250528914325516
a(n) = (1/2)(4^n - 3^n + 2^n + 1) = 3*StirlingS2(n+1,4) + 2*StirlingS2(n+1,3) + StirlingS2(n+1,2) + 1.
a(n) = C(2^n + 1,2) - (1/2)(3^n - 1) = StirlingS2(2^n + 1,2^n) - StirlingS2(n+1,3) - StirlingS2(n+1,2). - Ross La Haye, Jan 21 2008
[A098746] 1, 1, 2, 6, 23, 102, 495, 2549, 13682, 75714, 428882, 2474573, 14492346, 85926361, 514763279, 3111119358, 18946375767, 116147683902, 716179441293, 4438862153246, 27638747494178, 172805469880497, 1084462349973559, 6828717036765622, 43132158190994223, 273204023401012901
a(n) is the upper left term in M^n, with sum of top row terms = a(n+1). Example: top row of M^3 = (6, 11, 5, 1), where a(3) = 6 and a(4) = 23 = (6 + 11 + 5 + 1). (End)
[A099732] 1, 2, 6, 24, 24, 72, 144, 1152, 1296, 2304, 6912, 82944, 82944, 165888, 497664, 7962624, 15925248, 47775744, 191102976, 191102976, 573308928, 1146617856, 13759414272, 13759414272, 27518828544, 82556485632
a(n) <= 24^((n-1)/3). Equality holds iff n is a power of 4.
[A232981] 1, 1, 2, 6, 24, 24, 144, 1008, 8064, 72576, 72576, 798336, 9580032, 124540416, 1743565824, 1743565824, 27897053184, 474249904128, 8536498274304, 162193467211776, 162193467211776, 3406062811447296, 74933381851840512, 1723467782592331776, 41363226782215962624, 41363226782215962624
a(n) = a(n-1) if 5 | n. otherwise n*a(n-1).
a(n) = n!/(5^floor(n/5)*floor(n/5)!). (End)
[A257546] 1, 1, 2, 6, 24, 40, 80, 140, 280, 504, 1008, 1848, 3696, 6864, 13728, 25740, 51480, 97240, 194480, 369512, 739024, 1410864, 2821728, 5408312, 10816624, 20801200, 41602400, 80233200, 160466400, 310235040, 620470080, 1202160780, 2404321560, 4667212440
a(n) = 4*binomial(n,floor(n/2))) for n > 4; a(n) = n! for n=0,1,2,3,4.
a(n+2) = (4*(1+n)*a(n) + 2*a(n+1))/(n+3) for n >= 4. (End)
[A004306] 1, 1, 2, 6, 24, 44, 80, 144, 264, 484, 888, 1632, 3000, 5516, 10144, 18656, 34312, 63108, 116072, 213488, 392664, 722220, 1328368, 2443248, 4493832, 8265444, 15202520, 27961792, 51429752, 94594060, 173985600, 320009408, 588589064
a(0)=1, a(1)=1, a(2)=2, a(3)=6, a(4)=24, a(5)=44, a(6)=80, a(7)=144, a(n)=2*a(n-1)-a(n-4). - Harvey P. Dale, Dec 13 2011
[A113904] 1, 2, 6, 24, 48, 108, 162, 225, 297, 459, 639, 837, 1053, 1170, 1296, 1566, 1854, 2160, 2322, 2493, 2853, 3231, 3429, 3843, 4275, 4725, 5193, 5679, 6435, 6957, 7767, 8604, 9180, 9774, 10692, 11322, 11646, 12312, 12654, 13356, 14076, 14814, 15570, 16344
a(n) = a(n-1)+(n-1)*s(n-1), where s(n) stands for the sum of the digits of n.
[A289161] 0, 0, 2, 6, 24, 50, 114, 196, 352, 540, 850, 1210, 1752, 2366, 3234, 4200, 5504, 6936, 8802, 10830, 13400, 16170, 19602, 23276, 27744, 32500, 38194, 44226, 51352, 58870, 67650, 76880, 87552, 98736, 111554, 124950, 140184, 156066, 174002, 192660
a(n) = (n-1)^2*(2*n^2-4*n+3-3*(-1)^n)/24.
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A087645] 2, 6, 24, 72, 172, 352, 646, 1094, 1742, 2642, 3852, 5436, 7464, 10012, 13162, 17002, 21626, 27134, 33632, 41232, 50052, 60216, 71854, 85102, 100102, 117002, 135956, 157124, 180672, 206772, 235602, 267346, 302194, 340342, 381992, 427352, 476636
a(n) = (3*n^4-10*n^3+9*n^2-2*n+24)/12. - Vladeta Jovovic, Oct 26 2003

[A002526] 1, 1, 2, 6, 24, 78, 230, 675, 2069, 6404, 19708, 60216, 183988, 563172, 1725349, 5284109, 16177694, 49526506, 151635752, 464286962, 1421566698, 4352505527, 13326304313, 40802053896, 124926806216, 382497958000, 1171122069784
a(0)=1, a(1)=1, a(2)=2, a(3)=6, a(4)=24, a(5)=78, a(6)=230, a(7)=675, a(8)=2069, a(9)=6404, a(10)=19708, a(11)=60216, a(12)=183988, a(13)=563172, a(n)=2*a(n-1)+2*a(n-2)+10*a(n-4)+8*a(n-5)- 2*a(n-6)- 16*a(n-7)- 10*a(n-8)-2*a(n-9)+4*a(n-10)+2*a(n-11)+2*a(n-13)+a(n-14). - Harvey P. Dale, Jun 22 2011
[A117665] 0, 2, 6, 24, 80, 210, 462, 896, 1584, 2610, 4070, 6072, 8736, 12194, 16590, 22080, 28832, 37026, 46854, 58520, 72240, 88242, 106766, 128064, 152400, 180050, 211302, 246456, 285824, 329730, 378510, 432512, 492096, 557634, 629510, 708120, 793872
a(n) = n (n + 1) (n^2 - 3 n + 4)/2. - corrected by Eric Rowland, Aug 15 2017
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4.
[A217527] 2, 6, 24, 88, 288, 864, 2432, 6528, 16896, 42496, 104448, 251904, 598016, 1400832, 3244032, 7438336, 16908288, 38141952, 85458944, 190316544, 421527552, 929038336, 2038431744, 4454350848, 9697230848, 21038628864, 45499809792, 98113159168, 210990268416
a(n) = 6*a(n-1)-12*a(n-2)+8*a(n-3). G.f.: -2*x^2*(6*x^2-3*x+1)/(2*x-1)^3. [Colin Barker, Oct 17 2012]
[A226037] 1, 2, 6, 24, 88, 528, 1392, 11136, 41856, 192192, 516032, 6192384, 13270272, 185783808, 511526400, 1163742720, 4403449344, 79262088192, 199280729088, 3985614581760, 8463108648960, 19276630732800, 54618972549120, 1310855341178880, 2751134770298880, 17228042511482880
a(n) = Sum_{k=0..n} Sum_{c in C(n,k)} lcm(c) where C(n,k) are the combinations of n with size k.
[A115220] 0, 0, 0, 0, 1, 2, 6, 24, 95, 380, 1520, 6072, 24253, 96870, 386910, 1545368, 6172403, 24653392, 98468904, 393297808, 1570883385, 6274315690, 25060445446, 100094728568, 399791564311, 1596820303940, 6377911168464, 25474219467560, 101747396653957, 406392538897646
a(0)=a(1)=a(2)=a(3)=0,a(4)=1,a(5)=2,a(6)=6; for n>6 a(n) = 4*a(n-1) - a(n-4) + 2*a(n-5) + 2*a(n-6). - Zak Seidov, Mar 06 2006
[A192088] 2, 6, 24, 114, 528, 2334, 9528, 36834, 135918, 484206, 1678152, 5694786, 19007808, 62625054, 204215340, 660445914, 2121665016, 6778399914, 21557206332, 68294432778, 215651021484, 679023425238, 2132750062560, 6684084844362, 20907052386534, 65279503654446
a(n)=3^(n-2)+sum(psi_3(t)*3^(n-t-1),t=1..n-1)-(n-1)*sum(psi_2(t)*2^(n-t-1),t=0..n-1), where psi_N(t) is the number of primitive words of length t over an N-letter alphabet, expressible in terms of the Möbius function.
[A228395] 1, 2, 6, 24, 116, 521, 1877, 5531, 13939, 31156, 63416, 119802, 213006, 360179, 583871, 913061, 1384277, 2042806, 2943994, 4154636, 5754456, 7837677, 10514681, 13913759, 18182951, 23491976, 30034252, 38029006, 47723474, 59395191, 73354371, 89946377
a(n) = 1 + (1/24)*(3n^6 - 37n^5 + 184n^4 - 441n^3 + 509n^2 - 218n). [Ralf Stephan, Aug 22 2013]
[A228397] 1, 2, 6, 24, 118, 534, 1851, 5158, 12264, 25943, 50214, 90656, 154758, 252304, 395793, 600894, 886936, 1277433, 1800644, 2490168, 3385574, 4533066, 5986183, 7806534, 10064568, 12840379, 16224546, 20319008, 25237974, 31108868, 38073309, 46288126, 55926408
a(n) = n! for 0 < n < 4; for n > 3, a(n) = 318 + n*(7*n^5 -21*n^4 -125*n^3 -819*n^2 +12862*n -42720)/144. [Bruno Berselli, Aug 22 2013]
[A228401] 1, 2, 6, 24, 120, 540, 1996, 6196, 16732, 40459, 89519, 184185, 356721, 656475, 1156443, 1961563, 3219019, 5130856, 7969228, 12094622, 17977422, 26223198, 37602126, 53082966, 73872046, 101457721, 137660797, 184691431, 245213039, 322413765, 420086085, 542715141
a(n) = 1 + n*(n-1)*(n+1)*(n+2)*(3*n^4-10*n^3-11*n^2+50*n+216)/5760. [Bruno Berselli, Aug 22 2013]
[A228399] 1, 2, 6, 24, 120, 577, 2208, 6768, 17469, 39603, 81272, 154225, 274802, 464985, 753556, 1177362, 1782687, 2626731, 3779196, 5323979, 7360972, 10007969, 13402680, 17704852, 23098497, 29794227, 38031696, 48082149, 60251078, 74880985, 92354252, 113096118
a(n) = n! for 0 < n < 5; for n > 4, a(n) = -18 + n*(107*n^5 -1077*n^4 +2225*n^3 +12345*n^2 -61732*n +80532)/720. [Bruno Berselli, Aug 22 2013]
[A109834] 1, 2, 6, 24, 120, 720, 5040, 40320, 362880, 362880, 362880, 362880, 362880, 362880, 362880, 362880, 362880, 362880, 362880, 362880, 725760, 1451520, 2903040, 5806080, 11612160, 23224320, 46448640, 92897280, 185794560, 371589120, 1114767360
a(n+1) = a(n) * InitialDigitOf(n).
a(n) = Product_{i = 1..n} floor(i / 10^(floor(log_10(i)))) where log_10(i) is the logarithm of i in base 10.
[A000805] 1, 1, 2, 6, 24, 720, 1854, 4738, 12072, 30818, 79118, 204448, 528950, 1370674, 3557408, 9244418, 24043990, 62573616, 162925614, 424377730, 1105703640, 2881483458, 7510389278, 19577689120, 51038756326, 133066443346, 346944079632, 904622495746, 2358783572710, 6150613767440, 16038217209886
a(n) = 96+sum(b(i)*a(n-i),i=1..15) where b(i)=[2, 2, 1, 0, -4, -18, -16, -12, -10, -4, 4, 3, 2, 2, 1] for n>=21. - Sean A. Irvine, Jun 29 2011
[A092438] 0, 2, 6, 26, 90, 302, 966, 3026, 9330, 28502, 86526, 261626, 788970, 2375102, 7141686, 21457826, 64439010, 193448102, 580606446, 1742343626, 5228079450, 15686335502, 47063200806, 141197991026, 423610750290, 1270865805302
a(n)=(3^(n+1)+(-1)^(n+1))/2-2^(n+1)+1
[A287592] 0, 2, 6, 31, 167, 806, 3588, 15233, 62973, 256504, 1036274, 4167659, 16719843, 66985946, 268173264, 1073184709, 4293787577, 17177378732, 68714233758, 274866896783, 1099488558975, 4397998276462, 17592085380956, 70368534462281, 281474540502837, 1125899000872736
a(n) = (-1+2^n)^2-(n*(-7+2^(1+n)+n))/2.
a(n) = 11*a(n-1)-47*a(n-2)+101*a(n-3)-116*a(n-4)+68*a(n-5)-16*a(n-6).
[A212762] 0, 2, 6, 32, 60, 162, 252, 512, 720, 1250, 1650, 2592, 3276, 4802, 5880, 8192, 9792, 13122, 15390, 20000, 23100, 29282, 33396, 41472, 46800, 57122, 63882, 76832, 85260, 101250, 111600, 131072, 143616, 167042, 182070, 209952, 227772
a(n) = a(n-1)+4*a(n-2)-4*a(n-3)-6*a(n-4)+6*a(n-5)+4*a(n-6)-4*a(n-7)-a(n-8)+a(n-9).
a(n) = (n+1)*(2*n^3+5*n^2+3*n+1-(n^2+3*n+1)*(-1)^n)/16. - Luce ETIENNE, Sep 19 2015
[A077259] 0, 2, 6, 44, 116, 798, 2090, 14328, 37512, 257114, 673134, 4613732, 12078908, 82790070, 216747218, 1485607536, 3889371024, 26658145586, 69791931222, 478361013020, 1252365390980, 8583840088782, 22472785106426, 154030760585064, 403257766524696, 2763969850442378
a(0)=0, a(1)=2, a(n+2)=4+9a(n)+2Sqrt(1+20a(n)+20a(n)^2). - Herbert Kociemba, May 12 2008
a(0)=0, a(1)=2, a(2)=6, a(3)=44, a(n)=18a(n-2)-a(n-4)+8. - _Robert Phillips_, Sep 01 2008
[A181509] 2, 6, 56, 152, 296, 488, 728, 1016, 1352, 1736, 2168, 2648, 3176, 3752, 4376, 5048, 5768, 6536, 7352, 8216, 9128, 10088, 11096, 12152, 13256, 14408, 15608, 16856, 18152, 19496, 20888, 22328, 23816, 25352, 26936, 28568, 30248, 31976, 33752
a(n) = 56-72*n+24*n^2, n>2. a(n) = (2*n-2)^3-sum_{i=1..n-1} a(i). [From R. J. Mathar, Nov 01 2010]
[A253251] 1, 2, 7, 8, 9, 10, 11, 20, 25, 29, 32, 35, 37, 39, 41, 43, 45, 47, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101
a(n) + 1 <= a(n+1) <= a(n) + 9, hence n <= a(n) <= 9n. - Charles R Greathouse IV, Jun 18 2015
[A047527] 0, 1, 2, 7, 8, 9, 10, 15, 16, 17, 18, 23, 24, 25, 26, 31, 32, 33, 34, 39, 40, 41, 42, 47, 48, 49, 50, 55, 56, 57, 58, 63, 64, 65, 66, 71, 72, 73, 74, 79, 80, 81, 82, 87, 88, 89, 90, 95, 96, 97, 98, 103, 104, 105, 106, 111, 112, 113, 114, 119, 120
a(n) = 3*n-4*floor((n-2)/4)-6+(-1)^n. - Gary Detlefs, Mar 27 2010
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Harvey P. Dale, Sep 05 2014
a(n) = (4n-5+i^(2n)+(1+i)*i^(-n)+(1-i)*i^n)/2 where i = sqrt(-1).
[A287515] 2, 7, 8, 9, 11, 12, 15, 20, 21, 27, 29, 30, 32, 34, 38, 44, 50, 52, 53, 54, 55, 56, 58, 59, 60, 62, 64, 65, 68, 70, 73, 74, 77, 78, 80, 83, 85, 86, 89, 91, 95, 98, 101, 108, 109, 110, 114, 116, 120, 127, 128, 134, 136, 137, 138, 139, 140, 141, 143, 144, 145, 146, 147, 150, 151, 152, 154, 155, 157, 158, 159, 162
a(n) = zeropos([sequence],n)
[A047354] 0, 1, 2, 7, 8, 9, 14, 15, 16, 21, 22, 23, 28, 29, 30, 35, 36, 37, 42, 43, 44, 49, 50, 51, 56, 57, 58, 63, 64, 65, 70, 71, 72, 77, 78, 79, 84, 85, 86, 91, 92, 93, 98, 99, 100, 105, 106, 107, 112, 113, 114, 119, 120, 121, 126, 127, 128, 133, 134, 135, 140, 141
a(n) = 7*floor(n/3)+(n mod 3), with offset 0 and a(0)=0. - Gary Detlefs, Mar 09 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)
a(n) = (21*n-33-12*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-5, a(3k-1) = 7k-6, a(3k-2) = 7k-7. (End)
a(n) = n + 4*floor((n-1)/3) - 1. - Bruno Berselli, Feb 06 2017
[A047525] 0, 2, 7, 8, 10, 15, 16, 18, 23, 24, 26, 31, 32, 34, 39, 40, 42, 47, 48, 50, 55, 56, 58, 63, 64, 66, 71, 72, 74, 79, 80, 82, 87, 88, 90, 95, 96, 98, 103, 104, 106, 111, 112, 114, 119, 120, 122, 127, 128, 130, 135, 136, 138, 143, 144, 146, 151, 152
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n + 2*sqrt(3)*sin(2*Pi*n/3) + 12*cos(2*Pi*n/3) - 21)/9. - Ilya Gutkovskiy, May 29 2016
a(3k) = 8k-1, a(3k-1) = 8k-6, a(3k-2) = 8k-8. - Wesley Ivan Hurt, Jun 10 2016
[A047239] 1, 2, 7, 8, 13, 14, 19, 20, 25, 26, 31, 32, 37, 38, 43, 44, 49, 50, 55, 56, 61, 62, 67, 68, 73, 74, 79, 80, 85, 86, 91, 92, 97, 98, 103, 104, 109, 110, 115, 116, 121, 122, 127, 128, 133, 134, 139, 140, 145, 146, 151

a(n) = 3*(n-1) - (-1)^n. - Rolf Pleisch, Aug 04 2009
a(n) = 6*n - a(n-1) - 9 (with a(1)=1). - Vincenzo Librandi, Aug 05 2010
a(n) = a(n-1) + a(n-2) - a(n-3) with a(1)=1, a(2)=2, a(3)=7. - Harvey P. Dale, Nov 23 2011
[A080572] 0, 0, 1, 2, 7, 8, 15, 24, 37, 38, 49, 62, 81, 98, 121, 146, 175, 176, 195, 216, 247, 272, 307, 344, 387, 420, 463, 508, 559, 608, 663, 720, 781, 782, 817, 854, 909, 950, 1009, 1070, 1141, 1190, 1257, 1326, 1405, 1478, 1561, 1646, 1737, 1802, 1885, 1970, 2065, 2154
a(2^n)=4^n-3^n; a(2^n+1)=4^n-3^n+1; a(2^n-1)=4^n-3^n-2^(n+1)+3
a(0)=a(1)=0, a(2n) = 3a(n)+n^2, a(2n+1) = a(n)+2a(n+1)+n^2-1. This was proved by Jeremy Dover. - Ralf Stephan, Dec 08 2004
[A213037] 0, 1, 2, 7, 8, 17, 18, 31, 32, 49, 50, 71, 72, 97, 98, 127, 128, 161, 162, 199, 200, 241, 242, 287, 288, 337, 338, 391, 392, 449, 450, 511, 512, 577, 578, 647, 648, 721, 722, 799, 800, 881, 882, 967, 968, 1057, 1058, 1151, 1152, 1249, 1250, 1351
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A055247] 1, 2, 7, 8, 19, 20, 25, 26, 55, 56, 61, 62, 73, 74, 79, 80, 163, 164, 169, 170, 181, 182, 187, 188, 217, 218, 223, 224, 235, 236, 241, 242, 487, 488, 493, 494, 505, 506, 511, 512, 541, 542, 547, 548, 559, 560, 565, 566, 649, 650, 655, 656
a(1) = 1, a(n) = 3^ceiling(log_2(n)) - a(2^ceiling(log_2(n)) + 1 - n). - Juan Jose Alba Gonzalez (jjalba(AT)gmail.com), May 16 2006
[A279847] 0, 1, 2, 7, 8, 22, 23, 44, 54, 84, 85, 151, 152, 206, 241, 326, 327, 458, 459, 605, 664, 790, 791, 1065, 1091, 1265, 1356, 1622, 1623, 2023, 2024, 2365, 2496, 2790, 2865, 3480, 3481, 3847, 4026, 4636, 4637, 5373, 5374, 6000, 6341, 6875, 6876, 7982, 8032, 8787, 9086, 9952, 9953, 11137, 11284
a(p^k) = a(p^k-1) + (p^(2*k) - 1)/(p^2 - 1), for p is prime.
[A236291] 1, 1, 2, 7, 8, 26, 32, 85, 128, 292, 512, 1079, 2048, 4174, 8192, 16489, 32768, 65672, 131072, 262315, 524288, 1048786, 2097152, 4194557, 8388608, 16777516, 33554432, 67109215, 134217728, 268435862, 536870912, 1073742289, 2147483648, 4294967824, 8589934592
a(n) = (2^(1+n))/4 for n even; a(n) = (2^(1+n)-2*n+2*n^2)/4 for n odd. - Colin Barker, Jan 23 2014
[A047526] 1, 2, 7, 9, 10, 15, 17, 18, 23, 25, 26, 31, 33, 34, 39, 41, 42, 47, 49, 50, 55, 57, 58, 63, 65, 66, 71, 73, 74, 79, 81, 82, 87, 89, 90, 95, 97, 98, 103, 105, 106, 111, 113, 114, 119, 121, 122, 127, 129, 130, 135, 137, 138, 143, 145, 146, 151, 153, 154, 159
a(n) = a(n-1) + a(n-3) - a(n-4), for n > 4.
a(n) = 8*n/3 - 2 + cos(2*n*Pi/3) + 5*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3*k) = 8*k-1, a(3*k-1) = 8*k-6, a(3*k-2) = 8*k-7. (End)
[A077470] 1, 2, 7, 9, 13, 15, 18, 20, 22, 27, 31, 37, 39, 40, 49, 55, 57, 66, 68, 70, 71, 77, 79, 81, 82, 87, 94, 98, 104, 106, 107, 114, 117, 120, 121, 129, 133, 136, 138, 141, 150, 151, 157, 158, 163, 166, 169, 173, 181, 184, 192, 198, 199, 205, 207, 209, 213, 218, 224
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(3/5) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 3.7... - Benoit Cloitre
[A047352] 0, 2, 7, 9, 14, 16, 21, 23, 28, 30, 35, 37, 42, 44, 49, 51, 56, 58, 63, 65, 70, 72, 77, 79, 84, 86, 91, 93, 98, 100, 105, 107, 112, 114, 119, 121, 126, 128, 133, 135, 140, 142, 147, 149, 154, 156, 161, 163, 168, 170
a(n) = 7*n-a(n-1)-12 with a(1)=0. Also: a(n) = a(n-1) + a(n-2) - a(n-3). - Vincenzo Librandi, Aug 05 2010
a(n) = floor((7/3)*floor(3*n/2)). - Clark Kimberling, Jul 04 2012
[A267212] 1, 2, 7, 9, 16, 23, 33, 38, 51, 63, 76, 87, 105, 120, 139, 155, 176, 197, 221, 240, 267, 293, 320, 345, 377, 406, 439, 469, 504, 539, 577, 610, 651, 691, 732, 771, 817, 860, 907, 951, 1000, 1049, 1101, 1148, 1203, 1257, 1312, 1365, 1425, 1482, 1543, 1601
a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8) for n>7.
[A022113] 2, 7, 9, 16, 25, 41, 66, 107, 173, 280, 453, 733, 1186, 1919, 3105, 5024, 8129, 13153, 21282, 34435, 55717, 90152, 145869, 236021, 381890, 617911, 999801, 1617712, 2617513, 4235225, 6852738, 11087963, 17940701, 29028664, 46969365, 75998029, 122967394
a(n) = a(n-1) + a(n-2). (End)
a(n) = ((5+6*sqrt(5))/5)*((1+sqrt(5))/2)^n + ((5-6*sqrt(5))/5)*((1-sqrt(5))/2)^n starting at n=0. - Bogart B. Strauss, Oct 27 2013
a(n) = h*Fibonacci(n+k) + Fibonacci(n+k-h) with h=5, k=1. - Bruno Berselli, Feb 20 2017
[A041643] 1, 2, 7, 9, 16, 25, 41, 353, 394, 747, 1141, 1888, 6805, 15498, 564733, 1144964, 3999625, 5144589, 9144214, 14288803, 23433017, 201752939, 225185956, 426938895, 652124851, 1079063746, 3889316089, 8857695924, 322766369353, 654390434630
a(n) = 571538*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 22 2013
[A042345] 1, 2, 7, 9, 16, 41, 57, 1466, 1523, 4512, 6035, 10547, 37676, 85899, 4504424, 9094747, 31788665, 40883412, 72672077, 186227566, 258899643, 6658718641, 6917618284, 20493955209, 27411573493, 47905528702, 171128159599, 390161847900, 20459544250399, 41309250348698
a(n) = 4542100*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 20 2014
[A042807] 1, 1, 2, 7, 9, 16, 57, 1726, 5235, 6961, 12196, 43549, 55745, 99294, 6013385, 6112679, 12126064, 42490871, 54616935, 97107806, 345940353, 10475318396, 31771895541, 42247213937, 74019109478, 264304542371, 338323651849, 602628194220, 36496015305049
a(n) = 6069130*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 30 2014
[A079326] 1, 2, 7, 9, 17, 20, 31, 35, 49, 54, 71, 77, 97, 104, 127, 135, 161, 170, 199, 209, 241, 252, 287, 299, 337, 350, 391, 405, 449, 464, 511, 527, 577, 594, 647, 665, 721, 740, 799, 819, 881, 902, 967, 989, 1057, 1080, 1151, 1175, 1249, 1274, 1351, 1377, 1457
a(n) = (n^2)/2-1 (n even), (n^2-n)/2-1 (n odd).
a(n) = n*(2*n+(-1)^n-1)/4-1.
[A042929] 1, 1, 2, 7, 9, 25, 59, 84, 143, 227, 1051, 1278, 2329, 3607, 9543, 22693, 32236, 119401, 151637, 271038, 16955993, 17227031, 34183024, 119776103, 153959127, 427694357, 1009347841, 1437042198, 2446390039, 3883432237, 17980118987, 21863551224
a(n) = 17107630*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Feb 01 2014
[A041717] 1, 2, 7, 9, 43, 52, 199, 450, 17299, 35048, 122443, 157491, 752407, 909898, 3482101, 7874100, 302697901, 613269902, 2142507607, 2755777509, 13165617643, 15921395152, 60929803099, 137781001350, 5296607854399, 10730996710148, 37489597984843, 48220594694991
a(n) = 17498*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 23 2013
[A041073] 1, 1, 2, 7, 9, 52, 61, 235, 296, 531, 6668, 7199, 13867, 48800, 62667, 362135, 424802, 1636541, 2061343, 3697884, 46435951, 50133835, 96569786, 339843193, 436412979, 2521908088, 2958321067, 11396871289, 14355192356, 25752063645, 323379956096, 349132019741
a(n) = 6964*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 10 2013
[A041453] 1, 1, 2, 7, 9, 133, 142, 559, 701, 1260, 38501, 39761, 78262, 274547, 352809, 5213873, 5566682, 21913919, 27480601, 49394520, 1509316201, 1558710721, 3068026922, 10762791487, 13830818409, 204394249213, 218225067622, 859069452079, 1077294519701, 1936363971780
a(n) = 39202*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 18 2013
[A042157] 1, 1, 2, 7, 9, 214, 223, 883, 1106, 1989, 96578, 98567, 195145, 684002, 879147, 20904383, 21783530, 86254973, 108038503, 194293476, 9434125351, 9628418827, 19062544178, 66816051361, 85878595539, 2042023748758, 2127902344297, 8425730781649, 10553633125946
a(n) = 97684*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 16 2014
[A047524] 2, 7, 10, 15, 18, 23, 26, 31, 34, 39, 42, 47, 50, 55, 58, 63, 66, 71, 74, 79, 82, 87, 90, 95, 98, 103, 106, 111, 114, 119, 122, 127, 130, 135, 138, 143, 146, 151, 154, 159, 162, 167, 170, 175, 178, 183, 186, 191, 194, 199, 202, 207, 210, 215, 218, 223, 226, 231, 234
a(n) = 8*n-a(n-1)-7, n>1. - Vincenzo Librandi, Aug 06 2010
a(n) = 4*n-3/2+(-1)^n/2. G.f.: x*(2+5*x+x^2) / ((1+x)*(x-1)^2). - R. J. Mathar, Mar 22 2011
[A105770] 1, 2, 7, 10, 17, 28, 37, 50, 67, 82, 101, 124, 145, 170, 199, 226, 257, 292, 325, 362, 403, 442, 485, 532, 577, 626, 679, 730, 785, 844, 901, 962, 1027, 1090, 1157, 1228, 1297, 1370, 1447, 1522, 1601, 1684, 1765, 1850, 1939, 2026, 2117, 2212, 2305, 2402, 2503
a(n) = n^2 + 1 + [0,0,2] (3-periodic). – Ralf Stephan, Nov 15 2010.
[A023855] 1, 2, 7, 10, 22, 28, 50, 60, 95, 110, 161, 182, 252, 280, 372, 408, 525, 570, 715, 770, 946, 1012, 1222, 1300, 1547, 1638, 1925, 2030, 2360, 2480, 2856, 2992, 3417, 3570, 4047, 4218, 4750, 4940, 5530, 5740, 6391, 6622, 7337, 7590, 8372, 8648, 9500, 9800, 10725, 11050
a(n) = (n+1)*(n+3)*(2*n+1)/24 if n is odd, or n*(n+1)*(n+2)/12 if n is even
a(n) = sum_{i=1..ceil(n/2)} i*(n-i+1) = -ceil(n/2)*(ceil(n/2)+1)*(2*ceil(n/2)-3n-2)/6. - Wesley Ivan Hurt, Sep 19 2013
a(n)= (4*n^3+15*n^2+14*n+3-3*(n+1)^2*(-1)^n)/48. - Luce ETIENNE, Oct 22 2014
[A084184] 0, 1, 2, 7, 10, 31, 42, 127, 170, 511, 682, 2047, 2730, 8191, 10922, 32767, 43690, 131071, 174762, 524287, 699050, 2097151, 2796202, 8388607, 11184810, 33554431, 44739242, 134217727, 178956970, 536870911, 715827882, 2147483647, 2863311530, 8589934591
a(n) = (5-(-1)^n)*(2^n-1)/6.
a(n) = 5*a(n-2) - 4*a(n-4) for n>3.

[A001960] 2, 7, 11, 15, 20, 24, 28, 32, 37, 41, 45, 50, 54, 58, 63, 67, 71, 76, 80, 84, 88, 93, 97, 101, 106, 110, 114, 119, 123, 127, 131, 136, 140, 144, 149, 153, 157, 162, 166, 170, 174, 179, 183, 187, 192, 196, 200, 205, 209, 213, 218, 222, 226, 230, 235, 239, 243, 248
a(n) = floor((n+2/3)*(5+sqrt 13)/2) . - R. J. Mathar, Feb 14 2011
[A063289] 1, 2, 7, 11, 16, 20, 25, 29, 34, 38, 43, 47, 52, 56, 61, 65, 70, 74, 79, 83, 88, 92, 97, 101, 106, 110, 115, 119, 124, 128, 133, 137, 142, 146, 151, 155, 160, 164, 169, 173, 178, 182, 187, 191, 196, 200, 205, 209, 214, 218, 223, 227, 232, 236
a(n+2) = a(n)+9 (n>2), a(2n+1) = a(2n)+4 (n>1), a(2n) = a(2n-1)+5 (n>1). (End)
[A063097] 2, 7, 11, 17, 21, 27, 31, 37, 41, 47, 51, 57, 61, 67, 71, 77, 81, 87, 91, 97, 101, 107, 111, 117, 121, 127, 131, 137, 141, 147, 151, 157, 161, 167, 171, 177, 181, 187, 191, 197, 201, 207, 211, 217, 221, 227, 231, 237, 241, 247
a(n) = 10*n-a(n-1)-12 for n>2, with a(1)=2, a(2)=7. [Vincenzo Librandi, Aug 07 2010]
a(n) = (-7+(-1)^n+10*n)/2. a(n)=a(n-1)+a(n-2)-a(n-3) for n>4. G.f.: x*(x^3 +2*x^2 +5*x +2) / ((x -1)^2*(x +1)). - Colin Barker, Sep 08 2013
[A144707] 1, 1, 2, 7, 11, 22, 35, 61, 98, 163, 263, 430, 695, 1129, 1826, 2959, 4787, 7750, 12539, 20293, 32834, 53131, 85967, 139102, 225071, 364177, 589250, 953431, 1542683, 2496118, 4038803, 6534925, 10573730, 17108659, 27682391, 44791054, 72473447, 117264505
a(n) = 3*F(n+1) - 3 - (-1)^n + 2*0^n.
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>4. - Philippe Deléham, Dec 16 2008
a(n) = (3*2^(-n-1)*((1 + sqrt(5))^(n+1) - (1-sqrt(5))^(n+1))) / sqrt(5) - 4 for n>0 and even.
a(n) = (3*2^(-n-1)*((1+sqrt(5))^(n+1) - (1-sqrt(5))^(n+1)))/sqrt(5) - 2 for n odd.
[A235355] 0, 1, 2, 7, 11, 24, 33, 58, 74, 115, 140, 201, 237, 322, 371, 484, 548, 693, 774, 955, 1055, 1276, 1397, 1662, 1806, 2119, 2288, 2653, 2849, 3270, 3495, 3976, 4232, 4777, 5066, 5679, 6003, 6688, 7049, 7810, 8210, 9051, 9492, 10417, 10901, 11914, 12443, 13548
a(n) = 4*a(n-2) -6*a(n-4) +4*a(n-6) -a(n-8), n>7.
a(n) = (-1)*((-1+(-1)^n-2*n)*(2+n+n^2))/16. a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7). G.f.: x*(x^2+1)*(x^2+x+1) / ((x-1)^4*(x+1)^3). - Colin Barker, Jan 20 2014
[A201630] 2, 7, 11, 25, 47, 97, 191, 385, 767, 1537, 3071, 6145, 12287, 24577, 49151, 98305, 196607, 393217, 786431, 1572865, 3145727, 6291457, 12582911, 25165825, 50331647, 100663297, 201326591, 402653185, 805306367, 1610612737, 3221225471, 6442450945, 12884901887
a(n) = 3*2^n-(-1)^n.
a(n) = 2*sum(a(i), i=0..n-2)+7 for n>1.
[A284354] 1, 2, 7, 11, 31, 47, 127, 191, 511, 767, 2047, 3071, 8191, 12287, 32767, 49151, 131071, 196607, 524287, 786431, 2097151, 3145727, 8388607, 12582911, 33554431, 50331647, 134217727, 201326591, 536870911, 805306367, 2147483647, 3221225471, 8589934591
a(n) = (2^(n+3) - 4)/4 for n even.
a(n) = (3*2^(n+1) - 4)/4 for n odd.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) for n>2.
[A016873] 2, 7, 12, 17, 22, 27, 32, 37, 42, 47, 52, 57, 62, 67, 72, 77, 82, 87, 92, 97, 102, 107, 112, 117, 122, 127, 132, 137, 142, 147, 152, 157, 162, 167, 172, 177, 182, 187, 192, 197, 202, 207, 212, 217, 222, 227, 232, 237, 242, 247, 252, 257, 262, 267, 272, 277
a(n) = 10*n - a(n-1) - 1 (with a(0)=2). - Vincenzo Librandi, Nov 20 2010
[A213041] 1, 2, 7, 12, 21, 30, 43, 56, 73, 90, 111, 132, 157, 182, 211, 240, 273, 306, 343, 380, 421, 462, 507, 552, 601, 650, 703, 756, 813, 870, 931, 992, 1057, 1122, 1191, 1260, 1333, 1406, 1483, 1560, 1641, 1722, 1807, 1892, 1981, 2070, 2163, 2256
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3.
a(n) = n*(n+1)+(1+(-1)^n)/2. - Wesley Ivan Hurt, May 06 2016
[A135541] 0, 2, 7, 12, 21, 44, 91, 180, 357, 716, 1435, 2868, 5733, 11468, 22939, 45876, 91749, 183500, 367003, 734004, 1468005, 2936012, 5872027, 11744052, 23488101, 46976204, 93952411, 187904820, 375809637, 751619276, 1503238555, 3006477108
a(n) = (1/10)*(7*2^(n+1) - (7 - 4*I)*I^n - (7 + 4*I)*(-I)^n), with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A079824] 1, 2, 7, 12, 25, 37, 62, 84, 125, 160, 221, 272, 357, 427, 540, 632, 777, 894, 1075, 1220, 1441, 1617, 1882, 2092, 2405, 2652, 3017, 3304, 3725, 4055, 4536, 4912, 5457, 5882, 6495, 6972, 7657, 8189, 8950, 9540, 10381, 11032, 11957, 12672, 13685, 14467, 15572
a(2n) = (n/6)*(7*n^2 + 3*n + 2); a(2n-1) = (n/6)*(7*n^2 - 6*n + 5) . - Philippe Deléham, Feb 16 2004
[A059329] 1, 2, 7, 12, 25, 38, 63, 88, 129, 170, 231, 292, 377, 462, 575, 688, 833, 978, 1159, 1340, 1561, 1782, 2047, 2312, 2625, 2938, 3303, 3668, 4089, 4510, 4991, 5472, 6017, 6562, 7175, 7788, 8473, 9158, 9919, 10680, 11521, 12362, 13287, 14212
a(n) = ((1+n)*(9+3*(-1)^n+4*n+2*n^2))/12.
[A177747] 1, 2, 7, 12, 27, 42, 77, 112, 182, 252, 378, 504, 714, 924, 1254, 1584, 2079, 2574, 3289, 4004, 5005, 6006, 7371, 8736, 10556, 12376, 14756, 17136, 20196, 23256, 27132, 31008, 35853, 40698, 46683, 52668, 59983, 67298, 76153, 85008, 95634, 106260, 118910, 131560, 146510
a(n) = (n+5)*(2*n*(n+10)*(n^2+10*n+35)+5*(2*n*(n+10)+39)*(-1)^n+573)/3840. [Bruno Berselli, Mar 23 2012]
[A175879] 0, 1, 2, 7, 12, 29, 58, 123, 240, 501, 998, 2023, 4040, 8137, 16266, 32671, 65300, 130837, 261682, 523827, 1047592, 2096237, 4192366, 8386671, 16773312, 33550545, 67100882, 134210007, 268419484, 536854941, 1073709994, 2147451819
a(0) = 0;
a(n) = sum_{k=1}^n 2^{k-1}odd(n div k)
[A102371] 1, 2, 7, 12, 29, 62, 123, 248, 505, 1018, 2047, 4084, 8181, 16374, 32755, 65520, 131057, 262130, 524279, 1048572, 2097133, 4194286, 8388587, 16777192, 33554409, 67108842, 134217711, 268435428, 536870885
a(n) = -n + Sum_{ k >= 1, k == n mod 2^k } 2^k. - N. J. A. Sloane and David Applegate, Mar 22 2005. E.g. a(5) = -5 + 2^1 + 2^5 = 29.
a(2^k + k) -a(k) = 2^(2^k + k) - 2^k, with k>= 1.
a(1)=1, for n>1, a(n)= a(n-1) XOR (a(n-1) + n), where XOR is the bitwise exclusive-or operator. - Alex Ratushnyak, Apr 21 2012
[A290234] 1, 2, 7, 12, 31, 56, 127, 240, 511, 992, 2047, 4032, 8191, 16256, 32767, 65280, 131071, 261632, 524287, 1047552, 2097151, 4192256, 8388607, 16773120, 33554431, 67100672, 134217727, 268419072, 536870911, 1073709056, 2147483647, 4294901760, 8589934591
a(n) = 2^(n+1) - 1 for n even.
a(n) = 2^(n+1) - 2^((n+1)/2) for n odd.
a(n) = 2*a(n-1) + 3*a(n-2) - 6*a(n-3) - 2*a(n-4) + 4*a(n-5) for n>4.
[A088662] 1, 2, 7, 12, 34, 60, 155, 280, 686, 1260, 2982, 5544, 12804, 24024, 54483, 102960, 230230, 437580, 967538, 1847560, 4047836, 7759752, 16871582, 32449872, 70100044, 135207800, 290473900, 561632400, 1200823560, 2326762800
a(2n) = (2n)!(2n^2+4n+1)/[n!(n+1)!], a(2n+1) = 2(2n+1)!/(n!)^2.
a(n) = (n!/4)*((1+(-1)^n)*(n^2+4*n+2)/((n/2)!*(n/2+1)!)+4*(1-(-1)^n)/(n/2-1/2)!^2). - Wesley Ivan Hurt, Jun 23 2015
[A238366] 1, 2, 7, 12, 37, 62, 187, 312, 937, 1562, 4687, 7812, 23437, 39062, 117187, 195312, 585937, 976562, 2929687, 4882812, 14648437, 24414062, 73242187, 122070312, 366210937, 610351562, 1831054687, 3051757812, 9155273437, 15258789062, 45776367187, 76293945312
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3), a(0) = 1, a(1) = 2, a(2) = 7.
[A084068] 1, 2, 7, 12, 41, 70, 239, 408, 1393, 2378, 8119, 13860, 47321, 80782, 275807, 470832, 1607521, 2744210, 9369319, 15994428, 54608393, 93222358, 318281039, 543339720, 1855077841, 3166815962, 10812186007, 18457556052, 63018038201, 107578520350
a(n)*a(n+3) = -2 + a(n+1)*a(n+2).
a(n) = ((sqrt(2)+1)^n-(sqrt(2)-1)^n)((sqrt(2)/8-1/4)*(-1)^n+sqrt(2)/8+1/4);
a(n+1) = Sum_{k=0..floor((n+1)/2)} 2^k*(C(n+1,2k)-C(n,2k+1)*(1-(-1)^n)/2. (End)
[A063206] 2, 7, 13, 17, 23, 27, 33, 37, 43, 47, 53, 57, 63, 67, 73, 77, 83, 87, 93, 97, 103, 107, 113, 117, 123, 127, 133, 137, 143, 147, 153, 157, 163, 167, 173, 177, 183, 187, 193, 197, 203, 207, 213, 217, 223, 227, 233, 237, 243, 247
a(n) = -5/2-(-1)^n/2+5*n for n>1.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>4.
[A001966] 2, 7, 13, 18, 23, 28, 34, 39, 44, 49, 54, 60, 65, 70, 75, 81, 86, 91, 96, 102, 107, 112, 117, 123, 128, 133, 138, 143, 149, 154, 159, 164, 170, 175, 180, 185, 191, 196, 201, 206, 212, 217, 222, 227, 233, 238, 243, 248, 253, 259, 264, 269, 274, 280, 285, 290
a(n) = floor((n+1/2)*(3+sqrt 5)).
[A168465] 2, 7, 13, 18, 24, 29, 35, 40, 46, 51, 57, 62, 68, 73, 79, 84, 90, 95, 101, 106, 112, 117, 123, 128, 134, 139, 145, 150, 156, 161, 167, 172, 178, 183, 189, 194, 200, 205, 211, 216, 222, 227, 233, 238, 244, 249, 255, 260, 266, 271, 277, 282, 288, 293, 299, 304, 310

a(n) = (22*n - (-1)^n - 3)/4 - 3. [Bruno Berselli, Jan 05 2013, modified Jul 08 2015]
[A271114] 2, 7, 13, 19, 25, 31, 37, 43, 49, 55, 61, 67, 73, 79, 85, 91, 97, 103, 109, 115, 121, 127, 133, 139, 145, 151, 157, 163, 169, 175, 181, 187, 193, 199, 205, 211, 217, 223, 229, 235, 241, 247, 253, 259, 265, 271, 277, 283, 289, 295, 301, 307, 313, 319, 325
a(n) = 2*a(n-1)-a(n-2) for n>2.
[A155212] 2, 7, 13, 20, 28, 37, 47, 58, 70, 83, 97, 112, 128, 145, 163, 182, 202, 223, 245, 268, 292, 317, 343, 370, 398, 427, 457, 488, 520, 553, 587, 622, 658, 695, 733, 772, 812, 853, 895, 938, 982, 1027, 1073, 1120, 1168, 1217, 1267, 1318, 1370, 1423, 1477, 1532
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Feb 26 2012
[A262523] 0, 2, 7, 13, 21, 32, 44, 58, 75, 93, 113, 136, 160, 186, 215, 245, 277, 312, 348, 386, 427, 469, 513, 560, 608, 658, 711, 765, 821, 880, 940, 1002, 1067, 1133, 1201, 1272, 1344, 1418, 1495, 1573, 1653, 1736, 1820, 1906, 1995, 2085, 2177, 2272, 2368, 2466
a(n+2) -2*a(n+1) + a(n) = period 3: repeat (3, 1, 2).
a(n+3) = a(n-3) + 4*(2 + 3*n). [Thus, a(n+3m) = a(n-3m) + 4m*(2 + 3n), and a(6m+k) = 4m*(9m + 3k + 2) + a(k): explicit formula for a(n) in terms of a(k), 0 <= k <= 5. - M. F. Hasler, Jun 06 2017]
a(n) = n*(n+1) + floor((n+1)/3). - Bruno Berselli, Jun 06 2017
[A182415] 1, 2, 7, 13, 24, 41, 69, 114, 187, 305, 496, 805, 1305, 2114, 3423, 5541, 8968, 14513, 23485, 38002, 61491, 99497, 160992, 260493, 421489, 681986, 1103479, 1785469, 2888952, 4674425, 7563381, 12237810, 19801195, 32039009, 51840208, 83879221, 135719433, 219598658
a(n) = 2*a(n-1)-a(n-3). G.f.: (1+3*x^2)/((1-x)*(1-x-x^2)). [Colin Barker, May 07 2012]
[A180003] 1, 2, 7, 13, 56, 247, 475, 2108, 9361, 18019, 80030, 355453, 684229, 3039014, 13497835, 25982665, 115402484, 512562259, 986657023, 4382255360, 19463867989, 37466984191, 166410301178, 739114421305, 1422758742217, 6319209189386
a(3*n+1)=(20+(10+r)*(19+6*r)^n+(10-r)*(19-6*r)^n)/40;
a(3*n+2)=(20+(30+9*r)*(19+6*r)^n+(30-9*r)*(19-6*r)^n)/40;
a(3*n+3)=(20+(130+41*r)*(19+6*r)^n+(130-41*r)*(19-6*r)^n)/40;
a(n+9)=39*(a(n+6)-a(n+3))+a(n); r=sqrt(10);
[A008865] 1, 2, 7, 14, 23, 34, 47, 62, 79, 98, 119, 142, 167, 194, 223, 254, 287, 322, 359, 398, 439, 482, 527, 574, 623, 674, 727, 782, 839, 898, 959, 1022, 1087, 1154, 1223, 1294, 1367, 1442, 1519, 1598, 1679, 1762, 1847, 1934, 2023, 2114, 2207, 2302, 2399, 2498
a(n) = a(n-1)+2*n - 1 (with a(1) = -1). - Vincenzo Librandi, Nov 18 2010
[A227582] 2, 7, 14, 23, 35, 50, 67, 86, 107, 131, 158, 187, 218, 251, 287, 326, 367, 410, 455, 503, 554, 607, 662, 719, 779, 842, 907, 974, 1043, 1115, 1190, 1267, 1346, 1427, 1511, 1598, 1687, 1778, 1871, 1967, 2066, 2167, 2270, 2375, 2483, 2594, 2707, 2822, 2939
a(n) = 2*a(n-1) -a(n-2) +a(n-5) -2*a(n-6) +a(n-7).
[A249852] 0, 2, 7, 14, 23, 35, 50, 67, 86, 108, 133, 160, 189, 221, 256, 293, 332, 374, 419, 466, 515, 567, 622, 679, 738, 800, 865, 932, 1001, 1073, 1148, 1225, 1304, 1386, 1471, 1558, 1647, 1739, 1834, 1931, 2030, 2132, 2237, 2344, 2453, 2565, 2680, 2797, 2916, 3038, 3163, 3290, 3419
a(n) = 3*a(n-1)-4*a(n-2)+4*a(n-3)-3*a(n-4)+a(n-5).
[A249547] 0, 2, 7, 14, 24, 36, 51, 68, 88, 110, 135, 162, 192, 224, 259, 296, 336, 378, 423, 470, 520, 572, 627, 684, 744, 806, 871, 938, 1008, 1080, 1155, 1232, 1312, 1394, 1479, 1566, 1656, 1748, 1843, 1940, 2040, 2142, 2247, 2354, 2464, 2576, 2691, 2808, 2928, 3050
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3.
[A088207] 0, 2, 7, 14, 24, 37, 52, 70, 90, 113, 139, 167, 198, 232, 268, 307, 348, 392, 439, 488, 540, 594, 651, 711, 773, 838, 906, 976, 1049, 1124, 1202, 1283, 1366, 1452, 1541, 1632, 1726, 1822, 1921, 2023, 2127, 2234, 2343, 2455, 2570, 2687, 2807, 2930, 3055, 3183
a(n) = Sum(1, n) floor(n*Phi^2)
a(n) = floor(n*(n+1)/2*phi^2- n/2) +0 or +1. - Benoit Cloitre, Sep 27 2003
[A014112] 1, 2, 7, 14, 27, 44, 69, 100, 141, 190, 251, 322, 407, 504, 617, 744, 889, 1050, 1231, 1430, 1651, 1892, 2157, 2444, 2757, 3094, 3459, 3850, 4271, 4720, 5201, 5712, 6257, 6834, 7447, 8094, 8779, 9500, 10261, 11060, 11901, 12782, 13707, 14674, 15687
a(n) = a(n-2) + n*(n-1).
[A227016] 1, 2, 7, 14, 27, 45, 69, 101, 141, 191, 252, 323, 408, 506, 618, 746, 890, 1052, 1233, 1432, 1653, 1895, 2159, 2447, 2759, 3097, 3462, 3853, 4274, 4724, 5204, 5716, 6260, 6838, 7451, 8098, 8783, 9505, 10265, 11065, 11905, 12787, 13712, 14679, 15692, 16750
a(n) + 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-8) - 3*a(n-9) + 3*a(n-10) - a(n-11) for n > 1 (conjectured).
[A210728] 1, 2, 7, 14, 27, 48, 83, 140, 233, 384, 629, 1026, 1669, 2710, 4395, 7122, 11535, 18676, 30231, 48928, 79181, 128132, 207337, 335494, 542857, 878378, 1421263, 2299670, 3720963, 6020664, 9741659, 15762356, 25504049, 41266440, 66770525, 108037002, 174807565
a(n) = ((5+sqrt(5))*(1+sqrt(5))^(n+1)-(5-sqrt(5))*(1-sqrt(5))^(n+1))/(2^(n+1)*sqrt(5))-n-5. - Bruno Berselli, Jun 27 2012
[A122751] 1, 2, 7, 14, 29, 49, 83, 127, 192, 273, 384, 519, 694, 902, 1162, 1466, 1835, 2260, 2765, 3340, 4011, 4767, 5637, 6609, 7714, 8939, 10318, 11837, 13532, 15388, 17444, 19684, 22149, 24822, 27747, 30906, 34345, 38045, 42055, 46355, 50996, 55957, 61292
a(n) = 1/64*n^4-1/32*n^3+1/32*n^2+d*n+e with: d:=-1/8 if n=0 or n=2 (mod 4) d:=3/32 if n=1 or n=3 (mod 4) e:=0 if n=0 (mod 4) e:=-7/64 if n=1 (mod 4) e:=1/8 if n=2 (mod 4) e:=1/64 if n=3 (mod 4).
a(n) = (2*n*(n-1)*(n^2-n+1)-7*(2*n-1)*(-1)^n-8*(-1)^((2*n-1+(-1)^n)/4)+1)/128. - Luce ETIENNE, Oct 29 2017
[A258321] 0, 2, 7, 14, 31, 60, 116, 216, 397, 718, 1285, 2278, 4008, 7006, 12179, 21070, 36299, 62304, 106588, 181812, 309305, 524942, 888977, 1502474, 2534736, 4269050, 7178911, 12054926, 20215927, 33859908, 56646980, 94667088, 158045413, 263604046, 439272349
a(n) = -a(-n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-4).
a(n) = (n+1)*Fibonacci(n+1) + (n-1)*Fibonacci(n-1).
[A140253] 1, 1, 2, 7, 14, 31, 62, 127, 254, 511, 1022, 2047, 4094, 8191, 16382, 32767, 65534, 131071, 262142, 524287, 1048574, 2097151, 4194302, 8388607, 16777214, 33554431, 67108862, 134217727, 268435454, 536870911
a(n)= a(n-1) + 2*a(n-2) + 3. - Gary Detlefs, Jun 22 2010
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>2, a(0) = -1, a(1) = 1, a(2) = 2. - Philippe Deléham, Feb 25 2012
[A290682] 1, 2, 7, 14, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295, 8589934591
a(n) = 2^(1+n) - 1 for n>3.
a(n) = 3*a(n-1) - 2*a(n-2) for n>5.
[A060552] 0, 0, 0, 1, 2, 7, 14, 35, 70, 154, 310, 650, 1300, 2666, 5332, 10788, 21588, 43428, 86856, 174244, 348488, 697992, 1396040, 2794120, 5588240, 11180680, 22361360, 44730896, 89462032, 178940432, 357880864, 715794960
a(n) = (2^(n-1) - 2^(floor(n/3) + (n mod 3)mod 2 - 1))/3 + 2^(floor((n+3)/6) + d(n) - 1) - 2^floor((n-1)/2), with d(n)=1 if n mod 6=1 else d(n)=0.
a(n) = 2*a(n-1) + 2*a(n-2) - 2*a(n-3) - 4*a(n-4) - 4*a(n-5) + 10*a(n-6) - 4*a(n-7) - 4*a(n-8) + 4*a(n-9) + 8*a(n-10) + 8*a(n-11) - 16*a(n-12).
[A173126] 0, 0, 0, 0, 1, 2, 7, 14, 36, 72, 165, 330, 715, 1430, 3004, 6008, 12393, 24786, 50559, 101118, 204820, 409640, 826045, 1652090, 3321891, 6643782, 13333932, 26667864, 53457121, 106914242, 214146295, 428292590, 857417220, 1714834440, 3431847189
a(n)= 2*a(n-1) +3*a(n-2) -6*a(n-3) -a(n-4) +2*a(n-5). G.f.: x^4/((1-2*x) * (x^2+x-1) * (x^2-x-1)). [From R. J. Mathar, Feb 19 2010]
[A256272] 2, 7, 14, 36, 72, 188, 410, 1021, 2392, 5818, 13862, 33678, 80784, 195440, 470916, 1137710, 2744212, 6627675, 15994430, 38619812, 93222780, 225072548, 543339722, 1311772784, 3166816034, 7645450834, 18457558444, 44560677618, 107578520352, 259717999680, 627013566050, 1513745792655, 3654502889812
a(2*n^2) == 1 (mod 2), with a(n) == 0 (mod 2) elsewhere.
[A167762] 0, 0, 1, 2, 7, 14, 37, 74, 175, 350, 781, 1562, 3367, 6734, 14197, 28394, 58975, 117950, 242461, 484922, 989527, 1979054, 4017157, 8034314, 16245775, 32491550, 65514541, 131029082, 263652487, 527304974, 1059392917, 2118785834, 4251920575, 8503841150
a(n) = -3*(-sqrt(3))^n*(-18-12*sqrt(3))^(-1) -12*2^n*sqrt(3)*(-18-12*sqrt(3))^(-1) +12 *sqrt(3)*3^(1/2*n)*(-18-12*sqrt(3))^(-1) -18*2^n*(-18-12*sqrt(3))^(-1) +21*3^(1/2 *n)*(-18-12*sqrt(3))^(-1), with n>=0. - Paolo P. Lava, Nov 16 2009
a(n) = [-18-12*sqrt(3)]^(-1)*{12*sqrt(3)*[3^((1/2)*n)-2^n]+21*3^((1/2)*n)-3*(-sqrt(3))^n-18*2^n}, with n>=0. - Paolo P. Lava, Nov 16 2009
[A176662] 2, 7, 14, 40, 104, 256, 608, 1408, 3200, 7168, 15872, 34816, 75776, 163840, 352256, 753664, 1605632, 3407872, 7208960, 15204352, 31981568, 67108864, 140509184, 293601280, 612368384, 1275068416, 2650800128, 5502926848, 11408506880, 23622320128, 48855252992
a(2n) + a(2n+1) = 9, 54, 360, 2016, ...
a(n) = 4*a(n-1) - 4*a(n-2), n > 3.

[A123752] 1, 2, 7, 14, 49, 98, 343, 686, 2401, 4802, 16807, 33614, 117649, 235298, 823543, 1647086, 5764801, 11529602, 40353607, 80707214, 282475249, 564950498, 1977326743, 3954653486, 13841287201, 27682574402, 96889010407, 193778020814
a(n) = 7^(n/2)*[7(1+(-1)^n) + 2sqrt(7)*(1 - (-1)^n)]/14.
a(n+3) = a(n+2)*a(n+1)/a(n). - Reinhard Zumkeller, Mar 04 2011
[A005449] 0, 2, 7, 15, 26, 40, 57, 77, 100, 126, 155, 187, 222, 260, 301, 345, 392, 442, 495, 551, 610, 672, 737, 805, 876, 950, 1027, 1107, 1190, 1276, 1365, 1457, 1552, 1650, 1751, 1855, 1962, 2072, 2185, 2301, 2420, 2542, 2667, 2795, 2926, 3060, 3197, 3337, 3480
a(n) = right term of M^n * [1 0 0] where M = the 3 X 3 matrix [1 0 0 / 1 1 0 / 2 3 1]. M^n * [1 0 0] = [1 n a(n)]. E.g. a(4) = 26 since M^4 * [1 0 0] = [1 4 26] = [1 n a(n)]. - Gary W. Adamson, Dec 19 2004
a(n) = Sum_{j=1..n} n+j. - Zerinvary Lajos, Sep 12 2006
a(n) = 2*C(3*n,4)/C(3*n,2), n>=1. - Zerinvary Lajos, Jan 02 2007
a(n) = a(n-1) + 3*n-1 for n>0, a(0)=0. - Vincenzo Librandi, Nov 18 2010
a(n) = 12/(n+2)!*Sum_{j=0..n} (-1)^(n-j)*binomial(n,j)*j^(n+2). [Vladimir Kruchinin, Jun 04 2013]
a(n) = floor(n/(1-exp(-2/(3*n)))) for n>0. - Richard R. Forberg, Jun 22 2013
[A293401] 0, 2, 7, 15, 26, 41, 59, 80, 104, 132, 162, 196, 233, 274, 318, 365, 415, 468, 525, 585, 648, 714, 784, 856, 932, 1012, 1094, 1180, 1269, 1361, 1457, 1555, 1657, 1763, 1871, 1983, 2097, 2216, 2337, 2462, 2589
a(n) = ceiling(r*n^2), where r = (1 + sqrt(5))/2.
[A113422] 0, 2, 7, 15, 27, 42, 60, 82, 107, 135, 167, 202, 240, 282, 327, 375, 427, 482, 540, 602, 667, 735, 807, 882, 960, 1042, 1127, 1215, 1307, 1402, 1500, 1602, 1707, 1815, 1927, 2042, 2160, 2282, 2407, 2535, 2667, 2802, 2940, 3082, 3227, 3375, 3527, 3682, 3840
a(-n) = a(n).
a(3n) = 15n^2, a(3n+1) = 15n^2 + 10n + 2.
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5), a(0)=0, a(1)=2, a(2)=7, a(3)=15, a(4)=27. - Harvey P. Dale, Nov 28 2013
a(n) = Sum_{j=1..n} Sum_{i=1..n} ceiling((i+j-n+3)/3). - Wesley Ivan Hurt, Mar 12 2015
[A061802] 2, 7, 15, 27, 45, 69, 99, 135, 177, 229, 289, 357, 435, 519, 609, 709, 821, 941, 1069, 1207, 1351, 1503, 1665, 1837, 2023, 2221, 2425, 2635, 2851, 3073, 3313, 3571, 3839, 4115, 4403, 4703, 5011, 5331, 5661, 6001, 6353, 6713, 7085, 7469, 7859, 8255, 8665
a(n) = a(n-1) + p(n) + p(n-1) where p(n) = n-th prime.
[A192962] 1, 2, 7, 15, 30, 55, 97, 166, 279, 463, 762, 1247, 2033, 3306, 5367, 8703, 14102, 22839, 36977, 59854, 96871, 156767, 253682, 410495, 664225, 1074770, 1739047, 2813871, 4552974, 7366903, 11919937, 19286902, 31206903, 50493871, 81700842
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4).
[A295145] 1, 2, 7, 15, 34, 70, 146, 295, 597, 1198, 2404, 4813, 9635, 19277, 38564, 77136, 154283, 308575, 617162, 1234334, 2468681, 4937373, 9874760, 19749532, 39499079, 78998171, 157996358
a(n+1)/a(n) -> 2.
[A200862] 1, 2, 7, 15, 47, 106, 312, 731, 2068, 4983, 13727, 33757, 91302, 227846, 608389, 1534290, 4059911, 10315771, 27122487, 69284630, 181339756, 465000279, 1213137668, 3119218927, 8119123683, 20916102989, 54354854050, 140218109898, 363965563145, 939827989330, 2437520805303, 6298491488951, 16326135100447
a(n) = 2*a(n-1) +5*a(n-2) -9*a(n-3) for n>2. - Vincenzo Librandi, Jun 30 2014
[A120110] 1, 2, 7, 15, 67, 92, 461, 1065, 3016, 3956, 29478, 42231, 379107, 547556, 603421, 991923, 12709228, 18540622, 241033695, 352271227, 389226278, 407797820, 5532937710, 8097345425, 30368363481, 41503874738, 98701094676, 127342427241
a(n)=sum{k=0..floor(n/2), lcm(1,..,n-k+1)/lcm(1,..,k+1)}
[A041573] 1, 2, 7, 16, 23, 39, 62, 101, 163, 427, 1444, 3315, 114154, 231623, 809023, 1849669, 2658692, 4508361, 7167053, 11675414, 18842467, 49360348, 166923511, 383207370, 13195974091, 26775155552, 93521440747, 213818037046, 307339477793, 521157514839
a(n) = 115598*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 20 2013
[A041341] 1, 1, 2, 7, 16, 23, 62, 85, 232, 781, 1013, 1794, 47657, 49451, 97108, 340775, 778658, 1119433, 3017524, 4136957, 11291438, 38011271, 49302709, 87313980, 2319466189, 2406780169, 4726246358, 16585519243, 37897284844, 54482804087, 146862893018, 201345697105
a(n) = 48670*a(n-12) - a(n-24). - Vincenzo Librandi, Dec 16 2013
[A070169] 0, 2, 7, 16, 28, 43, 62, 85, 111, 140, 173, 210, 249, 293, 339, 390, 443, 501, 561, 625, 693, 764, 838, 916, 998, 1083, 1171, 1263, 1358, 1457, 1559, 1665, 1774, 1886, 2002, 2122, 2245, 2371, 2501, 2634, 2771, 2912, 3055, 3203, 3353, 3507, 3665, 3826, 3991
a(n) = round(n^2 * sqrt(3))
[A293410] 0, 2, 7, 16, 28, 44, 63, 85, 111, 141, 174, 210, 250, 293, 340, 390, 444, 501, 562, 626, 693, 764, 839, 917, 998, 1083, 1171, 1263, 1358, 1457, 1559, 1665, 1774, 1887, 2003, 2122, 2245, 2372, 2502, 2635, 2772, 2912, 3056, 3203, 3354, 3508, 3666, 3827, 3991
a(n) = ceiling(r*n^2), where r = sqrt(3).
[A130883] 1, 2, 7, 16, 29, 46, 67, 92, 121, 154, 191, 232, 277, 326, 379, 436, 497, 562, 631, 704, 781, 862, 947, 1036, 1129, 1226, 1327, 1432, 1541, 1654, 1771, 1892, 2017, 2146, 2279, 2416, 2557, 2702, 2851, 3004, 3161, 3322, 3487, 3656, 3829
a(n) = a(n-1) +4*n -3 for n>0, a(0)=1. - Vincenzo Librandi, Nov 23 2010
a(n) = 2*a(n-1) - a(n-2) +4. - Eric Werley, Jun 27 2011
a(0)=1, a(1)=2, a(2)=7; for n>2, a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Harvey P. Dale, Jul 20 2011
[A005581] 0, 0, 2, 7, 16, 30, 50, 77, 112, 156, 210, 275, 352, 442, 546, 665, 800, 952, 1122, 1311, 1520, 1750, 2002, 2277, 2576, 2900, 3250, 3627, 4032, 4466, 4930, 5425, 5952, 6512, 7106, 7735, 8400, 9102, 9842, 10621, 11440, 12300, 13202, 14147, 15136, 16170
a(n) = binomial(n+1, n-2) + binomial(n, n-2).
a(n) is the coefficient of x^3 in the expansion of (1+x+x^2)^n. For example, a(1)=0 since (1+x+x^2)^1=1+x+x^2. - Peter C. Heinig (algorithms(AT)gmx.de), Apr 09 2007
a(n) = C(4+n,3)-(n+4)*(n+1), since C(4+n,3) = number of all triangles in (n+4)-gon, and (n+4)*(n+1)=number of triangles with at least one of the edges included. Example: n=0,in a square, all 4 possible triangles include some of the square's edges and C(4+n,3)-(n+4)*(n+1)=4-4*1=0 = number of other triangles = a(0). - Toby Gottfried, Nov 12 2011
a(n) = 2*binomial(n,2) + binomial(n,3). - Vladimir Shevelev and Peter J. C. Moses, Jun 22 2012
a(0)=0, a(1)=0, a(2)=2, a(3)=7, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Sep 22 2012
a(n) = GegenbauerC(N, -n, -1/2) where N = 3 if 3<n else 2*n-3. - Peter Luschny, May 10 2016
[A241526] 2, 7, 16, 31, 53, 83, 123, 174, 237, 314, 406, 514, 640, 785, 950, 1137, 1347, 1581, 1841, 2128, 2443, 2788, 3164, 3572, 4014, 4491, 5004, 5555, 6145, 6775, 7447, 8162, 8921, 9726, 10578, 11478, 12428, 13429, 14482, 15589, 16751, 17969, 19245, 20580, 21975
a(n) = sum_{j=0..n-1-floor(n/3)} ((4*n-6*j+1-(-1)^j)/4)*((4*n-6*j+3+(-1)^j)/4).
a(n) = (4*n^3+15*n^2+17*n-6*floor(n/3))/18.
[A216499] 0, 0, 0, 2, 7, 16, 32, 55, 87, 130, 184, 252, 335, 433, 550, 686, 842, 1022, 1224, 1451, 1706, 1987, 2299, 2642, 3015, 3426, 3870, 4349, 4870, 5428, 6028, 6672, 7357, 8091, 8871, 9696, 10576, 11505, 12486, 13525, 14616, 15766, 16976, 18242, 19574, 20968
a(0) = 0,
a(n) = max_{1<=i<=n} [C(i,3) +2*C(i,2)*(n-i) +i*C(n-i,2) +a(n-i)] for n>0.
[A228189] 0, 2, 7, 16, 32, 56, 89, 134, 190, 261, 348, 452, 575, 718, 883, 1072, 1286, 1526, 1795, 2094, 2424, 2787, 3185, 3619, 4090, 4601, 5152, 5747, 6385, 7068, 7799, 8578, 9408, 10289, 11224, 12214, 13260, 14365, 15529, 16755, 18043, 19396, 20814, 22301, 23856, 25482
a(n) = floor((Pi*n^3)/12).
[A023550] 2, 7, 16, 32, 59, 104, 178, 299, 496, 816, 1335, 2176, 3538, 5743, 9312, 15088, 24435, 39560, 64034, 103635, 167712, 271392, 439151, 710592, 1149794, 1860439, 3010288, 4870784, 7881131, 12751976, 20633170, 33385211, 54018448, 87403728, 141422247, 228826048
a(n) = -5 + (2^(-1-n)*((1-sqrt(5))^n*(-15+7*sqrt(5)) + (1+sqrt(5))^n*(15+7*sqrt(5)))) / sqrt(5) - 2*(1+n).
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
[A212576] 0, 1, 2, 7, 16, 33, 52, 87, 126, 181, 246, 331, 422, 545, 674, 831, 1006, 1213, 1428, 1691, 1964, 2277, 2614, 2995, 3388, 3845, 4314, 4835, 5388, 5997, 6620, 7323, 8042, 8825, 9646, 10535, 11442, 12445, 13466, 14563, 15706, 16929, 18172
a(n) = a(n-2)+2*a(n-3)+a(n-4)-2*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8)+2*a(n-9)+a(n-10)-a(n-12).

[A192952] 0, 1, 2, 7, 16, 33, 62, 111, 192, 325, 542, 895, 1468, 2397, 3902, 6339, 10284, 16669, 27002, 43723, 70780, 114561, 185402, 300027, 485496, 785593, 1271162, 2056831, 3328072, 5384985, 8713142, 14098215, 22811448, 36909757, 59721302, 96631159
a(n)=3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4).
[A132738] 1, 2, 7, 16, 33, 66, 131, 260, 517, 1030, 2055, 4104, 8201, 16394, 32779, 65548, 131085, 262158, 524303, 1048592, 2097169, 4194322, 8388627, 16777236, 33554453, 67108886, 134217751, 268435480, 536870937, 1073741850, 2147483675, 4294967324, 8589934621
a(n) = 2^(n+1)+n-3 for n > 0. [Franklin T. Adams-Watters, Jul 06 2009]
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3) for n>3. G.f.: (4*x^3-4*x^2+2*x-1) / ((x-1)^2*(2*x-1)). - Colin Barker, Mar 14 2014
[A269963] 1, 2, 7, 16, 37, 82, 187, 428, 985, 2262, 5191, 11904, 27301, 62618, 143635, 329476, 755761, 1733566, 3976447, 9121160, 20922109, 47991138, 110082091, 252506316, 579198985, 1328566598, 3047466007, 6990277456, 16034298325, 36779473258, 84364755139
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) + 2*a(n-4) + 2*a(n-5).
[A176805] 2, 7, 16, 37, 94, 259, 748, 2209, 6586, 19711, 59080, 177181, 531478, 1594363, 4783012, 14348953, 43046770, 129140215, 387420544, 1162261525, 3486784462, 10460353267, 31381059676, 94143178897, 282429536554, 847288609519
a(n)= +5*a(n-1) -7*a(n-2) +3*a(n-3). G.f.: (1+x)*(5*x-2) / ((3*x-1)*(x-1)^2). - R. J. Mathar, Apr 27 2010
[A224227] 0, 0, 0, 1, 2, 7, 16, 38, 82, 173, 352, 701, 1368, 2628, 4980, 9329, 17302, 31811, 58040, 105178, 189446, 339373, 604964, 1073593, 1897488, 3341160, 5863080, 10256065, 17888138, 31115071, 53985856, 93447278, 161397754, 278184461, 478550344, 821734901, 1408610088, 2410719084, 4119433884, 7029086705, 11977419742, 20382654971, 34643298728, 58811818210
a(n) = Sum_{k=0..n-1} k^2*binomial(n-k-1,k).
[A042243] 1, 2, 7, 16, 39, 55, 94, 431, 10869, 43907, 54776, 98683, 252142, 602967, 2061043, 4725053, 238313693, 481352439, 1682371010, 3846094459, 9374559928, 13220654387, 22595214315, 103601511647, 2612633005490, 10554133533607, 13166766539097
a(n) = 240374736*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 18 2014
[A041887] 1, 1, 2, 7, 16, 39, 94, 321, 415, 736, 31327, 32063, 63390, 222233, 507856, 1237945, 2983746, 10189183, 13172929, 23362112, 994381633, 1017743745, 2012125378, 7054119879, 16120365136, 39294850151, 94710065438, 323425046465, 418135111903, 741560158368
a(n) = 31742*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 26 2013
[A129441] 1, 1, 2, 7, 16, 39, 100, 248, 618, 1546, 3858, 9631, 24049, 60041, 149903, 374266, 934427, 2332981, 5824753, 14542648, 36308602, 90651625, 226329747, 565077072, 1410826915, 3522409024, 8794392287, 21956943442, 54819861280, 136868649264
a(n) = a(n-1) +2*a(n-2) +4*a(n-3) +a(n-4) -a(n-6).
[A073371] 1, 2, 7, 16, 41, 94, 219, 492, 1101, 2426, 5311, 11528, 24881, 53398, 114083, 242724, 514581, 1087410, 2291335, 4815680, 10097401, 21126862, 44117867, 91963996, 191384541, 397682154, 825190479, 1710033272, 3539371201, 7317351686
a(n) = sum((n-k+1) * binomial(n-k, k) * 2^k, k=0..floor(n/2)).
a(n) = ((6n + 4)/27)2^(n) + ((-1)^(n - 1))(3n + 4)/27. - Artur Jasinski, Feb 09 2007
[A113224] 1, 2, 7, 16, 41, 98, 239, 576, 1393, 3362, 8119, 19600, 47321, 114242, 275807, 665856, 1607521, 3880898, 9369319, 22619536, 54608393, 131836322, 318281039, 768398400, 1855077841, 4478554082, 10812186007, 26102926096, 63018038201
a(n) = -(u^(n+1)-1)*(v^(n+1)-1)/2 with u = 1+sqrt(2), v = 1-sqrt(2). - Vladeta Jovovic, May 30 2007
a(n) = n *sum_{k=1..n} sum_{i=ceil((n-k)/2)..n-k} binomial(i,n-k-i) *binomial(k+i-1,k-1) *(1-(-1)^k) /(2*k). - Vladimir Kruchinin, Apr 11 2011
a(n) = floor((1+sqrt(2))^(n+1)/2). - Bruno Berselli, Feb 06 2013
[A178945] 1, 2, 7, 16, 42, 96, 228, 512, 1160, 2560, 5648, 12288, 26656, 57344, 122944, 262144, 557184, 1179648, 2490624, 5242880, 11010560, 23068672, 48235520, 100663296, 209717248, 436207616, 905973760, 1879048192, 3892322304, 8053063680, 16643014656
a(n) = 2^(n-2)*n + 2^(n/2-5/2)*(1-(-1)^n).
a(n) = +4*a(n-1) -2*a(n-2) -8*a(n-3) +8*a(n-4).
[A286848] 2, 7, 16, 53, 154, 436, 1268, 3660, 10610, 30744, 89079, 258251, 748420, 2169219, 6287336, 18222901, 52817261, 153084840, 443698814, 1286012537, 3727362387, 10803344089, 31312289784, 90755170545, 263043739916, 762402920030, 2209739758798, 6404684091893
a(n) = Sum_{k=1..48} c(k)*a(n-k), where c = (2, 2, 4, -8, 2, 2, 23, -14, -31, -31, 45, -50, -83, -122, 141, 54, 105, -36, 85, 275, 222, -63, -90, 140, -253, -399, -234, -190, 87, -59, 219, 222, 189, 270, -152, -56, -123, -158, 41, -75, 62, 12, -21, 30, -7, -4, 3, -1) (conjectured). - Eric W. Weisstein, Aug 02 2017
[A239425] 1, 2, 7, 16, 53, 156, 522, 1702, 5833, 19990, 70079, 247160, 882587, 3172196, 11492847, 41874864, 153452521, 564975570, 2089346157, 7756501690, 28898156364, 108010059036, 404890987653, 1521877280868, 5734545323859, 21657665796526
a(n) = Sum_{j=0..(n+2)} C(n+2*j-1,j)*(-1)^(j+n)*C(2*n+2,j+n))/(n+1) -delta(n,0).
[A042689] 1, 1, 2, 7, 16, 55, 71, 126, 7379, 7505, 14884, 52157, 119198, 409751, 528949, 938700, 54973549, 55912249, 110885798, 388569643, 888025084, 3052644895, 3940669979, 6993314874, 409552932671, 416546247545, 826099180216, 2894843788193, 6615786756602
a(n) = 7450*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 21 2013
[A073998] 0, 2, 7, 16, 60, 272, 1072, 4096, 16320, 65792, 262912, 1048576, 4193280, 16781312, 67121152, 268435456, 1073725440, 4295032832, 17180065792, 68719476736, 274877644800, 1099512676352, 4398049656832, 17592186044416, 70368739983360, 281474993487872, 1125899957174272, 4503599627370496, 1801439844237
a(n; t, s) = a(n-1; t, s) + a(n-1; t-1, s-(t-1)) + a(n-1; t-2, s-2(t-2)) + a(n-1; t-3, s-3(t-3)) where t is the trace and s is the subtrace. Note that all operations involving operands t or s are carried out over GF(4).
[A129444] 0, 1, 2, 7, 16, 65, 154, 639, 1520, 6321, 15042, 62567, 148896, 619345, 1473914, 6130879, 14590240, 60689441, 144428482, 600763527, 1429694576, 5946945825, 14152517274, 58868694719, 140095478160, 582740001361, 1386802264322
a(1)=0; a(2)=1; a(3)=2; a(4)=7; a(5)=16; a(6)=65; a(n)=11(a(n-2)-a(n-4))+a(n-6). - Zak Seidov, Apr 17 2007
a(n) = 1 - a(-n+3) for all n in Z. - Michael Somos, Apr 05 2008
a(1)=0, a(2)=1, a(3)=2, a(4)=7, a(5)=16, a(n)=a(n-1)+10*a(n-2)- 10*a(n-3)- a(n-4)+a(n-5). - Harvey P. Dale, Dec 06 2012
[A227144] 1, 2, 7, 17, 23, 25, 26, 31, 41, 47, 49, 50, 55, 65, 71, 73, 74, 79, 89, 95, 97, 98, 103, 113, 119, 121, 122, 127, 137, 143, 145, 146, 151, 161, 167, 169, 170, 175, 185, 191, 193, 194, 199, 209, 215, 217, 218, 223, 233, 239, 241, 242, 247, 257, 263, 265, 266
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = (120*n - 110 - 6*(n mod 5) - 26*((n+1) mod 5) - ((n+2) mod 5) + 19*((n+3) mod 5) + 14*((n+4) mod 5))/25.
a(5k) = 24k-1, a(5k-1) = 24k-7, a(5k-2) = 24k-17, a(5k-3) = 24k-22, a(5k-4) = 24k-23. (End)
[A220273] 2, 7, 17, 24, 25, 38, 41, 58, 59, 64, 65, 73, 95, 97, 103, 106, 107, 108, 138, 143, 143, 157, 169, 169, 174, 179, 182, 214, 227, 238, 239, 242, 248, 267, 267, 268, 269, 269, 329, 330, 333, 336, 343, 348, 353, 368, 379, 379, 383, 389, 392, 432, 437, 437, 444
a(n)<=ceil(R_(6/5)(n)/6), where R_v(n) (v>1) are generalized Ramanujan numbers (see Shevelev's link). In particular, for n>=1, {R_(6/5)(n)}={29,59, 137,139,149,223,241,347,353,383,389,563,569, 593,...}. Moreover, if R_(6/5)(n)==1(mod 6), then a(n)=ceil(R_(6/5)(n)/6).
[A166381] 0, 2, 7, 17, 31, 52, 76, 108, 146, 191, 242, 301, 364, 437, 518, 605, 700, 804, 914, 1034, 1160, 1295, 1438, 1594, 1751, 1921, 2098, 2288, 2483, 2688, 2898, 3119, 3350, 3593, 3845, 4103, 4369, 4647, 4937, 5234, 5540, 5854, 6178, 6512, 6859
a(n) = Sum_{i=1..n} floor(n*(n-i)/i). - Wesley Ivan Hurt, Jan 30 2016
[A045947] 0, 0, 2, 7, 17, 33, 57, 90, 134, 190, 260, 345, 447, 567, 707, 868, 1052, 1260, 1494, 1755, 2045, 2365, 2717, 3102, 3522, 3978, 4472, 5005, 5579, 6195, 6855, 7560, 8312, 9112, 9962, 10863, 11817, 12825, 13889, 15010, 16190, 17430, 18732, 20097, 21527
a(n) = (1/16)*(2*n*(2*n^2+n-2)+(-1)^n-1). - Bruno Berselli, Aug 29 1011
[A145066] 2, 7, 17, 34, 60, 97, 147, 212, 294, 395, 517, 662, 832, 1029, 1255, 1512, 1802, 2127, 2489, 2890, 3332, 3817, 4347, 4924, 5550, 6227, 6957, 7742, 8584, 9485, 10447, 11472, 12562, 13719, 14945, 16242, 17612, 19057, 20579, 22180, 23862, 25627
a(1) = 2; a(n) = a(n-1) + n^2 + 1 for n > 1.
a(n) = Sum_{k=1..n} (k^2 + 1).
a(n) = n*(n+1)*(2*n+1)/6 + n. (End)
[A014148] 2, 7, 17, 34, 62, 103, 161, 238, 338, 467, 627, 824, 1062, 1343, 1671, 2052, 2492, 2993, 3561, 4200, 4912, 5703, 6577, 7540, 8600, 9761, 11025, 12396, 13876, 15469, 17189, 19040, 21028, 23155, 25431, 27858, 30442, 33189, 36103, 39190, 42456, 45903
a(n) = Sum[Sum[Prime[k], {k,1,m}], {m,1,n}].
[A033937] 2, 7, 17, 35, 66, 118, 204, 345, 575, 949, 1556, 2540, 4134, 6715, 10893, 17655, 28598, 46306, 74960, 121325, 196347, 317737, 514152, 831960, 1346186, 2178223, 3524489, 5702795, 9227370, 14930254, 24157716
a(n) = F(n+7)-(11+3*n); G.f.: (2+x)/((1-x-x^2)*(1-x)^2)

[A086321] 2, 7, 17, 37, 47, 97, 107, 227, 277, 577, 587, 647, 1367, 1657, 1667, 3457, 3467, 3517, 3527, 3877, 10007, 20747, 20807, 21107, 21157, 60037, 124477, 124847
a(n) = (6 * a(n-m))-5 or (6 * a(n-m))+5
[A154117] 1, 2, 7, 17, 37, 77, 157, 317, 637, 1277, 2557, 5117, 10237, 20477, 40957, 81917, 163837, 327677, 655357, 1310717, 2621437, 5242877, 10485757, 20971517, 41943037, 83886077, 167772157, 335544317, 671088637, 1342177277, 2684354557
a(n) = 3*a(n-1) - 2*a(n-2), n>2.
a(n) = 2*a(n-1) + 3, n>1.
a(n) = 5*2^(n-1) - 3, n>=1. (End)
[A209398] 0, 0, 0, 2, 7, 17, 39, 88, 192, 408, 855, 1775, 3655, 7478, 15228, 30898, 62511, 126177, 254223, 511472, 1027840, 2063600, 4140015, 8300767, 16635087, 33324462, 66736764, 133615658, 267461287, 535294673, 1071191415, 2143357000, 4288290240, 8579130888
a(n) = 3*a(n-1) - 2*a(n-2) + a(n-3) - a(n-4) - 2*a(n-5), a(0)=0, a(1)=0, a(2)=0, a(3)=2, a(4)=7.
a(n) = 2^n - F(2+floor(n/2))*F(floor(2+(n+1)/2)).
[A175660] 1, 2, 7, 17, 40, 89, 193, 410, 859, 1781, 3664, 7493, 15253, 30938, 62575, 126281, 254392, 511745, 1028281, 2064314, 4141171, 8302637, 16638112, 33329357, 66744685, 133628474, 267482023, 535328225, 1071245704, 2143444841
a(n) = 3*a(n-1)-a(n-2)-2*a(n-3) with a(0)=1, a(1)=2 and a(2)=7.
[A014742] 1, 2, 7, 17, 46, 119, 313, 818, 2143, 5609, 14686, 38447, 100657, 263522, 689911, 1806209, 4728718, 12379943, 32411113, 84853394, 222149071, 581593817, 1522632382, 3986303327, 10436277601, 27322529474, 71531310823, 187271402993, 490282898158, 1283577291479
a(n) = (2*(-1)^n + 3*(F(2*n) + F(2*(n+1))))/5,
a(n) = 3*F(n)*F(n+1) + (-1)^n. - Bruno Berselli, Oct 30 2015
a(n) = (2^(-1-n)*((-1)^n*2^(2+n)-3*(3-sqrt(5))^n*(-1+sqrt(5))+3*(1+sqrt(5))*(3+sqrt(5))^n))/5. - Colin Barker, Sep 29 2016
[A180665] 0, 1, 2, 7, 17, 47, 121, 320, 835, 2190, 5730, 15006, 39282, 102847, 269252, 704917, 1845491, 4831565, 12649195, 33116030, 86698885, 226980636, 594243012, 1555748412, 4073002212, 10663258237, 27916772486, 73087059235
a(n) = ((-1)^(-n-1)*(15+10*n)-25+(16-4*A)*A^(-n-1)+(16-4*B)*B^(-n-1))/100 with A=(3+sqrt(5))/2 and B=(3-sqrt(5))/2.
[A133407] 1, 2, 7, 17, 52, 137, 397, 1082, 3067, 8477, 23812, 66197, 185257, 516242, 1442527, 4023737, 11236372, 31355057, 87536917, 244312202, 681996787, 1903557797, 5313541732, 14831330717, 41399039377, 115555692962, 322550889847
a(n) = (1/2)*(1/2 + (1/2)*sqrt(21))^n - (1/14)*sqrt(21)*(1/2 - (1/2)*sqrt(21))^n + (1/14)*(1/2 + (1/2)*sqrt(21))^n*sqrt(21) + (1/2)*(1/2 - (1/2)*sqrt(21))^n, with n >= 0. - Paolo P. Lava, Nov 18 2008
a(n) = ((21 - 3*sqrt(21))/42)*(1/2 - (1/2)*sqrt(21))^n + ((21 + 3*sqrt(21))/42)*(1/2 + (1/2)*sqrt(21))^n. - Richard Choulet, Nov 20 2008
[A283957] 2, 7, 17, 467, 1033, 2287, 2333, 3413, 7523, 10357, 14723, 15073, 17467, 18077, 19423, 19583, 20177, 24337, 26113, 26357, 26987, 27437, 28627, 29327, 32077, 32323, 33637, 42787, 45127, 46183, 46273, 46457, 53093, 54443, 55333, 57493, 64927, 73363, 75133, 76213, 76493, 76907, 81883, 82633, 86587
a(n) == +-2 (mod 5).
[A195605] 2, 7, 18, 31, 50, 71, 98, 127, 162, 199, 242, 287, 338, 391, 450, 511, 578, 647, 722, 799, 882, 967, 1058, 1151, 1250, 1351, 1458, 1567, 1682, 1799, 1922, 2047, 2178, 2311, 2450, 2591, 2738, 2887, 3042, 3199, 3362, 3527, 3698, 3871, 4050, 4231, 4418, 4607, 4802
a(n) = a(-n-2) = 2*a(n-1)-2*a(n-3)+a(n-4).
[A141631] 2, 7, 18, 35, 58, 87, 122, 163, 210, 263, 322, 387, 458, 535, 618, 707, 802, 903, 1010, 1123, 1242, 1367, 1498, 1635, 1778, 1927, 2082, 2243, 2410, 2583, 2762, 2947, 3138, 3335, 3538, 3747, 3962, 4183, 4410, 4643, 4882, 5127, 5378, 5635, 5898, 6167, 6442
a(n) = 6*n+a(n-1)-7, with n>1, a(1)=2. - Vincenzo Librandi, Nov 25 2010
[A212685] 0, 0, 2, 7, 18, 36, 64, 103, 156, 224, 310, 415, 542, 692, 868, 1071, 1304, 1568, 1866, 2199, 2570, 2980, 3432, 3927, 4468, 5056, 5694, 6383, 7126, 7924, 8780, 9695, 10672, 11712, 12818, 13991, 15234, 16548, 17936, 19399, 20940, 22560
a(n)=3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n)=(-3+3*(-1)^n+4*n-6*n^2+8*n^3)/24. [Colin Barker, Jun 10 2012]
[A229183] 0, 2, 7, 18, 38, 70, 117, 182, 268, 378, 515, 682, 882, 1118, 1393, 1710, 2072, 2482, 2943, 3458, 4030, 4662, 5357, 6118, 6948, 7850, 8827, 9882, 11018, 12238, 13545, 14942, 16432, 18018, 19703, 21490, 23382, 25382, 27493, 29718, 32060, 34522, 37107, 39818
a(n)^2 + 1 = (n^2 + 1)^2 * ((n/2)^2 + 1). - Joerg Arndt, Jan 22 2015
[A051743] 2, 7, 18, 39, 75, 132, 217, 338, 504, 725, 1012, 1377, 1833, 2394, 3075, 3892, 4862, 6003, 7334, 8875, 10647, 12672, 14973, 17574, 20500, 23777, 27432, 31493, 35989, 40950, 46407, 52392, 58938, 66079, 73850, 82287, 91427, 101308, 111969, 123450
a(n) = binomial(n+3, n-1) + binomial(n, n-1) = binomial(n+3, 4) + binomial(n, 1), n > 0.
a(1)=2, a(2)=7, a(3)=18, a(4)=39, a(5)=75, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A054111] 1, 2, 7, 18, 39, 82, 167, 338, 679, 1362, 2727, 5458, 10919, 21842, 43687, 87378, 174759, 349522, 699047, 1398098, 2796199, 5592402, 11184807, 22369618, 44739239, 89478482, 178956967, 357913938, 715827879, 1431655762
a(n+1) = 2^(n+4)/3 -7/2 +(-1)^n/6, n>0. - R. J. Mathar, May 20 2013
[A192955] 0, 1, 2, 7, 18, 41, 84, 161, 294, 519, 894, 1513, 2528, 4185, 6882, 11263, 18370, 29889, 48548, 78761, 127670, 206831, 334942, 542257, 877728, 1420561, 2298914, 3720151, 6019794, 9740729, 15761364, 25502993, 41265318, 66769335, 108035742
a(n)=4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A077802] 1, 2, 7, 18, 41, 88, 183, 374, 757, 1524, 3059, 6130, 12273, 24560, 49135, 98286, 196589, 393196, 786411, 1572842, 3145705, 6291432, 12582887, 25165798, 50331621, 100663268, 201326563, 402653154, 805306337, 1610612704
a(n) = 3*2^n - n - 3, n>0.
[A095151] 0, 2, 7, 18, 41, 88, 183, 374, 757, 1524, 3059, 6130, 12273, 24560, 49135, 98286, 196589, 393196, 786411, 1572842, 3145705, 6291432, 12582887, 25165798, 50331621, 100663268, 201326563, 402653154, 805306337, 1610612704, 3221225439
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). G.f.: x*(2-x)/((1-x)^2*(1-2*x)). - Colin Barker, Apr 23 2012
[A243717] 2, 7, 18, 43, 83, 156, 257, 418, 624, 925, 1292, 1797, 2393, 3178, 4083, 5236, 6542, 8163, 9974, 12175, 14607, 17512, 20693, 24438, 28508, 33241, 38352, 44233, 50549, 57750, 65447, 74152, 83418, 93823, 104858, 117171, 130187, 144628, 159849, 176650, 194312
a(n) = (n^4 - 2*n^2 + 20*n - 16 + IF(MOD(n, 2) = 1)*(2*n^2 - 4*n - 1))/16.
a(n) = (-33+(-1)^n+4*(9+(-1)^n)*n-2*(1+(-1)^n)*n^2+2*n^4)/32. - Colin Barker, Jun 10 2014
[A174192] 1, 2, 7, 18, 45, 110, 267, 646, 1561, 3770, 9103, 21978, 53061, 128102, 309267, 746638, 1802545, 4351730, 10506007, 25363746, 61233501, 147830750, 356895003, 861620758, 2080136521, 5021893802, 12123924127
a(n)=2*a(n-1)+a(n-2)+2, with a(0)=1, a(1)=2.
a(n)=-1+[1+sqrt(2)]^n+[1-sqrt(2)]^n+(1/4)*sqrt(2)*{[1+sqrt(2)]^n-[1-sqrt(2)]^n}, with n>=0 [From Paolo P. Lava, Mar 17 2010]
[A182197] 0, 1, 2, 7, 18, 48, 131, 355, 966, 2626, 7137, 19401, 52737, 143354, 389676, 1059250, 2879341, 7826860, 21275612, 57833109, 157206689, 427332086, 1161609045, 3157580760, 8583194401, 23331541370, 63421704936, 172398068059, 468626535665, 1273858996233
a(n) = round(e^(n+1)/(e^2+1)).
[A192873] 0, 1, 2, 7, 18, 49, 128, 337, 882, 2311, 6050, 15841, 41472, 108577, 284258, 744199, 1948338, 5100817, 13354112, 34961521, 91530450, 239629831, 627359042, 1642447297, 4299982848, 11257501249, 29472520898, 77160061447, 202007663442, 528862928881, 1384581123200
a(n) = 3*a(n-1)-3*a(n-3)+a(n-4).
a(-n) = a(n) for all n in Z. - Michael Somos, Apr 08 2014
[A030236] 1, 2, 7, 18, 49, 136, 377, 1044, 2891, 8006, 22171, 61398, 170029, 470860, 1303949, 3611016, 9999959, 27692810, 76689487, 212375610, 588130153, 1628704336, 4510358465, 12490501212, 34589849507, 95789405774, 265268869027
a(n+4) = 3 a(n+3) - a(n+2) + a(n+1), n >= 0.
a(n+3) = 2*a(n+2) + a(n+1) + 2*sum(a(i), i = 0..n), n >= 0.
a(n) = sum(binomial(n+k+1,3*k+1)*2^k,k=0..n)+2*sum(binomial(n+k-1,3*k+1)*2^k,k=0..n-1). [Emanuele Munarini, Dec 03 2012]
[A074141] 1, 2, 7, 18, 50, 118, 301, 684, 1621, 3620, 8193, 17846, 39359, 84198, 181313, 383208, 811546, 1695062, 3546634, 7341288, 15207022, 31261006, 64255264, 131317012, 268336125, 545858260, 1110092387, 2250057282, 4558875555
a(n) = S(n,1), where S(n,m) = sum(k=m..n/2, (k+1)*S(n-k,k))+(n+1), S(n,n)=n+1, S(0,m)=1, S(n,m)=0 for n<m. - Vladimir Kruchinin, Sep 07 2014

[A122931] 1, 2, 7, 18, 50, 132, 351, 924, 2431, 6380, 16732, 43848, 114869, 300846, 787815, 2062830, 5401054, 14140940, 37022755, 96928920, 253766591, 664375032, 1739365272, 4553731728, 11921847625, 31211839802, 81713718151, 213929389674
a(n)=(F(n+2)^2-F(n+1)^2-F(n+2)+F(n+1))/2 where F(n)=Fibonacci(n). - Gary Detlefs, Mar 10 2011
a(n) = F(n)*(F(n+3)-1)/2. - J. M. Bergot, Mar 16 2013
[A046672] 1, 2, 7, 18, 53, 146, 415, 1162, 3277, 9210, 25927, 72930, 205221, 577378, 1624559, 4570810, 12860541, 36184394, 101808791, 286449682, 805956949, 2267645362, 6380262207, 17951546602, 50508589101, 142111293594, 399845261287, 1125007225154
a(n) = 2*a(n-1) + 3*a(n-2) - 2*a(n-3), n > 2. - Iain Fox, Dec 02 2017
[A291255] 2, 7, 18, 55, 144, 404, 1060, 2853, 7442, 19573, 50670, 131368, 337622, 866819, 2213650, 5642899, 14332988, 36335548, 91872760, 231875713, 584030738, 1468631153, 3686943130, 9242753104, 23138167146, 57851432575, 144470316562, 360384852207, 898051760168
a(n) = 2*a(n-1) + 7*a(n-2) - 10*a(n-3) - 16*a(n-4) + 10*a(n-5) + 7*a(n-6) - 2*a(n-7) - a(n-8) for n >= 9.
[A185308] 0, 0, 1, 2, 7, 18, 61, 188, 677, 2370, 9141, 35212, 144905, 602662, 2631333, 11671264, 53772593, 252184082, 1220090757, 6011588316, 30413403457, 156656758094, 825751634149, 4428857070312, 24246896289889, 134968323047690, 765387626584805, 4409532348872436
a(0)=a(1)=0, a(2)=1, a(n) = 2*a(n-1)+(n-1)*a(n-2)-(n-1)*a(n-3). - Vincenzo Librandi, Dec 24 2012
[A100119] 1, 2, 7, 19, 41, 76, 127, 197, 289, 406, 551, 727, 937, 1184, 1471, 1801, 2177, 2602, 3079, 3611, 4201, 4852, 5567, 6349, 7201, 8126, 9127, 10207, 11369, 12616, 13951, 15377, 16897, 18514, 20231, 22051, 23977, 26012, 28159, 30421, 32801, 35302
a(n) = 1 + n*(n + n^2)/2 = 1 + (1/2)*n^2 + (1/2) * n^3 = 1 + mean(n^2, n^3). - Joshua Zucker, May 03 2006
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 25 2012
[A209400] 0, 0, 0, 0, 2, 7, 19, 46, 107, 242, 535, 1162, 2490, 5281, 11108, 23206, 48206, 99663, 205218, 421115, 861585, 1758249, 3580075, 7275377, 14759592, 29897683, 60481359, 122206014, 246665382, 497414751, 1002231335, 2017877779, 4060069150, 8164204342
a(n) = 3*a(n-1) - a(n-2) - 2*a(n-3) + a(n-4) - a(n-5) - 2*a(n-6), a(4)=2, a(5)=7, a(i)=0 for i<4.
[A006589] 0, 2, 7, 19, 47, 111, 255, 575, 1279, 2815, 6143, 13311, 28671, 61439, 131071, 278527, 589823, 1245183, 2621439, 5505023, 11534335, 24117247, 50331647, 104857599, 218103807, 452984831, 939524095
a(n) = Sum_{k=0..n} Sum_{i=0..n} C(n,i) + C(k,i). - Wesley Ivan Hurt, Sep 21 2017
[A080873] 1, 1, 2, 7, 19, 69, 188, 683, 1861, 6761, 18422, 66927, 182359, 662509, 1805168, 6558163, 17869321, 64919121, 176888042, 642633047, 1751011099, 6361411349, 17333222948, 62971480443, 171581218381, 623353393081, 1698478960862
a(n+4)=10*a(n+2)-a(n) [From Richard Choulet, Dec 04 2008]
a(n) = (1/24*(3 + 3*3^(1/2)*2^(1/2) + 6*2^(1/2) + 2*3^(1/2))/(3^(1/2)*2^(1/2) + 2))*(sqrt(3) + sqrt(2))^n + (1/16*3^(1/2)*2^(1/2) + 1/8*2^(1/2) + 1/4 + 1/6*3^(1/2))*(sqrt(3) - sqrt(2))^n + (1/24*(3*3^(1/2)*2^(1/2) - 6*2^(1/2) + 3 - 2*3^(1/2))/(3^(1/2)*2^(1/2) + 2))*(- sqrt(3) - sqrt(2))^n + (1/16*3^(1/2)*2^(1/2) - 1/8*2^(1/2) + 1/4 - 1/6*3^(1/2))*(- sqrt(3) + sqrt(2))^n [From Richard Choulet, Dec 04 2008]
[A270109] 2, 7, 20, 47, 94, 167, 272, 415, 602, 839, 1132, 1487, 1910, 2407, 2984, 3647, 4402, 5255, 6212, 7279, 8462, 9767, 11200, 12767, 14474, 16327, 18332, 20495, 22822, 25319, 27992, 30847, 33890, 37127, 40564, 44207, 48062, 52135, 56432, 60959, 65722, 70727, 75980, 81487, 87254
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), n>3.
a(n+h) - a(n) + a(n-h) = n^3 + n^2 + (6*h^2+3)*n + (2*h^2+2) for any h. This identity becomes a(n) = n^3 + n^2 + 3*n + 2 if h=0.
a(h*a(n) + n) = (h*a(n))^3 + (3*n+1)*(h*a(n))^2 + (3*n^2+2*n+3)*(h*a(n)) + a(n) for any h, therefore a(h*a(n) + n) is always a multiple of a(n).
[A123203] 1, 2, 7, 20, 49, 110, 235, 488, 997, 2018, 4063, 8156, 16345, 32726, 65491, 131024, 262093, 524234, 1048519, 2097092, 4194241, 8388542, 16777147, 33554360, 67108789, 134217650, 268435375, 536870828, 1073741737, 2147483558
a(n) = 2^(1+n) - 3*n.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3). - Colin Barker, Jul 29 2012
[A066373] 2, 7, 20, 52, 128, 304, 704, 1600, 3584, 7936, 17408, 37888, 81920, 176128, 376832, 802816, 1703936, 3604480, 7602176, 15990784, 33554432, 70254592, 146800640, 306184192, 637534208, 1325400064, 2751463424, 5704253440
a(n) = 2*a(n-1) +3*2^(n-3). - Vincenzo Librandi, Mar 20 2011
[A096005] 0, 1, 2, 7, 20, 52, 144, 389, 1058, 2876, 7817, 21250, 57763, 157017, 426817, 1160207, 3153770, 8572836, 23303385, 63345169, 172190019, 468061001, 1272321714, 3458528995, 9401256521, 25555264765, 69466411833, 188829284972
a(n+1)/a(n) approaches e = exp(1) = 2.71828...
[A035508] 0, 2, 7, 20, 54, 143, 376, 986, 2583, 6764, 17710, 46367, 121392, 317810, 832039, 2178308, 5702886, 14930351, 39088168, 102334154, 267914295, 701408732, 1836311902, 4807526975, 12586269024, 32951280098, 86267571271, 225851433716
a(n) = Fibonacci(4n+2) mod Fibonacci(2n+2). - Gary Detlefs Nov 22 2010
a(n+1) = sum_{k=0..n} Fibonacci(2*k+3). - Gary Detlefs Dec 24 2010
a(n) = floor(Fibonacci(2*n+2)- Fibonacci(n+1)^2/Fibonacci(2*n+2)). - Gary Detlefs, Dec 21 2012
[A000149] 1, 2, 7, 20, 54, 148, 403, 1096, 2980, 8103, 22026, 59874, 162754, 442413, 1202604, 3269017, 8886110, 24154952, 65659969, 178482300, 485165195, 1318815734, 3584912846, 9744803446, 26489122129, 72004899337, 195729609428, 532048240601, 1446257064291
a(n)^(1/n) converges to e because |1-a(n)/e^n|=|e^n-a(n)|/e^n < e^(-n) and so a(n)^(1/n)=(e^n*(1+o(1))^(1/n)=e*(1+o(1). - Hieronymus Fischer, Jan 22 2006
[A049681] 0, 1, 2, 7, 20, 56, 152, 407, 1080, 2851, 7502, 19702, 51680, 135461, 354902, 929567, 2434320, 6374236, 16689752, 43697227, 114405500, 299525051, 784179002, 2053027082, 5374926720, 14071792681
a(n) = Lucas(n)*(Lucas(n) - 1)/2 - (-1)^n = binomial(Lucas(n), 2) - (-1)^n. - Vladimir Reshetnikov, Sep 27 2016
[A292400] 2, 7, 20, 57, 158, 431, 1160, 3089, 8154, 21367, 55644, 144137, 371638, 954335, 2441872, 6228129, 15839794, 40181095, 101690404, 256812121, 647303502, 1628647055, 4091042328, 10260849073, 25699419914, 64283165143, 160599382124, 400772669481, 999059833190
a(n) = 4*a(n-1) - 2*a(n-2) - 4*a(n-3) - a(n-4) for n >= 5.
[A116408] 0, 0, 1, 2, 7, 20, 61, 182, 546, 1632, 4875, 14542, 43340, 129064, 384111, 1142610, 3397656, 10100448, 30020283, 89213094, 265096455, 787695636, 2340488535, 6954401762, 20664628438, 61406952800, 182488572045, 542358944946
a(n) = Sum{k=0..n} C(n,k)*(-1)^k*(C(k+1,k/2-1)*(1+(-1)^k)/2 + C(k,(k-1)/2-1)*(1-(-1)^k)/2).
[A015518] 0, 1, 2, 7, 20, 61, 182, 547, 1640, 4921, 14762, 44287, 132860, 398581, 1195742, 3587227, 10761680, 32285041, 96855122, 290565367, 871696100, 2615088301, 7845264902, 23535794707, 70607384120, 211822152361, 635466457082
a(n) = (3^n-(-1)^n)/4 = floor(3^n/4 + 1/2).
a(n) = 3^(n-1) - a(n-1). - Emeric Deutsch, Apr 01 2004
a(n) = sum{k=0..floor(n/2), C(n, 2k+1)*2^(2k) }. - Paul Barry, May 14 2003
a(n) = sum{k=1..n, binomial(n, k)(-1)^(n+k)*4^(k-1) }. - Paul Barry, Apr 02 2003
a(n+1) = sum{k=0..floor(n/2), binomial(n-k, k)2^(n-2k)3^k}. - Paul Barry, Jul 13 2004
a(n) = U(n-1, i/sqrt(3))(-i*sqrt(3))^(n-1), i^2=-1. - Paul Barry, Nov 17 2003
[A000150] 0, 0, 1, 2, 7, 20, 66, 212, 715, 2424, 8398, 29372, 104006, 371384, 1337220, 4847208, 17678835, 64821680, 238819350, 883629164, 3282060210, 12233125112, 45741281820, 171529777432, 644952073662, 2430973096720, 9183676536076
a(n) = (2^(n-3)/sqrt(Pi)) * (4*2^n*GAMMA(n+1/2)/GAMMA(n+2) + ((-1)^n - 1)*GAMMA(n/2)/GAMMA(n/2 + 3/2)) for n>0. - Mark van Hoeij, Nov 11 2009
[A005666] 0, 2, 7, 21, 59, 163, 447, 1223, 3343, 9135, 24959, 68191, 186303, 508991, 1390591, 3799167, 10379519, 28357375, 77473791, 211662335, 578272255, 1579869183, 4316282879, 11792304127, 32217174015, 88018956287, 240472260607, 656982433791, 1794909388799
a(n) = (1/(4*s3))*((1+s3)^(n+2)-(1-s3)^(n+2))-1 where s3 = sqrt(3).
[A291411] 2, 7, 21, 63, 189, 567, 1699, 5092, 15260, 45731, 137046, 410697, 1230768, 3688339, 11053134, 33123790, 99264648, 297474121, 891463923, 2671519536, 8005951162, 23992058879, 71898875923, 215464974683, 645700711159, 1935021731510, 5798830691535, 17377808652745
a(n) = 2*a(n-1) + 3*a(n-2) + a(n-3) - 2*a(n-4) - 3*a(n-5) - a(n-6) for n >= 7.
[A274203] 0, 1, 2, 7, 21, 67, 212, 673, 2136, 6781, 21527, 68341, 216960, 688777, 2186642, 6941875, 22038189, 69964063, 222113084, 705136609, 2238578784, 7106757625, 22561637903, 71625842857, 227388693456, 721884948913, 2291749301810, 7275556680127, 23097519856965, 73327093306843, 232789608846644
a(n) = 3*a(n-1) + a(n-2) - a(n-3) - a(n-4) - a(n-5).
a(n) = floor((1 + sqrt(2))*a(n-1) + (1 + sqrt(2))*a(n-2)), a(0)=0, a(1)=1 (empirically).

[A099132] 1, 1, 1, 1, 1, 1, 2, 7, 22, 57, 127, 253, 464, 804, 1354, 2289, 4005, 7372, 14198, 28033, 55523, 108699, 208982, 394555, 734561, 1357136, 2504932, 4643816, 8671852, 16313856, 30855957, 58502733, 110882143, 209689343, 395358538, 743376838
a(n) = Sum_{k=0..n} binomial(k, 5(n-k));
a(n) = 5a(n-1)-10a(n-2)+10a(n-3)-5a(n-4)+a(n-5)+a(n-6);
a(n) = Sum_{k=0..floor(n/5)} binomial(n-k, 5k). - Paul Barry, May 09 2005
[A139398] 1, 1, 1, 1, 1, 2, 7, 22, 57, 127, 254, 474, 859, 1574, 3004, 6008, 12393, 25773, 53143, 107883, 215766, 427351, 843756, 1669801, 3321891, 6643782, 13333932, 26789257, 53774932, 107746282, 215492564, 430470899, 859595529, 1717012749, 3431847189, 6863694378
a(n) = round((2/5)*(2^(n-1) + phi^n*cos(Pi*n/5))), where phi is the golden ratio and round(x) is the integer nearest to x.
[A099131] 1, 1, 1, 1, 2, 7, 22, 57, 128, 264, 529, 1079, 2290, 5022, 11148, 24633, 53824, 116472, 250880, 540536, 1167937, 2531061, 5494247, 11928731, 25880583, 56101768, 121544393, 263289438, 570427339, 1236159756, 2679343966, 5807782301
a(n)=sum{k=0..floor((n+1)/2), binomial(n+k, 5k)}; - Paul Barry, May 09 2005
[A212384] 1, 1, 1, 1, 1, 2, 7, 22, 57, 128, 268, 573, 1343, 3434, 9038, 23374, 58649, 144400, 355992, 892336, 2280020, 5892301, 15253305, 39347067, 101177783, 260255812, 671941182, 1743500452, 4542147622, 11858732144, 30983904244, 80982376879, 211831943129, 554905957520
a(n) = Sum_{k=0..n} (binomial(3*k-2*n-1,n-k)*binomial(n+1,4*k-3*n))/(n+1). - Vladimir Kruchinin, Mar 05 2016
[A183156] 1, 2, 7, 22, 59, 142, 319, 686, 1435, 2950, 5999, 12118, 24379, 48926, 98047, 196318, 392891, 786070, 1572463, 3145286, 6290971, 12582382, 25165247, 50331022, 100662619, 201325862, 402652399, 805305526, 1610611835, 3221224510, 6442449919
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4). - Eric W. Weisstein, Nov 29 2017
[A198888] 1, 1, 1, 2, 7, 22, 61, 172, 528, 1695, 5447, 17486, 56778, 187064, 622149, 2080325, 6990670, 23621143, 80230388, 273687898, 937072049, 3219316096, 11095261035, 38351414036, 132915860364, 461770505371, 1607875309626, 5610314558562, 19614016834508, 68696001390320, 241007011551493
a(n) = Sum_{k=0..[n/3]} C(n+k, k)*C(n+k+1, n-3*k)/(n+1).
[A084264] 1, 2, 7, 22, 64, 176, 464, 1184, 2944, 7168, 17152, 40448, 94208, 217088, 495616, 1122304, 2523136, 5636096, 12517376, 27656192, 60817408, 133169152, 290455552, 631242752, 1367343104, 2952790016, 6358564864, 13656653824, 29259464704
a(0)=1, a(1)=2, a(2)=7, a(3)=22, a(n)=6*a(n-1)-12*a(n-2)+8*a(n-3). - Harvey P. Dale, Mar 25 2012
a(n) = 2^(n-3)*(n^2+3*n+4) for n > 0. - Eric W. Weisstein, Sep 30 2017
[A071684] 1, 1, 2, 7, 22, 66, 212, 715, 2438, 8398, 29372, 104006, 371516, 1337220, 4847208, 17678835, 64823110, 238819350, 883629164, 3282060210, 12233141908, 45741281820, 171529777432, 644952073662, 2430973304732, 9183676536076
a(2n) = (1/(4*n+2))*binomial(4*n, 2*n), a(2n+1)= (1/(4*n+4))*binomial(4*n+2, 2*n+1)-(-1)^(n+1)*((1)/(2*n+2))*binomial(2*n, n).
a(0)=0, a(n) = sum{k=0..floor(n/2), (1/n)*C(n,2k+1)C(n,2k)},n>0. - Paul Barry, Jan 25 2007
a(n) = sum{k=1..n, (1/n)*C(n,k)*C(n,k-1)*(1-(-1)^k)/2}. [Paul Barry, Dec 16 2008]
[A290917] 2, 7, 22, 67, 200, 588, 1708, 4913, 14018, 39725, 111922, 313752, 875702, 2434747, 6746350, 18636343, 51340988, 141089508, 386857888, 1058572325, 2891193242, 7882921697, 21458980582, 58330331952, 158339542250, 429274563823, 1162435429318, 3144299295403
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) - a(n-4).
a(n) = (((3-sqrt(5))/2)^n * (-3+sqrt(5)) * (-5+7*sqrt(5)-5*n) + 2^(-n) * (3+sqrt(5))^(n+1) * (5+7*sqrt(5)+5*n)) / 50. - Colin Barker, Aug 24 2017
[A060816] 1, 2, 7, 22, 67, 202, 607, 1822, 5467, 16402, 49207, 147622, 442867, 1328602, 3985807, 11957422, 35872267, 107616802, 322850407, 968551222, 2905653667, 8716961002, 26150883007, 78452649022, 235357947067, 706073841202
a(n) = 4*a(n-1)-3*a(n-2) for n>2. G.f.: (1-2*x+2*x^2)/((1-x)*(1-3*x)). - Colin Barker, Apr 24 2012
[A291012] 2, 7, 22, 68, 208, 632, 1912, 5768, 17368, 52232, 156952, 471368, 1415128, 4247432, 12746392, 38247368, 114758488, 344308232, 1032990232, 3099101768, 9297567448, 27893226632, 83680728472, 251044282568, 753137042008, 2259419514632, 6778275321112
a(n) = 5*a(n-1) - 6*a(n-2) for n >= 4.
a(n) = (16*3^n - 3*2^n) / 6 for n>0. - Colin Barker, Aug 23 2017
[A292399] 2, 7, 22, 69, 212, 644, 1936, 5772, 17088, 50288, 147232, 429136, 1245888, 3604544, 10396160, 29900992, 85784064, 245548800, 701402624, 1999734016, 5691409408, 16172221440, 45885403136, 130011401216, 367902195712, 1039836672000, 2935713865728, 8279592292352
a(n) = 4*a(n-1) - 8*a(n-3) - 4*a(n-4) for n >= 5.
[A291382] 2, 7, 22, 70, 222, 705, 2238, 7105, 22556, 71608, 227332, 721705, 2291178, 7273743, 23091762, 73308814, 232731578, 738846865, 2345597854, 7446508273, 23640235416, 75050038224, 238259397096, 756395887969, 2401310279090, 7623377054503, 24201736119310
a(n) = 2*a(n-1) + 3*a(n-2) + 2*a(n-3) + a(n-4) for n >= 5.
[A116387] 1, 2, 7, 22, 72, 234, 763, 2486, 8099, 26372, 85833, 279226, 907946, 2951066, 9587981, 31140034, 101104048, 328162170, 1064856217, 3454513274, 11204337056, 36332719182, 117795920249, 381848062066, 1237615088203, 4010710218384
a(n)=sum{k=0..n, sum{j=0..n, C(n,j-k)C(j,n-j)}}.
[A114495] 0, 1, 2, 7, 22, 73, 246, 844, 2936, 10334, 36736, 131709, 475714, 1729345, 6322534, 23232616, 85757008, 317839438, 1182341740, 4412949358, 16521076012, 62024023306, 233451103612, 880764587512, 3330234867792, 12617475113968
a(n) = Sum_{k=1..floor(n/2)} k^2*binomial(2*n-2*k, n-2*k)/(n-k).
[A007141] 1, 2, 7, 22, 75, 250, 886, 3150, 11525, 42698, 160636, 610694, 2345584, 9081850, 35422281, 139022744, 548671671, 2176051206, 8668363781, 34667284600, 139140831224, 560271494924, 2262709876353, 9163000968906, 37198940600718, 151364381619042
a(n) = E(2, n) where E(c, 1) = 1, E(c, n) = (1/(n-1)) * Sum_{i=1..n-1} ((c+1) * i - n + 1) * S(c, i) * E(c, n-i) and S(c, 0) = 1 and S(c, n) = Sum_{d | n} E(c, d) [From Gati, Harary, Robinson]. - Sean A. Irvine, Oct 29 2017
[A011757] 2, 7, 23, 53, 97, 151, 227, 311, 419, 541, 661, 827, 1009, 1193, 1427, 1619, 1879, 2143, 2437, 2741, 3083, 3461, 3803, 4211, 4637, 5051, 5519, 6007, 6481, 6997, 7573, 8161, 8737, 9341, 9931, 10627, 11321, 12049, 12743, 13499, 14327
a(n) = n^2 log^2 n + O(n^2 log n log log n). - Charles R Greathouse IV, Mar 11 2014
[A041159] 1, 2, 7, 23, 53, 977, 2007, 6998, 23001, 53000, 977001, 2007002, 6998007, 23001023, 53000053, 977001977, 2007004007, 6998013998, 23001046001, 53000106000, 977002954001, 2007006014002, 6998020996007, 23001069002023, 53000159000053, 977003931002977
a(n) = 1000*a(n-5) + a(n-10). - Vincenzo Librandi, Dec 12 2013
[A281584] 2, 7, 23, 58, 182, 457, 1433, 3598, 11282, 28327, 88823, 223018, 699302, 1755817, 5505593, 13823518, 43345442, 108832327, 341257943, 856835098, 2686718102, 6745848457, 21152486873, 53109952558, 166533176882, 418133772007, 1311112928183, 3291960223498
a(n) = 8*a(n-2) - a(n-4) for n>4.
a(n)*a(n-3) - a(n-1)*a(n-2) = -15*(7-(-1)^n)/2, with n>3. Example: for n=8, a(8)*a(5) - a(7)*a(6) = 3598*182 - 1433*457 = -15*3. (End)
[A048496] 1, 2, 7, 23, 67, 179, 451, 1091, 2563, 5891, 13315, 29699, 65539, 143363, 311299, 671747, 1441795, 3080195, 6553603, 13893635, 29360131, 61865987, 130023427, 272629763, 570425347, 1191182339, 2483027971, 5167382531
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). G.f.: (1-3*x+5*x^2)/((1-x)(1-2*x)^2). - R. J. Mathar, Oct 31 2008
[A064686] 0, 2, 7, 23, 73, 227, 697, 2123, 6433, 19427, 58537, 176123, 529393, 1590227, 4774777, 14332523, 43013953, 129074627, 387289417, 1161999323, 3486260113, 10459304627, 31378962457, 94138984523, 282421147873, 847271832227
a(1) = 0, a(n) = 3^(n-1)-2^(n-2) for n>=2. - Alex Ratushnyak, Jul 02 2012
a(n) = 5*a(n-1)-6*a(n-2) for n>3. G.f.: -x^2*(3*x-2) / ((2*x-1)*(3*x-1)). - Colin Barker, May 27 2013
[A083313] 1, 2, 7, 23, 73, 227, 697, 2123, 6433, 19427, 58537, 176123, 529393, 1590227, 4774777, 14332523, 43013953, 129074627, 387289417, 1161999323, 3486260113, 10459304627, 31378962457, 94138984523, 282421147873, 847271832227
a(n) = (2*3^n-(2^n-0^n))/2.
a(0) = 1, a(n) = 3^n-2^(n-1) for n>=1.
a(n) % 100 = 23 for n = 4*k-1, k>=1.
a(n) % 100 = 27 for n = 4*k+1, k>=1.
[A291015] 2, 7, 23, 75, 244, 793, 2576, 8366, 27167, 88215, 286439, 930072, 3019941, 9805712, 31838986, 103380599, 335674791, 1089929347, 3538978588, 11490991649, 37311016064, 121148109014, 393365440335, 1277249563655, 4147203285279, 13465884484800, 43723452275981
a(n) = 5*a(n-1) - 6*a(n-2) + a(n-3) n >= 4.
[A042575] 1, 1, 2, 7, 23, 76, 99, 175, 9899, 10074, 19973, 69993, 229952, 759849, 989801, 1749650, 98970201, 100719851, 199690052, 699790007, 2299060073, 7596970226, 9896030299, 17493000525, 989504059699, 1006997060224, 1996501119923, 6996500419993, 22986002379902

a(n) = 9998*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Jan 25 2014
[A082047] 1, 2, 7, 24, 69, 170, 371, 736, 1353, 2338, 3839, 6040, 9165, 13482, 19307, 27008, 37009, 49794, 65911, 85976, 110677, 140778, 177123, 220640, 272345, 333346, 404847, 488152, 584669, 695914, 823515, 969216, 1134881, 1322498, 1534183
a(n) = (n^5+15*n^3+14*n+30)/30 = (n+1)*(n^4-n^3+16*n^2-16*n+30)/30.
[A024024] 1, 2, 7, 24, 77, 238, 723, 2180, 6553, 19674, 59039, 177136, 531429, 1594310, 4782955, 14348892, 43046705, 129140146, 387420471, 1162261448, 3486784381, 10460353182, 31381059587, 94143178804, 282429536457, 847288609418
a(n) = 5*a(n-1)-7*a(n-2)+3*a(n-3). - Vincenzo Librandi, Mar 06 2013
[A038765] 1, 2, 7, 24, 81, 270, 891, 2916, 9477, 30618, 98415, 314928, 1003833, 3188646, 10097379, 31886460, 100442349, 315675954, 990074583, 3099363912, 9685512225, 30218798142, 94143178827, 292889889684, 910050728661, 2824295364810
a(n) = 6*a(n-1)-9*a(n-2) for n>2. a(n) = 3^(n-2)*(n+5) for n>0. [Colin Barker, Jun 25 2012]
[A099463] 0, 1, 2, 7, 24, 81, 274, 927, 3136, 10609, 35890, 121415, 410744, 1389537, 4700770, 15902591, 53798080, 181997601, 615693474, 2082876103, 7046319384, 23837527729, 80641778674, 272809183135, 922906855808, 3122171529233
a(n)=3a(n-1)+a(n-2)+a(n-3); a(n)=sum{k=0..n, sum{j=0..n, C(2k,n-k-j)*C(n-k,j)*2^(n-k-j)}}. - Paul Barry, Feb 07 2006
[A000777] 1, 2, 7, 24, 83, 293, 1055, 3860, 14299, 53481, 201551, 764217, 2912167, 11143499, 42791039, 164812364, 636438059, 2463251009, 9552773999, 37112526989, 144410649239, 562724141459, 2195581527359, 8576490341249, 33537507830423, 131272552839203, 514285886020255
a(n) = (binomial(2*n,n)/(n+1))*(n+2)-1 - Zerinvary Lajos, Jun 25 2006
[A052986] 1, 2, 7, 24, 85, 302, 1075, 3828, 13633, 48554, 172927, 615888, 2193517, 7812326, 27824011, 99096684, 352938073, 1257007586, 4476898903, 15944711880, 56787933445, 202253224094, 720335539171, 2565513065700, 9137210275441, 32542656957722, 115902391424047
a(n) = Sum(-1/136*(-13-27*r+6*r^2)*r^(-1-n) where r=RootOf(1-4*_Z+_Z^2+2*_Z^3)).
a(n) = (1/4+(2^(-3-n)*((3-sqrt(17))^n*(-5+3*sqrt(17))+(3+sqrt(17))^n*(5+3*sqrt(17))))/sqrt(17)). - Colin Barker, Sep 02 2016
[A141753] 1, 1, 2, 7, 24, 86, 313, 1157, 4325, 16303, 61856, 235917, 903620, 3473381, 13391280, 51761781, 200523644, 778342906, 3026400508, 11785538461, 45959004812, 179444813270, 701422450293, 2744562302533, 10749124666643, 42135320616531
a(n) = [q^n] { ([n+1]_q)! * Sum_{m=0..n+1} (-1)^m * q^(m(m-1)/2) / ([m]_q)! }; here, the q-factorial of n is denoted by ([n]_q)! = Product_{j=1..n} (1-q^j)/(1-q).
[A014300] 1, 2, 7, 24, 86, 314, 1163, 4352, 16414, 62292, 237590, 909960, 3497248, 13480826, 52097267, 201780224, 783051638, 3044061116, 11851853042, 46208337584, 180383564228, 704961896036, 2757926215742, 10799653176704, 42326626862636, 166021623024584, 651683311373788
a(n)=sum(binomial(2n-2j-2, n-1), j=0..floor((n-1)/2)).
a(n)=(-1)^n*sum(i=0, n, sum(j=n, 2*n, (-1)^(i+j)*binomial(j, i))) - Benoit Cloitre, Jun 18 2005
a(n)=sum{k=0..n, C(2k,n)} [offset 0]. - Paul Barry, May 13 2006
a(n)=sum{k=0..n, (-1)^(n-k)*C(n+k-1,k-1)}; - Paul Barry, Jul 18 2006
a(n)=sum{k=0..n, C(2n-k,n-k)*(1+(-1)^k)/2}=sum{k=0..n, C(n+k,k)(1+(-1)^(n-k))/2}. - Paul Barry, Jul 17 2009
a(n) is the coefficient of x^(n+1) y^(n+1) in 1/(1- x^2 y/((1-2x)(1-y))). - Ira M. Gessel, Oct 30 2012
[A131824] 1, 1, 2, 7, 24, 86, 316, 1177, 4424, 16744, 63724, 243618, 934870, 3598960, 13892776, 53756263, 208434024, 809658440, 3150218032, 12274694280, 47890456576, 187068828772, 731511810152, 2863308366462, 11217762520246, 43984983838966
a(n) = [x^n] Product_{i=0..n-1} (1 + x^(2^i))^(n-i) for n>=0.
[A145130] 2, 7, 25, 81, 236, 622, 1498, 3334, 6931, 13586, 25312, 45124, 77403, 128351, 206551, 323647, 495160, 741457, 1088891, 1571131, 2230702, 3120756, 4307096, 5870476, 7909201, 10542052, 13911562, 18187670, 23571781, 30301261, 38654397, 48955853, 61582654
a(0)=2, a(1)=7, a(2)=25, a(3)=81, a(4)=236, a(5)=622, a(6)=1498, a(7)=3334, a(8)=6931, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3) -126*a(n-4) +126*a(n-5) -84*a(n-6) +36*a(n-7) -9*a(n-8) +a(n-9). - Harvey P. Dale, Dec 25 2011
[A048506] 1, 2, 7, 25, 81, 241, 673, 1793, 4609, 11521, 28161, 67585, 159745, 372737, 860161, 1966081, 4456449, 10027009, 22413313, 49807361, 110100481, 242221057, 530579457, 1157627905, 2516582401, 5452595201, 11777605633, 25367150593, 54492397569, 116769423361
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Nov 26 2014
[A169651] 1, 1, 2, 7, 25, 85, 277, 877, 2725, 8365, 25477, 77197, 233125, 702445, 2113477, 6352717, 19082725, 57297325, 171990277, 516167437, 1548895525, 4647473005, 13943991877, 41835121357, 125511655525, 376547549485, 1129667814277, 3389053774477, 10167261986725
a(n) = 4*3^(n-2)-3*2^(n-1)+1, n>1. [From R. J. Mathar, Apr 20 2010]
a(0)=1, a(1)=1, a(2)=2, a(3)=7, a(4)=25, a(n)=6*a(n-1)-11*a(n-2)+ 6*a(n-3) [From Harvey P. Dale, Nov 23 2011]
[A007484] 2, 7, 25, 89, 317, 1129, 4021, 14321, 51005, 181657, 646981, 2304257, 8206733, 29228713, 104099605, 370756241, 1320467933, 4702916281, 16749684709, 59654886689, 212464029485, 756701861833, 2695033644469, 9598504657073, 34185581260157, 121753753094617
a(n) = [3/2+sqrt(17)/2]^n - (4/17)*sqrt(17)*[3/2-sqrt(17)/2]^n + (4/17)*[3/2+sqrt(17)/2]^n*sqrt(17)+[3/2-sqrt(17)/2]^n, with n>=0. - Paolo P. Lava, Jun 11 2008
a(n) = nearest integer to (and converges rapidly to) (1+4/sqrt(17))*((3+sqrt(17))/2)^n. - N. J. A. Sloane, Jul 30 2016
[A097613] 1, 2, 7, 25, 91, 336, 1254, 4719, 17875, 68068, 260338, 999362, 3848222, 14858000, 57500460, 222981435, 866262915, 3370764540, 13135064250, 51250632510, 200205672810, 782920544640, 3064665881940, 12007086477750, 47081501377326, 184753963255176, 725510446350004
a(n) = ((2-3*n)/(4-8*n))*binomial(2*n,n) for n >= 2. - Peter Luschny, Sep 06 2014
[A108081] 1, 2, 7, 25, 92, 344, 1300, 4950, 18955, 72905, 281403, 1089343, 4227273, 16438345, 64037453, 249855417, 976205516, 3818779616, 14954876080, 58623077586, 230007291334, 903164858092, 3549071519462, 13955918890440, 54912972103772, 216194101316654, 851622127750060
a(n) = Sum_{k=0..n} C(n+k-1,k)*F(n-k+1). - Paul Barry, Sep 28 2007
[A199247] 1, 1, 2, 7, 25, 92, 359, 1453, 6018, 25411, 109032, 473942, 2082550, 9235675, 41284297, 185819487, 841433773, 3830604764, 17521832924, 80490034307, 371169646860, 1717567062240, 7973153760616, 37119622029816, 173272771061677, 810810134833720, 3802675087749650
a(n) = Sum_{k=0..[n/2]} C(n+k, k)*C(n+2*k+1, n-2*k)/(n+1).
[A242728] 1, 2, 7, 25, 93, 346, 1291, 4817, 17977, 67090, 250383, 934441, 3487381, 13015082, 48572947, 181276705, 676533873, 2524858786, 9422901271, 35166746297, 131244083917, 489809589370, 1827994273563, 6822167504881, 25460675745961, 95020535478962
a(n+1) = 4*a(n) - a(n-1) - p_n (n>0), where p_n=0 if n is odd and p_n = 1 if n is even.
a(n) = 4*a(n-1) - 4*a(n-3) + a(n-4). - Colin Barker, May 21 2014
[A134063] 1, 1, 2, 7, 26, 91, 302, 967, 3026, 9331, 28502, 86527, 261626, 788971, 2375102, 7141687, 21457826, 64439011, 193448102, 580606447, 1742343626, 5228079451, 15686335502, 47063200807, 141197991026, 423610750291, 1270865805302, 3812664524767, 11438127792026
a(n) = 3*StirlingS2(n,3) + StirlingS2(n,2) + 1.
a(n) = StirlingS2(n+1,3) + 1. - Ross La Haye, Jan 21 2008
a(n) = 6 a(n-1)-11 a(n-2) +6 a(n-3) (n >= 3). Also a(n) = 4 a(n-1)-3 a(n-2)+ 2^{n-2} (n >= 3). - Tian-Xiao He (the(AT)iwu.edu), Jul 02 2009
[A001075] 1, 2, 7, 26, 97, 362, 1351, 5042, 18817, 70226, 262087, 978122, 3650401, 13623482, 50843527, 189750626, 708158977, 2642885282, 9863382151, 36810643322, 137379191137, 512706121226, 1913445293767, 7141075053842, 26650854921601, 99462344632562, 371198523608647
a(n) = ((2+sqrt(3))^n + (2-sqrt(3))^n)/2; a(n) = ceiling((1/2)*(2+sqrt(3))^(n)).
a(n) = cosh(n * log(2 + sqrt(3))).
a(n) = sum{k=0..floor(n/2); C(n, 2k)2^(n-2k)3^k }. - Paul Barry, May 08 2003
a(n+2) = 2*a(n+1) + 3*Sum_{k>=0} a(n-k)*2^k. - Philippe Deléham, Mar 03 2004
[A126223] 0, 1, 2, 7, 26, 98, 372, 1419, 5434, 20878, 80444, 310726, 1202852, 4665412, 18126760, 70538355, 274877370, 1072515990, 4189573740, 16383007410, 64126407180, 251226790620, 985033185240, 3865138313790, 15176957307876, 59633260964748, 234453859803352
a(n) = 2*(2*n-3)*(n^2-n+1)*a(n-1)/((n+1)*(n^2-3*n+3)) for n>1. - Alois P. Heinz, May 20 2014
a(n) = 2*(1-n+n^2) * C(2*n-2, n-1) / (n*(n+1)). - Vaclav Kotesovec, Sep 08 2014
[A176280] 1, 2, 7, 26, 101, 402, 1625, 6638, 27319, 113054, 469811, 1958706, 8187063, 34290934, 143864999, 604402050, 2542083509, 10702020746, 45090876913, 190110250998, 801997354525, 3384971428258, 14292950533517, 60373808435046, 255102065046401, 1078202260326002
a(n) = Sum_{k=0..floor(n/2)} C(n-k,k)*C(2n-2k,n-k)/C(2k,k).
[A045868] 1, 2, 7, 26, 101, 406, 1676, 7066, 30302, 131782, 579867, 2576982, 11550237, 52152330, 237005385, 1083211410, 4975796735, 22960105510, 106377393365, 494674698190, 2308015808015, 10801388134690, 50691017885290, 238503869991926, 1124828963516896, 5316520644648026, 25179670936870021

a(n)=(2/n)*sum(binomial(n, j)*binomial(2j+1, j-1), j=1..n) for n>=1.
[A198957] 1, 1, 2, 7, 26, 102, 424, 1827, 8078, 36466, 167376, 778718, 3664164, 17407068, 83375616, 402198915, 1952296598, 9528757098, 46735576816, 230227356906, 1138609205372, 5651170500612, 28138939936704, 140527262919342, 703704207921932, 3532664478314484, 17775185122527776
a(n) = sum(j=0..n/2, binomial(2*j+n,j)*binomial(2*j+n+1,4*j+1)/(n+j+1)). - Vladimir Kruchinin, May 28 2014
[A012855] 0, 1, 1, 1, 2, 7, 28, 114, 465, 1897, 7739, 31572, 128801, 525456, 2143648, 8745217, 35676949, 145547525, 593775046, 2422362079, 9882257736, 40315615410, 164471408185, 670976837021, 2737314167775, 11167134898976
a(n+3) = 5*a(n+2)-4*a(n+1)+a(n).
a(0)=0, a(1)=1, a(2)=1, a(n)=5*a(n-1)-4*a(n-2)+a(n-3). - Harvey P. Dale, Mar 28 2013
[A232970] 1, 2, 7, 28, 117, 494, 2091, 8856, 37513, 158906, 673135, 2851444, 12078909, 51167078, 216747219, 918155952, 3889371025, 16475640050, 69791931223, 295643364940, 1252365390981, 5305104928862, 22472785106427, 95196245354568, 403257766524697, 1708227311453354, 7236167012338111, 30652895360805796
a(n) = 5*a(n-1) - 3*a(n-2) - a(n-3). - N. J. A. Sloane, Jun 23 2017
[A005436] 1, 2, 7, 28, 120, 528, 2344, 10416, 46160, 203680, 894312, 3907056, 16986352, 73512288, 316786960, 1359763168, 5815457184, 24788842304, 105340982248, 446389242480, 1886695382192, 7955156287456, 33468262290096, 140516110684832, 588832418973280, 2463133441338048
a(n) = (3+2*n)*4^n/256 - (4*n-12)*C(2n-7,n-4) for n >= 4.
[A227845] 1, 2, 7, 28, 125, 590, 2891, 14536, 74497, 387450, 2038743, 10830148, 57986773, 312542678, 1694166275, 9228580464, 50486521785, 277239830210, 1527533993871, 8441627856300, 46776754474709, 259830443968046, 1446468759734131, 8068688342238328, 45091854560015025, 252423540736438890
a(n) = Sum_{k=0..[n/2]} Sum_{j=k..n-k} binomial(n-k,j)^2 * binomial(j,k)^2.
[A274682] 2, 7, 29, 44, 88, 113, 179, 214, 302, 347, 457, 512, 644, 709, 863, 938, 1114, 1199, 1397, 1492, 1712, 1817, 2059, 2174, 2438, 2563, 2849, 2984, 3292, 3437, 3767, 3922, 4274, 4439, 4813, 4988, 5384, 5569, 5987, 6182, 6622, 6827, 7289, 7504, 7988, 8213, 8719
a(n) = (5+3*(-1)^n-2*(8+3*(-1)^n)*n+16*n^2)/4.
a(n) = (8*n^2-11*n+4)/2 for n even.
a(n) = (8*n^2-5*n+1)/2 for n odd.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A278815] 1, 2, 7, 29, 109, 416, 1596, 6105, 23362, 89415, 342193, 1309593, 5011920, 19180976, 73406985, 280933906, 1075154535, 4114694797, 15747237101, 60265824784, 230641706484, 882682631025, 3378090801226, 12928199853783, 49477163668857, 189352713633433
a(n) = 3*a(n-1) + 2*a(n-2) + 5*a(n-3) - 2*a(n-4) - a(n-6).
[A052961] 1, 2, 7, 29, 124, 533, 2293, 9866, 42451, 182657, 785932, 3381689, 14550649, 62608178, 269388943, 1159120181, 4987434076, 21459809837, 92336746957, 397304305274, 1709511285499, 7355643511673, 31649683701868, 136181487974321, 585958388766001, 2521247479907042
a(0)=1, a(1)=2, a(n)=5*a(n-1)-3*a(n-2). - Harvey P. Dale, Nov 23 2013
[A042913] 1, 2, 7, 30, 37, 770, 4657, 5427, 80635, 86062, 597007, 12026202, 12623209, 62519038, 200180323, 462879684, 28898720731, 58260321146, 203679684169, 872979057822, 1076658741991, 22406153897642, 135513582127843, 157919736025485, 2346389886484633, 2504309622510118
a(n) = 29098901054*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Feb 01 2014
[A041805] 1, 1, 2, 7, 30, 97, 127, 224, 9087, 9311, 18398, 64505, 276418, 893759, 1170177, 2063936, 83727617, 85791553, 169519170, 594349063, 2546915422, 8235095329, 10782010751, 19017106080, 771466253951, 790483360031, 1561949613982, 5476332201977, 23467278421890
a(n) = 9214*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 24 2013
[A162257] 2, 7, 33, 82, 160, 273, 427, 628, 882, 1195, 1573, 2022, 2548, 3157, 3855, 4648, 5542, 6543, 7657, 8890, 10248, 11737, 13363, 15132, 17050, 19123, 21357, 23758, 26332, 29085, 32023, 35152, 38478, 42007, 45745, 49698, 53872, 58273, 62907, 67780
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 04 2012
[A042465] 1, 1, 2, 7, 37, 44, 257, 815, 1072, 1887, 102970, 104857, 207827, 728338, 3849517, 4577855, 26738792, 84794231, 111533023, 196327254, 10713204739, 10909531993, 21622736732, 75777742189, 400511447677, 476289189866, 2781957397007, 8822161380887, 11604118777894
a(n) = 104042*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 23 2014
[A042791] 1, 2, 7, 79, 86, 681, 767, 2982, 6731, 36637, 43368, 80005, 123373, 573497, 17328283, 69886629, 87214912, 157101541, 244316453, 1378683806, 3001684065, 10383736001, 13385420066, 104081676463, 117467096529, 1396219738282, 4306126311375, 10008472361032
a(n) = 609120594284670*a(n-28) - a(n-56) for n>55. - Vincenzo Librandi, Jan 29 2014
[A041291] 1, 1, 2, 7, 86, 265, 351, 616, 15135, 15751, 30886, 108409, 1331794, 4103791, 5435585, 9539376, 234380609, 243919985, 478300594, 1678821767, 20624161798, 63551307161, 84175468959, 147726776120, 3629618095839, 3777344871959, 7406962967798, 25998233775353
a(n) = 15486*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 14 2013
[A041727] 1, 1, 2, 7, 135, 412, 547, 959, 36989, 37948, 74937, 262759, 5067358, 15464833, 20532191, 35997024, 1388419103, 1424416127, 2812835230, 9862921817, 190208349753, 580487971076, 770696320829, 1351184291905, 52115699413219, 53466883705124, 105582583118343
a(n) = 37536*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 23 2013
[A290378] 2, 8, 8, 16, 37, 80, 156, 304, 602, 1173, 2290, 4456, 8686, 16892, 32833, 63776, 123864, 240524, 467060, 907061, 1761894, 3423164, 6652706, 12933280, 25151787, 48931280, 95228360, 185400336, 361093444, 703546005, 1371282460, 2673742784, 5215147858
a(n) = 4*a(n-1) - 3*a(n-2) - 4*a(n-3) + 4*a(n-4) - a(n-5) + a(n-6) + 3*a(n-7) - 3*a(n-8) + 2*a(n-10) + 3*a(n-11) - a(n-13) for n > 13.
[A116471] 0, 2, 8, 8, 18, 18, 32, 32, 50, 50, 72, 72, 98, 98, 128, 128, 162, 162, 200, 200, 242, 242, 288, 288, 338, 338, 392, 392, 450, 450, 512, 512, 578, 578, 648, 648, 722, 722, 800, 800, 882, 882, 968, 968, 1058, 1058, 1152, 1152, 1250, 1250, 1352, 1352, 1458, 1458
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Colin Barker, Oct 06 2014
a(n) = (2*n^2 + 2*n - (2*n+1)*(-1)^n + 1)/4, with n>1 and a(1)=0. [Bruno Berselli, Oct 07 2014]
[A237415] 0, 1, 2, 8, 9, 10, 11, 12, 18, 19, 20, 21, 22, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42, 48, 49, 50, 51, 52, 58, 59, 60, 61, 62, 68, 69, 70, 71, 72, 78, 79, 80, 81, 82, 88, 89, 90, 91, 92, 98, 99, 100, 101, 102, 108, 109, 110, 111, 112, 118, 119, 120, 121, 122, 128
a(n) = a(n-1)+a(n-5)-a(n-6). - Vincenzo Librandi, Feb 12 2014
[A047469] 0, 1, 2, 8, 9, 10, 16, 17, 18, 24, 25, 26, 32, 33, 34, 40, 41, 42, 48, 49, 50, 56, 57, 58, 64, 65, 66, 72, 73, 74, 80, 81, 82, 88, 89, 90, 96, 97, 98, 104, 105, 106, 112, 113, 114, 120, 121, 122, 128, 129, 130, 136, 137, 138, 144, 145, 146, 152, 153, 154
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-39-15*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-6, a(3k-1) = 8k-7, a(3k-2) = 8k-8. (End)
a(n) = n + 5*floor((n-1)/3) - 1. - Bruno Berselli, Feb 06 2017
[A283774] 1, 2, 8, 9, 10, 16, 17, 18, 24, 25, 26, 32, 33, 34, 40, 41, 48, 49, 55, 56, 57, 63, 64, 65, 71, 72, 73, 79, 80, 81, 87, 88, 89, 95, 96, 103, 104, 110, 111, 112, 118, 119, 120, 126, 127, 128, 134, 135, 136, 142, 143, 150, 151, 158, 159, 165, 166, 167, 173
a(n+1) - a(n) is in {1,6,7} for every n.
[A047353] 1, 2, 8, 9, 15, 16, 22, 23, 29, 30, 36, 37, 43, 44, 50, 51, 57, 58, 64, 65, 71, 72, 78, 79, 85, 86, 92, 93, 99, 100, 106, 107, 113, 114, 120, 121, 127, 128, 134, 135, 141, 142, 148, 149, 155, 156, 162, 163, 169, 170
a(n) = 7*n-a(n-1)-11 (with a(1)=1). Also: a(n) = a(n-1)+a(n-2)-a(n-3). [Vincenzo Librandi, Aug 05 2010]
a(n) = 7*n/2-15/4-5*(-1)^n/4. G.f.: x*(1+x+5*x^2) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A221049] 1, 2, 8, 9, 36, 37, 148, 149, 596, 597, 2388, 2389, 9556, 9557, 38228, 38229, 152916, 152917, 611668, 611669, 2446676, 2446677, 9786708, 9786709, 39146836, 39146837, 156587348, 156587349, 626349396, 626349397, 2505397588, 2505397589, 10021590356, 10021590357
a(n) = a(n-1)*4 if n even, a(n) = a(n-1)+1 if n odd.
a(n) = 5*a(n-2) - 4*a(n-4) with a(0)=1, a(1)=2, a(2)=8, a(3)=9.
[A079930] 1, 2, 8, 10, 16, 18, 19, 26, 30, 36, 38, 41, 43, 45, 50, 51, 59, 65, 68, 70, 74, 75, 82, 84, 87, 89, 91, 94, 96, 99, 101, 103, 107, 113, 116, 117, 124, 127, 129, 136, 138, 142, 145, 149, 156, 161, 164, 166, 168, 170, 172, 176, 181, 183, 185, 187, 189, 192, 194, 196
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(1/sqrt(e)) and frac(y) = y - floor(y).
[A047467] 0, 2, 8, 10, 16, 18, 24, 26, 32, 34, 40, 42, 48, 50, 56, 58, 64, 66, 72, 74, 80, 82, 88, 90, 96, 98, 104, 106, 112, 114, 120, 122, 128, 130, 136, 138, 144, 146, 152, 154, 160, 162, 168, 170, 176, 178, 184, 186, 192, 194, 200, 202, 208, 210, 216, 218, 224, 226, 232
a(n) = 8*n-a(n-1)-14 with a(1)=0. - Vincenzo Librandi, Aug 06 2010
a(n) = floor((8/3)*floor(3*n/2)). - Clark Kimberling, Jul 04 2012

[A079599] 0, 2, 8, 10, 16, 18, 24, 26, 32, 34, 40, 42, 48, 50, 56, 58, 64, 66, 72, 74, 80, 82, 88, 90, 96, 98, 104, 106, 112, 114, 120, 122, 128, 130, 136, 138, 144, 146, 152, 154, 160, 162, 168, 170, 176, 178, 184, 186, 192, 194, 200, 202, 208, 210, 216, 218, 224, 226, 232, 234, 240, 242, 248, 250, 512, 514
a(0) = 0; a(n+1) = least x > a(n) such that the coefficient of 2^a(j) is zero in the binary expansion of x for all j < n+1
[A294157] 2, 8, 10, 18, 28, 46, 74, 120, 194, 314, 508, 822, 1330, 2152, 3482, 5634, 9116, 14750, 23866, 38616, 62482, 101098, 163580, 264678, 428258, 692936, 1121194, 1814130, 2935324, 4749454, 7684778, 12434232, 20119010, 32553242, 52672252, 85225494, 137897746, 223123240
a(n) = a(n-1) + a(n-2).
a(n) = 2*g(1,8;n) - g(0,8;n);
a(n) = g(1,k;n) + g(1,8-k;n) for all k in Z.
a(h+k) = a(h)*Fibonacci(k-1) + a(h+1)*Fibonacci(k) for all h, k in Z (see S. Vajda in References section). For h=0 and k=n:
a(n) = 2*Fibonacci(n-1) + 8*Fibonacci(n).
a(n) = (2^(-n)*((1-sqrt(5))^n*(-7+sqrt(5)) + (1+sqrt(5))^n*(7+sqrt(5)))) / sqrt(5). - Colin Barker, Oct 25 2017
[A220269] 2, 8, 11, 17, 26, 38, 40, 41, 48, 57, 68, 68, 70, 87, 96, 100, 108, 109, 110, 115, 136, 149, 151, 161, 161, 169, 176, 178, 184, 206, 208, 227, 235, 236, 242, 255, 259, 260, 263, 272, 297, 299, 305, 320, 356, 358, 359, 371, 371, 372, 378, 386, 389, 392, 400
a(n)<=ceil(R_(4/3)(n)/4), where R_v(n) (v>1) are generalized Ramanujan numbers (see Shevelev's link). In particular, for n>=1, {R_(4/3)(n)}={11, 29, 59, 67, 101, 149, 157, 163, 191, 227, 269, 271, 307, 379,...}. Moreover, if R_(4/3)(n)==1(mod 4), then a(n)=ceil(R_(4/3)(n)/4).
[A277568] 2, 8, 12, 14, 20, 26, 32, 38, 44, 48, 50, 56, 62, 68, 72, 74, 80, 84, 86, 92, 98, 104, 110, 116, 120, 122, 128, 134, 140, 146, 152, 156, 158, 164, 170, 176, 182, 188, 192, 194, 200, 206, 212, 218, 224, 228, 230, 236, 242, 248, 254, 260, 264, 266, 272, 278
a(n) = 5n + O(log n). - Charles R Greathouse IV, Nov 03 2016
[A290608] 2, 8, 12, 16, 30, 48, 74, 124, 200, 320, 522, 844, 1362, 2208, 3572, 5776, 9350, 15128, 24474, 39604, 64080, 103680, 167762, 271444, 439202, 710648, 1149852, 1860496, 3010350, 4870848, 7881194, 12752044, 20633240, 33385280, 54018522, 87403804, 141422322
a(n) = Lucas(n) - 2*cos(2*n*Pi/3).
a(n) = a(n-2) + 2*a(n-3) + a(n-4).
[A090772] 2, 8, 12, 18, 22, 28, 32, 38, 42, 48, 52, 58, 62, 68, 72, 78, 82, 88, 92, 98, 102, 108, 112, 118, 122, 128, 132, 138, 142, 148, 152, 158, 162, 168, 172, 178, 182, 188, 192, 198, 202, 208, 212, 218, 222, 228, 232, 238, 242, 248, 252, 258, 262, 268, 272, 278, 282
a(n) = 10*n-a(n-1)-10 (with a(1)=2). - Vincenzo Librandi, Nov 16 2010
[A013654] 2, 8, 12, 24, 30, 48, 56, 80, 90, 120, 132, 168, 182, 224, 240, 288, 306, 360, 380, 440, 462, 528, 552, 624, 650, 728, 756, 840, 870, 960, 992, 1088, 1122, 1224, 1260, 1368, 1406, 1520, 1560, 1680, 1722, 1848, 1892, 2024, 2070, 2208, 2256, 2400, 2450, 2600
a(2n)= 2*(n+1)*(2n), a(2n+1)= 2*(n+1)*(2n+1). - Frank Ellermann, Feb 22 2002
a(n) = n * (n + 1 + (1+(-1)^n)/2). - Wesley Ivan Hurt, Nov 19 2013
[A107755] 2, 8, 12, 26, 30, 36, 38, 80, 84, 90, 92, 108, 110, 116, 120, 242, 246, 252, 254, 270, 272, 278, 282, 324, 326, 332, 336, 350, 354, 360, 362, 728, 732, 738, 740, 756, 758, 764, 768, 810, 812, 818, 822, 836, 840, 846, 848, 972, 974, 980, 984, 998, 1002, 1008, 1010
a(2^j) = 2*a(2^j-1) + 2 (resp. + 4) if j is even (resp. odd). - M. F. Hasler, Feb 25 2008
[A115102] 2, 8, 12, 28, 52, 108, 212, 428, 852, 1708, 3412, 6828, 13652, 27308, 54612, 109228, 218452, 436908, 873812, 1747628, 3495252, 6990508, 13981012, 27962028, 55924052, 111848108, 223696212, 447392428, 894784852, 1789569708, 3579139412, 7158278828
a(n)=(4*(-1)^n + 5*2^n)/3. - Harvey P. Dale, Sep 02 2016
[A176961] 1, 2, 8, 12, 36, 52, 148, 212, 596, 852, 2388, 3412, 9556, 13652, 38228, 54612, 152916, 218452, 611668, 873812, 2446676, 3495252, 9786708, 13981012, 39146836, 55924052, 156587348, 223696212, 626349396, 894784852
a(n) = a(n-1) +4*a(n-2) -4*a(n-3). G.f.: x*(1+x+2*x^2) / ((x-1)*(2*x+1)*(2*x-1)). - R. J. Mathar, Apr 30 2010
[A176968] 1, 2, 8, 12, 60, 84, 444, 612, 3276, 4500, 24156, 33156, 178092, 244404, 1312956, 1801764, 9679500, 13283028, 71360028, 97926084, 526086252, 721938420, 3878455932, 5322332772, 28593068364, 39237733908, 210796144092
a(n) = a(n-1)+6*a(n-2) if n is odd. a(n) = a(n-1)+2*a(n-2) if n is even. - R. J. Mathar, Jun 18 2014
[A077241] 1, 2, 8, 13, 47, 76, 274, 443, 1597, 2582, 9308, 15049, 54251, 87712, 316198, 511223, 1842937, 2979626, 10741424, 17366533, 62605607, 101219572, 364892218, 589950899, 2126747701, 3438485822, 12395593988, 20040964033, 72246816227, 116807298376
a(n) = (-1)^n*((4-5*sqrt(2))*(1-(-1)^n*sqrt(2))^(2*floor((n+1)/2))+(4+5*sqrt(2))*(1+(-1)^n*sqrt(2))^(2*floor((n+1)/2)))/8. [Bruno Berselli, Mar 10 2013]
[A228469] 2, 8, 13, 49, 80, 302, 493, 1861, 3038, 11468, 18721, 70669, 115364, 435482, 710905, 2683561, 4380794, 16536848, 26995669, 101904649, 166354808, 627964742, 1025124517, 3869693101, 6317101910, 23846123348, 38927735977, 146946433189, 239883517772, 905524722482
a(n) = (3+sqrt(10))^(1/4*((-1)^n-1)+1/2*n)*(5/2+sqrt(10)*(4/5-9/20*(-1)^n)-3/2*(-1)^n)+(3-sqrt(10))^(1/4*((-1)^n-1)+1/2*n)*(5/2- sqrt(10)*(4/5-9/20*(-1)^n)-3/2*(-1)^n). - Paolo P. Lava, Sep 12 2013
[A002248] 2, 8, 14, 16, 22, 56, 142, 288, 518, 968, 1982, 4144, 8374, 16472, 32494, 65088, 131174, 263144, 525086, 1047376, 2094358, 4193912, 8393806, 16783200, 33550022, 67092488, 134210174, 268460656, 536911222
a(n) = 4*a(n-1) -7*a(n-2) +8*a(n-3) -4*a(n-4). Vincenzo Librandi, Jun 18 2012
[A016933] 2, 8, 14, 20, 26, 32, 38, 44, 50, 56, 62, 68, 74, 80, 86, 92, 98, 104, 110, 116, 122, 128, 134, 140, 146, 152, 158, 164, 170, 176, 182, 188, 194, 200, 206, 212, 218, 224, 230, 236, 242, 248, 254, 260, 266, 272, 278, 284, 290, 296, 302, 308, 314, 320, 326
a(n) = 2*(6*n-1) - a(n-1) (with a(0)=2). - Vincenzo Librandi, Nov 20 2010
[A120413] 0, 2, 8, 14, 24, 34, 48, 62, 80, 98, 120, 142, 168, 194, 224, 254, 288, 322, 360, 398, 440, 482, 528, 574, 624, 674, 728, 782, 840, 898, 960, 1022, 1088, 1154, 1224, 1294, 1368, 1442, 1520, 1598, 1680, 1762, 1848, 1934, 2024, 2114, 2208, 2302, 2400, 2498, 2600
a(n) = (-1+(-1)^n+4*n+2*n^2)/2. a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). G.f.: 2*x*(1+2*x-x^2)/((1-x)^3*(1+x)). - Colin Barker, Jul 29 2012
a(n) = n^2 - 2 for even n; a(n) = n^2 - 1 for odd n. -Dennis P. Walsh, Apr 15 2016
[A053697] 1, 2, 8, 14, 27, 94, 137, 284, 947, 1384, 2847, 9484, 13847, 28484, 94847, 138484, 284847, 948484, 1384847, 2848484, 9484847, 13848484, 28484847, 94848484, 138484847, 284848484, 948484847, 1384848484, 2848484847, 9484848484
a(n) = a(n-2) + 10*a(n-3) - 10*a(n-5) for n>7.
a(6*k-4) = 2*10^(2*k-2) + 84*(10^(2*k-2)-1)/99.
a(6*k-3) = 94*10^(2*k-3) + 84*(10^(2*k-3)-10)/99 + 7.
a(6*k-2) = 13*10^(2*k-2) + 84*(10^(2*k-2)-1)/99.
a(6*k-1) = 2*10^(2*k-1) + 84*(10^(2*k-1)-10)/99 + 7.
a(6*k) = 94*10^(2*k-2) + 84*(10^(2*k-2)-1)/99.
[A080095] 2, 8, 16, 16, 64, 128, 128, 512, 1024, 1024, 4096, 8192, 8192, 32768, 65536, 65536, 262144, 524288, 524288, 2097152, 4194304, 4194304, 16777216, 33554432, 33554432, 134217728, 268435456, 268435456, 1073741824, 2147483648
a(n) = 2^b(n) and {b(n)}={1, 3, 4, 4, 6, 7, 7, 9, 10, 10, 12, 13, 13, 15, ..} where b(3n-2)=3n-2, b(3n-1)=3n, b(3n)=b(3n+1)=3n+1, for n>0.
[A136514] 0, 2, 8, 16, 30, 44, 60, 82, 108, 138, 166, 196, 238, 278, 324, 366, 416, 468, 526, 588, 644, 714, 780, 848, 930, 1008, 1090, 1170, 1256, 1350, 1438, 1540, 1638, 1744, 1856, 1954, 2072, 2180, 2310, 2432, 2548, 2678, 2808, 2950, 3090, 3220, 3366, 3510, 3664
a(n) = 2 * Sum(floor(sqrt(n^2 - k^2))), k = 1 ... n-1
[A077071] 0, 2, 8, 16, 30, 46, 66, 88, 118, 150, 186, 224, 268, 314, 364, 416, 478, 542, 610, 680, 756, 834, 916, 1000, 1092, 1186, 1284, 1384, 1490, 1598, 1710, 1824, 1950, 2078, 2210, 2344, 2484, 2626, 2772, 2920, 3076, 3234, 3396, 3560, 3730, 3902, 4078, 4256
a(n) is asymptotic to 2*n^2 and it seems that a(n) = 2*n^2 + O(n^(3/2)) (where O(n^(3/2))/n^(3/2) is bounded and O(n^(3/2)) <0) - Benoit Cloitre, Oct 30 2002
[A210729] 1, 2, 8, 16, 31, 55, 95, 160, 266, 438, 717, 1169, 1901, 3086, 5004, 8108, 13131, 21259, 34411, 55692, 90126, 145842, 235993, 381861, 617881, 999770, 1617680, 2617480, 4235191, 6852703, 11087927, 17940664, 29028626, 46969326, 75997989, 122967353
a(n) = 3*Fibonacci(n+1)+2*Fibonacci(n+3)-n-6. - Vaclav Kotesovec, May 13 2012
[A191309] 0, 0, 0, 0, 1, 2, 8, 16, 47, 94, 244, 488, 1186, 2372, 5536, 11072, 25147, 50294, 112028, 224056, 491870, 983740, 2135440, 4270880, 9188406, 18376812, 39249768, 78499536, 166656772, 333313544, 704069248, 1408138496, 2961699667, 5923399334, 12412521388, 24825042776
a(2*n+1) = 2*a(2*n).
[A134353] 1, 2, 8, 16, 48, 96, 256, 512, 1280, 2560, 6144, 12288, 28672, 57344, 131072, 262144, 589824, 1179648, 2621440, 5242880, 11534336, 23068672, 50331648, 100663296, 218103808, 436207616, 939524096, 1879048192, 4026531840, 8053063680, 17179869184

a(n) = 2^(n-2)*(2*n + 3 + (-1)^n).
[A099888] 1, 2, 8, 16, 80, 160, 640, 2784, 6560, 21824, 65280, 131072, 524800, 1056192, 4201728, 8408000, 43046720, 86135424, 361186816, 1467183104, 3443838080, 11367226112, 32550397696, 70111011712, 282403304960, 569106797952
a(n) = SumXOR_{k=0..n} (C(n, k) mod 2)*3^k, where SumXOR is summation under XOR.
[A034972] 2, 8, 17, 29, 44, 63, 85, 110, 138, 170, 205, 243, 284, 329, 376, 427, 482, 539, 600, 664, 731, 802, 876, 953, 1033, 1116, 1203, 1293, 1386, 1483, 1583, 1685, 1792, 1901, 2014, 2130, 2249, 2371, 2497, 2626, 2758, 2893, 3032, 3174, 3319, 3467, 3619, 3774
a(n) = floor(T(n+1)/T(n)) where T(n) is n-th coefficient in expansion of tan(x).
[A295147] 1, 2, 8, 17, 39, 80, 167, 337, 682, 1368, 2745, 5495, 11000, 22006, 44024, 88055, 176123, 352254, 704522, 1409053, 2818121, 5636252, 11272520, 22545051, 45090119, 90180250, 180360518
a(n+1)/a(n) -> 2.
[A268810] 0, 2, 8, 18, 30, 44, 62, 84, 108, 134, 164, 198, 234, 272, 314, 360, 408, 458, 512, 570, 630, 692, 758, 828, 900, 974, 1052, 1134, 1218, 1304, 1394, 1488, 1584, 1682, 1784, 1890, 1998, 2108, 2222, 2340, 2460, 2582, 2708, 2838, 2970, 3104, 3242, 3384, 3528, 3674, 3824, 3978, 4134, 4292
a(n) = (3*n^2 - 3*n + cos(n*Pi/2) + sin(n*Pi/2) - 1)/2.
a(n) = (1/4+i/4)*((i-1)+(-i)^n-i*i^n-(-3*i+3)*n+(-3*i+3)*n^2), where i is the imaginary unit.
a(n) = (3*n^2 - 3*n + (-1)^binomial(n+1,2) - 1)/2.
[A293296] 0, 2, 8, 18, 31, 49, 71, 97, 126, 160, 198, 240, 285, 335, 389, 447, 508, 574, 644, 718, 795, 877, 963, 1053, 1146, 1244, 1346, 1452, 1561, 1675, 1793, 1915, 2040, 2170, 2304, 2442, 2583, 2729, 2879, 3033, 3190, 3352, 3518, 3688, 3861, 4039, 4221, 4407, 4596
a(n) = [x^n] (-x*(2+4*x+4*x^2+3*x^3+3*x^4)/((x+1)*(x^2+1)*(x-1)^3)).
a(n) = n! [x^n] (3*exp(x)-exp(-x)+14*exp(x)*x+16*exp(x)*x^2-2*cos(x)-2*sin(x))/8.
a(n) = a(n-6) - 2*a(n-5) + a(n-4) - a(n-2) + 2*a(n-1) for n >= 6.
[A001105] 0, 2, 8, 18, 32, 50, 72, 98, 128, 162, 200, 242, 288, 338, 392, 450, 512, 578, 648, 722, 800, 882, 968, 1058, 1152, 1250, 1352, 1458, 1568, 1682, 1800, 1922, 2048, 2178, 2312, 2450, 2592, 2738, 2888, 3042, 3200, 3362, 3528, 3698, 3872, 4050, 4232, 4418
a(n) = 4*n + a(n-1) - 2, n > 0. - Vincenzo Librandi
a(n) = 3*a(n-1) - 3*a(n-1) + a(n-2). - Artur Jasinski, Nov 24 2011
a(n) = floor(1/(1-cos(1/n))), n > 0. - Clark Kimberling, Oct 08 2014
a(n) = Sum_{j=1..n} Sum_{i=1..n} ceiling((i+j-n+4)/3). - Wesley Ivan Hurt, Mar 12 2015
[A190787] 2, 8, 18, 32, 72, 128, 288, 512, 1152, 2048, 4608, 8192, 18432, 32768, 73728, 131072, 294912, 524288, 1179648, 2097152, 4718592, 8388608, 18874368, 33554432, 75497472, 134217728, 301989888, 536870912, 1207959552, 2147483648, 4831838208, 8589934592, 19327352832, 34359738368, 77309411328, 137438953472, 309237645312
a(n) = 2^(n-3)*(17 - (-1)^n), for n>1. (End)
[A212518] 0, 0, 0, 0, 2, 8, 18, 45, 84, 144, 240, 375, 540, 792, 1092, 1470, 1960, 2560, 3240, 4131, 5130, 6300, 7700, 9317, 11088, 13248, 15600, 18252, 21294, 24696, 28350, 32625, 37200, 42240, 47872, 54043, 60588, 68040, 75924, 84474, 93860, 104000, 114660, 126567
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A114723] 0, 1, 1, 2, 8, 18, 49, 129, 338, 890, 2340, 6153, 16181, 42550, 111892, 294238, 773745, 2034685, 5350526, 14070054, 36999432, 97295857, 255854841, 672810762, 1769262288, 4652554954
a(n) = a(n-1)+3*a(n-2)+3*a(n-3)+a(n-4). G.f.: x*(2*x^2 -1)/(x^4 +3*x^3 +3*x^2 +x -1). [Colin Barker, Oct 11 2012]
[A153335] 0, 1, 2, 8, 18, 52, 116, 296, 650, 1556, 3372, 7768, 16660, 37416, 79592, 175568, 371034, 807604, 1697660, 3657464, 7654460, 16357496, 34106712, 72407728, 150499908, 317777032, 658707896, 1384524656, 2863150440, 5994736336
a(n) = (n+1)2^(n-2) - 2(n-1)binomial(n-2,(n-2)/2) for n even, a(n) = (n+1)2^(n-2) - (n)binomial(n-1,(n-1)/2) for n odd.
[A136201] 0, 0, 0, 1, 2, 8, 18, 53, 124, 328, 780, 1969, 4718, 11648, 28014, 68405, 164824, 400240, 965304, 2337409, 5640122, 13637336, 32914794, 79525973, 191966740, 463636600, 1119239940, 2702647921, 6524535782, 15753313808, 38031163398
a(n) = (1/8)*[1+sqrt(2)]^n + (1/8)*[1-sqrt(2)]^n + (1/24)*3^(n/2)*[-3-sqrt(3)-3(-1)^n + (-1)^n*sqrt(3)]. - Emeric Deutsch, Mar 31 2008
[A236327] 2, 8, 19, 30, 32, 38, 49, 60, 62, 68, 79, 90, 92, 98, 109, 120, 122, 128, 139, 150, 152, 158, 169, 180, 182, 188, 199, 210, 212, 218, 229, 240, 242, 248, 259, 270, 272, 278, 289, 300, 302, 308, 319, 330, 332, 338, 349, 360, 362, 368, 379, 390, 392, 398, 409, 420, 422, 428, 439, 450, 452, 458, 469, 480, 482, 488
a(n) = a(n-1)+a(n-4)-a(n-5).
[A256321] 0, 2, 8, 19, 33, 52, 75, 102, 133, 169, 208, 252, 300, 352, 408, 469, 533, 602, 675, 752, 833, 919, 1008, 1102, 1200, 1302, 1408, 1519, 1633, 1752, 1875, 2002, 2133, 2269, 2408, 2552, 2700, 2852, 3008, 3169, 3333, 3502, 3675, 3852, 4033, 4219, 4408, 4602
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6) for n>5.
[A192136] 1, 2, 8, 19, 35, 56, 82, 113, 149, 190, 236, 287, 343, 404, 470, 541, 617, 698, 784, 875, 971, 1072, 1178, 1289, 1405, 1526, 1652, 1783, 1919, 2060, 2206, 2357, 2513, 2674, 2840, 3011, 3187, 3368, 3554, 3745, 3941, 4142, 4348, 4559, 4775, 4996, 5222, 5453
a(n) = (5*n^2-3*n+2)/2
a(n) = 2*a(n-1)-a(n-2)+5
a(n) = a(n-1)+5*n-4
a(n) = 5*C(n+2, 2)-9*n-4
[A030504] 2, 8, 19, 38, 66, 107, 160, 230, 317, 424, 553, 705, 883, 1088, 1324, 1591, 1891, 2227, 2601, 3015, 3470, 3969, 4514, 5106, 5748, 6441, 7189, 7992, 8852, 9772, 10754, 11800, 12911, 14090, 15339, 16659, 18053, 19522, 21070, 22697
a(n) = ceil (binomial (n, w) * 2^w / (2*n + 1))
[A101427] 1, 2, 8, 19, 42, 78, 139, 224, 350, 517, 744, 1032, 1405, 1862, 2432, 3115, 3942, 4914, 6067, 7400, 8954, 10729, 12768, 15072, 17689, 20618, 23912, 27571, 31650, 36150, 41131, 46592, 52598, 59149, 66312, 74088, 82549, 91694, 101600, 112267, 123774
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - 2*a(n-4) - a(n-5) + 2*a(n-6) + a(n-7) - a(n-8) + 12, n>=8.
a(n) = 4*a(n-6) - 6*a(n-12) + 4*a(n-18) - a(n-24) + 1296, n>=24. (End)
[A129445] 1, 2, 8, 19, 79, 188, 782, 1861, 7741, 18422, 76628, 182359, 758539, 1805168, 7508762, 17869321, 74329081, 176888042, 735782048, 1751011099, 7283491399, 17333222948, 72099131942, 171581218381, 713707828021, 1698478960862, 7064979148268, 16813208390239
a(n) = 10*a(n-2) - a(n-4), a(1..4) = 1, 2, 8, 19. - Zak Seidov, Jun 11 2013
[A077588] 1, 2, 8, 20, 38, 62, 92, 128, 170, 218, 272, 332, 398, 470, 548, 632, 722, 818, 920, 1028, 1142, 1262, 1388, 1520, 1658, 1802, 1952, 2108, 2270, 2438, 2612, 2792, 2978, 3170, 3368, 3572, 3782, 3998, 4220, 4448, 4682, 4922, 5168, 5420, 5678, 5942, 6212, 6488
a(n) = 3n^2 - 3n + 2 for n > 0.
a(n) is the nearest integer to (Sum_{k>=n} 1/k^2)/(Sum_{k>=n} 1/k^4). - Benoit Cloitre, Jun 12 2003
a(n) = a(n-1) + 6*n - 6 (with a(1) = 2). - Vincenzo Librandi, Dec 07 2010
[A007290] 0, 0, 0, 2, 8, 20, 40, 70, 112, 168, 240, 330, 440, 572, 728, 910, 1120, 1360, 1632, 1938, 2280, 2660, 3080, 3542, 4048, 4600, 5200, 5850, 6552, 7308, 8120, 8990, 9920, 10912, 11968, 13090, 14280, 15540, 16872, 18278, 19760, 21320, 22960
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 19 2012
a(n) = (2*n - 3*n^2 + n^3)/3. - T. D. Noe, May 20 2013
a(n+2) = delta(-n) = -delta(n) for n >= 0, where delta is the p-derivation over the integers with respect to prime p = 3. - Danny Rorabaugh, Nov 10 2017
[A049031] 0, 0, 2, 8, 20, 40, 80, 140, 224, 336, 504, 720, 990, 1320, 1760, 2288, 2912, 3640, 4550, 5600, 6800, 8160, 9792, 11628, 13680, 15960, 18620, 21560, 24794, 28336, 32384, 36800, 41600, 46800, 52650, 58968, 65772, 73080, 81200, 89900
a(n) = r*(n-r+1)*(n-r)*(n-r-1)/3, where r = floor((n+1)/4). - Vladeta Jovovic, Dec 22 2004
[A057566] 0, 1, 2, 8, 20, 43, 78, 130, 200, 293, 410, 556, 732, 943, 1190, 1478, 1808, 2185, 2610, 3088, 3620, 4211, 4862, 5578, 6360, 7213, 8138, 9140, 10220, 11383, 12630, 13966, 15392, 16913, 18530, 20248, 22068, 23995, 26030, 28178, 30440, 32821, 35322
a(n) = a(n-1) + b(n), with a(0)=-2, b(0)=8 and being b(n) = b(n-1) - 7 + Sum_{k=0..n} (5*(k mod 2) + ((k+1) mod 2)). - Paolo P. Lava, Aug 24 2007
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5) = n^3/2 - n^2 + n + (1-(-1)^n)/4.
[A131128] 1, 2, 8, 20, 44, 92, 188, 380, 764, 1532, 3068, 6140, 12284, 24572, 49148, 98300, 196604, 393212, 786428, 1572860, 3145724, 6291452, 12582908, 25165820, 50331644, 100663292, 201326588, 402653180, 805306364, 1610612732, 3221225468
a(n) = 3*2^n - 4 for n>=1; a(0)=1. Formula follows by replacing [1,1,5,1,5,1,...] by [1,3-2,3+2,3-2,3+2,3-2,...]. - Emeric Deutsch, Jun 19 2007

a(n) = 2*a(n-1) + 4 for n>=2, a(0)=1, a(1)=2. - Philippe Deléham, Sep 23 2009
[A285185] 0, 2, 8, 20, 52, 128, 320, 792, 1968, 4880, 12112, 30048, 74560, 184992, 459008, 1138880, 2825792, 7011328, 17396480, 43164032, 107098368, 265731840, 659332352, 1635931648, 4059064320, 10071327232, 24988919808, 62002365440, 153839916032, 381706723328, 947088547840, 2349910710272
a(n) = 2*a(n-1) + 2*a(n-2) - 2*a(n-3) for n>2. - Colin Barker, Apr 23 2017
[A024997] 2, 8, 20, 58, 162, 462, 1318, 3782, 10886, 31436, 91016, 264134, 768094, 2237640, 6529284, 19079574, 55826166, 163538472, 479588844, 1407813438, 4136307798, 12163015662, 35793391662, 105407889930, 310620540202, 915913267652, 2702265079208
a(n) = 2*Sum_{k=0..floor(n/2)} binomial(n, 2*k)*binomial(2*k+1, k+1), for n>=1.
[A099177] 0, 1, 2, 8, 20, 60, 160, 448, 1216, 3344, 9120, 24960, 68160, 186304, 508928, 1390592, 3799040, 10379520, 28357120, 77473792, 211661824, 578272256, 1579868160, 4316282880, 11792302080, 32217174016, 88018952192, 240472260608
a(n)=sum{k=0..floor((n+1)/2), binomial(n-k+1, k-1)2^(n-k)} - Paul Barry, Oct 23 2004
[A100097] 0, 1, 2, 8, 20, 64, 172, 512, 1416, 4096, 11468, 32768, 92248, 262144, 739832, 2097152, 5925520, 16777216, 47429900, 134217728, 379536440, 1073741824, 3036661032, 8589934592, 24294699120, 68719476736, 194363001272
a(2*n) = 8^n/(2*sqrt(2)) - 2^n * (2*n-1)!! * hypergeom([1, n+1/2], [n+1], 1/2)/(4*n!), a(2*n+1) = 8^n. - Vladimir Reshetnikov, Oct 13 2016
[A133467] 1, 2, 8, 20, 68, 188, 596, 1724, 5300, 15644, 47444, 141308, 425972, 1273820, 3829652, 11472572, 34450484, 103285916, 309988820, 929704316, 2789637236, 8367863132, 25105686548, 75312865340, 225946984628, 677824176668
a(n) = (4/5)*3^n+(1/5)*(-2)^n, with n>=0. - Paolo P. Lava, Nov 18 2008
[A005559] 1, 2, 8, 20, 75, 210, 784, 2352, 8820, 27720, 104544, 339768, 1288287, 4294290, 16359200, 55621280, 212751396, 734959368, 2821056160, 9873696560, 38013731756, 134510127752, 519227905728, 1854385377600, 7174705330000, 25828939188000, 100136810390400
a(n) = C(n+1,ceil((n-1)/2)) *C(n,floor((n-1)/2)) -C(n+1,ceil((n-2)/2)) *C(n,floor((n-2)/2)). - Paul D. Hanna, Apr 16 2004
[A212981] 0, 2, 8, 21, 43, 77, 125, 190, 274, 380, 510, 667, 853, 1071, 1323, 1612, 1940, 2310, 2724, 3185, 3695, 4257, 4873, 5546, 6278, 7072, 7930, 8855, 9849, 10915, 12055, 13272, 14568, 15946, 17408, 18957, 20595, 22325, 24149, 26070, 28090
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = (20*n^3+42*n^2+28*n+3*(1-(-1)^n))/48. - Luce ETIENNE, Feb 17 2015
[A051744] 2, 8, 21, 45, 85, 147, 238, 366, 540, 770, 1067, 1443, 1911, 2485, 3180, 4012, 4998, 6156, 7505, 9065, 10857, 12903, 15226, 17850, 20800, 24102, 27783, 31871, 36395, 41385, 46872, 52888, 59466, 66640, 74445, 82917, 92093, 102011, 112710, 124230, 136612
a(n) = binomial(n+3, n-1) + binomial(n+1, n-1).
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Apr 27 2012
a(n) = sum_{k=1..n} sum{j=1..k} sum{i=1..j} (i + binomial(j,k)). - Wesley Ivan Hurt, Nov 01 2014
[A141582] 0, 0, 2, 8, 21, 48, 93, 168, 278, 440, 660, 960, 1347, 1848, 2471, 3248, 4188, 5328, 6678, 8280, 10145, 12320, 14817, 17688, 20946, 24648, 28808, 33488, 38703, 44520, 50955, 58080, 65912, 74528, 83946, 94248, 105453, 117648, 130853, 145160, 160590, 177240
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7) for n>6. - Colin Barker, Feb 21 2015
[A014409] 0, 2, 8, 21, 49, 93, 171, 278, 446, 660, 970, 1347, 1863, 2471, 3269, 4188, 5356, 6678, 8316, 10145, 12365, 14817, 17743, 20946, 24714, 28808, 33566, 38703, 44611, 50955, 58185, 65912, 74648, 83946, 94384, 105453, 117801, 130853, 145331, 160590, 177430, 195132
a(2*n) = n/2*(2*n^3 + 3*n - 1); a(2*n+1) = n/2*(2*n^3 + 4*n^2 + 7*n + 3).
a(0)=0, a(1)=2, a(2)=8, a(3)=21, a(4)=49, a(5)=93, a(6)=171, a(7)=278, a(n)=2*a(n-1)+2*a(n-2)-6*a(n-3)+0*a(n-4)+6*a(n-5)-2*a(n-6)- 2*a(n-7)+ a(n-8). - Harvey P. Dale, May 06 2012
[A237268] 1, 2, 8, 21, 55, 144, 377, 987, 2584, 6765, 17711, 46368, 121393, 317811, 832040, 2178309, 5702887, 14930352, 39088169, 102334155, 267914296, 701408733, 1836311903, 4807526976, 12586269025, 32951280099, 86267571272, 225851433717, 591286729879, 1548008755920
a(n) = 3*a(n-1) - a(n-2) for n>4.
[A143212] 1, 2, 8, 21, 60, 160, 429, 1134, 2992, 7865, 20648, 54144, 141897, 371722, 973560, 2549421, 6675460, 17478176, 45761045, 119808150, 313668576, 821205937, 2149962768, 5628704256, 14736185425, 38579909330, 101003635304
a(n) = F(n)*sum{k=0..n} F(k). - Paul Barry, Jan 05 2009
[A107361] 1, 2, 8, 21, 68, 196, 601, 1782, 5380, 16085, 48344, 144888, 434897, 1304314, 3913552, 11739669, 35220604, 105659228, 316981865, 950938830, 2852827436, 8558464597, 25675422448, 77026220976, 231078737953, 693236092466
a(0)=1, a(1)=2, a(2)=8, a(n)=2*a(n-1)+4*a(n-2)-3*a(n-3). - Harvey P. Dale, Jan 24 2015
[A185309] 0, 0, 1, 2, 8, 21, 78, 247, 950, 3421, 13872, 54925, 235262, 1004213, 4533144, 20600553, 97664002, 468473957, 2324089996, 11693569137, 60499459054, 317757980069, 1709245538312, 9335437059969, 52066575517770, 294787939076965, 1700585478056756, 9954647772211777
a(n) = 2*a(n-1)+n*a(n-2)-n*a(n-3). - Vincenzo Librandi, Dec 24 2012
[A212970] 0, 2, 8, 22, 44, 80, 128, 196, 280, 390, 520, 682, 868, 1092, 1344, 1640, 1968, 2346, 2760, 3230, 3740, 4312, 4928, 5612, 6344, 7150, 8008, 8946, 9940, 11020, 12160, 13392, 14688, 16082, 17544, 19110, 20748, 22496, 24320, 26260, 28280
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A212683] 0, 0, 2, 8, 22, 46, 84, 138, 212, 308, 430, 580, 762, 978, 1232, 1526, 1864, 2248, 2682, 3168, 3710, 4310, 4972, 5698, 6492, 7356, 8294, 9308, 10402, 11578, 12840, 14190, 15632, 17168, 18802, 20536, 22374, 24318, 26372, 28538, 30820
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
[A094533] 0, 0, 2, 8, 22, 48, 98, 178, 316, 524, 856, 1334, 2066, 3084, 4578, 6626, 9530, 13434, 18854, 26022, 35764, 48520, 65526, 87550, 116536, 153674, 201906, 263258, 342006, 441366, 567754, 726032, 925588, 1174010, 1484664, 1869072, 2346586, 2934044
a(n) = Sum_p=1^P(n) Sum_i=1^D(p) Sum_j=i^D(p) 1 [subject to: d(i, p) <= d(j, p)]; P(n) = number of partitions of n, D(p) = number of digits in partition p, d(i, p) and d(j, p) = digits number i and j in partition p of integer n.
a(n) = Sum_i=1^P(n) p(i, n)^2 - p(i, n), where P(n) is the number of integer partitions of n and p(i, n) is the number of parts of the i-th partition of n.
[A145654] 0, 2, 8, 22, 52, 114, 240, 494, 1004, 2026, 4072, 8166, 16356, 32738, 65504, 131038, 262108, 524250, 1048536, 2097110, 4194260, 8388562, 16777168, 33554382, 67108812, 134217674, 268435400, 536870854, 1073741764, 2147483586
a(n) = 2*(-1+2^n-n). G.f.: 2*x^2/((1-x)^2*(1-2*x)). - Colin Barker, Jan 11 2012
a(n) = sum((n-i)*2^i, i=1..n-1), with a(1)=0. - Bruno Berselli, Feb 10 2014
[A221880] 1, 2, 8, 22, 57, 136, 315, 710, 1577, 3460, 7527, 16258, 34917, 74624, 158819, 336766, 711777, 1500028, 3152991, 6611834, 13835357, 28894072, 60234843, 125363062, 260512857, 540599156, 1120345175, 2318984050, 4794555477, 9902285680, 20430920787, 42114540398
a(n) = -n+(2^(n-1)*(21*n+34)-8*(-1)^n)/36 for n>1, a(1)=1. [Bruno Berselli, Mar 01 2013]
[A074352] 0, 0, 0, 2, 8, 22, 60, 146, 352, 814, 1860, 4170, 9256, 20326, 44300, 95874, 206320, 441758, 941780, 2000058, 4233144, 8932310, 18796700, 39457522, 82643328, 172743182, 360399460, 750625066, 1560902472, 3241109574, 6720828460, 13918875490, 28792188176
a(0) = 0 for n>0, a(n) = (1/27)*(2^n*(6*n-11) + (-1)^n*(6*n-16)).
a(n) = 2*a(n-1) + 3*a(n-2) - 4*a(n-3) - 4*a(n-4) for n>4.
[A045695] 0, 1, 2, 8, 22, 70, 202, 622, 1844, 5576, 16658, 50114, 150140, 450824, 1351850, 4056794, 12168538, 36509302, 109522330, 328578142, 985717768, 2957186620, 8871509746, 26614629466, 79843738258, 239531515054, 718594094338
a(2n) = 3*a(2n-1) + 2*a(n) for n >= 2; a(2n-1) = 3*a(2n-2) - a(n) for n >= 2
[A154144] 2, 8, 23, 53, 138, 312, 807, 1821, 4706, 10616, 27431, 61877, 159882, 360648, 931863, 2102013, 5431298, 12251432, 31655927, 71406581, 184504266, 416188056, 1075369671, 2425721757, 6267713762, 14138142488, 36530912903, 82403133173, 212917763658, 480280656552
a(n) = +a(n-1) + 6*a(n-2) - 6*a(n-3) - a(n-4) + a(n-5).
a(1..4) = (2,8,23,53); a(n) = 6*a(n-2) - a(n-4) + 2, for n>2. - Ctibor O. Zizka, Nov 10 2009
[A180664] 0, 2, 8, 23, 63, 167, 440, 1154, 3024, 7919, 20735, 54287, 142128, 372098, 974168, 2550407, 6677055, 17480759, 45765224, 119814914, 313679520, 821223647, 2149991423, 5628750623, 14736260448, 38580030722, 101003831720
a(n) = (-15+(-1)^(-n)+(6-2*A)*A^(-n-1)+(6-2*B)*B^(-n-1))/10 with A=(3+sqrt(9-4))/2 and B=(3-sqrt(9-4))/2.
[A290926] 0, 2, 8, 23, 64, 182, 520, 1475, 4152, 11624, 32408, 90028, 249272, 688140, 1894600, 5203665, 14260968, 39004962, 106486512, 290226621, 789776888, 2146082610, 5823823120, 15784464728, 42731452816, 115556460982, 312175750152, 842537682283, 2271900155120
a(n) = 8*a(n-1) - 26*a(n-2) + 48*a(n-3) - 59*a(n-4) + 48*a(n-5) - 26*a(n-6) + 8*a(n-7) - a(n-8).

[A152132] 2, 8, 24, 54, 104, 174, 270, 396, 558, 756, 996, 1282, 1620, 2010, 2458, 2968, 3546, 4192, 4912, 5710, 6592, 7558, 8614, 9764, 11014, 12364, 13820, 15386, 17068, 18866, 20786, 22832, 25010, 27320, 29768, 32358, 35096, 37982, 41022, 44220, 47582
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3) +a(n-4) -3*a(n-5) +3*a(n-6) -a(n-7).
[A051745] 2, 8, 24, 60, 131, 258, 469, 800, 1296, 2012, 3014, 4380, 6201, 8582, 11643, 15520, 20366, 26352, 33668, 42524, 53151, 65802, 80753, 98304, 118780, 142532, 169938, 201404, 237365, 278286, 324663, 377024, 435930, 501976, 575792, 658044, 749435, 850706, 962637
a(n) = binomial(n+4, n-1) + binomial(n, n-1).
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), with a(1)=2, a(2)=8, a(3)=24, a(4)=60, a(5)=131, a(6)=258. - Harvey P. Dale, Apr 07 2013
[A131064] 1, 2, 8, 24, 60, 136, 292, 608, 1244, 2520, 5076, 10192, 20428, 40904, 81860, 163776, 327612, 655288, 1310644, 2621360, 5242796, 10485672, 20971428, 41942944, 83885980, 167772056, 335544212, 671088528, 1342177164, 2684354440
a(n)=5*2^n-4n-4. G.f.=(1-2x+5x^2)/[(1-2x)(1-x)^2]. - Emeric Deutsch, Jun 20 2007
a(n) = 4*a(n-1) -5*a(n-2) +2*a(n-3). - Vincenzo Librandi, Jul 05 2012
[A234933] 0, 0, 0, 0, 2, 8, 24, 62, 148, 336, 738, 1584, 3344, 6974, 14412, 29576, 60370, 122712, 248616, 502398, 1013156, 2039840, 4101570, 8238560, 16534432, 33161598, 66473244, 133189272, 266771378, 534178376, 1069385208, 2140434494, 4283561524, 8571479664, 17150008482, 34311422736, 68641300400
a(n) = 2^(-n)*(5*2^n*(2+2^n)+(1-sqrt(5))^n*(-5+3*sqrt(5))-(1+sqrt(5))^n*(5+3*sqrt(5)))/5 for n>0.
a(n) = 4*a(n-1)-4*a(n-2)-a(n-3)+2*a(n-4) for n>4.
[A134401] 1, 2, 8, 24, 64, 160, 384, 896, 2048, 4608, 10240, 22528, 49152, 106496, 229376, 491520, 1048576, 2228224, 4718592, 9961472, 20971520, 44040192, 92274688, 192937984, 402653184, 838860800, 1744830464, 3623878656, 7516192768
a(n) = n*2^n, n>1. - Eugeny Yakimovitch (Eugeny.Yakimovitch(AT)gmail.com), Jan 08 2008
a(n) = 4*a(n-1)-4*a(n-2) for n>2. G.f.: (1-2*x+4*x^2)/(1-2*x)^2. [Colin Barker, Jul 29 2012]
[A293006] 0, 0, 2, 8, 24, 68, 188, 516, 1412, 3860, 10548, 28820, 78740, 215124, 587732, 1605716, 4386900, 11985236, 32744276, 89459028, 244406612, 667731284, 1824275796, 4984014164, 13616579924, 37201188180, 101635536212, 277673448788, 758617970004, 2072582837588
a(n) = (-8 + (1-sqrt(3))^(1+n) + (1+sqrt(3))^(1+n)) / 6 for n>0.
a(n) = 3*a(n-1) - 2*a(n-2) for n>3.
[A131569] 1, 2, 8, 24, 71, 198, 541, 1452, 3862, 10208, 26885, 70644, 185369, 485982, 1273420, 3335640, 8735707, 22875050, 59895221, 156819960, 410579786, 1074943872, 2814291433, 7367994504, 19289795761, 50501560538, 132215157296, 346144350552, 906218605007
a(n) = 4*a(n-1)-2*a(n-2)-6*a(n-3)+4*a(n-4)+2*a(n-5)-a(n-6).
[A290904] 0, 2, 8, 24, 72, 222, 688, 2128, 6576, 20322, 62808, 194120, 599960, 1854270, 5730912, 17712288, 54742624, 169190722, 522910632, 1616137848, 4994929128, 15437616926, 47712391952, 147462678768, 455756685840, 1408587979170, 4353463496440, 13455066133672
a(n) = 4*a(n-1) - 4*a(n-2) + 4*a(n-3) - a(n-4).
[A228404] 1, 2, 8, 24, 76, 249, 836, 2860, 9932, 34918, 124032, 444448, 1604664, 5831765, 21316860, 78319140, 289064460, 1071275370, 3984871440, 14872552560, 55678270440, 209027020410, 786750047304, 2968257334104, 11223268563896, 42522737574604, 161415556062656, 613813414982656
a(n-4) +(-5*n^2+130153*n-508806)*a(n-5) +13650*(2*n-11)*(n-7)*a(n-6)=0. - R. J. Mathar, Aug 08 2015
[A085449] 0, 1, 2, 8, 24, 80, 256, 832, 2688, 8704, 28160, 91136, 294912, 954368, 3088384, 9994240, 32342016, 104660992, 338690048, 1096024064, 3546808320, 11477712896, 37142659072, 120196169728, 388962975744, 1258710630400
a(n) = s*a(n-1) + r*a(n-2); for n > 1, where a(0) = 0, a(1) = 1, s = 2, r = 4
a(n) = 2^(n-1)*Fib(n). - Paul Barry, Mar 22 2004
[A094038] 0, 1, 2, 8, 24, 84, 280, 960, 3264, 11152, 38048, 129920, 443520, 1514304, 5170048, 17651712, 60266496, 205762816, 702517760, 2398545920, 8189147136, 27959497728, 95459694592, 325919784960, 1112759746560, 3799199420416
a(n)=(sqrt(2)/8)((2+sqrt(2))^n-(2-sqrt(2))^n+(sqrt(2))^n-(-sqrt(2))^n).
[A066374] 2, 8, 25, 67, 165, 387, 881, 1967, 4333, 9451, 20457, 44007, 94181, 200675, 425953, 901087, 1900509, 3997659, 8388569, 17563607, 36700117, 76546003, 159383505, 331349967, 687865805, 1426063307, 2952789961, 6106906567
a(2)=2, a(3)=8, a(4)=25, a(5)=67, a(n)=6*a(n-1)-13*a(n-2)+12*a(n-3)- 4*a(n-4). - Harvey P. Dale, Oct 23 2013
[A212691] 0, 0, 2, 8, 26, 50, 100, 154, 252, 348, 510, 660, 902, 1118, 1456, 1750, 2200, 2584, 3162, 3648, 4370, 4970, 5852, 6578, 7636, 8500, 9750, 10764, 12222, 13398, 15080, 16430, 18352, 19888, 22066, 23800, 26250, 28194, 30932, 33098, 36140
a(n)=a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
a(n) = n*(n-1)*(14*n-7+3*(-1)^n)/24. - R. J. Mathar, Jul 01 2013
[A227015] 2, 8, 26, 60, 117, 203, 324, 487, 696, 958, 1279, 1666, 2123, 2657, 3274, 3981, 4782, 5684, 6693, 7816, 9057, 10423, 11920, 13555, 15332, 17258, 19339, 21582, 23991, 26573, 29334, 32281, 35418, 38752, 42289, 46036, 49997, 54179, 58588, 63231, 68112, 73238
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-4) - 3*a(n-5) + 3*a(n-6) - a(n-7) for n > 2 (conjectured).
[A100504] 2, 8, 26, 64, 130, 232, 378, 576, 834, 1160, 1562, 2048, 2626, 3304, 4090, 4992, 6018, 7176, 8474, 9920, 11522, 13288, 15226, 17344, 19650, 22152, 24858, 27776, 30914, 34280, 37882, 41728, 45826, 50184, 54810, 59712, 64898, 70376, 76154, 82240
a(n) = a(n-1) + (2*n)^2 + 2. - Philippe Deléham, Jan 18 2012
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 26 2012
[A167826] 0, 0, 0, 0, 0, 2, 8, 26, 74, 194, 482, 1152, 2674, 6068, 13524, 29704, 64460, 138482, 294988, 623834, 1311086, 2740666, 5702270, 11815752, 24395678, 50209572, 103048168, 210965064, 430938832, 878534170
a(n) = 4*a(n-1) - 3*a(n-2) - 3*a(n-3) + 3*a(n-5) + 2*a(n-6).
[A224289] 0, 0, 0, 2, 8, 26, 79, 232, 664, 1856, 5072, 13568, 35584, 91648, 232192, 579584, 1427456, 3473408, 8359936, 19922944, 47054848, 110231552, 256311296, 591921152, 1358430208, 3099590656, 7034896384, 15888023552, 35718692864, 79960211456, 178291474432, 396076515328, 876844417024
a(n) = 2^(-8+n)*(-136+70*n-11*n^2+n^3) for n>3. G.f.: -x^4*(x^3-10*x^2+8*x-2) / (2*x-1)^4. - Colin Barker, Apr 14 2013
[A103453] 1, 2, 8, 26, 80, 242, 728, 2186, 6560, 19682, 59048, 177146, 531440, 1594322, 4782968, 14348906, 43046720, 129140162, 387420488, 1162261466, 3486784400, 10460353202, 31381059608, 94143178826, 282429536480, 847288609442
a(n) = Sum_{k=0..n} (2*0^(n-k)-1)*0^(k(n-k))3^k.
[A024023] 0, 2, 8, 26, 80, 242, 728, 2186, 6560, 19682, 59048, 177146, 531440, 1594322, 4782968, 14348906, 43046720, 129140162, 387420488, 1162261466, 3486784400, 10460353202, 31381059608, 94143178826, 282429536480, 847288609442, 2541865828328, 7625597484986, 22876792454960
a(n) = Sum_{k=1..n} Sum_{m=1..k} binomial(k-1,m-1)*2^m, n>=1. a(0)=0. From the sequence combinatorics mentioned above. Twice partial sums of powers of 3.
a(n) = 3*a(n-1) + 2 (with a(0)=0). - Vincenzo Librandi, Nov 19 2010
[A184628] 2, 8, 27, 64, 125, 216, 343, 512, 729, 1000, 1331, 1728, 2197, 2744, 3375, 4096, 4913, 5832, 6859, 8000, 9261, 10648, 12167, 13824, 15625, 17576, 19683, 21952, 24389, 27000, 29791, 32768, 35937, 39304, 42875, 46656, 50653, 54872, 59319, 64000, 68921, 74088, 79507, 85184, 91125, 97336, 103823, 110592, 117649, 125000, 132651, 140608, 148877, 157464, 166375
a(n) = floor(1/{(4+n^4)^(1/4)}), where {}=fractional part.
[A289864] 2, 8, 27, 72, 169, 367, 764, 1553, 3120, 6234, 12433, 24790, 49451, 98705, 197130, 393879, 787258, 1573876, 3146951, 6292916, 12584637, 25167843, 50333992, 100665997, 201329684, 402656702, 805310349, 1610617218, 3221230495, 6442456549, 12884908118, 25769810675
a(n) = (4*n^3 - 18*n^2 - 68*n - 79 - (-1)^n + 3*2^(n + 5))/16.
a(n) = 5*a(n-10-8*a(n-2)+2*a(n-3)+7*a(n-4)-7*a(n-5)+2*a(n-6).
[A290056] 1, 2, 8, 27, 76, 192, 456, 1045, 2344, 5186, 11364, 24719, 53444, 114948, 246096, 524713, 1114640, 2359942, 4981516, 10486691, 22021196, 46138632, 96470488, 201328317, 419432376, 872417482, 1811941876, 3758099255, 7784631444, 16106130956, 33286000544
a(n) = 1 + binomial(n,2) + (2^(n-1)-n)*n + binomial(n,3).
a(n) = 8*a(n-1)-26*a(n-2)+44*a(n-3)-41*a(n-4)+20*a(n-5)-4*a(n-6). - Eric W. Weisstein, Jul 29 2017
a(n) = (6 + (-1+3*2^n)*n - 6*n^2 + n^3) / 6.
[A082107] 1, 2, 8, 28, 79, 190, 406, 792, 1437, 2458, 4004, 6260, 9451, 13846, 19762, 27568, 37689, 50610, 66880, 87116, 112007, 142318, 178894, 222664, 274645, 335946, 407772, 491428, 588323, 699974, 828010, 974176, 1140337, 1328482, 1540728
a(n)=(n^5+20n^3+9n+30)/30

[A048497] 1, 2, 8, 28, 84, 228, 580, 1412, 3332, 7684, 17412, 38916, 86020, 188420, 409604, 884740, 1900548, 4063236, 8650756, 18350084, 38797316, 81788932, 171966468, 360710148, 754974724, 1577058308, 3288334340, 6845104132
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). G.f.: (1-3*x+6*x^2)/((1-x)*(1-2*x)^2). [Colin Barker, Oct 07 2012]
[A279193] 1, 2, 8, 28, 88, 288, 888, 2888, 8888, 28888, 88888, 288888, 888888, 2888888, 8888888, 28888888, 88888888, 288888888, 888888888, 2888888888, 8888888888, 28888888888, 88888888888, 288888888888, 888888888888, 2888888888888, 8888888888888, 28888888888888
a(n) = a(n-1) + 10*a(n-2) - 10*a(n-3) for n>4.
a(n) = ((26 - (13 - 4*sqrt(10))*(1 - (-1)^n))*sqrt(10^n) - 80)/90 for n>1, a(1)=1. - Bruno Berselli, Dec 15 2016
[A291383] 2, 8, 28, 98, 344, 1208, 4240, 14884, 52248, 183408, 643824, 2260040, 7933504, 27849280, 97760384, 343171984, 1204649632, 4228727296, 14844261824, 52108375328, 182918006400, 642104016000, 2254002082560, 7912309005376, 27774878417792, 97499209219328
a(n) = 2*a(n-1) + 4*a(n-2) + 4*a(n-3) + 2*a(n-4) for n >= 5.
[A293169] 1, 1, 1, 1, 1, 1, 1, 2, 8, 29, 85, 211, 463, 925, 1718, 3017, 5097, 8464, 14197, 24753, 45697, 89150, 180254, 368734, 748924, 1493990, 2914906, 5565127, 10434412, 19322901, 35583926, 65615746, 121847272, 228638698, 433747259, 830227401, 1597653852, 3078928619, 5922703731, 11347651254
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) + a(n-7) for n>6.
[A212385] 1, 1, 1, 1, 1, 1, 2, 8, 29, 85, 211, 464, 943, 1873, 3914, 9101, 23298, 61915, 162283, 409888, 996456, 2360486, 5555333, 13244114, 32357022, 80958851, 205389082, 522000262, 1317987172, 3297123652, 8190326857, 20302864970, 50482613327, 126318440989
a(n) = Sum_{k=0..n}(binomial(4*k-3*n-1,n-k)*binomial(n+1,5*k-4*n))/(n+1). - Vladimir Kruchinin, Mar 05 2016
[A287045] 0, 1, 2, 8, 29, 140, 661, 3622, 19993, 120909, 744890, 4887401, 32795272, 230728608, 1661537689, 12426619200, 95087157771, 750968991327, 6062088334528, 50288003979444, 425889463252945, 3694698371069796, 32683415513480237, 295430131502604353, 2719833636188015674, 25536232370225996575
a(n) = (3*a(n-1) + (6*n-10)*a(n-2) - a(n-3) + 2*b(n-1) - b(n-2) - b(n-3))/2, where b(n) = Sum_{k=1..n-1} a(k)*a(n-k).
[A168605] 1, 2, 8, 30, 104, 342, 1088, 3390, 10424, 31782, 96368, 291150, 877544, 2640822, 7938848, 23849310, 71613464, 214971462, 645176528, 1936053870, 5809210184, 17429727702, 52293377408, 156888520830, 470682339704, 1412080573542
a(3)=1 and, for n>=4, a(n)=(5*3^(n-3)-3*2^(n-2)+3)/3.
[A077839] 1, 2, 8, 30, 110, 406, 1498, 5526, 20386, 75206, 277442, 1023510, 3775826, 13929382, 51386818, 189570870, 699345010, 2579950406, 9517682978, 35111639766, 129530186066, 477849203686, 1762831262722, 6503252567670, 23991118635826, 88505523568262
a(0)=1, a(1)=2, a(3)=8, a(n)=3a(n-1)+2a(n-2)+2a(n-3) [From Harvey P. Dale, Apr 29 2011]
[A007468] 2, 8, 31, 88, 199, 384, 659, 1056, 1601, 2310, 3185, 4364, 5693, 7360, 9287, 11494, 14189, 17258, 20517, 24526, 28967, 33736, 38917, 45230, 51797, 59180, 66831, 75582, 84463, 95290, 106255, 117424, 129945, 143334, 158167, 173828, 190013
a(n) = prime(1 + n(n-1)/2) + ... + prime(n + n(n-1)/2), where prime(i) is i-th prime.
[A052481] 1, 2, 8, 32, 112, 352, 1024, 2816, 7424, 18944, 47104, 114688, 274432, 647168, 1507328, 3473408, 7929856, 17956864, 40370176, 90177536, 200278016, 442499072, 973078528, 2130706432, 4647288832, 10099884032, 21877489664, 47244640256
a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3).
[A202814] 1, 2, 8, 32, 148, 712, 3584, 18496, 97444, 521096, 2820448, 15414016, 84917584, 470982176, 2627289344, 14728751872, 82928400164, 468699173576, 2657978454944, 15118824666496, 86230489902928, 493021885470496, 2825114755879424, 16221295513400576, 93312601350167824, 537693975424462112, 3103220029717 0
a(n) is the constant term of (2+x+y+1/x+1/y)^n.
[A262480] 1, 1, 1, 2, 8, 32, 192, 1272, 10176, 90816, 908160, 9980160, 119761920, 1556766720, 21794734080, 326918753280, 5230700052480, 88921859604480, 1600593472880640, 30411275148656640, 608225502973132800, 12772735543856332800, 281000181964839321600, 6463004184741681561600, 155112100433800357478400, 3877802510833236993638400
a(0) = a(1) = 1, a(2*n) = ((2*n)!+(2*n)!!)/4, a(2*n+1) = ((2*n+1)!+(2*n)!!)/4, for n >= 1.
[A204090] 1, 2, 8, 34, 134, 498, 1786, 6274, 21778, 75074, 257762, 882946, 3020354, 10323714, 35270530, 120467458, 411394306, 1404773378, 4796567042, 16377245698, 55916897282, 190915194882, 651831179266, 2225502715906, 7598365282306, 25942489251842, 88573293551618
a(n) = 7*a(n-1) - 16*a(n-2) + 14*a(n-3) - 4*a(n-4), a(0)=1, a(1)=2, a(2)=8, a(3)=34.
a(n) = 2 - 2^(1+n) + ((2+sqrt(2))^(1+n) - (2-sqrt(2))^(1+n))/(2*sqrt(2)). - Colin Barker, Nov 26 2016
[A147722] 1, 2, 8, 36, 164, 748, 3412, 15564, 70996, 323852, 1477268, 6738636, 30738644, 140215948, 639602452, 2917580364, 13308696916, 60708323852, 276924225428, 1263204479436, 5762173946324, 26284460772748, 119897955971092, 546920858309964, 2494808379607636, 11380200181418252
a(n) = 5*a(n-1)-2*a(n-2), a(0)=1, a(1)=2. [Philippe Deléham, Nov 13 2008]
a(n) = (1/2)*[(5/2)+(1/2)*sqrt(17)]^n+(1/2)*[(5/2)-(1/2)*sqrt(17)]^n-(1/34)*[(5/2)+(1/2)*sqrt(17)]^n *sqrt(17)+(1/34)*sqrt(17)*[(5/2)-(1/2)*sqrt(17)]^n, with n>=0. [Paolo P. Lava, Nov 18 2008]
[A074092] 1, 2, 8, 40, 144, 448, 1280, 3456, 8960, 22528, 55296, 133120, 315392, 737280, 1703936, 3899392, 8847360, 19922944, 44564480, 99090432, 219152384, 482344960, 1056964608, 2306867200, 5016387584, 10871635968, 23488102400
a(n) = 6*a(n-1)-12*a(n-2)+8*a(n-3) for n>4. G.f.: (1-4*x+8*x^2+8*x^3-16*x^4)/(1-2*x)^3. [Colin Barker, Mar 21 2012]
[A186947] 1, 2, 8, 40, 192, 864, 3712, 15488, 63488, 257536, 1038336, 4171776, 16728064, 67002368, 268206080, 1073250304, 4293918720, 17177640960, 68714758144, 274867945472, 1099490656256, 4398002470912, 17592093769728, 70368551239680, 281474574057472, 1125899067981824
a(n) = 4*a(n-1) + 2^n*(n-2), n>=1. - Vincenzo Librandi, Mar 13 2011
[A079503] 0, 2, 8, 54, 320, 1250, 3672, 8918, 18944, 36450, 65000, 109142, 174528, 268034, 397880, 573750, 806912, 1110338, 1498824, 1989110, 2600000, 3352482, 4269848, 5377814, 6704640, 8281250, 10141352, 12321558, 14861504, 17803970, 21195000, 25084022
a(1)=0, a(2)=2, a(3)=8, a(4)=54, a(5)=320, a(6)=1250, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Dec 30 2012
[A281899] 0, 1, 2, 9, 10, 11, 18, 19, 20, 27, 28, 29, 36, 37, 38, 45, 46, 47, 54, 55, 56, 63, 64, 65, 72, 73, 74, 81, 82, 83, 90, 91, 92, 99, 100, 101, 108, 109, 110, 117, 118, 119, 126, 127, 128, 135, 136, 137, 144, 145, 146, 153, 154, 155, 162, 163, 164, 171, 172, 173, 180, 181, 182, 189
a(n) = a(n-1) + a(n-3) - a(n-4).
a(n) = 3*n - 2*(n mod 3). In general, n + 3*h*floor(n/3) = (h+1)*n - h*(n mod 3).
a(n) + a(n+s) = a(2*n+s-1) + 1, where s is nonnegative and not divisible by 3. Example: for s=14, a(n) + a(n+14) = a(2*n+13) + 1; for n=3, a(3) + a(17) = a(19) + 1 = 9 + 47 = 55 + 1 = 56.
a(6*k+r) = 18*k + a(r), where 0 <= r <= 5.
[A031443] 2, 9, 10, 12, 35, 37, 38, 41, 42, 44, 49, 50, 52, 56, 135, 139, 141, 142, 147, 149, 150, 153, 154, 156, 163, 165, 166, 169, 170, 172, 177, 178, 180, 184, 195, 197, 198, 201, 202, 204, 209, 210, 212, 216, 225, 226, 228, 232, 240
a(n+1) = a(n)+2^k+2^(m-1)-1+int((2^(k+m)-2^k)/a(n))*(2^(2*m)+2^(m-1)) where k is the largest integer such that 2^k divides a(n) and m is the largest integer such that 2^m divides a(n)/2^k+1. - Ulrich Schimke (UlrSchimke(AT)aol.com)
[A047468] 1, 2, 9, 10, 17, 18, 25, 26, 33, 34, 41, 42, 49, 50, 57, 58, 65, 66, 73, 74, 81, 82, 89, 90, 97, 98, 105, 106, 113, 114, 121, 122, 129, 130, 137, 138, 145, 146, 153, 154, 161, 162, 169, 170, 177, 178, 185, 186, 193, 194, 201, 202, 209, 210, 217, 218, 225, 226, 233
a(n) = 8*n-a(n-1)-13 (with a(1)=1). [From Vincenzo Librandi, Aug 06 2010]
a(n) = 1+8*floor((n-1)/2)+((n-1) mod 2). - Alois P. Heinz, May 13 2012
a(n) = (-3*(3+(-1)^n)+8*n)/2. [Colin Barker, May 14 2012]
a(1)=1, a(2)=2, a(3)=9, a(n)=a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Mar 26 2013
[A081346] 1, 2, 9, 10, 25, 26, 49, 50, 81, 82, 121, 122, 169, 170, 225, 226, 289, 290, 361, 362, 441, 442, 529, 530, 625, 626, 729, 730, 841, 842, 961, 962, 1089, 1090, 1225, 1226, 1369, 1370, 1521, 1522, 1681, 1682, 1849, 1850, 2025, 2026, 2209, 2210, 2401, 2402, 2601
a(n)=n^2+n+1+n*(-1)^n.
[A179888] 2, 9, 10, 37, 38, 41, 42, 149, 150, 153, 154, 165, 166, 169, 170, 597, 598, 601, 602, 613, 614, 617, 618, 661, 662, 665, 666, 677, 678, 681, 682, 2389, 2390, 2393, 2394, 2405, 2406, 2409, 2410, 2453, 2454, 2457, 2458, 2469, 2470, 2473, 2474, 2645, 2646, 2649
a(n) = 4*a(floor(n/2)) + n mod 2 + 1 for n>1;
a(n)=SUM((bit(k)+1)*4^k: 0<=k<=L), where bit() and L such that n=SUM(bit(k)*2^k: 0<=k<=L).
[A072065] 0, 2, 9, 11, 12, 14, 21, 23, 24, 26, 33, 35, 36, 38, 45, 47, 48, 50, 57, 59, 60, 62, 69, 71, 72, 74, 81, 83, 84, 86, 93, 95, 96, 98, 105, 107, 108, 110, 117, 119, 120, 122, 129, 131, 132, 134, 141, 143, 144, 146, 153, 155, 156, 158, 165, 167, 168, 170, 177, 179, 180
a(1)=0, a(2)=2, a(3)=9, a(4)=11, a(5)=12, a(n) = a(n-1)+a(n-4)-a(n-5). - Harvey P. Dale, Jan 30 2015
a(n) = (3/4+(3*i)/4)*(i^n-i*(-i)^n)-(-1)^n/2+3*(n+1)-5 where i = sqrt(-1).

[A043307] 1, 2, 9, 11, 18, 19, 82, 83, 99, 100, 163, 164, 171, 173, 738, 740, 747, 748, 892, 893, 900, 902, 1467, 1469, 1476, 1477, 1540, 1541, 1557, 1558, 6643, 6644, 6660, 6661, 6724, 6725, 6732, 6734, 8028, 8030, 8037, 8038, 8101, 8102, 8118, 8119
a(4k+5) = 9*a(2k+2).
[A022114] 2, 9, 11, 20, 31, 51, 82, 133, 215, 348, 563, 911, 1474, 2385, 3859, 6244, 10103, 16347, 26450, 42797, 69247, 112044, 181291, 293335, 474626, 767961, 1242587, 2010548, 3253135, 5263683, 8516818, 13780501, 22297319, 36077820, 58375139, 94452959, 152828098
a(n) = 10*F(n) + F(n-3). - J. M. Bergot, Jul 17 2017
[A041099] 1, 1, 2, 9, 11, 20, 291, 311, 602, 2719, 3321, 6040, 87881, 93921, 181802, 821129, 1002931, 1824060, 26539771, 28363831, 54903602, 247978239, 302881841, 550860080, 8014922961, 8565783041, 16580706002
a(n) = 302*a(n-6)-a(n-12). G.f.: -(x^4-x^3+2*x^2+x+1)*(x^6-10*x^3-1)/(x^12-302*x^6+1). [Colin Barker, Jul 18 2012]
[A041581] 1, 1, 2, 9, 11, 20, 691, 711, 1402, 6319, 7721, 14040, 485081, 499121, 984202, 4435929, 5420131, 9856060, 340526171, 350382231, 690908402, 3114015839, 3804924241, 6918940080, 239048886961, 245967827041, 485016714002, 2186034683049, 2671051397051
a(n) = 702*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 20 2013
[A041651] 1, 1, 2, 9, 11, 42, 53, 254, 307, 561, 20503, 21064, 41567, 187332, 228899, 874029, 1102928, 5285741, 6388669, 11674410, 426667429, 438341839, 865009268, 3898378911, 4763388179, 18188543448, 22951931627, 109996269956, 132948201583, 242944471539
a(n) = 20810*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 22 2013
[A042687] 1, 1, 2, 9, 11, 75, 86, 161, 569, 3575, 11294, 14869, 26163, 171847, 198010, 963887, 1161897, 2125784, 124457369, 126583153, 251040522, 1130745241, 1381785763, 9421459819, 10803245582, 20224705401, 71477361785, 449088876111, 1418743990118, 1867832866229
a(n) = 125619266*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 26 2014
[A041335] 1, 2, 9, 11, 97, 593, 690, 1283, 1973, 3256, 8485, 20226, 28711, 48937, 77648, 126585, 837158, 6823849, 7661007, 37467877, 82596761, 2184983663, 4452564087, 19995240011, 24447804098, 215577672795, 1317913840868, 1533491513663, 2851405354531, 4384896868194
a(n) = 2222451540*a(n-21) + a(n-42) for n>41. [Bruno Berselli, Dec 16 2013]
[A178312] 0, 1, 2, 9, 12, 30, 36, 70, 80, 135, 150, 231, 252, 364, 392, 540, 576, 765, 810, 1045, 1100, 1386, 1452, 1794, 1872, 2275, 2366, 2835, 2940, 3480, 3600, 4216, 4352, 5049, 5202, 5985, 6156, 7030, 7220, 8190, 8400, 9471, 9702, 10879, 11132
a(n) = (n, n, n, n, n,...) * (1, 0, 2, 0, 3,...) using length n vectors.
a(n) = n*(2*n*(n+3)-(2*n+3)*(-1)^n+3)/16. - Bruno Berselli, Feb 14 2011
[A253608] 2, 9, 12, 35, 42, 49, 56, 135, 150, 165, 180, 195, 210, 225, 240, 527, 558, 589, 620, 651, 682, 713, 744, 775, 806, 837, 868, 899, 930, 961, 992, 2079, 2142, 2205, 2268, 2331, 2394, 2457, 2520, 2583, 2646, 2709, 2772, 2835, 2898, 2961, 3024, 3087, 3150, 3213
a(n) = (n+1) * (2^BL(n) - 1), where BL(n) is the binary length of n.
[A129345] 2, 9, 12, 53, 70, 309, 408, 1801, 2378, 10497, 13860, 61181, 80782, 356589, 470832, 2078353, 2744210, 12113529, 15994428, 70602821, 93222358, 411503397, 543339720, 2398417561, 3166815962, 13979001969, 18457556052, 81475594253, 107578520350, 474874563549
a(n) = ((-1-sqrt(2))^(1+n)-(-1+sqrt(2))^(1+n)+(1-sqrt(2))^n*(-4+3*sqrt(2))+(1+sqrt(2))^n*(4+3*sqrt(2)))/(2*sqrt(2)).
a(n) = 6*a(n-2)-a(n-4) for n>3.
[A144472] 1, 2, 9, 13, 31, 57, 119, 233, 471, 937, 1879, 3753, 7511, 15017, 30039, 60073, 120151, 240297, 480599, 961193, 1922391, 3844777, 7689559, 15379113, 30758231, 61516457, 123032919, 246065833, 492131671, 984263337, 1968526679, 3937053353, 7874106711
a(n) = 11*2^(n-2)/3 - 5*(-1)^n/3, n>1. - R. J. Mathar, Oct 24 2008
a(n) = (11*2^n - 20) / 12 for n>1 and even.
a(n) = (11*2^n + 20) / 12 for n>1 and odd.
a(n) = a(n-1) + 2*a(n-2) for n>3.
[A131189] 2, 9, 16, 23, 30, 37, 51, 58, 65, 72, 79, 86, 100, 107, 114, 121, 128, 135, 149, 156, 163, 170, 177, 184, 198, 205, 212, 219, 226, 233, 247, 254, 261, 268, 275, 282, 296, 303, 310, 317, 324, 331, 345, 352, 359, 366, 373, 380, 394, 401, 408, 415, 422, 429
a(n) = 7*[(7n+1)/6] - 5, if n mod 6 = 5; a(n) = 7*[(7n+1)/6] + 2, otherwise. For e(n) and g(n), proof is similar; see also the comments. - Max Alekseyev
[A085960] 1, 2, 9, 16, 25, 34, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361, 400, 441, 484, 529, 576, 625, 676, 729, 784, 841, 900, 961, 1024, 1089, 1156, 1225, 1296, 1369, 1444, 1521, 1600, 1681, 1764, 1849, 1936, 2025, 2116, 2209, 2304, 2401, 2500
a(n) = 2 if n = 2, a(n) = 34 if n = 6, otherwise a(n) = n^2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>9.
[A213389] 0, 1, 2, 9, 16, 35, 54, 91, 128, 189, 250, 341, 432, 559, 686, 855, 1024, 1241, 1458, 1729, 2000, 2331, 2662, 3059, 3456, 3925, 4394, 4941, 5488, 6119, 6750, 7471, 8192, 9009, 9826, 10745, 11664, 12691, 13718, 14859, 16000, 17261, 18522
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
a(n) = n * ceiling(n^2/4). - Wesley Ivan Hurt, Jun 15 2013
a(n) = n*(2*n^2+3*(1-(-1)^n))/8. - Luce ETIENNE, Jul 17 2016
[A083707] 0, 1, 2, 9, 17, 37, 63, 108, 165, 252, 358, 506, 684, 917, 1192, 1539, 1941, 2433, 2997, 3670, 4433, 5328, 6332, 7492, 8784, 10257, 11886, 13725, 15745, 18005, 20475, 23216, 26197, 29484, 33042, 36942, 41148, 45733, 50660, 56007, 61733, 67921, 74529, 81642
a(0)=0, a(1)=1, a(2)=2, a(3)=9, a(4)=17, a(5)=37, a(6)=63, a(7)=108, a(8)=165, a(n)=2*a(n-1)+a(n-2)-3*a(n-3)-a(n-4)+a(n-5)+3*a(n-6)- a(n-7)-2*a(n-8)+ a(n-9). - Harvey P. Dale, May 01 2015
[A028881] 2, 9, 18, 29, 42, 57, 74, 93, 114, 137, 162, 189, 218, 249, 282, 317, 354, 393, 434, 477, 522, 569, 618, 669, 722, 777, 834, 893, 954, 1017, 1082, 1149, 1218, 1289, 1362, 1437, 1514, 1593, 1674, 1757, 1842, 1929, 2018, 2109, 2202, 2297, 2394
a(n) = a(n-1) + 2*n - 1, with a(3)=2. - Vincenzo Librandi, Aug 05 2010
[A083423] 1, 2, 9, 18, 81, 162, 729, 1458, 6561, 13122, 59049, 118098, 531441, 1062882, 4782969, 9565938, 43046721, 86093442, 387420489, 774840978, 3486784401, 6973568802, 31381059609, 62762119218, 282429536481, 564859072962
a(n+3) = a(n+2)*a(n+1)/a(n). [Reinhard Zumkeller, Mar 04 2011]
a(n) = 9*a(n-2). - Vincenzo Librandi, Mar 20 2011
[A047883] 0, 2, 9, 20, 27, 32, 39, 46, 53, 60, 67, 74, 81, 88, 95, 102, 109, 116, 123, 130, 137, 144, 151, 158, 165, 172, 179, 186, 193, 200, 207, 214, 221, 228, 235
a(n)=7+a(n-1) for n >= 6.
[A005476] 0, 2, 9, 21, 38, 60, 87, 119, 156, 198, 245, 297, 354, 416, 483, 555, 632, 714, 801, 893, 990, 1092, 1199, 1311, 1428, 1550, 1677, 1809, 1946, 2088, 2235, 2387, 2544, 2706, 2873, 3045, 3222, 3404, 3591
a(n) = C(5*n,2)/5 for n>=0. - Zerinvary Lajos, Jan 02 2007
a(n) = a(n-1) + 5*n - 3 for n>0, a(0)=0. - Vincenzo Librandi, Nov 18 2010
[A131476] 0, 0, 2, 9, 21, 41, 72, 114, 170, 243, 333, 443, 576, 732, 914, 1125, 1365, 1637, 1944, 2286, 2666, 3087, 3549, 4055, 4608, 5208, 5858, 6561, 7317, 8129, 9000, 9930, 10922, 11979, 13101, 14291, 15552, 16884, 18290, 19773, 21333, 22973
a(n) = (3*n^3 + 3*cos(2*Pi*n/3) + sqrt(3)*sin(2*Pi*n/3) - 3)/9. - Vladimir Reshetnikov, Oct 09 2016
a(n) = (n - 1)*n*(n + 1)/3 + floor(n/3). - Bruno Berselli, Jun 08 2017
[A192971] 1, 2, 9, 21, 44, 83, 149, 258, 437, 729, 1204, 1975, 3225, 5250, 8529, 13837, 22428, 36331, 58829, 95234, 154141, 249457, 403684, 653231, 1057009, 1710338, 2767449, 4477893, 7245452, 11723459, 18969029, 30692610, 49661765, 80354505
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4).
[A056105] 1, 2, 9, 22, 41, 66, 97, 134, 177, 226, 281, 342, 409, 482, 561, 646, 737, 834, 937, 1046, 1161, 1282, 1409, 1542, 1681, 1826, 1977, 2134, 2297, 2466, 2641, 2822, 3009, 3202, 3401, 3606, 3817, 4034, 4257, 4486, 4721, 4962, 5209, 5462, 5721, 5986, 6257
a(n) = 6*n + a(n-1) - 5 (with a(0)=1). - Vincenzo Librandi, Aug 07 2010
[A212069] 0, 1, 2, 9, 22, 41, 72, 115, 170, 243, 334, 443, 576, 733, 914, 1125, 1366, 1637, 1944, 2287, 2666, 3087, 3550, 4055, 4608, 5209, 5858, 6561, 7318, 8129, 9000, 9931, 10922, 11979, 13102, 14291, 15552, 16885, 18290, 19773, 21334, 22973
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - 3*a(n-4) + 3*a(n-5) - a(n-6).
[A106058] 0, 0, 0, 2, 9, 22, 42, 70, 107, 154, 212, 282, 365, 462, 574, 702, 847, 1010, 1192, 1394, 1617, 1862, 2130, 2422, 2739, 3082, 3452, 3850, 4277, 4734, 5222, 5742, 6295, 6882, 7504, 8162, 8857, 9590, 10362, 11174, 12027, 12922, 13860, 14842, 15869, 16942, 18062
a(n)= 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). G.f.: -x^3*(-2-x+2*x^2)/(x-1)^4. [From R. J. Mathar, Feb 06 2010]

[A166754] 1, 2, 9, 22, 53, 114, 241, 494, 1005, 2026, 4073, 8166, 16357, 32738, 65505, 131038, 262109, 524250, 1048537, 2097110, 4194261, 8388562, 16777169, 33554382, 67108813, 134217674, 268435401, 536870854, 1073741765, 2147483586
a(n) = (2^(n+3) + (-1)^n - (4*n+7))/2.
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 2*a(n-4).
[A091002] 0, 0, 1, 2, 9, 22, 77, 210, 673, 1934, 5973, 17578, 53417, 158886, 479389, 1432706, 4309041, 12905278, 38759525, 116191194, 348748345, 1045895510, 3138385581, 9413758642, 28244072129, 84726623982, 254191056757, 762550800650, 2287697141193, 6863001945094
a(n)=sum(binomial(n-k, k)*6^(k-1), k=1..n). - Zerinvary Lajos, Sep 30 2006
[A254710] 1, 2, 9, 22, 119, 300, 1651, 4172, 22989, 58102, 320189, 809250, 4459651, 11271392, 62114919, 156990232, 865149209, 2186591850, 12049974001, 30455295662, 167834486799, 424187547412, 2337632841179, 5908170368100, 32559025289701, 82290197605982
a(n) = a(n-1)+14*a(n-2)-14*a(n-3)-a(n-4)+a(n-5).
[A209294] 2, 9, 23, 44, 72, 107, 149, 198, 254, 317, 387, 464, 548, 639, 737, 842, 954, 1073, 1199, 1332, 1472, 1619, 1773, 1934, 2102, 2277, 2459, 2648, 2844, 3047, 3257, 3474, 3698, 3929, 4167, 4412, 4664, 4923, 5189, 5462
a(n) = a(-n+1) = 3*a(n-1)-3*a(n-2)+a(n-3). - Bruno Berselli, Jan 18 2013
[A101986] 0, 2, 9, 23, 46, 80, 127, 189, 268, 366, 485, 627, 794, 988, 1211, 1465, 1752, 2074, 2433, 2831, 3270, 3752, 4279, 4853, 5476, 6150, 6877, 7659, 8498, 9396, 10355, 11377, 12464, 13618, 14841, 16135, 17502, 18944, 20463, 22061, 23740, 25502
a(n) = n*(2*n^2 + 9*n + 1)/6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3, a(0)=0, a(1)=2, a(2)=9, a(3)=23. - L. Edson Jeffery, Jan 17 2012
[A154118] 1, 2, 9, 23, 51, 107, 219, 443, 891, 1787, 3579, 7163, 14331, 28667, 57339, 114683, 229371, 458747, 917499, 1835003, 3670011, 7340027, 14680059, 29360123, 58720251, 117440507, 234881019, 469762043, 939524091, 1879048187, 3758096379, 7516192763, 15032385531
a(n) = 7*2^(n-1) - 5, n>=1, with a(0)=1.
a(n) = 2*a(n-1) + 5, n>1, with a(0)=1, a(1)=2.
a(n) = 3*a(n-1) - 2*a(n-2), n>2, with a(0)=1, a(1)=2, a(2)=9.
[A133469] 1, 2, 9, 23, 86, 247, 849, 2578, 8521, 26567, 86214, 272183, 875681, 2780962, 8910729, 28377463, 90752566, 289394807, 924662769, 2950426418, 9423065801, 30076050727, 96037511334, 306569866423, 978832445761, 3124821510722
a(n) = ((29 + 3*sqrt(29))/58)*(0.5 + 0.5*sqrt(29))^n + ((29 - 3*sqrt(29))/58)*(0.5 - 0.5*sqrt(29))^n. - Richard Choulet, Nov 20 2008
[A204556] 1, 2, 9, 24, 45, 90, 133, 224, 297, 450, 561, 792, 949, 1274, 1485, 1920, 2193, 2754, 3097, 3800, 4221, 5082, 5589, 6624, 7225, 8450, 9153, 10584, 11397, 13050, 13981, 15872, 16929, 19074, 20265, 22680, 24013, 26714, 28197, 31200, 32841, 36162, 37969, 41624
a(n) = n*(2*n^2-3*n+(-1)^n*(n-3)+3)/4.
a(n) = (n^3-n^2)/2 for n even.
a(n) = (n^3-2*n^2+3*n)/2 for n odd.
[A185669] 2, 9, 24, 47, 78, 117, 164, 219, 282, 353, 432, 519, 614, 717, 828, 947, 1074, 1209, 1352, 1503, 1662, 1829, 2004, 2187, 2378, 2577, 2784, 2999, 3222, 3453, 3692, 3939, 4194, 4457, 4728, 5007, 5294, 5589, 5892, 6203, 6522, 6849, 7184, 7527, 7878, 8237, 8604, 8979, 9362, 9753, 10152, 10559, 10974, 11397, 11828
a(n) = a(n-1) + 8*n - 1.
a(n) = 2*a(n-1) - a(n-2) + 8.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A006002] 0, 2, 9, 24, 50, 90, 147, 224, 324, 450, 605, 792, 1014, 1274, 1575, 1920, 2312, 2754, 3249, 3800, 4410, 5082, 5819, 6624, 7500, 8450, 9477, 10584, 11774, 13050, 14415, 15872, 17424, 19074, 20825, 22680, 24642, 26714, 28899, 31200, 33620, 36162, 38829, 41624
a(n) = (n+1) * C(n+1,2), n>0. - Zerinvary Lajos, Jan 10 2006
a(n) = 2*C(n+1,2) + 3*C(n+1,3). - Gary Detlefs, Jun 06 2010
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Aug 14 2012
a(n) = Sum_{j=1..n} (Sum_{i=1..j} (2*j-i+1)). - Wesley Ivan Hurt, Nov 17 2014
a(n) = Sum_{i=0..n} n*(n - i) + i. - Bruno Berselli, Jan 13 2016
[A122006] 0, 1, 2, 9, 24, 81, 234, 729, 2160, 6561, 19602, 59049, 176904, 531441, 1593594, 4782969, 14346720, 43046721, 129133602, 387420489, 1162241784, 3486784401, 10460294154, 31381059609, 94143001680, 282429536481, 847288078002, 2541865828329, 7625595890664
a(n) = 3*a(n-1) + 3*a(n-2) - 9*a(n-3). - Philippe Deléham, Mar 09 2009
a(n) = 3^(n-2) for n even.
a(n) = 3^(n-2)-3^((n-3)/2) for n odd. (End)
[A213720] 0, 0, 1, 2, 9, 24, 97, 314, 1285, 4740, 20161, 81782, 364037, 1590768, 7415361, 34458418, 167934917, 822644860, 4181343201, 21456885262, 113446435685, 606954796712, 3329669253153, 18503539170954, 105074939752933, 604670497368692, 3546768810450817, 21082213234142886
a(n) = 2*a(n-1)+(n+1)*a(n-2)-(n+1)*a(n-3) with a(0)=a(1)=0, a(2)=1. - Vincenzo Librandi, Dec 24 2012
[A005582] 0, 2, 9, 25, 55, 105, 182, 294, 450, 660, 935, 1287, 1729, 2275, 2940, 3740, 4692, 5814, 7125, 8645, 10395, 12397, 14674, 17250, 20150, 23400, 27027, 31059, 35525, 40455, 45880, 51832, 58344, 65450, 73185, 81585, 90687, 100529, 111150, 122590, 134890
a(n) = binomial(n+3, n-1)+binomial(n+2, n-1).
a(n) = binomial(n,4) + 2*binomial(n,3), n>=2. - Zerinvary Lajos, Jul 26 2006
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = Sum_{k=1..n} (Sum_{i=1..k} i(n-k+2)). - Wesley Ivan Hurt, Sep 26 2013
[A116454] 0, 2, 9, 25, 59, 129, 271, 557, 1131, 2281, 4583, 9189, 18403, 36833, 73695, 147421, 294875, 589785, 1179607, 2359253, 4718547, 9437137, 18874319, 37748685, 75497419, 150994889, 301989831, 603979717, 1207959491, 2415919041
a(n+1) = (a(n) + n) * 2 + 1 for n>1.
a(0)=0, a(1)=2, a(2)=9, a(3)=25, a(n)=4*a(n-1)-5*a(n-2)+2*a(n-3) [From Harvey P. Dale, Jul 18 2011]
[A093122] 0, 1, 2, 9, 25, 88, 273, 903, 2890, 9405, 30349, 98352, 318045, 1029587, 3331210, 10781001, 34886465, 112897544, 365339961, 1182271695, 3825900650, 12380892261, 40065380357, 129654340704, 419570185125, 1357757761723
a(n)=(2^n/3-(-1)^n/3)(((1+sqrt(5))/2)^(n+1)/sqrt(5)-((1-sqrt(5))/2)^(n+1)/sqrt(5)).
[A082289] 2, 9, 26, 59, 116, 206, 340, 530, 790, 1135, 1582, 2149, 2856, 3724, 4776, 6036, 7530, 9285, 11330, 13695, 16412, 19514, 23036, 27014, 31486, 36491, 42070, 48265, 55120, 62680, 70992, 80104, 90066, 100929, 112746, 125571, 139460, 154470
a(4)=2, a(5)=9, a(6)=26, a(7)=59, a(8)=116, a(9)=206, a(n)=4*a(n-1)- 5*a(n-2)+ 5*a(n-4)-4*a(n-5)+a(n-6). - Harvey P. Dale, Aug 26 2013
[A213387] 0, 2, 9, 26, 63, 140, 297, 614, 1251, 2528, 5085, 10202, 20439, 40916, 81873, 163790, 327627, 655304, 1310661, 2621378, 5242815, 10485692, 20971449, 41942966, 83886003, 167772080, 335544237, 671088554, 1342177191
a(1)=0, a(2)=2, a(3)=9, a(n)=4*a(n-1)-5*a(n-2)+2*a(n-3). - Harvey P. Dale, Sep 28 2012
[A153977] 2, 9, 27, 65, 135, 252, 434, 702, 1080, 1595, 2277, 3159, 4277, 5670, 7380, 9452, 11934, 14877, 18335, 22365, 27027, 32384, 38502, 45450, 53300, 62127, 72009, 83027, 95265, 108810, 123752, 140184, 158202, 177905, 199395, 222777, 248159
a(0)=2, a(1)=9, a(2)=27, a(3)=65, a(4)=135; for n>4, a(n) = 5*a(n-1)-10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Aug 02 2011
[A051746] 2, 9, 27, 66, 141, 273, 490, 828, 1332, 2057, 3069, 4446, 6279, 8673, 11748, 15640, 20502, 26505, 33839, 42714, 53361, 66033, 81006, 98580, 119080, 142857, 170289, 201782, 237771, 278721, 325128, 377520, 436458, 502537, 576387, 658674, 750101
a(n) = binomial(n+4, n-1)+binomial(n+1, n-1).
[A256233] 1, 2, 9, 27, 74, 197, 519, 1362, 3569, 9347, 24474, 64077, 167759, 439202, 1149849, 3010347, 7881194, 20633237, 54018519, 141422322, 370248449, 969323027, 2537720634, 6643838877, 17393795999, 45537549122, 119218851369, 312119004987, 817138163594
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = (-2+(2^(-1-n)*((3-sqrt(5))^n*(-5+sqrt(5))+(3+sqrt(5))^n*(5+sqrt(5))))/sqrt(5)). - Colin Barker, Nov 03 2016
[A248658] 1, 1, 1, 2, 9, 28, 66, 153, 433, 1345, 3952, 10991, 30954, 90988, 271845, 804153, 2361457, 6979690, 20842285, 62493914, 187274712, 561448399, 1688263179, 5093148285, 15393417178, 46570446829, 141063389488, 427979185898, 1300470246165, 3956367018001, 12048354848013, 36728336040306
a(n) = Sum_{k=0..[n/3]} C(n-2*k,k)^3.
[A121643] 1, 1, 1, 2, 9, 28, 66, 153, 433, 1352, 4104, 12188, 37506, 124155, 422307, 1437135, 5058945, 18255295, 65336580, 232233723, 832793160, 3003712770, 10788778026, 38582183151, 137946936834, 493981065171, 1770660835057, 6347845365236

a(n) = Sum_{k=0..[n/3]} { [x^n] x^(n-3k)*A(x^3)^(n-3k+1) }^3 for n>0, with a(0)=1.
[A131066] 1, 2, 9, 28, 71, 162, 349, 728, 1491, 3022, 6089, 12228, 24511, 49082, 98229, 196528, 393131, 786342, 1572769, 3145628, 6291351, 12582802, 25165709, 50331528, 100663171, 201326462, 402653049, 805306228, 1610612591, 3221225322
a(n)=6*2^n-5n-5. G.f.=(1-2x+6x^2)/[(1-2x)(1-x)^2]. - Emeric Deutsch, Jun 20 2007
[A058877] 0, 2, 9, 28, 75, 186, 441, 1016, 2295, 5110, 11253, 24564, 53235, 114674, 245745, 524272, 1114095, 2359278, 4980717, 10485740, 22020075, 46137322, 96468969, 201326568, 419430375, 872415206, 1811939301, 3758096356, 7784628195, 16106127330, 33285996513
a(n) = Sum_{0<k<n} binomial(n, k) * (n-k). - Michael Somos, Mar 29 2012
[A109188] 1, 2, 9, 28, 95, 306, 987, 3144, 9963, 31390, 98483, 307836, 959257, 2981174, 9243405, 28601712, 88342659, 272428758, 838903371, 2579937060, 7924966749, 24317716038, 74546117121, 228317474952, 698708409525, 2136597743826
a(n) = n*hypergeom([1-n/2, 1/2-n/2], [1], 4). - Peter Luschny, Sep 18 2014
[A002532] 0, 1, 2, 9, 28, 101, 342, 1189, 4088, 14121, 48682, 167969, 579348, 1998541, 6893822, 23780349, 82029808, 282961361, 976071762, 3366950329, 11614259468, 40063270581, 138197838502, 476712029909, 1644413252328, 5672386654201
a(n)=sum{k=0..n, binomial(n, 2*k+1)*6^k}. - Paul Barry, Sep 29 2004
[A098518] 0, 1, 2, 9, 28, 105, 366, 1337, 4824, 17649, 64570, 237545, 875700, 3238105, 11998182, 44550105, 165701168, 617297761, 2302877682, 8602038473, 32168532940, 120425227209, 451253210078, 1692411415161, 6352491269640, 23862066905425, 89696201471786, 337381127856297, 1269781909434724
a(n) = sum{k=0..floor(n/2), binomial(n, k)*binomial(n-k, k+1)*2^k}.
[A086511] 2, 9, 28, 121, 336, 1081, 3060, 8409, 23527, 64541, 175198, 480865, 1304499, 3523885, 9557956, 25874753, 70115413, 189961183, 514272412, 1394193581, 3779849620, 10246935645, 27788566030, 75370121161, 204475052376, 554805820557
a(n) >= exp(n/2 + sqrt(n^2 + 4n)/2), n >= 6.
[A041877] 1, 2, 9, 29, 38, 105, 1088, 2281, 3369, 12388, 52921, 118230, 5018581, 10155392, 45640149, 147075839, 192715988, 532507815, 5517794138, 11568096091, 17085890229, 62825766778, 268388957341, 599603681460, 25451743578661, 51503090838782, 231464106933789
a(n) = 5071502*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 26 2013
[A268586] 0, 0, 0, 2, 9, 30, 88, 240, 624, 1568, 3840, 9216, 21760, 50688, 116736, 266240, 602112, 1351680, 3014656, 6684672, 14745600, 32374784, 70778880, 154140672, 334495744, 723517440, 1560281088, 3355443200, 7197425664, 15401484288, 32883343360
a(n) = 2^(n-5)*(n-2)*(n+5) for n>1.
a(n) = 6*a(n-1)-12*a(n-2)+8*a(n-3) for n>4.
[A273652] 2, 9, 30, 90, 255, 693, 1820, 4644, 11565, 28215, 67650, 159822, 372827, 860265, 1966200, 4456584, 10027161, 22413483, 49807550, 110100690, 242221287, 530579709, 1157628180, 2516582700, 5452595525, 11777605983, 25367150970, 54492397974, 116769423795
a(n) = C(n,2) * Sum_{j=0..2} Stirling2(2,j) * j^(n-2).
[A082114] 1, 2, 9, 32, 89, 210, 441, 848, 1521, 2578, 4169, 6480, 9737, 14210, 20217, 28128, 38369, 51426, 67849, 88256, 113337, 143858, 180665, 224688, 276945, 338546, 410697, 494704, 591977, 704034, 832505, 979136, 1145793, 1334466, 1547273
a(n)=(n+1)*(n^4-n^3+26*n^2-26*n+30)/30.
[A074084] 0, 0, 0, 2, 9, 32, 102, 306, 883, 2480, 6828, 18514, 49597, 131568, 346194, 904738, 2350695, 6076960, 15641304, 40103778, 102473969, 261046144, 663180222, 1680628946, 4249496795, 10722962256, 27007159428, 67904097074
a(n) = 4a(n-1)-2a(n-2)-4a(n-3)-a(n-4) for n>=5.
[A053152] 0, 2, 9, 32, 105, 332, 1029, 3152, 9585, 29012, 87549, 263672, 793065, 2383292, 7158069, 21490592, 64504545, 193579172, 580868589, 1742867912, 5229128025, 15688432652, 47067395109, 141206379632, 423627527505, 1270899359732, 3812731633629, 11438262009752
a(n) = 1/2!*(3^n-2^n-1).
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3).
a(n) = floor((3^n-2^n)/2). - Wesley Ivan Hurt, Mar 16 2015
[A292482] 2, 9, 32, 112, 384, 1296, 4320, 14256, 46656, 151632, 489888, 1574640, 5038848, 16061328, 51018336, 161558064, 510183360, 1607077584, 5050815264, 15841193328, 49589822592, 154968195600, 483500770272, 1506290861232, 4686238234944, 14560811658576
a(n) = 6*a(n-1) - 9*a(n-2) for n >= 3.
a(n) = 16*3^(n-3)*(4 + n) for n>1. - Colin Barker, Oct 03 2017
[A006253] 1, 2, 9, 32, 121, 450, 1681, 6272, 23409, 87362, 326041, 1216800, 4541161, 16947842, 63250209, 236052992, 880961761, 3287794050, 12270214441, 45793063712, 170902040409, 637815097922, 2380358351281, 8883618307200, 33154114877521, 123732841202882
a(n)= |U(n,i/sqrt(2))|^2 where U(n,x) denotes the Chebyshev polynomial of the second kind.
a(n-1) = the bottom left entry of the 2 X 2 matrix T(n, M), where M is the 2 X 2 matrix [0, 2; 1, 1] and T(n,x) denotes the Chebyshev polynomial of the first kind.
[A048498] 1, 2, 9, 33, 101, 277, 709, 1733, 4101, 9477, 21509, 48133, 106501, 233477, 507909, 1097733, 2359301, 5046277, 10747909, 22806533, 48234501, 101711877, 213909509, 448790533, 939524101, 1962934277, 4093640709, 8522825733
a(0)=1, a(1)=2, a(2)=9, a(n)=5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale, Jun 14 2011
[A288958] 2, 9, 34, 105, 286, 721, 1730, 4017, 9118, 20361, 44914, 98137, 212798, 458529, 982786, 2096865, 4456126, 9436825, 19922546, 41942601, 88079902, 184548849, 385875394, 805305745, 1677720926, 3489660201, 7247756530, 15032384697, 31138511998, 64424508481
a(n) = 1 + 2*n*(2^n - 1) - n^2.
a(n) = 7*a(n-1) - 19*a(n-2) + 25*a(n-3) - 16*a(n-4) + 4*a(n-5).
[A010763] 0, 2, 9, 34, 125, 461, 1715, 6434, 24309, 92377, 352715, 1352077, 5200299, 20058299, 77558759, 300540194, 1166803109, 4537567649, 17672631899, 68923264409, 269128937219, 1052049481859, 4116715363799, 16123801841549, 63205303218875, 247959266474051
a(n) = (n/(2n + 2))*sum(k = 1, n + 1, C(2n + 2, k)/C(n + 1, k)). - Benoit Cloitre, Aug 20 2002
a(n) = sum(i = 1, n, C(n + i, n)). - Benoit Cloitre, Oct 15 2002
a(n + 1) = C(2n - 1, n - 1) - 1. - Alonso del Arte, Dec 15 2012
[A077234] 2, 9, 34, 127, 474, 1769, 6602, 24639, 91954, 343177, 1280754, 4779839, 17838602, 66574569, 248459674, 927264127, 3460596834, 12915123209, 48199896002, 179884460799, 671337947194, 2505467327977, 9350531364714, 34896658130879, 130236101158802, 486047746504329
a(n) = 4*a(n-1)-a(n-2) with a(0)=2 and a(1)=9. - Philippe Deléham, Nov 16 2008
a(n) = -(5/6)*sqrt(3)*[2-sqrt(3)]^n+(5/6)*sqrt(3)*[2+sqrt(3)]^n+[2-sqrt(3)]^n+[2+sqrt(3)]^n, with n>=0. - Paolo P. Lava, Nov 20 2008
[A083141] 2, 9, 35, 91, 209, 377, 629, 817, 1219, 1769, 2201, 2923, 3649, 4343, 5029, 5989, 7729, 8479, 10117, 11573, 12629, 14299, 16019, 17711, 21631, 23129, 24617, 26857, 28667, 30623, 35687, 38383, 42607, 44063, 50213, 52699, 56363, 60799, 63961, 68681
a(n) = prime(n)*prime(2*n-2).
[A001571] 0, 2, 9, 35, 132, 494, 1845, 6887, 25704, 95930, 358017, 1336139, 4986540, 18610022, 69453549, 259204175, 967363152, 3610248434, 13473630585, 50284273907, 187663465044, 700369586270, 2613814880037, 9754889933879, 36405744855480, 135868089488042
a(n) = -(1/2)-(1/4)*sqrt(3)*[2-sqrt(3)]^n+(1/4)*sqrt(3)*[2+sqrt(3)]^n+(1/4)*[2-sqrt(3)]^n+(1/4) *[2+sqrt(3)]^n, with n>=0. [Paolo P. Lava, Jul 31 2008]
a(n) = sqrt((-2+(2-sqrt(3))^n+(2+sqrt(3))^n)*(2+(2-sqrt(3))^(1+n)+(2+sqrt(3))^(1+n)))/(2*sqrt(2)). - Gerry Martens, Jun 05 2015
[A077836] 1, 2, 9, 36, 141, 558, 2205, 8712, 34425, 136026, 537489, 2123820, 8392005, 33159942, 131027301, 517737744, 2045774961, 8083620018, 31941398169, 126212379444, 498712192893, 1970597911518, 7786567451565, 30767632667928, 121574394093033, 480385782637578
a(0)=1, a(1)=2, a(2)=9, a(n)=3*a(n-1)+3*a(n-2)+3*a(n-3). - Harvey P. Dale, Dec 15 2013
[A055841] 1, 2, 9, 36, 144, 576, 2304, 9216, 36864, 147456, 589824, 2359296, 9437184, 37748736, 150994944, 603979776, 2415919104, 9663676416, 38654705664, 154618822656, 618475290624, 2473901162496, 9895604649984, 39582418599936, 158329674399744, 633318697598976, 2533274790395904, 10133099161583616, 40532396646334464, 162129586585337856, 648518346341351424
a(n) = 9*4^(n-2), a(0)=1, a(1)=2.
a(0)=1, a(1)=2, a(3)=9, a(n+1)=4*a(n) for n>=3.
a(n) = 4*a(n-1) + (-1)^n*C(2,2-n).
[A212386] 1, 1, 1, 1, 1, 1, 1, 2, 9, 37, 121, 331, 793, 1718, 3454, 6646, 12841, 26589, 61813, 158918, 426401, 1134431, 2914055, 7171539, 16967745, 39008002, 88529366, 202057561, 471422866, 1133448790, 2799775102, 7026467132, 17684574313, 44192085565, 109081884957
a(n) = Sum_{k=0..n} (binomial(5*k-4*n-1,n-k)*binomial(n+1,6*k-5*n))/(n+1). - Vladimir Kruchinin, Mar 05 2016

[A178875] 0, 0, 2, 9, 37, 151, 606, 2426, 9708, 38835, 155343, 621377, 2485512, 9942052, 39768214, 159072861, 636291449, 2545165803, 10180663218, 40722652878, 162890611520, 651562446087, 2606249784355, 10424999137429, 41699996549724, 166799986198904
a(n)=round((4*4^n-3*n-4)/27) = round((8*4^n-6*n-17)/54).
a(n)=floor((4*4^n-3*n-4)/27).
a(n)=ceil((4*4^n-3*n-13)/27).
a(n)=a(n-3)+(7*4^(n-2)-1)/3, n>2.
a(n)=5*a(n-1)-4*a(n-2)+a(n-3)-5*a(n-4)+4*a(n-5), n>4.
[A041515] 1, 1, 2, 9, 38, 47, 85, 2767, 2852, 5619, 25328, 106931, 132259, 239190, 7786339, 8025529, 15811868, 71273001, 300903872, 372176873, 673080745, 21910760713, 22583841458, 44494602171, 200562250142, 846743602739, 1047305852881, 1894049455620, 61656888432721
a(n) = 2814*a(n-7) + a(n-14) for n>13. - Vincenzo Librandi, Dec 19 2013
[A291265] 2, 9, 38, 153, 596, 2268, 8480, 31275, 114086, 412443, 1479926, 5276664, 18711758, 66041901, 232129190, 812934621, 2837740232, 9877082004, 34288573484, 118752490863, 410394698534, 1415492232255, 4873386985130, 16750755602928, 57487476629594, 197013756414033
a(n) = 6*a(n-1) - 7*a(n-2) -6*a(n-3) - a(n-4) for n >= 5.
a(n) = (((3-sqrt(13))/2)^n*(-3+sqrt(13))*(-39+17*sqrt(13)-39*n) + 2^(-n)*(3+sqrt(13))^(1+n)*(39+17*sqrt(13)+39*n)) / 338. - Colin Barker, Aug 26 2017
[A249925] 1, 2, 9, 38, 186, 932, 4889, 26238, 143966, 802652, 4536874, 25932348, 149650516, 870675912, 5101656889, 30078478318, 178309845686, 1062198928812, 6355149937934, 38172142221748, 230094601968876, 1391444403490552, 8439240940653834, 51323083138005388, 312896262064813036, 1911980839096481432
a(n) = Sum_{k=0..n} Fibonacci(n-k+1)*Fibonacci(k+1) * C(2*(n-k),n-k)*C(2*k,k) / ((n-k+1)*(k+1)).
a(n) == 1 (mod 2) iff n = 2*(2^k - 1) for k>=0.
[A097070] 1, 2, 9, 40, 175, 756, 3234, 13728, 57915, 243100, 1016158, 4232592, 17577014, 72804200, 300874500, 1240940160, 5109183315, 21002455980, 86213785350, 353452638000, 1447388552610, 5920836618840, 24197138082780, 98801168731200, 403095046038750, 1643337883690776, 6694900194799404
a(n) = n*binomial(2*n-3, n-1).
a(n) = Sum_{k=0..n} k*binomial(n, k)*binomial(n-2, k-2). G.f.: x*(1-2*x+(1-4*x)^(3/2))/(2*(1-4*x)^(3/2)). E.g.f.: (x/2)*(exp(2*x)*BesselI(0, 2*x)+1). - Vladeta Jovovic, Sep 17 2004
[A276508] 0, 2, 9, 42, 208, 1041, 5208, 26042, 130209, 651042, 3255208, 16276041, 81380208, 406901042, 2034505209, 10172526042, 50862630208, 254313151041, 1271565755208, 6357828776042, 31789143880209, 158945719401042, 794728597005208, 3973642985026041, 19868214925130208, 99341074625651042
a(n) = 6*a(n-1) - 6*a(n-2) + 5*a(n-3).
a(n) = (5^n + sqrt(3)*sin(Pi*n/3) - cos(Pi*n/3))/3.
[A294270] 0, 2, 9, 44, 100, 252, 441, 848, 1296, 2150, 3025, 4572, 6084, 8624, 11025, 14912, 18496, 24138, 29241, 37100, 44100, 54692, 64009, 77904, 90000, 107822, 123201, 145628, 164836, 192600, 216225, 250112, 278784, 319634, 354025, 402732, 443556, 501068, 549081
a(n) = Sum_{i=1..floor(n/2)} i^3 + (n-i)^3.
a(n) = n^2*(4*n^2 - 7*n + 4 + n*(-1)^n)/16.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n>9. (End)
[A291622] 2, 9, 94, 777, 3286, 10771, 29366, 69873, 149950, 297111, 553114, 980953, 1677014, 2793771, 4584286, 7492065, 12335422, 20688751, 35673698, 63602601, 117391702, 223644675, 437338630, 872239057, 1763820926, 3599298951, 7386070186, 15205369593, 31353128470
a(n) = 2*n*(2^n) + (5*n^6 - 21*n^5 + 47*n^4 - 51*n^3 + 8*n^2 - 24*n + 12)/12 for n > 3.
a(n) = 11*a(n-1) - 53*a(n-2) + 147*a(n-3) - 259*a(n-4) + 301*a(n-5) - 231*a(n-6) + 113*a(n-7) - 32*a(n-8) + 4*a(n-9) for n > 12.
[A295331] 1, 2, 9, 128, 521, 649, 1819, 2468, 11691, 166142, 676259, 842401, 2361061, 3203462, 15174909, 215652188, 877783661, 1093435849, 3064655359, 4158091208, 19697020191, 279916373882, 1139362515719, 1419278889601, 3977920294921, 5397199184522, 25566717033009, 363331237646648, 1478891667619601, 1842222905266249, 5163337478152099, 7005560383418348, 33185579011825491
a(n) = 1298*a(n-6) - a(n-12), n >= 12, with inputs a(0)..a(11).
[A007089] 0, 1, 2, 10, 11, 12, 20, 21, 22, 100, 101, 102, 110, 111, 112, 120, 121, 122, 200, 201, 202, 210, 211, 212, 220, 221, 222, 1000, 1001, 1002, 1010, 1011, 1012, 1020, 1021, 1022, 1100, 1101, 1102, 1110, 1111, 1112, 1120, 1121, 1122, 1200, 1201, 1202, 1210, 1211
a(0)=0, a(n) = 10*a(n/3) if n==0 (mod 3), a(n) = a(n-1) + 1 otherwise. - Benoit Cloitre, Dec 22 2002
[A104459] 1, 2, 10, 11, 100, 110, 1000, 1100, 10000, 11000, 100000, 110000, 1000000, 1100000, 10000000, 11000000, 100000000, 110000000, 1000000000, 1100000000, 10000000000, 11000000000, 100000000000, 110000000000, 1000000000000, 1100000000000, 10000000000000
a(n) = 2 if n = 2; 11*10^((n-4)/2) if n even >= 4; 10^((n-1)/2) if n odd.
a(n) = 10*a(n-2), starting 1,2,10,11.
[A104238] 2, 10, 12, 16, 22, 126, 136, 180, 256, 268, 276, 366, 388, 396, 438, 462, 606, 642, 652, 658, 676, 738, 760, 768, 982, 1012, 1068, 1116, 1230, 1276, 1320, 1452, 1488, 1530, 1618, 1692, 1698, 1752, 1846, 1948, 1996, 2080, 2112, 2160, 2332, 2392, 2440, 2520
a(n)^5 + 1 is semiprime. a(n)+1 is prime and a(n)^4 - a(n)^3 + a(n)^2 - a(n) + 1 is prime.
[A022367] 2, 10, 12, 22, 34, 56, 90, 146, 236, 382, 618, 1000, 1618, 2618, 4236, 6854, 11090, 17944, 29034, 46978, 76012, 122990, 199002, 321992, 520994, 842986, 1363980, 2206966, 3570946, 5777912, 9348858, 15126770, 24475628, 39602398, 64078026, 103680424, 167758450, 271438874
a(n) = 11*F(n) + F(n-3). - J. M. Bergot, Jul 19 2017
[A061855] 0, 2, 10, 12, 42, 52, 56, 170, 178, 204, 212, 232, 240, 682, 722, 738, 812, 852, 868, 920, 936, 976, 992, 2730, 2762, 2866, 2898, 2978, 3010, 3244, 3276, 3380, 3412, 3492, 3524, 3640, 3672, 3752, 3784, 3888, 3920, 4000, 4032, 10922, 11082, 11146
a(0) = 0 and the rest with the Maple function map(op, [seq(PalTotBalBinSequences(j), j=1..10)]);
[A062317] 1, 2, 10, 13, 29, 34, 58, 65, 97, 106, 146, 157, 205, 218, 274, 289, 353, 370, 442, 461, 541, 562, 650, 673, 769, 794, 898, 925, 1037, 1066, 1186, 1217, 1345, 1378, 1514, 1549, 1693, 1730, 1882, 1921, 2081, 2122, 2290, 2333, 2509, 2554, 2738, 2785, 2977
a(n) = ((2+5n)^2 + 1)/5 if n is odd; a(n) = ((3+5n)^2 + 1)/5 if n is even.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
[A091999] 2, 10, 14, 22, 26, 34, 38, 46, 50, 58, 62, 70, 74, 82, 86, 94, 98, 106, 110, 118, 122, 130, 134, 142, 146, 154, 158, 166, 170, 178, 182, 190, 194, 202, 206, 214, 218, 226, 230, 238, 242, 250, 254, 262, 266, 274, 278, 286, 290, 298, 302, 310, 314, 322, 326, 334
a(n) = 12*(n-1)-a(n-1), with a(1)=2. [Vincenzo Librandi, Nov 16 2010]
a(1)=2, a(2)=10, a(3)=14, a(n) = a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Jun 24 2013
a(n) = 6*n-3+(-1)^n. - Wesley Ivan Hurt, Apr 23 2015
[A212160] 2, 10, 15, 23, 28, 36, 41, 49, 54, 62, 67, 75, 80, 88, 93, 101, 106, 114, 119, 127, 132, 140, 145, 153, 158, 166, 171, 179, 184, 192, 197, 205, 210, 218, 223, 231, 236, 244, 249, 257, 262, 270, 275, 283, 288, 296, 301, 309, 314, 322, 327, 335, 340, 348
a(n) = 1/4*(26*n-3*(-1)^n+11). - Paolo P. Lava, May 16 2012
[A181474] 1, 2, 10, 15, 42, 56, 120, 150, 275, 330, 546, 637, 980, 1120, 1632, 1836, 2565, 2850, 3850, 4235, 5566, 6072, 7800, 8450, 10647, 11466, 14210, 15225, 18600, 19840, 23936, 25432, 30345, 32130, 37962, 40071, 46930
a(n)=2^n*(n+2)(n+3)*Gamma(floor(n/2)+3)*Gamma(floor((n+1)/2)+1/2)/(12n!*sqrt(pi)) (suggested by WolframAlpha).
a(n)= +a(n-1) +4*a(n-2) -4*a(n-3) -6*a(n-4) +6*a(n-5) +4*a(n-6) -4*a(n-7) -a(n-8) +a(n-9). a(n) = (n+3)*(n+2)*(2*n^2+2*(-1)^n*n+10*n+5*(-1)^n+11)/96. [From R. J. Mathar, Oct 23 2010]
[A105041] 2, 10, 16, 18, 46, 52, 66, 72, 78, 106, 136, 148, 226, 228, 240, 262, 282, 330, 442, 508, 616, 630, 732, 750, 756, 768, 810, 828, 910, 936, 982, 1032, 1060, 1128, 1216, 1302, 1366, 1558, 1626, 1696, 1698, 1758, 1800, 1810, 1830, 1932, 1996, 2002, 2026, 2080
a(n)^7 + 1 is semiprime. a(n)+1 is prime and a(n)^6 - a(n)^5 + a(n)^4 - a(n)^3 + a(n)^2 - a(n) + 1 is prime.
[A017089] 2, 10, 18, 26, 34, 42, 50, 58, 66, 74, 82, 90, 98, 106, 114, 122, 130, 138, 146, 154, 162, 170, 178, 186, 194, 202, 210, 218, 226, 234, 242, 250, 258, 266, 274, 282, 290, 298, 306, 314, 322, 330, 338, 346, 354, 362, 370, 378, 386, 394, 402, 410, 418, 426
a(n) = 8*n+2; a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, May 28 2011
[A018227] 2, 10, 18, 36, 54, 86, 118, 168, 218, 290, 362, 460, 558, 686, 814, 976, 1138, 1338, 1538, 1780, 2022, 2310, 2598, 2936, 3274, 3666, 4058, 4508, 4958, 5470, 5982, 6560, 7138, 7786, 8434, 9156, 9878, 10678, 11478, 12360, 13242, 14210, 15178
a(n) = a(n-1) + ((2*n + 3 + (-1)^n)^2)/8; a(n) = (2*n^3 + 12*n^2 + 25*n - 6 + (-1)^n*(3*n + 6))/12 - Warut Roonguthai, Jun 20 2005
a(n) = n*((n+3)^2 + 2)/6 + (n+2)*(1+(-1)^n)/4 - 1, n >= 1.
a(n) = (n+1)*(n+2)*(n+3)/6 + (n+2)*(1+(-1)^n)/4 - 2, n >= 1.

a(n) = T_{n+1} + (n+2)*(1+(-1)^n)/4 - 2, n >= 1,
[A139592] 0, 2, 10, 20, 36, 54, 78, 104, 136, 170, 210, 252, 300, 350, 406, 464, 528, 594, 666, 740, 820, 902, 990, 1080, 1176, 1274, 1378, 1484, 1596, 1710, 1830, 1952, 2080, 2210, 2346, 2484, 2628, 2774, 2926, 3080, 3240, 3402, 3570, 3740
a(n) = 2*floor((n + 1/4)^2). [From Reinhard Zumkeller, Feb 07 2010]
[A090288] 2, 10, 22, 38, 58, 82, 110, 142, 178, 218, 262, 310, 362, 418, 478, 542, 610, 682, 758, 838, 922, 1010, 1102, 1198, 1298, 1402, 1510, 1622, 1738, 1858, 1982, 2110, 2242, 2378, 2518, 2662, 2810, 2962, 3118, 3278, 3442, 3610, 3782, 3958, 4138, 4322, 4510
a(n) = 4*(n+1)+a(n-1), with n>0, a(0)=2. - Vincenzo Librandi, Nov 16 2010
[A032526] 0, 2, 10, 22, 40, 62, 90, 122, 160, 202, 250, 302, 360, 422, 490, 562, 640, 722, 810, 902, 1000, 1102, 1210, 1322, 1440, 1562, 1690, 1822, 1960, 2102, 2250, 2402, 2560, 2722, 2890, 3062, 3240, 3422, 3610, 3802, 4000, 4202, 4410, 4622, 4840, 5062
a(n) = 2n^2 + floor(n^2/2). [Wesley Ivan Hurt, Jun 14 2013]
[A255606] 2, 10, 23, 41, 64, 93, 127, 166, 210, 259, 314, 374, 439, 509, 584, 665, 750, 841, 937, 1039, 1145, 1257, 1374, 1496, 1623, 1756, 1893, 2036, 2184, 2338, 2496, 2660, 2829, 3003, 3182, 3367, 3556, 3751, 3951, 4156, 4367, 4583, 4803, 5029, 5261, 5497, 5739, 5985, 6237, 6495
a(n) = floor(6*n^2/(4*tan(Pi/6))), n >= 1.
[A293403] 0, 2, 10, 23, 41, 65, 94, 128, 167, 212, 261, 316, 376, 442, 513, 589, 670, 756, 848, 945, 1047, 1154, 1267, 1384, 1507, 1636, 1769, 1908, 2052, 2201, 2356, 2515, 2680, 2851, 3026, 3207, 3392, 3584, 3780, 3982, 4188, 4400, 4618, 4840, 5068, 5301, 5539, 5783
a(n) = floor(r*n^2), where r = (3 + sqrt(5))/2.
[A120845] 2, 10, 23, 50, 117, 300, 823, 2350, 6857, 20240, 60123, 179250, 535597, 1602580, 4799423, 14381750, 43112337, 129271320, 387682723, 1162785850, 3487833077, 10462450460, 31385254023, 94151567550, 282446313817, 847322164000
a(n) = 7*a(n-1)-17*a(n-2)+17*a(n-3)-6*a(n-4). - Vincenzo Librandi, Feb 26 2013
[A293412] 0, 2, 10, 24, 43, 67, 97, 133, 173, 220, 271, 328, 391, 459, 532, 611, 695, 785, 880, 981, 1087, 1198, 1315, 1437, 1565, 1698, 1837, 1981, 2131, 2286, 2446, 2612, 2783, 2960, 3142, 3329, 3522, 3721, 3925, 4134, 4349, 4569, 4795, 5026, 5262, 5504, 5751, 6004
a(n) = floor(e*n^2).
[A224837] 2, 10, 24, 43, 68, 98, 133, 174, 221, 273, 330, 393, 461, 535, 614, 699, 789, 885, 986, 1092, 1204, 1322, 1445, 1573, 1707, 1846, 1991, 2141, 2297, 2458, 2625, 2797, 2975, 3158, 3346, 3540, 3740, 3945, 4155, 4371, 4592, 4819, 5051, 5289, 5532, 5781, 6035, 6294
a(n) = floor((1+sqrt(3))*n^2).
[A049450] 0, 2, 10, 24, 44, 70, 102, 140, 184, 234, 290, 352, 420, 494, 574, 660, 752, 850, 954, 1064, 1180, 1302, 1430, 1564, 1704, 1850, 2002, 2160, 2324, 2494, 2670, 2852, 3040, 3234, 3434, 3640, 3852, 4070, 4294, 4524, 4760, 5002, 5250, 5504, 5764
a(n) = 6*n+a(n-1)-4 (with a(0)=0). - Vincenzo Librandi, Aug 06 2010
[A270822] 1, 2, 10, 24, 86, 224, 708, 1920, 5734, 15872, 46124, 129024, 369916, 1040384, 2962760, 8355840, 23714950, 66977792, 189768220, 536346624, 1518330516, 4292870144, 12147349560, 34351349760, 97181500636, 274844352512, 777462405688
a(n) = (n+1)*2^n*Sum_{i=0..n/2}(binomial((n-1)/2,i)/(n-2*i+1)).
[A254709] 1, 2, 10, 25, 137, 346, 1906, 4817, 26545, 67090, 369722, 934441, 5149561, 13015082, 71724130, 181276705, 998988257, 2524858786, 13914111466, 35166746297, 193798572265, 489809589370, 2699265900242, 6822167504881, 37595924031121, 95020535478962
a(n) = a(n-1)+14*a(n-2)-14*a(n-3)-a(n-4)+a(n-5).
[A069894] 2, 10, 26, 50, 82, 122, 170, 226, 290, 362, 442, 530, 626, 730, 842, 962, 1090, 1226, 1370, 1522, 1682, 1850, 2026, 2210, 2402, 2602, 2810, 3026, 3250, 3482, 3722, 3970, 4226, 4490, 4762, 5042, 5330, 5626, 5930, 6242, 6562, 6890, 7226, 7570, 7922, 8282
a(n) = (2*n + 1)^2 + 1. [Vladimir Joseph Stephan Orlovsky, Nov 10 2008, corrected R. J. Mathar, Sep 16 2009]
a(n) = 8*n + a(n - 1) (with a(0) = 2). [Vincenzo Librandi, Aug 08 2010]
a(n+1) = a(n) + 4 + 4*sqrt(a(n) - 1);
a(n-1) * a(n+1) = (a(n)-4)^2 + 16;
a(n+1) = 2*a(n) - a(n-1) + 8, n >2, a(0)=2, a(1)=10, a(2)=26;
a(n+1) = 3*a(n) - 3*a(n-1) + a(n-2),n>3, a(0)=2, a(1)=10, a(2)=26, a(3)=50;
[A212969] 0, 0, 2, 10, 26, 56, 100, 166, 252, 368, 510, 690, 902, 1160, 1456, 1806, 2200, 2656, 3162, 3738, 4370, 5080, 5852, 6710, 7636, 8656, 9750, 10946, 12222, 13608, 15080, 16670, 18352, 20160, 22066, 24106, 26250, 28536, 30932, 33478, 36140
a(n) = (n-1)*(2*n*(7*n-2)-3*(-1)^n+3)/24.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A131130] 1, 2, 10, 26, 58, 122, 250, 506, 1018, 2042, 4090, 8186, 16378, 32762, 65530, 131066, 262138, 524282, 1048570, 2097146, 4194298, 8388602, 16777210, 33554426, 67108858, 134217722, 268435450, 536870906, 1073741818, 2147483642
a(n) = 4*2^n - 6 for n>=1; a(0)=1.
a(n) = 3*a(n-1)-2*a(n-2), n>2 ; a(0)=1, a(1)=2, a(2)=10 . G.f.: (1-x+6x^2)/(1-3x+2x^2). - Philippe Deléham, Jan 04 2009
a(n) = 2*a(n-1)+6 for n>1, a(0)=1, a(1)=2. - Philippe Deléham, Sep 25 2009
[A241688] 0, 0, 0, 0, 0, 0, 2, 10, 26, 60, 110, 190, 304, 466, 676, 958, 1312, 1762, 2310, 2984, 3786, 4750, 5874, 7196, 8720, 10484, 12488, 14780, 17360, 20276, 23530, 27174, 31210, 35696, 40630, 46074, 52032, 58566, 65676, 73434, 81840, 90966, 100814, 111460, 122906
a(n) = a(n-11)+a(n-8)-a(n-3)+2*(a(n-6)+a(n-1)-a(n-10)-a(n-5)). - Fung Lam, May 02 2014
[A084182] 1, 2, 10, 26, 82, 242, 730, 2186, 6562, 19682, 59050, 177146, 531442, 1594322, 4782970, 14348906, 43046722, 129140162, 387420490, 1162261466, 3486784402, 10460353202, 31381059610, 94143178826, 282429536482, 847288609442
a(n) = 3^n+(-1)^n-0^n.
[A099583] 0, 0, 1, 2, 10, 26, 91, 260, 820, 2420, 7381, 22022, 66430, 198926, 597871, 1792520, 5380840, 16139240, 48427561, 145272842, 435848050, 1307514626, 3922632451, 11767808780, 35303692060, 105910810460, 317733228541, 953198888462
a(n) = 2*a(n-1)+6*a(n-2)-6*a(n-3)-9*a(n-4).
a(0)=0, a(1)=0; a(2)=1; a(n)=2*a(n-1)+3*a(n-2) if n is odd; a(n)=2*a(n-1)+3*a(n-2)+3^m (m=1,2,3...) if n is even. [From Vincenzo Librandi, Jun 26 2010]
[A220700] 0, 0, 1, 2, 10, 27, 118, 389, 1688, 6357, 28302, 117301, 541832, 2418649, 11629794, 55165477, 276131564, 1379441105, 7178203950, 37525908261, 202624599112, 1103246397377, 6168861375178, 34853267706981, 201412524836788, 1177304020632257, 7018267240899110
a(0)=a(1)=0, a(2)=1, a(n) = 2*a(n-1)+(n+2)*a(n-2)-(n+2)*a(n-3).
[A006331] 0, 2, 10, 28, 60, 110, 182, 280, 408, 570, 770, 1012, 1300, 1638, 2030, 2480, 2992, 3570, 4218, 4940, 5740, 6622, 7590, 8648, 9800, 11050, 12402, 13860, 15428, 17110, 18910, 20832, 22880, 25058, 27370, 29820, 32412, 35150, 38038, 41080, 44280
a(n) = 2*binomial(n+1,3) + 2*binomial(n+2,3).
a(n) = sum(a*b), where the summing is over all unordered partitions 2*n+1=a+b. - Vladimir Shevelev, May 11 2012
a(n) = binomial(2n+2, 3)/2. - Ronan Flatley, Dec 13 2012
a(0)=0, a(1)=2, a(2)=10, a(3)=28, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Apr 12 2013
[A291053] 2, 10, 28, 88, 217, 493, 989, 1794, 3016, 4785, 7256, 10612, 15067, 20869, 28303, 37694, 49410, 63865, 81522, 102896, 128557, 159133, 195313, 237850, 287564, 345345, 412156, 489036, 577103, 677557, 791683, 920854, 1066534, 1230281, 1413750, 1618696, 1846977, 2100557
a(n) = (-3120 + 10932*n - 4970*n^2 + 765*n^3 - 10*n^4 + 3*n^5)/120 for n > 3.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n > 9.
[A203551] 0, 2, 10, 29, 64, 120, 202, 315, 464, 654, 890, 1177, 1520, 1924, 2394, 2935, 3552, 4250, 5034, 5909, 6880, 7952, 9130, 10419, 11824, 13350, 15002, 16785, 18704, 20764, 22970, 25327, 27840, 30514, 33354, 36365, 39552, 42920, 46474, 50219
a(n) = sum_{k = 1..n} A(-k, k-n-1) where A(i, j) = i^2 + i*j + j^2 + i + j + 1.
[A192976] 0, 1, 2, 10, 29, 70, 148, 289, 534, 950, 1645, 2794, 4680, 7761, 12778, 20930, 34157, 55598, 90332, 146577, 237630, 385006, 623517, 1009490, 1634064, 2644705, 4280018, 6926074, 11207549, 18135190, 29344420, 47481409, 76827750, 124311206
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A101561] 1, 2, 10, 29, 82, 236, 730, 2216, 6571, 19604, 59050, 177410, 531442, 1593596, 4783060, 14351123, 43046722, 129133838, 387420490, 1162281098, 3486785140, 10460294156, 31381059610, 94143358424, 282429536563, 847288078004
a(n)=sum{k=0..n, (-1)^(n-k)*if(mod(n+1, k+1)=0, 1, 0)*3^k}

[A034262] 0, 2, 10, 30, 68, 130, 222, 350, 520, 738, 1010, 1342, 1740, 2210, 2758, 3390, 4112, 4930, 5850, 6878, 8020, 9282, 10670, 12190, 13848, 15650, 17602, 19710, 21980, 24418, 27030, 29822, 32800, 35970, 39338, 42910, 46692, 50690, 54910
a(n) = -a(-n) for all n in Z. - Michael Somos, Jul 11 2017
[A034827] 0, 0, 0, 0, 2, 10, 30, 70, 140, 252, 420, 660, 990, 1430, 2002, 2730, 3640, 4760, 6120, 7752, 9690, 11970, 14630, 17710, 21252, 25300, 29900, 35100, 40950, 47502, 54810, 62930, 71920, 81840, 92752, 104720, 117810, 132090, 147630, 164502, 182780
a(n) = Sum_{k=1..n-3} (Sum_{i=1..k} i*(2*k-n+4)). - Wesley Ivan Hurt, Sep 26 2013
[A051667] 0, 2, 10, 30, 74, 166, 354, 734, 1498, 3030, 6098, 12238, 24522, 49094, 98242, 196542, 393146, 786358, 1572786, 3145646, 6291370, 12582822, 25165730, 50331550, 100663194, 201326486, 402653074, 805306254, 1610612618
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3).
[A058966] 1, 2, 10, 30, 78, 190, 446, 1022, 2302, 5118, 11262, 24574, 53246, 114686, 245758, 524286, 1114110, 2359294, 4980734, 10485758, 22020094, 46137342, 96468990, 201326590, 419430398, 872415230, 1811939326, 3758096382, 7784628222
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3) for n>6.
[A285956] 0, 0, 0, 0, 2, 10, 30, 102, 204, 444, 740, 1300, 1950, 3030, 4242, 6090, 8120, 11032, 14184, 18504, 23130, 29250, 35750, 44110, 52932, 64020, 75660, 90012, 105014, 123214, 142170, 164850, 188400, 216240, 245072, 278800, 313650, 354042, 395694, 443574, 492860, 549100, 606900, 672420, 739662
a(n) = (n^4 - 10*n^3 + 33*n^2 - 34*n) / 4 for n even.
a(n) = (n^4 - 10*n^3 + 37*n^2 - 58*n + 30) / 4 for n odd.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n>7.
[A219667] 1, 2, 10, 30, 111, 296, 711, 1625, 3583, 7088, 13377, 24143, 41376, 68551, 111068, 174887, 269592, 410043, 612350, 900484, 1310108, 1879862, 2664399, 3740002, 5188376, 7121305, 9687674, 13044961, 17402217, 23026128, 30200375, 39290567, 50744867, 65045752, 82799083
a(n) is the sum of all h(d,0 <= x <= 81*d, 1), where x is a happy number.
[A090809] 0, 0, 2, 10, 31, 75, 155, 287, 490, 786, 1200, 1760, 2497, 3445, 4641, 6125, 7940, 10132, 12750, 15846, 19475, 23695, 28567, 34155, 40526, 47750, 55900, 65052, 75285, 86681, 99325, 113305, 128712, 145640, 164186, 184450, 206535, 230547
a(n) = 2*binomial(n, 2) + 4*binomial(n, 3) + 3*binomial(n, 4) = (n - 1)*n*(3*n^2 + n + 10)/24.
[A051747] 2, 10, 31, 76, 161, 308, 546, 912, 1452, 2222, 3289, 4732, 6643, 9128, 12308, 16320, 21318, 27474, 34979, 44044, 54901, 67804, 83030, 100880, 121680, 145782, 173565, 205436, 241831, 283216, 330088, 382976, 442442, 509082, 583527, 666444, 758537
a(n) = binomial(n+4, n-1)+binomial(n+2, n-1).
a(1)=2, a(2)=10, a(3)=31, a(4)=76, a(5)=161, a(6)=308, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Oct 03 2012
[A193008] 1, 2, 10, 31, 78, 170, 339, 636, 1144, 1997, 3412, 5740, 9549, 15758, 25854, 42243, 68818, 111878, 181615, 294520, 477276, 773057, 1251720, 2026296, 3279673, 5307770, 8589394, 13899271, 22490934, 36392642, 58886187, 95281620, 154170784
a(n)=4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A011921] 0, 0, 0, 0, 2, 10, 32, 76, 152, 274, 458, 720, 1080, 1560, 2184, 2978, 3970, 5192, 6676, 8456, 10570, 13058, 15960, 19320, 23184, 27600, 32618, 38290, 44672, 51820, 59792, 68650, 78458, 89280, 101184
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-11) -4*a(n-12) +6*a(n-13) -4*a(n-14) +a(n-15). G.f.: 2*x^4*(1+x+2*x^2+x^4+2*x^5+x^6+2*x^8+x^9+x^10) / ((1-x)^5*(1+x+x^2+x^3+x^4+x^5+x^6+x^7+x^8+x^9+x^10)). [From R. J. Mathar, Apr 15 2010]
[A212714] 0, 0, 2, 10, 32, 78, 162, 300, 512, 820, 1250, 1830, 2592, 3570, 4802, 6328, 8192, 10440, 13122, 16290, 20000, 24310, 29282, 34980, 41472, 48828, 57122, 66430, 76832, 88410, 101250, 115440, 131072, 148240, 167042, 187578, 209952
a(n) = 4*a(n-1) - 5*a(n-2) + 5*a(n-4) - 4*a(n-5) + a(n-6).
a(n) = floor(n^4/8). - Wesley Ivan Hurt, Jul 14 2013
[A131068] 1, 2, 10, 32, 82, 188, 406, 848, 1738, 3524, 7102, 14264, 28594, 57260, 114598, 229280, 458650, 917396, 1834894, 3669896, 7339906, 14679932, 29359990, 58720112, 117440362, 234880868, 469761886, 939523928, 1879048018, 3758096204
a(n) = 7*2^n - 6*n - 6.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3). - Vincenzo Librandi, Jul 05 2012
[A084154] 0, 1, 2, 10, 32, 116, 392, 1352, 4608, 15760, 53792, 183712, 627200, 2141504, 7311488, 24963200, 85229568, 290992384, 993509888, 3392055808, 11581202432, 39540700160, 135000393728, 460920178688, 1573679923200, 5372879343616
a(n)=4a(n-1)-8a(n-3)+4a(n-4), a(0)=0, a(1)=1, a(2)=2, a(3)=10; a(n)=((2+sqrt(2))^n+(2-sqrt(2))^n-sqrt(2)^n-(-sqrt(2))^n)/4;
[A059924] 0, 2, 10, 34, 80, 158, 274, 438, 656, 938, 1290, 1722, 2240, 2854, 3570, 4398, 5344, 6418, 7626, 8978, 10480, 12142, 13970, 15974, 18160, 20538, 23114, 25898, 28896, 32118, 35570, 39262, 43200, 47394, 51850, 56578, 61584, 66878, 72466, 78358
a(n) = 3a(n-1)-2a(n-2)-2a(n-3)+3a(n-4)-a(n-5), a(0) = 0, a(1) = 2, a(2) = 10, a(3) = 34, a(4) = 80.
a(n) = (16*n^3 - 6*n^2 + 8*n + 3 - 3*(-1)^n)/12. - Frank Ellermann, Mar 16 2002
[A036799] 0, 2, 10, 34, 98, 258, 642, 1538, 3586, 8194, 18434, 40962, 90114, 196610, 425986, 917506, 1966082, 4194306, 8912898, 18874370, 39845890, 83886082, 176160770, 369098754, 771751938, 1610612738, 3355443202, 6979321858, 14495514626, 30064771074, 62277025794
a(n) = Sum_{k=1..n} k*2^k. - Benoit Cloitre, Oct 25 2002
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3) for n>2. - Wesley Ivan Hurt, Nov 12 2015
a(n) = Sum_{k=0..n} Sum_{i=0..n} k * C(k,i). - Wesley Ivan Hurt, Sep 21 2017
[A236377] 1, 1, 2, 10, 35, 59, 84, 132, 213, 293, 374, 494, 663, 831, 1000, 1224, 1513, 1801, 2090, 2450, 2891, 3331, 3772, 4300, 4925, 5549, 6174, 6902, 7743, 8583, 9424, 10384, 11473, 12561, 13650, 14874, 16243, 17611, 18980, 20500, 22181, 23861, 25542, 27390
a(n) = 3*a(n-1) -4*a(n-2) +4*a(n-3) -2*a(n-4) -2*a(n-5) +4*a(n-6) -4*a(n-7) +3*a(n-8) -a(n-9).
[A146983] 1, 2, 10, 35, 133, 494, 1846, 6887, 25705, 95930, 358018, 1336139, 4986541, 18610022, 69453550, 259204175, 967363153, 3610248434, 13473630586, 50284273907, 187663465045, 700369586270, 2613814880038, 9754889933879, 36405744855481, 135868089488042
a(n) = (-1)^n + 3*sum {k = 1..n} (-1)^(n-k)*6^(k-1)*binomial(n+k,2*k).
a(n) = 3*a(n-1)+3*a(n-2)-a(n-3). G.f.: (x^2-x+1) / ((x+1)*(x^2-4*x+1)). - Colin Barker, Jul 29 2013
[A212573] 0, 0, 2, 10, 36, 92, 202, 386, 680, 1112, 1730, 2570, 3692, 5140, 6986, 9282, 12112, 15536, 19650, 24522, 30260, 36940, 44682, 53570, 63736, 75272, 88322, 102986, 119420, 137732, 158090, 180610, 205472, 232800, 262786, 295562, 331332
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = (2*(n-3)*n*(5*n^2-15*n+31)-3*(2*n-3)*(-1)^n+87)/48. [Bruno Berselli, Jun 14 2012]
[A192858] 2, 10, 36, 120, 382, 1178, 3550, 10514, 30720, 88788, 254342, 723190, 2043386, 5742490, 16062492, 44744688, 124192270, 343594514, 947857750, 2608015778, 7159034232, 19609583820, 53608363286, 146290947310, 398552156402, 1084153113898, 2944982283540, 7989231439464, 21646950044830, 58585895022218, 158389325993422
a(n) = +6*a(n-1) -11*a(n-2) +6*a(n-3) -1*a(n-4).
a(n) = ((3+r)^n*((5-r)*n+3*r-5)+(3-r)^n*((5+r)*n-3*r-5))/(5*2^n) with r=sqrt(5). - Bruno Berselli, Aug 31 2011
[A154323] 1, 2, 10, 37, 101, 226, 442, 785, 1297, 2026, 3026, 4357, 6085, 8282, 11026, 14401, 18497, 23410, 29242, 36101, 44101, 53362, 64010, 76177, 90001, 105626, 123202, 142885, 164837, 189226, 216226, 246017, 278785, 314722, 354026, 396901, 443557, 494210, 549082, 608401, 672401, 741322, 815410, 894917, 980101
a(n) = (n^4 + 2*n^3 + n^2 + 4)/4.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A191349] 1, 1, 1, 2, 10, 37, 102, 251, 667, 2011, 6246, 18686, 54183, 157438, 466579, 1400509, 4202829, 12556360, 37480728, 112227269, 337221408, 1014992763, 3055963443, 9203918219, 27745375212, 83736861040, 252968402935
a(n) = sum(binomial(2*k,k)*sum(binomial(n+k-i,2*k)*binomial(n-k-i,2*i)*(-1)^(n-k-i),i=0..floor((n-k)/3)),k=0..n).
[A005968] 0, 1, 2, 10, 37, 162, 674, 2871, 12132, 51436, 217811, 922780, 3908764, 16558101, 70140734, 297121734, 1258626537, 5331629710, 22585142414, 95672204155, 405273951280, 1716768021816, 7272346018247, 30806152127640, 130496954475672, 552793970116297, 2341672834801754
a(n) = (1/2)*(F(n)*F(n+1)^2+(-1)^(n-1)*F(n-1)+1). - Benoit Cloitre, Aug 06 2004
a(n) = (1/10)*(F(3*n+2)-(-1)^(n)*6*F(n-1)+5) [Art Benjamin and Timothy A. Carnes].
a(n+5)=4*a(n+4)+3*a(n+3)-9*a(n+2)+2*a(n+1)+a(n). - Benoit Cloitre, Sep 12 2004

[A048499] 1, 2, 10, 38, 118, 326, 838, 2054, 4870, 11270, 25606, 57350, 126982, 278534, 606214, 1310726, 2818054, 6029318, 12845062, 27262982, 57671686, 121634822, 255852550, 536870918, 1124073478, 2348810246, 4898947078, 10200547334, 21206401030, 44023414790
a(0)=1, a(1)=2, a(2)=10, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale and Vincenzo Librandi, Sep 23 2011
[A119358] 1, 1, 2, 10, 38, 126, 452, 1716, 6470, 24310, 92252, 352716, 1352540, 5200300, 20056584, 77558760, 300546630, 1166803110, 4537543340, 17672631900, 68923356788, 269128937220, 1052049129144, 4116715363800, 16123803193628, 63205303218876, 247959261273752
a(n) = Sum_{k=0..floor(n/2)} C(n,2k)^2.
a(n) = C(2n,n)/2+sin(Pi*(n+1)/2)*C(n,n/2)/2.
a(n) = hypergeom([(1-n)/2, (1-n)/2, -n/2, -n/2], [1/2, 1/2, 1], 1). - Vladimir Reshetnikov, Oct 04 2016
[A174395] 0, 2, 10, 40, 140, 462, 1470, 4580, 14080, 42922, 130130, 393120, 1184820, 3565382, 10717990, 32197660, 96680360, 290215842, 870997050, 2613690200, 7842468700, 23530202302, 70596199310, 211799782740, 635421717840, 1906309892762, 5719019156770, 17157236427280
a(n) = (3^n - 2^(n+2) + 6 + (-1)^n) / 12.
a(n) = 5*a(n-1)-5*a(n-2)-5*a(n-3)+6*a(n-4). G.f.: -2*x^4 / ((x-1)*(x+1)*(2*x-1)*(3*x-1)). - Colin Barker, Sep 22 2013
[A193519] 0, 0, 2, 10, 40, 144, 490, 1610, 5168, 16320, 50930, 157546, 484120, 1480080, 4507162, 13683050, 41439200, 125259264, 378051170, 1139641930, 3432176008, 10328516880, 31062778570, 93374780426, 280574458640, 842810055360, 2531053642322, 7599494558890, 22813774416760, 68478238362384
a(n) = 5*a(n-1) - 5*a(n-2) - 3*a(n-3), a(0) = a(1) = 0, a(2) = 2. - Philippe Deléham, Apr 27 2012
[A212387] 1, 1, 1, 1, 1, 1, 1, 1, 2, 10, 46, 166, 496, 1288, 3004, 6437, 12895, 24583, 45799, 87211, 180235, 420547, 1087220, 2941931, 7927664, 20705636, 51886966, 124660576, 288445186, 648173927, 1431655546, 3156274456, 7062245781, 16256654077, 38704049941, 94853117381
a(n) = Sum_{k=0..n} (binomial(6*k-5*n-1,n-k)*binomial(n+1,7*k-6*n))/(n+1). - Vladimir Kruchinin, Mar 05 2016
[A007931] 1, 2, 11, 12, 21, 22, 111, 112, 121, 122, 211, 212, 221, 222, 1111, 1112, 1121, 1122, 1211, 1212, 1221, 1222, 2111, 2112, 2121, 2122, 2211, 2212, 2221, 2222, 11111, 11112, 11121, 11122, 11211, 11212, 11221, 11222, 12111, 12112, 12121, 12122
a(n) = sum_{j=0..m-1} (1 + b(j) mod 2)*10^j, where m = floor(log_2(n+1)), b(j) = floor((n+1-2^m)/(2^j)).
a(k*(2^n-1)) = k*(10^n-1)/9, k= 1,2.
a(3*2^n-2) = (11*10^n-2)/9 = 10^n+2*(10^n-1)/9.
a(2^n-2) = 2*(10^(n-1)-1)/9, n>1.
a(n) <= (10^log_2(n+1)-1)/9, equality holds for n=2^k-1, k>0.
a(n) > (2/10)*(10^log_2(n+1)-1)/9.
[A140148] 1, 2, 11, 12, 37, 38, 87, 88, 169, 170, 291, 292, 461, 462, 687, 688, 977, 978, 1339, 1340, 1781, 1782, 2311, 2312, 2937, 2938, 3667, 3668, 4509, 4510, 5471, 5472, 6561, 6562, 7787, 7788, 9157, 9158, 10679, 10680, 12361, 12362, 14211, 14212, 16237
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^2+{[1+(-1)^n]/2}, with a(1)=1 a(n)=(-1/4)-(1/4)*(-1)^n*n+(1/4)*(-1)^n+(1/6)*n^3-(1/4)*(-1)^n*n^2+(1/4)*n^2+(7/12)*n, with n>=1 - Paolo P. Lava, Jun 06 2008
a(n)=a(n-1)+3a(n-2)-3a(n-3)-3a(n-4)+3a(n-5)+a(n-6)-a(n-7). G.f.: x*(1+x+6*x^2-2*x^3+x^4+x^5)/((1+x)^3*(x-1)^4). [From R. J. Mathar, Feb 22 2009]
[A113626] 1, 2, 11, 13, 17, 19, 23, 26, 29, 31, 37, 38, 41, 43, 46, 47, 53, 58, 59, 61, 62, 67, 71, 73, 74, 79, 82, 83, 86, 89, 94, 97, 101, 103, 106, 107, 109, 113, 118, 122, 127, 131, 134, 137, 139, 142, 143, 146, 149, 151, 157, 158, 163, 166, 167, 173, 178, 179, 181, 187
a(n) has no factor >1 of form b*(b+1)/2, c^2, d*(3*d-1)/2, nor e*(5*e-3)/2.
[A022115] 2, 11, 13, 24, 37, 61, 98, 159, 257, 416, 673, 1089, 1762, 2851, 4613, 7464, 12077, 19541, 31618, 51159, 82777, 133936, 216713, 350649, 567362, 918011, 1485373, 2403384, 3888757, 6292141, 10180898, 16473039, 26653937, 43126976, 69780913, 112907889, 182688802
a(n) = 12*F(n) + F(n-3). - J. M. Bergot, Jul 20 2017
[A041885] 1, 1, 2, 11, 13, 24, 37, 209, 246, 455, 19356, 19811, 39167, 215646, 254813, 470459, 725272, 4096819, 4822091, 8918910, 379416311, 388335221, 767751532, 4227092881, 4994844413, 9221937294, 14216781707, 80305845829, 94522627536, 174828473365, 7437318508866
a(n) = 19602*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 26 2013
[A242776] 2, 11, 13, 29, 31, 47, 67, 83, 101, 103, 137, 139, 157, 173, 191, 193, 211, 227, 229, 263, 281, 283, 317, 337, 353, 373, 389, 397, 409, 421
a(n) < (4 + o(1))n log n. - Charles R Greathouse IV, May 27 2014
[A041447] 1, 2, 11, 13, 37, 161, 2452, 9969, 22390, 32359, 184185, 400729, 12206055, 24812839, 136270250, 161083089, 458436428, 1994828801, 30380868443, 123518302573, 277417473589, 400935776162, 2282096354399, 4965128484960, 151235950903199, 307437030291358
a(n) = 12390240*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 18 2013
[A041163] 1, 1, 2, 11, 13, 76, 89, 165, 3059, 3224, 6283, 34639, 40922, 239249, 280171, 519420, 9629731, 10149151, 19778882, 109043561, 128822443, 753155776, 881978219, 1635133995, 30314390129, 31949524124, 62263914253, 343269095389, 405533009642, 2370934143599
a(n) = 3148*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 12 2013
[A041971] 1, 1, 2, 11, 13, 193, 978, 1171, 2149, 7618, 32621, 40239, 113099, 153338, 266437, 419775, 4464187, 4883962, 9348149, 14232111, 37812371, 52044482, 245990299, 790015379, 1036005678, 1826021057, 10166110963, 144151574539, 154317685502, 915740002049
a(n) = 89515213717502*a(n-32) - a(n-64) for n>63. - Vincenzo Librandi, Dec 28 2013
[A077475] 1, 2, 11, 14, 25, 28, 30, 37, 39, 41, 43, 46, 48, 51, 54, 57, 60, 64, 66, 71, 76, 78, 80, 82, 84, 90, 95, 101, 103, 106, 110, 113, 115, 117, 127, 133, 135, 140, 146, 152, 157, 160, 162, 165, 167, 170, 173, 179, 181, 185, 189, 196, 200, 203, 206, 209, 212, 215, 220
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(8/13) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 3.7... - Benoit Cloitre
[A104272] 2, 11, 17, 29, 41, 47, 59, 67, 71, 97, 101, 107, 127, 149, 151, 167, 179, 181, 227, 229, 233, 239, 241, 263, 269, 281, 307, 311, 347, 349, 367, 373, 401, 409, 419, 431, 433, 439, 461, 487, 491, 503, 569, 571, 587, 593, 599, 601, 607, 641, 643, 647, 653, 659
a(n) = 1 + max{k: pi(k) - pi(k/2) = n - 1}.
a(n) = max{prime p: pi(p) - pi(p/2) = n} (see Shevelev 2012). - Jonathan Sondow, Mar 23 2016
[A105076] 0, 1, 2, 11, 19, 90, 153, 712, 1208, 5609, 9514, 44163, 74907, 347698, 589745, 2737424, 4643056, 21551697, 36554706, 169676155, 287794595, 1335857546, 2265802057, 10517184216, 17838621864, 82801616185, 140443172858, 651895745267
a(n) = a(n-1) +8*a(n-2) -8*a(n-3) -a(n-4) +a(n-5). G.f.: x^2*(1+x+x^2)/((1-x)*(x^4-8*x^2+1)). [From R. J. Mathar, Nov 13 2009]
[A103200] 1, 2, 11, 19, 90, 153, 712, 1208, 5609, 9514, 44163, 74907, 347698, 589745, 2737424, 4643056, 21551697, 36554706, 169676155, 287794595, 1335857546, 2265802057, 10517184216, 17838621864, 82801616185, 140443172858, 651895745267, 1105706761003, 5132364345954
a(1)=1, a(2)=2, a(3)=11, a(4)=19, a(5)=90, a(n) = a(n-1) + 8*a(n-2) - 8*a(n-3) - a(n-4) + a(n-5). - Harvey P. Dale, Sep 27 2011
[A042347] 1, 2, 11, 24, 35, 59, 94, 153, 1930, 2083, 4013, 6096, 10109, 26314, 141679, 309672, 16244623, 32798918, 180239213, 393277344, 573516557, 966793901, 1540310458, 2507104359, 31625562766, 34132667125, 65758229891, 99890897016, 165649126907, 431189150830
a(n) = 16386302*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 20 2014
[A041803] 1, 1, 2, 11, 24, 35, 129, 2615, 7974, 10589, 29152, 156349, 185501, 341850, 13859501, 14201351, 28060852, 154505611, 337072074, 491577685, 1811805129, 36727680265, 111994845924, 148722526189, 409439898302, 2195922017699, 2605361916001, 4801283933700
a(n) = 14045002*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 24 2013
[A220281] 2, 11, 24, 37, 38, 39, 50, 96, 96, 96, 96, 97, 97, 125, 125, 132, 178, 178, 178, 179, 179, 180, 213, 221, 222, 222, 224, 235, 235, 242, 282, 283, 307, 309, 310, 360, 360, 361, 362, 366, 367, 367, 377, 377, 377, 421, 422, 458, 458, 502, 503, 504
a(n)<=ceil(R_(15/14)(n)/15), where R_v(n) (v>1) are generalized Ramanujan numbers (see Shevelev's link). In particular, for n>=1, {R_(15/14)(n)}={127, 307, 347, 563, 569, 733, 1423, 1427, 1429, 1433, 1439, 1447,...}. Moreover, if R_(15/14)(n)==1 or 2(mod 10),then a(n)=ceil(R_(15/14)(n)/15).
[A080663] 2, 11, 26, 47, 74, 107, 146, 191, 242, 299, 362, 431, 506, 587, 674, 767, 866, 971, 1082, 1199, 1322, 1451, 1586, 1727, 1874, 2027, 2186, 2351, 2522, 2699, 2882, 3071, 3266, 3467, 3674, 3887, 4106, 4331, 4562, 4799, 5042, 5291, 5546, 5807, 6074, 6347, 6626
a(n) = 3*n^2 - 1. - Stephen Crowley, Jul 06 2009
a(n) = a(n-1) - 3*a(n-2) + 3*a(n-3). - Johannes W. Meijer, Oct 16 2009
a(n) = 6*n + a(n-1) - 3 for n > 1. - Vincenzo Librandi, Aug 08 2010
[A218471] 0, 2, 11, 27, 50, 80, 117, 161, 212, 270, 335, 407, 486, 572, 665, 765, 872, 986, 1107, 1235, 1370, 1512, 1661, 1817, 1980, 2150, 2327, 2511, 2702, 2900, 3105, 3317, 3536, 3762, 3995, 4235, 4482, 4736, 4997, 5265, 5540, 5822, 6111, 6407, 6710, 7020, 7337
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) with a(0)=0, a(1)=2, a(2)=11.

[A054552] 1, 2, 11, 28, 53, 86, 127, 176, 233, 298, 371, 452, 541, 638, 743, 856, 977, 1106, 1243, 1388, 1541, 1702, 1871, 2048, 2233, 2426, 2627, 2836, 3053, 3278, 3511, 3752, 4001, 4258, 4523, 4796, 5077, 5366, 5663, 5968, 6281, 6602, 6931, 7268, 7613, 7966, 8327
a(n) = 8*n+a(n-1)-7 (with a(0)=1). [Vincenzo Librandi, Aug 07 2010]
a(0)=1, a(1)=2, a(2)=11, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). [Harvey P. Dale, Oct 10 2011]
[A062123] 2, 11, 29, 56, 92, 137, 191, 254, 326, 407, 497, 596, 704, 821, 947, 1082, 1226, 1379, 1541, 1712, 1892, 2081, 2279, 2486, 2702, 2927, 3161, 3404, 3656, 3917, 4187, 4466, 4754, 5051, 5357, 5672, 5996, 6329, 6671, 7022, 7382, 7751, 8129, 8516, 8912, 9317
a(n) = 9*n+a(n-1), with n>0, a(0)=2. - Vincenzo Librandi, Aug 07 2010
[A117560] 2, 11, 29, 59, 104, 167, 251, 359, 494, 659, 857, 1091, 1364, 1679, 2039, 2447, 2906, 3419, 3989, 4619, 5312, 6071, 6899, 7799, 8774, 9827, 10961, 12179, 13484, 14879, 16367, 17951, 19634, 21419, 23309, 25307, 27416, 29639, 31979, 34439, 37022
a(n) = n*(n^2-1)/2 - 1.
[A154251] 1, 2, 11, 29, 65, 137, 281, 569, 1145, 2297, 4601, 9209, 18425, 36857, 73721, 147449, 294905, 589817, 1179641, 2359289, 4718585, 9437177, 18874361, 37748729, 75497465, 150994937, 301989881, 603979769, 1207959545, 2415919097
a(n) = 3*a(n-1) - 2*a(n-2), n>2, with a(0)=1, a(1)=2, a(2)=11.
a(n) = 9*2^(n-1) - 7, n>0, with a(0)=1.
a(n) = 2*a(n-1) + 7, n>1, with a(0)=1, a(1)=2.
a(n) = 9*2^(n-1) - 7 for n >= 1.
[A162260] 2, 11, 30, 62, 110, 177, 266, 380, 522, 695, 902, 1146, 1430, 1757, 2130, 2552, 3026, 3555, 4142, 4790, 5502, 6281, 7130, 8052, 9050, 10127, 11286, 12530, 13862, 15285, 16802, 18416, 20130, 21947, 23870, 25902, 28046, 30305, 32682, 35180, 37802
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A190154] 1, 1, 2, 11, 30, 91, 303, 936, 2936, 9300, 29209, 91917, 289547, 911218, 2868341, 9029949, 28424456, 89477119, 281667368, 886657081, 2791106585, 8786130132, 27657838272, 87064082194, 274068969337, 862741399379, 2715822822365, 8549136143060, 26911817257385
a(n) = sum_{k=0..floor(n/2)} binomial(3*n-4*k,3*n-6*k).
[A121346] 2, 11, 31, 68, 124, 205, 316, 460, 642, 866, 1138, 1461, 1839, 2278, 2781, 3354, 4000, 4724, 5531, 6424, 7409, 8490, 9671, 10956, 12351, 13859, 15485, 17234, 19110, 21116, 23259, 25542, 27969, 30546, 33276, 36164, 39215, 42432, 45821, 49385
a(n) = floor(K*(1 - 2*d)/d^3 + 1/(2*d^2)), where d=1/n and K = Pi/(3*sqrt(2)).
[A033994] 2, 11, 32, 70, 130, 217, 336, 492, 690, 935, 1232, 1586, 2002, 2485, 3040, 3672, 4386, 5187, 6080, 7070, 8162, 9361, 10672, 12100, 13650, 15327, 17136, 19082, 21170, 23405, 25792, 28336, 31042, 33915, 36960, 40182, 43586, 47177, 50960, 54940
a(n) = sum(i=1..n, sum(j=1..n, i + min(i,j))).- Enrique Pérez Herrero, Jan 15 2013
a(n) = sum(i=1..n, i*(n+i)). - Charlie Marion, Apr 10 2013
[A094792] 2, 11, 32, 71, 134, 227, 356, 527, 746, 1019, 1352, 1751, 2222, 2771, 3404, 4127, 4946, 5867, 6896, 8039, 9302, 10691, 12212, 13871, 15674, 17627, 19736, 22007, 24446, 27059, 29852, 32831, 36002, 39371, 42944, 46727, 50726, 54947, 59396, 64079
a(n) = n^3 + 3*n^2 + 5*n + 2.
a(n) = sum((-1)^i*binomial(3,i)*(n-i)!/(n-3)!,i=0..3). - Fiona T. Brunk (fbrunk(AT)mcs.st-and.ac.uk), May 23 2006
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Fung Lam, Apr 17 2014
[A173707] 0, 0, 2, 11, 32, 73, 145, 259, 429, 672, 1005, 1448, 2024, 2756, 3670, 4795, 6160, 7797, 9741, 12027, 14693, 17780, 21329, 25384, 29992, 35200, 41058, 47619, 54936, 63065, 72065, 81995, 92917, 104896, 117997, 132288, 147840, 164724, 183014, 202787, 224120, 247093, 271789, 298291, 326685, 357060, 389505, 424112, 460976, 500192, 541858
a(n) = Sum_{k=0,..,n} (floor(k^3/3)).
a(n) = round((n^4+2*n^3+n^2-4*n)/12).
a(n) = round((n^4+2*n^3+n^2-4*n-2)/12)
a(n) = floor((n^4+2*n^3+n^2-4*n)/12).
a(n) = ceil((n+1)*(n^3+n^2-4)/12).
a(n) = a(n-3) + n^3 - 3*n^2 + 5*n - 4 , n>2.
[A085786] 2, 11, 33, 74, 140, 237, 371, 548, 774, 1055, 1397, 1806, 2288, 2849, 3495, 4232, 5066, 6003, 7049, 8210, 9492, 10901, 12443, 14124, 15950, 17927, 20061, 22358, 24824, 27465, 30287, 33296, 36498, 39899, 43505, 47322, 51356, 55613, 60099, 64820
a(n) = n*(2*n^2 + n + 1)/2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A041389] 1, 2, 11, 35, 81, 278, 1471, 3220, 91631, 186482, 1024041, 3258605, 7541251, 25882358, 136953041, 299788440, 8531029361, 17361847162, 95340265171, 303382642675, 702105550521, 2409699294238, 12750602021711, 27910903337660, 794255895476191, 1616422694290042
a(n) = 93102*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 17 2013
[A000914] 0, 2, 11, 35, 85, 175, 322, 546, 870, 1320, 1925, 2717, 3731, 5005, 6580, 8500, 10812, 13566, 16815, 20615, 25025, 30107, 35926, 42550, 50050, 58500, 67977, 78561, 90335, 103385, 117800, 133672, 151096, 170170, 190995, 213675, 238317, 265031
a(n) = binomial(n+2, 3)*(3*n+5)/4 = (n+1)*n*(n+2)*(3*n+5)/24.
a(n) = Sum_{i=1..n} i*(i+1)^2/2. - Jon Perry, Jul 31 2003
a(n) = a(n-1) + (n+1)*binomial(n+1,2) for n >= 1. - Dennis P. Walsh, Sep 21 2015
[A242300] 0, 2, 11, 35, 105, 292, 796, 2130, 5655, 14927, 39281, 103160, 270600, 709282, 1858291, 4867275, 12746265, 33375932, 87388676, 228801650, 599034975, 1568333527, 4106014561, 10749789360, 28143481680, 73680863042, 192899442971, 505018008755, 1322155461705
a(n) = (L(n+1)-1)^2 + L(n-1) + (5*(-1)^n-3)/2. - Colin Barker, May 13 2014
[A184538] 2, 11, 36, 85, 166, 288, 457, 682, 972, 1333, 1774, 2304, 2929, 3658, 4500, 5461, 6550, 7776, 9145, 10666, 12348, 14197, 16222, 18432, 20833, 23434, 26244, 29269, 32518, 36000, 39721, 43690, 47916, 52405, 57166, 62208, 67537, 73162, 79092, 85333, 91894, 98784, 106009, 113578, 121500, 129781, 138430, 147456, 156865, 166666, 176868, 187477, 198502, 209952, 221833, 234154, 246924, 260149, 273838, 288000
a(n)=floor[1/{(3+n^4)^(1/4)}], where {}=fractional part.
[A238706] 0, 2, 11, 36, 89, 183, 335, 565, 894, 1347, 1952, 2738, 3738, 4988, 6525, 8390, 10627, 13281, 16401, 20039, 24248, 29085, 34610, 40884, 47972, 55942, 64863, 74808, 85853, 98075, 111555, 126377, 142626, 160391, 179764, 200838, 223710, 248480, 275249, 304122
a(n) = 4*a(n-1) - 6*a(n-2) + 5*a(n-3) - 5*a(n-4) + 6*a(n-5) - 4*a(n-6) + a(n-7) for n > 7. - Wesley Ivan Hurt, Oct 07 2017
[A071244] 0, 0, 2, 11, 36, 90, 190, 357, 616, 996, 1530, 2255, 3212, 4446, 6006, 7945, 10320, 13192, 16626, 20691, 25460, 31010, 37422, 44781, 53176, 62700, 73450, 85527, 99036, 114086, 130790, 149265, 169632, 192016, 216546, 243355, 272580, 304362, 338846, 376181
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), n > 4, a(0)=0, a(1)=0, a(2)=2, a(3)=11, a(4)=36. [Yosu Yurramendi, Sep 03 2013]
[A005583] 2, 11, 36, 91, 196, 378, 672, 1122, 1782, 2717, 4004, 5733, 8008, 10948, 14688, 19380, 25194, 32319, 40964, 51359, 63756, 78430, 95680, 115830, 139230, 166257, 197316, 232841, 273296, 319176, 371008, 429352, 494802, 567987, 649572, 740259, 840788
a(n) = binomial(n+4, n-1) + binomial(n+3, n-1) = (1/120)*n*(n+9)*(n+3)*(n+2)*(n+1).
[A059673] 0, 2, 11, 38, 109, 284, 699, 1658, 3833, 8696, 19447, 42998, 94197, 204788, 442355, 950258, 2031601, 4325360, 9175023, 19398638, 40894445, 85983212, 180355051, 377487338, 788529129, 1644167144, 3422552039, 7113539558, 14763950053
a(n) = (2n-1)*2^n+1-n.
a(0)=0, a(1)=2, a(2)=11, a(3)=38, a(n)=6*a(n-1)-13*a(n-2)+ 12*a(n-3)- 4*a(n-4). - Harvey P. Dale, May 17 2015. [This is equivalent to the g.f. -x*(2*x^2+x-2) / ((x-1)^2*(2*x-1)^2) given by Colin Barker. - N. J. A. Sloane, May 17 2015]
[A294152] 0, 2, 11, 38, 112, 309, 828, 2190, 5759, 15106, 39580, 103657, 271416, 710618, 1860467, 4870814, 12752008, 33385245, 87403764, 228826086, 599074535, 1568397562, 4106118196, 10749957073, 28143753072, 73681302194, 192900153563, 505019158550, 1322157322144
a(n) = lucasl(2*n) - 2*n - 1.
a(n) = phi^(2*n) + phi^(-2*n) - 2*n - 1.
a(n) = 5*a(n-1) - 8*a(n-2) + 5*a(n-3) - a(n-4).
a(n) = -1 + ((3-sqrt(5))/2)^n + ((3+sqrt(5))/2)^n - 2*n. - Colin Barker, Nov 16 2017
[A276659] 0, 2, 11, 39, 114, 300, 741, 1757, 4052, 9162, 20415, 44979, 98214, 212888, 458633, 982905, 2097000, 4456278, 9436995, 19922735, 41942810, 88080132, 184549101, 385875669, 805306044, 1677721250, 3489660551, 7247756907, 15032385102, 31138512432, 64424508945

a(n) = n*(2^(n+2) - n - 3)/2.
a(n) = 7*a(n-1) - 19*a(n-2) + 25*a(n-3) - 16*a(n-4) + 4*a(n-5) for n > 4.
a(n) = Sum_{k=2..n+3} Sum_{i=2..n+3} k * C(n-i+3,k). - Wesley Ivan Hurt, Sep 20 2017
[A193005] 0, 1, 2, 11, 40, 115, 280, 611, 1234, 2357, 4320, 7677, 13328, 22733, 38258, 63735, 105368, 173199, 283480, 462511, 752850, 1223361, 1985472, 3219481, 5217120, 8450425, 13683170, 22151171, 35854024, 58027147, 93905560, 151959707, 245895058
a(n)=5*a(n-1)-9*a(n-2)+6*a(n-3)+a(n-4)-3*a(n-5)+a(n-6).
[A152895] 0, 2, 11, 40, 123, 349, 951, 2539, 6710, 17645, 46290, 121302, 317706, 831920, 2178173, 5702734, 14930181, 39087979, 102333945, 267914065, 701408480, 1836311627, 4807526676, 12586268700, 32951279748, 86267570894, 225851433311
a(1)=0, a(2)=2, a(3)=11, a(4)=40, a(5)=123, a(n)=6*a(n-1)-13*a(n-2)+ 13*a(n-3)- 6*a(n-4)+a(n-5). - Harvey P. Dale, Mar 26 2015
[A203574] 2, 11, 41, 137, 435, 1338, 4024, 11899, 34723, 100255, 286947, 815316, 2302286, 6466667, 18079805, 50343893, 139683219, 386328654, 1065440068, 2930780635, 8043131767, 22026515371, 60203886531, 164259660072, 447431169050, 1216927557323
a(0)=2, a(1)=11, a(2)=41, a(3)=137, a(n)=6*a(n-1)-11*a(n-2)+ 6*a(n-3)- a(n-4). - Harvey P. Dale, Oct 12 2015
[A070778] 1, 2, 11, 41, 176, 721, 3003, 12439, 51623, 214103, 888173, 3684174, 15282475, 63393324, 262962987, 1090800411, 4524765831, 18769248040, 77856998326, 322959774150, 1339674254489, 5557122741105, 23051583675890, 95620617831960, 396645310086831, 1645330322871807
a(n) = 3*a(n-1) + 6*a(n-2) - 4*a(n-3) - 5*a(n-4) + a(n-5) + a(n-6). - Wesley Ivan Hurt, Oct 09 2017
[A089658] 0, 2, 11, 42, 136, 400, 1104, 2912, 7424, 18432, 44800, 107008, 251904, 585728, 1347584, 3072000, 6946816, 15597568, 34799616, 77201408, 170393600, 374341632, 818937856, 1784676352, 3875536896, 8388608000, 18102616064, 38956695552, 83617644544, 179046449152
a(n) = n(3n+5) * 2^(n-3).
a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3) for n > 2.
[A140322] 1, 2, 11, 42, 171, 682, 2731, 10922, 43691, 174762, 699051, 2796202, 11184811, 44739242, 178956971, 715827882, 2863311531, 11453246122, 45812984491, 183251937962, 733007751851, 2932031007402, 11728124029611, 46912496118442, 187649984473771, 750599937895082
a(n)=4a(n-1)+a(n-2)-4a(n-3).
[A048500] 1, 2, 11, 43, 135, 375, 967, 2375, 5639, 13063, 29703, 66567, 147463, 323591, 704519, 1523719, 3276807, 7012359, 14942215, 31719431, 67108871, 141557767, 297795591, 624951303, 1308622855, 2734686215, 5704253447, 11878268935, 24696061959, 51271172103
a(0)=1, a(1)=2, a(2)=11, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale and Vincenzo Librandi, Sep 23 2011
[A197189] 1, 2, 11, 43, 184, 767, 3221, 13498, 56599, 237287, 994856, 4171003, 17487289, 73316882, 307387091, 1288745683, 5403172504, 22653245927, 94975600301, 398193030538, 1669457093119, 6999336432047, 29345294761736, 123032566445443, 515824173145009, 2162635351662242
a(n) = ((29+sqrt(29))*(3+sqrt(29))^n+(29-sqrt(29))*(3-sqrt(29))^n)/(58*2^n).
[A042927] 1, 1, 2, 11, 46, 149, 1834, 5651, 24438, 127841, 152279, 280120, 17519719, 17799839, 35319558, 194397629, 812910074, 2633127851, 32410444286, 99864460709, 431868287122, 2259205896319, 2691074183441, 4950280079760, 309608439128561, 314558719208321
a(n) = 17671998*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Feb 01 2014
[A054894] 1, 2, 11, 48, 227, 1054, 4921, 22944, 107017, 499106, 2327795, 10856592, 50634107, 236152510, 1101392305, 5136786240, 23957470033, 111735303362, 521122556315, 2430464772336, 11335450631123, 52867436085214, 246568565219689, 1149971737922784, 5363356017597913, 25014169325118818
a(n) = sum(k=1..n, Fibonacci(k)^3*a(n-k)) with a(0)=1. - Vladeta Jovovic, Apr 23 2003
[A119366] 0, 1, 1, 1, 2, 11, 51, 177, 519, 1513, 5042, 18866, 71270, 257974, 905425, 3193737, 11578842, 42930441, 159998493, 593445318, 2194106568, 8138471667, 30399156174, 114219616809, 430344635913, 1622777285682, 6125465491551
a(n)=sum{k=0..n, if(mod(n-k,3)=1, (1/n)*C(n,k)*C(n,k+1), 0)}
a(0)=0, a(n)=sum{k=0..floor(n/3), (1/n)*C(n,3k+1)C(n,3k)},n>0; - Paul Barry, Jan 25 2007
[A115205] 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 11, 56, 221, 716, 2003, 5006, 11441, 24311, 48621, 92379, 167961, 293931, 497421, 817191, 1307505, 2042976, 3124551, 4686826, 6906901, 10015006, 14307151, 20160076, 28048801, 38567101, 52451257, 70607461, 94143281, 124403621
a(n) = (1/9!)*(n+1)*(n^8 - 37*n^7 + 583*n^6 - 5119*n^5 + 27568*n^4 - 94852*n^3 + 212976*n^2 - 322560*n + 9!) = binomial(n,9)+1. - G. C. Greubel, Feb 05 2016
[A041129] 1, 1, 2, 11, 57, 68, 125, 2068, 2193, 4261, 23498, 121751, 145249, 267000, 4417249, 4684249, 9101498, 50191739, 260060193, 310251932, 570312125, 9435245932, 10005558057, 19440803989, 107209578002, 555488693999, 662698272001, 1218186966000, 20153689728001
a(n) = 2136*a(n-7) + a(n-14). - Vincenzo Librandi, Dec 11 2013
[A041725] 1, 1, 2, 11, 134, 145, 859, 1004, 1863, 4730, 16053, 20783, 390147, 410930, 1622937, 3656804, 5279741, 8936545, 49962466, 58899011, 756750598, 3842652001, 4599402599, 8442054600, 325397477399, 333839531999, 659237009398, 3630024578989, 44219531957266
a(n) = 329996879998*a(n-24) - a(n-48) for n>47. - Vincenzo Librandi, Dec 23 2013
[A168457] 2, 12, 12, 22, 22, 32, 32, 42, 42, 52, 52, 62, 62, 72, 72, 82, 82, 92, 92, 102, 102, 112, 112, 122, 122, 132, 132, 142, 142, 152, 152, 162, 162, 172, 172, 182, 182, 192, 192, 202, 202, 212, 212, 222, 222, 232, 232, 242, 242, 252, 252, 262, 262, 272, 272, 282
a(n) = 10*n - a(n-1) - 6 for n>1, a(1)=2.
a(n) = a(n-1) +a(n-2) -a(n-3). (End)
a(n) = 2 + 10*Floor(n/2). - Vincenzo Librandi, Sep 19 2013
[A143795] 1, 2, 12, 13, 23, 24, 34, 35, 45, 46, 56, 57, 67, 68, 78, 79, 89, 90, 100, 101, 111, 112, 122, 123, 133, 134, 144, 145, 155, 156, 166, 167, 177, 178, 188, 189, 199, 200, 210, 211, 221, 222, 232, 233, 243, 244, 254, 255, 265, 266, 276, 277, 287, 288, 298, 299
a(n)= (22*n-27-9*(-1)^n)/4. G.f.: x(1+x+9x^2)/((1+x)(1-x)^2). a(n)=a(n-2)+11. [From R. J. Mathar, Sep 04 2008]
a(n)=11*n-a(n-1)-19 (with a(1)=1) [From Vincenzo Librandi, Nov 25 2010]
[A022368] 2, 12, 14, 26, 40, 66, 106, 172, 278, 450, 728, 1178, 1906, 3084, 4990, 8074, 13064, 21138, 34202, 55340, 89542, 144882, 234424, 379306, 613730, 993036, 1606766, 2599802, 4206568, 6806370, 11012938
a(n) = 2*(Fibonacci(n+2) + 4*Fibonacci(n)). - G. C. Greubel, Aug 27 2017
[A036499] 1, 2, 12, 15, 35, 40, 70, 77, 117, 126, 176, 187, 247, 260, 330, 345, 425, 442, 532, 551, 651, 672, 782, 805, 925, 950, 1080, 1107, 1247, 1276, 1426, 1457, 1617, 1650, 1820, 1855, 2035, 2072, 2262, 2301, 2501, 2542, 2752, 2795, 3015, 3060, 3290, 3337, 3577, 3626
a(n) = (3*n*n-5*n+2)/2 + (2*n-1)*(n mod 2). - Frank Ellermann, Mar 16 2002
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5. - Wesley Ivan Hurt, Jan 18 2016
[A113802] 2, 12, 16, 26, 30, 40, 44, 54, 58, 68, 72, 82, 86, 96, 100, 110, 114, 124, 128, 138, 142, 152, 156, 166, 170, 180, 184, 194, 198, 208, 212, 222, 226, 236, 240, 250, 254, 264, 268, 278, 282, 292, 296, 306, 310, 320, 324, 334, 338, 348, 352, 362, 366, 376, 380
a(n)=14*n-a(n-1)-14 (with a(1)=2) [From Vincenzo Librandi, Nov 13 2010]
a(n) = 7*n-(7-3*(-1)^n)/2.
[A120350] 2, 12, 18, 24, 36, 72, 80, 180, 240, 252, 360, 396, 450, 468, 480, 504, 560, 612, 684, 720, 792, 828, 880, 882, 896, 936, 972, 1040, 1044, 1116, 1200, 1224, 1250, 1332, 1344, 1360, 1368, 1440, 1476, 1520, 1548, 1620, 1656, 1692, 1840, 1908, 1944, 2000
a(n) = n is even, r = number of odd divisors of n, s = number of even divisors of n and t = r + s = number of divisors of n, are all divisors of n.
[A291698] 1, 1, 2, 12, 20, 55, 294, 497, 1224, 2520, 14410, 21912, 54300, 104286, 220710, 1105215, 1697552, 3839382, 7356762, 14873580, 26275620, 132112596, 188666126, 423247104, 772560600, 1535398150, 2632049290, 4975242048, 21273166572, 30649985160, 64824339630, 116604788800, 223181224992
a(n) = 0 (mod n); a(n) = n (mod n^2). - Peter Bala, Aug 31 2017
[A094626] 0, 1, 2, 12, 22, 122, 222, 1222, 2222, 12222, 22222, 122222, 222222, 1222222, 2222222, 12222222, 22222222, 122222222, 222222222, 1222222222, 2222222222, 12222222222, 22222222222, 122222222222, 222222222222, 1222222222222, 2222222222222, 12222222222222
a(n) = 10^(n/2)*(11*sqrt(10)/180+1/9-(11*sqrt(10)/180-1/9)*(-1)^n)-2/9.
a(n) = 2*(10^(n/2) - 1)/9 for n even.
a(n) = (11*10^((n-1)/2) - 2)/9 for n odd.
[A152811] 2, 12, 26, 44, 66, 92, 122, 156, 194, 236, 282, 332, 386, 444, 506, 572, 642, 716, 794, 876, 962, 1052, 1146, 1244, 1346, 1452, 1562, 1676, 1794, 1916, 2042, 2172, 2306, 2444, 2586, 2732, 2882, 3036, 3194, 3356, 3522, 3692, 3866, 4044, 4226, 4412, 4602
a(n) = a(n-1) + 4*n + 2 for n>1, a(1)=2.
[A166151] 2, 12, 27, 47, 72, 102, 137, 177, 222, 272, 327, 387, 452, 522, 597, 677, 762, 852, 947, 1047, 1152, 1262, 1377, 1497, 1622, 1752, 1887, 2027, 2172, 2322, 2477, 2637, 2802, 2972, 3147, 3327, 3512, 3702, 3897, 4097, 4302, 4512, 4727, 4947, 5172, 5402, 5637

a(n) = 5*n*(n+1)/2 - 3.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A154149] 2, 12, 27, 77, 162, 452, 947, 2637, 5522, 15372, 32187, 89597, 187602, 522212, 1093427, 3043677, 6372962, 17739852, 37144347, 103395437, 216493122, 602632772, 1261814387, 3512401197, 7354393202, 20471774412, 42864544827, 119318245277, 249832875762
a(n)= +a(n-1) +6*a(n-2) -6*a(n-3) -a(n-4) +a(n-5).
[A211623] 0, 2, 12, 28, 54, 86, 128, 176, 234, 298, 372, 452, 542, 638, 744, 856, 978, 1106, 1244, 1388, 1542, 1702, 1872, 2048, 2234, 2426, 2628, 2836, 3054, 3278, 3512, 3752, 4002, 4258, 4524, 4796, 5078, 5366, 5664, 5968, 6282, 6602, 6932, 7268, 7614, 7966, 8328
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
a(n) = 4*n^2 - 3*n + 2 for n>0 and even.
a(n) = 4*n^2 - 3*n + 1 for n odd.
[A002939] 0, 2, 12, 30, 56, 90, 132, 182, 240, 306, 380, 462, 552, 650, 756, 870, 992, 1122, 1260, 1406, 1560, 1722, 1892, 2070, 2256, 2450, 2652, 2862, 3080, 3306, 3540, 3782, 4032, 4290, 4556, 4830, 5112, 5402, 5700, 6006, 6320, 6642, 6972, 7310, 7656, 8010, 8372
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = a(n-1) + 8*n - 6 (with a(0)=0). - Vincenzo Librandi, Nov 12 2010
[A118239] 1, 2, 12, 30, 56, 90, 132, 182, 240, 306, 380, 462, 552, 650, 756, 870, 992, 1122, 1260, 1406, 1560, 1722, 1892, 2070, 2256, 2450, 2652, 2862, 3080, 3306, 3540, 3782, 4032, 4290, 4556, 4830, 5112, 5402, 5700, 6006, 6320, 6642, 6972, 7310, 7656, 8010, 8372
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A117625] 1, 2, 12, 31, 59, 96, 142, 197, 261, 334, 416, 507, 607, 716, 834, 961, 1097, 1242, 1396, 1559, 1731, 1912, 2102, 2301, 2509, 2726, 2952, 3187, 3431, 3684, 3946, 4217, 4497, 4786, 5084, 5391, 5707, 6032, 6366, 6709, 7061, 7422, 7792
a(n) = (9*n^2-7*n+2)/2 = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A154252] 1, 2, 12, 32, 72, 152, 312, 632, 1272, 2552, 5112, 10232, 20472, 40952, 81912, 163832, 327672, 655352, 1310712, 2621432, 5242872, 10485752, 20971512, 41943032, 83886072, 167772152, 335544312, 671088632, 1342177272, 2684354552, 5368709112, 10737418232
a(n) = 3*a(n-1) - 2*a(n-2), n>2, with a(0)=1, a(1)=2, a(2)=12.
a(n) = 2*a(n-1) + 8, n>1, with a(0)=1, a(1)=2.
a(n) = 10*2^(n-1) - 8, n>=1, with a(0)=1.
a(n) = -8 + 5*2^(n-1) + 4*{C[2*(n-1),n-1] mod 2}, with n>=1. - Paolo P. Lava, Jan 14 2009
[A212761] 0, 2, 12, 32, 90, 162, 336, 512, 900, 1250, 1980, 2592, 3822, 4802, 6720, 8192, 11016, 13122, 17100, 20000, 25410, 29282, 36432, 41472, 50700, 57122, 68796, 76832, 91350, 101250, 119040, 131072, 152592, 167042, 192780, 209952, 240426
a(n)=a(n-1)+4*a(n-2)-4*a(n-3)-6*a(n-4)+6*a(n-5)+4*a(n-6)-4*a(n-7)-a(n-8)+a(n-9).
a(n) = (n+1)*(2*n^3+7*n^2+7*n+1+(n^2+n-1)*(-1)^n)/16. - Luce ETIENNE, Oct 10 2015
[A102080] 2, 12, 32, 108, 342, 1104, 3544, 11396, 36626, 117732, 378424, 1216380, 3909830, 12567448, 40395792, 129844996, 417363330, 1341539196, 4312135920, 13860583628, 44552347606, 143205490528, 460308235560, 1479577849604, 4755836293842, 15286778495572
a(n) = 2*a(n-1)+4*a(n-2)-a(n-4) for n>4.
[A242709] 0, 2, 12, 33, 85, 165, 315, 518, 846, 1260, 1870, 2607, 3627, 4823, 6405, 8220, 10540, 13158, 16416, 20045, 24465, 29337, 35167, 41538, 49050, 57200, 66690, 76923, 88711, 101355, 115785, 131192, 148632, 167178, 188020, 210105, 234765, 260813, 289731, 320190
a(n) = n*(n^3 + n*3^(n mod 2) - 2*2^(n mod 2))/8. - Wesley Ivan Hurt, May 21 2014
[A169630] 0, 1, 2, 12, 36, 125, 384, 1183, 3528, 10404, 30250, 87131, 248832, 705757, 1989806, 5581500, 15586704, 43356953, 120187008, 332134459, 915304500, 2516113236, 6900949462, 18888143927, 51599794176, 140718765625, 383142771674
a(n) = 4*a(n-1) -10*a(n-3) +4*a(n-5) -a(n-6).
[A185788] 0, 2, 12, 37, 84, 160, 272, 427, 632, 894, 1220, 1617, 2092, 2652, 3304, 4055, 4912, 5882, 6972, 8189, 9540, 11032, 12672, 14467, 16424, 18550, 20852, 23337, 26012, 28884, 31960, 35247, 38752, 42482, 46444, 50645, 55092, 59792, 64752, 69979, 75480, 81262, 87332, 93697, 100364, 107340, 114632, 122247, 130192, 138474
a(n) = (n-1)*(7*n^2 - 11*n + 6)/6. - Corrected by Manfred Arens, Mar 11 2016
[A035597] 0, 2, 12, 38, 88, 170, 292, 462, 688, 978, 1340, 1782, 2312, 2938, 3668, 4510, 5472, 6562, 7788, 9158, 10680, 12362, 14212, 16238, 18448, 20850, 23452, 26262, 29288, 32538, 36020, 39742, 43712, 47938, 52428, 57190, 62232, 67562
a(n) = (4*n^3 + 2*n)/3.
a(0)=0, a(1)=2, a(2)=12, a(3)=38, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: (2*x*(x+1)^2)/(x-1)^4. - Harvey P. Dale, Sep 18 2011
[A086602] 0, 0, 2, 12, 39, 95, 195, 357, 602, 954, 1440, 2090, 2937, 4017, 5369, 7035, 9060, 11492, 14382, 17784, 21755, 26355, 31647, 37697, 44574, 52350, 61100, 70902, 81837, 93989, 107445, 122295, 138632, 156552, 176154, 197540, 220815, 246087
a(n) = 3*C(n+4,4) - C(n+2,2), n>= -2 . - Zerinvary Lajos, May 02 2007
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) = n*(n-1)*(n^2+3*n-2)/8. [R. J. Mathar, Oct 30 2009]
[A008911] 0, 0, 2, 12, 40, 100, 210, 392, 672, 1080, 1650, 2420, 3432, 4732, 6370, 8400, 10880, 13872, 17442, 21660, 26600, 32340, 38962, 46552, 55200, 65000, 76050, 88452, 102312, 117740, 134850, 153760, 174592, 197472, 222530, 249900, 279720, 312132
a(n) = n*binomial(n+1,3). - Martin Renner, Apr 03 2011
[A005719] 2, 12, 40, 101, 216, 413, 728, 1206, 1902, 2882, 4224, 6019, 8372, 11403, 15248, 20060, 26010, 33288, 42104, 52689, 65296, 80201, 97704, 118130, 141830, 169182, 200592, 236495, 277356, 323671, 375968, 434808, 500786, 574532, 656712, 748029, 849224, 961077
a(n)= binomial(n, 2)*(n^3+11*n^2+46*n-24)/60, n >= 2.
[A098519] 0, 1, 2, 12, 40, 185, 726, 3157, 13112, 56331, 239230, 1028522, 4414224, 19045039, 82237442, 356104140, 1544056864, 6707220443, 29172892518, 127058629852, 554006070200, 2418204764451, 10565384173762, 46202462762837, 202207635999240, 885642000534925, 3881697614968706
a(n) = sum{k=0..floor(n/2), binomial(n, k)*binomial(n-k, k+1)*3^k}.
[A277935] 0, 2, 12, 42, 112, 252, 504, 924, 1584, 2574, 4004, 6006, 8736, 12376, 17136, 23256, 31008, 40698, 52668, 67298, 85008, 106260, 131560, 161460, 196560, 237510, 285012, 339822, 402752, 474672, 556512, 649264, 753984, 871794, 1003884, 1151514, 1316016, 1498796
a(n) = (2/5!)*n*(n-1)*(n+3)*(n+2)*(n+1).
[A290928] 0, 0, 2, 12, 42, 115, 288, 738, 2020, 5751, 16362, 45697, 125538, 342318, 933050, 2547630, 6960042, 18990309, 51699042, 140439411, 380871538, 1031705466, 2792009100, 7548723827, 20389716864, 55020917232, 148334534420, 399562167420, 1075432476492
a(n) = 12*a(n-1) - 66*a(n-2) + 222*a(n-3) - 507*a(n-4) + 822*a(n-5) - 965*a(n-6) + 822*a(n-7) - 507*a(n-8) + 222*a(n-9) - 66*a(n-10) + 12*a(n-11) - a(n-12).
[A001815] 0, 0, 2, 12, 48, 160, 480, 1344, 3584, 9216, 23040, 56320, 135168, 319488, 745472, 1720320, 3932160, 8912896, 20054016, 44826624, 99614720, 220200960, 484442112, 1061158912, 2315255808, 5033164800, 10905190400, 23555211264, 50734301184, 108984795136
a(n) = Sum_{i=0..n} i*(n-i)*binomial(n, i). - Benoit Cloitre, Nov 11 2004
a(n) = Sum_{k=0..n} k*2^(k-1). - Zerinvary Lajos, Oct 09 2006
a(n) = Sum_{j=0..n} binomial(n-1,j)*n*j. - Zerinvary Lajos, Oct 19 2006
a(n) = 2^(n-2)*n*(n-1). [Tobias Friedrich (tfried(AT)mpi-inf.mpg.de), Jun 18 2009]
a(n) = 2*a(n-1) + n*2^n.
a(n) = a(1-n) * 2^(2*n-1) for all n in Z. - Michael Somos, Oct 25 2016
[A179259] 2, 12, 52, 140, 294, 532, 872, 1332, 1930, 2684, 3612, 4732, 6062, 7620, 9424, 11492, 13842, 16492, 19460, 22764, 26422, 30452, 34872, 39700, 44954, 50652, 56812, 63452, 70590, 78244, 86432, 95172, 104482, 114380, 124884, 136012, 147782
a(n) = (n+2)*(3*n^2+1).
[A212697] 2, 12, 54, 216, 810, 2916, 10206, 34992, 118098, 393660, 1299078, 4251528, 13817466, 44641044, 143489070, 459165024, 1463588514, 4649045868, 14721978582, 46490458680, 146444944842, 460255540932, 1443528742014, 4518872583696, 14121476824050, 44059007691036
a(n) = n*(b-1)*b^(n-1). For this sequence, set b=3.
a(n) = Sum_{i=1..n} binomial(n,i)*i*2^i. - Geoffrey Critzer, Mar 01 2015
[A270775] 2, 12, 80, 252, 1100, 1872, 4352, 6156, 11132, 22736, 27900, 47952, 65600, 75852, 99452, 143312, 198476, 219600, 291852, 347900, 378432, 480636, 558092, 689216, 893952, 1010000, 1071612, 1202252, 1271376, 1417472, 2016252, 2213900, 2533952, 2647116, 3263696
a(n) = p*(p-1)^2 where p = prime(n).

[A290568] 0, 2, 12, 87, 212, 212, 9587, 56462, 212712, 603337, 4509587, 4509587, 4509587, 4509587, 2445915837, 20756462712, 142826775212, 600590447087, 2889408806462, 18148197868962, 94442143181462, 94442143181462, 1524953617790837, 6293325199822087, 6293325199822087, 125502614750603337
a(0) = 0 and a(1) = 2, a(n) = a(n-1) + 2 * (a(n-1)^3 - 3) mod 5^n for n > 1.
[A041201] 1, 1, 2, 13, 15, 28, 575, 603, 1178, 7671, 8849, 16520, 339249, 355769, 695018, 4525877, 5220895, 9746772, 200156335, 209903107, 410059442, 2670259759, 3080319201, 5750578960, 118091898401, 123842477361
a(n) = 590*a(n-6)-a(n-12). G.f.: -(x^2-2*x-1)*(x^4-x^3+2*x^2+x+1)*(x^4+2*x^3+5*x^2-2*x+1)/(x^12-590*x^6+1). [Colin Barker, Jul 19 2012]
[A295336] 1, 2, 13, 15, 43, 58, 391, 449, 1289, 1738, 11717, 13455, 38627, 52082, 351119, 403201, 1157521, 1560722, 10521853, 12082575, 34687003, 46769578, 315304471, 362074049, 1039452569, 1401526618, 9448612277, 10850138895
a(n) = 30*a(n-4) - a(n-8), n >= 8, with inputs a(0)..a(7).
[A177964] 2, 13, 17, 28, 32, 43, 47, 58, 62, 73, 77, 88, 92, 103, 107, 118, 122, 133, 137, 148, 152, 163, 167, 178, 182, 193, 197, 208, 212, 223, 227, 238, 242, 253, 257, 268, 272, 283, 287, 298, 302, 313, 317, 328, 332, 343, 347, 358, 362, 373, 377, 388, 392, 403, 407, 418, 422
a(n+2) = a(n)+15.
a(n) == (-1)^n (mod 3).
a(n) = 15*(n/2-1/4)+7*(-1)^n/4. - R. J. Mathar, Oct 25 2010
[A168672] 2, 13, 19, 30, 36, 47, 53, 64, 70, 81, 87, 98, 104, 115, 121, 132, 138, 149, 155, 166, 172, 183, 189, 200, 206, 217, 223, 234, 240, 251, 257, 268, 274, 285, 291, 302, 308, 319, 325, 336, 342, 353, 359, 370, 376, 387, 393, 404, 410, 421, 427, 438, 444, 455, 461, 472, 478, 489
a(n) = a(n-1) +a(n-2) -a(n-3). - Vincenzo Librandi, Jul 11 2012
a(n) = (34*n +5*(-1)^n -21)/4. - Vincenzo Librandi, Jan 06 2013, modified Jul 07 2015
[A263537] 1, 2, 13, 25, 31, 43, 55, 61, 73, 85, 91, 103, 115, 121, 133, 145, 151, 163, 175, 181, 193, 205, 211, 223, 235, 241, 253, 265, 271, 283, 295, 301, 313, 325, 331, 343, 355, 361, 373, 385, 391, 403, 415, 421, 433, 445, 451, 463, 475, 481, 493, 505, 511, 523, 535, 541, 553
a(n) = a(n-1)+a(n-3)-a(n-4) for n>6.
[A117983] 1, 2, 13, 26, 52, 338, 757, 1514, 9841, 19682, 39364, 255866, 511732, 1023464, 6652516, 14899274, 29798548, 193690562, 387440173, 774880346, 5036722249, 10073444498, 20146888996, 130954778474, 293292210961, 586584421922
a(n)=sum{k=0..n, (-1)^(n-k)*L(C(n,k)/3)*3^k} where L(j/p) is the Legendre symbol of j and p.
[A185950] 1, 2, 13, 32, 59, 94, 137, 188, 247, 314, 389, 472, 563, 662, 769, 884, 1007, 1138, 1277, 1424, 1579, 1742, 1913, 2092, 2279, 2474, 2677, 2888, 3107, 3334, 3569, 3812, 4063, 4322, 4589, 4864, 5147, 5438, 5737, 6044, 6359, 6682, 7013, 7352, 7699, 8054, 8417, 8788, 9167, 9554, 9949, 10352, 10763, 11182, 11609
a(n) = a(n-1) + 8*n - 5.
a(n) = 2*a(n-1) - a(n-2) + 8.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A062708] 0, 2, 13, 33, 62, 100, 147, 203, 268, 342, 425, 517, 618, 728, 847, 975, 1112, 1258, 1413, 1577, 1750, 1932, 2123, 2323, 2532, 2750, 2977, 3213, 3458, 3712, 3975, 4247, 4528, 4818, 5117, 5425, 5742, 6068, 6403, 6747, 7100, 7462, 7833, 8213, 8602, 9000
a(n) = n*(9n-5)/2.
a(n) = 9*n + a(n-1) - 7 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A190816] 1, 2, 13, 34, 65, 106, 157, 218, 289, 370, 461, 562, 673, 794, 925, 1066, 1217, 1378, 1549, 1730, 1921, 2122, 2333, 2554, 2785, 3026, 3277, 3538, 3809, 4090, 4381, 4682, 4993, 5314, 5645, 5986, 6337, 6698, 7069, 7450, 7841, 8242, 8653, 9074
a(0)=1, a(1)=2, a(2)=13, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, May 24 2011]
[A011919] 0, 0, 0, 0, 2, 13, 40, 93, 186, 336, 560, 880, 1320, 1906, 2669, 3640, 4853, 6346, 8160, 10336, 12920, 15960, 19506, 23613, 28336, 33733, 39866, 46800, 54600, 63336, 73080, 83906, 95893, 109120, 123669
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-9) -4*a(n-10) +6*a(n-11) -4*a(n-12) +a(n-13). G.f.: x^4*(2+5*x+3*x^3+4*x^4+3*x^5+5*x^7+2*x^8) / (1-x)^5*(1+x+x^2)*(x^6+x^3+1)). [From R. J. Mathar, Apr 15 2010]
[A263979] 2, 13, 41, 41, 61, 113, 113, 181, 181, 269, 313, 313, 421, 421, 613, 613, 613, 761, 761, 929, 1013, 1013, 1201, 1201, 1301, 1637, 1741, 1741, 1741, 1861, 2113, 2113, 2381, 2381, 2521, 2969, 2969, 3121, 3121, 3449, 3613, 3613, 4153, 4337, 4513, 4513, 4513, 5101, 5101, 5101, 5737, 5953, 6173, 6389, 6389, 6857, 7321, 7321, 7321, 7321
a(n) == 1 or 2 mod 4.
[A042795] 1, 2, 13, 41, 54, 95, 149, 1287, 19454, 156919, 176373, 333292, 509665, 1862287, 11683387, 25229061, 1525427047, 3076083155, 19981925977, 63021861086, 83003787063, 146025648149, 229029435212, 1978261129845, 29902946382887, 241201832192941
a(n) = 1537110434*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 29 2014
[A263980] 2, 13, 41, 61, 113, 181, 269, 313, 421, 613, 761, 929, 1013, 1201, 1301, 1637, 1741, 1861, 2113, 2381, 2521, 2969, 3121, 3449, 3613, 4153, 4337, 4513, 5101, 5737, 5953, 6173, 6389, 6857, 7321, 7817, 8069, 8581, 9397, 9661, 9941, 10513, 11717, 12329, 12641, 13613, 14281, 14621, 15313, 16381, 17117, 17489, 18253, 18637, 19013, 19801, 20201
a(n) == 1 or 2 mod 4.
[A212501] 0, 0, 2, 13, 45, 115, 245, 462, 798, 1290, 1980, 2915, 4147, 5733, 7735, 10220, 13260, 16932, 21318, 26505, 32585, 39655, 47817, 57178, 67850, 79950, 93600, 108927, 126063, 145145, 166315, 189720, 215512, 243848, 274890, 308805
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4.
a(n) = (n-1)*n*(n+1)*(5*n-2)/24. - Bruno Berselli, May 31 2012
[A117717] 0, 2, 13, 45, 116, 250, 477, 833, 1360, 2106, 3125, 4477, 6228, 8450, 11221, 14625, 18752, 23698, 29565, 36461, 44500, 53802, 64493, 76705, 90576, 106250, 123877, 143613, 165620, 190066, 217125, 246977, 279808, 315810, 355181, 398125, 444852, 495578, 550525
a(n) = n^2 - 2n + C(n,2)^2 + 1
a(n) = (n-1)^2*(n^2+4)/4. - Vincenzo Librandi, Sep 09 2011
a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5), n>5. - Harvey P. Dale, Oct 16 2012
[A176060] 0, 2, 13, 46, 120, 260, 497, 868, 1416, 2190, 3245, 4642, 6448, 8736, 11585, 15080, 19312, 24378, 30381, 37430, 45640, 55132, 66033, 78476, 92600, 108550, 126477, 146538, 168896, 193720, 221185, 251472, 284768, 321266, 361165, 404670, 451992
a(n) = sum(k*(k*(k-1)+n+1), k=1..n) with n>0 (summation proposed in the Problem 923, see References).
a(0)=0, a(1)=2, a(2)=13, a(3)=46, a(4)=120, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Jul 14 2011
[A005584] 2, 13, 49, 140, 336, 714, 1386, 2508, 4290, 7007, 11011, 16744, 24752, 35700, 50388, 69768, 94962, 127281, 168245, 219604, 283360, 361790, 457470, 573300, 712530, 878787, 1076103, 1308944, 1582240, 1901416
a(n) = binomial(n+5, n-1) + binomial(n+4, n-1) = 1/720*n*(n+11)*(n+4)*(n+3)*(n+2)*(n+1).
[A154357] 2, 13, 74, 185, 346, 557, 818, 1129, 1490, 1901, 2362, 2873, 3434, 4045, 4706, 5417, 6178, 6989, 7850, 8761, 9722, 10733, 11794, 12905, 14066, 15277, 16538, 17849, 19210, 20621, 22082, 23593, 25154, 26765, 28426, 30137, 31898, 33709, 35570, 37481, 39442, 41453, 43514
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 08 2012
[A147832] 0, 2, 14, 16, 28, 30, 42, 44, 56, 58, 70, 72, 84, 86, 98, 100, 112, 114, 126, 128, 140, 142, 154, 156, 168, 170, 182, 184, 196, 198, 210, 212, 224, 226, 238, 240, 252, 254, 266, 268, 280, 282, 294, 296, 308, 310, 322, 324, 336, 338, 350, 352, 364, 366, 378, 380
a(n)=14*n-a(n-1)-26 (with a(1)=0). [From Vincenzo Librandi, Dec 17 2010]
[A022369] 2, 14, 16, 30, 46, 76, 122, 198, 320, 518, 838, 1356, 2194, 3550, 5744, 9294, 15038, 24332, 39370, 63702, 103072, 166774, 269846, 436620, 706466, 1143086, 1849552, 2992638, 4842190, 7834828, 12677018
a(n) = 2*(Fibonacci(n+2) + 5*Fibonacci(n)). - G. C. Greubel, Aug 27 2017
[A220274] 2, 14, 23, 23, 34, 36, 57, 58, 60, 60, 77, 86, 100, 100, 102, 123, 149, 149, 149, 149, 187, 187, 200, 200, 200, 202, 209, 227, 234, 268, 269, 269, 270, 319, 319, 331, 332, 332, 333, 345, 347, 350, 350, 353, 359, 360, 377, 401, 421, 440, 449, 479, 479, 487, 491
a(n) <= ceil(R_(10/9)(n)/10), where R_v(n) (v>1) are generalized Ramanujan numbers (see Shevelev's link). In particular, for n>=1, {R_(10/9) (n)}={127, 223, 227, 269, 349, 359, 569, 587, 593, 739, 809, 857, 991, 1009, ...}. Moreover, if R_(10/9)(n) == 1(mod 10), then a(n) = ceil(R_(10/9)(n)/10).
[A017545] 2, 14, 26, 38, 50, 62, 74, 86, 98, 110, 122, 134, 146, 158, 170, 182, 194, 206, 218, 230, 242, 254, 266, 278, 290, 302, 314, 326, 338, 350, 362, 374, 386, 398, 410, 422, 434, 446, 458, 470, 482, 494, 506, 518, 530, 542, 554, 566, 578, 590, 602, 614, 626, 638
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jun 07 2011

[A060626] 2, 14, 34, 62, 98, 142, 194, 254, 322, 398, 482, 574, 674, 782, 898, 1022, 1154, 1294, 1442, 1598, 1762, 1934, 2114, 2302, 2498, 2702, 2914, 3134, 3362, 3598, 3842, 4094, 4354, 4622, 4898, 5182, 5474, 5774, 6082, 6398, 6722, 7054, 7394, 7742, 8098, 8462
a(n) = 4*n^2 + 8*n + 2.
a(n) = 8*n + a(n-1) + 4 with n>0, a(0)=2. - Vincenzo Librandi, Aug 07 2010
[A145910] 2, 14, 35, 65, 104, 152, 209, 275, 350, 434, 527, 629, 740, 860, 989, 1127, 1274, 1430, 1595, 1769, 1952, 2144, 2345, 2555, 2774, 3002, 3239, 3485, 3740, 4004, 4277, 4559, 4850, 5150, 5459, 5777, 6104, 6440, 6785, 7139, 7502, 7874
a(n) = 2 + 9/2*n^2 + 15/2*n. - Paolo P. Lava, Oct 28 2008
a(n) = 2*a(n-1) - a(n-2) + 9.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A135706] 0, 2, 14, 36, 68, 110, 162, 224, 296, 378, 470, 572, 684, 806, 938, 1080, 1232, 1394, 1566, 1748, 1940, 2142, 2354, 2576, 2808, 3050, 3302, 3564, 3836, 4118, 4410, 4712, 5024, 5346, 5678, 6020, 6372, 6734, 7106, 7488, 7880, 8282, 8694, 9116, 9548, 9990, 10442
a(n) = a(n-1) + 10*n - 8 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A290124] 1, 2, 14, 38, 206, 662, 3134, 11078, 48686, 181622, 765854, 2945318, 12135566, 47479382, 193106174, 762858758, 3080132846, 12234437942, 49196032094, 196009287398, 786361672526, 3138473121302, 12574813191614, 50236490647238, 201134248946606, 803972136713462, 3217583124072734
a(n) = (5/28)*4^n - (2/21)*(-3)^n.
[A108478] 1, 1, 2, 14, 43, 127, 468, 1596, 5253, 17917, 60918, 205194, 694287, 2351611, 7951336, 26894840, 91004105, 307854073, 1041410602, 3523170438, 11918842803, 40320750711, 136404504124, 461454010164, 1561085306061, 5281113937653
a(n) = sum_{k=0..floor(n/2)} (sum_{j=0..n-k} C(2(n-2k), j)*C(2k, j)*2^j).
[A268684] 0, 2, 14, 44, 100, 190, 322, 504, 744, 1050, 1430, 1892, 2444, 3094, 3850, 4720, 5712, 6834, 8094, 9500, 11060, 12782, 14674, 16744, 19000, 21450, 24102, 26964, 30044, 33350, 36890, 40672, 44704, 48994, 53550, 58380, 63492, 68894, 74594, 80600, 86920
a(n) = Sum_{k = 0..n} 2*k*(2*k - 1).
a(n) mod 2 = 0.
[A212902] 0, 0, 2, 14, 44, 110, 228, 426, 726, 1168, 1780, 2612, 3700, 5104, 6866, 9058, 11728, 14958, 18804, 23358, 28682, 34880, 42020, 50216, 59544, 70128, 82050, 95446, 110404, 127070, 145540, 165970, 188462, 213184, 240244, 269820, 302028
a(n) = 2*a(n-1)+a(n-2)-3*a(n-3)-a(n-4)+a(n-5)+3*a(n-6)-a(n-7)-2*a(n-8)+a(n-9).
[A036659] 2, 14, 45, 104, 200, 342, 539, 800, 1134, 1550, 2057, 2664, 3380, 4214, 5175, 6272, 7514, 8910, 10469, 12200, 14112, 16214, 18515, 21024, 23750, 26702, 29889, 33320, 37004, 40950, 45167, 49664, 54450, 59534, 64925, 70632, 76664
a(n) = 2 + (3*n*n + 10*n + 11)*n/2. - Frank Ellermann, Mar 16 2002
a(n) = n^2(3n + 1)/2. - Ronnie B Kon (ronniekon(AT)yahoo.com), Jun 09 2006
[A153978] 0, 2, 14, 50, 130, 280, 532, 924, 1500, 2310, 3410, 4862, 6734, 9100, 12040, 15640, 19992, 25194, 31350, 38570, 46970, 56672, 67804, 80500, 94900, 111150, 129402, 149814, 172550, 197780, 225680, 256432, 290224, 327250, 367710, 411810, 459762
a(n) = Sum_{i=1..n-1} binomial(i+1,i)*i^2. - Enrique Pérez Herrero, Jun 28 2014
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5) for n>4, - Vincenzo Librandi, Jun 30 2014
[A067056] 1, 2, 14, 54, 154, 364, 756, 1428, 2508, 4158, 6578, 10010, 14742, 21112, 29512, 40392, 54264, 71706, 93366, 119966, 152306, 191268, 237820, 293020, 358020, 434070, 522522, 624834, 742574, 877424, 1031184, 1205776, 1403248, 1625778
a(n) = Sum {t(r)*{ t(n) - t(r) }}, (r = 1 to n-1) where t(r) is the r-th triangular number.
a(n) = n*(2*n^4+5*n^3-5*n-2)/60 = (n-1)*n*(n+1)*(n+2)*(2*n+1)/60, n>1. - Ralf Stephan, Apr 30 2004
[A212895] 0, 0, 2, 14, 58, 168, 376, 716, 1224, 1936, 2888, 4116, 5656, 7544, 9816, 12508, 15656, 19296, 23464, 28196, 33528, 39496, 46136, 53484, 61576, 70448, 80136, 90676, 102104, 114456, 127768, 142076, 157416, 173824, 191336, 209988
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>=9.
[A096367] 2, 14, 58, 194, 578, 1602, 4226, 10754, 26626, 64514, 153602, 360450, 835586, 1916930, 4358146, 9830402, 22020098, 49020930, 108527618, 239075330, 524288002, 1145044994, 2491416578, 5402263554, 11676942338, 25165824002, 54089744386, 115964116994
a(n) = (n-2)*(n+1)*2^(n-3)-2^(n-1)+2.
[A167555] 2, 14, 63, 209, 559, 1281, 2618, 4902, 8568, 14168, 22385, 34047, 50141, 71827, 100452, 137564, 184926, 244530, 318611, 409661, 520443, 654005, 813694, 1003170, 1226420, 1487772, 1791909, 2143883, 2549129, 3013479, 3543176
a(n) = (14*n^5 - 115*n^4 + 400*n^3 - 665*n^2 + 486*n - 120)/5!.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) - 5*a(n-1) + 10*a(n-2) - 10*a(n-3) + 5*a(n-4) - a(n-5) = 2*7.
[A222715] 2, 14, 66, 198, 508, 1092, 2156, 3876, 6606, 10626, 16478, 24570, 35672, 50344, 69624, 94248, 125562, 164502, 212762, 271502, 342804, 428076, 529828, 649740, 790790, 954954, 1145718, 1365378, 1617968, 1906128, 2234480, 2606032, 3026034, 3497886, 4027506
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) -4*(2*n^2-22*n+63)*(-1)^n, with n>8, a(3)=2, a(4)=14, a(5)=66, a(6)=198, a(7)=508, a(8)=1092.
a(n) = 3*a(n-1) -8*a(n-3) +6*a(n-4) +6*a(n-5) -8*a(n-6) +3*a(n-8) -a(n-9), with n>11.
a(n) = (n-2)*(n-1)*(8*n^3-16*n^2+6*n-15*(-1)^n+15)/120. (End)
a(n) = (1/4)*(binomial(2*n,5) + 2*binomial(n-1,2)*(1/2)*(1-(-1)^n)). [Yosu Yurramendi and María Merino, Aug 21 2013]
[A206947] 0, 0, 0, 2, 14, 70, 306, 1248, 4888, 18666, 70110, 260414, 959882, 3519232, 12854064, 46824210, 170243566, 618125238, 2242100898, 8126927456, 29442587720, 106626616954, 386046638142, 1397431266222, 5057790129274, 18304064121600, 66237312391776
a(n) = 8*a(n-1) - 21*a(n-2) + 20*a(n-3) - 5*a(n-4), a(1)=0, a(2)=0, a(3)=2, a(4)=14.
[A185055] 0, 0, 2, 14, 76, 388, 1950, 9762, 48824, 244136, 1220698, 6103510, 30517572, 152587884, 762939446, 3814697258, 19073486320, 95367431632, 476837158194, 2384185791006, 11920928955068, 59604644775380, 298023223876942, 1490116119384754, 7450580596923816, 37252902984619128
a(n) = (5^n-4n-1)/8.
[A278417] 0, 2, 14, 78, 388, 1810, 8106, 35294, 150536, 632034, 2620870, 10759342, 43804812, 177105266, 711809378, 2846259390, 11330543632, 44929049794, 177540878718, 699402223118, 2747583822740, 10766828545746, 42095796462874, 164244726238366, 639620518118424, 2486558615814050, 9651161613824822, 37403957244654702
a(n) = 7*a(n-1) - 10*a(n-2) - 10*a(n-3) + 7*a(n-4) - a(n-5) for n>6.
[A286445] 0, 2, 14, 97, 398, 1290, 3366, 7731, 15888, 30248, 53850, 91147, 147496, 230290, 348148, 512457, 736204, 1035986, 1430420, 1942691, 2598470, 3429064, 4468784, 5758755, 7343670, 9276330, 11613714, 14422313, 17773458, 21749506, 26438362, 31940587, 38363044, 45826992
a(n) = (n^6 -9*n^5 +6*n^4 +165*n^3 -447*n^2 -372*n +1736)/36 + IF(MOD(n, 2) = 1, -n^2 +6*n -9)/2 + IF(MOD(n, 3) = 0, -2)/9 for n >= 4.
[A267711] 0, 1, 2, 15, 16, 17, 30, 31, 32, 45, 46, 47, 60, 61, 62, 75, 76, 77, 90, 91, 92, 105, 106, 107, 120, 121, 122, 135, 136, 137, 150, 151, 152, 165, 166, 167, 180, 181, 182, 195, 196, 197, 210, 211, 212, 225, 226, 227, 240, 241, 242, 255, 256, 257, 270, 271, 272, 285, 286
a(n) = 1/3*(15*n-12*cos((2*pi*n)/3)+4*sqrt(3)*sin((2*pi*n)/3)-27).
a(n) = a(n-1)+a(n-3)-a(n-4) for n>4. - Colin Barker, Jan 28 2016
[A041797] 1, 2, 15, 17, 49, 164, 213, 590, 803, 15847, 16650, 49147, 65797, 246538, 558873, 805411, 6196750, 13198911, 534153190, 1081505291, 8104690227, 9186195518, 26477081263, 88617439307, 115094520570, 318806480447, 433901001017, 8562925499770, 8996826500787
a(n) = 540349940*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Dec 24 2013
[A041289] 1, 1, 2, 15, 17, 100, 217, 317, 534, 851, 1385, 3621, 19490, 23111, 181267, 204378, 385645, 9459858, 9845503, 19305361, 144983030, 164288391, 966424985, 2097138361, 3063563346, 5160701707, 8224265053
a(n) = 9664236*a(n-17) + a(n-34) for n>33. [Bruno Berselli, Dec 14 2013]
[A042685] 1, 1, 2, 15, 17, 236, 253, 2007, 2260, 4267, 249746, 254013, 503759, 3780326, 4284085, 59473431, 63757516, 505776043, 569533559, 1075309602, 62937490475, 64012800077, 126950290552, 952664833941, 1079615124493, 14987661452350, 16067276576843, 127458597490251
a(n) = 252006*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 21 2013
[A169597] 2, 15, 21, 34, 40, 53, 59, 72, 78, 91, 97, 110, 116, 129, 135, 148, 154, 167, 173, 186, 192, 205, 211, 224, 230, 243, 249, 262, 268, 281, 287, 300, 306, 319, 325, 338, 344, 357, 363, 376, 382, 395, 401, 414, 420, 433, 439, 452, 458, 471, 477, 490, 496, 509, 515, 528

a(n) = (38*n + 7*(-1)^n -23)/4. - Vincenzo Librandi, Jan 06 2013, modified Jul 07 2015
a(n) = a(n-1) + a(n-2) - a(n-3). - Vincenzo Librandi, Jan 06 2013
[A175828] 1, 2, 15, 26, 53, 74, 115, 146, 201, 242, 311, 362, 445, 506, 603, 674, 785, 866, 991, 1082, 1221, 1322, 1475, 1586, 1753, 1874, 2055, 2186, 2381, 2522, 2731, 2882, 3105, 3266, 3503, 3674, 3925, 4106, 4371, 4562, 4841, 5042, 5335, 5546, 5853, 6074
a(n)-a(n-1)-2*a(n-2)+2*a(n-3)+a(n-4)-a(n-5) = 0 for n>4.
[A153080] 2, 15, 28, 41, 54, 67, 80, 93, 106, 119, 132, 145, 158, 171, 184, 197, 210, 223, 236, 249, 262, 275, 288, 301, 314, 327, 340, 353, 366, 379, 392, 405, 418, 431, 444, 457, 470, 483, 496, 509, 522, 535, 548, 561, 574, 587, 600, 613, 626, 639, 652, 665, 678, 691
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Feb 25 2012
[A212975] 1, 2, 15, 28, 65, 102, 175, 248, 369, 490, 671, 852, 1105, 1358, 1695, 2032, 2465, 2898, 3439, 3980, 4641, 5302, 6095, 6888, 7825, 8762, 9855, 10948, 12209, 13470, 14911, 16352, 17985, 19618, 21455, 23292, 25345, 27398, 29679, 31960
a(n) = (n+1)*(2*n*(n+2)+3*(-1)^n+1)/4.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A243469] 1, 2, 15, 32, 239, 510, 3809, 8128, 60705, 129538, 967471, 2064480, 15418831, 32902142, 245733825, 524369792, 3916322369, 8357014530, 62415424079, 133187862688, 994730462895, 2122648788478, 15853271982241, 33829192752960, 252657621252961, 539144435258882
a(2*n + 1) = product {k = 1..n} (14 + 4*cos^2(k*Pi/(2*n+1));
a(2*n) = 2*product {k = 1..n-1} (14 + 4*cos^2(k*Pi/(2*n)).
[A180223] 0, 2, 15, 39, 74, 120, 177, 245, 324, 414, 515, 627, 750, 884, 1029, 1185, 1352, 1530, 1719, 1919, 2130, 2352, 2585, 2829, 3084, 3350, 3627, 3915, 4214, 4524, 4845, 5177, 5520, 5874, 6239, 6615, 7002, 7400, 7809, 8229, 8660
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) with n>2. - Bruno Berselli, Aug 19 2010
[A033568] 1, 2, 15, 40, 77, 126, 187, 260, 345, 442, 551, 672, 805, 950, 1107, 1276, 1457, 1650, 1855, 2072, 2301, 2542, 2795, 3060, 3337, 3626, 3927, 4240, 4565, 4902, 5251, 5612, 5985, 6370, 6767, 7176, 7597, 8030, 8475, 8932, 9401, 9882, 10375, 10880, 11397, 11926
a(n) = a(n-1) + 12*n - 11 (with a(0)=1). - Vincenzo Librandi, Nov 17 2010
[A249997] 1, 2, 15, 40, 221, 702, 3355, 11780, 52041, 193402, 817895, 3138720, 12953461, 50618102, 206059635, 813476860, 3286192481, 13047914802, 52482224575, 209057202200, 838843897101, 3347530323502, 13413657088715, 53584020970740, 214547906035321, 857556157684202
a(n) = (-1)^n*3^(n+2)/28 + 4^(n+2)/21 -1/12. - R. J. Mathar, Jan 09 2015
[A162256] 2, 15, 45, 98, 180, 297, 455, 660, 918, 1235, 1617, 2070, 2600, 3213, 3915, 4712, 5610, 6615, 7733, 8970, 10332, 11825, 13455, 15228, 17150, 19227, 21465, 23870, 26448, 29205, 32147, 35280, 38610, 42143, 45885, 49842, 54020, 58425, 63063, 67940
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 04 2012
[A256328] 0, 2, 15, 47, 108, 206, 351, 551, 816, 1154, 1575, 2087, 2700, 3422, 4263, 5231, 6336, 7586, 8991, 10559, 12300, 14222, 16335, 18647, 21168, 23906, 26871, 30071, 33516, 37214, 41175, 45407, 49920, 54722, 59823, 65231, 70956, 77006, 83391, 90119, 97200
a(n) = (-1+(-1)^n+6*n^2+12*n^3)/8.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>4.
[A041719] 1, 2, 15, 47, 109, 265, 1699, 20653, 22352, 110061, 132413, 242474, 374887, 1367135, 5843427, 112392248, 455412419, 1478629505, 1934041924, 3412671429, 5346713353, 24799524841, 30146238194, 386554383169, 2349472537208, 5085499457585, 12520471452378
a(n) = 25882394441081380*a(n-30) - a(n-60) for n>59. - Vincenzo Librandi, Dec 23 2013
[A290631] 2, 15, 50, 119, 234, 407, 650, 975, 1394, 1919, 2562, 3335, 4250, 5319, 6554, 7967, 9570, 11375, 13394, 15639, 18122, 20855, 23850, 27119, 30674, 34527, 38690, 43175, 47994, 53159, 58682, 64575, 70850, 77519, 84594, 92087, 100010, 108375, 117194, 126479, 136242
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 4.
[A007972] 2, 15, 52, 129, 266, 487, 820, 1297, 1954, 2831, 3972, 5425, 7242, 9479, 12196, 15457, 19330, 23887, 29204, 35361, 42442, 50535, 59732, 70129, 81826, 94927, 109540, 125777, 143754, 163591, 185412, 209345, 235522, 264079, 295156, 328897, 365450, 404967, 447604
a(n) = (n^4+6*n^3+11*n^2-12*n+6)/6 (conjectured). - Giovanni Resta, Jun 08 2015
[A098520] 0, 1, 2, 15, 52, 285, 1206, 6027, 27560, 134073, 633130, 3062279, 14676828, 71045845, 343195230, 1665555075, 8084777040, 39343835505, 191627687250, 934855945215, 4565076327300, 22318461756045, 109211684822790, 534907610833275, 2621997452787192, 12862364386480425, 63140696801700986
a(n)=sum{k=0..floor(n/2), binomial(n, k)binomial(n-k, k+1)4^k}.
a(n) = 2^(n-1)*GegenbauerC(n-1, -n, -1/4). - Peter Luschny, May 08 2016
[A056078] 0, 0, 2, 15, 54, 141, 306, 588, 1036, 1710, 2682, 4037, 5874, 8307, 11466, 15498, 20568, 26860, 34578, 43947, 55214, 68649, 84546, 103224, 125028, 150330, 179530, 213057, 251370, 294959, 344346, 400086, 462768, 533016, 611490, 698887, 795942, 903429, 1022162
a(n) = C(n+5,5) -6*C(n+3,3) +6*C(n+2,2) +3*C(n+1,1) -6*C(n,0).
a(n+1) = (n^4 +20*n^3 +35*n^2 -140*n +84)*n/120.
a(n) = (-240+394*n-135*n^2-35*n^3+15*n^4+n^5)/120.
[A071237] 0, 2, 15, 60, 170, 390, 777, 1400, 2340, 3690, 5555, 8052, 11310, 15470, 20685, 27120, 34952, 44370, 55575, 68780, 84210, 102102, 122705, 146280, 173100, 203450, 237627, 275940, 318710, 366270, 418965, 477152, 541200, 611490, 688415, 772380, 863802, 963110
a(0) = 0, a(1) = 2; for n >= 2, a(n) = ceiling(n^5/(2*n-2)) - 1.
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5) for n>4, a(0)=0, a(1)=2, a(2)=15, a(3)=60, a(4)=170. [Yosu Yurramendi, Sep 03 2013]
[A006470] 2, 15, 60, 175, 420, 882, 1680, 2970, 4950, 7865, 12012, 17745, 25480, 35700, 48960, 65892, 87210, 113715, 146300, 185955, 233772, 290950, 358800, 438750, 532350, 641277, 767340, 912485, 1078800, 1268520, 1484032, 1727880, 2002770, 2311575, 2657340, 3043287, 3472820, 3949530, 4477200, 5059810, 5701542, 6406785, 7180140
a(n) = (n+1)*binomial(n+3, 4).
a(n) = C(n+2, 2)*C(n+4, 3)/2; G.f.: x*(2+3*x)/(1-x)^6. - Zerinvary Lajos, Dec 14 2005
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6).
a(n) = n*(n+1)^2*(n+2)*(n+3)/24. (End)
[A091135] 2, 15, 69, 252, 804, 2349, 6455, 16962, 43086, 106587, 258153, 614520, 1441928, 3342489, 7667883, 17432766, 39321810, 88080615, 196083965, 434110740, 956301612, 2097152325, 4580180319, 9965666682, 21609054614, 46707769779
a(n) = (n^2 + 9n + 20)/2 + 2^(n+1)*(n^2 + 3n - 4).
[A099743] 0, 0, 2, 15, 75, 313, 1179, 4161, 14051, 45993, 147195, 463345, 1440723, 4438905, 13582955, 41350977, 125404611, 379228489, 1144370139, 3447856017, 10375942835, 31198607385, 93749962827, 281584384225, 845476670115, 2537990291433, 7617326317499
a(n) = -7*2^(n-3) + 3^n - 9*2^(n-4)*n - 2^(n-4)*n^2.
a(n) = 9*a(n-1) - 30*a(n-2) + 44*a(n-3) - 24*a(n-4) for n>4.
[A283842] 0, 0, 0, 2, 15, 75, 319, 1256, 4754, 17624, 64613, 235465, 855293, 3101198, 11233632, 40670374, 147200107, 532681447, 1927472251, 6974085108, 25233326446, 91296730996, 330318071345, 1195108798917, 4323957832185, 15644253554970, 56601495391164, 204786242735426, 740923803830199
a(n) = 2 - 2^n + (2^(-1-n)*(-(5-sqrt(5))^n*(3+sqrt(5)) - (-3+sqrt(5))*(5+sqrt(5))^n)) / sqrt(5) + n. - Colin Barker, Mar 29 2017
[A002740] 0, 0, 0, 2, 15, 84, 420, 1980, 9009, 40040, 175032, 755820, 3233230, 13728792, 57946200, 243374040, 1017958725, 4242920400, 17631691440, 73078721100, 302202005490, 1247182879800, 5137916074200, 21132472200840, 86794082253450, 356013544661424, 1458583920435600, 5969389748449400
a(n+3) = (2*(n+2))!/(2*n!*(n+3)!). - Wolfdieter Lang
a(n+2) = sum(k=0..n, k*binomial(k+n, k)). - Benoit Cloitre, Oct 25 2003
a(n) = sum(sum(binomial(2*n,n)/(n+1)/2, j=1..n), k=2..n), n>=0. - Zerinvary Lajos, May 09 2007
a(n) = (n-2)*binomial(2n-2,n-2)/2+0^n. - Wesley Ivan Hurt, Sep 24 2014
[A178750] 0, 0, 2, 15, 84, 431, 2167, 10847, 54249, 271262, 1356331, 6781678, 33908414, 169542094, 847710496, 4238552509, 21192762578, 105963812925, 529819064661, 2649095323341, 13245476616743, 66227383083756, 331136915418825, 1655684577094172, 8278422885470908, 41392114427354588
a(n) = round((5*5^n-18*n-18)/36).
a(n) = floor((5*5^n-18*n-5)/36).
a(n) = ceil((5*5^n-18*n-31)/36).
a(n) = a(n-6) + 434*5^(n-5)-3 , n>6.
a(n) = 7*a(n-1)-11*a(n-2)+4*a(n-3)+7*a(n-4)-11*a(n-5)+5*a(n-6), n>5.

[A217307] 1, 2, 16, 17, 115, 121, 509, 821, 3251, 4721, 5749, 22760, 25301, 41673, 142950, 173819, 291714, 920561, 1222716, 2041709, 4450031, 8559017, 9350687, 14295199, 31150219, 50568439, 71502954, 100066398, 218051538, 353979075, 500526787, 702815371, 1512442643
a(n) > 7^floor(sqrt(8*n-7)-1)/2), for n>0.
a(n) <= (7^n - 1)/3, n>0.
a(n+1) <= 7*a(n) + 2.
[A022370] 2, 16, 18, 34, 52, 86, 138, 224, 362, 586, 948, 1534, 2482, 4016, 6498, 10514, 17012, 27526, 44538, 72064, 116602, 188666, 305268, 493934, 799202, 1293136, 2092338, 3385474, 5477812, 8863286, 14341098
a(n) = 2*(Fibonacci(n+2) + 6*Fibonacci(n)). - G. C. Greubel, Aug 27 2017
[A228158] 2, 16, 22, 176, 222, 1776, 2222, 17776, 22222, 177776, 222222, 1777776, 2222222, 17777776, 22222222, 177777776, 222222222, 1777777776, 2222222222, 17777777776, 22222222222, 177777777776, 222222222222, 1777777777776, 2222222222222, 17777777777776
a(n) for odd values of n is simply "2" repeated (n+1)/2 times (sum as i=1->(n/2) of 10^(i-1)) For even values of n, it's a(n-1)*8
[A212765] 0, 1, 2, 16, 24, 81, 108, 256, 320, 625, 750, 1296, 1512, 2401, 2744, 4096, 4608, 6561, 7290, 10000, 11000, 14641, 15972, 20736, 22464, 28561, 30758, 38416, 41160, 50625, 54000, 65536, 69632, 83521, 88434, 104976, 110808, 130321, 137180
a(n)=a(n-1)+4*a(n-2)-4*a(n-3)-6*a(n-4)+6*a(n-5)+4*a(n-6)-4*a(n-7)-a(n-8)+a(n-9).
a(n)=((2*n^4+6*n^3+6*n^2+4*n+1)-(2*n^3+6*n^2+4*n+1)*(-1)^n)/32. - Luce ETIENNE, Apr 05 2014
[A166154] 2, 16, 37, 65, 100, 142, 191, 247, 310, 380, 457, 541, 632, 730, 835, 947, 1066, 1192, 1325, 1465, 1612, 1766, 1927, 2095, 2270, 2452, 2641, 2837, 3040, 3250, 3467, 3691, 3922, 4160, 4405, 4657, 4916, 5182, 5455, 5735, 6022, 6316, 6617, 6925, 7240, 7562
a(n) = a(n-1)+7*n = 3*a(n-1) -3*a(n-2) +a(n-3).
[A211620] 0, 2, 16, 38, 76, 122, 184, 254, 340, 434, 544, 662, 796, 938, 1096, 1262, 1444, 1634, 1840, 2054, 2284, 2522, 2776, 3038, 3316, 3602, 3904, 4214, 4540, 4874, 5224, 5582, 5956, 6338, 6736, 7142, 7564, 7994, 8440, 8894, 9364, 9842, 10336, 10838, 11356, 11882
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
a(n) = 6*n^2 - 6*n + 4 for n>0 and even.
a(n) = 6*n^2 - 6*n + 2 for n odd.
[A139267] 0, 2, 16, 42, 80, 130, 192, 266, 352, 450, 560, 682, 816, 962, 1120, 1290, 1472, 1666, 1872, 2090, 2320, 2562, 2816, 3082, 3360, 3650, 3952, 4266, 4592, 4930, 5280, 5642, 6016, 6402, 6800, 7210, 7632, 8066, 8512, 8970, 9440, 9922
a(n) = 12*n+a(n-1)-10, with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
[A295906] 2, 16, 50, 104, 178, 272, 386, 520, 674, 848, 1042, 1256, 1490, 1744, 2018, 2312, 2626, 2960, 3314, 3688, 4082, 4496, 4930, 5384, 5858, 6352, 6866, 7400, 7954, 8528, 9122, 9736, 10370, 11024, 11698, 12392, 13106, 13840, 14594, 15368, 16162, 16976, 17810, 18664, 19538
a(n) = 2*(5*n^2 - 8*n + 4).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A090453] 2, 16, 51, 118, 230, 402, 651, 996, 1458, 2060, 2827, 3786, 4966, 6398, 8115, 10152, 12546, 15336, 18563, 22270, 26502, 31306, 36731, 42828, 49650, 57252, 65691, 75026, 85318, 96630, 109027, 122576, 137346, 153408, 170835, 189702, 210086
a(n)= (n+1)*(n^3+15*n^2+56*n+24)/12.
[A033431] 0, 2, 16, 54, 128, 250, 432, 686, 1024, 1458, 2000, 2662, 3456, 4394, 5488, 6750, 8192, 9826, 11664, 13718, 16000, 18522, 21296, 24334, 27648, 31250, 35152, 39366, 43904, 48778, 54000, 59582, 65536, 71874, 78608, 85750, 93312, 101306, 109744, 118638
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Wesley Ivan Hurt, Aug 25 2014
[A212899] 0, 0, 0, 2, 16, 62, 186, 456, 962, 1818, 3162, 5156, 7986, 11862, 17018, 23712, 32226, 42866, 55962, 71868, 90962, 113646, 140346, 171512, 207618, 249162, 296666, 350676, 411762, 480518, 557562, 643536, 739106, 844962, 961818
a(n)=5*a(n-1)+10*a(n-2)-10*a(n-3)+5*a(n-4)-a(n-5) for n>=9.
[A076616] 0, 0, 0, 2, 16, 64, 208, 608, 1664, 4352, 11008, 27136, 65536, 155648, 364544, 843776, 1933312, 4390912, 9895936, 22151168, 49283072, 109051904, 240123904, 526385152, 1149239296, 2499805184, 5419040768, 11710496768, 25232932864, 54223962112, 116232552448
a(n) = 2^(n-3)*(n^2-n-4) for n>2.
a(n) = 6*a(n-1)-12*a(n-2)+8*a(n-3) for n>5.
[A035598] 0, 2, 16, 66, 192, 450, 912, 1666, 2816, 4482, 6800, 9922, 14016, 19266, 25872, 34050, 44032, 56066, 70416, 87362, 107200, 130242, 156816, 187266, 221952, 261250, 305552, 355266, 410816, 472642, 541200, 616962, 700416, 792066
a(n) = 2*n^2*(n^2 +2)/3. - Frank Ellermann, Mar 16 2002
[A167566] 2, 16, 67, 202, 497, 1064, 2058, 3684, 6204, 9944, 15301, 22750, 32851, 46256, 63716, 86088, 114342, 149568, 192983, 245938, 309925, 386584, 477710, 585260, 711360, 858312, 1028601, 1224902, 1450087, 1707232, 1999624, 2330768, 2704394
a(n) = (7*n^5 - 30*n^4 + 45*n^3 - 30*n^2 + 8*n)/5!.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) - 5*a(n-1) + 10*a(n-2) - 10*a(n-3) + 5*a(n-4) - a(n-5) = 7. (End)
[A007758] 0, 2, 16, 72, 256, 800, 2304, 6272, 16384, 41472, 102400, 247808, 589824, 1384448, 3211264, 7372800, 16777216, 37879808, 84934656, 189267968, 419430400, 924844032, 2030043136, 4437573632, 9663676416, 20971520000, 45365592064, 97844723712, 210453397504
a(n) = sum(k*2^k, k = 1..n). - Zerinvary Lajos, Oct 09 2006
[A212897] 0, 0, 2, 16, 74, 230, 562, 1172, 2186, 3754, 6050, 9272, 13642, 19406, 26834, 36220, 47882, 62162, 79426, 100064, 124490, 153142, 186482, 224996, 269194, 319610, 376802, 441352, 513866, 594974, 685330, 785612, 896522, 1018786
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>=7.
a(n) = n^4-5*n^3+12*n^2-16*n+10 with n>1, a(0)=a(1)=0. [Bruno Berselli, Jun 12 2012]
[A289837] 1, 1, 2, 16, 76, 261, 757, 2003, 5035, 12286, 29426, 69554, 162670, 376923, 865971, 1973941, 4466853, 10040524, 22430584, 49829116, 110127536, 242254321, 530619937, 1157676711, 2516640751, 5452664426, 11777687182, 25367246038, 54492508610, 116769551831
a(n) = 1 + binomial(n,3) + (2^(n-2)-n+1)*binomial(n,2) + 5*binomial(n,4). - Andrew Howroyd, Jul 18 2017
a(n) = 11*a(n-1)-52*a(n-2)+138*a(n-3)-225*a(n-4)+231*a(n-5)-146*a(n-6)+52*a(n-7)-8*a(n-8). - Eric W. Weisstein, Jul 21 2017
a(n) = (24 - (34+3*2^n)*n + (67+3*2^n)*n^2 - 38*n^3 + 5*n^4) / 24.
[A000431] 0, 0, 0, 2, 16, 88, 416, 1824, 7680, 31616, 128512, 518656, 2084864, 8361984, 33497088, 134094848, 536608768, 2146926592, 8588754944, 34357248000, 137433710592, 549744803840, 2199000186880, 8796044787712, 35184271425536, 140737278640128, 562949517213696
a(n) = (4^n - n 2^(n+1))/8 for n >= 1.
a(n) = 2^(n-2) * (2^(n-1) - n), n >= 1. - Daniel Forgues, Feb 24 2015
[A295903] 2, 16, 94, 293, 742, 1642, 3458, 7087, 14506, 29804, 61750, 128761, 269822, 566830, 1191898, 2505443, 5261218, 11032048, 23094830, 48265261, 100699222, 209756786, 436255474, 906024343, 1879110362, 3892384372, 8053142758, 16643086817, 34359837166, 70867070134
a(n) = 3*2^(n + 1) + n*((-1)^(n + 1) + 2^(n + 2) + n*(9*n - 26) - 2)/2 - 5.
a(n) = 6*a(n-1) - 11*a(n-2) + 21*a(n-4) - 18*a(n-5) - 5*a(n-6) + 12*a(n-7) - 4*a(n-8).
[A041339] 1, 1, 2, 17, 19, 36, 955, 991, 1946, 16559, 18505, 35064, 930169, 965233, 1895402, 16128449, 18023851, 34152300, 905983651, 940135951, 1846119602, 15709092767, 17555212369, 33264305136, 882427145905, 915691451041, 1798118596946, 15300640226609
a(n) = 974*a(n-6) - a(n-12). - Vincenzo Librandi, Dec 16 2013
[A042925] 1, 1, 2, 17, 19, 36, 2251, 2287, 4538, 38591, 43129, 81720, 5109769, 5191489, 10301258, 87601553, 97902811, 185504364, 11599173379, 11784677743, 23383851122, 198855486719, 222239337841, 421094824560, 26330118460561, 26751213285121, 53081331745682
a(n) = 2270*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Feb 01 2014
[A086322] 2, 17, 23, 167, 173, 227, 233, 1667, 1733, 2267, 2273, 2333, 16673, 17327, 17333, 22727, 23327, 23333, 173267, 173273, 227267, 233267, 233327, 1732727, 2272667, 2332667, 22726667, 23326673
a(n) = (10 * a(n-m))-3 or (10 * a(n-m))+3
[A267540] 2, 17, 31, 47, 61, 107, 137, 151, 167, 181, 197, 211, 227, 241, 257, 271, 317, 331, 347, 421, 467, 541, 557, 571, 587, 601, 617, 631, 647, 661, 677, 691, 751, 797, 811, 827, 857, 887, 947, 977, 991, 1021, 1051, 1097, 1171, 1187, 1201, 1217, 1231, 1277, 1291
a(n) = 1/2*((-1)^n*(3*(-1)^n*(10n+81)-1)) with (1<n<10) for a(7)...a(16).

[A212740] 0, 1, 2, 17, 32, 97, 162, 337, 512, 881, 1250, 1921, 2592, 3697, 4802, 6497, 8192, 10657, 13122, 16561, 20000, 24641, 29282, 35377, 41472, 49297, 57122, 66977, 76832, 89041, 101250, 116161, 131072, 149057, 167042, 188497, 209952
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
a(n) = 3*n^2/8 +1/16 +n^4/8 -(-1)^n/16 -3*(-1)^n*n^2/8. - R. J. Mathar, Jul 01 2013
[A212742] 1, 2, 17, 32, 97, 162, 337, 512, 881, 1250, 1921, 2592, 3697, 4802, 6497, 8192, 10657, 13122, 16561, 20000, 24641, 29282, 35377, 41472, 49297, 57122, 66977, 76832, 89041, 101250, 116161, 131072, 149057, 167042, 188497, 209952, 235297
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A226488] 0, 2, 17, 45, 86, 140, 207, 287, 380, 486, 605, 737, 882, 1040, 1211, 1395, 1592, 1802, 2025, 2261, 2510, 2772, 3047, 3335, 3636, 3950, 4277, 4617, 4970, 5336, 5715, 6107, 6512, 6930, 7361, 7805, 8262, 8732, 9215, 9711, 10220, 10742, 11277, 11825, 12386, 12960
a(0)=0, a(1)=2, a(2)=17; for n>2, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 19 2013
[A023256] 2, 17, 47, 61, 101, 131, 151, 331, 367, 461, 607, 751, 937, 971, 1151, 1321, 1327, 1361, 1481, 1511, 1607, 1811, 1847, 1907, 2081, 2287, 2347, 2357, 2791, 2851, 2971, 3251, 3257, 3457, 3491, 3581, 3761, 4007, 4091, 4127, 4861, 4967, 5231, 5347, 5387, 5407
a(n) == 1 or 7 (mod 10) for n > 1. - John Cerkan, Sep 14 2016
[A125200] 2, 17, 57, 134, 260, 447, 707, 1052, 1494, 2045, 2717, 3522, 4472, 5579, 6855, 8312, 9962, 11817, 13889, 16190, 18732, 21527, 24587, 27924, 31550, 35477, 39717, 44282, 49184, 54435, 60047, 66032, 72402, 79169, 86345, 93942, 101972, 110447, 119379
a(n)= 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). [R. J. Mathar, Feb 12 2010]
[A071402] 0, 2, 17, 59, 140, 273, 471, 748, 1117, 1590, 2182, 2904, 3770, 4793, 5987, 7363, 8936, 10719, 12724, 14964, 17454, 20205, 23231, 26545, 30160, 34089, 38345, 42942, 47893, 53209, 58906, 64995, 71490, 78404, 85749, 93540, 101789, 110509
a(n) = round(n^3 * (3+sqrt(5)) * 5/12)
[A228641] 2, 17, 59, 140, 274, 473, 752, 1122, 1598, 2193, 2919, 3789, 4818, 6018, 7402, 8983, 10775, 12791, 15043, 17545, 20311, 23353, 26685, 30319, 34269, 38548, 43169, 48146, 53491, 59217, 65338, 71868, 78818, 86203, 94035, 102328, 111094, 120347, 130101, 140367, 151160
a(n) = floor(2/9 * Pi^2 * n^3).
[A034721] 1, 2, 17, 66, 169, 346, 617, 1002, 1521, 2194, 3041, 4082, 5337, 6826, 8569, 10586, 12897, 15522, 18481, 21794, 25481, 29562, 34057, 38986, 44369, 50226, 56577, 63442, 70841, 78794, 87321, 96442, 106177, 116546, 127569, 139266, 151657
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 21 2012
[A056074] 2, 17, 71, 212, 518, 1106, 2142, 3852, 6534, 10571, 16445, 24752, 36218, 51716, 72284, 99144, 133722, 177669, 232883, 301532, 386078, 489302, 614330, 764660, 944190, 1157247, 1408617, 1703576
a(n) = C(n + 6, 6) - 6*C(n + 4, 4) + 6*C(n + 3, 3) + 3*C(n + 2, 2) - 6*C(n + 1, 1) + 2*C(n, 0).
a(0)=2, a(1)=17, a(2)=71, a(3)=212, a(4)=518, a(5)=1106, a(6)=2142, a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Harvey P. Dale, Jul 12 2011
a(n) = n*(n^5 + 21*n^4 - 5*n^3 - 345*n^2 + 724*n - 396)/720. - Charles R Greathouse IV, Feb 19 2017
[A109724] 2, 17, 100, 381, 1060, 2427, 4888, 8893, 15116, 24133, 36888, 54169, 77136, 106733, 144526, 191755, 249748, 320705, 406048, 507825, 627294, 768373, 931686, 1119887, 1336090, 1583293, 1864190, 2180741, 2536646, 2935471, 3380980
a(n) = n^4 log n. - Charles R Greathouse IV, Sep 15 2015
[A294271] 0, 2, 17, 114, 354, 1060, 2275, 4932, 8772, 15958, 25333, 41270, 60710, 91672, 127687, 182408, 243848, 333930, 432345, 572666, 722666, 931788, 1151403, 1451980, 1763020, 2182206, 2610621, 3180478, 3756718, 4514624, 5273999, 6263056, 7246096, 8515538, 9768353
a(n) = Sum_{i=1..floor(n/2)} i^4 + (n-i)^4.
a(n) = (1/480)*(n*(-16 + 160*n^2 + 15*(-15 + (-1)^n)*n^3 + 96*n^4)).
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3) - 10*a(n-4) + 10*a(n-5) + 10*a(n-6) - 10*a(n-7) - 5*a(n-8) + 5*a(n-9) + a(n-10) - a(n-11) for n>11.
[A041879] 1, 2, 17, 172, 189, 361, 550, 911, 1461, 2372, 3833, 6205, 65883, 533269, 1132421, 48094951, 97322323, 826673535, 8364057673, 9190731208, 17554788881, 26745520089, 44300308970, 71045829059, 115346138029, 186391967088, 301738105117, 3203773018258
a(n) = 48628220*a(n-15) + a(n-30) for n>29. - Vincenzo Librandi, Dec 26 2013
[A022371] 2, 18, 20, 38, 58, 96, 154, 250, 404, 654, 1058, 1712, 2770, 4482, 7252, 11734, 18986, 30720, 49706, 80426, 130132, 210558, 340690, 551248, 891938, 1443186, 2335124, 3778310, 6113434, 9891744, 16005178
a(n) = 2*(Fibonacci(n+2) + 7*Fibonacci(n)). - G. C. Greubel, Aug 27 2017
[A266956] 1, 2, 18, 21, 53, 58, 106, 113, 177, 186, 266, 277, 373, 386, 498, 513, 641, 658, 802, 821, 981, 1002, 1178, 1201, 1393, 1418, 1626, 1653, 1877, 1906, 2146, 2177, 2433, 2466, 2738, 2773, 3061, 3098, 3402, 3441, 3761, 3802, 4138, 4181, 4533, 4578, 4946, 4993, 5377, 5426
a(n) = a(-n+1) = (18*(n-1)*n - 7*(2*n-1)*(-1)^n + 1)/8.
[A139268] 0, 2, 18, 48, 92, 150, 222, 308, 408, 522, 650, 792, 948, 1118, 1302, 1500, 1712, 1938, 2178, 2432, 2700, 2982, 3278, 3588, 3912, 4250, 4602, 4968, 5348, 5742, 6150, 6572, 7008, 7458, 7922, 8400, 8892, 9398, 9918, 10452, 11000
a(n) = 14*n + a(n-1) - 12 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A077591] 1, 2, 18, 50, 98, 162, 242, 338, 450, 578, 722, 882, 1058, 1250, 1458, 1682, 1922, 2178, 2450, 2738, 3042, 3362, 3698, 4050, 4418, 4802, 5202, 5618, 6050, 6498, 6962, 7442, 7938, 8450, 8978, 9522, 10082, 10658, 11250, 11858, 12482, 13122, 13778
a(n) = 8*n^2 - 8*n + 2 = 2*(2*n-1)^2, n>0, a(0)=1. [It would be nice to have a proof, or even a reference to a proof. - N. J. A. Sloane, Nov 30 2017]
[A058794] 2, 18, 52, 110, 198, 322, 488, 702, 970, 1298, 1692, 2158, 2702, 3330, 4048, 4862, 5778, 6802, 7940, 9198, 10582, 12098, 13752, 15550, 17498, 19602, 21868, 24302, 26910, 29698, 32672, 35838, 39202, 42770, 46548, 50542, 54758, 59202, 63880
a(n) = n^3 + 6*n^2 + 9*n + 2.
[A213820] 2, 18, 60, 140, 270, 462, 728, 1080, 1530, 2090, 2772, 3588, 4550, 5670, 6960, 8432, 10098, 11970, 14060, 16380, 18942, 21758, 24840, 28200, 31850, 35802, 40068, 44660, 49590, 54870, 60512, 66528, 72930, 79730
a(n) = -n + n^2 + 2*n^3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A078837] 0, 2, 18, 60, 270, 462, 1080, 1530, 2772, 5670, 6960, 11970, 16380, 18942, 24840, 35802, 49590, 54870, 72930, 86940, 94572, 120120, 139482, 172260, 223440, 252450, 267852, 300510, 317790, 354312, 504000, 553410, 633420, 661710, 815850
a(n)= (1/4)*(prime(n)-2)*(prime(n)-1)*(prime(n)+1)
[A213830] 2, 18, 78, 230, 540, 1092, 1988, 3348, 5310, 8030, 11682, 16458, 22568, 30240, 39720, 51272, 65178, 81738, 101270, 124110, 150612, 181148, 216108, 255900, 300950, 351702, 408618, 472178, 542880, 621240
a(n) = (2*n + n^2 + 2*n^3 + 3*n^4)/4.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A091940] 0, 2, 18, 84, 260, 630, 1302, 2408, 4104, 6570, 10010, 14652, 20748, 28574, 38430, 50640, 65552, 83538, 104994, 130340, 160020, 194502, 234278, 279864, 331800, 390650, 457002, 531468, 614684, 707310, 810030, 923552, 1048608, 1185954, 1336370, 1500660
a(n) = 2*C(n,2) + 12*C(n,3) + 24*C(n,4) = n*(n-1)*(n^2-3*n+3).
a(n) = (n-1) + (n-1)^4. - Rainer Rosenthal, Dec 03 2006
[A068605] 2, 18, 84, 300, 930, 2646, 7112, 18360, 45990, 112530, 270204, 638820, 1490762, 3440430, 7864080, 17825520, 40107726, 89652906, 199229060, 440401500, 968883762, 2122317318, 4630511064, 10066329000, 21810380150, 47110421826
a(n) = C(n, 2) * (2^n - 2)
[A201236] 0, 2, 18, 88, 250, 558, 1078, 1888, 3078, 4750, 7018, 10008, 13858, 18718, 24750, 32128, 41038, 51678, 64258, 79000, 96138, 115918, 138598, 164448, 193750, 226798, 263898, 305368, 351538, 402750, 459358, 521728, 590238, 665278, 747250, 836568, 933658, 1038958
a(n) = n^2*(n^2-5)/2, n>=3.
[A036800] 0, 2, 18, 90, 346, 1146, 3450, 9722, 26106, 67578, 169978, 417786, 1007610, 2392058, 5603322, 12976122, 29753338, 67633146, 152567802, 341835770, 761266170, 1686110202, 3716153338, 8153726970, 17817403386, 38788923386
a(n) = Sum_{k=0..n} 2^k * k^2. - Benoit Cloitre, Jun 11 2003
a(0)=0, a(1)=2, a(2)=18, a(3)=90, a(n)=7*a(n-1)-18*a(n-2)+ 20*a(n-3)- 8*a(n-4). - Harvey P. Dale, Jun 13 2015
a(n) = Sum_{k=0..n} Sum_{i=0..n} k^2 * C(k,i). - Wesley Ivan Hurt, Sep 21 2017

[A157052] 2, 18, 92, 340, 1010, 2562, 5768, 11832, 22530, 40370, 68772, 112268, 176722, 269570, 400080, 579632, 822018, 1143762, 1564460, 2107140, 2798642, 3670018, 4756952, 6100200, 7746050, 9746802, 12161268, 15055292, 18502290, 22583810, 27390112, 33020768, 39585282
a(n) = T(n,3); T(n,k) = sum {i=1..n} binomial(n+1,i)*binomial(k-1,i-1)*binomial(n-i+k,k).
a(n) = n(n+1)(n^4+2n^3+11n^2+10n+12)/36. - Bruno Berselli, Mar 17 2012
[A267691] 1, 1, 2, 18, 99, 355, 980, 2276, 4677, 8773, 15334, 25334, 39975, 60711, 89272, 127688, 178313, 243849, 327370, 432346, 562667, 722667, 917148, 1151404, 1431245, 1763021, 2153646, 2610622, 3142063, 3756719, 4464000, 5274000, 6197521, 7246097, 8432018, 9768354
a(n + 1) = a(n) + n^4.
[A219758] 0, 0, 0, 0, 2, 18, 99, 432, 1641, 5674, 18315, 56076, 164621, 466958, 1287183, 3463184, 9125905, 23617554, 60162067, 151126036, 374931477, 919863318, 2234253335, 5377622040, 12836667417, 30410801178, 71546437659, 167252066332, 388677763101, 898319253534
a(n) = 2^(n-7)*(n^4-2*n^3-25*n^2+194*n-576)/3 +n+1 with n>1, a(0)=a(1)=0. [Bruno Berselli, Nov 29 2012]
[A064837] 0, 2, 18, 114, 420, 1170, 2710, 5538, 10312, 17890, 29338, 45970, 69356, 101362, 144158, 200258, 272528, 364226, 479010, 620978, 794676, 1005138, 1257894, 1559010, 1915096, 2333346, 2821546, 3388114, 4042108, 4793266, 5652014
a(0)=0, a(1)=2, a(2)=18, a(3)=114, a(4)=420, a(5)=1170, a(6)=2710, a(n) = 5*a(n-1) - 9*a(n-2) + 5*a(n-3) + 5*a(n-4) - 9*a(n-5) + 5*a(n-6) - a(n-7). - Harvey P. Dale, Sep 15 2014
[A224902] 1, 2, 18, 114, 450, 2298, 10466, 43314, 184402, 749490, 2942274, 11437026, 43364818, 161089130, 589901682, 2123791130, 7531395154, 26360805018, 91057065522, 310718196626, 1048405959266, 3499152601394, 11559430074418, 37818135048962, 122582070331106, 393830310786706, 1254654362883954
a(n) == 2 (mod 4) for n>0 (conjecture).
[A041451] 1, 1, 2, 19, 21, 124, 393, 1303, 1696, 2999, 10693, 35078, 186083, 221161, 2176532, 2397693, 4574225, 139624443, 144198668, 283823111, 2698606667, 2982429778, 17610755557, 55814696449, 185054844904, 240869541353, 425924386257, 1518642700124, 4981852486629
a(n) = 142022136*a(n-17) + a(n-34) for n>33. - Vincenzo Librandi, Dec 18 2013
[A125201] 2, 19, 52, 101, 166, 247, 344, 457, 586, 731, 892, 1069, 1262, 1471, 1696, 1937, 2194, 2467, 2756, 3061, 3382, 3719, 4072, 4441, 4826, 5227, 5644, 6077, 6526, 6991, 7472, 7969, 8482, 9011, 9556, 10117, 10694, 11287, 11896, 12521, 13162, 13819, 14492, 15181
a(1) = 2, a(n) = a(n-1) + 16*n - 15.
a(n) = 2*a(n-1) - a(n-2) + 16 with a(1) = 2 and a(2) = 19.
[A056005] 0, 0, 0, 2, 19, 90, 302, 820, 1926, 4068, 7920, 14454, 25025, 41470, 66222, 102440, 154156, 226440, 325584, 459306, 636975, 869858, 1171390, 1557468, 2046770, 2661100, 3425760, 4369950, 5527197, 6935814, 8639390, 10687312, 13135320, 16046096, 19489888
a(n) = C(n+7, 7) - 6*C(n+5, 5) + 6*C(n+4, 4) + 3*C(n+3, 3) - 6*C(n+2, 2) + 2*C(n+1, 1).
a(n) = n*(n-2)*(n-1)*(n+1)*(n^3 + 30*n^2 + 131*n - 270)/5040.
[A193047] 0, 1, 2, 19, 102, 377, 1104, 2777, 6282, 13155, 25998, 49153, 89792, 159681, 278034, 476131, 804790, 1346457, 2234768, 3686201, 6051290, 9897491, 16143262, 26275009, 42698112, 69304897, 112393634, 182155507, 295080582, 477850745
a(n)=6*a(n-1)-14*a(n-2)+15*a(n-3)-5*a(n-4)-4*a(n-5)+4*a(n-6)-a(n-7).
[A089659] 0, 2, 19, 104, 440, 1600, 5264, 16128, 46848, 130560, 352000, 923648, 2369536, 5963776, 14766080, 36044800, 86900736, 207224832, 489357312, 1145569280, 2660761600, 6136266752, 14060355584, 32027705344, 72561459200, 163577856000, 367068708864, 820204535808
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4) for n > 3.
a(n) = 2^(n-3)*n*(7*n^2 + 12*n + 5)/3.
[A289230] 0, 2, 19, 127, 536, 1688, 4357, 9789, 19844, 37172, 65397, 109335, 175214, 270934, 406329, 593463, 846934, 1184212, 1625979, 2196509, 2924050, 3841240, 4985531, 6399647, 8132044, 10237410, 12777167, 15820007, 19442436, 23729352, 28774625, 34681717, 41564304, 49546932
a(n) = (n^6 -6*n^5 -24*n^4 +220*n^3 -153*n^2 -1488*n +2592)/36 + IF(MOD(n, 2) = 1, -1)/2 + IF(MOD(n, 3) = 1, -2)/9.
[A022372] 2, 20, 22, 42, 64, 106, 170, 276, 446, 722, 1168, 1890, 3058, 4948, 8006, 12954, 20960, 33914, 54874, 88788, 143662, 232450, 376112, 608562, 984674, 1593236, 2577910, 4171146, 6749056, 10920202
a(n) = 2*(Fibonacci(n+2) + 8*Fibonacci(n)). - G. C. Greubel, Aug 27 2017
[A268742] 0, 1, 2, 20, 30, 31, 44, 98, 120, 121, 146, 236, 270, 271, 308, 434, 480, 481, 530, 692, 750, 751, 812, 1010, 1080, 1081, 1154, 1388, 1470, 1471, 1556, 1826, 1920, 1921, 2018, 2324, 2430, 2431, 2540, 2882, 3000, 3001, 3122, 3500, 3630, 3631, 3764, 4178, 4320, 4321
a(n) = (30*(n-1)*n + 2*(18*n-3*(-1)^n-11)*(-1)^(n*(n+1)/2) - (6*n+1)*(-1)^n + 13)/16 + 1. Therefore:
a(4*k) = 30*k^2;
a(4*k+1) = 30*k^2 + 1;
a(4*k+2) = 30*k^2 + 12*k + 2;
a(4*k+3) = 30*k^2 + 48*k + 20.
[A266842] 1, 2, 20, 43, 336, 687, 5440, 10943, 87296, 174847, 1397760, 2796543, 22368256, 44740607, 357908480, 715833343, 5726601216, 11453267967, 91625881600, 183252025343, 1466015154176, 2932031356927, 23456246661120, 46912497516543, 375299963355136, 750599943487487
a(n) = 21*a(n-2)-84*a(n-4)+64*a(n-6) for n>5.
[A139271] 0, 2, 20, 54, 104, 170, 252, 350, 464, 594, 740, 902, 1080, 1274, 1484, 1710, 1952, 2210, 2484, 2774, 3080, 3402, 3740, 4094, 4464, 4850, 5252, 5670, 6104, 6554, 7020, 7502, 8000, 8514, 9044, 9590, 10152, 10730, 11324, 11934, 12560
a(n) = 8*n^2 - 6*n.
a(n) = 16*n + a(n-1) - 14 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A001504] 2, 20, 56, 110, 182, 272, 380, 506, 650, 812, 992, 1190, 1406, 1640, 1892, 2162, 2450, 2756, 3080, 3422, 3782, 4160, 4556, 4970, 5402, 5852, 6320, 6806, 7310, 7832, 8372, 8930, 9506, 10100, 10712, 11342, 11990, 12656, 13340, 14042, 14762, 15500, 16256, 17030
a(n) = 18*n + a(n-1) with a(0) = 2. - Vincenzo Librandi, Nov 12 2010
[A287485] 2, 20, 68, 304, 1232, 5168, 21408, 89088, 370112, 1538560, 6394368, 26577664, 110464512, 459127808, 1908282368, 7931445248, 32965660672, 137016012800, 569483091968, 2366956929024, 9837842644992, 40889273090048, 169949115056128, 706363785412608, 2935877583634432, 12202461910794240
a(n) = 2*a(n-1) + 8*a(n-2) + 4*a(n-3).
[A259110] 0, 2, 20, 70, 168, 330, 572, 910, 1360, 1938, 2660, 3542, 4600, 5850, 7308, 8990, 10912, 13090, 15540, 18278, 21320, 24682, 28380, 32430, 36848, 41650, 46852, 52470, 58520, 65018, 71980, 79422, 87360, 95810, 104788, 114310, 124392, 135050, 146300, 158158, 170640, 183762, 197540, 211990, 227128, 242970
a(n) = (2*n*(4*n^2-1))/3. - Colin Barker, Jun 28 2015
[A098077] 2, 20, 84, 240, 550, 1092, 1960, 3264, 5130, 7700, 11132, 15600, 21294, 28420, 37200, 47872, 60690, 75924, 93860, 114800, 139062, 166980, 198904, 235200, 276250, 322452, 374220, 431984, 496190, 567300, 645792, 732160, 826914, 930580, 1043700
a(n) = Sum[Sum[(i^2+j^2), {i, 1, n}], {j, 1, n}].
[A071253] 0, 2, 20, 90, 272, 650, 1332, 2450, 4160, 6642, 10100, 14762, 20880, 28730, 38612, 50850, 65792, 83810, 105300, 130682, 160400, 194922, 234740, 280370, 332352, 391250, 457652, 532170, 615440, 708122, 810900, 924482, 1049600, 1187010, 1337492, 1501850, 1680912
a(n) = (1/4)*sinh(2*arcsinh(n))^2. - Artur Jasinski, Feb 10 2010
[A035599] 0, 2, 20, 102, 360, 1002, 2364, 4942, 9424, 16722, 28004, 44726, 68664, 101946, 147084, 207006, 285088, 385186, 511668, 669446, 864008, 1101450, 1388508, 1732590, 2141808, 2625010, 3191812, 3852630, 4618712, 5502170, 6516012
a(n) = (4*n^4+20*n^2+6)*n/15. - Frank Ellermann, Mar 16 2002
[A282818] 0, 0, 0, 2, 20, 110, 460, 1540, 4312, 10500, 22920, 45870, 85580, 150722, 252980, 407680, 634480, 958120, 1409232, 2025210, 2851140, 3940790, 5357660, 7176092, 9482440, 12376300, 15971800, 20398950, 25805052, 32356170, 40238660, 49660760, 60854240, 74076112
a(n) = n*(n-1)*(n-2)*(n^3-9*n^2+32*n-38)/12.
[A219837] 0, 0, 0, 0, 2, 20, 120, 567, 2320, 8596, 29578, 96058, 297776, 888460, 2567534, 7221974, 19849284, 53473464, 141559090, 369018290, 948897336, 2410350276, 6055659350, 15063123950, 37130340492, 90769197360, 220209351130, 530489281162, 1269657766720
a(n) = 2^(n-10)*(n^5-16*n^4+547*n^3-7976*n^2+55660*n-158832)/3+(3*n+17)*n+52 with n>1, a(0)=a(1)=0.
[A279112] 0, 0, 2, 20, 138, 505, 1547, 3759, 8313, 16350, 30344, 52470, 87212, 138255, 212953, 317065, 461827, 655724, 915038, 1251720, 1688414, 2241365, 2941047, 3808915, 4884893, 6196650, 7795332, 9715914, 12022688, 14759115, 18004709, 21812685, 26280007, 31471000, 37502458
a(n) = (n^6 - 27*n^4 + 44*n^3 + 146*n^2 - 404*n + 240 + IF(MOD(n, 2) = 1, 8*n^3 - 21*n^2 + 16*n - 51))/48 for n >=2.
a(n) = 3*a(n-1) + a(n-2) - 11*a(n-3) + 6*a(n-4) + 14*a(n-5) - 14*a(n-6) - 6*a(n-7) + 11*a(n-8) - a(n-9) - 3*a(n-10) + a(n-11).
a(n) = (n^6 - 27*n^4 + 44*n^3 + 146*n^2 - 404*n + 240)/48 for n>1.

a(n) = (n^6 - 27*n^4 + 52*n^3 + 125*n^2 - 388*n + 189)/48 for n>1.
[A294116] 2, 21, 23, 44, 67, 111, 178, 289, 467, 756, 1223, 1979, 3202, 5181, 8383, 13564, 21947, 35511, 57458, 92969, 150427, 243396, 393823, 637219, 1031042, 1668261, 2699303, 4367564, 7066867, 11434431, 18501298, 29935729, 48437027, 78372756, 126809783, 205182539, 331992322, 537174861
a(n) = a(n-1) + a(n-2).
a(n) = 2*g(1,21;n) - g(0,21;n);
a(n) = g(1,k;n) + g(1,21-k;n) for all k in Z.
a(h+k) = a(h)*Fibonacci(k-1) + a(h+1)*Fibonacci(k) for all h, k in Z (see S. Vajda in References section). For h=0 and k=n:
a(n) = 2*Fibonacci(n-1) + 21*Fibonacci(n).
a(n) = (2^(-n)*((1-sqrt(5))^n*(-20+sqrt(5)) + (1+sqrt(5))^n*(20+sqrt(5)))) / sqrt(5). - Colin Barker, Oct 25 2017
[A041513] 1, 1, 2, 21, 23, 44, 1431, 1475, 2906, 30535, 33441, 63976, 2080673, 2144649, 4225322, 44397869, 48623191, 93021060, 3025297111, 3118318171, 6143615282, 64554470991, 70698086273, 135252557264, 4398779918721, 4534032475985, 8932812394706, 93862156423045
a(n) = 1454*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 19 2013
[A042565] 1, 2, 21, 23, 205, 228, 433, 1094, 1527, 2621, 4148, 15065, 94538, 1716749, 1811287, 8961897, 10773184, 30508265, 41281449, 1145107388, 1186388837, 3517885062, 4704273899, 22334980658, 27039254557, 509041562684, 3081288630661, 9752907454667, 12834196085328
a(n) = 2764144327157232820*a(n-38) - a(n-76) for n>75. - Vincenzo Librandi, Jan 25 2014
[A266873] 1, 2, 21, 42, 341, 682, 5461, 10922, 87381, 174762, 1398101, 2796202, 22369621, 44739242, 357913941, 715827882, 5726623061, 11453246122, 91625968981, 183251937962, 1466015503701, 2932031007402, 23456248059221, 46912496118442, 375299968947541, 750599937895082
a(n) = ((-1)^n+3*2^(2*n+1)+(-1)^n*2^(2*n+1)-3)/6.
a(n) = 17*a(n-2)-16*a(n-4) for n>3.
[A075681] 0, 0, 2, 21, 60, 121, 207, 321, 466, 645, 861, 1117, 1416, 1761, 2155, 2601, 3102, 3661, 4281, 4965, 5716, 6537, 7431, 8401, 9450, 10581, 11797, 13101, 14496, 15985, 17571, 19257, 21046, 22941, 24945, 27061, 29292, 31641, 34111, 36705
a(n) = 1/2*n^3+7/2*n^2-23n+25, for n>3. G.f.: (x^7-x^6-12x^5+13x^4+2x^3)/(1-x)^4. - Ralf Stephan, Mar 13 2003
[A212257] 1, 2, 21, 64, 157, 322, 601, 1024, 1641, 2498, 3661, 5184, 7141, 9602, 12657, 16384, 20881, 26242, 32581, 40000, 48621, 58562, 69961, 82944, 97657, 114242, 132861, 153664, 176821, 202498, 230881, 262144, 296481, 334082, 375157
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-4*a(n-5)+6*a(n-6)-4*a(n-7)+a(n-8).
a(n) = (1+7*(-1)^n)/8+n+3*n^2/2+n^3+n^4/4-sin(n*Pi/2).
[A213827] 2, 21, 90, 260, 600, 1197, 2156, 3600, 5670, 8525, 12342, 17316, 23660, 31605, 41400, 53312, 67626, 84645, 104690, 128100, 155232, 186461, 222180, 262800, 308750, 360477, 418446, 483140, 555060, 634725
a(n) = (1/4)*(n+1)*(3*n+1)*n^2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = sum(i*(n^2+i^2), i=1..n). [Bruno Berselli, Aug 25 2014]
[A152995] 0, 2, 22, 60, 116, 190, 282, 392, 520, 666, 830, 1012, 1212, 1430, 1666, 1920, 2192, 2482, 2790, 3116, 3460, 3822, 4202, 4600, 5016, 5450, 5902, 6372, 6860, 7366, 7890, 8432, 8992, 9570, 10166, 10780, 11412, 12062, 12730, 13416, 14120
a(n) = a(n-1) + 18*n - 16 (with a(0)=0). - Vincenzo Librandi, Nov 27 2010
a(0)=0, a(1)=2, a(2)=22, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Nov 02 2011
[A273366] 2, 22, 62, 122, 202, 302, 422, 562, 722, 902, 1102, 1322, 1562, 1822, 2102, 2402, 2722, 3062, 3422, 3802, 4202, 4622, 5062, 5522, 6002, 6502, 7022, 7562, 8122, 8702, 9302, 9922, 10562, 11222, 11902, 12602, 13322, 14062, 14822, 15602
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A291915] 0, 0, 0, 2, 22, 82, 268, 742, 1902, 4562, 10452, 23068, 49432, 103364, 211764, 426354, 845626, 1655454, 3203876, 6137946, 11652946, 21944034, 41021256, 76174360, 140595760, 258061160, 471255240, 856536610, 1550048766, 2793774026, 5016560956, 8976350894
a(n) = 4*a(n-1) - 2*a(n-2) - 8*a(n-3) + 5*a(n-4) + 8*a(n-5) - 2*a(n-6) - 4*a(n-7) - a(n-8).
[A212894] 0, 2, 22, 92, 246, 520, 950, 1572, 2422, 3536, 4950, 6700, 8822, 11352, 14326, 17780, 21750, 26272, 31382, 37116, 43510, 50600, 58422, 67012, 76406, 86640, 97750, 109772, 122742, 136696, 151670, 167700, 184822, 203072, 222486, 243100
a(n) = 2*(n-1)*(3*n^2-3*n+5) with n>1, a(0)=0, a(1)=2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>=6.
[A286778] 0, 2, 22, 142, 734, 3390, 14718, 61694, 253438, 1029118, 4151294, 16683006, 66904062, 267993086, 1072791550, 4292935678, 17175543806, 68710301694, 274858508286, 1099470733310, 4397960527870, 17592005689342, 70368366690302, 281474188181502, 1125898262675454, 4503596204818430, 1801439139594
a(n) = Sum_(d=1..n} 2^d*(2^(n+1-d)-1)^2.
a(n) = 4*2^(2*n) - (4*n+2)*2^n - 2.
a(n) = 9*a(n-1) - 28*a(n-2) + 36*a(n-3) - 16*a(n-4) for n>3. - Colin Barker, Jul 05 2017
[A282819] 0, 0, 2, 22, 152, 680, 2270, 6202, 14672, 31152, 60810, 110990, 191752, 316472, 502502, 771890, 1152160, 1677152, 2387922, 3333702, 4572920, 6174280, 8217902, 10796522, 14016752, 18000400, 22885850, 28829502, 36007272, 44616152, 54875830, 67030370, 81349952
a(n) = n*(n-1)*(n^4-2*n^3+n^2+8)/12.
[A000184] 2, 22, 164, 1030, 5868, 31388, 160648, 795846, 3845020, 18211380, 84876152, 390331292, 1775032504, 7995075960, 35715205136, 158401506118, 698102372988, 3059470021316, 13341467466520, 57918065919924, 250419305769512, 1078769490401032, 4631680461623664, 19825379450255900, 84622558822506328, 360270317908904328, 1530148541536781488, 6484511936352543096, 27423786092731382000, 115756362341775227888
a(n) = 4^n*GAMMA(n+3/2)/(3*sqrt(Pi)*GAMMA(n)) - n*4^(n-1). - Mark van Hoeij, Jul 06 2010
[A131464] 2, 23, 86, 215, 434, 767, 1238, 1871, 2690, 3719, 4982, 6503, 8306, 10415, 12854, 15647, 18818, 22391, 26390, 30839, 35762, 41183, 47126, 53615, 60674, 68327, 76598, 85511, 95090, 105359, 116342, 128063, 140546, 153815, 167894, 182807, 198578, 215231, 232790
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Feb 12 2013
[A270868] 2, 23, 92, 263, 614, 1247, 2288, 3887, 6218, 9479, 13892, 19703, 27182, 36623, 48344, 62687, 80018, 100727, 125228, 153959, 187382, 225983, 270272, 320783, 378074, 442727, 515348, 596567, 687038, 787439, 898472, 1020863, 1155362, 1302743, 1463804, 1639367
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
a(2*m) == 0 (mod 2).
a(4*m + 2) == 0 (mod 4).
[A041579] 1, 1, 2, 23, 117, 140, 537, 9269, 28344, 37613, 216409, 2418112, 2634521, 5052633, 174424043, 179476676, 353900719, 4072384585, 20715823644, 24788208229, 95080448331, 1641155829856, 5018547937899, 6659703767755, 38317066776674, 428147438311169
a(n) = 177058564*a(n-14) - a(n-28) for n>27. [Bruno Berselli, Dec 20 2013]
[A212759] 1, 2, 24, 32, 135, 162, 448, 512, 1125, 1250, 2376, 2592, 4459, 4802, 7680, 8192, 12393, 13122, 19000, 20000, 27951, 29282, 39744, 41472, 54925, 57122, 74088, 76832, 97875, 101250, 126976, 131072, 162129, 167042, 204120, 209952
a(n) = a(n-1)+4*a(n-2)-4*a(n-3)-6*a(n-4)+6*a(n-5)+4*a(n-6) -4*a(n-7) -a(n-8) +a(n-9).
a(n) = (n+1)*(2*n^3+9*n^2+15*n+9+(3*n^2+9*n+7)*(-1)^n)/16. - Luce ETIENNE, Sep 23 2015
[A152965] 0, 2, 24, 66, 128, 210, 312, 434, 576, 738, 920, 1122, 1344, 1586, 1848, 2130, 2432, 2754, 3096, 3458, 3840, 4242, 4664, 5106, 5568, 6050, 6552, 7074, 7616, 8178, 8760, 9362, 9984, 10626, 11288, 11970, 12672, 13394, 14136, 14898, 15680
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Jul 10 2012
[A172225] 0, 2, 24, 96, 260, 570, 1092, 1904, 3096, 4770, 7040, 10032, 13884, 18746, 24780, 32160, 41072, 51714, 64296, 79040, 96180, 115962, 138644, 164496, 193800, 226850, 263952, 305424, 351596, 402810, 459420, 521792, 590304
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Apr 30 2013
[A212568] 0, 0, 2, 24, 98, 272, 608, 1184, 2092, 3440, 5350, 7960, 11422, 15904, 21588, 28672, 37368, 47904, 60522, 75480, 93050, 113520, 137192, 164384, 195428, 230672, 270478, 315224, 365302, 421120, 483100, 551680, 627312, 710464, 801618
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
[A179824] 2, 24, 108, 320, 750, 1512, 2744, 4608, 7290, 11000, 15972, 22464, 30758, 41160, 54000, 69632, 88434, 110808, 137180, 168000, 203742, 244904, 292008, 345600, 406250, 474552, 551124, 636608, 731670, 837000, 953312, 1081344, 1221858
a(n) = n*(n-1)^3. - Jaime Soffer (jaime.soffer(AT)gmail.com), Jul 30 2010

a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Mar 12 2014
[A290775] 0, 0, 2, 24, 138, 532, 1596, 4032, 8988, 18216, 34254, 60632, 102102, 164892, 256984, 388416, 571608, 821712, 1156986, 1599192, 2174018, 2911524, 3846612, 5019520, 6476340, 8269560, 10458630, 13110552, 16300494, 20112428, 24639792, 29986176, 36266032, 43605408, 52142706
a(n) = 2/5 * binomial(n + 1, 4)*(8 - 7*n + 2*n^2).
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A035600] 0, 2, 24, 146, 608, 1970, 5336, 12642, 27008, 53154, 97880, 170610, 284000, 454610, 703640, 1057730, 1549824, 2220098, 3116952, 4298066, 5831520, 7796978, 10286936, 13408034, 17282432, 22049250, 27866072, 34910514, 43381856, 53502738, 65520920, 79711106
a(n)= (4*n^6 +40*n^4 +46*n^2)/45. - Frank Ellermann, Mar 16 2002
[A288443] 2, 24, 160, 896, 4608, 22528, 106496, 491520, 2228224, 9961472, 44040192, 192937984, 838860800, 3623878656, 15569256448, 66571993088, 283467841536, 1202590842880, 5085241278464, 21440476741632, 90159953477632, 378231999954944, 1583296743997440, 6614661952700416, 27584547717644288, 114841790497947648
a(n) = (2n + 1)*2^(2n + 1).
[A157053] 2, 24, 162, 780, 2970, 9492, 26474, 66222, 151560, 322190, 643632, 1219374, 2206932, 3838590, 6447660, 10501172, 16639974, 25727292, 38906870, 57671880, 83945862, 120177024, 169447302, 235597650, 323371100, 438575202, 588265524, 780951962, 1026829680
a(n) = T(n,4); T(n,k) = sum {i=1..n} binomial(n+1,i)*binomial(k-1,i-1)*binomial(n-i+k,k).
a(n) = n(n+1)(n^2+n+6)(n^4+2n^3+23n^2+22n+24)/576. - Bruno Berselli, Mar 17 2012
[A041723] 1, 1, 2, 25, 27, 52, 2003, 2055, 4058, 50751, 54809, 105560, 4066089, 4171649, 8237738, 103024505, 111262243, 214286748, 8254158667, 8468445415, 16722604082, 209139694399, 225862298481, 435001992880, 16755938027921, 17190940020801, 33946878048722
a(n) = 2030*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 23 2013
[A152997] 0, 2, 26, 72, 140, 230, 342, 476, 632, 810, 1010, 1232, 1476, 1742, 2030, 2340, 2672, 3026, 3402, 3800, 4220, 4662, 5126, 5612, 6120, 6650, 7202, 7776, 8372, 8990, 9630, 10292, 10976, 11682, 12410, 13160, 13932, 14726, 15542
a(n) = a(n-1) + 22*n - 20 (with a(0)=0). - Vincenzo Librandi, Nov 27 2010
[A280089] 1, 2, 27, 100, 245, 486, 847, 1352, 2025, 2890, 3971, 5292, 6877, 8750, 10935, 13456, 16337, 19602, 23275, 27380, 31941, 36982, 42527, 48600, 55225, 62426, 70227, 78652, 87725, 97470, 107911, 119072, 130977, 143650, 157115, 171396, 186517, 202502, 219375
a(n) = (2n - 1)^2 * (n + 1).
[A041801] 1, 1, 2, 27, 137, 164, 629, 793, 2215, 3008, 5223, 8231, 21685, 203396, 225081, 1778963, 5561970, 18464873, 42491716, 103448305, 352836631, 1161958198, 8486544017, 9648502215, 95323063952, 200294630119, 295617694071, 495912324190, 791530018261, 2078972360712
a(n) = 880848913936428 36*a(n-37) + a(n-74) for n>73. - Vincenzo Librandi, Dec 24 2013
[A166942] 2, 27, 148, 509, 1350, 3031, 6056, 11097, 19018, 30899, 48060, 72085, 104846, 148527, 205648, 279089, 372114, 488395, 632036, 807597, 1020118, 1275143, 1578744, 1937545, 2358746, 2850147, 3420172, 4077893, 4833054, 5696095
a(n) = (n^5 + 10n^4 + 35n^3 + 50n^2 + 29n + 10)/5. - Charles R Greathouse IV, Nov 02 2009
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5)+24 for n > 4; a(0)=2, a(1)=27, a(2)=148, a(3)=509, a(4)=1350. - Klaus Brockhaus, Nov 14 2009
[A213829] 2, 28, 114, 296, 610, 1092, 1778, 2704, 3906, 5420, 7282, 9528, 12194, 15316, 18930, 23072, 27778, 33084, 39026, 45640, 52962, 61028, 69874, 79536, 90050, 101452, 113778, 127064, 141346, 156660, 173042
a(n) = 2*(n - 3*n^2 + 3*n^3).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A006332] 0, 2, 28, 168, 660, 2002, 5096, 11424, 23256, 43890, 77924, 131560, 212940, 332514, 503440, 742016, 1068144, 1505826, 2083692, 2835560, 3801028, 5026098, 6563832, 8475040, 10829000, 13704210, 17189172, 21383208, 26397308, 32355010
a(n) = (n*(1 + n)^2*(2 + n)*(1 + 2*n)*(3 + 2*n))/90.
[A035601] 0, 2, 28, 198, 952, 3530, 10836, 28814, 68464, 148626, 299660, 568150, 1022760, 1761370, 2919620, 4680990, 7288544, 11058466, 16395516, 23810534, 33940120, 47568618, 65652532, 89347502, 120037968, 159369650, 209284972
a(n)= (8*n^6 +4*5*7*n^4 +8*7*7*n^2 +2*5*9)*n/(5*7*9). - Frank Ellermann, Mar 16 2002
[A140152] 1, 2, 29, 30, 155, 156, 499, 500, 1229, 1230, 2561, 2562, 4759, 4760, 8135, 8136, 13049, 13050, 19909, 19910, 29171, 29172, 41339, 41340, 56965, 56966, 76649, 76650, 101039, 101040, 130831, 130832, 166769, 166770, 209645, 209646, 260299
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^3+{[1+(-1)^n]/2}, with a(1)=1 a(n)= (-5/16)+(5/16)*(-1)^n-(1/4)*(-1)^n*n^3+(1/4)*n^3-(3/8)*(-1)^n*n^2+(1/8)*n^2+(1/2)*n+(1/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
a(n)=a(n-1)+4a(n-2)-4a(n-3)-6a(n-4)+6a(n-5)+4a(n-6)-4a(n-7)-a(n-8)+a(n-9). G.f.: x*(-1-x-23*x^2+3*x^3-23*x^4-3*x^5-x^6+x^7)/((1+x)^4*(x-1)^5). [From R. J. Mathar, Feb 22 2009]
[A041969] 1, 1, 2, 29, 31, 60, 2671, 2731, 5402, 78359, 83761, 162120, 7217041, 7379161, 14596202, 211725989, 226322191, 438048180, 19500442111, 19938490291, 39438932402, 572083543919, 611522476321, 1183606020240, 52690187366881, 53873793387121, 106563980754002
a(n) = 2702*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 28 2013
[A157870] 2, 30, 90, 182, 306, 462, 650, 870, 1122, 1406, 1722, 2070, 2450, 2862, 3306, 3782, 4290, 4830, 5402, 6006, 6642, 7310, 8010, 8742, 9506, 10302, 11130, 11990, 12882, 13806, 14762, 15750, 16770, 17822, 18906, 20022, 21170, 22350, 23562, 24806, 26082, 27390, 28730, 30102, 31506, 32942
a(n) = 3*a(n-1) -3 *a(n-2) + a(n-3). - Vincenzo Librandi, Jul 10 2012
[A078838] 0, 2, 30, 120, 630, 1122, 2760, 3978, 7392, 15498, 19140, 33390, 46020, 53382, 70380, 102102, 142158, 157530, 210210, 251160, 273492, 348348, 405162, 501468, 652080, 737550, 782952, 879270, 930258, 1038072, 1480500, 1626690, 1863540
a(n)=(1/4)* (3*prime(n)-5)*(prime(n)-2)*(prime(n)-1)
[A157054] 2, 30, 252, 1500, 7002, 27174, 91112, 271224, 731502, 1815506, 4197468, 9129276, 18827718, 37060506, 70006512, 127485584, 224676522, 384468534, 640622012, 1041949020, 1657762722, 2584888350, 3956576472, 5953712520, 8818775030, 12873059082, 18537751260
a(n)=T(n,5); T(n,k)=sum({i=1..n}binomial(n+1,i)*binomial(k-1,i-1)*binomial(n-i+k,k)).
[A247099] 0, 1, 2, 31, 32, 33, 64, 211, 242, 243, 244, 275, 486, 781, 992, 1023, 1024, 1025, 1056, 1267, 2048, 2101, 2882, 3093, 3124, 3125, 3126, 3157, 3368, 4149, 4651, 6250, 6752, 7533, 7744, 7775, 7776, 7777, 7808, 8019, 8800, 9031, 10901, 13682, 15552, 15783, 15961
a(n) « n^(5/2). Can this be improved?
[A212569] 0, 1, 2, 31, 96, 321, 690, 1471, 2576, 4465, 6930, 10671, 15312, 21841, 29666, 40111, 52320, 68001, 85986, 108415, 133760, 164641, 199122, 240351, 285936, 339601, 398450, 466831, 541296, 626865, 719490, 824911, 938432, 1066561
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
a(n) = ((n-1)*n*(2*n*(2*n-5)-3*(-1)^n+11)-2*(-1)^n+2)/4. - Todd Silvestri, Nov 16 2014
[A004842] 0, 1, 2, 32, 33, 64, 243, 244, 275, 486, 1024, 1025, 1056, 1267, 2048, 3125, 3126, 3157, 3368, 4149, 6250, 7776, 7777, 7808, 8019, 8800, 10901, 15552, 16807, 16808, 16839, 17050, 17831, 19932, 24583, 32768, 32769, 32800, 33011, 33614, 33792, 35893, 40544
a(n) « n^(5/2). - Charles R Greathouse IV, Nov 30 2014
[A244730] 0, 2, 32, 162, 512, 1250, 2592, 4802, 8192, 13122, 20000, 29282, 41472, 57122, 76832, 101250, 131072, 167042, 209952, 260642, 320000, 388962, 468512, 559682, 663552, 781250, 913952, 1062882, 1229312, 1414562, 1620000, 1847042, 2097152, 2371842, 2672672
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4.
[A169833] 2, 32, 170, 596, 1690, 4232, 9802, 21580, 45946, 95680, 196362, 399172, 806490, 1623096, 3258570, 6532092, 13082042, 26185200, 52395146, 104819060, 209671322, 419380712, 838804810, 1677658796, 3355373050, 6710808352, 13421686282, 26843450020, 53686985946
a(n)-6*a(n-1)+14*a(n-2)-16*a(n-3)+9*a(n-4)-2*a(n-5) = 0, with n>4. (End)
[A228582] 0, 0, 0, 0, 0, 2, 32, 198, 868, 2860, 7984, 19380, 42696, 86526, 164560, 296010, 509132, 841464, 1345184, 2086920, 3155472, 4660890, 6745152, 9580142, 13381940, 18407268, 24972112, 33446140, 44276440, 57979350, 75170160, 96551730
a(n) = (1/4)*(binomial(2*n, 7) + 2*binomial(n-1, 3)*(1/2)*(1-(-1)^n)) = (n-3)*(n-2)*(n-1)(2*n*(2n-5)*(2*n-3)*(2*n-1)-105*(-1)^n+105)/2520.
[A008512] 2, 32, 242, 992, 2882, 6752, 13682, 24992, 42242, 67232, 102002, 148832, 210242, 288992, 388082, 510752, 660482, 840992, 1056242, 1310432, 1608002, 1953632, 2352242, 2808992, 3329282, 3918752
a(n) = (n+1)^5-(n-1)^5.
[A002561] 0, 1, 2, 33, 244, 1025, 3126, 7777, 16808, 32769, 59050, 100001, 161052, 248833, 371294, 537825, 759376, 1048577, 1419858, 1889569, 2476100, 3200001, 4084102, 5153633, 6436344, 7962625, 9765626, 11881377

a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), n>4. - Harvey P. Dale, Aug 13 2013
[A294272] 0, 2, 33, 308, 1300, 4668, 12201, 30032, 61776, 123950, 220825, 389652, 630708, 1018808, 1539825, 2331968, 3347776, 4826682, 6657201, 9233300, 12333300, 16578452, 21571033, 28256208, 35970000, 46106918, 57617001, 72503732, 89176276, 110446800, 133987425
a(n) = Sum_{i=1..floor(n/2)} i^5 + (n-i)^5.
a(n) = (1/192)*(n^2*(-16 + 80*n^2 + 3*(-31 + (-1)^n)*n^3 + 32*n^4)).
a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) - 15*a(n-4) + 15*a(n-5) + 20*a(n-6) - 20*a(n-7) - 15*a(n-8) + 15*a(n-9) + 6*a(n-10) - 6*a(n-11) - a(n-12) + a(n-13) for n>13.
[A263226] 0, 2, 34, 96, 188, 310, 462, 644, 856, 1098, 1370, 1672, 2004, 2366, 2758, 3180, 3632, 4114, 4626, 5168, 5740, 6342, 6974, 7636, 8328, 9050, 9802, 10584, 11396, 12238, 13110, 14012, 14944, 15906, 16898, 17920, 18972, 20054, 21166, 22308, 23480, 24682, 25914
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Oct 13 2015
[A213826] 2, 34, 132, 332, 670, 1182, 1904, 2872, 4122, 5690, 7612, 9924, 12662, 15862, 19560, 23792, 28594, 34002, 40052, 46780, 54222, 62414, 71392, 81192, 91850, 103402, 115884, 129332, 143782, 159270, 175832
a(n) = -n - 3*n^2 + 6*n*3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A259108] 0, 2, 34, 196, 708, 1958, 4550, 9352, 17544, 30666, 50666, 79948, 121420, 178542, 255374, 356624, 487696, 654738, 864690, 1125332, 1445332, 1834294, 2302806, 2862488, 3526040, 4307290, 5221242, 6284124, 7513436, 8927998, 10547998, 12395040, 14492192, 16864034, 19536706
a(n) = -n/15+(2*n^3)/3+n^4+(2*n^5)/5. - Colin Barker, Jun 28 2015
[A263689] 1, 1, 2, 34, 277, 1301, 4426, 12202, 29009, 61777, 120826, 220826, 381877, 630709, 1002002, 1539826, 2299201, 3347777, 4767634, 6657202, 9133301, 12333301, 16417402, 21571034, 28007377, 35970001, 45735626, 57617002, 71965909, 89176277, 109687426, 133987426, 162616577, 196171009, 235306402, 280741826
a(n + 1) = a(n) + n^5, a(0) = 1.
[A042459] 1, 1, 2, 35, 37, 220, 1137, 1357, 24206, 25563, 49769, 2713089, 2762858, 5475947, 95853957, 101329904, 602503477, 3113847289, 3716350766, 66291810311, 70008161077, 136299971388, 7430206616029, 7566506587417, 14996713203446, 262510631045999, 277507344249445
a(n) = 2738652*a(n-11) + a(n-22) for n>21. - Vincenzo Librandi, Jan 22 2014
[A257601] 2, 35, 100, 210, 380, 627, 970, 1430, 2030, 2795, 3752, 4930, 6360, 8075, 10110, 12502, 15290, 18515, 22220, 26450, 31252, 36675, 42770, 49590, 57190, 65627, 74960, 85250, 96560, 108955, 122502, 137270, 153330, 170755, 189620, 210002, 231980, 255635, 281050, 308310, 337502
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Jun 08 2015
[A193576] 2, 35, 243, 1064, 3500, 9477, 22295, 47168, 91854, 167375, 288827, 476280, 755768, 1160369, 1731375, 2519552, 3586490, 5006043, 6865859, 9269000, 12335652, 16204925, 21036743, 27013824, 34343750, 43261127, 54029835, 66945368, 82337264, 100571625, 122053727
a(n) = (n^3*(n^3+3*n^2+3*n+9)/8) = (1/8)*(n+3)*(n^2+3)*n^3
[A089660] 0, 2, 35, 276, 1522, 6820, 26664, 94640, 312512, 975744, 2913280, 8386048, 23416320, 63724544, 169637888, 443043840, 1137934336, 2879979520, 7194083328, 17761304576, 43390730240, 104997322752, 251881062400, 599482433536, 1416470986752, 3324615065600
a(n) = n*(15*n^3+30*n^2+21*n-2)*2^(n-6). [R. J. Mathar, Sep 16 2009]
a(n) = 10*a(n-1) - 40*a(n-2) + 80*a(n-3) - 80*a(n-4) + 32*a(n-5) for n > 4. - Chai Wah Wu, Jun 21 2016
[A099903] 2, 36, 216, 800, 2250, 5292, 10976, 20736, 36450, 60500, 95832, 146016, 215306, 308700, 432000, 591872, 795906, 1052676, 1371800, 1764000, 2241162, 2816396, 3504096, 4320000, 5281250, 6406452, 7715736, 9230816, 10975050, 12973500
a(n) = Sum[Sum[(i^3 + j^3), {i, 1, n}], {j, 1, n}].
a(n) = 2*n*sum(k^3, k=1..n). - Gary Detlefs, Oct 26 2011
a(n) = (n^5 + 2*n^4 + n^3)/2. - Charles R Greathouse IV, Oct 27 2011
[A157055] 2, 36, 362, 2570, 14240, 65226, 256508, 889716, 2777370, 7925720, 20934474, 51697802, 120353324, 265953170, 561075720, 1135620536, 2214405618, 4175000796, 7634582090, 13577591370, 23539760552, 39868752506, 66087441092, 107392877100, 171332460650, 268708978512
a(n)=T(n,6); T(n,k)=sum({i=1..n}binomial(n+1,i)*binomial(k-1,i-1)*binomial(n-i+k,k))
[A042683] 1, 1, 2, 39, 197, 236, 1377, 1613, 4603, 6216, 10819, 17035, 27854, 44889, 72743, 117632, 308007, 425639, 2436202, 2861841, 16745407, 321024574, 337769981, 658794555, 38547854171, 39206648726, 77754502897, 1516542203769, 7660465521742, 9177007725511
a(n) = 38885624152*a(n-24) - a(n-48) for n>47. - Vincenzo Librandi, Jan 26 2014
[A042923] 1, 1, 2, 41, 43, 84, 5251, 5335, 10586, 217055, 227641, 444696, 27798793, 28243489, 56042282, 1149089129, 1205131411, 2354220540, 147166804891, 149521025431, 296687830322, 6083277631871, 6379965462193, 12463243094064, 779101037294161, 791564280388225
a(n) = 5294*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Feb 01 2014
[A007533] 2, 41, 130, 269, 458, 697, 986, 1325, 1714, 2153, 2642, 3181, 3770, 4409, 5098, 5837, 6626, 7465, 8354, 9293, 10282, 11321, 12410, 13549, 14738, 15977, 17266, 18605, 19994, 21433, 22922, 24461, 26050, 27689, 29378
a(n) = 25n^2+14n+2. G.f.: (2+35*x+13*x^2)/(1-x)^3. - Bruno Berselli, Dec 11 2011
[A287335] 2, 41, 170, 443, 914, 1637, 2666, 4055, 5858, 8129, 10922, 14291, 18290, 22973, 28394, 34607, 41666, 49625, 58538, 68459, 79442, 91541, 104810, 119303, 135074, 152177, 170666, 190595, 212018, 234989, 259562, 285791, 313730, 343433, 374954, 408347, 443666, 480965
a(n) = 9*n^3 - 9*n^2 + 3*n - 1.
[A242856] 2, 44, 224, 686, 1622, 3272, 5924, 9914, 15626, 23492, 33992, 47654, 65054, 86816, 113612, 146162, 185234, 231644, 286256, 349982, 423782, 508664, 605684, 715946, 840602, 980852, 1137944, 1313174, 1507886, 1723472, 1961372, 2223074, 2510114, 2824076, 3166592
a(n) = 2*n^4 - 4*n^3 - 5*n^2 + 13*n - 4.
[A019579] 2, 45, 160, 375, 756, 1372, 2304, 3645, 5500, 7986, 11232, 15379, 20580, 27000, 34816, 44217, 55404, 68590, 84000, 101871, 122452, 146004, 172800, 203125, 237276, 275562, 318304, 365835, 418500, 476656, 540672, 610929, 687820, 771750, 863136, 962407
a(n) = n(n-1)^3/2, n >= 5.
[A128822] 2, 47, 206, 551, 1154, 2087, 3422, 5231, 7586, 10559, 14222, 18647, 23906, 30071, 37214, 45407, 54722, 65231, 77006, 90119, 104642, 120647, 138206, 157391, 178274, 200927, 225422, 251831, 280226, 310679, 343262, 378047, 415106, 454511, 496334
a(n)=12*n^3-15*n^2+6*n-1 .
[A101362] 0, 2, 48, 324, 1280, 3750, 9072, 19208, 36864, 65610, 110000, 175692, 269568, 399854, 576240, 810000, 1114112, 1503378, 1994544, 2606420, 3360000, 4278582, 5387888, 6716184, 8294400, 10156250, 12338352, 14880348, 17825024, 21218430, 25110000, 29552672
a(n) + 6*sum(i=1..n, i^3) + 4*sum(i=1..n, i^2) + sum(i=1..n, i) = 5*sum(i=1..n, i^4).
[A231654] 0, 0, 2, 48, 526, 3450, 16536, 63104, 204202, 580669, 1491096, 3520768, 7754502, 16098425, 31770760, 59998736, 109022244, 191454654, 326158974, 540703008, 874630262, 1383621756, 2144889472, 3263884272, 4882793214, 7190910467, 10437526372, 14947411024
a(n) = (n^10 + 5*n^9 - 10*n^8 - 70*n^7 + 25*n^6 + 584*n^5 - 420*n^4 - 480*n^3 - 1216*n^2 + 1536*n + B)/23040 where B = 375*n^4 - 1170*n^3 + 210*n^2 - 405*n + 1035 if n odd, and B = 0 if n even.
[A212889] 1, 2, 53, 104, 349, 594, 1273, 1952, 3401, 4850, 7501, 10152, 14533, 18914, 25649, 32384, 42193, 52002, 65701, 79400, 97901, 116402, 140713, 165024, 196249, 227474, 266813, 306152, 354901, 403650, 463201, 522752, 594593, 666434
a(n)=2a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A212242] 1, 2, 53, 204, 625, 1556, 3357, 6558, 11809, 20000, 32211, 49762, 74263, 107564, 151875, 209716, 283967, 377918, 495219, 640000, 816821, 1030722, 1287273, 1592524, 1953125, 2376276, 2869777, 3442078, 4102229, 4860000, 5725831
a(n)=5a(n-1)-10a(n-2)+10a(n-3)-5a(n-4)+2a(n-5)-5a(n-6)+10a(n-7)-10a(n-8)+5a(n-9)-a(n-10).
[A157262] 2, 55, 180, 377, 646, 987, 1400, 1885, 2442, 3071, 3772, 4545, 5390, 6307, 7296, 8357, 9490, 10695, 11972, 13321, 14742, 16235, 17800, 19437, 21146, 22927, 24780, 26705, 28702, 30771, 32912, 35125, 37410, 39767, 42196, 44697, 47270
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 27 2012
[A045819] 2, 56, 252, 688, 1514, 2664, 4396, 7056, 9828, 13720, 19264, 24336, 31502, 40880, 48780, 59584, 74592, 86688, 101308, 123088, 137844, 159016, 190764, 207648, 235986, 275184, 297756, 335664, 384160, 410760, 453964, 520816, 553896, 601528
a(n) = 2*sigma_3(2n-1). - Benoit Cloitre, Apr 12 2003
[A294273] 0, 2, 65, 858, 4890, 21244, 67171, 188916, 446964, 994030, 1978405, 3796622, 6735950, 11680408, 19092295, 30745064, 47260136, 71929146, 105409929, 153455810, 216455810, 303993492, 415601835, 566623708, 754740700, 1003708134, 1307797101, 1702747126

a(n) = Sum_{i=1..floor(n/2)} i^6 + (n-i)^6.
a(n) = (n/42 - n^3/6 + n^5/2 + 1/128*(-63 + (-1)^n)*n^6 + n^7/7).
a(n) = a(n-1) + 7*a(n-2) - 7*a(n-3) - 21*a(n-4) + 21*a(n-5) + 35*a(n-6) - 35*a(n-7) - 35*a(n-8) + 35*a(n-9) + 21*a(n-10) - 21*a(n-11) - 7*a(n-12) + 7*a(n-13) + a(n-14) - a(n-15) for n>15.
[A131472] 0, 2, 66, 732, 4100, 15630, 46662, 117656, 262152, 531450, 1000010, 1771572, 2985996, 4826822, 7529550, 11390640, 16777232, 24137586, 34012242, 47045900, 64000020, 85766142, 113379926, 148035912, 191103000, 244140650, 308915802
a(0)=0, a(1)=2, a(2)=66, a(3)=732, a(4)=4100, a(5)=15630, a(6)=46662, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) [From Harvey P. Dale, May 03 2012]
[A259317] 0, 2, 70, 588, 2772, 9438, 26026, 61880, 131784, 257754, 471086, 814660, 1345500, 2137590, 3284946, 4904944, 7141904, 10170930, 14202006, 19484348, 26311012, 35023758, 46018170, 59749032, 76735960, 97569290, 122916222, 153527220, 190242668, 233999782
a(n) = (n*(1+2*n)^2*(-3+n+8*n^2+4*n^3))/45. - Colin Barker, Jun 28 2015
[A157368] 2, 71, 238, 503, 866, 1327, 1886, 2543, 3298, 4151, 5102, 6151, 7298, 8543, 9886, 11327, 12866, 14503, 16238, 18071, 20002, 22031, 24158, 26383, 28706, 31127, 33646, 36263, 38978, 41791, 44702, 47711, 50818, 54023, 57326, 60727, 64226
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A163274] 0, 2, 72, 648, 3200, 11250, 31752, 76832, 165888, 328050, 605000, 1054152, 1752192, 2798978, 4321800, 6480000, 9469952, 13530402, 18948168, 26064200, 35280000, 47064402, 61960712, 80594208, 103680000, 132031250, 166567752, 208324872
a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). G.f.: -2*x*(1+29*x+93*x^2+53*x^3+4*x^4)/(x-1)^7 . - R. J. Mathar, Jul 29 2009
[A061994] 0, 0, 0, 0, 2, 82, 982, 7002, 34568, 131248, 412596, 1123832, 2739386, 6106214, 12654614, 24675650, 45704724, 80999104, 138170148, 227938788, 365106738, 569681574, 868289594, 1295775946, 1897176508, 2729909796
a(n) = n^8/24 - 5n^7/6 + 65n^6/9 - 1051n^5/30 + 817n^4/8 - 19103n^3/108 + 3989n^2/24 - 18131n/270 + 253/54 + (n^3/4 - 21n^2/8 + 7n - 7/2)*(-1)^n + 32*(n - 1)/27*cos(2*Pi*n/3) + 40/81*sqrt(3)*sin(2*Pi*n/3). - Vaclav Kotesovec, Feb 11 2010
[A140157] 1, 2, 83, 84, 709, 710, 3111, 3112, 9673, 9674, 24315, 24316, 52877, 52878, 103503, 103504, 187025, 187026, 317347, 317348, 511829, 511830, 791671, 791672, 1182297, 1182298, 1713739, 1713740, 2421021, 2421022, 3344543, 3344544, 4530465
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^4+{[1+(-1)^n]/2}, with a(1)=1 a(n)= (-1/4)+(1/4)*(-1)^n*n+(1/4)*(-1)^n-(1/2)*(-1)^n*n^3+(1/6)*n^3+(29/60)*n+(1/10)*n^5-(1/4)*(-1)^n *n^4+(1/4)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A278684] 0, 0, 2, 99, 2102, 19987, 124676, 571418, 2122841, 6704061, 18711691, 47235845, 109938296, 238950999, 490309398, 957267228, 1790325363, 3224010105, 5615368229, 9493358359, 15627413290, 25112609019, 39484650296, 60859027054, 92114682749, 137111560949, 200972392655
a(n) = (n^10 - 50*n^8 + 80*n^7 + 955*n^6 - 2828*n^5 - 7090*n^4 + 36860*n^3 - 10856*n^2 - 133712*n + 161280 + ((1-(-1)^n)/2)*(52*n^5 - 145*n^4 - 580*n^3 + 2320*n^2 - 1152*n - 15))/960 for n >= 4.
a(n) = 5*a(n-1) - 4*a(n-2) - 20*a(n-3) + 40*a(n-4) + 16*a(n-5) - 100*a(n-6) + 44*a(n-7) + 110*a(n-8) - 110*a(n-9) - 44*a(n-10) + 100*a(n-11) - 16*a(n-12) - 40*a(n-13) + 20*a(n-14) + 4*a(n-15) - 5*a(n-16) + a(n-17) for n >= 21.
[A258806] 1, 2, 129, 2188, 16385, 78126, 279937, 823544, 2097153, 4782970, 10000001, 19487172, 35831809, 62748518, 105413505, 170859376, 268435457, 410338674, 612220033, 893871740, 1280000001, 1801088542, 2494357889, 3404825448, 4586471425, 6103515626, 8031810177
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
a(n) = (n + 1)*(n^6 - n^5 + n^4 - n^3 + n^2 - n + 1).
[A294274] 0, 2, 129, 2444, 18700, 99012, 376761, 1216688, 3297456, 8158550, 18080425, 37847532, 73399404, 136971464, 241561425, 414517952, 680856256, 1095977898, 1703414961, 2607286700, 3877286700, 5697862412, 8172733129, 11613390384, 16164030000, 22330294142
a(n) = Sum_{i=1..floor(n/2)} i^7 + (n-i)^7.
a(n) = a(n-1) + 8*a(n-2) - 8*a(n-3) - 28*a(n-4) + 28*a(n-5) + 56*a(n-6) - 56*a(n-7) - 70*a(n-8) + 70*a(n-9) + 56*a(n-10) - 56*a(n-11) - 28*a(n-12) + 28*a(n-13) + 8*a(n-14) - 8*a(n-15) - a(n-16) + a(n-17) for n>17.
[A259109] 0, 2, 130, 1588, 9780, 41030, 134342, 369640, 893928, 1956810, 3956810, 7499932, 13471900, 23125518, 38184590, 60965840, 94520272, 142795410, 210819858, 304911620, 432911620, 604443862, 831203670, 1127275448, 1509481400, 1997762650, 2615594202, 3390435180
a(n) = n/21-n^3/3+n^5+n^6+(2*n^7)/7. - Colin Barker, Jun 28 2015
[A202107] 2, 162, 2592, 20000, 101250, 388962, 1229312, 3359232, 8201250, 18301250, 37949472, 74030112, 137149922, 243101250, 414720000, 684204032, 1095962562, 1710072162, 2606420000, 3889620000, 5694792642, 8194304162, 11605565952, 16200000000, 22313281250, 30356972802
a(n) = 2*sum(k, k=1..n)^4 = sum(k^5 + k^7, k=1..n).
[A259319] 2, 164, 1414, 6216, 19338, 48620, 105742, 206992, 374034, 634676, 1023638, 1583320, 2364570, 3427452, 4842014, 6689056, 9060898, 12062148, 15810470, 20437352, 26088874, 32926476, 41127726, 50887088, 62416690, 75947092, 91728054, 110029304, 131141306, 155376028
a(n) = (2*n*(7-40*n^2+48*n^4))/15. - Colin Barker, Jun 29 2015
[A140162] 1, 2, 245, 246, 3371, 3372, 20179, 20180, 79229, 79230, 240281, 240282, 611575, 611576, 1370951, 1370952, 2790809, 2790810, 5266909, 5266910, 9351011, 9351012, 15787355, 15787356, 25552981, 25552982, 39901889, 39901890, 60413039
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^5+{[1+(-1)^n]/2}, with a(1)=1 a(n)= (-1/8)+(1/8)*(-1)^n+(5/8)*(-1)^n*n^2-(1/24)*n^2+(1/2)*n+(1/12)*n^6-(1/4)*(-1)^n*n^5+(1/4)*n^5-(5/8)*(-1)^n*n^4+(5/24)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A259323] 2, 1460, 32710, 268008, 1330890, 4874012, 14527630, 37308880, 85584018, 179675780, 351208022, 647279800, 1135561050, 1910402028, 3100048670, 4875056032, 7457991970, 11134523220, 16265976038, 23303463560, 32803672042, 45446398140, 62053929390, 83612360048, 111294934450, 146487510052
a(n) = 2*(n*(-31+196*n^2-336*n^4+192*n^6))/21. - Colin Barker, Jun 29 2015
[A023291] 2, 1487, 2207, 2927, 8807, 11117, 16187, 17657, 26357, 44927, 45377, 48497, 91757, 110237, 117167, 122327, 125387, 126107, 145007, 170927, 174527, 190787, 193847, 203897, 230567, 244247, 246017, 270287, 280547, 283937, 347957, 362237, 364337
a(n) = 17 (mod 30) for n > 1. - John Cerkan, Sep 23 2016
[A098528] 1, 1, 1, 3, 3, 3, 3, 7, 11, 15, 27, 39, 51, 63, 91, 135, 195, 303, 459, 663, 915, 1279, 1819, 2599, 3811, 5647, 8299, 11959, 17075, 24351, 34747, 49991, 72579, 105775, 153611, 221911, 319315, 458303, 658267, 948583, 1371683, 1986127, 2873771, 4151031
a(n)=a(n-1)+4a(n-7); a(n)=sum{k=0..floor(n/3), binomial(n-3k, floor(k/2))2^k}.
[A098524] 1, 1, 3, 3, 3, 7, 11, 23, 35, 47, 75, 119, 211, 351, 539, 839, 1315, 2159, 3563, 5719, 9075, 14335, 22971, 37223, 60099, 96399, 153739, 245623, 394515, 634911, 1020507, 1635463, 2617955, 4196015, 6735659, 10817687, 17359539, 27831359, 44615419
a(n)=a(n-1)+4a(n-5); a(n)=sum{k=0..floor(n/2), binomial(n-2k, floor(k/2))2^k}.
[A291407] 0, 0, 1, 3, 3, 3, 12, 30, 43, 57, 120, 259, 438, 708, 1360, 2703, 4827, 8276, 15114, 28488, 51769, 92031, 167334, 309341, 564237, 1016487, 1844115, 3374343, 6151563, 11151098, 20253876, 36931695, 67280308, 122243430, 222174201, 404488108, 736378968
a(n) = a(n-3) + 3*a(n-4) + 3*a(n-5) + 2*a(n-6) + 6*a(n-7) + 15*a(n-8) + 20*a(n-9) + 15*a(n-10) + 6*a(n-11) + a(n-12) for n >= 13.
[A073748] 3, 3, 3, 21, 77, 231, 819, 2769, 9301, 31571, 106763, 361045, 1221685, 4132743, 13980747, 47297217, 160004685, 541291715, 1831178355, 6194830005, 20956959933, 70896891079, 239842458947, 811381229009, 2744883043045, 9285872805715, 31413882695739, 106272403946805
a(0)=-3, a(1)=3, a(2)=3, a(3)=21, a(4)=77, a(5)=231, a(n) = 2*a(n-1) + 3*a(n-2) + 6*a(n-3) - a(n-4) - a(n-6). - Harvey P. Dale, Nov 18 2013
[A063197] 0, 1, 1, 3, 3, 4, 5, 6, 6, 8, 8, 9, 10, 11, 11, 13, 13, 14, 15, 16, 16, 18, 18, 19, 20, 21, 21, 23, 23, 24, 25, 26, 26, 28, 28, 29, 30, 31, 31, 33, 33, 34, 35, 36, 36, 38, 38, 39, 40, 41
a(n) = a(n-2)+a(n-3)-a(n-5). G.f.: x^2*(1 +x +2*x^2 +x^3)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A092200] 1, 3, 3, 4, 6, 6, 7, 9, 9, 10, 12, 12, 13, 15, 15, 16, 18, 18, 19, 21, 21, 22, 24, 24, 25, 27, 27, 28, 30, 30, 31, 33, 33, 34, 36, 36, 37, 39, 39, 40, 42, 42, 43, 45, 45, 46, 48, 48, 49, 51, 51, 52, 54, 54, 55, 57, 57, 58, 60, 60, 61, 63, 63, 64, 66, 66, 67, 69, 69, 70, 72, 72
a(0)=1, a(1)=3, a(2)=3, a(3)=4, a(n)=a(n-1)+a(n-3)-a(n-4). - Harvey P. Dale, Sep 15 2011
a(n)=n+1 when n+2 is not a multiple of 3, and a(n)=n+2 when n+2 is a multiple of 3. - Dennis P. Walsh, Aug 06 2012
[A130481] 0, 1, 3, 3, 4, 6, 6, 7, 9, 9, 10, 12, 12, 13, 15, 15, 16, 18, 18, 19, 21, 21, 22, 24, 24, 25, 27, 27, 28, 30, 30, 31, 33, 33, 34, 36, 36, 37, 39, 39, 40, 42, 42, 43, 45, 45, 46, 48, 48, 49, 51, 51, 52, 54, 54, 55, 57, 57, 58, 60, 60, 61, 63, 63, 64, 66, 66, 67, 69, 69, 70, 72, 72
a(n) = n+1-(Fibonacci(n+1) mod 2). - Gary Detlefs, Mar 13 2011
a(n) = [(n+1)/3]+[2(n+1)/3], where []=floor. - Clark Kimberling, May 28 2010
a(n) = n when n+1 is not a multiple of 3, and a(n) = n+1 when n+1 is a multiple of 3. - Dennis P. Walsh, Aug 06 2012
a(n) = n+1-sign((n+1) mod 3). - Wesley Ivan Hurt, Sep 25 2017

a(n) = n+(1-cos(2*(n+2)*Pi/3))/3+sin(2*(n+2)*Pi/3)/sqrt(3). - Wesley Ivan Hurt, Sep 27 2017
[A152949] 3, 3, 4, 6, 9, 13, 18, 24, 31, 39, 48, 58, 69, 81, 94, 108, 123, 139, 156, 174, 193, 213, 234, 256, 279, 303, 328, 354, 381, 409, 438, 468, 499, 531, 564, 598, 633, 669, 706, 744, 783, 823, 864, 906, 949, 993, 1038, 1084, 1131, 1179, 1228, 1278, 1329, 1381
a(n) = a(n-1) + n - 2 (with a(1)=3). [Vincenzo Librandi, Nov 27 2010]
[A051263] 1, 1, 1, 3, 3, 4, 7, 7, 9, 13, 14, 17, 22, 24, 28, 35, 38, 43, 52, 56, 63, 74, 79, 88, 101, 108, 119, 134, 143, 156, 174, 185, 200, 221, 234, 252, 276, 291, 312, 339, 357, 381, 411, 432, 459, 493, 517, 547, 585, 612, 646, 688, 718, 756, 802, 836, 878, 928, 966
a(-12 - n) = -a(n). a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) + a(n-5) - 2*a(n-6) + a(n-7) - 2*a(n-8) + 2*a(n-9) + a(n-11) - a(n-12). - Michael Somos, Mar 21 2003
[A049854] 1, 3, 3, 4, 8, 15, 26, 45, 79, 139, 244, 428, 751, 1318, 2313, 4059, 7123, 12500, 21936, 38495, 67554, 118549, 208039, 365083, 640676, 1124308, 1973023, 3462414, 6076113, 10662835, 18711971, 32837220, 57625304, 101125359
a(n)=2*a(n-1)-a(n-2)+a(n-3); 3 initial terms required.
[A045794] 1, 1, 1, 3, 3, 4, 9, 11, 13, 31, 37, 44, 105, 125, 149, 355, 423, 504, 1201, 1431, 1705, 4063, 4841, 5768, 13745, 16377, 19513, 46499, 55403, 66012, 157305, 187427, 223317, 532159, 634061, 755476, 1800281, 2145013, 2555757, 6090307, 7256527
a(n) = 3*a(n-3)+a(n-6)+a(n-9).
[A065678] 0, 1, 1, 1, 1, 3, 3, 4, 9, 11, 13, 31, 37, 44, 105, 125, 149, 355, 423, 504, 1201, 1431, 1705, 4063, 4841, 5768, 13745, 16377, 19513, 46499, 55403, 66012, 157305, 187427, 223317, 532159, 634061, 755476, 1800281, 2145013, 2555757, 6090307, 7256527
a(n) = 3*a(n-3)+a(n-6)+a(n-9).
[A130626] 3, 3, 4, 9, 21, 44, 87, 171, 340, 681, 1365, 2732, 5463, 10923, 21844, 43689, 87381, 174764, 349527, 699051, 1398100, 2796201, 5592405, 11184812, 22369623, 44739243, 89478484, 178956969, 357913941, 715827884, 1431655767, 2863311531
a(n)=3a(n-1)-3a(n-2)+2a(n-3). - Paul Curtz, Apr 24 2008
a(n)=(5/6)*[1/2-(1/2)*I*sqrt(3)]^n+(5/6)*[1/2+(1/2)*I*sqrt(3)]^n+(4/3)*2^n-(1/6)*I*[1/2-(1 /2)*I*sqrt(3)]^n*sqrt(3)+(1/6)*I*[1/2+(1/2)*I*sqrt(3)]^n*sqrt(3), with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 12 2008
[A063196] 0, 1, 3, 3, 5, 5, 7, 7, 9, 9, 11, 11, 13, 13, 15, 15, 17, 17, 19, 19, 21, 21, 23, 23, 25, 25, 27, 27, 29, 29, 31, 31, 33, 33, 35, 35, 37, 37, 39, 39, 41, 41, 43, 43, 45, 45, 47, 47, 49, 49, 51, 51, 53, 53, 55, 55, 57, 57, 59, 59, 61, 61, 63, 63, 65, 65, 67, 67, 69, 69, 71, 71, 73, 73, 75, 75, 77, 77, 79, 79, 81, 81, 83
a(n)=a(n-1)+a(n-2)-a(n-3) for n>4. G.f.: -x^2*(x^2-2*x-1) / ((x-1)^2*(x+1)). - Colin Barker, Sep 08 2013
[A237718] 1, 1, 1, 1, 1, 1, 1, 1, 1, 3, 3, 5, 5, 7, 7, 9, 9, 11, 15, 17, 25, 27, 39, 41, 57, 59, 79, 89, 113, 139, 167, 217, 249, 331, 367, 489, 545, 715, 823, 1049, 1257, 1547, 1919, 2281, 2897, 3371, 4327, 5017, 6425, 7531, 9519
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1, a(7)=1, a(8)=1; a(n) = 2*a(n-9) + a(n-2) for n>=9.
a(2*n) = Sum_{j=0..n/9} Binomial[n-7j, 2j]*2^{2j} + Sum_{j=0..(n-5)/9} Binomial[n-4-7j, 2j+1]*2^{2j+1}.
a(2*n+1) = Sum_{j=0..n/9} Binomial[n-7j, 2j]*2^{2j} + Sum_{j=0..(n-4)/9} Binomial[n-3-7j, 2j+1]*2^{2j+1}.
[A237716] 1, 1, 1, 1, 1, 1, 1, 3, 3, 5, 5, 7, 7, 9, 13, 15, 23, 25, 37, 39, 55, 65, 85, 111, 135, 185, 213, 295, 343, 465, 565, 735, 935, 1161, 1525, 1847, 2455, 2977, 3925, 4847, 6247, 7897, 9941, 12807, 15895, 20657, 25589, 33151, 41383, 53033, 66997
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=1; a(n) = 2*a(n-7) + a(n-2) for n>=7.
a(2*n) = Sum_{j=0..n/7} Binomial[n-5j, 2j]*2^{2j} + Sum_{j=0..(n-4)/7} Binomial[n-3-5j,2j+1}*2^{2j+1}.
a(2*n+1) = Sum_{j=0..n/7} Binomial[n-5j, 2j]*2^{2j} + Sum_{j=0..(n-3)/7} Binomial[n-2-5j,2j+1}*2^{2j+1}).
[A237714] 1, 1, 1, 1, 1, 3, 3, 5, 5, 7, 11, 13, 21, 23, 35, 45, 61, 87, 107, 157, 197, 279, 371, 493, 685, 887, 1243, 1629, 2229, 2999, 4003, 5485, 7261, 9943, 13259, 17949, 24229, 32471, 44115, 58989, 80013, 107447, 144955, 195677, 262933, 355703, 477827, 645613, 869181, 1171479, 1580587
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(n) = 2*a(n-5) + a(n-2) for n>=5.
a(2n) = sum_{j=0}^{n/5}C(n-3j,2j)*2^(2j)+sum_{j=0}^{(n-3)/5} C(n-2-3j,2j+1)*2^(2j+1).
a(2n+1) = sum_{j=0}^{n/5}C(n-3j,2j)*2^(2j)+sum_{j=0}^{(n-2)/5} C(n-1-3j,2j+1)*2^(2j+1).
[A131209] 0, 1, 3, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69
a(n) = n+1 except for n=0,1,3.
[A265430] 0, 1, 3, 3, 5, 6, 8, 8, 10, 11, 13, 13, 15, 16, 18, 18, 20, 21, 23, 23, 25, 26, 28, 28, 30, 31, 33, 33, 35, 36, 38, 38, 40, 41, 43, 43, 45, 46, 48, 48, 50, 51, 53, 53, 55, 56, 58, 58, 60, 61, 63, 63, 65, 66, 68, 68, 70, 71, 73, 73, 75, 76, 78, 78, 80, 81, 83
a(n) = 1/8*(10*n+3*(-1)^n-(1-i)*(-i)^n-(1+i)*i^n-1) where i = sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>4.
[A222657] 1, 3, 3, 5, 7, 7, 9, 11, 11, 13, 15, 15, 17, 19, 19, 21, 23, 23, 25, 27, 27, 29, 31, 31, 33, 35, 35, 37, 39, 39, 41, 43, 43, 45, 47, 47, 49, 51, 51, 53, 55, 55, 57, 59, 59, 61, 63, 63, 65, 67, 67, 69, 71, 71, 73, 75, 75, 77, 79, 79, 81, 83, 83, 85, 87, 87, 89
a(n+3) = a(n) + 4.
a(n) = (12*n+9+4*sqrt(3)*sin(2*n*Pi/3))/9. - Wesley Ivan Hurt, Sep 29 2017
[A086341] 1, 3, 3, 5, 7, 9, 15, 17, 31, 33, 63, 65, 127, 129, 255, 257, 511, 513, 1023, 1025, 2047, 2049, 4095, 4097, 8191, 8193, 16383, 16385, 32767, 32769, 65535, 65537, 131071, 131073, 262143, 262145, 524287, 524289, 1048575, 1048577, 2097151, 2097153
a(n) = (1+1/sqrt(2))*sqrt(2)^n+(1-1/sqrt(2))*(-sqrt(2))^n-(-1)^n.
a(0)=1, a(1)=3, a(2)=3, a(n)=a(n-1)+2*a(n-2)+2*a(n-3). - Harvey P. Dale, Mar 10 2013
[A001588] 1, 3, 3, 5, 7, 11, 17, 27, 43, 69, 111, 179, 289, 467, 755, 1221, 1975, 3195, 5169, 8363, 13531, 21893, 35423, 57315, 92737, 150051, 242787, 392837, 635623, 1028459, 1664081, 2692539, 4356619, 7049157, 11405775, 18454931, 29860705, 48315635
a(n) = F(n) + F(n+3) + 1, n >= -2 (where F(n) is the n-th Fibonacci number). - Zerinvary Lajos, Feb 01 2008
a(n) = 1 + (2/5)*((1/2) + (1/2)*sqrt(5))^n*sqrt(5) - (2/5)*sqrt(5)*((1/2) - (1/2)*sqrt(5))^n, with n >= 0. - Paolo P. Lava, Nov 21 2008
[A107029] 1, 1, 3, 3, 5, 7, 11, 19, 35, 69, 151, 339, 829, 2111, 5607, 15737, 45289, 136477, 423279, 1353671, 4471673, 15114479, 52605755, 187162155, 681817179, 2539492249, 9646349779, 37415172217, 147745308403, 594368656811
a(n)=sum{k=0..floor(n/2), (n-2k-1)C((n-2k)*k, k)-(n-2k-2)*sum{j=0..k, C((n-2k)*k, j)}}
[A193744] 3, 3, 5, 8, 10, 15, 20, 27, 37, 49, 66, 88, 117, 156, 207, 275, 365, 484, 642, 851, 1128, 1495, 1981, 2625, 3478, 4608, 6105, 8088, 10715, 14195, 18805, 24912, 33002, 43719, 57916, 76723, 101637, 134641, 178362, 236280, 313005, 414644, 549287, 727651, 963933, 1276940, 1691586
a(n)=Perrin(n+5)-2
a(n)=r1^(n+5)+r2^(n+5)+r3^(n+5)-2, where r1, r2, r3 are three roots of x^3-x-1=0.
[A293676] 0, 3, 3, 5, 8, 14, 22, 35, 57, 92, 150, 242, 391, 633, 1025, 1658, 2683, 4341, 7024, 11365, 18389, 29754, 48143, 77898, 126041, 203939, 329980, 533919, 863900, 1397819, 2261719, 3659539, 5921258, 9580796, 15502054, 25082850, 40584905, 65667755, 106252660
a(n) = floor(1/2 + e*F(n)).
[A287195] 1, 3, 3, 5, 9, 9, 12, 18, 18, 22, 30, 30, 35, 45, 45, 51, 63, 63, 70, 84, 84, 92, 108, 108, 117, 135, 135, 145, 165, 165, 176, 198, 198, 210, 234, 234, 247, 273, 273, 287, 315, 315, 330, 360, 360, 376, 408, 408, 425, 459, 459, 477, 513, 513, 532, 570, 570
a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7) for n>7.
[A159284] 0, 1, 1, 1, 3, 3, 5, 9, 11, 19, 29, 41, 67, 99, 149, 233, 347, 531, 813, 1225, 1875, 2851, 4325, 6601, 10027, 15251, 23229, 35305, 53731, 81763, 124341, 189225, 287867, 437907, 666317, 1013641, 1542131, 2346275, 3569413, 5430537
a(n) = a(n-2) + 2*a(n-3), a(0)=0, a(1) = a(2) =1. - G. C. Greubel, Apr 30 2017
[A000198] 1, 1, 3, 3, 5, 9, 21, 21, 81, 81, 81, 243, 243, 441, 1215, 1701, 1701, 6561, 6561, 6561, 45927, 45927, 45927, 137781, 137781, 229635, 1594323, 1594323, 1594323, 4782969, 4782969, 7971615, 14348907, 33480783, 33480783, 129140163, 129140163, 129140163
a(3^k) = 3^((3^k - 1)/2), a(5*3^k) = 5*3^((5*3^k - 5)/2), a(7*3^k) = 7*3^((7*3^k - 5)/2), and, for all other n, a(n) = max (a(i)a(n-i)) where the max is taken over 1 <= i <= n-1 (from Alspach and Berggren (1973) Theorem 4).
a(3r) = (3^r)a(r), a(n) = a(n-1) for n = 1, 2 or 4 mod 9, a(9k+8) = max(a(9k+7), a(5)a(9k+3)), a(9k+5) = max(a(2)a(9k+3), a(5)a(9k), a(7)a(9k-2)), a(9k+7) = a(7)a(9k) (from Alspach and Berggren (1973) Theorem 5).
[A100886] 0, 1, 3, 3, 5, 10, 14, 23, 39, 61, 99, 162, 260, 421, 683, 1103, 1785, 2890, 4674, 7563, 12239, 19801, 32039, 51842, 83880, 135721, 219603, 355323, 574925, 930250, 1505174, 2435423, 3940599, 6376021, 10316619, 16692642, 27009260, 43701901
a(n) = n*sum(j=1,floor(n/2), binomial(2*j,n-2*j)/(2*j)). - Vladimir Kruchinin, Apr 09 2011

[A133190] 1, 3, 3, 5, 13, 27, 51, 101, 205, 411, 819, 1637, 3277, 6555, 13107, 26213, 52429, 104859, 209715, 419429, 838861, 1677723, 3355443, 6710885, 13421773, 26843547, 53687091, 107374181, 214748365, 429496731, 858993459, 1717986917, 3435973837
a(n)=[1/10-(7/10)*I]*I^n+(4/5)*2^n+[1/10+(7/10)*I]*(-I)^n, with n>=0 and I=sqrt(-1). - Paolo P. Lava, Jun 09 2008
[A056508] 0, 1, 1, 3, 3, 6, 7, 13, 15, 25, 31, 50, 63, 99, 127, 197, 255, 391, 511, 777, 1023, 1551, 2047, 3090, 4095, 6175, 8191, 12323, 16383, 24639, 32767, 49221, 65535, 98431, 131071, 196743, 262143, 393471, 524287, 786697, 1048575, 1573375, 2097151, 3146255, 4194303
a(2n + 1) = 2^n - 1. - Andrew Howroyd, Apr 07 2017
[A078477] 1, 1, 1, 3, 3, 6, 7, 15, 15, 30, 31, 63, 63, 126, 127, 255, 255, 510, 511, 1023, 1023, 2046, 2047, 4095, 4095, 8190, 8191, 16383, 16383, 32766, 32767, 65535, 65535, 131070, 131071, 262143, 262143, 524286, 524287, 1048575, 1048575, 2097150, 2097151
a(n) = 2*a(n-2)+a(n-4)-2*a(n-6) for n>9. - Colin Barker, Dec 26 2015
[A289143] 0, 0, 3, 3, 6, 9, 12, 18, 21, 27, 33, 39, 45, 51, 60, 67, 75, 84, 94, 105, 114, 126, 138, 150, 162, 174, 189, 202, 216, 231, 247, 264, 279, 297, 315, 333, 351, 369, 390, 409, 429, 450, 472, 495, 516, 540, 564, 588, 612, 636, 663, 688, 714, 741, 769, 798, 825, 855, 885, 915, 945, 975, 1008, 1039, 1071, 1104, 1138, 1173, 1206, 1242, 1278, 1314
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) - a(n-6) + 3*a(n-7) - 3*a(n-8) + a(n-9) for n>9.
[A293675] 0, 3, 3, 6, 9, 14, 22, 36, 58, 93, 150, 242, 392, 634, 1025, 1659, 2683, 4342, 7025, 11366, 18390, 29755, 48144, 77898, 126042, 203940, 329981, 533920, 863900, 1397820, 2261720, 3659539, 5921258, 9580797, 15502055, 25082851, 40584905, 65667755, 106252660
a(n) = ceiling(e*F(n)).
[A022086] 0, 3, 3, 6, 9, 15, 24, 39, 63, 102, 165, 267, 432, 699, 1131, 1830, 2961, 4791, 7752, 12543, 20295, 32838, 53133, 85971, 139104, 225075, 364179, 589254, 953433, 1542687, 2496120, 4038807, 6534927, 10573734, 17108661, 27682395, 44791056, 72473451, 117264507
a(n) = round(((6*phi-3)/5) * phi^n) for n>2. - Thomas Baruchel, Sep 08 2004
a(n) = F(n+4) + F(n-4) - 4*F(n). - Bruno Berselli, Dec 29 2016
[A097135] 1, 3, 3, 6, 9, 15, 24, 39, 63, 102, 165, 267, 432, 699, 1131, 1830, 2961, 4791, 7752, 12543, 20295, 32838, 53133, 85971, 139104, 225075, 364179, 589254, 953433, 1542687, 2496120, 4038807, 6534927, 10573734, 17108661, 27682395, 44791056, 72473451, 117264507
a(n) = a(n-1)+a(n-2) for n>2.
[A293677] 0, 3, 3, 6, 9, 15, 25, 40, 65, 106, 172, 279, 452, 731, 1184, 1916, 3100, 5017, 8117, 13134, 21252, 34387, 55640, 90028, 145669, 235697, 381367, 617065, 998432, 1615498, 2613930, 4229428, 6843359, 11072788, 17916147, 28988936, 46905084, 75894020, 122799104
a(n) = floor(Pi*F(n)).
[A293679] 0, 3, 3, 6, 9, 16, 25, 41, 66, 107, 173, 280, 452, 732, 1184, 1916, 3101, 5017, 8118, 13135, 21253, 34388, 55641, 90029, 145669, 235698, 381367, 617065, 998433, 1615498, 2613931, 4229429, 6843360, 11072788, 17916148, 28988936, 46905084, 75894020, 122799105
a(n) = floor(1/2 + Pi*F(n)).
[A049871] 1, 3, 3, 6, 10, 20, 37, 70, 130, 243, 453, 846, 1579, 2948, 5503, 10273, 19177, 35799, 66828, 124752, 232882, 434735, 811546, 1514962, 2828071, 5279331, 9855246, 18397383, 34343506, 64111097, 119680057, 223413991, 417060391
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A284710] 3, 3, 6, 23, 43, 102, 213, 447, 978, 2083, 4491, 9650, 20699, 44495, 95536, 205215, 440813, 946758, 2033611, 4367943, 9381882, 20151431, 43283105, 92967858, 199685543, 428904271, 921243300, 1978737343
a(n) = a(n-1)+2*a(n-2)+a(n-3)-a(n-4)+2*a(n-5)+a(n-6)-a(n-7)-a(n-8).
[A063212] 1, 3, 3, 7, 7, 9, 11, 13, 13, 17, 17, 19, 21, 23, 23, 27, 27, 29, 31, 33, 33, 37, 37, 39, 41, 43, 43, 47, 47, 49, 51, 53, 53, 57, 57, 59, 61, 63, 63, 67, 67, 69, 71, 73, 73, 77, 77, 79, 81, 83
a(n) = a(n-2)+a(n-3)-a(n-5). G.f.: x*(1 +3*x +2*x^2 +3*x^3 +x^4)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A182559] 0, 1, 1, 3, 3, 7, 8, 16, 20, 36, 46, 78, 100, 166, 212, 346, 442, 713, 910, 1456, 1858, 2955, 3770, 5971, 7617, 12029, 15343, 24181, 30841, 48537, 61902, 97322, 124115, 194996, 248671, 390490, 497966, 781685, 996816, 1564368, 1994882, 3130148, 3991533, 6262293
a(0)=0, a(1)=1, a(n) = a(n-2)*2 + floor(sqrt(a(n-1))).
[A285187] 1, 3, 3, 7, 9, 15, 22, 33, 48, 71, 101, 147, 208, 297, 419, 591, 829, 1161, 1619, 2255, 3130, 4339, 6000, 8285, 11419, 15717, 21600, 29649, 40645, 55659, 76135, 104043, 142045, 193759, 264078, 359637, 489408, 665539, 904449, 1228343, 1667216
a(n) = 3*a(n-2) + 2*a(n-3) - 3*a(n-4) - 4*a(n-5) + 2*a(n-7) + a(n-8) for n>7.
[A258289] 1, 1, 1, 3, 3, 7, 9, 17, 21, 43, 57, 109, 157, 301, 447, 895, 1307, 2663, 4207, 8463, 13283, 28489, 45151, 95485, 157767, 336711, 561603, 1236963, 2061173, 4567227, 7946575, 17516101, 30324977, 69519697, 121465499, 276609723, 496333307, 1137900605
a(n) = Sum_{k=1..max(1,ceiling(n/2))} 1/k! * [Product_{i=1..k} x_i^n] Product_{j>0} (1+Sum_{i=1..k} x_i^j).
[A066983] 1, 1, 1, 3, 3, 7, 9, 17, 25, 43, 67, 111, 177, 289, 465, 755, 1219, 1975, 3193, 5169, 8361, 13531, 21891, 35423, 57313, 92737, 150049, 242787, 392835, 635623, 1028457, 1664081, 2692537, 4356619, 7049155, 11405775, 18454929, 29860705
a(n) = 2*Fibonacci(n-2)+(-1)^n. - Vladeta Jovovic, Mar 19 2003
a(n) = floor(PHI^(n-1)) - floor(PHI^(n-1)/sqrt(5)). [Federico Provvedi, Mar 26 2013]
[A122012] 0, 3, 3, 7, 9, 18, 24, 47, 63, 123, 165, 322, 432, 843, 1131, 2207, 2961, 5778, 7752, 15127, 20295, 39603, 53133, 103682, 139104, 271443, 364179, 710647, 953433, 1860498, 2496120, 4870847, 6534927, 12752043, 17108661, 33385282, 44791056
a(n)= 3*a(n-2) -a(n-4).
[A013915] 3, 3, 7, 10, 16, 24, 37, 57, 89, 140, 222, 354, 567, 911, 1467, 2366, 3820, 6172, 9977, 16133, 26093, 42208, 68282, 110470, 178731, 289179, 467887, 757042, 1224904, 1981920, 3206797, 5188689, 8395457, 13584116, 21979542, 35563626, 57543135
a(n) = a(n-1)+a(n-2)-n+3.
[A277955] 1, 3, 3, 7, 11, 23, 43, 87, 171, 343, 683, 1367, 2731, 5463, 10923, 21847, 43691, 87383, 174763, 349527, 699051, 1398103, 2796203, 5592407, 11184811, 22369623, 44739243, 89478487, 178956971, 357913943, 715827883, 1431655767, 2863311531, 5726623063
a(n) = (3 - 2*(-1)^n + 2^(1+n))/3.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>2. (End)
[A088859] 3, 3, 7, 12, 23, 43, 82, 157, 303, 588, 1147, 2247, 4418, 8713, 17227, 34132, 67743, 134643, 267922, 533637, 1063703, 2121628, 4233907, 8452687, 16880898, 33722193, 67380307, 134656932, 269146103, 538020763, 1075602322, 2150493997
a(0)=3, a(1)=3, a(2)=7 and a(n) = 3*a(n-1)-a(n-2)-2*a(n-3) for n>=3.
[A113166] 0, 1, 1, 3, 3, 8, 8, 17, 23, 41, 55, 102, 144, 247, 387, 631, 987, 1636, 2584, 4233, 6787, 11011, 17711, 28794, 46380, 75181, 121441, 196685, 317811, 514712, 832040, 1346921, 2178429, 3525581, 5702937, 9229314, 14930352, 24160419
a(n) = sum_{k=1...[n/2]} k/(n-k) sum_{j=1...gcd(n,k)} { (n-k)*gcd(n,k,j)/gcd(n,k) choose k*gcd(n,k,j)/gcd(n,k) } (Alekseyev).
[A279910] 0, 0, 3, 3, 8, 11, 18, 18, 21, 26, 37, 40, 53, 60, 68, 68, 85, 88, 107, 112, 122, 133, 156, 159, 164, 177, 180, 187, 216, 224, 255, 255, 269, 286, 298, 301, 338, 357, 373, 378, 419, 429, 472, 483, 491, 514, 561, 564, 571, 576, 596, 609, 662, 665, 681, 688, 710, 739, 798, 806, 867, 898, 908, 908, 926, 940, 1007, 1024, 1050, 1062
a(n) = -2*floor(n/2) + Sum_{k=1..n} prime(k)*floor(n/prime(k)) .
[A105039] 1, 1, 3, 3, 8, 11, 20, 34, 59, 96, 167, 282, 475, 800, 1352, 2275, 3828, 6426, 10785, 18085, 30297, 50698, 84770, 141623, 236425, 394381, 657380, 1094975, 1822628, 3031843, 5040129, 8373594, 13903588, 23072567, 38267330, 63435438, 105103059
a(n) = 1 + sum(k=2..[(n+3)/2], k * sum(s=1..[(n-1)/k], binomial(n-k*s-1, k-2))). - Max Alekseyev, Apr 15 2005
[A213030] 0, 0, 1, 3, 3, 8, 12, 12, 21, 27, 27, 40, 48, 48, 65, 75, 75, 96, 108, 108, 133, 147, 147, 176, 192, 192, 225, 243, 243, 280, 300, 300, 341, 363, 363, 408, 432, 432, 481, 507, 507, 560, 588, 588, 645, 675, 675, 736, 768, 768, 833, 867, 867, 936, 972
a(n) = a(n-1)+2*a(n-3)-2*a(n-4)-a(n-6)+a(n-7).
[A090597] 0, 1, 1, 3, 3, 8, 12, 27, 45, 96, 176, 363, 693, 1408, 2752, 5547, 10965, 22016, 43776, 87723, 174933, 350208, 699392, 1399467, 2796885, 5595136, 11186176, 22375083, 44741973, 89489408
a(n) = +a(n-1) +3*a(n-2) -a(n-3) -2*a(n-5) -4*a(n-6). - R. J. Mathar, Nov 23 2011
[A027376] 1, 3, 3, 8, 18, 48, 116, 312, 810, 2184, 5880, 16104, 44220, 122640, 341484, 956576, 2690010, 7596480, 21522228, 61171656, 174336264, 498111952, 1426403748, 4093181688, 11767874940, 33891544368, 97764009000, 282429535752, 817028131140, 2366564736720, 6863037256208, 19924948267224, 57906879556410
a(n) = (1/n)*Sum_{d|n} mu(d)*3^(n/d).

[A124281] 1, 1, 3, 3, 9, 11, 29, 39, 93, 135, 301, 463, 981, 1575, 3213, 5327, 10565, 17943, 34845, 60255, 115189, 201895, 381453, 675375, 1264869, 2256503, 4198397, 7532415, 13945941, 25126983, 46350829, 83777743, 154117317, 279225111
a(n)=sum{k=0..floor(n/2), sum{j=0..n-2k, C(j,n-2k-j)C(k,n-2k-j)*2^k}}
[A215885] 3, 3, 9, 24, 69, 198, 570, 1641, 4725, 13605, 39174, 112797, 324786, 935184, 2692755, 7753479, 22325253, 64283004, 185095533, 532961346, 1534601034, 4418707569, 12723161361, 36634883049, 105485941578, 303734663373, 874569107070, 2518221379632, 7250929475523
a(n) = c(1)^(-n) + c(2)^(-n) + c(4)^(-n) = (-c(1)*c(2))^n + (-c(1)*c(4))^n + (-c(2)*c(4))^n, where c(j) := 2*cos(2*Pi*j/9).
[A117976] 1, 3, 3, 9, 27, 27, 57, 171, 171, 513, 1539, 1539, 4617, 13851, 13851, 29241, 87723, 87723, 261633, 784899, 784899, 2354697, 7064091, 7064091, 14913081, 44739243, 44739243, 134217729, 402653187, 402653187, 1207959561
a(n)=sum{k=0..n, L(C(n,k)/3)*2^k} where L(j/p) is the Legendre symbol of j and p.
[A245023] 3, 3, 9, 39, 153, 543, 1809, 5799, 18153, 55983, 171009, 519159, 1569753, 4733823, 14250609, 42850119, 128746953, 386634063, 1160688609, 3483638679, 10454061753, 31368476703, 94118013009, 282379204839, 847187946153, 2541664501743, 7625194831809, 22875987148599, 68628766752153, 205887910869183, 617666953833009
a(n) = 5*a(n-1)-5*a(n-2)-5*a(n-3)+6*a(n-4). - Colin Barker, Jul 26 2014
[A236170] 0, 0, 0, 1, 3, 3, 10, 13, 20, 29, 49, 54, 93, 116, 151, 206, 287, 342, 479, 579, 752, 968, 1242, 1489, 1923, 2393, 2950, 3631, 4549, 5456, 6825, 8251, 10057, 12246, 14772, 17735, 21617, 25939, 31066, 37079, 44561, 52866, 63238, 74947, 88793, 105455, 124729
a(n) = p(n) - sum of C(floor(n/d)+floor(d/2)-1,floor(d/2)) where C(n,k) denotes the binomial coefficient and d ranges among the divisors of 2*n. - Giovanni Resta, Jan 24 2014
[A032308] 1, 3, 3, 12, 12, 21, 48, 57, 84, 120, 228, 264, 399, 516, 732, 1119, 1416, 1884, 2532, 3324, 4296, 6168, 7545, 9984, 12684, 16500, 20577, 26688, 34572, 43032, 54264, 68232, 84972, 106176, 131664, 162507, 205680, 249888, 308856, 377796, 465195, 564024, 691788, 835572, 1017768, 1241040
a(n) = (1/4) * [x^n] QPochammer(-3, x). - Vladimir Reshetnikov, Nov 20 2015
[A049606] 1, 1, 1, 3, 3, 15, 45, 315, 315, 2835, 14175, 155925, 467775, 6081075, 42567525, 638512875, 638512875, 10854718875, 97692469875, 1856156927625, 9280784638125, 194896477400625, 2143861251406875, 49308808782358125, 147926426347074375, 3698160658676859375
a(n) = numerator(2*sum_{i=1..infinity} (-1)^i*(1-zeta(n+i+1)) * (product_{j=1..n} i+j)). - Gerry Martens, Mar 10 2011
a(n) = denominator([t^n] 1/(tanh(t)-1)). - Peter Luschny, Aug 04 2011
[A189737] 3, 3, 18, 63, 243, 918, 3483, 13203, 50058, 189783, 719523, 2727918, 10342323, 39210723, 148659138, 563609583, 2136806163, 8101247238, 30714160203, 116446222323, 441481147578, 1673782109703, 6345789771843, 24058715644638, 91213516249443, 345816695682243
a(n)=3/2*((3/2+1/2*sqrt(21))^(n-1)+(3/2-1/2*sqrt(21))^(n-1)+1/14*sqrt(21)*((3/2-1 /2*sqrt(21))^(n-1)-(3/2+1/2*sqrt(21))^(n-1)). - Paolo P. Lava, May 24 2011
[A121500] 3, 4, 4, 5, 6, 6, 7, 7, 8, 9, 9, 10, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 18, 19, 19, 20, 21, 21, 22, 23, 23, 24, 25, 26, 26, 27, 28, 28, 29, 30, 30, 31, 32, 33, 33, 34, 35, 35, 36, 37, 38, 38, 39, 40, 40, 41, 42, 42
a(n) = min(abs(E(n,m)),m >= 3), n>=3 (checked for m=3..3+500), with E(n,m):= ((Fin(n)+Fout(m))/2-Pi)/Pi), where Fin(n):=(n/2)*sin(2*Pi/n) and Fout(m):= m*tan(Pi/m). Fin(n) is the area of the regular n-gon inscribed in the unit circle. Fout(n) is the area of a regular n-gon circumscribing the unit circle.
[A157726] 3, 4, 4, 5, 6, 8, 11, 16, 24, 37, 58, 92, 147, 236, 380, 613, 990, 1600, 2587, 4184, 6768, 10949, 17714, 28660, 46371, 75028, 121396, 196421, 317814, 514232, 832043, 1346272, 2178312, 3524581, 5702890, 9227468, 14930355, 24157820, 39088172, 63245989, 102334158
a(0) = 3, a(1) = 4, a(n) = a(n - 2) + a(n - 1) - 3. - Reinhard Zumkeller, Jul 30 2013
[A098181] 1, 3, 4, 4, 5, 7, 8, 8, 9, 11, 12, 12, 13, 15, 16, 16, 17, 19, 20, 20, 21, 23, 24, 24, 25, 27, 28, 28, 29, 31, 32, 32, 33, 35, 36, 36, 37, 39, 40, 40, 41, 43, 44, 44, 45, 47, 48, 48, 49, 51, 52, 52, 53, 55, 56, 56, 57, 59, 60, 60, 61, 63, 64, 64, 65, 67, 68, 68, 69, 71, 72, 72
a(n) = (2n+3)/2-cos(Pi*n/2)/2+sin(Pi*n/2)/2.
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4).
a(n) = floor(C(n+3, 2)/2)-floor(C(n+1, 2)/2). - Paul Barry, Jan 01 2005
a(4n) = 4n+1, a(4n+1) = 4n+3, a(4n+2) = 4n+4, a(4n+3) = 4n+4. - Philippe Deléham, Apr 06 2007
a(-3-n) = -a(n) for all n in Z. - Michael Somos, Sep 11 2014
a(n) = (2*n+3-(-1)^ceiling(n/2))/2. - Wesley Ivan Hurt, Sep 29 2017
[A014683] 1, 3, 4, 4, 6, 6, 8, 8, 9, 10, 12, 12, 14, 14, 15, 16, 18, 18, 20, 20, 21, 22, 24, 24, 25, 26, 27, 28, 30, 30, 32, 32, 33, 34, 35, 36, 38, 38, 39, 40, 42, 42, 44, 44, 45, 46, 48, 48, 49, 50, 51, 52, 54, 54, 55, 56, 57, 58, 60, 60, 62, 62, 63, 64, 65, 66, 68, 68, 69, 70, 72, 72
a(n) = n + pi(n) - pi(n-1). - Wesley Ivan Hurt, Jun 15 2013
[A213222] 3, 4, 4, 6, 6, 8, 8, 10, 10, 12, 12, 14, 14, 16, 16, 18, 18, 20, 20, 22, 22, 24, 24, 26, 26, 28, 28, 30, 30, 32, 32, 34, 34, 36, 36, 38, 38, 40, 40, 42, 42, 44, 44, 46, 46, 48, 48, 50, 50, 52, 52, 54, 54, 56, 56, 58, 58, 60, 60, 62, 62, 64, 64, 66, 66, 68, 68, 70, 70, 72, 72, 74, 74, 76, 76, 78, 78, 80, 80, 82, 82, 84
a(n) = 2*floor(n/2) for n > 3.
[A117571] 1, 1, 3, 4, 4, 6, 7, 7, 9, 10, 10, 12, 13, 13, 15, 16, 16, 18, 19, 19, 21, 22, 22, 24, 25, 25, 27, 28, 28, 30, 31, 31, 33, 34, 34, 36, 37, 37, 39, 40, 40, 42, 43, 43, 45, 46, 46, 48, 49, 49, 51, 52, 52, 54, 55, 55, 57, 58, 58, 60, 61, 61, 63, 64, 64, 66, 67, 67, 69, 70, 70, 72
a(n) = a(n-1) + a(n-3) - a(n-4) for n>3.
a(n) = cos(2*Pi*n/3+Pi/6)/sqrt(3)-sin(2*Pi*n/3+Pi/6)/3+(3n+2)/3.
a(n) = 1 + floor((n+1)/3) + floor(2*n/3). - Wesley Ivan Hurt, Jul 25 2016
a(n) = n+sign((n-1) mod 3). - Wesley Ivan Hurt, Sep 25 2017
[A100478] 1, 1, 1, 1, 1, 3, 4, 4, 6, 7, 9, 10, 11, 14, 15, 17, 19, 21, 23, 24, 27, 30, 30, 32, 34, 36, 37, 39, 40, 42, 44, 46, 47, 47, 48, 50, 51, 53, 53, 54, 55, 56, 58, 58, 60, 61, 62, 62, 62, 63, 63, 64, 65, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66
a(1)=a(2)=a(3)=a(4)=a(5)=1; a(n) = pi(a(n-1)+a(n-2)+a(n-3)+a(n-4)+a(n-5)).
[A047877] 0, 3, 4, 4, 6, 9, 11, 14, 18, 21, 26, 32, 34, 41, 49, 52, 59, 69, 73, 82, 92, 97, 108, 120, 124, 137, 151, 156, 169, 185, 191, 206, 222, 229, 246, 264, 270, 289, 309, 316, 335, 357, 365, 386, 408, 417, 440, 464, 472, 497, 523
a(n) = 2*a(n-3) + a(n-4) - a(n-6) - 2*a(n-7) + a(n-10) for n > 14 (conjectured).
[A089640] 1, 1, 1, 1, 3, 4, 4, 6, 11, 15, 18, 27, 43, 59, 78, 115, 172, 239, 330, 480, 698, 980, 1379, 1988, 2856, 4037, 5726, 8211, 11737, 16656, 23700, 33885, 48341, 68749, 97941, 139811, 199316, 283780, 404442, 576879, 822223, 1171318, 1669543, 2380423
a(n)=Sum{C(k, n-[(3n+2)/2]), k=0...n}, where C(n, k) is the usual binomial coefficient and [...] denotes the floor function. - John W. Layman, Jan 06 2004
[A121924] 0, 1, 1, 3, 4, 4, 7, 9, 10, 10, 14, 17, 19, 20, 20, 25, 29, 32, 34, 35, 35, 41, 46, 50, 53, 55, 56, 56, 63, 69, 74, 78, 81, 83, 84, 84, 92, 99, 105, 110, 114, 117, 119, 120, 120, 129, 137, 144, 150, 155, 159, 162, 164, 165, 165, 175, 184, 192, 199, 205, 210, 214, 217
a(n) = binomial(b(n),3) + (n-binomial(b(n),2))*(b(n)^2+3b(n)-2(n+1))/4, where b(n) = floor(sqrt(2n+1/4)+1/2) - Stephan Wagner (swagner(AT)sun.ac.za), Jul 18 2007
[A087328] 1, 3, 4, 4, 9, 12, 15, 16, 22, 27, 31, 36, 43, 51, 58, 64, 75, 83, 93, 100, 112, 123, 133, 144, 157, 171, 184, 196, 213, 227, 243, 256, 274, 291, 307, 324, 343, 363, 382, 400, 423, 443, 465, 484, 508, 531, 553, 576, 601, 627, 652, 676, 705, 731, 759, 784, 814
a(n) = ceiling(n^2/4) if n == 0, 1, 4, 8, 11 (mod 12), ceiling(n^2/4) + 1 if n == 3, 9 (mod 12) and ceiling(n^2/4) + 2 if n == 2, 5, 6, 7, 10 (mod 12) and n != 6.
[A181132] 0, 0, 1, 1, 3, 4, 5, 5, 8, 10, 12, 13, 15, 16, 17, 17, 21, 24, 27, 29, 32, 34, 36, 37, 40, 42, 44, 45, 47, 48, 49, 49, 54, 58, 62, 65, 69, 72, 75, 77, 81, 84, 87, 89, 92, 94, 96, 97, 101, 104, 107, 109, 112, 114, 116, 117, 120, 122, 124, 125, 127, 128, 129, 129, 135, 140, 145
a(0)=0; thereafter a(2n)=a(n)+a(n-1)+n, a(2n+1)=2a(n)+n. G.f.: (1/(1-x)^2) * Sum_{k >= 0} x^(2^(k+1))/(1+x^(2^k)). - N. J. A. Sloane, Mar 10 2016
[A184985] 0, 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70
a(n) = n - floor(1/(n-1)!).
a(n) = n - floor(1/max(1, 2n-4)).
a(n) = max(sqrt(n-1), min(n,3n-6)).
a(n) = n - (1/2)*(1-(-1)^(n-1)!).
a(n) = min(n, max(n-1,2n-3)).
a(n) = n - 1 + sign(n^2 - 3n + 2).

[A009056] 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n+2.
[A065475] 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n+1 for n>1, a(n) = a(n-1)+1 for n>2. - Wesley Ivan Hurt, Mar 13 2016
[A052404] 0, 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 88, 89
a(n) = replace digits d > 1 by d + 1 in base-9 representation of n - 1. - Reinhard Zumkeller, Oct 07 2014
[A047565] 0, 1, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 75, 76, 77
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8. (End)
a(n) = a(n-7) + 8 for n>7.
a(n) = (56*n - 42 + (n mod 7) + ((n+1) mod 7) + ((n+2) mod 7) + ((n+3) mod 7) - 6*((n+4) mod 7) + ((n+5) mod 7) + ((n+6) mod 7))/49.
a(7*k) = 8*k-1, a(7*k-1) = 8*k-2, a(7*k-2) = 8*k-3, a(7*k-3) = 8*k-4, a(7*k-4) = 8*k-5, a(7*k-5) = 8*k-7, a(7*k-6) = 8*k-8. (End)
[A047310] 0, 1, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78
a(n) = a(n-1)+a(n-6)-a(n-7) for n>7.
a(n) = n + floor((n-3)/6). (End)
a(n) = (42*n-33-3*cos(n*Pi)+4*sqrt(3)*cos((1-4*n)*Pi/6)-12*sin((1+2*n)*Pi/6))/36.
a(6k) = 7k-1, a(6k-1) = 7k-2, a(6k-2) = 7k-3, a(6k-3) = 7k-4, a(6k-4) = 7k-6, a(6k-5) = 7k-7. (End)
[A073071] 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 34, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 53, 54, 55, 57, 58, 59, 60, 62, 63, 64, 66, 67, 68, 70, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 86, 88, 89
a(n) should be asymptotic to C*n (where 1<C<3/2).
[A047563] 0, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 35, 36, 37, 38, 39, 40, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 59, 60, 61, 62, 63, 64, 67, 68, 69, 70, 71, 72, 75, 76, 77, 78, 79, 80, 83, 84, 85, 86, 87
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-9+3*cos(n*Pi)-12*cos(n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-4, a(6k-4) = 8k-5, a(6k-5) = 8k-8. (End)
[A047252] 0, 1, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67
a(n) = floor(6n-3)/5). - Gary Detlefs, Mar 07 2010
[A047564] 1, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 25, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 41, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54, 55, 57, 59, 60, 61, 62, 63, 65, 67, 68, 69, 70, 71, 73, 75, 76, 77, 78, 79, 81, 83, 84, 85, 86, 87
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6) for n>6.
a(n) = (12*n-3-sqrt(3)*(cos((1-4*n)*Pi/6)+3*cos((1+2*n)*Pi/6)))/9.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-4, a(6k-4) = 8k-5, a(6k-5) = 8k-7. (End)
[A047562] 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23, 27, 28, 29, 30, 31, 35, 36, 37, 38, 39, 43, 44, 45, 46, 47, 51, 52, 53, 54, 55, 59, 60, 61, 62, 63, 67, 68, 69, 70, 71, 75, 76, 77, 78, 79, 83, 84, 85, 86, 87, 91, 92, 93, 94, 95, 99, 100, 101, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = n + 2 + 3*floor((n-1)/5).
a(n) = (8*n + 7 - 3*((n+4) mod 5))/5.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-3, a(5k-3) = 8k-4, a(5k-4) = 8k-5. (End)
[A003619] 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53
a(n) = n + [log (n + 1 + [log (n + 1)])].
[A001965] 0, 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 50, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 79, 80, 82
a(n) = floor((n+1/2)*(sqrt(5)-1)). - R. J. Mathar, Feb 14 2011
[A047207] 0, 1, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 33, 34, 35, 36, 38, 39, 40, 41, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 55, 56, 58, 59, 60, 61, 63, 64, 65, 66, 68, 69, 70, 71, 73, 74, 75, 76, 78, 79, 80, 81, 83, 84
a(n) = floor((5*n-3)/4). - Gary Detlefs, Mar 06 2010
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (10*n-9-i^(2*n)+(1-i)*i^(-n)+(1+i)*i^n)/8, where i=sqrt(-1).
[A001957] 0, 1, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 35, 36, 38, 39, 40, 42, 43, 44, 46, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 61, 62, 64, 65, 66, 68, 69, 70, 72, 73, 74, 75, 77, 78, 79, 81, 82, 83, 85, 86, 87
a(n) = floor((n+1/3) * (sqrt(13)-1) /2). - R. J. Mathar, Feb 14 2011
[A047428] 0, 1, 3, 4, 5, 6, 8, 9, 11, 12, 13, 14, 16, 17, 19, 20, 21, 22, 24, 25, 27, 28, 29, 30, 32, 33, 35, 36, 37, 38, 40, 41, 43, 44, 45, 46, 48, 49, 51, 52, 53, 54, 56, 57, 59, 60, 61, 62, 64, 65, 67, 68, 69, 70, 72, 73, 75, 76, 77, 78, 80, 81, 83, 84, 85, 86, 88
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-27-3*cos(n*Pi)-6*cos(n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/18.
a(6k) = 8k-2, a(6k-1) = 8k-3, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A100585] 3, 4, 5, 6, 8, 10, 13, 17, 22, 29, 38, 50, 66, 88, 117, 156, 208, 277, 369, 492, 656, 874, 1165, 1553, 2070, 2760, 3680, 4906, 6541, 8721, 11628, 15504, 20672, 27562, 36749, 48998, 65330, 87106, 116141, 154854, 206472, 275296, 367061, 489414, 652552
a(1)=3, a(n+1) = a(n) + floor(a(n)/3). - Ben Paul Thurston, Jan 09 2008
[A047426] 0, 3, 4, 5, 6, 8, 11, 12, 13, 14, 16, 19, 20, 21, 22, 24, 27, 28, 29, 30, 32, 35, 36, 37, 38, 40, 43, 44, 45, 46, 48, 51, 52, 53, 54, 56, 59, 60, 61, 62, 64, 67, 68, 69, 70, 72, 75, 76, 77, 78, 80, 83, 84, 85, 86, 88, 91, 92, 93, 94, 96, 99, 100, 101, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 30 + 3*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 7*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-5, a(5k-4) = 8k-8. (End)
[A047250] 0, 3, 4, 5, 6, 9, 10, 11, 12, 15, 16, 17, 18, 21, 22, 23, 24, 27, 28, 29, 30, 33, 34, 35, 36, 39, 40, 41, 42, 45, 46, 47, 48, 51, 52, 53, 54, 57, 58, 59, 60, 63, 64, 65, 66, 69, 70, 71, 72, 75, 76, 77, 78, 81, 82, 83, 84, 87, 88, 89, 90, 93, 94, 95, 96, 99
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (6*n-3+i^(2*n)-(1+i)*i^(-n)-(1-i)*i^n)/4 where i=sqrt(-1).
[A047427] 1, 3, 4, 5, 6, 9, 11, 12, 13, 14, 17, 19, 20, 21, 22, 25, 27, 28, 29, 30, 33, 35, 36, 37, 38, 41, 43, 44, 45, 46, 49, 51, 52, 53, 54, 57, 59, 60, 61, 62, 65, 67, 68, 69, 70, 73, 75, 76, 77, 78, 81, 83, 84, 85, 86, 89, 91, 92, 93, 94, 97, 99, 100, 101, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 25 + 3*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 2*((n+3) mod 5) - 7*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-5, a(5k-4) = 8k-7. (End)
[A047307] 3, 4, 5, 6, 10, 11, 12, 13, 17, 18, 19, 20, 24, 25, 26, 27, 31, 32, 33, 34, 38, 39, 40, 41, 45, 46, 47, 48, 52, 53, 54, 55, 59, 60, 61, 62, 66, 67, 68, 69, 73, 74, 75, 76, 80, 81, 82, 83, 87, 88, 89, 90, 94, 95, 96, 97, 101, 102, 103, 104, 108, 109, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n+1-3*i^(2*n)-(3-3*i)*i^(-n)-(3+3*i)*i^n)/8 where i=sqrt(-1).

[A047425] 3, 4, 5, 6, 11, 12, 13, 14, 19, 20, 21, 22, 27, 28, 29, 30, 35, 36, 37, 38, 43, 44, 45, 46, 51, 52, 53, 54, 59, 60, 61, 62, 67, 68, 69, 70, 75, 76, 77, 78, 83, 84, 85, 86, 91, 92, 93, 94, 99, 100, 101, 102, 107, 108, 109, 110, 115, 116, 117, 118, 123, 124
a(n) = 8*floor((n-1)/4) + ((n-1) mod 4) + 3.
a(n) = OR(n-1, 1) + OR(n-1, 2). - Gary Detlefs, Oct 20 2013
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (4*n-1-i^(2*n)-(1-i)*i^(-n)-(1+i)*i^n)/2 where i=sqrt(-1).
[A078358] 1, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74
a(n) = ceiling(squareroot(n)) + n -1. - Leroy Quet, Jul 06 2007
[A183574] 3, 4, 5, 7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92
a(n)=n+Floor[sqrt(2n+2)].
[A276212] 1, 3, 4, 5, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79
a(n) = n + floor(n^(r/s)); the complement is given by n + floor(n^(s/r)).
[A042965] 0, 1, 3, 4, 5, 7, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 45, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 61, 63, 64, 65, 67, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 87, 88, 89, 91, 92
a(n) = floor((4*n-3)/3). - Gary Detlefs, May 14 2011
a(2-n) = -a(n). (End)
a(n) = (12*n-12+3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 4k-1, a(3k-1) = 4k-3, a(3k-2) = 4k-4. (End)
a(n) = round((4*n-4)/3). - Mats Granvik, Sep 24 2016
[A184744] 1, 3, 4, 5, 7, 8, 10, 11, 12, 14, 15, 16, 18, 19, 21, 22, 23, 25, 26, 27, 29, 30, 31, 33, 34, 36, 37, 38, 40, 41, 42, 44, 45, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 62, 63, 64, 66, 67, 68, 70, 71, 72, 74, 75, 77, 78, 79, 81, 82, 83, 85, 86, 88, 89, 90, 92, 93, 94, 96, 97, 98, 100, 101, 103, 104, 105, 107, 108, 109, 111, 112, 114, 115, 116, 118, 119, 120, 122, 123, 124, 126, 127, 129, 130, 131, 133, 134, 135, 137, 138, 140, 141, 142, 144, 145, 146, 148, 149, 150, 152, 153, 155, 156, 157, 159, 160, 161, 163, 164
a(n)=floor(nr+h), where r=1+1/e, h=1/2.
[A184620] 1, 3, 4, 5, 7, 8, 10, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 29, 31, 32, 34, 35, 37, 38, 39, 41, 42, 44, 45, 46, 48, 49, 51, 52, 53, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 70, 72, 73, 75, 76, 78, 79, 80, 82, 83, 85, 86, 87, 89, 90, 92, 93, 95, 96, 97, 99, 100, 102, 103, 104, 106, 107, 109, 110, 111, 113, 114, 116, 117, 119, 120, 121, 123, 124, 126, 127, 128, 130, 131, 133, 134, 136, 137, 138, 140, 141, 143, 144, 145, 147, 148, 150, 151, 152, 154, 155, 157, 158, 160, 161, 162, 164, 165, 167, 168, 169
a(n)=floor(nr+h), where r=sqrt(2), h=1/4.
[A184618] 1, 3, 4, 5, 7, 8, 10, 11, 13, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 30, 31, 32, 34, 35, 37, 38, 39, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 71, 72, 73, 75, 76, 78, 79, 80, 82, 83, 85, 86, 88, 89, 90, 92, 93, 95, 96, 97
a(n)=floor(nr+h), where r=sqrt(2), h=1/3.
[A047500] 0, 3, 4, 5, 7, 8, 11, 12, 13, 15, 16, 19, 20, 21, 23, 24, 27, 28, 29, 31, 32, 35, 36, 37, 39, 40, 43, 44, 45, 47, 48, 51, 52, 53, 55, 56, 59, 60, 61, 63, 64, 67, 68, 69, 71, 72, 75, 76, 77, 79, 80, 83, 84, 85, 87, 88, 91, 92, 93, 95, 96, 99, 100, 101, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 25 - 2*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 7*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-5, a(5k-4) = 8k-8. (End)
[A154571] 0, 3, 4, 5, 7, 8, 12, 15, 16, 17, 19, 20, 24, 27, 28, 29, 31, 32, 36, 39, 40, 41, 43, 44, 48, 51, 52, 53, 55, 56, 60, 63, 64, 65, 67, 68, 72, 75, 76, 77, 79, 80, 84, 87, 88, 89, 91, 92, 96, 99, 100, 101, 103, 104, 108, 111, 112, 113, 115, 116, 120, 123, 124
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (12*n-15-cos(n*Pi)-5*cos(n*Pi/3)-sqrt(3)*(2*cos((1-4*n)*Pi/6)-3*sin(n*Pi/3)))/6.
a(6k) = 12k-4, a(6k-1) = 12k-5, a(6k-2) = 12k-7, a(6k-3) = 12k-8, a(6k-4) = 12k-9, a(6k-5) = 12k-12. (End)
[A047251] 1, 3, 4, 5, 7, 9, 10, 11, 13, 15, 16, 17, 19, 21, 22, 23, 25, 27, 28, 29, 31, 33, 34, 35, 37, 39, 40, 41, 43, 45, 46, 47, 49, 51, 52, 53, 55, 57, 58, 59, 61, 63, 64, 65, 67, 69, 70, 71, 73, 75, 76, 77, 79, 81, 82, 83, 85, 87, 88, 89, 91, 93, 94, 95, 97, 99
a(n) = 3*n/2 - 1/2 - cos(Pi*n/2)/2.
a(n) = (-2-(-i)^n-i^n+6n)/4, with i=sqrt(-1). - Colin Barker, Oct 19 2015
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
[A003159] 1, 3, 4, 5, 7, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 23, 25, 27, 28, 29, 31, 33, 35, 36, 37, 39, 41, 43, 44, 45, 47, 48, 49, 51, 52, 53, 55, 57, 59, 60, 61, 63, 64, 65, 67, 68, 69, 71, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 87, 89, 91, 92, 93, 95, 97, 99, 100, 101, 103, 105
a(0)=1; for n>=0, a(n+1) = a(n)+1 if (a(n)+1)/2 is not already in the sequence, = a(n)+2 otherwise.
a(1)=1, a(2)=3 and for n>=2 we get a(n+1)=4+a(n)+a(n-1)-a(a(n)-n+1)-a(a(n-1)-n+2) - Benoit Cloitre, Apr 08 2010
[A141259] 1, 3, 4, 5, 7, 9, 11, 12, 13, 15, 16, 17, 19, 21, 23, 24, 25, 27, 28, 29, 31, 33, 35, 36, 37, 39, 40, 41, 43, 45, 47, 48, 49, 51, 52, 53, 55, 57, 59, 60, 61, 63, 64, 65, 67, 69, 71, 72, 73, 75, 76, 77, 79, 81, 83, 84, 85, 87, 88, 89, 91, 93, 95, 96, 97, 99
a(n) = {0,1,3,4,5,7,9,11} mod 12; n>0.
a(n) = (1/56)*Sum{k=0..n-1}{3*(k mod 8)+10*[(k+1) mod 8]+3*[(k+2) mod 8]+3*[(k+3) mod 8]-4*[(k+4) mod 8]+3*[(k+5) mod 8]+10*[(k+6) mod 8]-4*[(k+7) mod 8]}, with n>=1 [Paolo P. Lava, Feb 11 2009]
[A190941] 0, 1, 3, 4, 5, 7, 9, 11, 13, 14, 15, 17, 18, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 46, 47, 49, 50, 51, 53, 55, 57, 59, 60, 61, 63, 64, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 146, 147, 149, 150, 151, 153, 155, 157, 159, 160, 161, 163, 164, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185
a(n) = sum[i=0..n] Maximal digit in base-3 expansion of i.
a(n) = 3n + O(n^0.631). - Charles R Greathouse IV, Aug 21 2011
[A128201] 1, 3, 4, 5, 7, 9, 11, 13, 15, 16, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 36, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 64, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 100, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123
a(n) = f(n,1,1,2) where f(n,i,m,x) = if i=n then m else if m+1=x^2 then f(n,i+1,m+1,x) else if m+1>x^2 then f(n,i+1,m+1,x+2) else f(n,i+1,m+2,x).
[A000702] 1, 3, 4, 5, 7, 9, 14, 18, 24, 31, 43, 55, 72, 94, 123, 156, 200, 254, 324, 408, 513, 641, 804, 997, 1236, 1526, 1883, 2308, 2829, 3451, 4209, 5109, 6194, 7485, 9038, 10871, 13063, 15654, 18738, 22365, 26665, 31716, 37682, 44669, 52887, 62494, 73767
a(n) = 2p(n) + 3*Sum_{r>=1} (-1)^r*p(n-2r^2). [Girse]
[A047365] 0, 3, 4, 5, 7, 10, 11, 12, 14, 17, 18, 19, 21, 24, 25, 26, 28, 31, 32, 33, 35, 38, 39, 40, 42, 45, 46, 47, 49, 52, 53, 54, 56, 59, 60, 61, 63, 66, 67, 68, 70, 73, 74, 75, 77, 80, 81, 82, 84, 87, 88, 89, 91, 94, 95, 96, 98, 101, 102, 103, 105, 108, 109, 110
a(1)=0, a(2)=3, a(3)=4, a(4)=5, a(5)=7, a(n)=a(n-1)+a(n-4)-a(n-5) for n>5. - Harvey P. Dale, May 26 2012
a(n) = (14*n-11+i^(2*n)-(3+i)*i^(-n)-(3-i)*i^n)/8 where i=sqrt(-1).
[A047499] 3, 4, 5, 7, 11, 12, 13, 15, 19, 20, 21, 23, 27, 28, 29, 31, 35, 36, 37, 39, 43, 44, 45, 47, 51, 52, 53, 55, 59, 60, 61, 63, 67, 68, 69, 71, 75, 76, 77, 79, 83, 84, 85, 87, 91, 92, 93, 95, 99, 100, 101, 103, 107, 108, 109, 111, 115, 116, 117, 119, 123, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-1-i^(2*n)-(1-2*i)*i^(-n)-(1+2*i)*i^n)/4 where i=sqrt(-1).
[A112594] 0, 3, 4, 5, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 80, 81, 82, 83, 84, 85, 86
a(n) = n + 2*floor(sqrt(n))
[A127427] 0, 1, 3, 4, 5, 8, 9, 10, 12, 13, 14, 16, 17, 18, 22, 23, 24, 26, 27, 28, 30, 31, 32, 35, 36, 37, 39, 40, 41, 43, 44, 45, 48, 49, 50, 52, 53, 54, 56, 57, 58, 63, 64, 65, 67, 68, 69, 71, 72, 73, 76, 77, 78, 80, 81, 82, 84, 85, 86, 89, 90, 91, 93, 94, 95, 97, 98, 99, 103, 104, 105, 107
a(n) - n = a([(n+1)/3]).

[A047205] 0, 3, 4, 5, 8, 9, 10, 13, 14, 15, 18, 19, 20, 23, 24, 25, 28, 29, 30, 33, 34, 35, 38, 39, 40, 43, 44, 45, 48, 49, 50, 53, 54, 55, 58, 59, 60, 63, 64, 65, 68, 69, 70, 73, 74, 75, 78, 79, 80, 83, 84, 85, 88, 89, 90, 93, 94, 95, 98, 99, 100, 103, 104, 105, 108
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (15*n-9-4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-1, a(3k-1) = 5k-2, a(3k-2) = 5k-5. (End)
[A283765] 3, 4, 5, 8, 9, 10, 14, 15, 19, 20, 24, 25, 26, 29, 30, 31, 35, 36, 40, 41, 45, 46, 47, 50, 51, 52, 55, 56, 57, 61, 62, 66, 67, 68, 71, 72, 73, 76, 77, 78, 82, 83, 87, 88, 89, 92, 93, 94, 97, 98, 99, 103, 104, 108, 109, 113, 114, 115, 118, 119, 120, 124, 125
a(n+1) - a(n) is in {1,3,4} for every n.
[A047601] 0, 1, 3, 4, 5, 8, 9, 11, 12, 13, 16, 17, 19, 20, 21, 24, 25, 27, 28, 29, 32, 33, 35, 36, 37, 40, 41, 43, 44, 45, 48, 49, 51, 52, 53, 56, 57, 59, 60, 61, 64, 65, 67, 68, 69, 72, 73, 75, 76, 77, 80, 81, 83, 84, 85, 88, 89
a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.
[A047366] 1, 3, 4, 5, 8, 10, 11, 12, 15, 17, 18, 19, 22, 24, 25, 26, 29, 31, 32, 33, 36, 38, 39, 40, 43, 45, 46, 47, 50, 52, 53, 54, 57, 59, 60, 61, 64, 66, 67, 68, 71, 73, 74, 75, 78, 80, 81, 82, 85, 87, 88, 89, 92, 94, 95, 96, 99, 101, 102, 103, 106, 108, 109, 110
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-9-i^(2n)-(3-i)*i^(-n)-(3+i)*i^n)/8 where i=sqrt(-1).
[A117483] 0, 1, 3, 4, 5, 8, 10, 11, 17, 20, 22, 30, 31, 41, 50, 59, 67, 75, 83, 109, 127, 157, 174, 179, 191, 200, 211, 241, 277, 283, 331, 353, 360, 367, 401, 414, 431, 460, 461, 475, 509, 547, 563, 587, 599, 617, 709, 739, 773, 797, 859, 877, 919, 942, 960, 967, 991, 1014
a(n)=pi(phi(n))= phi(pi(n))
[A211533] 0, 0, 1, 1, 3, 4, 5, 8, 10, 13, 16, 19, 23, 27, 32, 36, 41, 47, 52, 59, 65, 71, 79, 86, 94, 102, 110, 119, 128, 138, 147, 157, 168, 178, 190, 201, 212, 225, 237, 250, 263, 276, 290, 304, 319, 333, 348, 364, 379, 396, 412, 428, 446, 463, 481, 499, 517, 536
a(n) = a(n-1) + a(n-3) - a(n-4) + a(n-5) - a(n-6) - a(n-8) + a(n-9).
[A228305] 3, 4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 512, 640, 1024, 1280, 2048, 2560, 4096, 5120, 8192, 10240, 16384, 20480, 32768, 40960, 65536, 81920, 131072, 163840, 262144, 327680, 524288, 655360, 1048576, 1310720, 2097152, 2621440, 4194304, 5242880
a(n) = ceiling((9 - (- 1)^n)*2^(floor(n/2) - 2)).
a(n) = n + 2 for n <= 3; a(n) = 2*a(n-2) for n > 3.
a(n) = (16-(8-5*r)*(1-(-1)^n))*r^(n-6) for n>1, r=sqrt(2). (End)
[A080726] 0, 3, 4, 5, 8, 11, 12, 13, 14, 15, 16, 17, 20, 23, 26, 29, 32, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 56, 59, 62, 65, 68, 71, 74, 77, 80, 83, 86, 89, 92, 95, 98, 101, 104, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119
a(a(n)) = 3*n+2, n >= 1.
[A047599] 0, 3, 4, 5, 8, 11, 12, 13, 16, 19, 20, 21, 24, 27, 28, 29, 32, 35, 36, 37, 40, 43, 44, 45, 48, 51, 52, 53, 56, 59, 60, 61, 64, 67, 68, 69, 72, 75, 76, 77, 80, 83, 84, 85, 88, 91, 92, 93, 96, 99, 100, 101, 104, 107, 108, 109, 112, 115, 116, 117, 120, 123, 124
a(n) = 2*n-2-cos(n*Pi/2). (End)
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = 2n - 2 - (i^(-n) + i^n)/2 where i = sqrt(-1).
[A215082] 0, 1, 1, 3, 4, 5, 8, 12, 17, 23, 35, 43, 66, 81, 124, 148, 229, 266, 414, 476, 742, 842, 1318, 1478, 2320, 2581, 4059, 4481, 7062, 7743, 12224, 13328, 21071, 22857, 36185, 39073, 61930, 66605, 105678, 113242, 179847, 192084, 305326, 325128, 517212, 549252
a(0) = 0, a(1) = 1, a(2) = 1, a(2n) + a(2n+1) = (n+1)*Fibonacci(n+2), a(2n) = a(2n-1) + a(2n-3).
[A047249] 3, 4, 5, 9, 10, 11, 15, 16, 17, 21, 22, 23, 27, 28, 29, 33, 34, 35, 39, 40, 41, 45, 46, 47, 51, 52, 53, 57, 58, 59, 63, 64, 65, 69, 70, 71, 75, 76, 77, 81, 82, 83, 87, 88, 89, 93, 94, 95, 99, 100, 101, 105, 106, 107, 111, 112, 113, 117, 118, 119, 123, 124
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*n-cos(2*n*Pi/3)+sin(2*n*Pi/3)/sqrt(3).
a(3k) = 6k-1, a(3k-1) = 6k-2, a(3k-2) = 6k-3. (End)
[A295718] 1, 3, 4, 5, 9, 10, 19, 21, 40, 45, 85, 98, 183, 217, 400, 489, 889, 1122, 2011, 2621, 4632, 6229, 10861, 15042, 25903, 36849, 62752, 91409, 154161, 229186, 383347, 579765, 963112, 1477341, 2440453, 3786722, 6227175, 9751753, 15978928, 25206393, 41185321
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 1, a(1) = 3, a(2) = 4, a(3) = 5.
[A047600] 1, 3, 4, 5, 9, 11, 12, 13, 17, 19, 20, 21, 25, 27, 28, 29, 33, 35, 36, 37, 41, 43, 44, 45, 49, 51, 52, 53, 57, 59, 60, 61, 65, 67, 68, 69, 73, 75, 76, 77, 81, 83, 84, 85, 89, 91, 92, 93, 97, 99, 100, 101, 105, 107, 108, 109, 113, 115, 116, 117, 121, 123, 124
a(n) = 2*n-1 -(3+(-1)^n)*(1+i^(n*(n+1)))/4, where i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A267755] 1, 3, 4, 5, 9, 12, 14, 15, 16, 20, 23, 25, 26, 27, 31, 34, 36, 37, 38, 42, 45, 47, 48, 49, 53, 56, 58, 59, 60, 64, 67, 69, 70, 71, 75, 78, 80, 81, 82, 86, 89, 91, 92, 93, 97, 100, 102, 103, 104, 108, 111, 113, 114, 115, 119, 122, 124, 125, 126, 130, 133, 135, 136, 137
a(n) = a(n-1) + a(n-5) - a(n-6).
[A237132] 3, 4, 5, 9, 12, 23, 31, 60, 81, 157, 212, 411, 555, 1076, 1453, 2817, 3804, 7375, 9959, 19308, 26073, 50549, 68260, 132339, 178707, 346468, 467861, 907065, 1224876, 2374727, 3206767, 6217116, 8395425, 16276621, 21979508, 42612747, 57543099, 111561620
a(n) = 3*a(n-2)-a(n-4).
[A099560] 0, 0, 0, 1, 1, 1, 3, 4, 5, 9, 13, 18, 28, 41, 59, 88, 129, 188, 277, 406, 594, 872, 1278, 1872, 2745, 4023, 5895, 8641, 12664, 18559, 27201, 39865, 58424, 85626, 125491, 183915, 269542, 395033, 578948, 848491, 1243524, 1822472, 2670964, 3914488
a(n) = a(n-1) + 2*a(n-3) - a(n-4) - a(n-6).
[A047364] 3, 4, 5, 10, 11, 12, 17, 18, 19, 24, 25, 26, 31, 32, 33, 38, 39, 40, 45, 46, 47, 52, 53, 54, 59, 60, 61, 66, 67, 68, 73, 74, 75, 80, 81, 82, 87, 88, 89, 94, 95, 96, 101, 102, 103, 108, 109, 110, 115, 116, 117, 122, 123, 124, 129, 130, 131, 136, 137, 138, 143
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-6-12*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-3, a(3k-2) = 7k-4. (End)
[A079351] 3, 4, 5, 10, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115
a(3*5^k + j) = 5^(k+1) + 3j + 2|j|, k >= 0, -2*5^k <= j < 2*5^k.
[A170926] 0, 0, 1, 3, 4, 5, 10, 17, 20, 21, 25, 30, 33, 40, 58, 77, 84, 85, 89, 94, 97, 104, 121, 138, 145, 151, 164, 177, 190, 222, 278, 325, 340, 341, 345, 350, 353, 360, 377, 394, 401, 407, 420, 433, 446, 478, 533, 578, 593, 599, 612, 625, 638, 669, 720, 761, 781, 806, 845, 884, 942
a(2^k) = (4^k-4)/3 for k >= 2. - N. J. A. Sloane, Feb 13 2010.
[A047598] 3, 4, 5, 11, 12, 13, 19, 20, 21, 27, 28, 29, 35, 36, 37, 43, 44, 45, 51, 52, 53, 59, 60, 61, 67, 68, 69, 75, 76, 77, 83, 84, 85, 91, 92, 93, 99, 100, 101, 107, 108, 109, 115, 116, 117, 123, 124, 125, 131, 132, 133, 139, 140, 141, 147, 148, 149, 155, 156, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-12-15*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-3, a(3k-1) = 8k-4, a(3k-2) = 8k-5. (End)
[A283773] 3, 4, 5, 11, 12, 13, 19, 20, 27, 28, 35, 36, 42, 43, 44, 50, 51, 52, 58, 59, 60, 66, 67, 68, 74, 75, 82, 83, 90, 91, 97, 98, 99, 105, 106, 107, 113, 114, 115, 121, 122, 123, 129, 130, 137, 138, 144, 145, 146, 152, 153, 154, 160, 161, 162, 168, 169, 170, 176
a(n+1) - a(n) is in {1,6,7} for every n.
[A052276] 3, 4, 5, 11, 24, 30, 61, 67, 122, 128, 213, 219, 340, 346, 509, 515, 726, 732, 997, 1003, 1328, 1334, 1725, 1731, 2194, 2200, 2741, 2747, 3372, 3378, 4093, 4099, 4910, 4916, 5829, 5835, 6856, 6862, 7997, 8003, 9258, 9264, 10645, 10651
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>8. - Colin Barker, Jul 09 2015
a(n) = ((2*n+1)*(n^2+n+1) - (-1)^n*(3*n^2+3*n-47))/16 for n >= 2. - Robert Israel, Jul 09 2015
[A289121] 3, 4, 5, 12, 37, 98, 219, 430, 767, 1272, 1993, 2984, 4305, 6022, 8207, 10938, 14299, 18380, 23277, 29092, 35933, 43914, 53155, 63782, 75927, 89728, 105329, 122880, 142537, 164462, 188823, 215794, 245555, 278292, 314197, 353468, 396309, 442930, 493547, 548382, 607663
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).

[A221173] 3, 4, 5, 14, 33, 80, 193, 466, 1125, 2716, 6557, 15830, 38217, 92264, 222745, 537754, 1298253, 3134260, 7566773, 18267806, 44102385, 106472576, 257047537, 620567650, 1498182837, 3616933324, 8732049485, 21081032294, 50894114073, 122869260440, 296632634953
a(n) = (1/4)*(7*sqrt(2)*((1+sqrt(2))^n-(1-sqrt(2))^n)-6*((1+sqrt(2))^n+(1-sqrt(2))^n)). - Paolo P. Lava, Jan 04 2013
[A254865] 1, 1, 3, 4, 5, 30, 42, 56, 504, 720, 990, 11880, 17160, 24024, 360360, 524160, 742560, 13366080, 19535040, 27907200, 586051200, 859541760, 1235591280, 29654190720, 43609104000, 62990928000, 1700755056000, 2506375872000, 3634245014400, 109027350432000, 160945136352000, 234102016512000, 7725366544896000, 11420107066368000
a(n) = Product_{k = 1+n-floor(n/3) .. n} k.
[A265283] 1, 3, 4, 6, 6, 8, 8, 10, 10, 12, 12, 14, 14, 16, 16, 18, 18, 20, 20, 22, 22, 24, 24, 26, 26, 28, 28, 30, 30, 32, 32, 34, 34, 36, 36, 38, 38, 40, 40, 42, 42, 44, 44, 46, 46, 48, 48, 50, 50, 52, 52, 54, 54, 56, 56, 58, 58, 60, 60, 62, 62, 64, 64, 66, 66, 68
a(n) = n+2 for n>1 and even.
a(n) = n+3 for n>1 and odd.
a(n) = a(n-1) + a(n-2) - a(n-3) for n>2.
[A080804] 1, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 76, 77, 78
a(n) = n + floor(log_2 n).
[A164386] 1, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80
a(n) = n + floor(sqrt(n-1) + 1/2).
[A111909] 1, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 21, 22, 23, 24, 27, 28, 29, 30, 31, 33, 34, 35, 36, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 81, 83, 84, 86, 87, 88
a(n) = n + O(n^(3/4)). - Charles R Greathouse IV, Sep 01 2015
[A184010] 1, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 103, 104, 105, 106, 107, 108, 109, 110, 111
a(n) = n + floor(sqrt(-1+4n/3))
[A182835] 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92
a(n)=n+floor(sqrt(2n+3)).
[A047517] 0, 1, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 16, 17, 19, 20, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 35, 36, 38, 39, 40, 41, 43, 44, 46, 47, 48, 49, 51, 52, 54, 55, 56, 57, 59, 60, 62, 63, 64, 65, 67, 68, 70, 71, 72, 73, 75, 76, 78, 79, 80, 81, 83, 84, 86, 87, 88, 89
a(n) = a(n-1) + a(n-6) - a(n-7), for n > 7.
a(n) = (24*n-21-3*cos(n*Pi)+2*sqrt(3)*cos((1+4*n)*Pi/6)+6*sin((1-2*n)*Pi/6))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-4, a(6k-3) = 8k-5, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A007401] 1, 3, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76
a(n) = ((t+2)^2 + i - j)/2-1, where
[A276218] 1, 3, 4, 6, 7, 8, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 34, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 54, 55, 56, 57, 58, 60, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 82, 83, 84
a(n) = n + floor(n^(r/s)); the complement is given by n + floor(n^(s/r)).
[A047299] 0, 1, 3, 4, 6, 7, 8, 10, 11, 13, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 29, 31, 32, 34, 35, 36, 38, 39, 41, 42, 43, 45, 46, 48, 49, 50, 52, 53, 55, 56, 57, 59, 60, 62, 63, 64, 66, 67, 69, 70, 71, 73, 74, 76, 77, 78
a(n) = floor((7n+2)/5). - Lorenz H. Menke, Jr., Jun 19 2013
[A184578] 1, 3, 4, 6, 7, 8, 10, 11, 13, 14, 16, 17, 18, 20, 21, 23, 24, 25, 27, 28, 30, 31, 32, 34, 35, 37, 38, 40, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 69, 71, 72, 74, 75, 76, 78, 79, 81, 82, 83, 85, 86, 88, 89, 90, 92, 93, 95, 96, 98, 99, 100, 102, 103, 105, 106, 107, 109, 110, 112, 113, 115, 116, 117, 119, 120, 122, 123, 124, 126, 127, 129, 130, 131, 133, 134, 136, 137, 139, 140, 141, 143, 144, 146, 147, 148, 150, 151, 153, 154, 156, 157, 158, 160, 161, 163, 164, 165, 167, 168, 170
a(n)=floor[(n+1/3)sqrt(2)].
[A022846] 0, 1, 3, 4, 6, 7, 8, 10, 11, 13, 14, 16, 17, 18, 20, 21, 23, 24, 25, 27, 28, 30, 31, 33, 34, 35, 37, 38, 40, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 69, 71, 72, 74, 75, 76, 78, 79, 81, 82, 83, 85, 86, 88, 89, 91, 92, 93, 95, 96
a(n+1) - a(n) = 1 or 2. - Philippe Deléham, Mar 08 2013
[A007378] 3, 4, 6, 7, 8, 10, 12, 13, 14, 15, 16, 18, 20, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 36, 38, 40, 42, 44, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 97, 98, 99, 100, 101, 102, 103
a(2^i + j) = 3*2^(i-1) + j, 0<=j<2^(i-1); a(3*2^(i-1) + j) = 2^(i+1) + 2*j, 0<=j<2^(i-1).
a(3*2^k + j) = 4*2^k + 3j/2 + |j|/2, k>=0, -2^k <= j < 2^k. - N. J. A. Sloane, Feb 23 2003
[A183860] 3, 4, 6, 7, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106
a(n)=n+floor(sqrt(3n+1)).
[A184746] 1, 3, 4, 6, 7, 9, 10, 12, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 43, 45, 46, 48, 49, 51, 52, 54, 55, 56, 58, 59, 61, 62, 64, 65, 67, 68, 69, 71, 72, 74, 75, 77, 78, 80, 81, 82, 84, 85, 87, 88, 90, 91, 93, 94, 96, 97, 98, 100, 101, 103, 104, 106, 107, 109, 110, 111, 113, 114, 116, 117, 119, 120, 122, 123, 124, 126, 127, 129, 130, 132, 133, 135, 136, 137, 139, 140, 142, 143, 145, 146, 148, 149, 151, 152, 153, 155, 156, 158, 159, 161, 162, 164, 165, 166, 168, 169, 171, 172, 174
a(n)=floor(nr+h), where r=1+1/sqrt(5), h=1/2.
[A258048] 1, 3, 4, 6, 7, 9, 10, 12, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 28, 29, 31, 32, 34, 35, 36, 38, 39, 41, 42, 44, 45, 47, 48, 50, 51, 53, 54, 56, 57, 58, 60, 61, 63, 64, 66, 67, 69, 70, 72, 73, 75, 76, 78, 79, 80, 82, 83, 85, 86, 88, 89, 91, 92, 94, 95, 97
a(n) = ceiling((n + 1/2)*Pi/(Pi - 1)).
[A032766] 0, 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 16, 18, 19, 21, 22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 37, 39, 40, 42, 43, 45, 46, 48, 49, 51, 52, 54, 55, 57, 58, 60, 61, 63, 64, 66, 67, 69, 70, 72, 73, 75, 76, 78, 79, 81, 82, 84, 85, 87, 88, 90, 91, 93, 94, 96, 97, 99, 100, 102, 103
a(n) = (6n - 1 + (-1)^n)/4.
a(n) = sqrt(2) * sqrt((6n-1) (-1)^n + 18n^2 - 6n + 1)/4.
a(n) = Sum_{k=0..n} 3/2 - 2*0^k + (-1)^k/2. (End)
a(n) = 1 + ceiling(3*(n-1)/2). - Fung Cheok Yin (cheokyin_restart(AT)yahoo.com.hk), Sep 22 2006
a(n) = (cos(Pi*n) - 1)/4 + 3*n/2. - Bart Snapp (snapp(AT)coastal.edu), Sep 18 2008
a(n) = floor(n/2) + n. - Gary Detlefs, Mar 19 2010
[A059559] 1, 3, 4, 6, 7, 9, 10, 12, 13, 15, 17, 18, 20, 21, 23, 24, 26, 27, 29, 30, 32, 34, 35, 37, 38, 40, 41, 43, 44, 46, 48, 49, 51, 52, 54, 55, 57, 58, 60, 61, 63, 65, 66, 68, 69, 71, 72, 74, 75, 77, 79, 80, 82, 83, 85, 86, 88, 89, 91, 92, 94, 96, 97, 99, 100, 102, 103, 105, 106
a(n) = floor(n*(1 + log(1/Euler))). - Michel Marcus, Jan 05 2015
[A187342] 1, 3, 4, 6, 7, 9, 10, 12, 14, 15, 17, 18, 20, 21, 23, 25, 26, 28, 29, 31, 32, 34, 36, 37, 39, 40, 42, 43, 45, 47, 48, 50, 51, 53, 54, 56, 57, 59, 61, 62, 64, 65, 67, 68, 70, 72, 73, 75, 76, 78, 79, 81, 83, 84, 86, 87, 89, 90, 92, 94, 95, 97, 98, 100, 101, 103, 104, 106, 108, 109, 111, 112, 114, 115, 117, 119, 120, 122, 123, 125
a(n)=floor(((15+sqrt(5))/11)n).
[A243989] 1, 3, 4, 6, 7, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 25, 26, 28, 29, 31, 32, 34, 36, 37, 39, 40, 42, 43, 45, 47, 48, 50, 51, 53, 54, 56, 58, 59, 61, 62, 64, 65, 67, 69, 70, 72, 73, 75, 76, 78, 80, 81, 83, 84, 86, 87, 89, 91, 92, 94, 95, 97, 98, 100, 102, 103
a(n) = floor(Pi/area) where area = 2*d + k1 - k2, d = (1/4)*(c^2*(2+c)*(2-c))^(1/2), k1 = acos(-c^2/(2*c)), k2 = acos(c^2/(2*c)).

[A182770] 1, 3, 4, 6, 7, 9, 11, 12, 14, 15, 17, 19, 20, 22, 23, 25, 26, 28, 30, 31, 33, 34, 36, 38, 39, 41, 42, 44, 45, 47, 49, 50, 52, 53, 55, 57, 58, 60, 61, 63, 65, 66, 68, 69, 71, 72, 74, 76, 77, 79, 80, 82, 84, 85, 87, 88, 90, 91, 93, 95, 96, 98, 99, 101, 103, 104, 106, 107, 109
a(n)=floor(n*(3-sqrt(2))).
[A059552] 1, 3, 4, 6, 7, 9, 11, 12, 14, 15, 17, 19, 20, 22, 23, 25, 27, 28, 30, 31, 33, 35, 36, 38, 39, 41, 43, 44, 46, 47, 49, 51, 52, 54, 55, 57, 59, 60, 62, 63, 65, 67, 68, 70, 71, 73, 74, 76, 78, 79, 81, 82, 84, 86, 87, 89, 90, 92, 94, 95, 97, 98, 100, 102, 103, 105, 106, 108
a(n) = floor(n*Gamma(1/3)/(Gamma(1/3)-1)). - Michel Marcus, Jan 04 2015
[A047516] 1, 3, 4, 6, 7, 9, 11, 12, 14, 15, 17, 19, 20, 22, 23, 25, 27, 28, 30, 31, 33, 35, 36, 38, 39, 41, 43, 44, 46, 47, 49, 51, 52, 54, 55, 57, 59, 60, 62, 63, 65, 67, 68, 70, 71, 73, 75, 76, 78, 79, 81, 83, 84, 86, 87, 89, 91, 92, 94, 95, 97, 99, 100, 102, 103, 105
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
[A060832] 0, 1, 3, 4, 6, 7, 10, 11, 13, 14, 16, 17, 20, 21, 23, 24, 26, 27, 30, 31, 33, 34, 36, 37, 41, 42, 44, 45, 47, 48, 51, 52, 54, 55, 57, 58, 61, 62, 64, 65, 67, 68, 71, 72, 74, 75, 77, 78, 82, 83, 85, 86, 88, 89, 92, 93, 95, 96, 98, 99, 102, 103, 105, 106, 108, 109, 112, 113
a(n) = (e-1)*n + f(n) where f(n) < 0. - Benoit Cloitre, Jun 19 2002. Comment from Franklin T. Adams-Watters, Nov 03 2005: f is unbounded in the negative direction. The assertion that f(n) < 0 is correct, since (e-1)*n = sum_{k=1}^{infinity} n/k! is term for term >= this sequence.
[A047297] 0, 3, 4, 6, 7, 10, 11, 13, 14, 17, 18, 20, 21, 24, 25, 27, 28, 31, 32, 34, 35, 38, 39, 41, 42, 45, 46, 48, 49, 52, 53, 55, 56, 59, 60, 62, 63, 66, 67, 69, 70, 73, 74, 76, 77, 80, 81, 83, 84, 87, 88, 90, 91, 94, 95, 97, 98, 101, 102, 104, 105, 108, 109, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-9+3*i^(2*n)-(1+i)*i^(-n)-(1-i)*i^n)/8 where i=sqrt(-1).
[A239438] 1, 1, 3, 4, 6, 7, 10, 12, 15, 19, 22, 26, 31, 35, 40, 46, 51, 57, 64, 70, 77, 85, 92, 100, 109, 117, 126, 136, 145, 155, 166, 176, 187, 199, 210, 222, 235, 247, 260, 274, 287, 301, 316, 330, 345, 361, 376, 392, 409
a(n) = ceiling(n(n+1)/6) for n > 5, see Geramita, Gregory, Roberts theorem 5.4. - Charles R Greathouse IV, Dec 04 2014
[A047514] 3, 4, 6, 7, 11, 12, 14, 15, 19, 20, 22, 23, 27, 28, 30, 31, 35, 36, 38, 39, 43, 44, 46, 47, 51, 52, 54, 55, 59, 60, 62, 63, 67, 68, 70, 71, 75, 76, 78, 79, 83, 84, 86, 87, 91, 92, 94, 95, 99, 100, 102, 103, 107, 108, 110, 111, 115, 116, 118, 119, 123, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (1+i)*(4*n-4*n*i+(i-1)*i^(2*n)+i^(1-n)-i^n)/4 where i=sqrt(-1).
a(n) = a(n-4) + 8 for n > 4.
a(4*k) = 8*k-1, a(4*k-1) = 8*k-2, a(4*k-2) = 8*k-4, a(4*k-3) = 8*k-5. (End)
[A276214] 1, 3, 4, 6, 8, 9, 11, 12, 13, 15, 16, 18, 19, 21, 22, 23, 25, 26, 28, 29, 30, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 46, 47, 48, 50, 51, 52, 54, 55, 56, 58, 59, 60, 62, 63, 64, 66, 67, 68, 70, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 87, 88, 89, 90
a(n) = n + floor(n^(r/s)); the complement is given by n + floor(n^(s/r)).
[A000201] 1, 3, 4, 6, 8, 9, 11, 12, 14, 16, 17, 19, 21, 22, 24, 25, 27, 29, 30, 32, 33, 35, 37, 38, 40, 42, 43, 45, 46, 48, 50, 51, 53, 55, 56, 58, 59, 61, 63, 64, 66, 67, 69, 71, 72, 74, 76, 77, 79, 80, 82, 84, 85, 87, 88, 90, 92, 93, 95, 97, 98, 100, 101, 103, 105, 106, 108, 110
a(1) = 1; for n>0, a(n+1) = a(n)+1 if n is not in sequence, a(n+1) = a(n)+2 if n is in sequence.
a(0) = 0; a(n) = n + max{ k : a(k) < n}. - Vladeta Jovovic, Jun 11 2004
a(Fib(r-1)+j) = Fib(r)+a(j) for 0<j<=Fib(r-2); 2<r. - Paul Weisenhorn, Aug 18 2012
[A182774] 1, 3, 4, 6, 8, 9, 11, 13, 14, 16, 17, 19, 21, 22, 24, 26, 27, 29, 30, 32, 34, 35, 37, 39, 40, 42, 44, 45, 47, 48, 50, 52, 53, 55, 57, 58, 60, 61, 63, 65, 66, 68, 70, 71, 73, 74, 76, 78, 79, 81, 83, 84, 86, 88, 89, 91, 92, 94, 96, 97, 99, 101, 102, 104
a(n)=floor(n*(1+2^(-2/3))).
[A182772] 1, 3, 4, 6, 8, 9, 11, 13, 14, 16, 17, 19, 21, 22, 24, 26, 27, 29, 31, 32, 34, 35, 37, 39, 40, 42, 44, 45, 47, 49, 50, 52, 53, 55, 57, 58, 60, 62, 63, 65, 66, 68, 70, 71, 73, 75, 76, 78, 80, 81, 83, 84, 86, 88, 89, 91, 93, 94, 96, 98, 99, 101, 102, 104
a(n)=floor(n*(5-sqrt(3))/2).
[A047206] 1, 3, 4, 6, 8, 9, 11, 13, 14, 16, 18, 19, 21, 23, 24, 26, 28, 29, 31, 33, 34, 36, 38, 39, 41, 43, 44, 46, 48, 49, 51, 53, 54, 56, 58, 59, 61, 63, 64, 66, 68, 69, 71, 73, 74, 76, 78, 79, 81, 83, 84, 86, 88, 89, 91, 93, 94, 96, 98, 99, 101, 103, 104, 106, 108
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n)= 1+(5*n)/3-(i*sqrt(3) * (-1/2+(i*sqrt(3))/2)^n)/9+(i*sqrt(3)* (-1/2-(i*sqrt(3))/2)^n)/9. - Stephen Crowley, Feb 11 2007
a(n) = floor((5*n-1)/3). - Gary Detlefs, May 14 2011
a(n) = (15*n-6-3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-1, a(3k-1) = 5k-2, a(3k-2) = 5k-4. (End)
[A081031] 1, 3, 4, 6, 8, 9, 11, 13, 15, 16, 18, 20, 21, 23, 25, 27, 28, 30, 32, 33, 35, 37, 39, 40, 42, 44, 45, 47, 49, 51, 52, 54, 56, 57, 59, 61, 63, 64, 66, 68, 69, 71, 73, 75, 76, 78, 80, 81, 83, 85, 87, 88
a(n) = [(12n-3)/7]
[A184006] 1, 3, 4, 6, 8, 10, 11, 13, 15, 16, 18, 20, 22, 23, 25, 27, 29, 30, 32, 34, 36, 37, 39, 41, 42, 44, 46, 48, 49, 51, 53, 55, 56, 58, 60, 62, 63, 65, 67, 68, 70, 72, 74, 75, 77, 79, 81, 82, 84, 86, 88, 89, 91, 93, 94, 96, 98, 100, 101, 103, 105, 107, 108, 110
a(n)=floor(nr+h), where r=sqrt(3), h=-1/3
[A047298] 1, 3, 4, 6, 8, 10, 11, 13, 15, 17, 18, 20, 22, 24, 25, 27, 29, 31, 32, 34, 36, 38, 39, 41, 43, 45, 46, 48, 50, 52, 53, 55, 57, 59, 60, 62, 64, 66, 67, 69, 71, 73, 74, 76, 78, 80, 81, 83, 85, 87, 88, 90, 92, 94, 95, 97, 99, 101, 102, 104, 106, 108, 109, 111
a(n) = ceiling(ceiling((7n + 2)/2)/2).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = i^(-n)*(i-1-7*i^n+14*n*i^n-(1+i)*i^(2n)+i^(-n))/8 where i=sqrt(-1).
[A184748] 1, 3, 4, 6, 8, 10, 11, 13, 15, 17, 18, 20, 22, 24, 25, 27, 29, 31, 33, 34, 36, 38, 40, 41, 43, 45, 47, 48, 50, 52, 54, 55, 57, 59, 61, 63, 64, 66, 68, 70, 71, 73, 75, 77, 78, 80, 82, 84, 85, 87, 89, 91, 92, 94, 96, 98, 100, 101, 103, 105, 107, 108, 110, 112, 114, 115, 117, 119, 121, 122, 124, 126, 128, 130, 131, 133, 135, 137, 138, 140, 142, 144, 145, 147, 149, 151, 152, 154, 156, 158, 160, 161, 163, 165, 167, 168, 170, 172, 174, 175, 177, 179, 181, 182, 184, 186, 188, 190, 191, 193, 195, 197, 198, 200, 202, 204, 205, 207, 209, 211
a(n)=floor(nr+h), where r=4-5^(1/2), h=-1/2.
[A184736] 1, 3, 4, 6, 8, 10, 12, 14, 15, 17, 19, 21, 23, 25, 26, 28, 30, 32, 34, 36, 37, 39, 41, 43, 45, 47, 48, 50, 52, 54, 56, 58, 59, 61, 63, 65, 67, 68, 70, 72, 74, 76, 78, 79, 81, 83, 85, 87, 89, 90, 92, 94, 96, 98, 100, 101, 103, 105, 107, 109, 111, 112, 114, 116, 118, 120, 122, 123, 125, 127, 129, 131, 132, 134, 136, 138, 140, 142, 143, 145, 147, 149, 151, 153, 154, 156, 158, 160, 162, 164, 165, 167, 169, 171, 173, 175, 176, 178, 180, 182, 184, 185, 187, 189, 191, 193, 195, 196, 198, 200, 202, 204, 206, 207, 209, 211, 213, 215, 217, 218
a(n)=floor(nr+h), where r=-1+2^(3/2), h=-1/2.
[A058992] 0, 1, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124
a(n) = 2n - 4 for n >= 4.
[A051755] 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130
a(2) = 3, a(n) = 2n-2 for n >= 3.
a(n) = 2*a(n-1)-a(n-2) for n>4. - Colin Barker, Nov 08 2014
[A092137] 1, 3, 4, 6, 8, 10, 12, 15, 17, 20, 23, 26, 29, 32, 36, 39, 43, 46, 50, 54, 58, 62, 66, 70, 75, 79, 84, 88, 93, 98, 103, 107, 112, 117, 123, 128, 133, 138, 144, 149, 155, 160, 166, 172, 178, 184, 189, 195, 202, 208
a(n) = ceil(sqrt(sum_{k=1}^n k^2))
[A080728] 3, 4, 6, 8, 11, 12, 14, 15, 17, 18, 19, 20, 23, 24, 26, 29, 30, 32, 35, 38, 41, 42, 43, 44, 47, 48, 50, 51, 52, 53, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 71, 74, 77, 78, 79, 80, 83, 84, 86, 89, 92, 95, 96, 97, 98, 101, 102, 104, 107, 110, 113, 116, 119, 122, 125, 128
a(a(n)) = 3*n+8, n >= 0.
[A047414] 0, 3, 4, 6, 8, 11, 12, 14, 16, 19, 20, 22, 24, 27, 28, 30, 32, 35, 36, 38, 40, 43, 44, 46, 48, 51, 52, 54, 56, 59, 60, 62, 64, 67, 68, 70, 72, 75, 76, 78, 80, 83, 84, 86, 88, 91, 92, 94, 96, 99, 100, 102, 104, 107, 108, 110, 112, 115, 116, 118, 120, 123, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

a(n) = (8*n-7+i^(2*n)-i^(-n)-i^n)/4 where i=sqrt(-1).
[A060903] 0, 0, 1, 3, 4, 6, 8, 11, 13, 16, 19, 22, 25, 28, 31, 35, 38, 42, 46, 50, 54, 58, 62, 67, 71, 75, 80, 85, 90, 94, 99, 104, 110, 115, 120, 125, 131, 136, 142, 148, 153, 159, 165, 171, 177, 183, 189, 195, 202, 208, 214, 221, 227, 234, 241, 247, 254, 261, 268, 275, 282
a(n) = floor(6*n^(3/2)/Pi^2).
[A156040] 1, 1, 3, 4, 6, 8, 11, 13, 17, 20, 24, 28, 33, 37, 43, 48, 54, 60, 67, 73, 81, 88, 96, 104, 113, 121, 131, 140, 150, 160, 171, 181, 193, 204, 216, 228, 241, 253, 267, 280, 294, 308, 323, 337, 353, 368, 384, 400, 417, 433, 451, 468, 486, 504, 523, 541, 561, 580, 600
a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6), with a(0) = 1, a(1) = 1, a(2) = 3, a(3) = 4, a(4) = 6, a(5) = 8. - Harvey P. Dale, May 28 2015
a(n) = (n^2 + 4*n + 3)/6 + IF(MOD(n, 2) = 0, 1/2) + IF(MOD(n, 3) = 1, -1/3). - Heinrich Ludwig, Mar 21 2017
a(n) = 1 + floor((n^2 + 4*n)/6). - Giovanni Resta, Mar 21 2017
a(n) = a(-4 - n) for all n in Z. - Michael Somos, Mar 26 2017
[A063759] 1, 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 96, 128, 192, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288, 16384, 24576, 32768, 49152, 65536, 98304, 131072, 196608, 262144, 393216, 524288, 786432, 1048576, 1572864, 2097152
a(n) = 2*a(n-2), n>2. - Harvey P. Dale, Oct 22 2011
[A163978] 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 96, 128, 192, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288, 16384, 24576, 32768, 49152, 65536, 98304, 131072, 196608, 262144, 393216, 524288, 786432, 1048576, 1572864, 2097152, 3145728
a(n) = (1/2)*(5 - (-1)^n)*2^((2*n - 1 + (-1)^n)/4).
[A136483] 0, 0, 1, 1, 3, 4, 6, 8, 13, 15, 19, 22, 28, 30, 37, 41, 48, 54, 64, 69, 77, 83, 94, 98, 110, 119, 131, 139, 152, 162, 172, 183, 199, 208, 226, 234, 253, 263, 281, 294, 308, 322, 343, 357, 377, 390, 412, 424, 447, 465, 488, 504, 528, 545, 567, 585, 612, 628, 654
a(n) = Sum(floor(sqrt((n/2)^2 - k^2))), k = 1 ... floor(n/2).
[A080710] 1, 3, 4, 6, 9, 10, 12, 13, 14, 15, 18, 19, 21, 24, 27, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 54, 57, 58, 59, 60, 63, 64, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 105, 108, 111, 112, 113, 114, 117, 118, 120
a(a(n)) = 3*(n+1).
[A047231] 0, 3, 4, 6, 9, 10, 12, 15, 16, 18, 21, 22, 24, 27, 28, 30, 33, 34, 36, 39, 40, 42, 45, 46, 48, 51, 52, 54, 57, 58, 60, 63, 64, 66, 69, 70, 72, 75, 76, 78, 81, 82, 84, 87, 88, 90, 93, 94, 96, 99, 100, 102, 105, 106, 108, 111, 112, 114, 117, 118, 120, 123, 124
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (6*n-5-cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 6k-2, a(3k-1) = 6k-3, a(3k-2) = 6k-6. (End)
[A047415] 1, 3, 4, 6, 9, 11, 12, 14, 17, 19, 20, 22, 25, 27, 28, 30, 33, 35, 36, 38, 41, 43, 44, 46, 49, 51, 52, 54, 57, 59, 60, 62, 65, 67, 68, 70, 73, 75, 76, 78, 81, 83, 84, 86, 89, 91, 92, 94, 97, 99, 100, 102, 105, 107, 108, 110, 113, 115, 116, 118, 121, 123, 124
a(n) = 2*(n-1)-(i^(n*(n+1))-1)/2, where i=sqrt(-1). - Bruno Berselli, Dec 06 2011
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (1+i)*(4*n-4*n*i+3*i-3+i^(1-n)-i^n)/4 where i=sqrt(-1).
[A087805] 0, 1, 3, 4, 6, 9, 11, 12, 14, 17, 19, 22, 26, 29, 31, 32, 34, 37, 39, 42, 46, 49, 51, 54, 58, 61, 65, 70, 74, 77, 79, 80, 82, 85, 87, 90, 94, 97, 99, 102, 106, 109, 113, 118, 122, 125, 127, 130, 134, 137, 141, 146, 150, 153, 157, 162, 166, 171, 177, 182, 186, 189, 191
a(n) seems to be asymptotic to c*n*log(n). Is c=log(2) ?
[A283777] 1, 3, 4, 6, 9, 12, 14, 15, 17, 18, 20, 23, 26, 28, 29, 31, 32, 34, 37, 39, 40, 42, 43, 45, 48, 51, 53, 54, 56, 57, 59, 62, 65, 67, 68, 70, 71, 73, 76, 78, 79, 81, 82, 84, 87, 90, 92, 93, 95, 96, 98, 101, 104, 106, 107, 109, 112, 115, 117, 118, 120, 121, 123
a(n+1) - a(n) is in {1,2,3} for every n.
[A097922] 1, 1, 3, 4, 6, 9, 12, 16, 21, 26, 32, 39, 46, 54, 63, 72, 82, 93, 104, 116, 129, 142, 156, 171, 186, 202, 219, 236, 254, 273, 292, 312, 333, 354, 376, 399, 422, 446, 471, 496, 522, 549, 576, 604, 633, 662, 692, 723, 754, 786, 819, 852, 886, 921, 956, 992, 1029, 1066, 1104
a(n) = 2 + ceiling((n^2 - n)/3) for n >= 2. - Robert Israel, May 20 2014
[A152950] 3, 4, 6, 9, 13, 18, 24, 31, 39, 48, 58, 69, 81, 94, 108, 123, 139, 156, 174, 193, 213, 234, 256, 279, 303, 328, 354, 381, 409, 438, 468, 499, 531, 564, 598, 633, 669, 706, 744, 783, 823, 864, 906, 949, 993, 1038, 1084, 1131, 1179, 1228, 1278, 1329, 1381, 1434
a(n) = 3+C(n,2), n>=1. - Zerinvary Lajos, Mar 12 2009
a(n) = a(n-1)+n-1 (with a(1)=3). - Vincenzo Librandi, Nov 27 2010
[A048577] 3, 4, 6, 9, 14, 22, 35, 56, 90, 145, 234, 378, 611, 988, 1598, 2585, 4182, 6766, 10947, 17712, 28658, 46369, 75026, 121394, 196419, 317812, 514230, 832041, 1346270, 2178310, 3524579, 5702888, 9227466, 14930353, 24157818, 39088170, 63245987, 102334156, 165580142
a(n) = Fib(n+3)+1. a(n) = 2a(n-1) - a(n-3).
a(n) = 1+[1/2+(1/2)*sqrt(5)]^n+(2/5)*[1/2+(1/2)*sqrt(5)]^n*sqrt(5)-(2/5)*sqrt(5)*[1/2-(1/2) *sqrt(5)]^n+[1/2-(1/2)*sqrt(5)]^n, with n>0=0 - Paolo P. Lava, Jun 10 2008
[A047296] 3, 4, 6, 10, 11, 13, 17, 18, 20, 24, 25, 27, 31, 32, 34, 38, 39, 41, 45, 46, 48, 52, 53, 55, 59, 60, 62, 66, 67, 69, 73, 74, 76, 80, 81, 83, 87, 88, 90, 94, 95, 97, 101, 102, 104, 108, 109, 111, 115, 116, 118, 122, 123, 125, 129, 130, 132, 136, 137, 139, 143
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-3-6*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-3, a(3k-2) = 7k-4. (End)
[A004793] 1, 3, 4, 6, 10, 12, 13, 15, 28, 30, 31, 33, 37, 39, 40, 42, 82, 84, 85, 87, 91, 93, 94, 96, 109, 111, 112, 114, 118, 120, 121, 123, 244, 246, 247, 249, 253, 255, 256, 258, 271, 273, 274, 276, 280, 282, 283, 285, 325, 327, 328, 330, 334, 336, 337, 339, 352, 354
a(n) = b(n-1), with b(0)=1, b(2n)=3b(n)-2-3[n odd], b(2n+1)=3b(n)-3[n odd].
[A068922] 3, 4, 6, 10, 16, 26, 42, 68, 110, 178, 288, 466, 754, 1220, 1974, 3194, 5168, 8362, 13530, 21892, 35422, 57314, 92736, 150050, 242786, 392836, 635622, 1028458, 1664080, 2692538, 4356618, 7049156, 11405774, 18454930, 29860704, 48315634, 78176338, 126491972
a(n) = (2^(-n)*(-(1-sqrt(5))^(1+n) + (1+sqrt(5))^(1+n))) / sqrt(5) for n>1.
a(n) = a(n-1) + a(n-2) for n>3.
[A052548] 3, 4, 6, 10, 18, 34, 66, 130, 258, 514, 1026, 2050, 4098, 8194, 16386, 32770, 65538, 131074, 262146, 524290, 1048578, 2097154, 4194306, 8388610, 16777218, 33554434, 67108866, 134217730, 268435458, 536870914, 1073741826, 2147483650
a(0)=3, a(1)=4, a(n) = 3*a(n-1) - 2*a(n-2).
a(0)=3, a(n) = 2*a(n-1) - 2. - Vincenzo Librandi, Aug 06 2010
[A047413] 3, 4, 6, 11, 12, 14, 19, 20, 22, 27, 28, 30, 35, 36, 38, 43, 44, 46, 51, 52, 54, 59, 60, 62, 67, 68, 70, 75, 76, 78, 83, 84, 86, 91, 92, 94, 99, 100, 102, 107, 108, 110, 115, 116, 118, 123, 124, 126, 131, 132, 134, 139, 140, 142, 147, 148, 150, 155, 156, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-9-9*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-4, a(3k-2) = 8k-5. (End)
[A093040] 1, 1, 1, 3, 4, 6, 11, 17, 27, 45, 72, 116, 189, 305, 493, 799, 1292, 2090, 3383, 5473, 8855, 14329, 23184, 37512, 60697, 98209, 158905, 257115, 416020, 673134, 1089155, 1762289, 2851443, 4613733, 7465176, 12078908, 19544085, 31622993, 51167077
a(n) = a(n-2)+2a(n-3)+a(n-5);
a(n-1) = sum{k=0..floor(n/2), if(mod(n-k, 2)=1, binomial(n-k, k), 0)};
a(n) = sum{k=0..floor(n/2), C(2k+1,n-2k)}. - Paul Barry, May 31 2006
a(n) = floor(Fibonacci(n+3)/2) - floor(Fibonacci(n+1)/2). - Gary Detlefs, Mar 13 2011
[A192813] 0, 1, 1, 3, 4, 6, 11, 18, 31, 53, 91, 158, 274, 477, 832, 1453, 2541, 4447, 7788, 13646, 23919, 41938, 73547, 129001, 226295, 397006, 696546, 1222153, 2144464, 3762921, 6603001, 11586843, 20332676, 35680278, 62613091, 109876418, 192817159
a(n)=2*a(n-1)-a(n-4)-a(n-6).
[A294144] 1, 3, 4, 6, 12, 14, 15, 17, 28, 41, 44, 48, 64, 67, 68, 70, 89, 93, 116, 122, 149, 157, 163, 169, 199, 230, 235, 268, 303, 311, 318, 325, 364, 372, 379, 387, 432, 441, 448, 456, 504, 512, 519, 527, 580, 635, 644, 654, 713, 773, 834, 846, 911, 925, 994, 1010
a(n) = Sum_{i=1..n} i * mu(2n-i)^2.

[A097044] 1, 3, 4, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82
a(1)=1; a(n) = n + a(floor(sqrt(n))) for n > 1.
[A080722] 0, 1, 3, 4, 7, 8, 9, 10, 13, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121
a(a(n)) = 3*n-2, n >= 2.
[A092754] 1, 3, 4, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 127, 128, 129, 130, 131, 132
a(n)=2^floor(log(n)/log(2))+n-1
[A047545] 0, 1, 3, 4, 7, 8, 9, 11, 12, 15, 16, 17, 19, 20, 23, 24, 25, 27, 28, 31, 32, 33, 35, 36, 39, 40, 41, 43, 44, 47, 48, 49, 51, 52, 55, 56, 57, 59, 60, 63, 64, 65, 67, 68, 71, 72, 73, 75, 76, 79, 80, 81, 83, 84, 87, 88, 89, 91, 92, 95, 96, 97, 99, 100, 103, 104
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 45 - 7*(n mod 5) + 3*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-4, a(5k-2) = 8k-5, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A004201] 1, 3, 4, 7, 8, 9, 13, 14, 15, 16, 21, 22, 23, 24, 25, 31, 32, 33, 34, 35, 36, 43, 44, 45, 46, 47, 48, 49, 57, 58, 59, 60, 61, 62, 63, 64, 73, 74, 75, 76, 77, 78, 79, 80, 81, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 133, 134, 135
a(n) = n + t(t+1)/2, where t = floor((-1+sqrt(8*n-7))/2). - Boris Putievskiy, Dec 13 2012
[A047344] 0, 1, 3, 4, 7, 8, 10, 11, 14, 15, 17, 18, 21, 22, 24, 25, 28, 29, 31, 32, 35, 36, 38, 39, 42, 43, 45, 46, 49, 50, 52, 53, 56, 57, 59, 60, 63, 64, 66, 67, 70, 71, 73, 74, 77, 78, 80, 81, 84, 85, 87, 88, 91, 92, 94, 95, 98, 99, 101, 102, 105, 106, 108, 109
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-19-3*i^(2n)-(1-i)*i^(-n)-(1+i)*i^n)/8 where i=sqrt(-1).
[A005187] 0, 1, 3, 4, 7, 8, 10, 11, 15, 16, 18, 19, 22, 23, 25, 26, 31, 32, 34, 35, 38, 39, 41, 42, 46, 47, 49, 50, 53, 54, 56, 57, 63, 64, 66, 67, 70, 71, 73, 74, 78, 79, 81, 82, 85, 86, 88, 89, 94, 95, 97, 98, 101, 102, 104, 105, 109, 110, 112, 113, 116, 117, 119, 120, 127, 128
a(n) <= 2n-1; equality holds for powers of 2.
a(n) >= 2n-1-floor(log_2(n)); equality holds for n = 2^m-1, m > 0.
a(n) = log_2(denominator(binomial(-1/2,n))). - Peter Luschny, Nov 25 2011
a(2n+1) = a(2n) + 1. - M. F. Hasler, Jan 24 2015
[A184835] 1, 3, 4, 7, 8, 10, 11, 15, 16, 18, 19, 22, 23, 25, 27, 31, 32, 34, 35, 38, 39, 41, 43, 46, 47, 49, 50, 53, 54, 57, 60, 62, 63, 65, 67, 69, 70, 73, 75, 77, 78, 80, 82, 84, 86, 89, 91, 93, 94, 96, 98, 100, 101, 104, 106, 108, 109, 112, 114, 116, 119, 121, 123, 124, 126, 128, 130, 131, 134, 136, 138, 139, 141, 143, 146, 148, 150, 152, 154, 155, 157, 159, 161, 163, 165, 167, 169, 170, 173, 175, 177, 179, 182, 183, 185, 186, 189, 190, 193, 194, 197, 198, 200, 201, 205, 206, 209, 210, 213, 214, 216, 217, 220, 222, 224, 227, 228
a(n) = n + floor(n*p/u) + floor(n*q/u) + floor(n*r/u) + floor(n*s/u), where p=t, q=t^2, r=t^3, s=t^4, u=t^5, and t is the pentanacci constant.
[A184823] 1, 3, 4, 7, 8, 10, 11, 15, 16, 18, 19, 22, 23, 25, 28, 30, 31, 33, 35, 37, 38, 41, 43, 45, 46, 48, 51, 52, 55, 57, 59, 60, 62, 64, 66, 68, 70, 72, 74, 75, 78, 79, 82, 83, 86, 87, 89, 90, 93, 94, 97, 98, 101, 103, 104, 107, 108, 111, 112, 115, 116, 118, 119, 122, 124, 126, 128, 130, 131, 133, 135, 138, 139, 141, 143, 145, 146, 148, 151, 153, 155, 157, 159, 160, 162, 165, 167, 168, 170, 172, 174, 175, 178, 180, 182, 183, 186, 187, 189, 190, 194, 195, 197, 198, 201, 202, 204, 208, 209, 211, 212, 215, 216, 218, 220, 223, 224
a(n) = n + floor(n*p/s) + floor(n*q/s) + floor(n*r/s), where p=t, q=t^2, r=t^3, s=t^4, and t is the tetranacci constant.
[A014601] 0, 3, 4, 7, 8, 11, 12, 15, 16, 19, 20, 23, 24, 27, 28, 31, 32, 35, 36, 39, 40, 43, 44, 47, 48, 51, 52, 55, 56, 59, 60, 63, 64, 67, 68, 71, 72, 75, 76, 79, 80, 83, 84, 87, 88, 91, 92, 95, 96, 99, 100, 103, 104, 107, 108, 111, 112, 115, 116, 119, 120, 123, 124
a(n) = (n+1)*2 + 1 - n mod 2. - Reinhard Zumkeller, Apr 21 2003
a(n) = Sum_{k=1..n} 2-(-1)^k. - William A. Tedeschi, Mar 20 2008
a(n) = a(n-1) + a(n-2) - a(n-3) for n > 2. G.f.: x*(3+x)/((1+x)*(x-1)^2). - R. J. Mathar, Sep 25 2009
a(n) = 2*n + (n mod 2). - Paolo Valzasina (p.valzasina(AT)gmail.com), Nov 24 2009
a(n) = (4*n-(-1)^n+1)/2. - Bruno Berselli, Oct 06 2010
a(n) = 4*n-a(n-1)-1 (with a(0)=0). - Vincenzo Librandi, Dec 24 2010
[A154708] 3, 4, 7, 8, 11, 12, 15, 16, 19, 20, 23, 24, 27, 28, 31, 32, 35, 36, 39, 40, 43, 44, 47, 48, 51, 52, 55, 56, 59, 60, 63, 64, 67, 68, 71, 72, 75, 76, 79, 80, 83, 84, 87, 88, 91, 92, 95, 96, 99, 100, 103, 104, 107, 108, 111, 112, 115, 116, 119, 120, 123, 124, 127, 128, 131, 132, 135, 136, 139, 140
a(1)=4; thereafter a(2*n)=a(2*n-1)+3, a(2*n+1)=a(2*n)+1.
a(n)=4*n-a(n-1)-1 (with a(1)=3) [From Vincenzo Librandi, Nov 26 2010]
a(n)=(1-(-1)^n+4*n)/2. a(n)=a(n-1)+a(n-2)-a(n-3). G.f.: x*(x+3) / ((x-1)^2*(x+1)). [Colin Barker, Mar 06 2013]
[A051201] 1, 3, 4, 7, 8, 12, 13, 15, 19, 21, 22, 28, 29, 31, 33, 39, 40, 43, 44, 51, 53, 55, 56, 60, 66, 68, 70, 73, 74, 83, 84, 87, 89, 91, 93, 103, 104, 106, 108, 112, 113, 123, 124, 127, 130, 132, 133, 138, 146, 149, 151, 154, 155, 159, 161, 172, 174, 176, 177, 183, 184, 186
a(n) = m*(m+1)/2 + sum_{k=1..floor(n/(m+1))} floor(n/k), where m is the largest number such that m*(m+1) <= n, i.e., m=floor((sqrt(4*n+1)-1)/2). [From Max Alekseyev, Feb 12 2012]
[A165157] 0, 1, 3, 4, 7, 8, 12, 13, 18, 19, 25, 26, 33, 34, 42, 43, 52, 53, 63, 64, 75, 76, 88, 89, 102, 103, 117, 118, 133, 134, 150, 151, 168, 169, 187, 188, 207, 208, 228, 229, 250, 251, 273, 274, 297, 298, 322, 323, 348, 349, 375, 376, 403, 404, 432, 433, 462, 463, 493, 494, 525
a(0) = 0, a(2*n) = a(2*n-1) + n + 1, a(2*n+1) = a(2*n) + 1.
a(n) = (n^2+10*n)/8 if n is even, a(n) = (n^2+8*n-1)/8 if n is odd.
a(n) = 2*a(n-2)-a(n-4)+1 for n > 3; a(0)=0, a(1)=1, a(2)=3, a(3)=4. - _Klaus Brockhaus, Sep 06 2009
a(n) = (2*n*(n+9)-1+(2*n+1)*(-1)^n)/16. - Klaus Brockhaus, Sep 06 2009
a(n) = n+binomial(1+floor(n/2),2). - Mircea Merca, Feb 18 2012
[A129819] 0, 0, 1, 1, 1, 3, 4, 7, 8, 12, 14, 19, 21, 27, 30, 37, 40, 48, 52, 61, 65, 75, 80, 91, 96, 108, 114, 127, 133, 147, 154, 169, 176, 192, 200, 217, 225, 243, 252, 271, 280, 300, 310, 331, 341, 363, 374, 397, 408, 432, 444, 469, 481, 507, 520, 547, 560, 588, 602, 631
a(0) = 0, a(1) = 0, a(2) = 1, a(3) = 1, a(4) = 3, a(5) = 4, a(6) = 7; for n > 6, a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7);
a(n)=(3/16)*(n+2)*(n+1)-(5/8)*(n+1)+(7/32)+(3/32)*(-1)^n+(1/16)*(n+1)*(-1)^n-(1/8)*cos(n*pi/2)+(1/8)*sin(n*pi/2) [From Richard Choulet, Nov 27 2008]
[A023054] 1, 1, 3, 4, 7, 8, 13, 14, 20, 22, 29, 31, 40, 42, 52, 55, 66, 69, 82, 85, 99, 103, 118, 122, 139, 143, 161, 166, 185, 190, 211, 216, 238, 244, 267, 273, 298, 304, 330, 337, 364, 371, 400, 407, 437, 445, 476, 484, 517, 525, 559, 568, 603, 612, 649, 658, 696, 706, 745, 755
a(-3 - n) = a(n). - Michael Somos, May 22 2014
[A214096] 3, 4, 7, 8, 18, 19, 27, 28, 36, 39, 50, 50, 53, 70, 71, 72, 77, 85, 105, 105, 106, 108, 110, 111, 114, 143, 144, 144, 149, 149, 153, 161, 165, 172, 173, 173, 226, 228, 228, 229, 231, 232, 236, 237, 238, 245, 245, 246, 248, 300, 300, 301, 302, 303, 315, 315
a(n) is minimal such that prime(i) + prime(i-1) < prime(2*i-n) for i >= a(n).
[A029739] 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 25, 27, 28, 31, 33, 34, 37, 39, 40, 43, 45, 46, 49, 51, 52, 55, 57, 58, 61, 63, 64, 67, 69, 70, 73, 75, 76, 79, 81, 82, 85, 87, 88, 91, 93, 94, 97, 99, 100, 103, 105, 106, 109, 111, 112, 115, 117, 118, 121, 123, 124
a(n) = -2 + Sum_{k=1..n}{(k mod 3)+[(k+1) mod 3]}, with n>=1. - Paolo P. Lava, Sep 03 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(3*n-2-cos(2*n*Pi/3))/3.
a(3k) = 6k-2, a(3k-1) = 6k-3, a(3k-2) = 6k-5. (End)
[A047544] 1, 3, 4, 7, 9, 11, 12, 15, 17, 19, 20, 23, 25, 27, 28, 31, 33, 35, 36, 39, 41, 43, 44, 47, 49, 51, 52, 55, 57, 59, 60, 63, 65, 67, 68, 71, 73, 75, 76, 79, 81, 83, 84, 87, 89, 91, 92, 95, 97, 99, 100, 103, 105, 107, 108, 111, 113, 115, 116, 119, 121, 123, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-5+i^(2*n)+i^(1-n)-i^(1+n))/4 where i=sqrt(-1).

[A245239] 0, 3, 4, 7, 9, 11, 13, 16, 17, 19, 21, 24, 25, 28, 29, 32, 33, 36, 37, 40, 42, 45, 46, 48, 50, 53, 54, 57, 58, 61, 63, 66, 66, 69, 70, 73, 75, 78, 79, 82, 83, 85, 87, 90, 91, 94, 95, 98, 99, 102, 103, 106, 108, 111, 112, 114, 116, 119, 120, 123, 124, 127, 129
a(n) = floor(66/32*n) - 1 if n=6 or n == 5 mod 8 or n == 2,4,7,9 or 11 mod 16 or n == 10,15,16 or 24 mod 32; a(n) = floor(66/32*n) - 2 if n == 1, 3, 17 or 19 mod 32, and floor(66/32*n) otherwise.
a(n+32) = a(n) + 66 except for n = 5.
[A070992] 1, 3, 4, 7, 9, 12, 13, 17, 20, 25, 27, 32, 35, 39, 40, 45, 49, 56, 59, 67, 72, 79, 81, 88, 93, 101, 104, 111, 115, 120, 121, 127, 132, 141, 145, 156, 163, 173, 176, 187, 195, 208, 213, 225, 232, 241, 243, 252, 259, 271, 276, 289, 297, 308, 311, 321, 328, 339, 343, 352, 357
a(2n) = a(n-2)+2a(n-1)+2, a(2n+1) = 2a(n-1)+a(n)+2. - Ralf Stephan, Oct 08 2003
[A072441] 1, 3, 4, 7, 9, 13, 16, 20, 25, 30, 36, 42, 49, 56, 64, 72, 81, 90, 100, 110, 120, 132, 143, 155, 168, 181, 195, 209, 224, 239, 255, 271, 288, 305, 323, 341, 359, 379, 398, 419, 439, 460, 482, 504, 527, 550, 574, 598, 623, 648, 674, 700, 727, 754, 781, 810, 838
a(n) is asymptotic to n^2/4. Does lim n -> infinity ABS(4*a(n)-(n+1)^2)/n exist? - Benoit Cloitre, Aug 16 2002
[A004652] 0, 1, 1, 3, 4, 7, 9, 13, 16, 21, 25, 31, 36, 43, 49, 57, 64, 73, 81, 91, 100, 111, 121, 133, 144, 157, 169, 183, 196, 211, 225, 241, 256, 273, 289, 307, 324, 343, 361, 381, 400, 421, 441, 463, 484, 507, 529, 553, 576, 601, 625, 651, 676, 703, 729, 757, 784, 813
a(n) = ceil(n^2/4).
a(-n) = a(n).
a(n) = a(n-1) + a(n-2) - a(n-3) + 1. a(2*n) = n^2, a(2*n-1) = n^2 - n + 1. - Michael Somos, Apr 21, 2000.
a(n) = a(n-2)+n-1. - Paul Barry, Jul 14 2004
a(n) = (3/8)*(-1)^(n+1)+(5/8)-(3/4)*(n+1)+(1/4)*(n+2)*(n+1). [Richard Choulet, Nov 27 2008]
a(n) = n^2/4-3*((-1)^n-1)/8. - Omar E. Pol, Sep 28 2011
[A146994] 1, 3, 4, 7, 9, 13, 16, 22, 25, 32, 36, 44, 49, 59, 64, 75, 81, 93, 100, 114, 121, 136, 144, 160, 169, 187, 196, 215, 225, 245, 256, 278, 289, 312, 324, 348, 361, 387, 400, 427, 441, 469, 484, 514, 529, 560, 576, 608, 625, 659, 676, 711, 729, 765, 784, 822, 841
a(2*n-1) = n^2 for n >= 1.
a(2*n) = n*(n+1)+floor((2*n+5)/6) for n >= 0.
[A266769] 1, 1, 3, 4, 7, 9, 14, 17, 24, 29, 38, 45, 57, 66, 81, 93, 111, 126, 148, 166, 192, 214, 244, 270, 305, 335, 375, 410, 455, 495, 546, 591, 648, 699, 762, 819, 889, 952, 1029, 1099, 1183, 1260, 1352, 1436, 1536, 1628, 1736, 1836, 1953, 2061
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - 2*a(n-4) - a(n-5) + 2*a(n-6) + a(n-7) - a(n-8) for n>7. - Vincenzo Librandi, Jan 11 2016
a(n) = -a(-8-n) for all n in Z. - Michael Somos, Jun 26 2017
[A008763] 0, 0, 0, 0, 1, 1, 1, 3, 4, 7, 9, 14, 17, 24, 29, 38, 45, 57, 66, 81, 93, 111, 126, 148, 166, 192, 214, 244, 270, 305, 335, 375, 410, 455, 495, 546, 591, 648, 699, 762, 819, 889, 952, 1029, 1099, 1183, 1260, 1352, 1436, 1536, 1628, 1736, 1836, 1953, 2061, 2187, 2304, 2439
a(n) = (1/72)*(n+3)*(n+2)*(n+1)-(1/12)*(n+2)*(n+1)+(5/144)*(n+1)+(1/16)*(n+1)*(-1)^n+(1/16)*(-1)^(n+1)+(7/144)+(2*sqrt(3)/27)*sin(2*Pi*n/3). - Richard Choulet, Nov 27 2008
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - 2*a(n-4) - a(n-5) + 2*a(n-6) + a(n-7) - a(n-8), n>7. [Harvey P. Dale, Mar 04 2012]
a(n) = floor((9*(n+1)*(-1)^n + 2*n^3 - 9*n + 65)/144). - Tani Akinari, Nov 06 2012
a(n) = -a(-n) for all n in Z. - Michael Somos, Jan 21 2015
[A108796] 0, 0, 1, 1, 1, 3, 4, 7, 9, 16, 21, 33, 46, 68, 95, 140, 187, 266, 372, 507, 683, 948, 1256, 1692, 2263, 3003, 3955, 5248, 6824, 8921, 11669, 15058, 19413, 25128, 32149, 41129, 52578, 66740, 84696, 107389, 135310, 170277, 214386, 268151, 335261, 418896, 521204
a(n) = 1/2 * [(x*y)^n] Product_{j>0} (1+x^j+y^j). - Alois P. Heinz, Mar 31 2017
[A047342] 0, 3, 4, 7, 10, 11, 14, 17, 18, 21, 24, 25, 28, 31, 32, 35, 38, 39, 42, 45, 46, 49, 52, 53, 56, 59, 60, 63, 66, 67, 70, 73, 74, 77, 80, 81, 84, 87, 88, 91, 94, 95, 98, 101, 102, 105, 108, 109, 112, 115, 116, 119, 122, 123, 126, 129, 130, 133, 136, 137, 140
a(n) = a(n-1) + a(n-3) - a(n-4), n>4. - Vincenzo Librandi, Mar 24 2011
a(n) = (21*n-21-6*cos(2*n*Pi/3)-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-3, a(3k-1) = 7k-4, a(3k-2) = 7k-7. (End)
[A108579] 0, 0, 0, 0, 1, 3, 4, 7, 10, 13, 17, 22, 26, 32, 38, 44, 51, 59, 66, 75, 84, 93, 103, 114, 124, 136, 148, 160, 173, 187, 200, 215, 230, 245, 261, 278, 294, 312, 330, 348, 367, 387, 406, 427, 448, 469, 491, 514, 536, 560, 584, 608, 633, 659, 684, 711, 738, 765, 793, 822, 850
a(n)= floor((1/4)*(n-2)^2)-floor((1/3)*(n-1)). - Mircea Merca, Oct 08 2013
[A105343] 1, 3, 4, 7, 10, 15, 20, 27, 34, 43, 52, 63, 74, 87, 100, 115, 130, 147, 164, 183, 202, 223, 244, 267, 290, 315, 340, 367, 394, 423, 452, 483, 514, 547, 580, 615, 650, 687, 724, 763, 802, 843, 884, 927, 970, 1015, 1060, 1107, 1154, 1203, 1252, 1303, 1354, 1407
a(n) = (1/4)*(2*n^2 + 9 - (-1)^n), n>1. - Ralf Stephan, Jun 01 2007
[A134591] 3, 4, 7, 10, 17, 20, 27, 30, 37, 48, 51, 62, 69, 72, 79, 90, 101, 104, 115, 122, 125, 136, 143, 154, 169, 176, 179, 186, 189, 196, 223, 230, 241, 244, 263, 266, 277, 288, 295, 306, 317, 320, 339, 342, 349, 352, 375, 398, 405, 408, 415, 426, 429, 448, 459, 470
a(n) - p(n) = p(n) - n => a(n) = 2 p(n) - n
[A143607] 1, 3, 4, 7, 10, 17, 24, 41, 58, 99, 140, 239, 338, 577, 816, 1393, 1970, 3363, 4756, 8119, 11482, 19601, 27720, 47321, 66922, 114243, 161564, 275807, 390050, 665857, 941664, 1607521, 2273378, 3880899, 5488420, 9369319, 13250218, 22619537, 31988856, 54608393
a(n) = 2*a(n-2) - a(n-4) for n>5.
[A080591] 1, 3, 4, 7, 11, 12, 13, 15, 16, 17, 18, 19, 23, 27, 28, 31, 35, 39, 43, 47, 48, 49, 50, 51, 52, 53, 54, 55, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 83, 87, 91, 95, 99, 103, 107, 111, 112, 113, 114, 115, 119, 123, 124
a(a(n)) = 4n+3. a(2^k-1) = 2^(k+1)-1.
[A047543] 3, 4, 7, 11, 12, 15, 19, 20, 23, 27, 28, 31, 35, 36, 39, 43, 44, 47, 51, 52, 55, 59, 60, 63, 67, 68, 71, 75, 76, 79, 83, 84, 87, 91, 92, 95, 99, 100, 103, 107, 108, 111, 115, 116, 119, 123, 124, 127, 131, 132, 135, 139, 140, 143, 147, 148, 151, 155, 156, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-6-3*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-4, a(3k-2) = 8k-5. (End)
[A060962] 1, 1, 3, 4, 7, 11, 17, 25, 36, 50, 69, 93, 125, 163, 213, 272, 346, 435, 543, 671, 825, 1005, 1218, 1466, 1756, 2090, 2478, 2921, 3430, 4009, 4669, 5414, 6259, 7207, 8274, 9468, 10803, 12289, 13944, 15777, 17809, 20052, 22528, 25249, 28243, 31522, 35115, 39041, 43327, 47995, 53078
a(n) = 1 - 263117*n/1814400 + 109537*n^2/907200 + 97*n^3/4320 + 127*n^4/72576 + n^5/14400 + n^6/907200 + 4/7*floor(n/7) + 1/3*floor(n/6) + 2/25*floor(n/5) - 11/162*floor(n/3) + (73/192 + 5*n/96)*floor(n/2) + 1/7*floor((1+n)/7) - 1/6*floor((1+n)/6) + 4/25*floor((1+n)/5) + (53/162 + n/54)*floor((1+n)/3) + 3/7*floor((2+n)/7) - 4/25*floor((2+n)/5) + 2/7*floor((3+n)/7) + 8/25*floor((3+n)/5) + 1/7*floor((4+n)/7) + 3/7*floor((5+n)/7). - Vaclav Kotesovec, Sep 29 2012
[A000204] 1, 3, 4, 7, 11, 18, 29, 47, 76, 123, 199, 322, 521, 843, 1364, 2207, 3571, 5778, 9349, 15127, 24476, 39603, 64079, 103682, 167761, 271443, 439204, 710647, 1149851, 1860498, 3010349, 4870847, 7881196, 12752043, 20633239, 33385282, 54018521, 87403803, 141422324
a(n) = sum{k=0..floor((n+1)/2), (n+1)*binomial(n-k+1, k)/(n-k+1)}. - Paul Barry, Jan 30 2005
a(n) = 2*fibonacci(n-1)+fibonacci(n), n>=1. - Zerinvary Lajos, Oct 05 2007
a(n) = ((1+sqrt5)^n-(1-sqrt5)^n)/(2^n*sqrt5)+((1+sqrt5)^(n-1)-(1-sqrt5)^(n-1))/(2^(n-2)*sqrt5). - Al Hakanson (hawkuu(AT)gmail.com), Jan 12 2009, Jan 14 2009
[A041209] 1, 1, 3, 4, 7, 11, 18, 29, 76, 105, 2176, 2281, 6738, 9019, 15757, 24776, 40533, 65309, 171151, 236460, 4900351, 5136811, 15173973, 20310784, 35484757, 55795541, 91280298, 147075839, 385431976, 532507815, 11035588276, 11568096091, 34171780458, 45739876549
a(n) = 2252*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 13 2013
[A293420] 0, 1, 1, 3, 4, 7, 11, 18, 30, 48, 78, 126, 204, 330, 533, 863, 1396, 2258, 3654, 5913, 9567, 15480, 25047, 40527, 65574, 106101, 171676, 277777, 449453, 727230, 1176682, 1903912, 3080594, 4984506, 8065100, 13049606, 21114706, 34164312, 55279019, 89443331
a(n) = floor(1/2 + F(n)*sqrt(2)).
[A042593] 1, 1, 3, 4, 7, 11, 18, 83, 101, 184, 285, 469, 1223, 1692, 95975, 97667, 291309, 388976, 680285, 1069261, 1749546, 8067445, 9816991, 17884436, 27701427, 45585863, 118873153, 164459016, 9328578049, 9493037065, 28314652179, 37807689244, 66122341423
a(n) = 97198*a(n-14) - a(n-28) for n>27 Vincenzo Librandi, Jan 25 2014

[A049863] 0, 3, 4, 7, 11, 21, 39, 74, 138, 258, 481, 898, 1676, 3129, 5841, 10904, 20355, 37998, 70933, 132415, 247187, 461439, 861396, 1608020, 3001788, 5603619, 10460614, 19527460, 36453089, 68049183, 127031520, 237137411, 442678728
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A042827] 1, 1, 3, 4, 7, 11, 29, 69, 236, 541, 1318, 1859, 3177, 5036, 13249, 18285, 1110349, 1128634, 3367617, 4496251, 7863868, 12360119, 32584106, 77528331, 265169099, 607866529, 1480902157, 2088768686, 3569670843, 5658439529, 14886549901, 20544989430
a(n) = 1123598*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 30 2014
[A042655] 1, 3, 4, 7, 11, 40, 51, 346, 397, 743, 4855, 5598, 21649, 27247, 48896, 76143, 277325, 16160993, 48760304, 64921297, 113681601, 178602898, 649490295, 828093193, 5618049453, 6446142646, 12064192099, 78831295240, 90895487339, 351517757257, 442413244596
a(n) = 16237136*a(n-17) + a(n-34) for n>33. - Vincenzo Librandi, Jan 26 2014
[A041901] 1, 1, 3, 4, 7, 11, 51, 266, 1115, 1381, 2496, 3877, 10250, 14127, 603584, 617711, 1839006, 2456717, 4295723, 6752440, 31305483, 163279855, 684424903, 847704758, 1532129661, 2379834419, 6291798499, 8671632918, 370500381055, 379172013973
a(n) = 613834*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 26 2013
[A041153] 1, 3, 4, 7, 11, 95, 106, 201, 307, 1122, 20503, 62631, 83134, 145765, 228899, 1976957, 2205856, 4182813, 6388669, 23348820, 426667429, 1303351107, 1730018536, 3033369643, 4763388179, 41140475075, 45903863254, 87044338329, 132948201583, 485888943078
a(n) = 20810*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 12 2013
[A041781] 1, 3, 4, 7, 11, 216, 227, 443, 670, 2453, 98790, 298823, 397613, 696436, 1094049, 21483367, 22577416, 44060783, 66638199, 243975380, 9825653399, 29720935577, 39546588976, 69267524553, 108814113529, 2136735681604, 2245549795133, 4382285476737, 6627835271870
a(n) = 99460*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 24 2013
[A042893] 1, 3, 4, 7, 11, 337, 348, 685, 1033, 3784, 235641, 710707, 946348, 1657055, 2603403, 79759145, 82362548, 162121693, 244484241, 895574416, 55770098033, 168205868515, 223975966548, 392181835063, 616157801611, 18876915883393, 19493073685004, 38369989568397
a(n) = 236674*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Feb 01 2014
[A117950] 3, 4, 7, 12, 19, 28, 39, 52, 67, 84, 103, 124, 147, 172, 199, 228, 259, 292, 327, 364, 403, 444, 487, 532, 579, 628, 679, 732, 787, 844, 903, 964, 1027, 1092, 1159, 1228, 1299, 1372, 1447, 1524, 1603, 1684, 1767, 1852, 1939, 2028, 2119, 2212, 2307, 2404, 2503
a(n) = ((n-3)^2 + 3*(n+1)^2)/4. - Reinhard Zumkeller, Feb 13 2009
a(n) = ceiling((n+1/n)^2), n>0. - Vincenzo Librandi, Oct 19 2011
a(n) = 2*n + a(n-1) - 1 (with a(0)=3). - Vincenzo Librandi, Nov 13 2010
[A293642] 0, 0, 0, 1, 1, 3, 4, 7, 12, 20, 33, 53, 86, 139, 226, 366, 592, 958, 1550, 2508, 4059, 6567, 10626, 17194, 27820, 45015, 72835, 117850, 190686, 308537, 499224, 807761, 1306985, 2114746, 3421732, 5536479, 8958211, 14494690, 23452901, 37947591, 61400493
a(n) = a(n-1) + 2 a(n-2) - a(n-3) - 2 a(n-4) + 2 a(n-5) + a(n-6) - 3 a(n-7) - a(n-8) + 3 a(n-9) - 2 a(n-11) + a(n-12) + 2 a(n-13) - a(n-14) - a(n-15) for n >=16.
a(n) = floor(3*F(n)/5).
[A049859] 0, 1, 3, 4, 7, 12, 23, 43, 81, 151, 282, 526, 982, 1833, 3422, 6388, 11925, 22261, 41556, 77575, 144814, 270333, 504647, 942055, 1758591, 3282868, 6128328, 11440120, 21355963, 39866466, 74421140, 138926437, 259342371, 484130068
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A116201] 0, 1, 1, 1, 3, 4, 7, 13, 21, 37, 64, 109, 189, 325, 559, 964, 1659, 2857, 4921, 8473, 14592, 25129, 43273, 74521, 128331, 220996, 380575, 655381, 1128621, 1943581, 3347008, 5763829, 9925797, 17093053, 29435671, 50690692, 87293619, 150326929
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), where alpha = (1 + sqrt(13))/4 and beta = (1 - sqrt(13))/4 and T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = the bottom left entry of the 2X2 matrix T(n, M), where M is the 2X2 matrix [0, 3/4; 1, 1/2].
a(n) = U(n-1,(sqrt(3) + i)/4)*U(n-1,(sqrt(3) - i)/4), where U(n,x) denotes the Chebyshev polynomial of the second kind.
[A073728] 3, 4, 7, 14, 25, 46, 85, 156, 287, 528, 971, 1786, 3285, 6042, 11113, 20440, 37595, 69148, 127183, 233926, 430257, 791366, 1455549, 2677172, 4924087, 9056808, 16658067, 30638962, 56353837, 103650866, 190643665, 350648368, 644942899
a(n) = a(n-1) + a(n-2) + a(n-3), a(0)=3, a(1)=4, a(2)=7.
[A132753] 3, 4, 7, 14, 29, 60, 123, 250, 505, 1016, 2039, 4086, 8181, 16372, 32755, 65522, 131057, 262128, 524271, 1048558, 2097133, 4194284, 8388587, 16777194, 33554409, 67108840, 134217703, 268435430, 536870885, 1073741796, 2147483619
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). G.f.: -(6*x^2-8*x+3) / ((x-1)^2*(2*x-1)). - Colin Barker, Mar 14 2014
[A130755] 3, 4, 7, 15, 32, 65, 129, 256, 511, 1023, 2048, 4097, 8193, 16384, 32767, 65535, 131072, 262145, 524289, 1048576, 2097151, 4194303, 8388608, 16777217, 33554433, 67108864, 134217727, 268435455, 536870912, 1073741825, 2147483649
a(0) = 3; a(1) = 4; a(2) = 7; for n > 2, a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3).
[A100455] 1, 3, 4, 7, 16, 33, 64, 127, 256, 513, 1024, 2047, 4096, 8193, 16384, 32767, 65536, 131073, 262144, 524287, 1048576, 2097153, 4194304, 8388607, 16777216, 33554433, 67108864, 134217727, 268435456, 536870913, 1073741824, 2147483647, 4294967296, 8589934593
a(0)=1, a(1)=3, a(2)=4, a(n)=2*a(n-1)-a(n-2)+2*a(n-3) [From Harvey P. Dale, Jan 17 2012]
[A291773] 1, 1, 3, 4, 7, 16, 43, 124, 367, 1096, 3283, 9844, 29527, 88576, 265723, 797164, 2391487, 7174456, 21523363, 64570084, 193710247, 581130736, 1743392203, 5230176604, 15690529807, 47071589416, 141214768243, 423644304724, 1270932914167, 3812798742496
a(n) = (3^(n-3) + 5) / 2 for n > 2. - Andrew Howroyd, Sep 01 2017
a(n) = 4*a(n-1) - 3*a(n-2) for n>4.
[A041593] 1, 1, 3, 4, 7, 18, 25, 868, 893, 2654, 3547, 6201, 15949, 22150, 769049, 791199, 2351447, 3142646, 5494093, 14130832, 19624925, 681378282, 701003207, 2083384696, 2784387903, 4867772599, 12519933101, 17387705700, 603701926901, 621089632601, 1845881192103
a(n) = 886*a(n-7) + a(n-14) for n>13. - Vincenzo Librandi, Dec 21 2013
[A041497] 1, 3, 4, 7, 18, 43, 61, 104, 373, 12040, 36493, 48533, 85026, 218585, 522196, 740781, 1262977, 4529712, 146213761, 443170995, 589384756, 1032555751, 2654496258, 6341548267, 8996044525, 15337592792, 55008822901, 1775619925624, 5381868599773, 7157488525397
a(n) = 12144*a(n-9) + a(n-18) for n>17, - Vincenzo Librandi, Dec 19 2013
[A042173] 1, 1, 3, 4, 7, 32, 71, 103, 277, 1211, 1488, 2699, 6886, 9585, 466966, 476551, 1420068, 1896619, 3316687, 15163367, 33643421, 48806788, 131256997, 573834776, 705091773, 1278926549, 3262944871, 4541871420, 221272773031, 225814644451, 672902061933
a(n) = 473852*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 16 2014
[A041135] 1, 1, 3, 4, 7, 39, 163, 854, 1017, 1871, 4759, 6630, 110839, 117469, 345777, 463246, 809023, 4508361, 18842467, 98720696, 117563163, 216283859, 550130881, 766414740, 12812766721, 13579181461, 39971129643, 53550311104, 93521440747, 521157514839, 2178151500103
a(n) = 115598*a(n-12)-a(n-24). G.f.: -(x^22 -x^21 +3*x^20 -4*x^19 +7*x^18 -39*x^17 +163*x^16 -854*x^15 +1017*x^14 -1871*x^13 +4759*x^12 -6630*x^11 -4759*x^10 -1871*x^9 -1017*x^8 -854*x^7 -163*x^6 -39*x^5 -7*x^4 -4*x^3 -3*x^2 -x -1)/((x^12-340*x^6+1)*(x^12+340*x^6+1)). [Colin Barker, Jul 19 2012]
[A041379] 1, 3, 4, 7, 46, 53, 99, 350, 9899, 30047, 39946, 69993, 459904, 529897, 989801, 3499300, 98970201, 300409903, 399380104, 699790007, 4598120146, 5297910153, 9896030299, 34986001050, 989504059699, 3003498180147, 3993002239846, 6996500419993, 45972004759804
a(n) = 9998*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 16 2013
[A041463] 1, 1, 3, 4, 7, 67, 74, 733, 807, 1540, 3887, 5427, 166697, 172124, 510945, 683069, 1194014, 11429195, 12623209, 125038076, 137661285, 262699361, 663060007, 925759368, 28435841047, 29361600415, 87159041877
a(n) = 170584*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 18 2013
[A042543] 1, 3, 4, 7, 95, 102, 197, 693, 39005, 117708, 156713, 274421, 3724186, 3998607, 7722793, 27166986, 1529074009, 4614389013, 6143463022, 10757852035, 145995539477, 156753391512, 302748930989, 1065000184479, 59942759261813, 180893277969918, 240836037231731
a(n) = 39202*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Jan 23 2014
[A047460] 0, 1, 3, 4, 8, 9, 11, 12, 16, 17, 19, 20, 24, 25, 27, 28, 32, 33, 35, 36, 40, 41, 43, 44, 48, 49, 51, 52, 56, 57, 59, 60, 64, 65, 67, 68, 72, 73, 75, 76, 80, 81, 83, 84, 88, 89, 91, 92, 96, 97, 99, 100, 104, 105, 107, 108, 112, 113, 115, 116, 120, 121, 123
a(n) = (-1/4+i/4)*((6+6*i)+(1+i)*(-1)^n+(-i)^n+i*i^n)+2*n where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Vincenzo Librandi, May 16 2012
[A006520] 1, 3, 4, 8, 9, 11, 12, 20, 21, 23, 24, 28, 29, 31, 32, 48, 49, 51, 52, 56, 57, 59, 60, 68, 69, 71, 72, 76, 77, 79, 80, 112, 113, 115, 116, 120, 121, 123, 124, 132, 133, 135, 136, 140, 141, 143, 144, 160, 161, 163, 164, 168, 169, 171, 172, 180, 181, 183, 184, 188, 189
a(n)/(n*log(n)) is bounded. - Benoit Cloitre, Dec 17 2002

a(n) = b(n+1), with b(2n) = 2b(n) + n, b(2n+1) = 2b(n) + n + 1. - Ralf Stephan, Sep 07 2003
[A047204] 3, 4, 8, 9, 13, 14, 18, 19, 23, 24, 28, 29, 33, 34, 38, 39, 43, 44, 48, 49, 53, 54, 58, 59, 63, 64, 68, 69, 73, 74, 78, 79, 83, 84, 88, 89, 93, 94, 98, 99, 103, 104, 108, 109, 113, 114, 118, 119, 123, 124, 128, 129, 133, 134, 138, 139, 143, 144, 148, 149
a(n) = 5*n-a(n-1)-3 (with a(1)=3). - Vincenzo Librandi, Nov 18 2010
a(n) = floor(5*n/2)-(-1)^n. - Wesley Ivan Hurt, Sep 12 2017
[A285440] 3, 4, 8, 9, 15, 16, 20, 21, 27, 28, 32, 33, 39, 40, 44, 45, 51, 52, 56, 57, 63, 64, 68, 69, 75, 76, 80, 81, 87, 88, 92, 93, 99, 100, 104, 105, 111, 112, 116, 117, 123, 124, 128, 129, 135, 136, 140, 141, 147, 148, 152, 153, 159, 160, 164, 165, 171, 172, 176, 177
a(n) = 1/4 * Sum_{k=0..n-1} (-3*(k mod 4) + 5*((k+1) mod 4) - ((k+2) mod 4) + 7*((k+3) mod 4)) - 3.
[A135276] 0, 1, 3, 4, 8, 9, 15, 16, 24, 25, 35, 36, 48, 49, 63, 64, 80, 81, 99, 100, 120, 121, 143, 144, 168, 169, 195, 196, 224, 225, 255, 256, 288, 289, 323, 324, 360, 361, 399, 400, 440, 441, 483, 484, 528, 529, 575, 576, 624, 625, 675, 676, 728, 729, 783, 784, 840, 841, 899, 900, 960, 961
a(n) = (n/2 + 1)^2 - 1 if n is even, ((n+1)/2)^2 if n is odd. - M. F. Hasler, May 17 2008
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). (End)
a(n) = (2*n^2 + 6*n + 1 + (2*n-1)*(-1)^n)/8. - Luce ETIENNE, Jul 08 2014
a(n) = (floor(n/2)+1)^2 + (n mod 2) - 1. - Wesley Ivan Hurt, Mar 22 2016
[A254877] 1, 1, 3, 4, 8, 9, 16, 18, 28, 31, 45, 49, 68, 73, 97, 104, 134, 142, 179, 189, 233, 245, 297, 311, 372, 388, 458, 477, 557, 578, 669, 693, 795, 822, 936, 966, 1093, 1126, 1266, 1303, 1457, 1497, 1666, 1710, 1894, 1942, 2142, 2194, 2411, 2467, 2701, 2762, 3014
a(n) = -a(-7-n) for all n in Z.
[A047343] 1, 3, 4, 8, 10, 11, 15, 17, 18, 22, 24, 25, 29, 31, 32, 36, 38, 39, 43, 45, 46, 50, 52, 53, 57, 59, 60, 64, 66, 67, 71, 73, 74, 78, 80, 81, 85, 87, 88, 92, 94, 95, 99, 101, 102, 106, 108, 109, 113, 115, 116, 120, 122, 123, 127, 129, 130, 134, 136, 137, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-18-9*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-3, a(3k-1) = 7k-4, a(3k-2) = 7k-6. (End)
[A268514] 0, 1, 3, 4, 8, 10, 12, 13, 21, 25, 29, 31, 35, 37, 39, 40, 56, 64, 72, 76, 84, 88, 92, 94, 102, 106, 110, 112, 116, 118, 120, 121, 153, 169, 185, 193, 209, 217, 225, 229, 245, 253, 261, 265, 273, 277, 281, 283, 299, 307, 315, 319, 327, 331, 335, 337
a(n) = Sum{i=1..n} 2^{number of 0's in binary expansion of i}.
[A080085] 1, 1, 3, 4, 8, 10, 15, 16, 19, 25, 26, 34, 38, 39, 42, 49, 54, 56, 64, 67, 70, 74, 79, 85, 94, 97, 98, 102, 104, 109, 120, 128, 134, 135, 145, 146, 152, 159, 162, 168, 174, 176, 184, 190, 193, 194, 206, 216, 222, 224, 228, 232, 236, 244, 255, 259, 265, 266, 273, 277
a(n) = sum_{k=1..L} floor(p_n /2^k), where L = log(p_n)/log(2), where p_n is the n-th prime.
[A265611] 1, 3, 4, 8, 10, 15, 18, 24, 28, 35, 40, 48, 54, 63, 70, 80, 88, 99, 108, 120, 130, 143, 154, 168, 180, 195, 208, 224, 238, 255, 270, 288, 304, 323, 340, 360, 378, 399, 418, 440, 460, 483, 504, 528, 550, 575, 598, 624, 648, 675, 700, 728, 754, 783, 810, 840
a(n+1) - a(n) = floor(n/2) + 2 + (-1)^n - 0^n.
a(n) = a(-n-6) = (2*n*(n+6) - 5*(-1)^n + 5)/8 for n>0, a(0)=1. [Bruno Berselli, Dec 18 2015]
a(n) = 2*a(n-1) -2*a(n-3) +a(n-4) for n>5. - R. H. Hardin, Dec 21 2015, proven by Susanne Wienand for the algorithm sent to the seqfan mailing list and used in the Sage script below.
a(n) = (floor((n+3)/2)-1)*(ceiling((n+3)/2)+1) for n>0. - Wesley Ivan Hurt, Mar 30 2017
[A131355] 1, 1, 1, 3, 4, 8, 10, 16, 19, 27, 31, 41, 46, 58, 64, 78, 85, 101, 109, 127, 136, 156, 166, 188, 199, 223, 235, 261, 274, 302, 316, 346, 361, 393, 409, 443, 460, 496, 514, 552, 571, 611, 631, 673, 694, 738, 760, 806, 829, 877, 901, 951, 976, 1028, 1054, 1108
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5), n>5. (End)
a(n) = (6*n^2-10*n+17-(1+2n)*(-1)^n)/16. - Wesley Ivan Hurt, Jul 28 2015
[A092534] 1, 1, 3, 4, 8, 10, 16, 20, 28, 34, 44, 52, 64, 74, 88, 100, 116, 130, 148, 164, 184, 202, 224, 244, 268, 290, 316, 340, 368, 394, 424, 452, 484, 514, 548, 580, 616, 650, 688, 724, 764, 802, 844, 884, 928, 970, 1016, 1060, 1108, 1154, 1204, 1252, 1304, 1354, 1408, 1460
a(n) = (13+3*(-1)^n-4*n+2*n^2)/4 for n>2.
a(n) = (n^2-2*n+8)/2 for n>2 and even.
a(n) = (n^2-2*n+5)/2 for n>2 and odd.
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6) for n>6.
[A005232] 1, 1, 3, 4, 8, 10, 16, 20, 29, 35, 47, 56, 72, 84, 104, 120, 145, 165, 195, 220, 256, 286, 328, 364, 413, 455, 511, 560, 624, 680, 752, 816, 897, 969, 1059, 1140, 1240, 1330, 1440, 1540, 1661, 1771, 1903, 2024, 2168, 2300, 2456, 2600, 2769, 2925, 3107, 3276
a(n) = -a(-6 - n) for all n in Z. - Michael Somos, Feb 05 2011
a(n) = 2*a(n-1)-2*a(n-3)+2*a(n-4)-2*a(n-5)+2*a(n-7)-a(n-8) with a(0)=1, a(1)=1, a(2)=3, a(3)=4, a(4)=8, a(5)=10, a(6)=16, a(7)=20. - Harvey P. Dale, Oct 24 2012
a(n) = ((n+3)*(2*n^2+12*n+19+9*(-1)^n)+6*(-1)^((2*n-1+(-1)^n)/4)*(1+(-1)^n))/96. - Luce ETIENNE, Mar 16 2015
[A115264] 1, 1, 3, 4, 8, 10, 17, 21, 32, 39, 55, 66, 89, 105, 136, 159, 200, 231, 284, 325, 392, 445, 528, 595, 697, 780, 903, 1005, 1152, 1275, 1449, 1596, 1800, 1974, 2211, 2415, 2689, 2926, 3240, 3514, 3872, 4186, 4592, 4950, 5408, 5814, 6328, 6786, 7361
a(n)=sum{k=0..floor(n/2), sum{j=0..n-k, [j<=k]*floor((k-j+2)/2)*[j<=n-2k]*floor((n-2k-j+2)/2)}}.
[A047458] 0, 3, 4, 8, 11, 12, 16, 19, 20, 24, 27, 28, 32, 35, 36, 40, 43, 44, 48, 51, 52, 56, 59, 60, 64, 67, 68, 72, 75, 76, 80, 83, 84, 88, 91, 92, 96, 99, 100, 104, 107, 108, 112, 115, 116, 120, 123, 124, 128, 131, 132, 136, 139, 140, 144, 147, 148, 152, 155, 156
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 8*n/3-3-cos(2*n*Pi/3)-sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 8k-4, a(3k-1) = 8k-5, a(3k-2) = 8k-8. (End)
[A236453] 1, 3, 4, 8, 11, 17, 22, 30, 37, 47, 56, 68, 79, 93, 106, 122, 137, 155, 172, 192, 211, 233, 254, 278, 301, 327, 352, 380, 407, 437, 466, 498, 529, 563, 596, 632, 667, 705, 742, 782, 821
a(n) = (n^2 + n + 3 - (-1)^n)/2. - Giovanni Resta, Jan 26 2014
[A271723] 3, 4, 8, 11, 19, 24, 36, 43, 59, 68, 88, 99, 123, 136, 164, 179, 211, 228, 264, 283, 323, 344, 388, 411, 459, 484, 536, 563, 619, 648, 708, 739, 803, 836, 904, 939, 1011, 1048, 1124, 1163, 1243, 1284, 1368, 1411, 1499, 1544, 1636, 1683, 1779, 1828, 1928, 1979, 2083, 2136, 2244, 2299
a(n) = (6*(n - 1)*n - (2*n - 1)*(-1)^n + 23)/8. (End)
[A109794] 1, 1, 3, 4, 8, 11, 21, 29, 55, 76, 144, 199, 377, 521, 987, 1364, 2584, 3571, 6765, 9349, 17711, 24476, 46368, 64079, 121393, 167761, 317811, 439204, 832040, 1149851, 2178309, 3010349, 5702887, 7881196, 14930352, 20633239, 39088169
a(n) = (3/20*sqrt(5)+3/4)*(1/2+1/2*sqrt(5))^n + (-3/20*sqrt(5)+3/4)*(1/2-1/2 *sqrt(5))^n + (-3/20*sqrt(5)-1/4)*(-1/2+1/2*sqrt(5))^n +(3/20*sqrt(5)-1/4)*(-1/2-1/2*sqrt(5))^n.
a(n) = 3*a(n-2)-a(n-4), n >= 4; a(0) = 1, a(1) = 1, a(2) = 3, a(3) = 4. - Daniel Forgues, May 07 2011
[A063227] 3, 4, 8, 12, 16, 16, 24, 24, 28, 32, 36, 36, 44, 44, 48, 52, 56, 56, 64, 64, 68, 72, 76, 76, 84, 84, 88, 92, 96, 96, 104, 104, 108, 112, 116, 116, 124, 124, 128, 132, 136, 136, 144, 144, 148, 152, 156, 156, 164, 164
a(n) = a(n-2)+a(n-3)-a(n-5) for n>6. G.f.: -x*(x^5 -4*x^4 -5*x^3 -5*x^2 -4*x- 3)/((x -1)^2*(x +1)*(x^2 +x +1)). [Colin Barker, Sep 27 2012]
[A173534] 1, 1, 3, 4, 8, 12, 21, 32, 52, 80, 128, 198, 313, 487, 766, 1194, 1874, 2926, 4585, 7165, 11219, 17540, 27453, 42933, 67182, 105078, 164407, 257168, 402341, 629377, 984629
a(n)=a(n-1)+2*a(n-2)-Floor[a(n-1)/2]-Floor[a(n-4)/2]-Floor[a(n-5)/2]
[A074331] 0, 1, 1, 3, 4, 8, 12, 21, 33, 55, 88, 144, 232, 377, 609, 987, 1596, 2584, 4180, 6765, 10945, 17711, 28656, 46368, 75024, 121393, 196417, 317811, 514228, 832040, 1346268, 2178309, 3524577, 5702887, 9227464, 14930352, 24157816, 39088169
a(n) = Sum_{i=0..floor(n/2)} Fibonacci(2i + e), where e = 2*(n/2 - floor(n/2)).
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n > 3, a(0)=0, a(1)=1, a(2)=1, a(3)=3.
a(2n+1) = Fibonacci(2n+2), a(2n) = Fibonacci(2n+1)-1.
a(n-1) = Sum_{k=0..floor(n/2)} binomial(n-k, k-1). - Paul Barry, Jul 07 2004
a(n) = Sum_{k=0..floor((n-1)/2)} Fibonacci(n-2k). - Paul Barry, Apr 16 2005
a(n) = Sum_{k=0..n} Fibonacci(k)*(1-(-1)^floor((n+k-1)/2)). - Paul Barry, Apr 16 2005

[A052952] 1, 1, 3, 4, 8, 12, 21, 33, 55, 88, 144, 232, 377, 609, 987, 1596, 2584, 4180, 6765, 10945, 17711, 28656, 46368, 75024, 121393, 196417, 317811, 514228, 832040, 1346268, 2178309, 3524577, 5702887, 9227464, 14930352, 24157816, 39088169, 63245985, 102334155
a(n) = a(n-1) + a(n-2) + (1+(-1)^n)/2.
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k+1, k). - Paul Barry, Oct 23 2004
a(n) = floor(phi^(n+2) / sqrt(5)), where phi is the golden ratio: phi = (1+sqrt(5))/2. - Reinhard Zumkeller, Apr 19 2005
a(n) = Fibonacci(n+1)+a(n-2) with n>1, a(0)=a(1)=1. - Zerinvary Lajos, Mar 17 2008
a(n) = floor(Fibonacci(n+3)^2/Fibonacci(n+4)). - Gary Detlefs Nov 29 2010
a(4*n) = F(4*n+2); a(4*n+1) = F(4*n+3) - 1; a(4*n+2) = F(4*n+4); a(4*n+3) = F(4*n+5) - 1. - Johannes W. Meijer, Jul 20 2011
[A153339] 3, 4, 8, 12, 24, 36, 72, 108, 216, 324, 648, 972, 1944, 2916, 5832, 8748, 17496, 26244, 52488, 78732, 157464, 236196, 472392, 708588, 1417176, 2125764, 4251528, 6377292, 12754584, 19131876, 38263752, 57395628, 114791256, 172186884
a(2n) = 4*3^(n-1), a(2n+1) = 8*3^(n-1) for n>0, a(1)=3.
a(n) = 3*a(n-2) for n>3. G.f.: x*(3+4*x-x^2)/(1-3*x^2). [Colin Barker, May 10 2012]
[A022308] 0, 3, 4, 8, 13, 22, 36, 59, 96, 156, 253, 410, 664, 1075, 1740, 2816, 4557, 7374, 11932, 19307, 31240, 50548, 81789, 132338, 214128, 346467, 560596, 907064, 1467661, 2374726, 3842388, 6217115, 10059504, 16276620, 26336125, 42612746, 68948872, 111561619
a(n) = 2*a(n-1) - a(n-3) for n>=3. - Ron Knott, Aug 25 2006
a(n) = (-10 + (5-7*sqrt(5))*((1-sqrt(5))/2)^n + ((1+sqrt(5))/2)^n*(5+7*sqrt(5))) / 10. - Colin Barker, Feb 20 2017
[A278137] 1, 3, 4, 8, 13, 22, 37, 61, 101, 166, 272, 445, 726, 1183, 1925, 3129, 5082, 8248, 13379, 21692, 35157, 56963, 92271, 149434, 241970, 391755, 634190, 1026561, 1661567, 2689209, 4352208, 7043314, 11398035, 18444678, 29847123, 48297643, 78152505, 126460400
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-4) - a(n-5) for n>4.
[A049866] 1, 1, 3, 4, 8, 14, 27, 50, 94, 175, 327, 610, 1139, 2126, 3969, 7409, 13831, 25819, 48198, 89974, 167960, 313541, 585306, 1092626, 2039671, 3807577, 7107834, 13268623, 24769340, 46238423, 86316057, 161131397, 300793711
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A007486] 1, 3, 4, 8, 15, 27, 50, 92, 169, 311, 572, 1052, 1935, 3559, 6546, 12040, 22145, 40731, 74916, 137792, 253439, 466147, 857378, 1576964, 2900489, 5334831, 9812284, 18047604, 33194719, 61054607, 112296930, 206546256, 379897793, 698740979, 1285185028
a(n) = 2*a(n-1) - a(n-4), n>4. - Vincenzo Librandi, Jun 08 2011
[A227615] 3, 4, 8, 16, 31, 61, 122, 244, 487, 973, 1946, 3892, 7783, 15565, 31130, 62259, 124517, 249033, 498066, 996131, 1992262, 3984524, 7969047, 15938093, 31876185, 63752369, 127504737, 255009473, 510018945, 1020037890, 2040075780
a(n) = E(log2(u(n))) + 1, where log2 is the logarithm in base 2, E(x) is the integer part of x and u is defined by: u(0) = 4 (or 100 in binary) and for n>0, u(n) = u(n-1)^2 - 2.
[A198633] 3, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648
a(n) = w(3,2*n), n>=0, with w(3,l) the total number of closed walks on the graph P_3 (the simple path with 3 points (vertices) and 2 lines (or edges)).
[A153057] 3, 4, 8, 17, 33, 58, 94, 143, 207, 288, 388, 509, 653, 822, 1018, 1243, 1499, 1788, 2112, 2473, 2873, 3314, 3798, 4327, 4903, 5528, 6204, 6933, 7717, 8558, 9458, 10419, 11443, 12532, 13688, 14913, 16209, 17578, 19022, 20543, 22143, 23824, 25588
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, May 09 2017
[A065034] 3, 4, 8, 19, 48, 124, 323, 844, 2208, 5779, 15128, 39604, 103683, 271444, 710648, 1860499, 4870848, 12752044, 33385283, 87403804, 228826128, 599074579, 1568397608, 4106118244, 10749957123, 28143753124, 73681302248, 192900153619, 505019158608, 1322157322204
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = 1 + ((3-sqrt(5))/2)^n + ((3+sqrt(5))/2)^n. - Colin Barker, Nov 01 2016
[A073313] 3, 4, 8, 22, 64, 184, 524, 1488, 4224, 11992, 34048, 96672, 274480, 779328, 2212736, 6282592, 17838080, 50647424, 143802560, 408296704, 1159271424, 3291504000, 9345523712, 26534621696, 75339399936, 213910160384, 607352285184
a(n) is the trace of the n-th power of 3 X 3 matrix: first row (2, 1, 0), second row (1, 1, 1), third row (1, 0, 1). It satisfies recurrence a(n) = 4*a(n-1) - 4*a(n-2) + 2*a(n-3), a(0)=3, a(1)=4, a(2)=8.
[A155701] 3, 4, 8, 24, 88, 344, 1368, 5464, 21848, 87384, 349528, 1398104, 5592408, 22369624, 89478488, 357913944, 1431655768, 5726623064, 22906492248, 91625968984, 366503875928, 1466015503704, 5864062014808, 23456248059224, 93824992236888, 375299968947544
a(n)= 5*a(n-1)-4*a(n-2) = 4*a(n-1)-8.
[A134025] 0, 1, 3, 4, 9, 10, 11, 12, 13, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121
a(n) = f(n,0,0) with f(n,m,k) = if n=0 then k else if k<(3^(m+1)-1)/2 then f(n-1,m,k+1) else f(n-1,m+1,3^(m+1)).
[A005836] 0, 1, 3, 4, 9, 10, 12, 13, 27, 28, 30, 31, 36, 37, 39, 40, 81, 82, 84, 85, 90, 91, 93, 94, 108, 109, 111, 112, 117, 118, 120, 121, 243, 244, 246, 247, 252, 253, 255, 256, 270, 271, 273, 274, 279, 280, 282, 283, 324, 325, 327, 328, 333, 334, 336, 337, 351, 352
a(n+1) = sum(b(k)* 3^k) for k = 0..m and n = sum(b(k)* 2^k).
a(2n+1) = 3a(n+1), a(2n+2) = a(2n+1) + 1, a(0) = 0.
a(n+1) = 3*a(floor(n/2)) + n - 2*floor(n/2). - Ralf Stephan, Apr 27 2003
[A047230] 3, 4, 9, 10, 15, 16, 21, 22, 27, 28, 33, 34, 39, 40, 45, 46, 51, 52, 57, 58, 63, 64, 69, 70, 75, 76, 81, 82, 87, 88, 93, 94, 99, 100, 105, 106, 111, 112, 117, 118, 123, 124, 129, 130, 135, 136, 141, 142, 147, 148
a(n) = 6*n - a(n-1) - 5 (with a(1)=3). - Vincenzo Librandi, Aug 05 2010
a(n) = 3*n-1-(-1)^n.
[A047459] 1, 3, 4, 9, 11, 12, 17, 19, 20, 25, 27, 28, 33, 35, 36, 41, 43, 44, 49, 51, 52, 57, 59, 60, 65, 67, 68, 73, 75, 76, 81, 83, 84, 89, 91, 92, 97, 99, 100, 105, 107, 108, 113, 115, 116, 121, 123, 124, 129, 131, 132, 137, 139, 140, 145, 147, 148, 153, 155, 156
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-12-6*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3*k) = 8*k-4, a(3*k-1) = 8*k-5, a(3*k-2) = 8*k-7. (End)
[A091380] 1, 1, 3, 4, 9, 11, 14, 17, 18, 27, 28, 35, 38, 41, 42, 51, 57, 59, 65, 76, 81, 86, 92, 99, 100, 105, 107, 110, 124, 129, 134, 137, 147, 148, 155, 161, 162, 171, 177, 179, 184, 188, 195, 196, 209, 220, 225, 227, 230, 232, 234, 249, 254, 258, 267, 268, 275, 278, 281
a(1)=1; a(n>1)=max{r<p_n | -(r/p_n)=|p_n|_4}, where (r/p_n) is the Legendre symbol and |x|_m is the least absolute residue of x modulo m.
[A026476] 1, 3, 4, 9, 12, 23, 26, 37, 40, 51, 54, 65, 68, 79, 82, 93, 96, 107, 110, 121, 124, 135, 138, 149, 152, 163, 166, 177, 180, 191, 194, 205, 208, 219, 222, 233, 236, 247, 250, 261, 264, 275, 278, 289, 292, 303, 306, 317, 320, 331, 334, 345, 348, 359, 362, 373, 376
a(n) = a(n-1)+a(n-2)-a(n-3) for n>6. G.f.: x*(1+2*x+3*x^3+2*x^4+6*x^5)/((1-x)^2*(1+x)). - Colin Barker, May 02 2012
[A002513] 1, 1, 3, 4, 9, 12, 23, 31, 54, 73, 118, 159, 246, 329, 489, 651, 940, 1242, 1751, 2298, 3177, 4142, 5630, 7293, 9776, 12584, 16659, 21320, 27922, 35532, 46092, 58342, 75039, 94503, 120615, 151173, 191611, 239060, 301086, 374026, 468342, 579408
a(3n+2) = 0 (mod 3).
a(25n+22) = 0 (mod 5) (see Xiong).
a(49n+15) = a(49n+29) = a(49n+36) = a(49n+43) = 0 (mod 7) (see Chen Lin).
a(297n+62) = a(297n+161) = 0 (mod 11) (see Chern Dastidar).
[A131326] 1, 3, 4, 9, 13, 24, 37, 63, 100, 165, 265, 432, 697, 1131, 1828, 2961, 4789, 7752, 12541, 20295, 32836, 53133, 85969, 139104, 225073, 364179, 589252, 953433, 1542685, 2496120, 4038805, 6534927, 10573732, 17108661, 27682393, 44791056, 72473449, 117264507
a(n) = 3*Fibonacci(n+1)-2 if n even, a(n) = 3*Fibonacci(n+1) if n odd. - R. J. Mathar, Aug 12 2012
a(n) = (3*2^(-n-1)*((1 + sqrt(5))^(n+1) - (1 - sqrt(5))^(n+1))) / sqrt(5) - 2 for n even.
a(n) = (3*2^(-n-1)*((1 + sqrt(5))^(n+1) - (1 - sqrt(5))^(n+1))) / sqrt(5) for n odd.
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>3.
[A250111] 1, 1, 1, 3, 4, 9, 13, 25, 38, 68, 106, 182, 288, 483, 771, 1275, 2046, 3355, 5401, 8811, 14212, 23112, 37324, 60580, 97904, 158717, 256621, 415715, 672336, 1088661, 1760997, 2850645, 4611642, 7463884, 12075526, 19541994, 31617520, 51163695, 82781215
a(n) = (1/2) * (F(n+2) - F(floor((n-(-1)^n)/2)+2)) for n >= 2, a(1)=1. - Joerg Arndt, Nov 22 2014

a(n) = a(n-1)+2*a(n-2)-a(n-3)-a(n-5)-a(n-6) for n>7. - Colin Barker, Dec 01 2014
[A079284] 1, 1, 3, 4, 9, 13, 26, 39, 73, 112, 201, 313, 546, 859, 1469, 2328, 3925, 6253, 10434, 16687, 27633, 44320, 72977, 117297, 192322, 309619, 506037, 815656, 1329885, 2145541, 3491810, 5637351, 9161929, 14799280, 24026745, 38826025, 62983842, 101809867, 165055853, 266865720
a(n) = Sum_{j=0..floor(n/2)} Sum_{i=0..j} binomial(n-j, i).
a(n) = Fibonacci(n+3) - 2^floor((n+1)/2). - Vladeta Jovovic, Feb 12 2003
[A232801] 0, 1, 1, 3, 4, 9, 13, 27, 40, 81, 121, 243, 364, 729, 1093, 2187, 3280, 6561, 9841, 19683, 29524, 59049, 88573, 177147, 265720, 531441, 797161, 1594323, 2391484, 4782969, 7174453, 14348907, 21523360, 43046721, 64570081, 129140163, 193710244, 387420489
a(n) = 4*a(n-2)-3*a(n-4) for n>3, a(0)=0, a(1)=1, a(2)=1, a(3)=3. - Philippe Deléham, Dec 12 2013
a(n) = (1+(-1)^n)*(3^(n/2)-1)/4+(1-(-1)^n)*3^(n/2-1/2)/2. - Wesley Ivan Hurt, Aug 29 2015
[A006053] 0, 0, 1, 1, 3, 4, 9, 14, 28, 47, 89, 155, 286, 507, 924, 1652, 2993, 5373, 9707, 17460, 31501, 56714, 102256, 184183, 331981, 598091, 1077870, 1942071, 3499720, 6305992, 11363361, 20475625, 36896355, 66484244, 119801329, 215873462, 388991876, 700937471
a(n+1)*(-1)^n*49^(1/3) = (c(1)/c(4))^(1/3)*(2*c(1))^n + (c(2)/c(1))^(1/3)*(2*c(2))^n + (c(4)/c(2))^(1/3)*(2c(4))^n = (c(2)/c(1))^(1/3)*(2*c(1))^(n+1) + (c(4)/c(2))^(1/3)*(c(2))^(n+1) + (c(1)/c(4))^(1/3)*(2*c(4))^(n+1), where c(j) := cos(2Pi*j/7); for the proof, see Witula et al.'s papers. - Roman Witula, Jul 21 2012
[A174783] 0, 1, 1, 3, 4, 9, 14, 29, 49, 99, 175, 351, 637, 1275, 2353, 4707, 8788, 17577, 33098, 66197, 125476, 250953, 478192, 956385, 1830270, 3660541, 7030570, 14061141, 27088870, 54177741, 104647630
a(n) = Sum_{i=1..(n+1)/2}((binomial(n-2*i+1,floor((n-2*i+1)/2)))). - Vladimir Kruchinin, Mar 15 2016
[A253197] 0, 1, 3, 4, 9, 15, 24, 41, 67, 108, 177, 287, 464, 753, 1219, 1972, 3193, 5167, 8360, 13529, 21891, 35420, 57313, 92735, 150048, 242785, 392835, 635620, 1028457, 1664079, 2692536, 4356617, 7049155, 11405772, 18454929, 29860703, 48315632, 78176337, 126491971, 204668308, 331160281, 535828591, 866988872
a(n) = a(n-1) + a(n-2) + (1 - (-1)^(a(n-1) + a(n-2))), a(0) = 0, a(1) = 1.
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-4) - a(n-5) for n > 4. - Colin Barker, Mar 28 2015
[A271785] 0, 3, 4, 9, 16, 30, 54, 97, 172, 303, 530, 922, 1596, 2751, 4724, 8085, 13796, 23478, 39858, 67517, 114140, 192603, 324454, 545714, 916536, 1537275, 2575204, 4308897, 7201912, 12025038, 20058990, 33430297, 55667596, 92622471, 153992954, 255842890
a(n) = (2^(-1-n)*(-24*sqrt(5)*((1-sqrt(5))^n-(1+sqrt(5))^n)+5*((1-sqrt(5))^(1+n)+(1+sqrt(5))^(1+n))*n))/25.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4) for n>3. (End)
[A292564] 0, 3, 4, 10, 11, 12, 21, 22, 23, 24, 36, 37, 38, 39, 40, 55, 56, 57, 58, 59, 60, 78, 79, 80, 81, 82, 83, 84, 105, 106, 107, 108, 109, 110, 111, 112, 136, 137, 138, 139, 140, 141, 142, 143, 144, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 210, 211, 212
a(n) = n + floor((sqrt(8*n+1)-1)/2)*(3*floor((sqrt(8*n+1)-1)/2)+1)/2. - Robert Israel, Sep 20 2017
[A047341] 3, 4, 10, 11, 17, 18, 24, 25, 31, 32, 38, 39, 45, 46, 52, 53, 59, 60, 66, 67, 73, 74, 80, 81, 87, 88, 94, 95, 101, 102, 108, 109, 115, 116, 122, 123, 129, 130, 136, 137, 143, 144, 150, 151, 157, 158, 164, 165, 171
a(n) = (7 + 5*(-1)^n + 14*n)/4. - Paolo P. Lava, Feb 10 2009
a(n) = 7*n - a(n-1) - 7 for n>1, a(1)=3. - Vincenzo Librandi, Aug 05 2010
[A131179] 0, 1, 3, 4, 10, 11, 21, 22, 36, 37, 55, 56, 78, 79, 105, 106, 136, 137, 171, 172, 210, 211, 253, 254, 300, 301, 351, 352, 406, 407, 465, 466, 528, 529, 595, 596, 666, 667, 741, 742, 820, 821, 903, 904, 990, 991, 1081, 1082, 1176, 1177, 1275, 1276, 1378, 1379, 1485, 1486
a(n) = (n^2+1+(n-1)*(-1)^n)/2. - Luce ETIENNE, Aug 19 2014
[A050187] 0, 0, 0, 3, 4, 10, 12, 21, 24, 36, 40, 55, 60, 78, 84, 105, 112, 136, 144, 171, 180, 210, 220, 253, 264, 300, 312, 351, 364, 406, 420, 465, 480, 528, 544, 595, 612, 666, 684, 741, 760, 820, 840, 903, 924, 990, 1012, 1081, 1104, 1176
a(n) = n * floor((n-1)/2).
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = binomial(n,2) - (n/2) * ((n+1) mod 2). - Wesley Ivan Hurt, Nov 23 2013
[A239632] 0, 1, 3, 4, 10, 12, 28, 32, 72, 80, 176, 192, 416, 448, 960, 1024, 2176, 2304, 4864, 5120, 10752, 11264, 23552, 24576, 51200, 53248, 110592, 114688, 237568, 245760, 507904, 524288, 1081344, 1114112, 2293760, 2359296
a(n) = 4*a(n-2) - 4*a(n-4) for n > 3. - Giovanni Resta, Mar 23 2014
[A007068] 1, 3, 4, 10, 14, 34, 48, 116, 164, 396, 560, 1352, 1912, 4616, 6528, 15760, 22288, 53808, 76096, 183712, 259808, 627232, 887040, 2141504, 3028544, 7311552, 10340096, 24963200, 35303296, 85229696, 120532992, 290992384, 411525376
a(n)=sum{k=0..n, sum{j=0..n, C(floor(n/2), n-j)*C(floor(j/2), j-k)}} - Paul Barry, Feb 14 2005
a(n)=(1-1/2*(-1)^n)*((2-sqrt(2))^(1/4*(2*n+(-1)^n-1))+(2+sqrt(2))^(1/4*(2*n+(-1)^n-1)))+(1/4*sqrt(2)*(-1)^n-3/4*sqrt(2))*((2-sqrt(2))^(1/4*(2*n+(-1)^n-1))-(2+sqrt(2))^(1/4*(2*n+(-1)^n-1))). - Paolo P. Lava, Feb 13 2012
[A121720] 0, 1, 1, 3, 4, 10, 14, 34, 48, 116, 164, 396, 560, 1352, 1912, 4616, 6528, 15760, 22288, 53808, 76096, 183712, 259808, 627232, 887040, 2141504, 3028544, 7311552, 10340096, 24963200, 35303296, 85229696, 120532992, 290992384, 411525376, 993510144, 1405035520
a(n)=(1/4)*(2-sqrt(2))^(1/2*n)*(2-sqrt(2))^(1/4*(-1)^n)*(2-sqrt(2))^(-1/4)*(1-sqrt(2)-(-1)^n)+(1/4)*(2 +sqrt(2))^(-1/4)*(2+sqrt(2))^(1/2*n)*(2+sqrt(2))^(1/4*(-1)^n)*(1+sqrt(2)-(-1)^n), with n>=0 [From Paolo P. Lava, Nov 02 2009]
[A188022] 0, 1, 1, 3, 4, 10, 15, 34, 55, 117, 199, 406, 714, 1417, 2548, 4965, 9061, 17443, 32148, 61390, 113887, 216318, 403051, 762841, 1425471, 2691574, 5039254, 9500193, 17809336, 33539833, 62928201, 118428835, 222324436, 418214706, 785402143, 1476968554
a(n)=3*a(n-2)+a(n-3).
[A051437] 1, 3, 4, 10, 16, 36, 64, 136, 256, 528, 1024, 2080, 4096, 8256, 16384, 32896, 65536, 131328, 262144, 524800, 1048576, 2098176, 4194304, 8390656, 16777216, 33558528, 67108864, 134225920, 268435456, 536887296, 1073741824, 2147516416, 4294967296, 8590000128
a(0)=1, a(1)=3, a(2)=4, a(n)=2*a(n-1)+2*a(n-2)-4*a(n-3). - Harvey P. Dale, Jun 06 2011
[A172416] 1, 1, 3, 4, 10, 17, 37, 70, 144, 283, 571, 1136, 2278, 4549, 9105, 18202, 36412, 72815, 145639, 291268, 582546, 1165081, 2330173, 4660334, 9320680, 18641347, 37282707, 74565400, 149130814, 298261613, 596523241
a(n)=a(n-1)+3a(n-2)-a(n-3)-2a(n-4).
[A171160] 3, 4, 10, 18, 38, 74, 150, 298, 598, 1194, 2390, 4778, 9558, 19114, 38230, 76458, 152918, 305834, 611670, 1223338, 2446678, 4893354, 9786710, 19573418, 39146838, 78293674, 156587350, 313174698, 626349398, 1252698794, 2505397590, 5010795178, 10021590358
a(n) = (1/3)*(2*(-1)^n + 7*2^n), with n>=0. - Paolo P. Lava, Dec 14 2009
[A047457] 3, 4, 11, 12, 19, 20, 27, 28, 35, 36, 43, 44, 51, 52, 59, 60, 67, 68, 75, 76, 83, 84, 91, 92, 99, 100, 107, 108, 115, 116, 123, 124, 131, 132, 139, 140, 147, 148, 155, 156, 163, 164, 171, 172, 179, 180, 187, 188, 195, 196, 203, 204, 211, 212, 219, 220, 227
a(n) = 8*n - a(n-1) - 9 (with a(1) = 3). - Vincenzo Librandi, Aug 06 2010
a(n) = (-5 - 3*(-1)^n + 8*n)/2. - Colin Barker, May 14 2012
[A041405] 1, 1, 3, 4, 11, 15, 26, 249, 1022, 9447, 10469, 19916, 50301, 70217, 190735, 260952, 7497391, 7758343, 23014077, 30772420, 84558917, 115331337, 199890254, 1914343623, 7857264746, 72629726337
a(n) = 7688126*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 18 2013]
[A042483] 1, 1, 3, 4, 11, 15, 26, 457, 483, 5287, 32205, 37492, 219665, 696487, 2309126, 5314739, 7623865, 12938604, 20562469, 33501073, 54063542, 87564615, 229192772, 775142931, 2554621565, 13548250756, 16102872321, 110165484682, 1117757719141, 1227923203823
a(n) = 32734748155099080*a(n-37) + a(n-74) for n>73. - Vincenzo Librandi, Jan 23 2014
[A002530] 0, 1, 1, 3, 4, 11, 15, 41, 56, 153, 209, 571, 780, 2131, 2911, 7953, 10864, 29681, 40545, 110771, 151316, 413403, 564719, 1542841, 2107560, 5757961, 7865521, 21489003, 29354524, 80198051, 109552575, 299303201, 408855776, 1117014753, 1525870529, 4168755811
a(n) = 4*a(n-2) - a(n-4). [Corrected by László Szalay, Feb 21 2014]
a(n) = -(-1)^n * a(-n).
a(2*n) = a(2*n-1) + a(2*n-2), a(2*n+1) = 2*a(2*n) + a(2*n-1).
a(n+1) = sum{k=0..floor(n/2)} binomial(n-k,k) * 2^floor((n-2k)/2). - Paul Barry, Jul 13 2004
a(n) = sum_{k=0..floor(n/2)} binomial(floor(n/2)+k, floor((n-1)/2-k))*2^k). - Paul Barry, Jun 22 2005
[A041527] 1, 1, 3, 4, 11, 15, 491, 506, 1503, 2009, 5521, 7530, 246481, 254011, 754503, 1008514, 2771531, 3780045, 123732971, 127513016, 378759003, 506272019, 1391303041, 1897575060, 62113704961, 64011280021, 190136265003, 254147545024, 698431355051, 952578900075

a(0)=1, a(1)=1, a(2)=3, a(3)=4, a(4)=11, a(5)=15, a(6)=491, a(7)=506, a(8)=1503, a(9)=2009, a(10)=5521, a(11)=7530, a(n)=502*a(n-6)-a(n-12). - Harvey P. Dale, Aug 13 2012

[A290493] 1, 3, 4, 11, 16, 24, 43, 75, 130, 218, 375, 644, 1106, 1893, 3244, 5563, 9538, 16350, 28026, 48046, 82366, 141199, 242053, 414948, 711341, 1219442, 2090470, 3583661, 6143419, 10531574, 18054122, 30949915, 53056986, 90954814, 155922503, 267295658, 458221025

a(n) = a(n-1)+a(n-2)+a(n-4)-a(n-6).

[A248825] 0, 3, 4, 11, 16, 27, 36, 51, 64, 83, 100, 123, 144, 171, 196, 227, 256, 291, 324, 363, 400, 443, 484, 531, 576, 627, 676, 731, 784, 843, 900, 963, 1024, 1091, 1156, 1227, 1296, 1371, 1444, 1523, 1600, 1683, 1764, 1851, 1936, 2027, 2116

a(n) = a(-n) = 2*a(n-1) - 2*(n-3) + a(n-4).

a(n+2) = a(n) + 4*n.

[A001641] 1, 3, 4, 11, 16, 30, 50, 91, 157, 278, 485, 854, 1496, 2628, 4609, 8091, 14196, 24915, 43720, 76726, 134642, 236283, 414645, 727654, 1276941, 2240878, 3932464, 6900996, 12110401, 21252275, 37295140, 65448411, 114853952, 201554638, 353703730, 620706779

a(n)=n*sum(k=1..n, sum(j=floor((4*k-n)/3)..floor((4*k-n)/2), binomial(j,n-4*k+3*j)*binomial(k,j))/k). [Vladimir Kruchinin, May 25 2011]

[A007382] 0, 0, 3, 4, 11, 16, 32, 49, 87, 137, 231, 369, 608, 978, 1595, 2574, 4179, 6754, 10944, 17699, 28655, 46355, 75023, 121379, 196416, 317796, 514227, 832024, 1346267

a(n) = Sum_{i=1..floor((n-1)/2)} C(n-i+1, i). - Wesley Ivan Hurt, Sep 19 2017

[A027306] 1, 1, 3, 4, 11, 16, 42, 64, 163, 256, 638, 1024, 2510, 4096, 9908, 16384, 39203, 65536, 155382, 262144, 616666, 1048576, 2449868, 4194304, 9740686, 16777216, 38754732, 67108864, 154276028, 268435456, 614429672, 1073741824, 2448023843

a(n) = Sum_{k=0..[n/2]} C(n,k).

a(n) = [x^n](2*x - 1/(1 - x))^n.

a(n) = Sum_{k=1..floor((n+1)/2)} binomial(n-1,(2n+1-(-1)^n)/4 -k). - Anthony Browne, Jun 18 2016

[A247171] 1, 1, 3, 4, 11, 21, 48, 106, 235, 535, 1203, 2751, 6272, 14392, 33078, 76224, 176043, 407253, 943833, 2190397, 5090371, 11843689, 27586793, 64320191, 150102784, 350586496, 819477792, 1916861350, 4486760870, 10508582130, 24626700888

a(n) = n*sum(k=1..n, (binomial(2*k,n-k)*binomial(n-k-1,k-1))/k, n>0, a(0)=1.

[A208176] 1, 3, 4, 11, 25, 66, 169, 443, 1156, 3027, 7921, 20738, 54289, 142131, 372100, 974171, 2550409, 6677058, 17480761, 45765227, 119814916, 313679523, 821223649, 2149991426, 5628750625, 14736260451, 38580030724, 101003831723, 264431464441, 692290561602

a(n) = F(n)^2 + F(n)*F(n+1) + 1. - Gary Detlefs, Apr 18 2012

[A042129] 1, 3, 4, 11, 26, 401, 427, 1682, 15565, 32812, 146813, 179625, 2122688, 6547689, 41408822, 47956511, 89365333, 137321844, 226687177, 817383375, 1861453927, 6401745156, 8263199083, 14664944239, 22928143322, 37593087561, 248486668688, 783053093625, 8862070698563

a(n) = 82846332134072437502*a(n-40) - a(n-80) for n>79. - Vincenzo Librandi, Jan 15 2014

[A084378] 3, 4, 11, 30, 67, 128, 219, 346, 515, 732, 1003, 1334, 1731, 2200, 2747, 3378, 4099, 4916, 5835, 6862, 8003, 9264, 10651, 12170, 13827, 15628, 17579, 19686, 21955, 24392, 27003, 29794, 32771, 35940, 39307, 42878, 46659, 50656, 54875, 59322, 64003

a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Jun 10 2016

[A041947] 1, 3, 4, 11, 48, 59, 107, 273, 653, 1579, 2232, 3811, 17476, 38763, 56239, 207480, 9185359, 27763557, 36948916, 101661389, 443594472, 545255861, 988850333, 2522956527, 6034763387, 14592483301, 20627246688, 35219729989, 161506166644, 358232063277

a(n) = 9241598*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Dec 27 2013

[A042079] 1, 1, 3, 4, 11, 257, 525, 782, 2089, 2871, 134155, 137026, 408207, 545233, 1498673, 35014712, 71528097, 106542809, 284613715, 391156524, 18277813819, 18668970343, 55615754505, 74284724848, 204185204201, 4770544421471, 9745274047143, 14515818468614

a(n) = 136244*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 14 2014

[A094025] 1, 3, 4, 12, 13, 39, 40, 120, 121, 363, 364, 1092, 1093, 3279, 3280, 9840, 9841, 29523, 29524, 88572, 88573, 265719, 265720, 797160, 797161, 2391483, 2391484, 7174452, 7174453, 21523359, 21523360, 64570080, 64570081, 193710243, 193710244

a(n)=4a(n-2)-3a(n-4); a(n)=3*3^(n/2)(1/4+sqrt(3)/4+(1/4-sqrt(3)/4)(-1)^n)+(-1)^n/2-1.

a(n) = a(n-1)*3 if n odd; a(n) = a(n-1)+1 if n even. - Philippe Deléham, Apr 22 2013

[A084221] 1, 3, 4, 12, 16, 48, 64, 192, 256, 768, 1024, 3072, 4096, 12288, 16384, 49152, 65536, 196608, 262144, 786432, 1048576, 3145728, 4194304, 12582912, 16777216, 50331648, 67108864, 201326592, 268435456, 805306368, 1073741824, 3221225472, 4294967296, 12884901888

a(n) = (5*2^n-(-2)^n)/4.

a(n+3) = a(n+2)*a(n+1)/a(n). - Reinhard Zumkeller, Mar 04 2011

[A124817] 1, 1, 3, 4, 12, 18, 55, 88, 273, 455, 1428, 2448, 7752, 13566, 43263, 76912, 246675, 444015, 1430715, 2601300, 8414640, 15426840, 50067108, 92431584, 300830572, 558685348, 1822766520, 3402497504, 11124755664, 20858916870, 68328754959

a(n)=(1/(2(n+3)))*C(3n/2+3,n/2+1)(1+(-1)^n)+(2/(n+3))*C(3(n+1)/2,(n-1)/2)(1-(-1)^n)

[A005221] 0, 0, 1, 1, 3, 4, 12, 22, 61, 128, 335, 756, 1936, 4580, 11652, 28402, 72209, 179460, 457274, 1151725, 2945129, 7489680, 19228598, 49256157, 126958030, 327072560, 846173899, 2190012371, 5685200054, 14770728584, 38463268482, 100259225816

a(n) = Sum_{m=2..n} (m*Sum_{i=0..n-m }((Sum_{j=0..i+m }(binomial(i+m,j)*binomial(j,i-j)))*Sum_{k=0..n-i-m }((binomial(2*k+i+m-1,k)*Sum_{l=0..k}(binomial(k,l)*binomial(k-l,n-3*l-k-i-m)*(-1)^(n-l-k-m)))/(k+i+m)))). - Vladimir Kruchinin, Mar 06 2016

[A291023] 0, 3, 4, 12, 24, 56, 120, 264, 568, 1224, 2616, 5576, 11832, 25032, 52792, 111048, 233016, 487880, 1019448, 2126280, 4427320, 9204168, 19107384, 39612872, 82021944, 169636296, 350457400, 723284424, 1491308088, 3072094664, 6323146296, 13004206536, 26724240952

a(n) = 3*a(n-1) - 4*a(n-3) for n >= 4.

a(n) = (16*((-1)^(1+n) + 2^n) + 3*2^n*n) / 18. - Colin Barker, Aug 24 2017

[A287594] 3, 4, 12, 28, 72, 184, 480, 1264, 3360, 8992, 24192, 65344, 177024, 480640, 1307136, 3559168, 9699840, 26452480, 72173568, 196989952, 537802752, 1468536832, 4010582016, 10954043392, 29920862208, 81733033984, 223274237952, 609947435008, 1666309128192

a(n) = 2^n+(1-sqrt(3))^n+(1+sqrt(3))^n.

a(n) = 2^n+2^(n/2)*LucasL(n,sqrt(2)).

a(n) = 4*a(n-1)-2*a(n-2)-4*a(n-3).

[A109474] 1, 3, 4, 13, 14, 23, 24, 33, 34, 43, 44, 53, 54, 63, 64, 73, 74, 83, 84, 93, 94, 103, 104, 113, 114, 123, 124, 133, 134, 143, 144, 153, 154, 163, 164, 173, 174, 183, 184, 193, 194, 203, 204, 213, 214, 223, 224, 233, 234, 243, 244, 253, 254, 263, 264, 273, 274, 283, 284

a(n) = max{1, 5*n-9+2*(-1)^n}.

a(n) = a(n-1)+a(n-2)-a(n-3) for n>4. G.f.: x*(1+2*x+7*x^3)/((1-x)^2*(1+x)). [Colin Barker, Jul 22 2012]

[A057570] 0, 3, 4, 13, 15, 30, 33, 54, 58, 85, 90, 123, 129, 168, 175, 220, 228, 279, 288, 345, 355, 418, 429, 498, 510, 585, 598, 679, 693, 780, 795, 888, 904, 1003, 1020, 1125, 1143, 1254, 1273, 1390, 1410, 1533, 1554, 1683, 1705, 1840, 1863, 2004

a(n) = +1*a(n-1)+2*a(n-2)-2*a(n-3)-1*a(n-4)+1*a(n-5). - Joerg Arndt, Jan 25 2011

a(n) = (14*n*(n-1)+5*(2*n-1)*(-1)^n+5)/16. - Bruno Berselli, Jan 25 2011

[A023857] 3, 4, 13, 16, 34, 40, 70, 80, 125, 140, 203, 224, 308, 336, 444, 480, 615, 660, 825, 880, 1078, 1144, 1378, 1456, 1729, 1820, 2135, 2240, 2600, 2720, 3128, 3264, 3723, 3876, 4389, 4560, 5130, 5320, 5950, 6160, 6853, 7084, 7843, 8096, 8924, 9200, 10100, 10400, 11375, 11700

a(n) = sum_{i=1..ceil(n/2)} i*(n-i+3) = -ceil(n/2) *(ceil(n/2)+1) *(2*ceil(n/2)-3n-8)/6. - Wesley Ivan Hurt, Sep 20 2013

a(n) = (4*n^3+27*n^2+50*n+21-3*(n^2+6*n+7)*(-1)^n)/48. - Luce ETIENNE, Nov 21 2014

[A291250] 1, 3, 4, 13, 17, 52, 69, 203, 272, 781, 1053, 2976, 4029, 11267, 15296, 42469, 57765, 159596, 217361, 598499, 815860, 2241165, 3057025, 8383872, 11440897, 31340691, 42781588, 117100285, 159881873, 437378260, 597260133, 1633244795, 2230504928, 6097779229

a(n) = a(n-1) + 5*a(n-2) - 4*a(n-3) - 5*a(n-4) + a(n-5) + a(n-6) for n >= 7.

[A182691] 3, 4, 13, 18, 61, 86, 293, 414, 1413, 1998, 6821, 9646, 32933, 46574, 159013, 224878, 767781, 1085806, 3707173, 5242734, 17899813, 25314158, 86427941, 122227566, 417311013, 590166894, 2014955813, 2849577838, 9729067301

a(n)=floor(s*a(n-1)) if n odd, a(n)=floor(r*a(n-1)) if n even, where r=sqrt(2), s=2+r, a(1)=floor(s).

[A243764] 1, 1, 3, 4, 13, 36, 122, 408, 1453, 5236, 19374, 72616, 276194, 1061416, 4119060, 16112944, 63485565, 251700308, 1003515878, 4020985608, 16184539030, 65409684984, 265338949740, 1080038134352, 4409974794962, 18058663921992, 74146961705356, 305193422510224

a(n) = Sum_{k=0..(n/2)} 2^k*binomial(2*k-1,k)*binomial(2*n-2*k-2,n-2))/(n-1), n>1, a(0)=-1, a(1)=1.

[A280608] 1, 3, 4, 14, 17, 57, 65, 225, 257, 897, 1025, 3585, 4097, 14337, 16385, 57345, 65537, 229377, 262145, 917505, 1048577, 3670017, 4194305, 14680065, 16777217, 58720257, 67108865, 234881025, 268435457, 939524097, 1073741825, 3758096385, 4294967297, 15032385537
a(n) = (8 - 3*(-2)^n + 11*2^n) / 8 for n>3.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) for n>4.
[A281216] 1, 3, 4, 14, 17, 59, 68, 238, 273, 955, 1092, 3822, 4369, 15291, 17476, 61166, 69905, 244667, 279620, 978670, 1118481, 3914683, 4473924, 15658734, 17895697, 62634939, 71582788, 250539758, 286331153, 1002159035, 1145324612, 4008636142, 4581298449, 16034544571
a(n) = 4*a(n-2) + a(n-4) - 4*a(n-6) for n>5.
[A080878] 1, 1, 3, 4, 14, 20, 72, 104, 376, 544, 1968, 2848, 10304, 14912, 53952, 78080, 282496, 408832, 1479168, 2140672, 7745024, 11208704, 40553472, 58689536, 212340736, 307302400, 1111830528, 1609056256, 5821620224, 8425127936, 30482399232
a(n) = (1/20*10^(1/2) + 1/4)*(sqrt(3 + sqrt(5)))^n + (1/20*10^(1/2) + 1/4)*(sqrt(3 - sqrt(5)))^n + (- 1/20*10^(1/2) + 1/4)*(- (sqrt(3 + sqrt(5))))^n + (- 1/20*10^(1/2) + 1/4)*(- (sqrt(3 - sqrt(5))))^n. - Richard Choulet, Dec 07 2008
[A081714] 0, 3, 4, 14, 33, 90, 232, 611, 1596, 4182, 10945, 28658, 75024, 196419, 514228, 1346270, 3524577, 9227466, 24157816, 63245987, 165580140, 433494438, 1134903169, 2971215074, 7778742048, 20365011075, 53316291172, 139583862446, 365435296161, 956722026042
a(n) = (-(-1)^n+(2^(-1-n)*((3-sqrt(5))^n*(-1+sqrt(5))+(1+sqrt(5))*(3+sqrt(5))^n)) / sqrt(5)). - Colin Barker, Sep 28 2016
[A285475] 1, 3, 4, 15, 16, 63, 64, 255, 256, 1023, 1024, 4095, 4096, 16383, 16384, 65535, 65536, 262143, 262144, 1048575, 1048576, 4194303, 4194304, 16777215, 16777216, 67108863, 67108864, 268435455, 268435456, 1073741823, 1073741824, 4294967295, 4294967296
a(n) = (-1 - (-2)^n + (-1)^n + 3*2^n)/2.
a(n) = 5*a(n-2) - 4*a(n-4) for n>3.
[A041435] 1, 3, 4, 15, 19, 34, 53, 87, 314, 401, 1517, 45911, 139250, 185161, 694733, 879894, 1574627, 2454521, 4029148, 14541965, 18571113, 70255304, 2126230233, 6448946003, 8575176236, 32174474711, 40749650947, 72924125658, 113673776605, 186597902263, 673467483394
a(n) = 46312*a(n-11) + a(n-22) for n>21. - Vincenzo Librandi, Dec 17 2013
[A136210] 1, 3, 4, 15, 19, 72, 91, 345, 436, 1653, 2089, 7920, 10009, 37947, 47956, 181815, 229771, 871128, 1100899, 4173825, 5274724, 19997997, 25272721, 95816160, 121088881, 459082803, 580171684, 2199597855, 2779769539, 10538906472
a(0) = 0, a(1) = 1, a(2n) = 3*a(2n-1) + a(2n-2); a(2n-1) = a(2n-2) + a(2n-3). Given the 2 X 2 matrix [1, 3; 1, 4] = T, [a(2n-1), a(2n)] = top row of T^n.
a(n+1) - a(n-1) = a(n) * (2 - (-1)^n) for all n in Z. - Michael Somos, May 15 2014
[A041819] 1, 1, 3, 4, 15, 19, 129, 1051, 6435, 7486, 28893, 36379, 101651, 138030, 5622851, 5760881, 17144613, 22905494, 85861095, 108766589, 738460629, 6016451621, 36837170355, 42853621976, 165398036283, 208251658259, 581901352801, 790153011060, 32188021795201, 32978174806261
a(n) = 5724502*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 25 2013
[A272514] 3, 4, 15, 21, 63, 92, 255, 385, 1023, 1585, 4095, 6475, 16383, 26332, 65535, 106761, 262143, 431909, 1048575, 1744435, 4194303, 7036529, 16777215, 28354131, 67108863, 114159427, 268435455, 459312151, 1073741823, 1846943452, 4294967295, 7423131481, 17179869183
a(n) = n! * [x^n*y^2] Product_{n>=1} (1+y*x^n/n!).
a(n) = Sum_{i=1..floor((n-1)/2)} binomial(n,i). - Wesley Ivan Hurt, Nov 15 2017
[A065942] 1, 1, 3, 4, 15, 21, 84, 120, 495, 715, 3003, 4368, 18564, 27132, 116280, 170544, 735471, 1081575, 4686825, 6906900, 30045015, 44352165, 193536720, 286097760, 1251677700, 1852482996, 8122425444, 12033222880, 52860229080, 78378960360
a(n) = binomial(n-floor((n/2+1)/2), floor(n/4)).
a(n) = sum(k=0, ceil(n/2), binomial(n+k, k)) - Benoit Cloitre, Mar 06 2004
a(n) = binomial(n+floor(n/2), n). - Paul Barry, May 18 2004
a(n) = sum{k=0..floor(n/2), binomial(n-1+k, k)}. - Paul Barry, Jul 06 2004
a(2n-1) = binomial(3n-3,n-1); a(2n) = binomial(3n-2,n-1). - John Molokach, Jul 08 2013
[A293047] 0, 0, 0, 3, 4, 15, 26, 63, 120, 255, 502, 1023, 2036, 4095, 8178, 16383, 32752, 65535, 131054, 262143, 524268, 1048575, 2097130, 4194303, 8388584, 16777215, 33554406, 67108863, 134217700, 268435455, 536870882, 1073741823, 2147483616, 4294967295, 8589934558
a(n) = 2^(n-1) - 1 for odd n.
[A041665] 1, 1, 3, 4, 15, 34, 83, 200, 683, 883, 2449, 3332, 122401, 125733, 373867, 499600, 1872667, 4244934, 10362535, 24970004, 85272547, 110242551, 305757649, 416000200, 15281764849, 15697765049, 46677294947, 62375059996, 233802474935, 529980009866
a(n) = 124850*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 22 2013
[A042771] 1, 3, 4, 15, 49, 64, 113, 1646, 1759, 3405, 11974, 39327, 51301, 193230, 11645101, 35128533, 46773634, 175449435, 573121939, 748571374, 1321693313, 19252277756, 20573971069, 39826248825, 140052717544, 459984401457, 600037119001, 2260095758460
a(n) = 11696402*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 28 2014
[A115752] 0, 0, 3, 4, 15, 81, 168, 540, 2271, 5365, 16698, 63229, 159250, 489048, 1749933, 4576140, 13955895, 48211389, 129211818, 392441049, 1323741156, 3609608838, 10933915743, 36252591813, 100126350090, 302737691646, 990855646563
a(n) = sum(sum(n!/(i!j!(n-i-j)!), j=i+1..floor((n-i)/2)), j=0..floor((n-2)/3)). - Dennis P. Walsh, Jun 19 2013
[A032829] 3, 4, 18, 19, 23, 24, 93, 94, 98, 99, 118, 119, 123, 124, 468, 469, 473, 474, 493, 494, 498, 499, 593, 594, 598, 599, 618, 619, 623, 624, 2343, 2344, 2348, 2349, 2368, 2369, 2373, 2374, 2468, 2469, 2473, 2474, 2493, 2494, 2498
a(1)=3, a(2)=4; a(n) = 5*a(floor(n/2))+3 for n odd, otherwise a(n) = 5*a(floor((n-1)/2))+4. - Bruno Berselli, May 30 2012
[A041703] 1, 3, 4, 19, 23, 88, 3367, 10189, 13556, 64413, 77969, 298320, 11414129, 34540707, 45954836, 218360051, 264314887, 1011304712, 38693893943, 117092986541, 155786880484, 740240508477, 896027388961, 3428322675360, 131172289052641, 396945189833283
a(n) = 3390*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 23 2013
[A041989] 1, 1, 3, 4, 19, 61, 202, 465, 4852, 5317, 79290, 322477, 4593968, 4916445, 53758418, 112433281, 391058261, 1285608064, 5533490517, 6819098581, 19171687679, 25990786260, 1162766283119, 1188757069379, 3540280421877, 4729037491256, 22456430386901
a(n) = 1181937970798*a(n-22) - a(n-44) for n>43. [Bruno Berselli, Jan 11 2014]
[A262033] 1, 1, 1, 3, 4, 20, 30, 210, 336, 3024, 5040, 55440, 95040, 1235520, 2162160, 32432400, 57657600, 980179200, 1764322560, 33522128640, 60949324800, 1279935820800, 2346549004800, 53970627110400, 99638080819200, 2490952020480000, 4626053752320000
a(n) = 2*n*(n*(n-1)*a(n-2)-a(n-1))/((n+2)*(n-1)) for n>1, a(0)=a(1)=1.
a(n) = n!/ceiling((n+1)/2)!.
[A081698] 1, 3, 4, 21, 56, 282, 984, 4813, 19280, 93150, 403672, 1945954, 8845360, 42766292, 200419504, 974134461, 4659558048, 22785183670, 110564976792, 543935554390, 2667398588272, 13196971915628, 65238895435792, 324431740601618, 1614044041864800, 8063536826420460
a(n) = sum(k=0..n, (binomial((k+1)/2,n-k)*binomial(2*k,k)*4^(n-k))/(k+1)). [Vladimir Kruchinin, Mar 13 2013]
[A042035] 1, 3, 4, 23, 27, 239, 505, 2259, 2764, 7787, 26125, 33912, 60037, 694319, 10474822, 21643963, 53762748, 75406711, 129169459, 204576170, 333745629, 538321799, 872067428, 2282456655, 5436980738, 83837167725, 927645825713, 1011482993438, 1939128819151
a(n) = 272303263293845490 0*a(n-39) + a(n-78) for n>77. - Vincenzo Librandi, Jan 12 2014
[A041861] 1, 3, 4, 23, 73, 753, 2332, 12413, 14745, 56648, 2393961, 7238531, 9632492, 55400991, 175835465, 1813755641, 5617102388, 29899267581, 35516369969, 136448377488, 5766348224465, 17435493050883, 23201841275348, 133444699427623, 423535939558217, 4368804095009793
a(n) = 2408706*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 26 2013
[A157163] 1, 3, 4, 27, 48, 156, 576, 2955, 7168, 27792, 95232, 352188, 1290240, 5105856, 17743872, 77010795, 252641280, 1000224768, 3616800768, 14484040464, 52102692864, 208963943424, 764877471744, 3025006038012, 11258183024640, 44968060784640, 166308918329344
a(n) = ((-2*a(1))^n + sum(d*(-2*a(d))^(n/d),d|n with 1<d<n) + B(n))/(2*n), with the o.g.f. x*(log(1/sqrt(1-4*x)))' = 2*x/(1-4*x) for the sequence B(n); hence B(n)=(1/2)*4^n.
[A042653] 1, 3, 4, 31, 35, 66, 101, 167, 769, 2474, 3243, 8960, 57003, 407981, 2504889, 5417759, 7922648, 29185703, 124665460, 153851163, 278516623, 432367786, 710884409, 5408558649, 6119443058, 23766887823, 1384598936792, 4177563698199, 5562162634991, 43112702143136
a(n) = 1390718379850*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Jan 26 2014
[A032834] 3, 4, 33, 34, 43, 44, 333, 334, 343, 344, 433, 434, 443, 444, 3333, 3334, 3343, 3344, 3433, 3434, 3443, 3444, 4333, 4334, 4343, 4344, 4433, 4434, 4443, 4444, 33333, 33334, 33343, 33344, 33433, 33434, 33443, 33444, 34333, 34334
a(2*n+1) = 10*a(n)+3.
a(2*n+2) = 10*a(n)+4.

[A041055] 1, 1, 3, 4, 43, 47, 137, 184, 1977, 2161, 6299, 8460, 90899, 99359, 289617, 388976, 4179377, 4568353, 13316083, 17884436, 192160443, 210044879, 612250201, 822295080, 8835201001, 9657496081, 28150193163
a(n) = 46*a(n-4)-a(n-8). G.f.: -(x^2-x-1)*(x^4+4*x^2+1)/(x^8-46*x^4+1). [Colin Barker, Jul 16 2012]
[A041105] 1, 1, 3, 4, 59, 63, 185, 248, 3657, 3905, 11467, 15372, 226675, 242047, 710769, 952816, 14050193, 15003009, 44056211, 59059220, 870885291, 929944511, 2730774313, 3660718824, 53980837849, 57641556673, 169263951195, 226905507868, 3345941061347, 3572846569215
a(n) = 62*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A274699] 1, 1, 3, 4, 65, 126, 637, 21344, 57465, 330850, 2023901, 156312432, 502733101, 3464645380, 21505493115, 194182086016, 28828634104193, 108228186522378, 842870098110349, 5690185704481040, 49492420589959221, 521939648330427580, 15181467597962034707 9, 642254623640191155552, 5633344428589261 409429194695532042830 76, 370068971963735972601207
a(n) = (n-2)! Sum_{k=1..n-2} C(n,k) k! [u^k][z^{n-2}] Product_{q=1..n-2} (1 + u z^q/q!).
[A041171] 1, 1, 3, 4, 75, 79, 233, 312, 5849, 6161, 18171, 24332, 456147, 480479, 1417105, 1897584, 35573617, 37471201, 110516019, 147987220, 2774285979, 2922273199, 8618832377, 11541105576, 216358732745, 227899838321, 672158409387, 900058247708, 16873206868131, 17773265115839
a(n) = 78*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 12 2013
[A041253] 1, 1, 3, 4, 91, 95, 281, 376, 8553, 8929, 26411, 35340, 803891, 839231, 2482353, 3321584, 75557201, 78878785, 233314771, 312193556, 7101573003, 7413766559, 21929106121, 29342872680, 667472305081, 696815177761, 2061102660603, 2757917838364, 62735295104611
a(n) = 94*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 13 2013
[A041351] 1, 1, 3, 4, 107, 111, 329, 440, 11769, 12209, 36187, 48396, 1294483, 1342879, 3980241, 5323120, 142381361, 147704481, 437790323, 585494804, 15660655227, 16246150031, 48152955289, 64399105320, 1722529693609, 1786928798929, 5296387291467, 7083316090396
a(n) = 110*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 16 2013
[A041465] 1, 1, 3, 4, 123, 127, 377, 504, 15497, 16001, 47499, 63500, 1952499, 2015999, 5984497, 8000496, 245999377, 253999873, 753999123, 1007998996, 30993969003, 32001967999, 94997905001, 126999873000, 3904994095001, 4031993968001, 11968982031003, 16000975999004
a(n) = 126*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 18 2013
[A041595] 1, 1, 3, 4, 139, 143, 425, 568, 19737, 20305, 60347, 80652, 2802515, 2883167, 8568849, 11452016, 397937393, 409389409, 1216716211, 1626105620, 56504307291, 58130412911, 172765133113, 230895546024, 8023213697929, 8254109243953, 24531432185835, 32785541429788
a(n) = 142*a(n-4) - a(n-8) for n>7, - Vincenzo Librandi, Dec 21 2013
[A041741] 1, 1, 3, 4, 155, 159, 473, 632, 24489, 25121, 74731, 99852, 3869107, 3968959, 11807025, 15775984, 611294417, 627070401, 1865435219, 2492505620, 96580648779, 99073154399, 294726957577, 393800111976, 15259131212665, 15652931324641, 46564993861947
a(n) = 158*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 23 2013
[A041903] 1, 1, 3, 4, 171, 175, 521, 696, 29753, 30449, 90651, 121100, 5176851, 5297951, 15772753, 21070704, 900742321, 921813025, 2744368371, 3666181396, 156723987003, 160390168399, 477504323801, 637894492200, 27269072996201, 27906967488401, 83083007973003
a(n) = 174*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 26 2013
[A042081] 1, 1, 3, 4, 187, 191, 569, 760, 35529, 36289, 108107, 144396, 6750323, 6894719, 20539761, 27434480, 1282525841, 1309960321, 3902446483, 5212406804, 243673159467, 248885566271, 741444292009, 990329858280, 46296617772889, 47286947631169
a(n) = 190*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Jan 14 2014
[A042275] 1, 1, 3, 4, 203, 207, 617, 824, 41817, 42641, 127099, 169740, 8614099, 8783839, 26181777, 34965616, 1774462577, 1809428193, 5393318963, 7202747156, 365530676763, 372733423919, 1110997524601, 1483730948520, 75297544950601, 76781275899121
a(n) = 206*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Jan 19 2014
[A042485] 1, 1, 3, 4, 219, 223, 665, 888, 48617, 49505, 147627, 197132, 10792755, 10989887, 32772529, 43762416, 2395942993, 2439705409, 7275353811, 9715059220, 531888551691, 541603610911, 1615095773513, 2156699384424, 118076862532409, 120233561916833, 358543986366075
a(n) = 222*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 15 2013
[A042711] 1, 1, 3, 4, 235, 239, 713, 952, 55929, 56881, 169691, 226572, 13310867, 13537439, 40385745, 53923184, 3167930417, 3221853601, 9611637619, 12833491220, 753954128379, 766787619599, 2287529367577, 3054316987176, 179437914623785, 182492231610961
a(n) = 238*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 22 2013
[A168056] 1, 1, 3, 5, 5, 7, 9, 9, 11, 13, 13, 15, 17, 17, 19, 21, 21, 23, 25, 25, 27, 29, 29, 31, 33, 33, 35, 37, 37, 39, 41, 41, 43, 45, 45, 47, 49, 49, 51, 53, 53, 55, 57, 57, 59, 61, 61, 63, 65, 65, 67, 69, 69, 71, 73, 73, 75, 77, 77, 79, 81, 81, 83, 85, 85, 87, 89, 89, 91, 93, 93
a(n) = (12*n+3+6*cos(2*n*Pi/3)-2*sqrt(3)*sin(2*n*Pi/3))/9. - Wesley Ivan Hurt, Sep 30 2017
[A266505] 1, 1, 3, 5, 5, 11, 13, 27, 31, 65, 75, 157, 181, 379, 437, 915, 1055, 2209, 2547, 5333, 6149, 12875, 14845, 31083, 35839, 75041, 86523, 181165, 208885, 437371, 504293, 1055907, 1217471, 2549185, 2939235, 6154277, 7095941, 14857739, 17131117, 35869755, 41358175, 86597249, 99847467
a(n) = (-(1+sqrt(2))^floor(n/2)*(-1)^n - sqrt(8)*(1-sqrt(2))^floor(n/2) - (1-sqrt(2))^floor(n/2)*(-1)^n + sqrt(8)*(1+sqrt(2))^floor(n/2))/2.
a(n) = 3*(((1+sqrt(2))^floor(n/2)-(1-sqrt(2))^floor(n/2))/sqrt(8)) - (-1)^n*(((1+sqrt(2))^(floor(n/2)-(-1)^n)-(1-sqrt(2))^(floor(n/2)-(-1)^n))/sqrt(8)).
[A077859] 1, 3, 5, 6, 6, 6, 7, 9, 11, 12, 12, 12, 13, 15, 17, 18, 18, 18, 19, 21, 23, 24, 24, 24, 25, 27, 29, 30, 30, 30, 31, 33, 35, 36, 36, 36, 37, 39, 41, 42, 42, 42, 43, 45, 47, 48, 48, 48, 49, 51, 53, 54, 54, 54, 55, 57, 59, 60, 60, 60, 61, 63, 65, 66, 66, 66, 67, 69, 71, 72, 72, 72, 73, 75
a(n) = sum{k=0..n, (k+1)*2sin(pi(n-k)/3+pi/3)/sqrt(3). - Paul Barry, May 18 2004
a(n) = sum{k=0..n, binomial(n-2k, n-k-1)}; - Paul Barry, Jan 15 2005
a(n) = n+2+(-1+n-3*floor(n/3))*(-1)^floor(n/3). - Tani Akinari, Jun 27 2013
a(n) = n + 1 + a(n-1) - a(n-2), with a(-1) = a(-2) = 0. - Richard R. Forberg, Jul 11 2013
a(n) = +3*a(n-1) -4*a(n-2) +3*a(n-3) -1*a(n-4). [Joerg Arndt, Jul 12 2013]
[A244953] 0, 3, 5, 6, 6, 9, 11, 12, 12, 15, 17, 18, 18, 21, 23, 24, 24, 27, 29, 30, 30, 33, 35, 36, 36, 39, 41, 42, 42, 45, 47, 48, 48, 51, 53, 54, 54, 57, 59, 60, 60, 63, 65, 66, 66, 69, 71, 72, 72, 75, 77, 78, 78, 81, 83, 84, 84, 87, 89, 90, 90, 93, 95, 96, 96, 99
a(n) = 1 + n + (2*(1 + n) - (1 + (-1)^n)*(1 + 2*i^(n*(n+1))))/4, where i = sqrt(-1).
a(n) = 6 + Sum_{i=1..3}((4-i)*floor((n-i)/4)). (End)
a(n) = a(n-1) + a(n-4) - a(n-5). - Robert Israel, Jul 09 2014
[A047585] 0, 1, 3, 5, 6, 7, 8, 9, 11, 13, 14, 15, 16, 17, 19, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 35, 37, 38, 39, 40, 41, 43, 45, 46, 47, 48, 49, 51, 53, 54, 55, 56, 57, 59, 61, 62, 63, 64, 65, 67, 69, 70, 71, 72, 73, 75, 77, 78, 79, 80, 81, 83, 85, 86, 87, 88
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - 2*a(n-4) + 2*a(n-5) - a(n-6).
a(n) = (12*n - 3*sqrt(3)*sin(Pi*n/3) + sqrt(3)*sin(2*Pi*n/3) - 9)/9. - Ilya Gutkovskiy, Jun 11 2016
a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-3, a(3k-3) = 8k-5, a(3k-4) = 8k-7, a(3k-5) = 8k-8. - Wesley Ivan Hurt, Jun 16 2016
[A079253] 0, 3, 5, 6, 7, 8, 10, 12, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 28, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 94, 96
a(a(n)) = 2n+4 for n >= 1.
[A076054] 1, 3, 5, 6, 7, 8, 10, 12, 14, 16, 17, 19, 21, 22, 23, 24, 26, 27, 28, 29, 30, 32, 34, 35, 36, 37, 38, 40, 42, 44, 46, 48, 49, 50, 51, 53, 55, 57, 59, 61, 63, 65, 66, 67, 68, 69, 70, 72, 74, 76, 78, 80, 82, 84, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 97, 99, 101, 103, 105, 107
a(n) seems to be asymptotic to 3/2*n
[A159559] 3, 5, 6, 7, 8, 11, 12, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 29, 30, 32, 33, 37, 38, 39, 40, 42, 44, 47, 48, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 67, 68, 71, 72, 74, 75, 79, 80, 81, 82, 84, 85, 89, 90, 91, 92, 93, 94, 97, 98, 101, 102, 104, 105, 106, 108, 109, 110, 111
a(n+1) = min{m>a(n), m is prime}, if n+1 is prime; otherwise, a(n+1) = min{m>a(n), m is composite}.
[A047583] 0, 3, 5, 6, 7, 8, 11, 13, 14, 15, 16, 19, 21, 22, 23, 24, 27, 29, 30, 31, 32, 35, 37, 38, 39, 40, 43, 45, 46, 47, 48, 51, 53, 54, 55, 56, 59, 61, 62, 63, 64, 67, 69, 70, 71, 72, 75, 77, 78, 79, 80, 83, 85, 86, 87, 88
a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.
[A229858] 3, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70
a(n) = n+4 for n>4.
a(n) = 2*a(n-1)-a(n-2) for n>6.

[A057716] 0, 3, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74
a(n) = n + [log_2(n + [log_2(n)])] gives this sequence with the exception of a(1) = 1. - David W. Wilson, Mar 29 2005
a(i-m) = i for 2^m < i < 2^(m+1).
[A182834] 1, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 86, 87, 88, 89, 90, 91, 92
a(n) = n + floor(sqrt(2n-2)).
[A079905] 1, 3, 5, 6, 7, 9, 11, 12, 13, 14, 15, 17, 19, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 35, 37, 39, 41, 43, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 96, 97, 98, 99, 100, 101, 102
a(1)=1, a(2)=3, then a(3*2^k - 1 + j) = 4*2^k - 1 + 3j/2 + |j|/2 for k >= 1, -2^k <= j < 2^k.
[A047273] 0, 1, 3, 5, 6, 7, 9, 11, 12, 13, 15, 17, 18, 19, 21, 23, 24, 25, 27, 29, 30, 31, 33, 35, 36, 37, 39, 41, 42, 43, 45, 47, 48, 49, 51, 53, 54, 55, 57, 59, 60, 61, 63, 65, 66, 67, 69, 71, 72, 73, 75, 77, 78, 79, 81, 83, 84, 85, 87, 89, 90, 91, 93, 95, 96, 97, 99, 101, 102, 103
a(n) = 2*(n-floor(n/4)) - (3-I^n-(-I)^n-(-1)^n)/4, with offset 0..a(0)=0. - Gary Detlefs, Mar 19 2010
a(n) = (3*n-3+cos(Pi*n/2))/2. - R. J. Mathar, Oct 08 2010
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>4.
a(n) = (6*n-6+(-1)^(n/2)+(-1)^(-n/2))/4. (End)
[A047584] 1, 3, 5, 6, 7, 9, 11, 13, 14, 15, 17, 19, 21, 22, 23, 25, 27, 29, 30, 31, 33, 35, 37, 38, 39, 41, 43, 45, 46, 47, 49, 51, 53, 54, 55, 57, 59, 61, 62, 63, 65, 67, 69, 70, 71, 73, 75, 77, 78, 79, 81, 83, 85, 86, 87, 89, 91, 93, 94, 95, 97, 99, 101, 102, 103, 105, 107
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = (40n - 10 + 3*(n mod 5) + 3*((n+1) mod 5) - 2*((n+2) mod 5) - 2*((n+3) mod 5) - 2*((n+4) mod 5))/25. (End)
[A028983] 3, 5, 6, 7, 10, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 80, 82
a(n) = n + (1 + sqrt(2)/2)*sqrt(n) + O(1). - Charles R Greathouse IV, Sep 01 2015
[A136806] 3, 5, 6, 7, 10, 11, 12, 14, 20, 22, 23, 24, 27, 28, 29, 31, 39, 40, 41, 43, 44, 45, 46, 47, 48, 51, 54, 56, 57, 58, 59, 61, 62, 63, 65, 67, 73, 75, 78, 80, 82, 83, 85, 86, 88, 89, 90, 91, 92, 94, 95, 96, 99, 101, 102, 105, 108, 111, 112, 113, 114, 116, 118, 119
a(n) + a(32769-n) = 65537.
[A047328] 0, 3, 5, 6, 7, 10, 12, 13, 14, 17, 19, 20, 21, 24, 26, 27, 28, 31, 33, 34, 35, 38, 40, 41, 42, 45, 47, 48, 49, 52, 54, 55, 56, 59, 61, 62, 63, 66, 68, 69, 70, 73, 75, 76, 77, 80, 82, 83, 84, 87, 89, 90, 91, 94, 96, 97, 98, 101, 103, 104, 105, 108, 110, 111
a(n) = (1/8)*(14*n-5-(2-(-1)^n)*(1+2*(-1)^floor(n/2))). - Bruno Berselli, Aug 01 2011
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-7+i^(2*n)-(1+3*i)*i^(-n)-(1-3*i)*i^n)/8 where i=sqrt(-1).
[A136804] 3, 5, 6, 7, 10, 12, 14, 19, 20, 24, 27, 28, 33, 37, 38, 39, 40, 41, 43, 45, 47, 48, 51, 53, 54, 55, 56, 63, 65, 66, 69, 71, 74, 75, 76, 77, 78, 80, 82, 83, 85, 86, 87, 90, 91, 93, 94, 96, 97, 101, 102, 103, 105, 106, 107, 108, 109, 110, 112, 115, 119, 125, 126
a(n) + a(129-n) = 257.
[A047582] 3, 5, 6, 7, 11, 13, 14, 15, 19, 21, 22, 23, 27, 29, 30, 31, 35, 37, 38, 39, 43, 45, 46, 47, 51, 53, 54, 55, 59, 61, 62, 63, 67, 69, 70, 71, 75, 77, 78, 79, 83, 85, 86, 87, 91, 93, 94, 95, 99, 101, 102, 103, 107, 109, 110, 111, 115, 117, 118, 119, 123, 125
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n+1-i^(2*n)-(2-i)*i^(-n)-(2+i)*i^n)/4 where i=sqrt(-1).
[A227026] 3, 5, 6, 7, 11, 14, 15, 58, 85, 493, 638, 2871, 16731, 97513, 568345, 3312555, 19306983, 112529341, 655869061, 3822685023, 22280241075, 129858761425, 756872327473, 4411375203411, 25711378892991, 149856898154533, 873430010034205, 5090723162050695
a(n) = 7a(n-1) - 7a(n-2) + a(n-3) for n > 14. - Charles R Greathouse IV, Jun 28 2013
[A072134] 3, 5, 6, 7, 17, 19, 53, 55, 161, 163, 485, 487, 1457, 1459, 4373, 4375, 13121, 13123, 39365, 39367, 118097, 118099, 354293, 354295, 1062881, 1062883, 3188645, 3188647, 9565937, 9565939, 28697813, 28697815, 86093441, 86093443, 258280325
a(n) = -(-1)^n + 3^((n-1)/2)*(1-(-1)^n + sqrt(3) + (-1)^n*sqrt(3)) for n>2.
a(n) = -a(n-1) + 3*a(n-2) + 3*a(n-3) for n>5.
[A133043] 3, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65
a(1)=3: a(2)=5: a(3)=6; for n>3, a(n)=n+4.
[A026430] 0, 1, 3, 5, 6, 8, 9, 10, 12, 14, 15, 16, 18, 19, 21, 23, 24, 26, 27, 28, 30, 31, 33, 35, 36, 37, 39, 41, 42, 44, 45, 46, 48, 50, 51, 52, 54, 55, 57, 59, 60, 61, 63, 65, 66, 68, 69, 70, 72, 73, 75, 77, 78, 80, 81, 82, 84, 86, 87, 88, 90, 91, 93
a(0)=0, a(1)=1, a(2n) = 3n, a(2n+1) = -a(n) + a(n+1) + 3n. - Ralf Stephan, Oct 08 2003
[A095117] 0, 1, 3, 5, 6, 8, 9, 11, 12, 13, 14, 16, 17, 19, 20, 21, 22, 24, 25, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 39, 40, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 54, 55, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 86, 87, 88, 89, 91
a(0) = 0, a(1) = 1, a(2) = 3; for n>2 a(n) = a(n-1) + (if n is prime then 1, else 2). - Robert G. Wilson v, Apr 22 2007; corrected by Philippe Lallouet (philip.lallouet(AT)orange.fr), Aug 04 2008
[A184675] 3, 5, 6, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 83
a(n) = n + floor(sqrt(n) + sqrt(n+1)).
a(n) = n + floor(sqrt(4*n + 1)). [Mircea Merca, Feb 05 2012]
[A121506] 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 27, 28, 30, 31, 32, 34, 35, 37, 38, 39, 41, 42, 44, 45, 47, 48, 49, 51, 52, 54, 55, 56, 58, 59, 61, 62, 64, 65, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66, 66
a(m)=min(abs(F(n,m)),n=3..infinity), m>=3 (checked for n=3..3+500), with F(nm):= ((Fin(n)+Fout(m))/2-Pi)/Pi), where Fin(n):=(n/2)*sin(2*Pi/n) and Fout(m):= m*tan(Pi/m). Fin(n) is the area of the regular n-gon inscribed in the unit circle. Fout(n) is the area of an regular n-gon circumscribing the unit circle. E(n,m) = (F(n,m)-pi)/pi is the relative error.
[A114119] 1, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 47, 48, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65, 66, 68, 69, 71, 72, 74, 75, 77, 78, 80, 81, 83, 84, 86, 87, 89, 90, 92, 93, 95, 96, 98, 99, 101, 102, 104, 105
a(n)=3*floor((n+1)/2)+2*mod(n+1, 2)-0^n; a(n)=sum{k=0..n, sum{j=0..n, C(floor((n+k+j)/3), k)C(k, floor((n+k+j)/3))}}.
[A276210] 1, 3, 5, 6, 8, 9, 11, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 28, 29, 31, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 46, 48, 49, 51, 52, 54, 55, 56, 58, 59, 61, 62, 63, 65, 66, 68, 69, 70, 72, 73, 75, 76, 77, 79, 80, 82, 83, 84, 86, 87, 89, 90, 91, 93, 94, 95
a(n) = n + floor(n^(r/s)); the complement is given by n + floor(n^(s/r)).
[A047446] 0, 1, 3, 5, 6, 8, 9, 11, 13, 14, 16, 17, 19, 21, 22, 24, 25, 27, 29, 30, 32, 33, 35, 37, 38, 40, 41, 43, 45, 46, 48, 49, 51, 53, 54, 56, 57, 59, 61, 62, 64, 65, 67, 69, 70, 72, 73, 75, 77, 78, 80, 81, 83, 85, 86, 88, 89, 91, 93, 94, 96, 97, 99, 101, 102, 104
a(n) = floor((8n-7)/5). [Gary Detlefs, Mar 07 2010]
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 45 + 3*(n mod 5) - 2*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-5, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A058065] 0, 1, 3, 5, 6, 8, 9, 11, 13, 14, 16, 18, 19, 21, 22, 24, 26, 27, 29, 30, 32, 34, 35, 37, 39, 40, 42, 43, 45, 47, 48, 50, 52, 53, 55, 56, 58, 60, 61, 63, 64, 66, 68, 69, 71, 73, 74, 76, 77, 79, 81, 82, 84, 85, 87, 89, 90, 92, 94, 95, 97, 98, 100, 102, 103, 105, 107, 108, 110
a(n) = floor(tau*n+sqrt(5))-2 where tau is the Golden ratio = (1+sqrt(5))/2. - Benoit Cloitre, Apr 14 2003
[A184582] 1, 3, 5, 6, 8, 10, 11, 13, 14, 16, 18, 19, 21, 22, 24, 26, 27, 29, 31, 32, 34, 35, 37, 39, 40, 42, 44, 45, 47, 48, 50, 52, 53, 55, 56, 58, 60, 61, 63, 65, 66, 68, 69, 71, 73, 74, 76, 77, 79, 81, 82, 84, 86, 87, 89, 90, 92, 94, 95, 97, 99, 100, 102, 103, 105, 107, 108, 110, 111, 113, 115, 116, 118, 120, 121, 123, 124, 126, 128, 129, 131, 133, 134, 136, 137, 139, 141, 142, 144, 145, 147, 149, 150, 152, 154, 155, 157, 158, 160, 162, 163, 165, 166, 168, 170, 171, 173, 175, 176, 178, 179, 181, 183, 184, 186, 188, 189, 191, 192, 194
a(n)=floor[(n+1/5)r] where r=(1+sqrt(5))/2.

[A244644] 0, 1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20, 21, 23, 25, 26, 28, 29, 31, 33, 34, 36, 38, 39, 41, 43, 44, 46, 48, 49, 51, 53, 54, 56, 58, 59, 61, 63, 64, 66, 68, 69, 71, 73, 74, 76, 78, 79, 81, 83, 84, 86, 88, 89, 91, 93, 94, 96, 98, 99, 101, 103, 104, 106, 108, 109, 111, 113, 114
a(n) = a(n-1)+a(n-3)-a(n-4) for n>3.
[A047220] 0, 1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20, 21, 23, 25, 26, 28, 30, 31, 33, 35, 36, 38, 40, 41, 43, 45, 46, 48, 50, 51, 53, 55, 56, 58, 60, 61, 63, 65, 66, 68, 70, 71, 73, 75, 76, 78, 80, 81, 83, 85, 86, 88, 90, 91, 93, 95, 96, 98, 100, 101, 103, 105, 106
a(n) = floor(5*(n-1)/3). - Gary Detlefs, Feb 20 2010
a(n) = 2*n - floor(n/3) - (n^2 mod 3), with offset 0. - Gary Detlefs, Mar 19 2010
a(n) = n + floor(2*(n-1)/3) - 1. - Arkadiusz Wesolowski, Sep 18 2012
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 5*n/3-2+2*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 5k-2, a(3k-1) = 5k-4, a(3k-2) = 5k-5. (End)
[A059541] 1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20, 22, 23, 25, 27, 28, 30, 32, 33, 35, 37, 38, 40, 42, 44, 45, 47, 49, 50, 52, 54, 55, 57, 59, 60, 62, 64, 66, 67, 69, 71, 72, 74, 76, 77, 79, 81, 82, 84, 86, 88, 89, 91, 93, 94, 96, 98, 99, 101, 103, 104, 106, 108, 110, 111, 113
a(n) = floor(n*(1+log(2))).
[A082977] 0, 1, 3, 5, 6, 8, 10, 12, 13, 15, 17, 18, 20, 22, 24, 25, 27, 29, 30, 32, 34, 36, 37, 39, 41, 42, 44, 46, 48, 49, 51, 53, 54, 56, 58, 60, 61, 63, 65, 66, 68, 70, 72, 73, 75, 77, 78, 80, 82, 84, 85, 87, 89, 90, 92, 94, 96, 97, 99, 101, 102, 104, 106, 108, 109, 111
a(n) = a(n-1) + a(n+7) - a(n-8) for n>7.
a(n) = (84*n-105-2*(n mod 7)-2*((n+1) mod 7)+5*((n+2) mod 7)-2*((n+3) mod 7)-2*((n+4) mod 7)+5*((n+5) mod 7)-2*((n+6) mod 7))/49.
a(7k) = 12k-2, a(7k-1) = 12k-4, a(7k-2) = 12k-6, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-11, a(7k-6) = 12k-12. (End)
[A182760] 1, 3, 5, 6, 8, 10, 12, 13, 15, 17, 18, 20, 22, 24, 25, 27, 29, 31, 32, 34, 36, 37, 39, 41, 43, 44, 46, 48, 49, 51, 53, 55, 56, 58, 60, 62, 63, 65, 67, 68, 70, 72, 74, 75, 77, 79, 81, 82, 84, 86, 87, 89, 91, 93, 94, 96, 98, 99, 101, 103, 105, 106, 108, 110
a(n)=floor(r*n), where r=(3+5^(-1/2))/2.
[A022838] 1, 3, 5, 6, 8, 10, 12, 13, 15, 17, 19, 20, 22, 24, 25, 27, 29, 31, 32, 34, 36, 38, 39, 41, 43, 45, 46, 48, 50, 51, 53, 55, 57, 58, 60, 62, 64, 65, 67, 69, 71, 72, 74, 76, 77, 79, 81, 83, 84, 86, 88, 90, 91, 93, 95, 96, 98, 100, 102, 103, 105, 107, 109, 110, 112
a(n) = floor(n*sqrt(3)). - Reinhard Zumkeller, Jan 20 2010
a(n) = 2 * floor(n * (sqrt(3) - 1)) + floor(n * (2 - sqrt(3))) + 1. - Miko Labalan, Dec 03 2016
[A047329] 1, 3, 5, 6, 8, 10, 12, 13, 15, 17, 19, 20, 22, 24, 26, 27, 29, 31, 33, 34, 36, 38, 40, 41, 43, 45, 47, 48, 50, 52, 54, 55, 57, 59, 61, 62, 64, 66, 68, 69, 71, 73, 75, 76, 78, 80, 82, 83, 85, 87, 89, 90, 92, 94, 96, 97, 99, 101, 103, 104, 106, 108, 110, 111
a(n) = floor((7n-1)/4). - Gary Detlefs, Mar 07 2010
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (14n-5-i^(2n)-(1+i)*i^(-n)-(1-i)*i^n)/8 where i=sqrt(-1).
[A047444] 0, 3, 5, 6, 8, 11, 13, 14, 16, 19, 21, 22, 24, 27, 29, 30, 32, 35, 37, 38, 40, 43, 45, 46, 48, 51, 53, 54, 56, 59, 61, 62, 64, 67, 69, 70, 72, 75, 77, 78, 80, 83, 85, 86, 88, 91, 93, 94, 96, 99, 101, 102, 104, 107, 109, 110, 112, 115, 117, 118, 120, 123, 125
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (1+i)*(4*n-4*n*i+3*i-3-i^(-n)+i^(1+n))/4 where i=sqrt(-1).
[A001969] 0, 3, 5, 6, 9, 10, 12, 15, 17, 18, 20, 23, 24, 27, 29, 30, 33, 34, 36, 39, 40, 43, 45, 46, 48, 51, 53, 54, 57, 58, 60, 63, 65, 66, 68, 71, 72, 75, 77, 78, 80, 83, 85, 86, 89, 90, 92, 95, 96, 99, 101, 102, 105, 106, 108, 111, 113, 114, 116, 119, 120, 123, 125, 126, 129
a(1) = 0; for n>1: a(n) = 3*n-3 -a(n/2) if n even, a(n) = a((n+1)/2)+n-1 if n odd.
[A281746] 0, 3, 5, 6, 9, 10, 12, 15, 18, 20, 21, 24, 25, 27, 30, 33, 35, 36, 39, 40, 42, 45, 48, 50, 51, 54, 55, 57, 60, 63, 65, 66, 69, 70, 72, 75, 78, 80, 81, 84, 85, 87, 90, 93, 95, 96, 99, 100, 102, 105, 108, 110, 111, 114, 115, 117, 120, 123, 125, 126, 129, 130, 132, 135
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8. - Colin Barker, Feb 07 2017
[A018900] 3, 5, 6, 9, 10, 12, 17, 18, 20, 24, 33, 34, 36, 40, 48, 65, 66, 68, 72, 80, 96, 129, 130, 132, 136, 144, 160, 192, 257, 258, 260, 264, 272, 288, 320, 384, 513, 514, 516, 520, 528, 544, 576, 640, 768, 1025, 1026, 1028, 1032, 1040, 1056, 1088, 1152, 1280, 1536, 2049, 2050, 2052, 2056, 2064, 2080, 2112, 2176, 2304, 2560, 3072
a(n) = b^i + b^j, where i = floor((sqrt(8n - 1) + 1)/2), j = n - 1 - i*(i - 1)/2 [for a Smalltalk implementation see Prog section, method distinctPowersOf: b (2 versions)].
a(n + 1 + floor((sqrt(8n - 1) + 1)/2)) = b*a(n).
a(n + 1 + floor(log_b(a(n)))) = b*a(n).
a(n + 1) = b*a(n) + (1-b)* b^floor((sqrt(8n - 1) + 1)/2), if n is not a triangular number.
a(n + 1) = b*m + (1-b)* b^i, if floor(log_b(m/(b+1))) + 1 < i,
a(n + 1) = b^2/(b+1) * m + 1, if floor(log_b(m/(b+1))) + 1 = i.
[A126590] 3, 5, 6, 9, 10, 12, 18, 20, 21, 24, 25, 27, 33, 35, 36, 39, 40, 42, 48, 50, 51, 54, 55, 57, 63, 65, 66, 69, 70, 72, 78, 80, 81, 84, 85, 87, 93, 95, 96, 99, 100, 102, 108, 110, 111, 114, 115, 117, 123, 125, 126, 129, 130, 132, 138, 140, 141, 144, 145, 147, 153, 155, 156
a(n) = a(n-1) + a(n-6) - a(n-7). - Charles R Greathouse IV, Oct 11 2013
[A122194] 3, 5, 6, 9, 10, 15, 17, 25, 28, 41, 46, 67, 75, 109, 122, 177, 198, 287, 321, 465, 520, 753, 842, 1219, 1363, 1973, 2206, 3193, 3570, 5167, 5777, 8361, 9348, 13529, 15126, 21891, 24475, 35421, 39602, 57313, 64078, 92735, 103681, 150049, 167760, 242785
a(1)=3, a(2)=5, a(3)=6, a(4)=9, a(n) = a(n-2) + a(n-4) + 1, n > 4.
[A047271] 0, 3, 5, 6, 9, 11, 12, 15, 17, 18, 21, 23, 24, 27, 29, 30, 33, 35, 36, 39, 41, 42, 45, 47, 48, 51, 53, 54, 57, 59, 60, 63, 65, 66, 69, 71, 72, 75, 77, 78, 81, 83, 84, 87, 89, 90, 93, 95, 96, 99, 101, 102, 105, 107, 108, 111, 113, 114, 117, 119, 120, 123, 125
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)
a(n) = (6*n-4+cos(2*n*Pi/3)-sqrt(3)*sin(2*Pi*n/3))/3.
a(3k) = 6k-1, a(3k-1) = 6k-3, a(3k-2) = 6k-6. (End)
[A047445] 1, 3, 5, 6, 9, 11, 13, 14, 17, 19, 21, 22, 25, 27, 29, 30, 33, 35, 37, 38, 41, 43, 45, 46, 49, 51, 53, 54, 57, 59, 61, 62, 65, 67, 69, 70, 73, 75, 77, 78, 81, 83, 85, 86, 89, 91, 93, 94, 97, 99, 101, 102, 105, 107, 109, 110, 113, 115, 117, 118, 121, 123, 125
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-5-i^(2*n)-i^(-n)-i^n)/4 where i=sqrt(-1).
[A236343] 1, 1, 3, 5, 6, 9, 12, 14, 18, 22, 25, 30, 35, 39, 45, 51, 56, 63, 70, 76, 84, 92, 99, 108, 117, 125, 135, 145, 154, 165, 176, 186, 198, 210, 221, 234, 247, 259, 273, 287, 300, 315, 330, 344, 360, 376, 391, 408, 425, 441, 459, 477, 494, 513, 532, 550, 570, 590
a(n) = 2*a(n-3) + a(n-6) + 3 = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5).
[A047327] 3, 5, 6, 10, 12, 13, 17, 19, 20, 24, 26, 27, 31, 33, 34, 38, 40, 41, 45, 47, 48, 52, 54, 55, 59, 61, 62, 66, 68, 69, 73, 75, 76, 80, 82, 83, 87, 89, 90, 94, 96, 97, 101, 103, 104, 108, 110, 111, 115, 117, 118, 122, 124, 125, 129, 131, 132, 136, 138, 139, 143
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-9*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-2, a(3k-2) = 7k-4. (End)
[A028927] 0, 3, 5, 6, 10, 12, 13, 19, 20, 21, 24, 26, 27, 35, 38, 40, 42, 45, 48, 52, 54, 59, 61, 69, 70, 75, 76, 80, 83, 84, 90, 91, 96, 101, 104, 108, 115, 117, 118, 122, 125, 131, 133, 138, 139, 140, 147, 150, 152, 157, 160, 166, 168, 171, 173, 180, 181, 182, 189, 192
a(x_i, x_j) = 3*x_i^2 + 2*x_i*x_j + 5*x_j^2, for all x_i >= 0, x_j any integer.
[A047443] 3, 5, 6, 11, 13, 14, 19, 21, 22, 27, 29, 30, 35, 37, 38, 43, 45, 46, 51, 53, 54, 59, 61, 62, 67, 69, 70, 75, 77, 78, 83, 85, 86, 91, 93, 94, 99, 101, 102, 107, 109, 110, 115, 117, 118, 123, 125, 126, 131, 133, 134, 139, 141, 142, 147, 149, 150, 155, 157, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-3-6*cos(2*n*Pi/3)+sqrt(3)*sin(2*Pi*n/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-3, a(3k-2) = 8k-5. (End)
[A173593] 3, 5, 6, 11, 13, 22, 27, 45, 54, 91, 109, 182, 219, 365, 438, 731, 877, 1462, 1755, 2925, 3510, 5851, 7021, 11702, 14043, 23405, 28086, 46811, 56173, 93622, 112347, 187245, 224694, 374491, 449389, 748982, 898779, 1497965, 1797558, 2995931, 3595117

a(n)= 2*a(n-2) +a(n-3) -2*a(n-5). G.f.: x*(-3-5*x+2*x^3+4*x^4)/ ((1-x) * (1+x+x^2) * (2*x^2-1)). [From R. J. Mathar, Feb 24 2010]
[A276704] 3, 5, 6, 21, 45, 77, 117, 165, 221, 285, 357, 437, 525, 621, 725, 837, 957, 1085, 1221, 1365, 1517, 1677, 1845, 2021, 2205, 2397, 2597, 2805, 3021, 3245, 3477, 3717, 3965, 4221, 4485, 4757, 5037, 5325, 5621, 5925, 6237, 6557, 6885, 7221, 7565, 7917, 8277
a(n) = 4*n^2-12*n+5 for n>3.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>6.
[A086674] 0, 1, 3, 5, 7, 8, 9, 9, 9, 9, 9, 9, 10, 11, 12, 14, 16, 18, 20, 22, 24, 26, 27, 28, 29, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30, 31, 32, 33, 34, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55
a(n)=sum{k_i is a generalized pentagonal, (-1)^(floor((i+1)/2))*(n-k)}
[A167707] 0, 1, 3, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 43, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87
a(n) = n + n / log n + O(n / (log n)^2) by Brun's theorem. [Charles R Greathouse IV, Mar 15 2011]
[A024352] 3, 5, 7, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 43, 44, 45, 47, 48, 49, 51, 52, 53, 55, 56, 57, 59, 60, 61, 63, 64, 65, 67, 68, 69, 71, 72, 73, 75, 76, 77, 79, 80, 81, 83, 84, 85, 87, 88, 89, 91, 92, 93
a(n) = a(n-3) + 4, n>4.
a(n) = a(n-1)+a(n-3)-a(n-4), for n>5. - Ant King, Oct 03 2011
a(n) = 4 + floor((4*n-3)/3), n>1. - Gary Detlefs, Jul 15 2014
[A047486] 0, 1, 3, 5, 7, 8, 9, 11, 13, 15, 16, 17, 19, 21, 23, 24, 25, 27, 29, 31, 32, 33, 35, 37, 39, 40, 41, 43, 45, 47, 48, 49, 51, 53, 55, 56, 57, 59, 61, 63, 64, 65, 67, 69, 71, 72, 73, 75, 77, 79, 80, 81, 83, 85, 87, 88, 89
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = (40*n - 40 - 2*(n mod 5) - 2*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) + 3*((n+4) mod 5))/25. (End)
[A276224] 1, 3, 5, 7, 8, 10, 12, 13, 15, 16, 18, 20, 21, 23, 25, 26, 28, 29, 31, 32, 34, 36, 37, 39, 40, 42, 43, 45, 46, 48, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65, 66, 68, 69, 71, 72, 74, 76, 77, 79, 80, 82, 83, 85, 86, 88, 89, 91, 92, 94, 95, 97, 98, 100, 101
a(n) = n + floor(n^(e/Pi)); the complement is given by n + floor(n^(Pi/e)).
[A083034] 0, 1, 3, 5, 7, 8, 10, 12, 13, 15, 17, 19, 20, 22, 24, 25, 27, 29, 31, 32, 34, 36, 37, 39, 41, 43, 44, 46, 48, 49, 51, 53, 55, 56, 58, 60, 61, 63, 65, 67, 68, 70, 72, 73, 75, 77, 79, 80, 82, 84, 85, 87, 89, 91, 92, 94, 96, 97, 99, 101, 103, 104, 106, 108, 109, 111
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = (84*n - 98 - 2*(n mod 7) + 5*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) - 2*((n+4) mod 7) + 5*((n+5) mod 7) - 2*((n+6) mod 7))/49.
a(7k) = 12k-2, a(7k-1) = 12k-4, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-11, a(7k-6) = 12k-12. (End)
[A184626] 1, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 21, 22, 24, 26, 27, 29, 31, 33, 34, 36, 38, 40, 41, 43, 45, 47, 48, 50, 52, 53, 55, 57, 59, 60, 62, 64, 66, 67, 69, 71, 72, 74, 76, 78, 79, 81, 83, 85, 86, 88, 90, 92, 93, 95, 97, 98, 100, 102, 104, 105, 107, 109, 111, 112, 114, 116, 118, 119, 121, 123, 124, 126, 128, 130, 131, 133, 135, 137, 138, 140, 142, 144, 145, 147, 149, 150, 152, 154, 156, 157, 159, 161, 163, 164, 166, 168, 169, 171, 173, 175, 176, 178, 180, 182, 183, 185, 187, 189, 190, 192, 194, 195, 197, 199, 201, 202, 204, 206, 208
a(n)=floor(nr+h), where r=sqrt(3), h=1/4.
[A047392] 0, 1, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 21, 22, 24, 26, 28, 29, 31, 33, 35, 36, 38, 40, 42, 43, 45, 47, 49, 50, 52, 54, 56, 57, 59, 61, 63, 64, 66, 68, 70, 71, 73, 75, 77, 78, 80, 82, 84, 85, 87, 89, 91, 92, 94, 96, 98, 99, 101, 103, 105, 106, 108, 110
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n - 17 - i^(2*n) + (1 + i)*i^(-n) + (1 - i)*i^n)/8.
a(n) = n + floor(3*n/4-3/4) - 1. - Bruno Berselli, Jun 15 2016
[A187330] 0, 1, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 21, 22, 24, 26, 28, 29, 31, 33, 35, 37, 38, 40, 42, 44, 45, 47, 49, 51, 52, 54, 56, 58, 59, 61, 63, 65, 67, 68, 70, 72, 74, 75, 77, 79, 81, 82, 84, 86, 88, 89, 91, 93, 95, 97, 98, 100, 102, 104, 105, 107, 109, 111
a(n)=floor((4-sqrt(5))n).
[A059546] 1, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 21, 22, 24, 26, 28, 30, 31, 33, 35, 37, 38, 40, 42, 44, 45, 47, 49, 51, 53, 54, 56, 58, 60, 61, 63, 65, 67, 68, 70, 72, 74, 76, 77, 79, 81, 83, 84, 86, 88, 90, 91, 93, 95, 97, 98, 100, 102, 104, 106, 107, 109, 111, 113, 114, 116
a(n) = floor(n*log(10)/(log(10) - 1)). - Michel Marcus, Jan 04 2015
[A037086] 0, 1, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 21, 23, 24, 26, 28, 30, 31, 33, 35, 37, 38, 40, 42, 44, 46, 47, 49, 51, 53, 54, 56, 58, 60, 62, 63, 65, 67, 69, 70, 72, 74, 76, 77, 79, 81, 83, 85, 86, 88, 90, 92, 93, 95, 97, 99, 101, 102, 104, 106, 108, 109, 111, 113, 115, 116
a(n) = floor(n*sqrt(Pi)).
[A253301] 1, 3, 5, 7, 8, 10, 12, 14, 16, 17, 19, 21, 23, 25, 26, 28, 30, 32, 34, 35, 37, 39, 41, 43, 44, 46, 48, 50, 52, 53, 55, 57, 59, 61, 62, 64, 66, 68, 70, 71, 73, 75, 77, 79, 80, 82, 84, 86, 88, 89, 91, 93, 95, 97, 98, 100, 102, 104, 106, 107, 109, 111, 113, 115
a(n) = floor(n*sqrt(Pi*phi)/(sqrt(Pi*phi)-1)), where phi is the golden ratio.
[A190719] 0, 1, 3, 5, 7, 8, 11, 12, 13, 15, 17, 19, 20, 23, 24, 25, 27, 29, 31, 32, 35, 36, 37, 39, 41, 43, 44, 47, 48, 49, 51, 53, 55, 56, 59, 60, 61, 63, 65, 67, 68, 71, 72, 73, 75, 77, 79, 80, 83, 84, 85, 87, 89, 91, 92, 95, 96, 97, 99, 101, 103, 104, 107, 108, 109, 111
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = floor(12*n/7) - floor((n mod 7)/6) - floor(((n+3) mod 7)/5). - Rolf Pleisch, Jun 12 2011
a(n) = a(n-7) + 12 for n>7.
a(n) = (84*n - 91 - 9*(n mod 7) + 5*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) - 2*((n+4) mod 7) + 5*((n+5) mod 7) + 5*((n+6) mod 7))/49.
a(7k) = 12k-1, a(7k-1) = 12k-4, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-11, a(7k-6) = 12k-12. (End)
[A106252] 1, 3, 5, 7, 8, 11, 12, 14, 16, 18, 19, 22, 23, 25, 27, 29, 30, 33, 34, 36, 38, 40, 41, 44, 45, 47, 49, 51, 52, 55, 56, 58, 60, 62, 63, 66, 67, 69, 71, 73, 74, 77, 78, 80, 82, 84, 85, 88, 89, 91, 93, 95, 96, 99, 100, 102, 104, 106, 107, 110, 111, 113, 115, 117, 118, 121, 122
a(n) = n + floor(n/2) + floor(n/3). [Clark Kimberling, Apr 20 2012]
[A047485] 0, 3, 5, 7, 8, 11, 13, 15, 16, 19, 21, 23, 24, 27, 29, 31, 32, 35, 37, 39, 40, 43, 45, 47, 48, 51, 53, 55, 56, 59, 61, 63, 64, 67, 69, 71, 72, 75, 77, 79, 80, 83, 85, 87, 88, 91, 93, 95, 96, 99, 101, 103, 104, 107, 109, 111, 112, 115, 117, 119, 120, 123, 125
a(n) = (-5+(-1)^n-i*(-i)^n+i*i^n+8*n)/4 where i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A187318] 0, 1, 3, 5, 7, 9, 10, 12, 14, 16, 18, 19, 21, 23, 25, 27, 28, 30, 32, 34, 36, 37, 39, 41, 43, 45, 46, 48, 50, 52, 54, 55, 57, 59, 61, 63, 64, 66, 68, 70, 72, 73, 75, 77, 79, 81, 82, 84, 86, 88, 90, 91, 93, 95, 97, 99, 100, 102, 104, 106, 108, 109, 111, 113, 115, 117, 118, 120, 122, 124, 126, 127, 129, 131, 133, 135, 136, 138, 140, 142, 144, 145, 147, 149
a(n) = n + floor(4*n/5).
a(n) = 2*n - 1 - floor((n - 1)/5). - Wesley Ivan Hurt, Jan 02 2017
[A184808] 1, 3, 5, 7, 9, 10, 12, 14, 16, 18, 19, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 39, 41, 43, 45, 47, 49, 50, 52, 54, 56, 58, 59, 61, 63, 65, 67, 69, 70, 72, 74, 76, 78, 79, 81, 83, 85, 87, 89, 90, 92, 94, 96, 98, 99, 101, 103, 105, 107, 108, 110, 112, 114, 116
a(n) = n + floor(r*n), where r = sqrt(2/3).
[A214315] 0, 1, 3, 5, 7, 9, 10, 12, 14, 16, 18, 20, 21, 23, 25, 27, 29, 31, 32, 34, 36, 38, 40, 42, 43, 45, 47, 49, 51, 53, 54, 56, 58, 60, 62, 63, 65, 67, 69, 71, 73, 74, 76, 78, 80, 82, 84, 85, 87, 89, 91, 93, 95, 96, 98, 100, 102, 104, 106, 107, 109, 111, 113, 115, 117, 118
a(n) = floor(alpha*n), n>=0, with alpha = x_0(1) given in the comment section.
[A054684] 1, 3, 5, 7, 9, 10, 12, 14, 16, 18, 21, 23, 25, 27, 29, 30, 32, 34, 36, 38, 41, 43, 45, 47, 49, 50, 52, 54, 56, 58, 61, 63, 65, 67, 69, 70, 72, 74, 76, 78, 81, 83, 85, 87, 89, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 111, 113, 115, 117, 119, 120, 122, 124, 126, 128, 131
a(n) = n * 2 - 1 for the first 5 numbers; a(n) = n * 2 for the second 5 numbers.
a(n) = 2*n-2 if floor((n-1)/5) is in the sequence, 2*n-1 if not.
[A191275] 0, 1, 3, 5, 7, 9, 11, 12, 13, 15, 17, 19, 21, 23, 24, 25, 27, 29, 31, 33, 35, 36, 37, 39, 41, 43, 45, 47, 48, 49, 51, 53, 55, 57, 59, 60, 61, 63, 65, 67, 69, 71, 72, 73, 75, 77, 79, 81, 83, 84, 85, 87, 89, 91, 93, 95, 96, 97, 99, 101, 103, 105, 107, 108, 109, 111
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
a(n) = a(n-7) + 12 for n>7.
a(n) = (84*n - 84 - 2*(n mod 7) - 2*((n+1) mod 7) - 2*((n+2) mod 7) - 2*((n+3) mod 7) - 2*((n+4) mod 7) + 5*((n+5) mod 7) + 5*((n+6) mod 7))/49.

a(7k) = 12k-1, a(7k-1) = 12k-3, a(7k-2) = 12k-5, a(7k-3) = 12k-7, a(7k-4) = 12k-9, a(7k-5) = 12k-11, a(7k-6) = 12k-12. (End)

[A272915] 0, 1, 3, 5, 7, 9, 11, 12, 14, 16, 18, 20, 22, 23, 25, 27, 29, 31, 33, 34, 36, 38, 40, 42, 44, 45, 47, 49, 51, 53, 55, 56, 58, 60, 62, 64, 66, 67, 69, 71, 73, 75, 77, 78, 80, 82, 84, 86, 88, 89, 91, 93, 95, 97, 99, 100, 102, 104, 106, 108, 110, 111, 113, 115, 117, 119

a(n) = a(n-1) + a(n-6) - a(n-7).

a(6*k + r) = 11*k + 2*r - (1 - (-1)^a(r))/2, with r = 0..5.

[A182765] 1, 3, 5, 7, 9, 11, 12, 14, 16, 18, 20, 22, 24, 25, 27, 29, 31, 33, 35, 37, 38, 40, 42, 44, 46, 48, 50, 51, 53, 55, 57, 59, 61, 63, 64, 66, 68, 70, 72, 74, 75, 77, 79, 81, 83, 85, 87, 88, 90, 92, 94, 96, 98, 100, 101, 103, 105, 107, 109, 111, 113, 114, 116, 118, 120, 122, 124, 126, 127

a(n) = floor(r*n), where r = (6 + sqrt(2))/4.

a(n) = 2*n - 1 - floor(n/7) for n < 41, but this fails for a(41) = 75 onwards. - M. F. Hasler, Jun 23 2016

[A214657] 0, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 108, 110, 112, 114, 116, 118, 120, 122, 124

a(n) = floor(tau*n), n>=0, with tau = |z_0(1)|given in the comment section.

[A004273] 0, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131

a(n) = 2*n-[(n+2) mod (n+1)], with n>=0. - Paolo P. Lava, Aug 29 2007

a(n) = (4*n-1-(-1)^(2^n))/2. - Luce ETIENNE, Jul 11 2015

[A005408] 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131

a(n) = 2*n + 1. a(-1 - n) = -a(n). a(n+1) = a(n) + 2.

a(n) = (n+1)^2 - n^2.

a(0) = 1, a(1) = 3, a(n) = 2*a(n-1) - a(n-2). - Jaume Oliver Lafont, May 07 2008

a(n) = (n - 1) + n (sum of two sequential integers). - Dominick Cancilla, Aug 09 2010

a(n) = Sum_{k=0..n+1} binomial(2*n+1,2*k)*4^(k)*bernoulli(2*k). - Vladimir Kruchinin, Feb 24 2015

a(n) = Sum_{k=0..n} binomial(6*n+3, 6*k)*bernoulli(6*k). - Michel Marcus, Jan 11 2016

[A060747] 1, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151

a(n)=2*a(n-1)-a(n-2); a(0)=-1, a(1)=1. - Philippe Deléham, Nov 03 2008

a(n)=4*n-a(n-1)-4 (with a(0)=-1) - Vincenzo Librandi, Aug 07 2010

[A143452] 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 27, 37, 51, 69, 91, 117, 147, 181, 219, 261, 315, 389, 491, 629, 811, 1045, 1339, 1701, 2139, 2661, 3291, 4069, 5051, 6309, 7931, 10021, 12699, 16101, 20379, 25701, 32283, 40421, 50523, 63141, 79003, 99045, 124443, 156645

a(n) = 2n+1 if n<=10, else a(n) = a(n-1) + 2a(n-10). - Milan Janjic, Mar 09 2015

[A074775] 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 47, 49, 51, 53, 55, 59, 61, 62, 63, 65, 67, 69, 71, 73, 74, 77, 79, 83, 87, 89, 91, 95, 97, 99, 101, 103, 107, 109, 111, 113, 115, 119, 121, 123, 125, 127, 129, 131, 134, 137, 139, 143, 146, 149

a(n) seems to be asymptotic to c*n with c=2.23...

[A143451] 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 25, 35, 49, 67, 89, 115, 145, 179, 217, 267, 337, 435, 569, 747, 977, 1267, 1625, 2059, 2593, 3267, 4137, 5275, 6769, 8723, 11257, 14507, 18625, 23811, 30345, 38619, 49169, 62707, 80153, 102667, 131681, 168931, 216553, 277243

a(n) = 2n+1 if n<=9, else a(n) = a(n-1) + 2a(n-9). - Milan Janjic, Mar 09 2015

[A014261] 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 31, 33, 35, 37, 39, 51, 53, 55, 57, 59, 71, 73, 75, 77, 79, 91, 93, 95, 97, 99, 111, 113, 115, 117, 119, 131, 133, 135, 137, 139, 151, 153, 155, 157, 159, 171, 173, 175, 177, 179, 191, 193, 195, 197, 199, 311, 313, 315, 317, 319

a(n+1) = h(a(n)) with h(x) = 1 + (if x mod 10 < 9 then x + x mod 2 else 10*h(floor(x/10)));

a(n) = f(n, 1) where f(n, x) = if n = 1 then x else f(n-1, h(x)). (End)

a(n) = sum_{j = 0..m-1} ((2*b_j(n)+1) mod 10)*10^j, where b_j(n)) = floor((4*n+1-5^m)/(4*5^j)), m = floor(log_5(4*n+1)).

a(1*(5^n-1)/4) = 1*(10^n-1)/9.

a(2*(5^n-1)/4) = 1*(10^n-1)/3.

a(3*(5^n-1)/4) = 5*(10^n-1)/9.

[A143450] 1, 3, 5, 7, 9, 11, 13, 15, 17, 23, 33, 47, 65, 87, 113, 143, 177, 223, 289, 383, 513, 687, 913, 1199, 1553, 1999, 2577, 3343, 4369, 5743, 7569, 9967, 13073, 17071, 22225, 28911, 37649, 49135, 64273, 84207, 110353, 144495, 188945, 246767, 322065, 420335, 548881

a(n) = 2n+1 if n<=8, else a(n) = a(n-1) + 2a(n-8). - Milan Janjic, Mar 09 2015

[A204458] 1, 3, 5, 7, 9, 11, 13, 15, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141

a(n) = 2*n-1 + 2*floor((n+7)/16) = 2*n+1 + 2*floor((n-9)/16), n>=1. Note that for n=0 this is -1, but for the o.g.f. with start x^0 one uses a(0)=0.

[A143449] 1, 3, 5, 7, 9, 11, 13, 15, 21, 31, 45, 63, 85, 111, 141, 183, 245, 335, 461, 631, 853, 1135, 1501, 1991, 2661, 3583, 4845, 6551, 8821, 11823, 15805, 21127, 28293, 37983, 51085, 68727, 92373, 123983, 166237, 222823, 298789, 400959, 538413, 723159, 971125

a(n) = 2n+1 if n<=7, else a(n) = a(n-1) + 2a(n-7). - Milan Janjic, Mar 09 2015

[A184591] 1, 3, 5, 7, 9, 11, 13, 16, 18, 20, 22, 24, 26, 28, 31, 33, 35, 37, 39, 41, 43, 46, 48, 50, 52, 54, 56, 58, 61, 63, 65, 67, 69, 71, 73, 76, 78, 80, 82, 84, 86, 88, 91, 93, 95, 97, 99, 101, 103, 106, 108, 110, 112, 114, 116, 118, 121, 123, 125, 127, 129, 131, 133, 136, 138, 140, 142, 144, 146, 148, 151, 153, 155, 157, 159, 161, 163, 166, 168, 170, 172, 174, 176, 178, 181, 183, 185, 187, 189, 191, 193, 196, 198, 200, 202, 204, 206, 208, 211, 213, 215, 217, 219, 221, 223, 226, 228, 230, 232, 234, 236, 238, 240, 243, 245, 247, 249, 251, 253, 255

a(n)=floor[(n*(pi-1)-1].

[A143448] 1, 3, 5, 7, 9, 11, 13, 19, 29, 43, 61, 83, 109, 147, 205, 291, 413, 579, 797, 1091, 1501, 2083, 2909, 4067, 5661, 7843, 10845, 15011, 20829, 28963, 40285, 55971, 77661, 107683, 149341, 207267, 287837, 399779, 555101, 770467, 1069149, 1483683, 2059357, 2858915

a(n) = 2n+1 if n<=6, else a(n) = a(n-1) + 2a(n-6). - Milan Janjic, Mar 09 2015

[A204457] 1, 3, 5, 7, 9, 11, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 93, 95, 97, 99, 101, 103, 105, 107, 109

a(n) = 2*n-1 + 2*floor((n+5)/12) = 2*n+1 + 2*floor((n-7)/12), n>=1. Note that this is -1 for n=0, but the o.g.f. starting with x^0 has a(0)=0.

[A173601] 0, 1, 3, 5, 7, 9, 11, 15, 17, 19, 23, 27, 31, 33, 35, 39, 43, 47, 51, 55, 59, 63, 65, 67, 71, 75, 79, 83, 87, 91, 95, 99, 103, 107, 111, 115, 119, 125, 127, 129, 131, 135, 139, 143, 147, 151, 155, 159, 163, 167, 171, 175, 179, 183, 189, 191, 195, 199, 203, 207

a(n)/log_2(a(n)) < n < a(n) for n > 1.

[A143447] 1, 3, 5, 7, 9, 11, 17, 27, 41, 59, 81, 115, 169, 251, 369, 531, 761, 1099, 1601, 2339, 3401, 4923, 7121, 10323, 15001, 21803, 31649, 45891, 66537, 96539, 140145, 203443, 295225, 428299, 621377, 901667, 1308553, 1899003, 2755601, 3998355, 5801689, 8418795

a(n) = 2n+1 if n<=5, else a(n) = a(n-1) + 2a(n-5). - Milan Janjic, Mar 09 2015

[A061512] 1, 3, 5, 7, 9, 11, 33, 55, 77, 99, 1111, 3333, 5555, 7777, 9999, 11111111, 33333333, 55555555, 77777777, 99999999, 1111111111111111, 3333333333333333, 5555555555555555, 7777777777777777, 9999999999999999, 111111111111111111111111111111111, 333333333333333333333333333333333

a(n) = (10^2^floor(n/5)-1)/9*(n%5*2+1), where n%5 means the remainder (in {0..4}) of n divided by 5. - M. F. Hasler, Jun 24 2016

[A082767] 1, 3, 5, 7, 9, 12, 14, 16, 18, 21, 23, 26, 28, 31, 34, 36, 38, 41, 43, 46, 49, 52, 54, 57, 59, 62, 64, 67, 69, 73, 75, 77, 80, 83, 86, 89, 91, 94, 97, 100, 102, 106, 108, 111, 114, 117, 119, 122, 124, 127, 130, 133, 135, 138, 141, 144, 147, 150, 152, 156, 158, 161, 164, 166, 169, 173

a(n) = a(n-1) + 1 + omega(n) if n > 1, with a(1) = 1, where omega(n) is the number of distinct prime factors of n.

a(n) = sum INT[n/p], p is 1 or a prime, p < or = n. a(12) = [12/1] + [12/2] + [12/3] + [12/5] + [12/7] + [12/11] = 12+6+4+2+1+1 = 26. - Amarnath Murthy, Jul 06 2005

[A047932] 0, 1, 3, 5, 7, 9, 12, 14, 16, 19, 21, 24, 26, 29, 31, 34, 36, 39, 42, 44, 47, 49, 52, 55, 57, 60, 63, 65, 68, 71, 73, 76, 79, 81, 84, 87, 90, 92, 95, 98, 100, 103, 106, 109, 111, 114, 117, 120, 122, 125, 128, 131, 133, 136, 139, 142, 144, 147, 150, 153, 156, 158, 161

a(n) = floor(3*n-sqrt(12*n-3)).

[A219087] 0, 1, 3, 5, 7, 9, 12, 14, 17, 20, 22, 25, 29, 32, 35, 38, 42, 45, 48, 52, 56, 59, 63, 67, 71, 75, 79, 83, 87, 91, 95, 99, 103, 107, 112, 116, 121, 125, 130, 134, 139, 143, 148, 152, 157, 162, 167, 172, 176, 181, 186, 191, 196, 201, 206, 211, 216, 221, 227

a(n) = [(n + 1/2)^(4/3)].
[A258782] 0, 0, 1, 3, 5, 7, 9, 12, 15, 18, 22, 25, 29, 33, 36, 40, 44, 48, 53, 57, 61, 65, 70, 74, 79, 84, 88, 93, 98, 103, 108, 113, 118, 123, 128, 133, 138, 143, 149, 154, 159, 165, 170, 175, 181, 186, 192, 197, 203, 209, 214, 220, 226, 231, 237, 243, 249, 254, 260, 266, 272, 278, 284, 290, 296, 302, 308, 314
a(n) = round(log_2(n!)).
a(n) = round(Sum_{k=1..n} log_2(k)). - Tom Edgar, Jun 10 2015
a(n) is within 1 of n*(log(n)-1)/log(2) + log(n)/(2*log(2)) + log(sqrt(2*Pi))/log(2) for n >= 1. - Robert Israel, Jun 10 2015
[A118015] 0, 0, 0, 1, 3, 5, 7, 9, 12, 16, 20, 24, 28, 33, 39, 45, 51, 57, 64, 72, 80, 88, 96, 105, 115, 125, 135, 145, 156, 168, 180, 192, 204, 217, 231, 245, 259, 273, 288, 304, 320, 336, 352, 369, 387, 405, 423, 441, 460, 480, 500, 520, 540, 561, 583, 605, 627, 649, 672
a(5*m+r) = m*(5*m + 2*r) + a(r), with m >= 0 and 0 <= r < 5. Example: for m=4 and r=3, a(5*4+3) = a(23) = 4*(5*4 + 2*3) + a(3) = 104 + 1 = 105. - Bruno Berselli, Dec 12 2016
[A096231] 1, 3, 5, 7, 9, 12, 16, 21, 28, 37, 49, 65, 86, 114, 151, 200, 265, 351, 465, 616, 816, 1081, 1432, 1897, 2513, 3329, 4410, 5842, 7739, 10252, 13581, 17991, 23833, 31572, 41824, 55405, 73396, 97229, 128801, 170625, 226030, 299426, 396655, 525456, 696081
a(n) = a(n-1)+a(n-5) = a(n-2)+a(n-3), for n > 6.
[A204454] 1, 3, 5, 7, 9, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 123, 125, 127, 129, 131
a(n) = 2*n+1 + 2*floor((n-6)/10), n>=1. Note that this is -1 for n=0, but the following o.g.f. uses a(0)=0.
[A064608] 1, 3, 5, 7, 9, 13, 15, 17, 19, 23, 25, 29, 31, 35, 39, 41, 43, 47, 49, 53, 57, 61, 63, 67, 69, 73, 75, 79, 81, 89, 91, 93, 97, 101, 105, 109, 111, 115, 119, 123, 125, 133, 135, 139, 143, 147, 149, 153, 155, 159, 163, 167, 169, 173, 177, 181, 185, 189, 191, 199, 201
a(n) = n*log(n)/zeta(2) + O(n) where zeta(2) = Pi^2/6. - Benoit Cloitre, Apr 16 2002
a(n) = Sum_{k=1..n} mu(k)^2*floor(n/k). - Benoit Cloitre, Apr 16 2002
[A200975] 1, 3, 5, 7, 9, 13, 17, 21, 25, 31, 37, 43, 49, 57, 65, 73, 81, 91, 101, 111, 121, 133, 145, 157, 169, 183, 197, 211, 225, 241, 257, 273, 289, 307, 325, 343, 361, 381, 401, 421, 441, 463, 485, 507, 529, 553, 577, 601, 625, 651, 677, 703, 729, 757, 785, 813, 841, 871, 901
a(4n) = 4*(4n)^2 - 4*(4n) + 1; a(4n+1) = 4*(4n)^2 - 2*(4n) + 1; a(4n+2) = 4*(4n)^2 + 1; a(4n+3) = 4*(4n)^2 + 2*(4n) + 1.
a(n) = floor_(n*(n+2)/4) + floor_(n(mod 4)/3) + 1. - Bob Selcoe, Oct 27 2014
[A262602] 1, 1, 3, 5, 7, 9, 13, 19, 27, 39, 57, 83, 119, 171, 247, 357, 515, 743, 1073, 1549, 2235, 3225, 4655, 6719, 9697, 13995, 20199, 29153, 42075, 60725, 87643, 126493, 182563, 263487, 380283, 548851, 792139, 1143269, 1650045, 2381459, 3437085, 4960637, 7159533
a(n) = a(n-7) + a(n-4) + a(n-1) for n>1 and a(n)=1 for n<=1.
[A238257] 1, 3, 5, 7, 9, 15, 17, 19, 35, 37, 39, 55, 57, 59, 75, 77, 79, 95, 97, 99, 155, 157, 159, 175, 177, 179, 195, 197, 199, 355, 357, 359, 375, 377, 379, 395, 397, 399, 555, 557, 559, 575, 577, 579, 595, 597, 599, 755, 757, 759, 775, 777, 779, 795, 797, 799, 955, 957, 959, 975, 977, 979, 995, 997, 999, 1555, 1557, 1559, 1575, 1577, 1579
a(5(3^k-1)/2) = 10^k-1. - Giovanni Resta, Feb 22 2014
[A006995] 0, 1, 3, 5, 7, 9, 15, 17, 21, 27, 31, 33, 45, 51, 63, 65, 73, 85, 93, 99, 107, 119, 127, 129, 153, 165, 189, 195, 219, 231, 255, 257, 273, 297, 313, 325, 341, 365, 381, 387, 403, 427, 443, 455, 471, 495, 511, 513, 561, 585, 633, 645, 693, 717, 765, 771, 819, 843
a(1000) = 249903,
a(10^4) = 24183069,
a(10^5) = 2258634081,
a(10^6) = 249410097687,
a(10^7) = 24350854001805,
a(10^8) = 2229543293296319,
[A052942] 1, 1, 1, 1, 3, 5, 7, 9, 15, 25, 39, 57, 87, 137, 215, 329, 503, 777, 1207, 1865, 2871, 4425, 6839, 10569, 16311, 25161, 38839, 59977, 92599, 142921, 220599, 340553, 525751, 811593, 1252791, 1933897, 2985399, 4608585, 7114167, 10981961
a(n) = hypergeom([(1-n)/4,(2-n)/4,(3-n)/4,-n/4],[(1-n)/3,(2-n)/3,-n/3],-512/27)) for n>=9. - Peter Luschny, Mar 09 2015
[A146556] 3, 5, 7, 9, 17, 19, 21, 43, 45, 111, 193, 195, 477, 927, 1777, 1779, 2973, 4963, 6397, 6399, 12961, 14983, 14985, 40191, 66993, 114063, 193233, 334959, 558273, 951999, 1586673, 3724815, 8255985, 18271887, 31279473, 66853647, 171456753, 339654927
a(n) = a(n-1) + 2*(sigma(a(n-1)) - a(n-1)). - Roderick MacPhee, Aug 21 2012
[A220221] 1, 3, 5, 7, 9, 17, 23, 33, 65, 129, 257, 513, 1025, 2049, 4097, 8193, 16385, 32769, 65537, 131073, 262145, 524289, 1048577, 2097153, 4194305, 8388609, 16777217, 33554433, 67108865, 134217729, 268435457, 536870913, 1073741825, 2147483649, 4294967297
a(n) = 3*a(n-1)-2*a(n-2) for n>9. - Colin Barker, Nov 06 2014
[A225240] 1, 3, 5, 7, 10, 12, 14, 16, 17, 19, 21, 23, 26, 28, 30, 32, 33, 35, 37, 39, 42, 44, 46, 48, 49, 51, 53, 55, 58, 60, 62, 64
a(1) = 1, a(n) = a(n-1) + 2 + (mod(a(n-1)+1, 8) == 0) - (mod(a(n-1), 8) == 0).
[A184586] 1, 3, 5, 7, 10, 12, 14, 16, 19, 21, 23, 25, 27, 30, 32, 34, 36, 39, 41, 43, 45, 48, 50, 52, 54, 57, 59, 61, 63, 65, 68, 70, 72, 74, 77, 79, 81, 83, 86, 88, 90, 92, 95, 97, 99, 101, 103, 106, 108, 110, 112, 115, 117, 119, 121, 124, 126, 128, 130, 133, 135, 137, 139, 141, 144, 146, 148, 150, 153, 155, 157, 159, 162, 164, 166, 168, 171, 173, 175, 177, 180, 182, 184, 186, 188, 191, 193, 195, 197, 200, 202, 204, 206, 209, 211, 213, 215, 218, 220, 222, 224, 226, 229, 231, 233, 235, 238, 240, 242, 244, 247, 249, 251, 253, 256, 258, 260, 262, 264, 267
a(n)=floor[(n-1/2)r], where r=sqrt(5).
[A047390] 0, 3, 5, 7, 10, 12, 14, 17, 19, 21, 24, 26, 28, 31, 33, 35, 38, 40, 42, 45, 47, 49, 52, 54, 56, 59, 61, 63, 66, 68, 70, 73, 75, 77, 80, 82, 84, 87, 89, 91, 94, 96, 98, 101, 103, 105, 108, 110, 112, 115, 117, 119, 122, 124, 126, 129, 131, 133, 136, 138, 140, 143
a(n) = 2*n+floor(n/3)+(n^2 mod 3), with offset 0, a(0)=0. - Gary Detlefs, Mar 19 2010
a(n) = n + ceiling(4*(n-1)/3) - 1. - Arkadiusz Wesolowski, Sep 18 2012
a(n) = 2*(n-1)+ceiling((n-1)/3). - Karl V. Keller, Jr., Nov 01 2014
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 7*n/3-2-2*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 7k-2, a(3k-1) = 7k-4, a(3k-2) = 7k-7. (End)
[A184741] 3, 5, 7, 10, 12, 15, 17, 19, 22, 24, 27, 29, 31, 34, 36, 38, 41, 43, 46, 48, 50, 53, 55, 58, 60, 62, 65, 67, 70, 72, 74, 77, 79, 82, 84, 86, 89, 91, 93, 96, 98, 101, 103, 105, 108, 110, 113, 115, 117, 120, 122, 125, 127, 129, 132, 134, 137, 139, 141, 144, 146, 149, 151, 153, 156, 158, 160, 163, 165, 168, 170, 172, 175, 177, 180, 182, 184, 187, 189, 192, 194, 196, 199, 201, 204, 206, 208, 211, 213, 215, 218, 220, 223, 225, 227, 230, 232, 235, 237, 239, 242, 244, 247, 249, 251, 254, 256, 259, 261, 263, 266, 268, 271, 273, 275, 278, 280, 282, 285, 287
a(n)=floor(n*s+h-h*s), where s=(e-1)/(e-2) and h=-1/2.
[A175312] 1, 3, 5, 7, 10, 12, 15, 17, 20, 22, 25, 28, 31, 33, 36, 39, 42, 44, 47, 50, 53, 55, 58, 61, 64, 67, 70, 73, 76, 78, 81, 84, 87, 90, 93, 96, 99, 101, 104, 107, 110, 113, 116, 119, 122, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 171
a(n) = 1 + 3(n-lambda(n)) - floor((n+2)/2^lambda(n)), lambda(n) = floor(log_2((n+2)/3)).
[A276498] 1, 3, 5, 7, 10, 13, 16, 19, 22, 25, 29, 32, 36, 39, 43, 47, 51, 54, 58, 62, 66, 71, 75, 79, 83, 87, 92, 96, 100, 105, 109, 114, 118, 123, 127, 132, 136, 141, 146, 150, 155, 160, 165, 169, 174, 179, 184, 189, 194, 199, 203, 208, 213, 218, 223, 228, 233
a(n) = round(log(1/n)/log(1-1/n)).
a(n) = n log n - (log n)/2 + O(1). - Charles R Greathouse IV, Sep 06 2016
[A001768] 0, 1, 3, 5, 7, 10, 13, 16, 19, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 71, 76, 81, 86, 91, 96, 101, 106, 111, 116, 121, 126, 131, 136, 141, 146, 151, 156, 161, 166, 171, 177, 183, 189, 195, 201, 207, 213, 219, 225, 231, 237, 243, 249, 255
a(n) = Sum_{k=1..n} ceiling(log_2 (3k/4)). See also Problem 5.3.1-14 of Knuth.
a(n) = n(z-1)-[(2^(z+2)-3z)/6] where z = [log_2(3n+3)]. - David W. Wilson, Feb 26 2006
[A184013] 1, 3, 5, 7, 10, 13, 17, 21, 25, 30, 35, 41, 47, 53, 60, 67, 75, 83, 91, 100, 109, 119, 129, 139, 150, 161, 173, 185, 197, 210, 223, 237, 251, 265, 280, 295, 311, 327, 343, 360, 377, 395, 413, 431, 450, 469, 489, 509, 529, 550, 571, 593, 615, 637, 660, 683, 707, 731, 755, 780, 805, 831, 857, 883, 910, 937, 965, 993, 1021, 1050, 1079, 1109, 1139, 1169, 1200, 1231, 1263, 1295, 1327, 1360
a(n) = n - 1 + ceiling((4+n^2)/5).
a(n) = +2 a(n-1) -a(n-2) +a(n-5) -2 a(n-6) +a(n-7). - R. J. Mathar, Mar 11 2012

[A057672] 0, 0, 1, 3, 5, 7, 10, 13, 17, 21, 25, 30, 36, 42, 48, 54, 62, 69, 77, 85, 94, 103, 113, 123, 134, 145, 156, 168, 180, 193, 206, 219, 233, 248, 262, 278, 293, 309, 326, 343, 360, 378, 396, 415, 434, 454, 474, 494, 515, 536, 558, 580, 602, 625, 649, 672, 697, 721, 747, 772, 798
a(n) = floor(n^2*(1-Pi/4)).
[A212986] 1, 1, 3, 5, 7, 10, 14, 17, 22, 27, 32, 38, 45, 51, 59, 67, 75, 84, 94, 103, 114, 125, 136, 148, 161, 173, 187, 201, 215, 230, 246, 261, 278, 295, 312, 330, 349, 367, 387, 407, 427, 448, 470, 491, 514, 537, 560, 584, 609, 633, 659, 685, 711, 738, 766
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6).
[A011848] 0, 0, 0, 1, 3, 5, 7, 10, 14, 18, 22, 27, 33, 39, 45, 52, 60, 68, 76, 85, 95, 105, 115, 126, 138, 150, 162, 175, 189, 203, 217, 232, 248, 264, 280, 297, 315, 333, 351, 370, 390, 410, 430, 451, 473, 495, 517, 540, 564, 588, 612, 637, 663, 689, 715, 742, 770, 798
a(n) = +3*a(n-1) -4*a(n-2) +4*a(n-3) -3*a(n-4) +a(n-5). - R. J. Mathar, Apr 15 2010
a(n) = floor((n/(1+e^(1/n)))^2). - Richard R. Forberg, Jun 19 2013
a(n) = floor(n*(n-1)/4). - T. D. Noe, Jun 20 2013
a(n) = (1/4) * (n^2 - n - 1 + (-1)^floor(n/2)). - Ralf Stephan, Aug 11 2013
[A131673] 1, 3, 5, 7, 10, 14, 19, 25, 31, 38, 46, 55, 65, 76, 88, 101, 115, 129, 144, 160, 177, 195, 214, 234, 255, 277, 300, 324, 349, 375, 402, 430, 459, 489, 519, 550, 582, 615, 649, 684, 720, 757, 795, 834, 874, 915, 957, 1000, 1044, 1089, 1135, 1182, 1230, 1279, 1329, 1380, 1432
a(0) = 1; for n>0, a(n) = 2 + sum_{k=1..n} min(k,2^{n+2-k}-2).
[A056911] 1, 3, 5, 7, 11, 13, 15, 17, 19, 21, 23, 29, 31, 33, 35, 37, 39, 41, 43, 47, 51, 53, 55, 57, 59, 61, 65, 67, 69, 71, 73, 77, 79, 83, 85, 87, 89, 91, 93, 95, 97, 101, 103, 105, 107, 109, 111, 113, 115, 119, 123, 127, 129, 131, 133, 137, 139, 141, 143, 145, 149, 151
a(n) = n * (3/2) * zeta(2) + O(n^(1/2)) = n * (Pi^2 / 4) + O(n^(1/2)). - Daniel Forgues, May 27 2009
[A047484] 3, 5, 7, 11, 13, 15, 19, 21, 23, 27, 29, 31, 35, 37, 39, 43, 45, 47, 51, 53, 55, 59, 61, 63, 67, 69, 71, 75, 77, 79, 83, 85, 87, 91, 93, 95, 99, 101, 103, 107, 109, 111, 115, 117, 119, 123, 125, 127, 131, 133, 135, 139, 141, 143, 147, 149, 151, 155, 157, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. - Vincenzo Librandi, May 17 2012
a(n) = (24*n-3-6*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-3, a(3k-2) = 8k-5. (End)
a(n) = 3*n - floor((n-1)/3) - ((n-1) mod 3). - Wesley Ivan Hurt, Sep 26 2017
[A160656] 0, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277
a(n) = p - (-1)^p - 1 where p is the n-th prime.
a(n) = p mod n^2, where p is the n-th prime. [From Gary Detlefs, Jan 14 2012]
[A264754] 1, 3, 5, 7, 11, 13, 19, 21, 29, 31, 41, 43, 55, 57, 71, 73, 89, 91, 109, 111, 131, 133, 155, 157, 181, 183, 209, 211, 239, 241, 271, 273, 305, 307, 341, 343, 379, 381, 419, 421, 461, 463, 505, 507, 551, 553, 599, 601, 649, 651, 701, 703, 755, 757, 811, 813, 869, 871, 929, 931, 991, 993, 1055, 1057, 1121, 1123
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n > 4.
a(n) = (2*n*(n + (-1)^n + 5) - 3*(-1)^n + 11)/8.
[A192869] 3, 5, 7, 11, 13, 19, 23, 31, 37, 43, 47, 61, 67, 73, 79, 103, 127, 151, 157, 163, 191, 193, 211, 223, 271, 277, 283, 313, 331, 367, 383, 397, 421, 457, 463, 487, 523, 541, 547, 607, 613, 631, 661, 673, 691, 733, 751, 757, 787, 823, 877, 907, 991, 997, 1051
a(n) » n (log n)^2.
[A169969] 1, 3, 5, 7, 11, 13, 21, 27, 43, 53, 85, 107, 171, 213, 341, 427, 683, 853, 1365, 1707, 2731, 3413, 5461, 6827, 10923, 13653, 21845, 27307, 43691, 54613, 87381, 109227, 174763, 218453, 349525, 436907, 699051, 873813, 1398101, 1747627, 2796203, 3495253
a(2n+1) + a(2n+2) = 3*2^(n+1), n>0 . - Yosu Yurramendi, Jun 29 2016
a(2n+3) = 3*2^(n+1) - a(n); a(2n+4) = 3*2^(n+1) + a(n), n>=0, a(0)=0 (new term), a(1)=1, a(2)=3 . - Yosu Yurramendi, Jun 29 2016
a(2n) = a(2n-7) + 3*2^(n-1); a(2n-1) = a(2n-7) - 3*2^(n-1), n>=5 . - Yosu Yurramendi, Jul 06 2016
[A238738] 1, 3, 5, 7, 11, 15, 18, 24, 30, 34, 42, 50, 55, 65, 75, 81, 93, 105, 112, 126, 140, 148, 164, 180, 189, 207, 225, 235, 255, 275, 286, 308, 330, 342, 366, 390, 403, 429, 455, 469, 497, 525, 540, 570, 600, 616, 648, 680, 697, 731, 765, 783, 819, 855, 874
a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7), with n>6.
a(n) = (floor(n/3)+1)*(4*n-7*floor(n/3)+2)/2. [Luce ETIENNE, Jun 14 2014]
[A126116] 1, 1, 1, 1, 3, 5, 7, 11, 19, 31, 49, 79, 129, 209, 337, 545, 883, 1429, 2311, 3739, 6051, 9791, 15841, 25631, 41473, 67105, 108577, 175681, 284259, 459941, 744199, 1204139, 1948339, 3152479, 5100817, 8253295, 13354113, 21607409, 34961521
a(n) = 1/5*((sqrt(5)-1)*(1/2*(1+sqrt(5)))^n - (1+sqrt(5))*(1/2*(1-sqrt(5)))^n + sin((Pi*n)/2) - 3*cos((Pi*n)/2)). - Harvey P. Dale, Nov 08 2011
[A063241] 3, 5, 7, 13, 15, 17, 23, 25, 27, 33, 35, 37, 43, 45, 47, 53, 55, 57, 63, 65, 67, 73, 75, 77, 83, 85, 87, 93, 95, 97, 103, 105, 107, 113, 115, 117, 123, 125, 127, 133, 135, 137, 143, 145, 147, 153, 155, 157, 163, 165
a(n) = 2*n + 4*floor(n/3 - 1/3) + 1. This formula follows from Mathar's generating function. - Bruno Berselli, Feb 16 2016
[A032911] 1, 3, 5, 7, 13, 15, 21, 23, 29, 31, 53, 55, 61, 63, 85, 87, 93, 95, 117, 119, 125, 127, 213, 215, 221, 223, 245, 247, 253, 255, 341, 343, 349, 351, 373, 375, 381, 383, 469, 471, 477, 479, 501, 503, 509, 511, 853, 855, 861, 863, 885
a(2n) = 4a(n) + 1, a(2n+1) = 4a(n) + 3. - Ralf Stephan, Nov 01 2003
[A077133] 1, 3, 5, 7, 13, 19, 21, 27, 29, 33, 39, 45, 49, 53, 57, 61, 63, 65, 71, 77, 79, 81, 83, 95, 97, 103, 113, 119, 121, 125, 135, 139, 143, 149, 151, 157, 163, 167, 175, 183, 185, 187, 191, 199, 201, 213, 217, 221, 233, 251, 261, 267, 273, 279, 281, 287, 289, 299
a(n) = Sum_{i=0..n-1} (p(2i+2)-p(2i+1)).
[A100859] 3, 5, 7, 13, 19, 29, 31, 37, 43, 53, 59, 61, 67, 73, 79, 89, 103, 109, 127, 137, 139, 149, 151, 157, 163, 173, 179, 181, 191, 193, 199, 229, 239, 241, 251, 257, 263, 269, 271, 277, 283, 293, 307, 313, 331, 337, 347, 349, 359, 373, 379, 389, 419, 421, 431, 433
a(2n-1)==3 (mod 4) and a(2n)==1 (mod 4).
[A003229] 1, 1, 3, 5, 7, 13, 23, 37, 63, 109, 183, 309, 527, 893, 1511, 2565, 4351, 7373, 12503, 21205, 35951, 60957, 103367, 175269, 297183, 503917, 854455, 1448821, 2456655, 4165565, 7063207, 11976517, 20307647, 34434061, 58387095, 99002389
a(n) = hypergeom([-n/3,-(1+n)/3,(1-n)/3],[-n/2,-(1+n)/2],-27/2)) for n>=3. - Peter Luschny, Mar 09 2015
[A077949] 1, 1, 1, 3, 5, 7, 13, 23, 37, 63, 109, 183, 309, 527, 893, 1511, 2565, 4351, 7373, 12503, 21205, 35951, 60957, 103367, 175269, 297183, 503917, 854455, 1448821, 2456655, 4165565, 7063207, 11976517, 20307647, 34434061, 58387095, 99002389, 167870511, 284644701
a(n) = Sum_{k=0..floor(n/2)} C(n-2k, k)*2^k. - Paul Barry, Nov 18 2003
a(n) = Sum_{k=0..n} C(k, floor((n-k)/2))2^((n-k)/2)(1+(-1)^(n-k))/2. - Paul Barry, Jan 12 2006
a(n) = term (1,1) in the 3x3 matrix [1,1,0; 0,0,1; 2,0,0]^n. - Alois P. Heinz, Aug 16 2008
[A275175] 1, 1, 1, 1, 1, 1, 3, 5, 7, 13, 23, 83, 147, 215, 423, 771, 2801, 4971, 7281, 14351, 26181, 95133, 168845, 247317, 487493, 889373, 3231703, 5735737, 8401475, 16560393, 30212491, 109782751, 194846191, 285402811, 562565851, 1026335311, 3729381813, 6619034735, 9695294077, 19110678523
a(n) = 35*a(n-5) - 35*a(n-10) + a(n-15). - G. C. Greubel, Jul 20 2016
[A064268] 1, 1, 1, 1, 1, 1, 1, 3, 5, 7, 13, 43, 113, 521, 1241, 3681, 23657, 177721, 679505, 4674203, 27273277, 275517767, 3496390229, 37043734803, 226196947873, 4391322667601, 81041508965617, 1433151398896001, 25397505914206225
a(8 - n) = a(n).
[A295717] 1, 3, 5, 7, 14, 19, 37, 52, 97, 141, 254, 379, 665, 1012, 1741, 2689, 4558, 7119, 11933, 18796, 31241, 49525, 81790, 130291, 214129, 342372, 560597, 898873, 1467662, 2358343, 3842389, 6184348, 10059505, 16211085, 26336126, 42481675, 68948873, 111299476
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 1, a(1) = 3, a(2) = 5, a(3) = 7.
[A163979] 1, 3, 5, 7, 15, 23, 31, 45, 59, 73, 93, 113, 133, 159, 185, 211, 243, 275, 307, 345, 383, 421, 465, 509, 553, 603, 653, 703, 759, 815, 871, 933, 995, 1057, 1125, 1193, 1261, 1335, 1409, 1483, 1563, 1643, 1723, 1809, 1895, 1981, 2073, 2165, 2257, 2355, 2453, 2551
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5).
[A291736] 0, 1, 1, 3, 5, 7, 16, 22, 47, 73, 137, 235, 410, 734, 1258, 2255, 3895, 6904, 12056, 21184, 37210, 65172, 114612, 200765, 352779, 618598, 1085950, 1905601, 3343713, 5868895, 10297254, 18073207, 31712887, 55655620, 97666401, 171392667, 300776956, 527817651
a(n) = a(n-2) + a(n-3) + 2*a(n-4) + 3*a(n-5) + a(n-6) + 3*a(n-7) + a(n-9) for n >= 10.
[A291107] 3, 5, 7, 16, 26, 42, 72, 125, 216, 367, 629, 1079, 1852, 3173, 5438, 9323, 15984, 27401, 46971, 80522, 138039, 236639, 405665, 695425, 1192158, 2043700, 3503484, 6005970, 10295947, 17650192, 30257465, 51869927, 88919855, 152434004, 261315377, 447969116, 767946883

a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-6).
[A112986] 0, 0, 0, 3, 5, 7, 18, 22, 26, 45, 51, 57, 84, 92, 100, 135, 145, 155, 198, 210, 222, 273, 287, 301, 360, 376, 392, 459, 477, 495, 570, 590, 610, 693, 715, 737, 828, 852, 876, 975, 1001, 1027, 1134, 1162, 1190, 1305, 1335, 1365, 1488, 1520, 1552, 1683, 1717, 1751, 1890
a(n) = floor(n/3)*(2*n-3(1+floor(n/3))).
[A137864] 1, 3, 5, 7, 33, 131, 373, 855, 1697, 3043, 5061, 7943, 11905, 17187, 24053, 32791, 43713, 57155, 73477, 93063, 116321, 143683, 175605, 212567, 255073, 303651, 358853, 421255, 491457, 570083, 657781, 755223, 863105, 982147, 1113093, 1256711, 1413793
a(0)=1, a(1)=3, a(2)=5, a(3)=7, a(4)=33, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Aug 18 2011
[A106115] 3, 5, 7, 37, 43, 47, 53, 59, 67, 73, 79, 83, 89, 97, 337, 347, 349, 353, 359, 367, 373, 379, 383, 389, 397, 433, 439, 443, 449, 457, 463, 467, 479, 487, 499, 547, 557, 563, 569, 577, 587, 593, 599, 643, 647, 653, 659, 673, 677, 683, 733, 739, 743, 757, 769, 773
a(n) » n^k with k = log 10/log 7 = 1.183.... - Charles R Greathouse IV, Jan 02 2013
[A047624] 0, 1, 3, 5, 8, 9, 11, 13, 16, 17, 19, 21, 24, 25, 27, 29, 32, 33, 35, 37, 40, 41, 43, 45, 48, 49, 51, 53, 56, 57, 59, 61, 64, 65, 67, 69, 72, 73, 75, 77, 80, 81, 83, 85, 88, 89, 91, 93, 96, 97, 99, 101, 104, 105, 107, 109, 112, 113, 115, 117, 120, 121, 123
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-11-i^(2*n)+i^(1-n)-i^(1+n))/4 where i=sqrt(-1).
[A211703] 1, 3, 5, 8, 9, 12, 13, 16, 18, 20, 21, 25, 26, 28, 30, 33, 34, 37, 38, 41, 43, 45, 46, 50, 51, 53, 55, 58, 59, 62, 63, 66, 68, 70, 71, 75, 76, 78, 80, 83, 84, 87, 88, 91, 93, 95, 96, 100, 101, 103, 105, 108, 109, 112, 113, 116, 118, 120, 121, 125, 126, 128
a(n) = a(n-3) + a(n-4) - a(n-7) for n>=8.
[A185456] 1, 3, 5, 8, 9, 14, 15, 16, 17, 26, 27, 28, 29, 30, 31, 32, 33, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
a(n) = a(n-1) + n - 1 if n = 2^k + 2 for some natural number k, a(n) = a(n-1) + 1 otherwise, for n >= 3.
a(n) = n + 2^(1+floor(lg(n-2))) for n >= 3. (End)
[A184584] 1, 3, 5, 8, 10, 12, 14, 17, 19, 21, 23, 26, 28, 30, 32, 35, 37, 39, 41, 43, 46, 48, 50, 52, 55, 57, 59, 61, 64, 66, 68, 70, 73, 75, 77, 79, 81, 84, 86, 88, 90, 93, 95, 97, 99, 102, 104, 106, 108, 111, 113, 115, 117, 120, 122, 124, 126, 128, 131, 133, 135, 137, 140, 142, 144, 146, 149, 151, 153, 155, 158, 160, 162, 164, 166, 169, 171, 173, 175, 178, 180, 182, 184, 187, 189, 191, 193, 196, 198, 200, 202, 204, 207, 209, 211, 213, 216, 218, 220, 222, 225, 227, 229, 231, 234, 236, 238, 240, 242, 245, 247, 249, 251, 254, 256, 258, 260, 263, 265, 267
a(n)=floor[(n-1/3)r], where r=sqrt(5).
[A047391] 1, 3, 5, 8, 10, 12, 15, 17, 19, 22, 24, 26, 29, 31, 33, 36, 38, 40, 43, 45, 47, 50, 52, 54, 57, 59, 61, 64, 66, 68, 71, 73, 75, 78, 80, 82, 85, 87, 89, 92, 94, 96, 99, 101, 103, 106, 108, 110, 113, 115, 117, 120, 122, 124, 127, 129, 131, 134, 136, 138, 141
a(n) = 7*floor((n-1)/3)+2*(n-1 mod 3)+1.
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-15-3*cos(2*n*Pi/3)+sqrt(3)*sin(2*Pi*n/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-4, a(3k-2) = 7k-6. (End)
a(n) = n - 1 + floor((4n-1)/3). - Wesley Ivan Hurt, Dec 27 2016
[A184655] 3, 5, 8, 10, 12, 15, 17, 19, 22, 24, 26, 29, 31, 34, 36, 38, 41, 43, 45, 48, 50, 52, 55, 57, 60, 62, 64, 67, 69, 71, 74, 76, 78, 81, 83, 86, 88, 90, 93, 95, 97, 100, 102, 105, 107, 109, 112, 114, 116, 119, 121, 123, 126, 128, 131, 133, 135, 138, 140, 142, 145, 147, 149, 152, 154, 157, 159, 161, 164, 166, 168, 171, 173, 175, 178, 180, 183, 185, 187, 190, 192, 194, 197, 199, 202, 204, 206, 209, 211, 213, 216, 218, 220, 223, 225, 228, 230
a(n)=floor(n*s+h-h*s), where s=(3+sqrt(3))/2, h=-2/3.
[A211704] 1, 3, 5, 8, 10, 13, 14, 17, 19, 22, 23, 27, 28, 30, 33, 36, 37, 40, 41, 45, 47, 49, 50, 54, 56, 58, 60, 63, 64, 68, 69, 72, 74, 76, 78, 82, 83, 85, 87, 91, 92, 95, 96, 99, 102, 104, 105, 109, 110, 113, 115, 118, 119, 122, 124, 127, 129, 131, 132, 137, 138
a(n) = -a(n-1)-a(n-2)+a(n-4)+2*a(n-5)+2*a(n-6)+a(n-7)-a(n-9)-a(n-10)-a(n-11) for n>=12.
[A080754] 3, 5, 8, 10, 13, 15, 17, 20, 22, 25, 27, 29, 32, 34, 37, 39, 42, 44, 46, 49, 51, 54, 56, 58, 61, 63, 66, 68, 71, 73, 75, 78, 80, 83, 85, 87, 90, 92, 95, 97, 99, 102, 104, 107, 109, 112, 114, 116, 119, 121, 124, 126, 128, 131, 133, 136, 138, 141, 143, 145
a(1) = 3; for n>1, a(n) = a(n-1) + 3 if n is in sequence, a(n) = a(n-1) + 2 if not.
[A047218] 0, 3, 5, 8, 10, 13, 15, 18, 20, 23, 25, 28, 30, 33, 35, 38, 40, 43, 45, 48, 50, 53, 55, 58, 60, 63, 65, 68, 70, 73, 75, 78, 80, 83, 85, 88, 90, 93, 95, 98, 100, 103, 105, 108, 110, 113, 115, 118, 120, 123, 125, 128, 130, 133, 135, 138, 140, 143, 145, 148
a(n) = 2*n - 5 + ceiling(n/2). - Jesus De Loera (deloera(AT)math.ucdavis.edu)
a(n) = 5*n - a(n-1) - 7 for n>1, a(1)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = (10*n + (-1)^n - 9)/4.
a(n) = a(n-1) + a(n-2) - a(n-3). (End)
a(n) = n + ceiling(3*(n-1)/2) - 1. - Arkadiusz Wesolowski, Sep 18 2012
a(n) = floor(5*n/2)-2 = 3*n - 3 - floor((n-1)/2). - Wesley Ivan Hurt, Oct 14 2013
[A029919] 0, 3, 5, 8, 10, 13, 15, 18, 20, 23, 25, 28, 30, 33, 36, 38, 41, 43, 46, 48, 51, 53, 56, 58, 61, 64, 66, 69, 71, 74, 76, 79, 81, 84, 86, 89, 91, 94, 97, 99, 102, 104, 107, 109, 112, 114, 117, 119, 122, 124, 127, 130, 132, 135, 137, 140, 142, 145, 147, 150, 152, 155
a(n)=round(2.54n).
[A077472] 1, 3, 5, 8, 10, 13, 15, 23, 26, 30, 33, 36, 38, 46, 48, 51, 53, 57, 61, 64, 66, 69, 72, 76, 78, 84, 88, 93, 95, 104, 106, 110, 115, 117, 121, 126, 129, 131, 136, 138, 143, 148, 150, 152, 157, 160, 164, 169, 172, 175, 179, 181, 185, 187, 191, 196, 198, 201, 203
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(5/8) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 3.4... - Benoit Cloitre
[A184733] 3, 5, 8, 10, 13, 16, 18, 21, 23, 26, 29, 31, 34, 37, 39, 42, 44, 47, 50, 52, 55, 58, 60, 63, 65, 68, 71, 73, 76, 78, 81, 84, 86, 89, 92, 94, 97, 99, 102, 105, 107, 110, 112, 115, 118, 120, 123, 126, 128, 131, 133, 136, 139, 141, 144, 147, 149, 152, 154, 157, 160, 162, 165, 167, 170, 173, 175, 178, 181, 183, 186, 188, 191, 194, 196, 199, 201, 204, 207, 209, 212, 215, 217, 220, 222, 225, 228, 230, 233, 236, 238, 241, 243, 246, 249, 251, 254, 256, 259, 262, 264, 267, 270, 272, 275, 277, 280, 283, 285, 288, 291, 293, 296, 298, 301, 304, 306, 309, 311, 314
a(n)=floor(n*s+h-h*s), where s=(3+sqrt(5))/2, h=-1/4.
[A245314] 0, 3, 5, 8, 10, 13, 16, 19, 20, 22, 25, 28, 30, 32, 35, 38, 39, 42, 44, 47, 49, 52, 54, 57, 59, 60, 64, 66, 68, 71, 73, 76, 78, 81, 83, 85, 88, 91, 93, 95, 97, 100, 103, 105, 107, 110, 112, 115, 116, 119, 122, 124, 126, 129, 131, 134, 136, 139, 141, 143, 145
a(n) = floor(154/64*n) - 1 if n = 2, 14, 17, 18, 36 or 49.
a(n) = floor(154/64*n) - 2 if n = 1, 3, 5, 10 or 26.
a(n+64) = a(n) + 154 except for n = 1,2,3,5,10,14,17,18,26,36,49.
[A050504] 0, 1, 3, 5, 8, 10, 13, 16, 19, 23, 26, 29, 33, 36, 40, 44, 48, 52, 55, 59, 63, 68, 72, 76, 80, 84, 88, 93, 97, 102, 106, 110, 115, 119, 124, 129, 133, 138, 142, 147, 152, 156, 161, 166, 171, 176, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225
a(n)=floor(n*log(n)). [Enrique Pérez Herrero, Jul 29 2009]
[A006218] 0, 1, 3, 5, 8, 10, 14, 16, 20, 23, 27, 29, 35, 37, 41, 45, 50, 52, 58, 60, 66, 70, 74, 76, 84, 87, 91, 95, 101, 103, 111, 113, 119, 123, 127, 131, 140, 142, 146, 150, 158, 160, 168, 170, 176, 182, 186, 188, 198, 201, 207, 211, 217, 219, 227, 231, 239, 243, 247, 249
a(n) = 2*(Sum_{i=1..floor(sqrt(n))} floor(n/i)) - floor(sqrt(n))^2. - Benoit Cloitre, May 12 2002
[A212987] 1, 1, 3, 5, 8, 10, 16, 18, 25, 29, 37, 41, 52, 56, 68, 74, 87, 93, 109, 115, 132, 140, 158, 166, 187, 195, 217, 227, 250, 260, 286, 296, 323, 335, 363, 375, 406, 418, 450, 464, 497, 511, 547, 561, 598, 614, 652, 668, 709, 725, 767, 785, 828, 846, 892
a(n) = 2*a(n-2)+a(n-3)-a(n-4)-2*a(n-5)+a(n-7).
[A184659] 3, 5, 8, 11, 13, 16, 18, 21, 24, 26, 29, 31, 34, 37, 39, 42, 45, 47, 50, 52, 55, 58, 60, 63, 65, 68, 71, 73, 76, 79, 81, 84, 86, 89, 92, 94, 97, 100, 102, 105, 107, 110, 113, 115, 118, 120, 123, 126, 128, 131, 134, 136, 139, 141, 144, 147, 149, 152, 155, 157, 160, 162, 165, 168, 170, 173, 175, 178, 181, 183, 186, 189, 191, 194, 196, 199, 202, 204, 207, 209, 212, 215, 217, 220, 223, 225, 228, 230, 233, 236, 238, 241, 244, 246, 249, 251, 254, 257, 259, 262, 264, 267, 270, 272, 275, 278, 280, 283, 285, 288, 291, 293, 296, 298, 301
a(n)=floor(n*s+h-h*s), where s=(3+sqrt(5))/2, h=-1/3.
[A026274] 3, 5, 8, 11, 13, 16, 18, 21, 24, 26, 29, 32, 34, 37, 39, 42, 45, 47, 50, 52, 55, 58, 60, 63, 66, 68, 71, 73, 76, 79, 81, 84, 87, 89, 92, 94, 97, 100, 102, 105, 107, 110, 113, 115, 118, 121, 123, 126, 128, 131, 134, 136, 139, 141, 144

a(n) = 3*n - floor[(n+1)/(1+phi)], phi = (1+sqrt(5))/2. - Joshua Tobin (tobinrj(AT)tcd.ie), May 31 2008
[A008576] 1, 3, 5, 8, 11, 13, 16, 19, 21, 24, 27, 29, 32, 35, 37, 40, 43, 45, 48, 51, 53, 56, 59, 61, 64, 67, 69, 72, 75, 77, 80, 83, 85, 88, 91, 93, 96, 99, 101, 104, 107, 109, 112, 115, 117, 120, 123, 125, 128, 131, 133
a(0)=1, a(1)=3, a(2)=5, a(3)=8, a(4)=11, a(n) = a(n-1) + a(n-3) - a(n-4). - Harvey P. Dale, Nov 24 2011
[A047622] 0, 3, 5, 8, 11, 13, 16, 19, 21, 24, 27, 29, 32, 35, 37, 40, 43, 45, 48, 51, 53, 56, 59, 61, 64, 67, 69, 72, 75, 77, 80, 83, 85, 88, 91, 93, 96, 99, 101, 104, 107, 109, 112, 115, 117, 120, 123, 125, 128, 131, 133, 136, 139, 141, 144, 147, 149, 152, 155, 157
a(n) = floor((8n-7)/3). - Gary Detlefs, Mar 07 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-24-3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-3, a(3k-1) = 8k-5, a(3k-2) = 8k-8. (End)
[A180124] 3, 5, 8, 11, 14, 16, 19, 22, 24, 27, 30, 33, 35, 38, 41, 44, 46, 49, 52, 55, 57, 60, 63, 65, 68, 71, 74, 76, 79, 82, 85, 87, 90, 93, 95, 98, 101, 104, 106, 109, 112, 115, 117, 120, 123, 126, 128, 131, 134, 136, 139, 142, 145, 147, 150, 153, 156, 158, 161, 164, 167
a(n) = least positive integer not yet used;
[A076829] 0, 1, 3, 5, 8, 11, 14, 17, 20, 23, 27, 30, 34, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73, 77, 81, 85, 90, 94, 98, 103, 107, 112, 116, 121, 125, 130, 134, 139, 144, 148, 153, 158, 163, 167, 172, 177, 182, 187, 192, 196, 201, 206, 211, 216, 221, 226, 231, 236, 241, 247
a(n) = floor(n*log(n) + log(log(n))).
[A001855] 0, 1, 3, 5, 8, 11, 14, 17, 21, 25, 29, 33, 37, 41, 45, 49, 54, 59, 64, 69, 74, 79, 84, 89, 94, 99, 104, 109, 114, 119, 124, 129, 135, 141, 147, 153, 159, 165, 171, 177, 183, 189, 195, 201, 207, 213, 219, 225, 231, 237, 243, 249, 255, 261, 267, 273, 279, 285
a(n) = Sum_{k=1..n}ceiling(log_2 k) = n*ceiling(log_2 n) - 2^ceiling(log_2(n)) + 1.
a(n) = a(floor(n/2)) + a(ceiling(n/2)) + n - 1.
a(1)=0, for n>1, a(n) = ceiling(n*a(n-1)/(n-1)+1). - Benoit Cloitre, Apr 26 2003
[A060432] 1, 3, 5, 8, 11, 14, 18, 22, 26, 30, 35, 40, 45, 50, 55, 61, 67, 73, 79, 85, 91, 98, 105, 112, 119, 126, 133, 140, 148, 156, 164, 172, 180, 188, 196, 204, 213, 222, 231, 240, 249, 258, 267, 276, 285, 295, 305, 315, 325, 335, 345, 355, 365, 375, 385, 396, 407, 418
a(n) is asymptotic to c*n^(3/2) with c=0.9428.... - Benoit Cloitre, Dec 18 2002
a(n) is asymptotic to c*n^{3/2} with c = (2/3)*sqrt(2) = .942809.... - Franklin T. Adams-Watters, Sep 07 2006
[A081401] 0, 1, 3, 5, 8, 11, 15, 18, 22, 26, 31, 35, 41, 46, 51, 55, 62, 67, 75, 80, 86, 92, 101, 106, 112, 119, 125, 131, 141, 147, 158, 163, 170, 178, 185, 191, 203, 212, 220, 226, 239, 246, 260, 267, 274, 284, 299, 305, 313, 320, 329, 337, 353, 360, 368, 375, 385, 396, 413
a(n) = Sum(k*e(k)) where k runs through indices of prime factors of n!, while e(k) is the exponent of the corresponding prime factor.
[A046992] 0, 1, 3, 5, 8, 11, 15, 19, 23, 27, 32, 37, 43, 49, 55, 61, 68, 75, 83, 91, 99, 107, 116, 125, 134, 143, 152, 161, 171, 181, 192, 203, 214, 225, 236, 247, 259, 271, 283, 295, 308, 321, 335, 349, 363, 377, 392, 407, 422, 437, 452, 467, 483, 499, 515, 531, 547, 563, 580, 597, 615, 633, 651, 669
a(n) = sum_{p<=n, p is prime} (n - p +1).
a(n) = (n+1)*pi(n) - Sum_pi(n), where pi(n) = number of primes <=n and Sum_pi(n) = sum of primes <=n.
[A001463] 1, 3, 5, 8, 11, 15, 19, 23, 28, 33, 38, 44, 50, 56, 62, 69, 76, 83, 90, 98, 106, 114, 122, 131, 140, 149, 158, 167, 177, 187, 197, 207, 217, 228, 239, 250, 261, 272, 284, 296, 308, 320, 332, 344, 357, 370, 383, 396, 409, 422, 436, 450, 464, 478, 492, 506, 521, 536, 551, 566, 581, 596
a(n) is asymptotic to tau^(1-tau)*n^tau where tau is the golden ratio, tau=(1+sqrt(5))/2. More precisely, a(n)= tau^(1-tau)*n^tau + c*n^(1/tau)+0(n^(1/tau)) where c is a constant around 0.6. Is there any known value for c? - Benoit Cloitre, Oct 29 2002
[A024206] 0, 1, 3, 5, 8, 11, 15, 19, 24, 29, 35, 41, 48, 55, 63, 71, 80, 89, 99, 109, 120, 131, 143, 155, 168, 181, 195, 209, 224, 239, 255, 271, 288, 305, 323, 341, 360, 379, 399, 419, 440, 461, 483, 505, 528, 551, 575, 599, 624, 649, 675, 701, 728, 755, 783, 811, 840
a(0)=0, a(n) = floor(a(n-1) + sqrt(a(n-1)) + 1) for n > 0. - Gerald McGarvey, Jul 30 2004
a(n) = floor((n+1)^2/4) - 1. - Franz Vrabec, Feb 22 2008
a(n) = a(n-1) + [side length of the least square > a(n-1)], that is a(n)= a(n-1) + ceiling(sqrt(a(n-1) + 1)). - Ctibor O. Zizka, Oct 06 2009
a(1)=0, a(2)=1, a(3)=3, a(4)=5, a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Harvey P. Dale, Jun 14 2013
a(n) = floor((n-1)(n+3)/4). - Wesley Ivan Hurt, Jun 23 2013
a(n) = (2*n^2 + 4*n - 7 - (-1)^n)/8. - Wesley Ivan Hurt, Jul 22 2014
[A014688] 3, 5, 8, 11, 16, 19, 24, 27, 32, 39, 42, 49, 54, 57, 62, 69, 76, 79, 86, 91, 94, 101, 106, 113, 122, 127, 130, 135, 138, 143, 158, 163, 170, 173, 184, 187, 194, 201, 206, 213, 220, 223, 234, 237, 242, 245, 258, 271, 276, 279, 284, 291, 294, 305, 312, 319, 326
a(n) = 2*OR(p,n) - XOR(p,n), for n-th prime p. - Gary Detlefs, Oct 26 2013
[A281333] 1, 1, 3, 5, 8, 11, 16, 20, 26, 32, 39, 46, 55, 63, 73, 83, 94, 105, 118, 130, 144, 158, 173, 188, 205, 221, 239, 257, 276, 295, 316, 336, 358, 380, 403, 426, 451, 475, 501, 527, 554, 581, 610, 638, 668, 698, 729, 760, 793, 825, 859, 893, 928, 963, 1000, 1036, 1074, 1112, 1151, 1190
a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6).
a(n) = 1 + floor(n/2 + n^2/3).
a(n) = (12*n^2 + 18*n + 4*(-1)^(2*n/3) + 4*(-1)^(-2*n/3) + 9*(-1)^n + 19)/36.
a(n) - n = a(-n).
a(6*k+r) = 12*k^2 + (4*r+3)*k + a(r), where 0 <= r <= 5. Particular cases:
[A236203] 0, 0, 3, 5, 8, 12, 15, 21, 24, 32, 35, 45, 48, 60, 63, 77, 80, 96, 99, 117, 120, 140, 143, 165, 168, 192, 195, 221, 224, 252, 255, 285, 288, 320, 323, 357, 360, 396, 399, 437, 440, 480, 483, 525, 528, 572, 575, 621, 624, 672, 675, 725, 728, 780, 783, 837, 840, 896
a(n) = 3*a(n-4) -3*a(n-8) +a(n-12).
a(n) = (n^2-4)/4 for n even, a(n) = (n^2+2*n-15)/4 for n odd. G.f.: x^4*(3*x^2-2*x-3) / ((x-1)^3*(x+1)^2). - Colin Barker, Jan 26 2014
a(n) = (2*n^2 + 2*n - 19 - (2*n - 11)*(-1)^n)/8. - Luce ETIENNE, Jul 26 2014
[A000212] 0, 0, 1, 3, 5, 8, 12, 16, 21, 27, 33, 40, 48, 56, 65, 75, 85, 96, 108, 120, 133, 147, 161, 176, 192, 208, 225, 243, 261, 280, 300, 320, 341, 363, 385, 408, 432, 456, 481, 507, 533, 560, 588, 616, 645, 675, 705, 736, 768, 800, 833, 867, 901, 936
a(n) = a(n-1) + a(n-3) - a(n-4) + 2 for n >= 4. - Alexander Burstein, Nov 20 2011
a(n) = (n-1)^2 - a(n-1) - a(n-2) for n >= 2. - Richard R. Forberg, Jun 05 2013
a(n) = Sum_{i = 1..n+1} (ceiling(i/3) + floor(i/3) - 1). - Wesley Ivan Hurt, Jun 06 2014
a(n) = Sum_{j = 1..n} Sum_{i=1..n} ceiling((i+j-n-1)/3). - Wesley Ivan Hurt, Mar 12 2015
a(n) = Sum_{i = 1..n} floor(2*i/3). - Wesley Ivan Hurt, May 22 2017
[A282513] 0, 1, 3, 5, 8, 12, 17, 22, 28, 35, 43, 51, 60, 70, 81, 92, 104, 117, 131, 145, 160, 176, 193, 210, 228, 247, 267, 287, 308, 330, 353, 376, 400, 425, 451, 477, 504, 532, 561, 590, 620, 651, 683, 715, 748, 782, 817, 852, 888, 925, 963
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6) for n>5.
a(n) = floor((3*n + 2)^2/24 + 2/3).
a(n) = (6*n^2 + 8*n + 3 + (-1)^n - 2*((-1)^((2*n - 1 + (-1)^n)/4) + (-1)^((2*n + 1 - (-1)^n)/4)))/16. Therefore:
a(2*k) = (6*k^2 + 4*k + 1 - (-1)^k)/4,
a(2*k+1) = (k + 1)*(3*k + 2)/2.
a(n) = (6*n^2 + 8*n + 3 + cos(n*Pi) - 4*cos(n*Pi/2))/16.
[A131674] 0, 1, 3, 5, 8, 12, 17, 23, 29, 36, 44, 53, 63, 74, 86, 99, 113, 127, 142, 158, 175, 193, 212, 232, 253, 275, 298, 322, 347, 373, 400, 428, 457, 487, 517, 548, 580, 613, 647, 682, 718, 755, 793, 832, 872, 913, 955, 998, 1042, 1087, 1133, 1180, 1228, 1277, 1327, 1378, 1430, 1483
a(n) = sum_{k=1..n} min(k,2^{n+2-k}-2).
[A133263] 1, 3, 5, 8, 12, 17, 23, 30, 38, 47, 57, 68, 80, 93, 107, 122, 138, 155, 173, 192, 212, 233, 255, 278, 302, 327, 353, 380, 408, 437, 467, 498, 530, 563, 597, 632, 668, 705, 743, 782, 822, 863, 905, 948, 992, 1037, 1083, 1130, 1178, 1227, 1277
a(n) = (n^2 + n + 4)/2. G.f.: (1-x^2+x^3)/(1-x)^3. - Emeric Deutsch, Nov 12 2007
a(1)=1, a(2)=3; for n>=3, a(n)=a(n-1)+n-1. - Philippe Lallouet (philip.lallouet(AT)orange.fr), May 27 2008
a(0)=1, a(1)=3, a(2)=5, a(3)=8, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 13 2012
[A238531] 1, 1, 3, 5, 8, 12, 17, 23, 30, 38, 47, 57, 68, 80, 93, 107, 122, 138, 155, 173, 192, 212, 233, 255, 278, 302, 327, 353, 380, 408, 437, 467, 498, 530, 563, 597, 632, 668, 705, 743, 782, 822, 863, 905, 948, 992, 1037, 1083, 1130, 1178, 1227, 1277, 1328, 1380

a(n) = p(-1) where p(x) is the unique degree-n polynomial such that p(k) = a(k) for k = 0, 1, ..., n.
a(1 - n) = a(n) for all n in Z.
[A001973] 1, 1, 3, 5, 8, 12, 18, 24, 33, 43, 55, 69, 86, 104, 126, 150, 177, 207, 241, 277, 318, 362, 410, 462, 519, 579, 645, 715, 790, 870, 956, 1046, 1143, 1245, 1353, 1467, 1588, 1714, 1848, 1988
a(n) is the coefficient of x^(2*n+2) in the g.f. Product_{s=1..4} (x^s - x^(n+1))/(1-x^s). - Paul Weisenhorn, Jun 01 2009
a(n) = 2*a(n-1) - a(n-3) - a(n-4) + 2*a(n-6) - a(n-7). Vincenzo Librandi, Jun 11 2012
[A020745] 3, 5, 8, 12, 18, 27, 40, 59, 87, 128, 188, 276, 405, 594, 871, 1277, 1872, 2744, 4022, 5895, 8640, 12663, 18559, 27200, 39864, 58424, 85625, 125490, 183915, 269541, 395032, 578948, 848490, 1243523, 1822472, 2670963, 3914487, 5736960, 8407924, 12322412, 18059373
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A232896] 1, 3, 5, 8, 12, 18, 27, 41, 63, 98, 154, 244, 389, 623, 1001, 1612, 2600, 4198, 6783, 10965, 17731, 28678, 46390, 75048, 121417, 196443, 317837, 514256, 832068, 1346298, 2178339, 3524609, 5702919, 9227498, 14930386, 24157852, 39088205, 63246023, 102334193
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4), where a(1) = 1, a(2) = 3, a(3) = 5, a(4) = 8.
a(n) = -1 + (2^(-1-n)*(-(1-sqrt(5))^(1+n) + (1+sqrt(5))^(1+n))) / sqrt(5) + n. - Colin Barker, Mar 11 2017
[A286311] 0, 1, 1, 3, 5, 8, 12, 19, 31, 51, 83, 134, 216, 349, 565, 915, 1481, 2396, 3876, 6271, 10147, 16419, 26567, 42986, 69552, 112537, 182089, 294627, 476717, 771344, 1248060, 2019403, 3267463, 5286867, 8554331, 13841198, 22395528, 36236725, 58632253, 94868979
a(n) = 2*a(n-1) - a(n-2) + a(n-4). Valid for b(n).
[A265046] 1, 3, 5, 8, 13, 18, 23, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200, 204, 208, 212, 216, 220, 224, 228, 232
a(n) = 2*a(n-1)-a(n-2) for n>8.
a(n) = 4*n for n>6.
[A265070] 1, 3, 5, 8, 13, 21, 33, 51, 80, 126, 198, 311, 488, 766, 1203, 1889, 2966, 4657, 7312, 11481, 18027, 28305, 44443, 69782, 109568, 172038, 270125, 424136, 665956, 1045649, 1641823, 2577904, 4047689, 6355468, 9979021, 15668533, 24601905, 38628615, 60652616, 95233542, 149530690, 234785211, 368647368, 578830674
a(n) = a(n-1)+a(n-3)+a(n-5) for n>6. - Vincenzo Librandi, Dec 30 2015
[A071679] 1, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155
a(n) = Fibonacci(n+2) for n > 1. - Charles R Greathouse IV, Jan 17 2012
[A020701] 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155, 165580141
a(n) = Fib(n+4). a(n) = a(n-1) + a(n-2).
a(n) = (2^(-1-n)*((1-sqrt(5))^n*(-7+3*sqrt(5))+(1+sqrt(5))^n*(7+3*sqrt(5))))/sqrt(5). - Colin Barker, Jun 05 2016
[A289916] 1, 3, 5, 8, 13, 22, 39, 69, 120, 206, 353, 607, 1046, 1803, 3106, 5348, 9208, 15856, 27306, 47025, 80982, 139457, 240155, 413566, 712196, 1226463, 2112073, 3637166, 6263503, 10786276, 18574872, 31987488, 55085136, 94861220, 163358969, 281317834, 484452887
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) + 2*a(n-5) - a(n-6) for n>5.
[A259597] 3, 5, 8, 13, 45, 82, 127, 209, 717, 1307, 2024, 3331, 11427, 20830, 32257, 53087, 182115, 331973, 514088, 846061, 2902413, 5290738, 8193151, 13483889, 46256493, 84319835, 130576328, 214896163, 737201475, 1343826622, 2081028097, 3424854719, 11748967107
a(n) = 16*a(n-4) - a(n-8) for n>7. - Colin Barker, Jul 21 2015
[A159914] 0, 0, 0, 0, 1, 3, 5, 8, 14, 22, 30, 40, 55, 73, 91, 112, 140, 172, 204, 240, 285, 335, 385, 440, 506, 578, 650, 728, 819, 917, 1015, 1120, 1240, 1368, 1496, 1632, 1785, 1947, 2109, 2280, 2470, 2670, 2870, 3080, 3311, 3553, 3795, 4048, 4324, 4612, 4900, 5200
a(2k) = k(k-1)(2k-1)/6
[A245968] 0, 0, 1, 1, 3, 5, 8, 14, 23, 37, 61, 99, 160, 260, 421, 681, 1103, 1785, 2888, 4674, 7563, 12237, 19801, 32039, 51840, 83880, 135721, 219601, 355323, 574925, 930248, 1505174, 2435423, 3940597, 6376021, 10316619, 16692640, 27009260, 43701901, 70711161, 114413063
a(n) = a(n-1)+a(n-2)+a(n-3)-a(n-4)-a(n-5). - Colin Barker, Aug 31 2014
[A175378] 0, 0, 0, 0, 1, 3, 5, 8, 14, 26, 45, 75, 125, 212, 358, 598, 993, 1651, 2745, 4552, 7526, 12426, 20501, 33787, 55605, 91404, 150118, 246350, 403929, 661763, 1083393, 1772512, 2898182, 4735938, 7734765, 12626059, 20600733, 33597188, 54769606
a(n) = 3*a(n-1) -2*a(n-2) -a(n-3) +3*a(n-4) -4*a(n-5) +2*a(n-7).
[A282390] 3, 5, 8, 14, 27, 53, 104, 206, 410, 818, 1635, 3269, 6536, 13070, 26139, 52277, 104552, 209102, 418202, 836402, 1672803, 3345605, 6691209, 13382417, 26764832, 53529662, 107059322, 214118642, 428237283, 856474565, 1712949128, 3425898254, 6851796507
a(1) = 3, a(n) = 2*a(n-1) - k for n > 1, where k is the width of the central step in the "ladder", which is 1 or 2.
[A076797] 1, 3, 5, 8, 15, 17, 20, 25, 28, 30, 32, 35, 43, 54, 58, 65, 67, 70, 73, 76, 82, 86, 89, 94, 97, 100, 107, 112, 119, 121, 124, 130, 133, 135, 137, 141, 143, 146, 153, 156, 163, 166, 169, 175, 177, 180, 185, 195, 199, 204, 210, 212, 217, 220, 226, 229, 234, 239
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(pi/5) and frac(y) = y - floor(y).
[A193147] 1, 1, 1, 3, 5, 8, 15, 26, 45, 80, 140, 245, 431, 756, 1326, 2328, 4085, 7168, 12580, 22076, 38740, 67985, 119305, 209365, 367411, 644761, 1131476, 1985603, 3484490, 6114853, 10730820, 18831276, 33046585, 57992715, 101770120, 178594110, 313410816, 549997641
a(n) = a(n-1) + 2*a(n-3) + a(n-5) with a(n) = 0 for n= -4, -3, -2, -1 and a(0) = 1.
a(n) = Sum_{m=floor((n+1)/2)..n} Sum_{j=0..2*m-n} C(j,3*n-5*m+2*j) * C(2*m-n,j) * 2^(3*n-5*m+2*j). - Vladimir Kruchinin, Mar 10 2013
[A099846] 1, 3, 5, 8, 15, 29, 55, 104, 196, 368, 692, 1304, 2457, 4627, 8713, 16408, 30899, 58189, 109583, 206368, 388632, 731872, 1378264, 2595552, 4887953, 9205011, 17334909, 32645160, 61477479, 115774605, 218027143, 410589480, 773223548, 1456137296
a(0)=1, a(1)=3, a(2)=5, a(3)=8, a(4)=15, a(5)=29, a(n)=3*a(n-1)- 4*a(n-2)+ 5*a(n-3)-4*a(n-4)+3*a(n-5)-a(n-6). - Harvey P. Dale, Sep 25 2011
[A141775] 1, 3, 5, 8, 15, 31, 64, 129, 257, 512, 1023, 2047, 4096, 8193, 16385, 32768, 65535, 131071, 262144, 524289, 1048577, 2097152, 4194303, 8388607, 16777216, 33554433, 67108865, 134217728, 268435455, 536870911, 1073741824, 2147483649, 4294967297, 8589934592, 17179869183
a(n)= 3*a(n-1) - 3*a(n-2) + 2*a(n-3).
a(n) + a(n+3)= 9*2^n.
a(n+6) - a(n)=63*2^n.
a(n) = 2^n + (2*sin((Pi*n)/3))/sqrt(3). - Colin Barker, Feb 10 2017
[A291223] 0, 0, 1, 1, 3, 5, 8, 17, 25, 52, 83, 159, 271, 497, 868, 1572, 2762, 4984, 8784, 15799, 27939, 50089, 88831, 158880, 282293, 504179, 896780, 1600335, 2848339, 5080363, 9045953, 16129172, 28726972, 51209648, 91223508, 162594868, 289675121, 516264093
a(n) = 4*a(n-2) + a(n-3) - 5*a(n-4) - a(n-5) + 4*a(n-6) - a(n-8) for n >= 9.
[A292492] 1, 3, 5, 8, 22, 100, 444, 1680, 5496, 16096, 43936, 117360, 323056, 946288, 2930320, 9287792, 29222800, 89856944, 269619792, 795460592, 2334102160, 6882700336, 20508738256, 61728245104, 186833742864, 565643533232, 1706639551568, 5125652284144, 15338915301264
a(n) = 7*a(n-1) - 19*a(n-2) + 23*a(n-3) - 8*a(n-4) + 6*a(n-5) for n >= 7.
[A195548] 0, 3, 5, 8, 39, 105, 136, 715, 1869, 2448, 12815, 33553, 43920, 229971, 602069, 788120, 4126647, 10803705, 14142232, 74049691, 193864605, 253772064, 1328767775, 3478759201, 4553754912, 23843770275, 62423800997, 81713816360, 427859097159, 1120149658761
a(n) = (F(n+1)^2-F(n)^2)/(2-((n+2)^2 mod 3)), where F(n)=Fibonacci(n). [From Gary Detlefs, Oct 15 2011]
[A162699] 1, 3, 5, 9, 11, 13, 15, 17, 19, 23, 25, 27, 29, 31, 33, 37, 39, 41, 43, 45, 47, 51, 53, 55, 57, 59, 61, 65, 67, 69, 71, 73, 75, 79, 81, 83, 85, 87, 89, 93, 95, 97, 99, 101, 103, 107, 109, 111, 113, 115, 117, 121, 123, 125, 127, 129, 131, 135, 137, 139, 141, 143, 145, 149
a(n) = 2*n + 1 + 2*floor((2*n-7)/12).
a(n) = a(n-1)+a(n-6)-a(n-7). G.f.: x*(x^2+1)*(x^4+2*x^3+x^2+2*x+1)/ ((1+x)*(1+x+x^2)*(x^2-x+1)*(x-1)^2). - R. J. Mathar, Jul 31 2009
[A047623] 1, 3, 5, 9, 11, 13, 17, 19, 21, 25, 27, 29, 33, 35, 37, 41, 43, 45, 49, 51, 53, 57, 59, 61, 65, 67, 69, 73, 75, 77, 81, 83, 85, 89, 91, 93, 97, 99, 101, 105, 107, 109, 113, 115, 117, 121, 123, 125, 129, 131, 133, 137, 139, 141, 145, 147, 149, 153, 155, 157
a(n) = 2*floor((n-1)/3) + 2*n - 1. - Gary Detlefs, Mar 18 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)
a(n) = (24*n-21-6*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-3, a(3k-1) = 8k-5, a(3k-2) = 8k-7. (End)

[A047270] 3, 5, 9, 11, 15, 17, 21, 23, 27, 29, 33, 35, 39, 41, 45, 47, 51, 53, 57, 59, 63, 65, 69, 71, 75, 77, 81, 83, 87, 89, 93, 95, 99, 101, 105, 107, 111, 113, 117, 119, 123, 125, 129, 131, 135, 137, 141, 143, 147, 149
a(n) = sqrt(2)*sqrt((1-6*n)*(-1)^n+18*n^2-6*n+1)/2. - Paul Barry, May 11 2003
a(n)-a(n-1)-a(n-2)+a(n-3) = 0, with n>3.
a(n) = (6*n-(-1)^n-1)/2. (End)
a(n)=6*n-a(n-1)-4 with n>1, a(1)=3. [Vincenzo Librandi, Aug 05 2010]
[A078651] 1, 3, 5, 9, 11, 15, 17, 23, 27, 31, 33, 40, 42, 46, 50, 59, 61, 68, 70, 77, 81, 85, 87, 97, 101, 105, 111, 118, 120, 128, 130, 141, 145, 149, 153, 165, 167, 171, 175, 185, 187, 195, 197, 204, 211, 215, 217, 231, 235, 242, 246, 253, 255, 265, 269, 279, 283, 287
a(n) = n + sum {r > 1, j > 0} floor(n/r^j)
[A292918] 1, 3, 5, 9, 11, 15, 19, 23, 29, 37, 43, 51, 57, 63, 71, 81, 89, 97, 105, 113, 123, 135, 145, 157, 169, 181, 195, 209, 221, 235, 249, 263, 277, 293, 309, 327, 345, 363, 381, 401, 419, 439, 457, 475, 495, 515, 533, 551, 571, 591, 613, 637, 659, 683, 709, 735
a(n) = a(n-1) + 2 * (pi(2*n-1) - pi(n)) for n > 1, a(1) = 1.
[A006046] 0, 1, 3, 5, 9, 11, 15, 19, 27, 29, 33, 37, 45, 49, 57, 65, 81, 83, 87, 91, 99, 103, 111, 119, 135, 139, 147, 155, 171, 179, 195, 211, 243, 245, 249, 253, 261, 265, 273, 281, 297, 301, 309, 317, 333, 341, 357, 373, 405, 409, 417, 425, 441, 449, 465, 481, 513, 521
a(n) = n^(log2(3))*G(log2(n)) where G(x) is a function of period 1 defined by its Fourier series. - Benoit Cloitre, Aug 16 2002; formula modified by S. R. Finch, Dec 31 2007
a(1) = 1, a(n) = 2a([n/2]) + a(ceil(n/2)).
[A120811] 3, 5, 9, 11, 17, 27, 29, 35, 39, 41, 59, 65, 71, 101, 107, 125, 137, 149, 179, 191, 197, 227, 237, 239, 269, 281, 305, 311, 347, 417, 419, 431, 437, 461, 521, 569, 597, 599, 617, 641, 659, 671, 749, 755, 809, 821, 827, 857, 881, 905, 935, 989, 1019, 1031, 1049
a(n)=n-th number such that n+d+1 is prime for all proper divisors d of n.
[A120806] 1, 3, 5, 9, 11, 29, 35, 39, 41, 65, 125, 179, 191, 239, 281, 419, 431, 641, 659, 749, 755, 809, 905, 935, 989, 1019, 1031, 1049, 1229, 1289, 1451, 1469, 1481, 1829, 1859, 1931, 2129, 2141, 2339, 2519, 2549, 2969, 3161, 3299, 3329, 3359, 3389, 3539, 3821, 3851
a(n) = n-th number such that n+d+1 is prime for all divisors d of n.
[A091785] 3, 5, 9, 12, 15, 17, 20, 23, 27, 29, 33, 36, 39, 43, 45, 48, 51, 53, 57, 60, 63, 65, 68, 71, 75, 77, 80, 83, 85, 89, 92, 95, 99, 101, 105, 108, 111, 113, 116, 119, 123, 125, 129, 132, 135, 139, 141, 144, 147, 149, 153, 156, 159, 163, 165, 169, 172, 175, 177, 180, 183
a(n) is asymptotic to 3*n. - Benoit Cloitre, Mar 22 2004
[A006282] 0, 1, 3, 5, 9, 12, 16, 19, 26, 31, 37, 41, 48, 53, 59, 63, 74, 82, 91, 97, 107, 114, 122, 127, 138, 146, 155, 161, 171, 178, 186, 191, 207, 219, 232, 241, 255, 265, 276, 283, 298, 309, 321, 329, 342, 351, 361, 367, 383, 395, 408, 417, 431, 441, 452, 459, 474
a(1)=0, a(n)=a(ceiling(n/2))+a([n/2])+C(ceiling(n/2), [n/2]), n>1, where the C function is defined in Knuth by C[m,n] = m*n if m*n <=1 and C[m,n] = C[Ceiling[m/2],Ceiling[n/2]] + C[Floor[m/2],Floor[n/2]] + Floor[(m+n-1)/2]] otherwise.
[A259368] 1, 3, 5, 9, 12, 16, 20, 25, 29, 34, 39, 44, 49, 54, 59, 65, 70, 76, 81, 87, 93, 99, 105, 111, 117, 123, 129, 135, 141, 148, 154, 161, 167, 173, 180, 187, 193, 200, 207, 213, 220, 227, 234, 241, 248, 255, 262, 269, 276, 283, 290, 297, 304, 311, 318, 326, 333
a(n) = floor(n*log(n)/log(2)) + 1.
[A060419] 0, 1, 3, 5, 9, 12, 17, 21, 27, 32, 38, 44, 51, 58, 65, 73, 81, 89, 97, 106, 115, 124, 134, 143, 154, 164, 174, 185, 196, 207, 219, 231, 243, 255, 267, 280, 292, 305, 319, 332, 346, 359, 373, 388, 402, 417, 431, 446, 462, 477, 492, 508, 524, 540, 556, 573, 589
a(n) = floor[n^log2(3)] where log2(3) = 1.58496250...
[A005766] 0, 1, 3, 5, 9, 12, 18, 21, 29, 34, 44, 48, 60, 67, 81, 85, 101, 110, 128, 134, 154, 165, 187, 192, 216, 229, 255, 263, 291, 306, 336, 341, 373, 390, 424, 434, 470, 489, 527, 534, 574, 595, 637, 649, 693, 716, 762, 768, 816, 841, 891, 905, 957, 984, 1038
a(2n)=a(n)+n^2, a(2n+1)=a(n)+n(n+2). - Ralf Stephan, May 04 2003
[A211538] 0, 0, 0, 1, 3, 5, 9, 12, 18, 22, 30, 35, 45, 51, 63, 70, 84, 92, 108, 117, 135, 145, 165, 176, 198, 210, 234, 247, 273, 287, 315, 330, 360, 376, 408, 425, 459, 477, 513, 532, 570, 590, 630, 651, 693, 715, 759, 782, 828, 852, 900, 925, 975, 1001, 1053, 1080, 1134, 1162
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = (6*n^2-26*n+25-(2*n-7)*(-1)^n)/16, from Luce ETIENNE. [Bruno Berselli, Jun 03 2014]
a(n) = Sum_{i=ceiling((n-3)/2)..n-3} i. (End)
[A059093] 1, 3, 5, 9, 12, 21, 23, 25, 29, 31, 33, 35, 39, 41, 43, 45, 49, 51, 53, 55, 59, 61, 63, 65, 69, 71, 73, 75, 79, 81, 83, 85, 89, 91, 93, 95, 99, 101, 103, 105, 109, 112, 121, 123, 125, 129, 131, 133, 135, 139, 141, 143, 145, 149, 151, 153, 155, 159, 161, 163, 165
a(n+1)=a((n mod 37)+1)+100*floor(n/37) for n>=1.
[A076052] 1, 3, 5, 9, 13, 17, 19, 20, 22, 23, 27, 28, 29, 33, 37, 39, 40, 44, 48, 50, 52, 53, 54, 56, 60, 62, 63, 64, 65, 66, 68, 72, 76, 78, 80, 81, 82, 83, 85, 89, 91, 95, 99, 101, 103, 105, 109, 113, 114, 115, 116, 120, 124, 126, 128, 130, 134, 136, 140, 142, 144, 148, 152
a(n) seems to be asymptotic to 7/3*n
[A063915] 1, 3, 5, 9, 13, 17, 21, 29, 37, 45, 53, 61, 69, 77, 85, 101, 117, 133, 149, 165, 181, 197, 213, 229, 245, 261, 277, 293, 309, 325, 341, 373, 405, 437, 469, 501, 533, 565, 597, 629, 661, 693, 725, 757, 789, 821, 853, 885, 917, 949, 981, 1013, 1045
a(n) = b(n+1), with b(2n)=2b(n)+2b(n-1)+1, b(2n+1)=4b(n)+1.
[A183859] 1, 3, 5, 9, 13, 17, 23, 29, 35, 43, 51, 59, 69, 79, 89, 101, 113, 125, 139, 153, 167, 183, 199, 215, 233, 251, 269, 289, 309, 329, 351, 373, 395, 419, 443, 467, 493, 519, 545, 573, 601, 629, 659, 689, 719, 751, 783, 815, 849, 883, 917, 953, 989, 1025, 1063, 1101
a(n)=n-1+ceiling((n^2)/3).
[A185170] 1, 1, 1, 1, 3, 5, 9, 13, 17, 23, 29, 37, 45, 53, 63, 73, 85, 97, 109, 123, 137, 153, 169, 185, 203, 221, 241, 261, 281, 303, 325, 349, 373, 397, 423, 449, 477, 505, 533, 563, 593, 625, 657, 689, 723, 757, 793, 829, 865, 903, 941, 981, 1021, 1061, 1103, 1145
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=3, a(5)=5, a(6)=9, a(n)=2*a(n-1)- a(n-2)+ a(n-5)-2*a(n-6)+a (n-7). - Harvey P. Dale, Dec 28 2012
[A007664] 0, 1, 3, 5, 9, 13, 17, 25, 33, 41, 49, 65, 81, 97, 113, 129, 161, 193, 225, 257, 289, 321, 385, 449, 513, 577, 641, 705, 769, 897, 1025, 1153, 1281, 1409, 1537, 1665, 1793, 2049, 2305, 2561, 2817, 3073, 3329, 3585, 3841, 4097, 4609, 5121, 5633
a(n) = min{ 2 a(k) + 2^(n-k) - 1 ; k < n}, which is always odd. - M. F. Hasler, Feb 06 2008
[A265429] 1, 3, 5, 9, 13, 18, 23, 30, 37, 45, 53, 63, 73, 84, 95, 108, 121, 135, 149, 165, 181, 198, 215, 234, 253, 273, 293, 315, 337, 360, 383, 408, 433, 459, 485, 513, 541, 570, 599, 630, 661, 693, 725, 759, 793, 828, 863, 900, 937, 975, 1013, 1053, 1093, 1134
a(n) = 1/16*(6*n^2+24*n-3*(-1)^n+2*(-i)^n+2*i^n+15) where i = sqrt(-1).
[A071404] 1, 3, 5, 9, 13, 18, 25, 31, 39, 46, 55, 66, 76, 86, 99, 112, 125, 142, 157, 172, 187, 206, 225, 244, 264, 285, 307, 328, 353, 377, 400, 429, 453, 480, 507, 534, 562, 593, 623, 656, 691, 725, 762, 795, 831, 867, 904, 941, 977, 1019, 1059, 1101, 1145, 1185, 1226
a(n) = kn^2 + O(n), where k = 1 - 6/Pi^2. - Charles R Greathouse IV, Sep 13 2013
[A065802] 3, 5, 9, 13, 19, 24, 32, 38, 48, 56, 67, 77, 90, 102, 116, 129, 145, 160, 178, 194, 213, 231, 252, 272, 294, 316, 340, 363, 388, 413, 440, 466, 495, 523, 554, 583, 615, 646, 680, 713, 748, 782, 820, 855, 894, 932, 972, 1011, 1053, 1094, 1137, 1180, 1225
a(n) = floor(4*n^2/Pi^2) - b(n) where b(n) is in {0,1,2}; 0 occurs only for odd n, while 2 occurs only for even n. - Robert Israel, Oct 24 2017
[A245302] 3, 5, 9, 13, 19, 25, 32, 39, 48, 57, 67, 78, 90, 103, 116, 130, 145, 161, 178, 195, 213, 232, 252, 273, 294, 317, 340, 364, 388, 414, 440, 467, 495, 524, 554, 584, 615, 647, 680, 714, 748, 783, 820, 856, 894, 933, 972, 1012, 1053, 1095, 1137, 1181, 1225, 1270, 1316, 1362
a(n) = floor(sin(Pi/(2*n))^-2 - 1) for n>2. - Michael Somos, Aug 05 2014
[A099392] 1, 1, 3, 5, 9, 13, 19, 25, 33, 41, 51, 61, 73, 85, 99, 113, 129, 145, 163, 181, 201, 221, 243, 265, 289, 313, 339, 365, 393, 421, 451, 481, 513, 545, 579, 613, 649, 685, 723, 761, 801, 841, 883, 925, 969, 1013, 1059, 1105, 1153, 1201, 1251, 1301, 1353, 1405
a(n) = ceiling(n^2/2)-n+1. - Paul Barry, Jul 16 2006; index shifted by R. J. Mathar, Jul 29 2007
[A080827] 1, 3, 5, 9, 13, 19, 25, 33, 41, 51, 61, 73, 85, 99, 113, 129, 145, 163, 181, 201, 221, 243, 265, 289, 313, 339, 365, 393, 421, 451, 481, 513, 545, 579, 613, 649, 685, 723, 761, 801, 841, 883, 925, 969, 1013, 1059, 1105, 1153, 1201, 1251, 1301, 1353, 1405, 1459
a(n) = ceiling((n^2+1)/2).
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4), n>4.
a(n) = (n^2+2-(1-(-1)^n)/2)/2.
[A267262] 0, 1, 3, 5, 9, 13, 20, 24, 35, 39, 54, 58, 77, 81, 104, 108, 135, 139, 170, 174, 209, 213, 252, 256, 299, 303, 350, 354, 405, 409, 464, 468, 527, 531, 594, 598, 665, 669, 740, 744, 819, 823, 902, 906, 989, 993, 1080, 1084, 1175, 1179, 1274, 1278, 1377, 1381

a(n) = (n^2+(-1)^n*(n-4)+2)/2 for n>3.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>8.
[A106607] 1, 1, 3, 5, 9, 13, 20, 28, 39, 51, 67, 85, 107, 131, 160, 192, 229, 269, 315, 365, 421, 481, 548, 620, 699, 783, 875, 973, 1079, 1191, 1312, 1440, 1577, 1721, 1875, 2037, 2209, 2389, 2580, 2780, 2991, 3211, 3443, 3685, 3939, 4203, 4480, 4768, 5069, 5381, 5707, 6045
a(n) = (4*n^3+18*n^2+56*n+3*(9*(-1)^n+(2-2*i)*(-i)^n+(2+2*i)*i^n+19))/96 where i is the imaginary unit. - Colin Barker, Feb 08 2016
[A136252] 1, 3, 5, 9, 13, 21, 29, 45, 61, 93, 125, 189, 253, 381, 509, 765, 1021, 1533, 2045, 3069, 4093, 6141, 8189, 12285, 16381, 24573, 32765, 49149, 65533, 98301, 131069, 196605, 262141, 393213, 524285, 786429, 1048573, 1572861, 2097149, 3145725, 4194301
a(n) = 2^((1/2)*n-1)*(4 + 4(-1)^n + 3sqrt(2)*[1-(-1)^n)] - 3. - Emeric Deutsch, Mar 31 2008
a(n) = -2*(1 + sqrt(2))^(-1)*a(0)*(1-sqrt(2))^(-1)-1/4*sqrt(2)*sqrt(2)^n*(1-sqrt(2))^(-1) *a(2) + 1/2*sqrt(2)^n*a(0)*(1-sqrt(2))^(-1) + (-4-2*sqrt(2))^(-1)*(-sqrt(2))^n*a(1) + (-4-2*sqrt(2))^(-1)*sqrt(2)*(-sqrt(2))^n*a(1)-(-4-2*sqrt(2))^(-1)*sqrt(2)*(-sqrt(2))^n*a(0)-1/2*sqrt(2)^n*a(1)*(1-sqrt(2))^(-1) + (1 + sqrt(2))^(-1)*(1 -sqrt(2))^(-1)*a(2)-(-4-2*sqrt(2))^(-1)*(-sqrt(2))^n*a(2) + 1/4*sqrt(2)*sqrt(2)^n *a(1)*(1-sqrt(2))^(-1). - Alexander R. Povolotsky, Mar 31 2008
a(n) = 2*a(n-2)+3 ; First differences are powers of 2, occurring in pairs. - Toby Gottfried, Nov 29 2010
a(2n+1) = (a(2n) + a(2n+2))/2. - Richard R. Forberg, Nov 30 2013
[A153263] 3, 5, 9, 13, 23, 35, 59, 93, 153, 245, 399, 643, 1043, 1685, 2729, 4413, 7143, 11555, 18699, 30253, 48953, 79205, 128159, 207363, 335523, 542885, 878409, 1421293, 2299703, 3720995, 6020699, 9741693, 15762393, 25504085, 41266479, 66770563
a(2n+2)=a(2n+1)+a(2n)+1. a(2n+3)=a(2n+2)+a(2n+1)-1.
[A082874] 1, 3, 5, 9, 14, 18, 26, 34, 41, 52, 64, 72, 87, 102, 113, 131, 150, 162, 184, 206, 221, 246, 272, 288, 317, 346, 365, 397, 430, 450, 486, 522, 545, 584, 624, 648, 691, 734, 761, 807, 854, 882, 932, 982, 1013, 1066, 1120, 1152, 1209, 1266
a(n)= a(n-1) +a(n-3) -a(n-4) +a(n-6) -a(n-7) -a(n-9) +a(n-10), n>12.
[A266250] 1, 1, 3, 5, 9, 14, 18, 27, 31, 44, 48, 65, 69, 90, 94, 119, 123, 152, 156, 189, 193, 230, 234, 275, 279, 324, 328, 377, 381, 434, 438, 495, 499, 560, 564, 629, 633, 702, 706, 779, 783, 860, 864, 945, 949, 1034, 1038, 1127, 1131, 1224, 1228, 1325, 1329, 1430
a(n) = (n^2-(-1)^n*(n-4)+2)/2 for n>2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>7.
[A081946] 0, 1, 3, 5, 9, 14, 19, 26, 34, 43, 52, 63, 75, 87, 101, 116, 132, 148, 166, 185, 204, 225, 247, 269, 293, 318, 344, 370, 398, 427, 456, 487, 519, 552, 585, 620, 656, 692, 730, 769, 808, 849, 891, 934, 977, 1022, 1068, 1114, 1162, 1211, 1261, 1311, 1363, 1416
a(n) = n*(n+1)/2-floor((1-1/sqrt(2))*n).
[A053618] 0, 0, 0, 1, 1, 3, 5, 9, 14, 21, 30, 42, 55, 72, 91, 114, 140, 170, 204, 243, 285, 333, 385, 443, 506, 575, 650, 732, 819, 914, 1015, 1124, 1240, 1364, 1496, 1637, 1785, 1943, 2109, 2285, 2470, 2665, 2870, 3086, 3311, 3548, 3795, 4054, 4324
a(n) = (2*n^3 - 12*n^2 + 22*n - 3 + 9*(-1)^n + 3*(1+(-1)^n)*(-1)^(n*(n-1)/2) - 6*(1 + (-1)^n)*(-1)^floor(n/4))/48. - Luce ETIENNE, Jan 20 2015
[A267047] 1, 3, 5, 9, 14, 22, 27, 39, 44, 60, 65, 85, 90, 114, 119, 147, 152, 184, 189, 225, 230, 270, 275, 319, 324, 372, 377, 429, 434, 490, 495, 555, 560, 624, 629, 697, 702, 774, 779, 855, 860, 940, 945, 1029, 1034, 1122, 1127, 1219, 1224, 1320, 1325, 1425, 1430
a(n) = (n^2+4*n-(-1)^n*(n-3)-3)/2 for n>1.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>6.
[A032801] 0, 0, 0, 0, 1, 3, 5, 9, 14, 22, 30, 42, 55, 73, 91, 115, 140, 172, 204, 244, 285, 335, 385, 445, 506, 578, 650, 734, 819, 917, 1015, 1127, 1240, 1368, 1496, 1640, 1785, 1947, 2109, 2289, 2470, 2670, 2870, 3090
a(n) = (-6*(4+2*(-1)^n+(-i)^n+i^n)+(25+3*(-1)^n)*n-12*n^2+2*n^3)/48 (conjectured) - Colin Barker, Oct 23 2016
[A129771] 3, 5, 9, 15, 17, 23, 27, 29, 33, 39, 43, 45, 51, 53, 57, 63, 65, 71, 75, 77, 83, 85, 89, 95, 99, 101, 105, 111, 113, 119, 123, 125, 129, 135, 139, 141, 147, 149, 153, 159, 163, 165, 169, 175, 177, 183, 187, 189, 195, 197, 201, 207, 209, 215, 219, 221, 225, 231, 235
a(n) = 4n + O(1). - Charles R Greathouse IV, Mar 21 2013
[A027688] 3, 5, 9, 15, 23, 33, 45, 59, 75, 93, 113, 135, 159, 185, 213, 243, 275, 309, 345, 383, 423, 465, 509, 555, 603, 653, 705, 759, 815, 873, 933, 995, 1059, 1125, 1193, 1263, 1335, 1409, 1485, 1563, 1643, 1725, 1809, 1895, 1983, 2073, 2165, 2259
a(n) = 2*n + a(n-1) (with a(0)=3). - Vincenzo Librandi, Aug 05 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Colin Barker, Dec 29 2014
[A135342] 1, 3, 5, 9, 15, 25, 37, 55, 77, 105, 137, 179, 225, 283, 347, 419, 499, 595, 697, 817, 945, 1085, 1235, 1407, 1587, 1787, 1999, 2229, 2471, 2741, 3019, 3327, 3651, 3995, 4355, 4739, 5135, 5567, 6017, 6491, 6981, 7511, 8053, 8637, 9241, 9869, 10519, 11215
a(n) = sum_{k=1}^{n-1} [(n-k) * phi(k)] + min(n,2); a(1)=1; a(2)=3; a(3)=5; a(n) = 2a(n-1)-a(n-2)+phi(n-1), n>3
[A001595] 1, 1, 3, 5, 9, 15, 25, 41, 67, 109, 177, 287, 465, 753, 1219, 1973, 3193, 5167, 8361, 13529, 21891, 35421, 57313, 92735, 150049, 242785, 392835, 635621, 1028457, 1664079, 2692537, 4356617, 7049155, 11405773, 18454929, 29860703, 48315633, 78176337
a(n) = (2/sqrt(5))*((1+sqrt(5))/2)^(n+1) - 2/sqrt(5)*((1-sqrt(5))/2)^(n+1) - 1.
a(n+1)/a(n) is asymptotic to Phi = (1+sqrt(5))/2. - Jonathan Vos Post, May 26 2005
a(n) = Fibonacci(n-1) + Fibonacci(n+2) - 1. - Zerinvary Lajos, Jan 31 2008, corrected by R. J. Mathar, Dec 17 2010
a(n) = 2*a(n-1) - a(n-3); a(0)=1, a(1)=1, a(2)=3. - Harvey P. Dale, Aug 07 2012
[A083658] 1, 1, 3, 5, 9, 15, 27, 45, 81, 135, 243, 405, 729, 1215, 2187, 3645, 6561, 10935, 19683, 32805, 59049, 98415, 177147, 295245, 531441, 885735, 1594323, 2657205, 4782969, 7971615, 14348907, 23914845, 43046721, 71744535, 129140163, 215233605, 387420489
a(2n) = 3^n, a(2n+1) = 5*3^(n-1) for n>0, with a(0)=1, a(1)=1.
[A188223] 1, 1, 3, 5, 9, 16, 29, 53, 96, 174, 315, 571, 1035, 1876, 3400, 6162, 11168, 20241, 36685, 66488, 120503, 218400, 395829, 717402, 1300222, 2356527, 4270978, 7740736, 14029338, 25426823, 46083666, 83522203, 151375943, 274354307, 497240739, 901200915, 1633339800, 2960270965, 5365205811
a(n) = a(n-1)+a(n-2)+a(n-4)+a(n-5).
[A077879] 1, 1, 3, 5, 9, 17, 29, 53, 93, 165, 293, 517, 917, 1621, 2869, 5077, 8981, 15893, 28117, 49749, 88021, 155733, 275541, 487509, 862549, 1526101, 2700117, 4777301, 8452437, 14954837, 26459477, 46814549, 82828629, 146548053, 259286357, 458753365, 811668821
a(n)=sum(k=1..n, sum(j=floor((4*k-n)/3)..floor((4*k-n)/2), binomial(j,n-4*k+3*j)*(-1)^(k-j)*binomial(k,j)*2^(n-3*k+2*j))), n>0, a(0)=1. [From Vladimir Kruchinin, May 25 2011]
[A078140] 1, 3, 5, 9, 17, 30, 52, 90, 154, 262, 446, 758, 1285, 2176, 3683, 6230, 10533, 17803, 30085, 50831, 85873, 145063, 245037, 413891, 699082, 1180761, 1994293, 3368302, 5688920, 9608292, 16227841, 27407792, 46289925, 78180465, 132041227
a(n) = d*[w(n)*a(1)-w(n-1)*a(2)+...+d*w(2)*a(n-1)], where d=(-1)^n, with a(1)=1 and w=floor(n*tau), tau=(1+sqrt(5))/2.
[A289260] 1, 3, 5, 9, 17, 30, 52, 90, 154, 262, 446, 758, 1286, 2182, 3702, 6278, 10646, 18054, 30614, 51910, 88022, 149254, 253078, 429126, 727638, 1233798, 2092054, 3547334, 6014934, 10199046, 17293718, 29323590, 49721686, 84309126, 142956310, 242399686, 411017942
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - 2*a(n-4) for n>3.
[A066173] 1, 3, 5, 9, 17, 31, 55, 99, 176, 313, 557, 990, 1759, 3125, 5553, 9866, 17531, 31149, 55346, 98339, 174729, 310457, 551617, 980109, 1741450, 3094195, 5497739, 9768336, 17356295, 30838517, 54793613, 97356822, 172982767, 307354297
a(n) = floor[S^n], where S=1.776791425488... = Sum 1/a(k), k=1, 2, 3, ... The n-th term of the sequence is the integer part of the n-th power of the sum of the infinite series of reciprocal terms of this same sequence.
[A114322] 1, 3, 5, 9, 17, 31, 56, 99, 177, 316, 562, 999, 1778, 3162, 5623, 9999, 17782, 31622, 56234, 99999, 177827, 316227, 562341, 999999, 1778279, 3162277, 5623413, 9999999, 17782794, 31622776, 56234132, 99999999, 177827941, 316227766
a(n) = ceiling((10^n)^(1/4))-1.
[A000213] 1, 1, 1, 1, 3, 5, 9, 17, 31, 57, 105, 193, 355, 653, 1201, 2209, 4063, 7473, 13745, 25281, 46499, 85525, 157305, 289329, 532159, 978793, 1800281, 3311233, 6090307, 11201821, 20603361, 37895489, 69700671, 128199521, 235795681, 433695873, 797691075, 1467182629
a(n) = rightmost term of M^n * [1 1 1], where M is the 3 X 3 matrix [1 1 1 / 1 0 0 / 0 1 0]. M^n * [1 1 1] = [a(n+2) a(n+1) a(n)]. a(n)/a(n-1) tends to the tribonacci constant, 1.839286755...; an eigenvalue of M and a root of x^3 - x^2 - x - 1 = 0. - Gary W. Adamson, Dec 17 2004
a(n) = 2*a(n-1) - a(n-4), n > 3. - Gary Detlefs, Sep 13 2010
a(n) = sum(m=0..n/2, sum(i=0..m, binomial(n-2*m+1,m-i)*binomial(n-2*m+i,n-2*m))). - Vladimir Kruchinin, Dec 17 2011
[A083318] 1, 3, 5, 9, 17, 33, 65, 129, 257, 513, 1025, 2049, 4097, 8193, 16385, 32769, 65537, 131073, 262145, 524289, 1048577, 2097153, 4194305, 8388609, 16777217, 33554433, 67108865, 134217729, 268435457, 536870913, 1073741825, 2147483649

a(n) = 2^n+1^n-0^n.
a(n) = Sum_{k=0..n} 0^(k*(n-k))*2^(n-k). - Paul Barry, Feb 09 2005
[A048578] 3, 5, 9, 17, 33, 65, 129, 257, 513, 1025, 2049, 4097, 8193, 16385, 32769, 65537, 131073, 262145, 524289, 1048577, 2097153, 4194305, 8388609, 16777217, 33554433, 67108865, 134217729, 268435457, 536870913, 1073741825, 2147483649, 4294967297, 8589934593
a(n) = 2^(n+1)+1. a(n) = 3*a(n-1) - 2*a(n-2).
[A006723] 1, 1, 1, 1, 1, 1, 1, 3, 5, 9, 17, 41, 137, 769, 1925, 7203, 34081, 227321, 1737001, 14736001, 63232441, 702617001, 8873580481, 122337693603, 1705473647525, 22511386506929, 251582370867257, 9254211194697641, 215321535159114017
a(6 - n) = a(n) for all n in Z.
a(n) = ((8-2*(-1)^n)*a(n-5)*a(n-3)-a(n-4)^2)/a(n-8). - Bruno Langlois, Aug 09 2016
[A092264] 1, 1, 1, 1, 1, 3, 5, 9, 17, 65, 117, 227, 449, 1737, 3137, 6105, 12097, 46819, 84565, 164593, 326161, 1262361, 2280101, 4437891, 8794241, 34036913, 61478145, 119658449, 237118337, 917734275, 1657629797, 3226340217, 6393400849
a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(5)=1, a(6)=3, a(7)=5, a(8)=9, a(9)=17, a(10)=65, a(11)=117, a(12)=227, a(n)=28*a(n-4)-28*a(n-8)+a(n-12). - Harvey P. Dale, Aug 08 2013
[A289914] 1, 3, 5, 9, 18, 35, 66, 124, 234, 441, 830, 1563, 2944, 5544, 10440, 19661, 37026, 69727, 131310, 247284, 465686, 876981, 1651534, 3110175, 5857092, 11030096, 20771916, 39117745, 73666674, 138729339, 261255578, 491997420, 926531266, 1744846929, 3285901854
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - a(n-4) for n>3.
[A293332] 3, 5, 9, 18, 36, 72, 144, 287, 573, 1145, 2290, 4580, 9159, 18318, 36636, 73272, 146543, 293086, 586172, 1172344, 2344688, 4689375, 9378749, 18757498, 37514996, 75029991, 150059982, 300119964, 600239928, 1200479855, 2400959709, 4801919418, 9603838835
a(n) = ceiling(r*2^n), where r = sqrt(5).
[A291222] 0, 1, 1, 3, 5, 9, 19, 30, 66, 106, 223, 379, 753, 1345, 2565, 4723, 8816, 16456, 30480, 57093, 105677, 197751, 366697, 684765, 1272311, 2371846, 4412898, 8218386, 15300891, 28483823, 53042669, 98734485, 183863833, 342263703, 637320032, 1186464528, 2209131168
a(n) = 4*a(n-2) + a(n-3) - 4*a(n-4) + a(n-6) for n >= 7.
[A291398] 0, 1, 3, 5, 9, 19, 39, 76, 150, 301, 600, 1191, 2370, 4721, 9396, 18696, 37212, 74069, 147417, 293398, 583956, 1162257, 2313237, 4604037, 9163443, 18238042, 36299229, 72246487, 143792475, 286190708, 569606421, 1133689810, 2256387135, 4490895817, 8938246848
a(n) = a(n-2) + 3*a(n-3) + 4*a(n-4) + 3*a(n-5) + a(n-6) for n >= 7.
[A227234] 1, 3, 5, 9, 19, 43, 109, 297, 793, 2059, 5382, 14319, 38897, 110525, 335225, 1067923, 3449922, 11058922, 35087589, 110642516, 346605981, 1072833978, 3270252617, 9869924183, 29933522269, 92890564700, 298225920323, 987831491085, 3330591758612, 11254395868044, 37691422431130, 124450270430236
a(n) = Sum_{k=1..n} binomial(prime(k), n-k).
[A136401] 0, 0, 0, 1, 3, 5, 9, 21, 45, 85, 165, 341, 693, 1365, 2709, 5461, 10965, 21845, 43605, 87381, 174933, 349525, 698709, 1398101, 2796885, 5592405, 11183445, 22369621, 44741973, 89478485, 178951509, 357913941, 715838805, 1431655765, 2863289685, 5726623061
a(n) = -(1/3)+(1/6)*2^n+(1/12)*(I*sqrt(2))^n+(1/12)*(-I*sqrt(2))^n, with I=sqrt(-1). - Paolo P. Lava, Jun 09 2008
[A006722] 1, 1, 1, 1, 1, 1, 3, 5, 9, 23, 75, 421, 1103, 5047, 41783, 281527, 2534423, 14161887, 232663909, 3988834875, 45788778247, 805144998681, 14980361322965, 620933643034787, 16379818848380849, 369622905371172929, 20278641689337631649, 995586066665500470689
a(n) = a(5-n).
a(n+3) = A*B^n*C^(n^2 -1)*sigma(v_0 + n*v) / sigma(v)^(n^2),
[A047389] 3, 5, 10, 12, 17, 19, 24, 26, 31, 33, 38, 40, 45, 47, 52, 54, 59, 61, 66, 68, 73, 75, 80, 82, 87, 89, 94, 96, 101, 103, 108, 110, 115, 117, 122, 124, 129, 131, 136, 138, 143, 145, 150, 152, 157, 159, 164, 166, 171
a(n) = -4 + (1/2)*Sum_{k=0..n} (7 - 3*(-1)^n), with n >= 1. - Paolo P. Lava, Feb 29 2008
a(n) = 7*n - a(n-1) - 6, n > 1. - Vincenzo Librandi, Aug 05 2010
a(n) - a(n-1) - a(n-2) + a(n-3) = 0 for n > 3.
a(n) = (14*n - 5 - 3*(-1)^n)/4. (End)
[A266663] 1, 3, 5, 10, 12, 21, 23, 36, 38, 55, 57, 78, 80, 105, 107, 136, 138, 171, 173, 210, 212, 253, 255, 300, 302, 351, 353, 406, 408, 465, 467, 528, 530, 595, 597, 666, 668, 741, 743, 820, 822, 903, 905, 990, 992, 1081, 1083, 1176, 1178, 1275, 1277, 1378, 1380
a(n) = (n^2-(-1)^n*n+2*n+(-1)^n+3)/2 for n>0.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A007557] 1, 1, 3, 5, 10, 12, 24, 26, 43, 52, 78, 80, 133, 135, 189, 219, 295, 297, 428, 430, 584, 642, 804, 806, 1100, 1123, 1395, 1494, 1856, 1858, 2428, 2430, 2977, 3143, 3739, 3811, 4790, 4792, 5654, 5930, 7072, 7074, 8656
a(n+1) = Sum_{d divides n} tau(n/d)*a(d). - Vladeta Jovovic, Jan 24 2003
[A165718] 3, 5, 10, 13, 20, 24, 33, 38, 49, 55, 68, 75, 90, 98, 115, 124, 143, 153, 174, 185, 208, 220, 245, 258, 285, 299, 328, 343, 374, 390, 423, 440, 475, 493, 530, 549, 588, 608, 649, 670, 713, 735, 780, 803, 850, 874, 923, 948, 999, 1025, 1078, 1105, 1160, 1188
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). - R. J. Mathar, Sep 25 2009
a(n) = Sum_{i=1..n} numerator(i/2) + denominator(i/2). - Wesley Ivan Hurt, Feb 26 2017
a(n) = (3*n^2 + 14*n) / 8 for n even.
a(n) = (3*n^2 + 16*n + 5) / 8 for n odd.
[A031878] 0, 1, 3, 5, 10, 13, 21, 25, 36, 41, 55, 61, 78, 85, 105, 113, 136, 145, 171, 181, 210, 221, 253, 265, 300, 313, 351, 365, 406, 421, 465, 481, 528, 545, 595, 613, 666, 685, 741, 761, 820, 841, 903, 925, 990, 1013, 1081, 1105, 1176, 1201, 1275, 1301, 1378
a(n)= (n*n +n -(n-1)*(n mod 2))/2. [Frank Ellermann]
[A265282] 0, 1, 3, 5, 10, 13, 22, 26, 41, 46, 68, 74, 105, 112, 153, 161, 214, 223, 289, 299, 380, 391, 488, 500, 615, 628, 762, 776, 931, 946, 1123, 1139, 1340, 1357, 1583, 1601, 1854, 1873, 2154, 2174, 2485, 2506, 2848, 2870, 3245, 3268, 3677, 3701, 4146, 4171, 4653
a(n) = (2*n^3 + 15*n^2 + 57*n - 8 + (3*n^2 - n + 4)*(-1)^n + 4*(-1)^((2*n - 1 + (-1)^n)/4))/64.
[A160792] 0, 1, 3, 5, 10, 13, 23, 27, 44, 49, 77, 83, 124, 131, 189, 197, 274, 283, 383, 393, 522, 533, 693, 705, 902, 915, 1153, 1167, 1448, 1463, 1791, 1807, 2188, 2205, 2645, 2663, 3164, 3183, 3751, 3771, 4410, 4431, 5143, 5165, 5956, 5979, 6853, 6877, 7840, 7865
a(2n) = a(2n-1) + sum(prime(j),j=1..n), a(2n+1) = a(2n) + n + 1 for n >= 1. - Nathaniel Johnston, Jun 16 2011
[A266793] 1, 3, 5, 10, 14, 21, 26, 37, 42, 57, 62, 81, 86, 109, 114, 141, 146, 177, 182, 217, 222, 261, 266, 309, 314, 361, 366, 417, 422, 477, 482, 541, 546, 609, 614, 681, 686, 757, 762, 837, 842, 921, 926, 1009, 1014, 1101, 1106, 1197, 1202, 1297, 1302, 1401, 1406
a(n) = (1+7*(-1)^n-2*(-3+(-1)^n)*n+2*n^2)/4 for n>3.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>8.
[A176222] 0, 3, 5, 10, 14, 21, 27, 36, 44, 55, 65, 78, 90, 105, 119, 136, 152, 171, 189, 210, 230, 253, 275, 300, 324, 351, 377, 406, 434, 465, 495, 528, 560, 595, 629, 666, 702, 741, 779, 820, 860, 903, 945, 990, 1034, 1081, 1127, 1176, 1224, 1275, 1325, 1378, 1430
a(n) = (n-t(n))*(n-3+t(n))/2, where t(n) = 1-(n mod 2).
a(n) = 1-2n+floor(n/2)+floor(n^2/2). - Wesley Ivan Hurt, Jun 14 2013
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4), n>4.
a(n) = Sum_{i=(-1)^n..n-2} i. (End)
[A008610] 1, 1, 3, 5, 10, 14, 22, 30, 43, 55, 73, 91, 116, 140, 172, 204, 245, 285, 335, 385, 446, 506, 578, 650, 735, 819, 917, 1015, 1128, 1240, 1368, 1496, 1641, 1785, 1947, 2109, 2290, 2470, 2670, 2870, 3091
a(n) = (1/48)*(2*n^3 + 3*(-1)^n*(n + 4) + 12*n^2 + 25*n + 24 + 12*cos(n*Pi/2)). - Ralf Stephan, Apr 29 2014
[A090491] 1, 1, 3, 5, 10, 15, 26, 37, 57, 79, 112, 149, 202, 260, 338, 425, 536, 659, 812, 980, 1184, 1408, 1673, 1963, 2302, 2670, 3094, 3554, 4077, 4642, 5279, 5964, 6730, 7552, 8463, 9438, 10513, 11659, 12915, 14252, 15709, 17256, 18935, 20713, 22635, 24667, 26854
a(n)=2*a(n-1)-a(n-3)-2*a(n-5)+2*a(n-6)+a(n-8)-2*a(n-10)+a(n-11) for n>10. - Harvey P. Dale, Apr 10 2015
[A097513] 1, 1, 3, 5, 10, 15, 27, 38, 60, 84, 122, 164, 229, 298, 398, 509, 658, 823, 1041, 1278, 1582, 1917, 2331, 2786, 3343, 3948, 4676, 5471, 6408, 7428, 8622, 9912, 11406, 13023, 14871, 16866, 19135, 21571, 24321, 27275, 30580, 34122, 38070, 42284, 46956, 51942
a(n) is asymptotically equal to n^5/5760. - Isabel C. Lugo (izzycat(AT)gmail.com), Aug 31 2004
[A032279] 1, 1, 3, 5, 10, 16, 26, 38, 57, 79, 111, 147, 196, 252, 324, 406, 507, 621, 759, 913, 1096, 1298, 1534, 1794, 2093, 2421, 2793, 3199, 3656, 4152, 4706, 5304, 5967, 6681, 7467, 8311, 9234, 10222, 11298, 12446, 13691, 15015, 16445

a(n) = 0.4*s(n,0,5)+(n-1)*(n-3)*((n-2)*(n-4)+15)/240, if n is odd; a(n)=0.4*s(n,0,5)+(n-2)*(n-4)*((n-1)*(n-3)+15)/240, if n is even. - Vladimir Shevelev, Apr 23 2011
a(n+5) = floor(n^4/240 + n^3/24 + 5*n^2/24 + 25*n/48 + 1 + (-1)^n*n/16). - Robert Israel, Jul 22 2015
[A129361] 1, 1, 3, 5, 10, 16, 29, 47, 81, 131, 220, 356, 589, 953, 1563, 2529, 4126, 6676, 10857, 17567, 28513, 46135, 74792, 121016, 196041, 317201, 513619, 831053, 1345282, 2176712, 3522981, 5700303, 9224881, 14926171, 24153636, 39081404, 63239221, 102323209
a(n) = a(n-1) + 2a(n-2) - a(n-3) - a(n-5) - a(n-6).
a(n) = sum{k=0..floor(n/2), F(n-k+1)}.
a(n) = sum{k=0..n, F(k+1)-F((k+1)/2)(1-(-1)^k)/2}.
a(n) = sum{k=0..n, F(k+1)} - sum{k=0..floor((n-1)/2), F(k+1)}.
[A062773] 3, 5, 10, 16, 31, 40, 62, 73, 100, 147, 163, 220, 264, 284, 330, 410, 488, 520, 610, 676, 706, 812, 887, 1001, 1164, 1253, 1295, 1382, 1424, 1524, 1878, 1977, 2142, 2191, 2490, 2548, 2730, 2916, 3044, 3242, 3437, 3513, 3869, 3946, 4090, 4165, 4628
a(n) = PrimePi(nextprime(prime(n)^2)).
[A079934] 1, 3, 5, 10, 17, 29, 46, 99, 169, 268, 577, 985, 1562, 3363, 5741, 9104, 19601, 33461, 53062, 114243, 195025, 309268, 665857, 1136689, 1802546, 3880899, 6625109, 10506008, 22619537, 38613965, 61233502, 131836323, 225058681, 356895004, 768398401, 1311738121
a(3*n+4) = a(3*n+2) + a(3*n+3).
a(3*n) = ceil((3+2*sqrt(2))^n*(2+sqrt(2))/4).
a(3*n+2)/a(3*n+1) -> 1/sqrt(2).
a(3*n+1)/a(3*n) -> 3-sqrt(2).
a(3*n)/a(3*n-1) -> (8+5*sqrt(2))/7.
[A215004] 1, 1, 3, 5, 10, 17, 30, 50, 84, 138, 227, 370, 603, 979, 1589, 2575, 4172, 6755, 10936, 17700, 28646, 46356, 75013, 121380, 196405, 317797, 514215, 832025, 1346254, 2178293, 3524562, 5702870, 9227448, 14930334, 24157799, 39088150, 63245967, 102334135, 165580121
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) + a(n-5) for n>4.
a(n) = Fibonacci(n+3) - floor((n+3)/2). - Nathan Fox, Jan 27 2017
a(n) = (-3/4 + (-1)^n/4 + (2^(-n)*((1-t)^n*(-2+t) + (1+t)^n*(2+t)))/t + (-1-n)/2) where t=sqrt(5). - Colin Barker, Feb 09 2017
[A010049] 0, 1, 1, 3, 5, 10, 18, 33, 59, 105, 185, 324, 564, 977, 1685, 2895, 4957, 8462, 14406, 24465, 41455, 70101, 118321, 199368, 335400, 563425, 945193, 1583643, 2650229, 4430290, 7398330, 12342849, 20573219, 34262337, 57013865, 94800780, 157517532, 261545777
a(n) = sum_{k=0..n-1} (k+1)*binomial(n-k-1, k). - Peter Luschny, Nov 20 2013
[A154949] 1, 1, 3, 5, 10, 18, 34, 62, 115, 211, 389, 715, 1316, 2420, 4452, 8188, 15061, 27701, 50951, 93713, 172366, 317030, 583110, 1072506, 1972647, 3628263, 6673417, 12274327, 22576008, 41523752, 76374088, 140473848, 258371689, 475219625
a(n) = sum{k=0..floor(n/2), sum{j=0..n-k+1, C(n-k+1-j,k+1)C(k-1,j)}}.
[A107232] 1, 3, 5, 10, 18, 35, 65, 126, 238, 462, 882, 1716, 3300, 6435, 12441, 24310, 47190, 92378, 179894, 352716, 688636, 1352078, 2645370, 5200300, 10192588, 20058300, 39373700, 77558760, 152443080, 300540195, 591385545, 1166803110, 2298248550
a(n)=sum{k=0..floor(n/2), binomial(n, k)*binomial(3, n-2k)}.
[A291735] 1, 1, 3, 5, 10, 19, 35, 67, 124, 234, 441, 827, 1558, 2927, 5503, 10349, 19453, 36580, 68774, 129304, 243119, 457093, 859415, 1615837, 3038024, 5711986, 10739431, 20191855, 37963921, 71378219, 134202491, 252322113, 474405911, 891958973, 1677025407
a(n) = a(n-1) + 2*a(n-3) + 3*a(n-5) + 3*a(n-7) + a(n-9) for n >= 10.
[A158943] 1, 1, 3, 5, 10, 19, 36, 69, 131, 250, 476, 907, 1728, 3292, 6272, 11949, 22765, 43371, 82629, 157422, 299915, 571388, 1088589, 2073943, 3951206, 7527704, 14341527, 27322992, 52054840, 99173120, 188941273, 359964521, 685792227, 1306548149
a(n)=a(n-1)+2a(n-2)-a(n-4). G.f.: x/(1-x-2*x^2+x^4). [From R. J. Mathar, Apr 02 2009]
[A217925] 1, 1, 1, 3, 5, 10, 19, 40, 77, 155, 306, 610, 1207, 2400, 4760, 9456, 18765, 37257, 73955, 146813, 291434, 578524, 1148434, 2279720, 4525487, 8983421, 17832976, 35399824, 70271944, 139495472, 276910976, 549691232, 1091185133, 2166094309, 4299884233, 8535634803, 16943967775
a(n) = T(4*n+1,1), where T(n,m) = Sum_{k=1..(n-m)/4} C(m+k-1,k)*T((n-m)/2,2*k). - Vladimir Kruchinin, Mar 25 2015
[A270737] 1, 3, 5, 10, 20, 42, 91, 195, 415, 880, 1864, 3952, 8385, 17795, 37765, 80138, 170044, 360810, 765595, 1624515, 3447071, 7314368, 15520400, 32932800, 69880225, 148279107, 314634021, 667623210, 1416632420, 3005958090, 6378354619
a(n) = 2*a(n-1) + 2*a(n-5) + a(n-6). - G. C. Greubel, mar 25 2016
[A270724] 1, 3, 5, 10, 20, 42, 93, 213, 504, 1221, 3014, 7553, 19158, 49087, 126845, 330174, 864884, 2278138, 6030218, 16031950, 42790362, 114616360, 307996874, 830084080, 2243193198, 6076953906, 16500486744, 44897830740, 122406923038, 334333367602
a(n) = ((n+2)/2)*Sum_{k=0..n/2} (Sum_{i=0..n-2*k} (binomial(k+1,n-2*k-i)*binomial(k+i,k))*binomial(2*k,k)/(k+1)^2).
[A293321] 3, 5, 10, 21, 42, 84, 168, 335, 670, 1340, 2681, 5362, 10723, 21447, 42894, 85788, 171575, 343151, 686302, 1372604, 2745208, 5490415, 10980830, 21961661, 43923322, 87846643, 175693287, 351386574, 702773148, 1405546295, 2811092590, 5622185181, 11244370361
a(n) = floor(1/2 + r*2^n), where r = (3+sqrt(5))/2.
[A080522] 1, 3, 5, 10, 22, 49, 107, 228, 476, 979, 1993, 4030, 8114, 16293, 32663, 65416, 130936, 261991, 524117, 1048386, 2096942, 4194073, 8388355, 16776940, 33554132, 67108539, 134217377, 268435078, 536870506, 1073741389, 2147483183
a(n)=2^n-(n-1)*(n-2)/2-n+1 for n>1 - Lambert Herrgesell (zero815(AT)googlemail.com), Mar 14 2006
a(n)=5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4) for n>5. G.f.: -x*(2*x^4-5*x^3+x^2+2*x-1) / ((x-1)^3*(2*x-1)). [Colin Barker, Dec 18 2012]
[A047621] 3, 5, 11, 13, 19, 21, 27, 29, 35, 37, 43, 45, 51, 53, 59, 61, 67, 69, 75, 77, 83, 85, 91, 93, 99, 101, 107, 109, 115, 117, 123, 125, 131, 133, 139, 141, 147, 149, 155, 157, 163, 165, 171, 173, 179, 181, 187, 189, 195, 197, 203, 205, 211, 213, 219, 221, 227, 229
a(n)=8*n-a(n-1)-8 (with a(1)=3) [From Vincenzo Librandi, Aug 06 2010]
[A266723] 1, 3, 5, 11, 13, 23, 25, 39, 41, 59, 61, 83, 85, 111, 113, 143, 145, 179, 181, 219, 221, 263, 265, 311, 313, 363, 365, 419, 421, 479, 481, 543, 545, 611, 613, 683, 685, 759, 761, 839, 841, 923, 925, 1011, 1013, 1103, 1105, 1199, 1201, 1299, 1301, 1403, 1405
a(n) = (3+(-1)^n-2*(-3+(-1)^n)*n+2*n^2)/4.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
[A164053] 3, 5, 11, 15, 27, 35, 59, 75, 123, 155, 251, 315, 507, 635, 1019, 1275, 2043, 2555, 4091, 5115, 8187, 10235, 16379, 20475, 32763, 40955, 65531, 81915, 131067, 163835, 262139, 327675, 524283, 655355, 1048571, 1310715, 2097147, 2621435, 4194299
a(n) = 2*a(n-2) + 5 for n > 2; a(1) = 3, a(2) = 5.
a(n) = (13 - 3*(-1)^n)*2^(1/4*(2*n -1 +(-1)^n))/2 - 5.
a(1)=3, a(2)=5, a(3)=11, a(n)=a(n-1)+2*a(n-2)-2*a(n-3). - Harvey P. Dale, Aug 28 2012
[A211435] 1, 3, 5, 11, 17, 25, 35, 45, 59, 73, 89, 107, 125, 147, 169, 193, 219, 245, 275, 305, 337, 371, 405, 443, 481, 521, 563, 605, 651, 697, 745, 795, 845, 899, 953, 1009, 1067, 1125, 1187, 1249, 1313, 1379, 1445, 1515, 1585, 1657, 1731, 1805, 1883
a(n) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7) for n>6.
[A286264] 3, 5, 11, 17, 27, 37, 51, 65, 83, 101, 123, 145, 171, 197, 227, 257, 291, 325, 363, 401, 443, 485, 531, 577, 627, 677, 731, 785, 843, 901, 963, 1025, 1091, 1157, 1227, 1297, 1371, 1445, 1523, 1601, 1683, 1765, 1851, 1937, 2027, 2117, 2211, 2305, 2403, 2501
a(n) > n^2.
a(n) = 3/2 - (-1)^n/2 + n^2.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
[A073022] 1, 1, 3, 5, 11, 17, 29, 47, 79, 127, 211, 347, 563, 911, 1481, 2393, 3877, 6271, 10151, 16427, 26591, 43019, 69623, 112643, 182279, 294923, 477209, 772139, 1249361, 2021501, 3270863, 5292367, 8563237, 13855607, 22418849, 36274471, 58693331
a(n+1)=nextprime(a(n)+a(n-1))
[A006450] 3, 5, 11, 17, 31, 41, 59, 67, 83, 109, 127, 157, 179, 191, 211, 241, 277, 283, 331, 353, 367, 401, 431, 461, 509, 547, 563, 587, 599, 617, 709, 739, 773, 797, 859, 877, 919, 967, 991, 1031, 1063, 1087, 1153, 1171, 1201, 1217, 1297, 1409, 1433, 1447, 1471
a(n) > n*(log(n))^2, as prime(n) > n*log(n) by Rosser's theorem. - Jonathan Sondow, Jul 11 2012
a(n)/log(a(n)) ~ prime(n). - Thomas Ordowski, Mar 30 2015
[A060647] 1, 3, 5, 11, 17, 35, 53, 107, 161, 323, 485, 971, 1457, 2915, 4373, 8747, 13121, 26243, 39365, 78731, 118097, 236195, 354293, 708587, 1062881, 2125763, 3188645, 6377291, 9565937, 19131875, 28697813, 57395627, 86093441, 172186883

a(2n) = 2*(3^n) - 1, a(2n+1) = 3^n + 3^(n+1) - 1.
a(n) = (sqrt(3))^n(1+2/sqrt(3))+(1-2/sqrt(3))(-sqrt(3))^n-1. - Paul Barry, Apr 17 2004
a(n) = (2^((1+(-1)^n)/2))*(b^((2*n-1+(-1)^n)/4))+((1-(-1)^n)/2)*(b^((2*n+1-(-1)^n)/4))-1, with b=3. - Luce ETIENNE, Aug 30 2014
[A007455] 1, 1, 3, 5, 11, 17, 39, 61, 139, 217, 495, 773, 1763, 2753, 6279, 9805, 22363, 34921, 79647, 124373, 283667, 442961, 1010295, 1577629, 3598219, 5618809, 12815247, 20011685, 45642179, 71272673, 162557031, 253841389, 578955451, 904069513
a(n) = 3*a(n-2) + 2*a(n-4).
[A244473] 1, 3, 5, 11, 18, 30, 49, 80, 129, 209, 338, 547, 885, 1432, 2317, 3749, 6066, 9815, 15881, 25696, 41577, 67273, 108850, 176123, 284973, 461096, 746069, 1207165, 1953234, 3160399, 5113633, 8274032, 13387665, 21661697, 35049362, 56711059, 91760421
a(n) = a(n-1)+a(n-2) for n>9. - Colin Barker, Jul 10 2015
[A131887] 3, 5, 11, 19, 41, 71, 153, 265, 571, 989, 2131, 3691, 7953, 13775, 29681, 51409, 110771, 191861, 413403, 716035, 1542841, 2672279, 5757961, 9973081, 21489003, 37220045, 80198051, 138907099, 299303201, 518408351, 1117014753, 1934726305, 4168755811, 7220496869
a(2k) = a(2k-1) + a(2k-2) + a(2k-3) and a(2k-1) = a(2k-2) + 2a(2k-3).
[A293820] 1, 1, 3, 5, 11, 19, 43, 75, 155, 287, 567, 1053, 2063, 3859, 7455, 14089, 27083, 51463, 98855, 188697, 362675, 695155, 1338087, 2573235, 4962875, 9571195, 18496407, 35759799, 69240899, 134154259, 260235639, 505163055, 981575759, 1908619755, 3714304167, 7233118641, 14095779055
a(n) = (Sum_{d|n} phi(n/d)*2^d)/n - 1 - 2^floor(n/2). - Andrew Howroyd, Nov 21 2017
[A293948] 1, 1, 3, 5, 11, 20, 41, 82, 163, 334, 659, 1350, 2667, 5430, 10763, 21782, 43307, 87254, 173867, 349270, 697003, 1397590, 2791595, 5591382, 11174571, 22367574, 44716715, 89474390, 178907819, 357905750, 715721387, 1431639382, 2863082155, 5726590294, 11452754603, 22906426710, 45811935915, 91625837910
a(n) = (2^(n+1)+1)/3 + (1/2-n/8)*2^(n/2) if n>2 is even.
a(n) = (2^(n+1)+2)/3 - 2^((n+1)/2)/4 if n>1 is odd.
[A269112] 3, 5, 11, 21, 33, 47, 65, 87, 111, 137, 167, 201, 237, 275, 317, 363, 411, 461, 515, 573, 633, 695, 761, 831, 903, 977, 1055, 1137, 1221, 1307, 1397, 1491, 1587, 1685, 1787, 1893, 2001, 2111, 2225, 2343, 2463, 2585, 2711, 2841, 2973, 3107, 3245, 3387, 3531, 3677, 3827
a(n) = (3*n^2 - 3*n + cos(n*Pi/2) + sin(n*Pi/2) + 5)/2.
a(n) = 3*(n-1)^2 - 3*(n-1) - a(n-2) + 8 for n>2.
a(n) = 3*a(n-1) - 4*a(n-2) + 4*a(n-3) - 3*a(n-4) + a(n-5) for n>5. - Colin Barker, Feb 22 2016
[A093328] 3, 5, 11, 21, 35, 53, 75, 101, 131, 165, 203, 245, 291, 341, 395, 453, 515, 581, 651, 725, 803, 885, 971, 1061, 1155, 1253, 1355, 1461, 1571, 1685, 1803, 1925, 2051, 2181, 2315, 2453, 2595, 2741, 2891, 3045, 3203, 3365, 3531, 3701, 3875, 4053, 4235
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A192664] 1, 1, 3, 5, 11, 21, 41, 80, 155, 303, 593, 1162, 2280, 4478, 8806, 17336, 34158, 67361, 132938, 262532, 518776, 1025694, 2028969, 4015445, 7950176, 15746722, 31200476, 61841291, 122611717, 243171319, 482404577, 957241908, 1899924792, 3771806031, 7489535293, 14874685547
a(n) = floor(sqrt(binomial(2*n+1,n))).
[A291219] 1, 1, 3, 5, 11, 21, 42, 83, 163, 323, 635, 1255, 2473, 4880, 9625, 18985, 37451, 73869, 145715, 287421, 566954, 1118331, 2205947, 4351307, 8583091, 16930447, 33395857, 65874464, 129939569, 256310161, 505580371, 997274197, 1967156763, 3880282533, 7653987242
a(n) = a(n-1) + 3*a(n-2) - a(n-3) - 3*a(n-4) + a(n-5) + a(n-6) for n >= 7.
[A283584] 1, 3, 5, 11, 21, 43, 69, 219, 261, 795, 1301, 2923, 5205, 11691, 20805, 46811, 83205, 187163, 333077, 748395, 1332309, 2993579, 5329221, 11974363, 21316869, 47897371, 85267733, 191589227, 341070933, 766356907, 1364283717, 3065427675, 5457134853, 12261710619
a(n) = 4*a(n-2) + a(n-8) - 4*a(n-10) for n>11.
[A154917] 0, 0, 1, 1, 3, 5, 11, 21, 43, 85, 171, 341, 683, 1365, 2731, 5461, 10923, 21845, 43691, 87381, 174763, 349525, 699051, 1398101, 2796203, 5592405, 11184811, 22369621, 44739243, 89478485, 178956971, 357913941, 715827883, 1431655765, 2863311531
a(n) = (1/3)*(2^(n-1) - (-1)^(n-1)) - (1/2)*(binomial(2*n,n) mod 2). - Paolo P. Lava, Jan 19 2009
a(n) = a(n-1) + 2*a(n-2). - Matthew House, Feb 13 2017
[A001045] 0, 1, 1, 3, 5, 11, 21, 43, 85, 171, 341, 683, 1365, 2731, 5461, 10923, 21845, 43691, 87381, 174763, 349525, 699051, 1398101, 2796203, 5592405, 11184811, 22369621, 44739243, 89478485, 178956971, 357913941, 715827883, 1431655765, 2863311531, 5726623061
a(n) = 2^(n-1) - a(n-1). a(n) = 2*a(n-1) - (-1)^n = (2^n - (-1)^n)/3.
a(2*n) = 2*a(2*n-1)-1 for n >= 1, a(2*n+1) = 2*a(2*n)+1 for n >= 0. - Lee Hae-hwang, Oct 11 2002; corrected by Mario Catalani (mario.catalani(AT)unito.it), Dec 04 2002
a(n) = Sum_{k=1..n} binomial(n, k)*(-1)^(n+k)*3^(k-1). - Paul Barry, Apr 02 2003
a(n) = U(n-1, i/(2*sqrt(2)))*(-i*sqrt(2))^(n-1) with i^2=-1. - Paul Barry, Nov 17 2003
a(n+1) = Sum_{k=0..ceiling(n/2)} 2^k*binomial(n-k, k). - Benoit Cloitre, Mar 06 2004
a(n) = round(2^n/3) = (2^n + (-1)^(n-1))/3 so lim_{n->inf} 2^n/a(n) = 3. - Gerald McGarvey, Jul 21 2004
[A283642] 1, 3, 5, 11, 21, 43, 85, 171, 341, 683, 1365, 2731, 5461, 10923, 21845, 43691, 87381, 174763, 349525, 699051, 1398101, 2796203, 5592405, 11184811, 22369621, 44739243, 89478485, 178956971, 357913941, 715827883, 1431655765, 2863311531, 5726623061, 11453246123
a(n) = (2^(n+2) - 1) / 3 for n even.
a(n) = (2^(n+2) + 1) / 3 for n odd.
a(n) = a(n-1) + 2*a(n-2) for n>1.
[A283647] 1, 3, 5, 11, 21, 43, 93, 179, 373, 715, 1501, 2867, 6005, 11467, 24029, 46003, 96117, 184011, 384477, 736051, 1537909, 2944203, 6151645, 11776947, 24606581, 47107787, 98426333, 188431155, 393705333, 753724619, 1574821341, 3014898611, 6299285365, 12059594443
a(n) = 4*a(n-2) + a(n-8) - 4*a(n-10) for n>11.
[A293338] 3, 5, 11, 22, 43, 87, 174, 348, 696, 1392, 2784, 5567, 11134, 22268, 44536, 89073, 178145, 356291, 712581, 1425163, 2850325, 5700650, 11401300, 22802601, 45605201, 91210403, 182420806, 364841611, 729683222, 1459366444, 2918732889, 5837465777, 11674931555
a(n) = floor(1/2 + e*2^n).
[A007008] 0, 1, 1, 3, 5, 11, 22, 47, 93, 193, 386, 793, 1586, 3238, 6476, 13167, 26333, 53381, 106762, 215955, 431910, 872218, 1744436, 3518265, 7036530, 14177066, 28354132, 57079714, 114159428, 229656076, 459312152, 923471727, 1846943453, 3711565741, 7423131482
a(n)=round(2^(n-2)-binomial(n-1,floor((n-1)/2))/2), cf. Thm. 14 in the Loeb-Meyerowitz paper. - M. F. Hasler, Jan 14 2014
[A155753] 3, 5, 11, 23, 43, 73, 115, 171, 243, 333, 443, 575, 731, 913, 1123, 1363, 1635, 1941, 2283, 2663, 3083, 3545, 4051, 4603, 5203, 5853, 6555, 7311, 8123, 8993, 9923, 10915, 11971, 13093, 14283, 15543, 16875, 18281, 19763, 21323, 22963
a(n)=n(n-1)+a(n-1), with a(1)=3 .
a(n)-4*a(n-1)+6*a(n-2)-4*a(n-3)+a(n-4) = 0 with n>4.
[A269964] 1, 1, 3, 5, 11, 23, 53, 121, 279, 639, 1465, 3357, 7699, 17659, 40509, 92921, 213143, 488903, 1121441, 2572357, 5900475, 13534515, 31045477, 71212113, 163346335, 374683807, 859449705, 1971405725, 4522010435, 10372587467, 23792640941, 54575559337
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) + 2*a(n-4) + 2*a(n-5) - 2.
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 4*a(n-4) - 2*a(n-6).
[A104545] 1, 1, 1, 3, 5, 11, 25, 55, 129, 303, 721, 1743, 4241, 10415, 25761, 64095, 160385, 403263, 1018369, 2581887, 6569089, 16767871, 42927105, 110194175, 283574017, 731427583, 1890600193, 4896499455, 12704869633, 33021750015, 85966113281
a(n+1)=sum(binomial(2*k,k)/(k+1)*(binomial(2*k,n-2*k+1)+binomial(2*k,n-2*k)),k,ceiling(n/4),(n+1)/2), a(0)=1. [From Vladimir Kruchinin, Mar 14 2012]
[A279674] 1, 3, 5, 11, 29, 67, 149, 347, 813, 1875, 4325, 10027, 23229, 53731, 124341, 287867, 666317, 1542131, 3569413, 8261963, 19123037, 44261763, 102448341, 237127067, 548852845, 1270371987, 2940399397, 6805838187, 15752764925, 36461289251, 84393166325, 195336103099
a(n) = 2*a(n-1) - a(n-2) + 4*a(n-3).
[A168607] 3, 5, 11, 29, 83, 245, 731, 2189, 6563, 19685, 59051, 177149, 531443, 1594325, 4782971, 14348909, 43046723, 129140165, 387420491, 1162261469, 3486784403, 10460353205, 31381059611, 94143178829, 282429536483, 847288609445
a(n) = 3*a(n-1)-4, a(0) = 3.
a(n) = 4*a(n-1) - 3*a(n-2), a(0)=3, a(1)=5. - Vincenzo Librandi, Feb 06 2013
[A101315] 3, 5, 11, 431, 1877, 2081, 3851, 9437, 10427, 11351, 12821, 14561, 20147, 26861, 30137, 30851, 37571, 38711, 38921, 40637, 46817, 59357, 73361, 116687, 120941, 125507, 127817, 138371, 144407, 153521, 173021, 177011, 178091, 178817, 185567
a(n) » n log^4 n. - Charles R Greathouse IV, Jan 14 2017

[A182537] 0, 1, 3, 5, 12, 12, 22, 33, 63, 103, 156, 264, 408, 669, 1075, 1733, 2792, 4540, 7350, 11877, 19207, 31095, 50312, 81384, 131704, 213097, 344779, 557885, 902676, 1460532, 2363198, 3823721, 6186887, 10010575, 16197492, 26208096, 42405552, 68613621, 111019147, 179632733
a(0)=0, a(1)=1, a(n) = a(n-1) + (a(n-2) XOR n), where XOR is the bitwise exclusive-or operator.
[A057587] 0, 1, 3, 5, 12, 15, 30, 34, 60, 65, 105, 111, 168, 175, 252, 260, 360, 369, 495, 505, 660, 671, 858, 870, 1092, 1105, 1365, 1379, 1680, 1695, 2040, 2056, 2448, 2465, 2907, 2925, 3420, 3439, 3990, 4010, 4620, 4641, 5313, 5335, 6072, 6095, 6900, 6924, 7800
a(n) = (2*n^3+9*n^2+15*n+5+(3*n^2+n-5)*(-1)^n)/32. - Luce ETIENNE, Nov 18 2014
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7). (End)
[A213036] 0, 1, 3, 5, 12, 16, 20, 33, 39, 45, 64, 72, 80, 105, 115, 125, 156, 168, 180, 217, 231, 245, 288, 304, 320, 369, 387, 405, 460, 480, 500, 561, 583, 605, 672, 696, 720, 793, 819, 845, 924, 952, 980, 1065, 1095, 1125, 1216, 1248, 1280, 1377, 1411
a(n) = a(n-1)+2*a(n-3)-2*a(n-4)-a(n-6)+a(n-7).
[A032438] 0, 0, 3, 5, 12, 16, 27, 33, 48, 56, 75, 85, 108, 120, 147, 161, 192, 208, 243, 261, 300, 320, 363, 385, 432, 456, 507, 533, 588, 616, 675, 705, 768, 800, 867, 901, 972, 1008, 1083, 1121, 1200, 1240, 1323, 1365, 1452, 1496, 1587, 1633, 1728, 1776, 1875, 1925
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5), n > 4. - Harvey P. Dale, Nov 24 2011
[A177143] 1, 3, 5, 12, 22, 47, 91, 186, 368, 741, 1477, 2960, 5914, 11835, 23663, 47334, 94660, 189329, 378649, 757308, 1514606, 3029223, 6058435, 12116882, 24233752, 48467517, 96935021, 193870056, 387740098, 775480211, 1550960407, 3101920830, 6203841644, 12407683305
a(n) = (1/2)*2^n + 2^n*Sum{k=1..n}{floor(k/2)*(-1/2)^k}, n>=1. - Paolo P. Lava, May 28 2010
a(n) = 2*a(n-1) + n/2 if n is even; a(n) = 2*a(n-1) - (n-1)/2 if n is odd, with a(1)=1. - Vincenzo Librandi, Sep 30 2010
a(n) = 13*2^n/18 - 1/4 + (-1)^n*(n/6+1/36) = a(n-1) + 3*a(n-2) - a(n-3) - 2*a(n-4). - R. J. Mathar, Nov 18 2010
[A191391] 0, 1, 1, 3, 5, 12, 22, 49, 93, 200, 386, 814, 1586, 3304, 6476, 13381, 26333, 54096, 106762, 218386, 431910, 880616, 1744436, 3547658, 7036530, 14281072, 28354132, 57451164, 114159428, 230993296, 459312152, 928319149, 1846943453, 3729244576, 7423131482, 14975907754
a(0)=0 and a(n)=2^(n-1)-C(n-1,floor(n/2)-1) for n>=1. [Joerg Arndt, Aug 07 2012, aeb]
[A161624] 3, 5, 12, 22, 56, 76, 132, 162, 240, 390, 441, 637, 783, 855, 1023, 1311, 1634, 1738, 2107, 2366, 2491, 2929, 3233, 3729, 4453, 4826, 5005, 5400, 5589, 6006, 7663, 8150, 8925, 9169, 10580, 10846, 11737, 12663, 13287, 14271, 15290, 15610, 17433, 17775
a(n) = sum_{k=n..prime(n)} k.
[A215109] 1, 3, 5, 12, 23, 43, 81, 148, 266, 476, 842, 1478, 2581, 4481, 7743, 13328, 22857, 39073, 66605, 113242, 192084, 325128, 549252, 926220, 1559353, 2621295, 4400249, 7376868, 12352043, 20659159, 34516377
a(n) = a(n-1) + 2*a(n-2) + a(n-3) - 2*a(n-4) - 3*a(n-5) - a(n-6), a(0) = 1, a(1) = 3, a(2) = 5, a(3) = 12, a(4) = 23, a(5) = 43 .
[A131322] 1, 1, 3, 5, 12, 23, 51, 103, 221, 456, 965, 2009, 4227, 8833, 18540, 38803, 81363, 170399, 357145, 748176, 1567849, 3284833, 6883059, 14421533, 30218028, 63314735, 132664227, 277968871, 582428789, 1220356440, 2557009709
a(n) = a(n-1) + 3*a(n-2) - a(n-3) - a(n-4), a(0)=1, a(1)=1, a(2)=3, a(3)=5 . - Philippe Deléham, Jan 21 2012
[A129757] 1, 1, 3, 5, 12, 25, 54, 113, 235, 481, 980, 1985, 4007, 8065, 16204, 32513, 65175, 130561, 261421, 523265, 1047129, 2095105, 4191409, 8384513, 16771425, 33546241, 67097280, 134201345, 268412287, 536838145, 1073695485, 2147418113
a(n) =Ceiling[Flatten[Table[N[Flatten[g /. Solve[2*Floor[2^(n/2)] - 2 + 2*g - (2^n - 1) == 0, g]]], {n, 1, 32}]]]
[A141685] 1, 1, 3, 5, 12, 25, 54, 116, 249, 535, 1149, 2468, 5301, 11386, 24456, 52529, 112827, 242341, 520524, 1118033, 2401422, 5158012, 11078889, 23796335, 51112125, 109783684, 235804269, 506483762, 1087875984, 2336647777, 5018883507
a(n)=Sum[Mod[k,3]*a(n-k),{k,1,n}].
[A291035] 1, 3, 5, 12, 27, 58, 130, 285, 629, 1389, 3060, 6753, 14892, 32844, 72445, 159775, 352401, 777244, 1714259, 3780930, 8339090, 18392449, 40565829, 89470733, 197333940, 435233685, 959938112, 2117210180, 4669654005, 10299246171, 22715702489, 50101058976
a(n) = a(n-1) + 2*a(n-2) + 2*a(n-3) - a(n-4) - a(n-6) for n >= 7.
[A086769] 1, 3, 5, 13, 15, 23, 25, 33, 65, 67, 99, 107, 109, 117, 149, 181, 183, 215, 223, 225, 257, 265, 297, 425, 433, 435, 443, 445, 453, 8645, 8653, 8685, 8687, 9199, 9201, 9233, 9265, 9273, 9305, 9337, 9339, 9851, 9853, 9861, 9863, 11911, 13959, 13967, 13969
a(n) = a(n-1)+2^(p(n+1)-p(n)-1).
[A081353] 3, 5, 13, 19, 31, 41, 57, 71, 91, 109, 133, 155, 183, 209, 241, 271, 307, 341, 381, 419, 463, 505, 553, 599, 651, 701, 757, 811, 871, 929, 993, 1055, 1123, 1189, 1261, 1331, 1407, 1481, 1561, 1639, 1723, 1805, 1893, 1979, 2071, 2161, 2257, 2351, 2451, 2549
a(n) = (n+1)*(n+2)+(-1)^n = 2*binomial(n+2,2)+(-1)^n.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4), n>4.
a(n) = n^2+3n+3 if n is even, otherwise n^2+3n+1.
[A168388] 1, 3, 5, 13, 21, 39, 57, 89, 121, 171, 221, 293, 365, 463, 561, 689, 817, 979, 1141, 1341, 1541, 1783, 2025, 2313, 2601, 2939, 3277, 3669, 4061, 4511, 4961, 5473, 5985, 6563, 7141, 7789, 8437, 9159, 9881, 10681, 11481, 12363, 13245, 14213, 15181, 16239, 17297
a(n) = 2*a(n-1) +a(n-2) -4*a(n-3) +a(n-4) +2*a(n-5) -a(n-6).
a(n) = (12 + n + 3*(-1)^n*n + 2*n^3)/12.
[A283583] 1, 3, 5, 13, 21, 53, 81, 219, 321, 867, 1349, 3437, 5445, 13677, 20805, 56173, 82245, 222061, 345413, 879981, 1393989, 3501421, 5326149, 14380397, 21054789, 56847725, 88425797, 225275245, 356861253, 896363885, 1363494213, 3681381741, 5390026053, 14553017709
a(n) = a(n-2) + 256*a(n-8) - 256*a(n-10) for n>11.
[A086893] 1, 3, 5, 13, 21, 53, 85, 213, 341, 853, 1365, 3413, 5461, 13653, 21845, 54613, 87381, 218453, 349525, 873813, 1398101, 3495253, 5592405, 13981013, 22369621, 55924053, 89478485, 223696213, 357913941, 894784853, 1431655765, 3579139413
a(n+2) = 4*a(n) + 1, a(1) = 1, a(2) = 3, n > 0. - Yosu Yurramendi, Mar 07 2017
[A283646] 1, 3, 5, 13, 21, 53, 93, 205, 349, 845, 1501, 3277, 5597, 13517, 24029, 52685, 89565, 216525, 384477, 839117, 1433053, 3460557, 6151645, 13487565, 22928861, 55430605, 98426333, 214814157, 366861789, 885902797, 1574821341, 3452816845, 5869788637, 14190235085
a(n) = a(n-2) + 256*a(n-8) - 256*a(n-10) for n>11.
[A014437] 1, 1, 3, 5, 13, 21, 55, 89, 233, 377, 987, 1597, 4181, 6765, 17711, 28657, 75025, 121393, 317811, 514229, 1346269, 2178309, 5702887, 9227465, 24157817, 39088169, 102334155, 165580141, 433494437, 701408733, 1836311903, 2971215073
a(n) = Fibonacci(3*floor((n+1)/2)) + (-1)^n). - Antti Karttunen, Feb 05 2001
a(n) = ((cos(Pi*n/2)-sqrt(phi)*sin(Pi*n/2))/phi^((3*n+2)/2) + (sqrt(phi)*cos(Pi*n/2)^2+sin(Pi*n/2)^2)*phi^((3*n+1)/2))/sqrt(5), where phi=(1+sqrt(5))/2.
[A089067] 1, 3, 5, 13, 23, 51, 97, 207, 401, 825, 1627, 3305, 6559, 13215, 26333, 52873, 105539, 211479, 422557, 845939, 1691053, 3383733, 6765839, 13534983, 27066661, 54139881, 108273203, 216559621, 433106027, 866238387, 17322450441
a(n)/2^n -> 0.8067474...as n->infinity.
[A159290] 3, 5, 13, 25, 53, 105, 213, 425, 853, 1705, 3413, 6825, 13653, 27305, 54613, 109225, 218453, 436905, 873813, 1747625, 3495253, 6990505, 13981013, 27962025, 55924053, 111848105, 223696213, 447392425, 894784853, 1789569705, 3579139413
a(n) = -1 + (2*(-1)^n + 5*2^(n+1))/3, G.f. (3-x)/(-x^2+1-2*x+2*x^3)
[A110494] 3, 5, 13, 25, 61, 85, 145, 181, 265, 421, 481, 685, 841, 925, 1105, 1405, 1741, 1861, 2245, 2521, 2665, 3121, 3445, 3961, 4705, 5101, 5305, 5725, 5941, 6385, 8065, 8581, 9385, 9661, 11101, 11401, 12325, 13285, 13945, 14965, 16021, 16381, 18241, 18625, 19405
a(n) = (prime(n)^2+1)/2 for n > 1.
[A098615] 1, 1, 3, 5, 13, 25, 61, 125, 295, 625, 1447, 3125, 7151, 15625, 35491, 78125, 176597, 390625, 880125, 1953125, 4390901, 9765625, 21920913, 48828125, 109486993, 244140625, 547018941, 1220703125, 2733608905, 6103515625, 13662695645, 30517578125, 68294088535, 152587890625, 341399727335, 762939453125, 1706739347095, 3814697265625, 8532741458075, 19073486328125, 42660172763995, 95367431640625
a(2*n+1) = 5^n.
a(n) = Sum_{k=0..floor((n+1)/2)} (C(n,k)-C(n,k-1))*F(n-2k+1). - Paul Barry, Oct 01 2007
a(n) = Sum_{k=0..n} binomial((n-1)/2,(n-k)/2)*2^(n-k-1)*((-1)^(n-k)+1). - Vladimir Kruchinin, Apr 16 2011
a(n) is the upper left term in M^n, M = an infinite square production matrix as follows:
[A026003] 1, 1, 3, 5, 13, 25, 63, 129, 321, 681, 1683, 3653, 8989, 19825, 48639, 108545, 265729, 598417, 1462563, 3317445, 8097453, 18474633, 45046719, 103274625, 251595969, 579168825, 1409933619, 3256957317, 7923848253, 18359266785, 44642381823
a(n)=sum{k=0..floor(n/2), C(n-k, k)C(n-2k, floor((n-2k)/2))}. - Paul Barry, Jul 30 2005

[A076156] 1, 3, 5, 13, 26, 37, 49, 51, 61, 62, 65, 69, 73, 74, 77, 91, 99, 115, 123, 125, 129, 146, 157, 169, 185, 187, 188, 193, 194, 195, 206, 221, 231, 235, 237, 254, 265, 267, 274, 275, 277, 278, 289, 291, 309, 313, 321, 343, 355, 362, 363, 365, 374, 386, 397, 398
a(n) seems to be asymptotic to c*n where c=7.6.... - Benoit Cloitre, Jan 15 2003
[A084173] 1, 3, 5, 13, 27, 59, 121, 249, 503, 1015, 2037, 4085, 8179, 16371, 32753, 65521, 131055, 262127, 524269, 1048557, 2097131, 4194283, 8388585, 16777193, 33554407, 67108839, 134217701, 268435429, 536870883, 1073741795, 2147483617
a(n) = 2^(n+1)-(2*n+1)/2-(-1)^n/2.
[A026569] 1, 1, 3, 5, 13, 27, 67, 153, 375, 893, 2189, 5319, 13089, 32155, 79479, 196573, 487833, 1212135, 3018355, 7525585, 18792303, 46980373, 117589689, 294613155, 738844719, 1854484305, 4658460165, 11710592711, 29458662005, 74151824271
a(n) = sum(k=0..floor(n/2), binomial(2*k, k)*binomial(n-k, k)) - Paul Barry, Sep 09 2004
a(n) = 1/n*((2*n-1)*a(n-1)+(3*n-3)*a(n-2)-(4*n-6)*a(n-3)). - Vladeta Jovovic, Mar 12 2005
a(n) = sum(k=0..n, C(k, n-k)*C(2*(n-k), n-k)). - Paul Barry, Jul 30 2005
[A190667] 1, 3, 5, 13, 30, 69, 160, 371, 859, 1990, 4610, 10679, 24738, 57306, 132750, 307517, 712367, 1650207, 3822725, 8855390, 20513621, 47520058, 110080805, 255003553, 590718900, 1368407674, 3169933385, 7343190086, 17010591104, 39405245720
a(n) = a(n-1)+2*a(n-2)+2*a(n-3)+a(n-4), a(0)=1, a(1)=3, a(2)=5, a(3)=13.
[A135532] 1, 3, 5, 13, 31, 75, 181, 437, 1055, 2547, 6149, 14845, 35839, 86523, 208885, 504293, 1217471, 2939235, 7095941, 17131117, 41358175, 99847467, 241053109, 581953685, 1404960479, 3391874643, 8188709765, 19769294173, 47727298111, 115223890395, 278175078901, 671574048197
a(n) = (1/2)*((2*sqrt(2) - 1)*(1 + sqrt(2))^n - (1 + 2*sqrt(2))*(1 - sqrt(2))^n), with n>=0. - Paolo P. Lava, Jun 09 2008
a(n) = ((3+sqrt(2))*(1+sqrt(2))^n + (3-sqrt(2))*(1-sqrt(2))^n)/2 with offset 0. - Al Hakanson (hawkuu(AT)gmail.com), Jun 17 2009
[A198636] 3, 5, 13, 38, 117, 370, 1186, 3827, 12389, 40169, 130338, 423065, 1373466, 4459278, 14478659, 47011093, 152642789, 495626046, 1609284589, 5225309458, 16966465802, 55089756851, 178875298901, 580804419201, 1885860059450, 6123349080945
a(n) = w(6,2*n)/2, n>=0, with w(6,l) the total number of closed walks on the graph P_6 (the simple path with 6 points (vertices) and 5 lines (or edges)).
a(n) = 7*(binomial(2n-1,n-1) + sum_{k = 1..floor(n/7)} binomial(2n,n-7k)) - 2^(2n-1). - M. Lawrence Glasser, Feb 20 2013
a(n) = 5*a(n-1) - 6*a(n-2) + a(n-3). - M. F. Hasler, Nov 05 2013
[A074378] 0, 3, 5, 14, 18, 33, 39, 60, 68, 95, 105, 138, 150, 189, 203, 248, 264, 315, 333, 390, 410, 473, 495, 564, 588, 663, 689, 770, 798, 885, 915, 1008, 1040, 1139, 1173, 1278, 1314, 1425, 1463, 1580, 1620, 1743, 1785, 1914, 1958, 2093, 2139, 2280, 2328, 2475
a(n) = n*(n+1)/4 where n*(n+1)/2 is even.
a(n) = (2*n+1)*floor((n+1)/2).
a(2*k) = k*(4*k+1); a(2*k+1) = (k+1)*(4*k+3). (End)
[A230585] 3, 5, 14, 42, 132, 429, 1430, 4862, 16796, 58786, 208012, 742900, 2674440, 9694845, 35357670, 129644790, 477638700, 1767263190, 6564120420, 24466267020, 91482563640, 343059613650, 1289904147324, 4861946401452, 18367353072152, 69533550916004, 263747951750360
a(n) = binomial(2*n,n) - binomial(2*n,n+2) + 0^(n-1).
[A103127] 1, 3, 5, 15, 17, 19, 21, 31, 33, 35, 37, 47, 49, 51, 53, 63, 65, 67, 69, 79, 81, 83, 85, 95, 97, 99, 101, 111, 113, 115, 117, 127, 129, 131, 133, 143, 145, 147, 149, 159, 161, 163, 165, 175, 177, 179, 181, 191, 193, 195, 197, 207, 209, 211, 213, 223, 225, 227, 229, 239, 241
a(n) = a(n-4) + 16. (End)
a(n) = (1+i)*i^n - (-1)^n + 4*n + (1-i)*(-i)^n, with n>=0 and i=sqrt(-1). - Paolo P. Lava, Nov 19 2008
[A001317] 1, 3, 5, 15, 17, 51, 85, 255, 257, 771, 1285, 3855, 4369, 13107, 21845, 65535, 65537, 196611, 327685, 983055, 1114129, 3342387, 5570645, 16711935, 16843009, 50529027, 84215045, 252645135, 286331153, 858993459, 1431655765, 4294967295, 4294967297, 12884901891, 21474836485, 64424509455, 73014444049, 219043332147, 365072220245, 1095216660735, 1103806595329, 3311419785987
a(n+1) = a(n) XOR 2*a(n), where XOR is binary exclusive OR operator. - Paul D. Hanna, Apr 27 2003
a(n) = Product_{e(j, n) = 1} (2^(2^j) + 1), where e(j, n) is the j-th least significant digit in the binary representation of n (Roberts: see Allouche Shallit). - Benoit Cloitre, Jun 08 2004
a(2*n+1) = 3*a(2*n). Proof: Since a(n) = Product_{k in K} (1 + 2^(2^k)), where K is the set of integers such that n = Sum_{k in K} 2^k, clearly K(2*n+1) = K(2*n) union {0}, hence a(2*n+1) = (1+2^(2^0))*a(2*n) = 3*a(2*n). - Emmanuel Ferrand and Ralf Stephan, Sep 28 2004
a(32*n) = 3 ^ (32 * n * log(2) / log(3)) + 1. - Bret Mulvey, May 17 2008
a(2^(n-1)-1)*a(2^n*m + 2^(n-1)) = 3*a(2^(n-1))*a(2^n*m + 2^(n-1)-2). - Vladimir Shevelev, Nov 28 2010
[A054432] 1, 1, 3, 5, 15, 17, 63, 85, 219, 325, 1023, 1105, 4095, 5397, 13515, 21845, 65535, 70737, 262143, 333125, 890523, 1397077, 4194303, 4527185, 16236015, 22365525, 57521883, 88429845, 268435455, 272962625, 1073741823, 1431655765, 3679302363, 5726557525
a(4*n) = (2^(2*n) + 1)*a(2*n) [think how the reduced residue set of the numbers of the form 4n are formed]
a(n-1) = Sum_{k=1..n, gcd(n, k) = 1} 2^(k-1). - Vladeta Jovovic, Aug 15 2002
[A284481] 1, 3, 5, 15, 23, 63, 95, 239, 383, 1023, 1535, 3839, 6143, 16383, 24575, 61439, 98303, 262143, 393215, 983039, 1572863, 4194303, 6291455, 15728639, 25165823, 67108863, 100663295, 251658239, 402653183, 1073741823, 1610612735, 4026531839, 6442450943
a(n) = a(n-1) + 16*a(n-4) - 16*a(n-5) for n>5.
[A163114] 3, 5, 15, 25, 75, 125, 375, 625, 1875, 3125, 9375, 15625, 46875, 78125, 234375, 390625, 1171875, 1953125, 5859375, 9765625, 29296875, 48828125, 146484375, 244140625, 732421875, 1220703125, 3662109375, 6103515625, 18310546875
a(n) = (2-(-1)^n)*5^(1/4*(2*n-1+(-1)^n)).
[A056487] 1, 3, 5, 15, 25, 75, 125, 375, 625, 1875, 3125, 9375, 15625, 46875, 78125, 234375, 390625, 1171875, 1953125, 5859375, 9765625, 29296875, 48828125, 146484375, 244140625, 732421875, 1220703125, 3662109375, 6103515625, 18310546875, 30517578125, 91552734375
a(n+2) = 5*a(n), a(0)=1, a(2)=3.
a(n+3) = a(n+2)*a(n+1)/a(n). - Reinhard Zumkeller, Mar 04 2011
a(n) = 3^((1-(-1)^n)/2) * 5^((2*n+(-1)^n-1)/4). - Bruno Berselli, Mar 24 2011
[A274638] 0, 0, 3, 5, 15, 27, 63, 119, 255, 495, 1023, 2015, 4095, 8127, 16383, 32639, 65535, 130815, 262143, 523775, 1048575, 2096127, 4194303, 8386559, 16777215, 33550335, 67108863, 134209535, 268435455, 536854527, 1073741823, 2147450879, 4294967295, 8589869055, 17179869183, 34359607295, 68719476735
a(n) = (-1+2^n+2^((n-3)/2)*(-1+(-1)^n)).
a(n) = 2^n-1 for n even.
a(n) = 2^n-1-2^((n-1)/2) for n odd.
a(n) = 3*a(n-1)-6*a(n-3)+4*a(n-4) for n>3.
[A118173] 1, 3, 5, 15, 29, 55, 93, 247, 477, 887, 1501, 3959, 7645, 14199, 24029, 63351, 122333, 227191, 384477, 1013623, 1957341, 3635063, 6151645, 16217975, 31317469, 58161015, 98426333, 259487607, 501079517, 930576247, 1574821341, 4151801719, 8017272285
a(n odd) = (1/30)*(-14+3*I*(2*I)^n+55*2^n), a(n even) = (1/15)*(-13+3*(2*I)^n+25*2^n).
a(n) = a(n-2) + 16*a(n-4) - 16*a(n-6) for n>5.
[A284482] 1, 3, 5, 15, 29, 63, 125, 247, 509, 1023, 2045, 4087, 8189, 16383, 32765, 65527, 131069, 262143, 524285, 1048567, 2097149, 4194303, 8388605, 16777207, 33554429, 67108863, 134217725, 268435447, 536870909, 1073741823, 2147483645, 4294967287, 8589934589
a(n) = 2*a(n-1) + a(n-4) - 2*a(n-5) for n>5.
[A126087] 1, 1, 3, 5, 15, 29, 87, 181, 543, 1181, 3543, 7941, 23823, 54573, 163719, 381333, 1143999, 2699837, 8099511, 19319845, 57959535, 139480397, 418441191, 1014536117, 3043608351, 7426790749, 22280372247, 54669443141, 164008329423
a(n) = sum(k=1..n,(1+(-1)^(n-k))*k*2^((n-k)/2-1)*C(n,(n+k)/2)/n), n>0 [Vladimir Kruchinin, Feb 18 2011]
[A286521] 1, 3, 5, 15, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295, 8589934591
a(n) = 2^(1+n) - 1 for n>2.
a(n) = 3*a(n-1) - 2*a(n-2) for n>4.
[A182143] 1, 3, 5, 15, 33, 83, 197, 479, 1153, 2787, 6725, 16239, 39201, 94643, 228485, 551615, 1331713, 3215043, 7761797, 18738639, 45239073, 109216787, 263672645, 636562079, 1536796801, 3710155683, 8957108165, 21624372015, 52205852193, 126036076403, 304278004997
a(n) = a(n-1) + 3*a(n-2) + a(n-3) with a(0)=1, a(1)=3, a(2)=5.
a(n) = Pell(n-1) + Pell(n+1) - (-1)^n.

a(n) = [x^n] ((1 + 2*x + sqrt(1 + 8*x + 8*x^2))/2)^n.
[A279684] 1, 3, 5, 15, 37, 87, 205, 495, 1173, 2759, 6493, 15263, 35749, 83575, 195181, 455247, 1060533, 2468391, 5740925, 13342975, 30993349, 71956951, 166991501, 387397551, 898427605, 2083016071, 4828379549, 11189823071, 25928070117, 60069313847, 139148806829
a(n) = 3a(n-1) - a(n-2) + a(n-3) - 2a(n-4) - 8a(n-5).
[A161703] 1, 3, 5, 15, 41, 91, 173, 295, 465, 691, 981, 1343, 1785, 2315, 2941, 3671, 4513, 5475, 6565, 7791, 9161, 10683, 12365, 14215, 16241, 18451, 20853, 23455, 26265, 29291, 32541, 36023, 39745, 43715, 47941, 52431, 57193, 62235, 67565, 73191, 79121
a(n) = C(n,0) + 2*C(n,1) + 8*C(n,3).
[A190733] 1, 3, 5, 15, 49, 175, 657, 2559, 10241, 41855, 173953, 732927, 3123457, 13439743, 58307841, 254779391, 1120247809, 4952864767, 22005184513, 98196398079, 439923990529, 1977917169663, 8921667641345, 40361657696255, 183092192411649, 832634240106495, 3795237359190017
a(n) = (n+1)*sum(k=1..n+1,binomial(k,n-k+1)*Catalan(k-1)/k).
[A211440] 1, 3, 5, 17, 23, 29, 53, 63, 73, 109, 123, 137, 185, 203, 221, 281, 303, 325, 397, 423, 449, 533, 563, 593, 689, 723, 757, 865, 903, 941, 1061, 1103, 1145, 1277, 1323, 1369, 1513, 1563, 1613, 1769, 1823, 1877, 2045, 2103, 2161, 2341, 2403, 2465
a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7) for n>6.
[A024862] 3, 5, 17, 23, 50, 62, 110, 130, 205, 235, 343, 385, 532, 588, 780, 852, 1095, 1185, 1485, 1595, 1958, 2090, 2522, 2678, 3185, 3367, 3955, 4165, 4840, 5080, 5848, 6120, 6987, 7293, 8265, 8607, 9690, 10070, 11270, 11690, 13013, 13475, 14927, 15433, 17020, 17572, 19300
a(n) = (8*n^3+6*(-1)^n*n^2+12*n^2+6*(-1)^n*n-2*n+3*(-1)^n-3)/48.
a(n) = (4*n^3+9*n^2+2*n)/24 for n even.
a(n) = (4*n^3+3*n^2-4*n-3)/24 for n odd.
[A079496] 1, 1, 3, 5, 17, 29, 99, 169, 577, 985, 3363, 5741, 19601, 33461, 114243, 195025, 665857, 1136689, 3880899, 6625109, 22619537, 38613965, 131836323, 225058681, 768398401, 1311738121, 4478554083, 7645370045, 26102926097, 44560482149
a(2n+1) = ceiling((2+sqrt(2))/4*(3+2*sqrt(2))^n), a(2n) = ceiling(1/2*(3+2*sqrt(2))^n).
a(n) = 6*a(n-2) - a(n-4). - R. J. Mathar, Apr 04 2008
a(n) = (sqrt(2)*sqrt(2+(3-2*sqrt(2))^n+(3+2*sqrt(2))^n))/(2+sqrt(2)+(-1)^n*(-2+sqrt(2))). - Gerry Martens, Jun 06 2015
[A023394] 3, 5, 17, 257, 641, 65537, 114689, 274177, 319489, 974849, 2424833, 6700417, 13631489, 26017793, 45592577, 63766529, 167772161, 825753601, 1214251009, 6487031809, 70525124609, 190274191361, 646730219521, 2710954639361, 2748779069441, 4485296422913, 6597069766657
a(n) » n^2 log^2 n, see Křížek, Luca, Somer. - Charles R Greathouse IV, Jul 16 2013
[A143546] 1, 1, 1, 3, 5, 18, 35, 136, 285, 1155, 2530, 10530, 23751, 100688, 231880, 996336, 2330445, 10116873, 23950355, 104819165, 250543370, 1103722620, 2658968130, 11777187240, 28558343775, 127067830773, 309831575760, 1383914371728
a(2n) = C(5n,n)/(4n+1); a(2n+1) = C(5n+2,n)*3/(4n+3).
[A211439] 1, 3, 5, 19, 25, 31, 59, 69, 79, 121, 135, 149, 205, 223, 241, 311, 333, 355, 439, 465, 491, 589, 619, 649, 761, 795, 829, 955, 993, 1031, 1171, 1213, 1255, 1409, 1455, 1501, 1669, 1719, 1769, 1951, 2005, 2059, 2255, 2313, 2371, 2581, 2643, 2705
a(n) = a(n-1) + 2*a(n-3) - 2*a(n-4) - a(n-6) + a(n-7) for n>6.
[A228471] 3, 5, 19, 31, 117, 191, 721, 1177, 4443, 7253, 27379, 44695, 168717, 275423, 1039681, 1697233, 6406803, 10458821, 39480499, 64450159, 243289797, 397159775, 1499219281, 2447408809, 9238605483, 15081612629, 56930852179, 92937084583, 350823718557, 572704120127
a(n) = (2-1/2*(-1)^n)*((3-sqrt(10))^(1/4*((-1)^n-1)+1/2*n)+(3+sqrt(10))^(1/4*((-1)^n-1)+1/2*n))+(3/20*(-1)^n-13/20)*sqrt(10)*((3-sqrt(10))^(1/4*((-1)^n-1)+1/2*n)-(3+sqrt(10))^(1/4*((-1)^n-1)+1/2*n)). - Paolo P. Lava, Sep 11 2013
[A273020] 1, 1, 3, 5, 19, 39, 141, 321, 1107, 2675, 8953, 22483, 73789, 190345, 616227, 1621413, 5196627, 13882947, 44152809, 119385663, 377379369, 1030434069, 3241135527, 8921880135, 27948336381, 77459553549, 241813226151, 674100041501, 2098240353907, 5878674505303, 18252025766941
a(n) = JacobiP(n, 1, -n-3/2, -7)/(n+1) + GegenbauerC(n-1, -n, -1/2), with a(0) = 1.
a(n) = hypergeom([-n,1/2], [2], 4) + n*hypergeom([-n/2+1,-n/2+1/2], [2], 4).
[A242818] 1, 1, 3, 5, 19, 39, 173, 407, 2025, 5281, 28787, 81597, 479851, 1459015, 9156093, 29582303, 196506001, 669822849, 4680247715, 16737058997, 122398824579, 457140004519, 3484655325197, 13541735424615, 107230543328761, 432232193519521, 3545227970258067
a(n) = sum(s(n,k)*(-1)^n-k)*b(k)/2^(ceil(n/2)-k), k=0..n), where the s(n,k) are the (signless) Stirling numbers of the first kind, and the b(n) are the Bell numbers.
a(n) = I^(-n)*2^floor(n/2)*U(-n/2,1/2,-1), where U(a,b,x) is Kummer's hypergeometric function of the second kind. - Peter Luschny, May 24 2014
a(n) = numerator(a(n-1) + (a(n-2)/2)*(n-2)) for a(1)=0 and a(2)=1. - Terry D. Grant, May 04 2017
[A261116] 0, 1, 3, 5, 20, 29, 119, 169, 696, 985, 4059, 5741, 23660, 33461, 137903, 195025, 803760, 1136689, 4684659, 6625109, 27304196, 38613965, 159140519, 225058681, 927538920, 1311738121, 5406093003, 7645370045, 31509019100, 44560482149, 183648021599, 259717522849
a(n) = 7*a(n-2) - 7*a(n-4) + a(n-6) for n>6.
[A076149] 0, 3, 5, 20, 54, 169, 499, 1506, 4508, 13535, 40593, 121792, 365362, 1096101, 3288287, 9864878, 29594616, 88783867, 266351581, 799054764, 2397164270, 7191492833, 21574478475, 64723435450, 194170306324, 582510918999
a(1)=0; a(n+1) = 3*a(n)-(-1)^n*(n+2); a(n)=floor((11/48)*3^n+(-1)^n*n/4+1/2)
[A025112] 3, 5, 22, 30, 73, 91, 172, 204, 335, 385, 578, 650, 917, 1015, 1368, 1496, 1947, 2109, 2670, 2870, 3553, 3795, 4612, 4900, 5863, 6201, 7322, 7714, 9005, 9455, 10928, 11440, 13107, 13685, 15558, 16206, 18297, 19019, 21340, 22140, 24703, 25585, 28402, 29370, 32453
a(n) = n*(4*n^2 - 3*n + 2 + 3*n*(-1)^n)/12. - Luce ETIENNE, Jan 07 2015
[A124423] 1, 1, 1, 3, 5, 22, 52, 283, 855, 5451, 19921, 144074, 614866, 4941987, 24040451, 211648665, 1152972925, 10998989896, 66200911138, 678600959525, 4465023867757, 48850849177703, 348383154017581, 4045835816532096, 31052765897026352, 381022649523561501
a(n) = Q[n](1,0,1), where the polynomials Q[n]=Q[n](t,s,x) are defined by Q[0]=1; Q[n]=t*dQ[n-1]/dt + x*dQ[n-1]/ds + x*dQ[n-1]/dx + t*Q[n-1] if n is odd and Q[n]=x*dQ[n-1]/dt + s*dQ[n-1]/ds + x*dQ[n-1]/dx + s*Q[n-1] if n is even.
a(n) = Sum_{j=0..ceil(n/2)} stirling2(ceil(n/2),j) * j^floor(n/2). - Alois P. Heinz, Oct 23 2013
[A199336] 1, 3, 5, 23, 39, 181, 307, 1425, 2417, 11219, 19029, 88327, 149815, 695397, 1179491, 5474849, 9286113, 43103395, 73109413, 339352311, 575589191, 2671715093, 4531604115, 21034368433, 35677243729, 165603232371, 280886345717, 1303791490535, 2211413522007
a(n+4) = 8*a(n+2) - a(n), a(1)=1, a(2)=3 ,a(3)=5, a(4)=23.
[A100302] 1, 1, 3, 5, 23, 57, 235, 685, 2559, 8033, 28499, 92757, 320743, 1062793, 3628731, 12131069, 41160911, 138209457, 467496739, 1573172389, 5313146295, 17898525401, 60403695755, 203591898957, 686821464991, 2315556656641
a(n)=2a(n-1)+7a(n-2)-8a(n-3); a(n)=(2^(-n)(sqrt(33)-1)^(n+1)(-1)^n+2^(-n)(sqrt(33)+1)^(n+1))sqrt(33)/264+3/4.
[A154143] 3, 5, 26, 36, 155, 213, 906, 1244, 5283, 7253, 30794, 42276, 179483, 246405, 1046106, 1436156, 6097155, 8370533, 35536826, 48787044, 207123803, 284351733, 1207205994, 1657323356, 7036112163, 9659588405, 41009466986, 56300207076, 239020689755, 328141654053
a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) - a(n-4) + a(n-5).
a(1..4) = (3,5,26,36); a(n) = 6*a(n-2) - a(n-4) + 2, for n > 4. - Ctibor O. Zizka, Nov 10 2009
[A162262] 3, 5, 30, 78, 155, 267, 420, 620, 873, 1185, 1562, 2010, 2535, 3143, 3840, 4632, 5525, 6525, 7638, 8870, 10227, 11715, 13340, 15108, 17025, 19097, 21330, 23730, 26303, 29055, 31992, 35120, 38445, 41973, 45710, 49662, 53835, 58235, 62868, 67740
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A199774] 0, 3, 5, 32, 203, 333, 2112, 13395, 21973, 139360, 883867, 1449885, 9195648, 58321827, 95670437, 606773408, 3848356715, 6312798957, 40037849280, 253933221363, 416549060725, 2641891279072, 16755744253243, 27485925208893, 174324786569472, 1105625187492675
a(n) = 66*a(n-3) - a(n-6), a(1)=0, a(2)=3, a(3)=5, a(4)=32, a(5)=203, a(6)=333.
[A001790] 1, 1, 3, 5, 35, 63, 231, 429, 6435, 12155, 46189, 88179, 676039, 1300075, 5014575, 9694845, 300540195, 583401555, 2268783825, 4418157975, 34461632205, 67282234305, 263012370465, 514589420475, 8061900920775, 15801325804719
a(n) = numerator(L(n)), with rational L(n):=binomial(2*n,n)/2^n. L(n) is the leading coefficient of the Legendre polynomial P_n(x).
[A155121] 3, 5, 57, 237, 677, 1557, 3105, 5597, 9357, 14757, 22217, 32205, 45237, 61877, 82737, 108477, 139805, 177477, 222297, 275117, 336837, 408405, 490817, 585117, 692397, 813797, 950505, 1103757, 1274837, 1465077, 1675857
a(n) = 2*n*(1+n+n^2+n^3)-3.
[A280427] 3, 5, 167, 359, 839, 1367, 1847, 2207, 3719, 5039, 7919, 1295027, 3442949, 9393929, 13997519, 21253931, 49430861, 84604517, 95443991, 237176657, 329939369, 384240581, 487443401, 633839777, 904231061, 1078193566319, 1427186233199, 1556727840719, 1985193642959

a(n) = p^d-2, a(n) is prime, p is a prime and d is the number of digits of p.
[A130482] 0, 1, 3, 6, 6, 7, 9, 12, 12, 13, 15, 18, 18, 19, 21, 24, 24, 25, 27, 30, 30, 31, 33, 36, 36, 37, 39, 42, 42, 43, 45, 48, 48, 49, 51, 54, 54, 55, 57, 60, 60, 61, 63, 66, 66, 67, 69, 72, 72, 73, 75, 78, 78, 79, 81, 84, 84, 85, 87, 90, 90, 91, 93, 96, 96, 97, 99, 102, 102, 103, 105
a(n) = (1 - (-1)^n - (2*i)*(-i)^n + (2*i)*i^n + 6*n) / 4 where i = sqrt(-1). - Colin Barker, Oct 15 2015
[A066779] 1, 3, 6, 6, 11, 17, 24, 24, 24, 34, 45, 45, 58, 72, 87, 87, 104, 104, 123, 123, 144, 166, 189, 189, 189, 215, 215, 215, 244, 274, 305, 305, 338, 372, 407, 407, 444, 482, 521, 521, 562, 604, 647, 647, 647, 693, 740, 740, 740, 740, 791, 791, 844, 844, 899, 899
a(n) = Sum_{i=1..n} mu(i)^2*i.
a(n) = Sum_{d=1..sqrt(n)} mu(d)*d^2*floor(n/d^2)*floor(n/d^2+1)/2. - Charles R Greathouse IV, Apr 26 2012
[A152083] 1, 3, 6, 7, 7, 8, 10, 13, 14, 14, 15, 17, 20, 21, 21, 22, 24, 27, 28, 28, 29, 31, 34, 35, 35, 36, 38, 41, 42, 42, 43, 45, 48, 49, 49, 50, 52, 55, 56, 56, 57, 59, 62, 63, 63, 64, 66, 69, 70, 70, 71, 73, 76, 77, 77, 78, 80, 83, 84, 84, 85, 87, 90, 91, 91, 92
a(n+5)=a(n)+7
[A047559] 0, 1, 3, 6, 7, 8, 9, 11, 14, 15, 16, 17, 19, 22, 23, 24, 25, 27, 30, 31, 32, 33, 35, 38, 39, 40, 41, 43, 46, 47, 48, 49, 51, 54, 55, 56, 57, 59, 62, 63, 64, 65, 67, 70, 71, 72, 73, 75, 78, 79, 80, 81, 83, 86, 87, 88, 89, 91, 94, 95, 96, 97, 99, 102, 103, 104
a(0)=0, a(1)=1, a(2)=3, a(3)=6, a(4)=7, a(5)=8, a(n) = a(n-1) + a(n-5) - a(n-6) for n>6. - Harvey P. Dale, Mar 04 2015
a(n) = a(n-5) + 8, for n>5.
a(n) = (40*n - 35 + 3*(n mod 5) - 7*((n+1) mod 5) - 2*((n+2) mod 5) + 3*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-5, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A047283] 0, 1, 3, 6, 7, 8, 10, 13, 14, 15, 17, 20, 21, 22, 24, 27, 28, 29, 31, 34, 35, 36, 38, 41, 42, 43, 45, 48, 49, 50, 52, 55, 56, 57, 59, 62, 63, 64, 66, 69, 70, 71, 73, 76, 77, 78, 80, 83, 84, 85, 87, 90, 91, 92, 94, 97, 98, 99, 101, 104, 105, 106, 108, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Harvey P. Dale, Mar 09 2012
a(n) = (14n-15+i^(2n)+(3+i)*i^(-n)+(3-i)*i^n)/8 where i=sqrt(-1).
[A047557] 0, 3, 6, 7, 8, 11, 14, 15, 16, 19, 22, 23, 24, 27, 30, 31, 32, 35, 38, 39, 40, 43, 46, 47, 48, 51, 54, 55, 56, 59, 62, 63, 64, 67, 70, 71, 72, 75, 78, 79, 80, 83, 86, 87, 88, 91, 94, 95, 96, 99, 102, 103, 104, 107, 110, 111, 112, 115, 118, 119, 120, 123, 126
a(n) = 2*n-1-sin(Pi*n/2). (End)
a(n) = 2n-1-cos(Pi*(n-1)/2). - Wesley Ivan Hurt, Oct 22 2013
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>4.
a(n) = 2*n-2-I^(1-n)*(I^(n-1)-1)^2/2 where I=sqrt(-1).
[A005767] 3, 6, 7, 9, 11, 12, 13, 14, 15, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85
a(n) = n + 2*log_2(n) + O(1). - Charles R Greathouse IV, Sep 01 2015
[A186348] 3, 6, 7, 9, 11, 12, 14, 16, 17, 18, 20, 21, 23, 24, 25, 27, 28, 30, 31, 32, 33, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 59, 60, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 88
a(n) = n+floor(sqrt(8n)).
[A047558] 1, 3, 6, 7, 9, 11, 14, 15, 17, 19, 22, 23, 25, 27, 30, 31, 33, 35, 38, 39, 41, 43, 46, 47, 49, 51, 54, 55, 57, 59, 62, 63, 65, 67, 70, 71, 73, 75, 78, 79, 81, 83, 86, 87, 89, 91, 94, 95, 97, 99, 102, 103, 105, 107, 110, 111, 113, 115, 118, 119, 121, 123, 126
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-3-i^(2*n)-i^(1-n)+i^(1+n))/4 where i=sqrt(-1).
[A047242] 0, 1, 3, 6, 7, 9, 12, 13, 15, 18, 19, 21, 24, 25, 27, 30, 31, 33, 36, 37, 39, 42, 43, 45, 48, 49, 51, 54, 55, 57, 60, 61, 63, 66, 67, 69, 72, 73, 75, 78, 79, 81, 84, 85, 87, 90, 91, 93, 96, 97, 99, 102, 103, 105, 108, 109, 111, 114, 115, 117, 120, 121, 123
a(n) = a(n-1) + a(n-3) - a(n-4), n>4. - Wesley Ivan Hurt, Dec 03 2014
a(n) = n-1 + floor((n-1)/3) + floor((2n-2)/3). - Wesley Ivan Hurt, Dec 03 2014
a(n) = (6*n-8-cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 6k-3, a(3k-1) = 6k-5, a(3k-2) = 6k-6. (End)
a(n) = 2*n - 2 - sign((n-1) mod 3). - Wesley Ivan Hurt, Sep 26 2017
[A176409] 3, 6, 7, 9, 12, 14, 15, 18, 21, 24, 27, 28, 30, 33, 35, 36, 39, 42, 45, 48, 49, 51, 54, 56, 57, 60, 63, 66, 69, 70, 72, 75, 77, 78, 81, 84, 87, 90, 91, 93, 96, 98, 99, 102, 105, 108, 111, 112, 114, 117, 119, 120, 123, 126, 129, 132, 133, 135, 138, 140, 141, 144, 147, 150, 153
a(n+9) = a(n)+21.
a(n) = 21*floor(n/9)+2*(n mod 9)+s((n mod 9)-1)+1-floor(((n-1) mod 9)/8), where s(n) = floor(n*sqrt(2))-2*floor(n/sqrt(2)). - Gary Detlefs, Oct 07 2013
a(n) = 7n/3 + O(1). - Charles R Greathouse IV, Feb 13 2017
[A047281] 0, 3, 6, 7, 10, 13, 14, 17, 20, 21, 24, 27, 28, 31, 34, 35, 38, 41, 42, 45, 48, 49, 52, 55, 56, 59, 62, 63, 66, 69, 70, 73, 76, 77, 80, 83, 84, 87, 90, 91, 94, 97, 98, 101, 104, 105, 108, 111, 112, 115, 118, 119, 122, 125, 126, 129, 132, 133, 136, 139, 140
a(n+1) = 3*n - 2*floor(n/3). - Gary Detlefs, Mar 27 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-15+6*cos(2*n*Pi/3)-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-4, a(3k-2) = 7k-7. (End)
a(n) = Sum_{i=1..n-1} numerator(3/i). - Wesley Ivan Hurt, Feb 26 2017
[A136272] 1, 3, 6, 7, 11, 12, 13, 18, 19, 20, 21, 27, 28, 29, 30, 31, 38, 39, 40, 41, 42, 43, 51, 52, 53, 54, 55, 56, 57, 66, 67, 68, 69, 70, 71, 72, 73, 83, 84, 85, 86, 87, 88, 89, 90, 91, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 123, 124, 125, 126, 127, 128, 129
a(0)=1; let t=1. Start on position t. Jump t positions right hand. Erase t positions. (*P*) Set t=t+1. Start on the last erased position. Jump t positions right hand. Erase t positions. Repeat procedure (*P*).
[A076644] 1, 3, 6, 7, 11, 13, 18, 21, 22, 28, 32, 34, 41, 46, 49, 50, 58, 64, 68, 70, 79, 86, 91, 94, 95, 105, 113, 119, 123, 125, 136, 145, 152, 157, 160, 161, 173, 183, 191, 197, 201, 203, 216, 227, 236, 243, 248, 251, 252, 266, 278, 288, 296, 302, 306, 308, 323, 336
a(n) is asymptotic to 2/3*n^(3/2).
[A047556] 3, 6, 7, 11, 14, 15, 19, 22, 23, 27, 30, 31, 35, 38, 39, 43, 46, 47, 51, 54, 55, 59, 62, 63, 67, 70, 71, 75, 78, 79, 83, 86, 87, 91, 94, 95, 99, 102, 103, 107, 110, 111, 115, 118, 119, 123, 126, 127, 131, 134, 135, 139, 142, 143, 147, 150, 151, 155, 158, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-9*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-5. (End)
[A004755] 3, 6, 7, 12, 13, 14, 15, 24, 25, 26, 27, 28, 29, 30, 31, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122
a(2n) = 2a(n), a(2n+1) = 2a(n) + 1 + 2[n==0].
a(2^m+k) = 2^(m+1) + 2^m + k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Aug 08 2016
[A004760] 0, 1, 3, 6, 7, 12, 13, 14, 15, 24, 25, 26, 27, 28, 29, 30, 31, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122
a(0) = 0, a(1) = 1, for n>0: a(2n) = 2*a(n) + 1, a(2n+1) = 2*a(n+1) . - Philippe Deléham, Feb 29 2004
a(1)=0, a(2)=1, a(2^m+k+2) = 2^(m+1)+2^m+k , m>=0, 0<=k<2^m. - Yosu Yurramendi, Jul 30 2016
[A069891] 0, 1, 3, 6, 7, 12, 18, 25, 27, 28, 38, 49, 52, 65, 79, 94, 95, 112, 114, 133, 138, 159, 181, 204, 210, 211, 237, 240, 247, 276, 306, 337, 339, 372, 406, 441, 442, 479, 517, 556, 566, 607, 649, 692, 703, 708, 754, 801, 804, 805, 807, 858, 871, 924, 930, 985, 999
a(n) is asymptotic to r*n^2, where r = Pi^2/30 = 0.3289868...
[A033053] 1, 3, 6, 7, 13, 15, 26, 27, 30, 31, 53, 55, 61, 63, 106, 107, 110, 111, 122, 123, 126, 127, 213, 215, 221, 223, 245, 247, 253, 255, 426, 427, 430, 431, 442, 443, 446, 447, 490, 491, 494, 495, 506, 507, 510, 511, 853, 855, 861, 863
a(2j+2) = 4 a(j)+3,
a(2j+1) = 4 a(j) + 2 if j <= 3*2^(m-1)-2,
a(2j+1) = 4 a(j) + 1 otherwise, where m = floor(log_2(j+1))

[A266615] 1, 1, 3, 6, 7, 15, 17, 28, 29, 45, 47, 66, 67, 91, 93, 120, 121, 153, 155, 190, 191, 231, 233, 276, 277, 325, 327, 378, 379, 435, 437, 496, 497, 561, 563, 630, 631, 703, 705, 780, 781, 861, 863, 946, 947, 1035, 1037, 1128, 1129, 1225, 1227, 1326, 1327, 1431
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7) for n>6.
[A265227] 0, 1, 3, 6, 8, 9, 10, 12, 15, 17, 18, 19, 21, 24, 26, 27, 28, 30, 33, 35, 36, 37, 39, 42, 44, 45, 46, 48, 51, 53, 54, 55, 57, 60, 62, 63, 64, 66, 69, 71, 72, 73, 75, 78, 80, 81, 82, 84, 87, 89, 90, 91, 93, 96, 98, 99, 100, 102, 105, 107, 108, 109, 111, 114
a(n) = a(n-1) + a(n-5) - a(n-6) for n>6.
[A047401] 0, 1, 3, 6, 8, 9, 11, 14, 16, 17, 19, 22, 24, 25, 27, 30, 32, 33, 35, 38, 40, 41, 43, 46, 48, 49, 51, 54, 56, 57, 59, 62, 64, 65, 67, 70, 72, 73, 75, 78, 80, 81, 83, 86, 88, 89, 91, 94, 96, 97, 99, 102, 104, 105, 107, 110, 112, 113, 115, 118, 120, 121, 123
a(n) = 2*(n-1)+(i^(n*(n-1))-1)/2, where i=sqrt(-1). - Bruno Berselli, Dec 05 2011
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
[A159061] 3, 6, 8, 10, 12, 15, 17, 19, 21, 24, 26, 28, 30, 32, 34, 36, 39, 41, 43, 45, 47, 49, 51, 53, 56, 58, 60, 62, 64, 66, 68, 70, 72, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 123, 125, 127, 129, 131, 133, 135, 137
a(n) is the nearest integer to 2*n*(1+ binomial(2*n,n)/(2^(2*n))).
[A047282] 1, 3, 6, 8, 10, 13, 15, 17, 20, 22, 24, 27, 29, 31, 34, 36, 38, 41, 43, 45, 48, 50, 52, 55, 57, 59, 62, 64, 66, 69, 71, 73, 76, 78, 80, 83, 85, 87, 90, 92, 94, 97, 99, 101, 104, 106, 108, 111, 113, 115, 118, 120, 122, 125, 127, 129, 132, 134, 136, 139, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-12+3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3*k) = 7*k-1, a(3*k-1) = 7*k-4, a(3*k-2) = 7*k-6. (End)
a(n) = 2*n - 1 + floor(n/3). - Wesley Ivan Hurt, Dec 28 2016
[A064437] 1, 3, 6, 8, 10, 13, 15, 18, 20, 23, 25, 27, 30, 32, 35, 37, 39, 42, 44, 47, 49, 51, 54, 56, 59, 61, 64, 66, 68, 71, 73, 76, 78, 80, 83, 85, 88, 90, 93, 95, 97, 100, 102, 105, 107, 109, 112, 114, 117, 119, 122, 124, 126, 129, 131, 134, 136, 138, 141, 143, 146, 148, 150
a(n) = ceiling((1+sqrt(2))*(n-1)+C) where C = 1/(2+sqrt(2)) = .292893218813...
[A187336] 0, 0, 3, 6, 8, 10, 15, 15, 18, 21, 23, 25, 30, 30, 33, 36, 38, 40, 45, 45, 48, 51, 53, 55, 60, 60, 63, 66, 68, 70, 75, 75, 78, 81, 83, 85, 90, 90, 93, 96, 98, 100, 105, 105, 108, 111, 113, 115, 120, 120, 123, 126, 128, 130, 135, 135, 138, 141, 143, 145, 150, 150, 153, 156, 158, 160, 165, 165, 168, 171, 173, 175, 180, 180, 183, 186, 188, 190, 195, 195, 198, 201, 203, 205, 210, 210, 213, 216, 218, 220, 225, 225, 228, 231, 233, 235, 240, 240, 243, 246, 248, 250, 255, 255, 258, 261, 263, 265, 270, 270
a(n)=Sum{floor(kn/6), k=1,2,3,4,5}.
[A118011] 3, 6, 8, 11, 13, 15, 18, 20, 22, 24, 27, 29, 31, 33, 35, 38, 40, 42, 44, 46, 48, 51, 53, 55, 57, 59, 61, 63, 66, 68, 70, 72, 74, 76, 78, 80, 83, 85, 87, 89, 91, 93, 95, 97, 99, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 123, 125, 127, 129, 131, 133, 135, 137, 139
a(n) = 2n+[(1+sqrt(8n-7))/2]. - Juri-Stepan Gerasimov Aug 25 2009
a(n) = 2*n+round(sqrt(2*n)). - Gerald Hillier, Apr 16 2015
[A047219] 1, 3, 6, 8, 11, 13, 16, 18, 21, 23, 26, 28, 31, 33, 36, 38, 41, 43, 46, 48, 51, 53, 56, 58, 61, 63, 66, 68, 71, 73, 76, 78, 81, 83, 86, 88, 91, 93, 96, 98, 101, 103, 106, 108, 111, 113, 116, 118, 121, 123, 126, 128, 131, 133, 136, 138, 141, 143, 146, 148
a(n) = floor((5*n-3)/2). - Santi Spadaro, Jul 24 2001, corrected by Gary Detlefs, Oct 28 2011
a(n) = 5*n-a(n-1)-6 (with a(1)=1). - Vincenzo Librandi, Aug 05 2010
a(n) = (1/4)*[-7-(-1)^n+10*n], with n>=1. - Paolo P. Lava, Sep 03 2010
a(n) = 2*n + floor((n-1)/2) - 1. - Arkadiusz Wesolowski, Sep 19 2012
[A122437] 1, 3, 6, 8, 11, 13, 16, 19, 21, 24, 26, 29, 32, 34, 37, 39, 42, 44, 47, 50, 52, 55, 57, 60, 63, 65, 68, 70, 73, 75, 78, 81, 83, 86, 88, 91, 94, 96, 99, 101, 104, 106, 109, 112, 114, 117, 119, 122, 125, 127, 130, 132, 135, 138, 140, 143, 145, 148, 150, 153, 156, 158, 161
a(n+1) = floor(1+n+n*log(3)/log(2)). - T. D. Noe, Sep 08 2006
[A184657] 3, 6, 8, 11, 13, 16, 19, 21, 24, 26, 29, 32, 34, 37, 40, 42, 45, 47, 50, 53, 55, 58, 61, 63, 66, 68, 71, 74, 76, 79, 81, 84, 87, 89, 92, 95, 97, 100, 102, 105, 108, 110, 113, 116, 118, 121, 123, 126, 129, 131, 134, 136, 139, 142, 144, 147, 150, 152, 155, 157, 160, 163, 165, 168, 170, 173, 176, 178, 181, 184, 186, 189, 191, 194, 197, 199, 202, 205, 207, 210, 212, 215, 218, 220, 223, 225, 228, 231, 233, 236, 239, 241, 244, 246, 249, 252, 254, 257, 259, 262, 265, 267, 270, 273, 275, 278, 280, 283, 286, 288, 291, 294, 296, 299, 301, 304, 307, 309, 312, 314
a(n)=floor(n*s+h-h*s), where s=(3+sqrt(5))/2, h=-1/2.
[A047399] 0, 3, 6, 8, 11, 14, 16, 19, 22, 24, 27, 30, 32, 35, 38, 40, 43, 46, 48, 51, 54, 56, 59, 62, 64, 67, 70, 72, 75, 78, 80, 83, 86, 88, 91, 94, 96, 99, 102, 104, 107, 110, 112, 115, 118, 120, 123, 126, 128, 131, 134, 136, 139, 142, 144, 147, 150, 152, 155, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = floor((8*n-6)/3). [Gary Detlefs, Mar 07 2010]
a(n) = 3*n-floor(n/3). [Gary Detlefs, Jul 09 2011]
a(n) = (24*n-21+3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-5, a(3k-2) = 8k-8. (End)
[A057349] 3, 6, 8, 11, 14, 17, 19, 22, 25, 27, 30, 33, 36, 38, 41, 44, 46, 49, 52, 55, 57, 60, 63, 65, 68, 71, 74, 76, 79, 82, 84, 87, 90, 93, 95, 98, 101, 103, 106, 109, 112, 114, 117, 120, 122, 125, 128, 131, 133, 136, 139, 141, 144, 147, 150, 152, 155, 158, 160, 163, 166
a(n) = floor((19*n + 5)/7).
[A185549] 0, 1, 3, 6, 8, 12, 15, 19, 23, 27, 32, 37, 42, 47, 53, 59, 64, 71, 77, 83, 90, 97, 104, 111, 118, 125, 133, 141, 149, 157, 165, 173, 182, 190, 199, 208, 216, 226, 235, 244, 253, 263, 273, 282, 292, 302, 312, 323, 333, 343, 354, 365, 375, 386, 397, 408, 420, 431, 442, 454, 465, 477, 489
a(n) = ceiling(n^(3/2)).
[A082873] 1, 1, 3, 6, 8, 12, 15, 19, 25, 30, 36, 42, 49, 55, 63, 72, 80, 90, 99, 109, 121, 132, 144, 156, 169, 181, 195, 210, 224, 240, 255, 271, 289, 306, 324, 342, 361, 379, 399, 420, 440, 462, 483, 505, 529, 552, 576, 600, 625, 649, 675, 702, 728
a(n) = floor((n+1)^2/4) if n == 0, 1, 4, 6, 9, 10, 11 (mod 12), a(n) = floor((n+1)^2/4) - 1 otherwise.
a(n)= +2*a(n-1) -a(n-2) +a(n-12) -2*a(n-13) +a(n-14). - R. J. Mathar, Aug 05 2014
[A220001] 0, 1, 3, 6, 8, 12, 15, 20, 22, 26, 30, 36, 39, 44, 49, 56, 58, 62, 66, 72, 76, 82, 88, 96, 99, 104, 109, 116, 121, 128, 135, 144, 146, 150, 154, 160, 164, 170, 176, 184, 188, 194, 200, 208, 214, 222, 230, 240, 243, 248, 253, 260, 265, 272, 279, 288, 293, 300
a(n) = 2*floor(n/2) + a(floor(n/2)) + a(ceiling(n/2)) for n > 2 and a(1)=0 and a(2)=1.
[A212984] 1, 1, 3, 6, 8, 12, 17, 21, 27, 34, 40, 48, 57, 65, 75, 86, 96, 108, 121, 133, 147, 162, 176, 192, 209, 225, 243, 262, 280, 300, 321, 341, 363, 386, 408, 432, 457, 481, 507, 534, 560, 588, 617, 645, 675, 706, 736, 768, 801, 833, 867, 902, 936, 972, 1009
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5) for n>4.
a(n) = 1 + floor(2*n/3) + floor(n^2/3). - Wesley Ivan Hurt, Jul 25 2016
[A046670] 1, 3, 6, 8, 13, 16, 23, 25, 28, 33, 44, 47, 60, 67, 72, 74, 91, 94, 113, 118, 125, 136, 159, 162, 167, 180, 183, 190, 219, 224, 255, 257, 268, 285, 292, 295, 332, 351, 364, 369, 410, 417, 460, 471, 476, 499, 546, 549, 556, 561, 578, 591, 644, 647, 658, 665, 684
a(n) = Pi^2/12 * n^2/log n + O(n^2/log^2 n). [See Mitrinovic et al.] - Charles R Greathouse IV, Feb 19 2014
[A123208] 1, 3, 6, 8, 16, 18, 36, 38, 76, 78, 156, 158, 316, 318, 636, 638, 1276, 1278, 2556, 2558, 5116, 5118, 10236, 10238, 20476, 20478, 40956, 40958, 81916, 81918, 163836, 163838, 327676, 327678, 655356, 655358, 1310716, 1310718, 2621436, 2621438
a(2n) = 5*2^n-4; a(2n+1) = 5*2^n-2 (n>=0). - Emeric Deutsch, Oct 10 2006
a(n+1) = (1+(-1)^n)*(a(n)+2)/2+(1-(-1)^n)*a(n), with a(0)=1. - Paolo P. Lava, Nov 19 2008
a(n) = 3*a(n-2)-2*a(n-4). - Colin Barker, Sep 10 2012
[A055264] 0, 1, 3, 6, 9, 10, 12, 15, 18, 19, 21, 24, 27, 28, 30, 33, 36, 37, 39, 42, 45, 46, 48, 51, 54, 55, 57, 60, 63, 64, 66, 69, 72, 73, 75, 78, 81, 82, 84, 87, 90, 91, 93, 96, 99, 100, 102, 105, 108, 109, 111, 114, 117, 118, 120, 123, 126, 127, 129, 132, 135, 136, 138, 141
a(n) =a(n-4)+9 =9*floor[n/4]+[n mod 4]*(1+[n mod 4])/2
[A000408] 3, 6, 9, 11, 12, 14, 17, 18, 19, 21, 22, 24, 26, 27, 29, 30, 33, 34, 35, 36, 38, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 53, 54, 56, 57, 59, 61, 62, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 81, 82, 83, 84, 86, 88, 89, 90, 91, 93, 94, 96, 97, 98, 99, 101, 102, 104
a(n) = 6n/5 + O(x/sqrt(log n)). (Can the error term be improved?) - Charles R Greathouse IV, Mar 14 2014

[A230193] 3, 6, 9, 11, 12, 15, 18, 21, 22, 24, 27, 30, 33, 36, 39, 42, 44, 45, 48, 51, 54, 55, 57, 60, 63, 66, 69, 72, 75, 77, 78, 81, 84, 87, 88, 90, 93, 96, 99, 102, 105, 108, 110, 111, 114, 117, 120, 121, 123, 126, 129, 132, 135, 138, 141, 143, 144, 147, 150, 153
a(n+13) = a(n) + 33.
[A047400] 1, 3, 6, 9, 11, 14, 17, 19, 22, 25, 27, 30, 33, 35, 38, 41, 43, 46, 49, 51, 54, 57, 59, 62, 65, 67, 70, 73, 75, 78, 81, 83, 86, 89, 91, 94, 97, 99, 102, 105, 107, 110, 113, 115, 118, 121, 123, 126, 129, 131, 134, 137, 139, 142, 145, 147, 150, 153, 155, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-9+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-5, a(3k-2) = 8k-7. (End)
[A136616] 1, 3, 6, 9, 11, 14, 17, 19, 22, 25, 28, 30, 33, 36, 38, 41, 44, 47, 49, 52, 55, 57, 60, 63, 66, 68, 71, 74, 76, 79, 82, 85, 87, 90, 93, 96, 98, 101, 104, 106, 109, 112, 115, 117, 120, 123, 125, 128, 131, 134, 136, 139, 142, 144, 147, 150, 153, 155, 158, 161, 163, 166
a(n) = floor(e*n + (e-1)/2 + (e - 1/e)/(24*(n + 1/2))), after a suggestion by David Cantrell
[A230215] 3, 6, 9, 12, 13, 15, 18, 21, 24, 26, 27, 30, 33, 36, 39, 42, 45, 48, 51, 52, 54, 57, 60, 63, 65, 66, 69, 72, 75, 78, 81, 84, 87, 90, 91, 93, 96, 99, 102, 104, 105, 108, 111, 114, 117, 120, 123, 126, 129, 130, 132, 135, 138, 141, 143, 144, 147, 150, 153, 156
a(n+15) = a(n) + 39.
[A168045] 1, 3, 6, 9, 12, 14, 16, 18, 20, 23, 25, 27, 29, 31, 34, 36, 38, 40, 43, 45, 47, 49, 51, 53, 56, 58, 60, 62, 64, 66, 69, 71, 73, 75, 78, 80, 82, 84, 87, 89, 91, 93, 95, 98, 100, 102, 104, 106, 108, 111, 113, 115, 117, 119, 121, 124, 126, 128, 130, 133, 135, 137, 139, 141
a(n) = 2n + n / log n + O(n / (log n)^2). -Charles R Greathouse IV, May 25, 2011
[A008486] 1, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186
a(0) = 1; a(n) = 3*n, n >= 1.
a(n) = a(n-1) + 3 for n >= 2. - Jaroslav Krizek, Nov 18 2009
a(n) = 0^n + 3*n. - Vincenzo Librandi, Aug 21 2011
a(n) = -a(-n) unless n = 0. - Michael Somos, May 05 2015
[A059563] 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 74, 77, 80, 83, 86, 89, 92, 95, 98, 101, 104, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175, 178, 182, 185
a(n) = floor(n*(e+1/e)). - Michel Marcus, Jan 04 2015
[A127451] 3, 6, 9, 12, 15, 18, 21, 25, 28, 31, 34, 37, 40, 43, 47, 50, 53, 56, 59, 62, 65, 69, 72, 75, 78, 81, 84, 87, 91, 94, 97, 100, 103, 106, 109, 113, 116, 119, 122, 125, 128, 131, 135, 138, 141, 144, 147, 150, 153, 157, 160, 163, 166, 169, 172, 175, 178, 182, 185, 188
a(n) = floor(n/(1 - e^Pi + Pi^e))
[A022844] 0, 3, 6, 9, 12, 15, 18, 21, 25, 28, 31, 34, 37, 40, 43, 47, 50, 53, 56, 59, 62, 65, 69, 72, 75, 78, 81, 84, 87, 91, 94, 97, 100, 103, 106, 109, 113, 116, 119, 122, 125, 128, 131, 135, 138, 141, 144, 147, 150, 153, 157, 160, 163, 166, 169, 172, 175, 179, 182, 185, 188, 191, 194
a(n)/n converges to Pi because |a(n)/n-Pi|=|a(n)-n*Pi|/n<1/n. - Hieronymus Fischer, Jan 22 2006
[A138252] 3, 6, 9, 12, 15, 18, 22, 25, 28, 31, 34, 37, 40, 44, 47, 50, 53, 56, 59, 62, 66, 69, 72, 75, 78, 81, 84, 88, 91, 94, 97, 100, 103, 107, 110, 113, 116, 119, 122, 125, 129, 132, 135, 138, 141, 144, 147, 151, 154, 157, 160, 163, 166, 169, 173, 176, 179, 182, 185, 188
a(n)=Floor(t*n).
[A248524] 3, 6, 9, 12, 15, 18, 22, 25, 28, 31, 34, 37, 40, 44, 47, 50, 53, 56, 59, 63, 66, 69, 72, 75, 78, 81, 85, 88, 91, 94, 97, 100, 104, 107, 110, 113, 116, 119, 122, 126, 129, 132, 135, 138, 141, 145, 148, 151, 154, 157, 160, 163, 167, 170, 173, 176, 179, 182
a(n) = floor(n/(1-Pi^(-1/3))).
[A177102] 3, 6, 9, 12, 15, 18, 22, 25, 28, 31, 34, 37, 41, 44, 47, 50, 53, 56, 60, 63, 66, 69, 72, 75, 79, 82, 85, 88, 91, 94, 98, 101, 104, 107, 110, 113, 117, 120, 123, 126, 129, 132, 135, 139, 142, 145, 148, 151, 154, 158, 161, 164, 167, 170, 173, 177, 180, 183
a(n) = floor(n*sqrt(10)).
[A187337] 0, 0, 3, 6, 9, 12, 15, 21, 21, 24, 27, 30, 33, 36, 42, 42, 45, 48, 51, 54, 57, 63, 63, 66, 69, 72, 75, 78, 84, 84, 87, 90, 93, 96, 99, 105, 105, 108, 111, 114, 117, 120, 126, 126, 129, 132, 135, 138, 141, 147, 147, 150, 153, 156, 159, 162, 168, 168, 171, 174, 177, 180, 183, 189, 189, 192, 195, 198, 201, 204, 210, 210, 213, 216, 219, 222, 225, 231, 231, 234, 237, 240, 243, 246, 252, 252, 255, 258, 261, 264, 267, 273, 273, 276, 279, 282, 285, 288, 294, 294, 297, 300
a(n)=Sum{floor(kn/7), k=1,2,3,4,5,6}.
[A289761] 3, 6, 9, 12, 15, 22, 29, 36, 43, 50, 57, 68, 79, 90, 101, 112, 123, 138, 153, 168, 183, 198, 213, 232, 251, 270, 289, 308, 327, 350, 373, 396, 419, 442, 465, 492, 519, 546, 573, 600, 627, 658, 689, 720, 751, 782, 813, 848, 883, 918, 953, 988, 1023, 1062, 1101, 1140, 1179, 1218, 1257, 1300, 1343, 1386, 1429
a(n) = (n^2 - (mod(n,6)-3)^2) / 3 + n.
a(n) = 2*a(n-1) - a(n-2) + a(n-6) - 2*a(n-7) + a(n-8) for n>9.
[A194146] 3, 6, 9, 12, 16, 19, 22, 25, 29, 32, 35, 38, 41, 45, 48, 51, 54, 58, 61, 64, 67, 70, 74, 77, 80, 83, 87, 90, 93, 96, 99, 103, 106, 109, 112, 116, 119, 122, 125, 128, 132, 135, 138, 141, 145, 148, 151, 154, 158, 161, 164, 167, 170, 174, 177, 180, 183, 187
a(n) = Floor(n*(4+sqrt(6))/2). - Vincenzo Librandi, Oct 25 2011
[A276854] 0, 3, 6, 9, 12, 16, 19, 22, 25, 29, 32, 35, 38, 42, 45, 48, 51, 55, 58, 61, 64, 67, 71, 74, 77, 80, 84, 87, 90, 93, 97, 100, 103, 106, 110, 113, 116, 119, 122, 126, 129, 132, 135, 139, 142, 145, 148, 152, 155, 158, 161, 165, 168, 171, 174, 177, 181, 184, 187
a(n) = floor(n*(1 + sqrt(5))).
[A203016] 3, 6, 9, 12, 21, 24, 27, 30, 39, 42, 45, 48, 57, 60, 63, 66, 75, 78, 81, 84, 93, 96, 99, 102, 111, 114, 117, 120, 129, 132, 135, 138, 147, 150, 153, 156, 165, 168, 171, 174, 183, 186, 189, 192, 201, 204, 207, 210, 219, 222, 225, 228, 237, 240, 243, 246, 255, 258, 261, 264, 273, 276, 279, 282, 291, 294, 297
a(n) = 3*(6*n-5-i^(2*n)+(1+i)*i^(1-n)+(1-i)*i^(n-1))/4 where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A171982] 3, 6, 9, 13, 16, 19, 23, 26, 29, 33, 36, 39, 43, 46, 49, 53, 56, 59, 63, 66, 69, 72, 76, 79, 82, 86, 89, 92, 96, 99, 102, 106, 109, 112, 116, 119, 122, 126, 129, 132, 135, 139, 142, 145, 149, 152, 155, 159, 162, 165, 169, 172, 175, 179, 182, 185, 189, 192, 195, 198
a(n) = floor(n*sqrt(11)). - Jon E. Schoenfield, Jun 18 2010
[A066343] 3, 6, 9, 13, 16, 19, 23, 26, 29, 33, 36, 39, 43, 46, 49, 53, 56, 59, 63, 66, 69, 73, 76, 79, 83, 86, 89, 93, 96, 99, 102, 106, 109, 112, 116, 119, 122, 126, 129, 132, 136, 139, 142, 146, 149, 152, 156, 159, 162, 166, 169, 172, 176, 179, 182, 186, 189, 192, 195, 199
a(n) = floor(n*log_2(10)).
[A006590] 1, 3, 6, 9, 13, 16, 21, 24, 29, 33, 38, 41, 48, 51, 56, 61, 67, 70, 77, 80, 87, 92, 97, 100, 109, 113, 118, 123, 130, 133, 142, 145, 152, 157, 162, 167, 177, 180, 185, 190, 199, 202, 211, 214, 221, 228, 233, 236, 247, 251, 258, 263, 270, 273, 282, 287, 296, 301
a(n) = n+Sum_{k=1..n-1} tau(k). - Vladeta Jovovic, Oct 17 2002
[A004116] 1, 3, 6, 9, 13, 17, 22, 27, 33, 39, 46, 53, 61, 69, 78, 87, 97, 107, 118, 129, 141, 153, 166, 179, 193, 207, 222, 237, 253, 269, 286, 303, 321, 339, 358, 377, 397, 417, 438, 459
a(n) = floor((1/4)*n^2 + (3/2)*n + 1/4) - 1.
a(n) = (1/8)*(-1)^(n+1) - 7/8 + (3/2)*n + (1/4)*n^2.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A171662] 0, 0, 1, 3, 6, 9, 13, 17, 22, 28, 35, 42, 50, 58, 67, 77, 88, 99, 111, 123, 136, 150, 165, 180, 196, 212, 229, 247, 266, 285, 305, 325, 346, 368, 391, 414, 438, 462, 487, 513, 540, 567, 595, 623, 652, 682, 713, 744, 776, 808, 841, 875, 910, 945
a(n) = floor((n+1)/(exp(3/(n+1)) - 1)). - Richard R. Forberg, Jun 22 2013
a(0)=0, a(1)=0, a(2)=1, a(3)=3, a(4)=6, a(5)=9, a(6)=13, a(7)=17, a(n)=2*a(n-1)-a(n-2)+a(n-6)-2*a(n-7)+a(n-8). - Harvey P. Dale, Oct 15 2014
[A143975] 1, 3, 6, 9, 13, 18, 23, 29, 36, 43, 51, 60, 69, 79, 90, 101, 113, 126, 139, 153, 168, 183, 199, 216, 233, 251, 270, 289, 309, 330, 351, 373, 396, 419, 443, 468, 493, 519, 546, 573, 601, 630, 659, 689, 720, 751, 783, 816, 849, 883, 918, 953, 989, 1026, 1063, 1101
a(n)=floor(n(n+3)/3).
a(n)= 2*a(n-1) -a(n-2) +a(n-3) -2*a(n-4) +a(n-5). G.f.: x*(-1-x-x^2+x^3)/((1+x+x^2) * (x-1)^3) [From R. J. Mathar, Oct 05 2009]
[A048202] 3, 6, 9, 13, 18, 24, 29, 31, 37, 43, 47, 51, 54, 61, 67, 69, 71, 74, 78, 82, 88, 94, 97, 99, 103, 110, 117, 122, 126, 129, 135, 147, 157, 161, 164, 168, 171, 176, 181, 183, 192, 204, 211, 215, 224, 235, 243, 251, 259, 265, 270, 278
a(n)=a002048(n)+a002048(n+1) [From Gerald Hillier, Oct 04 2008]

[A033436] 0, 0, 1, 3, 6, 9, 13, 18, 24, 30, 37, 45, 54, 63, 73, 84, 96, 108, 121, 135, 150, 165, 181, 198, 216, 234, 253, 273, 294, 315, 337, 360, 384, 408, 433, 459, 486, 513, 541, 570, 600, 630, 661, 693, 726, 759, 793, 828
a(n) = (1/16) {6n^2 - 5 + (-1)^n + 2(-1)^[n/2] - 2(-1)^[(n-1)/2] }. Therefore a(n) is asymptotic to 3/8*n^2. - Ralf Stephan, Jun 09 2005
a(n) = Sum_{i=0..n} {1/8*[(i mod 4)+((i+1) mod 4)-((i+2) mod 4)+3*((i+3) mod 4)]} + a(n-1) - 1, with a(0)=0. - Paolo P. Lava, Jun 28 2007
a(n+1) = n + floor(n^2/3). - Gary Detlefs, Mar 27 2010
a(n) = floor(3*n^2/8). - Peter Bala, Aug 08 2013
a(n) = Sum_{i=1..n} floor(3*i/4). - Wesley Ivan Hurt, Sep 12 2017
[A129728] 1, 3, 6, 9, 13, 18, 25, 35, 50, 73, 109, 166, 257, 403, 638, 1017, 1629, 2618, 4217, 6803, 10986, 17753, 28701, 46414, 75073, 121443, 196470, 317865, 514285, 832098, 1346329, 2178371, 3524642, 5702953, 9227533, 14930422, 24157889, 39088243
a(n) = a(n-1) + Fibonacci(n) - Fibonacci(n-1) + 2
[A027424] 1, 3, 6, 9, 14, 18, 25, 30, 36, 42, 53, 59, 72, 80, 89, 97, 114, 123, 142, 152, 164, 176, 199, 209, 225, 239, 254, 267, 296, 308, 339, 354, 372, 390, 410, 423, 460, 480, 501, 517, 558, 575, 618, 638, 659, 683, 730, 747, 778, 800, 827, 850, 903
a(n) = Sum_{l=1..n^2} Sum_{d|l} moebius(l/d) * floor(m(d,n) * n / l), where m(d,n) is the maximum divisor of d not exceeding n. - Max Alekseyev, Jul 14 2011
[A258087] 0, 0, 1, 3, 6, 9, 14, 18, 25, 30, 39, 45, 56, 63, 76, 84, 99, 108, 125, 135, 154, 165, 186, 198, 221, 234, 259, 273, 300, 315, 344, 360, 391, 408, 441, 459, 494, 513, 550, 570, 609, 630, 671, 693, 736, 759, 804, 828, 875, 900, 949, 975, 1026, 1053, 1106, 1134
a(n) = (6*n^2+2*n-11+(2*n-5)*(-1)^n)/16+0^n.
a(n) = Sum_{i=1..n-1} (3*i+2)/4+(2-i)*(-1)^i/4.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n >= 6. (End)
a(n) = a(-n) for n odd, a(n) = a(-n)+n/2 otherwise.
a(n) = (floor(n/2)+1)*(floor(n/2)+2*floor((n-1)/2))/2 for n>0. Therefore, after 3, all terms of the sequence are composite. (End)
a(n) = Sum_{i=floor((n-1)/2)..n-1} i, for n>0. - Wesley Ivan Hurt, Apr 11 2016
[A184015] 1, 3, 6, 9, 14, 19, 25, 31, 38, 46, 55, 64, 75, 86, 97, 110, 123, 137, 151, 167, 183, 200, 217, 235, 254, 274, 295, 316, 338, 361, 384, 408, 433, 459, 485, 512, 540, 569, 598, 628, 659, 690, 723, 756, 789, 824, 859, 895, 932, 969, 1007, 1046, 1086, 1126, 1167, 1209, 1252, 1295, 1339, 1384, 1429, 1476, 1523, 1570, 1619, 1668, 1718, 1769, 1820, 1872, 1925, 1979, 2033, 2088, 2144, 2200, 2258, 2316, 2374, 2434
a(n) = n-1+ceiling(n^2/e)
[A082643] 0, 1, 3, 6, 9, 14, 20, 27, 34, 43, 53, 64, 75, 88, 102, 117, 132, 149, 167, 186, 205, 226, 248, 271, 294, 319, 345, 372, 399, 428, 458, 489, 520, 553, 587, 622, 657, 694, 732, 771, 810, 851, 893, 936, 979, 1024, 1070, 1117, 1164, 1213, 1263, 1314, 1365, 1418, 1472, 1527
a(n) = +2 a(n-1) -a(n-2) +a(n-4) -2 a(n-5) +a(n-6). - R. J. Mathar, Mar 11 2012
[A070885] 1, 3, 6, 9, 15, 24, 36, 54, 81, 123, 186, 279, 420, 630, 945, 1419, 2130, 3195, 4794, 7191, 10788, 16182, 24273, 36411, 54618, 81927, 122892, 184338, 276507, 414762, 622143, 933216, 1399824, 2099736, 3149604, 4724406, 7086609, 10629915
a(n) = 3*ceiling(a(n-1)/2). - Benoit Cloitre, Apr 25 2003
[A002597] 1, 1, 3, 6, 9, 15, 25, 34, 51, 73, 97, 132, 178, 226, 294, 376, 466, 582, 722, 872, 1062, 1282, 1522, 1812, 2147, 2507, 2937, 3422, 3947, 4557, 5243, 5978, 6825, 7763, 8771, 9912, 11172, 12516, 14028, 15680, 17444, 19404, 21540, 23808, 26316, 29028, 31908
a(n)=floor((160*(n+1)*(-1)^(floor(n/3+2/3)+n)+80*(n^2+15*n+24)*(-1)^(floor(n/3+1/3)+n)+80*(n+2)*(n+11)*(-1)^(floor(n/3)+n)+405*(n+1)*(-1)^n+(n+1)*(2*n^4+68*n^3+852*n^2+4748*n+10735))/25920+1/2). - Tani Akinari, Oct 12 2012
[A182751] 1, 3, 6, 9, 18, 27, 54, 81, 162, 243, 486, 729, 1458, 2187, 4374, 6561, 13122, 19683, 39366, 59049, 118098, 177147, 354294, 531441, 1062882, 1594323, 3188646, 4782969, 9565938, 14348907, 28697814, 43046721, 86093442, 129140163, 258280326, 387420489
a(2*k) = (3/2)*a(2*k-1) for k >= 2, a(2*k+1) = 2*a(2*k).
[A133195] 0, 3, 6, 9, 39, 69, 99, 399, 699, 999, 3999, 6999, 9999, 39999, 69999, 99999, 399999, 699999, 999999, 3999999, 6999999, 9999999, 39999999, 69999999, 99999999, 399999999, 699999999, 999999999, 3999999999, 6999999999, 9999999999
a(n) = a(n-1)+10*a(n-3)-10*a(n-4). G.f.: 3*x*(x^2+x+1) / ((x-1)*(10*x^3-1)). [Colin Barker, Feb 01 2013]
[A130483] 0, 1, 3, 6, 10, 10, 11, 13, 16, 20, 20, 21, 23, 26, 30, 30, 31, 33, 36, 40, 40, 41, 43, 46, 50, 50, 51, 53, 56, 60, 60, 61, 63, 66, 70, 70, 71, 73, 76, 80, 80, 81, 83, 86, 90, 90, 91, 93, 96, 100, 100, 101, 103, 106, 110, 110, 111, 113, 116, 120, 120, 121, 123, 126, 130, 130
a(n) = a(n-5) - a(n-6) for n>5; a(n) = a(n-5) + 10 for n>4.
a(n) = 10 + Sum_{k=1..4} k*floor((n-k)/5). (End)
[A080667] 3, 6, 10, 13, 16, 20, 23, 26, 29, 33, 36, 39, 43, 46, 49, 53, 56, 59, 62, 66, 69, 72, 76, 79, 82, 86, 89, 92, 96, 99, 102, 105, 109, 112, 115, 119, 122, 125, 129, 132, 135, 138, 142, 145, 148, 152, 155, 158, 162, 165, 168, 171, 175, 178, 181, 185, 188
a(n) = floor(n*r + 1/(1+r)) where r = (3 + sqrt(13))/2.
[A258834] 0, 3, 6, 10, 13, 17, 20, 24, 27, 30, 34, 37, 41, 44, 47, 51, 54, 58, 61, 65, 68, 71, 75, 78, 82, 85, 88, 92, 95, 99, 102, 105, 109, 112, 116, 119, 123, 126, 129, 133, 136, 140, 143, 146, 150, 153, 157, 160, 164, 167, 170, 174, 177, 181, 184, 187, 191, 194
a(n) = ceiling((n - 1/4)*(2 + sqrt(2))) = floor((n - 1/4)*(2 + sqrt(2)) + 1).
[A194028] 3, 6, 10, 13, 17, 20, 24, 27, 31, 34, 38, 41, 45, 48, 51, 55, 58, 62, 65, 69, 72, 76, 79, 83, 86, 90, 93, 96, 100, 103, 107, 110, 114, 117, 121, 124, 128, 131, 135, 138, 142, 145, 148, 152, 155, 159, 162, 166, 169, 173, 176, 180, 183, 187, 190, 193, 197
a(n) = floor(n*sqrt(12)).
[A047280] 3, 6, 10, 13, 17, 20, 24, 27, 31, 34, 38, 41, 45, 48, 52, 55, 59, 62, 66, 69, 73, 76, 80, 83, 87, 90, 94, 97, 101, 104, 108, 111, 115, 118, 122, 125, 129, 132, 136, 139, 143, 146, 150, 153, 157, 160, 164, 167, 171, 174, 178, 181, 185, 188, 192, 195, 199, 202
a(n) = 7*n-a(n-1)-5 with n>1, a(1)=3. [Vincenzo Librandi, Aug 05 2010]
a(n) = 3*n + ceiling(n/2) - 1. - Arkadiusz Wesolowski, Sep 20 2012
a(n) = 4n - 1 - floor(n/2). - Wesley Ivan Hurt, Oct 16 2013
[A276219] 3, 6, 10, 13, 17, 21, 25, 30, 34, 39, 44, 49, 54, 60, 65, 70, 76, 82, 88, 94, 100, 106, 112, 118, 125, 131, 138, 144, 151, 158, 165, 172, 179, 186, 193, 201, 208, 215, 223, 230, 238, 246, 253, 261, 269, 277, 285, 293, 301, 309, 318, 326, 334, 343, 351, 360
a(n) = n + floor(n^s), n >= 2; the complement is given by n + floor(n^(1/s)), n >= 1.
[A113127] 1, 3, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222, 226, 230
a(n)=4n-2+2*C(0, n)+C(1, n); a(n)=C(n+1, n)+C(n, n-1)+C(n-1, n-2)+C(n-2, n-3).
[A036572] 3, 6, 10, 14, 19, 24, 30, 36, 43, 50, 58, 66, 75, 84, 94, 104, 115, 126, 138, 150, 163, 176, 190, 204, 219, 234, 250, 266, 283, 300, 318, 336, 355, 374, 394, 414, 435, 456, 478, 500, 523, 546, 570, 594, 619, 644, 670, 696, 723, 750, 778, 806
a(n) = (-31-(-1)^n+12*n+2*n^2)/8. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: x^3*(2*x^2-3) / ((x-1)^3*(x+1)). - Colin Barker, Sep 05 2013
[A033437] 0, 0, 1, 3, 6, 10, 14, 19, 25, 32, 40, 48, 57, 67, 78, 90, 102, 115, 129, 144, 160, 176, 193, 211, 230, 250, 270, 291, 313, 336, 360, 384, 409, 435, 462, 490, 518, 547, 577, 608, 640, 672, 705, 739, 774, 810, 846, 883, 921, 960, 1000, 1040, 1081, 1123, 1166, 1210, 1254
a(n) = floor(2n^2/5). - Wesley Ivan Hurt, Jun 20 2013
a(n) = Sum_{i=1..n} floor(4*i/5). - Wesley Ivan Hurt, Sep 12 2017
[A272058] 0, 0, 1, 3, 6, 10, 14, 20, 25, 33, 39, 49, 56, 68, 76, 90, 99, 115, 125, 143, 154, 174, 186, 208, 221, 245, 259, 285, 300, 328, 344, 374, 391, 423, 441, 475, 494, 530, 550, 588, 609, 649, 671, 713, 736, 780, 804, 850, 875, 923, 949, 999, 1026, 1078, 1106
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>6.
a(n) = (6*n^2 + 6*n - 23 + (7 - 2*n)*(-1)^n)/16 for n>1.
a(n) = floor((n+3)/4) * floor((3*n-4)/2) + (floor((n-1)/2) mod 2) * floor((3*n-3)/4) for n>1.
[A183863] 1, 3, 6, 10, 14, 20, 26, 33, 41, 49, 59, 69, 80, 92, 104, 118, 132, 147, 163, 179, 197, 215, 234, 254, 274, 296, 318, 341, 365, 389, 415, 441, 468, 496, 524, 554, 584, 615, 647, 679, 713, 747, 782, 818, 854, 892, 930, 969, 1009, 1049, 1091, 1133, 1176, 1220, 1264, 1310, 1356, 1403, 1451, 1499, 1549, 1599, 1650, 1702, 1754, 1808, 1862, 1917, 1973, 2029
a(n)=n-1+ceiling((2/5)(-1/2+n^2)).
[A109804] 0, 1, 3, 6, 10, 15, 16, 17, 18, 19, 20, 21, 23, 25, 27, 29, 31, 33, 36, 39, 42, 45, 48, 51, 55, 59, 63, 67, 71, 75, 80, 85, 90, 95, 100, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131

a(n) below is sum_{i=0..n} first-digit{(i base 6)}.
a(n) = sum_{i=1..n} floor(n / 6^floor(log_6(n))) where log_6(n) is the logarithm to base 6.
a(n+1) = a(n) + first-digit-of((n+1) (base 6)).
[A194458] 1, 3, 6, 10, 15, 17, 21, 27, 35, 45, 48, 54, 63, 75, 90, 94, 102, 114, 130, 150, 155, 165, 180, 200, 225, 227, 231, 237, 245, 255, 259, 267, 279, 295, 315, 321, 333, 351, 375, 405, 413, 429, 453, 485, 525, 535, 555, 585, 625, 675, 678, 684, 693, 705, 720, 726
a(n) = ((C(d0+1,2)*15^0*(d1+1) + C(d1+1,2)*15^1)*(d1+1) + C(d1+1,2)*15^1)*(d2+1) + C(d2+1,2)*15^2 ..., where d_k...d_1d_0 is the base 5 expansion of n+1 and 15 = binomial(5+1,2). The formula generalizes to other prime bases p.
[A033438] 0, 0, 1, 3, 6, 10, 15, 20, 26, 33, 41, 50, 60, 70, 81, 93, 106, 120, 135, 150, 166, 183, 201, 220, 240, 260, 281, 303, 326, 350, 375, 400, 426, 453, 481, 510, 540, 570, 601, 633, 666, 700, 735, 770, 806, 843, 881
a(n) = +2*a(n-1) -a(n-2) +a(n-6) -2*a(n-7) +a(n-8).
a(n) = floor(5*n^2/12). - Peter Bala, Aug 12 2013
a(n) = Sum_{i=1..n} floor(5*i/6). - Wesley Ivan Hurt, Sep 12 2017
[A115015] 1, 3, 6, 10, 15, 21, 21, 29, 38, 48, 59, 71, 84, 84, 99, 115, 132, 150, 169, 189, 189, 211, 234, 258, 283, 309, 336, 336, 365, 395, 426, 458, 491, 525, 525, 561, 598, 636, 675, 715, 756, 756, 799, 843, 888, 934, 981, 1029, 1029, 1079, 1130, 1182, 1235, 1289, 1344, 1344
a(-1-n) = a(n). - Michael Somos, Jul 12 2006
[A033439] 0, 0, 1, 3, 6, 10, 15, 21, 27, 34, 42, 51, 61, 72, 84, 96, 109, 123, 138, 154, 171, 189, 207, 226, 246, 267, 289, 312, 336, 360, 385, 411, 438, 466, 495, 525, 555, 586, 618, 651, 685, 720, 756, 792, 829, 867, 906, 946, 987, 1029, 1071, 1114, 1158, 1203, 1249
a(n) = floor(3*n^2/7). - Peter Bala, Aug 12 2013
a(0)=0, a(1)=0, a(2)=1, a(3)=3, a(4)=6, a(5)=10, a(6)=15, a(7)=21, a(8)=27, a(n)=2*a(n-1)-a(n-2)+a(n-7)-2*a(n-8)+a(n-9). - Harvey P. Dale, Mar 19 2015
a(n) = Sum_{i=1..n} floor(6*i/7). - Wesley Ivan Hurt, Sep 12 2017
[A171971] 0, 1, 3, 6, 10, 15, 21, 27, 35, 43, 52, 62, 73, 84, 97, 110, 125, 140, 156, 173, 190, 209, 229, 249, 270, 292, 315, 339, 364, 389, 416, 443, 471, 500, 530, 561, 592, 625, 658, 692, 727, 763, 800, 838, 876, 916, 956, 997, 1039, 1082, 1126, 1170, 1216, 1262, 1309
a(n) = floor(n^2 * sqrt(3) / 4).
[A033440] 0, 0, 1, 3, 6, 10, 15, 21, 28, 35, 43, 52, 62, 73, 85, 98, 112, 126, 141, 157, 174, 192, 211, 231, 252, 273, 295, 318, 342, 367, 393, 420, 448, 476, 505, 535, 566, 598, 631, 665, 700, 735, 771, 808, 846, 885, 925
a(n) = round((7/16)*n(n-2)) +0 or -1 depending on n: if there is k such 8k+4<=n<=8k+6 then a(n) = floor((7/16)*n*(n-2)) otherwise a(n) = round((7/16)*n(n-2)). E.g. because 8*2+4<=21<=8*2+6 a(n) = floor((7/16)*21*19) = floor(174, 5625)=174. - Benoit Cloitre, Jan 17 2002
a(n) = Sum_{i=1..n} floor(7*i/8). - Wesley Ivan Hurt, Sep 12 2017
[A108923] 1, 3, 6, 10, 15, 21, 28, 36, 44, 52, 60, 68, 76, 84, 92, 100, 109, 119, 130, 142, 155, 169, 184, 200, 216, 232, 248, 264, 280, 296, 312, 328, 345, 363, 382, 402, 423, 445, 468, 492, 516, 540, 564, 588, 612, 636, 660, 684, 709, 735, 762, 790, 819, 849, 880, 912
a(0)=1, a(1)=3, a(2)=6, a(3)=10, a(4)=15, a(5)=21, a(6)=28, a(7)=36, a(8)=44, a(9)=52, a(10)=60, a(n)=3*a(n-1)-3*a(n-2)+a(n-3)-a(n-8)+ 3*a(n-9)- 3*a(n-10)+a (n-11). - Harvey P. Dale, Jan 28 2015
[A033441] 0, 0, 1, 3, 6, 10, 15, 21, 28, 36, 44, 53, 63, 74, 86, 99, 113, 128, 144, 160, 177, 195, 214, 234, 255, 277, 300, 324, 348, 373, 399, 426, 454, 483, 513, 544, 576, 608, 641, 675, 710, 746, 783, 821, 860, 900, 940, 981, 1023, 1066, 1110, 1155, 1201, 1248, 1296
a(n) = Sum_{i=1..n} floor(8*i/9). - Wesley Ivan Hurt, Sep 12 2017
[A061076] 1, 3, 6, 10, 15, 21, 28, 36, 45, 45, 46, 48, 51, 55, 60, 66, 73, 81, 90, 90, 92, 96, 102, 110, 120, 132, 146, 162, 180, 180, 183, 189, 198, 210, 225, 243, 264, 288, 315, 315, 319, 327, 339, 355, 375, 399, 427, 459, 495, 495, 500, 510, 525, 545, 570, 600, 635
a(n) = Sum_{k = 1..n} product of the digits of k.
a(10^k-1) = (45/44)*(45^k-1). - Giovanni Resta, Oct 18 2012
[A217627] 1, 3, 6, 10, 15, 21, 28, 36, 45, 46, 47, 49, 52, 56, 61, 67, 74, 82, 91, 93, 95, 99, 105, 113, 123, 135, 149, 165, 183, 186, 189, 195, 204, 216, 231, 249, 270, 294, 321, 325, 329, 337, 349, 365, 385, 409, 437, 469, 505, 510, 515, 525, 540, 560, 585, 615, 650
a(10^k) = 46^k.
[A037123] 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 46, 48, 51, 55, 60, 66, 73, 81, 90, 100, 102, 105, 109, 114, 120, 127, 135, 144, 154, 165, 168, 172, 177, 183, 190, 198, 207, 217, 228, 240, 244, 249, 255, 262, 270, 279, 289, 300, 312, 325, 330, 336, 343, 351, 360, 370, 381
a(n) = n*(n+1)/2 - 9*Sum_{k=1..n} Sum_{i=1..ceiling(log_10(k))} floor(k/10^i). - Benoit Cloitre, Aug 28 2003
a(n) = (1/2)*((n+1)*(n - 18*Sum_{k>0}floor(n/10^k)) + 9*Sum_{k>0}(1 + floor(n/10^k))*floor(n/10^k)*10^k).
[A033442] 0, 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 54, 64, 75, 87, 100, 114, 129, 145, 162, 180, 198, 217, 237, 258, 280, 303, 327, 352, 378, 405, 432, 460, 489, 519, 550, 582, 615, 649, 684, 720, 756, 793, 831, 870, 910, 951, 993, 1036, 1080, 1125, 1170, 1216, 1263
a(n) = Sum_{i=1..n} floor(9*i/10). - Wesley Ivan Hurt, Sep 12 2017
[A033443] 0, 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 65, 76, 88, 101, 115, 130, 146, 163, 181, 200, 220, 240, 261, 283, 306, 330, 355, 381, 408, 436, 465, 495, 525, 556, 588, 621, 655, 690, 726, 763, 801, 840, 880, 920, 961, 1003, 1046, 1090, 1135, 1181, 1228, 1276
a(n) = Sum_{i=1..n} floor(10*i/11). - Wesley Ivan Hurt, Sep 12 2017
[A033444] 0, 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 77, 89, 102, 116, 131, 147, 164, 182, 201, 221, 242, 264, 286, 309, 333, 358, 384, 411, 439, 468, 498, 529, 561, 594, 627, 661, 696, 732, 769, 807, 846, 886, 927, 969, 1012, 1056, 1100, 1145, 1191, 1238, 1286
a(n) = Sum_{i=1..n} floor(11*i/12). - Wesley Ivan Hurt, Sep 12 2017
[A268291] 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 78, 79, 81, 84, 88, 93, 99, 106, 114, 123, 133, 144, 156, 156, 157, 159, 162, 166, 171, 177, 184, 192, 201, 211, 222, 234, 234, 235, 237, 240, 244, 249, 255, 262, 270, 279, 289, 300, 312, 312, 313, 315, 318, 322, 327, 333, 340, 348
a(n) = 12*floor((n - 12)/13) + 11*floor((n - 11)/13) + 10*floor((n - 10)/13) + 9*floor((n - 9)/13) + 8*floor((n - 8)/13) + 7*floor((n - 7)/13) + 6*floor((n - 6)/13) + 5*floor((n - 5)/13) + 4*floor((n - 4)/13) + 3*floor((n - 3)/13) + 2*floor((n - 2)/13) + floor((n - 1)/13) + 78.
[A130910] 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 120, 121, 123, 126, 130, 135, 141, 148, 156, 165, 175, 186, 198, 211, 225, 240, 240, 241, 243, 246, 250, 255, 261, 268, 276, 285, 295, 306, 318, 331, 345, 360, 360, 361, 363, 366, 370, 375, 381, 388
a(n) = +a(n-1) +a(n-16) -a(n-17). G.f. (x*(1 +2*x +3*x^2 +4*x^3 +5*x^4 +6*x^5 +7*x^6 +8*x^7 +9*x^8 +10*x^9 +11*x^10 +12*x^11 +13*x^12 +14*x^13 +15*x^14)) / ((1+x) *(1+x^2) *(1+x^4) *(1+x^8) *(x-1)^2). - R. J. Mathar, Nov 05 2011
[A253145] 0, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 136, 153, 171, 190, 210, 231, 253, 276, 300, 325, 351, 378, 406, 435, 465, 496, 528, 561, 595, 630, 666, 703, 741, 780, 820, 861, 903, 946, 990, 1035, 1081, 1128, 1176, 1225, 1275
a(n) = (n+1)*(n+2)/2 for n > 0. - Charles R Greathouse IV, Mar 23 2015
[A161680] 0, 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 136, 153, 171, 190, 210, 231, 253, 276, 300, 325, 351, 378, 406, 435, 465, 496, 528, 561, 595, 630, 666, 703, 741, 780, 820, 861, 903, 946, 990, 1035, 1081, 1128, 1176, 1225, 1275, 1326, 1378
a(n) = (n^2 - n)/2.
a(n) = a(n-1)+n-1 (with a(0)=a(1)=0). - Vincenzo Librandi, Nov 30 2010
[A000217] 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 136, 153, 171, 190, 210, 231, 253, 276, 300, 325, 351, 378, 406, 435, 465, 496, 528, 561, 595, 630, 666, 703, 741, 780, 820, 861, 903, 946, 990, 1035, 1081, 1128, 1176, 1225, 1275, 1326, 1378, 1431
a(n) = a(-1-n).
a(n) + a(n-1)*a(n+1) = a(n)^2. - Terrel Trotter, Jr., Apr 08 2002
a(n) = (-1)^n*Sum_{k=1..n} (-1)^k*k^2. - Benoit Cloitre, Aug 29 2002
a(n+1) = ((n+2)/n)*a(n), Sum_{n>=1} 1/a(n) = 2. - Jon Perry, Jul 13 2003
a(n+1) is the determinant of the n X n symmetric Pascal matrix M_(i, j) = binomial(i+j+1, i). - Benoit Cloitre, Aug 19 2003
a(n) = ((n^3 - (n-1)^3) - (n-(n-1)))/(2^3 - 2^1) = (n^3 - (n-1)^3 - 1)/6. - Xavier Acloque, Oct 24 2003
[A025715] 1, 3, 6, 10, 15, 21, 28, 36, 45, 56, 68, 81, 95, 110, 126, 143, 161, 180, 201, 223, 246, 270, 295, 321, 348, 376, 405, 436, 468, 501, 535, 570, 606, 643, 681, 720, 761, 803, 846, 890, 935, 981, 1028, 1076, 1125, 1176, 1228, 1281, 1335, 1390, 1446, 1503, 1561, 1621
a(n) >= binomial(n+2, 2). - David A. Corneth, Jul 20 2017
[A175724] 0, 0, 0, 0, 1, 3, 6, 10, 15, 21, 29, 39, 51, 65, 81, 99, 120, 144, 171, 201, 234, 270, 310, 354, 402, 454, 510, 570, 635, 705, 780, 860, 945, 1035, 1131, 1233, 1341, 1455, 1575, 1701, 1834, 1974, 2121, 2275, 2436, 2604, 2780, 2964, 3156, 3356
a(n) = round((2*n^3+3*n^2-18*n)/72).

a(n) = a(n-6)+(n-2)*(n-3)/2, n>5.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+a(n-6)-3*a(n-7)+3*a(n-8)-a(n-9), n>8.
[A101551] 0, 0, 0, 0, 1, 3, 6, 10, 15, 21, 29, 42, 66, 111, 192, 330, 554, 906, 1452, 2303, 3651, 5826, 9382, 15225, 24807, 40431, 65748, 106584, 172321, 278184, 448980, 725140, 1172412, 1897380, 3072365, 4975551, 8055918, 13038606, 21096027, 34125561
a(n)=sum{k=0..n, if(mod(k+1, 3)=0, C(n-k, k), 0)}.
a(n+2)=sum{k=0..floor(n/6), binomial(n-3k, 3k+2)}. - Paul Barry, Jan 13 2005
[A227430] 0, 0, 1, 3, 6, 10, 15, 21, 29, 45, 90, 220, 561, 1365, 3095, 6555, 13110, 25126, 46971, 87381, 164921, 320001, 640002, 1309528, 2707629, 5592405, 11450531, 23166783, 46333566, 91869970, 181348455, 357913941, 708653429, 1410132405, 2820264810, 5662052980
a(n) = 6*a(n-1) -15*a(n-2) +20*a(n-3) -15*a(n-4) +6*a(n-5) for n>5, a(0)=a(1)=0, a(2)=1, a(3)=3, a(4)=6, a(5)=10.
[A025723] 1, 3, 6, 10, 15, 22, 30, 39, 49, 60, 73, 87, 102, 118, 135, 154, 174, 195, 217, 240, 265, 291, 318, 346, 376, 407, 439, 472, 506, 542, 579, 617, 656, 696, 738, 781, 825, 870, 916, 964, 1013, 1063, 1114, 1166, 1220, 1275, 1331, 1388, 1447, 1507, 1568, 1630, 1693
a(n) = 1 + Sum_{1<=k<=n} ceil(k*log[5](7)). - Robert Israel, Nov 16 2016
[A173645] 0, 0, 0, 0, 1, 3, 6, 10, 15, 22, 31, 42, 55, 70, 87, 107, 130, 156, 185, 217, 253, 293, 337, 385, 437, 493, 554, 620, 691, 767, 848, 935, 1028, 1127, 1232, 1343, 1460, 1584, 1715, 1853, 1998, 2150, 2310, 2478, 2654, 2838, 3030, 3230, 3439, 3657, 3884
a(n)=round((2*n^3+3*n^2-23*n-12)/66).
a(n)=floor((2*n^3+3*n^2-23*n+18)/66).
a(n)=ceil((2*n^3+3*n^2-23*n-42)/66).
a(n)=a(n-11)+(n-5)^2+6 , n>10 .
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-11) -3*a(n-12) +3*a(n-13) -a(n-14). [R. J. Mathar, Nov 24 2010]
[A177100] 0, 0, 0, 1, 3, 6, 10, 15, 22, 31, 42, 55, 71, 90, 112, 137, 165, 197, 233, 273, 317, 366, 420, 479, 543, 612, 687, 768, 855, 948, 1048, 1155, 1269, 1390, 1518, 1654, 1798, 1950, 2110, 2279, 2457, 2644, 2840, 3045, 3260, 3485, 3720, 3965, 4221, 4488, 4766
a(n)=round((n-1)*(n+2)*(2*n+1)/54);
a(n)=floor((n+3)*(2*n^2-3*n+6)/54);
a(n)=ceil((n-2)*(2*n^2+7*n+11)/54);
a(n)=round((2*n^3+3*n^2-3*n)/54);
a(n)=a(n-9)+(n+1)*(n-9)+31 , n>8 .
a(n) = +3 a(n-1) -3 a(n-2) +a(n-3) +a(n-9) -3 a(n-10) +3 a(n-11) -a(n-12). - R. J. Mathar, Mar 11 2012
[A265071] 1, 3, 6, 10, 15, 22, 31, 44, 62, 87, 122, 171, 240, 336, 471, 660, 925, 1296, 1816, 2545, 3566, 4997, 7002, 9812, 13749, 19266, 26997, 37830, 53010, 74281, 104088, 145855, 204382, 286394, 401315, 562350, 788003, 1104204, 1547286, 2168163, 3038178, 4257303, 5965624, 8359440, 11713819, 16414204, 23000705, 32230160
a(n) = a(n-2)+a(n-3)+a(n-4)-a(n-6) for n>6. - Vincenzo Librandi, Dec 30 2015
[A137358] 0, 0, 1, 3, 6, 10, 15, 22, 34, 57, 101, 181, 319, 549, 928, 1557, 2617, 4427, 7536, 12872, 21992, 37513, 63862, 108575, 184524, 313701, 533619, 908140, 1545839, 2631240, 4478044, 7619870, 12964858, 22058847, 37533077, 63865592, 108676262, 184929945, 314685488
a(0)=0, a(1)=0, a(2)=1, a(3)=3, a(4)=6, a(n)=3*a(n-1)-3*a(n-2)+ a(n-3)+ a(n-5). - Harvey P. Dale, Nov 06 2012
[A139714] 0, 0, 1, 3, 6, 10, 15, 22, 36, 72, 165, 385, 859, 1807, 3614, 6995, 13380, 25773, 50559, 101118, 204820, 416405, 843756, 1698458, 3396916, 6765175, 13455325, 26789257, 53457121, 106914242, 214146295, 429124630, 859595529, 1720537327, 3441074654
a(n) = round((2/5)*(2^(n-1)+phi^n*cos(Pi*(n-4)/5))), where phi is the golden ratio, round(x) is the integer nearest to x. - Vladimir Shevelev, Jun 18 2017
[A262927] 0, 1, 3, 6, 10, 15, 23, 30, 39, 49, 60, 72, 85, 99, 114, 132, 149, 168, 188, 209, 231, 254, 278, 303, 331, 358, 387, 417, 448, 480, 513, 547, 582, 620, 657, 696, 736, 777, 819, 862, 906, 951, 999, 1046, 1095, 1145, 1196, 1248, 1301, 1355, 1410, 1468, 1525
a(n) = 2*a(n-1) - a(n-2) + a(n-9) - 2*a(n-10) + a(n-11), n>10.
a(n) = (5n^2 + 4n)/9 + O(1), or more precisely (5n^2 + 4n + 3)/9 <= a(n) <= (5n^2 + 4n - 10)/9. - Charles R Greathouse IV, Oct 16 2015
[A214282] 1, 1, 1, 3, 6, 10, 15, 35, 70, 126, 210, 462, 924, 1716, 3003, 6435, 12870, 24310, 43758, 92378, 184756, 352716, 646646, 1352078, 2704156, 5200300, 9657700, 20058300, 40116600, 77558760, 145422675
a(n) = binomial(n - 1, n/2) when n is even, a(n) = binomial(n - 1, (n + 1)/2) when n is 3 mod 4, and a(n) = binomial(n - 1, (n - 1)/2) when n is 1 mod 4.
[A260708] 0, 1, 3, 6, 10, 16, 21, 29, 36, 46, 55, 68, 78, 93, 105, 122, 136, 156, 171, 193, 210, 234, 253, 280, 300, 329, 351, 382, 406, 440, 465, 501, 528, 566, 595, 636, 666, 709, 741, 786, 820, 868, 903, 953, 990, 1042, 1081, 1136, 1176, 1233, 1275, 1334, 1378
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-6) - a(n-7) - a(n-8) + a(n-9) for n>8. (End)
a(6*k+1) = 18*k^2 + 10*k + 1,
a(6*k+3) = 2*(9*k^2 + 11*k + 3),
a(n) = n*(n + 1)/2 + (1 - (-1)^n)*floor(n/6 + 1/3)/2. [Bruno Berselli, Nov 18 2015]
[A049697] 1, 3, 6, 10, 16, 22, 30, 40, 50, 60, 74, 88, 104, 122, 136, 152, 176, 198, 222, 248, 268, 290, 322, 352, 380, 412, 442, 472, 512, 548, 586, 632, 668, 704, 744, 780, 828, 882, 924, 964, 1020, 1072, 1126
a(n-1)=sum_{k=1...n}mu(k)floor(n/k)ceiling(n/k); a(n) is asymptotic to (6/Pi^2)*n^2 - Benoit Cloitre, Jun 27 2005
[A293407] 0, 1, 3, 6, 10, 16, 23, 31, 40, 51, 62, 75, 89, 105, 122, 140, 159, 179, 201, 224, 248, 273, 300, 327, 356, 387, 418, 451, 485, 520, 557, 594, 633, 674, 715, 758, 801, 847, 893, 941, 989, 1039, 1091, 1143, 1197, 1252, 1308, 1366, 1424, 1484, 1546, 1608, 1672
a(n) = ceiling(r*n^2), where r = (-1 + sqrt(5))/2.
[A034198] 0, 1, 3, 6, 10, 16, 23, 32, 43, 56, 71, 89, 109, 132, 158, 187, 219, 255, 294, 337, 384, 435, 490, 550, 614, 683, 757, 836, 920, 1010, 1105, 1206, 1313, 1426, 1545, 1671, 1803, 1942, 2088, 2241, 2401, 2569, 2744, 2927, 3118, 3317, 3524, 3740
a(n) = floor(n*(2*n^2+21*n-6)/72).
a(1)=0, a(2)=1, a(3)=3, a(4)=6, a(5)=10, a(6)=16, a(7)=23, a(n) = 2*a(n-1)- a(n-3)-a(n-4)+2*a(n-6)-a(n-7). [Harvey P. Dale, Dec 25 2011]
[A121776] 1, 1, 3, 6, 10, 16, 23, 36, 52, 76, 118, 181, 271, 427, 675, 1057, 1686, 2705, 4318, 6923, 11142, 17966, 28999, 46793, 75522, 122018, 197254, 318907, 515616, 833796, 1348542, 2181304, 3528487, 5707947, 9234075, 14938991, 24169111, 39103056
a(n) = Sum_{k=0..[n/2]} Sum_{d|(n-k)} phi((n-k)/d)*C(d,k) for n>0, with a(0)=1.
[A259823] 0, 1, 3, 6, 10, 16, 24, 33, 45, 61, 79, 103, 130, 162, 198, 246, 300, 364, 436, 517, 613, 721, 849, 993, 1155, 1347, 1563, 1806, 2062, 2350, 2674, 3058, 3490, 3976, 4488, 5064, 5712, 6441, 7209, 8073, 9045, 10069, 11221, 12517, 13975, 15511, 17239, 19183
a(n) = min {3*a(k) + 2^(n-k)-1; k < n}.
[A264847] 0, 1, 3, 6, 10, 16, 24, 34, 46, 60, 76, 94, 114, 137, 163, 192, 224, 259, 297, 338, 382, 429, 479, 532, 588, 647, 709, 774, 842, 913, 987, 1064, 1145, 1230, 1319, 1412, 1509, 1610, 1715, 1824, 1937, 2054, 2175, 2300, 2429, 2562, 2699, 2840, 2985, 3134, 3287, 3444, 3605, 3770, 3939
a(n+1) = 2*a(n) - a(n-1) + floor(log_10(a(n))) + 1. - Danny Rorabaugh, Jan 20 2016
[A173653] 0, 0, 0, 0, 1, 3, 6, 10, 16, 24, 34, 46, 60, 76, 95, 117, 142, 170, 202, 238, 278, 322, 370, 422, 479, 541, 608, 680, 758, 842, 932, 1028, 1130, 1238, 1353, 1475, 1604, 1740, 1884, 2036, 2196, 2364, 2540, 2724, 2917, 3119, 3330, 3550, 3780
a(n) = sum(k=0..n,floor(k^2/10)).
a(n) = a(n-10)+(n-5)^2+n-1 , n>9.
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-10) -3*a(n-11) +3*a(n-12) -a(n-13). [R. J. Mathar, Nov 24 2010]
[A122046] 0, 0, 0, 1, 3, 6, 10, 16, 24, 34, 46, 61, 79, 100, 124, 152, 184, 220, 260, 305, 355, 410, 470, 536, 608, 686, 770, 861, 959, 1064, 1176, 1296, 1424, 1560, 1704, 1857, 2019, 2190, 2370, 2560, 2760, 2970, 3190, 3421, 3663, 3916, 4180, 4456, 4744, 5044, 5356, 5681, 6019, 6370
a(n) = sum(k=0..n,floor(k^2/8)).
a(n) = round((2*n^3+3*n^2-8*n)/48) = round((4*n^3+6*n^2-16*n-9)/96) = floor((2*n^3+3*n^2-8*n+3)/48) = ceil((2*n^3+3*n^2-8*n-12)/48). - Mircea Merca
a(n) = a(n-8) + (n-4)^2 + n , n>8. - Mircea Merca
a(n+1) = cos((2n+1)Pi/4)/(4*sqrt(2)) + (2n+3)(2n^2+6n-5)/96 + (-1)^n/32. - A. N. W. Hone (A.N.W.Hone(AT)kent.ac.uk), Jul 15 2008
a(n)= 3a(n-1) -3a(n-2) +a(n-3) +a(n-4) -3a(n-5) +3a(n-6) -a(n-7). - A. N. W. Hone (A.N.W.Hone(AT)kent.ac.uk), Jul 15 2008
a(n) = (4*n^3+6*n^2-16*n-9-3*(-1)^n+12*(-1)^((2*n-1+(-1)^n)/4))/96. - Luce ETIENNE, Mar 21 2014
[A173691] 0, 0, 1, 3, 6, 10, 16, 24, 35, 49, 66, 86, 110, 138, 171, 209, 252, 300, 354, 414, 481, 555, 636, 724, 820, 924, 1037, 1159, 1290, 1430, 1580, 1740, 1911, 2093, 2286, 2490, 2706, 2934, 3175, 3429, 3696, 3976, 4270, 4578, 4901, 5239, 5592, 5960, 6344, 6744, 7161

a(n) = sum(k=0..n,round(k^2/6))
a(n) = round((2*n^3+3*n^2+6*n)/36)
a(n) = round((4*n^3+6*n^2+12*n+5)/72)
a(n) = floor((2*n^3+3*n^2+6*n+16)/36)
a(n) = ceil((2*n^3+3*n^2+6*n-11)/36)
a(n) = a(n-6)+n^2-5*n+10, n>5.
[A011902] 0, 0, 0, 0, 1, 3, 6, 10, 16, 25, 36, 49, 66, 85, 109, 136, 168, 204, 244, 290, 342, 399, 462, 531, 607, 690, 780, 877, 982, 1096, 1218, 1348, 1488, 1636, 1795, 1963, 2142, 2331, 2530, 2741, 2964, 3198, 3444
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-20) -3*a(n-21) +3*a(n-22) -a(n-23). G.f.: x^4*(1+x^4+x^5-x^6+2*x^8-2*x^9+3*x^10-2*x^11+2*x^12-x^13+2*x^15-x^17+x^18) / ((-1+x)^4*(1+x^4+x^3+x^2+x)*(1+x)*(1-x+x^2-x^3+x^4)*(1+x^2)*(x^8-x^6+x^4-x^2+1)). [From R. J. Mathar, Apr 15 2010]
[A145131] 0, 1, 3, 6, 10, 16, 25, 38, 56, 81, 116, 165, 233, 327, 457, 637, 886, 1230, 1705, 2361, 3267, 4518, 6245, 8629, 11920, 16463, 22734, 31390, 43338, 59830, 82594, 114015, 157385, 217248, 299876, 413926, 571347, 788632, 1088546, 1502511, 2073898, 2862571
a(n) = 3a(n-1) -3a(n-2) +a(n-3) +a(n-4) -2a(n-5) +a(n-6).
[A265074] 1, 3, 6, 10, 16, 26, 42, 67, 106, 167, 264, 418, 662, 1048, 1658, 2623, 4150, 6567, 10392, 16444, 26020, 41172, 65148, 103087, 163120, 258113, 408424, 646268, 1022620, 1618140, 2560460, 4051537, 6410938, 10144329, 16051850, 25399600, 40190986, 63596094, 100631100, 159233337, 251962422, 398692029, 630869210
a(n) = a(n-1)+a(n-3)+a(n-5)+a(n-7)-a(n-8) for n>8. - Vincenzo Librandi, Dec 30 2015
[A038505] 0, 0, 1, 3, 6, 10, 16, 28, 56, 120, 256, 528, 1056, 2080, 4096, 8128, 16256, 32640, 65536, 131328, 262656, 524800, 1048576, 2096128, 4192256, 8386560, 16777216, 33558528, 67117056, 134225920, 268435456, 536854528, 1073709056
a(n; t, s) = a(n-1; t, s) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
a(n) = Sum_{k=0..n} binomial(n, 2 + 4*k), n>=0.
a(n) = Sum_{k=0..n} (1/2)*C(n, k)*(-1)^C(k+3, 3) for n>=1. - Paul Barry, Jul 07 2003
a(n) = Sum_{k=0..floor(n/2)} binomial(n, 2*k)*(1-(-1)^k)/2. (End)
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3), n > 3; sequence is identical to its fourth differences. - Paul Curtz, Dec 21 2007
a(n+m) = a(n)*H_1(m) + H_2(n)*H_2(m) + H_1(n)*a(m) + H_4(n)*H_4(m),
[A236326] 3, 6, 10, 17, 24, 27, 30, 34, 41, 48, 51, 54, 58, 65, 72, 75, 78, 82, 89, 96, 99, 102, 106, 113, 120, 123, 126, 130, 137, 144, 147, 150, 154, 161, 168, 171, 174, 178, 185, 192, 195, 198, 202, 209, 216, 219, 222, 226, 233, 240, 243, 246, 250, 257, 264, 267, 270, 274, 281, 288, 291, 294, 298, 305, 312, 315, 318, 322
a(n) = a(n-1)+a(n-5)-a(n-6).
[A189376] 1, 3, 6, 10, 17, 27, 40, 56, 78, 106, 140, 180, 230, 290, 360, 440, 535, 645, 770, 910, 1071, 1253, 1456, 1680, 1932, 2212, 2520, 2856, 3228, 3636, 4080, 4560, 5085, 5655, 6270, 6930, 7645, 8415, 9240, 10120, 11066, 12078
a(0)=1, a(1)=3, a(2)=6, a(3)=10, a(4)=17, a(5)=27, a(6)=40, a(7)=56, a(8)=78, a(9)=106, a(10)=140, a(n)=3*a(n-1)-3*a(n-2)+a(n-3)+ 2*a(n-4)- 6*a(n-5)+6*a(n-6)-2*a(n-7)-a(n-8)+3*a(n-9)-3*a(n-10)+a(n-11). - Harvey P. Dale, Apr 12 2015
[A266617] 0, 3, 6, 10, 18, 21, 32, 36, 52, 55, 74, 78, 102, 105, 132, 136, 168, 171, 206, 210, 250, 253, 296, 300, 348, 351, 402, 406, 462, 465, 524, 528, 592, 595, 662, 666, 738, 741, 816, 820, 900, 903, 986, 990, 1078, 1081, 1172, 1176, 1272, 1275, 1374, 1378, 1482
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7) for n>6.
[A075111] 0, 1, 1, 1, 3, 6, 10, 18, 34, 63, 115, 211, 389, 716, 1316, 2420, 4452, 8189, 15061, 27701, 50951, 93714, 172366, 317030, 583110, 1072507, 1972647, 3628263, 6673417, 12274328, 22576008, 41523752, 76374088, 140473849, 258371689
a(n)=a(n-1)+2a(n-3)+a(n-4)+a(n-5), a(0)=0, a(1)=1, a(2)=1, a(3)=1, a(4)=3. G.f.: x/(1 - x - 2*x^3 - x^4 - x^5).
[A295719] 1, 3, 6, 10, 20, 32, 60, 96, 172, 276, 480, 772, 1316, 2120, 3564, 5748, 9568, 15444, 25524, 41224, 67772, 109508, 179328, 289860, 473284, 765192, 1246668, 2015956, 3279008, 5303156, 8614932, 13934472, 22614940, 36582180, 59328192, 95975908, 155566244
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 1, a(1) = 3, a(2) = 6, a(3) = 10.
[A048006] 0, 0, 0, 3, 6, 10, 25, 45, 77, 175, 322, 570, 1245, 2325, 4213, 9031, 17061, 31421, 66547, 126763, 236203, 496063, 950818, 1787346, 3730293, 7184421, 13598053, 28243063, 54604081, 103918153, 215008363, 416990563, 797154723
a(n) = Sum_{1<=k<=n/3} Binomial(floor((n-1)/3),3*k)*Binomial(ceil(2*(n-1)/3),2*k). - Robert Israel, Feb 05 2017
[A001465] 0, 0, 1, 3, 6, 10, 30, 126, 448, 1296, 4140, 17380, 76296, 296088, 1126216, 4940040, 23904000, 110455936, 489602448, 2313783216, 11960299360, 61878663840, 309644323296, 1587272962528, 8699800221696, 48793502304000
a(n) = sum[i=0,floor((n-2)/4), C(n,4i+2)*(4i+2)!!]. - Ralf Stephan, May 08 2007
[A262242] 3, 6, 10, 36, 66, 136, 528, 2080, 8256, 32896, 131328, 524800, 2098176, 8390656, 33558528, 134225920, 536887296, 2147516416, 8590000128, 34359869440, 137439215616, 549756338176, 2199024304128, 8796095119360, 35184376283136, 140737496743936, 562949970198528
a(n) = 2^(n-5)*(2^n+4) for n>5.
a(n) = 6*a(n-1)-8*a(n-2) for n>7.
[A074737] 1, 1, 3, 6, 11, 14, 15, 24, 27, 36, 39, 41, 42, 51, 54, 56, 57, 66, 69, 74, 77, 87, 93, 96, 107, 114, 122, 126, 129, 131, 132, 143, 150, 162, 165, 189, 195, 200, 215, 227, 230, 234, 236, 237, 252, 258, 260, 261, 276, 282, 284, 285, 300, 306, 308, 309, 324, 330
a(n) seems to be asymptotic to c*n*log(n) with 1<c<3/2
[A189380] 3, 6, 11, 14, 19, 22, 25, 30, 33, 38, 41, 44, 49, 52, 57, 60, 65, 68, 71, 76, 79, 84, 87, 90, 95, 98, 103, 106, 111, 114, 117, 122, 125, 130, 133, 136, 141, 144, 149, 152, 155, 160, 163, 168, 171, 176, 179, 182, 187, 190, 195, 198, 201, 206, 209, 214, 217, 222, 225, 228, 233, 236, 241, 244, 247, 252, 255, 260, 263, 266, 271, 274, 279, 282, 287, 290, 293, 298, 301, 306, 309, 312, 317
a(n) = 5*floor(n * (sqrt(2) - 1)) + 3*floor(n * (2 - sqrt(2))) + 3. - Miko Labalan, Dec 04 2016
[A047398] 3, 6, 11, 14, 19, 22, 27, 30, 35, 38, 43, 46, 51, 54, 59, 62, 67, 70, 75, 78, 83, 86, 91, 94, 99, 102, 107, 110, 115, 118, 123, 126, 131, 134, 139, 142, 147, 150, 155, 158, 163, 166, 171, 174, 179, 182, 187, 190, 195, 198, 203, 206, 211, 214, 219, 222, 227, 230
a(n) = 8*n - a(n-1) - 7, n > 1. - Vincenzo Librandi, Aug 05 2010
a(n) = 4*n - (3 + (-1)^n)/2.
[A266252] 0, 3, 6, 11, 16, 22, 31, 37, 50, 56, 73, 79, 100, 106, 131, 137, 166, 172, 205, 211, 248, 254, 295, 301, 346, 352, 401, 407, 460, 466, 523, 529, 590, 596, 661, 667, 736, 742, 815, 821, 898, 904, 985, 991, 1076, 1082, 1171, 1177, 1270, 1276, 1373, 1379, 1480
a(n) = ((-1)^n*(n-4)+n*(n+4))/2 for n>2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>7.
[A267260] 1, 3, 6, 11, 16, 23, 29, 40, 46, 61, 67, 86, 92, 115, 121, 148, 154, 185, 191, 226, 232, 271, 277, 320, 326, 373, 379, 430, 436, 491, 497, 556, 562, 625, 631, 698, 704, 775, 781, 856, 862, 941, 947, 1030, 1036, 1123, 1129, 1220, 1226, 1321, 1327, 1426, 1432
a(n) = (n^2-((-1)^n-4)*n+4*(-1)^n)/2 for n>3.
[A116940] 0, 3, 6, 11, 16, 23, 30, 39, 48, 59, 70, 83, 96, 111, 126, 143, 160, 179, 198, 219, 240, 263, 286, 311, 336, 363, 390, 419, 448, 479, 510, 543, 576, 611, 646, 683, 720, 759, 798, 839, 880, 923, 966, 1011, 1056, 1103, 1150, 1199, 1248, 1299, 1350, 1403, 1456
a(0) = 0, a(n+1) = a(n) + 2*floor(n/2) + 3.
a(n) = +2*a(n-1) -2*a(n-3) +1*a(n-4). - Joerg Arndt, Apr 02 2011
a(n) = 2n + ceiling(n^2/2). - Wesley Ivan Hurt, Jun 14 2013
a(n) = (2*n*(n + 4) - (-1)^n + 1)/4. - Bruno Berselli, Jun 14 2013
[A071619] 0, 1, 3, 6, 11, 17, 24, 33, 43, 54, 67, 81, 96, 113, 131, 150, 171, 193, 216, 241, 267, 294, 323, 353, 384, 417, 451, 486, 523, 561, 600, 641, 683, 726, 771, 817, 864, 913, 963, 1014, 1067, 1121, 1176, 1233, 1291, 1350, 1411, 1473, 1536, 1601, 1667, 1734, 1803, 1873
a(n) = (2/3)*n^2 if n mod 3 = 0 else (2/3)*n^2 + 1/3.
a(n) = ceiling(2*n^2/3). - Wesley Ivan Hurt, Jun 20 2013
a(n) = Sum_{j=1..n} Sum_{i=1..n} ceiling((i+j-n)/3). - Wesley Ivan Hurt, Mar 12 2015
a(n) = n^2 - floor(n^2/3) = (2/9)*(3*n^2 + 1 - cos(2*Pi*n/3)). - Bruno Berselli, Jan 18 2017
[A109413] 1, 3, 6, 11, 17, 24, 35, 45, 58, 71, 87, 106, 123, 144, 164, 189, 216, 240, 269, 298, 329, 365, 396, 437, 471, 510, 551, 591, 642, 683, 730, 778, 827, 882, 932, 987, 1048, 1105, 1165, 1220, 1289, 1355, 1418, 1485, 1549, 1626, 1699, 1772, 1846, 1923, 2002, 2080
a(n) = [x^(n*(n+1)/2)] [Sum_{k>=0} x^(k*(k+1)/2)]^2/(1-x).

[A003022] 1, 3, 6, 11, 17, 25, 34, 44, 55, 72, 85, 106, 127, 151, 177, 199, 216, 246, 283, 333, 356, 372, 425, 480, 492, 553
a(n) >= n(n-1)/2, with strict inequality for n >= 5 (Golomb). - David W. Wilson, Aug 18 2007
[A022775] 1, 3, 6, 11, 17, 25, 34, 44, 56, 69, 84, 100, 117, 136, 156, 178, 201, 226, 252, 279, 308, 338, 370, 403, 437, 473, 510, 549, 589, 631, 674, 718, 764, 811, 860, 910, 961, 1014, 1068, 1124, 1181, 1239, 1299, 1360, 1423, 1487, 1553, 1620, 1688
a(n)=1+sum(k=1,n-1,ceil(r*k)) where r=sqrt(2) [From Benoit Cloitre, Jan 24 2009]
[A263807] 1, 3, 6, 11, 17, 25, 34, 45, 57, 71, 86, 103, 121, 141, 162, 185, 209, 235, 262, 291, 321, 353, 386, 421, 457, 495, 534, 575, 617, 661, 706, 753, 801, 851, 902, 955, 1009, 1065, 1122, 1181, 1241, 1303, 1366, 1431, 1497, 1565, 1634, 1705, 1777, 1851, 1926
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3.
[A281376] 0, 0, 0, 1, 3, 6, 11, 17, 25, 35, 47, 60, 77, 95, 115, 138, 164, 191, 222, 254, 290, 329, 370, 412, 460, 510, 562, 617, 676, 736, 802, 869, 940, 1014, 1090, 1169, 1255, 1342, 1431, 1523, 1621, 1720, 1825, 1931, 2041, 2156, 2273, 2391, 2517, 2645, 2777
a(n) = Sum_{d=1..ceiling((n-3)/3)} Sum_{j=1..n-(2*d+1)} floor(j/d). - Jon E. Schoenfield, Jan 23 2017
a(n) = Sum_{d=1..ceiling(n/3)-1} ((j+1)*(j*d/2 + n mod d)), where j = floor(n/d) - 3. - Jon E. Schoenfield, Jan 24 2017
[A000603] 1, 3, 6, 11, 17, 26, 35, 45, 58, 73, 90, 106, 123, 146, 168, 193, 216, 243, 271, 302, 335, 365, 402, 437, 473, 516, 557, 600, 642, 687, 736, 782, 835, 886, 941, 999, 1050, 1111, 1167, 1234, 1297, 1357, 1424, 1491, 1564, 1636, 1703, 1778, 1852, 1931, 2012, 2095
a(n) = n^2 * Pi/4 + O(n). - Charles R Greathouse IV, Apr 03 2013
[A003453] 1, 3, 6, 11, 17, 26, 36, 50, 65, 85, 106, 133, 161, 196, 232, 276, 321, 375, 430, 495, 561, 638, 716, 806, 897, 1001, 1106, 1225, 1345, 1480, 1616, 1768, 1921, 2091, 2262, 2451, 2641, 2850, 3060, 3290, 3521, 3773, 4026
a(5)=1, a(6)=3, a(7)=6, a(8)=11, a(9)=17, a(10)=26, a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a (n-6). - Harvey P. Dale, Jan 28 2013
a(n) = (2*n^3-6*n^2-23*n+63+3*(n-5)*(-1)^n)/48, for n>=5. - Luce ETIENNE, Apr 07 2015
a(n) = (1/2) * Sum_{i=1..n-4} floor((i+1)*(n-i-2)/2). - Wesley Ivan Hurt, May 07 2016
[A011901] 0, 0, 0, 0, 1, 3, 6, 11, 17, 26, 37, 52, 69, 90, 114, 143, 176, 214, 257, 306, 360, 420, 486, 559, 639, 726, 821, 923, 1034, 1153, 1282, 1419, 1566, 1722, 1889, 2066, 2254, 2453, 2664, 2886, 3120, 3366, 3625
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-19) -3*a(n-20) +3*a(n-21) -a(n-22). [From R. J. Mathar, Apr 15 2010]
[A279032] 0, 1, 3, 6, 11, 17, 27, 42, 65, 100, 152, 231, 349, 527, 792, 1186, 1771, 2639, 3923, 5817, 8609, 12715, 18747, 27595, 40557, 59522, 87239, 127704, 186721, 272717, 397913, 580029, 844734, 1229199, 1787215, 2596587, 3769796, 5469375, 7930078, 11490820, 16640682
a(n) is asymptotic to n*2^(n/2)/(e*sqrt(2)).
[A010000] 1, 3, 6, 11, 18, 27, 38, 51, 66, 83, 102, 123, 146, 171, 198, 227, 258, 291, 326, 363, 402, 443, 486, 531, 578, 627, 678, 731, 786, 843, 902, 963, 1026, 1091, 1158, 1227, 1298, 1371, 1446, 1523, 1602, 1683, 1766, 1851, 1938, 2027, 2118, 2211, 2306, 2403
a(n) = 2*n*sum(j=0..n, (-1)^(n-j)*binomial(n,j)*(j+1/n)^(n+1))/(n+1)!, n>0, a(0)=1. - Vladimir Kruchinin, Jun 03 2013
[A172046] 0, 0, 0, 1, 3, 6, 11, 18, 27, 38, 52, 69, 89, 113, 141, 173, 209, 250, 296, 347, 404, 467, 536, 611, 693, 782, 878, 982, 1094, 1214, 1342, 1479, 1625, 1780, 1945, 2120, 2305, 2500, 2706, 2923, 3151, 3391, 3643, 3907, 4183, 4472, 4774, 5089, 5418, 5761, 6118
a(n) = sum(k=0..n,floor(k^2/7)).
a(n) = round((2*n^3+3*n^2-11*n)/42).
a(n) = round((2*n^3+3*n^2-11*n-6)/42).
a(n) = floor((2*n^3+3*n^2-11*n+6)/42).
a(n) = ceil((2*n^3+3*n^2-11*n-18)/42).
a(n) = a(n-7)+(n-2)*(n-4)+3, n>6.
[A014125] 1, 3, 6, 11, 18, 27, 39, 54, 72, 94, 120, 150, 185, 225, 270, 321, 378, 441, 511, 588, 672, 764, 864, 972, 1089, 1215, 1350, 1495, 1650, 1815, 1991, 2178, 2376, 2586, 2808, 3042, 3289, 3549, 3822, 4109, 4410, 4725, 5055, 5400, 5760, 6136, 6528, 6936
a(n) = -a(-6-n) = 3*a(n-1) -3*a(n-2) +2*a(n-3) -3*a(n-4) +3*a(n-5) -a(n-6).
a(n) = n^3/18 +n^2/2 +4*n/3 +1 +2/(9*sqrt(3))* sin(2*Pi*n/3). - Andrew Hone, Jul 29 2004
a(n) = n^3/18 + n^2/2 + 4*n/3 + 1 + (mod(n+1,3)-1)/9. - same formula, simplified by Gerald Hillier, Apr 14 2015
[A011849] 0, 0, 0, 0, 1, 3, 6, 11, 18, 28, 40, 55, 73, 95, 121, 151, 186, 226, 272, 323, 380, 443, 513, 590, 674, 766, 866, 975, 1092, 1218, 1353, 1498, 1653, 1818, 1994, 2181, 2380, 2590, 2812, 3046, 3293, 3553, 3826
a(n) = 4*a(n-1) - 6*a(n-2) + 3*a(n-3) + 3*a(n-4) - 6*a(n-5) + 3*a(n-6) + 3*a(n-7) - 6*a(n-8) + 4*a(n-9) - a(n-10).
a(n) = (1/54) * (n^3 - 3*n - 6 + [6,8,4,-12,8,4,-30,8,4](mod 9)). - Ralf Stephan, Aug 11 2013
[A173690] 0, 0, 1, 3, 6, 11, 18, 28, 41, 57, 77, 101, 130, 164, 203, 248, 299, 357, 422, 494, 574, 662, 759, 865, 980, 1105, 1240, 1386, 1543, 1711, 1891, 2083, 2288, 2506, 2737, 2982, 3241, 3515, 3804, 4108, 4428, 4764, 5117, 5487, 5874, 6279, 6702, 7144, 7605, 8085, 8585
a(n) = sum(k=0..n,round(k^2/5))
a(n) = round((2*n^3+3*n^2+n)/30)
a(n) = floor((2*n^3+3*n^2+n+6)/30)
a(n) = ceil((2*n^3+3*n^2+n-6)/30)
a(n) = a(n-5)+(n-2)^2+2 , n>4
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+a(n-5)-3*a(n-6)+3*a(n-7)-a(n-8), n>7.
[A014284] 1, 3, 6, 11, 18, 29, 42, 59, 78, 101, 130, 161, 198, 239, 282, 329, 382, 441, 502, 569, 640, 713, 792, 875, 964, 1061, 1162, 1265, 1372, 1481, 1594, 1721, 1852, 1989, 2128, 2277, 2428, 2585, 2748, 2915, 3088, 3267, 3448, 3639, 3832, 4029
a(n) = a(n-1) + prime(n-1), with a(1)=1. - Vincenzo Librandi, Jul 27 2013
[A265075] 1, 3, 6, 11, 18, 29, 46, 73, 116, 183, 290, 459, 726, 1149, 1818, 2877, 4552, 7203, 11398, 18035, 28538, 45157, 71454, 113065, 178908, 283095, 447954, 708819, 1121598, 1774757, 2808282, 4443677, 7031440, 11126179, 17605478, 27857979, 44080994, 69751437, 110370990, 174645225, 276349380, 437280663, 691929826
a(n) = a(n-1)+a(n-3)+a(n-5)+a(n-7)-a(n-8) for n>8. - Vincenzo Librandi, Dec 30 2015
[A279100] 1, 3, 6, 11, 18, 30, 48, 78, 125, 202, 325, 525, 847, 1369, 2212, 3577, 5784, 9356, 15134, 24484, 39611, 64088, 103691, 167771, 271453, 439215, 710658, 1149863, 1860510, 3010362, 4870860, 7881210, 12752057, 20633254, 33385297, 54018537, 87403819, 141422341, 228826144, 370248469, 599074596
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) + a(n-5).
a(n) = (10*n - 5*(-1)^n + 2^(1-n)*sqrt(5)*(5 + 3*sqrt(5))*(1 + sqrt(5))^n + sqrt(5)*2^(1-n)*(3*sqrt(5) - 5) *(1 - sqrt(5))^n - 35)/20.
[A058053] 1, 1, 3, 6, 11, 18, 33, 49, 78, 117, 171, 242, 346, 469, 640, 855, 1127, 1463, 1896, 2405, 3045, 3813, 4736, 5831, 7156, 8684, 10507, 12627, 15092, 17935, 21249, 25004, 29341, 34272, 39875, 46207, 53407, 61446, 70528, 80682, 92026, 104650, 118752
a(n)= coefficient of x^n*y^n in expansion of 1 / 3!*(1 / (1 - x) / (1 - x*y)^3 / (1 - x*y^2)^3 / (1 - x*y^3) + 3 / (1 - x) / (1 - x*y) / (1 - x*y^2) / (1 - x*y^3) / (1 - x^2*y^2) / (1 - x^2*y^4) + 2 / (1 - x) / (1 - x*y^3) / (1 - x^3*y^3) / (1 - x^3*y^6)).
[A050228] 1, 3, 6, 11, 19, 31, 49, 76, 116, 175, 262, 390, 578, 854, 1259, 1853, 2724, 4001, 5873, 8617, 12639, 18534, 27174, 39837, 58396, 85596, 125460, 183884, 269509, 394999, 578914, 848455, 1243487, 1822435, 2670925, 3914448, 5736920, 8407883
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - 2*a(n-4) + a(n-5).
a(n-1) = Sum_{k=0..floor(n/3)} binomial(n-2*k, k+2). (End)
[A001911] 0, 1, 3, 6, 11, 19, 32, 53, 87, 142, 231, 375, 608, 985, 1595, 2582, 4179, 6763, 10944, 17709, 28655, 46366, 75023, 121391, 196416, 317809, 514227, 832038, 1346267, 2178307, 3524576, 5702885, 9227463, 14930350, 24157815, 39088167, 63245984
a(n) = a(n-1) + a(n-2) + 2, a(0) = 0, a(1) = 1. - Michael Somos, Jun 09 1999
a(n) = term (1,1) in the 1 X 3 matrix [0,-1,1].[1,1,0; 1,0,0; 2,0,1]^n. - Alois P. Heinz, Jul 24 2008
a(0) = 0, a(1) = 1, a(2) = 3, a(n) = 2*a(n-1)-a(n-3). - Harvey P. Dale, Jun 06 2011
a(n) = (-2+(2^(-n)*((1-sqrt(5))^n*(-2+sqrt(5))+(1+sqrt(5))^n*(2+sqrt(5))))/sqrt(5)). - Colin Barker, May 12 2016
[A179006] 0, 0, 0, 0, 0, 1, 3, 6, 11, 19, 32, 54, 90, 148, 242, 394, 640, 1039, 1685, 2730, 4421, 7157, 11584, 18748, 30340, 49096, 79444, 128548, 208000, 336557, 544567, 881134, 1425711, 2306855, 3732576, 6039442, 9772030, 15811484
a(n) = +3*a(n-1)-3*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6)-a(n-7)+a(n-8).
a(n) = round(Fibonacci(n+2)/4-n/3-3/8).
a(n) = round(Fibonacci(n+2)/4-n/3-1/4).

a(n) = floor(Fibonacci(n+2)/4-n/3-1/12).
a(n) = ceil(Fibonacci(n+2)/4-n/3-2/3).
a(n) = a(n-6)+Fibonacci(n-1)-2, n>6.
[A180086] 1, 3, 6, 11, 20, 33, 54, 87, 142, 226, 360, 571, 907, 1438, 2278, 3606, 5708, 9032, 14293, 22614, 35778, 56604, 89550, 141670, 224122, 354560, 560907, 887348, 1403768, 2220731, 3513149, 5557726, 8792197, 13909055, 22003808
a(n) = n + floor(a(n-1)/1) + floor(a(n-2)/2) + ... + floor(a(1)/(n-1))
[A055417] 1, 3, 6, 11, 20, 36, 63, 106, 171, 265, 396, 573, 806, 1106, 1485, 1956, 2533, 3231, 4066, 5055, 6216, 7568, 9131, 10926, 12975, 15301, 17928, 20881, 24186, 27870, 31961, 36488, 41481, 46971, 52990, 59571, 66748, 74556, 83031, 92210, 102131, 112833, 124356
a(n) = (n^3 - 3*n^2 + 14*n + 24)*(n+1)/24. Proof: The coordinates of such a point are a permutation of one of the vectors (0, ..., 0), (0, ..., 0, 1), (0, ..., 0, 2), (0, ..., 0, 1, 1), (0, ..., 0, 1, 1, 1), or (0, ..., 0, 1, 1, 1, 1), so the number of points is 1 + n + n + binomial(n,2) + binomial(n,3) + binomial(n,4). - Formula conjectured by Frank Ellermann, Mar 16 2002 and explained by Michael Somos, Apr 25 2003
[A018918] 3, 6, 11, 20, 36, 64, 113, 199, 350, 615, 1080, 1896, 3328, 5841, 10251, 17990, 31571, 55404, 97228, 170624, 299425, 525455, 922110, 1618191, 2839728, 4983376, 8745216, 15346785, 26931731, 47261894, 82938843, 145547524, 255418100, 448227520, 786584465
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-a(n-4).
a(n) = ceiling(a(n-1)^2/a(n-2)-1), by definition. - Bruno Berselli, Feb 16 2016
[A077855] 1, 3, 6, 11, 20, 36, 64, 113, 199, 350, 615, 1080, 1896, 3328, 5841, 10251, 17990, 31571, 55404, 97228, 170624, 299425, 525455, 922110, 1618191, 2839728, 4983376, 8745216, 15346785, 26931731, 47261894, 82938843, 145547524, 255418100, 448227520, 786584465
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - a(n-4). - Seiichi Manyama, Nov 25 2016
[A119861] 0, 1, 3, 6, 11, 20, 36, 64, 117, 209, 381, 699, 1291, 2387, 4445, 8317, 15645, 29494, 55855, 106021, 201778, 384941, 735909, 1409683, 2705277, 5200202
a(n) = Length[FactorInteger[Binomial[2^(n+1)-2, 2^n-1] / (2^n)]].
[A265077] 1, 3, 6, 11, 20, 37, 66, 117, 208, 371, 662, 1179, 2100, 3741, 6666, 11877, 21160, 37699, 67166, 119667, 213204, 379853, 676762, 1205749, 2148216, 3827355, 6818982, 12148995, 21645180, 38563997, 68707298, 122411917, 218094408, 388566507, 692287030, 1233408755, 2197494812, 3915152565, 6975406506, 12427688349
a(n) = a(n-1)+a(n-2)+a(n-4)+a(n-5)-a(n-6) for n>6. - Vincenzo Librandi, Dec 30 2015
[A006127] 1, 3, 6, 11, 20, 37, 70, 135, 264, 521, 1034, 2059, 4108, 8205, 16398, 32783, 65552, 131089, 262162, 524307, 1048596, 2097173, 4194326, 8388631, 16777240, 33554457, 67108890, 134217755, 268435484, 536870941, 1073741854, 2147483679, 4294967328, 8589934625
a(n) = 2*a(n-1) - n + 2 (with a(0)=1). - Vincenzo Librandi, Dec 30 2010
[A291408] 1, 3, 6, 11, 21, 39, 70, 126, 224, 394, 690, 1201, 2079, 3585, 6158, 10541, 17991, 30623, 51996, 88092, 148944, 251364, 423492, 712369, 1196557, 2007135, 3362598, 5626847, 9405465, 15705447, 26200066, 43667802, 72719312, 121000846, 201185334, 334265089
a(n) = a(n-1) + 2*a(n-2) + a(n-3) - 2*a(n-4) - 3*a(n-5) - a(n-6) for n >= 7.
[A202012] 1, 1, 3, 6, 11, 21, 39, 72, 133, 245, 451, 830, 1527, 2809, 5167, 9504, 17481, 32153, 59139, 108774, 200067, 367981, 676823, 1244872, 2289677, 4211373, 7745923, 14246974, 26204271, 48197169, 88648415, 163049856
a(n) = 2*a(n-1) - a(n-4), n>3.
[A251655] 0, 1, 1, 1, 3, 6, 11, 21, 41, 79, 152, 293, 565, 1089, 2099, 4046, 7799, 15033, 28977, 55855, 107664, 207529, 400025, 771073, 1486291, 2864918, 5522307, 10644589, 20518105, 39549919, 76234920, 146947533, 283250477, 545982849, 1052415779, 2028596638
a(n+4) = a(n) + a(n+1) + a(n+2) + a(n+3).
[A293320] 3, 6, 11, 21, 42, 84, 168, 336, 671, 1341, 2681, 5362, 10724, 21447, 42894, 85788, 171576, 343151, 686302, 1372604, 2745208, 5490416, 10980831, 21961661, 43923322, 87846644, 175693287, 351386574, 702773148, 1405546296, 2811092591, 5622185181, 11244370362
a(n) = ceiling(r*2^n), where r = (3+sqrt(5))/2.
[A024495] 0, 0, 1, 3, 6, 11, 21, 42, 85, 171, 342, 683, 1365, 2730, 5461, 10923, 21846, 43691, 87381, 174762, 349525, 699051, 1398102, 2796203, 5592405, 11184810, 22369621, 44739243, 89478486, 178956971, 357913941, 715827882, 1431655765, 2863311531, 5726623062
a(2) = 1, a(3) = 3, a(n+2) = a(n+1) - a(n) + 2^n. - Benoit Cloitre, Sep 04 2002
a(n) = sum_{k=0..n} 2^k*2*sin(Pi*(n-k)/3 + Pi/3)/sqrt(3) (offset 0). - Paul Barry, May 18 2004
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3). - Paul Curtz, Nov 18 2007
a(n) + a(n+9)= 171*2^n.
a(n+12) - a(n)= 1365*2^n. (End)
a(n) = 1/18*(-4*(-1)^floor((n - 1)/3) - 6*(-1)^floor(n/3) - 3*(-1)^floor((n + 1)/3) + (-1)^(1 + floor((n + 2)/3)) + 3*2^(n + 1)). - John M. Campbell, Dec 23 2016
[A293066] 1, 3, 6, 11, 21, 44, 101, 247, 626, 1615, 4201, 10968, 28681, 75051, 196446, 514259, 1346301, 3524612, 9227501, 24157855, 63246026, 165580183, 433494481, 1134903216, 2971215121, 7778742099, 20365011126, 53316291227, 139583862501, 365435296220, 956722026101
a(n) = 5*a(n-1) - 8*a(n-2) + 5*a(n-3) - a(n-4), n >= 5.
a(n) = (2^(-1-n)*(-(-5+sqrt(5))*(3+sqrt(5))^n + (3-sqrt(5))^n*(5+sqrt(5)) + 5*2^(2+n)*n)) / 5.
[A228206] 1, 3, 6, 11, 22, 39, 69, 122, 241, 426, 753, 1331, 2629, 4647, 8214, 14519, 28678, 50691, 89601, 158378, 312829, 552954, 977397, 1727639, 3412441, 6031803, 10661766, 18845651, 37224022, 65796879, 116302029, 205574522, 406051801, 717733866, 1268660553
a(n) = 11*a(n-4)-a(n-8).
[A103322] 1, 1, 3, 6, 11, 22, 41, 77, 144, 267, 495, 915, 1689, 3115, 5740, 10572, 19464, 35825, 65926, 121301, 223166, 410544, 755211, 1389186, 2555292, 4700154, 8645248, 15901510, 29247993, 53796183, 98947583, 181994272, 334741367, 615687632
a(n) = a(n-1) + 2*a(n-2) +a(n-3) - 2*a(n-4) - 2*a(n-5) - a(n-6). - G. C. Greubel, May 02 2017
[A293337] 3, 6, 11, 22, 44, 87, 174, 348, 696, 1392, 2784, 5568, 11135, 22269, 44537, 89073, 178146, 356291, 712582, 1425163, 2850326, 5700651, 11401301, 22802601, 45605202, 91210403, 182420806, 364841612, 729683223, 1459366445, 2918732889, 5837465778, 11674931555
a(n) = ceiling(e*2^n).
[A293364] 1, 1, 3, 6, 11, 22, 44, 89, 177, 355, 710, 1420, 2839, 5678, 11357, 22713, 45426, 90852, 181704, 363409, 726817, 1453635, 2907270, 5814540, 11629080, 23258160, 46516320, 93032640, 186065279, 372130559, 744261118, 1488522236, 2977044472, 5954088944
a(n) = floor(1/2 + (log 2)*2^n).
[A001867] 1, 3, 6, 11, 24, 51, 130, 315, 834, 2195, 5934, 16107, 44368, 122643, 341802, 956635, 2690844, 7596483, 21524542, 61171659, 174342216, 498112275, 1426419858, 4093181691, 11767920118, 33891544419, 97764131646, 282429537947, 817028472960, 2366564736723
a(n) = (1/n)*Sum_{d|n} phi(d)*3^(n/d), n>0.
[A119367] 0, 0, 1, 3, 6, 11, 30, 126, 519, 1836, 5877, 18866, 65472, 242463, 905425, 3307371, 11889414, 42930441, 157641714, 586908936, 2194106568, 8189323686, 30541703733, 114219616809, 429214875498, 1619584557885, 6125465491551
a(n)=sum{k=0..n, if(mod(n-k,3)=2, (1/n)*C(n,k)*C(n,k+1), 0)}.
[A180483] 3, 6, 11, 38, 87, 354, 839, 3482, 8283, 34446, 81971, 340958, 811407, 3375114, 8032079, 33410162, 79509363, 330726486, 787061531, 3273854678, 7791105927, 32407820274, 77123997719, 320804348042, 763448871243, 3175635660126, 7557364714691, 31435552253198
a(2*n)=(10+(1+r)*s^n+(1-r)*t^n))/4.
a(2*n+1)=(10+(7+3*r)*s^n+(7-3*r)*t^n))/4.
a(n)=11*a(n-2)-11*a(n-4)+a(n-6).
a(n) = +a(n-1) +10*a(n-2) -10*a(n-3) -a(n-4) +a(n-5). - R. J. Mathar, Feb 05 2011
[A102040] 3, 6, 12, 14, 18, 26, 32, 34, 38, 46, 52, 54, 58, 66, 72, 74, 78, 86, 92, 94, 98, 106, 112, 114, 118, 126, 132, 134, 138, 146, 152, 154, 158, 166, 172, 174, 178, 186, 192, 194, 198, 206, 212, 214, 218, 226, 232, 234, 238, 246, 252, 254, 258, 266, 272, 274, 278
a(n) = -5-(1/2+i)*(-i)^n-(1/2-i)*i^n+5*n for n>1, where i = sqrt(-1).
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>5.
a(n) = a(n-4) + 20 for n >= 6.
a(4k) = 20 k - 6.
a(4k+1) = 20 k - 2 for k >= 1.
a(4k+2) = 20 k + 6.

[A016051] 3, 6, 12, 15, 21, 24, 30, 33, 39, 42, 48, 51, 57, 60, 66, 69, 75, 78, 84, 87, 93, 96, 102, 105, 111, 114, 120, 123, 129, 132, 138, 141, 147, 150, 156, 159, 165, 168, 174, 177, 183, 186, 192, 195, 201, 204, 210, 213, 219, 222, 228, 231, 237, 240
a(n)= +a(n-1) +a(n-2) -a(n-3) = 9*n/2-9/4-3*(-1)^n/4. G.f: 3*x*(1+x+x^2)/((1+x)*(x-1)^2) [From R. J. Mathar, Dec 16 2009]
a(n)=9*(n-1)-a(n-1) (with a(1)=3) [From Vincenzo Librandi, Nov 19 2010]
[A267353] 1, 3, 6, 12, 15, 25, 28, 42, 45, 63, 66, 88, 91, 117, 120, 150, 153, 187, 190, 228, 231, 273, 276, 322, 325, 375, 378, 432, 435, 493, 496, 558, 561, 627, 630, 700, 703, 777, 780, 858, 861, 943, 946, 1032, 1035, 1125, 1128, 1222, 1225, 1323, 1326, 1428, 1431
a(n) = (n^2+(4-(-1)^n)*n+(-1)^n+1)/2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
[A242477] 0, 0, 3, 6, 12, 18, 27, 36, 48, 60, 75, 90, 108, 126, 147, 168, 192, 216, 243, 270, 300, 330, 363, 396, 432, 468, 507, 546, 588, 630, 675, 720, 768, 816, 867, 918, 972, 1026, 1083, 1140, 1200, 1260, 1323, 1386, 1452, 1518, 1587, 1656, 1728, 1800, 1875
a(n) = a(n-2) + 3*(n-1) for n>1, a(0) = a(1) = 0.
[A006156] 1, 3, 6, 12, 18, 30, 42, 60, 78, 108, 144, 204, 264, 342, 456, 618, 798, 1044, 1392, 1830, 2388, 3180, 4146, 5418, 7032, 9198, 11892, 15486, 20220, 26424, 34422, 44862, 58446, 76122, 99276, 129516, 168546, 219516, 285750, 372204, 484446, 630666, 821154
a(n) >= 2^(n/17), see Zeilberger. Let L = lim a(n)^(1/n); then L exists and Grimm proves 1.109999 < L < 1.317278. - Charles R Greathouse IV, Nov 29 2013
[A061776] 1, 3, 6, 12, 18, 30, 42, 66, 90, 138, 186, 282, 378, 570, 762, 1146, 1530, 2298, 3066, 4602, 6138, 9210, 12282, 18426, 24570, 36858, 49146, 73722, 98298, 147450, 196602, 294906, 393210, 589818, 786426, 1179642, 1572858, 2359290
a(n) = a(n-1)+2*a(n-2)-2*a(n-3) for n>3. G.f.: (1+2*x)*(1+x^2)/((1-x)*(1-2*x^2)). - Colin Barker, May 08 2012
[A263511] 1, 3, 6, 12, 19, 29, 40, 54, 69, 87, 106, 128, 151, 177, 204, 234, 265, 299, 334, 372, 411, 453, 496, 542, 589, 639, 690, 744, 799, 857, 916, 978, 1041, 1107, 1174, 1244, 1315, 1389, 1464, 1542, 1621, 1703, 1786, 1872, 1959, 2049, 2140, 2234, 2329, 2427
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>3. - Vincenzo Librandi, Jan 18 2016
[A209489] 0, 1, 3, 6, 12, 19, 33, 50, 77, 111, 166, 229, 329, 448, 615, 824, 1120, 1467, 1956, 2538, 3313, 4258, 5512, 6993, 8944, 11278, 14258, 17838, 22402, 27788, 34629, 42747, 52832, 64844, 79706, 97232, 118868, 144392, 175474, 212168, 256750
a(n)=a(n-1)-1+(number of partitions of n into relatively prime parts).
[A200067] 0, 0, 0, 1, 3, 6, 12, 20, 30, 45, 63, 84, 112, 144, 180, 225, 275, 330, 396, 468, 546, 637, 735, 840, 960, 1088, 1224, 1377, 1539, 1710, 1900, 2100, 2310, 2541, 2783, 3036, 3312, 3600, 3900, 4225, 4563, 4914, 5292, 5684, 6090, 6525, 6975, 7440, 7936, 8448
a(n) = max_{k=0..n} (n-k-1)*k*(k+1)/2.
[A061061] 0, 0, 1, 3, 6, 12, 20, 31, 46, 64, 87, 115, 147, 186, 231, 282, 342, 408, 482, 566, 657, 759, 871, 991, 1126, 1270, 1424, 1594, 1774, 1968, 2177, 2397, 2635, 2887, 3151, 3436, 3735, 4050, 4386, 4736, 5106, 5496, 5901, 6330, 6778, 7244, 7737, 8247, 8778, 9336
a(n) = max(a(k) + k*C(n-k, 2): 1 <= k < n)
a(n+1)/a(n)=1+3/n+O(1/n^2). n^2*(a(n+1)/a(n)-1-3/n) is bounded but there is no limit; limit n–>infinity a(n)/n^3 = C = 0.0773... - Benoit Cloitre, Jan 25 2003
[A006128] 0, 1, 3, 6, 12, 20, 35, 54, 86, 128, 192, 275, 399, 556, 780, 1068, 1463, 1965, 2644, 3498, 4630, 6052, 7899, 10206, 13174, 16851, 21522, 27294, 34545, 43453, 54563, 68135, 84927, 105366, 130462, 160876, 198014, 242812, 297201, 362587, 441546, 536104, 649791, 785437, 947812, 1140945, 1371173, 1644136, 1968379, 2351597, 2805218, 3339869, 3970648, 4712040, 5584141, 6606438, 7805507, 9207637
a(n) = Sum_{m=1..n} of the number of divisors of m * number of partitions of n-m.
[A079983] 1, 1, 1, 1, 3, 6, 12, 20, 35, 60, 114, 207, 375, 671, 1213, 2180, 3954, 7139, 12892, 23250, 41996, 75793, 136891, 247133, 446211, 805505, 1454390, 2625744, 4740788, 8559108, 15453182, 27899503, 50371415, 90942627, 164192549, 296440115
a(n) = a(n-1) +a(n-2) +a(n-3) -a(n-5) +4*a(n-6) -4*a(n-7) -3*a(n-8) -3*a(n-9) +3*a(n-10) +3*a(n-11) -5*a(n-12) +4*a(n-13) +4*a(n-14) +a(n-15) -2*a(n-16) -a(n-17) +a(n-18) -a(n-19) -a(n-20)
[A038577] 1, 3, 6, 12, 20, 36, 58, 100, 160, 268, 430, 708, 1140, 1860, 3002, 4876, 7880, 12772, 20654, 33444, 54100, 87564, 141666, 229252, 370920, 600196, 971118, 1571340, 2542460, 4113828, 6656290, 10770148, 17426440, 28196620, 45623062, 73819716, 119442780
a(n) = -2 + 2*(-1)^n - (8*(1/2-sqrt(5)/2)^n)/sqrt(5) + (8*(1/2+sqrt(5)/2)^n)/sqrt(5) - (1/2)*(1+(-1)^n)*n for n > 1.
a(n) = a(n-1) + 3*a(n-2) - 2*a(n-3) - 3*a(n-4) + a(n-5) + a(n-6) for n > 5.
[A053479] 0, 0, 3, 6, 12, 21, 30, 42, 54, 69, 90, 102, 129, 150, 174, 198, 225, 258, 288, 327, 354, 396, 435, 471, 522, 558, 609, 654, 702, 759, 807, 864, 924, 981, 1038, 1104, 1173, 1230, 1308, 1368, 1443, 1512, 1590, 1671, 1746, 1830, 1908, 2001, 2076, 2166, 2265
a(n)/(n/2)^2 -> Pi*2/sqrt(3).
[A290768] 3, 6, 12, 21, 33, 48, 66, 87, 111, 138, 168, 201, 237, 276, 318, 363, 411, 462, 516, 573, 633, 696, 762, 831, 903, 978, 1056, 1137, 1221, 1308, 1398, 1491, 1587, 1686, 1788, 1893, 2001, 2112, 2226, 2343, 2463, 2586, 2712, 2841, 2973, 3108, 3246, 3387, 3531, 3678
a(n) = 3/2*(n^2 - n + 2).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A070333] 1, 3, 6, 12, 21, 33, 50, 72, 99, 133, 174, 222, 279, 345, 420, 506, 603, 711, 832, 966, 1113, 1275, 1452, 1644, 1853, 2079, 2322, 2584, 2865, 3165, 3486, 3828, 4191, 4577, 4986, 5418, 5875, 6357, 6864, 7398, 7959, 8547, 9164, 9810, 10485
a(n) = round((2*n+3)*(n^2+3*n+6)/18).
a(n) = floor((n+2)*(2*n^2+5*n+11)/18).
a(n) = ceiling((n+1)*(2*n^2+7*n+14)/18).
a(n) = round((n+1)*(2*n^2+7*n+14)/18).
a(n) = a(n-3)+n^2+2, n>2. (End)
[A215005] 0, 1, 3, 6, 12, 21, 37, 62, 104, 171, 281, 458, 746, 1211, 1965, 3184, 5158, 8351, 13519, 21880, 35410, 57301, 92723, 150036, 242772, 392821, 635607, 1028442, 1664064, 2692521, 4356601, 7049138, 11405756, 18454911, 29860685, 48315614, 78176318, 126491951, 204668289
a(n) = 2*F(n+2)-n/2-9/4+(-1)^n/4, where F is Fibonacci number. - Vaclav Kotesovec, Aug 11 2012
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) + a(n-5) for n>4.
[A087503] 1, 3, 6, 12, 21, 39, 66, 120, 201, 363, 606, 1092, 1821, 3279, 5466, 9840, 16401, 29523, 49206, 88572, 147621, 265719, 442866, 797160, 1328601, 2391483, 3985806, 7174452, 11957421, 21523359, 35872266, 64570080, 107616801, 193710243
a(n) = (3/2)*(3^((n+1)/2)-1) if n is odd, else a(n) = (3/2)*(5*3^((n-2)/2)-1).
a(n) = (3/2)*(3^floor((n+1)/2) + 3^floor(n/2) - 3^floor((n-1)/2)-1).
a(n) = 3^floor((n+1)/2) + 3^floor((n+2)/2)/2 - 3/2.
[A066982] 1, 1, 3, 6, 12, 22, 39, 67, 113, 188, 310, 508, 829, 1349, 2191, 3554, 5760, 9330, 15107, 24455, 39581, 64056, 103658, 167736, 271417, 439177, 710619, 1149822, 1860468, 3010318, 4870815, 7881163, 12752009, 20633204, 33385246, 54018484, 87403765, 141422285
a(1) = a(2) = 1, a(n + 2) = a(n + 1) + a(n) + n.
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: x*(1-2*x+2*x^2)/((1-x)^2*(1-x-x^2)). [Colin Barker, Jun 30 2012]
[A097939] 1, 3, 6, 12, 22, 42, 79, 151, 291, 566, 1106, 2175, 4293, 8499, 16864, 33523, 66727, 132958, 265137, 529050, 1056169, 2109282, 4213710, 8419697, 16827079, 33634489, 67237513, 134424624, 268768414, 537407062, 1074605619, 2148875961, 4297212424, 8593556211, 17185713097, 34369170909
a(n) = Sum_{r=0..n-1} Sum_{k=0..floor((n-r-1)/(r+1))} binomial(n-r(k+1)-1, k). - Paul Barry, Oct 08 2004
[A055244] 1, 1, 3, 6, 12, 23, 43, 79, 143, 256, 454, 799, 1397, 2429, 4203, 7242, 12432, 21271, 36287, 61739, 104791, 177476, 299978, 506111, 852457, 1433593, 2407443, 4037454, 6762708, 11314391, 18909139, 31569799, 52657247, 87751624
a(n) = (((n-4)*n-6)*a(n-2) + ((n-5)*n-11)*a(n-1)) / ((n-6)*n-1). - Jean-François Alcover, Mar 11 2014
[A089068] 0, 0, 1, 3, 6, 12, 23, 43, 80, 148, 273, 503, 926, 1704, 3135, 5767, 10608, 19512, 35889, 66011, 121414, 223316, 410743, 755475, 1389536, 2555756, 4700769, 8646063, 15902590, 29249424, 53798079, 98950095, 181997600, 334745776, 615693473
a(n) = 2*a(n-1)-a(n-4), a(0)=0, a(1)=0, a(2)=1, a(3)=3. [From Bruno Berselli, Sep 23 2010]
[A038620] 1, 3, 6, 12, 24, 35, 48, 69, 86, 108, 138, 161, 192, 231, 260, 300, 348, 383, 432, 489, 530, 588, 654, 701, 768, 843, 896, 972, 1056, 1115, 1200, 1293, 1358, 1452, 1554, 1625, 1728, 1839, 1916, 2028, 2148, 2231, 2352, 2481, 2570, 2700, 2838, 2933, 3072, 3219
a(0)=1, a(1)=3, a(2)=6; for n>=3: if n == 0 (mod 3), a(n) = 4n^2/3; if n == 1 (mod 3), a(n) = (4n^2 + n + 4)/3; if n == 2 (mod 3), a(n) = (4n^2 - n + 10)/3.

[A293341] 0, 1, 1, 3, 6, 12, 24, 47, 94, 188, 377, 753, 1507, 3014, 6027, 12055, 24109, 48219, 96437, 192875, 385750, 771499, 1542998, 3085996, 6171993, 12343986, 24687971, 49375943, 98751886, 197503771, 395007542, 790015084, 1580030169, 3160060337, 6320120675
a(n) = floor(1/2 + (1/e)*2^n).
[A122391] 1, 1, 1, 3, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592
a(n) = 3*2^(n-3) = 2^(n-3) + 2^(n-2) for n >= 3. - Jaroslav Krizek, Aug 17 2009
a(n) = ceiling(2^(n-2)) + floor(2^(n-3)). - Martin Grymel, Oct 17 2012
[A003945] 1, 3, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472, 6442450944, 12884901888
a(0) = 1; for n>0, a(n) = 3*2^(n-1).
a(n) = 2*a(n-1), n>1; a(0)=1, a(1)=3.
a(n)=sum{k=0..n, (n+k)binomial(n, k)/n}. - Paul Barry, Jan 30 2005
a(0) = 1, a(n) = sum(k=0..n-1, a(k)) + 2 for n>=1. - Joerg Arndt, Aug 15 2012
a(n) = 2^{n}+floor(2^{n-1}). - Martin Grymel, Oct 17 2012
[A007283] 3, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472, 6442450944, 12884901888
a(n) = 2*a(n-1), n>0; a(0)=3.
a(n) = Sum_{k=0..n} (-1)^(k reduced (mod 3))*C(n,k). - Benoit Cloitre, Aug 20 2002
a(n) = 2^n + 2^(n+1). - Jaroslav Krizek, Aug 17 2009
[A278666] 1, 3, 6, 12, 24, 50, 102, 196, 388, 804, 1652, 3156, 6228, 12884, 26452, 50516, 99668, 206164, 423252, 808276, 1594708, 3298644, 6772052, 12932436, 25515348, 52778324, 108352852, 206918996, 408245588, 844453204, 1733645652, 3310703956, 6531929428
a(n) = a(n-1) + 16*a(n-4) - 16*a(n-5) for n>7.
[A077854] 1, 3, 6, 12, 25, 51, 102, 204, 409, 819, 1638, 3276, 6553, 13107, 26214, 52428, 104857, 209715, 419430, 838860, 1677721, 3355443, 6710886, 13421772, 26843545, 53687091, 107374182, 214748364, 429496729, 858993459, 1717986918, 3435973836, 6871947673
a(n) = 3*a(n-1) - 3*a(n-2) + 3*a(n-3) - 2*a(n-4), with initial values a(0) = 1, a(1) = 3, a(2) = 6, a(3) = 12.
a(n) = (1/10)*(2^(n+4) + (-1)^floor(n/2) - 2*(-1)^floor((n+1)/2) - 5).
a(n) = floor(2^(n+3)/5). [Gary Detlefs, Sep 06 2010]
a(n) = round((2^(n+4)-5)/10) = floor((2^(n+3)-1)/5) = ceiling((2^(n+3)-4)/5) = round((2^(n+3)-2)/5); a(n) = a(n-4) + 3*2^(n-1), n > 3. [Mircea Merca, Dec 27 2010]
a(n) = 2^(n+1) - 1 - a(n-2); a(n) = a(n-1)/2 for n == 2, 3 (mod 4); a(n) = (a(n-1)-1)/2 for n == 0, 1 (mod 4). [Arie Bos, Apr 06 2013]
a(n) = Sum_{k=1..n+3} floor(1 + sin(k*Pi/2 + 3*Pi/4))*2^(n-k+3). - Andres Cicuttin, Mar 28 2016
[A293313] 1, 3, 6, 12, 25, 51, 103, 207, 414, 828, 1656, 3313, 6627, 13254, 26509, 53019, 106039, 212078, 424157, 848315, 1696631, 3393263, 6786526, 13573052, 27146105, 54292211, 108584422, 217168845, 434337691, 868675383, 1737350766, 3474701532, 6949403065
a(n) = floor(r*2^n), where r = (1+sqrt(5))/2.
[A267539] 1, 3, 6, 12, 25, 51, 103, 207, 415, 831, 1663, 3327, 6655, 13311, 26623, 53247, 106495, 212991, 425983, 851967, 1703935, 3407871, 6815743, 13631487, 27262975, 54525951, 109051903, 218103807, 436207615, 872415231, 1744830463, 3489660927, 6979321855
a(n) = 3*a(n-1)-2*a(n-2) for n>2.
[A099445] 1, 3, 6, 12, 25, 54, 117, 252, 542, 1167, 2514, 5415, 11662, 25116, 54093, 116502, 250913, 540396, 1163862, 2506635, 5398594, 11627067, 25041462, 53932332, 116155217, 250165974, 538787805, 1160398812, 2499175726, 5382528183
a(n) = 3*a(n-1)-3*a(n-2)+3*a(n-3)-a(n-4) for n>4. - Colin Barker, Feb 10 2014
[A088688] 0, 1, 3, 6, 12, 27, 63, 141, 297, 594, 1146, 2169, 4095, 7827, 15291, 30582, 62256, 127791, 262143, 534129, 1078101, 2156202, 4282878, 8477181, 16777215, 33288711, 66311703, 132623406, 266043972, 534479427, 1073741823, 2154658101
a(n) = 2^n - cos(Pi*n/3) - 3^(n/2)*sin(Pi*n/6)/sqrt(3).
[A290997] 0, 0, 1, 3, 6, 12, 27, 63, 143, 315, 684, 1479, 3195, 6903, 14932, 32361, 70266, 152775, 332397, 723330, 1573829, 3423444, 7444722, 16185939, 35185779, 76483890, 166253545, 361396431, 785621808, 1707884880, 3712912632, 8071922817, 17548551692, 38150905170
a(n) = 6*a(n-1) - 15*a(n-2) + 21*a(n-3) - 18*a(n-4) + 9*a(n-5) - a(n-6) for n >= 7.
[A052103] 0, 0, 1, 3, 6, 12, 27, 63, 144, 324, 729, 1647, 3726, 8424, 19035, 43011, 97200, 219672, 496449, 1121931, 2535462, 5729940, 12949227, 29264247, 66134880, 149459580, 337766841, 763326423, 1725057486, 3898493712, 8810287947, 19910555163
a(n) = 3 * a(n-1) - 3 * a(n-2) + 3 * a(n-3), n >2.
[A292290] 0, 0, 3, 6, 12, 27, 66, 168, 435, 1134, 2964, 7755, 20298, 53136, 139107, 364182, 953436, 2496123, 6534930, 17108664, 44791059, 117264510, 307002468, 803742891, 2104226202, 5508935712, 14422580931, 37758807078, 98853840300, 258802713819, 677554301154
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3), n >= 4.
a(n) = 3*(1 + (2^(-1-n)*((7-3*sqrt(5))*(3+sqrt(5))^n - (3-sqrt(5))^n*(7+3*sqrt(5)))) / sqrt(5)) for n>0.
[A208131] 1, 3, 6, 12, 36, 72, 144, 432, 864, 1728, 5184, 10368, 20736, 62208, 124416, 248832, 746496, 1492992, 2985984, 8957952, 17915904, 35831808, 107495424, 214990848, 429981696, 1289945088, 2579890176, 5159780352, 15479341056, 30958682112, 61917364224
a(n) = 12^floor(n/3)*(r+1)*(r+2)/2 with r = n mod 3. G.f.: -(6*x^2+3*x+1) / (12*x^3-1). - Alois P. Heinz, Apr 05 2012
[A136484] 0, 1, 3, 6, 13, 19, 28, 37, 48, 64, 77, 94, 110, 131, 152, 172, 199, 226, 253, 281, 308, 343, 377, 412, 447, 488, 528, 567, 612, 654, 703, 750, 796, 847, 902, 957, 1013, 1068, 1129, 1187, 1252, 1313, 1378, 1446, 1511, 1582, 1650, 1725, 1800, 1877, 1955, 2034
a(n) = Sum(floor(sqrt((n+1/2)^2 - k^2))), k = 1 ... n
[A259583] 3, 6, 13, 19, 34, 55, 84, 120, 174, 231, 310, 399, 510, 634, 786, 948, 1144, 1359, 1602, 1863, 2176, 2496, 2860, 3256, 3680, 4147, 4662, 5189, 5782, 6412, 7080, 7792, 8574, 9369, 10228, 11151, 12114, 13132, 14230, 15344, 16540, 17805, 19110, 20481, 21948
a(n) = sum{sum{floor((n*k + x)/m), k=0..m-1, m=1..n}, where x = 3.
[A048134] 0, 3, 6, 13, 22, 40, 55, 88, 118, 163, 205, 280, 334, 436, 517, 625, 733, 901, 1018, 1225, 1381, 1591, 1786, 2083, 2287, 2617, 2887, 3238, 3544, 4006, 4306, 4831, 5239, 5749, 6205, 6817, 7267, 8005, 8572, 9280, 9880, 10780, 11374, 12361
a(n) = number of triples (i, j, k) with 1 <= i+j+k <= n and gcd(i, j, k) = 1.
[A162426] 1, 3, 6, 13, 24, 34, 49, 69, 94, 117, 148, 174, 211, 249, 298, 331, 366, 439, 498, 535, 591, 670, 733, 792, 880, 939, 1006, 1123, 1212, 1270, 1353, 1456, 1599, 1648, 1750, 1896, 1963, 2127, 2164, 2379, 2452, 2545, 2709, 2848, 2997, 3094, 3276, 3385, 3595
a(n) = Sum_{m=n(n+1)/2..n(n+1)/2+n} [x^m] S(x)^3 for n>=0 where S(x) = Sum_{n>=0} x^((n+1)(n+2)/2-1).
[A131913] 1, 3, 6, 13, 25, 48, 89, 163, 294, 525, 929, 1632, 2849, 4947, 8550, 14717, 25241, 43152, 73561, 125075, 212166, 359133, 606721, 1023168, 1722625, 2895843, 4861254, 8149933, 13646809, 22825200, 38136089, 63653827, 106146534, 176849517, 294401825, 489706272
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4), a(0)=1, a(1)=3, a(2)=6, a(3)=13.
a(n) = a(n-1)+a(n-2)+2*Fibonacci(n). (End)
[A081254] 1, 3, 6, 13, 26, 53, 106, 213, 426, 853, 1706, 3413, 6826, 13653, 27306, 54613, 109226, 218453, 436906, 873813, 1747626, 3495253, 6990506, 13981013, 27962026, 55924053, 111848106, 223696213, 447392426, 894784853, 1789569706, 3579139413
a(n) = floor(2^n*5/3)
a(n)=5*2^n/3-(-1)^n/6-1/2. a(n)=2a(n-1)+(1-(-1)^n)/2, a(0)=1. - Paul Barry, Mar 24 2003
[A164991] 1, 1, 3, 6, 13, 26, 54, 108, 221, 442, 898, 1796, 3634, 7268, 14668, 29336, 59101, 118202, 237834, 475668, 956198, 1912396, 3841588, 7683176, 15425138, 30850276, 61908564, 123817128, 248377156, 496754312
a(n) = 2^(n-1) - C(n-2,(n-2)/2).
a(2*k+1) = 4*Sum{j = 0..(k-2)} binomial(2*k-1,j) + 3*binomial(2*k-1,k-1), k >= 1.
a(2*k) = 4*Sum{j = 0..(k-2)} binomial(2*(k-1),j) + binomial(2*(k-1),k-1), k >= 1. (End)
[A213255] 1, 3, 6, 13, 26, 54, 110, 225, 456, 922, 1862, 3755, 7562, 15214, 30584, 61441, 123362, 247581, 496694, 996148, 1997288, 4003654, 8023886, 16078166, 32212255, 64527754, 129246702, 258848476, 518358122, 1037950430, 2078209982, 4160749569, 8329633544
a(n) = 2^(n-1) - floor((2^(n-1) - 1)/(n-1)).

a(n) = ceiling(2^(n-1) - (2^(n-1) - 1)/(n-1)).
[A291726] 3, 6, 13, 27, 51, 94, 171, 303, 527, 906, 1539, 2586, 4308, 7122, 11692, 19077, 30957, 49986, 80349, 128628, 205146, 326058, 516594, 816076, 1285674, 2020380, 3167464, 4954887, 7734993, 12051616, 18743037, 29099781, 45106223, 69810162, 107887629, 166505313
a(n) = 3*a(n-1) - 3*a(n-2) + 4*a(n-3) - 6*a(n-4) + 3*a(n-5) - 3*a(n-6) + 3*a(n-7) + a(n-9) for n >= 10.
[A033129] 0, 1, 3, 6, 13, 27, 54, 109, 219, 438, 877, 1755, 3510, 7021, 14043, 28086, 56173, 112347, 224694, 449389, 898779, 1797558, 3595117, 7190235, 14380470, 28760941, 57521883, 115043766, 230087533, 460175067, 920350134, 1840700269
a(n) = a(n-3) + 3 * 2^(n-3). - Martin von Gagern, May 26 2004
a(n+1) = 2*a(n) + 1 - 0^((a(n)+1) mod 4). - Reinhard Zumkeller, Feb 22 2010
a(n) = floor(2^(n+1)*3/7). - Jean-Marie Madiot, Oct 05 2012
a(n) = (1/14)*(-9 - 2*(-1)^floor((2n)/3) + (-1)^(floor((2n + 7)/3) + 1) + 3*2^(n + 2)). - John M. Campbell, Dec 26 2016
[A267604] 1, 3, 6, 13, 27, 55, 111, 223, 447, 895, 1791, 3583, 7167, 14335, 28671, 57343, 114687, 229375, 458751, 917503, 1835007, 3670015, 7340031, 14680063, 29360127, 58720255, 117440511, 234881023, 469762047, 939524095, 1879048191, 3758096383, 7516192767
a(n) = ceiling((7/4)*2^n-1). (End)
a(n) = 3*a(n-1)-2*a(n-2) for n>3.
[A099036] 1, 1, 3, 6, 13, 27, 56, 115, 235, 478, 969, 1959, 3952, 7959, 16007, 32158, 64549, 129475, 259560, 520107, 1041811, 2086206, 4176593, 8359951, 16730848, 33479407, 66987471, 134021310, 268117645, 536356683, 1072909784, 2146137379
a(n) = 3*a(n-1) -a(n-2) -2*a(n-3).
a(n) = sum(t_1+2*t_2+...+n*t_n=n, multinomial(1 +t_1 +t_2 +... +t_n, 1 +t_1, t_2, ..., t_n). - Mircea Merca, Oct 09 2013
[A131246] 1, 3, 6, 13, 27, 57, 119, 250, 523, 1097, 2297, 4815, 10086, 21137, 44283, 92793, 194419, 407378, 853559, 1788481, 3747361, 7851867, 16451910, 34471669, 72228171, 151339401, 317100335, 664418698, 1392152131
a(0)=1, a(1)=3, a(2)=6, a(3)=13, a(n)=a(n-1)+3*a(n-2)-a(n-3)-a(n-4). - Harvey P. Dale, Sep 07 2013
[A095768] 3, 6, 13, 28, 59, 122, 249, 504, 1015, 2038, 4085, 8180, 16371, 32754, 65521, 131056, 262127, 524270, 1048557, 2097132, 4194283, 8388586, 16777193, 33554408, 67108839, 134217702, 268435429, 536870884, 1073741795, 2147483618
a(n) = 4a(n-1) - 5a(n-2) + 2a(n-3). (End)
[A002478] 1, 1, 3, 6, 13, 28, 60, 129, 277, 595, 1278, 2745, 5896, 12664, 27201, 58425, 125491, 269542, 578949, 1243524, 2670964, 5736961, 12322413, 26467299, 56849086, 122106097, 262271568, 563332848, 1209982081, 2598919345, 5582216355, 11990037126, 25753389181
a(n) = a(n-1)+2a(n-2)+a(n-3).
a(n) = sum{k=0..n, binomial(2n-2k, k)}. - Paul Barry, Nov 13 2004
a(n) = sum{k=0..floor(n/2), sum{j=0..n-k, C(j, n-k-j)C(j, k)}}. - Paul Barry, Nov 09 2005
a(n) = sum{k=0..n, C(2k,n-k)}=sum{k=0..n, C(n,k)C(3k,n)/C(3k,k)}. - Paul Barry, Feb 04 2006
[A214260] 0, 1, 3, 6, 13, 29, 64, 141, 311, 686, 1513, 3337, 7360, 16233, 35803, 78966, 174165, 384133, 847232, 1868629, 4121391, 9090014, 20048657, 44218705, 97527424, 215103505, 474425715, 1046378854, 2307861213
a(n+1) = sum{k = 0..n, C(n-k, floor(k/2))*2^(n-k-floor(k/2)) .
[A162483] 3, 6, 13, 31, 78, 201, 523, 1366, 3573, 9351, 24478, 64081, 167763, 439206, 1149853, 3010351, 7881198, 20633241, 54018523, 141422326, 370248453, 969323031, 2537720638, 6643838881, 17393796003, 45537549126, 119218851373, 312119004991, 817138163598
a(n) = Real((1-I) * (L(2*n+1) - F(2*n+1))/2 + F(2*n+2) + 2*I)).
a(n)=4*a(n-1)-4*a(n-2)+a(n-3). G.f.: -(3-6*x+x^2)/((x-1)*(x^2-3*x+1)). - R. J. Mathar, Aug 08 2009
a(n) = 2^(-1-n)*(2^(2+n)-(3-sqrt(5))^n*(-1+sqrt(5))+(1+sqrt(5))*(3+sqrt(5))^n). - Colin Barker, Nov 03 2016
[A083356] 0, 1, 3, 6, 14, 19, 31, 38, 54, 72, 92, 103, 139, 152, 180, 210, 258, 275, 329, 348, 408, 450, 494, 517, 613, 663, 715, 769, 853, 882, 1002, 1033, 1129, 1195, 1263, 1333, 1513, 1550, 1626, 1704, 1864, 1905, 2073, 2116, 2248, 2383, 2475, 2522, 2762, 2860
a(n) = sum_{r=1..floor(sqrt(n))} r*(r+floor(n/r))*(floor(n/r)+1-r)/2.
[A291987] 1, 1, 3, 6, 14, 20, 45, 69, 135, 210, 378, 576, 1057, 1561, 2667, 4110, 6902, 10220, 17109, 25485, 41583, 62250, 99666, 147960, 238633, 350881, 553107, 825126, 1292942, 1899620, 2977821, 4381269, 6791127, 10025730, 15415722, 22645296, 34970545, 51140521
a(n) = a(n-1) + 2*a(n-2) + a(n-3) + a(n-4) - 10*a(n-5) - 2*a(n-6) - 4*a(n-7) + 12*a(n-8) + 24*a(n-9) - 24*a(n-10) for n >= 11. - Muniru A Asiru, Sep 07 2017
[A291988] 1, 1, 3, 6, 14, 25, 50, 84, 165, 280, 503, 826, 1477, 2386, 4067, 6625, 11032, 17605, 29039, 45820, 74708, 117410, 187691, 293155, 467733, 724421, 1140157, 1763581, 2758717, 4238285, 6599926, 10082054, 15609032, 23819315, 36607147, 55644926, 85380815, 129185681
a(n) = a(n-1) + 2*a(n-2) + a(n-3) + a(n-4) - 5*a(n-5) - 7*a(n-6) - 14*a(n-7) + 7*a(n-8) + 19*a(n-9) + 26*a(n-10) + 10*a(n-11) + 20*a(n-12) - 60*a(n-13) - 120*a(n-14) + 120*a(n-15) for n >= 16. - Muniru A Asiru, Sep 07 2017
[A120940] 0, 1, 3, 6, 14, 26, 52, 95, 177, 318, 572, 1012, 1784, 3117, 5423, 9382, 16170, 27758, 47500, 81035, 137885, 234046, 396408, 670056, 1130544, 1904281, 3202587, 5378310, 9020102, 15109058, 25279012, 42248567, 70537929, 117657342, 196076468, 326485852
a(n) = sum from k=0 to n of (-1)^(n-k)*k*f(k) also, when n >= 3, a(n) = nf(n-1) + f(n-3) + (-1)^n where f(n) = F(n+1)
[A277954] 1, 3, 6, 14, 26, 58, 106, 234, 426, 938, 1706, 3754, 6826, 15018, 27306, 60074, 109226, 240298, 436906, 961194, 1747626, 3844778, 6990506, 15379114, 27962026, 61516458, 111848106, 246065834, 447392426, 984263338, 1789569706, 3937053354, 7158278826
a(n) = a(n-1)+4*a(n-2)-4*a(n-3) for n>2.
a(n) = (-8-(-2)^n+21*2^n)/12. (End)
[A224840] 1, 3, 6, 14, 27, 61, 117, 250, 494, 1012, 2007, 4088, 8112, 16357, 32635, 65493, 130779, 262115, 523710, 1048502, 2096110, 4194124, 8386419, 16777182, 33550085, 67108507, 134209495, 268434899, 536853987, 1073741664, 2147449815, 4294966187, 8589868975, 17179866799
a(n) = sum{d | n} sum_{k <= d} mu(k)*(2^floor(n/k) - 1) where mu is the Moebius function.
[A216714] 0, 1, 3, 6, 14, 29, 60, 123, 249, 503, 1012, 2032, 4075, 8164, 16347, 32719, 65471, 130986, 262030, 524137, 1048376, 2096887, 4193953, 8388143, 16776600, 33553616, 67107783, 134216296, 268433559, 536868399, 1073738495, 2147479238, 4294961454, 8589926853, 17179858932, 34359724787, 68719458745, 137438929639, 274877875372, 549755772064
a(n) = 2*a(n-1)+a(n-2)-a(n-3)-2*a(n-4). - Vincenzo Librandi, Mar 11 2013
[A084174] 1, 1, 3, 6, 14, 29, 61, 124, 252, 507, 1019, 2042, 4090, 8185, 16377, 32760, 65528, 131063, 262135, 524278, 1048566, 2097141, 4194293, 8388596, 16777204, 33554419, 67108851, 134217714, 268435442, 536870897, 1073741809, 2147483632
a(n) = 2^n+(-1)^n/4-(2*n+1)/4.
a(n+2) = a(n+1)+2*a(n)+n, a(0)=1, a(1)=1.
a(n) = floor(2^n-n(n+1)/2). - Zerinvary Lajos, Apr 29 2007
[A192672] 1, 1, 1, 3, 6, 14, 30, 65, 144, 321, 720, 1626, 3694, 8428, 19305, 44371, 102291, 236450, 547868, 1272148, 2959613, 6897450, 16100184, 37635909, 88095027, 206458158, 484399704, 1137707979, 2674734202, 6293966627, 14823002101, 34937537185, 82408390392, 194515481823
a(n) = floor(sqrt(littleSchroder(n))).
[A175656] 1, 3, 6, 14, 30, 66, 142, 306, 654, 1394, 2958, 6258, 13198, 27762, 58254, 121970, 254862, 531570, 1106830, 2301042, 4776846, 9903218, 20505486, 42409074, 87614350, 180821106, 372827022, 768023666, 1580786574, 3251051634
a(n) = 3*a(n-1)-4*a(n-3) with a(0)=1, a(1)=3 and a(2)=6.
a(n) = ((3*n+22)*2^n-4*(-1)^n)/18.
[A218982] 3, 6, 14, 31, 70, 156, 349, 780, 1745, 3901, 8723, 19505, 43615, 97526, 218075, 487630, 1090374, 2438150, 5451870, 12190751, 27259348, 60953755, 136296740, 304768775, 681483699, 1523843876, 3407418494, 7619219380, 17037092470
a(n) = floor(x*a(n-1)) if n is odd, a(n) = ceiling(x*a(n-1) if n is even, where x=sqrt(5) and a(0) = ceiling(x).
[A106803] 0, 1, 1, 3, 6, 14, 31, 70, 157, 353, 793, 1782, 4004, 8997, 20216, 45425, 102069, 229347, 515338, 1157954, 2601899, 5846414, 13136773, 29518061, 66326481, 149034250, 334876920, 752461609, 1690765888, 3799116465, 8536537209
a(n) = 2*a(n-1) + a(n-2) - a(n-3), a(0)=0, a(1)=a(2)=1. - G. C. Greubel, Aug 14 2015
[A006356] 1, 3, 6, 14, 31, 70, 157, 353, 793, 1782, 4004, 8997, 20216, 45425, 102069, 229347, 515338, 1157954, 2601899, 5846414, 13136773, 29518061, 66326481, 149034250, 334876920, 752461609, 1690765888, 3799116465, 8536537209, 19181424995
a(n) is asymptotic to z(3)*w(3)^n where w(3)=(1/2)/cos(3*Pi/7) and z(3) is the root 1<X<2 of P(3, X) = 1-14*X-49*X^2+49*X^3. w(3)= 2.2469796.... z(3)=1.220410935...

a(n-1) = sum(k=1..n, sum(i=k..n, (sum(j=0..k, binomial(j,-3*k+2*j+i)*(-1)^(j-k)*binomial(k,j)))*binomial(n+k-i-1,k-1))). - Vladimir Kruchinin, May 05 2011
[A077998] 1, 1, 3, 6, 14, 31, 70, 157, 353, 793, 1782, 4004, 8997, 20216, 45425, 102069, 229347, 515338, 1157954, 2601899, 5846414, 13136773, 29518061, 66326481, 149034250, 334876920, 752461609, 1690765888, 3799116465, 8536537209, 19181424995, 43100270734, 96845429254
a(0)=a(1)=1, a(2)=3, a(n+1) = 2*a(n)+a(n-1)-a(n-2) for n>=2. - Philippe Deléham, Sep 07 2006
[A129954] 1, 3, 6, 14, 32, 72, 160, 352, 768, 1664, 3584, 7680, 16384, 34816, 73728, 155648, 327680, 688128, 1441792, 3014656, 6291456, 13107200, 27262976, 56623104, 117440512, 243269632, 503316480, 1040187392, 2147483648, 4429185024
a(0) = 1, a(1) = 3; for n > 1, a(n) = (n+4)*2^(n-2).
[A272362] 1, 3, 6, 14, 32, 74, 171, 396, 917, 2124, 4920, 11397, 26401, 61158, 141673, 328187, 760249, 1761126, 4079670, 9450606, 21892446, 50714123, 117479896, 272143639, 630424122, 1460385314, 3383000731, 7836763241, 18153959452, 42053872709, 97418318825, 225670746387, 522769088906, 1211001092038
a(n) = 2*a(n-1) + a(n-2) - a(n-4) - a(n-5).
[A003477] 1, 3, 6, 14, 33, 71, 150, 318, 665, 1375, 2830, 5798, 11825, 24039, 48742, 98606, 199113, 401455, 808382, 1626038, 3267809, 6562295, 13169814, 26416318, 52962681, 106145855, 212665582, 425965126, 853005201, 1707833095, 3418756806
a(0) = 1; for n>0, a(n) = 3*a(n-1)-3*a(n-2)+5*a(n-3)-6*a(n-4)+2*a(n-5)-4*a(n-6) (where a(n)=0 for -5<=n<=-1). - Jon E. Schoenfield, Apr 23 2010
a(n) = 3*a(n-1)-2*a(n-2)+2*a(n-3)-4*a(n-4)+Re(i^(n-4)), a(-5)=a(-4)=a(-3)=a(-2)=0 for all integers n element Z. - Manfred Lindemann, Dec 06 2015
a(n)=(1/2)*(BR*ROR^-(n+4)+BC*ROC^-(n+4)+conjugate(BC*ROC^-(n+4))
[A275873] 1, 1, 1, 3, 6, 14, 34, 81, 193, 461, 1101, 2631, 6288, 15029, 35921, 85856, 205208, 490477, 1172311, 2801993, 6697170, 16007210, 38259559, 91445908, 218569015, 522411722, 1248639967, 2984431055, 7133224115, 17049442704, 40750646810, 97399970443, 232800089935
a(n) = floor(r*a(n-1)) + floor(r*a(n-2)) + floor(r*a(n-3)), where r = 3/2, a(0) = a(1) = a(2) = 1.
[A184785] 1, 1, 1, 3, 6, 14, 34, 83, 205, 516, 1317, 3396, 8848, 23253, 61570, 164094, 439860, 1185086, 3207477, 8716726, 23776459, 65072379, 178637758, 491772915, 1357288318, 3754989329, 10411112464, 28924678247, 80512118330, 224501827180
a(n) = floor(binomial(phi*n, n)/(n/phi + 1)) where phi = (sqrt(5)+1)/2.
[A001550] 3, 6, 14, 36, 98, 276, 794, 2316, 6818, 20196, 60074, 179196, 535538, 1602516, 4799354, 14381676, 43112258, 129271236, 387682634, 1162785756, 3487832978, 10462450356, 31385253914, 94151567436, 282446313698, 847322163876
a(0)=3, a(1)=6, a(2)=14, a(n)=6a(n-1)-11a(n-2)+6a(n-3). - Harvey P. Dale, Apr 30 2011
[A079003] 3, 6, 14, 38, 110, 326, 974, 2918, 8750, 26246, 78734, 236198, 708590, 2125766, 6377294, 19131878, 57395630, 172186886, 516560654, 1549681958, 4649045870, 13947137606, 41841412814, 125524238438, 376572715310, 1129718145926
a(1) = 3; for n>1, a(n) = 3*a(n-1)-4; a(n) = 4*3^(n-2)+2.
a(n) = 4*a(n-1)-3*a(n-2) for n>3. G.f.: x*(3-6*x-x^2)/((1-x)*(1-3*x)). [Colin Barker, May 01 2012]
[A060304] 0, 0, 3, 6, 15, 19, 37, 47, 69, 82, 113, 139, 180, 216, 244, 300, 381, 423, 486, 553, 638, 726, 820, 887, 1029, 1152, 1256, 1376, 1527, 1659, 1794, 1992, 2156, 2357, 2517, 2739, 2909, 3085, 3365, 3627, 3933, 4200, 4380, 4687, 4960, 5313, 5547, 5917, 6395
a(n) = n*pi(n*n) - pi(n*n*n). - Jonathan Sondow, Feb 17 2014
[A117748] 0, 3, 6, 15, 21, 36, 45, 66, 78, 105, 120, 153, 171, 210, 231, 276, 300, 351, 378, 435, 465, 528, 561, 630, 666, 741, 780, 861, 903, 990, 1035, 1128, 1176, 1275, 1326, 1431, 1485, 1596, 1653, 1770, 1830, 1953, 2016, 2145, 2211, 2346, 2415, 2556, 2628, 2775
a(n) = 3*(1-(-1)^n+2*(-3+(-1)^n)*n+6*n^2)/16.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A179805] 1, 3, 6, 15, 24, 33, 42, 51, 60, 69, 78, 87, 96, 105, 114, 123, 132, 141, 150, 159, 168, 177, 186, 195, 204, 213, 222, 231, 240, 249, 258, 267, 276, 285, 294, 303, 312, 321, 330, 339, 348, 357, 366, 375, 384, 393, 402
a(0) = 1, a(1) = 3, a(2) = 6; a(n), n>2 = 2*a(n-1) - a(n-2).
a(n), n>2 = a(n-1) + 9.
a(n) = 9*n-12 for n>1. G.f.: (2*x+1)*(3*x^2-x+1)/(x-1)^2. [Colin Barker, Oct 28 2012]
[A272073] 3, 6, 15, 24, 57, 90, 213, 336, 795, 1254, 2967, 4680, 11073, 17466, 41325, 65184, 154227, 243270, 575583, 907896, 2148105, 3388314, 8016837, 12645360, 29919243, 47193126, 111660135, 176127144, 416721297, 657315450, 1555225053, 2453134656, 5804178915
a(n) = 4*a(n-2)-a(n-4), with a(2)=3, a(3)=6, a(4)=15, a(5)=24.
[A282484] 1, 3, 6, 15, 24, 62, 99, 254, 387, 1006, 1595, 4078, 6203, 16110, 25531, 65262, 99259, 257774, 408507, 1044206, 1588155, 4124398, 6536123, 16707310, 25410491, 65990382, 104577979, 267316974, 406567867, 1055846126, 1673247675, 4277071598, 6505085883
a(n) = a(n-2) + 16*a(n-4) - 16*a(n-6) for n>6.
[A216304] 3, 6, 15, 25, 27, 33, 54, 57, 60, 75, 94, 97, 99, 118, 123, 129, 132, 136, 162, 174, 186, 190, 201, 213, 228, 234, 235, 237, 241, 244, 255, 267, 279, 285, 306, 318, 330, 351, 354, 363, 369, 402, 405, 439, 444, 445, 456, 459, 465, 487, 495, 508, 510, 538
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A020991] 0, 3, 6, 15, 26, 27, 30, 63, 106, 107, 110, 111, 122, 123, 126, 255, 426, 427, 430, 431, 442, 443, 446, 447, 490, 491, 494, 495, 506, 507, 510, 1023, 1706, 1707, 1710, 1711, 1722, 1723, 1726, 1727, 1770, 1771, 1774, 1775, 1786, 1787, 1790, 1791, 1962, 1963
a(2^n) = 2^(2n) - 1. - Seiichi Manyama, Apr 23 2017
[A079825] 1, 3, 6, 15, 26, 41, 62, 92, 129, 169, 224, 287, 366, 443, 548, 656, 793, 919, 1090, 1255, 1466, 1653, 1906, 2140, 2441, 2701, 3052, 3367, 3774, 4119, 4584, 4992, 5521, 5963, 6558
a(n) = ((2*n+1)*(7*n^2+7*n+12) -3*n*(n-7)*(-1)^n +6*(2*n-3*(-1)^n+1)*i^(n*(n-1)))/96, where i=sqrt(-1). - Bruno Berselli, Sep 05 2012
[A282123] 1, 3, 6, 15, 26, 63, 106, 255, 426, 1023, 1706, 4095, 6826, 16383, 27306, 65535, 109226, 262143, 436906, 1048575, 1747626, 4194303, 6990506, 16777215, 27962026, 67108863, 111848106, 268435455, 447392426, 1073741823, 1789569706, 4294967295, 7158278826
a(n) = (-5 - (-2)^n + (-1)^n + 11*2^n) / 6.
a(n) = 5*a(n-2) - 4*a(n-4) for n>3.
[A103529] 0, 3, 6, 15, 28, 61, 126, 251, 504, 1017, 2042, 4095, 8180, 16373, 32758, 65523, 131056, 262129, 524274, 1048567, 2097148, 4194285, 8388590, 16777195, 33554408, 67108841, 134217706, 268435439, 536870884, 1073741797, 2147483622
a(n) = 2^(n-1) - (n-1) + Sum_{ k >= 1, k == n-1 mod 2^k } 2^k.
a(0)=0, a(1)=3, for n>1, a(n)= a(n-1) XOR (a(n-1)+n), where XOR is the bitwise exclusive-or operator. - Alex Ratushnyak, Apr 21 2012
[A285543] 1, 3, 6, 15, 28, 63, 120, 255, 496, 1023, 2016, 4095, 8128, 16383, 32640, 65535, 130816, 262143, 523776, 1048575, 2096128, 4194303, 8386560, 16777215, 33550336, 67108863, 134209536, 268435455, 536854528, 1073741823, 2147450880, 4294967295, 8589869056
a(n) = (-1 + (-1)^n + 2^(2+n) - 2^(n/2)*(1+(-1)^n)) / 2.
a(n) = 2*a(n-1) + 3*a(n-2) - 6*a(n-3) - 2*a(n-4) + 4*a(n-5) for n>4.
[A077449] 3, 6, 15, 30, 31, 39, 43, 51, 57, 62, 67, 71, 75, 78, 79, 86, 87, 102, 103, 111, 114, 123, 131, 134, 139, 142, 147, 150, 155, 158, 159, 174, 183, 191, 195, 206, 215, 219, 222, 223, 239, 246, 255, 262, 267, 278, 279, 283, 285, 291, 294, 303, 310, 311, 318, 327
a(n) seems to be asymptotic to c*n where c is around 5.47...
[A242172] 1, 3, 6, 15, 30, 70, 140, 315, 630, 1386, 2772, 6006, 12012, 25740, 51480, 109395, 218790, 461890, 923780, 1939938, 3879876, 8112468, 16224936, 33801950, 67603900, 140408100, 280816200, 581690700, 1163381400, 2404321560, 4808643120, 9917826435, 19835652870
a(2*n+2)/2 = a(2*n+1).
[A256281] 1, 3, 6, 15, 30, 78, 170, 423, 991, 2410, 5742, 13950, 33462, 80954, 195060, 471255, 1136690, 2745273, 6625110, 15996850, 38614140, 93228102, 225058682, 543354078, 1311738151, 3166849426, 7645371036, 18457637018, 44560482150, 107578717860, 259717522850, 627014037303, 1513744660692, 3654504012630
a(n) = Sum_{d|n} Pell(d).
[A289006] 0, 1, 3, 6, 15, 33, 66, 155, 333, 666, 1555, 3333, 6666, 15555, 33333, 66666, 155555, 333333, 666666, 1555555, 3333333, 6666666, 15555555, 33333333, 66666666, 155555555, 333333333, 666666666, 1555555555, 3333333333, 6666666666, 15555555555, 33333333333, 66666666666, 155555555555, 333333333333, 666666666666
a(3n) = floor(10^n/3) (= n times the digit '3'), a(3n+1) = floor(10^n/3)*2 (= n times the digit '6'), a(3n+2) = floor(10^(n+1)/6) - floor(10^n/9) (= digit '1' followed by n digits '5'). - M. F. Hasler, Jun 23 2017
[A105476] 1, 1, 3, 6, 15, 33, 78, 177, 411, 942, 2175, 5001, 11526, 26529, 61107, 140694, 324015, 746097, 1718142, 3956433, 9110859, 20980158, 48312735, 111253209, 256191414, 589951041, 1358525283, 3128378406, 7203954255, 16589089473, 38200952238, 87968220657
a(n) = a(n-1) + 3*a(n-2) for n>=3.

a(n) = ((2+sqrt(13))*(1+sqrt(13))^n-(2-sqrt(13))*(1-sqrt(13))^n)/(3*2^n*sqrt(13)) for n>0. - Bruno Berselli, May 24 2011
[A190525] 1, 3, 6, 15, 34, 80, 185, 431, 1001, 2328, 5411, 12580, 29244, 67985, 158045, 367411, 854126, 1985603, 4615966, 10730820, 24946129, 57992715, 134816705, 313410816, 728591751, 1693770328, 3937538296, 9153665985, 21279691689, 49469281395
a(n) = 2*a(n-1) + a(n-2) - a(n-3) + a(n-4) with a(0) = 1, a(1) = 3, a(2) = 6 and a(3) = 15.
[A291013] 0, 3, 6, 15, 36, 85, 198, 456, 1040, 2352, 5280, 11776, 26112, 57600, 126464, 276480, 602112, 1306624, 2826240, 6094848, 13107200, 28114944, 60162048, 128450560, 273678336, 581959680, 1235222528, 2617245696, 5536481280, 11693719552, 24662507520, 51942260736
a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3) for n >= 7.
a(n) = 2^(n-6) * (60 + 17*n + n^2) for n>2. - Colin Barker, Aug 23 2017
[A033192] 0, 1, 1, 3, 6, 15, 36, 91, 231, 595, 1540, 4005, 10440, 27261, 71253, 186355, 487578, 1276003, 3339820, 8742471, 22885995, 59912931, 156848616, 410626153, 1075018896, 2814412825, 7368190921, 19290113571
a(n) = ((Fibonacci(n)+Fibonacci(n)^2)/2). - Gary Detlefs Dec 24 2010
[A140824] 0, 1, 3, 6, 15, 41, 108, 281, 735, 1926, 5043, 13201, 34560, 90481, 236883, 620166, 1623615, 4250681, 11128428, 29134601, 76275375, 199691526, 522799203, 1368706081, 3583319040, 9381251041, 24560434083, 64300051206, 168339719535, 440719107401, 1153817602668
a(0) = 0, a(1) = 1, a(2) = 3, a(3) = 6, a(n) - 3 a(n + 1) + 2 a(n + 2) - 3 a(n + 3) + a(n + 4) = 0.
a(n) = 2/3*(T(n,3/2) - T(n,0)), where T(n,x) is a Chebyshev polynomial of the first kind.
a(n) = bottom left entry of the 2 X 2 matrix 2*T(n, 1/2*M), where M is the 2 X 2 matrix [0, 0; 1, 3].
[A067771] 3, 6, 15, 42, 123, 366, 1095, 3282, 9843, 29526, 88575, 265722, 797163, 2391486, 7174455, 21523362, 64570083, 193710246, 581130735, 1743392202, 5230176603, 15690529806, 47071589415, 141214768242, 423644304723, 1270932914166
a(n) = 3 + 3^1 + 3^2 + 3^3 + 3^4 +...+ 3^n = 3 + Sum_{k=1..n} 3^n.
a(0) = 3, a(n) = a(n-1) + 3^n. a(n) = (3/2)*(1+3^n). - Zak Seidov, Mar 19 2007
a(n) = 4*a(n-1) - 3*a(n-2).
a(n) = 3*a(n-1) - 3. - Zak Seidov, Oct 26 2014
[A212977] 0, 3, 6, 16, 25, 46, 64, 100, 130, 185, 230, 308, 371, 476, 560, 696, 804, 975, 1110, 1320, 1485, 1738, 1936, 2236, 2470, 2821, 3094, 3500, 3815, 4280, 4640, 5168, 5576, 6171, 6630, 7296, 7809, 8550, 9120, 9940, 10570, 11473, 12166, 13156
a(n)=a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
a(n) = (14*n^3+75*n^2+109*n-3*((n^2+7*n+11)*(-1)^n-11))/96. - Luce ETIENNE, Mar 21 2014
[A049311] 1, 3, 6, 16, 34, 90, 211, 558, 1430, 3908, 10725, 30825, 90156, 273234, 848355, 2714399, 8909057, 30042866, 103859678, 368075596, 1335537312, 4958599228, 18820993913, 72980867400, 288885080660, 1166541823566, 4802259167367, 20141650236664
a(n) is the coefficient of x^n in the cycle index Z(S_n X S_n; 1+x, 1+x^2, ...), where S_n X S_n is Cartesian product of symmetric groups S_n of degree n.
[A130095] 1, 3, 6, 16, 35, 97, 234, 626, 1603, 4218, 10947, 28767, 75026, 196654, 514269, 1346895, 3524579, 9229159, 24157818, 63250217, 165580380, 433505386, 1134903171, 2971244450, 7778742084, 20365086102, 53316292776, 139584059112, 365435296163, 956722544582
a(n) = sum {d | n} Fibonacci(2*d - 1).
[A279685] 1, 1, 3, 6, 16, 39, 91, 216, 499, 1144, 2651, 6152, 14227, 32904, 76187, 176376, 408179, 944728, 2186779, 5061544, 11715219, 27116008, 62762971, 145270808, 336242675, 778266424, 1801373403, 4169451080, 9650594451, 22337231432, 51701672731
a(n) = 3*a(n-1) - 3*a(n-2) + 5*a(n-3) - 4*a(n-4) for n>9.
[A046211] 1, 1, 3, 6, 16, 39, 104, 270, 729, 1960, 5368, 14742, 40880, 113828, 318864, 896670, 2532160, 7174089, 20390552, 58112088, 166037352, 475467916, 1364393896, 3922625070, 11297181456, 32588003000, 94143178827, 272342710380, 788854912240, 2287679086056, 6641649422408, 19302293185470
a(n) = 1/(3*n) * sum_{d divides n, gcd(d, 3)=1} mu(d) * 3^{n/d}.
[A166536] 1, 3, 6, 16, 40, 105, 273, 715, 1870, 4896, 12816, 33553, 87841, 229971, 602070, 1576240, 4126648, 10803705, 28284465, 74049691, 193864606, 507544128, 1328767776, 3478759201, 9107509825, 23843770275, 62423800998, 163427632720
a(n) = (F(n+2)*(1 + (-1)^n)/2 + F(n)*(1 - (-1)^n)/2)*(F(n+3)*(1 - (-1)^n)/2 + F(n+1)*(1 + (-1)^n)/2).
a(n)*a(n+2) - a(n+1)^2 = (-1)^n*(F(2*n+4) - 1).
a(n) = 3*a(n-1) - 3*a(n-3) + a(n-4). - G. C. Greubel, May 16 2016
a(n) = Sum_{i=0..n+1} F(i+1)*F(i-1), where F(-1) = 1. - Bruno Berselli, Feb 16 2017
[A128720] 1, 1, 3, 6, 16, 40, 109, 297, 836, 2377, 6869, 20042, 59071, 175453, 524881, 1579752, 4780656, 14536878, 44394980, 136107872, 418757483, 1292505121, 4001039563, 12418772656, 38641790001, 120510911885, 376628460529, 1179376013552
a(n) = a(n-1) + a(n-2) + Sum_{j=0,..,n-2} a(j)*a(n-2-j), a(0) = a(1) = 1.
a(n) = sum(binomial(2*k,k)/(k+1)*sum(binomial(n-j,2*k)*binomial(n-j-2*k,j),j=0..n/2),k=0..n/2). - Emanuele Munarini, May 05 2011
[A019497] 1, 1, 1, 3, 6, 16, 42, 114, 322, 918, 2673, 7875, 23457, 70551, 213846, 652794, 2004864, 6190612, 19207416, 59850384, 187217679, 587689947, 1850692506, 5845013538, 18509607753, 58759391013, 186958014766, 596108115402
a(0)=a(1)=1 and for n>=2 a(n)= sum(i+j+k=n-2, a(i)*a(j)*a(k)) (i, j, k>=0). - Benoit Cloitre, Jun 14 2004
a(n) = Sum_{k=0..n-1} C(n-k,k)/(n-k) * C(3*k,n-k-1) for n>0 with a(0)=1. - Paul D. Hanna, Jun 16 2009
[A106361] 1, 1, 1, 3, 6, 16, 45, 128, 371, 1106, 3343, 10230, 31635, 98714, 310366, 982437, 3128051, 10011848, 32193840, 103955571, 336946034, 1095873115, 3575319049, 11697938232, 38374479841, 126190075741, 415889689954, 1373506798548
a(n) = Sum_{1 <= s <= n-1} a(n-s)*b(s) for n>=2, where b(n) = Sum_{m|n} (-1)^{1+(n/m)} a(m), with a(1) = 1.
[A235088] 3, 6, 17, 28, 47, 66, 93, 120, 155, 190, 233, 276, 327, 378, 437, 496, 563, 630, 705, 780, 863, 946, 1037, 1128, 1227, 1326, 1433, 1540, 1655, 1770, 1893, 2016, 2147, 2278, 2417, 2556, 2703, 2850, 3005, 3160, 3323, 3486, 3657, 3828, 4007, 4186, 4373, 4560, 4755, 4950, 5153, 5356, 5567, 5778, 5997, 6216, 6443, 6670, 6905, 7140
a(n) = 2*floor((n-1)^2/4) + 3*ceiling(n^2/2) (conjectured). Ralf Stephan, Jan 13 2014
[A291227] 1, 3, 6, 17, 37, 96, 221, 551, 1302, 3189, 7625, 18528, 44537, 107835, 259830, 628105, 1515053, 3659808, 8832085, 21328159, 51481638, 124302381, 300068689, 724468416, 1748959153, 4222461747, 10193761254, 24610180673, 59413804789, 143438304480, 346289581709
a(n) = a(n-1) + 4*a(n-2) - a(n-3) - a(n-4) for n >= 5.
[A129905] 1, 3, 6, 17, 43, 114, 297, 779, 2038, 5337, 13971, 36578, 95761, 250707, 656358, 1718369, 4498747, 11777874, 30834873, 80726747, 211345366, 553309353, 1448582691, 3792438722, 9928733473, 25993761699, 68052551622, 178163893169
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3); a(n) = -1/5*(3/2+1/2*sqrt(5))^n*sqrt(5)+4/5*(3/2+1/2*sqrt(5))^n+1/5*(3/2-1/2*sqrt(5))^n*sqrt(5)+4/5*(3/2-1/2*sqrt(5))^n+2/5*(-1)^n
a(n)= (Fibonacci(n-2)^2+Fibonacci(n+2)^2+Fibonacci(2n))/2, [From Gary Detlefs Dec 20 2010]
[A237670] 1, 3, 6, 17, 43, 140, 430, 1447, 4868, 16841, 58787, 208166, 742901, 2674872, 9694893, 35359117, 129644791, 477643702, 1767263191, 6564137275, 24466267455, 91482622429, 343059613651, 1289904356920, 4861946401495, 18367353815055, 69533550920872
a(n) = sum(binomial(2*d,d)/(d+1), d|n).
[A117863] 3, 6, 18, 30, 78, 126, 318, 510, 1278, 2046, 5118, 8190, 20478, 32766, 81918, 131070, 327678, 524286, 1310718, 2097150, 5242878, 8388606, 20971518, 33554430, 83886078, 134217726, 335544318, 536870910, 1342177278, 2147483646, 5368709118, 8589934590
a(n) = 5*4^((n-1)/2)-2 (n odd), 2*4^(n/2)-2 (n even).
a(1)=3, a(2)=6, a(3)=18, a(n)=a(n-1)+4*a(n-2)-4*a(n-3). - Harvey P. Dale, May 09 2013
[A026532] 1, 3, 6, 18, 36, 108, 216, 648, 1296, 3888, 7776, 23328, 46656, 139968, 279936, 839808, 1679616, 5038848, 10077696, 30233088, 60466176, 181398528, 362797056, 1088391168, 2176782336, 6530347008, 13060694016, 39182082048
a(n) = (1/2)*(5+(-1)^n)*a(n-1) for n>1, a(1) = 1.
a(n) = (1/4)*(3-(-1)^n)*6^floor(n/2). (End)
a(n+3) = a(n+2)*a(n+1)/a(n). [Reinhard Zumkeller, Mar 04 2011]
[A120718] 0, 3, 6, 18, 45, 120, 312, 819, 2142, 5610, 14685, 38448, 100656, 263523, 689910, 1806210, 4728717, 12379944, 32411112, 84853395, 222149070, 581593818, 1522632381, 3986303328, 10436277600, 27322529475, 71531310822, 187271402994, 490282898157, 1283577291480
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3) for n>2.
a(n) = (-3)*(2^(-1-n)*((-1)^n*2^(1+n)+(3-sqrt(5))^n*(-1+sqrt(5))-(1+sqrt(5))*(3+sqrt(5))^n))/5.

[A083337] 0, 3, 6, 18, 48, 132, 360, 984, 2688, 7344, 20064, 54816, 149760, 409152, 1117824, 3053952, 8343552, 22795008, 62277120, 170144256, 464842752, 1269974016, 3469633536, 9479215104, 25897697280, 70753824768
a(n), n>0 = lower left term of [1,1; 3,1]^n - Gary W. Adamson, Mar 12 2008
a(n)=(1/2)*[1+sqrt(3)]^n*sqrt(3)-(1/2)*sqrt(3)*[1-sqrt(3)]^n, with n>=0 - Paolo P. Lava, Jun 10 2008
[A019308] 1, 3, 6, 18, 48, 144, 414, 1242, 3678, 11034, 32958, 98874, 296208, 888624, 2664630, 7993890, 23977992, 71933976, 215790894, 647372682, 1942085088, 5826255264, 17478666918, 52436000754, 157307706054, 471923118162
a(2n+1) = 3a(2n); a(2n) = 3a(2n-1) - a(n).
[A000932] 1, 1, 3, 6, 18, 48, 156, 492, 1740, 6168, 23568, 91416, 374232, 1562640, 6801888, 30241488, 139071696, 653176992, 3156467520, 15566830368, 78696180768, 405599618496, 2136915595392, 11465706820800, 62751681110208, 349394351630208, 1980938060495616
a(n)/a(n-1) = sqrt(n)+1/2+o(1) - Benoit Cloitre, Jul 02 2004
a(n) = -sqrt(Pi)/2*Sum[(-1)^k*2^(k/2)*Binomial[n,k]*(HypergeometricPFQRegularized[{1,k-n},{1+(k-n)/2,(1/2)*(1+k-n)},-(1/2)]+(-k+n)*HypergeometricPFQRegularized[{1,1+k-n},{1+(k-n)/2,(1/2)*(3+k-n)},-(1/2)])*HypergeometricU[1-k/2,3/2,1/2],{k,1,n}]. - Eric W. Weisstein, May 08 2013
[A152733] 0, 0, 3, 6, 18, 57, 168, 504, 1515, 4542, 13626, 40881, 122640, 367920, 1103763, 3311286, 9933858, 29801577, 89404728, 268214184, 804642555, 2413927662, 7241782986, 21725348961, 65176046880, 195528140640, 586584421923, 1759753265766, 5279259797298
a(n) = (1/13)*(3^n + 12*Cos[(2*n*Pi)/3] + 2*Sqrt[3]*Sin[(2*n*Pi)/3]), n=1,2,.. [Zak Seidov, Dec 12 2008]
[A076510] 3, 6, 18, 72, 144, 432, 1728, 3456, 10368, 41472, 82944, 248832, 995328, 1990656, 5971968, 23887872, 47775744, 143327232, 573308928, 1146617856, 3439853568, 13759414272, 27518828544, 82556485632, 330225942528, 660451885056
a(0)=3, a(1)=6, a(2)=18, a(n)=24*a(n-3) [From Harvey P. Dale, Jul 23 2011]
[A215817] 3, 6, 19, 66, 237, 866, 3202, 11948, 44917, 169914, 646134, 2467988, 9462498, 36398004, 140399901, 542894726, 2103745125, 8167514346, 31762430143, 123704647562, 482435457922, 1883712663668, 7363103647479, 28809291337986, 112820819490970, 442175629583316
a(n) = rational part of c(1)^(2n) + c(2)^(2n) + c(4)^(2n) = (1-s(1))^n + (1-s(2))^n + (1-s(4))^n, where c(j) := 2*cos((7+8*j)/28) and s(j) := sin(2*Pi*j/7).
[A081181] 1, 3, 6, 20, 35, 126, 210, 792, 1287, 5005, 8008, 31824, 50388, 203490, 319770, 1307504, 2042975, 8436285, 13123110, 54627300, 84672315, 354817320, 548354040, 2310789600, 3562467300, 15084504396, 23206929840, 98672427616, 151532656696
a(n) = binomial(floor((n + 1)/2) + (n + 1), n).
[A005558] 1, 1, 3, 6, 20, 50, 175, 490, 1764, 5292, 19404, 60984, 226512, 736164, 2760615, 9202050, 34763300, 118195220, 449141836, 1551580888, 5924217936, 20734762776, 79483257308, 281248448936, 1081724803600, 3863302870000, 14901311070000, 53644719852000
a(n) = C(n+1, ceiling(n/2))*C(n, floor(n/2)) - C(n+1, ceiling((n-1)/2))*C(n, floor((n-1)/2)). - Paul D. Hanna, Apr 16 2004
a(n) = Sum_{k=0..floor(n/2)} n!/(k!*k!*(floor(n/2)-k)!*(floor((n+1)/2)-k)!*(k+1)) (conjectured). - Roger Ford, Aug 04 2017
[A098511] 1, 1, 3, 6, 21, 54, 186, 479, 1938, 5795, 22888, 70781, 286443, 861463, 3592105, 11492256, 39274353, 148852401, 613876868, 1917516257, 8511689170, 25445125513, 100975365920, 390096404027, 1666653892303, 5319341488465
a(n)=sum{k=0..floor(n/2), denominator((n-k+1)Binomial(n-k, k)/Binomial(2(n-k), n-k))}
[A112520] 1, 1, 1, 3, 6, 21, 54, 195, 573, 2086, 6646, 24289, 81540, 299136, 1040262, 3832923, 13660698, 50572983, 183450064, 682447378, 2507959846, 9374078232, 34791088014, 130624080993, 488542321116, 1841890385196, 6931198308924
a(n)=sum{k=0..n, sum{j=0..n, (k/n)(-1)^(j-k)C(2n-j-1, n-j)C(2j-k-1, j-k)}}.
[A151961] 3, 6, 21, 78, 291, 1086, 4053, 15126, 56451, 210678, 786261, 2934366, 10951203, 40870446, 152530581, 569251878, 2124476931, 7928655846, 29590146453, 110431929966, 412137573411, 1538118363678, 5740335881301, 21423225161526, 79952564764803, 298387033897686
a(n) = 4*a(n-1)-a(n-2). G.f.: 3*x*(1-2*x)/(1-4*x+x^2). - Colin Barker, Mar 30 2012
a(n) = (3*(2-sqrt(3))^n*(2+sqrt(3))-3*(-2+sqrt(3))*(2+sqrt(3))^n)/2. - Colin Barker, Oct 12 2015
[A073951] 0, 1, 3, 6, 21, 81, 252, 729, 2187, 6642, 19845, 59049, 176904, 531441, 1594323, 4780782, 14344533, 43046721, 129146724, 387420489, 1162261467, 3486843450, 10460471301, 31381059609, 94143001680, 282429536481, 847288609443, 2541864234006, 7625594296341
a(n; t, s) = a(n-1; t, s) + a(n-1; t+2, s+2t+1) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A106213] 0, 3, 6, 24, 33, 42, 45, 54, 60, 66, 69, 78, 87, 93, 102, 108, 111, 120, 129, 144, 153, 162, 165, 174, 183, 186, 195, 204, 213, 216, 225, 228, 231, 237, 240, 258, 261, 267, 279, 285, 300, 306, 312, 321, 333, 336, 351, 363, 366, 384, 390, 408, 414, 417, 420, 429
a(n) = 0 (mod 3) for n>=0.
[A054718] 1, 3, 6, 24, 72, 240, 696, 2184, 6480, 19656, 58800, 177144, 530640, 1594320, 4780776, 14348640, 43040160, 129140160, 387400104, 1162261464, 3486725280, 10460350992, 31380882456, 94143178824, 282428998560, 847288609200, 2541864234000, 7625597465304
a(n) = Sum_{d|n} mu(d)*3^(n/d).
[A083695] 0, 3, 6, 27, 84, 303, 1026, 3567, 12264, 42363, 146046, 503907, 1738044, 5995623, 20681466, 71341047, 246089424, 848884083, 2928215286, 10100850987, 34842778404, 120189811743, 414593515506, 1430136089727, 4933239756984, 17017159962603, 58700518710126
a(n) = 3[(1+sqrt(6))^n-(1-sqrt(6))^n]/(2*sqrt(6)).
[A102428] 1, 3, 6, 28, 55, 286, 560, 3060, 5985, 33649, 65780, 376740, 736281, 4272048, 8347680, 48903492, 95548245, 563921995, 1101716330, 6540715896, 12777711870, 76223753060, 148902215280, 891794789340, 1742058970275, 10468434365991
a(n) = binomial(floor((5*n+2)/2), floor((n+1)/2)). - David Wasserman, Apr 04 2008
[A211168] 1, 1, 3, 6, 30, 60, 420, 420, 1260, 2520, 27720, 27720, 360360, 360360, 360360, 360360, 6126120, 12252240, 232792560, 232792560, 232792560, 232792560, 5354228880, 5354228880, 26771144400, 26771144400, 80313433200, 80313433200, 2329089562800, 2329089562800
a(n) = lcm{1,..., n-1} if n is even.
a(n) = lcm{a(n-1), n-2} if n is even.
[A157534] 1, 3, 6, 30, 135, 441, 1183, 2871, 6660, 15070, 33231, 70863, 145236, 285390, 537930, 974746, 1703043, 2878101, 4719220, 7529340, 11718861, 17834223, 26591841, 38918025, 55995550, 79317576, 110749653, 152600581, 207702930, 279504060
a(n) = n (n-1)(n^6-27 n^5+295 n^4-1473 n^3+3376 n^2-3036 n+1008)/1152. - Robert Israel, Apr 07 2014
[A080457] 3, 7, 7, 11, 15, 19, 19, 23, 27, 31, 31, 35, 39, 43, 43, 47, 51, 55, 55, 59, 63, 67, 67, 71, 75, 79, 79, 83, 87, 91, 91, 95, 99, 103, 103, 107, 111, 115, 115, 119, 123, 127, 127, 131, 135, 139, 139, 143, 147, 151, 151, 155, 159, 163, 163, 167, 171, 175
a(n) = 3 + 4*(n-2-floor((n-3)/4)).
a(n) = a(n-1)+a(n-4)-a(n-5), n>5.
a(n) = (6*n-1+(-1)^n-2*(-1)^((2*n+1-(-1)^n)/4))/2. (End)
[A118259] 1, 3, 7, 7, 13, 17, 27, 27, 27, 33, 47, 47, 63, 73, 85, 85, 107, 107, 131, 131, 147, 165, 195, 195, 195, 215, 215, 215, 249, 265, 303, 303, 329, 355, 385, 385, 431, 461, 495, 495, 547, 569, 625, 625, 625, 661, 721, 721, 721, 721, 763, 763, 827, 827, 877, 877
a(n) = sum_{i,j=1...n} mu(i*j)^2. - Benoit Cloitre, Oct 10 2009
[A098581] 1, 3, 7, 7, 15, 39, 95, 151, 271, 583, 1343, 2551, 4719, 9383, 20127, 40535, 78287, 153351, 314367, 638647, 1264943, 2491751, 5006687, 10115863, 20235407, 40169415, 80222911, 161149815, 323033071, 644388391, 1286171679, 2575370199
a(n)=a(n-1)+8a(n-4); a(n)=sum{k=0..n, binomial(n-k, floor(k/3))2^k}.
[A270307] 1, 3, 7, 7, 21, 27, 57, 95, 169, 303, 529, 943, 1665, 2943, 5217, 9215, 16321, 28863, 51073, 90367, 159873, 282879, 500481, 885503, 1566721, 2771967, 4904449, 8677375, 15352833, 27163647, 48060417, 85032959, 150448129, 266186751, 470962177
a(n) = (n+1)*Sum_{k=0..n}(Sum_{l=0..n-k}(binomial(k+1,l)*2^l*(-1)^(n-l-k)*binomial(n-2*l,n-l-k))/(k+1)).
[A004794] 3, 7, 7, 28, 45, 189, 799, 2091, 2091, 8856, 14329, 60697, 257115, 673135, 673135, 2851444, 4613733, 19544085, 82790071, 216747219, 216747219, 918155952, 1485607537, 6293134513, 26658145587, 69791931223, 69791931223, 295643364940
a(n) = (Fib(12[n/6] + S_(n mod 6))+1)/2 where S = (2, 5, 7, 7, 10, 11).
[A047530] 0, 1, 3, 7, 8, 9, 11, 15, 16, 17, 19, 23, 24, 25, 27, 31, 32, 33, 35, 39, 40, 41, 43, 47, 48, 49, 51, 55, 56, 57, 59, 63, 64, 65, 67, 71, 72, 73, 75, 79, 80, 81, 83, 87, 88, 89, 91, 95, 96, 97, 99, 103, 104, 105, 107, 111, 112, 113, 115, 119, 120, 121, 123
a(n) = ceiling(n/4) + 2*ceiling((n-1)/4) + 4*ceiling((n-2)/4) + ceiling((n-3)/4).
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (8n-9+i^(2n)+(2+i)*i^(-n)+(2-i)*i^n)/4, where i=sqrt(-1).

[A047357] 0, 1, 3, 7, 8, 10, 14, 15, 17, 21, 22, 24, 28, 29, 31, 35, 36, 38, 42, 43, 45, 49, 50, 52, 56, 57, 59, 63, 64, 66, 70, 71, 73, 77, 78, 80, 84, 85, 87, 91, 92, 94, 98, 99, 101, 105, 106, 108, 112, 113, 115, 119, 120, 122, 126, 127, 129, 133, 134, 136, 140
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-30-6*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-4, a(3k-1) = 7k-6, a(3k-2) = 7k-7. (End)
[A174871] 3, 7, 8, 11, 12, 16, 23, 27, 28, 31, 32, 36, 43, 47, 48, 51, 52, 56, 63, 67, 68, 71, 72, 76, 83, 87, 88, 91, 92, 96, 103, 107, 108, 111, 112, 116, 123, 127, 128, 131, 132, 136, 143, 147, 148, 151, 152, 156, 163, 167, 168, 171, 172, 176, 183, 187, 188, 191, 192, 196
a(n) = +a(n-1) +a(n-6) -a(n-7). G.f.: x*(3+4*x+x^2+3*x^3+x^4+4*x^5+4*x^6)/ ((1+x) * (x^2-x+1) * (1+x+x^2) * (x-1)^2). [From R. J. Mathar, Apr 15 2010]
[A078466] 1, 3, 7, 8, 11, 13, 14, 18, 24, 26, 27, 29, 32, 33, 36, 37, 39, 40, 43, 45, 46, 51, 52, 56, 57, 61, 62, 63, 65, 66, 85, 86, 87, 94, 100, 101, 103, 105, 106, 107, 109, 111, 113, 114, 115, 121, 130, 131, 136, 141, 142, 145, 146, 147, 153, 155, 158, 164, 166, 167, 168, 169
a(n)/n seems greater than 2 for n large enough and if limit a(n)/n exists, this limit should be > 2.5. Does a(n)/n = O(log(log(n))?
[A047528] 0, 3, 7, 8, 11, 15, 16, 19, 23, 24, 27, 31, 32, 35, 39, 40, 43, 47, 48, 51, 55, 56, 59, 63, 64, 67, 71, 72, 75, 79, 80, 83, 87, 88, 91, 95, 96, 99, 103, 104, 107, 111, 112, 115, 119, 120, 123, 127, 128, 131, 135, 136, 139, 143, 144, 147, 151, 152, 155, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 8*n/3-2+cos(2*n*Pi/3)-sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 8k-1, a(3k-1) = 8k-5, a(3k-2) = 8k-8. (End)
[A182389] 1, 3, 7, 9, 9, 11, 23, 25, 41, 59, 79, 81, 81, 83, 111, 113, 145, 179, 215, 249, 281, 315, 327, 329, 377, 395, 447, 449, 449, 451, 511, 513, 513, 515, 519, 521, 521, 523, 535, 537, 617, 699, 719, 721, 721, 723, 815, 881, 913, 1011, 1047, 1145
a(0)=1, a(n)=(a(n-1) + n) XOR n, where XOR is the bitwise exclusive-OR operator.
[A241662] 1, 3, 7, 9, 10, 11, 13, 17, 19, 21, 23, 27, 29, 30, 31, 33, 37, 39, 41, 43, 47, 49, 51, 53, 57, 59, 61, 63, 67, 69, 70, 71, 73, 77, 79, 81, 83, 87, 89, 90, 91, 93, 97, 99, 100, 101, 103, 107, 109, 110, 111, 113, 117, 119, 121, 123, 127, 129, 130, 131, 133
a(n) = 9n/4 + O(log n). - Charles R Greathouse IV, May 14 2014
[A045572] 1, 3, 7, 9, 11, 13, 17, 19, 21, 23, 27, 29, 31, 33, 37, 39, 41, 43, 47, 49, 51, 53, 57, 59, 61, 63, 67, 69, 71, 73, 77, 79, 81, 83, 87, 89, 91, 93, 97, 99, 101, 103, 107, 109, 111, 113, 117, 119, 121, 123, 127, 129, 131, 133, 137, 139, 141, 143, 147, 149, 151, 153
a(n) = -1 + Sum_{k=0..n}((1/12)*(5*(k mod 4) + 11*((k+1) mod 4) - ((k+2) mod 4) + 5*((k+3) mod 4))). - Paolo P. Lava, Dec 20 2007
a(n) = 10*floor((n-1)/4) + 2*floor((4*((n-1) mod 4) + 1)/3) + 1; a(n) = a(n-1) + 2 + 2*floor(((x+6) mod 10)/9). - Carl R. White, Feb 06 2008
a(n) = 2*n + 2*floor((n-3)/4) + 1. - Kenneth Hammond (weregoose(AT)gmail.com), Mar 07 2008
a(n) = -1 + 2*n + 2*floor((n+1)/4). - Kenneth Hammond (weregoose(AT)gmail.com), Mar 25 2008
a(n) = a(n-1) + a(n-4) - a(n-5).
a(n) = (10*n + 2*(-1)^(n*(n+1)/2) - (-1)^n - 5)/4. - Bruno Berselli, Nov 06 2011
[A158938] 3, 7, 9, 11, 13, 23, 25, 27, 61, 71, 73, 75, 77, 87, 89, 91, 125, 135, 137, 139, 141, 151, 153, 155, 189, 199, 201, 203, 205, 215, 217, 219, 253, 263, 265, 267, 269, 279, 281, 283, 317, 327, 329, 331, 333, 343, 345, 347, 381, 391, 393, 395, 397, 407, 409, 411
a(n)=a(n-8)+64 .
[A047529] 1, 3, 7, 9, 11, 15, 17, 19, 23, 25, 27, 31, 33, 35, 39, 41, 43, 47, 49, 51, 55, 57, 59, 63, 65, 67, 71, 73, 75, 79, 81, 83, 87, 89, 91, 95, 97, 99, 103, 105, 107, 111, 113, 115, 119, 121, 123, 127, 129, 131, 135, 137, 139, 143, 145, 147, 151, 153, 155, 159
a(n) = (24*n+2*sqrt(3)*sin(2*Pi*n/3)+6*cos(2*Pi*n/3)-15)/9. - Fred Daniel Kline, Nov 12 2015
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n+3) = a(n) + 8 for all n in Z. - Michael Somos, Nov 15 2015
a(3k) = 8k-1, a(3k-1) = 8k-5, a(3k-2) = 8k-7. - Wesley Ivan Hurt, Jun 13 2016
a(n) = 8 * floor((n-1) / 3) + 2^(((n-1) mod 3) + 1) - 1. - Fred Daniel Kline, Aug 09 2016
[A047241] 1, 3, 7, 9, 13, 15, 19, 21, 25, 27, 31, 33, 37, 39, 43, 45, 49, 51, 55, 57, 61, 63, 67, 69, 73, 75, 79, 81, 85, 87, 91, 93, 97, 99, 103, 105, 109, 111, 115, 117, 121, 123, 127, 129, 133, 135, 139, 141, 145, 147, 151, 153, 157, 159, 163, 165, 169, 171, 175, 177, 181
a(n) = 3n - 5/2 - (-1)^n/2. (End)
a(n) = 2*floor((n-1)/2) + 2*n - 1. - Gary Detlefs, Mar 18 2010
a(n) = 6*n - a(n-1) - 8 with n > 1, a(1)=1. - Vincenzo Librandi, Aug 05 2010
a(n) = 3n - 2 - ((n+1) mod 2). - Wesley Ivan Hurt, Jun 29 2013
a(1)=1, a(2)=3, a(3)=7, a(n) = a(n-1) + a(n-2) - a(n-3). - Harvey P. Dale, Oct 01 2013
[A132222] 1, 3, 7, 9, 13, 15, 19, 21, 25, 29, 31, 35, 37, 41, 43, 47, 51, 53, 57, 59, 63, 65, 69, 73, 75, 79, 81, 85, 87, 91, 95, 97, 101, 103, 107, 109, 113, 117, 119, 123, 125, 129, 131, 135, 139, 141, 145, 147, 151, 153, 157, 161, 163, 167, 169, 173, 175, 179, 183, 185, 189
a(n) = 1 + 2*floor(n*Pi/2).
[A172367] 1, 3, 7, 9, 13, 15, 19, 25, 27, 33, 37, 39, 43, 49, 55, 57, 63, 67, 69, 75, 79, 85, 93, 97, 99, 103, 105, 109, 123, 127, 133, 135, 145, 147, 153, 159, 163, 169, 175, 177, 187, 189, 193, 195, 207, 219, 223, 225, 229, 235, 237, 247, 253, 259, 265, 267, 273, 277, 279
a(n)=(n+2)th prime-4.
[A063204] 0, 3, 7, 9, 13, 16, 19, 22, 26, 28, 32, 35, 38, 41, 45, 47, 51, 54, 57, 60, 64, 66, 70, 73, 76, 79, 83, 85, 89, 92, 95, 98, 102, 104, 108, 111, 114, 117, 121, 123, 127, 130, 133, 136, 140, 142, 146, 149, 152, 155
a(n) = a(n-2)+a(n-3)-a(n-5). G.f.: x^2*(3 +7*x +6*x^2 +3*x^3)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A130568] 1, 3, 7, 9, 13, 17, 19, 23, 25, 29, 33, 35, 39, 43, 45, 49, 51, 55, 59, 61, 65, 67, 71, 75, 77, 81, 85, 87, 91, 93, 97, 101, 103, 107, 111, 113, 117, 119, 123, 127, 129, 133, 135, 139, 143, 145, 149, 153, 155, 159, 161, 165, 169, 171, 175, 177, 181, 185, 187, 191, 195
a(n) = 1+2*floor(n*phi), where phi = (1 + sqrt(5))/2.
[A172407] 1, 3, 7, 9, 13, 19, 21, 27, 31, 33, 37, 43, 49, 51, 57, 61, 63, 69, 73, 79, 87, 91, 93, 97, 99, 103, 117, 121, 127, 129, 139, 141, 147, 153, 157, 163, 169, 171, 181, 183, 187, 189, 201, 213, 217, 219, 223, 229, 231, 241, 247, 253, 259, 261, 267, 271, 273, 283, 297
a(n) = prime(n+4) - 10.
a(n) = binomial(prime(n+4)-3,3) mod prime(n+4), (Empirical). - Gary Detlefs, Jul 10 2014
[A178207] 1, 3, 7, 9, 15, 17, 21, 23, 31, 33, 37, 39, 45, 47, 51, 53, 63, 65, 69, 71, 77, 79, 83, 85, 93, 95, 99, 101, 107, 109, 113, 115, 127, 129, 133, 135, 141, 143, 147, 149, 157, 159, 163, 165, 171, 173, 177, 179, 189, 191, 195, 197, 203, 205, 209, 211, 219, 221, 225, 227
a(0) = 1; a(n) = 2n + a(floor(n/2)). - Daniel Suteu, Jan 01 2016
[A064194] 1, 3, 7, 9, 17, 21, 25, 27, 43, 51, 59, 63, 71, 75, 79, 81, 113, 129, 145, 153, 169, 177, 185, 189, 205, 213, 221, 225, 233, 237, 241, 243, 307, 339, 371, 387, 419, 435, 451, 459, 491, 507, 523, 531, 547, 555, 563, 567, 599, 615, 631, 639, 655, 663, 671, 675
a(1) = 1, a(n) = a([n/2]) + 2a(ceil(n/2)), n>1.
a(n+1) = Sum_{0<=i, j<=n} {binomial(i+j, i) mod 2}. - Benoit Cloitre, Mar 07 2005
[A099886] 1, 3, 7, 9, 21, 63, 107, 189, 273, 819, 1911, 2457, 5189, 15567, 28123, 46701, 65793, 197379, 460551, 592137, 1381653, 4144959, 7039851, 12434877, 17829905, 53489715, 124809335, 160469145, 340873541, 1022620623, 1840690907
a(n) = SumXOR_{k=0..n} SumXOR_{i=0..k2} (C(n, k)mod 2) * (C(k2, i) mod 2) * 2^((k+1)2+k2-i), where the SumXOR is the analog of summation under XOR and xy stands for floor(x/y) (see Pari program).
[A128052] 1, 3, 7, 9, 47, 123, 161, 843, 2207, 2889, 15127, 39603, 51841, 271443, 710647, 930249, 4870847, 12752043, 16692641, 87403803, 228826127, 299537289, 1568397607, 4106118243, 5374978561, 28143753123
a(n) = 18*a(n-3)-a(n-6). G.f: -(3*x^5+7*x^4+9*x^3-7*x^2-3*x-1) / ((x^2-3*x+1)*(x^4+3*x^3+8*x^2+3*x+1)). - Colin Barker, Jun 27 2013
[A013574] 3, 7, 10, 12, 15, 19, 22, 24, 27, 31, 34, 36, 39, 43, 46, 48, 51, 55, 58, 60, 63, 67, 70, 72, 75, 79, 82, 84, 87, 91, 94, 96, 99, 103, 106, 108, 111, 115, 118, 120, 123, 127, 130, 132, 135, 139, 142, 144, 147, 151, 154, 156, 159, 163, 166, 168, 171, 175, 178, 180, 183, 187, 190
a(n) = 3n if n = {0,1} (mod 4). a(n) = 3n+1 if n = {2,3} (mod 4). [Chee Theor. 2] - R. J. Mathar, Nov 28 2016
a(n) = (-1/4 - i/4) * ((-1+i) + (-i)^n - i*i^n - (6-6*i)*n).
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.

[A226723] 3, 7, 10, 13, 16, 20, 23, 26, 30, 32, 36, 40, 42, 46, 49, 52, 55, 59, 62, 65, 69, 72, 75, 79, 82, 85, 88, 92, 94, 98, 102, 104, 108, 111, 114, 118, 121, 124, 127, 131, 133, 137, 141, 144, 147, 150, 154, 157, 160, 164, 166, 170, 174, 176, 180, 183, 186, 189
a(n) = 1 + n + floor(n*log_2(3)) + floor(n*log_5(3).
[A081842] 0, 3, 7, 10, 13, 16, 20, 23, 26, 30, 33, 36, 40, 43, 46, 50, 53, 56, 59, 63, 66, 69, 73, 76, 79, 83, 86, 89, 92, 96, 99, 102, 106, 109, 112, 116, 119, 122, 125, 129, 132, 135, 139, 142, 145, 149, 152, 155, 158, 162, 165, 168, 172, 175, 178, 182, 185, 188, 192, 195
a(n)=floor(r*n-(4*r-1)/(r+1)) where r= (1/2) *(3+sqrt(13))
[A047355] 0, 3, 7, 10, 14, 17, 21, 24, 28, 31, 35, 38, 42, 45, 49, 52, 56, 59, 63, 66, 70, 73, 77, 80, 84, 87, 91, 94, 98, 101, 105, 108, 112, 115, 119, 122, 126, 129, 133, 136, 140, 143, 147, 150, 154, 157, 161, 164, 168, 171, 175, 178, 182, 185, 189, 192, 196, 199, 203
a(n) = a(n-2) + 7 = a(n-1) + a(n-2) - a(n-3). - Henry Bottomley, Jan 19 2001
a(n) = 7*n - a(n-1) - 11 for n>1, a(1)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = (14*n - (-1)^n - 15)/4. (End)
a(n) = 2*n - 2 + floor((3*n - 3)/2). - Wesley Ivan Hurt, Jan 30 2014
[A098005] 3, 7, 10, 14, 17, 21, 24, 28, 31, 35, 39, 42, 46, 49, 53, 56, 60, 63, 67, 70, 74, 78, 81, 85, 88, 92, 95, 99, 102, 106, 110, 113, 117, 120, 124, 127, 131, 134, 138, 141, 145, 149, 152, 156, 159, 163, 166, 170, 173, 177, 181, 184, 188, 191, 195, 198, 202, 205, 209
a(n) = floor(n/(3-e)).
[A171983] 3, 7, 10, 14, 18, 21, 25, 28, 32, 36, 39, 43, 46, 50, 54, 57, 61, 64, 68, 72, 75, 79, 82, 86, 90, 93, 97, 100, 104, 108, 111, 115, 118, 122, 126, 129, 133, 137, 140, 144, 147, 151, 155, 158, 162, 165, 169, 173, 176, 180, 183, 187, 191, 194, 198, 201, 205
a(n) = floor(n*sqrt(13)). - Jon E. Schoenfield, Jun 18 2010
[A184812] 3, 7, 10, 14, 18, 22, 26, 29, 34, 37, 41, 44, 48, 53, 56, 60, 63, 68, 72, 75, 79, 82, 87, 90, 94, 98, 102, 106, 109, 113, 117, 121, 125, 128, 132, 136, 140, 144, 147, 151, 155, 159, 162, 166, 171, 174, 178, 181, 186, 190, 193, 197, 200, 205, 208, 212, 216
a(n)=n+floor(ns/r)+floor(nt/r), r=sqrt(2), s=sqrt(3), t=sqrt(5).
[A214066] 0, 3, 7, 10, 15, 18, 22, 25, 30, 33, 37, 40, 45, 48, 52, 55, 60, 63, 67, 70, 75, 78, 82, 85, 90, 93, 97, 100, 105, 108, 112, 115, 120, 123, 127, 130, 135, 138, 142, 145, 150, 153, 157, 160, 165, 168, 172, 175, 180, 183, 187, 190
a(n) = (30*n+2*i^((n-1)*n)+3*(-1)^n-5)/8, where i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Wesley Ivan Hurt, Jun 04 2016
[A114113] 1, 3, 7, 10, 16, 21, 29, 36, 46, 55, 67, 78, 92, 105, 121, 136, 154, 171, 191, 210, 232, 253, 277, 300, 326, 351, 379, 406, 436, 465, 497, 528, 562, 595, 631, 666, 704, 741, 781, 820, 862, 903, 947, 990, 1036, 1081, 1129, 1176, 1226, 1275, 1327, 1378, 1432
a(1)=1. a(2n) = n*(2n+1). a(2n+1) = 2n^2 +3n +2.
[A128223] 0, 1, 3, 7, 10, 17, 21, 31, 36, 49, 55, 71, 78, 97, 105, 127, 136, 161, 171, 199, 210, 241, 253, 287, 300, 337, 351, 391, 406, 449, 465, 511, 528, 577, 595, 647, 666, 721, 741, 799, 820, 881, 903, 967, 990, 1057, 1081, 1151, 1176, 1249, 1275, 1351, 1378, 1457, 1485
a(n) = (-1+(-1)^n-(-3+(-1)^n)*n+2*n^2)/4. a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). G.f.: x*(x^3-2*x^2-2*x-1) / ((x-1)^3*(x+1)^2). - Colin Barker, Oct 16 2013
[A022120] 3, 7, 10, 17, 27, 44, 71, 115, 186, 301, 487, 788, 1275, 2063, 3338, 5401, 8739, 14140, 22879, 37019, 59898, 96917, 156815, 253732, 410547, 664279, 1074826, 1739105, 2813931, 4553036, 7366967, 11920003, 19286970, 31206973, 50493943, 81700916, 132194859
a(n) = 4*Fibonacci(n+2) - Fibonacci(n+1). - Gary Detlefs Dec 21 2010
a(n) = round(((15+11*sqrt(5))/10)*((1+sqrt(5))/2)^n + ((15-11*sqrt(5))/10)*((1-sqrt(5))/2)^n). - _Bogart B. Strauss, Oct 27 2013
[A041191] 1, 3, 7, 10, 17, 27, 44, 115, 389, 7895, 24074, 56043, 80117, 136160, 216277, 352437, 921151, 3115890, 63238951, 192832743, 448904437, 641737180, 1090641617, 1732378797, 2823020414, 7378419625, 24958279289, 506544005405, 1544590295504, 3595724596413
a(n) = 8010*a(n-9) + a(n-18). - Vincenzo Librandi, Dec 12 2013
[A041251] 1, 1, 3, 7, 10, 17, 44, 105, 149, 3383, 3532, 10447, 24426, 34873, 59299, 153471, 366241, 519712, 11799905, 12319617, 36439139, 85197895, 121637034, 206834929, 535306892, 1277448713, 1812755605, 41158072023, 42970827628, 127099727279, 297170282186
a(n) = 3488*a(n-9) + a(n-18). - Vincenzo Librandi, Dec 13 2013
[A265724] 0, 3, 7, 10, 18, 21, 33, 36, 52, 55, 75, 78, 102, 105, 133, 136, 168, 171, 207, 210, 250, 253, 297, 300, 348, 351, 403, 406, 462, 465, 525, 528, 592, 595, 663, 666, 738, 741, 817, 820, 900, 903, 987, 990, 1078, 1081, 1173, 1176, 1272, 1275, 1375, 1378, 1482
a(n) = 1/2*(n^2+(-1)^n*n+4*n-(-1)^n+1).
a(n) = 1/2*(n^2+5*n) for n even.
a(n) = 1/2*(n^2+3*n+2) for n odd.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>4.
[A041437] 1, 3, 7, 10, 27, 37, 101, 340, 10301, 31243, 72787, 104030, 280847, 384877, 1050601, 3536680, 107151001, 324989683, 757130367, 1082120050, 2921370467, 4003490517, 10928351501, 36788545020, 1114584702101, 3380542651323, 7875670004747, 11256212656070
a(n) = 10402*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 17 2013
[A041525] 1, 1, 3, 7, 10, 27, 64, 91, 2976, 3067, 9110, 21287, 30397, 82081, 194559, 276640, 9047039, 9323679, 27694397, 64712473, 92406870, 249526213, 591459296, 840985509, 27502995584, 28343981093, 84190957770, 196725896633, 280916854403, 758559605439
a(n) = 3040*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 19 2013
[A041783] 1, 3, 7, 10, 37, 47, 225, 722, 1669, 22419, 225859, 2958586, 6143031, 21387679, 91693747, 113081426, 430938025, 544019451, 1518976927, 5100950232, 205556986207, 621771908853, 1449100803913, 2070872712766, 7661718942211, 9732591654977
a(n) = 207075963134*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Dec 24 2013
[A041899] 1, 1, 3, 7, 10, 37, 158, 2249, 9154, 29711, 38865, 107441, 253747, 361188, 15423643, 15784831, 46993305, 109771441, 156764746, 580065679, 2477027462, 35258450147, 143510828050, 465790934297, 609301762347, 1684394458991, 3978090680329, 5662485139320
a(n) = 15677390*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 26 2013
[A276283] 1, 3, 7, 11, 13, 15, 19, 23, 25, 27, 31, 35, 37, 39, 43, 47, 49, 51, 55, 59, 61, 63, 67, 71, 73, 75, 79, 83, 85, 87, 91, 95, 97, 99, 103, 107, 109, 111, 115, 119, 121, 123, 127, 131, 133, 135, 139, 143, 145, 147, 151, 155, 157, 159, 163, 167, 169, 171, 175, 179, 181, 183, 187, 191, 193, 195, 199, 203, 205, 207, 211
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4).
a(n) = 3*n - sin(Pi*n/2) + 1.
a(n) = (6*n - i*((-i)^n - i^n + 2*i))/2, where i is the imaginary unit.
[A260484] 3, 7, 11, 14, 18, 22, 25, 29, 33, 36, 40, 44, 47, 51, 55, 58, 62, 66, 69, 73, 77, 80, 84, 88, 91, 95, 99, 102, 106, 110, 113, 117, 121, 124, 128, 132, 135, 139, 143, 146, 150, 154, 157, 161, 165, 168, 172, 176, 179, 183, 187, 190, 194, 198
a(n) = floor(n*e^(1/Pi)/(e^(1/Pi)-1)).
[A059568] 3, 7, 11, 14, 18, 22, 26, 29, 33, 37, 41, 44, 48, 52, 55, 59, 63, 67, 70, 74, 78, 82, 85, 89, 93, 96, 100, 104, 108, 111, 115, 119, 123, 126, 130, 134, 137, 141, 145, 149, 152, 156, 160, 164, 167, 171, 175, 178, 182, 186, 190, 193, 197, 201, 205, 208, 212, 216
a(n) = floor(n*(1 - 1/log(log(2)))). - Michel Marcus, Jan 04 2015
[A003512] 3, 7, 11, 14, 18, 22, 26, 29, 33, 37, 41, 44, 48, 52, 55, 59, 63, 67, 70, 74, 78, 82, 85, 89, 93, 97, 100, 104, 108, 111, 115, 119, 123, 126, 130, 134, 138, 141, 145, 149, 153, 156, 160, 164, 167, 171, 175, 179, 182, 186
a(n) = floor(n*(sqrt(3)+2)). - Michel Marcus, Jan 05 2015
[A246170] 3, 7, 11, 14, 18, 22, 26, 29, 33, 37, 41, 44, 48, 52, 56, 59, 63, 67, 71, 74, 78, 82, 86, 89, 93, 97, 101, 104, 108, 112, 115, 119, 123, 127, 130, 134, 138, 142, 145, 149, 153, 157, 160, 164, 168, 172, 175, 179, 183, 187, 190, 194, 198, 202, 205, 209, 213
a(n) = floor(n*sqrt(14)).
[A265045] 1, 3, 7, 11, 14, 18, 23, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200, 204, 208, 212, 216, 220, 224, 228, 232
a(n) = 2*a(n-1)-a(n-2) for n>8.
a(n) = 4*n for n>6.
[A079710] 3, 7, 11, 15, 17, 19, 23, 24, 26, 31, 35, 39, 43, 44, 47, 51, 53, 55, 59, 62, 63, 67, 71, 74, 79, 80, 83, 87, 89, 91, 95, 97, 99, 103, 107, 111, 115, 116, 119, 120, 123, 124, 127, 131, 134, 139, 143, 146, 149, 151, 155, 159, 161, 163, 167, 168, 170, 174, 175, 179, 183
a(n) is asymptotic to c*n where c=2.94...

[A059554] 3, 7, 11, 15, 19, 22, 26, 30, 34, 38, 42, 45, 49, 53, 57, 61, 65, 68, 72, 76, 80, 84, 87, 91, 95, 99, 103, 107, 110, 114, 118, 122, 126, 130, 133, 137, 141, 145, 149, 152, 156, 160, 164, 168, 172, 175, 179, 183, 187, 191, 195, 198, 202, 206, 210, 214, 217, 221
a(n) = floor(n*gamma(2/3)/(gamma(2/3)-1)). - Michel Marcus, Jan 05 2015
[A246171] 3, 7, 11, 15, 19, 23, 27, 30, 34, 38, 42, 46, 50, 54, 58, 61, 65, 69, 73, 77, 81, 85, 89, 92, 96, 100, 104, 108, 112, 116, 120, 123, 127, 131, 135, 139, 143, 147, 151, 154, 158, 162, 166, 170, 174, 178, 182, 185, 189, 193, 197, 201, 205, 209, 213, 216
a(n) = floor(n*sqrt(15)).
[A004767] 3, 7, 11, 15, 19, 23, 27, 31, 35, 39, 43, 47, 51, 55, 59, 63, 67, 71, 75, 79, 83, 87, 91, 95, 99, 103, 107, 111, 115, 119, 123, 127, 131, 135, 139, 143, 147, 151, 155, 159, 163, 167, 171, 175, 179, 183, 187, 191, 195, 199, 203, 207, 211, 215, 219, 223
a(n) = 2*a(n-1)-a(n-2) for n>1, a(0)=3, a(1)=7. - Philippe Deléham, Nov 03 2008
a(n) = 8*n-a(n-1)+2 for n>0, a(0)=3. - Vincenzo Librandi, Nov 20 2010
a(n) = 4*n-1, with offset 1. - Wesley Ivan Hurt, Mar 12 2014
[A131098] 1, 3, 7, 11, 15, 19, 23, 27, 31, 35, 39, 43, 47, 51, 55, 59, 63, 67, 71, 75, 79, 83, 87, 91, 95, 99, 103, 107, 111, 115, 119, 123, 127, 131, 135, 139, 143, 147, 151, 155, 159, 163, 167, 171, 175, 179, 183, 187, 191, 195, 199, 203, 207, 211, 215, 219, 223, 227, 231, 235, 239
a(1) = 1, a(n) = 4*n - 5 for n>=2. [Jaroslav Krizek, Aug 15 2009]
[A082644] 0, 0, 1, 3, 7, 11, 16, 22, 30, 38, 47, 57, 69, 81, 94, 108, 124, 140, 157, 175, 195, 215, 236, 258, 282, 306, 331, 357, 385, 413, 442, 472, 504, 536, 569, 603, 639, 675, 712, 750, 790, 830, 871, 913, 957, 1001, 1046, 1092, 1140, 1188, 1237, 1287, 1339, 1391, 1444, 1498
a(n) = floor(n^3/(2n+1)). - Gary Detlefs, Feb 11 2010
a(n) = (4*n!/(n-2)!+2*n-3+(-1)^n+(-1)^(n/2)-(-1)^((n+1)/2)+(-1)^(-n/2)-(-1)^(-(n+1)/2))/8. - Wesley Ivan Hurt, May 19 2016
[A047838] 1, 3, 7, 11, 17, 23, 31, 39, 49, 59, 71, 83, 97, 111, 127, 143, 161, 179, 199, 219, 241, 263, 287, 311, 337, 363, 391, 419, 449, 479, 511, 543, 577, 611, 647, 683, 721, 759, 799, 839, 881, 923, 967, 1011, 1057, 1103, 1151, 1199, 1249, 1299, 1351, 1403
a(2)=1; for n > 2, a(n) = a(n-1) + n - 1 + (n-1 mod 2). - Benoit Cloitre, Jan 12 2003
a(n) = floor((n^2 + 4*n + 2)/2). - Gary Detlefs, Feb 10 2010
a(n) = (2*n^2 + (-1)^n - 5)/4. - Bruno Berselli, Sep 14 2011
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4), n > 4. - Wesley Ivan Hurt, Aug 06 2015
[A194069] 1, 3, 7, 11, 17, 25, 33, 43, 55, 67, 81, 97, 113, 131, 151, 171, 193, 217, 241, 267, 295, 323, 353, 385, 417, 451, 487, 523, 561, 601, 641, 683, 727, 771, 817, 865, 913, 963, 1015, 1067, 1121, 1177, 1233, 1291, 1351, 1411
a(n)=1+floor(2*n^2/3).
[A210977] 0, 1, 3, 7, 11, 18, 24, 34, 42, 55, 65, 81, 93, 112, 126, 148, 164, 189, 207, 235, 255, 286, 308, 342, 366, 403, 429, 469, 497, 540, 570, 616, 648, 697, 731, 783, 819, 874, 912, 970, 1010, 1071, 1113, 1177, 1221, 1288, 1334, 1404, 1452, 1525, 1575, 1651, 1703, 1782, 1836, 1918, 1974, 2059
a(n) = (10*n^2+6*n-1-(2*n-1)*(-1)^n)/16. - Luce ETIENNE, Oct 04 2014
[A018805] 1, 3, 7, 11, 19, 23, 35, 43, 55, 63, 83, 91, 115, 127, 143, 159, 191, 203, 239, 255, 279, 299, 343, 359, 399, 423, 459, 483, 539, 555, 615, 647, 687, 719, 767, 791, 863, 899, 947, 979, 1059, 1083, 1167, 1207, 1255, 1299, 1391, 1423, 1507, 1547, 1611, 1659, 1763
a(n) = 2*(Sum_{j=1..n} phi(j)) - 1.
a(n) = n^2 - Sum_{j=2..n} a(floor(n/j)).
a(n) = Sum_{k=1..n} mu(k)*floor(n/k)^2. - Benoit Cloitre, May 11 2003
[A236632] 0, 1, 3, 7, 11, 19, 25, 36, 46, 60, 70, 92, 104, 124, 144, 170, 186, 219, 237, 273, 301, 333, 355, 407, 435, 473, 509, 559, 587, 651, 681, 738, 782, 832, 876, 958, 994, 1050, 1102, 1184, 1224, 1312, 1354, 1432, 1504, 1572, 1618, 1732, 1786, 1873, 1941
a(n) = (1/2) * Sum_{i=1..n} floor(n/i) * floor((n-i)/i). - Wesley Ivan Hurt, Jan 30 2016
a(n) = Sum_{i=1..n} binomial(floor(n/i),2). - Wesley Ivan Hurt, May 08 2016
a(n) = Sum_{k=1..n} (k-1) * floor(n/k). - Wesley Ivan Hurt, Apr 02 2017
[A282914] 1, 3, 7, 11, 19, 55, 111, 219, 435, 887, 1775, 3547, 7091, 14199, 28399, 56795, 113587, 227191, 454383, 908763, 1817523, 3635063, 7270127, 14540251, 29080499, 58161015, 116322031, 232644059, 465288115, 930576247, 1861152495, 3722304987, 7444609971
a(n) = 2*a(n-1) + a(n-4) - 2*a(n-5) for n>5.
[A178881] 0, 1, 3, 7, 11, 20, 26, 38, 50, 67, 77, 105, 117, 142, 172, 204, 220, 265, 283, 335, 379, 420, 442, 518, 558, 607, 661, 737, 765, 870, 900, 980, 1052, 1117, 1199, 1331, 1367, 1440, 1526, 1666, 1706, 1859, 1901, 2025, 2169, 2258, 2304, 2496, 2580, 2725
a(n) = sum_{i=1:n-1,j=i+1:n} GCD(i,j).
[A028831] 1, 3, 7, 11, 22, 43, 83, 159, 307, 592, 1141, 2199, 4239, 8171, 15750, 30359, 58519, 112799, 217427, 419104, 807849, 1557179, 3001559, 5785691, 11152278, 21496707, 41436235, 79870911, 153956131
a(0)=1, a(1)=3, a(2)=7, a(3)=11, a(n)=a(n-1)+a(n-2)+a(n-3)+a(n-4) [From Harvey P. Dale, Apr 18 2012]
[A116362] 0, 1, 3, 7, 11, 23, 39, 79, 143, 287, 543, 1087, 2111, 4223, 8319, 16639, 33023, 66047, 131583, 263167, 525311, 1050623, 2099199, 4198399, 8392703, 16785407, 33562623, 67125247, 134234111, 268468223, 536903679, 1073807359, 2147549183, 4295098367
a(n) = 2^(n-1) + 2^floor((n+1)/2) - 1 for n > 1.
a(n) = 3*a(n-1)-6*a(n-3)+4*a(n-4) for n>5. G.f.: -x*(4*x^4-4*x^3-2*x^2+1) / ((x-1)*(2*x-1)*(2*x^2-1)). - Colin Barker, Mar 29 2013 and Feb 09 2015
[A283588] 1, 3, 7, 11, 23, 43, 71, 219, 439, 875, 1735, 3547, 6839, 13675, 27335, 54747, 109495, 218987, 437959, 875995, 1751735, 3503467, 7006919, 14013915, 28027831, 56055659, 112111303, 224222683, 448445111, 896890219, 1793780423, 3587560923, 7175121847
a(n) = 2*a(n-1) + a(n-8) - 2*a(n-9) for n>12.
[A284543] 1, 3, 7, 11, 23, 43, 71, 219, 503, 1003, 1991, 4059, 8183, 16363, 32711, 65499, 131063, 262123, 524231, 1048539, 2097143, 4194283, 8388551, 16777179, 33554423, 67108843, 134217671, 268435419, 536870903, 1073741803, 2147483591, 4294967259, 8589934583
a(n) = 2*a(n-1) + a(n-4) - 2*a(n-5) for n>8.
[A267052] 1, 3, 7, 11, 23, 43, 87, 171, 343, 683, 1367, 2731, 5463, 10923, 21847, 43691, 87383, 174763, 349527, 699051, 1398103, 2796203, 5592407, 11184811, 22369623, 44739243, 89478487, 178956971, 357913943, 715827883, 1431655767, 2863311531, 5726623063, 11453246123
a(n) = (3+2*(-1)^n+2^(2+n))/3 for n>0.
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3) for n>3.
[A139814] 0, 1, 3, 7, 11, 23, 47, 95, 187, 375, 751, 1503, 3003, 6007, 12015, 24031, 48059, 96119, 192239, 384479, 768955, 1537911, 3075823, 6151647, 12303291, 24606583, 49213167, 98426335, 196852667, 393705335, 787410671, 1574821343, 3149642683
a(n)=(2/5+1/5*I)*I^n+(1/3)*(-1)^n+(11/30)*2^n+(2/5-1/5*I)*(-I)^n, with n>=1 and I=(-1)^(1/2) - Paolo P. Lava, Jun 03 2008
[A099902] 1, 3, 7, 11, 23, 59, 103, 139, 279, 827, 1895, 2955, 5655, 14395, 24679, 32907, 65815, 197435, 460647, 723851, 1512983, 3881019, 6774887, 9142411, 18219287, 54002491, 123733863, 192940939, 369104407, 939538491, 1610637415, 2147516555
a(n) = SumXOR_{k=0..n} (C(n-k+[k/2], [k/2])mod 2)*2^k for n>=0.
a(n)=sum{k=0..2n, (binomial(k, 2n-k) mod 2)*2^(2n-k)}; a(n)=sum{k=0..n, (binomial(2n-k, k) mod 2)*2^k}; - Paul Barry, May 10 2005
[A093361] 1, 3, 7, 11, 27, 33, 69, 77, 141, 151, 251, 263, 407, 421, 617, 633, 889, 907, 1231, 1251, 1651, 1673, 2157, 2181, 2757, 2783, 3459, 3487, 4271, 4301, 5201, 5233, 6257, 6291, 7447, 7483, 8779, 8817, 10261, 10301, 11901, 11943, 13707, 13751
a(n) = (1/24)*(4*n^3 +12*n^2 +20*n +33 +(6*n^2-9)*(-1)^n). - Ralf Stephan, Dec 02 2004
[A014447] 1, 3, 7, 11, 29, 47, 123, 199, 521, 843, 2207, 3571, 9349, 15127, 39603, 64079, 167761, 271443, 710647, 1149851, 3010349, 4870847, 12752043, 20633239, 54018521, 87403803, 228826127, 370248451, 969323029, 1568397607, 4106118243
a(n) = 4*a(n-2)+a(n-4). - R. J. Mathar, Feb 10 2011
[A131588] 1, 1, 3, 7, 11, 31, 43, 127, 171, 511, 683, 2047, 2731, 8191, 10923, 32767, 43691, 131071, 174763, 524287, 699051, 2097151, 2796203, 8388607, 11184811, 33554431, 44739243, 134217727, 178956971, 536870911, 715827883, 2147483647, 2863311531
a(n) = 5*a(n-2) - 4*a(n-4); a(n) = (5*2^n+(-2)^n-8*(-1)^n-4)/12; g.f. (1+x-2*x^2+2*x^3)/((x-1)*(2*x+1)*(2*x-1)*(x+1))
[A045134] 3, 7, 12, 13, 19, 23, 28, 29, 48, 49, 52, 53, 67, 71, 76, 77, 83, 87, 92, 93, 112, 113, 116, 117, 192, 193, 196, 197, 208, 209, 212, 213, 259, 263, 268, 269, 275, 279, 284, 285, 304, 305, 308, 309, 323, 327, 332, 333, 339, 343, 348
a(m+(n+1)*2^n) = a(m) + 4^(n+1) for 1 <= m <= (n+1)*2^n.
[A083031] 0, 3, 7, 12, 15, 19, 24, 27, 31, 36, 39, 43, 48, 51, 55, 60, 63, 67, 72, 75, 79, 84, 87, 91, 96, 99, 103, 108, 111, 115, 120, 123, 127, 132, 135, 139, 144, 147, 151, 156, 159, 163, 168, 171, 175, 180, 183, 187, 192, 195, 199, 204, 207, 211, 216, 219

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (12*n-14-cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 12k-5, a(3k-1) = 12k-9, a(3k-2) = 12k-12. (End)
[A027379] 1, 3, 7, 12, 18, 25, 33, 42, 52, 63, 75, 88, 102, 117, 133, 150, 168, 187, 207, 228, 250, 273, 297, 322, 348, 375, 403, 432, 462, 493, 525, 558, 592, 627, 663, 700, 738, 777, 817, 858, 900, 943, 987, 1032, 1078
a(n) = n + a(n-1) + 2, n>1. - Vincenzo Librandi, Dec 06 2009
[A055998] 0, 3, 7, 12, 18, 25, 33, 42, 52, 63, 75, 88, 102, 117, 133, 150, 168, 187, 207, 228, 250, 273, 297, 322, 348, 375, 403, 432, 462, 493, 525, 558, 592, 627, 663, 700, 738, 777, 817, 858, 900, 943, 987, 1032, 1078, 1125, 1173, 1222, 1272
a(n) = C(n,2) - 2*n, n>=5. - Zerinvary Lajos, Nov 25 2006
a(n) = n + a(n-1) + 2 with a(0)=0. - Vincenzo Librandi, Aug 07 2010
a(n) = Sum_{k=1..n} (k+2). - Gary Detlefs, Aug 10 2010
a(n) = Sum_{i=3..n+2} i. - Wesley Ivan Hurt, Jun 28 2013
[A005228] 1, 3, 7, 12, 18, 26, 35, 45, 56, 69, 83, 98, 114, 131, 150, 170, 191, 213, 236, 260, 285, 312, 340, 369, 399, 430, 462, 495, 529, 565, 602, 640, 679, 719, 760, 802, 845, 889, 935, 982, 1030, 1079, 1129, 1180, 1232, 1285, 1339, 1394, 1451, 1509, 1568, 1628, 1689
a(1) = 1, a(2) = 3; a( ) increasing; for n >= 3, if a(q) = a(n-1)-a(n-2)+1 for some q < n then a(n) = a(n-1) + (a(n-1)-a(n-2)+2), otherwise a(n) = a(n-1) + (a(n-1)-a(n-2)+1). - Albert Neumueller (albert.neu(AT)gmail.com), Jul 29 2006
a(n) = n^2/2 + 1/(3*sqrt(2))*n^(3/2) + O(n^(5/4)) [proved in Jubin's link]. - Benoit Jubin, May 13 2015
[A000969] 1, 3, 7, 12, 18, 26, 35, 45, 57, 70, 84, 100, 117, 135, 155, 176, 198, 222, 247, 273, 301, 330, 360, 392, 425, 459, 495, 532, 570, 610, 651, 693, 737, 782, 828, 876, 925, 975, 1027, 1080, 1134, 1190, 1247, 1305, 1365, 1426, 1488, 1552, 1617, 1683, 1751, 1820, 1890
a(n) = floor((2*n+3)*(n+1)/3). Or, a(n) = (2*n+3)*(n+1)/3 but subtract 1/3 if n == 1 mod 3. - N. J. A. Sloane, May 05 2010.
a(n) = Sum_{i=0..n} floor(4*i/3). - Enrique Pérez Herrero, Apr 21 2012
a(n) = +2*a(n-1) -1*a(n-2) +1*a(n-3) -2*a(n-4) +1*a(n-5). - Joerg Arndt, Apr 22 2012
[A122250] 0, 1, 3, 7, 12, 18, 26, 35, 45, 58, 72, 87, 104, 122, 141, 162, 184, 207, 233, 260, 288, 318, 349, 381, 415, 450, 486, 526, 567, 609, 653, 698, 744, 792, 841, 891, 944, 998, 1053, 1110, 1168
a(n) = Sum_{j=0..n} (Sum_{k=0..j} floor(j/3^k)).
[A184534] 1, 3, 7, 12, 18, 27, 36, 48, 60, 75, 90, 108, 126, 147, 168, 192, 216, 243, 270, 300, 330, 363, 396, 432, 468, 507, 546, 588, 630, 675, 720, 768, 816, 867, 918, 972, 1026, 1083, 1140, 1200, 1260, 1323, 1386, 1452, 1518, 1587, 1656, 1728, 1800, 1875, 1950, 2028, 2106, 2187, 2268, 2352, 2436, 2523, 2610, 2700, 2790, 2883, 2976, 3072, 3168, 3267, 3366, 3468, 3570, 3675, 3780, 3888, 3996, 4107, 4218, 4332, 4446, 4563, 4680, 4800, 4920, 5043, 5166, 5292, 5418, 5547, 5676, 5808
a(n) = floor[1/{(4+n^3)^(1/3)}], where {}=fractional part.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A171835] 3, 7, 12, 18, 29, 41, 54, 68, 87, 107, 128, 150, 177, 205, 234, 264, 299, 335, 372, 410, 453, 497, 542, 588, 639, 691, 744, 798, 857, 917, 978, 1040, 1107, 1175, 1244, 1314, 1389, 1465, 1542, 1620, 1703, 1787, 1872, 1958, 2049, 2141, 2234, 2328, 2427, 2527
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6) for n>6.
a(n) = (4*n^2+2*n+5-2*I^(-n)-2*I^n-I^(2*n))/4 where I=sqrt(-1). (End)
[A212293] 0, 0, 3, 7, 12, 19, 26, 34, 43, 53, 63, 74, 85, 97, 110, 122, 136, 150, 164, 179, 194, 210, 226, 242, 259, 275, 293, 310, 328, 347, 365, 384, 403, 422, 442, 462, 482, 502, 523, 544, 565, 586, 608, 630, 652, 674, 696, 719, 742, 765, 788, 811, 835, 859, 883, 907, 931, 956
a(n) = floor(n*log(n)^2).
[A077043] 0, 1, 3, 7, 12, 19, 27, 37, 48, 61, 75, 91, 108, 127, 147, 169, 192, 217, 243, 271, 300, 331, 363, 397, 432, 469, 507, 547, 588, 631, 675, 721, 768, 817, 867, 919, 972, 1027, 1083, 1141, 1200, 1261, 1323, 1387, 1452, 1519, 1587, 1657, 1728, 1801, 1875, 1951
a(2k) = a(2k-2) + 6k - 3,
a(2k+1) = a(2k-1) + 6k,
a(4n) = 12n^2,
a(4n+1) = a(4n) + 6n + 1,
a(4n+2) = a(4n+1) + 6n + 2,
a(4n+3) = a(4n+2) + 6n + 4,
[A036698] 0, 1, 3, 7, 12, 20, 28, 37, 49, 63, 79, 94, 110, 132, 153, 177, 199, 225, 252, 282, 314, 343, 379, 413, 448, 490, 530, 572, 613, 657, 705, 750, 802, 852, 906, 963, 1013, 1073, 1128, 1194, 1256, 1315, 1381, 1447, 1519, 1590, 1656
a(n) = n^2 * Pi/4 + O(n). - Charles R Greathouse IV, Apr 03 2013
[A279169] 0, 0, 3, 7, 12, 20, 28, 39, 51, 64, 80, 96, 115, 135, 156, 180, 204, 231, 259, 288, 320, 352, 387, 423, 460, 500, 540, 583, 627, 672, 720, 768, 819, 871, 924, 980, 1036, 1095, 1155, 1216, 1280, 1344, 1411, 1479, 1548, 1620, 1692, 1767, 1843, 1920, 2000, 2080, 2163, 2247
a(n) = a(-n) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7).
a(5*m+r) = 4*m*(5*m + 2*r) + a(r), where m >= 0 and 0 <= r < 5. Example: for m=4 and r=3, a(5*4+3) = a(23) = 4*4*(5*4 + 2*3) + a(3) = 416 + 7 = 423.
[A280345] 3, 7, 12, 25, 48, 97, 192, 385, 768, 1537, 3072, 6145, 12288, 24577, 49152, 98305, 196608, 393217, 786432, 1572865, 3145728, 6291457, 12582912, 25165825, 50331648, 100663297, 201326592, 402653185, 805306368, 1610612737, 3221225472, 6442450945, 12884901888
a(2n) = 3*4^n, a(2n+1) = 6*4^n + 1.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3), n>2.
a(n+2) = a(n) + 9*2^n.
a(n) = 3*2^n for n even.
a(n) = 3*2^n + 1 for n odd.
[A056530] 1, 3, 7, 13, 15, 19, 25, 27, 31, 37, 39, 43, 49, 51, 55, 61, 63, 67, 73, 75, 79, 85, 87, 91, 97, 99, 103, 109, 111, 115, 121, 123, 127, 133, 135, 139, 145, 147, 151, 157, 159, 163, 169, 171, 175, 181, 183, 187, 193, 195, 199, 205, 207, 211, 217, 219, 223, 229, 231
a(n) = a(n-1) + a(n-3) - a(n-4) for n > 4.
[A080565] 3, 7, 13, 15, 25, 27, 29, 31, 49, 51, 53, 55, 57, 59, 61, 63, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233
a(n) = 2^floor(log[2](4*(n-1)))+2*n-1 for n>1, a(1)=3. - Antonio G. Astudillo (afg_astudillo(AT)hotmail.com), Feb 22 2003
[A063226] 3, 7, 13, 17, 23, 27, 33, 37, 43, 47, 53, 57, 63, 67, 73, 77, 83, 87, 93, 97, 103, 107, 113, 117, 123, 127, 133, 137, 143, 147, 153, 157, 163, 167, 173, 177, 183, 187, 193, 197, 203, 207, 213, 217, 223, 227, 233, 237, 243, 247
a(n) = 4*floor(n/2) + 6*floor((n-1)/2) + 3. - Gary Detlefs, Jul 04 2014
a(n) = (1/2)*(10*n - 5 - (-1)^n).
[A118667] 0, 1, 3, 7, 13, 19, 21, 23, 27, 33, 39, 41, 43, 47, 53, 59, 61, 63, 67, 73, 79, 81, 83, 87, 93, 99, 101, 103, 107, 113, 119, 121, 123, 127, 133, 139, 141, 143, 147, 153, 159, 161, 163, 167, 173, 179, 181, 183, 187, 193, 199, 201, 203, 207, 213, 219, 221, 223, 227, 233
a(n) = a(n-1)+ ((abs(2^a(n-1)*a(n-1)) mod 10) being a(0) = 0 and a(1) = 1
a(n)=(2/5)*Sum{k=0..n-1}{3*(k mod 5)+[(k+1) mod 5]+[(k+4) mod 5]}-1+[C(2*n,n) mod 2], with n>=0 [From Paolo P. Lava, Oct 07 2008]
[A056531] 1, 3, 7, 13, 19, 25, 27, 31, 39, 43, 49, 51, 61, 63, 67, 73, 79, 85, 87, 91, 99, 103, 109, 111, 121, 123, 127, 133, 139, 145, 147, 151, 159, 163, 169, 171, 181, 183, 187, 193, 199, 205, 207, 211, 219, 223, 229, 231, 241, 243, 247, 253, 259, 265, 267, 271, 279
a(n) = a(n-1) + a(n-12) - a(n-13) for n > 13.
[A276215] 3, 7, 13, 19, 26, 34, 42, 51, 61, 72, 83, 95, 108, 121, 135, 150, 165, 181, 197, 214, 231, 249, 267, 286, 306, 326, 347, 368, 389, 411, 434, 457, 481, 505, 530, 555, 580, 606, 633, 660, 687, 715, 744, 773, 802, 832, 862, 893, 924, 955, 988, 1020, 1053, 1086
a(n) = n + floor(n^(s/r)); the complement is given by n + floor(n^(r/s)).
[A023205] 3, 7, 13, 19, 31, 37, 61, 67, 73, 79, 97, 103, 109, 139, 151, 163, 181, 229, 241, 271, 283, 307, 313, 367, 373, 409, 439, 457, 523, 541, 613, 643, 661, 709, 727, 733, 739, 769, 787, 811, 829, 859, 877, 937, 991, 997, 1039, 1063, 1069, 1087, 1117, 1123, 1153, 1171
a(n) == 1 (mod 6) for n>=2. - John Cerkan, Sep 07 2016

[A023200] 3, 7, 13, 19, 37, 43, 67, 79, 97, 103, 109, 127, 163, 193, 223, 229, 277, 307, 313, 349, 379, 397, 439, 457, 463, 487, 499, 613, 643, 673, 739, 757, 769, 823, 853, 859, 877, 883, 907, 937, 967, 1009, 1087, 1093, 1213, 1279, 1297, 1303, 1423, 1429, 1447, 1483
a(n) » n log^2 n via the Selberg sieve. - Charles R Greathouse IV, Nov 20 2016
[A100531] 1, 3, 7, 13, 21, 23, 27, 33, 41, 43, 47, 53, 61, 63, 67, 73, 81, 83, 87, 93, 101, 103, 107, 113, 121, 123, 127, 133, 141, 143, 147, 153, 161, 163, 167, 173, 181, 183, 187, 193, 201, 203, 207, 213, 221, 223, 227, 233, 241, 243, 247, 253, 261, 263, 267, 273, 281, 283
a(0)=1, a(1)=3, a(2)=7, a(3)=13, a(4)=21, a(n) = a(n-1)+a(n-4)-a(n-5). - Harvey P. Dale, Apr 09 2012
a(n) = (-3/2+(-1)^n/2+(-i)^n+i^n+5*n) where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A002061] 1, 1, 3, 7, 13, 21, 31, 43, 57, 73, 91, 111, 133, 157, 183, 211, 241, 273, 307, 343, 381, 421, 463, 507, 553, 601, 651, 703, 757, 813, 871, 931, 993, 1057, 1123, 1191, 1261, 1333, 1407, 1483, 1561, 1641, 1723, 1807, 1893, 1981, 2071, 2163, 2257, 2353, 2451, 2551, 2653
a(n) = -(n-5)*a(n-1) + (n-2)*a(n-2).
a(1-n) = a(n). - Michael Somos, Sep 04 2006
a(n) = ceiling((n-1/2)^2). - Benoit Cloitre, Apr 16 2003. [Hence the terms are about midway between successive squares and so (except for 1) are not squares. - N. J. A. Sloane, Nov 01 2005]
a(n) = 1 + Sum_{j=0..n-1} (2*j). - Xavier Acloque, Oct 08 2003
a(n) = leftmost term in M^(n-1) * [1 1 1], where M = the 3 X 3 matrix [1 1 1 / 0 1 2 / 0 0 1]. E.g., a(6) = 31 since M^5 * [1 1 1] = [31 11 1]. - Gary W. Adamson, Nov 11 2004
a(n+1) = n^2 + n + 1. a(n+1)*a(n) = (n^6-1)/(n^2-1) = n^4 + n^2 + 1 = a(n^2+1) (a product of two consecutive numbers from this sequence belongs to this sequence). (a(n+1) + a(n))/2 = n^2 + 1. (a(n+1) - a(n))/2 = n. a((a(n+1) + a(n))/2) = a(n+1)*a(n). - Alexander Adamchuk, Apr 13 2006
[A247890] 1, 3, 7, 13, 21, 31, 43, 57, 73, 91, 111, 133, 157, 183, 211, 241, 273, 307, 343, 381, 421, 464, 508, 554, 602, 652, 704, 758, 814, 872, 932, 994, 1058, 1124, 1192, 1262, 1334, 1408, 1484, 1562, 1642, 1724, 1808, 1895, 1983, 2073, 2165, 2259, 2355, 2453, 2553, 2655, 2759, 2865
a(n) = 2*a(n-1) - a(n-2) + a(n-22) - 2*a(n-23) + a(n-24) for n>24.
[A171965] 0, 0, 0, 1, 3, 7, 13, 21, 31, 44, 60, 80, 104, 132, 164, 201, 243, 291, 345, 405, 471, 544, 624, 712, 808, 912, 1024, 1145, 1275, 1415, 1565, 1725, 1895, 2076, 2268, 2472, 2688, 2916, 3156, 3409, 3675, 3955, 4249, 4557, 4879, 5216, 5568, 5936, 6320, 6720, 7136
a(n) = sum(k=0..n,floor(k^2/6)).
a(n) = round((2*n^3+3*n^2-12*n-6)/36).
a(n) = round((4*n^3+6*n^2-24*n-13)/72).
a(n) = floor((2*n^3+3*n^2-12*n+7)/36).
a(n) = ceil((2*n^3+3*n^2-12*n-20)/36).
a(n) = a(n-6)+n^2-5*n+7 , n>5
[A011898] 0, 0, 0, 0, 1, 3, 7, 13, 21, 31, 45, 61, 82, 107, 136, 170, 210, 255, 306, 363, 427, 498, 577, 664, 759, 862, 975, 1096, 1228, 1370, 1522, 1685, 1860, 2046, 2244, 2454, 2677, 2913, 3163, 3427, 3705, 3997, 4305
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-16) -3*a(n-17) +3*a(n-18) -a(n-19). G.f.: x^4*(1+x^2+2*x^6-2*x^7+3*x^8-x^9+x^11+x^12-x^13+x^14) / ((-1+x)^4*(1+x)*(1+x^2)*(1+x^4)*(1+x^8)). [From R. J. Mathar, Apr 15 2010]
[A098575] 1, 1, 1, 1, 3, 7, 13, 21, 35, 63, 117, 213, 379, 671, 1197, 2149, 3859, 6911, 12357, 22101, 39563, 70847, 126845, 227045, 406371, 727391, 1302101, 2330901, 4172443, 7468767, 13369293, 23931621, 42838835, 76683583, 137266917, 245713493
a(n) = 2*a(n-1)-a(n-2)+2*a(n-4).
[A098482] 1, 1, 1, 1, 3, 7, 13, 21, 37, 73, 147, 283, 531, 1007, 1953, 3817, 7423, 14371, 27877, 54333, 106189, 207585, 405743, 793719, 1554889, 3049525, 5984803, 11751067, 23086695, 45388291, 89289765, 175746797, 346077153, 681795925, 1343790319
a(n) = sum(k=0..floor(n/2), binomial(n-2*k, k)*binomial(n-3*k, k)).
[A051336] 1, 3, 7, 13, 22, 33, 48, 65, 86, 110, 138, 168, 204, 242, 284, 330, 381, 434, 493, 554, 621, 692, 767, 844, 929, 1017, 1109, 1205, 1307, 1411, 1523, 1637, 1757, 1881, 2009, 2141, 2282, 2425, 2572, 2723, 2882, 3043, 3212, 3383, 3560, 3743, 3930, 4119
a(n) = n + sum { i=1..n-1, j=1..floor(n/i) } (n - i*j). - Robert E. Sawyer (rs.1(AT)mindspring.com)
[A002623] 1, 3, 7, 13, 22, 34, 50, 70, 95, 125, 161, 203, 252, 308, 372, 444, 525, 615, 715, 825, 946, 1078, 1222, 1378, 1547, 1729, 1925, 2135, 2360, 2600, 2856, 3128, 3417, 3723, 4047, 4389, 4750, 5130, 5530, 5950, 6391, 6853, 7337, 7843, 8372, 8924, 9500
a(n+1) = a(n) + {(k-1)*k if n=2*k} or {k*k if n=2*k+1}.
a(n) = Sum_{k=0..n} (-1)^(n-k)*C(k+3,3).
a(n) = (4*n^3 + 30*n^2 + 68*n + 45)*(-1)^n/48 + 1/16.
a(n) = Sum_{k=0..n} floor((k+2)^2/4).
a(n) = Sum_{k=0..n} Sum_{j=0..k} Sum_{i=0..j} (1+(-1)^i)/2. (End)
a(n) = a(n - 2) + (n*(n - 1))/2, with n>2, a(1)=0, a(2)=1; a(n) = (4*n^3+6*n^2-4*n+3*(-1)^n-3)/48, with offset 2. - Cecilia Rossiter (cecilia(AT)noticingnumbers.net), Dec 14 2004 (formula simplified by Bruno Berselli, Aug 29 2013)
[A173196] 0, 0, 1, 3, 7, 13, 22, 34, 50, 70, 95, 125, 161, 203, 252, 308, 372, 444, 525, 615, 715, 825, 946, 1078, 1222, 1378, 1547, 1729, 1925, 2135, 2360, 2600, 2856, 3128, 3417, 3723, 4047, 4389, 4750, 5130, 5530, 5950, 6391, 6853, 7337, 7843, 8372, 8924, 9500
a(n) = (4*n^3+6*n^2-4*n-3+3*(-1)^n)/48. - Bruno Berselli, Jan 19 2011
a(n) = round((2*n^3+3*n^2-2*n)/24) = round((4*n^3+6*n^2-4*n-3)/48) = floor((2*n^3+3*n^2-2*n)/24) = ceil((2*n^3+3*n^2-2*n-3)/24). - Mircea Merca, Nov 23 2010
a(n) = a(n-2)+n*(n-1)/2, n>1. - Mircea Merca, Nov 25 2010
a(n) = floor(n/2)*(floor(n/2)+1)*(8*ceiling(n/2)-2*n-1)/6. - Alexander Evnin, Oct 12 2010
[A081662] 1, 3, 7, 13, 22, 35, 54, 82, 124, 188, 287, 442, 687, 1077, 1701, 2703, 4316, 6917, 11116, 17900, 28866, 46598, 75277, 121668, 196717, 318135, 514579, 832417, 1346674, 2178743, 3525042, 5703382, 9227992, 14930912, 24158411, 39088798
a(n)=(1-2sqrt(5)/5)(sqrt(5)/2-1/2)^n(-1)^n+(sqrt(5)/2+1/2)^n(2sqrt(5)/5+1)+(n^2+n-2)/2
a(0)=1, a(1)=3, a(2)=7, a(3)=13, a(4)=22, a(n)=4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5) [From Harvey P. Dale, Nov 19 2011]
[A101301] 1, 3, 7, 13, 23, 35, 51, 69, 91, 119, 149, 185, 225, 267, 313, 365, 423, 483, 549, 619, 691, 769, 851, 939, 1035, 1135, 1237, 1343, 1451, 1563, 1689, 1819, 1955, 2093, 2241, 2391, 2547, 2709, 2875, 3047, 3225, 3405, 3595, 3787, 3983, 4181, 4391, 4613, 4839
a(n)=sum_{k=1..n} (prime(k)-1)
[A164787] 1, 3, 7, 13, 23, 37, 57, 83, 118, 162, 218, 286, 370, 470, 590, 730, 895, 1086, 1308, 1562, 1854, 2186, 2564, 2990, 3471, 4010, 4614, 5286, 6034, 6862, 7778, 8786, 9895, 11110, 12441, 13893, 15477, 17199, 19071, 21099, 23296, 25669, 28232, 30992
a(n)=Expansion(1/(1 - 3 x + 2 x^2 + 2 x^3 - 4 x^4 + 4 x^5 - 2 x^6 - 2 ^7 + 3 x^8 - x^9 - x^17 + 3 x^18 - 2 x^19 - 2 x^20 + 4 x^21 - 4 x^22 + 2 x^23 + 2 x^24 - 3 x^25 + x^26));
[A053599] 1, 3, 7, 13, 23, 37, 59, 89, 135, 197, 291, 417, 607, 861, 1243, 1753, 2519, 3541, 5075, 7121, 10191, 14285, 20427, 28617, 40903, 57285, 81859, 114625, 163775, 229309, 327611, 458681, 655287, 917429, 1310643, 1834929, 2621359, 3669933, 5242795, 7339945
a(1)=1, a(2)=3 and, for n > 2, a(n) = 2 a(n-2) + 2n - 1.
a(n) = 5*2^((n+1)/2) - 2*n - 7 for odd n, 7*2^(n/2) - 2*n - 7 for even n. - Andrew Woods, May 19 2012
[A122886] 0, 0, 1, 1, 1, 1, 3, 7, 13, 23, 39, 61, 123, 231, 385, 739, 1339, 2185, 4263, 7819, 12853, 24935, 45543, 74677, 145155, 265503, 435721, 846379, 1547347, 2538625, 4932351, 9018835, 14798077, 28749263, 52565151, 86245741
a(n)=4*a(n-3)+11*a(n-6)-2*a(n-9). G.f.: x^2*(1-x)*(2*x^5-x^4+3*x^2+2*x+1)/ ((2*x^3+1)*(1-6*x^3+x^6)). [From R. J. Mathar, Aug 12 2009]
[A154691] 1, 3, 7, 13, 23, 39, 65, 107, 175, 285, 463, 751, 1217, 1971, 3191, 5165, 8359, 13527, 21889, 35419, 57311, 92733, 150047, 242783, 392833, 635619, 1028455, 1664077, 2692535, 4356615, 7049153, 11405771, 18454927, 29860701, 48315631, 78176335
a(n) = -3 + (2^(1-n)*((1-r)^n*(-2+r) + (1+r)^n*(2+r))) / r where r=sqrt(5).
a(n) = 2*a(n-1) - a(n-3) for n>2.
[A049112] 1, 1, 3, 7, 13, 23, 45, 87, 167, 321, 619, 1193, 2299, 4431, 8541, 16463, 31733, 61167, 117903, 227265, 438067, 844401, 1627635, 3137367, 6047469, 11656871, 22469341, 43311047, 83484727, 160921985, 310187099, 597904857, 1152498667
a(n+1) = a(n) + a(n-1) + a(n-2) + a(n-3) - 1, n >= 5.

[A100720] 3, 7, 13, 23, 47, 97, 193, 383, 767, 1537, 3073, 6143, 12287, 24577, 49153, 98303, 196607, 393217, 786433, 1572863, 3145727, 6291457, 12582913, 25165823, 50331647, 100663297, 201326593, 402653183, 805306367, 1610612737, 3221225473, 6442450943, 12884901887
a(0)=3 and for n>1: a(n)= 3*2^n+1 if n(mod 4)=1 or 2; otherwise 3*2^n-1. - R. Piyo (nagoya314(AT)yahoo.com), Dec 12 2004
[A275788] 0, 1, 3, 7, 13, 25, 49, 99, 199, 399, 797, 1593, 3185, 6371, 12743, 25487, 50973, 101945, 203889, 407779, 815559, 1631119, 3262237, 6524473, 13048945, 26097891, 52195783, 104391567, 208783133, 417566265, 835132529, 1670265059, 3340530119, 6681060239
a(n) = 2*a(n-1) - a(n-3) + 2*a(n-4) for n>3.
a(n+3) = 7*2^n - a(n), a(0)=0, a(1)=1, a(2)=3.
[A007909] 1, 1, 1, 3, 7, 13, 25, 51, 103, 205, 409, 819, 1639, 3277, 6553, 13107, 26215, 52429, 104857, 209715, 419431, 838861, 1677721, 3355443, 6710887, 13421773, 26843545, 53687091, 107374183, 214748365, 429496729, 858993459, 1717986919, 3435973837, 6871947673
a(n) = (1/5)*(2^(n+1)+3*cos(n*Pi/2)+sin(n*Pi/2)).
a(n) = sum{k=0..floor((n-1)/3), binomial(n-k-1, 2*k)*2^k}. - Paul Barry, Sep 16 2004
a(n) = (1/5) * (2^n + (-1)^[n/2] + 2(-1)^[(n-1)/2]). - Ralf Stephan, Jun 09 2005
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3). Sequence is identical to its half second differences from the second term; a(n)+a(n+2)=2^(n+1). - Paul Curtz, Dec 17 2007
a(n) = (2^n)*sum(((-1)^(floor(k/2)))/(2^k),k=1..n). - Yalcin Aktar, Jul 20 2008
[A282913] 1, 3, 7, 13, 25, 59, 123, 219, 411, 955, 1979, 3515, 6587, 15291, 31675, 56251, 105403, 244667, 506811, 900027, 1686459, 3914683, 8108987, 14400443, 26983355, 62634939, 129743803, 230407099, 431733691, 1002159035, 2075900859, 3686513595, 6907739067
a(n) = a(n-1) + 16*a(n-4) - 16*a(n-5) for n>5.
[A098479] 1, 1, 1, 3, 7, 13, 27, 61, 133, 287, 633, 1407, 3121, 6943, 15517, 34755, 77959, 175213, 394499, 889461, 2007963, 4538485, 10269247, 23258881, 52726599, 119627977, 271624315, 617180533, 1403272799, 3192557561, 7267485523, 16552454205
a(n) = Sum{k=0..floor(n/2)} binomial(n-k, k)*binomial(n-2*k, k).
[A283587] 1, 3, 7, 13, 29, 53, 113, 219, 475, 859, 1819, 3515, 7595, 13739, 29099, 56235, 121771, 220075, 465835, 900011, 1944491, 3517355, 7449515, 14396331, 31173547, 56339371, 119253931, 230402987, 497789867, 900443051, 1907076011, 3685460907, 7980428203
a(n) = a(n-1) + 256*a(n-8) - 256*a(n-9) for n>12.
[A284542] 1, 3, 7, 13, 29, 53, 113, 219, 479, 863, 1823, 3519, 7679, 13823, 29183, 56319, 122879, 221183, 466943, 901119, 1966079, 3538943, 7471103, 14417919, 31457279, 56623103, 119537663, 230686719, 503316479, 905969663, 1912602623, 3690987519, 8053063679
a(n) = a(n-1) + 16*a(n-4) - 16*a(n-5) for n>8.
[A283323] 1, 3, 7, 13, 29, 53, 117, 213, 469, 853, 1877, 3413, 7509, 13653, 30037, 54613, 120149, 218453, 480597, 873813, 1922389, 3495253, 7689557, 13981013, 30758229, 55924053, 123032917, 223696213, 492131669, 894784853, 1968526677, 3579139413, 7874106709, 14316557653, 31496426837, 57266230613
a(n) = (-4 + (-2)^n + 21*2^n) / 12 for n>0.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) for n>3.
[A091565] 0, 1, 1, 1, 3, 7, 13, 29, 71, 163, 377, 913, 2219, 5375, 13189, 32677, 81167, 202523, 508273, 1280537, 3236275, 8207543, 20880893, 53263405, 136205527, 349137811, 896881641, 2308523809, 5953138875, 15378562415, 39791453685, 103115768885
a(n) = a(n-1) + 2*(a(1)*a(n-3) + a(2)*a(n-4) + ... + a(n-3)*a(1)) for n>1.
[A110436] 1, 3, 7, 13, 31, 63, 105, 255, 511, 869, 2047, 3963, 7021, 16383, 32767, 56141, 125811, 262143, 449325, 1048575, 2097151, 3459945, 8388607, 16645111, 28760685, 67108863, 129822555, 230087021, 536870911, 1073741823, 1823791973
a(n)=sum{k=0..n, abs(Jacobi(n-k, 2k+1))2^k}
[A112040] 1, 3, 7, 13, 33, 47, 132, 458, 777, 853, 3845, 4395, 4783, 4983, 6038, 6487, 6719, 6957, 11707, 12030, 12688, 13025, 13365, 13709, 14057, 14409, 15861, 17789, 18598, 19008, 19845, 20272, 20702, 21135, 21570, 22010, 22458, 23378, 23850, 24326
a(0)=1/2 a(n) = a(n-1) + Prime[n]/2 if a[2*n]/3 is an Integer then aout=a[2*n]/3
[A228209] 3, 7, 13, 57, 253, 487, 2163, 9607, 18493, 82137, 364813, 702247, 3119043, 13853287, 26666893, 118441497, 526060093, 1012639687, 4497657843, 19976430247, 38453641213, 170792556537, 758578289293, 1460225726407, 6485619490563, 28805998562887, 55450123962253
a(n) = 38*a(n-3)-a(n-6).
[A156859] 0, 3, 7, 14, 22, 33, 45, 60, 76, 95, 115, 138, 162, 189, 217, 248, 280, 315, 351, 390, 430, 473, 517, 564, 612, 663, 715, 770, 826, 885, 945, 1008, 1072, 1139, 1207, 1278, 1350, 1425, 1501, 1580, 1660, 1743, 1827, 1914, 2002, 2093, 2185, 2280, 2376, 2475, 2575
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). (End)
a(n) = -n - 1 + Sum_{j=0..n}Sum_{k=0..j}(2+(-1)^k). - Paolo P. Lava, Mar 05 2009
a(n-1) = floor(n/(e^(1/n)-1)). - Richard R. Forberg, Jun 19 2013
[A173209] 1, 3, 7, 14, 22, 33, 46, 60, 76, 95, 116, 138, 163, 189, 217, 248, 280, 315, 352, 390, 431, 473, 517, 564, 613, 663, 715, 770, 826, 885, 946, 1008, 1072, 1139, 1208, 1278, 1351, 1425, 1501, 1580, 1661, 1743, 1827, 1914, 2002, 2093, 2186, 2280, 2377, 2475, 2575
a(n) = n^2 - n/2 + O(1). - Charles R Greathouse IV, Mar 22 2013
[A140462] 0, 0, 0, 1, 3, 7, 14, 23, 36, 54, 75, 102, 136, 174, 220, 275, 335, 405, 486, 573, 672, 784, 903, 1036, 1184, 1340, 1512, 1701, 1899, 2115, 2350, 2595, 2860, 3146, 3443, 3762, 4104, 4458, 4836, 5239, 5655, 6097, 6566, 7049, 7560, 8100, 8655
a(n) = (5/2)*(k^3) - (3/2)*(k^2) if n = 3*k; (5/2)*(k^3) + (k^2) - (1/2)*k if n = 3*k+1; (5/2)*(k^3) + (7/2)*(k^2) + k if n = 3*k+2.
[A060999] 0, 1, 3, 7, 14, 24, 38, 57, 81, 111, 148, 192, 244, 305, 375, 455, 546, 648, 762, 889, 1029, 1183, 1352, 1536, 1736, 1953, 2187, 2439, 2710, 3000, 3310, 3641, 3993, 4367, 4764, 5184, 5628, 6097, 6591, 7111, 7658, 8232, 8834, 9465, 10125, 10815, 11536
a(-2-n) = -a(n). - Michael Somos, Aug 12 2009
[A179178] 1, 3, 7, 14, 25, 40, 57, 77, 100, 126, 155, 187, 222, 260, 301, 345, 392, 442, 495, 551, 610, 672, 737, 805, 876, 950, 1027, 1107, 1190, 1276, 1365, 1457, 1552, 1650, 1751, 1855, 1962, 2072, 2185, 2301, 2420, 2542, 2667, 2795, 2926, 3060, 3197, 3337, 3480
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>5.
a(n) = (2-5*n+3*n^2)/2 for n>5.
[A171973] 0, 0, 3, 7, 14, 25, 40, 60, 85, 117, 156, 203, 258, 323, 397, 482, 579, 687, 808, 942, 1091, 1254, 1433, 1629, 1841, 2071, 2319, 2587, 2874, 3181, 3510, 3861, 4235, 4632, 5052, 5498, 5969, 6466, 6990, 7542, 8122, 8731, 9369, 10039, 10739, 11471, 12235
a(n) = floor(n^3 * sqrt(2) / 12).
[A253895] 1, 3, 7, 14, 25, 41, 63, 90, 120, 154, 192, 233, 278, 328, 382, 439, 500, 566, 636, 709, 786, 868, 954, 1043, 1136, 1234, 1336, 1441, 1550, 1664, 1782, 1903, 2028, 2158, 2292, 2429, 2570, 2716, 2866, 3019, 3176, 3338, 3504, 3673, 3846, 4024, 4206, 4391, 4580, 4774, 4972
a(n) = (-4-i*(-i)^n+i*i^n-18*n+8*n^2)/4 for n>8, where i=sqrt(-1).
[A004006] 0, 1, 3, 7, 14, 25, 41, 63, 92, 129, 175, 231, 298, 377, 469, 575, 696, 833, 987, 1159, 1350, 1561, 1793, 2047, 2324, 2625, 2951, 3303, 3682, 4089, 4525, 4991, 5488, 6017, 6579, 7175, 7806, 8473, 9177, 9919, 10700, 11521, 12383, 13287, 14234, 15225
a(-n) = -a(n).
a(n) = binomial(n+2,n-1) - binomial(n,n-2). - Zerinvary Lajos, May 11 2006
a(n) = a(n-1) + n^2/2 - n/2 + 1, with a(0)=0. - Paolo P. Lava, Apr 12 2007
a(0)=0, a(1)=1, a(2)=3, a(3)=7, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Aug 21 2011
a(n) = 2*a(n-1) + (n-1) - a(n-2) with a(0) = 0, a(1) = 1. - Richard R. Forberg, Jan 23 2014
a(n) = Sum_{i=1..n} binomial(n-2i,2). - Wesley Ivan Hurt, Nov 18 2017
[A057524] 1, 3, 7, 14, 25, 41, 64, 95, 136, 189, 256, 339, 441, 564, 711, 885, 1089, 1326, 1600, 1914, 2272, 2678, 3136, 3650, 4225, 4865, 5575, 6360, 7225, 8175, 9216, 10353, 11592, 12939, 14400, 15981, 17689, 19530, 21511, 23639, 25921, 28364, 30976
a(n) = sum_{m=0}^{n} (n-m+1)*floor(((m+3)^2+3)/12). [Renzo Benedetti, Sep 30 2009]
a(n) = floor(((n+2)*(n+6)/12)^2) = round(((n+2)*(n+6)/12)^2). [Renzo Benedetti, Jul 25 2012]
[A011795] 0, 0, 0, 0, 0, 1, 3, 7, 14, 25, 42, 66, 99, 143, 200, 273, 364, 476, 612, 775, 969, 1197, 1463, 1771, 2125, 2530, 2990, 3510, 4095, 4750, 5481, 6293, 7192, 8184, 9275, 10472, 11781, 13209, 14763, 16450, 18278
a(n) = floor(binomial(n+1,5)/(n+1)). - Gary Detlefs Nov 23 2011
[A051170] 0, 1, 3, 7, 14, 25, 42, 66, 99, 143, 200, 273, 364, 476, 612, 775, 969, 1197, 1463, 1771, 2125, 2530, 2990, 3510, 4095, 4750, 5481, 6293, 7192, 8184, 9275, 10472, 11781, 13209, 14763, 16450, 18278, 20254, 22386, 24682
a(n) = floor(C(n,5)/n). - Alois P. Heinz, Jun 05 2013

[A193911] 1, 3, 7, 14, 25, 43, 69, 110, 167, 255, 375, 558, 805, 1179, 1681, 2438, 3451, 4975, 7011, 10070, 14153, 20283, 28461, 40734, 57103, 81663, 114415, 163550, 229069, 327355, 458409, 654998, 917123, 1310319, 1834587, 2620998, 3669553, 5242395, 7339525, 10485230
a(n+4) = -2*a(n)+3*a(n+2)+n+5. - Alexander R. Povolotsky, Aug 09 2011
a(n) = 1/8*(2^(n/2+2)*((10-7*sqrt(2))*(-1)^n+10+7*sqrt(2))-(-1)^n-2*n*(n+12)-79). - _Alexander R. Povolotsky, Aug 09 2011
[A206417] 0, 3, 7, 14, 25, 43, 72, 119, 195, 318, 517, 839, 1360, 2203, 3567, 5774, 9345, 15123, 24472, 39599, 64075, 103678, 167757, 271439, 439200, 710643, 1149847, 1860494, 3010345, 4870843, 7881192, 12752039, 20633235, 33385278, 54018517, 87403799, 141422320
a(n) = 2*a(n-1)-a(n-3). G.f.: x^2*(x+3) / ((x-1)*(x^2+x-1)). - Colin Barker, Oct 28 2014
[A008646] 1, 1, 3, 7, 14, 26, 42, 66, 99, 143, 201, 273, 364, 476, 612, 776, 969, 1197, 1463, 1771, 2126, 2530, 2990, 3510, 4095, 4751, 5481, 6293, 7192, 8184, 9276, 10472, 11781, 13209, 14763, 16451, 18278, 20254, 22386, 24682, 27151, 29799, 32637, 35673
a(-5-n) = a(n) for all integers.
a(n) = ceiling(C(n, 5)/n), with a different offset.
a(n) = (n^4+10*n^3+35*n^2+50*n+24*(3-2*(-1)^(2^(n-5*floor(n/5)))))/120. - Luce ETIENNE, Oct 31 2015
[A036830] 3, 7, 14, 26, 44, 70, 105, 152, 213, 291, 388, 508, 654, 829, 1037, 1281, 1566, 1896, 2276, 2710, 3203, 3761, 4388, 5091, 5875, 6746, 7710, 8774, 9944, 11228, 12632, 14164, 15831, 17641, 19602, 21722, 24009, 26472, 29120, 31961, 35005
a(6)=3 a(n)=ceiling(n/(n-4)*a(n-1)) - Benoit Cloitre, May 31 2003
[A001924] 0, 1, 3, 7, 14, 26, 46, 79, 133, 221, 364, 596, 972, 1581, 2567, 4163, 6746, 10926, 17690, 28635, 46345, 75001, 121368, 196392, 317784, 514201, 832011, 1346239, 2178278, 3524546, 5702854, 9227431, 14930317, 24157781, 39088132, 63245948, 102334116, 165580101
a(n) = sum(k=0, n, sum(i=0, k, F(i))). - Benoit Cloitre, Jan 26 2003
a(n) = (sqrt(5)/2+1/2)^n*(7*sqrt(5)/10+3/2)+(3/2-7*sqrt(5)/10)*(sqrt(5)/2-1/2)^n*(-1)^n-n-3. - Paul Barry, Mar 26 2003
a(n) = sum(k=0, n, F(k)*(n-k)). - Benoit Cloitre, Jun 07 2004
a(n) = Sum_{k=1..n} C(n-k+2,k+1), with n>=0. - Paolo P. Lava, Apr 16 2008
a(n) = Sum_{k=0..n} Sum_{i=0..n} i * C(n-k,k-i). - Wesley Ivan Hurt, Sep 21 2017
[A079921] 3, 7, 14, 26, 46, 79, 133, 221, 364, 596, 972, 1581, 2567, 4163, 6746, 10926, 17690, 28635, 46345, 75001, 121368, 196392, 317784, 514201, 832011, 1346239, 2178278, 3524546, 5702854, 9227431, 14930317, 24157781, 39088132, 63245948, 102334116, 165580101
a(n)=a(n-1)+a(n-2)+n+1, a(1)=3, a(2)=7
[A132109] 1, 3, 7, 14, 26, 47, 85, 156, 292, 557, 1079, 2114, 4174, 8283, 16489, 32888, 65672, 131225, 262315, 524478, 1048786, 2097383, 4194557, 8388884, 16777516, 33554757, 67109215, 134218106, 268435862, 536871347, 1073742289, 2147484144
a(n) = (2^(n+1) + n^2 + n)/2. - Eric W. Weisstein, Aug 09 2017
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4). - Eric W. Weisstein, Aug 09 2017
[A088209] 1, 3, 7, 14, 28, 53, 99, 181, 327, 584, 1034, 1817, 3173, 5511, 9527, 16402, 28136, 48109, 82023, 139481, 236631, 400588, 676822, 1141489, 1921993, 3231243, 5424679, 9095126, 15230452, 25475429, 42566379, 71052157, 118489383
a(n)=Fib(n)+(n+1)Fib(n+1). - Paul Barry, Apr 20 2004
[A125176] 1, 3, 7, 14, 28, 56, 112, 224, 448, 896, 1792, 3584, 7168, 14336, 28672, 57344, 114688, 229376, 458752, 917504, 1835008, 3670016, 7340032, 14680064, 29360128, 58720256, 117440512, 234881024, 469762048, 939524096, 1879048192, 3758096384, 7516192768, 15032385536
a(1) = 1, a(2) = 3, a(n) = 7*2^(n-3) for n>=3.
a(n) = 2*a(n-1) for n>3. G.f.: -x*(x^2+x+1) / (2*x-1). - Colin Barker, Oct 12 2013
[A153234] 0, 0, 0, 0, 1, 3, 7, 14, 28, 56, 113, 227, 455, 910, 1820, 3640, 7281, 14563, 29127, 58254, 116508, 233016, 466033, 932067, 1864135, 3728270, 7456540, 14913080, 29826161, 59652323, 119304647, 238609294, 477218588, 954437176, 1908874353, 3817748707, 7635497415, 15270994830
a(n) = round((2*2^n-9)/18) = floor((2^n-1)/9) = ceil((2^n-8)/9); a(n)=a(n-6)+7*2^(n-6), n>5. - Mircea Merca, Dec 28 2010
a(n)= +3*a(n-1) -2*a(n-2) -a(n-3) +3*a(n-4) -2*a(n-5).
[A293334] 0, 0, 1, 3, 7, 14, 28, 57, 114, 228, 457, 915, 1831, 3663, 7327, 14654, 29308, 58617, 117234, 234468, 468937, 937874, 1875749, 3751499, 7502999, 15005998, 30011996, 60023992, 120047985, 240095970, 480191941, 960383883, 1920767766, 3841535533, 7683071067
a(n) = floor(r*2^n), where r = sqrt(1/5).
[A151754] 1, 3, 7, 14, 28, 57, 115, 230, 460, 921, 1843, 3686, 7372, 14745, 29491, 58982, 117964, 235929, 471859, 943718, 1887436, 3774873, 7549747, 15099494, 30198988, 60397977, 120795955, 241591910, 483183820, 966367641
a(n) = [(9/10)*2^n]. - David W. Wilson, Jun 18 2009
[A266791] 1, 3, 7, 14, 29, 58, 117, 234, 468, 937, 1875, 3751, 7502, 15005, 30010, 60021, 120042, 240085, 480170, 960341, 1920682, 3841365, 7682730, 15365461, 30730922, 61461845, 122923690, 245847381, 491694762, 983389525, 1966779050, 3933558101, 7867116202
a(n) = (-(-1)^n+5627*2^(n-9)-3)/6 for n>9.
[A052997] 1, 3, 7, 14, 29, 58, 117, 234, 469, 938, 1877, 3754, 7509, 15018, 30037, 60074, 120149, 240298, 480597, 961194, 1922389, 3844778, 7689557, 15379114, 30758229, 61516458, 123032917, 246065834, 492131669, 984263338, 1968526677
a(n) = 2*a(n-1)+1 for even n, otherwise a(n) = 2*a(n-1), with a(0)=1, a(1)=3. [Bruno Berselli, Jun 19 2014]
[A267210] 1, 3, 7, 14, 29, 59, 118, 237, 475, 950, 1901, 3803, 7606, 15213, 30427, 60854, 121709, 243419, 486838, 973677, 1947355, 3894710, 7789421, 15578843, 31157686, 62315373, 124630747, 249261494, 498522989, 997045979, 1994091958, 3988183917, 7976367835
a(n) = 2*a(n-1)+a(n-3)-2*a(n-4) for n>3.
[A074988] 1, 3, 7, 14, 29, 59, 119, 238, 476, 953, 1907, 3814, 7629, 15259, 30519, 61038, 122077, 244154, 488309, 976618, 1953237, 3906475, 7812951, 15625902, 31251804, 62503609, 125007218, 250014436, 500028873, 1000057747, 2000115495
a(n+1)=2*a(n)+mu(n+1)^2 a(n)=sum(i=1, n, mu(i)^2*2^(n-i))
a(n)=sum{k=0..n, abs(mu(n-k+1))*2^k}; - Paul Barry, Jul 20 2005
[A265381] 1, 3, 7, 14, 29, 59, 119, 238, 477, 955, 1911, 3822, 7645, 15291, 30583, 61166, 122333, 244667, 489335, 978670, 1957341, 3914683, 7829367, 15658734, 31317469, 62634939, 125269879, 250539758, 501079517, 1002159035, 2004318071, 4008636142, 8017272285
a(n) = (-45+5*(-1)^n-(6-i*3)*(-i)^n-(6+3*i)*i^n+7*2^(4+n))/60 where i = sqrt(-1).
a(n) = 2*a(n-1)+a(n-4)-2*a(n-5) for n>4.
[A098582] 1, 3, 7, 15, 15, 31, 79, 191, 431, 671, 1167, 2431, 5487, 12383, 23119, 41791, 80687, 168479, 366607, 736511, 1405167, 2696159, 5391823, 11257535, 23041711, 45524383, 88662927, 174932095, 355052655, 723720031, 1452110159, 2870716991
a(n)=a(n-1)+16a(n-5); a(n)=sum{k=0..n, binomial(n-k, floor(k/4))2^k}.
[A075694] 1, 3, 7, 15, 19, 27, 31, 43, 51, 55, 63, 71, 75, 83, 95, 99, 103, 111, 115, 139, 159, 167, 179, 183, 199, 223, 231, 235, 243, 259, 267, 271, 283, 303, 311, 315, 319, 343, 351, 355, 363, 371, 375, 383, 395, 399, 403, 415, 423, 439, 447, 451, 463, 471, 487, 495
a(1)=1, a(n) = 2 nextprime(a(n-1))-a(n-1).
[A235699] 0, 1, 3, 7, 15, 21, 23, 27, 35, 41, 43, 47, 55, 61, 63, 67, 75, 81, 83, 87, 95, 101, 103, 107, 115, 121, 123, 127, 135, 141, 143, 147, 155, 161, 163, 167, 175, 181, 183, 187, 195, 201, 203, 207, 215, 221, 223, 227, 235, 241, 243, 247, 255, 261, 263, 267, 275, 281, 283, 287, 295, 301, 303, 307, 315, 321, 323, 327, 335, 341, 343, 347, 355
a(n) = 5*n-6+cos(n*Pi/2)+2*sin(n*Pi/2), for n>0. - Giovanni Resta, Jan 15 2014
[A182247] 0, 1, 3, 7, 15, 21, 31, 39, 47, 57, 75, 95, 111, 125, 143, 159, 191, 209, 243, 279, 319, 341, 383, 407, 447, 473, 507, 543, 575, 605, 639, 671, 703, 737, 803, 871, 943, 1013, 1087, 1127, 1199, 1273, 1323, 1407, 1455, 1533
a(0)=0, a(n)=(a(n-1)+n) OR n, where OR is the bitwise logical inclusive-OR operator.
[A229527] 1, 3, 7, 15, 22, 27, 37, 48, 61, 69, 85, 99, 118, 129, 142, 150, 157, 171, 181, 192, 205, 213, 220, 225, 235, 246, 259, 276, 292, 306, 316, 327, 340, 348, 364, 378, 397, 417, 430, 438, 454, 468, 487, 507, 520, 528, 544, 558, 577, 597
a(n+1) = a(n) + (sum of digits of a(n)) + 1.
[A181106] 1, 3, 7, 15, 23, 35, 47, 63, 79, 99, 119, 143, 167, 195, 223, 255, 287, 323, 359, 399, 439, 483, 527, 575, 623, 675, 727, 783, 839, 899, 959, 1023, 1087, 1155, 1223, 1295, 1367, 1443, 1519, 1599, 1679, 1763, 1847, 1935, 2023, 2115, 2207, 2303, 2399, 2499
a(n) = n^2 - 1 for n even; a(n) = n^2 - 2 for n odd.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).

[A011890] 0, 0, 0, 0, 3, 7, 15, 26, 42, 63, 90, 123, 165, 214, 273, 341, 420, 510, 612, 726, 855, 997, 1155, 1328, 1518, 1725, 1950, 2193, 2457, 2740, 3045, 3371, 3720, 4092, 4488, 4908, 5355, 5827, 6327, 6854, 7410
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-8) -3*a(n-9) +3*a(n-10) -a(n-11). G.f.: x^4*(3-2*x+3*x^2-x^3+2*x^4+x^6) / ((-1+x)^4*(1+x)*(1+x^2)*(1+x^4)). [From R. J. Mathar, Apr 15 2010]
[A001648] 1, 3, 7, 15, 26, 51, 99, 191, 367, 708, 1365, 2631, 5071, 9775, 18842, 36319, 70007, 134943, 260111, 501380, 966441, 1862875, 3590807, 6921503, 13341626, 25716811, 49570747, 95550687, 184179871, 355018116, 684319421, 1319068095, 2542585503, 4900991135
a(n) = trace of M^n, where M = the 4 X 4 matrix [0 1 0 0 / 0 0 1 0 / 0 0 0 1 / 1 1 1 1]. E.g. the trace (sum of diagonal terms) of M^12 = a(12) = 2631 = (108 + 316 + 717 + 1490). - Gary W. Adamson, Feb 22 2004
a(n)=n*sum(k=ceiling(n/5)..n, sum(i=0..(n-k)/4, (-1)^i*binomial(k,k-i)*binomial(n-i*4-1,k-1))/k), n>0. [Vladimir Kruchinin, Jan 20 2012]
[A051054] 0, 1, 3, 7, 15, 26, 54, 85, 159, 292, 513, 804, 1844, 2965, 5169, 10679, 20107, 34120, 72498, 126028, 245966, 498852, 913872, 1644570, 3600916, 6530881, 12280999, 25149973, 48355605, 89310576, 187976827, 348475899, 677303827
a(n) is asymptotic to 2^n/sqrt(n*Pi/2). - Benoit Cloitre, Jan 11 2003
[A097080] 3, 7, 15, 27, 43, 63, 87, 115, 147, 183, 223, 267, 315, 367, 423, 483, 547, 615, 687, 763, 843, 927, 1015, 1107, 1203, 1303, 1407, 1515, 1627, 1743, 1863, 1987, 2115, 2247, 2383, 2523, 2667, 2815, 2967, 3123, 3283, 3447, 3615, 3787, 3963, 4143, 4327, 4515, 4707
a(n) = 4*(n-1) + a(n-1) for n>1, a(1)=3. - Vincenzo Librandi, Nov 16 2010
[A147595] 1, 3, 7, 15, 27, 51, 99, 195, 387, 771, 1539, 3075, 6147, 12291, 24579, 49155, 98307, 196611, 393219, 786435, 1572867, 3145731, 6291459, 12582915, 25165827, 50331651, 100663299, 201326595, 402653187, 805306371, 1610612739, 3221225475
a(n+4) = 3*(2^(n+2) + 1), n >= 0. - Brad Clardy, Apr 03 2013
a(n) = 3*(4+2^n)/4 for n>3. a(n) = 3*a(n-1)-2*a(n-2). G.f.: -x*(2*x^2-1)*(2*x^2+1) / ((x-1)*(2*x-1)). - Colin Barker, Sep 15 2013
[A139806] 1, 3, 7, 15, 27, 55, 111, 223, 443, 887, 1775, 3551, 7099, 14199, 28399, 56799, 113595, 227191, 454383, 908767, 1817531, 3635063, 7270127, 14540255, 29080507, 58161015, 116322031, 232644063, 465288123, 930576247, 1861152495, 3722304991, 7444609979, 14889219959
a(n)=-(1/5-2/5*I)*I^n-(1/3)*(-1)^n+(26/15)*2^n-(1/5+2/5*I)*(-I)^n, with n>=0 and I=(-1)^(1/2). - Paolo P. Lava, Jun 03 2008
[A023552] 3, 7, 15, 28, 50, 86, 145, 241, 397, 650, 1060, 1724, 2799, 4539, 7355, 11912, 19286, 31218, 50525, 81765, 132313, 214102, 346440, 560568, 907035, 1467631, 2374695, 3842356, 6217082, 10059470, 16276585, 26336089, 42612709, 68948834, 111561580, 180510452
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
a(n) = -5 + (2^(-1-n)*((1-sqrt(5))^n*(-13+5*sqrt(5)) + (1+sqrt(5))^n*(13+5*sqrt(5)))) / sqrt(5) - n.
[A182640] 0, 1, 3, 7, 15, 29, 52, 91, 155, 259, 429, 705, 1152, 1876, 3049, 4948, 8022, 12996, 21045, 34070, 55146, 89249, 144429, 233714, 378181, 611934, 990156, 1602133, 2592333, 4194511, 6786891, 10981451, 17768392, 28749895, 46518341, 75268291, 121786689, 197055039
a(n)=n+floor(r*a(n-1)), r=(1+sqrt(5))/2, a(0)=0, a(1)=1.
[A192960] 1, 3, 7, 15, 29, 53, 93, 159, 267, 443, 729, 1193, 1945, 3163, 5135, 8327, 13493, 21853, 35381, 57271, 92691, 150003, 242737, 392785, 635569, 1028403, 1664023, 2692479, 4356557, 7049093, 11405709, 18454863, 29860635, 48315563, 78176265
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4).
[A080011] 1, 1, 1, 3, 7, 15, 29, 59, 126, 262, 542, 1121, 2328, 4839, 10039, 20827, 43220, 89704, 186172, 386345, 801768, 1663916, 3453137, 7166272, 14872078, 30863935, 64051787, 132926308, 275861116, 572492846, 1188091024, 2465638247
a(n) = a(n-1)+a(n-2)+a(n-3)+2*a(n-4)+3*a(n-5)-a(n-6)+a(n-8)-a(n-9)-a(n-10).
[A055795] 0, 1, 3, 7, 15, 30, 56, 98, 162, 255, 385, 561, 793, 1092, 1470, 1940, 2516, 3213, 4047, 5035, 6195, 7546, 9108, 10902, 12950, 15275, 17901, 20853, 24157, 27840, 31930, 36456, 41448, 46937, 52955, 59535, 66711, 74518, 82992, 92170, 102090, 112791, 124313, 136697
a(n+1) = C(n, 1) + C(n, 2) + C(n, 3) + C(n, 4). - James A. Sellers, Mar 16 2002
a(n) = n*(n^3-6*n^2+23*n-18)/24. - Gary Detlefs, Dec 08 2011
a(1)=0, a(2)=1, a(3)=3, a(4)=7, a(5)=15, a(n) = 5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Dec 07 2015
[A023610] 1, 3, 7, 15, 30, 58, 109, 201, 365, 655, 1164, 2052, 3593, 6255, 10835, 18687, 32106, 54974, 93845, 159765, 271321, 459743, 777432, 1312200, 2211025, 3719643, 6248479, 10482351, 17562870, 29391490, 49132669, 82048737, 136884293
a(n) = sum{k=0..n+1, (n-k+1)*C(n-k+1, k)} - Paul Barry, Nov 05 2005
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4), n>=4. - L. Edson Jeffery, Mar 29 2013
[A062544] 0, 1, 3, 7, 15, 30, 58, 110, 206, 383, 709, 1309, 2413, 4444, 8180, 15052, 27692, 50941, 93703, 172355, 317019, 583098, 1072494, 1972634, 3628250, 6673403, 12274313, 22575993, 41523737, 76374072, 140473832, 258371672, 475219608
a(n) = 3*a(n-1) - 2*a(n-2) - 1*a(n-4) + 1*a(n-5). - _Joerg Arndt, Apr 02 2011
[A224520] 0, 1, 3, 7, 15, 30, 60, 120, 240, 481, 963, 1927, 3855, 7710, 15420, 30840, 61680, 123361, 246723, 493447, 986895, 1973790, 3947580, 7895160, 15790320, 31580641, 63161283, 126322567, 252645135, 505290270, 1010580540
a(n) + a(n+4) = 2^(n+4) - 1.
a(n) = +3*a(n-1) -2*a(n-2) -1*a(n-4) +3*a(n-5) -2*a(n-6). (End)
[A098583] 1, 3, 7, 15, 31, 31, 63, 159, 383, 863, 1855, 2847, 4863, 9951, 22207, 49823, 109183, 200287, 355903, 674335, 1384959, 2979295, 6473151, 12882335, 24271231, 45849951, 90168639, 185506079, 392646911, 804881631, 1581561023, 3048759455
a(n)=a(n-1)+32a(n-6); a(n)=sum{k=0..n, binomial(n-k, floor(k/5))2^k}.
[A023424] 1, 3, 7, 15, 31, 57, 113, 223, 439, 863, 1695, 3333, 6553, 12883, 25327, 49791, 97887, 192441, 378329, 743775, 1462223, 2874655, 5651423, 11110405, 21842481, 42941187, 84420151, 165965647, 326279871, 641449337, 1261056193, 2479171199, 4873922247, 9581878847
a(n) = n * sum(k=1..n, 1/k*sum(r=0..k, binomial(k,r)*sum(m=0..r, binomial(r,m) * sum(j=0..m, binomial(m,j)*binomial(j,n-m-k-j-r))))), n>0. [Vladimir Kruchinin, Feb 22 2011]
[A276647] 1, 3, 7, 15, 31, 59, 107, 183, 303, 483, 755, 1151, 1735, 2571, 3787, 5511, 7999, 11507, 16547, 23631, 33783, 48027, 68411, 96983, 137839, 195075, 276883, 391455, 555175, 784427, 1111979, 1570599, 2225823, 3143187, 4453763, 6288623, 8909911, 12579771
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+6*a(n-4)-2*a(n-5) for n>4.
a(n) = (-25+2^((n-1)/2)*(24-24*(-1)^n+17*sqrt(2)+17*(-1)^n*sqrt(2))-4*(1+n)-2*(1+n)*(2+n)). Therefore:
a(n) = 17*2^(n/2+1)-2*n^2-10*n-33 for n even.
a(n) = 3*2^((n+7)/2)-2*n^2-10*n-33 for n odd. (End)
[A007574] 1, 3, 7, 15, 31, 60, 113, 207, 373, 663, 1167, 2038, 3537, 6107, 10499, 17983, 30703, 52272, 88769, 150407, 254321, 429223, 723167, 1216490, 2043361, 3427635, 5742463, 9609327, 16062463, 26821668, 44744657, 74576703, 124192237, 206650167, 343594479
a(n) = 4*a(n-1) -4*a(n-2) -2*a(n-3) +4*a(n-4) -a(n-6). G.f.: -x*(-1+x+x^2-x^3-x^4+2*x^5)/ ((x-1)^2 * (x^2+x-1)^2). [R. J. Mathar, Feb 06 2010]
[A057703] 0, 1, 3, 7, 15, 31, 62, 119, 218, 381, 637, 1023, 1585, 2379, 3472, 4943, 6884, 9401, 12615, 16663, 21699, 27895, 35442, 44551, 55454, 68405, 83681, 101583, 122437, 146595, 174436, 206367, 242824, 284273, 331211, 384167, 443703, 510415, 584934, 667927
a(n) = n^5/120-n^4/24+5*n^3/24+n^2/24+47*n/60.
a(n) = C[n, 5]+C[n, 4]+C[n, 3]+C[n, 2]+C[n, 1]. - Labos Elemer
[A224521] 0, 1, 3, 7, 15, 31, 62, 124, 248, 496, 992, 1985, 3971, 7943, 15887, 31775, 63550, 127100, 254200, 508400, 1016800, 2033601, 4067203, 8134407, 16268815, 32537631, 65075262, 130150524, 260301048, 520602096, 1041204192
a(n) + a(n+5) = 2^(n+5) - 1.
a(n) = +3*a(n-1) -2*a(n-2) -1*a(n-5) +3*a(n-6) -2*a(n-7). (End)
[A147596] 1, 3, 7, 15, 31, 63, 119, 231, 455, 903, 1799, 3591, 7175, 14343, 28679, 57351, 114695, 229383, 458759, 917511, 1835015, 3670023, 7340039, 14680071, 29360135, 58720263, 117440519, 234881031, 469762055, 939524103, 1879048199, 3758096391
a(n) = 7*(2^(n-3)+1) if n>=6. [From Hagen von Eitzen, Jun 02 2009]
a(n) = 3*a(n-1)-2*a(n-2). G.f.: -x*(2*x^2-1)*(4*x^4+2*x^2+1) / ((x-1)*(2*x-1)). - Colin Barker, Sep 15 2013
[A115567] 0, 1, 3, 7, 15, 31, 63, 126, 246, 465, 847, 1485, 2509, 4095, 6475, 9948, 14892, 21777, 31179, 43795, 60459, 82159, 110055, 145498, 190050, 245505, 313911, 397593, 499177, 621615, 768211, 942648, 1149016, 1391841, 1676115, 2007327, 2391495
a(n) = C(n,6) + C(n,5) + C(n,4) + C(n,3) + C(n,2) + C(n,1).
a(n) = n*(n + 1)*(n^4 - 10*n^3 + 65*n^2 - 140*n + 444)/720.

[A116082] 0, 1, 3, 7, 15, 31, 63, 127, 254, 501, 967, 1815, 3301, 5811, 9907, 16383, 26332, 41225, 63003, 94183, 137979, 198439, 280599, 390655, 536154, 726205, 971711, 1285623, 1683217, 2182395, 2804011, 3572223, 4514872, 5663889, 7055731, 8731847
a(n) = n*(n^6 - 14*n^5 + 112*n^4 - 350*n^3 + 1099*n^2 + 364*n + 3828)/5040. - Emeric Deutsch, Apr 14 2006
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8), with a(0)=0, a(1)=1, a(2)=3, a(3)=7, a(4)=15, a(5)=31, a(6)=63, a(7)=127. - Harvey P. Dale, Aug 05 2011
[A105754] 1, 3, 7, 15, 31, 63, 127, 255, 502, 1003, 2003, 3999, 7983, 15935, 31807, 63487, 126719, 252936, 504869, 1007735, 2011471, 4014959, 8013983, 15996159, 31928831, 63730943, 127208950, 253913031, 506818327, 1011625183, 2019235407
a(n)=sum_{k=1..8} a(n-k) for n>0, a(0)=8, a(n)=-1 for n=-7..-1
[A116690] 0, 1, 3, 7, 15, 31, 63, 127, 255, 510, 1012, 1980, 3796, 7098, 12910, 22818, 39202, 65535, 106761, 169765, 263949, 401929, 600369, 880969, 1271625, 1807780, 2533986, 3505698, 4791322, 6474540, 8656936, 11460948, 15033172, 19548045
a(n) = n*(n+1)*(25584 - 9604*n + 5264*n^2 - 1295*n^3 + 231*n^4 - 21*n^5 + n^6)/40320. - G. C. Greubel, Nov 25 2017
[A267258] 1, 3, 7, 15, 31, 63, 127, 255, 510, 1021, 2042, 4085, 8170, 16341, 32682, 65365, 130730, 261461, 522922, 1045845, 2091690, 4183381, 8366762, 16733525, 33467050, 66934101, 133868202, 267736405, 535472810, 1070945621, 2141891242, 4283782485, 8567564970
a(n) = (383*2^n-32*((-1)^n+3))/192 for n>5.
[A105755] 1, 3, 7, 15, 31, 63, 127, 255, 511, 1013, 2025, 4047, 8087, 16159, 32287, 64511, 128895, 257535, 514559, 1028105, 2054185, 4104323, 8200559, 16384959, 32737631, 65410751, 130692607, 261127679, 521740799, 1042453493, 2082852801
a(n) = sum(k=1..9, a(n-k)) for n>0, a(0)=9, a(n)=-1 for n=-8..-1
a(n)=n*sum(k=1..n, sum(i=0..(n-k)/9, (-1)^i*binomial(k,k-i)*binomial(n-9*i-1,k-1))/k). - Vladimir Kruchinin, Aug 10 2011
[A126646] 1, 3, 7, 15, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647
a(n) = 3*a(n-1)-2*a(n-2), n>1. - Wesley Ivan Hurt, Aug 21 2015
[A000225] 0, 1, 3, 7, 15, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295
a(n) = Sum_{k=0..n-1} 2^k. - Paul Barry, May 26 2003
a(n) = a(n-1)+2a(n-2)+2, a(0)=0, a(1)=1. - Paul Barry, Jun 06 2003
a(n+1) = 2*a(n) + 1, a(0) = 0.
a(n) = Sum_{k=1..n} binomial(n, k).
a(n) = n + Sum_{i=0..n-1} a(i); a(0) = 0. - Rick L. Shepherd, Aug 04 2004
a(n+1) = (n+1)*Sum_{k=0..n} binomial(n, k)/(k+1). - Paul Barry, Aug 06 2004
[A168604] 1, 3, 7, 15, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295, 8589934591
a(n) = 3*a(n-1) - 2*a(n-2). - Arkadiusz Wesolowski, Jun 14 2013
[A123121] 1, 3, 7, 15, 31, 63, 127, 255, 511, 1024, 2050, 4102, 8206, 16414, 32830, 65662, 131326, 262654, 525310, 1050622, 2101246, 4202494, 8404990, 16809982, 33619966, 67239934, 134479870, 268959742, 537919486, 1075838974, 2151677950, 4303355902, 8606711806
a(n) = 2*a(n-1) + ceiling(log_10(n+1)).
[A178460] 0, 0, 0, 0, 0, 0, 1, 3, 7, 15, 31, 63, 127, 256, 514, 1030, 2062, 4126, 8254, 16510, 33023, 66049, 132101, 264205, 528413, 1056829, 2113661, 4227326, 8454656, 16909316, 33818636, 67637276
a(n)=round((14*2^n-127*n+75)/889).
a(n)=floor((14*2^n-127*n+284)/889).
a(n)=ceil((14*2^n-127*n-134)/889).
a(n)=round((14*2^n-127*n-14)/889).
a(n)=a(n-7)+2^(n-6)-1 , n>6.
a(n)=3*a(n-1)-2*a(n-2)+a(n-7)-3*a(n-8)+2*a(n-9), n>9.
[A178459] 0, 0, 0, 0, 1, 3, 7, 15, 31, 64, 130, 262, 526, 1054, 2111, 4225, 8453, 16909, 33821, 67646, 135296, 270596, 541196, 1082396, 2164797, 4329599, 8659203, 17318411, 34636827, 69273660, 138547326, 277094658, 554189322, 1108378650, 2216757307, 4433514621, 8867029249, 17734058505, 35468117017, 70936234042
a(n)=round((10*2^n-31*n-7)/155).
a(n)=floor((10*2^n-31*n+22)/155).
a(n)=ceil((10*2^n-31*n-36)/155).
a(n)=round((10*2^n-31*n-10)/155).
a(n)=a(n-5)+2^(n-4)-1 , n>4
[A099444] 1, 3, 7, 15, 32, 69, 149, 321, 691, 1488, 3205, 6903, 14867, 32019, 68960, 148521, 319873, 688917, 1483735, 3195552, 6882329, 14822619, 31923791, 68754951, 148079008, 318920925, 686866813, 1479319737, 3186042539, 6861847920
a(n) = sum{k=0..floor(n/2), binomial(n-k, k)(-1)^k*Fib(2(n-2k)+2)};
a(n) = sum{k=0..n, binomial((n+k)/2, k)(-1)^((n-k)/2)(1+(-1)^(n+k))Fib(2k+2)/2};
[A137166] 1, 3, 7, 15, 32, 70, 156, 349, 778, 1728, 3833, 8505, 18884, 41943, 93160, 206897, 459459, 1020311, 2265815, 5031792, 11174374, 24815508, 55108933, 122382762, 271780616, 603555049, 1340341377, 2976555532, 6610168495, 14679492624
a(n) = 4*a(n-1)-6*a(n-2)+5*a(n-3)-a(n-4). - R. J. Mathar, Apr 09 2008
[A101890] 0, 0, 1, 3, 7, 15, 32, 70, 157, 357, 815, 1859, 4232, 9620, 21853, 49635, 112747, 256139, 581944, 1322210, 3004145, 6825557, 15507867, 35234183, 80052656, 181881000, 413236953, 938882307, 2133159119, 4846579847, 11011525360
a(n)=4a(n-1)-5a(n-2)+2a(n-3)+a(n-4);
a(n)=sum{k=0..n, binomial(n, k)(F(k/2)(1+(-1)^k)/2}.
[A249512] 1, 1, 3, 7, 15, 33, 75, 169, 375, 835, 1875, 4203, 9375, 20931, 46875, 104919, 234375, 523737, 1171875, 2621545, 5859375, 13098001, 29296875, 65523597, 146484375, 327500413, 732421875, 1637918089
a(n) = sum(k = 1..n, k*4^(n-k)*binomial(n/2,n-k))/n, a(0)=1.
a(n) = 3 * 5^(n/2-1) if n is even and n>0 else a(n) = ((4^(n-1)* binomial(n/2, n-1)*hypergeometric([2, 1-n],[2-n/2], -1/4))/n). - Peter Luschny, Oct 31 2014
[A136029] 1, 1, 1, 3, 7, 15, 33, 75, 171, 391, 899, 2077, 4815, 11195, 26097, 60975, 142751, 334791, 786419, 1849905, 4357121, 10274313, 24252923, 57305241, 135521807, 320758587, 759757139, 1800838381, 4271267043, 10136815015, 24070870545
a(n) = 1+sum(k=1..floor((n-1)/2), sum(i=1..min(n-2*k,k), C(n-2*k+1,i) * C(k-1,k-i) * C(n-k-i,k))). - Shanzhen Gao, May 13 2011
[A077946] 1, 1, 3, 7, 15, 35, 79, 179, 407, 923, 2095, 4755, 10791, 24491, 55583, 126147, 286295, 649755, 1474639, 3346739, 7595527, 17238283, 39122815, 88790435, 201512631, 457339131, 1037945263, 2355648787, 5346217575, 12133405675, 27537138399, 62496384899, 141837473047
a(n) = leftmost term in M^n * [1 0 0], where M = the 3X3 matrix [1 1 1 / 2 0 0 / 0 1 0]. a(n) = a(n-1) + 2*a(n-2) + 2*a(n-3). a(n)/a(n-1) tends to 2.26953084..., an eigenvalue of M and a root of the characteristic polynomial x^3 - x^2 - 2x - 2. a(6) = 79 = 35 + 2*15 + 2*7 = a(5) + 2*a(4) + 2*a(3). - Gary W. Adamson, Dec 21 2004
[A167539] 1, 3, 7, 15, 36, 87, 211, 519, 1285, 3198, 7998, 20079, 50571, 127725, 323367, 820407, 2085306, 5309169, 13537045, 34561890, 88347091, 226079208, 579110262, 1484766015, 3809948461, 9783998877, 25143452881, 64658016249, 166375274790
a(n) = Sum_{k=0..n-1} Sum_{j=0..k} C(n-k+j,n-k)*n/(n-k+j) * C(n-k,k-j)*C(k-j,j).
[A290470] 3, 7, 15, 59, 143, 367, 1039, 2755, 7395, 20007, 53727, 144635, 389535, 1048159, 2821535, 7595267, 20443523, 55029319, 148125295, 398712379, 1073232175, 2888862159, 7776059055, 20931132355, 56341155043, 151655701607, 408217663167, 1098815603707, 2957725352255
a(n) = a(n-1) + 2*a(n-2) + 6*a(n-3) + 2*a(n-4) + 2*a(n-5) - 2*a(n-6) - 2*a(n-7) - a(n-8) + a(n-9) for n > 9.
[A036666] 0, 3, 7, 16, 24, 39, 51, 72, 88, 115, 135, 168, 192, 231, 259, 304, 336, 387, 423, 480, 520, 583, 627, 696, 744, 819, 871, 952, 1008, 1095, 1155, 1248, 1312, 1411, 1479, 1584, 1656, 1767, 1843, 1960, 2040, 2163, 2247, 2376, 2464, 2599, 2691
a(n) = ((5k+1)^2-1)/5 if n is odd; a(n) = ((5k+4)^2-1)/5 if n is even.
a(2n) = n(5n+2), a(2n+1) = 5*n^2 + 8n + 3. - Mohamed Bouhamida (bhmd95(AT)yahoo.fr), Nov 06 2007
a(n) = n^2 + n + ceiling(n/2)^2, (with offset 0). - Gary Detlefs, Feb 23 2010

a(n) = (10*n*(n-1)+(2*n-1)*(-1)^n+1)/8. [Bruno Berselli, Nov 27 2010]
[A211379] 0, 0, 0, 3, 7, 16, 27, 45, 66, 96, 130, 175, 225, 288, 357, 441, 532, 640, 756, 891, 1035, 1200, 1375, 1573, 1782, 2016, 2262, 2535, 2821, 3136, 3465, 3825, 4200, 4608, 5032, 5491, 5967, 6480, 7011, 7581, 8170, 8800, 9450, 10143, 10857, 11616, 12397, 13225
a(n) = 1/2*n*(binomial(1/2*(n-2),2)+binomial(1/2*(n-4),2)) = 1/8*n*(n-4)^2 for n even;
a(n) = n*binomial(1/2*(n-3),2) = 1/8*n*(n-3)*(n-5) for n odd.
[A084631] 1, 3, 7, 16, 33, 61, 107, 178, 286, 442, 663, 969, 1384, 1938, 2664, 3605, 4807, 6325, 8222, 10571, 13455, 16965, 21206, 26295, 32364, 39556, 48032, 57970, 69564, 83028, 98595, 116522, 137085, 160585, 187349, 217730, 252109, 290895, 334529, 383484
a(n)=floor(n^6/20160+11n^5/6720+89n^4/4032+209n^3/1344+6077n^2/10080+341n/280)+1
[A192968] 0, 1, 1, 3, 7, 16, 33, 64, 118, 210, 364, 619, 1038, 1723, 2839, 4653, 7597, 12370, 20103, 32626, 52900, 85716, 138826, 224773, 363852, 588901, 953053, 1542279, 2495683, 4038340, 6534429, 10573204, 17108098, 27681798, 44790424, 72472783
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A014668] 1, 1, 3, 7, 16, 33, 71, 143, 295, 594, 1206, 2413, 4871, 9743, 19559, 39138, 78428, 156857, 314047, 628095, 1256809, 2513693, 5028594, 10057189, 20116979, 40233975, 80472823, 160945945, 321901713, 643803427, 1287627061, 2575254123, 5150547536, 10301096282
a(n) is asymptotic to c*2^n where c = 0.599607313614500338969 34...
a(n+1) = Sum_{k=1..n} a(k)*floor(n/k). - Franklin T. Adams-Watters, Mar 21 2017
[A178455] 0, 0, 0, 1, 3, 7, 16, 34, 70, 143, 289, 581, 1166, 2336, 4676, 9357, 18719, 37443, 74892, 149790, 299586, 599179, 1198365, 2396737, 4793482, 9586972, 19173952, 38347913, 76695835, 153391679, 306783368, 613566746, 1227133502
a(n)=round((12*2^n-14*n-15)/42).
a(n)=round((6*2^n-7*n-5)/21).
a(n)=round((6*2^n-7*n-10)/21).
a(n)=round((6*2^n-7*n-6)/21).
a(n)=a(n-3)+2^(n-2)-1, n>2.
a(n)=3*a(n-1)-2*a(n-2)+a(n-3)-3*a(n-4)+2*a(n-5), n>4.
[A238089] 0, 0, 0, 1, 3, 7, 16, 34, 73, 152, 318, 657, 1356, 2784, 5703, 11647, 23740, 48290, 98073, 198887, 402837, 815032, 1647424, 3327112, 6714352, 13540995, 27292175, 54978561, 110697947, 222790629, 448211668, 901392243, 1812185325, 3642182184, 7318157714
a(n) = Sum_{i>=2} x^(i+1)/(1-Sum_{j=2..i-1} x^j)/(1 - Sum{k=1..i-1} x^k)/(1 - Sum_{m=1..i} x^m).
[A133124] 1, 3, 7, 16, 35, 74, 153, 312, 631, 1270, 2549, 5108, 10227, 20466, 40945, 81904, 163823, 327662, 655341, 1310700, 2621419, 5242858, 10485737, 20971496, 41943015, 83886054, 167772133, 335544292, 671088611, 1342177250, 2684354529, 5368709088, 10737418207, 21474836446
a(n) = 5*2^(n-1) - (n+1), for n >= 1.
[A104004] 1, 3, 7, 16, 35, 75, 158, 329, 679, 1392, 2839, 5767, 11678, 23589, 47555, 95720, 192427, 386451, 775486, 1555153, 3117071, 6245088, 12507887, 25044431, 50135230, 100345485, 200812363, 401821144, 803960099, 1608434427, 3217700894, 6436748057
a(n) = 3*2^n - Fibonacci(n+3). - Ralf Stephan, May 20 2007
a(n) = (3*2^n - (2^(-n)*((1-sqrt(5))^n*(-2+sqrt(5)) + (1+sqrt(5))^n*(2+sqrt(5)))) / sqrt(5)). - Colin Barker, Aug 18 2017
[A101509] 1, 3, 7, 16, 35, 75, 159, 334, 696, 1442, 2976, 6123, 12562, 25706, 52492, 107014, 217877, 443061, 899957, 1826078, 3701783, 7498261, 15178255, 30706320, 62085915, 125465715, 253415981, 511608490, 1032427637, 2082680887, 4199956101, 8467124805, 17064784905, 34382825363, 69256687719, 139465867773
a(n) = Sum_{k=0..n, Sum_{i=0..n, if(mod(i+1, k+1)=0, binomial(n, i), 0)}}.
[A099325] 1, 3, 7, 16, 35, 76, 162, 344, 723, 1516, 3158, 6568, 13598, 28120, 57956, 119344, 245123, 503116, 1030542, 2109704, 4311786, 8808328, 17969372, 36644176, 74640430, 151985016, 309170332, 628741264, 1277540828, 2595198256
a(n) = sum{k=0..n, (k+1)*binomial(n, (n-k)/2)*binomial(k+2, 2)*(1+(-1)^(n-k))/(n+k+2)}.
a(n) = 2^n + sum{k=0..floor((n-1)/2), (2*n-4*k-1)*binomial(n, k)}. - Nathaniel Johnston, Apr 20 2011
a(n) = M^n*V topmost term. M = an infinite tridiagonal matrix with all 1's in the super and subdiagonals, [1,0,0,0,...] as the main diagonal; and the rest zeros. V = the vector [1,2,3,...]. - Gary W. Adamson, Jan 30 2012
[A173514] 1, 1, 3, 7, 16, 36, 79, 172, 373, 806, 1742, 3762, 8123, 17538, 37864, 81745, 176480, 381003, 822545, 1775788, 3833737, 8276627, 17868350, 38575848, 83281109, 179794961, 388157989, 837991360, 1809133237, 3905724120, 8432038385
a(n) = 2*a(n - 1) + a(n - 2) - Floor[a(n - 2)/2] - Floor[a) n - 4]/2] - Floor[a(n - 5)/2].
[A045891] 1, 1, 3, 7, 16, 36, 80, 176, 384, 832, 1792, 3840, 8192, 17408, 36864, 77824, 163840, 344064, 720896, 1507328, 3145728, 6553600, 13631488, 28311552, 58720256, 121634816, 251658240, 520093696, 1073741824, 2214592512, 4563402752
a(n) = (n+4)*2^(n-3), n >= 2; a(0)=1=a(1).
a(n) = (n+4)*2^(n-3)+3C(0, n)/4-C(1, n)/4; a(n) = sum{k=0..floor(n/2), C(n, 2k)(k+1)}. - Paul Barry, Nov 29 2004
a(n) = Sum_{k=0..n} (k+1)*C(n-2,n-k). Peter Luschny, Apr 20 2015
[A019489] 3, 7, 16, 36, 80, 177, 391, 863, 1904, 4200, 9264, 20433, 45067, 99399, 219232, 483532, 1066464, 2352161, 5187855, 11442175, 25236512, 55660880, 122763936, 270764385, 597189651, 1317143239, 2905050864, 6407291380, 14131726000, 31168502865, 68744297111
a(n+1) = ceiling(a(n)^2/a(n-1))-1 for n>0. - Bruno Berselli, Feb 15 2016
[A218983] 3, 7, 16, 36, 81, 182, 407, 911, 2038, 4558, 10192, 22791, 50963, 113957, 254816, 569786, 1274081, 2848932, 6370406, 14244661, 31852031, 71223307, 159260157, 356116538, 796300787, 1780582691, 3981503937, 8902913456
a(n) = ceiling(x*a(n-1)), where x=sqrt(5), a(0) = ceiling(x).
[A033303] 1, 3, 7, 16, 36, 81, 182, 409, 919, 2065, 4640, 10426, 23427, 52640, 118281, 265775, 597191, 1341876, 3015168, 6775021, 15223334, 34206521, 76861355, 172705897, 388066628, 871977798, 1959316327
a(0)=1, a(1)=h(n), and a(n)=h(n)+h(n-1) for n>=2, where h(n) = sum(k=1..n, sum(j=0..k, binomial(k,j) * binomial(j,n-3*k+2*j) * 2^(3*k-n-j) * (-1)^(k-j))). - Vladimir Kruchinin, Sep 09 2010
a(0)=1, a(1)=3, a(2)=7, a(n)=2*a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Oct 31 2013
[A124671] 1, 3, 7, 16, 37, 85, 191, 418, 893, 1871, 3863, 7892, 16005, 32297, 64959, 130374, 261309, 523299, 1047415, 2095800, 4192741, 8386813, 16775167, 33552106, 67106237, 134214775, 268432151, 536867228, 1073737733, 2147479121, 4294962303, 8589929102, 17179863165
a(n) = 6*a(n-1)-14*a(n-2)+16*a(n-3)-9*a(n-4)+2*a(n-5) for n>4. - Vincenzo Librandi, Mar 15 2014
a(n) = -2 + 2^(1+n) - (5*n)/6 - n^3/6. - Colin Barker, Jul 21 2017
[A188626] 1, 3, 7, 16, 37, 86, 199, 456, 1033, 2314, 5131, 11276, 24589, 53262, 114703, 245776, 524305, 1114130, 2359315, 4980756, 10485781, 22020118, 46137367, 96469016, 201326617, 419430426, 872415259, 1811939356, 3758096413
a(n)= n+(n-1)2^(n-2).
[A123392] 0, 0, 0, 1, 1, 3, 7, 16, 37, 86, 199, 461, 1068, 2474, 5731, 13276, 30754, 71242, 165033, 382301, 885605, 2051515, 4752360, 11008901, 25502256, 59076293, 136850967, 317016966, 734373742, 1701185901, 3940818284, 9128954536, 21147336648
a(n) = Sum_{k=0..n} C(n-k,k)*F(n-k+1). - Paul Barry, Mar 01 2010
[A095263] 1, 3, 7, 16, 37, 86, 200, 465, 1081, 2513, 5842, 13581, 31572, 73396, 170625, 396655, 922111, 2143648, 4983377, 11584946, 26931732, 62608681, 145547525, 338356945, 786584466, 1828587033, 4250949112, 9882257736, 22973462017, 53406819691
a(n)=sum{k=0..floor((n+1)/2), binomial(n+k, n-2k+1)}; a(n)=sum{k=0..floor((n+1)/2), binomial(n+k, 3k-1)}. - Paul Barry, Jul 06 2004
[A010912] 3, 7, 16, 37, 86, 200, 465, 1081, 2513, 5842, 13581, 31572, 73396, 170625, 396655, 922111, 2143648, 4983377, 11584946, 26931732, 62608681, 145547525, 338356945, 786584466, 1828587033, 4250949112, 9882257736, 22973462017, 53406819691, 124155792775
a(n) = 3*a(n-1) - 2*a(n-2) + a(n-3) (holds at least up to n = 1000 but is not known to hold in general).
[A192665] 1, 1, 1, 3, 7, 16, 37, 88, 207, 496, 1196, 2900, 7075, 17344, 42693, 105473, 261397, 649638, 1618527, 4041401, 10111385, 25343883, 63627940, 159982510, 402802976, 1015454569, 2562911901, 6475519561, 16377581829, 41459980288, 105047450207, 266375717828, 675980743615
a(n) = floor(sqrt(binomial(3*n,n)/(2*n+1))).
[A052967] 1, 1, 3, 7, 16, 38, 89, 209, 491, 1153, 2708, 6360, 14937, 35081, 82391, 193503, 454460, 1067342, 2506753, 5887345, 13826983, 32473969, 76268168, 179122960, 420687105, 988023201, 2320465339, 5449830919, 12799440072, 30060687862
a(n) = Sum_{k=0..n}(Sum_{l=0..k}(binomial(k,l)*Sum_{i=0..n-k-l}(binomial(l,i)*binomial(n-i-2*l-1,n-k-i-l)))). - Vladimir Kruchinin, Mar 16 2016

[A293065] 0, 0, 0, 1, 3, 7, 16, 38, 94, 239, 617, 1605, 4190, 10956, 28668, 75037, 196431, 514243, 1346284, 3524594, 9227482, 24157835, 63246005, 165580161, 433494458, 1134903192, 2971215096, 7778742073, 20365011099, 53316291199, 139583862472, 365435296190, 956722026070
a(n) = 5*a(n-1) - 8*a(n-2) + 5*a(n-3) - a(n-4), n >= 5.
[A227235] 1, 3, 7, 16, 38, 96, 262, 767, 2346, 7315, 22954, 72239, 228484, 730470, 2379669, 7960733, 27453387, 97418566, 353442491, 1300699953, 4821108695, 17903653177, 66375491706, 245111697148, 900578294735, 3292301955863, 11991348060873, 43624020578230, 159059383244035, 583396507916927
a(n) = Sum_{k=1..n} binomial(prime(k) + n-k-1, n-k).
[A152090] 1, 1, 1, 3, 7, 16, 39, 91, 217, 513, 1216, 2881, 6825, 16171, 38311, 90768, 215047, 509491, 1207089, 2859841, 6775552, 16052673, 38032081, 90105811, 213479175, 505776016, 1198287271, 2838988683, 6726147337, 15935624641, 37754768064
a(n) = a(n-1) +3*a(n-2) +a(n-3) -a(n-4) for n>4.
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), n >= 1, where alpha = 1/4*(1 + sqrt(21)), beta = 1/4*(1 - sqrt(21)) and where T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = U(n-1,1/4*(1 + sqrt(-3)))*U(n-1,1/4*(1 - sqrt(-3))) for n >= 1, where U(n,x) denotes the Chebyshev polynomial of the second kind.
[A190528] 1, 3, 7, 16, 39, 92, 219, 521, 1238, 2944, 6999, 16640, 39562, 94058, 223623, 531663, 1264027, 3005221, 7144904, 16986989, 40386518, 96018831, 228284497, 542745740, 1290376448, 3067866323, 7293843428, 17341091936, 41228396592, 98020395245
a(0)=1, a(1)=3, a(2)=7, a(3)=16, a(4)=39, a(n)=2*a(n-1)+a(n-2)- a(n-4)+ a(n-5) [From Harvey P. Dale, Sep 20 2011]
[A014140] 1, 3, 7, 16, 39, 104, 301, 927, 2983, 9901, 33615, 116115, 406627, 1440039, 5147891, 18550588, 67310955, 245716112, 901759969, 3325067016, 12312494483, 45766188970, 170702447097, 638698318874, 2396598337975, 9016444758528, 34003644251233, 128524394659942, 486793096819011
a(n) = Sum[Sum[(2k)!/k!/(k+1)!,{k,0,m}],{m,0,n}]. a(n) = Sum[(n+1-k)*(2k)!/k!/(k+1)!,{k,0,n}]. - Alexander Adamchuk, Jul 04 2006
[A036567] 3, 7, 16, 41, 101, 247, 613, 1529, 3821, 9539, 23843, 59611, 149015, 372539, 931327, 2328307, 5820767, 14551919, 36379789, 90949471, 227373677, 568434193, 1421085473, 3552713687, 8881784201, 22204460497, 55511151233, 138777878081
a(n) is the smallest number >= 2.5^n that is relatively prime to all previous terms in the sequence.
[A041077] 1, 1, 3, 7, 17, 24, 305, 329, 963, 2255, 5473, 7728, 98209, 105937, 310083, 726103, 1762289, 2488392, 31622993, 34111385, 99845763, 233802911, 567451585, 801254496, 10182505537, 10983760033, 32150025603, 75283811239, 182717648081, 258001459320, 3278735159921
a(n) = 322*a(n-6)-a(n-12). G.f.: -(x^10-x^9+3*x^8-7*x^7+17*x^6-24*x^5-17*x^4-7*x^3-3*x^2-x-1)/((x^2-3*x+1)*(x^2+3*x+1)*(x^4-3*x^3+8*x^2-3*x+1)*(x^4+3*x^3+8*x^2+3*x+1)). [Colin Barker, Jul 18 2012]
[A178521] 0, 0, 3, 7, 17, 35, 70, 134, 251, 461, 835, 1495, 2652, 4668, 8163, 14195, 24565, 42331, 72674, 124354, 212155, 360985, 612743, 1037807, 1754232, 2959800, 4985475, 8384479, 14080601, 23614931, 39556030, 66181310, 110608187, 184670693, 308030923, 513334855
a(n) = (n-1)*F(n) + n*F(n-1). - Bruno Berselli, Dec 06 2013
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-4). - Wesley Ivan Hurt, Dec 14 2016
a(n) = (n+1)*F(n+1) - F(n+2). - Bruno Berselli, Jul 26 2017
a(n) = (2^(-1-n)*(2*sqrt(5)*((1-sqrt(5))^n - (1+sqrt(5))^n) + (-(1-sqrt(5))^n*(-5+sqrt(5)) + (1+sqrt(5))^n*(5+sqrt(5)))*n))/5. - Colin Barker, Jul 26 2017
[A295146] 1, 3, 7, 17, 36, 76, 156, 317, 639, 1284, 2574, 5155, 10317, 20642, 41292, 82594, 165197, 330405, 660820, 1321652, 2643315, 5286643, 10573298, 21146610, 42293233, 84586481, 169172976
a(n+1)/a(n) -> 2.
[A014314] 0, 1, 3, 7, 17, 36, 82, 169, 373, 760, 1646, 3334, 7130, 14392, 30500, 61429, 129293, 260016, 544342, 1093546, 2279470, 4575736, 9504188, 19067162, 39486402, 79180816, 163561932, 327866764, 675791828, 1354258096, 2786074952, 5581844749, 11464229693, 22963817056, 47094437222, 94318519234, 193174606118
a(n) = 2^(n-1) + (n-1)* binomial(n, (n-1)/2)/2 if n is odd. (End)
[A089116] 0, 1, 3, 7, 17, 37, 77, 158, 314, 611, 1174, 2222, 4156, 7703, 14149, 25790, 46703, 84059, 150476, 268076, 475460, 839873, 1478140, 2592620, 4533157, 7903261, 13741783, 23833789, 41241117, 71206561, 122693568, 211003818, 362221854
a(n) = +3*a(n-1) -4*a(n-3) -3*a(n-4) +3*a(n-5) +7*a(n-6) -3*a(n-7) -3*a(n-8) +4*a(n-9) -3*a(n-11) -a(n-12). - R. J. Mathar, Jan 25 2011
[A026396] 3, 7, 17, 37, 87, 187, 437, 937, 2187, 4687, 10937, 23437, 54687, 117187, 273437, 585937, 1367187, 2929687, 6835937, 14648437, 34179687, 73242187, 170898437, 366210937, 854492187, 1831054687, 4272460937, 9155273437, 21362304687, 45776367187, 106811523437
a(n) = (7*5^(n/2) - 1)/2 for n even.
a(n) = (6*5^((n+1)/2) - 2)/4 for n odd.
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3) for n>2.
[A119587] 0, 1, 1, 3, 7, 17, 39, 87, 189, 403, 847, 1761, 3631, 7439, 15165, 30795, 62343, 125905, 253783, 510759, 1026685, 2061731, 4136991, 8295873, 16627167, 33311647, 66716029, 133582107, 267406999, 535206833, 1071049287
a(n)=1+2^n-[1/2+(1/2)*sqrt(5)]^n-(1/5)*[1/2+(1/2)*sqrt(5)]^n*sqrt(5)+(1/5)*sqrt(5)*[1/2-(1/2) *sqrt(5)]^n-[1/2-(1/2)*sqrt(5)]^n, with n>=0 [From Paolo P. Lava, Oct 07 2008]
[A127984] 1, 3, 7, 17, 39, 89, 199, 441, 967, 2105, 4551, 9785, 20935, 44601, 94663, 200249, 422343, 888377, 1864135, 3903033, 8155591, 17010233, 35418567, 73633337, 152859079, 316902969, 656175559, 1357090361, 2803659207, 5786275385, 11930464711, 24576757305
a(n) = (n/3 + 7/9)*2^(n - 1) + (-1)^n/9.
a(n) = 3*a(n-1) - 4*a(n-3). (End)
a(n) = a(n-1) + a(n-2) + 2^(n-2), n >= 1, with inputs a(-1) = 0, a(0) = 1/2.
[A106472] 1, 3, 7, 17, 40, 92, 208, 464, 1024, 2240, 4864, 10496, 22528, 48128, 102400, 217088, 458752, 966656, 2031616, 4259840, 8912896, 18612224, 38797312, 80740352, 167772160, 348127232, 721420288, 1493172224, 3087007744, 6375342080
a(0)=1, a(1)=3, and a(n) = (3*n + 8)*2^(n-3), for n>=2.
[A249753] 1, 3, 7, 17, 40, 99, 246, 642, 1690, 4554, 12436, 34132, 95230, 263934, 744956, 2075132, 5892430, 16456014, 46871196, 131068572, 373897870, 1046231694, 2986898716, 8360588572, 23878057870, 66847653774, 190955945756, 534633021212, 1527373517710, 4276471354254
a(0) = 1;
a(1) = 3;
a(2) = 7;
a(2k+1) = (140 2^(3k) + 318 2^(2k) + 60 2^(k) - 48 + 16 (-1)^(k)) / 144, for k > 0;
a(2k) = (50 2^(3k) + 147 2^(2k) + 60 2^(k) - 48 + 16 (-1)^(k)) / 144, for k > 1.
[A192674] 1, 1, 3, 7, 17, 41, 94, 220, 515, 1209, 2845, 6711, 15861, 37549, 89015, 211287, 502051, 1194083, 2842413, 6771220, 16141369, 38501639, 91888052, 219411132, 524154756, 1252695124, 2995034616, 7163349548, 17138661276, 41017945745, 98196952422, 235147807457, 563242204233
a(n) = floor(sqrt(centralDelannoy(n))).
[A001333] 1, 1, 3, 7, 17, 41, 99, 239, 577, 1393, 3363, 8119, 19601, 47321, 114243, 275807, 665857, 1607521, 3880899, 9369319, 22619537, 54608393, 131836323, 318281039, 768398401, 1855077841, 4478554083, 10812186007, 26102926097, 63018038201, 152139002499
a(n) = 2a(n-1) + a(n-2);
a(n) = ((1-sqrt(2))^n + (1+sqrt(2))^n)/2.
a(n) = Sum_{k=0..floor(n/2)} binomial(n, 2k)2^k. - Paul Barry, May 13 2003
a(n) = upper left and lower right terms of [1,1; 2,1]^n. - Gary W. Adamson, Mar 12 2008
a(-n) = (-1)^n * a(n). - Michael Somos, Sep 02 2012
[A078057] 1, 3, 7, 17, 41, 99, 239, 577, 1393, 3363, 8119, 19601, 47321, 114243, 275807, 665857, 1607521, 3880899, 9369319, 22619537, 54608393, 131836323, 318281039, 768398401, 1855077841, 4478554083, 10812186007, 26102926097, 63018038201, 152139002499, 367296043199, 886731088897
a(n) = 2*a(n-1) + a(n-2); a(0)=1; a(1)=3. - Wayne VanWeerthuizen, May 02 2004
a(n) = 2*a(n-1) + a(n-2); a(n+1)/a(n) tends to silver ratio 1+sqrt(2) as n tends to infinity. - Shiva Samieinia (shiva(AT)math.su.se), Oct 08 2007
a(n) = (1/2)*[1+sqrt(2)]^n-(1/2)*sqrt(2)*[1-sqrt(2)]^n+(1/2)*[1-sqrt(2)]^n+(1/2)*[1+sqrt(2)]^n *sqrt(2), with n>=0. - Paolo P. Lava, Nov 20 2008
[A089742] 1, 3, 7, 17, 41, 99, 242, 596, 1477, 3681, 9215, 23155, 58368, 147530, 373768, 948882, 2413264, 6147414, 15682008, 40056238, 102434119, 262228051, 671945055, 1723350315, 4423518544, 11362907022, 29208834520, 75131251334, 193370093508
a(n) = Sum_{m=0..n+2 }(Sum_{j=1..m/2}(j*Sum_{i=0..m/2-j} ((binomial(2*j+2*i,i)*Sum_{k=0..m-2*j-2*i}(binomial(k,m-k-2*j-2*i)*binomial(k+2*j+2*i-1,k)*(-1)^(k-m)))/(j+i)))). - Vladimir Kruchinin, Mar 07 2016

[A003440] 1, 1, 3, 7, 17, 42, 104, 259, 648, 1627, 4098, 10350, 26202, 66471, 168939, 430071, 1096451, 2799072, 7154189, 18305485, 46885179, 120195301, 308393558, 791882862, 2034836222, 5232250537, 13462265079, 34657740889, 89272680921, 230069128392
a(n) = Sum_{k=0..n} (C(k, n-k) + C(k+1, n-k-1))^2/2 for n>0, with a(0)=1. - Paul D. Hanna, Mar 06 2005
[A102071] 1, 3, 7, 17, 42, 106, 272, 708, 1865, 4963, 13323, 36037, 98123, 268737, 739833, 2046207, 5682915, 15842505, 44315637, 124348275, 349911204, 987212856, 2791964574, 7913642086, 22477090679, 63964370301, 182353459733, 520735012027, 1489362193002, 4266018891562, 12236183875496, 35142703099692, 101055137177563
a(n) = 1/n * Sum_{j=0..n} ((binomial(j,n-1-j)+4*binomial(j,n-2-j) + 3*binomial(j,n-3-j))*binomial(n,j)). - Vladimir Kruchinin, Mar 08 2016
[A178778] 1, 3, 7, 17, 42, 112, 308, 882, 2563, 7565, 22449, 66979, 200204, 599514, 1796350, 5385764, 16150725, 48442327, 145307291, 435892341, 1307617966, 3922765316, 11768118792, 35304090646, 105911740487, 317734424289, 953201678533, 2859602644103, 8578803149328
a(n) = Sum_{i=0..n} (if i mod 2 = 0 then ((3^((i-2)/2)+1)/2)^2 else 3^((i-3)/2)+(1/4)*(3^(i-2)+1)).
a(n) = (-7+3^(1+n)+3^(1/2*(-1+n))*(9-9*(-1)^n+5*sqrt(3)+5*(-1)^n*sqrt(3))+2*(1+n))/8.
a(n) = (2*n+10*3^(n/2)+3^(n+1)-5)/8 for n even.
a(n) = (2*n+3^(n+1)+2*3^((n+3)/2)-5)/8 for n odd.
a(n) = 5*a(n-1)-4*a(n-2)-12*a(n-3)+21*a(n-4)-9*a(n-5) for n>4.
[A192908] 1, 1, 3, 7, 17, 43, 111, 289, 755, 1975, 5169, 13531, 35423, 92737, 242787, 635623, 1664081, 4356619, 11405775, 29860705, 78176339, 204668311, 535828593, 1402817467, 3672623807, 9615053953, 25172538051, 65902560199
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3) for n>3.
a(n) = 2*Fibonacci(2*n-2) + 1 for n>0, a(0)=1. - Bruno Berselli, Dec 27 2016
[A085279] 1, 3, 7, 17, 43, 113, 307, 857, 2443, 7073, 20707, 61097, 181243, 539633, 1610707, 4815737, 14414443, 43177793, 129402307, 387944777, 1163310043, 3488881553, 10464547507, 31389448217, 94159956043, 282463090913, 847355718307
a(n) = (3*2^n + 3^n - 0^n)/3.
a(n) = 2^n + 3^(n-1) for n >= 1.
a(n) = 5*a(n-1) - 6*a(n-2) for n > 1. - Vincenzo Librandi, Sep 12 2014
[A294129] 0, 1, 3, 7, 17, 43, 119, 351, 1115, 3735, 13231, 48927, 189079, 757583, 3148063, 13497599, 59704335, 271503647, 1268817471, 6078518911, 29837183007, 149789875903, 768674514815, 4026518397439, 21518708975039, 117199152735615, 650184360936191, 3670861106911743
a(n) = 2*a(n-1)+(n-3)*a(n-2)-(n-2)*a(n-3) for n>= 4, a(n) = n*(n-1)/2 for n<4.
[A233656] 1, 3, 7, 17, 45, 127, 371, 1101, 3289, 9851, 29535, 88585, 265733, 797175, 2391499, 7174469, 21523377, 64570099, 193710263, 581130753, 1743392221, 5230176623, 15690529827, 47071589437, 141214768265, 423644304747, 1270932914191, 3812798742521, 11438396227509, 34315188682471
a(n) = 3*a(n-1) - 2*(n-1), with a(0) = 1.
a(n) = (1+3^n+2*n)/2. a(n) = 5*a(n-1)-7*a(n-2)+3*a(n-3). G.f.: (x^2+2*x-1) / ((x-1)^2*(3*x-1)). - Colin Barker, Dec 17 2013
a(0)=1, a(1)=3, a(2)=7, a(n)=5*a(n-1)-7*a(n-2)+3*a(n-3). - Harvey P. Dale, Feb 13 2015
[A042077] 1, 1, 3, 7, 17, 75, 92, 535, 627, 14329, 14956, 89109, 104065, 505369, 1114803, 2734975, 6584753, 9319728, 435292241, 444611969, 1324516179, 3093644327, 7511804833, 33140863659, 40652668492, 236404206119, 277056874611, 6331655447561, 6608712322172
a(n) = 441876994*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 14 2014
[A006124] 3, 7, 18, 36, 61, 93, 132, 178, 231, 291, 358, 432, 513, 601, 696, 798, 907, 1023, 1146, 1276, 1413, 1557, 1708, 1866, 2031, 2203, 2382, 2568, 2761, 2961, 3168, 3382, 3603, 3831, 4066, 4308, 4557, 4813
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A074587] 1, 3, 7, 18, 37, 85, 171, 364, 736, 1513, 3027, 6168, 12337, 24849, 49743, 99872, 199745, 400322, 800645, 1602862, 3205903, 6414837, 12829675, 25665996, 51332030, 102676401, 205353546, 410732134, 821464269, 1642979927, 3285959855
a(1)=1 a(n)=1+sum(i=1, n-1, floor(n/i)*a(i)). - Benoit Cloitre, Dec 04 2002
[A181306] 1, 1, 3, 7, 18, 44, 110, 272, 676, 1676, 4160, 10320, 25608, 63536, 157648, 391152, 970528, 2408064, 5974880, 14824832, 36783296, 91266496, 226449920, 561866240, 1394099328, 3459031296, 8582528768, 21294921472, 52836837888, 131098461184
a(0)=1, a(1)=1, a(2)=3, a(3)=7, a(n)=2*a(n-1)+2*a(n-2)-2*a(n-3) [From Harvey P. Dale, Mar 07 2012]
[A291734] 3, 7, 18, 45, 108, 258, 615, 1459, 3453, 8164, 19287, 45540, 107496, 253695, 598659, 1412587, 3332970, 7863853, 18553752, 43774722, 103279023, 243668295, 574890057, 1356344056, 3200033343, 7549859464, 17812425600, 42024945087, 99149648967, 233924207559
a(n) = 3*a(n-1) - 2*a(n-2) + 3*a(n-3) - 4*a(n-4) - 2*a(n-6) for n >= 7.
[A291229] 3, 7, 18, 45, 111, 272, 663, 1611, 3906, 9457, 22875, 55296, 133611, 322751, 779490, 1882341, 4545159, 10974256, 26496255, 63970947, 154444914, 372871721, 900206067, 2173312512, 5246877459, 12667142455, 30581283762, 73829906397, 178241414367, 430313249360
a(n) = 3*a(n-1) - 2*a(n-3) - a(n-4) for n >= 5.
[A116413] 1, 3, 7, 18, 46, 117, 298, 759, 1933, 4923, 12538, 31932, 81325, 207120, 527497, 1343439, 3421495, 8713926, 22192786, 56520993, 143948698, 366611175, 933692041, 2377943955, 6056191126, 15424018248, 39282171577, 100044552528, 254795294881, 648917313867
a(n)=2a(n-1)+a(n-2)+a(n-3); a(n)=sum{k=0..floor(n/2), sum{j=0..n-k, C(k+1,j)C(n-k-j,k)2^(n-2k-j)}}.
[A052960] 1, 1, 3, 7, 18, 46, 118, 303, 778, 1998, 5131, 13177, 33840, 86905, 223182, 573157, 1471933, 3780093, 9707713, 24930522, 64024444, 164422126, 422254905, 1084399096, 2784861432, 7151844025, 18366756913, 47167941348, 121132691065
a(n) = sum(sum(binomial(i+2*k,2*k)*binomial(i+k,n-i-2*k),k=0..n/2),i=0..n) [Emanuele Munarini, May 10 2011]
[A059512] 0, 1, 1, 3, 7, 18, 46, 119, 309, 805, 2101, 5490, 14356, 37557, 98281, 257231, 673323, 1762594, 4614226, 12079707, 31624285, 82792161, 216750601, 567457058, 1485616392, 3889385353, 10182528721, 26658183099, 69791991919
a(n+1)=sum{k=0..floor(n/2), C(n,2k)*F(2k+1)}. [From Paul Barry, Oct 14 2009]
[A094297] 1, 3, 7, 18, 46, 120, 316, 840, 2248, 6048, 16336, 44256, 120160, 326784, 889792, 2424960, 6613120, 18043392, 49247488, 134450688, 367134208, 1002645504, 2738510848, 7480215552, 20433258496, 55818559488, 152486858752
a(n)=(1/3)*Sum(k, 1, 5, Sin(Pi*k/3)^2(1+2Cos(Pi*k/6))^n) or a(n)=(2^n+(1-Sqrt(3))^n + (1+Sqrt(3))^n)/4
[A027971] 3, 7, 18, 47, 123, 319, 806, 1954, 4506, 9859, 20495, 40615, 77040, 140455, 247085, 420906, 696509, 1122751, 1767344, 2722551, 4112177, 6100063, 8900312, 12789498, 18121132, 25342683, 35015477, 47837823, 64671742
a(n) = (17055360 -16329024*n +7697736*n^2 -2299060*n^3 +462798*n^4 -60207*n^5 +4284*n^6 -30*n^7 -18*n^8 +n^9)/362880. - Colin Barker, Nov 25 2014
[A267799] 3, 7, 18, 49, 138, 397, 1158, 3409, 10098, 30037, 89598, 267769, 801258, 2399677, 7190838, 21556129, 64635618, 193841317, 581392878, 1743916489, 5231225178, 15692626957, 47075783718, 141223156849, 423661081938, 1270966468597, 3812865851358, 11438530445209, 34315457117898, 102946102918237
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3) for n>3.
[A103177] 3, 7, 18, 50, 145, 429, 1280, 3832, 11487, 34451, 103342, 310014, 930029, 2790073, 8370204, 25110596, 75331771, 225995295, 677985866, 2033957578, 6101872713, 18305618117, 54916854328, 164750562960, 494251688855, 1482755066539
a(n) = 5*a(n-1)-7*a(n-2)+3*a(n-3). G.f.: (3-2*x)*(1-2*x)/((1-x)^2*(1-3*x)). [Colin Barker, Aug 28 2012]
[A256873] 3, 7, 18, 52, 168, 592, 2208, 8512, 33408, 132352, 526848, 2102272, 8398848, 33574912, 134258688, 536952832, 2147647488, 8590262272, 34360393728, 137440264192, 549758435328, 2199028498432, 8796103507968, 35184393060352, 140737530298368, 562950037307392
a(n) = 6*a(n-1)-8*a(n-2). - Colin Barker, Apr 26 2015
[A134045] 1, 3, 7, 18, 61, 258, 1177, 5358, 23821, 103338, 439297, 1838598, 7605781, 31191618, 127100617, 515462238, 2083142941, 8396683098, 33779525137, 135697396278, 544529307301, 2183340065778, 8749036112857, 35043186680718, 140313902770861, 561679137947658, 2247987249823777, 8995761328275558
a(n) = (1/2)(4^n - 3^(n+1) + 7*2^n - 3) = 3*StirlingS2(n+1,4) + 2*StirlingS2(n+1,2) + 1.
[A164097] 3, 7, 19, 27, 47, 59, 87, 103, 139, 159, 203, 227, 279, 307, 367, 399, 467, 503, 579, 619, 703, 747, 839, 887, 987, 1039, 1147, 1203, 1319, 1379, 1503, 1567, 1699, 1767, 1907, 1979, 2127, 2203, 2359, 2439, 2603, 2687, 2859, 2947, 3127, 3219, 3407, 3503, 3699
a(n) = a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5).
[A222465] 3, 7, 19, 39, 67, 103, 147, 199, 259, 327, 403, 487, 579, 679, 787, 903, 1027, 1159, 1299, 1447, 1603, 1767, 1939, 2119, 2307, 2503, 2707, 2919, 3139, 3367, 3603, 3847, 4099, 4359, 4627, 4903, 5187, 5479, 5779, 6087, 6403, 6727, 7059, 7399
a(n) = 4*n^2 + 3, n >= 0.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2, a(0) = 3, a(1) = 7, a(2) = 19. - Philippe Deléham, Mar 05 2013

[A055622] 1, 3, 7, 19, 43, 99, 235, 535, 1239, 2879, 6619, 15323, 35451, 81823, 189263, 437543, 1011059, 2337731, 5403987, 12491223, 28877687, 66755519, 154315883, 356738411, 824668747, 1906384015, 4407016991, 10187707927, 23550975203
a(n) = a(n-1) + 2 a(n-2) + 7 a(n-3) - 5 a(n-4) - 8 a(n-5) - 14 a(n-6) + 2 a(n-7) + 4 a(n-8) + 4 a(n-9) + 8 a(n-10)
[A075900] 1, 1, 3, 7, 19, 43, 115, 259, 659, 1523, 3731, 8531, 20883, 47379, 113043, 259219, 609683, 1385363, 3245459, 7344531, 17028499, 38579603, 88585619, 199845267, 457864595, 1028904339, 2339763603, 5256820115, 11896157587, 26626389395
a(n) = Sum_{ partitions n = c_1 + ... + c_k } 2^(n-k). If p(n, m) = number of partitions of n into m parts, a(n) = sum_{m=1..n} p(n, m)*2^(n-m).
a(n) = s(1,n), a(0)=1, where s(m,n)=sum(k=m..n/2, 2^(k-1)*s(k,n-k))+2^(n-1), s(n,n) = 2^(n-1), s(m,n)=0, m>. - Vladimir Kruchinin, Sep 06 2014
[A026581] 1, 3, 7, 19, 47, 123, 311, 803, 2047, 5259, 13447, 34483, 88271, 226203, 579287, 1484099, 3801247, 9737643, 24942631, 63893203, 163663727, 419236539, 1073891447, 2750837603, 7046403391, 18049753803, 46235367367, 118434382579, 303375852047, 777113382363
a(n) = a(n-1) + 4*a(n-2), n>1.
a(n) = (2^(-1-n)*((1-sqrt(17))^n*(-5+sqrt(17)) + (1+sqrt(17))^n*(5+sqrt(17))))/sqrt(17). - Colin Barker, Dec 22 2016
[A061646] 1, 1, 1, 3, 7, 19, 49, 129, 337, 883, 2311, 6051, 15841, 41473, 108577, 284259, 744199, 1948339, 5100817, 13354113, 34961521, 91530451, 239629831, 627359043, 1642447297, 4299982849, 11257501249, 29472520899, 77160061447, 202007663443, 528862928881
a(n) = (2*fibonacci(n)*fibonacci(n+1)*(fibonacci(n+2)+phi*fibonacci(n+1))+(1/phi^n)/(fibonacci(n)*phi+fibonacci(n+1)). - Thomas Baruchel, Nov 19 2004
a(n) = ((-2)^n+2*(3-Sqrt(5))^n+2*(3+Sqrt(5))^n)/(5*2^n). - L. Edson Jeffery, Apr 21 2011
[A052948] 1, 1, 3, 7, 19, 51, 139, 379, 1035, 2827, 7723, 21099, 57643, 157483, 430251, 1175467, 3211435, 8773803, 23970475, 65488555, 178918059, 488813227, 1335462571, 3648551595, 9968028331, 27233159851, 74402376363, 203271072427
a(n)=(1/3)*Sum(k, 1, 5, Sin(Pi*k/2)^2(1+2Cos(Pi*k/6))^n) - Herbert Kociemba, Jun 02 2004
a(0) = a(1) = 1; a(n+2) = 2*a(n+1) + 2*a(n) - 1. - Carl R. White, Jul 30 2009
a(0)=1, a(1)=1, a(2)=3, a(n)=3*a(n-1)-2*a(n-3). - Harvey P. Dale, Aug 22 2012
[A002426] 1, 1, 3, 7, 19, 51, 141, 393, 1107, 3139, 8953, 25653, 73789, 212941, 616227, 1787607, 5196627, 15134931, 44152809, 128996853, 377379369, 1105350729, 3241135527, 9513228123, 27948336381, 82176836301, 241813226151, 712070156203, 2098240353907, 6186675630819
a(n) is asymptotic to d*3^n/sqrt(n) with d around 0.5.. - Benoit Cloitre, Nov 02 2002, d = sqrt(3/Pi)/2 = 0.4886025119... - Vaclav Kotesovec, Sep 18 2014
a(n) = ((2*n-1)*a(n-1) + 3*(n-1)*a(n-2))/n; a(0)=a(1)=1; see paper by Barcucci, Pinzani and Sprugnoli.
a(n) = Sum_{k=0..n} C(n, k)C(k, k/2)(1+(-1)^k)/2; a(n) = Sum_{k=0..n} (-1)^(n-k)C(n, k)C(2k, k). - Paul Barry, Jul 01 2003
a(n) = Sum_{k>=0} C(n, 2*k)*C(2*k, k). - Philippe Deléham, Dec 31 2003
a(n) = Sum_{i+j=n, 0<=j<=i<=n} binomial(n, i)*binomial(i, j). - Benoit Cloitre, Jun 06 2004
a(n) is asymptotic to d*3^n/sqrt(n) with d = sqrt(3/Pi)/2 = 0.488602512... - Alec Mihailovs (alec(AT)mihailovs.com), Feb 24 2005
[A011769] 1, 3, 7, 19, 51, 141, 393, 1107, 3139, 8955, 25675, 73945, 213825, 620595, 1807263, 5279283, 15465139, 45420261, 133708777, 394446691, 1165855131, 3451793403, 10235554347, 30392965809, 90357645121, 268922897571, 801139867063, 2388683219347, 7127469430899
a(n) = +6*a(n-1) -8*a(n-2) -8*a(n-3) +14*a(n-4) +4*a(n-5) -3*a(n-6). [R. J. Mathar, Sep 04 2010]
a(n+1) = (1/10) * (3^n + 2*Lucas(2n) + Lucas(n) + (-1)^n). - Ralf Stephan, Aug 10 2013
a(k) = 3^(k+1)*x^k/10 + (-1)^(k+1)*x^k/10 + p^(k+1)*x^k/5 + (-q)^(k+1)*x^k/5 + p^(2*k+2)*x^k/5 + q^(2*k+2)*x^k/5 ; p=(sqrt(5)+1)/2 , q=(sqrt(5)-1)/2 . - Sergei N. Gladkovskii, Dec 17 2011
[A087432] 1, 1, 3, 7, 19, 51, 143, 407, 1179, 3451, 10183, 30207, 89939, 268451, 802623, 2402407, 7196299, 21567051, 64657463, 193885007, 581480259, 1744091251, 5231574703, 15693326007, 47077181819, 141225953051, 423666674343
a(n) = (-1)^n/6+2^n/3+3^n/6, n>0.
[A078481] 0, 1, 1, 3, 7, 19, 53, 153, 453, 1367, 4191, 13015, 40857, 129441, 413337, 1328971, 4298727, 13978971, 45673981, 149867513, 493638797, 1631616239, 5410015615, 17990076527, 59981630321, 200476419713, 671564145137, 2254338511507, 7582179238151, 25547868961315
a(n) = sum(k=0..n, ((sum(i=0..n-k, binomial(k+1,n-k-i)*binomial(k+i,k)))*binomial(n-k-2,k))/(k+1)), n>0, a(0)=0. - Vladimir Kruchinin, Nov 22 2014.
[A183122] 0, 1, 3, 7, 19, 53, 153, 455, 1359, 4073, 12213, 36635, 109899, 329693, 989073, 2967215, 8901639, 26704913, 80114733, 240344195, 721032579, 2163097733, 6489293193, 19467879575, 58403638719, 175210916153, 525632748453, 1576898245355, 4730694736059
a(n)=+3*a(n-1)+a(n-2)-3*a(n-3) for n>6.
a(n) = 3*a(n-1) - 6; n even; n >= 6
a(n) = 3*a(n-1) - 4; n odd; n >= 5
a(n) = P67(n-1) + P67(n-2) + P75(n-3) + 8*3^(n-4) ; n >= 4
a(n) = (67/108)*3^(n-1) + 9/4; n even; n >= 4
a(n) = (67/108)*3^(n-1) + 11/4; n odd; n >= 5
[A104522] 1, 3, 7, 19, 53, 155, 459, 1371, 4105, 12307, 36911, 110723, 332157, 996459, 2989363, 8968075, 26904209, 80712611, 242137815, 726413427, 2179240261, 6537720763, 19613162267, 58839486779, 176518460313, 529555380915, 1588666142719, 4765998428131
a(n) = (1/8) * (5*3^n + 4*(n+1) - (-1)^n). - Ralf Stephan, Nov 13 2010.
a(n) = 4*a(n-1)-2*a(n-2)-4*a(n-3)+3*a(n-4). - Wesley Ivan Hurt, Sep 12 2014
[A183120] 0, 1, 3, 7, 19, 55, 159, 471, 1403, 4199, 12583, 37735, 113187, 339543, 1018607, 3055799, 9167371, 27502087, 82506231, 247518663, 742555955, 2227667831, 6683003455, 20049010327, 60147030939, 180441092775, 541323278279, 1623969834791, 4871909504323
a(n) = 3*a(n-1) - 2*n + 6; n even; n >= 4
a(n) = 3*a(n-1) - 2*n + 8; n odd; n >= 5
a(n) = a(n-1) + 2* P75(n-3) + 10*3^(n-4); n >= 4
a(n) = (23/36)*3^(n-1) + n - 9/4; n even; n >= 4
a(n) = (23/36)*3^(n-1) + n - 7/4; n odd; n >= 3
a(0)=0, a(1)=1, a(2)=3, a(3)=7, a(4)=19, a(5)=55, a(6)=159, a(n)= 4*a(n-1)- 2*a(n-2)-4*a(n-3)+3*a(n-4) [From Harvey P. Dale, May 04 2012]
[A100702] 1, 3, 7, 19, 55, 163, 487, 1459, 4375, 13123, 39367, 118099, 354295, 1062883, 3188647, 9565939, 28697815, 86093443, 258280327, 774840979, 2324522935, 6973568803, 20920706407, 62762119219, 188286357655, 564859072963
a(n)=1+2*3^(n-1), n>0. a(n)=4*a(n-1)-3*a(n-2), n>2. G.f.: -(1+x)*(2*x-1)/((3*x-1)*(x-1)). [From R. J. Mathar, Jun 30 2009]
[A201169] 1, 1, 1, 3, 7, 19, 59, 179, 615, 2141, 7853, 30179, 118663, 487581, 2050325, 8890743, 39593811, 180367655, 842738375, 4018170415, 19578229355, 97275623919, 492406520567, 2538806377419, 13312298342703, 70986151599775, 384532625928335, 2115147900599015
a(n) = sum(m=0..(n-1)/2, a(n-2*m-1) * binomial(n/2-1,m) * 2^(2*m)), n>0, a(0)=1.
[A271894] 1, 3, 7, 20, 50, 138, 356, 964, 2524, 6768, 17848, 47624, 126032, 335472, 889328, 2364352, 6273184, 16667808, 44242240, 117516608, 311995328, 828603648, 2200088960, 5842620544, 15513975040, 41197898496, 109395973888, 290499691520, 771395887616
a(n) >= 2^n.
[A109220] 1, 3, 7, 20, 53, 143, 385, 1036, 2789, 7507, 20207, 54392, 146409, 394095, 1060801, 2855400, 7685993, 20688691, 55688567, 149899116, 403489373, 1086088287, 2923466753, 7869210964, 21181866061, 57016065763, 153472396895
a(n)=2a(n-1)+2a(n-2)-a(n-4); a(n)=a(n)=sum{k=0..n, binomial(floor((n+k+1)/2)+k, floor((n+k)/2)-k)*2^k}.
[A110490] 1, 1, 3, 7, 20, 59, 185, 600, 2003, 6833, 23727, 83606, 298313, 1076155, 3920823, 14416987, 53482012, 200151737, 755894009, 2882782933, 11115015138, 43400057683, 172016505877, 694208585423, 2863726993748, 12130698802645
a(n) = Sum_{k=0..floor(n/2)} Sum_{j=0..(n-2*k)} 2*(j+1)*(k-1)^j*C(2*(n-2*k)+1, n-2*k-j)/(n-2*k+j+2).
[A132868] 1, 3, 7, 20, 60, 182, 547, 1641, 4921, 14762, 44286, 132860, 398581, 1195743, 3587227, 10761680, 32285040, 96855122, 290565367, 871696101, 2615088301, 7845264902, 23535794706, 70607384120, 211822152361, 635466457083, 1906399371247, 5719198113740
a(n) = (1/12)*(3^(n+2) - 4*cos((n+1)*Pi/3) + cos((n+1)*Pi) + 4*sqrt(3) * sin(((n+1)*Pi)/3) + I*sin((n+1)*Pi)). [Harvey P. Dale, Jan 21 2012]
[A176697] 1, 1, 3, 7, 20, 63, 208, 711, 2496, 8944, 32578, 120263, 448938, 1691776, 6427130, 24589043, 94653498, 366344216, 1424750506, 5565002716, 21821377624, 85867522754, 338974659036, 1342074448663, 5327845401606, 21203102693634, 84574191671494, 338060063747476
a(n) = Sum_{i=1..n} a(i-1)*a(n-i) for n>2; a(0) = a(1) = 1, a(2) = 3. - Alois P. Heinz, May 24 2012
a(n) = sum(m=0..n/2, binomial(n-2*m+1,m)*binomial(2*(n-2*m),n-2*m)/(n+1-2*m)). - Vladimir Kruchinin, Nov 21 2014
[A071688] 0, 1, 3, 7, 20, 66, 217, 715, 2424, 8398, 29414, 104006, 371384, 1337220, 4847637, 17678835, 64821680, 238819350, 883634026, 3282060210, 12233125112, 45741281820, 171529836218, 644952073662, 2430973096720, 9183676536076

a(2n) = (1/(4*n+2))*binomial(4*n, 2*n), a(2n+1)= (1/(4*n+4))*binomial(4*n+2, 2*n+1)+(-1)^(n+1)*((1)/(2*n+2))*binomial(2*n, n)
a(0)=1, a(n) = Sum_{k=0..floor(n/2)} (1/n)*C(n,2k-1)C(n,2k), n>0. - Paul Barry, Jan 25 2007
a(n) = 0^n + Sum{k=1..n} (1/n)*C(n,k)*C(n,k-1)*(1+(-1)^k)/2. - Paul Barry, Dec 16 2008
a(n) = Sum_{k=0..n} (Sum_{j=0..n-k} ((-1)^j*(C(n,2k)*C(n,2k+j) - C(n,2k-1)*C(n,2k+j+1))). - Paul Barry, Sep 13 2010
[A097162] 1, 3, 7, 21, 37, 123, 187, 681, 937, 3663, 4687, 19341, 23437, 100803, 117187, 520401, 585937, 2667543, 2929687, 13599861, 14648437, 69047883, 73242187, 349433721, 366210937, 1763945823, 1831054687, 8886837981, 9155273437, 44702625363
a(n) = (3/4-3*sqrt(5)/4)*(-sqrt(5))^n +(3/4+3*sqrt(5)/4)*(sqrt(5))^n-(2^n-(-2)^n)-1/2.
a(n+5) = 20*a(n)-20*a(n+1)-9*a(n+2)+9*a(n+3)+a(n+4). - Robert Israel, Sep 18 2014
[A119959] 3, 7, 21, 43, 111, 157, 273, 343, 507, 813, 931, 1333, 1641, 1807, 2163, 2757, 3423, 3661, 4423, 4971, 5257, 6163, 6807, 7833, 9313, 10101, 10507, 11343, 11773, 12657, 16003, 17031, 18633, 19183, 22053, 22651, 24493, 26407, 27723, 29757, 31863
a(n) = Prime[n]^2 - Prime[n] + 1.
[A161707] 1, 3, 7, 21, 53, 111, 203, 337, 521, 763, 1071, 1453, 1917, 2471, 3123, 3881, 4753, 5747, 6871, 8133, 9541, 11103, 12827, 14721, 16793, 19051, 21503, 24157, 27021, 30103, 33411, 36953, 40737, 44771, 49063, 53621, 58453, 63567, 68971, 74673
a(n) = C(n,0) + 2*C(n,1) + 2*C(n,2) + 8*C(n,3).
[A192068] 0, 3, 7, 21, 54, 144, 376, 987, 2583, 6765, 17710, 46368, 121392, 317811, 832039, 2178309, 5702886, 14930352, 39088168, 102334155, 267914295, 701408733, 1836311902, 4807526976, 12586269024, 32951280099, 86267571271, 225851433717, 591286729878
a(n) = Fibonacci(2*n) - (n mod 2). - Peter Luschny, Mar 10 2015
[A091650] 1, 3, 7, 21, 59, 171, 491, 1415, 4073, 11729, 33771, 97241, 279993, 806209, 2321385, 6684163, 19246279, 55417453, 159568195, 459458307, 1322957467, 3809304207, 10968454313, 31582405473, 90937912211, 261845282321, 753953441489, 2170922412257, 6250921954449
a(1)=1, a(2)=3, a(3)=7, a(4)=21, a(n)=2*a(n-1)+3*a(n-2)-a(n-3)-a(n-4) [From Harvey P. Dale, Feb 17 2012]
[A122983] 1, 1, 3, 7, 21, 61, 183, 547, 1641, 4921, 14763, 44287, 132861, 398581, 1195743, 3587227, 10761681, 32285041, 96855123, 290565367, 871696101, 2615088301, 7845264903, 23535794707, 70607384121, 211822152361, 635466457083
a(0)=1, a(1)=1, a(2)=3, a(n)=3*a(n-1)+a(n-2)-3*a(n-3). - Harvey P. Dale, Sep 03 2013
[A182399] 1, 1, 1, 3, 7, 21, 61, 187, 583, 1837, 5885, 19027, 62167, 204917, 680621, 2275211, 7648519, 25852573, 87812093, 299349795, 1023570647, 3515918501, 12140103149, 41894710427, 143835281351, 501071173901, 1808088546557, 6212411239539, 17720665594455
a(n) = T(n,1), with T(n, m) = (sum((binomial(k+m,n-k-m)*binomial(2*k+m-1,k+m-1))/(k+m),k,0,n-m)*m -sum(T(n, i) *T(i, m), i, m+1, n-1))/2, n>m, T(n,n) = 1. - Vladimir Kruchinin, Apr 28 2012
[A025235] 1, 1, 3, 7, 21, 61, 191, 603, 1961, 6457, 21595, 72975, 249085, 857013, 2970007, 10356323, 36311633, 127937649, 452738867, 1608426647, 5734534629, 20511509549, 73583105007, 264687136235, 954482676217, 3449853902761, 12495597328011, 45349353908383
a(n) = Sum_{k=0,..,n} 2^(k-1)*binomial(n+1, k)*binomial(n-k+1, k-1)/(n+1). - Len Smiley
a(n) is the leftmost term in the top row of M^n, M is an infinite square production matrix as follows:
a(n) = hypergeom([-n/2, (1-n)/2], [2], 8). - Peter Luschny, May 28 2014
[A270049] 1, 1, 3, 7, 21, 61, 199, 659, 2345, 8569, 32971, 130527, 538045, 2279733, 9987727, 44897131, 207693905, 983926001, 4780294291, 23740460215, 120595843941, 625175300653, 3308054119767, 17837452131139, 98006292402553, 548026191197801, 3118110841312091
a(n) = Sum_{i=0..n/2} binomial(n,2*i)*(2*i)!!.
a(n) - 2*a(n-1) - (n-1)*a(n-2) + (n-2)*a(n-3) = 0.
[A141495] 1, 3, 7, 21, 63, 189, 567, 1701, 5103, 15309, 45927, 137781, 413343, 1240029, 3720087, 11160261, 33480783, 100442349, 301327047, 903981141, 2711943423, 8135830269, 24407490807, 73222472421, 219667417263, 659002251789
a(n) = 7*3^(n-2) for n>1. a(n)=3*a(n-1) for n>2. G.f.: (2*x^2-1) / (3*x-1). - Colin Barker, Jan 09 2014
[A052805] 1, 1, 1, 3, 7, 21, 64, 204, 666, 2236, 7625, 26419, 92644, 328370, 1174234, 4231898, 15354424, 56042372, 205626906, 758021598, 2806143522, 10427671924, 38882984840, 145443260702, 545598228056, 2052086677666, 7736986142773, 29236241424977
a(n)=(1/n)*Sum_{k=1..n} a(n-k)*b(k), n>0, a(0)=1, b(k)=Sum_{d|k} (-1)^(k/d+1)*binomial(2*d-2, d-1). - Vladeta Jovovic, Jan 17 2002
[A105864] 1, 1, 3, 7, 21, 65, 215, 735, 2585, 9281, 33883, 125383, 469229, 1772801, 6752623, 25902975, 99978865, 388001025, 1513077235, 5926139207, 23301146501, 91942524481, 363957103303, 1444966207967, 5752187960841, 22955311342145
a(n) = Sum_{k=0..floor(n/2)} C(n-k, k) * C(n-2*k)}.
[A240506] 1, 3, 7, 21, 67, 213, 667, 2061, 6307, 19173, 58027, 175101, 527347, 1586133, 4766587, 14316141, 42981187, 129009093, 387158347, 1161737181, 3485735827, 10458256053, 31376865307, 94134790221, 282412759267, 847255055013
a(n) = 2-2^n+3^n for n>0.
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3) for n>3.
[A080882] 1, 3, 7, 22, 52, 164, 388, 1224, 2896, 9136, 21616, 68192, 161344, 508992, 1204288, 3799168, 8988928, 28357376, 67094272, 211662336, 500798464, 1579869184, 3738010624, 11792304128, 27900891136, 88018956288, 208255086592
a(n + 4) = 8*a(n + 2) - 4*a(n). - Richard Choulet, Dec 06 2008
a(n) = (7/24*3^(1/2) + 1/2)*((1 + sqrt(3)))^n + (- 7/24*3^(1/2) + 1/2)*((1 - sqrt(3)))^n + (- 1/24*3^(1/2))*(- (1 + sqrt(3)))^n + (1/24*3^(1/2))*(- ((1 - sqrt(3))))^n. - Richard Choulet, Dec 06 2008
[A166135] 1, 1, 3, 7, 22, 65, 213, 693, 2352, 8034, 28014, 98505, 350548, 1256827, 4542395, 16517631, 60417708, 222087320, 820099720, 3040555978, 11314532376, 42243332130, 158196980682, 594075563613, 2236627194858, 8440468925400
a(n) = (1/n)*sum(k=0..n, binomial(n,k)*binomial(n,2n-1-3k)). - David Nguyen, Dec 31 2016
[A242566] 0, 1, 1, 3, 7, 22, 67, 225, 765, 2704, 9710, 35558, 131859, 494892, 1874901, 7162807, 27558511, 106695148, 415346144, 1624780952, 6383671910, 25179642120, 99670897534, 395810459602, 1576464630375, 6295827843098
a(n) = sum(i=0..(n-1)/2, binomial(2*n-4*i-2,n-2*i-1)*binomial(n,i))/n, n>0, a(0)=0.
[A054270] 3, 7, 23, 47, 113, 167, 283, 359, 523, 839, 953, 1367, 1669, 1847, 2207, 2803, 3469, 3719, 4483, 5039, 5323, 6229, 6883, 7919, 9403, 10193, 10607, 11447, 11867, 12763, 16127, 17159, 18757, 19319, 22193, 22787, 24631, 26561, 27883, 29927, 32029
a(n) = Max[prime q: q < prime(n)^2].
[A001275] 3, 7, 23, 61, 127, 199, 337, 479, 677, 937, 1193, 1511, 1871, 2267, 2707, 3251, 3769, 4349, 5009, 5711, 6451, 7321, 8231, 9173, 10151, 11197, 12343, 13487, 14779, 16097, 17599, 19087, 20563, 22109, 23761, 25469, 27259, 29123, 31081, 33029
a(n) = prime(n)^2 + O(n^2/exp((log n)^(4/7 - e))) for any e > 0.
[A096019] 3, 7, 23, 67, 203, 607, 1823, 5467, 16403, 49207, 147623, 442867, 1328603, 3985807, 11957423, 35872267, 107616803, 322850407, 968551223, 2905653667, 8716961003, 26150883007, 78452649023, 235357947067, 706073841203, 2118221523607
a(n) = 3^(n+1)-(3^n-(-1)^n)/2.
a(n) = 2*a(n-1)+3*a(n-2). G.f.: (3+x)/((1+x)*(1-3*x)). [Colin Barker, Mar 26 2012]
[A045723] 1, 1, 3, 7, 23, 71, 252, 890, 3299, 12283, 46508, 176870, 677294, 2602198, 10034104, 38787572, 150289699, 583434323, 2268861516, 8836447022, 34461940538, 134564992898, 526025965864, 2058359779052, 8061905791118, 31602659998046
a(n) = (1/4)*(2^n + C(2*n, n) + 2*C(n-1, (1/2)*(n-2))*mod(n+1, 2)).
[A169650] 3, 7, 23, 79, 263, 847, 2663, 8239, 25223, 76687, 232103, 700399, 2109383, 6344527, 19066343, 57264559, 171924743, 516036367, 1548633383, 4646948719, 13942943303, 41833024207, 125507461223, 376539160879, 1129651037063, 3389020220047, 10167194877863
a(n) = 4*3^(n-1)-2^(n+1)+3. - Todd Silvestri, Dec 15 2014
[A145542] 1, 3, 7, 24, 55, 189, 433, 1488, 3409, 11715, 26839, 92232, 211303, 726141, 1663585, 5716896, 13097377, 45009027, 103115431, 354355320, 811826071, 2789833533, 6391493137, 21964312944, 50320119025, 172924670019, 396169459063, 1361433047208, 3119035553479
a(2*n + 1) = Product_{k=1..n} (6 + 4*cos^2(k*Pi/(2*n+1));
a(2*n) = 3*Product_{k=1..n-1} (6 + 4*cos^2(k*Pi/(2*n)).
[A047974] 1, 1, 3, 7, 25, 81, 331, 1303, 5937, 26785, 133651, 669351, 3609673, 19674097, 113525595, 664400311, 4070168161, 25330978113, 163716695587, 1075631907655, 7296866339961, 50322142646161, 356790528924523, 2570964805355607, 18983329135883665, 142389639792952801, 1091556096587136051
a(n) = Sum_{k=0..n} C(k,n-k)*n!/k!. - Paul Barry, Mar 29 2007
a(n) = Sum_{k=0..floor(n/2)} C(n,2k)*(2k)!/k!; - Paul Barry, Feb 11 2008

a(n) = I^(-n)*H_{n}(I/2) with I the imaginary unit and H_{n} the Hermite polynomial of degree n. - Alyssa Byrnes and C. Vignat, Jan 31 2013
[A259595] 3, 7, 27, 71, 267, 703, 2643, 6959, 26163, 68887, 258987, 681911, 2563707, 6750223, 25378083, 66820319, 251217123, 661452967, 2486793147, 6547709351, 24616714347, 64815640543, 243680350323, 641608696079, 2412186788883, 6351271320247, 23878187538507
a(n) = 10*a(n-2) - a(n-4) for n>3. - Colin Barker, Jul 21 2015
[A246313] 1, 3, 7, 27, 95, 339, 1207, 4299, 15311, 54531, 194215, 691707, 2463551, 8774067, 31249303, 111296043, 396386735, 1411752291, 5028030343, 17907595611, 63778847519, 227151733779, 809012896375, 2881342156683, 10262052262799, 36548841101763, 130170627830887, 463609565696187, 1651169952750335
a(n) = 3*a(n-1) + 2*a(n-2) with a(0)=-1, a(1)=3.
a(n) = -(17+9*sqrt(17))/34*(3/2-sqrt(17)/2)^n+(-17+9*sqrt(17))/34*(3/2+sqrt(17)/2)^n. For n >= 3, a(n) = round(-17+9*sqrt(17))/34*(3/2+sqrt(17)/2)^n). - Robert Israel, Aug 27 2014
[A080806] 1, 3, 7, 29, 69, 287, 683, 2841, 6761, 28123, 66927, 278389, 662509, 2755767, 6558163, 27279281, 64919121, 270037043, 642633047, 2673091149, 6361411349, 26460874447, 62971480443, 261935653321, 623553393081, 2592895658763
a(n) = 10*a(n-2)-a(n-4).
a(2*n+1) = ((6+r)*(5+2*r)^n+(6-r)*(5+2*r)^n)/12, a(2*n+2) = ((18+7*r)*(5+2*r)^n+(18-7*r)*(5-2*r)^n)/12, where r=sqrt(6) and n>=0. - Paul Weisenhorn, Sep 01 2012
[A072881] 1, 1, 1, 3, 7, 31, 85, 393, 1093, 5071, 14119, 65523, 182449, 846721, 2357713, 10941843, 30467815, 141397231, 393723877, 1827222153, 5087942581, 23612490751, 65749529671, 305135157603, 849655943137, 3943144558081
a(2*n-1) = ceiling((1/11)*sqrt(1002/5-78*sqrt(33/5))*(sqrt(15)/2+sqrt(11)/ 2)^(2*n-1)).
a(2*n) = ceiling((1/11)*(13-sqrt(165))*(sqrt(15)/2+sqrt(11)/2)^(2*n)).
a(n) = (4-(-1)^n)*a(n-1)-a(n-2)-1. - Bruno Langlois, Aug 21 2016
[A042271] 1, 1, 3, 7, 31, 131, 2127, 2258, 22449, 47156, 69605, 882416, 4481685, 5364101, 9845786, 15209887, 40265560, 55475447, 206691901, 262167348, 468859249, 1668745095, 2137604344, 5943953783, 8081558127, 14025511910, 22107070037, 124560862095, 1516837415177
a(n) = 57309088708451664 36*a(n-39) + a(n-78) for n>77. - Vincenzo Librandi, Jan 19 2014
[A281093] 3, 7, 37, 43, 47, 73, 79, 97, 337, 347, 349, 373, 379, 397, 433, 439, 443, 449, 479, 499, 733, 739, 743, 773, 797, 937, 947, 977, 997, 3343, 3347, 3373, 3433, 3449, 3499, 3733, 3739, 3779, 3793, 3797, 3943, 3947, 4337, 4339, 4349, 4373, 4397, 4447, 4493, 4733
a(n) » n^k, where k = log(10)/log(4) = 1.660964.... - Charles R Greathouse IV, Jan 24 2017
[A042895] 1, 3, 7, 38, 45, 218, 263, 1533, 3329, 11520, 717569, 2164227, 5046023, 27394342, 32440365, 157155802, 189596167, 1105136637, 2399869441, 8304744960, 517294056961, 1560186915843, 3637667888647, 19748526359078, 23386194247725, 113293303349978, 136679497597703
a(n) = 720898*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Feb 01 2014
[A041349] 1, 1, 3, 7, 45, 97, 239, 336, 8975, 9311, 27597, 64505, 414627, 893759, 2202145, 3095904, 82695649, 85791553, 254278755, 594349063, 3820373133, 8235095329, 20290563791, 28525659120, 761957700911, 790483360031, 2342924420973, 5476332201977, 35200917632835
a(n) = 9214*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 16 2013
[A263806] 1, 3, 7, 47, 95, 703, 1407, 11007, 22015, 175103, 350207, 2797567, 5595135, 44744703, 89489407, 715849727, 1431699455, 11453333503, 22906667007, 183252287487, 366504574975, 2932032405503, 5864064811007, 46912501710847, 93825003421695, 750599960264703
a(n) = 3*a(n-1)+14*a(n-2)-48*a(n-3)+32*a(n-4) for n>4.
[A168209] 3, 8, 8, 13, 13, 18, 18, 23, 23, 28, 28, 33, 33, 38, 38, 43, 43, 48, 48, 53, 53, 58, 58, 63, 63, 68, 68, 73, 73, 78, 78, 83, 83, 88, 88, 93, 93, 98, 98, 103, 103, 108, 108, 113, 113, 118, 118, 123, 123, 128, 128, 133, 133, 138, 138, 143, 143, 148, 148, 153, 153, 158
a(n) = (10*n + 7 + 5*(-1)^n)/4. - Jon E. Schoenfield, Jun 24 2010
[A047472] 0, 1, 3, 8, 9, 11, 16, 17, 19, 24, 25, 27, 32, 33, 35, 40, 41, 43, 48, 49, 51, 56, 57, 59, 64, 65, 67, 72, 73, 75, 80, 81, 83, 88, 89, 91, 96, 97, 99, 104, 105, 107, 112, 113, 115, 120, 121, 123, 128, 129, 131, 136, 137, 139, 144, 145, 147, 152, 153, 155
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)
a(n) = 8*n/3-4-cos(2*n*Pi/3)+5*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 8k-5, a(3k-1) = 8k-7, a(3k-2) = 8k-8. (End)
[A191487] 0, 1, 3, 8, 9, 22, 24, 26, 27, 62, 66, 70, 72, 76, 78, 80, 81, 178, 186, 194, 198, 206, 210, 214, 216, 224, 228, 232, 234, 238, 240, 242, 243, 518, 534, 550, 558, 574, 582, 590, 594, 610, 618, 626, 630, 638, 642, 646
a(2*n) = 3*a(n)
[A099256] 3, 8, 9, 23, 24, 61, 63, 160, 165, 419, 432, 1097, 1131, 2872, 2961, 7519, 7752, 19685, 20295, 51536, 53133, 134923, 139104, 353233, 364179, 924776, 953433, 2421095, 2496120, 6338509, 6534927, 16594432, 17108661, 43444787, 44791056, 113739929, 117264507, 297775000, 307002465, 779585071
a(2n+2) - a(2n+1) = F(2n-1).
a(0) = 3, a(1) = 8, a(2) = 9, a(3) = 23, a(n+4) = 3a(n+2) - a(n).
[A212966] 1, 1, 3, 8, 10, 12, 23, 25, 29, 44, 48, 52, 73, 77, 83, 108, 114, 120, 151, 157, 165, 200, 208, 216, 257, 265, 275, 320, 330, 340, 391, 401, 413, 468, 480, 492, 553, 565, 579, 644, 658, 672, 743, 757, 773, 848, 864, 880, 961, 977, 995, 1080, 1098
a(n) = a(n-2)+2*a(n-3)-2*a(n-5)-a(n-6)+a(n-8).
[A047356] 1, 3, 8, 10, 15, 17, 22, 24, 29, 31, 36, 38, 43, 45, 50, 52, 57, 59, 64, 66, 71, 73, 78, 80, 85, 87, 92, 94, 99, 101, 106, 108, 113, 115, 120, 122, 127, 129, 134, 136, 141, 143, 148, 150, 155, 157, 162, 164, 169
a(n) = 7*n-a(n-1)-10 with n>1, a(1)=1. Vincenzo Librandi, Aug 05 2010
a(n) = 7*n/2-13/4-3*(-1)^n/4. G.f. x*(1+2*x+4*x^2) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A213033] 0, 0, 0, 3, 8, 10, 36, 42, 64, 108, 150, 165, 288, 312, 392, 525, 640, 680, 972, 1026, 1200, 1470, 1694, 1771, 2304, 2400, 2704, 3159, 3528, 3654, 4500, 4650, 5120, 5808, 6358, 6545, 7776, 7992, 8664, 9633, 10400, 10660, 12348, 12642, 13552
a(n) = a(n-2)+a(n-3)-a(n-5)+2*a(n-6)-2*a(n-8)+2*a(n-11)-a(n-12)+a(n-14)+a(n-15)-a(n-17).
[A108752] 0, 3, 8, 11, 12, 15, 20, 23, 24, 27, 32, 35, 36, 39, 44, 47, 48, 51, 56, 59, 60, 63, 68, 71, 72, 75, 80, 83, 84, 87, 92, 95, 96, 99, 104, 107, 108, 111, 116, 119, 120, 123, 128, 131, 132, 135, 140, 143, 144, 147, 152, 155, 156, 159, 164, 167, 168, 171, 176, 179, 180
a(n) = 3*n - 2 - (-1)^((2*n-3-(-1)^n)/4). - Luce ETIENNE, Apr 04 2015
[A047470] 0, 3, 8, 11, 16, 19, 24, 27, 32, 35, 40, 43, 48, 51, 56, 59, 64, 67, 72, 75, 80, 83, 88, 91, 96, 99, 104, 107, 112, 115, 120, 123, 128, 131, 136, 139, 144, 147, 152, 155, 160, 163, 168, 171, 176, 179, 184, 187, 192, 195, 200, 203, 208, 211, 216, 219, 224, 227, 232
a(n) = 8*n - a(n-1) - 13 (with a(1)=0). - Vincenzo Librandi, Aug 06 2010
a(n) = 4*n -(9 + (-1)^n)/2. - Arkadiusz Wesolowski, Sep 18 2012
[A003623] 3, 8, 11, 16, 21, 24, 29, 32, 37, 42, 45, 50, 55, 58, 63, 66, 71, 76, 79, 84, 87, 92, 97, 100, 105, 110, 113, 118, 121, 126, 131, 134, 139, 144, 147, 152, 155, 160, 165, 168, 173, 176, 181, 186, 189, 194, 199, 202, 207, 210, 215, 220, 223, 228, 231, 236, 241, 244, 249
a(n) = 2*[n*phi]+n.
[A014255] 1, 3, 8, 12, 21, 27, 40, 48, 65, 75, 96, 108, 133, 147, 176, 192, 225, 243, 280, 300, 341, 363, 408, 432, 481, 507, 560, 588, 645, 675, 736, 768, 833, 867, 936, 972, 1045, 1083, 1160, 1200, 1281, 1323, 1408, 1452, 1541, 1587, 1680, 1728, 1825, 1875, 1976, 2028
a(n) = (n+1)^2 - floor((n+1)/2)^2. - Franklin T. Adams-Watters, May 26 2006
a(n) = 3*n^2/4+7*n/4+7/8 +(-1)^n*(n/4+1/8). - R. J. Mathar, Mar 22 2011
a(n) = (k+1)*(3*k+1) if n = 2*k, 3*(k+1)^2 if n = 2*k+1. - Michael Somos, Feb 27 2014
[A022407] 3, 8, 12, 21, 34, 56, 91, 148, 240, 389, 630, 1020, 1651, 2672, 4324, 6997, 11322, 18320, 29643, 47964, 77608, 125573, 203182, 328756, 531939, 860696, 1392636, 2253333, 3645970, 5899304, 9545275, 15444580, 24989856, 40434437, 65424294
a(n)=Fibonacci(n)+Fibonacci(n+7)-1, n>=-2 - Zerinvary Lajos, Feb 01 2008
[A016885] 3, 8, 13, 18, 23, 28, 33, 38, 43, 48, 53, 58, 63, 68, 73, 78, 83, 88, 93, 98, 103, 108, 113, 118, 123, 128, 133, 138, 143, 148, 153, 158, 163, 168, 173, 178, 183, 188, 193, 198, 203, 208, 213, 218, 223, 228, 233, 238, 243, 248, 253, 258, 263, 268, 273, 278, 283
a(n) = floor((15n+10)/3). - Gary Detlefs, Mar 07 2010
a(n) = 10*n-a(n-1)+1, (with a(0)=3). - Vincenzo Librandi, Nov 20 2010
[A184739] 3, 8, 13, 18, 24, 29, 34, 39, 45, 50, 55, 60, 65, 71, 76, 81, 86, 92, 97, 102, 107, 113, 118, 123, 128, 134, 139, 144, 149, 154, 160, 165, 170, 175, 181, 186, 191, 196, 202, 207, 212, 217, 223, 228, 233, 238, 243, 249, 254, 259, 264, 270, 275, 280, 285, 291, 296, 301, 306, 312, 317, 322, 327, 332, 338, 343, 348, 353, 359,

364, 369, 374, 380, 385, 390, 395, 401, 406, 411, 416, 422, 427, 432, 437, 442, 448, 453, 458, 463, 469, 474, 479, 484, 490, 495, 500, 505, 511, 516, 521, 526, 531, 537, 542, 547, 552, 558, 563, 568, 573, 579, 584, 589, 594, 600, 605, 610, 615, 620, 626
a(n)=floor(n*s+h-h*s), where s=3+sqrt(5), h=1/2.
[A014848] 0, 1, 3, 8, 14, 23, 33, 46, 60, 77, 95, 116, 138, 163, 189, 218, 248, 281, 315, 352, 390, 431, 473, 518, 564, 613, 663, 716, 770, 827, 885, 946, 1008, 1073, 1139, 1208, 1278, 1351, 1425, 1502, 1580, 1661, 1743, 1828, 1914, 2003, 2093, 2186, 2280, 2377, 2475
a(n) = (2*n*(2*n-1)-(-1)^n+1)/4. - Bruno Berselli, Feb 17 2011
a(n) = round(n/(exp(1/n) - 1)), n > 0. - Richard R. Forberg, Nov 14 2014
[A083656] 1, 3, 8, 15, 24, 35, 47, 62, 78, 97, 118, 140, 165, 191, 220, 251, 284, 319, 355, 394, 435, 478, 523, 569, 618, 668, 721, 776, 833, 892, 952, 1015, 1080, 1147, 1216, 1286, 1359, 1433, 1510, 1589, 1669, 1752, 1836, 1923, 2012, 2103, 2196, 2290, 2387, 2485, 2586
a(n) = n*(n-1+1/sqrt(2)) + O(1).
[A005563] 0, 3, 8, 15, 24, 35, 48, 63, 80, 99, 120, 143, 168, 195, 224, 255, 288, 323, 360, 399, 440, 483, 528, 575, 624, 675, 728, 783, 840, 899, 960, 1023, 1088, 1155, 1224, 1295, 1368, 1443, 1520, 1599, 1680, 1763, 1848, 1935, 2024, 2115, 2208, 2303, 2400, 2499, 2600
a(n) = Real((n+1+i)^2). - Gerald Hillier, Oct 12 2008
a(n) = (n!+(n+1)!)/(n-1)!..n>0. - Gary Detlefs, Aug 10 2009
a(n) = floor(n^5/(n^3+1)) with offset 1..a(1)=0. - Gary Detlefs, Feb 11 2010
a(n) = a(n-1) + 2*n+1 (with a(0)=0). - Vincenzo Librandi, Nov 18 2010
a(n) = 15*C(n+4,3)*C(n+4,5)/(C(n+4,2)*C(n+4,4)). - Gary Detlefs, Aug 05 2013
a(n) = (n+2)!/((n-1)!+n!), n>0. - Ivan N. Ianakiev, Nov 11 2013
[A071399] 0, 0, 1, 3, 8, 15, 25, 40, 60, 86, 118, 157, 204, 259, 323, 398, 483, 579, 687, 808, 943, 1091, 1255, 1434, 1629, 1841, 2071, 2320, 2587, 2874, 3182, 3511, 3862, 4235, 4632, 5053, 5498, 5970, 6467, 6991, 7542, 8122, 8731, 9370, 10039, 10739, 11471, 12236
a(n) = round(n^3 * sqrt(2)/12)
[A172296] 3, 8, 15, 26, 39, 56, 75, 98, 129, 172, 233, 312, 413, 540, 707, 898, 1097, 1410, 1757, 2458, 4167, 6784, 10323, 16130, 26631, 37322, 48601, 60992, 75471, 118208, 201547, 296916, 414155, 541186, 680123, 821202, 1088219, 1358206, 1732527, 2718718
a(n) = SUM[i=1..n] {integers i such that (2^i + 1)/3 is prime}.
[A109900] 0, 1, 3, 8, 15, 27, 42, 64, 90, 125, 165, 216, 273, 343, 420, 512, 612, 729, 855, 1000, 1155, 1331, 1518, 1728, 1950, 2197, 2457, 2744, 3045, 3375, 3720, 4096, 4488, 4913, 5355, 5832, 6327, 6859, 7410, 8000, 8610, 9261, 9933, 10648, 11385, 12167, 12972
a(n) = (2*n^3+6*n^2+5*n+1-(n+1)*(-1)^n)/16. - Luce ETIENNE, May 12 2015
[A034828] 0, 0, 1, 3, 8, 15, 27, 42, 64, 90, 125, 165, 216, 273, 343, 420, 512, 612, 729, 855, 1000, 1155, 1331, 1518, 1728, 1950, 2197, 2457, 2744, 3045, 3375, 3720, 4096, 4488, 4913, 5355, 5832, 6327, 6859, 7410, 8000, 8610, 9261, 9933, 10648, 11385, 12167, 12972, 13824
a(n) = if n mod 2 = 1 then (n^2-1)*n/8 otherwise n^3/8.
a(n) = 2a(n-1)+a(n-2)-4a(n-3)+a(n-4)+2a(n-5)-a(n-6);
a(n) = (2n^3+12n^2+23n+14)/16+(n+2)(-1)^n/16; a(n)=sum{k=0..floor((n+2)/2), ((n+2)/(n+2-k))(-1)^k*C(n+2-k, k)C(n-2k+2, 2)C(n-2k, floor((n-2k)/2))}. - Paul Barry, May 13 2005 [Typo corrected by R. J. Mathar, Aug 18 2008]
a(n) = (2*n^2 - 1 + (-1)^n) * n / 16. - Michael Somos, Sep 06 2008
a(-n) = -a(n). - Michael Somos, Sep 06 2008
[A081276] 0, 0, 1, 3, 8, 15, 27, 42, 64, 91, 125, 166, 216, 274, 343, 421, 512, 614, 729, 857, 1000, 1157, 1331, 1520, 1728, 1953, 2197, 2460, 2744, 3048, 3375, 3723, 4096, 4492, 4913, 5359, 5832, 6331, 6859, 7414, 8000, 8615, 9261, 9938, 10648, 11390, 12167, 12977
a(n) = floor(n^3/8).
a(0)=0, a(1)=0, a(2)=1, a(3)=3, a(4)=8, a(5)=15, a(6)=27, a(7)=42, a(8)=64, a(9)=91, a(10)=125, a(n)=3*a(n-1)-3*a(n-2)+a(n-3)+a(n-8)- 3*a(n-9)+ 3*a(n-10)-a (n-11). - Harvey P. Dale, Jan 27 2012
[A135350] 0, 1, 3, 8, 15, 29, 56, 113, 227, 456, 911, 1821, 3640, 7281, 14563, 29128, 58255, 116509, 233016, 466033, 932067, 1864136, 3728271, 7456541, 14913080, 29826161, 59652323, 119304648, 238609295, 477218589, 954437176, 1908874353, 3817748707
a(n) = -(1/3)*{1/2-(1/2)*I*sqrt(3)}^n-(2/9)*(-1)^n-(1/3)*{1/2+(1/2)*I*sqrt(3)}^n+(8/9)*2^n-(2/9) *I*{1/2-(1/2)*I*sqrt(3)}^n*sqrt(3)+(2/9)*I*{1/2+(1/2)*I*sqrt(3
with n>=0 and I=sqrt(-1). - Paolo P. Lava, Jun 09 2008
[A065500] 1, 1, 3, 8, 15, 64, 65, 426, 847, 2528, 2529, 27730, 27731, 360372, 360373, 360374, 720735, 12252256, 12252257, 232792578, 232792579, 232792580, 232792581, 5354228902, 5354228903, 26771144424, 26771144425, 80313433226
a(n) = lcm(seq(i, i=1..n))+n-1, except at n=0 (where the lcm is infinite).
[A115006] 0, 3, 8, 16, 26, 39, 54, 72, 92, 115, 140, 168, 198, 231, 266, 304, 344, 387, 432, 480, 530, 583, 638, 696, 756, 819, 884, 952, 1022, 1095, 1170, 1248, 1328, 1411, 1496, 1584, 1674, 1767, 1862, 1960, 2060, 2163, 2268, 2376, 2486, 2599, 2714, 2832, 2952, 3075, 3200
a(n) = Floor((n+1)^2/4)+n*(n+1).
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).
a(n) = (10*n^2 + 12*n + 1 - (-1)^n)/8.
a(n) = sum_{i=1..n+1} (10*i + (-1)^i - 9)/4. (End)
[A211480] 0, 3, 8, 16, 27, 40, 56, 75, 96, 120, 147, 176, 208, 243, 280, 320, 363, 408, 456, 507, 560, 616, 675, 736, 800, 867, 936, 1008, 1083, 1160, 1240, 1323, 1408, 1496, 1587, 1680, 1776, 1875, 1976, 2080, 2187, 2296, 2408, 2523, 2640, 2760, 2883
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5) for n>5.
[A254875] 1, 3, 8, 16, 28, 45, 68, 97, 134, 179, 233, 297, 372, 458, 557, 669, 795, 936, 1093, 1266, 1457, 1666, 1894, 2142, 2411, 2701, 3014, 3350, 3710, 4095, 4506, 4943, 5408, 5901, 6423, 6975, 7558, 8172, 8819, 9499, 10213, 10962, 11747, 12568, 13427, 14324, 15260
a(n) - 2*a(n+1) + 2*a(n+3) - a(n+4) = -1 if n == 0 (mod 3) else -2 for all n in Z.
[A131941] 0, 1, 3, 8, 16, 29, 47, 72, 104, 145, 195, 256, 328, 413, 511, 624, 752, 897, 1059, 1240, 1440, 1661, 1903, 2168, 2456, 2769, 3107, 3472, 3864, 4285, 4735, 5216, 5728, 6273, 6851, 7464, 8112, 8797, 9519, 10280, 11080, 11921, 12803, 13728, 14696, 15709
a(n) = round((2*n^3+3*n^2+4*n)/12) = round((2*n+1)*(2*n^2+3*n+3)/24) = floor((n+1)*(2*n^2+n+3)/12) = ceil((2*n^3+3*n^2+4*n)/12).
a(n) = a(n-2)+n^2-n+1, n>1. (End)
a(n) = (2*n*(2*n^2+3*n+4)-3*(-1)^n+3)/24. - Bruno Berselli, Dec 07 2010
[A167616] 0, 3, 8, 16, 29, 50, 84, 139, 228, 372, 605, 982, 1592, 2579, 4176, 6760, 10941, 17706, 28652, 46363, 75020, 121388, 196413, 317806, 514224, 832035, 1346264, 2178304, 3524573, 5702882, 9227460, 14930347, 24157812, 39088164, 63245981, 102334150
a(n) = a(n-1) + a(n-2) + 5. - Zak Seidov, Jun 27 2010
a(5)=0, a(6)=3, a(7)=8, a(n) = 2*a(n-1) - a(n-3). - Harvey P. Dale, Dec 31 2011
[A002624] 1, 3, 8, 16, 30, 50, 80, 120, 175, 245, 336, 448, 588, 756, 960, 1200, 1485, 1815, 2200, 2640, 3146, 3718, 4368, 5096, 5915, 6825, 7840, 8960, 10200, 11560, 13056, 14688, 16473, 18411, 20520, 22800, 25270, 27930, 30800, 33880, 37191, 40733, 44528
a(n-1) = (n^4 +10*n^3 +32*n^2 +32*n +(6*n +15)*(n mod 2))/96.
a(n) = C(n + 2, 2) + 2*C(n, 2) + 3*C(n - 2, 2) + 4*C(n - 4, 2) + ...
a(n) = Sum_{i = 1..z} i*C(n + 4 - 2i, 2) where z = (2*n + 3 + (-1)^n)/4.
a(n) = (3*(2*n + 7)*(-1)^n + 2*n^4 + 28*n^3 + 136*n^2 + 266*n + 171)/192.
[A081661] 1, 3, 8, 16, 31, 57, 106, 198, 377, 727, 1420, 2796, 5539, 11013, 21950, 43810, 87517, 174915, 349696, 699240, 1398311, 2796433, 5592658, 11185086, 22369921, 44739567, 89478836, 178957348, 357914347, 715828317, 1431656230, 2863312026
a(n) = 2^(n+2)/3+(n^2+n-1)/2+(-1)^n/6.
[A173283] 1, 3, 8, 16, 32, 56, 96, 152, 240, 360, 536, 768, 1096, 1520, 2096, 2824, 3792, 5000, 6568, 8496, 10960, 13960, 17728, 22264, 27896, 34624, 42872, 52640, 64504, 78464, 95248, 114856, 138256, 165448, 197640, 234832, 278592, 328920, 387744, 455064
a(n) = sum_{t=0..n/2} (2*n-4*t+1)*a(t). [From R. J. Mathar, Apr 01 2010]
[A171497] 3, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648
a(n) = 4*2^n for n > 0; a(0) = 3.

[A227017] 1, 3, 8, 17, 28, 43, 60, 81, 104, 131, 160, 193, 228, 267, 308, 353, 400, 451, 504, 561, 620, 683, 748, 817, 888, 963, 1040, 1121, 1204, 1291, 1380, 1473, 1568, 1667, 1768, 1873, 1980, 2091, 2204, 2321, 2440, 2563, 2688, 2817, 2948, 3083, 3220, 3361, 3504
a(n) = (1/4)*(1 - (-1)^n + 4*n + 6*n^2) (conjectured).
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 1 (conjectured).
[A033816] 3, 8, 17, 30, 47, 68, 93, 122, 155, 192, 233, 278, 327, 380, 437, 498, 563, 632, 705, 782, 863, 948, 1037, 1130, 1227, 1328, 1433, 1542, 1655, 1772, 1893, 2018, 2147, 2280, 2417, 2558, 2703, 2852, 3005, 3162, 3323, 3488, 3657, 3830, 4007, 4188, 4373, 4562
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A011889] 0, 0, 0, 0, 3, 8, 17, 30, 48, 72, 102, 141, 188, 245, 312, 390, 480, 582, 699, 830, 977, 1140, 1320, 1518, 1734, 1971, 2228, 2507, 2808, 3132, 3480, 3852, 4251, 4676, 5129, 5610, 6120, 6660, 7230, 7833, 8468
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-7) -3*a(n-8) +3*a(n-9) -a(n-10). G.f.: x^4*(3-x+2*x^2+x^4+x^5) / ((-1+x)^4*(1+x+x^2+x^3+x^4+x^5+x^6)). [From R. J. Mathar, Apr 15 2010]
[A105163] 1, 1, 3, 8, 17, 31, 51, 78, 113, 157, 211, 276, 353, 443, 547, 666, 801, 953, 1123, 1312, 1521, 1751, 2003, 2278, 2577, 2901, 3251, 3628, 4033, 4467, 4931, 5426, 5953, 6513, 7107, 7736, 8401, 9103, 9843, 10622, 11441, 12301, 13203, 14148, 15137, 16171
a(n) = C(n+1,n-2)-n+2. - Zerinvary Lajos, Mar 21 2008
a(n) = 2*a(n-1) - a(n-2) + n - 1, for all n in Z. - Gionata Neri, Jul 28 2016
[A011850] 0, 0, 0, 0, 0, 1, 3, 8, 17, 31, 52, 82, 123, 178, 250, 341, 455, 595, 765, 969, 1211, 1496, 1828, 2213, 2656, 3162, 3737, 4387, 5118, 5937, 6851, 7866, 8990, 10230, 11594, 13090, 14726, 16511, 18453, 20562
a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -6*a(n-4) +6*a(n-5) -10*a(n-6) +10*a(n-7) -6*a(n-8) +6*a(n-9) -10*a(n-10) +10*a(n-11) -6*a(n-12) +6*a(n-13) -10*a(n-14) +10*a(n-15) -5*a(n-16) +a(n-17). [R. J. Mathar, Apr 15 2010]
[A002625] 1, 3, 8, 17, 33, 58, 97, 153, 233, 342, 489, 681, 930, 1245, 1641, 2130, 2730, 3456, 4330, 5370, 6602, 8048, 9738, 11698, 13963, 16563, 19538, 22923, 26763, 31098, 35979, 41451, 47571, 54390, 61971, 70371, 79660, 89901, 101171, 113540, 127092, 141904, 158068, 175668, 194804, 215568
a(n) = floor((n+1)*(135*(-1)^n + 6*n^4 + 144*n^3 + 1256*n^2 + 4744*n + 6785)/8640+1/2). - Tani Akinari, Oct 07 2012
[A027181] 1, 3, 8, 17, 33, 60, 105, 179, 300, 497, 817, 1336, 2177, 3539, 5744, 9313, 15089, 24436, 39561, 64035, 103636, 167713, 271393, 439152, 710593, 1149795, 1860440, 3010289, 4870785, 7881132, 12751977, 20633171, 33385212, 54018449, 87403729, 141422248
a(n) = -4 + (2^(-1-n)*((1-sqrt(5))^n*(-15+7*sqrt(5)) + (1+sqrt(5))^n*(15+7*sqrt(5))))/sqrt(5) - 2*(1+n).
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>3.
[A130750] 1, 3, 8, 17, 33, 64, 127, 255, 512, 1025, 2049, 4096, 8191, 16383, 32768, 65537, 131073, 262144, 524287, 1048575, 2097152, 4194305, 8388609, 16777216, 33554431, 67108863, 134217728, 268435457, 536870913, 1073741824, 2147483647
a(0) = 1; a(1) = 3; a(2) = 8; for n > 2, a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3).
[A281166] 1, 1, 3, 8, 17, 33, 64, 127, 255, 512, 1025, 2049, 4096, 8191, 16383, 32768, 65537, 131073, 262144, 524287, 1048575, 2097152, 4194305, 8388609, 16777216, 33554431, 67108863, 134217728, 268435457, 536870913, 1073741824, 2147483647, 4294967295, 8589934592
a(n+3) = -a(n) + 9*2^n.
a(n) = 2^n - periodic 6: repeat [0, 1, 1, 0, -1, -1, 0].
a(n+6) = a(n) + 63*2^n.
a(n+1) = 2*a(n) - period 6: repeat [1, -1, -2, -1, 1, 2].
a(n) = 2^n - 2*sin(Pi*n/3)/sqrt(3). - Jean-François Alcover and Colin Barker, Jan 16 2017
a(n)= 2^n - (1/3*i)*sqrt(3)*((1/2 - (1/2*i)*sqrt(3))^n - (1/2 + (1/2*i)*sqrt(3))^n), where i=sqrt(-1). - Paolo P. Lava, Jan 25 2017
[A002626] 1, 3, 8, 17, 34, 61, 105, 170, 267, 403, 594, 851, 1197, 1648, 2235, 2981, 3927, 5104, 6565, 8351, 10529, 13152, 16303, 20049, 24492, 29715, 35841, 42972, 51255, 60813, 71820, 84423, 98826, 115203, 133791, 154794, 178486, 205104, 234962, 268334, 305578
a(n) = floor((n+1)*(n+13)*(135*(-1)^n + 2*n^4 + 56*n^3 + 570*n^2 + 2492*n + 4175)/69120 + 1/2). - Tani Akinari, Nov 07 2012
[A145071] 3, 8, 17, 34, 67, 132, 261, 518, 1031, 2056, 4105, 8202, 16395, 32780, 65549, 131086, 262159, 524304, 1048593, 2097170, 4194323, 8388628, 16777237, 33554454, 67108887, 134217752, 268435481, 536870938, 1073741851, 2147483676
a(1) = 3; a(n) = a(n-1) + 2^n + 1 for n > 1.
a(n) = 2^(n+1) + n - 2. [From Franklin T. Adams-Watters, Jul 06 2009]
[A052996] 1, 3, 8, 17, 35, 71, 143, 287, 575, 1151, 2303, 4607, 9215, 18431, 36863, 73727, 147455, 294911, 589823, 1179647, 2359295, 4718591, 9437183, 18874367, 37748735, 75497471, 150994943, 301989887, 603979775, 1207959551, 2415919103
a(n) = 9*2^(n-2) - 1 for n > 1. - Brad Clardy, Sep 23 2011
[A046994] 1, 3, 8, 17, 38, 78, 164, 332, 680, 1368, 2768, 5552, 11168, 22368, 44864, 89792, 179840, 359808, 720128, 1440512, 2882048, 5764608, 11531264, 23063552, 46131200, 92264448, 184537088, 369078272, 738172928, 1476354048
a(1) = 1; a(2m) = sum_{i = 2...2m-1} a(i) + 3*2^(m-1); a(2m+1) = sum_{i = 2...2m}a(i) + 5*2^(m-1).
a(n) = 11*2^(n-3) - (4 + (-1)^n)*(2^((1/4)*(2n - 7 - (-1)^n))), n >= 2. - Nathaniel Johnston, Feb 03 2006
a(n) = 2*a(n-1)+2*a(n-2)-4*a(n-3) for n>4. G.f.: x*(1+x-x^3)/(1-2*x-2*x^2+4*x^3). - Colin Barker, Jul 19 2012
[A101822] 1, 1, 3, 8, 17, 42, 100, 235, 561, 1331, 3158, 7503, 17812, 42292, 100425, 238445, 566171, 1344336, 3192013, 7579198, 17996232, 42730667, 101460725, 240910755, 572024206, 1358227891, 3225008568, 7657536968, 18182237777, 43172337417
a(n) = a(n-1) + 2*a(n-2) + 3*a(n-3), a(0) = a(1) = 1, a(2) = 3.
a(n) = left term in M^n * [1 0 0], where M = the 3X3 matrix [1 1 1 / 2 0 0 / 0 3/2 0].
[A004210] 1, 3, 8, 18, 30, 43, 67, 90, 122, 161, 202, 260, 305, 388, 416, 450, 555, 624, 730, 750, 983, 1059, 1159, 1330, 1528, 1645, 1774, 1921, 2140, 2289, 2580, 2632, 2881, 3158, 3304, 3510, 3745, 4086, 4563, 4741, 4928, 5052, 5407, 5864, 6242, 6528, 6739, 7253
a(n+1) = min{ k | k and k +- a(i) are not equal to a(i) or a(i)-a(j) or a(i)+a(j) for any n+1 > i > j > 0}. [Corrected by T. D. Noe, Sep 08 2008]
[A184636] 3, 8, 18, 32, 50, 72, 98, 128, 162, 200, 242, 288, 338, 392, 450, 512, 578, 648, 722, 800, 882, 968, 1058, 1152, 1250, 1352, 1458, 1568, 1682, 1800, 1922, 2048, 2178, 2312, 2450, 2592, 2738, 2888, 3042, 3200, 3362, 3528, 3698, 3872, 4050, 4232, 4418, 4608, 4802, 5000, 5202, 5408, 5618, 5832, 6050, 6272, 6498, 6728, 6962, 7200, 7442, 7688, 7938, 8192, 8450, 8712, 8978, 9248, 9522, 9800
a(n)=floor(1/{(n^4+2*n)^(1/4)}), where {}=fractional part.
[A081489] 1, 3, 8, 18, 35, 61, 98, 148, 213, 295, 396, 518, 663, 833, 1030, 1256, 1513, 1803, 2128, 2490, 2891, 3333, 3818, 4348, 4925, 5551, 6228, 6958, 7743, 8585, 9486, 10448, 11473, 12563, 13720, 14946, 16243, 17613, 19058, 20580, 22181, 23863, 25628
a(n) = n*(2*n^2-3*n+7)/6 = C(n, 1) + C(n, 2) + 2*C(n, 3). - Paul Barry, Jul 03 2003
a(n) = 2n + Sum_{i=1..n} (i^2 - 2i). - Wesley Ivan Hurt, Feb 25 2014
[A006478] 1, 3, 8, 18, 38, 76, 147, 277, 512, 932, 1676, 2984, 5269, 9239, 16104, 27926, 48210, 82900, 142055, 242665, 413376, 702408, 1190808, 2014608, 3401833, 5734251, 9650312, 16216602, 27213182, 45608092, 76345851, 127656829, 213230144, 355817324, 593205284
a(n) = 1+((n-2)*F(n+2)+(3*n+1)*F(n+3))/5 (with offset 0).
a(n) = sum(k=0, n-1, sum(i=0, k, F(i)*F(k-i))). - Benoit Cloitre, Jan 26 2003
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + a(n-4) + a(n-5). - Eric W. Weisstein, Sep 05 2017
[A104187] 1, 3, 8, 18, 38, 76, 147, 279, 523, 973, 1802, 3328, 6136, 11302, 20805, 38285, 70437, 129575, 238348, 438414, 806394, 1483216, 2728087, 5017763, 9229135, 16975057, 31222030
a(0)=1, a(1)=3, a(2)=8, a(3)=18, a(4)=38, a(n) = 3*a(n-1) - 2*a(n-2) - a(n-4) + a(n-5). - Harvey P. Dale, Jun 14 2011
[A051633] 3, 8, 18, 38, 78, 158, 318, 638, 1278, 2558, 5118, 10238, 20478, 40958, 81918, 163838, 327678, 655358, 1310718, 2621438, 5242878, 10485758, 20971518, 41943038, 83886078, 167772158, 335544318, 671088638, 1342177278, 2684354558
a(n) = 2*(a(n-1)+1) with a(0)=3. - Vincenzo Librandi, Aug 06 2010
[A131051] 1, 3, 8, 18, 38, 78, 158, 318, 638, 1278, 2558, 5118, 10238, 20478, 40958, 81918, 163838, 327678, 655358, 1310718, 2621438, 5242878, 10485758, 20971518, 41943038, 83886078, 167772158, 335544318, 671088638, 1342177278, 2684354558
a(n) = 5*2^(n-2)-2, n>1. [Gary Detlefs, Jun 22 2010]
a(n) = 2(n-1) + Sum[i=1,n-1] a(i). - Jon Perry, Nov 19 2012
[A011377] 1, 3, 8, 18, 39, 81, 166, 336, 677, 1359, 2724, 5454, 10915, 21837, 43682, 87372, 174753, 349515, 699040, 1398090, 2796191, 5592393, 11184798, 22369608, 44739229, 89478471, 178956956, 357913926

a(n) = Sum_{k=0..(n+2)} floor((n-k+2)/2) * 2^k) =
a(n) = Sum_{k=0..(n+2)} floor(k/2) * 2^(n-k+2)). (End)
a(n) = Sum_{k=0..floor((n+2)/2)} binomial(n-k+2, k+2)*2^k). - Paul Barry, Oct 25 2004
a(n) = floor((2^(n+4)-3*n-6)/6). - David W. Wilson, Feb 26 2006
a(n) = (2^(n+5) - 6*n - 21 + (-1)^n)/12 - Hieronymus Fischer, Dec 02 2006
a(n) = 3*a(n-1) -a(n-2) -3*a(n-3) +2*a(n-4). - Paul Curtz, Jul 29 2008
[A178420] 0, 1, 3, 8, 18, 39, 81, 166, 336, 677, 1359, 2724, 5454, 10915, 21837, 43682, 87372, 174753, 349515, 699040, 1398090, 2796191, 5592393, 11184798, 22369608, 44739229, 89478471, 178956956, 357913926, 715827867, 1431655749, 2863311514
a(n) = round((8*2^n-6*n-9)/12).
a(n) = floor((4*2^n-3*n-4)/6).
a(n) = ceiling((4*2^n-3*n-5)/6).
a(n) = round((4*2^n-3*n-4)/6).
a(n) = a(n-2)+2^(n-1)-1, n>2.
a(n) = (8*2^n-6*n-9+(-1)^n)/12. G.f.: x^2/((1+x)*(1-2*x)*(1-x)^2). - Bruno Berselli, Jan 15 2011
[A026635] 1, 3, 8, 18, 40, 84, 174, 354, 716, 1440, 2890, 5790, 11592, 23196, 46406, 92826, 185668, 371352, 742722, 1485462, 2970944, 5941908, 11883838, 23767698, 47535420, 95070864, 190141754, 380283534, 760567096, 1521134220, 3042268470, 6084536970, 12169073972
a(n) = (-9 + (-1)^n + 17*2^n - 6*n) / 6 for n>0.
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 2*a(n-4) for n>4.
[A135094] 0, 1, 3, 8, 18, 40, 84, 176, 360, 736, 1488, 3008, 6048, 12160, 24384, 48896, 97920, 196096, 392448, 785408, 1571328, 3143680, 6288384, 12578816, 25159680, 50323456, 100651008, 201310208, 402628608, 805273600, 1610563584, 3221159936
a(n) = 3*2^(n-1) - 3*2^(n/2-1) for n even.
a(n) = 3*2^(n-1) - 2^((n+1)/2) for n odd. (End)
[A117080] 1, 3, 8, 18, 40, 89, 197, 435, 960, 2118, 4672, 10305, 22729, 50131, 110568, 243866, 537864, 1186297, 2616461, 5770787, 12727872, 28072206, 61915200, 136558273, 301188753, 664292707, 1465143688, 3231476130, 7127244968, 15719633625, 34670743381, 76468731731
a(n)=3*a(n-1)-2*a(n-2)+a(n-3)-a(n-4). G.f.: x*(-1-x^2+x^3)/((1-x)*(x^3+2*x-1)). [From R. J. Mathar, May 25 2009]
[A066425] 1, 3, 8, 18, 41, 84, 181, 364, 751, 1512, 3037, 6107, 12216, 24547, 49117, 98236, 196544, 393178, 786407, 1573201, 3146426, 6292969, 12586763, 25173709, 50347996, 100696725, 201393664, 402788102, 805576428, 1611153169, 3222306562
a(1)=1, a(n) the smallest integer > a(n-1) so that a(n) - a(k_1) - a(k_2)- ... - a(k_m) is not in the sequence for any nonempty subset {k_1, ..., k_m} of {1, .., n-1}
[A026384] 1, 3, 8, 18, 43, 93, 218, 468, 1093, 2343, 5468, 11718, 27343, 58593, 136718, 292968, 683593, 1464843, 3417968, 7324218, 17089843, 36621093, 85449218, 183105468, 427246093, 915527343, 2136230468, 4577636718, 10681152343, 22888183593, 53405761718
a(n) = (7*5^(n/2) - 3)/4 for n even.
a(n) = 3*(5^((n+1)/2) - 1)/4 for n odd.
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3) for n>2.
[A219391] 0, 3, 8, 19, 23, 40, 55, 80, 88, 119, 144, 183, 195, 240, 275, 328, 344, 403, 448, 515, 535, 608, 663, 744, 768, 855, 920, 1015, 1043, 1144, 1219, 1328, 1360, 1475, 1560, 1683, 1719, 1848, 1943, 2080, 2120, 2263, 2368, 2519, 2563, 2720, 2835, 3000, 3048, 3219
a(n) = a(-n+1) = (42*n*(n-1) + 2*i^(n*(n+1))*(6*n + (-1)^n-3) + 7*(-1)^n*(2*n-1) + 11)/32, where i=sqrt(-1).
[A067332] 3, 8, 19, 40, 80, 154, 289, 532, 965, 1730, 3072, 5412, 9471, 16480, 28535, 49196, 84496, 144638, 246845, 420140, 713353, 1208518, 2043264, 3448200, 5809275, 9771704, 16413019, 27530992, 46122320
a(0)=3, a(1)=8, a(2)=19, a(3)=40, a(n)=2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4). - Harvey P. Dale, Aug 25 2014
[A178457] 0, 0, 0, 0, 0, 1, 3, 8, 19, 41, 85, 174, 352, 708, 1420, 2844, 5693, 11391, 22788, 45583, 91173, 182353, 364714, 729436, 1458880, 2917768, 5835544, 11671097, 23342203, 46684416, 93368843, 186737697, 373475405, 746950822, 1493901656, 2987803324, 5975606660, 11951213332, 23902426677, 47804853367, 95609706748
a(n)=round((22*2^n-92*n-24)/253).
a(n)=floor((22*2^n-92*n+100)/253).
a(n)=ceil((22*2^n-92*n-148)/253).
a(n)=round((22*2^n-92*n-22)/253).
a(n)=a(n-11)+89*2^(n-10)-4 , n>10.
[A079583] 1, 3, 8, 19, 42, 89, 184, 375, 758, 1525, 3060, 6131, 12274, 24561, 49136, 98287, 196590, 393197, 786412, 1572843, 3145706, 6291433, 12582888, 25165799, 50331622, 100663269, 201326564, 402653155, 805306338, 1610612705, 3221225440
a(0)=1, a(n) = 2*a(n-1) + n;
[A099050] 1, 1, 3, 8, 19, 42, 92, 194, 398, 808, 1638, 3334, 6686, 13392, 26842, 53708, 107450, 214952, 430148, 860340, 1720826, 3441688, 6883446, 13766950, 27533998, 55068040, 110136196, 220272460, 440545040, 881090532, 1762181454, 3524362990
a(n) is asymptotic to c*2^n where c=0.8205797305404015389561...
[A008466] 0, 0, 1, 3, 8, 19, 43, 94, 201, 423, 880, 1815, 3719, 7582, 15397, 31171, 62952, 126891, 255379, 513342, 1030865, 2068495, 4147936, 8313583, 16655823, 33358014, 66791053, 133703499, 267603416, 535524643, 1071563515, 2143959070, 4289264409, 8580707127
a(1)=0, a(2)=1, a(3)=3, a(n)=3*a(n-1)-a(n-2)-2*a(n-3). - Miklos Kristof, Nov 24 2003
a(n) = a(n-1)+a(n-2)+2^(n-2). - Jon Stadler (jstadler(AT)capital.edu), Aug 21 2006
a(n) = 2*a(n-1) + Fib(n-1). - Thomas M. Green, Aug 21 2007
a(n) = term (1,3) in the 3 X 3 matrix [3,1,0; -1,0,1; -2,0,0]^n. - Alois P. Heinz, Jul 18 2008
a(n) = 2*a(n-1)-a(n-3)+2^(n-3). - Carmine Suriano, Mar 08 2011
[A189391] 0, 1, 3, 8, 19, 44, 98, 216, 467, 1004, 2134, 4520, 9502, 19928, 41572, 86576, 179587, 372044, 768398, 1585416, 3263210, 6711176, 13775068, 28255568, 57863214, 118430584, 242061468, 494523536, 1009105372, 2058327344, 4194213448
a(n) = Sum_{k=0..floor((n-1)/2)} (2*n-4*k-1)*binomial(n,k).
[A097550] 1, 3, 8, 19, 44, 102, 237, 551, 1281, 2978, 6923, 16094, 37414, 86977, 202197, 470051, 1092736, 2540303, 5905488, 13728594, 31915109, 74193627, 172479257, 400965626, 932131991, 2166943978, 5037533578, 11710844769, 27224411129, 63289077427
a(n) = term (1,1) in the 1 X 3 matrix [1,1,2].[3,1,0; -2,0,1; 1,0,0]^n. - Alois P. Heinz, Jul 24 2008
[A143785] 3, 8, 20, 36, 63, 96, 144, 200, 275, 360, 468, 588, 735, 896, 1088, 1296, 1539, 1800, 2100, 2420, 2783, 3168, 3600, 4056, 4563, 5096, 5684, 6300, 6975, 7680, 8448, 9248, 10115, 11016, 11988, 12996, 14079, 15200, 16400, 17640, 18963, 20328, 21780, 23276
a(n) = (n+2)*(2*n^2+4*n-(-1)^n+1)/8. - Ilya Gutkovskiy, May 07 2016
a(n) = (n^3+4*n^2+4*n)/4 for n even.
a(n) = (n^3+4*n^2+5*n+2)/4 for n odd.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>6. (End)
a(n) = Sum_{k=1..n+1} floor((n+1)*k/2). - Wesley Ivan Hurt, Apr 01 2017
[A139488] 1, 3, 8, 20, 43, 81, 138, 218, 325, 463, 636, 848, 1103, 1405, 1758, 2166, 2633, 3163, 3760, 4428, 5171, 5993, 6898, 7890, 8973, 10151, 11428, 12808, 14295, 15893, 17606, 19438, 21393, 23475, 25688, 28036, 30523, 33153, 35930, 38858, 41941, 45183
a(n)=(4n^3-3n^2+11n+6)/6. - Emeric Deutsch, Apr 30 2008
[A192982] 0, 1, 1, 3, 8, 20, 44, 89, 169, 307, 540, 928, 1568, 2617, 4329, 7115, 11640, 18980, 30876, 50145, 81345, 131851, 213596, 345888, 559968, 906385, 1466929, 2373939, 3841544, 6216212, 10058540, 16275593, 26335033, 42611587, 68947644, 111560320
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A014628] 3, 8, 20, 45, 91, 168, 288, 465, 715, 1056, 1508, 2093, 2835, 3760, 4896, 6273, 7923, 9880, 12180, 14861, 17963, 21528, 25600, 30225, 35451, 41328, 47908, 55245, 63395, 72416, 82368, 93313, 105315, 118440, 132756, 148333, 165243, 183560
a(n) = (n^4-6*n^3+17*n^2-24*n)/12 + n; or equally n*(n-1)*(n^2-5*n+12)/12.
a(n) = C(n,2) + 2*C(n,4). - Gary Detlefs, Jun 06 2010

[A134393] 1, 3, 8, 20, 45, 91, 168, 288, 465, 715, 1056, 1508, 2093, 2835, 3760, 4896, 6273, 7923, 9880, 12180, 14861, 17963, 21528, 25600, 30225, 35451, 41328, 47908, 55245, 63395, 72416, 82368, 93313, 105315, 118440, 132756, 148333, 165243, 183560, 203360, 224721, 247723, 272448
a(n) = binomial(n+3,4) - 2*binomial(n+2,4) + 3*binomial(n+1,4). - Johannes W. Meijer, Apr 29 2011, corrected by Eric Rowland, Aug 16 2017
a(n) = n*(n + 1)*(n^2 - 3*n + 8)/12. - Johannes W. Meijer, Apr 29 2011, corrected by Eric Rowland, Aug 16 2017
[A027928] 1, 3, 8, 20, 46, 97, 189, 344, 591, 967, 1518, 2300, 3380, 4837, 6763, 9264, 12461, 16491, 21508, 27684, 35210, 44297, 55177, 68104, 83355, 101231, 122058, 146188, 174000, 205901, 242327, 283744, 330649, 383571, 443072
a(n) = (n-2)(n^4-8n^3+39n^2-92n+180)/120.
a(n) = C(n,n-1)+C(n+1,n-2)+C(n+2,n-3) with offset 1. - Zerinvary Lajos, May 29 2007
[A048492] 1, 3, 8, 20, 47, 105, 226, 474, 977, 1991, 4028, 8112, 16291, 32661, 65414, 130934, 261989, 524115, 1048384, 2096940, 4194071, 8388353, 16776938, 33554130, 67108537, 134217375, 268435076, 536870504, 1073741387, 2147483181
a(0) = 1; a(n) = a(n-1) + 2^(n+1) - (n+1) for n > 0. - Klaus Brockhaus, Oct 13 2008
a(n) = (-2+2^(2+n)-1/2*(1+n)*(2+n)).
a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4).
[A291097] 3, 8, 20, 47, 106, 233, 504, 1079, 2294, 4853, 10228, 21491, 45042, 94193, 196592, 409583, 851950, 1769453, 3669996, 7602155, 15728618, 32505833, 67108840, 138412007, 285212646, 587202533, 1207959524, 2483027939, 5100273634, 10468982753, 21474836448, 44023414751
a(n) = 2^n*(n/8 + 1) - n.
a(n) = 6*a(n-1) - 13*a(n-2) + 12*a(n-3) -4*a(n-4).
[A050231] 0, 0, 1, 3, 8, 20, 47, 107, 238, 520, 1121, 2391, 5056, 10616, 22159, 46023, 95182, 196132, 402873, 825259, 1686408, 3438828, 6999071, 14221459, 28853662, 58462800, 118315137, 239186031, 483072832, 974791728, 1965486047
a(n) = 2 * a(n-1) + 2^(n-4) - a(n-4) since we can add T or H to a sequence of n-1 flips which has HHH, and H to one which ends in THH and does not have HHH among the first (n-4) flips. - Toby Gottfried, Nov 20 2010
a(n) = 3*a(n-1) - a(n-2) - a(n-3) - 2*a(n-4), a(0)=0, a(1)=0, a(2)=1, a(3)=3. - David Nacin, Mar 07 2012
[A136305] 3, 8, 20, 47, 109, 253, 588, 1367, 3178, 7388, 17175, 39927, 92819, 215778, 501623, 1166132, 2710928, 6302143, 14650705, 34058757, 79177004, 184064203, 427897358, 994740672, 2312491503, 5375890523, 12497429235, 29052998162, 67540026539, 157011512528
a(n+3) = 3*a(n+2)-2*a(n+1)+a(n) (n>=0). [Richard Choulet, Apr 07 2009]
[A001792] 1, 3, 8, 20, 48, 112, 256, 576, 1280, 2816, 6144, 13312, 28672, 61440, 131072, 278528, 589824, 1245184, 2621440, 5505024, 11534336, 24117248, 50331648, 104857600, 218103808, 452984832, 939524096, 1946157056, 4026531840, 8321499136, 17179869184, 35433480192
a(n) = (n+2)*2^(n-1).
a(n) = 4*a(n-1) - 4*a(n-2).
a(n) = Sum_{k=0..n+2} binomial(n+2, 2k)*k. - Paul Barry, Mar 06 2003
a(n) = Sum_{k=0..n} binomial(n, k)*(k + 1). - Lekraj Beedassy, Jun 24 2004
a(n) = 1 + Sum_{k=1..n} (n - k + 4)2^(n - k - 1). This follows from the result that the number of parts equal to k in all compositions of n is (n - k + 3)2^(n - k - 2) for 0 < k < n. - Geoffrey Critzer, Sep 21 2008
a(n) = 2^(n-1) + 2 a(n-1) ; a(n-1) = det(n - |i - j|)_{i, j = 1..n}. - M. F. Hasler, Dec 17 2008
[A048739] 1, 3, 8, 20, 49, 119, 288, 696, 1681, 4059, 9800, 23660, 57121, 137903, 332928, 803760, 1940449, 4684659, 11309768, 27304196, 65918161, 159140519, 384199200, 927538920, 2239277041, 5406093003, 13051463048, 31509019100, 76069501249
a(n) = 2*a(n-1) + a(n-2) + 1 with n > 1, a(0)=1, a(1)=3.
a(n) = ((2 + (3*sqrt(2))/2)*(1 + sqrt(2))^n - (2 - (3*sqrt(2))/2)*(1 - sqrt(2))^n)/(2*sqrt(2)) - 1/2.
a(0)=1, a(n+1) = ceiling(x*a(n)) for n > 0, where x = 1+sqrt(2). - Paul D. Hanna, Apr 22 2003
a(n) = 3*a(n-1) - a(n-2) - a(n-3). With two leading zeros, e.g.f. is exp(x)(cosh(sqrt(2)x)-1)/2. a(n) = Sum_{k=0..floor((n+2)/2)} binomial(n+2, 2k+2)2^k. - Paul Barry, Aug 16 2003
a(n) = floor((1+sqrt(2))^(n+2)/4). - Bruno Berselli, Feb 06 2013
a(n) = (((1-sqrt(2))^(n+2) + (1+sqrt(2))^(n+2) - 2) / 4). - Altug Alkan, Mar 16 2016
[A122595] 1, 3, 8, 20, 50, 125, 313, 784, 1964, 4920, 12325, 30875, 77344, 193752, 485362, 1215865, 3045825, 7630000, 19113672, 47881056, 119945321, 300471235, 752701000, 1885567500, 4723475586, 11832629493, 29641546393, 74254101600
a(n) = 3*a(n-1) - a(n-2) - a(n-3) + a(n-4) for n>4. - Wesley Ivan Hurt, Sep 18 2015
[A187003] 1, 1, 3, 8, 20, 50, 126, 317, 798, 2008, 5053, 12716, 32000, 80528, 202649, 509967, 1283334, 3229515, 8127087, 20451846, 51467150, 129517283, 325930746, 820205989, 2064051559, 5194193770, 13071208809, 32893747768, 82777244097, 208309256477, 524211053501
a(n):=sum(m=1..n, sum(k=m..n, binomial(m,k-m)*sum(j=0..k, binomial(k,j)*binomial(j,n-3*k+2*j)))), a(0)=1.
[A101893] 0, 0, 1, 3, 8, 20, 50, 126, 320, 816, 2084, 5324, 13600, 34736, 88712, 226552, 578560, 1477504, 3773200, 9635888, 24607872, 62842944, 160486688, 409846752, 1046656000, 2672922880, 6826040896, 17432165568, 44517810688, 113688426240
a(n) = 4*a(n-1) - 4*a(n-2) + 2*a(n-4).
[A140662] 1, 3, 8, 20, 50, 126, 322, 834, 2187, 5797, 15510, 41834, 113633, 310571, 853466, 2356778, 6536381, 18199283, 50852018, 142547558, 400763222, 1129760414, 3192727796, 9043402500, 25669818475, 73007772801, 208023278208
a(n)=sum_{m=1..[(n+1)/2]} (n+1)!/((n+1-2m)!m!(m+1)!).
[A077997] 1, 1, 3, 8, 20, 51, 130, 331, 843, 2147, 5468, 13926, 35467, 90328, 230049, 585893, 1492163, 3800268, 9678592, 24649615, 62778090, 159884387, 407196479, 1037055435, 2641191736, 6726635386, 17131517943, 43630863008, 111119879345, 283002139641, 720755021635
a(n)=2*a(n-1)+a(n-2)+a(n-3), n>2 ; a(0)=1, a(1)=1, a(2)=3. [Philippe Deléham, Nov 20 2008]
a(n)=sum(m=1..n, sum(i=0..n-m, binomial(m+i-1,m-1)*sum(j=0..m, binomial(j,n-3*m+2*j-i)*binomial(m,j)))), n>0, a(0)=1. [Vladimir Kruchinin, May 12 2011]
[A027319] 1, 3, 8, 20, 120, 432, 1512, 5184, 17496, 58320, 192456, 629856, 2047032, 6613488, 21257640, 68024448, 216827928, 688747536, 2181033864, 6887475360, 21695547384, 68186006064, 213856109928, 669462604992, 2092070640600, 6527260398672, 20334926626632
a(n) = 6*a(n-1)-9*a(n-2) for n>5.
[A179903] 1, 3, 8, 21, 46, 87, 148, 233, 346, 491, 672, 893, 1158, 1471, 1836, 2257, 2738, 3283, 3896, 4581, 5342, 6183, 7108, 8121, 9226, 10427, 11728, 13133, 14646, 16271, 18012, 19873, 21858, 23971, 26216, 28597, 31118, 33783, 36596, 39561, 42682, 45963
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 04 2012
[A193045] 0, 1, 1, 3, 8, 21, 49, 105, 210, 399, 729, 1293, 2242, 3821, 6427, 10703, 17690, 29073, 47579, 77621, 126340, 205291, 333171, 540233, 875428, 1417961, 2295989, 3716875, 6016140, 9736669, 15756869, 25498033, 41259862, 66763351, 108029197
a(n)=5*a(n-1)-9*a(n-2)+6*a(n-3)+a(n-4)-3*a(n-5)+a(n-6).
[A259714] 1, 1, 3, 8, 21, 50, 129, 327, 827, 2089, 5290, 13386, 33868, 85693, 216836, 548660, 1388269, 3512737, 8888292, 22490049, 56906580, 143990771, 364339983, 921889753, 2332658401, 5902327520, 14934664284, 37789193522, 95618028007, 241942376384
a(n) = a(n-1)+2*a(n-2)+3*a(n-3)+4*a(n-4)+a(n-5) for n>6.
[A186812] 1, 1, 3, 8, 21, 53, 135, 346, 886, 2266, 5796, 14828, 37935, 97047, 248269, 635134, 1624833, 4156729, 10633949, 27204296, 69595384, 178042372, 455476844, 1165223500, 2980932677, 7625970145, 19509135875, 49909241100, 127680301337, 326638093273, 835621805859
a(n+1) = sum(m=1..n, sum(k=m..n, binomial(k,n-k) *sum(j=0..m, binomial(m,j) *binomial(j,k-3*m+2*j)))).
[A027930] 1, 3, 8, 21, 54, 133, 309, 674, 1383, 2683, 4950, 8735, 14820, 24285, 38587, 59652, 89981, 132771, 192052, 272841, 381314, 524997, 712977, 956134, 1267395, 1662011, 2157858, 2775763, 3539856, 4477949, 5621943, 7008264
a(n) = sum(binomial(n-k, 7-2k), k=0..3). - Len Smiley, Oct 20 2001
a(n) = C(n,n-1)+C(n+1,n-2)+C(n+2,n-3)+C(n+3,n-4), n>=1. - Zerinvary Lajos, May 29 2007
a(n) = 8*a(n-1) -28*a(n-2) +56*a(n-3) -70*a(n-4) +56*a(n-5) -28*a(n-6) +8*a(n-7) -a(n-8). G.f.: x^4*(x^2-x+1)*(x^4-4*x^3+7*x^2-4*x+1)/(x-1)^8. - R. J. Mathar, Oct 05 2009
[A291039] 1, 3, 8, 21, 54, 136, 337, 825, 2000, 4809, 11484, 27264, 64401, 151455, 354808, 828349, 1927986, 4475080, 10361441, 23936565, 55183904, 126983569, 291698040, 669004352, 1532095329, 3503889147, 8003207912, 18258464741, 41608726254, 94722900936, 215428701233
a(n) = 4*a(n-1) - 4*a(n-2) + 2*a(n-3) - 4*a(n-4) - a(n-6) for n >= 7.

[A094723] 1, 3, 8, 21, 54, 137, 344, 857, 2122, 5229, 12836, 31413, 76686, 186833, 454448, 1103921, 2678674, 6494037, 15732284, 38089677, 92173782, 222961529, 539145416, 1303349513, 3150038746, 7611815613, 18390447188, 44426264421, 107310084894
a(n) = ((1+sqrt(2))^n*(3*sqrt(2)/4+1)-(3*sqrt(2)/4-1)(1-sqrt(2))^n)-2^n.
a(n) = 4*a(n-1) -3*a(n-2) -2*a(n-3). - Vincenzo Librandi, Jun 24 2012
[A190139] 1, 1, 3, 8, 21, 54, 140, 363, 941, 2439, 6322, 16387, 42476, 110100, 285385, 739733, 1917427, 4970072, 12882689, 33392610, 86555408, 224356187, 581543081, 1507390367, 3907235410, 10127760455, 26251689768, 68045765768, 176378217169, 457181650329, 1185038973363
a(n) = Sum_{k=1..n} (Sum_{t=k..n} (Sum_{j=0..k} C(k,j) * Sum_{i=j..t-k+j} C(j,i-j)*C(k-j,t-3*(k-j)-i)*C(-t+n+k-1,k-1))), n>0, a(0)=1.
[A027932] 1, 3, 8, 21, 55, 143, 364, 894, 2098, 4685, 9955, 20175, 39130, 72905, 130965, 227612, 383911, 630191, 1009242, 1580345, 2424289, 3649547, 5399802, 7863034, 11282400, 15969161, 22317933, 30824563, 42106956, 56929205
a(n)=sum(binomial(n-k, 9-2k), k=0..4). - Len Smiley, Oct 20 2001
a(n)=C(n,n-1)+C(n+1,n-2)+C(n+2,n-3)+C(n+3,n-4)+C(n+4,n-5), n>=1 . - Zerinvary Lajos, May 29 2007
[A084625] 1, 3, 8, 21, 55, 143, 366, 919, 2265, 5491, 13125, 31000, 72485, 168042, 386709, 884161, 2009742, 4543830, 10222264, 22891099, 51041560, 113359224, 250839510, 553173006, 1216070081, 2665518207, 5826533103, 12703217438, 27628250142
a(n)=sum{k=0..n, C(n, k)floor(C(k+5, 5)/C(k+2, 2)) }
[A088305] 1, 1, 3, 8, 21, 55, 144, 377, 987, 2584, 6765, 17711, 46368, 121393, 317811, 832040, 2178309, 5702887, 14930352, 39088169, 102334155, 267914296, 701408733, 1836311903, 4807526976, 12586269025, 32951280099, 86267571272, 225851433717
a(0) = 1, a(n) = (h^(2n) - h^(-2n))/sqrt(5), where h = (1+sqrt(5))/2.
a(n) = Sum{k=1..n+1} binomial(n+k-1,n-k), with a(0)=1. - Paolo P. Lava, Apr 13 2007
a(0) = 1, a(1) = 1, a(2) = 3, a(n+1) = 3*a(n)-a(n-1) for n>=2. - Philippe Deléham, Nov 21 2007
a(n) = (((3+sqrt(5))/2)^n-((3-sqrt(5))/2)^n)/sqrt(5) [Geoffrey Critzer, Sep 23 2008]
[A001906] 0, 1, 3, 8, 21, 55, 144, 377, 987, 2584, 6765, 17711, 46368, 121393, 317811, 832040, 2178309, 5702887, 14930352, 39088169, 102334155, 267914296, 701408733, 1836311903, 4807526976, 12586269025, 32951280099, 86267571272, 225851433717, 591286729879, 1548008755920
a(n) = -a(-n).
a(n) = (ap^n - am^n)/(ap-am), with ap := (3+sqrt(5))/2, am := (3-sqrt(5))/2.
a(n) = Sum_{k=0..n} binomial(n, k)*F(k). - Benoit Cloitre, Sep 03 2002
a(0)=0, a(1)=1, a(2)=3, a(n)*a(n-2) + 1 = a(n-1)^2. - Benoit Cloitre, Dec 06 2002
a(n) = Sum_{k=1..n} binomial(n+k-1, n-k). - Vladeta Jovovic, Mar 23 2003
a(n) = Sum_{i=0..n-1} binomial(2*n-1-i, i)*5^(n-i-1)*(-1)^i. - Mario Catalani (mario.catalani(AT)unito.it), Jul 23 2004
[A243633] 1, 1, 3, 8, 21, 56, 152, 417, 1149, 3169, 8738, 24083, 66356, 182806, 503597, 1387317, 3821839, 10528644, 29005093, 79905508, 220130016, 606431481, 1670644817, 4602422317, 12679110454, 34929397819, 96226217048, 265091454958
a(n) = sum(m=0..n, sum(k=0..n/2, binomial(m+k-1,k)*binomial(n+m-1,n-4*k-m))).
[A094374] 1, 3, 8, 21, 56, 153, 428, 1221, 3536, 10353, 30548, 90621, 269816, 805353, 2407868, 7207221, 21588896, 64701153, 193972388, 581655021, 1744440776, 5232273753, 15694724108, 47079978021, 141231545456, 423677859153, 1271000023028, 3812932960221, 11438664662936
a(n) = 6a(n-1)-11a(n-2)+6a(n-3).
a(n) = sum{k=0..n, C(n,k)+2^k*C(n,k+1)}; - Paul Barry, Dec 04 2007
a(n) = StirlingS2(n+1,3) + 2*StirlingS2(n+1,2) + 1. - Ross La Haye, Jan 11 2008
a(0)=1, a(1)=3, a(2)=8, a(n)=6*a(n-1)-11*a(n-2)+6*a(n-3). - Harvey P. Dale, Jul 22 2013
[A273720] 1, 3, 8, 21, 57, 162, 479, 1458, 4528, 14259, 45349, 145289, 468121, 1515128, 4922145, 16040310, 52411294, 171646085, 563266323, 1851661113, 6096654978, 20101681834, 66362538332, 219336702948, 725692113292, 2403295565913, 7966021263923, 26425616887971
a(n) = ((2*(3*n-7))*(2*n-9)*a(n-1) -(254-155*n+22*n^2)*a(n-2) +(2*(101 -58*n +8*n^2))*a(n-3) -(86-47*n+6*n^2)*a(n-4) +(2*(n-6))*(2*n-5)*a(n-5) -(n-6)*(2*n-5)*a(n-6))/((n-2)*(2*n-9)) for n>=6. - Alois P. Heinz, Jun 01 2016
[A178525] 0, 0, 3, 8, 22, 49, 104, 208, 403, 760, 1406, 2561, 4608, 8208, 14499, 25432, 44342, 76913, 132808, 228416, 391475, 668840, 1139518, 1936513, 3283392, 5555424, 9381699, 15815528, 26618518, 44733745, 75073256, 125827696, 210642643
a(n)=a(n-1)+a(n-2)+2F(n+1)+2F(n-1)-3 (n>=2); F(0)=0, F(1)=0.
[A271893] 1, 3, 8, 22, 58, 156, 412, 1100, 2912, 7752, 20552, 54640, 144976, 385200, 1022464, 2715872, 7210400, 19149504, 50845376, 135026368, 358537216, 952107648, 2528205952, 6713619200, 17827416320, 47340073728, 125708097536, 333811992064, 886415931904, 2353831246848, 6250454268928, 16597737933824
a(n) >= 2^n.
[A291399] 1, 3, 8, 22, 59, 156, 412, 1093, 2903, 7707, 20453, 54275, 144035, 382255, 1014469, 2692284, 7144989, 18961928, 50322686, 133550412, 354426839, 940606403, 2496256771, 6624766692, 17581338025, 46658767166, 123826784175, 328621466028, 872122042693
a(n) = a(n-1) + 2*a(n-2) + 3*a(n-3) + 5*a(n-4) + 7*a(n-5) + 7*a(n-6) +4*a(n-7) + a(n-8) for n >= 9.
[A077848] 1, 3, 8, 22, 59, 157, 418, 1112, 2957, 7863, 20908, 55594, 147823, 393057, 1045126, 2778956, 7389153, 19647515, 52242096, 138910014, 369357155, 982108517, 2611394218, 6943611264, 18462833781, 49092067263, 130534190836, 347086116498, 922890558359, 2453935614889
a(0)=1, a(1)=3, a(2)=8, a(3)=22, a(n)=3*a(n-1)-a(n-2)+a(n-3)-2*a(n-4). - Harvey P. Dale, Oct 12 2012
[A028859] 1, 3, 8, 22, 60, 164, 448, 1224, 3344, 9136, 24960, 68192, 186304, 508992, 1390592, 3799168, 10379520, 28357376, 77473792, 211662336, 578272256, 1579869184, 4316282880, 11792304128, 32217174016, 88018956288, 240472260608, 656982433792, 1794909388800, 4903783645184, 13397386067968
a(n)=[(1+sqrt(3))^(n+2)-(1-sqrt(3))^(n+2)]/(4*sqrt(3)). - Emeric Deutsch, Feb 01 2005
[A155020] 1, 1, 3, 8, 22, 60, 164, 448, 1224, 3344, 9136, 24960, 68192, 186304, 508992, 1390592, 3799168, 10379520, 28357376, 77473792, 211662336, 578272256, 1579869184, 4316282880, 11792304128, 32217174016, 88018956288, 240472260608, 656982433792, 1794909388800, 4903783645184, 13397386067968
a(n) = (1/3)*sqrt(3)*{[1+sqrt(3)]^(n-1)-[1-sqrt(3)]^(n-1)}+(1/2) *{[1+sqrt(3)]^(n-1)+[1-sqrt(3)]^(n-1)} +(1/2)*[C(2*n,n) mod 2], with n>=0. - Paolo P. Lava, Jan 26 2009
a(n) = sum(bin(n-k,k)*2^(n-k-1),k=0..floor(n/2)) for n > 0. - Emanuele Munarini, Feb 04 2014
[A048503] 1, 3, 8, 22, 61, 165, 430, 1080, 2627, 6223, 14428, 32874, 73849, 163977, 360602, 786604, 1704127, 3670227, 7864552, 16777470, 35651861, 75497773, 159383878, 335544672, 704643451, 1476395415, 3087008180, 6442451410
a(n) = (14+7*n+n^2+(n-3)*2^(n+2))/2. - T. D. Noe, Dec 11 2006
[A048579] 3, 8, 22, 61, 170, 474, 1322, 3688, 10289, 28705, 80084, 223427, 623341, 1739065, 4851835, 13536184, 37764738, 105360229, 293945582, 820081790, 2287954586, 6383187935, 17808521403, 49684176276, 138614392311, 386721712946, 1078918868168, 3010086801751
a(n) = 3*a(n-1) - a(n-2) + 2*a(n-3) - 2*a(n-4) - a(n-5) (holds at least up to n = 1000 but is not known to hold in general).
[A121449] 1, 1, 3, 8, 22, 61, 170, 475, 1329, 3721, 10422, 29196, 81797, 229178, 642125, 1799169, 5041123, 14124860, 39576902, 110891905, 310712054, 870595599, 2439354329, 6834918465, 19151015274, 53659951372, 150351841201, 421276495414, 1180390506681, 3307380699281
a(0)=a(1)=1, a(2)=3, a(n+1) = 4*a(n) - 3*a(n-1) - a(n-2) for n>=2.
[A047926] 1, 3, 8, 22, 63, 185, 550, 1644, 4925, 14767, 44292, 132866, 398587, 1195749, 3587234, 10761688, 32285049, 96855131, 290565376, 871696110, 2615088311, 7845264913, 23535794718, 70607384132, 211822152373, 635466457095, 1906399371260
a(n+1) = 3*a(n) - n. - Franklin T. Adams-Watters, Jul 05 2014
[A290898] 1, 3, 8, 22, 65, 203, 647, 2053, 6423, 19811, 60490, 183750, 557551, 1693921, 5157224, 15731043, 48041589, 146785994, 448475954, 1369853581, 4182850121, 12769287055, 38976737437, 118967979141, 363132913719, 1108463577238, 3383732698880, 10329587789993
a(n) = 9*a(n-1) - 34*a(n-2) + 71*a(n-3) - 89*a(n-4) + 71*a(n-5) - 34*a(n-6) + 9*a(n-7) - a(n-8).
[A071618] 0, 1, 3, 8, 23, 61, 160, 421, 1103, 2888, 7563, 19801, 51840, 135721, 355323, 930248, 2435423, 6376021, 16692640, 43701901, 114413063, 299537288, 784198803, 2053059121, 5374978560, 14071876561, 36840651123, 96450076808, 252509579303
a(n) = floor (phi^2n / 2) = floor ((Lucas(2n)-1) / 2). - Thomas Baruchel, Aug 31 2004
a(-n) = a(n). a(n) = 2*a(n-1) + a(n-2) + 2*a(n-3) - a(n-4) + 2. - Michael Somos, Mar 08 2007
a(0)=0, a(1)=1, a(2)=3, a(3)=8, a(4)=23, a(n) = 3*a(n-1) - a(n-2) + a(n-3) - 3*a(n-4) + a(n-5). - Harvey P. Dale, Dec 18 2011
[A176880] 1, 3, 8, 23, 65, 182, 511, 1435, 4028, 11307, 31741, 89102, 250123, 702135, 1971004, 5532919, 15531777, 43600150, 122392503, 343575075, 964469468, 2707418035, 7600149781, 21334820094, 59890207635, 168121266303, 471942931900, 1324818304479, 3718974098873
a(n) = +3*a(n-1) -a(n-2) +2*a(n-3) -2*a(n-4).

[A291037] 1, 3, 8, 23, 66, 188, 537, 1533, 4376, 12493, 35664, 101812, 290649, 829731, 2368680, 6762003, 19303866, 55107824, 157319377, 449108397, 1282094784, 3660067465, 10448598672, 29828197224, 85152217777, 243088784019, 693959105912, 1981083753503, 5655510252642
a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) - 2*a(n-4) - a(n-6) for n >= 7.
[A147704] 1, 1, 3, 8, 23, 66, 190, 547, 1575, 4535, 13058, 37599, 108262, 311728, 897585, 2584493, 7441751, 21427668, 61698511, 177653782, 511533678, 1472902523, 4241053787, 12211627683, 35161980526, 101244887791
a(n) = 3*a(n-1) - a(n-3), n>2 ; a(0)=1, a(1)=1, a(2)=3. - Philippe Deléham, Dec 15 2008
[A116410] 1, 1, 3, 8, 23, 66, 192, 561, 1647, 4850, 14318, 42351, 125468, 372191, 1105275, 3285288, 9772767, 29090826, 86646486, 258208671, 769820418, 2296067565, 6850744365, 20447143866, 61045757604, 182303186391, 544550917797
a(n) = ((3^n+2*0^n)/3 + Sum_{k=0..floor(n/2)} C(n,2k)C(2k,k))/2.
a(n) = (4*3^n+3*(-1)^n*y1(n+1)+3^(n+2)*y2(n+1))/24, n>0.
a(n) = ((5*n-4)*a(n-1) -(3*n-6)*a(n-2) -(9*n-18)*a(n-3))/n for n>3. - Alois P. Heinz, May 30 2016
[A057198] 3, 8, 23, 68, 203, 608, 1823, 5468, 16403, 49208, 147623, 442868, 1328603, 3985808, 11957423, 35872268, 107616803, 322850408, 968551223, 2905653668, 8716961003, 26150883008, 78452649023, 235357947068, 706073841203, 2118221523608
a(n+1) = 3*a(n) - 1 for n > 1. [Reinhard Zumkeller, Jan 22 2011]
[A056010] 1, 1, 3, 8, 23, 68, 207, 644, 2040, 6558, 21343, 70186, 232864, 778550, 2620459, 8872074, 30195288, 103246502, 354508628, 1221846856, 4225644866, 14659644348, 51002664023, 177909901566, 622093882290, 2180123564130, 7656055966092
a(n) = 2*a(n-1) + a(0)*a(n-2) + ... + a(n-2)*a(0) for n>1.
[A192679] 1, 1, 1, 3, 8, 23, 68, 217, 738, 2662, 10111, 40281, 167605, 725850, 3262107, 15175084, 72908536, 361068922, 1839982245, 9633358049, 51746379547, 284824200163, 1604632175859, 9243292234736, 54390064543757, 326645626694244, 2000556362576213, 12485902607285611
a(n) = floor(sqrt(orderedBell(n))).
[A193418] 1, 3, 8, 23, 69, 206, 616, 1846, 5537, 16609, 49824, 149469, 448405, 1345212, 4035632, 12106892, 36320673, 108962015, 326886040, 980658115, 2941974341, 8825923018, 26477769048, 79433307138, 238299921409, 714899764221, 2144699292656
a(n) = b(n+1,3)-b(n+1,4) with b(n,c) = sum(floor(3^m/2^c), m=1..n).
a(n) = (9*3^n+4*n+1-(1+(-1)^n)*(1+4*i^n))/32, where i=sqrt(-1). - Bruno Berselli, Jul 30 2011
[A000782] 1, 3, 8, 23, 70, 222, 726, 2431, 8294, 28730, 100776, 357238, 1277788, 4605980, 16715250, 61020495, 223931910, 825632610, 3056887680, 11360977650, 42368413620, 158498860260, 594636663660, 2236748680998, 8433988655580, 31872759742852, 120699748759856
a(n) = leftmost column term of M^(n-1)*V, where M = a tridiagonal matrix with 1's in the super and subdiagonals, (1,2,2,2,...) in the main diagonal; and the rest zeros. V = the vector [1,2,0,0,0,...]. - Gary W. Adamson, Jun 16 2011
[A080097] 0, 3, 8, 24, 63, 168, 440, 1155, 3024, 7920, 20735, 54288, 142128, 372099, 974168, 2550408, 6677055, 17480760, 45765224, 119814915, 313679520, 821223648, 2149991423, 5628750624, 14736260448, 38580030723, 101003831720
a(n) = (1/5) *(Lucas(2*n+4) - 2*(-1)^n - 5).
[A096886] 1, 3, 8, 24, 64, 192, 512, 1536, 4096, 12288, 32768, 98304, 262144, 786432, 2097152, 6291456, 16777216, 50331648, 134217728, 402653184, 1073741824, 3221225472, 8589934592, 25769803776, 68719476736, 206158430208, 549755813888
a(n) = (1 + (-1)^n)8^floor((n+1)/2)/2 + 3(1-(-1)^n)8^floor(n/2)/2;
a(n) = 2^(3n/2)(3sqrt(2)/8+1/2 - (3sqrt(2)/8-1/2)(-1)^n).
a(2n+1) = 2a(2n) + 2a(2n-1) + 2a(2n-2);
a(2n) = 2a(2n-1) + 2a(2n-2).
a(n+3) = a(n+2)*a(n+1)/a(n). [Reinhard Zumkeller, Mar 04 2011]
[A095125] 1, 3, 8, 24, 69, 202, 587, 1711, 4981, 14508, 42248, 123039, 358314, 1043497, 3038897, 8849971, 25773136, 75057288, 218584013, 636566754, 1853828259, 5398772767, 15722463557, 45787417156, 133343452216, 388326692343, 1130896324178, 3293429273169, 9591220826529
a(n+3) = 2*a(n+2) + 3*a(n+1) - a(n), with a(1) = 1, a(2) = 3, a(3) = 8.
[A291243] 3, 8, 24, 71, 210, 621, 1836, 5428, 16047, 47440, 140247, 414612, 1225716, 3623579, 10712370, 31668929, 93622704, 276776352, 818232603, 2418937120, 7151092203, 21140739568, 62498266944, 184763326671, 546214936050, 1614772594421, 4773744472356, 14112597876668
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3) - a(n-4) for n >= 5.
[A153774] 1, 3, 8, 24, 71, 213, 638, 1914, 5741, 17223, 51668, 155004, 465011, 1395033, 4185098, 12555294, 37665881, 112997643, 338992928, 1016978784, 3050936351, 9152809053, 27458427158, 82375281474, 247125844421, 741377533263, 2224132599788, 6672397799364, 20017193398091
a(n) = (7*3^(n - 1) + 2 + (-1)^n)/8.
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3).
[A080923] 1, 3, 8, 24, 72, 216, 648, 1944, 5832, 17496, 52488, 157464, 472392, 1417176, 4251528, 12754584, 38263752, 114791256, 344373768, 1033121304, 3099363912, 9298091736, 27894275208, 83682825624, 251048476872, 753145430616
a(n) = 2^3*3^(n-2), n >= 2, a(0) = 1, a(1) = 3. - Wolfdieter Lang, Jan 18 2013
[A178543] 0, 1, 3, 8, 24, 73, 219, 656, 1968, 5905, 17715, 53144, 159432, 478297, 1434891, 4304672, 12914016, 38742049, 116226147, 348678440, 1046035320, 3138105961, 9414317883, 28242953648, 84728860944, 254186582833
a(n) = round(3^(n+1)/10).
a(n) = floor((3*3^n+3)/10).
a(n) = ceil((3*3^n-3)/10).
a(n) = a(n-4)+8*3^(n-3) , n>3.
a(n) = 3*a(n-1)-a(n-2)+3*a(n-3), n>2.
[A275856] 1, 1, 3, 8, 24, 74, 231, 723, 2265, 7098, 22246, 69724, 218533, 684941, 2146791, 6728628, 21089356, 66099798, 207174811, 649342415, 2035216397, 6378923798, 19993288618, 62664424664, 196407414185, 615594454969, 1929441078187, 6047395073408, 18954187089376
a(n) = floor(s*a(n-1)) + floor(r*a(n-2)), where r = (1+sqrt(5))/2, s = r/(r-1).
[A000958] 1, 1, 3, 8, 24, 75, 243, 808, 2742, 9458, 33062, 116868, 417022, 1500159, 5434563, 19808976, 72596742, 267343374, 988779258, 3671302176, 13679542632, 51134644014, 191703766638, 720629997168, 2715610275804, 10256844598900, 38822029694628, 147229736485868
a(n) = (-1/2)^n*(-2-5*Sum((-8)^k*Gamma(1/2+k)*(4/5+k)/(sqrt(Pi)*Gamma(k+3)),k=1.. n-1)). - Mark van Hoeij, Nov 11 2009
a(n) = sum of top row terms in M^(n-1), where M = the following infinite square production matrix:
a(n) = Catalan(n-1)*h(n-1) for n>=2 where h(n) = hypergeom([1,3/2,-n/2,(1-n)/2],[1/2,-n,-n+1/2], 1). - Peter Luschny, Apr 25 2016
[A026970] 1, 3, 8, 25, 60, 147, 336, 765, 1700, 3751, 8184, 17745, 38220, 81915, 174752, 371365, 786420, 1660239, 3495240, 7340025, 15379100, 32156323, 67108848, 139810125, 290805060, 603979767, 1252698776, 2594876065, 5368709100
a(n) = -((-1)^n-2^(n+2)+3)*(n+2)/6 for n>0.
a(n) = 4*a(n-1)-2*a(n-2)-8*a(n-3)+7*a(n-4)+4*a(n-5)-4*a(n-6) for n>6.
[A192905] 0, 1, 3, 8, 25, 79, 248, 777, 2435, 7632, 23921, 74975, 234992, 736529, 2308483, 7235416, 22677769, 71078319, 222778856, 698249753, 2188505347, 6859373216, 21499148257, 67384199871, 211200478176, 661959956001, 2074763216131
a(n)=3*a(n-1)+a(n-3)+a(n-4).
[A101490] 0, 1, 1, 3, 8, 25, 80, 267, 911, 3170, 11192, 39993, 144320, 525124, 1924196, 7093603, 26288928, 97878831, 365918064, 1372982706, 5168555770, 19514482964, 73876936272, 280363191353, 1066357904128, 4064204607372
a(n) = T(2*n-1,n)/n, where T(n,k)=T(n-1,k)-T(n-2,k)+T(n-1,k-1)+2*T(n-3,k-1)+T(n-5,k-1). - Vladimir Kruchinin, Sep 29 2014
[A161634] 1, 1, 3, 8, 25, 81, 274, 953, 3389, 12265, 45025, 167256, 627540, 2374672, 9052447, 34731401, 134010573, 519683813, 2024370167, 7917605996, 31080085431, 122407860927, 483558273368, 1915535953655, 7607408410408, 30283240593756
a(n) = Sum_{k=0..n} C(n+1,k)/(n+1) * C(2*k,n-k).
a(n,m) = Sum_{k=0..n} C(n+m,k)*m/(n+m) * C(2*k,n-k).
[A242537] 1, 3, 8, 27, 82, 255, 794, 2463, 7654, 23775, 73850, 229407, 712606, 2213583, 6876098, 21359343, 66348934, 206100927, 640215146, 1988712255, 6177573934, 19189513071, 59608742162, 185163746895, 575177598550, 1786684895967, 5550012597050, 17240107585311, 53553267556606, 166353513271311, 516747019188962
a(n) = 2*a(n-1) +3*a(n-2) +2*a(n-3) -2*a(n-4). - Fung Lam, May 18 2014

[A210680] 0, 1, 3, 8, 27, 89, 272, 873, 2859, 8936, 25491, 67665, 228192, 752241, 2167859, 6833896, 18464907, 52758345, 142005584, 440498361, 1186119547, 3461957320, 9357060899, 26968655777, 72945663424, 226371206881, 613739200867, 1752444795592, 4702791627067, 14623717009785
a(n) = (3*a(n-1)) XOR a(n-2), a(0)=0, a(1)=1.
[A102206] 3, 8, 27, 98, 363, 1352, 5043, 18818, 70227, 262088, 978123, 3650402, 13623483, 50843528, 189750627, 708158978, 2642885283, 9863382152, 36810643323, 137379191138, 512706121227, 1913445293768, 7141075053843, 26650854921602, 99462344632563, 371198523608648
a(0)=3, a(1)=8, a(2)=27, a(n) = 5*a(n-1) - 5*a(n-2) + a(n-3). - Harvey P. Dale, Jul 25 2012
a(n) = (2+(2-sqrt(3))^(1+n)+(2+sqrt(3))^(1+n))/2. - Colin Barker, Nov 03 2016
[A080874] 1, 1, 3, 8, 29, 79, 287, 782, 2841, 7741, 28123, 76628, 278389, 758539, 2755767, 7508762, 27279281, 74329081, 270037043, 735782048, 2673091149, 7283491399, 26460874447, 72099131942, 261935653321, 713707828021, 2592895658763
a(n) = (- 1/24*3^(1/2)*2^(1/2) + 1/4 - 1/16*2^(1/2) + 1/8*3^(1/2))*(sqrt(3) + sqrt(2))^n + (1/24*3^(1/2)*2^(1/2) + 1/4 + 1/16*2^(1/2) + 1/8*3^(1/2))*(sqrt(3) - sqrt(2))^n + (- 1/24*3^(1/2)*2^(1/2) - 1/8*3^(1/2) + 1/16*2^(1/2) + 1/4)*(- sqrt(3) - sqrt(2))^n + (- 1/16*2^(1/2) + 1/4 + 1/24*3^(1/2)*2^(1/2) - 1/8*3^(1/2))*(- sqrt(3) + sqrt(2))^n [From Richard Choulet, Dec 04 2008]
[A210373] 0, 3, 8, 48, 84, 243, 360, 768, 1040, 1875, 2400, 3888, 4788, 7203, 8624, 12288, 14400, 19683, 22680, 30000, 34100, 43923, 49368, 62208, 69264, 85683, 94640, 115248, 126420, 151875, 165600
a(n) = (2*n + 1 -(-1)^n)^2*(6*n + 5 -(-1)^n)*(2*n + 3 + (-1)^n)/256
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 8.
[A047471] 1, 3, 9, 11, 17, 19, 25, 27, 33, 35, 41, 43, 49, 51, 57, 59, 65, 67, 73, 75, 81, 83, 89, 91, 97, 99, 105, 107, 113, 115, 121, 123, 129, 131, 137, 139, 145, 147, 153, 155, 161, 163, 169, 171, 177, 179, 185, 187, 193, 195, 201, 203, 209, 211, 217, 219, 225, 227, 233
a(n) = 4*(n-1)-(-1)^n. [Rolf Pleisch, Aug 04 2009]
a(n) = 8*n-a(n-1)-12, with a(1)=1. [Vincenzo Librandi, Aug 06 2010]
[A225771] 1, 3, 9, 11, 17, 19, 27, 33, 41, 43, 51, 57, 59, 67, 73, 81, 83, 89, 97, 99, 107, 113, 121, 123, 129, 131, 137, 139, 153, 163, 171, 177, 179, 187, 193, 201, 209, 211, 219, 227, 233, 241, 243, 249, 251, 257, 267, 281, 283, 289, 291, 297, 307, 313, 321, 323
a(n) integers whose prime divisors are congruent to 1 or 3 (mod 8). - Carmine Suriano, Jan 09 2015
[A144181] 1, 1, 3, 9, 11, 17, 35, 57, 91, 161, 275, 457, 779, 1329, 2243, 3801, 6459, 10945, 18547, 31465, 53355, 90449, 153379, 260089, 440987, 747745, 1267923, 2149897, 3645387, 6181233, 10481027, 17771801, 30134267, 51096321, 86639923, 146908457, 249101099
a(n) = a(n-1)+2*a(n-3) for n>3.
[A179867] 3, 9, 11, 21, 22, 41, 42, 43, 44, 81, 82, 83, 84, 85, 86, 87, 88, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651
a(1)=3, a(2)=9; thereafter define k by 2^k+2 <= n <= 2^(k+1)+1 and set a(n) = 9*2^k+n-1.
[A145812] 1, 3, 9, 11, 33, 35, 41, 43, 129, 131, 137, 139, 161, 163, 169, 171, 513, 515, 521, 523, 545, 547, 553, 555, 641, 643, 649, 651, 673, 675, 681, 683, 2049, 2051, 2057, 2059, 2081, 2083, 2089, 2091, 2177, 2179, 2185, 2187, 2209, 2211, 2217, 2219, 2561, 2563
a(2n-1) = 4*a(n)-3.
a(2n) = 4*a(n)-1.
[A220944] 1, 3, 9, 11, 33, 35, 105, 107, 321, 323, 969, 971, 2913, 2915, 8745, 8747, 26241, 26243, 78729, 78731, 236193, 236195, 708585, 708587, 2125761, 2125763, 6377289, 6377291, 19131873, 19131875, 57395625, 57395627, 172186881, 172186883, 516560649, 516560651
a(n) = a(n-1)+2 if n odd.
a(n) = a(n-1)*3 if n even.
a(n) = 4*a(n-2) - 3*a(n-4) with a(0)=1, a(1)=3, a(2)=9, a(3)=11.
[A249647] 1, 3, 9, 11, 33, 99, 111, 333, 999, 1111, 3333, 9999, 11111, 33333, 99999, 111111, 142857, 333333, 999999, 1111111, 3333333, 9999999, 11111111, 33333333, 99999999, 111111111
a(n) = 1000001*a(n-19) + 1000000*a(n-38). - Robert Israel, Jan 06 2016
[A135365] 1, 3, 9, 11, 33, 99, 313, 939, 2817, 8435, 25305, 75915, 227761, 683283, 2049849, 6149531, 18448593, 55345779, 166037353, 498112059, 1494336177, 4483008515, 13449025545, 40347076635, 121041229921, 363123689763, 1089371069289, 3268113207851, 9804339623553
a(n) = (1/7)*3^(n+1) + (4/3)*(-1)^n - (16/21)*cos(Pi*n/3) + (16*sqrt(3)/7)*sin(Pi*n/3).
a(n) = (1/7)*3^(n+1) + (1/7)*[4; 12; 36; -4; -12; -36] for n>=0. (End)
a(n) = (3/7)*3^n + (4/3)*(-1)^n - (8/21)*{[(1 - I*sqrt(3))/2]^n + [(1 + I*sqrt(3))/2]^n} + (8/7)*I*sqrt(3)*{[(1 - I*sqrt(3))/2]^n - [(1 + I*sqrt(3))/2]^n}, with n>=0. - Paolo P. Lava, Jan 09 2009
[A069871] 3, 9, 11, 33, 111, 333, 1111, 3333, 11111, 33333, 111111, 142857, 333333, 1111111, 3333333, 11111111, 33333333, 111111111, 333333333, 1111111111, 3333333333, 11111111111, 33333333333, 111111111111, 142857142857, 333333333333, 1111111111111
a(1+2*j + 13*k) = (10^(1+j+6*k)-1)/9, j=0..5, k >= 0 (except for j=k=0).
a(2*j + 13*k) = (10^(j+6*k)-1)/3, j=0..5, k >= 0 (except for j=k=0 and j=1,k=0).
a(13*k - 1) = (10^(6*k)-1)/7, k >= 1.
[A077468] 1, 3, 9, 12, 15, 17, 27, 34, 39, 46, 49, 52, 54, 66, 70, 73, 81, 84, 90, 95, 102, 106, 110, 116, 119, 124, 132, 140, 143, 149, 153, 158, 161, 165, 171, 177, 180, 183, 186, 189, 194, 198, 209, 215, 221, 224, 226, 233, 235, 241, 244, 248, 251, 255, 259, 262, 272
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(2/3) and frac(y) = y - floor(y).
[A261953] 1, 3, 9, 12, 18, 21, 27, 30, 36, 39, 45, 48, 54, 57, 63, 66, 72, 75, 81, 84, 90, 93, 99, 102, 108, 111, 117, 120, 126, 129, 135, 138, 144, 147, 153, 156, 162, 165, 171, 174, 180, 183, 189, 192, 198, 201, 207, 210, 216, 219
a(0)=1, a(1)=3; for n >= 2, a(n)= a(n-1) + 6, if mod(n,2) = 0, otherwise a(n) = a(n-1) + 3.
a(n) = (3*(-1+(-1)^n+6*n))/4.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A022379] 3, 9, 12, 21, 33, 54, 87, 141, 228, 369, 597, 966, 1563, 2529, 4092, 6621, 10713, 17334, 28047, 45381, 73428, 118809, 192237, 311046, 503283, 814329, 1317612, 2131941, 3449553, 5581494, 9031047, 14612541, 23643588, 38256129, 61899717, 100155846, 162055563, 262211409
a(n) = Fibonacci(n+4) - Fibonacci(n-4), where n>0 and Fibonacci(-3..-1) = 2,-1,1. - Bruno Berselli, May 22 2015
a(n) = L(n+4) + L(n-4) - 4*L(n) for n>0. - Bruno Berselli, Dec 29 2016
[A268044] 3, 9, 13, 19, 23, 29, 33, 39, 43, 49, 53, 59, 63, 69, 73, 79, 83, 89, 93, 99, 103, 109, 113, 119, 123, 129, 133, 139, 143, 149, 153, 159, 163, 169, 173, 179, 183, 189, 193, 199, 203, 209, 213, 219, 223, 229, 233, 239, 243, 249, 253, 259, 263, 269, 273, 279, 283, 289, 293, 299
a(n) = a(n-1) + a(n-2) - a(n-3).
a(n) = 5*n - (3 - (-1)^n)/2.
[A075318] 3, 9, 13, 19, 25, 29, 35, 39, 45, 51, 55, 61, 67, 71, 77, 81, 87, 93, 97, 103, 107, 113, 119, 123, 129, 135, 139, 145, 149, 155, 161, 165, 171, 177, 181, 187, 191, 197, 203, 207, 213, 217, 223, 229, 233, 239, 245, 249, 255, 259, 265, 271, 275, 281, 285, 291, 297
a(n) = 2*floor(n*phi^2)-1, where phi=(1+sqrt(5))/2. - Michel Dekking, Sep 08 2016
[A135370] 1, 3, 9, 13, 23, 29, 43, 51, 69, 79, 101, 113, 139, 153, 183, 199, 233, 251, 289, 309, 351, 373, 419, 443, 493, 519, 573, 601, 659, 689, 751, 783, 849, 883, 953, 989, 1063, 1101, 1179, 1219, 1301, 1343, 1429, 1473, 1563, 1609, 1703, 1751, 1849
a(n) = (lcm(f(n),f(n)+3)-1)/3, where f(n)=floor((3*n-1)/2). - Gary Detlefs, May 14 2011
[A092476] 1, 3, 9, 14, 16, 22, 27, 29, 35, 40, 42, 48, 53, 55, 61, 66, 68, 74, 79, 81, 87, 92, 94, 100, 105, 107, 113, 118, 120, 126, 131, 133, 139, 144, 146, 152, 157, 159, 165, 170, 172, 178, 183, 185, 191, 196, 198, 204, 209, 211, 217, 222, 224, 230, 235, 237, 243, 248
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = a(n-3) + 13 for n>3. (End)
a(n) = (39*n-39+3*cos(2*n*Pi/3)+7*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 13k-4, a(3k-1) = 13k-10, a(3k-2) = 13k-12. (End)
[A001968] 3, 9, 14, 19, 24, 30, 35, 40, 45, 51, 56, 61, 66, 71, 77, 82, 87, 92, 98, 103, 108, 113, 119, 124, 129, 134, 140, 145, 150, 155, 161, 166, 171, 176, 181, 187, 192, 197, 202, 208, 213, 218, 223, 229, 234, 239, 244, 250, 255, 260, 265, 270, 276, 281, 286, 291
a(n) = floor((n+3/4)*(3+sqrt 5)) . - R. J. Mathar, Feb 14 2011

[A259754] 3, 9, 15, 18, 21, 27, 33, 39, 42, 45, 51, 57, 63, 66, 69, 75, 81, 87, 90, 93, 99, 105, 111, 114, 117, 123, 129, 135, 138, 141, 147, 153, 159, 162, 165, 171, 177, 183, 186, 189, 195, 201, 207, 210, 213, 219, 225, 231, 234, 237, 243, 249, 255, 258, 261, 267
a(n) = a(n-1)+a(n-5)-a(n-6) for n>6.
[A277569] 3, 9, 15, 18, 21, 27, 33, 39, 45, 51, 54, 57, 63, 69, 75, 81, 87, 90, 93, 99, 105, 108, 111, 117, 123, 126, 129, 135, 141, 147, 153, 159, 162, 165, 171, 177, 183, 189, 195, 198, 201, 207, 213, 219, 225, 231, 234, 237, 243, 249, 255, 261, 267, 270, 273, 279
a(n) = 5n + O(log n). - Charles R Greathouse IV, Nov 03 2016
[A016945] 3, 9, 15, 21, 27, 33, 39, 45, 51, 57, 63, 69, 75, 81, 87, 93, 99, 105, 111, 117, 123, 129, 135, 141, 147, 153, 159, 165, 171, 177, 183, 189, 195, 201, 207, 213, 219, 225, 231, 237, 243, 249, 255, 261, 267, 273, 279, 285, 291, 297, 303, 309, 315, 321, 327
a(n) = 12*n - a(n-1) for n>0, a(0)=3. - Vincenzo Librandi, Nov 20 2010
[A085046] 1, 3, 9, 15, 25, 35, 49, 63, 81, 99, 121, 143, 169, 195, 225, 255, 289, 323, 361, 399, 441, 483, 529, 575, 625, 675, 729, 783, 841, 899, 961, 1023, 1089, 1155, 1225, 1295, 1369, 1443, 1521, 1599, 1681, 1763, 1849, 1935, 2025, 2115, 2209, 2303, 2401, 2499, 2601
a(2n+1) = (2n+1)^2 and a(2n) = 4n^2 - 1.
a(n) = n^2 - (1 + (-1)^n)/2. (End)
a(1)=1, a(2)=3, a(3)=9, a(4)=15, a(n) = 2*a(n-1) + 0*a(n-2) - 2*a(n-3) + a(n-4). - Harvey P. Dale, Oct 25 2015
[A247643] 1, 3, 9, 15, 27, 37, 55, 69, 93, 111, 141, 163, 199, 225, 267, 297, 345, 379, 433, 471, 531, 573, 639, 685, 757, 807, 885, 939, 1023, 1081, 1171, 1233, 1329, 1395, 1497, 1567, 1675, 1749, 1863, 1941, 2061, 2143, 2269, 2355, 2487, 2577, 2715, 2809, 2953, 3051
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). - Colin Barker, Sep 25 2014
[A048701] 0, 3, 9, 15, 33, 45, 51, 63, 129, 153, 165, 189, 195, 219, 231, 255, 513, 561, 585, 633, 645, 693, 717, 765, 771, 819, 843, 891, 903, 951, 975, 1023, 2049, 2145, 2193, 2289, 2313, 2409, 2457, 2553, 2565, 2661, 2709, 2805, 2829, 2925, 2973, 3069, 3075, 3171, 3219, 3315
a(n) = (2^(floor_log_2(n)+1))*n + Sum_{i=0..floor_log_2(n)} '(bit_i(n, i)*(2^(floor_log_2(n)-i)))'.
[A065917] 1, 3, 9, 15, 45, 75, 105, 315, 525, 735, 945, 1155, 3465, 5775, 8085, 10395, 12705, 15015, 45045, 75075, 105105, 135135, 165165, 195195, 225225, 255255, 765765, 1276275, 1786785, 2297295, 2807805, 3318315, 3828825, 4339335, 4849845
a(n+1)= a(n)+q(j) for primorial q(j) < a(n+1) <= q(j+1)/2.
[A253547] 0, 0, 0, 1, 3, 9, 16, 23, 33, 43, 56, 69, 85, 101, 120, 139, 161, 183, 208, 233, 261, 289, 320, 351, 385, 419, 456, 493, 533, 573, 616, 659, 705, 751, 800, 849, 901, 953, 1008, 1063, 1121, 1179, 1240, 1301, 1365, 1429, 1496, 1563, 1633, 1703, 1776, 1849, 1925, 2001, 2080
a(n) = (27 - 3*(-1)^n - 28*n + 6*n^2)/8 for n>5.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>6.
[A109340] 0, 0, 1, 3, 9, 16, 24, 36, 49, 63, 81, 100, 120, 144, 169, 195, 225, 256, 288, 324, 361, 399, 441, 484, 528, 576, 625, 675, 729, 784, 840, 900, 961, 1023, 1089, 1156, 1224, 1296, 1369, 1443, 1521, 1600, 1680, 1764, 1849, 1935, 2025, 2116, 2208, 2304, 2401
a(0)=0, a(1)=0, a(2)=1, a(3)=3, a(4)=9, a(n)=2*a(n-1)-a(n-2)+ a(n-3)- 2*a(n-4)+ a(n-5). - Harvey P. Dale, Jun 24 2013
a(n) = (n-1)^2 - [(n+1) mod 3] mod 2, n>=1 - Gerhard Kirchner, Jan 20 2017
[A212566] 0, 0, 0, 1, 3, 9, 16, 26, 44, 63, 87, 123, 160, 204, 264, 325, 395, 485, 576, 678, 804, 931, 1071, 1239, 1408, 1592, 1808, 2025, 2259, 2529, 2800, 3090, 3420, 3751, 4103, 4499, 4896, 5316, 5784, 6253, 6747, 7293, 7840, 8414, 9044, 9675, 10335, 11055, 11776
a(n) = 2 a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
[A014209] 1, 3, 9, 17, 27, 39, 53, 69, 87, 107, 129, 153, 179, 207, 237, 269, 303, 339, 377, 417, 459, 503, 549, 597, 647, 699, 753, 809, 867, 927, 989, 1053, 1119, 1187, 1257, 1329, 1403, 1479, 1557, 1637, 1719, 1803
a(n) = a(n-1)+2*n+2, with n>0, a(0)=-1. - Vincenzo Librandi, Nov 20 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).
[A035107] 3, 9, 17, 29, 44, 64, 88, 118, 153, 195, 243, 299, 362, 434, 514, 604, 703, 813, 933, 1065, 1208, 1364, 1532, 1714, 1909, 2119, 2343, 2583, 2838, 3110, 3398, 3704, 4027, 4369, 4729, 5109, 5508, 5928, 6368, 6830, 7313, 7819, 8347, 8899, 9474
a(n) = (4*n^3 +54*n^2 +212*n +153 -9*(-1)^n)/48.
[A049778] 1, 3, 9, 17, 32, 50, 78, 110, 155, 205, 271, 343, 434, 532, 652, 780, 933, 1095, 1285, 1485, 1716, 1958, 2234, 2522, 2847, 3185, 3563, 3955, 4390, 4840, 5336, 5848, 6409, 6987, 7617, 8265, 8968, 9690, 10470, 11270, 12131
a(n) = Sum_{k=1..n} k*ceil(k/2). - Vladeta Jovovic, Apr 29 2006
a(n) = 5*n/24+1/16 +3*n^2/8 +n^3/6 -(-1)^n*(1/16 +n/8). - R. J. Mathar, Mar 03 2011
[A239206] 1, 1, 3, 9, 17, 35, 73, 147, 295, 591, 1181, 2363, 4729, 9459, 18917, 37837, 75673, 151347, 302697, 605395, 1210791, 2421581, 4843163, 9686329, 19372659, 38745319, 77490641, 154981281, 309962565, 619925129, 1239850261, 2479700523, 4959401047, 9918802097
a(n) = 2*floor((1-r)/(2*r*cos(Pi/6))) + 1, where r = 1/2^n.
[A261952] 1, 3, 9, 18, 18, 24, 27, 33, 36, 42, 45, 51, 54, 60, 63, 69, 72, 78, 81, 87, 90, 96, 99, 105, 108, 114, 117, 123, 126, 132, 135, 141, 144, 150, 153, 159, 162, 168, 171, 177, 180, 186, 189, 195, 198, 204, 207, 213, 216, 222
a(n) = 3*(1-(-1)^n+6*n)/4 for n>3.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>6.
[A045943] 0, 3, 9, 18, 30, 45, 63, 84, 108, 135, 165, 198, 234, 273, 315, 360, 408, 459, 513, 570, 630, 693, 759, 828, 900, 975, 1053, 1134, 1218, 1305, 1395, 1488, 1584, 1683, 1785, 1890, 1998, 2109, 2223, 2340, 2460, 2583, 2709, 2838, 2970, 3105, 3243, 3384, 3528
a(n) is the sum of n+1 integers starting from n, i.e., 1+2, 2+3+4, 3+4+5+6, 4+5+6+7+8, etc. - Jon Perry, Jan 15 2004
a(n) = a(n-1)+3*n, n>0. - Vincenzo Librandi, Nov 18 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2. - Wesley Ivan Hurt, Nov 24 2015
[A134479] 1, 3, 9, 18, 30, 45, 63, 84, 108, 135, 165, 198, 234, 273, 315, 360, 408, 459, 513, 570, 630, 693, 759, 828, 900, 975, 1053, 1134, 1218, 1305, 1395, 1488, 1584, 1683, 1785, 1890, 1998, 2109, 2223, 2340, 2460, 2583, 2709, 2838, 2970, 3105, 3243, 3384, 3528, 3675, 3825
a(n) = 3*n*(1 + n) / 2 for n>0.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3. (End)
[A184969] 3, 9, 18, 30, 45, 63, 84, 109, 137, 168, 202, 239, 279, 322, 369, 419, 472, 528, 587, 649, 714, 783, 855, 930, 1008, 1089, 1173, 1260, 1351, 1445, 1542, 1642, 1745, 1851, 1960, 2073, 2189, 2308, 2430, 2555, 2683, 2814, 2949, 3087, 3228, 3372, 3519, 3669, 3822, 3979, 4139
a(n)/n^2 ~ Pi/2.
a(n) = Pi/2 * n^2 + e(n) * n, where Pi/2-1 < e(n) < Pi/2. [Charles R Greathouse IV, May 27 2011]
[A028723] 0, 0, 0, 0, 0, 1, 3, 9, 18, 36, 60, 100, 150, 225, 315, 441, 588, 784, 1008, 1296, 1620, 2025, 2475, 3025, 3630, 4356, 5148, 6084, 7098, 8281, 9555, 11025, 12600, 14400, 16320, 18496, 20808, 23409, 26163, 29241, 32490, 36100, 39900, 44100, 48510, 53361, 58443
a(n) = (n^4-8*n^3+18*n^2-12*n+2*n*(n-2)*((1+(-1)^n)/2)+(2*n-3)^2*((1-(-1)^n)/2))/64. - Luce ETIENNE, Mar 22 2014
a(n) = a(4-n) for all n in Z. - Michael Somos, Nov 02 2014
a(n+1)^2 - a(n)*a(n+2) = binomial(n/2, 2)^3 for all even n in Z (= 0 if n odd). - Michael Somos, Nov 02 2014
a(n)*(a(n+1) + a(n+2)) +a(n+1)*(-3*a(n+1) + a(n+2)) = 0 for all even n in Z (= k^4 * (k^2 - 1) / 4 if n = 2*k + 1). - Michael Somos, Nov 02 2014
[A291143] 0, 0, 3, 9, 18, 36, 81, 189, 430, 954, 2097, 4602, 10080, 21996, 47796, 103473, 223308, 480584, 1031571, 2208807, 4718610, 10058580, 21398715, 45438270, 96313626, 203812110, 430615240, 908455203, 1913845374, 4026531804, 8460687861, 17756508321, 37223049942
a(n) = 9*a(n-1) - 36 a(n-2) + 87*a(n-3) - 144*a(n-4) + 171*a(n-5) - 147*a(n-6) + 90*a(n-7) - 36*a(n-8) + 8*a(n-9) for n >= 10.
[A026565] 1, 3, 9, 18, 54, 108, 324, 648, 1944, 3888, 11664, 23328, 69984, 139968, 419904, 839808, 2519424, 5038848, 15116544, 30233088, 90699264, 181398528, 544195584, 1088391168, 3265173504, 6530347008, 19591041024, 39182082048
a(0)=1, a(1)=3; a(n)=3*a(n-1) if n is even, a(n)=2*a(n-1) if n is odd. [Vincenzo Librandi, Nov 19 2010]
[A058331] 1, 3, 9, 19, 33, 51, 73, 99, 129, 163, 201, 243, 289, 339, 393, 451, 513, 579, 649, 723, 801, 883, 969, 1059, 1153, 1251, 1353, 1459, 1569, 1683, 1801, 1923, 2049, 2179, 2313, 2451, 2593, 2739, 2889, 3043, 3201, 3363, 3529, 3699, 3873, 4051
a(n) = M^n * [1 1 1], leftmost term, where M = the 3 X 3 matrix [1 1 1 / 0 1 4 / 0 0 1]. a(0) = 1, a(1) = 3; a(n) = 3*a(n - 1) - 3*a(n - 2) + a(n - 3). E.g., a(4) = 33 since M^4 *[1 1 1] = [33 17 1]. - Gary W. Adamson, Nov 11 2004
a(n) = cosh(2*arccosh(n)). - Artur Jasinski, Feb 10 2010
a(n) = 4*n + a(n - 1) - 2 for n>0, a(0) = 1. - Vincenzo Librandi, Aug 07 2010
a(n) = (((n - 1)^2 + n^2))/2 + (n^2 + (n + 1)^2)/2. - J. M. Bergot, May 31 2012

[A062748] 3, 9, 19, 34, 55, 83, 119, 164, 219, 285, 363, 454, 559, 679, 815, 968, 1139, 1329, 1539, 1770, 2023, 2299, 2599, 2924, 3275, 3653, 4059, 4494, 4959, 5455, 5983, 6544, 7139, 7769, 8435, 9138, 9879, 10659
a(n) = ((n^3 - n)/6) - 1, n >= 3. - Zerinvary Lajos, May 05 2007
a(n) = Sum[i(i+1)/2,{i=2..n}]. (End)
[A005994] 1, 3, 9, 19, 38, 66, 110, 170, 255, 365, 511, 693, 924, 1204, 1548, 1956, 2445, 3015, 3685, 4455, 5346, 6358, 7514, 8814, 10283, 11921, 13755, 15785, 18040, 20520, 23256, 26248, 29529, 33099, 36993, 41211, 45790, 50730, 56070, 61810, 67991
a(-5-n)=a(n). - Michael Somos, Mar 08 2007
a(0)=1, a(1)=3, a(2)=9, a(4)=19, a(5)=38, a(6)=66, a(7)=110,
a(n)=3a(n-1)-a(n-2)-5a(n-3)+5a(n-4)+a(n-5)-3a(n-6)+a(n-7). - Harvey P. Dale, May 02 2011
a(n) = 1/48*(n+1)*(n+3)*((n+2)*(n+4)+3)+1/32*(2*n+5)*(1+(-1)^n). - Yosu Yurramendi, Jun 20 2013
[A038163] 1, 3, 9, 19, 39, 69, 119, 189, 294, 434, 630, 882, 1218, 1638, 2178, 2838, 3663, 4653, 5863, 7293, 9009, 11011, 13377, 16107, 19292, 22932, 27132, 31892, 37332, 43452, 50388, 58140, 66861, 76551, 87381, 99351, 112651, 127281
a(n) = 1/3840*(4*n^5+90*n^4+760*n^3+2970*n^2+5266*n+3285+(-1)^n*(30*n^2+270*n+555)). Recurrence: a(n) = 3*a(n-1)-8*a(n-3)+6*a(n-4)+6*a(n-5)-8*a(n-6)+3*a(n-8)-a(n-9). - Vladeta Jovovic, Apr 24 2002
[A279673] 1, 3, 9, 19, 41, 99, 233, 531, 1225, 2851, 6601, 15251, 35305, 81763, 189225, 437907, 1013641, 2346275, 5430537, 12569363, 29093289, 67339363, 155862889, 360759571, 835013705, 1932719395, 4473463369, 10354262163, 23965938537, 55471468387, 128394046889
a(n) = 2a(n-1) - a(n-2) + 4a(n-3).
[A028377] 1, 1, 3, 9, 19, 46, 100, 218, 460, 965, 1975, 3993, 7975, 15712, 30650, 59150, 113093, 214300, 402812, 751165, 1390714, 2557004, 4670770, 8479232, 15302657, 27462424, 49021252, 87057783, 153850769, 270614429, 473850031, 826125184, 1434286323, 2480145226
a(0) = 1 and a(n) = (1/(2*n)) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d^2*(d+1)*(-1)^(1+n/d). - Seiichi Manyama, Nov 14 2017
[A279682] 1, 3, 9, 19, 49, 123, 297, 707, 1697, 4043, 9561, 22547, 53073, 124571, 291721, 682083, 1592577, 3713643, 8650425, 20132275, 46818225, 108804923, 252718825, 586701827, 1361496929, 3158352139, 7324384281, 16981143379, 39360789521
a(n) = 3*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) - 8*a(n-5).
[A102001] 1, 3, 9, 19, 49, 123, 297, 739, 1825, 4491, 11097, 27379, 67537, 166683, 411273, 1014787, 2504065, 6178731, 15246009, 37619731, 92826673, 229050171, 565182441, 1394589475, 3441155041, 8491063755, 20951731737, 51698479411, 127566197905, 314770083675
a(n) = a(n-1) + 2*a(n-2) + 4*a(n-3), n>3. a(n) = left term in M^n * [1 0 0], where M = the 3 X 3 matrix [1 1 1 / 2 0 0 / 0 2 0].
[A077442] 1, 3, 9, 19, 53, 111, 309, 647, 1801, 3771, 10497, 21979, 61181, 128103, 356589, 746639, 2078353, 4351731, 12113529, 25363747, 70602821, 147830751, 411503397, 861620759, 2398417561, 5021893803, 13979001969, 29269742059, 81475594253
a(n) = 6*a(n-2) - a(n-4) with a(1)=1, a(2)=3, a(3)=9, a(4)=19. - Sture Sjöstedt, Oct 08 2012
a(n) = ((-(-1 - sqrt(2))^n*(-2+sqrt(2)) - (-1+sqrt(2))^n*(2+sqrt(2)) + (1-sqrt(2))^n*(-4+3*sqrt(2)) + (1+sqrt(2))^n*(4+3*sqrt(2))))/(4*sqrt(2)). - Colin Barker, Mar 27 2016
[A192951] 0, 1, 3, 9, 20, 40, 74, 131, 225, 379, 630, 1038, 1700, 2773, 4511, 7325, 11880, 19252, 31182, 50487, 81725, 132271, 214058, 346394, 560520, 906985, 1467579, 2374641, 3842300, 6217024, 10059410, 16276523, 26336025, 42612643, 68948766
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4).
[A145070] 3, 9, 20, 40, 77, 147, 282, 546, 1067, 2101, 4160, 8268, 16473, 32871, 65654, 131206, 262295, 524457, 1048764, 2097360, 4194533, 8388859, 16777490, 33554730, 67109187, 134218077, 268435832, 536871316, 1073742257, 2147484111
a(1) = 3; a(n) = a(n-1) + 2^n + n for n > 1.
a(n) = (-4+2^(2+n)+n+n^2)/2.
a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4).
[A164680] 1, 3, 9, 20, 42, 78, 139, 231, 372, 573, 861, 1254, 1791, 2499, 3432, 4629, 6162, 8085, 10492, 13455, 17094, 21503, 26832, 33201, 40795, 49764, 60333, 72687, 87096, 103785, 123075, 145236, 170646, 199626, 232617, 269997, 312277, 359898, 413448, 473438
a(n) = round(-(-1)^n*(n+3)*(n+7)/256 +(6*n^6 +180*n^5 +2070*n^4 +11400*n^3 +30429*n^2 +34290*n +9785)/103680) - R. J. Mathar, Mar 19 2012
[A295148] 1, 3, 9, 20, 44, 91, 187, 379, 764, 1534, 3075, 6157, 12322, 24652, 49313, 98635, 197280, 394571, 789153, 1578318, 3156648, 6313309, 12626631, 25253276, 50506566, 101013147, 202026309
a(n+1)/a(n) -> 2.
[A191527] 0, 0, 1, 3, 9, 20, 50, 105, 245, 504, 1134, 2310, 5082, 10296, 22308, 45045, 96525, 194480, 413270, 831402, 1755182, 3527160, 7407036, 14872858, 31097794, 62403600, 130007500, 260757900, 541574100, 1085822640, 2249204040, 4508102925, 9316746045
a(n) = Sum_{k=0..n} k*binomial(floor((n-1)/2), floor(k/2))*binomial(ceiling((n-1)/2), ceiling(k/2)).
[A007518] 0, 3, 9, 21, 39, 66, 102, 150, 210, 285, 375, 483, 609, 756, 924, 1116, 1332, 1575, 1845, 2145, 2475, 2838, 3234, 3666, 4134, 4641, 5187, 5775, 6405, 7080, 7800, 8568, 9384, 10251, 11169, 12141, 13167, 14250, 15390
a(1)=0, a(2)=3, a(3)=9, a(4)=21, a(5)=39, a(n)=3*a(n-1)-2*a(n-2)- 2*a(n-3)+ 3*a(n-4)-a (n-5). - Harvey P. Dale, Oct 06 2014
[A064999] 1, 3, 9, 21, 41, 71, 113, 169, 241, 331, 441, 573, 729, 911, 1121, 1361, 1633, 1939, 2281, 2661, 3081, 3543, 4049, 4601, 5201, 5851, 6553, 7309, 8121, 8991, 9921, 10913, 11969, 13091, 14281, 15541, 16873, 18279, 19761, 21321, 22961, 24683
a(0) = 1, a(n) = n*(n+1) + a(n-1) for n > 1. - Gerald McGarvey, Sep 26 2004
[A213396] 0, 3, 9, 21, 42, 72, 114, 171, 243, 333, 444, 576, 732, 915, 1125, 1365, 1638, 1944, 2286, 2667, 3087, 3549, 4056, 4608, 5208, 5859, 6561, 7317, 8130, 9000, 9930, 10923, 11979, 13101, 14292, 15552, 16884, 18291, 19773, 21333, 22974, 24696
a(n) = (n+2)*(n+1)*n/3+floor((n-1)/3)+1.
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
[A011843] 0, 0, 0, 0, 0, 0, 1, 3, 9, 21, 42, 77, 132, 214, 333, 500, 728, 1031, 1428, 1938, 2584, 3391, 4389, 5608, 7084, 8855, 10963, 13455, 16380, 19792, 23751, 28318, 33562, 39556, 46376, 54105, 62832, 72649, 83657
a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5) +a(n-18) -5*a(n-19) +10*a(n-20) -10*a(n-21) +5*a(n-22) -a(n-23) -a(n-36) +5*a(n-37) -10*a(n-38) +10*a(n-39) -5*a(n-40) +a(n-41) +a(n-54) -5*a(n-55) +10*a(n-56) -10*a(n-57) +5*a(n-58) -a(n-59). [R. J. Mathar, Apr 15 2010]
a(n) = floor(binomial(n+1,6)/(n+1)). [Gary Detlefs, Nov 23 2011]
[A084569] 1, 3, 9, 21, 44, 82, 142, 230, 355, 525, 751, 1043, 1414, 1876, 2444, 3132, 3957, 4935, 6085, 7425, 8976, 10758, 12794, 15106, 17719, 20657, 23947, 27615, 31690, 36200, 41176, 46648, 52649, 59211, 66369, 74157, 82612, 91770, 101670, 112350, 123851
a(n)=(-1)^n/8 + (n^4+6n^3+17n^2+30n+21)/24; a(n)=sum(sum(sum(i+(-1)^i, i, 0, j), j, 0, k), k, 0, n).
[A192970] 0, 1, 3, 9, 21, 44, 85, 156, 276, 476, 806, 1347, 2230, 3667, 6001, 9787, 15923, 25862, 41955, 68006, 110170, 178406, 288828, 467509, 756636, 1224469, 1981455, 3206301, 5188161, 8394896, 13583521, 21978912, 35562960, 57542432, 93105986
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A068156] 1, 3, 9, 21, 45, 93, 189, 381, 765, 1533, 3069, 6141, 12285, 24573, 49149, 98301, 196605, 393213, 786429, 1572861, 3145725, 6291453, 12582909, 25165821, 50331645, 100663293, 201326589, 402653181, 805306365, 1610612733
a(n) = 3*2^n+0^n-3. - Paul Barry, Sep 04 2003
a(n) = 3*a(n-1) - 2*a(n-2), n > 1. - Vincenzo Librandi, Nov 11 2011
a(n) = a(n-1)+ 3*2^(n-1); a(1)=3. - Ctibor O. Zizka, Apr 17 2008
[A052101] 1, 1, 1, 3, 9, 21, 45, 99, 225, 513, 1161, 2619, 5913, 13365, 30213, 68283, 154305, 348705, 788049, 1780947, 4024809, 9095733, 20555613, 46454067, 104982561, 237252321, 536171481, 1211705163, 2738358009, 6188472981, 13985460405
a(n) = 3*a(n-1) - 3*a(n-2) + 3*a(n-3).
a(n)/a(n-1) tends to 2.259921049... = 1 + 2^(1/3) (a real root to (x - 1)^3 = 2 or x^3 - 3x^2 + 3x - 3 = 0). A 3 X 3 matrix corresponding to the latter polynomial is [0 1 0 / 0 0 1 / 3 -3 3]. Let the matrix = M. Then a(n) = the center term in M^n * [1, 1, 1]. M^[1, 1, 1] = [9, 21, 45], center term = a(4) - Gary W. Adamson, Mar 28 2004
[A014286] 0, 1, 3, 9, 21, 46, 94, 185, 353, 659, 1209, 2188, 3916, 6945, 12223, 21373, 37165, 64314, 110826, 190265, 325565, 555431, 945073, 1604184, 2717016, 4592641, 7748859, 13052145, 21950853, 36863494, 61824694, 103559033, 173264921, 289575995, 483474153
a(n) = n*F(n+2)-F(n+3)+2.

[A274230] 0, 0, 1, 3, 9, 21, 49, 105, 225, 465, 961, 1953, 3969, 8001, 16129, 32385, 65025, 130305, 261121, 522753, 1046529, 2094081, 4190209, 8382465, 16769025, 33542145, 67092481, 134193153, 268402689, 536821761, 1073676289, 2147385345
a(n) = (2^ceiling(n/2) - 1)*(2^floor(n/2) - 1).
a(n) = (2^(n/2)-1)^2 for n even, a(n) = 2^n+1-3*2^((n-1)/2) for n odd.
a(n) = 3*a(n-1)-6*a(n-3)+4*a(n-4) for n>3.
a(n) = (1+2^n-2^((n-3)/2)*(3-3*(-1)^n+2*sqrt(2)+2*(-1)^n*sqrt(2))). (End)
[A119917] 1, 3, 9, 21, 51, 105, 231, 471, 975, 1965, 4011, 8031, 16221, 32475, 65205, 130485, 261555, 523131, 1047417, 2094957, 4191975, 8384229, 16772835, 33545715, 67100115, 134200785, 268418001, 536837061, 1073707971, 2147415981
a(n) = sum_{i=1..n} sum_{d|i} (2^d - 1) * mu(i/d)
[A111209] 0, 1, 3, 9, 21, 51, 111, 237, 489, 995, 2017, 4059, 8151, 16341, 32721, 65483, 131013, 262083, 524221, 1048505, 2097079, 4194225, 8388525, 16777127, 33554335, 67108763, 134217625, 268435349, 536870803, 1073741711, 2147483521, 4294967165, 8589934455, 17179869045
a(n) = 2^n - prime(n).
[A260185] 1, 3, 9, 21, 63, 111, 333, 693, 1521, 2577, 7731, 13491, 40473, 67833, 119241, 239481, 718443, 1340523, 4021569, 7494849, 13356657, 22271409, 66814227, 130266387, 268286823, 447212583, 896472063, 1684872063, 5054616189, 9566769789, 28700309367, 57402497367
a(p) = 3*a(p-1) for p prime. - Alois P. Heinz, Jul 19 2015
[A073947] 1, 1, 3, 9, 21, 63, 225, 729, 2187, 6561, 19845, 59535, 177633, 531441, 1594323, 4782969, 14344533, 43033599, 129127041, 387420489, 1162261467, 3486784401, 10460471301, 31381413903, 94143533121, 282429536481, 847288609443, 2541865828329, 7625594296341
a(n; t, s) = a(n-1; t, s) + a(n-1; t+2, s+2t+1) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A064808] 1, 3, 9, 22, 45, 81, 133, 204, 297, 415, 561, 738, 949, 1197, 1485, 1816, 2193, 2619, 3097, 3630, 4221, 4873, 5589, 6372, 7225, 8151, 9153, 10234, 11397, 12645, 13981, 15408, 16929, 18547, 20265, 22086, 24013, 26049, 28197, 30460, 32841, 35343, 37969, 40722
a(n) = (n + 1)*(n^2 + 2)/2.
a(n) = Sum_{k=0..n} Sum_{j=0..n} (k-(k-1)*C(0, j-k)).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Wesley Ivan Hurt, Feb 21 2015
[A192389] 0, 1, 3, 9, 22, 48, 96, 181, 327, 573, 982, 1656, 2760, 4561, 7491, 12249, 19966, 32472, 52728, 85525, 138615, 224541, 363598, 588624, 952752, 1541953, 2495331, 4037961, 6534022, 10572768, 17107632, 27681301, 44789895, 72472221, 117263206
a(n) = 4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A000716] 1, 3, 9, 22, 51, 108, 221, 429, 810, 1479, 2640, 4599, 7868, 13209, 21843, 35581, 57222, 90882, 142769, 221910, 341649, 521196, 788460, 1183221, 1762462, 2606604, 3829437, 5590110, 8111346, 11701998, 16790136, 23964594, 34034391, 48104069, 67679109, 94800537, 132230021, 183686994, 254170332
a(0)=1, a(n) = 1/n*Sum_{k=0..n-1} 3*a(k)*sigma_1(n-k). - Joerg Arndt, Feb 05 2011
[A001628] 1, 3, 9, 22, 51, 111, 233, 474, 942, 1836, 3522, 6666, 12473, 23109, 42447, 77378, 140109, 252177, 451441, 804228, 1426380, 2519640, 4434420, 7777860, 13599505, 23709783, 41225349, 71501422, 123723351, 213619683, 368080793, 633011454, 1086665562, 1862264196
a(n) = F"(n+2, 1)/2, i.e. 1/2 times the 2nd derivative of the (n+2)th Fibonacci polynomial evaluated at 1. - T. D. Noe, Jan 18 2006
a(n) = Sum_{k=0..n} C(k,n-k)*C(k+2,2). - Paul Barry, Apr 13 2008
a(n) = 3*a(n-1) - 5*a(n-3) + 3*a(n-5) + a(n-6). - Eric W. Weisstein, Sep 05 2017
[A054442] 1, 3, 9, 22, 54, 123, 281, 618, 1362, 2934, 6330, 13452, 28620, 60243, 126921, 265282, 554874, 1153506, 2399390, 4966740, 10286196, 21219038, 43790154, 90076452, 185353204, 380364108, 780786516, 1599015192, 3275589144
a(2*k)= -3*2^(2*k+1)+binomial(2*(k+1), k+1)*(4*k+7)/2, a(2*k+1)= -3*4^(k+1)+binomial(2*(k+2), k+2)*(2*k+5)/2, k >= 0.
[A192663] 1, 1, 3, 9, 22, 54, 136, 340, 857, 2164, 5481, 13911, 35379, 90124, 229913, 587254, 1501615, 3843314, 9845118, 25238541, 64744455, 166190960, 426829202, 1096784835, 2819620836, 7251796132, 18658280277, 48023738374, 123648031266, 318460151301, 820446813941
a(n) = floor(sqrt(binomial(3*n,n))).
[A114697] 1, 3, 9, 22, 55, 133, 323, 780, 1885, 4551, 10989, 26530, 64051, 154633, 373319, 901272, 2175865, 5253003, 12681873, 30616750, 73915375, 178447501, 430810379, 1040068260, 2510946901, 6061962063, 14634871029, 35331704122, 85298279275, 205928262673
a(n) = (2*(-3+(-1)^n)+(6-5*sqrt(2))*(1-sqrt(2))^n+(1+sqrt(2))^n*(6+5*sqrt(2)))/8.
a(n) = 2*a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4) for n>3.
[A064551] 1, 1, 1, 1, 3, 9, 23, 51, 103, 195, 353, 619, 1061, 1789, 2981, 4925, 8087, 13221, 21547, 35039, 56891, 92271, 149541, 242231, 392233, 634969, 1027753, 1663321, 2691723, 4355745, 7048223, 11404779, 18453871, 29859579, 48314441, 78175075
a(n) = 4a(n-1)-5a(n-2)+a(n-3)+2a(n-4)-a(n-5) - T. D. Noe, Oct 12 2007
a(n) = 1/5*2^-n*(-15*2^n+(10-4*sqrt(5))*(1-sqrt(5))^n+(1+sqrt(5))^n*(10+4*sqrt(5)))-n-n^2 [Jean-François Alcover, May 28 2013]
[A183155] 1, 1, 3, 9, 23, 53, 115, 241, 495, 1005, 2027, 4073, 8167, 16357, 32739, 65505, 131039, 262109, 524251, 1048537, 2097111, 4194261, 8388563, 16777169, 33554383, 67108813, 134217675, 268435401, 536870855, 1073741765
a(n) = 2^(n+1) - (2n+1).
a(0)=1, a(n) = 2*a(n-1) + 2*n - 3. - Vincenzo Librandi, Feb 05 2011
[A292329] 0, 0, 1, 3, 9, 23, 57, 138, 332, 798, 1920, 4626, 11157, 26925, 64997, 156921, 378861, 914692, 2208324, 5331444, 12871324, 31074180, 75019701, 181113471, 437246349, 1055605659, 2548456957, 6152518758, 14853493752, 35859505946, 86572506132, 209004519918
a(n) = 3*a(n-1) - 4*a(n-3) + 3*a(n-5) + a(n-6) for n >= 7.
[A133654] 1, 3, 9, 23, 57, 139, 337, 815, 1969, 4755, 11481, 27719, 66921, 161563, 390049, 941663, 2273377, 5488419, 13250217, 31988855, 77227929, 186444715, 450117361, 1086679439, 2623476241, 6333631923, 15290740089, 36915112103, 89120964297, 215157040699
a(n) = -1+(-(1-sqrt(2))^n+(1+sqrt(2))^n)/sqrt(2). - Colin Barker, Mar 16 2016
[A045650] 3, 9, 23, 58, 153, 409, 1103, 2988, 8112, 22036, 59885, 162766, 442426, 1202618, 3269032, 8886126, 24154969, 65659986, 178482317, 485165200, 1318815598, 3584912013, 9744794175, 26489071629, 72004350010, 195726622880
a(n) = floor(e^n) + n. - Nurdin N. Takenov (greanvert(AT)gmail.com), Mar 10 2007
[A077847] 1, 3, 9, 23, 59, 147, 367, 911, 2263, 5615, 13935, 34575, 85791, 212863, 528159, 1310463, 3251519, 8067647, 20017407, 49667071, 123233663, 305766655, 758666495, 1882398975, 4670597631, 11588660223, 28753717759, 71343560703, 177017236479, 439214158847
a(0)=1, a(1)=3, a(2)=9, a(3)=23, a(n)=3*a(n-1)-4*a(n-3)+2*a(n-4). - Harvey P. Dale, Apr 02 2013
[A180488] 0, 1, 3, 9, 23, 60, 152, 388, 984, 2501, 6347, 16117, 40911, 103864, 263664, 669352, 1699216, 4313673, 10950739, 27799745, 70572839, 179157364, 454811656, 1154592108, 2931065640, 7440849549, 18889457819, 47953075565
a(n)= +3*a(n-1) -4*a(n-3) +3*a(n-4) -a(n-5). G.f.: x^2 / ((x-1)*(x^4-2*x^3+2*x^2+2*x-1)). [From R. J. Mathar, Sep 19 2010]
[A061647] 1, 3, 9, 23, 61, 159, 417, 1091, 2857, 7479, 19581, 51263, 134209, 351363, 919881, 2408279, 6304957, 16506591, 43214817, 113137859, 296198761, 775458423, 2030176509, 5315071103, 13915036801, 36430039299, 95375081097, 249695203991, 653710530877, 1711436388639
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3) for n > 3, with a(1)=1, a(2)=3, a(3)=9.
a(n) = Fibonacci(n)^2 + Fibonacci(n-1)^2 + 2*Fibonacci(n)*Fibonacci(n+1) + 3*Fibonacci(n-1)*Fibonacci(n), with offset 0. - Paul Barry, Sep 22 2004
a(n) = Fibonacci(n+1)^2 - Fibonacci(n-2)^2 - (-1)^n. - Thomas Baruchel, Jul 29 2005
a(n) = 4*Fibonacci(n-1)*Fibonacci(n) - (-1)^n. - Bruno Berselli, Oct 30 2015
a(n) = (1/5)*(4*Lucas(2*n-1) - (-1)^n). - Ehren Metcalfe, Mar 26 2016
a(n) = 2^(-n)*(-(-2)^n - 2*(3-sqrt(5))^n*(1+sqrt(5)) + 2*(-1+sqrt(5))*(3+sqrt(5))^n)/5. - Colin Barker, Sep 30 2016
[A077996] 1, 1, 3, 9, 23, 61, 163, 433, 1151, 3061, 8139, 21641, 57543, 153005, 406835, 1081761, 2876367, 7648165, 20336219, 54073337, 143779223, 382304221, 1016534339, 2702931345, 7187005471, 19110010965, 50812890091, 135109802089, 359252516199, 955240614669
a(n)=sum(k=1..n, sum(i=k..n,(sum(j=0..k, binomial(j,-3*k+2*j+i)*2^(k-j)*binomial(k,j)))*binomial(n+k-i-1,k-1))); [From Vladimir Kruchinin, May 05 2011]
[A108488] 1, 1, 3, 9, 23, 69, 203, 601, 1815, 5493, 16731, 51225, 157367, 485093, 1499499, 4646233, 14427095, 44880981, 139849979, 436419737, 1363713015, 4266417221, 13362194571, 41891406681, 131452430999, 412835452213, 1297543367835
a(n) = Sum_{k=0..n} C(n-k, k)^2*2^k.
[A244504] 3, 9, 24, 51, 102, 177, 294, 459, 690, 987, 1380, 1875, 2508, 3279, 4212, 5319, 6648, 8199, 10026, 12141, 14580, 17343, 20496, 24051, 28068, 32547, 37542, 43071, 49218, 55983, 63456, 71661, 80658, 90447, 101100, 112635, 125160, 138675, 153252, 168915, 185784
a(n) = 3*sum(j = 1..n-1, euler_phi(j)*(g(n-j)-g(n-2*j))), where g(i) = i*(i+1)/2 if i > 0, otherwise 0, after Jon E. Schoenfield.

[A291706] 3, 9, 24, 56, 136, 328, 792, 1912, 4616, 11144, 26904, 64952, 156808, 378568, 913944, 2206456, 5326856, 12860168, 31047192, 74954552, 180956296, 436867144, 1054690584, 2546248312, 6147187208, 14840622728, 35828432664, 86497488056, 208823408776, 504144305608
a(n) = 4 lucas(n - 1, 2) for n > 2.
a(n) = 2*a(n-1) + a(n-2) for n > 4.
[A089830] 1, 3, 9, 24, 57, 122, 239, 435, 745, 1213, 1893, 2850, 4161, 5916, 8219, 11189, 14961, 19687, 25537, 32700, 41385, 51822, 64263, 78983, 96281, 116481, 139933, 167014, 198129, 233712, 274227, 320169, 372065, 430475, 495993, 569248, 650905, 741666, 842271
a(0)=1, a(1)=3, a(2)=9, a(3)=24, a(4)=57, a(5)=122, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). -Harvey P. Dale, Jul 18 2012
a(n) = 13*n/15+1+n^3/8+11*n^2/12+n^5/120+n^4/12. - R. J. Mathar, Sep 27 2014
[A084858] 1, 3, 9, 24, 60, 144, 336, 768, 1728, 3840, 8448, 18432, 39936, 86016, 184320, 393216, 835584, 1769472, 3735552, 7864320, 16515072, 34603008, 72351744, 150994944, 314572800, 654311424, 1358954496, 2818572288, 5838471168, 12079595520
a(n) = 3*(0^n/3+2^n+n*2^n)/4.
a(n) = 4*a(n-1) -4*a(n-2). - Vincenzo Librandi, Jun 24 2012
[A003262] 1, 3, 9, 24, 61, 145, 333, 732, 1565, 3247, 6583, 13047, 25379, 48477, 91159, 168883, 308736, 557335, 994638, 1755909, 3068960, 5313318, 9118049, 15516710, 26198568, 43904123, 73056724, 120750102, 198304922, 323685343
a(n) = coefficient of t^n*u^(n-1) in Product_{i,j>=0,(i,j)<>(0,1)} (1 - t^i*u^(i+j-1))^(-1). - Tom Wilde (tom(AT)beech84.fsnet.co.uk), Jan 19 2008
[A079282] 1, 3, 9, 24, 61, 149, 354, 823, 1881, 4240, 9449, 20857, 45666, 99291, 214589, 461336, 987221, 2103917, 4467394, 9454895, 19951601, 41989408, 88155409, 184670769, 386072386, 805624179, 1678235829, 3490492968, 7249103581, 15034563845
a(n) = sum(sum((k+1)binomial(n-j, n-2j-k), k, 0, n-2j), j, 0, floor(n/2))
[A117585] 1, 3, 9, 24, 61, 151, 369, 896, 2169, 5243, 12665, 30584, 73845, 178287, 430433, 1039168, 2508785, 6056755, 14622313, 35301400, 85225133, 205751687, 496728529, 1199208768, 2895146089, 6989500971, 16874148057, 40737797112, 98349742309
a(n)/a(n-1) tends to 1 + sqrt(2) = 2.414213562...(a(14)/a(13) = 430433/178287 = 2.4142702...).
a(n)=4*a(n-1)-4*a(n-2)+a(n-4). G.f.: -(1-x+x^2)/((x^2+2*x-1)*(x-1)^2). [From R. J. Mathar, Aug 05 2009]
[A006684] 0, 0, 1, 3, 9, 24, 62, 156, 387, 951, 2323, 5652, 13716, 33228, 80405, 194415, 469845, 1135092, 2741626, 6620928, 15987663, 38603019, 93204647, 225030024, 543293352, 1311663096, 3166694569, 7645173627, 18457238241, 44559967920, 107577688310, 259716176580
a(n) = Pell(n) - Fibonacci(n).
[A090400] 1, 3, 9, 24, 63, 162, 414, 1053, 2673, 6777, 17172, 43497, 110160, 278964, 706401, 1788723, 4529277, 11468628, 29039715, 73531314, 186188058, 471445029, 1193741145, 3022659261, 7653642696, 19379704653, 49071136176, 124252480440
a(n)=3a(n-1)-3a(n-3); a(n)=sum{k=0..floor(n/2), comb(n-2k, k) (-1)^k 3^(n-2k) }.
[A097134] 1, 3, 9, 24, 63, 165, 432, 1131, 2961, 7752, 20295, 53133, 139104, 364179, 953433, 2496120, 6534927, 17108661, 44791056, 117264507, 307002465, 803742888, 2104226199, 5508935709, 14422580928, 37758807075, 98853840297, 258802713816
a(n) = 3*a(n-1)-a(n-2) for n>2.
a(n) = Sum_{k=0..n} binomial(n, k)*(3*Fibonacci(k)+(-1)^k).
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k-1)*(-1)^k*3^(n-2*k). - Paul Barry, Jan 16 2005
a(n) = Fibonacci(n+2)^2 - Fibonacci(n-2)^2. [Gary Detlefs, Dec 03 2010]
a(n) = Fibonacci(6*n) - 5*Fibonacci(2*n)^3 for n>0. [Gary Detlefs, Oct 18 2011]
[A064831] 0, 1, 3, 9, 24, 64, 168, 441, 1155, 3025, 7920, 20736, 54288, 142129, 372099, 974169, 2550408, 6677056, 17480760, 45765225, 119814915, 313679521, 821223648, 2149991424, 5628750624, 14736260449, 38580030723, 101003831721
a(n) = F(n+1)^2 - 1 if n is even, or F(n+1)^2 if n is odd.
a(n) = Sum_{k=0..floor(n/2)) U(n-2k-1, 3/2). - Paul Barry, Nov 15 2003
a(n) = floor(phi^(2*n+2)/5), where phi =(1+sqrt(5))/2. [Gary Detlefs Mar 12 2011]
a(n) = Sum_{i=0..n} (n+1-i)*Fibonacci(i)^2. - Bruno Berselli, Feb 20 2017
[A121907] 1, 3, 9, 24, 66, 180, 492, 1344, 3672, 10032, 27408, 74880, 204576, 558912, 1526976, 4171776, 11397504, 31138560, 85072128, 232421376, 634987008, 1734816768, 4739607552, 12948848640, 35376912384, 96651522048, 264056868864, 721416781824, 1970947301376
a(0)=1, a(1)=3, a(2)=9, a(n)=2*a(n-1)+2*a(n-2) for n>=3. [Philippe Deléham, Sep 19 2009]
[A005262] 1, 3, 9, 25, 59, 131, 277, 573, 1167, 2359, 4745, 9521, 19075, 38187, 76413, 152869, 305783, 611615, 1223281, 2446617, 4893291, 9786643, 19573349, 39146765, 78293599, 156587271, 313174617, 626349313, 1252698707, 2505397499, 5010795085, 10021590261
a(n) = (28*2^n-18*n-(-1)^n-21)/6 = (7*2^(n+1)-9*n-10)/3-((-1)^n+1)/6. - Bruno Berselli, Jan 12 2012
[A101357] 0, 1, 3, 9, 25, 60, 126, 238, 414, 675, 1045, 1551, 2223, 3094, 4200, 5580, 7276, 9333, 11799, 14725, 18165, 22176, 26818, 32154, 38250, 45175, 53001, 61803, 71659, 82650, 94860, 108376, 123288, 139689, 157675, 177345, 198801, 222148, 247494
a(n) = Sum[i=0, n][(i(i-2)^2+i^2)/2].
a(n) = binomial(n+3,4) - 2*binomial(n+2,4) + 4*binomial(n+1,4).
a(n) = (n^4-2*n^3+3*n^2+6*n)/8. - Johannes W. Meijer, Apr 29 2011
[A292326] 3, 9, 25, 63, 153, 359, 819, 1830, 4018, 8694, 18582, 39298, 82350, 171186, 353338, 724719, 1478061, 2999175, 6057687, 12183945, 24411935, 48740193, 96998325, 192459996, 380812692, 751557756, 1479686972, 2906717460, 5698014924, 11147786740, 21769549380
a(n) = 3*a(n-1) - 2*a(n-3) - 6*a(n-4) + 4*a(n-6) + 6*a(n-7) + 3*a(n-8) + a(n-9) for n >= 10.
[A002064] 1, 3, 9, 25, 65, 161, 385, 897, 2049, 4609, 10241, 22529, 49153, 106497, 229377, 491521, 1048577, 2228225, 4718593, 9961473, 20971521, 44040193, 92274689, 192937985, 402653185, 838860801, 1744830465, 3623878657, 7516192769, 15569256449, 32212254721
a(n) = 4a(n-1) - 4a(n-2) + 1. - Paul Barry, Jun 12 2003
a(0)=1, a(1)=3, a(2)=9, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale, Oct 13 2011
[A058396] 1, 3, 9, 25, 66, 168, 416, 1008, 2400, 5632, 13056, 29952, 68096, 153600, 344064, 765952, 1695744, 3735552, 8192000, 17891328, 38928384, 84410368, 182452224, 393216000, 845152256, 1811939328, 3875536896, 8271167488, 17616076800
a(n) =(n+2)*(n+7)*2^(n-4) for n>0.
a(n)=sum{k=0..floor((n+2)/2), C(n+2, 2k)k(k+1)/2 }. - Paul Barry, May 15 2003
a(n)=sum{k=0..n, C(n, k)Floor((k+2)^2/4) }. - Paul Barry, May 27 2003
a(n)=6*a(n-1)-12*a(n-2)+8*a(n-3), n>3. - Harvey P. Dale, Oct 17 2011
[A081663] 1, 3, 9, 25, 66, 169, 425, 1058, 2621, 6485, 16066, 39921, 99601, 249666, 628917, 1592029, 4048866, 10341577, 26517113, 68226722, 176065901, 455514533, 1181040514, 3067684065, 7980068641, 20784441474, 54188706405, 141395801773
a(n) = 7*a(n-1)-17*a(n-2)+16*a(n-3)-4*a(n-4). G.f.: -(3*x^3-5*x^2+4*x-1) / ((2*x-1)^2*(x^2-3*x+1)). - Colin Barker, Jun 04 2013
[A106514] 1, 3, 9, 25, 67, 175, 449, 1137, 2851, 7095, 17553, 43225, 106051, 259423, 633089, 1541985, 3749827, 9107175, 22095249, 53559817, 129739171, 314086735, 760009793, 1838300625, 4444999651, 10745077143, 25968708369, 62749602745
a(n)=sum{k=0..n, 2^(n-k)((1-sqrt(2))^k+(1+sqrt(2))^k)/2}; a(n)=sum{k=0..n, sum{j=0..floor((n+1)/2), binomial(n+1, 2j+k+1)2^j}}.
[A069403] 1, 3, 9, 25, 67, 177, 465, 1219, 3193, 8361, 21891, 57313, 150049, 392835, 1028457, 2692537, 7049155, 18454929, 48315633, 126491971, 331160281, 866988873, 2269806339, 5942430145, 15557484097, 40730022147, 106632582345, 279167724889, 730870592323
a(0) = 1, a(1) = 3, a(2) = 9, a(3) = 25; a(n) = 3*a(n-1) - 3*a(n-3) + a(n-4).
a(n) = 3*a(n-1) - a(n-2) + 1 for n>1, a(1) = 3, a(0) = 0. - Reinhard Zumkeller, May 02 2006
a(n)= 4*a(n-1)-4*a(n-2)+a(n-3). G.f.: (1-x+x^2)/((1-x)(1-3x+x^2)). - R. J. Mathar, Feb 23 2009
a(n) = (2^(-n)*(-5*2^n-(3-sqrt(5))^n*(-5+sqrt(5))+(3+sqrt(5))^n*(5+sqrt(5))))/5. - Colin Barker, Nov 02 2016
[A291021] 1, 3, 9, 25, 67, 178, 472, 1249, 3297, 8685, 22843, 60014, 157540, 413289, 1083693, 2840521, 7443331, 19500394, 51079696, 133782385, 350354841, 917456901, 2402365387, 6290338310, 16470047644, 43122600825, 112903347237, 295598625697, 773914899475
a(n) = 6*a(n-1) - 13*a(n-2) + 14*a(n-3) - 9*a(n-4) + 2*a(n-5) for n >= 5.
[A094292] 0, 0, 1, 3, 9, 25, 68, 182, 483, 1275, 3355, 8811, 23112, 60580, 158717, 415715, 1088661, 2850645, 7463884, 19541994, 51163695, 133951675, 350695511, 918141623, 2403740304, 6293097000, 16475579353, 43133687427, 112925557953
a(n) = (2/5)*Sum(k, 1, 4, Sin(2Pi*k/5)Sin(4Pi*k/5)(1+2Cos(Pi*k/5))^n).
a(n) = 4*a(n-1)-3*a(n-2)-2*a(n-3)+a(n-4) G.f.: (x^2-x^3)/(1-4x+3x^2+2x^3-x^4) - Herbert Kociemba, Jun 16 2004

a(n) = (Fibonacci(2*n)-Fibonacci(n))/2. - Vladeta Jovovic, Jul 17 2004
a(n+1) = Sum_{k=0..floor(n/2)} binomial(n-k, k)(-1)^k*F(3n-3k)/F(3). - Paul Barry, Nov 17 2004
a(n) = Sum_{k=0..floor(n/2)} C(n, 2k)Fib(2k). - Paul Barry, Jun 10 2005
a(n) = Sum_{k=0..n-1} Fibonacci(n+k-1)/2. [Gary Detlefs, Feb 22 2011]
[A291019] 1, 3, 9, 25, 68, 185, 504, 1373, 3739, 10180, 27714, 75445, 205376, 559064, 1521840, 4142609, 11276581, 30695881, 83556891, 227449066, 619135745, 1685339900, 4587637263, 12487934387, 33993205996, 92532358762, 251880840375, 685640764594, 1866371634554
a(n) = 5*a(n-1) - 8*a(n-2) + 6*a(n-3) - 3*a(n-4) for n >= 5.
[A077846] 1, 3, 9, 25, 69, 189, 517, 1413, 3861, 10549, 28821, 78741, 215125, 587733, 1605717, 4386901, 11985237, 32744277, 89459029, 244406613, 667731285, 1824275797, 4984014165, 13616579925, 37201188181, 101635536213, 277673448789
a(0)=1, for n>=1 a(n) = ceil((1+sqrt(3))*a(n-1)). - Benoit Cloitre, Jun 19 2004.
a(n) = sum(i=0, n, sum(j=0, n, 2^j*binomial(j, i-j))). - Benoit Cloitre, Oct 23 2004
a(n) = 2*(a(n-1) +a(n-2))+1, n>1. [Gary Detlefs, Jun 20 2010]
a(n) = floor((1+sqrt(3))^(n+2)/6). [Bruno Berselli, Feb 05 2013]
a(n) = (-2+(1-sqrt(3))^(n+2)+(1+sqrt(3))^(n+2))/6. - Alexander R. Povolotsky, Feb 13 2016
[A005322] 1, 3, 9, 25, 69, 189, 518, 1422, 3915, 10813, 29964, 83304, 232323, 649845, 1822824, 5126520, 14453451, 40843521, 115668105, 328233969, 933206967, 2657946907, 7583013474, 21668135850, 62007732605, 177696228411, 509899901553, 1464990733969, 4214045993925
a(n) = number of (s(0), s(1), ..., s(n)) such that s(i) is a nonnegative integer and |s(i) - s(i-1)| <= 1 for i = 1, 2, ..., n, s(0) = 0, s(n) = 2.
a(n) = -sqrt(-3)*(-1)^n*(3*n*(13*n+27)*hypergeom([1/2, n],[1],4/3) -hypergeom([1/2, n+1],[1],4/3)*(41*n^2+115*n+60))/(2*(n+3)*(n+5)*(n+6)). [From Mark van Hoeij, Nov 12 2009]
a(n) = sum(k=1..n+2, (k-2)*k*sum(j=k..n+2, C(-k+2*j-1,j-1)*(-1)^(n+2-j) * C(n+2,j)))/(n+2). [From Vladimir Kruchinin, Sep, 26 2011]
a(n) (5 + n) = (13 + 4 n) a(n - 1) - n a(n - 2) - 6 n a(n - 3). [Simon Plouffe. Feb 09 2012]
[A103780] 1, 1, 3, 9, 25, 69, 189, 519, 1428, 3930, 10812, 29742, 81816, 225070, 619156, 1703262, 4685565, 12889687, 35458707, 97544655, 268339161, 738183999, 2030697309, 5586319365, 15367609920, 42275319276, 116296719448
a(n) = a(n-1) +2a(n-2) +4a(n-3) +6a(n-4) +8a(n-5) +8a(n-6) +6a(n-7) +3a(n-8) +a(n-9).
[A098182] 1, 1, 3, 9, 25, 69, 191, 529, 1465, 4057, 11235, 31113, 86161, 238605, 660767, 1829857, 5067409, 14033137, 38861859, 107619849, 298030825, 825334485, 2285592479, 6329473777, 17528163337, 48540608713, 134423136579
a(n) = Sum_{k=0..floor(n/2)} binomial(n+k, 3*k) * 2^k.
[A007046] 1, 3, 9, 25, 70, 194, 537, 1485, 4104, 11338, 31318, 86498, 238885, 659713, 1821843, 5031071, 13893316, 38366206, 105947374, 292570493, 807923428, 2231050832, 6160961041, 17013250192, 46981405457, 129737238488, 358264064448, 989331456469
a(n) = d(n, 2) where d(n, k) = 0 if n < k*(k+1)/2, d(n, k) = 1 if n = k*(k+1)/2, and d(n, k) = d(n, k+1) + Sum_{r=1..k} binomial(k + 1, r) * d(n - k*(k+1)/2 + r*(r-1)/2, r) if n > k*(k+1)/2 [From Cannings and Haigh]. - Sean A. Irvine, Sep 25 2017
[A097861] 0, 1, 3, 9, 25, 70, 196, 553, 1569, 4476, 12826, 36894, 106470, 308113, 893803, 2598313, 7567465, 22076404, 64498426, 188689684, 552675364, 1620567763, 4756614061, 13974168190, 41088418150, 120906613075, 356035078101, 1049120176953, 3093337815409
a(n) = Sum_{j=1..n} C(n,j)*C(n-j,j)/2. - Zerinvary Lajos, Sep 24 2006
[A101197] 1, 3, 9, 25, 71, 199, 561, 1577, 4439, 12487, 35137, 98857, 278151, 782599, 2201937, 6195369, 17431351, 49044935, 137993185, 388258473, 1092406631, 3073602311, 8647907569, 24331808809, 68460135703, 192619882695
a(n) = 2*a(n-1) + 3*a(n-2) - 2*a(n-3).
[A101168] 1, 3, 9, 25, 71, 201, 569, 1611, 4561, 12913, 36559, 103505, 293041, 829651, 2348889, 6650121, 18827671, 53304473, 150914409, 427265435, 1209664161, 3424773601, 9696140959, 27451493281, 77720042081, 220039211683, 622970000809, 1763738467065, 4993456147431
a(n) = 2*a(n-1) + 2*a(n-2) + a(n-3).
a(n-1) = sum(k=1..n, sum(m=0..n-k, (sum(j=0..k, binomial(j, n-m-3*k+2*j) *binomial(k, j))) *sum(i=ceiling(m/2)..m, binomial(i, m-i)*binomial(k+i-1, k-1)))). [From Vladimir Kruchinin, May 05 2011]
[A138574] 0, 1, 3, 9, 25, 73, 211, 609, 1761, 5089, 14707, 42505, 122841, 355017, 1026019, 2965249, 8569729, 24766977, 71577891, 206863945, 597847897, 1727812489, 4993470771, 14431398369, 41707515361, 120536956513, 348358269715, 1006774084809, 2909631106713, 8408989965961
a(n) = round(w^n*(1+1/sqrt(5))/4) where w=(1+r)/(1-r)=2.89005363826396... and r = sqrt(sqrt(5)-2) = 0.485868271756... .
[A191354] 1, 1, 3, 9, 25, 75, 227, 693, 2139, 6645, 20757, 65139, 205189, 648427, 2054775, 6526841, 20775357, 66251247, 211617131, 676930325, 2168252571, 6953348149, 22322825865, 71735559255, 230735316795, 742773456825, 2392949225565, 7714727440755, 24888317247705, 80341227688095
a(n) = Sum_{k=0..n} (binomial(2*k,k) * Sum_{j=0..k} (binomial(j,n-k-j)*2^(j-k)*binomial(k,j)*3^(-n+k+2*j)*4^(n-k-2*j))). - Vladimir Kruchinin, Feb 27 2016
[A001189] 0, 1, 3, 9, 25, 75, 231, 763, 2619, 9495, 35695, 140151, 568503, 2390479, 10349535, 46206735, 211799311, 997313823, 4809701439, 23758664095, 119952692895, 618884638911, 3257843882623, 17492190577599, 95680443760575, 532985208200575, 3020676745975551
a(n) = b(n, 2), where b(n, d)=Sum_{k=1..n} (n-1)!/(n-k)! * Sum_{l:lcm{k, l}=d} b(n-k, l), b(0, 1)=1 is the number of degree-n permutations of order exactly d.
[A101786] 1, 1, 1, 3, 9, 25, 77, 247, 801, 2657, 8969, 30635, 105785, 368745, 1295493, 4582767, 16309953, 58357313, 209798289, 757461011, 2745281705, 9984464761, 36428252541, 133293594343, 489028250465, 1798543861537, 6629635284505
a(n) = Sum_{k=0..[(n-1)/2]} C(n-k-1, k)*C(n, 2*k)*2^k/(2*k+1) for n>0, with a(0)=1.
[A246653] 1, 1, 3, 9, 25, 87, 287, 993, 3519, 12525, 45369, 165519, 608569, 2253307, 8386575, 31370297, 117834837, 444258387, 1680516731, 6375706325, 24253227159, 92481509389, 353417696625, 1353280137975, 5191349266275, 19948136148837, 76771074483837, 295880290515411, 1141860205058433, 4412129801125275
a(n) = Sum_{k=0..[n/2]} binomial(2*k, k) * binomial(n-k, k)^2.
[A291410] 1, 3, 9, 26, 69, 186, 511, 1401, 3824, 10438, 28521, 77938, 212928, 581700, 1589231, 4341911, 11862339, 32408429, 88541424, 241899801, 660882666, 1805564823, 4932894579, 13476918898, 36819627664, 100593093135, 274825440378, 750837066710, 2051325016200
a(n) = a(n-1) + 2*a(n-2) + 4*a(n-3) + 7*a(n-4) + 6*a(n-5) + 2*a(n-6) for n >= 7.
[A054963] 1, 3, 9, 26, 72, 194, 515, 1357, 3563, 9340, 24466, 64068, 167749, 439191, 1149837, 3010334, 7881180, 20633222, 54018503, 141422305, 370248431, 969323008, 2537720614, 6643838856, 17393795977, 45537549099, 119218851345
a(n) = fibonacci(2n)+fibonacci(2n+2)-n.
[A291733] 1, 3, 9, 26, 72, 195, 520, 1368, 3560, 9184, 23520, 59860, 151536, 381840, 958256, 2396192, 5972736, 14845040, 36801792, 91021056, 224642304, 553347072, 1360598016, 3340024384, 8186748160, 20038426368, 48983457024, 119593531904, 291657627648, 710522702592
a(n) = 4*a(n-1) - 4*a(n-2) + 4*a(n-3) - 8*a(n-4) - 4*a(n-6) for n >= 7.
[A084787] 1, 3, 9, 26, 73, 199, 542, 1475, 4011, 10903, 29640, 80571, 219017, 595350, 1618331, 4399082, 11957946, 32505069, 88357939, 240181783, 652881776, 1774716669, 4824180073, 13113481032, 35646137200, 96896247006, 263391307484
a(0)=1, a(n+1) = ceil(e*a(n) + e*ceil(e^n) - ceil(e^(n+1))), e=2.71828...
[A054447] 1, 3, 9, 26, 73, 201, 545, 1460, 3873, 10191, 26633, 69198, 178889, 460437, 1180545, 3016552, 7684481, 19522203, 49473097, 125093506, 315654537, 795016545, 1998909985, 5017895196, 12578040097, 31485713511
a(n)=sum(k*sum(binomial(i,n-k-i)*binomial(k+i-1,k-1),i,ceiling((n-k)/2),n-k),k,1,n), n>0 [From Vladimir Kruchinin, Sep 06 2010]
a(n) = 4*a(n-1) - 2*a(n-2) - 4*a(n-3) - a(n-4), a(0)=1, a(1)=3, a(2)=9, a(3)=26. - Philippe Deléham, Jan 22 2014
[A061667] 1, 3, 9, 26, 73, 201, 546, 1469, 3925, 10434, 27633, 72977, 192322, 506037, 1329885, 3491810, 9161929, 24026745, 62983842, 165055853, 432445861, 1132806018, 2967020769, 7770353441, 20348233858, 53282736741, 139516753581, 365301078434, 956453590585
a(n) = Sum_{k=0..n+1} C(n+1, k)*sum{j=0..floor(k/2), Fibonacci(k-2j)}. - Paul Barry, Apr 17 2005
a(n) = 2^(-1-n)*(-5*4^n - (3-sqrt(5))^n*(-5+sqrt(5)) + (3+sqrt(5))^n*(5+sqrt(5))) / 5.
a(n) = 5*a(n-1) - 7*a(n-2) + 2*a(n-3) for n>3.
[A077845] 1, 3, 9, 26, 74, 210, 595, 1685, 4771, 13508, 38244, 108276, 306549, 867895, 2457165, 6956670, 19695566, 55761638, 157871079, 446961001, 1265425799, 3582644680, 10143101960, 28716919080, 81302686761, 230182313643, 651686919889, 1845041153826, 5223638461074
a(n) = 3*a(n-1)-a(n-3)-a(n-4). - Wesley Ivan Hurt, Mar 10 2015

[A291000] 1, 3, 9, 26, 74, 210, 596, 1692, 4804, 13640, 38728, 109960, 312208, 886448, 2516880, 7146144, 20289952, 57608992, 163568448, 464417728, 1318615104, 3743926400, 10630080640, 30181847168, 85694918912, 243312448256, 690833811712, 1961475291648, 5569190816256
a(n) = 4*a(n-1) - 4*a(n-2) + 2*a(n-3) for n >= 4.
[A289806] 1, 3, 9, 26, 74, 211, 600, 1708, 4860, 13832, 39364, 112029, 318827, 907366, 2582312, 7349121, 20915193, 59523497, 169400608, 482104856, 1372044007, 3904762096, 11112739032, 31626246588, 90006565434, 256153755080, 728999555983, 2074692805003, 5904462080604
a(n) = 3*a(n-1) + a(n-2) - 5*a(n-3) + 2*a(n-4) + 2*a(n-5) - a(n-6).
[A076264] 1, 3, 9, 26, 75, 216, 622, 1791, 5157, 14849, 42756, 123111, 354484, 1020696, 2938977, 8462447, 24366645, 70160958, 202020427, 581694636, 1674922950, 4822748423, 13886550633, 39984728949, 115131438424, 331507764639
a(n) is asymptotic to g*c^n where c = cos(Pi/18)/cos(7*Pi/18) and g is the largest real root of 81*x^3 - 81*x^2 - 9*x + 1 = 0. - Benoit Cloitre, Nov 06 2002
a(n) = 3*a(n-1) - a(n-3), n > 0.
a(n) = Sum_{k=0..floor(n/3)} binomial(n-2k, k)(-1)^k*3^(n-3k). - Paul Barry, Oct 20 2004
[A123941] 0, 1, 3, 9, 26, 75, 216, 622, 1791, 5157, 14849, 42756, 123111, 354484, 1020696, 2938977, 8462447, 24366645, 70160958, 202020427, 581694636, 1674922950, 4822748423, 13886550633, 39984728949, 115131438424, 331507764639, 954538564968, 2748484256480
a(n)=3a(n-1)-a(n-3), a(0)=0, a(1)=1, a(2)=3 (follows from the minimal polynomial x^3-3x^2+1 of the matrix M).
[A005774] 0, 1, 3, 9, 26, 75, 216, 623, 1800, 5211, 15115, 43923, 127854, 372749, 1088283, 3181545, 9312312, 27287091, 80038449, 234988827, 690513030, 2030695569, 5976418602, 17601021837, 51869858544, 152951628725, 451271872701, 1332147482253
a(n)*(2 +n) = (4+4*n)*a(n-1) - n*a(n-2) + (12-6*n)*a(n-3). - Simon Plouffe, Feb 09 2012
a(n) = GegenbauerC(n-2,-n,-1/2) + GegenbauerC(n-1,-n,-1/2). - Peter Luschny, May 12 2016
[A101169] 1, 3, 9, 26, 76, 221, 644, 1875, 5461, 15903, 46314, 134876, 392791, 1143896, 3331289, 9701475, 28252921, 82278978, 239615244, 697814501, 2032195756, 5918219771, 17235212309, 50192888175, 146173193506, 425689839228
a(n) = 2*a(n-1) + 3*a(n-2) - a(n-3).
[A119826] 1, 3, 9, 26, 76, 222, 648, 1892, 5524, 16128, 47088, 137480, 401392, 1171920, 3421584, 9989792, 29166592, 85155936, 248624640, 725894336, 2119349824, 6187737600, 18065963520, 52746101888, 153999606016, 449623342848, 1312738101504, 3832722100736, 11190167090176, 32671254584832
a(n-1) = sum(m=1..n, sum(k=m..n, C(k-1,m-1) * sum(j=0..k, C(j,n-3*k+2*j) * C(k,j)))) [From Vladimir Kruchinin, Apr 25 2011]
a(n) = round(3/2*((r+s+2)/3)^(n+3)/(r^2+s^2+10)), where r=(53+3*sqrt(201))^(1/3), s=(53-3*sqrt(201))^(1/3); r and s are the real roots of the polynomial x^6 - 106*x^3 + 1000. [Anton Nikonov, Jul 11 2013]
[A133405] 0, 0, 0, 1, 3, 9, 26, 78, 234, 703, 2109, 6327, 18980, 56940, 170820, 512461, 1537383, 4612149, 13836446, 41509338, 124528014, 373584043, 1120752129, 3362256387, 10086769160, 30260307480, 90780922440, 272342767321, 817028301963, 2451084905889, 7353254717666
a(n)=(1/42)*{1/2-(1/2)*I*sqrt(3)}^n+(1/28)*3^n-(1/12)*(-1)^n+(1/42)*{1/2+(1/2)*I*sqrt(3)}^n -(1/14)*I*{1/2-(1/2)*I*sqrt(3)}^n*sqrt(3)+(1/14)*I*{1/2+(1/2)*I*
*sqrt(3), with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A248959] 1, 3, 9, 27, 36, 72, 132, 240, 444, 816, 1500, 2760, 5076, 9336, 17172, 31584, 58092, 106848, 196524, 361464, 664836, 1222824, 2249124, 4136784, 7608732, 13994640, 25740156, 47343528, 87078324, 160162008, 294583860, 541824192, 996570060, 1832978112
a(n) = a(n-1) + a(n-2) + a(n-3).
[A097803] 3, 9, 27, 57, 99, 153, 219, 297, 387, 489, 603, 729, 867, 1017, 1179, 1353, 1539, 1737, 1947, 2169, 2403, 2649, 2907, 3177, 3459, 3753, 4059, 4377, 4707, 5049, 5403, 5769, 6147, 6537, 6939, 7353, 7779, 8217, 8667, 9129, 9603, 10089, 10587, 11097, 11619
a(0)=3, a(1)=9, a(2)=27, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Dec 29 2011
[A161712] 1, 3, 9, 27, 65, 131, 233, 379, 577, 835, 1161, 1563, 2049, 2627, 3305, 4091, 4993, 6019, 7177, 8475, 9921, 11523, 13289, 15227, 17345, 19651, 22153, 24859, 27777, 30915, 34281, 37883, 41729, 45827, 50185, 54811, 59713, 64899, 70377, 76155
a(n) = C(n,0) + 2*C(n,1) + 4*C(n,2) + 8*C(n,3).
[A137368] 3, 9, 27, 66, 144, 253, 424, 651, 977, 1392, 1866, 2479, 3169, 3981, 4978, 6137, 7420, 8829, 10477, 12279, 14295, 16613, 19124, 21906, 24904, 28056, 31494, 35320, 39486, 44102, 49116, 54103, 59468, 65143, 71315, 77649, 84504, 91720, 99303, 107365
a(n)=m: sum(1/prime(i), i=n,n+m-1))>1, while sum(1/prime(i), i=n,n+m-2))<1.
[A191007] 3, 9, 27, 69, 171, 405, 939, 2133, 4779, 10581, 23211, 50517, 109227, 234837, 502443, 1070421, 2271915, 4805973, 10136235, 21321045, 44739243, 93672789, 195734187, 408245589, 850045611, 1767200085, 3668617899, 7605671253, 15748213419, 32570168661, 67287820971
a(n) = n*2^(n+1) + (2^(n+3)+(-1)^n)/3.
[A206604] 1, 1, 3, 9, 27, 73, 189, 465, 1115, 2601, 5973, 13489, 30149, 66641, 146233, 318369, 689403, 1484137, 3181797, 6790641, 14445101, 30617841, 64724553, 136426849, 286926757, 601999633, 1260707529, 2634831585, 5497982025, 11452601761, 23823827825, 49484904257
a(n) = 1 + Sum_{k=0..n} C(n,floor(k/2)) * (2*k-n).
[A084707] 1, 3, 9, 27, 73, 195, 513, 1347, 3529, 9243, 24201, 63363, 165889, 434307, 1137033, 2976795, 7793353, 20403267, 53416449, 139846083, 366121801, 958519323, 2509436169, 6569789187, 17199931393, 45030004995, 117890083593, 308640245787, 808030653769
a(n) = -2+(8/5)*(3/2+(1/2)*sqrt(5))^n-(1/5)*(-1)^n+(8/5)*(3/2-(1/2)*sqrt(5))^n with n>=0. [Paolo P. Lava, Aug 01 2008]
[A289658] 1, 3, 9, 27, 75, 186, 414, 840, 1578, 2784, 4662, 7476, 11556, 17313, 25245, 35955, 50157, 68697, 92559, 122889, 161001, 208404, 266808, 338154, 424620, 528654, 652980, 800634, 974970, 1179699, 1418895, 1697037, 2019015, 2390175, 2816325, 3303783, 3859383, 4490526, 5205186, 6011964, 6920094
a(n) = (2*n^6 + 42*n^5 + 335*n^4 - 1140*n^3 + 5828*n^2 - 4752*n + 5760) / 1920 for n>0 and even.
a(n) = (2*n^6 + 42*n^5 + 335*n^4 - 1140*n^3 + 5828*n^2 - 4662*n + 5355) / 1920 for n odd.
[A289693] 0, 0, 1, 3, 9, 27, 75, 197, 503, 1263, 3132, 7695, 18784, 45649, 110585, 267276, 644907, 1554208, 3742321, 9005265, 21659603, 52078400, 125186565, 300870586, 723010749, 1737273406, 4174084259, 10028409724, 24092769583, 57880137331
a(n) = 6*a(n-1) - 15*a(n-2) + 24*a(n-3) - 29*a(n-4) + 25*a(n-5) - 17*a(n-6) + 9*a(n-7) - 3*a(n-8) + a(n-9) for n>9.
[A048481] 1, 3, 9, 27, 77, 207, 529, 1299, 3093, 7191, 16409, 36891, 81949, 180255, 393249, 852003, 1835045, 3932199, 8388649, 17825835, 37748781, 79691823, 167772209, 352321587, 738197557, 1543503927, 3221225529, 6710886459, 13958643773, 28991029311, 60129542209
a(n) = 6*a(n-1)-13*a(n-2)+12*a(n-3)-4*a(n-4). - Colin Barker, Dec 04 2014
[A241574] 1, 3, 9, 27, 78, 222, 618, 1686, 4512, 11856, 30624, 77856, 195072, 482304, 1178112, 2846208, 6807552, 16134144, 37920768, 88449024, 204865536, 471465984, 1078591488, 2454061056, 5555355648, 12516851712, 28078768128, 62732107776, 139619991552, 309640298496, 684409749504, 1508036837376, 3313030397952
a(n) = 3*2^(n-7)*(16+36*n-n^2+n^3) for n>3. - Colin Barker, Jun 06 2015
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4) for n>7. - Colin Barker, Jun 06 2015
[A090401] 1, 3, 9, 27, 78, 225, 648, 1863, 5355, 15390, 44226, 127089, 365202, 1049436, 3015630, 8665623, 24901263, 71555481, 205619553, 590861790, 1697881581, 4878978300, 14020076241, 40287643353, 115769285316, 332670921048
a(n)=3a(n-1)-3a(n-4); a(n)=sum{k=0..floor(n/2), comb(n-3k, k)3^(n-3k) }.
[A291020] 1, 3, 9, 27, 79, 228, 656, 1889, 5445, 15701, 45275, 130544, 376388, 1085199, 3128841, 9021083, 26009635, 74991112, 216214692, 623391005, 1797363157, 5182163781, 14941232871, 43078615236, 124204414928, 358106605227, 1032494220505, 2976890957419
a(n) = 6*a(n-1) - 13*a(n-2) + 14*a(n-3) - 7*a(n-4) for n >= 6.
[A282087] 1, 3, 9, 27, 79, 229, 657, 1871, 5295, 14909, 41801, 116783, 325287, 903741, 2505377, 6932479, 19151519, 52833853, 145578265, 400705135, 1101936119, 3027902045, 8314284721, 22816209855, 62579270191, 171559358493, 470132335209, 1287861941487, 3526800739399
a(n) = 4*a(n-1) - a(n-2) - 6*a(n-3) - 2*a(n-4) for n >= 4 (derived in the math.stackexchange.com link).
a(n) = -(1-u)^(1+n)/2 - (1+u)^(1+n)/2 + (1-v)^n - (2*(1-v)^n)/v + (1+v)^n + (2*(1+v)^n) / v where u=sqrt(2) and v=sqrt(3).
[A287898] 1, 3, 9, 27, 79, 233, 687, 2025, 5969, 17595, 51865, 152883, 450655, 1328401, 3915743, 11542481, 34023905, 100292659, 295633833, 871443275, 2568763439, 7571973753, 22319994767, 65792907193, 193938514865, 571674807403, 1685132453689, 4967284459107
a(n+4) = 2*a(n+3) + 2*a(n+2) + 2*a(n+1) + a(n).
[A134396] 1, 3, 9, 27, 80, 232, 656, 1808, 4864, 12800, 33024, 83712, 208896, 514048, 1249280, 3002368, 7143424, 16842752, 39387136, 91422720, 210763776, 482869248, 1099956224, 2492465152, 5620367360, 12616466432, 28202500096, 62797119488, 139318001664, 308029685760
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4) for n>3.
a(n) = (2^(n-4)*(48 + 20*n + 3*n^2 + n^3)) / 3.
[A291006] 1, 3, 9, 27, 80, 235, 688, 2013, 5891, 17244, 50482, 147791, 432672, 1266680, 3708288, 10856241, 31782309, 93044665, 272394011, 797450348, 2334585333, 6834643282, 20008841823, 58577124509, 171488162320, 502042223184, 1469759722591, 4302812676894

a(n) = 5*a(n-1) - 8*a(n-2) + 6*a(n-3) - a(n-4) for n >= 4.
[A289781] 1, 3, 9, 27, 80, 237, 701, 2073, 6129, 18120, 53569, 158367, 468181, 1384083, 4091760, 12096453, 35760689, 105719157, 312537041, 923951760, 2731474161, 8075043963, 23872213729, 70573310907, 208635540400, 616788246957, 1823408134821, 5390532719313
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3) - a(n-4).
[A248960] 1, 3, 9, 27, 81, 150, 366, 870, 2022, 4686, 10974, 25614, 59742, 139398, 325350, 759198, 1771590, 4134126, 9647262, 22512342, 52533750, 122590422, 286071414, 667563054, 1557794622, 3635198310, 8482932318, 19795382454, 46193598486, 107795266974, 251546100558, 586996465758, 1369788083022
a(n) = a(n-1) + 2*a(n-2) + 2*a(n-3) + 2*a(n-4) - a(n-5) - a(n-6).
[A181140] 3, 9, 27, 81, 240, 714, 2124, 6318, 18792, 55896, 166260, 494532, 1470960, 4375296, 13014096, 38709768, 115140240, 342478800, 1018685808, 3030029232, 9012668160, 26807724000, 79738214400, 237177271584, 705471756288, 2098389932544
a(1)=3, a(2)=9, a(3)=27, a(4)=81.
[A291007] 1, 3, 9, 27, 81, 242, 720, 2137, 6337, 18789, 55715, 165232, 490058, 1453493, 4311025, 12786359, 37923789, 112480082, 333610072, 989469949, 2934716101, 8704215281, 25816251319, 76569665176, 227101665034, 673571786617, 1997779058053, 5925309279179
a(n) = 6*a(n-1) - 13*a(n-2) + 14*a(n-3) - 7*a(n-4) + 2*a(n-5) for n >= 6.
[A249019] 1, 3, 9, 27, 81, 243, 540, 1440, 3804, 9960, 25908, 67344, 175884, 458832, 1196364, 3119304, 8134164, 21212832, 55316892, 144249168, 376159644, 980918904, 2557958964, 6670420704, 17394543180, 45359994336, 118285895244, 308455762488, 804364332180, 2097551985168, 5469815336796, 14263713072192
a(n) = a(n-1) + 2*a(n-2) + 3*a(n-3) + 5*a(n-4) + 6*a(n-5) - a(n-6) - a(n-7) - a(n-9) - a(n-10), for n>=16.
[A000244] 1, 3, 9, 27, 81, 243, 729, 2187, 6561, 19683, 59049, 177147, 531441, 1594323, 4782969, 14348907, 43046721, 129140163, 387420489, 1162261467, 3486784401, 10460353203, 31381059609, 94143178827, 282429536481, 847288609443, 2541865828329, 7625597484987
a(n) = 3^n.
a(0) = 1; a(n) = 3*a(n-1).
a(n) = n!*Sum_{i + j + k = n, i, j, k >= 0} 1/(i!*j!*k!). - Benoit Cloitre, Nov 01 2002
a(n) = 2*StirlingS2(n+1,3) + StirlingS2(n+2,2) = 2*(StirlingS2(n+1,3) + StirlingS2(n+1,2)) + 1. - Ross La Haye, Jun 26 2008
a(n) = 2*StirlingS2(n+1, 3) + StirlingS2(n+2, 2) = 2*(StirlingS2(n+1, 3) + StirlingS2(n+1, 2)) + 1. - Ross La Haye, Jun 09 2008
a(0) = 1, a(1) = 3; for n > 1, a(n) = (k+3)*a(n-1) - 3*k*a(n-2) for all k. - Vincenzo Librandi, Feb 16 2014
[A052917] 1, 3, 9, 27, 82, 249, 756, 2295, 6967, 21150, 64206, 194913, 591706, 1796268, 5453010, 16553943, 50253535, 152556873, 463123629, 1405924830, 4268028025, 12956640948, 39333046473, 119405064249, 362483220772, 1100406303264
a(n) = Sum(1/2443*(729+324*_alpha^3+144*_alpha^2+64*_alpha)*_alpha^(-1-n), _alpha = RootOf(-1+3*_Z+_Z^4)).
[A192909] 1, 1, 3, 9, 27, 83, 259, 811, 2541, 7963, 24957, 78221, 245165, 768413, 2408415, 7548629, 23659463, 74155215, 232422687, 728476151, 2283243129, 7156307287, 22429820697, 70301181369, 220343094521, 690615411545, 2164577236699
a(n)=4*a(n-1)-3*a(n-2)+a(n-3)-a(n-5).
[A171155] 1, 1, 3, 9, 27, 83, 259, 817, 2599, 8323, 26797, 86659, 281287, 915907, 2990383, 9786369, 32092959, 105435607, 346950321, 1143342603, 3772698725, 12463525229, 41218894577, 136451431723, 452116980643, 1499282161375, 4975631425581, 16524213199923, 54913514061867
a(n) = ((4*n-3)*a(n-1)-(2*n-5)*a(n-2)+a(n-3)-(n-3)*a(n-4))/n. - Alois P. Heinz, Jan 22 2013
[A131428] 1, 1, 3, 9, 27, 83, 263, 857, 2859, 9723, 33591, 117571, 416023, 1485799, 5348879, 19389689, 70715339, 259289579, 955277399, 3534526379, 13128240839, 48932534039, 182965127279, 686119227299, 2579808294647, 9723892802903
a(n) = 2*binom(2n,n)/(n+1) - 1. G.f.: [1-sqrt(1-4x)]/x - 1/(1-x). - Emeric Deutsch, Jul 25 2007
[A032092] 3, 9, 28, 60, 126, 226, 396, 636, 1001, 1491, 2184, 3080, 4284, 5796, 7752, 10152, 13167, 16797, 21252, 26532, 32890, 40326, 49140, 59332, 71253, 84903, 100688, 118608, 139128, 162248, 188496, 217872, 250971, 287793, 329004, 374604, 425334, 481194, 543004
a(n) = (2*n^5-30*n^4+170*n^3-480*n^2+728*n-480)/480 if n is even.
a(n) = (2*n^5-30*n^4+170*n^3-450*n^2+548*n-240)/480 if n is odd.
[A282081] 1, 3, 9, 28, 66, 126, 226, 396, 651, 1001, 1491, 2184, 3108, 4284, 5796, 7752, 10197, 13167, 16797, 21252, 26598, 32890, 40326, 49140, 59423, 71253, 84903, 100688, 118728, 139128, 162248, 188496, 218025, 250971, 287793, 329004, 374794, 425334, 481194, 543004
a(n) = (1+n)*(2+n)*(3+n)*(4+n)*(5+n)/240 + ((-i)^n+i^n)*(8+6*n+n^2)/32 where i=sqrt(-1). - Colin Barker, Feb 06 2017
[A292328] 3, 9, 28, 84, 246, 707, 2001, 5592, 15461, 42357, 115122, 310716, 833472, 2223471, 5902415, 15598896, 41058423, 107673601, 281416248, 733229412, 1904957434, 4936026747, 12758472189, 32901998472, 84667043769, 217437602349, 557361593902, 1426167813324
a(n) = 6*a(n-1) - 9*a(n-2) - 4*a(n-3) + 9*a(n-4) + 6*a(n-5) + a(n-6) for n >= 7.
[A291731] 1, 3, 9, 28, 84, 255, 772, 2340, 7088, 21476, 65064, 197126, 597228, 1809420, 5481980, 16608712, 50319264, 152451844, 461882016, 1399359936, 4239628608, 12844765920, 38915675520, 117902483528, 357208128400, 1082230358448, 3278823900048, 9933824239744
a(n) = 4*a(n-1) + 2*a(n-2) - 4*a(n-3) - 2*a(n-4) for n >= 5.
[A291257] 1, 3, 9, 28, 85, 261, 797, 2440, 7461, 22827, 69821, 213588, 653345, 1998573, 6113529, 18701072, 57205769, 174990195, 535287793, 1637423756, 5008812525, 15321754293, 46868623381, 143369215128, 438560602669, 1341539064795, 4103713486629, 12553092811972
a(n) = 2*a(n-1) + 4*a(n-2) - 2*a(n-3) - a(n-4) for n >= 5.
[A052541] 1, 3, 9, 28, 87, 270, 838, 2601, 8073, 25057, 77772, 241389, 749224, 2325444, 7217721, 22402387, 69532605, 215815536, 669848995, 2079079590, 6453054306, 20029011913, 62166115329, 192951400293, 598883212792, 1858815753705, 5769398661408, 17907079197016
a(n) = sum{k=0..floor(n/3), binomial(n-2k, k)3^(n-3k)}. - Paul Barry, Oct 20 2004
[A124820] 1, 3, 9, 28, 88, 277, 872, 2745, 8641, 27201, 85626, 269542, 848491, 2670964, 8407925, 26467299, 83316385, 262271568, 825604416, 2598919345, 8181135700, 25753389181, 81069068969, 255197244033, 803335158406, 2528817970494
a(n) = sum(k=0..n, C(n+2k+1, 3k+1)).
[A195675] 0, 1, 3, 9, 28, 88, 278, 873, 2742, 8616, 27067, 85032, 267137, 839237, 2636540, 8282934, 26021606, 81749286, 256822958, 806833117, 2534740992, 7963123679, 25016890851, 78592880513, 246906816043, 775680639401, 2436872598275, 7655661052475, 24050968520829
a(n) = round(Pi^(n+1)/(Pi^2 + 1)).
[A049220] 0, 0, 1, 3, 9, 28, 89, 285, 914, 2931, 9397, 30124, 96565, 309545, 992266, 3180775, 10196193, 32684604, 104772769, 335856389, 1076610978, 3451151243, 11062904925, 35462909836, 113678819677, 364405349233, 1168126647770
a(n) = 5a(n-1) - 7a(n-2) + 4a(n-3) for n >= 6.
[A071724] 1, 1, 3, 9, 28, 90, 297, 1001, 3432, 11934, 41990, 149226, 534888, 1931540, 7020405, 25662825, 94287120, 347993910, 1289624490, 4796857230, 17902146600, 67016296620, 251577050010, 946844533674, 3572042254128, 13505406670700
a(n) is the n-th moment of the function defined on the segment (0, 4) of x axis: a(n)= int(x^n*(-x^(1/2)*cos(3*arcsin(1/2*x^(1/2)))/Pi), x=0..4), n=0, 1... . - Karol A. Penson, Sep 29 2004
[A000245] 0, 1, 3, 9, 28, 90, 297, 1001, 3432, 11934, 41990, 149226, 534888, 1931540, 7020405, 25662825, 94287120, 347993910, 1289624490, 4796857230, 17902146600, 67016296620, 251577050010, 946844533674, 3572042254128, 13505406670700, 51166197843852, 194214400834356
a(n+1) = sum(i+j+k=n, C(i)C(j)C(k)) with i, j, k>=0 and where C(k) denotes the k-th Catalan number. - Benoit Cloitre, Nov 09 2003
a(n) = sum{k=0..n, binomial(n,k)*2^(n-k)*(-1)^(k+1)*binomial(k,floor((k-1)/2))}. - Paul Barry, Feb 16 2006
a(n) = (1/Pi)*int(x^n*(x-1)*sqrt(x*(4-x))/(2*x),x,0,4). - Paul Barry, Feb 08 2008
a(n) = sum of top row terms of M^(n-1), M = an infinite square production matrix as follows:
a(n) = -binomial(2*n,n)/(n+1)*hypergeom([-1,n+1/2],[n+2],4). - Peter Luschny, Aug 15 2012
a(n) = sum(i=0..n-1, C(i)*C(n-i)), where C(i) denotes the i-th Catalan number. - Dmitry Kruchinin, Mar 02 2013
[A061534] 1, 3, 9, 29, 93, 299, 961, 3089, 9929, 31915, 102585, 329741, 1059893, 3406835, 10950657, 35198913, 113140561, 363669939, 1168951465, 3757383773, 12077432845, 38820730843, 124782241601, 401090022801, 1289231579161, 4144002518683, 13320149112409
a(n) = 3*a(n-1)+a(n-2)-a(n-3) for n>3. - Colin Barker, Sep 13 2014
[A036550] 1, 3, 9, 29, 95, 307, 973, 3033, 9339, 28511, 86537, 261637, 788983, 2375115, 7141701, 21457841, 64439027, 193448119, 580606465, 1742343645, 5228079471, 15686335523, 47063200829, 141197991049, 423610750315, 1270865805327
a(n) = (1/2) * (3^(n+1) - 2^(n+2) + 2n + 3). - Ralf Stephan, Feb 17 2004
[A290897] 1, 3, 9, 29, 95, 307, 976, 3073, 9645, 30283, 95207, 299625, 943363, 2970320, 9351621, 29439359, 92671625, 291715157, 918275995, 2890621063, 9099375792, 28643956245, 90168412937, 283841284899, 893503898503, 2812659866565, 8853968158791, 27871395427616

a(n) = 7*a(n-1) - 19*a(n-2) + 27*a(n-3) - 19*a(n-4) + 7*a(n-5) - a(n-6).
[A289804] 1, 3, 9, 29, 96, 321, 1077, 3617, 12149, 40802, 137009, 459991, 1544169, 5183201, 17396800, 58387097, 195950657, 657602545, 2206838633, 7405775266, 24852220929, 83398067755, 279861976377, 939138581941, 3151475258656, 10575403936625, 35487807890381
a(n) = 7*a(n-1) - 15*a(n-2) + 9*a(n-3) + a(n-4).
[A081696] 1, 1, 3, 9, 29, 97, 333, 1165, 4135, 14845, 53791, 196417, 721887, 2667941, 9907851, 36950465, 138320021, 519515209, 1957091277, 7392602917, 27992976565, 106236268337, 404005515873, 1539293204549, 5875059106769, 22459721336977
a(n) = Sum_{k=0..n} binomial(2n-k,n+k)*(3k+1)/(n+k+1). - Emanuele Munarini, Apr 02 2011
a(n) = Sum{k=0..n} (k/(2n-k))binomial(2n-k, n-k)F(k+1). (End)
a(n) = the upper left term in M^n, M = an infinite square production matrix in which a column of (1,2,2,2,...) is prepended to an infinite lower triangular matrix of all 1's and the rest zeros:
[A247172] 0, 1, 1, 3, 9, 29, 97, 335, 1185, 4273, 15649, 58051, 217673, 823709, 3141697, 12065087, 46613121, 181049025, 706549185, 2769069091, 10894034633, 43008192637, 170327978401, 676511841743, 2694115428769, 10755172567089, 43032673671137
a(n) = sum(k=1..n, (binomial(n-k,k-1)*sum(i=0..n-k, 2^i*binomial(k,n-k-i)* binomial(k+i-1,k-1)*(-1)^(n-k-i)))/k).
[A099780] 1, 3, 9, 29, 99, 351, 1273, 4677, 17307, 64295, 239361, 892125, 3327091, 12412143, 46313289, 172824629, 644952459, 2406919671, 8982595153, 33523198797, 125109675747, 466914455615, 1742546049561, 6503265548325, 24270507755131, 90578748694983, 338044453470369
a(n) = 6*a(n-1) - 9*a(n-2) + 2*a(n-3).
a(n) = (2^(2+n) - (2-sqrt(3))^n*(-1+sqrt(3)) + (1+sqrt(3))*(2+sqrt(3))^n) / 6. - Colin Barker, Feb 05 2017
[A238803] 1, 1, 3, 9, 29, 99, 357, 1351, 5343, 21993, 93923, 414969, 1892277, 8887291, 42912261, 212676951, 1080355463, 5617772049, 29868493827, 162204146857, 898874710797, 5078665886931, 29232738375653, 171294038649639, 1021117638212079, 6188701520663929
a(n) = ((2*n-1)*a(n-1)+n*(n-2)*a(n-2))/(n-1) for n>1, a(0) = a(1) = 1.
[A293070] 1, 3, 9, 29, 103, 399, 1641, 6989, 30319, 132735, 583665, 2571821, 11343223, 50052495, 220904217, 975041453, 4303886431, 18997962879, 83860441185, 370176644813, 1634036256295, 7212979975503, 31839623961801, 140546879747981, 620403902366671, 2738595239186943
a(n) = 8*a(n-1) - 19*a(n-2) + 14*a(n-3), n >= 3.
a(n) = (2^(2+n) - (3-sqrt(2))^n*(1+sqrt(2)) + (-1+sqrt(2))*(3+sqrt(2))^n) / 2.
[A154147] 3, 9, 30, 60, 179, 353, 1046, 2060, 6099, 12009, 35550, 69996, 207203, 407969, 1207670, 2377820, 7038819, 13858953, 41025246, 80775900, 239112659, 470796449, 1393650710, 2744002796, 8122791603, 15993220329, 47343098910, 93215319180, 275935801859
a(n)= +a(n-1) +6*a(n-2) -6*a(n-3) -a(n-4) +a(n-5).
[A179545] 3, 9, 30, 63, 165, 234, 408, 513, 759, 1218, 1395, 1998, 2460, 2709, 3243, 4134, 5133, 5490, 6633, 7455, 7884, 9243, 10209, 11748, 13968, 15150, 15759, 17013, 17658, 18984, 24003, 25545, 27948, 28773, 33078, 33975, 36738, 39609, 41583, 44634
a(n) = sum(p+1 .. 2p-1) = 3p(p-1)/2 where p is the n-th prime. (End)
[A050181] 0, 1, 3, 9, 30, 99, 333, 1144, 3978, 13995, 49742, 178296, 643842, 2340135, 8554275, 31429026, 115997970, 429874830, 1598952366, 5967382200, 22338765540, 83859016527, 315614844558, 1190680751376, 4501802223090, 17055399281284
a(n) = (1/(2*n+3))*(binomial(2*n+3, n) - binomial((2*n/3)+1, n/3)) if 3|n; = (1/(2*n+3))*binomial(2*n+3, n) otherwise.
[A003409] 3, 9, 30, 105, 378, 1386, 5148, 19305, 72930, 277134, 1058148, 4056234, 15600900, 60174900, 232676280, 901620585, 3500409330, 13612702950, 53017895700, 206769793230, 807386811660, 3156148445580, 12350146091400, 48371405524650, 189615909656628, 743877799422156
a(n) = (3/2)*4^n*Gamma(1/2+n)/(sqrt(Pi)*Gamma(1+n)). - Peter Luschny, Dec 14 2015
[A246472] 1, 3, 9, 30, 109, 418, 1650, 6604, 26589, 107274, 432934, 1746484, 7040626, 28362324, 114175812, 459344920, 1847008989, 7423262554, 29822432862, 119766845860, 480833598054, 1929896415484, 7744047734652, 31067665113640, 124613703290994, 499744683756868
a(n) = sum_{i=0..n} (binomial(n,i)*(1 + sum_{j=i+1..n} binomial(n,j)).
a(n) = 2^(2*n-1) + 2^n - binomial(2*n, n)/2. - Vaclav Kotesovec, Aug 28 2014
[A107379] 1, 1, 1, 3, 9, 30, 110, 436, 1801, 7657, 33401, 148847, 674585, 3100410, 14422567, 67792847, 321546251, 1537241148, 7400926549, 35854579015, 174677578889, 855312650751, 4207291811538, 20782253017825, 103048079556241, 512753419159803, 2559639388956793
a(n) = [x^(n*(n-1)/2)] Product_{k=1..n} 1/(1 - x^k). - Paul D. Hanna, Feb 05 2012
[A134168] 1, 3, 9, 30, 111, 438, 1779, 7290, 29871, 121998, 496299, 2011650, 8129031, 32769558, 131850819, 529745610, 2126058591, 8525561118, 34166421339, 136858609170, 548013994551, 2193796224678, 8780408783859, 35137313082330, 140596298752911, 562526359448238, 2250528981434379, 9003386657325090
a(n) = (1/2)*(4^n - 3^n + 3*2^n - 1).
a(n) = 3*StirlingS2(n+1,4) +2*StirlingS2(n+1,3) +2*StirlingS2(n+1,2) +1.
[A001672] 1, 3, 9, 31, 97, 306, 961, 3020, 9488, 29809, 93648, 294204, 924269, 2903677, 9122171, 28658145, 90032220, 282844563, 888582403, 2791563949, 8769956796, 27551631842, 86556004191, 271923706893, 854273519913, 2683779414317, 8431341691876, 26487841119103
a(n)^(1/n) converges to pi because |1-a(n)/pi^n|=|pi^n-a(n)|/pi^n<1/pi^n and so a(n)^(1/n)=(pi^n*(1+o(1)))^(1/n)=pi*(1+o(1)). - Hieronymus Fischer, Jan 22 2006
[A086616] 1, 3, 9, 31, 121, 515, 2321, 10879, 52465, 258563, 1296281, 6589727, 33887465, 175966211, 921353249, 4858956287, 25786112993, 137604139011, 737922992937, 3974647310111, 21493266631001, 116642921832963, 635074797251889, 3467998148181631, 18989465797056721, 104239408386028035
a(1)=1, a(n)=n+sum(i=1, n-1, a(i)*a(n-i)). - Benoit Cloitre, Mar 16 2004
[A063020] 0, 1, 1, 3, 9, 32, 119, 466, 1881, 7788, 32868, 140907, 611871, 2685732, 11896906, 53115412, 238767737, 1079780412, 4909067468, 22424085244, 102865595140, 473678981820, 2188774576575, 10145798119530, 47165267330415, 219839845852692, 1027183096151244, 4810235214490986
a(n) = sum(k=0..n-1,(sum(j=0..k, binomial(j,n-3*k+2*j-1)*(-1)^(j-k)*binomial(k,j)))*binomial(n+k-1,n-1))/n. [From _Vladimir Kruchinin,_ Oct 11 2011]
a(n) = sum(i=0..n-1, (-1)^(i)*binomial(n+i-1,i)*binomial(3*n-i-2,n-i-1))/n, n>0. - Vladimir Kruchinin, Feb 13 2014
[A219557] 1, 3, 9, 33, 96, 273, 749, 1953, 4916, 12023, 28642, 66575, 151544, 338294, 741880, 1601048, 3403936, 7137386, 14774713, 30219025, 61115184, 122300146, 242312186, 475589389, 925158391, 1784529840, 3414565313, 6483608230, 12221370425, 22876263089, 42534593868
a(n) = Sum_{k=0..n} [x^n*y^k] 1/2 * Product_{i,j>=0} (1+x^i*y^j).
[A247195] 0, 1, 1, 3, 9, 33, 129, 531, 2265, 9921, 44361, 201651, 929073, 4328865, 20362137, 96562659, 461169873, 2216134401, 10707788721, 51988771107, 253515373305, 1241069449377, 6097106216529, 30050252046195, 148541591990505, 736237012296897
a(n) = sum(k=1..n-1, ((sum(i=0..n-k-1, 2^i*binomial(k,n-k-i-1)*binomial(k+i-1,k-1)))*binomial(n-k-1,k-1))/k), n>1, a(0)=0, a(1)=1.
[A238113] 1, 3, 9, 33, 135, 591, 2709, 12837, 62379, 309147, 1556577, 7940169, 40946607, 213118119, 1118080557, 5906404557, 31390735059, 167727039027, 900478280889, 4855086475761, 26277928981335, 142724482802943, 777647813128389, 4249385026394613, 23282201473312635, 127874913883456971, 703929221807756049
a(n) = -3/4*GegenbauerC(n+1,-1/2,3), n>0. - Benedict W. J. Irwin, Sep 26 2016
[A049425] 1, 1, 3, 9, 33, 141, 651, 3333, 18369, 108153, 678771, 4495041, 31324833, 228803589, 1744475643, 13852095741, 114235118721, 976176336753, 8627940414819, 78726234866553, 740440277799201, 7168107030092541, 71331617341611243, 728817735008913909, 7637128289949856833, 81995144342947130601
a(n) = n! * sum(k=0..n, sum(j=0..k, binomial(3*j,n) * (-1)^(k-j)/(3^k * (k-j)!*j!))). [Vladimir Kruchinin, Feb 07 2011]
[A102865] 1, 3, 9, 35, 137, 547, 2185, 8739, 34953, 139811, 559241, 2236963, 8947849, 35791395, 143165577, 572662307, 2290649225, 9162596899, 36650387593, 146601550371, 586406201481, 2345624805923, 9382499223689, 37529996894755, 150119987579017, 600479950316067
a(0)=1, a(1)=3, a(2)=9, a(n)=4*a(n-1)+a(n-2)-4*a(n-3). [From Harvey P. Dale, Mar 23 2012]
[A276368] 1, 3, 9, 36, 135, 567, 2268, 9720, 40095, 173745, 729729, 3184272, 13533156, 59337684, 254304360, 1118939184, 4825425231, 21288640725, 92250776475, 407845538100, 1774128090735, 7856852973255, 34284449337840, 152044079672160, 665192848565700, 2953456247631708, 12949769701154412, 57554532005130720, 252828837022538520, 1124652412962326520, 4948470617034236688, 22028675650023376224
a(2*n) = 3^n*binomial(3*n, n).
a(2*n+1) = 3^(n+1)*binomial(3*n+1, n).
[A179088] 3, 9, 41, 59, 123, 153, 249, 291, 419, 473, 633, 699, 891, 969, 1193, 1283, 1539, 1641, 1929, 2043, 2363, 2489, 2841, 2979, 3363, 3513, 3929, 4091, 4539, 4713, 5193, 5379, 5891, 6089, 6633, 6843, 7419, 7641, 8249, 8483, 9123, 9369, 10041, 10299, 11003, 11273
a(n) = (22*n*(n - 1) - 5*(2*n - 1)*(-1)^n + 7)/4.
a(n) = a(-n+1) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
[A261397] 0, 3, 9, 54, 243, 1215, 5832, 28431, 137781, 669222, 3247695, 15766083, 76527504, 371477259, 1803179313, 8752833270, 42487113627, 206236840311, 1001094543576, 4859415193527, 23588096472765, 114499026160038, 555789946734999, 2697861075645339, 13095692747551008, 63567827923461075

a(n) = 3*a(n-1) + 9*a(n-2), a(0)=0, a(1)=3. - G. C. Greubel, Aug 21 2015
[A135989] 3, 9, 105, 201, 207, 303, 309, 405, 501, 507, 603, 609, 705, 801, 807, 903, 909, 1005, 1101, 1107, 1203, 1209, 1305, 1401, 1407, 1503, 1509, 1605, 1701, 1707, 1803, 1809, 1905, 2001, 2007, 2103, 2109, 2205, 2301, 2307, 2403, 2409, 2505, 2601, 2607, 2703
a(n) = a(n-1)+a(n-5)-a(n-6). - Colin Barker, Feb 02 2013
[A283770] 1, 3, 10, 12, 14, 16, 23, 25, 27, 29, 34, 36, 38, 40, 42, 47, 49, 51, 53, 55, 60, 62, 64, 66, 73, 75, 77, 79, 86, 88, 90, 92, 99, 101, 103, 105, 112, 114, 116, 118, 123, 125, 127, 129, 131, 136, 138, 140, 142, 144, 149, 151, 153, 155, 162, 164, 166, 168, 175
a(n+1) - a(n) is in {2,5,7} for every n.
[A088338] 0, 3, 10, 12, 14, 17, 20, 24, 25, 27, 29, 30, 32, 37, 38, 40, 41, 42, 44, 45, 48, 50, 51, 52, 55, 57, 61, 67, 68, 69, 71, 73, 74, 76, 78, 79, 80, 81, 82, 85, 87, 88, 89, 92, 93, 95, 96, 100, 102, 103, 104, 106, 109, 112, 116, 122, 124, 127, 128, 133, 135, 136, 137, 139
a(n) appears to be asymptotic to 2*n and a(n)>2n
[A042897] 1, 3, 10, 13, 23, 59, 82, 141, 505, 1656, 103177, 311187, 1036738, 1347925, 2384663, 6117251, 8501914, 14619165, 52359409, 171697392, 10697597713, 32264490531, 107491069306, 139755559837, 247246629143, 634248818123, 881495447266, 1515744265389, 5428728243433
a(n) = 103682*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Feb 01 2014
[A042331] 1, 3, 10, 13, 36, 49, 85, 1069, 1154, 2223, 5600, 7823, 29069, 95030, 4970629, 15006917, 49991380, 64998297, 179987974, 244986271, 424974245, 5344677211, 5769651456, 11114328667, 27998308790, 39112637457, 145336221161, 475121300940, 24851643870041
a(n) = 4999698*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 20 2014
[A041121] 1, 3, 10, 13, 62, 75, 287, 936, 15263, 46725, 155438, 202163, 964090, 1166253, 4462849, 14554800, 237339649, 726573747, 2417060890, 3143634637, 14991599438, 18135234075, 69397301663, 226327139064, 3690631526687, 11298221719125, 37585296684062, 48883518403187
a(n) = 15550*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 11 2013
[A041865] 1, 3, 10, 13, 179, 371, 1292, 2955, 4247, 7202, 33055, 205532, 238587, 1875641, 2114228, 3989869, 6104097, 126071809, 132175906, 258247715, 390423621, 2991213062, 3381636683, 23281033160, 96505769323, 119786802483, 216292571806, 552371946095, 1873408410091
a(n) = 3383208016835137 0*a(n-34) - a(n-68) for n>67. - Vincenzo Librandi, Dec 26 2013
[A283867] 1, 3, 10, 14, 18, 38, 62, 73, 116, 118, 143, 183, 221, 232, 242, 330, 333, 413, 430, 455, 470, 496, 507, 533, 538, 556, 606, 622, 645, 675, 687, 701, 720, 777, 792, 819, 846, 879, 881, 895, 913, 1000, 1019, 1030, 1092, 1155, 1214, 1238, 1253, 1261, 1313, 1337, 1350, 1407, 1418, 1429, 1431
a(n) » n log^2 n. - Charles R Greathouse IV, Mar 17 2017
[A245524] 1, 3, 10, 14, 27, 33, 52, 60, 85, 95, 126, 138, 175, 189, 232, 248, 297, 315, 370, 390, 451, 473, 540, 564, 637, 663, 742, 770, 855, 885, 976, 1008, 1105, 1139, 1242, 1278, 1387, 1425, 1540, 1580, 1701, 1743, 1870, 1914, 2047, 2093, 2232, 2280, 2425, 2475
a(n) = (4*n^2 - 1 - (2*n - 1)*(-1)^n) / 4.
a(n) = (2n-1)*(n-floor(n/2)). - Wesley Ivan Hurt, Jan 10 2017
[A186575] 1, 3, 10, 15, 31, 66, 127, 255, 514, 1023, 2047, 4098, 8191, 16383, 32770, 65535, 131071, 262146, 524287, 1048575, 2097154, 4194303, 8388607, 16777218, 33554431, 67108863, 134217730, 268435455, 536870911, 1073741826, 2147483647, 4294967295
a(n+1)=n*sum_{k=1..n} sum_{j=n-3*k..k} 2^(k-j) *binomial(j,n-3*k+2*j) *binomial(k,j) /k .
[A020330] 3, 10, 15, 36, 45, 54, 63, 136, 153, 170, 187, 204, 221, 238, 255, 528, 561, 594, 627, 660, 693, 726, 759, 792, 825, 858, 891, 924, 957, 990, 1023, 2080, 2145, 2210, 2275, 2340, 2405, 2470, 2535, 2600, 2665, 2730, 2795, 2860, 2925, 2990, 3055, 3120, 3185, 3250
a(n) = n + 2n*2^floor(log2(n)). - Ralf Stephan, Dec 07 2004
[A217278] 0, 0, 1, 3, 10, 15, 45, 120, 351, 528, 1540, 4095, 11935, 17955, 52326, 139128, 405450, 609960, 1777555, 4726275, 13773376, 20720703, 60384555, 160554240, 467889345, 703893960, 2051297326, 5454117903, 15894464365, 23911673955, 69683724540, 185279454480
a(n) = 35*(a(n-4) - a(n-8)) + a(n-12).
a(2*n + 1) = 1/64*(((4 + sqrt(2)) * (1 - (-1)^(n+1) * sqrt(2))^(2*floor((n+1)/2)) + (4 - sqrt(2)) * (1+(-1)^(n+1) * sqrt(2))^(2*floor((n+1)/2))))^2 - 1.
a(2*n + 2) = 1/2*(3*(a(2*n + 1)) + sqrt((a(2*n + 1)) + 1) * sqrt(8*(a(2*n + 1)) + 1) + 1).
[A182334] 0, 1, 3, 10, 15, 120, 325, 528, 4095, 11026, 17955, 139128, 374545, 609960, 4726275, 12723490, 20720703, 160554240, 432224101, 703893960, 5454117903, 14682895930, 23911673955, 185279454480, 498786237505, 812293020528, 6294047334435, 16944049179226
a(n) = 35*a(n-3) - 35*a(n-6) + a(n-9). - Charles R Greathouse IV, Apr 25 2012
[A051938] 3, 10, 18, 27, 37, 48, 60, 73, 87, 102, 118, 135, 153, 172, 192, 213, 235, 258, 282, 307, 333, 360, 388, 417, 447, 478, 510, 543, 577, 612, 648, 685, 723, 762, 802, 843, 885, 928, 972, 1017, 1063, 1110, 1158, 1207, 1257, 1308, 1360, 1413, 1467, 1522, 1578
a(n) = n + a(n-1) (with a(6)=3). - Vincenzo Librandi, Aug 06 2010
[A028878] 3, 10, 19, 30, 43, 58, 75, 94, 115, 138, 163, 190, 219, 250, 283, 318, 355, 394, 435, 478, 523, 570, 619, 670, 723, 778, 835, 894, 955, 1018, 1083, 1150, 1219, 1290, 1363, 1438, 1515, 1594, 1675, 1758, 1843, 1930, 2019, 2110, 2203, 2298, 2395
a(n) = a(n-1) + 2*n + 5 (with a(0)=3). - Vincenzo Librandi, Aug 05 2010
a(n) = a(-n-6).
a(n) mod (n+1) = n-1. (End)
[A089693] 1, 3, 10, 20, 30, 40, 60, 80, 120, 160, 240, 320, 480, 640, 960, 1280, 1920, 2560, 3840, 5120, 7680, 10240, 15360, 20480, 30720, 40960, 61440, 81920, 122880, 163840, 245760, 327680, 491520, 655360, 983040
a(n) = 2*a(n-2) for n>5. [From Harvey P. Dale, Mar 01 2012]
[A005997] 1, 3, 10, 20, 39, 63, 100, 144, 205, 275, 366, 468, 595, 735, 904, 1088, 1305, 1539, 1810, 2100, 2431, 2783, 3180, 3600, 4069, 4563, 5110, 5684, 6315, 6975, 7696, 8448, 9265, 10115, 11034, 11988, 13015, 14079, 15220, 16400, 17661, 18963, 20350, 21780, 23299
a(n) = 1 + floor((n-1)/2) + 2*(C(n+1,3)-C(floor((n+1)/2),3)-C(ceiling((n+1)/2),3). - Enrique Pérez Herrero, Apr 22 2012
a(n) = (n+1)(2n^2-(-1)^n+1)/8. - Bruno Berselli, Apr 22 2012
[A213850] 1, 3, 10, 20, 42, 70, 120, 180, 275, 385, 546, 728, 980, 1260, 1632, 2040, 2565, 3135, 3850, 4620, 5566, 6578, 7800, 9100, 10647, 12285, 14210, 16240, 18600, 21080, 23936, 26928, 30345, 33915, 37962, 42180, 46930
a(n) = (n + 1)*(n + 2)*(3 - 3*(-1)^n + 8*n + 2*n^2)/96.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A081205] 1, 3, 10, 20, 70, 126, 462, 792, 3003, 5005, 19448, 31824, 125970, 203490, 817190, 1307504, 5311735, 8436285, 34597290, 54627300, 225792840, 354817320, 1476337800, 2310789600, 9669554100, 15084504396, 63432274896, 98672427616
a(n) = binomial(ceiling((n+1)/2)+(n+1), n).
[A014105] 0, 3, 10, 21, 36, 55, 78, 105, 136, 171, 210, 253, 300, 351, 406, 465, 528, 595, 666, 741, 820, 903, 990, 1081, 1176, 1275, 1378, 1485, 1596, 1711, 1830, 1953, 2080, 2211, 2346, 2485, 2628, 2775, 2926, 3081, 3240, 3403, 3570, 3741, 3916, 4095, 4278
a(n) = 3*sum(tan^2(k*Pi/(2(n+1))), k=1..n). - Ignacio Larrosa Cañestro, Apr 17 2001
a(n)^2 = n*(a(n)+1 + a(n)+2 + ... + a(n)+2n), e.g., 10^2 = 2*(11 + 12 + 13 + 14). - Charlie Marion, Jun 15 2003
a(n) = a(n-1) +4*n -1 (with a(0)=0). - Vincenzo Librandi, Dec 24 2010
a(n) = Sum_{k=0.2*n} (-1)^k*k^2. - Bruno Berselli, Aug 29 2013
a(n) = sum[C(n-2+k,n-2)*(C(n+2-k,n) {0<=k<=2}], for n>1. - J. M. Bergot, Jun 14 2014
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3), with a(0)=0, a(1)=3, a(2)=10. - Harvey P. Dale, Feb 10 2015
[A117495] 0, 3, 10, 21, 44, 65, 102, 133, 184, 261, 310, 407, 492, 559, 658, 795, 944, 1037, 1206, 1349, 1460, 1659, 1826, 2047, 2328, 2525, 2678, 2889, 3052, 3277, 3810, 4061, 4384, 4587, 5066, 5285, 5652, 6031, 6346, 6747, 7160, 7421, 8022, 8299, 8668, 8955, 9706
a(n) = (n-1)*prime(n). - Zak Seidov, Aug 15 2010
[A192033] 0, 1, 3, 10, 21, 46, 93, 190, 381, 766, 1533, 3070, 6141, 12286, 24573, 49150, 98301, 196606, 393213, 786430, 1572861, 3145726, 6291453, 12582910, 25165821, 50331646, 100663293, 201326590, 402653181, 805306366, 1610612733, 3221225470, 6442450941, 12884901886
a(n) = 3*2^(n-1) -3 + (n mod 2) for n>0, a(0) = 0.
[A120109] 1, 3, 10, 21, 106, 107, 750, 1501, 4504, 4505, 49556, 49557, 644242, 644243, 644244, 1288489, 21904314, 21904315, 416181986, 416181987, 416181988, 416181989, 9572185748, 9572185749, 47860928746, 47860928747, 143582786242
a(n)=sum{k=0..n, lcm(1,..,n+1)/lcm(1,..,k+1)}.
[A140066] 1, 3, 10, 22, 39, 61, 88, 120, 157, 199, 246, 298, 355, 417, 484, 556, 633, 715, 802, 894, 991, 1093, 1200, 1312, 1429, 1551, 1678, 1810, 1947, 2089, 2236, 2388, 2545, 2707, 2874, 3046, 3223, 3405, 3592, 3784

a(n)=(8-11n+5n^2)/2. - Emeric Deutsch, May 07 2008
a(n)=a(n-1)+5*n-8 (with a(1)=1) [From Vincenzo Librandi, Nov 24 2010]
a(1)=1, a(2)=3, a(3)=10, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Jan 28 2012]
[A006503] 0, 3, 10, 22, 40, 65, 98, 140, 192, 255, 330, 418, 520, 637, 770, 920, 1088, 1275, 1482, 1710, 1960, 2233, 2530, 2852, 3200, 3575, 3978, 4410, 4872, 5365, 5890, 6448, 7040, 7667, 8330, 9030, 9768, 10545, 11362, 12220, 13120, 14063, 15050, 16082, 17160, 18285
a(n) = n*(n+1)*(n+8)/6.
a(0)=0, a(1)=3, a(2)=10, a(3)=22, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Jan 27 2016
[A248851] 0, 3, 10, 22, 41, 68, 105, 153, 214, 289, 380, 488, 615, 762, 931, 1123, 1340, 1583, 1854, 2154, 2485, 2848, 3245, 3677, 4146, 4653, 5200, 5788, 6419, 7094, 7815, 8583, 9400, 10267, 11186, 12158, 13185, 14268, 15409, 16609, 17870, 19193, 20580, 22032
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5). - Colin Barker, Mar 03 2015
[A023554] 3, 10, 22, 43, 78, 136, 231, 386, 638, 1047, 1710, 2784, 4523, 7338, 11894, 19267, 31198, 50504, 81743, 132290, 214078, 346415, 560542, 907008, 1467603, 2374666, 3842326, 6217051, 10059438, 16276552, 26336055, 42612674, 68948798, 111561543, 180510414
a(n) = -7 + (2^(-1-n)*((1-t)^n*(-19+9*t) + (1+t)^n*(19+9*t)))/t - 2*(1+n) where t=sqrt(5).
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
[A041403] 1, 1, 3, 10, 23, 33, 947, 980, 2907, 9701, 22309, 32010, 918589, 950599, 2819787, 9409960, 21639707, 31049667, 891030383, 922080050, 2735190483, 9127651499, 20990493481, 30118144980, 864298552921, 894416697901, 2653131948723, 8853812544070, 20360757036863
a(n) = 970*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 17 2013
[A271740] 3, 10, 23, 42, 67, 98, 135, 178, 227, 282, 343, 410, 483, 562, 647, 738, 835, 938, 1047, 1162, 1283, 1410, 1543, 1682, 1827, 1978, 2135, 2298, 2467, 2642, 2823, 3010, 3203, 3402, 3607, 3818, 4035, 4258, 4487, 4722, 4963, 5210, 5463, 5722, 5987, 6258, 6535, 6818, 7107, 7402, 7703
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. - Wesley Ivan Hurt, Apr 13 2016
[A227347] 0, 3, 10, 23, 43, 73, 113, 166, 233, 316, 416, 536, 676, 839, 1026, 1239, 1479, 1749, 2049, 2382, 2749, 3152, 3592, 4072, 4592, 5155, 5762, 6415, 7115, 7865, 8665, 9518, 10425, 11388, 12408, 13488, 14628, 15831, 17098, 18431, 19831, 21301, 22841, 24454
a(n) = sum(floor((5/6)*x^2), x=1..n).
a(n) = 2*a(n-1) - a(n-3) - a(n-4) + 2*a(n-6) - a(n-7).
a(n) = (2*n*(10*n^2+45*n+44) + 24*floor((n+1)/3) - 9*(-1)^n + 9)/72. [Bruno Berselli, Jul 09 2013]
[A145069] 0, 3, 10, 23, 44, 75, 118, 175, 248, 339, 450, 583, 740, 923, 1134, 1375, 1648, 1955, 2298, 2679, 3100, 3563, 4070, 4623, 5224, 5875, 6578, 7335, 8148, 9019, 9950, 10943, 12000, 13123, 14314, 15575, 16908, 18315, 19798, 21359, 23000, 24723, 26530
a(n) = a(n-1) + n^2 + n + 1 for n > 0, with a(0) = 0.
a(n) = n*(n^2+3*n+5)/3. - Bruno Berselli, Apr 01 2011
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 30 2012
a(n) = sum_{i=1..n} 3i+(n-i)^2. - Wesley Ivan Hurt, Aug 21 2014
[A192973] 1, 3, 10, 23, 47, 88, 157, 271, 458, 763, 1259, 2064, 3369, 5483, 8906, 14447, 23415, 37928, 61413, 99415, 160906, 260403, 421395, 681888, 1103377, 1785363, 2888842, 4674311, 7563263, 12237688, 19801069, 32038879, 51840074, 83879083
a(n)=3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4).
[A080204] 1, 3, 10, 23, 51, 114, 253, 559, 1234, 2723, 6007, 13250, 29225, 64459, 142170, 313567, 691595, 1525362, 3364293, 7420183, 16365730, 36095755, 79611695, 175589122, 387274001, 854159699, 1883908522, 4155091047, 9164341795, 20212592114, 44580275277, 98324892351, 216862376818
a(n) = 3*a(n-1)-2*a(n-2)+a(n-3)-a(n-4). G.f.: x*(1+3*x^2-2*x^3)/((1-x)*(1-2*x-x^3)). [Colin Barker, Jul 02 2012]
a(n) = n*sum(m=1..n, sum(i=0..(n-m)/2, binomial(m,i)*binomial(n-2*i-1,m-1))/m). - Vladimir Kruchinin, Mar 10 2015
[A185828] 1, 3, 10, 23, 61, 162, 421, 1103, 2890, 7563, 19801, 51842, 135721, 355323, 930250, 2435423, 6376021, 16692642, 43701901, 114413063, 299537290, 784198803, 2053059121, 5374978562, 14071876561, 36840651123, 96450076810, 252509579303
a(n) = n*Sum_{k=0..n-1} C(2n-2k, 2k)/(n-k). [Paul D. Hanna, Mar 19 2011]
[A134438] 1, 1, 3, 10, 23, 62, 170, 441, 1173, 3127, 8266, 21937, 58234, 154390, 409573, 1086567, 2882021, 7645046, 20279829, 53794224, 142696606, 378522507, 1004078871, 2663452699, 7065162260, 18741269167, 49713692146, 131872134232, 349808216915, 927912454723
a(n) = a(n-1) +2*a(n-2) +6*a(n-3) +a(n-4) -a(n-6).
[A092255] 1, 1, 3, 10, 23, 66, 222, 561, 1647, 5410, 14318, 42351, 137018, 372191, 1105275, 3537540, 9772767, 29090826, 92364198, 258208671, 769820418, 2429091885, 6850744365, 20447143866, 64200928194, 182303186391, 544550917797, 1702925802766, 4861918919447
a(n) = n!*sum(i+j+k=n, 1/(i!*j!*k!)) (0<=k<=j<=i<=n). - Benoit Cloitre, Mar 22 2004
[A105861] 1, 3, 10, 23, 76, 102, 442, 695, 1792, 2828, 11254, 13334, 53236, 65418, 155110, 347319, 1114096, 1259328, 4980718, 6223148, 15033700, 27548678, 96468970, 108761942, 352992576, 529504212, 1381165192, 2314603370, 7784628196
a(n) = n/2 * sum_{k=0..n} (binomial(n, k) / gcd(n, k)).
[A259443] 1, 3, 10, 24, 25, 27, 43, 45, 55, 58, 62, 79, 80, 100, 107, 113, 124, 134, 147, 150, 152, 161, 171, 186, 197, 204, 205, 222, 228, 233, 236, 255, 267, 273, 278, 293, 296, 303, 321, 334, 337, 354, 373, 380, 386, 392, 400, 432, 437, 438, 442, 445, 446, 471, 483, 490, 494, 495, 499
a(10) = 58, a(100) = 882, a(1000) = 9619, a(10000) = 98564, a(100000) = 996482.
[A293405] 0, 3, 10, 24, 42, 65, 94, 128, 168, 212, 262, 317, 377, 442, 513, 589, 670, 757, 848, 945, 1047, 1155, 1267, 1385, 1508, 1636, 1770, 1909, 2053, 2202, 2356, 2516, 2681, 2851, 3026, 3207, 3393, 3584, 3780, 3982, 4189, 4401, 4618, 4841, 5069, 5302, 5540, 5783
a(n) = floor(1/2 + tau*n^2).
[A053208] 0, 3, 10, 24, 52, 108, 220, 444, 892, 1788, 3580, 7164, 14332, 28668, 57340, 114684, 229372, 458748, 917500, 1835004, 3670012, 7340028, 14680060, 29360124, 58720252, 117440508, 234881020, 469762044, 939524092, 1879048188
a(0) = 0, a(1) = 3, a(n+1) = 2*a(n) + 4, for n >= 1; a(n) = 7*2^(n-1) - 4, n >= 1.
[A179608] 1, 3, 10, 24, 64, 144, 352, 768, 1792, 3840, 8704, 18432, 40960, 86016, 188416, 393216, 851968, 1769472, 3801088, 7864320, 16777216, 34603008, 73400320, 150994944, 318767104, 654311424, 1375731712, 2818572288, 5905580032
a(n) = 2*a(n-1)+4*a(n-2)-8*a(n-3) with a(1)=1, a(2)=3 and a(3)=10.
a(n) = (7+(-1)^n+6*n)*2^(n-3).
[A212068] 0, 0, 3, 10, 25, 49, 86, 137, 206, 294, 405, 540, 703, 895, 1120, 1379, 1676, 2012, 2391, 2814, 3285, 3805, 4378, 5005, 5690, 6434, 7241, 8112, 9051, 10059, 11140, 12295, 13528, 14840, 16235, 17714, 19281, 20937, 22686, 24529, 26470, 28510, 30653, 32900
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5).
a(n) = n*(10*n^2 - 3*n + 2)/24 for n even.
a(n) = (n - 1)*(10*n^2 + 7*n + 9)/24 for n odd.
[A192963] 0, 1, 3, 10, 25, 55, 110, 207, 373, 652, 1115, 1877, 3124, 5157, 8463, 13830, 22533, 36635, 59474, 96451, 156305, 253176, 409943, 663625, 1074120, 1738345, 2813115, 4552162, 7366033, 11919007, 19285910, 31205847, 50492749, 81699652
a(n)=4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A000247] 0, 3, 10, 25, 56, 119, 246, 501, 1012, 2035, 4082, 8177, 16368, 32751, 65518, 131053, 262124, 524267, 1048554, 2097129, 4194280, 8388583, 16777190, 33554405, 67108836, 134217699, 268435426, 536870881, 1073741792, 2147483615
a(2)=0, a(3)=3, a(4)=10, a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3). - Harvey P. Dale, Aug 23 2011
a(n) = (Sum_{k=2..floor(n/2)} binomial(n+1,k)) + if(n odd, binomial(n+1,(n+1)/2)/2, 0).
a(n) = Sum_{k=0..n-3} Sum_{i=0..n-1} C(i,k). - Wesley Ivan Hurt, Sep 20 2017
[A130783] 0, 1, 3, 10, 25, 66, 154, 372, 837, 1930, 4246, 9516, 20618, 45332, 97140, 210664, 447661, 960858, 2028478, 4319100, 9070110, 19188796, 40122028, 84438360, 175913250, 368603716, 765561564, 1598231992, 3310623412, 6889682280, 14238676712, 29551095248
a(n) = (n+1)*(2^(n-1)-binomial(n-1,n/2)) if n is even else ((n+1)/2)*(2^n-binomial(n,(n+1)/2)). - Vladeta Jovovic, Aug 23 2007
a(n) = (n+1)*(2^n-binomial(n,[n/2]))/2, where [x] is floor. - Graeme McRae, Jan 30, 2012
[A026975] 1, 3, 10, 25, 66, 154, 392, 882, 2180, 4796, 11640, 25220, 60424, 129480, 307264, 652936, 1538064, 3247024, 7604000, 15968400, 37217312, 77818016, 180652416, 376359200, 870795328, 1808574912, 4172640640, 8643327040
a(n) = 8*a(n-2)-12*a(n-4)-16*a(n-6)-4*a(n-8) for n>7.

[A212967] 0, 3, 10, 26, 50, 89, 140, 212, 300, 415, 550, 718, 910, 1141, 1400, 1704, 2040, 2427, 2850, 3330, 3850, 4433, 5060, 5756, 6500, 7319, 8190, 9142, 10150, 11245, 12400, 13648, 14960, 16371, 17850, 19434, 21090, 22857, 24700, 26660, 28700
a(n) = (n+1)*(10*n*(n+2)-3*(-1)^n+3)/24.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A269965] 1, 3, 10, 26, 63, 145, 332, 760, 1745, 4007, 9198, 21102, 48403, 111021, 254656, 584132, 1339893, 3073459, 7049906, 16171066, 37093175, 85084313, 195166404, 447672720, 1026871705, 2355438303, 5402904310, 12393181766, 28427480091, 65206953349, 149571708488
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) + 2*a(n-4) + 2*a(n-5) + 5.
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 4*a(n-4) - 2*a(n-6).
[A271357] 3, 10, 27, 71, 186, 487, 1275, 3338, 8739, 22879, 59898, 156815, 410547, 1074826, 2813931, 7366967, 19286970, 50493943, 132194859, 346090634, 906077043, 2372140495, 6210344442, 16258892831, 42566334051, 111440109322, 291753993915, 763821872423, 1999711623354
a(n) = 3*a(n-1)-a(n-2) for n>1.
a(n) = (2^(-2-n)*((9-sqrt(5))*(3+sqrt(5))^(n+1) - (9+sqrt(5))*(3-sqrt(5))^(n+1))) / sqrt(5).
a(n) = 4*Fibonacci(2*n+2) - Fibonacci(2*n+1).
[A000471] 0, 1, 3, 10, 27, 74, 201, 548, 1490, 4051, 11013, 29937, 81377, 221206, 601302, 1634508, 4443055, 12077476, 32829984, 89241150, 242582597, 659407867, 1792456423, 4872401723, 13244561064, 36002449668, 97864804714, 266024120300, 723128532145, 1965667148572
a(n) = floor(e^n/2). - Bruno Berselli, Mar 04 2016
[A059193] 3, 10, 28, 54, 88, 130, 180, 238, 304, 378, 460, 550, 648, 754, 868, 990, 1120, 1258, 1404, 1558, 1720, 1890, 2068, 2254, 2448, 2650, 2860, 3078, 3304, 3538, 3780, 4030, 4288, 4554, 4828, 5110, 5400, 5698, 6004, 6318, 6640, 6970, 7308, 7654, 8008, 8370, 8740
a(n) = 2*(2*n+1)*(n-1) (for n>1) follows from 1/e = sum ((1/(2*n)! - 1/(2*n+1)!). - Helena Verrill (verrill(AT)math.lsu.edu), Jan 19 2004
a(1)=3, a(2)=10, a(1)=28, a(2)=54, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 10 2012
[A267707] 1, 3, 10, 28, 66, 136, 253, 435, 703, 1081, 1596, 2278, 3160, 4278, 5671, 7381, 9453, 11935, 14878, 18336, 22366, 27028, 32385, 38503, 45451, 53301, 62128, 72010, 83028, 95266, 108811, 123753, 140185, 158203, 177906, 199396, 222778, 248160, 275653, 305371
a(n) = (n^4+2n^3+7n^2+6n+8)/8 = (n^2+n+2)(n^2+n+4)/8.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Jan 22 2016
[A128135] 1, 3, 10, 28, 72, 176, 416, 960, 2176, 4864, 10752, 23552, 51200, 110592, 237568, 507904, 1081344, 2293760, 4849664, 10223616, 21495808, 45088768, 94371840, 197132288, 411041792, 855638016, 1778384896, 3690987520, 7650410496, 15837691904, 32749125632, 67645734912, 139586437120, 287762808832
a(n)=2*a(n-1)+2^(n-1), for n>=2. [Philipp Zumstein (zuphilip(AT)inf.ethz.ch), Oct 05 2009]
a(n)=2^(n-2)*(2*n-1) for n>1. a(n)=4*a(n-1)-4*a(n-2) for n>3. G.f.: x*(1-x+2*x^2)/(1-2*x)^2. [Colin Barker, May 29 2012]
[A191797] 0, 0, 0, 1, 3, 10, 28, 78, 210, 561, 1485, 3916, 10296, 27028, 70876, 185745, 486591, 1274406, 3337236, 8738290, 22879230, 59901985, 156830905, 410597496, 1074972528, 2814337800, 7368069528, 19289917153, 50501756955, 132215475106, 346144864780, 906219437046
a(n) = +3*a(n-1) + 1*a(n-2) - 5*a(n-3) - 1*a(n-4) + 1*a(n-5).
a(n) = (2^(-1-n)*(-(-1)^n*2^(1+n) + sqrt(5)*(1-sqrt(5))^n + (3-sqrt(5))^n - sqrt(5)*(1+sqrt(5))^n + (3+sqrt(5))^n)) / 5. - Colin Barker, Mar 26 2017
[A130218] 1, 3, 10, 29, 70, 146, 273, 470, 759, 1165, 1716, 2443, 3380, 4564, 6035, 7836, 10013, 12615, 15694, 19305, 23506, 28358, 33925, 40274, 47475, 55601, 64728, 74935, 86304, 98920, 112871, 128248, 145145, 163659, 183890, 205941, 229918, 255930
a(n) = (n*(26-3*n-2*n^2+3*n^3))/24. G.f.: x*(x^3-5*x^2+2*x-1) / (x-1)^5. - Colin Barker, Apr 29 2013
[A048493] 1, 3, 10, 29, 76, 187, 442, 1017, 2296, 5111, 11254, 24565, 53236, 114675, 245746, 524273, 1114096, 2359279, 4980718, 10485741, 22020076, 46137323, 96468970, 201326569, 419430376, 872415207, 1811939302, 3758096357, 7784628196, 16106127331, 33285996514
a(n) = (n+1)*2^n-n. - Vladeta Jovovic, Feb 28 2003
a(n) = 5*a(n-1)-7*a(n-2)-a(n-3)+8*a(n-4)-4*a(n-5). - Colin Barker, Nov 26 2014
[A096140] 0, 1, 3, 10, 29, 81, 220, 589, 1563, 4126, 10857, 28513, 74792, 196041, 513619, 1345282, 3522981, 9224881, 24153636, 63239221, 165569195, 433476726, 1134874513, 2971168705, 7778667024, 20364889681, 53316094755, 139583544634
a(n) = Fibonacci(2*n+1)-Fibonacci(n+1). - Vladeta Jovovic, Jul 17 2004
[A291393] 3, 10, 29, 83, 232, 643, 1771, 4862, 13321, 36455, 99696, 272535, 744839, 2035358, 5561381, 15195075, 41515496, 113425323, 309888403, 846638398, 2313071313, 6319448079, 17265085152, 47169141487, 128868574671, 352075628734, 961888724621, 2627929220939
a(n) = 3*a(n-1) + a(n-2) - 4*a(n-3) - 2*a(n-4) for n >= 5.
[A244615] 1, 3, 10, 29, 88, 259, 771, 2284, 6786, 20191, 60189, 179654, 536925, 1606221, 4808601, 14403804, 43163793, 129388755, 387946445, 1163370778, 3489117566, 10465248174, 31391306504, 94164586011, 282474177151, 847381544167, 2542059008323, 7625998475474, 22877623720244
a(n)-3^n ~ n/9 * 2^n. - Vaclav Kotesovec, Jul 02 2014
[A006484] 0, 1, 3, 10, 30, 75, 161, 308, 540, 885, 1375, 2046, 2938, 4095, 5565, 7400, 9656, 12393, 15675, 19570, 24150, 29491, 35673, 42780, 50900, 60125, 70551, 82278, 95410, 110055, 126325, 144336, 164208, 186065, 210035, 236250, 264846, 295963, 329745, 366340
a(n) = (1/6)*(n^4 - 2*n^3 + 2*n^2 + 5*n). - James A. Record (james.record(AT)gmail.com), Nov 07 2004
a(n) = binomial(n+3,4) - 2*binomial(n+2,4) + 5*binomial(n+1,4). - Johannes W. Meijer, Apr 29 2011
[A026960] 1, 3, 10, 30, 78, 189, 440, 999, 2230, 4917, 10740, 23283, 50162, 107505, 229360, 487407, 1032174, 2179053, 4587500, 9633771, 20185066, 42205161, 88080360, 183500775, 381681638, 792723429, 1644167140, 3405774819, 7046430690, 14562623457, 30064771040
a(n) = 6*a(n-1)-13*a(n-2)+12*a(n-3)-4*a(n-4) for n>5
[A026937] 1, 3, 10, 30, 87, 245, 676, 1836, 4925, 13079, 34446, 90090, 234227, 605865, 1560200, 4002072, 10230201, 26069995, 66251090, 167941494, 424753615, 1072057117, 2700704172, 6791746500, 17052595573, 42752015487, 107035180630
a(n) = 4*a(n-1) -2*a(n-2) -4*a(n-3) -a(n-4). Vincenzo Librandi, Jun 20 2012
[A094306] 1, 3, 10, 30, 88, 252, 712, 1992, 5536, 15312, 42208, 116064, 318592, 873408, 2392192, 6547584, 17912320, 48985344, 133926400, 366085632, 1000548352, 2734316544, 7471826944, 20416481280, 55785005056, 152419749888
a(n) = ((1-sqrt(3))^n + (1+sqrt(3))^n - 2^n)/4.
a(n) = (1/3)*Sum_{k=1..5} Sin(Pi*k/3)Sin(2*Pi*k/3)(1+2*cos(Pi*k/6))^n.
[A014531] 1, 3, 10, 30, 90, 266, 784, 2304, 6765, 19855, 58278, 171106, 502593, 1477035, 4343160, 12778152, 37616427, 110797569, 326527350, 962803170, 2840372304, 8383467708, 24755608584, 73133433800, 216143407675, 639062383401
a(n) = sum{k=0..n+1, C(n+1,k)*C(n-k+1,k+2)} - Paul Barry, Sep 20 2004
a(n) = n*(n+1)*hypergeom([(1-n)/2, 1-n/2], [3], 4)/2. - Peter Luschny, Nov 23 2014
a(n) = GegenbauerC(n-1, -n-1, -1/2). - Peter Luschny, May 09 2016
[A062107] 0, 1, 3, 10, 30, 90, 270, 810, 2430, 7290, 21870, 65610, 196830, 590490, 1771470, 5314410, 15943230, 47829690, 143489070, 430467210, 1291401630, 3874204890, 11622614670, 34867844010, 104603532030, 313810596090, 941431788270
a(n) = 10*3^(n-4) for n >= 4.
a(n) = Sum_{k=0..n-2} 3^(n-k-2)binomial(1, k/2)(1+(-1)^k)/2.
[A033113] 1, 3, 10, 30, 91, 273, 820, 2460, 7381, 22143, 66430, 199290, 597871, 1793613, 5380840, 16142520, 48427561, 145282683, 435848050, 1307544150, 3922632451, 11767897353, 35303692060, 105911076180, 317733228541, 953199685623
a(n) = 3*a(n-1) + a(n-2) -3*a(n-3). - R. J. Mathar, Jun 28 2010
a(n)=2*a(n-1)+3*a(n-2)+1.
a(n)=sum{k=0..floor(n/2), C(n+2, 2k+2)*4^k }. - Paul Barry, Aug 24 2003
a(n)=sum{k=0..floor(n/2), 3^(n-2*k) }; a(n)=sum{k=0..n, sum{j=0..k, (-1)^(j+k)*3^j }}. - Paul Barry, Nov 12 2003
a(n)=(1/8)*(9*3^(n-1)+(-1)^(n-1)-2), with n>=1. - Paolo P. Lava, Jan 19 2009
a(n) = round(3^(n+1)/8) = round((3^(n+1)-2)/8) = floor((3^(n+1)-1)/8) = ceil((3^(n+1)-3)/8) = round((3^(n+1)-3)/8). a(n)=a(n-2)+3^(n-1) , n>2. - Mircea Merca, Dec 27 2010
[A290718] 3, 10, 30, 94, 318, 1150, 4350, 16894, 66558, 264190, 1052670, 4202494, 16793598, 67141630, 268500990, 1073872894, 4295229438, 17180393470, 68720525310, 274880004094, 1099515822078, 4398054899710, 17592202821630, 70368777732094, 281475043819518, 1125900041060350, 4503599895805950, 1801439904635
72057595111669758
a(n) = 2^(n + 1) + 4^(n - 1) - 2.

a(n) = 7*a(n-1) - 14*a(n-2) + 8*a(n-3).
[A290061] 3, 10, 31, 77, 162, 303, 520, 836, 1277, 1872, 2653, 3655, 4916, 6477, 8382, 10678, 13415, 16646, 20427, 24817, 29878, 35675, 42276, 49752, 58177, 67628, 78185, 89931, 102952, 117337, 133178, 150570, 169611, 190402, 213047, 237653, 264330, 293191, 324352, 357932
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4.
[A033121] 1, 3, 10, 31, 93, 280, 841, 2523, 7570, 22711, 68133, 204400, 613201, 1839603, 5518810, 16556431, 49669293, 149007880, 447023641, 1341070923, 4023212770, 12069638311, 36208914933, 108626744800, 325880234401, 977640703203, 2932922109610, 8798766328831
a(n) = 3*a(n-1) + a(n-3) - 3*a(n-4).
[A237930] 3, 10, 31, 94, 283, 850, 2551, 7654, 22963, 68890, 206671, 620014, 1860043, 5580130, 16740391, 50221174, 150663523, 451990570, 1355971711, 4067915134, 12203745403, 36611236210, 109833708631, 329501125894, 988503377683, 2965510133050, 8896530399151
a(n) = 3*a(n-1) + 1 for n>0, a(0)=3.
a(n) = 4*a(n-1) - 3*a(n-2) for n>1, a(0)=3, a(1)=10.
a(n) = 2*a(n-1) + 3*a(n-2) + 2 for n>1.
[A106517] 1, 3, 10, 31, 95, 288, 869, 2615, 7858, 23595, 70819, 212512, 637625, 1913019, 5739290, 17218247, 51655351, 154967040, 464902717, 1394710735, 4184136386, 12552415923, 37657258715, 112971793856, 338915410225, 1016746277043
a(n) = (1/5)*(6*3^n - Lucas(n+1)). – Ralf Stephan, Nov 16 2010
[A055217] 1, 3, 10, 31, 96, 294, 897, 2727, 8272, 25048, 75747, 228826, 690691, 2083371, 6280650, 18925047, 57002616, 171633840, 516632307, 1554702516, 4677501237, 14069962041, 42314975352, 127240600050, 382555886571, 1150026301089
a(n) = 3^n * 3/2 + O(3^n/sqrt(n)). - Charles R Greathouse IV, Dec 02 2015
a(n) = (3^(n+1) - hypergeom([-(n+1)/2, -n/2], [1], 4))/2.
a(n) = (3^(n+1) - GegenbauerC(n+1,-n-1,-1/2))/2. (End)
[A097472] 1, 3, 10, 31, 96, 296, 912, 2809, 8651, 26642, 82047, 252672, 778128, 2396320, 7379697, 22726483, 69988378, 215535903, 663763424, 2044122936, 6295072048, 19386276329, 59701891739, 183857684514, 566207320575, 1743689586432
a(n) = sum_{s, d, k>=0 with s+d+k=m} binom(s+2d+1, s)*binom(s, k); generating function = 1/(x^4 + 2x^3 - x^2 - 3x + 1); a(n+4) = 3a(n+3)+a(n+2)-2a(n+1)-a(n)
a(n)=sum(m=1..n, sum(k=1..n-m+1, binomial(k,n-m-k+1)*binomial(k+2*m-1,2*m-1)))+1. - Vladimir Kruchinin, May 12 2011
a(0)=1, a(1)=3, a(2)=10, a(3)=31, a(n)=3*a(n-1)+a(n-2)-2*a(n-3)-a(n-4). - Harvey P. Dale, Jun 14 2011
[A005725] 1, 1, 3, 10, 31, 101, 336, 1128, 3823, 13051, 44803, 154518, 534964, 1858156, 6472168, 22597760, 79067375, 277164295, 973184313, 3422117190, 12049586631, 42478745781, 149915252028, 529606271560, 1872653175556, 6627147599476
a(n) = sum(i+j+k=n, 0<=k<=j<=i<=n, C(n,i)*C(i,j)*C(j,k)). - Benoit Cloitre, Jun 06 2004
a(n) = hypergeom([1/2-n/2, -n, -n/2], [1/2, 1], -1). - Vladimir Reshetnikov, Oct 04 2016
[A286444] 0, 3, 10, 32, 70, 143, 252, 424, 660, 995, 1430, 2008, 2730, 3647, 4760, 6128, 7752, 9699, 11970, 14640, 17710, 21263, 25300, 29912, 35100, 40963, 47502, 54824, 62930, 71935, 81840, 92768, 104720, 117827, 132090, 147648, 164502, 182799, 202540, 223880, 246820, 271523
a(n) = (n^4 -6*n^3 +11*n^2 -12)/12 + IF(MOD(n, 2) = 1, -n +2)/2.
[A036682] 3, 10, 32, 84, 207, 478, 1060, 2272, 4744, 9692, 19446, 38420, 74909, 144378, 275464, 520864, 977005, 1819426, 3366182, 6191056, 11325040, 20613800, 37350060, 67389320, 121113335, 216877274, 387048080, 688559356, 1221323947
a(0)=3, a(1)=10, a(2)=32, a(3)=84, a(4)=207, a(5)=478, a(6)=1060, a(7)=2272, a(n)=4*a(n-1)-2*a(n-2)-8*a(n-3)+5*a(n-4)+8*a(n-5)- 2*a(n-6)- 4*a(n-7)-a(n-8) [From Harvey P. Dale, May 06 2012]
[A038731] 1, 3, 10, 32, 99, 299, 887, 2595, 7508, 21526, 61251, 173173, 486925, 1362627, 3797374, 10543724, 29180067, 80521055, 221610563, 608468451, 1667040776, 4558234018, 12441155715, 33900136297, 92230468249, 250570010499, 679844574322, 1842280003640
a(n) = sum(k*binom(n+k-1, 2k-2), k=1..n+1). - Emeric Deutsch, Jun 11 2003
a(n) = sum{k=0..n, C(n+k,2k)(k+1)}. (End)
a(n) = 6*a(n-1) -11*a(n-2) +6*a(n-3) -a(n-4). [R. J. Mathar, Feb 06 2010]
a(n) = sum{k=0..n, (F(2k)+0^k)*F(2n-2k+1)}. [Paul Barry, Jun 23 2010]
[A244762] 1, 3, 10, 32, 99, 301, 908, 2730, 8197, 24599, 73806, 221428, 664295, 1992897, 5978704, 17936126, 53808393, 161425195, 484275602, 1452826824, 4358480491, 13075441493, 39226324500, 117678973522, 353036920589, 1059110761791, 3177332285398, 9531996856220, 28595990568687, 85787971706089, 2573639151182
a(n+1) = 3*a(n) + n.
[A292398] 1, 3, 10, 32, 102, 323, 1021, 3224, 10177, 32121, 101378, 319960, 1009830, 3187145, 10059029, 31747584, 100199485, 316242607, 998102878, 3150142840, 9942261690, 31379074783, 99036453193, 312571964808, 986517893269, 3113579153493, 9826861945870
a(n) = 4*a(n-1) - a(n-2) - 6*a(n-3) + a(n-4) + 4*a(n-5) + a(n-6) for n >= 7.
[A027989] 1, 3, 10, 33, 105, 324, 977, 2895, 8462, 24465, 70101, 199368, 563425, 1583643, 4430290, 12342849, 34262337, 94800780, 261545777, 719697255, 1975722326, 5412138033, 14796520365, 40380240528, 110016825025, 299285288499
a(n) = sum(binomial(2*n-k,k)*(k+1),k=0..n).
a(n) = +6*a(n-1) -11*a(n-2) +6*a(n-3) -1*a(n-4). (End)
[A093043] 0, 0, 1, 3, 10, 33, 105, 344, 1105, 3591, 11594, 37565, 121485, 393264, 1272413, 4117971, 13325450, 43123017, 139547457, 451587592, 1461364025, 4729080015, 15303613546, 49523551333, 160261550085, 518617316448, 1678280815525
a(n) := (2^n/3-(-1)^n/3)(((1+sqrt(5))/2)^(n-1)/sqrt(5)-((1-sqrt(5))/2)^(n-1)/sqrt(5)).
[A053156] 1, 3, 10, 33, 106, 333, 1030, 3153, 9586, 29013, 87550, 263673, 793066, 2383293, 7158070, 21490593, 64504546, 193579173, 580868590, 1742867913, 5229128026, 15688432653, 47067395110, 141206379633, 423627527506, 1270899359733
a(n) = (3^n - 2^n + 1)/2.
a(n) = StirlingS2(n+2,3) + StirlingS2(n+1,2) + 1. - Ross La Haye, Jan 12 2008
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n > 3.
[A049219] 1, 1, 3, 10, 33, 107, 344, 1103, 3535, 11330, 36317, 116415, 373176, 1196243, 3834643, 12292218, 39403561, 126310851, 404898200, 1297929287, 4160602439, 13337099986, 42753000005, 137047709879, 439315949304, 1408257777387
a(n) = 5a(n-1) - 7a(n-2) + 4a(n-3) for n >= 5.
[A292397] 1, 3, 10, 33, 108, 352, 1144, 3714, 12050, 39084, 126752, 411041, 1332923, 4322363, 14016392, 45451793, 147389276, 477948252, 1549872500, 5025868667, 16297700769, 52849583211, 171378684824, 555740504324, 1802134907175, 5843896942499, 18950374573538
a(n) = 4*a(n-1) - a(n-2) - 3*a(n-3) - 7*a(n-4) + 2*a(n-5) + 6*a(n-6) + 7*a(n-7) + 3*a(n-8) + a(n-9) for n >= 10.
[A018920] 3, 10, 33, 108, 353, 1153, 3766, 12300, 40172, 131202, 428506, 1399501, 4570771, 14928140, 48755311, 159234864, 520061125, 1698519827, 5547366384, 18117700664, 59172417076, 193257136076, 631177877968, 2061427183105, 6732621943159, 21988745758766
a(n) = 3*a(n-1) + a(n-2) - a(n-4) - a(n-5) - a(n-6) (holds at least up to n = 1000 but is not known to hold in general).
[A255116] 1, 3, 10, 33, 108, 354, 1161, 3807, 12483, 40932, 134217, 440100, 1443096, 4731939, 15516117, 50877639, 166828734, 547034553, 1793736576, 5881695930, 19286191449, 63239784075, 207364440015, 679951894392, 2229575035401, 7310818426248, 23972310961920
a(n+3) = 3*a(n+2) + 3*a(n) with n>1, a(0) = 1, a(1) = 3, a(2) = 10.
[A006190] 0, 1, 3, 10, 33, 109, 360, 1189, 3927, 12970, 42837, 141481, 467280, 1543321, 5097243, 16835050, 55602393, 183642229, 606529080, 2003229469, 6616217487, 21851881930, 72171863277, 238367471761, 787274278560, 2600190307441
a(n) = U(n-1, (3/2)i)(-i)^(n-1), i^2 = -1. - Paul Barry, Nov 19 2003
a(n) = Sum_{k=0..n-1} binomial(n-k-1,k)3^(n-2k-1). - Paul Barry, Oct 02 2004
a(n) = F(n, 3), the n-th Fibonacci polynomial evaluated at x=3.
a(n+1) = Sum_{k=0..n} Sum_{j=0..n-k} C(k,j)C(n-j,k)*2^(k-j) = Sum_{k=0..n} Sum_{j=0..n-k} C(k,j)C(n-j,k)*2^(n-j-k); a(n+1) = Sum_{k=0..floor(n/2)} C(n-k,k)*3^(n-2k) = Sum_{k=0..n} C(k,n-k)*3^(2k-n). - Paul Barry, May 21 2006
a(n) = (ap^n - am^n)/(ap - am), with ap = (3 + sqrt(13))/2, am = (3 - sqrt(13))/2.
a(n) = ((3 + sqrt(13))^n - (3 - sqrt(13))^n)/(2^n*sqrt(13)). - Al Hakanson (hawkuu(AT)gmail.com), Jan 12 2009
[A020704] 3, 10, 33, 109, 360, 1189, 3927, 12970, 42837, 141481, 467280, 1543321, 5097243, 16835050, 55602393, 183642229, 606529080, 2003229469, 6616217487, 21851881930, 72171863277, 238367471761, 787274278560, 2600190307441, 8587845200883, 28363725910090

a(n) = 3*a(n-1) + a(n-2) (holds at least up to n = 1000 but is not known to hold in general).
a(n) = (2^(-1-n)*((3-sqrt(13))^n*(-11+3*sqrt(13)) + (3+sqrt(13))^n*(11+3*sqrt(13))))/sqrt(13).
[A083580] 0, 1, 3, 10, 34, 114, 374, 1202, 3798, 11842, 36550, 111954, 340982, 1034210, 3127206, 9434866, 28419286, 85503618, 257035142, 772219538, 2319017910, 6962034466, 20896589158, 62711787570, 188181500054, 564640969154
a(n)=2*3^n/3-5*0^n/12-(n+1)2^(n-2).
[A255631] 1, 3, 10, 34, 114, 382, 1282, 4302, 14434, 48430, 162498, 545230, 1829410, 6138222, 20595586, 69104398, 231866082, 777980590, 2610359362, 8758542414, 29387549602, 98604086254, 330846428418, 1110089483662, 3724684796002, 12497440101678, 41932678239682
a(n+3) = 3*a(n+2) + 4*a(n) with n > 0, a(0) = 1, a(1) = 3, a(2) = 10.
[A291337] 1, 3, 10, 34, 115, 387, 1300, 4366, 14665, 49263, 165490, 555934, 1867555, 6273687, 21075220, 70798066, 237832225, 798950763, 2683918570, 9016098634, 30287816995, 101745987387, 341795711140, 1148195728966, 3857138603785, 12957301471863, 43527515777650
a(n) = 5*a(n-1) - 7*a(n-2) + 5*a(n-3) for n >= 4.
[A048580] 3, 10, 34, 116, 396, 1352, 4616, 15760, 53808, 183712, 627232, 2141504, 7311552, 24963200, 85229696, 290992384, 993510144, 3392055808, 11581202944, 39540700160, 135000394752, 460920178688, 1573679925248, 5372879343616, 18344157523968, 62630871408640
a(n) = 4*a(n-1) - 2*a(n-2) (holds at least up to n = 1000 but is not known to hold in general).
[A217778] 1, 3, 10, 34, 117, 407, 1429, 5055, 17986, 64278, 230473, 828391, 2982825, 10754459, 38811802, 140165322, 506449789, 1830590295, 6618524221, 23933966743, 86562282258, 313102489406, 1132598701585, 4097213146599, 14822370816337, 53623952036787
a(n) = 8*a(n-1) -21*a(n-2) +20*a(n-3) -5*a(n-4) for n>3, a(0)=1, a(1)=3, a(2)=10, a(3)=34.
a(n) = ((3+r)*(5+r)^n-(3-r)*(5-r)^n+(1+r)*(3+r)^n-(1-r)*(3-r)^n)/(4*r*2^n), where r=sqrt(5). [Bruno Berselli, Mar 28 2013]
[A178578] 1, 3, 10, 34, 118, 417, 1497, 5448, 20063, 74649, 280252, 1060439, 4040413, 15488981, 59701236, 231236830, 899559100, 3513314664, 13770811198, 54152480421, 213585706927, 844723104691, 3349274471386, 13310603555085, 53012829376985, 211560158583657, 845856494229348, 3387782725245302, 135906987212938
54604853170818121, 219706932640295523
a(n) = Sum{k=0..floor(n/2)} Sum{j=0..n-k} C(n-k,j)*C(j,k)*C(j+1,k)*2^(n-k-j)/(k+1)}}.
[A187925] 1, 1, 3, 10, 35, 121, 426, 1520, 5475, 19855, 72403, 265233, 975338, 3598180, 13311000, 49360405, 183424355, 682870587, 2546441085, 9509714340, 35561166195, 133138728845, 499005557515, 1872137642125, 7030166054250, 26421479140746, 99376657487396
a(n) = sum(r=0..n, binomial(n,r)*sum(m=0..r, (sum(j=0..m, binomial(j,-r+n-m-j)*binomial(m,j)))*binomial(r,m))). [Vladimir Kruchinin, Feb 03 2013]
[A243871] 1, 3, 10, 35, 124, 454, 1684, 6305, 23781, 90209, 343809, 1315499, 5050144, 19442366, 75034354, 290203076, 1124511549, 4364693311, 16966567970, 66041815437, 257378634365, 1004167036295, 3921726323436, 15330264382726, 59977821022143, 234839855088313
a(n) = (2*(2*n-17) *(2*n-19) *(2*n-9) *a(n-1) -(2*n-19) *(6*n^2-75*n+208) *a(n-4) +2*(2*n-17) *(10*n^2-136*n+387) *a(n-5) -(2*n-19) *(6*n^2-75*n+212) *a(n-8) +(32*n^3-704*n^2+4940*n-10850) *a(n-9) -(2*n-17) *(2*n-9) *(n-14) *a(n-10) -(2*n-19) *(n-8) *(2*n-9) *a(n-12) +2*(2*n-9) *(2*n^2-36*n+161) *a(n-13) -(n-10) *(2*n-17) *(2*n-9) *a(n-14)) / ((2*n-17) *(2*n-19) *(n-4)).
[A224509] 1, 3, 10, 35, 125, 451, 1637, 5965, 21794, 79781, 292468, 1073296, 3941950, 14486721, 53264010, 195909180, 720769621, 2652351034, 9761957789, 35933354194, 132282020709, 487008295675, 1793068462212, 6602016250702, 24309222706566, 89511103102442
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 3, a(2) = 10, a(3) = 35, a(4) = 125.
[A216710] 1, 3, 10, 35, 126, 460, 1690, 6225, 22950, 84626, 312019, 1150208, 4239225, 15621426, 57556155, 212037241, 781074572, 2877011660, 10596599460, 39027676220, 143735627861, 529352597361, 1949472483601, 7179308057596, 26438877143476, 97364252272077
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 3, a(2) = 10, a(3) = 35, a(4) = 126.
[A167403] 1, 3, 10, 35, 126, 462, 1716, 6435, 24310, 92368, 352595, 1351142, 5194385, 20024980, 77384340, 299671971, 1162635441, 4518099300, 17583582225, 68522664400, 267350823015, 1044243559263, 4082760176300, 15977236602150, 62576817828876, 245279492151021
a(n) = [x^n] ((x^10-1)/(x-1))^n.
[A001700] 1, 3, 10, 35, 126, 462, 1716, 6435, 24310, 92378, 352716, 1352078, 5200300, 20058300, 77558760, 300540195, 1166803110, 4537567650, 17672631900, 68923264410, 269128937220, 1052049481860, 4116715363800, 16123801841550, 63205303218876, 247959266474052
a(n-1) = binomial(2*n, n)/2 = (2*n)!/(2*n!*n!).
a(0) = 1, a(n) = 2*(2*n+1)*a(n-1)/(n+1) for n > 0.
a(n) = sum(k=0..n, C(n+k, k)). - Benoit Cloitre, Aug 20 2002
a(n) = sum(k=0..n, C(n, k)*C(n+1, k+1)). - Benoit Cloitre, Oct 19 2002
a(n) = 4^n*binomial(n+1/2, n)/(n+1). - Paul Barry, May 10 2005
a(n) = n*(n+1)*(n+2)*...*(2*n-1)/n! (product of n consecutive integers, divided by n!). - Jonathan Vos Post, Apr 09 2007
[A184175] 1, 1, 1, 3, 10, 35, 139, 611, 2925, 15128, 83903, 495929, 3108129, 20565721, 143134606, 1044489265, 7968879387, 63407648443, 525016067171, 4514661402304, 40245681692885, 371319303282381, 3540506731807277, 34840411462506887, 353394158240095874, 3690577066014598575
a(n) = Sum((-1)^j*binomial(n-j,j)*bell(n-2j,j), j=0..floor(n/2)).
[A242725] 1, 1, 3, 10, 37, 137, 511, 1906, 7113, 26545, 99067, 369722, 1379821, 5149561, 19218423, 71724130, 267678097, 998988257, 3728274931, 13914111466, 51928170933, 193798572265, 723266118127, 2699265900242, 10073797482841, 37595924031121, 140309898641643
a(n+1) = 4*a(n) - a(n-1) - p_n (n>0), where p_n = 0 if n is odd and p_n = 1 if n is even.
a(n) = 4*a(n-1) - 4*a(n-3) + a(n-4) for n>3. [Bruno Berselli, May 22 2014]
a(n) = (3+(-1)^n+(4+sqrt(3))*(2-sqrt(3))^n+(4-sqrt(3))*(2+sqrt(3))^n)/12. [Bruno Berselli, May 25 2014]
[A195350] 1, 1, 3, 10, 37, 141, 541, 2080, 8001, 30781, 118423, 455610, 1752877, 6743881, 25945881, 99822160, 384048001, 1477556361, 5684635243, 21870622810, 84143330517, 323726495221, 1245480100021, 4791763116240, 18435456144001, 70927137880741
a(n) = 4*a(n-1)-2*a(n-3)-a(n-4).
[A041737] 1, 1, 3, 10, 43, 526, 569, 5078, 5647, 72842, 297015, 963887, 2224789, 3188676, 123394477, 126583153, 376560783, 1256265502, 5401622791, 66075738994, 71477361785, 637894633274, 709371995059, 9150358573982, 37310806290987, 121082777446943
a(n) = 125619266*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 23 2013
[A134018] 0, 1, 3, 10, 45, 226, 1113, 5230, 23565, 102826, 438273, 1836550, 7601685, 31183426, 127084233, 515429470, 2083077405, 8396552026, 33779262993, 135696871990, 544528258725, 2183337968626, 8749031918553, 35043178292110, 140313885993645, 561679104393226
a(n) = (1/2)(4^n - 3^(n+1) + 5*2^n - 3) = 3*StirlingS2(n+1,4) + StirlingS2(n+1,2).
[A121138] 1, 1, 3, 10, 46, 192, 840, 3584, 15392, 65536, 278656, 1179648, 4981248, 20971520, 88082432, 369098752, 1543512064, 6442450944, 26843578368, 111669149696, 463856599040, 1924145348608, 7971459825664, 32985348833280, 136339443941376, 562949953421312
a(n) = 4^(n-4)*(n+6) for n>3 and even.
a(n) = 2^(n-8)*(2^n*(n+6)+16) for n>3 and odd.
a(n) = 8*a(n-1)-12*a(n-2)-32*a(n-3)+64*a(n-4) for n>7.
[A042705] 1, 1, 3, 10, 63, 199, 461, 660, 38741, 39401, 117543, 392030, 2469723, 7801199, 18072121, 25873320, 1518724681, 1544598001, 4607920683, 15368360050, 96818080983, 305822602999, 708463286981, 1014285889980, 59537044905821, 60551330795801
a(n) = 39202*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 22 2013
[A055046] 3, 11, 12, 19, 27, 35, 43, 44, 48, 51, 59, 67, 75, 76, 83, 91, 99, 107, 108, 115, 123, 131, 139, 140, 147, 155, 163, 171, 172, 176, 179, 187, 192, 195, 203, 204, 211, 219, 227, 235, 236, 243, 251, 259, 267, 268, 275, 283, 291, 299, 300, 304
a(n) = 6n + O(log n). - Charles R Greathouse IV, Dec 19 2013
[A023248] 3, 11, 13, 31, 41, 43, 53, 101, 113, 211, 223, 263, 283, 431, 433, 491, 521, 563, 571, 601, 631, 641, 673, 743, 811, 911, 1151, 1361, 1621, 1693, 1973, 2243, 2393, 3083, 3163, 3181, 3343, 3461, 3821, 3923, 4481, 4523, 4561, 4591, 4663, 4861, 4903, 5051, 5261
a(n) == 1 or 3 (mod 10) for n>=2. - John Cerkan, Sep 13 2016
[A186078] 3, 11, 14, 16, 17, 21, 25, 26, 27, 29, 32, 33, 34, 35, 38, 39, 42, 43, 48, 49, 50, 52, 56, 57, 58, 63, 64, 65, 66, 70, 71, 74, 76, 78, 81, 83, 84, 87, 89, 91, 92, 94, 95, 96, 97, 98, 103, 107, 109, 110, 112, 118, 123, 125, 126, 127, 131, 132, 134, 136, 137
a(n) = a(n-864) + 1860. - Charles R Greathouse IV, Jul 18 2013
[A143029] 3, 11, 14, 19, 27, 32, 35, 43, 51, 59, 67, 68, 75, 76, 78, 83, 86, 91, 99, 107, 115, 122, 123, 131, 139, 140, 147, 155, 163, 171, 172, 174, 176, 179, 187, 194, 195, 203, 211, 219, 227, 230, 235, 243, 248, 251, 259, 267, 268, 270, 275, 283, 284, 291, 299, 302
a(n) = 2*a(n-1) + 3. [Obviously wrong, R. J. Mathar, Jul 14 2016]

[A022410] 3, 11, 15, 27, 43, 71, 115, 187, 303, 491, 795, 1287, 2083, 3371, 5455, 8827, 14283, 23111, 37395, 60507, 97903, 158411, 256315, 414727, 671043, 1085771, 1756815, 2842587, 4599403, 7441991, 12041395, 19483387, 31524783, 51008171, 82532955, 133541127
a(n) = 2^(-n)*(-2^n + 2*(1-sqrt(5))^(1+n) + 2*(1+sqrt(5))^(1+n)).
a(n) = 2*a(n-1) - a(n-3) for n>2.
[A113803] 3, 11, 17, 25, 31, 39, 45, 53, 59, 67, 73, 81, 87, 95, 101, 109, 115, 123, 129, 137, 143, 151, 157, 165, 171, 179, 185, 193, 199, 207, 213, 221, 227, 235, 241, 249, 255, 263, 269, 277, 283, 291, 297, 305, 311, 319, 325, 333, 339, 347, 353, 361, 367
a(n) = 14*n-a(n-1)-14 (with a(1)=3) [From Vincenzo Librandi, Nov 13 2010]
a(n) = 7*n-(7-(-1)^n)/2.
[A186424] 1, 3, 11, 17, 33, 43, 67, 81, 113, 131, 171, 193, 241, 267, 323, 353, 417, 451, 523, 561, 641, 683, 771, 817, 913, 963, 1067, 1121, 1233, 1291, 1411, 1473, 1601, 1667, 1803, 1873, 2017, 2091, 2243, 2321, 2481, 2563, 2731, 2817, 2993, 3083, 3267, 3361, 3553, 3651
a(n) = 3*(1+2*n+2*n^2)/4 + (-1)^n*(1+2*n)/4. - R. J. Mathar, Feb 28 2011
[A023865] 1, 3, 11, 17, 38, 50, 90, 110, 175, 205, 301, 343, 476, 532, 708, 780, 1005, 1095, 1375, 1485, 1826, 1958, 2366, 2522, 3003, 3185, 3745, 3955, 4600, 4840, 5576, 5848, 6681, 6987, 7923, 8265, 9310, 9690, 10850, 11270, 12551, 13013, 14421, 14927, 16468, 17020, 18700, 19300
a(n)= (8*n^3+24*n^2+10*n-3-3*(2*n^2+2*n-1)*(-1)^n)/48. - Luce ETIENNE, Nov 21 2014
[A203162] 1, 3, 11, 17, 40, 132, 168, 372, 1188, 1404, 3024, 9504, 10800, 22896, 71280, 79056, 165888, 513216, 559872, 1166400, 3592512, 3872448, 8024832, 24634368, 26313984, 54307584, 166281984, 176359680, 362797056, 1108546560, 1169012736
a(n) = 12*a(n-3)-36*a(n-6). - Clark Kimberling, Aug 18 2012
[A228470] 3, 11, 18, 68, 111, 419, 684, 2582, 4215, 15911, 25974, 98048, 160059, 604199, 986328, 3723242, 6078027, 22943651, 37454490, 141385148, 230804967, 871254539, 1422284292, 5368912382, 8764510719, 33084728831, 54009348606, 203877285368, 332820602355
a(n) = (3+sqrt(10))^(1/4*((-1)^n-1)+1/2*n)*(7/2+sqrt(10)*(11/10-13/20*(-1)^n)-2*(-1)^n)+(3-sqrt(10))^(1/4*((-1)^n-1)+1/2*n)*(7/2- sqrt(10)*(11/10-13/20*(-1)^n)-2*(-1)^n). - Paolo P. Lava, Sep 12 2013
[A017101] 3, 11, 19, 27, 35, 43, 51, 59, 67, 75, 83, 91, 99, 107, 115, 123, 131, 139, 147, 155, 163, 171, 179, 187, 195, 203, 211, 219, 227, 235, 243, 251, 259, 267, 275, 283, 291, 299, 307, 315, 323, 331, 339, 347, 355, 363, 371, 379, 387, 395, 403, 411, 419, 427
a(n) = 2*a(n-1) - a(n-2) for n>1. - Vincenzo Librandi, May 28 2011
[A289840] 0, 1, 3, 11, 19, 27, 35, 67, 83, 99, 115, 163, 179, 195, 211, 275, 323, 355, 387, 467, 483, 499, 515, 579, 627, 675, 707, 787, 803, 819, 835, 899, 947, 995, 1027, 1107, 1123, 1139, 1155, 1219, 1267, 1315, 1347, 1427, 1443, 1459, 1475, 1539, 1587, 1635, 1667, 1747, 1763, 1779, 1795, 1859, 1907, 1955, 1987, 2067
a(n) = a(n-1) + a(n-8) - a(n-9) for n>19.
[A139593] 0, 3, 11, 22, 38, 57, 81, 108, 140, 175, 215, 258, 306, 357, 413, 472, 536, 603, 675, 750, 830, 913, 1001, 1092, 1188, 1287, 1391, 1498, 1610, 1725, 1845, 1968, 2096, 2227, 2363, 2502, 2646, 2793, 2945, 3100, 3260, 3423, 3591, 3762
a(n) = (-1+(-1)^n+6*n+8*n^2)/4. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: -x*(5*x+3) / ((x-1)^3*(x+1)). - Colin Barker, Sep 15 2013
[A121471] 1, 3, 11, 22, 39, 59, 85, 114, 149, 187, 231, 278, 331, 387, 449, 514, 585, 659, 739, 822, 911, 1003, 1101, 1202, 1309, 1419, 1535, 1654, 1779, 1907, 2041, 2178, 2321, 2467, 2619, 2774, 2935, 3099, 3269, 3442, 3621, 3803, 3991, 4182, 4379, 4579, 4785, 4994, 5209
a(n)= 2*a(n-1) -2*a(n-3) +a(n-4). G.f.: -x*(1+x+5*x^2+2*x^3)/((1+x)*(x-1)^3).
[A178946] 1, 3, 11, 22, 45, 73, 119, 172, 249, 335, 451, 578, 741, 917, 1135, 1368, 1649, 1947, 2299, 2670, 3101, 3553, 4071, 4612, 5225, 5863, 6579, 7322, 8149, 9005, 9951, 10928, 12001, 13107, 14315, 15558, 16909, 18297, 19799, 21340, 23001
a(n)= +2*a(n-1) +a(n-2) -4*a(n-3) +a(n-4) +2*a(n-5) -a(n-6). G.f.: x*(1+x+4*x^2+x^4+x^3) / ((1+x)^2*(x-1)^4). - R. J. Mathar, Jan 03 2011
a(n) = n*(n+1)*(2*n+1)/6 - n*floor(n/2). - Wesley Ivan Hurt, Sep 17 2013
[A132209] 0, 3, 11, 23, 39, 59, 83, 111, 143, 179, 219, 263, 311, 363, 419, 479, 543, 611, 683, 759, 839, 923, 1011, 1103, 1199, 1299, 1403, 1511, 1623, 1739, 1859, 1983, 2111, 2243, 2379, 2519, 2663, 2811, 2963, 3119, 3279, 3443, 3611, 3783, 3959, 4139, 4323, 4511
a(n) = 2*n^2 + 2*n - 1 for n>=1.
[A142463] 1, 3, 11, 23, 39, 59, 83, 111, 143, 179, 219, 263, 311, 363, 419, 479, 543, 611, 683, 759, 839, 923, 1011, 1103, 1199, 1299, 1403, 1511, 1623, 1739, 1859, 1983, 2111, 2243, 2379, 2519, 2663, 2811, 2963, 3119, 3279, 3443, 3611, 3783, 3959, 4139, 4323, 4511, 4703, 4899, 5099
a(n) = a(n-1) + 4*n.
a(n) = 4*C(n+1,2) - 1. (End)
a(n) = 3*sum(k^5,k=1..n)/sum(k^3,k=1..n), n>0. - Gary Detlefs, Oct 18 2011
[A121509] 1, 3, 11, 23, 41, 63, 91, 123, 161, 203, 251, 303, 361, 423, 491, 563, 641, 723, 811, 903, 1001, 1103, 1211, 1323, 1441, 1563, 1691, 1823, 1961, 2103, 2251, 2403, 2561, 2723, 2891, 3063, 3241, 3423, 3611, 3803, 4001, 4203, 4411, 4623, 4841, 5063, 5291, 5523
a(n)= 2*a(n-1) -2*a(n-3) +a(n-4). G.f.: -x*(1+x+5*x^2+3*x^3)/(1+x)/(x-1)^3).
a(n) = 1 + 2(n-1)^2 + floor((n-1)^2/2). [Wesley Ivan Hurt, Jun 14 2013]
[A173078] 1, 3, 11, 23, 51, 103, 211, 423, 851, 1703, 3411, 6823, 13651, 27303, 54611, 109223, 218451, 436903, 873811, 1747623, 3495251, 6990503, 13981011, 27962023, 55924051, 111848103, 223696211, 447392423, 894784851, 1789569703, 3579139411
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3).
[A005475] 0, 3, 11, 24, 42, 65, 93, 126, 164, 207, 255, 308, 366, 429, 497, 570, 648, 731, 819, 912, 1010, 1113, 1221, 1334, 1452, 1575, 1703, 1836, 1974, 2117, 2265, 2418, 2576, 2739, 2907, 3080, 3258, 3441, 3629
a(n) = a(n-1) + 5*n - 2 for n>0, a(0)=0. - Vincenzo Librandi, Nov 18 2010
[A293404] 0, 3, 11, 24, 42, 66, 95, 129, 168, 213, 262, 317, 377, 443, 514, 590, 671, 757, 849, 946, 1048, 1155, 1268, 1385, 1508, 1637, 1770, 1909, 2053, 2202, 2357, 2516, 2681, 2852, 3027, 3208, 3393, 3585, 3781, 3983, 4189, 4401, 4619, 4841, 5069, 5302, 5540, 5784
a(n) = ceiling(r*n^2), where r = (3 + sqrt(5))/2.
[A293414] 0, 3, 11, 24, 43, 68, 98, 133, 174, 220, 272, 329, 391, 459, 533, 612, 696, 786, 881, 981, 1087, 1199, 1316, 1438, 1566, 1699, 1838, 1982, 2131, 2286, 2446, 2612, 2784, 2960, 3142, 3330, 3523, 3721, 3925, 4135, 4349, 4569, 4795, 5026, 5263, 5505, 5752, 6005
a(n) = floor(1/2 + (n^2)*e).
[A212252] 0, 0, 0, 3, 11, 24, 45, 76, 117, 171, 240, 324, 426, 548, 690, 855, 1045, 1260, 1503, 1776, 2079, 2415, 2786, 3192, 3636, 4120, 4644, 5211, 5823, 6480, 7185, 7940, 8745, 9603, 10516, 11484, 12510, 13596, 14742, 15951, 17225, 18564, 19971
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
a(n)=2/9-n/2-n^2/3+5*n^3/18-2/9*cos(2*n*Pi/3)+4*sin(2*n*Pi/3)/(9*sqrt(3)).
[A295622] 3, 11, 24, 46, 75, 117, 168, 236, 315, 415, 528, 666, 819, 1001, 1200, 1432, 1683, 1971, 2280, 2630, 3003, 3421, 3864, 4356, 4875, 5447, 6048, 6706, 7395, 8145, 8928, 9776, 10659, 11611, 12600, 13662, 14763, 15941, 17160, 18460, 19803, 21231, 22704, 24266
a(n) = (n-4)*(-5 + (-1)^n - 4*n + 2*n^2) / 8 for n>4.
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>10.
[A293413] 0, 3, 11, 25, 44, 68, 98, 134, 174, 221, 272, 329, 392, 460, 533, 612, 696, 786, 881, 982, 1088, 1199, 1316, 1438, 1566, 1699, 1838, 1982, 2132, 2287, 2447, 2613, 2784, 2961, 3143, 3330, 3523, 3722, 3926, 4135, 4350, 4570, 4796, 5027, 5263, 5505, 5752, 6005
a(n) = ceiling(e*n^2).
[A056106] 1, 3, 11, 25, 45, 71, 103, 141, 185, 235, 291, 353, 421, 495, 575, 661, 753, 851, 955, 1065, 1181, 1303, 1431, 1565, 1705, 1851, 2003, 2161, 2325, 2495, 2671, 2853, 3041, 3235, 3435, 3641, 3853, 4071, 4295, 4525, 4761, 5003, 5251, 5505, 5765, 6031, 6303
a(n) = 3*n^2 - n + 1.
a(n) = a(n-1) + 6*n - 4 = 2*a(n-1) - a(n-2) + 6.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A212971] 0, 0, 3, 11, 25, 48, 82, 128, 189, 267, 363, 480, 620, 784, 975, 1195, 1445, 1728, 2046, 2400, 2793, 3227, 3703, 4224, 4792, 5408, 6075, 6795, 7569, 8400, 9290, 10240, 11253, 12331, 13475, 14688, 15972, 17328, 18759, 20267, 21853, 23520
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
[A258440] 3, 11, 25, 49, 84, 132, 196, 278, 379, 503, 651, 825, 1028, 1262, 1528, 1830, 2169, 2547, 2967, 3431, 3940, 4498, 5106, 5766, 6481, 7253, 8083, 8975, 9930, 10950, 12038, 13196, 14425, 15729, 17109, 18567, 20106, 21728, 23434, 25228, 27111, 29085, 31153, 33317, 35578, 37940, 40404, 42972, 45647, 48431
a(n) = (1/8)*(Sum_{i=0..(n-1-floor(n/3)}(4*n+1-6*i-(-1)^i)*(4*n+3-6*i+(-1)^i)- Sum_{j=0..(2*n-1+(-1)^n)}(2*n+1+(-1)^n-4*j)*(2*n+1-(-1)^n-4*j)).
a(n) = (52*n^3+186*n^2+212*n-3*(32*floor(n/3)+3*(1-(-1)^n)))/144.

a(n) = 2*a(n-1)-a(n-3)-a(n-4)+2*a(n-6)-a(n-7) for n>7. - Colin Barker, Jun 01 2015

[A184634] 1, 3, 11, 25, 50, 86, 137, 204, 291, 400, 532, 691, 878, 1097, 1350, 1638, 1965, 2332, 2743, 3200, 3704, 4259, 4866, 5529, 6250, 7030, 7873, 8780, 9755, 10800, 11916, 13107, 14374, 15721, 17150, 18662, 20261, 21948, 23727, 25600, 27568, 29635, 31802, 34073, 36450, 38934, 41529, 44236, 47059, 50000, 53060, 56243, 59550, 62985, 66550, 70246, 74077, 78044, 82151, 86400, 90792, 95331, 100018, 104857, 109850, 114998, 120305, 125772, 131403, 137200

a(n)=floor(1/{(10+n^4)^(1/4)}), where {}=fractional part.

[A164303] 3, 11, 25, 61, 147, 355, 857, 2069, 4995, 12059, 29113, 70285, 169683, 409651, 988985, 2387621, 5764227, 13916075, 33596377, 81108829, 195814035, 472736899, 1141287833, 2755312565, 6651912963, 16059138491, 38770189945, 93599518381

a(n) = 2*a(n-1)+a(n-2) for n > 1; a(0) = 3, a(1) = 11.

a(n) = ((3+4*sqrt(2))*(1+sqrt(2))^n + (3-4*sqrt(2))*(1-sqrt(2))^n)/2.

[A051925] 0, 0, 3, 11, 26, 50, 85, 133, 196, 276, 375, 495, 638, 806, 1001, 1225, 1480, 1768, 2091, 2451, 2850, 3290, 3773, 4301, 4876, 5500, 6175, 6903, 7686, 8526, 9425, 10385, 11408, 12496, 13651, 14875, 16170, 17538, 18981, 20501, 22100, 23780

a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Apr 27 2012

[A011942] 0, 0, 0, 0, 0, 3, 11, 26, 52, 94, 157, 247, 371, 536, 750, 1023, 1365, 1785, 2295, 2907, 3633, 4488, 5486, 6641, 7969, 9487, 11212, 13162, 15356, 17813, 20553, 23598, 26970, 30690, 34782, 39270, 44178

a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -6*a(n-4) +6*a(n-5) -10*a(n-6) +10*a(n-7) -6*a(n-8) +6*a(n-9) -10*a(n-10) +10*a(n-11) -6*a(n-12) +6*a(n-13) -10*a(n-14) +10*a(n-15) -5*a(n-16) +a(n-17). G.f.: x^5*(x^2-x+1)*(3*x^8-x^7-3*x^6+5*x^4-3*x^2-x+3) / ((1-x)^5*(x^4+1)*(x^8+1)). [From R. J. Mathar, Apr 15 2010]

[A290513] 3, 11, 26, 79, 224, 640, 1828, 5225, 14928, 42654, 121873, 348232, 995003, 2843014, 8123337, 23210809, 66320216, 189496620, 541448364, 1547079580, 4420468031, 12630596045, 36089381477, 103118131368, 294639269914, 841872308017, 2405480380385, 6873175192304

a(n) = 2*a(n-1) + a(n-2) + 3*a(n-3) + 5*a(n-4) - 2*a(n-5) - 6*a(n-6) - 5*a(n-7) - 4*a(n-8) - 4*a(n-9) - 3*a(n-10) - 2*a(n-11) - 2*a(n-12).

[A164897] 3, 11, 27, 51, 83, 123, 171, 227, 291, 363, 443, 531, 627, 731, 843, 963, 1091, 1227, 1371, 1523, 1683, 1851, 2027, 2211, 2403, 2603, 2811, 3027, 3251, 3483, 3723, 3971, 4227, 4491, 4763, 5043, 5331, 5627, 5931, 6243, 6563, 6891, 7227, 7571, 7923, 8283, 8651, 9027, 9411

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), n>2.

[A212982] 0, 3, 11, 27, 53, 92, 146, 218, 310, 425, 565, 733, 931, 1162, 1428, 1732, 2076, 2463, 2895, 3375, 3905, 4488, 5126, 5822, 6578, 7397, 8281, 9233, 10255, 11350, 12520, 13768, 15096, 16507, 18003, 19587, 21261, 23028, 24890, 26850, 28910, 31073, 33341, 35717

a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).

a(n) = (20*n^3+66*n^2+52*n-3*(-1)^n+3)/48.

a(n) = (10*n^3+33*n^2+26*n)/24 for n even.

a(n) = (10*n^3+33*n^2+26*n+3)/24 for n odd.

[A164845] 3, 11, 27, 54, 95, 153, 231, 332, 459, 615, 803, 1026, 1287, 1589, 1935, 2328, 2771, 3267, 3819, 4430, 5103, 5841, 6647, 7524, 8475, 9503, 10611, 11802, 13079, 14445, 15903, 17456, 19107, 20859, 22715, 24678, 26751, 28937, 31239, 33660, 36203, 38871

a(n)=2a(n-1)-a(n-2)+3*n+5, n>1.

a(n)=3a(n-1)-3a(n-2)+a(n-3)+3, n>2.

a(n)=4a(n-1)-6a(n-2)+4a(n-3)-a(n-4), n>3.

[A033960] 3, 11, 27, 56, 106, 190, 329, 557, 929, 1534, 2516, 4108, 6687, 10863, 17623, 28564, 46270, 74922, 121285, 196305, 317693, 514106, 831912, 1346136, 2178171, 3524435, 5702739, 9227312, 14930194, 24157654, 39088001

a(n) = F(n+8)-(18+5*n); G.F. (3+2*x)/((1-x-x^2)*(1-x)^2);

[A182260] 0, 3, 11, 28, 56, 99, 159, 240, 344, 475, 635, 828, 1056, 1323, 1631, 1984, 2384, 2835, 3339, 3900, 4520, 5203, 5951, 6768, 7656, 8619, 9659, 10780, 11984, 13275, 14655, 16128, 17696, 19363, 21131, 23004, 24984, 27075, 29279, 31600, 34040

a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).

a(n) = (-1+(-1)^n-2*n^2+4*n^3)/8. G.f.: x^2*(3+2*x+x^2)/((1-x)^4*(1+x)). [Colin Barker, May 06 2012]

[A272000] 3, 11, 29, 47, 79, 111, 161, 211, 283, 355, 453, 551, 679, 807, 969, 1131, 1331, 1531, 1773, 2015, 2303, 2591, 2929, 3267, 3659, 4051, 4501, 4951, 5463, 5975, 6553, 7131, 7779, 8427, 9149, 9871, 10671, 11471, 12353, 13235, 14203, 15171, 16229, 17287, 18439

a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>6.

a(n) = (n^3 + 9*n^2 + 26*n - 30)/6 for n even.

a(n) = (n^3 + 9*n^2 + 29*n - 21)/6 for n odd. (End)

[A259594] 1, 3, 11, 29, 109, 287, 1079, 2841, 10681, 28123, 105731, 278389, 1046629, 2755767, 10360559, 27279281, 102558961, 270037043, 1015229051, 2673091149, 10049731549, 26460874447, 99482086439, 261935653321, 984771132841, 2592895658763, 9748229241971

a(n) = 10*a(n-2) - a(n-4) for n>3. - Colin Barker, Jul 21 2015

[A071568] 1, 3, 11, 31, 69, 131, 223, 351, 521, 739, 1011, 1343, 1741, 2211, 2759, 3391, 4113, 4931, 5851, 6879, 8021, 9283, 10671, 12191, 13849, 15651, 17603, 19711, 21981, 24419, 27031, 29823, 32801, 35971, 39339, 42911, 46693, 50691, 54911, 59359

a(n) = n^3+n+1.

[A093406] 1, 3, 11, 31, 71, 145, 289, 601, 1321, 2979, 6683, 14743, 32111, 69697, 151777, 332113, 728689, 1598883, 3503627, 7668079, 16774775, 36704017, 80343361, 175916521, 385196761, 843365379, 1846290395, 4041672871, 8847607391, 19368919297, 42403014721, 92830645537

a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)+a(n-4). G.f.: -x*(x^3+5*x^2-x+1)/ (x^4+4*x^3-6*x^2+4*x-1). [Colin Barker, Oct 21 2012]

[A190590] 1, 1, 1, 1, 3, 11, 31, 71, 157, 397, 1141, 3301, 9087, 24311, 66067, 185771, 532121, 1520889, 4316233, 12255913, 35079739, 101232419, 293236615, 849895311, 2465119669, 7167636741, 20909386941, 61162159501, 179214613111, 525803297743, 1544899158331

a(n) = Sum_{j=floor((3*n+1)/4)..n} binomial(j,-3*n+4*j-1)*2^(n-j)*binomial(n,j))/n.

[A087323] 0, 3, 11, 31, 79, 191, 447, 1023, 2303, 5119, 11263, 24575, 53247, 114687, 245759, 524287, 1114111, 2359295, 4980735, 10485759, 22020095, 46137343, 96468991, 201326591, 419430399, 872415231, 1811939327, 3758096383, 7784628223, 16106127359, 33285996543, 68719476735

a(n) = (n + 1) * 2^n - 1 = 2^n * n + 2^n - 1.

a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3). G.f.: x*(3-4*x)/((1-x)*(1-2*x)^2). - Colin Barker, Mar 23 2012

[A079996] 1, 1, 1, 3, 11, 33, 82, 198, 516, 1389, 3690, 9642, 25143, 65867, 173092, 454578, 1192227, 3125940, 8198836, 21509532, 56429115, 148023671, 388279519, 1018515853, 2671777153, 7008626377, 18384947908, 48227023198, 126508325008

a(n) = a(n-1) +2*a(n-2) +3*a(n-3) +4*a(n-4) +9*a(n-5) +9*a(n-6) -15*a(n-7) -12*a(n-8) +7*a(n-10) -6*a(n-11) -6*a(n-12) +5*a(n-13) +5*a(n-14) +3*a(n-15) -2*a(n-16) -a(n-17) +2*a(n-18) -a(n-19) -a(n-20).

[A288038] 3, 11, 33, 89, 225, 545, 1281, 2945, 6657, 14849, 32769, 71681, 155649, 335873, 720897, 1540097, 3276801, 6946817, 14680065, 30932993, 65011713, 136314881, 285212673, 595591169, 1241513985, 2583691265, 5368709121, 11140071425, 23085449217, 47781511169

a(n) = 1 + (3*n-1)*2^(n-1).

a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3) for n>3.

[A182879] 0, 1, 3, 11, 33, 96, 278, 787, 2205, 6133, 16941, 46554, 127390, 347331, 944121, 2559607, 6923529, 18690138, 50364988, 135506485, 364063815, 976880631, 2618206923, 7009868646, 18749876418, 50107633501, 133800148323, 357012426677, 951936494055

a(n) = Sum_{k=0..n} k*[binom(k,n-k)]^2.

[A081250] 1, 3, 11, 33, 101, 303, 911, 2733, 8201, 24603, 73811, 221433, 664301, 1992903, 5978711, 17936133, 53808401, 161425203, 484275611, 1452826833, 4358480501, 13075441503, 39226324511, 117678973533, 353036920601, 1059110761803

a(n) = floor(3^n*5/4).

a(n) = +3*a(n-1) +1*a(n-2) -3*a(n-3).

a(n) = 5*3^n/4 + (-1)^n/4 - 1/2. - Paul Barry, May 19 2003

a(n) = a(n-2) + 10*3^(n-2) for n > 1.

a(n) = 2*a(n-1)+3*a(n-2)+2, a(0)=1, a(1)=3. - Zerinvary Lajos, Apr 28 2008

[A135247] 0, 0, 1, 3, 11, 33, 103, 309, 935, 2805, 8431, 25293, 75911, 227733, 683263, 2049789, 6149495, 18448485, 55345711, 166037133, 498111911, 1494335733, 4483008223, 13449024669, 40347076055, 121041228165, 363123688591, 1089371065773, 3268113205511, 9804339616533

a(n) = -14*(-sqrt(2))^n*(-56-84*sqrt(2))^(-1) + 22*2^(1/2*n)*(-56-84*sqrt(2))^(-1) + 12*2^(1/2*n)*sqrt(2)*(-56-84*sqrt(2))^(-1) - 12*3^n*sqrt(2)*(-56-84*sqrt(2))^(-1) - 8*3^n*(-56-84*sqrt(2))^(-1), with n>=0 - Paolo P. Lava, Jun 09 2008

[A036542] 1, 3, 11, 34, 93, 236, 571, 1338, 3065, 6904, 15351, 33782, 73717, 159732, 344051, 737266, 1572849, 3342320, 7077871, 14942190, 31457261, 66060268, 138412011, 289406954, 603979753, 1258291176, 2617245671, 5435817958, 11274289125, 23353884644, 48318382051
a(n) = 3*n * 2^(n-1) - n + 1.
a(n) = 6*a(n-1)-13*a(n-2)+12*a(n-3)-4*a(n-4) for n>3.
[A084266] 1, 3, 11, 34, 96, 256, 656, 1632, 3968, 9472, 22272, 51712, 118784, 270336, 610304, 1368064, 3047424, 6750208, 14876672, 32636928, 71303168, 155189248, 336592896, 727711744, 1568669696, 3372220416, 7230980096, 15468593152, 33017561088
a(n) = Sum_{k, 0<=k<=n-1}a(k)+(n+2)*2^(n-1)-1. - Philippe Deléham, Jul 12 2007
a(n) = sum(binomial(n+1,k)*k^4,k=0..n+1)/((n+1)*(n+2)), n>0. [From Gary Detlefs, Nov 26, 2011]
[A037496] 1, 3, 11, 34, 102, 308, 925, 2775, 8327, 24982, 74946, 224840, 674521, 2023563, 6070691, 18212074, 54636222, 163908668, 491726005, 1475178015, 4425534047, 13276602142, 39829806426, 119489419280, 358468257841, 1075404773523
a(n) = 3*a(n-1) + a(n-3) - 3*a(n-4).
a(n) = round((11*3^n-13)/26) = (11*3^n-13)/26 + ((3-7*i*sqrt(3))*(-1+i*sqrt(3))^n + (3+7*i*sqrt(3))*(-1-i*sqrt(3))^n)/(78*2^n) where i is the imaginary unit. (End)
[A088578] 1, 3, 11, 35, 99, 259, 643, 1539, 3587, 8195, 18435, 40963, 90115, 196611, 425987, 917507, 1966083, 4194307, 8912899, 18874371, 39845891, 83886083, 176160771, 369098755, 771751939, 1610612739, 3355443203, 6979321859, 14495514627, 30064771075, 62277025795
a(n) = (n-1) * 2^(n+1) + 3.
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3). - Colin Barker, Apr 02 2012
[A014335] 0, 0, 1, 3, 11, 35, 115, 371, 1203, 3891, 12595, 40755, 131891, 426803, 1381171, 4469555, 14463795, 46805811, 151466803, 490156851, 1586180915, 5132989235, 16610702131, 53753361203, 173949530931, 562912506675, 1821623137075, 5894896300851, 19076285150003
a(n)=2*a(n-1)+4*a(n-2)+1, a(0)=0 ;a(1)=0 . [From Zerinvary Lajos, Dec 14 2008]
[A291413] 3, 11, 36, 117, 375, 1197, 3810, 12112, 38478, 122198, 388008, 1231911, 3911097, 12416751, 39419610, 125145175, 397296363, 1261288403, 4004182620, 12711979296, 40356397332, 128118414852, 406734209280, 1291248512101, 4099293000471, 13013918567075
a(n) = 3*a(n-1) + 2*a(n-2) - 3*a(n-3) - 4*a(n-4) - 3*a(n-5) - a(n-6) for n >= 7.
[A100068] 1, 3, 11, 36, 123, 408, 1370, 4560, 15235, 50760, 169326, 564336, 1881582, 6271632, 20907156, 69689376, 232304355, 774343560, 2581169510, 8603882160, 28679699578, 95598937008, 318663476076, 1062211351776, 3540705857998, 11802351958608, 39341178395660, 131137257852000
a(n) = sum{k=0..floor(n/2), binomial(n, k)*3^(n-k)}.
a(n) = sum{k=0..n, binomial(n, (n-k)/2)*(1+(-1)^(n-k)*3^k/2}.
[A084171] 1, 3, 11, 37, 119, 373, 1151, 3517, 10679, 32293, 97391, 293197, 881639, 2649013, 7955231, 23882077, 71678999, 215102533, 645438671, 1936578157, 5810258759, 17431824853, 52297571711, 156896909437, 470699116919, 1412114127973
a(n) = 5*3^n/3+0^n/3-2^n.
[A192875] 0, 1, 3, 11, 37, 119, 391, 1257, 4087, 13195, 42757, 138271, 447615, 1448249, 4687071, 15166963, 49082501, 158832391, 513995543, 1663319433, 5382623015, 17418520571, 56367538373, 182409150671, 590288468367, 1910213517529
a(n)=2*a(n-1)+6*a(n-2)-5*a(n-3)-6*a(n-4)+4*a(n-5).
[A134757] 1, 3, 11, 37, 123, 401, 1293, 4131, 13107, 41353, 129873, 406319, 1267093, 3940431, 12224579, 37845117, 116944371, 360771417, 1111332129, 3418840431, 10504903809, 32242682787, 98863833159, 302863592073, 927025884477, 2835306153351, 8665554849903
a(n) = (n-1)! * [x^(n-1)] exp(x)*((1 + 2*x)*BesselI(0, 2*x) + 2*x*BesselI(1, 2*x)) for n>0, a(0) = 0. - Peter Luschny, Aug 26 2012
[A291415] 3, 11, 37, 126, 427, 1448, 4909, 16643, 56424, 191292, 648529, 2198680, 7454090, 25271280, 85676131, 290464093, 984747891, 3338548317, 11318536416, 38372746007, 130093466328, 441050269849, 1495273713773, 5069362002354, 17186439428582, 58266444593059
a(n) = 3*a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) for n >= 5.
[A214996] 3, 11, 37, 127, 433, 1479, 5049, 17239, 58857, 200951, 686089, 2342455, 7997641, 27305655, 93227337, 318298039, 1086737481, 3710353847, 12667940425, 43251054007, 147668335177, 504171232695, 1721348260425, 5877050576311, 20065505784393, 68507921984951
a(n) = ceiling(x*a(n-1)) if n is odd, a(n) = floor(x*a(n-1) if n is even, where x = 2+sqrt(2) and a(0) = floor(x).
a(n) = 3*a(n-1) + 2*a(n-2) - 2*a(n-3).
a(n) = (1/7)*((-1)^(1+n) + (11-8*sqrt(2))*(2-sqrt(2))^n + (2+sqrt(2))^n*(11+8*sqrt(2))). - Colin Barker, Nov 13 2017
[A180168] 1, 3, 11, 37, 129, 443, 1531, 5277, 18209, 62803, 216651, 747317, 2577889, 8892363, 30674171, 105810157, 364991169, 1259033123, 4343022091, 14981209797, 51677530049, 178261109083, 614909868411, 2121125282237, 7316799906529, 25239226224243, 87062451981131
a(n) = (1/6)*(-(1-sqrt(6))^n*sqrt(6) + sqrt(6)*(1+sqrt(6))^n + 3*(1-sqrt(6))^n + 3*(1 +sqrt(6))^n). - Alexander R. Povolotsky, Aug 15 2010
[A006189] 1, 1, 3, 11, 38, 126, 415, 1369, 4521, 14933, 49322, 162900, 538021, 1776961, 5868903, 19383671, 64019918, 211443426, 698350195, 2306494009, 7617832221, 25159990673, 83097804242, 274453403400, 906458014441, 2993827446721, 9887940354603, 32657648510531
a(n) = 4*a(n-1) - 3*a(n-2) + 2*a(n-3) + a(n-4) for n > 3. - Giovanni Resta, Mar 13 2013
[A273526] 1, 1, 3, 11, 38, 127, 423, 1423, 4854, 16787, 58776, 208001, 742888, 2674427, 9694831, 35357655, 129644774, 477638683, 1767263172, 6564120401, 24466267000, 91482563619, 343059613628, 1289904147301, 4861946401428, 18367353072127, 69533550915978, 263747951750333, 1002242216651340, 3814986502092275
a(n) = C(n) - n + 1, where C(n) is the Catalan number.
[A166336] 1, 3, 11, 39, 131, 421, 1309, 3971, 11823, 34691, 100611, 289033, 823801, 2332419, 6566291, 18394911, 51310979, 142587181, 394905493, 1090444931, 3002921271, 8249479163, 22612505091, 61857842449, 168903452401, 460409998851
a(0)=1, a(1)=3, a(2)=11, a(3)=39, a(4)=131, a(n)=-17*a(n-1)+ 17*a(n-2)- 7*a(n-3)+a(n-4). - Harvey P. Dale, Jul 05 2014
[A136775] 1, 3, 11, 40, 145, 525, 1900, 6875, 24875, 90000, 325625, 1178125, 4262500, 15421875, 55796875, 201875000, 730390625, 2642578125, 9560937500, 34591796875, 125154296875, 452812500000, 1638291015625, 5927392578125, 21445507812500, 77590576171875
a(n) = 5*a(n-1)-5*a(n-2) for n>3. - Colin Barker, Aug 31 2016
[A108153] 0, 1, 3, 11, 40, 145, 526, 1908, 6921, 25105, 91065, 330326, 1198213, 4346356, 15765820, 57188385, 207443151, 752472043, 2729490816, 9900859685, 35914032730, 130273308376, 472548850273, 1714107200301, 6217692609825, 22553841080350, 81811015661001
a(n) = 11*a(n-2) +7*a(n-3)+3*a(n-4) [From Gary Detlefs, Sep 13 2010]
[A014301] 0, 1, 3, 11, 40, 148, 553, 2083, 7896, 30086, 115126, 442118, 1703052, 6577474, 25461493, 98759971, 383751472, 1493506534, 5820778858, 22714926826, 88745372992, 347087585824, 1358789148058, 5324148664846, 20878676356240, 81937643449468, 321786401450268
a(n) = (1/2)*Sum_{k=0..n} (-1)^(n-k)*binomial(n+k-1, k). - Vladeta Jovovic, Aug 28 2002
a(n) = (1/2)sum(binomial(2n-2j-2, n-2), j=0..floor(n/2)).
a(n) = sum{k=0..n, (-1)^(n-k)*C(n+k,k-1)}. - Paul Barry, Jul 18 2006
[A281593] 1, 1, 3, 11, 41, 153, 573, 2157, 8163, 31043, 118559, 454479, 1747771, 6740059, 26055459, 100939779, 391785129, 1523230569, 5931153429, 23126146629, 90282147849, 352846964649, 1380430179489, 5405662979649, 21186405207549, 83101804279101, 326199124351701
a(n) = [x^n] (2*x-1)/(sqrt(1-4*x)*(x-1)).
a(n) = binomial(2*n,n)*(1+hypergeom([1,n+1/2],[n+1],4))+I/sqrt(3).
a(n+1) = a(n) + 2*n*Catalan(n).
[A076540] 1, 3, 11, 41, 154, 582, 2211, 8437, 32318, 124202, 478686, 1849498, 7161556, 27784460, 107980515, 420300045, 1638238710, 6393535170, 24980504010, 97704407790, 382509199020, 1498824792660, 5877754713870, 23067328421826, 90590960500524, 356002519839652
a(n)=(3n^2-2n+1)binom(2n, n)/[2(n+1)(2n-1)]; g.f.=(1-z)(C-1)/sqrt(1-4z), where C=[1-sqrt(1-4z)]/(2z) is the Catalan function.
a(n+1) = [x^n](1 + x + x^2)*(1 + x)^(2*n) = binomial(2*n,n) + binomial(2*n,n-1) + binomial(2*n,n-2). - Peter Bala, Jun 15 2015
[A032443] 1, 3, 11, 42, 163, 638, 2510, 9908, 39203, 155382, 616666, 2449868, 9740686, 38754732, 154276028, 614429672, 2448023843, 9756737702, 38897306018, 155111585372, 618679078298, 2468152192772, 9848142504068, 39301087452632, 156861290196878, 626155256640188
a(n) = (4^n+binomial(2*n, n))/2. - David W. Wilson
a(n) = Sum_{0 <= i_1 <= i_2 <= n} binomial(n, i_2) * binomial(n, i_1+i_2). - Benoit Cloitre, Oct 14 2004
a(n) = Sum_{k=0..n} C(n+k-1, k)*2^(n-k). - Paul Barry, Sep 28 2007
a(n) = coefficient of x^n in (4*x + 1 / (1 + x))^n. - Michael Somos, Jan 25 2014
a(n) = [x^n] 1/((1 - x)^n*(1 - 2*x)). - Ilya Gutkovskiy, Oct 12 2017

[A259858] 1, 1, 3, 11, 42, 165, 654, 2605, 10398, 41550, 166116, 664299, 2656866, 10626810, 42505932, 170021123, 680079282, 2720306730, 10881206124, 43524782946, 174099048684, 696396028620, 2785583782248, 11142334464693, 44569336530174, 178277343463830, 713109368541588
a(0)=a(1)=1; a(2)=3; a(n) = 4*a(n-1) + ((-1)^(n-1)-3)/2 * a(floor((n-1)/2)). - Carl R. White, Oct 06 2017
[A200613] 1, 3, 11, 44, 183, 774, 3294, 14034, 59711, 253430, 1072506, 4525168, 19036726, 79861404, 334155036, 1394789214, 5808981711, 24143440374, 100156051746, 414762312504, 1714844273586, 7079573497524, 29187378344676, 120180109515204, 494264431607718, 2030539136846844
a(n) = ((n+4)/4)*binomial(2*n,n)-3*2^(2*n-3). [Volodymyr Mazorchuk, Sep 14 2012]
[A238578] 0, 1, 3, 11, 45, 191, 833, 3695, 16593, 75199, 343233, 1575551, 7265921, 33637631, 156234497, 727681791, 3397475585, 15896054783, 74512968705, 349859309567, 1645121398785, 7746058698751, 36516283891713, 172332643868671, 814108326764545, 3849410342715391
a(n) = Sum_{k=1..n} (Sum_{i=0..(n-k)} C(k,n-k-i)*C(k+i-1,k-1)))*C(n-1,k-1)).
[A187764] 1, 1, 3, 11, 45, 198, 919, 4445, 22215, 114000, 597790, 3191070, 17289023, 94845796, 525838005, 2941748627, 16585870501, 94147448172, 537592229784, 3085816136840, 17795391949590, 103051160368120, 598997937352830, 3493575551891610, 20438727738501275, 119911429466179978
a(n) = sum(k=1..n, (C(2*k-2,k-1)*sum(i=k..n, i*C(i-1,k-1) * C(2*n-i-1,n-1))) /k)/n, n>0, a(0)=1. - Vladimir Kruchinin, Jan 23 2013
a(n) = Sum_{k=1..n} binomial(2*k-2,k-1)*binomial(2*n,n-k)/n, a(0)=1. - Vladimir Kruchinin, Apr 28 2016
a(n) = Catalan(n)*hypergeom([1/2, 1-n], [n+2], -4) for n>=1. - Peter Luschny, Apr 28 2016
[A083886] 1, 3, 11, 45, 201, 963, 4899, 26253, 147345, 862083, 5238459, 32957037, 214117209, 1433320515, 9867008979, 69734001357, 505212273441, 3747124863747, 28418591888235, 220152270759597, 1740363304031721, 14027180742479043, 115176800996769411, 962726355659386125, 8186311912829551281, 70769800810139187843
a(n) = sum{k=0..floor(n/2), C(n,2k)(2k)!3^(n-2k)/k!}. (End)
a(n) = i^n*Hermite_H(n, -3i/2), i=sqrt(-1). - Paul Barry, Jun 15 2009
a(0) = 1; a(1) = 3; a(n) = 3*a(n-1) + 2*(n-1)*a(n-2) for n >= 2. - Justin M. Troyka, Aug 05 2011
[A264416] 1, 1, 3, 11, 46, 234, 1269, 7609, 48501, 328831, 2347655, 17551462, 136902440, 1109043889, 9308756773, 80704240807, 721319484280, 6632169860334, 62631220229804, 606525577239266, 6015393685594488, 61024457251302195, 632560831051022660, 6693134988051996106, 72226722923184020925, 794238562047133369308
a(n) = Sum_{k=0..[n/2]} binomial(n-k, k) * binomial((n-k)^2 + k, k).
[A246985] 1, 3, 11, 49, 251, 1393, 8051, 47449, 282251, 1686433, 10097891, 60526249, 362976251, 2177317873, 13062296531, 78368963449, 470199366251, 2821153019713, 16926788715971, 101560344351049, 609360902796251, 3656161927895953, 21936961102828211, 131621735227521049, 789730317205170251, 473838162076
a(n) = 11*a(n-1) - 36*a(n-2) + 36*a(n-3) for n>2. [Bruno Berselli, Mar 25 2015]
a(n) = 2^(n-1) + 3^(n-1) + 6^(n-1). - Álvar Ibeas, Mar 25 2015
[A022380] 3, 12, 15, 27, 42, 69, 111, 180, 291, 471, 762, 1233, 1995, 3228, 5223, 8451, 13674, 22125, 35799, 57924, 93723, 151647, 245370, 397017, 642387, 1039404, 1681791, 2721195, 4402986, 7124181, 11527167
a(n) = ((2^(-n-1)/5)*((15+21*sqrt(5))*(1+sqrt(5))^n + (15-21*sqrt(5))*(1-sqrt(5))^n). [Bogart B. Strauss, Oct 27 2013]
[A290593] 3, 12, 15, 31, 49, 92, 156, 279, 484, 855, 1495, 2629, 4608, 8092, 14195, 24916, 43719, 76727, 134641, 236284, 414644, 727655, 1276940, 2240879, 3932463, 6900997, 12110400, 21252276, 37295139, 65448412, 114853951, 201554639, 353703729, 620706780, 1089264460, 1911525879
a(n) = a(n-1) + a(n-2) + a(n-4).
[A001196] 0, 3, 12, 15, 48, 51, 60, 63, 192, 195, 204, 207, 240, 243, 252, 255, 768, 771, 780, 783, 816, 819, 828, 831, 960, 963, 972, 975, 1008, 1011, 1020, 1023, 3072, 3075, 3084, 3087, 3120, 3123, 3132, 3135, 3264, 3267, 3276, 3279, 3312
a(2n) = 4a(n), a(2n+1) = 4a(n) + 3.
[A224924] 0, 1, 3, 12, 16, 33, 63, 112, 120, 153, 211, 300, 408, 553, 735, 960, 976, 1041, 1155, 1324, 1536, 1809, 2143, 2544, 2952, 3433, 3987, 4620, 5320, 6105, 6975, 7936, 7968, 8097, 8323, 8652, 9072, 9601, 10239, 10992, 11800, 12729, 13779, 14956, 16248, 17673, 19231, 20928
a(2^n) = a(2^n - 1) + 2^n.
[A136047] 1, 3, 12, 16, 41, 47, 96, 104, 185, 195, 316, 328, 497, 511, 736, 752, 1041, 1059, 1420, 1440, 1881, 1903, 2432, 2456, 3081, 3107, 3836, 3864, 4705, 4735, 5696, 5728, 6817, 6851, 8076, 8112, 9481, 9519, 11040, 11080, 12761, 12803, 14652, 14696, 16721
a(n)=(1/12)(1 + n)(2n^2+7n-3) if n is odd, a(n)=(1/12)n(2n^2+3n+4) if n is even; a(n)=(-3 + 3*(-1)^n + 8*n + 12*n^2 - 6*(-1)^n*n^2 + 4*n^3)/24; a(1)=1 then a(n)=a(n-1)+n^(if n is even then 1 else 2), or a(n)=a(n-1)+n^(1+mod(n,2)), or a(n)=a(n-1)+n^((3-(-1)^n)/2)).
a(n)=a(n-1)+3a(n-2)-3a(n-3)-3a(n-4)+3a(n-5)+a(n-6)-a(n-7). G.f.: x*(1+2*x+6*x^2-2*x^3+x^4)/((1+x)^3*(x-1)^4). [From R. J. Mathar, Feb 22 2009]
[A234904] 3, 12, 18, 21, 30, 36, 39, 48, 54, 57, 66, 72, 75, 84, 90, 93, 102, 108, 111, 120, 126, 129, 138, 144, 147, 156, 162, 165, 174, 180, 183, 192, 198, 201, 210, 216, 219, 228, 234, 237, 246, 252, 255, 264, 270, 273, 282, 288, 291, 300, 306, 309, 318, 324, 327, 336, 342, 345, 354, 360, 363, 372, 378, 381, 390, 396, 399, 408
a(n) = a(n-1)+a(n-3)-a(n-4). G.f.: 3*x*(x+1)*(2*x+1) / ((x-1)^2*(x^2+x+1)). - Colin Barker, Jul 12 2014
[A134965] 3, 12, 19, 28, 35, 44, 51, 60, 67, 76, 83, 92, 99, 108, 115, 124, 131, 140, 147, 156, 163, 172, 179, 188, 195, 204, 211, 220, 227, 236, 243, 252, 259, 268, 275, 284, 291, 300, 307, 316, 323, 332, 339, 348, 355, 364, 371, 380, 387, 396, 403, 412, 419, 428
a(n) = 8*n - 4 for n even.
a(n) = 8*n - 5 for n odd.
a(n) = a(n-1) + a(n-2) - a(n-3) for n>3.
[A212760] 1, 3, 12, 20, 45, 63, 112, 144, 225, 275, 396, 468, 637, 735, 960, 1088, 1377, 1539, 1900, 2100, 2541, 2783, 3312, 3600, 4225, 4563, 5292, 5684, 6525, 6975, 7936, 8448, 9537, 10115, 11340, 11988, 13357, 14079, 15600, 16400, 18081, 18963, 20812, 21780, 23805
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
a(n) = (n+1)*(n+2)*(2*n+3+(-1)^n)/8. - Wesley Ivan Hurt, Jul 22 2014
a(n) = Sum_{i=1..n+1} numerator(i^2/2). - Wesley Ivan Hurt, Feb 26 2017
[A017197] 3, 12, 21, 30, 39, 48, 57, 66, 75, 84, 93, 102, 111, 120, 129, 138, 147, 156, 165, 174, 183, 192, 201, 210, 219, 228, 237, 246, 255, 264, 273, 282, 291, 300, 309, 318, 327, 336, 345, 354, 363, 372, 381, 390, 399, 408, 417, 426, 435, 444, 453, 462, 471, 480
a(n) = 9 + a(n-1).
a(n) = 3*(6*n-1) - a(n-1) with a(0)=3. - Vincenzo Librandi, Nov 20 2010
[A154138] 1, 3, 12, 22, 73, 131, 428, 766, 2497, 4467, 14556, 26038, 84841, 151763, 494492, 884542, 2882113, 5155491, 16798188, 30048406, 97907017, 175134947, 570643916, 1020761278, 3325956481, 5949432723, 19385094972, 34675835062, 112984613353
a(n) = +a(n-1) +6*a(n-2) -6*a(n-3) -a(n-4) +a(n-5);
a(1..4)=(1,3,12,22); a(n>4)=6*a(n-2)-a(n-4)+2. [Zak Seidov, Oct 21 2009]
[A028725] 0, 0, 0, 0, 0, 0, 1, 3, 12, 24, 60, 100, 200, 300, 525, 735, 1176, 1568, 2352, 3024, 4320, 5400, 7425, 9075, 12100, 14520, 18876, 22308, 28392, 33124, 41405, 47775, 58800, 67200, 81600, 92480, 110976, 124848, 148257, 165699, 194940, 216600, 252700, 279300
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=0, a(5)=0, a(6)=1, a(7)=3, a(8)=12, a(9)=24, a(10)=60, a(n)=a(n-1)+5*a(n-2)-5*a(n-3)-10*a(n-4)+ 10*a(n-5)+ 10*a(n-6)-10*a(n-7)-5*a(n-8)+5*a(n-9)+a(n-10)-a(n-11). - Harvey P. Dale, Jun 26 2012
[A206917] 0, 1, 3, 12, 24, 96, 192, 768, 1536, 6144, 12288, 49152, 98304, 393216, 786432, 3145728, 6291456, 25165824, 50331648, 201326592, 402653184, 1610612736, 3221225472, 12884901888, 25769803776, 103079215104, 206158430208, 824633720832, 1649267441664, 6597069766656
a(n) = (3/8)*2^(n+floor((n+1)/2)).
a(n) = 8*a(n-2) for n>3. G.f.: -x*(4*x^2+3*x+1) / (8*x^2-1). - Colin Barker, May 31 2013
[A071355] 3, 12, 25, 42, 63, 88, 117, 150, 187, 228, 273, 322, 375, 432, 493, 558, 627, 700, 777, 858, 943, 1032, 1125, 1222, 1323, 1428, 1537, 1650, 1767, 1888, 2013, 2142, 2275, 2412, 2553, 2698, 2847, 3000, 3157, 3318, 3483, 3652, 3825, 4002, 4183, 4368, 4557, 4750, 4947
a(n) = (n+4)*(2*n+3). - Reinhard Zumkeller, Nov 18 2004
a(n) = 3*a(n-1) - 3*a(n-1) + a(n-2).
[A033428] 0, 3, 12, 27, 48, 75, 108, 147, 192, 243, 300, 363, 432, 507, 588, 675, 768, 867, 972, 1083, 1200, 1323, 1452, 1587, 1728, 1875, 2028, 2187, 2352, 2523, 2700, 2883, 3072, 3267, 3468, 3675, 3888, 4107, 4332, 4563, 4800, 5043, 5292, 5547, 5808, 6075, 6348
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
a(n) = a(n-1) + 6*n - 3, with a(0)=0. - Jean-Bernard François, Oct 04 2013
[A213486] 0, 3, 12, 27, 48, 78, 120, 174, 240, 321, 420, 537, 672, 828, 1008, 1212, 1440, 1695, 1980, 2295, 2640, 3018, 3432, 3882, 4368, 4893, 5460, 6069, 6720, 7416, 8160, 8952, 9792, 10683, 11628, 12627, 13680, 14790, 15960, 17190, 18480, 19833
a(n) = 4*a(n-1)-7*a(n-2)+8*a(n-3)-7*a(n-4)+4*a(n-5)-a(n-6).

[A058034] 1, 3, 12, 27, 49, 75, 108, 147, 193, 243, 300, 363, 433, 507, 588, 675, 769, 867, 972, 1083, 1201, 1323, 1452, 1587, 1729, 1875, 2028, 2187, 2353, 2523, 2700, 2883, 3073, 3267, 3468, 3675, 3889, 4107, 4332, 4563, 4801, 5043, 5292, 5547, 5809, 6075, 6348
a(n) = 3n^2+1 if n == 0 (mod 4), 3n^2 otherwise.
a(n) = (1+(-1)^n+(-i)^n+i^n+12*n^2)/4 where i=sqrt(-1). - Colin Barker, Jul 04 2014
[A187273] 0, 3, 12, 27, 72, 135, 324, 567, 1296, 2187, 4860, 8019, 17496, 28431, 61236, 98415, 209952, 334611, 708588, 1121931, 2361960, 3720087, 7794468, 12223143, 25509168, 39858075, 82904796, 129140163, 267846264, 416118303, 860934420, 1334448351, 2754990144, 4261625379, 8781531084, 13559717115, 27894275208
a(n) = 6*a(n-2) - 9*a(n-4). G.f.: 3*x*(x+1)*(3*x+1) / (3*x^2-1)^2. - Colin Barker, Jul 24 2013
a(2*n) = 4*n*3^n, a(2*n+1) = (2*n+1)*3^(n+1). - Andrew Howroyd, Mar 28 2016
[A066643] 0, 3, 12, 28, 50, 78, 113, 153, 201, 254, 314, 380, 452, 530, 615, 706, 804, 907, 1017, 1134, 1256, 1385, 1520, 1661, 1809, 1963, 2123, 2290, 2463, 2642, 2827, 3019, 3216, 3421, 3631, 3848, 4071, 4300, 4536, 4778, 5026, 5281, 5541, 5808, 6082, 6361, 6647
a(n) = floor(Pi*n^2).
[A140065] 1, 3, 12, 28, 51, 81, 118, 162, 213, 271, 336, 408, 487, 573, 666, 766, 873, 987, 1108, 1236, 1371, 1513, 1662, 1818, 1981, 2151, 2328, 2512, 2703, 2901, 3106, 3318, 3537, 3763, 3996, 4236, 4483, 4737, 4998, 5266, 5541, 5823, 6112, 6408, 6711, 7021, 7338
a(n) = 7*n + a(n-1) - 12 for n>1, a(1)=1. - Vincenzo Librandi, Jul 08 2010
[A005995] 1, 3, 12, 28, 66, 126, 236, 396, 651, 1001, 1512, 2184, 3108, 4284, 5832, 7752, 10197, 13167, 16852, 21252, 26598, 32890, 40404, 49140, 59423, 71253, 85008, 100688, 118728, 139128, 162384, 188496, 218025, 250971, 287964, 329004, 374794, 425334, 481404, 543004
a(2n-1) = n(n+1)(n+2)(2n+1)(2n+3)/30, a(2n) = (n+1)(n+2)(n+3)(4n^2+6n+5)/ 30. [M. F. Hasler, May 01 2009]
a(n) = (1/240)*(n+1)*(n+2)*(n+3)*(n+4)*(n+5) + (1/16)*(n+2)*(n+4)*(1/2)*(1+(-1)^n). [Yosu Yurramendi, Jun 20 2013]
[A124052] 1, 3, 12, 28, 168, 168, 1344, 2880, 9360, 9360, 112320, 112320, 1572480, 1572480, 1572480, 3249792, 58496256, 58496256, 1169925120, 1169925120, 1169925120, 1169925120, 28078202880, 28078202880, 145070714880, 145070714880
a(n) = a(n-1)(1+n*(P-1)/(n-1)) (If n is the power of any prime (P)) a(n) = A(n-1) If n is not the power of any prime
[A164013] 3, 12, 30, 57, 93, 138, 192, 255, 327, 408, 498, 597, 705, 822, 948, 1083, 1227, 1380, 1542, 1713, 1893, 2082, 2280, 2487, 2703, 2928, 3162, 3405, 3657, 3918, 4188, 4467, 4755, 5052, 5358, 5673, 5997, 6330, 6672, 7023, 7383, 7752
a(n) = a(n-1) + 9*n (with a(0)=3). - Vincenzo Librandi, Nov 30 2010
a(0)=3, a(1)=12, a(2)=30, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 26 2015
[A057671] 0, 3, 12, 30, 59, 102, 163, 243, 347, 476, 634, 823, 1046, 1307, 1607, 1951, 2340, 2778, 3267, 3811, 4411, 5072, 5796, 6585, 7443, 8373, 9377, 10457, 11618, 12862, 14192, 15610, 17120, 18724, 20425, 22226, 24131
a(n) = floor(n^3*(1-Pi/6)).
[A027480] 0, 3, 12, 30, 60, 105, 168, 252, 360, 495, 660, 858, 1092, 1365, 1680, 2040, 2448, 2907, 3420, 3990, 4620, 5313, 6072, 6900, 7800, 8775, 9828, 10962, 12180, 13485, 14880, 16368, 17952, 19635, 21420, 23310, 25308, 27417, 29640, 31980, 34440
a(n) = n*binomial(2+n, 2). - Zerinvary Lajos, Jan 10 2006
a(n) = numbperm(n,3)/2, n>=2 [where numbperm(n, k) = n!/(n-k)!]. - Zerinvary Lajos, Apr 26 2007
a(n) = Sum_{i=0..n} n*(n - i) + 2*i. [Bruno Berselli, Jan 13 2016]
[A073952] 0, 0, 3, 12, 30, 81, 252, 756, 2187, 6480, 19602, 59049, 176904, 530712, 1594323, 4785156, 14351094, 43046721, 129146724, 387440172, 1162261467, 3486725352, 10460294154, 31381059609, 94143001680, 282429005040, 847288609443, 2541867422652, 7625599079310
a(n; t, s) = a(n-1; t, s) + a(n-1; t+2, s+2t+1) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A037237] 3, 12, 31, 64, 115, 188, 287, 416, 579, 780, 1023, 1312, 1651, 2044, 2495, 3008, 3587, 4236, 4959, 5760, 6643, 7612, 8671, 9824, 11075, 12428, 13887, 15456, 17139, 18940, 20863, 22912, 25091, 27404
a(n) = Sum_{k=0..n} (2*(k+1)^2 + 1). - Mike Warburton (mikewarb(AT)gmail.com), Jul 07 2007, Sep 07 2007
a(n) = (n+1)*(2*n^2 + 7*n + 9)/3. - R. J. Mathar, Mar 29 2010
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 21 2012
[A005718] 3, 12, 31, 65, 120, 203, 322, 486, 705, 990, 1353, 1807, 2366, 3045, 3860, 4828, 5967, 7296, 8835, 10605, 12628, 14927, 17526, 20450, 23725, 27378, 31437, 35931, 40890, 46345, 52328, 58872, 66011, 73780, 82215, 91353, 101232, 111891, 123370, 135710, 148953, 163142, 178321, 194535
a(n) = binomial(n, 2)*(n^2+7*n+18)/12, n >= 2.
[A098500] 1, 3, 12, 32, 59, 91, 130, 176, 229, 289, 356, 430, 511, 599, 694, 796, 905, 1021, 1144, 1274, 1411, 1555, 1706, 1864, 2029, 2201, 2380, 2566, 2759, 2959, 3166, 3380, 3601, 3829, 4064, 4306, 4555, 4811, 5074, 5344, 5621, 5905, 6196, 6494, 6799, 7111, 7430
a(n) = (1/2) * (7*n^2 + n + 2), for n>3.
[A037236] 3, 12, 32, 68, 125, 208, 322, 472, 663, 900, 1188, 1532, 1937, 2408, 2950, 3568, 4267, 5052, 5928, 6900, 7973, 9152, 10442, 11848, 13375, 15028, 16812, 18732, 20793, 23000, 25358, 27872, 30547, 33388
a(n)= (n+1)*(5*n^2+13*n+18)/6. a(n)= 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). [From R. J. Mathar, Feb 12 2010]
[A054602] 0, 3, 12, 33, 72, 135, 228, 357, 528, 747, 1020, 1353, 1752, 2223, 2772, 3405, 4128, 4947, 5868, 6897, 8040, 9303, 10692, 12213, 13872, 15675, 17628, 19737, 22008, 24447, 27060, 29853, 32832, 36003, 39372, 42945, 46728, 50727, 54948
a(n) = ((n-1)^3 + n^3 + (n+1)^3) / 3. - David Morales Marciel, Aug 28 2015
[A192972] 0, 1, 3, 12, 33, 77, 160, 309, 567, 1004, 1733, 2937, 4912, 8137, 13387, 21916, 35753, 58181, 94512, 153341, 248575, 402716, 652173, 1055857, 1709088, 2766097, 4476435, 7243884, 11721777, 18967229, 30690688, 49659717, 80352327, 130014092
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A081423] 1, 3, 12, 34, 75, 141, 238, 372, 549, 775, 1056, 1398, 1807, 2289, 2850, 3496, 4233, 5067, 6004, 7050, 8211, 9493, 10902, 12444, 14125, 15951, 17928, 20062, 22359, 24825, 27466, 30288, 33297, 36499, 39900, 43506, 47323, 51357, 55614, 60100
a(n) = (2*n^3+n^2+n+2)/2.
[A257890] 3, 12, 34, 80, 166, 314, 553, 920, 1461, 2232, 3300, 4744, 6656, 9142, 12323, 16336, 21335, 27492, 34998, 44064, 54922, 67826, 83053, 100904, 121705, 145808, 173592, 205464, 241860, 283246, 330119, 383008, 442475, 509116, 583562, 666480, 758574, 860586
a(n) = (n+1)*(n^4 +14*n^3 +91*n^2 +254*n +360)/120.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) for n>6. - Wesley Ivan Hurt, Jan 27 2016
[A073372] 1, 3, 12, 34, 99, 261, 678, 1692, 4149, 9959, 23568, 55014, 127031, 290457, 658602, 1482240, 3314025, 7365915, 16285300, 35832810, 78500811, 171293293, 372412782, 806963364, 1743173469, 3754782351, 8066319768, 17285917742, 36957928479, 78847115649
a(n) = sum(binomial(n-k+2, 2) * binomial(n-k, k) * 2^k, k=0..floor(n/2)).
[A260006] 0, 3, 12, 35, 90, 217, 504, 1143, 2550, 5621, 12276, 26611, 57330, 122865, 262128, 557039, 1179630, 2490349, 5242860, 11010027, 23068650, 48234473, 100663272, 209715175, 436207590, 905969637, 1879048164, 3892314083, 8053063650, 16642998241, 34359738336
a(n) = (2^n-1)*(n+2).
a(n) = 6*a(n-1)-13*a(n-2)+12*a(n-3)-4*a(n-4) for n>3. - Colin Barker, Jul 29 2015
[A167667] 1, 3, 12, 36, 96, 240, 576, 1344, 3072, 6912, 15360, 33792, 73728, 159744, 344064, 737280, 1572864, 3342336, 7077888, 14942208, 31457280, 66060288, 138412032, 289406976, 603979776, 1258291200, 2617245696, 5435817984, 11274289152, 23353884672, 48318382080
a(0)=1, a(n) = 3*n*2^(n-1) for n>0.
a(0)=1, a(1)=3, a(2)=12, a(n) = 4*a(n-1)-4*a(n-2) for n>2.
a(0)=1, a(n) = Sum_{i=0..n} binomial(n,i) * (2n-i). - Wesley Ivan Hurt, Mar 20 2015
[A292291] 0, 0, 0, 3, 12, 36, 99, 264, 696, 1827, 4788, 12540, 32835, 85968, 225072, 589251, 1542684, 4038804, 10573731, 27682392, 72473448, 189737955, 496740420, 1300483308, 3404709507, 8913645216, 23336226144, 61095033219, 159948873516, 418751587332, 1096305888483
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3), n >= 4.
[A290927] 0, 3, 12, 36, 108, 331, 1008, 3027, 8992, 26502, 77592, 225806, 653544, 1882224, 5396776, 15411399, 43847688, 124331457, 351448620, 990586686, 2784612380, 7808372811, 21845061504, 60983031772, 169897677504, 472435652577, 1311365875700, 3633925019190
a(n) = 12*a(n-1) - 63*a(n-2) + 196*a(n-3) - 414*a(n-4) + 636*a(n-5) - 731*a(n-6) + 636*a(n-7) - 414*a(n-8) + 196*a(n-9) - 63*a(n-10) + 12*a(n-11) - a(n-12).
[A167993] 0, 0, 1, 3, 12, 36, 117, 351, 1080, 3240, 9801, 29403, 88452, 265356, 796797, 2390391, 7173360, 21520080, 64566801, 193700403, 581120892, 1743362676, 5230147077, 15690441231, 47071500840, 141214502520, 423644039001, 1270932117003, 3812797945332, 11438393835996

a(2*n+1) = 3*a(2*n).
a(n) = 3*a(n-1) + 3*a(n-4) - 9*a(n-3).
a(n) = 3^(n-1)/2-3^(n/2-1)/2 for n even.
a(n) = 3^(n-1)/2-3^(n/2-1/2)/2 for n odd.
[A282022] 1, 3, 12, 36, 144, 432, 1728, 5184, 20736, 62208, 248832, 746496, 2985984, 8957952, 35831808, 107495424, 429981696, 1289945088, 5159780352, 15479341056, 61917364224, 185752092672, 743008370688, 2229025112064, 8916100448256, 26748301344768, 106993205379072, 320979616137216
a(n) = 2^n * 3^(n/2) for n even.
a(n) = 2^(n-1) * 3^((n+1)/2) for n odd.
a(n) = 12*a(n-2) for n>1.
[A290930] 0, 3, 12, 37, 116, 372, 1188, 3763, 11860, 37261, 116760, 365056, 1139224, 3549635, 11045804, 34335421, 106633804, 330916268, 1026277180, 3181108619, 9855901108, 30524529485, 94506627952, 292521594048, 905220237168, 2800700318291, 8663793207244
a(n) = 8*a(n-1) - 25*a(n-2) + 44*a(n-3) - 54*a(n-4) + 44*a(n-5) - 25*a(n-6) + 8*a(n-7) - a(n-8).
[A123109] 1, 3, 12, 39, 120, 363, 1092, 3279, 9840, 29523, 88572, 265719, 797160, 2391483, 7174452, 21523359, 64570080, 193710243, 581130732, 1743392199, 5230176600, 15690529803, 47071589412, 141214768239, 423644304720, 1270932914163
a(n) = -3/2*(3^n-1) + (binomial(2*n,n) mod 2), with n>=0. - Paolo P. Lava, Nov 19 2008
a(n+1) - a(n) = 3^n, n>=2. - R. J. Mathar, Aug 18 2011
[A242587] 1, 3, 12, 39, 129, 399, 1245, 3783, 11514, 34734, 104754, 314922, 946623, 2842077, 8532147, 25603788, 76830033, 230513439, 691598901, 2074870002, 6224790639, 18674600664, 56024355396, 168073769199, 504222998115, 1512671142432, 4538018555652, 13614062210490
a(n) = S(n,1), where S(n,m) = sum(k=m..n/2, 3*S(n-k,k))+3, S(n,n)=3, S(0,m)=1, S(n,m)=0 for n<m. - Vladimir Kruchinin, Sep 07 2014
[A290906] 0, 3, 12, 39, 132, 456, 1572, 5409, 18612, 64053, 220440, 758640, 2610840, 8985147, 30922188, 106418031, 366235308, 1260390744, 4337606988, 14927778921, 51373622388, 176801189997, 608457401520, 2093992746720, 7206429919920, 24800769855603, 85351303248012
a(n) = 4*a(n-1) - 3*a(n-2) + 4*a(n-3) - a(n-4).
[A122994] 1, 3, 12, 39, 147, 498, 1821, 6303, 22692, 79419, 283647, 998418, 3551241, 12537003, 44498172, 157331199, 557814747, 1973795538, 6994128261, 24758288103, 87705442452, 310530035379, 1099879017447, 3894649335858, 13793560492881, 48845404515603, 172987448951532
a(n) = (1/2+5*sqrt(37)/74) *(1/2+sqrt(37)/2)^(n-1) +(1/2-5*sqrt(37)/74) *(1/2-sqrt(37)/2)^(n-1). [Antonio Alberto Olivares, Jun 07 2011]
[A007993] 3, 12, 40, 102, 219, 419, 738, 1221, 1923, 2910, 4260, 6064, 8427, 11469, 15326, 20151, 26115, 33408, 42240, 52842, 65467, 80391, 97914, 118361, 142083, 169458, 200892, 236820, 277707, 324049, 376374, 435243, 501251, 575028, 657240
a(n) = 3 + 9(n-1) + 19(n-1)(n-2)/2 + 15(n-1)(n-2)(n-3)/6 + 6(n-1)(n-2)(n-3)(n-4)/24 + (n-1)(n-2)(n-3)(n-4)(n-5)/120. - John W. Layman, May 12 1999
a(n-1) = (1/120)(n^5 + 10n^4 + 35n^3 - 10n^2 - 396n + 720) with n>1. - Ralf Stephan, Jun 11 2005
[A080929] 1, 3, 12, 40, 120, 336, 896, 2304, 5760, 14080, 33792, 79872, 186368, 430080, 983040, 2228224, 5013504, 11206656, 24903680, 55050240, 121110528, 265289728, 578813952, 1258291200, 2726297600, 5888802816, 12683575296, 27246198784
a(n) = Sum_{k=0..n} Sum_{i=0..n} (k+1)*binomial(n-1,i). - Wesley Ivan Hurt, Sep 20 2017
[A052482] 3, 12, 40, 120, 336, 896, 2304, 5760, 14080, 33792, 79872, 186368, 430080, 983040, 2228224, 5013504, 11206656, 24903680, 55050240, 121110528, 265289728, 578813952, 1258291200, 2726297600, 5888802816, 12683575296, 27246198784, 58384711680, 124822487040
a(n) = (1/2) * Sum_{k=0..n-1} Sum_{i=0..n-1} (k+1) * C(n-1,i). - Wesley Ivan Hurt, Sep 20 2017
a(n) = 2^(n-3)*n*(1 + n).
a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3) for n>4.
[A102839] 0, 1, 3, 12, 40, 135, 441, 1428, 4572, 14535, 45925, 144408, 452244, 1411501, 4392675, 13636080, 42237792, 130580451, 403009209, 1241912580, 3821849640, 11746816389, 36064532427, 110610649548, 338928124500, 1037636534025
a(n) is asymptotic to c*sqrt(n)*3^n where c=0.2443012(5).....
a(n) = 4^(n-1)*JacobiP[n-1,-n-1/2,-n-1/2,-1/2]. - Peter Luschny, May 13 2016
[A263102] 0, 0, 1, 3, 12, 40, 225, 1071, 8848, 56232, 616185, 4880755, 66475596, 629398848, 10238194057, 112690225935, 2130537219840, 26719024870576, 575573407212753, 8099650628337987, 195807849389362540, 3054957193416951480, 81892400673047263761, 1402819397613793354063, 41294565798306731368272, 770446268109598573215000
a(n) = n*(n-1)/2 + Sum_{k=4..n:2 divides k} (n!/((n-k)!*k)).
[A290918] 3, 12, 43, 147, 486, 1566, 4944, 15351, 47009, 142278, 426315, 1266300, 3732705, 10928910, 31806583, 92069229, 265215756, 760621914, 2172669846, 6183333681, 17538237677, 49590486888, 139817553417, 393157465848, 1102792703055, 3086146454592, 8617872504643
a(n) = 9*a(n-1) - 30*a(n-2) + 45*a(n-3) - 30*a(n-4) + 9*a(n-5) - a(n-6).
[A190051] 1, 3, 12, 44, 150, 482, 1476, 4344, 12368, 34240, 92544, 244992, 636928, 1629696, 4111360, 10242048, 25227264, 61505536, 148570112, 355860480, 845807616, 1996095488, 4680056832, 10906763264, 25275924480, 58271465472
a(n) = (264+214*n+14*n^3+83*n^2+n^4)*2^(n-7)/3 for n >=1 with a(0)=1.
[A114515] 0, 0, 1, 3, 12, 45, 171, 651, 2488, 9540, 36690, 141482, 546864, 2118207, 8219967, 31952115, 124389552, 484908408, 1892657934, 7395597354, 28928182440, 113260606074, 443827115886, 1740592240638, 6831289801872, 26829201570600
a(n) = Sum_{k=1..n} (k*(-1)^(k+1)*binomial(2*n-k,n-k-1)). - Vladimir Kruchinin, Oct 22 2016
[A077828] 1, 3, 12, 48, 189, 747, 2952, 11664, 46089, 182115, 719604, 2843424, 11235429, 44395371, 175422672, 693160416, 2738935377, 10822555395, 42763953564, 168976333008, 667688525901, 2638286437419, 10424853888984, 41192486556912, 162766880649945, 643152663287523
a(n)=sum{k=0..n, sum{i=0..floor((n-k)/2), C(n-k-i, i)C(k, n-k-i)}*3^k}; - Paul Barry, Apr 26 2005
[A002001] 1, 3, 12, 48, 192, 768, 3072, 12288, 49152, 196608, 786432, 3145728, 12582912, 50331648, 201326592, 805306368, 3221225472, 12884901888, 51539607552, 206158430208, 824633720832, 3298534883328, 13194139533312, 52776558133248, 211106232532992, 844424930131968
a(n) = (3*4^n + 0^n)/4 (with 0^0=1).
a(n) = Sum_{j=0..1} Sum_{k=0..n} C(2n+j, 2k). - Paul Barry, Nov 29 2003
a(n) = 3*Sum_(k=0..(n-1)} a(k). - Adi Dani, Jun 24 2011
a(n) = 4*a(n-1), a(0)=1, a(1)=3. - Vincenzo Librandi, Dec 31 2010
a(n) = ceiling(3*4^(n-1)). - Wesley Ivan Hurt, Dec 17 2013
[A178872] 0, 1, 3, 12, 49, 195, 780, 3121, 12483, 49932, 199729, 798915, 3195660, 12782641, 51130563, 204522252, 818089009, 3272356035, 13089424140, 52357696561, 209430786243, 837723144972, 3350892579889, 13403570319555, 53614281278220, 214457125112881
a(n) = round((8*4^n+1)/42) = round((4*4^n-4)/21).
a(n) = floor((4*4^n+5)/21).
a(n) = ceiling((4*4^n-4)/21).
a(n) = 3*a(n-1) + 3*a(n-2) + 4*a(n-3) for n > 2.
[A045890] 1, 3, 12, 49, 204, 864, 3714, 16170, 71178, 316303, 1417248, 6396273, 29051856, 132700725, 609200640, 2809373915, 13008512040, 60457182345, 281919911460, 1318666411635, 6185356518660, 29088241615910, 137121834221346, 647821223533044, 3066862717614234, 14546629647573969
a(n)=(3/n)*sum(binomial(n, j)*binomial(2j+2, j-1), j=1..n) for n>=1. - Emeric Deutsch, Mar 25 2004
[A049673] 0, 1, 3, 12, 49, 205, 864, 3653, 15463, 65484, 277365, 1174889, 4976832, 21082073, 89304891, 378301260, 1602509321, 6788337557, 28755857952, 121811766781, 516002920895, 2185823443596, 9259296684333, 39223010163217, 166151337308544, 703828359351025
a(n) = 5*a(n-1) - 2*a(n-2) - 5*a(n-3) - a(n-4) for n>3. - Wesley Ivan Hurt, Jun 01 2016
a(n) = ((-(1/2*(1-sqrt(5)))^n-(2-sqrt(5))^n+(1/2*(1+sqrt(5)))^n+(2+sqrt(5))^n))/(3*sqrt(5)). - Colin Barker, Jun 02 2016
[A108080] 1, 3, 12, 50, 211, 895, 3805, 16193, 68940, 293526, 1249622, 5318976, 22634700, 96296410, 409573584, 1741574006, 7403616923, 31466106703, 133704121665, 568008916093, 2412570019447, 10245302874071, 43500597657111, 184670002546295, 783850164628721, 3326671128027805, 14116630429874265
a(n) = Sum_{k=0..n} Sum_{j=0..n} C(n+k,j-k)*C(n,j). (End)
a(n) = Sum_{k=0..n} C(2n,n-k)*F(k+1) = Sum_{k=0..n} C(2n,k)*F(n-k+1).
[A135343] 1, 3, 12, 51, 205, 820, 3277, 13107, 52428, 209715, 838861, 3355444, 13421773, 53687091, 214748364, 858993459, 3435973837, 13743895348, 54975581389, 219902325555, 879609302220, 3518437208883, 14073748835533, 56294995342132, 225179981368525, 900719925474099
a(n+1) - 4*a(n) = hexaperiodic -1, 0, 3, 1, 0, -3.

a(n) = (1/15)*(3*4^(n+1) - 2*(-1)^n + 5*cos(Pi*n/3) - 5*sqrt(3)*cos(Pi*n/3)). - Richard Choulet, Jan 04 2008
[A293131] 1, 3, 12, 53, 291, 1878, 13975, 117949, 1113390, 11623335, 132966129, 1654043412, 22229656253, 320987000444, 4955905924999, 81473034355102, 1420855869195491, 26199991898769875, 509316957086997352, 10410226994717110400, 223190941584248205202, 5008311999035018587226, 117392752432115751942460, 2869030095761224977541954, 72986933627698300236793754, 1929744200916184847850410278, 52951379113886857052967930528, 1505915222058143312106047567382
a(n) = floor(gamma(n + t)/gamma(t)) for n>=1.
[A253171] 3, 12, 60, 240, 756, 1988, 4572, 9495, 18205, 32736, 55848, 91182, 143430, 218520, 323816, 468333, 662967, 920740, 1257060, 1689996, 2240568, 2933052, 3795300, 4859075, 6160401, 7739928, 9643312, 11921610, 14631690, 17836656, 21606288, 26017497, 31154795
a(n) = n * (n^5 - 7*n^4 + 17*n^3 - 17*n^2 + 30*n - 24) / 48 for n>=3.
a(n) = C(n,2)*(C(n-2,2)*C(n-4,2)/6 + 1) + 2*C(n,3)*C(n-3,2) + 6*C(n,4) for n>=3.
[A073996] 0, 1, 3, 12, 60, 256, 1008, 4032, 16320, 65536, 261888, 1047552, 4193280, 16777216, 67104768, 268419072, 1073725440, 4294967296, 17179803648, 68719214592, 274877644800, 1099511627776, 4398045462528, 17592181850112, 70368739983360, 281474976710656, 1125899890065408, 4503599560261632, 1801439844237
a(n; t, s) = a(n-1; t, s) + a(n-1; t-1, s-(t-1)) + a(n-1; t-2, s-2(t-2)) + a(n-1; t-3, s-3(t-3)) where t is the trace and s is the subtrace. Note that all operations involving operands t or s are carried out over GF(4).
[A168437] 3, 13, 13, 23, 23, 33, 33, 43, 43, 53, 53, 63, 63, 73, 73, 83, 83, 93, 93, 103, 103, 113, 113, 123, 123, 133, 133, 143, 143, 153, 153, 163, 163, 173, 173, 183, 183, 193, 193, 203, 203, 213, 213, 223, 223, 233, 233, 243, 243, 253, 253, 263, 263, 273, 273, 283
a(n) = 10*n - a(n-1) - 4, with n>1, a(1) = 3.
a(n) = a(n-1) +a(n-2) -a(n-3). - Vincenzo Librandi, Sep 19 2013
a(n) = (1 + 5*(-1)^n + 10*n)/2. - Bruno Berselli, Sep 19 2013
[A146512] 1, 3, 13, 15, 25, 27, 37, 39, 49, 51, 61, 63, 73, 75, 85, 87, 97, 99, 109, 111, 121, 123, 133, 135, 145, 147, 157, 159, 169, 171, 181, 183, 193, 195, 205, 207, 217, 219, 229, 231, 241, 243, 253, 255, 265, 267, 277, 279, 289, 291, 301, 303, 313, 315, 325, 327
a(2k-1) = 12*(k-1)+1, a(2k) = 12*(k-1)+3, where k>0.
a(n) = 8*floor(n/2) + 2*n +1, with offset 0..a(0)= 1 a(n) = 6*n -1 + 2*(-1)^n, with offset 0..a(0)=1. [Gary Detlefs, Mar 13 2010]
a(n) = 12*n-a(n-1)-20 (with a(1)=1). [Vincenzo Librandi, Nov 26 2010]
[A273678] 3, 13, 16, 23, 29, 35, 41, 47, 53, 59, 65, 71, 77, 83, 89, 95, 101, 107, 113, 119, 125, 131, 137, 143, 149, 155, 161, 167, 173, 179, 185, 191, 197, 203, 209, 215, 221, 227, 233, 239, 245, 251, 257, 263, 269, 275, 281, 287, 293, 299, 305, 311, 317, 323, 329
a(n) = 5+6*n for n>2.
a(n) = 2*a(n-1)-a(n-2) for n>4.
[A042133] 1, 3, 13, 16, 29, 219, 248, 467, 2116, 6815, 329236, 994523, 4307328, 5301851, 9609179, 72566104, 82175283, 154741387, 701140831, 2258163880, 109093007071, 329537185093, 1427241747443, 1756778932536, 3184020679979, 24044923692389, 27228944372368
a(n) = 331352*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 15 2014
[A041297] 1, 1, 3, 13, 16, 45, 61, 289, 639, 928, 22911, 23839, 70589, 306195, 376784, 1059763, 1436547, 6805951, 15048449, 21854400, 539554049, 561408449, 1662370947, 7210892237, 8873263184, 24957418605, 33830681789, 160280145761, 354390973311, 514671119072
a(n) = 23550*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 15 2013
[A041815] 1, 1, 3, 13, 16, 93, 946, 4823, 5769, 27899, 61567, 89466, 3640207, 3729673, 11099553, 48127885, 59227438, 344265075, 3501878188, 17853656015, 21355534203, 103275792827, 227907119857, 331182912684, 13475223627217, 13806406539901, 41088036707019
a(n) = 3701774*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 25 2013
[A023239] 3, 13, 19, 31, 61, 67, 79, 97, 109, 127, 163, 199, 223, 229, 241, 277, 283, 313, 367, 379, 421, 433, 439, 463, 487, 523, 541, 547, 571, 619, 631, 673, 691, 751, 757, 787, 811, 823, 829, 853, 859, 883, 937, 967, 1033, 1093, 1117, 1171, 1237, 1249, 1291, 1303, 1321
a(n) == 1 mod 6, for n > 1. - John Cerkan, Sep 12 2016
[A273312] 3, 13, 23, 33, 39, 49, 55, 65, 71, 81, 87, 97, 103, 113, 119, 129, 135, 145, 151, 161, 167, 177, 183, 193, 199, 209, 215, 225, 231, 241, 247, 257, 263, 273, 279, 289, 295, 305, 311, 321, 327, 337, 343, 353, 359, 369, 375, 385, 391, 401, 407, 417, 423, 433
a(n) = 8-(-1)^n+8*n for n>1.
a(n) = 8*n+7 for n>1 and even.
a(n) = 8*n+9 for n>1 and odd.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>2.
[A017305] 3, 13, 23, 33, 43, 53, 63, 73, 83, 93, 103, 113, 123, 133, 143, 153, 163, 173, 183, 193, 203, 213, 223, 233, 243, 253, 263, 273, 283, 293, 303, 313, 323, 333, 343, 353, 363, 373, 383, 393, 403, 413, 423, 433, 443, 453, 463, 473, 483, 493, 503, 513, 523, 533
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, May 28 2011
[A052454] 1, 3, 13, 25, 111, 493, 949, 4215, 18721, 36037, 160059, 710905, 1368457, 6078027, 26995669, 51965329, 230804967, 1025124517, 1973314045, 8764510719, 38927735977, 74933968381, 332820602355, 1478228842609, 2845517484433, 12638418378771
a(n) = 38*a(n-3)-a(n-6).
[A041035] 1, 1, 3, 13, 29, 42, 365, 407, 1179, 5123, 11425, 16548, 143809, 160357, 464523, 2018449, 4501421, 6519870, 56660381, 63180251, 183020883, 795263783, 1773548449, 2568812232, 22324046305, 24892858537
a(n) = 394*a(n-6)-a(n-12). G.f.: -(x^10 -x^9 +3*x^8 -13*x^7 +29*x^6 -42*x^5- 29*x^4- 13*x^3 -3*x^2 -x -1)/(x^12-394*x^6+1). [Colin Barker, Jul 16 2012]
[A042269] 1, 1, 3, 13, 29, 42, 2129, 2171, 6471, 28055, 62581, 90636, 4594381, 4685017, 13964415, 60542677, 135049769, 195592446, 9914672069, 10110264515, 30135201099, 130651068911, 291437338921, 422088407832, 21395857730521, 21817946138353, 65031750007227
a(n) = 2158*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Jan 19 2014
[A227541] 0, 3, 13, 29, 52, 81, 117, 159, 208, 263, 325, 393, 468, 549, 637, 731, 832, 939, 1053, 1173, 1300, 1433, 1573, 1719, 1872, 2031, 2197, 2369, 2548, 2733, 2925, 3123, 3328, 3539, 3757, 3981, 4212, 4449, 4693, 4943, 5200, 5463, 5733, 6009
a(n) = 13*n^2/4+((-1)^n-1)/8, n >= 0 (use even or odd n to prove it).
a(2*k) = k^2*13, k >= 0.
a(2*k+1) = 3 + k*(k+1)*13, k >= 0.
a(n) = a(-n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Bruno Berselli, Aug 08 2013
a(n) = Sum_{j=1..n} Sum_{i=1..n} ceiling((i+j-n+5)/2). - Wesley Ivan Hurt, Mar 12 2015
[A022264] 0, 3, 13, 30, 54, 85, 123, 168, 220, 279, 345, 418, 498, 585, 679, 780, 888, 1003, 1125, 1254, 1390, 1533, 1683, 1840, 2004, 2175, 2353, 2538, 2730, 2929, 3135, 3348, 3568, 3795, 4029, 4270, 4518, 4773, 5035, 5304, 5580, 5863, 6153, 6450, 6754, 7065, 7383
a(n) = C(7*n,2)/7, n >= 0. - Zerinvary Lajos, Jan 02 2007
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2, a(0)=0, a(1)=3 and a(2)=13. - Paolo P. Lava, Jul 29 2009
a(n) = 7*n + a(n-1) - 4 for n > 0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = (1/5) * Sum_{i=n..(6*n-1)} i. - Wesley Ivan Hurt, Dec 04 2016
[A273337] 3, 13, 31, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>2.
a(n) = 2*a(n-1)-a(n-2) for n>4.
[A273769] 3, 13, 31, 33, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>3.
a(n) = 2*a(n-1)-a(n-2) for n>5.
[A054554] 1, 3, 13, 31, 57, 91, 133, 183, 241, 307, 381, 463, 553, 651, 757, 871, 993, 1123, 1261, 1407, 1561, 1723, 1893, 2071, 2257, 2451, 2653, 2863, 3081, 3307, 3541, 3783, 4033, 4291, 4557, 4831, 5113, 5403, 5701, 6007, 6321, 6643, 6973, 7311, 7657, 8011, 8373
a(n) = 8*n+a(n-1)-14 with n>1, a(1)=1. - Vincenzo Librandi, Aug 07 2010
[A051939] 3, 13, 31, 58, 95, 143, 203, 276, 363, 465, 583, 718, 871, 1043, 1235, 1448, 1683, 1941, 2223, 2530, 2863, 3223, 3611, 4028, 4475, 4953, 5463, 6006, 6583, 7195, 7843, 8528, 9251, 10013, 10815, 11658, 12543, 13471, 14443, 15460, 16523, 17633, 18791
a(n) = (1/6)*(n-5)*(n^2+8*n-66).

a(6)=3, a(7)=13, a(8)=31, a(9)=58, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Oct 22 2011
[A034050] 3, 13, 31, 113, 131, 311, 1113, 1131, 1311, 3111, 11113, 11131, 11311, 13111, 31111, 111113, 111131, 111311, 113111, 131111, 311111, 1111113, 1111131, 1111311, 1113111, 1131111, 1311111, 3111111, 11111113, 11111131, 11111311, 11113111
a(m*(m-1)/2+j+1) = (10^m-1)/9 + 2*10^j for 0 <= j < m. - Robert Israel, Sep 27 2016
[A166805] 3, 13, 33, 68, 124, 208, 328, 493, 713, 999, 1363, 1818, 2378, 3058, 3874, 4843, 5983, 7313, 8853, 10624, 12648, 14948, 17548, 20473, 23749, 27403, 31463, 35958, 40918, 46374, 52358, 58903, 66043, 73813, 82249, 91388, 101268, 111928, 123408, 135749, 148993
a(n) = (n^4 + 10*n^3 + 35*n^2 + 50*n - 24)/24.
a(n) = (n^2 + 5*n - 2)*(n^2 + 5*n + 12)/24.
a(n) = (1/24)*(n+1)*(n+2)*(n+3)*(n+4) - 2. - Joerg Arndt, Apr 14 2011
[A016061] 0, 3, 13, 34, 70, 125, 203, 308, 444, 615, 825, 1078, 1378, 1729, 2135, 2600, 3128, 3723, 4389, 5130, 5950, 6853, 7843, 8924, 10100, 11375, 12753, 14238, 15834, 17545, 19375, 21328, 23408, 25619, 27965, 30450, 33078, 35853, 38779, 41860
a(n) = sum(i=0, n-1, 2*i^2 + i). - Jani Nurminen (slinky(AT)iki.fi), May 14 2006
a(n) = 2*n^3/3 +3*n^2/2 + 5*n/6. - Jonathan Vos Post, Dec 14 2013
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Bobby Milazzo, Mar 10 2013
[A095661] 3, 13, 35, 75, 140, 238, 378, 570, 825, 1155, 1573, 2093, 2730, 3500, 4420, 5508, 6783, 8265, 9975, 11935, 14168, 16698, 19550, 22750, 26325, 30303, 34713, 39585, 44950, 50840, 57288, 64328, 71995, 80325, 89355, 99123, 109668, 121030, 133250, 146370
a(n) = sum_{k=1..n} (sum_{i=1..k} i*(n-k+3)), with offset 1. - Wesley Ivan Hurt, Sep 25 2013
[A108480] 1, 1, 3, 13, 35, 117, 379, 1197, 3859, 12357, 39563, 126845, 406371, 1302101, 4172443, 13369293, 42838835, 137266917, 439837739, 1409354397, 4515934339, 14470215157, 46366299963, 148569565165, 476055153491, 1525403341701
a(n)=2a(n-1)+3a(n-2)+4a(n-3)-4a(n-4); a(n)=sum{k=0..floor(n/2), C(2(n-k), 2k)2^k}.
[A098547] 1, 3, 13, 37, 81, 151, 253, 393, 577, 811, 1101, 1453, 1873, 2367, 2941, 3601, 4353, 5203, 6157, 7221, 8401, 9703, 11133, 12697, 14401, 16251, 18253, 20413, 22737, 25231, 27901, 30753, 33793, 37027, 40461, 44101, 47953, 52023, 56317, 60841, 65601
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Aug 29 2014
[A076800] 1, 3, 13, 38, 41, 54, 57, 60, 63, 67, 73, 75, 88, 91, 95, 98, 101, 109, 116, 122, 125, 129, 131, 142, 145, 151, 159, 163, 169, 172, 176, 190, 200, 205, 210, 215, 217, 228, 235, 241, 250, 252, 266, 271, 276, 280, 283, 296, 298, 311, 315, 318, 323, 326, 329, 334
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(e/4) and frac(y) = y - floor(y).
[A277411] 0, 3, 13, 38, 94, 213, 459, 960, 1972, 4007, 8089, 16266, 32634, 65385, 130903, 261956, 524080, 1048347, 2096901, 4194030, 8388310, 16776893, 33554083, 67108488, 134217324, 268435023, 536870449, 1073741330, 2147483122, 4294966737, 8589933999, 17179868556, 34359737704, 68719476035, 137438952733, 274877906166, 549755813070, 1099511626917, 2199023254651, 4398046510160
a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4) for n>4.
a(n) = (8*(2^n-1)-n*(n+7))/2. (End)
[A166911] 3, 13, 39, 89, 171, 293, 463, 689, 979, 1341, 1783, 2313, 2939, 3669, 4511, 5473, 6563, 7789, 9159, 10681, 12363, 14213, 16239, 18449, 20851, 23453, 26263, 29289, 32539, 36021, 39743, 43713, 47939, 52429, 57191, 62233, 67563, 73189, 79119, 85361, 91923
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A167910] 0, 0, 1, 3, 13, 39, 133, 399, 1261, 3783, 11605, 34815, 105469, 316407, 953317, 2859951, 8596237, 25788711, 77431669, 232295007, 697147165, 2091441495, 6275373061, 18826119183, 56482551853, 169447655559, 508359743893, 1525079231679, 4575304803901, 13725914411703
a(2*n+1) = 3*a(2*n).
a(n) = 3*a(n-1) + 4*a(n-2) - 12*a(n-3).
[A059020] 0, 3, 13, 40, 108, 275, 681, 1664, 4040, 9779, 23637, 57096, 137876, 332899, 803729, 1940416, 4684624, 11309731, 27304157, 65918120, 159140476, 384199155, 927538873, 2239276992, 5406092952, 13051462995, 31509019045, 76069501192
a(n) = 2a(n-1)+a(n-2)+4n-1.
a(n) = -7/2+(7/4)*[1+sqrt(2)]^n-2*n-(5/4)*sqrt(2)*[1-sqrt(2)]^n+(7/4)*[1-sqrt(2)]^n+(5/4)*[1 +sqrt(2)]^n*sqrt(2), with n>=0. - Paolo P. Lava, Jun 10 2008
a(n) = 3a(n-1)-a(n-2)-a(n-3)+4; a(n)=4a(n-1)-4a(n-2)+a(n-4). - Jaume Oliver Lafont, Nov 23 2008
a(n) = (LucasL[n+3,2]-8*n-14)/4. - Eric W. Weisstein, May 02 2017_
[A290720] 3, 13, 40, 127, 430, 1525, 5572, 20779, 78682, 301537, 1166704, 4548631, 17840134, 70297549, 278001436, 1102439683, 4381060786, 17438149561, 69494317768, 277202429935, 1106485196638, 4418967217573, 17654948163700, 70557030535387, 282039835783690, 1127594484061585
a(n) = 2*3^n + 4^n + 3*n.
a(n) = 9*a(n-1) - 27*a(n-2) + 31*a(n-3) - 12*a(n-4).
[A247584] 1, 1, 1, 1, 1, 3, 13, 43, 113, 253, 509, 969, 1849, 3719, 8009, 18027, 40897, 91257, 198697, 423777, 894081, 1886011, 4007301, 8594411, 18560081, 40181493, 86872293, 187197193, 402060793, 861827743, 1846685729, 3960390059, 8504658049, 18283290609, 39325827729
a(n) = 5a(n-1) - 10a(n-2) + 10a(n-3) - 5a(n-4) + 3a(n-5).
a(n) = Sum_{k=0...floor(n/5)} (2^k*binomial(n,5*k)). - Alexander Samokrutov, Jul 11 2015
[A208060] 1, 3, 13, 43, 233, 611, 4405, 10515, 64145, 218755, 1215821, 2689083, 28162105, 61179795, 307475813, 1236997051, 8042542625, 17101581699, 146671231501, 309740445795, 2415132010441, 8877053064643, 40919003272005, 85564885298027, 1068638260341937, 2783025471994851
a(n) = 1 + Sum_{m=1..n} Product_{k=1..m} 2^k*floor(n/k).
[A193041] 0, 1, 3, 13, 44, 122, 292, 631, 1267, 2411, 4408, 7820, 13560, 23109, 38867, 64721, 106964, 175782, 287660, 469275, 763795, 1241071, 2014128, 3265848, 5292144, 8571817, 13879587, 22468981, 36368252, 58859186, 95251828, 154138015
a(n)=5*a(n-1)-9*a(n-2)+6*a(n-3)+a(n-4)-3*a(n-5)+a(n-6).
[A239592] 1, 3, 13, 46, 129, 301, 613, 1128, 1921, 3079, 4701, 6898, 9793, 13521, 18229, 24076, 31233, 39883, 50221, 62454, 76801, 93493, 112773, 134896, 160129, 188751, 221053, 257338, 297921, 343129, 393301, 448788, 509953, 577171, 650829, 731326, 819073, 914493
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), a(0) = 1, a(1) = 3, a(2) = 13, a(3) = 46, a(4) = 129.
[A265920] 1, 3, 13, 47, 185, 723, 2821, 11127, 43825, 173147, 685181, 2713919, 10762793, 42715619, 169654133, 674238983, 2680944545, 10665068907, 42443750893, 168973210575, 672913173913, 2680539263219, 10680581419493, 42566341729431, 169678604019217, 676501889994363
a(n) = (4^n + sum_(k=1..n) 4^(n-k)*(binomial(k, n-k)+binomial(k-1, n-k))^2)/8.
[A048482] 1, 3, 13, 49, 161, 481, 1345, 3585, 9217, 23041, 56321, 135169, 319489, 745473, 1720321, 3932161, 8912897, 20054017, 44826625, 99614721, 220200961, 484442113, 1061158913, 2315255809, 5033164801, 10905190401, 23555211265, 50734301185, 108984795137
a(n) = (n^2+n)*2^(n-1) + 1. - Ralf Stephan, Sep 02 2003
a(0)=1, a(1)=3, a(2)=13, a(3)=49, a(n)=7*a(n-1)-18*a(n-2)+ 20*a(n-3)- 8*a(n-4). - Harvey P. Dale, Feb 02 2015
[A251743] 3, 13, 49, 185, 713, 2793, 11049, 43945, 175273, 700073, 2798249, 11188905, 44747433, 178973353, 715860649, 2863377065, 11453377193, 45813246633, 183252462249, 733008800425, 2932033104553, 11728128223913, 46912504507049, 187650001250985, 750599971449513, 3002399818689193, 12009599140539049
a(n) = (3*2^n+2^(1+2*n)-5)/3.
a(n) = 6*a(n-1)-7*a(n-2)-6*a(n-3)+8*a(n-4).
[A286182] 3, 13, 51, 167, 503, 1441, 4007, 10923, 29355, 78037, 205659, 538127, 1399583, 3621289, 9327695, 23931603, 61186131, 155949085, 396369795, 1004904695, 2541896519, 6416348209, 16165610999, 40657256571, 102090514683, 255968753125, 640899345579, 1602640560479
a(n) = 6*a(n-1) - 11*a(n-2) + 4*a(n-3) + 5*a(n-4) - 2*a(n-5) - a(n-6), for n>6 (conjectured).
a(n) = LucasL[n, 2] + 3*n*Fibonacci[n, 2] - 3*n + 1 (conjectured). - Eric W. Weisstein, May 08 2017
[A016064] 1, 3, 13, 51, 193, 723, 2701, 10083, 37633, 140451, 524173, 1956243, 7300801, 27246963, 101687053, 379501251, 1416317953, 5285770563, 19726764301, 73621286643, 274758382273, 1025412242451, 3826890587533, 14282150107683, 53301709843201, 198924689265123
a(n) = 3 + floor((2+sqrt(3))*a(n-1)), n>=3. - Rick L. Shepherd, Sep 04 2005
a(n) = 4*a(n-1) - a(n-2) + 2. a(n) = (2+sqrt(3))^n+(2-sqrt(3))^n-1. - Paul Barry, Feb 17 2004
a(n) = [x^n] (1 + 2*x + sqrt(1 + 2*x + 3*x^2))^n. - Peter Bala, Jun 23 2015
[A098619] 1, 3, 13, 51, 213, 867, 3589, 14739, 60853, 250563, 1033605, 4259571, 17565909, 72412707, 298586661, 1231016019, 5075753589, 20927272323, 86286346693, 355763629491, 1466857936405, 6047981701347, 24936516122469, 102815688922899, 423920292507061, 1747866711689283, 7206641564551429
a(2*n+1) = 3*17^n.

[A033887] 1, 3, 13, 55, 233, 987, 4181, 17711, 75025, 317811, 1346269, 5702887, 24157817, 102334155, 433494437, 1836311903, 7778742049, 32951280099, 139583862445, 591286729879, 2504730781961, 10610209857723, 44945570212853, 190392490709135, 806515533049393, 3416454622906707
a(n) = 4*a(n-1) + a(n-2) for n>1, a(0)=1, a(1)=3;
a(n) = ((1+sqrt(5))*(2+sqrt(5))^n - (1-sqrt(5))*(2-sqrt(5))^n)/(2*sqrt(5)).
a(n) = Sum_{k=0..n} Sum_{j=0..n-k} C(n,j)C(n-j,k)F(n-j+1). - Paul Barry, May 19 2006
a(n) = Sum_{k=0..n} C(n,k)*F(n+k+1). - Paul Barry, Apr 19 2010
a(n) = F(2*n)*L(n+1) + F(n-1)*(-1)^n for n > 0. - J. M. Bergot, Feb 09 2016
a(n) = Sum_{k=0..n} binomial(n,k)*5^floor(k/2)*2^(n-k). - Tony Foster III, Sep 03 2017
[A275634] 3, 13, 57, 250, 1097, 4814, 21126, 92711, 406861, 1785505, 7835670, 34386757, 150905930, 662249126, 2906273499, 12754151453, 55971462889, 245630191042, 1077945575073, 4730553104614, 20759983799798, 91104976064543, 399813253409277, 1754576363517905, 7699940382577342, 33791109425623069
a(n) = 5*a(n-1)-2*a(n-2)-3*a(n-3) for n>2. - Colin Barker, Aug 10 2016
[A005827] 1, 3, 13, 57, 259, 1177, 5367, 24473, 111631, 509193, 2322703, 10595097, 48330079, 220460137, 1005640527, 4587282233, 20925130111, 95451085833, 435405168943, 1986123672537, 9059808024799, 41326792777897, 188514347839887, 859918153641593, 3922562072528191, 17892974055353673
a(n)=5a(n-1)-10a(n-3)+4a(n-4) by definition [R. J. Mathar, Mar 11 2009]
[A101368] 1, 1, 3, 13, 61, 291, 1393, 6673, 31971, 153181, 733933, 3516483, 16848481, 80725921, 386781123, 1853179693, 8879117341, 42542407011, 203832917713, 976622181553, 4679277990051, 22419767768701, 107419560853453, 514678036498563, 2465970621639361, 11815175071698241, 56609904736851843, 271234348612560973
a(n) = 6a(n-1)-6a(n-2)+a(n-3), a(n) = 5a(n-1)-a(n-2)-1. - Floor van Lamoen, Aug 01 2006
a(n) = (4/3 - (2/7)*sqrt(21))*((5 + sqrt(21))/2)^n + (4/3 + (2/7)*sqrt(21))*((5 - sqrt(21))/2)^n + 1/3. - Floor van Lamoen, Aug 04 2006
[A042659] 1, 3, 13, 68, 81, 149, 230, 609, 1448, 4953, 11354, 220679, 1997465, 2218144, 6433753, 8651897, 15085650, 68994497, 84080147, 321234938, 3617664465, 7556563868, 48957047673, 1427310946385, 8612822725983, 18652956398351, 213795343107844, 660038985721883
a(n) = 411768954395928612024802 0*a(n-46) - a(n-92) for n>91. - Vincenzo Librandi, Jan 26 2014
[A041591] 1, 1, 3, 13, 146, 159, 305, 1074, 2453, 5980, 20393, 26373, 46766, 540799, 2209962, 4960723, 7170685, 248764013, 255934698, 760633409, 3298468334, 37043785083, 40342253417, 77386038500, 272500368917, 622386776334, 1517273921585, 5174208541089, 6691482462674
a(n) = 253724736*a(n-17) + a(n-34) for n>33. [Bruno Berselli, Dec 22 2013]
[A022125] 3, 14, 17, 31, 48, 79, 127, 206, 333, 539, 872, 1411, 2283, 3694, 5977, 9671, 15648, 25319, 40967, 66286, 107253, 173539, 280792, 454331, 735123, 1189454, 1924577, 3114031, 5038608, 8152639, 13191247, 21343886, 34535133, 55879019, 90414152, 146293171, 236707323
a(n) = h*Fibonacci(n+k) + Fibonacci(n+k-h) with h=6, k=2. - Bruno Berselli, Feb 20 2017
a(n) = (2^(-1-n)*((1-sqrt(5))^n*(-25+3*sqrt(5)) + (1+sqrt(5))^n*(25+3*sqrt(5)))) / sqrt(5).
a(n) = a(n-1) + a(n-2) for n>1.
[A024598] 1, 3, 14, 22, 55, 73, 140, 172, 285, 335, 506, 578, 819, 917, 1240, 1368, 1785, 1947, 2470, 2670, 3311, 3553, 4324, 4612, 5525, 5863, 6930, 7322, 8555, 9005, 10416, 10928, 12529, 13107, 14910, 15558, 17575, 18297, 20540, 21340, 23821, 24703, 27434, 28402
a(n) = (4*n^3 + 3*n^2 + 2*n - 3*n^2*(-1)^n)/12. - Luce ETIENNE, Jan 17 2015
[A071396] 0, 3, 14, 31, 55, 87, 125, 170, 222, 281, 346, 419, 499, 585, 679, 779, 887, 1001, 1122, 1251, 1386, 1528, 1677, 1833, 1995, 2165, 2342, 2525, 2716, 2913, 3118, 3329, 3547, 3772, 4005, 4244, 4489, 4742, 5002, 5269, 5543, 5823, 6111, 6405, 6707, 7015, 7330
a(n) = round(2 * n^2 * sqrt(3))
[A032525] 0, 3, 14, 31, 56, 87, 126, 171, 224, 283, 350, 423, 504, 591, 686, 787, 896, 1011, 1134, 1263, 1400, 1543, 1694, 1851, 2016, 2187, 2366, 2551, 2744, 2943, 3150, 3363, 3584, 3811, 4046, 4287, 4536, 4791, 5054, 5323, 5600, 5883, 6174, 6471, 6776, 7087, 7406, 7731
a(n) = (-1+(-1)^n+14*n^2)/4. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: -x*(3*x^2+8*x+3) / ((x-1)^3*(x+1)). - Colin Barker, Aug 03 2013
[A033991] 0, 3, 14, 33, 60, 95, 138, 189, 248, 315, 390, 473, 564, 663, 770, 885, 1008, 1139, 1278, 1425, 1580, 1743, 1914, 2093, 2280, 2475, 2678, 2889, 3108, 3335, 3570, 3813, 4064, 4323, 4590, 4865, 5148, 5439, 5738, 6045, 6360, 6683, 7014, 7353, 7700, 8055, 8418
a(n) = a(n-1) + 8*n-5 (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2. - Harvey P. Dale, Oct 10 2011
a(n) = Sum_{i=n..3n-1} i. - Wesley Ivan Hurt, Dec 04 2016
[A140064] 1, 3, 14, 34, 63, 101, 148, 204, 269, 343, 426, 518, 619, 729, 848, 976, 1113, 1259, 1414, 1578, 1751, 1933, 2124, 2324, 2533, 2751, 2978, 3214, 3459, 3713, 3976, 4248, 4529, 4819, 5118, 5426, 5743, 6069, 6404, 6748
a(n) = a(n-1) + 9*n - 16, a(1)=1. - Vincenzo Librandi, Nov 24 2010
a(1)=1, a(2)=3, a(3)=14, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 01 2011
[A064226] 3, 14, 34, 63, 101, 148, 204, 269, 343, 426, 518, 619, 729, 848, 976, 1113, 1259, 1414, 1578, 1751, 1933, 2124, 2324, 2533, 2751, 2978, 3214, 3459, 3713, 3976, 4248, 4529, 4819, 5118, 5426, 5743, 6069, 6404, 6748, 7101, 7463, 7834, 8214, 8603, 9001, 9408
a(n) = 3*C(n, 0)+11*C(n, 1)+9*C(n, 2); binomial transform of (3, 11, 9, 0, 0, 0, ...). G.f.:(3+5*x+x^2)/(1-x)^3. - Paul Barry, Mar 15 2003
[A143941] 3, 14, 37, 76, 135, 218, 329, 472, 651, 870, 1133, 1444, 1807, 2226, 2705, 3248, 3859, 4542, 5301, 6140, 7063, 8074, 9177, 10376, 11675, 13078, 14589, 16212, 17951, 19810, 21793, 23904, 26147, 28526, 31045, 33708, 36519, 39482, 42601, 45880, 49323, 52934
a(n) = n*(1 + 6*n + 2*n^2)/3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Wesley Ivan Hurt, Apr 08 2015
[A162147] 0, 3, 14, 38, 80, 145, 238, 364, 528, 735, 990, 1298, 1664, 2093, 2590, 3160, 3808, 4539, 5358, 6270, 7280, 8393, 9614, 10948, 12400, 13975, 15678, 17514, 19488, 21605, 23870, 26288, 28864, 31603, 34510, 37590, 40848, 44289, 47918, 51740, 55760
a(n) = Sum_{i = 0..n} i*(n + 1 + i). - Bruno Berselli, Mar 17 2016
[A027444] 0, 3, 14, 39, 84, 155, 258, 399, 584, 819, 1110, 1463, 1884, 2379, 2954, 3615, 4368, 5219, 6174, 7239, 8420, 9723, 11154, 12719, 14424, 16275, 18278, 20439, 22764, 25259, 27930, 30783, 33824, 37059, 40494, 44135, 47988, 52059, 56354, 60879, 65640, 70643, 75894
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Wesley Ivan Hurt, Apr 05 2016
[A005701] 3, 14, 40, 90, 175, 308, 504, 780, 1155, 1650, 2288, 3094, 4095, 5320, 6800, 8568, 10659, 13110, 15960, 19250, 23023, 27324, 32200, 37700, 43875, 50778, 58464, 66990, 76415, 86800, 98208, 110704, 124355
a(n) = (n+1)*(n+2)*(n+3)*(n+6)/12.
[A050297] 0, 1, 3, 14, 40, 90, 175, 308, 504, 780, 1155, 1650, 2288, 3094, 4095, 5320, 6800, 8568, 10659, 13110, 15960, 19250, 23023, 27324, 32200, 37700, 43875, 50778, 58464, 66990, 76415, 86800, 98208, 110704, 124355, 139230, 155400, 172938
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 7.
[A213482] 0, 3, 14, 41, 87, 161, 265, 409, 594, 831, 1120, 1473, 1889, 2381, 2947, 3601, 4340, 5179, 6114, 7161, 8315, 9593, 10989, 12521, 14182, 15991, 17940, 20049, 22309, 24741, 27335, 30113, 33064, 36211, 39542, 43081, 46815, 50769, 54929
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A058389] 1, 3, 14, 44, 129, 316, 714, 1452, 2775, 4963, 8478, 13838, 21827, 33306, 49504, 71754, 101871, 141807, 194128, 261570, 347633, 456026, 591384, 758596, 963657, 1212861, 1513806, 1874440, 2304225, 2813030, 3412466, 4114608, 4933519
a(n) = (1/6)*(C(C(n + 2, 2) + 2, 3) + 3/2*floor((n + 2)/2)*(C(n + 2, 2) - floor((n + 2)/2)) + 3*C(floor((n + 2)/2) + 2, 3) + 2*floor(C(n + 2, 2)/3) + 2*C(C(n + 2, 2) - 3*floor(C(n + 2, 2)/3) + 2, 3)).
[A059672] 0, 3, 14, 45, 124, 315, 762, 1785, 4088, 9207, 20470, 45045, 98292, 212979, 458738, 983025, 2097136, 4456431, 9437166, 19922925, 41943020, 88080363, 184549354, 385875945, 805306344, 1677721575, 3489660902, 7247757285, 15032385508
a(n) = Sum_{k=0..n} Sum_{i=0..n} C(n+1,i) - C(k,i). - Wesley Ivan Hurt, Sep 21 2017
[A287426] 3, 14, 47, 164, 577, 2046, 7275, 25896, 92213, 328402, 1169599, 4165564, 14835849, 52838630, 188187539, 670239824, 2387094493, 8501763066, 30279478119, 107841960420, 384084837425, 1367938433038, 4871984973883, 17351831787640, 61799465310597, 220102059506978
a(n) = -1 + n + ((3-sqrt(17))/2)^n + ((3+sqrt(17))/2)^n.
a(n) = 5*a(n-1) - 5*a(n-2) - a(n-3) + 2*a(n-4) for n>4. (End)
[A212505] 0, 0, 3, 14, 48, 114, 243, 444, 768, 1220, 1875, 2730, 3888, 5334, 7203, 9464, 12288, 15624, 19683, 24390, 30000, 36410, 43923, 52404, 62208, 73164, 85683, 99554, 115248, 132510, 151875, 173040, 196608, 222224, 250563, 281214, 314928
a(n) = 2a(n-1)+2a(n-2)-6a(n-3)+6a(n-5)-2a(n-6)-2a(n-7)+a(n-8).

[A176027] 0, 3, 14, 48, 144, 400, 1056, 2688, 6656, 16128, 38400, 90112, 208896, 479232, 1089536, 2457600, 5505024, 12255232, 27131904, 59768832, 131072000, 286261248, 622854144, 1350565888, 2919235584, 6291456000, 13522436096
a(n) = 2^(n-2)*n*(5+n). - R. J. Mathar, Dec 11 2010
a(n) = Sum_{k=0..n-1} Sum_{i=0..n-1} (k+3) * C(n-1,i). - Wesley Ivan Hurt, Sep 20 2017
[A098521] 0, 0, 1, 3, 14, 50, 195, 721, 2716, 10116, 37845, 141295, 528330, 1975766, 7395479, 27698685, 103821240, 389410568, 1461605481, 5489516955, 20630539910, 77579118330, 291893775019, 1098848179561, 4138773239892, 15596070165900, 58797332264125, 221762856917511, 836756771788098
a(n) = sum{k=0..floor(n/2), binomial(n, k)*binomial(n-k, k+2)*2^k}.
[A084150] 0, 0, 1, 3, 14, 50, 199, 749, 2892, 11028, 42301, 161799, 619706, 2372006, 9081955, 34767953, 133109592, 509594856, 1950956857, 7469077707, 28594853414, 109473250778, 419110475455, 1604533706357, 6142840740900, 23517417426300
a(n)=((1+sqrt(8))^n+(1-sqrt(8))^n-2)/16; E.g.f. : exp(x)(sinh(sqrt(2)x))^2/4.
[A104191] 1, 3, 14, 54, 236, 920, 3730, 14862, 59776, 238856, 956110, 3823410, 15299542, 61193632, 244779854, 979111158, 3916558030, 15666093384, 62664665094, 250658276292, 1002634426882, 4010536846838, 16042149531756, 64168594080686, 256674403929154, 1026697590590342, 4106790388347028
a(n) = phi(2^n) + phi(2^n + 1) + ... + phi(2^(n+1) - 2) + phi(2^(n+1) - 1).
[A014493] 1, 3, 15, 21, 45, 55, 91, 105, 153, 171, 231, 253, 325, 351, 435, 465, 561, 595, 703, 741, 861, 903, 1035, 1081, 1225, 1275, 1431, 1485, 1653, 1711, 1891, 1953, 2145, 2211, 2415, 2485, 2701, 2775, 3003, 3081, 3321, 3403, 3655, 3741, 4005, 4095, 4371, 4465, 4753, 4851
a(n) = (2*n-1)*(2*n-1-(-1)^n)/2. - Ant King, Nov 17 2010
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Ant King, Nov 17 2010
[A057780] 0, 3, 15, 24, 48, 63, 99, 120, 168, 195, 255, 288, 360, 399, 483, 528, 624, 675, 783, 840, 960, 1023, 1155, 1224, 1368, 1443, 1599, 1680, 1848, 1935, 2115, 2208, 2400, 2499, 2703, 2808, 3024, 3135, 3363, 3480, 3720, 3843, 4095, 4224, 4488, 4623, 4899, 5040
a(n) = 3/8*(6*n^2-2*((-1)^n+3)*n+(-1)^n-1).
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A017557] 3, 15, 27, 39, 51, 63, 75, 87, 99, 111, 123, 135, 147, 159, 171, 183, 195, 207, 219, 231, 243, 255, 267, 279, 291, 303, 315, 327, 339, 351, 363, 375, 387, 399, 411, 423, 435, 447, 459, 471, 483, 495, 507, 519, 531, 543, 555, 567, 579, 591, 603, 615, 627, 639
a(n) = 2*a(n-1) - a(n-2). [From Vincenzo Librandi, Jun 07 2011]
[A290325] 3, 15, 30, 51, 78, 111, 150, 195, 246, 303, 366, 435, 510, 591, 678, 771, 870, 975, 1086, 1203, 1326, 1455, 1590, 1731, 1878, 2031, 2190, 2355, 2526, 2703, 2886, 3075, 3270, 3471, 3678, 3891, 4110, 4335, 4566, 4803, 5046, 5295, 5550, 5811, 6078
a(n) = 3*n^2 + 3 for n > 1. - Andrew Howroyd, Jul 27 2017
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 4. (End)
[A152813] 3, 15, 31, 51, 75, 103, 135, 171, 211, 255, 303, 355, 411, 471, 535, 603, 675, 751, 831, 915, 1003, 1095, 1191, 1291, 1395, 1503, 1615, 1731, 1851, 1975, 2103, 2235, 2371, 2511, 2655, 2803, 2955, 3111, 3271, 3435, 3603, 3775, 3951, 4131, 4315, 4503, 4695
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Feb 22 2012
a(n-1) = 2n^2 + 2n - 9. - Avi Friedlich, Mar 27 2015
[A000466] 1, 3, 15, 35, 63, 99, 143, 195, 255, 323, 399, 483, 575, 675, 783, 899, 1023, 1155, 1295, 1443, 1599, 1763, 1935, 2115, 2303, 2499, 2703, 2915, 3135, 3363, 3599, 3843, 4095, 4355, 4623, 4899, 5183, 5475, 5775, 6083, 6399, 6723, 7055, 7395
a(n) = a(n-1) + 8*n - 4 for n>0, a(0)=-1. - Vincenzo Librandi, Dec 17 2010
a(n) = 3*Pochhammer(5/2,n-1)/Pochhammer(1/2,n-1). Hence, the e.g.f. for a(n+1), i.e., dropping the first term, is 3* 1F1(5/2;1/2;x), with 1F1 being the confluent hypergeometric function (also known as Kummer's). - Stanislav Sykora, May 26 2016
[A062741] 0, 3, 15, 36, 66, 105, 153, 210, 276, 351, 435, 528, 630, 741, 861, 990, 1128, 1275, 1431, 1596, 1770, 1953, 2145, 2346, 2556, 2775, 3003, 3240, 3486, 3741, 4005, 4278, 4560, 4851, 5151, 5460, 5778, 6105, 6441, 6786, 7140, 7503, 7875, 8256, 8646, 9045
a(n) = C(3*n,2). - Zerinvary Lajos, Jan 02 2007
a(n) = 9*n+a(n-1)-6, with n>0, a(0)=0. - Vincenzo Librandi, Aug 07 2010
[A185541] 1, 3, 15, 36, 66, 105, 171, 253, 378, 496, 666, 861, 1081, 1378, 1711, 2080, 2485, 2926, 3403, 4005, 4656, 5356, 6105, 6903, 7875, 8778, 9870, 11026, 12246, 13530, 14878, 16471, 17955, 19701, 21528, 23436, 25425, 27495, 29646, 31878, 34453, 37128, 39621, 42486, 45451, 48516, 52003, 55278, 58996, 62481, 66430, 70125, 74305, 78606, 83028, 87990, 92665, 97461, 102831
a(n)=(1/2)*[n^3/2]*[1+n^3/2], where []=floor.
[A117561] 3, 15, 38, 73, 124, 194, 286, 403, 548, 724, 934, 1181, 1468, 1798, 2174, 2599, 3076, 3608, 4198, 4849, 5564, 6346, 7198, 8123, 9124, 10204, 11366, 12613, 13948, 15374, 16894, 18511, 20228, 22048, 23974, 26009, 28156, 30418, 32798, 35299, 37924
a(n) = floor(n*(n^3-n-3)/(2*(n-1))).
[A059270] 0, 3, 15, 42, 90, 165, 273, 420, 612, 855, 1155, 1518, 1950, 2457, 3045, 3720, 4488, 5355, 6327, 7410, 8610, 9933, 11385, 12972, 14700, 16575, 18603, 20790, 23142, 25665, 28365, 31248, 34320, 37587, 41055, 44730, 48618, 52725, 57057, 61620
a(n) = n*(n+1)*(2*n+1)/2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 6 = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Ant King, Jan 03 2011]
[A219085] 0, 3, 15, 42, 91, 166, 274, 421, 614, 857, 1157, 1520, 1953, 2460, 3048, 3723, 4492, 5359, 6331, 7414, 8615, 9938, 11390, 12977, 14706, 16581, 18609, 20796, 23149, 25672, 28372, 31255, 34328, 37595, 41063, 44738, 48627, 52734, 57066
a(n) = floor((n + 1/2)^3).
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) +a(n-4) -3*a(n-5) +3*a(n-6) -a(n-7).
a(n) = (n+1/2)^3 +(2*i^(n*(n-1))+(-1)^n-4)/8, where i=sqrt(-1). - Bruno Berselli, Dec 21 2012
[A101165] 0, 3, 15, 43, 94, 175, 293, 455, 668, 939, 1275, 1683, 2170, 2743, 3409, 4175, 5048, 6035, 7143, 8379, 9750, 11263, 12925, 14743, 16724, 18875, 21203, 23715, 26418, 29319, 32425, 35743, 39280, 43043, 47039, 51275, 55758, 60495, 65493, 70759
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A127407] 3, 15, 44, 100, 195, 343, 560, 864, 1275, 1815, 2508, 3380, 4459, 5775, 7360, 9248, 11475, 14079, 17100, 20580, 24563, 29095, 34224, 40000, 46475, 53703, 61740, 70644, 80475, 91295, 103168, 116160, 130339, 145775, 162540, 180708, 200355
a(n+1) = n*(n+1)^2*(n+8)/(2*3!) for n>=1.
a(n) = ((n-1)^4+10*(n-1)^3+17*(n-1)^2+8*(n-1))/(2*3!) for n>=2.
a(n) = (n^2*(-7+6*n+n^2))/12. G.f.: x^2*(3-x^2)/(1-x)^5. [Colin Barker, May 13 2012]
[A050534] 0, 0, 0, 3, 15, 45, 105, 210, 378, 630, 990, 1485, 2145, 3003, 4095, 5460, 7140, 9180, 11628, 14535, 17955, 21945, 26565, 31878, 37950, 44850, 52650, 61425, 71253, 82215, 94395, 107880, 122760, 139128, 157080, 176715, 198135, 221445, 246753
a(n) = 3*C(n, 4) + 3*C(n, 3), for n>3.
a(n) = (4x^4 - 4x^3 - x^2 + x)/2 where x = floor(n/2)*(-1)^n for n >= 0. - William A. Tedeschi, Aug 24 2010
a(n) = Sum_{k=1..n} Sum_{i=1..k} (n-i-1)*(n-k). - Wesley Ivan Hurt, Sep 12 2017
[A030505] 3, 15, 45, 106, 213, 384, 643, 1014, 1526, 2210, 3100, 4236, 5658, 7411, 9541, 12101, 15144, 18727, 22910, 27758, 33337, 39717, 46971, 55175, 64410, 74758, 86304, 99139, 113355, 129047, 146314, 165257, 185983, 208600, 233219
a(n) = ceil (binomial (n, w) * 2^w / (2*n + 1))
[A005560] 1, 3, 15, 45, 189, 588, 2352, 7560, 29700, 98010, 382239, 1288287, 5010005, 17177160, 66745536, 232092432, 901995588, 3173688180, 12342120700, 43861998180, 170724392916, 611947174608, 2384209771200, 8609646396000, 33577620944400, 122041737663300, 476432168185575
a(n) = C(n+3, ceil(n/2))*C(n+2, floor(n/2)) - C(n+3, ceil((n-1)/2))*C(n+2, floor((n-1)/2)). - Paul D. Hanna, Apr 16 2004
[A163383] 1, 3, 15, 47, 127, 319, 767, 1791, 4095, 9215, 20479, 45055, 98303, 212991, 458751, 983039, 2097151, 4456447, 9437183, 19922943, 41943039, 88080383, 184549375, 385875967, 805306367, 1677721599, 3489660927, 7247757311, 15032385535
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3).
[A061316] 0, 3, 15, 48, 120, 255, 483, 840, 1368, 2115, 3135, 4488, 6240, 8463, 11235, 14640, 18768, 23715, 29583, 36480, 44520, 53823, 64515, 76728, 90600, 106275, 123903, 143640, 165648, 190095, 217155, 247008, 279840, 315843, 355215, 398160, 444888
a(n) = n*(n+1)*(n^2 + n + 4)/4.
a(0)=0, a(1)=3, a(2)=15, a(3)=48, a(4)=120, a(n) = 5a(n-1) - 10a(n-2) + 10a(n-3) - 5a(n-4) + a(n-5).

[A124161] 0, 0, 3, 15, 48, 121, 261, 504, 896, 1494, 2367, 3597, 5280, 7527, 10465, 14238, 19008, 24956, 32283, 41211, 51984, 64869, 80157, 98164, 119232, 143730, 172055, 204633, 241920, 284403, 332601, 387066, 448384, 517176, 594099, 679847, 775152, 880785, 997557
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5. - Colin Barker, Jan 16 2017
[A248122] 0, 0, 3, 15, 51, 165, 507, 1551, 4683, 14127, 42459, 127599, 383019, 1149693, 3449715, 10351023, 31054947, 93170397, 279516747, 838566831, 2515717083, 7547200797, 22641651939, 67925104239, 203775461139, 611326828047, 1833980928771
a(0) = 0; a(1) = 0; a(n) = 3*a(n-1) + 3^ceiling(n/2) - a(ceiling(n/2)), for n >= 2.
[A282464] 0, 1, 3, 15, 51, 176, 560, 1743, 5271, 15675, 45925, 133056, 381888, 1087645, 3077451, 8658951, 24245655, 67602608, 187789616, 519924075, 1435228575, 3951341811, 10852291273, 29740435200, 81340229376, 222058995001, 605201766675, 1646862596223, 4474969884411
a(n) = 5*a(n-1) - 4*a(n-2) - 10*a(n-3) + 10*a(n-4) + 4*a(n-5) - 5*a(n-6) + a(n-7).
a(n) = ((n-1)*Fibonacci(n) + n*Fibonacci(n-1))*Fibonacci(n) + (1 - (-1)^n)/2.
[A192742] 3, 15, 51, 191, 708, 2631, 9775, 36319, 134943, 501380, 1862875, 6921503, 25716811, 95550687, 355018116, 1319068095, 4900991135, 18209608887, 67657713855, 251381908996, 934008268531, 3470303209839, 12893894812259, 47907203888767, 177998984624708, 661354367518327, 2457258957728079, 912993378722574
33922224882718431, 126037862684586116
a(n) = 3*a(n-1) + 3*a(n-2) - a(n-3) - a(n-4).
[A290764] 3, 15, 54, 174, 537, 1629, 4908, 14748, 44271, 132843, 398562, 1195722, 3587205, 10761657, 32285016, 96855096, 290565339, 871696071, 2615088270, 7845264870, 23535794673, 70607384085, 211822152324, 635466457044, 1906399371207, 5719198113699, 17157594341178
a(n) = 3/4*(3^(n + 1) - 2*n - 3).
a(n) = 5*a(n-1) - 7*a(n-2) + 3*a(n-3).
[A286986] 3, 15, 54, 175, 543, 1642, 4875, 14271, 41310, 118487, 337263, 953810, 2682579, 7508655, 20929158, 58121407, 160877055, 443993146, 1222110555, 3355879647, 9195143598, 25144855655, 68635721679, 187035899810, 508896450723, 1382653280847, 3751638404310
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) - a(n-4).
[A286185] 3, 15, 55, 173, 511, 1451, 4019, 10937, 29371, 78055, 205679, 538149, 1399607, 3621315, 9327723, 23931633, 61186163, 155949119, 396369831, 1004904733, 2541896559, 6416348251, 16165611043, 40657256617, 102090514731, 255968753175, 640899345631, 1602640560533
a(n) = 6*a(n-1) - 11*a(n-2) + 4*a(n-3) + 5*a(n-4) - 2*a(n-5) - a(n-6), for n>6 (conjectured).
a(n) = 1/4*((1-sqrt(2))^n*(4-3*sqrt(2)*n) + (1+sqrt(2))^n*(4+3*sqrt(2)*n)) - 1 - n (conjectured). - Eric W. Weisstein, May 08 2017
[A084152] 0, 0, 1, 3, 15, 55, 231, 903, 3655, 14535, 58311, 232903, 932295, 3727815, 14913991, 59650503, 238612935, 954429895, 3817763271, 15270965703, 61084037575, 244335800775, 977343902151, 3909374210503, 15637499638215, 62549992960455
a(n) = (4^n-2+(-2)^n)/18.
a(n) = +3*a(n-1) +6*a(n-2) -8*a(n-3).
a(n) = floor(2^n/3)ceiling(2^n/3)/2 - Paul Barry, Apr 28 2004
[A284699] 3, 15, 57, 223, 863, 3333, 12883, 49791, 192441, 743775, 2874655, 11110405, 42941187, 165965647, 641449337, 2479171199, 9581878847, 37033506309, 143132741651, 553201243263, 2138096511097, 8263641389887, 31938581194175, 123441098248197, 477093977471363, 1843945546253839, 7126761892007865
a(n) = 3*a(n-1) + 3*a(n-2) + a(n-3) + a(n-4) + a(n-5) for n>5.
[A286183] 3, 15, 60, 207, 663, 2038, 6107, 17983, 52272, 150407, 429223, 1216490, 3427635, 9609327, 26821668, 74576703, 206650167, 570877918, 1572754187, 4322192287, 11851474968, 32430381815, 88576465735, 241511251922, 657457204323, 1787147867343, 4851349002252
a(n) = 8*a(n-1) - 24*a(n-2) + 34*a(n-3) - 24*a(n-4) + 8*a(n-5) - a(n-6), for n>6 (conjectured).
a(n) = LucasL[2*n] - 2*n + 2*n*Fibonacci[2*n] (conjectured). - Eric W. Weisstein, May 08 2017
[A292483] 3, 15, 61, 240, 912, 3376, 12240, 43632, 153360, 532656, 1831248, 6240240, 21100176, 70858800, 236510928, 785115504, 2593432080, 8528565168, 27932538960, 91144257264, 296391022992, 960802812720, 3105562639824, 10010945435760, 32189993590032, 103264606820016
a(n) = 9*a(n-1) - 27*a(n-2) + 27*a(n-3) for n >= 6.
a(n) = 16*3^(n-5)*(51 + 22*n + 2*n^2) for n>2. - Colin Barker, Oct 03 2017
[A229277] 0, 3, 15, 63, 243, 891, 3159, 10935, 37179, 124659, 413343, 1358127, 4428675, 14348907, 46235367, 148272039, 473513931, 1506635235, 4778186031, 15109399071, 47652720147, 149931729243, 470715894135, 1474909801623, 4613015762523, 14403906360531, 44906296300479
a(n) = 3^(n-1)*(2*n+1) for n>0, a(0) = 0.
[A022126] 3, 16, 19, 35, 54, 89, 143, 232, 375, 607, 982, 1589, 2571, 4160, 6731, 10891, 17622, 28513, 46135, 74648, 120783, 195431, 316214, 511645, 827859, 1339504, 2167363, 3506867, 5674230, 9181097, 14855327, 24036424, 38891751, 62928175, 101819926, 164748101
a(n) = (2^(-1-n)*((1-sqrt(5))^n*(-29+3*sqrt(5))+(1+sqrt(5))^n*(29+3*sqrt(5))))/sqrt(5).
a(n) = a(n-1)+a(n-2) for n>1.
[A042075] 1, 1, 3, 16, 19, 35, 89, 213, 515, 728, 1243, 6943, 15129, 22072, 1030441, 1052513, 3135467, 16729848, 19865315, 36595163, 93055641, 222706445, 538468531, 761174976, 1299643507, 7259392511, 15818428529, 23077821040, 1077398196369, 1100476017409
a(n) = 1045570*a(n-14) - a(n-28)for n>27. - Vincenzo Librandi, Jan 14 2014
[A041461] 1, 1, 3, 16, 19, 282, 301, 1787, 3875, 5662, 173735, 179397, 532529, 2842042, 3374571, 50086036, 53460607, 317389071, 688238749, 1005627820, 30857073349, 31862701169, 94582475687, 504775079604, 599357555291, 8895780853678, 9495138408969, 56371472898523
a(n) = 177610*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 18 2013
[A258717] 0, 3, 16, 27, 48, 67, 96, 123, 160, 195, 240, 283, 336, 387, 448, 507, 576, 643, 720, 795, 880, 963, 1056, 1147, 1248, 1347, 1456, 1563, 1680, 1795, 1920, 2043, 2176, 2307, 2448, 2587, 2736, 2883, 3040, 3195, 3360, 3523, 3696, 3867, 4048, 4227, 4416, 4603, 4800, 4995, 5200, 5403, 5616, 5827
a(n) = -a(n-1)-12*n+3+4*n^2, n>=3. - R. J. Mathar, Nov 07 2015
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>5.
[A081270] 3, 16, 38, 69, 109, 158, 216, 283, 359, 444, 538, 641, 753, 874, 1004, 1143, 1291, 1448, 1614, 1789, 1973, 2166, 2368, 2579, 2799, 3028, 3266, 3513, 3769, 4034, 4308, 4591, 4883, 5184, 5494, 5813, 6141, 6478, 6824, 7179, 7543, 7916, 8298, 8689, 9089, 9498
a(n) = 3C(n, 0)+13C(n, 1)+9C(n, 2); binomial transform of (3, 13, 9, 0, 0, 0, ...).
a(n) = (9n^2+17n+6)/2.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A255211] 0, 3, 16, 46, 100, 185, 308, 476, 696, 975, 1320, 1738, 2236, 2821, 3500, 4280, 5168, 6171, 7296, 8550, 9940, 11473, 13156, 14996, 17000, 19175, 21528, 24066, 26796, 29725, 32860, 36208, 39776, 43571, 47600, 51870, 56388, 61161, 66196, 71500, 77080, 82943
a(n) = Sum_{j=0..n-1} (n-j)*(3*n-2*j) = Sum_{j=1..n} j*(n+2*j) for n>0.
[A172482] 3, 16, 47, 104, 195, 328, 511, 752, 1059, 1440, 1903, 2456, 3107, 3864, 4735, 5728, 6851, 8112, 9519, 11080, 12803, 14696, 16767, 19024, 21475, 24128, 26991, 30072, 33379, 36920, 40703, 44736, 49027, 53584, 58415, 63528, 68931, 74632, 80639, 86960, 93603
a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
a(n) mod 10 = 3, 6, 7, 4, 5, 8, 1, 2, 9, 0 (and repeat periodically)
[A212564] 0, 0, 0, 3, 16, 48, 114, 229, 416, 696, 1100, 1655, 2400, 3368, 4606, 6153, 8064, 10384, 13176, 16491, 20400, 24960, 30250, 36333, 43296, 51208, 60164, 70239, 81536, 94136, 108150, 123665, 140800, 159648, 180336, 202963, 227664, 254544, 283746, 315381
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = 1/96*(2*n*(3*((-1)^n-1)+(n-2)*n*(7*n-4))-9*(-1)^n+9).
[A004320] 0, 3, 16, 50, 120, 245, 448, 756, 1200, 1815, 2640, 3718, 5096, 6825, 8960, 11560, 14688, 18411, 22800, 27930, 33880, 40733, 48576, 57500, 67600, 78975, 91728, 105966, 121800, 139345, 158720, 180048, 203456, 229075, 257040, 287490, 320568, 356421, 395200
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Wesley Ivan Hurt, Oct 28 2014
[A000574] 3, 16, 51, 126, 266, 504, 882, 1452, 2277, 3432, 5005, 7098, 9828, 13328, 17748, 23256, 30039, 38304, 48279, 60214, 74382, 91080, 110630, 133380, 159705, 190008, 224721, 264306, 309256, 360096, 417384, 481712, 553707, 634032, 723387, 822510
a(n) = 3*binomial(n+2,5) - 2*binomial(n+1,5).
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - Vincenzo Librandi, Jun 10 2012
a(n) = 3*binomial(n, 3) + 4*binomial(n, 4) + binomial(n, 5). - Vladimir Shevelev and Peter J. C. Moses, Jun 22 2012
a(n) = GegenbauerC(N, -n, -1/2) where N = 5 if 5<n else 2*n-5. - Peter Luschny, May 10 2016

[A027540] 3, 16, 55, 156, 399, 960, 2223, 5020, 11143, 24432, 53079, 114492, 245535, 524032, 1113823, 2358972, 4980375, 10485360, 22019655, 46136860, 96468463, 201326016, 419429775, 872414556, 1811938599, 3758095600, 7784627383, 16106126460, 33285995583, 68719475712
a(n) = (n+1)*(2^n - n - 1). - Vladeta Jovovic, Aug 18 2002
a(n) = Sum_{k=0..n} Sum_{i=0..n} (i-k) * C(n-k,i-2). - Wesley Ivan Hurt, Sep 19 2017
[A073999] 0, 0, 3, 16, 60, 240, 1008, 4096, 16320, 65280, 261888, 1048576, 4193280, 16773120, 67104768, 268435456, 1073725440, 4294901760, 17179803648, 68719476736, 274877644800, 1099510579200, 4398045462528, 17592186044416, 70368739983360, 281474959933440, 1125899890065408, 4503599627370496, 1801439844237
a(n; t, s) = a(n-1; t, s) + a(n-1; t-1, s-(t-1)) + a(n-1; t-2, s-2(t-2)) + a(n-1; t-3, s-3(t-3)) where t is the trace and s is the subtrace. Note that all operations involving operands t or s are carried out over GF(4).
a(n) = -2^(n-3) +((-2i)^n + (2i)^n +4^n)/16 with i=sqrt(-1). - R. J. Mathar, Nov 18 2011
[A037451] 0, 1, 3, 16, 63, 275, 1152, 4901, 20727, 87856, 372075, 1576279, 6676992, 28284569, 119814747, 507544400, 2149990983, 9107510539, 38580029568, 163427634589, 692290558575, 2932589884016, 12422650070163, 52623190204271, 222915410823168, 944284833600625, 4000054745057907, 16944503814103696, 71778070001033487
a(n+4) = 3*a(n+3) + 6*a(n+2) - 3*a(n+1) - a(n).
a(n) = (-(1/2*(-1-sqrt(5)))^n+(2-sqrt(5))^n-(1/2*(-1+sqrt(5)))^n+(2+sqrt(5))^n)/5. - Colin Barker, Jun 03 2016
[A293579] 3, 16, 66, 248, 892, 3136, 10888, 37536, 128880, 441472, 1510176, 5161856, 17635264, 60233728, 205697152, 702386688, 2398283520, 8188622848, 27958448640, 95457597440, 325915589632, 1112751357952, 3799182641152, 12971244625920, 44286646775808, 151204164960256
a(n) = 6*a(n-1) - 10*a(n-2) + 4*a(n-3).
a(n) = 2^(n/2 - 2) * ((sqrt(2)+1)^(n+1) - (sqrt(2)-1)^(n+1)) - 2^n.
[A290587] 3, 16, 81, 265, 729, 1786, 4060, 8833, 18786, 39586, 83273, 175463, 370615, 784290, 1661122, 3517669, 7441936, 15720066, 33145015, 69744491, 146458013, 306933394, 642004440, 1340415817, 2793811726, 5813791138, 12080174037, 25065845455, 51943066643, 107509343618, 222265656670, 459025904205, 947041760092, 1952064327682
a(n) = (-45*(8 + 3*2^n) + (1772 + 405*2^n) n - 1010*n^2 + 25*n^3 + 50*n^4 + 3*n^5)/120 for n > 3.
a(n) = 10*a(n-1) - 43*a(n-2) + 104*a(n-3) - 155*a(n-4) + 146*a(n-5) - 85*a(n-6) + 28*a(n-7) - 4*a(n-8) for n > 11.
[A278681] 3, 16, 85, 451, 2392, 12686, 67280, 356818, 1892376, 10036172, 53226604, 282286052, 1497097488, 7939821584, 42108658448, 223322287224, 1184384537744, 6281355751296, 33313023614352, 176674843181968, 936990907061504, 4969309405367264, 26354616443092800, 139771093164846816, 741272730213321216
3931322622695991104
a(n) = floor(a(n-1)^2/a(n-2)), a(0) = 3, a(1) = 16.
a(n) = 6*a(n-1) - 4*a(n-2) + 2*a(n-3) - 2*a(n-4). (End)
[A042437] 1, 3, 16, 115, 131, 246, 377, 623, 1000, 1623, 12361, 63428, 202645, 11006258, 33221419, 177113353, 1273014890, 1450128243, 2723143133, 4173271376, 6896414509, 11069685885, 17966100394, 136832388643, 702128043609, 2243216519470, 121835820094989
a(n) = 11069686*a(n-13) + a(n-26) for n>25. - Vincenzo Librandi, Jan 22 2014
[A273420] 3, 17, 20, 31, 41, 47, 57, 63, 73, 79, 89, 95, 105, 111, 121, 127, 137, 143, 153, 159, 169, 175, 185, 191, 201, 207, 217, 223, 233, 239, 249, 255, 265, 271, 281, 287, 297, 303, 313, 319, 329, 335, 345, 351, 361, 367, 377, 383, 393, 399, 409, 415, 425, 431
a(n) = 8+(-1)^n+8*n for n>2.
a(n) = 8*n+9 for n>2 and even.
a(n) = 8*n+7 for n>2 and odd.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>5.
[A022127] 3, 17, 20, 37, 57, 94, 151, 245, 396, 641, 1037, 1678, 2715, 4393, 7108, 11501, 18609, 30110, 48719, 78829, 127548, 206377, 333925, 540302, 874227, 1414529, 2288756, 3703285, 5992041, 9695326, 15687367, 25382693, 41070060, 66452753, 107522813, 173975566
a(n) = 2^(-1-n)*((1-sqrt(5))^n*(-31+3*sqrt(5)) + (1+sqrt(5))^n*(31+3*sqrt(5))) / sqrt(5).
a(n) = a(n-1) + a(n-2) for n>1.
[A273448] 3, 17, 20, 39, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>3.
a(n) = 2*a(n-1)-a(n-2) for n>5.
[A273407] 3, 17, 23, 33, 39, 49, 55, 65, 71, 81, 87, 97, 103, 113, 119, 129, 135, 145, 151, 161, 167, 177, 183, 193, 199, 209, 215, 225, 231, 241, 247, 257, 263, 273, 279, 289, 295, 305, 311, 321, 327, 337, 343, 353, 359, 369, 375, 385, 391, 401, 407, 417, 423, 433
a(n) = 8-(-1)^n+8*n for n>0.
a(n) = 8*n+7 for n>0 and even.
a(n) = 8*n+9 for n>0 and odd.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A273834] 3, 17, 24, 31, 41, 47, 57, 63, 73, 79, 89, 95, 105, 111, 121, 127, 137, 143, 153, 159, 169, 175, 185, 191, 201, 207, 217, 223, 233, 239, 249, 255, 265, 271, 281, 287, 297, 303, 313, 319, 329, 335, 345, 351, 361, 367, 377, 383, 393, 399, 409, 415, 425, 431
a(n) = 8+(-1)^n+8*n for n>2.
a(n) = 9+8*n for n>2 and even.
a(n) = 7+8*n for n>2 and odd.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>5.
[A273850] 3, 17, 24, 31, 45, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>4.
a(n) = 2*a(n-1)-a(n-2) for n>6.
[A273782] 3, 17, 27, 33, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>3.
a(n) = 2*a(n-1)-a(n-2) for n>5.
[A179783] 1, 3, 17, 39, 81, 139, 225, 335, 481, 659, 881, 1143, 1457, 1819, 2241, 2719, 3265, 3875, 4561, 5319, 6161, 7083, 8097, 9199, 10401, 11699, 13105, 14615, 16241, 17979, 19841, 21823, 23937, 26179, 28561, 31079
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>4.
[A087908] 1, 3, 17, 47, 99, 179, 293, 447, 647, 899, 1209, 1583, 2027, 2547, 3149, 3839, 4623, 5507, 6497, 7599, 8819, 10163, 11637, 13247, 14999, 16899, 18953, 21167, 23547, 26099
a(n) = n^3 - n^2 - 1. [This follows from the well-known fact that the largest integer not expressible as a nonnegative linear combination of a and b is the number ab-a-b. - Matthias Beck (beck(AT)math.sfsu.edu), Sep 22 2005]
a(1)=-1, a(2)=3, a(3)=17, a(4)=47; for n>4, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Jul 19 2011
[A144640] 3, 17, 48, 102, 185, 303, 462, 668, 927, 1245, 1628, 2082, 2613, 3227, 3930, 4728, 5627, 6633, 7752, 8990, 10353, 11847, 13478, 15252, 17175, 19253, 21492, 23898, 26477, 29235, 32178, 35312, 38643, 42177, 45920, 49878, 54057, 58463, 63102, 67980, 73103
a(n) = (2*n^2 + 5*n - 1)*n/2. - Jon E. Schoenfield, Jun 24 2010
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jul 06 2012
[A011917] 0, 0, 0, 0, 3, 17, 51, 120, 240, 432, 720, 1131, 1697, 2451, 3432, 4680, 6240, 8160, 10491, 13289, 16611, 20520, 25080, 30360, 36432, 43371, 51257, 60171, 70200, 81432, 93960, 107880, 123291, 140297, 159003
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-7) -4*a(n-8) +6*a(n-9) -4*a(n-10) +a(n-11). G.f.: x^4*(3+5*x+x^2+6*x^3+x^4+5*x^5+3*x^6) / ((1-x)^5*(1+x+x^2+x^3+x^4+x^5+x^6)). [From R. J. Mathar, Apr 15 2010]
[A163943] 0, 3, 17, 52, 121, 240, 428, 707, 1102, 1641, 2355, 3278, 4447, 5902, 7686, 9845, 12428, 15487, 19077, 23256, 28085, 33628, 39952, 47127, 55226, 64325, 74503, 85842, 98427, 112346, 127690, 144553, 163032, 183227, 205241, 229180, 255153
a(n)= (2*n + 45*n^2 + 22*n^3 + 3*n^4)/24.

a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A212415] 0, 0, 3, 17, 55, 135, 280, 518, 882, 1410, 2145, 3135, 4433, 6097, 8190, 10780, 13940, 17748, 22287, 27645, 33915, 41195, 49588, 59202, 70150, 82550, 96525, 112203, 129717, 149205, 170810, 194680, 220968, 249832, 281435, 315945
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
a(n) = (n-1)*n*(n+1)*(5*n+2)/24. [Bruno Berselli, May 30 2012]
[A152457] 0, 3, 17, 56, 140, 295, 553, 952, 1536, 2355, 3465, 4928, 6812, 9191, 12145, 15760, 20128, 25347, 31521, 38760, 47180, 56903, 68057, 80776, 95200, 111475, 129753, 150192, 172956, 198215, 226145, 256928, 290752, 327811, 368305, 412440, 460428
a(n) = n(n + 1)(3n^2 + 7n + 8)/12. - Giovanni Resta, Jun 15 2013
a(0)=0, a(1)=3, a(2)=17, a(3)=56, a(4)=140, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Dec 13 2013
[A168547] 1, 3, 17, 59, 145, 291, 513, 827, 1249, 1795, 2481, 3323, 4337, 5539, 6945, 8571, 10433, 12547, 14929, 17595, 20561, 23843, 27457, 31419, 35745, 40451, 45553, 51067, 57009, 63395, 70241, 77563, 85377, 93699, 102545, 111931, 121873, 132387, 143489, 155195
a(n)= 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A265919] 0, 1, 3, 17, 71, 301, 1275, 5257, 21711, 88997, 363395, 1480385, 6014423, 24393245, 98781323, 399502841, 1614022751, 6514800277, 26275725843, 105904696369, 426598453863, 1717507247885, 6911604624923, 27802402448233, 111796372691439, 449398016848261
a(n) = (4^n - Sum_(k=1..n) 4^(n-k)*(binomial(k, n-k)+binomial(k-1, n-k))^2)/8.
[A248917] 1, 3, 17, 73, 257, 801, 2305, 6273, 16385, 41473, 102401, 247809, 589825, 1384449, 3211265, 7372801, 16777217, 37879809, 84934657, 189267969, 419430401, 924844033, 2030043137, 4437573633, 9663676417, 20971520001, 45365592065, 97844723713, 210453397505, 451508436993
a(n) = 4*a(n-1) - 4*a(n-2) + 2^(n+1) + 1.
a(n) = 7*a(n-1) - 18*a(n-2) + 20*a(n-3) - 8*a(n-4). - Jean-François Alcover, Oct 22 2014
[A103715] 0, 0, 1, 3, 18, 22, 119, 285, 1516, 1844, 9797, 23407, 124334, 151226, 803275, 1919129, 10193912, 12398728, 65858793, 157345211, 835776490, 1016544510, 5399617791, 12900388213, 68523478308, 83344251132, 442702800109
a(n) = a(n-1) +82*a(n-4) -82*a(n-5) -a(n-8) +a(n-9). G.f.: x^3*(x^2+1)*(x^4+2*x^3+14*x^2+2*x+1)/((1-x)*(x^8-82*x^4+1)). [From R. J. Mathar, Nov 13 2009]
[A169598] 3, 18, 26, 41, 49, 64, 72, 87, 95, 110, 118, 133, 141, 156, 164, 179, 187, 202, 210, 225, 233, 248, 256, 271, 279, 294, 302, 317, 325, 340, 348, 363, 371, 386, 394, 409, 417, 432, 440, 455, 463, 478, 486, 501, 509, 524, 532, 547, 555, 570, 578, 593, 601, 616, 624
a(n) = (46*n + 7*(-1)^n - 27)/4. - Vincenzo Librandi, Jan 06 2013, modified Jul 07 2015
a(n) = a(n-1) + a(n-2) - a(n-3). - Vincenzo Librandi, Jan 06 2013
[A094159] 0, 3, 18, 45, 84, 135, 198, 273, 360, 459, 570, 693, 828, 975, 1134, 1305, 1488, 1683, 1890, 2109, 2340, 2583, 2838, 3105, 3384, 3675, 3978, 4293, 4620, 4959, 5310, 5673, 6048, 6435, 6834, 7245, 7668, 8103, 8550, 9009, 9480, 9963, 10458, 10965, 11484
a(n) = 12*n + a(n-1)-9 with n>0, a(0)=0. - Vincenzo Librandi, Nov 16 2010
[A085789] 3, 18, 54, 120, 225, 378, 588, 864, 1215, 1650, 2178, 2808, 3549, 4410, 5400, 6528, 7803, 9234, 10830, 12600, 14553, 16698, 19044, 21600, 24375, 27378, 30618, 34104, 37845, 41850, 46128, 50688, 55539, 60690, 66150, 71928, 78033, 84474, 91260, 98400, 105903
a(n) = 3/2 * n^2*(n+1).
[A061317] 0, 3, 18, 57, 132, 255, 438, 693, 1032, 1467, 2010, 2673, 3468, 4407, 5502, 6765, 8208, 9843, 11682, 13737, 16020, 18543, 21318, 24357, 27672, 31275, 35178, 39393, 43932, 48807, 54030, 59613, 65568, 71907, 78642, 85785, 93348, 101343, 109782
a(n) = 2*n^3 + n.
[A006011] 0, 0, 3, 18, 60, 150, 315, 588, 1008, 1620, 2475, 3630, 5148, 7098, 9555, 12600, 16320, 20808, 26163, 32490, 39900, 48510, 58443, 69828, 82800, 97500, 114075, 132678, 153468, 176610, 202275, 230640, 261888, 296208, 333795, 374850, 419580, 468198
a(n) = Sum(i*(i^2+n), i=1..n-1) for n>1 (see Example section). [Bruno Berselli, Aug 29 2014]
[A235988] 3, 18, 63, 144, 285, 486, 777, 1152, 1647, 2250, 3003, 3888, 4953, 6174, 7605, 9216, 11067, 13122, 15447, 18000, 20853, 23958, 27393, 31104, 35175, 39546, 44307, 49392, 54897, 60750, 67053, 73728, 80883, 88434, 96495, 104976, 113997, 123462, 133497, 144000
a(n) = 3*n^3 - 3*n*floor(n^2/4).
a(n) = (3*n*(1-(-1)^n+6*n^2))/8.
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n > 6. - Wesley Ivan Hurt, Nov 15 2015
[A253942] 3, 18, 63, 168, 378, 756, 1386, 2376, 3861, 6006, 9009, 13104, 18564, 25704, 34884, 46512, 61047, 79002, 100947, 127512, 159390, 197340, 242190, 294840, 356265, 427518, 509733, 604128, 712008, 834768, 973896, 1130976, 1307691, 1505826, 1727271, 1974024, 2248194
a(n) = (n-3)*(n-2)*(n-1)*n*(1+n)/40. - Colin Barker, Jan 20 2015
[A098522] 0, 0, 1, 3, 18, 70, 330, 1386, 6160, 26496, 115965, 502975, 2194302, 9553050, 41687737, 181908195, 794770200, 3474159304, 15199740171, 66541189473, 291507681070, 1277822445690, 5604712643376, 24596642511628, 108001447419048, 474459925386600, 2085333645995275, 9169506194833881
a(n) = sum{k=0..floor(n/2), binomial(n, k)*binomial(n-k, k+2)*3^k}.
[A094033] 0, 0, 0, 3, 18, 75, 270, 903, 2898, 9075, 27990, 85503, 259578, 784875, 2366910, 7125303, 21425058, 64373475, 193317030, 580344303, 1741819338, 5227030875, 15684238350, 47059006503, 141189602418, 423593973075, 1270832250870
a(n) = (3^n-3*2^n+3)/2.
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3).
[A041381] 1, 3, 19, 22, 107, 129, 881, 2772, 78497, 238263, 1508075, 1746338, 8493427, 10239765, 69932017, 220035816, 6230934865, 18912840411, 119707977331, 138620817742, 674191248299, 812812066041, 5551063644545, 17466002999676, 494599147635473, 1501263445906095
a(n) = 79378*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 16 2013
[A273367] 1, 3, 19, 25, 57, 67, 115, 129, 193, 211, 291, 313, 409, 435, 547, 577, 705, 739, 883, 921, 1081, 1123, 1299, 1345, 1537, 1587, 1795, 1849, 2073, 2131, 2371, 2433, 2689, 2755, 3027, 3097, 3385, 3459, 3763, 3841, 4161, 4243, 4579
a(2n) = 10*n^2 - 8*n + 1.
a(2n+1) = 10*n^2 + 8*n + 1.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). - G. C. Greubel, May 20 2016
[A187828] 3, 19, 37, 53, 71, 109, 149, 211, 251, 277, 307, 359, 397, 449, 479, 521, 593, 641, 709, 769, 823, 859, 919, 1009, 1033, 1087, 1171, 1217, 1277, 1321, 1367, 1399, 1459, 1549, 1609, 1637, 1693, 1747, 1879, 1973, 2039
a(x) = Sum(-1)^n (An) with n = (0, 1, 2..m)
[A103145] 3, 19, 43, 76, 119, 173, 239, 318, 411, 519, 643, 784, 943, 1121, 1319, 1538, 1779, 2043, 2331, 2644, 2983, 3349, 3743, 4166, 4619, 5103, 5619, 6168, 6751, 7369, 8023, 8714, 9443, 10211, 11019, 11868, 12759, 13693, 14671, 15694, 16763
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 26 2012
[A112627] 1, 3, 19, 51, 307, 819, 4915, 13107, 78643, 209715, 1258291, 3355443, 20132659, 53687091, 322122547, 858993459, 5153960755, 13743895347, 82463372083, 219902325555, 1319413953331, 3518437208883, 21110623253299, 56294995342131, 337769972052787, 900719925474099
a(n) = 4^(n-1) - (4 + (-4)^n)/20. - Robert Israel, Sep 02 2014
a(n) = a(n-1)+16*a(n-2)-16*a(n-3) for n>3. - Colin Barker, May 19 2016
[A249994] 1, 3, 19, 63, 307, 1095, 4843, 18111, 76483, 294327, 1213147, 4747119, 19308979, 76282599, 308006731, 1223430687, 4919576995, 19600876311, 78636062395, 313847102415, 1257480899731, 5023648225863, 20113423216939, 80397210315903, 321758305696387, 1286524863041655
a(n) = (-7*2^(1+n)+5*2^(3+2*n)+(-1)^n*3^(2+n))/35. - Colin Barker, Dec 29 2014
a(n) = 3*a(n-1) + 10*a(n-2) - 24*a(n-3). - Colin Barker, Dec 29 2014
[A071245] 0, 0, 3, 19, 66, 170, 365, 693, 1204, 1956, 3015, 4455, 6358, 8814, 11921, 15785, 20520, 26248, 33099, 41211, 50730, 61810, 74613, 89309, 106076, 125100, 146575, 170703, 197694, 227766, 261145, 298065, 338768, 383504, 432531, 486115, 544530, 608058
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), n>4, a(0)=0, a(1)=0, a(2)=3, a(3)=19, a(4)=66. - Yosu Yurramendi, Sep 03 2013
[A059599] 3, 19, 69, 189, 434, 882, 1638, 2838, 4653, 7293, 11011, 16107, 22932, 31892, 43452, 58140, 76551, 99351, 127281, 161161, 201894, 250470, 307970, 375570, 454545, 546273, 652239, 774039, 913384, 1072104, 1252152, 1455608, 1684683, 1941723
a(n) = binomial(n+4, 4)*(15+4*n)/5.
[A095662] 3, 19, 70, 196, 462, 966, 1848, 3300, 5577, 9009, 14014, 21112, 30940, 44268, 62016, 85272, 115311, 153615, 201894, 262108, 336490, 427570, 538200, 671580, 831285, 1021293, 1246014, 1510320, 1819576, 2179672, 2597056, 3078768, 3632475

a(0)=3, a(1)=19, a(2)=70, a(3)=196, a(4)=462, a(5)=966, a(6)=1848, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Mar 30 2014

[A243142] 0, 3, 19, 75, 218, 542, 1178, 2350, 4340, 7585, 12605, 20153, 31094, 46620, 68068, 97212, 136008, 186975, 252855, 337095, 443410, 576378, 740894, 942890, 1188668, 1485757, 1842113, 2267125, 2770670, 3364280, 4060040, 4871928, 5814544, 6904635, 8159643, 9599427

a(n) = (n^6 + 3*n^5 - 5*n^4 + 6*n^3 - 68*n^2 + 72*n + IF(MOD(n, 2) = 1)*(27*n^2 - 81*n + 45))/288.

[A267055] 1, 3, 20, 47, 336, 703, 5440, 11007, 87296, 175103, 1397760, 2797567, 22368256, 44744703, 357908480, 715849727, 5726601216, 11453333503, 91625881600, 183252287487, 1466015154176, 2932032405503, 23456246661120, 46912501710847, 375299963355136, 750599960264703

a(n) = 21*a(n-2)-84*a(n-4)+64*a(n-6) for n>5.

[A211068] 0, 3, 20, 48, 144, 243, 528, 768, 1400, 1875, 3060, 3888, 5880, 7203, 10304, 12288, 16848, 19683, 26100, 30000, 38720, 43923, 55440, 62208, 77064, 85683, 104468, 115248, 138600, 151875, 180480, 196608, 231200, 250563, 291924

a(n) = (2*n + 1 -(-1)^n)^2*(6*n + 1 -(-1)^n)*(2*n - 1 + (-1)^n)/256.

a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 9.

[A006411] 3, 20, 75, 210, 490, 1008, 1890, 3300, 5445, 8580, 13013, 19110, 27300, 38080, 52020, 69768, 92055, 119700, 153615, 194810, 244398, 303600, 373750, 456300, 552825, 665028, 794745, 943950, 1114760, 1309440

a(n) = n*(n+1)*(n+2)^2*(n+3)/24. - Bruno Berselli, May 17 2011]

a(n) = C(n+2,n)*C(n+2,n-1) - C(n+2,n+1)*C(n+2,n-2). - J. M. Bergot, Apr 07 2013

a(0)=0, a(1)=3, a(2)=20, a(3)=75, a(4)=210, a(5)=490, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Dec 24 2013

[A243208] 0, 3, 20, 77, 223, 552, 1196, 2380, 4388, 7657, 12710, 20301, 31297, 46892, 68426, 97674, 136596, 187713, 253770, 338217, 444773, 578018, 742852, 945210, 1191398, 1488949, 1845824, 2271415, 2775605, 3369930, 4066480, 4879238, 5822810, 6913947, 8170098, 9611127, 11257671

a(n) = (n^6 + 3*n^5 - 3*n^4 - 2*n^3 - 48*n^2 + 48*n)/288 + IF(MOD(n, 2) = 1)*(3*n^2 - 9*n - 1)/32 + IF(MOD(n, 3) = 1)*2/9.

a(n) = 3*a(n-1) - 7*a(n-3) + 3*a(n-4) + 6*a(n-5) - 6*a(n-7) - 3*a(n-8) + 7*a(n-9) - 3*a(n-11) + a(n-12). - Vaclav Kotesovec, Jun 02 2014

[A129549] 1, 3, 20, 78, 352, 1365, 5232, 18271, 60598, 187296, 548020, 1515265, 3991204, 10035401, 24210308, 56188768, 125904351, 273044682, 574635828, 1176027747, 2345376048, 4565886531, 8691118644, 16198834634, 29602895824, 53105875363

a(n) = [q^(2n)] (P(q) + q^54*P(1/q))/((1 - q^2)^3*(1 - q^4)^11*(1 - q^6)^6) where P(q) = 1 + 3*q^4 + 20*q^6 + 76*q^8 + 219*q^10 + 654*q^12 + 1539*q^14 + 3119*q^16 + 5660*q^18 + 9157*q^20 + 12876*q^22 + 16177*q^24 + 18275*q^26.

[A128910] 0, 3, 20, 119, 715, 4523, 30509, 213343, 1530983, 11203550, 83064263, 620498643, 4643259527, 34592032908, 254639722327, 1832740718223, 12680919388801, 81678704122892, 452951221016511, 1574800035301944, 8395299939524712, 28224081301289728 2, 44576975459063261 18, 58106920364272792945, 693274802905577732102, 786463568572965813183 5

a(n) = abs(round(1.022*10^n/log(10^n)) - pi(10^n)). - Charles R Greathouse IV, Mar 22 2015

[A273481] 3, 21, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432

a(n) = 2*a(n-1)-a(n-2) for n>3.

[A045802] 3, 21, 29, 47, 103, 121, 129, 147, 203, 221, 229, 247, 303, 321, 329, 347, 403, 421, 429, 447, 503, 521, 529, 547, 603, 621, 629, 647, 703, 721, 729, 747, 803, 821, 829, 847, 903, 921, 929, 947, 1003, 1021, 1029, 1047, 1103, 1121, 1129, 1147, 1203, 1221

a(n) = (50*n-24*i^(n*(n+1))-7*(-1)^n-75)/2, where i=sqrt(-1). - Bruno Berselli, Feb 23 2012

a(1)=3, a(2)=21, a(3)=29, a(4)=47, a(5)=103, a(n)=a(n-1)+a(n-4)-a(n-5) [From Harvey P. Dale, May 05 2012]

[A152773] 0, 3, 21, 54, 102, 165, 243, 336, 444, 567, 705, 858, 1026, 1209, 1407, 1620, 1848, 2091, 2349, 2622, 2910, 3213, 3531, 3864, 4212, 4575, 4953, 5346, 5754, 6177, 6615, 7068, 7536, 8019, 8517, 9030, 9558, 10101, 10659, 11232, 11820

a(n) = a(n-1)+15*n-12 with n>0, a(0)=0. - Vincenzo Librandi, Nov 26 2010

a(0)=0, a(1)=3, a(2)=21, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 08 2012

[A033567] 1, 3, 21, 55, 105, 171, 253, 351, 465, 595, 741, 903, 1081, 1275, 1485, 1711, 1953, 2211, 2485, 2775, 3081, 3403, 3741, 4095, 4465, 4851, 5253, 5671, 6105, 6555, 7021, 7503, 8001, 8515, 9045, 9591, 10153, 10731, 11325, 11935, 12561, 13203, 13861, 14535, 15225

a(n) = a(n-1) + 16*n - 14 (with a(0)=1). - Vincenzo Librandi, Nov 17 2010

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-2).

[A188667] 0, 0, 3, 21, 72, 180, 375, 693, 1176, 1872, 2835, 4125, 5808, 7956, 10647, 13965, 18000, 22848, 28611, 35397, 43320, 52500, 63063, 75141, 88872, 104400, 121875, 141453, 163296, 187572, 214455, 244125, 276768, 312576, 351747, 394485, 441000

a(n) = n*(n+4)*(n-1)^2/4.

[A228317] 0, 0, 3, 21, 75, 195, 420, 798, 1386, 2250, 3465, 5115, 7293, 10101, 13650, 18060, 23460, 29988, 37791, 47025, 57855, 70455, 85008, 101706, 120750, 142350, 166725, 194103, 224721, 258825, 296670, 338520, 384648, 435336, 490875, 551565, 617715, 689643

a(n) = n*(n-1)*(n-2)*(3*n-5)/8.

[A110450] 0, 3, 21, 78, 210, 465, 903, 1596, 2628, 4095, 6105, 8778, 12246, 16653, 22155, 28920, 37128, 46971, 58653, 72390, 88410, 106953, 128271, 152628, 180300, 211575, 246753, 286146, 330078, 378885, 432915, 492528, 558096, 630003, 708645, 794430

a(n) = Sum_{i=1..n*(n+1)} i. - Wesley Ivan Hurt, Sep 27 2013

[A112851] 0, 0, 3, 21, 81, 231, 546, 1134, 2142, 3762, 6237, 9867, 15015, 22113, 31668, 44268, 60588, 81396, 107559, 140049, 179949, 228459, 286902, 356730, 439530, 537030, 651105, 783783, 937251, 1113861, 1316136, 1546776, 1808664, 2104872, 2438667, 2813517, 3233097

a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), with a(0)=0, a(1)=0, a(2)=3, a(3)=21, a(4)=81, a(5)=231. - Harvey P. Dale, Oct 28 2014

a(n) = (1/2) * Sum_{k=0..n} C(k^2,2). - Wesley Ivan Hurt, Sep 23 2017

[A059826] 1, 3, 21, 91, 273, 651, 1333, 2451, 4161, 6643, 10101, 14763, 20881, 28731, 38613, 50851, 65793, 83811, 105301, 130683, 160401, 194923, 234741, 280371, 332353, 391251, 457653, 532171, 615441, 708123, 810901, 924483, 1049601

a(n) = n^4+n^2+1. - Paul Barry, Apr 02 2003

[A289399] 0, 3, 21, 102, 426, 1641, 6015, 21324, 73812, 250959, 841449, 2790066, 9167358, 29893557, 96855123, 312088728, 1000836264, 3196219035, 10169787837, 32252755710, 101988443730, 321655860993, 1012039172391, 3177332285412, 9955641160956, 31137856397031

a(n) = 3*(1 - 3^n + 2*3^n*n) / 4.

a(n) = 7*a(n-1) - 15*a(n-2) + 9*a(n-3) for n>2.

[A139272] 0, 3, 22, 57, 108, 175, 258, 357, 472, 603, 750, 913, 1092, 1287, 1498, 1725, 1968, 2227, 2502, 2793, 3100, 3423, 3762, 4117, 4488, 4875, 5278, 5697, 6132, 6583, 7050, 7533, 8032, 8547, 9078, 9625, 10188, 10767, 11362, 11973, 12600

a(n) = 8*n^2 - 5*n.

a(n) = 16*n + a(n-1) - 13 with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).

[A005288] 3, 22, 71, 169, 343, 628, 1068, 1717, 2640, 3914, 5629, 7889, 10813, 14536, 19210, 25005, 32110, 40734, 51107, 63481, 78131, 95356, 115480, 138853, 165852, 196882, 232377, 272801, 318649, 370448, 428758, 494173, 567322

a(n) = C(n+3, 5) - C(n+2, 3) + C(n, 0).

a(n) = (n+4)*(n-3)*(n^3-6*n^2+3*n-10)/120, n >= 7. - R. J. Mathar, May 19 2013

[A143166] 0, 3, 22, 73, 172, 335, 578, 917, 1368, 1947, 2670, 3553, 4612, 5863, 7322, 9005, 10928, 13107, 15558, 18297, 21340, 24703, 28402, 32453, 36872, 41675, 46878, 52497, 58548, 65047, 72010, 79453, 87392, 95843, 104822, 114345, 124428, 135087, 146338, 158197

a(n) = (1/4)*(S(n) - S(n-1)), with a(0)=0 and S(n):=sum(sum(p^2+q^2,p=-n..+n),q=-n..+n) = 2*sum(sum((p^2,p=-n..+n), q=-n..+n) = 2*sum(p^2,p=-n..+n)*sum(1,q=-n..n) = 2*2*(n*(n+1)*(2*n+1))/6)*(2*n+1) = (2/3)*n*(n+1)*(2*n+1)^2.

a(n) = n*(8*n^2 + 1)/3.

[A004305] 3, 22, 85, 254, 644, 1448, 2967, 5645, 10109, 17214, 28093, 44212, 67430, 100064, 144959, 205563, 286007, 391190, 526869, 699754, 917608, 1189352, 1525175, 1936649, 2436849, 3040478, 3763997, 4625760, 5646154, 6847744, 8255423, 9896567, 11801195, 14002134, 16535189, 19439318, 22756812, 26533480, 30818839

a(n) = (n^6+15*n^5+103*n^4+405*n^3+976*n^2+1236*n+432)/144.

[A277228] 0, 0, 3, 22, 88, 258, 623, 1316, 2520, 4476, 7491, 11946, 18304, 27118, 39039, 54824, 75344, 101592, 134691, 175902, 226632, 288442, 363055, 452364, 558440, 683540, 830115, 1000818, 1198512, 1426278, 1687423, 1985488, 2324256, 2707760, 3140291, 3626406

a(n) = binomial(n+1, 3)*(4*n^2 + 5*n + 4)/10 = (n - 1)*n*(n + 1)*(4*n^2 + 5*n + 4)/60.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5. - Colin Barker, Oct 21 2016
[A041661] 1, 1, 3, 22, 157, 336, 493, 18084, 18577, 55238, 405243, 2891939, 6189121, 9081060, 333107281, 342188341, 1017483963, 7464576082, 53269516537, 114003609156, 167273125693, 6135836134104, 6303109259797, 18742054653698, 137497491835683, 981224497503479
a(n) = 18420*a(n-7) + a(n-14) for n>13. - Vincenzo Librandi, Dec 22 2013
[A126335] 3, 23, 72, 162, 305, 513, 798, 1172, 1647, 2235, 2948, 3798, 4797, 5957, 7290, 8808, 10523, 12447, 14592, 16970, 19593, 22473, 25622, 29052, 32775, 36803, 41148, 45822, 50837, 56205, 61938, 68048, 74547, 81447, 88760, 96498, 104673, 113297
a(1)=3, a(2)=23, a(3)=72, a(4)=162; for n>4, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
[A024196] 3, 23, 86, 230, 505, 973, 1708, 2796, 4335, 6435, 9218, 12818, 17381, 23065, 30040, 38488, 48603, 60591, 74670, 91070, 110033, 131813, 156676, 184900, 216775, 252603, 292698, 337386, 387005, 441905, 502448, 569008, 641971, 721735, 808710, 903318
a(n) = n*(n+1)*(3*n^2+5*n+1)/6.
a(n) = Sum_{i=1..n} (n+1-i)*((n+1)^2-i). - Bruno Berselli, Mar 13 2012
a(n) = Sum_{i=1..n} ((2*i-1)*Sum_{j=i..n} (2*j+1)) = 1*(3+5+...2*n+1) + 3*(5+7+...+2*n+1) + ... + (2*n-1)*(2*n+1). - J. M. Bergot, Apr 21 2017
[A213846] 3, 23, 90, 250, 565, 1113, 1988, 3300, 5175, 7755, 11198, 15678, 21385, 28525, 37320, 48008, 60843, 76095, 94050, 115010, 139293, 167233, 199180, 235500, 276575, 322803, 374598, 432390, 496625, 567765
a(n) = n*(1 + n)*(1 - 2*n + 4*n^2)/6.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A196881] 1, 1, 3, 23, 132, 729, 3987, 18687, 82350, 342383, 1295579, 4634280, 15873501, 51143461, 156932559, 463212189, 1309275981, 3576241449, 9484669665, 24306269493, 60475548510, 146630200929, 345755185335, 796397380425, 1797676089003, 3970398558042, 8602390112508
a(n) = [x^(n^3)] 1/Product_{j>=0}(1-x^(3^j)).
[A106217] 0, 3, 24, 30, 48, 57, 63, 72, 81, 99, 105, 114, 120, 129, 132, 135, 141, 147, 156, 159, 168, 177, 180, 195, 198, 201, 204, 207, 210, 222, 243, 249, 252, 261, 267, 279, 282, 285, 297, 309, 312, 315, 327, 333, 342, 351, 375, 387, 393, 399, 402, 408, 411, 414
a(n) = 0 (mod 3) for all n.
[A267274] 1, 3, 24, 31, 384, 511, 6144, 8191, 98304, 131071, 1572864, 2097151, 25165824, 33554431, 402653184, 536870911, 6442450944, 8589934591, 103079215104, 137438953471, 1649267441664, 2199023255551, 26388279066624, 35184372088831, 422212465065984, 562949953421311
a(n) = ((-4)^n+(-1)^n+2^(2*n+1)-1)/2 for n>1.
a(n) = 17*a(n-2)-16*a(n-4) for n>5.
[A211034] 0, 3, 24, 52, 164, 384, 592, 1131, 1944, 2628, 4128, 6144, 7744, 10955, 15000, 18100, 23988, 31104, 36432, 46179, 57624, 66052, 81056, 98304, 110848, 132723, 157464, 175284, 205860, 240000, 264400, 305723, 351384, 383812, 438144, 497664, 539712, 609531
a(n) = a(n-1) + 4*a(n-3) - 4*a(n-4) - 6*a(n-6) + 6*a(n-7) + 4*a(n-9) - 4*a(n-10) - a(n-12) + a(n-13) for n > 12.
a(n) = r^2*s^2 + 2*r^2*s*t + r^2*t^2 + 2*r*s^3 + 6*r*s^2*t + 6*r*s*t^2 + 2*r*t^3 + 2*s^3*t + 2*s*t^3.
[A152751] 0, 3, 24, 63, 120, 195, 288, 399, 528, 675, 840, 1023, 1224, 1443, 1680, 1935, 2208, 2499, 2808, 3135, 3480, 3843, 4224, 4623, 5040, 5475, 5928, 6399, 6888, 7395, 7920, 8463, 9024, 9603, 10200, 10815, 11448, 12099, 12768, 13455
a(n) = a(n-1) + 18*n - 15 with n>0, a(0)=0. - Vincenzo Librandi, Nov 26 2010
[A117642] 0, 3, 24, 81, 192, 375, 648, 1029, 1536, 2187, 3000, 3993, 5184, 6591, 8232, 10125, 12288, 14739, 17496, 20577, 24000, 27783, 31944, 36501, 41472, 46875, 52728, 59049, 65856, 73167, 81000, 89373, 98304, 107811, 117912, 128625, 139968, 151959, 164616
a(n+1) = a(n) + 9*n^2 + 9*n + 3 with a(0) = 0. - Jean-Bernard François, Oct 04 2013
[A211618] 0, 3, 24, 89, 218, 439, 772, 1245, 1878, 2699, 3728, 4993, 6514, 8319, 10428, 12869, 15662, 18835, 22408, 26409, 30858, 35783, 41204, 47149, 53638, 60699, 68352, 76625, 85538, 95119, 105388, 116373, 128094, 140579, 153848, 167929, 182842, 198615, 215268
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5) for n>5.
a(n) = 4*n^3 - 3*n^2 + 3*n - 2 for n>0 and even.
a(n) = 4*n^3 - 3*n^2 + 3*n - 1 for n odd.
[A004282] 0, 3, 24, 100, 300, 735, 1568, 3024, 5400, 9075, 14520, 22308, 33124, 47775, 67200, 92480, 124848, 165699, 216600, 279300, 355740, 448063, 558624, 690000, 845000, 1026675, 1238328, 1483524, 1766100, 2090175
a(n) = C(2+n, 2)*C(2+n, 3). - Zerinvary Lajos, Jan 10 2006
a(n-1) = Sum_{1 <= x_1, x_2 <= n} x_1*(det V(x_1,x_2))^2 = Sum_{1 <= i,j <= n} i*(i-j)^2, where V(x_1,x_2) is the Vandermonde matrix of order 2. - Peter Bala, Sep 21 2007
a(n) = Sum_{k=0..n} Sum_{i=0..n} (n-i+1) * C(k+1,k-1). - Wesley Ivan Hurt, Sep 21 2017
[A164938] 0, 3, 24, 102, 312, 777, 1680, 3276, 5904, 9999, 16104, 24882, 37128, 53781, 75936, 104856, 141984, 188955, 247608, 319998, 408408, 515361, 643632, 796260, 976560, 1188135, 1434888, 1721034, 2051112, 2429997, 2862912, 3355440, 3913536
a(n) = (n^5-n)/10.
a(n) = 6*a(n-1)- 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6), a(1)=0, a(2)=3, a(3)=24, a(4)=102, a(5)=312, a(6)=777. - Harvey P. Dale, Jan 14 2012
[A253944] 3, 24, 108, 360, 990, 2376, 5148, 10296, 19305, 34320, 58344, 95472, 151164, 232560, 348840, 511632, 735471, 1038312, 1442100, 1973400, 2664090, 3552120, 4682340, 6107400, 7888725, 10097568, 12816144, 16138848, 20173560, 25043040, 30886416, 37860768
a(n) = 3*C(n+1,7) = (n^7 - 14n^6 + 70n^5 - 140n^4 + 49n^3 + 154n^2 - 120n)/1680.
[A206949] 0, 0, 0, 3, 24, 135, 657, 2961, 12744, 53244, 218025, 880308, 3518721, 13961727, 55097091, 216546048, 848476296, 3316800555, 12942852624, 50437433079, 196347606849, 763752142233, 2969021213928, 11536374392820, 44809232564673, 173997851613660, 675501426136017
a(n) = 9*a(n-1) - 27*a(n-2) + 30*a(n-3) - 9*a(n-4), a(1)=0, a(2)=0, a(3)=3, a(4)=24.
[A041897] 1, 1, 3, 25, 53, 78, 3329, 3407, 10143, 84551, 179245, 263796, 11258677, 11522473, 34303623, 285951457, 606206537, 892157994, 38076842285, 38969000279, 116014842843, 967087743023, 2050190328889, 3017278071912, 128775869349193, 131793147421105
a(n) = 3382*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 26 2013
[A006222] 3, 25, 69, 135, 223, 333, 465, 619, 795, 993, 1213, 1455, 1719, 2005, 2313, 2643, 2995, 3369, 3765, 4183, 4623, 5085, 5569, 6075, 6603, 7153, 7725, 8319, 8935, 9573, 10233, 10915, 11619, 12345, 13093, 13863, 14655, 15469, 16305
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A114378] 3, 25, 84, 201, 392, 678, 1077, 1608, 2290, 3141, 4181, 5428, 6902, 8620, 10602, 12867, 15434, 18321, 21548, 25132, 29094, 33451, 38223, 43429, 49087, 55216, 61835, 68964, 76620, 84823, 93591, 102943, 112899, 123477, 134695, 146574
a(n) = floor(Pi*n^3). - Robert Israel, Nov 24 2014
[A180324] 0, 3, 25, 98, 270, 605, 1183, 2100, 3468, 5415, 8085, 11638, 16250, 22113, 29435, 38440, 49368, 62475, 78033, 96330, 117670, 142373, 170775, 203228, 240100, 281775, 328653, 381150, 439698, 504745, 576755, 656208, 743600, 839443
a(n) = (n*(n+1)*(2*n+1)^2)/6.
a(n) = C(2*n+2,4) + C(2*n+2,3)/2.
[A215773] 0, 3, 25, 120, 420, 1190, 2898, 6300, 12540, 23265, 40755, 68068, 109200, 169260, 254660, 373320, 534888, 750975, 1035405, 1404480, 1877260, 2475858, 3225750, 4156100, 5300100, 6695325, 8384103, 10413900, 12837720, 15714520, 19109640, 23095248, 27750800
a(n) = n*(n+1)*(n+2)*(n+3)*(n^2+n+4)/48.
[A191590] 0, 0, 3, 26, 50, 133, 196, 375, 806, 1001, 1768, 2451, 2850, 3773, 5500, 7686, 8526, 11408, 13651, 14875, 18981, 22100, 27391, 35673, 40376, 42875, 48178, 50986, 56925, 81313, 89376, 102443, 107066, 132276, 137751, 155078, 173800, 187083, 208250, 230956, 238876, 281201
a(n)=(prime(n)+2)*(prime(n)-3)*(prime(n)-5)/24.
[A269342] 3, 26, 85, 196, 375, 638, 1001, 1480, 2091, 2850, 3773, 4876, 6175, 7686, 9425, 11408, 13651, 16170, 18981, 22100, 25543, 29326, 33465, 37976, 42875, 48178, 53901, 60060, 66671, 73750, 81313, 89376, 97955, 107066, 116725, 126948, 137751, 149150, 161161
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = Sum_{k=0..n} (8*k^2 + 12*k + 3).
[A292001] 3, 26, 93, 260, 615, 1278, 2401, 4168, 6795, 10530, 15653, 22476, 31343, 42630, 56745, 74128, 95251, 120618, 150765, 186260, 227703, 275726, 330993, 394200, 466075, 547378, 638901, 741468, 855935, 983190, 1124153, 1279776, 1451043, 1638970, 1844605, 2069028

a(n) = n*(-21 + 38*n - 12*n^2 + 4*n^3)/3.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A211622] 0, 3, 26, 94, 229, 457, 800, 1284, 1931, 2767, 3814, 5098, 6641, 8469, 10604, 13072, 15895, 19099, 22706, 26742, 31229, 36193, 41656, 47644, 54179, 61287, 68990, 77314, 86281, 95917, 106244, 117288, 129071, 141619, 154954, 169102, 184085, 199929, 216656
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5) for n>5.
a(n) = (8*n^3 - 4*n^2 + 3*n - 2) / 2 for n>0 and even.
a(n) = (16*n^3 - 8*n^2 + 6*n - 2) / 4 for n odd.
[A169832] 0, 3, 26, 99, 282, 695, 1578, 3411, 7154, 14727, 29970, 60563, 121866, 244599, 490202, 981555, 1964418, 3930311, 7862274, 15726387, 31454810, 62911863, 125826186, 251655059, 503313042, 1006629255, 2013261938, 4026527571, 8053059114, 16106122487, 32212249530
a(n) - 5*a(n-1) + 9*a(n-2) - 7*a(n-3) + 2*a(n-4) = 0, with n>3. (End)
[A100606] 0, 3, 26, 111, 324, 755, 1518, 2751, 4616, 7299, 11010, 15983, 22476, 30771, 41174, 54015, 69648, 88451, 110826, 137199, 168020, 203763, 244926, 292031, 345624, 406275, 474578, 551151, 636636, 731699, 837030, 953343, 1081376, 1221891
a(0)=0, a(1)=3, a(2)=26, a(3)=111, a(4)=324, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Apr 25 2015
[A152759] 0, 3, 27, 72, 138, 225, 333, 462, 612, 783, 975, 1188, 1422, 1677, 1953, 2250, 2568, 2907, 3267, 3648, 4050, 4473, 4917, 5382, 5868, 6375, 6903, 7452, 8022, 8613, 9225, 9858, 10512, 11187, 11883, 12600, 13338, 14097, 14877, 15678
a(n) = a(n-1)+21*n-18 with n>0, a(0)=0. - Vincenzo Librandi, Nov 26 2010
[A267360] 1, 3, 28, 47, 496, 575, 8000, 9215, 128000, 147455, 2048000, 2359295, 32768000, 37748735, 524288000, 603979775, 8388608000, 9663676415, 134217728000, 154618822655, 2147483648000, 2473901162495, 34359738368000, 39582418599935, 549755813888000, 633318697598975
a(n) = 17*a(n-2)-16*a(n-4) for n>8.
[A053132] 3, 28, 126, 396, 1001, 2184, 4284, 7752, 13167, 21252, 32890, 49140, 71253, 100688, 139128, 188496, 250971, 329004, 425334, 543004, 685377, 856152, 1059380, 1299480, 1581255, 1909908, 2291058, 2730756, 3235501, 3812256, 4468464
a(n)= binomial(2*n-4, 5)/2 if n >= 5 else 0;
[A119951] 1, 3, 29, 65, 281, 595, 9949, 20613, 84883, 173965, 1421113, 2894229, 11762641, 23859587, 773201629, 1564082093, 6321150767, 12761711209, 102977321267, 207595672639, 836499257311, 1684433835077, 27122471168057, 54567418372945, 219485160092143, 441266239318305, 3547513302275441
a(n) = numerator of Sum_{k=1..n} C(k)/2^(2*(k-1)).
a(n-1) = numerator of (1/4^n)*Sum_{i=0..n-1} (binomial(2*(i+1), i+1)*binomial(2*(n-i), n-i)), for n>=1. - Johannes W. Meijer, May 24 2009
[A288918] 0, 3, 29, 79, 153, 251, 373, 519, 689, 883, 1101, 1343, 1609, 1899, 2213, 2551, 2913, 3299, 3709, 4143, 4601, 5083, 5589, 6119, 6673, 7251, 7853, 8479, 9129, 9803, 10501, 11223, 11969, 12739, 13533, 14351, 15193, 16059, 16949, 17863
a(n) = 12*n^2 - 34*n + 23 for n>1. - Andrew Howroyd, Jun 19 2017
[A211621] 0, 3, 29, 103, 247, 484, 843, 1342, 2008, 2866, 3938, 5247, 6822, 8681, 10851, 13357, 16221, 19466, 23121, 27204, 31742, 36760, 42280, 48325, 54924, 62095, 69865, 78259, 87299, 97008, 107415, 118538, 130404, 143038, 156462, 170699, 185778, 201717, 218543
a(n) = 2*a(n-1) - a(n-3) - a(n-4) + 2*a(n-6) - a(n-7) for n>6.
[A140153] 1, 3, 30, 34, 159, 165, 508, 516, 1245, 1255, 2586, 2598, 4795, 4809, 8184, 8200, 13113, 13131, 19990, 20010, 29271, 29293, 41460, 41484, 57109, 57135, 76818, 76846, 101235, 101265, 131056, 131088, 167025, 167059, 209934, 209970, 260623
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^3+{[1+(-1)^n]/2}*n, with a(1)=1 a(n)= (-3/16)+(1/4)*(-1)^n*n+(3/16)*(-1)^n-(1/4)*(-1)^n*n^3+(1/4)*n^3-(3/8)*(-1)^n*n^2+(3/8)*n^2+(1/4)*n+(1/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
a(n)=a(n-1)+4a(n-2)-4a(n-3)-6a(n-4)+6a(n-5)+4a(n-6)-4a(n-7)-a(n-8)+a(n-9). G.f.: -x*(1+2*x+23*x^2-4*x^3+23*x^4+2*x^5+x^6)/((1+x)^4*(x-1)^5). [From R. J. Mathar, Feb 22 2009]
[A152767] 0, 3, 30, 81, 156, 255, 378, 525, 696, 891, 1110, 1353, 1620, 1911, 2226, 2565, 2928, 3315, 3726, 4161, 4620, 5103, 5610, 6141, 6696, 7275, 7878, 8505, 9156, 9831, 10530, 11253, 12000, 12771, 13566, 14385, 15228, 16095, 16986
a(n) = a(n-1)+24*n-21, n>0. - Vincenzo Librandi, Nov 26 2010
a(0)=0, a(1)=3, a(2)=30, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 26 2012
[A195029] 3, 30, 85, 168, 279, 418, 585, 780, 1003, 1254, 1533, 1840, 2175, 2538, 2929, 3348, 3795, 4270, 4773, 5304, 5863, 6450, 7065, 7708, 8379, 9078, 9805, 10560, 11343, 12154, 12993, 13860, 14755, 15678, 16629, 17608, 18615, 19650, 20713, 21804, 22923
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A211617] 0, 3, 30, 101, 244, 479, 834, 1329, 1992, 2843, 3910, 5213, 6780, 8631, 10794, 13289, 16144, 19379, 23022, 27093, 31620, 36623, 42130, 48161, 54744, 61899, 69654, 78029, 87052, 96743, 107130, 118233, 130080, 142691, 156094, 170309, 185364, 201279, 218082
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5) for n>4.
a(n) = 4*n^3 - n^2 + n for n even.
a(n) = 4*n^3 - n^2 + n - 1 for n odd.
[A225018] 3, 30, 127, 301, 647, 1100, 1851, 2715, 4027, 5434, 7463, 9545, 12447, 15336, 19267, 23095, 28211, 33110, 39567, 45669, 53623, 61060, 70667, 79571, 90987, 101490, 114871, 127105, 142607, 156704, 174483, 190575, 210787, 229006, 251807, 272285, 297831, 320700
a(n) = (1/2)*(12*n^3-9*n^2+4*n-1) if n is odd; a(n) = (1/2)*(12*n^3-12*n^2+7*n-2) if n is even.
a(n) = (24*n^3-21*n^2+11*n-(3*n^2-3*n+1)*(-1)^n-3)/4. [Bruno Berselli, Apr 24 2013]
[A294973] 1, 3, 31, 96, 223, 765, 7873, 24384, 56641, 194307, 1999711, 6193440, 14386591, 49353213, 507918721, 1573109376, 3654137473, 12535521795, 129009355423, 399563588064, 928136531551, 3183973182717, 32767868358721, 101487578258880, 235743024876481, 808716652888323, 8322909553759711, 2577744531416
59877800182094623, 205410845860451325
a(n) = 254*a(n-4) - a(n-8) for n > 7.
[A111400] 0, 3, 31, 251, 1485, 6665, 24073, 73486, 196626, 473595, 1047255, 2157793, 4189991, 7736001, 13676705, 23285020, 38354788, 61359171, 95642751, 145651815, 217207585, 317827433, 457099401, 647115626, 902970550, 1243330075, 1691078103, 2274047181
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9).
[A213845] 3, 32, 119, 296, 595, 1048, 1687, 2544, 3651, 5040, 6743, 8792, 11219, 14056, 17335, 21088, 25347, 30144, 35511, 41480, 48083, 55352, 63319, 72016, 81475, 91728, 102807, 114744, 127571, 141320, 156023, 171712
a(n) = (2*n - 9*n^2 + 16*n^3)/3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A004256] 0, 3, 32, 150, 480, 1225, 2688, 5292, 9600, 16335, 26400, 40898, 61152, 88725, 125440, 173400, 235008, 312987, 410400, 530670, 677600, 855393, 1068672, 1322500, 1622400, 1974375, 2384928, 2861082
a(0)=0, a(1)=3, a(2)=32, a(3)=150, a(4)=480, a(5)=1225, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, May 26 2015
[A139222] 3, 33, 63, 93, 123, 153, 183, 213, 243, 273, 303, 333, 363, 393, 423, 453, 483, 513, 543, 573, 603, 633, 663, 693, 723, 753, 783, 813, 843, 873, 903, 933, 963, 993, 1023, 1053, 1083, 1113, 1143, 1173, 1203, 1233, 1263, 1293, 1323, 1353, 1383, 1413, 1443, 1473
a(n) = a(n-1) + 30.
a(n)=30*n-27 [From Paolo P. Lava, Sep 06 2010]
[A153783] 0, 3, 33, 90, 174, 285, 423, 588, 780, 999, 1245, 1518, 1818, 2145, 2499, 2880, 3288, 3723, 4185, 4674, 5190, 5733, 6303, 6900, 7524, 8175, 8853, 9558, 10290, 11049, 11835, 12648, 13488, 14355, 15249, 16170, 17118, 18093, 19095
a(n) = 27*n + a(n-1) - 24, with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A042821] 1, 1, 3, 34, 37, 552, 1141, 2834, 3975, 6809, 17593, 41995, 605523, 647518, 7728221, 16103960, 23832181, 1446034820, 1469867001, 4385768822, 49713324043, 54099092865, 807100624153, 1668300341171, 4143701306495, 5812001647666, 9955702954161
a(n) = 1462138780*a(n-17) + a(n-34) for n>33. - Vincenzo Librandi, Jan 30 2014
[A195021] 0, 3, 34, 93, 180, 295, 438, 609, 808, 1035, 1290, 1573, 1884, 2223, 2590, 2985, 3408, 3859, 4338, 4845, 5380, 5943, 6534, 7153, 7800, 8475, 9178, 9909, 10668, 11455, 12270, 13113, 13984, 14883, 15810, 16765, 17748, 18759, 19798, 20865, 21960, 23083
a(n) = 14*n^2 - 11*n.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(3+25*x)/(1-x)^3. - Colin Barker, Apr 09 2012

[A001539] 3, 35, 99, 195, 323, 483, 675, 899, 1155, 1443, 1763, 2115, 2499, 2915, 3363, 3843, 4355, 4899, 5475, 6083, 6723, 7395, 8099, 8835, 9603, 10403, 11235, 12099, 12995, 13923, 14883, 15875, 16899, 17955, 19043, 20163, 21315, 22499, 23715, 24963, 26243, 27555
a(n) = 32*n + a(n-1) for n>0, a(0)=3. - Vincenzo Librandi, Nov 12 2010
a(n) = a(m) + 16*(n-m)*(n+m+1). The previous formula is obtained for m = n-1. - Bruno Berselli, Sep 29 2017
[A271209] 1, 3, 35, 247, 1029, 3131, 7783, 16815, 32777, 59059, 100011, 161063, 248845, 371307, 537839, 759391, 1048593, 1419875, 1889587, 2476119, 3200021, 4084123, 5153655, 6436367, 7962649, 9765651, 11881403, 14348935, 17210397, 20511179, 24300031, 28629183, 33554465
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), n>5. (End)
[A072682] 3, 36, 54, 57, 63, 96, 114, 117, 123, 156, 174, 177, 183, 216, 234, 237, 243, 276, 294, 297, 303, 336, 354, 357, 363, 396, 414, 417, 423, 456, 474, 477, 483, 516, 534, 537, 543, 576, 594, 597, 603, 636, 654, 657, 663, 696, 714, 717, 723, 756, 774, 777, 783
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = 15*n+3*(1+i)*((1-i)*i^(2*n)-(5+2*i)*i^(-n)+(2+5*i)*i^n)/4 where i=sqrt(-1). (End)
[A153448] 0, 3, 36, 99, 192, 315, 468, 651, 864, 1107, 1380, 1683, 2016, 2379, 2772, 3195, 3648, 4131, 4644, 5187, 5760, 6363, 6996, 7659, 8352, 9075, 9828, 10611, 11424, 12267, 13140, 14043, 14976, 15939, 16932, 17955, 19008, 20091, 21204
a(n) = 30*n + a(n-1) - 27 with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=3, a(2)=36, a(n)=3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jun 18 2014
[A140958] 3, 36, 108, 420, 684, 1008, 1332, 1668, 2076, 2772, 2952, 3168, 3576, 4236, 4776, 5148, 5532, 5892, 6312, 6696, 7008, 7776, 8064, 8640, 8964, 9648, 10044, 10368, 10692, 11376, 12600, 13872, 14460, 15072, 15288, 15732, 15984, 16344, 17280, 17712, 18132, 18876
a(n) == 0 (mod 6), n>1.
[A213848] 3, 36, 131, 320, 635, 1108, 1771, 2656, 3795, 5220, 6963, 9056, 11531, 14420, 17755, 21568, 25891, 30756, 36195, 42240, 48923, 56276, 64331, 73120, 82675, 93028, 104211, 116256, 129195, 143060, 157883, 173696
a(n) = (-4*n - 3*n^2 + 16*n^3)/3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A153875] 0, 3, 39, 108, 210, 345, 513, 714, 948, 1215, 1515, 1848, 2214, 2613, 3045, 3510, 4008, 4539, 5103, 5700, 6330, 6993, 7689, 8418, 9180, 9975, 10803, 11664, 12558, 13485, 14445, 15438, 16464, 17523, 18615, 19740, 20898, 22089
a(n) = a(n-1) + 33*n - 30, with n>0, a(0)=0. - Vincenzo Librandi, Dec 14 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A041347] 1, 1, 3, 40, 83, 123, 3281, 3404, 10089, 134561, 279211, 413772, 11037283, 11451055, 33939393, 452663164, 939265721, 1391928885, 37129416731, 38521345616, 114172107963, 1522758749135, 3159689606233, 4682448355368, 124903346845801, 129585795201169
a(n) = 3364*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 16 2013
[A283115] 0, 0, 0, 0, 0, 3, 40, 242, 1038, 3504, 9998, 25158, 57410, 121023, 239148, 447552, 799764, 1373400, 2278290, 3666036, 5742396, 8781111, 13141326, 19287246, 27811906, 39463424, 55177122, 76109826, 103681214, 139618479, 186008654, 245354424, 320640264, 415401264
a(n) = (5*n^8 - 100*n^7 + 810*n^6 - 3336*n^5 + 6940*n^4 - 5120*n^3 - 4080*n^2 + 6336*n)/11520 + IF(MOD(n, 2) = 1, 4*n^3 - 38*n^2 + 144*n - 207)/768 + IF(MOD(n, 3) = 1, n^2 - 6*n + 8)/18 + IF(MOD(n, 6) = 1, -1)/6.
[A133073] 0, 3, 44, 279, 1104, 3275, 8028, 17199, 33344, 59859, 101100, 162503, 250704, 373659, 540764, 762975, 1052928, 1425059, 1895724, 2483319, 3208400, 4093803, 5164764, 6449039, 7977024, 9781875, 11899628, 14369319, 17233104, 20536379, 24327900, 28659903, 33588224, 39172419, 45475884
a(n) = n^5 + n^3 + n^2.
[A062346] 3, 45, 210, 630, 1485, 3003, 5460, 9180, 14535, 21945, 31878, 44850, 61425, 82215, 107880, 139128, 176715, 221445, 274170, 335790, 407253, 489555, 583740, 690900, 812175, 948753, 1101870, 1272810, 1462905, 1673535, 1906128, 2162160, 2443155
a(n) = n*(4*n^3 - 12*n^2 + 11*n -3)/2. - Swapnil P. Bhatia (sbhatia(AT)cs.unh.edu), Jul 20 2006
a(n+1) = (2*n+2)*(2*n+1)*(2*n)*(2*n-1)/8. - James Mahoney, Oct 19 2011
a(n) = binomial(2*n^2-3*n+1, 2). - Wesley Ivan Hurt, Oct 14 2013
[A059624] 3, 46, 357, 1908, 7969, 27846, 84903, 232336, 582114, 1355172, 2964494, 6147336, 12168702, 23125508, 42389874, 75240912, 129747485, 217979970, 357647355, 574277340, 904081815, 1397678490, 2124871905, 3180733920, 4693265460, 6832968168, 9824707116, 13962304272
a(n)= binomial(n+9, 9)*(8*n^2+80*n+165)/(11*5).
[A277388] 3, 47, 306, 1270, 4005, 10493, 24052, 49836, 95415, 171435, 292358, 477282, 750841, 1144185, 1696040, 2453848, 3474987, 4828071, 6594330, 8869070, 11763213, 15404917, 19941276, 25540100, 32391775, 40711203, 50739822, 62747706, 77035745, 93937905, 113823568, 137099952, 164214611, 195658015
a(n) = n*(-1+n)*(3-2*n+n^2-n^3+2*n^4)/18.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) for n>8.
[A219056] 0, 3, 48, 243, 768, 1875, 3888, 7203, 12288, 19683, 30000, 43923, 62208, 85683, 115248, 151875, 196608, 250563, 314928, 390963, 480000, 583443, 702768, 839523, 995328, 1171875, 1370928, 1594323, 1843968, 2121843, 2430000, 2770563, 3145728, 3557763, 4009008
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4.
[A041523] 1, 1, 3, 49, 101, 150, 4901, 5051, 15003, 245099, 505201, 750300, 24514801, 25265101, 75045003, 1225985149, 2527015301, 3753000450, 122623029701, 126376030151, 375375090003, 6132377470199, 12640130030401, 18772507500600, 613360370049601, 632132877550201
a(n) = 5002*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 19 2013
[A202654] 0, 0, 3, 52, 370, 1620, 5285, 14168, 33012, 69240, 133815, 242220, 415558, 681772, 1076985, 1646960, 2448680, 3552048, 5041707, 7018980, 9603930, 12937540, 17184013, 22533192, 29203100, 37442600, 47534175, 59796828, 74589102, 92312220, 113413345, 138388960
a(n) = 1/6*(n-2)*(n-1)*n*(n^3-5*n^2+8*n-3).
[A081854] 3, 60, 2093, 13398, 47415, 123728, 268065, 512298, 894443, 1458660, 2255253, 3340670, 4777503, 6634488, 8986505, 11914578, 15505875, 19853708, 25057533, 31222950, 38461703, 46891680, 56636913, 67827578, 80599995, 95096628, 111466085, 129863118, 150448623
a(0)=3, a(1)=60, a(2)=2093, a(3)=13398, a(4)=47415, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Mar 20 2015
[A239576] 0, 3, 62, 683, 4015, 16989, 56196, 158271, 391917, 882683, 1836106, 3587103, 6638267, 11747613, 19985680, 32879339, 52490521, 81638211, 124000342, 184440963, 269135111, 386033453, 545007772, 758491143, 1041639045, 1413189339, 1895630946, 2516334551, 3307717267
a(n) = (n^8 -30*n^6 +24*n^5 +352*n^4 -576*n^3 -1280*n^2 +3360*n -1536 + IF(n==1 mod 2)*(14*n^4 -72*n^3 +226*n^2 -624*n +717))/192; n>=3.
[A238471] 3, 66, 364, 1197, 2990, 6293, 11781, 20254, 32637, 49980, 73458, 104371, 144144, 194327, 256595, 332748, 424711, 534534, 664392, 816585, 993538, 1197801, 1432049, 1699082, 2001825, 2343328, 2726766, 3155439, 3632772, 4162315
a(n) = binomial(5*n+6, 4)/5 = (5*n+6)*(5*n+3)*(5*n+4)*(n+1)/4! for n >= 0.
[A270869] 3, 69, 345, 1203, 3351, 7953, 16749, 32175, 57483, 96861, 155553, 239979, 357855, 518313, 732021, 1011303, 1370259, 1824885, 2393193, 3095331, 3953703, 4993089, 6240765, 7726623, 9483291, 11546253, 13953969, 16747995, 19973103, 23677401, 27912453
a(n) = 6*a(n-1) -15*a(n-2) +20*a(n-3) -15*a(n-4) +6*a(n-5) -a(n-6).
[A229852] 3, 75, 147, 363, 507, 867, 1083, 1587, 1875, 2523, 2883, 3675, 4107, 5043, 5547, 6627, 7203, 8427, 9075, 10443, 11163, 12675, 13467, 15123, 15987, 17787, 18723, 20667, 21675, 23763, 24843, 27075, 28227, 30603, 31827, 34347, 35643, 38307, 39675, 42483, 43923
a(n) = 3*(18*n^2+6*(-1)^n*n-18*n-3*(-1)^n+5)/2.
a(n) = 27*n^2-18*n+3 for n even.
a(n) = 27*n^2-36*n+12 for n odd.
[A123656] 3, 81, 811, 4353, 16251, 47953, 120051, 266241, 538003, 1010001, 1786203, 3006721, 4855371, 7567953, 11441251, 16842753, 24221091, 34117201, 47176203, 64160001, 85960603, 113614161, 148315731, 191434753, 244531251, 309372753, 387951931
a(n) = 1 + n^4 + n^6 = 1010001 (base n).
[A140158] 1, 3, 84, 88, 713, 719, 3120, 3128, 9689, 9699, 24340, 24352, 52913, 52927, 103552, 103568, 187089, 187107, 317428, 317448, 511929, 511951, 791792, 791816, 1182441, 1182467, 1713908, 1713936, 2421217, 2421247, 3344768, 3344800, 4530721
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^4+{[1+(-1)^n]/2}*n, with a(1)=1 a(n)= (-1/8)+(1/2)*(-1)^n*n+(1/8)*(-1)^n-(1/2)*(-1)^n*n^3+(1/6)*n^3+(1/4)*n^2+(7/30)*n+(1/10
(1/4)*(-1)^n*n^4+(1/4)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A290027] 0, 0, 3, 102, 900, 5160, 23520, 92736, 330624, 1094400, 3421440, 10222080, 29432832, 82188288, 223641600, 595230720, 1554186240, 3990749184, 10097197056, 25214976000, 62234296320, 151993712640, 367691563008, 881823055872, 2098200576000, 4956409036800
a(n) = 3*2^(n-5)*binomial(n,3)*(13*n-35).

a(n) = 10*a(n-1)-40*a(n-2)+80*a(n-3)-80*a(n-4)+32*a(n-5).
[A094200] 3, 107, 699, 2547, 6803, 15003, 29067, 51299, 84387, 131403, 195803, 281427, 392499, 533627, 709803, 926403, 1189187, 1504299, 1878267, 2318003, 2830803, 3424347, 4106699, 4886307, 5772003, 6773003, 7898907, 9159699, 10565747
a(0)=3, a(1)=107, a(2)=699, a(3)=2547, a(4)=6803, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Jul 23 2013
[A243464] 0, 0, 3, 110, 657, 2172, 5375, 11178, 20685, 35192, 56187, 85350, 124553, 175860, 241527, 324002, 425925, 550128, 699635, 877662, 1087617, 1333100, 1617903, 1946010, 2321597, 2749032, 3232875, 3777878, 4388985, 5071332, 5830247, 6671250, 7600053, 8622560
a(n) = -43+63*n-4*n^2-24*n^3+8*n^4 for n>0, a(0) = 0.
[A240441] 0, 0, 3, 114, 969, 4773, 17415, 52125, 135375, 315675, 676200, 1352085, 2553558, 4595934, 7937874, 13229118, 21369330, 33579450, 51487425, 77229900, 113571975, 164046795, 233117313, 326362179, 450688329, 614572413, 828333870, 1104441975, 1457859900, 1906428300
a(n) = (n^8 + 4*n^7 - 14*n^6 - 56*n^5 + 61*n^4 + 220*n^3 - 84*n^2 - 240*n)/384 + IF(MOD(n, 2) = 1)*(6*n + 3)/32.
[A156001] 0, 0, 3, 122, 776, 2704, 6987, 15206, 29224, 51680, 85339, 134114, 201792, 293776, 414995, 572558, 772656, 1024320, 1335123, 1716234, 2176728, 2730128, 3387131, 4163830, 5072664, 6132512, 7357675, 8770034, 10385872, 12230288, 14321667
a(n) = n*(n-1)*(21*n^3+526*n^2-1709*n+996)/60-(3*n^2-12*n+4)*floor(n/2).
[A243213] 3, 128, 1062, 5160, 18591, 55113, 142005, 329045, 701160, 1395975, 2626953, 4713723, 8120322, 13503350, 21770766, 34153758, 52292385, 78337890, 115072320, 166048850, 235753353, 329791143, 455099307, 620189115, 835418766, 1113301553, 1468849515, 1919958285
a(n) = (n^8 + 4*n^7 - 6*n^6 - 80*n^5 - 15*n^4 + 532*n^3 - 244*n^2 - 432*n)/384 + IF(MOD(n, 2) = 1)*(-n^2 - n + 12)/16.
[A053527] 0, 0, 0, 0, 3, 140, 1125, 5355, 19075, 56133, 143955, 332475, 706860, 1404975, 2640638, 4733820, 8149050, 13543390, 21825450, 34227018, 52388985, 78463350, 115233195, 166252625, 236008773, 330108075, 455489125, 620664525, 835994250
a(n) = (n-3)*(n-2)*(n-1)*n*(n+2)*(n^3-5*n-36)/384.
[A157440] 3, 162, 563, 1206, 2091, 3218, 4587, 6198, 8051, 10146, 12483, 15062, 17883, 20946, 24251, 27798, 31587, 35618, 39891, 44406, 49163, 54162, 59403, 64886, 70611, 76578, 82787, 89238, 95931, 102866, 110043, 117462, 125123, 133026, 141171
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 29 2012
[A023310] 3, 199, 233, 709, 1361, 1367, 2137, 2879, 5519, 5987, 7283, 9719, 11699, 14983, 16417, 17881, 20939, 24481, 30467, 31663, 31741, 35107, 35863, 46811, 47869, 49261, 58207, 60497, 63317, 64781, 68777, 73453, 74021, 79901, 85487, 85571, 94327, 94999
a(n) == 3 or 9 (mod 14). - John Cerkan, Oct 04 2016
[A140163] 1, 3, 246, 250, 3375, 3381, 20188, 20196, 79245, 79255, 240306, 240318, 611611, 611625, 1371000, 1371016, 2790873, 2790891, 5266990, 5267010, 9351111, 9351133, 15787476, 15787500, 25553125, 25553151, 39902058, 39902086, 60413235
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^5+{[1+(-1)^n]/2}*n, with a(1)=1. a(n)= 1+1/4*(-1)^n*n+5/8*(-1)^n*n^2+5/24*n^2+1/4*n+1/12*n^6-1/4*(-1)^n*n^5+1/4*n^5-5/8 *(-1)^n*n^4+5/24*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A140870] 3, 443, 8483, 44283, 141443, 347003, 721443, 1338683, 2286083, 3664443, 5588003, 8184443, 11594883, 15973883, 21489443, 28323003, 36669443, 46737083, 58747683, 72936443, 89552003, 108856443, 131125283, 156647483, 185725443, 218675003, 255825443
a(n) = 560*n^4-120*n^2+3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+13440 for n > 3; a(0)=3, a(1)=443, a(2)=8483, a(3)=44283.
[A140744] 4, 4, 4, 4, 5, 5, 6, 6, 7, 8, 9, 10, 11, 13, 14, 16, 19, 22, 26, 30, 36, 43, 52, 63, 77, 95, 119, 151, 193, 249, 326, 433, 583, 795, 1102, 1551, 2220, 3233, 4796, 7254, 11194, 17643, 28432, 46898, 79271, 137464, 244869, 448658, 846699, 1648170, 3314300, 6895838
a(n) = Floor(4^(1.0488^n)).
[A102126] 1, 4, 4, 4, 6, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29
a(n) = n for n > 5
[A098525] 1, 1, 4, 4, 4, 13, 22, 58, 94, 130, 247, 445, 967, 1813, 2983, 5206, 9211, 17914, 34231, 61078, 107932, 190831, 352057, 660136, 1209838, 2181226, 3898705, 7067218, 13008442, 23896984, 43528018, 78616363, 142221325, 259297303, 474370159
a(n)=a(n-1)+9a(n-5); a(n)=sum{k=0..floor(n/2), binomial(n-2k, floor(k/2))3^k}.
[A243427] 4, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66
a(n) = floor((n + 1)^2/n).
a(n) = n + 2 for n>1.
[A019527] 4, 4, 5, 6, 8, 11, 15, 21, 30, 43, 62, 90, 131, 191, 279, 408, 597, 874, 1280, 1875, 2747, 4025, 5898, 8643, 12666, 18562, 27203, 39867, 58427, 85628, 125493, 183918, 269544, 395035, 578951, 848493, 1243526, 1822475, 2670966, 3914490, 5736963, 8407927
a(n) = 2*a(n-1)-a(n-2)+a(n-3)-a(n-4), for n>5.
[A170934] 4, 4, 5, 7, 9, 12, 17, 24, 34, 49, 71, 103, 150, 219, 320, 468, 685, 1003, 1469, 2152, 3153, 4620, 6770, 9921, 14539, 21307, 31226, 45763, 67068, 98292, 144053, 211119, 309409, 453460, 664577, 973984, 1427442, 2092017, 3065999, 4493439, 6585454, 9651451
a(n) = 2*a(n-1)-a(n-2)+a(n-3)-a(n-4).
[A107851] 0, 1, 1, 4, 4, 5, 9, 10, 18, 29, 41, 68, 100, 149, 233, 346, 530, 813, 1225, 1876, 2852, 4325, 6601, 10026, 15250, 23229, 35305, 53732, 81764, 124341, 189225, 287866, 437906, 666317, 1013641, 1542132, 2346276, 3569413, 5430537, 8261962, 12569362
a(0)=0, a(1)=1, a(2)=1, a(3)=4, a(4)=4, a(5)=5, a(6)=9, a(n)= a(n-2)+ 2*a(n-3)-a(n-4)+a(n-6)+2*a(n-7). - Harvey P. Dale, Jul 19 2011
[A098821] 4, 4, 5, 9, 21, 53, 133, 325, 773, 1797, 4101, 9221, 20485, 45061, 98309, 212997, 458757, 983045, 2097157, 4456453, 9437189, 19922949, 41943045, 88080389, 184549381, 385875973, 805306373, 1677721605, 3489660933, 7247757317
a(n)=5*a(n-1)-8*a(n-2)+4*a(n-3). (End)
[A273308] 0, 4, 4, 6, 8, 8, 10, 12, 12, 14, 16, 16, 18, 20, 20, 22, 24, 24, 26, 28, 28, 30, 32, 32, 34, 36, 36, 38, 40, 40, 42, 44, 44, 46, 48, 48, 50, 52, 52, 54, 56, 56, 58, 60, 60, 62, 64, 64, 66, 68, 68, 70, 72, 72, 74, 76, 76, 78, 80, 80, 82, 84, 84, 86, 88, 88
a(n) = a(n-1)+a(n-3)-a(n-4) for n>5.
[A105790] 1, 4, 4, 6, 8, 9, 11, 13, 14, 16, 17, 19, 21, 23, 25, 26, 27, 30, 31, 33, 34, 36, 38, 40, 41, 43, 45, 46, 47, 49, 53, 53, 54, 56, 58, 60, 61, 62, 65, 66, 67, 70, 71, 72, 75, 76, 78, 80, 83, 83, 84, 87, 89, 89, 91, 93, 94, 96, 98, 99, 100, 103, 105, 107, 107, 109, 112, 112
a(n) = 3*2^n*sqrt(2- sqrt(2+ sqrt(2+ ... sqrt(2+ sqrt(3))...))).
[A168233] 1, 4, 4, 7, 7, 10, 10, 13, 13, 16, 16, 19, 19, 22, 22, 25, 25, 28, 28, 31, 31, 34, 34, 37, 37, 40, 40, 43, 43, 46, 46, 49, 49, 52, 52, 55, 55, 58, 58, 61, 61, 64, 64, 67, 67, 70, 70, 73, 73, 76, 76, 79, 79, 82, 82, 85, 85, 88, 88, 91, 91, 94, 94, 97, 97, 100, 100, 103, 103, 106
a(n) = (6*n + 3*(-1)^n + 1)/4.
a(n) = a(n-1) + a(n-2) - a(n-3), for n>3.
[A238391] 1, 1, 1, 1, 1, 4, 4, 7, 7, 10, 19, 22, 40, 43, 70, 100, 136, 220, 265, 430, 565, 838, 1225, 1633, 2515, 3328, 5029, 7003, 9928, 14548, 19912, 29635, 40921, 59419, 84565, 119155, 173470, 241918, 351727, 495613, 709192, 1016023, 1434946, 2071204, 2921785, 4198780, 5969854, 8503618, 12183466, 17268973, 24779806
a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1; a(n) = 3*a(n-5)+a(n-2) for n>4.
a(2n) = Sum_{j=0..n/5} binomial(n-3j,2j)*3^(2j) + Sum_{j=0..(n-3)/5} binomial(n-2-3j,2j+1)*3^(2j+1).
a(2n+1) = Sum_{j=0..n/5} binomial(n-3j,2j)*3^{2j} + Sum_{j=0..(n-2)/5} binomial(n-1-3j,2j+1)*3^(2j+1).
[A185670] 0, 0, 0, 1, 1, 4, 4, 7, 9, 14, 14, 21, 21, 28, 34, 41, 41, 52, 52, 63, 71, 82, 82, 97, 101, 114, 122, 137, 137, 158, 158, 173, 185, 202, 212, 235, 235, 254, 268, 291, 291, 320, 320, 343, 363, 386, 386, 417, 423, 452, 470, 497, 497, 532, 546, 577, 597, 626, 626, 669, 669, 700, 726, 757, 773, 818, 818, 853, 877, 922, 922, 969, 969, 1006, 1040
a(n) = n*(n-1)/2 + 1 - Sum_{i=1..n} phi(i).
[A109544] 1, 1, 1, 1, 1, 4, 4, 7, 10, 16, 25, 37, 58, 88, 136, 208, 319, 490, 751, 1153, 1768, 2713, 4162, 6385, 9796, 15028, 23056, 35371, 54265, 83251, 127720, 195943, 300607, 461179, 707521, 1085449, 1665250, 2554756, 3919399, 6012976, 9224854, 14152381
a(n) = a(n-2)+a(n-3)+a(n-4)+a(n-5).
[A187893] 1, 4, 4, 7, 10, 16, 25, 40, 64, 103, 166, 268, 433, 700, 1132, 1831, 2962, 4792, 7753, 12544, 20296, 32839, 53134, 85972, 139105, 225076, 364180, 589255, 953434, 1542688, 2496121, 4038808, 6534928, 10573735, 17108662, 27682396, 44791057, 72473452, 117264508
a(n)=1+3/5*sqrt(5)*((1/2+1/2*sqrt(5))^n-(1/2-1/2*sqrt(5))^n). - Paolo P. Lava, Jun 06 2011
[A293678] 0, 4, 4, 7, 10, 16, 26, 41, 66, 107, 173, 280, 453, 732, 1185, 1917, 3101, 5018, 8118, 13135, 21253, 34388, 55641, 90029, 145670, 235698, 381368, 617066, 998433, 1615499, 2613931, 4229429, 6843360, 11072789, 17916148, 28988937, 46905085, 75894021, 122799105

a(n) = ceiling(Pi*F(n)).
[A238389] 1, 1, 1, 4, 4, 7, 16, 19, 37, 67, 94, 178, 295, 460, 829, 1345, 2209, 3832, 6244, 10459, 17740, 29191, 49117, 82411, 136690, 229762, 383923, 639832, 1073209, 1791601, 2992705, 5011228, 8367508, 13989343, 23401192, 39091867, 65369221, 109295443
a(0)=1, a(1)=1, a(2)=1; for n>2, a(n) = 3*a(n-3)+a(n-2).
a(2n) = Sum_{j=0}^{n/3} binomial(n-j,2j)*3^(2j) + Sum_{j=0}^{(n-2)/3} Binomial(n-1-j,2j+1)*3^(2j+1).
a(2n+1) = Sum_{j=0}^{n/3} binomial(n-j,2j)*3^(2j) + Sum_{j=0}^{(n-1)/3} binomial(n-j,2j+1)*3^(2j+1).
[A168273] 0, 4, 4, 8, 8, 12, 12, 16, 16, 20, 20, 24, 24, 28, 28, 32, 32, 36, 36, 40, 40, 44, 44, 48, 48, 52, 52, 56, 56, 60, 60, 64, 64, 68, 68, 72, 72, 76, 76, 80, 80, 84, 84, 88, 88, 92, 92, 96, 96, 100, 100, 104, 104, 108, 108, 112, 112, 116, 116, 120, 120, 124, 124, 128, 128, 132
a(n) = 2*n - 2*(n mod 2). - Wesley Ivan Hurt, Jun 30 2013
[A014687] 4, 4, 8, 10, 14, 16, 20, 22, 30, 30, 38, 40, 44, 46, 54, 58, 62, 66, 72, 72, 80, 82, 90, 96, 102, 102, 108, 108, 114, 126, 132, 136, 140, 148, 152, 156, 164, 166, 174, 178, 182, 190, 194, 196, 200, 210, 224, 226, 230, 232, 240, 240, 252, 256, 264, 268, 272, 276
a(n)+a(n-1) = prime(n)+prime(n+1) i.e. a(n) = prime(n)+prime(n+1)-a(n-1) generates sequence with initial value a(1)=4. - Labos Elemer, Apr 24 2003; corrected by Dean Hickerson, Apr 27 2003
[A152967] 0, 0, 0, 1, 1, 4, 4, 8, 10, 15, 15, 26, 26, 33, 39, 50, 50, 66, 66, 83, 91, 102, 102, 131, 135, 148, 158, 181, 181, 216, 216, 242, 254, 271, 281, 328, 328, 347, 361, 404, 404, 451, 451, 486, 514, 537, 537, 604, 610, 648, 666, 707, 707, 766, 780, 837, 857, 886, 886, 983, 983
a(n) = Sum_{i=1..n} (i-1)*floor((n-i)/i). - Wesley Ivan Hurt, Sep 13 2017
[A086663] 1, 4, 4, 8, 12, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200, 204, 208, 212, 216, 220, 224, 228
a(n)=4*(n-3) for n>5.
[A022087] 0, 4, 4, 8, 12, 20, 32, 52, 84, 136, 220, 356, 576, 932, 1508, 2440, 3948, 6388, 10336, 16724, 27060, 43784, 70844, 114628, 185472, 300100, 485572, 785672, 1271244, 2056916, 3328160, 5385076, 8713236, 14098312, 22811548, 36909860, 59721408, 96631268
a(n) = round(phi^n*(8*phi-4)/5) for n>2. - Thomas Baruchel, Sep 08 2004
a(n) = Fibonacci(n+3) - Fibonacci(n-3), where Fibonacci(-3..-1) = 2,-1,1. [Bruno Berselli, May 22 2015]
[A261212] 1, 4, 4, 8, 16, 20, 25, 36, 41, 48, 64, 72, 81, 100, 109, 120, 144, 156, 173, 196, 213, 228, 256, 272, 300, 324, 349, 368, 401, 424, 457, 484
a(3k+2) >= 4*(k+1)^2.
[A226096] 1, 4, 4, 9, 16, 25, 36, 36, 49, 64, 81, 100, 100, 121, 144, 169, 196, 196, 225, 256, 289, 324, 324, 361, 400, 441, 484, 484, 529, 576, 625, 676, 676, 729, 784, 841, 900, 900, 961, 1024, 1089, 1156, 1156, 1225, 1296, 1369
a(n) = 3*a(n-5) -3*a(n-10) +a(n-15).
a(n) = a(n-1) +2*a(n-5) -2*a(n-6) -a(n-10) +a(n-11). [Bruno Berselli, May 30 2013]
a(n) = (24*(16*floor(n/5)^2 + 8*floor(n/5) + 1) - (11 + 24*floor(n/5))*(n - 5*floor(n/5))^4 + 2*(49 + 104*floor(n/5))*(n - 5*floor(n/5))^3 - 23*(11 + 24*floor(n/5))*(n - 5*floor(n/5))^2 + 2*(119 + 280*floor(n/5))*(n - 5*floor(n/5)))/24. - Luce ETIENNE, May 08 2017
[A263727] 0, 1, 1, 1, 1, 4, 4, 9, 16, 25, 49, 81, 144, 225, 361, 576, 961, 1521, 2500, 4096, 6724, 10816, 17689, 28561, 46225, 74529, 121104, 196249, 316969, 514089, 831744, 1345600, 2175625, 3523129, 5702544, 9223369, 14922769, 24157225, 39087504, 63234304, 102333456
a(n) = floor(sqrt(Fibonacci(n)))^2.
[A180964] 1, 4, 4, 10, 13, 13, 19, 22, 22, 28, 31, 31, 37, 40, 40, 46, 49, 49, 55, 58, 58, 64, 67, 67, 73, 76, 76, 82, 85, 85, 91, 94, 94, 100, 103, 103, 109, 112, 112, 118, 121, 121, 127, 130, 130, 136, 139, 139, 145, 148, 148, 154, 157, 157, 163, 166, 166, 172
a(n) = a(n-1) +a(n-3) -a(n-4) for n>3.
a(n) = (n-1)*(n mod 3) +(n+1)*(n+1 mod 3) +n*(n+2 mod 3).
a(n) = 3*n +sqrt(3)*cos((4*n-3)*pi/6) -sin((4*n-3)*pi/6).
[A136485] 0, 0, 4, 4, 12, 16, 24, 32, 52, 60, 76, 88, 112, 120, 148, 164, 192, 216, 256, 276, 308, 332, 376, 392, 440, 476, 524, 556, 608, 648, 688, 732, 796, 832, 904, 936, 1012, 1052, 1124, 1176, 1232, 1288, 1372, 1428, 1508, 1560, 1648, 1696, 1788, 1860, 1952, 2016
a(n) = 4 * Sum floor(sqrt((n/2)^2 - k^2)), k = 1 .... floor(n/2)
[A099924] 4, 4, 13, 22, 45, 82, 152, 274, 491, 870, 1531, 2676, 4652, 8048, 13865, 23798, 40713, 69446, 118144, 200510, 339559, 573894, 968183, 1630632, 2742100, 4604572, 7721797, 12933334, 21637221, 36159610, 60367976, 100687786
a(n) = (n+1)*L(n) + 2F(n+1) = Sum[k=0..n, L(k)*L(n-k)].
a(0)=4, a(1)=4, a(2)=13, a(3)=22, a(n)=2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4) [From Harvey P. Dale, Mar 06 2012]
[A164906] 1, 4, 4, 16, 16, 64, 64, 256, 256, 1024, 1024, 4096, 4096, 16384, 16384, 65536, 65536, 262144, 262144, 1048576, 1048576, 4194304, 4194304, 16777216, 16777216, 67108864, 67108864, 268435456, 268435456, 1073741824, 1073741824, 4294967296
a(n) = 4*a(n-2) for n > 1; a(0) = 1, a(1) = 4.
a(n+3) = a(n+2)*a(n+1)/a(n). - Reinhard Zumkeller, Mar 04 2011
[A156232] 0, 4, 4, 16, 24, 64, 112, 256, 480, 1024, 1984, 4096, 8064, 16384, 32512, 65536, 130560, 262144, 523264, 1048576, 2095104, 4194304, 8384512, 16777216, 33546240, 67108864, 134201344, 268435456, 536838144, 1073741824, 2147418112
a(n) = 2^(n-1) - 2^(n/2) if n is even, 2^(n-1) otherwise.
[A294245] 0, 0, 4, 4, 17, 17, 29, 29, 37, 46, 66, 66, 103, 130, 158, 158, 174, 174, 192, 192, 212, 212, 301, 301, 374, 399, 451, 478, 506, 506, 566, 629, 661, 661, 729, 729, 765, 840, 916, 916, 1037, 1037, 1121, 1121, 1165, 1210, 1302, 1302, 1350, 1498, 1548, 1548
a(n) = Sum_{i=1..n} (2n-i) * (1 - mu(2n-i)^2).
[A231884] 0, 4, 4, 20, 32, 80, 180, 408, 940, 2072, 4824, 10792, 24660, 55748, 126760, 287584, 652280, 1481184, 3359900, 7627296, 17305472, 39277688, 89131928, 202276640, 459045772, 1041743020, 2364140452, 5365103100, 12175556108, 27630957644, 62705400664, 142302685268
a(n) = 3*a(n-2) + 4*a(n-3) + 4*a(n-4) - 9*a(n-6) - 3*a(n-7) for n>7.
[A014433] 1, 4, 4, 20, 52, 228, 804, 3444, 13780, 59588, 253252, 1113556, 4892276, 21860260, 98055780, 444148020, 2021194260, 9257373060, 42583930500, 196811777940, 913015265460, 4251135572580, 19856669967780, 93027410579700, 436999575464532, 2057978301836868, 9713953354107844
a(n) = (-3)^n*(hypergeom([1/2, n+1],[1],8/5)-5*hypergeom([1/2, n],[1],8/5))*(-15)^(1/2)/(10*(n+1)) for n>0. - Mark van Hoeij, Jul 02 2010
a(n) = (-2)^(n+1)*C(2*n,n-1)*hypergeom([-n-1,-n+1],[-n+1/2],5/8)/n for n>=1. - Peter Luschny, May 08 2016
a(n) = 2^(n+1)*GegenbauerC(n-1,-n,-1/4)/n for n>=1. - Peter Luschny, May 08 2016
[A271945] 0, 0, 4, 4, 40, 72, 428, 1036, 4816, 13712, 56020, 174612, 665080, 2180568, 7991676, 26951708, 96696224, 331269920, 1174584228, 4059317284, 14299305416, 49658576744, 174293008204, 606920893484, 2125899390576, 7413894423728, 25940068045428, 90539218468404
a(n) = a(n-1) + 9*a(n-2) - a(n-3).
[A088202] 1, 4, 5, 5, 5, 7, 7, 9, 10, 11, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26
a(n) = n if n == 1 or 5 (mod 6).
a(n) <= p := nextprime(n), since we can simply take a solution for p and remove the last n-p rows and columns.
[A238187] 4, 5, 5, 5, 9, 25, 65, 145, 289, 545, 1025, 1985, 3969, 8065, 16385, 33025, 66049, 131585, 262145, 523265, 1046529, 2095105, 4194305, 8392705, 16785409, 33562625, 67108865, 134201345, 268402689, 536838145, 1073741825, 2147549185, 4295098369, 8590065665
a(n) = 2^n + (1+i)^n + (1-i)^n + 1. [Bruno Berselli, Feb 20 2014]
[A075129] 4, 5, 5, 5, 13, 50, 155, 390, 861, 1805, 3850, 8640, 20167, 47520, 110780, 254450, 579149, 1316485, 3003095, 6878765, 15790278, 36245235, 83101760, 190322935, 435678591, 997445500, 2284365660, 5233190405, 11989714652, 27467989310
a(n)=5a(n-1)-10a(n-2)+10a(n-3)-3a(n-4), a(0)=4, a(1)=5, a(2)=5, a(3)=5. G.f.: (4 - 15*z + 20*z^2 - 10*z^3)/(1 - 5*z + 10*z^2 - 10*z^3 + 3*z^4).
[A157727] 4, 5, 5, 6, 7, 9, 12, 17, 25, 38, 59, 93, 148, 237, 381, 614, 991, 1601, 2588, 4185, 6769, 10950, 17715, 28661, 46372, 75029, 121397, 196422, 317815, 514233, 832044, 1346273, 2178313, 3524582, 5702891, 9227469, 14930356, 24157821, 39088173, 63245990, 102334159
a(0) = 4, a(1) = 5, a(n) = a(n - 2) + a(n - 1) - 4. - Reinhard Zumkeller, Jul 30 2013
[A020705] 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78
a(n) = n+4. a(n) = 2a(n-1) - a(n-2).
[A294237] 0, 0, 0, 0, 0, 0, 0, 4, 5, 6, 7, 8, 9, 10, 11, 20, 22, 33, 36, 39, 42, 45, 48, 63, 67, 71, 75, 79, 83, 87, 91, 111, 116, 121, 126, 149, 155, 161, 167, 193, 200, 207, 214, 221, 228, 235, 242, 273, 281, 314, 323, 332, 341, 377, 387, 425, 436, 447, 458, 469

a(n) = Sum_{i=1..floor(n/2)} (n - i) * (1 - mu(i)^2).
[A047569] 0, 1, 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 60, 61, 62, 63, 64, 65, 68, 69, 70, 71, 72, 73, 76, 77, 78, 79, 80, 81, 84, 85, 86, 87, 88
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7.
a(n) = (24*n-15-3*cos(n*Pi)+4*sqrt(3)*cos((1-4*n)*Pi/6)-12*sin((1+2*n)*Pi/6))/18.
a(6k) = 8k-1, a(6k-1) = 8k-2, a(6k-2) = 8k-3, a(6k-3) = 8k-4, a(6k-4) = 8k-7, a(6k-5) = 8k-8. (End)
[A047567] 0, 4, 5, 6, 7, 8, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, 28, 29, 30, 31, 32, 36, 37, 38, 39, 40, 44, 45, 46, 47, 48, 52, 53, 54, 55, 56, 60, 61, 62, 63, 64, 68, 69, 70, 71, 72, 76, 77, 78, 79, 80, 84, 85, 86, 87, 88, 92, 93, 94, 95, 96, 100, 101, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n > 5.
a(n) = n + 2 + 3*floor((n-2)/5).
a(n) = (8*n + 4 - 3*((n+3) mod 5))/5.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-3, a(5k-3) = 8k-4, a(5k-4) = 8k-8. (End)
[A075862] 4, 5, 6, 7, 9, 10, 13, 14, 15, 19, 21, 22, 26, 31, 33, 34, 38, 39, 43, 46, 51, 57, 58, 61, 62, 69, 73, 74, 82, 86, 87, 93, 94, 103, 106, 109, 111, 118, 122, 123, 129, 134, 139, 141, 142, 146, 151, 158, 159, 166, 177, 178, 181, 183, 193, 194, 199, 201, 202, 206, 213
a(n) seems to be asymptotic to n*log(n) and a(n)<prime(n) for n>3
[A036668] 1, 4, 5, 6, 7, 9, 11, 13, 16, 17, 19, 20, 23, 24, 25, 28, 29, 30, 31, 35, 36, 37, 41, 42, 43, 44, 45, 47, 49, 52, 53, 54, 55, 59, 61, 63, 64, 65, 66, 67, 68, 71, 73, 76, 77, 78, 79, 80, 81, 83, 85, 89, 91, 92, 95, 96, 97, 99, 100, 101, 102, 103, 107
a(n) = 12/7 * n + O(log^2 n). - Charles R Greathouse IV, Sep 10 2015
[A047568] 1, 4, 5, 6, 7, 9, 12, 13, 14, 15, 17, 20, 21, 22, 23, 25, 28, 29, 30, 31, 33, 36, 37, 38, 39, 41, 44, 45, 46, 47, 49, 52, 53, 54, 55, 57, 60, 61, 62, 63, 65, 68, 69, 70, 71, 73, 76, 77, 78, 79, 81, 84, 85, 86, 87, 89, 92, 93, 94, 95, 97, 100, 101, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n>5.
a(n) = (40*n - 5 + 3*(n mod 5) + 3*((n+1) mod 5) + 3*((n+2) mod 5) - 7*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-2, a(5k-2) = 8k-3, a(5k-3) = 8k-4, a(5k-4) = 8k-7. (End)
[A047260] 0, 1, 4, 5, 6, 7, 10, 11, 12, 13, 16, 17, 18, 19, 22, 23, 24, 25, 28, 29, 30, 31, 34, 35, 36, 37, 40, 41, 42, 43, 46, 47, 48, 49, 52, 53, 54, 55, 58, 59, 60, 61, 64, 65, 66, 67, 70, 71, 72, 73, 76, 77, 78, 79, 82, 83, 84, 85, 88, 89, 90, 91, 94, 95, 96, 97
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (6n-5-i^(2n)+(1-i)*i^(-n)+(1+i)*i^n)/4 where i=sqrt(-1).
[A080723] 1, 4, 5, 6, 7, 10, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124
a(a(n)) = 3*n+4, n >= 0.
[A047312] 0, 4, 5, 6, 7, 11, 12, 13, 14, 18, 19, 20, 21, 25, 26, 27, 28, 32, 33, 34, 35, 39, 40, 41, 42, 46, 47, 48, 49, 53, 54, 55, 56, 60, 61, 62, 63, 67, 68, 69, 70, 74, 75, 76, 77, 81, 82, 83, 84, 88, 89, 90, 91, 95, 96, 97, 98, 102, 103, 104, 105, 109, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-5+3*i^(2*n)-(3+3*i)*i^(-n)-(3-3*i)*i^n)/8 where i=sqrt(-1).
[A047566] 4, 5, 6, 7, 12, 13, 14, 15, 20, 21, 22, 23, 28, 29, 30, 31, 36, 37, 38, 39, 44, 45, 46, 47, 52, 53, 54, 55, 60, 61, 62, 63, 68, 69, 70, 71, 76, 77, 78, 79, 84, 85, 86, 87, 92, 93, 94, 95, 100, 101, 102, 103, 108, 109
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (4*n+1-(-1)^n-(-1)^((n+1)/2)-(-1)^(n/2)-(-1)^(-(n+1)/2)-(-1)^(-n/2))/2. (End)
[A283775] 4, 5, 6, 7, 12, 13, 14, 19, 20, 21, 22, 27, 28, 29, 34, 35, 36, 37, 42, 43, 44, 49, 50, 51, 52, 56, 57, 58, 59, 64, 65, 66, 67, 71, 72, 73, 74, 79, 80, 81, 82, 86, 87, 88, 89, 94, 95, 96, 97, 101, 102, 103, 104, 109, 110, 111, 116, 117, 118, 119, 124, 125
a(n+1) - a(n) is in {1,4,5} for every n.
[A233035] 0, 0, 0, 4, 5, 6, 7, 16, 18, 20, 22, 36, 39, 42, 45, 64, 68, 72, 76, 100, 105, 110, 115, 144, 150, 156, 162, 196, 203, 210, 217, 256, 264, 272, 280, 324, 333, 342, 351, 400, 410, 420, 430, 484, 495, 506, 517, 576, 588, 600, 612, 676, 689, 702, 715, 784, 798, 812, 826, 900, 915, 930, 945, 1024, 1040
a(n) = (n^2 - n*(n mod 4))/4.
[A088720] 4, 5, 6, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 52, 54, 56, 58, 60, 62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89
a(2n) = 2*a(n).
a(4n+1) = a(2n+1)+2*a(n).
a(4n+3) = 3*a(2n+1)-2*a(n).
[A047432] 0, 1, 4, 5, 6, 8, 9, 12, 13, 14, 16, 17, 20, 21, 22, 24, 25, 28, 29, 30, 32, 33, 36, 37, 38, 40, 41, 44, 45, 46, 48, 49, 52, 53, 54, 56, 57, 60, 61, 62, 64, 65, 68, 69, 70, 72, 73, 76, 77, 78, 80, 81, 84, 85, 86, 88, 89, 92, 93, 94, 96, 97, 100, 101, 102
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 40 + 3*(n mod 5) + 3*((n+1) mod 5) - 7*((n+2) mod 5) + 3*((n+3) mod 5) - 2*((n+4) mod 5))/25.
a(5k) = 8k-2, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A144043] 4, 5, 6, 8, 10, 12, 14, 18, 22, 24, 26, 30, 34, 36, 38, 42, 46, 52, 58, 60, 62, 68, 74, 78, 82, 84, 86, 90, 94, 100, 106, 112, 118, 120, 122, 128, 134, 138, 142, 144, 146, 152, 158, 162, 166, 172, 178, 186, 194, 198, 202, 204
a(2n-1) = 2 prime(n), a(2n) = prime(n) + prime(n+1), n = 1,2,... - Zak Seidov, Jan 15 2014
[A047313] 1, 4, 5, 6, 8, 11, 12, 13, 15, 18, 19, 20, 22, 25, 26, 27, 29, 32, 33, 34, 36, 39, 40, 41, 43, 46, 47, 48, 50, 53, 54, 55, 57, 60, 61, 62, 64, 67, 68, 69, 71, 74, 75, 76, 78, 81, 82, 83, 85, 88, 89, 90, 92, 95, 96, 97, 99, 102, 103, 104, 106, 109, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-3+i^(2n)-(3+i)*i^(-n)-(3-i)*i^n)/8 where i=sqrt(-1).
[A047430] 0, 4, 5, 6, 8, 12, 13, 14, 16, 20, 21, 22, 24, 28, 29, 30, 32, 36, 37, 38, 40, 44, 45, 46, 48, 52, 53, 54, 56, 60, 61, 62, 64, 68, 69, 70, 72, 76, 77, 78, 80, 84, 85, 86, 88, 92, 93, 94, 96, 100, 101, 102, 104, 108, 109, 110, 112, 116, 117, 118, 120, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-5+i^(2*n)-(2+i)*i^(-n)-(2-i)*i^n)/4 where i=sqrt(-1).
[A104626] 4, 5, 6, 8, 19, 48, 124, 323, 844, 2208, 5779, 15128, 39604, 103683, 271444, 710648, 1860499, 4870848, 12752044, 33385283, 87403804, 228826128, 599074579, 1568397608, 4106118244, 10749957123, 28143753124, 73681302248
a(n) = Lucas(2n-4) + 1, for n>3. - Ralf Stephan, Nov 13 2010
[A008854] 0, 1, 4, 5, 6, 9, 10, 11, 14, 15, 16, 19, 20, 21, 24, 25, 26, 29, 30, 31, 34, 35, 36, 39, 40, 41, 44, 45, 46, 49, 50, 51, 54, 55, 56, 59, 60, 61, 64, 65, 66, 69, 70, 71, 74, 75, 76, 79, 80, 81, 84, 85, 86, 89, 90, 91, 94, 95, 96, 99, 100, 101, 104, 105, 106, 109
a(n) = -1 + Sum_{k=1..n} (-(k mod 3)+5*((k+1) mod 3)+11*((k+2) mod 3))/9. - Paolo P. Lava, Sep 03 2010
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (15*n-15+6*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 5k-1, a(3k-1) = 5k-4, a(3k-2) = 5k-5. (End)
[A047431] 1, 4, 5, 6, 9, 12, 13, 14, 17, 20, 21, 22, 25, 28, 29, 30, 33, 36, 37, 38, 41, 44, 45, 46, 49, 52, 53, 54, 57, 60, 61, 62, 65, 68, 69, 70, 73, 76, 77, 78, 81, 84, 85, 86, 89, 92, 93, 94, 97, 100, 101, 102, 105, 108, 109, 110, 113, 116, 117, 118, 121, 124
a(n) = (-2-(-i)^n-i^n+4n)/2 where i=sqrt(-1). - Colin Barker, Jun 06 2012
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
[A182719] 4, 5, 6, 9, 12, 14, 17, 19, 24, 26, 28, 29, 33, 34, 39, 40, 44, 47, 49, 50, 54, 59, 61, 64, 68, 69, 72, 74, 75, 79, 82, 83, 84, 89, 94, 96, 99, 103, 104, 105, 109, 110, 114, 116, 117, 119, 124, 127, 129, 131, 134, 138, 139, 144, 145, 149, 152, 154, 159, 160, 164
a(n) = a(n-145) + 385 = a(n-1) + a(n-145) - a(n-146).

[A047258] 0, 4, 5, 6, 10, 11, 12, 16, 17, 18, 22, 23, 24, 28, 29, 30, 34, 35, 36, 40, 41, 42, 46, 47, 48, 52, 53, 54, 58, 59, 60, 64, 65, 66, 70, 71, 72, 76, 77, 78, 82, 83, 84, 88, 89, 90, 94, 95, 96, 100, 101, 102, 106, 107, 108, 112, 113, 114, 118, 119, 120, 124
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2n-2 + ((2n-2) mod 3). (End)
a(n) = 2*n-1-2*sin(2*n*Pi/3)/sqrt(3).
a(3k) = 6k-1, a(3k-1) = 6k-2, a(3k-2) = 6k-6. (End)
[A001609] 1, 1, 4, 5, 6, 10, 15, 21, 31, 46, 67, 98, 144, 211, 309, 453, 664, 973, 1426, 2090, 3063, 4489, 6579, 9642, 14131, 20710, 30352, 44483, 65193, 95545, 140028, 205221, 300766, 440794, 646015, 946781, 1387575, 2033590, 2980371, 4367946, 6401536, 9381907
a(n) = trace of successive powers of matrix ({{0,0,1},{1,0,0},{0,1,1}})^n. - Artur Jasinski, Jan 10 2007
a(n) = w1^n+w2^n+w3^n, where w1,w2,w3 are the roots of the cubic: (-1-x^2+x^3). - Gerry Martens, Jun 27 2015
[A007606] 1, 4, 5, 6, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 28, 37, 38, 39, 40, 41, 42, 43, 44, 45, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 137, 138
a(n) = n + m*(m+1) where m = floor(sqrt(n-1)). - Klaus Brockhaus, Mar 26 2004
a(n+1) = a(n) + if n=k^2 then 2*k+1 else 1; a(1) = 1. - Reinhard Zumkeller, May 13 2009
[A047311] 4, 5, 6, 11, 12, 13, 18, 19, 20, 25, 26, 27, 32, 33, 34, 39, 40, 41, 46, 47, 48, 53, 54, 55, 60, 61, 62, 67, 68, 69, 74, 75, 76, 81, 82, 83, 88, 89, 90, 95, 96, 97, 102, 103, 104, 109, 110, 111, 116, 117, 118, 123, 124, 125, 130, 131, 132, 137, 138, 139, 144
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n+3-12*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-2, a(3k-2) = 7k-3. (End)
[A047429] 4, 5, 6, 12, 13, 14, 20, 21, 22, 28, 29, 30, 36, 37, 38, 44, 45, 46, 52, 53, 54, 60, 61, 62, 68, 69, 70, 76, 77, 78, 84, 85, 86, 92, 93, 94, 100, 101, 102, 108, 109, 110, 116, 117, 118, 124, 125, 126, 132, 133, 134, 140, 141, 142, 148, 149, 150, 156, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-3-15*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-3, a(3k-2) = 8k-4. (End)
[A260107] 1, 4, 5, 6, 13, 16, 19, 20, 21, 22, 23, 24, 25, 40, 41, 42, 49, 50, 51, 58, 61, 64, 67, 70, 73, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 121, 124, 127, 128, 129, 130, 131, 132, 133, 148, 151, 154, 155, 156, 157, 158, 159, 160, 175, 176
a(n) <= 3n-2, and there are infinitely many indices (namely, all those of the form n = a(k)+1 for some k) for which equality holds.
[A221174] 4, 5, 6, 17, 40, 97, 234, 565, 1364, 3293, 7950, 19193, 46336, 111865, 270066, 651997, 1574060, 3800117, 9174294, 22148705, 53471704, 129092113, 311655930, 752403973, 1816463876, 4385331725, 10587127326, 25559586377, 61706300080, 148972186537, 359650673154
a(n)=(1/4)*(9*sqrt(2)*((1+sqrt(2))^n-(1-sqrt(2))^n)-8*((1+sqrt(2))^n+(1-sqrt(2))^n)). - Paolo P. Lava, Jan 04 2013
[A164515] 1, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80
a(n) = n + 1 + floor(sqrt(n-1) + 1/2), for n >= 2.
[A047494] 0, 1, 4, 5, 7, 8, 9, 12, 13, 15, 16, 17, 20, 21, 23, 24, 25, 28, 29, 31, 32, 33, 36, 37, 39, 40, 41, 44, 45, 47, 48, 49, 52, 53, 55, 56, 57, 60, 61, 63, 64, 65, 68, 69, 71, 72, 73, 76, 77, 79, 80, 81, 84, 85, 87, 88, 89, 92, 93, 95, 96, 97, 100, 101, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6, a(n) = a(n-5) + 8 for n > 5.
a(n) = (40*n - 35 - 2*(n mod 5) + 3*((n+1) mod 5) - 7*((n+2) mod 5) + 3*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5k) = 8k-1, a(5k-1) = 8k-3, a(5k-2) = 8k-4, a(5k-3) = 8k-7, a(5k-4) = 8k-8. (End)
[A080712] 4, 5, 7, 8, 9, 12, 13, 15, 18, 21, 22, 23, 24, 27, 28, 30, 31, 32, 33, 34, 35, 36, 39, 42, 45, 46, 47, 48, 51, 52, 54, 57, 60, 63, 66, 69, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 84, 87, 90, 91, 92, 93, 96, 97, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111
a(a(n)) = 3*(n+3).
[A276705] 4, 5, 7, 8, 9, 20, 55, 91, 187, 247, 391, 475, 667, 775, 1015, 1147, 1435, 1591, 1927, 2107, 2491, 2695, 3127, 3355, 3835, 4087, 4615, 4891, 5467, 5767, 6391, 6715, 7387, 7735, 8455, 8827, 9595, 9991, 10807, 11227, 12091, 12535, 13447, 13915, 14875, 15367
a(n) = (347+27*(-1)^n)/2 - 3*(27+(-1)^n)*n + 9*n^2 for n>6.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>11.
[A159698] 4, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 29, 30, 32, 33, 37, 38, 39, 40, 42, 44, 47, 48, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 67, 68, 71, 72, 74, 75, 79, 80, 81, 82, 84, 85, 89, 90, 91, 92, 93, 94, 97, 98, 101, 102, 104, 105, 106, 108, 109, 110, 111, 112
a(1) = 4; for n>1, a(n) = min { m > a(n-1) : m is prime iff n is prime }.
[A191276] 0, 1, 4, 5, 7, 8, 11, 12, 13, 16, 17, 19, 20, 23, 24, 25, 28, 29, 31, 32, 35, 36, 37, 40, 41, 43, 44, 47, 48, 49, 52, 53, 55, 56, 59, 60, 61, 64, 65, 67, 68, 71, 72, 73, 76, 77, 79, 80, 83, 84, 85, 88, 89, 91, 92, 95, 96, 97, 100, 101, 103, 104, 107, 108, 109, 112, 113, 115, 116, 119, 120, 121, 124, 125, 127, 128, 131, 132, 133, 136, 137, 139, 140, 143, 144, 145, 148, 149, 151, 152, 155, 156, 157, 160, 161, 163, 164, 167, 168, 169, 172, 173, 175, 176, 179, 180, 181
a(n) = a(n-1) + a(n-7) - a(n-8) for n>8.
[A047377] 0, 1, 4, 5, 7, 8, 11, 12, 14, 15, 18, 19, 21, 22, 25, 26, 28, 29, 32, 33, 35, 36, 39, 40, 42, 43, 46, 47, 49, 50, 53, 54, 56, 57, 60, 61, 63, 64, 67, 68, 70, 71, 74, 75, 77, 78, 81, 82, 84, 85, 88, 89, 91, 92, 95, 96, 98, 99, 102, 103, 105, 106, 109, 110
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14*n-15-3*i^(2*n)+(1-i)*i^(-n)+(1+i)*i^n)/8, where i=sqrt(-1).
[A047492] 0, 4, 5, 7, 8, 12, 13, 15, 16, 20, 21, 23, 24, 28, 29, 31, 32, 36, 37, 39, 40, 44, 45, 47, 48, 52, 53, 55, 56, 60, 61, 63, 64, 68, 69, 71, 72, 76, 77, 79, 80, 84, 85, 87, 88, 92, 93, 95, 96, 100, 101, 103, 104, 108, 109, 111, 112, 116, 117, 119, 120, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = 2*n+(1+i)*(2*i-2+(1-i)*i^(2*n)-i^(-n)+i^(1+n))/4 where i=sqrt(-1).
[A080596] 1, 4, 5, 7, 9, 10, 11, 12, 13, 15, 17, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 33, 35, 37, 39, 41, 43, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102
a(1) = 1; then a(6*2^k-3+j) = 8*2^k-3+3j/2+|j|/2 for k >= 0, -2^(k+1) <= j < 2^(k+1).
[A267027] 1, 4, 5, 7, 9, 10, 13, 16, 17, 19, 21, 22, 25, 28, 29, 31, 33, 34, 37, 40, 41, 43, 45, 46, 49, 52, 53, 55, 57, 58, 61, 64, 65, 67, 69, 70, 73, 76, 77, 79, 81, 82, 85, 88, 89, 91, 93, 94, 97, 100, 101, 103, 105, 106, 109, 112, 113, 115, 117, 118, 121, 124, 125
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-a(n-6) for n>6.
a(n) = (12*n - 6 - 3*cos(n*Pi/3) - 3*cos(2*n*Pi/3) + sqrt(3)*sin(n*Pi/3) - sqrt(3)*sin(2*n*Pi/3))/6.
a(6k) = 12k-2, a(6k-1) = 12k-3, a(6k-2) = 12k-5, a(6k-3) = 12k-7, a(6k-4) = 12k-8, a(6k-5) = 12k-11. (End)
[A047493] 1, 4, 5, 7, 9, 12, 13, 15, 17, 20, 21, 23, 25, 28, 29, 31, 33, 36, 37, 39, 41, 44, 45, 47, 49, 52, 53, 55, 57, 60, 61, 63, 65, 68, 69, 71, 73, 76, 77, 79, 81, 84, 85, 87, 89, 92, 93, 95, 97, 100, 101, 103, 105, 108, 109, 111, 113, 116, 117, 119, 121, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-3+i^(2*n)-i^(-n)-i^n)/4 where i=sqrt(-1).
[A047259] 1, 4, 5, 7, 10, 11, 13, 16, 17, 19, 22, 23, 25, 28, 29, 31, 34, 35, 37, 40, 41, 43, 46, 47, 49, 52, 53, 55, 58, 59, 61, 64, 65, 67, 70, 71, 73, 76, 77, 79, 82, 83, 85, 88, 89, 91, 94, 95, 97, 100, 101, 103, 106, 107, 109, 112, 113, 115, 118, 119, 121, 124
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4, with a(1)=1, a(2)=4, a(3)=5, a(4)=7. - Harvey P. Dale, Feb 16 2015
a(n) = (6*n-2-cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/3.
a(3k) = 6k-1, a(3k-1) = 6k-2, a(3k-2) = 6k-5. (End)
[A145018] 4, 5, 7, 10, 14, 19, 25, 32, 40, 49, 59, 70, 82, 95, 109, 124, 140, 157, 175, 194, 214, 235, 257, 280, 304, 329, 355, 382, 410, 439, 469, 500, 532, 565, 599, 634, 670, 707, 745, 784, 824, 865, 907, 950, 994, 1039, 1085, 1132, 1180, 1229, 1279, 1330, 1382, 1435, 1489, 1544, 1600, 1657, 1715, 1774, 1834, 1895, 1957, 2020, 2084, 2149, 2215
a(n) = (n^2 - n + 8)/2. - Benoit Cloitre.
a(n) = a(n-1) + n - 1.
a(n) = 4 + C(n,2), n>=1. - Zerinvary Lajos, Mar 12 2009

[A018910] 4, 5, 7, 10, 15, 23, 36, 57, 91, 146, 235, 379, 612, 989, 1599, 2586, 4183, 6767, 10948, 17713, 28659, 46370, 75027, 121395, 196420, 317813, 514231, 832042, 1346271, 2178311, 3524580, 5702889, 9227467, 14930354, 24157819, 39088171, 63245988, 102334157, 165580143
a(n)=2+((5+2r5)/5)((1+r5)/2)^n+((5-2r5)/5)((1-r5)/2)^n, where r5 = sqrt(5).
[A047375] 0, 4, 5, 7, 11, 12, 14, 18, 19, 21, 25, 26, 28, 32, 33, 35, 39, 40, 42, 46, 47, 49, 53, 54, 56, 60, 61, 63, 67, 68, 70, 74, 75, 77, 81, 82, 84, 88, 89, 91, 95, 96, 98, 102, 103, 105, 109, 110, 112, 116, 117, 119, 123, 124, 126, 130, 131, 133, 137, 138, 140
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-15-3*cos(2*n*Pi/3)-5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-3, a(3k-2) = 7k-7. (End)
[A237133] 4, 5, 7, 11, 17, 28, 44, 73, 115, 191, 301, 500, 788, 1309, 2063, 3427, 5401, 8972, 14140, 23489, 37019, 61495, 96917, 160996, 253732, 421493, 664279, 1103483, 1739105, 2888956, 4553036, 7563385, 11920003, 19801199, 31206973, 51840212, 81700916, 135719437
a(n) = 3*a(n-2)-a(n-4).
[A047491] 4, 5, 7, 12, 13, 15, 20, 21, 23, 28, 29, 31, 36, 37, 39, 44, 45, 47, 52, 53, 55, 60, 61, 63, 68, 69, 71, 76, 77, 79, 84, 85, 87, 92, 93, 95, 100, 101, 103, 108, 109, 111, 116, 117, 119, 124, 125, 127, 132, 133, 135, 140, 141, 143, 148, 149, 151, 156, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-9*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-3, a(3k-2) = 8k-4. (End)
[A292321] 0, 1, 1, 1, 4, 5, 7, 17, 23, 38, 75, 109, 190, 339, 524, 917, 1563, 2519, 4360, 7305, 12056, 20621, 34407, 57452, 97423, 162672, 272961, 460454, 770281, 1294575, 2177777, 3649129, 6134192, 10306017, 17287962, 29054244, 48790024, 81894794, 137592982
a(n) = a(n-2) + 4*a(n-3) - a(n-5) - 3*a(n-6) + a(n-9) for n >= 10.
[A042948] 0, 1, 4, 5, 8, 9, 12, 13, 16, 17, 20, 21, 24, 25, 28, 29, 32, 33, 36, 37, 40, 41, 44, 45, 48, 49, 52, 53, 56, 57, 60, 61, 64, 65, 68, 69, 72, 73, 76, 77, 80, 81, 84, 85, 88, 89, 92, 93, 96, 97, 100, 101, 104, 105, 108
a(n) = -1/2+1/2*(-1)^n+2*n. - Paolo P. Lava, Oct 03 2008
a(n) = 4*n-a(n-1)-3 with a(0)=0. - Vincenzo Librandi, Nov 17 2010
a(n) = floor((4/3)*floor(3*n/2)). - Clark Kimberling, Jul 04 2012
a(n) = n + 2*floor(n/2) = 2*n - (n mod 2). - Bruno Berselli, Apr 30 2016
[A267489] 0, 1, 4, 5, 8, 9, 12, 17, 24, 29, 36, 41, 48, 57, 68, 77, 88, 97, 108, 121, 136, 149, 164, 177, 192, 209, 228, 245, 264, 281, 300, 321, 344, 365, 388, 409, 432, 457, 484, 509, 536, 561, 588, 617, 648, 677, 708, 737, 768, 801, 836, 869, 904
a(n) = n^2 - 4*floor(n^2/6) for n >= 0.
a(n) = 2*a(n-1)-a(n-2)+a(n-6)-2*a(n-7)+a(n-8) for n>7.
[A174396] 1, 4, 5, 8, 10, 13, 14, 17, 19, 22, 23, 26, 28, 31, 32, 35, 37, 40, 41, 44, 46, 49, 50, 53, 55, 58, 59, 62, 64, 67, 68, 71, 73, 76, 77, 80, 82, 85, 86, 89, 91, 94, 95, 98, 100, 103, 104, 107, 109, 112, 113, 116, 118, 121, 122, 125, 127, 130, 131, 134, 136
a(n) = 3*(n-1-floor((n-1)/4)) + (-1)^floor((n-1)/2).
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
a(n) = (18*n-9+3*(-1)^n-2*(-1)^((2*n+1-(-1)^n)/4))/8. (End)
[A050140] 1, 4, 5, 8, 11, 12, 15, 16, 19, 22, 23, 26, 29, 30, 33, 34, 37, 40, 41, 44, 45, 48, 51, 52, 55, 58, 59, 62, 63, 66, 69, 70, 73, 76, 77, 80, 81, 84, 87, 88, 91, 92, 95, 98, 99, 102, 105, 106, 109, 110, 113, 116, 117, 120, 121, 124, 127, 128, 131, 134, 135, 138, 139
a(n) = floor(n*tau) + floor(n*sigma) where tau = (sqrt(5)+1)/2 and sigma = (sqrt(5)-1)/2.
a(n) = -n + 2*floor(n*tau).
[A047376] 1, 4, 5, 8, 11, 12, 15, 18, 19, 22, 25, 26, 29, 32, 33, 36, 39, 40, 43, 46, 47, 50, 53, 54, 57, 60, 61, 64, 67, 68, 71, 74, 75, 78, 81, 82, 85, 88, 89, 92, 95, 96, 99, 102, 103, 106, 109, 110, 113, 116, 117, 120, 123, 124, 127, 130, 131, 134, 137, 138, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-12-6*cos(2*n*Pi/3)-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-3, a(3k-2) = 7k-6. (End)
[A117573] 1, 1, 4, 5, 8, 11, 15, 18, 24, 28, 34, 40, 47, 53, 62, 69, 78, 87, 97, 106, 118, 128, 140, 152, 165, 177, 192, 205, 220, 235, 251, 266, 284, 300, 318, 336, 355, 373, 394, 413, 434, 455, 477, 498, 522, 544, 568, 592, 617, 641, 668
a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6).
a(n) = sqrt(3)*cos(2*Pi*n/3+Pi/6)/9 - sin(2*Pi*n/3+Pi/6)/3 + 3*cos(Pi*n)/8 + (6n^2+20n+15)/24.
a(n) = floor((9*(-1)^n + 6*n^2 + 20*n + 23)/24). - Tani Akinari, Nov 09 2012
a(n) = 1 - n/4 + n^2/4 + 3/2*floor(n/2) + floor((n+1)/3). - Vaclav Kotesovec, Jun 15 2014
[A249669] 4, 5, 8, 11, 17, 19, 25, 27, 32, 40, 42, 49, 54, 56, 60, 67, 74, 76, 83, 87, 89, 96, 100, 107, 116, 120, 122, 126, 128, 132, 148, 152, 159, 160, 171, 173, 179, 186, 190, 196, 203, 204, 215, 217, 221, 223, 236, 249, 253, 255, 259, 265, 267, 278, 284, 290, 296, 298, 304, 308, 310, 321
a(n) = prime(n) + (log(prime(n)))^2 - log(prime(n)) + O(1), see arXiv:1506.03042, Theorem 5. - Alexei Kourbatov, Nov 26 2015
[A047609] 0, 4, 5, 8, 12, 13, 16, 20, 21, 24, 28, 29, 32, 36, 37, 40, 44, 45, 48, 52, 53, 56, 60, 61, 64, 68, 69, 72, 76, 77, 80, 84, 85, 88, 92, 93, 96, 100, 101, 104, 108, 109, 112, 116, 117, 120, 124, 125, 128, 132, 133, 136, 140, 141, 144, 148, 149, 152, 156, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-21-6*cos(2*n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-3, a(3k-1) = 8k-4, a(3k-2) = 8k-8. (End)
[A174398] 1, 4, 5, 8, 13, 16, 17, 20, 25, 28, 29, 32, 37, 40, 41, 44, 49, 52, 53, 56, 61, 64, 65, 68, 73, 76, 77, 80, 85, 88, 89, 92, 97, 100, 101, 104, 109, 112, 113, 116, 121, 124, 125, 128, 133, 136, 137, 140, 145, 148, 149, 152, 157, 160, 161, 164, 169, 172, 173
a(n) = 3*n - 3 + (-1)^floor((n-1)/2).
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.
a(n) = (1 + i)*(3*(n - n*i + i - 1) + i^(1-n) - i^n)/2, where i=sqrt(-1).
[A030978] 0, 1, 4, 5, 8, 13, 18, 25, 32, 41, 50, 61, 72, 85, 98, 113, 128, 145, 162, 181, 200, 221, 242, 265, 288, 313, 338, 365, 392, 421, 450, 481, 512, 545, 578, 613, 648, 685, 722, 761, 800, 841, 882, 925, 968, 1013, 1058, 1105, 1152, 1201, 1250, 1301, 1352, 1405
a(n) = 4 if n = 2, n^2/2 if n even > 2, (n^2+1)/2 if n odd > 1.
a(n) = 4 if n = 2, (1 + (-1)^(1 + n) + 2 n^2)/4 otherwise.
[A087475] 4, 5, 8, 13, 20, 29, 40, 53, 68, 85, 104, 125, 148, 173, 200, 229, 260, 293, 328, 365, 404, 445, 488, 533, 580, 629, 680, 733, 788, 845, 904, 965, 1028, 1093, 1160, 1229, 1300, 1373, 1448, 1525, 1604, 1685, 1768, 1853, 1940, 2029, 2120, 2213, 2308, 2405, 2504
a(n) = a(n-1) + 2*n-1 (with a(0)=4). - Vincenzo Librandi, Nov 22 2010
[A019526] 4, 5, 8, 13, 24, 44, 83, 158, 303, 582, 1120, 2157, 4156, 8009, 15436, 29752, 57347, 110538, 213067, 410698, 791644, 1525941, 2941344, 5669621, 10928544, 21065444, 40604947, 78268550, 150867479, 290806414, 560547384, 1080489821, 2082711092
a(n) = 2a(n-1)-a(n-5).
[A258935] 4, 5, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592
a(n) = 2^n except a(1) = 4 and a(2) = 5.
[A047208] 0, 4, 5, 9, 10, 14, 15, 19, 20, 24, 25, 29, 30, 34, 35, 39, 40, 44, 45, 49, 50, 54, 55, 59, 60, 64, 65, 69, 70, 74, 75, 79, 80, 84, 85, 89, 90, 94, 95, 99, 100, 104, 105, 109, 110, 114, 115, 119, 120, 124, 125, 129, 130, 134, 135, 139, 140, 144, 145, 149
a(n)=(1/4)*[3-3*(-1)^n+10*n], with n>=0. - Paolo P. Lava, Feb 10 2009
a(n)=5*n-a(n-1)-6 (with a(1)=0). - Vincenzo Librandi, Nov 18 2010
a(n) = c((5/3)*c(3*n/2)), where c = ceiling. - Clark Kimberling, Jul 04 2012
[A189889] 1, 1, 1, 4, 5, 9, 10, 16, 18, 25, 27, 36, 39, 49, 52, 64, 68, 81, 85, 100, 105, 121, 126, 144, 150, 169, 175, 196, 203, 225, 232, 256, 264, 289, 297, 324, 333, 361, 370, 400, 410, 441, 451, 484, 495, 529, 540, 576, 588, 625
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-5) - a(n-6) + a(n-7).

[A047610] 1, 4, 5, 9, 12, 13, 17, 20, 21, 25, 28, 29, 33, 36, 37, 41, 44, 45, 49, 52, 53, 57, 60, 61, 65, 68, 69, 73, 76, 77, 81, 84, 85, 89, 92, 93, 97, 100, 101, 105, 108, 109, 113, 116, 117, 121, 124, 125, 129, 132, 133, 137, 140, 141, 145, 148, 149, 153, 156, 157
a(n) = a(n-3) + 8, n > 3, with initial conditions a(1) = 1, a(2) = 4, a(3) = 5. - L. Edson Jeffery, May 04 2015
[A120740] 0, 4, 5, 9, 14, 18, 23, 27, 32, 36, 41, 45, 50, 54, 59, 63, 68, 72, 77, 81, 86, 90, 95, 99, 104, 108, 113, 117, 122, 126, 131, 135, 140, 144, 149, 153, 158, 162, 167, 171, 176, 180, 185, 189, 194, 198, 203, 207, 212, 216, 221, 225, 230, 234, 239, 243, 248, 252
a(n)=9/2*(n-1)+4*{1-[(n+2) mod (n+1)]+[n!^2 mod (n+1)]*[(n+1)!^2 mod (n+2)]}+Sum{j=0..n}{(-1)^j/2}.
[A000285] 1, 4, 5, 9, 14, 23, 37, 60, 97, 157, 254, 411, 665, 1076, 1741, 2817, 4558, 7375, 11933, 19308, 31241, 50549, 81790, 132339, 214129, 346468, 560597, 907065, 1467662, 2374727, 3842389, 6217116, 10059505, 16276621, 26336126, 42612747, 68948873, 111561620, 180510493, 292072113, 472582606
a(n) = 2*Fibonacci(n)+Fibonacci(n+2). - Zerinvary Lajos, Oct 05 2007
a(n) = ((1+sqrt(5))^n-(1-sqrt(5))^n)/(2^n*sqrt(5))+ 3/2* ((1+sqrt(5))^(n-1) -(1-sqrt(5))^(n-1))/(2^(n-2)*sqrt(5)). Offset 1. a(3)=5. - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
a(n) = 3*Fibonacci(n+2) - 2*Fibonacci(n+1). - Gary Detlefs, Dec 21 2010
a(n) = Fibonacci(n) + Lucas(n+1), see Mathematica field. (End)
a(n) = (9*F(n) + F(n-3))/2. - J. M. Bergot, Jul 15 2017
[A042765] 1, 4, 5, 9, 14, 37, 51, 88, 579, 4141, 8861, 21863, 424258, 446121, 1316500, 1762621, 8366984, 10129605, 28626194, 38755799, 764986375, 1568728549, 3902443473, 28885832860, 177217440633, 206103273493, 383320714126, 972744701745, 1356065415871, 2328810117616
a(n) = 1031468486160814*a(n-32) - a(n-64) for n>63. - Vincenzo Librandi, Jan 28 2014
[A041823] 1, 1, 4, 5, 9, 14, 51, 65, 2651, 2716, 10799, 13515, 24314, 37829, 137801, 175630, 7163001, 7338631, 29178894, 36517525, 65696419, 102213944, 372338251, 474552195, 19354426051, 19828978246, 78841360789, 98670339035, 177511699824, 276182038859, 1006057816401
a(n) = 2702*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 25 2013
[A042489] 1, 1, 4, 5, 9, 14, 79, 93, 172, 1297, 2766, 4063, 6829, 120156, 126985, 1643976, 1770961, 31750313, 33521274, 65271587, 164064448, 1213722723, 1377787171, 2591509894, 14335336641, 16926846535, 31262183176, 48189029711, 175829272309, 224018302020
a(n) = 12448646853698*a(n-30) - a(n-60) for n>59. - Vincenzo Librandi, Jan 23 2014
[A049860] 0, 1, 4, 5, 9, 15, 29, 54, 102, 190, 355, 662, 1236, 2307, 4307, 8040, 15009, 28018, 52303, 97637, 182265, 340245, 635156, 1185684, 2213388, 4131865, 7713202, 14398700, 26878923, 50176509, 93667520, 174854817, 326412048
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A255978] 0, 1, 1, 4, 5, 9, 16, 25, 41, 68, 109, 177, 288, 465, 753, 1220, 1973, 3193, 5168, 8361, 13529, 21892, 35421, 57313, 92736, 150049, 242785, 392836, 635621, 1028457, 1664080, 2692537, 4356617, 7049156, 11405773, 18454929, 29860704, 48315633, 78176337, 126491972, 204668309, 331160281, 535828592
a(n) = a(n-1) + a(n-2) + (1+(-1)^(a(n-1) + a(n-2))), a(0)=0, a(1)=1.
a(n) = a(n-1) + a(n-2) + a(n-3) - a(n-4) - a(n-5) for n>4. - Colin Barker, Mar 28 2015
[A240926] 4, 5, 9, 20, 49, 125, 324, 845, 2209, 5780, 15129, 39605, 103684, 271445, 710649, 1860500, 4870849, 12752045, 33385284, 87403805, 228826129, 599074580, 1568397609, 4106118245, 10749957124, 28143753125, 73681302249, 192900153620, 505019158609
a(n) = (2+(1/2*(3-sqrt(5)))^n+(1/2*(3+sqrt(5)))^n).
a(n) = 4*a(n-1)-4*a(n-2)+a(n-3).
a(n) = 2 + S(n, 3) - S(n-2, 3) = 2 + 2*S(n, 3) - 3*S(n-1, 3).
[A041032] 4, 5, 9, 23, 32, 55, 472, 527, 999, 2525, 3524, 6049, 51916, 57965, 109881, 277727, 387608, 665335, 5710288, 6375623, 12085911, 30547445, 42633356, 73180801, 628079764, 701260565, 1329340329, 3359941223
a(n) = 110*a(n-6)-a(n-12). G.f.: -(x^11 -4*x^10 +5*x^9 -9*x^8 +23*x^7 -32*x^6 -55*x^5 -32*x^4 -23*x^3 -9*x^2 -5*x -4)/((x^4 -5*x^2 +1) *(x^8 +5*x^6 +24*x^4 +5*x^2 +1)). - Colin Barker, Jul 16 2012
[A075116] 4, 5, 9, 23, 69, 210, 627, 1846, 5405, 15809, 46254, 135382, 396327, 1160294, 3396892, 9944688, 29113741, 85232259, 249522603, 730492701, 2138562494, 6260774221, 18328804756, 53658712275, 157089206159, 459888386910
a(n)=5a(n-1)-8a(n-2)+6a(n-3)-a(n-4), a(0)=4, a(1)=5, a(2)=9, a(3)=23. G.f.: (4-15*z+16*z^2-6*z^3)/(1-5*z+8*z^2-6*z^3+z^4).
[A041079] 1, 1, 4, 5, 9, 23, 147, 317, 464, 781, 2807, 3588, 45863, 49451, 194216, 243667, 437883, 1119433, 7154481, 15428395, 22582876, 38011271, 136616689, 174627960, 2232152209, 2406780169, 9452492716, 11859272885
a(n) = 48670*a(n-12)-a(n-24). G.f.: -(x^22 -x^21 +4*x^20 -5*x^19 +9*x^18 -23*x^17 +147*x^16 -317*x^15 +464*x^14 -781*x^13 +2807*x^12 -3588*x^11 -2807*x^10 -781*x^9 -464*x^8 -317*x^7 -147*x^6 -23*x^5 -9*x^4 -5*x^3 -4*x^2 -x -1) / (x^24-48670*x^12+1). [Colin Barker, Jul 19 2012]
[A163868] 4, 5, 9, 25, 89, 345, 1369, 5465, 21849, 87385, 349529, 1398105, 5592409, 22369625, 89478489, 357913945, 1431655769, 5726623065, 22906492249, 91625968985, 366503875929, 1466015503705, 5864062014809, 23456248059225, 93824992236889, 375299968947545
a(n)= 5*a(n-1) - 4*a(n-2).
[A042221] 1, 4, 5, 9, 32, 105, 1292, 3981, 13235, 17216, 30451, 139020, 6981451, 28064824, 35046275, 63111099, 224379572, 736249815, 9059377352, 27914381871, 92802522965, 120716904836, 213519427801, 974794616040, 48953250229801, 196787795535244
a(n) = 7011902*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 17 2014
[A041151] 1, 4, 5, 9, 41, 747, 3029, 3776, 6805, 30996, 564733, 2289928, 2854661, 5144589, 23433017, 426938895, 1731188597, 2158127492, 3889316089, 17715391848, 322766369353, 1308780869260, 1631547238613, 2940328107873, 13392859670105, 244011802169763, 989440068349157
a(n) = 756*a(n-5) + a(n-10). - Vincenzo Librandi, Dec 12 2013
[A041467] 1, 1, 4, 5, 9, 50, 59, 227, 2329, 7214, 9543, 54929, 64472, 119401, 422675, 542076, 16684955, 17227031, 68366048, 85593079, 153959127, 855388714, 1009347841, 3883432237, 39843670211, 123414442870, 163258113081, 939705008275, 1102963121356, 2042668129631
a(n) = 17107630*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Dec 18 2013
[A041627] 1, 4, 5, 9, 77, 86, 163, 738, 26731, 107662, 134393, 242055, 2070833, 2312888, 4383721, 19847772, 718903513, 2895461824, 3614365337, 6509827161, 55692982625, 62202809786, 117895792411, 533785979430, 19334191051891, 77870550186994, 97204741238885
a(n) = 26894*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 22 2013
[A047257] 4, 5, 10, 11, 16, 17, 22, 23, 28, 29, 34, 35, 40, 41, 46, 47, 52, 53, 58, 59, 64, 65, 70, 71, 76, 77, 82, 83, 88, 89, 94, 95, 100, 101, 106, 107, 112, 113, 118, 119, 124, 125, 130, 131, 136, 137, 142, 143, 148, 149
a(n) = 4 + 6*floor(n/2) + n%2.
a(n) = 6*n-a(n-1)-3 (with a(1)=4). - Vincenzo Librandi, Aug 05 2010
a(n) = 3*n-(-1)^n. - Wesley Ivan Hurt, Mar 20 2015
[A022309] 0, 4, 5, 10, 16, 27, 44, 72, 117, 190, 308, 499, 808, 1308, 2117, 3426, 5544, 8971, 14516, 23488, 38005, 61494, 99500, 160995, 260496, 421492, 681989, 1103482, 1785472, 2888955, 4674428, 7563384, 12237813, 19801198, 32039012, 51840211, 83879224, 135719436
a(n) = -1 + (2^(-1-n)*((1-t)^n*(-9+t) + (1+t)^n*(9+t)))/t, where t=sqrt(5).
a(n) = 2*a(n-1) - a(n-3) for n>2. (End)
[A049867] 1, 1, 4, 5, 10, 17, 33, 61, 115, 214, 400, 746, 1393, 2600, 4854, 9061, 16915, 31576, 58945, 110036, 205411, 383453, 715815, 1336255, 2494468, 4656574, 8692708, 16227203, 30292300, 56548466, 105562437, 197059777, 367863388
a(n)=2*a(n-1)-a(n-3)+a(n-4); 4 initial terms required.
[A047374] 4, 5, 11, 12, 18, 19, 25, 26, 32, 33, 39, 40, 46, 47, 53, 54, 60, 61, 67, 68, 74, 75, 81, 82, 88, 89, 95, 96, 102, 103, 109, 110, 116, 117, 123, 124, 130, 131, 137, 138, 144, 145, 151, 152, 158, 159, 165, 166, 172
a(n) = 7*n-a(n-1)-5, n>1. - Vincenzo Librandi, Aug 05 2010
a(n) = -(5/4)*(-1)^(n-1) + 7*(n-1)/2 + 11/4. - Viet Quoc Le Tran, Jun 14 2014
[A053307] 1, 1, 4, 5, 11, 14, 24, 30, 45, 55, 76, 91, 119, 140, 176, 204, 249, 285, 340, 385, 451, 506, 584, 650, 741, 819, 924, 1015, 1135, 1240, 1376, 1496, 1649, 1785, 1956, 2109, 2299, 2470, 2680, 2870, 3101, 3311, 3564, 3795, 4071, 4324, 4624, 4900, 5225, 5525
a(n) = (n+2)*(2*n^2 + 8*n + 15 + 9*(-1)^n)/48. - Vaclav Kotesovec, Mar 16 2014
[A066898] 0, 1, 1, 4, 5, 11, 15, 28, 38, 62, 85, 131, 177, 258, 346, 489, 648, 890, 1168, 1572, 2042, 2699, 3475, 4532, 5783, 7446, 9430, 12017, 15106, 19073, 23815, 29827, 37011, 46012, 56765, 70116, 86033, 105627, 128962, 157476, 191359, 232499, 281286, 340180, 409871
a(n) = Sum_{k=1..floor{n/2)} tau(k)*numbpart(n-2*k). - Vladeta Jovovic, Jan 26 2002

[A001350] 0, 1, 1, 4, 5, 11, 16, 29, 45, 76, 121, 199, 320, 521, 841, 1364, 2205, 3571, 5776, 9349, 15125, 24476, 39601, 64079, 103680, 167761, 271441, 439204, 710645, 1149851, 1860496, 3010349, 4870845, 7881196, 12752041, 20633239, 33385280, 54018521, 87403801, 141422324
a(n) = a(n-1) + a(n-2) + 1 -(-1)^n. a(-n) = (-1)^n * a(n).
a(n) = -(1 - ((1 + sqrt(5))/2)^n - (-(1 + sqrt(5))/2)^(-n) + (-1)^n). - Roger L. Bagula and Gary W. Adamson, Nov 26 2008
a(n) = n*sum(sum(binomial(i,n-k-i)*binomial(k+i-1,k-1),i,ceiling((n-k)/2),n-k)/k*(-1)^(k+1),k,1,n), n>0. - Vladimir Kruchinin, Sep 03 2010
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4). - Colin Barker, Apr 11 2014
a(12n+6)/a(4n+2) = [a(6n+3)/a(2n+1)]^2. - Bob Selcoe, Jun 01 2014
a(n) = sum(k=0..n-1, C(k-1, 2*k-n)*n/(n-k)). - Peter Luschny, Sep 26 2014
[A077238] 4, 5, 11, 16, 40, 59, 149, 220, 556, 821, 2075, 3064, 7744, 11435, 28901, 42676, 107860, 159269, 402539, 594400, 1502296, 2218331, 5606645, 8278924, 20924284, 30897365, 78090491, 115310536, 291437680, 430344779, 1087660229, 1606068580, 4059203236, 5993929541
a(n) = 4*a(n-2)-a(n-4). - Colin Barker, Feb 06 2014
[A080277] 1, 4, 5, 12, 13, 16, 17, 32, 33, 36, 37, 44, 45, 48, 49, 80, 81, 84, 85, 92, 93, 96, 97, 112, 113, 116, 117, 124, 125, 128, 129, 192, 193, 196, 197, 204, 205, 208, 209, 224, 225, 228, 229, 236, 237, 240, 241, 272, 273, 276, 277, 284, 285, 288, 289, 304, 305, 308
a(n) is conjectured to be asymptotic to n*log(n)/log(2). - Klaus Brockhaus, Mar 23 2003 [See Bannister et al., 2013. - N. J. A. Sloane, Nov 26 2013]
a(n) = Sum_{k=0..log_2(n)} 2^k*floor(n/2^k).
a(2^k) = (k+1)*2^k.
a(n)=n+2*a(floor(n/2)). - Vladeta Jovovic, Aug 06 2003
a(1)=1, a(2n) = 2a(n) + 2n, a(2n+1) = 2a(n) + 2n + 1. G.f. 1/(1-x) * sum(k>=0, 2^k*t/(1-t), t=x^2^k). - Ralf Stephan, Sep 07 2003
[A047608] 4, 5, 12, 13, 20, 21, 28, 29, 36, 37, 44, 45, 52, 53, 60, 61, 68, 69, 76, 77, 84, 85, 92, 93, 100, 101, 108, 109, 116, 117, 124, 125, 132, 133, 140, 141, 148, 149, 156, 157, 164, 165, 172, 173, 180, 181, 188, 189, 196, 197, 204, 205, 212, 213, 220, 221, 228, 229
a(n) = 8*n-a(n-1)-7 (with a(1)=4). [Vincenzo Librandi, Aug 06 2010]
[A266725] 0, 1, 4, 5, 12, 13, 24, 25, 40, 41, 60, 61, 84, 85, 112, 113, 144, 145, 180, 181, 220, 221, 264, 265, 312, 313, 364, 365, 420, 421, 480, 481, 544, 545, 612, 613, 684, 685, 760, 761, 840, 841, 924, 925, 1012, 1013, 1104, 1105, 1200, 1201, 1300, 1301, 1404
a(n) = (2*n*(n+(-1)^n+1)-(-1)^n+1)/4.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
[A131328] 1, 4, 5, 12, 17, 32, 49, 84, 133, 220, 353, 576, 929, 1508, 2437, 3948, 6385, 10336, 16721, 27060, 43781, 70844, 114625, 185472, 300097, 485572, 785669, 1271244, 2056913, 3328160, 5385073, 8713236, 14098309, 22811548, 36909857, 59721408, 96631265, 156352676
a(n) = (2^(1-n)*((1+sqrt(5))^(n+1) - (1-sqrt(5))^(n+1))) / sqrt(5) - 3 for n even.
a(n) = (2^(1-n)*((1+sqrt(5))^(n+1) - (1-sqrt(5))^(n+1))) / sqrt(5) for n odd.
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>3.
[A054451] 1, 1, 4, 5, 12, 17, 33, 50, 88, 138, 232, 370, 609, 979, 1596, 2575, 4180, 6755, 10945, 17700, 28656, 46356, 75024, 121380, 196417, 317797, 514228, 832025, 1346268, 2178293, 3524577, 5702870, 9227464, 14930334, 24157816, 39088150, 63245985, 102334135
a(n-2) = Fibonacci(n+1)-binomial(n-floor(n/2), floor(n/2)), or a(n-2) = sum(i=0, floor(n/2)-1, binomial(n-i, i)) - Jon Perry, Mar 18 2004
a(n) = sum{k=0..floor(n/2), binomial(n-k+2, k)}. - Paul Barry, Oct 23 2004
[A274077] 4, 5, 12, 31, 68, 129, 220, 347, 516, 733, 1004, 1335, 1732, 2201, 2748, 3379, 4100, 4917, 5836, 6863, 8004, 9265, 10652, 12171, 13828, 15629, 17580, 19687, 21956, 24393, 27004, 29795, 32772, 35941, 39308, 42879, 46660, 50657, 54876, 59323, 64004, 68925
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A156638] 4, 5, 13, 14, 22, 23, 31, 32, 40, 41, 49, 50, 58, 59, 67, 68, 76, 77, 85, 86, 94, 95, 103, 104, 112, 113, 121, 122, 130, 131, 139, 140, 148, 149, 157, 158, 166, 167, 175, 176, 184, 185, 193, 194, 202, 203, 211, 212, 220, 221, 229, 230, 238, 239, 247, 248, 256
a(n) = a(n-1) + a(n-2) - a(n-3), n>3.
a(n) = 9*n/2 - 9/4 - 7*(-1)^n/4.
a(n) = -a(-n+1). - Bruno Berselli, Jan 08 2012
[A258281] 1, 1, 1, 4, 5, 13, 18, 37, 56, 103, 154, 279, 398, 682, 1027, 1664, 2433, 3977, 5755, 8957, 13173, 19980, 29002, 43894, 62562, 92531, 133550, 193348, 274049, 398218, 558839, 796906, 1120833, 1577874, 2197279, 3089063, 4258348, 5915878, 8170572, 11231601, 15355764
a(n) = 1/6 * [(x*y*z)^n] Product_{j>0} (1+x^j+y^j+z^j).
[A005672] 0, 0, 0, 1, 1, 4, 5, 13, 18, 39, 57, 112, 169, 313, 482, 859, 1341, 2328, 3669, 6253, 9922, 16687, 26609, 44320, 70929, 117297, 188226, 309619, 497845, 815656, 1313501, 2145541
a(n) = Fibonacci(n-1) + 2*a(n-2), a(-1)=0, a(1)=0, a(2)=1. - Zerinvary Lajos, Mar 17 2008
[A041669] 1, 1, 4, 5, 14, 19, 33, 52, 85, 137, 222, 581, 803, 2990, 3793, 139538, 143331, 569531, 712862, 1995255, 2708117, 4703372, 7411489, 12114861, 19526350, 31641211, 82808772, 114449983, 426158721, 540608704, 19888072065, 20428680769, 81174114372, 101602795141
a(n) = 142528*a(n-15) + a(n-30) for n>29. - Vincenzo Librandi, Dec 22 2013
[A041089] 1, 4, 5, 14, 19, 90, 1279, 5206, 6485, 18176, 24661, 116820, 1660141, 6757384, 8417525, 23592434, 32009959, 151632270, 2154861739, 8771079226, 10925940965, 30622961156, 41548902121, 196818569640, 2797008877081, 11384854077964, 14181862955045, 39748579988054
a(n) = 1298*a(n-6)-a(n-12). G.f.: -(x^10-4*x^9+5*x^8-14*x^7+19*x^6-90*x^5-19*x^4-14*x^3-5*x^2-4*x-1)/((x^2-3*x-1)*(x^2+3*x-1)*(x^4-3*x^3+10*x^2+3*x+1)*(x^4+3*x^3+10*x^2-3*x+1)). [Colin Barker, Jul 18 2012]
[A188021] 0, 0, 1, 1, 4, 5, 14, 20, 48, 75, 165, 274, 571, 988, 1988, 3536, 6953, 12597, 24396, 44745, 85786, 158632, 302104, 561683, 1064945, 1987154, 3756519, 7026408, 13256712, 24835744, 46796545, 87763945, 165225380, 310088381, 583440086, 1095490524
a(n)=a(n-1)+3*a(n-2)-2*a(n-3)-a(n-4), for n>=4, with {a(k)}={0,0,1,1}, k=0,1,2,3.
[A191790] 0, 0, 1, 1, 4, 5, 14, 20, 49, 76, 175, 286, 637, 1078, 2353, 4081, 8788, 15521, 33098, 59279, 125476, 227239, 478192, 873885, 1830270, 3370029, 7030570, 13027729, 27088870, 50469889, 104647630, 195892564, 405187825, 761615284, 1571990935, 2965576714, 6109558585, 11563073314
a(n) = Sum_{k=0..n/2}((Sum_{j=ceiling(n/2)-k+1..2*(n-2*k)}(((2*j+2*k-n))*binomial(n-2*k-1,n-2*k-j)/j))). - Vladimir Kruchinin, Mar 04 2016
[A041375] 1, 4, 5, 14, 33, 47, 221, 6235, 25161, 31396, 87953, 207302, 295255, 1388322, 39168271, 158061406, 197229677, 552520760, 1302271197, 1854791957, 8721439025, 246055084657, 992941777653, 1238996862310, 3470935502273, 8180867866856, 11651803369129
a(n) = 6282*a(n-7) + a(n-14). - Vincenzo Librandi, Dec 16 2013
[A041857] 1, 4, 5, 14, 61, 136, 197, 924, 39005, 156944, 195949, 548842, 2391317, 5331476, 7722793, 36222648, 1529074009, 6152518684, 7681592693, 21515704070, 93744408973, 209004522016, 302748930989, 1420000245972, 59942759261813, 241191037293224
a(n) = 39202*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 26 2013
[A000695] 0, 1, 4, 5, 16, 17, 20, 21, 64, 65, 68, 69, 80, 81, 84, 85, 256, 257, 260, 261, 272, 273, 276, 277, 320, 321, 324, 325, 336, 337, 340, 341, 1024, 1025, 1028, 1029, 1040, 1041, 1044, 1045, 1088, 1089, 1092, 1093, 1104, 1105, 1108, 1109, 1280, 1281, 1284, 1285
a(n+1) = (a(n) + 1/3) -1/3, where is bitwise AND, -1/3 is represented as the infinite dyadic ...010101 (just as -1 is ...111111 in two's complement) and +1/3 is ...101011. - Marc LeBrun, Sep 30 2010
[A081345] 1, 4, 5, 16, 17, 36, 37, 64, 65, 100, 101, 144, 145, 196, 197, 256, 257, 324, 325, 400, 401, 484, 485, 576, 577, 676, 677, 784, 785, 900, 901, 1024, 1025, 1156, 1157, 1296, 1297, 1444, 1445, 1600, 1601, 1764, 1765, 1936, 1937, 2116, 2117, 2304, 2305, 2500
a(n) = n^2 + n + 1 - n*(-1)^n = n^2 + n + 1 + n*(-1)^(n+1).
[A024854] 4, 5, 16, 19, 40, 46, 80, 90, 140, 155, 224, 245, 336, 364, 480, 516, 660, 705, 880, 935, 1144, 1210, 1456, 1534, 1820, 1911, 2240, 2345, 2720, 2840, 3264, 3400, 3876, 4029, 4560, 4731, 5320, 5510, 6160, 6370, 7084, 7315, 8096, 8349, 9200, 9476, 10400, 10700, 11700
a(n) = sum_{i=1..floor(n/2)} i*(n-i+3) = -floor(n/2)*(floor(n/2)+1)*(2*floor(n/2)-3n-8)/6. - Wesley Ivan Hurt, Sep 20 2013
a(n) = (4*n^3+21*n^2+14*n-9+3*(n^2+6*n+3)*(-1)^n)/48. - Luce ETIENNE, Nov 14 2014
[A092809] 1, 1, 4, 5, 16, 21, 64, 85, 256, 341, 1024, 1365, 4096, 5461, 16384, 21845, 65536, 87381, 262144, 349525, 1048576, 1398101, 4194304, 5592405, 16777216, 22369621, 67108864, 89478485, 268435456, 357913941, 1073741824, 1431655765, 4294967296, 5726623061
a(n) = 5*2^n/6+(-2)^n/6+(-1)^n/6-1/6.
a(n) = 5*a(n-2)-4*a(n-4) for n>3.
[A058622] 0, 1, 1, 4, 5, 16, 22, 64, 93, 256, 386, 1024, 1586, 4096, 6476, 16384, 26333, 65536, 106762, 262144, 431910, 1048576, 1744436, 4194304, 7036530, 16777216, 28354132, 67108864, 114159428, 268435456, 459312152, 1073741824, 1846943453

a(n) = 2^(n-1) + ((1+(-1)^n)/4)*binomial(n, n/2); a(n) = sum(binomial(n, i), i=0..(n-1)/2).
[A007837] 1, 1, 1, 4, 5, 16, 82, 169, 541, 2272, 17966, 44419, 201830, 802751, 4897453, 52275409, 166257661, 840363296, 4321172134, 24358246735, 183351656650, 2762567051857, 10112898715063, 62269802986835, 343651382271526, 2352104168848091, 15649414071734847
a(n) = Sum_{k=1..n} (n-1)!/(n-k)!*b(k)*a(n-k), where b(k) = Sum_{d divides k} (-d)*(-d!)^(-k/d) and a(0) = 1. - Vladeta Jovovic, Oct 13 2002
[A119997] 1, 1, 4, 5, 17, 32, 97, 225, 628, 1573, 4225, 10880, 28769, 74849, 196708, 513765, 1347025, 3523360, 9229441, 24154625, 63251156, 165571781, 433507969, 1134881280, 2971250497, 7778684737, 20365103812, 53316141125, 139584105233, 365434903328, 956722661665
a(n) = Sum[Sum[(-1)^(i+j)*Fibonacci[i+j-1],{i,1,n}],{j,1,n}].
a(n) = 3*a(n-1)+a(n-2)-7*a(n-3)+5*a(n-4)-a(n-5) for n>5. - Colin Barker, Mar 26 2015
[A042885] 1, 4, 5, 19, 24, 43, 67, 780, 847, 5015, 15892, 132151, 148043, 280194, 428237, 708431, 21681167, 22389598, 44070765, 66460363, 110531128, 950709387, 2962659289, 15764005832, 18726665121, 221757322163, 240483987284, 462241309447, 702725296731, 2570417199640
a(n) = 977651490470430*a(n-32) - a(n-64) for n>63. - Vincenzo Librandi, Jan 31 2014
[A042085] 1, 1, 4, 5, 19, 24, 43, 368, 411, 9410, 9821, 87978, 97799, 185777, 655130, 840907, 3177851, 4018758, 188040719, 192059477, 764219150, 956278627, 3633055031, 4589333658, 8222388689, 70368443170, 78590831859, 1799366744068, 1877957575927, 16823027351484
a(n) = 191218570*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 14 2014
[A041699] 1, 4, 5, 19, 43, 320, 1323, 9581, 20485, 71036, 91521, 437120, 16702081, 67245444, 83947525, 319088019, 722123563, 5373952960, 22217935403, 160899500781, 344016936965, 1192950311676, 1536967248641, 7340819306240, 280488100885761, 1129293222849284
a(n) = 16793602*a(n-12) - a(n-24) for n>23 Vincenzo Librandi, Dec 23 2013
[A041255] 1, 1, 4, 5, 19, 138, 157, 295, 747, 8512, 17771, 26283, 44054, 334661, 1048037, 1382698, 5196131, 6578829, 149930369, 156509198, 619457963, 775967161, 2947359446, 21407483283, 24354842729, 45762326012
a(n) = 155126500*a(n-18) - a(n-36) for n>35. [Bruno Berselli, Dec 14 2013]
[A080610] 0, 1, 4, 5, 20, 21, 84, 85, 340, 341, 1364, 1365, 5460, 5461, 21844, 21845, 87380, 87381, 349524, 349525, 1398100, 1398101, 5592404, 5592405, 22369620, 22369621, 89478484, 89478485, 357913940, 357913941, 1431655764, 1431655765, 5726623060
a(n) = 2^n+(-2)^n/3-(-1)^n/2-5/6. - Paul Barry, Apr 22 2004
a(n) = a(n-1)*4 if n even; a(n) = a(n-1)+1 if n odd. - Philippe Deléham, Apr 22 2013
[A133632] 1, 4, 5, 20, 25, 100, 125, 500, 625, 2500, 3125, 12500, 15625, 62500, 78125, 312500, 390625, 1562500, 1953125, 7812500, 9765625, 39062500, 48828125, 195312500, 244140625, 976562500, 1220703125, 4882812500, 6103515625, 24414062500
a(n)=p^floor((n-1)/2)*(p+(p-2)*(-1)^n)/2.
a(n+3) = a(n+2)*a(n+1)/a(n). [Reinhard Zumkeller, Mar 04 2011]
[A163141] 4, 5, 20, 25, 100, 125, 500, 625, 2500, 3125, 12500, 15625, 62500, 78125, 312500, 390625, 1562500, 1953125, 7812500, 9765625, 39062500, 48828125, 195312500, 244140625, 976562500, 1220703125, 4882812500, 6103515625, 24414062500
a(n) = (5-3*(-1)^n)*5^(1/4*(2*n-1+(-1)^n))/2.
[A057781] 4, 5, 20, 85, 260, 629, 1300, 2405, 4100, 6565, 10004, 14645, 20740, 28565, 38420, 50629, 65540, 83525, 104980, 130325, 160004, 194485, 234260, 279845, 331780, 390629, 456980, 531445, 614660, 707285, 810004, 923525, 1048580, 1185925
a(n) = (n^2)^2 + 2^2 = (n^2-2)^2 + (2*n)^2. - Thomas Ordowski, Sep 15 2015
[A099578] 1, 1, 4, 5, 21, 28, 120, 165, 715, 1001, 4368, 6188, 27132, 38760, 170544, 245157, 1081575, 1562275, 6906900, 10015005, 44352165, 64512240, 286097760, 417225900, 1852482996, 2707475148, 12033222880, 17620076360, 78378960360, 114955808528
a(n) = Sum_{k=0..floor(n/2)} binomial(n+k, k).
[A109452] 1, 1, 4, 5, 21, 31, 113, 177, 766, 1271, 4687, 7999, 34412, 60166, 225891, 401201, 1702653, 3064183, 11646431, 21171246, 88894429, 162966750, 624746839, 1153324813, 4805206256, 8923870307, 34421146489, 64252106507, 266183327326
a(n)=a(ceiling(n/2) - 1, n), where a(m, n) = trinomial(n, ceiling(m/2), floor(m/2), n-m) + binomial(n, ceiling(m/2-1)) + a(ceiling(m/2)-2, n).
[A129346] 4, 5, 22, 29, 128, 169, 746, 985, 4348, 5741, 25342, 33461, 147704, 195025, 860882, 1136689, 5017588, 6625109, 29244646, 38613965, 170450288, 225058681, 993457082, 1311738121, 5790292204, 7645370045, 33748296142, 44560482149, 196699484648, 259717522849
a(n) = (-(-1-sqrt(2))^(1+n)+(-1+sqrt(2))^(1+n)+(1-sqrt(2))^n*(-4+3*sqrt(2))+(1+sqrt(2))^n*(4+3*sqrt(2)))/(2*sqrt(2)).
a(n) = 6*a(n-2)-a(n-4) for n>3. (End)
[A042123] 1, 4, 5, 24, 29, 53, 135, 188, 511, 3765, 4276, 12317, 28910, 41227, 317499, 676225, 993724, 2663673, 3657397, 6321070, 28941677, 35262747, 169992665, 8194910667, 32949635333, 41144546000, 197527819333, 238672365333, 436200184666, 1111072734665, 1547272919331
a(n) = 8230173414*a(n-23) + a(n-46) for n>45. - Vincenzo Librandi, Jan 15 2014
[A041531] 1, 1, 4, 5, 24, 29, 111, 140, 4591, 4731, 18784, 23515, 112844, 136359, 521921, 658280, 21586881, 22245161, 88322364, 110567525, 530592464, 641159989, 2454072431, 3095232420, 101501509871, 104596742291, 415291736744, 519888479035, 2494845652884
a(n) = 4702*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 19 2013
[A089499] 0, 1, 4, 5, 24, 29, 140, 169, 816, 985, 4756, 5741, 27720, 33461, 161564, 195025, 941664, 1136689, 5488420, 6625109, 31988856, 38613965, 186444716, 225058681, 1086679440, 1311738121, 6333631924, 7645370045, 36915112104, 44560482149
a(1) = 1, a(2n) = 4*a(2n-1) + a(2n-2); a(2n-1) = a(2n-2) + a(2n-3). Given the 2 X 2 matrix X = [1, 4; 1, 5], [a(2n-1), a(2n)] = top row of X^n. The sequence starting (1, 4, 5, 24, 29,...) = numerators in continued fraction [0; 1, 4, 1, 4, 1, 4,...] = (sqrt(8) - 2) = .828427124... E.g. X^3 = [29, 140; 35, 169], where 29/35, 140/169 are convergents to (sqrt(8)-2). - Gary W. Adamson, Dec 22 2007
a(n) = product {j = 1..floor(n/2)} (4 + 4*cos^2(j*Pi/n)) for n >= 1. (End)
[A249060] 1, 4, 5, 24, 35, 192, 315, 1920, 3465, 23040, 45045, 322560, 675675, 5160960, 11486475, 92897280, 218243025, 1857945600, 4583103525, 40874803200, 105411381075, 980995276800, 2635284526875, 25505877196800, 71152682225625, 714164561510400, 2063427784543125
a(2*n) = (2*n+3)*(2*n+1)!!/3, for n > 0. - Derek Orr, Oct 21 2014
a(2*n+1) = (n+2)!*2^(n+1), for n > 0. - Derek Orr, Oct 21 2014
[A002352] 1, 4, 5, 29, 34, 63, 286, 349, 635, 5429, 6064, 90325, 96389, 1054215, 2204819, 3259034, 15240955, 186150494, 387541943, 1348776323, 3085094589, 4433870912, 16386707325, 69980700212, 86367407537, 156348107749, 399063623035
a(n+1) = c(n)*a(n) + a(n-1),
[A041273] 1, 4, 5, 29, 92, 305, 1617, 1922, 9305, 225242, 910273, 1135515, 6587848, 20899059, 69285025, 367324184, 436609209, 2113761020, 51166873689, 206781255776, 257948129465, 1496521903101, 4747513838768, 15739063419405, 83442830935793, 99181894355198
a(n) = 227164*a(n-9) + a(n-18). - Vincenzo Librandi, Dec 14 2013
[A041907] 1, 1, 4, 5, 34, 73, 472, 545, 2107, 2652, 113491, 116143, 461920, 578063, 3930298, 8438659, 54562252, 63000911, 243564985, 306565896, 13119332617, 13425898513, 53397028156, 66822926669, 454334588170, 975492103009, 6307287206224, 7282779309233
a(n) = 115598*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 27 2013
[A041173] 1, 1, 4, 5, 94, 99, 391, 490, 9211, 9701, 38314, 48015, 902584, 950599, 3754381, 4704980, 88444021, 93149001, 367891024, 461040025, 8666611474, 9127651499, 36049565971, 45177217470, 849239480431, 894416697901, 3532489574134, 4426906272035, 83216802470764
a(n) = 98*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 12 2013
[A041409] 1, 1, 4, 5, 144, 149, 591, 740, 21311, 22051, 87464, 109515, 3153884, 3263399, 12944081, 16207480, 466753521, 482961001, 1915636524, 2398597525, 69076367224, 71474964749, 283501261471, 354976226220, 10222835595631, 10577811821851, 41956271061184
a(n) = 148*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 17 2013
[A041745] 1, 1, 4, 5, 194, 199, 791, 990, 38411, 39401, 156614, 196015, 7605184, 7801199, 31008781, 38809980, 1505788021, 1544598001, 6139582024, 7684180025, 298138422974, 305822602999, 1215606231971, 1521428834970, 59029901960831, 60551330795801
a(n) = 198*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 23 2013
[A042181] 1, 1, 4, 5, 244, 249, 991, 1240, 60511, 61751, 245764, 307515, 15006484, 15313999, 60948481, 76262480, 3721547521, 3797810001, 15114977524, 18912787525, 922928778724, 941841566249, 3748453477471, 4690295043720, 228882615576031, 233572910619751
a(n) = 248*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Jan 16 2014
[A006185] 1, 4, 6, 7, 7, 12, 12, 19, 21, 26, 26, 35, 35, 46, 48, 57, 57, 70, 70, 85, 87, 100, 100, 117, 117, 136, 138, 155, 155, 176, 176, 199, 201, 222, 222, 247, 247, 274, 276, 301, 301, 330, 330, 361, 363, 392, 392, 425, 425, 460, 462, 495, 495, 532

a(n) = n*(n-1)/6 if n=1 or 3 (mod 6), a(n) = n*(n+1)/6 if n = 0 or 2 (mod 6), a(n) = (n^2+n+4)/6 if n = 4 (mod 6), and a(n) = (n^2-n+16)/6 if n = 5 (mod 6). [From Grannell et al.] - Sean A. Irvine, Jan 17 2017

[A079000] 1, 4, 6, 7, 8, 9, 11, 13, 15, 16, 17, 18, 19, 20, 21, 23, 25, 27, 29, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 95, 97

a(n+1) - 2*a(n) + a(n-1) = 1 for n = 9*2^k - 3, k>=0, = -1 for n = 2 and 3*2^k-3, k>=1 and = 0 otherwise.

[A047509] 0, 1, 4, 6, 7, 8, 9, 12, 14, 15, 16, 17, 20, 22, 23, 24, 25, 28, 30, 31, 32, 33, 36, 38, 39, 40, 41, 44, 46, 47, 48, 49, 52, 54, 55, 56, 57, 60, 62, 63, 64, 65, 68, 70, 71, 72, 73, 76, 78, 79, 80, 81, 84, 86, 87, 88, 89, 92, 94, 95, 96, 97, 100, 102, 103, 104

a(n) = a(n-1) + a(n-5) - a(n-6), for n > 6.

[A047291] 0, 1, 4, 6, 7, 8, 11, 13, 14, 15, 18, 20, 21, 22, 25, 27, 28, 29, 32, 34, 35, 36, 39, 41, 42, 43, 46, 48, 49, 50, 53, 55, 56, 57, 60, 62, 63, 64, 67, 69, 70, 71, 74, 76, 77, 78, 81, 83, 84, 85, 88, 90, 91, 92, 95, 97, 98, 99, 102, 104, 105, 106, 109, 111

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

a(n) = (-13 - (-1)^n + (3-i)*(-i)^n + (3+i)*i^n + 14*n)/8 where i=sqrt(-1). - Colin Barker, May 14 2012

[A047507] 0, 4, 6, 7, 8, 12, 14, 15, 16, 20, 22, 23, 24, 28, 30, 31, 32, 36, 38, 39, 40, 44, 46, 47, 48, 52, 54, 55, 56, 60, 62, 63, 64, 68, 70, 71, 72, 76, 78, 79, 80, 84, 86, 87, 88, 92, 94, 95, 96, 100, 102, 103, 104, 108, 110, 111, 112, 116, 118, 119, 120, 124

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

a(n) = (8*n-3+i^(2*n)-(1+2*i)*i^(-n)-(1-2*i)*i^n)/4 where i=sqrt(-1).

[A001690] 4, 6, 7, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78

a(n-1) = floor(n+lgg(sqrt(5)*(lgg(sqrt(5)*n)+n)-5+3/n)-2) where lgg(x)=log(x)/log((sqrt(5)+1)/2), given by Farhi. - Jonathan Vos Post, May 05 2011

a(n) = floor(1/2 - LambertW(-1, -log(phi)/(sqrt(5)*phi^(n - 3/2)))/log(phi)) with phi = (1 + sqrt(5))/2 [Nicolas Normand (Nantes)]. - Simon Plouffe, Nov 29 2017 [abs removed by Peter Luschny, Nov 30 2017]

[A069909] 1, 4, 6, 7, 9, 10, 12, 15, 17, 20, 22, 23, 25, 26, 28, 31, 33, 36, 38, 39, 41, 42, 44, 47, 49, 52, 54, 55, 57, 58, 60, 63, 65, 68, 70, 71, 73, 74, 76, 79, 81, 84, 86, 87, 89, 90, 92, 95, 97, 100, 102, 103, 105, 106, 108, 111, 113, 116, 118, 119, 121

a(0)=1, a(1)=4, a(2)=6, a(3)=7, a(4)=9, a(5)=10, a(n)=2*a(n-1)-a(n-2)- a(n-4)+ 2*a(n-5)-a(n-6). - Harvey P. Dale, Sep 09 2012

[A183870] 1, 4, 6, 7, 9, 11, 12, 13, 15, 16, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 87, 88, 89, 90, 91, 93, 94, 95, 96, 97, 98, 99, 101, 102, 103, 104, 105, 106, 107, 108, 109, 111, 112, 113, 114, 115, 116, 117, 118, 120, 121, 122

a(n)=n+floor(sqrt(5n-5)).

[A047508] 1, 4, 6, 7, 9, 12, 14, 15, 17, 20, 22, 23, 25, 28, 30, 31, 33, 36, 38, 39, 41, 44, 46, 47, 49, 52, 54, 55, 57, 60, 62, 63, 65, 68, 70, 71, 73, 76, 78, 79, 81, 84, 86, 87, 89, 92, 94, 95, 97, 100, 102, 103, 105, 108, 110, 111, 113, 116, 118, 119, 121, 124

a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.

a(n) = (1+i)*(4*n-4*n*i+i-1-i^(-n)+i^(1+n))/4 where i=sqrt(-1).

[A086170] 1, 4, 6, 7, 10, 11, 12, 15, 17, 18, 19, 20, 23, 25, 26, 29, 30, 31, 32, 33, 36, 38, 39, 42, 43, 44, 47, 49, 50, 51, 52, 53, 54, 57, 59, 60, 63, 64, 65, 68, 70, 71, 72, 73, 76, 78, 79, 82, 83, 84, 85, 86, 87, 88, 91, 93, 94, 97, 98, 99, 102, 104, 105, 106, 107, 110, 112, 113

a(n)=phi*n +O(1) where phi=(1+sqrt(5))/2

[A026147] 1, 4, 6, 7, 10, 11, 13, 16, 18, 19, 21, 24, 25, 28, 30, 31, 34, 35, 37, 40, 41, 44, 46, 47, 49, 52, 54, 55, 58, 59, 61, 64, 66, 67, 69, 72, 73, 76, 78, 79, 81, 84, 86, 87, 90, 91, 93, 96, 97, 100, 102, 103, 106, 107, 109, 112, 114, 115, 117, 120, 121, 124, 126, 127, 130

a(n)=sum{k=0..2n, mod(-2+sum{j=0..k, floor(C(k, j)/2)}, 3)} - Paul Barry, Dec 24 2004

[A272632] 4, 6, 7, 10, 11, 16, 18, 26, 29, 42, 47, 68, 76, 110, 123, 178, 199, 288, 322, 466, 521, 754, 843, 1220, 1364, 1974, 2207, 3194, 3571, 5168, 5778, 8362, 9349, 13530, 15127, 21892, 24476, 35422, 39603, 57314, 64079, 92736, 103682, 150050, 167761, 242786

a(2*n-1) = fibonacci(n+1) + fibonacci(n+3) for n >= 1.

a(2*n) = 2*fibonacci(n+3) for n >= 1.

[A047234] 0, 1, 4, 6, 7, 10, 12, 13, 16, 18, 19, 22, 24, 25, 28, 30, 31, 34, 36, 37, 40, 42, 43, 46, 48, 49, 52, 54, 55, 58, 60, 61, 64, 66, 67, 70, 72, 73, 76, 78, 79, 82, 84, 85, 88, 90, 91, 94, 96, 97, 100, 102, 103, 106, 108, 109, 112, 114, 115, 118, 120, 121, 124

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.

a(n) = (6*n-7+cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/3.

a(3k) = 6k-2, a(3k-1) = 6k-5, a(3k-2) = 6k-6. (End)

[A047289] 0, 4, 6, 7, 11, 13, 14, 18, 20, 21, 25, 27, 28, 32, 34, 35, 39, 41, 42, 46, 48, 49, 53, 55, 56, 60, 62, 63, 67, 69, 70, 74, 76, 77, 81, 83, 84, 88, 90, 91, 95, 97, 98, 102, 104, 105, 109, 111, 112, 116, 118, 119, 123, 125, 126, 130, 132, 133, 137, 139, 140

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)

a(n) = Sum_{i=1..n} 2^(-i mod 3). - Wesley Ivan Hurt, Jul 08 2014

a(n) = (21*n-12+3*cos(2*n*Pi/3)-5*sqrt(3)*sin(2*n*Pi/3))/9.

a(3k) = 7k-1, a(3k-1) = 7k-3, a(3k-2) = 7k-7. (End)

[A047506] 4, 6, 7, 12, 14, 15, 20, 22, 23, 28, 30, 31, 36, 38, 39, 44, 46, 47, 52, 54, 55, 60, 62, 63, 68, 70, 71, 76, 78, 79, 84, 86, 87, 92, 94, 95, 100, 102, 103, 108, 110, 111, 116, 118, 119, 124, 126, 127, 132, 134, 135, 140, 142, 143, 148, 150, 151, 156, 158

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.

a(n) = (24*n+3-12*cos(2*n*Pi/3)+2*sqrt(3)*sin(2*n*Pi/3))/9.

a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-4. (End)

[A213034] 0, 0, 0, 4, 6, 7, 18, 21, 24, 40, 45, 49, 72, 78, 84, 112, 120, 127, 162, 171, 180, 220, 231, 241, 288, 300, 312, 364, 378, 391, 450, 465, 480, 544, 561, 577, 648, 666, 684, 760, 780, 799, 882, 903, 924, 1012, 1035, 1057, 1152, 1176, 1200, 1300, 1326

a(n) = a(n-1)+a(n-3)-a(n-4)+a(n-6)-a(n-7)-a(n-9)+a(n-10).

[A084984] 0, 1, 4, 6, 8, 9, 10, 11, 14, 16, 18, 19, 40, 41, 44, 46, 48, 49, 60, 61, 64, 66, 68, 69, 80, 81, 84, 86, 88, 89, 90, 91, 94, 96, 98, 99, 100, 101, 104, 106, 108, 109, 110, 111, 114, 116, 118, 119, 140, 141, 144, 146, 148, 149, 160, 161, 164, 166, 168, 169

a(n) » n^1.285. - Charles R Greathouse IV, Feb 20 2012

a(n) = ((2*b_m(n)+1) mod 10 + floor((b_m(n)+4)/5) - floor((b_m(n)+1)/5))*10^m + sum_{j=0..m-1} ((2*b_j(n))) mod 12 + floor(b_j(n)/6) - floor((b_j(n)+1)/6) + floor((b_j(n)+4)/6) - floor((b_j(n)+5)/6)))*10^j, where n>1, b_j(n)) = floor((n-1-6^m)/6^j), m = floor(log_6(n-1)).

a(1*6^n+1) = 1*10^n.

a(2*6^n+1) = 4*10^n.

a(3*6^n+1) = 6*10^n.

a(4*6^n+1) = 8*10^n.

[A002808] 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35, 36, 38, 39, 40, 42, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 69, 70, 72, 74, 75, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87, 88

a(n) = pi(a(n)) + 1 + n, where pi is the prime counting function.

[A060679] 4, 6, 8, 9, 10, 12, 14, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30, 32, 34, 36, 38, 39, 40, 42, 44, 45, 46, 48, 49, 50, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 66, 68, 70, 72, 74, 75, 76, 78, 80, 81, 82, 84, 86, 88, 90, 92, 93, 94, 96, 98, 99, 100, 102, 104, 105, 106, 108

a(n) = n + O(n/log log log n). - Charles R Greathouse IV, Apr 16 2012

[A062115] 0, 1, 4, 6, 8, 9, 10, 14, 16, 18, 40, 44, 46, 48, 49, 60, 64, 66, 68, 69, 80, 81, 84, 86, 88, 90, 91, 94, 96, 98, 99, 100, 104, 106, 108, 140, 144, 146, 148, 160, 164, 166, 168, 169, 180, 184, 186, 188, 400, 404, 406, 408, 440, 444, 446, 448, 460, 464, 466

a(n) = O(n^(log_4 10)) = O(n^1.661) because numbers containing only 0,4,6,8 are in this sequence.

a(n) = Omega(n^(log_13637 1000000)) = Omega(n^1.451) for similar reasons; this bound can be increased by considering longer sequences of digits.

[A180638] 4, 6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24, 25, 27, 28, 30, 31, 32, 34, 35, 36, 38, 39, 40, 42, 43, 44, 46, 47, 48, 50, 51, 52, 54, 55, 56, 58, 59, 60, 62, 63, 64, 65, 67, 68, 69, 71, 72, 73, 75, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87, 89, 90, 91, 93, 94, 95, 96, 98, 99, 100, 102

a(n) = floor(1.22*n + 3.1*n^(1/3)).

[A202268] 1, 4, 6, 8, 9, 11, 14, 16, 18, 19, 41, 44, 46, 48, 49, 61, 64, 66, 68, 69, 81, 84, 86, 88, 89, 91, 94, 96, 98, 99, 111, 114, 116, 118, 119, 141, 144, 146, 148, 149, 161, 164, 166, 168, 169, 181, 184, 186, 188, 189, 191, 194, 196, 198, 199, 411, 414, 416, 418, 419
a(n) = sum_{j=0..m-1} ((2*b_j(n)+1) mod 10 + floor((b_j(n)+4)/5) - floor((b_j(n)+1)/5))*10^j, where b_j(n))=floor((4*n+1-5^m)/(4*5^j)), m=floor(log_5(4*n+1)).
a(1*(5^n-1)/4) = 1*(10^n-1)/9.
a(2*(5^n-1)/4) = 4*(10^n-1)/9.
a(3*(5^n-1)/4) = 6*(10^n-1)/9.
a(4*(5^n-1)/4) = 8*(10^n-1)/9.
a(5*(5^n-1)/4) = 10^n-1.
[A047409] 0, 1, 4, 6, 8, 9, 12, 14, 16, 17, 20, 22, 24, 25, 28, 30, 32, 33, 36, 38, 40, 41, 44, 46, 48, 49, 52, 54, 56, 57, 60, 62, 64, 65, 68, 70, 72, 73, 76, 78, 80, 81, 84, 86, 88, 89, 92, 94, 96, 97, 100, 102, 104, 105, 108, 110, 112, 113, 116, 118, 120, 121, 124
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8n-9-i^(2n)+i^(-n)+i^n)/4 where i=sqrt(-1).
[A079142] 4, 6, 8, 9, 12, 15, 25, 30, 35, 49, 56, 63, 121, 132, 143, 169, 182, 195, 289, 306, 323, 361, 380, 399, 529, 552, 575, 841, 870, 899, 961, 992, 1023, 1369, 1406, 1443, 1681, 1722, 1763, 1849, 1892, 1935, 2209, 2256, 2303, 2809, 2862, 2915, 3481, 3540, 3599
a(n) = prime(floor(n/3+1))*(prime(floor(n/3+1)) + (n mod 3))
[A262389] 4, 6, 8, 9, 14, 16, 18, 19, 24, 26, 28, 29, 34, 36, 38, 39, 44, 46, 48, 49, 54, 56, 58, 59, 64, 66, 68, 69, 74, 76, 78, 79, 84, 86, 88, 89, 94, 96, 98, 99, 104, 106, 108, 109, 114, 116, 118, 119, 124, 126, 128, 129, 134, 136, 138, 139, 144, 146, 148, 149
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (5*n+1-(-1)^n+(3+(-1)^n)*(-1)^((2*n-3-(-1)^n)/4)/2)/2.
[A162738] 4, 6, 8, 9, 20, 24, 28, 30, 32, 36, 40, 42, 44, 48, 50, 78, 81, 84, 90, 96, 99, 102, 105, 108, 114, 117, 120, 126, 132, 135, 138, 144, 147, 150, 153, 156, 162, 165, 168, 228, 232, 240, 248, 252, 256, 260, 264, 272, 276, 280, 288, 296, 300, 304, 308, 312, 320, 324
a(n) = ceiling(p(n)/c(n))*c(n), where c(n) is the n-th composite, and p(n) is the n-th prime.
[A001744] 0, 4, 6, 8, 9, 40, 44, 46, 48, 49, 60, 64, 66, 68, 69, 80, 84, 86, 88, 89, 90, 94, 96, 98, 99, 400, 404, 406, 408, 409, 440, 444, 446, 448, 449, 460, 464, 466, 468, 469, 480, 484, 486, 488, 489, 490, 494, 496, 498, 499, 600, 604, 606, 608, 609, 640, 644, 646
a(n) = ((2*b_m(n)) mod 8 + 4 + floor(b_m(n)/4) - floor((b_m(n)+1)/4))*10^m + sum_{j=0..m-1} ((2*b_j(n))) mod 10 + 2*floor((b_j(n)+4)/5) - floor((b_j(n)+1)/5) -floor(b_j(n)/5)))*10^j, where n>1, b_j(n)) = floor((n-1-5^m)/5^j), m = floor(log_5(n-1)).
a(1*5^n+1) = 4*10^n.
a(2*5^n+1) = 6*10^n.
a(3*5^n+1) = 8*10^n.
a(4*5^n+1) = 9*10^n.
a(n) = 4*10^log_5(n-1) for n=5^k+1,
[A029581] 4, 6, 8, 9, 44, 46, 48, 49, 64, 66, 68, 69, 84, 86, 88, 89, 94, 96, 98, 99, 444, 446, 448, 449, 464, 466, 468, 469, 484, 486, 488, 489, 494, 496, 498, 499, 644, 646, 648, 649, 664, 666, 668, 669, 684, 686, 688, 689, 694, 696, 698, 699, 844, 846, 848
a(n) = sum_{j=0..m-1} (2*b(j) mod 8 + 4 + floor(b(j)/4) - floor((b(j)+1)/4))*10^j, where m = floor(log_4(3*n+1)), b(j) = floor((3*n+1-4^m)/(3*4^j)).
a(1*(4^n-1)/3) = 4*(10^n-1)/9.
a(2*(4^n-1)/3) = 2*(10^n-1)/3.
a(3*(4^n-1)/3) = 8*(10^n-1)/9.
a(4*(4^n-1)/3) = 10^n-1.
a(n) < 4*(10^log_4(3*n+1)-1)/9, equality holds for n=(4^k-1)/3, k>0.
[A184016] 4, 6, 8, 10, 11, 13, 14, 16, 18, 19, 20, 22, 23, 25, 26, 28, 29, 30, 32, 33, 34, 36, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 50, 51, 52, 54, 55, 56, 57, 58, 60, 61, 62, 63, 65, 66, 67, 68, 70, 71, 72, 73, 74, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 88, 89, 90, 91, 92, 93, 95, 96, 97, 98, 99, 100, 102, 103, 104, 105, 106, 108, 109, 110, 111, 112, 113, 114, 116, 117, 118, 119, 120, 121, 123, 124, 125, 126, 127, 128, 130
a(n)=n+floor(3*sqrt(n)).
[A103517] 1, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126
a(n) = 2*n + 2 - 0^n.
a(n) = Sum_{k=0..n} 0^(k(n-k))*(n+1).
a(n) = 2*a(n-1) - a(n-2) for n > 2. - Eric W. Weisstein, Sep 14 2017
[A163300] 0, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132
a(n) = 2*{n-1+[(n+1) mod n]}, with n>=1. - Paolo P. Lava, Nov 06 2009
[A167179] 4, 6, 8, 10, 12, 15, 20, 25, 30, 35, 40, 45, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120, 125, 130, 135, 140, 145, 150, 155, 160, 165, 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, 225, 230, 235, 240, 245, 250, 255, 260, 265, 270, 275
a(n) = 2*(n+1) for n<=5, otherwise a(n) = 5*(n-3).
[A074827] 4, 6, 8, 10, 12, 16, 18, 20, 22, 24, 28, 30, 32, 36, 40, 42, 45, 46, 48, 50, 52, 54, 56, 58, 60, 64, 66, 68, 70, 72, 76, 78, 80, 81, 82, 84, 88, 90, 92, 96, 100, 102, 105, 106, 108, 110, 112, 114, 117, 120, 124, 126, 128, 130, 132, 136, 138, 140, 144, 148, 150, 152
a(n) seems to be asymptotic to d*n with d=2.2... - Benoit Cloitre, Sep 07 2002
[A090169] 0, 1, 4, 6, 8, 10, 13, 14, 17, 19, 21, 23, 26, 27, 30, 32, 34, 36, 39, 40, 43, 45, 47, 49, 52, 53, 56, 58, 60, 62, 65, 66, 69, 71, 73, 75, 78, 79, 82, 84, 86, 88, 91, 92, 95, 97, 99, 101, 104, 105, 108, 110, 112, 114, 117, 118, 121, 123, 125, 127, 130, 131, 134, 136, 138
a(n) = 2*n - 1 + floor(n/2) - floor((n-1)/3). - Bruno Berselli, Jun 15 2016
[A294243] 0, 0, 0, 4, 6, 8, 10, 20, 33, 39, 45, 63, 71, 79, 87, 111, 121, 149, 161, 193, 207, 221, 235, 273, 314, 332, 377, 425, 447, 469, 491, 545, 569, 593, 617, 677, 703, 729, 755, 821, 849, 877, 905, 977, 1052, 1084, 1116, 1196, 1279, 1365, 1403, 1493, 1533, 1627
a(n) = Sum_{i=1..n} (2*n - i) * (1 - mu(i)^2).
[A047290] 1, 4, 6, 8, 11, 13, 15, 18, 20, 22, 25, 27, 29, 32, 34, 36, 39, 41, 43, 46, 48, 50, 53, 55, 57, 60, 62, 64, 67, 69, 71, 74, 76, 78, 81, 83, 85, 88, 90, 92, 95, 97, 99, 102, 104, 106, 109, 111, 113, 116, 118, 120, 123, 125, 127, 130, 132, 134, 137, 139, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. (End)
a(n) = (21*n-9-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-3, a(3k-2) = 7k-6. (End)
[A086377] 1, 4, 6, 8, 11, 13, 16, 18, 21, 23, 25, 28, 30, 33, 35, 37, 40, 42, 45, 47, 49, 52, 54, 57, 59, 62, 64, 66, 69, 71, 74, 76, 78, 81, 83, 86, 88, 91, 93, 95, 98, 100, 103, 105, 107, 110, 112, 115, 117, 120, 122, 124, 127, 129, 132, 134, 136, 139, 141, 144, 146, 148, 151
a(n) = floor((1+sqrt(2))*n-1/sqrt(2)).
[A003662] 1, 4, 6, 8, 11, 13, 16, 18, 23, 25, 28, 30, 35, 37, 40, 42, 47, 49, 52, 54, 59, 61, 64, 66, 71, 73, 76, 78, 83, 85, 88, 90, 95, 97, 100, 102, 107, 109, 112, 114, 119, 121, 124, 126, 131, 133, 136, 138, 143, 145, 148, 150, 155, 157, 160, 162, 167, 169, 172, 174, 179, 181, 184
a(n) = a(n-1)+a(n-4)-a(n-5) for n>7. - Colin Barker, Feb 27 2015
[A047407] 0, 4, 6, 8, 12, 14, 16, 20, 22, 24, 28, 30, 32, 36, 38, 40, 44, 46, 48, 52, 54, 56, 60, 62, 64, 68, 70, 72, 76, 78, 80, 84, 86, 88, 92, 94, 96, 100, 102, 104, 108, 110, 112, 116, 118, 120, 124, 126, 128, 132, 134, 136, 140, 142, 144, 148, 150, 152, 156
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-9-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-4, a(3k-2) = 8k-8. (End)
[A271346] 4, 6, 8, 12, 14, 16, 24, 26, 28, 32, 34, 36, 44, 46, 48, 52, 54, 56, 64, 66, 68, 72, 74, 76, 84, 86, 88, 92, 94, 96, 104, 106, 108, 112, 114, 116, 124, 126, 128, 132, 134, 136, 144, 146, 148, 152, 154, 156, 164, 166, 168, 172, 174, 176, 184, 186, 188, 192, 194
a(n) = a(n-1) + a(n-6) - a(n-7) for n > 7. - Wesley Ivan Hurt, Oct 08 2017

[A055670] 1, 4, 6, 8, 12, 14, 18, 20, 24, 30, 32, 38, 42, 44, 48, 54, 60, 62, 68, 72, 74, 80, 84, 90, 98, 102, 104, 108, 110, 114, 128, 132, 138, 140, 150, 152, 158, 164, 168, 174, 180, 182, 192, 194, 198, 200, 212, 224, 228, 230, 234, 240, 242, 252, 258, 264, 270, 272, 278, 282, 284
a(n) = prime(n) + (-1)^(prime(n) + 1). - Roger L. Bagula, Oct 07 2006
[A157932] 0, 4, 6, 8, 12, 16, 18, 20, 24, 28, 30, 32, 36, 40, 42, 44, 48, 52, 54, 56, 60, 64, 66, 68, 72, 76, 78, 80, 84, 88, 90, 92, 96, 100, 102, 104, 108, 112, 114, 116, 120, 124, 126, 128, 132, 136, 138, 140, 144, 148, 150, 152, 156, 160, 162, 164, 168, 172, 174
a(n) = (-6-(-i)^n-i^n+6*n)/2, where i = sqrt(-1).
[A113709] 4, 6, 8, 12, 16, 18, 20, 24, 30, 36, 40, 42, 44, 48, 54, 60, 66, 68, 72, 78, 80, 84, 96, 100, 102, 104, 108, 112, 126, 128, 132, 138, 140, 150, 156, 162, 164, 168, 174, 180, 190, 192, 196, 198, 204, 216, 224, 228, 232, 234, 240, 250, 252, 258, 264, 270, 276, 280
a(n)=p(n+1) - (p(n) (mod p(n+1)-p(n))).
[A233036] 0, 0, 0, 4, 6, 8, 12, 16, 20, 24, 30, 36, 42, 48, 56, 64, 72, 80, 90, 100, 110, 120, 132, 144, 156, 168, 182, 196, 210, 224, 240, 256, 272, 288, 306, 324, 342, 360, 380, 400, 420, 440, 462, 484, 506, 528, 552, 576, 600, 624, 650, 676, 702, 728, 756, 784, 812, 840, 870, 900, 930, 960, 992, 1024, 1056
a(4*k) = 4*k^2.
a(2*k+1) = k*(k+1) for k >= 2.
a(4*k+2) = 4*k*(k+1).
[A090989] 4, 6, 8, 12, 16, 24, 32, 48, 64, 96, 128, 192, 256, 384, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288, 16384, 24576, 32768, 49152, 65536, 98304, 131072, 196608, 262144, 393216, 524288, 786432, 1048576, 1572864, 2097152, 3145728, 4194304, 6291456, 8388608
a(k+2)=2*a(k).
[A136254] 4, 6, 8, 12, 20, 34, 56, 88, 132, 190, 264, 356, 468, 602, 760, 944, 1156, 1398, 1672, 1980, 2324, 2706, 3128, 3592, 4100, 4654, 5256, 5908, 6612, 7370, 8184, 9056, 9988, 10982, 12040, 13164, 14356
a(n) = n^3/3 - n^2 + 8n/3 + 4.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). (End)
[A176777] 1, 4, 6, 8, 12, 22, 46, 100, 216, 458, 954, 1960, 3988, 8062, 16230, 32588, 65328, 130834, 261874, 523984, 1048236, 2096774, 4193886, 8388148, 16776712, 33553882, 67108266, 134217080, 268434756, 536870158, 1073741014, 2147482780
a(n)= +5*a(n-1) -9*a(n-2) +7*a(n-3) -2*a(n-4). G.f.: (1-x-5*x^2+7*x^3) / ((2*x-1)*(x-1)^3).
[A256137] 1, 4, 6, 8, 14, 18, 26, 32, 42, 50, 62, 72, 86, 98, 114, 128, 146, 162, 182, 200, 222, 242, 266, 288, 314, 338, 366, 392, 422, 450, 482, 512, 546, 578, 614, 648, 686, 722, 762, 800, 842, 882, 926, 968, 1014, 1058, 1106, 1152, 1202, 1250, 1302, 1352, 1406
a(2) = 1; a(3) = 4; for n >= 4, a(n) = 2 + Sum_{i=4..n} d(i), where d(i) = i for even i, d(i) = i-3 for odd i.
a(n) = (5+3*(-1)^n-4*n+2*n^2)/4 for n>3.
a(n) = (n^2-2*n+4)/2 for n even and n>3.
a(n) = (n^2-2*n+1)/2 for n odd and n>3.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>6.
[A055397] 0, 4, 6, 8, 16, 18, 28, 36, 43, 54, 64, 76, 90, 104, 119, 136, 152, 171, 190, 210, 232, 253, 276, 301, 326, 352, 379, 407, 437, 467, 497, 531, 563, 598, 633, 668, 706, 744, 782, 824, 864, 907, 949, 993, 1039, 1085, 1132, 1181, 1229, 1280, 1331, 1382, 1436
a(n) = (n^2)/2 + O(n).
[A191697] 0, 4, 6, 8, 20, 28, 56, 96, 168, 304, 528, 944, 1664, 2944, 5216, 9216, 16320, 28864, 51072, 90368, 159872, 282880, 500480, 885504, 1566720, 2771968, 4904448, 8677376, 15352832, 27163648, 48060416, 85032960, 150448128, 266186752, 470962176, 833269760
a(n) = hat{F_3^n}(0), the Fourier transform evaluated at 0 of the Boolean function F_3^n defined by F_3^n(x_0, ..., x_{n-1}) = sum_{ 0<i<=n-1} x_i x_{i+1(mod n)} x_{i+2(mod n)}. - Michael Somos, Aug 04 2012
[A106366] 4, 6, 8, 24, 48, 130, 312, 834, 2192, 5934, 16104, 44368, 122640, 341802, 956632, 2690844, 7596480, 21524542, 61171656, 174342216, 498112272, 1426419858, 4093181688, 11767920118, 33891544416, 97764131646, 282429537944
a(n) = (1/n) * Sum_{d | n} totient(n/d) * (3*(-1)^d + 3^d) for n > 1. - Andrew Howroyd, Mar 12 2017
[A094115] 0, 1, 1, 4, 6, 9, 9, 10, 10, 19, 27, 36, 42, 49, 55, 64, 72, 81, 81, 82, 82, 85, 87, 90, 90, 91, 91, 118, 144, 171, 195, 220, 244, 271, 297, 324, 342, 361, 379, 400, 420, 441, 459, 478, 496, 523, 549, 576, 600, 625, 649, 676, 702, 729, 729, 730, 730, 733, 735, 738, 738
a(3^k)=(9^k-1)/8
[A051679] 0, 0, 1, 1, 4, 6, 9, 9, 16, 22, 29, 33, 42, 48, 55, 55, 70, 84, 99, 111, 128, 142, 157, 165, 186, 204, 223, 235, 256, 270, 285, 285, 316, 346, 377, 405, 438, 468, 499, 523, 560, 594, 629, 657, 694, 724, 755, 771, 816, 858, 901, 937, 982, 1020, 1059, 1083, 1132
a(0)=a(1)=0, a(2n) = 3a(n)+n(n-1)/2, a(2n+1) = 2a(n)+a(n+1)+n(n+1)/2. - Ralf Stephan, Oct 10 2003
[A214068] 0, 1, 4, 6, 9, 10, 13, 15, 18, 19, 22, 24, 27, 28, 31, 33, 36, 37, 40, 42, 45, 46, 49, 51, 54, 55, 58, 60, 63, 64, 67, 69, 72, 73, 76, 78, 81, 82, 85, 87, 90, 91, 94, 96, 99, 100, 103, 105, 108, 109, 112, 114, 117, 118, 121, 123, 126
a(n) = (18*n - 5 + 3*(-1)^n + (1 - i)*(-i)^n + (1 + i)*i^n)/8, where i = sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5).
[A133234] 4, 6, 9, 10, 15, 22, 25, 33, 39, 49, 55, 58, 82, 86, 87, 93, 111, 118, 121, 122, 134, 145, 185, 194, 201, 202, 206, 215, 237, 247, 274, 287, 298, 299, 303, 305, 314, 334, 335, 358, 362, 386, 446, 447, 454, 471, 482, 497, 502, 527, 529, 537, 553, 554, 562, 614
a(1) = 4, a(2) = 6, a(n) = smallest semiprime such that there is no i < j < n with a(n) - a(j) = a(j) - a(i).
[A060106] 1, 4, 6, 9, 11, 13, 16, 18, 21, 23, 25, 28, 30, 33, 35, 37, 40, 42, 45, 47, 49, 52, 54, 57, 59, 61, 64, 66, 69, 71, 73, 76, 78, 81, 83, 85, 88, 90, 93, 95, 97, 100, 102, 105, 107, 109, 112, 114, 117, 119, 121, 124, 126, 129, 131, 133, 136, 138, 141, 143, 145, 148
a(n)=a(n-5)+12
[A189756] 1, 4, 6, 9, 11, 14, 15, 18, 20, 23, 25, 28, 30, 32, 35, 37, 40, 42, 44, 46, 49, 51, 54, 56, 59, 61, 63, 66, 68, 71, 73, 75, 77, 80, 82, 85, 87, 89, 92, 94, 97, 99, 102, 104, 106, 108, 111, 113, 116, 119, 120, 123, 125, 128, 130, 133, 134, 137, 139, 142, 144, 147, 150, 151, 154, 156, 159, 161, 164, 165, 168, 170, 173, 175, 178, 180, 182
a(n)=n+[n*sin(1)]+[n*cos(1)].
[A047209] 1, 4, 6, 9, 11, 14, 16, 19, 21, 24, 26, 29, 31, 34, 36, 39, 41, 44, 46, 49, 51, 54, 56, 59, 61, 64, 66, 69, 71, 74, 76, 79, 81, 84, 86, 89, 91, 94, 96, 99, 101, 104, 106, 109, 111, 114, 116, 119, 121, 124, 126, 129, 131, 134, 136, 139, 141, 144, 146, 149, 151, 154
a(n) = floor((5n-2)/2). - corrected by Reinhard Zumkeller, Jul 19 2013
a(1)=1, a(n)=5(n-1)-a(n-1). - Benoit Cloitre, Apr 12 2003
a(n) = (10*n+(-1)^n-5)/4.
a(n)-a(n-1)-a(n-2)+a(n-3)=0 for n>3.
a(n) = a(n-2)+5 for n>2.
a(n) = 5*floor(n/2)+(-1)^(n+1). - Gary Detlefs, Dec 29 2011
[A138812] 1, 1, 4, 6, 9, 11, 14, 16, 19, 22, 24, 27, 31, 33, 36, 38, 42, 44, 48, 51, 54, 56, 60, 62, 67, 69, 71, 75, 79, 81, 84, 87, 91, 95, 97, 99, 105, 107, 111, 113, 116, 118, 123, 125, 131, 134, 136, 138, 145, 147, 149, 152, 155, 157, 163, 166, 171, 174, 176, 178, 183, 185
a(2) = 4, a(n)/n=2.0000, a(n)/(n*sqrt(log(n)))=2.4022
a(4)= 9, a(n)/n=2.2500, a(n)/(n*sqrt(log(n)))=1.9110
a(8)= 19, a(n)/n=2.3750, a(n)/(n*sqrt(log(n)))=1.6470
a(16)= 42, a(n)/n=2.6250, a(n)/(n*sqrt(log(n)))=1.5765
a(32)= 91, a(n)/n=2.8438, a(n)/(n*sqrt(log(n)))=1.5275
a(64)= 196, a(n)/n=3.0625, a(n)/(n*sqrt(log(n)))=1.5017
[A047408] 1, 4, 6, 9, 12, 14, 17, 20, 22, 25, 28, 30, 33, 36, 38, 41, 44, 46, 49, 52, 54, 57, 60, 62, 65, 68, 70, 73, 76, 78, 81, 84, 86, 89, 92, 94, 97, 100, 102, 105, 108, 110, 113, 116, 118, 121, 124, 126, 129, 132, 134, 137, 140, 142, 145, 148, 150, 153, 156, 158
a(n) = 3n - 2 - floor(n/3). - Wesley Ivan Hurt, Nov 07 2013
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-15-3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-4, a(3k-1) = 8k-7. (End)

[A165897] 4, 6, 9, 12, 18, 27, 36, 54, 81, 108, 162, 243, 324, 486, 729, 972, 1458, 2187, 2916, 4374, 6561, 8748, 13122, 19683, 26244, 39366, 59049, 78732, 118098, 177147, 236196, 354294, 531441, 708588, 1062882, 1594323, 2125764, 3188646, 4782969
a(1)=4, a(2)=6, a(3)=9, a(n) = 3*a(n-3) for n>3.
[A010737] 4, 6, 9, 13, 19, 27, 39, 55, 79, 111, 159, 223, 319, 447, 639, 895, 1279, 1791, 2559, 3583, 5119, 7167, 10239, 14335, 20479, 28671, 40959, 57343, 81919, 114687, 163839, 229375, 327679, 458751, 655359
a(2n)=5*2^n-1 and a(2n+1)=7*2^n-1 or a(n)=(6-(-1)^n)*2^floor(n/2)-1 - Benoit Cloitre, May 04 2003
[A048625] 4, 6, 9, 13, 19, 28, 41, 60, 88, 129, 189, 277, 406, 595, 872, 1278, 1873, 2745, 4023, 5896, 8641, 12664, 18560, 27201, 39865, 58425, 85626, 125491, 183916, 269542, 395033, 578949, 848491, 1243524, 1822473, 2670964, 3914488, 5736961, 8407925, 12322413, 18059374
a(n) = a(n-1) + a(n-3) (Checked up to n = 48000).
[A257559] 4, 6, 9, 14, 21, 33, 46, 62, 82, 106, 133, 161, 194, 235, 278, 323, 371, 422, 478, 535, 597, 662, 731, 802, 878, 955, 1037, 1121, 1207, 1294, 1382, 1473, 1565, 1658, 1754, 1851, 1954, 2059, 2165, 2279, 2395, 2513, 2638, 2771, 2906, 3043
a(n) » n^2. - Charles R Greathouse IV, Apr 30 2015
[A020706] 4, 6, 9, 14, 22, 35, 56, 90, 145, 234, 378, 611, 988, 1598, 2585, 4182, 6766, 10947, 17712, 28658, 46369, 75026, 121394, 196419, 317812, 514230, 832041, 1346270, 2178310, 3524579, 5702888, 9227466, 14930353, 24157818, 39088170, 63245987, 102334156, 165580142
a(n) = Fib(n+4)+1.
a(n) = 2a(n-1) - a(n-3).
a(n) = 1+(3/2)*(1/2+(1/2)*sqrt(5))^n+(7/10)*(1/2+(1/2)*sqrt(5))^n*sqrt(5)-(7/10)*sqrt(5)*(1/2-(1/2) *sqrt(5))^n+(3/2)*(1/2-(1/2)*sqrt(5))^n. - Paolo P. Lava, Jun 10 2008
[A226271] 1, 4, 6, 9, 14, 22, 35, 56, 90, 145, 234, 378, 611, 988, 1598, 2585, 4182, 6766, 10947, 17712, 28658, 46369, 75026, 121394, 196419, 317812, 514230, 832041, 1346270, 2178310, 3524579, 5702888, 9227466, 14930353, 24157818, 39088170, 63245987, 102334156, 165580142
a(n) = 2*a(n-1)-a(n-3) for n>4. G.f.: -x*(2*x^3+2*x^2-2*x-1) / ((x-1)*(x^2+x-1)). - Colin Barker, Jun 03 2013
a(n) = 1+(2^(-1-n)*((1-sqrt(5))^n*(-3+sqrt(5))+(1+sqrt(5))^n*(3+sqrt(5))))/sqrt(5) for n>1. - Colin Barker, May 11 2016
[A065856] 4, 6, 9, 15, 26, 48, 88, 168, 323, 627, 1225, 2406, 4736, 9351, 18504, 36655, 72730, 144450, 287147, 571208, 1136971, 2264215, 4510963, 8990492, 17923944, 35743996, 71298762, 142249762, 283859985, 566537515, 1130886504, 2257704401
a(n)-pi(a(n))-1 = 2^n.
[A032817] 1, 4, 6, 9, 21, 24, 31, 34, 46, 49, 106, 109, 121, 124, 156, 159, 171, 174, 231, 234, 246, 249, 531, 534, 546, 549, 606, 609, 621, 624, 781, 784, 796, 799, 856, 859, 871, 874, 1156, 1159, 1171, 1174, 1231, 1234, 1246, 1249, 2656
a(1)=1, a(2)=4; a(n) = 5*a(floor(n/2))+1 for n odd, otherwise a(n) = 5*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A190300] 4, 6, 9, 25, 49, 169, 289, 361, 529, 841, 961, 1369, 1681, 1849, 2209, 2809, 3481, 3721, 4489, 5041, 5329, 6241, 6889, 7921, 9409, 10201, 10609, 11449, 11881, 12769, 16129, 17161, 18769, 19321, 22201, 22801, 24649, 26569, 27889, 29929, 32041, 32761, 36481, 37249, 38809, 39601, 44521, 49729
a(1) = 2^2 = p_1^2, a(2) = 2*3 = p_1*p_2, a(3) = 3^2 = p_2^2, a(4) = 5^2 = p_3^2, a(5) = 7^2 = p_4^2, a(6) = 13^2 = p_6^2, ..., for n >= 6, a(n) = p_n^2, where p_k is the k-th prime number. - Bernard Schott, Dec 04 2012
[A187331] 0, 1, 4, 6, 10, 11, 14, 16, 20, 21, 24, 26, 30, 31, 34, 36, 40, 41, 44, 46, 50, 51, 54, 56, 60, 61, 64, 66, 70, 71, 74, 76, 80, 81, 84, 86, 90, 91, 94, 96, 100, 101, 104, 106, 110, 111, 114, 116, 120, 121, 124, 126, 130, 131, 134, 136, 140, 141, 144, 146, 150, 151, 154, 156, 160, 161, 164
a(n) = a(n-1) + a(n-4) - a(n-5) for n > 4.
[A120351] 4, 6, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 34, 36, 38, 44, 46, 48, 52, 58, 62, 68, 72, 74, 76, 80, 82, 86, 90, 92, 94, 106, 112, 116, 118, 120, 122, 124, 126, 134, 142, 144, 146, 148, 150, 158, 160, 164, 166, 168, 172, 176, 178, 180, 188, 192, 194, 198, 202, 206
a(n) = n is even, r = number of odd divisors of n, s = number of even divisors of n, are all divisors of n.
[A134333] 4, 6, 10, 12, 14, 18, 22, 26, 27, 30, 34, 38, 42, 45, 46, 58, 62, 63, 66, 74, 75, 78, 80, 82, 86, 94, 99, 102, 105, 106, 114, 117, 118, 120, 122, 134, 138, 142, 146, 147, 153, 158, 165, 166, 171, 174, 178, 180, 186, 194, 195, 200, 202, 206, 207, 214, 218, 222, 226
a(n) « n log n/(log log n)^k for any fixed k. - Charles R Greathouse IV, Sep 14 2015
[A166986] 4, 6, 10, 12, 16, 18, 20, 24, 26, 30, 32, 36, 38, 42, 44, 46, 50, 52, 56, 58, 62, 64, 68, 70, 72, 76, 78, 82, 84, 88, 90, 94, 96, 98, 102, 104, 108, 110, 114, 116, 120, 122, 124, 128, 130, 134, 136, 140, 142, 146, 148, 150, 154, 156, 160, 162, 166, 168, 172, 174, 176
a(n) = 2*floor((n+2)/log(2)) - 4.
a(n) = a(n-1) + a(n-9) - a(n-10). - G. C. Greubel, May 30 2016
[A047233] 0, 4, 6, 10, 12, 16, 18, 22, 24, 28, 30, 34, 36, 40, 42, 46, 48, 52, 54, 58, 60, 64, 66, 70, 72, 76, 78, 82, 84, 88, 90, 94, 96, 100, 102, 106, 108, 112, 114, 118, 120, 124, 126, 130, 132, 136, 138, 142, 144, 148
a(n) - a(n-1) - a(n-2) + a(n-3) = 0, with n > 3.
a(n) = (6*n + (-1)^n - 5)/2. (End)
a(n) = 6*n - a(n-1) - 8 (with a(1)=0). - Vincenzo Librandi, Aug 05 2010
[A073161] 1, 4, 6, 10, 12, 20, 21, 26, 28, 36, 38, 46, 50, 56, 57, 64, 69, 80, 81, 87, 92, 99, 104, 112, 116, 122, 126, 133, 140, 146, 147, 155, 169, 172, 176, 185, 188, 198, 202, 210, 213, 222, 228, 237, 242, 253, 254, 264, 270, 279, 280, 289, 298, 303, 305, 318, 323
a(n)=[...[[[[n(1+1/2)](1+1/3)](1+1/5)]...(1+1/p_k)]..., where [x] = floor of x and p_k is the k-th prime; this infinite nested floor product will eventually level-off at a(n). Alternatively, for n>=1, let b(0, n)=n and b(k, n) = floor(b(k-1, n)*(1 + 1/p_k)), for k=1..m, then a(n)=b(m, n) where m is smallest integer such that p_m > a(n).
[A079524] 0, 1, 4, 6, 10, 13, 18, 22, 28, 33, 40, 46, 54, 61, 70, 78, 88, 97, 108, 118, 130, 141, 154, 166, 180, 193, 208, 222, 238, 253, 270, 286, 304, 321, 340, 358, 378, 397, 418, 438, 460, 481, 504, 526, 550, 573, 598, 622, 648, 673, 700, 726, 754, 781, 810, 838
a(n) = a(n-2)+n (mod a(n-1)+n) with n>=2 and initial values (1, 1).
a(0)=0, a(1)=1, a(2)=4, a(3)=6, a(n)=2*a(n-1)-2*a(n-3)+a(n-4). - Harvey P. Dale, Apr 20 2015
a(n) = (2*n*(n+6)-3*(1-(-1)^n))/8. - Luce ETIENNE, Jun 05 2015
[A027689] 4, 6, 10, 16, 24, 34, 46, 60, 76, 94, 114, 136, 160, 186, 214, 244, 276, 310, 346, 384, 424, 466, 510, 556, 604, 654, 706, 760, 816, 874, 934, 996, 1060, 1126, 1194, 1264, 1336, 1410, 1486, 1564, 1644, 1726, 1810, 1896, 1984, 2074, 2166, 2260
a(n)=2*n+a(n-1)-2 (with a(1)=4) - Vincenzo Librandi, Aug 05 2010
[A078642] 4, 6, 10, 16, 26, 42, 68, 110, 178, 288, 466, 754, 1220, 1974, 3194, 5168, 8362, 13530, 21892, 35422, 57314, 92736, 150050, 242786, 392836, 635622, 1028458, 1664080, 2692538, 4356618, 7049156, 11405774, 18454930, 29860704, 48315634, 78176338, 126491972
a(n) = 2F(n + 2), where F(n) is the n-th Fibonacci number.
a(n) = a(n - 1) + a(n - 2), n > 2 ; a(1) = 4, a(2) = 6 . G.f.: 2x*(2+x)/(1-x-x^2). - Philippe Deléham, Nov 19 2008
a(n) = 2F(n + 2) = F(n) + F(n + 3), where F(1) = F(2) = 1. - Alonso del Arte, Jul 07 2013
a(n) = (2^(-n)*((1-r)^n*(-3+r) + (1+r)^n*(3+r))) / r where r=sqrt(5). - Colin Barker, Jan 29 2017
[A180713] 0, 4, 6, 11, 12, 16, 18, 23, 24, 28, 30, 35, 36, 40, 42, 47, 48, 52, 54, 59, 60, 64, 66, 71, 72, 76, 78, 83, 84, 88, 90, 95, 96, 100, 102, 107, 108, 112, 114, 119, 120, 124, 126, 131, 132, 136, 138, 143, 144, 148, 150, 155, 156, 160, 162, 167, 168, 172, 174, 179, 180, 184, 186, 191, 192, 196, 198, 203, 204
a(n) = (12*n+i*(i^n-(-i)^n)-3*(-1)^n+3)/4, where i is the imaginary unit.
a(n) = +1*a(n-1)+1*a(n-4)-1*a(n-5) for n>=5. [Joerg Arndt, Jan 25 2011]
[A047288] 4, 6, 11, 13, 18, 20, 25, 27, 32, 34, 39, 41, 46, 48, 53, 55, 60, 62, 67, 69, 74, 76, 81, 83, 88, 90, 95, 97, 102, 104, 109, 111, 116, 118, 123, 125, 130, 132, 137, 139, 144, 146, 151, 153, 158, 160, 165, 167, 172
a(n) = 7*n-a(n-1)-4 with n>1, a(1)=4. [Vincenzo Librandi, Aug 05 2010]
a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: x*(4+2*x+x^2)/((1-x)^2*(1+x)). [Colin Barker, Mar 13 2012]
a(n) = (-1-3*(-1)^n+14*n)/4. [Colin Barker, May 14 2012]
a(n) = floor(7*n/2)-(-1)^n. - Wesley Ivan Hurt, Sep 12 2017
[A144065] 0, 1, 4, 6, 11, 14, 21, 25, 34, 39, 50, 56, 69, 76, 91, 99, 116, 125, 144, 154, 175, 186, 209, 221, 246, 259, 286, 300, 329, 344, 375, 391, 424, 441, 476, 494, 531, 550, 589, 609, 650, 671, 714, 736, 781, 804, 851, 875, 924, 949, 1000, 1026, 1079, 1106, 1161, 1189, 1246, 1275, 1334, 1364, 1425
a(n) = 3*a(n-2) - 3*a(n-4) + a(n-6). - Jaume Oliver Lafont, Jan 21 2009
a(n) = (-3 + 2*(-1)^n*n + 3*(-1)^n + 6*n^2 + 18*n)/16. - Alexander R. Povolotsky, Jan 27 2009
a(n) = Sum_{i=1..n+3} numerator(i/2) - denominator(i/2). - Wesley Ivan Hurt, Feb 26 2017

[A084263] 1, 1, 4, 6, 11, 15, 22, 28, 37, 45, 56, 66, 79, 91, 106, 120, 137, 153, 172, 190, 211, 231, 254, 276, 301, 325, 352, 378, 407, 435, 466, 496, 529, 561, 596, 630, 667, 703, 742, 780, 821, 861, 904, 946, 991, 1035, 1082, 1128, 1177, 1225, 1276, 1326, 1379, 1431
a(n) = (-1)^n/2+(n^2+n+1)/2.
a(n) = Sum_{k=0..n} k+(-1)^k.
[A266795] 0, 1, 4, 6, 11, 15, 23, 27, 39, 43, 59, 63, 83, 87, 111, 115, 143, 147, 179, 183, 219, 223, 263, 267, 311, 315, 363, 367, 419, 423, 479, 483, 543, 547, 611, 615, 683, 687, 759, 763, 839, 843, 923, 927, 1011, 1015, 1103, 1107, 1199, 1203, 1299, 1303, 1403
a(n) = (2*n*(n+(-1)^n+1)-7*(-1)^n+3)/4 for n>3.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>8.
[A060577] 1, 1, 4, 6, 11, 17, 24, 32, 41, 51, 62, 74, 87, 101, 116, 132, 149, 167, 186, 206, 227, 249, 272, 296, 321, 347, 374, 402, 431, 461, 492, 524, 557, 591, 626, 662, 699, 737, 776, 816, 857, 899, 942, 986, 1031, 1077, 1124, 1172, 1221, 1271, 1322, 1374, 1427
a(n) = ceiling((1/2)*(3*n^2 - 10*n + 9)/(n - 2)) + floor((3/2)*(n-1)^2) - n^2 + 3*n - 3 with n > 2, a(0) = a(1) = 1, a(2) = 4.
a(n) = n*(n + 3)/2 - 3 for n > 2.
[A197985] 4, 6, 11, 18, 27, 38, 51, 66, 83, 102, 123, 146, 171, 198, 227, 258, 291, 326, 363, 402, 443, 486, 531, 578, 627, 678, 731, 786, 843, 902, 963, 1026, 1091, 1158, 1227, 1298, 1371, 1446, 1523, 1602, 1683, 1766, 1851, 1938, 2027
a(n) = n^2+2, n>1; a(n) = 2*n+a(n-1)-1, n>2.
[A022318] 1, 4, 6, 11, 18, 30, 49, 80, 130, 211, 342, 554, 897, 1452, 2350, 3803, 6154, 9958, 16113, 26072, 42186, 68259, 110446, 178706, 289153, 467860, 757014, 1224875, 1981890, 3206766, 5188657, 8395424
a(0)=1, a(1)=4, a(2)=6, a(n) = 2*a(n-1) - a(n-3). (End)
[A291916] 4, 6, 11, 19, 34, 60, 106, 186, 325, 565, 978, 1686, 2896, 4958, 8463, 14407, 24466, 41456, 70102, 118322, 199369, 335401, 563426, 945194, 1583644, 2650230, 4430291, 7398331, 12342850, 20573220, 34262338, 57013866, 94800781, 157517533, 261545778, 433993662
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + a(n-4) + a(n-5).
a(n) = (n*Lucas(n + 1) + Lucas(n + 4) - Fibonacci(n - 3))/5 + 1. - Ehren Metcalfe, Oct 16 2017
[A154145] 1, 4, 6, 11, 20, 33, 43, 70, 121, 196, 254, 411, 708, 1145, 1483, 2398, 4129, 6676, 8646, 13979, 24068, 38913, 50395, 81478, 140281, 226804, 293726, 474891, 817620, 1321913, 1711963, 2767870, 4765441, 7704676, 9978054, 16132331, 27775028
a(n)= +a(n-1) +6*a(n-4) -6*a(n-5) -a(n-8) +a(n-9).
a(1..4) = (1,4,6,11); a(n) = 6*a(n-2) - a(n-4) + 2, for n>4. - Ctibor O. Zizka, Nov 13 2009
[A290651] 4, 6, 11, 26, 73, 220, 675, 2070, 6317, 19184, 58039, 175114, 527361, 1586148, 4766603, 14316158, 42981205, 129009112, 387158367, 1161737202, 3485735849, 10458256076, 31376865331, 94134790246, 282412759293, 847255055040, 2541798719495, 7625463267290
a(n) = 7*a(n-1) - 17*(n-2) + 17*a(n-3) - 6*a(n-4).
[A047406] 4, 6, 12, 14, 20, 22, 28, 30, 36, 38, 44, 46, 52, 54, 60, 62, 68, 70, 76, 78, 84, 86, 92, 94, 100, 102, 108, 110, 116, 118, 124, 126, 132, 134, 140, 142, 148, 150, 156, 158, 164, 166, 172, 174, 180, 182, 188, 190, 196, 198, 204, 206, 212, 214, 220, 222, 228
a(n) = (4*n - 1 - (-1)^n). - Jon E. Schoenfield, Jul 05 2010
a(n) = 8*n - a(n-1) - 6 (with a(1)=4). - Vincenzo Librandi, Aug 05 2010
a(n) = (8 * ceiling(n/2) - 4) * (n mod 2) + (8 * ceiling(n/2) - 2) * (n+1 mod 2).
a(n) = 8 * ceiling(n/2) - 3 + (-1)^n. (End)
[A265225] 1, 4, 6, 12, 15, 24, 28, 40, 45, 60, 66, 84, 91, 112, 120, 144, 153, 180, 190, 220, 231, 264, 276, 312, 325, 364, 378, 420, 435, 480, 496, 544, 561, 612, 630, 684, 703, 760, 780, 840, 861, 924, 946, 1012, 1035, 1104, 1128, 1200, 1225, 1300, 1326, 1404, 1431
a(n) = 1/4*(n+1)*(2*n-(-1)^n+5).
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
a(n) = n + 1 + (n+1) * floor((n+1)/2). - Wesley Ivan Hurt, Dec 25 2016
[A274221] 0, 0, 1, 4, 6, 12, 16, 25, 30, 42, 49, 64, 72, 90, 100, 121, 132, 156, 169, 196, 210, 240, 256, 289, 306, 342, 361, 400, 420, 462, 484, 529, 552, 600, 625, 676, 702, 756, 784, 841, 870, 930, 961, 1024, 1056, 1122, 1156, 1225, 1260, 1332, 1369, 1444, 1482
a(n) = (18*n^2-18*n+1-3*(2*n-1)*(-1)^n-4*(-1)^((2*n-1+(-1)^n)/4))/32. Therefore: a(2k) = (18*k^2-12*k+1-(-1)^k)/8, a(2k+1) = (18*k^2+12*k+1-(-1)^k)/8.
[A048641] 0, 1, 4, 6, 12, 19, 24, 28, 40, 53, 68, 82, 92, 103, 112, 120, 144, 169, 196, 222, 252, 283, 312, 340, 360, 381, 404, 426, 444, 463, 480, 496, 544, 593, 644, 694, 748, 803, 856, 908, 968, 1029, 1092, 1154, 1212, 1271, 1328, 1384, 1424, 1465, 1508, 1550, 1596
a(n) = sum(XORnos(j, floor(j/2)), j=0..n)
a(n) = b(n-1), with b(2n)=2*(b(n)+b(n-1)+ceil(n/2)), b(2n+1)=4*b(n)+n+1. - Ralf Stephan, Sep 13 2003
[A168674] 0, 4, 6, 12, 20, 34, 56, 92, 150, 244, 396, 642, 1040, 1684, 2726, 4412, 7140, 11554, 18696, 30252, 48950, 79204, 128156, 207362, 335520, 542884, 878406, 1421292, 2299700, 3720994, 6020696, 9741692, 15762390, 25504084, 41266476, 66770562, 108037040
a(n) = 2*a(n-1) - a(n-3). [Dec 03 2009]
[A128034] 1, 1, 4, 6, 12, 20, 36, 63, 104, 171, 280, 462, 744, 1209, 1960, 3180, 5152, 8347, 13500, 21850, 35360, 57225, 92598, 149845, 242448, 392300, 634764, 1027080, 1661856, 2688938, 4350810, 7039759, 11390592, 18430368, 29820992, 48251385, 78072408
a(n) = n * (1 +floor[(a(n-1)+a(n-2))/n]).
[A255843] 4, 6, 12, 22, 36, 54, 76, 102, 132, 166, 204, 246, 292, 342, 396, 454, 516, 582, 652, 726, 804, 886, 972, 1062, 1156, 1254, 1356, 1462, 1572, 1686, 1804, 1926, 2052, 2182, 2316, 2454, 2596, 2742, 2892, 3046, 3204, 3366, 3532, 3702, 3876, 4054, 4236, 4422
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A263656] 0, 0, 4, 6, 12, 30, 70, 168, 412, 1014, 2514, 6270, 15702, 39468, 99516, 251586, 637500, 1618638, 4117102, 10488684, 26758762, 68354250, 174810354, 447533586, 1146836662, 2941443180, 7550434480, 19395863358, 49859516292, 128252962434, 330101861850
a(n) = (1/n)*(3*(n-1)*a(n-1) - 4*(n-4)*a(n-2) + (7*n-27)*a(n-3) - 6*a(n-4) + (7*n-37)*a(n-5) - 3*(n-6)*a(n-6)) for n >= 6. - Andrew Howroyd, Feb 26 2017
[A178674] 4, 6, 12, 30, 84, 246, 732, 2190, 6564, 19686, 59052, 177150, 531444, 1594326, 4782972, 14348910, 43046724, 129140166, 387420492, 1162261470, 3486784404, 10460353206, 31381059612, 94143178830, 282429536484, 847288609446, 2541865828332, 7625597484990
a(n) = 3*(a(n-1)-2), a(0)=4.
a(n) = 4*a(n-1) - 3*a(n-2) for n>1. - Vincenzo Librandi, May 13 2014
[A062624] 1, 1, 1, 4, 6, 12, 40, 240, 480, 1920, 6912, 20736, 76032, 253440, 608256, 4257792, 7983360, 26611200, 88704000, 319334400, 1277337600, 5109350400, 19508428800, 73156608000, 336520396800, 1177821388800, 6281714073600, 23332080844800
a(n) = phi(binomial(2n, n)/(n+1)).
[A137821] 1, 4, 6, 13, 15, 18, 19, 40, 42, 45, 46, 54, 55, 58, 60, 121, 123, 126, 127, 135, 136, 139, 141, 162, 163, 166, 168, 175, 177, 180, 181, 364, 366, 369, 370, 378, 379, 382, 384, 405, 406, 409, 411, 418, 420, 423, 424, 486, 487, 490, 492, 499, 501, 504, 505
a(2^j) = 2 a(2^j-1) + 1 (resp. +2) for j even (resp. odd).
[A266665] 0, 1, 4, 6, 13, 15, 26, 28, 43, 45, 64, 66, 89, 91, 118, 120, 151, 153, 188, 190, 229, 231, 274, 276, 323, 325, 376, 378, 433, 435, 494, 496, 559, 561, 628, 630, 701, 703, 778, 780, 859, 861, 944, 946, 1033, 1035, 1126, 1128, 1223, 1225, 1324, 1326, 1429
a(n) = (n^2+2*n+(-1)^n*(n-1)-1)/2 for n>0.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A069061] 4, 6, 13, 18, 48, 84, 176, 258, 800, 1302, 2736, 4356, 10928, 20520, 51792, 65538, 174768, 351120, 699056, 1110276, 3100240, 5048232, 11184816, 17041416, 49012992, 82623888, 211053040, 284225796, 727960800, 1494039792, 2863311536
a(n) = sigma(2^n+1).
[A136391] 1, 1, 4, 6, 13, 23, 43, 77, 138, 244, 429, 749, 1301, 2249, 3872, 6642, 11357, 19363, 32927, 55861, 94566, 159776, 269469, 453721, 762793, 1280593, 2147068, 3595422, 6013933, 10048559, 16773139, 27971549, 46605186, 77587084, 129063117, 214531397, 356346557
a(n) = F(n-1) + n*F(n-2). - Bruno Berselli, Jul 26 2017
[A160805] 4, 6, 13, 27, 50, 84, 131, 193, 272, 370, 489, 631, 798, 992, 1215, 1469, 1756, 2078, 2437, 2835, 3274, 3756, 4283, 4857, 5480, 6154, 6881, 7663, 8502, 9400, 10359, 11381, 12468, 13622, 14845, 16139, 17506, 18948, 20467, 22065, 23744, 25506, 27353, 29287
a(n) = (2*n^3 + 9*n^2 + n + 24) / 6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4), n>3. (End)

[A090773] 4, 6, 14, 16, 24, 26, 34, 36, 44, 46, 54, 56, 64, 66, 74, 76, 84, 86, 94, 96, 104, 106, 114, 116, 124, 126, 134, 136, 144, 146, 154, 156, 164, 166, 174, 176, 184, 186, 194, 196, 204, 206, 214, 216, 224, 226, 234, 236, 244, 246, 254, 256, 264, 266, 274, 276, 284
a(n) = 10*n-a(n-1)-10 (with a(1)=4). [Vincenzo Librandi, Nov 16 2010]
[A192782] 0, 0, 1, 1, 4, 6, 14, 26, 52, 103, 201, 400, 784, 1552, 3056, 6032, 11897, 23465, 46292, 91302, 180110, 355258, 700772, 1382287, 2726609, 5378336, 10608928, 20926496, 41278176, 81422624, 160608817, 316806289, 624911012, 1232657862, 2431458958
a(n)=a(n-1)+3*a(n-2)-a(n-3)-3*a(n-4)+a(n-5)+a(n-6).
[A084214] 1, 1, 4, 6, 14, 26, 54, 106, 214, 426, 854, 1706, 3414, 6826, 13654, 27306, 54614, 109226, 218454, 436906, 873814, 1747626, 3495254, 6990506, 13981014, 27962026, 55924054, 111848106, 223696214, 447392426, 894784854, 1789569706, 3579139414
a(n) = (5*2^n - 3*0^n + 4*(-1)^n)/6.
a(n) = a(n-1) + 2*a(n-2) for n > 2. - Klaus Brockhaus, Dec 01 2009
[A106526] 4, 6, 14, 30, 40, 84, 176, 234, 490, 1026, 1364, 2856, 5980, 7950, 16646, 34854, 46336, 97020, 203144, 270066, 565474, 1184010, 1574060, 3295824, 6900916, 9174294, 19209470, 40221486, 53471704, 111960996, 234428000, 311655930, 652556506
a(n) = 6*a(n-3) - a(n-6), with initial terms 4, 6, 14, 30, 40, 84. - T. D. Noe, Nov 04 2013
[A106387] 4, 6, 15, 17, 26, 28, 37, 39, 48, 50, 59, 61, 70, 72, 81, 83, 92, 94, 103, 105, 114, 116, 125, 127, 136, 138, 147, 149, 158, 160, 169, 171, 180, 182, 191, 193, 202, 204, 213, 215, 224, 226, 235, 237, 246, 248, 257, 259, 268, 270, 279, 281, 290, 292, 301, 303
a(n)=11*n-a(n-1)-12 (with a(1)=4) [From Vincenzo Librandi, Nov 13 2010]
a(2k-1)=11k-7, a(2k)=11k-5. - Ralf Stephan, Nov 15 2010
a(n) = (22*n-7*(-1)^n-13)/4.
a(n)-a(n-1)-a(n-2)+a(n-3) = 0 for n>3.
a(n)-a(n-2) = 11 for n>2.
a(n)-2*a(n-1)+a(n-2) = -7*(-1)^n for n>2. (End)
[A266883] 1, 4, 6, 15, 19, 34, 40, 61, 69, 96, 106, 139, 151, 190, 204, 249, 265, 316, 334, 391, 411, 474, 496, 565, 589, 664, 690, 771, 799, 886, 916, 1009, 1041, 1140, 1174, 1279, 1315, 1426, 1464, 1581, 1621, 1744, 1786, 1915, 1959, 2094, 2140, 2281, 2329, 2476, 2526
a(n) = a(-n-1) = n*(n + 1) + 1 - ((2*n + 1)*(-1)^n - 1)/4 = (2*n + 1)*floor((n + 1)/2) + 1.
[A128620] 1, 1, 4, 6, 15, 24, 52, 84, 170, 275, 534, 864, 1631, 2639, 4880, 7896, 14373, 23256, 41810, 67650, 120406, 194821, 343884, 556416, 975325, 1578109, 2749852, 4449354, 7713435, 12480600, 21540304, 34852944, 59917826, 96949079, 166094370, 268746336
a(n) = floor((n+2)/2)*Fibonacci(n+1). - Philippe Deléham, Dec 01 2013
[A034299] 1, 1, 4, 6, 15, 27, 58, 112, 229, 453, 912, 1818, 3643, 7279, 14566, 29124, 58257, 116505, 233020, 466030, 932071, 1864131, 3728274, 7456536, 14913085, 29826157, 59652328, 119304642, 238609299
a(n) = (2^(n+5)+(6n+13)(-1)^n-9)/36. - Bruno Berselli, Apr 04 2012
a(n) = a(n-1) + 2*a(n-2) + (1 + (-1)^n) / 2. - Michael Somos, Jan 23 2014
[A238411] 0, 4, 6, 16, 20, 36, 42, 64, 72, 100, 110, 144, 156, 196, 210, 256, 272, 324, 342, 400, 420, 484, 506, 576, 600, 676, 702, 784, 812, 900, 930, 1024, 1056, 1156, 1190, 1296, 1332, 1444, 1482, 1600, 1640, 1764, 1806, 1936, 1980, 2116, 2162, 2304, 2352, 2500
a(n) = n*(2*n + (-1)^n - 1)/2.
[A072279] 1, 4, 6, 16, 45, 144, 440, 1440, 4680, 15600, 52344, 177840, 608160, 2095920, 7262640, 25300032, 88517520, 310927680, 1095923400, 3874804560, 13737892896, 48829153920, 173949483240, 620963048160, 2220904271040, 7956987570576, 28553731537320, 102617166646800
a(n) = (1/n) * Sum_{k|n} moebius(n/k) (t1^k + t2^k), where t1, t2 are the roots of x^2-4x+1.
[A024305] 4, 6, 17, 22, 43, 52, 86, 100, 150, 170, 239, 266, 357, 392, 508, 552, 696, 750, 925, 990, 1199, 1276, 1522, 1612, 1898, 2002, 2331, 2450, 2825, 2960, 3384, 3536, 4012, 4182, 4713, 4902, 5491, 5700, 6350, 6580, 7294, 7546, 8327, 8602, 9453, 9752, 10676, 11000, 12000
a(n) = 1/48*(4*n^3+(3*(-1)^(n+1)+39)*n^2+(18*(-1)^(n+1)+74)*n+27*(-1)^(n+1)+27). Recurrence: a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7). G.f.: x*(4+2*x-x^2-x^3)/(1+x)^3/(1-x)^4. - Vladeta Jovovic, Jan 01 2003
a(n) = sum_{i=1..ceil(n/2)} (i+1)*(n-i+2) = ceil(n/2)*(-2*ceil(n/2)^2+3n*ceil(n/2)+9n+14)/6. - Wesley Ivan Hurt, Sep 20 2013
[A219190] 0, 4, 6, 18, 22, 42, 48, 76, 84, 120, 130, 174, 186, 238, 252, 312, 328, 396, 414, 490, 510, 594, 616, 708, 732, 832, 858, 966, 994, 1110, 1140, 1264, 1296, 1428, 1462, 1602, 1638, 1786, 1824, 1980, 2020, 2184, 2226, 2398, 2442, 2622, 2668, 2856, 2904, 3100
a(n) = a(-n+1) = (10*n*(n-1) + 3*(-1)^n*(2*n - 1) + 3)/8.
a(1)=0, a(2)=4, a(3)=6, a(4)=18, a(5)=22, a(n)=a(n-1)+2*a(n-2)- 2*a(n-3)- a(n-4)+a (n-5). - Harvey P. Dale, Jan 21 2015
[A156096] 1, 1, 4, 6, 18, 32, 84, 164, 400, 824, 1928, 4096, 9360, 20240, 45632, 99680, 223008, 489984, 1091392, 2405952, 5345536, 11806592, 26194048, 57917440, 128389376, 284057856, 629392384, 1393010176, 3085685248, 6830825472, 15128761344
a(n)=4*a(n-2)+2*a(n-3). G.f.: (1+x)/(1-4x^2-2x^3). [From R. J. Mathar, Feb 10 2009]
[A107390] 4, 6, 18, 36, 76, 147, 285, 532, 984, 1795, 3237, 5793, 10293, 18168, 31887, 55709, 96926, 167972, 290136, 499615, 857947, 1469576, 2511369, 4282663, 7289002, 12383250, 21002336, 35564859, 60136917, 101547211, 171253466, 288461204
a(n) = composite(a(n-1)+a(n-2)); a(1)=4; a(2)=6;
[A051253] 1, 4, 6, 18, 36, 80, 172, 360, 760, 1576, 3264, 6720, 13776, 28160, 57376, 116640, 236608, 479104, 968640, 1955712, 3944064, 7945856, 15993856, 32168448, 64656640, 129879040, 260759040, 523289088, 1049711616, 2104967168, 4219743232, 8456841216, 16944388096
a(n+3) = 2*a(n+1)+2*a(n)+2^n.
a(3)=1, a(4)=4, a(5)=6, a(6)=18, a(n) = 2*a(n-1)+2*a(n-2)-2*a(n-3)-4*a(n-4). - Harvey P. Dale, Mar 15 2015
[A196570] 0, 4, 6, 18, 48, 118, 314, 806, 2082, 5402, 13946, 36102, 93378, 241518, 624810, 1616142, 4180594, 10814158, 27973298, 72359966, 187176434, 484177358, 1252442706, 3239746862, 8380393330, 21677923822, 56075218194, 145052181998, 375212720786, 970578896942
a(1) = 0; a(2) = 4; a(3) = 6; a(4) = 18.
a(n) = 2*a(i-2) + x(n-2) + m(n).
[A116383] 1, 1, 4, 6, 19, 33, 93, 175, 460, 910, 2286, 4676, 11388, 23842, 56808, 120926, 283611, 611065, 1416625, 3079635, 7078263, 15490553, 35374519, 77805481, 176813809, 390379483, 883861033, 1957097715, 4418562265, 9805546875, 22090136885
a(n)=sum{k=0..n, sum{j=0..n, (-1)^(n-j)*C(n,j)*sum{i=0..j, C(j,i-k)C(i,j-i)}}}.
[A110391] 1, 4, 6, 19, 46, 124, 321, 844, 2206, 5779, 15126, 39604, 103681, 271444, 710646, 1860499, 4870846, 12752044, 33385281, 87403804, 228826126, 599074579, 1568397606, 4106118244, 10749957121, 28143753124, 73681302246, 192900153619, 505019158606, 1322157322204
a(n) = +2*a(n-1) +2*a(n-2) -a(n-3).
a(n) = 2^(-n)*(-(-2)^n+(3-sqrt(5))^n+(3+sqrt(5))^n). - Colin Barker, Jun 03 2016
[A227959] 1, 1, 4, 6, 20, 38, 104, 220, 556, 1244, 3024, 6944, 16576, 38536, 91216, 213280, 502864, 1178928, 2774592, 6512864, 15315072, 35969952, 84550912, 198634048, 466825152, 1096838208, 2577550336, 6056474880, 14232064256, 33441977216, 78583660288, 184655188480
a(n) = 4*a(n-2) + 2*a(n-3) + 2*a(n-4) + 4*a(n-5), with a(0)=1, a(1)=1, a(2)=4, a(3)=6, and a(4)=20.
[A164532] 1, 4, 6, 24, 36, 144, 216, 864, 1296, 5184, 7776, 31104, 46656, 186624, 279936, 1119744, 1679616, 6718464, 10077696, 40310784, 60466176, 241864704, 362797056, 1451188224, 2176782336, 8707129344, 13060694016, 52242776064, 78364164096
a(n) = (5-(-1)^n)*6^(1/4*(2*n-5+(-1)^n)).
a(n+3) = a(n+2)*a(n+1)/a(n). [Reinhard Zumkeller, Mar 04 2011]
[A098660] 1, 1, 4, 6, 24, 40, 160, 280, 1120, 2016, 8064, 14784, 59136, 109824, 439296, 823680, 3294720, 6223360, 24893440, 47297536, 189190144, 361181184, 1444724736, 2769055744, 11076222976, 21300428800, 85201715200, 164317593600
a(n) = binomial(n, floor(n/2))2^floor(n/2).
a(n+1) = (1/Pi)*int(x^n*(x+4)/sqrt(8-x^2),x,-2*sqrt(2),2*sqrt(2)) if n is odd [corrected by Vaclav Kotesovec, Nov 13 2017].
[A074061] 1, 4, 6, 39, 59, 386, 584, 3821, 5781, 37824, 57226, 374419, 566479, 3706366, 5607564, 36689241, 55509161, 363186044, 549484046, 3595171199, 5439331299, 35588525946, 53843828944, 352290088261, 532998958141, 3487312356664
a(n) = 10*a(n-2) - a(n-4) = a(-1-n).
a(2n-1) = round((1/2)*(1-(1/2)/sqrt(6))*(sqrt(2)+sqrt(3))^(2n)); a(2n)=round(c*(sqrt(2)+sqrt(3))^(2n+1)) with c = 0.191357750597... - Benoit Cloitre, Aug 22 2002

[A061891] 1, 1, 4, 7, 7, 10, 13, 13, 16, 19, 19, 22, 25, 25, 28, 31, 31, 34, 37, 37, 40, 43, 43, 46, 49, 49, 52, 55, 55, 58, 61, 61, 64, 67, 67, 70, 73, 73, 76, 79, 79, 82, 85, 85, 88, 91, 91, 94, 97, 97, 100, 103, 103, 106, 109, 109, 112, 115, 115, 118, 121, 121, 124
a(n) = 2n-1 if n==1 (mod 3), 2n if n == 2 (mod 3), 2n+1 if n == 0 (mod 3).
a(n) = sum{k=0..n}{(1/3)*(2*(n mod 3)-((n+1) mod 3)+5*((n+2) mod 3))}-2 - Paolo P. Lava, Jun 25 2007
a(n) = a(n-1)+a(n-3)-a(n-4). G.f.: (2*x^3+3*x^2+1) / ((x-1)^2*(x^2+x+1)). - Colin Barker, Jun 20 2013
[A047538] 0, 1, 4, 7, 8, 9, 12, 15, 16, 17, 20, 23, 24, 25, 28, 31, 32, 33, 36, 39, 40, 41, 44, 47, 48, 49, 52, 55, 56, 57, 60, 63, 64, 65, 68, 71, 72, 73, 76, 79, 80, 81, 84, 87, 88, 89, 92, 95, 96, 97, 100, 103, 104, 105, 108, 111, 112, 113, 116, 119, 120, 121, 124
a(n) = 2*n-2-sin(Pi*(n-1)/2).
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>4. (End)
a(n) = 2*n-2-(1+(-1)^n)*(-1)^((2*n-3)/4-(-1)^n/4)/2. - Wesley Ivan Hurt, Sep 22 2015
a(n) = (-4+(-i)^n+i^n+4*n)/2, where i = sqrt(-1). - Colin Barker, Oct 18 2015
[A283767] 1, 4, 7, 8, 10, 11, 13, 14, 17, 20, 21, 23, 24, 26, 27, 30, 33, 36, 37, 39, 40, 43, 46, 49, 50, 52, 53, 56, 59, 62, 63, 65, 66, 68, 69, 72, 75, 76, 78, 79, 81, 82, 85, 88, 91, 92, 94, 95, 98, 101, 104, 105, 107, 108, 111, 114, 117, 118, 120, 121, 123, 124
a(n+1) - a(n) is in {1,2,3} for every n.
[A080578] 1, 4, 7, 8, 11, 14, 15, 16, 19, 22, 23, 26, 29, 30, 31, 32, 35, 38, 39, 42, 45, 46, 47, 50, 53, 54, 57, 60, 61, 62, 63, 64, 67, 70, 71, 74, 77, 78, 79, 82, 85, 86, 89, 92, 93, 94, 95, 98, 101, 102, 105, 108, 109, 110, 113, 116, 117, 120, 123, 124, 125, 126
a(n) = 2n + O(1); a(2^n) = 2^(n+1). - Benoit Cloitre, Oct 12 2003
[A047347] 0, 1, 4, 7, 8, 11, 14, 15, 18, 21, 22, 25, 28, 29, 32, 35, 36, 39, 42, 43, 46, 49, 50, 53, 56, 57, 60, 63, 64, 67, 70, 71, 74, 77, 78, 81, 84, 85, 88, 91, 92, 95, 98, 99, 102, 105, 106, 109, 112, 113, 116, 119, 120, 123, 126, 127, 130, 133, 134, 137, 140, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 7*n/3-3+4*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 7k-3, a(3k-1) = 7k-6, a(3k-2) = 7k-7. (End)
[A215458] 0, 1, 4, 7, 8, 11, 28, 71, 144, 259, 484, 991, 2072, 4187, 8236, 16247, 32544, 65587, 131572, 262543, 523688, 1047179, 2096956, 4196903, 8391600, 16775011, 33546244, 67105087, 134230328, 268455611, 536865868, 1073696471, 2147448384, 4295022739
a(n) = (2^n - (1/2 - (i * sqrt(7))/2)^n - (1/2 + (i * sqrt(7))/2)^n + 1)/2 where i = sqrt(-1). - Paul S. Vanderveen, Jul 08 2017
a(n) = 2^(n-1) - 2^(n/2) * cos(n * arctan(sqrt(7))) + 1/2. - Peter Luschny, Jul 26 2017
[A047536] 0, 4, 7, 8, 12, 15, 16, 20, 23, 24, 28, 31, 32, 36, 39, 40, 44, 47, 48, 52, 55, 56, 60, 63, 64, 68, 71, 72, 76, 79, 80, 84, 87, 88, 92, 95, 96, 100, 103, 104, 108, 111, 112, 116, 119, 120, 124, 127, 128, 132, 135, 136, 140, 143, 144, 148, 151, 152, 156, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-15+6*cos(2*n*Pi/3)-4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-4, a(3k-2) = 8k-8. (End)
[A291402] 0, 0, 1, 4, 7, 8, 12, 31, 71, 125, 201, 367, 749, 1471, 2679, 4814, 9014, 17304, 32739, 60683, 112444, 210938, 397800, 746347, 1392898, 2601701, 4876692, 9149911, 17138518, 32060349, 60002060, 112404852, 210600344, 394370928, 738281497, 1382360598
a(n) = a(n-3) + 4*a(n-4) + 7*a(n-5) + 7*a(n-6) + 4*a(n-7) + a(n-8) for n >= 9.
[A056991] 1, 4, 7, 9, 10, 13, 16, 18, 19, 22, 25, 27, 28, 31, 34, 36, 37, 40, 43, 45, 46, 49, 52, 54, 55, 58, 61, 63, 64, 67, 70, 72, 73, 76, 79, 81, 82, 85, 88, 90, 91, 94, 97, 99, 100, 103, 106, 108, 109, 112, 115, 117, 118, 121, 124, 126, 127, 130, 133, 135, 136, 139, 142
a(n) = Sum_{k=0..n}(1/8)*{5*(k mod 4)+5*[(k+1) mod 4]+3*[(k+2) mod 4]-[(k+3) mod 4]}, with n>=0. - Paolo P. Lava, Feb 15 2008
a(n) = 3*(n-floor(n/4)) - (3-I^n-(-I)^n-(-1)^n)/2. [From Gary Detlefs, Mar 19 2010]
[A242660] 0, 1, 4, 7, 9, 10, 13, 16, 18, 19, 22, 25, 27, 28, 31, 34, 36, 37, 40, 43, 45, 46, 49, 52, 54, 55, 58, 61, 63, 64, 67, 70, 72, 73, 76, 79, 81, 82, 85, 88, 90, 91, 94, 97, 99, 100, 103, 106, 108, 109, 112, 115, 117, 118, 121, 124, 126, 127, 130, 133, 135, 136, 139, 142, 144, 145, 148, 151, 153, 154, 157, 160, 162, 163, 166, 169, 171, 172, 175, 178, 180, 181
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5.
[A055047] 1, 4, 7, 9, 10, 13, 16, 19, 22, 25, 28, 31, 34, 36, 37, 40, 43, 46, 49, 52, 55, 58, 61, 63, 64, 67, 70, 73, 76, 79, 81, 82, 85, 88, 90, 91, 94, 97, 100, 103, 106, 109, 112, 115, 117, 118, 121, 124, 127, 130, 133, 136, 139, 142, 144, 145, 148, 151
a(n) = 8n/3 + O(log n). - Charles R Greathouse IV, Dec 19 2013
[A267873] 1, 1, 4, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125
a(n) = 2*a(n-1)-a(n-2) for n>2.
[A007064] 1, 4, 7, 9, 12, 14, 17, 20, 22, 25, 27, 30, 33, 35, 38, 41, 43, 46, 48, 51, 54, 56, 59, 62, 64, 67, 69, 72, 75, 77, 80, 82, 85, 88, 90, 93, 96, 98, 101, 103, 106, 109, 111, 114, 117, 119, 122, 124, 127, 130, 132, 135
a(n) = floor[n*(1+tau)-tau/2] =floor[n*2.6180...-0.8090...]. - Henry Bottomley, Sep 03 2001
[A279054] 1, 4, 7, 9, 12, 14, 17, 20, 22, 25, 28, 30, 33, 35, 38, 41, 43, 46, 49, 51, 54, 56, 59, 62, 64, 67, 69, 72, 75, 77, 80, 83, 85, 88, 90, 93, 96, 98, 101, 103, 106, 109, 111, 114, 117, 119, 122, 124, 127, 130, 132, 135, 138, 140, 143, 145, 148, 151, 153, 156, 158, 161, 164, 166, 169, 172, 174, 177, 179
a(n) = (3n-1+sqrt(5n^2-2n+1))/2 - 1 if 5n^2-2n+1 is a perfect square, else a(n) = floor((3n-1+sqrt(5n^2-2n+1))/2).
a(n) = ceiling((3*n - 3 + sqrt(5*n^2-2*n+1))/2). - Robert Israel, Dec 05 2016
[A086824] 1, 4, 7, 9, 12, 14, 17, 20, 22, 25, 28, 30, 33, 36, 38, 41, 44, 47, 49, 52, 55, 57, 60, 63, 65, 68, 71, 73, 76, 79, 82, 84, 87, 90, 92, 95, 98, 101, 103, 106, 109, 111, 114, 117, 119, 122, 125, 128, 130, 133, 136, 138, 141, 144, 147, 149, 152, 155, 157, 160, 163, 166
a(n) = e*n + O(log(n)); a(n+1)-a(n) = 2 or 3.
[A007066] 1, 4, 7, 9, 12, 15, 17, 20, 22, 25, 28, 30, 33, 36, 38, 41, 43, 46, 49, 51, 54, 56, 59, 62, 64, 67, 70, 72, 75, 77, 80, 83, 85, 88, 91, 93, 96, 98, 101, 104, 106, 109, 111, 114, 117, 119, 122, 125, 127, 130, 132, 135, 138, 140, 143, 145, 148, 151, 153, 156, 159, 161, 164, 166
a(1)=1; for n>1, a(n)=a(n-1)+2 if n is already in the sequence, a(n)=a(n-1)+3 otherwise. - Benoit Cloitre, Mar 06 2003
[A047537] 1, 4, 7, 9, 12, 15, 17, 20, 23, 25, 28, 31, 33, 36, 39, 41, 44, 47, 49, 52, 55, 57, 60, 63, 65, 68, 71, 73, 76, 79, 81, 84, 87, 89, 92, 95, 97, 100, 103, 105, 108, 111, 113, 116, 119, 121, 124, 127, 129, 132, 135, 137, 140, 143, 145, 148, 151, 153, 156, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-12+3*cos(2*n*Pi/3)-sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-4, a(3k-2) = 8k-7. (End)
[A184589] 1, 4, 7, 9, 12, 15, 18, 20, 23, 26, 28, 31, 34, 37, 39, 42, 45, 47, 50, 53, 56, 58, 61, 64, 66, 69, 72, 75, 77, 80, 83, 85, 88, 91, 94, 96, 99, 102, 105, 107, 110, 113, 115, 118, 121, 124, 126, 129, 132, 134, 137, 140, 143, 145, 148, 151, 153, 156, 159, 162, 164, 167, 170, 172, 175, 178, 181, 183, 186, 189, 191, 194, 197, 200, 202, 205, 208, 211, 213, 216, 219, 221, 224, 227, 230, 232, 235, 238, 240, 243, 246, 249, 251, 254, 257, 259, 262, 265, 268, 270, 273, 276, 278, 281, 284, 287, 289, 292, 295, 298, 300, 303, 306, 308, 311, 314, 317, 319, 322, 325
a(n)=floor(n*e-1).
[A180122] 1, 4, 7, 9, 12, 15, 18, 20, 23, 26, 29, 31, 34, 37, 39, 42, 45, 48, 50, 53, 56, 59, 61, 64, 67, 70, 72, 75, 78, 80, 83, 86, 89, 91, 94, 97, 100, 102, 105, 108, 111, 113, 116, 119, 121, 124, 127, 130, 132, 135, 138, 141, 143, 146, 149, 151, 154, 157, 160, 162, 165, 168
a(n) = least positive integer not yet used;
[A035510] 4, 7, 9, 14, 17, 22, 27, 30, 35, 41, 43, 48, 51, 56, 62, 64, 69, 75, 77, 82, 85, 90, 96, 98, 103, 106, 111, 117, 119, 124, 130, 132, 137, 140, 145, 151, 153, 158, 161, 166, 171, 174, 179, 185, 187, 192, 195, 200, 206, 208, 213, 219, 221, 226, 229, 234, 240, 242
a(n)=round(n*tau)+1+floor((round(n*tau)+1/2)*tau) for n>0 with a(0)=4 - C. Ronaldo (aga_new_ac(AT)hotmail.com), Jan 01 2005
[A000414] 4, 7, 10, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81
a(n) = n + O(log n). - Charles R Greathouse IV, Sep 03 2014
[A078633] 4, 7, 10, 12, 15, 17, 20, 22, 24, 27, 29, 31, 34, 36, 38, 40, 43, 45, 47, 49, 52, 54, 56, 58, 60, 63, 65, 67, 69, 71, 74, 76, 78, 80, 82, 84, 87, 89, 91, 93, 95, 97, 100, 102, 104, 106, 108, 110, 112, 115, 117, 119, 121, 123, 125, 127, 130, 132, 134, 136, 138, 140, 142
a(n) = 2*n + ceiling(2*sqrt(n)).

[A083032] 0, 4, 7, 10, 12, 16, 19, 22, 24, 28, 31, 34, 36, 40, 43, 46, 48, 52, 55, 58, 60, 64, 67, 70, 72, 76, 79, 82, 84, 88, 91, 94, 96, 100, 103, 106, 108, 112, 115, 118, 120, 124, 127, 130, 132, 136, 139, 142, 144, 148, 151, 154, 156, 160, 163, 166, 168, 172
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (12*n-9+(-1)^n+(-1)^((n+1)/2)+(-1)^(-(n+1)/2))/4. (End)
[A020965] 1, 4, 7, 10, 12, 17, 18, 23, 26, 29, 30, 37, 39, 41, 44, 50, 54, 56, 58, 63, 64, 67, 73, 77, 79, 83, 85, 88, 92, 95, 96, 104, 106, 112, 113, 117, 120, 122, 124, 131, 132, 135, 138, 142, 143, 151, 153, 158, 161, 164, 168, 171, 173, 177, 178, 183, 188, 191, 192, 197
a(n) = kn + O(log n) where k = 2 + sqrt(2) = 3.414213562.... - Charles R Greathouse IV, Feb 27 2017
[A244713] 1, 4, 7, 10, 13, 16, 18, 19, 22, 25, 27, 28, 31, 34, 37, 40, 43, 45, 46, 49, 52, 54, 55, 58, 61, 64, 67, 70, 72, 73, 76, 79, 81, 82, 85, 88, 91, 94, 97, 99, 100, 103, 106, 108, 109, 112, 115, 118, 121, 124, 126, 127, 130, 133, 135, 136, 139, 142, 145, 148, 151
a(n) = a(n-1)+a(n-11)-a(n-12) for n>12.
[A145289] 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175, 178, 181
a(1)=4, a(2)=7, a(n)=2*a(n-1)-a(n-2) [From Harvey P. Dale, Mar 31 2012]
a(n)=a(n-1)+3 [From Harvey P. Dale, Mar 31 2012]
[A016777] 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175, 178, 181, 184, 187
a(n) = 2*a(n-1) - a(n-2); a(0)=1, a(1)=4. - Philippe Deléham, Nov 03 2008
a(n) = 6*n - a(n-1) - 1 (with a(0) = 1). - Vincenzo Librandi, Nov 20 2010
[A143458] 1, 4, 7, 10, 13, 16, 19, 22, 25, 37, 58, 88, 127, 175, 232, 298, 373, 484, 658, 922, 1303, 1828, 2524, 3418, 4537, 5989, 7963, 10729, 14638, 20122, 27694, 37948, 51559, 69526, 93415, 125602, 169516, 229882, 312964, 426808, 581485, 790063, 1070308, 1447114
a(0)=1, a(1)=4, a(2)=7, a(3)=10, a(4)=13, a(5)=16, a(6)=19, a(7)=22, a(n)=a(n-1)+3*a(n-8). - Harvey P. Dale, Jul 22 2013
[A004084] 1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32, 35, 38, 41, 44, 48, 51, 54, 57, 60, 63, 66, 70, 73, 76, 79, 82, 85, 88, 92, 95, 98, 101, 104, 107, 110, 114, 117, 120, 123, 126, 129, 132, 136, 139, 142, 145, 148, 151, 154, 158, 161, 164, 167
a(n) = ceiling(Pi*(n-1)) for n>1. - Benoit Cloitre, Feb 14 2004
[A143454] 1, 4, 7, 10, 13, 25, 46, 76, 115, 190, 328, 556, 901, 1471, 2455, 4123, 6826, 11239, 18604, 30973, 51451, 85168, 140980, 233899, 388252, 643756, 1066696, 1768393, 2933149, 4864417, 8064505, 13369684, 22169131, 36762382, 60955897, 101064949
a(n) = sum(j=0..(n+3)/3, 3^j*C(n-3*j+3,j)). - Vladimir Kruchinin, May 24 2011
[A191402] 1, 4, 7, 10, 14, 17, 20, 23, 26, 30, 33, 36, 40, 43, 46, 49, 52, 56, 59, 62, 65, 68, 72, 75, 78, 82, 85, 88, 91, 94, 98, 101, 104, 108, 111, 114, 117, 120, 124, 127, 130, 133, 136, 140, 143, 146, 150, 153, 156, 159, 162, 166, 169, 172, 175, 178, 182, 185, 188, 192, 195, 198, 201, 204, 208, 211, 214, 218, 221, 224
a(n)=[nr]+[nr+r], where r=(1+sqrt(5))/2 and [ ]=floor.
[A067497] 0, 4, 7, 10, 14, 17, 20, 24, 27, 30, 34, 37, 40, 44, 47, 50, 54, 57, 60, 64, 67, 70, 74, 77, 80, 84, 87, 90, 94, 97, 100, 103, 107, 110, 113, 117, 120, 123, 127, 130, 133, 137, 140, 143, 147, 150, 153, 157, 160, 163, 167, 170, 173, 177, 180, 183, 187, 190, 193, 196
a(n) = ceiling(n*log_2(10)). - Vladeta Jovovic, Jun 20 2002
[A138813] 1, 1, 4, 7, 10, 14, 17, 20, 24, 28, 31, 35, 38, 42, 45, 50, 53, 57, 61, 64, 67, 73, 77, 80, 83, 88, 91, 94, 97, 104, 107, 111, 115, 119, 122, 126, 131, 135, 138, 142, 145, 151, 154, 160, 163, 167, 171, 174, 177, 182, 186, 191, 195, 199, 203, 206, 209, 216, 220, 223
a(2)= 4, a(n)/n=2.0000, a(n)/(n*sqrt(log(n)))=2.4022
a(4)= 10, a(n)/n=2.5000, a(n)/(n*sqrt(log(n)))=2.1233
a(8)= 24, a(n)/n=3.0000, a(n)/(n*sqrt(log(n)))=2.0804
a(16)= 53, a(n)/n=3.3125, a(n)/(n*sqrt(log(n)))=1.9894
a(32)= 115, a(n)/n=3.5938, a(n)/(n*sqrt(log(n)))=1.9304
a(64)= 244, a(n)/n=3.8125, a(n)/(n*sqrt(log(n)))=1.8695
[A184625] 4, 7, 10, 14, 17, 21, 24, 27, 31, 34, 38, 41, 44, 48, 51, 55, 58, 62, 65, 68, 72, 75, 79, 82, 85, 89, 92, 96, 99, 103, 106, 109, 113, 116, 120, 123, 126, 130, 133, 137, 140, 144, 147, 150, 154, 157, 161, 164, 167, 171, 174, 178, 181, 184, 188, 191, 195, 198, 202, 205, 208, 212, 215, 219, 222, 225, 229, 232, 236, 239, 243, 246, 249, 253, 256, 260, 263, 266, 270, 273, 277, 280, 283, 287, 290, 294, 297, 301, 304, 307, 311, 314, 318, 321, 324, 328, 331, 335, 338, 342, 345, 348, 352, 355, 359, 362, 365, 369, 372, 376, 379, 382, 386, 389, 393, 396, 400, 403, 406, 410
a(n)=floor[(n-h)*s+h], where s=2+sqrt(2) and h=-1/4.
[A187334] 0, 1, 4, 7, 10, 15, 16, 19, 22, 25, 30, 31, 34, 37, 40, 45, 46, 49, 52, 55, 60, 61, 64, 67, 70, 75, 76, 79, 82, 85, 90, 91, 94, 97, 100, 105, 106, 109, 112, 115, 120, 121, 124, 127, 130, 135, 136, 139, 142, 145, 150, 151, 154, 157, 160, 165, 166, 169, 172, 175, 180, 181, 184, 187, 190, 195, 196, 199, 202, 205, 210, 211, 214, 217, 220, 225, 226, 229, 232, 235, 240, 241, 244, 247, 250, 255, 256, 259, 262, 265, 270, 271, 274, 277, 280, 285, 286, 289, 292, 295, 300
a(n)=sum{floor(kn/5), k=1,2,3,4,5}.
[A071408] 0, 1, 4, 7, 10, 15, 20, 25, 32, 39, 46, 55, 64, 73, 84, 95, 106, 119, 132, 145, 160, 175, 190, 207, 224, 241, 260, 279, 298, 319, 340, 361, 384, 407, 430, 455, 480, 505, 532, 559, 586, 615, 644, 673, 704, 735, 766, 799, 832, 865, 900, 935, 970, 1007, 1044
a(n) = floor((n-1)*(n+1)*(n+3)/(3*n+3)). - Gary Detlefs, Jul 13 2010
a(n) = n + floor(n*(n-1)/3) - 1. - Bruno Berselli, Mar 02 2017
[A168565] 4, 7, 10, 16, 19, 25, 28, 34, 43, 46, 55, 61, 64, 70, 79, 88, 91, 100, 106, 109, 118, 124, 133, 145, 151, 154, 160, 163, 169, 190, 196, 205, 208, 223, 226, 235, 244, 250, 259, 268, 271, 286, 289, 295, 298, 316, 334, 340, 343, 349, 358, 361, 376, 385, 394, 403
a(n) = (3*prime(n)-1)/2.
[A213484] 1, 4, 7, 10, 16, 25, 34, 43, 55, 70, 85, 100, 118, 139, 160, 181, 205, 232, 259, 286, 316, 349, 382, 415, 451, 490, 529, 568, 610, 655, 700, 745, 793, 844, 895, 946, 1000, 1057, 1114, 1171, 1231, 1294, 1357, 1420, 1486, 1555, 1624, 1693, 1765
a(n) = 3*a(n-1)-4*a(n-2)+4*a(n-3)-3*a(n-4)+a(n-5).
[A003461] 4, 7, 10, 16, 28, 52, 100, 196, 388, 772, 1540, 3076, 6148, 12292, 24580, 49156, 98308, 196612, 393220, 786436, 1572868, 3145732, 6291460, 12582916, 25165828, 50331652, 100663300, 201326596, 402653188, 805306372, 1610612740, 3221225476
a(n) = 2*a(n-1) - 4, n > 1.
[A084386] 1, 1, 1, 4, 7, 10, 22, 43, 73, 139, 268, 487, 904, 1708, 3169, 5881, 11005, 20512, 38155, 71170, 132706, 247171, 460681, 858799, 1600312, 2982355, 5558752, 10359688, 19306753, 35983009, 67062073, 124982332, 232931359, 434117578, 809064574
a(n) = sum{k=0..floor(n/2), C(n-2k, k)3^k} - Paul Barry, Nov 18 2003
[A275176] 1, 1, 1, 1, 1, 1, 4, 7, 10, 22, 43, 202, 370, 547, 1264, 2521, 11881, 21781, 32221, 74521, 148681, 700744, 1284667, 1900450, 4395442, 8769643, 41331982, 75773530, 112094287, 259256524, 517260241, 2437886161, 4469353561, 6611662441, 15291739441, 30509584561
a(n) = 60*a(n-5) - 60*a(n-10) + a(n-15).
[A032818] 1, 4, 7, 10, 25, 28, 43, 46, 61, 64, 151, 154, 169, 172, 259, 262, 277, 280, 367, 370, 385, 388, 907, 910, 925, 928, 1015, 1018, 1033, 1036, 1555, 1558, 1573, 1576, 1663, 1666, 1681, 1684, 2203, 2206, 2221, 2224, 2311, 2314, 2329
a(1)=1, a(2)=4; a(n) = 6*a(floor(n/2))+1 for n odd, otherwise a(n) = 6*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A135262] 1, 4, 7, 10, 40, 70, 100, 400, 700, 1000, 4000, 7000, 10000, 40000, 70000, 100000, 400000, 700000, 1000000, 4000000, 7000000, 10000000, 40000000, 70000000, 100000000, 400000000, 700000000, 1000000000, 4000000000, 7000000000
a(n)=10*a(n-3). O.g.f.: (1+4x+7x^2)/(1-10x^3). - R. J. Mathar, Jul 22 2008
[A091855] 1, 4, 7, 11, 13, 16, 19, 21, 25, 28, 31, 35, 37, 41, 44, 47, 49, 52, 55, 59, 61, 64, 67, 69, 73, 76, 79, 81, 84, 87, 91, 93, 97, 100, 103, 107, 109, 112, 115, 117, 121, 124, 127, 131, 133, 137, 140, 143, 145, 148, 151, 155, 157, 161, 164, 167, 171, 173, 176, 179, 181
a(n) is asymptotic to 3*n - Benoit Cloitre, Mar 22 2004
[A081834] 1, 4, 7, 11, 14, 17, 21, 24, 27, 30, 34, 37, 40, 44, 47, 50, 54, 57, 60, 63, 67, 70, 73, 77, 80, 83, 87, 90, 93, 97, 100, 103, 106, 110, 113, 116, 120, 123, 126, 130, 133, 136, 139, 143, 146, 149, 153, 156, 159, 163, 166, 169, 172, 176, 179, 182, 186, 189, 192, 196
a(n)=floor(rn-(3r-1)/(r+1)) where r= (1/2) *(3+sqrt(13))
[A078309] 1, 4, 7, 11, 14, 17, 21, 24, 27, 31, 34, 37, 41, 44, 47, 51, 54, 57, 61, 64, 67, 71, 74, 77, 81, 84, 87, 91, 94, 97, 101, 104, 107, 111, 114, 117, 121, 124, 127, 131, 134, 137, 141, 144, 147, 151, 154, 157, 161, 164, 167, 171, 174, 177, 181, 184, 187, 191, 194, 197
a(n) = 1 + 3*mod(n-1, 3) + 10*floor((n-1)/3).

a(n) = a(n-3) + 10 for n>4.
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 3*n + floor((n-1)/3) - 2.
a(n) = (30*n-24-3*cos(2*n*Pi/3)+sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 10k-3, a(3k-1) = 10k-6, a(3k-2) = 10k-9. (End)
[A184623] 4, 7, 11, 14, 17, 21, 24, 28, 31, 34, 38, 41, 45, 48, 52, 55, 58, 62, 65, 69, 72, 75, 79, 82, 86, 89, 92, 96, 99, 103, 106, 110, 113, 116, 120, 123, 127, 130, 133, 137, 140, 144, 147, 151, 154, 157, 161, 164, 168, 171, 174, 178, 181, 185, 188, 192, 195, 198, 202, 205, 209, 212, 215, 219, 222, 226, 229, 232, 236, 239, 243, 246, 250, 253, 256, 260, 263, 267, 270, 273, 277, 280, 284, 287, 291, 294, 297, 301, 304, 308, 311, 314, 318, 321, 325, 328, 331, 335, 338, 342, 345, 349, 352, 355, 359, 362, 366, 369, 372, 376, 379, 383, 386, 390, 393, 396, 400
a(n)=floor((n-h)*s+h), where s=2+sqrt(2) and h=-1/3.
[A083051] 1, 4, 7, 11, 14, 18, 21, 24, 28, 31, 35, 38, 41, 45, 48, 52, 55, 59, 62, 65, 69, 72, 76, 79, 82, 86, 89, 93, 96, 100, 103, 106, 110, 113, 117, 120, 123, 127, 130, 134, 137, 140, 144, 147, 151, 154, 158, 161, 164, 168, 171, 175, 178, 181, 185, 188, 192, 195, 199, 202
a(n)=floor(n*x/(x-1))+1, x=sqrt(2).
[A047345] 0, 4, 7, 11, 14, 18, 21, 25, 28, 32, 35, 39, 42, 46, 49, 53, 56, 60, 63, 67, 70, 74, 77, 81, 84, 88, 91, 95, 98, 102, 105, 109, 112, 116, 119, 123, 126, 130, 133, 137, 140, 144, 147, 151, 154, 158, 161, 165, 168, 172, 175, 179, 182, 186, 189, 193
a(n) = ceiling(7(n-1)/2).
a(n) = 7n - a(n-1) - 10, (a(1) = 0). - Vincenzo Librandi, Aug 05 2010
a(n) = 7n/2 - 13/4 + (-1)^n/4; G.f.: x^2*(4+3*x) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
a(n) = 4(n-1) - floor((n-1)/2). - Wesley Ivan Hurt, Jun 14 2013
a(n) = 2(n-1) + floor((3n - 2 - (n mod 2))/2). - Wesley Ivan Hurt, Mar 31 2014
[A267049] 0, 1, 4, 7, 11, 14, 22, 25, 37, 40, 56, 59, 79, 82, 106, 109, 137, 140, 172, 175, 211, 214, 254, 257, 301, 304, 352, 355, 407, 410, 466, 469, 529, 532, 596, 599, 667, 670, 742, 745, 821, 824, 904, 907, 991, 994, 1082, 1085, 1177, 1180, 1276, 1279, 1379, 1382
a(n) = (n^2+(-1)^n*(n-3)+5)/2 for n>1.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>6.
[A236771] 0, 1, 4, 7, 11, 15, 21, 26, 33, 40, 48, 56, 66, 75, 86, 97, 109, 121, 135, 148, 163, 178, 194, 210, 228, 245, 264, 283, 303, 323, 345, 366, 389, 412, 436, 460, 486, 511, 538, 565, 593, 621, 651, 680, 711, 742, 774, 806, 840, 873, 908, 943, 979
a(n) = a(n-1) + a(n-2) - a(n-4) - a(n-5) + a(n-6).
a(n) = (2*n*(2*n+9) - 2*(-1)^floor(2*(n-1)/3) + 3*(-1)^n - 5)/12.
[A269132] 0, 1, 4, 7, 11, 16, 21, 28, 35, 43, 52, 61, 72, 83, 95, 108, 121, 136, 151, 167, 184, 201, 220, 239, 259, 280, 301, 324, 347, 371, 396, 421, 448, 475, 503, 532, 561, 592, 623, 655, 688, 721, 756, 791, 827, 864, 901, 940, 979, 1019, 1060, 1101, 1144, 1187, 1231
a(n) = ceiling(((n*(n+2)+(n+1)*ceiling(n))*(n-1))/ (2*ceiling(n)+ceiling(ceiling(n)+n)+n)+n) for n>0.
[A231603] 0, 1, 4, 7, 11, 16, 22, 28, 35, 43, 52, 61, 70, 81, 92, 103, 115, 128, 141, 155, 170, 185, 200, 216, 233, 250, 268, 286, 305, 325, 344, 365, 386, 408, 430, 452, 475, 499, 523, 548, 573, 598, 625, 651, 678, 706, 734, 763, 792, 822, 852, 883, 914, 945, 978, 1010, 1043, 1077, 1111, 1145, 1180, 1216, 1252, 1288, 1325
a(n) = floor(agm(n+n,n*n)).
[A171452] 0, 0, 1, 4, 7, 11, 17, 23, 30, 39, 48, 58, 70, 82, 95, 110, 125, 141, 159, 177, 196, 217, 238, 260, 284, 308, 333, 360, 387, 415, 445, 475, 506, 539, 572, 606, 642, 678, 715, 754, 793, 833, 875, 917, 960, 1005, 1050, 1096, 1144, 1192, 1241, 1292, 1343, 1395
a(n)=(3n^2-n-2)/6+sqrt(3)*cos(2*pi*n/3+pi/6)/9+sin(2*pi*n/3+pi/6)/3.
[A133257] 4, 7, 11, 17, 25, 37, 53, 77, 109, 157, 221, 317, 445, 637, 893, 1277, 1789, 2557, 3581, 5117, 7165, 10237, 14333, 20477, 28669, 40957, 57341, 81917, 114685, 163837, 229373, 327677, 458749, 655357, 917501, 1310717, 1835005, 2621437, 3670013, 5242877, 7340029
a(n) = 2*a(n-2) + 3 for n >= 2.
a(n) = 2^((n-2)/2)*((7+5*sqrt(2))+(7-5*sqrt(2))*(-1)^n)-3.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3). G.f.: -(4*x^2-3*x-4) / ((x-1)*(2*x^2-1)). - Colin Barker, Jul 07 2014
[A130625] 1, 4, 7, 11, 20, 41, 85, 172, 343, 683, 1364, 2729, 5461, 10924, 21847, 43691, 87380, 174761, 349525, 699052, 1398103, 2796203, 5592404, 11184809, 22369621, 44739244, 89478487, 178956971, 357913940, 715827881, 1431655765, 2863311532
a(n)=3a(n-1)-3a(n-2)+2a(n-3). Sequence is identical to its third differences. Binomial transform of 1, 3, 0. - Paul Curtz, Nov 23 2007
a(n)=-(1/6)*[1/2-(1/2)*I*sqrt(3)]^n-(1/6)*[1/2+(1/2)*I*sqrt(3)]^n+(4/3)*2^n+(1/2)*I*[1/2-(1 /2)*I*sqrt(3)]^n*sqrt(3)-(1/2)*I*[1/2+(1/2)*I*sqrt(3)]^n*sqrt(3), with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 12 2008
[A244590] 0, 0, 4, 7, 12, 14, 18, 21, 28, 28, 32, 35, 40, 42, 46, 49, 56, 56, 60, 63, 68, 70, 74, 77, 84, 84, 88, 91, 96, 98, 102, 105, 112, 112, 116, 119, 124, 126, 130, 133, 140, 140, 144, 147, 152, 154, 158, 161, 168, 168
a(n) = sum(floor(k*n/8), k=1..7).
a(n) = (gcd(n,8) - (n+8) + n*8)/2.
[A047535] 4, 7, 12, 15, 20, 23, 28, 31, 36, 39, 44, 47, 52, 55, 60, 63, 68, 71, 76, 79, 84, 87, 92, 95, 100, 103, 108, 111, 116, 119, 124, 127, 132, 135, 140, 143, 148, 151, 156, 159, 164, 167, 172, 175, 180, 183, 188, 191, 196, 199, 204, 207, 212, 215, 220, 223, 228, 231
a(n) = 8*n-a(n-1)-5 (with a(1)=4). [Vincenzo Librandi, Aug 06 2010]
a(n) = 4*n -(1 + (-1)^n)/2. - Arkadiusz Wesolowski, Sep 18 2012
[A061503] 1, 4, 7, 12, 15, 24, 27, 34, 39, 48, 51, 66, 69, 78, 87, 96, 99, 114, 117, 132, 141, 150, 153, 174, 179, 188, 195, 210, 213, 240, 243, 254, 263, 272, 281, 306, 309, 318, 327, 348, 351, 378, 381, 396, 411, 420, 423, 450, 455, 470, 479, 494, 497
a(n) = Sum(i=1..n, 2^omega(i) * floor(n/i)) . - Enrique Pérez Herrero, Sep 15 2012
[A076295] 4, 7, 12, 15, 28, 55, 72, 147, 304, 403, 840, 1755, 2332, 4879, 10212, 13575, 28420, 59503, 79104, 165627, 346792, 461035, 965328, 2021235, 2687092, 5626327, 11780604, 15661503, 32792620, 68662375, 91281912, 191129379, 400193632, 532029955, 1113983640
a(0)=4, a(1)=7, a(2)=12, a(3)=15, a(4)=28, a(5)=55, a(6)=72, a(n)= a(n-1)+ 6*a(n-3)-6*a(n-4)-a(n-6)+a (n-7). - Harvey P. Dale, Feb 02 2012
[A083030] 0, 4, 7, 12, 16, 19, 24, 28, 31, 36, 40, 43, 48, 52, 55, 60, 64, 67, 72, 76, 79, 84, 88, 91, 96, 100, 103, 108, 112, 115, 120, 124, 127, 132, 136, 139, 144, 148, 151, 156, 160, 163, 168, 172, 175, 180, 184, 187, 192, 196, 199, 204, 208, 211, 216, 220
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 4*n-(13+2*cos(2*n*Pi/3))/3.
a(3k) = 12k-5, a(3k-1) = 12k-8, a(3k-2) = 12k-12. (End)
[A232424] 0, 1, 4, 7, 12, 16, 22, 27, 34, 40, 47, 54, 62, 70, 78, 87, 96, 105, 114, 124, 134, 144, 155, 165, 176, 188, 199, 211, 222, 234, 247, 259, 272, 285, 298, 311, 324, 338, 352, 366, 380, 394, 409, 424, 439, 454, 469, 484, 500, 516, 531, 547, 564, 580, 597
a(n) = floor(8n^(3/2)/(3*sqrt(Pi))).
[A276222] 4, 7, 12, 17, 23, 29, 35, 42, 50, 58, 66, 75, 84, 93, 103, 113, 124, 135, 146, 157, 169, 181, 194, 206, 219, 233, 246, 260, 274, 288, 303, 318, 333, 349, 364, 380, 396, 413, 430, 446, 464, 481, 499, 517, 535, 553, 572, 590, 610, 629, 648, 668, 688, 708, 728
a(n) = n + floor(n^s), n >= 2; the complement is given by n + floor(n^(1/s)), n >= 1.
[A074148] 1, 4, 7, 12, 17, 24, 31, 40, 49, 60, 71, 84, 97, 112, 127, 144, 161, 180, 199, 220, 241, 264, 287, 312, 337, 364, 391, 420, 449, 480, 511, 544, 577, 612, 647, 684, 721, 760, 799, 840, 881, 924, 967, 1012, 1057, 1104, 1151, 1200, 1249, 1300, 1351, 1404, 1457
a(n) = (2*n^2+4*n+(-1)^n-1)/4. - Vladeta Jovovic, Apr 06 2003
a(n) = +2*a(n-1)-2*a(n-3)+1*a(n-4). - Joerg Arndt, Apr 02 2011
a(n) = a(n-2)+2*n, a(0)=0, a(1)=1. - Paul Barry, Jul 17 2004
a(n) = floor(n^4/(2n^2+1)) with offset 2..a(2)=1. - Gary Detlefs, Feb 11 2010
a(n) = n + floor(n^2/2). - Wesley Ivan Hurt, Jun 14 2013
[A265431] 0, 1, 4, 7, 12, 18, 26, 34, 44, 55, 68, 81, 96, 112, 130, 148, 168, 189, 212, 235, 260, 286, 314, 342, 372, 403, 436, 469, 504, 540, 578, 616, 656, 697, 740, 783, 828, 874, 922, 970, 1020, 1071, 1124, 1177, 1232, 1288, 1346, 1404, 1464, 1525, 1588, 1651
a(n) = 1/16*(10*n^2+8*n+3*(-1)^n-2*(-i)^n-2*i^n+1) where i = sqrt(-1).
[A020732] 4, 7, 12, 20, 33, 54, 88, 143, 232, 376, 609, 986, 1596, 2583, 4180, 6764, 10945, 17710, 28656, 46367, 75024, 121392, 196417, 317810, 514228, 832039, 1346268, 2178308, 3524577, 5702886, 9227464, 14930351, 24157816, 39088168, 63245985, 102334154, 165580140

a(n) = Fibonacci(n+5) - 1.
a(n) = 2*a(n-1) - a(n-3).
a(n) = (-1+(2^(-1-n)*((1-sqrt(5))^n*(-11+5*sqrt(5))+(1+sqrt(5))^n*(11+5*sqrt(5))))/sqrt(5)).
[A228879] 4, 7, 12, 21, 36, 63, 108, 189, 324, 567, 972, 1701, 2916, 5103, 8748, 15309, 26244, 45927, 78732, 137781, 236196, 413343, 708588, 1240029, 2125764, 3720087, 6377292, 11160261, 19131876, 33480783, 57395628, 100442349, 172186884, 301327047, 516560652
a(n) = sqrt(3*a(n-1)^2 + (-3)^(n-1)), a(0) = 4.
[A010901] 4, 7, 12, 21, 37, 65, 114, 200, 351, 616, 1081, 1897, 3329, 5842, 10252, 17991, 31572, 55405, 97229, 170625, 299426, 525456, 922111, 1618192, 2839729, 4983377, 8745217, 15346786, 26931732, 47261895, 82938844, 145547525, 255418101, 448227521, 786584466
a(n) = 2a(n-1) - a(n-2) + a(n-3) for n>=3. (Proved using the PtoRv program of Ekhad-Sloane-Zeilberger.) - N. J. A. Sloane, Sep 09 2016
[A123194] 4, 7, 12, 23, 43, 81, 150, 275, 498, 893, 1587, 2799, 4904, 8543, 14808, 25555, 43931, 75261, 128538, 218923, 371934, 630457, 1066467, 1800603, 3034828, 5106871, 8580900, 14398415, 24129163, 40388073, 67527582, 112786499, 188195274, 313733813, 522562323
a(n) = 3 - 2^(-1-n)*((1-sqrt(5))^n*(-5+3*sqrt(5)) - (1+sqrt(5))^n*(5+3*sqrt(5)))/5*(1+n).
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + a(n-4) + a(n-5) for n>4.
[A243860] 1, 4, 7, 12, 23, 48, 103, 220, 463, 960, 1967, 3996, 8071, 16240, 32599, 65340, 130847, 261888, 523999, 1048252, 2096791, 4193904, 8388167, 16776732, 33553903, 67108288, 134217103, 268434780, 536870183, 1073741040, 2147482807, 4294966396, 8589933631, 17179868160, 34359737279, 68719475580
a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4). - Colin Barker, Jun 12 2014
[A125758] 4, 7, 13, 16, 22, 25, 31, 34, 40, 43, 49, 52, 58, 61, 67, 70, 76, 79, 85, 88, 94, 97, 103, 106, 112, 115, 121, 124, 130, 133, 139, 142, 148, 151, 157, 160, 166, 169, 175, 178, 184, 187, 193, 196, 202, 205, 211, 214, 220, 223, 229, 232, 238, 241, 247, 250, 256, 259, 265, 268
a(n)=9*n-a(n-1)-7 (with a(1)=4). [Vincenzo Librandi, Sep 30 2010]
[A061201] 1, 4, 7, 13, 16, 25, 28, 38, 44, 53, 56, 74, 77, 86, 95, 110, 113, 131, 134, 152, 161, 170, 173, 203, 209, 218, 228, 246, 249, 276, 279, 300, 309, 318, 327, 363, 366, 375, 384, 414, 417, 444, 447, 465, 483, 492, 495, 540, 546, 564, 573, 591, 594, 624, 633, 663
a(n) = Sum_{k=1..n} Sum_{i=1..n} floor(n/(i*k)). - Wesley Ivan Hurt, Sep 14 2017
[A266811] 1, 4, 7, 13, 18, 26, 35, 45, 55, 69, 82, 97, 113, 131, 149, 170, 190, 213, 237, 262, 287, 316, 344, 374, 405, 438, 471, 507, 542, 580, 619, 659, 699, 743, 786, 831, 877, 925, 973, 1024, 1074, 1127, 1181, 1236, 1291, 1350, 1408, 1468, 1529, 1592, 1655, 1721
a(n) = a(n-1)+a(n-3)-a(n-5)-a(n-7)+a(n-8) for n>7.
[A085787] 0, 1, 4, 7, 13, 18, 27, 34, 46, 55, 70, 81, 99, 112, 133, 148, 172, 189, 216, 235, 265, 286, 319, 342, 378, 403, 442, 469, 511, 540, 585, 616, 664, 697, 748, 783, 837, 874, 931, 970, 1030, 1071, 1134, 1177, 1243, 1288, 1357, 1404, 1476, 1525, 1600, 1651, 1729
a(n) = 5*n*(n+1)/8-1/16+(-1)^n*(2*n+1)/16. - R. J. Mathar, Jun 29 2009
[A111710] 1, 4, 7, 13, 18, 27, 34, 46, 55, 70, 81, 99, 112, 133, 148, 172, 189, 216, 235, 265, 286, 319, 342, 378, 403, 442, 469, 511, 540, 585, 616, 664, 697, 748, 783, 837, 874, 931, 970, 1030, 1071, 1134, 1177, 1243, 1288, 1357, 1404, 1476, 1525, 1600, 1651, 1729
a(1)=1, a(2n) = a(2n-1)+3n, a(2n+1)=a(2n)+2n+1. - Franklin T. Adams-Watters, May 01 2006
a(n) = (10*n^2+2*(-1)^n*n+10*n+(-1)^n-1)/16.
a(n) = (5*n^2+6*n)/8 for n even.
a(n) = (5*n^2+4*n-1)/8 for n odd. (End)
[A194073] 1, 4, 7, 13, 19, 28, 37, 49, 61, 76, 91, 109, 127, 148, 169, 193, 217, 244, 271, 301, 331, 364, 397, 433, 469, 508, 547, 589, 631, 676, 721, 769, 817, 868, 919, 973, 1027, 1084, 1141, 1201, 1261, 1324, 1387, 1453, 1519, 1588, 1657, 1729, 1801
a(n) = 1 + floor((3/4)*n^2).
[A111314] 1, 1, 4, 7, 13, 22, 37, 61, 100, 163, 265, 430, 697, 1129, 1828, 2959, 4789, 7750, 12541, 20293, 32836, 53131, 85969, 139102, 225073, 364177, 589252, 953431, 1542685, 2496118, 4038805, 6534925, 10573732, 17108659, 27682393, 44791054, 72473449
a(n) = 2*Fib(n+1)-Fib(n+2)+Fib(n+3)-2. - Robert G. Wilson v, Nov 10 2005
a(n) = F(n-1)+F(n+3)-2, where F(n) is the n-th Fibonacci number. - Zerinvary Lajos, Jan 31 2008
a(n) = 3*Fib(n+1)-2. - Olivier Pirson, Jun 30 2015
[A038391] 1, 4, 7, 13, 23, 33, 48, 69, 90, 118, 154, 190, 235, 290, 345, 411, 489, 567, 658, 763, 868, 988, 1124, 1260, 1413, 1584, 1755, 1945, 2155, 2365, 2596, 2849, 3102, 3378, 3678, 3978, 4303, 4654, 5005, 5383, 5789, 6195, 6630, 7095, 7560, 8056, 8584, 9112, 9673
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
a(n) = Sum_{i=1..n+1} (1+floor((n+i+1)/3)) * (1+floor((n-i+1)/3)). (End)
[A000288] 1, 1, 1, 1, 4, 7, 13, 25, 49, 94, 181, 349, 673, 1297, 2500, 4819, 9289, 17905, 34513, 66526, 128233, 247177, 476449, 918385, 1770244, 3412255, 6577333, 12678217, 24438049, 47105854, 90799453, 175021573, 337364929, 650291809, 1253477764
a(0) = a(1) = a(2) = a(3) = 1, a(4) = 4, a(n) = 2*a(n-1) - a(n-5). - Vincenzo Librandi, Dec 21 2010
[A181565] 4, 7, 13, 25, 49, 97, 193, 385, 769, 1537, 3073, 6145, 12289, 24577, 49153, 98305, 196609, 393217, 786433, 1572865, 3145729, 6291457, 12582913, 25165825, 50331649, 100663297, 201326593, 402653185, 805306369, 1610612737, 3221225473
a(n) = 3*a(n-1) - 2*a(n-2). (End)
a(n) = 2*a(n-1) - 1. - Miquel Cerda, Aug 16 2016
[A004119] 1, 4, 7, 13, 25, 49, 97, 193, 385, 769, 1537, 3073, 6145, 12289, 24577, 49153, 98305, 196609, 393217, 786433, 1572865, 3145729, 6291457, 12582913, 25165825, 50331649, 100663297, 201326593, 402653185, 805306369, 1610612737, 3221225473, 6442450945, 12884901889
a(n) = 3a(n-1) - 2a(n-2).
[A293342] 4, 7, 13, 26, 51, 101, 202, 403, 805, 1609, 3217, 6434, 12868, 25736, 51472, 102944, 205888, 411775, 823550, 1647100, 3294199, 6588398, 13176795, 26353590, 52707179, 105414358, 210828715, 421657429, 843314857, 1686629714, 3373259427, 6746518853, 13493037705
a(n) = ceiling(Pi*2^n).
[A122552] 1, 1, 1, 4, 7, 13, 28, 55, 109, 220, 439, 877, 1756, 3511, 7021, 14044, 28087, 56173, 112348, 224695, 449389, 898780, 1797559, 3595117, 7190236, 14380471, 28760941, 57521884, 115043767, 230087533, 460175068, 920350135, 1840700269, 3681400540
a(3*n)=2*a(3*n-1)+2, a(3*n+1)=2*a(3*n)-1, a(3*n+2)=2*a(3*n+1)-1, a(0)=1 . G.f. : (1-x^2)/(1-x-x^2-2*x^3).
a(n)=(3/7)*2^n-(1/7)*I*sqrt(3)*[(-1/2)+(1/2)*I*sqrt(3)]^n+(2/7)*[(-1/2)-(1/2)*I*sqrt(3)]^n+(2 /7)*[(-1/2)+(1/2)*I*sqrt(3)]^n+(1/7)*I*sqrt(3)*[(-1/2)-(1/2)*I*sqrt(3)]^n, with n>=0 and I=sqrt(-1). - Paolo P. Lava, Nov 19 2008
[A048241] 1, 4, 7, 14, 23, 41, 56, 89, 119, 164, 206, 281, 335, 437, 518, 626, 734, 902, 1019, 1226, 1382, 1592, 1787, 2084, 2288, 2618, 2888, 3239, 3545, 4007, 4307, 4832, 5240, 5750, 6206, 6818, 7268, 8006, 8573, 9281, 9881, 10781, 11375, 12362
a(n) = number of triples (i, j, k) with 0 <= i+j+k <= n and gcd(i, j, k) = 1.
[A094968] 1, 4, 7, 14, 25, 48, 91, 178, 349, 692, 1375, 2742, 5473, 10936, 21859, 43706, 87397, 174780, 349543, 699070, 1398121, 2796224, 5592427, 11184834, 22369645, 44739268, 89478511, 178956998, 357913969, 715827912, 1431655795, 2863311562
a(n) = 2^n + n + Jacobsthal(n).
a(n) = ((-1)^(1+n) + 2^(2+n) + 3*n) / 3.
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 2*a(n-4) for n>3.
[A234576] 4, 7, 14, 34, 73, 156, 345, 754, 1640, 3585, 7832, 17091, 37318, 81490, 177913, 388448, 848149, 1851826, 4043232, 8827953, 19274812, 42084287, 91886190, 200622866, 438036729, 956402452, 2088193969, 4559329474, 9954767528, 21735081361, 47456031280
a(n) = a(n-1) + a(n-2) + 3*a(n-3) + a(n-4).
[A281445] 4, 7, 15, 18, 26, 29, 37, 40, 48, 51, 59, 62, 70, 73, 81, 84, 92, 95, 103, 106, 114, 117, 125, 128, 136, 139, 147, 150, 158, 161, 169, 172, 180, 183, 191, 194, 202, 205, 213, 216, 224, 227, 235, 238, 246, 249, 257, 260, 268, 271, 279, 282, 290, 293, 301, 304, 312, 315
a(n) = -a(-n+1) = a(n-1) + a(n-2) - a(n-3).
a(n) = (22*n - 5*(-1)^n - 11)/4. Therefore: a(2*h) = 11*h - 4, a(2*h+1) = 11*h + 4.
[A109622] 1, 1, 4, 7, 15, 23, 38, 53, 77, 101, 136, 171, 219, 267, 330, 393, 473, 553, 652, 751, 871, 991, 1134, 1277, 1445, 1613, 1808, 2003, 2227, 2451, 2706, 2961, 3249, 3537, 3860, 4183, 4543, 4903, 5302, 5701, 6141, 6581, 7064, 7547, 8075, 8603
a(n=2k) = 1 + sum_{i=1}^{(n/2)-1} (n*i-i^2+n+1) + (1/2)((n/2)^2+3(n/2)+2) a(n=2k+1)= 1 + sum_{i=1}^{(n-1)/2} ((n*i-i^2+n+1). [Corrected by Sean A. Irvine after private communication with Benjamin de Bivort, Feb 13 2012]

[A116969] 4, 7, 15, 27, 53, 101, 199, 391, 777, 1545, 3083, 6155, 12301, 24589, 49167, 98319, 196625, 393233, 786451, 1572883, 3145749, 6291477, 12582935, 25165847, 50331673, 100663321, 201326619, 402653211, 805306397, 1610612765, 3221225503, 6442450975, 12884901921
a(n) = 3*a(n-1)-a(n-2)-3*a(n-3)+2*a(n-4). G.f.: -x*(x^3-2*x^2-5*x+4) / ((x-1)^2*(x+1)*(2*x-1)). - Colin Barker, Jul 18 2013
[A173657] 4, 7, 15, 37, 99, 277, 795, 2317, 6819, 20197, 60075, 179197, 535539, 1602517, 4799355, 14381677, 43112259, 129271237, 387682635, 1162785757, 3487832979, 10462450357, 31385253915, 94151567437, 282446313699, 847322163877, 2541932937195, 7625731702717
a(n)= 6*a(n-1)-11*a(n-2)+6*a(n-3).
[A130665] 1, 4, 7, 16, 19, 28, 37, 64, 67, 76, 85, 112, 121, 148, 175, 256, 259, 268, 277, 304, 313, 340, 367, 448, 457, 484, 511, 592, 619, 700, 781, 1024, 1027, 1036, 1045, 1072, 1081, 1108, 1135, 1216, 1225, 1252, 1279, 1360, 1387, 1468, 1549, 1792, 1801, 1828, 1855
a(2n+1) = 4a(n) and a(2n) = 3a(n-1)+a(n).
[A285998] 1, 4, 7, 16, 22, 40, 50, 80, 95, 140, 161, 224, 252, 336, 372, 480, 525, 660, 715, 880, 946, 1144, 1222, 1456, 1547, 1820, 1925, 2240, 2360, 2720, 2856, 3264, 3417, 3876, 4047, 4560, 4750, 5320, 5530, 6160, 6391, 7084, 7337, 8096, 8372, 9200, 9500, 10400, 10725
a(n) = 1/16 + 13*n/24 + 7*n^2/16 + n^3/12 + (-1)^n*(-1/16 + n/8 + n^2/16). - Vaclav Kotesovec, Jun 25 2017
[A259653] 0, 1, 4, 7, 16, 25, 34, 61, 88, 115, 142, 223, 304, 385, 466, 547, 790, 1033, 1276, 1519, 1762, 2005, 2734, 3463, 4192, 4921, 5650, 6379, 7108, 9295, 11482, 13669, 15856, 18043, 20230, 22417, 24604, 31165, 37726, 44287, 50848, 57409, 63970, 70531, 77092
a(n) = min {3*a(k) + (3^(n-k)-1)/2 ; k < n}.
[A164123] 1, 4, 7, 16, 25, 52, 79, 160, 241, 484, 727, 1456, 2185, 4372, 6559, 13120, 19681, 39364, 59047, 118096, 177145, 354292, 531439, 1062880, 1594321, 3188644, 4782967, 9565936, 14348905, 28697812, 43046719, 86093440, 129140161
a(n) = 3*a(n-2)+4 for n > 2; a(1) = 1, a(2) = 4.
a(n) = (5-(-1)^n)*3^(1/4*(2*n-1+(-1)^n))/2-2.
[A133600] 1, 4, 7, 16, 28, 64, 112, 256, 448, 1024, 1792, 4096, 7168, 16384, 28672, 65536, 114688, 262144, 458752, 1048576, 1835008, 4194304, 7340032, 16777216, 29360128, 67108864, 117440512, 268435456, 469762048, 1073741824, 1879048192
a(n) = 4*a(n-2) for n > 3; a(1) = 1, a(2) = 4, a(3) = 7. [From Klaus Brockhaus, Nov 26 2009]
[A051049] 1, 1, 4, 7, 16, 31, 64, 127, 256, 511, 1024, 2047, 4096, 8191, 16384, 32767, 65536, 131071, 262144, 524287, 1048576, 2097151, 4194304, 8388607, 16777216, 33554431, 67108864, 134217727, 268435456, 536870911, 1073741824
a(n) = (2^(n+1)-(1+(-1)^(n+1)))/2. - Paul Barry, Apr 24 2003
a(n+2) = a(n+1) + 2*a(n) + 1, a(0)=a(1)=1. - Paul Barry, May 01 2003
a(n) = Sum_{k=0..floor(n/2)} binomial(n+1, 2k). - Paul Barry, May 27 2003
a(n) = (Sum_{k=0..n} binomial(n,k) + (-1)^(n-k))-1. - Paul Barry, Jul 21 2003
a(n) = sum{k=0..n, sum{j=0..n-k, if(mod(j-k, 2)=0, binomial(n-k, j), 0}}. - Paul Barry, Jan 25 2005
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3), a(0)=1=a(1), a(2)=4. Observed by G. Detlefs. See the W. Lang link. [Wolfdieter Lang, Oct 18 2010]
[A108122] 1, 1, 1, 4, 7, 16, 34, 73, 157, 337, 724, 1555, 3340, 7174, 15409, 33097, 71089, 152692, 327967, 704440, 1513066, 3249913, 6980485, 14993377, 32204260, 69171499, 148573396, 319120654, 685438945, 1472253649, 3162252193, 6792198436, 14588956471, 31335605536
a(n) = a(n-1) + 2*a(n-2) + a(n-3), starting 1,1,1.
a(n) = sum(m=0..n/2, sum(i=0..m, 2^i*binomial(n-2*m+1,m-i)*binomial(n-2*m+i,n-2*m))). - Vladimir Kruchinin, Dec 17 2011
[A192800] 0, 0, 1, 1, 1, 4, 7, 16, 35, 73, 162, 344, 748, 1612, 3478, 7517, 16213, 35020, 75585, 163184, 352295, 760517, 1641880, 3544484, 7652008, 16519388, 35662584, 76989693, 166207785, 358815192, 774622191, 1672280660, 3610176155, 7793770037
a(n) = a(n-1)+3*a(n-2)-3*a(n-4)+a(n-5)+a(n-6).
[A027609] 4, 7, 16, 35, 87, 217, 549, 1412, 3678, 9621, 25296, 66736, 176536, 467997, 1242483, 3302289, 8784053, 23380493, 62260291, 165852147, 441922282, 1177759339, 3139292093, 8368647138, 22310795824, 59484268377, 158602342445, 422894828107, 1127630055692
a(n) = (partition of 4^n into n-th powers) - 1
[A289521] 4, 7, 16, 43, 124, 367, 1096, 3283, 9844, 29527, 88576, 265723, 797164, 2391487, 7174456, 21523363, 64570084, 193710247, 581130736, 1743392203, 5230176604, 15690529807, 47071589416, 141214768243, 423644304724, 1270932914167, 3812798742496, 11438396227483, 34315188682444
a(n) = (5 + 3^n) / 2.
a(n) = 4*a(n-1) - 3*a(n-2) for n>2.
a(n) = a(n-1) + 3^(n-1) for n>1. - Andrew D. Walker, Jul 07 2017
[A219754] 0, 0, 0, 0, 1, 1, 4, 7, 18, 37, 84, 179, 390, 833, 1784, 3791, 8042, 16989, 35804, 75243, 157774, 330105, 689344, 1436935, 2990386, 6213781, 12893604, 26719267, 55302678, 114333617, 236123784, 487160639, 1004147450, 2067947213, 4255199084, 8749007451, 17975233502
a(n) = (2^(n-4)*(3*n+5)+(3*n-2)*(-1)^n)/27 for n=1 and n>2, a(0)=a(1)=a(2)=0. [Bruno Berselli, Nov 29 2012]
[A289975] 0, 1, 1, 4, 7, 18, 37, 85, 183, 407, 888, 1956, 4284, 9409, 20630, 45270, 99289, 217819, 477776, 1048053, 2298912, 5042783, 11061455, 24263687, 53223023, 116746272, 256086074, 561731936, 1232174181, 2702807740, 5928681960, 13004724921, 28526216361
a(n) = 2*a(n-1) + 2*a(n-2) - 3*a(n-3) - a(n-4).
[A100828] 1, 4, 7, 18, 41, 100, 239, 578, 1393, 3364, 8119, 19602, 47321, 114244, 275807, 665858, 1607521, 3880900, 9369319, 22619538, 54608393, 131836324, 318281039, 768398402, 1855077841, 4478554084, 10812186007, 26102926098, 63018038201
a(n) = (u^(n+1)+1)*(v^(n+1)+1)/2 with u = 1+sqrt(2), v = 1-sqrt(2). - Vladeta Jovovic, May 30 2007
[A164265] 4, 7, 19, 28, 64, 91, 199, 280, 604, 847, 1819, 2548, 5464, 7651, 16399, 22960, 49204, 68887, 147619, 206668, 442864, 620011, 1328599, 1860040, 3985804, 5580127, 11957419, 16740388, 35872264, 50221171, 107616799, 150663520, 322850404
a(n) = 3*a(n-2)+7 for n > 2; a(1) = 4, a(2) = 7.
a(n) = (11-4*(-1)^n)*3^(1/4*(2*n-1+(-1)^n))/2-7/2.
[A006130] 1, 1, 4, 7, 19, 40, 97, 217, 508, 1159, 2683, 6160, 14209, 32689, 75316, 173383, 399331, 919480, 2117473, 4875913, 11228332, 25856071, 59541067, 137109280, 315732481, 727060321, 1674257764, 3855438727, 8878212019, 20444528200
a(n) = (((1+sqrt(13))/2)^(n+1) - ((1-sqrt(13))/2)^(n+1))/sqrt(13).
a(n) = Sum_{k=0..ceiling(n/2)] 3^k*C(n-k, k)). - Benoit Cloitre, Philippe Deléham, Mar 07 2004
a(0) = 1; a(1) = 1; for n>=1, a(n+1) = (a(n)^2 - (-3)^n) / a(n-1). - Philippe Deléham, Mar 07 2004
a(n) = lower right term in the 2 X 2 matrix [0,3; 1,1]^n. - Gary W. Adamson, Mar 02 2008
a(n) = Product_{k=1..floor((n - 1)/2)} (1 + 12*cos(k*Pi/n)^2). - Roger L. Bagula and Gary W. Adamson, Nov 21 2008
a(n) = (sum{1<=k<=n+1, k odd} C(n+1,k)*13^((k-1)/2))/2^n. - Vladimir Shevelev, Feb 05 2014
[A133264] 1, 4, 7, 19, 49, 79, 199, 499, 799, 1999, 4999, 7999, 19999, 49999, 79999, 199999, 499999, 799999, 1999999, 4999999, 7999999, 19999999, 49999999, 79999999, 199999999, 499999999, 799999999, 1999999999, 4999999999, 7999999999
a(n) = a(n-1) + 10*a(n-3) - 10*a(n-4). - Chai Wah Wu, May 25 2016
[A066345] 1, 1, 4, 7, 20, 39, 96, 191, 432, 863, 1856, 3711, 7744, 15487, 31744, 63487, 128768, 257535, 519168, 1038335, 2085888, 4171775, 8364032, 16728063, 33501184, 67002367, 134103040, 268206079, 536625152, 1073250303, 2146959360
a(2*n-1)= 2^(2*n-1) -n * 2^(n-1), a(2*n)= 2*a(2*n-1) -1.
[A111955] 0, 1, 4, 7, 20, 45, 112, 267, 648, 1561, 3772, 9103, 21980, 53061, 128104, 309267, 746640, 1802545, 4351732, 10506007, 25363748, 61233501, 147830752, 356895003, 861620760, 2080136521, 5021893804, 12123924127, 29269742060, 70663408245
a(n) = a(n-1) + 3*a(n-2) + a(n-3), n >= 3; a(n) = (-1/4*sqrt(2)+1)*(1-sqrt(2))^n + (1/4*sqrt(2)+1)*(1+sqrt(2))^n - (-1)^n;
[A039959] 1, 1, 4, 7, 21, 37, 85, 151, 292, 490, 848, 1346, 2157, 3260, 4925, 7148, 10327, 14477, 20177, 27483, 37194, 49431, 65277, 84945, 109873, 140394, 178377, 224334, 280647, 348040, 429526, 526108, 641524, 777127, 937513, 1124461, 1343567, 1597115, 1891850
a(n) = -a(-8 - n) for all n in Z. - Michael Somos, Oct 17 2015
[A128533] 0, 4, 7, 22, 54, 145, 376, 988, 2583, 6766, 17710, 46369, 121392, 317812, 832039, 2178310, 5702886, 14930353, 39088168, 102334156, 267914295, 701408734, 1836311902, 4807526977, 12586269024, 32951280100, 86267571271, 225851433718, 591286729878
a(n) = F(2*(n+1)) + (-1)^(n+1), assuming F(0) = 0 and L(0) = 2.
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3). G.f.: -x*(-4+x)/((1+x)*(x^2-3*x+1)). - R. J. Mathar, Apr 16 2009
[A162559] 4, 7, 22, 58, 160, 436, 1192, 3256, 8896, 24304, 66400, 181408, 495616, 1354048, 3699328, 10106752, 27612160, 75437824, 206099968, 563075584, 1538351104, 4202853376, 11482408960, 31370524672, 85705867264, 234152783872, 639717302272, 1747740172288, 4774914949120

a(n) = 2*a(n-1)+2*a(n-2) for n > 1; a(0) = 4, a(1) = 7.
[A143608] 0, 1, 4, 7, 24, 41, 140, 239, 816, 1393, 4756, 8119, 27720, 47321, 161564, 275807, 941664, 1607521, 5488420, 9369319, 31988856, 54608393, 186444716, 318281039, 1086679440, 1855077841, 6333631924, 10812186007, 36915112104, 63018038201, 215157040700
a(2*n) = (a(2*n - 1) + a(2*n + 1))/2.
a(2*n + 1) = (a(2*n) + a(2*n + 2))/4.
a(n) = 6*a(n-2) - a(n-4).
a(n) = (((-2 - sqrt(2) + (-1)^n * (-2+sqrt(2))) * ((-1+sqrt(2))^n - (1+sqrt(2))^n)))/(4*sqrt(2)). - Colin Barker, Mar 27 2016
[A276288] 0, 1, 1, 4, 7, 25, 46, 163, 301, 1066, 1969, 6973, 12880, 45613, 84253, 298372, 551131, 1951765, 3605158, 12767239, 23582713, 83515378, 154263517, 546305929, 1009096480, 3573595369, 6600884809, 23376249796, 43178904223, 152912962465, 282449675134, 1000261987867, 1847611013269, 6543095027674
a(n) = 7*a(n-2) - 3*a(n-4).
a(n) = (2 - (-1)^n)*a(n-1) + (2 + (-1)^n)*a(n-2) for n>1, a(0)=0, a(1)=1.
[A117977] 1, 4, 7, 28, 112, 196, 703, 2812, 4921, 19684, 78736, 137788, 551152, 2204608, 3858064, 13837852, 55351408, 96864964, 387400807, 1549603228, 2711805649, 10847222596, 43388890384, 75930558172, 272342767321, 1089371069284
a(n)=sum{k=0..n, L(C(n,k)/3)*3^k} where L(j/p) is the Legendre symbol of j and p.
[A080871] 1, 1, 4, 7, 31, 55, 244, 433, 1921, 3409, 15124, 26839, 119071, 211303, 937444, 1663585, 7380481, 13097377, 58106404, 103115431, 457470751, 811826071, 3601659604, 6391493137, 28355806081, 50320119025, 223244789044
a(n) = (3 + a(n-1)*a(n-2))/a(n-3) for n>2.
a(n+4)=8*a(n+2)-a(n) [From Richard Choulet, Dec 04 2008]
a(n) = (0.25 + sqrt(10)/20)*(sqrt(4 + sqrt(15)))^n + (0.25 + sqrt(10)/20)*(sqrt(4 - sqrt(15)))^n + (- 1/20*10^(1/2) + 1/4)*(- sqrt(4 + sqrt(15)))^n + (- 1/20*10^(1/2) + 1/4)*(- (sqrt(4 - sqrt(15))))^n [From Richard Choulet, Dec 06 2008]
[A143547] 1, 1, 1, 4, 7, 34, 70, 368, 819, 4495, 10472, 59052, 141778, 814506, 1997688, 11633440, 28989675, 170574723, 430321633, 2552698720, 6503352856, 38832808586, 99726673130, 598724403680, 1547847846090, 9335085772194
a(2n) = C(7*n,n)/(6*n+1); a(2n+1) = C(7*n+3,n)*4/(6*n+4).
[A212500] 1, 4, 7, 36, 65, 340, 615, 3220, 5825, 30500, 55175, 288900, 522625, 2736500, 4950375, 25920500, 46890625, 245522500, 444154375, 2325622500, 4207090625, 22028612500, 39850134375, 208658012500, 377465890625, 1976437062500, 3575408234375
a(n) = 0.4*((5+2*sqrt(5))^(n/2)+ (5-2*sqrt(5))^(n/2)) , if n is even, and
a(n) = 0.1*((5+2*sqrt(5))^((n-1)/2)*sqrt(30+10*sqrt(5))+(5-2*sqrt(5))^((n-1)/2)*sqrt(30-10*sqrt(5))), if n is odd.
[A199404] 1, 4, 7, 43, 76, 469, 829, 5116, 9043, 55807, 98644, 608761, 1076041, 6640564, 11737807, 72437443, 128039836, 790171309, 1396700389, 8619446956, 15235664443, 94023745207, 166195608484, 1025641750321, 1812916028881, 11188035508324, 19775880709207
a(n+4) = 11*a(n+2)-a(n) with a(1)=1, a(2)=4, a(3)=7, a(4)=43.
[A094906] 1, 4, 8, 9, 10, 14, 16, 25, 28, 32, 33, 36, 40, 49, 56, 57, 64, 65, 71, 72, 74, 78, 81, 90, 100, 105, 112, 114, 121, 126, 128, 130, 132, 140, 144, 148, 154, 155, 160, 169, 176, 193, 196, 200, 217, 218, 224, 225, 228, 250, 252, 256, 260, 266, 273, 280, 284, 288
a(n) seems to be asymptotic to c*n^(3/2) where c=0.49....
[A078137] 4, 8, 9, 12, 13, 16, 17, 18, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82
a(n)=n + 12 for n >= 12. - Hieronymus Fischer, Nov 11 2007
[A047462] 0, 1, 4, 8, 9, 12, 16, 17, 20, 24, 25, 28, 32, 33, 36, 40, 41, 44, 48, 49, 52, 56, 57, 60, 64, 65, 68, 72, 73, 76, 80, 81, 84, 88, 89, 92, 96, 97, 100, 104, 105, 108, 112, 113, 116, 120, 121, 124, 128, 129, 132, 136, 137, 140, 144, 145, 148, 152, 153, 156
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-33-3*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-4, a(3k-1) = 8k-7, a(3k-2) = 8k-8. (End)
[A140282] 0, 4, 8, 9, 13, 17, 18, 22, 26, 27, 31, 35, 36, 40, 44, 45, 49, 53, 54, 58, 62, 63, 67, 71, 72, 76, 80, 81, 85, 89, 90, 94, 98, 99, 103, 107, 108, 112, 116, 117, 121, 125, 126, 130, 134, 135, 139, 143, 144, 148, 152, 153, 157, 161, 162, 166, 170, 171, 175, 179, 180, 184
a(n) = 3*(n-floor(n/3)) +n [From Gary Detlefs, Mar 27 2010]
[A004756] 4, 8, 9, 16, 17, 18, 19, 32, 33, 34, 35, 36, 37, 38, 39, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153
a(2n) = 2a(n), a(2n+1) = 2a(n) + 1 + 3[n==0].
a(2^m+k) = 2^(m+2) + k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Aug 07 2016
[A090779] 1, 4, 8, 9, 16, 18, 25, 27, 32, 36, 49, 50, 54, 64, 72, 81, 98, 100, 108, 121, 125, 128, 144, 147, 162, 169, 196, 200, 216, 225, 242, 243, 250, 256, 288, 289, 294, 324, 338, 343, 361, 392, 400, 432, 441, 450, 484, 486, 500, 507, 512, 529, 576, 578, 588, 605, 625
a(n) seems to be asymptotic to c*n^2 with c=0.1....
[A003624] 4, 8, 9, 16, 21, 25, 27, 32, 35, 36, 39, 49, 50, 55, 57, 63, 64, 65, 75, 77, 81, 85, 93, 98, 100, 111, 115, 119, 121, 125, 128, 129, 133, 143, 144, 155, 161, 169, 171, 175, 183, 185, 187, 189, 201, 203, 205, 209, 215, 217, 219, 221, 225, 235, 237, 242, 243, 245, 247
a(n) » n log log log n, see Luca. (Clearly excluding the primes only makes the n-th term larger.) - Charles R Greathouse IV, Feb 17 2014
[A067252] 4, 8, 9, 16, 25, 32, 36, 50, 81, 121, 128, 225, 256, 324, 529, 576, 625, 729, 841, 1058, 1089, 1296, 1681, 1682, 2025, 2312, 2401, 2809, 2916, 3362, 3872, 4096, 4232, 4761, 6050, 6728, 6889, 7569, 7921, 8100, 9216, 10082, 12769, 17161, 19881, 20000
a(n) > n^2 / 2. - Charles R Greathouse IV, Nov 21 2013
[A074776] 4, 8, 10, 11, 12, 16, 18, 20, 22, 24, 28, 30, 32, 33, 36, 40, 44, 48, 50, 52, 54, 55, 56, 58, 60, 64, 66, 68, 70, 72, 76, 77, 78, 80, 84, 88, 90, 92, 96, 99, 100, 104, 108, 110, 112, 116, 120, 121, 124, 126, 128, 130, 132, 136, 138, 140, 143, 144, 148, 150, 152, 154
a(n) seems to be asymptotic to c*n with c=2.2...
[A272299] 0, 1, 4, 8, 11, 12, 18, 19, 22, 26, 29, 30, 36, 37, 40, 44, 47, 48, 54, 55, 58, 62, 65, 66, 72, 73, 76, 80, 83, 84, 90, 91, 94, 98, 101, 102, 108, 109, 112, 116, 119, 120, 126, 127, 130, 134, 137, 138, 144, 145, 148, 152, 155, 156, 162, 163, 166, 170, 173, 174, 180, 181, 184, 188, 191, 192, 198, 199
a(n) = a(n-2) + a(n-3) - a(n-5).
a(n) = 3*n - (n mod 2) - (n mod 3). More generally, it is easy to see that Sum_{i=1}^k i*floor(n/i) = k*n - Sum_{i=1}^k (n mod i).
a(3*m + r) = 9*m + r^2 - (1-(-1)^m)*(-1)^r/2, with r = 0, 1 or 2. Therefore: for even m, a(3*m + r) = 9*m + r^2; otherwise, a(3*m + r) = 9*m + r^2 - (-1)^r.
[A047346] 1, 4, 8, 11, 15, 18, 22, 25, 29, 32, 36, 39, 43, 46, 50, 53, 57, 60, 64, 67, 71, 74, 78, 81, 85, 88, 92, 95, 99, 102, 106, 109, 113, 116, 120, 123, 127, 130, 134, 137, 141, 144, 148, 151, 155, 158, 162, 165, 169, 172, 176, 179, 183, 186, 190, 193, 197, 200, 204, 207, 211, 214
a(n) = floor((7n-5)/2). - Santi Spadaro, Jul 24 2001
a(n) = 7*n-a(n-1)-9, n>1. [Vincenzo Librandi, Aug 05 2010]
a(n) = 4n - 3 - floor(n/2). - Wesley Ivan Hurt, Oct 16 2013
[A081840] 0, 4, 8, 11, 15, 19, 23, 26, 30, 34, 37, 41, 45, 49, 52, 56, 60, 64, 67, 71, 75, 79, 82, 86, 90, 93, 97, 101, 105, 108, 112, 116, 120, 123, 127, 131, 134, 138, 142, 146, 149, 153, 157, 161, 164, 168, 172, 176, 179, 183, 187, 190, 194, 198, 202, 205, 209, 213, 217
a(n)=floor(r*n-(2*r+1)/(r-1)) where r=2+sqrt(3)
[A267534] 4, 8, 11, 16, 20, 21, 23, 28, 32, 35, 40, 44, 45, 47, 52, 56, 59, 64, 68, 69, 71, 76, 80, 83, 88, 92, 93, 95, 100, 104, 107, 112, 116, 117, 119, 124, 128, 131, 136, 140, 141, 143, 148, 152, 155, 160, 164, 165, 167, 172, 176, 179, 184, 188, 189, 191, 196, 200, 203, 208, 212
a(n) = a(n-1)+a(n-7)-a(n-8) for n>8.
[A220753] 1, 4, 8, 11, 22, 25, 50, 53, 106, 109, 218, 221, 442, 445, 890, 893, 1786, 1789, 3578, 3581, 7162, 7165, 14330, 14333, 28666, 28669, 57338, 57341, 114682, 114685, 229370, 229373, 458746, 458749, 917498, 917501, 1835002, 1835005, 3670010, 3670013
a(n) = a(n-1)*2 if n even.
a(n) = a(n-1)+3 if n odd.
a(n) = 3*a(n-2) - 2*a(n-4) with a(0)=1, a(1)=4, a(2)=8, a(3)=11.
a(n) = 7*2^floor(n/2) - (3/2)*(3+(-1)^n).
[A032819] 1, 4, 8, 11, 29, 32, 57, 60, 78, 81, 204, 207, 225, 228, 400, 403, 421, 424, 547, 550, 568, 571, 1429, 1432, 1450, 1453, 1576, 1579, 1597, 1600, 2801, 2804, 2822, 2825, 2948, 2951, 2969, 2972, 3830, 3833, 3851, 3854, 3977, 3980

a(1)=1, a(2)=4; a(n) = 7*a(floor(n/2))+1 for n odd, otherwise a(n) = 7*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A080458] 4, 8, 12, 12, 16, 20, 24, 24, 28, 32, 36, 36, 40, 44, 48, 48, 52, 56, 60, 60, 64, 68, 72, 72, 76, 80, 84, 84, 88, 92, 96, 96, 100, 104, 108, 108, 112, 116, 120, 120, 124, 128, 132, 132, 136, 140, 144, 144, 148, 152, 156, 156, 160, 164, 168, 168, 172, 176
a(n) = 4 + 4*(n-2-floor((n-4)/4)).
a(n) = a(n-1) + a(n-4) - a(n-5) for n > 5.
a(n) = (6*n - (-1)^n - 2*sqrt(2)*sin(Pi*n/2+Pi/4) + 3)/2. (End)
[A008574] 1, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 148, 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200, 204, 208, 212, 216, 220, 224, 228, 232
a(-n)= -a(n) unless n=0. - Michael Somos, Apr 16 2007
a(n) = a(n-1) + 4, n > 1. - Vincenzo Librandi, Dec 31 2010
[A171984] 4, 8, 12, 16, 20, 24, 28, 32, 37, 41, 45, 49, 53, 57, 61, 65, 70, 74, 78, 82, 86, 90, 94, 98, 103, 107, 111, 115, 119, 123, 127, 131, 136, 140, 144, 148, 152, 156, 160, 164, 169, 173, 177, 181, 185, 189, 193, 197, 202, 206, 210, 214, 218, 222, 226, 230, 235, 239
a(n) = floor(n*sqrt(17)). - Jon E. Schoenfield, Jun 18 2010
[A187385] 4, 8, 12, 16, 20, 24, 29, 33, 37, 41, 45, 49, 53, 58, 62, 66, 70, 74, 78, 82, 87, 91, 95, 99, 103, 107, 111, 116, 120, 124, 128, 132, 136, 140, 145, 149, 153, 157, 161, 165, 169, 174, 178, 182, 186, 190, 194, 199, 203, 207, 211, 215, 219, 223, 228, 232, 236, 240, 244, 248, 252, 257, 261, 265, 269
a(n)=floor(r*n), where r=1+sqrt(3)+sqrt(2).
[A164086] 4, 8, 12, 16, 20, 25, 29, 33, 37, 41, 46, 50, 54, 58, 62, 67, 71, 75, 79, 83, 87, 92, 96, 100, 104, 108, 113, 117, 121, 125, 129, 134, 138, 142, 146, 150, 154, 159, 163, 167, 171, 175, 180, 184, 188, 192, 196, 201, 205, 209, 213, 217, 222, 226, 230, 234, 238, 242
a(n) = floor(4*n*pi/3).
[A004976] 0, 4, 8, 12, 16, 21, 25, 29, 33, 38, 42, 46, 50, 55, 59, 63, 67, 72, 76, 80, 84, 88, 93, 97, 101, 105, 110, 114, 118, 122, 127, 131, 135, 139, 144, 148, 152, 156, 160, 165, 169, 173, 177, 182, 186, 190, 194, 199
a(n) = n+floor(2*n*phi). [Formula corrected by Clark Kimberling, Mar 22 2008]
[A190952] 4, 8, 12, 16, 21, 26, 30, 35, 40, 45, 51, 56, 61, 67, 72, 78, 84, 89, 95, 101, 107, 113, 119, 125, 131, 137, 144, 150, 156, 163, 169, 175, 182, 188, 195, 201, 208, 214, 221, 228, 234, 241, 248, 254, 261, 268, 275, 282, 288, 295, 302, 309, 316, 323, 330, 337, 344, 351
a(n) = floor(-n*LambertW(-1,-1/n)). - Vaclav Kotesovec, Jun 29 2016
[A061085] 4, 8, 12, 16, 170, 204, 238, 272, 306, 340, 374, 408, 442, 476, 510, 544, 578, 612, 646, 680, 714, 748, 782, 816, 850, 884, 918, 952, 986, 1020, 1054, 1088, 1122, 1156, 1190, 1224, 1258, 1292, 1326, 1360, 1394, 1428, 1462, 1496, 1530, 1564, 1598, 1632, 1666
a(n) = one-third of the number obtained by concatenating n with 2n.
[A001956] 4, 8, 12, 17, 21, 25, 30, 34, 38, 43, 47, 51, 55, 60, 64, 68, 73, 77, 81, 86, 90, 94, 98, 103, 107, 111, 116, 120, 124, 129, 133, 137, 141, 146, 150, 154, 159, 163, 167, 172, 176, 180, 185, 189, 193, 197, 202, 206, 210, 215, 219, 223, 228, 232, 236, 240, 245, 249
a(n) = floor(n*beta) with beta = (5+sqrt(13))/2 = 3+(sqrt(13)-1)/2 = 4.30277563773199...
[A033156] 1, 4, 8, 12, 17, 22, 27, 32, 38, 44, 50, 56, 62, 68, 74, 80, 87, 94, 101, 108, 115, 122, 129, 136, 143, 150, 157, 164, 171, 178, 185, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408
a(n) = n*(floor(log_2 n) + 3) - 2^((floor (log_2 n)) + 1).
[A036573] 4, 8, 12, 17, 22, 28, 34, 41, 48, 56, 64, 73, 82, 92, 102, 113, 124, 136, 148, 161, 174, 188, 202, 217, 232, 248, 264, 281, 298, 316, 334, 353, 372, 392, 412, 433, 454, 476, 498, 521, 544, 568, 592, 617, 642, 668, 694, 721, 748, 776, 804, 833
a(n) = floor((n^2 + 8n - 16)/4). - Ralf Stephan, Oct 13 2003
a(n) = (-33+(-1)^n+16*n+2*n^2)/8. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: -x^3*(x^3-4*x^2+4) / ((x-1)^3*(x+1)). - Colin Barker, Sep 06 2013
[A194274] 0, 1, 4, 8, 12, 17, 24, 32, 40, 49, 60, 72, 84, 97, 112, 128, 144, 161, 180, 200, 220, 241, 264, 288, 312, 337, 364, 392, 420, 449, 480, 512, 544, 577, 612, 648, 684, 721, 760, 800, 840, 881, 924, 968, 1012, 1057, 1104, 1152, 1200, 1249, 1300, 1352, 1404
a(n) = n^2 - a(n-2), with a(0)=0, a(1)=1. - Alex Ratushnyak, Aug 03 2012
a(n) = a(-n-2) = (2*n*(n+2)+(1-(-1)^n)*i^(n+1))/4, where i=sqrt(-1). - Bruno Berselli, Sep 22 2011
a(n) = floor(3*n/4) + floor((n*(n+2)+1)/2) - floor((3*n+1)/4). - Arkadiusz Wesolowski, Nov 08 2011
a(0)=0, a(1)=1, a(2)=4, a(3)=8, a(4)=12, a(n)=3*a(n-1)-4*a(n-2)+ 4*a(n-3)- 3*a(n-4)+a(n-5). - Harvey P. Dale, Sep 11 2013
[A111201] 1, 4, 8, 12, 18, 25, 33, 41, 51, 62, 74, 86, 100, 115, 131, 148, 166, 184, 204, 225, 247, 270, 294, 319, 344, 371, 399, 428, 458, 489, 521, 554, 587, 622, 658, 695, 733, 772, 812, 853, 894, 937, 981, 1026, 1072, 1119, 1167, 1216, 1266, 1317, 1368, 1421, 1475
a(n)=(1/2)*(n^2+3*n-sqrt(3n)-sqrt(n))+o(n^(1/2))
[A026042] 4, 8, 12, 19, 28, 40, 56, 74, 97, 124, 156, 194, 236, 285, 340, 402, 472, 548, 633, 726, 828, 940, 1060, 1191, 1332, 1484, 1648, 1822, 2009, 2208, 2420, 2646, 2884, 3137, 3404, 3686, 3984, 4296, 4625, 4970, 5332, 5712, 6108, 6523, 6956, 7408, 7880, 8370, 8881, 9412, 9964, 10538, 11132, 11749
a(n)=(n + 4)*(n^2 + 5*n + 18)/15 - 3/5 - (1/2 - 3/10*5^(1/2))/5*cos(2*n*Pi/5) + (1/10*(4*(5 + 5^(1/2))^(1/2) - (5 - 5^(1/2))^(1/2))*2^(1/2))/5*sin(2*n*Pi/5) - (3/10*5^(1/2) + 1/2)/5*cos(4*n*Pi/5) + (1/10*((5 + 5^(1/2))^(1/2) + 4*(5 - 5^(1/2))^(1/2))*2^(1/2))/5*sin(4*n*Pi/5) [From Richard Choulet, Dec 14 2008]
[A033691] 4, 8, 12, 20, 24, 32, 40, 52, 60, 72, 84, 100, 112, 128, 144, 164, 180, 200, 220, 244, 264, 288, 312, 340, 364, 392, 420, 452, 480, 512, 544, 580, 612, 648, 684, 724, 760, 800, 840, 884, 924, 968, 1012, 1060, 1104, 1152, 1200, 1252, 1300, 1352, 1404, 1460
a(2*i) = 2*i*(i+1) i=1, 2, 3, ...; a(4*i+3) = 2*(i+1)*(4*i+4) i=0, 1, 2, ...; a(4*i+5) = 4*(2*i^2+6*i+5) i=1, 2, 3, ...
[A081843] 0, 4, 8, 13, 17, 21, 25, 30, 34, 38, 42, 46, 51, 55, 59, 63, 68, 72, 76, 80, 85, 89, 93, 97, 102, 106, 110, 114, 118, 123, 127, 131, 135, 140, 144, 148, 152, 157, 161, 165, 169, 174, 178, 182, 186, 191, 195, 199, 203, 207, 212, 216, 220, 224, 229, 233, 237, 241
a(n)=floor(r*n-(5*r-1)/(r+1)) where r=2+sqrt(5)
[A034856] 1, 4, 8, 13, 19, 26, 34, 43, 53, 64, 76, 89, 103, 118, 134, 151, 169, 188, 208, 229, 251, 274, 298, 323, 349, 376, 404, 433, 463, 494, 526, 559, 593, 628, 664, 701, 739, 778, 818, 859, 901, 944, 988, 1033, 1079, 1126, 1174, 1223, 1273, 1324, 1376, 1429, 1483
a(n) = n(n+3)/2-1. - Omar E. Pol, May 18 2008, simplified by M. F. Hasler, Jan 21 2015
a(n) = a(n-1) + n + 1 for n >= 1.
a(n) = n * (n-1)/2 + 2n - 1.
a(n) = Hyper2F1([-2, n-1], [1], -1). - Peter Luschny, Aug 02 2014
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3. - David Neil McGrath, May 23 2015
[A183865] 1, 4, 8, 13, 19, 27, 36, 46, 57, 69, 83, 98, 114, 131, 149, 169, 190, 212, 235, 259, 285, 312, 340, 369, 399, 431, 464, 498, 533, 569, 607, 646, 686, 727, 769, 813, 858, 904, 951, 999, 1049, 1100, 1152, 1205, 1259, 1315, 1372, 1430, 1489, 1549, 1611, 1674, 1738, 1803, 1869, 1937, 2006, 2076, 2147, 2219
a(n)=n-1+ceiling(3(n+2)/5).
a(n) = 2 a(n-1) -a(n-2) +a(n-5) -2 a(n-6) +a(n-7). - R. J. Mathar, Mar 11 2012
[A265382] 1, 4, 8, 13, 20, 27, 37, 46, 59, 70, 86, 99, 118, 133, 155, 172, 197, 216, 244, 265, 296, 319, 353, 378, 415, 442, 482, 511, 554, 585, 631, 664, 713, 748, 800, 837, 892, 931, 989, 1030, 1091, 1134, 1198, 1243, 1310, 1357, 1427, 1476, 1549, 1600, 1676, 1729
a(n) = 1/16*(10*n^2+2*(-1)^n*n+34*n-3*(-1)^n+19).
a(n) = 1/16*(10*n^2+36*n+16) for n even.
a(n) = 1/16*(10*n^2+32*n+22) for n odd.
a(n) = 2*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.
[A056738] 1, 4, 8, 13, 20, 28, 37, 47, 59, 72, 86, 101, 117, 135, 154, 174, 195, 217, 240, 264, 290, 317, 345, 374, 404, 435, 467, 500, 535, 571, 608, 646, 685, 725, 766, 808, 851, 896, 942, 989, 1037, 1086, 1136, 1187, 1239, 1292, 1346, 1402, 1459, 1517, 1576, 1636
a(n+1) = a(n) + (n+1) + the number of a(k)'s <= n, 1 <= k <= n and a(1) = 1.
[A143978] 1, 4, 8, 13, 20, 28, 37, 48, 60, 73, 88, 104, 121, 140, 160, 181, 204, 228, 253, 280, 308, 337, 368, 400, 433, 468, 504, 541, 580, 620, 661, 704, 748, 793, 840, 888, 937, 988, 1040, 1093, 1148, 1204, 1261, 1320, 1380, 1441, 1504, 1568, 1633, 1700, 1768, 1837
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5). (End)
[A157130] 1, 4, 8, 13, 20, 29, 40, 53, 68, 84, 101, 120, 141, 164, 189, 216, 245, 276, 309, 344, 380, 417, 456, 497, 540, 585, 632, 681, 732, 785, 840, 897, 956, 1017, 1080, 1144, 1209, 1276, 1345, 1416, 1489, 1564, 1641, 1720, 1801, 1884, 1969, 2056, 2145, 2236, 2329
a(n) = (n-r)^2+(4*r^3+6*r^2+2*r)/3 where r = floor((sqrt(1+8*n)-1)/4). - Simplified by Gerald Hillier, Apr 14 2015

[A114997] 0, 0, 1, 1, 1, 4, 8, 13, 31, 71, 144, 318, 729, 1611, 3604, 8249, 18803, 42907, 98858, 228474, 528735, 1228800, 2865180, 6693712, 15676941, 36807239, 86584783, 204060509, 481823778, 1139565120, 2699329341, 6403500057, 15211830451, 36183117255, 86171536894, 205459894230, 490417795075
a(n) = Sum_{(n+3)/2 <= k <= n} (1/(n+1) * binomial(n+1, k) * binomial(2*k-n-3, n-k)).
[A276221] 4, 8, 14, 20, 27, 35, 43, 52, 62, 73, 84, 96, 109, 122, 136, 151, 166, 182, 198, 215, 232, 250, 268, 287, 307, 327, 348, 369, 390, 412, 435, 458, 482, 506, 531, 556, 581, 607, 634, 661, 688, 716, 745, 774, 803, 833, 863, 894, 925, 956, 989, 1021, 1054, 1087
a(n) = n + floor(n^s), n >= 2; the complement is given by n + floor(n^(1/s)), n >= 1.
[A265284] 1, 4, 8, 14, 20, 28, 36, 46, 56, 68, 80, 94, 108, 124, 140, 158, 176, 196, 216, 238, 260, 284, 308, 334, 360, 388, 416, 446, 476, 508, 540, 574, 608, 644, 680, 718, 756, 796, 836, 878, 920, 964, 1008, 1054, 1100, 1148, 1196, 1246, 1296, 1348, 1400, 1454
a(n) = (2*n^2+12*n-(-1)^n+1)/4 for n>0.
a(n) = (n^2+6*n)/2 for n>1 and even.
a(n) = (n^2+6*n+1)/2 for n odd.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
[A173290] 1, 4, 8, 14, 20, 32, 40, 52, 64, 82, 94, 118, 132, 156, 180, 204, 222, 258, 278, 314, 346, 382, 406, 454, 484, 526, 562, 610, 640, 712, 744, 792, 840, 894, 942, 1014, 1052, 1112, 1168, 1240, 1282, 1378, 1422, 1494, 1566, 1638, 1686, 1782, 1838, 1928, 2000, 2084
a(n) = 15*n^2/(2*Pi^2) + O(n*log(n)). - Enrique Pérez Herrero, Jan 14 2012
[A183857] 1, 4, 8, 14, 21, 29, 39, 50, 62, 76, 91, 107, 125, 144, 164, 186, 209, 233, 259, 286, 314, 344, 375, 407, 441, 476, 512, 550, 589, 629, 671, 714, 758, 804, 851, 899, 949, 1000, 1052, 1106, 1161, 1217, 1275, 1334, 1394, 1456, 1519, 1583, 1649, 1716, 1784, 1854, 1925, 1997, 2071
a(n)=n-1+ceiling((2/3)n^2).
[A027924] 1, 4, 8, 14, 21, 30, 40, 51, 64, 78, 93, 110, 129, 148, 170, 192, 216, 242, 269, 297, 327, 358, 390, 424, 460, 496, 535, 574, 615, 658, 701, 747, 793, 841, 891, 942, 994, 1048, 1103, 1160, 1218, 1277, 1338, 1400, 1464, 1529, 1595, 1663, 1732, 1803, 1875
a(n)=round(sqrt(1/2)*n*(n+1)). - Ralf Stephan, Jan 24 2003
[A006578] 0, 1, 4, 8, 14, 21, 30, 40, 52, 65, 80, 96, 114, 133, 154, 176, 200, 225, 252, 280, 310, 341, 374, 408, 444, 481, 520, 560, 602, 645, 690, 736, 784, 833, 884, 936, 990, 1045, 1102, 1160, 1220, 1281, 1344, 1408, 1474, 1541, 1610, 1680, 1752, 1825, 1900, 1976, 2054
a(n) = (6*n^2 + 4*n - 1 + (-1)^n)/8. - Paul Barry, May 30 2003
a(n) = (3*n^2 + 2*n - (n mod 2))/4. - Ctibor O. Zizka, Mar 11 2012
a(n) = Sum_{i=1..n} floor(3*i/2) = Sum_{i=0..n} (i + floor(i/2)). - Enrique Pérez Herrero, Apr 21 2012
a(n) = Sum_{i=1..n} (n - i + 1) * 2^((i+1) mod 2). - Wesley Ivan Hurt, Mar 30 2014
a(n) = Sum_{k=1..n} floor((n+k+1)/2). - Wesley Ivan Hurt, Mar 31 2017
[A054347] 0, 1, 4, 8, 14, 22, 31, 42, 54, 68, 84, 101, 120, 141, 163, 187, 212, 239, 268, 298, 330, 363, 398, 435, 473, 513, 555, 598, 643, 689, 737, 787, 838, 891, 946, 1002, 1060, 1119, 1180, 1243, 1307, 1373, 1440, 1509, 1580, 1652, 1726, 1802, 1879
a(n) = floor(n*(n+1)/2*phi -n/2) + 0 or +1 - Benoit Cloitre, Oct 03 2003
a(n) = floor(n*(n+1)/2*phi -n/2) + 0, +1, or -1 (n=7920, 18762, 18851,...), or +2 (n=12815, 15841, 30358, 30382,...) if n<2000000. - Birkas Gyorgy, May 06 2011
[A003682] 1, 4, 8, 14, 22, 32, 44, 58, 74, 92, 112, 134, 158, 184, 212, 242, 274, 308, 344, 382, 422, 464, 508, 554, 602, 652, 704, 758, 814, 872, 932, 994, 1058, 1124, 1192, 1262, 1334, 1408, 1484, 1562, 1642, 1724, 1808, 1894, 1982, 2072, 2164
a(n) = floor((n^3 + 2*n)/(n+1)). - Gary Detlefs, Feb 20 2010
a(0)=1, a(1)=4, a(2)=8, a(3)=14, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jun 14 2011
[A011897] 0, 0, 0, 0, 1, 4, 8, 14, 22, 33, 48, 66, 88, 114, 145, 182, 224, 272, 326, 387, 456, 532, 616, 708, 809, 920, 1040, 1170, 1310, 1461, 1624, 1798, 1984, 2182, 2393, 2618, 2856, 3108, 3374, 3655, 3952, 4264, 4592
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-5) -3*a(n-6) +3*a(n-7) -a(n-8). G.f.: x^4*(x^3-x^2+x+1) / ((-1+x)^4*(x^4+x^3+x^2+x+1)). [From R. J. Mathar, Apr 15 2010]
[A063757] 1, 4, 8, 14, 22, 34, 50, 74, 106, 154, 218, 314, 442, 634, 890, 1274, 1786, 2554, 3578, 5114, 7162, 10234, 14330, 20474, 28666, 40954, 57338, 81914, 114682, 163834, 229370, 327674, 458746, 655354, 917498, 1310714, 1835002, 2621434
a(0)=1, a(1)=4, a(2)=8, a(n)=a(n-1)+2*a(n-2)-2*a(n-3) From Harvey P. Dale, Jun 05 2012
a(n)=2^((n-3)/2)*((5*Sqrt[2]-7)*(-1)^n+7+5*Sqrt[2])-6 From Harvey P. Dale, Jun 05 2012
[A100314] 4, 8, 14, 24, 42, 76, 142, 272, 530, 1044, 2070, 4120, 8218, 16412, 32798, 65568, 131106, 262180, 524326, 1048616, 2097194, 4194348, 8388654, 16777264, 33554482, 67108916, 134217782, 268435512, 536870970, 1073741884
a(n) = 2^n + 2*n.
[A131831] 1, 4, 8, 14, 24, 42, 76, 142, 272, 530, 1044, 2070, 4120, 8218, 16412, 32798, 65568, 131106, 262180, 524326, 1048616, 2097194, 4194348, 8388654, 16777264, 33554482, 67108916, 134217782, 268435512, 536870970, 1073741884, 2147483710, 4294967360
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). G.f.: (3*x^2-1) / ((x-1)^2*(2*x-1)). - Colin Barker, Oct 16 2013
[A024916] 1, 4, 8, 15, 21, 33, 41, 56, 69, 87, 99, 127, 141, 165, 189, 220, 238, 277, 297, 339, 371, 407, 431, 491, 522, 564, 604, 660, 690, 762, 794, 857, 905, 959, 1007, 1098, 1136, 1196, 1252, 1342, 1384, 1480, 1524, 1608, 1686, 1758, 1806, 1930, 1987, 2080, 2152
a(n) = Sum_{m=1..n} (n - (n mod m)). - Roger L. Bagula and Gary W. Adamson, Oct 06 2006
a(n) = n^2*Pi^2/12 + O(n*log(n)^(2/3)) [Walfisz]. - Charles R Greathouse IV, Jun 19 2012
[A001182] 0, 1, 4, 8, 15, 22, 30, 41, 54, 69, 83, 98, 119, 139, 162, 183, 208, 234, 263, 294, 322, 357, 390, 424, 465, 504, 545, 585, 628, 675, 719, 770, 819, 872, 928, 977, 1036, 1090, 1155, 1216, 1274, 1339, 1404, 1475, 1545, 1610, 1683, 1755, 1832, 1911, 1992, 2072
a(n)=sum{k=1..n-1}floor(sqrt(n^2-k^2)) - Horst Kraemer (horst.kraemer(AT)epost.de) Apr 07 2004
[A267682] 1, 1, 4, 8, 15, 23, 34, 46, 61, 77, 96, 116, 139, 163, 190, 218, 249, 281, 316, 352, 391, 431, 474, 518, 565, 613, 664, 716, 771, 827, 886, 946, 1009, 1073, 1140, 1208, 1279, 1351, 1426, 1502, 1581, 1661, 1744, 1828, 1915, 2003, 2094, 2186, 2281, 2377, 2476
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3.
[A213035] 0, 1, 4, 8, 15, 24, 32, 45, 60, 72, 91, 112, 128, 153, 180, 200, 231, 264, 288, 325, 364, 392, 435, 480, 512, 561, 612, 648, 703, 760, 800, 861, 924, 968, 1035, 1104, 1152, 1225, 1300, 1352, 1431, 1512, 1568, 1653, 1740, 1800, 1891, 1984, 2048
a(n) = a(n-1)+2*a(n-3)-2*a(n-4)-a(n-6)+a(n-7).
[A027961] 1, 4, 8, 15, 26, 44, 73, 120, 196, 319, 518, 840, 1361, 2204, 3568, 5775, 9346, 15124, 24473, 39600, 64076, 103679, 167758, 271440, 439201, 710644, 1149848, 1860495, 3010346, 4870844, 7881193, 12752040, 20633236, 33385279, 54018518
a(0) = 0, a(1) = 1, a(n) = a(n-1) + a(n-2) + 3.
a(n) = F(n) + F(n+2) - 3, n >= 2, where F(n) is the n-th Fibonacci number. - Zerinvary Lajos, Jan 31 2008
a(n) = Sum_{k=1..n} ((-1/phi)^k + (phi)^k) where phi = 1/2+1/2*sqrt(5). - Dimitri Papadopoulos, Jan 07 2016
a(n) = 2*a(n-1)-a(n-3) for n>3. - Wesley Ivan Hurt, Jan 07 2016
[A018921] 4, 8, 15, 28, 52, 96, 177, 326, 600, 1104, 2031, 3736, 6872, 12640, 23249, 42762, 78652, 144664, 266079, 489396, 900140, 1655616, 3045153, 5600910, 10301680, 18947744, 34850335, 64099760, 117897840, 216847936, 398845537, 733591314, 1349284788, 2481721640
a(n) = 2*a(n-1) - a(n-4).
[A123535] 4, 8, 16, 17, 26, 32, 33, 43, 58, 59, 61, 73, 74, 90, 101, 102, 105, 124, 125, 127, 145, 146, 158, 170, 171, 175, 210, 211, 213, 217, 218, 237, 241, 242, 255, 280, 281, 283, 289, 290, 326, 344, 345, 348, 364, 365, 367, 388, 389, 394, 399, 400, 414, 459, 460
a(0) = 1, for n>1: a(floor(n/3)) + a(floor(2n/3)) + n + 1.
[A092259] 4, 8, 16, 20, 28, 32, 40, 44, 52, 56, 64, 68, 76, 80, 88, 92, 100, 104, 112, 116, 124, 128, 136, 140, 148, 152, 160, 164, 172, 176, 184, 188, 196, 200, 208, 212, 220, 224, 232, 236, 244, 248, 256, 260, 268, 272, 280, 284, 292, 296, 304, 308, 316, 320, 328, 332
a(n) = 12*(n-1)-a(n-1) (with a(1)=4). - Vincenzo Librandi, Nov 16 2010
a(n) = a(n-1) + a(n-2) - a(n-3) for n>3.
a(n) = 6n - 3 - (-1)^n.
[A237990] 4, 8, 16, 20, 40, 44, 56, 64, 72, 80, 92, 96, 108, 116, 120, 124, 132, 136, 140, 144, 148, 152, 156, 164, 176, 184, 188, 196, 200, 204, 208, 224, 232, 240, 252, 256, 264, 268, 272
a(n) == 0 (mod 4)

[A137932] 0, 0, 0, 4, 8, 16, 24, 36, 48, 64, 80, 100, 120, 144, 168, 196, 224, 256, 288, 324, 360, 400, 440, 484, 528, 576, 624, 676, 728, 784, 840, 900, 960, 1024, 1088, 1156, 1224, 1296, 1368, 1444, 1520, 1600, 1680, 1764, 1848, 1936, 2024, 2116, 2208, 2304, 2400, 2500, 2600, 2704, 2808
a(n) = (n-1)^2 when n is odd; a(n) = (n-1)^2 - 1 when n is even.
[A022560] 0, 1, 4, 8, 16, 25, 36, 48, 68, 89, 112, 136, 164, 193, 224, 256, 304, 353, 404, 456, 512, 569, 628, 688, 756, 825, 896, 968, 1044, 1121, 1200, 1280, 1392, 1505, 1620, 1736, 1856, 1977, 2100, 2224, 2356, 2489, 2624, 2760, 2900, 3041
a(0)=0, a(2n) = 2a(n)+2a(n-1)+n^2+n, a(2n+1) = 4a(n)+(n+1)^2. - Ralf Stephan, Sep 13 2003
[A003451] 1, 4, 8, 16, 25, 40, 56, 80, 105, 140, 176, 224, 273, 336, 400, 480, 561, 660, 760, 880, 1001, 1144, 1288, 1456, 1625, 1820, 2016, 2240, 2465, 2720, 2976, 3264, 3553, 3876, 4200, 4560, 4921, 5320, 5720, 6160, 6601, 7084, 7568, 8096, 8625, 9200, 9776, 10400
a(n) = (n-4)*(2*n^2-4*n-3*(1-(-1)^n))/24, for n>=5. - Luce ETIENNE, Apr 04 2015
[A180861] 1, 4, 8, 16, 26, 42, 61, 88, 119, 160, 206, 264, 328, 406, 491, 592, 701, 828, 964, 1120, 1286, 1474, 1673, 1896, 2131, 2392, 2666, 2968, 3284, 3630, 3991, 4384, 4793, 5236, 5696, 6192, 6706, 7258, 7829, 8440, 9071, 9744, 10438, 11176, 11936, 12742, 13571, 14448
a(n) = (1/8)*n*(n^2 + 2*n + 8) if n is even; a(n) = (1/8)*(n^3 + 2*n^2 + 7*n - 2) if n is odd.
a(n) = +2*a(n-1) +a(n-2) -4*a(n-3) +a(n-4) +2*a(n-5) -a(n-6).
a(n) = (-2 + 15*n + 4*n^2 + 2*n^3 + (-1)^n*(2 + n))/16. - Eric W. Weisstein, Sep 08 2017
[A030119] 1, 1, 4, 8, 16, 29, 51, 87, 146, 242, 398, 651, 1061, 1725, 2800, 4540, 7356, 11913, 19287, 31219, 50526, 81766, 132314, 214103, 346441, 560569, 907036, 1467632, 2374696, 3842357, 6217083, 10059471, 16276586, 26336090, 42612710, 68948835, 111561581
a(n) = Lucas(n+2) + Fibonacci(n+1) - (n+3).
a(0)=1, a(1)=1, a(2)=4, a(3)=8, a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). - Harvey P. Dale, Nov 06 2011
a(n) = -3 + (2^(-n)*((1-sqrt(5))^n*(-3+2*sqrt(5)) + (1+sqrt(5))^n*(3+2*sqrt(5)))) / sqrt(5) - n. - Colin Barker, Mar 11 2017
[A121986] 1, 1, 1, 4, 8, 16, 32, 61, 115, 215, 399, 738, 1362, 2510, 4622, 8507, 15653, 28797, 52973, 97440, 179228, 329660, 606348, 1115257, 2051287, 3772915, 6939483, 12763710, 23476134, 43179354, 79419226
a(n) = 3*a(n-1) -2*a(n-2) -a(n-4) +a(n-5).
[A196875] 1, 1, 1, 1, 4, 8, 16, 32, 64, 125, 243, 471, 911, 1759, 3394, 6546, 12622, 24334, 46910, 90427, 174309, 335997, 647661, 1248413, 2406400, 4638492, 8940988, 17234316, 33220220, 64034041, 123429591, 237918195, 458602075, 883983931, 1703933822, 3284438054
a(n) = +3*a(n-1) -2*a(n-2) -a(n-5) +a(n-6).
[A020707] 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592
a(n) = 2^(n+2).
a(n) = 2*a(n-1).
[A151821] 1, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592
a(1) = 1 and a(n) = 3 + Sum_{k=1..n-1} a(k) for n>=2. - Joerg Arndt, Aug 15 2012
[A089890] 0, 0, 0, 4, 8, 16, 32, 64, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 10485760, 20971520, 41943040, 83886080, 167772160, 335544320, 671088640, 1342177280
a(n) = (n^(1/2)*(n^(1/2)-1)*2^(n-n^(1/2)))/2.
[A026393] 1, 4, 8, 17, 24, 39, 49, 70, 83, 110, 126, 159, 178, 217, 239, 284, 309, 360, 388, 445, 476, 539, 573, 642, 679, 754, 794, 875, 918, 1005, 1051, 1144, 1193, 1292, 1344, 1449, 1504, 1615, 1673, 1790, 1851, 1974, 2038, 2167, 2234, 2369, 2439, 2580, 2653, 2800
a(n) = (18*n^2-46*n+(-1)^n*(13-6*n)+35)/16.
a(n) = (9*n^2-26*n+24)/8 for n even.
a(n) = (9*n^2-20*n+11)/8 for n odd.
[A213494] 0, 0, 0, 0, 0, 0, 1, 4, 8, 17, 25, 40, 57, 81, 105, 141, 177, 225, 274, 337, 401, 482, 562, 661, 762, 882, 1002, 1146, 1290, 1458, 1627, 1822, 2018, 2243, 2467, 2722, 2979, 3267, 3555, 3879, 4203, 4563, 4924, 5323, 5723, 6164, 6604, 7087, 7572
a(n) = a(n-1)+a(n-2)-2a(n-5)+a(n-8)+a(n-9)-a(n-10).
[A215108] 0, 1, 4, 8, 17, 35, 66, 124, 229, 414, 742, 1318, 2320, 4059, 7062, 12224, 21071, 36185, 61930, 105678, 179847, 305326, 517212, 874380, 1475472, 2485573, 4180648, 7021544, 11777117, 19728911, 33011202
a(n) = a(n-1) + 2*a(n-2) + a(n-3) - 2*a(n-4) - 3*a(n-5) -a(n-6), a(0) = 0, a(1) = 1, a(2) = 4, a(3) = 8, a(4) = 17, a(5) = 35 .
[A077474] 1, 4, 8, 18, 21, 28, 31, 36, 41, 44, 55, 58, 71, 76, 79, 84, 88, 108, 125, 135, 141, 148, 155, 158, 164, 175, 180, 185, 195, 198, 218, 225, 230, 237, 242, 246, 250, 254, 259, 263, 268, 276, 281, 300, 305, 310, 317, 321, 326, 329, 334, 340, 343, 351, 359, 364
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(7/10) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 6... - Benoit Cloitre
[A008085] 1, 4, 8, 18, 32, 52, 74, 100, 128, 162, 204, 244, 286, 340, 396, 450, 512, 580, 650, 724, 800, 882, 972, 1060, 1150, 1252, 1356, 1458, 1568, 1684, 1802, 1924, 2048, 2178, 2316, 2452, 2590, 2740, 2892, 3042, 3200, 3364, 3530, 3700, 3872, 4050, 4236, 4420
a(12*m+k) = 288*m^2 + 48*k*m + [-2, 4, 12, 18, 32, 52, 74, 100, 128, 162, 204, 244], 0<=k<12. - N. J. A. Sloane
[A001977] 1, 1, 4, 8, 18, 32, 58, 94, 151, 227, 338, 480, 676, 920, 1242, 1636, 2137, 2739, 3486, 4370, 5444, 6698, 8196, 9926, 11963, 14293, 17002, 20076, 23612, 27594, 32134, 37212, 42955, 49341, 56512, 64444, 73294, 83036, 93844, 105690, 118765, 133037
a(n) is the coefficient of x^(3*n+3) from the G.f. product[s=1..6] (x^s-x^(n+1))/(1-x^s). - Paul Weisenhorn, Jun 01 2009
[A008240] 1, 4, 8, 18, 34, 50, 68, 100, 130, 160, 204, 246, 286, 338, 392, 448, 514, 580, 648, 726, 802, 878, 968, 1060, 1150, 1252, 1356, 1458, 1570, 1682, 1796, 1924, 2050, 2176, 2316, 2454, 2590, 2738, 2888, 3040, 3202, 3364, 3528, 3702, 3874, 4046, 4232, 4420
a(24*m+k) = 1152*m^2 + 96*k*m + one of 24 numbers depending on k, 0<=k<24. - N. J. A. Sloane
[A056309] 0, 1, 4, 8, 18, 34, 70, 134, 270, 526, 1054, 2078, 4158, 8254, 16510, 32894, 65790, 131326, 262654, 524798, 1049598, 2098174, 4196350, 8390654, 16781310, 33558526, 67117054, 134225918, 268451838, 536887294, 1073774590, 2147516414, 4295032830, 8590000126
a(1)=0, a(2)=1, a(3)=4, a(4)=8, a(n) = 3*a(n-1) - 6*a(n-3) + 4*a(n-4). - Harvey P. Dale, Feb 18 2012
a(n) = 2^(n/2-1) + 2^(n-1) - 2 for n even.
a(n) = 2^((n-1)/2) + 2^(n-1) - 2 for n odd. (End)
[A190062] 0, 1, 1, 4, 8, 18, 36, 71, 135, 252, 462, 836, 1496, 2653, 4669, 8164, 14196, 24566, 42332, 72675, 124355, 212156, 360986, 612744, 1037808, 1754233, 2959801, 4985476, 8384480, 14080602, 23614932, 39556031, 66181311, 110608188, 184670694
a(n) = (n-1)*Fibonacci(n) - Fibonacci(n-1) + 1.
a(n) = (((2*n-1)*r-5)*(1+r)^n-((2*n-1)*r+5)*(1-r)^n)/(10*2^n)+1, where r=sqrt(5).
[A228231] 4, 8, 18, 36, 88, 176, 470, 940, 2784, 5568, 18564, 37128, 140496, 280992, 1205406, 2410812, 11625040, 23250080, 124582172, 249164344, 1467151632, 2934303264, 18808816988, 37617633976, 260504960128, 521009920256, 3874087578120, 7748175156240, 61547948858400, 123095897716800
a(n) = sum(k=1..l, k!*binomial(n-k-1,h-1)) + sum(k=1..h, k!*binomial(n-k-1,l-1)) where l = floor(n/2) and h = ceiling(n/2).
[A175657] 1, 4, 8, 18, 38, 80, 166, 342, 700, 1426, 2894, 5856, 11822, 23822, 47932, 96330, 193414, 388048, 778070, 1559334, 3123836, 6256034, 12525598, 25073088, 50181598, 100420510, 200933756, 402017562, 804277910, 1608948656, 3218532934
a(n) = 3*a(n-1)-a(n-2)-2*a(n-3) with a(0)=1, a(1)=4 and a(2)=8.
[A129362] 1, 1, 4, 8, 19, 37, 80, 160, 331, 661, 1344, 2688, 5419, 10837, 21760, 43520, 87211, 174421, 349184, 698368, 1397419, 2794837, 5591040, 11182080, 22366891, 44733781, 89473024, 178946048, 357903019, 715806037
a(n) = a(n-1) + 3a(n-2) - a(n-3) - 2a(n-5) - 4a(n-6).
a(n) = sum{k=0..floor(n/2), J(n-k+1)}.
a(n) = sum{k=0..n, J(k+1)-J((k+1)/2)(1-(-1)^k)/2}.
a(n) = sum{k=0..n, J(k+1)}-sum{k=0..floor((n-1)/2), J(k+1)}.
[A083579] 0, 1, 1, 4, 8, 19, 39, 82, 166, 337, 677, 1360, 2724, 5455, 10915, 21838, 43682, 87373, 174753, 349516, 699040, 1398091, 2796191, 5592394, 11184798, 22369609, 44739229, 89478472, 178956956, 357913927, 715827867, 1431655750, 2863311514
a(n) = 2*2^n/3-5*(-1)^n/12-(2*n+1)/4.
a(n+2) = a(n+1)+2*a(n)+n, a(0)=0, a(1)=1.

[A062717] 0, 4, 8, 20, 28, 48, 60, 88, 104, 140, 160, 204, 228, 280, 308, 368, 400, 468, 504, 580, 620, 704, 748, 840, 888, 988, 1040, 1148, 1204, 1320, 1380, 1504, 1568, 1700, 1768, 1908, 1980, 2128, 2204, 2360, 2440, 2604, 2688, 2860, 2948, 3128, 3220, 3408, 3504
a(2*k) = k*(6*k+2), a(2*k+1) = 6*k^2 + 10*k + 4. - Mohamed Bouhamida (bhmd95(AT)yahoo.fr), Nov 06 2007
a(n) = n^2 + n + 2*ceiling(n/2)^2. - Gary Detlefs, Feb 23 2010
a(n) = (6*n*(n-1) + (2*n-1)*(-1)^n + 1)/4.
[A097164] 1, 4, 8, 20, 36, 84, 148, 340, 596, 1364, 2388, 5460, 9556, 21844, 38228, 87380, 152916, 349524, 611668, 1398100, 2446676, 5592404, 9786708, 22369620, 39146836, 89478484, 156587348, 357913940, 626349396, 1431655764, 2505397588
a(n) = 5*2^n/2 - (-2)^n/6 - 4/3;
a(n) = a(n-1) + 4a(n-2) - 4a(n-3).
[A032280] 1, 1, 4, 8, 20, 38, 76, 133, 232, 375, 600, 912, 1368, 1980, 2829, 3936, 5412, 7293, 9724, 12760, 16588, 21287, 27092, 34112, 42640, 52819, 65008, 79392, 96405, 116280, 139536, 166464, 197676, 233529, 274740, 321741, 375364
a(n)=(3/7)*s(n,0,7)+(48*C(n-1,6)+7*(n-2)*(n-4)*(n-6))/672, if n is even; a(n)=(3/7)*s(n,0,7)+(48*C(n-1,6)+7*(n-1)*(n-3)*(n-5))/672, if n is odd.
[A156303] 1, 1, 4, 8, 20, 38, 88, 162, 336, 624, 1211, 2195, 4109, 7295, 13190, 23072, 40618, 69838, 120486, 204006, 345595, 577387, 962961, 1588483, 2613930, 4262138, 6928799, 11179251, 17976330, 28720552, 45729595, 72401921, 114239033
a(n) = (1/n)*Sum_{k=1..n} sigma(k^2) * a(n-k) for n>0, with a(0)=1.
[A115099] 4, 8, 20, 56, 164, 488, 1460, 4376, 13124, 39368, 118100, 354296, 1062884, 3188648, 9565940, 28697816, 86093444, 258280328, 774840980, 2324522936, 6973568804, 20920706408, 62762119220, 188286357656, 564859072964, 1694577218888, 5083731656660, 15251194969976
a(n) = 2*3^n + 2.
a(n) = 4*a(n-1)-3*a(n-2) for n>1.
[A097076] 0, 1, 1, 4, 8, 21, 49, 120, 288, 697, 1681, 4060, 9800, 23661, 57121, 137904, 332928, 803761, 1940449, 4684660, 11309768, 27304197, 65918161, 159140520, 384199200, 927538921, 2239277041, 5406093004, 13051463048, 31509019101, 76069501249, 183648021600
a(n)=sum{k=0..n, (-1)^k*Pell(n-k)}. [From Paul Barry, Oct 22 2009]
[A175655] 1, 4, 8, 22, 50, 124, 290, 694, 1628, 3838, 8978, 21004, 48962, 114022, 265004, 615262, 1426658, 3305212, 7650722, 17697430, 40911740, 94528318, 218312114, 503994220, 1163124866, 2683496134, 6189647948, 14273690782
a(n) = 3*a(n-1)+a(n-2)-6*a(n-3) with a(0)=1, a(1)=4 and a(2)=8.
a(n) = ((10+8*A)*A^(-n-1)+(10+8*B)*B^(-n-1))/13-2^n with A = (-1+sqrt(13))/6 and B = (-1-sqrt(13))/6.
[A170938] 4, 8, 22, 74, 274, 1058, 4162, 16514, 65794, 262658, 1049602, 4196354, 16781314, 67117058, 268451842, 1073774594, 4295032834, 17180000258, 68719738882, 274878431234, 1099512676354, 4398048608258, 17592190238722, 70368752566274, 281474993487874, 1125899940397058
a(n)= 7*a(n-1) -14*a(n-2) +8*a(n-3). G.f.: 2*(2-10*x+11*x^2)/((1-x) * (2*x-1) * (4*x-1)). [From R. J. Mathar, Feb 15 2010]
[A181688] 1, 1, 4, 8, 23, 55, 144, 360, 921, 2329, 5924, 15024, 38159, 96847, 245888, 624176, 1584593, 4022609, 10211940, 25924088, 65811431, 167069767, 424126160, 1076693080, 2733310377, 6938824361, 17615009476, 44717740000, 113521160607, 288186606623
a(n) = 2*a(n-1) + 2*a(n-2) - 2*a(n-3) + a(n-4), n > 4.
[A212686] 0, 0, 4, 8, 24, 40, 76, 112, 176, 240, 340, 440, 584, 728, 924, 1120, 1376, 1632, 1956, 2280, 2680, 3080, 3564, 4048, 4624, 5200, 5876, 6552, 7336, 8120, 9020, 9920, 10944, 11968, 13124, 14280, 15576, 16872, 18316, 19760, 21360, 22960
a(n)=2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A180002] 4, 8, 24, 43, 179, 783, 1504, 6668, 29604, 56983, 253079, 1124043, 2163724, 9610208, 42683904, 82164403, 364934699, 1620864183, 3120083464, 13857908228, 61550154924, 118481007103, 526235577839, 2337285022803, 4499158186324, 19983094049528
a(3*n+1) = (14+(1+r)*(19+6*r)^n+(1-r)*(19-6*r)^n)/4;
a(3*n+2) = (14+(9+3*r)*(19+6*r)^n+(9-3*r)*(19-6*r)^n)/4;
a(3*n+3) = (14+(41+13*r)*(19+6*r)^n+(41-13*r)*(19-6*r)^n)/4;
a(n+9) = 39*(a(n+6)-a(n+3))+a(n); r:=sqrt(10);
[A208901] 0, 0, 4, 8, 24, 48, 112, 224, 480, 960, 1984, 3968, 8064, 16128, 32512, 65024, 130560, 261120, 523264, 1046528, 2095104, 4190208, 8384512, 16769024, 33546240, 67092480, 134201344, 268402688, 536838144, 1073676288, 2147418112, 4294836224, 8589803520
a(n) = 2^n - 2^(floor(n/2)+1).
a(n) = 2*a(n-1) + 2*a(n-2) - 4*a(n-3), a(0) = 0, a(1) = 0, a(2) = 4.
[A153334] 1, 1, 4, 8, 24, 52, 136, 296, 720, 1556, 3624, 7768, 17584, 37416, 83024, 175568, 383904, 807604, 1746280, 3657464, 7839216, 16357496, 34812144, 72407728, 153204064, 317777032, 669108496, 1384524656, 2903267040, 5994736336
a(n) = (n+1)2^(n-2) - 2(n-1)binomial(n-2,(n-2)/2) for n even, a(n) = (n+1)2^(n-2) - (n-1)binomial(n-1,(n-1)/2) for n odd.
[A159612] 1, 4, 8, 24, 56, 152, 376, 984, 2488, 6424, 16376, 42072, 107576, 275864, 706168, 1809624, 4634296, 11872792, 30409976, 77901144, 199541048, 511145624, 1309309816, 3353892312, 8591131576, 22006700824, 56371227128, 144398030424, 369882938936, 947475060632, 2427006816376
a(n) = a(n-1) + 4*a(n-2), a(1)=1, a(2)=4. - Vincenzo Librandi, Mar 11 2011
a(n) = 2^(-3-n)*((1-sqrt(17))^n*(-5+3*sqrt(17)) + (1+sqrt(17))^n*(5+3*sqrt(17))) / sqrt(17) for n>0. - Colin Barker, Dec 22 2016
[A291024] 0, 4, 8, 24, 64, 172, 456, 1200, 3136, 8148, 21064, 54216, 139008, 355196, 904840, 2298720, 5825408, 14729636, 37168008, 93612408, 235369664, 590852172, 1481051720, 3707411472, 9268764096, 23145174388, 57732471752, 143857070376, 358113876352, 890666303260
a(n) = 4*a(n-1) - 2 a(n-2) - 4*a(n-3) - a(n-4) for n >= 5.
a(n) = ((1+sqrt(2))^n*(3*sqrt(2) + 2*(-1+sqrt(2))*n) - (1-sqrt(2))^n*(3*sqrt(2) + 2*(1+sqrt(2))*n)) / 4. - Colin Barker, Aug 24 2017
[A265185] 4, 8, 24, 80, 272, 928, 3168, 10816, 36928, 126080, 430464, 1469696, 5017856, 17132032, 58492416, 199705600, 681837568, 2327939072, 7948081152, 27136446464, 92649623552, 316325601280, 1080003158016, 3687361429504, 12589439401984, 42983034748928
a(n) = 2 * ((2 + sqrt(2))^n + (2 - sqrt(2))^n) = Sum_{k=0..3} 2^(2n) (cos((2k+1)Pi/8))^(2n) = 2*2^(2n) (cos(Pi/8)^(2n) + cos(3Pi/8)^(2n)) = 2 Sum_{k=0..1} (exp(i(2k+1)Pi/8) + exp(-i(2k+1)Pi/8))^(2n).
[A008950] 4, 8, 24, 90, 114, 524, 888, 1130, 1328, 9552, 15684, 19610, 31398, 155922, 360654, 370262, 492114, 1349534, 1357202, 2010734, 4652354, 17051708, 20831324, 47326694, 122164748, 189695660, 191912784, 387096134, 436273010, 1294268492
a(n) <= (n+1)! + 2. [Joerg Arndt, May 01 2013]
[A000964] 0, 0, 1, 1, 4, 8, 25, 53, 164, 348, 1077, 2285, 7072, 15004, 46437, 98521, 304920, 646920, 2002201, 4247881, 13147084, 27892928, 86327905, 183153773, 566856284, 1202645508, 3722157357, 7896950165, 24440860552, 51853868404, 160486408077
a(0)=0, a(1)=0, a(2)=1, a(3)=1, a(4)=4, a(5)=8, a(n)=7*a(n-2)- 3*a(n-4)+ a(n-6). - Harvey P. Dale, Jun 29 2011
[A099513] 1, 4, 8, 27, 89, 257, 784, 2421, 7336, 22324, 68147, 207549, 632177, 1926608, 5870089, 17884476, 54493120, 166034731, 505883825, 1541369745, 4696373312, 14309268413, 43598614528, 132839740908, 404746601923, 1233213978037
a(0)=1, a(1)=4, a(2)=8, a(3)=27, a(n)=2*a(n-1)+a(n-2)+7*a(n-3)- a(n-4) [From Harvey P. Dale, Jul 12 2011]
[A117864] 4, 8, 28, 48, 148, 248, 748, 1248, 3748, 6248, 18748, 31248, 93748, 156248, 468748, 781248, 2343748, 3906248, 11718748, 19531248, 58593748, 97656248, 292968748, 488281248, 1464843748, 2441406248, 7324218748, 12207031248, 36621093748, 61035156248
a(n) = 6*5^((n-1)/2)-2 (n odd), 2*5^(n/2)-2 (n even).
a(1)=4, a(2)=8, a(3)=28, a(n)=a(n-1)+5*a(n-2)-5*a(n-3). - Harvey P. Dale, May 30 2012
[A050442] 0, 4, 8, 32, 48, 108, 144, 256, 320, 500, 600, 864, 1008, 1372, 1568, 2048, 2304, 2916, 3240, 4000, 4400, 5324, 5808, 6912, 7488, 8788, 9464, 10976, 11760, 13500, 14400, 16384, 17408, 19652, 20808, 23328, 24624, 27436, 28880, 32000, 33600, 37044
a(n) = (2*n^3+n)/3-2/3*(2*floor((n+1)/2)^3+floor((n+1)/2))+(1-(-1)^n)/2.
a(1)=0, a(2)=4, a(3)=8, a(4)=32, a(5)=48, a(6)=108, a(7)=144, a(n)= a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7). [Harvey P. Dale, May 13 2012]
[A291938] 0, 4, 8, 32, 64, 192, 384, 1024, 2048, 5120, 10240, 24576, 49152, 114688, 229376, 524288, 1048576, 2359296, 4718592, 10485760, 20971520, 46137344, 92274688, 201326592, 402653184, 872415232, 1744830464, 3758096384, 7516192768, 16106127360
a(n) = 2^(n - 1) (n - mod(n, 2)).
a(n) = 2*a(n-1) + 4*a(n-2) - 8*a(n-3).
[A094015] 1, 4, 8, 32, 64, 256, 512, 2048, 4096, 16384, 32768, 131072, 262144, 1048576, 2097152, 8388608, 16777216, 67108864, 134217728, 536870912, 1073741824, 4294967296, 8589934592, 34359738368, 68719476736, 274877906944

a(n) = 2^(3n/2)(1 + sqrt(2) + (1 - sqrt(2))(-1)^n)/2.
a(n) = (1/4)(3 + (-1)^n)8^floor((n+1)/2). - Paul Barry, Jul 14 2004
a(n+3) = a(n+2)*a(n+1)/a(n). - Reinhard Zumkeller, Mar 04 2011
[A209084] 0, 4, 8, 32, 96, 320, 1024, 3328, 10752, 34816, 112640, 364544, 1179648, 3817472, 12353536, 39976960, 129368064, 418643968, 1354760192, 4384096256, 14187233280, 45910851584, 148570636288, 480784678912, 1555851902976, 5034842521600, 16293092655104
a(n) = (2/sqrt(5))*((1+sqrt(5))^n-(1-sqrt(5))^n).
[A241684] 0, 0, 4, 8, 32, 120, 464, 1848, 7312, 29240, 116624, 466488, 1864592, 7458360, 29827984, 119311928, 477225872, 1908903480, 7635526544, 30542106168, 122168075152, 488672300600, 1954687804304, 7818751217208, 31274999276432, 125099997105720, 500399966053264, 2001599864213048
a(n) = (8 + 3*2^n + 2*4^n + (-1)^n*(24 - 2^n))/18, n>0. - R. J. Mathar, May 04 2014
[A249572] 1, 4, 8, 48, 88, 488, 888, 4888, 8888, 48888, 88888, 488888, 888888, 4888888, 8888888, 48888888, 88888888, 488888888, 888888888, 4888888888, 8888888888, 48888888888, 88888888888, 488888888888, 888888888888, 4888888888888, 8888888888888, 48888888888888
a(n) = 10*a(n-2) + 8 for n >= 4.
a(n) = a(n-1) + 10*a(n-2) - 10*a(n-3) for n > 4.
[A266297] 0, 1, 4, 9, 10, 11, 14, 19, 20, 21, 24, 29, 30, 31, 34, 39, 40, 41, 44, 49, 50, 51, 54, 59, 60, 61, 64, 69, 70, 71, 74, 79, 80, 81, 84, 89, 90, 91, 94, 99, 100, 101, 104, 109, 110, 111, 114, 119, 120, 121, 124, 129, 130, 131, 134, 139, 140, 141, 144, 149
a(n) = a(n - 1) + (n - 4) - a(n - 5) for n > 5.
a(n) = (10n - 11 + (-1)^n + (4 + 2(-1)^n) * (-1)^((2n - 1 + (-1)^n)/4))/4.
[A028837] 1, 4, 9, 10, 13, 18, 19, 22, 27, 28, 31, 36, 37, 40, 45, 46, 49, 54, 55, 58, 63, 64, 67, 72, 73, 76, 81, 82, 85, 90, 91, 94, 99, 100, 103, 108, 109, 112, 117, 118, 121, 126, 127, 130, 135, 136, 139, 144, 145, 148, 153, 154, 157, 162, 163, 166, 171, 172, 175, 180
a(n) = a(n-3)+9. If n is a multiple of 3 then a(n) = 3n, otherwise a(n) = 3n-2. Numbers of form {0, 1, 4} modulo 9 - Henry Bottomley, Jun 30 2000
a(1)=1, a(2)=4, a(3)=9, a(4)=10, a(n)=a(n-1)+a(n-3)-a(n-4). - Harvey P. Dale, Jan 26 2015
[A157908] 0, 1, 4, 9, 10, 14, 40, 44, 49, 90, 91, 94, 99, 100, 104, 110, 111, 114, 119, 140, 141, 144, 190, 194, 400, 404, 410, 411, 414, 440, 441, 444, 490, 494, 900, 901, 904, 909, 910, 914, 940, 944, 949, 990, 994, 999, 1000, 1001, 1004, 1010, 1011, 1014, 1040, 1041
a(n) = Theta(n^(log_4 10))
[A236652] 1, 4, 9, 10, 18, 19, 22, 27, 28, 36, 37, 40, 45, 46, 54, 55, 58, 63, 64, 72, 73, 76, 81, 82, 90, 91, 94, 99, 100, 108, 109, 112, 117, 118, 126, 127, 130, 135, 136, 144, 145, 148, 153, 154, 162, 163, 166, 171, 172, 180, 181, 184, 189, 190, 198, 199, 202, 207
a(n) = a(n-1)+a(n-5)-a(n-6).
[A112652] 0, 1, 4, 9, 12, 13, 16, 21, 24, 25, 28, 33, 36, 37, 40, 45, 48, 49, 52, 57, 60, 61, 64, 69, 72, 73, 76, 81, 84, 85, 88, 93, 96, 97, 100, 105, 108, 109, 112, 117, 120, 121, 124, 129, 132, 133, 136, 141, 144, 145, 148, 153, 156, 157, 160, 165, 168, 169, 172, 177, 180
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4).
[A047461] 1, 4, 9, 12, 17, 20, 25, 28, 33, 36, 41, 44, 49, 52, 57, 60, 65, 68, 73, 76, 81, 84, 89, 92, 97, 100, 105, 108, 113, 116, 121, 124, 129, 132, 137, 140, 145, 148, 153, 156, 161, 164, 169, 172, 177, 180, 185, 188, 193, 196, 201, 204, 209, 212, 217, 220, 225, 228, 233
a(n) = 8*floor((n-1)/2) + 4 - 3*(n mod 2). - Reinhard Zumkeller, Dec 15 2008
a(n) = 8*n-a(n-1)-11 (with a(1)=1). - Vincenzo Librandi, Aug 06 2010
a(n) = 4*n -(7 + (-1)^n)/2. - Arkadiusz Wesolowski, Sep 18 2012
a(1)=1, a(2)=4, a(3)=9, a(n)=a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Jun 18 2013
[A089910] 4, 9, 12, 17, 22, 25, 30, 33, 38, 43, 46, 51, 56, 59, 64, 67, 72, 77, 80, 85, 88, 93, 98, 101, 106, 111, 114, 119, 122, 127, 132, 135, 140, 145, 148, 153, 156, 161, 166, 169, 174, 177, 182, 187, 190, 195, 200, 203, 208, 211, 216, 221, 224, 229, 232, 237, 242, 245
a(n) = floor((2+sqrt(5))*n) + 0 or 1;
[A124623] 1, 4, 9, 12, 21, 32, 37, 52, 69, 80, 97, 112, 137, 156, 177, 208, 225, 256, 293, 316, 349, 384, 421, 448, 489, 540, 577, 616, 665, 716, 749, 812, 861, 912, 973, 1020, 1085, 1124, 1201, 1264, 1313, 1396, 1457, 1528, 1597, 1664, 1741, 1804, 1885, 1976, 2053, 2128
a(n) = n^2 - 4*k(n); k(n) = number of exterior centers per quadrant.
[A287498] 0, 4, 9, 12, 30, 55, 105, 212, 405, 794, 1551, 3015, 5889, 11477, 22374, 43636, 85068, 165871, 323418, 630582, 1229517, 2397289, 4674198, 9113711, 17769780, 34647305, 67554891, 131717661, 256821477, 500747300
a(n) = 2*a(n-2) + 3*a(n-3) + a(n-4).
[A174911] 1, 4, 9, 12, 33, 36, 57, 60, 65, 68, 119, 122, 209, 212, 217, 220, 623, 626, 713, 716, 721, 724, 745, 748, 897, 900, 987, 990, 2561, 2564, 2779, 2782, 3807, 3810, 3891, 3894, 4199, 4202, 4585, 4588, 5339, 5342, 5459, 5462, 5963, 5966, 8643, 8646, 12085, 12088
a(1) = 1. a(n) = least positive integer k such that the difference between any two elements of [a(1), ..., a(n-1)} is never one less than a prime.
[A032820] 1, 4, 9, 12, 33, 36, 73, 76, 97, 100, 265, 268, 289, 292, 585, 588, 609, 612, 777, 780, 801, 804, 2121, 2124, 2145, 2148, 2313, 2316, 2337, 2340, 4681, 4684, 4705, 4708, 4873, 4876, 4897, 4900, 6217, 6220, 6241, 6244, 6409
a(1)=1, a(2)=4; a(n) = 8*a(floor(n/2))+1 for n odd, otherwise a(n) = 8*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A033662] 4, 9, 13, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82
a(n) in {4, 9, 13, 15} or a(n) >= 17
[A136640] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 4, 9, 13, 16, 18, 20, 22, 24, 26, 28, 29, 31, 33, 34, 36, 37, 39, 40, 41, 43, 44, 46, 47, 49, 50, 51, 51, 53, 54, 56, 58, 58, 60, 61, 63, 65, 67, 67, 67, 67, 67, 67, 70, 72, 73, 75, 76, 77, 79
a(n)=Floor[1+200*Winding_Number(Omega)]: 0<=omega<=1;in steps of 1/200
[A276855] 0, 4, 9, 13, 18, 23, 27, 32, 36, 41, 46, 50, 55, 60, 64, 69, 73, 78, 83, 87, 92, 96, 101, 106, 110, 115, 120, 124, 129, 133, 138, 143, 147, 152, 157, 161, 166, 170, 175, 180, 184, 189, 193, 198, 203, 207, 212, 217, 221, 226, 230, 235, 240, 244, 249, 253, 258
a(n) = floor(n*(7 + sqrt(5))/2).
[A184901] 4, 9, 13, 18, 24, 28, 33, 37, 43, 48, 52, 57, 63, 67, 72, 76, 82, 87, 91, 96, 100, 106, 111, 115, 120, 126, 130, 135, 139, 145, 150, 154, 159, 165, 169, 174, 178, 183, 189, 193, 198, 202, 208, 213, 217, 222, 228, 232, 237, 241, 247, 252, 256, 261, 265
a(n)=n+floor(ns/r)+floor(nt/r), where r=(1+sqrt(5))/2, s=r+1, t=r+2.
[A184912] 4, 9, 13, 19, 23, 28, 34, 39, 43, 49, 53, 58, 63, 69, 73, 79, 83, 88, 93, 98, 103, 109, 113, 118, 122, 128, 133, 138, 143, 148, 152, 158, 163, 168, 174, 178, 183, 188, 193, 197, 204, 208, 213, 218, 223, 227, 233, 238, 243, 247, 253, 257, 262, 268, 273, 277, 283, 287, 292, 297, 303, 307, 313, 318, 322, 328, 332, 338, 343, 348, 352, 358, 362, 368, 372, 378, 382, 387, 392, 397, 402, 408, 412, 417, 422, 427, 431, 438, 442, 447, 452, 457, 461, 467, 472, 477, 482, 487, 492, 496, 503, 507, 512, 517, 522, 526, 532, 537, 542, 547, 552, 556, 562, 566, 572, 577, 582, 586, 592, 596
a(n)=n+[ns/r]+[nt/r]+[nu/r], where []=floor and
[A035104] 1, 4, 9, 13, 19, 24, 31, 37, 45, 52, 61, 69, 79, 88, 99, 109, 121, 132, 145, 157, 171, 184, 199, 213, 229, 244, 261, 277, 295, 312, 331, 349, 369, 388, 409, 429, 451, 472, 495, 517, 541, 564, 589, 613, 639, 664, 691, 717, 745, 772, 801, 829, 859, 888, 919
a(n) = (5+3*(-1)^n+28*n+2*n^2)/8. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: (3*x^3-x^2-2*x-1) / ((x-1)^3*(x+1)). - Colin Barker, Mar 04 2013
[A022130] 4, 9, 13, 22, 35, 57, 92, 149, 241, 390, 631, 1021, 1652, 2673, 4325, 6998, 11323, 18321, 29644, 47965, 77609, 125574, 203183, 328757, 531940, 860697, 1392637, 2253334, 3645971, 5899305, 9545276, 15444581, 24989857, 40434438, 65424295, 105858733, 171283028
a(n) = 4*Fibonacci(n+2) + Fibonacci(n).
a(n)= Fibonacci(n-2) + Fibonacci(n+5). - Gary Detlefs, Mar 31 2012
[A042125] 1, 4, 9, 13, 22, 35, 57, 1346, 1403, 2749, 4152, 6901, 17954, 78717, 3796370, 15264197, 34324764, 49588961, 83913725, 133502686, 217416411, 5134080139, 5351496550, 10485576689, 15837073239, 26322649928, 68482373095, 300252142308, 14480585203879, 58222592957824
a(n) = 3814324*a(n-14) - a(n-28) for n>27, - Vincenzo Librandi, Jan 15 2014
[A041905] 1, 1, 4, 9, 13, 22, 35, 232, 267, 499, 766, 2031, 6859, 8890, 380239, 389129, 1547626, 3484381, 5032007, 8516388, 13548395, 89806758, 103355153, 193161911, 296517064, 786196039, 2655105181, 3441301220, 147189756421, 150631057641, 599082929344
a(n) = 387098*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 26 2013
[A041323] 1, 4, 9, 13, 35, 153, 4013, 16205, 36423, 52628, 141679, 619344, 16244623, 65597836, 147440295, 213038131, 573516557, 2507104359, 65758229891, 265540023923, 596838277737, 862378301660, 2321594881057, 10148757825888, 266189298354145, 1074905951242468
a(n) = 4048*a(n-6) - a(n-12). - Vincenzo Librandi, Dec 15 2013

[A041211] 1, 1, 4, 9, 13, 61, 74, 209, 701, 910, 18901, 19811, 78334, 176479, 254813, 1195731, 1450544, 4096819, 13741001, 17837820, 370497401, 388335221, 1535503064, 3459341349, 4994844413, 23438719001, 28433563414, 80305845829, 269351100901, 349656946730
a(n) = 19602*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 13 2013
[A042323] 1, 4, 9, 13, 74, 531, 1667, 12200, 62667, 74867, 212401, 924471, 48284893, 194064043, 436412979, 630477022, 3588798089, 25752063645, 80844989024, 591666986813, 3039179923089, 3630846909902, 10300873742893, 44834341881474, 2341686651579541, 9411580948199638
a(n) = 48497294*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 20 2014
[A038123] 4, 9, 14, 18, 23, 28, 32, 37, 42, 46, 51, 56, 60, 65, 70, 74, 79, 84, 88, 93, 98, 102, 107, 112, 116, 121, 126, 130, 135, 140, 144, 149, 154, 158, 163, 168, 172, 177, 182, 186, 191, 196, 200, 205, 210, 214, 219, 224, 228, 233, 238, 242, 247, 252, 256, 261, 266
a(n)=floor(n*4.6692016609..)
[A182778] 4, 9, 14, 18, 23, 28, 33, 37, 42, 47, 52, 56, 61, 66, 70, 75, 80, 85, 89, 94, 99, 104, 108, 113, 118, 123, 127, 132, 137, 141, 146, 151, 156, 160, 165, 170, 175, 179, 184, 189, 194, 198, 203, 208, 212, 217, 222, 227, 231, 236, 241, 246, 250, 255
a(n) = floor(n*(3 + sqrt(3))).
[A100215] 4, 9, 14, 18, 24, 44, 104, 248, 544, 1104, 2144, 4128, 8064, 16064, 32384, 65408, 131584, 263424, 525824, 1049088, 2095104, 4189184, 8382464, 16775168, 33562624, 67129344, 134242304, 268443648, 536838144
a(n) = 4a(n-1) - 6a(n-2) + 4a(n-3).
a(n) = vesseq(.5 'j + .5 'k + .5 j' + .5 k' + 1 'ii' + 1 e), where ves sums over all floretion basis vector coefficients.
[A016897] 4, 9, 14, 19, 24, 29, 34, 39, 44, 49, 54, 59, 64, 69, 74, 79, 84, 89, 94, 99, 104, 109, 114, 119, 124, 129, 134, 139, 144, 149, 154, 159, 164, 169, 174, 179, 184, 189, 194, 199, 204, 209, 214, 219, 224, 229, 234, 239, 244, 249, 254, 259, 264, 269, 274, 279, 284
a(n) = 2*a(n-1) - a(n-2), n>1. - Philippe Deléham, Nov 03 2008
a(n) = 10*n - a(n-1) + 3, n>0. - Vincenzo Librandi, Nov 20 2010
[A086192] 1, 4, 9, 14, 27, 50, 91, 168, 309, 568, 1045, 1922, 3535, 6502, 11959, 21996, 40457, 74412, 136865, 251734, 463011, 851610, 1566355, 2880976, 5298941, 9746272, 17926189, 32971402, 60643863, 111541454, 205156719, 377342036, 694040209
a(n) = a(n-1) + a(n-2) + a(n-3).
[A184916] 4, 9, 15, 19, 25, 31, 35, 41, 46, 51, 57, 62, 67, 72, 78, 83, 89, 94, 98, 104, 109, 115, 120, 125, 131, 135, 142, 147, 152, 157, 162, 168, 173, 179, 183, 188, 195, 199, 205, 210, 214, 220, 226, 231, 236, 242, 247, 252, 258, 263, 268, 273, 279, 284, 289, 295, 299, 305, 311, 315, 321, 326, 331, 337, 342, 347, 352, 358, 364, 368, 374, 379, 384, 390, 396, 400, 405, 411, 415, 422, 427, 431, 437, 442, 448, 453, 459, 463, 468, 475, 480, 485, 490, 495, 500, 506, 512, 516, 522, 527, 532, 538, 543, 548, 553, 559, 564, 569, 575, 579, 585, 591, 596, 601, 606, 612, 617, 622, 628, 632
a(n)=n+[sn/r]+[tn/r]+[un/r], where []=floor and
[A270545] 1, 4, 9, 15, 21, 27, 33, 39, 45, 51, 57, 63, 69, 75, 81, 87, 93, 99, 105, 111, 117, 123, 129, 135, 141, 147, 153, 159, 165, 171, 177, 183, 189, 195, 201, 207, 213, 219, 225, 231, 237, 243, 249, 255, 261, 267, 273, 279, 285, 291, 297, 303, 309, 315
a(0)=1 and a(1)=4; thereafter a(n) = (n+1)^2-(n-2)^2 = 6*n-3.
a(n) = 2*a(n-1)-a(n-2) for n>3. G.f.: (1+x)*(1+x+x^2) / (1-x)^2. - Colin Barker, Mar 20 2016
[A055999] 0, 4, 9, 15, 22, 30, 39, 49, 60, 72, 85, 99, 114, 130, 147, 165, 184, 204, 225, 247, 270, 294, 319, 345, 372, 400, 429, 459, 490, 522, 555, 589, 624, 660, 697, 735, 774, 814, 855, 897, 940, 984, 1029, 1075, 1122, 1170, 1219, 1269, 1320, 1372, 1425, 1479
a(n) = C(n,2) - 3*n, n>=7. - Zerinvary Lajos, Nov 25 2006
a(n) = n + a(n-1) + 3 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
a(n) = Sum_{k=1..n} (k+3). - Gary Detlefs, Aug 10 2010
a(n) = 4n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
a(n) = Sum_{i=4..n+3} i. - Wesley Ivan Hurt, Jun 28 2013
[A281026] 0, 1, 4, 9, 15, 22, 31, 42, 54, 67, 82, 99, 117, 136, 157, 180, 204, 229, 256, 285, 315, 346, 379, 414, 450, 487, 526, 567, 609, 652, 697, 744, 792, 841, 892, 945, 999, 1054, 1111, 1170, 1230, 1291, 1354, 1419, 1485, 1552, 1621, 1692, 1764, 1837, 1912, 1989, 2067, 2146
a(n) = a(-n-1) = 3*a(n-1) - 4*a(n-2) + 4*a(n-3) - 3*a(n-4) + a(n-5) = a(n-4) + 6*n - 9.
a(n) = 3*n*(n+1)/4 + (i^(n*(n+1)) - 1)/4. Therefore:
a(4*k+r) = 12*k^2 + 3*(2*r+1)*k + r^2, where 0 <= r <= 3.
a(n) = n^2 - floor((n-1)*(n-2)/4).
[A184005] 1, 4, 9, 15, 23, 32, 43, 55, 69, 84, 101, 119, 139, 160, 183, 207, 233, 260, 289, 319, 351, 384, 419, 455, 493, 532, 573, 615, 659, 704, 751, 799, 849, 900, 953, 1007, 1063, 1120, 1179, 1239, 1301, 1364, 1429, 1495, 1563, 1632, 1703, 1775, 1849, 1924, 2001, 2079, 2159, 2240, 2323, 2407, 2493, 2580, 2669, 2759
a(n) = 2*a(n-1) - 2*a(n-3) + 1*a(n-4).
a(n) = (6*n^2 + 8*n - (-1)^n - 7)/8. (End)
a(n) = round((6*n^2 + 8*n - 7)/8). - Bruno Berselli, Jan 25 2011
a(n) = n^2 - floor((n-2)^2/4). - Bruno Berselli, Jan 17 2017
[A080819] 1, 4, 9, 16, 16, 25, 36, 36, 49, 64, 81, 81, 100, 121, 121, 144, 169, 196, 196, 225, 256, 256, 289, 324, 361, 361, 400, 441, 441, 484, 529, 529, 576, 625, 676, 676, 729, 784, 784, 841, 900, 961, 961, 1024, 1089, 1089, 1156, 1225, 1225, 1296, 1369, 1444, 1444
a(n)=(ceil(sqrt(n*(n+1)/2)))^2 - C. Ronaldo (aga_new_ac(AT)hotmail.com), Dec 19 2004
[A234000] 1, 4, 9, 16, 17, 25, 33, 36, 41, 49, 57, 64, 65, 68, 73, 81, 89, 97, 100, 105, 113, 121, 129, 132, 137, 144, 145, 153, 161, 164, 169, 177, 185, 193, 196, 201, 209, 217, 225, 228, 233, 241, 249, 256, 257, 260, 265, 272, 273, 281, 289, 292, 297, 305, 313, 321, 324, 329, 337, 345
a(n) = 6n + O(log n). - Charles R Greathouse IV, Dec 19 2013
[A072903] 4, 9, 16, 18, 20, 25, 27, 32, 36, 45, 48, 49, 50, 52, 54, 63, 64, 68, 72, 75, 80, 81, 84, 90, 96, 98, 99, 100, 108, 112, 116, 117, 121, 125, 126, 128, 132, 135, 144, 147, 148, 150, 153, 160, 162, 164, 169, 171, 175, 176, 180, 189, 192, 196, 198, 200, 207, 208, 212
a(n) appears to be asymptotic to C*n with C=3.4.....
[A246336] 1, 4, 9, 16, 21, 32, 49, 64, 69, 80, 97, 116, 137, 176, 225, 256, 261, 272, 289, 308, 329, 368, 417, 452, 473, 512, 565, 624, 705, 832, 961, 1024, 1029, 1040, 1057, 1076, 1097, 1136, 1185, 1220, 1241, 1280, 1333, 1392, 1473, 1600, 1729, 1796, 1817, 1856, 1909, 1968, 2049, 2176
a(2^k-2) = (2^k-1)^2, if k >= 1.
a(2^k-1) = 4^k, if k >= 1.
a(2^k) = 4^k + 5, if k >= 1.
[A027874] 0, 4, 9, 16, 23, 30, 38, 46, 54, 64, 74, 84, 94, 104, 114, 124, 134, 144, 155, 166, 177, 188, 199, 210, 221, 232, 243, 256, 269, 282, 295, 308, 321, 334, 347, 360, 373, 386, 399, 412, 425, 438, 451, 464, 477, 490, 503, 516, 529, 542, 555, 568, 581, 594, 608
a(n)=3*q*n+2*(n-3^q), if 2*3^(q-1)<=n<=3^q; 3*q*n+4*(n-3^q), if 3^q<=n<=2*3^q.
[A281151] 0, 1, 4, 9, 16, 24, 33, 44, 57, 72, 88, 105, 124, 145, 168, 192, 217, 244, 273, 304, 336, 369, 404, 441, 480, 520, 561, 604, 649, 696, 744, 793, 844, 897, 952, 1008, 1065, 1124, 1185, 1248, 1312, 1377, 1444, 1513, 1584, 1656, 1729, 1804, 1881, 1960, 2040, 2121, 2204, 2289
a(n) = a(-n-1) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7) = a(n-5) + 8*(n-2).
a(n) = n^2 - floor((n-2)^2/5).
[A061077] 1, 4, 9, 16, 25, 26, 29, 34, 41, 50, 52, 58, 68, 82, 100, 103, 112, 127, 148, 175, 179, 191, 211, 239, 275, 280, 295, 320, 355, 400, 406, 424, 454, 496, 550, 557, 578, 613, 662, 725, 733, 757, 797, 853, 925, 934, 961, 1006, 1069, 1150, 1150, 1150, 1150
a(n) = Sum_{k = 1..n} product of the digits of 2k-1.
a(5*10^n) = 25*46^n, so a(n) is roughly kn^1.662... where the exponent is log 46/log 10. - Charles R Greathouse IV, Sep 20 2012
[A004120] 1, 4, 9, 16, 25, 35, 46, 58, 71, 85, 100, 116, 133, 151, 170, 190, 211, 233, 256, 280, 305, 331, 358, 386, 415, 445, 476, 508, 541, 575, 610, 646, 683, 721, 760, 800, 841, 883, 926, 970, 1015, 1061, 1108, 1156, 1205
a(n) = n*(n + 11)/2 - 5, n>=3. - R. J. Mathar, Mar 15 2011
[A080151] 1, 4, 9, 16, 25, 36, 49, 64, 81, 82, 85, 90, 97, 106, 117, 130, 145, 162, 163, 166, 171, 178, 187, 198, 211, 226, 243, 244, 247, 252, 259, 268, 279, 292, 307, 324, 325, 328, 333, 340, 349, 360, 373, 388, 405, 406, 409, 414, 421, 430, 441, 454, 469, 486, 487
a(n)=(9^2)*(n/9-{n/9}+{n/9}^2)=81*(floor(x/9)+{x/9}^2), where the symbol {x} means fractional part of x. [Enrique Pérez Herrero, Nov 22 2009]
[A000290] 0, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361, 400, 441, 484, 529, 576, 625, 676, 729, 784, 841, 900, 961, 1024, 1089, 1156, 1225, 1296, 1369, 1444, 1521, 1600, 1681, 1764, 1849, 1936, 2025, 2116, 2209, 2304, 2401, 2500

a(n) = a(-n).
a(0) = 0, a(1) = 1, a(n) = 2*a(n-1) - a(n-2) + 2. - Miklos Kristof, Mar 09 2005
a(n) = sum of the odd numbers for i = 1 to n. a(0) = 0 a(1) = 1 then a(n) = a(n-1) + 2*n - 1. - Pierre CAMI, Oct 22 2006
a(n) = binomial(n+1, 2) + binomial(n, 2).
a(n) = floor[n*(n+1)*[Sum_{i=1..n} 1/(n*(n+1))]]. - Ctibor O. Zizka, Mar 07 2009
a(n) = a(n-1) + a(n-2) - a(n-3) + 4, n>2. - Gary Detlefs, Sep 07 2010
[A253909] 1, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361, 400, 441, 484, 529, 576, 625, 676, 729, 784, 841, 900, 961, 1024, 1089, 1156, 1225, 1296, 1369, 1444, 1521, 1600, 1681, 1764, 1849, 1936, 2025, 2116, 2209, 2304, 2401, 2500
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>=4. - David Neil McGrath, May 23 2015
[A265078] 1, 4, 9, 16, 25, 37, 52, 69, 88, 109, 133, 160, 189, 220, 253, 289, 328, 369, 412, 457, 505, 556, 609, 664, 721, 781, 844, 909, 976, 1045, 1117, 1192, 1269, 1348, 1429, 1513, 1600, 1689, 1780, 1873, 1969, 2068, 2169, 2272, 2377, 2485, 2596, 2709, 2824, 2941, 3061, 3184, 3309, 3436, 3565, 3697
a(n) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7). - Vincenzo Librandi, Jan 01 2016
[A181640] 0, 0, 0, 1, 4, 9, 16, 25, 37, 53, 73, 97, 125, 158, 197, 242, 293, 350, 414, 486, 566, 654, 750, 855, 970, 1095, 1230, 1375, 1531, 1699, 1879, 2071, 2275, 2492, 2723, 2968, 3227, 3500, 3788, 4092, 4412, 4748, 5100, 5469, 5856, 6261, 6684, 7125, 7585, 8065, 8565
a(n) = sum(k=0..n,floor(k^2/5))
a(n) = round((2*n^3+3*n^2-11*n-6)/30)
a(n) = floor((2*n^3+3*n^2-11*n+6)/30)
a(n) = ceil((2*n^3+3*n^2-11*n-18)/30)
a(n) = a(n-5)+(n-2)^2, n>4
[A011895] 0, 0, 0, 0, 1, 4, 9, 16, 25, 38, 55, 76, 101, 132, 168, 210, 258, 313, 376, 447, 526, 613, 710, 817, 934, 1061, 1200, 1350, 1512, 1686, 1873, 2074, 2289, 2518, 2761, 3020, 3295, 3586, 3893, 4218, 4560, 4920, 5298, 5695, 6112, 6549, 7006, 7483
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-13) -3*a(n-14) +3*a(n-15) -a(n-16). -R. J. Mathar, Apr 15 2010
[A206920] 0, 1, 4, 9, 16, 25, 40, 57, 78, 105, 136, 169, 214, 265, 328, 393, 466, 551, 644, 743, 850, 969, 1096, 1225, 1378, 1543, 1732, 1927, 2146, 2377, 2632, 2889, 3162, 3459, 3772, 4097, 4438, 4803, 5184, 5571, 5974, 6401, 6844, 7299, 7770, 8265, 8776, 9289, 9850
a(n) = (8/7)*((3/4)*(4 - (-1)^m)/(3 + (-1)^m)*2^(3*floor(m/2)) - 1) + (floor(p/2^floor(m/2)) mod 2)*p + 2^m + 1 + sum_{k = 1..(floor(m/2) - 1)} (floor(p/2^k) mod 2)*(2^k + 2^(m-k) + 2^(m-floor(m/2) + 1)*(4^(floor(m/2) - k - 1) - 1) + (2 - (-1)^m) + 2^(floor(m/2) - k)*(p - floor((p mod (2^(m-k+1)))/2^k)*2^k)).
[A108612] 1, 4, 9, 16, 25, 42, 56, 72, 90, 110, 143, 168, 195, 224, 255, 304, 340, 378, 418, 460, 504, 572, 621, 672, 725, 780, 864, 924, 986, 1050, 1116, 1216, 1287, 1360, 1435, 1512, 1591, 1710, 1794, 1880, 1968, 2058, 2193, 2288, 2385, 2484, 2585, 2736, 2842, 2950
a(n) = floor(n*floor(n/sin(1))).
[A036454] 4, 9, 16, 25, 49, 64, 81, 121, 169, 289, 361, 529, 625, 729, 841, 961, 1024, 1369, 1681, 1849, 2209, 2401, 2809, 3481, 3721, 4096, 4489, 5041, 5329, 6241, 6889, 7921, 9409, 10201, 10609, 11449, 11881, 12769, 14641, 15625, 16129, 17161, 18769, 19321
a(n) = (n log n)^2 + 2n^2 log n log log n + O(n^2 log n). - Charles R Greathouse IV, Apr 26 2012
[A022334] 1, 4, 9, 16, 26, 38, 52, 69, 88, 109, 133, 159, 187, 218, 251, 286, 324, 364, 406, 451, 498, 547, 599, 653, 709, 768, 829, 892, 958, 1026, 1096, 1168, 1243, 1320, 1399, 1481, 1565, 1651, 1740, 1831, 1924, 2020, 2118, 2218, 2321, 2426, 2533, 2643, 2755, 2869, 2986
a(n) = sum(i=0..n, 1 + floor(log(5^i)/log(2))). - Michel Marcus, Oct 02 2013
[A100216] 1, 4, 9, 16, 26, 44, 84, 176, 376, 784, 1584, 3136, 6176, 12224, 24384, 48896, 98176, 196864, 393984, 787456, 1573376, 3144704, 6288384, 12578816, 25163776, 50335744, 100675584, 201342976, 402661376, 805289984, 1610563584, 3221159936
a(n+3) = 4a(n) - 6a(n+1) + 4a(n+2), a(0) = 1, a(1) = 4, a(2) = 9; g.f. (x+1)(x-1)/((2x-1)(2x^2-2x+1)) (a(n)) = lesseq(.5 'j + .5 'k + .5 j' + .5 k' + 1 'ii' + 1 e)
[A213495] 1, 4, 9, 16, 27, 38, 53, 70, 89, 110, 135, 160, 189, 220, 253, 288, 327, 366, 409, 454, 501, 550, 603, 656, 713, 772, 833, 896, 963, 1030, 1101, 1174, 1249, 1326, 1407, 1488, 1573, 1660, 1749, 1840, 1935, 2030, 2129, 2230, 2333, 2438, 2547, 2656
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6).
[A109593] 1, 4, 9, 16, 27, 40, 55, 72, 91, 112, 135, 160, 189, 220, 253, 288, 325, 364, 405, 448, 493, 540, 589, 640, 693, 750, 809, 870, 933, 998, 1065, 1134, 1205, 1278, 1353, 1430, 1509, 1590, 1673, 1758, 1845, 1934, 2027, 2122, 2219, 2318, 2419, 2522, 2627, 2734
a(n) = n^2 + C*n^(3/2) + O(n), where C = 5/6. According to the simplified model: the sum of n consecutive odd numbers without the odd squares. - Thomas Ordowski, Sep 24 2014
[A132074] 1, 4, 9, 16, 27, 46, 81, 148, 279, 538, 1053, 2080, 4131, 8230, 16425, 32812, 65583, 131122, 262197, 524344, 1048635, 2097214, 4194369, 8388676, 16777287, 33554506, 67108941, 134217808, 268435539, 536870998, 1073741913, 2147483740
a(n) = 4*a(n-1) -5*a(n-2) +2*a(n-3). - Vincenzo Librandi, Jul 06 2012
[A093175] 1, 4, 9, 16, 30, 59, 114, 219, 422, 814, 1569, 3024, 5829, 11236, 21658, 41747, 80470, 155111, 298986, 576314, 1110881, 2141292, 4127473, 7955960, 15335606, 29560331, 56979370, 109831267, 211706574, 408077542, 786594753, 1516210136, 2922589005
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4).
[A007679] 1, 1, 4, 9, 16, 31, 64, 129, 256, 511, 1024, 2049, 4096, 8191, 16384, 32769, 65536, 131071, 262144, 524289, 1048576, 2097151, 4194304, 8388609, 16777216, 33554431, 67108864, 134217729, 268435456, 536870911
a(n) = 2^(n-1) + cos(n*Pi/2).
a(n) = sum(2^k*C(n-k, 2k)*n/(n-k), k=0..floor(n/3)).
a(n) = ((-i)^n+i^n+2^n)/2, where i=sqrt(-1). a(n) = 2*a(n-1)-a(n-2)+2*a(n-3). G.f.: x*(1-x+3*x^2)/((1-2*x)*(1+x^2)). [Colin Barker, May 08 2012]
[A295720] 1, 4, 9, 16, 33, 55, 104, 171, 307, 502, 873, 1423, 2424, 3943, 6623, 10758, 17893, 29035, 47952, 77755, 127755, 207046, 338897, 549015, 896104, 1451263, 2363751, 3827302, 6223821, 10075699, 16365056, 26489907, 42986035, 69574246, 112822425, 182593279
a(n) = a(n-1) + a(n-3) + a(n-4), where a(0) = 1, a(1) = 4, a(2) = 9, a(3) = 16.
[A092464] 4, 9, 17, 22, 30, 35, 43, 48, 56, 61, 69, 74, 82, 87, 95, 100, 108, 113, 121, 126, 134, 139, 147, 152, 160, 165, 173, 178, 186, 191, 199, 204, 212, 217, 225, 230, 238, 243, 251, 256, 264, 269, 277, 282, 290, 295, 303, 308, 316, 321, 329, 334, 342, 347, 355, 360
a(n)=a(n-2)+13 = a(n-1)+a(n-2)-a(n-3) = 13*n/2-13/4-3*(-1)^n/4. G.f.: x*(4+5*x+4*x^2)/((1+x)*(x-1)^2). [From R. J. Mathar, Apr 20 2009]
a(n)=13*(n-1)-a(n-1), (with a(1)=4) [From Vincenzo Librandi, Nov 17 2010]
[A173562] 0, 1, 4, 9, 17, 26, 37, 50, 66, 83, 102, 123, 147, 172, 199, 228, 260, 293, 328, 365, 405, 446, 489, 534, 582, 631, 682, 735, 791, 848, 907, 968, 1032, 1097, 1164, 1233, 1305, 1378, 1453, 1530, 1610, 1691, 1774, 1859, 1947, 2036, 2127, 2220, 2316, 2413, 2512
a(n) = floor((n + 1/8)^2).
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6) for n>5.
a(n) = (8*n^2+2*n-3+i^(2*n)+(1+i)*i^(-n)+(1-i)*i^n)/8 where i=sqrt(-1). - Wesley Ivan Hurt, Jun 04 2016
[A078567] 0, 1, 4, 9, 17, 27, 41, 57, 77, 100, 127, 156, 191, 228, 269, 314, 364, 416, 474, 534, 600, 670, 744, 820, 904, 991, 1082, 1177, 1278, 1381, 1492, 1605, 1724, 1847, 1974, 2105, 2245, 2387, 2533, 2683, 2841, 3001, 3169, 3339, 3515, 3697, 3883
a(n) = Sum_{i=1..n-1} Sum_{j=1..floor((n-1)/i)} (n - i*j).
a(n) = Sum_{k=1..n-1} Sum_{i=1..n-1} floor(k/i). - Wesley Ivan Hurt, Sep 14 2017
[A008137] 1, 4, 9, 17, 28, 42, 60, 81, 105, 132, 162, 196, 233, 273, 316, 362, 412, 465, 521, 580, 642, 708, 777, 849, 924, 1002, 1084, 1169, 1257, 1348, 1442, 1540, 1641, 1745, 1852, 1962, 2076, 2193, 2313, 2436, 2562, 2692, 2825, 2961, 3100, 3242, 3388, 3537, 3689
a(5*m+k) = 40*m^2 + 16*k*m + one of 5 numbers depending on k, 0<=k<5 (N. J. A. Sloane).
[A005744] 0, 1, 4, 9, 17, 28, 43, 62, 86, 115, 150, 191, 239, 294, 357, 428, 508, 597, 696, 805, 925, 1056, 1199, 1354, 1522, 1703, 1898, 2107, 2331, 2570, 2825, 3096, 3384, 3689, 4012, 4353, 4713, 5092, 5491, 5910, 6350, 6811, 7294, 7799, 8327, 8878, 9453, 10052
a(n) = n*(n-1)/2 + Sum((n-2*i+1)*(n-2*i)/2, i=1..floor((n+1)/2)). - N. J. A. Sloane, Nov 28 2003
a(n) = 5*n/12-1/16+5*n^2/8+n^3/12+(-1)^n/16 . a(n)= 3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5). - R. J. Mathar, Apr 01 2010
[A008066] 1, 4, 9, 17, 29, 45, 64, 85, 110, 140, 173, 208, 246, 289, 336, 385, 437, 493, 553, 616, 682, 752, 825, 901, 981, 1065, 1152, 1241, 1334, 1432, 1533, 1636, 1742, 1853, 1968, 2085, 2205, 2329, 2457, 2588, 2722, 2860, 3001, 3145, 3293, 3445, 3600, 3757, 3918
a(20*m+k) = 680*m^2 + 68*k*m + one of 20 numbers depending on k, 0<=k<20 (N. J. A. Sloane).

[A008123] 1, 4, 9, 17, 29, 45, 64, 86, 112, 141, 173, 209, 249, 292, 338, 388, 441, 497, 557, 621, 688, 758, 832, 909, 989, 1073, 1161, 1252, 1346, 1444, 1545, 1649, 1757, 1869, 1984, 2102, 2224, 2349, 2477, 2609, 2745, 2884, 3026, 3172, 3321, 3473, 3629, 3789, 3952
a(7*m+k) = 84*m^2 + 24*k*m + one of 7 numbers depending on k, 0<=k<7 (N. J. A. Sloane).
[A181286] 0, 0, 1, 4, 9, 17, 29, 45, 66, 93, 126, 166, 214, 270, 335, 410, 495, 591, 699, 819, 952, 1099, 1260, 1436, 1628, 1836, 2061, 2304, 2565, 2845, 3145, 3465, 3806, 4169, 4554, 4962, 5394, 5850, 6331, 6838, 7371, 7931, 8519, 9135, 9780, 10455, 11160, 11896
a(n) = sum(k=0..n,floor(k^2/3))
a(n) = round((2*n^3+3*n^2-3*n)/18)
a(n) = round((2*n^3+3*n^2-3*n-2)/18)
a(n) = floor((2*n^3+3*n^2-3*n)/18)
a(n) = ceil((2*n^3+3*n^2-3*n-4)/18)
a(n) = a(n-3)+(n-1)^2 , n>2
[A008046] 1, 4, 9, 17, 30, 50, 74, 97, 123, 158, 198, 237, 281, 336, 394, 447, 501, 566, 638, 709, 783, 868, 960, 1047, 1133, 1230, 1334, 1435, 1537, 1650, 1772, 1895, 2019, 2150, 2284, 2413, 2543, 2684, 2836, 2993, 3155, 3322, 3486, 3643, 3801, 3972, 4156, 4345
a(n+191)-a(n+128)-2a(n+127)+2a(n+64)+a(n+63)-a(n)=0 (N. J. A. Sloane).
[A157728] 1, 4, 9, 17, 30, 51, 85, 140, 229, 373, 606, 983, 1593, 2580, 4177, 6761, 10942, 17707, 28653, 46364, 75021, 121389, 196414, 317807, 514225, 832036, 1346265, 2178305, 3524574, 5702883, 9227461, 14930348, 24157813, 39088165, 63245982, 102334151
a(n)= +2*a(n-1) -a(n-3). G.f.: x^5*(1+x)^2/((x-1)*(x^2+x-1)). - R. J. Mathar, Oct 12 2010
[A130785] 1, 4, 9, 17, 32, 63, 127, 256, 513, 1025, 2048, 4095, 8191, 16384, 32769, 65537, 131072, 262143, 524287, 1048576, 2097153, 4194305, 8388608, 16777215, 33554431, 67108864, 134217729, 268435457, 536870912, 1073741823, 2147483647, 4294967296, 8589934593
a(n) = -(1/2)*{1/2-(1/2)*I*sqrt(3)}^n-(1/2)*{1/2+(1/2)*I*sqrt(3)}^n+2*2^n+(1/6)*I*{1/2-(1/2) *I*sqrt(3)}^n*sqrt(3)-(1/6)*I*{1/2+(1/2)*I*sqrt(3)}^n*sqrt(3), with n>=0 and I=sqrt(-1). - Paolo P. Lava, Jun 09 2008
a(n) = 2^(n+1) - cos((2*n+1)*Pi/6) * 2/sqrt(3). - Vladimir Reshetnikov, Oct 15 2017
[A101424] 4, 9, 18, 28, 42, 57, 76, 96, 120, 145, 174, 204, 238, 273, 312, 352, 396, 441, 490, 540, 594, 649, 708, 768, 832, 897, 966, 1036, 1110, 1185, 1264, 1344, 1428, 1513, 1602, 1692, 1786, 1881, 1980, 2080, 2184, 2289, 2398, 2508, 2622, 2737, 2856, 2976, 3100
a(n) = (29 + 3*(-1)^n + 36*n + 10*n^2)/8.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A244096] 0, 4, 9, 18, 30, 45, 63, 84, 108, 135, 166, 200, 237, 277, 321, 367, 417, 471, 527, 587, 649, 716, 785, 858, 933, 1012, 1095, 1180, 1269, 1361, 1456, 1555, 1656, 1761, 1870, 1981, 2096, 2214, 2335, 2459, 2587, 2718, 2852, 2989, 3130, 3274, 3421, 3571, 3725, 3881, 4042
a(n) = floor((r1(n)/r2(n))^2) where r1(n) = (s(n)/2)*sqrt((2 - s(n))/(2 + s(n))) and r2(n) = (2 - c(n))/4 with s(n) = 2*sin(Pi/n), the side length (length unit 1), and c(n) = 2*cos(Pi/n), the length ratio of the smallest diagonal and the side of a regular n-gon.
[A111384] 0, 0, 0, 1, 4, 9, 18, 30, 48, 70, 100, 135, 180, 231, 294, 364, 448, 540, 648, 765, 900, 1045, 1210, 1386, 1584, 1794, 2028, 2275, 2548, 2835, 3150, 3480, 3840, 4216, 4624, 5049, 5508, 5985, 6498, 7030, 7600, 8190, 8820, 9471, 10164, 10879, 11638, 12420, 13248
a(n)= 2*a(n-1) +a(n-2) -4*a(n-3) +a(n-4) +2*a(n-5) -a(n-6). G.f. x^3*(1+2*x)/ ((1+x)^2 * (x-1)^4). - R. J. Mathar, Mar 18 2010
[A100037] 4, 9, 18, 31, 48, 69, 94, 123, 156, 193, 234, 279, 328, 381, 438, 499, 564, 633, 706, 783, 864, 949, 1038, 1131, 1228, 1329, 1434, 1543, 1656, 1773, 1894, 2019, 2148, 2281, 2418, 2559, 2704, 2853, 3006, 3163, 3324, 3489, 3658, 3831, 4008, 4189, 4374, 4563
a(n) = 2*n^2 - n + 3 (conjectured). - Ralf Stephan, May 15 2007
[A254874] 1, 4, 9, 18, 31, 49, 73, 104, 142, 189, 245, 311, 388, 477, 578, 693, 822, 966, 1126, 1303, 1497, 1710, 1942, 2194, 2467, 2762, 3079, 3420, 3785, 4175, 4591, 5034, 5504, 6003, 6531, 7089, 7678, 8299, 8952, 9639, 10360, 11116, 11908, 12737, 13603, 14508, 15452
a(n) - 2*a(n+1) + 2*a(n+3) - a(n+4) = -1 if n == 1 (mod 3) else -2 for all n in Z.
[A008266] 1, 4, 9, 18, 32, 48, 67, 92, 120, 150, 185, 224, 266, 312, 361, 414, 472, 532, 595, 664, 736, 810, 889, 972, 1058, 1148, 1241, 1338, 1440, 1544, 1651, 1764, 1880, 1998, 2121, 2248, 2378, 2512, 2649, 2790, 2936, 3084, 3235, 3392, 3552, 3714, 3881, 4052, 4226
a(12*m+k) = 264*m^2 + 44*k*m + [2, 4, 9, 18, 32, 48, 67, 92, 120, 150, 185, 224], 0<=k<12 (N. J. A. Sloane).
[A008160] 1, 4, 9, 18, 32, 49, 69, 93, 121, 153, 189, 228, 270, 317, 368, 422, 480, 541, 606, 676, 749, 825, 905, 989, 1077, 1169, 1264, 1362, 1465, 1572, 1682, 1796, 1913, 2034, 2160, 2289, 2421, 2557, 2697, 2841, 2989, 3140, 3294, 3453, 3616, 3782, 3952, 4125, 4302
a(15*m+k) = 420*m^2 + 56*k*m + one of 15 numbers depending on k, 0<=k<15 (N. J. A. Sloane).
[A190798] 0, 0, 1, 4, 9, 18, 32, 50, 75, 108, 147, 196, 256, 324, 405, 500, 605, 726, 864, 1014, 1183, 1372, 1575, 1800, 2048, 2312, 2601, 2916, 3249, 3610, 4000, 4410, 4851, 5324, 5819, 6348, 6912, 7500, 8125, 8788, 9477, 10206, 10976, 11774, 12615, 13500, 14415, 15376, 16384, 17424, 18513, 19652, 20825, 22050, 23328, 24642, 26011, 27436, 28899, 30420, 32000
a(n) = k^2 * (n-k), where k = round(2*n/3).
a(3*n) = 4*n^3, a(3*n-1) = n*(2*n-1)^2, a(3*n+1) = n*(2*n+1)^2.
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-3) - 4*a(n-4) + 2*a(n-5) - a(n-6) + 2*a(n-7) - a(n-8) for n >= 8.
a(-n) = -a(n). - Michael Somos, May 22 2011
[A192760] 0, 1, 4, 9, 18, 33, 58, 99, 166, 275, 452, 739, 1204, 1957, 3176, 5149, 8342, 13509, 21870, 35399, 57290, 92711, 150024, 242759, 392808, 635593, 1028428, 1664049, 2692506, 4356585, 7049122, 11405739, 18454894, 29860667, 48315596, 78176299
a(n) = Sum_{1..n} C(n-i+2,i+1) + C(n-i,i). - Wesley Ivan Hurt, Sep 13 2017
[A027053] 1, 4, 9, 18, 35, 66, 123, 228, 421, 776, 1429, 2630, 4839, 8902, 16375, 30120, 55401, 101900, 187425, 344730, 634059, 1166218, 2145011, 3945292, 7256525, 13346832, 24548653, 45152014, 83047503, 152748174, 280947695, 516743376
a(n) = a(n-1) + a(n-2) + a(n-3) + 4. [From David Bevan, Sep 09 2009]
[A083706] 1, 4, 9, 18, 35, 68, 133, 262, 519, 1032, 2057, 4106, 8203, 16396, 32781, 65550, 131087, 262160, 524305, 1048594, 2097171, 4194324, 8388629, 16777238, 33554455, 67108888, 134217753, 268435482, 536870939, 1073741852, 2147483677, 4294967326, 8589934623
a(n) = 2*a(n-1) + 3 - n.
[A229072] 1, 4, 9, 18, 36, 72, 144, 289, 578, 1156, 2312, 4624, 9248, 18496, 36992, 73984, 147969, 295938, 591876, 1183752, 2367504, 4735008, 9470016, 18940032, 37880064, 75760128, 151520256, 303040512, 606081024, 1212162048, 2424324096, 4848648192, 9697296384
a(n) = Sum_{a(i)<=n+1} 2^(n+1-a(i)), for any n>1, with a(1)=1.
[A199972] 0, 0, 4, 9, 19, 29, 41, 55, 71, 89, 109, 131, 155, 181, 209, 239, 271, 305, 341, 379, 419, 461, 505, 551, 599, 649, 701, 755, 811, 869, 929, 991, 1055, 1121, 1189, 1259, 1331, 1405, 1481, 1559, 1639, 1721, 1805, 1891, 1979, 2069
a(n) = n*(n-1) - 1 for n>= 5.
[A008239] 1, 4, 9, 19, 33, 50, 74, 100, 129, 165, 201, 242, 290, 338, 393, 453, 513, 580, 650, 722, 801, 883, 969, 1060, 1154, 1252, 1353, 1459, 1569, 1682, 1802, 1924, 2049, 2181, 2313, 2450, 2594, 2738, 2889, 3045, 3201, 3364, 3530, 3698, 3873, 4051, 4233, 4420
a(24*m+k) = 1152*m^2 + 96*k*m + one of 24 numbers depending on k, 0<=k<24. - N. J. A. Sloane
[A008084] 1, 4, 9, 19, 35, 52, 72, 100, 131, 163, 201, 244, 290, 340, 393, 451, 515, 580, 648, 724, 803, 883, 969, 1060, 1154, 1252, 1353, 1459, 1571, 1684, 1800, 1924, 2051, 2179, 2313, 2452, 2594, 2740, 2889, 3043, 3203, 3364, 3528, 3700, 3875, 4051, 4233, 4420
a(12*m+k) = 288*m^2 + 48*k*m + [2, 4, 9, 19, 35, 52, 72, 100, 131, 163, 201, 244], 0<=k<12 (N. J. A. Sloane).
[A210730] 0, 0, 4, 9, 19, 35, 62, 106, 178, 295, 485, 793, 1292, 2100, 3408, 5525, 8951, 14495, 23466, 37982, 61470, 99475, 160969, 260469, 421464, 681960, 1103452, 1785441, 2888923, 4674395, 7563350, 12237778, 19801162, 32038975, 51840173, 83879185, 135719396
a(0)=0, a(1)=0, a(2)=4, a(3)=9, a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). - Harvey P. Dale, Jul 24 2013
a(n) = -5 + (2^(-1-n)*((1-sqrt(5))^n*(-7+5*sqrt(5)) + (1+sqrt(5))^n*(7+5*sqrt(5)))) / sqrt(5) - n. - Colin Barker, Mar 11 2017
[A192979] 1, 1, 4, 9, 19, 36, 65, 113, 192, 321, 531, 872, 1425, 2321, 3772, 6121, 9923, 16076, 26033, 42145, 68216, 110401, 178659, 289104, 467809, 756961, 1224820, 1981833, 3206707, 5188596, 8395361, 13584017, 21979440, 35563521, 57543027, 93106616
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4).
[A101353] 1, 4, 9, 19, 38, 75, 147, 288, 565, 1111, 2190, 4327, 8567, 16992, 33753, 67131, 133654, 266323, 531051, 1059520, 2114861, 4222959, 8434974, 16852239, 33675823, 67305280, 134535537, 268949683, 537702950, 1075088091, 2149661955, 4298491872, 8595637477
a(n)= 4*a(n-1) -4*a(n-2) -a(n-3) +2*a(n-4). G.f.: (1-3*x^2)/((1-x) * (2*x-1) * (x^2+x-1)). - R. J. Mathar, Feb 06 2010
a(n) = (-2+2^(1+n)+(2^(-1-n)*((1-sqrt(5))^n*(-3+sqrt(5))+(1+sqrt(5))^n*(3+sqrt(5))))/sqrt(5)). - Colin Barker, Nov 03 2016

[A153894] 4, 9, 19, 39, 79, 159, 319, 639, 1279, 2559, 5119, 10239, 20479, 40959, 81919, 163839, 327679, 655359, 1310719, 2621439, 5242879, 10485759, 20971519, 41943039, 83886079, 167772159, 335544319, 671088639, 1342177279, 2684354559
a(n) = 2*a(n-1) + 1, n>0.
a(n) = 3*a(n-1) - 2*a(n-2).
[A073360] 1, 4, 9, 20, 29, 44, 69, 104, 121, 180, 241, 284, 349, 420, 521, 664, 701, 860, 1009, 1184, 1301, 1540, 1789, 1964, 2181, 2380, 2701, 3124, 3301, 3704, 4029, 4444, 4809, 5144, 5789, 6340, 6729, 7244, 7981, 8420, 9101
a(n)=(1/3)[...[[[n(2/1)](3/2)](5/4)](6/5)]...(k+1)/k]..., k>0 (mod 3), where [x] = floor of x; this infinite nested floor product will eventually level-off at a(n).
[A059403] 0, 0, 0, 1, 4, 9, 20, 36, 64, 100, 156, 225, 324, 441, 600, 784, 1024, 1296, 1640, 2025, 2500, 3025, 3660, 4356, 5184, 6084, 7140, 8281, 9604, 11025, 12656, 14400, 16384, 18496, 20880, 23409, 26244, 29241, 32580, 36100, 40000, 44100, 48620, 53361
a(4n) = 4n^4; a(4n+1) = n^2*(2n+1)^2;
a(4n+2) = 2n(n+1)(2n(n+1)+1); a(4n+3) = (n+1)^2*(2n+1)^2.
[A060494] 0, 0, 0, 1, 4, 9, 20, 37, 64, 102, 156, 228, 324, 446, 600, 791, 1024, 1305, 1640, 2036, 2500, 3038, 3660, 4372, 5184, 6103, 7140, 8303, 9604, 11051, 12656, 14430, 16384, 18530, 20880, 23447, 26244, 29283, 32580, 36147, 40000, 44152, 48620, 53418
a(n)= +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-16) -4*a(n-17) +6*a(n-18) -4*a(n-19) +a(n-20). G.f. -x^3 *(1 -x^2 +4*x^3 -4*x^4 -3*x^6 +4*x^7 -3*x^8 +4*x^9 -4*x^10 +4*x^11 -x^12 +x^14 +4*x^5) / ((1+x) *(x^2+1) *(x^4+1) *(x^8+1) *(x-1)^5). - R. J. Mathar, Mar 24 2011
[A023607] 0, 1, 4, 9, 20, 40, 78, 147, 272, 495, 890, 1584, 2796, 4901, 8540, 14805, 25552, 43928, 75258, 128535, 218920, 371931, 630454, 1066464, 1800600, 3034825, 5106868, 8580897, 14398412, 24129160, 40388070, 67527579, 112786496, 188195271
a(n) = n*sum{k=0..n, binomial(k, n-k)}. - Paul Barry, Sep 25 2004
[A084639] 0, 1, 4, 9, 20, 41, 84, 169, 340, 681, 1364, 2729, 5460, 10921, 21844, 43689, 87380, 174761, 349524, 699049, 1398100, 2796201, 5592404, 11184809, 22369620, 44739241, 89478484, 178956969, 357913940, 715827881, 1431655764, 2863311529, 5726623060, 11453246121
a(n) = a(n-1)+2*a(n-2)+3, a(0)=0, a(1)=1.
a(n) = 2^(n+2)/3+(-1)^n/6-3/2.
a(n) = 2*a(n-1) + a(n-2) -2*a(n-3). [R. J. Mathar, Jun 28 2010]
a(n) = a(n-1)+2*a(n-2)+3, n>1. [Gary Detlefs, Dec 19 2010]
a(n) = 3*a(n-1)-2*a(n-2) +(-1)^n, n>1. [Gary Detlefs, Dec 19 2010]
[A133095] 1, 4, 9, 20, 43, 90, 185, 376, 759, 1526, 3061, 6132, 12275, 24562, 49137, 98288, 196591, 393198, 786413, 1572844, 3145707, 6291434, 12582889, 25165800, 50331623, 100663270, 201326565, 402653156, 805306339, 1610612706, 3221225441, 6442450912, 12884901855, 25769803742, 51539607517
a(n) = 3*2^(n-1) - n, for n >=2.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3).
[A020708] 4, 9, 20, 44, 97, 214, 472, 1041, 2296, 5064, 11169, 24634, 54332, 119833, 264300, 582932, 1285697, 2835694, 6254320, 13794337, 30424368, 67103056, 148000449, 326425266, 719953588, 1587907625, 3502240516, 7724434620, 17036776865, 37575794246, 82876023112
a(n) = 2*a(n-1) + a(n-3) (holds at least up to n = 1000 but is not known to hold in general).
[A108870] 1, 4, 9, 20, 46, 103, 233, 525, 1182, 2660, 5985, 13467, 30301, 68178, 153401, 345152, 776591, 1747331, 3931496, 8845866, 19903198, 44782196, 100759940, 226709866, 510097200, 1147718700, 2582367076, 5810325920, 13073233321, 29414774973
a(n) = ceiling((9 * (9/4)^n - 4) / 5).
[A287143] 0, 1, 4, 9, 21, 35, 65, 95, 155, 210, 315, 406, 574, 714, 966, 1170, 1530, 1815, 2310, 2695, 3355, 3861, 4719, 5369, 6461, 7280, 8645, 9660, 11340, 12580, 14620, 16116, 18564, 20349, 23256, 25365, 28785, 31255, 35245, 38115, 42735, 46046, 51359, 55154, 61226, 65550, 72450, 77350, 85150, 90675, 99450, 105651, 115479
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9).
a(n) = (2*n+3+(-1)^n)*(2*n+7+(-1)^n)*(5*(2*n^2+10*n+3)-3*(2*n+5)*(-1)^n)/3072. - Luce ETIENNE, Nov 18 2017
[A027973] 1, 4, 9, 21, 46, 99, 209, 436, 901, 1849, 3774, 7671, 15541, 31404, 63329, 127501, 256366, 514939, 1033449, 2072676, 4154701, 8324529, 16673534, 33386671, 66837421, 133778524, 267724809, 535721061, 1071881326, 2144473299, 4290096449, 8582053396, 17167117141
a(n)=2a(n-1)+Fibonacci(n+1)-Fibonacci(n-3) for n>=1; a(0)=1. - Emeric Deutsch, Nov 29 2006
a(n) = 2^n - Lucas(n) for n>1. - Vincenzo Librandi, May 05 2017
[A084861] 1, 1, 4, 9, 21, 48, 108, 240, 528, 1152, 2496, 5376, 11520, 24576, 52224, 110592, 233472, 491520, 1032192, 2162688, 4521984, 9437184, 19660800, 40894464, 84934656, 176160768, 364904448, 754974720, 1560281088, 3221225472
a(n) = 3(n+3)2^(n-4), n>2.
[A132750] 1, 4, 9, 21, 49, 113, 257, 577, 1281, 2817, 6145, 13313, 28673, 61441, 131073, 278529, 589825, 1245185, 2621441, 5505025, 11534337, 24117249, 50331649, 104857601, 218103809, 452984833, 939524097, 1946157057, 4026531841
a(n) = n*2^(n-1) + 2^n + 1 - 0^n. - Tim Smith, Sep 25 2014
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3). - Wesley Ivan Hurt, Sep 26 2014
[A048582] 4, 9, 21, 49, 115, 270, 634, 1489, 3498, 8218, 19307, 45359, 106565, 250361, 588192, 1381884, 3246565, 7627402, 17919636, 42099965, 98908653, 232373629, 545933059, 1282602102, 3013314774, 7079409829, 16632196530, 39075285666, 91802543767, 215678705823
a(n) = 3*a(n-1) - 2*a(n-2) + a(n-3) + a(n-4) - 2*a(n-5) + a(n-6) - a(n-7) (conjectured). Recurrence is satisfied for at least 760000 terms. - Chai Wah Wu, Jul 25 2016
[A041743] 1, 1, 4, 9, 22, 31, 53, 137, 2656, 5449, 8105, 13554, 35213, 83980, 287153, 371133, 14390207, 14761340, 58674227, 132109794, 322893815, 455003609, 777897424, 2010798457, 38983068107, 79976934671, 118960002778, 198936937449, 516833877676, 1232604692801
a(n) = 14677360*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Dec 23 2013
[A041943] 1, 4, 9, 22, 31, 84, 115, 314, 743, 3286, 145327, 584594, 1314515, 3213624, 4528139, 12269902, 16798041, 45865984, 108530009, 479986020, 21227914889, 85391645576, 192011206041, 469414057658, 661425263699, 1792264585056, 2453689848755, 6699644282566
a(n) = 146070*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 27 2013
[A048654] 1, 4, 9, 22, 53, 128, 309, 746, 1801, 4348, 10497, 25342, 61181, 147704, 356589, 860882, 2078353, 5017588, 12113529, 29244646, 70602821, 170450288, 411503397, 993457082, 2398417561, 5790292204
a(n) = [(3+sqrt(2))(1+sqrt(2))^n - (3-sqrt(2))(1-sqrt(2))^n]/2*sqrt(2).
a(n) = binomial transform of 1, 3, 2, 6, 4, 12, ... - Al Hakanson (hawkuu(AT)gmail.com), Aug 08 2009
[A255876] 4, 9, 24, 37, 60, 81, 112, 141, 180, 217, 264, 309, 364, 417, 480, 541, 612, 681, 760, 837, 924, 1009, 1104, 1197, 1300, 1401, 1512, 1621, 1740, 1857, 1984, 2109, 2244, 2377, 2520, 2661, 2812, 2961, 3120, 3277, 3444, 3609, 3784, 3957, 4140, 4321, 4512, 4701
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A001248] 4, 9, 25, 49, 121, 169, 289, 361, 529, 841, 961, 1369, 1681, 1849, 2209, 2809, 3481, 3721, 4489, 5041, 5329, 6241, 6889, 7921, 9409, 10201, 10609, 11449, 11881, 12769, 16129, 17161, 18769, 19321, 22201, 22801, 24649, 26569, 27889, 29929, 32041, 32761, 36481
a(n) = prime(n)^2. - Jon E. Schoenfield, Mar 29 2015
[A175627] 1, 4, 9, 25, 64, 144, 289, 625, 1296, 2601, 5329, 10816, 21904, 44100, 88209, 177241, 355216, 710649, 1423249, 2849344, 5702544, 11410884, 22829284, 45670564, 91355364, 182736324, 365497924, 730999369, 1462068169, 2924213776, 5848578576, 11697287716, 23394620209, 46789583481
a(n) = (ceiling(sqrt(2*a(n-1))))^2.
[A007598] 0, 1, 1, 4, 9, 25, 64, 169, 441, 1156, 3025, 7921, 20736, 54289, 142129, 372100, 974169, 2550409, 6677056, 17480761, 45765225, 119814916, 313679521, 821223649, 2149991424, 5628750625, 14736260449, 38580030724
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3), n>2. a(0)=0, a(1)=1, a(2)=1.
a(-n) = a(n) for all n in Z.
a(0) = 0, a(1) = 1; a(n) = a(n-1) + Sum(a(n-i)) + k, 0 <= i < n where k = 1 when n is odd, or k = -1 when n is even. E.g. a(2) = 1 = 1 + (1 + 1 + 0) - 1, a(3) = 4 = 1 + (1 + 1 + 0) + 1, a(4) = 9 = 4 + (4 + 1 + 1 + 0) - 1, a(5) = 25 = 9 + (9 + 4 + 1 + 1 + 0) + 1. - Sadrul Habib Chowdhury (adil040(AT)yahoo.com), Mar 02 2004
a(n) = (2*Fibonacci(2*n+1) - Fibonacci(2*n) - 2*(-1)^n)/5. - Ralf Stephan, May 14 2004
a(n) = (-1)^k*(Fibonacci(n+k)^2-Fibonacci(k)*Fibonacci(2*n+k)), for any k, - Gary Detlefs, Dec 13 2010
a(n) = 3*a(n-1)-a(n-2)+2*(-1)^(n+1), n>1. - Gary Detlefs, Dec 20 2010

[A216134] 0, 1, 4, 9, 26, 55, 154, 323, 900, 1885, 5248, 10989, 30590, 64051, 178294, 373319, 1039176, 2175865, 6056764, 12681873, 35301410, 73915375, 205751698, 430810379, 1199208780, 2510946901, 6989500984, 14634871029, 40737797126, 85298279275, 237437281774
a(n + 2) = sqrt (8*a(n)^2 + 8*a(n) + 9) + 3*a(n) + 1; a(0) = 0, a(1) = 1. - Raphie Frank, Feb 02 2013
a(n) = (3/8+sqrt(2)/4)*(1+sqrt(2))^n+(-1/8-sqrt(2)/8)*(-1+sqrt(2))^n+(3/8-sqrt(2)/4)*(1-sqrt(2))^n+(-1/8+sqrt(2)/8)*(-1-sqrt(2))^n-1/2. - Robert Israel, Aug 13 2014
[A113682] 1, 1, 4, 9, 26, 70, 197, 553, 1570, 4476, 12827, 36894, 106471, 308113, 893804, 2598313, 7567466, 22076404, 64498427, 188689684, 552675365, 1620567763, 4756614062, 13974168190, 41088418151, 120906613075, 356035078102
a(n) = Sum_{k=0..floor(n/2)} (Sum_{i=0..n-k} C(n-2k-i, i)*C(n-k, k+i)).
a(n) = Sum_{k=0..n} C(n+1,k+1)*C(k,n-k). - Paul Barry, Aug 21 2007
a(n) = (-1)^(n+1) * (hypergeom([1/2, -n-1], [1], 4) - 1)/2. - Vladimir Reshetnikov, Apr 25 2016
[A291064] 4, 9, 26, 71, 180, 433, 1006, 2283, 5096, 11237, 24546, 53215, 114652, 245721, 524246, 1114067, 2359248, 4980685, 10485706, 22020039, 46137284, 96468929, 201326526, 419430331, 872415160, 1811939253, 3758096306, 7784628143, 16106127276, 33285996457
a(n) = 2^n*(n + 1) - 3*(n - 1).
a(n) = 6*a(n-1) - 13*a(n-2) + 12*a(n-3) - 4*a(n-4).
[A145855] 1, 1, 4, 9, 26, 76, 246, 809, 2704, 9226, 32066, 112716, 400024, 1432614, 5170604, 18784169, 68635478, 252085792, 930138522, 3446167834, 12815663844, 47820414962, 178987624514, 671825133644, 2528212128776, 9536894664376
a(n) = (1/(2*n))*Sum_{d|n} (-1)^(n+d)*phi(n/d)*binomial(2*d,d). Conjectured by Vladeta Jovovic, Oct 22 2008; proved by Max Alekseyev, Oct 23 2008 (see link).
[A111962] 1, 1, 4, 9, 27, 74, 215, 619, 1808, 5293, 15579, 45986, 136141, 403937, 1200854, 3575835, 10663105, 31836508, 95156251, 284684303, 852427700, 2554346249, 7659427811, 22981483554, 68992151795, 207223579671, 622697586944
a(n)=sum{k=0..floor(n/2), sum{j=0..n-k, C(n-k, j)*C((j-1)/2, (j-k)/2)*2^(j-k)*(1+(-1)^(j-k))/2}}
[A276984] 0, 0, 4, 9, 29, 41, 90, 119, 194, 255, 384, 440, 649, 765, 980, 1155, 1495, 1654, 2108, 2324, 2811, 3185, 3794, 4050, 4874, 5351, 6110, 6664, 7713, 8155, 9454, 10075, 11309, 12235, 13610, 14295, 16205, 17209, 18840, 19930, 22139, 23085, 25584, 26808, 29029, 30861, 33510, 34614, 37974, 39670
a(n) = n*(n + 1)*(2*n + 1)/6 - sigma_2(n).
[A295910] 4, 9, 30, 61, 160, 301, 718, 1305, 3000, 5377, 12190, 21733, 49024, 87237, 196446, 349345, 786232, 1397881, 3145486, 5592141, 12582624, 22369309, 50331310, 89478121, 201326200, 357913521, 805305918, 1431655285, 3221224960, 5726622517, 12884901310, 22906491633
a(n) = ((-1)^(n + 1) + 2^(n + 1)*(17 + (-1)^n) - 6*n*(n + 4) - 23)/12.
a(n) = 2*a(n-1) + 4*a(n-2) - 10*a(n-3) + a(n-4) + 8*a(n-5) - 4*a(n-6).
[A105865] 1, 1, 4, 9, 30, 94, 328, 1165, 4294, 16134, 61752, 239610, 940716, 3729324, 14908176, 60026109, 243211206, 990897478, 4057013080, 16683617326, 68879236036, 285388549188, 1186296731376, 4945790840338, 20675513743900, 86648395759516
a(n) = Sum_{k=0..floor(n/2)} 2^k*C(n-k,k)*C(n-2*k).
[A041137] 1, 1, 4, 9, 31, 40, 671, 711, 2804, 6319, 21761, 28080, 471041, 499121, 1968404, 4435929, 15276191, 19712120, 330670111, 350382231, 1381816804, 3114015839, 10723864321, 13837880160, 232129946881, 245967827041, 970033428004, 2186034683049, 7528137477151
a(n) = 702*a(n-6)-a(n-12). G.f.: -(x^10-x^9+4*x^8-9*x^7+31*x^6-40*x^5-31*x^4-9*x^3-4*x^2-x-1)/((x^4-9*x^2+1)*(x^8+9*x^6+80*x^4+9*x^2+1)). [Colin Barker, Jul 18 2012]
[A111160] 0, 1, 1, 4, 9, 31, 91, 309, 1009, 3481, 11956, 42065, 148655, 532039, 1915369, 6950452, 25357233, 93034813, 342888250, 1269246437, 4715945712, 17583623988, 65766726906, 246694006971, 927801717255, 3497918129001, 13217196871126, 50046561077947
a(n) = sum(j=0..n+1, binomial(n+2*j-1,j)*(-1)^(n+j+1)*binomial(2*n+1,j+n))/(2*n+1). [Vladimir Kruchinin, Feb 15 2013]
a(n) = Sum_{j=0..(n+1)/2}(binomial(n-j,n-2*j+1)*binomial(2*n+1,j))/(2*n+1). - Vladimir Kruchinin, Oct 05 2015
a(n) = (-1)^(n+1)*C(2*n+1,n)*hypergeom([-n-1,n/2+1/2,n/2],[n,n+1],4)/(2*n+1) for n>0. - Peter Luschny, Oct 06 2015
[A192876] 1, 1, 4, 9, 31, 94, 309, 989, 3212, 10373, 33595, 108670, 351729, 1138113, 3683172, 11918737, 38570247, 124815294, 403911805, 1307084405, 4229816636, 13687969901, 44295207939, 143342292894, 463865421721, 1501100008249
a(n)=2*a(n-1)+6*a(n-2)-5*a(n-3)-6*a(n-4)+4*a(n-5).
[A265645] 0, 0, 4, 9, 32, 50, 108, 147, 256, 324, 500, 605, 864, 1014, 1372, 1575, 2048, 2312, 2916, 3249, 4000, 4410, 5324, 5819, 6912, 7500, 8788, 9477, 10976, 11774, 13500, 14415, 16384, 17424, 19652, 20825, 23328, 24642, 27436, 28899, 32000, 33620, 37044, 38829, 42592, 44550, 48668, 50807, 55296, 57624, 62500
a(n) = n^2*(2*n + (-1)^n - 1)/4.
a(n) = n^3/2 for n even.
a(n) = n^2*(n-1)/2 for n odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>6. (End)
[A005985] 0, 1, 4, 9, 32, 65, 192, 385, 1024, 2049, 5120, 10241, 24576, 49153, 114688, 229377, 524288, 1048577, 2359296, 4718593, 10485760, 20971521, 46137344, 92274689, 201326592, 402653185, 872415232, 1744830465, 3758096384, 7516192769, 16106127360, 32212254721
a(n) = (2*n*2^n-(1-(-1)^n)*(2^n-2))/4. - Giovanni Resta, May 31 2015
a(n) = 2*a(n-1)+5*a(n-2)-10*a(n-3)-4*a(n-4)+8*a(n-5), n>5. - Wesley Ivan Hurt, May 31 2015
[A173659] 0, 0, 0, 1, 4, 9, 33, 79, 250, 647, 1914, 5157, 14797, 40663, 115036, 319098, 896896, 2498663, 7002446, 19546383, 54706009, 152839003, 427510168, 1194858679, 3341293220, 9340298995, 26116085175, 73010960431, 204132824544, 570699926244, 1595594838888
a(n) = a(n-1) + 8a(n-2) - 3a(n-3) - 17a(n-4) + a(n-5) + 13a(n-6) + 4a(n-7) - 6a(n-8) - a(n-9). [M. F. Hasler, Nov 24 2010]
[A096531] 0, 0, 4, 9, 34, 71, 245, 543, 1835, 4223, 14167, 33279, 111279, 264191, 882015, 2105343, 7023295, 16809983, 56055167, 134348799, 447916799, 1074266111, 3581236735, 8592031743, 28641504255, 68727865343, 229098477567
a(1)=0, a(2)=0, a(3)=4, a(5)=34, a(6)=71, a(7)=245, a(8)=509 are easily computed. If n even > 8 define Y(8)=130, Y(n)=3*Y(n-2) and then a(n)=9*a(n-2)-3*Y(n-2); if n odd define Y(7)=27, Y(n)=6*Y(n-2)-3 and then a(n)=8*a(n-2)+3-6*Y(n-2)
[A182144] 1, 1, 4, 9, 35, 104, 376, 1321, 4960, 18667, 72220, 282368, 1119791, 4481428, 18097960, 73612825, 301377323, 1240776848, 5133985196, 21337546123, 89037498752, 372879415520, 1566706843664, 6602445412864, 27900411735756, 118197671533743, 501897512293808
a(2*n+1) = b(2*n) for n>=0,
a(2*n) = b(2*n-1) + b(n) for n>0 with a(0)=1.
[A239230] 0, 1, 1, 4, 9, 36, 112, 428, 1505, 5692, 21026, 79806, 301488, 1151866, 4403778, 16929474, 65204353, 251947668, 975366094, 3784197606, 14705937794, 57242631464, 223121176224, 870805992278, 3402485053664, 13308485156086, 52104519751272, 204176144516818
a(n) = n*sum(k=1..n, sum(j=0..n-k, C(n+2*j-1,j+n-1)*(-1)^(k+j+n) *C(2*n-k,j+n)) /(2*n-k)).
a(n) = sum(k=1..n, (-1)^(k+n)*C(2*n-k-1,n-1)*hypergeom([k-n, n/2+1/2, n/2], [n, n+1], 4)). - Peter Luschny, May 22 2014
[A142239] 1, 4, 9, 40, 89, 396, 881, 3920, 8721, 38804, 86329, 384120, 854569, 3802396, 8459361, 37639840, 83739041, 372596004, 828931049, 3688320200, 8205571449, 36510605996, 81226783441, 361417739760, 804062262961, 3577666791604, 7959395846169, 35415250176280
a(n) = 10*a(n-2) - a(n-4) for n>3. - Vincenzo Librandi, Feb 01 2014
[A238420] 0, 4, 9, 40, 120, 390, 1176, 3536, 10395, 30260, 87120, 248844, 705744, 1989820, 5581485, 15586720, 43356936, 120187026, 332134440, 915304520, 2516113215, 6900949484, 18888143904, 51599794200, 140718765600, 383142771700, 1041660829521, 2828107288216, 7668512468760, 20768716848030, 56185646831160, 151840963183424, 409947452576739, 1105779284582180, 2980113861417840
a(n) = (1/5) * ((4n+4)*F(2n-2) + (7n+7)*F(2n-1) - 3(n+1)*(-1)^n). - Ralf Stephan, Mar 30 2014
[A083859] 0, 1, 1, 4, 9, 41, 133, 673, 2737, 15130, 72181, 430739, 2320825, 14815529, 88005541, 596681296, 3843559137, 27515587661, 189933449365, 1428716457761, 10474213334761, 82448447397646, 637534807917701, 5233087759204967, 42445677865505425, 362213650380301201
a(n) = (((1+sqrt(4n+1))/2)^n-((1-sqrt(4n+1))/2)^n)/sqrt(4n+1).
a(n) = y(n,n), where y(m+2,n) = y(m+1,n) + n*y(m,n), with y(0,n)=0, y(1,n)=1 for all n. - Benedict W. J. Irwin, Nov 03 2016
a(n) = [x^n] x/(1 - x - n*x^2). - Ilya Gutkovskiy, Oct 10 2017
[A203464] 4, 9, 56, 61, 69, 74, 121, 126, 134, 139, 186, 191, 199, 204, 251, 256, 264, 269, 316, 321, 329, 334, 381, 386, 394, 399, 446, 451, 459, 464, 511, 516, 524, 529, 576, 581, 589, 594, 641, 646, 654, 659, 706, 711, 719, 724, 771, 776, 784, 789, 836, 841, 849
a(n) = -a(-n+1) = (1/8)*(130*n+78*i^(n*(n+1))-45*(-1)^n-65), where i=sqrt(-1).

[A041597] 1, 1, 4, 9, 76, 161, 559, 720, 25039, 25759, 102316, 230391, 1945444, 4121279, 14309281, 18430560, 640948321, 659378881, 2619084964, 5897548809, 49799475436, 105496499681, 366288974479, 471785474160, 16406995095919, 16878780570079, 67043336806156
a(n) = 25598*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 21 2013
[A042381] 1, 1, 4, 9, 112, 121, 2048, 2169, 28076, 58321, 203039, 261360, 13793759, 14055119, 55959116, 125973351, 1567639328, 1693612679, 28665442192, 30359054871, 392974100644, 816307256159, 2841895869121, 3658203125280, 193068458383681, 196726661508961
a(n) = 13996798*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 21 2014
[A111072] 0, 1, 4, 10, 10, 15, 16, 24, 30, 35, 40, 46, 54, 55, 60, 60, 66, 69, 70, 70, 70, 71, 74, 80, 80, 85, 86, 94, 100, 105, 110, 116, 124, 125, 130, 130, 136, 139, 140, 140, 140, 141, 144, 150, 150, 155, 156, 164, 170, 175, 180, 186, 194, 195, 200, 200, 206, 209, 210
a(n+1) = a(n) + (a(n) - a(n-1) + (n+1) mod 10) mod 10, with a(0)=0, a(1)=1.
[A074226] 1, 4, 10, 11, 13, 14, 16, 23, 25, 34, 35, 37, 38, 40, 44, 47, 49, 52, 56, 58, 59, 61, 62, 64, 71, 73, 82, 83, 85, 86, 92, 95, 97, 100, 106, 107, 109, 110, 119, 121, 130, 131, 133, 134, 136, 140, 143, 145, 148, 152, 154, 155, 157, 158, 160, 167, 169, 176, 178, 179
a(n) seems to be asymptotic to c*n with c=3. - Benoit Cloitre, Sep 18 2002
[A087444] 1, 4, 10, 13, 19, 22, 28, 31, 37, 40, 46, 49, 55, 58, 64, 67, 73, 76, 82, 85, 91, 94, 100, 103, 109, 112, 118, 121, 127, 130, 136, 139, 145, 148, 154, 157, 163, 166, 172, 175, 181, 184, 190, 193, 199, 202, 208, 211, 217, 220, 226, 229, 235, 238, 244, 247, 253
a(n) = 9*n-a(n-1)-13 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A079932] 1, 4, 10, 13, 22, 27, 32, 36, 40, 49, 54, 62, 66, 71, 80, 91, 97, 102, 109, 114, 120, 124, 127, 138, 146, 149, 159, 165, 169, 180, 184, 187, 194, 202, 208, 219, 224, 231, 235, 248, 258, 263, 266, 274, 281, 287, 294, 300, 304, 308, 316, 323, 329, 337, 343, 350
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(1/sqrt(2)) and frac(y) = y - floor(y).
[A032821] 1, 4, 10, 13, 37, 40, 91, 94, 118, 121, 334, 337, 361, 364, 820, 823, 847, 850, 1063, 1066, 1090, 1093, 3007, 3010, 3034, 3037, 3250, 3253, 3277, 3280, 7381, 7384, 7408, 7411, 7624, 7627, 7651, 7654, 9568, 9571, 9595, 9598
a(1)=1, a(2)=4; a(n) = 9*a(floor(n/2))+1 for n odd, otherwise a(n) = 9*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A146763] 0, 4, 10, 14, 20, 24, 30, 34, 40, 44, 50, 54, 60, 64, 70, 74, 80, 84, 90, 94, 100, 104, 110, 114, 120, 124, 130, 134, 140, 144, 150, 154, 160, 164, 170, 174, 180, 184, 190, 194, 200, 204, 210, 214, 220, 224, 230, 234, 240, 244, 250, 254, 260, 264, 270, 274
a(n) = 10*n-a(n-1)-6 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
a(n) = (-1+(-1)^n+10*n)/2. a(n)=a(n-1)+a(n-2)-a(n-3). G.f.: x*(4+6*x) / ((1-x)^2*(1+x)). - Colin Barker, May 14 2012
[A283234] 4, 10, 14, 20, 26, 30, 36, 40, 46, 52, 56, 62, 68, 72, 78, 82, 88, 94, 98, 104, 108, 114, 120, 124, 130, 136, 140, 146, 150, 156, 162, 166, 172, 178, 182, 188, 192, 198, 204, 208, 214, 218, 224, 230, 234, 240, 246, 250, 256, 260, 266, 272, 276, 282, 286, 292
a(n) = 2*Floor(n*s), where r = (-1+sqrt(5))/2.
[A277570] 4, 10, 16, 22, 24, 28, 34, 40, 46, 52, 58, 60, 64, 70, 76, 82, 88, 94, 96, 100, 106, 112, 118, 124, 130, 132, 136, 142, 144, 148, 154, 160, 166, 168, 172, 178, 184, 190, 196, 202, 204, 208, 214, 220, 226, 232, 238, 240, 244, 250, 256, 262, 268, 274, 276, 280
a(n) = 5n + O(log n). - Charles R Greathouse IV, Nov 03 2016
[A016957] 4, 10, 16, 22, 28, 34, 40, 46, 52, 58, 64, 70, 76, 82, 88, 94, 100, 106, 112, 118, 124, 130, 136, 142, 148, 154, 160, 166, 172, 178, 184, 190, 196, 202, 208, 214, 220, 226, 232, 238, 244, 250, 256, 262, 268, 274, 280, 286, 292, 298, 304, 310, 316, 322, 328
a(n) = 2*(6*n+1)-a(n-1) (with a(0)=4). - Vincenzo Librandi, Nov 20 2010
a(n) = floor((sqrt(36*n^2-36*n+1)+6*n+1)/2). - Srikanth K S, Dec 18 2010
a(n) = 2*a(n-1)-a(n-2). (End)
[A271911] 0, 4, 10, 16, 24, 32, 42, 52, 64, 76, 90, 104, 120, 136, 154, 172, 192, 212, 234, 256, 280, 304, 330, 356, 384, 412, 442, 472, 504, 536
a(n) = (-1+(-1)^n+16*n+2*n^2)/4, or equivalently, a(n) = (n^2+8*n)/2 if n even, (n^2+8*n-1)/2 if n odd.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>4.
[A073121] 1, 4, 10, 16, 28, 40, 52, 64, 88, 112, 136, 160, 184, 208, 232, 256, 304, 352, 400, 448, 496, 544, 592, 640, 688, 736, 784, 832, 880, 928, 976, 1024, 1120, 1216, 1312, 1408, 1504, 1600, 1696, 1792, 1888, 1984, 2080, 2176, 2272, 2368, 2464, 2560, 2656, 2752
a(n) = 2*(a(floor(n/2))+a(ceil(n/2))) for n >= 2; alternatively a(n) = 2^c(n+2b) where n = 2^c + b, 0 <= b < 2^c
[A069982] 0, 0, 0, 0, 1, 4, 10, 16, 31, 40, 68, 80, 125, 140, 206, 224, 315, 336, 456, 480, 633, 660, 850, 880, 1111, 1144, 1420, 1456, 1781, 1820, 2198, 2240, 2675, 2720, 3216, 3264, 3825, 3876, 4506, 4560, 5263, 5320, 6100, 6160, 7021, 7084, 8030
a(n) = (2*n^3-3*n^2-23*n+3*(1+12*(-1)^(2^n)+(n^2-7*n+11)*(-1)^n))/24. - Luce ETIENNE, Jul 02 2015
[A056486] 4, 10, 16, 40, 64, 160, 256, 640, 1024, 2560, 4096, 10240, 16384, 40960, 65536, 163840, 262144, 655360, 1048576, 2621440, 4194304, 10485760, 16777216, 41943040, 67108864, 167772160, 268435456, 671088640, 1073741824, 2684354560, 4294967296, 10737418240
a(n) = 4^((n+1)/2) for n odd, a(n) = 4^(n/2)*5/2 for n even.
a(n) = 4*a(n-2).
[A213398] 1, 4, 10, 17, 27, 38, 52, 67, 85, 104, 126, 149, 175, 202, 232, 263, 297, 332, 370, 409, 451, 494, 540, 587, 637, 688, 742, 797, 855, 914, 976, 1039, 1105, 1172, 1242, 1313, 1387, 1462, 1540, 1619, 1701, 1784, 1870, 1957, 2047, 2138, 2232, 2327
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
a(n) = (n+1)^2 + floor(n/2). [Wesley Ivan Hurt, Jul 15 2013]
[A213497] 1, 4, 10, 17, 29, 40, 57, 73, 95, 115, 143, 167, 200, 229, 267, 300, 344, 381, 430, 472, 526, 572, 632, 682, 747, 802, 872, 931, 1007, 1070, 1151, 1219, 1305, 1377, 1469, 1545, 1642, 1723, 1825, 1910, 2018, 2107, 2220, 2314, 2432, 2530, 2654
a(n) = 2*a(n-2)+a(n-3)-a(n-4)-2*a(n-5)+a(n-7).
[A113804] 4, 10, 18, 24, 32, 38, 46, 52, 60, 66, 74, 80, 88, 94, 102, 108, 116, 122, 130, 136, 144, 150, 158, 164, 172, 178, 186, 192, 200, 206, 214, 220, 228, 234, 242, 248, 256, 262, 270, 276, 284, 290, 298, 304, 312, 318, 326, 332, 340, 346, 354, 360
a(n)=7n-((-1)^n+7)/2. G.f.: 2x(2+3x+2x^2)/((1-x)^2*(1+x)). [From R. J. Mathar, Aug 13 2008]
a(n)=14*n-a(n-1)-14 (with a(1)=4) [From Vincenzo Librandi, Aug 01 2010]
[A028552] 0, 4, 10, 18, 28, 40, 54, 70, 88, 108, 130, 154, 180, 208, 238, 270, 304, 340, 378, 418, 460, 504, 550, 598, 648, 700, 754, 810, 868, 928, 990, 1054, 1120, 1188, 1258, 1330, 1404, 1480, 1558, 1638, 1720, 1804, 1890, 1978, 2068
a(n) = a(n-1) + 2*(n+1) for n>0, with a(0)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3), with a(0)=0, a(1)=4, a(2)=10. - Harvey P. Dale, Feb 05 2012
a(n) = 4*C(n+1,2)-2*C(n,2) for n>=0. - Felix P. Muga II, Mar 11 2014
a(-3 - n) = a(n) for all n in Z. - Michael Somos, Mar 18 2014
[A217748] 1, 4, 10, 18, 28, 40, 54, 70, 88, 108, 130, 154, 180, 208, 238, 270, 304, 340, 378, 418, 460, 504, 550, 598, 648, 700, 754, 810, 868, 928, 990, 1054, 1120, 1188, 1258, 1330, 1404, 1480, 1558, 1638, 1720, 1804, 1890, 1978, 2068, 2160, 2254, 2350, 2448, 2548
a(n) = n*(n-3) for n > 3
[A283969] 1, 4, 10, 18, 29, 43, 59, 78, 99, 123, 150, 179, 211, 246, 283, 323, 365, 410, 458, 508, 561, 616, 674, 735, 798, 864, 933, 1004, 1078, 1154, 1233, 1315, 1399, 1486, 1576, 1668, 1763, 1860, 1960, 2063, 2168, 2276, 2386, 2499, 2615, 2733, 2854, 2978, 3104
a(n) = n + 1 + Sum_({k=0..n} floor((n-k)/r, where r = (3+sqrt(5))/2).
[A267882] 1, 1, 4, 10, 19, 30, 43, 58, 75, 94, 115, 138, 163, 190, 219, 250, 283, 318, 355, 394, 435, 478, 523, 570, 619, 670, 723, 778, 835, 894, 955, 1018, 1083, 1150, 1219, 1290, 1363, 1438, 1515, 1594, 1675, 1758, 1843, 1930, 2019, 2110, 2203, 2298, 2395, 2494
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
[A022785] 1, 4, 10, 19, 30, 44, 61, 81, 103, 128, 156, 186, 219, 255, 294, 335, 379, 426, 475, 527, 582, 640, 700, 763, 829, 897, 968, 1042, 1119, 1198, 1280, 1365, 1452, 1542, 1635, 1731, 1829, 1930, 2034, 2141, 2250, 2362, 2477, 2594, 2714, 2837, 2963
a(n)=1+sum(k=1,n-1,ceil(r*k)) where r=e [From Benoit Cloitre, Jan 24 2009]
[A005448] 1, 4, 10, 19, 31, 46, 64, 85, 109, 136, 166, 199, 235, 274, 316, 361, 409, 460, 514, 571, 631, 694, 760, 829, 901, 976, 1054, 1135, 1219, 1306, 1396, 1489, 1585, 1684, 1786, 1891, 1999, 2110, 2224, 2341, 2461, 2584, 2710, 2839, 2971, 3106, 3244, 3385, 3529
a(n) = C(n+3, 3)-C(n, 3) = C(n, 0)+3*C(n, 1)+3*C(n, 2). - Paul Barry, Jul 01 2003
a(n) = 1 + Sum_{j=0..n-1} (3*j). - Xavier Acloque, Oct 25 2003
a(1-n) = a(n). - Michael Somos, Sep 23 2006
a(n) = binomial(n+1,n-1) + binomial(n,n-2) + binomial(n-1,n-3). - Zerinvary Lajos, Sep 03 2006

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(1)=1, a(2)=4, a(3)=10. - Jaume Oliver Lafont, Dec 02 2008
a(n) = a(n-1) + 3*n-3. - Vincenzo Librandi, Nov 18 2010
[A007077] 1, 4, 10, 19, 31, 47, 68, 92, 120, 153, 190, 232, 279, 332, 392, 454, 521, 593, 670, 753, 841, 936, 1036, 1141, 1252, 1370, 1494, 1625, 1763, 1909, 2063, 2216, 2376, 2542, 2713, 2890, 3074, 3264, 3460, 3663, 3872, 4088, 4310, 4540, 4776, 5021
a(n) = m(n, 0) where m(0, d) = 0 and for n > 0, m(n, d) = min_{1 <= r <= n} {(r+d) * n + m(r-1, d) + m(n-r, r+d)} [from Knight]. - Sean A. Irvine, Oct 07 2017
[A173154] 1, 4, 10, 19, 33, 52, 78, 111, 153, 204, 266, 339, 425, 524, 638, 767, 913, 1076, 1258, 1459, 1681, 1924, 2190, 2479, 2793, 3132, 3498, 3891, 4313, 4764, 5246, 5759, 6305, 6884, 7498, 8147, 8833, 9556, 10318, 11119, 11961, 12844, 13770, 14739, 15753, 16812, 17918, 19071, 20273, 21524
a(n)= +3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5).
[A022905] 1, 4, 10, 19, 34, 55, 85, 124, 178, 247, 337, 448, 589, 760, 970, 1219, 1522, 1879, 2305, 2800, 3385, 4060, 4846, 5743, 6781, 7960, 9310, 10831, 12562, 14503, 16693, 19132, 21874, 24919, 28321, 32080, 36265, 40876, 45982, 51583, 57769
a(n) = a(n-1) + 1 + a(floor(n/2)) + a(ceiling(n/2))) for n>1, a(1) = 1. - Alois P. Heinz, Sep 17 2013
[A140229] 1, 4, 10, 20, 33, 49, 68, 90, 115, 143, 174, 208, 245, 285, 328, 374, 423, 475, 530, 588, 649, 713, 780, 850, 923, 999, 1078, 1160, 1245, 1333, 1424, 1518, 1615, 1715, 1818, 1924, 2033, 2145, 2260, 2378, 2499, 2623, 2750, 2880, 3013, 3149, 3288, 3430, 3575
a(n) = (n+1)(3n-4)/2, for n>=3. - Emeric Deutsch, May 18 2008
[A279015] 0, 0, 4, 10, 20, 34, 52, 73, 100, 128, 162, 199, 240, 285, 334, 387, 444, 505, 570, 639, 712, 789, 870, 955, 1044, 1137, 1234, 1335, 1440, 1549, 1662, 1779, 1900, 2025, 2154, 2287, 2424, 2565, 2710, 2859, 3012, 3169, 3330, 3495, 3664, 3837, 4014, 4195, 4380, 4569
a(n) = 2*n^2 - 21*n + 64 for n=12 or n>=14.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>8.
[A005893] 1, 4, 10, 20, 34, 52, 74, 100, 130, 164, 202, 244, 290, 340, 394, 452, 514, 580, 650, 724, 802, 884, 970, 1060, 1154, 1252, 1354, 1460, 1570, 1684, 1802, 1924, 2050, 2180, 2314, 2452, 2594, 2740, 2890, 3044, 3202, 3364, 3530, 3700, 3874, 4052, 4234
a(n) = binomial(n+3, 3) - binomial(n-1, 3) for n >= 1. - Mitch Harris, Jan 08 2008
a(n) = (n+1)^2 + (n-1)^2. - Benjamin Abramowitz, Apr 14 2009
a(n) = 2*n^2 - 0^n + 2. - Vincenzo Librandi, Sep 27 2011
a(0)=1, a(1)=4, a(2)=10, a(3)=20, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Feb 26 2012
a(n) = a(-n) for all n in Z. - Michael Somos, May 14 2014
[A008132] 1, 4, 10, 20, 34, 52, 74, 102, 136, 172, 210, 252, 300, 354, 410, 468, 530, 600, 678, 756, 834, 916, 1006, 1104, 1202, 1300, 1402, 1514, 1636, 1756, 1874, 1996, 2128, 2270, 2410, 2548, 2690, 2844, 3010, 3172, 3330, 3492, 3666, 3852, 4034, 4212, 4394, 4590
a(10*m+k) = 208*m^2 + b(k)*m + c(k), where b(k), c(k) are constants depending on k, 0<=k<10 (N. J. A. Sloane).
[A008129] 1, 4, 10, 20, 34, 53, 76, 103, 135, 170, 209, 252, 300, 354, 410, 470, 534, 602, 676, 752, 833, 918, 1007, 1103, 1200, 1301, 1406, 1516, 1634, 1752, 1874, 2000, 2130, 2268, 2406, 2549, 2696, 2847, 3007, 3166, 3329, 3496, 3668, 3850, 4030, 4214, 4402, 4594
a(15*m+k) = 468*m^2 + b(k)*m + c(k), where b(k), c(k) are constants depending on k, 0<=k<15 (N. J. A. Sloane).
[A008013] 1, 4, 10, 20, 34, 54, 78, 104, 134, 168, 210, 256, 302, 352, 406, 470, 538, 604, 674, 748, 834, 924, 1010, 1100, 1194, 1302, 1414, 1520, 1630, 1744, 1874, 2008, 2134, 2264, 2398, 2550, 2706, 2852, 3002, 3156, 3330, 3508, 3674, 3844, 4018, 4214, 4414, 4600
a(5m)=52*m^2+2, a(5m+1)=52*m^2+22*m+4, a(5m+2)=52*m^2+42*m+10, a(5m+3)=52*m^2+62*m+20, a(5m+4)=52*m^2+82*m+34 (N. J. A. Sloane).
[A132152] 0, 0, 0, 1, 4, 10, 20, 34, 56, 100, 200, 356, 624, 1160, 2320, 4104, 7136, 13200, 26400, 46736, 81344, 150560, 301120, 533024, 927616, 1716800, 3433600, 6078016, 10577664, 19576960, 39153920, 69308544, 120618496, 223238400
a(n)=10*a(n-4)+16*a(n-8), n>8. - R. J. Mathar, Feb 07 2009
[A000292] 0, 1, 4, 10, 20, 35, 56, 84, 120, 165, 220, 286, 364, 455, 560, 680, 816, 969, 1140, 1330, 1540, 1771, 2024, 2300, 2600, 2925, 3276, 3654, 4060, 4495, 4960, 5456, 5984, 6545, 7140, 7770, 8436, 9139, 9880, 10660, 11480, 12341, 13244, 14190, 15180
a(n) = C(n+2,3) = n*(n+1)*(n+2)/6 (see the name).
a(n) = -a(-4 - n) for all in Z.
a(n) = (n+3)*a(n-1)/n. - Ralf Stephan, Apr 26 2003
a(n) = C(1, 2) + C(2, 2) + ... + C(n-1, 2) + C(n, 2); e.g., for n = 5: a(5) = 0 + 1 + 3 + 6 + 10 = 20. - Labos Elemer, May 09 2003
a(n) = Sum_{k=0..floor((n-1)/2)} (n-2k)^2 [offset 0]; a(n+1) = Sum_{k=0..n} k^2*(1-(-1)^(n+k-1))/2 [offset 0]. - Paul Barry, Apr 16 2005
a(n) = Sum_{m=1..n} Sum_{k=1..m} k. - Alexander Adamchuk, Oct 28 2006
[A101552] 0, 0, 0, 0, 0, 0, 1, 4, 10, 20, 35, 56, 84, 120, 166, 228, 322, 484, 785, 1352, 2396, 4248, 7405, 12592, 20856, 33728, 53524, 83912, 130956, 204968, 323665, 517356, 837206, 1368108, 2248479, 3700648, 6077900, 9938488, 16164330, 26154700, 42146078
a(n) = sum{k=0..n, if(mod(k+1, 4)=0, C(n-k, k), 0)}.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + a(n-8). - G. C. Greubel, May 17 2016
[A266353] 1, 4, 10, 20, 35, 57, 89, 136, 205, 306, 454, 671, 989, 1455, 2138, 3139, 4606, 6756, 9907, 14525, 21293, 31212, 45749, 67054, 98278, 144039, 211105, 309395, 453446, 664563, 973970, 1427428, 2092003, 3065985, 4493425, 6585440, 9651437, 14144874, 20730326, 30381775
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) for n>5.
[A139748] 0, 0, 0, 1, 4, 10, 20, 35, 57, 93, 165, 330, 715, 1574, 3381, 6995, 13990, 27370, 53143, 103702, 204820, 409640, 826045, 1669801, 3368259, 6765175, 13530350, 26985675, 53774932, 107232053, 214146295, 428292590, 857417220, 1717012749, 3437550076
a(n) = round((2/5)*(2^(n-1)+phi^n*cos(Pi*(n-6)/5))), where phi is the golden ratio, round(x) is the integer nearest to x. - Vladimir Shevelev, Jun 28 2017
[A140226] 1, 4, 10, 20, 36, 60, 94, 140, 200, 276, 370, 484, 620, 780, 966, 1180, 1424, 1700, 2010, 2356, 2740, 3164, 3630, 4140, 4696, 5300, 5954, 6660, 7420, 8236, 9110, 10044, 11040, 12100, 13226, 14420
a(n)=n(11+n^2)/3 for n>=1. G.f.=(1+x^4)/(1-x)^4. - Emeric Deutsch, Jun 03 2008
[A145132] 0, 1, 4, 10, 20, 36, 61, 99, 155, 236, 352, 517, 750, 1077, 1534, 2171, 3057, 4287, 5992, 8353, 11620, 16138, 22383, 31012, 42932, 59395, 82129, 113519, 156857, 216687, 299281, 413296, 570681, 787929, 1087805, 1501731, 2073078, 2861710, 3950256, 5452767
a(n) = 4a(n-1) -6a(n-2) +4a(n-3) -3a(n-5) +3a(n-6) -a(n-7).
[A000749] 0, 0, 0, 1, 4, 10, 20, 36, 64, 120, 240, 496, 1024, 2080, 4160, 8256, 16384, 32640, 65280, 130816, 262144, 524800, 1049600, 2098176, 4194304, 8386560, 16773120, 33550336, 67108864, 134225920, 268451840, 536887296, 1073741824, 2147450880
a(n) = Sum_{k=0..n} binomial(n, 4*k+3).
a(n; t, s) = a(n-1; t, s) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
a(n) = -(1/4)*[(1+I)*(1-I)^(n-1)-(1-I)*(1+I)^(n-1)]+(1/2)*2^(n-1),100)-(1/4)*(C(2*n,n) mod 2), with n>=0. - Paolo P. Lava, Jun 29 2009
[A008254] 1, 4, 10, 20, 38, 58, 80, 112, 144, 180, 226, 270, 320, 380, 436, 500, 574, 642, 720, 808, 888, 980, 1082, 1174, 1280, 1396, 1500, 1620, 1750, 1866, 2000, 2144, 2272, 2420, 2578, 2718, 2880, 3052, 3204, 3380, 3566, 3730, 3920, 4120, 4296, 4500, 4714, 4902
a(3*m) = 20*m^2, a(3*m+1) = 20*m^2+14*m+4, a(3*m+2) = 20*m^2+26*m+12 (m>0).
[A168673] 1, 4, 10, 20, 38, 74, 148, 298, 598, 1196, 2390, 4778, 9556, 19114, 38230, 76460, 152918, 305834, 611668, 1223338, 2446678, 4893356, 9786710, 19573418, 39146836, 78293674, 156587350, 313174700, 626349398, 1252698794, 2505397588, 5010795178, 10021590358
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) for n > 2; a(0) = 1, a(1) = 4, a(2) = 10.
a(n) = -(2/3)*{[(1 - I*sqrt(3))/2]^n + [(1 + I*sqrt(3))/2]^n} + (7/3)*2^n, with n>=0 and I=sqrt(-1). - Paolo P. Lava, Dec 03 2009
[A100354] 0, 0, 0, 1, 4, 10, 20, 40, 70, 112, 168, 252, 360, 495, 661, 881, 1145, 1457, 1824, 2279, 2804, 3404, 4090, 4906, 5824, 6850, 8000, 9330, 10800, 12417, 14208, 16232, 18440, 20840, 23470, 26395, 29554, 32956, 36652, 40712, 45062, 49712, 54728, 60184
a(n) = max(a(k) + k*choose(n-k, 3), 1 <= k < n)
[A015220] 4, 10, 20, 56, 84, 120, 220, 286, 364, 560, 680, 816, 1140, 1330, 1540, 2024, 2300, 2600, 3276, 3654, 4060, 4960, 5456, 5984, 7140, 7770, 8436, 9880, 10660, 11480, 13244, 14190, 15180, 17296, 18424, 19600, 22100, 23426, 24804, 27720, 29260
a(n) = a(n-1) + 3*a(n-3) - 3*a(n-4) - 3*a(n-6) + 3*a(n-7) + a(n-9) - a(n-10)
a(n) = 64 + 3*a(n-3) - 3*a(n-6) + a(n-9)
[A008000] 1, 4, 10, 21, 36, 54, 78, 106, 136, 173, 214, 256, 306, 360, 414, 477, 544, 610, 686, 766, 844, 933, 1026, 1116, 1218, 1324, 1426, 1541, 1660, 1774, 1902, 2034, 2160, 2301, 2446, 2584, 2738, 2896, 3046, 3213, 3384, 3546, 3726, 3910, 4084, 4277, 4474, 4660
a(3m)=19m^2+2, a(3m+1)=19m^2+13m+4, a(3m+2)=19m^2+25m+10, for m>0. [N. J. A. Sloane]

[A008260] 1, 4, 10, 21, 37, 57, 81, 109, 142, 180, 222, 268, 318, 373, 433, 497, 565, 637, 714, 796, 882, 972, 1066, 1165, 1269, 1377, 1489, 1605, 1726, 1852, 1982, 2116, 2254, 2397, 2545, 2697, 2853, 3013, 3178, 3348, 3522, 3700, 3882, 4069, 4261, 4457, 4657, 4861
a(5m) = 55m^2+2, a(5m+1) = 55m^2+22m+4, a(5m+2) = 55m^2+44m+10, a(5m+3) = 55m^2+88m+37, a(5m+4) = 55m^2+88m+37. [N. J. A. Sloane]
[A253688] 1, 4, 10, 21, 39, 64, 94, 129, 171, 218, 272, 331, 397, 468, 546, 629, 719, 814, 916, 1023, 1137, 1256, 1382, 1513, 1651, 1794, 1944, 2099, 2261, 2428, 2602, 2781, 2967, 3158, 3356, 3559, 3769, 3984, 4206, 4433, 4667, 4906, 5152, 5403, 5661, 5924, 6194, 6469, 6751, 7038
a(n) = (53-(-1)^n-38*n+12*n^2)/4 for n>5.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>9.
[A049480] 1, 4, 10, 21, 39, 66, 104, 155, 221, 304, 406, 529, 675, 846, 1044, 1271, 1529, 1820, 2146, 2509, 2911, 3354, 3840, 4371, 4949, 5576, 6254, 6985, 7771, 8614, 9516, 10479, 11505, 12596, 13754, 14981, 16279, 17650, 19096, 20619, 22221
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4); a(1)=1, a(2)=4, a(3)=10, a(4)=21. (End)
[A216172] 0, 0, 1, 4, 10, 21, 39, 66, 105, 159, 231, 325, 445, 595, 780, 1005, 1275, 1596, 1974, 2415, 2926, 3514, 4186, 4950, 5814, 6786, 7875, 9090, 10440, 11935, 13585, 15400, 17391, 19569, 21945, 24531, 27339, 30381, 33670, 37219, 41041, 45150, 49560, 54285, 59340
a(n) = (1/72)*(-6*n -5*n^2 +2*n^3 +n^4 +4 -4*(-1)^(n mod 3)).
[A220907] 0, 1, 4, 10, 21, 40, 70, 119, 190, 301, 455, 686, 998, 1450, 2051, 2895, 4001, 5523, 7490, 10141, 13545, 18046, 23773, 31255, 40687, 52850, 68105, 87542, 111755, 142347, 180205, 227622, 286027, 358580, 447482, 557235, 691016, 855131, 1054375, 1297352, 1591060
a(n) = N_2(n)/2 (where N_2(n) is the second rank moment, see relation (1.1) of the Garvan reference).
[A001891] 0, 1, 4, 10, 21, 40, 72, 125, 212, 354, 585, 960, 1568, 2553, 4148, 6730, 10909, 17672, 28616, 46325, 74980, 121346, 196369, 317760, 514176, 831985, 1346212, 2178250, 3524517, 5702824, 9227400, 14930285, 24157748, 39088098, 63245913, 102334080, 165580064
a(n) = F(n+5) - (5+2*n). - Wolfdieter Lang
a(n) = a(n-1) + a(n-2) + (2n+1); a(-x)=0. - Barry E. Williams, Mar 27 2000
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4). - Sam Lachterman (slachterman(AT)fuse.net), Sep 22 2003
a(n) = (-3 + (2^(-1-n)*((1-sqrt(5))^n*(-11+5*sqrt(5)) + (1+sqrt(5))^n*(11+5*sqrt(5)))) / sqrt(5) - 2*(1+n)). - Colin Barker, Mar 11 2017
[A266355] 1, 4, 10, 21, 40, 73, 129, 224, 385, 658, 1122, 1910, 3248, 5519, 9375, 15922, 27038, 45911, 77954, 132358, 224727, 381555, 647823, 1099903, 1867461, 3170650, 5383253, 9139893, 15518057, 26347142, 44733168, 75949650, 128950161, 218936410, 371718429, 631117454
a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-6) - a(n-8) for n>9.
[A121497] 0, 0, 1, 4, 10, 21, 41, 78, 148, 282, 537, 1013, 1882, 3446, 6267, 11468, 21416, 41209, 81771, 166042, 340994, 700570, 1429375, 2886777, 5771828, 11453105, 22638215, 44742141, 88681674, 176545766, 352992931, 707922077, 1421120880, 2849433326
a(n)=sum_{i=1..pi(n)} binomial(n,prime(i)), where pi(n) is the number of primes <= n.
[A132925] 1, 4, 10, 21, 41, 78, 148, 283, 547, 1068, 2102, 4161, 8269, 16474, 32872, 65655, 131207, 262296, 524458, 1048765, 2097361, 4194534, 8388860, 16777491, 33554731, 67109188, 134218078, 268435833, 536871317, 1073742258, 2147484112
a(1)=1, a(2)=4, a(3)=10, a(4)=21, a(n)=5*a(n-1)-9*a(n-2)+ 7*a(n-3)- 2*a(n-4). - Harvey P. Dale, Jun 19 2011
[A264079] 1, 4, 10, 21, 41, 79, 150, 282, 527, 982, 1829, 3405, 6337, 11790, 21932, 40797, 75888, 141161, 262573, 488407, 908474, 1689830, 3143211, 5846606, 10875117, 20228513, 37626513, 69988066, 130182920, 242149745, 450416216, 837807065, 1558382345, 2898705007, 5391803070
a(n) = 2*a(n-1) - a(n-3) + a(n-4) + a(n-5) - 2*a(n-6) for n>6.
[A111927] 0, 0, 0, 1, 4, 10, 21, 42, 84, 169, 340, 682, 1365, 2730, 5460, 10921, 21844, 43690, 87381, 174762, 349524, 699049, 1398100, 2796202, 5592405, 11184810, 22369620, 44739241, 89478484, 178956970, 357913941, 715827882, 1431655764, 2863311529, 5726623060
a(n) = 2^n/3 + 2*cos((Pi*n)/3)/3 - 1.
a(n) = 4*a(n-1) - 6*a(n-2) + 5*a(n-3) - 2*a(n-4) for n>3.
[A290998] 0, 0, 1, 4, 10, 21, 43, 92, 205, 462, 1035, 2301, 5099, 11303, 25088, 55728, 123800, 274969, 610628, 1355970, 3011157, 6686979, 14850196, 32978725, 73237462, 162641499, 361184653, 802098203, 1781254927, 3955712256, 8784625824, 19508406192, 43323176177
a(n) = 4*a(n-1) - 6*a(n-2) + 5*a(n-3) - a(n-4) for n >= 5.
[A008255] 1, 4, 10, 22, 38, 56, 82, 112, 142, 182, 226, 268, 322, 380, 434, 502, 574, 640, 722, 808, 886, 982, 1082, 1172, 1282, 1396, 1498, 1622, 1750, 1864, 2002, 2144, 2270, 2422, 2578, 2716, 2882, 3052, 3202, 3382, 3566, 3728, 3922, 4120, 4294, 4502, 4714, 4900
a(3*m) = 20*m^2+2, a(3*m+1) = 20*m^2+14*m+4, a(3*m+2) = 20*m^2+26*m+10.
[A061777] 1, 4, 10, 22, 40, 70, 112, 178, 268, 406, 592, 874, 1252, 1822, 2584, 3730, 5260, 7558, 10624, 15226, 21364, 30574, 42856, 61282, 85852, 122710, 171856, 245578, 343876, 491326, 687928, 982834, 1376044, 1965862, 2752288, 3931930, 5504788
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+2*a(n-4). G.f.: (1+2*x)*(1+x^2)/((1-x)^2*(1-2*x^2)). - Colin Barker, May 08 2012
a(n) = -20 - 6*n + (21+15*sqrt(2))*sqrt(2)^(n-2) + (21-15*sqrt(2))*(-sqrt(2))^(n-2). a(n) = 2*a(n-2) + ((3*n-2)/(3*n-5))*(a(n-1)-2*a(n-3)). - Robert Israel, Sep 14 2014
[A227327] 0, 1, 4, 10, 22, 41, 72, 116, 180, 265, 380, 526, 714, 945, 1232, 1576, 1992, 2481, 3060, 3730, 4510, 5401, 6424, 7580, 8892, 10361, 12012, 13846, 15890, 18145, 20640, 23376, 26384, 29665, 33252, 37146, 41382, 45961, 50920, 56260, 62020, 68201, 74844
a(n) = (n^4 + 2*n^3 + 8*n^2 - 8*n)/48; if n even.
a(n) = (n^4 + 2*n^3 + 8*n^2 - 2*n - 9)/48; if n odd.
[A006001] 1, 4, 10, 22, 43, 76, 124, 190, 277, 388, 526, 694, 895, 1132, 1408, 1726, 2089, 2500, 2962, 3478, 4051, 4684, 5380, 6142, 6973, 7876, 8854, 9910, 11047, 12268, 13576, 14974, 16465, 18052, 19738, 21526
a(n) = 1 + 5*n/2 + n^3/2. - Enrique Pérez Herrero, Mar 19 2012
[A004798] 1, 4, 10, 22, 45, 88, 167, 310, 566, 1020, 1819, 3216, 5645, 9848, 17090, 29522, 50793, 87080, 148819, 253610, 431086, 731064, 1237175, 2089632, 3523225, 5930668, 9968122, 16730830, 28045221, 46954360, 78524159, 131181406, 218933030, 365044788, 608135635, 1012268592
a(n) = a(n-1) + a(n-2) + Fibonacci(n+2). - Philippe Deléham, Jan 22 2012
[A265052] 1, 4, 10, 22, 45, 89, 172, 328, 622, 1176, 2220, 4186, 7888, 14859, 27987, 52710, 99268, 186946, 352062, 663010, 1248588, 2351350, 4428075, 8338971, 15703984, 29573802, 55693492, 104882184, 197514502, 371960008, 700476396, 1319139609, 2484208341, 4678269862, 8810134210, 16591275636, 31244748450
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - 2*a(n-5) + 2*a(n-6) - 2*a(n-8) + 3*a(n-9) - 3*a(n-10) + a(n-11) for n>11. - Vincenzo Librandi, Jan 01 2016
[A038621] 1, 4, 10, 22, 46, 81, 129, 198, 284, 392, 530, 691, 883, 1114, 1374, 1674, 2022, 2405, 2837, 3326, 3856, 4444, 5098, 5799, 6567, 7410, 8306, 9278, 10334, 11449, 12649, 13942, 15300, 16752, 18306, 19931, 21659, 23498, 25414, 27442, 29590, 31821, 34173, 36654
a(0)=1, a(1)=4; for n>=2: if n == 0 (mod 3), a(n) = (4*n^3 + 6*n^2 + 15*n - 9)/9; if n == 1 (mod 3), a(n) = (4*n^3 + 6*n^2 + 18*n - 10)/9; if n == 2 (mod 3), a(n) = (4*n^3 + 6*n^2 + 15*n + 4)/9.
[A099018] 4, 10, 22, 46, 94, 190, 382, 766, 1534, 3070, 6142, 12286, 24574, 49150, 98302, 196606, 393214, 786430, 1572862, 3145726, 6291454, 12582910, 25165822, 50331646, 100663294, 201326590, 402653182, 805306366, 1610612734, 3221225470
a(n) = 3*2^n - 2.
a(n) = 2*(a(n-1)+1) with a(1)=4 [Vincenzo Librandi, Nov 17 2010]
[A178452] 0, 0, 1, 4, 10, 22, 47, 98, 200, 404, 813, 1632, 3270, 6546, 13099, 26206, 52420, 104848, 209705, 419420, 838850, 1677710, 3355431, 6710874, 13421760, 26843532, 53687077, 107374168, 214748350, 429496714, 858993443, 1717986902
a(n) = round((4*2^n-5*n-5)/10).
a(n) = floor((4*2^n-5*n-3)/10).
a(n) = ceil((4*2^n-5*n-7)/10).
a(n) = round((4*2^n-5*n-4)/10).
a(n) = a(n-4)+3*2^(n-3)-2, n>4.
a(n) = 3*a(n-1)-2*a(n-2)+a(n-4)-3*a(n-5)+2*a(n-6) for n>6. (End)
[A137247] 0, 0, 0, 1, 4, 10, 22, 49, 112, 256, 580, 1309, 2956, 6682, 15106, 34141, 77152, 174352, 394024, 890473, 2012404, 4547866, 10277806, 23227033, 52491280, 118626160, 268085740, 605852581, 1369179004, 3094236490, 6992730202, 15803018149
a(n)=-(1/2)+(1/6)*{1+[(1/2)*I]*108^(1/6)-(1/2)*2^(1/3)}^n+(1/6)*[1-(1/2)*I]*108^(1/6)-(1/2)*2^(1 /3))^n+(1/6)*[1+2^(1/3)]^n, with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A276308] 1, 1, 1, 1, 4, 10, 22, 115, 319, 736, 3886, 10816, 24991, 131989, 367405, 848947, 4483720, 12480934, 28839196, 152314471, 423984331, 979683706, 5174208274, 14402986300, 33280406797, 175770766825, 489277549849, 1130554147381, 5971031863756, 16621033708546

a(n) = 35*a(n-3)-35*a(n-6)+a(n-9) for n>8.
[A118645] 0, 0, 1, 1, 4, 10, 23, 51, 109, 228, 471, 964, 1960, 3967, 8003, 16107, 32362, 64941, 130200, 260866, 522415, 1045831, 2093129, 4188408, 8379967, 16764552, 33535872, 67081663, 134177863, 268377031, 536785286, 1073616333, 2147299732
a(n) = 3*2^(n-3) + a(n-1) + a(n-3) for n >= 3. - Tanya Khovanova, Aug 22 2006
[A159347] 1, 1, 1, 4, 10, 23, 53, 123, 286, 665, 1546, 3594, 8355, 19423, 45153, 104968, 244021, 567280, 1318766, 3065759, 7127025, 16568323, 38516678, 89540413, 208156206, 483904470, 1124941411, 2615171499, 6079536145, 14133206848, 32855719753
a(0)=1, a(1)=1, a(2)=1, a(3)=4, a(4)=10 and for n>=2 a(n+3)=3*a(n+2)-2*a(n+1)+a(n).
[A008258] 1, 4, 10, 24, 40, 64, 90, 120, 160, 200, 244, 300, 354, 412, 484, 552, 624, 712, 794, 880, 984, 1080, 1180, 1300, 1410, 1524, 1660, 1784, 1912, 2064, 2202, 2344, 2512, 2664, 2820, 3004, 3170, 3340, 3540, 3720, 3904, 4120, 4314, 4512, 4744, 4952, 5164, 5412
a(3*m) = 22*m^2+2, a(3*m+1) = 22*m^2+14*m+4, a(3*m+2) = 22*m^2+30*m+12, m>0. - N. J. A. Sloane
[A107659] 1, 4, 10, 24, 52, 112, 232, 480, 976, 1984, 4000, 8064, 16192, 32512, 65152, 130560, 261376, 523264, 1047040, 2095104, 4191232, 8384512, 16771072, 33546240, 67096576, 134201344, 268410880, 536838144, 1073692672, 2147418112
a(2n) = 2^n(2^(n+2)-3), a(2n+1) = 2^n(2^(n+3)-4).
a(0)=1, a(1)=4, a(2)=10, a(n)=2*a(n-1)+2*a(n-2)-4*a(n-3). - Harvey P. Dale, Nov 10 2013
[A266367] 1, 4, 10, 24, 54, 116, 250, 536, 1142, 2436, 5194, 11064, 23574, 50228, 107002, 227960, 485654, 1034628, 2204170, 4695768, 10003830, 21312116, 45403258, 96726872, 206066486, 439003140, 935250250, 1992452856, 4244712534, 9042916148, 19264987258, 41042041016, 87435776726
a(n) = 2*a(n-1) + 2*a(n-3) - 3*a(n-4) for n>4.
[A152548] 1, 4, 10, 24, 54, 120, 260, 560, 1190, 2520, 5292, 11088, 23100, 48048, 99528, 205920, 424710, 875160, 1798940, 3695120, 7574996, 15519504, 31744440, 64899744, 132503644, 270415600, 551231800, 1123264800, 2286646200, 4653525600
a(n) = Sum_{k=0..[(n+1)/2]} C(n+1, k)*(n+1-2k)^3/(n+1).
a(n) = (-2)^n*hypergeom([-n,3/2], [1], 2). - Peter Luschny, Apr 26 2016
[A291727] 4, 10, 24, 55, 116, 234, 460, 879, 1640, 3006, 5424, 9650, 16964, 29510, 50852, 86893, 147360, 248198, 415440, 691428, 1144772, 1886270, 3094292, 5055140, 8227084, 13341756, 21564360, 34746331, 55823080, 89439056, 142928424, 227851285, 362396564, 575135150
a(n) = 4*a(n-1) - 6*a(n-2) + 8*a(n-3) - 13*a(n-4) + 12*a(n-5) - 10*a(n-6) + 12*a(n-7) - 6*a(n-8) +4*a(n-9) - 4*a(n-10) - a(n-12) for n >= 13.
[A291224] 4, 10, 24, 55, 120, 254, 524, 1059, 2104, 4120, 7968, 15244, 28888, 54284, 101240, 187537, 345268, 632122, 1151408, 2087485, 3768280, 6775322, 12136940, 21666712, 38555100, 68401582, 121011800, 213521067, 375813760, 659910710, 1156204452, 2021495767
a(n) = 4*a(n-1) - 2*a(n-2) - 8*a(n-3) + 5*a(n-4) + 8*a(n-5) - 2*a(n-6) - 4*a(n-7) - a(n-8) for n >= 9.
[A087447] 1, 1, 4, 10, 24, 56, 128, 288, 640, 1408, 3072, 6656, 14336, 30720, 65536, 139264, 294912, 622592, 1310720, 2752512, 5767168, 12058624, 25165824, 52428800, 109051904, 226492416, 469762048, 973078528, 2013265920, 4160749568
a(n) = Sum_{k=0..floor(n/2)} C(n, 2k)*(2k+1). - Paul Barry, Nov 29 2004
a(n) = 4*a(n-1) - 4*a(n-2) for n>3. - Colin Barker, Mar 23 2012
[A129953] 0, 1, 4, 10, 24, 56, 128, 288, 640, 1408, 3072, 6656, 14336, 30720, 65536, 139264, 294912, 622592, 1310720, 2752512, 5767168, 12058624, 25165824, 52428800, 109051904, 226492416, 469762048, 973078528, 2013265920, 4160749568
a(0) = 0, a(1) = 1; for n > 1, a(n) = (n+2)*2^(n-2).
[A079859] 4, 10, 24, 56, 128, 288, 640, 1408, 3072, 6656, 14336, 30720, 65536, 139264, 294912, 622592, 1310720, 2752512, 5767168, 12058624, 25165824, 52428800, 109051904, 226492416, 469762048, 973078528, 2013265920, 4160749568, 8589934592, 17716740096, 36507222016
a(n) = 4*a(n-1) - 4*a(n-2) for n>5. - Colin Barker, Sep 29 2015
[A019494] 4, 10, 24, 57, 135, 319, 753, 1777, 4193, 9893, 23341, 55069, 129925, 306533, 723205, 1706261, 4025589, 9497589, 22407701, 52866581, 124728341, 294272085, 694277333, 1638011349, 3864566869, 9117688405, 21511399509, 50751932757, 119739242325, 282501283669
a(n+1) = ceiling(a(n)^2/a(n-1))-1 for n>0. - Bruno Berselli, Feb 15 2016
[A212330] 0, 0, 0, 0, 0, 4, 10, 24, 61, 148, 349, 808, 1847, 4174, 9346, 20764, 45825, 100552, 219528, 477152, 1033008, 2228480, 4792064, 10274816, 21972224, 46872576, 99768320, 211918848, 449277952, 950796288, 2008809472, 4237557760, 8926068736, 18776326144
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4) for n>16, n=4, n=11.
[A291412] 1, 4, 10, 24, 62, 156, 391, 987, 2484, 6252, 15744, 39636, 99788, 251237, 632525, 1592480, 4009326, 10094104, 25413498, 63982496, 161086011, 405559431, 1021059816, 2570679048, 6472089792, 16294506424, 41023988824, 103284359545, 260034658537, 654678248796
a(n) = a(n-1) + 3*a(n-2) + 3*a(n-3) - a(n-4) - 3*a(n-5) - a(n-6) for n >= 7.
[A001868] 1, 4, 10, 24, 70, 208, 700, 2344, 8230, 29144, 104968, 381304, 1398500, 5162224, 19175140, 71582944, 268439590, 1010580544, 3817763740, 14467258264, 54975633976, 209430787824, 799645010860, 3059510616424, 11728124734500, 45035996273872, 173215372864600, 667199944815064
a(n) = (1/n)*Sum_{d|n} phi(d)*4^(n/d), n>0.
[A227712] 4, 10, 25, 58, 127, 268, 553, 1126, 2275, 4576, 9181, 18394, 36823, 73684, 147409, 294862, 589771, 1179592, 2359237, 4718530, 9437119, 18874300, 37748665, 75497398, 150994867, 301989808, 603979693, 1207959466, 2415919015, 4831838116, 9663676321, 19327352734
a(0)=4, a(1)=10, a(2)=25, a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). - Harvey P. Dale, Apr 15 2015
[A159297] 1, 4, 10, 25, 58, 130, 286, 620, 1329, 2827, 5977, 12559, 26227, 54493, 112849, 233272, 481616, 992955, 2043238, 4194649, 8591014, 17559133, 35833948, 73054885, 148849186, 303171755, 617306563, 1256452642, 2555937826
a(n) = sum(C(n - 1, ijk - 1)) where the sum is over all triples (i, j, k) such that 0 < i, j, k and ijk <= n. [From Joel B. Lewis, May 07 2009]
[A279101] 1, 4, 10, 25, 59, 142, 340, 819, 1973, 4760, 11486, 27725, 66927, 161570, 390056, 941671, 2273385, 5488428, 13250226, 31988865, 77227939, 186444726, 450117372, 1086679451, 2623476253, 6333631936, 15290740102, 36915112117, 89120964311, 215157040714, 519435045712, 1254027132111, 3027489309905, 7309005751892
a(n) = 3*a(n-1) - 4*a(n-3) + a(n-4) + a(n-5).
a(n) = (4*(1 + sqrt(2))^n + 2*sqrt(2)*(1 + sqrt(2))^n - 2*(-2 + sqrt(2))*(1 - sqrt(2))^n + 2*n - (-1)^n - 3)/4.
[A276599] 1, 4, 10, 25, 59, 146, 344, 851, 2005, 4960, 11686, 28909, 68111, 168494, 396980, 982055, 2313769, 5723836, 13485634, 33360961, 78600035, 194441930, 458114576, 1133290619, 2670087421, 6605301784, 15562409950, 38498520085, 90704372279, 224385818726
a(n) = 6*a(n-2)-a(n-4) for n>4.
[A033539] 1, 1, 1, 4, 10, 25, 61, 148, 358, 865, 2089, 5044, 12178, 29401, 70981, 171364, 413710, 998785, 2411281, 5821348, 14053978, 33929305, 81912589, 197754484, 477421558, 1152597601, 2782616761, 6717831124, 16218279010, 39154389145
a(n) = (3/4)*(1+sqrt(2))^(n-1)+3/4*(1-sqrt(2))^(n-1)-1/2+3*0^n, with n>=0. [Jaume Oliver Lafont, Sep 10 2009]
a(0)=1, a(1)=1, a(2)=1, a(3)=4, a(n)=3*a(n-1)-a(n-2)-a(n-3) [Harvey P. Dale, Nov 20 2011]
a(n) = -1/2-3/4*(1+sqrt(2))^n-3/4*sqrt(2)*(1-sqrt(2))^n-3/4*(1-sqrt(2))^n+3/4*(1 +sqrt(2))^n*sqrt(2) for n >= 1. - Alexander R. Povolotsky, Mar 05 2013
[A020709] 4, 10, 25, 63, 159, 401, 1011, 2549, 6427, 16205, 40859, 103021, 259755, 654941, 1651355, 4163693, 10498251, 26470077, 66741115, 168279693, 424297003, 1069813853, 2697406939, 6801187117, 17148375179, 43237565181, 109018319419, 274876578253, 693068226283
a(n) = 3*a(n-1) - 2*a(n-2) + 2*a(n-3) (holds at least up to n = 1000 but is not known to hold in general).
[A097136] 1, 4, 10, 25, 64, 166, 433, 1132, 2962, 7753, 20296, 53134, 139105, 364180, 953434, 2496121, 6534928, 17108662, 44791057, 117264508, 307002466, 803742889, 2104226200, 5508935710, 14422580929, 37758807076, 98853840298, 258802713817, 677554301152
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = 1+3((3+sqrt(5))/2)^n/sqrt(5)-3((3-sqrt(5))/2)^n/sqrt(5).
[A283958] 1, 1, 1, 1, 4, 10, 25, 139, 391, 1033, 5806, 16384, 43345, 243685, 687709, 1819441, 10228936, 28867366, 76373161, 429371599, 1211741635, 3205853305, 18023378194, 50864281276, 134569465633, 756552512521, 2135088071929, 5648711703265, 31757182147660
a(3*k) = 3*a(3*k-1) - a(3*k-2) - 1,
a(3*k+1) = 3*a(3*k) - a(3*k-1) - 1,
a(3*k+2) = 6*a(3*k+1) - a(3*k) - 1.
[A269064] 0, 1, 4, 10, 26, 48, 87, 135, 208, 293, 410, 542, 714, 904, 1141, 1399, 1712, 2049, 2448, 2874, 3370, 3896, 4499, 5135, 5856, 6613, 7462, 8350, 9338, 10368, 11505, 12687, 13984, 15329, 16796, 18314, 19962, 21664, 23503, 25399, 27440, 29541, 31794, 34110, 36586, 39128, 41837, 44615, 47568
a(n) = (7*n^3-3*n^2+4*n)/2 for n even.
a(n) = (28*n^3+30*n^2+16*n+7+(-1)^n)/8 for n odd.

a(n) = (14*n^3-12*n^2+23*n+6+3*(3*n-2)*(-1)^n+2*((-1)^((2*n-1+(-1)^n)/4)-(-1)^((6*n-1+(-1)^n)/4)))/32.
[A000294] 1, 1, 4, 10, 26, 59, 141, 310, 692, 1483, 3162, 6583, 13602, 27613, 55579, 110445, 217554, 424148, 820294, 1572647, 2992892, 5652954, 10605608, 19765082, 36609945, 67405569, 123412204, 224728451, 407119735, 733878402, 1316631730, 2351322765, 4180714647, 7401898452, 13051476707, 22922301583, 40105025130, 69909106888, 121427077241, 210179991927, 362583131144
a(n) = (1/(2*n))*Sum_{k=1..n} (sigma[2](k)+sigma[3](k))*a(n-k). - Vladeta Jovovic, Sep 17 2002
[A285186] 0, 1, 4, 10, 26, 64, 160, 396, 984, 2440, 6056, 15024, 37280, 92496, 229504, 569440, 1412896, 3505664, 8698240, 21582016, 53549184, 132865920, 329666176, 817965824, 2029532160, 5035663616, 12494459904, 31001182720, 76919958016, 190853361664, 473544273920, 1174955355136, 2915292534784
a(n) = 2*a(n-1) + 2*a(n-2) - 2*a(n-3) for n>2. - Colin Barker, Apr 23 2017
[A175658] 1, 4, 10, 26, 66, 166, 414, 1026, 2530, 6214, 15214, 37154, 90546, 220294, 535230, 1298946, 3149506, 7630726, 18476494, 44714786, 108168210, 261575494, 632367774, 1528408194, 3693378466, 8923553734, 21557263150, 52071634466
a(n) = 4*a(n-1)-3*a(n-2)-2*a(n-3) with a(0)=1, a(1)=4 and a(2)=10.
a(n) = (1-sqrt(2))^(1+n) + (1+sqrt(2))^(1+n) - 2^n. - Colin Barker, Aug 29 2017
[A277236] 1, 4, 10, 26, 66, 170, 434, 1114, 2850, 7306, 18706, 47930, 122754, 314474, 805490, 2063386, 5285346, 13538890, 34680274, 88835834, 227556930, 582900266, 1493127986, 3824729050, 9797240994, 25096157194, 64285121170, 164669749946, 421810234626, 1080489234410, 2767730172914
a(n) = ((13+3*sqrt(17))*z1^n-(13-3*sqrt(17))*z2^n)/(4*sqrt(17)) where z1=(1+sqrt(17))/2 and z2=(1-sqrt(17))/2.
[A099234] 1, 1, 4, 10, 26, 69, 181, 476, 1252, 3292, 8657, 22765, 59864, 157422, 413966, 1088589, 2862617, 7527704, 19795288, 52054840, 136886433, 359964521, 946583628, 2489191330, 6545722210, 17213011605, 45264335853, 119029728628
a(n)=sum{k=0..n, C(3k,n-k)}=sum{k=0..n, C(n,k)C(4k,n)/C(4k,k)}. - Paul Barry, Feb 04 2006
[A192879] 0, 1, 4, 10, 27, 70, 184, 481, 1260, 3298, 8635, 22606, 59184, 154945, 405652, 1062010, 2780379, 7279126, 19057000, 49891873, 130618620, 341963986, 895273339, 2343856030, 6136294752, 16065028225, 42058789924, 110111341546, 288275234715, 754714362598
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3).
a(n) = (2^(-1-n)*((-1)^n*2^(1+n)+(3+sqrt(5))^n*(-1+3*sqrt(5))-(3-sqrt(5))^n*(1+3*sqrt(5))))/5. - Colin Barker, Sep 29 2016
[A026150] 1, 1, 4, 10, 28, 76, 208, 568, 1552, 4240, 11584, 31648, 86464, 236224, 645376, 1763200, 4817152, 13160704, 35955712, 98232832, 268377088, 733219840, 2003193856, 5472827392, 14952042496, 40849739776
a(n) = (1/2)*((1+sqrt(3))^n+(1-sqrt(3))^n). - Benoit Cloitre, Oct 28 2002
a(n) = sum{k=0..floor(n/2), C(n, 2k)3^k }; e.g.f.: exp(x)cosh(sqrt(3)x). - Paul Barry, May 15 2003
a(n) = round((1+sqrt(3))^n/2) for n>0. - Bruno Berselli, Feb 04 2013
[A103457] 1, 4, 10, 28, 82, 244, 730, 2188, 6562, 19684, 59050, 177148, 531442, 1594324, 4782970, 14348908, 43046722, 129140164, 387420490, 1162261468, 3486784402, 10460353204, 31381059610, 94143178828, 282429536482, 847288609444
a(n) = Sum_{k=0..n} binomial(n, k)*0^(k(n-k))*3^k.
a(n) = 3*a(n-1) - 2, with a(1)=4. - Vincenzo Librandi, Dec 29 2010
[A061639] 0, 1, 1, 1, 4, 10, 28, 85, 262, 829, 2677, 8776, 29143, 97825, 331381, 1131409, 3889381, 13450744, 46764532, 163357807, 573064849, 2018027719, 7131064045, 25278463756, 89866690732, 320328538033, 1144591699069, 4099050204445, 14710315969696, 52893571881142
a(n) = Sum_{m=0..n-1} Sum_{i=0..n-m-1} (-1)^i/(m+1)*binomial(2*m, m)*binomial(m+i, i)*binomial(m+i+1, n-m-i-1).
[A239577] 1, 4, 10, 28, 91, 280, 820, 2440, 7381, 22204, 66430, 199108, 597871, 1794160, 5380840, 16140880, 48427561, 145287604, 435848050, 1307529388, 3922632451, 11767941640, 35303692060, 105910943320, 317733228541, 953200084204, 2859599056870, 8578795974868
a(n) = 4*a(n-1) - 6*a(n-2) + 12*a(n-3) - 9*a(n-4) for n > 3, a(0)=1, a(1)=4, a(2)=10, a(3)=16.
a(n) = (-1 + 3^(2+n) + (-1+(-1)^n)*(-3)^((1+n)/2))/8. [Bruno Berselli, Mar 24 2014]
[A025179] 1, 4, 10, 29, 81, 231, 659, 1891, 5443, 15718, 45508, 132067, 384047, 1118820, 3264642, 9539787, 27913083, 81769236, 239794422, 703906719, 2068153899, 6081507831, 17896695831, 52703944965, 155310270101, 457956633826, 1351132539604
a(n) = Sum_{k=0..floor(n/2)} binomial(n, 2*k)*binomial(2*k+1, k+1).
a(n+1) = Sum_{k=0..n} C(n, k)*C(k+1, k/2+1)*(1+(-1)^k)/2}. (End)
[A006357] 1, 4, 10, 30, 85, 246, 707, 2037, 5864, 16886, 48620, 139997, 403104, 1160693, 3342081, 9623140, 27708726, 79784098, 229729153, 661478734, 1904652103, 5484227157, 15791202736, 45468956106, 130922641160, 376976720745, 1085461206128, 3125460977225
a(n) = 2*a(n-1) + 3*a(n-2) - a(n-3) - a(n-4).
a(n) is asymptotic to z(4)*w(4)^n where w(4) = (1/2)/cos(4*Pi/9) and z(4) is the root 1 < x < 2 of P(4, X) = 1 + 27*X - 324*X^2 + 243*X^3. - Benoit Cloitre, Oct 16 2002
[A006342] 1, 1, 4, 10, 31, 91, 274, 820, 2461, 7381, 22144, 66430, 199291, 597871, 1793614, 5380840, 16142521, 48427561, 145282684, 435848050, 1307544151, 3922632451, 11767897354, 35303692060, 105911076181, 317733228541, 953199685624, 2859599056870, 8578797170611
a(n) = 2*a(n-1) + 3*a(n-2) - 1, n > 1. - Gary Detlefs, Jun 21 2010
a(n) = (3^(n+1) + 5) / 8 for n even.
a(n) = (3^(n+1) - 1) / 8 for n odd.
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3) for n > 2.
[A137954] 1, 1, 1, 4, 10, 32, 107, 360, 1270, 4544, 16537, 61092, 228084, 860056, 3269994, 12521488, 48250690, 186959312, 727989318, 2847167632, 11179394088, 44053232012, 174160578150, 690576010820, 2745713062854, 10944253432600
a(n) = Sum_{k=0..n-1} C(n-k,k)/(n-k) * C(4*k,n-k-1) for n>0 with a(0)=1. - Paul D. Hanna, Jun 16 2009
[A151746] 1, 4, 10, 32, 118, 460, 1826, 7288, 29134, 116516, 466042, 1864144, 7456550, 29826172, 119304658, 477218600, 1908874366, 7635497428, 30541989674, 122167958656, 488671834582, 1954687338284, 7818749353090, 31274997412312, 125099989649198, 500399958596740
a(n) = 14/9+2*n/3+4^(n+1)/9, n>0. [From R. J. Mathar, Jun 17 2009]
[A110145] 0, 1, 4, 10, 32, 126, 472, 1716, 6400, 24310, 92504, 352716, 1351616, 5200300, 20060016, 77558760, 300533760, 1166803110, 4537591960, 17672631900, 68923172032, 269128937220, 1052049834576, 4116715363800, 16123800489472, 63205303218876, 247959271674352
a(n) = Sum_{k=0..n} C(n, k)^2*(1-(-1)^k)/2.
a(n) = C(2n-1, n-1)(1-(-1)^n)/2+(C(2n, n)/2-(-1)^(n/2)*C(n, floor(n/2))/2)(1+(-1)^n)/2.
a(n) = (binomial(2*n, n) - binomial(n, n/2)*cos(Pi*n/2))/2 = n^2 * hypergeom([1/2-n/2, 1/2-n/2, 1-n/2, 1-n/2], [1, 3/2, 3/2], 1). - Vladimir Reshetnikov, Oct 04 2016
[A162427] 1, 4, 10, 33, 68, 123, 226, 342, 547, 778, 1071, 1412, 1901, 2392, 2997, 3762, 4391, 5534, 6645, 7632, 9045, 10546, 11983, 13870, 16011, 17672, 20107, 22986, 25297, 28100, 31223, 34468, 38215, 42194, 45419, 50134, 54671, 59154, 64431, 70022
a(n) = Sum_{m=n(n+1)/2..n(n+1)/2+n} [x^m] S(x)^4 for n>=0 where S(x) = Sum_{n>=0} x^((n+1)(n+2)/2-1).
[A140725] 0, 1, 4, 10, 34, 94, 298, 862, 2650, 7822, 23722, 70654, 212986, 636910, 1914826, 5736286, 17225242, 51642958, 154994410, 464852158, 1394818618, 4183931566, 12552843274, 37656432670, 112973492314, 338912088334, 1016753042218
a(n) = a(n-1)+6*a(n-2) for n>2, a(0)=0, a(1)=1, a(2)=4. - Philippe Deléham, Nov 17 2013
[A196880] 1, 1, 4, 10, 36, 94, 284, 692, 1828, 4124, 9828, 20798, 45564, 91018, 186788, 355906, 692004, 1264678, 2347716, 4138358, 7389572, 12625938, 21804900, 36243644, 60777212, 98547380, 160987868, 255297602, 407492292, 633469718, 990388828, 1512185428, 2320518948
a(n) = [x^(n^2)] 1/Product_{j>=0}(1-x^(2^j)).
[A088013] 1, 1, 4, 10, 36, 116, 400, 1352, 4624, 15760, 53824, 183712, 627264, 2141504, 7311616, 24963200, 85229824, 290992384, 993510400, 3392055808, 11581203456, 39540700160, 135000395776, 460920178688, 1573679927296, 5372879343616
a(n)=((sqrt(2))^n+(-sqrt(2))^n+(2+sqrt(2))^n+(2-sqrt(2))^n)/4
[A079725] 0, 0, 4, 10, 37, 49, 94, 112, 175, 305, 335, 505, 622, 664, 799, 1049, 1329, 1389, 1709, 1916, 1988, 2368, 2611, 3041, 3692, 3989, 4091, 4406, 4514, 4847, 6407, 6794, 7464, 7602, 8898, 9048, 9818, 10618, 11113, 11963, 12843, 13023, 14697, 14889, 15474
a(n) = prime(n)*(prime(n)+1)/2 - sum_{1..n} prime(k) - 1.
[A154152] 4, 10, 37, 67, 220, 394, 1285, 2299, 7492, 13402, 43669, 78115, 254524, 455290, 1483477, 2653627, 8646340, 15466474, 50394565, 90145219, 293721052, 525404842, 1711931749, 3062283835, 9977869444, 17848298170, 58155284917, 104027505187, 338953840060
a(n) = +a(n-1) +6*a(n-2) -6*a(n-3) -a(n-4) +a(n-5).

[A100307] 1, 4, 10, 40, 82, 328, 820, 3280, 6562, 26248, 65620, 262480, 538084, 2152336, 5380840, 21523360, 43046722, 172186888, 430467220, 1721868880, 3529831204, 14119324816, 35298312040, 141193248160, 282472589764, 1129890359056
a(n) = Sum_{k=0..n} mod(binomial(n, k), 2)*3^k.
a(2^n) = 3^(2^n)+1, n>=0.
a(2^t*n+2^(t-1)) = 8*(3^(2^(t-1)+1))/(3^(2^(t-1))-1) * a(2^t*n+2^(t-1)-2), t>=2.
a(4*n+2) = 10 * a(4*n);
a(8*n+4) = 41/5 * a(8*n+2);
a(16*n+8)= 3281/410 * a(16*n+6), etc. (End)
[A156798] 4, 10, 40, 130, 340, 754, 1480, 2650, 4420, 6970, 10504, 15250, 21460, 29410, 39400, 51754, 66820, 84970, 106600, 132130, 162004, 196690, 236680, 282490, 334660, 393754, 460360, 535090, 618580, 711490, 814504, 928330, 1053700, 1191370
a(0)=4, a(1)=10, a(2)=40, a(3)=130, a(4)=340, a(n)=5a(n-1)- 10a(n-2)+ 10a(n-3)-5a(n-4)+a(n-5) [From Harvey P. Dale, May 04 2011]
[A276123] 1, 1, 1, 4, 10, 55, 154, 868, 2449, 13825, 39025, 220324, 621946, 3511351, 9912106, 55961284, 157971745, 891869185, 2517635809, 14213945668, 40124201194, 226531261495, 639469583290, 3610286238244, 10191389131441, 57538048550401, 162422756519761
a(n) = (9-3*(-1)^n)/2*a(n-1)-a(n-2)-1.
a(n) = 17*a(n-2)-17*a(n-4)+a(n-6) for n>5.
[A204542] 1, 4, 11, 14, 16, 19, 26, 29, 31, 34, 41, 44, 46, 49, 56, 59, 61, 64, 71, 74, 76, 79, 86, 89, 91, 94, 101, 104, 106, 109, 116, 119, 121, 124, 131, 134, 136, 139, 146, 149, 151, 154, 161, 164, 166, 169, 176, 179, 181, 184, 191, 194, 196, 199, 206, 209, 211, 214, 221, 224
a(1-n) = -a(n).
a(n) = 15 + a(n-4).
a(n) = floor(15 * n / 4) - ((n + 1) mod 4).
a(n) = (30*n+10*i^(n*(n+1))-3*(-1)^n+1)/8 -2, where i=sqrt(-1). - Bruno Berselli, Nov 28 2012
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Wesley Ivan Hurt, Jun 07 2016
[A271508] 1, 4, 11, 14, 21, 24, 31, 34, 41, 44, 51, 54, 61, 64, 71, 74, 81, 84, 91, 94, 101, 104, 111, 114, 121, 124, 131, 134, 141, 144, 151, 154, 161, 164, 171, 174, 181, 184, 191, 194, 201, 204, 211, 214, 221, 224, 231, 234, 241, 244, 251, 254, 261, 264, 271, 274
a(n) = a(n-1) + a(n-2) - a(n-3) for n>3.
a(n) = 5*n - 5 - (-1)^n.
[A032822] 1, 4, 11, 14, 41, 44, 111, 114, 141, 144, 411, 414, 441, 444, 1111, 1114, 1141, 1144, 1411, 1414, 1441, 1444, 4111, 4114, 4141, 4144, 4411, 4414, 4441, 4444, 11111, 11114, 11141, 11144, 11411, 11414, 11441, 11444, 14111, 14114
a(1)=1, a(2)=4; a(n) = 10*a(floor(n/2))+1 for n odd, otherwise a(n) = 10*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A022131] 4, 11, 15, 26, 41, 67, 108, 175, 283, 458, 741, 1199, 1940, 3139, 5079, 8218, 13297, 21515, 34812, 56327, 91139, 147466, 238605, 386071, 624676, 1010747, 1635423, 2646170, 4281593, 6927763, 11209356, 18137119, 29346475, 47483594, 76830069, 124313663
a(n) = ((10 + 9*sqrt(5))/5)*((1 + sqrt(5))/2)^n + ((10 - 9*sqrt(5))/5)*((1 - sqrt(5))/2)^n starting at n=0. - Bogart B. Strauss, Oct 27 2013
[A213479] 1, 4, 11, 18, 30, 41, 58, 73, 95, 114, 141, 164, 196, 223, 260, 291, 333, 368, 415, 454, 506, 549, 606, 653, 715, 766, 833, 888, 960, 1019, 1096, 1159, 1241, 1308, 1395, 1466, 1558, 1633, 1730, 1809, 1911, 1994, 2101, 2188, 2300, 2391, 2508, 2603, 2725, 2824
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = (18*n^2+2*(-1)^n*n+42*n+5*(-1)^n+11)/16.
a(n) = (9*n^2+22*n+8)/8 for n even.
a(n) = (9*n^2+20*n+3)/8 for n odd. (End)
[A210464] 4, 11, 18, 33, 48, 74, 100, 140, 180, 237, 294, 371, 448, 548, 648, 774, 900, 1055, 1210, 1397, 1584, 1806, 2028, 2288, 2548, 2849, 3150, 3495, 3840, 4232, 4624, 5066, 5508, 6003, 6498, 7049, 7600, 8210, 8820, 9492, 10164, 10901, 11638, 12443, 13248, 14124
a(n) = (25+7*(-1)^n+3*(11+(-1)^n)*n+14*n^2+2*n^3)/16. a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6). G.f.: -x*(2*x^5-4*x^4-2*x^3+8*x^2-3*x-4) / ((x-1)^4*(x+1)^2). [Colin Barker, Feb 06 2013]
[A063215] 4, 11, 19, 27, 35, 41, 51, 57, 65, 73, 81, 87, 97, 103, 111, 119, 127, 133, 143, 149, 157, 165, 173, 179, 189, 195, 203, 211, 219, 225, 235, 241, 249, 257, 265, 271, 281, 287, 295, 303, 311, 317, 327, 333, 341, 349, 357, 363, 373, 379
a(n) = a(n-2)+a(n-3)-a(n-5) for n>6. G.f.: x*(4+11*x+15*x^2+12*x^3+5*x^4-x^5)/((1 -x)^2*(1 +x)*(1 +x +x^2)). - Colin Barker, Sep 27 2012
[A101418] 1, 4, 11, 19, 30, 44, 60, 78, 99, 122, 148, 176, 207, 240, 276, 314, 354, 397, 443, 491, 541, 594, 649, 707, 767, 830, 895, 963, 1033, 1105, 1180, 1257, 1337, 1419, 1504, 1591, 1681, 1773, 1868, 1965, 2064, 2166, 2271, 2378, 2487, 2599, 2713, 2830, 2949
a(n) = Floor[(4*Pi - 3*Sqrt[3])/6*n^2]
[A213395] 1, 4, 11, 19, 31, 44, 62, 79, 103, 125, 154, 181, 216, 247, 288, 324, 370, 411, 463, 508, 566, 616, 679, 734, 803, 862, 937, 1001, 1081, 1150, 1236, 1309, 1401, 1479, 1576, 1659, 1762, 1849, 1958, 2050, 2164, 2261, 2381, 2482, 2608, 2714, 2845
a(n) = 2*a(n-2) +a(n-3) -a(n-4) -2*a(n-5) +a(n-7).
[A212959] 1, 4, 11, 20, 33, 48, 67, 88, 113, 140, 171, 204, 241, 280, 323, 368, 417, 468, 523, 580, 641, 704, 771, 840, 913, 988, 1067, 1148, 1233, 1320, 1411, 1504, 1601, 1700, 1803, 1908, 2017, 2128, 2243, 2360, 2481, 2604, 2731, 2860, 2993, 3128, 3267
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
a(n) = (6*n^2 + 8*n + 3 + (-1)^n)/4. - Luce ETIENNE, Apr 05 2014
[A272042] 4, 11, 21, 31, 47, 61, 69, 87, 99, 113, 127, 141, 161, 171, 179, 209, 219, 241, 259, 275, 289, 307, 315, 357, 361, 377, 399, 419, 433, 449, 459, 491, 497, 535, 549, 567, 589, 603, 627, 645, 663, 685, 695, 721, 729
a(n) = 3n*log n + 3n*log log n - (3-log 2)*n + O(n log log n/log n). - Charles R Greathouse IV, Apr 18 2016
[A115067] 0, 4, 11, 21, 34, 50, 69, 91, 116, 144, 175, 209, 246, 286, 329, 375, 424, 476, 531, 589, 650, 714, 781, 851, 924, 1000, 1079, 1161, 1246, 1334, 1425, 1519, 1616, 1716, 1819, 1925, 2034, 2146, 2261, 2379, 2500, 2624, 2751, 2881, 3014, 3150, 3289, 3431, 3576
a(n) = (3*n+2)*(n-1)/2.
a(n+1) = n*(3*n + 5)/2. - Omar E. Pol, May 21 2008
a(n) = 3*n + a(n-1) - 2 for n>1, a(1)=0. - Vincenzo Librandi, Nov 13 2010
[A008014] 1, 4, 11, 21, 35, 53, 77, 105, 137, 172, 212, 256, 305, 357, 413, 473, 539, 609, 683, 760, 842, 928, 1019, 1113, 1211, 1313, 1421, 1533, 1649, 1768, 1892, 2020, 2153, 2289, 2429, 2573, 2723, 2877, 3035, 3196, 3362, 3532, 3707, 3885, 4067, 4253, 4445, 4641
a(10*m+k) = 210*m^2 + 42*k*m + one of 10 numbers depending on k, 0<=k<10 (N. J. A. Sloane).
[A110611] 1, 4, 11, 21, 37, 58, 87, 123, 169, 224, 291, 369, 461, 566, 687, 823, 977, 1148, 1339, 1549, 1781, 2034, 2311, 2611, 2937, 3288, 3667, 4073, 4509, 4974, 5471, 5999, 6561, 7156, 7787, 8453, 9157, 9898, 10679, 11499, 12361, 13264, 14211, 15201, 16237
a(n) = (n^3+3*n^2+5*n-6)/6 if n is even; a(n)=(n^3+3*n^2+5*n-3)/6 if n is odd.
a(n) = (2*n^3+6*n^2+10*n-9-3*(-1)^n)/12. - Luce ETIENNE, Jul 26 2014
[A212254] 0, 0, 0, 1, 4, 11, 21, 37, 59, 88, 125, 172, 228, 296, 376, 469, 576, 699, 837, 993, 1167, 1360, 1573, 1808, 2064, 2344, 2648, 2977, 3332, 3715, 4125, 4565, 5035, 5536, 6069, 6636, 7236, 7872, 8544, 9253, 10000, 10787, 11613, 12481, 13391
a(n) = 2*a(n-1)-a(n-3)-a(n-4)+2*a(n-6)-a(n-7).
[A084849] 1, 4, 11, 22, 37, 56, 79, 106, 137, 172, 211, 254, 301, 352, 407, 466, 529, 596, 667, 742, 821, 904, 991, 1082, 1177, 1276, 1379, 1486, 1597, 1712, 1831, 1954, 2081, 2212, 2347, 2486, 2629, 2776, 2927, 3082, 3241, 3404, 3571, 3742, 3917, 4096, 4279, 4466
a(n) - 3*a(n-1) + 3*a(n-2) - a(n-3) = 0, with n>2. - Bruno Berselli, May 24 2010
a(n) = 4*n + a(n-1) - 1 (with a(0)=1). - Vincenzo Librandi, Aug 08 2010
[A008265] 1, 4, 11, 22, 37, 59, 85, 114, 147, 184, 230, 280, 331, 386, 445, 515, 589, 662, 739, 820, 914, 1012, 1107, 1206, 1309, 1427, 1549, 1666, 1787, 1912, 2054, 2200, 2339, 2482, 2629, 2795, 2965, 3126, 3291, 3460, 3650, 3844, 4027, 4214, 4405, 4619, 4837, 5042
a(5m)=57m^2+2, a(5m+1)=57m^2+24m+4, a(5m+2)=57m^2+46m+11, a(5m+3)=57m^2+68m+22, a(5m+4)=57m^2+90m+37 (N. J. A. Sloane).
[A213759] 1, 4, 11, 22, 39, 62, 93, 132, 181, 240, 311, 394, 491, 602, 729, 872, 1033, 1212, 1411, 1630, 1871, 2134, 2421, 2732, 3069, 3432, 3823, 4242, 4691, 5170, 5681, 6224, 6801, 7412, 8059, 8742, 9463, 10222, 11021, 11860, 12741, 13664, 14631
a(n)= (3 - 3*(-1)^n - 4*n - 18*n^2 + 4*n^3)/24.
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-6).

[A008043] 1, 4, 11, 22, 40, 64, 92, 121, 157, 200, 248, 297, 351, 414, 484, 555, 630, 709, 795, 885, 980, 1081, 1187, 1297, 1414, 1535, 1660, 1786, 1919, 2061, 2208, 2356, 2509, 2669, 2836, 3004, 3176, 3354, 3539, 3728, 3922, 4120, 4323, 4530, 4744, 4964, 5188, 5413
a(40*m+k) = 3920*m^2 + 196*k*m + one of 40 numbers depending on k, 0<=k<40 (N. J. A. Sloane).
[A088003] 1, 4, 11, 22, 40, 64, 98, 140, 195, 260, 341, 434, 546, 672, 820, 984, 1173, 1380, 1615, 1870, 2156, 2464, 2806, 3172, 3575, 4004, 4473, 4970, 5510, 6080, 6696, 7344, 8041, 8772, 9555, 10374, 11248, 12160, 13130, 14140, 15211, 16324, 17501, 18722, 20010
a(n) = Min{y; y=t(n, 0)*t(n, x)=s(n, x); for x=1, .., n}
a(n) = n*(2*n*(5*n+12)-3*(-1)^n+11)/48.
a(n) = Sum_{i=0..floor(n/2)} (n-i)*(n-2*i). For n=7, a(7) = 7*7 + 6*5 + 5*3 + 4*1 = 98. - Bruno Berselli, Oct 26 2015
[A259574] 0, 1, 4, 11, 22, 42, 66, 104, 150, 211, 280, 377, 474, 604, 750, 916, 1096, 1323, 1548, 1831, 2122, 2446, 2794, 3212, 3620, 4087, 4590, 5141, 5698, 6360, 6990, 7728, 8484, 9289, 10156, 11091, 12006, 13042, 14122, 15280, 16420, 17727, 18984, 20401, 21852
a(n) = Sum{m=1..n, Sum(k=0..m-1, floor(n*k/m)).
[A008249] 1, 4, 11, 22, 42, 67, 97, 133, 176, 223, 277, 335, 400, 471, 547, 627, 716, 809, 907, 1011, 1122, 1237, 1359, 1485, 1618, 1757, 1901, 2049, 2206, 2367, 2533, 2705, 2884, 3067, 3257, 3451, 3652, 3859, 4071, 4287, 4512, 4741, 4975, 5215, 5462, 5713, 5971
a(12*m+k) = 408*m^2 + 68*k*m + one of 12 numbers depending on k, 0<=k<12. - N. J. A. Sloane
[A027378] 1, 4, 11, 23, 41, 66, 99, 141, 193, 256, 331, 419, 521, 638, 771, 921, 1089, 1276, 1483, 1711, 1961, 2234, 2531, 2853, 3201, 3576, 3979, 4411, 4873, 5366, 5891, 6449, 7041, 7668, 8331, 9031, 9769, 10546
a(n-3)=binomial(n,3)-3*n+9, n=4,5,6,.... - Milan Janjic, Dec 28 2007
[A092498] 1, 4, 11, 23, 41, 67, 102, 147, 204, 274, 358, 458, 575, 710, 865, 1041, 1239, 1461, 1708, 1981, 2282, 2612, 2972, 3364, 3789, 4248, 4743, 5275, 5845, 6455, 7106, 7799, 8536, 9318, 10146, 11022, 11947, 12922, 13949, 15029, 16163, 17353, 18600, 19905, 21270
a(n) = (4*n^3+21*n^2+35*n+18-6*floor((n+2)/3))/18. - Luce ETIENNE, Apr 18 2014
a(n) = Sum_{j=0..floor(2*n/3)} ((4*n+5-6*j-(-1)^j)/4)*((4*n+3-6*j+(-1)^j)/4). - Luce ETIENNE, Oct 28 2014
[A019298] 0, 1, 4, 11, 23, 42, 69, 106, 154, 215, 290, 381, 489, 616, 763, 932, 1124, 1341, 1584, 1855, 2155, 2486, 2849, 3246, 3678, 4147, 4654, 5201, 5789, 6420, 7095, 7816, 8584, 9401, 10268, 11187, 12159, 13186
a(n) = floor((n^2+1)(2n+3)/8).
a(n) = floor((2n^3 + 3n^2 + 2n)/8); also nearest integer to ((n+1)^4 - n^4)/16.
a(n) = (4n^3 + 6n^2 + 4n+1 - (-1)^n)/16. - Wesley Petty (Wesley.Petty(AT)mail.tamucc.edu), Mar 06 2004
a(n) = Sum_{i=1..n} i^2 - floor(i^2/4) = Sum_{i=1..n} i * (2n - 2i + 1 - floor((n - i + 1)/2)). - Wesley Ivan Hurt, Jan 23 2014
[A002537] 1, 1, 4, 11, 23, 79, 148, 533, 977, 3553, 6484, 23627, 43079, 157039, 286276, 1043669, 1902497, 6936001, 12643492, 46094987, 84025463, 306335887, 558412276, 2035832213, 3711069041, 13529634721, 24662841844, 89914587851
a(n)=8a(n-2)-9a(n-4). - Mario Catalani (mario.catalani(AT)unito.it), Apr 24 2003
a(n+1) = x^n + (-1)^n*(x-2)^n where x = (1+sqrt(7)) and the term is divided by 2 for a(2) and a(3), 4 for a(4) and a(5)... 2^n for a(2n) and a(2n+1). - Ben Paul Thurston, Aug 30 2006
[A008259] 1, 4, 11, 24, 41, 62, 90, 122, 157, 200, 247, 296, 354, 416, 479, 552, 629, 706, 794, 886, 977, 1080, 1187, 1292, 1410, 1532, 1651, 1784, 1921, 2054, 2202, 2354, 2501, 2664, 2831, 2992, 3170, 3352, 3527, 3720, 3917, 4106, 4314, 4526, 4729, 4952, 5179, 5396
a(3m) = 22m^2+2, a(3m+1) = 22m^2+15m+4, a(3m+2)=22m^2+29m+11 (N. J. A. Sloane).
[A008250] 1, 4, 11, 24, 42, 65, 97, 135, 176, 221, 277, 337, 400, 469, 547, 629, 716, 807, 907, 1013, 1122, 1235, 1359, 1487, 1618, 1755, 1901, 2051, 2206, 2365, 2533, 2707, 2884, 3065, 3257, 3453, 3652, 3857, 4071, 4289, 4512, 4739, 4975, 5217, 5462, 5711, 5971
a(12*m+k) = 408*m^2 + 68*k*m + one of 12 numbers depending on k, 0<=k<12. - N. J. A. Sloane
[A006527] 0, 1, 4, 11, 24, 45, 76, 119, 176, 249, 340, 451, 584, 741, 924, 1135, 1376, 1649, 1956, 2299, 2680, 3101, 3564, 4071, 4624, 5225, 5876, 6579, 7336, 8149, 9020, 9951, 10944, 12001, 13124, 14315, 15576, 16909, 18316, 19799, 21360, 23001, 24724
a(0)=0, a(1)=1, a(2)=4, a(3)=11; for n > 3, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Jun 13 2011
a(n) = 2*binomial(n+1, 3) + binomial(n, 1).
a(n) = binomial(n+2, 3) + binomial(n, 3). - Thomas Ordowski, Jun 15 2014
[A167875] 1, 4, 11, 24, 45, 76, 119, 176, 249, 340, 451, 584, 741, 924, 1135, 1376, 1649, 1956, 2299, 2680, 3101, 3564, 4071, 4624, 5225, 5876, 6579, 7336, 8149, 9020, 9951, 10944, 12001, 13124, 14315, 15576, 16909, 18316, 19799, 21360, 23001, 24724, 26531
a(n) = (n^3+3*n^2+5*n+3)/3.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+2 for n > 3; a(0)=1, a(1)=4, a(2)=11, a(3)=24.
a(n)-4*a(n-1)+6*a(n-2)-4*a(n-3)+a(n-4)=0 for n>3. - Bruno Berselli, May 26 2010
[A001752] 1, 4, 11, 24, 46, 80, 130, 200, 295, 420, 581, 784, 1036, 1344, 1716, 2160, 2685, 3300, 4015, 4840, 5786, 6864, 8086, 9464, 11011, 12740, 14665, 16800, 19160, 21760, 24616, 27744, 31161, 34884, 38931, 43320, 48070, 53200, 58730, 64680, 71071, 77924, 85261
a(n) = floor(((n+3)^2 - 1)*((n+3)^2 - 3)/48).
a(n) = Sum_{k=0..n} (-1)^(n-k)*C(k+4, 4). - Paul Barry, Jul 01 2003
a(n) = (3*(-1)^n + 93 + 168*n + 100*n^2 + 24*n^3 + 2*n^4)/96. - Cecilia Rossiter (cecilia(AT)noticingnumbers.net), Dec 14 2004
a(n) = Sum_{k=0..floor(n/2)} binomial(n-2k+3, 3).
a(n) = Sum_{k=0..n} binomial(k+3, 3)*(1-(-1)^(n+k-1))/2. (End)
a(n) = 4*a(n-1) - 5*a(n-2) + 5*(n-4) - 4*a(n-5) + a(n-6).
[A143075] 1, 4, 11, 24, 47, 86, 152, 262, 444, 742, 1228, 2018, 3301, 5382, 8755, 14218, 23063, 37380, 60552, 98052, 158736, 256932, 415824, 672924, 1088929, 1762048, 2851187, 4613460, 7464887, 12078602, 19543760
a(n) = expansion(1/(1 - 4x + 5x^2 - 6x^4 + 6x^5 - x^6 - 2x^7 + x^8))
[A290707] 1, 4, 11, 24, 47, 88, 163, 304, 575, 1104, 2147, 4216, 8335, 16552, 32963, 65760, 131327, 262432, 524611, 1048936, 2097551, 4194744, 8389091, 16777744, 33555007, 67109488, 134218403, 268436184, 536871695, 1073742664, 2147484547, 4294968256, 8589935615
a(n) = 2^(n+1) + n^2 - 1.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4).
[A110610] 1, 4, 11, 25, 48, 82, 129, 191, 270, 368, 487, 629, 796, 990, 1213, 1467, 1754, 2076, 2435, 2833, 3272, 3754, 4281, 4855, 5478, 6152, 6879, 7661, 8500, 9398, 10357, 11379, 12466, 13620, 14843, 16137, 17504, 18946, 20465, 22063, 23742, 25504
a(1)=1; a(n)=(2n^3+3n^2-11n+18)/6 for n>=2.
[A051462] 1, 4, 11, 25, 48, 83, 133, 200, 287, 397, 532, 695, 889, 1116, 1379, 1681, 2024, 2411, 2845, 3328, 3863, 4453, 5100, 5807, 6577, 7412, 8315, 9289, 10336, 11459, 12661, 13944, 15311, 16765, 18308, 19943, 21673, 23500, 25427, 27457, 29592
a(n) = 1 + n + 2n^2 + 3[(n + 2)((n-1)^2)/18] + 2[(n + 1)((n-2)^2)/18] + 3[n((n-3)^2)/18] (where [..] denotes the floor function). - John W. Layman, Nov 22 2000
a(0)=1, a(1)=4, a(2)=11, a(3)=25, a(4)=48, a(5)=83, a(n)=3*a(n-1)- 3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6). - Harvey P. Dale_, Jun 06 2011
[A006004] 1, 4, 11, 25, 49, 86, 139, 211, 305, 424, 571, 749, 961, 1210, 1499, 1831, 2209, 2636, 3115, 3649, 4241, 4894, 5611, 6395, 7249, 8176, 9179, 10261, 11425, 12674, 14011, 15439, 16961, 18580, 20299, 22121, 24049, 26086, 28235, 30499, 32881, 35384, 38011, 40765
a(n) = (n^3-2n^2+5n-2)/2.
a(0)=1, a(1)=4, a(2)=11, a(3)=25, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Jun 15 2011
[A215052] 1, 4, 11, 25, 50, 92, 158, 257, 400, 600, 873, 1237, 1713, 2325, 3100, 4069, 5266, 6729, 8500, 10625, 13155, 16145, 19655, 23750, 28500, 33981, 40274, 47466, 55650, 64925, 75397, 87178, 100387, 115150, 131600, 149878, 170132, 192518, 217200
a(n) = (1/5)*{binomial(n,5) - floor(n/5)}.
[A193912] 1, 4, 11, 25, 50, 93, 162, 272, 439, 694, 1069, 1627, 2432, 3611, 5292, 7730, 11181, 16156, 23167, 33237, 47390, 67673, 96134, 136868, 193971, 275634, 390049, 553599, 782668, 1110023, 1568432, 2223430, 3140553, 4450872, 6285459, 8906457, 12576010, 17818405
a(n) = Sum_{i=1..n} 1/8*(2^(i/2+2)*((10-7*sqrt(2))*(-1)^(i) + 10 + 7*sqrt(2))-(-1)^(i)-2*i*(i+12)-79).
a(n) = (1/32)*((-1/2)^n + 32*(41*sqrt(2)-58)*(sqrt(2)-2)^n - 32*(58+41*sqrt(2))*(-2-sqrt(2))^n).
[A014162] 0, 1, 4, 11, 25, 51, 97, 176, 309, 530, 894, 1490, 2462, 4043, 6610, 10773, 17519, 28445, 46135, 74770, 121115, 196116, 317484, 513876, 831660, 1345861, 2177872, 3524111, 5702389, 9226935, 14929789

a(n-2) = sum_{k=0..floor(n/2)} binomial(n-k, k+3); a(n-2) = sum_{k=0..n} binomial(k, n-k+3). - Paul Barry, Oct 07 2004
a(n) = Fib(n+6) - (n^2+7n+16)/2.
a(n) = sum_{k=1..n} C(n-k+3,k+2), with n>=0. - Paolo P. Lava, Apr 16 2008
[A113684] 0, 1, 4, 11, 25, 52, 102, 193, 356, 645, 1153, 2040, 3580, 6241, 10820, 18671, 32089, 54956, 93826, 159745, 271300, 459721, 777409, 1312176, 2211000, 3719617, 6248452, 10482323, 17562841, 29391460, 49132638, 82048705, 136884260
a(n)=4a(n-1)-4a(n-2)-2a(n-3)+4a(n-4)-a(n-6); a(n)=sum{k=0..n, (n-k)*C(n-k, k+1)}; a(n)=n*(F(n+2)-1)-(1+((n-5)*F(n-1)+(3n-8)*F(n))/5).
[A266337] 1, 4, 11, 25, 52, 104, 204, 397, 769, 1486, 2868, 5532, 10667, 20565, 39644, 76420, 147308, 283949, 547333, 1055022, 2033624, 3919940, 7555931, 14564529, 28074036, 54114448, 104308956, 201061981, 387559433, 747044830, 1439975212, 2775641468
a(n) = 2*a(n-1) - a(n-5) for n>5.
[A156127] 4, 11, 25, 53, 109, 221, 445, 893, 1789, 3581, 7165, 14333, 28669, 57341, 114685, 229373, 458749, 917501, 1835005, 3670013, 7340029, 14680061, 29360125, 58720253, 117440509, 234881021, 469762045, 939524093, 1879048189, 3758096381
a(n) = 2*a(n-1)+3 with n>0, a(0)=4.
[A178742] 0, 0, 0, 0, 1, 4, 11, 25, 53, 109, 222, 449, 904, 1814, 3634, 7274, 14555, 29118, 58245, 116499, 233007, 466023, 932056, 1864123, 3728258, 7456528, 14913068, 29826148, 59652309, 119304632, 238609279, 477218573, 954437161
a(n) = round((8*2^n-18*n-9)/36).
a(n) = floor((4*2^n-9*n+2)/18).
a(n) = ceil((4*2^n-9*n-11)/18).
a(n) = round((4*2^n-9*n-4)/18).
a(n) = a(n-6) + 7*2^(n-5)-3 , n>5.
a(n) = 4*a(n-1)-5*a(n-2)+a(n-3)+4*a(n-4)-5*a(n-5)+2*a(n-6).
[A109414] 1, 4, 11, 26, 54, 90, 151, 232, 326, 456, 612, 811, 1030, 1304, 1607, 1953, 2383, 2812, 3329, 3893, 4515, 5226, 5983, 6809, 7703, 8718, 9762, 10891, 12160, 13475, 14868, 16380, 17986, 19699, 21524, 23415, 25482, 27658, 29923, 32288, 34814, 37452
a(n) = [x^(n*(n+1)/2)] [Sum_{k>=0} x^(k*(k+1)/2)]^3/(1-x).
[A141534] 1, 4, 11, 26, 55, 105, 184, 301, 466, 690, 985, 1364, 1841, 2431, 3150, 4015, 5044, 6256, 7671, 9310, 11195, 13349, 15796, 18561, 21670, 25150, 29029, 33336, 38101, 43355, 49130, 55459, 62376, 69916, 78115, 87010, 96639, 107041, 118256, 130325
a(n) = (n-1)*(n^3+11*n^2-38*n+120)/24, n>1. - R. J. Mathar, Sep 12 2008
[A192961] 0, 1, 4, 11, 26, 55, 108, 201, 360, 627, 1070, 1799, 2992, 4937, 8100, 13235, 21562, 35055, 56908, 92289, 149560, 242251, 392254, 634991, 1027776, 1663345, 2691748, 4355771, 7048250, 11404807, 18453900, 29859609, 48314472, 78175107, 126490670
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4).
[A027660] 1, 4, 11, 26, 56, 112, 210, 372, 627, 1012, 1573, 2366, 3458, 4928, 6868, 9384, 12597, 16644, 21679, 27874, 35420, 44528, 55430, 68380, 83655, 101556, 122409, 146566, 174406, 206336, 242792
a(n) = binomial(n,5)+binomial(n,3), n>=3. - Zerinvary Lajos, Jul 24 2006
[A002940] 1, 4, 11, 26, 56, 114, 223, 424, 789, 1444, 2608, 4660, 8253, 14508, 25343, 44030, 76136, 131110, 224955, 384720, 656041, 1115784, 1893216, 3205416, 5416441, 9136084, 15384563, 25866914, 43429784, 72821274, 121953943, 204002680
a(n) = sum{k=0..n, sum{i=0..n, C(k, i-k)}*k}. - Paul Barry, Feb 16 2005
[A248425] 0, 0, 0, 0, 1, 4, 11, 26, 57, 118, 235, 454, 857, 1588, 2899, 5228, 9333, 16520, 29031, 50702, 88077, 152290, 262239, 449930, 769461, 1312104, 2231591, 3786456, 6410857, 10832908, 18272195, 30769154, 51733857, 86859598, 145642579, 243907918, 408005393, 681773980, 1138094971, 1898045252, 3162632157, 5265345680
a(n) = (4/5)nF(n+1) - (2/5)(n+6)F(n) - 4F(n-1) + n + 1 (for n >= 3).
[A130103] 0, 1, 1, 4, 11, 26, 57, 120, 247, 502, 1013, 2036, 4083, 8178, 16369, 32752, 65519, 131054, 262125, 524268, 1048555, 2097130, 4194281, 8388584, 16777191, 33554406, 67108837, 134217700, 268435427, 536870882, 1073741793, 2147483616
a(n) = 2^n-n-1+C(1,n)-C(0,n).
[A000295] 0, 0, 1, 4, 11, 26, 57, 120, 247, 502, 1013, 2036, 4083, 8178, 16369, 32752, 65519, 131054, 262125, 524268, 1048555, 2097130, 4194281, 8388584, 16777191, 33554406, 67108837, 134217700, 268435427, 536870882, 1073741793, 2147483616, 4294967263, 8589934558
a(n) = 2^n - n - 1.
a(0)=0, a(1)=0, a(n)=3*a(n-1)-2*a(n-2)+1. - Miklos Kristof, Mar 09 2005
a(0)=0, a(n) = 2*a(n-1) + n-1 for all n in Z.
a(n) = sum(k=2..n, binomial(n, k)). - Paul Barry, Jun 05 2003
a(n+1) = sum(1<=i<=n, sum(1<=j<=i, C(i, j))). - Benoit Cloitre, Sep 07 2003
a(n+1) = 2^n*sum(k=0, n, k/2^k). - Benoit Cloitre, Oct 26 2003
[A125128] 1, 4, 11, 26, 57, 120, 247, 502, 1013, 2036, 4083, 8178, 16369, 32752, 65519, 131054, 262125, 524268, 1048555, 2097130, 4194281, 8388584, 16777191, 33554406, 67108837, 134217700, 268435427, 536870882, 1073741793, 2147483616, 4294967263, 8589934558
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). G.f.: x/((1-x)^2*(1-2*x)). [Colin Barker, Jun 17 2012]
[A192965] 0, 1, 1, 4, 11, 27, 58, 115, 215, 386, 673, 1149, 1932, 3213, 5301, 8696, 14207, 23143, 37622, 61071, 99035, 160486, 259941, 420889, 681336, 1102777, 1784713, 2888140, 4673555, 7562451, 12236818, 19800139, 32037887, 51839018, 83877961
a(n)=4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A047859] 1, 4, 11, 27, 63, 143, 319, 703, 1535, 3327, 7167, 15359, 32767, 69631, 147455, 311295, 655359, 1376255, 2883583, 6029311, 12582911, 26214399, 54525951, 113246207, 234881023, 486539263, 1006632959, 2080374783, 4294967295, 8858370047, 18253611007, 37580963839
a(0)=1, a(1)=4, a(2)=11, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Vincenzo Librandi, Sep 28 2011
[A080869] 1, 4, 11, 27, 64, 149, 345, 797, 1839, 4242, 9782, 22554, 52001, 119892, 276417, 637290, 1469294, 3387506, 7810005, 18006217, 41513909, 95711641, 220666238, 508753041, 1172946341, 2704265147, 6234769423, 14374459471, 33140774109
a(n) = floor(x^n)-1, where x=2.305531847934805...
[A137229] 1, 4, 11, 27, 64, 150, 350, 815, 1896, 4409, 10251, 23832, 55404, 128800, 299425, 696080, 1618191, 3761839, 8745216, 20330162, 47261894, 109870575, 255418100, 593775045, 1380359511, 3208946544, 7459895656, 17342153392, 40315615409
a(n) = term (4,1) in the 4x4 matrix [3,1,0,0; -2,0,1,0; 1,0,0,0; 1,0,0,1]^(n). - Alois P. Heinz, Jul 24 2008
[A003230] 1, 4, 11, 28, 67, 152, 335, 724, 1539, 3232, 6727, 13900, 28555, 58392, 118959, 241604, 489459, 989520, 1997015, 4024508, 8100699, 16289032, 32726655, 65705268, 131837763, 264399936, 530028199, 1062139180, 2127809963
a(n+3) = a(n+2) + 2*a(n) + 2^(n+4) - 1, with a(-3)=a(-2)=a(-1)=0. - Manfred Lindemann, Nov 11 2015
a(n) = (1/2)*(AR*ROR^-(n+4)+AC*ROC^-(n+4)+conjugate(AC*ROC^-(n+4))+1*(1/2)^-(n+4)+1*1^-(n+4)).
[A099326] 1, 4, 11, 28, 67, 156, 354, 792, 1747, 3820, 8278, 17832, 38174, 81368, 172644, 365104, 769411, 1617228, 3389838, 7090440, 14797546, 30828424, 64106716, 133113168, 275967022, 571415416, 1181585564, 2440680592, 5035637212
a(n)=sum{k=0..n, (k+1)binomial(n, (n-k)/2)binomial(k+3, 3)(1+(-1)^(n-k))/(n+k+2)}.
a(n)=sum{k=0..n, C(n,k)*(Floor((abs(n-2k) + 1)^2/4)+Floor((abs(n-2k+1) + 1)^2/4)}; - Paul Barry, Oct 25 2007
[A127985] 0, 1, 4, 11, 28, 67, 156, 355, 796, 1763, 3868, 8419, 18204, 39139, 83740, 178403, 378652, 800995, 1689372, 3553507, 7456540, 15612131, 32622364, 68040931, 141674268, 294533347, 611436316, 1267611875, 2624702236, 5428361443
a(n) = (n/3 + 4/9)*2^n - 1/2 + (-1)^n/18.
a(1)=1, a(2)=4, a(3)=11, a(4)=28, a(n)=4*a(n-1)-3*a(n-2)-4*a(n-3)+4*a(n-4). - Harvey P. Dale, May 15 2011
[A005409] 1, 1, 4, 11, 28, 69, 168, 407, 984, 2377, 5740, 13859, 33460, 80781, 195024, 470831, 1136688, 2744209, 6625108, 15994427, 38613964, 93222357, 225058680, 543339719, 1311738120, 3166815961, 7645370044, 18457556051, 44560482148, 107578520349, 259717522848
a(n) = ((1+sqrt(2))^n - (1-sqrt(2))^n)/(2*sqrt(2))-1 for n>1, a(1)=1.
a(n) = 3*a(n-1)-a(n-2)-a(n-3). - Toby Gottfried, Mar 08 2013
[A290890] 0, 1, 4, 11, 28, 72, 188, 493, 1292, 3383, 8856, 23184, 60696, 158905, 416020, 1089155, 2851444, 7465176, 19544084, 51167077, 133957148, 350704367, 918155952, 2403763488, 6293134512, 16475640049, 43133785636, 112925716859, 295643364940, 774004377960
a(n) = 4*a(n-1) - 5*a(n-2) + 4*a(n-3) - a(n-4).

[A027970] 1, 4, 11, 29, 76, 196, 487, 1148, 2552, 5353, 10636, 20120, 36425, 63415, 106630, 173821, 275603, 426242, 644593, 955207, 1389626, 1987886, 2800249, 3889186, 5331634, 7221551, 9672794, 12822346, 16833919, 21901961, 28256096
a(n) = (-1169280 +1119312*n -517700*n^2 +148092*n^3 -26551*n^4 +2688*n^5 -70*n^6 -12*n^7 +n^8)/40320. - Colin Barker, Nov 25 2014
[A027972] 1, 4, 11, 29, 76, 199, 518, 1324, 3278, 7784, 17643, 38138, 78753, 155793, 296248, 543333, 964239, 1660748, 2783499, 4550843, 7273394, 11385571, 17485634, 26385946, 39175444, 57296576, 82639259, 117654736, 165492559
a(n) = -76 +183941*n/2520 +386899*n^3/36288 -1747657*n^2/50400 -831241*n^4/362880 +11887*n^5/34560 -5807*n^6/172800 +41*n^7/24192 +n^8/60480 -n^9/145152 +n^10/3628800. - R. J. Mathar, Jan 30 2011
[A002878] 1, 4, 11, 29, 76, 199, 521, 1364, 3571, 9349, 24476, 64079, 167761, 439204, 1149851, 3010349, 7881196, 20633239, 54018521, 141422324, 370248451, 969323029, 2537720636, 6643838879, 17393796001, 45537549124, 119218851371, 312119004989, 817138163596, 2139295485799
a(n+1) = 3*a(n)-a(n-1).
a(n) = phi^(2*n+1)-phi^(-2*n-1), n >=0. - Paolo P. Lava, Jan 03 2011
a(n) = (-1)^n*Sum_{k=0..n} (-5)^k*binomial(n+k, n-k). - Benoit Cloitre, May 09 2004
a(n) = (1/2)*[(3/2)+(1/2)*sqrt(5)]^n+(1/2)*[(3/2)+(1/2)*sqrt(5)]^n*sqrt(5)-(1/2)*[(3/2)-(1/2)*sqrt(5)]^n *sqrt(5)+(1/2)*[(3/2)-(1/2)*sqrt(5)]^n, with n>=0. - Paolo P. Lava, Nov 21 2008
a(n) = the numerators of sinh((2*n-1)*psi) where the denominators are 2. Psi=log((1+sqrt5)/2). Offset 1. a(3)=11. - Al Hakanson (hawkuu(AT)gmail.com), Mar 25 2009
a(n) = limit_{m->infinity} Fib(m)^(4n+1)*Fib(m+2*n+1)/ Sum_{k=0..m} Fib(k)^(4n+2). - Yalcin Aktar, Sep 02 2014
[A291238] 4, 11, 30, 79, 202, 508, 1262, 3109, 7614, 18569, 45152, 109560, 265448, 642463, 1553790, 3755843, 9075302, 21923060, 52949458, 127869209, 308767326, 745537309, 1800065788, 4346043888, 10492781068, 25332654899, 61159842270, 147655261111, 356475233986
a(n) = 4*a(n-1) - 2*a(n-2) - 6*a(n-3) + 2*a(n-4) + 4*a(n-5) + a(n-6) for n >= 7.
[A090327] 1, 4, 11, 30, 83, 234, 671, 1950, 5723, 16914, 50231, 149670, 446963, 1336794, 4002191, 11990190, 35937803, 107747874, 323112551, 969075510, 2906702243, 8719058154, 26155077311, 78461037630, 235374724283, 706107395634, 2118288632471, 6354798788550
a(n) = ceiling[(5*3^(n-2))/2 + 2^(n-1) - 1/2] for n > 1.
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3) for n >= 5. - Robert Israel, Jan 15 2015
[A183123] 0, 1, 4, 11, 30, 83, 236, 691, 2050, 6123, 18336, 54971, 164870, 494563, 1483636, 4450851, 13352490, 40057403, 120172136, 360516331, 1081548910, 3244646643, 9733939836, 29201819411, 87605458130, 262816374283, 788449122736, 2365347368091, 7096042104150
a(n)=+4*a(n-1)-2*a(n-2)-4*a(n-3)+3*a(n-4) for n>6.
a(n) = -5-(-1)^n/8+(67*3^(-3+n))/8+(5*n)/2 for n>2. - Colin Barker, Sep 18 2014
[A104743] 1, 4, 11, 30, 85, 248, 735, 2194, 6569, 19692, 59059, 177158, 531453, 1594336, 4782983, 14348922, 43046737, 129140180, 387420507, 1162261486, 3486784421, 10460353224, 31381059631, 94143178850, 282429536505, 847288609468
a(n) = n+3^n.
a(n) = 5*a(n-1)-7*a(n-2)+3*a(n-3). G.f.: (1+x)*(2*x-1) / ((3*x-1)*(x-1)^2). - Colin Barker, Jan 25 2012
[A004080] 0, 1, 4, 11, 31, 83, 227, 616, 1674, 4550, 12367, 33617, 91380, 248397, 675214, 1835421, 4989191, 13562027, 36865412, 100210581, 272400600, 740461601, 2012783315, 5471312310, 14872568831, 40427833596, 109894245429, 298723530401, 812014744422
a(n) = exp(n - gamma + o(1)). - Charles R Greathouse IV, Mar 10 2009
[A077995] 1, 1, 4, 11, 31, 88, 249, 705, 1996, 5651, 15999, 45296, 128241, 363073, 1027924, 2910235, 8239391, 23327176, 66043369, 186980481, 529374876, 1498754083, 4243238399, 12013359840, 34011950561, 96293859201, 272624979364, 771849627691, 2185243073311, 6186810381368
a(n) = sum(m=1..n, sum(i=0..n-m, C(m+i-1,m-1)*sum(j=0..m, C(j,n-3*m+2*j-i) *C(m,j)*2^(n-3*m+2*j-i)))), n>0, a(0)=1. - Vladimir Kruchinin, May 12 2011
a(0)=1, a(1)=1, a(2)=4, a(n)=2*a(n-1)+2*a(n-2)+a(n-3). - Harvey P. Dale, Sep 11 2013
[A052545] 1, 1, 4, 11, 32, 92, 265, 763, 2197, 6326, 18215, 52448, 151018, 434839, 1252069, 3605189, 10380728, 29890115, 86065156, 247814740, 713554105, 2054597159, 5915976737, 17034376106, 49048531159, 141229616740, 406654474114
a(n) = Sum(-1/9*(-1+2*_alpha^2-2*_alpha)*_alpha^(-1-n), _alpha=RootOf(1-3*_Z+_Z^3)).
[A199109] 4, 11, 32, 95, 284, 851, 2552, 7655, 22964, 68891, 206672, 620015, 1860044, 5580131, 16740392, 50221175, 150663524, 451990571, 1355971712, 4067915135, 12203745404, 36611236211, 109833708632, 329501125895, 988503377684, 2965510133051
a(n) = 3*a(n-1) - 1.
a(n) = 4*a(n-1) - 3*a(n-2).
[A179905] 1, 4, 11, 33, 79, 158, 279, 451, 683, 984, 1363, 1829, 2391, 3058, 3839, 4743, 5779, 6956, 8283, 9769, 11423, 13254, 15271, 17483, 19899, 22528, 25379, 28461, 31783, 35354, 39183, 43279, 47651, 52308, 57259, 62513, 68079, 73966
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 04 2012
[A143787] 1, 1, 4, 11, 33, 95, 278, 808, 2355, 6856, 19969, 58151, 169353, 493190, 1436288, 4182793, 12181260, 35474611, 103310209, 300862991, 876181998, 2551642760, 7430968523, 21640683328, 63022629465, 183536340391, 534499885849, 1556586163406, 4533135643968, 13201529892305, 38445880553108, 111963215139163, 326062542045345
a(n) = +2*a(n-1) +3*a(n-2) -1*a(n-3).
[A180305] 1, 1, 4, 11, 34, 96, 288, 833, 2456, 7175, 21054, 61633, 180674, 529220, 1550800, 4543446, 13312552, 39004278, 114281748, 334837511, 981059294, 2874447292, 8421986238, 24675963950, 72299290794, 211833080161, 620659794584, 1818500391218, 5328110328116, 15611082044176, 45739647180588, 134014753120706, 392656158141832
a(n) = Sum_{k=0,n-1} sigma(n-k)*a(k) for n>0 with a(0) = 1.
[A282702] 4, 11, 37, 122, 403, 1331, 4396, 14519, 47953, 158378, 523087, 1727639, 5706004, 18845651, 62242957, 205574522, 678966523, 2242474091, 7406388796, 24461640479, 80791310233, 266835571178, 881298023767, 2910729642479, 9613486951204, 31751190496091, 104867058439477, 346352365814522
a(n) = (2^(-n)*((3-sqrt(13))^n*(-5+2*sqrt(13)) + (3+sqrt(13))^n*(5+2*sqrt(13)))) / sqrt(13). - Colin Barker, Feb 26 2017
[A278988] 0, 0, 1, 1, 4, 11, 41, 162, 610, 2165, 7327, 23948, 76352, 239175, 739909, 2268710, 6912430, 20966441, 63390587, 191220048, 575888044, 1732382363, 5207108161, 15642295562, 46970926394, 141005053341, 423208097431, 1270026944852, 3810919694680, 11434503913775, 34307135619197
a(n) = (2*(3+3^n) - 3*(2+2^n)*n + 6*n^2) / 12 for n>3.
a(n) = 10*a(n-1) - 40*a(n-2) + 82*a(n-3) - 91*a(n-4) + 52*a(n-5) - 12*a(n-6) for n>9.
[A278989] 0, 0, 1, 1, 4, 11, 41, 162, 715, 3425, 16777, 80928, 379347, 1726375, 7654817, 33219630, 141692075, 596122477, 2480969257, 10237751324, 41963944275, 171103765747, 694775280993, 2812004330666, 11352134320523, 45736973060601, 183981143571721, 739167464021912, 2966826380664595, 11899055223201855
a(n) = 20*a(n-1) - 175*a(n-2) + 882*a(n-3) - 2835*a(n-4) + 6072*a(n-5) - 8777*a(n-6) + 8458*a(n-7) - 5204*a(n-8) + 1848*a(n-9) - 288*a(n-10) for n > 14.
[A203577] 1, 1, 4, 11, 58, 212, 1304, 5567, 37734, 178148, 1284124, 6501420, 48758648, 259775440, 2000594288, 11080668871, 86930955662, 496461841956, 3947716126292, 23113333523180, 185660199980696, 1109722749130576, 8983793097101144, 54645629076275356, 445109373450545608, 2748480598104423952
a(n) = sum(binomial(n,k)*Catalan(k)*Catalan(n-k), k=0..floor(n/2)), n>=0.
[A224785] 1, 4, 12, 15, 45, 48, 144, 147, 441, 444, 1332, 1335, 4005, 4008, 12024, 12027, 36081, 36084, 108252, 108255, 324765, 324768, 974304, 974307, 2922921, 2922924, 8768772, 8768775, 26306325, 26306328, 78918984, 78918987, 236756961, 236756964, 710270892, 710270895
a(n) = a(n-1)+3 if n odd.
a(n) = a(n-1)*3 if n even.
a(2n) = (11*3^n-9)/2.
a(2n+1) = (11*3^n-3)/2.
a(n) = 4*a(n-2) - 3*a(n-4) with n>3, a(0)=1, a(1)=4, a(2)=12, a(3)=15.
a(n) = (11*3^floor(n/2)-3(-1)^n)/2 -3. [Bruno Berselli, Apr 27 2013]
[A195547] 1, 4, 12, 15, 80, 208, 273, 1428, 3740, 4895, 25632, 67104, 87841, 459940, 1204140, 1576239, 8253296, 21607408, 28284465, 148099380, 387729212, 507544127, 2657535552, 6957518400, 9107509825, 47687540548, 124847601996, 163427632719, 855718194320, 2240299317520
a(n) = 2*F(n)*F(n+1)/(2-((n+2)^2 mod 3)), where F(n)=Fibonacci(n). - Gary Detlefs, Oct 15 2011
[A108269] 4, 12, 16, 20, 28, 36, 44, 48, 52, 60, 64, 68, 76, 80, 84, 92, 100, 108, 112, 116, 124, 132, 140, 144, 148, 156, 164, 172, 176, 180, 188, 192, 196, 204, 208, 212, 220, 228, 236, 240

a(n) = 3n + O(log n). - Charles R Greathouse IV, Nov 03 2016
[A230628] 4, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114, 120, 126, 132, 138, 144, 150, 156, 162, 168, 174, 180, 186, 192, 198, 204, 210, 216, 222, 228, 234, 240, 246, 252, 258, 264, 270, 276, 282, 288, 294, 300, 306, 312
a(1)=4; thereafter a(n) = 6*n (See Jackson Ringel 1984).
a(n) = 2*a(n-1) - a(n-2) for n > 3. - Wesley Ivan Hurt, Mar 07 2016
[A017113] 4, 12, 20, 28, 36, 44, 52, 60, 68, 76, 84, 92, 100, 108, 116, 124, 132, 140, 148, 156, 164, 172, 180, 188, 196, 204, 212, 220, 228, 236, 244, 252, 260, 268, 276, 284, 292, 300, 308, 316, 324, 332, 340, 348, 356, 364, 372, 380, 388, 396, 404, 412, 420, 428, 436, 444, 452, 460, 468
a(n) = 16*n-a(n-1) with n>0, a(0)=4. - Vincenzo Librandi, Nov 19 2010
a(n) = sum((i^k+1)*(i^(4n-k)+1), k=0..4n), where i=sqrt(-1). - Bruno Berselli, Mar 19 2012
[A212965] 1, 4, 12, 21, 37, 52, 76, 97, 129, 156, 196, 229, 277, 316, 372, 417, 481, 532, 604, 661, 741, 804, 892, 961, 1057, 1132, 1236, 1317, 1429, 1516, 1636, 1729, 1857, 1956, 2092, 2197, 2341, 2452, 2604, 2721, 2881, 3004, 3172, 3301, 3477, 3612
a(n) = (14*n*(n+1) + (2*n+1)*(-1)^n + 7)/8.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A273315] 4, 12, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>1.
a(n) = 2*a(n-1)-a(n-2) for n>3.
[A046092] 0, 4, 12, 24, 40, 60, 84, 112, 144, 180, 220, 264, 312, 364, 420, 480, 544, 612, 684, 760, 840, 924, 1012, 1104, 1200, 1300, 1404, 1512, 1624, 1740, 1860, 1984, 2112, 2244, 2380, 2520, 2664, 2812, 2964, 3120, 3280, 3444, 3612, 3784, 3960, 4140, 4324
a(n) = C(2n, 2) - n = 4*C(n, 2). - Zerinvary Lajos, Feb 15 2005
a(n) = a(n-1)+4*n; o.g.f.:4*x/(1-x)^3; e.g.f.: exp(x)*(2*x^2+4*x). - Geoffrey Critzer, May 17 2009
a(n)=1/int(-(x*n+x-1)*(step((-1+x*n)/n)-1)*n*step((x*n+x-1)/(n+1)),x=0..1) where step(x)=piecewise(x<0,0,0<=x,1) is the Heaviside step function
a(0)=0, a(1)=4, a(2)=12, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 25 2011
a(n)*(2m+1)^2 + a(m) = a(n*(2m+1)+m), for any nonnegative integers n and m.
a(n) = lcm(2*n,2*n+2). - Enrique Navarrete, Aug 30 2017
[A008253] 1, 4, 12, 24, 42, 64, 92, 124, 162, 204, 252, 304, 362, 424, 492, 564, 642, 724, 812, 904, 1002, 1104, 1212, 1324, 1442, 1564, 1692, 1824, 1962, 2104, 2252, 2404, 2562, 2724, 2892, 3064, 3242, 3424, 3612, 3804, 4002, 4204, 4412, 4624, 4842, 5064, 5292, 5524
a(2*m) = 10*m^2+2, a(2*m+1) = 10*m^2+10*m+4 (N. J. A. Sloane).
a(n) = 2* (2 + Sum[Floor[(5*k+3)/2], {k,1,n-1}]). - Alexander Adamchuk, May 23 2006
a(n) = (5*n^2 + 4)/2 for n>0 and even.
a(n) = (5*n^2 + 3)/2 for n odd.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
[A011887] 0, 0, 0, 1, 4, 12, 24, 42, 67, 100, 144, 198, 264, 343, 436, 546, 672, 816, 979, 1162, 1368, 1596, 1848, 2125, 2428, 2760, 3120, 3510, 3931, 4384, 4872, 5394, 5952, 6547, 7180, 7854, 8568, 9324, 10123, 10966
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-5) -3*a(n-6) +3*a(n-7) -a(n-8). G.f.: x^3*(1+x+3*x^2-x^3+2*x^4) / ((-1+x)^4*(1+x+x^2+x^3+x^4)). [From R. J. Mathar, Apr 15 2010]
[A128624] 1, 4, 12, 24, 45, 72, 112, 160, 225, 300, 396, 504, 637, 784, 960, 1152, 1377, 1620, 1900, 2200, 2541, 2904, 3312, 3744, 4225, 4732, 5292, 5880, 6525, 7200, 7936, 8704, 9537, 10404, 11340, 12312, 13357, 14440, 15600, 16800, 18081, 19404, 20812, 22264, 23805
a(n) = n*(2*n^2+4*n-(-1)^n+1)/8.
a(n) = (n^3+2*n^2)/4 for n even.
a(n) = (n^3+2*n^2+n)/4 for n odd.
[A192797] 4, 12, 24, 48, 80, 132, 196, 288, 396, 540, 704, 912, 1144, 1428, 1740, 2112, 2516, 2988, 3496, 4080, 4704, 5412, 6164, 7008, 7900, 8892, 9936, 11088, 12296, 13620, 15004, 16512, 18084, 19788, 21560, 23472, 25456, 27588, 29796, 32160, 34604
a(n) = n*(2*n^2+(-1)^n+15)/4.
a(n) = +2*a(n-1) +1*a(n-2) -4*a(n-3) +1*a(n-4) +2*a(n-5) -1*a(n-6).
[A132477] 1, 4, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472, 6442450944, 12884901888
a(0) = 1, a(1) = 4, a(n) = 3*2^n for n>1.
a(n)=2*a(n-1) for n>1. - Harvey P. Dale, May 31 2017
[A143270] 1, 4, 12, 24, 50, 72, 126, 176, 252, 320, 462, 552, 754, 896, 1080, 1280, 1632, 1836, 2280, 2560, 2940, 3300, 3956, 4320, 5000, 5512, 6210, 6776, 7830, 8340, 9548, 10368, 11352, 12240, 13440, 14256, 15984, 17100, 18486, 19600, 21730, 22764, 25112
a(n) = SUM(SUM(0^(GCD(i,j)-1): 1<=j<=i*n): 1<=i<=n). [From Reinhard Zumkeller, Jan 15 2009]
[A136486] 0, 4, 12, 24, 52, 76, 112, 148, 192, 256, 308, 376, 440, 524, 608, 688, 796, 904, 1012, 1124, 1232, 1372, 1508, 1648, 1788, 1952, 2112, 2268, 2448, 2616, 2812, 3000, 3184, 3388, 3608, 3828, 4052, 4272, 4516, 4748, 5008, 5252, 5512, 5784, 6044, 6328, 6600
a(n) = 4*Sum(floor(sqrt((n+1/2)^2 - k^2))), k = 1 ... n
[A216244] 4, 12, 24, 60, 84, 144, 180, 264, 420, 480, 684, 840, 924, 1104, 1404, 1740, 1860, 2244, 2520, 2664, 3120, 3444, 3960, 4704, 5100, 5304, 5724, 5940, 6384, 8064, 8580, 9384, 9660, 11100, 11400, 12324, 13284, 13944, 14964, 16020, 16380, 18240, 18624, 19404, 19800
a(n) = (prime(n)^2 -1)/2 for n > 1.
[A218034] 1, 4, 12, 24, 84, 240, 732, 2184, 6564, 19680, 59052, 177144, 531444, 1594320, 4782972, 14348904, 43046724, 129140160, 387420492, 1162261464, 3486784404, 10460353200, 31381059612, 94143178824, 282429536484, 847288609440, 2541865828332, 7625597484984, 22876792454964
a(0) = 1, a(1) = 4, a(n) = 3^n + 3*(-1)^n for n >= 2.
[A008044] 1, 4, 12, 25, 42, 61, 88, 122, 160, 200, 246, 299, 358, 417, 480, 550, 628, 710, 796, 887, 984, 1083, 1188, 1298, 1412, 1530, 1656, 1789, 1926, 2063, 2206, 2356, 2512, 2670, 2832, 3001, 3178, 3357, 3540, 3728, 3922, 4120, 4324, 4533, 4746, 4961, 5184, 5414
a(40*m+k) = 3920*m^2 + 196*k*m + one of 40 numbers depending on k, 0<=k<40. - N. J. A. Sloane
[A116668] 1, 4, 12, 25, 43, 66, 94, 127, 165, 208, 256, 309, 367, 430, 498, 571, 649, 732, 820, 913, 1011, 1114, 1222, 1335, 1453, 1576, 1704, 1837, 1975, 2118, 2266, 2419, 2577, 2740, 2908, 3081, 3259, 3442, 3630, 3823, 4021, 4224, 4432, 4645, 4863, 5086, 5314, 5547
a(n)=5*n+a(n-1)-2 (with a(0)=1) - Vincenzo Librandi, Nov 13 2010
[A008264] 1, 4, 12, 25, 44, 67, 96, 130, 170, 214, 264, 319, 380, 445, 516, 592, 674, 760, 852, 949, 1052, 1159, 1272, 1390, 1514, 1642, 1776, 1915, 2060, 2209, 2364, 2524, 2690, 2860, 3036, 3217, 3404, 3595, 3792, 3994, 4202, 4414, 4632, 4855, 5084, 5317, 5556, 5800
a(4m+k) = 42*m^2 + 21*k*m + [2, 4, 12, 25], 0<=k<4 (N. J. A. Sloane).
a(n) = 1+(42*n^2+(1+(-1)^n)*(3+2*(-1)^((n-1)*n/2))+6)/16 for n>0, a(0)=1. - Bruno Berselli, Jul 24 2013
[A000297] 0, 4, 12, 25, 44, 70, 104, 147, 200, 264, 340, 429, 532, 650, 784, 935, 1104, 1292, 1500, 1729, 1980, 2254, 2552, 2875, 3224, 3600, 4004, 4437, 4900, 5394, 5920, 6479, 7072, 7700, 8364, 9065, 9804, 10582, 11400, 12259, 13160, 14104, 15092, 16125, 17204
a(n) = Sum_{k=3..n} n*(k+1)/3, n>=2. - Zerinvary Lajos, Jan 29 2008
a(n) = a(n-1) + (n^2 + 7n + 8)/2.
[A078618] 1, 4, 12, 25, 45, 73, 112, 162, 225, 302, 396, 507, 637, 787, 960, 1156, 1377, 1624, 1900, 2205, 2541, 2909, 3312, 3750, 4225, 4738, 5292, 5887, 6525, 7207, 7936, 8712, 9537, 10412, 11340, 12321, 13357, 14449, 15600, 16810, 18081, 19414, 20812, 22275
a(n) = floor((1/n)(Sum_{i=1..n} i^3) = floor(n*(n+1)^2/4).
[A264100] 0, 1, 4, 12, 26, 50, 82, 130, 188, 265, 358, 473, 602, 765, 944, 1151, 1386, 1657, 1948, 2284, 2642, 3048, 3490, 3972, 4480, 5056, 5666, 6322, 7022, 7784, 8578, 9452, 10360, 11337, 12366, 13453, 14592, 15831, 17110, 18453, 19856, 21357, 22902, 24551
a(n) = n + Sum_{k=2..n} k*floor((n-1)/(k-1))*(2*n-(k-1)*floor((n+k-2)/(k-1)))/2.
[A266958] 1, 4, 12, 27, 43, 68, 92, 127, 159, 204, 244, 299, 347, 412, 468, 543, 607, 692, 764, 859, 939, 1044, 1132, 1247, 1343, 1468, 1572, 1707, 1819, 1964, 2084, 2239, 2367, 2532, 2668, 2843, 2987, 3172, 3324, 3519, 3679, 3884, 4052, 4267, 4443, 4668, 4852, 5087, 5279, 5524
a(n) = a(-n+1) = (18*(n-1)*n + (2*n-1)*(-1)^n - 7)/8.

[A212973] 1, 4, 12, 27, 50, 84, 131, 192, 270, 367, 484, 624, 789, 980, 1200, 1451, 1734, 2052, 2407, 2800, 3234, 3711, 4232, 4800, 5417, 6084, 6804, 7579, 8410, 9300, 10251, 11264, 12342, 13487, 14700, 15984, 17341, 18772, 20280, 21867, 23534
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
[A047732] 1, 4, 12, 27, 51, 86, 134, 197, 277, 376, 496, 639, 807, 1002, 1226, 1481, 1769, 2092, 2452, 2851, 3291, 3774, 4302, 4877, 5501, 6176, 6904, 7687, 8527, 9426, 10386, 11409, 12497, 13652, 14876, 16171, 17539, 18982, 20502, 22101, 23781
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 28 2012
a(n) = (2*n^3+9*n^2+7*n+6)/6. - Vincenzo Librandi, Jun 28 2012
[A104385] 0, 0, 1, 4, 12, 27, 52, 91, 147, 225, 331, 469, 645, 867, 1141, 1474, 1875, 2352, 2914, 3571, 4332, 5208, 6211, 7351, 8640, 10092, 11719, 13534, 15552, 17787, 20254, 22969, 25947, 29205, 32761, 36631, 40833, 45387, 50311, 55624
a(n) = round((3n^4 + 6n^3 - 33n^2 - 36n + 110)/144) (conjectured). - Ralf Stephan, Nov 13 2010.
[A213760] 1, 4, 12, 27, 52, 92, 148, 230, 335, 480, 656, 889, 1162, 1512, 1912, 2412, 2973, 3660, 4420, 5335, 6336, 7524, 8812, 10322, 11947, 13832, 15848, 18165, 20630, 23440, 26416, 29784, 33337, 37332, 41532, 46227, 51148, 56620, 62340, 68670
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) -2*a(n-7) +a(n-8).
a(n) = (2*n^4 + 22*n^3 + 40*n^2 + 8*n) / 96 for n even.
a(n) = (2*n^4 + 22*n^3 + 34*n^2 + 26*n + 12) / 96 for n odd.
[A007009] 1, 4, 12, 27, 54, 96, 160, 250, 375, 540, 756, 1029, 1372, 1792, 2304, 2916, 3645, 4500, 5500, 6655, 7986, 9504, 11232, 13182, 15379, 17836, 20580, 23625, 27000, 30720, 34816, 39304, 44217, 49572, 55404, 61731, 68590, 76000, 84000, 92610, 101871, 111804
a(n) = (1/2)*Sum_{k=1..n+1} k*floor(k/2)*ceil(k/2). - Vladeta Jovovic, Apr 29 2006
a(n) = (n^4+6*n^3+12*n^2+8*n)/32 for n even; a(n) = (n^4+6*n^3+12*n^2+10*n+3)/32 for n odd. - Colin Barker, Jan 07 2016
[A013697] 1, 4, 12, 27, 57, 119, 245, 497, 1005, 2023, 4063, 8149, 16327, 32692, 65435, 130938, 261965, 524050, 1048259, 2096730, 4193742, 8387859, 16776218, 33553102, 67107091, 134215364, 268432305, 536866711, 1073736223, 2147476180
a(n) = floor(1/(zeta(n)-1)).
a(n) = 2^n - (4/3)^n + O(1). It appears that a(n) = 2^n - floor((4/3)^n) - k, where k is usually 2 but is sometimes 1. Up to n=1000, the only values of n where k = 1 are 4, 5, 13, 14, and 17. (End)
[A212522] 0, 0, 0, 0, 4, 12, 27, 60, 112, 180, 300, 450, 648, 924, 1274, 1680, 2240, 2880, 3645, 4590, 5700, 6930, 8470, 10164, 12096, 14352, 16900, 19656, 22932, 26460, 30375, 34800, 39680, 44880, 50864, 57222, 64152, 71820, 80142, 88920, 98800, 109200, 120393
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A112087] 4, 12, 28, 52, 84, 124, 172, 228, 292, 364, 444, 532, 628, 732, 844, 964, 1092, 1228, 1372, 1524, 1684, 1852, 2028, 2212, 2404, 2604, 2812, 3028, 3252, 3484, 3724, 3972, 4228, 4492, 4764, 5044, 5332, 5628, 5932, 6244, 6564, 6892, 7228, 7572, 7924, 8284
a(n) = 8*n + a(n-1) - 8 (with a(1)=4). - Vincenzo Librandi, Nov 13 2010
[A184633] 1, 4, 12, 28, 55, 96, 152, 227, 324, 444, 591, 768, 976, 1219, 1500, 1820, 2183, 2592, 3048, 3555, 4116, 4732, 5407, 6144, 6944, 7811, 8748, 9756, 10839, 12000, 13240, 14563, 15972, 17468, 19055, 20736, 22512, 24387, 26364, 28444, 30631, 32928, 35336, 37859, 40500, 43260, 46143, 49152, 52288, 55555, 58956, 62492, 66167, 69984, 73944, 78051, 82308, 86716, 91279, 96000, 100880, 105923, 111132, 116508, 122055, 127776, 133672, 139747, 146004, 152444, 159071, 165888, 172896, 180099, 187500
a(n) = floor(1/{(9+n^4)^(1/4)}), where {} = fractional part.
[A006000] 1, 4, 12, 28, 55, 96, 154, 232, 333, 460, 616, 804, 1027, 1288, 1590, 1936, 2329, 2772, 3268, 3820, 4431, 5104, 5842, 6648, 7525, 8476, 9504, 10612, 11803, 13080, 14446, 15904, 17457, 19108, 20860, 22716, 24679, 26752, 28938, 31240, 33661, 36204, 38872, 41668, 44595, 47656, 50854, 54192
a(n) = sum_{j=1..n+1} (binomial(0,0*j) + binomial(n+1,2)). - Zerinvary Lajos, Jul 25 2006
a(n-1) = n + (n^3 - n^2)/2 = n + n*T(n-1) where T(n-1) is a triangular number, n>=1. - William A. Tedeschi, Aug 22 2010
[A085622] 1, 4, 12, 28, 56, 88, 132, 180, 240, 304, 380, 460, 552, 648, 756, 868, 992, 1120, 1260, 1404, 1560, 1720, 1892, 2068, 2256, 2448, 2652, 2860, 3080, 3304, 3540, 3780, 4032, 4288, 4556, 4828, 5112, 5400, 5700, 6004, 6320, 6640, 6972, 7308, 7656, 8008, 8372
a(n) = 4n^2 - 2n if n is even and 4n^2 - 2n - 2 if n is odd and > 1.
a(n) = -1+(-1)^n-2*n+4*n^2 for n>1. a(n)=2*a(n-1)-2*a(n-3)+a(n-4) for n>5. G.f.: -(4*x^5-7*x^4-6*x^3-4*x^2-2*x-1)/((1-x)^3*(1+x)). [Colin Barker, Oct 05 2012]
[A011940] 0, 0, 0, 0, 0, 4, 12, 28, 56, 100, 168, 264, 396, 572, 800, 1092, 1456, 1904, 2448, 3100, 3876, 4788, 5852, 7084, 8500, 10120, 11960, 14040, 16380, 19000, 21924, 25172, 28768, 32736, 37100, 41888, 47124
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-5) -4*a(n-6) +6*a(n-7) -4*a(n-8) +a(n-9). G.f.: 4*x^5*(x^2-x+1) / ((1-x)^5*(x^4+x^3+x^2+x+1)). [From R. J. Mathar, Apr 15 2010]
[A102653] 4, 12, 28, 56, 112, 228, 460, 920, 1840, 3684, 7372, 14744, 29488, 58980, 117964, 235928, 471856, 943716, 1887436, 3774872, 7549744, 15099492, 30198988, 60397976, 120795952, 241591908, 483183820, 966367640, 1932735280, 3865470564
a(0)=4, a(1)=12, a(2)=28, a(3)=56, a(n)=3*a(n-1)-3*a(n-2)+3*a(n-3)- 2*a(n-4). - Harvey P. Dale, Jun 15 2011
[A028346] 1, 4, 12, 28, 58, 108, 188, 308, 483, 728, 1064, 1512, 2100, 2856, 3816, 5016, 6501, 8316, 10516, 13156, 16302, 20020, 24388, 29484, 35399, 42224, 50064, 59024, 69224, 80784, 93840, 108528, 125001, 143412, 163932, 186732, 212002, 239932, 270732, 304612, 341803
a(n) = (n+4)*(2*n^4 +32*n^3 +172*n^2 +352*n +15*(-1)^n +225)/960. - R. J. Mathar, Apr 01 2010
a(n) = C(n + 3, 3) + 2*C(n + 1, 3) + 3*C(n - 1, 3) + 4*C(n - 3, 3) + ...
a(n) = Sum_{i = 1..z} i*C(n + 5 - 2*i,3) where z = (2*n + 3 + (-1)^n)/4.
[A179023] 0, 1, 4, 12, 28, 60, 120, 231, 432, 792, 1430, 2552, 4512, 7917, 13804, 23940, 41328, 71060, 121752, 207955, 354200, 601776, 1020074, 1725552, 2913408, 4910425, 8263060, 13884156, 23297092, 39041772, 65349240, 109261887, 182492352
a(0)=0, a(1)=1 and for n>1, a(n) = a(n-1) + F(n+1) +nF(n) -1.
[A028399] 0, 4, 12, 28, 60, 124, 252, 508, 1020, 2044, 4092, 8188, 16380, 32764, 65532, 131068, 262140, 524284, 1048572, 2097148, 4194300, 8388604, 16777212, 33554428, 67108860, 134217724, 268435452, 536870908, 1073741820, 2147483644
a(n) = a(n-1)+2^(n-1) (with a(2)=0). [Vincenzo Librandi, Nov 22 2010]
[A173033] 1, 4, 12, 28, 60, 124, 252, 508, 1020, 2044, 4092, 8188, 16380, 32764, 65532, 131068, 262140, 524284, 1048572, 2097148, 4194300, 8388604, 16777212, 33554428, 67108860, 134217724, 268435452, 536870908, 1073741820, 2147483644
a(n) = 2^(n+2) - 4 for n>=1, a(0)=1.
a(n) = 2*a(n-1) + 4 for n>1. - J. Conrad, Nov 01 2015
a(n) = 3*a(n-1)-2*a(n-2) for n>2. - Colin Barker, Nov 03 2015
[A014342] 4, 12, 29, 58, 111, 188, 305, 462, 679, 968, 1337, 1806, 2391, 3104, 3953, 4978, 6175, 7568, 9185, 11030, 13143, 15516, 18177, 21150, 24471, 28152, 32197, 36678, 41543, 46828, 52621, 58874, 65659, 73000, 80949, 89462, 98631, 108396, 118869, 130102
a(n) = Sum_{i=1..n} p(i) * p(n+1-i), where p(i) is the i-th prime.
[A086274] 1, 4, 12, 29, 60, 111, 189, 302, 459, 670, 946, 1299, 1742, 2289, 2955, 3756, 4709, 5832, 7144, 8665, 10416, 12419, 14697, 17274, 20175, 23426, 27054, 31087, 35554, 40485, 45911, 51864, 58377, 65484, 73220, 81621, 90724, 100567, 111189
a(n)=n+Sum{(k+1)C(n+1-k, 2): k=1, 2, ..., n}.
[A174121] 1, 4, 12, 29, 61, 118, 218, 395, 715, 1308, 2432, 4601, 8841, 17202, 33782, 66775, 132567, 263928, 526396, 1051045, 2100021, 4197614, 8392402, 16781539, 33559331, 67114388, 134223928, 268442385, 536878625, 1073750378, 2147493102, 4294977711, 8589946031
a(n) = (n-2)*(2*n^2+n+3)/6+2^n.
a(n) = 6*a(n-1)-14*a(n-2)+16*a(n-3)-9*a(n-4)+2*a(n-5) for n>5.
[A128563] 1, 4, 12, 29, 61, 120, 222, 392, 669, 1109, 1792, 2838, 4413, 6751, 10184, 15169, 22332, 32538, 46955, 67162, 95288, 134173, 187593, 260562, 359682, 493622, 673736, 914814, 1236057, 1662340, 2225738, 2967500, 3940540, 5212495, 6869598
a(n) is the coefficient of q^(2n+6) in the q-binomial coefficient [2n+5,n+2].
[A192978] 0, 1, 4, 12, 29, 62, 122, 227, 406, 706, 1203, 2020, 3356, 5533, 9072, 14816, 24129, 39218, 63654, 103215, 167250, 270886, 438599, 709992, 1149144, 1859737, 3009532, 4869972, 7880261, 12751046, 20632178, 33384155, 54017326, 87402538
a(n) = 4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).

[A008261] 1, 4, 12, 30, 52, 80, 116, 156, 204, 258, 318, 384, 458, 536, 622, 714, 812, 916, 1028, 1144, 1268, 1398, 1534, 1676, 1826, 1980, 2142, 2310, 2484, 2664, 2852, 3044, 3244, 3450, 3662, 3880, 4106, 4336, 4574, 4818, 5068, 5324, 5588, 5856, 6132, 6414, 6702
a(6m)=114m^2+2, a(6m+1)=114m^2+38m+4, a(6m+2)=114m^2+76m+14 (m>0), a(6m+3)=114m^2+114m+30, a(6m+4)=114m^2+152m+52, a(6m+5)=114m^2+190m+80 (N. J. A. Sloane).
[A099407] 1, 4, 12, 30, 60, 96, 144, 198, 308, 420, 540, 720, 840, 966, 1196, 1508, 1740, 1980, 2310, 2520, 2808, 3198, 3608, 4224, 4800, 5100, 5406, 5724, 6048, 7056, 8190, 8840, 9384, 10212, 11100, 11700, 12636, 13446, 14276, 15308, 16020, 17100, 18240, 18816
a(n) = (prime(n) - 1)*(prime(n+1) - 1)/2.
[A011938] 0, 0, 0, 0, 0, 4, 12, 30, 60, 108, 180, 282, 424, 612, 858, 1170, 1560, 2040, 2622, 3322, 4152, 5130, 6270, 7590, 9108, 10842, 12814, 15042, 17550, 20358, 23490, 26970, 30822, 35074, 39750, 44880, 50490, 56610, 63270, 70500, 78334, 86802, 95940, 105780
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + a(n-7) - 4*a(n-8) + 6*a(n-9) - 4*a(n-10) + a(n-11). - Chai Wah Wu, May 25 2016
[A212519] 0, 0, 0, 1, 4, 12, 30, 63, 108, 192, 300, 450, 660, 936, 1260, 1715, 2240, 2880, 3672, 4617, 5670, 7000, 8470, 10164, 12144, 14400, 16848, 19773, 22932, 26460, 30450, 34875, 39600, 45056, 50864, 57222, 64260, 71928, 80028, 89167, 98800, 109200, 120540
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A011797] 0, 0, 0, 0, 0, 0, 0, 0, 1, 4, 12, 30, 66, 132, 245, 429, 715, 1144, 1768, 2652, 3876, 5537, 7752, 10659, 14421, 19228, 25300, 32890, 42287, 53820, 67860, 84825, 105183, 129456, 158224, 192129, 231880, 278256
a(n) = floor(binomial(n+1,7)/(n+1)). [Gary Detlefs, Nov 23 2011]
[A032192] 1, 1, 4, 12, 30, 66, 132, 246, 429, 715, 1144, 1768, 2652, 3876, 5538, 7752, 10659, 14421, 19228, 25300, 32890, 42288, 53820, 67860, 84825, 105183, 129456, 158224, 192130, 231880, 278256, 332112, 394383, 466089, 548340
a(n) = ceiling(binomial(n, 7)/n)) (conjecture Wolfdieter Lang).
[A097809] 1, 4, 12, 30, 68, 146, 304, 622, 1260, 2538, 5096, 10214, 20452, 40930, 81888, 163806, 327644, 655322, 1310680, 2621398, 5242836, 10485714, 20971472, 41942990, 83886028, 167772106, 335544264, 671088582, 1342177220, 2684354498
a(n) = 2*a(n-1)+2*n, n>0.
a(0)=1, a(1)=4, a(2)=12, a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3).
[A272144] 0, 0, 1, 4, 12, 30, 69, 150, 316, 652, 1329, 2688, 5412, 10866, 21781, 43618, 87300, 174672, 349425, 698940, 1397980, 2796070, 5592261, 11184654, 22369452, 44739060, 89478289, 178956760, 357913716, 715827642, 1431655509, 2863311258, 5726622772
a(n) = 4*a(n-1) - 4*a(n-2) - 2*a(n-3) + 5*a(n-4) - 2*a(n-5).
a(n+2) = (-105+(-1)^n+2^(7+n)-48*n-6*n^2)/24. - Colin Barker, Apr 21 2016
[A218009] 0, 1, 4, 12, 30, 70, 160, 364, 824, 1848, 4096, 8976, 19488, 42016, 90112, 192448, 409472, 868224, 1835008, 3866880, 8126976, 17039872, 35651584, 74447872, 155187200, 322959360, 671088640, 1392513024, 2885689344, 5972697088, 12348030976
a(n) = 2^(n-3)*(3*n+2)+(1+i)^(n-4)+(1-i)^(n-4), where i=sqrt(-1) and n>1, with a(0)=0, a(1)=1. - Bruno Berselli, Oct 18 2012
a(n) = 6*a(n-1) -14*a(n-2) +16*a(n-3) -8*a(n-4).
[A162740] 1, 4, 12, 30, 72, 168, 390, 900, 2076, 4782, 11016, 25368, 58422, 134532, 309804, 713406, 1642824, 3783048, 8711526, 20060676, 46195260, 106377294, 244963080, 564094968, 1298984214, 2991269124, 6888221772, 15862029150, 36526694472, 84112781928, 193692865350
a(n) = 2*a(n-1) + 2*a(n-2) - 3*a(n-3) for n>3. [Bruno Berselli, Dec 28 2015]
a(n) = -2 + ((-7+2*sqrt(13))*(1-sqrt(13))^n + (7+2*sqrt(13))*(1+sqrt(13))^n)/(3*sqrt(13)*2^(n-1)) for n>0. [Bruno Berselli, Dec 28 2015]
[A037255] 0, 1, 4, 12, 31, 70, 141, 259, 442, 711, 1090, 1606, 2289, 3172, 4291, 5685, 7396, 9469, 11952, 14896, 18355, 22386, 27049, 32407, 38526, 45475, 53326, 62154, 72037, 83056, 95295, 108841, 123784, 140217, 158236, 177940, 199431, 222814, 248197, 275691, 305410
a(n) = (n^4 - 2*n^3 + 7*n^2 + 2*n) / 8.
[A129707] 0, 0, 1, 4, 12, 31, 73, 162, 344, 707, 1416, 2778, 5358, 10188, 19139, 35582, 65556, 119825, 217487, 392286, 703618, 1255669, 2230608, 3946020, 6954060, 12212280, 21377365, 37309288, 64935132, 112726771, 195224773, 337343034, 581700476
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) - a(n-4) + F(n), a(0)=a(1)=0, a(2)=1, a(3)=4.
[A232580] 0, 0, 0, 1, 4, 12, 31, 74, 168, 369, 792, 1672, 3487, 7206, 14788, 30185, 61356, 124308, 251199, 506578, 1019920, 2050785, 4119280, 8267216, 16580799, 33236622, 66594636, 133385689, 267089188, 534692604, 1070217247, 2141780762, 4285739832, 8575004241
a(n) = (1+2^n-(2^(-n)*((1-sqrt(5))^n*(-2+sqrt(5))+(1+sqrt(5))^n*(2+sqrt(5))))/sqrt(5)).
a(n) = 4*a(n-1)-4*a(n-2)-a(n-3)+2*a(n-4) for n>3. (End)
[A273387] 4, 12, 32, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*(1+n) for n>2.
a(n) = 2*a(n-1)-a(n-2) for n>4.
[A208903] 0, 4, 12, 32, 76, 180, 412, 940, 2108, 4700, 10364, 22716, 49404, 106876, 229884, 492284, 1049596, 2229756, 4720636, 9964540, 20975612, 44046332, 92282876, 192950268, 402669564, 838885372, 1744863228, 3623927804, 7516258300, 15569354748, 32212385788
a(n) = 2^n * (2 + (n - 1)/2 - (1/2)^(n - 1) - 2 (1 - (1/2)^Floor[n/2]) + (1/2)^(Floor[n/2] + 1) (1 + (-1)^n)) - 2.
a(n) = 5*a(n-1) - 6*a(n-2) - 6*a(n-3) + 16*a(n-4) - 8*a(n-5), a(1) = 0, a(2) = 4, a(3) = 12, a(4) = 32, a(5) = 76.
[A139756] 0, 0, 1, 4, 12, 32, 80, 192, 448, 1024, 2304, 5120, 11264, 24576, 53248, 114688, 245760, 524288, 1114112, 2359296, 4980736, 10485760, 22020096, 46137344, 96468992, 201326592, 419430400, 872415232, 1811939328, 3758096384
a(n) = 2*a(n-1) + 2^(n-2), n>=2. - Philippe Deléham, Mar 20 2013
[A001787] 0, 1, 4, 12, 32, 80, 192, 448, 1024, 2304, 5120, 11264, 24576, 53248, 114688, 245760, 524288, 1114112, 2359296, 4980736, 10485760, 22020096, 46137344, 96468992, 201326592, 419430400, 872415232, 1811939328, 3758096384, 7784628224, 16106127360, 33285996544
a(n) = sum(k=1, n, k*binomial(n, k)). - Benoit Cloitre, Dec 06 2002
a(n) = 2*a(n-1)+2^(n-1).
a(2*n) = n*4^n, a(2*n+1) = (2*n+1)4^n.
a(n-1) = sum{k=0..n, 2^(n-k-1)*C(n-k, k)*C(1,(k+1)/2)*(1-(-1)^k)/2}-0^n/4. - Paul Barry, Oct 15 2004
a(n) = sum{k=0..floor(n/2), binomial(n, k)(n-2k)^2}. - Paul Barry, May 13 2005
a(n) = n! * sum{k=0..n, 1/((k - 1)!(n - k)!)}. - Paul Barry, Mar 26 2003
[A048776] 1, 4, 12, 32, 81, 200, 488, 1184, 2865, 6924, 16724, 40384, 97505, 235408, 568336, 1372096, 3312545, 7997204, 19306972, 46611168, 112529329, 271669848, 655869048, 1583407968, 3822685009, 9228778012, 22280241060, 53789260160, 129858761409, 313506783008
a(n)=2*a(n-1)+a(n-2) + n+1; a(0)=1, a(1)=4.
a(n)=[{(7/2 +(5/2)*sqrt(2))(1+sqrt(2))^n - (7/2-(5/2)*sqrt(2))(1-sqrt(2))^n}/2*sqrt(2)]-(n+3)/2.
a(n)= 4*a(n-1) -4*a(n-2) +a(n-4). G.f.: -1/((x^2+2*x-1) * (x-1)^2). - R. J. Mathar, Feb 06 2010
[A291038] 4, 12, 32, 84, 216, 544, 1348, 3300, 8000, 19236, 45936, 109056, 257604, 605820, 1419232, 3313396, 7711944, 17900320, 41445764, 95746260, 220735616, 507934276, 1166792160, 2676017408, 6128381316, 14015556588, 32012831648, 73033858964, 166434905016
a(n) = 4*a(n-1) - 4*a(n-2) + 2*a(n-3) - 4*a(n-4) - a(n-6) for n >= 7.
[A120369] 4, 12, 32, 87, 238, 649, 1769, 4820, 13128, 35744, 97295, 264783, 720465, 1960095, 5332044, 14503451, 39447240, 107283957, 291762849, 793424505, 2157567407, 5866897880, 15952911029, 43377066302, 117942558396, 320680213521
a(n) = ceiling[((n+1)/n)^((n+1)*n)]
[A104747] 1, 4, 12, 33, 87, 222, 550, 1327, 3129, 7236, 16464, 36957, 82027, 180346, 393354, 852123, 1835181, 3932352, 8388820, 17826025, 37748991, 79692054, 167772462, 352321863, 738197857, 1543504252, 3221225880, 6710886837
a(n) = +7*a(n-1) -19*a(n-2) +25*a(n-3) -16*a(n-4) +4*a(n-5). G.f. -x*(1-3*x+3*x^2) / ((2*x-1)^2*(x-1)^3). - R. J. Mathar, Oct 30 2011
a(n) = Sum_{i=0..n-1} (2^(n-i) - 1)*(2^i - i). - J. M. Bergot, Sep 13 2017
a(n) = Sum_{k=0..n} Sum_{i=1..n} (i-k) * C(n-k,i). - Wesley Ivan Hurt, Sep 19 2017
[A070050] 4, 12, 33, 87, 223, 559, 1375, 3327, 7935, 18687, 43519, 100351, 229375, 520191, 1171455, 2621439, 5832703, 12910591, 28442623, 62390271, 136314879, 296747007, 643825663, 1392508927, 3003121663, 6459228159, 13857980415, 29662117887, 63350767615
a(P, N) = 1 + Sum_{n=1..N, p=1..P} (C(N, n) * C(P, p) * K(p, n)),
a(n) = (n^2 + 3*n + 16)*2^(n - 3) - 1. - Vaclav Kotesovec, Aug 15 2013

a(n) = 7*a(n-1) - 18*a(n-2) + 20*a(n-3) - 8*a(n-4) for n>4.
[A027941] 0, 1, 4, 12, 33, 88, 232, 609, 1596, 4180, 10945, 28656, 75024, 196417, 514228, 1346268, 3524577, 9227464, 24157816, 63245985, 165580140, 433494436, 1134903169, 2971215072, 7778742048, 20365011073, 53316291172, 139583862444, 365435296161, 956722026040
a(n) = Sum_{i=1..n} binomial(n+i, n-i). - Benoit Cloitre, Oct 15 2002
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3) with n>=2, a(-1)=0, a(0)=0, a(1)=1.
a(n) = 3*a(n-1) - a(n-2) + 1 with n>=1, a(-1)=0, a(0)=0.
a(n) = 2*a(n-1) + (Sum_{k=1..n-2} a(k)) + n. - Jon Perry, Sep 01 2012
a(n) = -1 + (2^(-1-n)*((3-sqrt(5))^n*(-1+sqrt(5)) + (1+sqrt(5))*(3+sqrt(5))^n)) / sqrt(5). - Colin Barker, Jun 03 2016
a(n) = Sum_{k=0..n} binomial(n+1,k+1)*Fibonacci(k). - Vladimir Kruchinin, Oct 14 2016
[A293064] 0, 0, 0, 1, 4, 12, 33, 88, 232, 609, 1596, 4180, 10945, 28656, 75024, 196417, 514228, 1346268, 3524577, 9227464, 24157816, 63245985, 165580140, 433494436, 1134903169, 2971215072, 7778742048, 20365011073, 53316291172, 139583862444, 365435296161, 956722026040
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3), n >= 4.
a(n) = -1 + (2^(-n)*((3-sqrt(5))^n*(2+sqrt(5)) + (-2+sqrt(5))*(3+sqrt(5))^n)) / sqrt(5) for n>0.
[A219092] 1, 4, 12, 33, 90, 244, 665, 1808, 4914, 13359, 36315, 98715, 268337, 729416, 1982759, 5389698, 14650719, 39824784, 108254987, 294267566, 799902177, 2174359553, 5910522063, 16066464720, 43673179097, 118716009132, 322703570371
a(n) = [e^(n + 1/2)].
[A135254] 0, 0, 1, 4, 12, 33, 90, 252, 729, 2160, 6480, 19521, 58806, 176904, 531441, 1595052, 4785156, 14353281, 43053282, 129146724, 387420489, 1162241784, 3486725352, 10460235105, 31380882462, 94143001680, 282429536481, 847289140884
a(n) = 6*a(n-1) - 12*a(n-2) + 9*a(n-3). (End)
[A248873] 1, 4, 12, 34, 93, 255, 693, 1884, 5122, 13923, 37847, 102880, 279658, 760190, 2066413, 5617093, 15268842, 41505016, 112822331, 306682894, 833650539, 2266097111, 6159890600, 16744318683, 45515777207, 123724710091, 336318631172, 914208823689, 2485077232852, 6755140284380
a(n) = floor(e^(n+1)-e^n).
[A293005] 0, 1, 4, 12, 34, 94, 258, 706, 1930, 5274, 14410, 39370, 107562, 293866, 802858, 2193450, 5992618, 16372138, 44729514, 122203306, 333865642, 912137898, 2492007082, 6808289962, 18600594090, 50817768106, 138836724394, 379308985002, 1036291418794, 2831200807594
a(0) = 0, a(1) = 1, a(n+2)-2*a(n+1)-2*a(n) = 2.
a(n) = (-4 - (1-sqrt(3))^n*(-2+sqrt(3)) + (1+sqrt(3))^n*(2+sqrt(3))) / 6.
a(n) = 3*a(n-1) - 2*a(n-2) for n>2.
[A115390] 0, 0, 1, 4, 12, 34, 96, 272, 772, 2192, 6224, 17672, 50176, 142464, 404496, 1148480, 3260864, 9258528, 26287616, 74638080, 211918912, 601698560, 1708394752, 4850622592, 13772308480, 39103533056, 111026143488, 315235058688
a(n) = sum(sum(binomial(j-1,k-1)*2^(j-k)*binomial(n-j+k-1,2*k-1),j,k,n-k),k,1,n). - Vladimir Kruchinin, Aug 18 2010
[A005056] 1, 4, 12, 34, 96, 274, 792, 2314, 6816, 20194, 60072, 179194, 535536, 1602514, 4799352, 14381674, 43112256, 129271234, 387682632, 1162785754, 3487832976, 10462450354, 31385253912, 94151567434, 282446313696, 847322163874, 2541932937192, 7625731702714
a(n) = 5*a(n-1) - 6*a(n-2) - 2 for n > 1, a(0)=1, a(1)=4. - Vincenzo Librandi, Dec 31 2010
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n > 2, a(0)=1, a(1)=4, a(2)=12. - Rick L. Shepherd, Aug 07 2017
[A077843] 1, 1, 4, 12, 34, 100, 292, 852, 2488, 7264, 21208, 61920, 180784, 527824, 1541056, 4499328, 13136416, 38353600, 111978688, 326937408, 954539392, 2786910976, 8136775552, 23756451840, 69360276736, 202507008256, 591247473664, 1726229517312, 5039967998464
a(n)=sum(k=1..n, sum(i=k..n,(sum(j=0..k, binomial(j,-3*k+2*j+i)*2^(-2*k+j+i)* binomial(k,j)))*binomial(n+k-i-1,k-1))); - Vladimir Kruchinin, May 05 2011
[A090328] 1, 4, 12, 35, 103, 306, 914, 2737, 8205, 24608, 73816, 221439, 664307, 1992910, 5978718, 17936141, 53808409, 161425212, 484275620, 1452826843, 4358480511, 13075441514, 39226324522, 117678973545, 353036920613, 1059110761816, 3177332285424, 9531996856247
a(n) = (5*3^n)/12 + n/2 - 3/4.
a(n) = 5*a(n-1) - 7*a(n-2) + 3*a(n-3). - Colin Barker, Jan 15 2015
[A063810] 1, 4, 12, 36, 82, 164, 294, 476, 724, 1052, 1464, 1972, 2590, 3324, 4186, 5188, 6336, 7644, 9124, 10780, 12626, 14676, 16934, 19412, 22124, 25076, 28280, 31748, 35486, 39508, 43826, 48444, 53376, 58636, 64228, 70164, 76458, 83116
a(n) = (c_n +31*n^3 -57*n^2 +105*n)/18 where c_n = -7, -14, 9, -16, -23, 18, -7, -32, 9, 2, -23, 0 for n>=1, c_{n+12} = c_n. - R. J. Mathar, Sep 27 2016
[A291732] 4, 12, 36, 104, 288, 780, 2080, 5472, 14240, 36736, 94080, 239440, 606144, 1527360, 3833024, 9584768, 23890944, 59380160, 147207168, 364084224, 898569216, 2213388288, 5442392064, 13360097536, 32746992640, 80153705472, 195933828096, 478374127616
a(n) = 4*a(n-1) - 4*a(n-2) + 4*a(n-3) - 8*a(n-4) - 4*a(n-6) for n >= 7.
[A291264] 4, 12, 36, 104, 292, 804, 2180, 5840, 15492, 40764, 106532, 276792, 715556, 1841748, 4722180, 12066208, 30737924, 78088812, 197892388, 500374024, 1262618148, 3180066180, 7995639940, 20071580784, 50312160388, 125942854044, 314865132324, 786254598872
a(n) = 4*a(n-1) - 2*a(n-2) - 4*a(n-3) - a(n-4) for n >= 5.
a(n) = ((1-sqrt(2))^(1+n)*(2-3*sqrt(2) + 2*n) + (1+sqrt(2))^(1+n)*(2+3*sqrt(2) + 2*n)) / 4. - Colin Barker, Aug 26 2017
[A290380] 1, 4, 12, 36, 105, 306, 889, 2584, 7515, 21880, 63778, 186132, 543855, 1590876, 4658580, 13655472, 40065243, 117654876, 345786396, 1017040380, 2993498739, 8816790906, 25984489545, 76625467128, 226085062525, 667415280376, 1971209865654, 5824651789852
a(n) = Sum_{i=1..n/2} (n-2)/i*binomial(2i-2,i-1)*binomial(n-2,2i-2).
[A003946] 1, 4, 12, 36, 108, 324, 972, 2916, 8748, 26244, 78732, 236196, 708588, 2125764, 6377292, 19131876, 57395628, 172186884, 516560652, 1549681956, 4649045868, 13947137604, 41841412812, 125524238436, 376572715308, 1129718145924
a(n) = floor(4*3^(n-1)). - Michael Somos, Jun 18 2002
a(n + 1) = (((1 + sqrt(-11))/2)^n + ((1 - sqrt(-11))/2)^n)^2 - (((1 + sqrt(-11))/2)^n - ((1 - sqrt(-11))/2)^n)^2. - Raphie Frank, Dec 07 2015
[A052156] 1, 1, 4, 12, 36, 108, 324, 972, 2916, 8748, 26244, 78732, 236196, 708588, 2125764, 6377292, 19131876, 57395628, 172186884, 516560652, 1549681956, 4649045868, 13947137604, 41841412812, 125524238436, 376572715308, 1129718145924
a(n) = 4*3^(n-2); n >= 2; a(0) = 1; a(1) = 1.
a(n) = 3*a(n-1)+(-1)^n*C(2, 2-n).
a(n) = (-4*n + 9) * a(n-1) + 3 * Sum_{k=1..n-1} a(k) * a(n-k) if n>1. - Michael Somos, Jul 23 2011
[A177881] 0, 0, 1, 4, 12, 36, 109, 328, 984, 2952, 8857, 26572, 79716, 239148, 717445, 2152336, 6457008, 19371024, 58113073, 174339220, 523017660, 1569052980, 4707158941, 14121476824, 42364430472, 127093291416
a(n)=round((3*3^n-3)/20) = round((3*3^n-5)/20).
a(n)=floor((3*3^n-1)/20).
a(n)=ceil((3*3^n-9)/20).
a(n)=a(n-4)+4*3^(n-3), n>3.
a(n)=4*a(n-1)-4*a(n-2)+4*a(n-3)-3*a(n-4), n>3.
[A290899] 0, 1, 4, 12, 36, 110, 332, 983, 2876, 8380, 24428, 71357, 208868, 612178, 1795228, 5264684, 15436060, 45248195, 132616392, 388652536, 1138993032, 3338020181, 9782903524, 28671786116, 84032220964, 246284956558, 721820483900, 2115530739035, 6200240318564
a(n) = 8*a(n-1) - 27*a(n-2) + 52*a(n-3) - 63*a(n-4) + 52*a(n-5) - 27*a(n-6) + 8*a(n-7) - a(n-8).
[A290905] 0, 1, 4, 12, 36, 111, 344, 1064, 3288, 10161, 31404, 97060, 299980, 927135, 2865456, 8856144, 27371312, 84595361, 261455316, 808068924, 2497464564, 7718808463, 23856195976, 73731339384, 227878342920, 704293989585, 2176731748220, 6727533066836, 20792502889884
a(n) = 4*a(n-1) - 4*a(n-2) + 4*a(n-3) - a(n-4).
[A279277] 1, 4, 12, 37, 110, 327, 968, 2864, 8469, 25040, 74029, 218856, 647008, 1912753, 5654670, 16716883, 49420052, 146100276, 431915561, 1276869920, 3774804441, 11159436284, 32990587972, 97529916957, 288327225550, 852380393407, 2519888066928, 7449533000584, 22023018662909
a(n) = 3*a(n-1)+a(n-2)-3*a(n-3)-a(n-4), a(1)=1, a(2)=4, a(3)=12, a(4)=46.
[A033130] 1, 4, 12, 37, 112, 336, 1009, 3028, 9084, 27253, 81760, 245280, 735841, 2207524, 6622572, 19867717, 59603152, 178809456, 536428369, 1609285108, 4827855324, 14483565973, 43450697920, 130352093760, 391056281281, 1173168843844, 3519506531532, 10558519594597
a(n) = 3*a(n-1) + a(n-3) - 3*a(n-4).
[A099098] 1, 1, 4, 12, 37, 114, 351, 1081, 3329, 10252, 31572, 97229, 299426, 922111, 2839729, 8745217, 26931732, 82938844, 255418101, 786584466, 2422362079, 7459895657, 22973462017, 70748973084, 217878227876, 670976837021, 2066337330754

a(n) = Sum [k=0..n, C(2n-k, 2k)].
[A183159] 1, 1, 4, 12, 38, 90, 220, 460, 1018, 2022, 4304, 8376, 17566, 33922, 70756, 136260, 283682, 545790, 1135576, 2184112, 4543366, 8737626, 18174764, 34951932, 72700618, 139809430, 290804320, 559239720, 1163219438
a(2n) = (13*4^n-12*n^2-18*n-10)/3, n>=0.
a(2n+1) = (25*4^n-12*n^2-30*n-22)/3, n>=0.
a(n) = (51*2^n+(-2)^n-40)/12-n*(n+3). - Jean-François Alcover, Nov 22 2017
[A289809] 1, 4, 12, 38, 114, 354, 1076, 3311, 10120, 31043, 95044, 291284, 892242, 2733804, 8375092, 25659298, 78610859, 240840496, 737856017, 2260561368, 6925635380, 21217961710, 65005083598, 199154984626, 610147638720, 1869298875531, 5726938575936, 17545523113507
a(n) = a(n-1) + 7*a(n-2) + a(n-3) - 9*a(n-4) - 3*a(n-5) + 5*a(n-6) + a(n-7) - a(n-8)..
[A122920] 1, 1, 4, 12, 39, 129, 436, 1498, 5218, 18386, 65420, 234734, 848403, 3086001, 11288412, 41499354, 153247278, 568188606, 2114334312, 7893906144, 29561195238, 111007927386, 417918303144, 1577061975492, 5964172347604, 22601012748124, 85806694043116, 326343785428946, 1243200250005995
a(n) = 9/(16*(-2)^n) + 3*(2*n+4)!*hypergeom([1,n+5/2,n+3], [n+2,n+5], -8)/((n+1)!*(n+4)!).
a(n) = 9/(16*(-2)^n) + 8*2^n*(2*n+5)!!*hypergeom([1,n+7/2], [n+5], -8)/(n+4)! - 4*2^n*(2*n+3)!!*hypergeom([1,n+5/2], [n+4], -8)/(n+3)!. (End)
[A275863] 1, 1, 4, 12, 40, 130, 425, 1387, 4529, 14789, 48294, 157707, 515002, 1681772, 5491935, 17934267, 58565504, 191249427, 624537327, 2039466884, 6660010527, 21748693527, 71021760134, 231926134152, 757369735715, 2473239674667, 8076523525954, 26374408001552
a(n) = floor(r*a(n-1)) + floor(r*a(n-2)), where r = 5/2, a(0) = 1, a(1) = 1.
[A220881] 1, 1, 4, 12, 43, 143, 504, 1768, 6310, 22610, 81752, 297160, 1086601, 3991995, 14732720, 54587280, 202997670, 757398510, 2834510744, 10637507400, 40023636310, 150946230006, 570534578704, 2160865067312, 8199711378716, 31170212479588, 118686578956272
a(n) = (1/(2n-4)) Sum_{d |(2n-4, n)} phi(d)*binomial((2n-4)/d, n/d) for n >= 4. - Wouter Meeussen, Aug 03 2002
[A282023] 1, 4, 12, 48, 144, 576, 1728, 6912, 20736, 82944, 248832, 995328, 2985984, 11943936, 35831808, 143327232, 429981696, 1719926784, 5159780352, 20639121408, 61917364224, 247669456896, 743008370688, 2972033482752, 8916100448256, 35664401793024, 106993205379072, 427972821516288
a(n) = 2^n * 3^(n/2) for n even.
a(n) = 2^(n+1) * 3^((n-1)/2) for n odd.
a(n) = 12*a(n-2) for n>1.
[A151483] 1, 1, 4, 12, 48, 192, 832, 3712, 17152, 81152, 392192, 1928192, 9621504, 48623616, 248463360, 1282031616, 6672285696, 34993274880, 184793432064, 981947645952, 5247335399424, 28185150357504, 152104870084608, 824404913160192, 4486067252101120, 24501262150008832, 134274187559698432, 738200201575006208
a(n) = sqrt(-1/3)*(-2)^n*hypergeom([1/2, n+4],[2],4/3)/(n+1). - Mark van Hoeij, Aug 23 2014
[A228137] 1, 4, 13, 16, 25, 28, 37, 40, 49, 52, 61, 64, 73, 76, 85, 88, 97, 100, 109, 112, 121, 124, 133, 136, 145, 148, 157, 160, 169, 172, 181, 184, 193, 196, 205, 208, 217, 220, 229, 232, 241, 244, 253, 256, 265, 268, 277, 280, 289, 292, 301, 304, 313, 316, 325
a(n) = -13/2 -3*(-1)^n/2 +6*n.
a(n) = a(n-1) +a(n-2) -a(n-3).
[A032824] 1, 4, 13, 16, 49, 52, 157, 160, 193, 196, 589, 592, 625, 628, 1885, 1888, 1921, 1924, 2317, 2320, 2353, 2356, 7069, 7072, 7105, 7108, 7501, 7504, 7537, 7540, 22621, 22624, 22657, 22660, 23053, 23056, 23089, 23092, 27805, 27808
a(1)=1, a(2)=4; a(n) = 12*a(floor(n/2))+1 for n odd, otherwise a(n) = 12*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A022132] 4, 13, 17, 30, 47, 77, 124, 201, 325, 526, 851, 1377, 2228, 3605, 5833, 9438, 15271, 24709, 39980, 64689, 104669, 169358, 274027, 443385, 717412, 1160797, 1878209, 3039006, 4917215, 7956221, 12873436, 20829657, 33703093, 54532750, 88235843, 142768593
a(n) = term (1,1) in the 1x2 matrix [4,9] . [1,1; 1,0]^n. (End)
[A041559] 1, 4, 13, 17, 30, 77, 107, 184, 659, 2820, 96539, 388976, 1263467, 1652443, 2915910, 7484263, 10400173, 17884436, 64053481, 274098360, 9383397721, 37807689244, 122806465453, 160614154697, 283420620150, 727455394997, 1010876015147, 1738331410144
a(n) = 97198*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 20 2013
[A041407] 1, 1, 4, 13, 17, 489, 506, 2007, 6527, 8534, 245479, 254013, 1007518, 3276567, 4284085, 123230947, 127515032, 505776043, 1644843161, 2150619204, 61862180873, 64012800077, 253900581104, 825714543389, 1079615124493, 31054938029193, 32134553153686
a(n) = 502*a(n-5) + a(n-10) for n>9. - Vincenzo Librandi, Dec 17 2013
[A228138] 4, 13, 20, 50, 63, 111, 130, 196, 221, 305, 336, 438, 475, 595, 638, 776, 825, 981, 1036, 1210, 1271, 1463, 1530, 1740, 1813, 2041, 2120, 2366, 2451, 2715, 2806, 3088, 3185, 3485, 3588, 3906, 4015, 4351, 4466, 4820, 4941, 5313, 5440, 5830, 5963, 6371, 6510
a(n) = (1-(-1)^n+(-4+6*(-1)^n)*n+12*n^2)/4.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A155095] 4, 13, 21, 30, 38, 47, 55, 64, 72, 81, 89, 98, 106, 115, 123, 132, 140, 149, 157, 166, 174, 183, 191, 200, 208, 217, 225, 234, 242, 251, 259, 268, 276, 285, 293, 302, 310, 319, 327, 336, 344, 353, 361, 370, 378, 387, 395, 404, 412, 421, 429, 438, 446, 455
a(n) = 4*(-1)^(n+1) + 17*floor(n/2). - M. F. Hasler, Jun 16 2010
a(n) = a(n-2)+17 for all n>2. - M. F. Hasler, Jun 16 2010
a(n)-a(n-1)-a(n-2)+a(n-3) = 0 with n>3.
a(n) = (34*n+(-1)^n-17)/4. (End)
[A063219] 4, 13, 21, 31, 39, 47, 57, 65, 73, 83, 91, 99, 109, 117, 125, 135, 143, 151, 161, 169, 177, 187, 195, 203, 213, 221, 229, 239, 247, 255, 265, 273, 281, 291, 299, 307, 317, 325, 333, 343, 351, 359, 369, 377, 385, 395, 403, 411, 421, 429
a(n) = a(n-1) + a(n-3) - a(n-4) for n>5.
[A256390] 1, 4, 13, 22, 55, 64, 133, 172, 247, 280, 469, 508, 781, 868, 997, 1144, 1621, 1714, 2323, 2488, 2785, 3010, 3907, 4078, 4837, 5176, 5833, 6178, 7627, 7798, 9463, 10102, 10927, 11530, 12631, 13006, 15379, 16150, 17311, 17926, 20863, 21256
a(n) = sum_a sum_b sum_c mu(a) mu(b) mu(c) [n/gcd(a,b)][n/gcd(b,c)][n/gcd(c,a)], where mu(.) is Moebius function [x] integer part of x, and a,b,c run through natural numbers.
[A255840] 0, 1, 4, 13, 24, 41, 60, 85, 112, 145, 180, 221, 264, 313, 364, 421, 480, 545, 612, 685, 760, 841, 924, 1013, 1104, 1201, 1300, 1405, 1512, 1625, 1740, 1861, 1984, 2113, 2244, 2381, 2520, 2665, 2812, 2965, 3120, 3281, 3444, 3613, 3784, 3961, 4140, 4325, 4512
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A091823] 4, 13, 26, 43, 64, 89, 118, 151, 188, 229, 274, 323, 376, 433, 494, 559, 628, 701, 778, 859, 944, 1033, 1126, 1223, 1324, 1429, 1538, 1651, 1768, 1889, 2014, 2143, 2276, 2413, 2554, 2699, 2848, 3001, 3158, 3319, 3484, 3653, 3826, 4003, 4184, 4369, 4558
a(n) = n + 4*binomial(2+n, n), with offset 0. - Zerinvary Lajos, May 12 2006
[A212901] 1, 4, 13, 26, 45, 66, 95, 126, 163, 204, 251, 300, 357, 416, 481, 550, 625, 702, 787, 874, 967, 1064, 1167, 1272, 1385, 1500, 1621, 1746, 1877, 2010, 2151, 2294, 2443, 2596, 2755, 2916, 3085, 3256, 3433, 3614, 3801, 3990, 4187, 4386, 4591
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6).
[A147875] 0, 4, 13, 27, 46, 70, 99, 133, 172, 216, 265, 319, 378, 442, 511, 585, 664, 748, 837, 931, 1030, 1134, 1243, 1357, 1476, 1600, 1729, 1863, 2002, 2146, 2295, 2449, 2608, 2772, 2941, 3115, 3294, 3478, 3667, 3861, 4060, 4264, 4473, 4687, 4906, 5130, 5359, 5593
a(n)-a(n-1) = 5*n-1. - Vincenzo Librandi, Nov 26 2010
a(0)=0, a(1)=4, a(2)=13, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 15 2013
[A056107] 1, 4, 13, 28, 49, 76, 109, 148, 193, 244, 301, 364, 433, 508, 589, 676, 769, 868, 973, 1084, 1201, 1324, 1453, 1588, 1729, 1876, 2029, 2188, 2353, 2524, 2701, 2884, 3073, 3268, 3469, 3676, 3889, 4108, 4333, 4564, 4801, 5044, 5293, 5548, 5809, 6076, 6349
a(n) = 3*n^2 + 1.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
a(n) = a(n-1) + 6*n - 3 for n>0.
a(n) = 2*a(n-1)-a(n-2)+6 for n>1.
a(n) = 6*n+a(n-1)-3 with n>0, a(0)=1. - Vincenzo Librandi, Aug 07 2010
[A060488] 4, 13, 28, 50, 80, 119, 168, 228, 300, 385, 484, 598, 728, 875, 1040, 1224, 1428, 1653, 1900, 2170, 2464, 2783, 3128, 3500, 3900, 4329, 4788, 5278, 5800, 6355, 6944, 7568, 8228, 8925, 9660, 10434, 11248, 12103, 13000, 13940, 14924, 15953, 17028, 18150, 19320
a(n) = binomial(n+3, 3)-6*binomial(n+1, 1)+8*binomial(n, 0)-3*binomial(n-1, -1).
a(n) = (n+9)*binomial(n-1, 2)/3.

a(n) = (n-2)*(n-1)*(n+9)/6. - Zak Seidov, Jun 15 2006
a(3)=4, a(4)=13, a(5)=28, a(6)=50, a(n) = 4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Jul 21 2012
[A054968] 4, 13, 28, 52, 91, 154, 256, 421, 688, 1120, 1819, 2950, 4780, 7741, 12532, 20284, 32827, 53122, 85960, 139093, 225064, 364168, 589243, 953422, 1542676, 2496109, 4038796, 6534916, 10573723, 17108650, 27682384, 44791045, 72473440, 117264496, 189737947
a(n) = 2*a(n-1)-a(n-3). - Colin Barker, Dec 01 2014
[A087035] 1, 4, 13, 28, 53, 88, 137, 200, 281, 380, 501, 644, 813, 1008, 1233, 1488, 1777, 2100, 2461, 2860, 3301, 3784, 4313, 4888, 5513, 6188, 6917, 7700, 8541, 9440, 10401, 11424, 12513, 13668, 14893, 16188, 17557, 19000, 20521, 22120, 23801
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = (2*(n-1)*(n+1)*(2*n+3)-3*(-1)^n+9)/12. - Bruno Berselli, Jun 11 2012
[A212578] 0, 1, 4, 13, 28, 55, 92, 147, 216, 309, 420, 561, 724, 923, 1148, 1415, 1712, 2057, 2436, 2869, 3340, 3871, 4444, 5083, 5768, 6525, 7332, 8217, 9156, 10179, 11260, 12431, 13664, 14993, 16388, 17885, 19452, 21127, 22876, 24739, 26680, 28741
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A168559] 0, 4, 13, 29, 54, 90, 139, 203, 284, 384, 505, 649, 818, 1014, 1239, 1495, 1784, 2108, 2469, 2869, 3310, 3794, 4323, 4899, 5524, 6200, 6929, 7713, 8554, 9454, 10415, 11439, 12528, 13684, 14909, 16205, 17574, 19018, 20539, 22139, 23820, 25584
a(n) = n^3/3 + n^2/2 + n/6 - 1. - Gary Detlefs, Jun 30 2010
a(1)=0, a(2)=4, a(3)=13, a(4)=29, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Dec 07 2013
[A212247] 0, 1, 4, 13, 29, 56, 95, 150, 222, 315, 430, 571, 739, 938, 1169, 1436, 1740, 2085, 2472, 2905, 3385, 3916, 4499, 5138, 5834, 6591, 7410, 8295, 9247, 10270, 11365, 12536, 13784, 15113, 16524, 18021, 19605, 21280, 23047, 24910, 26870, 28931
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
a(n) = (2*n*(10*n^2+3*n+2)-9(-1)^n+9)/48. [Bruno Berselli, May 30 2012]
[A213801] 4, 13, 29, 57, 96, 153, 226, 323, 440, 587, 759, 967, 1204, 1483, 1796, 2157, 2556, 3009, 3505, 4061, 4664, 5333, 6054, 6847, 7696, 8623, 9611, 10683, 11820, 13047, 14344, 15737, 17204, 18773, 20421, 22177, 24016, 25969, 28010, 30171, 32424, 34803, 37279
a(n) = (14*n^3+42*n^2+53*n+25+3*(n+1)*(-1)^n+2*((-1)^((2*n+1-(-1)^n)/4)-(-1)^((6*n+5-(-1)^n)/4)))/32. - Luce ETIENNE, Aug 23 2014
[A266891] 1, 1, 4, 13, 29, 81, 188, 456, 1030, 2405, 5295, 11611, 25246, 53552, 113332, 235685, 486011, 990840, 2006567, 4018010, 7992003, 15768511, 30875424, 60060509, 116042548, 222817961, 425200270, 806991037, 1522748592, 2858792520, 5339457208, 9924370365
a(0) = 1 and a(n) = (1/n) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d*(-d)^(1+n/d). - Seiichi Manyama, Nov 18 2017
[A041301] 1, 1, 4, 13, 30, 43, 73, 554, 627, 7451, 8078, 63997, 72075, 136072, 344219, 1168729, 3850406, 5019135, 124309646, 129328781, 512295989, 1666216748, 3844729485, 5510946233, 9355675718, 71000676259, 80356351977, 954920548006, 1035276899983, 8201858847887
a(n) = 128160052*a(n-18) - a(n-36) for n>35. [Bruno Berselli, Dec 15 2013]
[A071400] 0, 0, 4, 13, 30, 59, 102, 162, 241, 344, 471, 627, 815, 1036, 1294, 1591, 1931, 2316, 2749, 3233, 3771, 4366, 5020, 5736, 6517, 7366, 8285, 9279, 10348, 11497, 12728, 14044, 15447, 16941, 18528, 20211, 21994, 23878, 25867, 27963, 30170, 32490
a(n) = round(n^3 * sqrt(2)/3)
[A206806] 1, 4, 13, 30, 62, 112, 190, 300, 455, 660, 931, 1274, 1708, 2240, 2892, 3672, 4605, 5700, 6985, 8470, 10186, 12144, 14378, 16900, 19747, 22932, 26495, 30450, 34840, 39680, 45016, 50864, 57273, 64260, 71877, 80142, 89110, 98800, 109270, 120540, 132671, 145684
a(n) = Sum_{i=1..n} i * (n-i) * (i-ceiling((i-1)/2)).
a(n) = (108 - 36n - n^2 + n^4 + (70n - 266) * ceiling((3 - n)/2) - (42n - 234) * ceiling((3 - n)/2)^2 + (8n - 88) * ceiling((3 - n)/2)^3 + 12 * ceiling((3 - n)/2)^4 - 4n * floor(n/2) - (12n - 12) * floor(n/2)^2 - (8n - 24) * floor(n/2)^3 + 12 * floor(n/2)^4) / 12. (End)
a(n) = (n*(1+3*(-1)^n-2*n+2*n^2+2*n^3))/48. - Colin Barker, Jul 10 2014
[A042487] 1, 1, 4, 13, 30, 133, 163, 296, 459, 755, 1969, 53918, 109805, 163723, 273528, 437251, 710779, 3280367, 7271513, 25094906, 82556231, 107651137, 5895717629, 6003368766, 23905823927, 77720840547, 179347505021, 795110860631, 974458365652, 1769569226283
a(n) = 5978273860*a(n-22) - a(n-44) for n>43. - Vincenzo Librandi, Jan 23 2014
[A116411] 1, 1, 1, 4, 13, 31, 76, 211, 589, 1597, 4351, 12046, 33496, 93094, 259351, 725089, 2031709, 5701189, 16023181, 45104044, 127134283, 358764613, 1013494318, 2865933907, 8111573416, 22977551656, 65138143006, 184789086106, 524571000799, 1490044262503, 4234901256781, 12042611698876, 34262320521661, 97525522430989
a(n) = sum(k=0..floor(n/3), C(n, 3*k)*C(3*k, k)).
a(n) = sum(k=0..n, C(n, k)*C(k, k/3)*(cos(2*Pi*k/3)+1/2)*2/3).
a(n) = coefficient of x^(2*n) in the expansion of (1 + x^2 + x^3)^n.
a(n) = 3F2[1/3-n/3,2/3-n/3,-n/3; 1/2,1; -27/4]. - Benedict W. J. Irwin, Nov 01 2016
[A106337] 1, 1, 1, 4, 13, 31, 82, 253, 757, 2173, 6341, 18888, 56266, 167324, 499773, 1499059, 4503557, 13546893, 40824379, 123233868, 372472353, 1127080252, 3414310032, 10353722919, 31425764410, 95463814056, 290222666436, 882954212908, 2688037654049, 8188468874808
a(n) = [x^n] Product_{j=1..n} (1+x^j-x^(2*j)-x^(3*j))^n. - Alois P. Heinz, Aug 01 2017
[A026567] 1, 4, 13, 31, 85, 193, 517, 1165, 3109, 6997, 18661, 41989, 111973, 251941, 671845, 1511653, 4031077, 9069925, 24186469, 54419557, 145118821, 326517349, 870712933, 1959104101, 5224277605, 11754624613, 31345665637, 70527747685
a(n) = 6*a(n-2) + 7. - Philippe Deléham, Feb 24 2014
a(n) = (2^(n/2+2) * 3^(n/2+1) - 7)/5 for n even.
a(n) = (2^((n-1)/2) * 3^((n+5)/2) - 7)/5 for n odd. (End)
[A184632] 1, 4, 13, 32, 62, 108, 171, 256, 364, 500, 665, 864, 1098, 1372, 1687, 2048, 2456, 2916, 3429, 4000, 4630, 5324, 6083, 6912, 7812, 8788, 9841, 10976, 12194, 13500, 14895, 16384, 17968, 19652, 21437, 23328, 25326, 27436, 29659, 32000, 34460, 37044, 39753, 42592, 45562, 48668, 51911, 55296, 58824, 62500, 66325, 70304, 74438, 78732, 83187, 87808, 92596, 97556, 102689, 108000
a(n)=floor(1/{(8+n^4)^(1/4)}), where {}=fractional part.
[A212747] 1, 4, 13, 32, 63, 108, 171, 256, 365, 500, 665, 864, 1099, 1372, 1687, 2048, 2457, 2916, 3429, 4000, 4631, 5324, 6083, 6912, 7813, 8788, 9841, 10976, 12195, 13500, 14895, 16384, 17969, 19652, 21437, 23328, 25327, 27436, 29659, 32000
a(n)=4*a(n-1)-7*a(n-2)+8*a(n-3)-7*a(n-4)+4*a(n-5)-a(n-6).
[A037235] 0, 1, 4, 13, 32, 65, 116, 189, 288, 417, 580, 781, 1024, 1313, 1652, 2045, 2496, 3009, 3588, 4237, 4960, 5761, 6644, 7613, 8672, 9825, 11076, 12429, 13888, 15457, 17140, 18941, 20864, 22913, 25092, 27405, 29856, 32449, 35188, 38077, 41120, 44321, 47684, 51213
a(n) = Sum_{k=0..n-1} 2*k^2+1. - Mike Warburton (mikewarb(AT)gmail.com), Sep 08 2007
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) with n>3, a(0)=0, a(1)=1, a(2)=4, a(3)=13. [Yosu Yurramendi, Sep 03 2013]
[A135859] 1, 4, 13, 34, 73, 136, 229, 358, 529, 748, 1021, 1354, 1753, 2224, 2773, 3406, 4129, 4948, 5869, 6898, 8041, 9304, 10693, 12214, 13873, 15676, 17629, 19738, 22009, 24448, 27061, 29854, 32833, 36004, 39373, 42946, 46729, 50728, 54949
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 29 2012
a(n) = 5*n-2+n^3-3*n^2. - R. J. Mathar, Oct 20 2017
[A101946] 1, 4, 13, 34, 79, 172, 361, 742, 1507, 3040, 6109, 12250, 24535, 49108, 98257, 196558, 393163, 786376, 1572805, 3145666, 6291391, 12582844, 25165753, 50331574, 100663219, 201326512, 402653101, 805306282, 1610612647, 3221225380, 6442450849, 12884901790
a(0)=1, a(1)=4, a(2)=13 and for n>2, a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3).
[A213578] 1, 4, 13, 34, 80, 174, 359, 712, 1371, 2580, 4768, 8684, 15629, 27852, 49225, 86390, 150704, 261530, 451795, 777360, 1332791, 2277864, 3882048, 6599064, 11191705, 18940564, 31992709, 53943562, 90807056, 152631750, 256190783
a(n) = 4*a(n-1) - 4*a(n-2) - 2*a(n-3) + 4*a(n-4) - a(n-6).
[A271358] 4, 13, 35, 92, 241, 631, 1652, 4325, 11323, 29644, 77609, 203183, 531940, 1392637, 3645971, 9545276, 24989857, 65424295, 171283028, 448424789, 1173991339, 3073549228, 8046656345, 21066419807, 55152603076, 144391389421, 378021565187, 989673306140
a(n) = 3*a(n-1)-a(n-2) for n>1.
a(n) = (2^(-2-n)*((11-sqrt(5))*(3+sqrt(5))^(n+1) - (11+sqrt(5))*(3-sqrt(5))^(n+1))) / sqrt(5).
a(n) = 5*Fibonacci(2*n+2) - Fibonacci(2*n+1).
[A002727] 1, 4, 13, 36, 87, 190, 386, 734, 1324, 2284, 3790, 6080, 9473, 14378, 21323, 30974, 44159, 61898, 85440, 116286, 156240, 207446, 272432, 354162, 456097, 582238, 737205, 926298, 1155567, 1431892, 1763074, 2157904, 2626276, 3179278, 3829294, 4590118, 5477081

a(0)=1, a(1)=4, a(2)=13, a(3)=36, a(4)=87, a(5)=190, a(6)=386, a(7)=734, a(8)=1324, a(9)=2284, a(10)=3790, a(11)=6080, a(12)=9473, a(13)=14378. For n>13, a(n)=4*a(n-1)-4*a(n-2)-2*a(n-3)+2*a(n-4)+4*a(n-5)+3*a(n-6)- 12*a(n-7)+ 3*a(n-8)+4*a(n-9)+2*a(n-10)-2*a(n-11)-4*a(n-12)+4*a(n-13)-a(n-14). - Harvey P. Dale, Nov 10 2011
a(n) = -a(-8 - n) for all n in Z. - Michael Somos, Aug 22 2016
[A221882] 1, 4, 13, 36, 91, 218, 505, 1144, 2551, 5622, 12277, 26612, 57331, 122866, 262129, 557040, 1179631, 2490350, 5242861, 11010028, 23068651, 48234474, 100663273, 209715176, 436207591, 905969638, 1879048165, 3892314084, 8053063651, 16642998242, 34359738337
a(n) = (n+1)*2^(n-1) - n.
a(n) = +6*a(n-1) -13*a(n-2) +12*a(n-3) -4*a(n-4).
[A206603] 0, 0, 1, 4, 13, 36, 94, 232, 557, 1300, 2986, 6744, 15074, 33320, 73116, 159184, 344701, 742068, 1590898, 3395320, 7222550, 15308920, 32362276, 68213424, 143463378, 300999816, 630353764, 1317415792, 2748991012, 5726300880, 11911913912, 24742452128, 51331847709
a(n) = Sum_{k=0..n} C(n,floor(k/2)) * (k-n/2).
[A271176] 1, 1, 4, 13, 36, 94, 239, 597, 1471, 3586, 8669, 20818, 49726, 118259, 280239, 662117, 1560516, 3670321, 8617584, 20203698, 47308391, 110659649, 258614439, 603929562, 1409413761, 3287385206, 7664034874, 17860302403
a(n) = (n+1)*Sum_{k=0..n} (Sum_{i=0..n-k} (binomial(i+k,i)*2^i*binomial(2*k+2,n-i-k)*(-1)^(n-i-k))/(k+1)).
a(n) = 5*a(n-1)-8*a(n-2)+5*a(n-3)-2*a(n-4) for n>3, a(0)=1, a(1)=1, a(2)=4, a(3)=13.
[A251701] 1, 4, 13, 36, 97, 268, 765, 2236, 6625, 19764, 59149, 177268, 531585, 1594492, 4783165, 14349132, 43046977, 129140452, 387420813, 1162261828, 3486784801, 10460353644, 31381060093, 94143179356, 282429537057, 847288610068, 2541865829005, 7625597485716
a(n) = 6*a(n-1)-12*a(n-2)+10*a(n-3)-3*a(n-4) for n>3.
[A279111] 0, 0, 4, 13, 37, 75, 147, 246, 406, 610, 910, 1275, 1779, 2373, 3157, 4060, 5212, 6516, 8136, 9945, 12145, 14575, 17479, 20658, 24402, 28470, 33202, 38311, 44191, 50505, 57705, 65400, 74104, 83368, 93772, 104805, 117117, 130131, 144571, 159790, 176590, 194250, 213654
a(n) = (n^4 - 2*n^2 - 4*n + IF(MOD(n, 2) = 1, 2*n^2 - 4*n + 7))/16.
a(n) = (2*n^4 - 2*n^2 - 12*n + 7 - (2*n^2 - 4*n + 7)*(-1)^n)/32. - Bruno Berselli, Dec 07 2016
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8).
a(n) = n*(n - 2)*(n^2 + 2*n + 2)/16 for n even.
a(n) = (n - 1)*(n^3 + n^2 + n - 7)/16 for n odd.
[A048474] 1, 4, 13, 37, 97, 241, 577, 1345, 3073, 6913, 15361, 33793, 73729, 159745, 344065, 737281, 1572865, 3342337, 7077889, 14942209, 31457281, 66060289, 138412033, 289406977, 603979777, 1258291201, 2617245697, 5435817985
a(0)=1, a(1)=4, a(2)=13, a(n)=5*a(n-1)-8*a(n-2)+4*a(n-3) [From Harvey P. Dale, Jan 29 2012]
[A080145] 0, 1, 4, 13, 37, 101, 269, 710, 1865, 4890, 12810, 33546, 87834, 229963, 602062, 1576231, 4126639, 10803695, 28284455, 74049680, 193864595, 507544116, 1328767764, 3478759188, 9107509812, 23843770261, 62423800984, 163427632705
a(n) = (4*Lucas(2*n + 3) + (-1)^(n+1) - 10*n - 15)/20. - Ehren Metcalfe, Aug 21 2017
[A108489] 1, 1, 4, 13, 37, 130, 427, 1441, 4954, 16987, 58843, 204610, 713893, 2500183, 8778478, 30898309, 108987427, 385136680, 1363252603, 4832572951, 17153677534, 60961916965, 216887253409, 772400234074, 2753261490919, 9822393082513
a(n)=sum{k=0..n, C(n-k, k)^2*3^k}
[A024450] 4, 13, 38, 87, 208, 377, 666, 1027, 1556, 2397, 3358, 4727, 6408, 8257, 10466, 13275, 16756, 20477, 24966, 30007, 35336, 41577, 48466, 56387, 65796, 75997, 86606, 98055, 109936, 122705, 138834, 155995, 174764, 194085, 216286, 239087, 263736, 290305
a(n) = sum(prime(i)^2, i=1..n). - Walter Kehowski, Jun 24 2006
[A049611] 0, 1, 4, 13, 38, 104, 272, 688, 1696, 4096, 9728, 22784, 52736, 120832, 274432, 618496, 1384448, 3080192, 6815744, 15007744, 32899072, 71827456, 156237824, 338690048, 731906048, 1577058304, 3388997632, 7264534528, 15535702016
a(n) = Sum_{k=0..n} binomial(n, k)floor((k+1)^2/4). - Paul Barry, May 27 2003
a(n) = 2^(n-4)(n^2+5n+2) - 0^n/8. - Paul Barry, Jun 09 2003
a(n) = Hyper2F1([-n+1, 3], [1], -1) for n>0. - Peter Luschny, Aug 02 2014
[A084851] 1, 4, 13, 38, 104, 272, 688, 1696, 4096, 9728, 22784, 52736, 120832, 274432, 618496, 1384448, 3080192, 6815744, 15007744, 32899072, 71827456, 156237824, 338690048, 731906048, 1577058304, 3388997632, 7264534528, 15535702016, 33151778816
a(n) = (n^2+7*n+8)*2^(n - 3).
a(n) = sum{k=0..n, C(n, k)C(k+2, 2) }.
[A094706] 0, 1, 4, 13, 38, 105, 280, 729, 1866, 4717, 11812, 29365, 72590, 178641, 438064, 1071153, 2613138, 6362965, 15470140, 37565389, 91125206, 220864377, 534951112, 1294960905, 3133261530, 7578261181, 18323338324, 44292046693, 107041649438
a(n)=sum{k=0..n, ((1+sqrt(2))^n-(1-sqrt(2))^n)/(2sqrt(2))2^(n-k)}.
a(n)=(1+sqrt(2))^n(1+3sqrt(2)/4)+(1-sqrt(2))^n(1-3sqrt(2)/4)-2^(n+1).
a(n)=4a(n-1)-3a(n-2)-2a(n-3).
a(n)=sum{k=0..floor(n/2), binomial(n-k, k+1)2^(n-2k-1)}; a(n)=sum{k=0..n, binomial(k, n-k+1)2^k*(1/2)^(n-k+1)}. - Paul Barry, Oct 07 2004
[A056014] 0, 0, 0, 1, 4, 13, 38, 106, 288, 771, 2046, 5401, 14212, 37324, 97904, 256621, 672336, 1760997, 4611642, 12075526, 31617520, 82781215, 216732890, 567428401, 1485570024, 3889310328, 10182407328, 26657986681, 69791674108
a(n)=4a(n-1)-3a(n-2)-2a(n-3)+a(n-4), a(0)=a(1)=a(2)=0, a(3)=1.
[A105693] 0, 1, 4, 13, 39, 112, 313, 859, 2328, 6253, 16687, 44320, 117297, 309619, 815656, 2145541, 5637351, 14799280, 38826025, 101809867, 266865720, 699311581, 1832117599, 4799138368, 12569491809, 32917725667, 86200462408, 225717215989, 591018294423, 1547471885008
a(n) = 5*a(n-1)-7*a(n-2)+2*a(n-3) for n>2. - Colin Barker, Sep 12 2016
[A215404] 0, 0, 1, 4, 13, 39, 113, 322, 910, 2561, 7192, 20175, 56563, 158535, 444276, 1244936, 3488381, 9774440, 27387681, 76739023, 215018609, 602469686, 1688083894, 4729907909, 13252910268, 37133833451, 104046695091, 291532369743, 816855560248, 2288778436672, 6413014696201
a(n) = (1/7)*((c(2)-c(4))*(1-c(1))^n + (c(4)-c(1))*(1-c(2))^n + (c(1)-c(2))*(1-c(4))^n), where c(j):=2*cos(2*Pi*j/7) - this formula is the Binet formula for a(n) (see the Binet formula (3.17) for the respective quasi-Fibonacci number C(n;d) for value d=-1 in the Witula-Slota-Warzynski paper).
[A290929] 1, 4, 13, 39, 114, 330, 948, 2703, 7655, 21554, 60389, 168468, 468199, 1296826, 3581185, 9862749, 27096216, 74277342, 203200986, 554869701, 1512575195, 4116813032, 11188568267, 30367047720, 82316338381, 222875101936, 602784607477, 1628612506131
a(n) = 7*a(n-1) - 18*a(n-2) + 23*a(n-3) - 18*a(n-4) + 7*a(n-5) - a(n-6).
[A133409] 0, 0, 0, 0, 1, 4, 13, 39, 117, 351, 1054, 3163, 9490, 28470, 85410, 256230, 768691, 2306074, 6918223, 20754669, 62264007, 186792021, 560376064, 1681128193, 5043384580, 15130153740, 45390461220, 136171383660
a(n)=4a(n-1)-3a(n-2)-a(n-3)+4a(n-4)-3a(n-5).
[A238846] 1, 4, 13, 40, 120, 354, 1031, 2972, 8495, 24110, 68016, 190884, 533293, 1484020, 4115185, 11375764, 31358376, 86223942, 236540915, 647556620, 1769374931, 4826148314, 13142564448, 35736448200, 97037995225, 263156279524, 712795854421, 1928547574912, 5212430732760
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) - a(n-4) for n>3, a(0)=1, a(1)=4, a(2)=13, a(3)=40.
a(n) = ((3 + sqrt(5))^(1+n)*(8 - (1 - sqrt(5))*(13 + 5*n)) + (3 - sqrt(5))^(1+n)*(8 - (1 + sqrt(5))*(13 + 5*n))) / (25*2^(2+n)). - Bruno Berselli, Mar 06 2014
[A003462] 0, 1, 4, 13, 40, 121, 364, 1093, 3280, 9841, 29524, 88573, 265720, 797161, 2391484, 7174453, 21523360, 64570081, 193710244, 581130733, 1743392200, 5230176601, 15690529804, 47071589413, 141214768240, 423644304721, 1270932914164
a(n) = 4*a(n-1) - 3*a(n-2), n > 1. a(0) = 0, a(1) = 1.
a(n) = 3*a(n-1) + 1, a(0) = 0.
a(n+1) = Sum_{k = 0..n} binomial(n+1, k+1)*2^k. - Paul Barry, Aug 20 2004
a(n) = Sum_{i = 0..n-1} 3^i, for n > 0; a(0) = 0.
a(n) = StirlingS2(n+1, 3) + StirlingS2(n+1, 2). - Ross La Haye, Jan 10 2008
a(n) = 2*a(n-1) + 3*a(n-2) + 2, n > 1. - Gary Detlefs, Jun 21 2010
[A213496] 0, 4, 13, 41, 82, 158, 255, 403, 580, 824, 1105, 1469, 1878, 2386, 2947, 3623, 4360, 5228, 6165, 7249, 8410, 9734, 11143, 12731, 14412, 16288, 18265, 20453, 22750, 25274, 27915, 30799, 33808, 37076, 40477, 44153, 47970, 52078, 56335
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).

[A052529] 1, 1, 4, 13, 41, 129, 406, 1278, 4023, 12664, 39865, 125491, 395033, 1243524, 3914488, 12322413, 38789712, 122106097, 384377665, 1209982081, 3808901426, 11990037126, 37743426307, 118812495276, 374009739309, 1177344897715
a(n) = Sum_{a=0..n} (Sum_{b=0..n} (Sum_{c=0..n} C(n-b-c,a)*C(n-a-c,b)*C(n-a-b,c))).
a(n) = 4*a(n-1) - 3*a(n-2) + a(n-3) for n>=4.
a(n) = Sum_{k=0..n} binomial(n+2*k-1, n-k). - Vladeta Jovovic, Mar 23 2003
[A049222] 0, 0, 0, 1, 4, 13, 41, 130, 415, 1329, 4260, 13657, 43781, 140346, 449891, 1442157, 4622932, 14819125, 47503729, 152276498, 488132887, 1564743865, 5015895108, 16078800033, 51541709869, 165220529546, 529625878779, 1697752526549
a(n) = 5*a(n-1) - 7*a(n-2) + 4*a(n-3) for n >= 6.
[A001453] 1, 4, 13, 41, 131, 428, 1429, 4861, 16795, 58785, 208011, 742899, 2674439, 9694844, 35357669, 129644789, 477638699, 1767263189, 6564120419, 24466267019, 91482563639, 343059613649, 1289904147323, 4861946401451, 18367353072151, 69533550916003, 263747951750359
a(n) = Sum_{k=1...floor(n/2)} (C(n,k)-C(n,k-1))^2. - J. M. Bergot, Sep 17 2013
[A109454] 0, 0, 0, 0, 4, 13, 42, 119, 330, 890, 2376, 6291, 16588, 43615, 114492, 300236, 786828, 2061233, 5398470, 14136759, 37015990, 96917974, 253748880, 664346375, 1739318904, 4553656703, 11921726232, 31211643384, 81713400340, 213928875445, 560073740226
a(n) = Fibonacci(n+2)*(Fibonacci(n-1)-1)/2, n>1. - Vladeta Jovovic, Aug 27 2005
a(n) = 3*a(n-1)+a(n-2)-5*a(n-3)-a(n-4)+a(n-5) for n>6. - Colin Barker, Mar 26 2015
[A287349] 4, 13, 42, 131, 398, 1186, 3482, 10103, 29034, 82777, 234424, 660098, 1849552, 5160001, 14341098, 39723791, 109701122, 302131618, 830079014, 2275509227, 6225274794, 16999389733, 46341292012, 126130604546, 342800478748, 930414584821, 2522124577962, 6828859302683
a(n) = Lucas(2*n) + n*Fibonacci(2*n) for n > 0.
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) - a(n-4) for n>4. - Colin Barker, Jun 05 2017
[A192910] 0, 1, 4, 13, 42, 133, 418, 1311, 4110, 12883, 40380, 126563, 396684, 1243317, 3896896, 12213937, 38281814, 119985657, 376067806, 1178699171, 3694364986, 11579148423, 36292212248, 113749700903, 356522616120, 1117439209033, 3502359540252
a(n)=4*a(n-1)-3*a(n-2)+a(n-3)-a(n-5).
[A289807] 1, 4, 13, 42, 133, 424, 1348, 4291, 13653, 43449, 138261, 439979, 1400101, 4455420, 14178073, 45117606, 143573662, 456881476, 1453892534, 4626590576, 14722780217, 46850970327, 149089600359, 474434334814, 1509749422360, 4804338875098, 15288412556740
a(n) = 3*a(n-1) + 2*a(n-2) - 5*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).
[A175005] 0, 1, 4, 13, 42, 137, 448, 1465, 4790, 15661, 51204, 167413, 547362, 1789617, 5851208, 19130705, 62548430, 204504021, 668632204, 2186113613, 7147565882, 23369187097, 76406277968, 249812682345, 816770269670, 2670455587581
a(n) = 4a(n-1) - 3a(n-2) + 2a(n-3), starting 0,1,4.
[A070031] 1, 4, 13, 42, 138, 462, 1573, 5434, 19006, 67184, 239666, 861764, 3120180, 11366370, 41630805, 153216570, 566343030, 2101610280, 7826451270, 29240172780, 109566326220, 411671536380, 1550629453698, 5854180360932, 22148866939948, 83965042615552, 318895250752708
a(n) = 2*(5*n+3)*binomial(2*n+1, n)/((n+2)*(n+3)). - Emeric Deutsch, Dec 13 2002
a(n) = leftmost term of M^n*V, M = an infinite tridiagonal matrix with all 1's in the super and subdiagonals and all 2's in the main diagonal; with the rest zeros. V = Vector [1,2,0,0,0,...]. - Gary W. Adamson, Jun 16 2011
[A003688] 1, 4, 13, 43, 142, 469, 1549, 5116, 16897, 55807, 184318, 608761, 2010601, 6640564, 21932293, 72437443, 239244622, 790171309, 2609758549, 8619446956, 28468099417, 94023745207, 310539335038, 1025641750321, 3387464586001, 11188035508324, 36951571110973
a(n) = (1/2-sqrt(13)/26)*(3/2+sqrt(13)/2)^n+(1/2+sqrt(13)/26)*(3/2-sqrt(13)/2)^n. - Paul Barry, Oct 02 2004
[A033434] 1, 4, 13, 43, 145, 497, 1727, 6071, 21554, 77180, 278426, 1010990, 3692213, 13553555, 49981875, 185082495, 687923790, 2565602160, 9598056630, 36008860650, 135446603370, 510706730274, 1929930236790, 7308166696118, 27727426756580, 105387411817352, 401231661076148, 1529970156473276, 5842655231153741, 22342874048993015
a(n)=(27*n^3 + 81*n^2 + 108*n + 24)*binomial(2*n, n)/(n+1)/(n+2)/(n+3)/(n+4) - Benoit Cloitre, Jun 11 2004
a(n) = -binomial(2*n,n)/(n+1)*hypergeom([-3,n+1/2],[n+2],4). - Peter Luschny, Aug 15 2012
[A291236] 4, 13, 44, 147, 488, 1616, 5344, 17661, 58348, 192739, 636620, 2102688, 6944828, 22937405, 75757420, 250210275, 826389232, 2729379568, 9014530520, 29772975309, 98333463212, 324773375891, 1072653608596, 3542734230336, 11700856345972, 38645303343277
a(n) = 4*a(n-1) - a(n-2) - 4*a(n-3) - a(n-4) for n >= 5.
[A073717] 0, 1, 4, 13, 44, 149, 504, 1705, 5768, 19513, 66012, 223317, 755476, 2555757, 8646064, 29249425, 98950096, 334745777, 1132436852, 3831006429, 12960201916, 43844049029, 148323355432, 501774317241, 1697490356184, 5742568741225
a(n) = 3*a(n-1)+a(n-2)+a(n-3), a(0)=0, a(1)=1, a(2)=4.
[A290907] 0, 1, 4, 13, 44, 152, 524, 1803, 6204, 21351, 73480, 252880, 870280, 2995049, 10307396, 35472677, 122078436, 420130248, 1445868996, 4975926307, 17124540796, 58933729999, 202819133840, 697997582240, 2402143306640, 8266923285201, 28450434416004, 97911543452733
a(n) = 4*a(n-1) - 3*a(n-2) + 4*a(n-3) - a(n-4).
[A285188] 0, 4, 13, 45, 95, 203, 350, 606, 930, 1430, 2035, 2899, 3913, 5285, 6860, 8908, 11220, 14136, 17385, 21385, 25795, 31119, 36938, 43850, 51350, 60138, 69615, 80591, 92365, 105865, 120280, 136664, 154088, 173740, 194565, 217893, 242535, 269971
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n > 8.
a(n) = n*(n+1)*(3*n^2+n-1+3*(-1)^n)/24. - Robert Israel, Apr 26 2017
[A203573] 4, 13, 45, 152, 491, 1531, 4652, 13865, 40713, 118144, 339559, 968183, 2742100, 7721797, 21637221, 60367976, 167787107, 464776435, 1283571068, 3535240289, 9713031489, 26627195728, 72847698655, 198929987567, 542305383076, 1476061431421
a(0)=4, a(1)=13, a(2)=45, a(3)=152, a(n)=6*a(n-1)-11*a(n-2)+ 6*a(n-3)- a(n-4). - Harvey P. Dale, Jan 11 2014
[A214997] 4, 13, 45, 153, 523, 1785, 6095, 20809, 71047, 242569, 828183, 2827593, 9654007, 32960841, 112535351, 384219721, 1311808183, 4478793289, 15291556791, 52208640585, 178251448759, 608588513865, 2077851157943, 7094227604041, 24221208100279, 82696377193033
a(n) = floor(x*a(n-1)) if n is odd, a(n) = ceiling(x*a(n-1) if n is even, where x = 2+sqrt(2) and a(0) = ceiling(x).
a(n) = 3*a(n-1) + 2*a(n-2) - 2*a(n-3).
a(n) = (1/14)*(2*(-1)^n + (27-19*sqrt(2))*(2-sqrt(2))^n + (2+sqrt(2))^n*(27+19*sqrt(2))). - Colin Barker, Nov 13 2017
[A105968] 1, 4, 13, 50, 185, 692, 2581, 9634, 35953, 134180, 500765, 1868882, 6974761, 26030164, 97145893, 362553410, 1353067745, 5049717572, 18845802541, 70333492594, 262488167833, 979619178740, 3655988547125, 13644335009762, 50921351491921, 190041070957924
a(n) = 1/6*sqrt(3)*((2+sqrt(3))^n-(2-sqrt(3))^n)+2/3*((2-sqrt(3))^n+(2+sqrt(3))^n) -1/3*(-1)^n. - Paolo P. Lava, Jul 27 2011
a(n) = 3*a(n-1)+3*a(n-2)-a(n-3). - Colin Barker, May 25 2015
[A135345] 1, 4, 13, 51, 204, 819, 3277, 13108, 52429, 209715, 838860, 3355443, 13421773, 53687092, 214748365, 858993459, 3435973836, 13743895347, 54975581389, 219902325556, 879609302221, 3518437208883, 14073748835532, 56294995342131, 225179981368525, 900719925474100, 3602879701896397, 14411518807585
a(n) = (4^(n+1)/5)-(2/15)*(-1)^n+(1/3)*cos(Pi*n/3)+(sqrt(3)/3)*cos(Pi*n/3). - Richard Choulet, Jan 04 2008
[A129147] 1, 1, 4, 13, 52, 214, 928, 4141, 18940, 88258, 417616, 2001058, 9690184, 47348812, 233158144, 1155900541, 5764510060, 28898899594, 145556001136, 736206912982, 3737768204344, 19042072755124, 97313398530496, 498737257238482, 2562773039735896, 13200732624526804, 68148459129343648
a(n)=sum{k=0..n, C(k,n-k)*2^(n-k)*C(k)};
a(n)=(1/(2*pi))*int(x^n*sqrt(8+4x-x^2)/(x+2),x,2-2*sqrt(3),2+2*sqrt(3));
[A168420] 4, 14, 14, 24, 24, 34, 34, 44, 44, 54, 54, 64, 64, 74, 74, 84, 84, 94, 94, 104, 104, 114, 114, 124, 124, 134, 134, 144, 144, 154, 154, 164, 164, 174, 174, 184, 184, 194, 194, 204, 204, 214, 214, 224, 224, 234, 234, 244, 244, 254, 254, 264, 264, 274, 274, 284
a(n) = 10*n - a(n-1) - 2, with n>1, a(1)=4.
a(n) = (3 + 5*(-1)^n + 10*n)/2. - Paolo P. Lava, Nov 27 2009
a(n) = a(n-1) +a(n-2) -a(n-3). - Vincenzo Librandi, Sep 19 2013
[A032825] 1, 4, 14, 17, 53, 56, 183, 186, 222, 225, 690, 693, 729, 732, 2380, 2383, 2419, 2422, 2887, 2890, 2926, 2929, 8971, 8974, 9010, 9013, 9478, 9481, 9517, 9520, 30941, 30944, 30980, 30983, 31448, 31451, 31487, 31490, 37532, 37535
a(1)=1, a(2)=4; a(n) = 13*a(floor(n/2))+1 for n odd, otherwise a(n) = 13*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A165721] 4, 14, 22, 25, 35, 55, 69, 74, 90, 120, 140, 147, 169, 209, 235, 244, 272, 322, 354, 365, 399, 459, 497, 510, 550, 620, 664, 679, 725, 805, 855, 872, 924, 1014, 1070, 1089, 1147, 1247, 1309, 1330, 1394, 1504, 1572, 1595, 1665, 1785, 1859, 1884, 1960, 2090
a(n)= 3*a(n-1) -5*a(n-2) +7*a(n-3) -7*a(n-4) +5*a(n-5) -3*a(n-6) +a(n-7). - R. J. Mathar, Sep 25 2009

[A213399] 1, 4, 14, 23, 43, 58, 88, 109, 149, 176, 226, 259, 319, 358, 428, 473, 553, 604, 694, 751, 851, 914, 1024, 1093, 1213, 1288, 1418, 1499, 1639, 1726, 1876, 1969, 2129, 2228, 2398, 2503, 2683, 2794, 2984, 3101, 3301, 3424, 3634, 3763, 3983, 4118
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
a(n) = (8*n^2+2*(-1)^n*n+8*n+(-1)^n+3)/4.
a(n) = (4*n^2+5*n+2)/2 for n even.
a(n) = (4*n^2+3*n+1)/2 for n odd.
[A017317] 4, 14, 24, 34, 44, 54, 64, 74, 84, 94, 104, 114, 124, 134, 144, 154, 164, 174, 184, 194, 204, 214, 224, 234, 244, 254, 264, 274, 284, 294, 304, 314, 324, 334, 344, 354, 364, 374, 384, 394, 404, 414, 424, 434, 444, 454, 464, 474, 484, 494, 504, 514, 524, 534
a(n) = 10*n + 4; a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, May 29 2011
[A289179] 0, 1, 4, 14, 28, 55, 88, 140, 200, 285, 380, 506, 644, 819, 1008, 1240, 1488, 1785, 2100, 2470, 2860, 3311, 3784, 4324, 4888, 5525, 6188, 6930, 7700, 8555, 9440, 10416, 11424, 12529, 13668, 14910, 16188, 17575, 19000, 20540, 22120, 23821, 25564, 27434, 29348, 31395
a(n) = ((-1 + n)*(-3 + 3*(-1)^n - 2*n + 4*n^2))/12.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A049451] 0, 4, 14, 30, 52, 80, 114, 154, 200, 252, 310, 374, 444, 520, 602, 690, 784, 884, 990, 1102, 1220, 1344, 1474, 1610, 1752, 1900, 2054, 2214, 2380, 2552, 2730, 2914, 3104, 3300, 3502, 3710, 3924, 4144, 4370, 4602, 4840, 5084, 5334, 5590, 5852
a(n) = n*(3*n+1).
a(n) = 6*n + a(n-1)-2, n > 0. - Vincenzo Librandi, Aug 06 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 4, a(2) = 14. - Philippe Deléham, Mar 26 2013
[A117109] 1, 4, 14, 30, 69, 107, 209, 295, 480, 641, 1000, 1209, 1819, 2166, 2976, 3546, 4844, 5379, 7314, 8110, 10402, 11645, 14949, 15890, 20405, 21927, 26910, 29055, 35959, 37108, 46375, 48484, 57890, 61196, 73536, 75027, 91389, 93951, 110096, 114260
a(n)=|{(x,y,z,w) : 1<=x<=y<=z<=w<=n, gcd(x,y,z,w,n)=1}|
[A140063] 1, 4, 14, 31, 55, 86, 124, 169, 221, 280, 346, 419, 499, 586, 680, 781, 889, 1004, 1126, 1255, 1391, 1534, 1684, 1841, 2005, 2176, 2354, 2539, 2731, 2930, 3136, 3349, 3569, 3796, 4030, 4271, 4519, 4774, 5036
a(n) = 7*n^2/2-15*n/2+5 = 3*a(n-1)-3*a(n-2)+a(n-3). - R. J. Mathar, Jul 31 2009
a(n)=a(n-1)+7*n-11 (with a(1)=1) [From Vincenzo Librandi, Nov 24 2010]
[A159920] 4, 14, 32, 60, 100, 154, 224, 312, 420, 550, 704, 884, 1092, 1330, 1600, 1904, 2244, 2622, 3040, 3500, 4004, 4554, 5152, 5800, 6500, 7254, 8064, 8932, 9860, 10850, 11904, 13024, 14212, 15470, 16800, 18204, 19684, 21242, 22880, 24600, 26404
a(n) = (n-1)*n*(n+4)/3.
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4).
a(n) = sum_{i=1..n-1} i*(i+3). - Wesley Ivan Hurt, Oct 19 2013
[A036486] 0, 1, 4, 14, 32, 63, 108, 172, 256, 365, 500, 666, 864, 1099, 1372, 1688, 2048, 2457, 2916, 3430, 4000, 4631, 5324, 6084, 6912, 7813, 8788, 9842, 10976, 12195, 13500, 14896, 16384, 17969, 19652, 21438, 23328, 25327, 27436, 29660, 32000, 34461, 37044
a(n) = (2*n^3-(-1)^n+1)/4. - Bruno Berselli, Jun 07 2011
a(n) = (n^3 + (n mod 2))/2. - Wesley Ivan Hurt, May 21 2014
[A228272] 0, 4, 14, 33, 65, 113, 179, 268, 381, 523, 696, 904, 1150, 1436, 1767, 2144, 2572, 3053, 3591, 4188, 4849, 5575, 6370, 7238, 8181, 9202, 10305, 11494, 12770, 14137, 15598, 17157, 18816, 20579, 22449, 24429, 26521, 28730, 31059, 33510, 36086, 38792, 41629, 44602
a(n) = floor((Pi*n^3)/6)).
[A011935] 0, 0, 0, 0, 0, 4, 14, 33, 67, 120, 201, 316, 475, 686, 960, 1310, 1747, 2284, 2937, 3720, 4651, 5745, 7022, 8500, 10200, 12144, 14352, 16848, 19656, 22800, 26308, 30206, 34521, 39283, 44520, 50265, 56548
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-25) -4*a(n-26) +6*a(n-27) -4*a(n-28) +a(n-29). [From R. J. Mathar, Apr 15 2010]
[A295180] 1, 1, 4, 14, 35, 96, 242, 609, 1483, 3565, 8376, 19389, 44254, 99584, 221470, 486810, 1058914, 2280519, 4866492, 10294313, 21598679, 44966391, 92930485, 190721585, 388828094, 787710401, 1586166758, 3175548134, 6322372729, 12520759979, 24669499432, 48367447687, 94381633962, 183331308393
a(0) = 1 and a(n) = (1/n) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d*(3*d*(d-1)/2+1)*(-1)^(1+n/d). - Seiichi Manyama, Nov 16 2017
[A213045] 0, 4, 14, 36, 72, 128, 206, 312, 448, 620, 830, 1084, 1384, 1736, 2142, 2608, 3136, 3732, 4398, 5140, 5960, 6864, 7854, 8936, 10112, 11388, 12766, 14252, 15848, 17560, 19390, 21344, 23424, 25636, 27982, 30468, 33096, 35872, 38798, 41880
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
[A079908] 1, 4, 14, 36, 76, 140, 234, 364, 536, 756, 1030, 1364, 1764, 2236, 2786, 3420, 4144, 4964, 5886, 6916, 8060, 9324, 10714, 12236, 13896, 15700, 17654, 19764, 22036, 24476, 27090, 29884, 32864, 36036, 39406, 42980, 46764, 50764, 54986, 59436
a(n) = max(1, n^3 + 3*n), found by elementary counting.
[A038164] 1, 4, 14, 36, 85, 176, 344, 624, 1086, 1800, 2892, 4488, 6798, 10032, 14520, 20592, 28743, 39468, 53482, 71500, 94523, 123552, 159952, 205088, 260780, 328848, 411672, 511632, 631788, 775200, 945744, 1147296, 1384701, 1662804
a(0)=1, a(1)=4, a(2)=14, a(3)=36, a(4)=85, a(5)=176, a(6)=344, a(7)=624, a(8)=1086, a(9)=1800, a(10)=2892, a(11)=4488, a(n)=4*a(n-1)-2*a(n-2)- 12*a(n-3)+17*a(n-4)+8*a(n-5)-28*a(n-6)+8*a(n-7)+17*a(n-8)-12*a(n-9)- 2*a(n-10)+4*a(n-11)-a(n-12). - Harvey P. Dale, Jul 02 2011
[A027166] 1, 4, 14, 36, 103, 248, 684, 1624, 4445, 10524, 28762, 68060, 185955, 439984, 1202072, 2844144, 7770361, 18384884, 50228454, 118841812, 324681887, 768205608, 2098776772, 4965759176, 13566706389, 32099171980, 87696568754, 207492309516, 566879531803
a(n) = 2*a(n-1)+5*a(n-2)-12*a(n-3)+9*a(n-4)-6*a(n-5)+3*a(n-6) for n>5.
[A209399] 0, 0, 0, 0, 4, 14, 37, 83, 181, 387, 824, 1728, 3584, 7360, 15032, 30571, 61987, 125339, 252883, 509294, 1024300, 2057848, 4130724, 8285758, 16610841, 33285207, 66673209, 133512759, 267294832, 535025408, 1070755840, 2142652160, 4287149680, 8577285255
a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 3*a(n-4) - a(n-5) - a(n-6) - 3*a(n-7) + a(n-8) + 2*a(n-9).
a(n) = 2^n - Product(i=0 to 2) F(floor((n+i)/3)+2) where F(n) is the n-th Fibonacci number.
[A192974] 0, 1, 4, 14, 37, 84, 172, 329, 600, 1058, 1821, 3080, 5144, 8513, 13996, 22902, 37349, 60764, 98692, 160105, 259520, 420426, 680829, 1102224, 1784112, 2887489, 4672852, 7561694, 12236005, 19799268, 32036956, 51838025, 83876904, 135716978
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A006071] 1, 4, 14, 38, 76, 136, 218, 330, 472, 652, 870, 1134, 1444, 1808, 2226, 2706, 3248, 3860, 4542, 5302, 6140, 7064, 8074, 9178, 10376, 11676, 13078, 14590, 16212, 17952, 19810, 21794, 23904, 26148, 28526, 31046, 33708, 36520, 39482, 42602
a(2n)= 2+2*n*(8n^2-5)/3, n>=1. a(2n+1)= 2n(1+8n^2+12n)/3, n>=1.
[A086954] 1, 1, 4, 14, 38, 92, 214, 490, 1108, 2474, 5462, 11948, 25942, 55978, 120148, 256682, 546134, 1157804, 2446678, 5155498, 10835284, 22719146, 47535446, 99265196, 206918998, 430615210, 894784852, 1856678570, 3847574870, 7963585196
a(n)=0^n+n2^(n-1)+sum{k=0..floor((n-1)/3) C(n-1, 3k+2) }
[A130423] 4, 14, 39, 88, 170, 294, 469, 704, 1008, 1390, 1859, 2424, 3094, 3878, 4785, 5824, 7004, 8334, 9823, 11480, 13314, 15334, 17549, 19968, 22600, 25454, 28539, 31864, 35438, 39270, 43369, 47744, 52404, 57358, 62615, 68184, 74074, 80294, 86853
a(n) = A[n+2,n] = P(k+2,n) + P(k+2,n+1) + P(k+2,n+2) where P(k,n) = k*((n-2)*k - (n-4))/2.
a(n) = n*(3*n^2-3*n+8)/2. G.f.: x*(4-2*x+7*x^2)/(1-x)^4. [Colin Barker, Apr 30 2012]
a(1)=4, a(2)=14, a(3)=39, a(4)=88, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Aug 15 2012
[A074083] 0, 0, 0, 0, 0, 4, 14, 39, 97, 224, 494, 1051, 2177, 4412, 8784, 17228, 33360, 63886, 121164, 227833, 425147, 787916, 1451198, 2657821, 4842727, 8782230, 15857426, 28517864, 51095760, 91232520, 162372682, 288115147, 509790277, 899630376
a(n)=4a(n-1)-2a(n-2)-8a(n-3)+5a(n-4)+8a(n-5)-2a(n-6)-4a(n-7)-a(n-8) for n>=11.
[A182819] 1, 4, 14, 39, 101, 238, 533, 1131, 2314, 4566, 8763, 16376, 29939, 53612, 94302, 163112, 277953, 467064, 774943, 1270528, 2060331, 3306771, 5256579, 8280649, 12934125, 20040761, 30817437, 47048638, 71339593, 107469716, 160898163
a(n) = Sum_{j = 0..3*n} (Sum_{k = 0..3*n-j} w^(j+2*k)*p(k)*p(j) *p(3*n-j-k)). (End)
[A066375] 1, 4, 14, 40, 97, 206, 394, 694, 1145, 1792, 2686, 3884, 5449, 7450, 9962, 13066, 16849, 21404, 26830, 33232, 40721, 49414, 59434, 70910, 83977, 98776, 115454, 134164, 155065, 178322, 204106, 232594, 263969, 298420, 336142
a(n) = (8-14*n+13*n^2-4*n^3+n^4)/4. G.f.: x*(1-x+4*x^2+2*x^4)/(1-x)^5. [Colin Barker, Apr 20 2012]

[A023003] 1, 4, 14, 40, 105, 252, 574, 1240, 2580, 5180, 10108, 19208, 35693, 64960, 116090, 203984, 353017, 602348, 1014580, 1688400, 2778517, 4524760, 7296752, 11658920, 18468245, 29015700, 45235414, 70005376, 107585845, 164245380, 249162620, 375704920, 563251038
a(0)=1, a(n)=1/n*sum(k=0,n-1, 4*a(k)*sigma_1(n-k)). - Joerg Arndt, Feb 05 2011
[A001872] 1, 4, 14, 40, 105, 256, 594, 1324, 2860, 6020, 12402, 25088, 49963, 98160, 190570, 366108, 696787, 1315072, 2463300, 4582600, 8472280, 15574520, 28481220, 51833600, 93914325, 169457708, 304597382, 545556512, 973877245, 1733053440, 3075011478
a(n) = F"'(n+3, 1)/6, i.e., 1/6 times the 3rd derivative of the (n+3)th Fibonacci polynomial evaluated at 1. - T. D. Noe, Jan 18 2006
a(n) = sum(i=ceil(n/2)..n, (i+1)*(i+2)*(i+3)*binomial(i,n-i))/6. - Vladimir Kruchinin, Apr 26 2011
[A054443] 1, 4, 14, 40, 109, 276, 682, 1624, 3810, 8744, 19868, 44496, 98941, 217780, 476786, 1036024, 2241814, 4823160, 10342180, 22076080, 46994386, 99673224, 210923364, 445000560, 937051684, 1968204496, 4127285688
a(2*k)= (2*k+7)*4^(k+1)-binomial(2*(k+2), k+2)*(4*k+9)/2, a(2*k+1)= (k+4)*4^(k+2)-(k+3)*binomial(2*(k+3), k+3), k >= 0.
[A072674] 0, 4, 14, 40, 110, 304, 854, 2440, 7070, 20704, 61094, 181240, 539630, 1610704, 4815734, 14414440, 43177790, 129402304, 387944774, 1163310040, 3488881550, 10464547504, 31389448214, 94159956040, 282463090910, 847355718304
a(0)=0, a(1)=4, a(2)=14, a(n)=6*a(n-1)-11*a(n-2)+6*a(n-3). - Harvey P. Dale, Sep 06 2012
[A189052] 0, 0, 0, 1, 4, 14, 42, 118, 314, 806, 2010, 4902, 11738, 27686, 64474, 148518, 338906, 767014, 1723354, 3847206, 8539098, 18854950, 41438170, 90682406, 197675994, 429372454, 929582042, 2006430758, 4318579674, 9270965286, 19854281690, 42422744102, 90452806618, 192478164006
a(n) = 2^(n-1)*(1/24*(n+2)*(n+1)-5/36*(n+1)-5/108)-2/27*(-1)^n for n>0.
a(n) = +5*a(n-1) -6*a(n-2) -4*a(n-3) +8*a(n-4).
[A189426] 0, 0, 1, 4, 14, 42, 119, 322, 847, 2180, 5521, 13804, 34160, 83818, 204204, 494494, 1191227, 2856666, 6823334, 16240714, 38534657, 91175154, 215179125, 506670394, 1190534467, 2792076392, 6536567296, 15278103876, 35656587624, 83101366684
a(n)=4*a(n-1)-2*a(n-2)-6*a(n-3)+3*a(n-4)+2*a(n-5)-a(n-6), n>=6.
[A212688] 0, 0, 4, 14, 44, 98, 200, 356, 600, 940, 1420, 2050, 2884, 3934, 5264, 6888, 8880, 11256, 14100, 17430, 21340, 25850, 31064, 37004, 43784, 51428, 60060, 69706, 80500, 92470, 105760, 120400, 136544, 154224, 173604, 194718, 217740
a(n)=3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
[A007466] 1, 4, 14, 44, 128, 352, 928, 2368, 5888, 14336, 34304, 80896, 188416, 434176, 991232, 2244608, 5046272, 11272192, 25034752, 55312384, 121634816, 266338304, 580911104, 1262485504, 2734686208, 5905580032, 12717129728
a(n) = 2^(n-1)*n+1/4*2^(n-1)*(n-1)*(n-2).
a(n) = Sum_{k=0..(n+2)} C(n+2, k) * floor(k/2)^2. - Paul Barry, Mar 06 2003
[A062109] 1, 4, 14, 44, 129, 360, 968, 2528, 6448, 16128, 39680, 96256, 230656, 546816, 1284096, 2990080, 6909952, 15859712, 36175872, 82051072, 185139200, 415760384, 929562624, 2069889024, 4591714304, 10150215680, 22364028928
a(n) =(n+5)*(n^2+13n+18)*2^(n-5)/3 [with a(0)=1].
[A006645] 0, 0, 1, 4, 14, 44, 131, 376, 1052, 2888, 7813, 20892, 55338, 145428, 379655, 985520, 2545720, 6547792, 16777993, 42847988, 109099078, 277040572, 701794187, 1773851304, 4474555476, 11266301976, 28318897549, 71070913036, 178106093666
a(n)= sum(2^(n-2)*(n-k-1)*binomial(n-2-k, k)*(1/4)^k, k=0..floor((n-2)/2)), n>=2.
a(n)=F'(n, 2), the derivative of the n-th Fibonacci polynomial evaluated at x=2. - T. D. Noe, Jan 19 2006
[A094309] 1, 4, 14, 44, 132, 384, 1096, 3088, 8624, 23936, 66144, 182208, 500800, 1374208, 3766400, 10313984, 28226304, 77211648, 211138048, 577223680, 1577772032, 4312088576, 11783915520, 32200396800, 87985401856, 240405151744
a(n) = (1/3) * sum(k=1..5, sin(Pi*k/3)*sin(5*Pi*k/6)*(1+2*cos(Pi*k/6))^n.
[A005323] 1, 4, 14, 44, 133, 392, 1140, 3288, 9438, 27016, 77220, 220584, 630084, 1800384, 5147328, 14727168, 42171849, 120870324, 346757334, 995742748, 2862099185, 8234447672, 23713180780, 68350541480, 197188167735, 569371325796
a(n) = number of (s(0), s(1), ..., s(n)) such that s(i) is a nonnegative integer and |s(i) - s(i-1)| <= 1 for i = 1, 2, ..., n, s(0) = 0, s(n) = 3.
a(n) = 4*(-3)^(1/2)*(-1)^n*n*((-3*n^3-9*n^2-6*n-9)*hypergeom([1/2, n],[1],4/3)+(2*n^3+n^2-17*n-13)*hypergeom([1/2, n+1],[1],4/3))/(3*(n+1)*(n+2)*(n+3)*(n+4)*
(for n >= 3). - Mark van Hoeij, Nov 12 2009
a(n) = 4*sum(j=ceiling((n-3)/2)..n+1, C(j,2*j-n+3)*C(n+1,j))/(n+1). - Vladimir Kruchinin, Mar 17 2014
[A097137] 0, 0, 1, 4, 14, 44, 135, 408, 1228, 3688, 11069, 33212, 99642, 298932, 896803, 2690416, 8071256, 24213776, 72641337, 217924020, 653772070, 1961316220, 5883948671, 17651846024, 52955538084, 158866614264, 476599842805
a(n)=4*a(n-1)-2*a(n-2)-4*a(n-3)+3*a(n-4).
a(n) = sum(k=0..n, floor((n-k)/2)*3^k) = sum(k=0..n, floor(k/2)*3^(n-k)).
a(n) = round((3*3^n-4*n-4)/16) = floor((3*3^n-4*n-3)/16) = ceil((3*3^n-4*n-5)/16) = round((3*3^n-4*n-3)/16). a(n) = a(n-2) + (3^(n-1)-1)/2 , n>2. [From Mircea Merca, Dec 26 2010]
[A083377] 1, 4, 14, 44, 141, 447, 1414, 4472, 14142, 44721, 141421, 447213, 1414213, 4472135, 14142135, 44721359, 141421356, 447213595, 1414213562, 4472135954, 14142135623, 44721359549, 141421356237, 447213595499, 1414213562373, 4472135954999
a(n) = floor(sqrt(10^n/5)).
[A108765] 1, 4, 14, 45, 139, 422, 1272, 3823, 11477, 34440, 103330, 310001, 930015, 2790058, 8370188, 25110579, 75331753, 225995276, 677985846, 2033957557, 6101872691, 18305618094, 54916854304, 164750562935, 494251688829, 1482755066512
a(0) = 1; a(n) = 3*a(n-1) + n.
a(n) = (7*3^n - 2*n - 3)/4. (End)
a(0)=1, a(1)=4, a(2)=14, a(n) = 5*a(n-1) - 7*a(n-2) + 3*a(n-3). - Harvey P. Dale, Dec 11 2012
[A005775] 1, 4, 14, 45, 140, 427, 1288, 3858, 11505, 34210, 101530, 300950, 891345, 2638650, 7809000, 23107488, 68375547, 202336092, 598817490, 1772479905, 5247421410, 15538054455, 46019183840, 136325212750, 403933918375, 1197131976846, 3548715207534, 10521965227669
a(n) = GegenbauerC(n-4,-n+1,-1/2) + GegenbauerC(n-3,-n+1,-1/2). - Peter Luschny, May 12 2016
[A094688] 0, 1, 4, 14, 45, 140, 428, 1297, 3912, 11770, 35365, 106184, 318696, 956321, 2869340, 8608630, 25826877, 77482228, 232449268, 697351985, 2092062720, 6276199106, 18828615029, 56485873744, 169457667600, 508373077825, 1525119354868
a(0) = 0, a(1) = 1, a(n) = a(n-1) + a(n-2) + 3^(n-1) for n > 1. - Ross La Haye, Aug 20 2005
[A030267] 1, 4, 14, 46, 145, 444, 1331, 3926, 11434, 32960, 94211, 267384, 754309, 2116936, 5914310, 16458034, 45638101, 126159156, 347769719, 956238170, 2623278946, 7181512964, 19622668679, 53522804976, 145753273225, 396323283724, 1076167858046, 2918447861686
a(n) = (2/5)F(2n)+(1/5)nL(2n), where F(k) are the Fibonacci numbers (F(0)=0, F(1)=1) and L(k) are the Lucas numbers (L(0)=2, L(1)=1). - Emeric Deutsch, Jul 21 2008
a(0)=1, a(1)=4, a(2)=14, a(3)=46, a(n)=6*a(n-1)-11*a(n-2)+ 6*a(n-3)- a(n-4). - Harvey P. Dale, Aug 01 2011
[A046718] 1, 4, 14, 47, 152, 472, 1408, 4048, 11264, 30464, 80384, 207616, 526336, 1312768, 3227648, 7835648, 18808832, 44695552, 105250816, 245825536, 569901056, 1312292864, 3003121664, 6833569792, 15468593152, 34846277632, 78148272128, 174533378048, 388291887104
a(n) = 2^(n-8)*(n^3-11*n^2+54*n-88). - R. J. Mathar, Oct 02 2012
[A291385] 1, 4, 14, 47, 152, 480, 1488, 4548, 13744, 41152, 122272, 360944, 1059584, 3095552, 9005568, 26101824, 75404544, 217191424, 623928832, 1788071680, 5113137152, 14592352256, 41569120256, 118219097088, 335685021696, 951817715712, 2695241605120, 7622609858560
a(n) = 4*a(n-1) - 8*a(n-3) + 4*a(n-4) for n >= 5.
[A192877] 0, 1, 4, 14, 47, 152, 496, 1601, 5192, 16786, 54351, 175836, 569100, 1841513, 5959484, 19284934, 62407951, 201955408, 653543000, 2114907025, 6843987040, 22147600586, 71671151919, 231932702004, 750550018452, 2428830833977
a(n)=2*a(n-1)+6*a(n-2)-5*a(n-3)-6*a(n-4)+4*a(n-5).
[A263622] 0, 1, 4, 14, 47, 153, 486, 1516, 4669, 14255, 43268, 130818, 394491, 1187557, 3570850, 10728920, 32219513, 96724059, 290303232, 871171822, 2614039735, 7843167761, 23531600414, 70598995524, 211805375157, 635432902663, 1906332262396, 5719063896026, 17157325905779, 51472246152765
a(n) = 7*a(n-1)-17*a(n-2)+17*a(n-3)-6*a(n-4) for n>3.
[A273714] 0, 1, 4, 14, 47, 155, 508, 1662, 5438, 17809, 58395, 191732, 630373, 2075221, 6840140, 22571800, 74564874, 246568051, 816099650, 2703492238, 8963064935, 29738123605, 98735734915, 328034119098, 1090509180192, 3627343273885, 12072071392105, 40197107361740, 133910579452363
a(n) = (y(n+2)-2*y(n+1)-y(n))/2.

[A082574] 1, 4, 14, 47, 156, 516, 1705, 5632, 18602, 61439, 202920, 670200, 2213521, 7310764, 24145814, 79748207, 263390436, 869919516, 2873148985, 9489366472, 31341248402, 103513111679, 341880583440, 1129154862000, 3729345169441, 12317190370324
a(1)=1, a(2)=4, a(3)=14, a(n) = 4a(n-1) - 2a(n-2) - a(n-3); a(n) = floor(t(3)*r(3)^n) where t(3) = (1/6)*(1 + 5/sqrt(13)) is the positive root of 39*X^2 = 13*X + 1.
[A289780] 1, 4, 14, 47, 156, 517, 1714, 5684, 18851, 62520, 207349, 687676, 2280686, 7563923, 25085844, 83197513, 275925586, 915110636, 3034975799, 10065534960, 33382471801, 110713382644, 367182309614, 1217764693607, 4038731742156, 13394504020957, 44423039068114
a(n) = 5*a(n-1) - 7*a(n-2) + 5*a(n-3) - a(n-4).
[A291254] 4, 14, 48, 159, 512, 1618, 5036, 15491, 47192, 142624, 428144, 1277884, 3795208, 11222716, 33060072, 97060033, 284095940, 829298422, 2414859016, 7016265637, 20344112608, 58879534286, 170117201548, 490736173432, 1413562889020, 4066259673834, 11682314946048
a(n) = 4*a(n-1) + 2*a(n-2) - 16*a(n-3) - 3*a(n-4) + 16*a(n-5) + 2*a(n-6) - 4*a(n-7) - a(n-8) for n >= 9.
[A204089] 1, 1, 4, 14, 48, 164, 560, 1912, 6528, 22288, 76096, 259808, 887040, 3028544, 10340096, 35303296, 120532992, 411525376, 1405035520, 4797091328, 16378294272, 55918994432, 190919389184, 651839567872, 2225519493120, 7598398836736, 25942556360704, 88573427769344
a(n) = Sum_{i=0..n-1} a(i) * (2^(n-i)-1), with a(0)=1.
a(n) = 4*a(n-1) - 2*a(n-2), a(1)=1, a(2)=4.
a(n) = ((-(2-sqrt(2))^n+(2+sqrt(2))^n))/(2*sqrt(2)). - Colin Barker, Dec 06 2015
[A002057] 1, 4, 14, 48, 165, 572, 2002, 7072, 25194, 90440, 326876, 1188640, 4345965, 15967980, 58929450, 218349120, 811985790, 3029594040, 11338026180, 42550029600, 160094486370, 603784920024, 2282138106804, 8643460269248, 32798844771700, 124680849918352
a(n) = 32*4^n*Gamma(5/2+n)*(1+n)/(sqrt(Pi)*Gamma(5+n)). - Peter Luschny, Dec 14 2015
[A082590] 1, 4, 14, 48, 166, 584, 2092, 7616, 28102, 104824, 394404, 1494240, 5692636, 21785872, 83688344, 322494208, 1246068806, 4825743832, 18726622964, 72798509728, 283443548276, 1105144970992, 4314388905704, 16862208539008, 65972020761116, 258354647959984
a(n) = 2^n*JacobiP(n, 1/2, -1-n, 3).
a(n) = sum{k=0..n+1, binomial(2n+2, k)*sin((n-k+1)*pi/2} - Paul Barry, Nov 02 2004
a(n) = sum{k=0..n, 2^(n-k)*binomial(2k, k)}; a(n)=sum{k=0..n, (2k)!(2(n-k))!/(n!k!(n-k)!)}; - Paul Barry, Sep 04 2005
a(n) = sum{k=0..n, C(2n,n)C(n,k)/C(2n,2k)} - Paul Barry, Mar 18 2007
a(n) = 2^(n+1)*pochhammer(1/2, n+1)*hyper2F1([1/2,-n], [3/2], -1)/n!. - Peter Luschny, Aug 02 2014
[A278692] 4, 14, 49, 171, 596, 2077, 7238, 25223, 87897, 306303, 1067403, 3719680, 12962320, 45171020, 157411717, 548547468, 1911575138, 6661446313, 23213770727, 80895217952, 281903201529, 982374694626, 3423373822671, 11929753885009, 41572739387791, 144872448909191, 504850696923520, 1759300875378480
a(n) = floor(a(n-1)^2/a(n-2)), a(0) = 4, a(1) = 14.
a(n) = 4*a(n-1) - 2*a(n-2) + a(n-3) - a(n-4). (End)
[A291384] 1, 4, 14, 49, 172, 604, 2120, 7442, 26124, 91704, 321912, 1130020, 3966752, 13924640, 48880192, 171585992, 602324816, 2114363648, 7422130912, 26054187664, 91459003200, 321052008000, 1127001041280, 3956154502688, 13887439208896, 48749604609664
a(n) = 2*a(n-1) + 4*a(n-2) + 4*a(n-3) + 2*a(n-4) for n >= 5.
[A277084] 4, 14, 49, 172, 604, 2122, 7456, 26198, 92052, 323444, 1136489, 3993295, 14031289, 49301911, 173232725, 608689936, 2138761243, 7514991434, 26405516950, 92781386582, 326007088306, 1145495077635, 4024940008834, 14142480741305, 49692606865991, 174605518105877
a(n) = ceiling(a(n-1)^2/a(n-2)), a(0) = 4, a(1) = 14.
a(n) = 3*a(n-1) + 2*a(n-2) - 2*a(n-4) - a(n-5) - 2*a(n-6) + 2*a(n-7) - a(n-8). (End)
[A120747] 0, 1, 4, 14, 50, 175, 616, 2163, 7601, 26703, 93819, 329615, 1158052, 4068623, 14294449, 50221212, 176444054, 619907431, 2177943781, 7651850657, 26883530748, 94450905714, 331837870408, 1165858298498, 4096053203771, 14390815650209, 50559786403254
a(n) = 3*a(n-1) + 3*a(n-2) - 4*a(n-3) - a(n-4) + a(n-5).
a(n) = T(n,4) with T(n,k) = sum(T(n-1,k1), k1=6-k..5), T(1,1) = T(1,2) = T(1,3) = T(1,4) = 0 and T(1,5) = 1, n>=1 and 1 <= k <= 5. [Steinbach]
[A076024] 0, 1, 4, 14, 50, 186, 714, 2794, 11050, 43946, 175274, 700074, 2798250, 11188906, 44747434, 178973354, 715860650, 2863377066, 11453377194, 45813246634, 183252462250, 733008800426, 2932033104554, 11728128223914, 46912504507050, 187650001250986, 750599971449514
a(n) = sum{k=0..n, C(n, k)(3^(k-1)+1-4*0^k/3)/2}.
a(n) = sum{k=0..n, C(n, k+1)(3^k+1)}.
[A292463] 1, 1, 4, 14, 51, 188, 702, 2644, 10026, 38223, 146359, 562456, 2168134, 8379539, 32459199, 125984039, 489837300, 1907490728, 7438346255, 29042470132, 113522618066, 444199913556, 1739735079466, 6819657196928, 26753893533257, 105034060120469, 412637434996367
a(n) = [x^n] 1/(1-x)^n * 1/Product_{j=2..n} (1-x^j).
a(n) is n-th term of the Euler transform of n,1,1,1,... .
[A262594] 1, 4, 14, 52, 203, 808, 3232, 12936, 51765, 207100, 828466, 3313964, 13255999, 53024192, 212097028, 848388448, 3393554217, 13574217396, 54296870230, 217187481700, 868749927731, 3474999712024, 13899998849384, 55599995399032, 222399981597853, 889599926393388, 3558399705575802, 142335988223057
a(n) = 8*a(n-1)-22*a(n-2)+28*a(n-3)-17*a(n-4)+4*a(n-5) for n>4.
a(n) = (34+2^(7+2*n)+93*n+18*n^2-9*n^3)/162.
[A022133] 4, 15, 19, 34, 53, 87, 140, 227, 367, 594, 961, 1555, 2516, 4071, 6587, 10658, 17245, 27903, 45148, 73051, 118199, 191250, 309449, 500699, 810148, 1310847, 2120995, 3431842, 5552837, 8984679, 14537516
a(n) = term (1,1) in the 1 X 2 matrix [4,11] . [1,1; 1,0]^n. (End)
[A051531] 1, 1, 4, 15, 24, 44, 81, 115, 168, 247, 322, 424, 561, 693, 860, 1071, 1276, 1524, 1825, 2119, 2464, 2871, 3270, 3728, 4257, 4777, 5364, 6031, 6688, 7420, 8241, 9051, 9944, 10935, 11914, 12984, 14161, 15325, 16588, 17967, 19332, 20804
a(0)=1, a(1)=1, a(2)=4, a(3)=15, a(4)=24, a(5)=44, a(6)=81, a(7)=115, a(n)= 2*a(n-1)- a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8). - Harvey P. Dale, Jan 12 2013
[A017437] 4, 15, 26, 37, 48, 59, 70, 81, 92, 103, 114, 125, 136, 147, 158, 169, 180, 191, 202, 213, 224, 235, 246, 257, 268, 279, 290, 301, 312, 323, 334, 345, 356, 367, 378, 389, 400, 411, 422, 433, 444, 455, 466, 477, 488, 499, 510, 521, 532, 543, 554, 565, 576, 587
a(0)=4, a(1)=15, a(n) = 2*a(n-1) - a(n-2). - Harvey P. Dale, May 19 2012
[A270710] 1, 4, 15, 32, 55, 84, 119, 160, 207, 260, 319, 384, 455, 532, 615, 704, 799, 900, 1007, 1120, 1239, 1364, 1495, 1632, 1775, 1924, 2079, 2240, 2407, 2580, 2759, 2944, 3135, 3332, 3535, 3744, 3959, 4180, 4407, 4640, 4879, 5124, 5375, 5632, 5895, 6164, 6439, 6720, 7007, 7300, 7599
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A022265] 0, 4, 15, 33, 58, 90, 129, 175, 228, 288, 355, 429, 510, 598, 693, 795, 904, 1020, 1143, 1273, 1410, 1554, 1705, 1863, 2028, 2200, 2379, 2565, 2758, 2958, 3165, 3379, 3600, 3828, 4063, 4305, 4554, 4810
a(n) = 7*n + a(n-1) - 3 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0)=0, a(1)=4, a(2)=15. - Philippe Deléham, Mar 26 2013
[A054556] 1, 4, 15, 34, 61, 96, 139, 190, 249, 316, 391, 474, 565, 664, 771, 886, 1009, 1140, 1279, 1426, 1581, 1744, 1915, 2094, 2281, 2476, 2679, 2890, 3109, 3336, 3571, 3814, 4065, 4324, 4591, 4866, 5149, 5440, 5739, 6046, 6361, 6684, 7015, 7354, 7701, 8056
a(n)^2 = Sum_{i = 0..2*(4*n-5)} (4*n^2-13*n+9+i)^2*(-1)^i = ((n-1)*(4*n-5)+1)^2. - Bruno Berselli, Apr 29 2010
a(n) = 8*n+a(n-1)-13 for n>1, a(1)=1. - Vincenzo Librandi, Aug 07 2010
a(0)=1, a(1)=4, a(2)=15; for n>2, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 21 2011
[A077414] 0, 4, 15, 36, 70, 120, 189, 280, 396, 540, 715, 924, 1170, 1456, 1785, 2160, 2584, 3060, 3591, 4180, 4830, 5544, 6325, 7176, 8100, 9100, 10179, 11340, 12586, 13920, 15345, 16864, 18480, 20196, 22015, 23940, 25974, 28120, 30381, 32760, 35260
a(n) = n * (binomial(n+1, 2)-1).
a(n) = n*Sum_{j=2..n} j. - Zerinvary Lajos, Sep 12 2006
a(1)=0, a(2)=4, a(3)=15, a(4)=36; for n>4, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Jun 04 2012
a(n) = Sum_{i=1..n-1} i*(3*(n-i)+1). - Bruno Berselli, Feb 13 2014
[A212974] 0, 4, 15, 37, 75, 132, 212, 320, 459, 633, 847, 1104, 1408, 1764, 2175, 2645, 3179, 3780, 4452, 5200, 6027, 6937, 7935, 9024, 10208, 11492, 12879, 14373, 15979, 17700, 19540, 21504, 23595, 25817, 28175, 30672, 33312, 36100, 39039, 42133
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).

[A033813] 4, 15, 37, 77, 146, 262, 454, 769, 1283, 2119, 3476, 5676, 9240, 15011, 24353, 39473, 63942, 103538, 167610, 271285, 439039, 710475, 1149672, 1860312, 3010156, 4870647, 7880989, 12751829, 20633018, 33385054
a(0)=4, a(1)=15, a(2)=37, a(3)=77, a(n)=3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4) [From Harvey P. Dale, May 23 2011]
[A209409] 0, 0, 0, 0, 0, 4, 15, 37, 87, 200, 448, 992, 2160, 4628, 9823, 20699, 43335, 90246, 187068, 386192, 794560, 1629944, 3334975, 6808073, 13870191, 28207552, 57274368, 116129280, 235165632, 475678200, 961190943, 1940470231, 3914210127, 7889613022, 15891777084
a(n) = 2^n - t[floor(n/2)+2]*t[floor((n+1)/2)+2] where t(n) is the n-th tribonacci number.
a(n) = 3*a(n-1) - 2*a(n-2) + 2*a(n-3) - 4*a(n-4) + 2*a(n-5) - 2*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) + 2*a(n-10).
[A053698] 1, 4, 15, 40, 85, 156, 259, 400, 585, 820, 1111, 1464, 1885, 2380, 2955, 3616, 4369, 5220, 6175, 7240, 8421, 9724, 11155, 12720, 14425, 16276, 18279, 20440, 22765, 25260, 27931, 30784, 33825, 37060, 40495, 44136, 47989, 52060, 56355, 60880
a(n) = Sum_{i=0..n} 2*n*(n-i)+1. - Bruno Berselli, Jan 02 2017
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Colin Barker, Jan 02 2017
[A031164] 1, 4, 15, 40, 99, 212, 429, 800, 1430, 2424, 3978, 6288, 9690, 14520, 21318, 30624, 43263, 60060, 82225, 110968, 148005, 195052, 254475, 328640, 420732, 533936, 672452, 840480, 1043460, 1286832, 1577532, 1922496, 2330445
a(n) = [C(n+8,7)-(n%2)*C((n+7)/2,3)]/8, where C = binomial, n%2 = parity of n (=1 if odd, 0 else). - M. F. Hasler, May 02 2009
a(0)=1, a(1)=4, a(2)=15, a(3)=40, a(4)=99, a(5)=212, a(6)=429, a(7)=800, a(8)=1430, a(9)=2424, a(10)=3978, a(11)=6288, a(n) = 4*a(n-1)-2*a(n-2)-12*a(n-3)+17*a(n-4)+8*a(n-5)-28*a(n-6)+8*a(n-7)+17*a(n-8)-12*a(n-9)- 2*a(n-10)+4*a(n-11)-a(n-12). - Harvey P. Dale, Jun 20 2011
[A011844] 0, 0, 0, 0, 0, 0, 0, 0, 1, 4, 15, 41, 99, 214, 429, 804, 1430, 2431, 3978, 6298, 9690, 14535, 21318, 30644, 43263, 60087, 82225, 111003, 148005, 195097, 254475, 328696, 420732, 534006, 672452, 840565, 1043460
a(n) = floor(binomial(n+1,8)/(n+1)). [From Gary Detlefs, Nov 23 2011]
[A100503] 1, 4, 15, 42, 93, 176, 299, 470, 697, 988, 1351, 1794, 2325, 2952, 3683, 4526, 5489, 6580, 7807, 9178, 10701, 12384, 14235, 16262, 18473, 20876, 23479, 26290, 29317, 32568, 36051, 39774, 43745, 47972, 52463, 57226, 62269, 67600, 73227, 79158
a(n) = (4n^3+5n+3)/3. - Ralf Stephan, May 15 2007
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: (1+5*x^2+2*x^3)/(1-x)^4. - Colin Barker, Aug 20 2012
[A213498] 0, 4, 15, 43, 88, 164, 267, 415, 600, 844, 1135, 1499, 1920, 2428, 3003, 3679, 4432, 5300, 6255, 7339, 8520, 9844, 11275, 12863, 14568, 16444, 18447, 20635, 22960, 25484, 28155, 31039, 34080, 37348, 40783, 44459, 48312, 52420, 56715
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
a(n) = (2*n*(4*n^2+5*n+5) - (2*n+1)*(-1)^n + 1)/8.
[A294259] 0, 1, 4, 15, 43, 100, 201, 364, 610, 963, 1450, 2101, 2949, 4030, 5383, 7050, 9076, 11509, 14400, 17803, 21775, 26376, 31669, 37720, 44598, 52375, 61126, 70929, 81865, 94018, 107475, 122326, 138664, 156585, 176188, 197575, 220851, 246124, 273505, 303108, 335050, 369451
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4.
a(n) = 2*n + Sum_{i=0..n} i*(i^2 - 3)/2.
[A188716] 1, 1, 4, 15, 46, 125, 316, 763, 1786, 4089, 9208, 20471, 45046, 98293, 212980, 458739, 983026, 2097137, 4456432, 9437167, 19922926, 41943021, 88080364, 184549355, 385875946, 805306345, 1677721576, 3489660903, 7247757286, 15032385509, 31138512868, 64424509411, 133143986146, 274877906913, 566935683040, 1168231104479
a(n) = 6*a(n-1)-13*a(n-2)+12*a(n-3)-4*a(n-4). G.f.: (1-5*x+11*x^2-8*x^3)/((1-x)^2*(1-2*x)^2). [Colin Barker, Apr 06 2012]
[A093967] 0, 1, 4, 15, 48, 145, 420, 1183, 3264, 8865, 23780, 63151, 166320, 434993, 1130948, 2925375, 7533312, 19323713, 49395780, 125877071, 319888560, 810893265, 2050891876, 5176349663, 13040153280, 32793453025, 82337215012, 206424991215
a(n) = n((1+sqrt(2))^n - (1-sqrt(2))^n)/(2sqrt(2));
[A178704] 0, 0, 1, 4, 15, 49, 153, 465, 1402, 4213, 12648, 37954, 113874, 341634, 1024915, 3074758, 9224289, 27672883, 83018667, 249056019, 747168076, 2241504247, 6724512762, 20173538308, 60520614948, 181561844868
a(n) = round((6*3^n-14*n-7)/28).
a(n) = floor((6*3^n-14*n+2)/28).
a(n) = ceil((6*3^n-14*n-16)/28).
a(n) = round((6*3^n-14*n-6)/28).
a(n) = a(n-6) + 52*3^(n-5)-3 , n>5.
a(n)=5*a(n-1)-7*a(n-2)+2*a(n-3)+5*a(n-4)-7*a(n-5)+3*a(n-6).
[A099167] 1, 4, 15, 49, 154, 473, 1437, 4340, 13067, 39277, 117954, 354061, 1062505, 3188036, 9564951, 28696217, 86090858, 258276145, 774834213, 2324511988, 6973551091, 20920677749, 62762072850, 188286282629, 564858951569, 1694577022468
a(n)=4a(n-1)-2a(n-2)-3a(n-3); a(n)=2*3^n-Fib(n+2); a(n)=sum{k=0..n, (L(k)-0^k)3^(n-k)}.
[A132308] 1, 4, 15, 50, 157, 480, 1451, 4366, 13113, 39356, 118087, 354282, 1062869, 3188632, 9565923, 28697798, 86093425, 258280308, 774840959, 2324522914, 6973568781, 20920706384, 62762119195, 188286357630, 564859072937, 1694577218860
a(n) = 2*3^n-n-1. - Rolf Pleisch, Sep 26 2010
[A014532] 1, 4, 15, 50, 161, 504, 1554, 4740, 14355, 43252, 129844, 388752, 1161615, 3465840, 10329336, 30759120, 91538523, 272290140, 809676735, 2407049106, 7154586747, 21263575256, 63191778950, 187790510700, 558069593445, 1658498131836
a(n) = sum_{i=0}^floor((n-1)/2) binomial(n+2,n-1-i) * binomial(n-1-i,i). - Shanzhen Gao, Apr 20 2010
a(n) = -(1/(162*(n+5)*(n+3)))*(9*n+18)*(-1)^n*(-3)^(1/2) * ((n+7)*hypergeom([1/2, n+5],[1],4/3) + hypergeom([1/2, n+4],[1],4/3) * (5*n+19)). - Mark van Hoeij, Oct 30 2011
a(n) = C(4+2*n, n-1)*hypergeom([-n+1, -n-5], [-3/2-n], 1/4).
a(n) = GegenbauerC(n-1, -n-2, -1/2). (End)
[A094705] 0, 1, 4, 15, 50, 161, 504, 1555, 4750, 14421, 43604, 131495, 395850, 1190281, 3576304, 10739835, 32241350, 96767741, 290390604, 871346575, 2614389250, 7843866801, 23532998504, 70601791715, 211810967550, 635444087461, 1906354632004, 5719108635255, 17157415384250
a(n) = 3*3^n/4 -2*2^n/3 -(-1)^n/12.
a(n) = 4*a(n-1) -a(n-2) -6*a(n-3).
a(n) = sum{k=0..floor(n/2), binomial(n-k, k+1)*2^(n-k-1)*(3/2)^k}; - Paul Barry, Oct 25 2004
[A005492] 4, 15, 52, 151, 372, 799, 1540, 2727, 4516, 7087, 10644, 15415, 21652, 29631, 39652, 52039, 67140, 85327, 106996, 132567, 162484, 197215, 237252, 283111, 335332, 394479, 461140, 535927, 619476, 712447, 815524, 929415, 1054852, 1192591
a(n) = 5a(n-1) - 10a(n-2) + 10a(n-3) - 5a(n-4) + a(n-5).
a(n) = n^4 - 16n^3 + 102n^2 - 300n + 340.
[A003013] 1, 1, 4, 15, 52, 165, 486, 1351, 3592, 9225, 23050, 56331, 135180, 319501, 745486, 1720335, 3932176, 8912913, 20054034, 44826643, 99614740, 220200981, 484442134, 1061158935, 2315255832, 5033164825
a(0)=1, a(1)=1, a(2)=4, a(3)=15, a(4)=52, a(5)=165, a(n)= 8*a(n-1)- 25*a(n-2)+ 38*a(n-3)-28*a(n-4)+8*a(n-5) [From Harvey P. Dale, Nov 01 2011]
[A117202] 0, 1, 4, 15, 52, 170, 534, 1631, 4880, 14373, 41810, 120406, 343884, 975325, 2749852, 7713435, 21540304, 59917826, 166094370, 458998523, 1264919720, 3477182961, 9536877614, 26102772910, 71309161752, 194468551225, 529490287924
a(n) = 6a(n-1)-11a(n-2)+6a(n-3)-a(n-4).
a(n) = Sum_{k=0..n} C(n,k)*k*F(k).
a(n) = Sum_[k=1..n} F(2k)*B(2n-2k)*binomial(2n,2k) where F=Fibonacci numbers and B=Bernoulli numbers;
a(n) = n*F(2n-1).
a(n) = (2^(-1-n)*(-(-5+sqrt(5))*(3+sqrt(5))^n + (3-sqrt(5))^n*(5+sqrt(5)))*n) / 5. - Colin Barker, Feb 26 2017
[A291011] 4, 15, 52, 172, 552, 1736, 5384, 16536, 50440, 153112, 463176, 1397720, 4210568, 12668568, 38083528, 114414424, 343587336, 1031482904, 3095956040, 9291013848, 27879595144, 83652416920, 250985562312, 753015407192, 2259167856392, 6777755227416, 20333785775944
a(n) = 7*a(n-1) - 16*a(n-2) + 12*a(n-3) for n >= 4.
a(n) = (8*3^n - 2^(n-1)*(8+n)). - Colin Barker, Aug 23 2017
[A132894] 0, 1, 4, 15, 52, 175, 576, 1869, 6000, 19107, 60460, 190333, 596652, 1863745, 5804176, 18028755, 55873872, 172818243, 533589660, 1644921789, 5063762220, 15568666029, 47811348816, 146675181975, 449538774048, 1376564658525

a(n) = Sum_{k=0..n} k*C(n,k)*C(n-k, floor((n-k)/2)).
a(n) = Sum_{k=0..n} k*C(n,k)*C(2*k,k)*(-1)^(n-k). - Wadim Zudilin, Oct 11 2010
a(n) = (-1)^(n+1)*JacobiP(n-1,1,-n+1/2,-7). - Peter Luschny, Sep 23 2014
[A289802] 1, 4, 15, 53, 185, 643, 2234, 7764, 26988, 93819, 326149, 1133811, 3941521, 13702079, 47633109, 165588965, 575643853, 2001134880, 6956629199, 24183622175, 84070541130, 292257951771, 1015988587832, 3531923782817, 12278174929397, 42683134990390
a(n) = 5*a(n-1) - 5*a(n-2) - 4*a(n-3) + 12*a(n-4) - 5*a(n-5) - 4*a(n-6) + 4*a(n-7) - a(n-8).
[A289927] 1, 4, 15, 53, 187, 656, 2301, 8071, 28308, 99293, 348275, 1221603, 4284864, 15029495, 52717114, 184909361, 648583888, 2274958177, 7979591823, 27989035739, 98173708464, 344351878525, 1207840857737, 4236595263812, 14860185689435, 52123251095327
a(n) = 3*a(n-1) + 4*a(n-2) - 7*a(n-3) - 5*a(n-4) + 7*a(n-5) + 4*a(n-6) - 3*a(n-7) - a(n-8) for n>7.
[A164619] 4, 15, 54, 75, 132, 169, 320, 459, 735, 847, 1104, 1250, 1764, 2175, 2904, 3179, 3780, 4107, 5200, 6027, 7425, 7935, 9024, 9604, 11492, 12879, 15162, 15979, 17700, 18605, 21504, 23595, 26979, 28175, 30672, 31974, 36100, 39039, 43740, 45387, 48804
a(n)= +2*a(n-1) -a(n-2) -a(n-3) +2*a(n-4) -a(n-5) +2*a(n-6) -4*a(n-7) +2*a(n-8) +2*a(n-9) -4*a(n-10) +2*a(n-11) -a(n-12) +2*a(n-13) -a(n-14) -a(n-15) +2*a(n-16) -a(n-17). - R. J. Mathar, Jan 25 2011
[A090326] 1, 4, 15, 54, 185, 608, 1939, 6058, 18669, 57012, 173063, 523262, 1577953, 4750216, 14283387, 42915666, 128878037, 386896220, 1161212911, 3484687270, 10456158921, 31372671024, 94126401635, 282395982074, 847221500605, 2541731610628, 7625329049559
a(n) = 3^n - 2^(n+1) + n + 1.
[A291032] 1, 4, 15, 54, 188, 645, 2208, 7570, 25982, 89190, 306095, 1050268, 3603276, 12361763, 42409154, 145491117, 499126660, 1712311759, 5874263702, 20152234481, 69134134820, 237171010852, 813636681973, 2791253840066, 9575645985794, 32850107071454, 112695214040224
a(n) = 9*a(n-1) - 33*a(n-2) + 68*a(n-3) - 87*a(n-4) + 68*a(n-5) - 33*a(n-6) + 9*a(n-7) - a(n-8).
[A071723] 1, 4, 15, 54, 192, 682, 2431, 8710, 31382, 113696, 414086, 1515516, 5571750, 20569590, 76228095, 283481670, 1057628550, 3957577800, 14849601090, 55859886420, 210622646520, 795898303668, 3013646759910, 11432740177564, 43448822603452, 165396657221152
a(n) = sum(k=0..n, (k+1)*(k^2+k+1)*binomial(2*n-k,n))/(n+1). [From Vladimir Kruchinin, Sep 28 2011]
[A291029] 1, 4, 15, 55, 198, 706, 2510, 8923, 31737, 112918, 401799, 1429744, 5087461, 18102522, 64413263, 229198253, 815544198, 2901909494, 10325718678, 36741486569, 130735386073, 465189151460, 1655259161187, 5889825416864, 20957469541173, 74571909803996
a(n) = 7*a(n-1) - 18*a(n-2) + 25*a(n-3) - 18*a(n-4) + 7*a(n-5) - a(n-6).
[A220948] 1, 4, 15, 55, 200, 726, 2638, 9604, 35037, 128061, 468809, 1718446, 6305546, 23155863, 85089015, 312823200, 1150506841, 4232595095, 15574796945, 57320990295, 210990647105, 776707569176, 2859475304889, 10527898398268, 38763003252400, 142727886900676, 525547912974105
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 4, a(2) = 15, a(3) = 55, a(4) = 200.
[A291030] 1, 4, 15, 56, 208, 767, 2812, 10278, 37530, 137044, 500571, 1828818, 6682264, 24416877, 89218462, 325997507, 1191160160, 4352355633, 15902968338, 58107491971, 212317732888, 775783501558, 2834620130881, 10357363200392, 37844566834330, 138279520124262
a(n) = 9*a(n-1) - 33*a(n-2) + 68*a(n-3) - 85*a(n-4) + 68*a(n-5) - 33*a(n-6) + 9*a(n-7) - a(n-8).
[A217779] 1, 4, 15, 56, 208, 768, 2821, 10320, 37639, 136972, 497652, 1805984, 6548425, 23729916, 85953823, 311240928, 1126753336, 4078394080, 14760382029, 53415642632, 193291233367, 699417041844, 2530731376540, 9156839587776, 33131242464913, 119873850697588
a(n) = 8*a(n-1) - 21*a(n-2) + 20*a(n-3) - 5*a(n-4) for n>=4, a(0) = 1, a(1) = 4, a(2) = 15, a(3) = 56.
[A221859] 1, 4, 15, 56, 209, 779, 2898, 10760, 39882, 147612, 545721, 2015721, 7440251, 27448008, 101217076, 373128151, 1375167467, 5067236766, 18669118971, 68774597447, 253334948791, 933111590565, 3436767111783, 12657552835178, 46616152422035, 171677402416052
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 4, a(2) = 15, a(3) = 56, a(4) = 209.
[A001791] 0, 1, 4, 15, 56, 210, 792, 3003, 11440, 43758, 167960, 646646, 2496144, 9657700, 37442160, 145422675, 565722720, 2203961430, 8597496600, 33578000610, 131282408400, 513791607420, 2012616400080, 7890371113950, 30957699535776, 121548660036300, 477551179875952
a(n) = sum{k=0..n, C(n, k)*C(n, k+1) }. - Paul Barry, May 15 2003
a(n) = sum(binomial(i+n-1, n), i=1..n).
a(n) = (1/(2*pi))*Int(x^n*(x-2)/sqrt(x(4-x)),x,0,4) is the moment sequence representation. - Paul Barry, Jan 11 2007
a(n) = Sum_{i=1..n}((binomial(2*i-2,i-1)*binomial(2*(n-i+1),n-i+2))/(n-i+1)). - Vladimir Kruchinin, Sep 07 2015
[A242781] 0, 0, 1, 4, 15, 57, 217, 828, 3169, 12165, 46827, 180701, 698867, 2708307, 10514331, 40885356, 159216543, 620845293, 2423825649, 9473195889, 37061983617, 145131715707, 568808493081, 2231063305461, 8757391892965, 34397931629763, 135196161588037, 531682892209431
a(n) = Sum_{k=1..ceil((n+1)/3)} binomial(2*n-3*k+1,n-3*k+1)), n>0, a(0)=0.
[A095930] 1, 4, 15, 57, 220, 859, 3381, 13380, 53143, 211585, 843756, 3368259, 13455325, 53774932, 214978335, 859595529, 3437550076, 13748021995, 54986385093, 219930610020, 879683351911, 3518631073489, 14074256379660, 56296324109907, 225183460127725, 900729032983924
a(n) = 4^n/10*Sum_{r=0..9} cos(2*Pi*r/5)*cos(Pi*r/5)^(2*n).
a(n) = 7*a(n-1)-13*a(n-2)+4*a(n-3).
a(n) = (2^(-1-n)*(2^(1+3*n) - (3-sqrt(5))^n*(1+sqrt(5)) + (-1+sqrt(5))*(3+sqrt(5))^n))/5. - Colin Barker, Apr 27 2016
[A164589] 1, 4, 15, 58, 221, 848, 3243, 12422, 47545, 182044, 696903, 2668114, 10214549, 39105896, 149713635, 573168542, 2194332529, 8400844852, 32162017407, 123129948778, 471394019405, 1804697680256, 6909153496347, 26451190754486, 101266455983401, 387691247248204
a(n) = 2*a(n-1) + 7*a(n-2) for n > 1; a(0) = 1, a(1) = 4.
[A290910] 0, 1, 4, 15, 60, 240, 956, 3809, 15180, 60495, 241080, 960736, 3828664, 15257745, 60804180, 242312895, 965649716, 3848244944, 15335777460, 61115150865, 243552156060, 970588338271, 3867926023024, 15414209227200, 61427712082800, 244797754857825
a(n) = 4*a(n-1) - 3*a(n-2) + 4*a(n-3) - a(n-4).
[A146510] 1, 4, 16, 19, 31, 34, 46, 49, 61, 64, 76, 79, 91, 94, 106, 109, 121, 124, 136, 139, 151, 154, 166, 169, 181, 184, 196, 199, 211, 214, 226, 229, 241, 244, 256, 259, 271, 274, 286, 289, 301, 304, 316, 319, 331, 334, 346, 349, 361, 364, 376, 379, 391, 394, 406
a(2k-1) = 15*(k-1)+1, a(2k) = 15*(k-1)+4, where k>0.
[A032827] 1, 4, 16, 19, 61, 64, 241, 244, 286, 289, 916, 919, 961, 964, 3616, 3619, 3661, 3664, 4291, 4294, 4336, 4339, 13741, 13744, 13786, 13789, 14416, 14419, 14461, 14464, 54241, 54244, 54286, 54289, 54916, 54919, 54961, 54964
a(1)=1, a(2)=4; a(n) = 15*a(floor(n/2))+1 for n odd, otherwise a(n) = 15*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A234275] 1, 4, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 8*n, n>1.
a(n) = 2*a(n-1) - a(n-2) for n>3.
[A135556] 1, 4, 16, 25, 49, 64, 100, 121, 169, 196, 256, 289, 361, 400, 484, 529, 625, 676, 784, 841, 961, 1024, 1156, 1225, 1369, 1444, 1600, 1681, 1849, 1936, 2116, 2209, 2401, 2500, 2704, 2809, 3025, 3136, 3364, 3481, 3721, 3844, 4096, 4225, 4489, 4624, 4900
a(n) = (18*n^2-6*(-1)^n*n-18*n+3*(-1)^n+5)/8.
a(n) = (9*n^2-12*n+4)/4 for n even.
a(n) = (9*n^2-6*n+1)/4 for n odd.
[A295921] 4, 16, 25, 57, 129, 289, 641, 1409, 3073, 6657, 14337, 30721, 65537, 139265, 294913, 622593, 1310721, 2752513, 5767169, 12058625, 25165825, 52428801, 109051905, 226492417, 469762049, 973078529, 2013265921, 4160749569, 8589934593, 17716740097, 36507222017
a(n) = 2^(n - 2)*(n + 2) + 1 for n > 3.
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3) for n > 3.
[A273368] 0, 4, 16, 28, 52, 72, 108, 136, 184, 220, 280, 324, 396, 448, 532, 592, 688, 756, 864, 940, 1060, 1144, 1276, 1368, 1512, 1612, 1768, 1876, 2044, 2160, 2340, 2464, 2656, 2788, 2992, 3132, 3348, 3496, 3724, 3880, 4120, 4284, 4536
a(2n) = 10*n^2 + 6*n, n>=0.
a(2n-1) = 10*n^2 - 6*n, n>=1.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). (End)
[A160410] 0, 4, 16, 28, 64, 76, 112, 148, 256, 268, 304, 340, 448, 484, 592, 700, 1024, 1036, 1072, 1108, 1216, 1252, 1360, 1468, 1792, 1828, 1936, 2044, 2368, 2476, 2800, 3124, 4096, 4108, 4144, 4180, 4288, 4324, 4432, 4540, 4864, 4900, 5008, 5116, 5440, 5548, 5872, 6196
a(2^k) = (2*(2^k))^2 for k>=0.

[A173019] 1, 4, 16, 28, 112, 448, 784, 3136, 12301, 19684, 78736, 314944, 551152, 2204608, 8818432, 15432256, 61729024, 242132884, 387459856, 1549839424, 6199180549, 10848875968, 43395503872, 173577055372, 303766932781, 1215067731124
a(3^n) = 3^(3^n)+1.
a(3^n) = (8*a((3^n)-1)+12)/5. [5*a(3^n)=1200...0012 (base 3), 8*a((3^n)-1)=(22)(1212...2121)=11222...2202 (base 3)]
[A055808] 0, 1, 4, 16, 36, 64, 100, 144, 196, 256, 324, 400, 484, 576, 676, 784, 900, 1024, 1156, 1296, 1444, 1600, 1764, 1936, 2116, 2304, 2500, 2704, 2916, 3136, 3364, 3600, 3844, 4096, 4356, 4624, 4900, 5184, 5476, 5776, 6084, 6400, 6724, 7056, 7396, 7744, 8100
a(n) = 4*(-1+n)^2 for n>1; a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>4; G.f.: x*(x^3-7*x^2-x-1) / (x-1)^3. - Colin Barker, Sep 15 2014
[A016742] 0, 4, 16, 36, 64, 100, 144, 196, 256, 324, 400, 484, 576, 676, 784, 900, 1024, 1156, 1296, 1444, 1600, 1764, 1936, 2116, 2304, 2500, 2704, 2916, 3136, 3364, 3600, 3844, 4096, 4356, 4624, 4900, 5184, 5476, 5776, 6084, 6400, 6724, 7056, 7396, 7744, 8100, 8464
a(n) = a(n-1) + 8*n - 4 (with a(0)=0). - Vincenzo Librandi, Nov 19 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 4, a(2) = 16. - Philippe Deléham, Mar 26 2013
[A030179] 0, 0, 1, 4, 16, 36, 81, 144, 256, 400, 625, 900, 1296, 1764, 2401, 3136, 4096, 5184, 6561, 8100, 10000, 12100, 14641, 17424, 20736, 24336, 28561, 33124, 38416, 44100, 50625, 57600, 65536, 73984, 83521, 93636, 104976, 116964
a(n) = floor(n^2/4)^2.
a(n) = (2*n^4-2*n^2+1+(2*n^2-1)*(-1)^n)/32. - Luce ETIENNE, Aug 11 2014
[A256322] 0, 4, 16, 37, 65, 102, 147, 200, 261, 331, 408, 494, 588, 690, 800, 919, 1045, 1180, 1323, 1474, 1633, 1801, 1976, 2160, 2352, 2552, 2760, 2977, 3201, 3434, 3675, 3924, 4181, 4447, 4720, 5002, 5292, 5590, 5896, 6211, 6533, 6864, 7203, 7550, 7905, 8269, 8640
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6) for n>5.
[A080855] 1, 4, 16, 37, 67, 106, 154, 211, 277, 352, 436, 529, 631, 742, 862, 991, 1129, 1276, 1432, 1597, 1771, 1954, 2146, 2347, 2557, 2776, 3004, 3241, 3487, 3742, 4006, 4279, 4561, 4852, 5152, 5461, 5779, 6106, 6442, 6787, 7141, 7504, 7876, 8257, 8647, 9046
a(n) = 9*n + a(n-1) - 6 with n>0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=4, a(2)=16; fo n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jul 24 2013
[A103770] 1, 1, 4, 16, 37, 121, 376, 1072, 3289, 9889, 29404, 88672, 265885, 796537, 2392240, 7174816, 21520369, 64574977, 193709428, 581117680, 1743420757, 5230158649, 15690480040, 47071742800, 141214610761, 423644159521, 1270933677004
a(n)=sum{k=0..n, sum{i=0..floor((n-k)/2), C(n-k-i, i)C(k, n-k-i)}*3^(n-k)}; - Paul Barry, Apr 26 2005
a(n)/3^n converges to 1/2. - Hieronymus Fischer, Feb 02 2006
a(0)=1, a(1)=1, a(2)=4, a(n) = a(n-1)+3*a(n-2)+9*a(n-3), n>=3. - Hieronymus Fischer, Feb 04 2006
[A121318] 0, 4, 16, 38, 74, 128, 204, 306, 438, 604, 808, 1054, 1346, 1688, 2084, 2538, 3054, 3636, 4288, 5014, 5818, 6704, 7676, 8738, 9894, 11148, 12504, 13966, 15538, 17224, 19028, 20954, 23006, 25188, 27504, 29958, 32554, 35296, 38188, 41234, 44438
a(1) = 0; a(n) = (2n^3-3n^2+13n-18)/3 - Eric W. Weisstein, Jul 10 2011.
[A152133] 4, 16, 38, 78, 136, 220, 330, 474, 652, 872, 1134, 1446, 1808, 2228, 2706, 3250, 3860, 4544, 5302, 6142, 7064, 8076, 9178, 10378, 11676, 13080, 14590, 16214, 17952, 19812, 21794, 23906, 26148, 28528, 31046, 33710, 36520, 39484, 42602, 45882
a(n) = 3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5).
a(n) = 2*n^3/3+2*n^2+n/3+3/2+(-1)^n/2. [R. J. Mathar, Oct 20 2009]
[A210440] 0, 4, 16, 40, 80, 140, 224, 336, 480, 660, 880, 1144, 1456, 1820, 2240, 2720, 3264, 3876, 4560, 5320, 6160, 7084, 8096, 9200, 10400, 11700, 13104, 14616, 16240, 17980, 19840, 21824, 23936, 26180, 28560, 31080, 33744, 36556, 39520, 42640, 45920, 49364, 52976
a(n) = -a(-n-2) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
a(n) = sum_{i=1..n} i*(2n-i+3). - Wesley Ivan Hurt, Oct 03 2013
[A110477] 1, 4, 16, 40, 110, 182, 336, 480, 750, 1210, 1540, 2236, 2912, 3500, 4400, 5712, 7242, 8322, 10260, 12040, 13552, 16192, 18584, 21800, 26000, 29250, 32004, 35728, 38860, 43090, 52576, 57728, 64328, 69020, 78960, 84360, 92796, 101764, 109720, 119720
a(n) = n*(n+1)*(3*prime(n) - 2*n - 1)/6.
[A206918] 0, 1, 4, 16, 40, 136, 328, 1096, 2632, 8776, 21064, 70216, 168520, 561736, 1348168, 4493896, 10785352, 35951176, 86282824, 287609416, 690262600, 2300875336, 5522100808, 18407002696, 44176806472, 147256021576, 353414451784, 1178048172616, 2827315614280
a(n) = (8/7)*((3/4)*((4-(-1)^n)/(3+(-1)^n))*2^(3*floor(n/2))-1).
[A190090] 1, 1, 4, 16, 42, 137, 443, 1365, 4316, 13625, 42785, 134758, 424331, 1335378, 4203927, 13233947, 41657808, 131135696, 412803240, 1299458257, 4090567673, 12876698159, 40534529294, 127598621869, 401667591501, 1264408966284, 3980231826575
a(n)=sum(binomial(3*n-4*k+1,3*n-6*k+1),k=0..n/2)
a(0)=1, a(1)=1, a(2)=4, a(3)=16, a(4)=42, a(5)=137, a(n)=2*a(n-1)+ 2*a(n-2)+ 6*a(n-3)-3*a(n-4)+a(n-6). - Harvey P. Dale, Jul 04 2011
[A227012] 1, 4, 16, 43, 91, 166, 275, 422, 614, 857, 1158, 1521, 1953, 2460, 3049, 3724, 4492, 5359, 6332, 7415, 8615, 9938, 11391, 12978, 14706, 16581, 18610, 20797, 23149, 25672, 28373, 31256, 34328, 37595, 41064, 44739, 48627, 52734, 57067, 61630, 66430, 71473
a(n+2) = (1/8)*(27 - (-1)^n - 2*cos(n*pi/2) + 2*sin(n*pi/2) + 2*n*(4*n^2 + 18 n + 27)) for n >= 1 (conjectured).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-4) - 3*a(n-5) + 3*a(n-6) - a(n-7) for n>=10 (conjectured).
[A034131] 4, 16, 43, 92, 167, 275, 422, 615, 858, 1158, 1521, 1954, 2461, 3049, 3724, 4493, 5360, 6332, 7415, 8616, 9939, 11391, 12978, 14707, 16582, 18610, 20797, 23150, 25673, 28373, 31256, 34329, 37596, 41064, 44739, 48628, 52735, 57067, 61630
a(n) = ceiling((n+1/2)^3) - Benoit Cloitre, Apr 16 2003
[A212960] 0, 4, 16, 44, 92, 168, 276, 424, 616, 860, 1160, 1524, 1956, 2464, 3052, 3728, 4496, 5364, 6336, 7420, 8620, 9944, 11396, 12984, 14712, 16588, 18616, 20804, 23156, 25680, 28380, 31264, 34336, 37604, 41072, 44748, 48636, 52744, 57076
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = (4*n^3 + 6*n^2 + 4*n+1 - (-1)^n)/4. - Luce ETIENNE, Apr 05 2014
[A217873] 0, 4, 16, 44, 96, 180, 304, 476, 704, 996, 1360, 1804, 2336, 2964, 3696, 4540, 5504, 6596, 7824, 9196, 10720, 12404, 14256, 16284, 18496, 20900, 23504, 26316, 29344, 32596, 36080, 39804, 43776, 48004, 52496, 57260, 62304, 67636, 73264, 79196, 85440, 92004
a(0)=0, a(1)=4, a(2)=16, a(3)=44, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Mar 16 2015
[A018210] 1, 4, 16, 44, 110, 236, 472, 868, 1519, 2520, 4032, 6216, 9324, 13608, 19440, 27192, 37389, 50556, 67408, 88660, 115258, 148148, 188552, 237692, 297115, 368368, 453376, 554064, 672792, 811920, 974304, 1162800, 1380825, 1631796
a(2n) = (n+1)(n+2)(n+3)^2(4n^2+6n+5)/90, a(2n-1) = n(n+1)(n+2)(n+3)(4n^2+6n+5)/90. - M. F. Hasler, May 02 2009
a(n) = (1/(2*6!))*(n+2)*(n+4)*(n+6)*((n+1)*(n+3)*(n+5) + 1*3*5) - (1/2)*(1/2^4)*(n^2+7*n+11)*(1/2)*(1-(-1)^n). - Yosu Yurramendi, Jun 23 2013
[A054498] 1, 4, 16, 44, 116, 260, 560, 1100, 2090, 3740, 6512, 10868, 17732, 28028, 43472, 65780, 97955, 143000, 205920, 291720, 408408, 563992, 770848, 1041352, 1394068, 1847560, 2428960, 3165400, 4095640, 5258440, 6708064, 8498776, 10705189, 13401916, 16689904
a(n) = ((8+n)*(2835*(1739+309*(-1)^n) + 576*(15259+1029*(-1)^n)*n + 36*(166171+3717*(-1)^n)*n^2 + 448*(4661+27*(-1)^n)*n^3 + 14*(29749+27*(-1)^n)*n^4 + 49280*n^5 + 3416*n^6 + 128*n^7 + 2*n^8)) / 46448640. - Colin Barker, Jan 15 2017
[A213501] 0, 4, 16, 45, 94, 172, 281, 433, 626, 875, 1177, 1547, 1981, 2497, 3087, 3772, 4543, 5421, 6396, 7492, 8695, 10032, 11488, 13090, 14822, 16714, 18746, 20951, 23308, 25850, 28555, 31459, 34536, 37825, 41299, 44997, 48891, 53023, 57361, 61950, 66757, 71827
a(n) = a(n-1)+2*a(n-2)-a(n-3)-2*a(n-4)-a(n-5)+2*a(n-6)+a(n-7)-a(n-8).
a(n) = (6*n*(n+1)*(24*n+17)-9*(2*n+1)*(-1)^n+32*cos(2*pi*(n+2)/3)+25)/144. - Bruno Berselli, Jul 02 2012
[A213480] 0, 4, 16, 46, 95, 175, 285, 439, 634, 886, 1190, 1564, 2001, 2521, 3115, 3805, 4580, 5464, 6444, 7546, 8755, 10099, 11561, 13171, 14910, 16810, 18850, 21064, 23429, 25981, 28695, 31609, 34696, 37996, 41480, 45190, 49095, 53239, 57589
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A159940] 4, 16, 46, 106, 208, 364, 586, 886, 1276, 1768, 2374, 3106, 3976, 4996, 6178, 7534, 9076, 10816, 12766, 14938, 17344, 19996, 22906, 26086, 29548, 33304, 37366, 41746, 46456, 51508, 56914, 62686, 68836, 75376, 82318, 89674, 97456, 105676, 114346
a(n) = (2 n^3 - 9 n^2 + 19 n - 14) where n is the number of carbons.
[A000704] 1, 1, 1, 1, 4, 16, 46, 106, 316, 1324, 5356, 18316, 63856, 272416, 1264264, 5409496, 22302736, 101343376, 507711376, 2495918224, 11798364736, 58074029056, 309240315616, 1670570920096, 8792390355904, 46886941456576, 264381946998976, 1533013006902976
a(n) = sum[i = 0, floor(n/4), C(n, 4i)*(4i-1)!!]. - Ralf Stephan, May 08 2007 [Corrected by Sean A. Irvine, Mar 01 2011]

[A006009] 4, 16, 48, 108, 216, 384, 640, 1000, 1500, 2160, 3024, 4116, 5488, 7168, 9216, 11664, 14580, 18000, 22000, 26620, 31944, 38016, 44928, 52728, 61516, 71344, 82320, 94500, 108000, 122880, 139264, 157216, 176868, 198288, 221616, 246924, 274360, 304000, 336000
a(n) = Sum(i=1, n, i*floor(i^2/2)). - Enrique Pérez Herrero, Mar 10 2012
[A058922] 0, 4, 16, 48, 128, 320, 768, 1792, 4096, 9216, 20480, 45056, 98304, 212992, 458752, 983040, 2097152, 4456448, 9437184, 19922944, 41943040, 88080384, 184549376, 385875968, 805306368, 1677721600, 3489660928, 7247757312
a(1)=0, a(n) = 2*a(n-1) + 2^n for n>1. - Philippe Deléham, Apr 20 2009
a(n)= 4*a(n-1) - 4*a(n-2).
[A086601] 1, 4, 16, 49, 121, 256, 484, 841, 1369, 2116, 3136, 4489, 6241, 8464, 11236, 14641, 18769, 23716, 29584, 36481, 44521, 53824, 64516, 76729, 90601, 106276, 123904, 143641, 165649, 190096, 217156, 247009, 279841, 315844, 355216, 398161
a(n) = (binomial(2+n,2)-binomial(n,1))^2. - Zerinvary Lajos, May 30 2006, corrected by R. J. Mathar, May 14 2014
[A173712] 1, 4, 16, 49, 166, 499, 1666, 4999, 16666, 49999, 166666, 499999, 1666666, 4999999, 16666666, 49999999, 166666666, 499999999, 1666666666, 4999999999, 16666666666, 49999999999, 166666666666, 499999999999, 1666666666666, 4999999999999
a(n) = 11*a(n-2) - 10*a(n-4) for n>4.
a(n) = (10^((n+1)/2)-4)*(1-(-1)^n)/12 + (10^(n/2)-2)*(1+(-1)^n)/4. (End)
[A085697] 1, 1, 4, 16, 49, 169, 576, 1936, 6561, 22201, 75076, 254016, 859329, 2907025, 9834496, 33269824, 112550881, 380757169, 1288092100, 4357584144, 14741602225, 49870482489, 168710633536, 570743986576, 1930813074369, 6531893843049
a(n+6) = 2 a(n+5) + 3 a(n+4) + 6 a(n+3) - a(n+2) - a(n)
[A100774] 0, 4, 16, 52, 160, 484, 1456, 4372, 13120, 39364, 118096, 354292, 1062880, 3188644, 9565936, 28697812, 86093440, 258280324, 774840976, 2324522932, 6973568800, 20920706404, 62762119216, 188286357652, 564859072960, 1694577218884
a(n) = 2*(3^n - 1);
a(0) = 0, a(n) = 4*Sum_{i = 0 to n - 1} 3^i for n > 0;
[A107767] 0, 1, 4, 16, 52, 169, 520, 1600, 4840, 14641, 44044, 132496, 397852, 1194649, 3585040, 10758400, 32278480, 96845281, 290545684, 871666576, 2615029252, 7845176329, 23535617560, 70607118400, 211821620920, 635465659921
a(n) = 4*a(n-1) -12*a(n-3) +9*a(n-4). - Vincenzo Librandi, Jun 26 2012
[A238419] 0, 1, 4, 16, 54, 176, 548, 1667, 4968, 14592, 42348, 121728, 347112, 983173, 2768812, 7758928, 21648546, 60172784, 166687436, 460356359, 1267964496, 3483818880, 9550754520, 26129950080, 71356349520, 194529354505, 529485228244, 1439096616976, 3906061968654, 10588691040176, 28670559059444
a(n+3) = (2*(n+3)*a(n+2)+2*(n+4)*a(n+1)-(n+5)*a(n))/(n+2). - Robert Israel, Aug 29 2014
a(n) = (1/25)*(n*Lucas(2*(n+2))+2*Fibonacci(2*n+1)-(n+2)*(-1)^n). - Ehren Metcalfe, Mar 26 2016
a(n) = 4*a(n-1) - 10*a(n-3) + 4*a(n-5) - a(n-6). - G. C. Greubel, Mar 27 2016
[A212520] 0, 0, 4, 16, 56, 132, 279, 504, 880, 1380, 2125, 3090, 4392, 6006, 8134, 10640, 13824, 17568, 22113, 27360, 33700, 40810, 49247, 58740, 69696, 81900, 95992, 111384, 128968, 148260, 169875, 193440, 219904, 248336, 280041, 314262, 351864, 392274, 436810
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A255301] 1, 4, 16, 56, 196, 680, 2348, 8096, 27892, 96056, 330748, 1138768, 3920644, 13498088, 46471180, 159990272, 550811156, 1896319640, 6528602140, 22476505520, 77381536036, 266407155784, 917179667500, 3157642420064, 10871049557044, 37426567849976, 128851218332732, 443605636686608, 1527233994485572
a(n) = 4*a(n-1) - a(n-2) - 2*a(n-3) - 4*a(n-4) for n>3. - Colin Barker, Feb 04 2017
[A290908] 0, 4, 16, 56, 208, 780, 2912, 10864, 40544, 151316, 564720, 2107560, 7865520, 29354524, 109552576, 408855776, 1525870528, 5694626340, 21252634832, 79315912984, 296011017104, 1104728155436, 4122901604640, 15386878263120, 57424611447840, 214311567528244
a(n) = 4*a(n-1) - 2*a(n-2) + 4*a(n-3) - a(n-4).
[A123893] 1, 4, 16, 58, 208, 750, 2708, 9772, 35256, 127210, 459012, 1656228, 5976040, 21562946, 77804232, 280736004, 1012961416, 3655002994, 13188110940, 47585806908, 171700784680, 619536821778, 2235434596432, 8065973894524, 29103931264328, 105013830473538
a(0)=1, a(1)=4, a(2)=16, a(3)=58, a(4)=208, a(5)=750, a(6)=2708, a(n)= 4*a(n-1)-6*a(n-2)+18*a(n-3)-11*a(n-4)+22*a(n-5)-6*a(n-6)+6*a(n-7) Harvey P. Dale, May 20 2012
[A032094] 4, 16, 60, 160, 396, 848, 1716, 3200, 5720, 9696, 15912, 25152, 38760, 58080, 85272, 122496, 173052, 240240, 328900, 443872, 592020, 780208, 1017900, 1314560, 1682928, 2135744, 2689808, 3361920, 4173840, 5147328, 6310128, 7689984, 9321780, 11240400
a(n) = (n^7-28*n^6+322*n^5-1960*n^4+6664*n^3-11872*n^2+8448*n)/10080 if n is even.
a(n) = (n^7-28*n^6+322*n^5-1960*n^4+6769*n^3-13132*n^2+13068*n-5040)/10080 if n is odd.
[A120926] 1, 4, 16, 60, 216, 756, 2592, 8748, 29160, 96228, 314928, 1023516, 3306744, 10628820, 34012224, 108413964, 344373768, 1090516932, 3443737680, 10847773692, 34093003032, 106928054964, 334731302496, 1046035320300, 3263630199336, 10167463313316, 31632108085872
a(n) = (4/27)(n+1)3^n for n>=2.
[A255303] 1, 4, 16, 60, 216, 768, 2728, 9704, 34552, 123064, 438328, 1561176, 5560248, 19803096, 70529656, 251194904, 894643768, 3186321112, 11348251384, 40417397400, 143948695992, 512680882776, 1825940038264, 6503181876248, 23161425701176, 82490640856024, 293794773978616, 1046365603664280
a(n) = 5*a(n-1) - 6*a(n-2) + 2*a(n-3) + 4*a(n-4). - Matthew House, Jan 15 2017
[A273347] 1, 4, 16, 60, 218, 778, 2744, 9600, 33391, 115638, 399137, 1374050, 4720272, 16187632, 55434424, 189607406, 647872199, 2211794804, 7545239986, 25722676402, 87641357150, 298456587038, 1015914399813, 3456670564220, 11757143968393, 39976448714086, 135887220346719
a(n) = ((69-115*n+28*n^2)*a(n-1) -(264-265*n+52*n^2)*a(n-2) +(3*(29-29*n+4*n^2))*a(n-3) -(3*(10-21*n+4*n^2))*a(n-4) +(4*n-9) * (5*n-29)*a(n-5) +(4*n-13)*(n-6)*a(n-6) +(n-7)*(4*n-9)*a(n-7))/ (n*(4*n-13)) for n>=7. - Alois P. Heinz, Jun 04 2016
[A231896] 0, 4, 16, 60, 224, 836, 3120, 11644, 43456, 162180, 605264, 2258876, 8430240, 31462084, 117418096, 438210300, 1635423104, 6103482116, 22778505360, 85010539324, 317263651936, 1184044068420, 4418912621744, 16491606418556, 61547513052480, 229698445791364
a(n) = ((2*(-(2-sqrt(3))^n+(2+sqrt(3))^n)))/sqrt(3). - Colin Barker, Oct 12 2015
[A072335] 1, 4, 16, 60, 225, 840, 3136, 11704, 43681, 163020, 608400, 2270580, 8473921, 31625104, 118026496, 440480880, 1643897025, 6135107220, 22896531856, 85451020204, 318907548961, 1190179175640, 4441809153600, 16577057438760, 61866420601441, 230888624967004
a(n) = (1/12)*((7-4*sqrt(3))*(2-sqrt(3))^n+(7+4*sqrt(3))*(2+sqrt(3))^n-3+(-1)^n). Recurrence: a(n) = 4*a(n-1)-4*a(n-3)+a(n-4).
a(n)=sum{k=0..floor(n/2), U(n-2k, 2)} - Paul Barry, Nov 15 2003
[A123620] 1, 4, 16, 60, 228, 864, 3276, 12420, 47088, 178524, 676836, 2566080, 9728748, 36884484, 139839696, 530172540, 2010036708, 7620627744, 28891993356, 109537863300, 415289569968, 1574482299804, 5969315609316, 22631393727360, 85802128010028, 325300565212164
a(0)=1, a(1)=4, a(2)=16, a(n)=3*a(n-1)+3*a(n-2) for n>2. - Philippe Deléham, Sep 18 2009
a(n) = ((2^(1-n)*(-(3-sqrt(21))^(1+n) + (3+sqrt(21))^(1+n)))) / (3*sqrt(21)) for n>0. - Colin Barker, Oct 17 2017
[A276042] 1, 4, 16, 62, 230, 812, 2728, 8752, 26944, 80000, 230144, 644096, 1759744, 4707328, 12359680, 31920128, 81231872, 204013568, 506331136, 1243217920, 3022913536, 7285243904, 17415274496, 41321234432, 97370767360, 227993976832, 530713673728
a(n) = 10*a(n-1) - 40*a(n-2) + 80*a(n-3) - 80*a(n-4) + 32*a(n-5).
a(n) = 2^(n - 6)*(n^4 + 2*n^3 + 19*n^2 + 42*n + 64).
[A113438] 1, 4, 16, 62, 237, 901, 3418, 12956, 49096, 186029, 704861, 2670692, 10119152, 38341126, 145273353, 550436561, 2085588866, 7902239404, 29941371656, 113447051497, 429847830217, 1628681887876, 6171031956688, 23381874459566, 88593294803061, 335677616363629
a(n) = 7*a(n-1)-15*a(n-2)+11*a(n-3)-a(n-4), n>4.
[A206839] 1, 4, 16, 62, 241, 936, 3636, 14124, 54865, 213124, 827884, 3215930, 12492337, 48526704, 188502840, 732242616, 2844409393, 11049158596, 42920651992, 166726031798, 647650219393, 2515808732184, 9772703517132, 37962239661540, 147464991401185, 572830367302660
a(n) = 4*a(n-1) -2*a(n-3) +a(n-4).
[A022030] 4, 16, 63, 249, 984, 3889, 15370, 60745, 240075, 948819, 3749901, 14820274, 58572352, 231488326, 914882931, 3615779646, 14290202610, 56477415835, 223208766625, 882160643536, 3486455360919, 13779090092886, 54457408494633, 215225339261149, 850608722312629, 3361756570848769
a(n) = ceiling(a(n-1)^2/a(n-2))-1 for even n > 0, a(n) = floor(a(n-1)^2/a(n-2))+1 for even n > 0. - M. F. Hasler, Feb 11 2016
[A135450] 0, 0, 0, 1, 4, 16, 63, 252, 1008, 4033, 16132, 64528, 258111, 1032444, 4129776, 16519105, 66076420, 264305680, 1057222719, 4228890876, 16915563504, 67662254017, 270649016068, 1082596064272, 4330384257087, 17321537028348
a(n) = (1/65)*4^n + (1/15)*(-1)^(n+1) + (2/39)*cos((Pi*n)/3) - (4*sqrt(3)/39) * sin((Pi*n)/3). Or, a(n) = (1/65)*(4^n + [-1; -4; -16; 1; 4; 16]). - Richard Choulet, Dec 31 2007

[A248088] 1, 4, 16, 64, 229, 808, 2800, 9472, 31705, 105004, 344416, 1121920, 3631645, 11691472, 37466656, 119574784, 380244721, 1205309140, 3809636848, 12010028224, 37773505429, 118550674936, 371342504848, 1161099257344, 3624512382793, 11297181307900, 35162477600704
a(n) = 3^n*(3*n + 5)/6 - (-1)^n*3^(n+1)/2*sin((n-1)*arcsin(sqrt(2/3)))/(6*sqrt(2)).
a(n) = (1+3/n)*a(n-1) + (3+6/n)*a(n-2) + (9+9/n)*a(n-3). - Robert Israel, Oct 27 2014
[A077821] 1, 4, 16, 64, 253, 1000, 3952, 15616, 61705, 243820, 963424, 3806848, 15042277, 59437648, 234860320, 928020736, 3666956113, 14489511508, 57253465072, 226229798080, 893918323981, 3532204761400, 13957058650384, 55149545207296, 217916425857241, 861069089144764
a(0)=1, a(1)=4, a(2)=16, a(3)=64, a(n)=4*a(n-1)-3*a(n-4) [From Harvey P. Dale, May 10 2011]
[A294452] 0, 1, 4, 16, 64, 256, 1024, 4096, 16320, 64512, 252416, 976896, 3740928, 14186496, 53330944, 198946816, 737156096, 2715254784, 9949593600, 36292198400, 131845099520, 477257695232, 1722054197248, 6195670220800, 22233100238848, 79595401641984, 284344067424256, 1013792167690240
a(n) = 12*a(n-1) - 56*a(n-2) + 128*a(n-3) - 148*a(n-4) + 80*a(n-5) - 16*a(n-6) for n>5. - Colin Barker, Nov 23 2017
[A181879] 0, 1, 4, 16, 65, 263, 1065, 4312, 17459, 70690, 286218, 1158873, 4692181, 18998253, 76922356, 311452261, 1261044460, 5105864780, 20673224441, 83704176903, 338911293253, 1372223811812, 5556020785351, 22495868896554, 91083913642878, 368791237300201, 1493205235368669, 6045864568949689, 2447920588562
99114281168039257, 401305531615563236
a(n) = 3*a(n-1) + 4*a(n-2) + a(n-3), n>=2, a(-1):=1, a(0)=0, a(1)=1.
[A290912] 0, 1, 4, 16, 68, 287, 1208, 5088, 21432, 90273, 380236, 1601584, 6745996, 28414655, 119684720, 504121280, 2123397744, 8943915201, 37672461204, 158679314512, 668369521108, 2815224014047, 11857940853032, 49946562182048, 210378775263272, 886131640451169
a(n) = 4*a(n-1) + 4*a(n-3) - a(n-4).
[A133789] 0, 1, 4, 16, 70, 316, 1414, 6196, 26590, 112156, 466774, 1923076, 7863310, 31972396, 129459334, 522571156, 2104535230, 8460991036, 33972711094, 136277478436, 546270602350, 2188566048076, 8764718254054, 35090241492916, 140455083984670, 562102715143516
a(n) = (1/2)(4^n - 2*3^n + 3*2^n - 2).
a(n) = 3*StirlingS2(n+1,4) + StirlingS2(n+1,3) + StirlingS2(n+1,2). - Ross La Haye, Jan 11 2008
a(n) = 3*StirlingS2(n+1,4) + StirlingS2(n+1,3) + StirlingS2(n+1,2). - Ross La Haye, Jan 11 2008
a(n) = 10*a(n-1)-35*a(n-2)+50*a(n-3)-24*a(n-4). [Aaron Meyerowitz, Oct 29 2013]
[A212748] 1, 4, 17, 20, 53, 56, 117, 120, 217, 220, 361, 364, 557, 560, 813, 816, 1137, 1140, 1537, 1540, 2021, 2024, 2597, 2600, 3273, 3276, 4057, 4060, 4957, 4960, 5981, 5984, 7137, 7140, 8433, 8436, 9877, 9880, 11477, 11480, 13241, 13244, 15177
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
a(n) = (2*n^3+3*((-1)^n+5)*n^2+(15*(-1)^n+37)*n+12)/12.
a(n) = (n^3+9*n^2+26*n+6)/6 for n even.
a(n) = (n^3+6*n^2+11*n+6)/6 for n odd. (End)
[A032828] 1, 4, 17, 20, 65, 68, 273, 276, 321, 324, 1041, 1044, 1089, 1092, 4369, 4372, 4417, 4420, 5137, 5140, 5185, 5188, 16657, 16660, 16705, 16708, 17425, 17428, 17473, 17476, 69905, 69908, 69953, 69956, 70673, 70676, 70721
a(1)=1, a(2)=4; a(n) = 16*a(floor(n/2))+1 for n odd, otherwise a(n) = 16*a(floor((n-1)/2))+4. - Bruno Berselli, May 28 2012
[A022134] 4, 17, 21, 38, 59, 97, 156, 253, 409, 662, 1071, 1733, 2804, 4537, 7341, 11878, 19219, 31097, 50316, 81413, 131729, 213142, 344871, 558013, 902884, 1460897, 2363781, 3824678, 6188459, 10013137, 16201596
a(n) = term (1,1) in the 1x2 matrix [4,13] . [1,1; 1,0]^n. (End)
[A212756] 1, 4, 17, 32, 71, 104, 187, 247, 380, 484, 685, 823, 1122, 1311, 1690, 1963, 2452, 2767, 3416, 3806, 4557, 5079, 5982, 6546, 7679, 8342, 9591, 10442, 11885, 12770, 14521, 15529, 17402, 18662, 20771, 22049, 24552, 25977, 28600, 30349
a(n)=-2*a(n-1)+5*a(n-3)+7*a(n-4)-9*a(n-6)-9*a(n-7)+7*a(n-9)+5*a(n-10)-2*a(n-12)-a(n-13).
[A273675] 1, 4, 17, 33, 56, 85, 120, 161, 208, 261, 320, 385, 456, 533, 616, 705, 800, 901, 1008, 1121, 1240, 1365, 1496, 1633, 1776, 1925, 2080, 2241, 2408, 2581, 2760, 2945, 3136, 3333, 3536, 3745, 3960, 4181, 4408, 4641, 4880, 5125, 5376, 5633, 5896, 6165, 6440
a(n) = n*(2+3*n) for n>2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>5.
[A173511] 0, 4, 17, 37, 66, 102, 147, 199, 260, 328, 405, 489, 582, 682, 791, 907, 1032, 1164, 1305, 1453, 1610, 1774, 1947, 2127, 2316, 2512, 2717, 2929, 3150, 3378, 3615, 3859, 4112, 4372, 4641, 4917, 5202, 5494, 5795, 6103, 6420, 6744, 7077, 7417, 7766, 8122
a(n) = floor((2*n + 1/8)^2).
a(n)= 2*a(n-1) -2*a(n-3) +a(n-4). G.f.: -x*(4+9*x+3*x^2)/((1+x)*(x-1)^3). - R. J. Mathar, Feb 21 2010
[A182868] 1, 4, 17, 38, 67, 104, 149, 202, 263, 332, 409, 494, 587, 688, 797, 914, 1039, 1172, 1313, 1462, 1619, 1784, 1957, 2138, 2327, 2524, 2729, 2942, 3163, 3392, 3629, 3874, 4127, 4388, 4657, 4934, 5219, 5512, 5813, 6122, 6439, 6764, 7097, 7438, 7787, 8144, 8509, 8882, 9263, 9652
a(n) = 4*n^2 + n - 1.
a(n) = a(n-1) - 3 + 8*n.
a(n) = 2*a(n) - a(n-2) + 8.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A178947] 1, 4, 17, 38, 81, 138, 229, 340, 497, 680, 921, 1194, 1537, 1918, 2381, 2888, 3489, 4140, 4897, 5710, 6641, 7634, 8757, 9948, 11281, 12688, 14249, 15890, 17697, 19590, 21661, 23824, 26177, 28628, 31281, 34038, 37009, 40090, 43397, 46820, 50481, 54264, 58297
a(n) = (-1+(-1)^n+(7-3*(-1)^n)*n-6*n^2+6*n^3)/8.
a(n) = (3*n^3-3*n^2+2*n)/4 for n even.
a(n) = (3*n^3-3*n^2+5*n-1)/4 for n odd.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>6.
[A022266] 0, 4, 17, 39, 70, 110, 159, 217, 284, 360, 445, 539, 642, 754, 875, 1005, 1144, 1292, 1449, 1615, 1790, 1974, 2167, 2369, 2580, 2800, 3029, 3267, 3514, 3770, 4035, 4309, 4592, 4884, 5185, 5495, 5814, 6142, 6479, 6825, 7180, 7544, 7917, 8299, 8690, 9090, 9499
a(n) = C(9*n,2)/9 for n>=0. - Zerinvary Lajos, Jan 02 2007
a(n) = 9*n + a(n-1) - 5 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
a(n) = (1/7) * Sum_{i=n..(8*n-1)} i. (End)
[A273309] 1, 4, 17, 40, 73, 112, 161, 216, 281, 352, 433, 520, 617, 720, 833, 952, 1081, 1216, 1361, 1512, 1673, 1840, 2017, 2200, 2393, 2592, 2801, 3016, 3241, 3472, 3713, 3960, 4217, 4480, 4753, 5032, 5321, 5616, 5921, 6232, 6553, 6880, 7217, 7560, 7913, 8272, 8641
a(n) = (-15+(-1)^n+8*n+8*n^2)/2 for n>1.
a(n) = 4*n^2+4*n-7 for n>1 and even.
a(n) = 4*n^2+4*n-8 for n>1 and odd.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3.
[A145995] 1, 4, 17, 40, 73, 116, 169, 232, 305, 388, 481, 584, 697, 820, 953, 1096, 1249, 1412, 1585, 1768, 1961, 2164, 2377, 2600, 2833, 3076, 3329, 3592, 3865, 4148, 4441, 4744, 5057, 5380, 5713, 6056, 6409, 6772, 7145, 7528, 7921, 8324, 8737, 9160, 9593, 10036
a(n) = a(n-1) + 10*n - 17, with a(1)=1. - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3, a(1)=1, a(2)=4, a(3)=17.
[A212575] 0, 1, 4, 17, 42, 85, 142, 235, 346, 495, 680, 911, 1172, 1505, 1872, 2305, 2798, 3365, 3978, 4699, 5470, 6335, 7284, 8335, 9448, 10705, 12028, 13473, 15026, 16709, 18470, 20411, 22434, 24607, 26912, 29375, 31932, 34705, 37576, 40625, 43830
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)-a(n-6)+2*a(n-7)+2*a(n-8)-a(n-10).
[A162148] 0, 4, 17, 44, 90, 160, 259, 392, 564, 780, 1045, 1364, 1742, 2184, 2695, 3280, 3944, 4692, 5529, 6460, 7490, 8624, 9867, 11224, 12700, 14300, 16029, 17892, 19894, 22040, 24335, 26784, 29392, 32164, 35105, 38220, 41514, 44992, 48659, 52520, 56580
a(n) = 4*binomial(n+2,3)+binomial(n+1,3)
a(0)=0, a(1)=4, a(2)=17, a(3)=44, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, May 20 2014
[A147656] 0, 4, 17, 45, 94, 170, 279, 427, 620, 864, 1165, 1529, 1962, 2470, 3059, 3735, 4504, 5372, 6345, 7429, 8630, 9954, 11407, 12995, 14724, 16600, 18629, 20817, 23170, 25694, 28395, 31279, 34352, 37620, 41089, 44765, 48654, 52762, 57095, 61659
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, May 06 2012

[A095667] 4, 17, 45, 95, 175, 294, 462, 690, 990, 1375, 1859, 2457, 3185, 4060, 5100, 6324, 7752, 9405, 11305, 13475, 15939, 18722, 21850, 25350, 29250, 33579, 38367, 43645, 49445, 55800, 62744, 70312, 78540, 87465, 97125, 107559, 118807, 130910, 143910, 157850
a(n) = sum_{k=1..n} (sum_{i=1..k} i*(n-k+4)). - Wesley Ivan Hurt, Sep 25 2013
[A212577] 0, 1, 4, 17, 46, 89, 154, 251, 374, 531, 736, 979, 1268, 1621, 2024, 2485, 3026, 3629, 4302, 5071, 5914, 6839, 7876, 8999, 10216, 11561, 13004, 14553, 16246, 18049, 19970, 22051, 24254, 26587, 29096, 31739, 34524, 37501, 40624, 43901
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
[A213499] 0, 4, 17, 47, 96, 176, 286, 439, 634, 885, 1188, 1561, 1997, 2515, 3108, 3796, 4569, 5451, 6429, 7528, 8735, 10076, 11535, 13142, 14878, 16774, 18811, 21021, 23382, 25930, 28640, 31549, 34632, 37927, 41406, 45111, 49011, 53149, 57494
a(n) = a(n-1)+2*a(n-2)-a(n-3)-2*a(n-4)-a(n-5)+2*a(n-6)+a(n-7)-a(n-8).
[A213502] 0, 4, 17, 47, 98, 178, 291, 445, 644, 896, 1205, 1579, 2022, 2542, 3143, 3833, 4616, 5500, 6489, 7591, 8810, 10154, 11627, 13237, 14988, 16888, 18941, 21155, 23534, 26086, 28815, 31729, 34832, 38132, 41633, 45343, 49266, 53410, 57779
a(n) = 3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5).
a(n) = (2*n*(2*n^2+4*n+1)-(-1)^n+1)/4. - Bruno Berselli, Jul 02 2012
[A273334] 1, 4, 17, 48, 80, 120, 168, 224, 288, 360, 440, 528, 624, 728, 840, 960, 1088, 1224, 1368, 1520, 1680, 1848, 2024, 2208, 2400, 2600, 2808, 3024, 3248, 3480, 3720, 3968, 4224, 4488, 4760, 5040, 5328, 5624, 5928, 6240, 6560, 6888, 7224, 7568, 7920, 8280, 8648
a(n) = 4*n*(1+n) for n>2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>5.
[A273766] 1, 4, 17, 48, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649
a(n) = (1+2*n)^2 for n>3.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>6.
[A173704] 0, 0, 0, 4, 17, 49, 111, 219, 390, 646, 1010, 1510, 2175, 3039, 4137, 5509, 7196, 9244, 11700, 14616, 18045, 22045, 26675, 31999, 38082, 44994, 52806, 61594, 71435, 82411, 94605, 108105, 123000, 139384, 157352, 177004, 198441, 221769, 247095, 274531, 304190, 336190, 370650, 407694, 447447, 490039, 535601, 584269, 636180, 691476, 750300, 812800
a(n) = Sum_{k=0..n} floor(k^3/2).
a(n) = round((n^4+2*n^3+n^2-2*n)/8).
a(n) = round((n^4+2*n^3+n^2-2*n-1)/8).
a(n) = floor((n^4+2*n^3+n^2-2*n)/8).
a(n) = ceiling((n-1)*(n+1)*(n^2+2*n+2)/8).
a(n) = a(n-2)+(n-1)*(2*n^2-n+2)/2, n>1.
[A228960] 1, 1, 4, 17, 51, 136, 393, 1233, 3865, 11851, 36301, 112520, 351352, 1098189, 3433704, 10758609, 33794505, 106344793, 335061790, 1056924667, 3338026857, 10554163533, 33402840615, 105809430024, 335444908176, 1064268538776, 3379009937161, 10735253448349, 34127137228747
a(n) = [x^(3*n)](1 + x + x^3 + x^4)^n.
a(n) = Sum_{k = 0..floor(n/3)} binomial(n,k)*binomial(n,3*k). Applying Maple's sumrecursion command to this formula gives the above recurrence of Kotesovec. (End)
a(n) = hypergeom([1/3-n/3, 2/3-n/3, -n, -n/3], [1/3, 2/3, 1], 1). - Vladimir Reshetnikov, Oct 04 2016
[A092091] 1, 4, 17, 52, 147, 360, 819, 1712, 3382, 6312, 11286, 19368, 32154, 51744, 81114, 124080, 185823, 272844, 393679, 558844, 781781, 1078792, 1470261, 1980576, 2639676, 3482960, 4553212, 5900496, 7584516, 9674496, 12252036, 15410976, 19260813, 23926548, 29552733
a(n) = ((315*(857+167*(-1)^n) + 60*(8347+581*(-1)^n)*n + (384718+6930*(-1)^n)*n^2 + 84*(2027+5*(-1)^n)*n^3 + 48888*n^4 + 9240*n^5 + 1092*n^6 + 72*n^7 + 2*n^8)) / 322560. - Colin Barker, Jan 16 2017
[A213577] 1, 4, 17, 56, 172, 498, 1395, 3820, 10307, 27534, 73064, 193012, 508341, 1336132, 3507189, 9197732, 24107124, 63159782, 165433895, 433246860, 1134484871, 2970509594, 7777554192, 20363014056, 53312938537, 139578241348
a(n) = 5*a(n-1) - 6*a(n-2) - 3*a(n-3) + 6*a(n-4) + a(n-5) - a(n-6).
[A217539] 0, 0, 0, 1, 4, 17, 66, 252, 946, 3523, 13054, 48248, 178146, 657813, 2430962, 8995521, 33342588, 123822171, 460772982, 1718304786, 6421729878, 24051429321, 90272123682, 339522804129, 1279556832780, 4831639423695, 18278491474726, 69272752632502, 262981858878706
a(n) = C(n)-(n-1)*M(n-2)-M(n-1) for n > 0; C(n) Catalan, M(n) Motzkin numbers.
[A244616] 1, 4, 17, 66, 265, 1046, 4165, 16561, 66017, 263377, 1051774, 4202363, 16797551, 67159565, 268561326, 1074052233, 4295730126, 17181735211, 68724026662, 274888965526, 1099538433297, 4398111321331, 17592342396443, 70369120593536, 281475881240563, 1125902076700152, 4503604824386737
a(n)-4^n ~ n/13 * ((1+sqrt(13))/2)^n. - Vaclav Kotesovec, Jul 02 2014
[A172447] 1, 4, 17, 70, 283, 1136, 4549, 18202, 72815, 291268, 1165081, 4660334, 18641347, 74565400, 298261613, 1193046466, 4772185879, 19088743532, 76354974145, 305419896598, 1221679586411, 4886718345664, 19546873382677, 78187493530730, 312749974122943, 1250999896491796
a(n) = 6*a(n-1)-9*a(n-2)+4*a(n-3).
a(n+1)-4*a(n) = n.
[A001076] 0, 1, 4, 17, 72, 305, 1292, 5473, 23184, 98209, 416020, 1762289, 7465176, 31622993, 133957148, 567451585, 2403763488, 10182505537, 43133785636, 182717648081, 774004377960, 3278735159921, 13888945017644, 58834515230497, 249227005939632, 1055742538989025
a(n) = 4a(n-1) + a(n-2), n > 1. a(0)=0, a(1)=1.
a(n) = ((2+sqrt(5))^n - (2-sqrt(5))^n)/(2*sqrt(5)).
a(n) = Sum_{i=0..n} Sum_{j=0..n} Fibonacci(i+j)*n!/(i!j!(n-i-j)!)/2. - Paul Barry, Feb 06 2004
a(n) = F(1) + F(4) + F(7) + ... + F(3n-2), for n > 0.
a(n) = Sum_{k=0..n} Sum_{j=0..n} C(n, j)C(j, k)F(j)/2. - Paul Barry, Feb 14 2005
a(n) = F(n, 4), the n-th Fibonacci polynomial evaluated at x=4. - T. D. Noe, Jan 19 2006
[A290914] 0, 1, 4, 17, 76, 336, 1484, 6559, 28988, 128111, 566184, 2502240, 11058600, 48873265, 215994436, 954583169, 4218761572, 18644733936, 82400035556, 364165339279, 1609421566844, 7112807014943, 31434910948176, 138925971735744, 613980604384080, 2713475226049825
a(n) = 4*a(n-1) + a(n-2) + 4*a(n-3) - a(n-4).
[A022384] 4, 18, 22, 40, 62, 102, 164, 266, 430, 696, 1126, 1822, 2948, 4770, 7718, 12488, 20206, 32694, 52900, 85594, 138494, 224088, 362582, 586670, 949252, 1535922, 2485174, 4021096, 6506270, 10527366
a(0)=4, a(1)=18, a(n) = a(n-1) + a(n-2). - Harvey P. Dale, Sep 04 2011
[A130656] 1, 4, 18, 32, 75, 108, 196, 256, 405, 500, 726, 864, 1183, 1372, 1800, 2048, 2601, 2916, 3610, 4000, 4851, 5324, 6348, 6912, 8125, 8788, 10206, 10976, 12615, 13500, 15376, 16384, 18513, 19652, 22050, 23328, 26011, 27436, 30420, 32000, 35301, 37044
a(n) = n^2 * floor((n + 1)/2).
a(n) = a(n-1)+ 3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7), a(1)=1, a(2)=4, a(3)=18, a(4)=32, a(5)=75, a(6)=108, a(7)=196. - Harvey P. Dale, Feb 18 2015
[A187297] 0, 4, 18, 40, 70, 108, 154, 208, 270, 340, 418, 504, 598, 700, 810, 928, 1054, 1188, 1330, 1480, 1638, 1804, 1978, 2160, 2350, 2548, 2754, 2968, 3190, 3420, 3658, 3904, 4158, 4420, 4690, 4968, 5254, 5548, 5850, 6160, 6478, 6804, 7138, 7480, 7830, 8188, 8554
a(n) = +3*a(n-1) -3*a(n-2) +1*a(n-3).
[A213492] 0, 4, 18, 48, 98, 178, 290, 442, 640, 890, 1196, 1568, 2008, 2524, 3122, 3808, 4586, 5466, 6450, 7546, 8760, 10098, 11564, 13168, 14912, 16804, 18850, 21056, 23426, 25970, 28690, 31594, 34688, 37978, 41468, 45168, 49080, 53212, 57570
a(n) = 2*a(n-1)-a(n-3)-a(n-4)+2*a(n-6)-a(n-7).
[A114364] 4, 18, 48, 100, 180, 294, 448, 648, 900, 1210, 1584, 2028, 2548, 3150, 3840, 4624, 5508, 6498, 7600, 8820, 10164, 11638, 13248, 15000, 16900, 18954, 21168, 23548, 26100, 28830, 31744, 34848, 38148, 41650, 45360, 49284, 53428, 57798, 62400
a(n)=sum(sum(n, j=2..n),k=1..n): seq(a(n), n>=2. - Zerinvary Lajos, May 11 2007
[A045991] 0, 0, 4, 18, 48, 100, 180, 294, 448, 648, 900, 1210, 1584, 2028, 2548, 3150, 3840, 4624, 5508, 6498, 7600, 8820, 10164, 11638, 13248, 15000, 16900, 18954, 21168, 23548, 26100, 28830, 31744, 34848, 38148, 41650, 45360, 49284, 53428, 57798, 62400, 67240, 72324
a(n) = floor(n^5/(n^2+n+1)). - Gary Detlefs, Feb 10 2010

a(n) = 4*binomial(n,2) + 6*binomial(n,3). - Gary Detlefs, Mar 25 2012
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
a(n) = Sum_{k=0..n-1} Sum_{i=n-k-1..n+k-1} i. (End)
[A259451] 0, 1, 4, 18, 48, 125, 288, 637, 1344, 2754, 5500, 10769, 20736, 39377, 73892, 137250, 252672, 461533, 837216, 1509341, 2706000, 4827186, 8572124, 15159553, 26707968, 46890625, 82061668, 143188722, 249163824, 432466589, 748836000, 1293764509, 2230588416, 3838265442, 6592537372, 11303644625, 19349736192
a(n) = 3*a(n-1)-5*a(n-3)+3*a(n-5)+a(n-6). - Colin Barker, Jun 29 2015
[A027659] 4, 18, 52, 121, 246, 455, 784, 1278, 1992, 2992, 4356, 6175, 8554, 11613, 15488, 20332, 26316, 33630, 42484, 53109, 65758, 80707, 98256, 118730, 142480, 169884, 201348, 237307, 278226, 324601
a(0)=4, a(1)=18, a(2)=52, a(3)=121, a(4)=246, a(5)=455, a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Aug 18 2012
[A212250] 0, 0, 4, 18, 54, 129, 262, 478, 807, 1281, 1938, 2821, 3975, 5451, 7305, 9595, 12385, 15744, 19743, 24459, 29974, 36372, 43743, 52182, 61786, 72658, 84906, 98640, 113976, 131035, 149940, 170820, 193809, 219043, 246664, 276819, 309657
a(n) = 4*a(n-1)-6*a(n-2)+5*a(n-3)-5*a(n-4)+6*a(n-5)-4*a(n-6)+a(n-7).
a(n) = (13*n^4+10*n^3-5*n^2+6*n+8*b)/72, where b = 0,-3,1,0,-3,1,... (repeated). [Bruno Berselli, Jun 05 2012]
[A212680] 0, 0, 4, 18, 56, 120, 228, 378, 592, 864, 1220, 1650, 2184, 2808, 3556, 4410, 5408, 6528, 7812, 9234, 10840, 12600, 14564, 16698, 19056, 21600, 24388, 27378, 30632, 34104, 37860, 41850, 46144, 50688, 55556, 60690, 66168, 71928, 78052
a(n)=2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A212521] 0, 0, 4, 18, 60, 138, 297, 528, 912, 1440, 2200, 3180, 4536, 6174, 8330, 10920, 14144, 17928, 22599, 27900, 34300, 41580, 50094, 59664, 70848, 83148, 97344, 113022, 130732, 150150, 172125, 195840, 222464, 251328, 283220, 317628, 355752, 396378, 441142
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A212766] 0, 4, 18, 64, 150, 324, 588, 1024, 1620, 2500, 3630, 5184, 7098, 9604, 12600, 16384, 20808, 26244, 32490, 40000, 48510, 58564, 69828, 82944, 97500, 114244, 132678, 153664, 176610, 202500, 230640, 262144, 296208, 334084, 374850
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
a(n) = (2n(n+2)-(-1)^n+1)(n+1)^2/8. [Bruno Berselli, Jun 11 2012]
[A100177] 1, 4, 18, 64, 175, 396, 784, 1408, 2349, 3700, 5566, 8064, 11323, 15484, 20700, 27136, 34969, 44388, 55594, 68800, 84231, 102124, 122728, 146304, 173125, 203476, 237654, 275968, 318739, 366300, 418996, 477184, 541233, 611524, 688450, 772416, 863839, 963148, 1070784, 1187200, 1312861, 1448244
a(n)=(1/6)*(3*n^4-9*n^3+12*n^2).
[A290919] 4, 18, 72, 271, 976, 3398, 11516, 38179, 124272, 398248, 1259240, 3935420, 12173440, 37314700, 113452128, 342426657, 1026711724, 3059968146, 9069834488, 26748151221, 78518859336, 229505772002, 668173273988, 1938126895864, 5602502738380, 16143099833606
a(n) = 12*a(n-1) - 58*a(n-2) + 144*a(n-3) - 195*a(n-4) + 144*a(n-5) - 58*a(n-6) + 12*a(n-7) - a(n-8).
[A100069] 1, 4, 18, 76, 326, 1384, 5892, 25036, 106438, 452344, 1922588, 8170936, 34726940, 147589264, 627256088, 2665837516, 11329815878, 48151714264, 204644809932, 869740430056, 3696396920116, 15709686864304, 66766169526008, 283756220309176, 1205963937666076, 5125346734404784
a(n)=sum{k=0..floor(n/2), binomial(n, k)4^(n-2k)}; a(n)=sum{k=0..n, binomial(n, (n-k)/2)(1+(-1)^(n-k)4^k/2}.
[A045902] 1, 4, 18, 80, 355, 1580, 7066, 31772, 143645, 652860, 2981910, 13682328, 63046776, 291646860, 1353967250, 6306552800, 29464361530, 138045441260, 648449195350, 3053348997200, 14409512770575, 68143962854836, 322886537205062, 1532716400556220, 7288075248828605, 34710221395625380
a(n)=(4/n)*sum(binomial(n, j)*binomial(2j+3, j-1), j=1..n) for n>=1. - Emeric Deutsch, Mar 25 2004
[A279285] 0, 1, 4, 18, 82, 377, 1740, 8045, 37226, 172314, 797744, 3693493, 17101128, 79180525, 366618808, 1697509962, 7859781454, 36392245541, 168502887396, 780199897985, 3612471696230, 16726421117538, 77446465948772, 358591660029577, 1660346632032144, 7687716275234809, 35595568065121900, 164814155562334914
a(n) = 6*a(n-1) - 5*a(n-2) - 6*a(n-3) - a(n-4).
[A293490] 1, 4, 18, 84, 400, 1932, 9436, 46512, 231066, 1155660, 5813808, 29396952, 149305884, 761282032, 3894953640, 19987999696, 102847396416, 530446714812, 2741576339716, 14196136939600, 73631851898220, 382483602131400, 1989514312826400, 10361255764532400, 54020655931542300, 281933439875693424
a(n) = [x^n] 1/(sqrt(1 - 4*x)*(1 - x)^(n+1)).
a(n) = [x^n] 1/((1 - x)^(n+1)*(1 - 2*x/(1 - x/(1 - x/(1 - x/(1 - ...)))))), a continued fraction.
a(n) = 4^n*Gamma(n+1/2)*2F1(-n,n+1; 1/2-n; 1/4)/(sqrt(Pi)*Gamma(n+1)).
[A055834] 1, 1, 4, 18, 85, 413, 2044, 10248, 51876, 264550, 1357070, 6994780, 36196706, 187938842, 978599560, 5108177816, 26721644973, 140050505085, 735254208670, 3865837887450, 20353393741065, 107290306033845, 566194674179160, 2990958274811520, 15814562990604300, 83690040760923168
a(n) = Sum_{k=0..n} binomial(n+k-1,n)*binomial(k,n-k). - Max Alekseyev, Jun 17 2007
[A068764] 1, 1, 4, 18, 88, 456, 2464, 13736, 78432, 456416, 2697088, 16141120, 97632000, 595912960, 3665728512, 22703097472, 141448381952, 885934151168, 5575020435456, 35230798994432, 223485795258368, 1422572226146304, 9083682419818496, 58169612565614592, 373486362257899520, 2403850703479816192
a(n+1) = 2*sum(a(k)*a(n-k), k=0..n), n>=1, a(0) = 1 = a(1).
a(n) = subs(t=1,diff((-1+2*t^2)^n,t$(n-1)))/n!, n>=2, due to the Lagrange series for the given implicit o.g.f. equation. This formula holds also for n=1 if no differentiation is used. - Wolfdieter Lang, Nov 13 2007, Feb 22 2008
a(n) = sum(binomial(n-1,k-1)*1/k*sum(binomial(k,j)*binomial(k+j,j-1),j,1,k),k,1,n), n>0. - Vladimir Kruchinin, Aug 11 2010
a(n) = 4^(n-1)*hypergeom([(1-n)/2,1-n/2], [2], 1/2) + 0^n/sqrt(2). - Vladimir Reshetnikov, Nov 07 2015
[A210374] 0, 4, 19, 40, 68, 104, 149, 204, 270, 348, 439, 544, 664, 800, 953, 1124, 1314, 1524, 1755, 2008, 2284, 2584, 2909, 3260, 3638, 4044, 4479, 4944, 5440, 5968, 6529, 7124, 7754, 8420, 9123, 9864, 10644, 11464, 12325, 13228, 14174, 15164
a(n) = (-36 + 47*n + 12*n^2 + n^3) / 6 for n>0.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4.
[A283394] 4, 19, 43, 76, 118, 169, 229, 298, 376, 463, 559, 664, 778, 901, 1033, 1174, 1324, 1483, 1651, 1828, 2014, 2209, 2413, 2626, 2848, 3079, 3319, 3568, 3826, 4093, 4369, 4654, 4948, 5251, 5563, 5884, 6214, 6553, 6901, 7258, 7624, 7999, 8383, 8776, 9178, 9589, 10009
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = 4*binomial(n,0) + 15*binomial(n,1) + 9*binomial(n,2).
[A162254] 4, 19, 51, 106, 190, 309, 469, 676, 936, 1255, 1639, 2094, 2626, 3241, 3945, 4744, 5644, 6651, 7771, 9010, 10374, 11869, 13501, 15276, 17200, 19279, 21519, 23926, 26506, 29265, 32209, 35344, 38676, 42211, 45955, 49914, 54094, 58501, 63141
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 04 2012
[A166808] 4, 19, 54, 124, 250, 460, 790, 1285, 2000, 3001, 4366, 6186, 8566, 11626, 15502, 20347, 26332, 33647, 42502, 53128, 65778, 80728, 98278, 118753, 142504, 169909, 201374, 237334, 278254, 324630, 376990, 435895, 501940, 575755, 658006, 749396, 850666, 962596
a(n) = binomial(n+5,5) - 2. - Jeffrey Shallit, May 30 2012
[A215862] 0, 4, 19, 55, 125, 245, 434, 714, 1110, 1650, 2365, 3289, 4459, 5915, 7700, 9860, 12444, 15504, 19095, 23275, 28105, 33649, 39974, 47150, 55250, 64350, 74529, 85869, 98455, 112375, 127720, 144584, 163064, 183260, 205275, 229215, 255189, 283309, 313690, 346450
a(n) = C(n+2,3)*(3*n+13)/4.
a(n) = 5*a(n-1)- 10*a(n-2)+ 10*a(n-3) -5*a(n-4)+a(n-5), n>4. - Harvey P. Dale, Sep 10 2012
a(n) = 1/n! * Sum_{j=0..n} C(n,j)*(-1)^(n-j)*(j)^(n+1)*(j-1)). - Vladimir Kruchinin, Jun 06 2013
[A134507] 0, 4, 19, 57, 134, 269, 486, 813, 1281, 1926, 2788, 3910, 5340, 7130, 9335, 12015, 15234, 19059, 23562, 28819, 34909, 41916, 49928, 59036, 69336, 80928, 93915, 108405, 124510, 142345, 162030, 183689, 207449, 233442, 261804, 292674, 326196
a(n) = (3*n^4+5*n^3-3*n^2-5*n+6*floor((n+1)/3))/18. - Luce ETIENNE, Jul 31 2015
[A100185] 1, 4, 19, 68, 185, 416, 819, 1464, 2433, 3820, 5731, 8284, 11609, 15848, 21155, 27696, 35649, 45204, 56563, 69940, 85561, 103664, 124499, 148328, 175425, 206076, 240579, 279244, 322393, 370360, 423491, 482144
a(n)=(1/6)*(3*n^4-8*n^3+9*n^2+2*n).
[A094734] 0, 1, 1, 4, 19, 76, 271, 904, 2899, 9076, 27991, 85504, 259579, 784876, 2366911, 7125304, 21425059, 64373476, 193317031, 580344304, 1741819339, 5227030876, 15684238351, 47059006504, 141189602419, 423593973076, 1270832250871, 3812597415904, 11437993574299
a(n) = (5 - 3*2^n + 3^n)/2 for n > 0.
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n > 3.

[A181880] 1, 4, 19, 89, 417, 1954, 9156, 42903, 201034, 942001, 4414009, 20683073, 96916320, 454128508, 2127946065, 9971086104, 46722311119, 218930448853, 1025859814873, 4806952917170, 22524321562152, 105544004814991, 494555936863590, 2317380083461485, 10858732149251701, 50881624784254849, 238420075668235984, 1117183909174960184, 5234877488488803537, 24529481757148330684
a(n) = 4*a(n) + 3*a(n-2) +a(n-3), n>=2, a(-1):=0, a(0)=1, a(1)=4.
[A273791] 4, 20, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 2*a(n-1)-a(n-2) for n>3.
[A097251] 0, 4, 20, 24, 100, 104, 120, 124, 500, 504, 520, 524, 600, 604, 620, 624, 2500, 2504, 2520, 2524, 2600, 2604, 2620, 2624, 3000, 3004, 3020, 3024, 3100, 3104, 3120, 3124, 12500, 12504, 12520, 12524, 12600, 12604, 12620, 12624, 13000, 13004, 13020
a(2n) = 5*a(n), a(2n+1) = a(2n)+4.
[A259755] 4, 20, 28, 44, 52, 68, 76, 92, 100, 116, 124, 140, 148, 164, 172, 188, 196, 212, 220, 236, 244, 260, 268, 284, 292, 308, 316, 332, 340, 356, 364, 380, 388, 404, 412, 428, 436, 452, 460, 476, 484, 500, 508, 524, 532, 548, 556, 572, 580, 596, 604, 620, 628
a(n) = 2*(6*n + (-1)^n - 3).
[A181433] 1, 4, 20, 29, 61, 76, 124, 145, 209, 236, 316, 349, 445, 484, 596, 641, 769, 820, 964, 1021, 1181, 1244, 1420, 1489, 1681, 1756, 1964, 2045, 2269, 2356, 2596, 2689, 2945, 3044, 3316, 3421, 3709, 3820, 4124, 4241, 4561, 4684, 5020, 5149, 5501, 5636, 6004
a(n) = (22*n*(n-1) - 5*(2*n-1)*(-1)^n + 3)/8.
a(n) = a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5) for n>5, a(1)=1, a(2)=4, a(3)=20, a(4)=29, a(5)=61.
[A033579] 0, 4, 20, 48, 88, 140, 204, 280, 368, 468, 580, 704, 840, 988, 1148, 1320, 1504, 1700, 1908, 2128, 2360, 2604, 2860, 3128, 3408, 3700, 4004, 4320, 4648, 4988, 5340, 5704, 6080, 6468, 6868, 7280, 7704, 8140, 8588, 9048, 9520, 10004, 10500, 11008, 11528, 12060
a(n) = 12*n+a(n-1)-8 for n>0, a(0)=0. - Vincenzo Librandi, Aug 05 2010
[A187274] 0, 4, 20, 48, 160, 320, 960, 1792, 5120, 9216, 25600, 45056, 122880, 212992, 573440, 983040, 2621440, 4456448, 11796480, 19922944, 52428800, 88080384, 230686720, 385875968, 1006632960, 1677721600, 4362076160, 7247757312, 18790481920, 31138512896, 80530636800, 133143986176, 343597383680
a(n) = 8*a(n-2) - 16*a(n-4). - Colin Barker, Jul 25 2013
a(2*n) = 5*n*4^n, a(2*n+1) = (2*n+1)*4^(n+1). - Andrew Howroyd, Mar 28 2016
[A108099] 4, 20, 52, 100, 164, 244, 340, 452, 580, 724, 884, 1060, 1252, 1460, 1684, 1924, 2180, 2452, 2740, 3044, 3364, 3700, 4052, 4420, 4804, 5204, 5620, 6052, 6500, 6964, 7444, 7940, 8452, 8980, 9524, 10084, 10660, 11252, 11860, 12484, 13124, 13780, 14452, 15140
a(n) = 8*n^2 + 8*n + 4.
a(n) = 16*n+a(n-1), a(0)=4. - Vincenzo Librandi, Nov 13 2010
[A213485] 0, 4, 20, 54, 109, 191, 309, 469, 674, 930, 1246, 1628, 2079, 2605, 3215, 3915, 4708, 5600, 6600, 7714, 8945, 10299, 11785, 13409, 15174, 17086, 19154, 21384, 23779, 26345, 29091, 32023, 35144, 38460, 41980, 45710, 49653, 53815, 58205
a(n) = 4*a(n-1)-7*a(n-2)+8*a(n-3)-7*a(n-4)+4*a(n-5)-a(n-6).
[A002492] 0, 4, 20, 56, 120, 220, 364, 560, 816, 1140, 1540, 2024, 2600, 3276, 4060, 4960, 5984, 7140, 8436, 9880, 11480, 13244, 15180, 17296, 19600, 22100, 24804, 27720, 30856, 34220, 37820, 41664, 45760, 50116, 54740, 59640, 64824, 70300, 76076, 82160
a(-1-n) = -a(n).
a(n) = binomial(2*n+2, 3). - Lekraj Beedassy, Jun 19 2004
a(n) - a(n-1) = 4*n^2. - Joerg Arndt, Jun 16 2011
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Harvey P. Dale, Aug 15 2012
[A033488] 0, 4, 20, 60, 140, 280, 504, 840, 1320, 1980, 2860, 4004, 5460, 7280, 9520, 12240, 15504, 19380, 23940, 29260, 35420, 42504, 50600, 59800, 70200, 81900, 95004, 109620, 125860, 143840, 163680, 185504, 209440
a(n) = n*C(3+n, 3). - Zerinvary Lajos, Jan 10 2006
[A018211] 1, 4, 20, 60, 170, 396, 868, 1716, 3235, 5720, 9752, 15912, 25236, 38760, 58200, 85272, 122661, 173052, 240460, 328900, 444158, 592020, 780572, 1017900, 1315015, 1682928, 2136304, 2689808, 3362600, 4173840, 5148144, 6310128
a(n) = (1/(2*7!))*(n+1)*(n+2)*(n+3)*(n+4)*(n+5)*(n+6)*(n+7) + (1/3)*(1/2^5)*(n+2)*(n+4)*(n+6)*(1/2)*(1+(-1)^n) [Yosu Yurramendi Jun 23 2013]
[A131479] 0, 0, 4, 20, 64, 156, 324, 600, 1024, 1640, 2500, 3660, 5184, 7140, 9604, 12656, 16384, 20880, 26244, 32580, 40000, 48620, 58564, 69960, 82944, 97656, 114244, 132860, 153664, 176820, 202500, 230880, 262144, 296480, 334084, 375156
a(2*k) = 4*k^4. a(2*k+1) = 2*(k^3*(k+1)+k*(k+1)^3). - Robert Israel, Jun 01 2015
[A291526] 0, 0, 4, 20, 68, 196, 516, 1284, 3076, 7172, 16388, 36868, 81924, 180228, 393220, 851972, 1835012, 3932164, 8388612, 17825796, 37748740, 79691780, 167772164, 352321540, 738197508, 1543503876, 3221225476, 6710886404, 13958643716, 28991029252, 60129542148
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3).
[A082138] 1, 4, 20, 80, 280, 896, 2688, 7680, 21120, 56320, 146432, 372736, 931840, 2293760, 5570560, 13369344, 31752192, 74711040, 174325760, 403701760, 928514048, 2122317824, 4823449600, 10905190400, 24536678400, 54962159616, 122607894528
a(n) = (2^(n-1)+0^n/2)C(n+3, n) = sum{j=0..n, C(n+3, j+3)C(j+3, 3)(1+(-1)^j)/2 }.
a(n) = ceil(binomial(n+3,3)*2^(n-1)). - Zerinvary Lajos, Nov 01 2006
[A074358] 0, 0, 0, 4, 20, 80, 288, 976, 3184, 10112, 31488, 96576, 292672, 878336, 2614784, 7731456, 22728448, 66482176, 193617920, 561718272, 1624101888, 4681535488, 13457924096, 38592008192, 110419341312, 315287830528, 898583560192
a(n) = (1/18)*((1 + sqrt(3))^n*(-9 + 2*sqrt(3)) - (1 - sqrt(3))^n*(9 + 2*sqrt(3)) + 3*((1 - sqrt(3))^n + (1 + sqrt(3))^n)*n) for n > 0 (conjectured). - Colin Barker, Nov 17 2017
a(n) = 4*a(n-1) - 8*a(n-3) - 4*a(n-4) for n > 4 (conjectured). - Colin Barker, Nov 17 2017
[A217482] 0, 0, 0, 0, 4, 20, 84, 220, 560, 1140, 2300, 4060, 7140, 11480, 18424, 27720, 41664, 59640, 85320, 117480, 161700, 215820, 287980, 374660, 487344, 620620, 790244, 988260, 1235780, 1521520, 1873200, 2275280
a(n) = (1/6)*floor(n^2/4)*(floor(n^2/4)-1)*(floor(n^2/4)-2).
[A167682] 1, 4, 20, 84, 324, 1188, 4212, 14580, 49572, 166212, 551124, 1810836, 5904900, 19131876, 61647156, 197696052, 631351908, 2008846980, 6370914708, 20145865428, 63536960196, 199908972324, 627621192180, 1966546402164, 6150687683364, 19205208480708
a(0)=1, a(1)=4, a(2)=20, a(n) = 6*a(n-1) - 9*a(n-2) for n>2.
a(n) = 3^(n - 2)*(8*n + 4) for n>0. - Colin Barker, Jan 21 2017
[A080674] 0, 4, 20, 84, 340, 1364, 5460, 21844, 87380, 349524, 1398100, 5592404, 22369620, 89478484, 357913940, 1431655764, 5726623060, 22906492244, 91625968980, 366503875924, 1466015503700, 5864062014804, 23456248059220, 93824992236884, 375299968947540, 1501199875790164
a(n) = Sum_{i = 1..n} 4^i. - Adam McDougall (mcdougal(AT)stolaf.edu), Sep 29 2004
a(n) = 4*a(n-1) + 4. - Alexandre Wajnberg, Apr 25 2005
a(n) = 4^n + a(n-1) (with a(0) = 0). - Vincenzo Librandi, Aug 08 2010
a(n) = 5*a(n-1) - 4*a(n-2).
[A262768] 0, 0, 4, 20, 85, 344, 1365, 5368, 21021, 82160, 320892, 1253240, 4896034, 19137104, 74847175, 292929840, 1147223325, 4496006880, 17631691440, 69189377400, 271676550390, 1067383059600, 4195964793930, 16503454480656, 64943823784050, 255687666536224
a(n) = Sum_{k=0..n}(binomial(k,n-k)*2^(2*k-n)*binomial(n-1,k-2)).
[A135159] 1, 4, 20, 106, 560, 2914, 14960, 76066, 384320, 1933954, 9707600, 48653026, 243613280, 1219116994, 6098749040, 30503261986, 152544909440, 762810444034, 3814310107280, 19072324590946, 95363945904800, 476826699947074, 2384154414150320, 11920834820287906, 59604362362631360, 298022376621898114
a(n) = 5^n - 3^n + 2^n.
a(n) = 10*a(n-1) - 31*a(n-2) + 30*a(n-3). - G. C. Greubel, Sep 30 2016
[A204557] 1, 4, 21, 36, 85, 120, 217, 280, 441, 540, 781, 924, 1261, 1456, 1905, 2160, 2737, 3060, 3781, 4180, 5061, 5544, 6601, 7176, 8425, 9100, 10557, 11340, 13021, 13920, 15841, 16864, 19041, 20196, 22645, 23940, 26677, 28120, 31161, 32760, 36121, 37884, 41581
a(n) = n*(2*n^2+(3-(-1)^n)*n-(-1)^n-3)/4.
a(n) = (n^3+n^2-2*n)/2 for n even.
a(n) = (n^3+2*n^2-n)/2 for n odd.

[A273417] 1, 4, 21, 41, 72, 113, 160, 217, 280, 353, 432, 521, 616, 721, 832, 953, 1080, 1217, 1360, 1513, 1672, 1841, 2016, 2201, 2392, 2593, 2800, 3017, 3240, 3473, 3712, 3961, 4216, 4481, 4752, 5033, 5320, 5617, 5920, 6233, 6552, 6881, 7216, 7561, 7912, 8273, 8640
a(n) = (-15-(-1)^n+8*n+8*n^2)/2 for n>2.
a(n) = 4*(n^2+n-2) for n>2 and even.
a(n) = 4*n^2+4*n-7 for n>2 and odd.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>6.
[A273443] 1, 4, 21, 41, 80, 120, 168, 224, 288, 360, 440, 528, 624, 728, 840, 960, 1088, 1224, 1368, 1520, 1680, 1848, 2024, 2208, 2400, 2600, 2808, 3024, 3248, 3480, 3720, 3968, 4224, 4488, 4760, 5040, 5328, 5624, 5928, 6240, 6560, 6888, 7224, 7568, 7920, 8280, 8648
a(n) = 4*n*(1+n) for n>3.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>6.
[A273405] 1, 4, 21, 44, 77, 116, 165, 220, 285, 356, 437, 524, 621, 724, 837, 956, 1085, 1220, 1365, 1516, 1677, 1844, 2021, 2204, 2397, 2596, 2805, 3020, 3245, 3476, 3717, 3964, 4221, 4484, 4757, 5036, 5325, 5620, 5925, 6236, 6557, 6884, 7221, 7564, 7917, 8276, 8645
a(n) = ((-1)^n+8*n+8*n^2-7)/2 for n>0.
a(n) = 4*n^2+4*n-3 for n>0 and even.
a(n) = 4*(n^2+n-1) for n>0 and odd.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>4.
[A273831] 1, 4, 21, 45, 76, 117, 164, 221, 284, 357, 436, 525, 620, 725, 836, 957, 1084, 1221, 1364, 1517, 1676, 1845, 2020, 2205, 2396, 2597, 2804, 3021, 3244, 3477, 3716, 3965, 4220, 4485, 4756, 5037, 5324, 5621, 5924, 6237, 6556, 6885, 7220, 7565, 7916, 8277, 8644
a(n) = (-7-(-1)^n+8*n+8*n^2)/2 for n>2.
a(n) = 4*(n^2+n-1) for n>2 and even.
a(n) = 4*n^2+4*n-3 for n>2 and odd.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>6.
[A273847] 1, 4, 21, 45, 76, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649
a(n) = (1+2*n)^2 for n>4.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>7.
[A273780] 1, 4, 21, 48, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649
a(n) = (1+2*n)^2 for n>3.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>6.
[A033569] 1, 4, 21, 50, 91, 144, 209, 286, 375, 476, 589, 714, 851, 1000, 1161, 1334, 1519, 1716, 1925, 2146, 2379, 2624, 2881, 3150, 3431, 3724, 4029, 4346, 4675, 5016, 5369, 5734, 6111, 6500, 6901, 7314, 7739, 8176, 8625, 9086, 9559, 10044, 10541, 11050, 11571
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A212246] 0, 0, 4, 21, 65, 155, 315, 574, 966, 1530, 2310, 3355, 4719, 6461, 8645, 11340, 14620, 18564, 23256, 28785, 35245, 42735, 51359, 61226, 72450, 85150, 99450, 115479, 133371, 153265, 175305, 199640, 226424, 255816, 287980, 323085
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
a(n) = (n-1)*n*(n+1)*(5*n+6)/24. - Bruno Berselli, May 31 2012
[A095668] 4, 21, 66, 161, 336, 630, 1092, 1782, 2772, 4147, 6006, 8463, 11648, 15708, 20808, 27132, 34884, 44289, 55594, 69069, 85008, 103730, 125580, 150930, 180180, 213759, 252126, 295771, 345216, 401016, 463760, 534072, 612612, 700077, 797202, 904761
a(n) = (n+20)*binomial(n+4, 4)/5.
[A268924] 0, 1, 4, 22, 22, 22, 508, 508, 2695, 2695, 2695, 2695, 356989, 888430, 4077076, 4077076, 18425983, 18425983, 147566146, 534986635, 534986635, 7508555437, 28429261843, 28429261843, 122572440670, 405001977151
a(n)^2 + 2 == 0 (mod 3^n), and a(n) == 1 (mod 3). Representatives of the complete residue system {0, 1, ..., 3^n-1} are taken.
[A290709] 4, 22, 49, 94, 169, 298, 529, 958, 1777, 3370, 6505, 12718, 25081, 49738, 98977, 197374, 394081, 787402, 1573945, 3146926, 6292777, 12584362, 25167409, 50333374, 100665169, 201328618, 402655369, 805308718, 1610615257, 3221228170, 6442453825, 12884904958
a(n) = 3*(2^n + n^2) - 2 for n > 1. - Andrew Howroyd, Aug 10 2017
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) for n > 5.
[A163433] 0, 4, 22, 52, 94, 148, 214, 292, 382, 484, 598, 724, 862, 1012, 1174, 1348, 1534, 1732, 1942, 2164, 2398, 2644, 2902, 3172, 3454, 3748, 4054, 4372, 4702, 5044, 5398, 5764, 6142, 6532, 6934, 7348, 7774, 8212, 8662, 9124, 9598, 10084, 10582, 11092, 11614
a(n) = 6*n^2 - 12*n + 4, n > 1.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 4.
a(n+1) = (n*i-1)^3 - (n*i+1)^3, where n > 0, i=sqrt(-1). - Bruno Berselli, Jan 23 2014
[A052149] 0, 4, 22, 70, 170, 350, 644, 1092, 1740, 2640, 3850, 5434, 7462, 10010, 13160, 17000, 21624, 27132, 33630, 41230, 50050, 60214, 71852, 85100, 100100, 117000, 135954, 157122, 180670, 206770, 235600, 267344, 302192, 340340, 381990, 427350, 476634
a(n) = n*(n-1)*(n+1)*(3*n+2)/12.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Apr 28 2012
a(n) = Sum_{k=1..n} (k-1)*k^2. - Michel Marcus, Nov 09 2012
[A062966] 4, 22, 74, 195, 441, 896, 1680, 2958, 4950, 7942, 12298, 18473, 27027, 38640, 54128, 74460, 100776, 134406, 176890, 229999, 295757, 376464, 474720, 593450, 735930, 905814, 1107162, 1344469, 1622695, 1947296
a(0)=4, a(1)=22, a(2)=74, a(3)=195, a(4)=441, a(5)=896, a(6)=1680, a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) [From Harvey P. Dale, May 02 2012]
[A237530] 0, 4, 22, 82, 231, 566, 1216, 2410, 4428, 7712, 12780, 20392, 31409, 47032, 68594, 97878, 136836, 187998, 254100, 338602, 445213, 578524, 743424, 945860, 1192126, 1489768, 1846734, 2272430, 2776725, 3371170, 4067840, 4880734, 5824442, 6915732, 8172036, 9613236
a(n) = (n^6 + 3*n^5 - 3*n^4 + 10*n^3 - 48*n^2 + IF(n==1 mod 2)*(27*n^2 - 45*n - 9) + IF(n==1 mod 3)*64)/288.
[A088581] 1, 4, 22, 103, 427, 1642, 6016, 21325, 73813, 250960, 841450, 2790067, 9167359, 29893558, 96855124, 312088729, 1000836265, 3196219036, 10169787838, 32252755711, 101988443731, 321655860994, 1012039172392, 3177332285413, 9955641160957, 31137856397032
a(n) = 1/4 * ((6*n-3)*3^n + 7).
a(n) = 6*a(n-1)-8*a(n-2)-6*a(n-3)+9*a(n-4) for n>3. - Colin Barker, Jun 13 2015
[A169599] 4, 23, 33, 52, 62, 81, 91, 110, 120, 139, 149, 168, 178, 197, 207, 226, 236, 255, 265, 284, 294, 313, 323, 342, 352, 371, 381, 400, 410, 429, 439, 458, 468, 487, 497, 516, 526, 545, 555, 574, 584, 603, 613, 632, 642, 661, 671, 690, 700, 719, 729, 748, 758, 777, 787, 806, 816
a(n) = (58*n + 9*(-1)^n -33)/4. - Vincenzo Librandi, Jan 06 2013, modified Jul 07 2015
a(n) = a(n-1) + a(n-2) - a(n-3). - Vincenzo Librandi, Jan 06 2013
[A030653] 4, 23, 60, 121, 212, 339, 508, 725, 996, 1327, 1724, 2193, 2740, 3371, 4092, 4909, 5828, 6855, 7996, 9257, 10644, 12163, 13820, 15621, 17572, 19679, 21948, 24385, 26996, 29787, 32764, 35933, 39300, 42871, 46652, 50649, 54868, 59315
a(n)=n^3+3*n^2+3*n-3.
[A132112] 0, 4, 23, 68, 150, 280, 469, 728, 1068, 1500, 2035, 2684, 3458, 4368, 5425, 6640, 8024, 9588, 11343, 13300, 15470, 17864, 20493, 23368, 26500, 29900, 33579, 37548, 41818, 46400, 51305, 56544, 62128, 68068, 74375, 81060, 88134, 95608, 103493, 111800
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 29 2012
[A071246] 0, 0, 4, 23, 76, 190, 400, 749, 1288, 2076, 3180, 4675, 6644, 9178, 12376, 16345, 21200, 27064, 34068, 42351, 52060, 63350, 76384, 91333, 108376, 127700, 149500, 173979, 201348, 231826, 265640, 303025, 344224, 389488, 439076, 493255, 552300, 616494
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), n > 4, a(0)=0, a(1)=0, a(2)=4, a(3)=23, a(4)=76. [Yosu Yurramendi, Sep 03 2013]
[A139245] 4, 24, 44, 64, 84, 104, 124, 144, 164, 184, 204, 224, 244, 264, 284, 304, 324, 344, 364, 384, 404, 424, 444, 464, 484, 504, 524, 544, 564, 584, 604, 624, 644, 664, 684, 704, 724, 744, 764, 784, 804, 824, 844, 864, 884, 904, 924, 944, 964, 984, 1004, 1024, 1044
a(n) = a(n-1) + 20.

a(n) = 20*n-16, with n>=1. - Paolo P. Lava, Sep 06 2010
[A128205] 0, 1, 4, 24, 56, 128, 384, 832, 1792, 4608, 9728, 20480, 49152, 102400, 212992, 491520, 1015808, 2097152, 4718592, 9699328, 19922944, 44040192, 90177536, 184549376, 402653184, 822083584, 1677721600, 3623878656, 7381975040, 15032385536, 32212254720
a(n) = 2^(n-1)*(cos(2*Pi*n/3) + sqrt(3)*sin(2*Pi*n/3)/3 + 2n - 1);
[A085250] 0, 4, 24, 60, 112, 180, 264, 364, 480, 612, 760, 924, 1104, 1300, 1512, 1740, 1984, 2244, 2520, 2812, 3120, 3444, 3784, 4140, 4512, 4900, 5304, 5724, 6160, 6612, 7080, 7564, 8064, 8580, 9112, 9660, 10224, 10804, 11400, 12012, 12640, 13284
a(n) = 16*n + a(n-1) - 12 (with a(0)=0). - Vincenzo Librandi, Aug 08 2010
[A124350] 0, 4, 24, 60, 144, 260, 456, 700, 1056, 1476, 2040, 2684, 3504, 4420, 5544, 6780, 8256, 9860, 11736, 13756, 16080, 18564, 21384, 24380, 27744, 31300, 35256, 39420, 44016, 48836, 54120, 59644, 65664, 71940, 78744, 85820, 93456, 101380, 109896, 118716
a(n) = n*(3+(-1)^n+2*n^2). G.f.: 4*x*(x^2+1)*(x^2+4*x+1) / ((x-1)^4*(x+1)^2). - Colin Barker, Sep 06 2013
[A181617] 0, 4, 24, 72, 160, 300, 504, 784, 1152, 1620, 2200, 2904, 3744, 4732, 5880, 7200, 8704, 10404, 12312, 14440, 16800, 19404, 22264, 25392, 28800, 32500, 36504, 40824, 45472, 50460, 55800, 61504, 67584, 74052, 80920, 88200, 95904, 104044, 112632, 121680, 131200
a(n) = 2*n*(n-1)^2.
[A011915] 0, 0, 0, 0, 4, 24, 72, 168, 336, 604, 1008, 1584, 2376, 3432, 4804, 6552, 8736, 11424, 14688, 18604, 23256, 28728, 35112, 42504, 51004, 60720, 71760, 84240, 98280, 114004, 131544, 151032, 172608, 196416, 222604, 251328, 282744, 317016, 354312
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-5) -4*a(n-6) +6*a(n-7) -4*a(n-8) +a(n-9).
[A112742] 0, 0, 4, 24, 80, 200, 420, 784, 1344, 2160, 3300, 4840, 6864, 9464, 12740, 16800, 21760, 27744, 34884, 43320, 53200, 64680, 77924, 93104, 110400, 130000, 152100, 176904, 204624, 235480, 269700, 307520, 349184, 394944, 445060, 499800, 559440
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). G.f.: 4*x^2*(1+x)/(1-x)^5. - Colin Barker, Jan 26 2012
[A158494] 4, 24, 80, 248, 768, 2360, 7200, 21848, 66048, 199160, 599520, 1802648, 5416128, 16264760, 48827040, 146546648, 439771008, 1319575160, 3959249760, 11878797848, 35638490688, 106919666360, 320767387680, 962318940248, 2886990375168, 8661038234360
a(1)=4, a(2)=24, a(3)=80; for n>3, a(n) = 3*a(n-1) + 2^n - 8.
a(n) = 4 + (92/27)*3^n - 2*2^n-(56/9)*(binomial(2*(n-1),n-1) mod 2) - (8/3)*(binomial(n^2,n+2) mod 2). - Paolo P. Lava, Mar 31 2009
a(n) = 4 - 2^(n+1) + 92*3^(n-3) for n>2.
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n>5. (End)
[A211071] 0, 4, 24, 83, 208, 384, 756, 1332, 1944, 3099, 4672, 6144, 8768, 12100, 15000, 19995, 26064, 31104, 39588, 49588, 57624, 70931, 86272, 98304, 117984, 140292, 157464, 185283, 216400, 240000, 277940, 319924, 351384, 401643, 456768
a(n) = a(n-1) + 4*a(n-3) - 4*a(n-4) - 6*a(n-6) + 6*a(n-7) + 4*a(n-9) - 4*a(n-10) - a(n-12) + a(n-13) for n > 13.
a(n) = r^2*s^2 + 2*r^2*s*t + r^2*t^2 + 2*r*s^3 + 6*r*s^2*t + 6*r*s*t^2 + 2*r*t^3 + 2*s^3*t + 2*s*t^3.
[A212135] 0, 0, 4, 24, 84, 220, 480, 924, 1624, 2664, 4140, 6160, 8844, 12324, 16744, 22260, 29040, 37264, 47124, 58824, 72580, 88620, 107184, 128524, 152904, 180600, 211900, 247104, 286524, 330484, 379320, 433380, 493024, 558624, 630564, 709240, 795060, 888444
a(n) = n*(n - 1)*(n^2 - n + 2)/2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A005561] 1, 4, 24, 84, 392, 1344, 5760, 19800, 81675, 283140, 1145144, 4008004, 16032016, 56632576, 225059328, 801773856, 3173688180, 11392726800, 44986664800, 162594659920, 641087516256, 2331227331840, 9183622822400, 33577620944400, 132211882468575, 485773975404900
a(n) = C(n+4, ceil(n/2))*C(n+3, floor(n/2)) - C(n+4, ceil((n-1)/2))*C(n+3, floor((n-1)/2)). - Paul D. Hanna, Apr 16 2004
[A212681] 0, 0, 4, 24, 88, 230, 504, 966, 1696, 2772, 4300, 6380, 9144, 12714, 17248, 22890, 29824, 38216, 48276, 60192, 74200, 90510, 109384, 131054, 155808, 183900, 215644, 251316, 291256, 335762, 385200, 439890, 500224, 566544, 639268
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
[A054603] 0, 4, 24, 96, 280, 660, 1344, 2464, 4176, 6660, 10120, 14784, 20904, 28756, 38640, 50880, 65824, 83844, 105336, 130720, 160440, 194964, 234784, 280416, 332400, 391300, 457704, 532224, 615496, 708180, 810960, 924544, 1049664
a(n) = n^4+n^2+2n.
[A042889] 1, 4, 25, 29, 83, 278, 361, 1722, 3805, 13137, 30079, 133453, 163532, 624049, 1411630, 2035679, 13625704, 56538495, 3519012394, 14132588071, 88314540820, 102447128891, 293208798602, 982073524697, 1275282323299, 6083202817893, 13441687959085, 46408266695148
a(n) = 3532638098*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 31 2014
[A169600] 4, 25, 35, 56, 66, 87, 97, 118, 128, 149, 159, 180, 190, 211, 221, 242, 252, 273, 283, 304, 314, 335, 345, 366, 376, 397, 407, 428, 438, 459, 469, 490, 500, 521, 531, 552, 562, 583, 593, 614, 624, 645, 655, 676, 686, 707, 717, 738, 748, 769, 779, 800, 810, 831, 841, 862, 872, 893, 903, 924, 934
a(n) = (62*n + 11*(-1)^n - 35)/4. - Vincenzo Librandi, Jan 06 2013, modified Jul 07 2015
a(n) = a(n-1) + a(n-2) - a(n-3). - Vincenzo Librandi, Jan 06 2013
[A016790] 4, 25, 64, 121, 196, 289, 400, 529, 676, 841, 1024, 1225, 1444, 1681, 1936, 2209, 2500, 2809, 3136, 3481, 3844, 4225, 4624, 5041, 5476, 5929, 6400, 6889, 7396, 7921, 8464, 9025, 9604, 10201, 10816, 11449, 12100, 12769, 13456, 14161, 14884, 15625, 16384
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). (End)
a(n) = a(n-1)+3*(6*n+1). - Miquel Cerda, Oct 25 2016
[A212893] 1, 4, 25, 64, 169, 324, 625, 1024, 1681, 2500, 3721, 5184, 7225, 9604, 12769, 16384, 21025, 26244, 32761, 40000, 48841, 58564, 70225, 82944, 97969, 114244, 133225, 153664, 177241, 202500, 231361, 262144, 297025, 334084, 375769
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A180569] 4, 25, 72, 154, 280, 459, 700, 1012, 1404, 1885, 2464, 3150, 3952, 4879, 5940, 7144, 8500, 10017, 11704, 13570, 15624, 17875, 20332, 23004, 25900, 29029, 32400, 36022, 39904, 44055, 48484, 53200, 58212, 63529, 69160, 75114, 81400, 88027, 95004
a(n) = (1/2)*n*(n+3)*(3n-1).
[A041991] 1, 1, 4, 25, 79, 104, 4655, 4759, 18932, 118351, 373985, 492336, 22036769, 22529105, 89624084, 560273609, 1770444911, 2330718520, 104322059791, 106652778311, 424280394724, 2652335146655, 8381285834689, 11033620981344, 493860609013825, 504894229995169
a(n) = 4734*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Jan 11 2014
[A027764] 4, 25, 90, 245, 560, 1134, 2100, 3630, 5940, 9295, 14014, 20475, 29120, 40460, 55080, 73644, 96900, 125685, 160930, 203665, 255024, 316250, 388700, 473850, 573300, 688779, 822150, 975415, 1150720, 1350360, 1576784, 1832600
a(3)=4, a(4)=25, a(5)=90, a(6)=245, a(7)=560, a(8)=1134, a(n)=6*a(n-1) -15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Jun 14 2013
a(n) = 10*C(n+2,2)*C(n+2,5)/(n+2)^2. - Gary Detlefs, Aug 20 2013
[A027949] 1, 4, 25, 97, 309, 894, 2462, 6610, 17519, 46135, 121115, 317484, 831660, 2177872, 5702389, 14929789, 39087537, 102333450, 267913514, 701407870, 1836310955, 4807525939, 12586267895, 32951278872, 86267569944, 225851432284, 591286728337, 1548008754265
a(1)=1, a(2)=4, a(3)=25, a(4)=97, a(5)=309, a(6)=894, a(n)=6*a(n-1)- 13*a(n-2)+ 13*a(n-3)-6*a(n-4)+a(n-5). - Harvey P. Dale, Apr 20 2012
[A082044] 1, 4, 25, 100, 289, 676, 1369, 2500, 4225, 6724, 10201, 14884, 21025, 28900, 38809, 51076, 66049, 84100, 105625, 131044, 160801, 195364, 235225, 280900, 332929, 391876, 458329, 532900, 616225, 708964, 811801, 925444, 1050625, 1188100
a(n) = n^4+2n^2+1.
a(0)=1, a(1)=4, a(2)=25, a(3)=100, a(4)=289, a(n) = 5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Feb 27 2015
[A156701] 4, 25, 136, 481, 1300, 2929, 5800, 10441, 17476, 27625, 41704, 60625, 85396, 117121, 157000, 206329, 266500, 339001, 425416, 527425, 646804, 785425, 945256, 1128361, 1336900, 1573129, 1839400, 2138161, 2471956, 2843425, 3255304, 3710425
a(n) = (2*(n^2 - 1))^2 + (5*n)^2.
[A273981] 1, 4, 26, 56, 98, 152, 218, 296, 386, 488, 602, 728, 866, 1016, 1178, 1352, 1538, 1736, 1946, 2168, 2402, 2648, 2906, 3176, 3458, 3752, 4058, 4376, 4706, 5048, 5402, 5768, 6146, 6536, 6938, 7352, 7778, 8216, 8666, 9128, 9602, 10088
a(n) = n^3 - (n-2)^3 for n > 2. - Joerg Arndt, Jun 06 2016
[A142962] 4, 26, 81, 184, 350, 594, 931, 1376, 1944, 2650, 3509, 4536, 5746, 7154, 8775, 10624, 12716, 15066, 17689, 20600, 23814, 27346, 31211, 35424, 40000, 44954, 50301, 56056, 62234, 68850, 75919, 83456, 91476, 99994, 109025, 118584, 128686, 139346, 150579
a(n) = n^2*(3+5*n)/2. a(0)=0.
a(n) = (2^3)*S(3,n)/4^n with the convolution S(3,n) defined above.

[A172123] 0, 4, 26, 92, 240, 520, 994, 1736, 2832, 4380, 6490, 9284, 12896, 17472, 23170, 30160, 38624, 48756, 60762, 74860, 91280, 110264, 132066, 156952, 185200, 217100, 252954, 293076, 337792, 387440, 442370, 502944, 569536, 642532
a(n) = n(n - 1)(3n^2 - n + 2)/6.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Apr 29 2013
[A101166] 0, 4, 26, 94, 251, 555, 1079, 1911, 3154, 4926, 7360, 10604, 14821, 20189, 26901, 35165, 45204, 57256, 71574, 88426, 108095, 130879, 157091, 187059, 221126, 259650, 303004, 351576, 405769, 466001, 532705, 606329, 687336, 776204, 873426
a(0)=0, a(1)=4, a(2)=26, a(3)=94, a(4)=251, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Oct 12 2012
[A078111] 4, 27, 64, 115, 182, 263, 359, 470, 596, 736, 891, 1061, 1246, 1445, 1660, 1889, 2132, 2391, 2664, 2953, 3256, 3573, 3906, 4253, 4615, 4992, 5384, 5790, 6211, 6647, 7098, 7563, 8044, 8539, 9049, 9573, 10113, 10667, 11236, 11820, 12418, 13031, 13659
a(n) - e^2(n+1)^2 is bounded. Conjecture: there's a constant c = 2.462... such that a(n) = floor(e^2*(n+1)^2-c).
[A180576] 4, 27, 69, 148, 255, 417, 616, 888, 1206, 1615, 2079, 2652, 3289, 4053, 4890, 5872, 6936, 8163, 9481, 10980, 12579, 14377, 16284, 18408, 20650, 23127, 25731, 28588, 31581, 34845, 38254, 41952, 45804, 49963, 54285, 58932, 63751, 68913, 74256, 79960
a(2n) = n*(9*n^2+20*n-2); a(2n+1) = (2*n+1)*(9*n^2+29*n+8)/2.
a(n) = n*(2*n*(9*n+40)+9*(-1)^n-25)/16. - Bruno Berselli, Oct 31 2012
[A158186] 1, 4, 27, 70, 133, 216, 319, 442, 585, 748, 931, 1134, 1357, 1600, 1863, 2146, 2449, 2772, 3115, 3478, 3861, 4264, 4687, 5130, 5593, 6076, 6579, 7102, 7645, 8208, 8791, 9394, 10017, 10660, 11323, 12006, 12709, 13432, 14175, 14938, 15721, 16524, 17347
a(n) = (2*n-1)*(5*n-1).
a(n) = a(n-1)+20*n-17 (with a(0)=1). [From Vincenzo Librandi, Dec 03 2010]
[A092364] 0, 4, 27, 96, 250, 540, 1029, 1792, 2916, 4500, 6655, 9504, 13182, 17836, 23625, 30720, 39304, 49572, 61731, 76000, 92610, 111804, 133837, 158976, 187500, 219700, 255879, 296352, 341446, 391500, 446865, 507904, 574992, 648516, 728875, 816480
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Eric W. Weisstein, Sep 14 2017
[A268598] 0, 0, 0, 0, 0, 4, 27, 120, 440, 1440, 4368, 12544, 34560, 92160, 239360, 608256, 1517568, 3727360, 9031680, 21626880, 51249152, 120324096, 280166400, 647495680, 1486356480, 3391094784, 7693402112, 17364418560, 39007027200, 87241523200, 194330492928
a(n) = 2^(n-7)*(n-4)*(n-3)*(n+3) for n>2.
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4) for n>3. (End)
[A085001] 4, 28, 70, 130, 208, 304, 418, 550, 700, 868, 1054, 1258, 1480, 1720, 1978, 2254, 2548, 2860, 3190, 3538, 3904, 4288, 4690, 5110, 5548, 6004, 6478, 6970, 7480, 8008, 8554, 9118, 9700, 10300, 10918, 11554, 12208, 12880, 13570, 14278, 15004
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A153784] 0, 4, 28, 72, 136, 220, 324, 448, 592, 756, 940, 1144, 1368, 1612, 1876, 2160, 2464, 2788, 3132, 3496, 3880, 4284, 4708, 5152, 5616, 6100, 6604, 7128, 7672, 8236, 8820, 9424, 10048, 10692, 11356, 12040, 12744, 13468, 14212, 14976, 15760
a(n)=20*n+a(n-1)-16 (with a(0)=0) - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=4, a(2)=28, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 19 2015
[A187452] 0, 4, 28, 96, 244, 516, 968, 1664, 2680, 4100, 6020, 8544, 11788, 15876, 20944, 27136, 34608, 43524, 54060, 66400, 80740, 97284, 116248, 137856, 162344, 189956, 220948, 255584, 294140, 336900, 384160, 436224, 493408, 556036, 624444, 698976, 779988, 867844
a(n) = (3-3*(-1)^n-16*n^2+10*n^4)/24.
a(n) = (5*n^4-8*n^2)/12 for n even.
a(n) = (5*n^4-8*n^2+3)/12 for n odd.
[A201243] 0, 4, 28, 102, 268, 580, 1104, 1918, 3112, 4788, 7060, 10054, 13908, 18772, 24808, 32190, 41104, 51748, 64332, 79078, 96220, 116004, 138688, 164542, 193848, 226900, 264004, 305478, 351652, 402868, 459480, 521854, 590368, 665412, 747388, 836710, 933804, 1039108
a(n) = 1/2*(n-1)*(n^3 + n^2 - 4n + 4) by C. Poisson, 1990.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Apr 30 2013
[A212900] 0, 4, 28, 122, 340, 786, 1558, 2814, 4690, 7404, 11130, 16140, 22652, 30992, 41416, 54310, 69968, 88830, 111234, 137674, 168526, 204344, 245542, 292728, 346360, 407100, 475444, 552114, 637644, 732810, 838190, 954614, 1082698
a(n) = 2*a(n-1)+a(n-2)-3*a(n-3)-a(n-4)+a(n-5)+3*a(n-6)-a(n-7)-2*a(n-8)+a(n-9).
[A196514] 0, 4, 28, 124, 444, 1404, 4092, 11260, 29692, 75772, 188412, 458748, 1097724, 2588668, 6029308, 13893628, 31719420, 71827452, 161480700, 360710140, 801112060, 1769996284, 3892314108, 8522825724, 18589155324, 40399536124, 87509958652
a(0)=0, a(1)=4, a(2)=28, a(3)=124, a(n)=7*a(n-1)-18*a(n-2)+ 20*a(n-3)- 8*a(n-4). - Harvey P. Dale, Jan 12 2016
[A249629] 0, 0, 4, 28, 124, 532, 2164, 8788, 35284, 141628, 567004, 2269948, 9081724, 36334492, 145345564, 581412508, 2325680284, 9302841652, 37211487124, 148846430068, 595386201844, 2381546731732, 9526188851284, 38104763100628, 152419060098004, 609676271166388, 2438705115439924, 9754820584849588
a(0) = 0; a(1) = 0; a(n+1) = 4*a(n) + 4^ceiling((n+1)/2) - a(ceiling((n+1)/2)).
[A042379] 1, 1, 4, 29, 62, 91, 153, 1009, 10243, 11252, 21495, 97232, 215959, 313191, 3974251, 4287442, 12549135, 54483982, 67033117, 121517099, 1282204107, 7814741741, 9096945848, 16911687589, 42920321026, 317353934771, 994982125339, 1312336060110, 69236457251059
a(n) = 70231439376398*a(n-28) - a(n-56) for n>55. - Vincenzo Librandi, Jan 21 2014
[A192025] 4, 29, 84, 178, 320, 519, 784, 1124, 1548, 2065, 2684, 3414, 4264, 5243, 6360, 7624, 9044, 10629, 12388, 14330, 16464, 18799, 21344, 24108, 27100, 30329, 33804, 37534, 41528, 45795, 50344, 55184, 60324, 65773, 71540, 77634, 84064, 90839, 97968, 105460
a(n) = n*(3*n^2+12*n-7)/2.
[A024394] 4, 29, 93, 214, 410, 699, 1099, 1628, 2304, 3145, 4169, 5394, 6838, 8519, 10455, 12664, 15164, 17973, 21109, 24590, 28434, 32659, 37283, 42324, 47800, 53729, 60129, 67018, 74414, 82335, 90799, 99824, 109428, 119629, 130445, 141894, 153994, 166763, 180219
a(n) = 3*n^3+3*n^2/2-n/2. G.f. x*(4+13*x+x^2) / (x-1)^4 . - R. J. Mathar, Oct 08 2011
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). Vincenzo Librandi, Jun 19 2012
[A211545] 0, 4, 29, 99, 238, 470, 819, 1309, 1964, 2808, 3865, 5159, 6714, 8554, 10703, 13185, 16024, 19244, 22869, 26923, 31430, 36414, 41899, 47909, 54468, 61600, 69329, 77679, 86674, 96338, 106695, 117769, 129584, 142164, 155533, 169715, 184734, 200614, 217379
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = (n*(3 - 3*n + 8*n^2))/2.
[A211624] 0, 4, 30, 104, 245, 485, 837, 1339, 1998, 2858, 3920, 5234, 6795, 8659, 10815, 13325, 16172, 19424, 23058, 27148, 31665, 36689, 42185, 48239, 54810, 61990, 69732, 78134, 87143, 96863, 107235, 118369, 130200, 142844, 156230, 170480, 185517, 201469, 218253
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).
a(n) = (64*n^3 - 14*n^2 + 12*n) / 16 for n even.
a(n) = (64*n^3 - 14*n^2 + 24*n - 10) / 16 for n odd. (End)
[A211628] 0, 4, 30, 105, 249, 487, 846, 1346, 2012, 2871, 3943, 5253, 6828, 8688, 10858, 13365, 16229, 19475, 23130, 27214, 31752, 36771, 42291, 48337, 54936, 62108, 69878, 78273, 87313, 97023, 107430, 118554, 130420, 143055, 156479, 170717, 185796, 201736, 218562
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - 3*a(n-4) + 3*a(n-5) - a(n-6) for n>5.
[A213824] 4, 30, 114, 310, 690, 1344, 2380, 3924, 6120, 9130, 13134, 18330, 24934, 33180, 43320, 55624, 70380, 87894, 108490, 132510, 160314, 192280, 228804, 270300, 317200, 369954, 429030, 494914, 568110, 649140
a(n) = (2*n + 5*n^2 + 6*n^3 + 3*n^4)/4 = n*(1 + n)*(2 + 3*n + 3*n^2)/4.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = Sum_{i=1..n} i*(3*i^2+1). - Bruno Berselli, Feb 09 2017
[A027789] 4, 30, 120, 350, 840, 1764, 3360, 5940, 9900, 15730, 24024, 35490, 50960, 71400, 97920, 131784, 174420, 227430, 292600, 371910, 467544, 581900, 717600, 877500, 1064700, 1282554, 1534680, 1824970, 2157600, 2537040, 2968064, 3455760, 4005540, 4623150, 5314680
a(n) = C(n+1, 2)*C(n+3, 3). - Zerinvary Lajos, May 10 2005, corrected by R. J. Mathar, Feb 13 2016
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6), with a(1)=4, a(2)=30, a(3)=120, a(4)=350, a(5)=840, a(6)=1764. - Harvey P. Dale, Jan 20 2015
a(n) = Sum_{k=1..n+1} Sum_{i=1..n+1} (n-i+1) * C(k+1,k-1). - Wesley Ivan Hurt, Sep 21 2017

[A130424] 4, 30, 125, 365, 854, 1724, 3135, 5275, 8360, 12634, 18369, 25865, 35450, 47480, 62339, 80439, 102220, 128150, 158725, 194469, 235934, 283700, 338375, 400595, 471024, 550354, 639305, 738625, 849090, 971504, 1106699, 1255535, 1418900
a(n) = A[n+2,n] = P(k+2,n) + P(k+2,n+1) + P(k+2,n+2) + ... P(k+2,n+k-1) where P(k,n) = k*((n-2)*k - (n-4))/2.
a(n) = (n+2)*(7*n^3-8*n^2+12*n-3)/6. [R. J. Mathar, Oct 30 2008]
[A005715] 4, 30, 126, 393, 1016, 2304, 4740, 9042, 16236, 27742, 45474, 71955, 110448, 165104, 241128, 344964, 484500, 669294, 910822, 1222749, 1621224, 2125200, 2756780, 3541590, 4509180, 5693454, 7133130, 8872231, 10960608, 13454496
a(n) = binomial(n, 4)*(n^3+27*n^2+116*n-120)/210, n >= 4.
a(n) = 8*a(n-1) -28*a(n-2) +56*a(n-3) -70*a(n-4) +56*a(n-5) -28*a(n-6) +8*a(n-7) -a(n-8). Vincenzo Librandi, Jun 16 2012
a(n) = GegenbauerC(N, -n, -1/2) where N = 7 if 7<n else 2*n-7. - Peter Luschny, May 10 2016
[A216302] 4, 31, 46, 64, 88, 109, 130, 367, 400, 493, 523, 550, 823, 829, 886, 946, 1033, 1117, 1369, 1390, 1408, 1432, 1825, 1999, 2161, 2329, 2356, 2374, 2503, 2626, 2668, 2671, 2794, 2902, 3049, 3139, 3151, 3154, 3232, 3253, 3421, 3553, 3559, 3601, 3799, 3904
a(n) » n log^3 n. - Charles R Greathouse IV, Sep 07 2012
[A210377] 0, 0, 4, 31, 80, 146, 224, 315, 420, 540, 676, 829, 1000, 1190, 1400, 1631, 1884, 2160, 2460, 2785, 3136, 3514, 3920, 4355, 4820, 5316, 5844, 6405, 7000, 7630, 8296, 8999, 9740, 10520, 11340, 12201, 13104, 14050, 15040, 16075, 17156, 18284
a(n) = (-504 + 146*n + 21*n^2 + n^3) / 6 for n>3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>5.
[A211629] 0, 4, 31, 105, 252, 492, 851, 1353, 2024, 2884, 3959, 5273, 6852, 8716, 10891, 13401, 16272, 19524, 23183, 27273, 31820, 36844, 42371, 48425, 55032, 62212, 69991, 78393, 87444, 97164, 107579, 118713, 130592, 143236, 156671, 170921, 186012, 201964, 218803
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-4) - 3*a(n-5) + 3*a(n-6) - a(n-7) for n > 6.
[A153794] 0, 4, 32, 84, 160, 260, 384, 532, 704, 900, 1120, 1364, 1632, 1924, 2240, 2580, 2944, 3332, 3744, 4180, 4640, 5124, 5632, 6164, 6720, 7300, 7904, 8532, 9184, 9860, 10560, 11284, 12032, 12804, 13600, 14420, 15264, 16132, 17024
a(n) = 24*n + a(n-1) - 20 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=4, a(2)=32, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jul 14 2011
[A211625] 0, 4, 32, 104, 250, 492, 845, 1349, 2021, 2871, 3949, 5267, 6830, 8698, 10878, 13370, 16244, 19502, 23139, 27235, 31787, 36785, 42319, 48381, 54956, 62144, 69932, 78300, 87358, 97088, 107465, 118609, 130497, 143099, 156545, 170807, 185850, 201814, 218666
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
[A211630] 0, 4, 32, 106, 252, 495, 855, 1359, 2029, 2891, 3970, 5286, 6866, 8732, 10910, 13425, 16297, 19553, 23215, 27309, 31860, 36888, 42420, 48478, 55088, 62275, 70059, 78467, 87521, 97247, 107670, 118810, 130694, 143344, 156786, 171045, 186141, 202101, 218947
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-5) - 3*a(n-6) + 3*a(n-7) - a(n-8) for n > 7.
[A211626] 0, 4, 32, 108, 250, 492, 854, 1360, 2021, 2885, 3965, 5285, 6849, 8719, 10901, 13419, 16270, 19530, 23198, 27298, 31820, 36854, 42392, 48458, 55035, 62227, 70019, 78435, 87451, 97185, 107615, 118765, 130604, 143264, 156716, 170984, 186030, 202000, 218858
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-4) - 4*a(n-5) + 2*a(n-6) - a(n-8) + 2*a(n-9) - a(n-10) for n>9.
[A211627] 0, 4, 32, 108, 256, 492, 854, 1360, 2034, 2900, 3965, 5285, 6869, 8741, 10925, 13419, 16297, 19559, 23229, 27331, 31854, 36890, 42430, 48498, 55118, 62270, 70064, 78482, 87548, 97286, 107667, 118819, 130715, 143379, 156835, 171045, 186155, 202129, 218991
a(n) = 2*a(n-1) - a(n-2) + 2*a(n-5) - 4*a(n-6) + 2*a(n-7) - a(n-10) + 2*a(n-11) - a(n-12) for n>11.
[A290026] 0, 0, 4, 32, 160, 640, 2240, 7168, 21504, 61440, 168960, 450560, 1171456, 2981888, 7454720, 18350080, 44564480, 106954752, 254017536, 597688320, 1394606080, 3229614080, 7428112384, 16978542592, 38587596800, 87241523200, 196293427200, 439697276928, 980863156224
a(n) = 2^(n-1)*binomial(n,3).
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4).
[A066645] 0, 4, 33, 113, 268, 523, 904, 1436, 2144, 3053, 4188, 5575, 7238, 9202, 11494, 14137, 17157, 20579, 24429, 28730, 33510, 38792, 44602, 50965, 57905, 65449, 73622, 82447, 91952, 102160, 113097, 124788, 137258, 150532, 164636, 179594, 195432
a(n) = floor((4/3)*Pi*n^3).
[A152041] 0, 4, 33, 129, 355, 795, 1554, 2758, 4554, 7110, 10615, 15279, 21333, 29029, 38640, 50460, 64804, 82008, 102429, 126445, 154455, 186879, 224158, 266754, 315150, 369850, 431379, 500283, 577129, 662505, 757020, 861304, 976008, 1101804, 1239385, 1389465
a(n) = n*(n+1)*(7*n^2+7*n+2)/8.
a(0)=0, a(1)=4, a(2)=33, a(3)=129, a(4)=355, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, Jul 20 2011]
[A095671] 4, 33, 153, 525, 1485, 3663, 8151, 16731, 32175, 58630, 102102, 171054, 277134, 436050, 668610, 1001946, 1470942, 2119887, 3004375, 4193475, 5772195, 7844265, 10535265, 13996125, 18407025, 23981724, 30972348, 39674668, 50433900
a(0)=4, a(1)=33, a(2)=153, a(3)=525, a(4)=1485, a(5)=3663, a(6)=8151, a(7)=16731, a(8)=32175, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3)- 126*a(n-4)+ 126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). - Harvey P. Dale, Jul 07 2015
[A257600] 4, 35, 100, 210, 380, 627, 970, 1430, 2030, 2795, 3752, 4930, 6360, 8075, 10110, 12502, 15290, 18515, 22220, 26450, 31252, 36675, 42770, 49590, 57190, 65627, 74960, 85250, 96560, 108955, 122502, 137270, 153330, 170755, 189620, 210002, 231980, 255635, 281050, 308310
a(n) = (24+250*n+125*n^2+20*n^3+n^4)/12 for n>0. - Colin Barker, Apr 15 2016
[A211612] 0, 4, 35, 117, 274, 530, 909, 1435, 2132, 3024, 4135, 5489, 7110, 9022, 11249, 13815, 16744, 20060, 23787, 27949, 32570, 37674, 43285, 49427, 56124, 63400, 71279, 79785, 88942, 98774, 109305, 120559, 132560, 145332, 158899, 173285, 188514, 204610, 221597
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = (n*(-3 + 3*n + 8*n^2))/2.
[A228887] 4, 35, 120, 286, 560, 969, 1540, 2300, 3276, 4495, 5984, 7770, 9880, 12341, 15180, 18424, 22100, 26235, 30856, 35990, 41664, 47905, 54740, 62196, 70300, 79079, 88560, 98770, 109736, 121485, 134044, 147440, 161700, 176851, 192920, 209934, 227920, 246905
a(n) = -a(-n) = binomial(3*n + 1,3) = 1/6*(3*n + 1)*(3*n)*(3*n - 1).
[A152760] 0, 4, 36, 96, 184, 300, 444, 616, 816, 1044, 1300, 1584, 1896, 2236, 2604, 3000, 3424, 3876, 4356, 4864, 5400, 5964, 6556, 7176, 7824, 8500, 9204, 9936, 10696, 11484, 12300, 13144, 14016, 14916, 15844, 16800, 17784, 18796, 19836, 20904, 22000, 23124
a(n) = a(n-1) + 28*n - 24 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A016826] 4, 36, 100, 196, 324, 484, 676, 900, 1156, 1444, 1764, 2116, 2500, 2916, 3364, 3844, 4356, 4900, 5476, 6084, 6724, 7396, 8100, 8836, 9604, 10404, 11236, 12100, 12996, 13924, 14884, 15876, 16900, 17956
a(n)=a(n-1)+32*n (with a(0)=4). [Vincenzo Librandi, Dec 15 2010]
a(0)=4, a(1)=36, a(2)=100, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [Harvey P. Dale, Nov 24 2011]
[A060783] 0, 0, 4, 36, 132, 340, 720, 1344, 2296, 3672, 5580, 8140, 11484, 15756, 21112, 27720, 35760, 45424, 56916, 70452, 86260, 104580, 125664, 149776, 177192, 208200, 243100, 282204, 325836, 374332, 428040, 487320, 552544, 624096, 702372, 787780
a(n) = (n-1)*n*(n^2 + 3*n - 6)/2.
[A173961] 4, 36, 140, 364, 756, 1364, 2236, 3420, 4964, 6916, 9324, 12236, 15700, 19764, 24476, 29884, 36036, 42980, 50764, 59436, 69044, 79636, 91260, 103964, 117796, 132804, 149036, 166540, 185364, 205556, 227164, 250236, 274820, 300964, 328716, 358124
a(n) = 8n^3 - 12n^2 + 12n - 4. - Charles R Greathouse IV, Jan 02 2012
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 02 2012
[A035287] 0, 4, 36, 144, 400, 900, 1764, 3136, 5184, 8100, 12100, 17424, 24336, 33124, 44100, 57600, 73984, 93636, 116964, 144400, 176400, 213444, 256036, 304704, 360000, 422500, 492804, 571536, 659344, 756900, 864900, 984064, 1115136, 1258884
a(n) = n^2 * (n-1)^2.
a(n) = limit(n!*(2*n+1)/(diff(1+polylog(2,x)-polylog(2,x)/x, x$n),x=0) and int(1+polylog(2,x)-polylog(2,x)/x,x=0..1) = Zeta(2)-Zeta(3).
[A024212] 4, 39, 159, 445, 1005, 1974, 3514, 5814, 9090, 13585, 19569, 27339, 37219, 49560, 64740, 83164, 105264, 131499, 162355, 198345, 240009, 287914, 342654, 404850, 475150, 554229, 642789, 741559, 851295, 972780, 1106824, 1254264, 1415964, 1592815, 1785735
a(n) = n*(n+1)*(9*n^2+9*n-2)/8.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). [Clark Kimberling, Aug 18 2012]16+54*x+9*x^2

[A112460] 4, 39, 207, 795, 2475, 6633, 15873, 34749, 70785, 135850, 247962, 433602, 730626, 1191870, 1889550, 2920566, 4412826, 6532713, 9493825, 13567125, 19092645, 26492895, 36288135, 49113675, 65739375, 87091524, 114277284, 148611892, 191648820, 245213100, 311438028
a(n) = (n-3)*(n-2)*(n-1)*n*(n+1)*(n+2)*(n+3)*(7*n+4)/8!.
[A238328] 4, 40, 180, 544, 1280, 2592, 4732, 7968, 12636, 19120, 27808, 39168, 53716, 71960, 94500, 121984, 155040, 194400, 240844, 295120, 358092, 430672, 513728, 608256, 715300, 835848, 971028, 1122016, 1289920, 1476000, 1681564, 1907840, 2156220, 2428144, 2724960
a(n) = 16/9*n^4 + 4/3*n^3 + O(n). - Ralf Stephan, May 29 2014
[A115286] 0, 4, 40, 228, 960, 3200, 8904, 21560, 46848, 93420, 173800, 305404, 511680, 823368, 1279880, 1930800, 2837504, 4074900, 5733288, 7920340, 10763200, 14410704, 19035720, 24837608, 32044800, 40917500, 51750504, 64876140, 80667328, 99540760, 121960200
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 6.
[A294972] 1, 4, 41, 127, 295, 1012, 10415, 32257, 74929, 257044, 2645369, 8193151, 19031671, 65288164, 671913311, 2081028097, 4833969505, 16582936612, 170663335625, 528572943487, 1227809222599, 4212000611284, 43347815335439, 134255446617601, 311858708570641, 1069831572329524, 11010174431865881
a(n) = 254*a(n-4) - a(n-8) for n > 7.
[A213823] 4, 41, 147, 358, 710, 1239, 1981, 2972, 4248, 5845, 7799, 10146, 12922, 16163, 19905, 24184, 29036, 34497, 40603, 47390, 54894, 63151, 72197, 82068, 92800, 104429, 116991, 130522, 145058, 160635, 177289
a(n) = (-n - 3n^2 + 12*n^3)/2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A231653] 0, 0, 4, 41, 244, 1029, 3485, 9926, 25030, 57126, 120570, 238330, 446344, 797825, 1370684, 2274259, 3660612, 5734776, 8771181, 13127940, 19270240, 27789713, 39435814, 55142010, 76066910, 103627784, 139554142, 185929971, 245260890, 320527585, 415268815
a(n) = (n^8 + 4*n^7 - 6*n^6 - 32*n^5 + 84*n^4 - 32*n^3 - 16*n^2 - 192*n + B + C)/2304
[A193448] 4, 44, 124, 244, 404, 604, 844, 1124, 1444, 1804, 2204, 2644, 3124, 3644, 4204, 4804, 5444, 6124, 6844, 7604, 8404, 9244, 10124, 11044, 12004, 13004, 14044, 15124, 16244, 17404, 18604, 19844, 21124, 22444, 23804, 25204, 26644, 28124, 29644, 31204, 32804
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3. - Wesley Ivan Hurt, Nov 21 2015
[A123650] 4, 45, 280, 1105, 3276, 8029, 17200, 33345, 59860, 101101, 162504, 250705, 373660, 540765, 762976, 1052929, 1425060, 1895725, 2483320, 3208401, 4093804, 5164765, 6449040, 7977025, 9781876, 11899629, 14369320, 17233105, 20536380, 24327901
a(n) = 1 + n^2 + n^3 + n^5 = 101101 (base n) = +/- (n+1)*(n^2-n+1)*(n^2+1).
[A192418] 4, 48, 180, 448, 900, 1584, 2548, 3840, 5508, 7600, 10164, 13248, 16900, 21168, 26100, 31744, 38148, 45360, 53428, 62400, 72324, 83248, 95220, 108288, 122500, 137904, 154548, 172480, 191748, 212400
a(n) = 4*n^2*(2*n-1).
[A162673] 0, 4, 48, 204, 580, 1320, 2604, 4648, 7704, 12060, 18040, 26004, 36348, 49504, 65940, 86160, 110704, 140148, 175104, 216220, 264180, 319704, 383548, 456504, 539400, 633100, 738504, 856548, 988204, 1134480, 1296420, 1475104, 1671648, 1887204
a(n)=n*(n-1)*(3*n^2-3*n-2)/2.
[A292074] 1, 4, 48, 240, 1000, 3300, 9114, 21952, 47520, 94500, 175450, 307824, 515112, 828100, 1286250, 1939200, 2848384, 4088772, 5750730, 7942000, 10789800, 14443044, 19074682, 24884160, 32100000, 40982500, 51826554, 64964592, 80769640, 99658500, 122095050
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 10.
a(n) = 6*binomial(n, 3)^2 + n^2*(n-1)^2 for n > 3. - Andrew Howroyd, Sep 13 2017
[A291623] 1, 4, 48, 320, 1610, 6012, 17948, 45488, 101970, 207920, 393272, 699888, 1184378, 1921220, 3006180, 4560032, 6732578, 9706968, 13704320, 18988640, 25872042, 34720268, 45958508, 60077520, 77640050, 99287552, 125747208, 157839248, 196484570, 242712660
a(n) = 2*n + 6*binomial(n,3)^2 + n^2*(n-1)^2 + 12*binomial(n,4)*binomial(n,2) for n > 2.
a(n) = (5*n^6 - 33*n^5 + 89*n^4 - 99*n^3 + 38*n^2 + 24*n) / 12 for n > 2.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 9.
[A016874] 4, 49, 144, 289, 484, 729, 1024, 1369, 1764, 2209, 2704, 3249, 3844, 4489, 5184, 5929, 6724, 7569, 8464, 9409, 10404, 11449, 12544, 13689, 14884, 16129, 17424, 18769, 20164, 21609, 23104, 24649, 26244
a(0)=4, a(n) = a(n-1) + 50*n - 5. [From Vincenzo Librandi, Jun 07 2011]
[A163944] 0, 4, 49, 246, 834, 2250, 5214, 10829, 20696, 37044, 62875, 102124, 159834, 242346, 357504, 514875, 725984, 1004564, 1366821, 1831714, 2421250, 3160794, 4079394, 5210121, 6590424, 8262500, 10273679, 12676824, 15530746, 18900634, 22858500
a(n) = (10*n^2 +107*n^3 +61*n^4 +13*n^5 +n^6)/48.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7).
[A000596] 4, 49, 273, 1023, 3003, 7462, 16422, 32946, 61446, 108031, 180895, 290745, 451269, 679644, 997084, 1429428, 2007768, 2769117, 3757117, 5022787, 6625311, 8632866, 11123490, 14185990, 17920890, 22441419, 27874539, 34362013, 42061513, 51147768, 61813752, 74271912
a(n) = 1/360*n*(n-1)*(n-2)*(2*n-1)*(2*n-3)*(5*n+1).
[A071953] 4, 52, 292, 1092, 3192, 7896, 17304, 34584, 64284, 112684, 188188, 301756, 467376, 702576, 1028976, 1472880, 2065908, 2845668, 3856468, 5150068, 6786472, 8834760, 11373960, 14493960, 18296460, 22895964, 28420812, 35014252
a(n)=(n-2)(n-1)n(n+1)(5n^2-11n+3)/90.
a(0)=4, a(1)=52, a(2)=292, a(3)=1092, a(4)=3192, a(5)=7896, a(6)=17304, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Jul 03 2011
[A001545] 4, 54, 154, 304, 504, 754, 1054, 1404, 1804, 2254, 2754, 3304, 3904, 4554, 5254, 6004, 6804, 7654, 8554, 9504, 10504, 11554, 12654, 13804, 15004, 16254, 17554, 18904, 20304, 21754, 23254, 24804, 26404, 28054, 29754, 31504, 33304, 35154, 37054, 39004, 41004
a(n) = 50*n + a(n-1) with a(0)=4. - Vincenzo Librandi, Jan 20 2011
[A192845] 4, 56, 180, 400, 740, 1224, 1876, 2720, 3780, 5080, 6644, 8496, 10660, 13160, 16020, 19264, 22916, 27000, 31540, 36560, 42084, 48136, 54740, 61920, 69700, 78104, 87156, 96880, 107300, 118440
a(n) = 4*n*(-3+3*n+n^2).
[A144138] 0, 4, 56, 204, 496, 980, 1704, 2716, 4064, 5796, 7960, 10604, 13776, 17524, 21896, 26940, 32704, 39236, 46584, 54796, 63920, 74004, 85096, 97244, 110496, 124900, 140504, 157356, 175504, 194996, 215880, 238204, 262016, 287364, 314296, 342860, 373104, 405076
a(n) = 4*n*(2*n^2-1). - Vincenzo Librandi, May 29 2014
[A006592] 0, 4, 56, 216, 544, 1100, 1944, 3136, 4736, 6804, 9400, 12584, 16416, 20956, 26264, 32400, 39424, 47396, 56376, 66424, 77600, 89964, 103576, 118496, 134784, 152500, 171704, 192456, 214816, 238844, 264600, 292144, 321536, 352836, 386104, 421400, 458784, 498316, 540056
a(0)=0, a(1)=4, a(2)=56, a(3)=216, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Aug 13 2012
[A245827] 4, 59, 216, 526, 1040, 1809, 2884, 4316, 6156, 8455, 11264, 14634, 18616, 23261, 28620, 34744, 41684, 49491, 58216, 67910, 78624, 90409, 103316, 117396, 132700, 149279, 167184, 186466, 207176, 229365, 253084, 278384, 305316, 333931, 364280, 396414, 430384, 466241, 504036, 543820
a(n) = (1/2)*n*(17*n^2 - 9).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: x*(4*x^2+43*x+4) / (x-1)^4. - Colin Barker, Aug 07 2014
[A200048] 4, 59, 220, 581, 1162, 2105, 3370, 5171, 7384, 10319, 13744, 18089, 22990, 29021, 35662, 43655, 52300, 62531, 73444, 86189, 99634, 115169, 131410, 150011, 169312, 191255, 213880, 239441, 265654, 295109, 325174, 358799, 392980, 431051, 469612, 512405, 555610
a(n) = (1/12)*(135*n^3-126*n^2 + 45*n-6) if n is odd; a(n) = (1/12)*(135*n^3- 117*n^2 + 54*n - 12) if n is even.
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7) for n>7.
[A286438] 0, 4, 63, 494, 2247, 7396, 19739, 45518, 94259, 179732, 321031, 543774, 881423, 1376724, 2083267, 3067166, 4408859, 6205028, 8570639, 11641102, 15574551, 20554244, 26791083, 34526254, 44033987, 55624436, 69646679, 86491838, 106596319, 130445172, 158575571, 191580414
a(n) = (n^6 - 9*n^5 + 6*n^4 + 153*n^3 - 361*n^2 - 564*n + 1848)/6 for n>=4.
[A141046] 0, 4, 64, 324, 1024, 2500, 5184, 9604, 16384, 26244, 40000, 58564, 82944, 114244, 153664, 202500, 262144, 334084, 419904, 521284, 640000, 777924, 937024, 1119364, 1327104, 1562500, 1827904, 2125764, 2458624, 2829124, 3240000, 3694084, 4194304, 4743684, 5345344
a(n) = 4*n^4.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A272134] 0, 4, 68, 282, 736, 1520, 2724, 4438, 6752, 9756, 13540, 18194, 23808, 30472, 38276, 47310, 57664, 69428, 82692, 97546, 114080, 132384, 152548, 174662, 198816, 225100, 253604, 284418, 317632, 353336, 391620, 432574, 476288, 522852, 572356, 624890, 680544

a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), for n>3.
[A190398] 0, 4, 72, 496, 2100, 6708, 17640, 40384, 83376, 158900, 284108, 482160, 783484, 1227156, 1862400, 2750208, 3965080, 5596884, 7752836, 10559600, 14165508, 18742900, 24490584, 31636416, 40440000, 51195508, 64234620, 79929584
a(n) = 1/6*n^2*(n^4 -3*n^2 -24*n +74), n>3.
[A094160] 0, 4, 76, 344, 936, 1980, 3604, 5936, 9104, 13236, 18460, 24904, 32696, 41964, 52836, 65440, 79904, 96356, 114924, 135736, 158920, 184604, 212916, 243984, 277936, 314900, 355004, 398376, 445144, 495436, 549380, 607104, 668736, 734404, 804236
a(n) = 64/3 n^3 - 30 n^2 + 38/3 n. - Joshua Zucker, Aug 14 2006
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A045996] 0, 4, 76, 516, 2148, 6768, 17600, 40120, 82608, 157252, 280988, 477012, 775172, 1214768, 1844512, 2725000, 3930384, 5550844, 7692300, 10482124, 14066996, 18619128, 24337056, 31449200, 40212160, 50921316, 63907468, 79542108
a(n) = ((n - 1)^2*n^2*(n + 1)^2)/6 - 2*Sum(Sum((n - k + 1)*(n - l + 1)*gcd(k - 1, l - 1), k, 2, n), l, 2, n).
[A210519] 0, 4, 78, 399, 1263, 3084, 6395, 11848, 20212, 32377, 49348, 72250, 102328, 140942, 189575, 249824, 323407, 412159, 518035, 643108, 789568, 959725, 1156007, 1380959, 1637248, 1927657, 2255086, 2622556, 3033205, 3490291
a(n) = floor(1/2*Pi^2*n^4).
[A279437] 0, 4, 78, 528, 2200, 6900, 17934, 40768, 83808, 159300, 284350, 482064, 782808, 1225588, 1859550, 2745600, 3958144, 5586948, 7739118, 10541200, 14141400, 18711924, 24451438, 31587648, 40380000, 51122500, 64146654, 79824528, 98571928, 120851700, 147177150, 178115584
a(n) = (n^6 - 5*n^4 + 6*n^3 - 2*n^2)/6.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A192790] 4, 80, 336, 880, 1820, 3264, 5320, 8096, 11700, 16240, 21824, 28560, 36556, 45920, 56760, 69184, 83300, 99216, 117040, 136880, 158844, 183040, 209576, 238560, 270100, 304304, 341280, 381136, 423980, 469920
a(n) = 2*n*(3*n-2)*(3*n-1).
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4).
[A123198] 1, 4, 81, 400, 1225, 2916, 5929, 10816, 18225, 28900, 43681, 63504, 89401, 122500, 164025, 215296, 277729, 352836, 442225, 547600, 670761, 813604, 978121, 1166400, 1380625, 1623076, 1896129, 2202256, 2544025, 2924100, 3345241, 3810304
a(n)=Sum((4k-1)(4k^2-2k-1),k=0..n) (n>=0).
[A289224] 0, 4, 82, 670, 3028, 9780, 25574, 57862, 117800, 221268, 390010, 652894, 1047292, 1620580, 2431758, 3553190, 5072464, 7094372, 9743010, 13163998, 17526820, 23027284, 29890102, 38371590, 48762488, 61390900, 76625354, 94877982, 116607820, 142324228, 172590430, 208027174
a(n) = (n^6 -6*n^5 -24*n^4 +208*n^3 -67*n^2 -1684*n +2712)/6.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>9.
[A178208] 0, 4, 84, 560, 2300, 7140, 18424, 41664, 85320, 161700, 287980, 487344, 790244, 1235780, 1873200, 2763520, 3981264, 5616324, 7775940, 10586800, 14197260, 18779684, 24532904, 31684800, 40495000, 51257700
a(n) = binomial(n^2,3) = 1/6*n^2*(n^2-1)*(n^2-2). - Martin Renner, May 23 2010
a(1)=0, a(2)=4, a(3)=84, a(4)=560, a(5)=2300, a(6)=7140, a(7)=18424, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Nov 09 2012
[A017186] 4, 121, 400, 841, 1444, 2209, 3136, 4225, 5476, 6889, 8464, 10201, 12100, 14161, 16384, 18769, 21316, 24025, 26896, 29929, 33124, 36481, 40000, 43681, 47524, 51529, 55696, 60025, 64516, 69169
a(0)=4, a(1)=121, a(2)=400, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 16 2013
[A073351] 0, 4, 125, 1078, 5220, 18150, 50869, 122500, 263568, 519840, 956725, 1664234, 2762500, 4407858, 6799485, 10186600, 14876224, 21241500, 29730573, 40876030, 55304900, 73749214, 97057125, 126204588, 162307600, 206635000, 260621829
a(n)=sum(i=1, n, i^2)*sum(i=n+1, 2*n, i^2).
[A017294] 4, 144, 484, 1024, 1764, 2704, 3844, 5184, 6724, 8464, 10404, 12544, 14884, 17424, 20164, 23104, 26244, 29584, 33124, 36864, 40804, 44944, 49284, 53824, 58564, 63504, 68644, 73984, 79524, 85264
a(n) = a(n-1)+200n-60, n>0 ; a(0)=4. - Miquel Cerda, Oct 30 2016
[A134631] 0, 4, 144, 1152, 4960, 15300, 38304, 83104, 162432, 293220, 497200, 801504, 1239264, 1850212, 2681280, 3787200, 5231104, 7085124, 9430992, 12360640, 15976800, 20393604, 25737184, 32146272, 39772800, 48782500, 59355504, 71686944, 85987552, 102484260, 121420800, 143058304, 167675904, 195571332, 227061520
a(n) = 5*n^5 - 3*n^3 + 2*n^2.
[A289231] 0, 4, 159, 1644, 9548, 38872, 125367, 342831, 829052, 1822785, 3714519, 7113539, 12935256, 22511616, 37728563, 61194888, 96446684, 148191316, 222597315, 327633979, 473466444, 672912717, 941968139, 1300402591, 1772439504, 2387521212, 3181168199, 4195941108, 5482512012
a(n) = (n^8 -8*n^7 -50*n^6 +556*n^5 +261*n^4 -12724*n^3 +19088*n^2 +86016*n -201024)/144 + IF(MOD(n, 2) = 1, -2*n +5)/4 + IF(MOD(n, 3) = 1, -n^2 +2*n +12)/9.
[A278124] 4, 168, 512, 1200, 2576, 5328, 10832, 21840, 43856, 87888, 175952, 352080, 704336, 1408848, 2817872, 5635920, 11272016, 22544208, 45088592, 90177360, 180354896, 360709968, 721420112, 1442840400, 2885680976, 5771362128, 11542724432, 23085449040, 46170898256, 92341796688, 184683593552
a(n) = 3*a(n-1) - 2*a(n-2).
[A017414] 4, 169, 576, 1225, 2116, 3249, 4624, 6241, 8100, 10201, 12544, 15129, 17956, 21025, 24336, 27889, 31684, 35721, 40000, 44521, 49284, 54289, 59536, 65025, 70756, 76729, 82944, 89401, 96100, 103041
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A017546] 4, 196, 676, 1444, 2500, 3844, 5476, 7396, 9604, 12100, 14884, 17956, 21316, 24964, 28900, 33124, 37636, 42436, 47524, 52900, 58564, 64516, 70756, 77284, 84100, 91204, 98596, 106276, 114244, 122500
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A160737] 0, 4, 743, 6732, 30046, 94100, 237429, 517468, 1014332, 1834596, 3115075, 5026604, 7777818, 11618932, 16845521, 23802300, 32886904, 44553668, 59317407, 77757196, 100520150, 128325204, 161966893, 202319132, 250338996, 307070500, 373648379
a(n) = n*(63*n^4-70*n^2+15)/2. - Vaclav Kotesovec, Jul 31 2013
[A098526] 1, 1, 5, 5, 5, 21, 37, 117, 197, 277, 613, 1205, 3077, 6229, 10661, 20469, 39749, 88981, 188645, 359221, 686725, 1322709, 2746405, 5764725, 11512261, 22499861, 43663205, 87605685, 179841285, 364037461, 724035237, 1422646517, 2824337477
a(n)=a(n-1)+16a(n-5); a(n)=sum{k=0..floor(n/2), binomial(n-2k, floor(k/2))4^k}.
a(0)=1, a(1)=1, a(2)=5, a(3)=5, a(4)=5, a(n)=a(n-1)+16*a(n-5). - Harvey P. Dale, Jun 15 2014
[A019528] 5, 5, 6, 8, 11, 16, 25, 38, 59, 93, 148, 235, 376, 602, 966, 1550, 2491, 4003, 6436, 10348, 16643, 26766, 43052, 69247, 111387, 179169, 288207, 463601, 745744, 1199593, 1929661, 3104041, 4993156, 8031978, 12920238, 20783483, 33432314, 53779215
a(n+1) = sum_{i=n-11}^n v(i)*a(i), where v = [0,0,-1,-1,-2,-1,0,2,2,1,0].
[A163980] 1, 5, 5, 9, 9, 13, 13, 17, 17, 21, 21, 25, 25, 29, 29, 33, 33, 37, 37, 41, 41, 45, 45, 49, 49, 53, 53, 57, 57, 61, 61, 65, 65, 69, 69, 73, 73, 77, 77, 81, 81, 85, 85, 89, 89, 93, 93, 97, 97, 101, 101, 105, 105, 109, 109, 113, 113, 117, 117, 121, 121, 125, 125, 129, 129, 133
a(n) = a(n-1) + a(n-2) - a(n-3).
a(n) = 4*n - 2 - a(n-1), with a(1)=1. - Vincenzo Librandi, Nov 30 2010
[A168284] 0, 5, 5, 10, 10, 15, 15, 20, 20, 25, 25, 30, 30, 35, 35, 40, 40, 45, 45, 50, 50, 55, 55, 60, 60, 65, 65, 70, 70, 75, 75, 80, 80, 85, 85, 90, 90, 95, 95, 100, 100, 105, 105, 110, 110, 115, 115, 120, 120, 125, 125, 130, 130, 135, 135, 140, 140, 145, 145, 150, 150, 155
a(n) = 5*n - a(n-1) - 5, with n>1, a(1)=0.
[A022088] 0, 5, 5, 10, 15, 25, 40, 65, 105, 170, 275, 445, 720, 1165, 1885, 3050, 4935, 7985, 12920, 20905, 33825, 54730, 88555, 143285, 231840, 375125, 606965, 982090, 1589055, 2571145, 4160200, 6731345, 10891545, 17622890, 28514435, 46137325, 74651760, 120789085
a(n) = round((2*phi-1)*phi^n) for n>3. - Thomas Baruchel, Sep 08 2004
a(n) = 5*F(n) = L(n-1) + L(n+1) = F(n+3) + F(n-1) + F(n-4), n>3.
[A082450] 5, 5, 10, 20, 35, 55, 80, 110, 145, 185, 230, 280, 335, 395, 460, 530, 605, 685, 770, 860, 955, 1055, 1160, 1270, 1385, 1505, 1630, 1760, 1895, 2035, 2180, 2330, 2485, 2645, 2810, 2980, 3155, 3335, 3520, 3710, 3905, 4105, 4310, 4520, 4735, 4955, 5180, 5410, 5645
a(n) = 5*n + a(n-1)-5 for n>0, a(0)=5. - Vincenzo Librandi, Aug 08 2010

a(0)=5, a(1)=5, a(2)=10; for n>2, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 23 2013
[A275016] 0, 0, 0, 5, 5, 15, 35, 55, 135, 255, 495, 1055, 2015, 4095, 8255, 16255, 32895, 65535, 130815, 262655, 523775, 1048575, 2098175, 4192255, 8390655, 16777215, 33550335, 67117055, 134209535, 268435455, 536887295, 1073709055, 2147516415, 4294967295, 8589869055, 17180000255
a(n) = a(n-1) + 2*a(n-2) + 2*a(n-3) - 4*a(n-4) for n>4. - Colin Barker, Nov 12 2016
a(n) = - 2^(n-2)*a(4-n) for all n in Z. - Michael Somos, Nov 13 2016
[A189316] 5, 5, 15, 35, 95, 245, 645, 1685, 4415, 11555, 30255, 79205, 207365, 542885, 1421295, 3720995, 9741695, 25504085, 66770565, 174807605, 457652255, 1198149155, 3136795215, 8212236485, 21499914245, 56287506245, 147362604495, 385800307235, 1010038317215
a(n)=2*a(n-1)+2*a(n-2)-a(n-3), n>2, a(0)=5, a(1)=5, a(2)=15.
a(n)=Sum_{k=1..5) ((w_k)^2-1)^n, w_k=2*cos((2*k-1)*Pi/10); hence
a(n)=(-1)^n+2*(1/tau^(2*n)+tau^(2*n)), tau=(1+Sqrt(5))/2=1.618033....
[A095342] 1, 1, 5, 5, 17, 25, 61, 109, 233, 449, 917, 1813, 3649, 7273, 14573, 29117, 58265, 116497, 233029, 466021, 932081, 1864121, 3728285, 7456525, 14913097, 29826145, 59652341, 119304629, 238609313, 477218569, 954437197, 1908874333, 3817748729
a(1) = a(2) = 1, a(n) = a(n-1) + 2*a(n-2) - 2*(-1)^n.
[A100745] 0, 1, 1, 5, 5, 17, 27, 85, 85, 257, 427, 1285, 1455, 4369, 7279, 21845, 21845, 65537, 109227, 327685, 371375, 1114129, 1856879, 5570645, 5614335, 16843009, 28071679, 84215045, 95443715, 286331153, 477218583, 1431655765, 1431655765, 4294967297
a(n)=sum{k=0..n, mod(binomial(n, k), 2)J(k)}.
[A099921] 5, 5, 20, 45, 125, 320, 845, 2205, 5780, 15125, 39605, 103680, 271445, 710645, 1860500, 4870845, 12752045, 33385280, 87403805, 228826125, 599074580, 1568397605, 4106118245, 10749957120, 28143753125, 73681302245, 192900153620, 505019158605, 1322157322205
a(n) = Lucas(n)^2 - 4(-1)^n.
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3) for n > 3. - Matthew House, Jan 13 2017
a(n) = ((3-sqrt(5))/2)^n + ((3+sqrt(5))/2)^n - 2*(-1)^n. - Colin Barker, Jan 14 2017
a(n) = 2*Fibonacci(2*n+1) - Fibonacci(2*n) - 2*(-1)^n. - Vincenzo Librandi, Sep 14 2017
[A175713] 1, 1, 5, 5, 23, 25, 107, 125, 499, 621, 2331, 3069, 10907, 15101, 51115, 74029, 239899, 361757, 1127467, 1762957, 5305595, 8571069, 24996555, 41584365, 117897499, 201390877, 556636523, 973778765, 2630556347, 4701907069, 12442290443
a(0)=1, a(1)=1, a(2)=5, a(3)=5; for n>3, a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) + 2*a(n-4). - Harvey P. Dale, Oct 10 2014
[A162962] 1, 5, 5, 25, 25, 125, 125, 625, 625, 3125, 3125, 15625, 15625, 78125, 78125, 390625, 390625, 1953125, 1953125, 9765625, 9765625, 48828125, 48828125, 244140625, 244140625, 1220703125, 1220703125, 6103515625, 6103515625, 30517578125
a(n) = 5^((1/4)*(2*n-1+(-1)^n)).
[A189318] 5, 5, 25, 65, 225, 705, 2305, 7425, 24065, 77825, 251905, 815105, 2637825, 8536065, 27623425, 89391105, 289275905, 936116225, 3029336065, 9803137025, 31723618305, 102659784705, 332214042625, 1075067224065, 3478990618625, 11258250133505
a(n)=3*a(n-1)+2*a(n-2)-4*a(n-3), n>3, a(0)=5, a(1)=5, a(2)=25, a(3)=65.
a(n)=Sum_{k=1..5} ((w_k)^4-3*(w_k)^2+1)^n, w_k=2*cos((2*k-1)*Pi/10).
a(n)=1+2*(1-Sqrt(5))^n+2*(1+Sqrt(5))^n.
[A284182] 1, 1, 5, 5, 29, 61, 117, 213, 381, 509, 2037, 4053, 8061, 16381, 32757, 65493, 130941, 262141, 524277, 1048533, 2097021, 4194301, 8388597, 16777173, 33554301, 67108861, 134217717, 268435413, 536870781, 1073741821, 2147483637, 4294967253, 8589934461
a(n) = 2*a(n-1) + a(n-4) - 2*a(n-5) for n>10.
[A157729] 5, 6, 6, 7, 8, 10, 13, 18, 26, 39, 60, 94, 149, 238, 382, 615, 992, 1602, 2589, 4186, 6770, 10951, 17716, 28662, 46373, 75030, 121398, 196423, 317816, 514234, 832045, 1346274, 2178314, 3524583, 5702892, 9227470, 14930357, 24157822, 39088174, 63245991, 102334160
a(0)=5, a(1)=6, a(2)=6, a(n)=2*a(n-1)+0*a(n-2)-a(n-3). - Harvey P. Dale, Aug 17 2012
a(0) = 5, a(1) = 6, a(n) = a(n - 2) + a(n - 1) - 5. - Reinhard Zumkeller, Jul 30 2013
[A020710] 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78
a(n) = n+5. a(n) = 2a(n-1) - a(n-2).
[A047577] 0, 1, 5, 6, 7, 8, 9, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 29, 30, 31, 32, 33, 37, 38, 39, 40, 41, 45, 46, 47, 48, 49, 53, 54, 55, 56, 57, 61, 62, 63, 64, 65, 69, 70, 71, 72, 73, 77, 78, 79, 80, 81, 85, 86, 87, 88, 89, 93, 94, 95, 96, 97, 101, 102, 103
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = a(n-5) + 8 for n>5.
a(n) = (40*n - 25 + 3*(n mod 5) + 3*((n+1) mod 5) - 12*((n+2) mod 5) + 3*((n+3) mod 5) + 3*((n+4) mod 5))/25.
a(5*k) = 8*k-1, a(5*k-1) = 8*k-2, a(5*k-2) = 8*k-3, a(5*k-3) = 8*k-7, a(5*k-4) = 8*k-8. (End)
[A293481] 5, 6, 7, 8, 9, 15, 16, 17, 18, 19, 25, 26, 27, 28, 29, 35, 36, 37, 38, 39, 45, 46, 47, 48, 49, 55, 56, 57, 58, 59, 65, 66, 67, 68, 69, 75, 76, 77, 78, 79, 85, 86, 87, 88, 89, 95, 96, 97, 98, 99, 105, 106, 107, 108, 109, 115, 116, 117, 118, 119, 125, 126, 127, 128, 129
a(n) = a(n-1) + a(n-5) - a(n-6).
[A174138] 5, 6, 7, 8, 9, 15, 16, 17, 18, 19, 30, 31, 32, 33, 34, 40, 41, 42, 43, 44, 55, 56, 57, 58, 59, 65, 66, 67, 68, 69, 80, 81, 82, 83, 84, 90, 91, 92, 93, 94, 105, 106, 107, 108, 109, 115, 116, 117, 118, 119, 130, 131, 132, 133, 134, 140, 141, 142, 143, 144, 155, 156, 157
a(10+n) = a(n) + 25 for n >= 1.
a(n) = a(n-1) + a(n-10) - a(n-11). G.f.: x*(5+x+x^2+x^3+x^4+6*x^5+x^6+x^7+x^8+x^9+6*x^10) / ((1+x) *(x^4+x^3+x^2+x+1) *(x^4-x^3+x^2-x+1)*(x-1)^2). - R. J. Mathar, Oct 08 2011
a(n) = n+9+5*floor((floor((n-1)/5)-1)/2)+10*floor(floor((n-1)/5)/2). - Wesley Ivan Hurt, Mar 22 2015
[A294239] 0, 0, 0, 0, 5, 6, 7, 8, 9, 20, 22, 24, 39, 42, 45, 48, 51, 54, 57, 60, 84, 88, 92, 96, 100, 130, 135, 168, 203, 210, 217, 224, 231, 238, 245, 252, 259, 266, 273, 280, 287, 294, 301, 308, 360, 414, 423, 432, 441, 500, 510, 520, 583, 594, 605, 616, 627, 638
a(n) = n * Sum_{i=1..floor(n/2)} (1 - mu(n-i)^2).
[A128427] 5, 6, 7, 8, 10, 11, 13, 14, 15, 17, 18, 20, 21, 23, 24, 26, 27, 28, 30, 31, 33, 34, 36, 37, 39, 40, 41, 43, 44, 46, 47, 49, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 64, 66, 67, 69, 70, 72, 73, 75, 76, 77, 79, 80, 82, 83, 85, 86, 88, 89, 90, 92, 93, 95, 96, 98, 99, 101, 102, 103
a(n) is the largest integer for which the sum of the n consecutive n-th powers from (a(n)-n)^n to (a(n)-1)^n inclusive does not exceed a(n)^n.
[A047322] 0, 1, 5, 6, 7, 8, 12, 13, 14, 15, 19, 20, 21, 22, 26, 27, 28, 29, 33, 34, 35, 36, 40, 41, 42, 43, 47, 48, 49, 50, 54, 55, 56, 57, 61, 62, 63, 64, 68, 69, 70, 71, 75, 76, 77, 78, 82, 83, 84, 85, 89, 90, 91, 92, 96, 97, 98, 99, 103, 104, 105, 106, 110, 111
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (14n-11-3*I^(2n)+(3-3*I)*I^(-n)+(3+3*I)*I^n)/8 where I=sqrt(-1).
[A047575] 0, 5, 6, 7, 8, 13, 14, 15, 16, 21, 22, 23, 24, 29, 30, 31, 32, 37, 38, 39, 40, 45, 46, 47, 48, 53, 54, 55, 56, 61, 62, 63, 64, 69, 70, 71, 72, 77, 78, 79, 80, 85, 86, 87, 88, 93, 94, 95, 96, 101, 102, 103, 104, 109, 110, 111, 112, 117, 118, 119, 120, 125
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (4*n-1+i^(2*n)-(1+i)*i^(-n)-(1-i)*i^n)/2 where i=sqrt(-1).
[A014097] 1, 1, 1, 5, 6, 7, 8, 13, 19, 26, 34, 47, 66, 92, 126, 173, 239, 331, 457, 630, 869, 1200, 1657, 2287, 3156, 4356, 6013, 8300, 11456, 15812, 21825, 30125, 41581, 57393, 79218, 109343, 150924, 208317, 287535
a(n) = Sum_{j=0..(n-1)/3}(binomial(n-3*j,n-4*j)*n/(n-3*j)). - Vladimir Kruchinin, Mar 25 2016
[A241203] 5, 6, 7, 9, 12, 15, 19, 23, 29, 37, 46, 58, 72, 90, 113, 142, 177, 222, 277, 346, 433, 542, 677, 847, 1058, 1323, 1654, 2067, 2584, 3231, 4038, 5048, 6310, 7888, 9860, 12325, 15407, 19259, 24074, 30092, 37615, 47019, 58774, 73468, 91835, 114794, 143492, 179366, 224207, 280259
a(n) = floor(5^n/4^(n-1)), n >= 1.
[A047576] 1, 5, 6, 7, 9, 13, 14, 15, 17, 21, 22, 23, 25, 29, 30, 31, 33, 37, 38, 39, 41, 45, 46, 47, 49, 53, 54, 55, 57, 61, 62, 63, 65, 69, 70, 71, 73, 77, 78, 79, 81, 85, 86, 87, 89, 93, 94, 95, 97, 101, 102, 103, 105, 109, 110, 111, 113, 117, 118, 119, 121, 125
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (8*n-1+i^(2*n)-(2+i)*i^(-n)-(2-i)*i^n)/4 where i=sqrt(-1).
[A047266] 0, 1, 5, 6, 7, 11, 12, 13, 17, 18, 19, 23, 24, 25, 29, 30, 31, 35, 36, 37, 41, 42, 43, 47, 48, 49, 53, 54, 55, 59, 60, 61, 65, 66, 67, 71, 72, 73, 77, 78, 79, 83, 84, 85, 89, 90, 91, 95, 96, 97, 101, 102, 103, 107, 108, 109, 113, 114, 115, 119, 120, 121, 125

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. - Wesley Ivan Hurt, Nov 09 2015
a(n) = 2*n-2+cos(2*n*Pi/3)+sin(2*n*Pi/3)/sqrt(3).
a(3k) = 6k-1, a(3k-1) = 6k-5, a(3k-2) = 6k-6. (End)
[A064615] 1, 5, 6, 7, 11, 13, 17, 19, 23, 25, 29, 30, 31, 35, 36, 37, 41, 42, 43, 47, 49, 53, 55, 59, 61, 65, 66, 67, 71, 73, 77, 78, 79, 83, 85, 89, 91, 95, 97, 101, 102, 103, 107, 109, 113, 114, 115, 119, 121, 125, 127, 131, 133, 137, 138, 139, 143, 145, 149, 150, 151, 155
a(n) = 5n/2 + O(log n). - Charles R Greathouse IV, Sep 02 2016
[A047320] 0, 5, 6, 7, 12, 13, 14, 19, 20, 21, 26, 27, 28, 33, 34, 35, 40, 41, 42, 47, 48, 49, 54, 55, 56, 61, 62, 63, 68, 69, 70, 75, 76, 77, 82, 83, 84, 89, 90, 91, 96, 97, 98, 103, 104, 105, 110, 111, 112, 117, 118, 119, 124, 125, 126, 131, 132, 133, 138, 139, 140
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-9-8*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-2, a(3k-2) = 7k-7. (End)
[A047574] 5, 6, 7, 13, 14, 15, 21, 22, 23, 29, 30, 31, 37, 38, 39, 45, 46, 47, 53, 54, 55, 61, 62, 63, 69, 70, 71, 77, 78, 79, 85, 86, 87, 93, 94, 95, 101, 102, 103, 109, 110, 111, 117, 118, 119, 125, 126, 127, 133, 134, 135, 141, 142, 143, 149, 150, 151, 157, 158, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (8*n-10*sin(2*Pi*(n+1)/3)/sqrt(3)+2)/3. - Ilya Gutkovskiy, May 30 2016
a(n) = 8*floor((n-1)/3)+((n-1) mod 3)+5. - David A. Corneth, May 30 2016
a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-3. - Wesley Ivan Hurt, Jun 10 2016
[A221175] 5, 6, 7, 20, 47, 114, 275, 664, 1603, 3870, 9343, 22556, 54455, 131466, 317387, 766240, 1849867, 4465974, 10781815, 26029604, 62841023, 151711650, 366264323, 884240296, 2134744915, 5153730126, 12442205167, 30038140460, 72518486087, 175075112634
a(n)=(1/4)*(11*sqrt(2)*((1+sqrt(2))^n-(1-sqrt(2))^n)-10*((1+sqrt(2))^n+(1-sqrt(2))^n)). - Paolo P. Lava, Jan 04 2013
[A057854] 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 79, 80
a(n) = floor(1/2 - LambertW(-1, -log(phi)/phi^(n+1/2))/log(phi)) with phi = (1+sqrt(5))/2. - Nicolas Normand (nicolas.normand (at) polytech.univ-nantes.fr)
[A047439] 0, 1, 5, 6, 8, 9, 13, 14, 16, 17, 21, 22, 24, 25, 29, 30, 32, 33, 37, 38, 40, 41, 45, 46, 48, 49, 53, 54, 56, 57, 61, 62, 64, 65, 69, 70, 72, 73, 77, 78, 80, 81, 85, 86, 88, 89, 93, 94, 96, 97, 101, 102, 104, 105, 109, 110, 112, 113, 117, 118, 120, 121, 125
a(n) = Sum_{i=1..n} gcd(i+2, i-2). - Wesley Ivan Hurt, Jan 23 2014
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = 2n+(1+i)*(4i-4-(1-i)*i^(2n)-i^(1-n)+i^n)/4 where i=sqrt(-1).
[A074819] 1, 5, 6, 8, 10, 13, 22, 24, 27, 37, 44, 46, 48, 49, 58, 61, 63, 65, 69, 73, 75, 77, 80, 82, 98, 99, 105, 106, 110, 114, 116, 120, 124, 125, 129, 135, 147, 152, 154, 157, 165, 166, 168, 171, 175, 178, 182, 185, 186, 188, 193, 194, 207, 210, 221, 224, 226, 237, 242
a(n) seems to be asymptotic to c*n with c=3.7....
[A262161] 1, 5, 6, 8, 11, 14, 17, 20, 24, 28, 32, 36, 40, 44, 49, 54, 59, 64, 69, 74, 79, 85, 91, 97, 103, 109, 115, 121, 127, 134, 141, 148, 155, 162, 169, 176, 183, 190, 198, 206, 214, 222, 230, 238, 246, 254, 262, 270, 278, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 404, 414, 424, 434, 444, 454, 464, 474, 484, 494, 504, 514, 524, 535, 546, 557, 568, 579, 590, 601, 612, 623, 634, 645, 656, 667, 678, 689, 701, 713, 725, 737, 749, 761, 773, 785, 797, 809
a(n) = n*(sqrt(2*n/3)-1/5) + O(sqrt(n)) and this is sharp (see link).
[A290744] 5, 6, 8, 11, 15, 19, 24, 30, 37, 45, 53, 62, 72, 83, 95, 107, 120, 134, 149, 165, 181, 198, 216, 235, 255, 275, 296, 318, 341, 365, 389, 414, 440, 467, 495, 523, 552, 582, 613, 645, 677, 710, 744, 779, 815, 851, 888, 926, 965, 1005, 1045, 1086, 1128, 1171, 1215
a(n) = binomial(n+1,2) - (s-p)*binomial(m+1,2) - p*binomial(m+2,2) + s where s=5, m=floor(n/s), p=n-m*s. - Andrew Howroyd, Aug 14 2017
a(n) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7) for n>6.
[A169622] 5, 6, 8, 11, 16, 24, 37, 58, 92, 147, 236, 380, 613, 990, 1600, 2587, 4184, 6768, 10949, 17714, 28660, 46371, 75028, 121396, 196421, 317814, 514232, 832043, 1346272, 2178312, 3524581, 5702890, 9227468, 14930355, 24157820, 39088172, 63245989, 102334158
a(n) = 3 + (2^(-1-n)*((1-sqrt(5))^n*(-3+sqrt(5)) + (1+sqrt(5))^n*(3+sqrt(5)))) / sqrt(5). - Colin Barker, Apr 20 2017
[A047321] 1, 5, 6, 8, 12, 13, 15, 19, 20, 22, 26, 27, 29, 33, 34, 36, 40, 41, 43, 47, 48, 50, 54, 55, 57, 61, 62, 64, 68, 69, 71, 75, 76, 78, 82, 83, 85, 89, 90, 92, 96, 97, 99, 103, 104, 106, 110, 111, 113, 117, 118, 120, 124, 125, 127, 131, 132, 134, 138, 139, 141
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-6-3*cos(2*n*Pi/3)-5*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-2, a(3k-2) = 7k-6. (End)
[A140504] 5, 6, 8, 12, 20, 36, 68, 132, 260, 516, 1028, 2052, 4100, 8196, 16388, 32772, 65540, 131076, 262148, 524292, 1048580, 2097156, 4194308, 8388612, 16777220, 33554436, 67108868, 134217732, 268435460, 536870916, 1073741828
a(n) = 2*a(n-1)-4 (with a(0)=5). [Vincenzo Librandi, Nov 24 2009]
[A047437] 0, 5, 6, 8, 13, 14, 16, 21, 22, 24, 29, 30, 32, 37, 38, 40, 45, 46, 48, 53, 54, 56, 61, 62, 64, 69, 70, 72, 77, 78, 80, 85, 86, 88, 93, 94, 96, 101, 102, 104, 109, 110, 112, 117, 118, 120, 125, 126, 128, 133, 134, 136, 141, 142, 144, 149, 150, 152, 157, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-15-3*cos(2*n*Pi/3)-7*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-3, a(3k-2) = 8k-8. (End)
[A227006] 5, 6, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75
a(n) = n + 16 for n > 1791. - Charles R Greathouse IV, Jun 27 2013
[A047438] 1, 5, 6, 9, 13, 14, 17, 21, 22, 25, 29, 30, 33, 37, 38, 41, 45, 46, 49, 53, 54, 57, 61, 62, 65, 69, 70, 73, 77, 78, 81, 85, 86, 89, 93, 94, 97, 101, 102, 105, 109, 110, 113, 117, 118, 121, 125, 126, 129, 133, 134, 137, 141, 142, 145, 149, 150, 153, 157, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 2*(12*n-6-3*cos(2*n*Pi/3)-2*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-2, a(3k-1) = 8k-3, a(3k-2) = 8k-7. (End)
[A218735] 5, 6, 9, 13, 22, 33, 57, 86, 149, 225, 390, 589, 1021, 1542, 2673, 4037, 6998, 10569, 18321, 27670, 47965, 72441, 125574, 189653, 328757, 496518, 860697, 1299901, 2253334, 3403185, 5899305, 8909654, 15444581, 23325777, 40434438, 61067677, 105858733
a(n) = 3*a(n-2)-a(n-4).
[A117951] 5, 6, 9, 14, 21, 30, 41, 54, 69, 86, 105, 126, 149, 174, 201, 230, 261, 294, 329, 366, 405, 446, 489, 534, 581, 630, 681, 734, 789, 846, 905, 966, 1029, 1094, 1161, 1230, 1301, 1374, 1449, 1526, 1605, 1686, 1769, 1854, 1941, 2030, 2121, 2214, 2309, 2406, 2505
a(n) = 2*n+a(n-1)-1 (with a(0)=5). - Vincenzo Librandi, Nov 13 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).
[A265188] 0, 1, 5, 6, 10, 11, 12, 16, 17, 21, 22, 23, 27, 28, 32, 33, 34, 38, 39, 43, 44, 45, 49, 50, 54, 55, 56, 60, 61, 65, 66, 67, 71, 72, 76, 77, 78, 82, 83, 87, 88, 89, 93, 94, 98, 99, 100, 104, 105, 109, 110, 111, 115, 116, 120, 121, 122, 126, 127, 131, 132, 133, 137, 138, 142
a(n) = a(n-1) + a(n-5) - a(n-6), n>6.
[A008851] 0, 1, 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 80, 81, 85, 86, 90, 91, 95, 96, 100, 101, 105, 106, 110, 111, 115, 116, 120, 121, 125, 126, 130, 131, 135, 136, 140, 141, 145, 146, 150, 151
a(n) = 5*n-a(n-1)-4 (with a(0)=0). - Vincenzo Librandi, Nov 18 2010
a(n) = floor((5/3)*floor(3*(n-1)/2)). - Clark Kimberling, Jul 04 2012
a(n) = (5*n - 13 - 3*(-1)^n)/4. - Robert Israel, Nov 17 2014
[A093509] 0, 5, 6, 10, 12, 15, 18, 20, 24, 25, 30, 35, 36, 40, 42, 45, 48, 50, 54, 55, 60, 65, 66, 70, 72, 75, 78, 80, 84, 85, 90, 95, 96, 100, 102, 105, 108, 110, 114, 115, 120, 125, 126, 130, 132, 135, 138, 140, 144, 145, 150, 155, 156, 160, 162, 165, 168, 170, 174, 175
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-2*a(n-4)+2*a(n-5)-2*a(n-6)+2*a(n-7)-2*a(n-8)+2*a(n-9)-a(n-10) for n>10.
a(n) = 5*floor((n+9)/10)*(-1)^n/2 + 5*floor((n+9)/10)/2 - n*(-1)^n/4 - (-1)^n + 11*n/4 - 4. (End)
[A164095] 5, 6, 10, 12, 20, 24, 40, 48, 80, 96, 160, 192, 320, 384, 640, 768, 1280, 1536, 2560, 3072, 5120, 6144, 10240, 12288, 20480, 24576, 40960, 49152, 81920, 98304, 163840, 196608, 327680, 393216, 655360, 786432, 1310720, 1572864, 2621440, 3145728

a(n) = (4-(-1)^n)*2^(1/4*(2*n-1+(-1)^n)).
[A075156] 5, 6, 10, 24, 70, 216, 664, 2008, 5998, 17808, 52770, 156360, 463492, 1374392, 4076222, 12090144, 35859742, 106359928, 315460168, 935639768, 2775057510, 8230670416, 24411730298, 72403913480, 214746249796, 636926269816
a(n) = 6a(n-1) - 13a(n-2) + 14a(n-3) - 7a(n-4) + 2a(n-5), a(0)=5, a(1)=6, a(2)=10, a(3)=24, a(4)=70.
a(n) = term (1,5) in the 1 X 5 matrix [70,24,10,6,5]. [6,1,0,0,0; -13,0,1,0,0; 14,0,0,1,0; -7,0,0,0,1; 2,0,0,0,0]^n. - Alois P. Heinz, Jul 25 2008
[A047264] 0, 5, 6, 11, 12, 17, 18, 23, 24, 29, 30, 35, 36, 41, 42, 47, 48, 53, 54, 59, 60, 65, 66, 71, 72, 77, 78, 83, 84, 89, 90, 95, 96, 101, 102, 107, 108, 113, 114, 119, 120, 125, 126, 131, 132, 137, 138, 143, 144, 149
a(n) = 3*n+(-1)^n-2.
a(n) = 6*n-a(n-1)-7 (with a(1)=0) [From Vincenzo Librandi, Aug 05 2010]
[A022095] 1, 5, 6, 11, 17, 28, 45, 73, 118, 191, 309, 500, 809, 1309, 2118, 3427, 5545, 8972, 14517, 23489, 38006, 61495, 99501, 160996, 260497, 421493, 681990, 1103483, 1785473, 2888956, 4674429, 7563385, 12237814, 19801199, 32039013, 51840212, 83879225, 135719437
a(n) = a(n-1) + a(n-2), n>=2, a(0)=1, a(1)=5.
a(n) = 4*Fibonacci(n) + Fibonacci(n+1), n>=1. - Zerinvary Lajos, Oct 05 2007, corrected by R. J. Mathar, Apr 07 2011
a(n-1) = ((1 + sqrt5)^n - (1 - sqrt5)^n)/(2^n*sqrt5)+ 2*((1 + sqrt5)^(n-1) - (1 - sqrt5)^(n-1))/(2^(n-2)*sqrt5). - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
a(n) = 4*Fibonacci(n+2) - 3*Fibonacci(n+1). - Gary Detlefs, Dec 21 2010
a(n) = (L(n-2) + 8*L(n-1) + 4*L(n) + 2*L(n+1))/5 for the Lucas numbers L(n). - J. M. Bergot, Oct 22 2012
a(n) = ((2*sqrt(5) - 1)*(((1 + sqrt(5))/2)^(n+1)) + (2*sqrt(5) + 1)*(((1 - sqrt(5))/2)^(n+1)))/(sqrt(5)). - Bogart B. Strauss, Jul 19 2013
[A042531] 1, 5, 6, 11, 17, 28, 45, 73, 118, 191, 1073, 60279, 302468, 362747, 665215, 1027962, 1693177, 2721139, 4414316, 7135455, 11549771, 64884310, 3645071131, 18290239965, 21935311096, 40225551061, 62160862157, 102386413218, 164547275375, 266933688593
a(n) = 60470*a(n-11) + a(n-22)for n>21. - Vincenzo Librandi, Jan 23 2014
[A042839] 1, 1, 5, 6, 11, 17, 28, 45, 118, 163, 281, 444, 725, 1169, 5401, 6570, 399601, 406171, 2024285, 2430456, 4454741, 6885197, 11339938, 18225135, 47790208, 66015343, 113805551, 179820894, 293626445, 473447339, 2187415801, 2660863140
a(n) = 405002*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 30 2014
[A042881] 1, 5, 6, 11, 17, 130, 797, 927, 3578, 4505, 66648, 71153, 280107, 351260, 2387667, 17064929, 19452596, 36517525, 55970121, 316368130, 19670794181, 98670339035, 118341133216, 217011472251, 335352605467, 2564479710520, 15722230868587, 18286710579107
a(n) = 19726764302*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Jan 31 2014
[A042493] 1, 1, 5, 6, 11, 28, 39, 67, 307, 374, 20503, 20877, 104011, 124888, 228899, 582686, 811585, 1394271, 6388669, 7782940, 426667429, 434450369, 2164468905, 2598919274, 4763388179, 12125695632, 16889083811, 29014779443, 132948201583, 161962981026, 8878949176987
a(n) = 20810*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 15 2013
[A041355] 1, 1, 5, 6, 11, 39, 89, 217, 2910, 6037, 14984, 50989, 65973, 116962, 533821, 650783, 17454179, 18104962, 89874027, 107978989, 197853016, 701538037, 1600929090, 3903396217, 52345079911, 108593556039, 269532191989, 917190132006, 1186722323995, 2103912456001
a(n) = 17988000*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 16 2013]
[A041939] 1, 5, 6, 11, 116, 127, 243, 1342, 59291, 297797, 357088, 654885, 6905938, 7560823, 14466761, 79894628, 3529830393, 17729046593, 21258876986, 38987923579, 411138112776, 450126036355, 861264149131, 4756446782010, 210144922557571, 1055481059569865
a(n) = 59534*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 27 2013
[A047319] 5, 6, 12, 13, 19, 20, 26, 27, 33, 34, 40, 41, 47, 48, 54, 55, 61, 62, 68, 69, 75, 76, 82, 83, 89, 90, 96, 97, 103, 104, 110, 111, 117, 118, 124, 125, 131, 132, 138, 139, 145, 146, 152, 153, 159, 160, 166, 167, 173
a(n) = 7*n-a(n-1)-3 (with a(1)=5). [Vincenzo Librandi, Aug 05 2010]
a(n) = 1/4 +7*n/2-5*(-1)^n/4. G.f. x*(5+x+x^2) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A022310] 0, 5, 6, 12, 19, 32, 52, 85, 138, 224, 363, 588, 952, 1541, 2494, 4036, 6531, 10568, 17100, 27669, 44770, 72440, 117211, 189652, 306864, 496517, 803382, 1299900, 2103283, 3403184, 5506468, 8909653, 14416122, 23325776, 37741899, 61067676, 98809576, 159877253
a(n) = -1 + (2^(-1-n)*((1-t)^n*(-11+t) + (1+t)^n*(11+t))) / t where t=sqrt(5).
a(n) = 2*a(n-1) - a(n-3) for n>2. (End)
[A047436] 5, 6, 13, 14, 21, 22, 29, 30, 37, 38, 45, 46, 53, 54, 61, 62, 69, 70, 77, 78, 85, 86, 93, 94, 101, 102, 109, 110, 117, 118, 125, 126, 133, 134, 141, 142, 149, 150, 157, 158, 165, 166, 173, 174, 181, 182, 189, 190
a(n)=8*n-a(n-1)-5, n>1. [From Vincenzo Librandi, Aug 06 2010]
[A084381] 5, 6, 13, 32, 69, 130, 221, 348, 517, 734, 1005, 1336, 1733, 2202, 2749, 3380, 4101, 4918, 5837, 6864, 8005, 9266, 10653, 12172, 13829, 15630, 17581, 19688, 21957, 24394, 27005, 29796, 32773, 35942, 39309, 42880, 46661, 50658, 54877, 59324, 64005
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Jun 09 2016
[A266304] 0, 1, 5, 6, 14, 15, 27, 28, 44, 45, 65, 66, 90, 91, 119, 120, 152, 153, 189, 190, 230, 231, 275, 276, 324, 325, 377, 378, 434, 435, 495, 496, 560, 561, 629, 630, 702, 703, 779, 780, 860, 861, 945, 946, 1034, 1035, 1127, 1128, 1224, 1225, 1325, 1326, 1430
a(n) = n*(n+(-1)^n+2)/2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
a(n) = Sum_{i=1..n} (n-i-1) mod 2. - Wesley Ivan Hurt, Sep 15 2017
[A030533] 1, 1, 5, 6, 15, 19, 35, 44, 69, 85, 121, 146, 195, 231, 295, 344, 425, 489, 589, 670, 791, 891, 1035, 1156, 1325, 1469, 1665, 1834, 2059, 2255, 2511, 2736, 3025, 3281, 3605, 3894, 4255, 4579, 4979, 5340, 5781, 6181, 6665, 7106, 7635
a(n) = n*(2*n^2-9*(-1)^n+13)/24. [Bruno Berselli, Jan 31 2013]
[A081283] 0, 1, 1, 5, 6, 16, 20, 40, 50, 85, 105, 161, 196, 280, 336, 456, 540, 705, 825, 1045, 1210, 1496, 1716, 2080, 2366, 2821, 3185, 3745, 4200, 4880, 5440, 6256, 6936, 7905, 8721, 9861, 10830, 12160, 13300, 14840, 16170, 17941, 19481, 21505, 23276, 25576, 27600
a(n) = (2*n+1-(-1)^n)*(2*n+5-(-1)^n)*(2*n^2+2*(5+(-1)^n)*n+27-11*(-1)^n)/1536. - Luce ETIENNE, Mar 11 2015
[A041773] 1, 5, 6, 17, 23, 132, 5303, 26647, 31950, 90547, 122497, 703032, 28243777, 141921917, 170165694, 482253305, 652418999, 3744348300, 150426350999, 755876103295, 906302454294, 2568481011883, 3474783466177, 19942398342768, 801170717176897, 4025795984227253
a(n) = 5326*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 24 2013
[A041747] 1, 1, 5, 6, 17, 74, 91, 165, 256, 421, 5308, 5729, 11037, 16766, 27803, 127978, 283759, 411737, 1930707, 2342444, 90943579, 93286023, 464087671, 557373694, 1578835059, 6872713930, 8451548989, 15324262919, 23775811908, 39100074827, 492976709832
a(n) = 92874286*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Dec 23 2013
[A192727] 0, 0, 0, 0, 1, 1, 5, 6, 18, 24, 57, 81, 169, 250, 482, 732, 1341, 2073, 3669, 5742, 9922, 15664, 26609, 42273, 70929, 113202, 188226, 301428, 497845, 799273, 1313501, 2112774, 3459042, 5571816, 9096393, 14668209
a(n) = Fibonacci(n-2) + 2*a(n-2) - n mod 2 for all n >= 2, with a(0) = a(1) = 0.
[A129722] 0, 0, 1, 1, 5, 6, 19, 25, 65, 90, 210, 300, 654, 954, 1985, 2939, 5911, 8850, 17345, 26195, 50305, 76500, 144516, 221016, 411900, 632916, 1166209, 1799125, 3283145, 5082270, 9197455, 14279725, 25655489, 39935214, 71293590, 111228804
a(2*n+1) = a(2*n) + a(2*n-1) (n>=1).
[A231181] 1, 1, 5, 6, 20, 27, 75, 110, 275, 429, 1001, 1637, 3639, 6172, 13243, 23104, 48280, 86090, 176341, 319792, 645150, 1185305, 2363596, 4386331, 8669142, 16212913, 31825005, 59873834, 116914020, 220964744, 429737220, 815057639, 1580244061
a(n) = a(n-1) + 4*a(n-2) - 3*a(n-3) - 3*a(n-4) + a(n-5) for n>=0, with a(-5)=1, a(-4)=a(-3)=a(-2)=a(-1)=0.
[A060423] 0, 0, 0, 0, 0, 5, 6, 21, 24, 54, 60, 110, 120, 195, 210, 315, 336, 476, 504, 684, 720, 945, 990, 1265, 1320, 1650, 1716, 2106, 2184, 2639, 2730, 3255, 3360, 3960, 4080, 4760, 4896, 5661, 5814, 6669, 6840, 7790, 7980, 9030, 9240, 10395, 10626
a(n) = n*(n-1)*(n-3)/8 when n odd; n*(n-2)*(n-4)/8 when n even.
a(n) = n*(2*n-3-(-1)^n)*(2*n-7-(-1)^n)/32. - Wesley Ivan Hurt, Dec 31 2013
[A095308] 1, 1, 5, 6, 21, 28, 84, 121, 331, 507, 1300, 2093, 5110, 8568, 20129, 34885, 79477, 141494, 314489, 572264, 1246784, 2309385, 4950751, 9303411, 19684692, 37427313, 78354346, 150402700, 312168761, 603861897, 1244620149
a(n)= 2^n/7*Sum(r, 0, 6, Cos(6Pi*r/7)Cos(2Pi*r/7)^n) G.f.: x^3/((-1+2x)(-1-x+2x^2+x^3)) a(n)=a(n-1)+4a(n-2)-3a(n-3)-2a(n-4)

[A135301] 1, 5, 6, 22, 23, 59, 60, 124, 125, 225, 226, 370, 371, 567, 568, 824, 825, 1149, 1150, 1550, 1551, 2035, 2036, 2612, 2613, 3289, 3290, 4074, 4075, 4975, 4976, 6000, 6001, 7157, 7158, 8454, 8455, 9899, 9900, 11500, 11501, 13265, 13266, 15202, 15203
a(1)=1, a(2)=5, a(3)=6, a(4)=22, a(5)=23, a(6)=59, a(7)=60, a(n)=a(n-1)+ 3*a(n-2)- 3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a (n-7). - Harvey P. Dale, Jul 16 2014
a(n) = ((2*n+1)*(n^2+n+3)+3*(n^2+n-1)*(-1)^n)/12. - Luce ETIENNE, Jul 26 2014
[A192917] 0, 5, 6, 22, 51, 140, 360, 949, 2478, 6494, 16995, 44500, 116496, 304997, 798486, 2090470, 5472915, 14328284, 37511928, 98207509, 257110590, 673124270, 1762262211, 4613662372, 12078724896, 31622512325, 82788812070, 216743923894, 567442959603, 1485584954924
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3).
a(n) = -3*a(n-1) +a(n-2) = 9*(-1)^(n+1). - R. J. Mathar, May 08 2014
a(n) = (2^(-1-n)*(-9*(-1)^n*2^(1+n)-(3-sqrt(5))^n*(-9+sqrt(5))+(3+sqrt(5))^n*(9+sqrt(5))))/5. - Colin Barker, Oct 01 2016
[A042283] 1, 1, 5, 6, 23, 167, 1359, 2885, 24439, 173958, 546313, 720271, 3427397, 4147668, 210810797, 214958465, 1070644657, 1285603122, 4927454023, 35777781283, 291149704287, 618077189857, 5235767223143, 37268447751858, 117041110478717, 154309558230575
a(n) = 214238194*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 19 2014
[A160529] 1, 5, 6, 25, 26, 30, 31, 50, 51, 55, 56, 75, 76, 80, 81, 100, 101, 105, 106, 125, 126, 130, 131, 150, 151, 155, 156, 175, 176, 180, 181, 200, 201, 205, 206, 225, 226, 230, 231, 250, 251, 255, 256, 275, 276, 280, 281, 300, 301, 305, 306, 325, 326, 330, 331, 350
a(n) = 25*floor(n/4) + [0,1,5,6](n mod 4).
a(n) = (-1 - 21*(-1)^n + (15-i*15)*(-i)^n + (15+15*i)*i^n + 50*n)/8 where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A033042] 0, 1, 5, 6, 25, 26, 30, 31, 125, 126, 130, 131, 150, 151, 155, 156, 625, 626, 630, 631, 650, 651, 655, 656, 750, 751, 755, 756, 775, 776, 780, 781, 3125, 3126, 3130, 3131, 3150, 3151, 3155, 3156, 3250, 3251, 3255, 3256, 3275, 3276, 3280, 3281, 3750, 3751
a(n) = Sum_{i=0..m} d(i)*5^i, where Sum_{i=0..m} d(i)*2^i is the base 2 representation of n.
a(2n) = 5*a(n), a(2n+1) = a(2n)+1.
[A249222] 1, 5, 6, 25, 31, 125, 156, 625, 781, 3125, 3906, 15625, 19531, 78125, 97656, 390625, 488281, 1953125, 2441406, 9765625, 12207031, 48828125, 61035156, 244140625, 305175781, 1220703125, 1525878906, 6103515625, 7629394531, 30517578125, 38146972656, 152587890625
a(n) = 6*a(n-2)-5*a(n-4).
[A249221] 1, 5, 6, 28, 34, 158, 192, 892, 1084, 5036, 6120, 28432, 34552, 160520, 195072, 906256, 1101328, 5116496, 6217824, 28886464, 35104288, 163085792, 198190080, 920741824, 1118931904, 5198279360, 6317211264, 29348192512, 35665403776, 165692596352, 201358000128
a(n) = 6*a(n-2)-2*a(n-4).
[A041011] 0, 1, 1, 5, 6, 29, 35, 169, 204, 985, 1189, 5741, 6930, 33461, 40391, 195025, 235416, 1136689, 1372105, 6625109, 7997214, 38613965, 46611179, 225058681, 271669860, 1311738121, 1583407981, 7645370045, 9228778026, 44560482149
a(n) = 6*a(n-2) - a(n-4). Also:
a(2n) = a(2n-1)+a(2n-2), a(2n+1)=4*a(2n)+a(2n-1).
a(n) = (1/4)*(3 - 2*sqrt(2))^(-1/4)*(3 - 2*sqrt(2))^((1/4)*(-1)^n)*(3 - 2*sqrt(2))^(1/2*n) + (1/4)*(3 + 2*sqrt(2))^((1/4)*(-1)^n)*(3 + 2*sqrt(2))^(1/2*n)*(3 + 2*sqrt(2))^(-1/4) - (1/4)*(-1)^n*(3 + 2*sqrt(2))^((1/4)*(-1)^n)*(3 + 2*sqrt(2))^(1/2*n)*(3 + 2*sqrt(2))^(-1/4) -(1/4)*(3 - 2 *sqrt(2))^(-1/4)*(-1)^n*(3 - 2*sqrt(2))^((1/4)*(-1)^n)*(3 - 2*sqrt(2))^(1/2*n) + (3/16)*(3 + 2*sqrt(2))^((1/4)*(-1)^n)*(3 + 2*sqrt(2))^(1/2*n)*(3 + 2*sqrt(2))^(- 1/4)*sqrt(2) - (1/16)*(-1)^n*(3 + 2*sqrt(2))^((1/4)*(-1)^n)*(3 + 2*sqrt(2))^(1/2*n)*(3 + 2*sqrt(2))^(- 1/4) *sqrt(2) - (3/16)*(3 - 2*sqrt(2))^(-1/4)*sqrt(2)*(3 - 2*sqrt(2))^((1/4)*(-1)^n)*(3 - 2 *sqrt(2))^(1/2*n) + (1/16)*(3 - 2*sqrt(2))^(-1/4)*(-1)^n*sqrt(2)*(3 - 2*sqrt(2))^((1/4)*(-1)^n)*(3 - 2*sqrt(2))^(1/2*n). - Paolo P. Lava, Feb 19 2009
a(n) = product {k = 1..floor((n-1)/2)} (4 + 4*cos^2(k*Pi/n)) for n >= 1. (End)
a(n) = ((-(-1 - sqrt(2))^n - 3*(1-sqrt(2))^n + (-1+sqrt(2))^n + 3*(1+sqrt(2))^n))/(8*sqrt(2)). - Colin Barker, Mar 27 2016
[A152118] 1, 1, 1, 5, 6, 29, 35, 169, 204, 985, 1189, 5741, 6930, 33461, 40391, 195025, 235416, 1136689, 1372105, 6625109, 7997214, 38613965, 46611179, 225058681, 271669860, 1311738121, 1583407981, 7645370045, 9228778026, 44560482149, 53789260175, 259717522849
a(n) = 6*a(n-2)-a(n-4) for n>4.
a(n) = ((-(-1 - sqrt(2))^n - 3*(1-sqrt(2))^n + (-1+sqrt(2))^n + 3*(1+sqrt(2))^n)) / (8*sqrt(2)) for n>0. - Colin Barker, Mar 28 2016
[A042643] 1, 5, 6, 29, 64, 477, 541, 4264, 9069, 40540, 49609, 288585, 16787539, 84226280, 101013819, 488281556, 1077576931, 8031320073, 9108897004, 71793599101, 152696095206, 682577979925, 835274075131, 4858948355580, 282654278698771, 1418130341849435
a(n) = 16837148*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 26 2014
[A166023] 1, 5, 6, 30, 36, 180, 216, 1080, 1296, 6480, 7776, 38880, 46656, 233280, 279936, 1399680, 1679616, 8398080, 10077696, 50388480, 60466176, 302330880, 362797056, 1813985280, 2176782336, 10883911680, 13060694016, 65303470080, 78364164096
a(n) = 6^(1/4*(2*n+3+(-1)^n))*(11-(-1)^n)/72.
[A273050] 0, 5, 6, 45, 54, 365, 438, 2925, 3510, 23405, 28086, 187245, 224694, 1497965, 1797558, 11983725, 14380470, 95869805, 115043766, 766958445, 920350134, 6135667565, 7362801078, 49085340525, 58902408630, 392682724205, 471219269046
a(n) = (-11+(-1)^n+2^(-1/2+(3*n)/2)*(3-3*(-1)^n+5*sqrt(2)+5*(-1)^n*sqrt(2)))/14.
a(n) = 5*(2^(3*n/2)-1)/7 for n even.
a(n) = 3*(2^((3*n)/2-1/2)-2)/7 for n odd.
a(n) = 9*a(n-2)-8*a(n-4) for n>4.
[A269908] 1, 5, 6, 50, 51, 167, 168, 388, 389, 745, 746, 1270, 1271, 1995, 1996, 2952, 2953, 4173, 4174, 5690, 5691, 7535, 7536, 9740, 9741, 12337, 12338, 15358, 15359, 18835, 18836, 22800, 22801, 27285, 27286, 32322, 32323, 37943, 37944, 44180, 44181, 51065, 51066
a(n) = (3+9*(-1)^n-2*(1+12*(-1)^n)*n-12*(-2+(-1)^n)*n^2+8*n^3)/12.
a(n) = (4*n^3+6*n^2-13*n+6)/6 for n even.
a(n) = (4*n^3+18*n^2+11*n-3)/6 for n odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>6.
[A041139] 1, 1, 5, 6, 101, 107, 529, 636, 10705, 11341, 56069, 67410, 1134629, 1202039, 5942785, 7144824, 120259969, 127404793, 629879141, 757283934, 12746422085, 13503706019, 66761246161, 80264952180, 1351000481041, 1431265433221, 7076062213925, 8507327647146
a(n) = 106*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A041601] 1, 1, 5, 6, 209, 215, 1069, 1284, 44725, 46009, 228761, 274770, 9570941, 9845711, 48953785, 58799496, 2048136649, 2106936145, 10475881229, 12582817374, 438291671945, 450874489319, 2241789629221, 2692664118540, 93792369659581, 96485033778121
a(n) = 214*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 21 2013
[A041827] 1, 1, 5, 6, 245, 251, 1249, 1500, 61249, 62749, 312245, 374994, 15312005, 15686999, 78060001, 93747000, 3827940001, 3921687001, 19514688005, 23436375006, 956969688245, 980406063251, 4878593941249, 5859000004500, 239238594121249, 245097594125749
a(n) = 250*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 25 2013
[A042089] 1, 1, 5, 6, 281, 287, 1429, 1716, 80365, 82081, 408689, 490770, 22984109, 23474879, 116883625, 140358504, 6573374809, 6713733313, 33428308061, 40142041374, 1879962211265, 1920104252639, 9560379221821, 11480483474460, 537662619046981, 549143102521441
a(n) = 286*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Jan 14 2014
[A047479] 0, 1, 5, 7, 8, 9, 13, 15, 16, 17, 21, 23, 24, 25, 29, 31, 32, 33, 37, 39, 40, 41, 45, 47, 48, 49, 53, 55, 56, 57, 61, 63, 64, 65, 69, 71, 72, 73, 77, 79, 80, 81, 85, 87, 88, 89, 93, 95, 96, 97, 101, 103, 104, 105, 109, 111, 112, 113, 117, 119, 120, 121, 125
a(n) = (-7-(-1)^n+(2-i)*(-i)^n+(2+i)*i^n+8*n)/4 where i=sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - _ Vincenzo Librandi_, May 16 2012
[A080720] 5, 7, 8, 10, 11, 12, 13, 15, 18, 19, 21, 24, 27, 30, 31, 33, 34, 35, 36, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 60, 63, 66, 67, 68, 69, 72, 73, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 103, 104, 105, 108, 109, 111, 112, 113, 114, 115, 116, 117, 118, 119
a(a(n)) = 3*(n+4).
[A047384] 0, 1, 5, 7, 8, 12, 14, 15, 19, 21, 22, 26, 28, 29, 33, 35, 36, 40, 42, 43, 47, 49, 50, 54, 56, 57, 61, 63, 64, 68, 70, 71, 75, 77, 78, 82, 84, 85, 89, 91, 92, 96, 98, 99, 103, 105, 106, 110, 112, 113, 117, 119, 120, 124, 126, 127, 131, 133, 134, 138, 140
a(n) = Sum_{i=0..n-2} 2^(-i mod 3). - Wesley Ivan Hurt, Jul 08 2014
a(n) = 3 + floor((n-2)/3) + 2*floor((n-4)/3) + 4*floor(n/3). - Wesley Ivan Hurt, Jul 13 2014

a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-24+6*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-2, a(3k-1) = 7k-6, a(3k-2) = 7k-7. (End)
[A047477] 0, 5, 7, 8, 13, 15, 16, 21, 23, 24, 29, 31, 32, 37, 39, 40, 45, 47, 48, 53, 55, 56, 61, 63, 64, 69, 71, 72, 77, 79, 80, 85, 87, 88, 93, 95, 96, 101, 103, 104, 109, 111, 112, 117, 119, 120, 125, 127, 128, 133, 135, 136, 141, 143, 144, 149, 151, 152, 157, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. - Vincenzo Librandi, May 16 2012
a(n) = (24*n - 12 + 3*cos(2*n*Pi/3) - 7*sqrt(3)*sin(2*n*Pi/3))/9.
a(3*k) = 8*k-1, a(3*k-1) = 8*k-3, a(3*k-2) = 8*k-8. (End)
[A160811] 5, 7, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n + 8 for n > 16. [Charles R Greathouse IV, Oct 26 2011]
[A184110] 5, 7, 9, 10, 12, 13, 15, 17, 18, 19, 21, 22, 24, 25, 27, 28, 29, 31, 32, 33, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 53, 54, 55, 56, 57, 59, 60, 61, 62, 64, 65, 66, 67, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 87, 88, 89, 90, 91, 92, 94, 95, 96, 97, 98, 99, 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 115, 116, 117, 118, 119, 120, 122, 123, 124, 125, 126, 127, 129, 130
a(n) = n + floor(3*sqrt(n+1))
[A080353] 5, 7, 9, 11, 12, 14, 15, 17, 18, 20, 21, 22, 24, 25, 26, 28, 29, 30, 32, 33, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 86, 87, 88, 89
a(n) = n + floor(sqrt(6*n)) + O(1).
[A184108] 1, 5, 7, 9, 11, 12, 14, 15, 17, 19, 20, 21, 23, 24, 26, 27, 29, 30, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 75, 77, 78, 79, 80, 81, 83, 84, 85, 86, 87, 89, 90, 91, 92, 93, 94, 96, 97, 98, 99, 100, 101, 103, 104, 105, 106, 107, 109, 110, 111, 112, 113, 114, 115, 117, 118, 119, 120, 121, 122, 124, 125, 126, 127, 128, 129
a(n) = n + floor(3*sqrt(n-1))
[A279289] 5, 7, 9, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n + 11 for n >= 20.
[A267872] 1, 1, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125
a(n) = 2*a(n-1)-a(n-2) for n>3.
[A020735] 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131
a(n) = 2*n + 3.
[A086398] 1, 5, 7, 9, 11, 15, 17, 21, 23, 27, 29, 33, 35, 37, 39, 43, 45, 49, 51, 53, 55, 59, 61, 65, 67, 69, 71, 75, 77, 81, 83, 85, 87, 91, 93, 97, 99, 103, 105, 109, 111, 113, 115, 119, 121, 125, 127, 129, 131, 135, 137, 141, 143, 147, 149, 153, 155, 157, 159, 163, 165, 169
a(n)=(1+sqrt(3))*n + O(1)
[A283771] 5, 7, 9, 11, 18, 20, 22, 24, 31, 33, 35, 37, 44, 46, 48, 50, 57, 59, 61, 63, 68, 70, 72, 74, 76, 81, 83, 85, 87, 94, 96, 98, 100, 107, 109, 111, 113, 120, 122, 124, 126, 133, 135, 137, 139, 146, 148, 150, 152, 157, 159, 161, 163, 165, 170, 172, 174, 176, 183
a(n+1) - a(n) is in {2,5,7} for every n.
[A188793] 1, 5, 7, 9, 11, 29, 31, 89, 91, 269, 271, 809, 811, 2429, 2431, 7289, 7291, 21869, 21871, 65609, 65611, 196829, 196831, 590489, 590491, 1771469, 1771471, 5314409, 5314411, 15943229, 15943231, 47829689, 47829691, 143489069, 143489071, 430467209, 430467211
a(2h) = 10*3^(h-2) - 1 for h >= 2.
a(2h+1) = 10*3^(h-2) + 1 for h >= 2. (End)
[A184102] 5, 7, 9, 12, 13, 15, 17, 19, 21, 22, 24, 25, 27, 28, 30, 32, 33, 34, 36, 37, 39, 40, 42, 43, 45, 46, 47, 49, 50, 51, 53, 54, 55, 57, 58, 60, 61, 62, 63, 65, 66, 67, 69, 70, 71, 73, 74, 75, 77, 78, 79, 80, 82, 83, 84, 85, 87, 88, 89, 90, 92, 93, 94, 96, 97, 98, 99, 100, 102, 103, 104, 105, 107, 108, 109, 110, 112, 113, 114, 115, 117, 118, 119, 120, 121, 123, 124, 125, 126, 127, 129, 130, 131, 132, 133, 135, 136, 137, 138, 140
a(n)=n+floor(4*sqrt(n)).
[A047478] 1, 5, 7, 9, 13, 15, 17, 21, 23, 25, 29, 31, 33, 37, 39, 41, 45, 47, 49, 53, 55, 57, 61, 63, 65, 69, 71, 73, 77, 79, 81, 85, 87, 89, 93, 95, 97, 101, 103, 105, 109, 111, 113, 117, 119, 121, 125, 127, 129, 133, 135, 137, 141, 143, 145, 149, 151, 153, 157, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. - Vincenzo Librandi, May 16 2012
a(n) = (24*n-9-4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-3, a(3k-2) = 8k-7. (End)
[A079523] 1, 5, 7, 9, 13, 17, 21, 23, 25, 29, 31, 33, 37, 39, 41, 45, 49, 53, 55, 57, 61, 65, 69, 71, 73, 77, 81, 85, 87, 89, 93, 95, 97, 101, 103, 105, 109, 113, 117, 119, 121, 125, 127, 129, 133, 135, 137, 141, 145, 149, 151, 153, 157, 159, 161, 165, 167, 169, 173, 177, 181
a(n) is asymptotic to 3n.
[A097280] 5, 7, 9, 13, 19, 29, 45, 71, 113, 181, 291, 469, 757, 1223, 1977, 3197, 5171, 8365, 13533, 21895, 35425, 57317, 92739, 150053, 242789, 392839, 635625, 1028461, 1664083, 2692541, 4356621, 7049159, 11405777, 18454933, 29860707, 48315637
a(n) = 2*a(n-1) - a(n-3).
[A278579] 5, 7, 10, 11, 14, 15, 17, 19, 20, 21, 22, 28, 30, 33, 34, 37, 38, 40, 42, 43, 44, 45, 51, 53, 56, 57, 60, 61, 63, 65, 66, 67, 68, 74, 76, 79, 80, 83, 84, 86, 88, 89, 90, 91, 97, 99, 102, 103, 106, 107, 109, 111, 112, 113, 114, 120, 122, 125, 126, 129, 130, 132, 134, 135, 136, 137, 143, 145, 148, 149
a(n+11) = a(n)+23.
[A123122] 0, 5, 7, 10, 12, 14, 15, 17, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81
a(n) = n + 11 for n > 12. - Charles R Greathouse IV, Oct 26 2011
[A256680] 0, 1, 5, 7, 10, 12, 15, 17, 20, 22, 25, 27, 30, 32, 35, 37, 40, 42, 45, 47, 50, 52, 55, 57, 60, 62, 65, 67, 70, 72, 75, 77, 80, 82, 85, 87, 90, 92, 95, 97, 100, 102, 105, 107, 110, 112, 115, 117, 120, 122, 125, 127, 130, 132, 135, 137, 140, 142, 145, 147, 150, 152, 155, 157, 160, 162
a(n) = floor(5*n/2), for n>=2; a(0)=0 and a(1)=1.
a(n) = (-1+(-1)^n+10*n)/4 for n>1.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>4.
[A179196] 1, 5, 7, 10, 13, 15, 17, 19, 20, 25, 26, 28, 31, 35, 36, 39, 41, 42, 49, 50, 51, 52, 53, 56, 57, 60, 63, 64, 69, 70, 73, 74, 79, 80, 81, 83, 84, 85, 89, 93, 94, 96, 104, 105, 107, 108, 109, 110, 111, 116, 117, 118, 119, 120, 123, 128, 129, 131, 133, 136, 140, 142, 143
a(n) = rho(n) in the paper by Sondow, Nicholson, and Noe.
[A089061] 5, 7, 10, 13, 17, 22, 29, 39, 54, 77, 113, 170, 261, 407, 642, 1021, 1633, 2622, 4221, 6807, 10990, 17757, 28705, 46418, 75077, 121447, 196474, 317869, 514289, 832102, 1346333, 2178375, 3524646, 5702957, 9227537, 14930426, 24157893
a(n) = Fibonacci(n+1)+2n+4. - Ralf Stephan, Feb 24 2004
[A022441] 1, 5, 7, 10, 14, 17, 20, 23, 25, 28, 31, 34, 37, 40, 43, 46, 50, 53, 56, 59, 62, 65, 68, 71, 74, 77, 80, 83, 86, 89, 92, 95, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175, 178
a(n) + a(n-1) = 3n + 2 - (floor(log_2 n) mod 2) for n >= 1 - Jeffrey Shallit, Jun 08, 2000.
[A070875] 5, 7, 10, 14, 20, 28, 40, 56, 80, 112, 160, 224, 320, 448, 640, 896, 1280, 1792, 2560, 3584, 5120, 7168, 10240, 14336, 20480, 28672, 40960, 57344, 81920, 114688, 163840, 229376, 327680, 458752, 655360, 917504, 1310720, 1835008, 2621440
a(n) = (6-(-1)^n)*2^((2*n+(-1)^n-1)/4). Therefore: a(n) = 5*2^(n/2) for n even, otherwise a(n) = 7*2^((n-1)/2).
a(n) = 2*a(n-2) for n>1. (End)
a(n) = sqrt(2*a(n-1) - (-2)^(n-1)). - Richard R. Forberg, Sep 06 2013
a(n+3) = a(n+2)*a(n+1)/a(n). - Richard R. Forberg, Sep 06 2013
a(n) = 2^((n-3)/2)*(5*sqrt(2)*(1 + (-1)^n) + 7*(1 - (-1)^n)). (End)

[A091522] 5, 7, 10, 14, 20, 28, 40, 57, 81, 115, 163, 231, 327, 463, 655, 927, 1311, 1854, 2622, 3708, 5244, 7416, 10488, 14832, 20976, 29665, 41953, 59331, 83907, 118663, 167815, 237326, 335630, 474653, 671261, 949307, 1342523, 1898614, 2685046
a(n) = floor(sqrt(2) * (a(n-1) + 1/2)).
[A020711] 5, 7, 10, 14, 20, 29, 42, 61, 89, 130, 190, 278, 407, 596, 873, 1279, 1874, 2746, 4024, 5897, 8642, 12665, 18561, 27202, 39866, 58426, 85627, 125492, 183917, 269543, 395034, 578950, 848492, 1243525, 1822474, 2670965, 3914489, 5736962, 8407926, 12322414, 18059375
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A048584] 5, 7, 10, 15, 23, 36, 57, 91, 146, 235, 379, 612, 989, 1599, 2586, 4183, 6767, 10948, 17713, 28659, 46370, 75027, 121395, 196420, 317813, 514231, 832042, 1346271, 2178311, 3524580, 5702889, 9227467, 14930354, 24157819, 39088171, 63245988, 102334157, 165580143
a(n) = Fib(n+4)+2. a(n) = 2a(n-1) - a(n-3).
a(n)=2+(3/2)*[1/2+(1/2)*sqrt(5)]^n+(7/10)*[1/2+(1/2)*sqrt(5)]^n*sqrt(5)-(7/10)*sqrt(5)*[1/2-(1/2) *sqrt(5)]^n+(3/2)*[1/2-(1/2)*sqrt(5)]^n, with n>=0 - Paolo P. Lava, Jun 10 2008
[A007310] 1, 5, 7, 11, 13, 17, 19, 23, 25, 29, 31, 35, 37, 41, 43, 47, 49, 53, 55, 59, 61, 65, 67, 71, 73, 77, 79, 83, 85, 89, 91, 95, 97, 101, 103, 107, 109, 113, 115, 119, 121, 125, 127, 131, 133, 137, 139, 143, 145, 149
a(n) = (6*n + (-1)^n - 3)/2. - Antonio Esposito (antonio.b.esposito(AT)italtel.it), Jan 18 2002
a(n) = a(n-1) + a(n-2) - a(n-3), n >= 4. - Roger L. Bagula
a(n) = 3*n - 1 - (n mod 2). - Zak Seidov, Jan 18 2006
a(1) = 1 then alternatively add 4 and 2. a(1) = 1, a(n) = a(n-1) + 3 + (-1)^n. - Zak Seidov, Mar 25 2006
a(n) = 6*floor(n/2) - 1 + 2*(n mod 2). - Reinhard Zumkeller, Oct 02 2008
a(n) = 6*n - a(n-1) - 6 for n>1, a(1) = 1. - Vincenzo Librandi, Nov 18 2010
[A101635] 5, 7, 11, 13, 17, 19, 23, 31, 41, 43, 47, 61, 71, 73, 83, 97, 101, 103, 107, 109, 113, 127, 131, 139, 149, 151, 167, 181, 191, 193, 197, 199, 227, 229, 233, 241, 251, 271, 281, 283, 293, 307, 311, 313, 317, 331, 347, 349, 353, 367, 383, 397, 401, 409, 419, 421
a(2n) == 1 (mod 6) a(2n+1) == -1 (mod 6).
[A037141] 5, 7, 11, 14, 18, 22, 27, 33, 41, 52, 68, 92, 129, 187, 279, 426, 662, 1042, 1655, 2645, 4245, 6832, 11016, 17784, 28733, 46447, 75107, 121478, 196506, 317902, 514323, 832137, 1346369, 2178412, 3524684, 5702996, 9227577, 14930467, 24157935, 39088290
a(n) = F(n-1)+(4+3*n); G.f.: (5-8*x)/((1-x-x^2)*(1-x)^2)
[A075317] 1, 5, 7, 11, 15, 17, 21, 23, 27, 31, 33, 37, 41, 43, 47, 49, 53, 57, 59, 63, 65, 69, 73, 75, 79, 83, 85, 89, 91, 95, 99, 101, 105, 109, 111, 115, 117, 121, 125, 127, 131, 133, 137, 141, 143, 147, 151, 153, 157, 159, 163, 167, 169, 173, 175, 179, 183, 185, 189, 193
a(n) = 2*floor(n*phi)-1, where phi=(1+sqrt(5))/2. - Michel Dekking, Sep 05 2016
[A046133] 5, 7, 11, 17, 19, 29, 31, 41, 47, 59, 61, 67, 71, 89, 97, 101, 127, 137, 139, 151, 167, 179, 181, 199, 211, 227, 229, 239, 251, 257, 269, 271, 281, 337, 347, 367, 389, 397, 409, 419, 421, 431, 449, 467, 479, 487, 491, 509, 557, 587, 601, 607, 619, 631, 641
a(n) » n log^2 n. Charles R Greathouse IV, Apr 28 2015
[A027690] 5, 7, 11, 17, 25, 35, 47, 61, 77, 95, 115, 137, 161, 187, 215, 245, 277, 311, 347, 385, 425, 467, 511, 557, 605, 655, 707, 761, 817, 875, 935, 997, 1061, 1127, 1195, 1265, 1337, 1411, 1487, 1565, 1645, 1727, 1811, 1897, 1985, 2075, 2167, 2261
a(n) = 2*n + a(n-1) for n>0, a(0)=5. - Vincenzo Librandi, Aug 05 2010
[A218394] 1, 5, 7, 11, 25, 27, 31, 35, 37, 51, 55, 57, 61, 125, 127, 131, 135, 137, 151, 155, 157, 161, 175, 177, 181, 185, 187, 251, 255, 257, 261, 275, 277, 281, 285, 287, 301, 305, 307, 311, 625, 627, 631, 635, 637, 651, 655, 657, 661, 675, 677, 681, 685, 687, 751
a(n)=2*n - 1 + 2*sum{i=1,n} 5^(i-1)*floor((2*n-1)/3^i).
[A047382] 0, 5, 7, 12, 14, 19, 21, 26, 28, 33, 35, 40, 42, 47, 49, 54, 56, 61, 63, 68, 70, 75, 77, 82, 84, 89, 91, 96, 98, 103, 105, 110, 112, 117, 119, 124, 126, 131, 133, 138, 140, 145, 147, 152, 154, 159, 161, 166, 168
a(n) = 7*n-a(n-1)-9 for n>1, with a(1)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = (14*n+3*(-1)^n-11)/4.
a(n) = ceiling((7/3)*ceiling(3*n/2)). - Clark Kimberling, Jul 04 2012
[A263536] 5, 7, 12, 17, 19, 24, 29, 31, 36, 41, 43, 48, 53, 55, 60, 65, 67, 72, 77, 79, 84, 89, 91, 96, 101, 103, 108, 113, 115, 120, 125, 127, 132, 137, 139, 144, 149, 151, 156, 161, 163, 168, 173, 175, 180, 185, 187, 192, 197, 199, 204, 209, 211, 216, 221, 223, 228
a(n) = a(n-1)+a(n-3)-a(n-4) for n>4.
[A047550] 5, 7, 13, 15, 21, 23, 29, 31, 37, 39, 45, 47, 53, 55, 61, 63, 69, 71, 77, 79, 85, 87, 93, 95, 101, 103, 109, 111, 117, 119, 125, 127, 133, 135, 141, 143, 149, 151, 157, 159, 165, 167, 173, 175, 181, 183, 189, 191, 197, 199, 205, 207, 213, 215, 221, 223, 229, 231, 237, 239, 245, 247, 253, 255, 261
a(n) = 8*n-a(n-1)-4 (with a(1)=5). - Vincenzo Librandi, Aug 06 2010
a(n) = 4*n-(-1)^n. - Rolf Pleisch, Nov 02 2010
a(1)=5, a(2)=7, a(3)=13; for n>3, a(n) = a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Jun 04 2012
[A236204] 1, 5, 7, 13, 17, 19, 23, 25, 29, 31, 35, 37, 41, 43, 47, 49, 53, 59, 61, 65, 67, 71, 73, 79, 83, 85, 89, 91, 95, 97, 101, 103, 107, 109, 113, 115, 119, 125, 127, 131, 133, 137, 139, 145, 149, 151, 155, 157, 161, 163, 167, 169, 173, 175, 179, 181, 185, 191, 193, 197, 199, 203, 205
a(n) = a(n-1) + a(n-20) - a(n-21). - Charles R Greathouse IV, Mar 26 2014
[A108719] 5, 7, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281
a(n) = prime(n+3) for n > 2. [Charles R Greathouse IV, Feb 09 2012]
[A178218] 1, 5, 7, 13, 17, 25, 31, 41, 49, 61, 71, 85, 97, 113, 127, 145, 161, 181, 199, 221, 241, 265, 287, 313, 337, 365, 391, 421, 449, 481, 511, 545, 577, 613, 647, 685, 721, 761, 799, 841, 881, 925, 967, 1013, 1057, 1105, 1151, 1201, 1249
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: x*(1+3*x-3*x^2+x^3)/((1-x)^3*(1+x)). [Colin Barker, Apr 04 2012]
a(n) = (2n(n+2)+3(-1)^n+1)/4. [Bruno Berselli, Apr 04 2012]
a(1)=1, a(n) = n*(n+1) - a(n-1). [Alex Ratushnyak, Aug 03 2012]
[A117249] 5, 7, 13, 19, 37, 43, 61, 71, 89, 113, 131, 163, 181, 193, 223, 251, 281, 293, 337, 359, 373, 409, 433, 463, 521, 557, 569, 593, 601, 619, 719, 743, 787, 809, 863, 881, 929, 971, 997, 1033, 1069, 1091, 1163, 1181, 1213, 1223, 1301, 1423, 1439, 1451, 1481, 1511, 1531, 1601, 1627, 1693, 1733, 1747, 1789, 1831, 1861, 1931
a(n) = prime(1 + prime(n)). - T. D. Noe, Apr 05 2011
[A022319] 1, 5, 7, 13, 21, 35, 57, 93, 151, 245, 397, 643, 1041, 1685, 2727, 4413, 7141, 11555, 18697, 30253, 48951, 79205, 128157, 207363, 335521, 542885, 878407, 1421293, 2299701, 3720995, 6020697, 9741693
a(n) = Fibonacci(n) + Fibonacci(n+6) - 1, n>=-2 - Zerinvary Lajos, Feb 01 2008
[A155757] 5, 7, 13, 25, 45, 75, 117, 173, 245, 335, 445, 577, 733, 915, 1125, 1365, 1637, 1943, 2285, 2665, 3085, 3547, 4053, 4605, 5205, 5855, 6557, 7313, 8125, 8995, 9925, 10917, 11973, 13095, 14285, 15545, 16877, 18283, 19765, 21325, 22965
a(n)=n(n-1)+a(n-1), with a(1)=5.
[A027674] 1, 1, 1, 1, 1, 5, 7, 13, 25, 49, 89, 169, 319, 601, 1129, 2129, 4009, 7549, 14215, 26773, 50417, 94945, 178801, 336721, 634111, 1194161, 2248849, 4235041, 7975441, 15019381, 28284551, 53265565, 100309897, 188903953
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4) - a(n-5). - corrected by Harvey P. Dale, Apr 12 2013
[A168609] 5, 7, 13, 31, 85, 247, 733, 2191, 6565, 19687, 59053, 177151, 531445, 1594327, 4782973, 14348911, 43046725, 129140167, 387420493, 1162261471, 3486784405, 10460353207, 31381059613, 94143178831, 282429536485, 847288609447
a(n) = 3*a(n-1) - 8, with n>0, a(0)=5.
a(n) = 4*a(n-1) - 3*a(n-2) for n>1. - Vincenzo Librandi, May 13 2014
[A105638] 0, 1, 5, 7, 14, 17, 27, 31, 44, 49, 65, 71, 90, 97, 119, 127, 152, 161, 189, 199, 230, 241, 275, 287, 324, 337, 377, 391, 434, 449, 495, 511, 560, 577, 629, 647, 702, 721, 779, 799, 860, 881, 945, 967, 1034, 1057, 1127, 1151, 1224, 1249, 1325, 1351, 1430, 1457
a(n) = n(n-3)/2 if n odd, n(n-4)/2+1 if n even.
a(n) = a(n-1) + 2a(n-2) - 2a(n-3) - a(n-4) + a(n-5).
[A079360] 1, 5, 7, 15, 19, 35, 43, 75, 91, 155, 187, 315, 379, 635, 763, 1275, 1531, 2555, 3067, 5115, 6139, 10235, 12283, 20475, 24571, 40955, 49147, 81915, 98299, 163835, 196603, 327675, 393211, 655355, 786427, 1310715, 1572859, 2621435, 3145723

a(2n)=6*2^n-5, a(2n-1)=5*2^n-5. - Benoit Cloitre, Feb 16 2003
a(n)=a(n-1)+2*a(n-2)-2*a(n-3). G.f.: (1+4*x)/((1-x)*(1-2*x^2)). [Colin Barker, Sep 19 2012]
[A279875] 1, 1, 5, 7, 16, 23, 84, 125, 257, 383, 1344, 2015, 4096, 6143, 21504, 32255, 65536, 98303, 344064, 516095, 1048576, 1572863, 5505024, 8257535, 16777216, 25165823, 88080384, 132120575, 268435456, 402653183, 1409286144, 2113929215, 4294967296, 6442450943
a(n) = a(n-2) + 16*a(n-4) - 16*a(n-6) for n>10.
[A092242] 5, 7, 17, 19, 29, 31, 41, 43, 53, 55, 65, 67, 77, 79, 89, 91, 101, 103, 113, 115, 125, 127, 137, 139, 149, 151, 161, 163, 173, 175, 185, 187, 197, 199, 209, 211, 221, 223, 233, 235, 245, 247, 257, 259, 269, 271, 281, 283, 293, 295, 305, 307, 317, 319, 329, 331
a(n)=12*n-a(n-1)-12 (with a(1)=5) [From Vincenzo Librandi, Nov 16 2010]
a(n) = 6*n-3-2*(-1)^n. G.f. x*(5+2*x+5*x^2) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A048700] 1, 5, 7, 17, 21, 27, 31, 65, 73, 85, 93, 99, 107, 119, 127, 257, 273, 297, 313, 325, 341, 365, 381, 387, 403, 427, 443, 455, 471, 495, 511, 1025, 1057, 1105, 1137, 1161, 1193, 1241, 1273, 1285, 1317, 1365, 1397, 1421, 1453, 1501, 1533, 1539, 1571, 1619, 1651
a(n) = (2^(floor_log_2(n)))*n + sum('(bit_i(n, i)*(2^(floor_log_2(n)-i)))', 'i'=1..floor_log_2(n));
[A164120] 5, 7, 17, 21, 41, 49, 89, 105, 185, 217, 377, 441, 761, 889, 1529, 1785, 3065, 3577, 6137, 7161, 12281, 14329, 24569, 28665, 49145, 57337, 98297, 114681, 196601, 229369, 393209, 458745, 786425, 917497, 1572857, 1835001, 3145721, 3670009
a(n) = 2*a(n-2) + 7 for n > 2; a(1) = 5, a(2) = 7.
a(n) = (19 - 5*(-1)^n)*2^((2*n-1+(-1)^n)/4)/2 - 7.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3). - G. C. Greubel, Sep 12 2017
[A214345] 5, 7, 17, 23, 37, 47, 65, 79, 101, 119, 145, 167, 197, 223, 257, 287, 325, 359, 401, 439, 485, 527, 577, 623, 677, 727, 785, 839, 901, 959, 1025, 1087, 1157, 1223, 1297, 1367, 1445, 1519, 1601, 1679, 1765, 1847, 1937, 2023, 2117, 2207, 2305, 2399, 2501
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).
a(n) = (2*n*(n+4)+3*(-1)^n+7)/2.
[A290471] 1, 5, 7, 17, 31, 52, 99, 169, 301, 536, 947, 1698, 3043, 5482, 9919, 17993, 32743, 59713, 109099, 199634, 365719, 670605, 1230547, 2259286, 4149841, 7624904, 14013499, 25759764, 47358741, 87077529, 160120891, 294453673, 541509775, 995888884, 1831584239
a(n) = a(n-1)+3*a(n-2)+a(n-3)-5*a(n-4)-5*a(n-5)+4*a(n-7)+3*a(n-8)+a(n-9) for n>10.
[A166977] 0, 1, 5, 7, 17, 31, 65, 127, 257, 511, 1025, 2047, 4097, 8191, 16385, 32767, 65537, 131071, 262145, 524287, 1048577, 2097151, 4194305, 8388607, 16777217, 33554431, 67108865, 134217727, 268435457, 536870911, 1073741825, 2147483647
a(n) = a(n-1) + 2*a(n-2), n>2.
a(n) = (-1)^n + 2^n for n>0. - Colin Barker, Jun 06 2012
[A153192] 5, 7, 18, 22, 39, 45, 68, 76, 105, 115, 150, 162, 203, 217, 264, 280, 333, 351, 410, 430, 495, 517, 588, 612, 689, 715, 798, 826, 915, 945, 1040, 1072, 1173, 1207, 1314, 1350, 1463, 1501, 1620, 1660, 1785, 1827, 1958
a(n) = (2*n+3)*(2*n-(-1)^n+1)/4.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A162268] 5, 7, 19, 45, 109, 263, 635, 1533, 3701, 8935, 21571, 52077, 125725, 303527, 732779, 1769085, 4270949, 10310983, 24892915, 60096813, 145086541, 350269895, 845626331, 2041522557, 4928671445, 11898865447, 28726402339, 69351670125
a(n) = 2*a(n-1)+a(n-2) for n > 1; a(0) = 5, a(1) = 7.
a(n)=(5/2)*{[1+sqrt(2)]^n+[1-sqrt(2)]^n}+(1/2)*sqrt(2)*{[1+sqrt(2)]^n-[1-sqrt(2)]^n}, with n>=0 [From Paolo P. Lava, Jul 15 2009]
[A258282] 1, 1, 5, 7, 20, 31, 75, 118, 266, 401, 841, 1345, 2581, 4023, 7758, 11932, 21543, 33941, 59099, 91816, 159059, 242955, 407523, 634827, 1032202, 1576276, 2572429, 3888631, 6177754, 9400070, 14665453, 22055721, 34349618, 51033150, 78166821, 116800290, 176090572
a(n) = 1/4! * [(x*y*z*u)^n] Product_{j>0} (1+x^j+y^j+z^j+u^j).
[A097038] 0, 1, 1, 5, 7, 21, 35, 85, 155, 341, 651, 1365, 2667, 5461, 10795, 21845, 43435, 87381, 174251, 349525, 698027, 1398101, 2794155, 5592405, 11180715, 22369621, 44731051, 89478485, 178940587, 357913941, 715795115, 1431655765, 2863245995
a(n) = 2*2^n/3+(-1)^n/3-2^(n/2)*(1+(-1)^n)/2;
a(n) = sum{k=0..floor((n+1)/2), binomial(n-k+1, k-1)2^k };
[A049114] 1, 1, 5, 7, 21, 37, 89, 173, 383, 777, 1665, 3441, 7277, 15159, 31885, 66645, 139865, 292757, 613823, 1285585, 2694433, 5644609, 11828501, 24782311, 51928773, 108802597, 227978105, 477674813, 1000877759, 2097121497, 4394101857
a(n+1) = a(n) + 3*a(n-1) - a(n-2) - a(n-3) + 1.
[A036498] 0, 5, 7, 22, 26, 51, 57, 92, 100, 145, 155, 210, 222, 287, 301, 376, 392, 477, 495, 590, 610, 715, 737, 852, 876, 1001, 1027, 1162, 1190, 1335, 1365, 1520, 1552, 1717, 1751, 1926, 1962, 2147, 2185, 2380, 2420, 2625, 2667, 2882, 2926, 3151, 3197, 3432, 3480
a(n) = n(n+1)/6 for n=0 or 5 (mod 6).
a(n) = 1/8*(-1+(-1)^n+2*n)*(-3+(-1)^n+6*n) (see MATHEMATICA code).
a(1)=0, a(2)=5, a(3)=7, a(4)=22, a(5)=26, a(n)=a(n-1)+2*a(n-2)- 2*a(n-3)- a(n-4)+a(n-5). - Harvey P. Dale, Aug 13 2012
[A167936] 0, 1, 1, 5, 7, 23, 37, 101, 175, 431, 781, 1805, 3367, 7463, 14197, 30581, 58975, 124511, 242461, 504605, 989527, 2038103, 4017157, 8211461, 16245775, 33022991, 65514541, 132623405, 263652487, 532087943, 1059392917, 2133134741, 4251920575, 8546887871
a(n) = 2*a(n-1) + 3*a(n-2) - 6*a(n-3).
[A077242] 5, 7, 23, 37, 133, 215, 775, 1253, 4517, 7303, 26327, 42565, 153445, 248087, 894343, 1445957, 5212613, 8427655, 30381335, 49119973, 177075397, 286292183, 1032071047, 1668633125, 6015350885, 9725506567, 35060034263, 56684406277, 204344854693, 330380931095
a(n) = 6*a(n-2)-a(n-4) for n>3. - Vincenzo Librandi, Feb 18 2014
a(n) = ((6-5*sqrt(2))*(1-sqrt(2))^n - (-1-sqrt(2))^n*(-4+sqrt(2)) + 4*(-1+sqrt(2))^n + sqrt(2)*(-1+sqrt(2))^n + 6*(1+sqrt(2))^n + 5*sqrt(2)*(1+sqrt(2))^n)/4. - Colin Barker, Mar 27 2016
[A100095] 0, 1, 1, 5, 7, 25, 41, 125, 225, 625, 1195, 3125, 6227, 15625, 32059, 78125, 163727, 390625, 831505, 1953125, 4206145, 9765625, 21215481, 48828125, 106782837, 244140625, 536618341, 1220703125, 2693492305, 6103515625, 13507578125
a(n) = sum(k=0..floor(n/2), binomial(n, k)Fib(n-2k)).
a(n) = sum(j=0..(n-1)/2, 4^(j)*binomial((n-1)/2,j)). - Vladimir Kruchinin, May 31 2014
a(2*n) = 5^n/sqrt(5) - 2^n * (2*n-1)!! * hypergeom([1, n+1/2], [n+1], 4/5)/(5*n!), a(2*n+1) = 5^n. - Vladimir Reshetnikov, Oct 13 2016
[A104683] 1, 1, 5, 7, 29, 41, 169, 239, 985, 1393, 5741, 8119, 33461, 47321, 195025, 275807, 1136689, 1607521, 6625109, 9369319, 38613965, 54608393, 225058681, 318281039, 1311738121, 1855077841, 7645370045, 10812186007, 44560482149, 63018038201
a(n) = ((1+2*sqrt(2)+(-1)^n)*(1+sqrt(2))^n-(1-2*sqrt(2)+(-1)^n)*(1-sqrt(2))^n)/(4*sqrt(2)). [Bruno Berselli, Apr 04 2012]
[A243019] 1, 1, 5, 7, 33, 51, 233, 379, 1697, 2851, 12585, 21627, 94449, 165075, 714873, 1266027, 5445441, 9746883, 41687369, 75275227, 320420753, 582881971, 2471008281, 4523575371, 19108837601, 35174066851
a(n) = sum(i=0..floor(n/2), 2^i*binomial(n,i)).
[A167205] 1, 1, 5, 7, 41, 61, 365, 547, 3281, 4921, 29525, 44287, 265721, 398581, 2391485, 3587227, 21523361, 32285041, 193710245, 290565367, 1743392201, 2615088301, 15690529805, 23535794707, 141214768241, 211822152361, 1270932914165
a(n) = 10*a(n-2) - 9*a(n-4).
a(n) = numerator((1/4)^n + (3/4)^n), n > 0.
[A234040] 1, 1, 5, 7, 42, 66, 429, 715, 4862, 8398, 58786, 104006, 742900, 1337220, 9694845, 17678835, 129644790, 238819350, 1767263190, 3282060210, 24466267020, 45741281820, 343059613650, 644952073662, 4861946401452, 9183676536076, 69533550916004
a(n) = binomial(2*(n+1),n)*gcd(n,2)/(2*(n+1)) for n >= 0.
[A100832] 1, 5, 8, 9, 12, 13, 16, 17, 20, 21, 24, 25, 28, 29, 32, 33, 36, 37, 40, 41, 44, 45, 48, 49, 52, 53, 56, 57, 60, 61, 64, 65, 68, 69, 72, 73, 76, 77, 80, 81, 84, 85, 88, 89, 92, 93, 96, 97, 100, 101, 104, 105, 108, 109, 112, 113, 116, 117, 120, 121, 124, 125, 128, 129, 132
a(n)=a(n-1)+a(n-2)-a(n-3), n>4. G.f.: x*(1+3*x)*(1+x-x^2)/(1-x-x^2+x^3). [Colin Barker, Jan 26 2012]
[A047616] 0, 1, 5, 8, 9, 13, 16, 17, 21, 24, 25, 29, 32, 33, 37, 40, 41, 45, 48, 49, 53, 56, 57, 61, 64, 65, 69, 72, 73, 77, 80, 81, 85, 88, 89, 93, 96, 97, 101, 104, 105, 109, 112, 113, 117, 120, 121, 125, 128, 129, 133, 136, 137, 141, 144, 145, 149, 152, 153, 157
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-30+3*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*n*Pi/3))/9.

a(3k) = 8k-3, a(3k-1) = 8k-7, a(3k-2) = 8k-8. (End)
[A164682] 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160, 256, 320, 512, 640, 1024, 1280, 2048, 2560, 4096, 5120, 8192, 10240, 16384, 20480, 32768, 40960, 65536, 81920, 131072, 163840, 262144, 327680, 524288, 655360, 1048576, 1310720, 2097152, 2621440, 4194304
a(n) = (9-(-1)^n)*2^(1/4*(2*n-5+(-1)^n)).
[A001954] 1, 5, 8, 11, 15, 18, 22, 25, 29, 32, 35, 39, 42, 46, 49, 52, 56, 59, 63, 66, 69, 73, 76, 80, 83, 87, 90, 93, 97, 100, 104, 107, 110, 114, 117, 121, 124, 128, 131, 134, 138, 141, 145, 148, 151, 155, 158, 162, 165, 169, 172, 175, 179, 182, 186, 189, 192, 196, 199
a(n) = floor[(n+1/2)*(2+sqrt(2))].
[A079896] 5, 8, 12, 13, 17, 20, 21, 24, 28, 29, 32, 33, 37, 40, 41, 44, 45, 48, 52, 53, 56, 57, 60, 61, 65, 68, 69, 72, 73, 76, 77, 80, 84, 85, 88, 89, 92, 93, 96, 97, 101, 104, 105, 108, 109, 112, 113, 116, 117, 120, 124, 125, 128, 129, 132, 133, 136, 137, 140, 141, 145, 148
a(2*k^2 + 2*k) = 4*(k+1)^2 + 1 for k >= 0. - Gheorghe Coserea, Nov 07 2016
a(2*k^2 + 4*k + 1 + (k+1)*(-1)^k) = (2*k + 3)*(2*k + 3 + (-1)^k) for k >= 0. - Bruno Berselli, Nov 10 2016
[A214858] 5, 8, 12, 15, 19, 22, 26, 29, 32, 36, 39, 43, 46, 49, 53, 56, 60, 63, 67, 70, 73, 77, 80, 84, 87, 90, 94, 97, 101, 104, 108, 111, 114, 118, 121, 125, 128, 131, 135, 138, 142, 145, 149, 152, 155, 159, 162, 166, 169, 172, 176, 179, 183, 186, 189, 193, 196, 200
a(n+1) - a(n) = 3 or 4.
[A047383] 1, 5, 8, 12, 15, 19, 22, 26, 29, 33, 36, 40, 43, 47, 50, 54, 57, 61, 64, 68, 71, 75, 78, 82, 85, 89, 92, 96, 99, 103, 106, 110, 113, 117, 120, 124, 127, 131, 134, 138, 141, 145, 148, 152, 155, 159, 162, 166, 169
a(n) = Ceiling[(7n+2)/2].
a(n) = 7*n-a(n-1)-8 (with a(1)=1). - Vincenzo Librandi, Aug 05 2010
a(n) = (1/4)*[(-1)^n+14*n-9], with n>=1.
a(n) = -2 + Sum_{k=1..n} {(1/2)*[7+(-1)^k]}. (End)
a(1)=1, a(2)=5, a(3)=8, a(n)=a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, Dec 24 2012
a(n) = 4n - floor((n-1)/2) - 3. a(2n-1) = 7n-6. a(2n) = 7n-2. - Wesley Ivan Hurt, Nov 10 2013
[A247060] 1, 5, 8, 12, 16, 17, 21, 24, 28, 32, 33, 37, 40, 44, 48, 49, 53, 56, 60, 64, 65, 69, 72, 76, 80, 81, 85, 88, 92, 96, 97, 101, 104, 108, 112, 113, 117, 120, 124, 128, 129, 133, 136, 140, 144, 145, 149, 152, 156, 160, 161, 165, 168, 172, 176
a(n) = floor(8*n/5) + 2*floor(4*n/5).
a(n) = a(n-1) + a(n-5) - a(n-6). - Colin Barker, Sep 11 2014
[A001043] 5, 8, 12, 18, 24, 30, 36, 42, 52, 60, 68, 78, 84, 90, 100, 112, 120, 128, 138, 144, 152, 162, 172, 186, 198, 204, 210, 216, 222, 240, 258, 268, 276, 288, 300, 308, 320, 330, 340, 352, 360, 372, 384, 390, 396, 410, 434, 450, 456, 462, 472, 480, 492, 508, 520
a(n) = prime(n) + prime(n + 1).
[A020749] 5, 8, 12, 18, 27, 40, 59, 87, 128, 188, 276, 405, 594, 871, 1277, 1872, 2744, 4022, 5895, 8640, 12663, 18559, 27200, 39864, 58424, 85625, 125490, 183915, 269541, 395032, 578948, 848490, 1243523, 1822472, 2670963, 3914487, 5736960, 8407924, 12322412, 18059373
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A220885] 5, 8, 12, 19, 28, 40, 56, 77, 105, 142, 191, 256, 342, 456, 607, 807, 1072, 1423, 1888, 2504, 3320, 4401, 5833, 7730, 10243, 13572, 17982, 23824, 31563, 41815, 55396, 73387, 97220, 128792, 170616, 226021, 299417, 396646, 525447, 696072, 922102, 1221528, 1618183, 2143639, 2839720, 3761831, 4983368
a(n) = a(n-1)+a(n-2)-a(n-4) for n>8. G.f.: x^3*(x^5+2*x^4-x^3-x^2+3*x+5) / ((x-1)*(x^3+x^2-1)). [Colin Barker, Jan 04 2013]
[A047615] 0, 5, 8, 13, 16, 21, 24, 29, 32, 37, 40, 45, 48, 53, 56, 61, 64, 69, 72, 77, 80, 85, 88, 93, 96, 101, 104, 109, 112, 117, 120, 125, 128, 133, 136, 141, 144, 149, 152, 157, 160, 165, 168, 173, 176, 181, 184, 189, 192, 197, 200, 205, 208, 213, 216, 221, 224, 229, 232
a(n) = 8*n-a(n-1)-11 (with a(1)=0). - Vincenzo Librandi, Aug 06 2010
a(n) = a(n-1)+a(n-2)-a(n-3).
a(n) = (8n + 1 - (-1)^n)/2.
[A101345] 5, 8, 13, 18, 21, 26, 29, 34, 39, 42, 47, 52, 55, 60, 63, 68, 73, 76, 81, 84, 89, 94, 97, 102, 107, 110, 115, 118, 123, 128, 131, 136, 141, 144, 149, 152, 157, 162, 165, 170, 173, 178, 183, 186, 191, 196, 199, 204, 207, 212, 217, 220, 225, 228, 233, 238, 241, 246
a(n) = floor(phi^3*(n+1)) - 3 - floor(2*phi*(n+1)) + 2*floor(phi*(n+1)) where phi = (1+sqrt(5))/2. - Benoit Cloitre, Jan 11 2014
[A020712] 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946, 17711, 28657, 46368, 75025, 121393, 196418, 317811, 514229, 832040, 1346269, 2178309, 3524578, 5702887, 9227465, 14930352, 24157817, 39088169, 63245986, 102334155, 165580141
a(n) = Fib(n+5). a(n) = a(n-1) + a(n-2).
a(n) = (2^(-1-n)*((1-sqrt(5))^n*(-11+5*sqrt(5))+(1+sqrt(5))^n*(11+5*sqrt(5))))/sqrt(5). - Colin Barker, Jun 05 2016
[A182506] 0, 1, 5, 8, 13, 21, 42, 63, 105, 170, 291, 465, 772, 1253, 2037, 3300, 5337, 8637, 13974, 22611, 36625, 59270, 95895, 155169, 251064, 406233, 657317, 1063552, 1720917, 2784485, 4505410, 7289943, 11795417, 19085362, 30880843, 49966209, 80847116, 130813389, 211660581
a(0)=0, a(1)=1, a(n) = ((a(n-1)+a(n-2)) XOR n) + n, where XOR is the bitwise exclusive-or operator.
[A020736] 5, 8, 13, 22, 38, 66, 115, 201, 352, 617, 1082, 1898, 3330, 5843, 10253, 17992, 31573, 55406, 97230, 170626, 299427, 525457, 922112, 1618193, 2839730, 4983378, 8745218, 15346787, 26931733, 47261896, 82938845, 145547526, 255418102, 448227522, 786584467
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A253195] 5, 8, 14, 17, 23, 26, 32, 35, 41, 44, 50, 53, 59, 62, 68, 71, 77, 80, 86, 89, 95, 98, 104, 107, 113, 116, 122, 125, 131, 134, 140, 143, 149, 152, 158, 161, 167, 170, 176, 179, 185, 188, 194, 197, 203, 206, 212, 215, 221, 224, 230, 233, 239, 242, 248, 251
a(n) = a(n-1) + a(n-2) - a(n-3), n >= 4.
a(n) = a(n-2) + 9.
a(n) = 9*n - a(n-1) - 5.
a(n) = 4*n + 2*ceiling(n/2) - floor(n/2) - 1.
a(n) = (9*n - (3/2)*(1 + (- 1)^n) + 1)/2.
[A124011] 5, 8, 14, 23, 35, 50, 68, 89, 113, 140, 170, 203, 239, 278, 320, 365, 413, 464, 518, 575, 635, 698, 764, 833, 905, 980, 1058, 1139, 1223, 1310, 1400, 1493, 1589, 1688, 1790, 1895, 2003, 2114, 2228, 2345, 2465, 2588, 2714, 2843, 2975, 3110, 3248, 3389, 3533
a(n) = 3*n+a(n-1)-3 with a(1)=5. - Vincenzo Librandi, Nov 28 2009
[A065905] 5, 8, 16, 17, 18, 25, 27, 28, 30, 33, 34, 35, 36, 45, 46, 47, 51, 56, 57, 58, 63, 66, 67, 68, 69, 71, 76, 78, 81, 84, 86, 88, 90, 91, 92, 98, 102, 104, 105, 106, 107, 110, 112, 113, 114, 115, 117, 118, 120, 122, 123, 125, 126, 127, 131, 132, 133, 134, 135, 136, 137
a(n) = n-th integer i such that i^4 - 2 has two prime factors > i.
[A001082] 0, 1, 5, 8, 16, 21, 33, 40, 56, 65, 85, 96, 120, 133, 161, 176, 208, 225, 261, 280, 320, 341, 385, 408, 456, 481, 533, 560, 616, 645, 705, 736, 800, 833, 901, 936, 1008, 1045, 1121, 1160, 1240, 1281, 1365, 1408, 1496, 1541, 1633, 1680, 1776, 1825, 1925, 1976
a(n) = n*(3*n-4)/4 if n even, (n-1)*(3*n+1)/4 if n odd.
a(n) = n^2 - n - floor(n/2)^2.
a(n) = n^2+n-ceiling(n/2)^2 with offset 0 and a(0)=0. [Gary Detlefs, Feb 23 2010]
a(n) = (6*n^2-6*n-1-(2*n-1)*(-1)^n)/8. - Luce ETIENNE, Dec 11 2014
[A246638] 5, 8, 17, 41, 104, 269, 701, 1832, 4793, 12545, 32840, 85973, 225077, 589256, 1542689, 4038809, 10573736, 27682397, 72473453, 189737960, 496740425, 1300483313, 3404709512, 8913645221, 23336226149, 61095033224, 159948873521, 418751587337, 1096305888488, 2870166078125, 7514192345885
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3), n >=1, a(-2) = 8, a(-1) = 5, a(0) = 5.
a(n) = (2^(-1-n)*(5*2^(2+n)-3*(3-sqrt(5))^n*(-5+sqrt(5))+3*(3+sqrt(5))^n*(5+sqrt(5))))/5. - Colin Barker, Nov 02 2016
[A155086] 5, 8, 18, 21, 31, 34, 44, 47, 57, 60, 70, 73, 83, 86, 96, 99, 109, 112, 122, 125, 135, 138, 148, 151, 161, 164, 174, 177, 187, 190, 200, 203, 213, 216, 226, 229, 239, 242, 252, 255, 265, 268, 278, 281, 291, 294, 304, 307, 317, 320, 330, 333
a(n) = a(n-1)+a(n-2)-a(n-3).
a(n) = 13*(n-1/2)/2 -7*(-1)^n/4.
a(n) = a(n-2)+13. - M. F. Hasler, Jun 16 2010
[A245534] 1, 5, 8, 18, 23, 39, 46, 68, 77, 105, 116, 150, 163, 203, 218, 264, 281, 333, 352, 410, 431, 495, 518, 588, 613, 689, 716, 798, 827, 915, 946, 1040, 1073, 1173, 1208, 1314, 1351, 1463, 1502, 1620, 1661, 1785, 1828, 1958, 2003, 2139, 2186, 2328, 2377, 2525
a(n) = (4*n^2 + 1 + (2*n - 1)*(-1)^n)/4.

[A084568] 1, 5, 8, 20, 32, 80, 128, 320, 512, 1280, 2048, 5120, 8192, 20480, 32768, 81920, 131072, 327680, 524288, 1310720, 2097152, 5242880, 8388608, 20971520, 33554432, 83886080, 134217728, 335544320, 536870912, 1342177280, 2147483648
a(n)=(9*2^n-(-2)^n)/4-0^n.
[A198635] 5, 8, 20, 56, 164, 488, 1460, 4376, 13124, 39368, 118100, 354296, 1062884, 3188648, 9565940, 28697816, 86093444, 258280328, 774840980, 2324522936, 6973568804, 20920706408, 62762119220, 188286357656, 564859072964, 1694577218888, 5083731656660, 15251194969976
a(n) = w(5,2*n), n >= 0, with w(5,l) the total number of closed walks on the graph P_5 (the simple path with 5 points (vertices) and 4 lines (or edges)).
a(n) = 3*a(n-1) - 4, n > 1. - Vincenzo Librandi, Jan 02 2012
a(n) = 2*3^n + 2 for n > 0. - Andrew Howroyd, Mar 18 2017
[A178675] 5, 8, 20, 68, 260, 1028, 4100, 16388, 65540, 262148, 1048580, 4194308, 16777220, 67108868, 268435460, 1073741828, 4294967300, 17179869188, 68719476740, 274877906948, 1099511627780, 4398046511108, 17592186044420, 70368744177668, 281474976710660, 1125899906842628
a(n) = 4*(a(n-1)-3) with n>0, a(0)=5.
a(n) = 5*a(n-1)-4*a(n-2). - Vincenzo Librandi, Jun 18 2013
[A277369] 5, 8, 21, 50, 121, 292, 705, 1702, 4109, 9920, 23949, 57818, 139585, 336988, 813561, 1964110, 4741781, 11447672, 27637125, 66721922, 161080969, 388883860, 938848689, 2266581238, 5472011165, 13210603568, 31893218301, 76997040170, 185887298641, 448771637452, 1083430573545
a(n) = (((1-sqrt(2))^n*(-3+5*sqrt(2))+(1+sqrt(2))^n*(3+5*sqrt(2))))/(2*sqrt(2)).
[A192651] 0, 0, 1, 1, 5, 8, 23, 47, 113, 252, 578, 1316, 2994, 6832, 15545, 35445, 80711, 183928, 418973, 954571, 2174681, 4954436, 11287336, 25715016, 58584744, 133468980, 304072713, 692745597, 1578230845, 3595564360, 8191505015, 18662090915
a(n) = a(n-1)+4*a(n-2)-a(n-3)-4a(n-4)+a(n-5)+a(n-6).
[A140113] 1, 5, 8, 24, 29, 65, 72, 136, 145, 245, 256, 400, 413, 609, 624, 880, 897, 1221, 1240, 1640, 1661, 2145, 2168, 2744, 2769, 3445, 3472, 4256, 4285, 5185, 5216, 6240, 6273, 7429, 7464, 8760, 8797, 10241, 10280, 11880, 11921, 13685, 13728, 15664, 15709
a(n) = a(n-1)+((1-(-1)^n)/2)+((1+(-1)^n)/2)*n^4, with a(1)=1.
a(n) = (1/8)-(1/8)*(-1)^n+(1/6)*n^3+(1/4)*(-1)^n*n^2+(1/2)*n^2+(1/3)*n. (End)
[A069959] 1, 5, 8, 25, 61, 164, 425, 1117, 2920, 7649, 20021, 52420, 137233, 359285, 940616, 2462569, 6447085, 16878692, 44188985, 115688269, 302875816, 792939185, 2075941733, 5434886020, 14228716321, 37251262949, 97525072520, 255323954617, 668446791325, 1750016419364
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3). G.f.: -(x-1)*(4*x+1) / ((x+1)*(x^2-3*x+1)). - Colin Barker, Jun 14 2013
a(n) = (2^(-1-n)*(-3*(-1)^n*2^(2+n) - (3-sqrt(5))^n*(-11+sqrt(5)) + (3+sqrt(5))^n*(11+sqrt(5))))/5. - Colin Barker, Sep 28 2016
[A192920] 0, 5, 8, 26, 63, 170, 440, 1157, 3024, 7922, 20735, 54290, 142128, 372101, 974168, 2550410, 6677055, 17480762, 45765224, 119814917, 313679520, 821223650, 2149991423, 5628750626, 14736260448, 38580030725, 101003831720, 264431464442
a(n)=2*a(n-1)+2*a(n-2)-a(n-3).
[A162562] 5, 8, 26, 68, 188, 512, 1400, 3824, 10448, 28544, 77984, 213056, 582080, 1590272, 4344704, 11869952, 32429312, 88598528, 242055680, 661308416, 1806728192, 4936073216, 13485602816, 36843352064, 100657909760, 275002523648
a(n) = 2*a(n-1)+2*a(n-2) for n > 1; a(0) = 5, a(1) = 8.
a(n)=2*[a(n-1)+a(n-2)], with a(0)=5 and a(1)=8 [From Paolo P. Lava, Jul 15 2009]
[A228472] 5, 8, 30, 49, 185, 302, 1140, 1861, 7025, 11468, 43290, 70669, 266765, 435482, 1643880, 2683561, 10130045, 16536848, 62424150, 101904649, 384674945, 627964742, 2370473820, 3869693101, 14607517865, 23846123348, 90015581010, 146946433189, 554701003925
a(n) = (3+sqrt(10))^(1/4*((-1)^n-1)+1/2*n)*(13/4+sqrt(10)*(1-1/4*(-1)^n) -3/4*(-1)^n)+(3-sqrt(10))^(1/4*((-1)^n-1)+1/2*n)*(13/4-sqrt(10)*(1-1/4*(-1)^n) -3/4*(-1)^n). - Paolo P. Lava, Sep 12 2013
[A275571] 1, 5, 8, 45, 121, 320, 841, 2205, 5776, 15125, 39601, 103680, 271441, 710645, 1860496, 4870845, 12752041, 33385280, 87403801, 228826125, 599074576, 1568397605, 4106118241, 10749957120, 28143753121, 73681302245, 192900153616, 505019158605, 1322157322201
a(n) = Sum_{i=1..n-1} (Fibonacci(2n-2i)*i^2) + n^2.
a(n) = ((3-sqrt(5))/2)^n + ((3+sqrt(5))/2)^n - 2 for n>3.
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3) for n>6.
[A117474] 5, 8, 48, 65, 297, 396, 1748, 2325, 10205, 13568, 59496, 79097, 346785, 461028, 2021228, 2687085, 11780597, 15661496, 68662368, 91281905, 400193625, 532029948, 2332499396, 3100897797, 13594802765, 18073356848
a(1)=5, a(2)=8, a(3)=48, a(4)=65, a(n) = 6*a(n-2) - a(n-4) + 14.
[A063213] 1, 5, 9, 11, 15, 19, 21, 25, 29, 31, 35, 39, 41, 45, 49, 51, 55, 59, 61, 65, 69, 71, 75, 79, 81, 85, 89, 91, 95, 99, 101, 105, 109, 111, 115, 119, 121, 125, 129, 131, 135, 139, 141, 145, 149, 151, 155, 159, 161, 165
a(n) = 4*n - 2*floor(n/3 - 1/3) - 3. This formula follows from Mathar's generating function. - Bruno Berselli, Feb 16 2016
[A080455] 1, 5, 9, 13, 13, 17, 21, 25, 25, 29, 33, 37, 37, 41, 45, 49, 49, 53, 57, 61, 61, 65, 69, 73, 73, 77, 81, 85, 85, 89, 93, 97, 97, 101, 105, 109, 109, 113, 117, 121, 121, 125, 129, 133, 133, 137, 141, 145, 145, 149, 153, 157, 157, 161, 165, 169, 169, 173
a(n) = a(n-1) + a(n-4) - a(n-5).
[A004766] 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73, 77, 81, 85, 89, 93, 97, 101, 105, 109, 113, 117, 121, 125, 129, 133, 137, 141, 145, 149, 153, 157, 161, 165, 169, 173, 177, 181, 185, 189, 193, 197, 201, 205, 209, 213, 217, 221, 225
a(n) = 8*n-a(n-1)-2 (with a(1)=5). [Vincenzo Librandi, Nov 18 2010]
a(n) = 2*a(n-1)-a(n-2). G.f.: -x*(x-5) / (x-1)^2. - Colin Barker, Jun 24 2013
[A016813] 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73, 77, 81, 85, 89, 93, 97, 101, 105, 109, 113, 117, 121, 125, 129, 133, 137, 141, 145, 149, 153, 157, 161, 165, 169, 173, 177, 181, 185, 189, 193, 197, 201, 205, 209, 213, 217, 221, 225, 229, 233, 237
a(n) = 2*a(n-1) - a(n-2); a(0)=1, a(1)=5. a(n) = 4 + a(n-1). - Philippe Deléham, Nov 03 2008
a(n) = 8*n - 2 - a(n-1) for n>0, a(0)=1. - Vincenzo Librandi, Nov 20 2010
[A247128] 5, 9, 13, 17, 22, 27, 31, 35, 39, 44, 49, 53, 57, 61, 66, 71, 75, 79, 83, 88, 93, 97, 101, 105, 110, 115, 119, 123, 127, 132, 137, 141, 145, 149, 154, 159, 163, 167, 171, 176, 181, 185, 189, 193, 198, 203, 207, 211
a(n) = a(n-1) + a(n-5) - a(n-6). - Colin Barker, Nov 20 2014
[A079497] 1, 5, 9, 13, 17, 89, 161, 233, 305, 1597, 2889, 4181, 5473, 28657, 51841, 75025, 98209, 514229, 930249, 1346269, 1762289, 9227465, 16692641, 24157817, 31622993, 165580141, 299537289, 433494437, 567451585, 2971215073, 5374978561
a(1)=1, a(2)=5, a(3)=9, a(4)=13; for n > 4, if n == 1 (mod 4) then a(n) = 6a(n) - a(n-1); otherwise, a(n) = 2a(n) - a(n-1).
[A081835] 1, 5, 9, 13, 18, 22, 26, 30, 35, 39, 43, 47, 52, 56, 60, 64, 68, 73, 77, 81, 85, 90, 94, 98, 102, 107, 111, 115, 119, 124, 128, 132, 136, 140, 145, 149, 153, 157, 162, 166, 170, 174, 179, 183, 187, 191, 196, 200, 204, 208, 212, 217, 221, 225, 229, 234, 238, 242
a(n)=floor(rn-(4r-1)/(r+1)) where r=2+sqrt(5)
[A087461] 5, 9, 13, 20, 25, 30, 36, 42, 50, 55, 63, 71, 75, 80, 92, 99, 106, 115, 122, 127, 136, 141, 156, 163, 170, 177, 185, 190, 197, 210, 221, 227, 238, 249, 255, 265, 273, 282, 291, 300, 307, 317, 325, 330, 339, 351, 363, 374, 385, 395, 404, 409, 422, 429, 438, 444
a(n) = (n-th prime + 2n-th prime)/2
[A257171] 1, 5, 9, 13, 27, 36, 62, 78, 120, 145, 207, 243, 329, 378, 492, 556, 702, 783, 965, 1065, 1287, 1408, 1674, 1818, 2132, 2301, 2667, 2863, 3285, 3510, 3992, 4248, 4794, 5083, 5697, 6021, 6707, 7068, 7830, 8230, 9072, 9513, 10439, 10923, 11937, 12466, 13572, 14148, 15350
a(0) = 1; a(1) = 5; a(2) = 9; for n >= 3, a(n) = a(n-1)+((n-1)/2+1)^2, if n = even; otherwise a(n) = a(n-1)+2*((n-1)^2/4+(n-1)+7/4).
a(n) = (n^3+5*n^2+14*n+16)/8 for n even and n>1.
a(n) = (n^3+4*n^2+11*n+8)/8 for n odd and n>1.
[A089977] 1, 1, 1, 5, 9, 13, 33, 69, 121, 253, 529, 1013, 2025, 4141, 8193, 16293, 32857, 65629, 130801, 262229, 524745, 1047949, 2096865, 4195845, 8387641, 16775101, 33558481, 67109045, 134209449, 268443373, 536879553, 1073717349, 2147490841
a(n) = Sum_{k=0..floor(n/2)} C(n-2*k, k)*4^k.
a(n) = 2^(n-1)+2^(n/2)*(cos((n+2)*arctan(sqrt(7)/7)+Pi*n/2)/4+5*sqrt(7)*sin((n+2)*arctan(sqrt(7)/7)+Pi*n/2)/28).
a(n) = Sum_{k=0..n} C(k, floor((n-k)/2))2^(n-k)*(1+(-1)^(n-k))/2. - Paul Barry, Jan 12 2006
a(n) = a(n-1) + 4*a(n-3) for n>=3, a(0)=1, a(1)=1, a(2)=1. - Michal Kaczmarczyk, Apr 24 2006
a(n) = hypergeom([1/3-n/3,2/3-n/3,-n/3],[1/2-n/2,-n/2],-27). - Peter Luschny, Feb 07 2015

[A130877] 0, 5, 9, 14, 18, 23, 27, 32, 36, 41, 45, 50, 54, 59, 63, 68, 72, 77, 81, 86, 90, 95, 99, 104, 108, 113, 117, 122, 126, 131, 135, 140, 144, 149, 153, 158, 162, 167, 171, 176, 180, 185, 189, 194, 198, 203, 207, 212, 216, 221, 225, 230, 234, 239, 243, 248, 252, 257
a(n) = a(n-2) + 9 for n >= 3.
a(n) = 9/2*(n+1) - 4 + Sum{j=0..n} (-1)^j/2.
a(n) = 5n - 5 - floor((n-1)/2). - Wesley Ivan Hurt, Oct 25 2013
[A226724] 5, 9, 14, 19, 24, 28, 34, 38, 43, 48, 53, 57, 63, 67, 71, 77, 81, 86, 91, 96, 100, 106, 110, 115, 120, 125, 129, 135, 139, 143, 148, 153, 158, 162, 168, 172, 177, 182, 187, 191, 197, 201, 205, 211, 215, 220, 225, 230, 234, 240, 244, 249, 254, 259, 263, 269
a(n) = 1 + n + floor(n*log_2(5)) + floor(n*log_3(5).
[A063093] 0, 5, 9, 15, 19, 25, 29, 35, 39, 45, 49, 55, 59, 65, 69, 75, 79, 85, 89, 95, 99, 105, 109, 115, 119, 125, 129, 135, 139, 145, 149, 155, 159, 165, 169, 175, 179, 185, 189, 195, 199, 205, 209, 215, 219, 225, 229, 235, 239, 245
a(n) = 10*n-a(n-1)-16 for n>2, with a(1)=0, a(2)=5. [Vincenzo Librandi, Aug 07 2010]
a(n) = ((-1)^n+10*n-11)/2 for n>1. a(n)=a(n-1)+a(n-2)-a(n-3) for n>3. G.f.: x^2*(5+4*x+x^2)/((1-x)^2*(1+x)). [Colin Barker, Sep 26 2012]
[A294020] 0, 1, 5, 9, 15, 23, 27, 41, 65, 81, 103, 111, 115, 129, 153, 169, 191, 199, 203, 217, 241, 257, 279, 287, 291, 305, 329, 345, 367, 375, 379, 393, 417, 433, 455, 463, 467, 481, 505, 521, 543, 551, 555, 569, 593, 609, 631, 639, 643, 657, 681, 697, 719, 727, 731, 745, 769, 785, 807, 815, 819, 833, 857, 873, 895, 903
a(n) = a(n-1) + a(n-6) - a(n-7) for n>10.
[A020750] 5, 9, 16, 28, 49, 85, 147, 254, 438, 755, 1301, 2241, 3860, 6648, 11449, 19717, 33955, 58474, 100698, 173411, 298629, 514265, 885608, 1525092, 2626337, 4522773, 7788595, 13412614, 23097646, 39776083, 68497749, 117958865, 203135052, 349815584, 602411753
a(n) = 2*a(n-1) - 2*a(n-4) + a(n-5) (holds at least up to n = 40000 but is not known to hold in general).
[A020713] 5, 9, 16, 28, 49, 86, 151, 265, 465, 816, 1432, 2513, 4410, 7739, 13581, 23833, 41824, 73396, 128801, 226030, 396655, 696081, 1221537, 2143648, 3761840, 6601569, 11584946, 20330163, 35676949, 62608681, 109870576, 192809420, 338356945, 593775046, 1042002567
a(n) = 2*a(n-1) - a(n-2) + a(n-3) (holds at least up to n = 1000 but is not known to hold in general).
[A090990] 5, 9, 16, 29, 52, 94, 169, 305, 549, 990, 1783, 3214, 5790, 10435, 18801, 33881, 61048, 110009, 198224, 357194, 643633, 1159797, 2089869, 3765830, 6785771, 12227562, 22033274, 39702627, 71541613, 128913593, 232294192, 418579765
a(k+3) = a(k+2) + 2*a(k+1) - a(k).
[A225605] 5, 9, 16, 29, 53, 97, 178, 327, 601, 1105, 2032, 3737, 6873, 12641, 23250, 42763, 78653, 144665, 266080, 489397, 900141, 1655617, 3045154, 5600911, 10301681, 18947745, 34850336, 64099761, 117897841, 216847937, 398845538, 733591315, 1349284789, 2481721641
a(n) = 2*a(n-1) - a(n-4) (conjectured).
[A276194] 5, 9, 17, 23, 27, 29, 33, 39, 43, 45, 51, 53, 57, 65, 71, 75, 77, 83, 85, 89, 95, 99, 101, 105, 111, 113, 119, 123, 125, 129, 135, 139, 141, 147, 149, 153, 159, 163, 165, 169, 175, 177, 183, 187, 189, 195, 197, 201, 207, 209, 215, 219, 221, 225, 231, 235, 237
a(2^n - floor(n/2)) = 4*2^n + 1, for all n>=0. - Gheorghe Coserea, Oct 24 2016
[A210978] 0, 1, 5, 9, 17, 24, 36, 46, 62, 75, 95, 111, 135, 154, 182, 204, 236, 261, 297, 325, 365, 396, 440, 474, 522, 559, 611, 651, 707, 750, 810, 856, 920, 969, 1037, 1089, 1161, 1216, 1292, 1350, 1430, 1491, 1575, 1639, 1727, 1794, 1886, 1956, 2052, 2125, 2225, 2301
a(n) = (3*(-1+(-1)^n)+2*(5+(-1)^n)*n+14*n^2)/16. a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). G.f.: -x*(2*x^2+4*x+1) / ((x-1)^3*(x+1)^2). - Colin Barker, Sep 15 2013
[A211434] 1, 1, 5, 9, 17, 25, 33, 45, 57, 73, 89, 105, 125, 145, 169, 193, 217, 245, 273, 305, 337, 369, 405, 441, 481, 521, 561, 605, 649, 697, 745, 793, 845, 897, 953, 1009, 1065, 1125, 1185, 1249, 1313, 1377, 1445, 1513, 1585, 1657, 1729, 1805, 1881
a(n) = 2*a(n-1) - a(n-2) + a(n-5) - 2*a(n-6) + a(n-7) for n>6.
[A182388] 1, 1, 5, 9, 17, 25, 37, 41, 41, 41, 45, 49, 73, 81, 109, 113, 113, 113, 117, 121, 129, 169, 213, 217, 217, 217, 221, 225, 281, 289, 349, 353, 353, 353, 357, 361, 369, 377, 389, 457, 521, 585, 653, 721, 809, 817, 845, 913, 977, 1041, 1109, 1177, 1249
a(0)=1, a(n)=(a(n-1) XOR n) + n, where XOR is the bitwise exclusive-OR operator.
[A080335] 1, 5, 9, 17, 25, 37, 49, 65, 81, 101, 121, 145, 169, 197, 225, 257, 289, 325, 361, 401, 441, 485, 529, 577, 625, 677, 729, 785, 841, 901, 961, 1025, 1089, 1157, 1225, 1297, 1369, 1445, 1521, 1601, 1681, 1765, 1849, 1937, 2025, 2117, 2209, 2305, 2401, 2501
a(n) = (3 + 4*n + 2*n^2 - (-1)^n)/2.
a(0)=1, a(1)=5, a(2)=9, a(3)=17, a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Harvey P. Dale, Jan 29 2012
a(n) = (n+1)^2 when n is even; a(n) = (n+1)^2 + 1 when n is odd.
[A294774] 5, 9, 17, 29, 45, 65, 89, 117, 149, 185, 225, 269, 317, 369, 425, 485, 549, 617, 689, 765, 845, 929, 1017, 1109, 1205, 1305, 1409, 1517, 1629, 1745, 1865, 1989, 2117, 2249, 2385, 2525, 2669, 2817, 2969, 3125, 3285, 3449, 3617, 3789, 3965, 4145, 4329, 4517, 4709, 4905
a(n) = a(-1-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A192746] 1, 5, 9, 17, 29, 49, 81, 133, 217, 353, 573, 929, 1505, 2437, 3945, 6385, 10333, 16721, 27057, 43781, 70841, 114625, 185469, 300097, 485569, 785669, 1271241, 2056913, 3328157, 5385073, 8713233, 14098309, 22811545, 36909857, 59721405, 96631265
a(n) = 4*Fibonacci(n+2)-3. - Gerry Martens, Jul 04 2015
[A081295] 1, 1, 5, 9, 17, 29, 65, 137, 261, 497, 1025, 2085, 4097, 8129, 16405, 32905, 65537, 130845, 262145, 524793, 1048645, 2096129, 4194305, 8390821, 16777233, 33550337, 67109125, 134225865, 268435457, 536855053, 1073741825, 2147516553
a(p)=2^(p-1)-1 p prime.
[A020737] 5, 9, 17, 33, 65, 129, 257, 513, 1025, 2049, 4097, 8193, 16385, 32769, 65537, 131073, 262145, 524289, 1048577, 2097153, 4194305, 8388609, 16777217, 33554433, 67108865, 134217729, 268435457, 536870913, 1073741825, 2147483649, 4294967297, 8589934593
a(n) = 2^(n+2)+1. a(n) = 3a(n-1) - 2a(n-2).
[A110349] 1, 5, 9, 18, 25, 39, 49, 68, 81, 105, 121, 150, 169, 203, 225, 264, 289, 333, 361, 410, 441, 495, 529, 588, 625, 689, 729, 798, 841, 915, 961, 1040, 1089, 1173, 1225, 1314, 1369, 1463, 1521, 1620, 1681, 1785, 1849, 1958, 2025, 2139, 2209, 2328, 2401, 2525
a(2n-1) = (2n-1)^2; a(2n)=4n^2+n. - Emeric Deutsch, Aug 03 2005
a(n) = n(4n+(-1)^n+1)/4. - Bruno Berselli, Mar 19 2012
[A113805] 5, 9, 19, 23, 33, 37, 47, 51, 61, 65, 75, 79, 89, 93, 103, 107, 117, 121, 131, 135, 145, 149, 159, 163, 173, 177, 187, 191, 201, 205, 215, 219, 229, 233, 243, 247, 257, 261, 271, 275, 285, 289, 299, 303, 313, 317, 327, 331, 341, 345, 355, 359, 369
a(n) = 14*n-a(n-1)-14 (with a(1)=5). [From Vincenzo Librandi, Nov 13 2010]
a(n) = 7*n-(7+3*(-1)^n)/2.
[A060161] 1, 5, 9, 19, 37, 73, 143, 281, 553, 1091, 2157, 4273, 8479, 16849, 33521, 66755, 133045, 265337, 529455, 1056937, 2110681, 4216195, 8424029, 16834529, 33647167, 67258913, 134460513, 268828291, 537506533, 1074770281, 2149147727, 4297659833, 8594291209
a(n)=4*a(n-1)-4*a(n-2)-a(n-3)+2*a(n-4). G.f.: -x*(1+x-7*x^2+4*x^3)/((x-1)*(2*x-1)*(x^2+x-1)) [From R. J. Mathar, Jul 07 2009]
[A092387] 5, 9, 20, 49, 125, 324, 845, 2209, 5780, 15129, 39605, 103684, 271445, 710649, 1860500, 4870849, 12752045, 33385284, 87403805, 228826129, 599074580, 1568397609, 4106118245, 10749957124, 28143753125, 73681302249, 192900153620
a(1)=5, a(2)=9, a(3)=20, a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = 3 + floor((1+phi)^n) where phi = (1+sqrt(5))/2.
[A097074] 1, 1, 5, 9, 21, 41, 85, 169, 341, 681, 1365, 2729, 5461, 10921, 21845, 43689, 87381, 174761, 349525, 699049, 1398101, 2796201, 5592405, 11184809, 22369621, 44739241, 89478485, 178956969, 357913941, 715827881, 1431655765, 2863311529
a(n) = a(n-1) + 2*a(n-2) + 2, a(0)=1, a(1)=1.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3), a(0)=1=a(1), a(2)=5. Observed by G. Detlefs. See the W. Lang link. (End)
a(n) = 3*a(n-1)-2*a(n-2)+4*(-1)^n [From Gary Detlefs Dec 19 2010]
[A163607] 5, 9, 23, 55, 133, 321, 775, 1871, 4517, 10905, 26327, 63559, 153445, 370449, 894343, 2159135, 5212613, 12584361, 30381335, 73347031, 177075397, 427497825, 1032071047, 2491639919, 6015350885, 14522341689, 35060034263, 84642410215
a(n) = 2*a(n-1) + a(n-2) for n > 1; a(0) = 5, a(1) = 9.
[A132354] 0, 5, 9, 24, 32, 57, 69, 104, 120, 165, 185, 240, 264, 329, 357, 432, 464, 549, 585, 680, 720, 825, 869, 984, 1032, 1157, 1209, 1344, 1400, 1545, 1605, 1760, 1824, 1989, 2057, 2232, 2304, 2489, 2565, 2760, 2840, 3045, 3129, 3344, 3432, 3657, 3749, 3984, 4080
a(2n) = n*(7n + 2), a(2n + 1) = 7*n^2 + 12n + 5.
a(n) = n^2 + n + 3*ceiling(n/2)^2. [Gary Detlefs, Feb 23 2010]

[A116520] 0, 1, 5, 9, 25, 29, 45, 61, 125, 129, 145, 161, 225, 241, 305, 369, 625, 629, 645, 661, 725, 741, 805, 869, 1125, 1141, 1205, 1269, 1525, 1589, 1845, 2101, 3125, 3129, 3145, 3161, 3225, 3241, 3305, 3369, 3625, 3641, 3705, 3769, 4025, 4089, 4345, 4601, 5625
a(0) = 1, a(1) = 1; thereafter a(2n)=5a(n) and a(2n+1)=4a(n)+a(n+1).
[A234277] 0, 0, 0, 0, 0, 0, 0, 1, 5, 9, 25, 35, 75, 95, 175, 210, 350, 406, 630, 714, 1050, 1170, 1650, 1815, 2475, 2695, 3575, 3861, 5005, 5369, 6825, 7280, 9100, 9660, 11900, 12580, 15300, 16116, 19380, 20349, 24225, 25365, 29925, 31255, 36575, 38115, 44275, 46046, 53130, 55154, 63250, 65550, 74750, 77350, 87750, 90675
a(n) = (2*n-1+(-1)^n)*(2*n-5+(-1)^n)*(2*n-9+(-1)^n)*(10*n-57-3*(-1)^n)/6144. - Luce ETIENNE, Nov 18 2017
[A259665] 0, 1, 5, 9, 25, 41, 57, 121, 185, 249, 313, 569, 825, 1081, 1337, 1593, 2617, 3641, 4665, 5689, 6713, 7737, 11833, 15929, 20025, 24121, 28217, 32313, 36409, 52793, 69177, 85561, 101945, 118329, 134713, 151097, 167481, 233017, 298553, 364089, 429625, 495161
a(n) = min {4*a(k) + (4^(n-k)-1)/3 ; k < n}.
[A276918] 1, 5, 9, 25, 49, 113, 225, 481, 961, 1985, 3969, 8065, 16129, 32513, 65025, 130561, 261121, 523265, 1046529, 2095105, 4190209, 8384513, 16769025, 33546241, 67092481, 134201345, 268402689, 536838145, 1073676289, 2147418113, 4294836225, 8589803521, 17179607041
a(n) = 1 + 2^(n+2) - 2^(1 + n/2) + (-1)^(n+1)*2^(1 + n/2) - 2^((n+1)/2) + (-1)^(n+2)*2^((n+1)/2).
a(n) = 3*a(n-1) - 6*a(n-3) + 4*a(n-4) for n>3.
[A127976] 1, 1, 5, 9, 25, 53, 125, 273, 609, 1325, 2885, 6217, 13353, 28517, 60685, 128641, 271857, 572829, 1203925, 2524345, 5281721, 11029461, 22991005, 47846129, 99420545, 206297613, 427508325, 884842793, 1829337929, 3777980485
a(n) = ((6*n + 10)/27)*2^(n - 1) + (-1)^(n - 1)*(6*n + 5)/27
a(n) = +2*a(n-1) +3*a(n-2) -4*a(n-3) -4*a(n-4); g.f.: x*(1-x)/((1+x)^2*(1-2*x)^2). [Joerg Arndt, May 27 2011]
[A137199] 1, 1, 1, 5, 9, 25, 57, 141, 337, 817, 1969, 4757, 11481, 27721, 66921, 161565, 390049, 941665, 2273377, 5488421, 13250217, 31988857, 77227929, 186444717, 450117361, 1086679441, 2623476241, 6333631925, 15290740089, 36915112105, 89120964297
a(n)=-(-1)^n+[1+sqrt(2)]^n+(1/2)*sqrt(2)*[1-sqrt(2)]^n+[1-sqrt(2)]^n-(1/2)*[1+sqrt(2)]^n *sqrt(2), with n>=0 - Paolo P. Lava, Jun 09 2008
[A006131] 1, 1, 5, 9, 29, 65, 181, 441, 1165, 2929, 7589, 19305, 49661, 126881, 325525, 833049, 2135149, 5467345, 14007941, 35877321, 91909085, 235418369, 603054709, 1544728185, 3956947021, 10135859761, 25963647845, 66507086889, 170361678269
a(n) = (((1+sqrt(17))/2)^(n+1) - ((1-sqrt(17))/2)^(n+1))/sqrt(17).
a(n+1) = sum(k=0, ceil(n/2), 4^k*binomial(n-k, k)). - Benoit Cloitre, Mar 06 2004
a(n) = sum{k=0..n, binomial((n+k)/2, (n-k)/2)(1+(-1)^(n-k))2^(n-k)/2}. - Paul Barry, Aug 28 2005
a(n) = Product_{k=1..floor((n - 1)/2)} (1 + 16*cos(k*Pi/n)^2). - Roger L. Bagula, Nov 21 2008
a(n) = (sum{1<=k<=n+1, k odd}C(n+1,k)*17^((k-1)/2))/2^n. - Vladimir Shevelev, Feb 05 2014
[A270595] 1, 1, 5, 9, 29, 81, 265, 881, 3065, 10897, 39533, 145561, 542645, 2043745, 7764497, 29719521, 114495985, 443623521, 1727552085, 6757763753, 26541775821, 104626427441, 413800025625, 1641535159889, 6529945089769, 26041812710001
a(n) = (2-y1(n)-y1(n+2)+(-1)^n*(y2(n)+y2(n+2)-2))/4.
[A049602] 0, 1, 1, 5, 9, 30, 68, 195, 483, 1309, 3355, 8900, 23112, 60813, 158717, 416325, 1088661, 2852242, 7463884, 19546175, 51163695, 133962621, 350695511, 918170280, 2403740304, 6293172025, 16475579353, 43133883845, 112925557953
a(n)=sum{k=0..floor(n/2), C(n, 2k)Fib(n-2k)}; - Paul Barry, May 01 2005
a(n)=2a(n-1)+3a(n-2)-4a(n-3)+a(n-4). - Paul Curtz, Jun 16 2008
[A116390] 1, 1, 5, 9, 33, 73, 233, 569, 1693, 4353, 12477, 32985, 92637, 248673, 690549, 1869513, 5158881, 14033161, 38587193, 105246041, 288818305, 788939769, 2162574513, 5912375033, 16196093881, 44300854441, 121311490937
a(n) = sum(k=0..n, sum(j=0..k, C(k,j)*(-1)^(k-j) * sum(i=0..floor(n/2), C(i+(j-1)/2,i)*C(j,n-2*i)*4^i))).
[A098477] 1, 1, 5, 9, 37, 89, 325, 905, 3109, 9337, 31173, 97449, 321445, 1027225, 3374405, 10920649, 35855909, 116937145, 384340421, 1259728873, 4147000229, 13639616473, 44978045765, 148314302473, 489879442469, 1618600915705
a(n) = Sum_{k=0..floor(n/2)} binomial(2*k,k)*binomial(n-k, n-2k)*2^k.
[A243762] 1, 5, 9, 37, 113, 261, 505, 869, 1377, 2053, 2921, 4005, 5329, 6917, 8793, 10981, 13505, 16389, 19657, 23333, 27441, 32005, 37049, 42597, 48673, 55301, 62505, 70309, 78737, 87813, 97561, 108005, 119169, 131077, 143753, 157221, 171505, 186629, 202617, 219493
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
[A121724] 1, 1, 5, 9, 45, 97, 485, 1145, 5725, 14289, 71445, 185193, 925965, 2467137, 12335685, 33563481, 167817405, 464221105, 2321105525, 6507351113, 32536755565, 92236247841, 461181239205, 1319640776249, 6598203881245, 19031570387857, 95157851939285
a(n)=8*4^n*INT(x^n*sqrt(1-x^2)/(5-4x),x,-1,1)/pi
[A100305] 1, 1, 5, 9, 45, 113, 469, 1369, 5117, 16065, 56997, 185513, 641485, 2125585, 7257461, 24262137, 82321821, 276418913, 934993477, 3146344777, 10626292589, 35797050801, 120807391509, 407183797913, 1373642929981, 4631113313281
a(n)=2a(n-1)+7a(n-2)-8a(n-3); a(n)=1/2+((sqrt(33)+1)^(n+1)+(sqrt(33)-1)^(n+1)(-1)^n)sqrt(33)2^(-n)/132.
[A080872] 1, 1, 5, 9, 49, 89, 485, 881, 4801, 8721, 47525, 86329, 470449, 854569, 4656965, 8459361, 46099201, 83739041, 456335045, 828931049, 4517251249, 8205571449, 44716177445, 81226783441, 442644523201, 804062262961, 4381729054565, 7959395846169, 43374646022449, 78789896198729, 429364731169925
a(n) = (3+sqrt(3))/12*(sqrt(3)-sqrt(2))^n+(3-sqrt(3))/12*(-sqrt(3)+sqrt(2))^n+(3+sqrt(3))/12*(sqrt(3)+sqrt(2))^n+(3-sqrt(3))/12*(-sqrt(3)-sqrt(2))^n. [Richard Choulet, Dec 03 2008]
a(n+4) = 10*a(n+2)-a(n). [Richard Choulet, Dec 04 2008]
[A004757] 5, 10, 11, 20, 21, 22, 23, 40, 41, 42, 43, 44, 45, 46, 47, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185
a(2n) = 2a(n), a(2n+1) = 2a(n) + 1 + 4[n==0].
a(2^m+k) = 5*2^m + k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Aug 08 2016
[A192336] 5, 10, 13, 14, 17, 20, 21, 25, 26, 29, 30, 34, 35, 37, 38, 39, 40, 41, 42, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 65, 66, 68, 69, 70, 71, 73, 74, 75, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 102, 103, 104
a(n) = n + 37 for n >= 92.
[A224448] 5, 10, 13, 14, 17, 21, 25, 26, 29, 30, 34, 35, 37, 38, 41, 42, 45, 46, 49, 50, 53, 54, 58, 59, 61, 62, 65, 66, 69, 70, 73, 74, 75, 77, 78, 81, 82, 83, 85, 86, 89, 90, 91, 93, 94, 97, 98, 101, 105, 106, 107, 109, 110, 113, 114, 115, 117, 118, 121, 122, 125, 126, 129, 130
a(n) is the n-th largest number m satisfying m = a^2 + b^2 + c^2, with a, b, and c integers, 0 <= a < b < c, and gcd(a,b,c) = 1.
[A073503] 5, 10, 13, 15, 16, 17, 20, 25, 26, 29, 30, 32, 34, 35, 37, 39, 40, 41, 45, 48, 50, 51, 52, 53, 55, 58, 60, 61, 64, 68, 70, 73, 74, 75, 78, 82, 87, 89, 90, 91, 95, 96, 97, 100, 101, 102, 104, 105, 106, 109, 110, 111, 112, 113, 115, 116, 117, 119, 120, 122, 123, 125
a(n) seems to be asymptotic to 2n.
[A001958] 1, 5, 10, 14, 18, 22, 27, 31, 35, 40, 44, 48, 53, 57, 61, 65, 70, 74, 78, 83, 87, 91, 96, 100, 104, 109, 113, 117, 121, 126, 130, 134, 139, 143, 147, 152, 156, 160, 164, 169, 173, 177, 182, 186, 190, 195, 199, 203, 207, 212, 216, 220, 225, 229, 233, 238, 242, 246
a(n) = floor((n+1/3) * (5+sqrt(13)) /2). - R. J. Mathar, Feb 14 2011
[A224692] 1, 5, 10, 14, 28, 32, 64, 68, 136, 140, 280, 284, 568, 572, 1144, 1148, 2296, 2300, 4600, 4604, 9208, 9212, 18424, 18428, 36856, 36860, 73720, 73724, 147448, 147452, 294904, 294908, 589816, 589820, 1179640, 1179644, 2359288, 2359292, 4718584, 4718588, 9437176
a(n) = a(n-1)+4 if n odd.
a(n) = a(n-1)*2 if n even.
a(n) = 3*a(n-2) - 2*a(n-4) with n>3, a(0)=1, a(1)=5, a(2)=10, a(3)=14.
a(n) = 9*2^floor(n/2)-2*(-1)^n-6. [Bruno Berselli, Apr 27 2013]
[A179123] 5, 10, 14, 49, 80, 355, 599, 2764, 4685, 21730, 36854, 171049, 290120, 1346635, 2284079, 10602004, 17982485, 83469370, 141575774, 657152929, 1114623680, 5173754035, 8775413639, 40732879324, 69088685405, 320689280530, 543934069574, 2524781364889
a(n+4)=8*a(n+2)-a(n)-27; r15=sqrt(15);
a(n)=((1+r15)*(4+r15)^((n-1)/2)+(1-r15*(4-r15)^((n-1)/2)+18)/4 n odd
a(n)=((11+3*r15)*(4+r15)^((n-2)/2)+(11-3*r15)*(4-r15)^((n-2)/2)+18)/4 n even
a(n)=a(n-1)+8*a(n-2)-8*a(n-3)-a(n-4)+a(n-5). G.f.: -x*(4*x^4-5*x^3-36*x^2+5*x+5) / ((x-1)*(x^4-8*x^2+1)). [Colin Barker, Jan 01 2013]
[A081839] 0, 5, 10, 15, 19, 24, 29, 34, 39, 43, 48, 53, 58, 63, 67, 72, 77, 82, 86, 91, 96, 101, 106, 110, 115, 120, 125, 130, 134, 139, 144, 149, 154, 158, 163, 168, 173, 178, 182, 187, 192, 197, 201, 206, 211, 216, 221, 225, 230, 235, 240, 245, 249, 254, 259, 264, 269

a(n)=floor(r*n-(3*r+1)/(r-1)) where r= (1/2) *(5+sqrt(21)) =4.79128784747792...
[A104356] 1, 5, 10, 15, 20, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648
a(n) = if n=0 then 1 else (if n<5 then 5*n else 2^n).
[A115181] 5, 10, 15, 21, 26, 31, 36, 42, 47, 52, 57, 63, 68, 73, 78, 84, 89, 94, 100, 105, 110, 115, 121, 126, 131, 136, 142, 147, 152, 157, 163, 168, 173, 178, 184, 189, 194, 200, 205, 210, 215, 221, 226, 231, 236, 242, 247, 252, 257, 263, 268, 273, 278, 284, 289, 294
a(n) = floor(n * 5.26315808...).
[A276853] 0, 5, 10, 16, 21, 27, 32, 38, 43, 48, 54, 59, 65, 70, 76, 81, 86, 92, 97, 103, 108, 114, 119, 125, 130, 135, 141, 146, 152, 157, 163, 168, 173, 179, 184, 190, 195, 201, 206, 212, 217, 222, 228, 233, 239, 244, 250, 255, 260, 266, 271, 277, 282, 288, 293, 299
a(n) = floor(2*e*n).
[A277645] 5, 10, 16, 21, 27, 32, 38, 43, 49, 54, 59, 65, 70, 76, 81, 87, 92, 98, 103, 108, 114, 119, 125, 130, 136, 141, 147, 152, 158, 163, 168, 174, 179, 185, 190, 196, 201, 207, 212, 217, 223, 228, 234, 239, 245, 250, 256, 261, 267, 272, 277, 283, 288, 294, 299, 305
a(n) = floor(n*(3+sqrt(6))).
[A052905] 1, 5, 10, 16, 23, 31, 40, 50, 61, 73, 86, 100, 115, 131, 148, 166, 185, 205, 226, 248, 271, 295, 320, 346, 373, 401, 430, 460, 491, 523, 556, 590, 625, 661, 698, 736, 775, 815, 856, 898, 941, 985, 1030, 1076, 1123, 1171, 1220, 1270, 1321, 1373, 1426, 1480
a(n) = n+a(n-1)+3, with n>0, a(0)=1. - Vincenzo Librandi, Aug 06 2010
[A194275] 0, 1, 5, 10, 16, 25, 35, 46, 60, 75, 91, 110, 130, 151, 175, 200, 226, 255, 285, 316, 350, 385, 421, 460, 500, 541, 585, 630, 676, 725, 775, 826, 880, 935, 991, 1050, 1110, 1171, 1235, 1300, 1366, 1435, 1505, 1576, 1650, 1725, 1801, 1880, 1960, 2041, 2125
a(n) = floor(5*n*(n+1)/6). - Arkadiusz Wesolowski, Aug 23 2011
[A054514] 1, 1, 1, 5, 10, 16, 45, 109, 222, 540, 1341, 3065, 7328, 18112, 43530, 105390, 260254, 639244, 1570257, 3893805, 9669236, 24014264, 59903650, 149806494, 374982790, 940835404, 2365679689, 5955973237, 15018854005, 37935575685, 95942896837, 242954350457, 616034170069, 1563810857705, 3974000543475
a(n) = Sum_{j=0..(n-1)/3} binomial[n-2j-1, n-3j-1] binomial[n+3+j, n+2]/(n+3). This counts the polygon dissections above by number j of diagonals. - David Callan, Jul 15 2004
[A098021] 5, 10, 17, 22, 29, 34, 39, 46, 51, 58, 63, 68, 75, 80, 87, 92, 99, 104, 109, 116, 121, 128, 133, 138, 145, 150, 157, 162, 169, 174, 179, 186, 191, 198, 203, 208, 215, 220, 227, 232, 237, 244, 249, 256, 261, 268, 273, 278, 285, 290, 297, 302, 307, 314, 319, 326
a(n) = 7 * floor(n * (sqrt(2) - 1)) + 5 * floor(n * (2 - sqrt(2))) + 5. - Miko Labalan, Dec 14 2015
[A276382] 1, 5, 10, 17, 25, 35, 46, 59, 73, 89, 106, 125, 145, 167, 190, 215, 241, 269, 298, 329, 361, 395, 430, 467, 505, 545, 586, 629, 673, 719, 766, 815, 865, 917, 970, 1025, 1081, 1139, 1198, 1259, 1321, 1385, 1450, 1517, 1585, 1655, 1726, 1799, 1873, 1949, 2026
a(n) = ((-1)^n + 12*n + 6*n^2 - 9)/8 for n > 0.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 4.
a(n) = -1 + Sum_{k=1..n} floor((n+k+3)/2). - Wesley Ivan Hurt, Apr 01 2017
[A080341] 1, 5, 10, 17, 27, 38, 51, 67, 84, 103, 125, 148, 173, 201, 230, 261, 295, 330, 367, 407, 448, 491, 537, 584, 633, 685, 738, 793, 851, 910, 971, 1035, 1100, 1167, 1237, 1308, 1381, 1457, 1534, 1613, 1695, 1778, 1863, 1951, 2040, 2131, 2225, 2320, 2417
a(n) = n^2+(n+1)/3 with integer division, that is n mod 3 = 0 : n^2+n/3 n mod 3 = 1 : n^2+(n-1)/3 n mod 3 = 2 : n^2+(n+1)/3.
[A086653] 5, 10, 17, 28, 47, 82, 149, 280, 539, 1054, 2081, 4132, 8231, 16426, 32813, 65584, 131123, 262198, 524345, 1048636, 2097215, 4194370, 8388677, 16777288, 33554507, 67108942, 134217809, 268435540, 536870999, 1073741914, 2147483741
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). G.f.: x*(5-10*x+2*x^2)/((1-x)^2*(1-2*x)). [Colin Barker, Sep 05 2012]
[A284703] 1, 5, 10, 17, 51, 98, 211, 457, 964, 2095, 4489, 9638, 20723, 44469, 95550, 205225, 440777, 946808, 2033571, 4367947, 9381928, 20151345, 43283195, 92967814, 199685501, 428904403, 921243124, 1978737477, 4250128177, 9128846128, 19607840133, 42115660425
a(n) = a(n-1)+2*a(n-2)+a(n-3)-a(n-4)+2*a(n-5)+a(n-6)-a(n-7)-a(n-8) for n>8.
[A035608] 0, 1, 5, 10, 18, 27, 39, 52, 68, 85, 105, 126, 150, 175, 203, 232, 264, 297, 333, 370, 410, 451, 495, 540, 588, 637, 689, 742, 798, 855, 915, 976, 1040, 1105, 1173, 1242, 1314, 1387, 1463, 1540, 1620, 1701, 1785, 1870, 1958, 2047, 2139, 2232, 2328, 2425
a(n) = n^2 + n - 1 - floor((n-1)/2).
a(n) = floor((n + 1/4)^2). - Reinhard Zumkeller, Jan 27 2010
a(n) = (-1)^n*Sum_{i=0..n} (-1)^i*(2*i^2 + 3*i + 1). Omits the leading 0. - William A. Tedeschi, Aug 25 2010
a(n) = n^2 + floor(n/2), from Mathematica section. - Vladimir Joseph Stephan Orlovsky, Apr 12 2011
a(0)=0, a(1)=1, a(2)=5, a(3)=10; for n>3, a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4). - Harvey P. Dale, Feb 21 2013
[A164004] 0, 5, 10, 18, 28, 40, 54, 70, 88, 108, 130, 154, 180, 208, 238, 270, 304, 340, 378, 418, 460, 504, 550, 598, 648, 700, 754, 810, 868, 928, 990, 1054, 1120, 1188, 1258, 1330, 1404, 1480, 1558, 1638, 1720, 1804, 1890, 1978, 2068, 2160, 2254, 2350, 2448, 2548
a(n) = n*(3+n) for n > 1.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 4.
[A072703] 5, 10, 20, 25, 35, 40, 50, 55, 65, 70, 80, 85, 95, 100, 110, 115, 125, 130, 140, 145, 155, 160, 170, 175, 185, 190, 200, 205, 215, 220, 230, 235, 245, 250, 260, 265, 275, 280, 290, 295, 305, 310, 320, 325, 335, 340, 350, 355, 365, 370, 380
a(n)=15*(n-1)-a(n-1), with a(1)=5. - Vincenzo Librandi, Aug 08 2010]
a(1)=5, a(2)=10, a(3)=20, a(n)=a(n-1)+a(n-2)-a(n-3). - Harvey P. Dale, May 15 2011
a(n)=-(5/4)*(3+(-1)^n-6*n). - Harvey P. Dale, May 15 2011
[A210677] 1, 1, 5, 10, 20, 36, 63, 107, 179, 296, 486, 794, 1293, 2101, 3409, 5526, 8952, 14496, 23467, 37983, 61471, 99476, 160970, 260470, 421465, 681961, 1103453, 1785442, 2888924, 4674396, 7563351, 12237779, 19801163, 32038976, 51840174, 83879186, 135719397, 219598621, 355318057
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: (1-2*x+4*x^2-2*x^3)/((1-x)^2*(1-x-x^2)). [Colin Barker, Jun 30 2012]
[A020714] 5, 10, 20, 40, 80, 160, 320, 640, 1280, 2560, 5120, 10240, 20480, 40960, 81920, 163840, 327680, 655360, 1310720, 2621440, 5242880, 10485760, 20971520, 41943040, 83886080, 167772160, 335544320, 671088640, 1342177280, 2684354560, 5368709120, 10737418240
a(n) = 5*2^n. a(n) = 2a(n-1).
[A146523] 1, 5, 10, 20, 40, 80, 160, 320, 640, 1280, 2560, 5120, 10240, 20480, 40960, 81920, 163840, 327680, 655360, 1310720, 2621440, 5242880, 10485760, 20971520, 41943040, 83886080, 167772160, 335544320, 671088640, 1342177280, 2684354560, 5368709120, 10737418240
a(n) = 5*2^(n-1) for n>=1, a(0)=1.
[A132174] 1, 5, 10, 21, 44, 92, 189, 385, 778, 1565, 3141, 6294, 12602, 25219, 50454, 100926, 201871, 403763, 807548, 1615119, 3230263, 6460552, 12921132, 25842293, 51684616, 103369264, 206738561, 413477157, 826954350, 1653908737, 3307817513, 6615635066, 13231270174
a(n) = 3*a(n-1) - 2*a(n-2) + a(n-5) - 3*a(n-6) + 2*a(n-7) for n > 8.
[A132461] 1, 1, 5, 10, 21, 51, 122, 295, 725, 1792, 4455, 11133, 27930, 70305, 177483, 449160, 1139157, 2894625, 7367720, 18781387, 47941271, 122524216, 313484385, 802877055, 2058184346, 5280670051, 13559216117, 34841384560, 89587774395
a(n) = Sum_{k=0..floor(n/2)} (C(n-k, k) + C(n-k-1, k-1))^2.
[A064694] 1, 5, 10, 22, 34, 58, 80, 120, 155, 215, 266, 350, 420, 532, 624, 768, 885, 1065, 1210, 1430, 1606, 1870, 2080, 2392, 2639, 3003, 3290, 3710, 4040, 4520, 4896, 5440, 5865, 6477, 6954, 7638, 8170, 8930, 9520, 10360, 11011, 11935, 12650, 13662, 14444
a(n) = sum{k=0..floor((n+1)/2), (n-k+1)ceiling((n-k+1)/2)+k+if(mod(n-k+1, 2) =0, ceiling((n-k+1)/2), 0)}. - Paul Barry, Aug 25 2004
a(n) = sum{k=0..floor(n/2), C(n-k+1,2)+k}; - Paul Barry, Jul 23 2008
a(n) = (2*n+1-(-1)^n)*(2*n+5-(-1)^n)*(14*n+15+17*(-1)^n)/384. - Luce ETIENNE, Feb 17 2015
a(n) = (7*n^3+30*n^2+32*n)/48 for n even.
a(n) = (7*n^3+27*n^2+17*n-3)/48 for n odd.
[A175661] 1, 5, 10, 23, 49, 104, 217, 449, 922, 1883, 3829, 7760, 15685, 31637, 63706, 128111, 257353, 516536, 1036033, 2076857, 4161466, 8335475, 16691245, 33415328, 66883789, 133853549, 267846202, 535917479, 1072199137, 2144987528
a(n) = 3*a(n-1)-a(n-2)-2*a(n-3) with a(0)=1, a(1)=5 and a(2)=10.
[A106729] 5, 10, 25, 65, 170, 445, 1165, 3050, 7985, 20905, 54730, 143285, 375125, 982090, 2571145, 6731345, 17622890, 46137325, 120789085, 316229930, 827900705, 2167472185, 5674515850, 14856075365, 38893710245, 101825055370, 266581455865
a(n) = 3*a(n-1)-a(n-2). - T. D. Noe, Dec 11 2006

a(n) = (5/2)*((3/2)+(1/2)*sqrt(5))^n+(1/2)*((3/2)+(1/2)*sqrt(5))^n*sqrt(5)-(1/2)*((3/2)-(1/2)*sqrt(5))^n *sqrt(5)+(5/2)*((3/2)-(1/2)*sqrt(5))^n, with n>=0. - Paolo P. Lava, Nov 19 2008
a(n) = Fibonacci(n-2)^2+Fibonacci(n+3)^2. - Gary Detlefs, Dec 28 2010
a(n) = L(2n) + L(2n+2). - Richard R. Forberg, Nov 23 2014
[A290055] 0, 1, 5, 10, 26, 40, 80, 110, 190, 245, 385, 476, 700, 840, 1176, 1380, 1860, 2145, 2805, 3190, 4070, 4576, 5720, 6370, 7826, 8645, 10465, 11480, 13720, 14960, 17680, 19176, 22440, 24225, 28101, 30210, 34770, 37240, 42560, 45430, 51590, 54901, 61985, 65780, 73876, 78200, 87400, 92300, 102700, 108225, 119925, 126126
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9).
a(n) = (2*n+3+(-1)^n)*(2*n+7+(-1)^n)*(6*n^2+30*n+5-(2*n+5)*(-1)^n)/1536. - Luce ETIENNE, Nov 18 2017
[A005514] 1, 1, 5, 10, 29, 57, 126, 232, 440, 750, 1282, 2052, 3260, 4950, 7440, 10824, 15581, 21879, 30415, 41470, 56021, 74503, 98254, 127920, 165288, 211276, 268228, 337416, 421856, 523260, 645456, 790704, 963793, 1167645, 1408185
a(n) = ((n+4)/32)*s(n,0,8)+((n-4)/32)*s(n,4,8)+(48*C(n-1,7)+(n+1)*(n-2)*(n-4)*(n-6))/768, if n is even; a(n) = (48*C(n-1,7)+(n-1)*(n-3)*(n-5)*(n-7))/768, if n odd.
[A069921] 1, 5, 10, 29, 73, 194, 505, 1325, 3466, 9077, 23761, 62210, 162865, 426389, 1116298, 2922509, 7651225, 20031170, 52442281, 137295677, 359444746, 941038565, 2463670945, 6449974274, 16886251873, 44208781349, 115740092170, 303011495165, 793294393321
a(n) = ceiling(3/5*(g/2)^(n+1))-(1+(-1)^n)/2, with g = 3 + sqrt(5).
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3). - Vladeta Jovovic, May 06 2002
a(n) = F(n)^2 + F(n+2)^2. - Ron Knott, Aug 02 2004
a(n) = 2*F(n)*F(n+2) + F(n+1)^2 = F(n+1)*F(n+3) + F(n)^2 +(-1)^(n-1). - J. M. Bergot, Sep 15 2012
[A294286] 0, 0, 5, 10, 30, 46, 91, 124, 204, 260, 385, 470, 650, 770, 1015, 1176, 1496, 1704, 2109, 2370, 2870, 3190, 3795, 4180, 4900, 5356, 6201, 6734, 7714, 8330, 9455, 10160, 11440, 12240, 13685, 14586, 16206, 17214, 19019, 20140, 22140, 23380, 25585, 26950, 29370
a(n) = Sum_{i=1..floor((n-1)/2)} i^2 + (n-i)^2.
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7) for n > 7.
[A133629] 1, 5, 10, 30, 55, 155, 280, 780, 1405, 3905, 7030, 19530, 35155, 97655, 175780, 488280, 878905, 2441405, 4394530, 12207030, 21972655, 61035155, 109863280, 305175780, 549316405, 1525878905, 2746582030, 7629394530, 13732910155, 38146972655, 68664550780
a(n) = (p/(p-1))*(p^(n/2)-1) if n is even, else a(n)=(p/(p-1))*((2p-1)*p^((n-3)/2)-1).
a(n) = (p/(p-1))*(p^floor(n/2)+p^floor((n-1)/2)-p^floor((n-2)/2)-1).
a(n) = p^floor(n/2)+(p^floor((n+1)/2)-p)/(p-1).
a(n) = 5*(5^(n/2) - 1)/4 for n even.
a(n) = (9*5^(n/2-1/2) - 5)/4 for n odd.
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3) for n>3.
[A156302] 1, 1, 5, 10, 30, 57, 152, 289, 676, 1304, 2809, 5335, 10961, 20487, 40329, 74476, 141914, 258094, 479638, 860025, 1563716, 2767982, 4940567, 8636563, 15173805, 26217392, 45416811, 77629455, 132800937, 224695510, 380079521, 637006921
a(n) = (1/n)*Sum_{k=1..n} sigma(k)^2*a(n-k) for n>0, with a(0) = 1.
[A002571] 1, 5, 10, 30, 74, 199, 515, 1355, 3540, 9276, 24276, 63565, 166405, 435665, 1140574, 2986074, 7817630, 20466835, 53582855, 140281751, 367262376, 961505400, 2517253800, 6590256025, 17253514249, 45170286749, 118257345970
a(n) = (-1)^n*Sum[(-1)^(i+1)*(Fibonacci[i]*Fibonacci[i+1]),{i,1,n+1}] - Alexander Adamchuk, Jun 16 2006
a(n) = 8*a(n-2) - 8*a(n-4) + a(n-6) + 2(-1)^n, n>6. - Sean A. Irvine, Apr 09 2014
a(n) - a(n-2) = Fibonacci(n+1)^2. - Peter Bala, Aug 30 2015
[A189732] 1, 5, 10, 35, 85, 260, 685, 1985, 5410, 15335, 42385, 119060, 330985, 926285, 2581210, 7212635, 20118685, 56181860, 156775285, 437684585, 1221561010, 3409983935, 9517788985, 26567708660, 74156653585, 206995196885, 577778464810, 1612754449235, 4501646773285
a(n) = 1/2*((1/2+1/2*sqrt(21))^(n-1)+(1/2-1/2*sqrt(21))^(n-1)+3/14*sqrt(21)*((1/2+1/2 *sqrt(21))^(n-1)-(1/2-1/2*sqrt(21))^(n-1)). - Paolo P. Lava, May 24 2011
[A117865] 5, 10, 40, 70, 250, 430, 1510, 2590, 9070, 15550, 54430, 93310, 326590, 559870, 1959550, 3359230, 11757310, 20155390, 70543870, 120932350, 423263230, 725594110, 2539579390, 4353564670, 15237476350, 26121388030, 91424858110, 156728328190, 548549148670
a(n) = 7*6^((n-1)/2)-2 (n odd), 2*6^(n/2)-2 (n even).
[A270085] 1, 5, 10, 46, 55, 151, 168, 356, 377, 689, 714, 1182, 1211, 1867, 1900, 2776, 2813, 3941, 3982, 5394, 5439, 7167, 7216, 9292, 9345, 11801, 11858, 14726, 14787, 18099, 18164, 21952, 22021, 26317, 26390, 31226, 31303, 36711, 36792, 42804, 42889, 49537, 49626
a(n) = 1/4*(-45+(-1)^n)+(35*n)/6-(-1+(-1)^n)*n^2+(2*n^3)/3 for n>3.
a(n) = (4*n^3+35*n-66)/6 for n>3 and even.
a(n) = (4*n^3+12*n^2+35*n-69)/6 for n>3 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>8.
[A270089] 1, 5, 10, 50, 50, 171, 171, 396, 396, 757, 757, 1286, 1286, 2015, 2015, 2976, 2976, 4201, 4201, 5722, 5722, 7571, 7571, 9780, 9780, 12381, 12381, 15406, 15406, 18887, 18887, 22856, 22856, 27345, 27345, 32386, 32386, 38011, 38011, 44252, 44252, 51141, 51141
a(n) = (-87-9*(-1)^n+(22-24*(-1)^n)*n-12*(-2+(-1)^n)*n^2+8*n^3)/12 for n>2.
a(n) = (4*n^3+6*n^2-n-48)/6 for n>2 and even.
a(n) = (4*n^3+18*n^2+23*n-39)/6 for n>2 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>9.
[A277247] 1, 1, 5, 10, 53, 126, 662, 1716, 8885, 24310, 124130, 352716, 1778966, 5200300, 25947612, 77558760, 383358645, 1166803110, 5719519850, 17672631900, 85990654178, 269128937220, 1300866635172, 4116715363800, 19780031677718, 63205303218876, 302045506654052
a(n) = (binomial(2*n, n) + (binomial(n, n/2)*cos(Pi*n/2))^2)/2.
[A270131] 1, 5, 10, 54, 54, 175, 175, 400, 400, 761, 761, 1290, 1290, 2019, 2019, 2980, 2980, 4205, 4205, 5726, 5726, 7575, 7575, 9784, 9784, 12385, 12385, 15410, 15410, 18891, 18891, 22860, 22860, 27349, 27349, 32390, 32390, 38015, 38015, 44256, 44256, 51145, 51145
a(n) = 1/12*(-39-9*(-1)^n+(22-24*(-1)^n)*n-12*(-2+(-1)^n)*n^2+8*n^3) for n>2.
a(n) = (4*n^3+6*n^2-n-24)/6 for n>2 and n even.
a(n) = (4*n^3+18*n^2+23*n-15)/6 for n>2 and n odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>9.
[A227146] 5, 11, 13, 14, 19, 29, 35, 37, 38, 43, 53, 59, 61, 62, 67, 77, 83, 85, 86, 91, 101, 107, 109, 110, 115, 125, 131, 133, 134, 139, 149, 155, 157, 158, 163, 173, 179, 181, 182, 187, 197, 203, 205, 206, 211, 221, 227, 229, 230, 235, 245, 251, 253, 254, 259, 269
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = (120*n - 50 - (n mod 5) + 19*((n+1) mod 5) + 14*((n+2) mod 5) - 6*((n+3) mod 5) - 26*((n+4) mod 5))/25. (End)
[A206547] 1, 5, 11, 13, 17, 19, 23, 25, 29, 31, 37, 41, 43, 47, 53, 55, 59, 61, 65, 67, 71, 73, 79, 83, 85, 89, 95, 97, 101, 103, 107, 109, 113, 115, 121, 125, 127, 131, 137, 139, 143, 145, 149, 151, 155, 157, 163, 167, 169, 173, 179, 181, 185, 187, 191, 193, 197, 199, 205, 209, 211
a(n) = a(n-12) + 42, n>=13.
a(n) = a(n-1) + a(n-12) - a(n-13), n>=13, with a(0)=-1.
a(n) = 2*n-1 + 2*sum(F21[j]*floor((n+(j-1))/12),j=1..12), with F21=[1,2,0,1,0,1,0,1,0,2,1,0], n>=1. For n=0 this becomes -1, but the following o.g.f. has a(0)=0 if it starts with x^0.
[A230288] 0, 5, 11, 13, 17, 26, 35, 44, 53, 62, 71, 79, 97, 105, 111, 113, 117, 125, 131, 133, 137, 145, 151, 153, 157, 165, 171, 173, 177, 185, 191, 193, 197, 206, 214, 220, 222, 226, 234, 240, 242, 246, 254, 260, 262, 266, 274, 280, 282, 286, 294, 301
a(n+1) - a(n) = lsd(a(n)) + msd(a(n+1)), where
[A269819] 5, 11, 13, 19, 29, 35, 37, 43, 53, 59, 61, 67, 77, 83, 85, 91, 101, 107, 109, 115, 125, 131, 133, 139, 149, 155, 157, 163, 173, 179, 181, 187, 197, 203, 205, 211, 221, 227, 229, 235, 245, 251, 253, 259, 269, 275, 277, 283, 293, 299, 301, 307, 317
a(n) = a(n-4) + 24.
a(n) = 2*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) for n>4.

a(n) = 6*n-3-(1-i)*i^(-n)-(1+i)*i^n for i=sqrt(-1). (End)
[A228706] 1, 1, 1, 5, 11, 14, 18, 30, 45, 55, 67, 91, 119, 140, 164, 204, 249, 285, 325, 385, 451, 506, 566, 650, 741, 819, 903, 1015, 1135, 1240, 1352, 1496, 1649, 1785, 1929, 2109, 2299, 2470, 2650, 2870, 3101, 3311, 3531, 3795, 4071, 4324, 4588, 4900, 5225, 5525
a(n) = (n+2)*(2*(n+1)*(n+3)+9*(1+(-1)^n)*i^(n*(n+1)))/48, where i=sqrt(-1). [Bruno Berselli, Sep 07 2013]
[A217585] 0, 1, 5, 11, 15, 19, 23, 27, 31, 35, 39, 43, 47, 51, 55, 59, 63, 67, 71, 75, 79, 83, 87, 91, 95, 99, 103, 107, 111, 115, 119, 123, 127, 131, 135, 139, 143, 147, 151, 155, 159, 163, 167, 171, 175, 179, 183, 187, 191, 195, 199, 203, 207, 211, 215, 219, 223, 227, 231, 235, 239, 243, 247
a(n) = 4n-1 for n>2.
a(n) = 2*a(n-1)-a(n-2) for n>4. G.f.: -x*(2*x^3-2*x^2-3*x-1) / (x-1)^2. - Colin Barker, Sep 20 2014
[A187715] 1, 5, 11, 15, 21, 25, 31, 35, 41, 45, 51, 55, 61, 65, 71, 75, 81, 85, 91, 95, 101, 105, 111, 115, 121, 125, 131, 135, 141, 145, 151, 155, 161, 165, 171, 175, 181, 185, 191, 195, 201, 205, 211, 215, 221, 225
a(n) = a(n-1) + 4 if n is even, a(n) = a(n-1) + 6 if n is odd.
a(n) = 2*a(n-1) - a(n-2) - 2*(-1)^n.
[A276037] 1, 5, 11, 15, 51, 55, 111, 115, 151, 155, 511, 515, 551, 555, 1111, 1115, 1151, 1155, 1511, 1515, 1551, 1555, 5111, 5115, 5151, 5155, 5511, 5515, 5551, 5555, 11111, 11115, 11151, 11155, 11511, 11515, 11551, 11555, 15111, 15115, 15151, 15155, 15511, 15515
a(2n+1) = 10 a(n) + 1.
a(2n+2) = 10 a(n) + 5.
[A022136] 5, 11, 16, 27, 43, 70, 113, 183, 296, 479, 775, 1254, 2029, 3283, 5312, 8595, 13907, 22502, 36409, 58911, 95320, 154231, 249551, 403782, 653333, 1057115, 1710448, 2767563, 4478011, 7245574, 11723585, 18969159, 30692744, 49661903, 80354647, 130016550
a(n) = 2*Lucas(n-1) + 7*Fibonacci(n+1). - Lechoslaw Ratajczak, May 01 2017
[A041117] 1, 5, 11, 16, 27, 205, 232, 437, 1106, 5967, 96578, 488857, 1074292, 1563149, 2637441, 20025236, 22662677, 42687913, 108038503, 582880428, 9434125351, 47753507183, 104941139717, 152694646900, 257635786617, 1956145153219, 2213780939836, 4169926093055
a(n) = 97684*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 11 2013
[A042121] 1, 5, 11, 16, 75, 91, 257, 1376, 66305, 332901, 732107, 1065008, 4992139, 6057147, 17106433, 91589312, 4413393409, 22158556357, 48730506123, 70889062480, 332286756043, 403175818523, 1138638393089, 6096367783968, 293764292023553, 1474917827901733
a(n) = 66562*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Jan 15 2014
[A187387] 5, 11, 17, 22, 28, 34, 39, 45, 51, 56, 62, 68, 73, 79, 85, 90, 96, 102, 108, 113, 119, 125, 130, 136, 142, 147, 153, 159, 164, 170, 176, 181, 187, 193, 198, 204, 210, 216, 221, 227, 233, 238, 244, 250, 255, 261, 267, 272, 278, 284, 289, 295, 301, 307, 312, 318, 324, 329, 335, 341, 346, 352, 358, 363, 369, 375, 380, 386, 392, 397
a(n)=floor(r*n), where r=1+sqrt(6)+sqrt(5).
[A190334] 5, 11, 17, 22, 28, 34, 40, 45, 51, 57, 63, 68, 74, 80, 85, 91, 97, 103, 108, 114, 120, 126, 131, 137, 143, 149, 154, 160, 166, 171, 177, 183, 189, 194, 200, 206, 212, 217, 223, 229, 235, 240, 246, 252, 257, 263, 269, 275, 280, 286, 292, 298, 303, 309, 315, 320, 326, 332, 338, 343, 349, 355, 361, 366, 372, 378, 384, 389, 395, 401
a(n) = 4n + floor(n*sqrt(3)).
[A277571] 5, 11, 17, 23, 29, 30, 35, 41, 47, 53, 59, 65, 66, 71, 77, 83, 89, 95, 101, 102, 107, 113, 119, 125, 131, 137, 138, 143, 149, 155, 161, 167, 173, 174, 179, 180, 185, 191, 197, 203, 209, 210, 215, 221, 227, 233, 239, 245, 246, 251, 257, 263, 269, 275, 281
a(n) = 5n + O(log n). - Charles R Greathouse IV, Nov 03 2016
[A059538] 5, 11, 17, 23, 29, 35, 41, 47, 53, 59, 65, 71, 77, 83, 89, 95, 101, 107, 113, 118, 124, 130, 136, 142, 148, 154, 160, 166, 172, 178, 184, 190, 196, 202, 208, 214, 220, 226, 232, 237, 243, 249, 255, 261, 267, 273, 279, 285, 291, 297, 303, 309, 315, 321, 327
a(n) = floor(n*zeta(3)/(zeta(3)-1)). - Michel Marcus, Jan 05 2015
[A016969] 5, 11, 17, 23, 29, 35, 41, 47, 53, 59, 65, 71, 77, 83, 89, 95, 101, 107, 113, 119, 125, 131, 137, 143, 149, 155, 161, 167, 173, 179, 185, 191, 197, 203, 209, 215, 221, 227, 233, 239, 245, 251, 257, 263, 269, 275, 281, 287, 293, 299, 305, 311, 317, 323, 329, 335
a(0) = 5; for n > 0, a(n) = a(n-1)+6.
a(n) = floor((12n-1)/2) with offset 1..a(1)=5. - Gary Detlefs, Mar 07 2010
a(n) = 4*(3*n+1) - a(n-1) (with a(0)=5). - Vincenzo Librandi, Nov 20 2010
a(n) = floor(1/(1/sin(1/n) - n)). - Clark Kimberling, Feb 19 2010
a(n) = 3*Sum_{k=0..n} binomial(6*n+5, 6*k+2)*bernoulli(6*k+2). - Michel Marcus, Jan 11 2016
[A023489] 5, 11, 17, 25, 38, 57, 87, 135, 213, 337, 537, 860, 1382, 2226, 3591, 5800, 9372, 15151, 24501, 39629, 64106, 103710, 167790, 271473, 439235, 710679, 1149884, 1860533, 3010385, 4870884, 7881234, 12752082, 20633279, 33385323, 54018563, 87403846, 141422368
a(n) = phi^(n+2) + n + log_phi(n) + O(1). [Charles R Greathouse IV, Jan 17 2012]
[A056000] 0, 5, 11, 18, 26, 35, 45, 56, 68, 81, 95, 110, 126, 143, 161, 180, 200, 221, 243, 266, 290, 315, 341, 368, 396, 425, 455, 486, 518, 551, 585, 620, 656, 693, 731, 770, 810, 851, 893, 936, 980, 1025, 1071, 1118, 1166, 1215, 1265, 1316, 1368, 1421, 1475
a(n) = binomial(n,2) - 4*n, n >= 9. - Zerinvary Lajos, Nov 25 2006
a(n) = n + a(n-1) + 4. - Vincenzo Librandi, Aug 07 2010
a(n) = Sum_{k=1..n} (k+4). - Gary Detlefs, Aug 10 2010
a(n) = 5n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A240438] 0, 1, 5, 11, 18, 28, 40, 53, 69, 87, 106, 128, 152, 177, 205, 235, 266, 300, 336, 373, 413, 455, 498, 544, 592, 641, 693, 747, 802, 860, 920, 981, 1045, 1111, 1178, 1248, 1320, 1393, 1469, 1547, 1626, 1708, 1792, 1877, 1965, 2055, 2146, 2240, 2336, 2433, 2533, 2635
a(n) = n*(n-1)-floor((n+1)/3).
a(n+3) = a(n) + 6*n+5. - Paul Curtz, Nov 11 2014
[A089270] 1, 5, 11, 19, 29, 31, 41, 55, 59, 61, 71, 79, 89, 95, 101, 109, 121, 131, 139, 145, 149, 151, 155, 179, 181, 191, 199, 205, 209, 211, 229, 239, 241, 251, 269, 271, 281, 295, 305, 311, 319, 331, 341, 349, 355, 359, 361, 379, 389, 395, 401, 409, 419, 421, 431
a(n) = x^2 + x*y - y^2 with relatively prime integers x and y (proper solutions of the Diophantine equation).
[A028387] 1, 5, 11, 19, 29, 41, 55, 71, 89, 109, 131, 155, 181, 209, 239, 271, 305, 341, 379, 419, 461, 505, 551, 599, 649, 701, 755, 811, 869, 929, 991, 1055, 1121, 1189, 1259, 1331, 1405, 1481, 1559, 1639, 1721, 1805, 1891, 1979, 2069, 2161, 2255
a(0) = 1, a(1) = 5, a(n) = (n+1)*a(n-1) - (n+2)*a(n-2) for n > 1. - Gerald McGarvey, Sep 24 2004
a(n) = a(n-1) + 2*(n+1), with n>0, a(0) = 1. - Vincenzo Librandi, Nov 18 2010
a(n) = lower right term in M^2, M = the 2 X 2 matrix [1, n; 1, (n+1)]. - Gary W. Adamson, Jun 29 2011
[A274946] 0, 5, 11, 19, 30, 46, 70, 106, 160, 241, 363, 547, 824, 1241, 1869, 2815, 4240, 6386, 9618, 14486, 21818, 32861, 49493, 74543, 112272, 169097, 254683, 383587, 577734, 870146, 1310558, 1973878, 2972928, 4477633, 6743923, 10157263, 15298216, 23041189, 34703157, 52267663, 78722192
a(n) = a(n-1)+a(n-3)+a(n-5)-a(n-6) for n>5.
[A032527] 0, 1, 5, 11, 20, 31, 45, 61, 80, 101, 125, 151, 180, 211, 245, 281, 320, 361, 405, 451, 500, 551, 605, 661, 720, 781, 845, 911, 980, 1051, 1125, 1201, 1280, 1361, 1445, 1531, 1620, 1711, 1805, 1901, 2000, 2101, 2205, 2311, 2420, 2531, 2645, 2761, 2880, 3001
a(n) = 5*n^2/4+((-1)^n-1)/8. - Omar E. Pol, Sep 28 2011
a(n) = Sum_{j=1..n} Sum{i=1..n} ceiling((i+j-n+1)/2). - Wesley Ivan Hurt, Mar 12 2015
[A212978] 1, 5, 11, 20, 32, 46, 63, 83, 105, 130, 158, 188, 221, 257, 295, 336, 380, 426, 475, 527, 581, 638, 698, 760, 825, 893, 963, 1036, 1112, 1190, 1271, 1355, 1441, 1530, 1622, 1716, 1813, 1913, 2015, 2120, 2228, 2338, 2451, 2567, 2685, 2806, 2930
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5).
[A080957] 5, 11, 20, 34, 55, 85, 126, 180, 249, 335, 440, 566, 715, 889, 1090, 1320, 1581, 1875, 2204, 2570, 2975, 3421, 3910, 4444, 5025, 5655, 6336, 7070, 7859, 8705, 9610, 10576, 11605, 12699, 13860, 15090, 16391, 17765, 19214, 20740, 22345, 24031, 25800
a(n) = 3!(C(n+1, 1)-C(n+2, 2)/2+C(n+3, 3)/3) = (2n^3 + 3n^2 + 31n + 30)/6.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), n>3. - Vincenzo Librandi, Sep 07 2015
[A118375] 1, 5, 11, 20, 35, 57, 85, 120, 165, 221, 287, 364, 455, 561, 681, 816, 969, 1141, 1331, 1540, 1771, 2025, 2301, 2600, 2925, 3277, 3655, 4060, 4495, 4961, 5457, 5984, 6545, 7141, 7771, 8436, 9139, 9881, 10661, 11480, 12341, 13245, 14191, 15180, 16215
a(n) = 4*a(n-1) -7*a(n-2) +8*a(n-3) -7*a(n-4) +4*a(n-5) -a(n-6). - Vincenzo Librandi, Jun 27 2012

[A164096] 5, 11, 21, 33, 53, 77, 117, 165, 245, 341, 501, 693, 1013, 1397, 2037, 2805, 4085, 5621, 8181, 11253, 16373, 22517, 32757, 45045, 65525, 90101, 131061, 180213, 262133, 360437, 524277, 720885, 1048565, 1441781, 2097141, 2883573, 4194293, 5767157
a(n) = 2*a(n-2)+11 for n > 2; a(1) = 5, a(2) = 11.
a(n) = (27-5*(-1)^n)*2^(1/4*(2*n-1+(-1)^n))/2-11.
[A166863] 1, 5, 11, 21, 37, 63, 105, 173, 283, 461, 749, 1215, 1969, 3189, 5163, 8357, 13525, 21887, 35417, 57309, 92731, 150045, 242781, 392831, 635617, 1028453, 1664075, 2692533, 4356613, 7049151, 11405769, 18454925, 29860699, 48315629, 78176333, 126491967
a(n) = 2*a(n-1) - a(n-3).
[A131898] 1, 5, 11, 21, 39, 73, 139, 269, 527, 1041, 2067, 4117, 8215, 16409, 32795, 65565, 131103, 262177, 524323, 1048613, 2097191, 4194345, 8388651, 16777261, 33554479, 67108913, 134217779, 268435509, 536870967, 1073741881, 2147483707, 4294967357, 8589934655, 17179869249
a(n) = 4*a(n-1) -5*a(n-2) +2*a(n-3). - Vincenzo Librandi, Jul 05 2012
[A168642] 1, 5, 11, 21, 43, 85, 171, 341, 683, 1365, 2731, 5461, 10923, 21845, 43691, 87381, 174763, 349525, 699051, 1398101, 2796203, 5592405, 11184811, 22369621, 44739243, 89478485, 178956971, 357913941, 715827883, 1431655765, 2863311531
a(n) = a(n-1) + 2*a(n-2) for n > 2; a(0) = 1, a(1) = 5, a(2) = 11.
[A234597] 5, 11, 21, 48, 107, 229, 501, 1099, 2394, 5225, 11417, 24923, 54409, 118808, 259403, 566361, 1236597, 2699975, 5895058, 12871185, 28102765, 61359099, 133970477, 292509056, 638659595, 1394439181, 3044596421, 6647523443, 14514097002, 31689848889, 69191112641
a(n) = a(n-1)+a(n-2)+3*a(n-3)+a(n-4). G.f.: -x^4*(x^3+5*x^2+6*x+5) / (x^4+3*x^3+x^2+x-1). - Colin Barker, Dec 30 2013
[A184552] 0, 5, 11, 22, 28, 33, 39, 50, 56, 61, 67, 78, 84, 89, 95, 106, 112, 117, 123, 134, 140, 145, 151, 162, 168, 173, 179, 190, 196, 201, 207, 218, 224, 229, 235, 246, 252, 257, 263, 274, 280, 285, 291, 302, 308, 313, 319, 330, 336, 341, 347, 358, 364, 369, 375
a(n) = +1*a(n-1) + 1*a(n-4) - 1*a(n-5). (End)
[A222548] 1, 5, 11, 22, 32, 52, 66, 92, 115, 147, 169, 219, 245, 289, 333, 390, 424, 496, 534, 612, 672, 740, 786, 898, 957, 1037, 1113, 1219, 1277, 1413, 1475, 1595, 1687, 1791, 1883, 2056, 2130, 2246, 2354, 2526, 2608, 2792, 2878, 3040, 3190, 3330, 3424, 3662, 3773
a(n) = zeta(2)*n^2 + O(n log n).
[A024921] 1, 5, 11, 22, 33, 52, 67, 93, 117, 149, 174, 219, 250, 293, 339, 392, 434, 500, 546, 619, 680, 748, 804, 903, 969, 1051, 1131, 1230, 1301, 1422, 1497, 1609, 1708, 1814, 1915, 2062, 2156, 2275, 2388, 2543, 2646, 2808, 2915, 3070, 3219, 3359, 3480, 3683, 3813, 3985, 4137
a(n) = n^2 Pi^2/6 + O(n log n) as n -> infinity. - Robert Israel, Aug 05 2016
[A192761] 0, 1, 5, 11, 22, 40, 70, 119, 199, 329, 540, 882, 1436, 2333, 3785, 6135, 9938, 16092, 26050, 42163, 68235, 110421, 178680, 289126, 467832, 756985, 1224845, 1981859, 3206734, 5188624, 8395390, 13584047, 21979471, 35563553, 57543060, 93106650
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: x*(2*x^2-2*x-1) / ((x-1)^2*(x^2+x-1)). [Colin Barker, Dec 08 2012]
[A210731] 0, 0, 5, 11, 23, 42, 74, 126, 211, 349, 573, 936, 1524, 2476, 4017, 6511, 10547, 17078, 27646, 44746, 72415, 117185, 189625, 306836, 496488, 803352, 1299869, 2103251, 3403151, 5506434, 8909618, 14416086, 23325739, 37741861, 61067637, 98809536
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: x^2*(5-4*x)/((1-x)^2*(1-x-x^2)). [Colin Barker, Jun 29 2012]
[A192954] 1, 1, 5, 11, 23, 43, 77, 133, 225, 375, 619, 1015, 1657, 2697, 4381, 7107, 11519, 18659, 30213, 48909, 79161, 128111, 207315, 335471, 542833, 878353, 1421237, 2299643, 3720935, 6020635, 9741629, 15762325, 25504017, 41266407, 66770491
a(n)=3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4).
[A052940] 1, 5, 11, 23, 47, 95, 191, 383, 767, 1535, 3071, 6143, 12287, 24575, 49151, 98303, 196607, 393215, 786431, 1572863, 3145727, 6291455, 12582911, 25165823, 50331647, 100663295, 201326591, 402653183, 805306367, 1610612735, 3221225471, 6442450943, 12884901887
a(n) = 3*a(n-1) - 2*a(n-2).
[A084640] 0, 1, 5, 11, 25, 51, 105, 211, 425, 851, 1705, 3411, 6825, 13651, 27305, 54611, 109225, 218451, 436905, 873811, 1747625, 3495251, 6990505, 13981011, 27962025, 55924051, 111848105, 223696211, 447392425, 894784851, 1789569705, 3579139411
a(n) = a(n-1) + 2a(n-2) + 4, a(0)=0, a(1)=1.
a(n) = (5*2^n + (-1)^n - 6)/3.
a(n+1) - 2*a(n) = period 2: repeat 1, 3. - Paul Curtz, Apr 03 2008
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3), a(0)=0, a(1)=1, a(2)=5. Observed by G. Detlefs. See the W. Lang link. - Wolfdieter Lang, Oct 18 2010
[A274681] 0, 5, 11, 26, 38, 63, 81, 116, 140, 185, 215, 270, 306, 371, 413, 488, 536, 621, 675, 770, 830, 935, 1001, 1116, 1188, 1313, 1391, 1526, 1610, 1755, 1845, 2000, 2096, 2261, 2363, 2538, 2646, 2831, 2945, 3140, 3260, 3465, 3591, 3806, 3938, 4163, 4301, 4536
a(n) = (1-(-1)^n+2*(-4+(-1)^n)*n+8*n^2)/4.
a(n) = (4*n^2-3*n)/2 for n even, a(n) = (4*n^2-5*n+1)/2 for n odd.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A287350] 5, 11, 26, 63, 155, 386, 971, 2463, 6290, 16151, 41651, 107778, 279635, 727031, 1893266, 4936383, 12883115, 33647426, 87928091, 229874703, 601171730, 1572591911, 4114506851, 10766734338, 28177307555, 73748411111, 193034371346, 505287594063, 1322694193115
a(n) = 2^n + Lucas(2*n).
a(n) = 5*a(n-1) - 7*a(n-2) + 2*a(n-3) for n>3.
a(n) = 2^(-n)*(4^n + (3-sqrt(5))^n + (3+sqrt(5))^n).
[A048655] 1, 5, 11, 27, 65, 157, 379, 915, 2209, 5333, 12875, 31083, 75041, 181165, 437371, 1055907, 2549185, 6154277, 14857739, 35869755, 86597249, 209064253, 504725755, 1218515763, 2941757281, 7102030325
a(n) = 2*a(n-1) + a(n-2); a(0)=1, a(1)=5.
a(n) = ((4+sqrt(2))(1+sqrt(2))^n - (4-sqrt(2))(1-sqrt(2))^n)/2*sqrt(2).
a(n) = P(n) - 3*P(n+1) + 2*P(n+2). - Creighton Dement, Jan 18 2005
[A041671] 1, 1, 5, 11, 27, 497, 1021, 2539, 11177, 13716, 504953, 518669, 2579629, 5677927, 13935483, 256516621, 526968725, 1310454071, 5768785009, 7079239080, 260621391889, 267700630969, 1331423915765, 2930548462499, 7192520840763, 132395923596233
a(n) = 516130*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 22 2013
[A114688] 1, 5, 11, 30, 71, 175, 421, 1020, 2461, 5945, 14351, 34650, 83651, 201955, 487561, 1177080, 2841721, 6860525, 16562771, 39986070, 96534911, 233055895, 562646701, 1358349300, 3279345301, 7917039905, 19113425111, 46143890130, 111401205371, 268946300875
a(0)=1, a(1)=5, a(2)=11, a(3)=30, a(n)=2*a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4). - Harvey P. Dale, Dec 18 2012
a(n) = (-6-6*(-1)^n-5*sqrt(2)*((1-sqrt(2))^(1+n)-(1+sqrt(2))^(1+n)))/8. - Colin Barker, May 26 2016
[A023259] 5, 11, 31, 59, 61, 71, 149, 179, 269, 439, 499, 541, 571, 719, 761, 1049, 1091, 1181, 1319, 1451, 1489, 1579, 1601, 1831, 1861, 1879, 1949, 2069, 2089, 2269, 2311, 2389, 2441, 2621, 2699, 2819, 2851, 2909, 3001, 3079, 3119, 3391, 3529, 3631, 3701, 3709
a(n) = 1 or 9 (mod 10) for n > 1. - John Cerkan, Sep 14 2016
[A038580] 5, 11, 31, 59, 127, 179, 277, 331, 431, 599, 709, 919, 1063, 1153, 1297, 1523, 1787, 1847, 2221, 2381, 2477, 2749, 3001, 3259, 3637, 3943, 4091, 4273, 4397, 4549, 5381, 5623, 5869, 6113, 6661, 6823, 7193, 7607, 7841, 8221, 8527, 8719, 9319, 9461, 9739
a(n) = prime(prime(prime(n))).
[A077446] 1, 5, 11, 31, 65, 181, 379, 1055, 2209, 6149, 12875, 35839, 75041, 208885, 437371, 1217471, 2549185, 7095941, 14857739, 41358175, 86597249, 241053109, 504725755, 1404960479, 2941757281, 8188709765, 17145817931, 47727298111
a(2*k-1) = [2*[(3+2*Sqrt(2))^n - (3-2*Sqrt(2))^n] - [(3+2*Sqrt(2))^(n-1) - (3-2*Sqrt(2))^(n-1)] + [(3+2*Sqrt(2))^(n-2) - (3-2*Sqrt(2))^(n-2)]] / (4*Sqrt(2))
a(2*k) = [5*[(3+2*Sqrt(2))^n - (3-2*Sqrt(2))^n] + [(3+2*Sqrt(2))^(n-1) - (3-2*Sqrt(2))^(n-1)]] / (4*Sqrt(2)).
a(n) = 6*a(n-2) - a(n-4).
a(n) = 6*a(n-2) - a(n-4) with a(1)=1, a(2)=5, a(3)=11, a(4)=31. - Sture Sjöstedt, Oct 08 2012
[A023276] 5, 11, 31, 71, 281, 521, 911, 1181, 2371, 2521, 3391, 3701, 4211, 4931, 5051, 7211, 7411, 8221, 8431, 8461, 8501, 8641, 8951, 9601, 9871, 10301, 11981, 12421, 13121, 13921, 14591, 16381, 16451, 16901, 16931, 17791, 17881, 19391, 19751, 21991, 23021
a(n) == 1 (mod 10) for n > 1. - John Cerkan, Sep 16 2016
[A236428] 1, 1, 5, 11, 31, 79, 209, 545, 1429, 3739, 9791, 25631, 67105, 175681, 459941, 1204139, 3152479, 8253295, 21607409, 56568929, 148099381, 387729211, 1015088255, 2657535551, 6957518401, 18215019649, 47687540549, 124847601995, 326855265439, 855718194319
a(n) = (2*Lucas(2*n+1) + 3*(-1)^n)/5. - Ralf Stephan, Feb 27 2014
a(n) = 2*a(n-1) + 2*a(n-2)-a(n-3). - Colin Barker, Dec 20 2014

a(n) = F(n-1)*F(n+2) + F(n)*F(n+1). - J. M. Bergot, Dec 20 2014
a(n) = 2*F(n)*F(n+1) + (-1)^n. - Bruno Berselli, Oct 30 2015
a(n) = F(2*n+1) - F(n-1)^2 +(-1)^n for n>0. - J. M. Bergot, Jan 19 2016
a(n) = (2^(-n)*(3*(-2)^n-(3-sqrt(5))^n*(-1+sqrt(5))+(1+sqrt(5))*(3+sqrt(5))^n))/5. - Colin Barker, Sep 28 2016
[A127864] 1, 1, 5, 11, 33, 87, 241, 655, 1793, 4895, 13377, 36543, 99841, 272767, 745217, 2035967, 5562369, 15196671, 41518081, 113429503, 309895169, 846649343, 2313089025, 6319476735, 17265131521, 47169216511, 128868696065, 352075825151, 961889042433, 2627929735167
a(n) = a(n-1)+ 4 a(n-2) + 2 a(n-3); a(n) = (-1)^n +(1/Sqrt(3))*((1+Sqrt(3))^n - (1-Sqrt(3))^n).
[A194589] 0, 0, 1, 1, 5, 11, 34, 92, 265, 751, 2156, 6194, 17874, 51702, 149941, 435749, 1268761, 3700391, 10808548, 31613474, 92577784, 271407896, 796484503, 2339561795, 6877992334, 20236257626, 59581937299, 175546527727, 517538571125, 1526679067331, 4505996000730
a(n) = Sum_{k=0..n/2} C(n+2,k)*C(n-k,k). - Vladimir Kruchinin, Sep 28 2015
a(n) = hypergeom([1-n/2,-n,3/2-n/2],[1,2-n],4) for n>=3. - Peter Luschny, Mar 07 2017
[A164560] 1, 5, 11, 35, 71, 215, 431, 1295, 2591, 7775, 15551, 46655, 93311, 279935, 559871, 1679615, 3359231, 10077695, 20155391, 60466175, 120932351, 362797055, 725594111, 2176782335, 4353564671, 13060694015, 26121388031, 78364164095
a(n) = 6*a(n-2)+5 for n > 2; a(1) = 1, a(2) = 5.
a(n) = (3-(-1)^n)*6^(1/4*(2*n-1+(-1)^n))/2-1.
[A054854] 1, 1, 5, 11, 35, 93, 269, 747, 2115, 5933, 16717, 47003, 132291, 372157, 1047181, 2946251, 8289731, 23323853, 65624397, 184640891, 519507267, 1461688413, 4112616845, 11571284395, 32557042499, 91602704493, 257733967693, 725161963867
a(n) = a(n-1)+4*a(n-2)+2*(a(n-3)+a(n-4)+...+a(0)).
a(n) = 2*a(n-1)+3*a(n-2)-2*a(n-3). - Keith Schneider (kschneid(AT)bulldog.unca.edu), Apr 02 2006
a(n) = Term (2,2) of matrix [5,1,1; 1,1,0; 1,0,1/2]*[2,1,0; 3,0,1; -2,0,0]^n. - Alois P. Heinz, May 18 2008
[A005178] 0, 1, 1, 5, 11, 36, 95, 281, 781, 2245, 6336, 18061, 51205, 145601, 413351, 1174500, 3335651, 9475901, 26915305, 76455961, 217172736, 616891945, 1752296281, 4977472781, 14138673395, 40161441636, 114079985111, 324048393905
a(n) = a(n-1) + 5*a(n-2) + a(n-3) - a(n-4).
a(n) = (5*sqrt(29)/145)*(((1+sqrt(29)+sqrt(14+2*sqrt(29)))/4)^n+((1+sqrt(29)-sqrt(14+2*sqrt(29)))/4)^n-((1-sqrt(29)+sqrt(14-2*sqrt(29)))/4)^n-((1-sqrt(29)-sqrt(14-2*sqrt(29)))/4)^n). - Tim Monahan, Jul 30 2011
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), where alpha = (1 + sqrt(29))/4 and beta = (1 - sqrt(29))/4 and T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = the bottom left entry of the 2 X 2 matrix T(n, M), where M is the 2 X 2 matrix [0, 7/4; 1, 1/2].
a(n) = U(n-1,i*(1 + sqrt(5))/4)*U(n-1,i*(1 - sqrt(5))/4), where U(n,x) denotes the Chebyshev polynomial of the second kind.
[A042719] 1, 1, 5, 11, 38, 49, 87, 1006, 2099, 3105, 11414, 219971, 231385, 451356, 682741, 1134097, 7487323, 8621420, 50594423, 59215843, 228241952, 1885151459, 5883696329, 7768847788, 44727935269, 52496783057, 359708633611, 412205416668, 771914050279
a(n) = 2646394943560731443 0*a(n-42) - a(n-84) for n>83. - Vincenzo Librandi, Jan 27 2014
[A141355] 1, 1, 5, 11, 43, 85, 341, 683, 2731, 5461, 21845, 43691, 174763, 349525, 1398101, 2796203, 11184811, 22369621, 89478485, 178956971, 715827883, 1431655765, 5726623061, 11453246123, 45812984491, 91625968981, 366503875925, 733007751851
a(4n+1)=2a(4n)-1. a(4n+2)=4a(4n+1)+1. a(4n+3)=2a(4n+2)+1. a(4n+4)=4a(4n+3)-1.
a(n)=7*a(n-2)+8*a(n-4). G.f.: (1+x-2*x^2+4*x^3)/((1-8*x^2)*(1+x^2)). - R. J. Mathar, Feb 23 2009
[A161852] 1, 5, 11, 79, 175, 1259, 2789, 20065, 44449, 319781, 708395, 5096431, 11289871, 81223115, 179929541, 1294473409, 2867582785, 20630351429, 45701395019, 328791149455, 728354737519, 5240028039851, 11607974405285, 83511657488161, 184999235747041, 1330946491770725
a(n) = ((7+(-1)^n*t)*(8-3*t)^floor(n/2)+(7-(-1)^n*t)*(8+3*t)^floor(n/2))/14 with t=sqrt(7). (End)
a(n) = 16*a(n-2) - a(n-4) with a(1)=1, a(2)=5, a(3)=11, a(4)=79. - Sture Sjöstedt, Nov 18 2011
[A041909] 1, 1, 5, 11, 115, 241, 1079, 1320, 56519, 57839, 287875, 633589, 6623765, 13881119, 62148241, 76029360, 3255381361, 3331410721, 16581024245, 36493459211, 381515616355, 799524691921, 3579614384039, 4379139075960, 187503455574359, 191882594650319
a(n) = 57598*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 27 2013
[A214067] 0, 5, 12, 17, 25, 30, 37, 42, 50, 55, 62, 67, 75, 80, 87, 92, 100, 105, 112, 117, 125, 130, 137, 142, 150, 155, 162, 167, 175, 180, 187, 192, 200, 205, 212, 217, 225, 230, 237, 242, 250, 255, 262, 267, 275, 280, 287, 292, 300
a(n) = (50*n - 7 + 5*(-1)^n + (1 + i)*(-i)^n + (1 - i)*i^n)/8, where i = sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5).
[A290494] 5, 12, 17, 25, 44, 76, 131, 219, 376, 645, 1107, 1894, 3245, 5564, 9539, 16351, 28027, 48047, 82367, 141200, 242054, 414949, 711342, 1219443, 2090471, 3583662, 6143420, 10531575, 18054123, 30949916, 53056987, 90954815, 155922504, 267295659, 458221026
a(n)=2*a(n-1)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7).
[A022137] 5, 12, 17, 29, 46, 75, 121, 196, 317, 513, 830, 1343, 2173, 3516, 5689, 9205, 14894, 24099, 38993, 63092, 102085, 165177, 267262, 432439, 699701, 1132140, 1831841, 2963981, 4795822, 7759803, 12555625, 20315428, 32871053, 53186481, 86057534, 139244015
a(n) = Lucas(n + 4) - Fibonacci(n - 3). - Ehren Metcalfe, Oct 16 2017
[A294143] 1, 5, 12, 18, 29, 43, 60, 72, 84, 106, 131, 147, 176, 208, 243, 265, 304, 328, 371, 397, 444, 494, 547, 579, 611, 669, 703, 737, 800, 866, 935, 975, 1048, 1124, 1203, 1249, 1332, 1418, 1507, 1559, 1652, 1748, 1847, 1905, 1963, 2067, 2174, 2236, 2298, 2360
a(n) = Sum_{i=1..n} (2n - i) * mu(i)^2.
[A017041] 5, 12, 19, 26, 33, 40, 47, 54, 61, 68, 75, 82, 89, 96, 103, 110, 117, 124, 131, 138, 145, 152, 159, 166, 173, 180, 187, 194, 201, 208, 215, 222, 229, 236, 243, 250, 257, 264, 271, 278, 285, 292, 299, 306, 313, 320, 327, 334, 341, 348, 355, 362, 369, 376, 383
a(n) = 7*n + 5, n >= 0 (see the name).
[A086570] 1, 5, 12, 20, 28, 36, 44, 52, 60, 68, 76, 84, 92, 100, 108, 116, 124, 132, 140, 148, 156, 164, 172, 180, 188, 196, 204, 212, 220, 228, 236, 244, 252, 260, 268, 276, 284, 292, 300, 308, 316, 324, 332, 340, 348, 356, 364, 372, 380, 388, 396, 404, 412, 420, 428
a(0) = 1, a(1) = 5, a(2) = 12; then a(n+1) = a(n) + 8, n>2.
[A270079] 1, 5, 12, 20, 32, 44, 68, 72, 100, 112, 156, 160, 204, 216, 276, 280, 340, 352, 428, 432, 508, 520, 612, 616, 708, 720, 828, 832, 940, 952, 1076, 1080, 1204, 1216, 1356, 1360, 1500, 1512, 1668, 1672, 1828, 1840, 2012, 2016, 2188, 2200, 2388, 2392, 2580, 2592
a(n) = a(n-1)+a(n-2)-a(n-3)+a(n-4)-a(n-5)-a(n-6)+a(n-7) for n>10.
[A028347] 0, 5, 12, 21, 32, 45, 60, 77, 96, 117, 140, 165, 192, 221, 252, 285, 320, 357, 396, 437, 480, 525, 572, 621, 672, 725, 780, 837, 896, 957, 1020, 1085, 1152, 1221, 1292, 1365, 1440, 1517, 1596, 1677, 1760, 1845, 1932, 2021, 2112, 2205, 2300, 2397, 2496, 2597
a(n+2) = n*(n+4). G.f.: x^3*(5-3*x)/(1-x)^3. - Barry E. Williams, Jun 16 2000, R. J. Mathar, Aug 06 2009
a(n) = 2*n + a(n-1) - 1. - Vincenzo Librandi, Aug 02 2010
a(n) = x, the solution of k = (sqrt(x)+n)/2 and k + (1/k) = n (also valid for a(0) = -4 and a(1) = -3). - Charles L. Hohn, Apr 16 2011
[A256320] 0, 1, 5, 12, 21, 33, 48, 65, 85, 108, 133, 161, 192, 225, 261, 300, 341, 385, 432, 481, 533, 588, 645, 705, 768, 833, 901, 972, 1045, 1121, 1200, 1281, 1365, 1452, 1541, 1633, 1728, 1825, 1925, 2028, 2133, 2241, 2352, 2465, 2581, 2700, 2821, 2945, 3072, 3201
a(n) = 2*a(n-1)-a(n-2)+a(n-3)-2*a(n-4)+a(n-5) for n>4.
a(n) = 2*(6*n^2+cos((2*Pi*n)/3)-1)/9. - Colin Barker, Jun 06 2016
[A293502] 0, 1, 5, 12, 22, 35, 50, 69, 90, 114, 141, 171, 203, 239, 277, 318, 362, 408, 458, 510, 565, 623, 684, 748, 814, 883, 956, 1030, 1108, 1189, 1272, 1359, 1448, 1540, 1634, 1732, 1832, 1936, 2042, 2151, 2262, 2377, 2494, 2614, 2737, 2863, 2992, 3123, 3258
a(n) = floor(r*n^2), where r = sqrt(2).
[A000326] 0, 1, 5, 12, 22, 35, 51, 70, 92, 117, 145, 176, 210, 247, 287, 330, 376, 425, 477, 532, 590, 651, 715, 782, 852, 925, 1001, 1080, 1162, 1247, 1335, 1426, 1520, 1617, 1717, 1820, 1926, 2035, 2147, 2262, 2380, 2501, 2625, 2752, 2882, 3015, 3151
a(n) = n*(3*n-1)/2.
a(n) = binomial(3*n, 2)/3. - Paul Barry, Jul 20 2003
a(0) = 0, a(1) = 1; for n >= 2, a(n) = 2*a(n-1) - a(n-2) + 3. - Miklos Kristof, Mar 09 2005
a(n) = Sum_{k=1..n} (2*n - k). - Paul Barry, Aug 19 2005
a(n) = binomial(n+1, 2) + 2*binomial(n, 2).

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(0) = 0, a(1) = 1, a(2) = 5. - Jaume Oliver Lafont, Dec 02 2008

[A034971] 5, 12, 22, 36, 53, 73, 97, 124, 154, 187, 223, 263, 306, 352, 402, 454, 510, 569, 632, 697, 766, 838, 914, 992, 1074, 1159, 1248, 1339, 1434, 1532, 1634, 1738, 1846, 1957, 2071, 2189, 2310, 2434, 2561, 2691, 2825, 2962, 3102, 3246, 3393, 3542, 3696, 3852

a(n)=[E(n+1)/E(n)] where E(n) is n-th coefficient in expansion of sec(x).

[A130624] 0, 1, 5, 12, 23, 43, 84, 169, 341, 684, 1367, 2731, 5460, 10921, 21845, 43692, 87383, 174763, 349524, 699049, 1398101, 2796204, 5592407, 11184811, 22369620, 44739241, 89478485, 178956972, 357913943, 715827883, 1431655764, 2863311529

a(0) = 0, a(1) = 1, a(2) = 5; for n > 2, a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3).

a(n)=-(2/3)*[1/2-(1/2)*I*sqrt(3)]^n-(2/3)*[1/2+(1/2)*I*sqrt(3)]^n+(4/3)*2^n-(1/3)*I*[1/2-(1 /2)*I*sqrt(3)]^n*sqrt(3)+(1/3)*I*[1/2+(1/2)*I*sqrt(3)]^n*sqrt(3), with n>=0 and I=sqrt(-1) [From Paolo P. Lava, Oct 06 2008]

[A270681] 1, 5, 12, 24, 32, 52, 60, 88, 96, 132, 140, 184, 192, 244, 252, 312, 320, 388, 396, 472, 480, 564, 572, 664, 672, 772, 780, 888, 896, 1012, 1020, 1144, 1152, 1284, 1292, 1432, 1440, 1588, 1596, 1752, 1760, 1924, 1932, 2104, 2112, 2292, 2300, 2488, 2496, 2692

a(n) = 3/2*(-1+(-1)^n)-(-5+(-1)^n)*n+n^2 for n>1.

a(n) = n^2+4*n for n>1 and even.

a(n) = n^2+6*n-3 for n>1 and odd.

a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.

[A101425] 5, 12, 24, 38, 57, 78, 104, 132, 165, 200, 240, 282, 329, 378, 432, 488, 549, 612, 680, 750, 825, 902, 984, 1068, 1157, 1248, 1344, 1442, 1545, 1650, 1760, 1872, 1989, 2108, 2232, 2358, 2489, 2622, 2760, 2900, 3045, 3192, 3344, 3498, 3657, 3818, 3984, 4152

a(n) = (37+3*(-1)^n+48*n+14*n^2)/8.

a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).

[A289586] 1, 5, 12, 25, 60, 125, 300, 625, 1500, 3125, 7500, 15625, 37500, 78125, 187500, 390625, 937500, 1953125, 4687500, 9765625, 23437500, 48828125, 117187500, 244140625, 585937500, 1220703125, 2929687500, 6103515625, 14648437500, 30517578125, 73242187500, 152587890625, 366210937500

a(2*k) = 5^k for k >= 1.

a(2*k-1) = 12*5^(k-2) for k >= 2.

[A212561] 0, 0, 1, 5, 12, 26, 45, 75, 112, 164, 225, 305, 396, 510, 637, 791, 960, 1160, 1377, 1629, 1900, 2210, 2541, 2915, 3312, 3756, 4225, 4745, 5292, 5894, 6525, 7215, 7936, 8720, 9537, 10421, 11340, 12330, 13357, 14459, 15600, 16820, 18081, 19425

a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).

a(n) = (2*n^3-2*n^2+n-1-(n-1)*(-1)^n)/8 = (n-1)*(2*n^2+1-(-1)^n)/8. - Luce ETIENNE, Jul 26 2014

[A176448] 5, 12, 26, 54, 110, 222, 446, 894, 1790, 3582, 7166, 14334, 28670, 57342, 114686, 229374, 458750, 917502, 1835006, 3670014, 7340030, 14680062, 29360126, 58720254, 117440510, 234881022, 469762046, 939524094, 1879048190, 3758096382

a(n)=2*(a(n-1)+1) with a(0)=5

a(n)= +3*a(n-1) -2*a(n-2). G.f.: (5-3*x) / ((2*x-1)*(x-1)). [From R. J. Mathar, May 02 2010]

[A038376] 0, 0, 0, 0, 1, 5, 12, 28, 50, 90, 140, 220, 315, 455, 616, 840, 1092, 1428, 1800, 2280, 2805, 3465, 4180, 5060, 6006, 7150, 8372, 9828, 11375, 13195, 15120, 17360, 19720, 22440, 25296, 28560, 31977, 35853, 39900, 44460, 49210, 54530, 60060, 66220, 72611

a(n) = (n^4-3*n^3-4*n^2+12*n)/48 for n even.

a(n) = (n^4-3*n^3-n^2+3*n)/48 for n odd.

a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n>7.

[A055245] 1, 1, 5, 12, 28, 61, 127, 257, 507, 982, 1872, 3523, 6557, 12089, 22105, 40128, 72380, 129809, 231611, 411337, 727455, 1281578, 2249856, 3936935, 6868537, 11950033, 20737613, 35901300, 62014396, 106897669, 183905143, 315806321, 541372131

a(0)=1, a(1)=1, a(2)=5, a(3)=12, a(4)=28, a(5)=61, a(n)=3*a(n-1)- 5*a(n-3)+ 3*a(n-5)+a(n-6). - Harvey P. Dale, Aug 24 2014

[A069306] 5, 12, 29, 70, 169, 408, 985, 2378, 5741, 13860, 33461, 80782, 195025, 470832, 1136689, 2744210, 6625109, 15994428, 38613965, 93222358, 225058681, 543339720, 1311738121, 3166815962, 7645370045, 18457556052, 44560482149, 107578520350, 259717522849, 627013566048, 1513744654945, 3654502875938

a(n) = 2*a(n-1)+a(n-2). [Philippe Deléham, Nov 20 2008]

[A277088] 5, 12, 29, 71, 174, 427, 1048, 2573, 6318, 15514, 38095, 93544, 229702, 564045, 1385042, 3401044, 8351444, 20507414, 50357044, 123654396, 303639937, 745603993, 1830870208, 4495799044, 11039673351, 27108504296, 66566372193, 163457262657, 401377990645

a(n) = ceiling(a(n-1)^2/a(n-2)), a(0) = 5, a(1) = 12.

a(n) = floor(a(n-1)^2/a(n-2)+1), a(0) = 5, a(1) = 12.

a(n) = 3*a(n-1) - 2*a(n-2) + 2*a(n-3) - a(n-4) + a(n-6) - a(n-7) - a(n-9). (End)

[A094125] 5, 12, 30, 78, 210, 582, 1650, 4758, 13890, 40902, 121170, 360438, 1075170, 3213222, 9615090, 28796118, 86290050, 258673542, 775627410, 2326095798, 6976714530, 20926997862, 62774702130, 188311523478, 564909404610, 1694677882182, 5083932983250, 15251597623158

a(n) = 5*a(n-1)-6*a(n-2). G.f.: -(13*x-5) / ((2*x-1)*(3*x-1)). - Colin Barker, Mar 30 2013

[A050189] 0, 5, 12, 35, 64, 126, 200, 330, 480, 715, 980, 1365, 1792, 2380, 3024, 3876, 4800, 5985, 7260, 8855, 10560, 12650, 14872, 17550, 20384, 23751, 27300, 31465, 35840, 40920, 46240, 52360, 58752, 66045, 73644, 82251, 91200

a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n > 11 (conjectured).

[A122299] 0, 1, 1, 5, 12, 38, 107, 316, 915, 2671, 7771, 22640, 65922, 191993, 559112, 1628281, 4741905, 13809541, 40216516, 117119750, 341079507, 993301748, 2892722267, 8424270271, 24533405595, 71446899736, 208069745986, 605946785585

a(n)= +2*a(n-1) +3*a(n-2) -a(n-3).

[A164737] 5, 12, 40, 96, 320, 768, 2560, 6144, 20480, 49152, 163840, 393216, 1310720, 3145728, 10485760, 25165824, 83886080, 201326592, 671088640, 1610612736, 5368709120, 12884901888, 42949672960, 103079215104, 343597383680, 824633720832

a(n) = (13-7*(-1)^n)*2^(1/4*(6*n-11+3*(-1)^n)).

[A179994] 0, 1, 5, 12, 55, 124, 565, 1268, 5775, 12956, 59005, 132372, 602855, 1352444, 6159365, 13817908, 62930175, 141177436, 642957005, 1442408532, 6569085655, 14737074364, 67116286165, 150568549748, 685726462575, 1538357452316

a(n) = 5*a(n-1)-a(n-2) if n is even. a(n) = 4*a(n-1)-8*a(n-2) if n is odd. - R. J. Mathar, Jun 18 2014

[A235337] 1, 5, 13, 13, 25, 41, 41, 61, 85, 113, 113, 145, 181, 181, 221, 265, 313, 313, 365, 421, 421, 481, 545, 545, 613, 685, 761, 761, 841, 925, 925, 1013, 1105, 1201, 1201, 1301, 1405, 1405, 1513, 1625, 1625, 1741, 1861, 1985, 1985, 2113, 2245, 2245, 2381, 2521

a(n) := 2*z^2-2*z+1, where z = ceil(n*sqrt(2)/2). - Giovanni Resta, Jan 10 2014

[A292565] 5, 13, 14, 25, 26, 27, 41, 42, 43, 44, 61, 62, 63, 64, 65, 85, 86, 87, 88, 89, 90, 113, 114, 115, 116, 117, 118, 119, 145, 146, 147, 148, 149, 150, 151, 152, 181, 182, 183, 184, 185, 186, 187, 188, 189, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 265

a(n) = n + 4 + (3k^2 + 11k)/2 where k = floor((sqrt(2*n) - 1/2)). - Jon E. Schoenfield, Sep 30 2017

[A087445] 1, 5, 13, 17, 25, 29, 37, 41, 49, 53, 61, 65, 73, 77, 85, 89, 97, 101, 109, 113, 121, 125, 133, 137, 145, 149, 157, 161, 169, 173, 181, 185, 193, 197, 205, 209, 217, 221, 229, 233, 241, 245, 253, 257, 265, 269, 277, 281, 289, 293, 301, 305, 313, 317, 325, 329

a(n) = 6*(n-1) - (-1)^n. - Rolf Pleisch, Aug 04 2009

a(n) = 12*n - a(n-1) - 18 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010

a(n) = a(n-1) + a(n-2) - a(n-3), with a(0)=1, a(1)=5, a(2)=13. - Harvey P. Dale, Jun 13 2011

[A245906] 5, 13, 17, 33, 37, 61, 65, 97, 101, 141, 145, 193, 197, 253, 257, 321, 325, 397, 401, 481, 485, 573, 577, 673, 677, 781, 785, 897, 901, 1021, 1025, 1153, 1157, 1293, 1297, 1441, 1445, 1597, 1601, 1761, 1765, 1933, 1937, 2113, 2117, 2301, 2305, 2497, 2501, 2701

a(n) = n^2 + O(n). - Charles R Greathouse IV, Nov 20 2014

a(n) = (2*n*(n+5)-(2n+1)*(-1)^n+11)/2. [Bruno Berselli, Dec 02 2014]

[A195549] 1, 5, 13, 17, 89, 233, 305, 1597, 4181, 5473, 28657, 75025, 98209, 514229, 1346269, 1762289, 9227465, 24157817, 31622993, 165580141, 433494437, 567451585, 2971215073, 7778742049, 10182505537, 53316291173, 139583862445, 182717648081

a(n) = (F(n)^2+F(n+1)^2)/(2-((n+2)^2 mod 3)), F(n)= Fibonacci(n). [From Gary Detlefs, Oct 14 2011]

[A055045] 5, 13, 20, 21, 29, 37, 45, 52, 53, 61, 69, 77, 80, 84, 85, 93, 101, 109, 116, 117, 125, 133, 141, 148, 149, 157, 165, 173, 180, 181, 189, 197, 205, 208, 212, 213, 221, 229, 237, 244, 245, 253, 261, 269, 276, 277, 285, 293, 301, 308, 309, 317

a(n) = 6n + O(log n). - Charles R Greathouse IV, Dec 19 2013

[A184825] 5, 13, 20, 27, 34, 42, 49, 56, 63, 71, 77, 85, 92, 99, 105, 113, 120, 127, 134, 142, 149, 156, 163, 171, 177, 185, 193, 199, 206, 213, 221, 227, 235, 242, 250, 256, 264, 271, 278, 285, 293, 299, 306, 313, 321, 327, 335, 342, 350, 356, 364, 371, 378, 386, 393, 400, 406, 414, 421, 428, 435, 443, 450, 457, 464, 472, 478, 486, 493, 500, 506, 514, 521, 528, 535, 543, 550, 557, 564, 572, 579, 586, 593, 600, 607, 614, 622, 628, 636, 643, 651, 657, 665, 672, 679, 686, 693, 700, 707, 714, 722, 728, 736, 743, 751, 757
a(n) = n + floor(n*p/q) + floor(n*r/q) + floor(n*s/q), where p=t, q=t^2, r=t^3, s=t^4, and t is the tetranacci constant.
[A184837] 5, 13, 20, 29, 36, 44, 51, 59, 66, 74, 81, 90, 97, 105, 111, 120, 127, 135, 142, 151, 158, 166, 172, 181, 188, 196, 203, 212, 219, 225, 233, 241, 248, 256, 264, 272, 279, 286, 294, 302, 309, 317, 325, 333, 339, 347, 355, 363, 370, 378, 386, 393, 400, 408, 416, 424, 431, 440, 447, 453, 461, 469, 477, 484, 492, 500, 507, 514, 522, 530, 538, 545, 553, 561, 568, 575, 583, 591, 599, 606, 614, 621, 629, 636, 644, 652, 660, 667, 674, 681, 689, 696, 705, 712, 720, 727, 735, 742, 750, 757, 766, 773, 781, 787, 796, 803
a(n) = n + floor(n*p/r) + floor(n*q/r) + floor(n*s/r) + floor(n*u/r), where p=t, q=t^2, r=t^3, s=t^4, u=t^5, and t is the pentanacci constant.
[A004770] 5, 13, 21, 29, 37, 45, 53, 61, 69, 77, 85, 93, 101, 109, 117, 125, 133, 141, 149, 157, 165, 173, 181, 189, 197, 205, 213, 221, 229, 237, 245, 253, 261, 269, 277, 285, 293, 301, 309, 317, 325, 333, 341, 349, 357, 365, 373, 381, 389, 397, 405, 413, 421, 429
a(n) = 8*n-3; G.f. x*(5+3*x)/(x-1)^2. - R. J. Mathar, Mar 14 2011
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, May 28 2011
[A143988] 5, 13, 23, 31, 41, 49, 59, 67, 77, 85, 95, 103, 113, 121, 131, 139, 149, 157, 167, 175, 185, 193, 203, 211, 221, 229, 239, 247, 257, 265, 275, 283, 293, 301, 311, 319, 329, 337, 347, 355, 365, 373, 383, 391, 401, 409, 419, 427, 437, 445, 455, 463, 473, 481
a(n)=18*(n-1)-a(n-1), (with a(1)=5) [From Vincenzo Librandi, Nov 25 2010]
[A108195] 5, 13, 23, 35, 49, 65, 83, 103, 125, 149, 175, 203, 233, 265, 299, 335, 373, 413, 455, 499, 545, 593, 643, 695, 749, 805, 863, 923, 985, 1049, 1115, 1183, 1253, 1325, 1399, 1475, 1553, 1633, 1715, 1799, 1885, 1973, 2063, 2155, 2249, 2345, 2443, 2543, 2645
a(n) = 2*n+a(n-1)+4, with n>1, a(1)=5. - Vincenzo Librandi, Nov 13 2010
[A074798] 1, 5, 13, 23, 36, 52, 72, 94, 119, 147, 178, 211, 248, 288, 331, 376, 425, 476, 531, 588, 649, 712, 778, 847, 919, 994, 1072, 1153, 1237, 1324, 1414, 1507, 1602, 1701, 1803, 1907, 2014, 2125, 2238, 2354, 2474, 2596, 2721, 2849, 2980, 3114, 3251, 3391, 3533
a(n) = floor(S*n^2), where S = sum_{k=1..inf} 1/a(k).
[A213483] 1, 5, 13, 23, 38, 55, 78, 103, 135, 169, 211, 255, 308, 363, 428, 495, 573, 653, 745, 839, 946, 1055, 1178, 1303, 1443, 1585, 1743, 1903, 2080, 2259, 2456, 2655, 2873, 3093, 3333, 3575, 3838, 4103, 4390, 4679, 4991, 5305, 5643, 5983, 6348
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A140090] 0, 5, 13, 24, 38, 55, 75, 98, 124, 153, 185, 220, 258, 299, 343, 390, 440, 493, 549, 608, 670, 735, 803, 874, 948, 1025, 1105, 1188, 1274, 1363, 1455, 1550, 1648, 1749, 1853, 1960, 2070, 2183, 2299, 2418, 2540, 2665, 2793, 2924
a(n) = (3*n^2 + 7*n)/2.
a(n) = a(n-1) + 3*n+2 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
[A271937] 1, 5, 13, 24, 39, 57, 79, 104, 133, 165, 201, 240, 283, 329, 379, 432, 489, 549, 613, 680, 751, 825, 903, 984, 1069, 1157, 1249, 1344, 1443, 1545, 1651, 1760, 1873, 1989, 2109, 2232, 2359, 2489, 2623, 2760, 2901, 3045, 3193, 3344, 3499, 3657, 3819, 3984, 4153
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
a(2*k) = k*(7*k + 5) + 1, a(2*k+1) = (k + 1)*(7*k + 5).
a(n) = Sum_{j=0..n} floor((2n+3j+2)/2).
[A001844] 1, 5, 13, 25, 41, 61, 85, 113, 145, 181, 221, 265, 313, 365, 421, 481, 545, 613, 685, 761, 841, 925, 1013, 1105, 1201, 1301, 1405, 1513, 1625, 1741, 1861, 1985, 2113, 2245, 2381, 2521, 2665, 2813, 2965, 3121, 3281, 3445, 3613, 3785, 3961, 4141, 4325, 4513
a(n) = 2*n^2 + 2*n + 1 = n^2 + (n+1)^2.
a(n) = a(n-1) + 4n.
a(-n) = a(n-1).
a(n) = 1 + Sum_{j=0..n} 4*j. - Xavier Acloque, Oct 08 2003
a(n) = Sum_{k=0..n+1} (-1)^k*binomial(n, k)*Sum_{j=0..n-k+1} binomial(n-k+1, j)*j^2. - Paul Barry, Dec 22 2004
a(n) = ceiling((2n+1)^2/2). - Paul Barry, Jul 16 2006
[A099776] 5, 13, 25, 41, 61, 85, 113, 145, 181, 221, 265, 313, 365, 421, 481, 545, 613, 685, 761, 841, 925, 1013, 1105, 1201, 1301, 1405, 1513, 1625, 1741, 1861, 1985, 2113, 2245, 2381, 2521, 2665, 2813, 2965, 3121, 3281, 3445, 3613, 3785, 3961, 4141, 4325, 4513
a(n) = ((2*n+1)^2-1)/2 + 1.
a(n) = 4*n+a(n-1) for n>1, a(1)=5. - Vincenzo Librandi, Nov 17 2010
a(n) = 1+2*n+2*n^2. a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(5-2*x+x^2)/(1-x)^3. - Colin Barker, Nov 03 2012
[A098483] 1, 1, 1, 1, 5, 13, 25, 41, 85, 205, 473, 985, 2021, 4365, 9785, 21673, 46965, 101581, 222745, 492665, 1087237, 2388749, 5251065, 11587529, 25633045, 56697933, 125345113, 277283353, 614212133, 1361824525, 3020426681, 6700678377
a(n)=sum{k=0..floor(n/2), binomial(n-2k, k)binomial(n-3k, k)2^k}.
[A102724] 5, 13, 25, 43, 67, 97, 133, 175, 227, 287, 355, 433, 517, 607, 707, 819, 939, 1067, 1205, 1349, 1501, 1663, 1835, 2021, 2219, 2423, 2633, 2849, 3071, 3311, 3569, 3837, 4113, 4401, 4701, 5009, 5329, 5659, 5999, 6351, 6711, 7083, 7467, 7857, 8253, 8663, 9097
a(n) = 2sum(prime(i), i = 1 .. n) - (2 + prime(n)). - Alonso del Arte, Apr 21 2016
[A249513] 1, 5, 13, 25, 51, 125, 295, 625, 1345, 3125, 7173, 15625, 34269, 78125, 177153, 390625, 864315, 1953125, 4401655, 9765625, 21706831, 48828125, 109676283, 244140625, 544031251, 1220703125, 2736797215, 6103515625, 13620096675, 30517578125, 68346531855
a(n) = sum(k = 0..n, 4^(n-k)*binomial((n+1)/2,n-k)).
a(n) = 5^((n+1)/2) if n is odd else a(n) = (4^n*binomial(n/2+1/2, n)* hypergeometric([1, -n], [-n/2+3/2], -1/4)). # Peter Luschny, Oct 31 2014
[A066885] 5, 13, 25, 61, 85, 145, 181, 265, 421, 481, 685, 841, 925, 1105, 1405, 1741, 1861, 2245, 2521, 2665, 3121, 3445, 3961, 4705, 5101, 5305, 5725, 5941, 6385, 8065, 8581, 9385, 9661, 11101, 11401, 12325, 13285, 13945, 14965, 16021, 16381, 18241, 18625
a(n) mod 4 = 1. - Altug Alkan, Apr 08 2016
[A098480] 1, 1, 1, 5, 13, 25, 65, 181, 445, 1113, 2945, 7685, 19821, 51865, 136513, 358229, 942109, 2487385, 6573825, 17387045, 46066253, 122213913, 324512833, 862511605, 2294698109, 6109933657, 16280439937, 43411979845, 115835462445
a(n)=sum{k=0..floor(n/2), binomial(n-k, k)binomial(n-2k, k)2^k}.
[A008778] 1, 5, 13, 26, 45, 71, 105, 148, 201, 265, 341, 430, 533, 651, 785, 936, 1105, 1293, 1501, 1730, 1981, 2255, 2553, 2876, 3225, 3601, 4005, 4438, 4901, 5395, 5921, 6480, 7073, 7701, 8365, 9066, 9805, 10583
a(n) = dot_product(n, n-1, ...2, 1)*(2, 3, ..., n, 1) for n = 2, 3, 4, ... [i.e., a(2) = (2, 1)*(2, 1), a(3) = (3, 2, 1)*(2, 3, 1)]. - Clark Kimberling
a(n) = Sum{0<=k, l<=n; k+l|n} k*l. - Ralf Stephan, May 06 2005
[A180671] 0, 5, 13, 26, 47, 81, 136, 225, 369, 602, 979, 1589, 2576, 4173, 6757, 10938, 17703, 28649, 46360, 75017, 121385, 196410, 317803, 514221, 832032, 1346261, 2178301, 3524570, 5702879, 9227457, 14930344, 24157809, 39088161, 63245978, 102334147, 165580133
a(n) = a(n-1) + a(n-2) + 8 for n>1, a(0)=0, a(1)=5, and where 8 = F(6).
a(n) = 2*a(n-1) - a(n-3).
a(n) = (-8 + (2^(-n)*((1-sqrt(5))^n*(-9+4*sqrt(5)) + (1+sqrt(5))^n*(9+4*sqrt(5)))) / sqrt(5)). - Colin Barker, Apr 20 2017
[A008580] 1, 5, 13, 27, 45, 67, 95, 125, 163, 201, 249, 295, 353, 407, 475, 537, 615, 685, 773, 851, 949, 1035, 1143, 1237, 1355, 1457, 1585, 1695, 1833, 1951, 2099, 2225, 2383, 2517, 2685, 2827, 3005, 3155, 3343, 3501, 3699, 3865, 4073, 4247, 4465, 4647, 4875, 5065
a(n) = (18*n^2+2*(-1)^n*n+18*n-7*(-1)^n-1)/8 for n>0.
a(n) = (9*n^2+10*n-4)/4 for n>0 and even.
a(n) = (9*n^2+8*n+3)/4 for n odd. (End)
[A002717] 0, 1, 5, 13, 27, 48, 78, 118, 170, 235, 315, 411, 525, 658, 812, 988, 1188, 1413, 1665, 1945, 2255, 2596, 2970, 3378, 3822, 4303, 4823, 5383, 5985, 6630, 7320, 8056, 8840, 9673, 10557, 11493, 12483, 13528, 14630, 15790, 17010, 18291, 19635, 21043, 22517
a(n) = (1/16)*[2n(2n+1)(n+2)+cos(Pi*n)-1]. - Justin C. Bozonier (justinb67(AT)excite.com), Dec 05 2000
a(m+1)-2a(m)+2a(m-2)-a(m-3) = 3. - Len Smiley, Oct 08 2001
a(n) = (2n(2n+1)(n+2)+(-1)^n-1)/16. - Wesley Petty (Wesley.Petty(AT)mail.tamucc.edu), Oct 25 2003
a(n) = Sum_{k=0..n} (-1)^(n-k)*k*binomial(k+1,2).

a(0)=0, a(1)=1, a(2)=5, a(3)=13, a(4)=27, a(n)=3*a(n-1)-2*a(n-2)-2*a(n-3)+ 3*a(n-4)- a(n-5). - Harvey P. Dale, Jan 20 2013

[A079989] 1, 1, 1, 1, 5, 13, 27, 51, 103, 221, 498, 1064, 2240, 4728, 10076, 21559, 46075, 98085, 208759, 444727, 948151, 2021335, 4307861, 9179111, 19560273, 41686260, 88842852, 189337896, 403497908, 859893060, 1832537757, 3905386173

a(n) = a(n-1) +a(n-2) +2*a(n-3) +a(n-4) +3*a(n-5) +4*a(n-6) -7*a(n-7) -7*a(n-8) -6*a(n-9) +6*a(n-10) -2*a(n-11) -a(n-12) +a(n-13) +4*a(n-14) +a(n-15) -3*a(n-16) +a(n-18) -a(n-19) -a(n-20).

[A175254] 1, 5, 13, 28, 49, 82, 123, 179, 248, 335, 434, 561, 702, 867, 1056, 1276, 1514, 1791, 2088, 2427, 2798, 3205, 3636, 4127, 4649, 5213, 5817, 6477, 7167, 7929, 8723, 9580, 10485, 11444, 12451, 13549, 14685, 15881, 17133, 18475, 19859, 21339, 22863, 24471, 26157

a(n) = Sum_{k=1..n} Sum_{i=1..k} k - (k mod i). - Wesley Ivan Hurt, Sep 13 2017

[A023537] 1, 5, 13, 28, 54, 98, 171, 291, 487, 806, 1324, 2164, 3525, 5729, 9297, 15072, 24418, 39542, 64015, 103615, 167691, 271370, 439128, 710568, 1149769, 1860413, 3010261, 4870756, 7881102, 12751946, 20633139, 33385179, 54018415, 87403694, 141422212, 228826012

a(n) = -4 + (2^(-1-n)*((1-sqrt(5))^n*(-15+7*sqrt(5)) + (1+sqrt(5))^n*(15+7*sqrt(5)))) / sqrt(5) - 3*(1+n).

a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4) for n>4.

[A178854] 0, 1, 1, 5, 13, 29, 29, 93, 221, 221, 733, 1757, 3805, 7901, 7901, 24285, 57053, 122589, 122589, 384733, 384733, 384733, 2481885, 2481885, 10870493, 10870493, 10870493, 10870493, 145088221

a(n) = remainder(Catalan(2^m-1),2^n) for any m >= n-1.

[A129371] 0, 1, 5, 13, 29, 50, 86, 126, 190, 255, 355, 451, 595, 728, 924, 1100, 1356, 1581, 1905, 2185, 2585, 2926, 3410, 3818, 4394, 4875, 5551, 6111, 6895, 7540, 8440, 9176, 10200, 11033, 12189, 13125, 14421, 15466, 16910, 18070

a(n)= +a(n-1) +3*a(n-2) -3*a(n-3) -3*a(n-4) +3*a(n-5) +a(n-6) -a(n-7). a(n) = 7*n^3/24+9*n^2/16+7*n/48+n*(-1)^n*(n-1)/16 . [From R. J. Mathar, Apr 21 2010]

[A078370] 5, 13, 29, 53, 85, 125, 173, 229, 293, 365, 445, 533, 629, 733, 845, 965, 1093, 1229, 1373, 1525, 1685, 1853, 2029, 2213, 2405, 2605, 2813, 3029, 3253, 3485, 3725, 3973, 4229, 4493, 4765, 5045, 5333, 5629, 5933, 6245, 6565, 6893, 7229, 7573, 7925, 8285

a(n) = 8*n + a(n-1) (with a(0)=5). - Vincenzo Librandi, Aug 08 2010

[A247903] 1, 5, 13, 29, 53, 93, 149, 237, 357, 541, 789, 1165, 1669, 2429, 3445, 4973, 7013, 10077, 14165, 20301, 28485, 40765, 57141, 81709, 114469, 163613, 229141, 327437, 458501, 655101, 917237, 1310445, 1834725, 2621149, 3669717, 5242573, 7339717, 10485437

a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+2*a(n-4). - Colin Barker, Sep 26 2014

[A240130] 5, 13, 29, 53, 137, 173, 293, 397, 593, 857, 977, 1373, 1697, 1913, 2213, 2909, 3517, 3821, 4493, 5077, 5333, 6257, 7213, 7937, 9413, 10301, 10613, 11549, 11897, 13093, 16193, 17417, 18773, 19421, 22397, 22817, 24749, 26573, 27893, 30029

a(n) == 1 (mod 4) if a(n) > 0.

a(n) > 0 if Bunyakovsky's conjecture is true.

a(n) <> a(m) if n <> m and a(n) > 0, by uniqueness in Fermat's 4n+1 Theorem.

[A023619] 1, 5, 13, 29, 60, 118, 225, 419, 767, 1385, 2474, 4380, 7697, 13441, 23345, 40357, 69480, 119186, 203793, 347455, 590851, 1002385, 1696918, 2867064, 4835425, 8141693, 13687765, 22979309, 38527572, 64517230, 107915649, 180314075, 300981767, 501929081

a(n) = (n+1)*sum(k=1..n+1, C(k,n+1-k)*(k-1)/k). - Vladimir Kruchinin, Sep 26 2011

[A113914] 1, 5, 13, 29, 61, 131, 271, 569, 1381, 2789, 5581, 11171, 22369, 44741, 89491, 185543, 373273, 766229, 1532701, 3065411, 6130849, 12261701, 24700549, 49401101, 98802211, 202387391, 409557751, 819116231, 1638232471, 3276464969

a(1) = 1, a(n+1) = the least prime p such that p = 2*a(n) + 3^k for integer k>0.

[A124698] 1, 5, 13, 29, 73, 185, 481, 1265, 3361, 8993, 24193, 65345, 177025, 480641, 1307137, 3559169, 9699841, 26452481, 72173569, 196989953, 537802753, 1468536833, 4010582017, 10954043393, 29920862209, 81733033985, 223274237953

a(n) = 5*a(n-1) - 6*a(n-2) - 2*a(n-3) + 4*a(n-4) for n>4.

[A271997] 5, 13, 31, 49, 81, 113, 163, 213, 285, 357, 455, 553, 681, 809, 971, 1133, 1333, 1533, 1775, 2017, 2305, 2593, 2931, 3269, 3661, 4053, 4503, 4953, 5465, 5977, 6555, 7133, 7781, 8429, 9151, 9873, 10673, 11473, 12355, 13237, 14205, 15173, 16231, 17289, 18441

a(n) = n*((n+3)^2 + 2)/6 + (n+2)*(1+(-1)^n)/4 - 6, for n >= 2.

a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).

[A023261] 5, 13, 31, 61, 101, 103, 163, 191, 233, 241, 251, 433, 461, 643, 751, 761, 821, 863, 983, 1021, 1153, 1193, 1283, 1291, 1531, 1543, 1861, 2281, 2543, 2903, 2953, 3271, 3373, 3673, 3701, 3733, 3793, 3923, 4003, 4241, 4283, 4751, 5333, 5581, 5711, 5801, 5813

a(n) = 1 or 3 (mod 10) for n > 1. - John Cerkan, Sep 14 2016

[A118646] 0, 0, 1, 5, 13, 31, 71, 159, 346, 739, 1559, 3258, 6756, 13922, 28547, 58300, 118668, 240880, 487835, 986085, 1990025, 4010658, 8073786, 16237521, 32629241, 65522823, 131498801, 263774439, 528880599, 1060044148, 2124001923

a(n) = a(n-1) + a(n-2) + a(n-4) - a(n-6) + 13*2^(n-6).

a(n)= +3*a(n-1) -a(n-2) -2*a(n-3) +a(n-4) -2*a(n-5) -a(n-6) +2*a(n-7).

[A141025] 1, 1, 1, 5, 13, 33, 73, 157, 325, 665, 1345, 2709, 5437, 10897, 21817, 43661, 87349, 174729, 349489, 699013, 1398061, 2796161, 5592361, 11184765, 22369573, 44739193, 89478433, 178956917, 357913885, 715827825, 1431655705, 2863311469, 5726622997, 11453246057, 22906492177

a(n) = 3*a(n-1) - a(n-2) - 3*a(n-3) + 2*a(n-4).

[A100227] 1, 1, 5, 13, 33, 81, 197, 477, 1153, 2785, 6725, 16237, 39201, 94641, 228485, 551613, 1331713, 3215041, 7761797, 18738637, 45239073, 109216785, 263672645, 636562077, 1536796801, 3710155681, 8957108165, 21624372013, 52205852193, 126036076401, 304278004997

a(n) = 2*a(n-1) + a(n-2) + 2 for n>1, with a(0)=1, a(1)=1.

a(n) = n*sum(k=1..n, sum(i=0..n-k, binomial(k, i)*binomial(n-i-1, k-1))/k), n>0, a(0)=1. - Vladimir Kruchinin, May 13 2011

a(n) = (-1+(1-sqrt(2))^n+(1+sqrt(2))^n). - Colin Barker, Mar 16 2016

[A278764] 5, 13, 33, 83, 208, 521, 1305, 3268, 8183, 20490, 51306, 128467, 321673, 805448, 2016788, 5049902, 12644616, 31661270, 79277695, 198506027, 497045767, 1244569236, 3116317824, 7803050645, 19538315026, 48922629292, 122498979756, 306729222415, 768029383352, 1923094020999, 4815298338536

a(n) = floor(a(n-1)^2/a(n-2)), a(0) = 5, a(1) = 13.

a(n) = 3*a(n-1) - 2*a(n-2) + 3*a(n-3) - 3*a(n-4) + a(n-5) - a(n-6). (End)

[A109786] 1, 1, 1, 1, 1, 5, 13, 33, 85, 225, 589, 1541, 4033, 10561, 27649, 72385, 189505, 496133, 1298893, 3400545, 8902741, 23307681, 61020301, 159753221, 418239361, 1094964865, 2866655233, 7505000833, 19648347265, 51440040965, 134671775629

a(0)=1, a(1)=1, a(2)=1, a(3)=1, a(4)=1, a(n)=2*a(n-1)+a(n-2)+a(n-3)+ 2*a(n-4)- a(n-5). - Harvey P. Dale, Apr 14 2015

[A283959] 1, 1, 1, 1, 1, 5, 13, 33, 85, 561, 1597, 4229, 11089, 73393, 209089, 553873, 1452529, 9613829, 27388957, 72553041, 190270165, 1259338113, 3587744173, 9503894405, 24923939041, 164963678881, 469967097601, 1244937613921, 3264845744161, 21608982595205

a(4*k-1) = 3*a(4*k-2) - a(4*k-3) - 1,
a(4*k) = 3*a(4*k-1) - a(4*k-2) - 1,
a(4*k+1) = 3*a(4*k) - a(4*k-1) - 1,
a(4*k+2) = 7*a(4*k+1) - a(4*k) - 1.

[A055426] 1, 5, 13, 33, 89, 221, 485, 953, 1713, 2869, 4541, 6865, 9993, 14093, 19349, 25961, 34145, 44133, 56173, 70529, 87481, 107325, 130373, 156953, 187409, 222101, 261405, 305713, 355433, 410989, 472821, 541385, 617153, 700613, 792269, 892641

a(n) = (3+2*n+16*n^2-8*n^3+2*n^4)/3. - corrected by Colin Barker, Jul 07 2013

a(0)=1, a(1)=5, a(2)=13, a(3)=33, a(4)=89, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Feb 09 2015

[A283329] 1, 1, 1, 1, 5, 13, 33, 217, 617, 1633, 10813, 30805, 81601, 540401, 1539601, 4078401, 27009205, 76949213, 203838433, 1349919817, 3845921017, 10187843233, 67468981613, 192219101605, 509188323201, 3372099160801, 9607109159201, 25449228316801, 168537489058405

a(3*n) = 3*a(3*n-1) - a(3*n-2) - 1,
a(3*n+1) = 3*a(3*n) - a(3*n-1) - 1,
a(3*n+2) = 7*a(3*n+1) - a(3*n) - 1. (End)

[A167710] 1, 5, 13, 35, 79, 185, 397, 875, 1831, 3905, 8053, 16835, 34399, 70985, 144157, 294875, 596311, 1212305, 2444293, 4947635, 9954319, 20085785, 40348717, 81228875, 162989191, 327572705, 656739733, 1318262435, 2641307839, 5296964585, 10608278077, 21259602875

a(n) = 2*a(n-1) + 3*a(n-2) - 6*a(n-3).

[A264080] 1, 5, 13, 35, 91, 239, 625, 1637, 4285, 11219, 29371, 76895, 201313, 527045, 1379821, 3612419, 9457435, 24759887, 64822225, 169706789, 444298141, 1163187635, 3045264763, 7972606655, 20872555201, 54645058949, 143062621645, 374542805987, 980565796315
a(n) = -a(-n-1) = 2*a(n-1) + 2*a(n-2) - a(n-3) for all n in Z.
a(n) = (2^(-n)*(-(-2)^n-3*(3-sqrt(5))^n*(-1+sqrt(5))+3*(1+sqrt(5))*(3+sqrt(5))^n))/5. - Colin Barker, Sep 28 2016
[A290588] 5, 13, 35, 113, 355, 1105, 3435, 10625, 32723, 100433, 307323, 937985, 2856547, 8682897, 26349835, 79850241, 241679859, 730700881, 2207155867, 6661493633, 20090908803, 60555714705, 182419600683, 549259559297, 1653098625555, 4973441442385, 14957936920763
a(n) = 6*a(n-1) - 10*a(n-2) + 4*a(n-3) - 5*a(n-4) + 6*a(n-5).
[A238460] 5, 13, 37, 41, 101, 113, 157, 173, 181, 197, 229, 241, 281, 313, 337, 349, 353, 373, 409, 421, 433, 509, 541, 617, 677, 701, 757, 761, 769, 773, 821, 929, 941, 977, 997, 1013, 1093, 1097, 1109, 1181, 1193, 1237, 1409, 1433, 1481, 1489, 1669, 1693, 1721, 1741
a(n) == 1 (mod 4).
[A269803] 1, 5, 13, 37, 99, 265, 701, 1849, 4861, 12761, 33463, 87697, 229737, 601693, 1575629, 4125661, 10802107, 28281881, 74045509, 193857841, 507533181, 1328750065, 3478730543, 9107463457, 23843695249, 62423679605, 163427436301, 427858779349, 1120149144531
a(n) = 3*a(n-1) + a(n-2) - 5*a(n-3) - a(n-4) + a(n-5).
[A071100] 5, 13, 37, 109, 313, 905, 2617, 7561, 21853, 63157, 182525, 527509, 1524529, 4405969, 12733489, 36800465, 106355317, 307372573, 888323221, 2567301757, 7419639785, 21443156953, 61971873769, 179102039257, 517614500173, 1495933669445, 4323328543981
a(-n) = a(-5 + n). a(-1) = a(-2) = 1. a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) - a(n-4). - Michael Somos, Dec 15 2011
[A199108] 5, 13, 37, 109, 325, 973, 2917, 8749, 26245, 78733, 236197, 708589, 2125765, 6377293, 19131877, 57395629, 172186885, 516560653, 1549681957, 4649045869, 13947137605, 41841412813, 125524238437, 376572715309, 1129718145925, 3389154437773
a(n) = 3*a(n-1)-2.
a(n) = 4*a(n-1)-3*a(n-2).
[A080143] 0, 5, 13, 39, 102, 272, 712, 1869, 4893, 12815, 33550, 87840, 229968, 602069, 1576237, 4126647, 10803702, 28284464, 74049688, 193864605, 507544125, 1328767775, 3478759198, 9107509824, 23843770272, 62423800997, 163427632717
a(n) = (2*Lucas(2*n + 5) + 7*(-1)^(n+1) - 15)/10. - Ehren Metcalfe, Aug 21 2017
[A054856] 1, 1, 5, 13, 40, 117, 348, 1029, 3049, 9028, 26738, 79183, 234502, 694476, 2056692, 6090891, 18038173, 53420041, 158203433, 468519406, 1387520047, 4109140098, 12169216863, 36039131181, 106729873498, 316080480394, 936072224321
a(n) = a(n-1)+4*a(n-2)+4*a(n-3)+3*a(n-4)+2*(a(n-5)+a(n-6)+...+a(0)), a(0)=a(1)=1, a(2)=5, a(3)=13
a(n) = 2*a(n-1)+3*a(n-2)-a(n-4)-a(n-5). G.f.=(1-z)/((1+z)*(1-3*z+z^4)). - Emeric Deutsch, Oct 16 2006
[A046717] 1, 1, 5, 13, 41, 121, 365, 1093, 3281, 9841, 29525, 88573, 265721, 797161, 2391485, 7174453, 21523361, 64570081, 193710245, 581130733, 1743392201, 5230176601, 15690529805, 47071589413, 141214768241, 423644304721, 1270932914165
a(n) = (3^n + (-1)^n)/2.
a(n) = Sum_{k=0..n} binomial(n, 2k)2^(2k). - Paul Barry, Feb 26 2003
a(n) = ceiling(3^n/4) + floor(3^n/4) = ceiling(3^n/4)^2 - floor(3^n/4)^2. - Paul Barry, Jan 17 2005
a(n) = Sum_{k=0..n} Sum_{j=0..n} C(n,j)C(n-j,k)*(1+(-1)^(j-k))/2. - Paul Barry, May 21 2006
a(n) = (3^n + (-1)^n)/2. - M. F. Hasler, Mar 20 2008
[A080925] 0, 1, 5, 13, 41, 121, 365, 1093, 3281, 9841, 29525, 88573, 265721, 797161, 2391485, 7174453, 21523361, 64570081, 193710245, 581130733, 1743392201, 5230176601, 15690529805, 47071589413, 141214768241, 423644304721, 1270932914165
a(n)=Sum{k=1..n, Binomial(n, 2k-2)2^(2k-2)}
a(n)=(3^n-2*0^n+(-1)^n)/2; G.f.: x(1+3x)/((1+x)(1-3x)); E.g.f.: (exp(3x)-2exp(0)+exp(-x))/2. - Paul Barry, May 19 2003
[A164907] 1, 5, 13, 41, 121, 365, 1093, 3281, 9841, 29525, 88573, 265721, 797161, 2391485, 7174453, 21523361, 64570081, 193710245, 581130733, 1743392201, 5230176601, 15690529805, 47071589413, 141214768241, 423644304721, 1270932914165
a(n) = 2*a(n-1)+3*a(n-2) for n > 1; a(0) = 1, a(1) = 5.
a(n) = 3*a(n-1)+2*(-1)^n. - Carmine Suriano, Mar 21 2014
[A052899] 1, 1, 5, 13, 45, 141, 461, 1485, 4813, 15565, 50381, 163021, 527565, 1707213, 5524685, 17878221, 57855181, 187223245, 605867213, 1960627405, 6344723661, 20531956941, 66442808525, 215013444813, 695798123725, 2251650026701
a(n)/a(n-1) tends to (1 + sqrt(5)) = 3.236067... - Gary W. Adamson, Mar 01 2008
a(n)=(1/5)*Sum_{k=1..5} ((x_k)^4-3*(x_k)^2+1), x_k=2*cos((2*k-1)*Pi/10). Also, a(n)/a(n-1) -> spectral radius of matrix A_(10,4) above. - L. Edson Jeffery, Apr 19 2011
[A091147] 1, 1, 5, 13, 57, 201, 861, 3445, 14897, 63313, 278389, 1223069, 5465065, 24513945, 111037005, 505298565, 2314343265, 10645982625, 49202944485, 228253816365, 1062783893145, 4964167491945, 23256852644925, 109249893866133, 514494575459217, 2428488338526961
a(n) = sum{k=0..n, C(n, 2k)C(k)4^k}. - Paul Barry, May 16 2005
a(n) = integral(x=-2..2, (2*x+1)^n*sqrt((2-x)*(2+x)))/(2*Pi). [Peter Luschny, Sep 11 2011]
a(n) = (2^n/(n+1))*[x^n] (1+x/2+x^2)^(n+1). [Emanuele Munarini, Apr 27 2012]
a(n) = hypergeom([-n/2, (1-n)/2], [2], 16). - Peter Luschny, May 28 2014
a(n) = 2^n*GegenbauerC(n,-n-1, -1/4)/(n+1). - Peter Luschny, May 08 2016
[A294208] 0, 0, 1, 5, 13, 77, 77, 599, 1303, 4189, 4189, 48599, 48599, 659507, 659507, 659507, 1364059, 23909723, 23909723, 466536977, 466536977, 466536977, 466536977, 466536977, 10963143031, 10963143031, 55886560931, 55886560931, 170634254393, 170634254393, 5028706810597
a(n) = reduced numerator of Sum_{p <= n} (p^floor(log(n)/log(p)) - 1) / p^floor(log(n)/log(p)) / (p-1), where p runs over the primes.
[A027457] 0, 1, 5, 13, 77, 87, 669, 1443, 4609, 4861, 55991, 58301, 785633, 811373, 835397, 1715839, 29889983, 30570663, 593094837, 604734465, 615819825, 626401305, 14640022575, 14863115445, 75386423001, 76416082401, 232222818803, 235091155703, 6897956948587
a(n) = (Psi(n+1)-1+gamma)*LCM(n), LCM(n) = lcm{1..n}. - Peter Luschny, Dec 01 2011
[A022139] 5, 14, 19, 33, 52, 85, 137, 222, 359, 581, 940, 1521, 2461, 3982, 6443, 10425, 16868, 27293, 44161, 71454, 115615, 187069, 302684, 489753, 792437, 1282190, 2074627, 3356817, 5431444, 8788261, 14219705, 23007966, 37227671, 60235637, 97463308, 157698945
a(0)=5, a(1)=14, a(n)=a(n-1)+a(n-2). - Harvey P. Dale, Apr 15 2015
[A063223] 5, 14, 24, 34, 44, 52, 64, 72, 82, 92, 102, 110, 122, 130, 140, 150, 160, 168, 180, 188, 198, 208, 218, 226, 238, 246, 256, 266, 276, 284, 296, 304, 314, 324, 334, 342, 354, 362, 372, 382, 392, 400, 412, 420, 430, 440, 450, 458, 470, 478
a(n) = a(n-2)+a(n-3)-a(n-5) for n>6. G.f.: x*(5+14*x+19*x^2+15*x^3+6*x^4-x^5)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A014106] 0, 5, 14, 27, 44, 65, 90, 119, 152, 189, 230, 275, 324, 377, 434, 495, 560, 629, 702, 779, 860, 945, 1034, 1127, 1224, 1325, 1430, 1539, 1652, 1769, 1890, 2015, 2144, 2277, 2414, 2555, 2700, 2849, 3002, 3159, 3320, 3485, 3654, 3827, 4004, 4185, 4370
a(n) = a(n-1)+4*n+1, n>0. - Vincenzo Librandi, Nov 19 2010
[A073347] 5, 14, 28, 46, 69, 97, 130, 168, 211, 259, 311, 368, 430, 497, 569, 646, 728, 815, 907, 1004, 1105, 1211, 1322, 1438, 1559, 1685, 1816, 1952, 2093, 2239, 2390, 2546, 2706, 2871, 3041, 3216, 3396, 3581, 3771, 3966, 4166, 4371, 4581, 4796, 5016, 5240, 5469
a(n) is asymptotic to Pi^2*n^2/4
[A134238] 1, 5, 14, 28, 47, 71, 100, 134, 173, 217, 266, 320, 379, 443, 512, 586, 665, 749, 838, 932, 1031, 1135, 1244, 1358, 1477, 1601, 1730, 1864, 2003, 2147, 2296, 2450, 2609, 2773, 2942, 3116, 3295, 3479, 3668, 3862, 4061, 4265, 4474, 4688, 4907, 5131
a(n)=a(n-1)+5*n-6 (with a(1)=1). - Vincenzo Librandi, Nov 23 2010
[A005586] 0, 5, 14, 28, 48, 75, 110, 154, 208, 273, 350, 440, 544, 663, 798, 950, 1120, 1309, 1518, 1748, 2000, 2275, 2574, 2898, 3248, 3625, 4030, 4464, 4928, 5423, 5950, 6510, 7104, 7733, 8398, 9100, 9840, 10619, 11438, 12298, 13200, 14145, 15134, 16168, 17248
a(n) = C(5+n, 3)-C(5+n, 2). - Zerinvary Lajos, Jan 09 2006
a(n) = C(n,3) - C(n,1), n>=4. - Zerinvary Lajos, Nov 25 2006
[A212678] 0, 0, 0, 0, 5, 14, 28, 53, 87, 130, 191, 265, 353, 465, 595, 743, 922, 1123, 1347, 1608, 1896, 2211, 2570, 2960, 3382, 3854, 4362, 4906, 5507, 6148, 6830, 7575, 8365, 9200, 10105, 11059, 12063, 13143, 14277, 15465, 16736, 18065, 19453, 20930
a(n)=a(n-1)+a(n-2)+a(n-3)-2*a(n-4)-2*a(n-5)+a(n-6)+a(n-7)+a(n-8)-a(n-9).
[A005918] 1, 5, 14, 29, 50, 77, 110, 149, 194, 245, 302, 365, 434, 509, 590, 677, 770, 869, 974, 1085, 1202, 1325, 1454, 1589, 1730, 1877, 2030, 2189, 2354, 2525, 2702, 2885, 3074, 3269, 3470, 3677, 3890, 4109, 4334, 4565, 4802, 5045, 5294, 5549, 5810, 6077, 6350, 6629

a(-n) = a(n) for all n in Z. - Michael Somos, Aug 07 2014
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3. - Colin Barker, Aug 07 2014
[A256666] 0, 5, 14, 29, 51, 82, 123, 176, 242, 323, 420, 535, 669, 824, 1001, 1202, 1428, 1681, 1962, 2273, 2615, 2990, 3399, 3844, 4326, 4847, 5408, 6011, 6657, 7348, 8085, 8870, 9704, 10589, 11526, 12517, 13563, 14666, 15827, 17048, 18330, 19675, 21084, 22559
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>4. - Colin Barker, Apr 07 2015
[A000330] 0, 1, 5, 14, 30, 55, 91, 140, 204, 285, 385, 506, 650, 819, 1015, 1240, 1496, 1785, 2109, 2470, 2870, 3311, 3795, 4324, 4900, 5525, 6201, 6930, 7714, 8555, 9455, 10416, 11440, 12529, 13685, 14910, 16206, 17575, 19019, 20540, 22140, 23821, 25585, 27434, 29370
a(n) = n*(n+1)*(2*n+1)/6 = binomial(n+2, 3) + binomial(n+1, 3).
a(n) = -a(-1-n) for all n in Z.
a(n) = binomial(2*(n+1), 3)/4. - Paul Barry, Jul 19 2003
a(n) = (((n+1)^4-n^4) - ((n+1)^2-n^2))/12. - Xavier Acloque, Oct 16 2003
a(n) = sqrt(sum(sum[(i*j)^2, {i, 1, n}], {j, 1, n})). a(n) = sum(sum(sum((i*j*k)^2, {i, 1, n}), {j, 1, n}), {k, 1, n})^(1/3). - Alexander Adamchuk, Oct 26 2004
a(n) = Sum_{i = 1..n} i*(2*n-2*i+1); sum of squares gives 1 + (1+3) + (1+3+5) + ... - Jon Perry, Dec 08 2004
[A023652] 1, 5, 14, 31, 61, 112, 197, 337, 566, 939, 1545, 2528, 4121, 6701, 10878, 17639, 28581, 46288, 74941, 121305, 196326, 317715, 514129, 831936, 1346161, 2178197, 3524462, 5702767, 9227341, 14930224, 24157685, 39088033, 63245846, 102334011, 165579993, 267914144, 433494281, 701408573
a(n) = Fibonacci(n+6) - 4*n - 8. - Ralf Stephan, Feb 15 2004
[A064412] 1, 5, 14, 32, 60, 103, 160, 238, 335, 459, 606, 786, 994, 1241, 1520, 1844, 2205, 2617, 3070, 3580, 4136, 4755, 5424, 6162, 6955, 7823, 8750, 9758, 10830, 11989, 13216, 14536, 15929, 17421, 18990, 20664, 22420, 24287, 26240, 28310, 30471, 32755, 35134, 37642
a(2n+1) = (7n^3+12n^2+7n+2)/2; a(2n) = (28n^3+6n^2+4n+1+(-1)^(n+1))/8. - Len Smiley, Oct 07 2001
a(n) = (14*n^3+6*n^2+5*n+7+3*(n-1)*(-1)^n-2*((-1)^((2*n-1+(-1)^n)/4)+(-1)^((6*n-1+(-1)^n)/4)))/32. - Luce ETIENNE, Jun 27 2014
[A180668] 0, 0, 1, 5, 14, 32, 67, 133, 256, 484, 905, 1681, 3110, 5740, 10579, 19481, 35856, 65976, 121377, 223277, 410702, 755432, 1389491, 2555709, 4700720, 8646012, 15902537, 29249369, 53798022, 98950036, 181997539, 334745713
a(n) = a(n-1)+a(n-2)+a(n-3)+4*n-8 with a(0)=0, a(1)=0 and a(2)=1.
a(n) = 2*a(n-1)-a(n-4)+4 for n>4.
a(n)-3*a(n-1)+2a(n-2)+a(n-4)-a(n-5) = 0 for n>4. (End)
[A053209] 1, 5, 14, 32, 68, 140, 284, 572, 1148, 2300, 4604, 9212, 18428, 36860, 73724, 147452, 294908, 589820, 1179644, 2359292, 4718588, 9437180, 18874364, 37748732, 75497468, 150994940, 301989884, 603979772, 1207959548, 2415919100
a(0) = 1, a(1) = 5, a(n+1) = 2*a(n) + 4, for n >= 1; a(n) = 9*2^(n-1) - 4, n >= 1.
a(n) = 4*n + Sum[i = 0, n - 1] a(i). - Jon Perry, Nov 20 2012
a(n) = 3*a(n-1) - 2*a(n-2) with a(0)=1, a(1)=5, a(2)=14. - Philippe Deléham, Apr 15 2013
[A274324] 1, 1, 5, 14, 33, 63, 109, 172, 257, 365, 501, 666, 865, 1099, 1373, 1688, 2049, 2457, 2917, 3430, 4001, 4631, 5325, 6084, 6913, 7813, 8789, 9842, 10977, 12195, 13501, 14896, 16385, 17969, 19653, 21438, 23329, 25327, 27437, 29660, 32001, 34461, 37045, 39754
a(n) = (3+(-1)^n+2*n^3)/4.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>4.
[A094002] 1, 5, 14, 33, 72, 151, 310, 629, 1268, 2547, 5106, 10225, 20464, 40943, 81902, 163821, 327660, 655339, 1310698, 2621417, 5242856, 10485735, 20971494, 41943013, 83886052, 167772131, 335544290, 671088609, 1342177248, 2684354527
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). G.f.: (1+x-x^2)/((1-x)^2*(1-2*x)). - Colin Barker, Apr 23 2012
[A188589] 1, 1, 5, 14, 33, 72, 151, 310, 629, 1268, 2547, 5106, 10225, 20464, 40943, 81902, 163821, 327660, 655339, 1310698, 2621417, 5242856, 10485735, 20971494, 41943013, 83886052, 167772131, 335544290, 671088609, 1342177248, 2684354527
a(n) = 5*2^(n-1)-n-3, n>0.
[A105082] 5, 14, 33, 80, 193, 466, 1125, 2716, 6557, 15830, 38217, 92264, 222745, 537754, 1298253, 3134260, 7566773, 18267806, 44102385, 106472576, 257047537, 620567650, 1498182837, 3616933324, 8732049485, 21081032294, 50894114073
a(n)=((9+5*sqrt(2))*(1+sqrt(2))^n - (9-5*sqrt(2))*(1-sqrt(2))^n)/(2*sqrt(2)) - Lambert Herrgesell (zero815(AT)googlemail.com), Jan 26 2007
[A192957] 0, 1, 1, 5, 14, 34, 72, 141, 261, 465, 806, 1370, 2296, 3809, 6273, 10277, 16774, 27306, 44368, 71997, 116725, 189121, 306286, 495890, 802704, 1299169, 2102497, 3402341, 5505566, 8908690, 14415096, 23324685, 37740741, 61066449, 98808278
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A094584] 1, 5, 14, 34, 74, 152, 299, 571, 1066, 1956, 3540, 6336, 11237, 19777, 34582, 60134, 104062, 179320, 307855, 526775, 898706, 1529160, 2595624, 4396224, 7431049, 12537917, 21118814, 35517226, 59646386, 100034456, 167562035, 280348531, 468543802, 782277612
a(n) = F(2)+2*F(3)+3*F(4)+...+n*F(n+1) = (n+1)*F(n+3) - F(n+5) + 3.
a(n) = 3*a(n-1)-a(n-2)-3*a(n-3)+a(n-4)+a(n-5).
a(n) = sum_{i=1..n+2} (n-i+1) * F(n-i+2).
a(n) = (30*(-1-sqrt(5))^n + (-15+7*sqrt(5))*2^n - (15+7*sqrt(5))*(-3-sqrt(5))^n + 2n*((5-2*sqrt(5))*2^n + (5+2*sqrt(5))*(-3-sqrt(5))^n)) / (10*(-1-sqrt(5))^n). (End)
[A047860] 1, 5, 14, 34, 78, 174, 382, 830, 1790, 3838, 8190, 17406, 36862, 77822, 163838, 344062, 720894, 1507326, 3145726, 6553598, 13631486, 28311550, 58720254, 121634814, 251658238, 520093694, 1073741822, 2214592510, 4563402750
a(0)=1, a(1)=5, a(2)=14, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Vincenzo Librandi, Sep 28 2011
[A027974] 1, 5, 14, 35, 81, 180, 389, 825, 1726, 3575, 7349, 15020, 30561, 61965, 125294, 252795, 509161, 1024100, 2057549, 4130225, 8284926, 16609455, 33282989, 66669660, 133507081, 267285605, 535010414, 1070731475, 2142612801
a(n) = 8*2^n - Fibonacci(n+5) - Fibonacci(n+3).
[A048745] 1, 5, 14, 36, 89, 217, 526, 1272, 3073, 7421, 17918, 43260, 104441, 252145, 608734, 1469616, 3547969, 8565557, 20679086, 49923732, 120526553, 290976841, 702480238, 1695937320, 4094354881, 9884647085, 23863649054, 57611945196, 139087539449, 335787024097
a(n)=2*a(n-1)+a(n-2)+3; a(0)=1, a(1)=5.
a(n)=[{(4+(5/2)*sqrt(2))(1+sqrt(2))^n - (4-(5/2)*sqrt(2))(1-sqrt(2))^n}/ 2*sqrt(2)]-3/2.
a(n)=3*a(n-1)-a(n-2)-a(n-3), n>2 ; a(0)=1, a(1)=5, a(2)=14. - Philippe Deléham, Dec 16 2008
[A054486] 1, 5, 14, 37, 97, 254, 665, 1741, 4558, 11933, 31241, 81790, 214129, 560597, 1467662, 3842389, 10059505, 26336126, 68948873, 180510493, 472582606, 1237237325, 3239129369, 8480150782, 22201322977, 58123818149, 152170131470, 398386576261, 1042989597313
a(n) = 3a(n-1) - a(n-2), a(0)=1, a(1)=5.
a(n) = -2*F(n)^2 + 6*F(n)*F(n+1) + F(n+1)^2 for all n in Z where F = Fibonacci. - Michael Somos, Mar 17 2015
a(n) = 3*F(2*n) + F(2*n+1) for all n in Z where F = Fibonacci. - Michael Somos, Mar 17 2015
[A072130] 0, 1, 5, 14, 37, 99, 260, 681, 1785, 4674, 12237, 32039, 83880, 219601, 574925, 1505174, 3940597, 10316619, 27009260, 70711161, 185124225, 484661514, 1268860317, 3321919439, 8696898000, 22768774561, 59609425685, 156059502494
a(1)=0, a(2)=1, a(3)=5, a(4)=14, a(5)=37, a(n)=3*a(n-1)- a(n-2)+ a(n-3)-3*a(n-4)+a(n-5). - Harvey P. Dale, Aug 19 2012
[A119996] 1, 5, 14, 39, 103, 272, 713, 1869, 4894, 12815, 33551, 87840, 229969, 602069, 1576238, 4126647, 10803703, 28284464, 74049689, 193864605, 507544126, 1328767775, 3478759199, 9107509824, 23843770273, 62423800997, 163427632718
a(0)=1, a(1)=5, a(2)=14, a(3)=39, a(n)=3*a(n-1)-3*a(n-3)+a(n-4) [From Harvey P. Dale, Aug 22 2011]
a(n) = Fibonacci(n+1)* Fibonacci(n+2)-1. - Gary Detlefs, Mar 31 2012.
[A266941] 1, 1, 5, 14, 42, 103, 289, 690, 1771, 4206, 10142, 23449, 54786, 123528, 279480, 619206, 1366405, 2969071, 6425534, 13727775, 29187555, 61439660, 128620370, 267044222, 551527679, 1130806020, 2306746335, 4676096006, 9432394144, 18920266428, 37776372312
a(0) = 1 and a(n) = (1/n) * Sum_{k=1..n} (Sum_{d|k} d^(2+k/d)) * a(n-k) for n > 0. - Seiichi Manyama, Nov 02 2017
[A140796] 1, 5, 14, 44, 128, 392, 1160, 3512, 10472, 31544, 94376, 283640, 849896, 2551736, 7651112, 22961528, 68868200, 206637368, 619846568, 1859670776, 5578750184, 16736774840, 50209275944, 150629924984, 451885580648, 1355665130552
a(n) = (-1)^(n+1)*2^n/10+8*3^n/5, n>0. - R. J. Mathar, Jul 29 2008
[A270062] 1, 1, 5, 14, 45, 140, 438, 1371, 4287, 13413, 41956, 131249, 410572, 1284352, 4017713, 12568213, 39315905, 122988066, 384731445, 1203517448, 3764844982, 11777193395, 36841433019, 115247422841, 360517151000, 1127770261265, 3527892525112, 11035958382864

a(n) = a(n-1) +5*(a(n-2)+a(n-3)) +a(n-4) -a(n-5) -a(n-6).
[A236043] 5, 14, 45, 141, 447, 1414, 4472, 14142, 44721, 141421, 447214, 1414214, 4472136, 14142136, 44721360, 141421356, 447213595, 1414213562, 4472135955, 14142135624, 44721359550, 141421356237, 447213595500, 1414213562373, 4472135955000, 14142135623731
a(n) = floor(sqrt(2*10^n + 1/4) + 1/2), adapted from Tanton (see Links section). - Chris Boyd, Jan 19 2014
[A077335] 1, 1, 5, 14, 46, 107, 352, 789, 2314, 5596, 14734, 34572, 92715, 210638, 531342, 1250635, 3042596, 6973974, 16973478, 38399806, 91301956, 207992892, 483244305, 1089029008, 2533640066, 5642905974, 12912848789, 28893132440, 65342580250, 144803524640
a(n) = S(n,1), where S(n,m) = n^2 + Sum_{k=m..n/2} k^2*S(n-k,k), S(n,n) = n^2, S(n,m) = 0 for m > n. - Vladimir Kruchinin, Sep 07 2014
[A176640] 0, 1, 5, 14, 46, 111, 303, 688, 1712, 3761, 8881, 19122, 43698, 92851, 207539, 436916, 961204, 2009781, 4369077, 9087670, 19573430, 40544951, 86682295, 178956984, 380283576, 782936761, 1655351993, 3400182458, 7158278842
a(0)=0, a(1)=1, a(2)=5, a(3)=14, a(4)=46, a(5)=111, a(n)=3*a(n-1)+ 3*a(n-2)- 15*a(n-3)+ 6*a(n-4)+12*a(n-5)-8*a(n-6). - Harvey P. Dale, Jun 11 2015
[A107242] 0, 0, 1, 5, 14, 50, 194, 723, 2659, 9884, 36780, 136636, 507517, 1885793, 7006962, 26034006, 96728470, 359395319, 1335332919, 4961420008, 18434129192, 68491926888, 254481427113, 945524491213, 3513091674982, 13052875206698
a(n)= 3*a(n-1) +2*a(n-2) +2*a(n-3) +6*a(n-4) -16*a(n-5) -2*a(n-6) +6*a(n-7) -2*a(n-8) +2*a(n-9) +a(n-10) -a(n-11). G.f.: x^2*(1+x)*(x^6-x^5-4*x^2+x+1)/((x-1) *(x^4+x^3-3*x^2-3*x+1) *(x^6-x^5+2*x^4- 2*x^3-2*x^2-x-1)). [R. J. Mathar, Aug 11 2009]
[A262247] 5, 14, 55, 140, 506, 819, 1785, 2470, 4324, 8555, 10416, 17575, 23821, 27434, 35720, 51039, 70210, 77531, 102510, 121836, 132349, 167480, 194054, 238965, 308945, 348551, 369564, 414090, 437635, 487369, 690880, 757966, 866525, 904890, 1113775, 1159076
a(n) = prime(n) * (prime(n)+1) * (2*prime(n)+1) / 6.
[A166621] 5, 15, 15, 25, 25, 35, 35, 45, 45, 55, 55, 65, 65, 75, 75, 85, 85, 95, 95, 105, 105, 115, 115, 125, 125, 135, 135, 145, 145, 155, 155, 165, 165, 175, 175, 185, 185, 195, 195, 205, 205, 215, 215, 225, 225, 235, 235, 245, 245, 255, 255, 265, 265, 275, 275, 285
a(n) = (5/2)*(2*n + (-1)^n + 1). - Paolo P. Lava, Nov 10 2009
a(n) = a(n-1) + a(n-2) - a(n-3). (End)
[A017329] 5, 15, 25, 35, 45, 55, 65, 75, 85, 95, 105, 115, 125, 135, 145, 155, 165, 175, 185, 195, 205, 215, 225, 235, 245, 255, 265, 275, 285, 295, 305, 315, 325, 335, 345, 355, 365, 375, 385, 395, 405, 415, 425, 435, 445, 455, 465, 475, 485, 495, 505, 515, 525, 535
a(n) = 20*n - a(n-1) (with a(0)=5). - Vincenzo Librandi, Nov 19 2010
[A268581] 5, 15, 29, 47, 69, 95, 125, 159, 197, 239, 285, 335, 389, 447, 509, 575, 645, 719, 797, 879, 965, 1055, 1149, 1247, 1349, 1455, 1565, 1679, 1797, 1919, 2045, 2175, 2309, 2447, 2589, 2735, 2885, 3039, 3197, 3359, 3525, 3695, 3869, 4047, 4229, 4415, 4605
a(n) = 2*(n+2)^2 - 3.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A028895] 0, 5, 15, 30, 50, 75, 105, 140, 180, 225, 275, 330, 390, 455, 525, 600, 680, 765, 855, 950, 1050, 1155, 1265, 1380, 1500, 1625, 1755, 1890, 2030, 2175, 2325, 2480, 2640, 2805, 2975, 3150, 3330, 3515, 3705, 3900, 4100, 4305, 4515, 4730, 4950, 5175, 5405, 5640
a(n+1) = 5*n+a(n). - Vincenzo Librandi, Aug 05 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2. - Wesley Ivan Hurt, Nov 27 2015
[A056108] 1, 5, 15, 31, 53, 81, 115, 155, 201, 253, 311, 375, 445, 521, 603, 691, 785, 885, 991, 1103, 1221, 1345, 1475, 1611, 1753, 1901, 2055, 2215, 2381, 2553, 2731, 2915, 3105, 3301, 3503, 3711, 3925, 4145, 4371, 4603, 4841, 5085, 5335, 5591, 5853, 6121, 6395
a(n) = 3*n^2 + n + 1.
a(n) = a(n-1) + 6*n - 2 = 2*a(n-1) - a(n-2) + 6
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = 6*n+a(n-1)-2 with n>0, a(0)=1. - Vincenzo Librandi, Aug 07 2010
[A055831] 5, 15, 31, 54, 85, 125, 175, 236, 309, 395, 495, 610, 741, 889, 1055, 1240, 1445, 1671, 1919, 2190, 2485, 2805, 3151, 3524, 3925, 4355, 4815, 5306, 5829, 6385, 6975, 7600, 8261, 8959, 9695, 10470, 11285, 12141, 13039
a(n) = (n-3)*(n^2+6*n-10)/6, n>3.
[A260918] 0, 1, 5, 15, 33, 60, 100, 154, 224, 313, 423, 555, 713, 898, 1112, 1358, 1638, 1953, 2307, 2701, 3137, 3618, 4146, 4722, 5350, 6031, 6767, 7561, 8415, 9330, 10310, 11356, 12470, 13655, 14913, 16245, 17655, 19144, 20714, 22368, 24108, 25935, 27853, 29863
a(n) = (1/8)*(Sum{j=0...floor(2*n/3)}(4*n+1-6*i-(-1)^i)*(4*n-1-6*i+(-1)^i) - (Sum{j=0...(2*n-1+(-1)^n)/4}(2*n+1-(-1)^n-4*j)*(2*n+1+(-1)^n-4*j)).
a(n) = (52*n^3+90*n^2+20*n-3*(32*floor((n+1)/3)+3*(1-(-1)^n))/144.
a(n) = (52*n^3+90*n^2+20*n-3*(32*floor((n+1)/3)+3*(1-(-1)^n)))/144.
[A212983] 1, 5, 15, 33, 62, 104, 162, 238, 335, 455, 601, 775, 980, 1218, 1492, 1804, 2157, 2553, 2995, 3485, 4026, 4620, 5270, 5978, 6747, 7579, 8477, 9443, 10480, 11590, 12776, 14040, 15385, 16813, 18327, 19929, 21622, 23408, 25290, 27270, 29351
a(n)=3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
[A238340] 1, 5, 15, 34, 64, 108, 169, 249, 351, 478, 632, 816, 1033, 1285, 1575, 1906, 2280, 2700, 3169, 3689, 4263, 4894, 5584, 6336, 7153, 8037, 8991, 10018, 11120, 12300, 13561, 14905, 16335, 17854, 19464, 21168, 22969, 24869, 26871, 28978, 31192, 33516, 35953
a(n) = 4/9*n^3 + 1/3*n^2 + O(1). - Ralf Stephan, May 29 2014
[A006003] 0, 1, 5, 15, 34, 65, 111, 175, 260, 369, 505, 671, 870, 1105, 1379, 1695, 2056, 2465, 2925, 3439, 4010, 4641, 5335, 6095, 6924, 7825, 8801, 9855, 10990, 12209, 13515, 14911, 16400, 17985, 19669, 21455, 23346, 25345, 27455, 29679, 32020, 34481, 37065, 39775
a(n) = binomial(n, 3) + binomial(n-1, 3) + binomial(n-2, 3).
a(n) = -a(-n) for all n in Z. - Michael Somos, Dec 24 2011
a(n) = Sum_{k = 1..n} A(k-1, k-1-n) where A(i, j) = i^2 + i*j + j^2 + i + j + 1. - Michael Somos, Jan 02 2012
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), with a(0)=0, a(1)=1, a(2)=5, a(3)=15. - Harvey P. Dale, May 16 2012
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 3. - Ant King, Jun 13 2012
[A111385] 0, 0, 0, 0, 1, 5, 15, 34, 68, 120, 200, 310, 465, 665, 931, 1260, 1680, 2184, 2808, 3540, 4425, 5445, 6655, 8030, 9636, 11440, 13520, 15834, 18473, 21385, 24675, 28280, 32320, 36720, 41616, 46920, 52785, 59109, 66063, 73530, 81700, 90440, 99960, 110110, 121121
a(n) = +2 a(n-1) +2 a(n-2) -6 a(n-3) +6 a(n-5) -2 a(n-6) -2 a(n-7) +a(n-8). - R. J. Mathar, Mar 11 2012
a(n) = n^2 * (7*n^2 - 36*n + 44) / 192 for n even.
a(n) = (7*n^4 - 36*n^3 + 38*n^2 + 36*n - 45) / 192 for n odd.
[A083049] 1, 5, 15, 34, 68, 127, 225, 387, 652, 1084, 1787, 2927, 4775, 7769, 12616, 20462, 33160, 53709, 86962, 140769, 227834, 368711, 596658, 965488, 1562270, 2527887, 4090292, 6618319, 10708756, 17327225, 28036136, 45363522, 73399824, 118763517
a(n) = Sum_{k=0..n} T(k, n-k), where T(n, 0) = floor(n*x/(x-1))+1, T(n, k+1) = ceiling(x*T(n, k)), for n>=0, k>=0, with x = (sqrt(5)+1)/2.
[A005894] 1, 5, 15, 35, 69, 121, 195, 295, 425, 589, 791, 1035, 1325, 1665, 2059, 2511, 3025, 3605, 4255, 4979, 5781, 6665, 7635, 8695, 9849, 11101, 12455, 13915, 15485, 17169, 18971, 20895, 22945, 25125, 27439, 29891, 32485, 35225, 38115
a(n) = (2*n + 1)*(n^2 + n + 3)/3.
a(n) = C(n, 0) + 4*C(n, 1) + 6*C(n, 2) + 4*C(n, 3). - Paul Barry, Jul 01 2003
a(n) = binomial(n+3,n) + binomial(n+2,n-1) + binomial(n+1,n-2) + binomial(n,n-3). (modified by G. C. Greubel, Nov 30 2017)
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4); a(0)=1, a(1)=5, a(2)=15, a(3)=35. - Harvey P. Dale, Nov 03 2011
[A008487] 1, 5, 15, 35, 70, 125, 205, 315, 460, 645, 875, 1155, 1490, 1885, 2345, 2875, 3480, 4165, 4935, 5795, 6750, 7805, 8965, 10235, 11620, 13125, 14755, 16515, 18410, 20445, 22625, 24955, 27440, 30085, 32895, 35875, 39030, 42365, 45885, 49595, 53500, 57605, 61915
a(n) = binomial(n+7, n+4) + binomial(n+6, n+3) + binomial(n+5, n+2) + binomial(n+4, n+1) + binomial(n+3, n) for n>3. - Zerinvary Lajos, Sep 03 2006
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4. - Colin Barker, Jan 06 2017
[A000332] 0, 0, 0, 0, 1, 5, 15, 35, 70, 126, 210, 330, 495, 715, 1001, 1365, 1820, 2380, 3060, 3876, 4845, 5985, 7315, 8855, 10626, 12650, 14950, 17550, 20475, 23751, 27405, 31465, 35960, 40920, 46376, 52360, 58905, 66045, 73815, 82251, 91390, 101270, 111930, 123410
a(n) = n*(n-1)*(n-2)*(n-3)/24.
a(n) = n*a(n-1)/(n-4). - Benoit Cloitre, Apr 26 2003, R. J. Mathar, Jul 07 2009
a(n) = Sum_{k=1..n-3} Sum_{i=1..k} i*(i+1)/2. - Benoit Cloitre, Jun 15 2003

a(4n+2) = Pyr(n+4, 4n+2) where the polygonal pyramidal numbers are defined for integers A>2 and B>=0 by Pyr(A, B) = B-th A-gonal pyramid number = [(A-2)*B^3 + 3*B^2 - (A-5)*B]/6; For all positive integers i and the pentagonal number function P(x) = x*(3*x-1)/2: a(3i-2) = P(P(i)) and a(3i-1) = P(P(i) + i); 1 + 24*a(n) = (n^2 + 3*n + 1)^2. - Jonathan Vos Post, Nov 15 2004
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=1, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Harvey P. Dale, Aug 22 2011
a(n) = (binomial(n-1,2)^2 - binomial(n-1,2))/6. - Gary Detlefs, Nov 20 2011
[A049016] 1, 5, 15, 35, 70, 127, 220, 385, 715, 1430, 3004, 6385, 13380, 27370, 54740, 107883, 211585, 416405, 826045, 1652090, 3321891, 6690150, 13455325, 26985675, 53971350, 107746282, 214978335, 429124630, 857417220, 1714834440, 3431847189
a(n)=5a(n-1)-10a(n-2)+10a(n-3)-5a(n-4)+2a(n-5). - Paul Curtz, May 24 2008
[A139761] 0, 0, 0, 0, 1, 5, 15, 35, 70, 127, 220, 385, 715, 1430, 3004, 6385, 13380, 27370, 54740, 107883, 211585, 416405, 826045, 1652090, 3321891, 6690150, 13455325, 26985675, 53971350, 107746282, 214978335, 429124630, 857417220, 1714834440, 3431847189
a(n) = round((2/5)*(2^(n-1)+phi^n*cos(Pi*(n-8)/5))), where phi is the golden ratio, round(x) is the integer nearest to x. - Vladimir Shevelev, Jun 28 2017
[A100355] 0, 0, 0, 0, 1, 5, 15, 35, 70, 140, 252, 420, 660, 990, 1485, 2145, 3003, 4095, 5460, 7280, 9520, 12240, 15504, 19381, 24226, 29926, 36576, 44276, 53135, 63761, 75905, 89705, 105305, 122865, 143340, 166272, 191850, 220270, 251755, 287715, 327395, 371043
a(n) = max(a(k) + k*choose(n-k, 4), 1 <= k < n)
[A145133] 0, 1, 5, 15, 35, 71, 132, 231, 386, 622, 974, 1491, 2241, 3318, 4852, 7023, 10080, 14367, 20359, 28712, 40332, 56470, 78853, 109865, 152797, 212192, 294321, 407840, 564697, 781384, 1080665, 1493961, 2064642, 2852571, 3940376, 5442107, 7515185
a(n) = 5a(n-1) -10a(n-2) +10a(n-3) -4a(n-4) -3a(n-5) +6a(n-6) -4a(n-7) +a(n-8).
[A270784] 1, 5, 15, 35, 71, 135, 255, 495, 992, 2028, 4186, 8710, 18335, 39151, 84711, 185079, 406994, 899374, 1996676, 4453904, 9980570, 22454570, 50688170, 114750090, 260454417, 592628949, 1351606335, 3089310115, 7075157399, 16233066135, 37307526647
a(n) = ((n+4)/4) * Sum_{k=0..(n+4)/4} (binomial(2*k,k)*binomial(n+3,n-4*k)/(k+1)^2).
[A213580] 1, 5, 15, 35, 74, 146, 277, 511, 925, 1651, 2916, 5108, 8889, 15385, 26507, 45491, 77806, 132678, 225645, 382835, 648121, 1095075, 1846920, 3109800, 5228209, 8777261, 14716167, 24643331, 41220050, 68873786, 114964741, 191719783
a(n) = 4*a(n-1) - 4*a(n-2) - 2*a(n-3) + 4*a(n-4) + a(n-5).
[A105720] 5, 15, 36, 67, 112, 169, 240, 323, 424, 539, 662, 803, 964, 1133, 1312, 1523, 1746, 1987, 2246, 2519, 2808, 3119, 3436, 3787, 4154, 4529, 4920, 5337, 5770, 6219, 6682, 7173, 7672, 8203, 8760, 9323, 9912, 10517, 11140, 11783, 12450, 13135, 13836
a(n)=p(n)+p(n+1)+...+p(2n-1)+p(2n), p(k)=k-th prime
a(1)=5; n>1: a(n)=a(n-1)-prime(n-1)+prime(2*n-1)+prime(2*n). [From Zak Seidov, Oct 18 2009]
[A184631] 1, 5, 15, 36, 71, 123, 196, 292, 416, 571, 760, 987, 1255, 1568, 1928, 2340, 2807, 3332, 3919, 4571, 5292, 6084, 6952, 7899, 8928, 10043, 11247, 12544, 13936, 15428, 17023, 18724, 20535, 22459, 24500, 26660, 28944, 31355, 33896, 36571, 39383, 42336, 45432, 48676, 52071, 55620, 59327, 63195, 67228, 71428, 75800
a(n)=floor(1/{(7+n^4)^(1/4)}), where {}=fractional part.
[A006008] 0, 1, 5, 15, 36, 75, 141, 245, 400, 621, 925, 1331, 1860, 2535, 3381, 4425, 5696, 7225, 9045, 11191, 13700, 16611, 19965, 23805, 28176, 33125, 38701, 44955, 51940, 59711, 68325, 77841, 88320, 99825, 112421, 126175, 141156, 157435, 175085, 194181, 214800, 237021, 260925, 286595, 314116, 343575
a(n) = (n^4 + 11*n^2)/12. (Replace all x_i's in the cycle index by n.)
a(0)=0, a(1)=1, a(2)=5, a(3)=15, a(4)=36, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, Aug 11 2011]
a(n)=C(n,1)+3C(n,2)+3C(n,3)+2C(n,4) Each term indicates the number of tetrahedra with exactly 1, 2, 3, or 4 colors.
a(n) = binomial(n+3,4) + binomial(n,4). - Collin Berman, Jan 26 2016
[A163250] 0, 0, 1, 5, 15, 36, 76, 148, 273, 485, 839, 1424, 2384, 3952, 6505, 10653, 17383, 28292, 45964, 74580, 120905, 195885, 317231, 513600, 831360, 1345536, 2177521, 3523733, 5701983, 9226500, 14929324, 24156724, 39087009, 63244757, 102332855
a(n) = F(n + 6) - (n^2 + 4*n + 8), where F(n) are the Fibonacci numbers.
a(n) = 4*a(n-1) -5*a(n-2) +a(n-3) +2*a(n-4) -a(n-5).
a(n) = Sum_{k=0..n-1} Sum_{i=0..n-1} i^2 * C(n-k-1,k-i). - Wesley Ivan Hurt, Sep 21 2017
[A053808] 1, 5, 15, 36, 76, 148, 273, 485, 839, 1424, 2384, 3952, 6505, 10653, 17383, 28292, 45964, 74580, 120905, 195885, 317231, 513600, 831360, 1345536, 2177521, 3523733, 5701983, 9226500, 14929324, 24156724, 39087009, 63244757, 102332855, 165578768, 267912848
a(n) = a(n-1) + a(n-2) + (n+1)^2, a(-n)=0.
a(n) = F(n+6) - (n^2 + 4*n + 8), n >= 2 (see p. 184 of FQ reference).
a(n-2) = sum(i=0..n, F(i)*(n-i)^2) - Benoit Cloitre, Mar 06 2004
[A111926] 0, 0, 0, 0, 1, 5, 15, 36, 78, 162, 331, 671, 1353, 2718, 5448, 10908, 21829, 43673, 87363, 174744, 349506, 699030, 1398079, 2796179, 5592381, 11184786, 22369596, 44739216, 89478457, 178956941, 357913911, 715827852, 1431655734, 2863311498
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=1, a(n)=5*a(n-1)-10*a(n-2)+ 11*a(n-3)- 7*a(n-4)+2*a(n-5). - Harvey P. Dale, Feb 24 2016
[A213487] 1, 5, 15, 37, 77, 138, 223, 338, 489, 679, 911, 1191, 1525, 1916, 2367, 2884, 3473, 4137, 4879, 5705, 6621, 7630, 8735, 9942, 11257, 12683, 14223, 15883, 17669, 19584, 21631, 23816, 26145, 28621, 31247, 34029, 36973, 40082, 43359, 46810
a(n) = 4*a(n-1)-7*a(n-2)+8*a(n-3)-7*a(n-4)+4*a(n-5)-a(n-6).
[A005491] 1, 5, 15, 37, 77, 141, 235, 365, 537, 757, 1031, 1365, 1765, 2237, 2787, 3421, 4145, 4965, 5887, 6917, 8061, 9325, 10715, 12237, 13897, 15701, 17655, 19765, 22037, 24477, 27091, 29885, 32865, 36037, 39407, 42981, 46765, 50765, 54987, 59437, 64121, 69045
a(0)=1, a(1)=5, a(2)=15, a(3)=37, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Oct 01 2014
[A050488] 0, 1, 5, 15, 37, 83, 177, 367, 749, 1515, 3049, 6119, 12261, 24547, 49121, 98271, 196573, 393179, 786393, 1572823, 3145685, 6291411, 12582865, 25165775, 50331597, 100663243, 201326537, 402653127, 805306309, 1610612675, 3221225409
a(n) = 2*a(n-1) + (2n-1). - Gary W. Adamson, Sep 30 2007
a(n) = 4a(n-1) - 5a(n-2) + 2a(n-3) for n>2 with a(0) = 0, a(1) = 1, a(2) = 5.
a(n) = 2*n + 2*a(n-1) - 1 (with a(0)=0). - Vincenzo Librandi, Aug 06 2010
[A142964] 1, 5, 15, 37, 83, 177, 367, 749, 1515, 3049, 6119, 12261, 24547, 49121, 98271, 196573, 393179, 786393, 1572823, 3145685, 6291411, 12582865, 25165775, 50331597, 100663243, 201326537, 402653127, 805306309, 1610612675, 3221225409, 6442450879, 12884901821
a(n) = 4a(n-1) - 5a(n-2) + 2a(n-3) for n > 2 with a(0) = 1, a(1) = 5, a(2) = 15.
[A099035] 1, 5, 15, 39, 95, 223, 511, 1151, 2559, 5631, 12287, 26623, 57343, 122879, 262143, 557055, 1179647, 2490367, 5242879, 11010047, 23068671, 48234495, 100663295, 209715199, 436207615, 905969663, 1879048191, 3892314111, 8053063679
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). G.f.: x*(1-2*x^2)/((1-x)*(1-2*x)^2). - Colin Barker, Mar 23 2012
[A034182] 1, 5, 15, 39, 97, 237, 575, 1391, 3361, 8117, 19599, 47319, 114241, 275805, 665855, 1607519, 3880897, 9369317, 22619535, 54608391, 131836321, 318281037, 768398399, 1855077839, 4478554081, 10812186005, 26102926095, 63018038199, 152139002497, 367296043197
a(n) = 2a(n-1) + a(n-2) + 4.
a(n) = -2 + (3/2)*(1+sqrt(2))^(n-1) - sqrt(2)*(1-sqrt(2))^(n-1) + (3/2)*(1-sqrt(2))^(n-1) + (1+sqrt(2))^(n-1)*sqrt(2), with n>=1 - Paolo P. Lava, Jun 10 2008
a(n) = (-4 + (1-sqrt(2))^(1+n) + (1+sqrt(2))^(1+n))/2. G.f.: x*(1+x)^2/((1-x)*(1 - 2*x - x^2)). - Colin Barker, May 22 2012
[A291225] 5, 15, 40, 100, 236, 535, 1175, 2515, 5270, 10846, 21980, 43950, 86850, 169840, 329042, 632135, 1205205, 2281925, 4293270, 8030558, 14940700, 27659095, 50968455, 93518940, 170905555, 311159365, 564521620, 1020800470, 1840124050, 3307314163, 5927828905
a(n) = 5*a(n-1) - 5*a(n-2) - 10*a(n-3) + 15*a(n-4) + 11*a(n-5) - 15*a(n-6) - 10*a(n-7) + 5*a(n-8) + 5*a(n-9) + a(n-10) for n >= 11.
[A201157] 0, 5, 15, 40, 105, 275, 720, 1885, 4935, 12920, 33825, 88555, 231840, 606965, 1589055, 4160200, 10891545, 28514435, 74651760, 195440845, 511670775, 1339571480, 3507043665, 9181559515, 24037634880, 62931345125, 164756400495, 431337856360, 1129257168585
a(n) = 3*a(n-1) - a(n-2), n>2.
a(n) = 5*Fibonacci(2*n-2) = Lucas(2*n-1) + Lucas(2*n-3) with Lucas(-1) = -1. - Bruno Berselli, Feb 15 2017
[A113861] 0, 1, 5, 15, 41, 103, 249, 583, 1337, 3015, 6713, 14791, 32313, 70087, 151097, 324039, 691769, 1470919, 3116601, 6582727, 13864505, 29127111, 61050425, 127693255, 266571321, 555512263, 1155763769, 2401006023, 4980969017, 10319851975, 21355531833, 44142719431
a(n) = 4*a(n-1) - 4*a(n-2) + (-1)^(n+1), n>2. - Gary Detlefs, Dec 19 2010
a(n) = 3*a(n-1) - 4*a(n-3), n>3. - Gary Detlefs, Dec 19 2010

[A080870] 1, 5, 15, 41, 107, 276, 708, 1811, 4629, 11827, 30214, 77182, 197159, 503632, 1286495, 3286264, 8394533, 21443246, 54775263, 139919550, 357414628, 912990471, 2332169791, 5957363305, 15217664544, 38872451165, 99296935817
a(n) = floor(x^n)-1, where x=2.554429495392724...
[A102620] 1, 5, 15, 41, 113, 313, 867, 2401, 6649, 18413, 50991, 141209, 391049, 1082929, 2998947, 8304961, 22998865, 63690581, 176377839, 488441801, 1352638145, 3745850473, 10373355075, 28726852897, 79553054089, 220305664445, 610090792143, 1689519766073, 4678774170521, 12956893537633, 35881426208451, 99366159258241, 275173945103905, 762037102261925, 2110303520940111
a(n)=sum((2^k)*(binomial(n+k+1,3*k+2)+2*binomial(n+k,3*k+2)+binomial(n+k-1,3*k+2)),k=0..(n-1)/2) [Emanuele Munarini, Apr 17 2013]
[A211380] 0, 1, 5, 15, 42, 94, 189, 340, 572, 903, 1365, 1981, 2790, 3820, 5117, 6714, 8664, 11005, 13797, 17083, 20930, 25386, 30525, 36400, 43092, 50659, 59189, 68745, 79422, 91288, 104445, 118966, 134960, 152505, 171717, 192679, 215514, 240310, 267197, 296268, 327660
a(n) = 1/8*n*(n^3-11*n^2+43*n-58) for n even;
a(n) = 1/8*n*(n-3)*(n^2-8*n+19) for n odd.
[A005665] 0, 1, 5, 15, 43, 119, 327, 895, 2447, 6687, 18271, 49919, 136383, 372607, 1017983, 2781183, 7598335, 20759039, 56714751, 154947583, 423324671, 1156544511, 3159738367, 8632565759, 23584608255, 64434348031, 176037912575, 480944521215, 1313964867583, 3589818777599, 9807567290367
a(n) = ((sqrt(3)+1)^(n+1) + (sqrt(3)-1)^(n+1)*(-1)^n)*sqrt(3)/6 - 1. (End)
a(n) = 2*a(n-1) + 2*a(n-2) + 3. - John W. Layman
a(n) = (1/(2*s3))*((1+s3)^(n+1) - (1-s3)^(n+1)) - 1 where s3 = sqrt(3).
a(n) = 3*a(n-1) - 2*a(n-3), a(0)=0, a(1)=1, a(2)=5 (from the given o.g.f.). Observed by Gary Detlefs. See the W. Lang link. - Wolfdieter Lang, Oct 18 2010
[A271180] 1, 1, 5, 15, 45, 125, 342, 921, 2461, 6535, 17282, 45567, 119898, 315020, 826830, 2168583, 5684731, 14896459, 39024899, 102216045, 267693813, 700997144, 1835543565, 4806092673, 12583591525, 32946281848, 86258240735, 225834015840
a(n) = 5*a(n-1) - 7*a(n-2) + a(n-3) + 4*a(n-4) - 4*a(n-5) + a(n-6) for n>3, a(0)=1, a(1)=1, a(2)=5, a(3)=15.
[A077841] 1, 1, 5, 15, 47, 149, 469, 1479, 4663, 14701, 46349, 146127, 460703, 1452485, 4579333, 14437527, 45518023, 143507293, 452443709, 1426445343, 4497236399, 14178696245, 44701992373, 140934546279, 444332462167, 1400872547917, 4416611574893, 13924505717871
a(n)=sum(k=1..n, sum(i=k..n,(sum(j=0..k, binomial(j,-3*k+2*j+i)* 3^(-3*k+2*j+i)*2^(k-j)*binomial(k,j)))*binomial(n+k-i-1,k-1))), n>0, a(0)=1. [From Vladimir Kruchinin, May 05 2011]
[A255442] 1, 5, 15, 51, 153, 477, 1431, 4347, 13041, 39285, 117855, 354051, 1062153, 3187917, 9563751, 28695627, 86086881, 258273765, 774821295, 2324503251, 6973509753, 20920647357, 62761942071, 188286180507, 564858541521, 1694576687445, 5083730062335, 15251193375651, 45753580126953, 137260749946797
a(n) = 2*3^n - 3^((n-1)/2)/2*(1-(-1)^n+sqrt(3) + (-1)^n*sqrt(3)).
a(n) = 3*a(n-1) + 3*a(n-2) - 9*a(n-3) for n>2.
[A110614] 1, 5, 15, 57, 215, 841, 3319, 13193, 52599, 210057, 839543, 3356809, 13424503, 53692553, 214759287, 859015305, 3436017527, 13743982729, 54975756151, 219902675081, 879610001271, 3518438606985, 14073751631735, 56295000934537, 225179992553335, 900719947843721
a(n) = (-7*(-1)^n + 5*2^(1+n) + 3*4^(1+n)) / 15. - Colin Barker, Feb 05 2017
[A066886] 5, 15, 65, 175, 671, 1105, 2465, 3439, 6095, 12209, 14911, 25345, 34481, 39775, 51935, 74465, 102719, 113521, 150415, 178991, 194545, 246559, 285935, 352529, 456385, 515201, 546415, 612575, 647569, 721505, 1024255, 1124111, 1285745
a(n) = prime(n)*(prime(n)^2+1)/2, where prime(n) is the n-th prime.
[A168463] 5, 16, 16, 27, 27, 38, 38, 49, 49, 60, 60, 71, 71, 82, 82, 93, 93, 104, 104, 115, 115, 126, 126, 137, 137, 148, 148, 159, 159, 170, 170, 181, 181, 192, 192, 203, 203, 214, 214, 225, 225, 236, 236, 247, 247, 258, 258, 269, 269, 280, 280, 291, 291, 302, 302, 313
a(n) = 11*n - a(n-1) - 1, with n>1, a(1)=5.
a(n) = a(n-1) +a(n-2) -a(n-3). - Vincenzo Librandi, Sep 19 2013
a(n) = (22*n + 11*(-1)^n + 9)/4.
[A151980] 0, 1, 5, 16, 20, 21, 25, 36, 40, 41, 45, 56, 60, 61, 65, 76, 80, 81, 85, 96, 100, 101, 105, 116, 120, 121, 125, 136, 140, 141, 145, 156, 160, 161, 165, 176, 180, 181, 185, 196, 200, 201, 205, 216, 220, 221, 225, 236, 240, 241, 245, 256, 260, 261, 265, 276, 280, 281, 285, 296
a(n) = a(n-1)+a(n-4)-a(n-5). [Colin Barker, Nov 29 2012]
[A124865] 5, 16, 21, 24, 40, 45, 48, 72, 96, 112, 117, 120, 144, 160, 165, 168, 192, 240, 264, 280, 285, 288, 312, 336, 352, 357, 360, 408, 432, 480, 504, 520, 525, 528, 552, 600, 648, 672, 720, 768, 792, 816, 832, 837, 840, 888, 912, 936, 952, 957, 960, 1008, 1032, 1080
a(n) » n log n, see Luca. - Charles R Greathouse IV, Feb 17 2014
[A077469] 1, 5, 16, 21, 29, 35, 39, 52, 57, 63, 68, 76, 82, 88, 93, 99, 106, 113, 118, 127, 134, 150, 155, 160, 167, 172, 182, 192, 197, 209, 215, 224, 229, 237, 242, 246, 260, 265, 272, 278, 289, 293, 310, 315, 320, 330, 337, 346, 353, 373, 379, 384, 390, 396, 405, 416
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(3/4) and frac(y) = y - floor(y).
a(n) seems to be asymptotic to c*n with c around 8.0... - Benoit Cloitre
[A041855] 1, 5, 16, 21, 37, 58, 443, 501, 2948, 15241, 18189, 142564, 160753, 303317, 464070, 1695527, 8941705, 377247137, 1895177390, 6062779307, 7957956697, 14020736004, 21978692701, 167871584911, 189850277612, 1117122972971, 5775465142467, 6892588115438
a(n) = 378942664*a(n-17) + a(n-34) for n>33. - Vincenzo Librandi, Dec 26 2013
[A041107] 1, 1, 5, 16, 21, 58, 137, 195, 722, 3083, 3805, 56353, 60158, 296985, 951113, 1248098, 3447309, 8142716, 11590025, 42912791, 183241189, 226153980, 3349396909, 3575550889, 17651600465, 56530352284, 74181952749, 204894257782, 483970468313, 688864726095
a(n) = 59436*a(n-11) + a(n-22). - Vincenzo Librandi, Dec 11 2013
[A225539] 5, 16, 23, 34, 41, 52, 59, 70, 77, 88, 95, 106, 113, 124, 131, 142, 149, 160, 167, 178, 185, 196, 203, 214, 221, 232, 239, 250, 257, 268, 275, 286, 293, 304, 311, 322, 329, 340, 347, 358, 365, 376, 383, 394, 401, 412, 419, 430, 437, 448
a(n) = 9*n - 3 + (-1)^n.
a(n) = a(n-1) + 7 (odd n), a(n) = a(n-1) + 11 (even n) with a(1) = 5.
[A063232] 5, 16, 24, 36, 44, 56, 64, 76, 84, 96, 104, 116, 124, 136, 144, 156, 164, 176, 184, 196, 204, 216, 224, 236, 244, 256, 264, 276, 284, 296, 304, 316, 324, 336, 344, 356, 364, 376, 384, 396, 404, 416, 424, 436, 444, 456, 464, 476, 484, 496, 504, 516, 524, 536
a(n) = 5+10*(n-1)+(-1)^n+{C[2*(n-1),n-1] mod 2}, with n>=1. - Paolo P. Lava, Nov 20 2009
a(n) = -5+(-1)^n+10*n for n>1. a(n)=a(n-1)+a(n-2)-a(n-3) for n>4; G.f.: x*(x^3+3*x^2+11*x+5) / ((x-1)^2*(x+1)). - Colin Barker, Sep 08 2013
[A063290] 1, 5, 16, 28, 40, 52, 64, 76, 88, 100, 112, 122, 136, 148, 160, 170, 184, 194, 208, 218, 232, 242, 256, 264, 280, 290, 304, 312, 328, 336, 352, 360, 376, 384, 400, 406, 424, 432, 448, 454, 472, 478, 496, 502, 520, 526, 544, 548, 568, 574, 592
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A134594] 5, 16, 29, 44, 61, 80, 101, 124, 149, 176, 205, 236, 269, 304, 341, 380, 421, 464, 509, 556, 605, 656, 709, 764, 821, 880, 941, 1004, 1069, 1136, 1205, 1276, 1349, 1424, 1501, 1580, 1661, 1744, 1829, 1916, 2005, 2096, 2189, 2284, 2381, 2480, 2581, 2684
a(n)=((1+Sqrt[n])^5-(5n^2 + 10n + 1)Sqrt[n])/Sqrt[n]
a(n)=2*n+a(n-1)+9 (with a(0)=5) [From Vincenzo Librandi, Nov 23 2010]
[A045944] 0, 5, 16, 33, 56, 85, 120, 161, 208, 261, 320, 385, 456, 533, 616, 705, 800, 901, 1008, 1121, 1240, 1365, 1496, 1633, 1776, 1925, 2080, 2241, 2408, 2581, 2760, 2945, 3136, 3333, 3536, 3745, 3960, 4181, 4408, 4641, 4880, 5125, 5376, 5633, 5896, 6165, 6440
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), with a(0)=0, a(1)=5, a(2)=16. - Harvey P. Dale, May 06 2011
a(n) = a(n-1) + 6*n-1 (with a(0)=0). - Vincenzo Librandi, Nov 18 2010
[A227719] 5, 16, 33, 56, 86, 121, 162, 209, 263, 322, 387, 458, 536, 619, 708, 803, 905, 1012, 1125, 1244, 1370, 1501, 1638, 1781, 1931, 2086, 2247, 2414, 2588, 2767, 2952, 3143, 3341, 3544, 3753, 3968, 4190, 4417, 4650, 4889, 5135, 5386, 5643, 5906, 6176, 6451, 6732
a(n) = -2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6) (conjectured).
[A172166] 5, 16, 33, 62, 99, 140, 193, 252, 319, 390, 487, 588, 715, 864, 1043, 1234, 1457, 1684, 1935, 2192, 2461, 2768, 3079, 3410, 3757, 4176, 4607, 5148, 5705, 6268, 6837, 7424, 8017, 8616, 9257, 9984, 10717, 11456, 12265, 13086, 13939, 14868, 15805, 16772
a(n) = SIM[i=1..n] {p_n such that (p_n)^2 > p_{n-i}p_{n+i} for all 1 <= i <= n-1}.
[A227720] 5, 16, 34, 57, 86, 121, 163, 210, 263, 322, 388, 459, 536, 619, 709, 804, 905, 1012, 1126, 1245, 1370, 1501, 1639, 1782, 1931, 2086, 2248, 2415, 2588, 2767, 2953, 3144, 3341, 3544, 3754, 3969, 4190, 4417, 4651, 4890, 5135, 5386, 5644, 5907, 6176, 6451, 6733
a(n) = -2*a(n-1) - a(n-2) + a(n-4) - 2*a(n-5) + a(n-6) (conjectured).

[A077415] 0, 5, 16, 35, 64, 105, 160, 231, 320, 429, 560, 715, 896, 1105, 1344, 1615, 1920, 2261, 2640, 3059, 3520, 4025, 4576, 5175, 5824, 6525, 7280, 8091, 8960, 9889, 10880, 11935, 13056, 14245, 15504, 16835, 18240, 19721, 21280, 22919, 24640, 26445
a(n) = sum((-1)^i*2^(n-2*i-1)*binomial(n-i-1, i)*(n-2*i-2), i=0..[(n-1)/2]). - John M. Campbell, Jan 08 2016
[A184635] 5, 16, 36, 64, 100, 144, 196, 256, 324, 400, 484, 576, 676, 784, 900, 1024, 1156, 1296, 1444, 1600, 1764, 1936, 2116, 2304, 2500, 2704, 2916, 3136, 3364, 3600, 3844, 4096, 4356, 4624, 4900, 5184, 5476, 5776, 6084, 6400, 6724, 7056, 7396, 7744, 8100, 8464
a(n) = floor(1/{(n+n^4)^(1/4)}), where {} = fractional part.
[A055232] 1, 5, 16, 36, 69, 117, 184, 272, 385, 525, 696, 900, 1141, 1421, 1744, 2112, 2529, 2997, 3520, 4100, 4741, 5445, 6216, 7056, 7969, 8957, 10024, 11172, 12405, 13725, 15136, 16640, 18241, 19941, 21744, 23652, 25669, 27797, 30040, 32400
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5). [Clark Kimberling, Jun 02 2012]
a(n) = (7+(-1)^n+16*n+14*n^2+4*n^3)/8. [Eric W. Weisstein, Apr 04 2013]
a(n) = ((n+1)^3 + ceiling((n+1)/2)^2 + floor((n+1)/2)^2)/2. - Wesley Ivan Hurt, Apr 15 2016
[A274248] 1, 5, 16, 37, 72, 124, 197, 294, 419, 575, 766, 995, 1266, 1582, 1947, 2364, 2837, 3369, 3964, 4625, 5356, 6160, 7041, 8002, 9047, 10179, 11402, 12719, 14134, 15650, 17271, 19000, 20841, 22797, 24872, 27069, 29392, 31844, 34429, 37150, 40011, 43015, 46166
a(n) = (14 n^3 - 3 n^2 + 10 n + 3 mod(n, 2))/24.
[A174723] 1, 5, 16, 38, 75, 131, 210, 316, 453, 625, 836, 1090, 1391, 1743, 2150, 2616, 3145, 3741, 4408, 5150, 5971, 6875, 7866, 8948, 10125, 11401, 12780, 14266, 15863, 17575, 19406, 21360, 23441, 25653, 28000, 30486, 33115, 35891, 38818, 41900, 45141
a(1)=1, a(2)=5, a(3)=16, a(4)=38; for n > 4, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Jan 16 2012
[A131283] 0, 0, 1, 5, 16, 38, 85, 185, 396, 838, 1748, 3609, 7400, 15097, 30681, 62154, 125588, 253246, 509850, 1025153, 2059159, 4132679, 8288643, 16615051, 33291367, 66682128, 133525499, 267312553, 535049374, 1070786975, 2142690382
a(n)= +3*a(n-1) -2*a(n-2) +a(n-3) -2*a(n-4) +2*a(n-5) -4*a(n-6) -a(n-8) +2*a(n-9) -a(n-10) +2*a(n-11).
[A155965] 0, 5, 16, 39, 80, 145, 240, 371, 544, 765, 1040, 1375, 1776, 2249, 2800, 3435, 4160, 4981, 5904, 6935, 8080, 9345, 10736, 12259, 13920, 15725, 17680, 19791, 22064, 24505, 27120, 29915, 32896, 36069, 39440, 43015, 46800, 50801, 55024, 59475, 64160
a(n) = 4*a(n-1) - 6*a(n-2) +4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, May 03 2014
[A216173] 1, 5, 16, 39, 80, 147, 249, 396, 600, 874, 1232, 1690, 2265, 2975, 3840, 4881, 6120, 7581, 9289, 11270, 13552, 16164, 19136, 22500, 26289, 30537, 35280, 40555, 46400, 52855, 59961, 67760, 76296, 85614, 95760, 106782, 118729, 131651, 145600, 160629, 176792
a(n) = (1/18)*(1 - (-1)^(n mod 3) + 3*n + 7*n^2 + 5*n^3 + n^4).
[A011863] 0, 1, 5, 16, 39, 81, 150, 256, 410, 625, 915, 1296, 1785, 2401, 3164, 4096, 5220, 6561, 8145, 10000, 12155, 14641, 17490, 20736, 24414, 28561, 33215, 38416, 44205, 50625, 57720, 65536, 74120, 83521, 93789, 104976, 117135, 130321, 144590
a(n) = +4*a(n-1) -5*a(n-2) +5*a(n-4) -4*a(n-5) +a(n-6).
a(n) = n^4/16+n^3/4+3*n^2/8+n/4+1/32-(-1)^n/32. - R. J. Mathar, Dec 07 2010]
a(n) = floor((n+1)^4/8)/2. - Gary Detlefs, Feb 19 2011
[A006007] 0, 1, 5, 16, 40, 85, 161, 280, 456, 705, 1045, 1496, 2080, 2821, 3745, 4880, 6256, 7905, 9861, 12160, 14840, 17941, 21505, 25576, 30200, 35425, 41301, 47880, 55216, 63365, 72385, 82336, 93280, 105281, 118405, 132720, 148296, 165205, 183521
a(n) = 2*binomial(n + 2, 4) + binomial(n + 1, 2).
a(0)=0, a(1)=1, a(2)=5, a(3)=16, a(4)=40, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Harvey P. Dale, Sep 30 2011
[A001753] 1, 5, 16, 40, 86, 166, 296, 496, 791, 1211, 1792, 2576, 3612, 4956, 6672, 8832, 11517, 14817, 18832, 23672, 29458, 36322, 44408, 53872, 64883, 77623, 92288, 109088, 128248, 150008, 174624, 202368, 233529
a(n) = Sum{k=0..n} (-1)^(n-k)*binomial(k+5, 5); a(n) = (4*n^5 + 70*n^4 + 460*n^3 + 1400*n^2 + 1936*n + 945)/960 + (-1)^n/64. - Paul Barry, Jul 01 2003
a(n) = a(n-2) + (n*(n + 1)*(n + 2)*(n - 1))/24, a(1) = 0, a(2) = 1; (15*(-1)^n - 15*(-1)^(2*n) + 96*n - 160*(-1)^(2*n)*n + 200*n^2 - 200*(-1)^(2*n)*n^2 + 140*n^3 - 80*(-1)^(2*n)*n^3 + 40*n^4 - 10*(-1)^(2*n)*n^4 + 4*n^5)/960. - Cecilia Rossiter (cecilia(AT)noticingnumbers.net), Dec 14 2004
[A014166] 0, 1, 5, 16, 41, 92, 189, 365, 674, 1204, 2098, 3588, 6050, 10093, 16703, 27476, 44995, 73440, 119575, 194345, 315460, 511576, 829060, 1342936, 2174596, 3520457, 5698329, 9222440, 14924829, 24151764, 39081553
a(n) = (1/6) * (6*Fib(n+8) - (n^3+12*n^2+59*n+126)).
a(n) = sum_{k=1..n} C(n-k+4,k+3), with n>=0. - Paolo P. Lava, Apr 16 2008
[A097810] 1, 5, 16, 41, 94, 203, 424, 869, 1762, 3551, 7132, 14297, 28630, 57299, 114640, 229325, 458698, 917447, 1834948, 3669953, 7339966, 14679995, 29360056, 58720181, 117440434, 234880943, 469761964, 939524009, 1879048102, 3758096291
a(n) = 2a(n-1) + 3n, n>0, a(0)=1.
a(n) = 4a(n-1) - 5a(n-2) + 2a(n-3).
[A187004] 1, 5, 16, 41, 101, 254, 638, 1609, 4048, 10185, 25631, 64502, 162319, 408476, 1027931, 2586793, 6509675, 16381622, 41224415, 103741401, 261065639, 656972695, 1653274340, 4160471302, 10469842201, 26347398589, 66303330946
a(n) = n*sum(m=1..n, sum(k=m..n, binomial(m, k-m)*sum(j=0..k, binomial(k,j) * binomial(j, n-3*k+2*j)))/m).
a(1)=1, a(2)=5, a(3)=16, a(4)=41, a(5)=101, a(6)=254, a(n)=a(n-1)+ 2*a(n-2)+3*a(n-3)+3*a(n-4)+2*a(n-5)+a(n-6). - Harvey P. Dale, Jun 14 2011
[A055796] 1, 5, 16, 42, 98, 210, 420, 792, 1419, 2431, 4004, 6370, 9828, 14756, 21624, 31008, 43605, 60249, 81928, 109802, 145222, 189750, 245180, 313560, 397215, 498771, 621180, 767746, 942152, 1148488, 1391280, 1675520, 2006697, 2390829, 2834496, 3344874, 3929770
a(n) = (n+1)(n+2)(n+3)(n+4)(n^2-n+30)/720.
a(n-4) = binomial(n,6) + binomial(n,4) for n>3. - Zerinvary Lajos, Jul 24 2006
[A002662] 0, 0, 0, 1, 5, 16, 42, 99, 219, 466, 968, 1981, 4017, 8100, 16278, 32647, 65399, 130918, 261972, 524097, 1048365, 2096920, 4194050, 8388331, 16776915, 33554106, 67108512, 134217349, 268435049, 536870476, 1073741358, 2147483151, 4294966767, 8589934030
a(n) = Sum_{k=0..n} binomial(n,k+3) = Sum_{k=3..n} binomial(n,k). - Paul Barry, Jul 30 2004
a(n+1) = 2*a(n) + binomial(n,2). - Paul Barry, Aug 23 2004
a(n) = n - 2 + 3*a(n-1) - 2*a(n-2), for n >= 2. - Richard R. Forberg, Jul 11 2013
a(n) = Sum_{k=1..n-2} Sum_{i=1..n} (n-k-1) * C(k,i). - Wesley Ivan Hurt, Sep 19 2017
[A053221] 1, 5, 16, 43, 106, 249, 568, 1271, 2806, 6133, 13300, 28659, 61426, 131057, 278512, 589807, 1245166, 2621421, 5505004, 11534315, 24117226, 50331625, 104857576, 218103783, 452984806, 939524069, 1946157028, 4026531811, 8321499106
a(n) = (n+2)*2^(n-1)-n-1. - Vladeta Jovovic, Feb 28 2003
a(n) = (1/2) * Sum_{k=1..n} Sum_{i=1..n} C(k,i) + C(n,k). - Wesley Ivan Hurt, Sep 22 2017
[A137221] 0, 0, 0, 1, 5, 16, 43, 107, 256, 597, 1365, 3072, 6827, 15019, 32768, 70997, 152917, 327680, 699051, 1485483, 3145728, 6640981, 13981013, 29360128, 61516459, 128625323, 268435456, 559240533, 1163220309, 2415919104, 5010795179
a(n)=(1/6)*{1/2-(1/2)*I*sqrt(3)}^n+(1/6)*{1/2+(1/2)*I*sqrt(3)}^n-(1/3)*2^n+[(1/18)*I]*{1/2-(1 /2)*I*sqrt(3)}^n*sqrt(3)+(1/6)*2^n*n-[(1/18)*I]*{1/2+(1/2)*I*sqrt(3)}^n*sqrt(3), with n>=0 and I=sqrt(-1) - Paolo P. Lava, Jun 09 2008
[A271359] 5, 16, 43, 113, 296, 775, 2029, 5312, 13907, 36409, 95320, 249551, 653333, 1710448, 4478011, 11723585, 30692744, 80354647, 210371197, 550758944, 1441905635, 3774957961, 9882968248, 25873946783, 67738872101, 177342669520, 464289136459, 1215524739857
a(n) = 3*a(n-1)-a(n-2) for n>1.
a(n) = (2^(-2-n)*((13-sqrt(5))*(3+sqrt(5))^(n+1) - (13+sqrt(5))*(3-sqrt(5))^(n+1))) / sqrt(5).
[A053220] 1, 5, 16, 44, 112, 272, 640, 1472, 3328, 7424, 16384, 35840, 77824, 167936, 360448, 770048, 1638400, 3473408, 7340032, 15466496, 32505856, 68157440, 142606336, 297795584, 620756992, 1291845632, 2684354560, 5570035712, 11542724608, 23890755584, 49392123904
a(n+1) = det(f(i-j+1))_{1<=i,j<=n}, where f(0)=1, f(1)=5 and for k>0, we have f(k+1)=9 and f(-k)=0. [From Mircea Merca, Jun 23 1012]
[A048777] 1, 5, 16, 44, 113, 281, 688, 1672, 4049, 9789, 23648, 57108, 137889, 332913, 803744, 1940432, 4684641, 11309749, 27304176, 65918140, 159140497, 384199177, 927538896, 2239277016, 5406092977, 13051463021, 31509019072, 76069501220, 183648021569, 443365544417
a(n)=2*a(n-1)+a(n-2)+2*n+1; a(0)=1, a(1)=5.
a(n)=[{(5+(7/2)*sqrt(2))(1+sqrt(2))^n - (5-(7/2)*sqrt(2))(1-sqrt(2))^n}/2*sqrt(2)] - (2*n+5)/2.
a(n)=4*a(n-1)-4*a(n-2)+a(n-4). G.f.: (1+x)/((1-x)^2*(1-2*x-x^2)). - Colin Barker, Sep 20 2012

[A189390] 0, 1, 5, 16, 45, 116, 286, 680, 1581, 3604, 8106, 18008, 39650, 86568, 187804, 404944, 868989, 1856180, 3950194, 8376056, 17708310, 37329016, 78499620, 164682416, 344789970, 720430216, 1502768996, 3129355120, 6507087396, 13510929104
a(n) = Sum_{k=0..floor((n-1)/2)} (4*k+1)*C(n,k) + (n+1 mod 2)*n*C(n,n/2).
a(n) = Sum_{k=0..n} k * C(n,floor(k/2)). - Alois P. Heinz, Feb 02 2012
[A099327] 1, 5, 16, 45, 117, 291, 700, 1646, 3799, 8647, 19448, 43330, 95738, 210094, 458216, 994204, 2146955, 4617439, 9893376, 21128058, 44982486, 95510090, 202278376, 427425860, 901236582, 1896594966, 3983929680, 8354539156, 17492095604
a(n)=sum{k=0..n, (k+1)binomial(n, (n-k)/2)binomial(k+4, 4)(1+(-1)^(n-k))/(n+k+2)}.
[A004146] 0, 1, 5, 16, 45, 121, 320, 841, 2205, 5776, 15125, 39601, 103680, 271441, 710645, 1860496, 4870845, 12752041, 33385280, 87403801, 228826125, 599074576, 1568397605, 4106118241, 10749957120, 28143753121, 73681302245
a(n+1) = 3*a(n) - a(n-1) + 2.
a(n) = 4*a(n-1)-4*a(n-2)+a(n-3), n>=3, a(0)=0, a(1)=1, a(2)=5.
a(n) = ((3+sqrt(5))/2)^n + ((3-sqrt(5))/2)^n - 2. - Felix Goldberg (felixg(AT)tx.technion.ac.il), Jun 09 2001
a(n) = n*sum(binomial(n+k-1,2*k-1)/k,k,1,n), n>0. - Vladimir Kruchinin, Sep 03 2010
a(n) = floor(tau^(2*n)*(tau^(2*n)-floor(tau^(2*n)))), where tau = (1+sqrt(5))/2. - L. Edson Jeffery, Aug 26 2013
a(n) = U(n-1,sqrt(5)/2)^2, for n >= 1, where U(n,x) denotes the Chebyshev polynomial of the second kind.
[A071101] 5, 16, 45, 130, 377, 1088, 3145, 9090, 26269, 75920, 219413, 634114, 1832625, 5296384, 15306833, 44237570, 127848949, 369490320, 1067846845, 3086134658, 8919094697, 25776662080, 74495936025, 215297250946, 622220603405, 1798250918672, 5197041610021
a(-n) = a(-6 + n). a(-1) = 2, a(-2) = 1, a(-3) = 0. a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) - a(n-4). - Michael Somos, Dec 15 2011
[A166868] 1, 5, 16, 48, 133, 357, 932, 2392, 6057, 15189, 37800, 93520, 230301, 565045, 1382236, 3373208, 8216033, 19980037, 48525632, 117730352, 285384437, 691295429, 1673567700, 4049615640, 9795168601, 23684692085, 57254031256
a(n) = 3*a(n-1) + a*(n-2) - 5*a(n-3) - 2*a(n-4).
[A052909] 1, 5, 16, 49, 148, 445, 1336, 4009, 12028, 36085, 108256, 324769, 974308, 2922925, 8768776, 26306329, 78918988, 236756965, 710270896, 2130812689, 6392438068, 19177314205, 57531942616, 172595827849, 517787483548, 1553362450645
a(n) = -1/2+11/6*3^n.
a(n) = 4*a(n-1) -3*a(n-2). - Vincenzo Librandi, Jun 22 2012
a(n) = Sum_{k=1..3} floor((3^n)/k). - Lechoslaw Ratajczak, Jul 31 2016
[A077840] 1, 1, 5, 16, 50, 163, 524, 1687, 5435, 17503, 56372, 181558, 584741, 1883272, 6065441, 19534921, 62915981, 202633048, 652618802, 2101884691, 6769524932, 21802560343, 70219349555, 226154954935, 728375639564, 2345874192598, 7555340168693, 24333429833872
a(0)=1 and, for n>=1, a(n)=sum(k=1..n, sum(i=k..n,(sum(j=0..k, binomial(j,-3*k+2*j+i)*3^(-2*k+j+i)*binomial(k,j)))*binomial(n+k-i-1,k-1))); [From Vladimir Kruchinin, May 05 2011]
a(0)=1, a(1)=1, a(2)=5, a(n)=2*a(n-1)+3*a(n-2)+3*a(n-3). - Harvey P. Dale, Aug 19 2014
[A041469] 1, 1, 5, 16, 53, 228, 281, 8658, 8939, 44414, 142181, 470957, 2026009, 2496966, 76934989, 79431955, 394662809, 1263420382, 4184923955, 18003116202, 22188040157, 683644320912, 705832361069, 3506973765188, 11226753656633, 37187234735087, 159975692596981
a(n) = 8886*a(n-7) + a(n-14) for n>13. - Vincenzo Librandi, Dec 18 2013
[A098912] 1, 5, 16, 54, 180, 607, 2098, 7397, 26452, 95821, 350554, 1292634, 4797694, 17904220, 67125898, 252679320, 954505718, 3616951513, 13744169104, 52358244166, 199912298266, 764879838343, 2932035371786, 11259007784430, 43303859981236, 166800020984581
a(n) = 2^(n-2) - 2^(floor(n/2)) - 2^(floor((n-1)/2)) + (1/(4*n)) * (Sum_{d | 2*n} phi(2*n/d) * 2^d).
[A042087] 1, 1, 5, 16, 69, 85, 3979, 4064, 20235, 64769, 279311, 344080, 16106991, 16451071, 81911275, 262184896, 1130650859, 1392835755, 65201095589, 66593931344, 331576820965, 1061324394239, 4576874397921, 5638198792160, 263934018837281, 269572217629441
a(n) = 4048*a(n-6) - a(n-12) for n>11 Vincenzo Librandi, Jan 14 2014
[A023258] 5, 17, 29, 37, 89, 127, 199, 229, 269, 347, 359, 379, 397, 499, 769, 809, 929, 947, 977, 1049, 1087, 1129, 1277, 1279, 1367, 1409, 1439, 1489, 1499, 1607, 1609, 1787, 2017, 2039, 2089, 2399, 2539, 2707, 2819, 2837, 2957, 3089, 3109, 3217, 3229, 3389, 3499
a(n) = 7 or 9 (mod 10) for n > 1. - John Cerkan, Sep 14 2016
[A017581] 5, 17, 29, 41, 53, 65, 77, 89, 101, 113, 125, 137, 149, 161, 173, 185, 197, 209, 221, 233, 245, 257, 269, 281, 293, 305, 317, 329, 341, 353, 365, 377, 389, 401, 413, 425, 437, 449, 461, 473, 485, 497, 509, 521, 533, 545, 557, 569, 581, 593, 605, 617, 629
a(n) = 2*a(n-1) - a(n-2); [From Vincenzo Librandi, Jun 08 2011]
[A075695] 1, 5, 17, 29, 45, 61, 81, 97, 109, 145, 157, 177, 185, 201, 245, 269, 285, 329, 345, 353, 381, 397, 421, 445, 469, 505, 537, 557, 581, 605, 621, 661, 693, 725, 741, 761, 785, 809, 833, 873, 889, 933, 949, 985, 1009, 1029, 1037, 1061, 1077, 1105, 1129, 1177
a(1)=1, a(n) = 2*nextprime(nextprime(a(n-1)))-a(n-1).
[A220082] 1, 5, 17, 29, 53, 73, 109, 137, 185, 221, 281, 325, 397, 449, 533, 593, 689, 757, 865, 941, 1061, 1145, 1277, 1369, 1513, 1613, 1769, 1877, 2045, 2161, 2341, 2465, 2657, 2789, 2993, 3133, 3349, 3497, 3725, 3881, 4121, 4285, 4537, 4709, 4973, 5153, 5429, 5617, 5905
a(n) = a(-n+1) = (10*n*(n-1)-(2*n-1)*(-1)^n+3)/4.
[A083364] 1, 5, 17, 32, 71, 105, 187, 248, 389, 485, 701, 840, 1147, 1337, 1751, 2000, 2537, 2853, 3529, 3920, 4751, 5225, 6227, 6792, 7981, 8645, 10037, 10808, 12419, 13305, 15151, 16160, 18257, 19397, 21761, 23040, 25687, 27113, 30059, 31640, 34901, 36645
a(2n) = n(n+1)(4n+3)+(2n+1), a(2n+1) = ((n+1)^2)(4n+3)+(2n+2), for n>=0. - Paul D. Hanna, Apr 30 2003
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7). - Colin Barker, Sep 26 2014
a(n) = (4*n^3+12*n^2+18*n+9+(2*n^2+2*n-1)*(-1)^n)/8. - Wesley Ivan Hurt, Sep 26 2014
[A026394] 1, 5, 17, 34, 75, 114, 202, 272, 425, 535, 771, 930, 1267, 1484, 1940, 2224, 2817, 3177, 3925, 4370, 5291, 5830, 6942, 7584, 8905, 9659, 11207, 12082, 13875, 14880, 16936, 18080, 20417, 21709, 24345, 25794, 28747, 30362, 33650, 35440, 39081, 41055, 45067
a(n) = (18*n^3-9*(-1)^n*n^2-111*n^2+53*(-1)^n*n+243*n-75*(-1)^n-181)/32.
a(n) = (9*n^3-60*n^2+148*n-128)/16 for n even.
a(n) = (9*n^3-51*n^2+95*n-53)/16 for n odd.
[A004538] 1, 5, 17, 35, 59, 89, 125, 167, 215, 269, 329, 395, 467, 545, 629, 719, 815, 917, 1025, 1139, 1259, 1385, 1517, 1655, 1799, 1949, 2105, 2267, 2435, 2609, 2789, 2975, 3167, 3365, 3569, 3779, 3995, 4217, 4445
a(n)=a(n-1)+6*n with a(0)=-1. - Vincenzo Librandi, Nov 18 2010
[A186029] 0, 5, 17, 36, 62, 95, 135, 182, 236, 297, 365, 440, 522, 611, 707, 810, 920, 1037, 1161, 1292, 1430, 1575, 1727, 1886, 2052, 2225, 2405, 2592, 2786, 2987, 3195, 3410, 3632, 3861, 4097, 4340, 4590, 4847, 5111, 5382, 5660, 5945, 6237, 6536, 6842, 7155, 7475
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2, a(0)=0, a(1)=5, a(2)=17. - Philippe Deléham, Mar 26 2013
[A083048] 1, 5, 17, 36, 80, 164, 300, 575, 1020, 1884, 3426, 5921, 10568, 18697, 31850, 55716, 94332, 163579, 282388, 474625, 814328, 1363979, 2328358, 3963781, 6609951, 11209355, 18969158, 31524783, 53186480, 88235842, 148471479, 249459365
a(n)=T(n, n), where T(n, 0)=floor(n*x/(x-1))+1, T(n, k+1)=ceil(x*T(n, k)), for n>=0, k>=0, with x=(sqrt(5)+1)/2.
[A053755] 1, 5, 17, 37, 65, 101, 145, 197, 257, 325, 401, 485, 577, 677, 785, 901, 1025, 1157, 1297, 1445, 1601, 1765, 1937, 2117, 2305, 2501, 2705, 2917, 3137, 3365, 3601, 3845, 4097, 4357, 4625, 4901, 5185, 5477, 5777, 6085, 6401, 6725, 7057
a(n) = 3a(n-1) - 3a(n-2) + a(n-3). (End)
a(n) = 8*n + a(n-1) - 4. with a(0)=1. - Vincenzo Librandi, Aug 06 2010
a(n) = ((2*n - 1)^2 + (2*n + 1)^2)/2. - J. M. Bergot, May 31 2012
a(n) = 2*a(n-1) - a(n-2) + 8 with a(0)=1, a(1)=5. - Vincenzo Librandi, Jun 26 2013
[A212968] 1, 5, 17, 38, 75, 127, 203, 300, 429, 585, 781, 1010, 1287, 1603, 1975, 2392, 2873, 3405, 4009, 4670, 5411, 6215, 7107, 8068, 9125, 10257, 11493, 12810, 14239, 15755, 17391, 19120, 20977, 22933, 25025, 27222, 29563, 32015, 34619, 37340
a(n) = (n+1)*(14*n*(n+2)+3*(-1)^n+21)/24.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A011931] 0, 0, 0, 0, 1, 5, 17, 40, 80, 144, 240, 377, 565, 817, 1144, 1560, 2080, 2720, 3497, 4429, 5537, 6840, 8360, 10120, 12144, 14457, 17085, 20057, 23400, 27144, 31320, 35960, 41097, 46765, 53001, 59840
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-7) -4*a(n-8) +6*a(n-9) -4*a(n-10) +a(n-11). [From R. J. Mathar, Apr 15 2010]

[A139545] 1, 1, 1, 5, 17, 41, 88, 190, 421, 935, 2051, 4445, 9562, 20476, 43681, 92837, 196613, 415073, 873820, 1835002, 3844765, 8039075, 16777223, 34952549, 72701278, 150994936, 313174681, 648719009, 1342177289, 2773833065, 5726623072
a(n)=Sum((3k+1)binom(n,3k), k=0..n/3) - Emeric Deutsch, May 03 2008
[A168617] 0, 5, 17, 43, 97, 207, 429, 875, 1769, 3559, 7141, 14307, 28641, 57311, 114653, 229339, 458713, 917463, 1834965, 3669971, 7339985, 14680015, 29360077, 58720203, 117440457, 234880967, 469761989, 939524035, 1879048129, 3758096319
a(n) = 2*a(n-1) + 2*n + 1 (with a(1)=0).
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3).
[A046916] 1, 5, 17, 43, 97, 211, 457, 995, 2177, 4771, 10441, 22771, 49441, 106835, 229769, 491971, 1049089, 2228803, 4719241, 9962195, 20972321, 44041075, 92275657, 192939043, 402654337, 838862051, 1744831817, 3623880115, 7516194337
a(0)=1, a(1)=5, a(2)=17, a(3)=43, a(4)=97, a(n)=7*a(n-1)-19*a(n-2)+ 25*a(n-3)- 16*a(n-4)+4*a(n-5). - Harvey P. Dale, Dec 06 2012
[A294102] 1, 1, 5, 17, 44, 127, 332, 866, 2182, 5412, 13119, 31292, 73516, 170136, 388829, 877653, 1959111, 4327221, 9464856, 20511598, 44067446, 93901142, 198539477, 416696608, 868448305, 1797890682, 3698350956, 7561361750, 15369154555, 31064311255, 62449795986, 124895635385, 248538538858, 492207649241
a(0) = 1 and a(n) = (1/(2*n)) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d^2*(3*d-1)*(-1)^(1+n/d). - Seiichi Manyama, Nov 14 2017
[A133252] 1, 5, 17, 45, 100, 196, 350, 582, 915, 1375, 1991, 2795, 3822, 5110, 6700, 8636, 10965, 13737, 17005, 20825, 25256, 30360, 36202, 42850, 50375, 58851, 68355, 78967, 90770, 103850, 118296, 134200, 151657, 170765, 191625, 214341, 239020, 265772
a(n) = (n+1)*(n+2)*(3*n^2+5*n+12)/24. - Alois P. Heinz, Apr 28 2013
[A247618] 1, 5, 17, 45, 105, 229, 481, 989, 2009, 4053, 8145, 16333, 32713, 65477, 131009, 262077, 524217, 1048501, 2097073, 4194221, 8388521, 16777125, 33554337, 67108765, 134217625, 268435349, 536870801, 1073741709, 2147483529, 4294967173, 8589934465
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3).
a(n) = (-7+2^(3+n)-4*n).
[A269962] 1, 5, 17, 45, 105, 237, 537, 1229, 2825, 6493, 14905, 34189, 78409, 179837, 412505, 946221, 2170473, 4978653, 11420025, 26195213, 60086537, 137826493, 316146457, 725176813, 1663410601, 3815531165, 8752065209, 20075486925, 46049151561, 105627543165
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) + 2*a(n-4) + 2*a(n-5) + 4.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3) + 2*a(n-4) - 2*a(n-5).
[A213767] 1, 5, 17, 47, 114, 254, 533, 1071, 2083, 3951, 7348, 13452, 24313, 43481, 77077, 135615, 237094, 412234, 713325, 1229155, 2110151, 3610655, 6159912, 10481112, 17790769, 30132269, 50933273, 85936271, 144750618, 243438806
a(n) = 4*a(n-1)-4*a(n-2)-2*a(n-3)+4*a(n-4)-a(n-6).
[A136303] 1, 5, 17, 48, 123, 300, 714, 1679, 3925, 9149, 21296, 49537, 115192, 267824, 622653, 1447533, 3365149, 7823068, 18186475, 42278476, 98285586, 228486323, 531166317, 1234811937, 2870589548, 6673311137, 15513566304, 36064666240, 83840177305
a(n+5) = 5*a(n+4)-9*a(n+3)+8*a(n+2)-4*a(n+1)+a(n) (n>=0). [Richard Choulet, Apr 07 2009]
[A273384] 1, 5, 17, 49, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649
a(n) = (1+2*n)^2 for n>2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>5.
[A006457] 1, 5, 17, 49, 125, 297, 669, 1457, 3093, 6457, 13309, 27201, 55237, 111689, 225101, 452689, 908885, 1822809, 3652701, 7315553, 14645349, 29311081, 58650733, 117342321, 234741877, 469565561, 939245693, 1878655105, 3757539461, 7515406473, 15031271565
a(n+5)-4*a(n+4)+3*a(n+3)+6*a(n+2)-10*a(n+1)+4*a(n)=0.
a(2k) = 14*4^k-34*2^k+8*k+21.
a(2k+1) = 28*4^k-48*2^k+8*k+25.
[A083091] 1, 5, 17, 49, 128, 321, 790, 1924, 4664, 11282, 27262, 65843, 158988, 383863, 926761, 2237435, 5401685, 13040863, 31483472, 76007871, 183499282, 443006506, 1069512368, 2582031320, 6233575089, 15049181582, 36331938341, 87713058356
a(n) = Sum_{k=0..n} T(k, n-k), where T(n, 0) = floor(n*x/(x-1)) + 1, T(n, k+1) = ceiling(x*T(n, k)), for n>=0, k>=0, with x = 1 + sqrt(2).
[A000337] 0, 1, 5, 17, 49, 129, 321, 769, 1793, 4097, 9217, 20481, 45057, 98305, 212993, 458753, 983041, 2097153, 4456449, 9437185, 19922945, 41943041, 88080385, 184549377, 385875969, 805306369, 1677721601, 3489660929, 7247757313
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3), n>2. - Harvey P. Dale, Jun 21 2011
a(n) = Sum_{k=1..n} Sum_{i=1..n} i * C(k,i). - Wesley Ivan Hurt, Sep 19 2017
[A054452] 0, 0, 1, 5, 17, 50, 138, 370, 979, 2575, 6755, 17700, 46356, 121380, 317797, 832025, 2178293, 5702870, 14930334, 39088150, 102334135, 267914275, 701408711, 1836311880, 4807526952, 12586269000, 32951280073, 86267571245, 225851433689, 591286729850
a(n) = +5*a(n-1) -8*a(n-2) +5*a(n-3) -1*a(n-4).
a(n) = Sum_{k=0..n-2} binomial(2*n-k-1, k). - Johannes W. Meijer, Aug 12 2013
a(n) = Sum_{i=1..n-1} Sum_{j=1..n-1} binomial(i+j, i-j). - Wesley Ivan Hurt, Mar 25 2015
a(n) = Sum_{k=0..n} (binomial(n+1,k+2)*Fibonacci(k)). - Vladimir Kruchinin, Oct 21 2016
a(n) = (-((3-sqrt(5))/2)^n + ((3+sqrt(5))/2)^n)/sqrt(5) - n. - Colin Barker, Jan 28 2017
[A116521] 0, 0, 0, 1, 5, 17, 51, 148, 429, 1250, 3655, 10701, 31336, 91752, 268623, 786414, 2302262, 6739984, 19731685, 57765711, 169112717, 495088023, 1449400960, 4243211207, 12422263776, 36366946961, 106466490879, 311687250156
a(n) = 5*a(n-1) - 8*a(n-2) + 6*a(n-3) - a(n-4). - G. C. Greubel, Nov 03 2016
[A290900] 0, 1, 5, 17, 51, 149, 439, 1308, 3916, 11728, 35093, 104943, 313773, 938199, 2805439, 8389163, 25086356, 75016104, 224321012, 670787533, 2005857561, 5998122649, 17936209267, 53634716681, 160384099011, 479597177352, 1434141243492, 4288517958652
a(n) = 6*a(n-1) - 14*a(n-2) + 19*a(n-3) - 14*a(n-4) + 6*a(n-5) - a(n-6).
[A190173] 0, 1, 5, 17, 52, 148, 408, 1101, 2937, 7777, 20504, 53912, 141520, 371113, 972573, 2547825, 6672876, 17473996, 45754280, 119797205, 313650865, 821177281, 2149916400, 5628629232, 14736064032, 38579712913, 101003317493, 264430632401, 692289215332, 1812438042052
a(n) = F(n+1)^2 - F(n+2) + (1-(-1)^n)/2.
[A178703] 0, 0, 1, 5, 17, 52, 156, 468, 1405, 4217, 12653, 37960, 113880, 341640, 1024921, 3074765, 9224297, 27672892, 83018676, 249056028, 747168085, 2241504257, 6724512773, 20173538320, 60520614960, 181561844880
a(n)=round((3*3^n-7)/14).
a(n)=floor((3*3^n-1)/14).
a(n)=ceil((3*3^n-13)/14).
a(n)=a(n-6)+52*3^(n-5), n>5.
a(n)=5*a(n-1)-8*a(n-2)+7*a(n-3)-3*a(n-4), n>3.
[A186254] 5, 17, 53, 149, 449, 1289, 3761, 11261, 33773, 101117, 302681, 907757, 2723069, 8169137, 24506597, 73519793, 220559369, 661677761, 1985001917, 5955003077, 17865008333, 53595020201, 160785060361, 482355180761, 1447065541373, 4341196624109, 13023589872329
a(n+1) <= 3*a(n)+2 for all n.- See the wiki link for a sketch of a proof that a(n) ~ c*3^n with c = 1.7078779... - M. F. Hasler, Aug 22 2015
[A135344] 1, 1, 1, 1, 5, 17, 53, 157, 469, 1405, 4217, 12653, 37961, 113881, 341641, 1024921, 3074765, 9224297, 27672893, 83018677, 249056029, 747168085, 2241504257, 6724512773, 20173538321, 60520614961, 181561844881, 544685534641, 1634056603925, 4902169811777
a(n) = (1/14)*3^n + (1/6)*(-1)^n + (16/21)*cos(Pi*n/3) + (8*sqrt(3)/21)*sin(Pi*n/3).
a(n) = (1/14)*3^n + (1/14)*[13; 11; 5; -13; -11; -5]. (End)
[A242429] 1, 5, 17, 53, 167, 550, 1899, 6809, 25067, 93902, 355775, 1358208, 5212573, 20082860, 77607895, 300638481, 1166999699, 4537960846, 17673418311, 68924837252, 269132082925, 1052055773292, 4116727946687, 16123827007348, 63205353550497, 247959367137320, 973469914150619, 3824345703033374, 15033634055076
a(n) = binomial(2*n,n)/2 + 3*2^(n-1) - n - 2. - Gheorghe Coserea, May 16 2016
[A183712] 5, 17, 54, 174, 559, 1797, 5776, 18566, 59677, 191821, 616574, 1981866, 6370351, 20476345, 65817520, 211558554, 680016837, 2185791545, 7025832918, 22583273462, 72589861759, 233327025821, 749987665760, 2410700161342, 7748761123965, 24906995867477
a(n) = 3*a(n-1) + a(n-2) - a(n-3).
[A033538] 1, 1, 5, 17, 57, 189, 625, 2065, 6821, 22529, 74409, 245757, 811681, 2680801, 8854085, 29243057, 96583257, 318992829, 1053561745, 3479678065, 11492595941, 37957465889, 125364993609, 414052446717, 1367522333761, 4516619448001

a(n) = 4*a(n-1) -2*a(n-2) - a(n-3), a(0)=1=a(1), a(2)=5. Observed by G. Detlefs. See the W. Lang link. [From Wolfdieter Lang, Oct 18 2010]
a(n) = -1/3+2/39*(3/2-1/2*sqrt(13))^n*sqrt(13)-2/39*sqrt(13)*(3/2+1/2*sqrt(13))^n+2/3 *(3/2-1/2*sqrt(13))^n+2/3*(3/2+1/2*sqrt(13))^n, with n>=0 [From Paolo P. Lava, Sep 01 2008]
[A287804] 1, 5, 17, 59, 205, 713, 2481, 8635, 30057, 104629, 364225, 1267923, 4413861, 15365465, 53490097, 186209299, 648230545, 2256616133, 7855718641, 27347281995, 95201200637, 331413874569, 1153716087665, 4016309864843, 13981555011321, 48672509644725
a(n) = 5*a(n-1) - 5a(n-2) - a(n-3), a(0)=1, a(1)=5, a(2)=17.
[A051736] 1, 5, 17, 63, 227, 827, 2999, 10897, 39561, 143677, 521721, 1894607, 6879979, 24983923, 90725999, 329460929, 1196397873, 4344577397, 15776816033, 57291635519, 208047769363, 755500774443, 2743511349031, 9962735709201, 36178491743225, 131377896967213, 477083233044745
a(n) = 2*a(n-1) + 6*a(n-2) - a(n-4).
[A092896] 1, 1, 5, 17, 65, 257, 1025, 4097, 16385, 65537, 262145, 1048577, 4194305, 16777217, 67108865, 268435457, 1073741825, 4294967297, 17179869185, 68719476737, 274877906945, 1099511627777, 4398046511105, 17592186044417, 70368744177665, 281474976710657
a(n) = 1+4^n/4-0^n/4+Sum_{k=0..n} binomial(n, k)*k*(-1)^k.
a(n) = 4^(n-1) + 1 for n>1. - Colin Barker, Nov 25 2016
[A146511] 5, 17, 71, 83, 137, 149, 203, 215, 269, 281, 335, 347, 401, 413, 467, 479, 533, 545, 599, 611, 665, 677, 731, 743, 797, 809, 863, 875, 929, 941, 995, 1007, 1061, 1073, 1127, 1139, 1193, 1205, 1259, 1271, 1325, 1337, 1391, 1403, 1457, 1469, 1523, 1535, 1589
a(2k-1) = 66*(k-1)+5, a(2k) = 66*(k-1)+17, where k>0.
[A023253] 5, 17, 83, 101, 131, 251, 257, 263, 389, 419, 461, 467, 521, 587, 797, 809, 1217, 1319, 1511, 1721, 1847, 1907, 2141, 2531, 2579, 2693, 2699, 3623, 4079, 4217, 4253, 4283, 4493, 4673, 5333, 5507, 5711, 6011, 6089, 6353, 6599, 6761, 6803, 6947, 6983, 7013
a(n) == 5 mod 6. - John Cerkan, Sep 13 2016
[A155450] 5, 18, 28, 41, 51, 64, 74, 87, 97, 110, 120, 133, 143, 156, 166, 179, 189, 202, 212, 225, 235, 248, 258, 271, 281, 294, 304, 317, 327, 340, 350, 363, 373, 386, 396, 409, 419, 432, 442, 455, 465, 478, 488, 501, 511, 524, 534, 547, 557, 570, 580, 593, 603, 616
a(n) = a(n-1)+a(n-2)-a(n-3), with a(1)=5, a(2)=18, a(3)=28.
a(n) = (1/4)*(23-3*(-1)^(n-1)+46*(n-1)). - Paolo P. Lava, Jan 26 2009
[A287894] 1, 5, 18, 30, 33, 94, 136, 186, 225, 268, 348, 413, 502, 682, 792, 938, 1098, 1254, 1441, 1529, 1647, 1905, 2148, 2392, 2674, 2961, 3150, 3493, 3804, 4007, 4417, 4636, 5103, 5576, 5850, 6234, 6769, 7175, 7659, 7713, 8538, 8848, 9406, 9957, 10332, 11218, 11877
a(n) = Sum_{k=1..n} digsum(k^n), n >= 1.
[A154609] 5, 18, 31, 44, 57, 70, 83, 96, 109, 122, 135, 148, 161, 174, 187, 200, 213, 226, 239, 252, 265, 278, 291, 304, 317, 330, 343, 356, 369, 382, 395, 408, 421, 434, 447, 460, 473, 486, 499, 512, 525, 538, 551, 564, 577, 590, 603, 616, 629, 642, 655, 668, 681, 694
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 26 2012
[A007742] 0, 5, 18, 39, 68, 105, 150, 203, 264, 333, 410, 495, 588, 689, 798, 915, 1040, 1173, 1314, 1463, 1620, 1785, 1958, 2139, 2328, 2525, 2730, 2943, 3164, 3393, 3630, 3875, 4128, 4389, 4658, 4935, 5220, 5513, 5814, 6123, 6440, 6765, 7098, 7439, 7788, 8145
a(n) = floor((n + 1/4)^2). - Reinhard Zumkeller, Feb 20 2010
a(n) = 8*n + a(n-1) - 3. - Vincenzo Librandi, Nov 21 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2, a(0)=0, a(1)=5, a(2)=18. - Philippe Deléham, Mar 26 2013
[A276819] 1, 5, 18, 40, 71, 111, 160, 218, 285, 361, 446, 540, 643, 755, 876, 1006, 1145, 1293, 1450, 1616, 1791, 1975, 2168, 2370, 2581, 2801, 3030, 3268, 3515, 3771, 4036, 4310, 4593, 4885, 5186, 5496, 5815, 6143, 6480, 6826, 7181, 7545, 7918, 8300, 8691, 9091, 9500, 9918, 10345, 10781, 11226, 11680, 12143, 12615
a(n) = (9*n^2 - n)/2 + 1.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
[A236364] 1, 5, 18, 40, 80, 135, 217, 320, 459, 625, 836, 1080, 1378, 1715, 2115, 2560, 3077, 3645, 4294, 5000, 5796, 6655, 7613, 8640, 9775, 10985, 12312, 13720, 15254, 16875, 18631, 20480, 22473, 24565, 26810, 29160, 31672, 34295, 37089, 40000, 43091, 46305, 49708
a(n) = n(n+1)(2n+1)/6 - floor((n-1)/2) * (4*floor((n-1)/2)^2 + 3(n+2)*floor((n-1)/2) - 6n^2 + 3n + 2)/6.
a(n) = (n*(3-3*(-1)^n+10*n^2))/16. [Colin Barker, Jan 23 2014]
a(n) = (n^3 + ceiling(n/2)^3 + floor(n/2)^3)/2. - Wesley Ivan Hurt, Apr 15 2016
[A000338] 5, 18, 42, 75, 117, 168, 228, 297, 375, 462, 558, 663, 777, 900, 1032, 1173, 1323, 1482, 1650, 1827, 2013, 2208, 2412, 2625, 2847, 3078, 3318, 3567, 3825, 4092, 4368, 4653, 4947, 5250, 5562, 5883, 6213, 6552, 6900, 7257, 7623, 7998, 8382, 8775, 9177, 9588, 10008, 10437, 10875, 11322, 11778
a(n) = (9/2)*n^2 - (15/2)*n, n>2. - Barbara Haas Margolius (margolius(AT)math.csuohio.edu), Feb 17 2001
[A212343] 0, 0, 5, 18, 42, 80, 135, 210, 308, 432, 585, 770, 990, 1248, 1547, 1890, 2280, 2720, 3213, 3762, 4370, 5040, 5775, 6578, 7452, 8400, 9425, 10530, 11718, 12992, 14355, 15810, 17360, 19008, 20757, 22610, 24570, 26640, 28823, 31122, 33540, 36080, 38745, 41538, 44462, 47520, 50715, 54050, 57528
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>7. - Colin Barker, Jul 10 2015
[A056640] 1, 5, 18, 42, 83, 143, 228, 340, 485, 665, 886, 1150, 1463, 1827, 2248, 2728, 3273, 3885, 4570, 5330, 6171, 7095, 8108, 9212, 10413, 11713, 13118, 14630, 16255, 17995, 19856, 21840, 23953, 26197, 28578, 31098, 33763, 36575, 39540, 42660, 45941, 49385, 52998
a(n) = (8*n^3-2*n+3-3*(-1)^n)/12. - Luce ETIENNE, Aug 21 2014
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5). - Colin Barker, Sep 29 2014
[A213397] 1, 5, 18, 43, 83, 144, 229, 341, 486, 667, 887, 1152, 1465, 1829, 2250, 2731, 3275, 3888, 4573, 5333, 6174, 7099, 8111, 9216, 10417, 11717, 13122, 14635, 16259, 18000, 19861, 21845, 23958, 26203, 28583, 31104, 33769, 36581, 39546, 42667
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
[A037140] 5, 18, 44, 91, 172, 308, 533, 902, 1504, 2483, 4072, 6648, 10821, 17578, 28516, 46219, 74868, 121228, 196245, 317630, 514040, 831843, 1346064, 2178096, 3524357, 5702658, 9227228, 14930107, 24157564, 39087908, 63245717
a(n) = F(n+9)-(29+8*n); G.f.: (5+3*x)/((1-x-x^2)*(1-x)^2); 29=L(7), Lucas number;
[A081435] 1, 5, 18, 46, 95, 171, 280, 428, 621, 865, 1166, 1530, 1963, 2471, 3060, 3736, 4505, 5373, 6346, 7430, 8631, 9955, 11408, 12996, 14725, 16601, 18630, 20818, 23171, 25695, 28396, 31280, 34353, 37621, 41090, 44766, 48655, 52763, 57096, 61660
a(n) = (2*n^3 +3*n^2 +3*n +2)/2.
[A176145] 0, 1, 5, 18, 49, 110, 216, 385, 638, 999, 1495, 2156, 3015, 4108, 5474, 7155, 9196, 11645, 14553, 17974, 21965, 26586, 31900, 37973, 44874, 52675, 61451, 71280, 82243, 94424, 107910, 122791, 139160, 157113, 176749, 198170, 221481, 246790, 274208, 303849
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) + a(n-5), with a(3)= 0, a(4)= 1, a(5)=5, a(6)= 18, a(7) = 49. [Bobby Milazzo, Jun 24 2013]
a(n) = Sum_{k=(n-3)..(n-2)*(n-3)/2} k. - J. M. Bergot, Jan 21 2015
[A125641] 1, 5, 18, 52, 125, 261, 490, 848, 1377, 2125, 3146, 4500, 6253, 8477, 11250, 14656, 18785, 23733, 29602, 36500, 44541, 53845, 64538, 76752, 90625, 106301, 123930, 143668, 165677, 190125, 217186, 247040, 279873, 315877, 355250, 398196, 444925
a(n) = |(b(n)|^2, where b(n)=3b(n-1)-3b(n-2)+b(n-3) for n>=4; b(1)=1, b(2)=2+i, b(3)=3+3i (the recurrence relation follows from the minimal polynomial t^3-3t^2+3t-1 of the matrix M).
a(n) = n^2(n^2-2n+5)/4. - T. D. Noe, Feb 09 2007
a(n) = binomial(n,2)^2 + n^2, n>1. - Gary Detlefs, Nov 23 2011
[A127983] 1, 5, 18, 52, 137, 339, 808, 1874, 4263, 9553, 21158, 46416, 101029, 218447, 469668, 1004878, 2140835, 4543821, 9611938, 20272460, 42642081, 89478475, 187345568, 391468362, 816491167, 1700091209, 3534400158, 7337235784, 15211342493
a(n) = (n - 2/3)2^(n) - n/2 + 3/4 - (-1)^n/12
[A226903] 5, 18, 53, 102, 197, 306, 491, 684, 989, 1290, 1745, 2178, 2813, 3402, 4247, 5016, 6101, 7074, 8429, 9630, 11285, 12738, 14723, 16452, 18797, 20826, 23561, 25914, 29069, 31770, 35375, 38448, 42533, 46002, 50597, 54486, 59621, 63954, 69659, 74460, 80765, 86058
a(2n-1) = 9n^3 - 6n^2 + 3n - 1.
a(2n) = 9n^3 + 6n^2 + 3n.
a(n) = (18*n^3 + 27*n^2 + 27*n + 1 - (3*n^2 + 3*n + 1)*(-1)^n)/16. [Bruno Berselli, Jun 22 2013]
[A271771] 1, 5, 18, 53, 140, 347, 826, 1913, 4344, 9719, 21494, 47093, 102388, 221171, 475122, 1015793, 2162672, 4587503, 9699310, 20447213, 42991596, 90177515, 188743658, 394264553, 822083560, 1711276007, 3556769766, 7381975013, 15300820964, 31675383779
a(n) = n*2^n - 2^(n-1) - n + 1.

[A081492] 1, 5, 18, 54, 135, 291, 560, 988, 1629, 2545, 3806, 5490, 7683, 10479, 13980, 18296, 23545, 29853, 37354, 46190, 56511, 68475, 82248, 98004, 115925, 136201, 159030, 184618, 213179, 244935, 280116, 318960, 361713, 408629, 459970, 516006, 577015
a(n) = n/6 * (2n^3 - 6n^2 + 13n - 3).
[A263318] 0, 1, 5, 18, 55, 143, 333, 715, 1430, 2700, 4862, 8398, 13995, 22610, 35530, 54477, 81719, 120175, 173583, 246675, 345345, 476901, 650325, 876525, 1168695, 1542684, 2017356, 2615085, 3362260, 4289780, 5433714, 6835972, 8544965, 10616463, 13114465, 16112057
a(n) = (1/(n+9))*Sum_{d divides gcd(n+9,9)} mu(d)*binomial((n+9)/d, 9/d).
[A011845] 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 5, 18, 55, 143, 333, 715, 1430, 2701, 4862, 8398, 13996, 22610, 35530, 54479, 81719, 120175, 173586, 246675, 345345, 476905, 650325, 876525, 1168700, 1542684, 2017356, 2615091, 3362260, 4289780, 5433721, 6835972, 8544965, 10616471
a(n) = floor(binomial(n+1,9)/(n+1)). [Gary Detlefs, Nov 23 2011]
[A001793] 1, 5, 18, 56, 160, 432, 1120, 2816, 6912, 16640, 39424, 92160, 212992, 487424, 1105920, 2490368, 5570560, 12386304, 27394048, 60293120, 132120576, 288358400, 627048448, 1358954496, 2936012800, 6325010432, 13589544960, 29125246976
a(n) = Sum_{k=0..floor((n+4)/2)} C(n+4, 2k)*C(k, 2). - Paul Barry, May 15 2003
a(n) = Sum_{k=0..n+2} C(n+2, k) * floor(k^2/4). - Paul Barry, May 27 2003
a(n) = Sum_{i=0..j} binomial(i+1, 2)*binomial(j, i). - Jon Perry, Feb 26 2004
a(n) = Sum_{k=0..n+1} (-1)^(n-k+1)*C(k, n-k+1)*k*C(2k, k)/2. - Paul Barry, Oct 07 2005
a(n) = (1/n) * Sum_{k=0..n} binomial(n,k)*k^3. - Gary Detlefs, Nov 26 2011
[A093374] 1, 5, 18, 57, 168, 472, 1280, 3376, 8704, 22016, 54784, 134400, 325632, 780288, 1851392, 4354048, 10158080, 23527424, 54132736, 123797504, 281542656, 637009920, 1434451968, 3215982592, 7180648448, 15971909632, 35399925760, 78198603776, 172201345024
a(n) = C(n-3, 1)2^(n-4) + C(n-3, 1)2^(n-5) + C(n-3, 2)2^(n-7) for n<4, a(n) = 0.
a(n) = 2^(n-8)*(-120 + 38*n - 3*n^2 + n^3) / 3 for n>3.
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4) for n>7.
[A258109] 1, 5, 18, 57, 169, 482, 1341, 3669, 9922, 26609, 70929, 188226, 497845, 1313501, 3459042, 9096393, 23895673, 62721698, 164531565, 431397285, 1130708866, 2962826465, 7761964833, 20331456642, 53249182309, 139449644717, 365166860706, 956185155129, 2503657040137
a(n) = 2^(n-3) + 3 * a(n-1) - a(n-2).
a(n) = 5*a(n-1) - 7*a(n-2) + 2*a(n-3) for n>5. - Colin Barker, May 24 2015
a(n) = 2^(-1-n)*(-5*4^n - (-5+sqrt(5))*(3+sqrt(5))^n + (3-sqrt(5))^n*(5+sqrt(5))) / 5. - Colin Barker, Jun 05 2017
[A284968] 0, 1, 5, 18, 59, 190, 618, 2047, 6908, 23703, 82488, 290499, 1033398, 3707837, 13402681, 48760350, 178405139, 656043838, 2423307027, 8987427446, 33453694465, 124936258104, 467995871753, 1757900019076, 6619846420527, 24987199492678, 94520750408681
a(n) = (Sum_{k=1..n} Catalan(k)) - n. - Peter Luschny, Jul 22 2017
[A104630] 0, 1, 5, 18, 60, 198, 655, 2171, 7200, 23880, 79200, 262669, 871145, 2889162, 9581940, 31778622, 105394195, 349541159, 1159257600, 3844692240, 12750969600, 42288749161, 140251162205, 465144722658, 1542658254060, 5116245273558
a(n)=5a(n-1)-7a(n-2)+5a(n-3)-a(n-4); a(n)=sum{k=0..n, binomial(n+k+1, 2k+1)F(k)}.
[A113301] 0, 1, 5, 18, 62, 211, 715, 2420, 8188, 27701, 93713, 317030, 1072506, 3628263, 12274327, 41523752, 140473848, 475219625, 1607656477, 5438662906, 18398864822, 62242913851, 210566269283, 712340586524, 2409830942708, 8152399683933, 27579370581033, 93300342369742
a(0)=0, a(1)=1, a(2)=5, a(3)=18, a(n)=4*a(n-1)-2*a(n-2)-a(n-4). - Harvey P. Dale, Apr 12 2013
[A121050] 0, 0, 0, 0, 0, 1, 5, 18, 62, 226, 892, 3835, 17910, 90401, 490421, 2844970, 17570207, 115078228, 796630963, 5811215750, 44551231383, 358087648032, 3010990488143, 26433752431402, 241852566790848, 2302304545944415, 22768248457537798, 233580248716343376
a(n) = SUM[i=1..n] floor(i!/exp(i)).
[A227451] 0, 1, 5, 18, 77, 306, 1229, 4914, 19661, 78642, 314573, 1258290, 5033165, 20132658, 80530637, 322122546, 1288490189, 5153960754, 20615843021, 82463372082, 329853488333, 1319413953330, 5277655813325, 21110623253298, 84442493013197, 337769972052786, 1351079888211149
a(n) = (1/10) * (3*4^n + 7*(-1)^n - 5).
a(n) = 4*a(n-1) + a(n-2) - 4*a(n-3), n>3.
[A074229] 1, 5, 19, 23, 25, 29, 43, 47, 49, 53, 67, 71, 73, 77, 91, 95, 97, 101, 115, 119, 121, 125, 139, 143, 145, 149, 163, 167, 169, 173, 187, 191, 193, 197, 211, 215, 217, 221, 235, 239, 241, 245, 259, 263, 265, 269, 283, 287, 289, 293, 307, 311, 313, 317, 331, 335
a(n) = (3/2+(3*i)/2)*(i^n-i*(-i)^n)-(-1)^n+6*(n+1)-9 where i = sqrt(-1).
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
[A146509] 1, 5, 19, 23, 37, 41, 55, 59, 73, 77, 91, 95, 109, 113, 127, 131, 145, 149, 163, 167, 181, 185, 199, 203, 217, 221, 235, 239, 253, 257, 271, 275, 289, 293, 307, 311, 325, 329, 343, 347, 361, 365, 379, 383, 397, 401, 415, 419, 433, 437, 451, 455, 469, 473, 487
a(2k-1) = 18*(k-1)+1, a(2k) = 18*(k-1)+5, where k>0.
a(n) = (18*n-5*(-1)^n+21)/2. - Bruno Berselli, Jul 12 2012
a(1)=1, a(n) = 18*n -a(n-1) -30. - Vincenzo Librandi, Jul 12 2012
[A022143] 5, 19, 24, 43, 67, 110, 177, 287, 464, 751, 1215, 1966, 3181, 5147, 8328, 13475, 21803, 35278, 57081, 92359, 149440, 241799, 391239, 633038, 1024277, 1657315, 2681592, 4338907, 7020499, 11359406
a(n) = term (1,1) in the 1x2 matrix [5,14] . [1,1; 1,0]^n. (End)
[A239831] 5, 19, 39, 67, 101, 143, 191, 247, 308, 379, 454, 539, 628, 727, 830, 942, 1060, 1186, 1318, 1458, 1604, 1758, 1917, 2086, 2259, 2442, 2629, 2826, 3027, 3237, 3453, 3677, 3907, 4145, 4389, 4641, 4898, 5165, 5436, 5717, 6002, 6297, 6596, 6904, 7218, 7540
a(n) = +a(n-1) +a(n-2) -a(n-3) +a(n-7) -a(n-8) -a(n-9) +a(n-10). [Bruno Berselli, Mar 28 2014]
[A262997] 0, 5, 19, 40, 69, 107, 152, 205, 267, 336, 413, 499, 592, 693, 803, 920, 1045, 1179, 1320, 1469, 1627, 1792, 1965, 2147, 2336, 2533, 2739, 2952, 3173, 3403, 3640, 3885, 4139, 4400, 4669, 4947, 5232, 5525, 5827, 6136, 6453, 6779, 7112, 7453, 7803, 8160, 8525
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) - a(n-5), n> 4.
a(-n) = e(n).
a(-n) + a(n) = 8*n^2.
a(n+2) - 2*a(n+1) + a(n) = period 3:repeat 9, 7, 8.
a(n+3) - a(n-3) = 8*(1 + 6*n).
a(n+7) - a(n-7) = 40*(2 + 3*n).
[A125202] 1, 5, 19, 41, 71, 109, 155, 209, 271, 341, 419, 505, 599, 701, 811, 929, 1055, 1189, 1331, 1481, 1639, 1805, 1979, 2161, 2351, 2549, 2755, 2969, 3191, 3421, 3659, 3905, 4159, 4421, 4691, 4969, 5255, 5549, 5851, 6161, 6479, 6805, 7139, 7481, 7831, 8189, 8555, 8929, 9311, 9701, 10099, 10505, 10919, 11341
a(1) = -1, a(n) = a(n-1) + 8*n - 10.
a(n) = 2*a(n-1) - a(n-2) + 8 with a(1) = -1 and a(2) = 5.
[A033622] 1, 5, 19, 41, 109, 209, 505, 929, 2161, 3905, 8929, 16001, 36289, 64769, 146305, 260609, 587521, 1045505, 2354689, 4188161, 9427969, 16764929, 37730305, 67084289, 150958081, 268386305, 603906049, 1073643521, 2415771649, 4294770689
a(n) = 9*2^n - 9*2^(n/2) + 1 if n is even;
a(n) = 8*2^n - 6*2^((n+1)/2) + 1 if n is odd.
a(0)=1, a(1)=5, a(2)=19, a(3)=41, a(4)=109, a(n)=a(n-1)+6*a(n-2)- 6*a(n-3)- 8*a(n-4)+8*a(n-5). - Harvey P. Dale, Mar 02 2015
[A022267] 0, 5, 19, 42, 74, 115, 165, 224, 292, 369, 455, 550, 654, 767, 889, 1020, 1160, 1309, 1467, 1634, 1810, 1995, 2189, 2392, 2604, 2825, 3055, 3294, 3542, 3799, 4065, 4340, 4624, 4917, 5219, 5530, 5850, 6179
a(n) = 9*n + a(n-1) - 4 with n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A172043] 1, 5, 19, 43, 77, 121, 175, 239, 313, 397, 491, 595, 709, 833, 967, 1111, 1265, 1429, 1603, 1787, 1981, 2185, 2399, 2623, 2857, 3101, 3355, 3619, 3893, 4177, 4471, 4775, 5089, 5413, 5747, 6091, 6445, 6809, 7183, 7567, 7961, 8365, 8779, 9203, 9637, 10081
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 06 2012
[A024191] 5, 19, 47, 95, 170, 280, 434, 642, 915, 1265, 1705, 2249, 2912, 3710, 4660, 5780, 7089, 8607, 10355, 12355, 14630, 17204, 20102, 23350, 26975, 31005, 35469, 40397, 45820, 51770, 58280, 65384, 73117, 81515, 90615, 100455, 111074, 122512, 134810, 148010
a(1)=5, a(2)=19, a(3)=47, a(4)=95, a(5)=170, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Apr 28 2014

[A100104] 1, 1, 5, 19, 49, 101, 181, 295, 449, 649, 901, 1211, 1585, 2029, 2549, 3151, 3841, 4625, 5509, 6499, 7601, 8821, 10165, 11639, 13249, 15001, 16901, 18955, 21169, 23549, 26101, 28831, 31745, 34849, 38149, 41651, 45361, 49285, 53429, 57799, 62401, 67241, 72325
a(0)=1, a(1)=1, a(2)=5, a(3)=19, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A060100] 1, 5, 19, 55, 140, 316, 660, 1284, 2370, 4170, 7062, 11550, 18348, 28380, 42900, 63492, 92235, 131703, 185185, 256685, 351208, 474760, 634712, 839800, 1100580, 1429428, 1841100, 2352732, 2984520, 3759720, 4705464, 5852760, 7237461, 8900265, 10887855
a(n) = (315*(3797+299*(-1)^n) + 12*(204347+4165*(-1)^n)*n + 2*(970241+4095*(-1)^n)*n^2 + 28*(28457+15*(-1)^n)*n^3 + 189168*n^4 + 26936*n^5 + 2268*n^6 + 104*n^7 + 2*n^8) / 1290240. - Colin Barker, Jan 17 2017
[A109415] 1, 5, 19, 58, 152, 309, 585, 1046, 1666, 2601, 3871, 5508, 7680, 10423, 13835, 17984, 23168, 29225, 36431, 45000, 54780, 66299, 79637, 94546, 111612, 131215, 152683, 177008, 204264, 234375, 267795, 304678, 345240, 389213, 438235, 490842, 548542
a(n) = [x^(n*(n+1)/2)] [Sum_{k>=0} x^(k*(k+1)/2)]^4/(1-x).
[A092442] 0, 1, 5, 19, 59, 161, 405, 967, 2231, 5029, 11153, 24443, 53091, 114505, 245549, 524047, 1113839, 2358989, 4980393, 10485379, 22019675, 46136881, 96468485, 201326039, 419429799, 872414581, 1811938625, 3758095627, 7784627411
a(n)=(n+1)(2^n-1)-n^2.
[A135266] 0, 1, 5, 19, 60, 182, 546, 1639, 4919, 14761, 44286, 132860, 398580, 1195741, 3587225, 10761679, 32285040, 96855122, 290565366, 871696099, 2615088299, 7845264901, 23535794706, 70607384120, 211822152360, 635466457081
a(n) = (1/4)*3^(n+1) - (1/12)*(-1)^n + (1/3)*cos(Pi*n/3) - (sqrt(3)/3)*sin (Pi*n/3) - 1. Or, a(n) = (1/4)*3^(n+1) + (1/4)*[-3; -5; -7; -5; -3; -1] for n>=0. - Richard Choulet, Jan 02 2008
[A189427] 0, 0, 1, 5, 19, 61, 180, 502, 1349, 3529, 9050, 22854, 57014, 140832, 345036, 839530, 2030757, 4887423, 11710757, 27951471, 66486128, 157661282, 372840407, 879510801, 2070045268, 4862121660, 11398688956, 26676792832, 62333380456, 145434747140
a(n)=5*a(n-1)-6*a(n-2)-4*a(n-3)+9*a(n-4)-a(n-5)-3*a(n-6)+a(n-7), n>=7, a{m}={0,0,1,5,19,61,180}, m=0..6.
[A143131] 1, 5, 19, 63, 157, 321, 575, 939, 1433, 2077, 2891, 3895, 5109, 6553, 8247, 10211, 12465, 15029, 17923, 21167, 24781, 28785, 33199, 38043, 43337, 49101, 55355, 62119, 69413, 77257, 85671, 94675, 104289, 114533, 125427, 136991, 149245
a(n) = (-39 + 77 n - 45 n^2 + 10 n^3)/3. [From T. D. Noe, Aug 22 2008]
[A053545] 0, 1, 5, 19, 63, 191, 543, 1471, 3839, 9727, 24063, 58367, 139263, 327679, 761855, 1753087, 3997695, 9043967, 20316159, 45350911, 100663295, 222298111, 488636415, 1069547519, 2332033023, 5066719231, 10972299263, 23689428991, 51002736639, 109521666047, 234612588543, 501437431807
a(n) = 2^(n-2)*(n^2-n+4)-1.
a(0)=0, a(1)=1, a(2)=5, a(3)=19, a(n)=7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Harvey P. Dale, Apr 03 2013
[A049612] 0, 1, 5, 19, 63, 192, 552, 1520, 4048, 10496, 26624, 66304, 162560, 393216, 940032, 2224128, 5214208, 12124160, 27983872, 64159744, 146210816, 331350016, 747110400, 1676673024, 3746562048, 8338276352, 18488492032
a(n) = Sum_{k=0..floor((n+3)/2)} C(n+3, 2k)C(k+1, 3). - Paul Barry, May 15 2003
a(n+1) = 2^n*n^3/48 + 5*2^n*n^2/16 + 7*2^n*n/6 + 2^n, n=1,2,... - Milan Janjic, Nov 18 2007
[A001047] 0, 1, 5, 19, 65, 211, 665, 2059, 6305, 19171, 58025, 175099, 527345, 1586131, 4766585, 14316139, 42981185, 129009091, 387158345, 1161737179, 3485735825, 10458256051, 31376865305, 94134790219, 282412759265, 847255055011, 2541798719465, 7625463267259, 22876524019505
a(n) = 5*a(n-1) - 6*a(n-2).
a(n) = 3*a(n-1) + 2^(n-1). - Jon Perry, Aug 23 2002
a(n) = Sum_{k=0..n-1} binomial(n, k)*2^k. - Ross La Haye, Aug 20 2005
a(n) = 2*a(n-1) + 3^(n-1). - Toby Gottfried, Mar 28 2013
[A005021] 1, 5, 19, 66, 221, 728, 2380, 7753, 25213, 81927, 266110, 864201, 2806272, 9112264, 29587889, 96072133, 311945595, 1012883066, 3288813893, 10678716664, 34673583028, 112584429049, 365559363741, 1186963827439, 3854047383798, 12514013318097, 40632746115136
a(n) = 5a(n-1)-6a(n-2)+a(n-3). - Emeric Deutsch, Apr 02 2004
a(n) = Sum_{j=-infinity..infinity} (binomial(5+2k, 7j+k-2)-binomial(5+2k, 7j+k-1)) (a finite sum).
[A163872] 1, 5, 19, 67, 227, 751, 2445, 7869, 25107, 79567, 250793, 786985, 2460397, 7667921, 23832931, 73902627, 228692115, 706407903, 2178511449, 6708684009, 20632428249, 63380014845, 194486530791, 596213956023, 1826103432573, 5588435470401, 17089296473655
a(n) = (-1)^n*hypergeom([-n,3/2], [1], 4). - Peter Luschny, Apr 26 2016
[A030662] 1, 5, 19, 69, 251, 923, 3431, 12869, 48619, 184755, 705431, 2704155, 10400599, 40116599, 155117519, 601080389, 2333606219, 9075135299, 35345263799, 137846528819, 538257874439, 2104098963719, 8233430727599, 32247603683099, 126410606437751, 495918532948103
a(n) = 2*(2*n-1)!/(n!*(n-1)!)-1.
a(n) = Sum_{k=1..n} binomial(n, k)^2. - Benoit Cloitre, Aug 20 2002
a(n) = Sum_{j=0..n} Sum_{i=j..n+j} binomial(i, j). - Klaus Strassburger (strass(AT)ddfi.uni-duesseldorf.de), Jul 23 2003
a(n) = Sum_{i=0..n-1} Sum_{j=0..n-1} binomial(i+j, i). - N. J. A. Sloane, Jan 31 2009
a(n) = Sum[Sum[(2n-i-j)!/(n-i)!/(n-j)!,{i,1,n}],{j,1,n}]. - Alexander Adamchuk, Jul 04 2006
[A001834] 1, 5, 19, 71, 265, 989, 3691, 13775, 51409, 191861, 716035, 2672279, 9973081, 37220045, 138907099, 518408351, 1934726305, 7220496869, 26947261171, 100568547815, 375326930089, 1400739172541, 5227629760075, 19509779867759, 72811489710961, 271736178976085
a(n) = ((1+sqrt(3))^(2*n+1)+(1-sqrt(3))^(2*n+1))/2^(n+1). - N. J. A. Sloane, Nov 10 2009
a(n) = (1/2) * ((1+sqrt(3))*(2+sqrt(3))^n + (1-sqrt(3))*(2-sqrt(3))^n). - Dean Hickerson, Dec 01 2002
a(n) = ((1+sqrt[3])^(2*n+1) + (1-sqrt[3])^(2*n+1))/2^(n+1). - Anton Vrba, Feb 14 2007
a(n) = Jacobi_P(n,1/2,-1/2,2)/Jacobi_P(n,-1/2,1/2,1). - Paul Barry, Feb 03 2006
a(-1-n) = -a(n). - Michael Somos, Sep 19 2008
[A098913] 1, 5, 19, 75, 287, 1053, 3859, 14089, 51463, 188697, 695155, 2573235, 9571195, 35759799, 134154259, 505163055, 1908619755, 7233118641, 27486768415, 104713346699, 399818311219, 1529747101965, 5864045590035, 22517965253595, 86607619323751, 333599840675337
a(n) = (Sum_{d | 2*n} phi(2*n/d) * 2^d)/(2*n) - 1 - 2^n.
[A275859] 1, 1, 5, 19, 76, 304, 1220, 4898, 19667, 78971, 317103, 1273309, 5112902, 20530578, 82439414, 331030964, 1329236757, 5337477605, 21432349833, 86060430295, 345570957936, 1387621309348, 5571917587224, 22373730779190, 89840494074695, 360749597608127
a(n) = floor(s*a(n-1)) + floor(r*a(n-2)), where r = 1 + sqrt(2), s = r/(r-1).
[A275027] 1, 1, 5, 19, 85, 401, 1931, 9605, 48469, 248365, 1286605, 6726875, 35441275, 187935775, 1002122525, 5369287019, 28889315669, 156015203845, 845330354321, 4593724615175, 25029614166685, 136704935601785, 748273234994675, 4103928115592365, 22549175326327675, 124105065258631651, 684100888645922051,
3776354280849020005
a(n) = Sum_{k=0..n}C(n,k)*C(n,2k)*C(2k,k).
[A178977] 5, 20, 44, 77, 119, 170, 230, 299, 377, 464, 560, 665, 779, 902, 1034, 1175, 1325, 1484, 1652, 1829, 2015, 2210, 2414, 2627, 2849, 3080, 3320, 3569, 3827, 4094, 4370, 4655, 4949, 5252, 5564, 5885, 6215, 6554, 6902, 7259, 7625, 8000, 8384, 8777, 9179
a(n) = a(n-1)+6+9*n.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 19 2013
[A033429] 0, 5, 20, 45, 80, 125, 180, 245, 320, 405, 500, 605, 720, 845, 980, 1125, 1280, 1445, 1620, 1805, 2000, 2205, 2420, 2645, 2880, 3125, 3380, 3645, 3920, 4205, 4500, 4805, 5120, 5445, 5780, 6125, 6480, 6845, 7220, 7605, 8000, 8405, 8820, 9245, 9680, 10125, 10580, 11045, 11520, 12005, 12500
a(n) = a(n-1)+5*(2*n-1) (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(n) = a(n-1) + 10*n - 5, with a(0)=0. - Jean-Bernard François, Oct 04 2013
[A160749] 5, 20, 46, 83, 131, 190, 260, 341, 433, 536, 650, 775, 911, 1058, 1216, 1385, 1565, 1756, 1958, 2171, 2395, 2630, 2876, 3133, 3401, 3680, 3970, 4271, 4583, 4906, 5240, 5585, 5941, 6308, 6686, 7075, 7475, 7886, 8308, 8741, 9185, 9640, 10106, 10583
a(n) = a(n-1) + 11*n + 4 for n>0, a(0)=5. - Vincenzo Librandi, Sep 18 2011
[A005287] 5, 20, 49, 98, 174, 285, 440, 649, 923, 1274, 1715, 2260, 2924, 3723, 4674, 5795, 7105, 8624, 10373, 12374, 14650, 17225, 20124, 23373, 26999, 31030, 35495, 40424, 45848, 51799, 58310, 65415, 73149, 81548, 90649, 100490, 111110, 122549, 134848, 148049
a(n) = n*(n+1)*(n^2+n-14)/24.
[A134481] 1, 5, 20, 50, 100, 175, 280, 420, 600, 825, 1100, 1430, 1820, 2275, 2800, 3400, 4080, 4845, 5700, 6650, 7700, 8855, 10120, 11500, 13000, 14625, 16380, 18270, 20300, 22475, 24800, 27280, 29920, 32725, 35700, 38850, 42180, 45695

a(n) = 5*binomial(n+2,3) for n>0. - Milan Janjic, Dec 28 2007
a(n) = sum(i=0..n, (n+i)*(1+i)) for n>0. [Bruno Berselli, Dec 16 2013]
[A006504] 5, 20, 51, 105, 190, 315, 490, 726, 1035, 1430, 1925, 2535, 3276, 4165, 5220, 6460, 7905, 9576, 11495, 13685, 16170, 18975, 22126, 25650, 29575, 33930, 38745, 44051, 49880, 56265, 63240, 70840, 79101, 88060, 97755, 108225, 119510, 131651, 144690, 158670
a(n) = n*(n+1)*(n+3)*(n+14)/4!. - Alois P. Heinz, Jan 21 2017
[A173034] 1, 5, 20, 52, 116, 244, 500, 1012, 2036, 4084, 8180, 16372, 32756, 65524, 131060, 262132, 524276, 1048564, 2097140, 4194292, 8388596, 16777204, 33554420, 67108852, 134217716, 268435444, 536870900, 1073741812, 2147483636
a(n) = 8*2^n-12, n>=2. - R. J. Mathar, Apr 20 2011
[A226639] 1, 1, 1, 5, 20, 56, 126, 246, 435, 715, 1111, 1651, 2366, 3290, 4460, 5916, 7701, 9861, 12445, 15505, 19096, 23276, 28106, 33650, 39975, 47151, 55251, 64351, 74530, 85870, 98456, 112376, 127721, 144585, 163065, 183261, 205276, 229216, 255190, 283310, 313691
a(n) = stirling2(n+2,n)-(n+2)*stirling2(n+1,n)+((n+1)*(n+2))/2.
a(n) = Sum_{j=0..n} (j-1)^(n+2)*(-1)^(n-j)*binomial(n,j))/n!.
a(n) = Sum_{k=1..n+2} Sum_{i=1..k} (n-i+1)*(n-k+1). - Wesley Ivan Hurt, Sep 12 2017
[A001873] 1, 5, 20, 65, 190, 511, 1295, 3130, 7285, 16435, 36122, 77645, 163730, 339535, 693835, 1399478, 2790100, 5504650, 10758050, 20845300, 40075630, 76495450, 145052300, 273381350, 512347975, 955187033, 1772132390, 3272875935, 6018885570, 11024814945, 20118711993
a(n) = sum(binomial(4+n-m, 4)*binomial(n-m, m), m=0.. floor(n/2)).
a(n) = F""(n+4, 1)/24, i.e. 1/24 times the 4th derivative of the (n+4)th Fibonacci polynomial evaluated at 1. - T. D. Noe, Jan 18 2006
[A120297] 1, 5, 20, 65, 193, 544, 1489, 4005, 10660, 28193, 74273, 195200, 512257, 1343077, 3519412, 9219105, 24144289, 63224096, 165544721, 433437125, 1134810436, 2971065025, 7778499265, 20364618240, 53315655553, 139582833989
a(n) = Sum[Sum[Fibonacci[i+j-1],{i,1,n}],{j,1,n}].
a(n) = Fibonacci(2*n+3)-2*Fibonacci(n+3)+2. - Vladeta Jovovic, Jul 21 2006
[A291288] 1, 5, 20, 70, 210, 546, 1260, 2640, 5115, 9295, 16016, 26390, 41860, 64260, 95880, 139536, 198645, 277305, 380380, 513590, 683606, 898150, 1166100, 1497600, 1904175, 2398851, 2996280, 3712870, 4566920, 5578760, 6770896, 8168160, 9797865, 11689965
a(n) = (n+1)*(n+2)*(n+3)*(n+4)*(n^2-n+6)/144.
[A080930] 1, 5, 20, 70, 224, 672, 1920, 5280, 14080, 36608, 93184, 232960, 573440, 1392640, 3342336, 7938048, 18677760, 43581440, 100925440, 232128512, 530579456, 1205862400, 2726297600, 6134169600, 13740539904, 30651973632, 68115496960
a(n) = binomial(n+3,3)*2^(n-3). - Zerinvary Lajos, Oct 29 2006
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4) for n>3, a(0)=1, a(1)=5, a(2)=20, a(3)=70. - Bruno Berselli, Aug 06 2013
[A169792] 1, 5, 20, 70, 225, 681, 1970, 5500, 14920, 39520, 102592, 261760, 657920, 1632000, 4001280, 9708544, 23336960, 55623680, 131563520, 309002240, 721092608, 1672806400, 3859415040, 8859156480, 20240138240, 46038777856, 104291368960, 235342397440, 529153392640
a(n) = 10*a(n-1) - 40*a(n-2) + 80*a(n-3) - 80*a(n-4) + 32*a(n-5), n>=6. - Vincenzo Librandi, Mar 14 2011
a(n) =2^n*(n+4)*(n^3+26*n^2+171*n+186)/768, n>0. - R. J. Mathar, Mar 14 2011
[A005324] 1, 5, 20, 70, 230, 726, 2235, 6765, 20240, 60060, 177177, 520455, 1524120, 4453320, 12991230, 37854954, 110218905, 320751445, 933149470, 2714401580, 7895719634, 22969224850, 66829893650, 194486929650, 566141346225, 1648500576021
a(n) = (-5*I*(-1)^n*(n^4-6*n^3-43*n^2-24*n+36)*3^(1/2)*hypergeom([1/2, n+2],[1],4/3)+15*I*(-1)^n*(n^4+6*n^3+17*n^2+24*n-12)*3^(1/2)*hypergeom([1/2, n+1],[1],4/3))/(6*(n+3)*(n+2)*(n+4)*(n+5)*(n+6)). - Mark van Hoeij, Oct 29 2011
a(n) (n + 9) (n - 1) = (n + 3) (3 n + 6) a(n - 2) + (n + 3) (2 n + 7) a(n - 1). - Simon Plouffe, Feb 09 2012
a(n) = 5*sum(j=ceiling((n-4)/2)..(n+1), binomial(j,2*j-n+4)*binomial(n+1,j))/(n+1). - Vladimir Kruchinin, Mar 17 2014
[A243869] 1, 5, 20, 70, 231, 735, 2290, 7040, 21461, 65065, 196560, 592410, 1782691, 5358995, 16098830, 48340180, 145107921, 435498525, 1306845100, 3921234350, 11765101151, 35298099655, 105899891370, 317710858920, 953154946381, 2859509578385, 8578618213640
a(n) = (3^n - 4*2^n + (-1)^n + 6)/24. (End)
[A054444] 1, 5, 20, 71, 235, 744, 2285, 6865, 20284, 59155, 170711, 488400, 1387225, 3916061, 10996580, 30737759, 85573315, 237387960, 656451269, 1810142185, 4978643596, 13661617195, 37409025455, 102238082976, 278920277425, 759695287349
a(n)=sum(k*binom(2n-2k+2, k), k=1..n+1) - Emeric Deutsch, Jun 11 2003
[A122695] 0, 0, 1, 5, 20, 71, 236, 755, 2360, 7271, 22196, 67355, 203600, 613871, 1847756, 5555555, 16691240, 50122871, 150466916, 451597355, 1355185280, 4066342271, 12200599676, 36604944755, 109821125720, 329475960071, 988453046036, 2965409469755, 8896329072560
a(n) = 3*a(n-1) + 3*2^(n-2) - 1.
a(n) = (18-27*2^n+14*3^n)/36 for n>1.
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3) for n>4.
[A066822] 1, 5, 20, 71, 238, 770, 2436, 7590, 23397, 71566, 217646, 659022, 1988805, 5986176, 17980968, 53922096, 161492571, 483149385, 1444245936, 4314214443, 12880107548, 38436170366, 114657076900, 341926185770, 1019435748435, 3038815305981, 9056974493700
a(0)=0; a(1)=1; (n+7)*n*a(n)=2*(n+4)*(n+3)*a(n-1) + 3*(n+3)*(n+2)*a(n-2).
a(n) = ((-3)^(1/2)/9)*(-2*(n+7)^(-1)*(n+4)*(-1)^n*hypergeom([3/2, n+6],[2],4/3)-(n+6)^(-1)*(-1)^n*(5*n+18)*hypergeom([3/2, n+5],[2],4/3)). - Mark van Hoeij, Oct 31 2011
a(n) = GegenbauerC(n,-n+1-4,-1/2)+GegenbauerC(n-1,-n-3,-1/2)). - Peter Luschny, May 12 2016
[A137212] 0, 0, 1, 5, 20, 72, 245, 805, 2584, 8160, 25465, 78773, 242060, 740040, 2253581, 6841525, 20719600, 62629632, 189025585, 569820965, 1716088004, 5164258440, 15531389285, 46687390213, 140287229320, 421405027680, 1265526821161
a(n)=(1/2)*3^n-(1/4)*[1+sqrt(2)]^n+(1/4)*sqrt(2)*[1-sqrt(2)]^n-(1/4)*[1-sqrt(2)]^n-(1/4)*[1 +sqrt(2)]^n*sqrt(2), with n>=0 - Paolo P. Lava, Jun 09 2008
[A094806] 1, 5, 20, 74, 264, 924, 3200, 11016, 37792, 129392, 442496, 1512224, 5165952, 17643456, 60250112, 205729920, 702452224, 2398414592, 8188884992, 27958972928, 95458646016, 325917686784, 1112755552256, 3799191029760, 12971261403136, 44286680330240
a(n) = (1/4)*Sum_{k=1..7} sin(Pi*k/8)sin(5*Pi*k/8)(2*cos(Pi*k/8))^(2n).
a(n) = 6*a(n-1) - 10*a(n-2) + 4*a(n-3).
a(n) = (-2^n+(-(2-sqrt(2))^n+(2+sqrt(2))^n)/sqrt(2))/4. - Colin Barker, Apr 27 2016
[A030191] 1, 5, 20, 75, 275, 1000, 3625, 13125, 47500, 171875, 621875, 2250000, 8140625, 29453125, 106562500, 385546875, 1394921875, 5046875000, 18259765625, 66064453125, 239023437500, 864794921875, 3128857421875, 11320312500000, 40957275390625, 148184814453125
a(n) = (sqrt(5))^n*U(n, sqrt(5)/2).
a(n-1) = sum(k=0, n, C(n, k)*F(2*k)). - Benoit Cloitre, Jun 21 2003
a(n) = 5*a(n-1)-5*a(n-2). - Benoit Cloitre, Oct 23 2003
a(n-1) = ((5/2+sqrt(5)/2)^n-(5/2-sqrt(5)/2)^n)/sqrt(5) is the 2nd binomial transform of Fib(n), the first binomial transform of Fib(2n) and its n-th term is the n-th term of the third binomial transform of Fib(3n) divided by 2^n. - Paul Barry, Mar 23 2004
a(n) = - a(-2-n) * 5^(n+1) for all n in Z. - Michael Somos, Aug 27 2015
[A224422] 1, 5, 20, 75, 275, 1001, 3639, 13243, 48280, 176341, 645150, 2363596, 8669142, 31825005, 116914020, 429737220, 1580244061, 5812839156, 21387636101, 78708626396, 289699273501, 1066406842677, 3925882147566, 14453780545834, 53216783798234, 195944670698910
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 5, a(2) = 20, a(3) = 75, a(4) = 275.
[A290922] 1, 5, 20, 75, 279, 1040, 3881, 14485, 54060, 201755, 752959, 2810080, 10487361, 39139365, 146070100, 545141035, 2034494039, 7592835120, 28336846441, 105754550645, 394681356140, 1472970873915, 5497202139519, 20515837684160, 76566148597121, 285748756704325
a(n) = 5*a(n-1) - 6*a(n-2) + 5*a(n-3) - a(n-4).
[A275909] 1, 5, 20, 75, 288, 1094, 4171, 15897, 60565, 230816, 879521, 3351544, 12771524, 48667365, 185453453, 706693601, 2692945820, 10261812539, 39103937948, 149010523846, 567823518619, 2163763618201, 8245296020629, 31419747421972, 119728937140293, 456242317652464, 1738569283271528
a(n) = 2*a(n-1)+6*a(n-2)+5*a(n-3)-6*a(n-4)+a(n-5)-3*a(n-6)-2*a(n-7)-2*a(n-8) for n>6. - Colin Barker, Aug 26 2016
[A275908] 1, 5, 20, 75, 288, 1105, 4234, 16226, 62188, 238340, 913452, 3500857, 13417236, 51422337, 197079099, 755317101, 2894796675, 11094476468, 42520225774, 162961236161, 624558407329, 2393656389397, 9173827208656, 35159225871899, 134749776270503, 516436347919005, 1979272313718089
a(n) = 3*a(n-1)+a(n-2)+6*a(n-3)+7*a(n-4)+7*a(n-5)+5*a(n-6)+a(n-7) for n>6. - Colin Barker, Aug 26 2016

[A061278] 0, 1, 5, 20, 76, 285, 1065, 3976, 14840, 55385, 206701, 771420, 2878980, 10744501, 40099025, 149651600, 558507376, 2084377905, 7779004245, 29031639076, 108347552060, 404358569165, 1509086724601, 5631988329240, 21018866592360, 78443478040201, 292755045568445
a(n) = 4*a(n-1) - a(n-2) + 1.
a(n+2) = 4*a(n+1) - a(n) + 1 for a(0)=0, a(1)=1.
a(n) = (1/12)*(-3 - sqrt(3))*(2 - sqrt(3))^n + (3 + sqrt(3))*(2 + sqrt(3))^n). (End)
a(n+1) = Sum_{k=0..n} U(k, 2)} = Sum_{k=0..n} S(k, 4). - Paul Barry, Nov 14 2003
a(n)*a(n-2) = a(n-1)*(a(n-1)-1) for n>1. - Bruno Berselli, Nov 29 2016
[A289786] 1, 5, 20, 77, 291, 1098, 4149, 15689, 59332, 224369, 848447, 3208370, 12132345, 45878109, 173486772, 656035301, 2480778763, 9380993978, 35473960589, 134143768193, 507260826084, 1918192318185, 7253589435975, 27429241169378, 103722891648049, 392225150722037
a(n) = 5*a(n-1) - 6*a(n-2) + 5*a(n-3) + a(n-4).
[A129869] 1, 1, 5, 20, 77, 294, 1122, 4290, 16445, 63206, 243542, 940576, 3640210, 14115100, 54826020, 213286590, 830905245, 3241119750, 12657425550, 49483369320, 193641552390, 758454277620, 2973183318300, 11664026864100, 45791597230002, 179892016853724
a(n) = (3*n-4)/n * C(2*n-3,n-1).
a(n) = (1/8)*4^n*Gamma(n-1/2)*(3*n-4)/(sqrt(Pi)*Gamma(1+n)) - 0^(n-1)/2. - Peter Luschny, Dec 14 2015
[A275907] 1, 5, 20, 79, 317, 1274, 5121, 20583, 82728, 332503, 1336407, 5371332, 21588639, 86769787, 348748058, 1401699971, 5633759855, 22643397846, 91009109229, 365786884945, 1470182999606, 5909009156125, 23749689131575, 95455552520474, 383658179966447, 1542011912021519, 6197706346373776
a(n) = 4*a(n-1)+a(n-4)+a(n-5) for n>4. - Colin Barker, Aug 26 2016
[A228141] 1, 5, 21, 25, 41, 45, 61, 65, 81, 85, 101, 105, 121, 125, 141, 145, 161, 165, 181, 185, 201, 205, 221, 225, 241, 245, 261, 265, 281, 285, 301, 305, 321, 325, 341, 345, 361, 365, 381, 385, 401, 405, 421, 425, 441, 445, 461, 465, 481, 485, 501, 505, 521, 525
a(n) = -3*(4+(-1)^n) + 10*n.
a(n) = a(n-1) + a(n-2) - a(n-3).
[A170837] 0, 1, 5, 21, 37, 53, 69, 85, 101, 117, 133, 149, 165, 181, 197, 213, 229, 245, 261, 277, 293, 309, 325, 341, 357, 373, 389, 405, 421, 437, 453, 469, 485, 501, 517, 533, 549, 565, 581, 597, 613, 629, 645, 661, 677, 693, 709, 725, 741, 757, 773, 789, 805
a(n) = 2*a(n-1) -a(n-2), n>=4.
[A078371] 5, 21, 45, 77, 117, 165, 221, 285, 357, 437, 525, 621, 725, 837, 957, 1085, 1221, 1365, 1517, 1677, 1845, 2021, 2205, 2397, 2597, 2805, 3021, 3245, 3477, 3717, 3965, 4221, 4485, 4757, 5037, 5325, 5621, 5925, 6237, 6557, 6885, 7221, 7565, 7917, 8277, 8645
a(n) = 8*(n+1)+a(n-1), with n>0, a(0)=5. - Vincenzo Librandi, Aug 08 2010
[A265056] 1, 5, 21, 45, 77, 117, 165, 221, 285, 357, 437, 525, 621, 725, 837, 957, 1085, 1221, 1365, 1517, 1677, 1845, 2021, 2205, 2397, 2597, 2805, 3021, 3245, 3477, 3717, 3965, 4221, 4485, 4757, 5037, 5325, 5621, 5925, 6237, 6557, 6885, 7221, 7565, 7917, 8277, 8645, 9021, 9405, 9797, 10197, 10605, 11021
a(n) = 4*n^2+4*n-3 for n>0.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3.
[A041825] 1, 1, 5, 21, 47, 115, 162, 601, 7975, 8576, 16551, 25127, 41678, 566941, 1742501, 2309442, 6361385, 15032212, 66490233, 280993144, 347483377, 14180328224, 14527811601, 72291574628, 303694110113, 679679794854, 1663053699821, 2342733494675, 8691254183846
a(n) = 14461321368*a(n-21) + a(n-42) for n>41. - Vincenzo Librandi, Dec 25 2013
[A022268] 0, 5, 21, 48, 86, 135, 195, 266, 348, 441, 545, 660, 786, 923, 1071, 1230, 1400, 1581, 1773, 1976, 2190, 2415, 2651, 2898, 3156, 3425, 3705, 3996, 4298, 4611, 4935, 5270, 5616, 5973, 6341, 6720, 7110, 7511, 7923, 8346, 8780, 9225, 9681, 10148, 10626, 11115
a(n) = 11*n + a(n-1) - 6 for n>0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
a(n) = (1/9) * Sum_{i=n..10n-1} i. (End)
[A160378] 0, 0, 5, 21, 54, 110, 195, 315, 476, 684, 945, 1265, 1650, 2106, 2639, 3255, 3960, 4760, 5661, 6669, 7790, 9030, 10395, 11891, 13524, 15300, 17225, 19305, 21546, 23954, 26535, 29295, 32240, 35376, 38709, 42245, 45990, 49950, 54131, 58539
a(n) = (2*n^3-n^2-n)/2. [Vincenzo Librandi, Dec 12 2010; edited by Klaus Brockhaus, Dec 12 2010]
[A096942] 5, 21, 55, 115, 210, 350, 546, 810, 1155, 1595, 2145, 2821, 3640, 4620, 5780, 7140, 8721, 10545, 12635, 15015, 17710, 20746, 24150, 27950, 32175, 36855, 42021, 47705, 53940, 60760, 68200, 76296, 85085, 94605, 104895, 115995, 127946, 140790, 154570
a(n) = sum_{k=1..n} (sum_{i=1..k) i*(n-k+5)). - Wesley Ivan Hurt, Sep 26 2013
[A033275] 0, 5, 21, 56, 120, 225, 385, 616, 936, 1365, 1925, 2640, 3536, 4641, 5985, 7600, 9520, 11781, 14421, 17480, 21000, 25025, 29601, 34776, 40600, 47125, 54405, 62496, 71456, 81345, 92225, 104160, 117216, 131461, 146965, 163800, 182040, 201761, 223041, 245960
a(n) = binomial(n+1, 2)*binomial(n-3, 2)/3.
[A059859] 0, 0, 1, 5, 21, 57, 138, 282, 538, 938, 1563, 2463, 3759, 5523, 7924, 11060, 15156, 20340, 26901, 35001, 45001, 57101, 71742, 89166, 109902, 134238, 162799, 195923, 234339, 278439, 329064, 386664, 452200, 526184, 609705, 703341
a(n) = 3*a(n-1) -8*a(n-3) +6*a(n-4) +6*a(n-5) -8*a(n-6) +3*a(n-8) -a(n-9). G.f.: x^2*(1+2*x+6*x^2+2*x^3+x^4) / ((1+x)^3*(x-1)^6). - R. J. Mathar, Feb 15 2010
a(n) = sum(i=1..n, floor(i^2/4)^2). - Enrique Pérez Herrero, Mar 20 2012
a(n) = (2*n*(2*n^4+5*n^3-5*n+3)+5*(2*n*(n+1)-1)*(-1)^n+5)/320. - Bruno Berselli, Mar 21 2012
[A203233] 1, 5, 21, 60, 216, 540, 1836, 4320, 14256, 32400, 104976, 233280, 746496, 1632960, 5178816, 11197440, 35271936, 75582720, 236825856, 503884800, 1572120576, 3325639680, 10339716096, 21767823360, 67480252416, 141490851840
a(n) = (5/12)*n*6^(n/2) if n is even, (5*n-1)*6^((n+1)/2)/24 if n is odd. - Robert Israel, May 04 2017
[A186948] 1, 1, 5, 21, 73, 233, 717, 2173, 6545, 19665, 59029, 177125, 531417, 1594297, 4782941, 14348877, 43046689, 129140129, 387420453, 1162261429, 3486784361, 10460353161, 31381059565, 94143178781, 282429536433, 847288609393
a(n) = 3*a(n-1) + 2*(2n-3). - Vincenzo Librandi, Mar 13 2011
a(0)=1, a(1)=1, a(2)=5, a(n)=5*a(n-1)-7*a(n-2)+3*a(n-3) [From Harvey P. Dale, Nov 24 2011]
[A126645] 5, 21, 77, 261, 845, 2661, 8237, 25221, 76685, 232101, 700397, 2109381, 6344525, 19066341, 57264557, 171924741, 516036365, 1548633381, 4646948717, 13942943301, 41833024205, 125507461221, 376539160877, 1129651037061, 3389020220045, 10167194877861
a(n) = 4*3^n-4*2^n+1.
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3). - Colin Barker, Feb 22 2015
[A186244] 0, 0, 1, 5, 21, 79, 281, 963, 3217, 10547, 34089, 108955, 345137, 1085331, 3392377, 10549739, 32667201, 100782787, 309946697, 950599131, 2908512145, 8880484019, 27064776729, 82350874699, 250212362465, 759269653155, 2301393567721, 6968615051195
a(n) = 3*a(n-1) + 2*(3^(n-3) - a(n-3))
a(n) = -(1/3)*(1+sqrt(3))^n*sqrt(3) - (1/2)*(1+sqrt(3))^n + 3^n - (1/2)*(1-sqrt(3))^n + (1/3)*sqrt(3)*(1-sqrt(3))^n. - Alexander R. Povolotsky, Feb 18 2011
[A231430] 0, 0, 0, 1, 5, 21, 81, 295, 1037, 3555, 11961, 39667, 130049, 422403, 1361385, 4359115, 13880129, 43984227, 138795849, 436367131, 1367434577, 4272615603, 13315096089, 41397076939, 128429930465, 397665266595, 1229127726825, 3792875384251, 11686625364785
a(n) = 3*a(n-1) + 2* (3^(n-4) - a(n-4)).
[A292878] 1, 5, 21, 81, 313, 1213, 4701, 18217, 70593, 273557, 1060069, 4107905, 15918665, 61686893, 239044717, 926329305, 3589646289, 13910345285, 53904393461, 208886521137, 809462381657, 3136771792413, 12155397830269, 47103744291977, 182533122922465, 707339543058421, 2741032537895173, 106218568543672
a(n) = a(n-1) + 4(2^n-1) + 4 Sum_{k=2..n} [(2^(k-1)-1)a(n-k)], a(0)=1
[A217783] 1, 5, 21, 83, 318, 1196, 4445, 16389, 60097, 219527, 799734, 2907800, 10558041, 38297573, 138819053, 502925211, 1821362830, 6594366404, 23870720757, 86396702117, 312668994969, 1131463798415, 4094241931526, 14814592074288, 53603587025713, 193949782284101
a(n) = 8*a(n-1) -21*a(n-2) + 20*a(n-3) -5*a(n-4) for n>=4, a(0) = 1, a(1) = 5, a(2) = 21, a(3) = 83.
[A221862] 1, 5, 21, 83, 319, 1208, 4535, 16932, 62986, 233702, 865513, 3201026, 11826582, 43660921, 161090910, 594092895, 2190225106, 8072519511, 29746921227, 109599320930, 403758993204, 1487294628182, 5478244777582, 20177275278559, 74313150143975, 273687550281967
a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 5, a(2) = 21, a(3) = 83, a(4) = 319.
[A216271] 1, 5, 21, 83, 319, 1209, 4549, 17051, 63783, 238337, 890077, 3322995, 12403951, 46296905, 172791861, 644886923, 2406788599, 8982333009, 33522674509, 125108627171, 466912358463, 1742541855257, 6503257159717, 24270490977915, 90578715140551, 338044386361505, 1261598863859901
a(n) = 6*a(n-1) - 9*a(n-2) + 2*a(n-3), a(0) = 1, a(1) = 5, a(2) = 21.

[A246986] 1, 5, 21, 84, 331, 1300, 5111, 20144, 79611, 315420, 1252351, 4980904, 19837091, 79086740, 315557991, 1259856864, 5032285771, 20107685260, 80366302031, 321271760024, 1284506433651, 5136283390980, 20539905484471, 82143935602384, 328528679208731, 1313973518843900, 5255470464625311, 2102061099269
a(n) = (3^(n+1)+7*4^n-3*2^n-1)/6. - Todd Silvestri, Nov 16 2014
[A002450] 0, 1, 5, 21, 85, 341, 1365, 5461, 21845, 87381, 349525, 1398101, 5592405, 22369621, 89478485, 357913941, 1431655765, 5726623061, 22906492245, 91625968981, 366503875925, 1466015503701, 5864062014805, 23456248059221, 93824992236885, 375299968947541
a(n+1) = 4*a(n) + 1, with a(0) = 0. - Philippe Deléham, Feb 25 2004
a(n) = Sum_{i=0..n-1} C(2*n-1-i, i)*2^i. - Mario Catalani (mario.catalani(AT)unito.it), Jul 23 2004
a(n+1) = Sum_{k=0..n} binomial(n+1, k+1)*3^k. - Paul Barry, Aug 20 2004
a(n) = 4*a(n-1) + a(n-2) - 4*a(n-3) = 5*a(n-1) - 4*a(n-2), a(0)=0, a(1)=1, a(2)=5. - Wolfdieter Lang, Oct 18 2010
a(0) = 0, a(n+1) = a(n)+2^(2*n). - Washington Bomfim, Jan 21 2011
a(n) = Sum_{k=1..floor((n+2)/3)} C(2*n+1,n+2-3*k). - Mircea Merca, Jun 25 2011
[A265939] 1, 5, 21, 86, 349, 1410, 5682, 22860, 91869, 368906, 1480486, 5938740, 23813746, 95462996, 382594884, 1533053976, 6141910749, 24603000666, 98541647454, 394644228516, 1580344177254, 6327940829436, 25336229584764, 101436400902696, 406088663224434, 1625644557045060, 6507440174581692, 26048128051398920
a(n) = (3*4^n - binomial(2*n, n))/2. - Vaclav Kotesovec, Feb 21 2016
[A039919] 0, 1, 5, 21, 86, 355, 1488, 6335, 27352, 119547, 528045, 2353791, 10575810, 47849685, 217824285, 996999525, 4585548680, 21182609875, 98236853415, 457211008415, 2134851575050, 9997848660345, 46949087361550, 221022160284101, 1042916456739696, 4931673470809525, 23367060132453323
a(n) = sum{k=0..n, C(n,k)*(C(k+1)-C(k))}; - Paul Barry, Feb 16 2006
[A015448] 1, 1, 5, 21, 89, 377, 1597, 6765, 28657, 121393, 514229, 2178309, 9227465, 39088169, 165580141, 701408733, 2971215073, 12586269025, 53316291173, 225851433717, 956722026041, 4052739537881, 17167680177565, 72723460248141, 308061521170129, 1304969544928657, 5527939700884757
a(n) = Fibonacci(3n-1) = ((1+sqrt(5))*(2-sqrt(5))^n - (1-sqrt(5))*(2+sqrt(5))^n)/ (2*sqrt(5)).
a(n) = upper left term in the 2 X 2 matrix [1,2; 2,3]^n. - Gary W. Adamson, Mar 02 2008
a(n) = Fibonacci(3n+1) mod Fibonacci(3n), n>0
a(n) = (5*F(n)^3 + 5*F(n-1)^3 + 3*(-1)^n*F(n-2))/2,
[A154964] 1, 1, 5, 21, 93, 405, 1773, 7749, 33885, 148149, 647757, 2832165, 12383037, 54142101, 236724525, 1035026181, 4525425693, 19786434165, 86511856653, 378254174949, 1653833664765, 7231026043989, 31616080120557, 138234396625605, 604399670600157, 2642605391554101
a(n) = (1/2)*(((3/2)-(1/2)*sqrt(33))^(n-1)+((3/2)+(1/2)*sqrt(33))^(n-1))+(7/66)*sqrt(33)*(((3/2)+(1/2)*sqrt(33))^(n-1)-((3/2)-(1/2)*sqrt(33))^(n-1))+(2/3)*(C(2*n,n) mod 2). - Paolo P. Lava, Jan 20 2009
[A049452] 0, 5, 22, 51, 92, 145, 210, 287, 376, 477, 590, 715, 852, 1001, 1162, 1335, 1520, 1717, 1926, 2147, 2380, 2625, 2882, 3151, 3432, 3725, 4030, 4347, 4676, 5017, 5370, 5735, 6112, 6501, 6902, 7315, 7740, 8177, 8626, 9087, 9560, 10045, 10542
a(n) = n*(6*n-1).
a(n) = C(6*n,2)/3, n>=0. - Zerinvary Lajos, Jan 02 2007
a(n) = 12*n + a(n-1) - 7. - Vincenzo Librandi, Aug 06 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0)=0, a(1)=5, a(2)=22. - Harvey P. Dale, Mar 07 2012
[A273677] 1, 5, 22, 55, 111, 196, 316, 477, 685, 946, 1266, 1651, 2107, 2640, 3256, 3961, 4761, 5662, 6670, 7791, 9031, 10396, 11892, 13525, 15301, 17226, 19306, 21547, 23955, 26536, 29296, 32241, 35377, 38710, 42246, 45991, 49951, 54132, 58540, 63181, 68061, 73186
a(n) = (2*n^3+5*n^2+3*n+2)/2 for n>1.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>5.
[A050533] 0, 5, 22, 59, 124, 225, 370, 567, 824, 1149, 1550, 2035, 2612, 3289, 4074, 4975, 6000, 7157, 8454, 9899, 11500, 13265, 15202, 17319, 19624, 22125, 24830, 27747, 30884, 34249, 37850, 41695, 45792, 50149, 54774, 59675, 64860, 70337, 76114, 82199
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). Vincenzo Librandi, Apr 27 2012
[A273311] 1, 5, 22, 62, 135, 247, 408, 624, 905, 1257, 1690, 2210, 2827, 3547, 4380, 5332, 6413, 7629, 8990, 10502, 12175, 14015, 16032, 18232, 20625, 23217, 26018, 29034, 32275, 35747, 39460, 43420, 47637, 52117, 56870, 61902, 67223, 72839, 78760, 84992, 91545, 98425
a(n) = (57+3*(-1)^n-58*n+48*n^2+16*n^3)/12 for n>0.
a(n) = (8*n^3+24*n^2-29*n+30)/6 for n>0 and even.
a(n) = (8*n^3+24*n^2-29*n+27)/6 for n>0 and odd.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>5.
[A288534] 1, 5, 22, 63, 140, 265, 450, 707, 1048, 1485, 2030, 2695, 3492, 4433, 5530, 6795, 8240, 9877, 11718, 13775, 16060, 18585, 21362, 24403, 27720, 31325, 35230, 39447, 43988, 48865, 54090, 59675, 65632, 71973, 78710, 85855, 93420, 101417, 109858, 118755, 128120, 137965
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 4.
[A273336] 1, 5, 22, 70, 150, 270, 438, 662, 950, 1310, 1750, 2278, 2902, 3630, 4470, 5430, 6518, 7742, 9110, 10630, 12310, 14158, 16182, 18390, 20790, 23390, 26198, 29222, 32470, 35950, 39670, 43638, 47862, 52350, 57110, 62150, 67478, 73102, 79030, 85270, 91830, 98718
a(n) = 2/3*(2*n^3+6*n^2+4*n-15) for n>1.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>5.
[A273768] 1, 5, 22, 70, 151, 272, 441, 666, 955, 1316, 1757, 2286, 2911, 3640, 4481, 5442, 6531, 7756, 9125, 10646, 12327, 14176, 16201, 18410, 20811, 23412, 26221, 29246, 32495, 35976, 39697, 43666, 47891, 52380, 57141, 62182, 67511, 73136, 79065, 85306, 91867, 98756
a(n) = (4*n^3+12*n^2+11*n-39)/3 for n>2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>6.
[A011846] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 5, 22, 71, 200, 500, 1144, 2431, 4862, 9237, 16796, 29393, 49742, 81719, 130750, 204297, 312455, 468682, 690690, 1001500, 1430715, 2016007, 2804880, 3856710, 5245125, 7060746
a(n) = floor(binomial(n+1,10)/(n+1)). [Gary Detlefs, Nov 23 2011]
[A191008] 1, 5, 22, 86, 319, 1139, 3964, 13532, 45517, 151313, 498226, 1627538, 5281195, 17039327, 54705208, 174877304, 556916953, 1767605981, 5593383310, 17651846030, 55570626391, 174557144075, 547207226932, 1712229064916, 5348509347109, 16680994498409, 51949382866474
a(n) = (n*3^(n+1)+((5*3^(n+1)+(-1)^(n))/4))/4.
a(n) = 5*a(n-1) - 3*a(n-2) - 9*a(n-3) for n>2.
[A208736] 0, 0, 0, 1, 5, 22, 91, 361, 1392, 5265, 19653, 72694, 267179, 977593, 3565600, 12975457, 47142021, 171075606, 620303547, 2247803785, 8141857808, 29481675889, 106728951109, 386314552438, 1398132674955, 5059626441177, 18308871648576, 66249898660801
a(n) = 8*a(n-1) - 21*a(n-2) + 20*a(n-3) - 5*a(n-4), a(2) = 0, a(3) = 1, a(4) = 5, a(5) = 22.
[A231002] 5, 23, 33, 51, 61, 79, 89, 107, 117, 135, 145, 163, 173, 191, 201, 219, 229, 247, 257, 275, 285, 303, 313, 331, 341, 359, 369, 387, 397, 415, 425, 443, 453, 471, 481, 499, 509, 527, 537, 555, 565, 583, 593, 611, 621, 639, 649, 667, 677, 695, 705, 723, 733, 751, 761, 779, 789
a(n+1) = a(n-1)+28, for all n > 1. - M. F. Hasler, Apr 14 2015
a(2n) = 28n-5 (n>0), a(2n+1) = 28n+5 (n>=0), a(n) = 28*floor(n/2)-5*(-1)^n. - M. F. Hasler, Apr 14 2015
[A140811] 1, 5, 23, 53, 95, 149, 215, 293, 383, 485, 599, 725, 863, 1013, 1175, 1349, 1535, 1733, 1943, 2165, 2399, 2645, 2903, 3173, 3455, 3749, 4055, 4373, 4703, 5045, 5399, 5765, 6143, 6533, 6935, 7349, 7775, 8213, 8663, 9125, 9599, 10085, 10583, 11093, 11615
a(n) = 2*a(n-1) - a(n-2) + 12.
a(n) = a(n-1) +12n -6. - Vincenzo Librandi, Feb 05 2012
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 05 2012
[A098499] 1, 5, 23, 57, 109, 169, 246, 334, 439, 555, 688, 832, 993, 1165, 1354, 1554, 1771, 1999, 2244, 2500, 2773, 3057, 3358, 3670, 3999, 4339, 4696, 5064, 5449, 5845, 6258, 6682, 7123, 7575, 8044, 8524, 9021, 9529, 10054, 10590, 11143, 11707, 12288, 12880, 13489
a(n) = (1/4) [28n^2 - 6n + 9 + 3(-1)^n], for n>3.
[A098498] 1, 5, 23, 60, 110, 172, 248, 338, 442, 560, 692, 838, 998, 1172, 1360, 1562, 1778, 2008, 2252, 2510, 2782, 3068, 3368, 3682, 4010, 4352, 4708, 5078, 5462, 5860, 6272, 6698, 7138, 7592, 8060, 8542, 9038, 9548, 10072, 10610, 11162, 11728, 12308, 12902, 13510
a(n) = 7*n^2 - n + 2, for n>3.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>6. G.f.: -(2*x^6 -x^5 -6*x^4 +5*x^3 +11*x^2 +2*x +1) / (x -1)^3. - Colin Barker, Jul 14 2013

[A241765] 0, 5, 23, 65, 145, 280, 490, 798, 1230, 1815, 2585, 3575, 4823, 6370, 8260, 10540, 13260, 16473, 20235, 24605, 29645, 35420, 41998, 49450, 57850, 67275, 77805, 89523, 102515, 116870, 132680, 150040, 169048, 189805, 212415, 236985, 263625, 292448
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A283114] 0, 0, 0, 1, 5, 23, 82, 230, 560, 1208, 2392, 4405, 7673, 12733, 20320, 31326, 46914, 68460, 97698, 136635, 187737, 253813, 338240, 444818, 578038, 742898, 945224, 1191443, 1488955, 1845865, 2271410, 2775640, 3369910, 4066506, 4879200, 5822823, 6913887, 8170095
a(n) = (n^6 - 9*n^5 + 27*n^4 - 20*n^3 - 24*n^2 + 24*n)/288 + IF(MOD(n, 2) = 1, n^2 - 3*n - 5)/32 + IF(MOD(n, 3) = 1, 2)/9.
a(n) = (2*n^6 - 18*n^5 + 54*n^4 - 40*n^3 - 39*n^2 + 21*n - 45 - 9*(n^2 - 3*n - 5)*(-1)^n + 128*((n mod 3) mod 2))/576. - Bruno Berselli, Mar 01 2017
[A290938] 5, 23, 83, 291, 1015, 3539, 12339, 43043, 150239, 524723, 1833771, 6412467, 22437095, 78553491, 275180323, 964534339, 3382685743, 11869824179, 41673547291, 146387820371, 514484547639, 1809077492883, 6364347723667, 22400458807139, 78878848178815, 277881197881011
a(n) = 7*a(n-1) - 12*a(n-2) - 2*a(n-3) + 3*a(n-4) + 3*a(n-5) + 2*a(n-6).
[A283224] 1, 5, 23, 90, 317, 1036, 3192, 9358, 26336, 71542, 188440, 483007, 1208275, 2956941, 7093531, 16709523, 38706389, 88281394, 198474497, 440263342, 964424210, 2087882510, 4470194335, 9471079495, 19868723042, 41291454537, 85049747913, 173697766646
a(n) = (1/n)*Sum_{k=1..n} sigma_2(2*k)*a(n-k). - Seiichi Manyama, Mar 04 2017
[A255457] 1, 5, 23, 93, 359, 1335, 4873, 17535, 62601, 222181, 785855, 2772717, 9768351, 34378167, 120910529, 425062511, 1493898001, 5249371781, 18443445415, 64795091709, 227625068503, 799619495287, 2808906276921, 9866994688223, 34659998140825, 121750158651877, 427670046315727, 1502266603229837, 5276968090316303
a(n) = 5*a(n-1) - 24*a(n-3) + 15*a(n-4) + 17*a(n-5) for n>4. - Colin Barker, Feb 03 2017
[A268400] 1, 5, 23, 99, 413, 1691, 6842, 27464, 109631, 435887, 1728018, 6835668, 26996393, 106486529, 419639903, 1652533719, 6504159137, 25589302163, 100646529977, 395775842389, 1556107102849, 6117771240251, 24050813530815, 94550689834203, 371715533473021, 1461430355605367, 5746128800657639, 22594839306797223
a(n) = ((Sum_{m=1..n-3}((m+2)*(Sum_{k=0..m/2}((m^2+(3-2*k)*m+k^2-3*k+2)*binomial(m-k,k)))*binomial(2*n-m-5,n-m-3)))+2*binomial(2*n-4,n-2))/(2*n-2), n>2. - Vladimir Kruchinin, Feb 28 2016
[A258431] 0, 1, 5, 23, 102, 443, 1898, 8054, 33932, 142163, 592962, 2464226, 10209620, 42190558, 173962532, 715908428, 2941192472, 12065310083, 49428043442, 202249741418, 826671597572, 3375609654698, 13771567556012, 56138319705908, 228669994187432, 930803778591278
a(n) = ((8*n-10)*a(n-1)-(16*n-24)*a(n-2))/(n-1) for n>2, a(0)=0, a(1)=1, a(2)=5.
a(n) = (4^(n-1)+(2*n-1)!/(n-1)!^2)/2 for n>0, a(0)=0.
[A054441] 0, 1, 5, 23, 103, 455, 1993, 8679, 37633, 162643, 701075, 3015563, 12948083, 55513327, 237705547, 1016736115, 4344766607, 18550920063, 79149527249, 337482635279, 1438155203665, 6125448713739, 26077796587441, 110974892937943, 472081467302933, 2007534192877275, 8534465842495133
a(n) = sum(a(k-1)*binomial(2*(n-k), n-k), k=1..n) + 4^(n-1), n >= 1.
[A238112] 0, 0, 1, 5, 23, 107, 509, 2473, 12235, 61463, 312761, 1609005, 8355423, 43741635, 230614773, 1223414481, 6525975315, 34981856303, 188341400945, 1018043304661, 5522585343271, 30056208280091, 164066282507501, 898029800045945, 4927810473507803, 27103503645610567, 149393131346947369, 825093297608481533
a(n) = (2*GegenbauerC(n,-1/2,3)-GegenbauerC(n+1,-1/2,3))/4, n>1. - Benedict W. J. Irwin, Sep 26 2016
[A023275] 5, 23, 293, 593, 953, 2063, 3323, 4133, 4583, 8243, 8783, 9173, 9203, 14723, 15383, 16103, 16763, 18413, 19163, 20123, 25733, 29453, 37223, 38783, 39443, 40253, 41903, 42923, 44753, 45863, 49433, 51473, 54443, 54623, 54713, 57383, 58913, 63353, 66533
a(n) == 23 (mod 30) for n > 1. - John Cerkan, Sep 16 2016
[A121546] 5, 24, 56, 100, 156, 225, 307, 401, 508, 627, 759, 904, 1061, 1231, 1413, 1607, 1815, 2035, 2267, 2512, 2770, 3040, 3323, 3618, 3926, 4246, 4579, 4925, 5283, 5654, 6037, 6433, 6841, 7262, 7696, 8142, 8601, 9072, 9556, 10052, 10561, 11083, 11617, 12163
a(n) >= 6.2835n^2 - 0.009903n - 0.9212 is a lower bound on the real value of the dimension.
[A135703] 0, 5, 24, 57, 104, 165, 240, 329, 432, 549, 680, 825, 984, 1157, 1344, 1545, 1760, 1989, 2232, 2489, 2760, 3045, 3344, 3657, 3984, 4325, 4680, 5049, 5432, 5829, 6240, 6665, 7104, 7557, 8024, 8505, 9000, 9509, 10032, 10569, 11120, 11685, 12264, 12857, 13464
a(n) = 5*n + 14*binomial(n,2).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
a(n) = a(n-1) + 14*n - 9 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
[A006328] 5, 24, 79, 223, 579, 1432, 3434, 8071, 18714, 42991, 98127, 222965, 505008, 1141236, 2574845, 5802636, 13065935, 29403439, 66141015, 148734156, 334391354, 751675943, 1689494650, 3797059555, 8533209055, 19176039925, 43091557504, 96831330948, 217586892705
a(n) = 4*a(n-1) - 3*a(n-2) - 4*a(n-3) + 4*a(n-4) + a(n-5) - a(n-6) for n>8.
[A213766] 1, 5, 24, 83, 263, 776, 2201, 6077, 16488, 44211, 117615, 311232, 820641, 2158645, 5669096, 14872483, 38989367, 102165928, 267628569, 700924525, 1835493016, 4806144675, 12583939679, 32947361088, 86260987393, 225840387941
a(n) = 5*a(n-1) - 6*a(n-2) - 3*a(n-3) + 6*a(n-4) + a(n-5) - a(n-6).
[A268587] 0, 0, 0, 0, 5, 24, 85, 264, 760, 2080, 5488, 14080, 35328, 87040, 211200, 505856, 1198080, 2809856, 6533120, 15073280, 34537472, 78643200, 178061312, 401080320, 899153920, 2006974464, 4461690880, 9881780224, 21810380800, 47982837760, 105243475968
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4) for n>6.
a(n) = 2^(n-7)*(n-3)*(n+4)*(n+11)/3 for n>2.
[A074085] 0, 0, 0, 0, 5, 24, 91, 308, 978, 2978, 8802, 25440, 72251, 202316, 559941, 1534548, 4170256, 11250630, 30158900, 80389600, 213204513, 562896832, 1480086111, 3877337556, 10123000126, 26347306474, 68378847990, 176994780672
a(n)=6a(n-1)-9a(n-2)-4a(n-3)+9a(n-4)+6a(n-5)+a(n-6) for n>=8.
[A180354] 0, 5, 24, 93, 272, 645, 1320, 2429, 4128, 6597, 10040, 14685, 20784, 28613, 38472, 50685, 65600, 83589, 105048, 130397, 160080, 194565, 234344, 279933, 331872, 390725, 457080, 531549, 614768, 707397, 810120, 923645, 1048704, 1186053
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4.
[A276139] 1, 5, 24, 97, 411, 1718, 7209, 30217, 126696, 531173, 2226999, 9336862, 39145581, 164121053, 688091064, 2884878457, 12095090691, 50709664358, 212604446529, 891361661377, 3737107216776, 15668129957213, 65689925955519, 275410427652622, 1154680912735461, 4841094876469493
a(0)=1, a(1)=5, a(2)=24, a(n) = 3*a(n-1) + 5*a(n-2) for n>2.
[A110190] 0, 1, 5, 24, 116, 568, 2820, 14184, 72180, 371112, 1925380, 10068728, 53023860, 280969560, 1497072132, 8016213960, 43114424308, 232817773640, 1261793848836, 6861179441880, 37421756333172, 204671007577464, 1122275850740996, 6168352091629864, 33977333521770996, 187539324760522728
a(n) = Sum_{k=0..n} ((k+1)*Sum_{i=0..n-k} (binomial(n+1,n-k-i)*binomial(n+i,n))/ (n+1)*a113127(k)). - Vladimir Kruchinin, Mar 13 2016
[A084967] 5, 25, 35, 55, 65, 85, 95, 115, 125, 145, 155, 175, 185, 205, 215, 235, 245, 265, 275, 295, 305, 325, 335, 355, 365, 385, 395, 415, 425, 445, 455, 475, 485, 505, 515, 535, 545, 565, 575, 595, 605, 625, 635, 655, 665, 685, 695, 715, 725, 745, 755, 775, 785
a(n) = 5*(-3+(-1)^n+6*n)/2. a(n)=a(n-1)+a(n-2)-a(n-3). G.f.: 5*x*(x^2+4*x+1) / ((x-1)^2*(x+1)). - Colin Barker, Feb 24 2013
[A273789] 1, 5, 25, 49, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>4.
[A290700] 1, 5, 25, 49, 141, 389, 1009, 2761, 7441, 19925, 53769, 144721, 389325, 1048325, 2821665, 7594761, 20444065, 55029413, 148124153, 398713969, 1073231821, 2888859781, 7776063377, 20931130057, 56341150641, 151655712629, 408217654249, 1098815597201
a(n) = a(n-1) + 2*a(n-2) + 6*a(n-3) + 2*a(n-4) + 2*a(n-5) - 2*a(n-6) - 2*a(n-7) - a(n-8) + a(n-9) for n > 9.
[A152734] 0, 5, 25, 60, 110, 175, 255, 350, 460, 585, 725, 880, 1050, 1235, 1435, 1650, 1880, 2125, 2385, 2660, 2950, 3255, 3575, 3910, 4260, 4625, 5005, 5400, 5810, 6235, 6675, 7130, 7600, 8085, 8585, 9100, 9630, 10175, 10735, 11310, 11900, 12505, 13125, 13760, 14410
a(n) = a(n-1)+15*n-10 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
[A080856] 1, 5, 25, 61, 113, 181, 265, 365, 481, 613, 761, 925, 1105, 1301, 1513, 1741, 1985, 2245, 2521, 2813, 3121, 3445, 3785, 4141, 4513, 4901, 5305, 5725, 6161, 6613, 7081, 7565, 8065, 8581, 9113, 9661, 10225, 10805, 11401, 12013, 12641, 13285, 13945, 14621
a(n) = C(n,0) + 4*C(n,1) + 16*C(n,2). - Reinhard Zumkeller, Jun 17 2009
a(n) = 16*n+a(n-1)-12 with n>0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
[A060820] 5, 25, 61, 113, 181, 265, 365, 481, 613, 761, 925, 1105, 1301, 1513, 1741, 1985, 2245, 2521, 2813, 3121, 3445, 3785, 4141, 4513, 4901, 5305, 5725, 6161, 6613, 7081, 7565, 8065, 8581, 9113, 9661, 10225, 10805, 11401, 12013, 12641, 13285, 13945, 14621, 15313
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(5+10*x+x^2)/(1-x)^3. - Colin Barker, Apr 22 2012

[A154286] 5, 25, 75, 175, 350, 630, 1050, 1650, 2475, 3575, 5005, 6825, 9100, 11900, 15300, 19380, 24225, 29925, 36575, 44275, 53130, 63250, 74750, 87750, 102375, 118755, 137025, 157325, 179800, 204600, 231880, 261800, 294525, 330225, 369075, 411255
a(n) = (n+1)*(n+2)*(n+3)*(n+4)*5/24.
a(n) = a(n-1)*(n+4)/n (n>0), a(0)=5.
[A171272] 1, 5, 25, 77, 177, 341, 585, 925, 1377, 1957, 2681, 3565, 4625, 5877, 7337, 9021, 10945, 13125, 15577, 18317, 21361, 24725, 28425, 32477, 36897, 41701, 46905, 52525, 58577, 65077, 72041, 79485, 87425, 95877, 104857, 114381, 124465, 135125, 146377, 158237, 170721, 183845
a(n)=4a(n-1)-6a(n-2)+4a(n-3)-a(n-4).
[A062989] 0, 5, 25, 80, 205, 456, 917, 1708, 2994, 4995, 7997, 12364, 18551, 27118, 38745, 54248, 74596, 100929, 134577, 177080, 230209, 295988, 376717, 474996, 593750, 736255, 906165, 1107540, 1344875, 1623130, 1947761, 2324752, 2760648, 3262589, 3838345, 4496352
a(0)=0, a(1)=5, a(2)=25, a(3)=80, a(4)=205, a(5)=456, a(6)=917, a(n)= 7*a(n-1)- 21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Aug 08 2013
[A122679] 0, 5, 25, 80, 225, 605, 1600, 4205, 11025, 28880, 75625, 198005, 518400, 1357205, 3553225, 9302480, 24354225, 63760205, 166926400, 437019005, 1144130625, 2995372880, 7841988025, 20530591205, 53749785600, 140718765605, 368406511225, 964500768080
a(1)=0, a(2)=5, a(3)=25, a(n) = 4*a(n-1)-4*a(n-2)+a(n-3). - Harvey P. Dale, Apr 21 2015
a(n) = -5*2^(-1-n)*(2^(2+n)-(3-sqrt(5))^n*(3+sqrt(5))+(-3+sqrt(5))*(3+sqrt(5))^n). - Colin Barker, Nov 03 2016
[A018212] 1, 5, 25, 85, 255, 651, 1519, 3235, 6470, 12190, 21942, 37854, 63090, 101850, 160050, 245322, 367983, 541035, 781495, 1110395, 1554553, 2146573, 2927145, 3945045, 5260060, 6942988, 9079292, 11769100, 15131700, 19305540
a(n) = (1/(2*8!))*(n+2)*(n+4)*(n+6)*(n+8)*((n+1)*(n+3)*(n+5)*(n+7) + 1*3*5*7) - (1/3)*(1/2^6)*(n^3+(27/2)*n^2+56*n+(279/4))*(1/2)*(1-(-1)^n) [Yosu Yurramendi Jun 23 2013]
[A083090] 1, 5, 25, 90, 247, 766, 2258, 5860, 16526, 45639, 124043, 313327, 837221, 2216256, 5545541, 14524810, 37810204, 97907017, 242993558, 625252309, 1602714963, 3962518559, 10109705767, 25718726896, 63402237401, 160711911464
a(n)=T(n, n), where T(n, 0)=floor(n*x/(x-1))+1, T(n, k+1)=ceil(x*T(n, k)), for n>=0, k>=0, where x=1+sqrt(2).
[A255459] 1, 5, 25, 101, 361, 1205, 3865, 12101, 37321, 114005, 346105, 1046501, 3155881, 9500405, 28566745, 85831301, 257756041, 773792405, 2322425785, 6969374501, 20912317801, 62745342005, 188252803225, 564791964101, 1694443001161, 5083463221205, 15250658099065
a(n) = (3 - 2^(3+n) + 2*3^(1+n)).
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n>2.
[A083877] 1, 5, 25, 101, 385, 1397, 4921, 16949, 57409, 191909, 634777, 2081477, 6775873, 21921941, 70548793, 225995285, 721032577, 2292237893, 7264134169, 22954663973, 72350776321, 227512682165, 713919106105, 2235900497141, 6990131027905, 21817681693157
a(n) = 1/12 * [(4n-1)3^n - 3(-1)^n].
a(n) = 5*a(n-1)-3*a(n-2)-9*a(n-3). G.f.: x*(3*x^2+1) / ((x+1)*(3*x-1)^2). - Colin Barker, Sep 28 2014
[A245551] 1, 5, 25, 105, 420, 1596, 5880, 21120, 74415, 258115, 883883, 2994355, 10051860, 33479460, 110750580, 364177332, 1191186855, 3877914915, 12571302975, 40598200335, 130657125984, 419173385400, 1340928798300, 4278305877300, 13617034683525, 43243221276801, 137040737988105
a(n) = (2+3/n)*a(n-1) + (3+9/n)*a(n-2) for n >= 2. - Robert Israel, Aug 01 2014
[A275903] 1, 5, 25, 109, 465, 1989, 8521, 36509, 156417, 670133, 2871033, 12300301, 52697905, 225772453, 967271849, 4144061053, 17754307681, 76064381589, 325880921433, 1396164311533, 5981555398289, 25626643431045, 109791652808201, 470377911909981, 2015229522041281, 8633802573799285
a(n) = 5*a(n-1)-4*a(n-2)+4*a(n-3) for n>2. - Colin Barker, Aug 26 2016
[A282077] 0, 5, 25, 110, 350, 1001, 2485, 5720, 12120, 24310, 46126, 83980, 146860, 248710, 408430, 653752, 1021240, 1562275, 2343055, 3453450, 5007002, 7153575, 10079355, 14024400, 19282640, 26225628, 35302540, 47071640, 62200280, 81505820, 105955628, 136719440
a(n) = ((384 + 400*n + 140*n^2 + 20*n^3 + n^4)*(-945*(-1+(-1)^n) + 3378*n + 1900*n^2 + 460*n^3 + 50*n^4 + 2*n^5)) / 1451520. - Colin Barker, Feb 06 2017
[A200781] 1, 5, 25, 115, 530, 2425, 11100, 50775, 232275, 1062500, 4860250, 22232375, 101698250, 465201250, 2127983750, 9734098125, 44526969375, 203681015625, 931704015625, 4261920875000, 19495429065625, 89178510250000, 407931862578125, 1866014626609375, 8535765175875000, 39045399804843750, 178606512071015625, 817004981729375000
a(n) = 5*a(n-1) - 10*a(n-3) + 5*a(n-4).
[A275906] 1, 5, 25, 121, 589, 2865, 13937, 67797, 329801, 1604329, 7804317, 37964385, 184679137, 898378405, 4370194553, 21258970969, 103415040493, 503066240401, 2447184094545, 11904416380277, 57909468139689, 281702722174409, 1370353177636669, 6666133067384001, 32427647702257089, 157745476256201029
a(n) = 4*a(n-1)+4*a(n-2)+a(n-3). - Colin Barker, Aug 26 2016
[A139273] 0, 5, 26, 63, 116, 185, 270, 371, 488, 621, 770, 935, 1116, 1313, 1526, 1755, 2000, 2261, 2538, 2831, 3140, 3465, 3806, 4163, 4536, 4925, 5330, 5751, 6188, 6641, 7110, 7595, 8096, 8613, 9146, 9695, 10260, 10841, 11438, 12051, 12680
a(n) = 8*n^2 - 3*n.
a(n) = 16*n + a(n-1) - 11 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=5, a(2)=26, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Feb 02 2012
[A185939] 5, 26, 65, 122, 197, 290, 401, 530, 677, 842, 1025, 1226, 1445, 1682, 1937, 2210, 2501, 2810, 3137, 3482, 3845, 4226, 4625, 5042, 5477, 5930, 6401, 6890, 7397, 7922, 8465, 9026, 9605, 10202, 10817, 11450
a(n) = a(n-1) + 18*n - 15, a(1) = 5. - Vincenzo Librandi, Feb 07 2011
a(n) = (2*n-1)^2 + (2*n)^2 + (n-1)^2. - Bruno Berselli, Feb 06 2012
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - G. C. Greubel, Feb 25 2017
[A273419] 1, 5, 26, 67, 139, 252, 412, 629, 909, 1262, 1694, 2215, 2831, 3552, 4384, 5337, 6417, 7634, 8994, 10507, 12179, 14020, 16036, 18237, 20629, 23222, 26022, 29039, 32279, 35752, 39464, 43425, 47641, 52122, 56874, 61907, 67227, 72844, 78764, 84997, 91549, 98430
a(n) = (111-3*(-1)^n-58*n+48*n^2+16*n^3)/12 for n>1.
a(n) = (8*n^3+24*n^2-29*n+54)/6 for n>1 and even.
a(n) = (8*n^3+24*n^2-29*n+57)/6 for n>1 and odd.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>6.
[A273447] 1, 5, 26, 67, 147, 267, 435, 659, 947, 1307, 1747, 2275, 2899, 3627, 4467, 5427, 6515, 7739, 9107, 10627, 12307, 14155, 16179, 18387, 20787, 23387, 26195, 29219, 32467, 35947, 39667, 43635, 47859, 52347, 57107, 62147, 67475, 73099, 79027, 85267, 91827, 98715
a(n) = (4*n^3+12*n^2+8*n-39)/3 for n>2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>6.
[A273406] 1, 5, 26, 70, 147, 263, 428, 648, 933, 1289, 1726, 2250, 2871, 3595, 4432, 5388, 6473, 7693, 9058, 10574, 12251, 14095, 16116, 18320, 20717, 23313, 26118, 29138, 32383, 35859, 39576, 43540, 47761, 52245, 57002, 62038, 67363, 72983, 78908, 85144, 91701, 98585
a(n) = (9+3*(-1)^n-10*n+48*n^2+16*n^3)/12.
a(n) = (8*n^3+24*n^2-5*n+6)/6 for n even.
a(n) = (8*n^3+24*n^2-5*n+3)/6 for n odd.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>4.
[A273833] 1, 5, 26, 71, 147, 264, 428, 649, 933, 1290, 1726, 2251, 2871, 3596, 4432, 5389, 6473, 7694, 9058, 10575, 12251, 14096, 16116, 18321, 20717, 23314, 26118, 29139, 32383, 35860, 39576, 43541, 47761, 52246, 57002, 62039, 67363, 72984, 78908, 85145, 91701, 98586
a(n) = (16*n^3+48*n^2-10*n-3*((-1)^n-5))/12 for n>1.
a(n) = (8*n^3+24*n^2-5*n+6)/6 for n>1 and even.
a(n) = (8*n^3+24*n^2-5*n+9)/6 for n>1 and odd.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>6.
[A273849] 1, 5, 26, 71, 147, 268, 437, 662, 951, 1312, 1753, 2282, 2907, 3636, 4477, 5438, 6527, 7752, 9121, 10642, 12323, 14172, 16197, 18406, 20807, 23408, 26217, 29242, 32491, 35972, 39693, 43662, 47887, 52376, 57137, 62178, 67507, 73132, 79061, 85302, 91863, 98752
a(n) = (4*n^3+12*n^2+11*n-51)/3 for n>3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>7.

[A273781] 1, 5, 26, 74, 155, 276, 445, 670, 959, 1320, 1761, 2290, 2915, 3644, 4485, 5446, 6535, 7760, 9129, 10650, 12331, 14180, 16205, 18414, 20815, 23416, 26225, 29250, 32499, 35980, 39701, 43670, 47895, 52384, 57145, 62186, 67515, 73140, 79069, 85310, 91871, 98760
a(n) = (n-1)*(4*n^2+16*n+27)/3 for n>2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>6.
[A048395] 0, 5, 26, 75, 164, 305, 510, 791, 1160, 1629, 2210, 2915, 3756, 4745, 5894, 7215, 8720, 10421, 12330, 14459, 16820, 19425, 22286, 25415, 28824, 32525, 36530, 40851, 45500, 50489, 55830, 61535, 67616, 74085, 80954, 88235, 95940, 104081
a(n) = 2*n^3 + 2*n^2 + n.
a(n) = Sum_{j=0..n} ((n+j+2)^2 - j^2 + 1). - Zerinvary Lajos, Sep 13 2006
a(0)=0, a(1)=5, a(2)=26, a(3)=75, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Nov 01 2013
[A096943] 5, 26, 81, 196, 406, 756, 1302, 2112, 3267, 4862, 7007, 9828, 13468, 18088, 23868, 31008, 39729, 50274, 62909, 77924, 95634, 116380, 140530, 168480, 200655, 237510, 279531, 327236, 381176, 441936, 510136, 586432, 671517, 766122, 871017, 987012
a(0)=5, a(1)=26, a(2)=81, a(3)=196, a(4)=406, a(5)=756, a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Jan 11 2014
[A079909] 1, 5, 26, 90, 246, 566, 1146, 2106, 3590, 5766, 8826, 12986, 18486, 25590, 34586, 45786, 59526, 76166, 96090, 119706, 147446, 179766, 217146, 260090, 309126, 364806, 427706, 498426, 577590, 665846, 763866, 872346, 992006, 1123590
a(0)=1, a(1)=5, a(n)=n^4 - 2*n^3 + 9*n^2 - 8*n + 6 (n>=2) found by applying theorem 7.2.1 of Brualdi, Ryser: Combinatorial Matrix Theory.
[A211606] 0, 0, 1, 5, 26, 110, 490, 2086, 9240, 40776, 185820, 855580, 4048616, 19455800, 95773496, 479581480, 2454041920, 12776826816, 67849286160, 366455145936, 2015621873440, 11268605368160, 64074235576736, 370040657037920, 2171138049287296, 12928631894588800
a(n) = (n*(n-2)*(9*n-7) *a(n-1) +n*(n-1)*(9*n^2-13*n+2) *a(n-2))/ ((n-2)*(9*n^2-31*n+24)) for n>=3; a(n) = n*(n-1)/2 for n<3.
[A247491] 0, 0, 0, 0, 1, 5, 26, 126, 624, 3193, 17119, 96668, 576104, 3621982, 23980620, 166805068, 1215842905, 9263445775, 73599067250, 608471202527, 5224252803246, 46499854580107, 428369819029085, 4078345518655015, 40073659206668916, 405885206895408576, 4232705116291188276
a(n) = Sum_{k=0..n} (-1)^(n-k)*C(n,k)*(Bell(k)-Catalan(k)).
[A181890] 5, 27, 65, 119, 189, 275, 377, 495, 629, 779, 945, 1127, 1325, 1539, 1769, 2015, 2277, 2555, 2849, 3159, 3485, 3827, 4185, 4559, 4949, 5355, 5777, 6215, 6669, 7139, 7625, 8127, 8645, 9179, 9729, 10295, 10877
a(n) = (2*n+1)*(4*n+5).
a(n) = a(n-1)+16*n+6;
a(n) = 2*a(n-1)-a(n-2)+16.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).
[A135713] 0, 5, 27, 78, 170, 315, 525, 812, 1188, 1665, 2255, 2970, 3822, 4823, 5985, 7320, 8840, 10557, 12483, 14630, 17010, 19635, 22517, 25668, 29100, 32825, 36855, 41202, 45878, 50895, 56265, 62000, 68112, 74613, 81515, 88830, 96570, 104747, 113373, 122460, 132020
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) for n>3. - Bruno Berselli, Nov 19 2010
[A085740] 0, 0, 5, 27, 84, 200, 405, 735, 1232, 1944, 2925, 4235, 5940, 8112, 10829, 14175, 18240, 23120, 28917, 35739, 43700, 52920, 63525, 75647, 89424, 105000, 122525, 142155, 164052, 188384, 215325, 245055, 277760, 313632, 352869, 395675, 442260
a(n) = n^2*(n^2+2*n-3)/4.
[A249995] 1, 5, 27, 121, 539, 2289, 9619, 39737, 162987, 663553, 2690051, 10865673, 43783195, 176086097, 707220723, 2837479129, 11375770763, 45580514721, 182554616035, 730915611305, 2925754935291, 11709295114225, 46856010770387, 187480525633401, 750091566966379, 3000874627609409
a(n) = ((-1)^n*2^(1+n)+5*2^(3+2*n)-3^(3+n))/15. - Colin Barker, Dec 29 2014
a(n) = 5*a(n-1) + 2*a(n-2) - 24*a(n-3). - Colin Barker, Dec 29 2014
[A275709] 0, 5, 28, 81, 176, 325, 540, 833, 1216, 1701, 2300, 3025, 3888, 4901, 6076, 7425, 8960, 10693, 12636, 14801, 17200, 19845, 22748, 25921, 29376, 33125, 37180, 41553, 46256, 51301, 56700, 62465, 68608, 75141, 82076, 89425, 97200, 105413, 114076, 123201, 132800, 142885
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A257093] 0, 5, 28, 82, 180, 355, 560, 868, 1272, 1785, 2420, 3190, 4108, 5187, 6440, 7880, 9520, 11373, 15770, 18340, 21175, 24288, 27692, 31400, 35425, 39780, 44478, 49532, 54955, 60760, 73568, 80597, 88060, 95970, 104340, 113183, 122512, 132340, 142680, 153545
a(n) = Sum_{j=0..n-1}(n-j)*(5*n-2*j).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Apr 16 2015
[A027016] 1, 5, 28, 98, 291, 806, 2164, 5729, 15072, 39542, 103615, 271370, 710568, 1860413, 4870756, 12751946, 33385179, 87403694, 228826012, 599074457, 1568397480, 4106118110, 10749956983, 28143752978, 73681302096, 192900153461, 505019158444, 1322157322034
a(n) = 5*a(n-1)-8*a(n-2)+5*a(n-3)-a(n-4) for n>4.
[A081116] 5, 29, 42, 75, 132, 134, 140, 152, 159, 162, 163, 201, 206, 215, 241, 256, 277, 301, 314, 347, 404, 406, 412, 424, 431, 434, 435, 473, 478, 487, 513, 528, 549, 573, 586, 619, 676, 678, 684, 696, 703, 706, 707, 745, 750, 759, 785, 800, 821, 845, 858, 891, 948
a(n+1)-a(n) is the 16-periodic sequence (24, 13, 33, 57, 2, 6, 12, 7, 3, 1, 38, 5, 9, 26, 15, 21)
[A108928] 5, 29, 69, 125, 197, 285, 389, 509, 645, 797, 965, 1149, 1349, 1565, 1797, 2045, 2309, 2589, 2885, 3197, 3525, 3869, 4229, 4605, 4997, 5405, 5829, 6269, 6725, 7197, 7685, 8189, 8709, 9245, 9797, 10365, 10949, 11549, 12165, 12797, 13445, 14109, 14789
a(n) = 2*(2*n-1)*(2*n+1)-1.
a(1)=5, a(2)=29, a(3)=69, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 21 2012
[A087348] 5, 29, 73, 137, 221, 325, 449, 593, 757, 941, 1145, 1369, 1613, 1877, 2161, 2465, 2789, 3133, 3497, 3881, 4285, 4709, 5153, 5617, 6101, 6605, 7129, 7673, 8237, 8821, 9425, 10049, 10693, 11357, 12041, 12745, 13469, 14213, 14977, 15761, 16565, 17389
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(5+14*x+x^2)/(1-x)^3. - Colin Barker, Jun 30 2012
[A050409] 0, 5, 29, 86, 190, 355, 595, 924, 1356, 1905, 2585, 3410, 4394, 5551, 6895, 8440, 10200, 12189, 14421, 16910, 19670, 22715, 26059, 29716, 33700, 38025, 42705, 47754, 53186, 59015, 65255, 71920, 79024, 86581, 94605, 103110, 112110, 121619
a(n) = n*(n+1)*(14*n+1)/6.
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 22 2012
[A264750] 5, 29, 99, 259, 574, 1134, 2058, 3498, 5643, 8723, 13013, 18837, 26572, 36652, 49572, 65892, 86241, 111321, 141911, 178871, 223146, 275770, 337870, 410670, 495495, 593775, 707049, 836969, 985304, 1153944, 1344904, 1560328, 1802493, 2073813, 2376843, 2714283
a(n) = (n - 4)*(n - 3)*(n - 2)*(n - 1)*(4*n + 5)/120.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>10.
[A057721] 1, 5, 29, 109, 305, 701, 1405, 2549, 4289, 6805, 10301, 15005, 21169, 29069, 39005, 51301, 66305, 84389, 105949, 131405, 161201, 195805, 235709, 281429, 333505, 392501, 459005, 533629, 617009, 709805, 812701, 926405, 1051649
a(n) = Denominator of Integral(sin(n*x)/(exp((n^2+1)*x)),x=0..infinity). [Francesco Daddi, Jul 07 2013]
[A119494] 5, 29, 109, 347, 857, 1627, 2999, 4931, 7759, 11677, 16111, 22229, 29269, 37717, 48527, 61057, 75503, 91463, 110567, 131671, 155509, 183587, 214189, 248597, 286073, 325889, 369983, 419459, 473659, 534043, 600631, 667547, 739549, 816779
a(n) is approximately p(n)^e.
[A097252] 0, 5, 30, 35, 180, 185, 210, 215, 1080, 1085, 1110, 1115, 1260, 1265, 1290, 1295, 6480, 6485, 6510, 6515, 6660, 6665, 6690, 6695, 7560, 7565, 7590, 7595, 7740, 7745, 7770, 7775, 38880, 38885, 38910, 38915, 39060, 39065, 39090, 39095, 39960, 39965
a(2n) = 6*a(n), a(2n+1) = a(2n)+5.
[A169610] 5, 30, 42, 67, 79, 104, 116, 141, 153, 178, 190, 215, 227, 252, 264, 289, 301, 326, 338, 363, 375, 400, 412, 437, 449, 474, 486, 511, 523, 548, 560, 585, 597, 622, 634, 659, 671, 696, 708, 733, 745, 770, 782, 807, 819, 844, 856, 881, 893, 918, 930, 955, 967, 992, 1004, 1029, 1041
a(n) = (74*n+13*(-1)^n -41)/4 . - Bruno Berselli, Jan 05 0212
[A152745] 0, 5, 30, 75, 140, 225, 330, 455, 600, 765, 950, 1155, 1380, 1625, 1890, 2175, 2480, 2805, 3150, 3515, 3900, 4305, 4730, 5175, 5640, 6125, 6630, 7155, 7700, 8265, 8850, 9455, 10080, 10725, 11390, 12075, 12780, 13505, 14250, 15015
a(n) = a(n-1)+20*n-15 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
[A187275] 0, 5, 30, 75, 300, 625, 2250, 4375, 15000, 28125, 93750, 171875, 562500, 1015625, 3281250, 5859375, 18750000, 33203125, 105468750, 185546875, 585937500, 1025390625, 3222656250, 5615234375, 17578125000, 30517578125, 95214843750, 164794921875, 512695312500, 885009765625, 2746582031250
a(n) = 10*a(n-2) - 25*a(n-4). - Colin Barker, Jul 25 2013
a(2*n) = 6*n*5^n, a(2*n+1) = (2*n+1)*5^(n+1). - Andrew Howroyd, Mar 28 2016

[A273480] 1, 5, 30, 79, 160, 281, 450, 675, 964, 1325, 1766, 2295, 2920, 3649, 4490, 5451, 6540, 7765, 9134, 10655, 12336, 14185, 16210, 18419, 20820, 23421, 26230, 29255, 32504, 35985, 39706, 43675, 47900, 52389, 57150, 62191, 67520, 73145, 79074, 85315, 91876, 98765
a(n) = (4*n^3+12*n^2+11*n-12)/3 for n>0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A164015] 5, 30, 80, 155, 255, 380, 530, 705, 905, 1130, 1380, 1655, 1955, 2280, 2630, 3005, 3405, 3830, 4280, 4755, 5255, 5780, 6330, 6905, 7505, 8130, 8780, 9455, 10155, 10880, 11630, 12405, 13205, 14030, 14880, 15755, 16655, 17580, 18530
a(n) = a(n-1) + 25*n (with a(0)=5). - Vincenzo Librandi, Nov 30 2010
a(0)=5, a(1)=30, a(2)=80, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 08 2011
[A258582] 0, 5, 30, 91, 204, 385, 650, 1015, 1496, 2109, 2870, 3795, 4900, 6201, 7714, 9455, 11440, 13685, 16206, 19019, 22140, 25585, 29370, 33511, 38024, 42925, 48230, 53955, 60116, 66729, 73810, 81375, 89440, 98021, 107134, 116795, 127020, 137825, 149226, 161239, 173880
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Nov 18 2015
a(n) = Sum_{k=1..2*n} k^2 (see the first comment). E.g.f. exp(x)*(5*x+ 20*x^2/2+16*x^3/3!). - Wolfdieter Lang, Mar 13 2017
[A071252] 0, 0, 5, 30, 102, 260, 555, 1050, 1820, 2952, 4545, 6710, 9570, 13260, 17927, 23730, 30840, 39440, 49725, 61902, 76190, 92820, 112035, 134090, 159252, 187800, 220025, 256230, 296730, 341852, 391935, 447330, 508400, 575520, 649077, 729470, 817110, 912420
a(n) = floor(n^5/(n+1))/2. - Gary Detlefs, Mar 31 2011
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) n>4, a(0)=0, a(1)=0, a(2)=5, a(3)=30, a(4)=102. - Yosu Yurramendi, Sep 03 2013
[A174002] 0, 5, 30, 105, 280, 630, 1260, 2310, 3960, 6435, 10010, 15015, 21840, 30940, 42840, 58140, 77520, 101745, 131670, 168245, 212520, 265650, 328900, 403650, 491400, 593775, 712530, 849555, 1006880, 1186680, 1391280, 1623160, 1884960, 2179485
a(n) = n*binomial(n+4, 4).
a(0)=0, a(1)=5, a(2)=30, a(3)=105, a(4)=280, a(5)=630, a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). [From Harvey P. Dale, Dec 03 2011]
[A030506] 5, 30, 106, 283, 640, 1286, 2366, 4068, 6628, 10333, 15531, 22631, 32111, 44525, 60504, 80766, 106117, 137460, 175799, 222244, 278014, 344448, 423007, 515276, 622978, 747968, 892251, 1057976, 1247448, 1463131, 1707654
a(n) = ceil (binomial (n, w) * 2^w / (2*n + 1))
[A018213] 1, 5, 30, 110, 365, 1001, 2520, 5720, 12190, 24310, 46252, 83980, 147070, 248710, 408760, 653752, 1021735, 1562275, 2343770, 3453450, 5008003, 7153575, 10080720, 14024400, 19284460, 26225628, 35304920, 47071640
a(n) = (1/(2*9!))*(n+1)*(n+2)*(n+3)*(n+4)*(n+5)*(n+6)*(n+7)*(n+8)*(n+9) +(1/6)*(1/2^7)*(n+2)*(n+4)*(n+6)*(n+8)*(1/2)*(1+(-1)^n). [Yosu Yurramendi, Jun 23 2013]
[A282078] 0, 5, 30, 140, 490, 1491, 3976, 9696, 21816, 46126, 92252, 176232, 323092, 571802, 980232, 1633984, 2655224, 4217499, 6560554, 10014004, 15021006, 22174581, 32253936, 46278336, 65560976, 91786604, 127089144, 174160784, 236361064, 317866884, 423822512
a(n) = (-2735775*(-1+(-1)^n) - 45*(-344851 + 56595*(-1)^n)*n + (22908402-803250*(-1)^n)*n^2 - 50*(-325607+2079*(-1)^n)*n^3 + (6781885-4725*(-1)^n)*n^4 + 1802220*n^5 + 315546*n^6 + 36300*n^7 + 2640*n^8 + 110*n^9 + 2*n^10) / 14515200. - Colin Barker, Feb 06 2017
[A115519] 0, 5, 31, 96, 218, 415, 705, 1106, 1636, 2313, 3155, 4180, 5406, 6851, 8533, 10470, 12680, 15181, 17991, 21128, 24610, 28455, 32681, 37306, 42348, 47825, 53755, 60156, 67046, 74443, 82365, 90830, 99856, 109461, 119663, 130480, 141930, 154031, 166801, 180258
a(0) = 0, a(1) = 5, a(2) = 31, a>2: a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 18; G.f. = (5*x+11*x^2+2*x^3)/(1-x)^4 - Zak Seidov, Mar 10 2006
[A212523] 0, 0, 5, 31, 106, 270, 575, 1085, 1876, 3036, 4665, 6875, 9790, 13546, 18291, 24185, 31400, 40120, 50541, 62871, 77330, 94150, 113575, 135861, 161276, 190100, 222625, 259155, 300006, 345506, 395995, 451825, 513360, 580976, 655061
a(n) = 5a(n-1)-10a(n-2)+10a(n-3)-5a(n-4)+a(n-5).
[A053699] 1, 5, 31, 121, 341, 781, 1555, 2801, 4681, 7381, 11111, 16105, 22621, 30941, 41371, 54241, 69905, 88741, 111151, 137561, 168421, 204205, 245411, 292561, 346201, 406901, 475255, 551881, 637421, 732541, 837931, 954305, 1082401, 1222981
a(n) = n^4 + n^3 + n^2 + n + 1 =(n^5-1)/(n-1).
[A152122] 1, 1, 1, 5, 31, 121, 605, 2911, 13361, 64255, 302621, 1428031, 6770555, 31965701, 151200251, 715034375, 3380212751, 15984722176, 75579365455, 357361263031, 1689760311371, 7989708622205, 37778247366211, 178629122366311, 844620446404405, 3993667315453871
a(n) = Product_{k=1..(n-1)/2} Sum_{j=0..4} (2*cos(k*Pi/n))^(2*j).
[A041303] 1, 1, 5, 31, 129, 160, 3969, 4129, 20485, 127039, 528641, 655680, 16264961, 16920641, 83947525, 520605791, 2166370689, 2686976480, 66653806209, 69340782689, 344016936965, 2133442404479, 8877786554881, 11011228959360, 273147281579521, 284158510538881
a(n) = 4098*a(n-6) - a(n-12). - Vincenzo Librandi, Dec 15 2013
[A140154] 1, 5, 32, 48, 173, 209, 552, 616, 1345, 1445, 2776, 2920, 5117, 5313, 8688, 8944, 13857, 14181, 21040, 21440, 30701, 31185, 43352, 43928, 59553, 60229, 79912, 80696, 105085, 105985, 135776, 136800, 172737, 173893, 216768, 218064, 268717
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^3+{[1+(-1)^n]/2}*n^2, with a(1)=1 a(n)= (-1/16)+(1/4)*(-1)^n*n+(1/16)*(-1)^n-(1/4)*(-1)^n*n^3+(5/12)*n^3-(1/8)*(-1)^n*n^2+(3/8)*n^2+(1 /12)*n+(1/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
a(n)=a(n-1)+4a(n-2)-4a(n-3)-6a(n-4)+6a(n-5)+4a(n-6)-4a(n-7)-a(n-8)+a(n-9). G.f.: -x*(x^2+1)*(x^4-4*x^3+22*x^2+4*x+1)/((1+x)^4*(x-1)^5). [From R. J. Mathar, Feb 22 2009]
[A184536] 5, 32, 108, 256, 500, 864, 1372, 2048, 2916, 4000, 5324, 6912, 8788, 10976, 13500, 16384, 19652, 23328, 27436, 32000, 37044, 42592, 48668, 55296, 62500, 70304, 78732, 87808, 97556, 108000, 119164, 131072, 143748, 157216, 171500, 186624, 202612, 219488, 237276, 256000, 275684, 296352, 318028, 340736, 364500, 389344, 415292, 442368, 470596, 500000, 530604, 562432, 595508, 629856, 665500, 702464, 740772, 780448, 821516, 864000, 907924, 953312, 1000188
a(n)=floor[1/{(1+n^4)^(1/4)}], where {}=fractional part.
[A185212] 1, 5, 33, 85, 161, 261, 385, 533, 705, 901, 1121, 1365, 1633, 1925, 2241, 2581, 2945, 3333, 3745, 4181, 4641, 5125, 5633, 6165, 6721, 7301, 7905, 8533, 9185, 9861, 10561, 11285, 12033, 12805, 13601, 14421, 15265, 16133, 17025, 17941, 18881, 19845, 20833
a(0)=1, a(1)=5, a(2)=33, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 07 2015
[A292000] 5, 33, 117, 322, 745, 1515, 2793, 4772, 7677, 11765, 17325, 24678, 34177, 46207, 61185, 79560, 101813, 128457, 160037, 197130, 240345, 290323, 347737, 413292, 487725, 571805, 666333, 772142, 890097, 1021095, 1166065, 1325968, 1501797, 1694577, 1905365, 2135250
a(n) = n*(-21 + 58*n - 15*n^2 + 8*n^3)/6.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A014632] 1, 5, 35, 51, 117, 145, 247, 287, 425, 477, 651, 715, 925, 1001, 1247, 1335, 1617, 1717, 2035, 2147, 2501, 2625, 3015, 3151, 3577, 3725, 4187, 4347, 4845, 5017, 5551, 5735, 6305, 6501, 7107, 7315, 7957, 8177, 8855, 9087, 9801, 10045, 10795, 11051, 11837
a(n) = a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5).
a(n) = 48+2*a(n-2)-a(n-4). - Ant King, Aug 16 2011
a(n) = (3*(-1)^n+12*n+1)*((-1)^n+4*n+1)/8. - Ant King, Aug 16 2011
[A117793] 0, 5, 35, 70, 145, 210, 330, 425, 590, 715, 925, 1080, 1335, 1520, 1820, 2035, 2380, 2625, 3015, 3290, 3725, 4030, 4510, 4845, 5370, 5735, 6305, 6700, 7315, 7740, 8400, 8855, 9560, 10045, 10795, 11310, 12105, 12650, 13490, 14065, 14950, 15555, 16485
a(2*n+1) = 5*n*(15*n-1)/2, a(2*n+2) = 5*(5*n+2)*(3*n+1)/2. - Robert Israel, Jun 01 2014
[A145920] 0, 1, 5, 35, 70, 210, 330, 715, 1001, 1820, 2380, 3876, 4845, 7315, 8855, 12650, 14950, 20475, 23751, 31465, 35960, 46376, 52360, 66045, 73815, 91390, 101270, 123410, 135751, 163185, 178365, 211876, 230300, 270725, 292825, 341055, 367290, 424270
a(n) = (27x^4 - 18x^3 - 3x^2 + 2x)/8 where x = floor(n/2)*(-1)^n, for n >= 1. [William A. Tedeschi, Aug 16 2010]
[A153785] 0, 5, 35, 90, 170, 275, 405, 560, 740, 945, 1175, 1430, 1710, 2015, 2345, 2700, 3080, 3485, 3915, 4370, 4850, 5355, 5885, 6440, 7020, 7625, 8255, 8910, 9590, 10295, 11025, 11780, 12560, 13365, 14195, 15050, 15930, 16835, 17765
a(n) = 25*n + a(n-1) - 20 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A162540] 5, 35, 105, 231, 429, 715, 1105, 1615, 2261, 3059, 4025, 5175, 6525, 8091, 9889, 11935, 14245, 16835, 19721, 22919, 26445, 30315, 34545, 39151, 44149, 49555, 55385, 61655, 68381, 75579, 83265, 91455, 100165, 109411, 119209, 129575, 140525, 152075, 164241
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. G.f.: (5+15*x-5*x^2+x^3)/(x-1)^4. - R. J. Mathar, Jul 16 2009
a(n) = 5*Pochhammer(7/2,n)/Pochhammer(1/2,n). Hence e.g.f. is 5* 1F1(7/2;1/2;x), with 1F1 being the confluent hypergemetric function (also known as Kummer's). - Stanislav Sykora, May 26 2016

[A179337] 5, 35, 107, 197, 341, 491, 707, 917, 1205, 1475, 1835, 2165, 2597, 2987, 3491, 3941, 4517, 5027, 5675, 6245, 6965, 7595, 8387, 9077, 9941, 10691, 11627, 12437, 13445, 14315, 15395, 16325, 17477, 18467, 19691, 20741, 22037, 23147, 24515
a(n) = (66*n*(n-1)-3*(2*n-1)*(-1)^n+17)/4.
a(n) = a(-n+1) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A053126] 5, 35, 126, 330, 715, 1365, 2380, 3876, 5985, 8855, 12650, 17550, 23751, 31465, 40920, 52360, 66045, 82251, 101270, 123410, 148995, 178365, 211876, 249900, 292825, 341055, 395010, 455126, 521855, 595665, 677040, 766480
a(n) = binomial(2*n-3, 4) if n >= 4 else 0; G.f.: (5+10*x+x^2)/(1-x)^5.
[A005562] 1, 5, 35, 140, 720, 2700, 12375, 45375, 196625, 715715, 3006003, 10930920, 45048640, 164105760, 668144880, 2441298600, 9859090500, 36149998500, 145173803500, 534239596880, 2136958387520, 7892175863000, 31479019635375, 116657543354625, 464342770607625, 1726402608669375
a(n) = C(n+5, ceil(n/2))*C(n+4, floor(n/2)) - C(n+5, ceil((n-1)/2))*C(n+4, floor((n-1)/2)). - Paul D. Hanna, Apr 16 2004
[A262248] 0, 0, 5, 35, 330, 715, 2380, 3876, 8855, 23751, 31465, 66045, 101270, 123410, 178365, 292825, 455126, 521855, 766480, 971635, 1088430, 1502501, 1837620, 2441626, 3464840, 4082925, 4421275, 5160610, 5563251, 6438740, 10334625, 11716640, 14043870
a(n) = (prime(n)^4 - 6*prime(n)^3 + 11*prime(n)^2 - 6*prime(n))/24.
[A096945] 5, 36, 148, 456, 1170, 2640, 5412, 10296, 18447, 31460, 51480, 81328, 124644, 186048, 271320, 387600, 543609, 749892, 1019084, 1366200, 1808950, 2368080, 3067740, 3935880, 5004675, 6310980, 7896816, 9809888, 12104136, 14840320
a(0)=5, a(1)=36, a(2)=148, a(3)=456, a(4)=1170, a(5)=2640, a(6)=5412, a(7)=10296, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)- 28*a(n-6)+ 8*a(n-7)-a(n-8). - Harvey P. Dale, Aug 16 2014
[A063417] 5, 36, 149, 470, 1251, 2954, 6371, 12789, 24210, 43637, 75438, 125801, 203294, 319545, 490058, 735182, 1081251, 1561914, 2219675, 3107664, 4291661, 5852396, 7888149, 10517675, 13883480, 18155475, 23535036
a(0)=5, a(1)=36, a(2)=149, a(3)=470, a(4)=1251, a(5)=2954, a(6)=6371, a(7)=12789, a(8)=24210, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3)- 126*a(n-4)+ 126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). - Harvey P. Dale, Aug 22 2012
[A249861] 1, 5, 37, 101, 229, 485, 2533, 6629, 23013, 88549, 219621, 481765, 1006053, 3103205, 7297509, 24074725, 158292453, 1232034277, 3379517925, 7674485221, 282552392165, 1382064019941, 5780110531045, 14576203553253, 84944947730917, 647894901152229
a(n) = a(n-1) + 2^(Nmax(a(n-1)) - 1), where Nmax at a(n-1) (i.e., the prior record-breaking k value) must be found by calculation of b(i) and "observation".
[A023289] 5, 37, 127, 347, 977, 2017, 3607, 5477, 9137, 10487, 13687, 14057, 14107, 19037, 19697, 19727, 20507, 22157, 23887, 24097, 25237, 25307, 26717, 26777, 27107, 29347, 30697, 33757, 33997, 34667, 34847, 35117, 35227, 37057, 40577, 40627, 41177, 41597
a(n) == 7 (mod 10), for n > 1. - John Cerkan, Sep 21 2016
[A219086] 0, 5, 39, 150, 410, 915, 1785, 3164, 5220, 8145, 12155, 17490, 24414, 33215, 44205, 57720, 74120, 93789, 117135, 144590, 176610, 213675, 256289, 304980, 360300, 422825, 493155, 571914, 659750, 757335, 865365, 984560, 1115664
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = (2*n^4 + 4*n^3 + 3*n^2 + n)/2. - J. M. Bergot, Apr 05 2014
a(n) = Sum_{i=0..n} i*(4*i^2 + 1) = n*(n + 1)*(2*n^2 + 2*n + 1)/2. - Bruno Berselli, Feb 09 2017
a(n) = lcm((2*n + 1)^2 - 1, (2*n + 1)^2 + 1)/8 for n>=1. - Lechoslaw Ratajczak, Mar 26 2017
[A153795] 0, 5, 40, 105, 200, 325, 480, 665, 880, 1125, 1400, 1705, 2040, 2405, 2800, 3225, 3680, 4165, 4680, 5225, 5800, 6405, 7040, 7705, 8400, 9125, 9880, 10665, 11480, 12325, 13200, 14105, 15040, 16005, 17000, 18025, 19080, 20165, 21280
a(n) = 30*n + a(n-1) - 25 for n > 0, a(0) = 0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A244725] 0, 5, 40, 135, 320, 625, 1080, 1715, 2560, 3645, 5000, 6655, 8640, 10985, 13720, 16875, 20480, 24565, 29160, 34295, 40000, 46305, 53240, 60835, 69120, 78125, 87880, 98415, 109760, 121945, 135000, 148955, 163840, 179685, 196520, 214375, 233280, 253265
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3.
[A054604] 0, 5, 40, 255, 1040, 3145, 7800, 16835, 32800, 59085, 100040, 161095, 248880, 371345, 537880, 759435, 1048640, 1419925, 1889640, 2476175, 3200080, 4084185, 5153720, 6436435, 7962720, 9765725, 11881480, 14349015, 17210480, 20511265
a(n) = n^5+4n.
[A041599] 1, 1, 5, 41, 46, 133, 312, 445, 3872, 15933, 19805, 689303, 709108, 3525735, 28914988, 32440723, 93796434, 220033591, 313830025, 2730673791, 11236525189, 13967198980, 486121290509, 500088489489, 2486475248465, 20391890477209, 22878365725674, 66148621928557
a(n) = 705236*a(n-11) + a(n-22) for n>21. - Vincenzo Librandi, Dec 21 2013
[A276916] 1, 5, 41, 61, 145, 181, 313, 365, 545, 613, 841, 925, 1201, 1301, 1625, 1741, 2113, 2245, 2665, 2813, 3281, 3445, 3961, 4141, 4705, 4901, 5513, 5725, 6385, 6613, 7321, 7565, 8321, 8581, 9385, 9661, 10513, 10805, 11705, 12013, 12961, 13285, 14281, 14621, 15665
a(n) = 4*n*(2*n + (-1)^n) + 1.
a(n) = 4*n*(2*n + 1) + 1 for n even.
a(n) = 4*n*(2*n - 1) + 1 for n odd.
a(n) is sum of two squares; a(n) = k^2 + (k+1)^2 where k = 2n-(n mod 2). - David A. Corneth, Sep 27 2016
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n > 4.
[A062021] 0, 5, 42, 151, 548, 1185, 2542, 4403, 7608, 13621, 20834, 32535, 47980, 65609, 88278, 119947, 162368, 208869, 269194, 340007, 416580, 512305, 622286, 756003, 925432, 1114661, 1314498, 1537015, 1771628, 2031993, 2393158, 2786315
a(n) = 2*a(n-1) + (n-1)*(p(n)^2-p(n-1)^2) - a(n-2)
[A003185] 5, 45, 117, 221, 357, 525, 725, 957, 1221, 1517, 1845, 2205, 2597, 3021, 3477, 3965, 4485, 5037, 5621, 6237, 6885, 7565, 8277, 9021, 9797, 10605, 11445, 12317, 13221, 14157, 15125, 16125, 17157, 18221
a(n) = 32*n + a(n-1) + 8 (with a(0)=5). - Vincenzo Librandi, Nov 12 2010
a(0)=5, a(1)=45, a(2)=117, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jan 27 2013
[A027801] 5, 45, 210, 700, 1890, 4410, 9240, 17820, 32175, 55055, 90090, 141960, 216580, 321300, 465120, 658920, 915705, 1250865, 1682450, 2231460, 2922150, 3782350, 4843800, 6142500, 7719075, 9619155, 11893770, 14599760, 17800200
a(n) = C(n+1, 2)*C(n+4, 4) - Zerinvary Lajos, May 10 2005, corrected by R. J. Mathar, Feb 13 2016
[A241275] 0, 0, 5, 45, 305, 1905, 11585, 69825, 419585, 2518785, 15115265, 90696705, 544190465, 3265163265, 19591020545, 117546205185, 705277394945, 4231664697345, 25389988839425, 152339934347265, 914039608705025, 5484237657473025, 32905425955323905, 197432555752914945, 1184595334559432705, 7107572007440482305
a(n) = 9*6^(n-2) - 5*2^(n-2) + 1.
a(n) = (4-5*2^n+6^n)/4. G.f.: -5*x^2 / ((x-1)*(2*x-1)*(6*x-1)). - Colin Barker, Apr 18 2014
[A247494] 0, 0, 0, 0, 0, 5, 45, 322, 2086, 13092, 82060, 523116, 3429481, 23279555, 164244262, 1206458632, 9228941572, 73471779239, 608000100209, 5222503739340, 46493341311706, 428345495309624, 4078254436854598, 40073317276815681, 405883920183989049, 4232700263388189325
a(n) = Sum_{k = 0..n-1} (-1)^(n-k+1)*binomial(n,k)*(Bell(k)-Catalan(k)).
[A215543] 0, 5, 48, 154, 350, 663, 1120, 1748, 2574, 3625, 4928, 6510, 8398, 10619, 13200, 16168, 19550, 23373, 27664, 32450, 37758, 43615, 50048, 57084, 64750, 73073, 82080, 91798, 102254, 113475, 125488, 138320, 151998, 166549, 182000, 198378, 215710, 234023, 253344
a(n) = (3*n-2)*(3*n+2)*(n+1) for n>0, a(0) = 0.
[A075540] 5, 53, 157, 173, 211, 257, 263, 373, 511, 537, 563, 593, 607, 653, 733, 947, 977, 999, 1073, 1103, 1123, 1187, 1223, 1239, 1367, 1461, 1501, 1511, 1541, 1747, 1753, 1763, 1773, 1899, 1907, 1917, 2071, 2181, 2287, 2401, 2409, 2417, 2449, 2677, 2903, 2963
a(n) = (1/3) (p(i)+p(i+1)+p(i+2)), for some i(n).
[A015221] 1, 5, 55, 91, 285, 385, 819, 1015, 1785, 2109, 3311, 3795, 5525, 6201, 8555, 9455, 12529, 13685, 17575, 19019, 23821, 25585, 31395, 33511, 40425, 42925, 51039, 53955, 63365, 66729, 77531, 81375, 93665, 98021, 111895, 116795, 132349, 137825
a(n) = 3*a(n-2)-3*a(n-4)+a(n-6)+128.
a(n) = 1/24*(1+4*n+(-1)^n)*(2+4*n+(-1)^n)*(3+4*n+(-1)^n).
[A062125] 5, 56, 263, 815, 1982, 4115, 7646, 13088, 21035, 32162, 47225, 67061, 92588, 124805, 164792, 213710, 272801, 343388, 426875, 524747, 638570, 769991, 920738, 1092620, 1287527, 1507430, 1754381, 2030513, 2338040, 2679257, 3056540
a(0)=5, a(1)=56, a(2)=263, a(3)=815, a(4)=1982, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, Dec 21 2011]

[A076455] 5, 57, 246, 710, 1635, 3255, 5852, 9756, 15345, 23045, 33330, 46722, 63791, 85155, 111480, 143480, 181917, 227601, 281390, 344190, 416955, 500687, 596436, 705300, 828425, 967005, 1122282, 1295546, 1488135, 1701435, 1936880, 2195952, 2480181
a(n) = n*(n+1)*(4*n^2+2*n-1)/2.
[A173202] 0, 5, 58, 207, 500, 985, 1710, 2723, 4072, 5805, 7970, 10615, 13788, 17537, 21910, 26955, 32720, 39253, 46602, 54815, 63940, 74025, 85118, 97267, 110520, 124925, 140530, 157383, 175532, 195025, 215910, 238235, 262048, 287397, 314330, 342895
a(n) = 8*n^3 - 24*n^2 + 21*n - 5.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jul 02 2012
[A024378] 5, 59, 254, 730, 1675, 3325, 5964, 9924, 15585, 23375, 33770, 47294, 64519, 86065, 112600, 144840, 183549, 229539, 283670, 346850, 420035, 504229, 600484, 709900, 833625, 972855, 1128834, 1302854, 1496255, 1710425, 1946800, 2206864, 2492149
a(n) = n*(n+1)*(12*n^2+8*n-5)/6.
[A112461] 5, 59, 374, 1694, 6149, 19019, 52052, 129272, 296582, 636922, 1293292, 2502604, 4644094, 8306914, 14382544, 24188824, 39633715, 63428365, 99360690, 152642490, 230345115, 341940885, 499969860, 720854160, 1025884860, 1442409540, 2005251864, 2758398104
a(n) = (9n+5)/10! * product(n+i, i=-4..4).
[A126275] 5, 60, 340, 1300, 3885, 9800, 21840, 44280, 83325, 147620, 248820, 402220, 627445, 949200, 1398080, 2011440, 2834325, 3920460, 5333300, 7147140, 9448285, 12336280, 15925200, 20345000, 25742925, 32284980, 40157460, 49568540, 60749925, 73958560, 89478400
a(n) = (n^2 * (n^4 - 1))/12.
[A152031] 0, 5, 62, 363, 1364, 3905, 9330, 19607, 37448, 66429, 111110, 177155, 271452, 402233, 579194, 813615, 1118480, 1508597, 2000718, 2613659, 3368420, 4288305, 5399042, 6728903, 8308824, 10172525, 12356630, 14900787, 17847788, 21243689, 25137930, 29583455
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a[n-6] n>5, a(0)=0, a(1)=5, a(2)=62, a(3)=363, a(4)=1364, a(5)=3905. [Yosu Yurramendi, Sep 03 2013]
[A071902] 1, 5, 65, 306, 975, 2479, 5425, 10660, 19311, 32825, 53009, 82070, 122655, 177891, 251425, 347464, 470815, 626925, 821921, 1062650, 1356719, 1712535, 2139345, 2647276, 3247375, 3951649, 4773105, 5725790, 6824831, 8086475, 9528129
a(n) = n*(2*n^2-5)*(n^2+1)/6. - Vladeta Jovovic, Jun 15 2002
[A211412] 5, 65, 325, 1025, 2501, 5185, 9605, 16385, 26245, 40001, 58565, 82945, 114245, 153665, 202501, 262145, 334085, 419905, 521285, 640001, 777925, 937025, 1119365, 1327105, 1562501, 1827905, 2125765, 2458625, 2829125, 3240001, 3694085, 4194305, 4743685, 5345345, 6002501, 6718465, 7496645
a(n) = (2*n^2)^2 + 1^2 = (2*n^2-1)^2 + (2*n)^2. - Thomas Ordowski, Sep 18 2015
[A042491] 1, 1, 5, 66, 71, 208, 487, 695, 9522, 38783, 48305, 2647253, 2695558, 13429485, 177278863, 190708348, 558695559, 1308099466, 1866795025, 25576434791, 104172534189, 129748968980, 7110616859109, 7240365828089, 36072080171465, 476177408057134, 512249488228599
a(n) = 2686036*a(n-11) + a(n-22). - Vincenzo Librandi, Dec 15 2013
[A064046] 0, 5, 70, 285, 740, 1525, 2730, 4445, 6760, 9765, 13550, 18205, 23820, 30485, 38290, 47325, 57680, 69445, 82710, 97565, 114100, 132405, 152570, 174685, 198840, 225125, 253630, 284445, 317660, 353365, 391650, 432605, 476320, 522885, 572390
a(n) = 5*n*(3*n^2-3*n+1).
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4)
[A295332] 1, 1, 5, 71, 289, 360, 1009, 1369, 6485, 92159, 375121, 467280, 1309681, 1776961, 8417525, 119622311, 486906769, 606529080, 1699964929, 2306494009, 10925940965, 155269667519, 632004611041, 787274278560, 2206553168161, 2993827446721, 14181862955045, 201539908817351, 820341498224449, 10218814070418 00, 2864104312308049, 3885985719349849, 18408047189707445
a(n) = 1298*a(n-6) - a(n-12), n >= 12, with inputs a(0)..a(11).
[A001513] 5, 77, 221, 437, 725, 1085, 1517, 2021, 2597, 3245, 3965, 4757, 5621, 6557, 7565, 8645, 9797, 11021, 12317, 13685, 15125, 16637, 18221, 19877, 21605, 23405, 25277, 27221, 29237, 31325, 33485, 35717, 38021, 40397, 42845, 45365, 47957, 50621, 53357, 56165
a(n) = 72*n + a(n-1) with a(0)=5. - Vincenzo Librandi, Nov 12 2010
[A269792] 0, 5, 80, 405, 1280, 3125, 6480, 12005, 20480, 32805, 50000, 73205, 103680, 142805, 192080, 253125, 327680, 417605, 524880, 651605, 800000, 972405, 1171280, 1399205, 1658880, 1953125, 2284880, 2657205, 3073280, 3536405, 4050000, 4617605, 5242880, 5929605
a(n) = 5*a(n-1) - 10*(9n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A140159] 1, 5, 86, 102, 727, 763, 3164, 3228, 9789, 9889, 24530, 24674, 53235, 53431, 104056, 104312, 187833, 188157, 318478, 318878, 513359, 513843, 793684, 794260, 1184885, 1185561, 1717002, 1717786, 2425067, 2425967, 3349488, 3350512, 4536433
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^4+{[1+(-1)^n]/2}*n^2, with a(1)=1 a(n)= n) = (1/2)*(-1)^n*n-(1/2)*(-1)^n*n^3+(1/3)*n^3+(1/4)*(-1)^n*n^2+(1/4)*n^2+(1/15)*n+(1/10)*n^5-(1/4)*(-1)^n*n^4+(1/4)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A091026] 5, 114, 771, 3235, 10365, 27825, 65828, 141552, 282375, 530090, 946275, 1619007, 2671123, 4270245, 6640800, 10078280, 14966001, 21794634, 31184795, 43912995, 60941265, 83450785, 112879860, 150966600, 199796675, 261856530, 340092459
a(n)= (n+1)*(n+2)*(n^6+45*n^5+745*n^4+5595*n^3+18694*n^2+22440*n+7200)/2880. 2880=8!/(2*7).
[A229147] 0, 5, 128, 891, 3584, 10625, 25920, 55223, 106496, 190269, 320000, 512435, 787968, 1171001, 1690304, 2379375, 3276800, 4426613, 5878656, 7688939, 9920000, 12641265, 15929408, 19868711, 24551424, 30078125, 36558080, 44109603, 52860416, 62948009, 74520000
a(0)=0, a(1)=5, a(2)=128, a(3)=891, a(4)=3584, a(5)=10625, a(n)= 6*a(n-1)- 15*a(n-2)+ 20*a(n-3)- 15*a(n-4)+ 6*a(n-5)- a(n-6). - Harvey P. Dale, Aug 14 2015
[A094081] 5, 185, 1313, 4925, 13325, 29585, 57545, 101813, 167765, 261545, 390065, 561005, 782813, 1064705, 1416665, 1849445, 2374565, 3004313, 3751745, 4630685, 5655725, 6842225, 8206313, 9764885, 11535605, 13536905, 15787985, 18308813, 21120125
a(n) = (2n^2 + 2n + 1)*(16n^2 + 16n + 5).
[A144139] 1, 5, 209, 1189, 3905, 9701, 20305, 37829, 64769, 104005, 158801, 232805, 330049, 454949, 612305, 807301, 1045505, 1332869, 1675729, 2080805, 2555201, 3106405, 3742289, 4471109, 5301505, 6242501, 7303505, 8494309, 9825089, 11306405
a(n) = 16*n^4-12*n^2+1 = (4*n^2-2*n-1)*(4*n^2+2*n-1). - Vincenzo Librandi, May 29 2014
[A270870] 5, 215, 1311, 5531, 18329, 50775, 122675, 266411, 531501, 989879, 1741895, 2923035, 4711361, 7335671, 11084379, 16315115, 23465045, 33061911, 45735791, 62231579, 83422185, 110322455, 144103811, 186109611, 237871229, 301124855, 377829015, 470182811
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A166943] 5, 247, 1689, 6731, 20173, 50415, 110897, 221779, 411861, 720743, 1201225, 1921947, 2970269, 4455391, 6511713, 9302435, 13023397, 17907159, 24227321, 32303083, 42504045, 55255247, 71042449, 90417651, 114004853, 142506055
a(n) = (n^6 + 15n^5 + 85n^4 + 225n^3 + 274n^2 + 126n + 15)/3. - Charles R Greathouse IV, Nov 04 2009
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6)+240 for n > 5; a(0)=5, a(1)=247, a(2)=1689, a(3)=6731, a(4)=20173, a(5)=50415. - Klaus Brockhaus, Nov 14 2009
[A135095] 1, 5, 248, 264, 3389, 3425, 20232, 20296, 79345, 79445, 240496, 240640, 611933, 612129, 1371504, 1371760, 2791617, 2791941, 5268040, 5268440, 9352541, 9353025, 15789368, 15789944, 25555569, 25556245, 39905152, 39905936, 60417085
a(n) = (1/24)*(3 + 2*n + 5*n^2 + 4*n^3 + 5*n^4 + 6*n^5 + 2*n^6 - 3*(-1)^n*(1 - 2*n - 7*n^2 + 5*n^4 + 2*n^5)), with n>=1. - Paolo P. Lava, Mar 02 2009
[A094161] 0, 5, 315, 2670, 10810, 30475, 69405, 137340, 246020, 409185, 642575, 963930, 1392990, 1951495, 2663185, 3553800, 4651080, 5984765, 7586595, 9490310, 11731650, 14348355, 17380165, 20868820, 24858060, 29393625, 34523255, 40296690, 46765670, 53983935, 62007225
a(n) = 5*(n-1) + 305*C(n-1,2) + 1740*C(n-1,3) + 2000*C(n-1,4) where C(n,k) is the binomial coefficient. - Joshua Zucker, Aug 14 2006
a(n) = 5*(672-1715*n+1595*n^2-652*n^3+100*n^4)/6. - Colin Barker, Feb 28 2015
[A291545] 6, 6, 9, 10, 16, 16, 27, 27, 28, 28, 95, 95, 96, 96, 121, 121, 122, 122, 123, 123, 124, 124, 125, 125, 126, 126, 537, 537, 538, 538, 539, 539, 540, 540, 905, 905, 906, 906, 1149, 1149, 1150, 1150, 1349, 1349, 1350, 1350, 1351, 1351, 1352, 1352
a(n) = min_{k > n} : (k!/(k-n)!) | ((2k-n)!/k!). - Jon E. Schoenfield, Aug 28 2017
[A168282] 1, 6, 6, 11, 11, 16, 16, 21, 21, 26, 26, 31, 31, 36, 36, 41, 41, 46, 46, 51, 51, 56, 56, 61, 61, 66, 66, 71, 71, 76, 76, 81, 81, 86, 86, 91, 91, 96, 96, 101, 101, 106, 106, 111, 111, 116, 116, 121, 121, 126, 126, 131, 131, 136, 136, 141, 141, 146, 146, 151, 151, 156
a(n) = 5*n - a(n-1) - 3 for n>1, a(1)=1.
a(1)=1, a(2)=6, a(3)=6; for n>3, a(n) = a(n-1) +a(n-2) -a(n-3). - Harvey P. Dale, Jun 17 2013

[A022089] 0, 6, 6, 12, 18, 30, 48, 78, 126, 204, 330, 534, 864, 1398, 2262, 3660, 5922, 9582, 15504, 25086, 40590, 65676, 106266, 171942, 278208, 450150, 728358, 1178508, 1906866, 3085374, 4992240, 8077614, 13069854, 21147468, 34217322, 55364790, 89582112, 144946902
a(n) = round((12*phi-6)/5 * phi^n) for n>3. - Thomas Baruchel, Sep 08 2004
a(n) = 6F(n) = F(n+3) + F(n+1) + F(n-4), n>3.
[A266223] 0, 1, 6, 6, 15, 15, 28, 28, 45, 45, 66, 66, 91, 91, 120, 120, 153, 153, 190, 190, 231, 231, 276, 276, 325, 325, 378, 378, 435, 435, 496, 496, 561, 561, 630, 630, 703, 703, 780, 780, 861, 861, 946, 946, 1035, 1035, 1128, 1128, 1225, 1225, 1326, 1326, 1431
a(n) = 1/2*(n+1)*(n+(-1)^n+1) for n>0.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A038518] 0, 1, 1, 1, 6, 6, 16, 36, 56, 136, 256, 496, 1056, 2016, 4096, 8256, 16256, 32896, 65536, 130816, 262656, 523776, 1048576, 2098176, 4192256, 8390656, 16777216, 33550336, 67117056, 134209536, 268435456, 536887296, 1073709056, 2147516416
a(0)=0; a(n)= (2^n - (-1-i)^n - (-1+i)^n)/4, i=sqrt(-1) - C. Ronaldo (aga_new_ac(AT)hotmail.com), Dec 16 2004
[A000976] 0, 0, 1, 1, 1, 1, 6, 6, 18, 18, 18, 54, 54, 378, 1134, 1134, 9072, 81648, 81648, 81648, 1714608, 18860688, 18860688, 56582064, 56582064, 735566832, 19860304464, 139022131248, 139022131248, 417066393744, 2085331968720, 2085331968720, 68815954967760
a(n) = order(10, n!/(2^s*5^t)) where 2^s is largest power of 2 dividing n! and 5^t is largest power of 5 dividing n! - Sean A. Irvine, Sep 29 2011
[A092297] 0, 6, 6, 18, 30, 66, 126, 258, 510, 1026, 2046, 4098, 8190, 16386, 32766, 65538, 131070, 262146, 524286, 1048578, 2097150, 4194306, 8388606, 16777218, 33554430, 67108866, 134217726, 268435458, 536870910, 1073741826, 2147483646
a(n) = 2^n + 2*(-1)^n; recurrence a(1)=0, a(2)=6, a(n) = 2*a(n-2) + a(n-1).
a(n) = (-1)^n * a(2-n) * 2^(n-1) for all n in Z. - Michael Somos, Oct 25 2014
[A020715] 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79
a(n) = n+6. a(n) = 2a(n-1) - a(n-2).
[A058368] 1, 1, 1, 1, 6, 7, 8, 9, 10, 16, 23, 31, 40, 50, 66, 89, 120, 160, 210, 276, 365, 485, 645, 855, 1131, 1496, 1981, 2626, 3481, 4612, 6108, 8089, 10715, 14196, 18808, 24916, 33005, 43720, 57916, 76724, 101640, 134645, 178365, 236281, 313005, 414645
a(n) = 1 + n*Sum_{i=1..n/5} binomial(n-4*i-1, i-1)/i.
a(n) = a(n-1) + a(n-5) for n >= 6.
[A143616] 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
a(n) = n + 6 for n > 4. [Charles R Greathouse IV, Oct 26 2011]
[A047551] 0, 1, 6, 7, 8, 9, 14, 15, 16, 17, 22, 23, 24, 25, 30, 31, 32, 33, 38, 39, 40, 41, 46, 47, 48, 49, 54, 55, 56, 57, 62, 63, 64, 65, 70, 71, 72, 73, 78, 79, 80, 81, 86, 87, 88, 89, 94, 95, 96, 97, 102, 103, 104, 105, 110, 111, 112, 113, 118, 119, 120, 121, 126
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = (4*n-3-i^(2*n)+(1-i)*i^(-n)+(1+i)*i^n)/2 where i=sqrt(-1).
[A047275] 0, 1, 6, 7, 8, 13, 14, 15, 20, 21, 22, 27, 28, 29, 34, 35, 36, 41, 42, 43, 48, 49, 50, 55, 56, 57, 62, 63, 64, 69, 70, 71, 76, 77, 78, 83, 84, 85, 90, 91, 92, 97, 98, 99, 104, 105, 106, 111, 112, 113, 118, 119, 120, 125, 126, 127, 132, 133, 134, 139, 140
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (21*n-21+12*cos(2*n*Pi/3)+4*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 7k-1, a(3k-1) = 7k-6, a(3k-2) = 7k-7. (End)
[A047590] 0, 6, 7, 8, 14, 15, 16, 22, 23, 24, 30, 31, 32, 38, 39, 40, 46, 47, 48, 54, 55, 56, 62, 63, 64, 70, 71, 72, 78, 79, 80, 86, 87, 88, 94, 95, 96, 102, 103, 104, 110, 111, 112, 118, 119, 120, 126, 127, 128, 134, 135, 136, 142, 143, 144, 150, 151, 152, 158, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-9-10*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-8. (End)
[A133893] 6, 7, 8, 15, 16, 17, 24, 25, 26, 33, 34, 35, 42, 43, 44, 51, 52, 53, 60, 61, 62, 69, 70, 71, 78, 79, 80, 87, 88, 89, 96, 97, 98, 105, 106, 107, 114, 115, 116, 123, 124, 125, 132, 133, 134, 141, 142, 143, 150, 151, 152, 159, 160, 161, 168, 169, 170, 177, 178, 179, 186
a(n)=3n+6-2*(n mod 3).
[A081053] 6, 7, 9, 11, 12, 14, 15, 16, 17, 20, 21, 22, 23, 26, 27, 28, 30, 32, 33, 35, 36, 38, 40, 41, 42, 44, 45, 46, 47, 48, 50, 51, 52, 54, 56, 57, 60, 62, 63, 65, 66, 68, 70, 71, 72, 75, 76, 77, 78, 80, 82, 83, 84, 86, 87, 88, 90, 92, 93, 96, 98, 101, 102, 104, 105, 106, 107, 108
a(n) = p^2 + q, p and q primes.
[A048585] 6, 7, 9, 12, 16, 22, 31, 44, 63, 91, 132, 192, 280, 409, 598, 875, 1281, 1876, 2748, 4026, 5899, 8644, 12667, 18563, 27204, 39868, 58428, 85629, 125494, 183919, 269545, 395036, 578952, 848494, 1243527, 1822476, 2670967, 3914491, 5736964, 8407928, 12322416, 18059377
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 50000 but is not known to hold in general).
[A168614] 6, 7, 9, 13, 21, 37, 69, 133, 261, 517, 1029, 2053, 4101, 8197, 16389, 32773, 65541, 131077, 262149, 524293, 1048581, 2097157, 4194309, 8388613, 16777221, 33554437, 67108869, 134217733, 268435461, 536870917, 1073741829, 2147483653
a(n) = 2*a(n-1) - 5 with n>0, a(0)=6.
a(n) = 3*a(n-1) - 2*a(n-2).
[A047591] 1, 6, 7, 9, 14, 15, 17, 22, 23, 25, 30, 31, 33, 38, 39, 41, 46, 47, 49, 54, 55, 57, 62, 63, 65, 70, 71, 73, 78, 79, 81, 86, 87, 89, 94, 95, 97, 102, 103, 105, 110, 111, 113, 118, 119, 121, 126, 127, 129, 134, 135, 137, 142, 143, 145, 150, 151, 153, 158, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-6-3*cos(2*n*Pi/3)-7*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-2, a(3k-2) = 8k-7. (End)
[A114949] 6, 7, 10, 15, 22, 31, 42, 55, 70, 87, 106, 127, 150, 175, 202, 231, 262, 295, 330, 367, 406, 447, 490, 535, 582, 631, 682, 735, 790, 847, 906, 967, 1030, 1095, 1162, 1231, 1302, 1375, 1450, 1527, 1606, 1687, 1770, 1855, 1942, 2031, 2122, 2215, 2310, 2407, 2506
a(n) = 3*a(n - 1) - 3*a(n - 2) + a(n - 3). - R. J. Mathar, May 17 2009
a(n) = 2*n + a(n - 1) - 1, with n>0, a(0)=6. - Vincenzo Librandi, Nov 13 2010
[A166496] 6, 7, 11, 15, 23, 27, 35, 39, 47, 59, 63, 75, 83, 87, 95, 107, 119, 123, 135, 143, 147, 159, 167, 179, 195, 203, 207, 215, 219, 227, 255, 263, 275, 279, 299, 303, 315, 327, 335, 347, 359, 363, 383, 387, 395, 399, 423, 447, 455, 459, 467, 479, 483, 503, 515, 527
a(n)=prime(n)+smallest composite > prime(n).
[A047225] 0, 1, 6, 7, 12, 13, 18, 19, 24, 25, 30, 31, 36, 37, 42, 43, 48, 49, 54, 55, 60, 61, 66, 67, 72, 73, 78, 79, 84, 85, 90, 91, 96, 97, 102, 103, 108, 109, 114, 115, 120, 121, 126, 127, 132, 133, 138, 139, 144, 145, 150
a(n) = a(n-2) + 6, n >= 2. (End)
a(n) = -1 + (-1)^(n-1) + 3*(n-1). - Paolo P. Lava, Oct 06 2008
a(n) = 6*n - a(n-1) - 11 for n>1, a(1)=0. - Vincenzo Librandi, Aug 05 2010
[A047335] 0, 6, 7, 13, 14, 20, 21, 27, 28, 34, 35, 41, 42, 48, 49, 55, 56, 62, 63, 69, 70, 76, 77, 83, 84, 90, 91, 97, 98, 104, 105, 111, 112, 118, 119, 125, 126, 132, 133, 139, 140, 146, 147, 153, 154, 160, 161, 167, 168
a(n) = 7*n-a(n-1)-8 for n>1, a(1)=0. [Vincenzo Librandi, Aug 05 2010]
a(n) - a(n-1) - a(n-2) + a(n-3) = 0 (n>3).
a(n) = (14*n + 5*(-1)^n - 9)/4.
a(n) - a(n-2) = 7 (n>2).
[A277567] 1, 6, 7, 13, 19, 25, 31, 36, 37, 42, 43, 49, 55, 61, 67, 73, 78, 79, 85, 91, 97, 103, 109, 114, 115, 121, 127, 133, 139, 145, 150, 151, 157, 163, 169, 175, 181, 186, 187, 193, 199, 205, 211, 216, 217, 222, 223, 229, 235, 241, 247, 252, 253, 258, 259, 265
a(n) = 5n + O(log n). - Charles R Greathouse IV, Nov 03 2016
[A022096] 1, 6, 7, 13, 20, 33, 53, 86, 139, 225, 364, 589, 953, 1542, 2495, 4037, 6532, 10569, 17101, 27670, 44771, 72441, 117212, 189653, 306865, 496518, 803383, 1299901, 2103284, 3403185, 5506469, 8909654, 14416123, 23325777, 37741900, 61067677, 98809577, 159877254
a(n) = a(n-1) + a(n-2), n>=2, a(0)=1, a(1)=6.

a(n) = 5*Fibonacci(n+2) - 4*Fibonacci(n+1). - Gary Detlefs, Dec 21 2010
a(n) = (2^(-1-n)*((1 - sqrt(5))^n*(-11 + sqrt(5)) + (1 + sqrt(5))^n*(11 + sqrt(5))))/sqrt(5). - Herbert Kociemba
[A041175] 1, 1, 6, 7, 13, 20, 33, 53, 86, 483, 569, 10725, 11294, 67195, 78489, 145684, 224173, 369857, 594030, 963887, 5413465, 6377352, 120205801, 126583153, 753121566, 879704719, 1632826285, 2512531004, 4145357289, 6657888293, 10803245582, 60674116203, 71477361785
a(n) = 11208*a(n-11) + a(n-22). - Vincenzo Librandi, Dec 12 2013
[A041749] 1, 1, 6, 7, 13, 20, 73, 93, 352, 1853, 4058, 9969, 53903, 171678, 225581, 848421, 1074002, 1922423, 2996425, 16904548, 19900973, 773141522, 793042495, 4738353997, 5531396492, 10269750489, 15801146981, 57673191432, 73474338413, 278096206671
a(n) = 790046070*a(n-21) + a(n-42) for n>41. - Vincenzo Librandi, Dec 23 2013
[A160825] 1, 6, 7, 13, 22, 26, 44, 52, 88, 104, 176, 208, 352, 416, 704, 832, 1408, 1664, 2816, 3328, 5632, 6656, 11264, 13312, 22528, 26624, 45056, 53248, 90112, 106496, 180224, 212992, 360448, 425984, 720896, 851968, 1441792, 1703936, 2883584, 3407872, 5767168
a(2*n) = 13*2^(n-2) and a(2*n+1) = 11*2^(n-1) if n >= 2. - Hagen von Eitzen, Jun 01 2009
a(n) = 2*a(n-2) for n>5.
[A042025] 1, 6, 7, 13, 33, 178, 389, 567, 956, 6303, 290894, 1751667, 2042561, 3794228, 9631017, 51949313, 113529643, 165478956, 279008599, 1839530550, 84897413899, 511224013944, 596121427843, 1107345441787, 2810812311417, 15161406998872, 33133626309161
a(n) = 291850*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Jan 12 2014
[A283772] 6, 7, 14, 15, 21, 22, 23, 29, 30, 31, 37, 38, 39, 45, 46, 47, 53, 54, 61, 62, 69, 70, 76, 77, 78, 84, 85, 86, 92, 93, 94, 100, 101, 102, 108, 109, 116, 117, 124, 125, 131, 132, 133, 139, 140, 141, 147, 148, 149, 155, 156, 157, 163, 164, 171, 172, 179, 180
a(n+1) - a(n) is in {1,6,7} for every n.
[A047589] 6, 7, 14, 15, 22, 23, 30, 31, 38, 39, 46, 47, 54, 55, 62, 63, 70, 71, 78, 79, 86, 87, 94, 95, 102, 103, 110, 111, 118, 119, 126, 127, 134, 135, 142, 143, 150, 151, 158, 159, 166, 167, 174, 175, 182, 183, 190, 191, 198, 199, 206, 207, 214, 215, 222, 223, 230, 231
a(n) = 8*n-a(n-1)-3 with n>1, a(1)=6. - Vincenzo Librandi, Aug 06 2010
a(n) = 6*floor((n-1)/2) + n + 5. - Gary Detlefs, Nov 29 2011
a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: x*(6+x+x^2)/((1-x)^2*(1+x)). - Colin Barker, Mar 18 2012
a(n) = (1-3*(-1)^n+8*n)/2. - Colin Barker, May 14 2012
[A084382] 6, 7, 14, 33, 70, 131, 222, 349, 518, 735, 1006, 1337, 1734, 2203, 2750, 3381, 4102, 4919, 5838, 6865, 8006, 9267, 10654, 12173, 13830, 15631, 17582, 19689, 21958, 24395, 27006, 29797, 32774, 35943, 39310, 42881, 46662, 50659, 54878, 59325, 64006
a(1)=7, a(2)=14, a(3)=33, a(4)=70; for n>4, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Aug 08 2013
[A261195] 0, 1, 6, 7, 16, 17, 22, 23, 40, 41, 46, 47, 56, 57, 62, 63, 384, 385, 390, 391, 400, 401, 406, 407, 424, 425, 430, 431, 440, 441, 446, 447, 576, 577, 582, 583, 592, 593, 598, 599, 616, 617, 622, 623, 632, 633, 638, 639, 960, 961, 966, 967, 976, 977, 982, 983
a((2n+1)*2^(k-1)) = a(n*2^k) + a(2^(k-1)) for n >= 0 and k >= 1. - Eric Werley, Sep 13 2015
[A081348] 1, 6, 7, 20, 21, 42, 43, 72, 73, 110, 111, 156, 157, 210, 211, 272, 273, 342, 343, 420, 421, 506, 507, 600, 601, 702, 703, 812, 813, 930, 931, 1056, 1057, 1190, 1191, 1332, 1333, 1482, 1483, 1640, 1641, 1806, 1807, 1980, 1981, 2162, 2163, 2352, 2353, 2550
a(n) = (2*n^2+4*n+3-(2*n+1)(-1)^n)/2.
[A041771] 1, 6, 7, 20, 87, 629, 716, 3493, 4209, 32956, 136033, 305022, 441055, 2951352, 118495135, 713922162, 832417297, 2378756756, 10347444321, 74810867003, 85158311324, 415444112299, 500602423623, 3919661077660, 16179246734263, 36278154546186
a(n) = 118936190*a(n-14) - a(n-28) for n>27, - Vincenzo Librandi, Dec 24 2013
[A081284] 0, 1, 1, 6, 7, 22, 27, 62, 77, 147, 182, 308, 378, 588, 714, 1044, 1254, 1749, 2079, 2794, 3289, 4290, 5005, 6370, 7371, 9191, 10556, 12936, 14756, 17816, 20196, 24072, 27132, 31977, 35853, 41838, 46683, 53998, 59983, 68838, 76153, 86779, 95634
a(n) = (2*n+1-(-1)^n)*(2*n+5-(-1)^n)*(2*n+9-(-1)^n)*(2*n^2+15*n+51+3*(n-5)*(-1)^n)/30720. - Luce ETIENNE, Mar 13 2015
[A099572] 1, 1, 6, 7, 23, 30, 73, 103, 211, 314, 581, 895, 1560, 2455, 4135, 6590, 10890, 17480, 28590, 46070, 74946, 121016, 196326, 317342, 514123, 831465, 1346148, 2177613, 3524441, 5702054, 9227311, 14929365, 24157645, 39087010, 63245795, 102332805
a(n)=sum{k=0..n, F(n-k+1)*binomial(k/2+3, 3)(1+(-1)^k)/2}.
[A282005] 1, 1, 6, 7, 24, 31, 96, 127, 384, 511, 1536, 2047, 6144, 8191, 24576, 32767, 98304, 131071, 393216, 524287, 1572864, 2097151, 6291456, 8388607, 25165824, 33554431, 100663296, 134217727, 402653184, 536870911, 1610612736, 2147483647, 6442450944, 8589934591
a(n) = 3*2^n/2 for n>0 and even.
a(n) = 2^n-1 for n odd.
a(n) = 5*a(n-2) - 4*a(n-4) for n>4.
[A041078] 6, 7, 27, 34, 61, 156, 997, 2150, 3147, 5297, 19038, 24335, 311058, 335393, 1317237, 1652630, 2969867, 7592364, 48524051, 104640466, 153164517, 257804983, 926579466, 1184384449, 15139192854, 16323577303
a(n) = 48670*a(n-12)-a(n-24). G.f.: -(x^23 -6*x^22 +7*x^21 -27*x^20 +34*x^19 -61*x^18 +156*x^17 -997*x^16 +2150*x^15 -3147*x^14 +5297*x^13 -19038*x^12 -24335*x^11 -19038*x^10 -5297*x^9 -3147*x^8 -2150*x^7 -997*x^6 -156*x^5 -61*x^4 -34*x^3 -27*x^2 -7*x-6) / (x^24-48670*x^12+1). - Colin Barker, Jul 19 2012
[A042419] 1, 6, 7, 27, 88, 643, 1374, 6139, 13652, 101703, 318761, 1057986, 1376747, 9318468, 504574019, 3036762582, 3541336601, 13660772385, 44523653756, 325326348677, 695176351110, 3106031753117, 6907239857344, 51456710754525, 161277372120919, 535288827117282
a(n) = 505950766*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 21 2014
[A095369] 1, 1, 6, 7, 28, 36, 120, 165, 495, 716, 2003, 3018, 8024, 12512, 31977, 51357, 127110, 209475, 504736, 850840, 2003784, 3445885, 7956715, 13926276, 31609071, 56191734, 125640180, 226444616, 499685777, 911607609, 1988440598
a(n)= 2^n/9*Sum(r, 0, 8, Cos(8Pi*r/9)Cos(2Pi*r/9)^n). G.f.: x^4/((1+x)(-1+2x)(1-3x^2+x^3)) a(n)=a(n-1)+5a(n-2)-4a(n-3)-5a(n-4)+2a(n-5)
[A159582] 1, 6, 7, 34, 41, 198, 239, 1154, 1393, 6726, 8119, 39202, 47321, 228486, 275807, 1331714, 1607521, 7761798, 9369319, 45239074, 54608393, 263672646, 318281039, 1536796802, 1855077841, 8957108166, 10812186007, 52205852194, 63018038201, 304278004998
a(n) = 6*a(n-2) - a(n-4) for n>3.
a(n) = ((-(-2+sqrt(2))*(-1+sqrt(2))^n - (-1-sqrt(2))^n*(2+sqrt(2)) - 3*(-(1-sqrt(2))^n*(-2+sqrt(2)) - (1+sqrt(2))^n*(2+sqrt(2))))) / (4*sqrt(2)).
[A033043] 0, 1, 6, 7, 36, 37, 42, 43, 216, 217, 222, 223, 252, 253, 258, 259, 1296, 1297, 1302, 1303, 1332, 1333, 1338, 1339, 1512, 1513, 1518, 1519, 1548, 1549, 1554, 1555, 7776, 7777, 7782, 7783, 7812, 7813, 7818, 7819, 7992, 7993, 7998, 7999, 8028, 8029, 8034
a(n) = Sum_{i=0..m} d(i)*6^i, where Sum_{i=0..m} d(i)*2^i is the base-2 representation of n.
a(2n) = 6*a(n), a(2n+1) = a(2n)+1.
[A175167] 0, 1, 1, 6, 7, 36, 45, 220, 286, 1365, 1820, 8568, 11628, 54264, 74613, 346104, 480700, 2220075, 3108105, 14307150, 20160075, 92561040, 131128140, 600805296, 854992152, 3910797436, 5586853480, 25518731280, 36576848168, 166871334960
a(n)=Sum(Binomial(n+j-1,j-1),(j,1,Floor[n/2])).
a(n) = floor(n/2) * C(n+floor(n/2), floor(n/2)) / (n+1). - Vaclav Kotesovec, Mar 02 2014
[A152119] 1, 1, 1, 6, 7, 41, 48, 281, 329, 1926, 2255, 13201, 15456, 90481, 105937, 620166, 726103, 4250681, 4976784, 29134601, 34111385, 199691526, 233802911, 1368706081, 1602508992, 9381251041, 10983760033, 64300051206, 75283811239
a(n) = prod(k=1..(n-1)/2, 5 + 4*cos(k*Pi/n)^2).
a(n) = 7*a(n-2) -a(n-4). G.f.: (x^4 - x^3 - 6*x^2 + x + 1)/((x^2 - 3*x + 1)*(x^2 + 3*x + 1)). [Joerg Arndt, Jan 24 2013]
[A080879] 1, 1, 6, 7, 44, 52, 328, 388, 2448, 2896, 18272, 21616, 136384, 161344, 1017984, 1204288, 7598336, 8988928, 56714752, 67094272, 423324672, 500798464, 3159738368, 3738010624, 23584608256, 27900891136, 176037912576
a(n) = (9/16*3^(1/2) - 7/16)*((1 + sqrt(3)))^n + (- 9/16*3^(1/2) - 7/16)*((1 - sqrt(3)))^n + (- 19/48*3^(1/2) + 15/16)*(- (1 + sqrt(3)))^n + (19/48*3^(1/2) + 15/16)*(- ((1 - sqrt(3))))^n [From Richard Choulet, Dec 06 2008]
a(n + 4) = 8*a(n + 2) - 4*a(n) [From Richard Choulet, Dec 06 2008]
[A042843] 1, 1, 6, 7, 48, 55, 323, 378, 23003, 23381, 139908, 163289, 1119642, 1282931, 7534297, 8817228, 536567977, 545385205, 3263494002, 3808879207, 26116769244, 29925648451, 175745011499, 205670659950, 12515984608499, 12721655268449, 76124260950744, 88845916219193
a(n) = 23326*a(n-8) - a(n-16) for n>15. - Vincenzo Librandi, Dec 25 2013
[A269912] 1, 6, 7, 52, 53, 170, 171, 392, 393, 750, 751, 1276, 1277, 2002, 2003, 2960, 2961, 4182, 4183, 5700, 5701, 7546, 7547, 9752, 9753, 12350, 12351, 15372, 15373, 18850, 18851, 22816, 22817, 27302, 27303, 32340, 32341, 37962, 37963, 44200, 44201, 51086, 51087

a(n) = (3*(1+(-1)^n)+(2-12*(-1)^n)*n-6*(-2+(-1)^n)*n^2+4*n^3)/6.
a(n) = (2*n^3+3*n^2-5*n+3)/3 for n even.
a(n) = (2*n^3+9*n^2+7*n)/3 for n odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>6.
[A041081] 1, 1, 6, 7, 90, 97, 575, 672, 8639, 9311, 55194, 64505, 829254, 893759, 5298049, 6191808, 79599745, 85791553, 508557510, 594349063, 7640746266, 8235095329, 48816222911, 57051318240, 733432041791, 790483360031, 4685848841946, 5476332201977, 70401835265670
a(n) = 96*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A041357] 1, 1, 6, 7, 188, 195, 1163, 1358, 36471, 37829, 225616, 263445, 7075186, 7338631, 43768341, 51106972, 1372549613, 1423656585, 8490832538, 9914489123, 266267549736, 276182038859, 1647177744031, 1923359782890, 51654532099171, 53577891882061
a(n) = 194*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 16 2013
[A041829] 1, 1, 6, 7, 286, 293, 1751, 2044, 83511, 85555, 511286, 596841, 24384926, 24981767, 149293761, 174275528, 7120314881, 7294590409, 43593266926, 50887857335, 2079107560326, 2129995417661, 12729084648631, 14859080066292, 607092287300311, 621951367366603
a(n) = 292*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 25 2013
[A047876] 0, 6, 8, 8, 12, 18, 22, 28, 36, 42, 52, 64, 68, 82, 98, 104, 118, 138, 146, 164, 184, 194, 216, 240, 248, 274, 302, 312, 338, 370, 382, 412, 444, 458, 492, 528, 540, 578, 618, 632, 670, 714, 730, 772, 816, 834, 880, 928, 944, 994, 1046
a(n) = 2*a(n-3) + a(n-4) - a(n-6) - 2*a(n-7) + a(n-10) for n > 14 (conjectured).
[A076517] 1, 6, 8, 9, 10, 11, 12, 14, 26, 34, 36, 37, 41, 42, 43, 45, 47, 56, 62, 64, 66, 67, 92, 95, 97, 98, 99, 102, 103, 120, 123, 124, 126, 128, 130, 131, 135, 136, 137, 139, 140, 142, 144, 151, 152, 154, 155, 156, 190, 198, 203, 204, 205, 206, 260, 264, 274, 276, 278
a(n) seems to be asymptotic to c*n*log(n) with 0.5 < c < 1
[A001746] 0, 6, 8, 9, 10, 16, 18, 19, 20, 26, 28, 29, 30, 36, 38, 39, 40, 46, 48, 49, 50, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 76, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105
a(n) = n + O(n^k) where k = log 6/log 10 = 0.77815.... - Charles R Greathouse IV, Feb 11 2017
[A047394] 0, 1, 6, 8, 9, 14, 16, 17, 22, 24, 25, 30, 32, 33, 38, 40, 41, 46, 48, 49, 54, 56, 57, 62, 64, 65, 70, 72, 73, 78, 80, 81, 86, 88, 89, 94, 96, 97, 102, 104, 105, 110, 112, 113, 118, 120, 121, 126, 128, 129, 134, 136, 137, 142, 144, 145, 150, 152, 153, 158
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 8*n/3-3+cos(2*n*Pi/3)+5*sin(2*n*Pi/3)/(3*sqrt(3)).
a(3k) = 8k-2, a(3k-1) = 8k-7, a(3k-2) = 8k-8. (End)
[A001743] 0, 6, 8, 9, 60, 66, 68, 69, 80, 86, 88, 89, 90, 96, 98, 99, 600, 606, 608, 609, 660, 666, 668, 669, 680, 686, 688, 689, 690, 696, 698, 699, 800, 806, 808, 809, 860, 866, 868, 869, 880, 886, 888, 889, 890, 896, 898, 899, 900, 906, 908, 909, 960, 966, 968, 969
a(n) = ((b_m(n)+6) mod 9 + floor((b_m(n)+2)/3) - floor(b_m(n)/3))*10^m + sum_{j=0..m-1} (b_j(n) mod 4 +5*floor((b_j(n)+3)/4) +floor((b_j(n)+2)/4)-6*floor(b_j(n)/4)))*10^j, where n>1, b_j(n)) = floor((n-1-4^m)/4^j), m = floor(log_4(n-1)).
a(1*4^n+1) = 6*10^n.
a(2*4^n+1) = 8*10^n.
a(3*4^n+1) = 9*10^n.
a(n) = 6*10^log_4(n-1) for n=4^k+1,
a(n) < 6*10^log_4(n-1), else.
[A080257] 6, 8, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 26, 27, 28, 30, 32, 33, 34, 35, 36, 38, 39, 40, 42, 44, 45, 46, 48, 50, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 64, 65, 66, 68, 69, 70, 72, 74, 75, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 98, 99, 100
a(n) = n + O(n/log n). - Charles R Greathouse IV, Sep 14 2015
[A020739] 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138
a(n) = 2a(n-1) - a(n-2).
[A184111] 1, 6, 8, 10, 13, 14, 16, 18, 20, 22, 23, 25, 26, 28, 29, 31, 33, 34, 35, 37, 38, 40, 41, 43, 44, 46, 47, 48, 50, 51, 52, 54, 55, 56, 58, 59, 61, 62, 63, 64, 66, 67, 68, 70, 71, 72, 74, 75, 76, 78, 79, 80, 81, 83, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 111, 113, 114, 115, 116, 118, 119, 120, 121, 122, 124, 125, 126, 127, 128, 130, 131, 132, 133, 134, 136, 137, 138, 139
a(n) = n + floor(4*sqrt(n-1))
[A086822] 6, 8, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175
a(n) = 2*a(n-1)-a(n-2) for n>4. - Colin Barker, May 23 2015
[A184113] 6, 8, 11, 12, 14, 16, 18, 20, 21, 23, 24, 26, 27, 29, 31, 32, 33, 35, 36, 38, 39, 41, 42, 44, 45, 46, 48, 49, 50, 52, 53, 54, 56, 57, 59, 60, 61, 62, 64, 65, 66, 68, 69, 70, 72, 73, 74, 76, 77, 78, 79, 81, 82, 83, 84, 86, 87, 88, 89, 91, 92, 93, 95, 96, 97, 98, 99, 101, 102, 103, 104, 106, 107, 108, 109, 111, 112, 113, 114, 116, 117, 118, 119, 120, 122, 123, 124, 125, 126, 128, 129, 130, 131, 132, 134, 135, 136, 137, 139, 140
a(n) = n + floor(4*sqrt(n+1))
[A167499] 6, 8, 11, 15, 20, 26, 33, 41, 50, 60, 71, 83, 96, 110, 125, 141, 158, 176, 195, 215, 236, 258, 281, 305, 330, 356, 383, 411, 440, 470, 501, 533, 566, 600, 635, 671, 708, 746, 785, 825, 866, 908, 951, 995, 1040, 1086, 1133, 1181, 1230, 1280, 1331, 1383, 1436, 1490
a(n) = n + a(n-1) + 1, with n > 1, a(1) = 8.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Sep 16 2013
[A020716] 6, 8, 11, 15, 20, 27, 36, 48, 64, 85, 113, 150, 199, 264, 350, 464, 615, 815, 1080, 1431, 1896, 2512, 3328, 4409, 5841, 7738, 10251, 13580, 17990, 23832, 31571, 41823, 55404, 73395, 97228, 128800, 170624, 226029, 299425, 396654, 525455, 696080, 922110, 1221536
a(n) = a(n-1) + a(n-2) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A063207] 1, 6, 8, 12, 14, 20, 20, 26, 28, 32, 34, 40, 40, 46, 48, 52, 54, 60, 60, 66, 68, 72, 74, 80, 80, 86, 88, 92, 94, 100, 100, 106, 108, 112, 114, 120, 120, 126, 128, 132, 134, 140, 140, 146, 148, 152, 154, 160, 160, 166
a(n) = a(n-2)+a(n-3)-a(n-5) for n>6. G.f.: x*(x^5 +5*x^3 +7*x^2 +6*x +1)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A089241] 6, 8, 12, 16, 24, 28, 36, 40, 48, 60, 64, 76, 84, 88, 96, 108, 120, 124, 136, 144, 148, 160, 168, 180, 196, 204, 208, 216, 220, 228, 256, 264, 276, 280, 300, 304, 316, 328, 336, 348, 360, 364, 384, 388, 396, 400, 424, 448, 456, 460, 468, 480, 484
a(n) = 2*prime(n) + 2. - Alonso del Arte, Mar 02 2017
[A027691] 6, 8, 12, 18, 26, 36, 48, 62, 78, 96, 116, 138, 162, 188, 216, 246, 278, 312, 348, 386, 426, 468, 512, 558, 606, 656, 708, 762, 818, 876, 936, 998, 1062, 1128, 1196, 1266, 1338, 1412, 1488, 1566, 1646, 1728, 1812, 1898, 1986, 2076, 2168, 2262
a(n)=2*n+a(n-1) (with a(0)=6) - Vincenzo Librandi, Aug 05 2010
[A047336] 1, 6, 8, 13, 15, 20, 22, 27, 29, 34, 36, 41, 43, 48, 50, 55, 57, 62, 64, 69, 71, 76, 78, 83, 85, 90, 92, 97, 99, 104, 106, 111, 113, 118, 120, 125, 127, 132, 134, 139, 141, 146, 148, 153, 155, 160, 162, 167, 169, 174, 176, 181, 183, 188, 190, 195, 197, 202, 204, 209
a(1) = 1; a(n) = 7(n-1) - a(n-1). - Rolf Pleisch, Jan 31 2008 (corrected by Jon E. Schoenfield, Dec 22 2008)
a(n) = (7/2)*(n-(1-(-1)^n)/2)-(-1)^n. - Rolf Pleisch, Nov 02 2010
a(n) = -a(-n+1) = a(n-1)+a(n-2)-a(n-3).
a(n) = a(n-2)+7.
a(n) = 7*floor(n/2)+(-1)^(n+1). [From Gary Detlefs, Dec 29 2011]
[A047451] 0, 6, 8, 14, 16, 22, 24, 30, 32, 38, 40, 46, 48, 54, 56, 62, 64, 70, 72, 78, 80, 86, 88, 94, 96, 102, 104, 110, 112, 118, 120, 126, 128, 134, 136, 142, 144, 150, 152, 158, 160, 166, 168, 174, 176, 182, 184, 190
a(n)=8*n-a(n-1)-10 (with a(1)=0). - Vincenzo Librandi, Aug 06 2010
a(n) =4*n-3+(-1)^n. G.f. 2*x^2*(3+x) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
a(n) = c((8/3)*c(3*n/2)), where c = ceiling. - Clark Kimberling, Jul 04 2012
[A255844] 6, 8, 14, 24, 38, 56, 78, 104, 134, 168, 206, 248, 294, 344, 398, 456, 518, 584, 654, 728, 806, 888, 974, 1064, 1158, 1256, 1358, 1464, 1574, 1688, 1806, 1928, 2054, 2184, 2318, 2456, 2598, 2744, 2894, 3048, 3206, 3368, 3534, 3704, 3878, 4056, 4238, 4424, 4614
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).

[A168610] 6, 8, 14, 32, 86, 248, 734, 2192, 6566, 19688, 59054, 177152, 531446, 1594328, 4782974, 14348912, 43046726, 129140168, 387420494, 1162261472, 3486784406, 10460353208, 31381059614, 94143178832, 282429536486, 847288609448
a(n) = 3*a(n-1) - 10 with a(0)=6.
a(n) = 4*a(n-1) -3*a(n-2). - Vincenzo Librandi, Jul 06 2012
[A165720] 6, 8, 18, 21, 35, 39, 57, 62, 84, 90, 116, 123, 153, 161, 195, 204, 242, 252, 294, 305, 351, 363, 413, 426, 480, 494, 552, 567, 629, 645, 711, 728, 798, 816, 890, 909, 987, 1007, 1089, 1110, 1196, 1218, 1308, 1331, 1425, 1449, 1547, 1572, 1674, 1700, 1806
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = 5*(2*n^2 + 10*n + 3)/16 - 3*(-1)^n*(5 + 2*n)/16.
[A113806] 6, 8, 20, 22, 34, 36, 48, 50, 62, 64, 76, 78, 90, 92, 104, 106, 118, 120, 132, 134, 146, 148, 160, 162, 174, 176, 188, 190, 202, 204, 216, 218, 230, 232, 244, 246, 258, 260, 272, 274, 286, 288, 300, 302, 314, 316, 328, 330, 342, 344, 356, 358, 370
a(n)=14*n-a(n-1)-14 (with a(1)=6) [From Vincenzo Librandi, Nov 13 2010]
a(n) = 7*n-(7+5*(-1)^n)/2.
[A159469] 6, 8, 20, 24, 42, 48, 72, 80, 110, 120, 156, 168, 210, 224, 272, 288, 342, 360, 420, 440, 506, 528, 600, 624, 702, 728, 812, 840, 930, 960, 1056, 1088, 1190, 1224, 1332, 1368, 1482, 1520, 1640, 1680, 1806, 1848, 1980, 2024, 2162, 2208, 2352, 2400, 2550, 2600
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n > 7. - Colin Barker, Oct 29 2017 (proved by Iain Fox, Nov 26 2017)
a(n) = n^2 - n*(3 + (-1)^n)/2. - Iain Fox, Nov 26 2017
[A083595] 1, 6, 8, 20, 36, 76, 148, 300, 596, 1196, 2388, 4780, 9556, 19116, 38228, 76460, 152916, 305836, 611668, 1223340, 2446676, 4893356, 9786708, 19573420, 39146836, 78293676, 156587348, 313174700, 626349396, 1252698796, 2505397588
a(n) = (7*2^n - 4(-1)^n)/3 .
[A024868] 6, 8, 22, 27, 52, 61, 100, 114, 170, 190, 266, 293, 392, 427, 552, 596, 750, 804, 990, 1055, 1276, 1353, 1612, 1702, 2002, 2106, 2450, 2569, 2960, 3095, 3536, 3688, 4182, 4352, 4902, 5091, 5700, 5909, 6580, 6810, 7546, 7798, 8602, 8877, 9752, 10051, 11000, 11324, 12350
a(n) = sum_{i=1..floor(n/2)} (i+1)*(n-i+2) = floor(n/2)*(-2*floor(n/2)^2+3*n*floor(n/2)+9n+14)/6, n>1. - Wesley Ivan Hurt, Sep 20 2013
a(n) = 19*n/24 -9/16 +n^3/12 +11*n^2/16 + (-1)^n*(3*n/8 +9/16 +n^2/16). - R. J. Mathar, Sep 25 2013
[A219191] 0, 6, 8, 26, 30, 60, 66, 108, 116, 170, 180, 246, 258, 336, 350, 440, 456, 558, 576, 690, 710, 836, 858, 996, 1020, 1170, 1196, 1358, 1386, 1560, 1590, 1776, 1808, 2006, 2040, 2250, 2286, 2508, 2546, 2780, 2820, 3066, 3108, 3366, 3410, 3680, 3726, 4008
a(n) = a(-n+1) = (14*n*(n-1)+5*(-1)^n*(2*n-1)+5)/8.
[A024873] 6, 8, 26, 43, 97, 156, 308, 499, 915, 1480, 2598, 4204, 7178, 11614, 19476, 31513, 52219, 84492, 138900, 224745, 367509, 594642, 968924, 1567752, 2548478, 4123524, 6692462, 10828631, 17556405, 28406860, 46023972, 74468351, 120596327, 195128956, 315902914
a(0)=6, a(1)=8, a(2)=26, a(3)=43, a(4)=97, a(5)=156, a(6)=308, a(7)=499, a(8)=915, a(9)=1480, a(n)=a(n-1)+3*a(n-2)-2*a(n-3)-a(n-4)-a(n-5)- 3*a(n-6)+2*a(n-7)+a(n-8)+a(n-9)+a(n-10) [From Harvey P. Dale, May 19 2011]
[A000773] 0, 0, 0, 1, 1, 6, 8, 29, 45, 130, 220, 561, 1001, 2366, 4368, 9829, 18565, 40410, 77540, 164921, 320001, 669526, 1309528, 2707629, 5326685, 10919090, 21572460, 43942081, 87087001, 176565486, 350739488, 708653429, 1410132405, 2841788170, 5662052980
a(n) = (1/6)*(2^n - (-1)^n - 3^((n+1)/2)). G.f.: x^3 / ((1+x)*(1-2*x)*(1-3*x^2)). - Ralf Stephan, Aug 08 2004
a(n) = a(n-1) + 2 * a(n-2) + 3^(n/2) * (1 + (-1)^n) / 18 for all n in Z. - Michael Somos, Jan 23 2014
a(n) = - 6 * a(n-4) - 3 * a(n-3) + 5 * a(n-2) + a(n-1) for n > 4. - Hugo Pfoertner, Jun 13 2017
[A258283] 1, 1, 6, 8, 29, 47, 134, 213, 559, 939, 2178, 3564, 8184, 13225, 27904, 46376, 93151, 153022, 302948, 489271, 931845, 1540667, 2818014, 4565768, 8369128, 13423638, 23782711, 38552461, 66714197, 106889113, 184313769, 291358130, 491972639, 785299762, 1298230358
a(n) = 1/5! * [(x*y*z*u*v)^n] Product_{j>0} (1+x^j+y^j+z^j+u^j+v^j).
[A164640] 1, 6, 8, 48, 64, 384, 512, 3072, 4096, 24576, 32768, 196608, 262144, 1572864, 2097152, 12582912, 16777216, 100663296, 134217728, 805306368, 1073741824, 6442450944, 8589934592, 51539607552, 68719476736, 412316860416
a(n) = (7-(-1)^n)*2^(1/4*(6*n -15+3*(-1)^n)).
[A250256] 1, 6, 8, 68, 88, 688, 888, 6888, 8888, 68888, 88888, 688888, 888888, 6888888, 8888888, 68888888, 88888888, 688888888, 888888888, 6888888888, 8888888888, 68888888888, 88888888888, 688888888888, 888888888888, 6888888888888, 8888888888888, 68888888888888
a(n) = 10*a(n-2) + 8 for n >= 4.
a(n) = a(n-1) + 10*a(n-2) - 10*a(n-3) for n > 4.
[A053869] 1, 6, 9, 10, 12, 14, 20, 22, 24, 25, 26, 28, 30, 34, 38, 40, 42, 44, 46, 48, 49, 52, 54, 56, 58, 60, 62, 66, 68, 70, 74, 76, 78, 80, 81, 82, 84, 86, 88, 90, 92, 94, 96, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 121, 122, 124, 126, 130, 132, 134, 136, 138, 140
a(n) = 2n + 2*sqrt(n) + O(1). - Charles R Greathouse IV, Sep 27 2015
[A184104] 6, 9, 11, 14, 16, 18, 20, 22, 24, 25, 27, 29, 31, 32, 34, 36, 37, 39, 40, 42, 43, 45, 46, 48, 50, 51, 52, 54, 55, 57, 58, 60, 61, 63, 64, 66, 67, 68, 70, 71, 73, 74, 75, 77, 78, 79, 81, 82, 84, 85, 86, 88, 89, 90, 92, 93, 94, 96, 97, 98, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 113, 114, 115, 117, 118, 119, 120, 122, 123, 124, 126, 127, 128, 129, 131, 132, 133, 134, 136, 137, 138, 139, 141, 142, 143, 144, 146, 147, 148, 150
a(n)=n+floor(5*sqrt(n)).
[A214777] 0, 6, 9, 12, 15, 18, 20, 21, 24, 26, 27, 29, 30, 32, 33, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86
a(n) = n + 21 for n >= 23. - Robert Israel, May 01 2015
[A106218] 6, 9, 12, 21, 27, 33, 69, 75, 84, 87, 93, 96, 111, 123, 126, 162, 165, 192, 225, 228, 231, 234, 237, 240, 264, 270, 273, 276, 288, 300, 306, 318, 321, 339, 345, 354, 357, 360, 378, 381, 384, 390, 417, 426, 429, 432, 438, 441, 447, 453, 468, 471, 474, 477, 483
a(n) = 0 (mod 3) for all n.
[A064799] 6, 9, 13, 16, 21, 25, 31, 34, 39, 47, 51, 58, 63, 67, 72, 79, 86, 89, 97, 103, 106, 113, 118, 125, 135, 140, 143, 149, 153, 158, 173, 179, 186, 189, 200, 203, 211, 218, 223, 230, 237, 241, 253, 256, 261, 264, 277, 291, 296, 299, 305, 313, 316, 327, 334, 341
a(n) = prime(n)+composite(n)
[A167614] 6, 9, 13, 18, 24, 31, 39, 48, 58, 69, 81, 94, 108, 123, 139, 156, 174, 193, 213, 234, 256, 279, 303, 328, 354, 381, 409, 438, 468, 499, 531, 564, 598, 633, 669, 706, 744, 783, 823, 864, 906, 949, 993, 1038, 1084, 1131, 1179, 1228, 1278, 1329, 1381, 1434, 1488
a(n) = n + a(n-1) + 1, with n>1, a(1)=6.
[A048626] 6, 9, 13, 19, 28, 41, 60, 88, 129, 189, 277, 406, 595, 872, 1278, 1873, 2745, 4023, 5896, 8641, 12664, 18560, 27201, 39865, 58425, 85626, 125491, 183916, 269542, 395033, 578949, 848491, 1243524, 1822473, 2670964, 3914488, 5736961, 8407925, 12322413, 18059374
a(n) = a(n-1) + a(n-3) (Checked up to n = 1000)
[A232553] 6, 9, 13, 36, 54, 81, 216, 324, 486, 1296, 1944, 2916, 7776, 11664, 17496, 46656, 69984, 104976, 279936, 419904, 629856, 1679616, 2519424, 3779136, 10077696, 15116544, 22674816, 60466176, 90699264, 136048896, 362797056, 544195584, 816293376, 2176782336, 3265173504, 4897760256
a(n) = floor(6^((n-h)/3)*(3/2)^h), where h=0,1 or 2, such that n == h (mod 3).
a(n) = 6*a(n-3) for n>5.
[A047452] 1, 6, 9, 14, 17, 22, 25, 30, 33, 38, 41, 46, 49, 54, 57, 62, 65, 70, 73, 78, 81, 86, 89, 94, 97, 102, 105, 110, 113, 118, 121, 126, 129, 134, 137, 142, 145, 150, 153, 158, 161, 166, 169, 174, 177, 182, 185, 190
a(n) = 8*n-a(n-1)-9, n>1. [Vincenzo Librandi, Aug 06 2010]
a(n) = (1/2)*[-5+(-1)^n+8*n], with n>=1. [Paolo P. Lava, Sep 03 2010]
[A095098] 6, 9, 14, 19, 22, 27, 30, 35, 40, 43, 48, 53, 56, 61, 64, 69, 74, 77, 82, 85, 90, 95, 98, 103, 108, 111, 116, 119, 124, 129, 132, 137, 142, 145, 150, 153, 158, 163, 166, 171, 174, 179, 184, 187, 192, 197, 200, 205, 208, 213, 218, 221, 226, 229, 234, 239, 242
a(n) = 2*floor((n+1)*phi^2)-n-3, where phi = (1+sqrt(5))/2. - Vladeta Jovovic, Jul 05 2004
[A134859] 1, 6, 9, 14, 19, 22, 27, 30, 35, 40, 43, 48, 53, 56, 61, 64, 69, 74, 77, 82, 85, 90, 95, 98, 103, 108, 111, 116, 119, 124, 129, 132, 137, 142, 145, 150, 153, 158, 163, 166, 171, 174, 179, 184, 187, 192, 197, 200, 205, 208, 213, 218, 221, 226, 229, 234, 239, 242
a(n) = 2*floor(n*Phi^2)+n-2 where Phi=(1+sqrt(5))/2. - Benoit Cloitre, Apr 12 2008; R. J. Mathar, Oct 16 2009
[A020717] 6, 9, 14, 22, 35, 56, 90, 145, 234, 378, 611, 988, 1598, 2585, 4182, 6766, 10947, 17712, 28658, 46369, 75026, 121394, 196419, 317812, 514230, 832041, 1346270, 2178310, 3524579, 5702888, 9227466, 14930353, 24157818, 39088170, 63245987, 102334156, 165580142
a(n) = 2*a(n-1) - a(n-3).

a(n) = 1 + (5/2)*(1/2 + (1/2)*sqrt(5))^n + (11/10)*(1/2 +(1/2)*sqrt(5))^n*sqrt(5) - (11/10)*sqrt(5)*(1/2 - (1/2)*sqrt(5))^n + (5/2)*(1/2 - (1/2)*sqrt(5))^n. - Paolo P. Lava, Jun 10 2008

[A229354] 6, 9, 17, 39, 101, 279, 797, 2319, 6821, 20199, 60077, 179199, 535541, 1602519, 4799357, 14381679, 43112261, 129271239, 387682637, 1162785759, 3487832981, 10462450359, 31385253917, 94151567439, 282446313701, 847322163879, 2541932937197, 7625731702719

a(n) = 4 + 2^n + 3^n.

[A118277] 0, 1, 6, 9, 19, 24, 39, 46, 66, 75, 100, 111, 141, 154, 189, 204, 244, 261, 306, 325, 375, 396, 451, 474, 534, 559, 624, 651, 721, 750, 825, 856, 936, 969, 1054, 1089, 1179, 1216, 1311, 1350, 1450, 1491, 1596, 1639, 1749, 1794, 1909, 1956, 2076, 2125, 2250

a(n) = n*(7*n-5)/2 for positive and negative n.

a(n) = (1/16)*(14*n^2 + 14*n - 3 + 3*(-1)^n*(2*n + 1)). - R. J. Mathar, Oct 08 2011

[A165717] 6, 9, 21, 26, 44, 51, 75, 84, 114, 125, 161, 174, 216, 231, 279, 296, 350, 369, 429, 450, 516, 539, 611, 636, 714, 741, 825, 854, 944, 975, 1071, 1104, 1206, 1241, 1349, 1386, 1500, 1539, 1659, 1700, 1826, 1869, 2001, 2046, 2184, 2231, 2375, 2424, 2574, 2625

a(n)= a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5). - R. J. Mathar, Sep 25 2009

[A084431] 1, 6, 9, 24, 36, 96, 144, 384, 576, 1536, 2304, 6144, 9216, 24576, 36864, 98304, 147456, 393216, 589824, 1572864, 2359296, 6291456, 9437184, 25165824, 37748736, 100663296, 150994944, 402653184, 603979776, 1610612736, 2415919104

a(n) = (-10*0^n-3*(-2)^n+21*2^n)/8.

a(n) = 4*a(n-2), n>1. - Harvey P. Dale, Nov 05 2011

[A274977] 1, 6, 9, 27, 54, 135, 297, 702, 1593, 3699, 8478, 19575, 45009, 103734, 238761, 549963, 1266246, 2916135, 6714873, 15463278, 35607897, 81997731, 188821422, 434814615, 1001278881, 2305722726, 5309559369, 12226727547, 28155405654, 64835588295, 149301805257, 343808570142

a(n) = ((13 + 11*sqrt(13))*(1 + sqrt(13))^n + (13 - 11*sqrt(13))*(1 - sqrt(13))^n)/(26*2^n).

[A154139] 0, 6, 9, 39, 56, 230, 329, 1343, 1920, 7830, 11193, 45639, 65240, 266006, 380249, 1550399, 2216256, 9036390, 12917289, 52667943, 75287480, 306971270, 438807593, 1789159679, 2557558080, 10427986806, 14906540889, 60778761159, 86881687256

a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) - a(n-4) + a(n-5).

[A098662] 1, 1, 6, 9, 54, 90, 540, 945, 5670, 10206, 61236, 112266, 673596, 1250964, 7505784, 14073345, 84440070, 159497910, 956987460, 1818276174, 10909657044, 20827527084, 124965162504, 239516561466, 1437099368796, 2763652632300

a(n)=binomial(n, floor(n/2))3^floor(n/2).

[A111093] 0, 1, 6, 10, 10, 15, 16, 16, 20, 25, 30, 36, 36, 45, 50, 50, 56, 61, 70, 70, 70, 71, 76, 80, 80, 85, 86, 86, 90, 95, 100, 106, 106, 115, 120, 120, 126, 131, 140, 140, 140, 141, 146, 150, 150, 155, 156, 156, 160, 165, 170, 176, 176, 185, 190, 190, 196, 201, 210, 210

a(n+1) = a(n) + (a(n) - a(n-1) + (n+1)^2 mod 10) mod 10, with a(0)=0, a(1)=1.

[A105642] 6, 10, 12, 14, 15, 18, 20, 21, 22, 24, 26, 28, 30, 32, 33, 34, 35, 38, 39, 40, 42, 44, 45, 46, 48, 50, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 65, 66, 68, 69, 70, 72, 74, 75, 76, 77, 78, 80, 82, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 98, 99, 102, 104, 105, 106, 108

a(n) = n + O(n/log n). - Charles R Greathouse IV, Oct 19 2015

[A106543] 6, 10, 12, 14, 15, 18, 20, 21, 22, 24, 26, 28, 30, 33, 34, 35, 38, 39, 40, 42, 44, 45, 46, 48, 50, 51, 52, 54, 55, 56, 57, 58, 60, 62, 63, 65, 66, 68, 69, 70, 72, 74, 75, 76, 77, 78, 80, 82, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 98, 99, 102, 104, 105, 106

a(n) = n + O(n/log n). - Charles R Greathouse IV, Oct 03 2011

[A054741] 6, 10, 12, 14, 18, 20, 22, 24, 26, 28, 30, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 105, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 130, 132, 134, 136

a(n) seems to be asymptotic to c*n with c=1.9566..... - Benoit Cloitre, Oct 20 2002 [It is an old theorem that a(n) ~ cn for some c, for any sequence of the form "n/phi(n) > k". - Charles R Greathouse IV, May 28 2015]

[A063214] 1, 6, 10, 12, 16, 22, 22, 28, 32, 34, 38, 44, 44, 50, 54, 56, 60, 66, 66, 72, 76, 78, 82, 88, 88, 94, 98, 100, 104, 110, 110, 116, 120, 122, 126, 132, 132, 138, 142, 144, 148, 154, 154, 160, 164, 166, 170, 176, 176, 182

a(n) = a(n-2)+a(n-3)-a(n-5) for n>6. G.f.: x*(1 +6*x +9*x^2 +5*x^3 +x^5)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]

[A242100] 6, 10, 12, 18, 20, 24, 30, 34, 36, 40, 42, 48, 56, 66, 68, 72, 80, 84, 90, 96, 108, 110, 130, 132, 136, 144, 150, 156, 160, 182, 192, 210, 222, 240, 246, 252, 258, 260, 264, 270, 272, 288, 306, 320, 324, 342, 350, 380, 384, 392, 420, 462, 506, 514, 516, 520

a(n) < n^2 for n > 4.

[A030229] 1, 6, 10, 14, 15, 21, 22, 26, 33, 34, 35, 38, 39, 46, 51, 55, 57, 58, 62, 65, 69, 74, 77, 82, 85, 86, 87, 91, 93, 94, 95, 106, 111, 115, 118, 119, 122, 123, 129, 133, 134, 141, 142, 143, 145, 146, 155, 158, 159, 161, 166, 177, 178, 183, 185, 187, 194, 201, 202, 203, 205, 206, 209, 210, 213, 214

a(n) < n*Pi^2/3 infinitely often; a(n) > n*Pi^2/3 infinitely often. - Charles R Greathouse IV, Oct 04 2011; corrected Sep 07 2017

[A193416] 6, 10, 14, 16, 20, 22, 24, 24, 28, 30, 32, 32, 36, 38, 40, 40, 42, 42, 46, 48, 50, 50, 52, 52, 54, 54, 54, 58, 60, 62, 62, 64, 64, 66, 66, 66, 70, 72, 74, 74, 76, 76, 78, 78, 78, 80, 80, 80, 84, 86, 88, 88, 90, 90, 92, 92, 92, 94, 94, 94, 96, 96, 96, 96, 100

a(n^3) = 6n^2, a(n) ~ 6n^(2/3). - Charles R Greathouse IV, Aug 25 2011

[A073760] 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126, 130, 134, 138, 142, 146, 150, 154, 158, 162, 166, 170, 174, 178, 182, 186, 190, 194, 198, 202, 206, 210, 214, 218, 222, 226, 230

a(n) = 4n+2. - Max Alekseyev, Mar 03 2007

a(n)=8*n-a(n-1), (with a(1)=6) [From Vincenzo Librandi, Aug 08 2010]

a(1)=6, a(2)=10, a(n)=2*a(n-1)-a(n-2) [From Harvey P. Dale, Mar 06 2012]

[A007944] 6, 10, 14, 18, 26, 30, 38, 42, 42, 54, 62, 74, 74, 90, 90, 90, 108, 114, 114, 134, 134, 146, 162, 172, 180, 186, 186, 218, 222, 230, 240, 240, 254, 258, 270, 270, 290, 290, 290, 330, 348, 348, 366, 366, 366, 398, 398, 410, 410, 434, 440, 440, 474, 474, 474, 474, 474, 522

a(n) « n log n. - Charles R Greathouse IV, Sep 19 2012

[A151972] 0, 1, 6, 10, 15, 16, 21, 25, 30, 31, 36, 40, 45, 46, 51, 55, 60, 61, 66, 70, 75, 76, 81, 85, 90, 91, 96, 100, 105, 106, 111, 115, 120, 121, 126, 130, 135, 136, 141, 145, 150, 151, 156, 160, 165, 166, 171, 175, 180, 181, 186, 190, 195, 196, 201, 205, 210, 211, 216, 220, 225

a(n) = (30*n-41-5*i^(2*n)+(3+3*i)*i^(-n)+(3-3*i)*i^n)/8 where i=sqrt(-1).

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. (End)

[A168102] 6, 10, 15, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, 105, 112, 119, 126, 133, 140, 147, 154, 161, 168, 175, 182, 189, 196, 203, 210, 217, 224, 231, 238, 245, 252, 259, 266, 273, 280, 287, 294, 301, 308, 315, 322, 329, 336, 343, 350, 357, 364, 371, 378

a(n) = a(n-1) + 7 for n >= 4.

a(n) = 2*a(n-1) - a(n-2) for n>4. - Colin Barker, Feb 12 2015

[A285766] 0, 0, 6, 10, 15, 22, 31, 42, 55, 70, 87, 106, 127, 150, 175, 202, 231, 262, 295, 330, 367, 406, 447, 490, 535, 582, 631, 682, 735, 790, 847, 906, 967, 1030, 1095, 1162, 1231, 1302, 1375, 1450, 1527, 1606, 1687, 1770, 1855, 1942, 2031, 2122, 2215, 2310, 2407

a(n) = 7 - 2*n + n^2 for n>2.

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>5.

[A146951] 0, 6, 10, 16, 20, 26, 30, 36, 40, 46, 50, 56, 60, 66, 70, 76, 80, 86, 90, 96, 100, 106, 110, 116, 120, 126, 130, 136, 140, 146, 150, 156, 160, 166, 170, 176, 180, 186, 190, 196, 200, 206

a(n) = 1/2-(-1)^n/2+5*n. a(n)=a(n-1)+a(n-2)-a(n-3). G.f.: x*(6+4*x)/((1-x)^2*(1+x)). - Colin Barker, May 15 2012

[A079329] 6, 10, 16, 25, 37, 52, 67, 88, 106, 124, 145, 166, 187, 196, 214, 235, 256, 277, 298, 331, 385, 427, 448, 493, 547, 586, 610, 631, 652, 736, 817, 826, 844, 871, 952, 1027, 1042, 1057, 1078, 1123, 1192, 1255, 1285, 1297, 1312, 1375, 1441, 1468, 1486, 1549

a(n)=Sum_{x=n-th greater of twin primes..(n+1)th greater of twin primes}-(-1)^x*x - Juri-Stepan Gerasimov, Jul 14 2009

[A090991] 6, 10, 16, 26, 42, 68, 110, 178, 288, 466, 754, 1220, 1974, 3194, 5168, 8362, 13530, 21892, 35422, 57314, 92736, 150050, 242786, 392836, 635622, 1028458, 1664080, 2692538, 4356618, 7049156, 11405774, 18454930, 29860704, 48315634, 78176338, 126491972

a(k+4)=3*a(k+2)-a(k), a(k)=2*Fib(k+3)

a(n)=a(n-1)+a(n-2), n>2 ; a(1)=6, a(2)=10 . G.f.: (6x+4x^2)/(1-x-x^2). [From Philippe Deléham, Nov 19 2008]

[A020718] 6, 10, 17, 29, 49, 83, 141, 240, 409, 697, 1188, 2025, 3452, 5885, 10033, 17105, 29162, 49718, 84764, 144514, 246382, 420057, 716156, 1220976, 2081645, 3549002, 6050703, 10315860, 17587538, 29985042, 51121581, 87157325, 148594765, 253339627, 431919433

a(n) = 2*a(n-1)-a(n-3)+a(n-5)-a(n-6) for n>5 (conjectured). - Colin Barker, Jun 05 2016

[A048587] 6, 10, 17, 29, 50, 87, 152, 266, 466, 817, 1433, 2514, 4411, 7740, 13582, 23834, 41825, 73397, 128802, 226031, 396656, 696082, 1221538, 2143649, 3761841, 6601570, 11584947, 20330164, 35676950, 62608682, 109870577, 192809421, 338356946, 593775047, 1042002568
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A134351] 1, 6, 10, 18, 34, 66, 130, 258, 514, 1026, 2050, 4098, 8194, 16386, 32770, 65538, 131074, 262146, 524290, 1048578, 2097154, 4194306, 8388610, 16777218, 33554434, 67108866, 134217730, 268435458, 536870914, 1073741826, 2147483650
a(n)=2+2^(n+1) for n>=2; a(1)=1. - Emeric Deutsch, Oct 24 2007
[A270544] 0, 6, 10, 20, 24, 34, 42, 52, 56, 70, 78, 88, 96, 106, 114, 132, 136, 146, 158, 168, 176, 194, 202, 212, 220, 234, 242, 260, 268, 278, 294, 304, 308, 326, 334, 352, 364, 374, 382, 400, 408, 418, 434, 444, 452, 478, 486, 496, 504, 518, 530, 548, 556, 566, 582, 600
a(n) = 2*floor((n+1)/2) + 4*Sum_{k=0..floor((n+1)/2)-1}floor(n/(2k+1)).
[A181995] 0, 0, 1, 6, 10, 20, 27, 42, 52, 72, 85, 110, 126, 156, 175, 210, 232, 272, 297, 342, 370, 420, 451, 506, 540, 600, 637, 702, 742, 812, 855, 930, 976, 1056, 1105, 1190, 1242, 1332, 1387, 1482, 1540, 1640, 1701, 1806, 1870, 1980, 2047, 2162, 2232, 2352, 2425, 2550, 2626, 2756, 2835, 2970, 3052, 3192, 3277, 3422, 3510, 3660, 3751, 3906, 4000, 4160, 4257, 4422
a(n) = n*(4*n-5-(-1)^n)/4. - Luce ETIENNE, Oct 04 2014
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4.
a(n) = Sum_{i=floor((n-1)/2)..floor(3*(n-1)/2)} i. (End)
[A254028] 6, 10, 20, 46, 116, 310, 860, 2446, 7076, 20710, 61100, 181246, 539636, 1610710, 4815740, 14414446, 43177796, 129402310, 387944780, 1163310046, 3488881556, 10464547510, 31389448220, 94159956046, 282463090916, 847355718310
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3). - Colin Barker, Jan 24 2015
[A212161] 6, 10, 23, 27, 40, 44, 57, 61, 74, 78, 91, 95, 108, 112, 125, 129, 142, 146, 159, 163, 176, 180, 193, 197, 210, 214, 227, 231, 244, 248, 261, 265, 278, 282, 295, 299, 312, 316, 329, 333, 346, 350
a(n) = 1/4*(34*n+9*(-1)^n+15). - Paolo P. Lava, May 16 2012
[A014494] 0, 6, 10, 28, 36, 66, 78, 120, 136, 190, 210, 276, 300, 378, 406, 496, 528, 630, 666, 780, 820, 946, 990, 1128, 1176, 1326, 1378, 1540, 1596, 1770, 1830, 2016, 2080, 2278, 2346, 2556, 2628, 2850, 2926, 3160, 3240, 3486, 3570, 3828, 3916, 4186, 4278, 4560
a(n) = (2*n+1)*(2*n+1-(-1)^n)/2. - Ant King, Nov 18 2010
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Ant King, Nov 18 2010
[A266957] 1, 6, 10, 31, 39, 74, 86, 135, 151, 214, 234, 311, 335, 426, 454, 559, 591, 710, 746, 879, 919, 1066, 1110, 1271, 1319, 1494, 1546, 1735, 1791, 1994, 2054, 2271, 2335, 2566, 2634, 2879, 2951, 3210, 3286, 3559, 3639, 3926, 4010, 4311, 4399, 4714, 4806, 5135, 5231, 5574
a(n) = a(-n+1) = (18*(n-1)*n + 5*(2*n-1)*(-1)^n - 3)/8.
[A121801] 0, 6, 10, 32, 78, 210, 544, 1430, 3738, 9792, 25630, 67106, 175680, 459942, 1204138, 3152480, 8253294, 21607410, 56568928, 148099382, 387729210, 1015088256, 2657535550, 6957518402, 18215019648, 47687540550, 124847601994
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3).
a(n) = (8*(-1)^n + 2*(F(2*(n+1)) + F(2*n)))/5 for n >= 1. a(0) = 0.
[A192774] 0, 0, 1, 1, 6, 10, 34, 74, 206, 499, 1301, 3264, 8348, 21152, 53828, 136720, 347533, 883157, 2244462, 5704094, 14496130, 36840606, 93625542, 237939591, 604694601, 1536764208, 3905506648, 9925401280, 25224262440, 64104575344
a(n)=a(n-1)+5*a(n-2)-a(n-3)-5*a(n-4)+a(n-5)+a(n-6).
[A105157] 6, 10, 70, 85, 364, 451, 1102, 1309, 2900, 2967, 5920, 6107, 10234, 11521, 17384, 17907, 26840, 29559, 40328, 42813, 56248, 57743, 77786, 79929, 107060, 112617, 135248, 141213, 167240, 173637, 225320, 235077, 276332, 291399, 343676, 361623
a(n) = if Mod[Prime[n], 2]=0 then Prime[n-1] else -Prime[n] T(n, k)=a(k)*Prime[n] aout[m]=Abs[Sum[T(n, k), {n, 1, k}]]
[A246800] 6, 10, 84, 186, 1276, 3172, 19816, 52666, 310764, 863820, 4899736, 14073060, 77509464, 228318856, 1228859344, 3693886906, 19513475404, 59644341436, 310223170744, 961665098956, 4936304385544, 15488087080696, 78602174905264, 249227373027556, 1252310513280376, 4007681094422392, 19961337935130
64408903437167496, 318297642651252784, 1034656923041985552
a(n) = 2^(2n) - (-1)^n * binomial(2n, n).
[A154293] 0, 1, 6, 11, 13, 20, 35, 46, 50, 63, 88, 105, 111, 130, 165, 188, 196, 221, 266, 295, 305, 336, 391, 426, 438, 475, 540, 581, 595, 638, 713, 760, 776, 825, 910, 963, 981, 1036, 1131, 1190, 1210, 1271, 1376, 1441, 1463, 1530, 1645, 1716, 1740, 1813, 1938, 2015
a(n) = (f(n)^2-1)/48 where f(n) = 8*(n-floor(n/4))+(-1)^n, with offset 0, a(0)=0. - Gary Detlefs, Mar 01 2010
a(n) = a(1-n) for all n in Z. - Michael Somos, Oct 27 2012
[A135708] 6, 11, 15, 19, 23, 27, 30, 34, 38, 41, 45, 48, 52, 55, 59, 62, 66, 69, 72, 76, 79, 83, 86, 89, 93, 96, 99, 103, 106, 109, 113, 116, 119, 123, 126, 129, 132, 136, 139, 142, 146, 149, 152, 155, 159, 162, 165, 168, 172, 175, 178, 181, 185, 188, 191, 194, 198, 201, 204, 207, 210
a(n) = 3*n + ceiling(sqrt(12*n - 3)). - H. Harborth
[A016861] 1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, 56, 61, 66, 71, 76, 81, 86, 91, 96, 101, 106, 111, 116, 121, 126, 131, 136, 141, 146, 151, 156, 161, 166, 171, 176, 181, 186, 191, 196, 201, 206, 211, 216, 221, 226, 231, 236, 241, 246, 251, 256, 261, 266, 271, 276, 281
a(n)=2*a(n-1)-a(n-2) with a(0)=1, a(1)=6. - Vincenzo Librandi, Aug 01 2010
[A145287] 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, 56, 61, 66, 71, 76, 81, 86, 91, 96, 101, 106, 111, 116, 121, 126, 131, 136, 141, 146, 151, 156, 161, 166, 171, 176, 181, 186, 191, 196, 201, 206, 211, 216, 221, 226, 231, 236, 241, 246, 251, 256, 261, 266, 271, 276, 281
a(n)=10*n-a(n-1)-3 (with a(1)=6) [From Vincenzo Librandi, Nov 25 2010]
[A256429] 1, 6, 11, 16, 41, 106, 211, 416, 941, 2106, 4411, 9316, 20341, 44106, 94111, 201716, 435741, 938606, 2014311, 4330116, 9324641, 20060606, 43122511, 92747016, 199552041, 429222606, 923076211, 1985467416, 4270895441, 9186237106, 19758020411, 42498043816, 91411232341
a(n) = 3*a(n-1)-4*a(n-2)+7*a(n-3)-5*a(n-4) for n>3.
[A001964] 1, 6, 11, 17, 22, 27, 32, 37, 43, 48, 53, 58, 64, 69, 74, 79, 85, 90, 95, 100, 106, 111, 116, 121, 126, 132, 137, 142, 147, 153, 158, 163, 168, 174, 179, 184, 189, 195, 200, 205, 210, 215, 221, 226, 231, 236, 242, 247, 252, 257, 263, 268, 273, 278, 284, 289
a(n) = floor((n+1/4)*(3+sqrt(5))). - R. J. Mathar, Feb 14 2011
[A184550] 0, 6, 11, 17, 28, 34, 39, 45, 56, 62, 67, 73, 84, 90, 95, 101, 112, 118, 123, 129, 140, 146, 151, 157, 168, 174, 179, 185, 196, 202, 207, 213, 224, 230, 235, 241, 252, 258, 263, 269, 280, 286, 291, 297
a(n) = +1*a(n-1) +1*a(n-4) -1*a(n-5). (End)
[A102305] 6, 11, 18, 27, 38, 51, 66, 83, 102, 123, 146, 171, 198, 227, 258, 291, 326, 363, 402, 443, 486, 531, 578, 627, 678, 731, 786, 843, 902, 963, 1026, 1091, 1158, 1227, 1298, 1371, 1446, 1523, 1602, 1683, 1766, 1851, 1938, 2027, 2118, 2211, 2306, 2403
a(n) = 2*n+a(n-1)+1 (with a(1)=6). [Vincenzo Librandi, Nov 16 2010]
[A160842] 0, 1, 6, 11, 18, 27, 38, 51, 66, 83, 102, 123, 146, 171, 198, 227, 258, 291, 326, 363, 402, 443, 486, 531, 578, 627, 678, 731, 786, 843, 902, 963, 1026, 1091, 1158, 1227, 1298, 1371, 1446, 1523, 1602, 1683, 1766, 1851, 1938, 2027, 2118, 2211, 2306, 2403, 2502
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 4. - Colin Barker, May 24 2015
[A000382] 6, 11, 20, 36, 65, 119, 218, 400, 735, 1351, 2484, 4568, 8401, 15451, 28418, 52268, 96135, 176819, 325220, 598172, 1100209, 2023599, 3721978, 6845784, 12591359, 23159119, 42596260, 78346736, 144102113, 265045107, 487493954
a(n) = a(n-1)+a(n-2)+a(n-3)-2 (conjectured).
[A192750] 1, 6, 11, 21, 36, 61, 101, 166, 271, 441, 716, 1161, 1881, 3046, 4931, 7981, 12916, 20901, 33821, 54726, 88551, 143281, 231836, 375121, 606961, 982086, 1589051, 2571141, 4160196, 6731341, 10891541, 17622886, 28514431, 46137321, 74651756
a(n) = 5*Fibonacci(n+2)-4. - Gerry Martens, Jul 04 2015
[A083575] 6, 11, 21, 41, 81, 161, 321, 641, 1281, 2561, 5121, 10241, 20481, 40961, 81921, 163841, 327681, 655361, 1310721, 2621441, 5242881, 10485761, 20971521, 41943041, 83886081, 167772161, 335544321, 671088641, 1342177281, 2684354561, 5368709121, 10737418241
a(n) = 5*2^n + 1. - M. F. Hasler, Oct 30 2010
a(n) = 3*a(n-1) - 2*a(n-2), n>1. - Vincenzo Librandi, Nov 03 2011
[A239767] 0, 1, 6, 11, 22, 31, 48, 61, 84, 101, 130, 151, 186, 211, 252, 281, 328, 361, 414, 451, 510, 551, 616, 661, 732, 781, 858, 911, 994, 1051, 1140, 1201, 1296, 1361, 1462, 1531, 1638, 1711, 1824, 1901, 2020, 2101, 2226, 2311, 2442, 2531, 2668, 2761, 2904, 3001
a(n) = (1/8)*(10*n^2 + 2*(1+(-1)^n)*n - (1-(-1)^n)).
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). G.f.: -x*(x^3+3*x^2+5*x+1) / ((x-1)^3*(x+1)^2). - Colin Barker, Mar 26 2014

[A155449] 6, 11, 23, 28, 40, 45, 57, 62, 74, 79, 91, 96, 108, 113, 125, 130, 142, 147, 159, 164, 176, 181, 193, 198, 210, 215, 227, 232, 244, 249, 261, 266, 278, 283, 295, 300, 312, 317, 329, 334, 346, 351, 363, 368, 380, 385, 397, 402, 414, 419, 431, 436, 448, 453
a(n) = a(n-1)+a(n-2)-a(n-3), with a(1)=6, a(2)=11, a(3)=23.
a(n) = (1/4)*(17+7*(-1)^(n-1)+34*(n-1)). - Paolo P. Lava, Jan 26 2009
[A140359] 1, 1, 6, 11, 26, 51, 106, 211, 426, 851, 1706, 3411, 6826, 13651, 27306, 54611, 109226, 218451, 436906, 873811, 1747626, 3495251, 6990506, 13981011, 27962026, 55924051, 111848106, 223696211, 447392426, 894784851, 1789569706, 3579139411
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3).
a(n) = (5*2^(n+1) - 9 + 5*(-1)^n)/6. (End)
a(n) = a(n-1) + 2*a(n-2) +3, n>1 - Gary Detlefs, Jun 20 2010
[A114960] 1, 1, 6, 11, 30, 57, 128, 247, 518, 1013, 2068, 4083, 8242, 16369, 32880, 65519, 131310, 262125, 524780, 1048555, 2098154, 4194281, 8390632, 16777191, 33558502, 67108837, 134225892, 268435427, 536887266, 1073741793
a(n) = 2^n - n - 1 - ((-1)^n - 1)*2^(1/2*n)*sqrt(2)/4
[A186410] 0, 1, 6, 11, 32, 37, 58, 79, 180, 185, 206, 227, 328, 349, 450, 551, 1052, 1057, 1078, 1099, 1200, 1221, 1322, 1423, 1924, 1945, 2046, 2147, 2648, 2749, 3250, 3751, 6252, 6257, 6278, 6299, 6400, 6421, 6522, 6623
a(2^n) = 2^n + (4/5)*(6^n - 1).
[A193866] 0, 6, 11, 35, 46, 88, 105, 165, 188, 266, 295, 391, 426, 540, 581, 713, 760, 910, 963, 1131, 1190, 1376, 1441, 1645, 1716, 1938, 2015, 2255, 2338, 2596, 2685, 2961, 3056, 3350, 3451, 3763, 3870, 4200, 4313, 4661, 4780, 5146, 5271, 5655, 5786, 6188
a(n) = 1/16*(1-3*(-1)^n+12*n)*(1-(-1)^n+4*n).
a(0)=0, a(1)=6, a(2)=11, a(3)=35, a(4)=46, a(n)=a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). G.f.: x*(6+5*x+12*x^2+x^3)/(1-x-2*x^2+2*x^3+x^4-x^5). [Colin Barker, Jan 25 2012]
[A130667] 1, 6, 11, 36, 41, 66, 91, 216, 221, 246, 271, 396, 421, 546, 671, 1296, 1301, 1326, 1351, 1476, 1501, 1626, 1751, 2376, 2401, 2526, 2651, 3276, 3401, 4026, 4651, 7776, 7781, 7806, 7831, 7956, 7981, 8106, 8231, 8856, 8881, 9006, 9131, 9756, 9881, 10506, 11131
a(2n) = 6a(n) and a(2n+1) = 5a(n)+a(n+1).
[A259669] 0, 1, 6, 11, 36, 61, 86, 211, 336, 461, 586, 1211, 1836, 2461, 3086, 3711, 6836, 9961, 13086, 16211, 19336, 22461, 38086, 53711, 69336, 84961, 100586, 116211, 131836, 209961, 288086, 366211, 444336, 522461, 600586, 678711, 756836, 1147461, 1538086, 1928711
a(n) = min {5*a(k) + (5^(n-k)-1)/4 ; k < n}.
[A015440] 1, 1, 6, 11, 41, 96, 301, 781, 2286, 6191, 17621, 48576, 136681, 379561, 1062966, 2960771, 8275601, 23079456, 64457461, 179854741, 502142046, 1401415751, 3912125981, 10919204736, 30479834641, 85075858321, 237475031526
a(n) = a(n-1) + 5 a(n-2).
a(n) = {[(1+sqrt(21))/2]^(n+1) - [(1-sqrt(21))/2]^(n+1)}/sqrt(21).
a(n) = sum(k=0, ceil(n/2), 5^k*binomial(n-k, k)) - Benoit Cloitre, Mar 06 2004
a(n) = (sum{1<=k<=n+1, k odd}C(n+1,k)*21^((k-1)/2))/2^n. - Vladimir Shevelev, Feb 05 2014
[A269878] 1, 6, 11, 48, 61, 158, 183, 368, 409, 710, 771, 1216, 1301, 1918, 2031, 2848, 2993, 4038, 4219, 5520, 5741, 7326, 7591, 9488, 9801, 12038, 12403, 15008, 15429, 18430, 18911, 22336, 22881, 26758, 27371, 31728, 32413, 37278, 38039, 43440, 44281, 50246, 51171
a(n) = (3*(3+(-1)^n)-4*(-4+3*(-1)^n)*n+(21-9*(-1)^n)*n^2+8*n^3)/12.
a(n) = (4*n^3+6*n^2+2*n+6)/6 for n even.
a(n) = (4*n^3+15*n^2+14*n+3)/6 for n odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>6.
[A271093] 1, 6, 11, 51, 56, 168, 173, 389, 394, 746, 751, 1271, 1276, 1996, 2001, 2953, 2958, 4174, 4179, 5691, 5696, 7536, 7541, 9741, 9746, 12338, 12343, 15359, 15364, 18836, 18841, 22801, 22806, 27286, 27291, 32323, 32328, 37944, 37949, 44181, 44186, 51066, 51071
a(n) = (39+33*(-1)^n-2*(1+12*(-1)^n)*n-12*(-2+(-1)^n)*n^2+8*n^3)/12 for n>0.
a(n) = (4*n^3+6*n^2-13*n+36)/6 for n>0 and even.
a(n) = (4*n^3+18*n^2+11*n+3)/6 for n>0 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>7.
[A270166] 1, 6, 11, 52, 64, 173, 189, 386, 426, 747, 807, 1276, 1360, 2005, 2117, 2966, 3110, 4191, 4371, 5712, 5932, 7561, 7825, 9770, 10082, 12371, 12735, 15396, 15816, 18877, 19357, 22846, 23390, 27335, 27947, 32376, 33060, 38001, 38761, 44242, 45082, 51131, 52055
a(n) = 1/12*(-9*(23+(-1)^n)+(28-18*(-1)^n)*n-9*(-3+(-1)^n)*n^2+8*n^3) for n>6.
a(n) = (4*n^3+9*n^2+5*n-108)/6 for n>6 and even.
a(n) = (4*n^3+18*n^2+23*n-99)/6 for n>6 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>13.
[A152448] 1, 1, 6, 11, 59, 109, 584, 1079, 5781, 10681, 57226, 105731, 566479, 1046629, 5607564, 10360559, 55509161, 102558961, 549484046, 1015229051, 5439331299, 10049731549, 53843828944, 99482086439, 532998958141, 984771132841
a(n) = (1/48*3^(1/2)*2^(1/2) + 1/4 + 1/8*2^(1/2))*(sqrt(3) + sqrt(2))^n + (- 1/48*3^(1/2)*2^(1/2) + 1/4 - 1/8*2^(1/2))*(sqrt(3) - sqrt(2))^n + (1/48*3^(1/2)*2^(1/2) + 1/4 - 1/8*2^(1/2))*(- sqrt(3) - sqrt(2))^n + (1/4 - 1/48*3^(1/2)*2^(1/2) + 1/8*2^(1/2))*(- sqrt(3) + sqrt(2))^n)
[A004758] 6, 12, 13, 24, 25, 26, 27, 48, 49, 50, 51, 52, 53, 54, 55, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213
a(2n) = 2a(n), a(2n+1) = 2a(n) + 1 + 5[n==0].
a(2^m+k) = 6*2^m + k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Aug 08 2016
[A079946] 6, 12, 14, 24, 26, 28, 30, 48, 50, 52, 54, 56, 58, 60, 62, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246
a(n) = 2^floor(log[2](4*n))+2*n. - Antonio G. Astudillo (afg_astudillo(AT)hotmail.com), Feb 22 2003
a(n) = (2^(floor(log(n)/log(2))+1)+n)*2. - Klaus Brockhaus, Feb 23 2003
[A008458] 1, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114, 120, 126, 132, 138, 144, 150, 156, 162, 168, 174, 180, 186, 192, 198, 204, 210, 216, 222, 228, 234, 240, 246, 252, 258, 264, 270, 276, 282, 288, 294, 300, 306, 312, 318, 324, 330, 336, 342, 348
a(n) = 0^n + 6*n. - Vincenzo Librandi, Aug 21 2011
[A008588] 0, 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114, 120, 126, 132, 138, 144, 150, 156, 162, 168, 174, 180, 186, 192, 198, 204, 210, 216, 222, 228, 234, 240, 246, 252, 258, 264, 270, 276, 282, 288, 294, 300, 306, 312, 318, 324, 330, 336, 342, 348
a(n) = 6*n = 2*a(n-1)-a(n-2). G.f.: 6*x/(1-x)^2. - Vincenzo Librandi, Dec 24 2010
a(n) = Sum_{k=2n-1..2n+1} k. - Wesley Ivan Hurt, Nov 22 2015
[A187389] 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 67, 73, 79, 85, 91, 97, 103, 109, 115, 121, 128, 134, 140, 146, 152, 158, 164, 170, 176, 182, 188, 195, 201, 207, 213, 219, 225, 231, 237, 243, 249, 256, 262, 268, 274, 280, 286, 292, 298, 304, 310, 316, 323, 329, 335, 341, 347, 353, 359, 365, 371, 377, 384, 390, 396, 402, 408, 414, 420, 426
a(n)=floor(r*n), where r=1+sqrt(7)+sqrt(6).
[A038130] 0, 6, 12, 18, 25, 31, 37, 43, 50, 56, 62, 69, 75, 81, 87, 94, 100, 106, 113, 119, 125, 131, 138, 144, 150, 157, 163, 169, 175, 182, 188, 194, 201, 207, 213, 219, 226, 232, 238, 245, 251, 257, 263, 270, 276, 282, 289, 295, 301, 307, 314, 320, 326, 333, 339, 345
a(n) = floor(n*2*Pi).
[A187391] 6, 12, 19, 25, 32, 38, 45, 51, 58, 64, 71, 77, 84, 90, 97, 103, 110, 116, 123, 129, 135, 142, 148, 155, 161, 168, 174, 181, 187, 194, 200, 207, 213, 220, 226, 233, 239, 246, 252, 258, 265, 271, 278, 284, 291, 297, 304, 310, 317, 323, 330, 336, 343, 349, 356, 362, 369, 375, 381, 388, 394, 401, 407, 414, 420, 427, 433, 440, 446, 453
a(n)=floor(r*n), where r=1+sqrt(8)+sqrt(7).
[A051936] 1, 6, 12, 19, 27, 36, 46, 57, 69, 82, 96, 111, 127, 144, 162, 181, 201, 222, 244, 267, 291, 316, 342, 369, 397, 426, 456, 487, 519, 552, 586, 621, 657, 694, 732, 771, 811, 852, 894, 937, 981, 1026, 1072, 1119, 1167, 1216, 1266, 1317, 1369, 1422, 1476
a(n) = n + a(n-1) for n>4, a(4)=1. - Vincenzo Librandi, Aug 06 2010

[A218438] 1, 1, 1, 6, 12, 19, 48, 110, 218, 470, 1040, 2208, 4710, 10184, 21879, 46879, 100767, 216570, 464952, 998613, 2145312, 4607724, 9896436, 21257196, 45658624, 98068864, 210642412, 452440320, 971794317, 2087314717, 4483345053, 9629771966, 20683772420, 44426659559
a(0)=1, a(1)=1, a(2)=1, a(3)=6, a(4)=12, a(5)=19, a(6)=48, a(7)=110, a(8)=218, a(n)=a(n-1)+5*a(n-3)+a(n-4)+a(n-5)-3*a(n-6)-2*a(n-7)+a(n-9). - Harvey P. Dale, Jan 23 2013
[A295904] 6, 12, 20, 32, 52, 88, 156, 288, 548, 1064, 2092, 4144, 8244, 16440, 32828, 65600, 131140, 262216, 524364, 1048656, 2097236, 4194392, 8388700, 16777312, 33554532, 67108968, 134217836, 268435568, 536871028, 1073741944, 2147483772, 4294967424, 8589934724
a(n) = 2^n + 4*n.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3).
[A216453] 0, 6, 12, 24, 30, 54, 60, 84, 102, 138, 144, 192, 198, 246, 288, 336, 342, 414, 420, 492, 546, 618, 624, 720, 750, 834, 888, 984, 990, 1122, 1128, 1224, 1302, 1410, 1476, 1620, 1626, 1746, 1836, 1980, 1986, 2166, 2172, 2316, 2442, 2586, 2592, 2784, 2826, 3006, 3120, 3288, 3294, 3510, 3600, 3792, 3918
a(n) = 6 * (C(n+1,2) - sum(i=1,n,phi(i))). - corrected by Piyush Kumar and Robert Israel, Aug 26 2014
[A249127] 0, 1, 6, 12, 24, 35, 54, 70, 96, 117, 150, 176, 216, 247, 294, 330, 384, 425, 486, 532, 600, 651, 726, 782, 864, 925, 1014, 1080, 1176, 1247, 1350, 1426, 1536, 1617, 1734, 1820, 1944, 2035, 2166, 2262, 2400, 2501, 2646, 2752, 2904, 3015, 3174, 3290, 3456, 3577, 3750, 3876, 4056, 4187, 4374, 4510
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). - Colin Barker, Oct 22 2014
a(n) = 3/2 * n^2 + ((-1)^n-1) * n/4. E.g.f.: ((3/2)*x^2+(5/4)*x)*exp(x)-(x/4)*exp(-x). - Robert Israel, Oct 26 2014
[A210678] 1, 1, 6, 12, 24, 43, 75, 127, 212, 350, 574, 937, 1525, 2477, 4018, 6512, 10548, 17079, 27647, 44747, 72416, 117186, 189626, 306837, 496489, 803353, 1299870, 2103252, 3403152, 5506435, 8909619, 14416087, 23325740, 37741862, 61067638, 98809537, 159877213, 258686789, 418564042
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: (1-2*x+5*x^2-3*x^3)/((1-x)^2*(1-x-x^2)). [Colin Barker, Jun 30 2012]
[A082505] 0, 1, 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472
a(n) = (-6*n + 16) * a(n-1) + 2 * Sum_{k=1..n-1} a(k) * a(n-k) if n>1. - Michael Somos, Jul 23 2011
[A091629] 6, 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472
a(n) = 6*2^(n-1). a(n)=2*a(n-1), n>1, a(1)=6. G.f.: 6*x/(1-2x). - Philippe Deléham, Nov 23 2008
[A180509] 6, 12, 26, 104, 159, 741, 2267, 10841, 16890, 80904, 248750, 1191812, 1857147, 8898105, 27359639, 131087885, 204268686, 978710052, 3009310946, 14418474944, 22467697719, 107649207021, 330996843827, 1585901155361, 2471242479810, 11840434061664, 36406643509430
a(4*n)=(22+(1+r)*s^n+(1-r)*t^n))/4.
a(4*n+1)=(22+(13+3*r)*s^n+(13-3*r)*t^n)/4.
a(4*n+2)=(22+(41+9*r)*s^n+(41-9*r)*t^n)/4.
a(4*n+3)=(22+(197+43*r)*s^n+(197-43*r)*t^n)/4.
a(n)=111*a(n-4)-111*a(n-8)+a(n-12).
[A057029] 1, 6, 12, 27, 39, 64, 82, 117, 141, 186, 216, 271, 307, 372, 414, 489, 537, 622, 676, 771, 831, 936, 1002, 1117, 1189, 1314, 1392, 1527, 1611, 1756, 1846, 2001, 2097, 2262, 2364, 2539, 2647, 2832, 2946, 3141, 3261, 3466, 3592, 3807, 3939, 4164, 4302, 4537
a(n) = C(2n-1, 2)+(n+1)/2 if n is odd, else a(n) = C(2n, 2)-(n-2)/2.
a(n) = (5-(-1)^n+2*(-4+(-1)^n)*n+8*n^2)/4.
a(n) = (4*n^2-3*n+2)/2 for n even, a(n) = (4*n^2-5*n+3)/2 for n odd.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A146005] 0, 1, 6, 12, 28, 55, 108, 203, 376, 684, 1230, 2189, 3864, 6773, 11802, 20460, 35312, 60707, 104004, 177631, 302540, 513996, 871266, 1473817, 2488368, 4194025, 7057518, 11858508, 19898116, 33345679, 55814940, 93320819, 155867104
a(n) = 2*a(n-1)+a(n-2)-2*a(n-3)-a(n-4).
[A223346] 6, 12, 28, 60, 140, 300, 700, 1500, 3500, 7500, 17500, 37500, 87500, 187500, 437500, 937500, 2187500, 4687500, 10937500, 23437500, 54687500, 117187500, 273437500, 585937500, 1367187500, 2929687500, 6835937500, 14648437500, 34179687500
a(n) = 2*5^(1/2*(n-3))*(15+7*sqrt(5)+(-1)^n*(-15+7*sqrt(5))) for n>0, a(0)=6
[A036690] 6, 12, 30, 56, 132, 182, 306, 380, 552, 870, 992, 1406, 1722, 1892, 2256, 2862, 3540, 3782, 4556, 5112, 5402, 6320, 6972, 8010, 9506, 10302, 10712, 11556, 11990, 12882, 16256, 17292, 18906, 19460, 22350, 22952, 24806, 26732, 28056, 30102
a(n) = prime(n)*(prime(n)+1).
[A256579] 6, 12, 30, 60, 84, 168, 330, 546, 660, 1092, 1224, 1710, 2448, 3036, 3420, 6072, 6090, 7440, 12180, 12654, 14880, 17220, 19866, 25308, 25944, 34440, 37206, 39732, 51330, 51888, 56730, 74412, 75174, 89460, 97236, 102660, 113460, 123240, 142926, 150348, 176220
a(n) = (prime(n)^3 - prime(n))/4 for the right triangles;
a(n) = (prime(n)^3 - prime(n))/2 for the isosceles triangles.
[A212976] 0, 6, 12, 36, 60, 114, 168, 264, 360, 510, 660, 876, 1092, 1386, 1680, 2064, 2448, 2934, 3420, 4020, 4620, 5346, 6072, 6936, 7800, 8814, 9828, 11004, 12180, 13530, 14880, 16416, 17952, 19686, 21420, 23364, 25308, 27474, 29640, 32040
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).
[A276601] 1, 6, 12, 37, 71, 216, 414, 1259, 2413, 7338, 14064, 42769, 81971, 249276, 477762, 1452887, 2784601, 8468046, 16229844, 49355389, 94594463, 287664288, 551336934, 1676630339, 3213427141, 9772117746, 18729225912, 56956076137, 109161928331, 331964339076
a(n) = 6*a(n-2)-a(n-4) for n>4.
[A060551] 0, 0, 0, 6, 12, 42, 84, 210, 420, 924, 1860, 3900, 7800, 15996, 31992, 64728, 129528, 260568, 521136, 1045464, 2090928, 4187952, 8376240, 16764720, 33529440, 67084080, 134168160, 268385376, 536772192, 1073642592, 2147285184, 4294769760, 8589539520, 17179472064
a(n) = 2^n - 3*2^ceiling(n/2) - 2^(floor(n/3)+(n mod 3)mod 2) + 3*2^(floor((n+3)/6) + d(n)), with d(n)=1 if n mod 6=1 else d(n)=0.
[A129113] 0, 0, 0, 1, 1, 6, 12, 42, 107, 323, 888, 2568, 7224, 20629, 58429, 166230, 471780, 1340730, 3807431, 10816631, 30722736, 87272592, 247895472, 704164537, 2000191753, 5681637318, 16138865148, 45843078954, 130218850259
a(n) = a(n - 1) + 5*a(n - 2) + a(n - 3) - a(n - 4).
a(n) = ((-b + c - e - g + i)*(1 + s + k)^(n - 1) + (b + d - f + h - j)*(1 - s + l)^(n - 1) + (b - d + f - h + j)*(1 - s - l)^(n - 1) + (-b - c + e + g - i)*(1 + s - k)^(n - 1))/(5800*4^(n - 1)), with b = 100*s, c = 1015*k, d = 145*sqrt(10*(7 + s)), e = 245*sqrt(58*(7 + s)), f = 75*sqrt(290*(7 + s)), g = 1914*sqrt(119 + 22*s), h = 98*sqrt[(145*(119 + 22*s)), i = 382*sqrt(3451 + 638*s), j = 406*sqrt(595 + 110*s), k = sqrt(2*(7 + s)), l = sqrt(2*(7 - s)), s = sqrt(29). - Tim Monahan, Sep 09 2011; modified by Robert G. Wilson v, Sep 26 2011
[A120471] 0, 6, 12, 42, 120, 366, 1092, 3282, 9840, 29526, 88572, 265722, 797160, 2391486, 7174452, 21523362, 64570080, 193710246, 581130732, 1743392202, 5230176600, 15690529806, 47071589412, 141214768242, 423644304720, 1270932914166
a(0)=0, a(1)=6, a(n)=2a(n-1)+3a(n-2)
a(n)= (3/2)*[3^n-(-1)^n], with n>=0 - Paolo P. Lava, Jun 10 2008
[A018809] 0, 0, 6, 12, 48, 108, 248, 428, 764, 1196, 1900, 2668, 3824, 5244, 7248, 9380, 12192, 15372, 19528, 24020, 29732, 36052, 43808, 51836, 61636, 72492, 85308, 98492, 114012, 130668, 150196, 170828, 194768, 220276, 249452, 279284, 312572, 348036
a(n) = (1/2) * (f(n, 3) - 2 f(n, 2) + f(n, 1)) where f(n, k) = Sum ((n - |kx|)(n - |ky|)); -n<kx<n, -n<ky<n, (x, y)=1. [Seppo Mustonen, Apr 18 2009]
[A117866] 6, 12, 54, 96, 390, 684, 2742, 4800, 19206, 33612, 134454, 235296, 941190, 1647084, 6588342, 11529600, 46118406, 80707212, 322828854, 564950496, 2259801990, 3954653484, 15818613942, 27682574400, 110730297606, 193778020812, 775112083254, 1356446145696
a(n) = 8*7^((n-1)/2)-2 (n odd), 2*7^(n/2)-2 (n even).
a(n) = a(n-1) + 7*a(n-2) - 7*a(n-3).
a(n) = (1/sqrt(7))*(-2*sqrt(7) + 7^((n+1)/2) + (-1)^n*7^((n+1)/2) + 4*7^(n/2) - 4*(-1)^n*7^(n/2)).
[A290999] 0, 6, 12, 54, 168, 606, 2052, 7134, 24528, 84726, 292092, 1007814, 3476088, 11991246, 41362932, 142682094, 492178848, 1697768166, 5856430572, 20201701974, 69685556808, 240379623486, 829187031012, 2860272179454, 9866479513968, 34034319925206, 117401037420252
a(n) = 2*a(n-1) + 5*a(n-2) for n >= 3.
a(n) = sqrt(3/2)*((1+sqrt(6))^n - (1-sqrt(6))^n). - Colin Barker, Aug 23 2017
[A054883] 0, 0, 0, 0, 0, 6, 12, 84, 192, 882, 2220, 8448, 22704, 78078, 218988, 710892, 2048256, 6430794, 18837516, 58008216, 171619248, 522598230, 1555243404, 4705481220, 14051590080, 42357719586, 126740502252, 381253030704, 1142062255152, 3431411494062

a(n) = (5+3^n+(-1)^n*2^(n+2)-3*(1+(-1)^n)*sqrt(5)^n)/20 for n>0.
[A187393] 6, 13, 20, 27, 34, 40, 47, 54, 61, 68, 75, 81, 88, 95, 102, 109, 116, 122, 129, 136, 143, 150, 157, 163, 170, 177, 184, 191, 198, 204, 211, 218, 225, 232, 238, 245, 252, 259, 266, 273, 279, 286, 293, 300, 307, 314, 320, 327, 334, 341, 348, 355, 361, 368, 375, 382, 389, 396, 402, 409, 416, 423, 430, 437, 443, 450, 457, 464, 471, 477
a(n) = floor(r*n), where r = 4 + sqrt(8).
[A004919] 0, 6, 13, 20, 27, 34, 41, 47, 54, 61, 68, 75, 82, 89, 95, 102, 109, 116, 123, 130, 137, 143, 150, 157, 164, 171, 178, 185, 191, 198, 205, 212, 219, 226, 233, 239, 246, 253, 260, 267, 274, 281, 287, 294, 301, 308
a(n) = 2*n + floor(3*n*tau).
[A056115] 0, 6, 13, 21, 30, 40, 51, 63, 76, 90, 105, 121, 138, 156, 175, 195, 216, 238, 261, 285, 310, 336, 363, 391, 420, 450, 481, 513, 546, 580, 615, 651, 688, 726, 765, 805, 846, 888, 931, 975, 1020, 1066, 1113, 1161, 1210, 1260, 1311, 1363, 1416, 1470, 1525
a(n) = C(n,2)-5*n, for n>=11. - Zerinvary Lajos, Nov 25 2006
a(n) = n+a(n-1)+5 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
a(n) = 6n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A028872] 1, 6, 13, 22, 33, 46, 61, 78, 97, 118, 141, 166, 193, 222, 253, 286, 321, 358, 397, 438, 481, 526, 573, 622, 673, 726, 781, 838, 897, 958, 1021, 1086, 1153, 1222, 1293, 1366, 1441, 1518, 1597, 1678, 1761, 1846, 1933, 2022, 2113, 2206, 2301
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
a(n) = floor((n^4 + 2*n^3)/(n^2 + 1)). - Gary Detlefs, Feb 20 2010
a(n) = a(n-1) + 2*n-1 (with a(2)=1). - Vincenzo Librandi, Nov 18 2010
[A293504] 0, 1, 6, 13, 23, 35, 51, 69, 91, 115, 141, 171, 204, 239, 277, 318, 362, 409, 458, 511, 566, 624, 684, 748, 815, 884, 956, 1031, 1109, 1189, 1273, 1359, 1448, 1540, 1635, 1732, 1833, 1936, 2042, 2151, 2263, 2377, 2495, 2615, 2738, 2864, 2992, 3124, 3258
a(n) = floor(1/2 + (n^2)*sqrt(2)).
[A194126] 1, 6, 13, 23, 36, 51, 69, 89, 112, 138, 166, 197, 231, 267, 306, 347, 391, 438, 487, 539, 593, 650, 710, 772, 837, 905, 975, 1048, 1123, 1201, 1282, 1365, 1451, 1540, 1631, 1725, 1821, 1920, 2022, 2126, 2233, 2342, 2454, 2569, 2686, 2806, 2929
a(n)=-1+sum(floor(j+j*r) : 1<=j<=n), where r=(1+sqrt(5))/2, the golden ratio.
[A032528] 0, 1, 6, 13, 24, 37, 54, 73, 96, 121, 150, 181, 216, 253, 294, 337, 384, 433, 486, 541, 600, 661, 726, 793, 864, 937, 1014, 1093, 1176, 1261, 1350, 1441, 1536, 1633, 1734, 1837, 1944, 2053, 2166, 2281, 2400, 2521, 2646, 2773, 2904, 3037, 3174, 3313, 3456, 3601, 3750
a(n) = (6*n^2+(-1)^n-1)/4. - Bruno Berselli, Aug 22 2011
[A131833] 1, 6, 13, 24, 43, 78, 145, 276, 535, 1050, 2077, 4128, 8227, 16422, 32809, 65580, 131119, 262194, 524341, 1048632, 2097211, 4194366, 8388673, 16777284, 33554503, 67108938, 134217805, 268435536, 536870995, 1073741910, 2147483737
a(n) = 4*a(n-1) -5*a(n-2) +2*a(n-3). - Vincenzo Librandi, Jul 05 2012
[A162432] 1, 6, 13, 25, 39, 52, 81, 97, 129, 154, 187, 234, 250, 321, 337, 406, 468, 493, 579, 613, 699, 766, 811, 918, 979, 1056, 1141, 1212, 1357, 1408, 1485, 1639, 1698, 1810, 1908, 2050, 2152, 2250, 2398, 2523, 2629, 2770, 2934, 2986, 3219, 3280, 3522, 3598, 3739
a(n) = Sum_{m=n(n+1)/2..n(n+1)/2+n} [x^m] S(x)^3 for n>=0 where S(x) = Sum_{n>=0} x^(n(n+1)/2).
[A192762] 0, 1, 6, 13, 26, 47, 82, 139, 232, 383, 628, 1025, 1668, 2709, 4394, 7121, 11534, 18675, 30230, 48927, 79180, 128131, 207336, 335493, 542856, 878377, 1421262, 2299669, 3720962, 6020663, 9741658, 15762355, 25504048, 41266439, 66770524
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: x*(3*x^2-3*x-1) / ((x-1)^2*(x^2+x-1)). [Colin Barker, Dec 08 2012]
[A086224] 6, 13, 27, 55, 111, 223, 447, 895, 1791, 3583, 7167, 14335, 28671, 57343, 114687, 229375, 458751, 917503, 1835007, 3670015, 7340031, 14680063, 29360127, 58720255, 117440511, 234881023, 469762047, 939524095, 1879048191, 3758096383
a(n+1) = 2*a(n) + 1.
[A086652] 6, 13, 28, 58, 120, 244, 496, 1000, 2016, 4048, 8128, 16288, 32640, 65344, 130816, 261760, 523776, 1047808, 2096128, 4192768, 8386560, 16774144, 33550336, 67102720, 134209536, 268423168, 536854528, 1073717248, 2147450880
a(n) = 2^(n+3)-((5-(-1)^n)/2)*2^((2*n-1+(-1)^n)/4). - Luce ETIENNE, Sep 23 2014
[A159694] 6, 13, 28, 60, 128, 272, 576, 1216, 2560, 5376, 11264, 23552, 49152, 102400, 212992, 442368, 917504, 1900544, 3932160, 8126464, 16777216, 34603008, 71303168, 146800640, 301989888, 620756992, 1275068416, 2617245696, 5368709120
a(n)=Sum_{k=0..n} (k+6)*binomial(n,k).
a(n) = (6+n/2)*2^n.
[A101622] 0, 1, 6, 13, 30, 61, 126, 253, 510, 1021, 2046, 4093, 8190, 16381, 32766, 65533, 131070, 262141, 524286, 1048573, 2097150, 4194301, 8388606, 16777213, 33554430, 67108861, 134217726, 268435453, 536870910, 1073741821, 2147483646, 4294967293, 8589934590
a(n) = (2^(n+2)+(-1)^n-5)/2.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>2. - Colin Barker, Mar 28 2017
a(n) = (1/2) * Sum_{k=1..n} C(n+1,k) * (2+(-1)^k). - Wesley Ivan Hurt, Sep 23 2017
[A256871] 6, 13, 30, 76, 216, 688, 2400, 8896, 34176, 133888, 529920, 2108416, 8411136, 33599488, 134307840, 537051136, 2147844096, 8590655488, 34361180160, 137441837056, 549761581056, 2199034789888, 8796116090880, 35184418226176, 140737580630016, 562950137970688
a(n) = 6*a(n-1)-8*a(n-2). - Colin Barker, Apr 26 2015
[A048693] 1, 6, 13, 32, 77, 186, 449, 1084, 2617, 6318, 15253, 36824, 88901, 214626, 518153, 1250932, 3020017, 7290966, 17601949, 42494864, 102591677, 247678218, 597948113, 1443574444, 3485097001, 8413768446
a(n) = 2*a(n-1) + a(n-2); a(0)=1, a(1)=6.
[A114689] 1, 6, 13, 36, 85, 210, 505, 1224, 2953, 7134, 17221, 41580, 100381, 242346, 585073, 1412496, 3410065, 8232630, 19875325, 47983284, 115841893, 279667074, 675176041, 1630019160, 3935214361, 9500447886, 22936110133, 55372668156, 133681446445, 322735561050
a(n) = (-1-(-1)^n+(3*(-(1-sqrt(2))^(1+n)+(1+sqrt(2))^(1+n)))/(2*sqrt(2))).
a(n) = 2*a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4) for n>3.
[A041489] 1, 6, 13, 45, 328, 373, 1447, 1820, 5087, 6907, 25808, 32715, 254813, 797154, 1849121, 11891880, 382389281, 2306227566, 4994844413, 17290760805, 126030170048, 143320930853, 555992962607, 699313893460, 1954620749527, 2653934642987, 9916424678488, 12570359321475
a(n) = 384238402*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 18 2013]
[A003757] 0, 1, 1, 6, 13, 49, 132, 433, 1261, 3942, 11809, 36289, 109824, 335425, 1018849, 3104934, 9443629, 28756657, 87504516, 266383153, 810723277, 2467770054, 7510988353, 22861948801, 69584925696, 211799836801, 644660351425
a(n) = a(n-1) + 6a(n-2) + a(n-3) - a(n-4), n>4.
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), where alpha = (1 + sqrt(33))/4 and beta = (1 - sqrt(33))/4 and T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = the bottom left entry of the 2 X 2 matrix T(n, M), where M is the 2 X 2 matrix [0, 2; 1, 1/2].
a(n) = U(n-1,i*(1 + sqrt(3))/sqrt(8))*U(n-1,i*(1 - sqrt(3))/sqrt(8)), where U(n,x) denotes the Chebyshev polynomial of the second kind.
[A041305] 1, 1, 6, 13, 71, 84, 2087, 2171, 12942, 28055, 153217, 181272, 4503745, 4685017, 27928830, 60542677, 330642215, 391184892, 9719079623, 10110264515, 60270402198, 130651068911, 713525746753, 844176815664, 20973769322689, 21817946138353
a(n) = 2158*a(n-6) - a(n-12). - Vincenzo Librandi, Dec 15 2013
[A144535] 0, 1, 6, 13, 84, 181, 1170, 2521, 16296, 35113, 226974, 489061, 3161340, 6811741, 44031786, 94875313, 613283664, 1321442641, 8541939510, 18405321661, 118973869476, 256353060613, 1657092233154, 3570537526921, 23080317394680, 49731172316281, 321467351292366
a(n) = 14*a(n-2)-a(n-4). G.f.: x*(1+6*x-x^2)/((1-4*x+x^2)*(1+4*x+x^2)). - Colin Barker, Apr 14 2012
a(n) = ((-(-2-sqrt(3))^n*(-3+sqrt(3))+(2-sqrt(3))^n*(-3+sqrt(3))-(3+sqrt(3))*((-2+sqrt(3))^n-(2+sqrt(3))^n)))/(8*sqrt(3)). - Colin Barker, Mar 27 2016
[A017137] 6, 14, 22, 30, 38, 46, 54, 62, 70, 78, 86, 94, 102, 110, 118, 126, 134, 142, 150, 158, 166, 174, 182, 190, 198, 206, 214, 222, 230, 238, 246, 254, 262, 270, 278, 286, 294, 302, 310, 318, 326, 334, 342, 350, 358, 366, 374, 382, 390, 398, 406, 414, 422, 430
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jun 07 2011
[A028557] 0, 6, 14, 24, 36, 50, 66, 84, 104, 126, 150, 176, 204, 234, 266, 300, 336, 374, 414, 456, 500, 546, 594, 644, 696, 750, 806, 864, 924, 986, 1050, 1116, 1184, 1254, 1326, 1400, 1476, 1554, 1634, 1716, 1800, 1886, 1974, 2064, 2156
a(n) = 2*n+a(n-1)+4. - Vincenzo Librandi, Aug 05 2010

[A104675] 6, 14, 24, 36, 50, 66, 84, 104, 126, 150, 176, 204, 234, 266, 300, 336, 374, 414, 456, 500, 546, 594, 644, 696, 750, 806, 864, 924, 986, 1050, 1116, 1184, 1254, 1326, 1400, 1476, 1554, 1634, 1716, 1800, 1886, 1974, 2064, 2156, 2250, 2346, 2444, 2544, 2646
a(n) = 2*n + a(n-1) + 6 (with a(0)=6). Vincenzo Librandi, Nov 13 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A083657] 1, 6, 14, 24, 37, 54, 74, 96, 121, 150, 182, 216, 254, 295, 338, 384, 434, 487, 542, 600, 662, 727, 794, 865, 939, 1016, 1095, 1178, 1264, 1352, 1443, 1538, 1636, 1736, 1839, 1946, 2056, 2168, 2284, 2403, 2525, 2649, 2777, 2908, 3041, 3177, 3317, 3460, 3605
a(n) = (n/2)*(3n-1)+ n/sqrt(3) + O(1).
[A095794] 1, 6, 14, 25, 39, 56, 76, 99, 125, 154, 186, 221, 259, 300, 344, 391, 441, 494, 550, 609, 671, 736, 804, 875, 949, 1026, 1106, 1189, 1275, 1364, 1456, 1551, 1649, 1750, 1854, 1961, 2071, 2184, 2300, 2419, 2541, 2666, 2794, 2925, 3059, 3196, 3336, 3479, 3625
a(n) = (3/2)*n^2 + (1/2)*n - 1.
a(n) = 3*n+a(n-1)-1, for n>1, a(1)=1. - Vincenzo Librandi, Nov 16 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3.
a(n) = Sum_{i=n..2n} (i-1). (End)
[A293400] 0, 1, 6, 14, 25, 40, 58, 79, 103, 131, 161, 195, 232, 273, 317, 364, 414, 467, 524, 584, 647, 713, 783, 855, 931, 1011, 1093, 1179, 1268, 1360, 1456, 1554, 1656, 1762, 1870, 1982, 2096, 2215, 2336, 2461, 2588
a(n) = floor(r*n^2), where r = (1 + sqrt(5))/2.
[A026055] 6, 14, 25, 40, 59, 84, 114, 150, 192, 242, 299, 364, 437, 520, 612, 714, 826, 950, 1085, 1232, 1391, 1564, 1750, 1950, 2164, 2394, 2639, 2900, 3177, 3472, 3784, 4114, 4462, 4830, 5217, 5624, 6051, 6500, 6970, 7462, 7976, 8514, 9075, 9660, 10269, 10904, 11564, 12250, 12962, 13702, 14469, 15264
a(n) = - 0.125 - 0.125*(- 1)^n - 0.25*cos(n*Pi/2) + (n + 2)*(n + 3)*(n + 13)/12 [From Richard Choulet, Dec 13 2008]
a(n) = (n + 2)*(n + 3)*(n + 13)/12 - 0.125 - 0.125*(- 1)^n - 0.25*cos(n*Pi/2) [From Richard Choulet, Dec 13 2008]
[A168648] 1, 6, 14, 26, 54, 106, 214, 426, 854, 1706, 3414, 6826, 13654, 27306, 54614, 109226, 218454, 436906, 873814, 1747626, 3495254, 6990506, 13981014, 27962026, 55924054, 111848106, 223696214, 447392426, 894784854, 1789569706, 3579139414
a(n) = a(n-1) + 2*a(n-2) for n > 2; a(0) = 1, a(1) = 6, a(2) = 14.
[A134067] 1, 6, 14, 30, 62, 126, 254, 510, 1022, 2046, 4094, 8190, 16382, 32766, 65534, 131070, 262142, 524286, 1048574, 2097150, 4194302, 8388606, 16777214, 33554430, 67108862, 134217726, 268435454, 536870910, 1073741822, 2147483646, 4294967294, 8589934590
a(n) = 2^(2+n)-2 for n>0. a(n) = 3*a(n-1)-2*a(n-2) for n>0. G.f.: -(2*x^2-3*x-1) / ((x-1)*(2*x-1)). - Colin Barker, Mar 13 2014
[A273365] 0, 6, 14, 32, 48, 78, 102, 144, 176, 230, 270, 336, 384, 462, 518, 608, 672, 774, 846, 960, 1040, 1166, 1254, 1392, 1488, 1638, 1742, 1904, 2016, 2190, 2310, 2496, 2624, 2822, 2958, 3168, 3312, 3534, 3686, 3920, 4080, 4326, 4494
a(2n) = 10*n^2 + 4*n, n>=0.
a(2n-1) = 10*n^2 - 4*n, n>=1.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5). (End)
[A271996] 6, 14, 32, 50, 82, 114, 164, 214, 286, 358, 456, 554, 682, 810, 972, 1134, 1334, 1534, 1776, 2018, 2306, 2594, 2932, 3270, 3662, 4054, 4504, 4954, 5466, 5978, 6556, 7134, 7782, 8430, 9152, 9874, 10674, 11474, 12356, 13238, 14206, 15174, 16232, 17290, 18442
a(n) = (6*(-9 + (-1)^n) + (25 + 3*(-1)^n)*n + 12*n^2 + 2*n^3)/12.
a(n) = (n^3 + 6*n^2 + 14*n - 24)/6 for n even.
a(n) = (n^3 + 6*n^2 + 11*n - 30)/6 for n odd.
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>7.
[A225972] 0, 0, 1, 6, 14, 32, 55, 94, 140, 208, 285, 390, 506, 656, 819, 1022, 1240, 1504, 1785, 2118, 2470, 2880, 3311, 3806, 4324, 4912, 5525, 6214, 6930, 7728, 8555, 9470, 10416, 11456, 12529, 13702, 14910, 16224, 17575, 19038, 20540, 22160, 23821, 25606, 27434, 29392
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) with n>5, a(0)=0, a(1)=0, a(2)=1, a(3)=6, a(4)=14, a(5)=32.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+4*(n-4)*(-1)^n with n>3, a(0)=0, a(1)=0, a(2)=1, a(3)=6.
a(n) = (1/4)*(binom(2(n-1),3)+2*binom(n-2,1)*(1/2)*(1+(-1)^n)). - Yosu Yurramendi and María Merino, Aug 21 2013
[A078836] 6, 14, 32, 72, 160, 352, 768, 1664, 3584, 7680, 16384, 34816, 73728, 155648, 327680, 688128, 1441792, 3014656, 6291456, 13107200, 27262976, 56623104, 117440512, 243269632, 503316480, 1040187392, 2147483648, 4429185024, 9126805504, 18790481920, 38654705664
a(n) = 4*a(n-1) - 4*a(n-2) for n>7.
[A269511] 1, 6, 14, 38, 55, 108, 140, 236, 285, 434, 506, 722, 819, 1112, 1240, 1624, 1785, 2270, 2470, 3070, 3311, 4036, 4324, 5188, 5525, 6538, 6930, 8106, 8555, 9904, 10416, 11952, 12529, 14262, 14910, 16854, 17575, 19740, 20540, 22940, 23821, 26466, 27434, 30338
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-2*a(n-6)+2*a(n-7)+a(n-8)-a(n-9) for n>8.
[A051940] 6, 15, 25, 36, 48, 61, 75, 90, 106, 123, 141, 160, 180, 201, 223, 246, 270, 295, 321, 348, 376, 405, 435, 466, 498, 531, 565, 600, 636, 673, 711, 750, 790, 831, 873, 916, 960, 1005, 1051, 1098, 1146, 1195, 1245, 1296, 1348, 1401, 1455, 1510, 1566, 1623
a(n) = n + a(n-1) with n>8, a(8)=6. - Vincenzo Librandi, Aug 06 2010
[A222170] 0, 1, 6, 15, 26, 41, 60, 81, 106, 135, 166, 201, 240, 281, 326, 375, 426, 481, 540, 601, 666, 735, 806, 881, 960, 1041, 1126, 1215, 1306, 1401, 1500, 1601, 1706, 1815, 1926, 2041, 2160, 2281, 2406, 2535, 2666, 2801, 2940, 3081, 3226, 3375, 3526, 3681, 3840
a(n) = a(-n) = 2*a(n-1)-a(n-2)+a(n-3)-2*a(n-4)+a(n-5).
a(n) = floor(5*n^2/3). - Wesley Ivan Hurt, Mar 16 2015
[A140091] 0, 6, 15, 27, 42, 60, 81, 105, 132, 162, 195, 231, 270, 312, 357, 405, 456, 510, 567, 627, 690, 756, 825, 897, 972, 1050, 1131, 1215, 1302, 1392, 1485, 1581, 1680, 1782, 1887, 1995, 2106, 2220, 2337, 2457, 2580, 2706, 2835, 2967
a(n) = a(n-1)+3*n+3 with n>0, a(0)=0. - Vincenzo Librandi, Nov 24 2010
a(0)=0, a(1)=6, a(2)=15, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 15 2015
[A255605] 1, 6, 15, 27, 43, 61, 84, 110, 139, 172, 208, 247, 290, 337, 387, 440, 497, 557, 621, 688, 758, 832, 910, 990, 1075, 1163, 1254, 1348, 1446, 1548, 1653, 1761, 1873, 1988, 2107, 2229, 2355, 2484, 2616, 2752, 2892, 3034, 3181, 3330, 3483, 3640, 3800, 3963, 4130, 4301, 4474
a(n) = floor(5*n^2/(4*tan(Pi/5))), n >= 1.
[A171972] 0, 1, 6, 15, 27, 43, 62, 84, 110, 140, 173, 209, 249, 292, 339, 389, 443, 500, 561, 625, 692, 763, 838, 916, 997, 1082, 1170, 1262, 1357, 1456, 1558, 1664, 1773, 1886, 2002, 2121, 2244, 2371, 2501, 2634, 2771, 2911, 3055, 3202, 3353, 3507, 3665, 3826, 3990, 4158
a(n) = floor(n^2 * sqrt(3)).
[A000384] 0, 1, 6, 15, 28, 45, 66, 91, 120, 153, 190, 231, 276, 325, 378, 435, 496, 561, 630, 703, 780, 861, 946, 1035, 1128, 1225, 1326, 1431, 1540, 1653, 1770, 1891, 2016, 2145, 2278, 2415, 2556, 2701, 2850, 3003, 3160, 3321, 3486, 3655, 3828, 4005, 4186, 4371, 4560
a(n) = right term of M^n * [1,0,0], where M = the 3 X 3 matrix [1,0,0; 1,1,0; 1,4,1]. Example: a(5) = 45 since M^5 *[1,0,0] = [1,5,45]. - Gary W. Adamson, Dec 24 2006
a(n)^2 + (a(n)+1)^2 + ... + (a(n)+n-1)^2 = (a(n)+n+1)^2 + ... + (a(n)+2n-1)^2 + n^2; e.g., 6^2 + 7^2 = 9^2 + 2^2; 28^2 + 29^2 + 30^2 + 31^2 = 33^2 + 34^2 + 35^2 + 4^2. - Charlie Marion, Nov 10 2007
a(n) = binomial(n+1,2) + 3*binomial(n,2).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(0)=0, a(1)=1, a(2)=6. - Jaume Oliver Lafont, Dec 02 2008
a(n) = a(n-1) + 4*n - 3 (with a(0)=0). - Vincenzo Librandi, Nov 20 2010
a(n) = 2*a(n-1) - a(n-2) + 4. - Ant King, Aug 26 2011
[A134978] 0, 1, 6, 15, 28, 53, 74, 111, 152, 209, 246, 339, 384, 473, 582, 695, 756, 917, 986, 1175, 1340, 1493, 1578, 1855, 2008, 2193, 2398, 2683, 2792, 3185, 3302, 3603, 3880, 4129, 4446, 4943, 5084, 5365, 5698, 6231, 6388, 6973, 7138, 7615, 8172, 8517, 8698, 9431
a(n) « n^(2+e) for all e > 0. - Charles R Greathouse IV, Jun 17 2013
[A005286] 1, 6, 15, 29, 49, 76, 111, 155, 209, 274, 351, 441, 545, 664, 799, 951, 1121, 1310, 1519, 1749, 2001, 2276, 2575, 2899, 3249, 3626, 4031, 4465, 4929, 5424, 5951, 6511, 7105, 7734, 8399, 9101, 9841, 10620, 11439, 12299, 13201, 14146, 15135, 16169, 17249
a(-6-n) = -a(n). - Michael Somos, May 12 2005
a(0)=1, a(1)=6, a(2)=15, a(3)=29, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Mar 07 2012
[A229063] 0, 1, 6, 15, 29, 50, 80, 120, 171, 235, 313, 407, 517, 646, 795, 965, 1158, 1374, 1616, 1885, 2182, 2509, 2867, 3258, 3682, 4142, 4639, 5174, 5748, 6363, 7021, 7723, 8470, 9264, 10105, 10996, 11939, 12933, 13981, 15084, 16244, 17462, 18739, 20078, 21478, 22942

a(n) = floor(n^3*sqrt(2)/6)
[A011886] 0, 0, 0, 1, 6, 15, 30, 52, 84, 126, 180, 247, 330, 429, 546, 682, 840, 1020, 1224, 1453, 1710, 1995, 2310, 2656, 3036, 3450, 3900, 4387, 4914, 5481, 6090, 6742, 7440, 8184, 8976, 9817, 10710, 11655, 12654, 13708, 14820, 15990, 17220, 18511, 19866, 21285
a(n) = +3*a(n-1) -3*a(n-2) +a(n-3) +a(n-4) -3*a(n-5) +3*a(n-6) -a(n-7). G.f.: x^3*(1+3*x+2*x^3) / ((-1+x)^4*(1+x)*(x^2+1)). - R. J. Mathar, Apr 15 2010
[A212251] 0, 0, 1, 6, 15, 30, 54, 87, 131, 189, 261, 349, 456, 582, 729, 900, 1095, 1316, 1566, 1845, 2155, 2499, 2877, 3291, 3744, 4236, 4769, 5346, 5967, 6634, 7350, 8115, 8931, 9801, 10725, 11705, 12744, 13842, 15001, 16224, 17511, 18864, 20286, 21777, 23339, 24975
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - 3*a(n-4) + 3*a(n-5) - a(n-6).
[A213779] 1, 6, 15, 33, 58, 97, 146, 214, 295, 400, 521, 671, 840, 1043, 1268, 1532, 1821, 2154, 2515, 2925, 3366, 3861, 4390, 4978, 5603, 6292, 7021, 7819, 8660, 9575, 10536, 11576, 12665, 13838, 15063, 16377, 17746, 19209, 20730, 22350, 24031, 25816, 27665, 29623
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).
a(n) = (16*n^3+30*n^2+2*(3*(-1)^n+7)*n+3*((-1)^n-1))/48.
a(n) = (8*n^3+15*n^2+10*n)/24 for n even.
a(n) = (8*n^3+15*n^2+4*n-3)/24 for n odd.
[A083052] 1, 6, 15, 33, 60, 107, 176, 283, 463, 732, 1156, 1773, 2702, 4170, 6333, 9611, 14365, 21842, 32281, 48041, 71690, 106136, 158196, 232380, 340846, 504318, 740949, 1089909, 1590748, 2348540, 3411262, 4978297, 7278002, 10600284, 15494846
a(n)=T(n, n), where T(n, 0)=floor(n*x/(x-1))+1, T(n, k+1)=ceil(x*T(n, k)), for n>=0, k>=0, with x=sqrt(2).
[A120849] 0, 6, 15, 34, 85, 236, 695, 2094, 6345, 19216, 58075, 175154, 527405, 1586196, 4766655, 14316214, 42981265, 129009176, 387158435, 1161737274, 3485735925, 10458256156, 31376865415, 94134790334, 282412759385, 847255055136
a(n) = 7*a(n-1)-17*a(n-2)+17*a(n-3)-6*a(n-4). - Vincenzo Librandi, Feb 24 2013
[A074149] 1, 6, 15, 36, 65, 114, 175, 264, 369, 510, 671, 876, 1105, 1386, 1695, 2064, 2465, 2934, 3439, 4020, 4641, 5346, 6095, 6936, 7825, 8814, 9855, 11004, 12209, 13530, 14911, 16416, 17985, 19686, 21455, 23364, 25345, 27474, 29679, 32040, 34481, 37086
a(2n-1)=4n^3-6n^2+4n-1, a(2n)=4n^3+2n. a(n)=(n^3+n)/2 if n odd, n^3/2+n if n even. a(n)=n^3/2 + n(3+(-1)^n)/4. - Franklin T. Adams-Watters, Jul 17 2006
[A177206] 6, 15, 36, 77, 148, 261, 430, 671, 1002, 1443, 2016, 2745, 3656, 4777, 6138, 7771, 9710, 11991, 14652, 17733, 21276, 25325, 29926, 35127, 40978, 47531, 54840, 62961, 71952, 81873, 92786, 104755, 117846, 132127, 147668, 164541, 182820, 202581
a(n) = (n^4+10n^3+35n^2+62n+12)/12; [From Gary Detlefs, Jun 06 2010]
[A135854] 1, 6, 15, 36, 85, 198, 455, 1032, 2313, 5130, 11275, 24588, 53261, 114702, 245775, 524304, 1114129, 2359314, 4980755, 10485780, 22020117, 46137366, 96469015, 201326616, 419430425, 872415258, 1811939355, 3758096412
a(0) = 1, a(n) = (n+1)*(2^n+1), n>0. - L. Edson Jeffery, Jan 14 2014
[A277089] 6, 15, 38, 97, 248, 635, 1626, 4164, 10664, 27311, 69945, 179134, 458775, 1174956, 3009148, 7706648, 19737289, 50548641, 129458768, 331553377, 849132458, 2174690356, 5569541124, 14264002343, 36531153701, 93558957622, 239611336203, 613662164440, 1571633704952
a(n) = ceiling(a(n-1)^2/a(n-2)), a(0) = 6, a(1) = 15.
a(n) = floor(a(n-1)^2/a(n-2)+1), a(0) = 6, a(1) = 15.
a(n) = 3*a(n-1) - a(n-2) - a(n-4) + 2*a(n-6) - 2*a(n-7). (End)
[A277237] 1, 6, 15, 39, 99, 255, 651, 1671, 4275, 10959, 28059, 71895, 184131, 471711, 1208235, 3095079, 7928019, 20308335, 52020411, 133253751, 341335395, 874350399, 2239691979, 5737093575, 14695861491, 37644235791, 96427681755, 247004624919, 632715351939, 1620733851615
a(n) = 3*((13+3*sqrt(17))*z1^n-(13-3*sqrt(17))*z2^n)/(8*sqrt(17)), where z1=(1+sqrt(17))/2 and z2=(1-sqrt(17))/2.
[A114696] 1, 6, 15, 40, 97, 238, 575, 1392, 3361, 8118, 19599, 47320, 114241, 275806, 665855, 1607520, 3880897, 9369318, 22619535, 54608392, 131836321, 318281038, 768398399, 1855077840, 4478554081, 10812186006, 26102926095, 63018038200, 152139002497, 367296043198
a(0)=1, a(1)=6, a(2)=15, a(3)=40, a(n)=2*a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4). - Harvey P. Dale, Jan 23 2014
a(n) = (-3-(-1)^n+(3-2*sqrt(2))*(1-sqrt(2))^n+(1+sqrt(2))^n*(3+2*sqrt(2)))/2. - Colin Barker, May 26 2016
[A193449] 0, 1, 6, 15, 44, 105, 258, 595, 1368, 3069, 6830, 15015, 32772, 70993, 152922, 327675, 699056, 1485477, 3145734, 6640975, 13981020, 29360121, 61516466, 128625315, 268435464, 559240525, 1163220318, 2415919095, 5010795188, 10379504289, 21474836490, 44381328715
a(n) = n*(2^(n + 1) + (-1)^n)/3
a(n)= sum(sum((-1)^(j+k)*(j+k)*C(n-k+j,j), j=0..k), k=0..n)
a(n)= sum(n*C(n, k)*2F1((1, -k); -n)(-1), k=0..n)
a(n)=sum(sum((-1)^j*n*C(n-j,k-j), j=0..k), k=0..n)
a(n)= sum((1+2*k)*C(n+1, k+1)*2F1((1, n+2); k+2)(-1) - C(n+2, k+2) 2F1((2, n+3); k+3)(-1) - (-1)^(k) * 2^(k-n-2) * (n-3*k+1) , k=0..n)
[A095122] 0, 1, 1, 6, 15, 45, 120, 325, 861, 2278, 5995, 15753, 41328, 108345, 283881, 743590, 1947351, 5099221, 13351528, 34957341, 91523685, 239618886, 627341331, 1642418641, 4299936480, 11257426225, 29472399505, 77159865030, 202007345631
a(n)=2(Fib(2n-1)+Fib(2n+1))/5-Fib(n)+4(-1)^n/5;
a(n)=2L(2n)/5-Fib(n)+4(-1)^n/5;
a(0)=0, a(1)=1, a(2)=1, a(3)=6, a(4)=15, a(n)=3*a(n-1)+a(n-2)- 5*a(n-3)- a(n-4)+a(n-5) [From Harvey P. Dale, Jan 14 2012]
[A270455] 1, 6, 15, 48, 73, 158, 207, 368, 449, 710, 831, 1216, 1385, 1918, 2143, 2848, 3137, 4038, 4399, 5520, 5961, 7326, 7855, 9488, 10113, 12038, 12767, 15008, 15849, 18430, 19391, 22336, 23425, 26758, 27983, 31728, 33097, 37278, 38799, 43440, 45121, 50246, 52095
a(n) = (3*(3+(-1)^n)+(22-6*(-1)^n)*n-6*(-4+(-1)^n)*n^2+8*n^3)/12.
a(n) = (4*n^3+9*n^2+8*n+6)/6 for n even.
a(n) = (4*n^3+15*n^2+14*n+3)/6 for n odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>6.
[A122365] 0, 1, 1, 6, 15, 53, 160, 517, 1621, 5150, 16267, 51513, 162944, 515673, 1631609, 5162966, 16336695, 51693645, 163571104, 517580093, 1637750957, 5182251182, 16397926099, 51887105969, 164183665152, 519517828081, 1643883210801, 5201654068774, 16459323152671
a(n) = 2*a(n-1) + 5*a(n-2) - 3*a(n-3) - 4*a(n-4) + a(n-5); a(0)=0, a(1)=1, a(2)=1,a(3)=6,a(4)=15 (follows from the minimal polynomial of M).
a(n) = 2*a(n-1) + 4*a(n-2) - a(n-3) for n>2.
[A233450] 0, 1, 6, 15, 64, 153, 638, 1519, 6320, 15041, 62566, 148895, 619344, 1473913, 6130878, 14590239, 60689440, 144428481, 600763526, 1429694575, 5946945824, 14152517273, 58868694718, 140095478159, 582740001360, 1386802264321, 5768531318886, 13727927165055
a(n) = a(n-1) +10*a(n-2) -10*a(n-3) -a(n-4) +a(n-5) for n>5, a(1)=0, a(2)=1, a(3)=6, a(4)=15, a(5)=64.
a(n) = -1/2 + ((-3*(-1)^n + 2*sqrt(6))*(5 + 2*sqrt(6))^floor(n/2) - (3*(-1)^n + 2*sqrt(6))*(5 - 2*sqrt(6))^floor(n/2))/12.
[A104392] 6, 16, 20, 36, 40, 50, 71, 75, 85, 105, 127, 131, 141, 161, 196, 211, 215, 225, 245, 280, 331, 335, 336, 345, 365, 400, 456, 496, 500, 510, 530, 540, 565, 621, 705, 716, 720, 730, 750, 785, 825, 841, 925, 1002, 1006, 1016, 1036, 1045, 1071, 1127
a(n) = Ptop(i) + Ptop(j) for some positive i=/=j and Ptop(n) = binomial(n+3,4).
[A087446] 1, 6, 16, 21, 31, 36, 46, 51, 61, 66, 76, 81, 91, 96, 106, 111, 121, 126, 136, 141, 151, 156, 166, 171, 181, 186, 196, 201, 211, 216, 226, 231, 241, 246, 256, 261, 271, 276, 286, 291, 301, 306, 316, 321, 331, 336, 346, 351, 361, 366, 376, 381, 391, 396, 406
a(n) = 15*n-a(n-1)-23 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A017341] 6, 16, 26, 36, 46, 56, 66, 76, 86, 96, 106, 116, 126, 136, 146, 156, 166, 176, 186, 196, 206, 216, 226, 236, 246, 256, 266, 276, 286, 296, 306, 316, 326, 336, 346, 356, 366, 376, 386, 396, 406, 416, 426, 436, 446, 456, 466, 476, 486, 496, 506, 516, 526, 536
a(n) = 2*a(n-1) -a(n-2) with n>1, a(0)=6, a(1)=16. - Vincenzo Librandi, May 29 2011
[A212905] 1, 6, 16, 26, 42, 58, 82, 106, 140, 174, 220, 266, 326, 386, 462, 538, 632, 726, 840, 954, 1090, 1226, 1386, 1546, 1732, 1918, 2132, 2346, 2590, 2834, 3110, 3386, 3696, 4006, 4352, 4698, 5082, 5466, 5890, 6314, 6780, 7246, 7756, 8266, 8822
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>=1.
[A264938] 0, 1, 6, 16, 29, 46, 68, 93, 122, 156, 193, 234, 280, 329, 382, 440, 501, 566, 636, 709, 786, 868, 953, 1042, 1136, 1233, 1334, 1440, 1549, 1662, 1780, 1901, 2026, 2156, 2289, 2426, 2568, 2713, 2862, 3016, 3173, 3334, 3500, 3669, 3842, 4020, 4201, 4386, 4576, 4769
a(n) = a(n-3) + 12*n - 20 for n>2.
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5) for n>4.

a(n+30*k +8) - a(n-30*k -7) = 20*(4*k+1)*(3*n+1).
a(n+30*k+16) - a(n-30*k-14) = 20*(2*k+1)*(6*n+5).
a(n+30*k+24) - a(n-30*k-21) = 20*(4*k+3)*(3*n+4).
a(n+30*k+32) - a(n-30*k-28) = 20*(2*k+2)*(6*n+11).
[A054000] 0, 6, 16, 30, 48, 70, 96, 126, 160, 198, 240, 286, 336, 390, 448, 510, 576, 646, 720, 798, 880, 966, 1056, 1150, 1248, 1350, 1456, 1566, 1680, 1798, 1920, 2046, 2176, 2310, 2448, 2590, 2736, 2886, 3040, 3198, 3360, 3526, 3696, 3870, 4048, 4230, 4416
a(n) = 4*n + a(n-1) - 2, with n>1, a(1)=0. - Vincenzo Librandi, Aug 06 2010
a(1)=0, a(2)=6, a(3)=16, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Feb 03 2012
a(n) = (n+i)^2 + (n-i)^2, where i=sqrt(-1). - Bruno Berselli, Jan 23 2014
[A102214] 1, 6, 16, 30, 49, 72, 100, 132, 169, 210, 256, 306, 361, 420, 484, 552, 625, 702, 784, 870, 961, 1056, 1156, 1260, 1369, 1482, 1600, 1722, 1849, 1980, 2116, 2256, 2401, 2550, 2704, 2862, 3025, 3192, 3364, 3540, 3721, 3906, 4096, 4290, 4489, 4692, 4900
a(n) = floor((3*n+2)/2) * ceiling((3*n+2)/2). - Marcus Schmidt (marcus-schmidt(AT)gmx.net), Jan 13 2006
a(n) = (6*n*(3*n+4)+(-1)^n+7)/8. - Bruno Berselli, Oct 25 2011
[A005891] 1, 6, 16, 31, 51, 76, 106, 141, 181, 226, 276, 331, 391, 456, 526, 601, 681, 766, 856, 951, 1051, 1156, 1266, 1381, 1501, 1626, 1756, 1891, 2031, 2176, 2326, 2481, 2641, 2806, 2976, 3151, 3331, 3516, 3706, 3901, 4101, 4306, 4516, 4731, 4951, 5176, 5406
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(0)=1, a(1)=6, a(2)=16. - Jaume Oliver Lafont, Dec 02 2008
a(n) = a(n-1) + 5*n, with a(0)=1. - Vincenzo Librandi, Nov 18 2010
a(n) = 2*a(n-1) - a(n-2) + 5. - Ant King, Jun 12 2012
[A092286] 0, 6, 16, 31, 52, 80, 116, 161, 216, 282, 360, 451, 556, 676, 812, 965, 1136, 1326, 1536, 1767, 2020, 2296, 2596, 2921, 3272, 3650, 4056, 4491, 4956, 5452, 5980, 6541, 7136, 7766, 8432, 9135, 9876, 10656, 11476, 12337, 13240, 14186, 15176
a(n) = 1/2 * sum_{k=1..n} (k+3)(k+2).
a(n) = 1/6 * n *(n^2 + 9n + 26). (End)
[A276917] 1, 6, 16, 31, 71, 106, 236, 311, 711, 866, 2076, 2391, 6031, 6666, 17596, 18871, 51671, 54226, 152636, 157751, 452991, 463226, 1348956, 1369431, 4026631, 4067586, 12039196, 12121111, 36035951, 36199786, 107944316, 108271991, 323505591, 324160946, 969861756
a(n) = 5*(Sum_{i=0..((n+(n mod 2))/2)} 2^i + Sum_{j=0..((n-(n mod 2))/2)} 3^j) - 5*n - 9.
a(n) = a(n-1) + 5*((2+((n+1) mod 2))^((n+(n mod 2))/2) - 1) for n>0.
a(n) = (-10*n + 5*3^(n/2+1) + 5*2^(n/2+2) - 33)/2 for n even.
a(n) = (-10*n + 5*3^(n/2+1/2) + 5*2^(n/2+5/2) - 33)/2 for n odd.
[A134465] 1, 6, 16, 32, 55, 86, 126, 176, 237, 310, 396, 496, 611, 742, 890, 1056, 1241, 1446, 1672, 1920, 2191, 2486, 2806, 3152, 3525, 3926, 4356, 4816, 5307, 5830, 6386, 6976, 7601, 8262, 8960, 9696, 10471, 11286, 12142, 13040, 13981, 14966
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 29 2012
[A131949] 1, 6, 16, 32, 56, 92, 148, 240, 400, 692, 1244, 2312, 4408, 8556, 16804, 33248, 66080, 131684, 262828, 525048, 1049416, 2098076, 4195316, 8389712, 16778416, 33555732, 67110268, 134219240, 268437080, 536872652, 1073743684, 2147485632, 4294969408, 8589936836
a(n) = 2^n + 2*n + 2*n^2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) for n > 3.
[A171494] 6, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648
a(n) = 2^(n+3) for n > 0; a(0) = 6.
[A236773] 0, 1, 6, 16, 33, 59, 96, 145, 210, 292, 393, 515, 660, 829, 1026, 1252, 1509, 1799, 2124, 2485, 2886, 3328, 3813, 4343, 4920, 5545, 6222, 6952, 7737, 8579, 9480, 10441, 11466, 12556, 13713, 14939, 16236, 17605, 19050, 20572, 22173, 23855, 25620, 27469
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) +a(n-6) -3*a(n-7) +3*a(n-8) -a(n-9).
a(6h) = 6*h*(12*h^2 + 3*h + 1),
a(6h+1) = 72*h^3 + 54*h^2 + 18*h + 1,
a(6h+2) = 6*(4*h + 1)*(3*h^2 + 3*h + 1),
a(6h+3) = 2*(36*h^3 + 63*h^2 + 39*h + 8),
a(6h+4) = 3*(24*h^3 + 54*h^2 + 42*h + 11),
[A131820] 1, 6, 16, 33, 59, 96, 146, 211, 293, 394, 516, 661, 831, 1028, 1254, 1511, 1801, 2126, 2488, 2889, 3331, 3816, 4346, 4923, 5549, 6226, 6956, 7741, 8583, 9484, 10446, 11471, 12561, 13718, 14944, 16241, 17611, 19056, 20578, 22179, 23861, 25626
a(n) = n^3/3 + n^2/2 + 7/6*n - 1.
a(n) = -1 + Sum_{k=1..n} (k^2+1).
a(n) = (2n^3 + 3n^2 + 7n - 6)/6, n>0. [Gary Detlefs, Jun 30 2010]
a(n) = n^2+a(n-1)+1, n>1. [Gary Detlefs, Jun 29 2010]
[A083053] 1, 6, 16, 35, 66, 114, 185, 290, 443, 661, 976, 1425, 2064, 2972, 4259, 6083, 8667, 12327, 17506, 24834, 35203, 49869, 70615, 99959, 141462, 200159, 283173, 400577, 566616, 801435, 1133522, 1603168, 2267350, 3206653, 4535033, 6413648, 9070416
a(n) = Sum_{k=0..n} T(k,n-k), where T(n,0) = floor(n*x/(x-1)) + 1, T(n,k+1) = ceiling(x*T(n,k)), for n>=0, k>=0, with x = sqrt(2).
[A083046] 1, 6, 16, 35, 67, 118, 197, 319, 506, 789, 1215, 1860, 2830, 4290, 6481, 9771, 14708, 22120, 33239, 49921, 74946, 112490, 168807, 253286, 380008, 570095, 855228, 1282931, 1924490, 2886828, 4330341, 6495613, 9743524, 14615392, 21923196
a(n) = Sum_{k=0..n} T(k, n-k), where T(n, 0) = floor(n*x/(x-1))+1, T(n, k+1) = ceiling(x*T(n, k)), for n>=0, k>=0, with x=3/2.
[A178465] 0, 0, 6, 16, 36, 66, 114, 176, 264, 370, 510, 672, 876, 1106, 1386, 1696, 2064, 2466, 2934, 3440, 4020, 4642, 5346, 6096, 6936, 7826, 8814, 9856, 11004, 12210, 13530, 14912, 16416, 17986, 19686, 21456, 23364, 25346, 27474, 29680, 32040, 34482
a(n) = (2-2*(-1)^n+(3+(-1)^n)*n+2*n^3)/4 for n>1. [Colin Barker, Feb 18 2013]
[A247619] 1, 6, 16, 36, 66, 116, 186, 296, 446, 676, 986, 1456, 2086, 3036, 4306, 6216, 8766, 12596, 17706, 25376, 35606, 50956, 71426, 102136, 143086, 204516, 286426, 409296, 573126, 818876, 1146546, 1638056, 2293406, 3276436, 4587146, 6553216, 9174646, 13106796
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+2*a(n-4). G.f.: -(2*x^3+3*x^2+4*x+1) / ((x-1)^2*(2*x^2-1)). - Colin Barker, Sep 21 2014
[A171373] 1, 6, 16, 36, 76, 152, 292, 552, 1052, 2052, 4104, 8344, 17044, 34664, 69904, 139808, 278108, 552268, 1098148, 2189908, 4379816, 8776356, 17596496, 35263836, 70598516, 141197032, 282208592, 563931612, 1127077552, 2253369432, 4506738864, 9015534644
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+2*a(n-5).
[A048487] 1, 6, 16, 36, 76, 156, 316, 636, 1276, 2556, 5116, 10236, 20476, 40956, 81916, 163836, 327676, 655356, 1310716, 2621436, 5242876, 10485756, 20971516, 41943036, 83886076, 167772156, 335544316, 671088636, 1342177276, 2684354556
a(n) = 5*2^n-4. - Henry Bottomley, May 29 2001
a(n) = 2*a(n-1)+4, n>0, a(0)=1. - Paul Barry, Aug 25 2004
a(n) = 3*a(n-1)-2*a(n-2). G.f.: (1+3*x)/((1-x)*(1-2*x)). - Colin Barker, Sep 13 2012
[A124699] 1, 6, 16, 36, 92, 236, 622, 1658, 4468, 12132, 33146, 90998, 250802, 693426, 1922118, 5339006, 14854932, 41387764, 115438672, 322267784, 900314242, 2516648618, 7038066876, 19690060024, 55102545322, 154241612986
a(n) = 6*a(n-1) - 10*a(n-2) + 9*a(n-4) - 2*a(n-5) - a(n-6) for n>6.
[A064602] 1, 6, 16, 37, 63, 113, 163, 248, 339, 469, 591, 801, 971, 1221, 1481, 1822, 2112, 2567, 2929, 3475, 3975, 4585, 5115, 5965, 6616, 7466, 8286, 9336, 10178, 11478, 12440, 13805, 15025, 16475, 17775, 19686, 21056, 22866, 24566, 26776, 28458, 30958
a(n) = Sum(i=1..n, i^2 * floor(n/i)). - Enrique Pérez Herrero, Sep 15 2012
[A160255] 0, 1, 6, 16, 40, 63, 126, 176, 270, 365, 550, 624, 936, 1099, 1350, 1664, 2176, 2349, 3078, 3280, 3948, 4631, 5566, 5712, 7000, 7813, 8748, 9520, 11368, 11475, 13950, 14592, 16236, 17969, 19390, 20304, 23976, 25327, 27222, 28400, 32800, 32949, 37926, 38896
a(n)= Sigma(i=1 to n-1) (n*(gcd(n,i))/2)*((n/(gcd(n,i))-1).
[A213667] 1, 6, 16, 40, 98, 238, 576, 1392, 3362, 8118, 19600, 47320, 114242, 275806, 665856, 1607520, 3880898, 9369318, 22619536, 54608392, 131836322, 318281038, 768398400, 1855077840, 4478554082, 10812186006, 26102926096, 63018038200, 152139002498, 367296043198
a(1)=1, a(2)=6, a(3)=16, a(n) = 2*a(n-1) + a(n-2) + 2 for n>=4.

a(n) = (-2+(1-sqrt(2))^(1+n)+(1+sqrt(2))^(1+n))/2 for n>1. - Colin Barker, Mar 16 2016

[A283960] 1, 1, 1, 1, 1, 1, 6, 16, 41, 106, 276, 2101, 6026, 15976, 41901, 109726, 835906, 2397991, 6358066, 16676206, 43670551, 332688201, 954394051, 2530493951, 6637087801, 17380769451, 132409067806, 379846433966, 1007130234091, 2641544268306, 6917502570826, 52698476298301

a(5*k-2) = 3*a(5*k-3) - a(5*k-4) - 1,
a(5*k-1) = 3*a(5*k-2) - a(5*k-3) - 1,
a(5*k) = 3*a(5*k-1) - a(5*k-2) - 1,
a(5*k+1) = 3*a(5*k) - a(5*k-1) - 1,
a(5*k+2) = 8*a(5*k+1) - a(5*k) - 1.

[A283330] 1, 1, 1, 1, 1, 6, 16, 41, 106, 806, 2311, 6126, 16066, 122401, 351136, 931006, 2441881, 18604041, 53370241, 141506681, 371149801, 2827691726, 8111925376, 21508084401, 56412327826, 429790538206, 1232959286791, 3269087322166, 8574302679706, 65325334115481

a(4*n-1) = 3*a(4*n-2) - a(4*n-3) - 1,
a(4*n) = 3*a(4*n-1) - a(4*n-2) - 1,
a(4*n+1) = 3*a(4*n) - a(4*n-1) - 1,
a(4*n+2) = 8*a(4*n+1) - a(4*n) - 1. (End)

[A032282] 1, 1, 6, 16, 56, 147, 392, 912, 2052, 4262, 8524, 16159, 29624, 52234, 89544, 148976, 242086, 384111, 597506, 911456, 1367184, 2017509, 2934559, 4209504, 5963464, 8347612, 11558232, 15837472, 21493712, 28903332

a(n) = 5*s(n,0,11)/11+(3840*C(n-1,10)+11*(n-2)*(n-4)*(n-6)(n-8)*(n-10))/84480, if n is even;
a(n) = 5*s(n,0,11)/11+(3840*C(n-1,10)+11*(n-1)*(n-3)*(n-5)*(n-7)*(n-9))/84480, if n is odd.

[A084057] 1, 1, 6, 16, 56, 176, 576, 1856, 6016, 19456, 62976, 203776, 659456, 2134016, 6905856, 22347776, 72318976, 234029056, 757334016, 2450784256, 7930904576, 25664946176, 83053510656, 268766806016, 869747654656, 2814562533376, 9108115685376, 29474481504256

a(n) = ((1+sqrt(5))^n + (1-sqrt(5))^n)/2.
a(2n+1) = 2*a(n)*a(n+1)-(-4)^n. - Mario Catalani (mario.catalani(AT)unito.it), Jun 13 2003
a(n) = sum{k=0..floor(n/2), binomial(n, 2k)5^k }. - Paul Barry, Jul 25 2004

[A184549] 0, 6, 17, 23, 28, 34, 45, 51, 56, 62, 73, 79, 84, 90, 101, 107, 112, 118, 129, 135, 140, 146, 157, 163, 168, 174, 185, 191, 196, 202, 213, 219, 224, 230, 241, 247, 252, 258, 269, 275, 280, 286, 297, 303, 308, 314

a(n) = a(n-1)+a(n-4)-a(n-5). G.f.: x*(5*x^3+6*x^2+11*x+6) / ((x-1)^2*(x+1)*(x^2+1)). - Colin Barker, Nov 04 2013

[A166025] 6, 17, 23, 40, 63, 103, 166, 269, 435, 704, 1139, 1843, 2982, 4825, 7807, 12632, 20439, 33071, 53510, 86581, 140091, 226672, 366763, 593435, 960198, 1553633, 2513831, 4067464, 6581295, 10648759, 17230054, 27878813, 45108867, 72987680, 118096547

a(n) = 3*((1/2 + 1/2*sqrt(5))^n + (1/2 - 1/2*sqrt(5))^n) + 14/5*sqrt(5)*((1/2 + 1/2*sqrt(5))^n - (1/2 - 1/2 *sqrt(5))^n). - Paolo P. Lava, Jun 06 2011

[A017461] 6, 17, 28, 39, 50, 61, 72, 83, 94, 105, 116, 127, 138, 149, 160, 171, 182, 193, 204, 215, 226, 237, 248, 259, 270, 281, 292, 303, 314, 325, 336, 347, 358, 369, 380, 391, 402, 413, 424, 435, 446, 457, 468, 479, 490, 501, 512, 523, 534, 545, 556, 567, 578, 589

a(0)=6, a(1)=17; for n>1, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Apr 14 2015

[A038795] 1, 6, 17, 33, 55, 89, 144, 232, 370, 581, 895, 1350, 1993, 2881, 4082, 5676, 7756, 10429, 13817, 18058, 23307, 29737, 37540, 46928, 58134, 71413, 87043, 105326, 126589, 151185, 179494, 211924, 248912, 290925, 338461

a(n) = sum(binomial(n-k, k), k=0..5), n >= 9. - Johannes W. Meijer, Aug 10 2013

[A023545] 6, 17, 34, 58, 90, 131, 182, 244, 318, 405, 506, 622, 754, 903, 1070, 1256, 1462, 1689, 1938, 2210, 2506, 2827, 3174, 3548, 3950, 4381, 4842, 5334, 5858, 6415, 7006, 7632, 8294, 8993, 9730, 10506, 11322, 12179, 13078, 14020, 15006, 16037

a(n) = n*(n^2 + 12*n + 23)/6. - Ralf Stephan, Feb 15 2004; corrected by Lucas Sidiropoulos (lsid77(AT)yahoo.com), Jun 23 2008
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: x*(2-x)*(3-2*x)/(1-x)^4. - Colin Barker, Jun 20 2012

[A083045] 1, 6, 17, 35, 68, 122, 224, 383, 656, 1092, 1841, 2978, 4859, 7835, 12776, 20291, 32664, 51422, 82485, 129720, 204821, 319482, 506060, 789872, 1237733, 1927494, 3024318, 4687259, 7274921, 11271293, 17578760, 27133793, 42125475, 64909160

a(n)=T(n, n), where T(n, 0)=floor(n*x/(x-1))+1, T(n, k+1)=ceil(x*T(n, k)), for n>=0, k>=0, with x=3/2.

[A084990] 0, 1, 6, 17, 36, 65, 106, 161, 232, 321, 430, 561, 716, 897, 1106, 1345, 1616, 1921, 2262, 2641, 3060, 3521, 4026, 4577, 5176, 5825, 6526, 7281, 8092, 8961, 9890, 10881, 11936, 13057, 14246, 15505, 16836, 18241, 19722, 21281, 22920, 24641, 26446, 28337, 30316

a(n) = (n-1)*(n+1)*(n+3)/3 + 1. - Reinhard Zumkeller, Aug 20 2007
a(2*n) = sum {i=0,...,16*n^4, i==0 mod 2*n+1}(-1)^s_(2*n)(i), where s_k(n) is the digit sum of n in the base k. - Vladimir Shevelev, May 18 2012
a(2*n) = 2/(2*n+1)*sum{i=1,...,n} tan^4(pi*i/(2*n+1)). - Vladimir Shevelev, May 23 2012
a(n) = sum_{i=1..n} i*(i+1)-1. - Wesley Ivan Hurt, Oct 19 2013
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Vincenzo Librandi, Mar 28 2014

[A212980] 0, 1, 6, 17, 37, 68, 113, 174, 254, 355, 480, 631, 811, 1022, 1267, 1548, 1868, 2229, 2634, 3085, 3585, 4136, 4741, 5402, 6122, 6903, 7748, 8659, 9639, 10690, 11815, 13016, 14296, 15657, 17102, 18633, 20253, 21964, 23769, 25670, 27670

a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).

[A085278] 1, 6, 17, 38, 81, 166, 337, 678, 1361, 2726, 5457, 10918, 21841, 43686, 87377, 174758, 349521, 699046, 1398097, 2796198, 5592401, 11184806, 22369617, 44739238, 89478481, 178956966, 357913937, 715827878, 1431655761, 2863311526

a(n)=16*2^n/3+(-1)^n/6-9/2.

[A061349] 0, 1, 6, 17, 40, 75, 130, 203, 304, 429, 590, 781, 1016, 1287, 1610, 1975, 2400, 2873, 3414, 4009, 4680, 5411, 6226, 7107, 8080, 9125, 10270, 11493, 12824, 14239, 15770, 17391, 19136, 20977, 22950, 25025, 27240, 29563, 32034, 34619, 37360, 40221

a(n) = (n*(13+3*(-1)^n+14*n^2))/24. - Colin Barker, Sep 13 2014
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6). - Colin Barker, Sep 13 2014

[A213780] 1, 6, 17, 40, 78, 140, 230, 360, 535, 770, 1071, 1456, 1932, 2520, 3228, 4080, 5085, 6270, 7645, 9240, 11066, 13156, 15522, 18200, 21203, 24570, 28315, 32480, 37080, 42160, 47736, 53856, 60537, 67830, 75753, 84360, 93670, 103740, 114590

a(n) = 3*a(n-1) - a(n-2) - 5*a(n-3) + 5*a(n-4) + a(n-5) - 3*a(n-6) + a(n-7).

[A101945] 1, 6, 17, 40, 87, 182, 373, 756, 1523, 3058, 6129, 12272, 24559, 49134, 98285, 196588, 393195, 786410, 1572841, 3145704, 6291431, 12582886, 25165797, 50331620, 100663267, 201326562, 402653153, 805306336, 1610612703, 3221225438

a(0)=1, a(1)=6, a(2)=17 and for n>2, a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3).

[A047861] 1, 6, 17, 41, 93, 205, 445, 957, 2045, 4349, 9213, 19453, 40957, 86013, 180221, 376829, 786429, 1638397, 3407869, 7077885, 14680061, 30408701, 62914557, 130023421, 268435453, 553648125, 1140850685, 2348810237, 4831838205, 9932111869, 20401094653, 41875931133

a(0)=1, a(1)=6, a(2)=17, a(n) = 5*a(n-1) -8*a(n-2) +4*a(n-3). - Vincenzo Librandi, Sep 28 2011

[A171507] 0, 0, 1, 6, 17, 42, 93, 198, 409, 834, 1685, 3390, 6801, 13626, 27277, 54582, 109193, 218418, 436869, 873774, 1747585, 3495210, 6990461, 13980966, 27961977, 55924002, 111848053, 223696158, 447392369, 894784794, 1789569645, 3579139350, 7158278761, 14316557586

a(n) = 3*a(n-1)-a(n-2)-3*a(n-3)+2*a(n-4). G.f.: x^2*(1+3*x)/((1+x)*(1-2*x)*(1-x)^2).

[A232567] 0, 1, 6, 17, 43, 84, 159, 262, 426, 635, 940, 1311, 1821, 2422, 3213, 4124, 5284, 6597, 8226, 10045, 12255, 14696, 17611, 20802, 24558, 28639, 33384, 38507, 44401, 50730, 57945, 65656, 74376, 83657, 94078, 105129, 117459, 130492, 144951, 160190, 177010

a(n) = (n^4 + 2*n^2 - 4*n)/16 if n is even; a(n) = (n^4 + 4*n^2 - 8*n + 3)/16 if n is odd.

[A062020] 0, 1, 6, 17, 44, 81, 142, 217, 324, 485, 666, 913, 1208, 1529, 1906, 2373, 2936, 3533, 4238, 5019, 5840, 6787, 7822, 8995, 10360, 11825, 13342, 14967, 16648, 18445, 20662, 23003, 25536, 28135, 31074, 34083, 37308, 40755, 44354, 48187, 52260

a(n) = a(n-1) + n*p(n) - Sum_{i = 1..n} p(i). a(n) = 2a(n-1) + (n-1)*(p(n)-p(n-1)) - a(n-2).

[A048746] 1, 6, 17, 44, 109, 266, 645, 1560, 3769, 9102, 21977, 53060, 128101, 309266, 746637, 1802544, 4351729, 10506006, 25363745, 61233500, 147830749, 356895002, 861620757, 2080136520, 5021893801, 12123924126

a(n)=2*a(n-1)+a(n-2)+4; a(0)=1, a(1)=6.
a(n)=[{(5+3*sqrt(2))(1+sqrt(2)^n - (5-3*sqrt(2))(1-sqrt(2))^n}/2*sqrt(2)]-2.
a(n)=3*a(n-1)-a(n-2)-a(n-3). G.f.: (1+3*x)/((1-x)*(1-2*x-x^2)). [Colin Barker, Sep 19 2012]

[A054492] 1, 6, 17, 45, 118, 309, 809, 2118, 5545, 14517, 38006, 99501, 260497, 681990, 1785473, 4674429, 12237814, 32039013, 83879225, 219598662, 574916761, 1505151621, 3940538102, 10316462685, 27008849953, 70710087174, 185121411569, 484654147533, 1268841031030

a(n) = (6*(((3+sqrt(5))/2)^n - ((3-sqrt(5))/2)^n) - (((3+sqrt(5))/2)^(n-1) - ((3-sqrt(5))/2)^(n-1)))/sqrt(5).
a(n) = 2*Lucas(2*n+1) - Fibonacci(2*n+1).
a(n) = 5*Fibonacci(2*n) + Fibonacci(2*n-1). - Ehren Metcalfe, Mar 26 2016
[A199113] 6, 17, 50, 149, 446, 1337, 4010, 12029, 36086, 108257, 324770, 974309, 2922926, 8768777, 26306330, 78918989, 236756966, 710270897, 2130812690, 6392438069, 19177314206, 57531942617, 172595827850, 517787483549, 1553362450646, 4660087351937
a(n) = 3*a(n-1)-1.
a(n) = 4*a(n-1)-3*a(n-2).
[A088016] 1, 1, 6, 17, 56, 179, 576, 1851, 5950, 19125, 61474, 197597, 635140, 2041543, 6562172, 21092919, 67799386, 217928905, 700493182, 2251609065, 7237391472, 23263290299, 74775653304, 240352858739, 772570939222, 2483290023101
a(n) = 3*a(n-1) + a(n-2) - a(n-3) for n>3.
[A017593] 6, 18, 30, 42, 54, 66, 78, 90, 102, 114, 126, 138, 150, 162, 174, 186, 198, 210, 222, 234, 246, 258, 270, 282, 294, 306, 318, 330, 342, 354, 366, 378, 390, 402, 414, 426, 438, 450, 462, 474, 486, 498, 510, 522, 534, 546, 558, 570, 582, 594, 606, 618, 630, 642
a(n) = 24*n - a(n-1), (with a(0)=6). - Vincenzo Librandi, Nov 19 2010
a(0)=6, a(1)=18, a(n) = 2*a(n-1) - a(n-2). - Harvey P. Dale, Aug 20 2014
[A124353] 6, 18, 32, 58, 112, 220, 450, 938, 1982, 4220, 9022, 19332, 41472, 89022, 191150, 410506, 881656, 1893634, 4067256, 8735972, 18763898, 40302866, 86566390, 185935764, 399371142, 857808780, 1842486536, 3957474934, 8500256470, 18257692546, 39215680080, 84231321290, 180920373632, 388598695916
a(n) = 3*a(n-1) - a(n-2) - 2*a(n-3) + a(n-5).
a(n) = 2*a(n-1) + a(n-2) - a(n-3) - a(n-4) - 12.
[A153126] 1, 6, 18, 33, 55, 80, 112, 147, 189, 234, 286, 341, 403, 468, 540, 615, 697, 782, 874, 969, 1071, 1176, 1288, 1403, 1525, 1650, 1782, 1917, 2059, 2204, 2356, 2511, 2673, 2838, 3010, 3185, 3367, 3552, 3744, 3939, 4141, 4346, 4558, 4773, 4995, 5220, 5452
a(n) = n*(5*n+7)/2 + 1 - n Mod 2.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: (1+4*x+6*x^2-x^3)/((1-x)^3*(1+x)). - Colin Barker, Jul 07 2012
[A181510] 6, 18, 34, 54, 78, 106, 138, 174, 214, 258, 306, 358, 414, 474, 538, 606, 678, 754, 834, 918, 1006, 1098, 1194, 1294, 1398, 1506, 1618, 1734, 1854, 1978
a(n) = 2n^2+6n-2.
a(n) -3*a(n-1) +3*a(n-2) -a(n-3) = 0 for n>3.
[A172522] 6, 18, 36, 56, 77, 101, 131, 167, 207, 249, 297, 351, 411, 474, 540, 612, 690, 770, 854, 944, 1040, 1140, 1242, 1347, 1455, 1565, 1679, 1799, 1925, 2057, 2193, 2331, 2471, 2615, 2762, 2912, 3067, 3223, 3383, 3545, 3713, 3887, 4067, 4253, 4442, 4634, 4832
a(n) = SUM[i=1..n] {i such that 2^i - 1 is divisible by a square}.
[A028896] 0, 6, 18, 36, 60, 90, 126, 168, 216, 270, 330, 396, 468, 546, 630, 720, 816, 918, 1026, 1140, 1260, 1386, 1518, 1656, 1800, 1950, 2106, 2268, 2436, 2610, 2790, 2976, 3168, 3366, 3570, 3780, 3996, 4218, 4446, 4680, 4920, 5166, 5418, 5676
a(n) = 6*n+a(n-1) with n>0, a(0)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 6, a(2) = 18. - Philippe Deléham, Mar 26 2013
[A034857] 1, 6, 18, 36, 61, 94, 136, 188, 251, 326, 414, 516, 633, 766, 916, 1084, 1271, 1478, 1706, 1956, 2229, 2526, 2848, 3196, 3571, 3974, 4406, 4868, 5361, 5886, 6444, 7036, 7663, 8326, 9026, 9764, 10541, 11358
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: x*(-1 +10*x -12*x^2 +4*x^3)/(1- x)^4. - Colin Barker, Sep 09 2012
[A101853] 6, 18, 37, 64, 100, 146, 203, 272, 354, 450, 561, 688, 832, 994, 1175, 1376, 1598, 1842, 2109, 2400, 2716, 3058, 3427, 3824, 4250, 4706, 5193, 5712, 6264, 6850, 7471, 8128, 8822, 9554, 10325, 11136, 11988, 12882, 13819, 14800
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 26 2012
[A005899] 1, 6, 18, 38, 66, 102, 146, 198, 258, 326, 402, 486, 578, 678, 786, 902, 1026, 1158, 1298, 1446, 1602, 1766, 1938, 2118, 2306, 2502, 2706, 2918, 3138, 3366, 3602, 3846, 4098, 4358, 4626, 4902, 5186, 5478, 5778, 6086, 6402, 6726, 7058, 7398, 7746, 8102, 8466
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), with a(0)=1, a(1)=6, a(2)=18, a(3)=38. - Harvey P. Dale, Nov 08 2011
[A180118] 0, 6, 18, 38, 68, 110, 166, 238, 328, 438, 570, 726, 908, 1118, 1358, 1630, 1936, 2278, 2658, 3078, 3540, 4046, 4598, 5198, 5848, 6550, 7306, 8118, 8988, 9918, 10910, 11966, 13088, 14278, 15538, 16870, 18276, 19758, 21318, 22958, 24680, 26486, 28378, 30358
a(n) = +4*a(n-1)-6*a(n-2)+4*a(n-3)-1*a(n-4) for n>=4.
a(n) = n*(n^2+6*n+11)/3.
[A129863] 6, 18, 39, 69, 108, 156, 213, 279, 354, 438, 531, 633, 744, 864, 993, 1131, 1278, 1434, 1599, 1773, 1956, 2148, 2349, 2559, 2778, 3006, 3243, 3489, 3744, 4008, 4281, 4563, 4854, 5154, 5463, 5781, 6108, 6444, 6789, 7143, 7506, 7878, 8259, 8649, 9048, 9456
a(n) = (9/2)*(n^2) + (15/2)*n + 6.
a(n) = (3n^2+5n+4)*(3/2). - Stefan Steinerberger, May 27 2007
[A002411] 0, 1, 6, 18, 40, 75, 126, 196, 288, 405, 550, 726, 936, 1183, 1470, 1800, 2176, 2601, 3078, 3610, 4200, 4851, 5566, 6348, 7200, 8125, 9126, 10206, 11368, 12615, 13950, 15376, 16896, 18513, 20230, 22050, 23976, 26011, 28158, 30420, 32800, 35301, 37926, 40678
a(n) = sum of n smallest multiples of n. - Amarnath Murthy, Sep 20 2002
a(n) = n*Sum_{k=0..n} (n-k) = n*Sum_{k=0..n} k. - Paul Barry, Jul 21 2003
a(0)=0, a(1)=1, a(2)=6, a(3)=18, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Oct 20 2011
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 3.
a(n) = binomial(n+2,3) + 2*binomial(n+1,3).
a(n) = 24/(n+3)!*Sum_{j=0..n} (-1)^(n-j)*binomial(n,j)*(j)^(n+3). - Vladimir Kruchinin, Jun 04 2013
[A059834] 0, 6, 18, 40, 76, 130, 206, 308, 440, 606, 810, 1056, 1348, 1690, 2086, 2540, 3056, 3638, 4290, 5016, 5820, 6706, 7678, 8740, 9896, 11150, 12506, 13968, 15540, 17226, 19030, 20956, 23008, 25190, 27506, 29960, 32556, 35298, 38190, 41236, 44440
a(n) = (2n^3 + 3n^2 + 13n)/3. For the matrix of order 2n, the formula is (4n^3 + 23n - 12)/6 (which is not integer-valued). - David Wasserman, May 24 2002
a(n) = sum(2*(k+1)^2+4, k=0..(n-1)). - Mike Warburton (mikewarb(AT)gmail.com), Sep 08 2007
[A015224] 0, 6, 18, 40, 126, 196, 288, 550, 726, 936, 1470, 1800, 2176, 3078, 3610, 4200, 5566, 6348, 7200, 9126, 10206, 11368, 13950, 15376, 16896, 20230, 22050, 23976, 28158, 30420, 32800, 37926, 40678, 43560, 49726, 53016, 56448, 63750, 67626, 71656
a(n) = a(n-1) +3*a(n-3) -3*a(n-4) -3*a(n-6) +3*a(n-7) +a(n-9) -a(n-10).
a(n) = 3*a(n-3) -3*a(n-6) +a(n-9) +192.
[A023620] 1, 6, 18, 41, 82, 152, 269, 462, 778, 1293, 2130, 3488, 5689, 9254, 15026, 24369, 39490, 63960, 103557, 167630, 271306, 439061, 710498, 1149696, 1860337, 3010182, 4870674, 7881017, 12751858, 20633048, 33385085, 54018318, 87403594, 141422109, 228825906
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: -x*(x+1)*(2*x+1) / ((x-1)^2*(x^2+x-1)). - Colin Barker, May 14 2014
[A009945] 1, 6, 18, 42, 74, 114, 162, 222, 290, 366, 450, 546, 650, 762, 882, 1014, 1154, 1302, 1458, 1626, 1802, 1986, 2178, 2382, 2594, 2814, 3042, 3282, 3530, 3786, 4050, 4326, 4610, 4902, 5202, 5514, 5834, 6162, 6498, 6846, 7202, 7566, 7938, 8322, 8714
a(0)=1, a(4n)=2*((6n)^2+1), a(4n+2)=18*(2n+1)^2, a(2n+1)=6*(3n^2+3n+1). - Ralf Stephan, Mar 07 2004
[A270683] 1, 6, 18, 42, 74, 126, 186, 274, 370, 502, 642, 826, 1018, 1262, 1514, 1826, 2146, 2534, 2930, 3402, 3882, 4446, 5018, 5682, 6354, 7126, 7906, 8794, 9690, 10702, 11722, 12866, 14018, 15302, 16594, 18026, 19466, 21054, 22650, 24402, 26162, 28086, 30018, 32122
a(n) = (9+3*(-1)^n+7*n-3*(-1)^n*n+18*n^2+2*n^3)/6 for n>0.
a(n) = (n^3+9*n^2+2*n+6)/3 for n>0 and even.
a(n) = (n^3+9*n^2+5*n+3)/3 for n odd.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>6.
[A011930] 0, 0, 0, 0, 1, 6, 18, 42, 84, 151, 252, 396, 594, 858, 1201, 1638, 2184, 2856, 3672, 4651, 5814, 7182, 8778, 10626, 12751, 15180, 17940, 21060, 24570, 28501, 32886, 37758, 43152, 49104, 55651, 62832, 70686, 79254, 88578, 98701
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-5) -4*a(n-6) +6*a(n-7) -4*a(n-8) +a(n-9). G.f.: x^4*(x^4+2*x^3+2*x+1) / ((1-x)^5*(x^4+x^3+x^2+x+1)). [From R. J. Mathar, Apr 15 2010]
[A068293] 1, 6, 18, 42, 90, 186, 378, 762, 1530, 3066, 6138, 12282, 24570, 49146, 98298, 196602, 393210, 786426, 1572858, 3145722, 6291450, 12582906, 25165818, 50331642, 100663290, 201326586, 402653178, 805306362, 1610612730, 3221225466, 6442450938, 12884901882
a(1)=1, a(2)=6, a(3)=18, a(n) = 3*a(n-1) - 2*a(n-2). - Harvey P. Dale, Nov 27 2011

[A184630] 1, 6, 18, 43, 83, 144, 228, 341, 486, 666, 887, 1152, 1464, 1829, 2250, 2730, 3275, 3888, 4572, 5333, 6174, 7098, 8111, 9216, 10416, 11717, 13122, 14634, 16259, 18000, 19860, 21845, 23958, 26202, 28583, 31104, 33768, 36581, 39546, 42666, 45947, 49392, 53004, 56789, 60750, 64890, 69215, 73728, 78432, 83333, 88434
a(n)=floor(1/{(6+n^4)^(1/4)}), where {}=fractional part.
[A128543] 1, 6, 18, 48, 120, 288, 672, 1536, 3456, 7680, 16896, 36864, 79872, 172032, 368640, 786432, 1671168, 3538944, 7471104, 15728640, 33030144, 69206016, 144703488, 301989888, 629145600, 1308622848, 2717908992, 5637144576
a(n) = 3*n*2^(n-2) for n>1. - R. J. Mathar, Oct 25 2011
a(n) = 4*a(n-1)-4*a(n-2) for n>3. G.f.: x*(1+2*x-2*x^2)/(1-2*x)^2. - Colin Barker, Mar 22 2012
[A099857] 1, 6, 18, 48, 126, 330, 864, 2262, 5922, 15504, 40590, 106266, 278208, 728358, 1906866, 4992240, 13069854, 34217322, 89582112, 234529014, 614004930, 1607485776, 4208452398, 11017871418, 28845161856, 75517614150, 197707680594
a(n)=0^n+6*Fib(2n).
[A086926] 0, 0, 1, 6, 18, 50, 120, 273, 588, 1224, 2475, 4895, 9504, 18174, 34307, 64050, 118440, 217192, 395352, 714951, 1285350, 2298660, 4091241, 7250221, 12797568, 22507500, 39452725, 68942718, 120132558, 208776974, 361937400, 626015085, 1080441264
a(n) = n/(n-2)*a(n-1) + n*(n-1))/((n-2)*(n-3))*a(n-2).
a(n) = Sum_{k=0..n-1} Sum_{i=0..n-1} i * C(n-k-1,k). - Wesley Ivan Hurt, Sep 19 2017
a(n) = ((-1)*(2^(-1-n)*((1-sqrt(5))^n - (1+sqrt(5))^n)*(-1+n)*n)) / sqrt(5).
a(n) = 3*a(n-1) - 5*a(n-3) + 3*a(n-5) + a(n-6) for n>5. (End)
[A099856] 1, 6, 18, 54, 162, 486, 1458, 4374, 13122, 39366, 118098, 354294, 1062882, 3188646, 9565938, 28697814, 86093442, 258280326, 774840978, 2324522934, 6973568802, 20920706406, 62762119218, 188286357654, 564859072962, 1694577218886
a(n) = 2*3^n - 0^n.
[A292295] 0, 0, 6, 18, 54, 174, 582, 1974, 6726, 22950, 78342, 267462, 913158, 3117702, 10644486, 36342534, 124081158, 423639558, 1446395910, 4938304518, 16860426246, 57565095942, 196539531270, 671027933190, 2291032670214, 7822074814470, 26706233917446, 91180786040838
a(n) = 5*a(n-1) - 6*a(n-2) + 2*a(n-3), n >= 4.
a(n) = (-3/2)*(-4 + (4-3*sqrt(2))*(2+sqrt(2))^n + (2-sqrt(2))^n*(4+3*sqrt(2))) for n>0.
[A027266] 1, 6, 18, 72, 180, 648, 1512, 5184, 11664, 38880, 85536, 279936, 606528, 1959552, 4199040, 13436928, 28553472, 90699264, 191476224, 604661760, 1269789696, 3990767616, 8344332288, 26121388032, 54419558400, 169789022208
a(0)=1, a(1)=6, a(2)=18, a(3)=72, a(n)=12*a(n-2)-36*a(n-4). - Harvey P. Dale, Jun 19 2015
[A242278] 0, 6, 18, 72, 216, 702, 2106, 6480, 19440, 58806, 176418, 530712, 1592136, 4780782, 14342346, 43040160, 129120480, 387400806, 1162202418, 3486725352, 10460176056, 31380882462, 94142647386, 282429005040, 847287015120, 2541864234006, 7625592702018, 22876787671992
a(n) = 1/2 * 3^(n/2) * ((sqrt(3)-1)*(-1)^n - sqrt(3)-1) + 3^n.
a(n) = 3^n - 3^ceiling(n/2).
[A279260] 0, 6, 18, 90, 330, 1386, 5418, 21930, 87210, 349866, 1397418, 5593770, 22366890, 89483946, 357903018, 1431677610, 5726579370, 22906579626, 91625794218, 366504225450, 1466014804650, 5864063412906, 23456245263018, 93824997829290, 375299957762730, 1501199898159786, 6004799458421418
a(n) = (-2*(1+((-2)^n)-(2^(2*n+1))))/3.
[A274499] 0, 0, 6, 18, 108, 324, 1458, 4374, 17496, 52488, 196830, 590490, 2125764, 6377292, 22320522, 66961566, 229582512, 688747536, 2324522934, 6973568802, 23245229340, 69735688020, 230127770466, 690383311398, 2259436291848, 6778308875544, 22029503845518, 66088511536554
a(n) = (1/6)*(2n - 1 + (-1)^n)*3^n.
[A235537] 6, 19, 23, 41, 49, 72, 84, 112, 128, 161, 181, 219, 243, 286, 314, 362, 394, 447, 483, 541, 581, 644, 688, 756, 804, 877, 929, 1007, 1063, 1146, 1206, 1294, 1358, 1451, 1519, 1617, 1689, 1792, 1868, 1976, 2056, 2169, 2253, 2371, 2459, 2582, 2674, 2802, 2898
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
[A041911] 1, 1, 6, 19, 25, 119, 1215, 1334, 3883, 9100, 40283, 89666, 219615, 309281, 3312425, 13558981, 16871406, 64173199, 337737401, 401910600, 17217982601, 17619893201, 105317448606, 333572239019, 438889687625, 2089130989519, 21330199582815, 23419330572334
a(n) = 17555720002*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Dec 27 2013
[A063233] 6, 19, 33, 45, 59, 71, 85, 97, 111, 123, 137, 149, 163, 175, 189, 201, 215, 227, 241, 253, 267, 279, 293, 305, 319, 331, 345, 357, 371, 383, 397, 409, 423, 435, 449, 461, 475, 487, 501, 513, 527, 539, 553, 565, 579, 591, 605, 617, 631, 643
a(n)=(13/2)-(1/2)*(-1)^(n-1)+13*(n-1)-(-1)^n-{C[2*(n-1),n-1] mod 2}, with n>=1 [From Paolo P. Lava, Nov 27 2009]
a(n+2)=a(n)+26 (n>1) ; a(2n+1)=a(2n)+14 (n>0) ; a(2n)=a(2n-1)+12 (n>1) ; a(n) = 13n - { 6 if n=2k+1, k>0; 7 else } ; G.f. = x*(6 + 13*x + 8*x^2 - x^3)/(1 - x - x^2 + x^3). - M. F. Hasler, Mar 05 2012
[A090381] 1, 6, 19, 36, 61, 90, 127, 168, 217, 270, 331, 396, 469, 546, 631, 720, 817, 918, 1027, 1140, 1261, 1386, 1519, 1656, 1801, 1950, 2107, 2268, 2437, 2610, 2791, 2976, 3169, 3366, 3571, 3780, 3997, 4218, 4447, 4680, 4921, 5166, 5419, 5676, 5941, 6210, 6487, 6768, 7057, 7350, 7651, 7956, 8269
a(2t) = 12t^2+6t+1, a(2t+1) = 12t^2+18t+6 (t >= 0).
a(n) = 3*n*(n+1)+(1+(-1)^n)/2. - Wesley Ivan Hurt, May 06 2016
[A179986] 0, 6, 19, 39, 66, 100, 141, 189, 244, 306, 375, 451, 534, 624, 721, 825, 936, 1054, 1179, 1311, 1450, 1596, 1749, 1909, 2076, 2250, 2431, 2619, 2814, 3016, 3225, 3441, 3664, 3894, 4131, 4375, 4626, 4884, 5149, 5421, 5700, 5986, 6279, 6579, 6886
a(n) = a(n-1)+7*n-1 for n>0, with a(0)=0. - Vincenzo Librandi, Feb 05 2011
a(0)=0, a(1)=6, a(2)=19; for n>2, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 19 2011
[A054567] 1, 6, 19, 40, 69, 106, 151, 204, 265, 334, 411, 496, 589, 690, 799, 916, 1041, 1174, 1315, 1464, 1621, 1786, 1959, 2140, 2329, 2526, 2731, 2944, 3165, 3394, 3631, 3876, 4129, 4390, 4659, 4936, 5221, 5514, 5815, 6124, 6441, 6766, 7099, 7440, 7789, 8146
a(n) = 8*n+a(n-1)-11 for n>1, a(1)=1. - Vincenzo Librandi, Aug 07 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: -x*(4*x^2+3*x+1) / (x-1)^3. - Colin Barker, Oct 25 2014
[A096957] 6, 19, 40, 70, 110, 161, 224, 300, 390, 495, 616, 754, 910, 1085, 1280, 1496, 1734, 1995, 2280, 2590, 2926, 3289, 3680, 4100, 4550, 5031, 5544, 6090, 6670, 7285, 7936, 8624, 9350, 10115, 10920, 11766, 12654, 13585, 14560, 15580, 16646, 17759, 18920
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Apr 19 2017
[A212684] 0, 1, 6, 19, 42, 79, 132, 205, 300, 421, 570, 751, 966, 1219, 1512, 1849, 2232, 2665, 3150, 3691, 4290, 4951, 5676, 6469, 7332, 8269, 9282, 10375, 11550, 12811, 14160, 15601, 17136, 18769, 20502, 22339, 24282, 26335, 28500, 30781, 33180
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = (2*n*(n+2)*(2*n-1)-(-1)^n+1)/8. [Bruno Berselli, Jun 07 2012]
[A005900] 0, 1, 6, 19, 44, 85, 146, 231, 344, 489, 670, 891, 1156, 1469, 1834, 2255, 2736, 3281, 3894, 4579, 5340, 6181, 7106, 8119, 9224, 10425, 11726, 13131, 14644, 16269, 18010, 19871, 21856, 23969, 26214, 28595, 31116, 33781, 36594, 39559, 42680
a(n) = 1^2 + 2^2 + ... + (n-1)^2 + n^2 + (n-1)^2 + ... + 2^2 + 1^2. - Amarnath Murthy, May 28 2001
a(n) = (((n+1)^5-n^5) - (n^5-(n-1)^5)))/30. - Xavier Acloque, Oct 17 2003
a(n) is the sum of the products pq, where p and q are both positive and odd and p + q = 2n, e.g., a(4) = 7*1 + 5*3 + 3*5 + 1*7 = 44. - Jon Perry, May 17 2005
a(n) = 4*binomial(n,3) + 4*binomial(n,2) + binomial(n,1). - Mitch Harris, Jul 06 2006
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), n>3. - Wesley Ivan Hurt, Sep 11 2015
[A005712] 1, 6, 19, 45, 90, 161, 266, 414, 615, 880, 1221, 1651, 2184, 2835, 3620, 4556, 5661, 6954, 8455, 10185, 12166, 14421, 16974, 19850, 23075, 26676, 30681, 35119, 40020, 45415, 51336, 57816, 64889, 72590, 80955, 90021, 99826, 110409, 121810, 134070
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). Vincenzo Librandi, Jun 16 2012
a(n) = GegenbauerC(N, -n, -1/2) where N = 4 if 4<n else 2*n-4. - Peter Luschny, May 10 2016
[A073362] 1, 6, 19, 48, 109, 234, 355, 552, 1009, 1518, 2371, 3804, 4141, 6342, 8803, 12096, 14389, 18438, 24043, 27720, 36397, 45366, 60499, 75876, 80137, 97566, 114931, 140892, 166321, 205926, 218587, 266664, 292429, 342006, 394651, 477336, 481429
a(n)=(1/5)[...[[[[n(2/1)](3/2)](4/3)](5/4)](7/6)]...(k+1)/k]..., k>0 (mod 5), where [x] = floor of x; this infinite nested floor product will eventually level-off at a(n).

[A095264] 1, 6, 19, 48, 109, 234, 487, 996, 2017, 4062, 8155, 16344, 32725, 65490, 131023, 262092, 524233, 1048518, 2097091, 4194240, 8388541, 16777146, 33554359, 67108788, 134217649, 268435374, 536870827, 1073741736, 2147483557
a(n+3) = 4*a(n+2) - 5*a(n+1) + 2*a(n).
a(n) = 2*a(n-1) + (3n-2). - Gary W. Adamson, Sep 30 2007
[A269059] 1, 6, 19, 48, 113, 258, 579, 1284, 2821, 6150, 13319, 28680, 61449, 131082, 278539, 589836, 1245197, 2621454, 5505039, 11534352, 24117265, 50331666, 104857619, 218103828, 452984853, 939524118, 1946157079, 4026531864, 8321499161, 17179869210, 35433480219, 73014444060
a(n) = 2*(2^n-1)+(n-2)*(2^(n-1)+1), for n>1.
[A286184] 6, 19, 56, 157, 430, 1171, 3204, 8857, 24794, 70303, 201712, 584677, 1708998, 5028715, 14873180, 44160817, 131499442, 392401207, 1172747208, 3508804477, 10506490526, 31477528579, 94344505396, 282848966857, 848161024650, 2543677767631, 7629355581344
a(n) = 3^n + (1+n)*2^n - n.
a(n) = 9*a(n-1)-31*a(n-2)+51*a(n-3)-40*a(n-4)+12*a(n-5). - Eric W. Weisstein, May 28 2017
[A238055] 6, 19, 58, 175, 526, 1579, 4738, 14215, 42646, 127939, 383818, 1151455, 3454366, 10363099, 31089298, 93267895, 279803686, 839411059, 2518233178, 7554699535, 22664098606, 67992295819, 203976887458, 611930662375, 1835791987126, 5507375961379, 16522127884138
a(n) = 3*a(n-1) + 1, a(0)=6.
a(n) = 4*a(n-1) - 3*a(n-2), a(0)=6, a(1)=19.
[A080926] 0, 1, 6, 19, 60, 181, 546, 1639, 4920, 14761, 44286, 132859, 398580, 1195741, 3587226, 10761679, 32285040, 96855121, 290565366, 871696099, 2615088300, 7845264901, 23535794706, 70607384119, 211822152360, 635466457081
a(n) = Sum{i=0..n, Sum{k=1..i, Binomial(i, 2k-2)2^(2k-2)}}
a(n) = (3*3^n+(-1)^n)/4-1.
a(n) = 3*a(n-1) + a(n-2) - 3*a(n-3) for n>2, a(0)=0, a(1)=1, a(2)=6. Observation by G. Detlefs. See my comment and link. [Wolfdieter Lang, Oct 18 2010]
[A041673] 1, 1, 6, 19, 63, 82, 555, 637, 2466, 8035, 42641, 50676, 1866977, 1917653, 11455242, 36283379, 120305379, 156588758, 1059837927, 1216426685, 4709117982, 15343780631, 81428021137, 96771801768, 3565212884785, 3661984686553, 21875136317550, 69287393639203
a(n) = 1909618*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 22 2013
[A137195] 1, 6, 19, 64, 185, 542, 1511, 4144, 11329, 29894, 80731, 207696, 556217, 1405566, 3741263, 9328928, 24716353, 60998086, 161022115, 394136864, 1037382905, 2522256670, 6622609463, 16012527312, 41958312193, 100973218566
a(n) = 12*a(n-2)-38*a(n-4)+12*a(n-6)-a(n-8).
[A123950] 0, 1, 1, 6, 19, 73, 264, 973, 3565, 13086, 48007, 176149, 646296, 2371321, 8700553, 31923030, 117128107, 429752305, 1576795176, 5785386229, 21227039605, 77883687150, 285761407807, 1048481205661, 3846960466104, 14114802199681, 51788325586033
a(n) = 3*a(n-1)+3*a(n-2)-2*a(n-3).
[A100191] 1, 6, 19, 73, 264, 973, 3565, 13086, 48007, 176149, 646296, 2371321, 8700553, 31923030, 117128107, 429752305, 1576795176, 5785386229, 21227039605, 77883687150, 285761407807, 1048481205661, 3846960466104, 14114802199681, 51788325586033, 190015462424934
a(n) = 3*a(n-1) + 3*a(n-2) - 2*a(n-3) (derived from the minimal polynomial of the matrix M).
[A191585] 1, 1, 6, 19, 74, 276, 1056, 4047, 15606, 60382, 234356, 911802, 3554864, 13883650, 54304788, 212687199, 833958918, 3273341382, 12859792932, 50562992490, 198954466524, 783371113152, 3086377703184, 12166795814166, 47987669811276, 189361785529476
a(n) = T(2*n,n), where T(n,k) = A...(n,k).
a(n) = sum(binomial(2*n-2*i-1,n-2*i)*3^i,i=0..n/2).
[A002943] 0, 6, 20, 42, 72, 110, 156, 210, 272, 342, 420, 506, 600, 702, 812, 930, 1056, 1190, 1332, 1482, 1640, 1806, 1980, 2162, 2352, 2550, 2756, 2970, 3192, 3422, 3660, 3906, 4160, 4422, 4692, 4970, 5256, 5550
a(n) = 4*n^2 + 2*n.
a(n) = floor((2*n + 1/2)^2). - Reinhard Zumkeller, Feb 20 2010
a(n) = 8*n+a(n-1) - 2 with a(0)=0. - Vincenzo Librandi, Jul 20 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Aug 11 2011
[A068377] 1, 6, 20, 42, 72, 110, 156, 210, 272, 342, 420, 506, 600, 702, 812, 930, 1056, 1190, 1332, 1482, 1640, 1806, 1980, 2162, 2352, 2550, 2756, 2970, 3192, 3422, 3660, 3906, 4160, 4422, 4692, 4970, 5256, 5550, 5852, 6162, 6480, 6806, 7140, 7482, 7832, 8190
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>4.
[A009946] 1, 6, 20, 42, 74, 114, 164, 222, 290, 366, 452, 546, 650, 762, 884, 1014, 1154, 1302, 1460, 1626, 1802, 1986, 2180, 2382, 2594, 2814, 3044, 3282, 3530, 3786, 4052, 4326, 4610, 4902, 5204, 5514, 5834, 6162, 6500, 6846, 7202, 7566, 7940, 8322, 8714
a(0)=1, a(4n)=2*((6n)^2+1), a(4n+2)=18*(2n+1)^2+2, a(2n+1)=6*(3n^2+3n+1). - Ralf Stephan, Mar 07 2004
a(n) = (7+(-1)^n+18*n^2)/4 for n>0.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>4.
[A006137] 1, 6, 20, 43, 75, 116, 166, 225, 293, 370, 456, 551, 655, 768, 890, 1021, 1161, 1310, 1468, 1635, 1811, 1996, 2190, 2393, 2605, 2826, 3056, 3295, 3543, 3800, 4066, 4341, 4625, 4918, 5220, 5531, 5851, 6180
a(n)=3*a(n-1)-3*a(n-2)+a(n-3), with a(0)=1, a(1)=6 and a(2)=20. - Paolo P. Lava, Jul 17 2009
a(n)=a(n-1)+9*n-4 (with a(0)=1) [From Vincenzo Librandi, Nov 18 2010]
[A005564] 6, 20, 45, 84, 140, 216, 315, 440, 594, 780, 1001, 1260, 1560, 1904, 2295, 2736, 3230, 3780, 4389, 5060, 5796, 6600, 7475, 8424, 9450, 10556, 11745, 13020, 14384, 15840, 17391, 19040, 20790, 22644, 24605, 26676, 28860, 31160, 33579, 36120, 38786, 41580, 44505
a(n) = sum(k*(n+1), k=2..n, n>=2. - Zerinvary Lajos, Jan 29 2008
a(n) = 4*binomial(n+4,2)*binomial(n+4,4)/binomial(n+4,3) = (n+1)*binomial(n+4,2). - Gary Detlefs, Dec 08 2011 [corrected by R. J. Mathar, Dec 09 2011]
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 18 2012
[A203552] 0, 1, 6, 20, 48, 95, 166, 266, 400, 573, 790, 1056, 1376, 1755, 2198, 2710, 3296, 3961, 4710, 5548, 6480, 7511, 8646, 9890, 11248, 12725, 14326, 16056, 17920, 19923, 22070, 24366, 26816, 29425, 32198, 35140, 38256, 41551, 45030, 48698
a(n) = sum_{k = 1..n} A(k-1, n-k) where A(i, j) = i^2 + i*j + j^2 + i + j + 1.
[A216175] 1, 6, 20, 50, 104, 193, 329, 526, 800, 1169, 1652, 2271, 3049, 4011, 5184, 6597, 8280, 10266, 12589, 15285, 18392, 21950, 26000, 30586, 35753, 41548, 48020, 55220, 63200, 72015, 81721, 92376, 104040, 116775, 130644, 145713, 162049, 179721, 198800, 219359
a(n) = (1/288)*(7+9*(-1)^n-16*(-1)^(n mod 3)+24*n+124*n^2+104*n^3+22*n^4).
[A002415] 0, 0, 1, 6, 20, 50, 105, 196, 336, 540, 825, 1210, 1716, 2366, 3185, 4200, 5440, 6936, 8721, 10830, 13300, 16170, 19481, 23276, 27600, 32500, 38025, 44226, 51156, 58870, 67425, 76880, 87296, 98736, 111265, 124950, 139860, 156066, 173641, 192660, 213200, 235340
a(n) = 2*C(n+2, 4) - C(n+1, 3). - Paul Barry, Mar 04 2003
a(n) = C(n+2, 4) + C(n+3, 4). - Paul Barry, Mar 13 2003
a(n) = n*C(n+1,3)/2 = C(n+1,3)*C(n+1,2)/(n+1). - Mitch Harris, Jul 06 2006
a(n) = 1/2*sum {1 <= x_1, x_2 <= n} (det V(x_1,x_2))^2 = 1/2*sum {1 <= i,j <= n} (i-j)^2, where V(x_1,x_2) is the Vandermonde matrix of order 2. - Peter Bala, Sep 21 2007
a(n) = C(n+1,3) + 2*C(n+1,4). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
a(n) = (1/48)sinh(2*arccosh(n))^2. - Artur Jasinski, Feb 10 2010
[A213586] 1, 6, 20, 51, 112, 224, 421, 758, 1324, 2263, 3808, 6336, 10457, 17158, 28036, 45675, 74256, 120544, 195485, 316790, 513116, 830831, 1344960, 2176896, 3523057, 5701254, 9225716, 14928483, 24155824, 39086048, 63243733, 102331766
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A275112] 0, 1, 6, 20, 52, 112, 215, 375, 613, 948, 1407, 2013, 2799, 3793, 5034, 6554, 8398, 10603, 13220, 16290, 19870, 24006, 28761, 34185, 40347, 47302, 55125, 63875, 73633, 84463, 96452, 109668, 124204, 140133, 157554, 176544, 197208, 219628, 243915, 270155, 298465, 328936, 361691, 396825, 434467, 474717, 517710, 563550, 612378, 664303, 719472
a(n) = (28*n^4+36*n^3+18*n^2+12*n+(1-(-1)^n))/16 for n even.
a(n) = (28*n^4+92*n^3+114*n^2+68*n+17-(-1)^n)/16 for n odd.
a(n) = (14*n^4+36*n^3+36*n^2+42*n+11+3*(2*n-1)*(-1)^n-8*(-1)^(((2*n-1+(-1)^n))/4))/128.

[A027178] 1, 6, 20, 52, 120, 260, 544, 1116, 2264, 4564, 9168, 18380, 36808, 73668, 147392, 294844, 589752, 1179572, 2359216, 4718508, 9437096, 18874276, 37748640, 75497372, 150994840, 301989780, 603979664, 1207959436, 2415918984
a(n) = 9*2^n - 4n - 8 (conjectured). - Ralf Stephan, Feb 13 2004
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3) for n>2.
[A213589] 1, 6, 20, 55, 135, 308, 668, 1395, 2830, 5610, 10914, 20904, 39515, 73860, 136720, 250937, 457137, 827260, 1488190, 2662905, 4741946, 8407236, 14846100, 26120400, 45801925, 80064018, 139553708, 242597035, 420678315, 727792580
a(n) = 3*a(n-1) - 5*a(n-3) + 3*a(n-5) + a(n-6).
a(n) = (n+1)/2*sum_{j=0..(n+1)/2}((n-j)*binomial(n-j+1,j)). - Vladimir Kruchinin, Apr 09 2016
[A014480] 1, 6, 20, 56, 144, 352, 832, 1920, 4352, 9728, 21504, 47104, 102400, 221184, 475136, 1015808, 2162688, 4587520, 9699328, 20447232, 42991616, 90177536, 188743680, 394264576, 822083584, 1711276032, 3556769792, 7381975040, 15300820992
a(n) = 3*a(n-1) - 2^(n-1)*(2*n-5) with a(0) = 1.
a(n) = 3*a(n-1) - 2*a(n-2) + 2^n with a(0) = 1 and a(1) = 6.
[A048778] 1, 6, 20, 56, 145, 362, 888, 2160, 5233, 12654, 30572, 73832, 178273, 430418, 1039152, 2508768, 6056737, 14622294, 35301380, 85225112, 205751665, 496728506, 1199208744, 2895146064, 6989500945, 16874148030, 40737797084, 98349742280, 237437281729, 573224305826, 1383885893472
a(n)=2*a(n-1)+a(n-2)+3*n+1; a(0)=1, a(1)=6.
a(n)=[{(13/2+(9/2)*sqrt(2))(1+sqrt(2))^n - (13/2-(9/2)*sqrt(2))(1-sqrt(2))^n}/2*sqrt(2)]-(3*n+7)/2.
[A292480] 0, 1, 6, 20, 56, 160, 480, 1456, 4384, 13136, 39360, 118064, 354272, 1062928, 3188736, 9565936, 28697632, 86093264, 258280512, 774841520, 2324523104, 6973567888, 20920705152, 62762119792, 188286360736, 564859074896, 1694577214656, 5083731648560
a(n) = 4*a(n-1) - 5*a(n-2) + 6*a(n-3) for n >= 5.
[A127982] 1, 6, 20, 57, 147, 360, 850, 1959, 4433, 9894, 21840, 47781, 103759, 223908, 480590, 1026723, 2184525, 4631202, 9786700, 20621985, 43341131, 90876576, 190141770, 397060767, 827675977, 1722460830, 3579139400, 7426714269, 15390299463
a(n) = (n - 1/3)2^(n) - n/2 + 1/4 + (-1)^n/12
[A212689] 0, 0, 0, 6, 20, 58, 124, 244, 424, 700, 1080, 1610, 2300, 3206, 4340, 5768, 7504, 9624, 12144, 15150, 18660, 22770, 27500, 32956, 39160, 46228, 54184, 63154, 73164, 84350, 96740, 110480, 125600, 142256, 160480, 180438, 202164, 225834
a(n)=3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
[A027984] 1, 6, 20, 58, 161, 436, 1165, 3088, 8146, 21426, 56255, 147538, 386681, 1013026, 2653240, 6948058, 18193141, 47634936, 124717445, 326526748, 854877926, 2238131506, 5859556195, 15340601158, 40162350961, 105146619486, 275277778940
a(n) = 4*a(n-1)-3*a(n-2)-2*a(n-3)+a(n-4).
[A018808] 0, 0, 6, 20, 62, 140, 306, 536, 938, 1492, 2306, 3296, 4722, 6460, 8830, 11568, 14946, 18900, 23926, 29544, 36510, 44388, 53586, 63648, 75674, 88948, 104374, 121032, 139966, 160636, 184466, 209944, 239050, 270588, 305478, 342480, 383370, 427020
a(0) = L(0,1) = R1(0) = 0, a(n) = L(n,n) = 2L(n-1,n) - L(n-1,n-1) + R1(n), L(n-1,n) = 2L(n-1,n-1) - L(n-2,n-1) + R2(n), R1(n) = R1(n-1) + 4(phi(n-1) - e(n)), e(n)=0, n even, e(n) = phi((n-1)/2), n odd, R2(n) = (n-1)phi(n-1), n even, R2(n)=(n-1)phi(n-1)/2, n=1 mod 4, R2(n)=0, n=3 mod 4. - Seppo Mustonen, Apr 25 2009
[A074353] 0, 0, 0, 0, 6, 20, 70, 196, 542, 1396, 3526, 8628, 20766, 49092, 114598, 264356, 603998, 1368148, 3076166, 6870740, 15256158, 33696804, 74073510, 162127940, 353460766, 767816500, 1662394310, 3588252916, 7723318942, 16580031876, 35506388646, 75864499428
a(0)=0 for n>0, a(n) = (1/81)*(2^(n-1)*(6*n^2-43) + (-1)^n*(6*n^2-24*n+62)). - Benoit Cloitre, Jan 16 2003
a(n) = 3*a(n-1) + 3*a(n-2) - 11*a(n-3) - 6*a(n-4) + 12*a(n-5) + 8*a(n-6) for n>7.
[A235367] 0, 6, 20, 72, 156, 342, 600, 1056, 1640, 2550, 3660, 5256, 7140, 9702, 12656, 16512, 20880, 26406, 32580, 40200, 48620, 58806, 69960, 83232, 97656, 114582, 132860, 154056, 176820, 202950, 230880, 262656, 296480, 334662, 375156, 420552, 468540, 522006, 578360, 640800, 706440, 778806
a(n) = (n^4 + 2n^2)/4 if n is even, a(n) = (n^4 - 1)/4 if n is odd.
a(n) = ((n^2 - (n^2 mod 2))/4)(n^2 + 2 - (n^2 mod 2)). - Alonso del Arte, Jan 16 2014
[A246036] 1, 6, 20, 88, 336, 1376, 5440, 21888, 87296, 349696, 1397760, 5593088, 22368256, 89481216, 357908480, 1431666688, 5726601216, 22906535936, 91625881600, 366504050688, 1466015154176, 5864062713856, 23456246661120, 93824995033088, 375299963355136, 1501199886974976, 6004799480791040, 2401919805738
a(n) = 2*a(n-1) + 8*a(n-2).
a(n) = (4^(1+n)-(-2)^n)/3. - Colin Barker, Aug 22 2014
[A180857] 1, 6, 21, 44, 85, 138, 217, 312, 441, 590, 781, 996, 1261, 1554, 1905, 2288, 2737, 3222, 3781, 4380, 5061, 5786, 6601, 7464, 8425, 9438, 10557, 11732, 13021, 14370, 15841, 17376, 19041, 20774, 22645, 24588, 26677, 28842, 31161, 33560, 36121, 38766
a(n) = n(n^2+2n-2)/2 if n is even; a(n) = n(n^2+2n-1)/2 if n is odd.
a(n) = n*(-3-(-1)^n+4*n+2*n^2)/4. - Colin Barker, Oct 31 2012
[A081266] 0, 6, 21, 45, 78, 120, 171, 231, 300, 378, 465, 561, 666, 780, 903, 1035, 1176, 1326, 1485, 1653, 1830, 2016, 2211, 2415, 2628, 2850, 3081, 3321, 3570, 3828, 4095, 4371, 4656, 4950, 5253, 5565, 5886, 6216, 6555, 6903, 7260, 7626, 8001, 8385, 8778, 9180
a(n) = 6*C(n,1) + 9*C(n,2).
a(n) = 3*n*(3*n+1)/2.
a(n) = 9*n+a(n-1)-3 for n>0, a(0)=0. - Vincenzo Librandi, Aug 08 2010
a(n) = sum((-1)^(n+k)*k^2, k=0..3n). - Bruno Berselli, Aug 29 2013
[A212656] 1, 6, 21, 46, 81, 126, 181, 246, 321, 406, 501, 606, 721, 846, 981, 1126, 1281, 1446, 1621, 1806, 2001, 2206, 2421, 2646, 2881, 3126, 3381, 3646, 3921, 4206, 4501, 4806, 5121, 5446, 5781, 6126, 6481, 6846, 7221, 7606, 8001, 8406, 8821, 9246, 9681, 10126, 10581, 11046, 11521, 12006, 12501
a(n) = 5*n^2 + 1 = (1 + n*sqrt(-5))*(1 - n*sqrt(-5)).
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 10 2012
[A051941] 6, 21, 46, 82, 130, 191, 266, 356, 462, 585, 726, 886, 1066, 1267, 1490, 1736, 2006, 2301, 2622, 2970, 3346, 3751, 4186, 4652, 5150, 5681, 6246, 6846, 7482, 8155, 8866, 9616, 10406, 11237, 12110, 13026, 13986, 14991, 16042, 17140, 18286, 19481
a(n)=1/6*(n-7)*(n^2+10*n-108)
[A267370] 0, 6, 21, 48, 90, 150, 231, 336, 468, 630, 825, 1056, 1326, 1638, 1995, 2400, 2856, 3366, 3933, 4560, 5250, 6006, 6831, 7728, 8700, 9750, 10881, 12096, 13398, 14790, 16275, 17856, 19536, 21318, 23205, 25200, 27306, 29526, 31863, 34320, 36900, 39606, 42441, 45408, 48510
a(n) = n*(n + 1)*(n + 5)/2.
[A213388] 1, 6, 21, 48, 93, 158, 249, 368, 521, 710, 941, 1216, 1541, 1918, 2353, 2848, 3409, 4038, 4741, 5520, 6381, 7326, 8361, 9488, 10713, 12038, 13469, 15008, 16661, 18430, 20321, 22336, 24481, 26758, 29173, 31728, 34429, 37278, 40281, 43440, 46761, 50246, 53901
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = (8*n^3+30*n^2+28*n+3*((-1)^n+3))/12.
a(n) = (4*n^3+15*n^2+14*n+6)/6 for n even.
a(n) = (4*n^3+15*n^2+14*n+3)/6 for n odd.
[A263418] 1, 6, 21, 51, 106, 201, 361, 626, 1061, 1771, 2926, 4801, 7841, 12766, 20741, 33651, 54546, 88361, 143081, 231626, 374901, 606731, 981846, 1588801, 2570881, 4159926, 6731061, 10891251, 17622586, 28514121, 46137001, 74651426, 120788741, 195440491, 316229566
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4) for n>3.
a(n) = -14 + 2^(-1-n)*((25-11*sqrt(5))*(1-sqrt(5))^n + (1+sqrt(5))^n*(25+11*sqrt(5))) - 10*(1+n). - Colin Barker, Mar 12 2017
[A097124] 1, 1, 1, 6, 21, 51, 126, 351, 981, 2646, 7101, 19251, 52326, 141831, 384021, 1040526, 2820501, 7644051, 20713806, 56132271, 152119701, 412245126, 1117169901, 3027492531, 8204438646, 22233857751, 60253212501, 163284696126
a(n) = 3*a(n-1)-3*a(n-2)+6*a(n-3).
a(n) = Sum{k=0..floor(n/3)} binomial(n, 3k)*5^k.
[A069778] 1, 6, 21, 52, 105, 186, 301, 456, 657, 910, 1221, 1596, 2041, 2562, 3165, 3856, 4641, 5526, 6517, 7620, 8841, 10186, 11661, 13272, 15025, 16926, 18981, 21196, 23577, 26130, 28861, 31776, 34881, 38182, 41685, 45396, 49321, 53466, 57837, 62440, 67281, 72366
a(n) = (n + 1)*(n^2 + n + 1).
a(n) = n^8 mod (n^3+n), with offset 1..a(1)=1. - Gary Detlefs, May 02 2010
a(n) = 4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4), n>3. - Harvey P. Dale, Jul 11 2011

[A238702] 1, 6, 21, 55, 119, 227, 396, 645, 996, 1474, 2106, 2922, 3955, 5240, 6815, 8721, 11001, 13701, 16870, 20559, 24822, 29716, 35300, 41636, 48789, 56826, 65817, 75835, 86955, 99255, 112816, 127721, 144056, 161910, 181374, 202542, 225511, 250380, 277251, 306229
a(n) = (1/9)*n^4 + (1/3)*n^3 + (5/18)*n^2 + (1/6)*n + O(1). - Ralf Stephan, May 29 2014
[A002817] 0, 1, 6, 21, 55, 120, 231, 406, 666, 1035, 1540, 2211, 3081, 4186, 5565, 7260, 9316, 11781, 14706, 18145, 22155, 26796, 32131, 38226, 45150, 52975, 61776, 71631, 82621, 94830, 108345, 123256, 139656, 157641, 177310, 198765, 222111, 247456, 274911, 304590
a(n) = 3*binomial(n+2, 4) + binomial(n+1, 2).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + 3. - Warut Roonguthai, Dec 13 1999
a(n) = Sum(Sum(1 + Sum(3*n))). - Xavier Acloque, Jan 21 2003
a(n) = (n^4 - 2*n^3 + 3*n^2 + 2*n)/8;
a(n) = ((n-1)^4 + 3*(n-1)^3 + 2*(n-1)^2 + 2*n))/8. - Bruce J. Nicholson, Apr 05 2017
a(n) = a(-1-n) for all n in Z. - Michael Somos, Apr 17 2017
[A050190] 0, 6, 21, 56, 126, 250, 462, 792, 1287, 2002, 3000, 4368, 6188, 8568, 11628, 15500, 20349, 26334, 33649, 42504, 53125, 65780, 80730, 98280, 118755, 142500, 169911, 201376, 237336, 278256, 324625, 376992, 435897, 501942
a(n) = n*floor(C(n-1, 4)/5). (End)
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + 2*a(n-5) - 8*a(n-6) + 12*a(n-7) - 8*a(n-8) + 2*a(n-9) - a(n-10) + 4*a(n-11) - 6*a(n-12) + 4*a(n-13) - a(n-14). - R. J. Mathar, May 20 2013
[A008498] 1, 6, 21, 56, 126, 251, 456, 771, 1231, 1876, 2751, 3906, 5396, 7281, 9626, 12501, 15981, 20146, 25081, 30876, 37626, 45431, 54396, 64631, 76251, 89376, 104131, 120646, 139056, 159501, 182126
a(n) = C(n,0) + 5*C(n,1) + 10*C(n,2) + 10*C(n,3) + 5*C(n,4). - Paul Barry, Jul 01 2003
a(n) = (5*n^4 + 10*n^3 + 55*n^2 + 50*n + 24)/24. - Paul Barry, Jul 01 2003
a(n) = binomial(n+5,5) - binomial(n,5). - Zerinvary Lajos, Jul 21 2006
[A120478] 6, 21, 56, 126, 252, 461, 786, 1266, 1946, 2877, 4116, 5726, 7776, 10341, 13502, 17346, 21966, 27461, 33936, 41502, 50276, 60381, 71946, 85106, 100002, 116781, 135596, 156606, 179976, 205877, 234486, 265986, 300566, 338421, 379752, 424766
a(0)=6, a(1)=21, a(2)=56, a(3)=126, a(4)=252, a(n)=5a(n-1)-10a(n-2)+ 10a(n-3)-5a(n-4)+a(n-5) [From Harvey P. Dale, May 04 2011]
[A008488] 1, 6, 21, 56, 126, 252, 461, 786, 1266, 1946, 2877, 4116, 5726, 7776, 10341, 13502, 17346, 21966, 27461, 33936, 41502, 50276, 60381, 71946, 85106, 100002, 116781, 135596, 156606, 179976, 205877, 234486, 265986, 300566, 338421, 379752, 424766, 473676, 526701
a(n) = 2+n^4/4+15*n^2/4 for n>0. - R. J. Mathar, Jan 27 2009
[A000389] 0, 0, 0, 0, 0, 1, 6, 21, 56, 126, 252, 462, 792, 1287, 2002, 3003, 4368, 6188, 8568, 11628, 15504, 20349, 26334, 33649, 42504, 53130, 65780, 80730, 98280, 118755, 142506, 169911, 201376, 237336, 278256, 324632, 376992, 435897, 501942, 575757, 658008, 749398
a(n) = n*(n-1)*(n-2)*(n-3)*(n-4)/120.
a(n) = (n^5-10*n^4+35*n^3-50*n^2+24*n)/120. (Replace all x_i's in the cycle index by n.)
a(n+2) = Sum_{i+j+k=n} i*j*k. - Benoit Cloitre, Nov 01 2002
a(n) = -a(4-n) for all n in Z. - Michael Somos, Oct 07 2014
[A140228] 1, 6, 21, 56, 126, 252, 463, 798, 1308, 2058, 3129, 4620, 6650, 9360, 12915, 17506, 23352, 30702, 39837, 51072, 64758, 81284, 101079, 124614, 152404, 185010, 223041, 267156, 318066, 376536, 443387
a(n)=n(274+85n+n^4)/60 for n>=1. G.f.=(1+x^6)/(1-x)^6. - Emeric Deutsch, Jun 03 2008
[A290993] 0, 0, 0, 0, 0, 1, 6, 21, 56, 126, 252, 463, 804, 1365, 2366, 4368, 8736, 18565, 40410, 87381, 184604, 379050, 758100, 1486675, 2884776, 5592405, 10919090, 21572460, 43144920, 87087001, 176565486, 357913941, 723002336, 1453179126, 2906358252, 5791193143
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) for n>5. Corrected by Colin Barker, Aug 24 2017
[A100356] 0, 0, 0, 0, 0, 1, 6, 21, 56, 126, 252, 504, 924, 1584, 2574, 4004, 6006, 9009, 13104, 18564, 25704, 34884, 46512, 62016, 81396, 105336, 134596, 170016, 212520, 265650, 328900, 403650, 491400, 593775, 712531, 855037, 1019467, 1208257, 1424017
a(n) = max(a(k) + k*choose(n-k, 5), 1 <= k < n)
[A145134] 0, 1, 6, 21, 56, 127, 259, 490, 876, 1498, 2472, 3963, 6204, 9522, 14374, 21397, 31477, 45844, 66203, 94915, 135247, 191717, 270570, 380435, 533232, 745424, 1039745, 1447585, 2012282, 2793666, 3874331, 5368292, 7432934, 10285505, 14225881, 19667988, 27183173
a(n) = 6a(n-1) -15a(n-2) +20a(n-3) -14a(n-4) +a(n-5) +9a(n-6) -10a(n-7) +5a(n-8) -a(n-9).
[A247904] 1, 6, 21, 56, 131, 286, 601, 1236, 2511, 5066, 10181, 20416, 40891, 81846, 163761, 327596, 655271, 1310626, 2621341, 5242776, 10485651, 20971406, 41942921, 83885956, 167772031, 335544186, 671088501, 1342177136, 2684354411, 5368708966, 10737418081
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3). - Colin Barker, Sep 26 2014
[A053809] 1, 6, 21, 57, 133, 281, 554, 1039, 1878, 3302, 5686, 9638, 16143, 26796, 44179, 72471, 118435, 193015, 313920, 509805, 827036, 1340636, 2171996, 3517532, 5695053, 9218786, 14920769, 24147269, 39076593, 63233317, 102320326
a(n) = a(n-1) + a(n-2) + (2n+3)C(n+2, 2)/3; a(-x)=0.
a(n) = (1/6) (6*Fibonacci(n+9) - (2n^3 + 27n^2 + 145n + 324)).
[A290891] 0, 0, 1, 6, 21, 57, 138, 330, 827, 2175, 5826, 15519, 40836, 106584, 277696, 724968, 1897380, 4972113, 13029534, 34125561, 89336141, 233831262, 612074526, 1602358863, 4195173507, 10983645498, 28756340047, 75285234408, 197097337248, 516002648064
a(n) = 6*a(n-1) - 15*a(n-2) + 21*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A047520] 0, 1, 6, 21, 58, 141, 318, 685, 1434, 2949, 5998, 12117, 24378, 48925, 98046, 196317, 392890, 786069, 1572462, 3145285, 6290970, 12582381, 25165246, 50331021, 100662618, 201325861, 402652398, 805305525, 1610611834, 3221224509
a(n) = 2^n*sum_{i=1..n} i^2 / 2^i. - Benoit Cloitre, Jan 27 2002
a(0)=0, a(1)=1, a(2)=6, a(3)=21, a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4). - Harvey P. Dale, Aug 21 2011
[A294836] 1, 1, 6, 21, 58, 178, 494, 1365, 3640, 9533, 24401, 61384, 151958, 370335, 890565, 2113913, 4959199, 11505799, 26420628, 60082005, 135386341, 302448477, 670148898, 1473387787, 3215519032, 6968266907, 14999453058, 32079714584, 68187859040, 144083404856, 302727633735, 632579826174
a(0) = 1 and a(n) = (1/n) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d^2*(2*d-1)*(-1)^(1+n/d). - Seiichi Manyama, Nov 14 2017
[A066524] 0, 1, 6, 21, 60, 155, 378, 889, 2040, 4599, 10230, 22517, 49140, 106483, 229362, 491505, 1048560, 2228207, 4718574, 9961453, 20971500, 44040171, 92274666, 192937961, 402653160, 838860775, 1744830438, 3623878629, 7516192740, 15569256419, 32212254690
a(n) = n * sum_{j = 1..n} C(n,j), n >= 0. - Zerinvary Lajos, May 10 2007
[A113070] 1, 6, 21, 60, 156, 384, 912, 2112, 4800, 10752, 23808, 52224, 113664, 245760, 528384, 1130496, 2408448, 5111808, 10813440, 22806528, 47972352, 100663296, 210763776, 440401920, 918552576, 1912602624, 3976200192, 8254390272, 17112760320
a(0)=1, a(1)=6, a(2)=21, For n>2, a(n)=4*a(n-1)-4*a(n-2) [From Harvey P. Dale, May 20 2011]
[A048476] 1, 6, 21, 61, 161, 401, 961, 2241, 5121, 11521, 25601, 56321, 122881, 266241, 573441, 1228801, 2621441, 5570561, 11796481, 24903681, 52428801, 110100481, 230686721, 482344961, 1006632961, 2097152001, 4362076161, 9059696641, 18790481921, 38923141121
a(n) = 5*n * 2^(n-1) + 1.
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3) for n>2. G.f.: (1+x-x^2) / ((1-x)*(1-2*x)^2). - Colin Barker, Feb 18 2016
[A122678] 1, 6, 21, 61, 166, 441, 1161, 3046, 7981, 20901, 54726, 143281, 375121, 982086, 2571141, 6731341, 17622886, 46137321, 120789081, 316229926, 827900701, 2167472181, 5674515846, 14856075361, 38893710241, 101825055366, 266581455861, 697919312221, 1827176480806
a(n) = 2^(-1-n)*(-2^(3+n)-(-5+sqrt(5))*(3+sqrt(5))^n+(3-sqrt(5))^n*(5+sqrt(5))).
a(n) = 4*a(n-1)-4*a(n-2)+a(n-3) for n>3. (End)
[A291226] 6, 21, 62, 168, 426, 1029, 2394, 5403, 11892, 25626, 54228, 112958, 232056, 470904, 945152, 1878351, 3699666, 7227807, 14015538, 26991978, 51654946, 98275461, 185958162, 350093468, 655988730, 1223722623, 2273327418, 4206691146, 7755620994, 14248825833
a(n) = 6*a(n-1) - 9*a(n-2) - 10*a(n-3) + 30*a(n-4) + 6*a(n-5) - 41*a(n-6) - 6*a(n-7) + 30*a(n-8) + 10*a(n-9) - 9*a(n-10) - 6*a(n-11) - a(n-12) for n >= 13.
[A134931] 1, 6, 21, 66, 201, 606, 1821, 5466, 16401, 49206, 147621, 442866, 1328601, 3985806, 11957421, 35872266, 107616801, 322850406, 968551221, 2905653666, 8716961001, 26150883006, 78452649021, 235357947066, 706073841201, 2118221523606
a(n) = 3*(a(n-1)+1), with a(0)=1.
[A191597] 0, 1, 6, 21, 85, 342, 1365, 5461, 21846, 87381, 349525, 1398102, 5592405, 22369621, 89478486, 357913941, 1431655765, 5726623062, 22906492245, 91625968981, 366503875926, 1466015503701, 5864062014805, 23456248059222, 93824992236885, 375299968947541

a(n) = 3*a(n-1) + 3*a(n-2) + 4*a(n-3), n >= 3.
a(n+3) - a(n) = 21*4^n.
a(n) = 1/3*4^n - 1/6*((-1/2-(1/2*i)*sqrt(3))^n + (-1/2 +(1/2*i)*sqrt(3))^n) + (1/6*i)*sqrt(3)*((-1/2+(1/2*I)*sqrt(3))^n - (-1/2-(1/2*i)*sqrt(3))^n), with n >= 0 and i = sqrt(-1). - Paolo P. Lava, Jul 01 2011
[A078118] 1, 6, 22, 25, 28, 30, 40, 42, 46, 52, 58, 60, 68, 70, 72, 78, 87, 88, 96, 98, 102, 105, 106, 112, 114, 122, 126, 128, 130, 133, 138, 145, 148, 150, 156, 162, 166, 172, 178, 182, 190, 192, 196, 198, 212, 213, 217, 218, 222, 225, 226, 228, 232, 238, 240, 250, 262
a(n) seems to be asymptotic to c*n with c=4.8....
[A264043] 6, 22, 35, 46, 62, 74, 82, 115, 155, 166, 206, 259, 262, 295, 323, 355, 358, 362, 395, 466, 478, 482, 502, 511, 559, 562, 583, 586, 611, 623, 626, 671, 703, 718, 731, 734, 746, 755, 763, 799, 835, 838, 862, 866, 886, 895, 914, 923, 955, 979, 982
a(n) » n log n. - Charles R Greathouse IV, Nov 02 2015
[A202803] 0, 6, 22, 48, 84, 130, 186, 252, 328, 414, 510, 616, 732, 858, 994, 1140, 1296, 1462, 1638, 1824, 2020, 2226, 2442, 2668, 2904, 3150, 3406, 3672, 3948, 4234, 4530, 4836, 5152, 5478, 5814, 6160, 6516, 6882, 7258, 7644, 8040, 8446, 8862, 9288, 9724, 10170
a(n) = 5*n^2 + n.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 6, a(2) = 22. - Philippe Deléham, Mar 27 2013
a(n) = (n+1)^3 - (1 + n + n*(n-1) + n*(n-1)*(n-2)). - Michael Somos, Aug 10 2014
[A092185] 0, 6, 22, 53, 104, 180, 286, 427, 608, 834, 1110, 1441, 1832, 2288, 2814, 3415, 4096, 4862, 5718, 6669, 7720, 8876, 10142, 11523, 13024, 14650, 16406, 18297, 20328, 22504, 24830, 27311, 29952, 32758, 35734, 38885, 42216, 45732, 49438, 53339, 57440, 61746, 66262
a(n)= +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). G.f.: x*(6-2*x+x^2)/(x-1)^4. [From R. J. Mathar, Jun 21 2010]
[A212692] 0, 0, 6, 22, 54, 106, 184, 292, 436, 620, 850, 1130, 1466, 1862, 2324, 2856, 3464, 4152, 4926, 5790, 6750, 7810, 8976, 10252, 11644, 13156, 14794, 16562, 18466, 20510, 22700, 25040, 27536, 30192, 33014, 36006, 39174, 42522, 46056, 49780
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
[A071239] 0, 1, 6, 22, 60, 135, 266, 476, 792, 1245, 1870, 2706, 3796, 5187, 6930, 9080, 11696, 14841, 18582, 22990, 28140, 34111, 40986, 48852, 57800, 67925, 79326, 92106, 106372, 122235, 139810, 159216, 180576, 204017, 229670, 257670, 288156, 321271, 357162, 395980
a(n) = 5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5), n>4. - Harvey P. Dale, May 01 2013
[A105450] 0, 6, 22, 60, 142, 305, 607, 1134, 2008, 3396, 5520, 8668, 13206, 19591, 28385, 40270, 56064, 76738, 103434, 137484, 180430, 234045, 300355, 381662, 480568, 600000, 743236, 913932, 1116150, 1354387, 1633605, 1959262, 2337344, 2774398, 3277566, 3854620
a(0)=0, a(1)=6, a(2)=22, a(3)=60, a(4)=142, a(5)=305, a(6)= 607, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)- 7*a(n-6)+a(n-7). - Harvey P. Dale, Jun 28 2011
[A011888] 0, 1, 6, 22, 61, 142, 292, 548, 958, 1583, 2498, 3794, 5579, 7980, 11144, 15240, 20460, 27021, 35166, 45166, 57321, 71962, 89452, 110188, 134602, 163163, 196378, 234794, 278999, 329624, 387344, 452880
a(n) = (2*n+3)*(6*n^4+36*n^3+76*n^2+66*n+5)/960-(-1)^n/64. G.f. x*(1+x+x^2) / ((1+x)*(x-1)^6). - R. J. Mathar, Mar 24 2011
[A081282] 0, 1, 6, 22, 62, 147, 308, 588, 1044, 1749, 2794, 4290, 6370, 9191, 12936, 17816, 24072, 31977, 41838, 53998, 68838, 86779, 108284, 133860, 164060, 199485, 240786, 288666, 343882, 407247, 479632, 561968, 655248, 760529, 878934, 1011654
a(n) = 2*C(n+3, 5) + C(n+2, 3).
a(n) = n*(n+1)*(n+2)*(n^2+2*n+7)/60. - Carl Najafi, Nov 18 2012
a(0)=0, a(1)=1, a(2)=6, a(3)=22, a(4)=62, a(5)=147, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Jan 09 2014
[A001769] 1, 6, 22, 62, 148, 314, 610, 1106, 1897, 3108, 4900, 7476, 11088, 16044, 22716, 31548, 43065, 57882, 76714, 100386, 129844, 166166, 210574, 264446, 329329, 406952, 499240, 608328, 736576, 886584, 1061208, 1263576, 1497105, 1765518, 2072862, 2423526, 2822260, 3274194, 3784858
a(n) = Sum_{k=0..n} (-1)^(n-k)*C(k+6, 6).
a(n) = (4*n^6 +96*n^5 +910*n^4 +4320*n^3 +10696*n^2 +12864*n+5715)/5760+(-1)^n/128. (End)
[A053739] 1, 6, 22, 63, 155, 344, 709, 1383, 2587, 4685, 8273, 14323, 24416, 41119, 68595, 113590, 187030, 306605, 500950, 816410, 1327986, 2157046, 3499982, 5674578, 9195035, 14893364, 24115804, 39040633
a(n) = sum_{i=0..floor(n/2)} C(n+5-i, n-2i); n >= 0.
a(n) = sum_{k=1..n} C(n-k+5,k+4), with n>=0. - Paolo P. Lava, Apr 16 2008
[A055797] 1, 6, 22, 64, 162, 372, 792, 1584, 3003, 5434, 9438, 15808, 25636, 40392, 62016, 93024, 136629, 196878, 278806, 388608, 533830, 723580, 968760, 1282320, 1679535, 2178306, 2799486, 3567232, 4509384
a(n-5) = binomial(n,7) + binomial(n,5) for n>4. - Zerinvary Lajos, Jul 24 2006
a(n) = 8*(n-1) - 28*(n-2) + 56*(n-3) - 70*(n-4) + 56*(n-5) - 28*(n-6) + 8*(n-7) - (n-8). - Vincenzo Librandi, May 01 2012
[A002663] 0, 0, 0, 0, 1, 6, 22, 64, 163, 382, 848, 1816, 3797, 7814, 15914, 32192, 64839, 130238, 261156, 523128, 1047225, 2095590, 4192510, 8386560, 16774891, 33551806, 67105912, 134214424, 268431773, 536866822, 1073737298
a(n) = Sum_{k=0..n} binomial(n,k+4) = Sum_{k=4..n} binomial(n,k). - Paul Barry, Aug 23 2004
a(n) = 2*a(n-1) + binomial(n-1,3). - Paul Barry, Aug 23 2004
a(n) = (6*2^n - n^3 - 5*n - 6)/6. - Mats Granvik, Gary W. Adamson, Feb 17 2010
[A003469] 1, 6, 22, 65, 171, 420, 988, 2259, 5065, 11198, 24498, 53157, 114583, 245640, 524152, 1113959, 2359125, 4980546, 10485550, 22019865, 46137091, 96468716, 201326292, 419430075, 872414881, 1811938950, 3758095978, 7784627789, 16106126895, 33285996048
a(n) = (n+1)*2^n - (n+1)*(n+2)/2. - Paul Barry, Jan 27 2003
[A271389] 0, 1, 6, 22, 66, 179, 460, 1148, 2820, 6869, 16658, 40306, 97414, 235303, 568216, 1371960, 3312392, 7997033, 19306782, 46610958, 112529098, 271669595, 655868772, 1583407668, 3822684684, 9228777661, 22280240682, 53789259754, 129858760974, 313506782543, 756872326960, 1827251437424
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3) + a(n-4) - a(n-5).
a(n) = (1/8)*(-4*(n*(n + 4) + 5) + (10 - 7*sqrt(2))*(1 - sqrt(2))^n + (10 + 7*sqrt(2))*(1 + sqrt(2))^n).
[A217530] 0, 6, 22, 75, 204, 460, 906, 1617, 2680, 4194, 6270, 9031, 12612, 17160, 22834, 29805, 38256, 48382, 60390, 74499, 90940, 109956, 131802, 156745, 185064, 217050, 253006, 293247, 338100, 387904, 443010, 503781, 570592, 643830, 723894, 811195, 906156, 1009212, 1120810
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Wesley Ivan Hurt, Nov 10 2014
[A255465] 1, 6, 22, 90, 358, 1434, 5734, 22938, 91750, 367002, 1468006, 5872026, 23488102, 93952410, 375809638, 1503238554, 6012954214, 24051816858, 96207267430, 384829069722, 1539316278886, 6157265115546, 24629060462182, 98516241848730, 394064967394918, 1576259869579674
a(n) = (-2*(-1)^n + 7*4^n) / 5.
a(n) = 3*a(n-1) + 4*a(n-2) for n>1.
[A100300] 1, 1, 6, 22, 99, 451, 2140, 10396, 51525, 259429, 1323362, 6824434, 35519687, 186346759, 984400760, 5231789176, 27954506505, 150079713481, 809181079294, 4379654830222, 23787413800491, 129607968854731, 708230837732436, 3880366912218772, 21312485647242829, 117321536967959341
a(n) = sum(C(n-3, 2k-2)*C(n+2k-3, 2k-2)/(2k-1), k=1..floor((n-1)/2)).
[A235332] 6, 23, 49, 84, 128, 181, 243, 314, 394, 483, 581, 688, 804, 929, 1063, 1206, 1358, 1519, 1689, 1868, 2056, 2253, 2459, 2674, 2898, 3131, 3373, 3624, 3884, 4153, 4431, 4718, 5014, 5319, 5633, 5956, 6288, 6629, 6979, 7338, 7706, 8083, 8469, 8864, 9268, 9681
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A026817] 6, 23, 51, 90, 140, 201, 273, 356, 450, 555, 671, 798, 936, 1085, 1245, 1416, 1598, 1791, 1995, 2210, 2436, 2673, 2921, 3180, 3450, 3731, 4023, 4326, 4640, 4965, 5301, 5648, 6006, 6375, 6755, 7146, 7548, 7961, 8385, 8820, 9266, 9723, 10191, 10670
a(n)=(11*n^2+n)/2.
[A022269] 0, 6, 23, 51, 90, 140, 201, 273, 356, 450, 555, 671, 798, 936, 1085, 1245, 1416, 1598, 1791, 1995, 2210, 2436, 2673, 2921, 3180, 3450, 3731, 4023, 4326, 4640, 4965, 5301, 5648, 6006, 6375, 6755, 7146, 7548, 7961, 8385, 8820, 9266, 9723, 10191, 10670, 11160
a(n) = 11*n + a(n-1) - 5 with n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with n>2, a(0)=0, a(1)=6, a(2)=23. - Philippe Deléham, Mar 27 2013
[A212570] 0, 1, 6, 23, 52, 105, 178, 287, 424, 609, 830, 1111, 1436, 1833, 2282, 2815, 3408, 4097, 4854, 5719, 6660, 7721, 8866, 10143, 11512, 13025, 14638, 16407, 18284, 20329, 22490, 24831, 27296, 29953, 32742, 35735, 38868, 42217, 45714, 49439
a(n) = 2a(n-1)+a(n-2)-4a(n-3)+a(n-4)+2a(n-5)-a(n-6).
a(n) = n*(-1-3*(-1)^n+10*n^2)/12. G.f.: x*(x^4+4*x^3+10*x^2+4*x+1)/((x-1)^4*(x+1)^2). [Colin Barker, Oct 04 2012]

[A234729] 0, 6, 23, 55, 108, 187, 297, 443, 631, 866, 1152, 1496, 1902, 2376, 2922, 3547, 4254, 5050, 5940, 6928, 8020, 9221, 10536, 11971, 13531, 15221, 17045, 19010, 21121, 23382, 25799, 28377, 31122, 34038, 37130, 40405, 43866, 47520, 51371, 55425, 59687
a(n)= floor(n^2*evalf(sqrt(3)*3/2)*n/3) = floor(0.8660254040* n^3).
[A162267] 6, 23, 57, 114, 200, 321, 483, 692, 954, 1275, 1661, 2118, 2652, 3269, 3975, 4776, 5678, 6687, 7809, 9050, 10416, 11913, 13547, 15324, 17250, 19331, 21573, 23982, 26564, 29325, 32271, 35408, 38742, 42279, 46025, 49986, 54168, 58577, 63219
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A273314] 1, 6, 23, 64, 137, 250, 411, 628, 909, 1262, 1695, 2216, 2833, 3554, 4387, 5340, 6421, 7638, 8999, 10512, 12185, 14026, 16043, 18244, 20637, 23230, 26031, 29048, 32289, 35762, 39475, 43436, 47653, 52134, 56887, 61920, 67241, 72858, 78779, 85012, 91565, 98446
a(n) = (4*n^3+12*n^2-13*n+15)/3 for n>0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A213557] 1, 6, 23, 70, 184, 438, 971, 2042, 4125, 8076, 15424, 28876, 53189, 96670, 173747, 309362, 546456, 958690, 1672015, 2901170, 5011321, 8621976, 14781888, 25263000, 43053769, 73186038, 124119311, 210055582, 354806200, 598245006
a(n) = 5*a(n-1) - 8*a(n-2) + 2*a(n-3) + 6*a(n-4) - 4*a(n-5) - a(n-6) + a(n-7).
[A273386] 1, 6, 23, 72, 153, 274, 443, 668, 957, 1318, 1759, 2288, 2913, 3642, 4483, 5444, 6533, 7758, 9127, 10648, 12329, 14178, 16203, 18412, 20813, 23414, 26223, 29248, 32497, 35978, 39699, 43668, 47893, 52382, 57143, 62184, 67513, 73138, 79067, 85308, 91869, 98758
a(n) = (11*n)/3+4*n^2+(4*n^3)/3-11 for n>1.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>5.
[A045618] 1, 6, 23, 72, 201, 522, 1291, 3084, 7181, 16398, 36879, 81936, 180241, 393234, 851987, 1835028, 3932181, 8388630, 17825815, 37748760, 79691801, 167772186, 352321563, 738197532, 1543503901, 3221225502, 6710886431, 13958643744
a(n) = n + 5 + (n-1)*2^(n+2).
a(n) = Sum_{i=0...n+1} (2^(n+2-i) - 1)*(2^i - 1). - J. M. Bergot, Sep 16 2017
a(n) = Sum_{k=0..n+2} Sum_{i=0..n+2} (i-k) * C(n-k+2,i). - Wesley Ivan Hurt, Sep 19 2017
[A038737] 1, 6, 23, 73, 211, 581, 1560, 4135, 10890, 28590, 74946, 196326, 514123, 1346148, 3524441, 9227311, 24157645, 63245795, 165579930, 433494205, 1134902916, 2971214796, 7778741748, 20365010748, 53316290821, 139583862066
a(n) = Sum_{k=0..n}(binomial(n+2,k+3)*Fibonacci(k)). - Vladimir Kruchinin, Oct 24 2016
[A136530] 1, 6, 23, 74, 216, 592, 1552, 3936, 9728, 23552, 56064, 131584, 305152, 700416, 1593344, 3596288, 8060928, 17956864, 39780352, 87687168, 192413696, 420478976, 915406848, 1986002944, 4294967296, 9261023232, 19914555392, 42714791936
a(n) = 6*a(n-1)-12*a(n-2)+8*a(n-3). G.f.: (1+x)*(1-x)/(1-2*x)^3. [Colin Barker, Aug 12 2012]
[A072710] 6, 24, 27, 33, 66, 84, 87, 93, 126, 144, 147, 153, 186, 204, 207, 213, 246, 264, 267, 273, 306, 324, 327, 333, 366, 384, 387, 393, 426, 444, 447, 453, 486, 504, 507, 513, 546, 564, 567, 573, 606, 624, 627, 633, 666, 684, 687, 693, 726, 744, 747, 753, 786
a(n) = (-60 - 6*(-1)^n - (21-9*i)*(-i)^n - (21+9*i)*i^n + 60*n) / 4 where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A033581] 0, 6, 24, 54, 96, 150, 216, 294, 384, 486, 600, 726, 864, 1014, 1176, 1350, 1536, 1734, 1944, 2166, 2400, 2646, 2904, 3174, 3456, 3750, 4056, 4374, 4704, 5046, 5400, 5766, 6144, 6534, 6936, 7350, 7776, 8214, 8664, 9126, 9600, 10086, 10584, 11094, 11616
a(n) = 12*n + a(n-1) - 6, with a(0)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = 3*floor(1/(1-cos(1/n))) = floor(1/(1-n*sin(1/n))) for n > 0. - Clark Kimberling, Oct 08 2014
[A213393] 0, 6, 24, 54, 108, 192, 300, 450, 648, 882, 1176, 1536, 1944, 2430, 3000, 3630, 4356, 5184, 6084, 7098, 8232, 9450, 10800, 12288, 13872, 15606, 17496, 19494, 21660, 24000, 26460, 29106, 31944, 34914, 38088, 41472, 45000, 48750, 52728
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
[A212904] 1, 6, 24, 58, 118, 202, 324, 478, 682, 926, 1232, 1586, 2014, 2498, 3068, 3702, 4434, 5238, 6152, 7146, 8262, 9466, 10804, 12238, 13818, 15502, 17344, 19298, 21422, 23666, 26092, 28646, 31394, 34278, 37368, 40602, 44054, 47658, 51492
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>=1.
[A211615] 0, 6, 24, 60, 114, 186, 276, 384, 510, 654, 816, 996, 1194, 1410, 1644, 1896, 2166, 2454, 2760, 3084, 3426, 3786, 4164, 4560, 4974, 5406, 5856, 6324, 6810, 7314, 7836, 8376, 8934, 9510, 10104, 10716, 11346, 11994, 12660, 13344, 14046
a(n) = 3a(n-1)-3a(n-2)+a(n-3) for n>3.
a(n) = 6-9*n+9*n^2 for n>0. G.f.: 6*x*(1+x+x^2)/(1-x)^3. [Colin Barker, Sep 09 2012]
[A195647] 0, 6, 24, 60, 116, 200, 318, 472, 668, 914, 1214, 1568, 1988, 2480, 3040, 3680, 4408, 5224, 6130, 7140, 8260, 9478, 10816, 12280, 13864, 15576, 17430, 19428, 21560, 23850, 26304, 28908, 31680, 34632, 37760, 41060, 44556, 48254, 52130, 56216, 60520, 65030
a(n) = n*(n^2 + n - 2) - t*(2t^2 - 6nt + 3n^2 + 3n - 2)/3, where t = round((6n - sqrt(6*(2 - 3n + 3n^2)))/6).
[A007531] 0, 0, 0, 6, 24, 60, 120, 210, 336, 504, 720, 990, 1320, 1716, 2184, 2730, 3360, 4080, 4896, 5814, 6840, 7980, 9240, 10626, 12144, 13800, 15600, 17550, 19656, 21924, 24360, 26970, 29760, 32736, 35904, 39270, 42840, 46620, 50616, 54834, 59280, 63960, 68880
a(n) = 3a(n-1) - 3a(n-2) + a(n-3) + 6, n>2. - Zak Seidov, Feb 09 2006
a(-n) = -a(n+2).
a(n+1) = n^3 - n. - Mohammad K. Azarian, Jul 26 2007
a(0) = 0, a(n) = a(n-1) + 3*(n-1)*(n-2). - Jean-François Alcover, Jan 08 2013
[A101854] 6, 24, 61, 125, 225, 371, 574, 846, 1200, 1650, 2211, 2899, 3731, 4725, 5900, 7276, 8874, 10716, 12825, 15225, 17941, 20999, 24426, 28250, 32500, 37206, 42399, 48111, 54375, 61225, 68696, 76824, 85646, 95200, 105525, 116661, 128649, 141531, 155350
a(n) = 5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5), n>5. - Harvey P. Dale, Nov 05 2011
[A274772] 0, 1, 6, 24, 66, 149, 292, 520, 860, 1345, 2010, 2896, 4046, 5509, 7336, 9584, 12312, 15585, 19470, 24040, 29370, 35541, 42636, 50744, 59956, 70369, 82082, 95200, 109830, 126085, 144080, 163936, 185776, 209729, 235926, 264504, 295602, 329365, 365940, 405480, 448140, 494081, 543466, 596464, 653246, 713989, 778872, 848080, 921800, 1000225, 1083550
a(n) = (4*n^4+8*n^3+2*n^2+4*n+3*(1-(-1)^n))/24. Therefore :
a(2*k) = k*(k+1)*(8*k^2+1)/3, a(2*k+1) = (k+1)*(8*k^3+16*k^2+9*k+3)/3.
a(n) = 4*a(n-1) - 5*a(n-2) + 5*a(n-4) - 4*a(n-5) + a(n-6) for n>5.
[A006528] 0, 1, 6, 24, 70, 165, 336, 616, 1044, 1665, 2530, 3696, 5226, 7189, 9660, 12720, 16456, 20961, 26334, 32680, 40110, 48741, 58696, 70104, 83100, 97825, 114426, 133056, 153874, 177045, 202740, 231136, 262416, 296769, 334390, 375480
a(n) = n*(n+1)*(n^2-n+2)/4.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). [Vincenzo Librandi, Apr 30 2012]
[A052749] 0, 0, 0, 6, 24, 70, 180, 434, 1008, 2286, 5100, 11242, 24552, 53222, 114660, 245730, 524256, 1114078, 2359260, 4980698, 10485720, 22020054, 46137300, 96468946, 201326544, 419430350, 872415180, 1811939274, 3758096328, 7784628166, 16106127300, 33285996482
a(n) = Sum(n*2^(k-2), k=3..n). - Zerinvary Lajos, Oct 09 2006
a(n) = sum_{j=1..n} (sum_{i=2..n-1} (j+1)*2^(j-i-1)). - Wesley Ivan Hurt, Nov 17 2014
a(n) = n*(2^n-4)/2, n>1. - Wesley Ivan Hurt, Nov 17 2014
[A058809] 0, 0, 6, 24, 78, 240, 726, 2184, 6558, 19680, 59046, 177144, 531438, 1594320, 4782966, 14348904, 43046718, 129140160, 387420486, 1162261464, 3486784398, 10460353200, 31381059606, 94143178824, 282429536478, 847288609440
a(0)=0, a(1)=0, a(2)=6, a(n)=4*a(n-1)-3*a(n-2). - Harvey P. Dale, Sep 29 2013
[A001788] 0, 1, 6, 24, 80, 240, 672, 1792, 4608, 11520, 28160, 67584, 159744, 372736, 860160, 1966080, 4456448, 10027008, 22413312, 49807360, 110100480, 242221056, 530579456, 1157627904, 2516582400, 5452595200, 11777605632
a(n) = Sum_{j=0..n} binomial(n+1,j)*(n+1-j)^2. - Zerinvary Lajos, Aug 22 2006
a(n) = Sum_{1<=i<=k<=n} (-1)^(i+1)*i^2*binomial(n+1,k+i)*binomial(n+1,k-i). - Mircea Merca, Apr 09 2012
a(0)=0, a(1)=1, a(2)=6, a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3). - Harvey P. Dale, Jul 16 2013
a(n) = Sum_{k=0..n-1} Sum_{i=0..n-1} (k+1) * C(n-1,i). - Wesley Ivan Hurt, Sep 20 2017
[A047790] 0, 0, 0, 1, 6, 24, 81, 250, 732, 2073, 5742, 15664, 42273, 113202, 301428, 799273, 2112774, 5571816, 14668209, 38563882, 101285580, 265817145, 697214430, 1827923296, 4790749761, 12552714594, 32884171236, 86133353545, 225582998262, 590749858968, 1546935014097
a(0)=0, a(1)=0, a(2)=0, a(3)=1, a(n)=6*a(n-1)-12*a(n-2)+ 9*a(n-3)- 2*a(n-4). - Harvey P. Dale, Jan 19 2012

a(n) = (1-2^n-((3-sqrt(5))/2)^n/sqrt(5)+((3+sqrt(5))/2)^n/sqrt(5)). - Colin Barker, Nov 02 2016
[A255474] 1, 6, 24, 88, 336, 1280, 4928, 19072, 74240, 290304, 1139712, 4489216, 17731584, 70197248, 278429696, 1106083840, 4399628288, 17518559232, 69815500800, 278424715264, 1110989340672, 4435189170176, 17712382214144, 70757707153408, 282733687341056, 1129973180006400
a(n) = 4^n + (-(1-sqrt(5))^(1+n) + (1+sqrt(5))^(1+n)) / (2*sqrt(5)) for n>0.
a(n) = 6*a(n-1) - 4*a(n-2) - 16*a(n-3) for n>3.
[A001352] 1, 6, 24, 90, 336, 1254, 4680, 17466, 65184, 243270, 907896, 3388314, 12645360, 47193126, 176127144, 657315450, 2453134656, 9155223174, 34167758040, 127515808986, 475895477904, 1776066102630, 6628368932616, 24737409627834, 92321269578720, 344547668687046
a(n) = sqrt(3)*(-(2-sqrt(3))^n+(2+sqrt(3))^n) for n>0. - Colin Barker, Oct 12 2015
[A255296] 1, 6, 24, 92, 340, 1236, 4452, 15956, 57028, 203508, 725604, 2585876, 9212932, 32818740, 116898468, 416365652, 1482959428, 5281740660, 18811402980, 66998214548, 238618498180, 849854020788, 3026803253028, 10780126189268, 38394001851076, 136742291486196
a(n) = (2^(-n)*(-17*4^n + (17-5*sqrt(17))*(3-sqrt(17))^n + (3+sqrt(17))^n*(17+5*sqrt(17)))) / 17.
a(n) = 5*a(n-1) - 4*a(n-2) - 4*a(n-3) for n>2.
[A253101] 1, 6, 24, 96, 372, 1416, 5340, 20040, 75012, 280392, 1047324, 3910440, 14597508, 54485736, 203357724, 758969736, 2832570372, 10571410056, 39453266460, 147242049000, 549515715972, 2050822387752, 7653776980764, 28564291826760, 106603402909188, 397849344975816, 1484794027325724, 5541326864990376
a(n) = -2^n + 2*(2-sqrt(3))^n + 2*(2+sqrt(3))^n for n>0.
a(n) = 6*a(n-1) - 9*a(n-2) + 2*a(n-3) for n>3.
[A255471] 1, 6, 24, 100, 396, 1596, 6364, 25500, 101916, 407836, 1631004, 6524700, 26097436, 104392476, 417564444, 1670268700, 6681052956, 26724255516, 106896934684, 427587913500, 1710351304476, 6841405916956, 27365622269724, 109462491875100, 437849961907996, 1751399858816796, 7005599412897564, 28022397696329500, 112089590695839516
a(n) = (-4 - (-2)^n + 7*2^(1+2*n)) / 9.
a(n) = 3*a(n-1) + 6*a(n-2) - 8*a(n-3) for n>2.
[A217193] 6, 24, 119, 588, 2279, 6996, 18043, 40884, 83923, 159404, 284431, 482108, 782799, 1225508, 1859379, 2745316, 3957723, 5586364, 7738343, 10540204, 14140151, 18710388, 24449579, 31585428, 40377379, 51119436, 64143103, 79820444, 98567263, 120846404, 147171171
a(0) = 6, a(1) = 24, a(n) = (n^6+6*n^5+10*n^4+4*n^3+19*n^2+62*n+66)/6 for n>1.
[A127917] 6, 24, 120, 336, 1320, 2184, 4896, 6840, 12144, 24360, 29760, 50616, 68880, 79464, 103776, 148824, 205320, 226920, 300696, 357840, 388944, 492960, 571704, 704880, 912576, 1030200, 1092624, 1224936, 1294920, 1442784, 2048256, 2247960, 2571216, 2685480, 3307800
a(n) = prime(n)*(prime(n)^2-1). - Tom Edgar, Sep 28 2015
[A277985] 6, 24, 204, 546, 1050, 1716, 2544, 3534, 4686, 6000, 7476, 9114, 10914, 12876, 15000, 17286, 19734, 22344, 25116, 28050, 31146, 34404, 37824, 41406, 45150, 49056, 53124, 57354, 61746, 66300, 71016, 75894, 80934, 86136, 91500, 97026, 102714, 108564, 114576, 120750, 127086
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Nov 13 2016
[A042879] 1, 6, 25, 31, 56, 87, 230, 1237, 3941, 9119, 113369, 3523558, 42396065, 88315688, 307343129, 1625031333, 3557405795, 5182437128, 8739842923, 13922280051, 64428963127, 400496058813, 24895184609533, 149771603716011, 623981599473577, 773753203189588
a(n) = 24959613572660*a(n-22) - a(n-44) for n>43. - Vincenzo Librandi, Jan 31 2014
[A022270] 0, 6, 25, 57, 102, 160, 231, 315, 412, 522, 645, 781, 930, 1092, 1267, 1455, 1656, 1870, 2097, 2337, 2590, 2856, 3135, 3427, 3732, 4050, 4381, 4725, 5082, 5452, 5835, 6231, 6640, 7062, 7497, 7945, 8406, 8880, 9367, 9867, 10380, 10906, 11445
a(n) = 13*n + a(n-1) - 7 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(0)=0, a(1)=6, a(2)=25; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Dec 02 2011
[A255687] 0, 6, 25, 64, 130, 230, 371, 560, 804, 1110, 1485, 1936, 2470, 3094, 3815, 4640, 5576, 6630, 7809, 9120, 10570, 12166, 13915, 15824, 17900, 20150, 22581, 25200, 28014, 31030, 34255, 37696, 41360, 45254, 49385, 53760, 58386, 63270, 68419, 73840, 79540, 85526
a(n) = (1/2)*(Sum_{j=0..n} (n+1-j)*(3*n-j) + Sum_{j=0..n-1} (n-j)*(3*n+1-3*j)).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Colin Barker, Mar 02 2015
[A096958] 6, 25, 65, 135, 245, 406, 630, 930, 1320, 1815, 2431, 3185, 4095, 5180, 6460, 7956, 9690, 11685, 13965, 16555, 19481, 22770, 26450, 30550, 35100, 40131, 45675, 51765, 58435, 65720, 73656, 82280, 91630, 101745, 112665, 124431, 137085, 150670
a(n) = sum_{k=1..n+1} (sum_{i=1..k} i*(n-k+7)). - Wesley Ivan Hurt, Sep 26 2013
[A241170] 6, 25, 67, 145, 275, 476, 770, 1182, 1740, 2475, 3421, 4615, 6097, 7910, 10100, 12716, 15810, 19437, 23655, 28525, 34111, 40480, 47702, 55850, 65000, 75231, 86625, 99267, 113245, 128650, 145576, 164120, 184382, 206465, 230475, 256521, 284715, 315172
a(n) = (n-2)*(n-1)*(24 + 7*n + 3*n^2)/24. - Vaclav Kotesovec, Apr 23 2014
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4. - Vincenzo Librandi, Dec 12 2014
[A245679] 0, 0, 0, 6, 25, 69, 154, 300, 531, 875, 1364, 2034, 2925, 4081, 5550, 7384, 9639, 12375, 15656, 19550, 24129, 29469, 35650, 42756, 50875, 60099, 70524, 82250, 95381, 110025, 126294, 144304, 164175, 186031, 210000, 236214, 264809, 295925, 329706, 366300
a(n) = (-6-n+2*n^2-2*n^3+n^4)/6 for n>1.
[A230723] 0, 1, 6, 25, 87, 238, 575, 1228, 2425, 4446, 7734, 12806, 20422, 31444, 47072, 68639, 97929, 136893, 188061, 254170, 338679, 445297, 578616, 743524, 945968, 1192243, 1489894, 1846869, 2272575, 2776880, 3371335, 4068016, 4880921, 5824640, 6915942, 8172258, 9613470
a(n) = (n^6 + 3*n^5 - 3*n^4 + 10*n^3 + B + C)/288
[A055585] 1, 6, 25, 88, 280, 832, 2352, 6400, 16896, 43520, 109824, 272384, 665600, 1605632, 3829760, 9043968, 21168128, 49152000, 113311744, 259522560, 590872576, 1337982976, 3014656000, 6761218048, 15099494400, 33587986432, 74440507392
a(n) = 2^(n-3)(n+1)(n+3)(n+8)/3.
[A001871] 1, 6, 25, 90, 300, 954, 2939, 8850, 26195, 76500, 221016, 632916, 1799125, 5082270, 14279725, 39935214, 111228804, 308681550, 853904015, 2355364650, 6480104231, 17786356776, 48715278000, 133167004200, 363372003625, 989900286774
a(n) = Sum_{k=1..n+1} F(2k)F(2(n-k+2)) where F(k) is the k-th Fibonacci number. - Dan Daly (ddaly(AT)du.edu), Apr 24 2008
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) - a(n-4). - Vincenzo Librandi, Mar 14 2011
[A000392] 0, 0, 0, 1, 6, 25, 90, 301, 966, 3025, 9330, 28501, 86526, 261625, 788970, 2375101, 7141686, 21457825, 64439010, 193448101, 580606446, 1742343625, 5228079450, 15686335501, 47063200806, 141197991025, 423610750290, 1270865805301
a(n) = (1 + 3^(n-1) - 2^n)/2, n > 0. - Dennis P. Walsh, Feb 20 2007
a(n) = 5*a(n-1) - 6*a(n-2) + 1, for n > 3. - Vincenzo Librandi Nov 25 2010
a(n) = det(|s(i+3,j+2)|, 1 <= i,j <= n-3), where s(n,k) are Stirling numbers of the first kind. - Mircea Merca, Apr 06 2013
a(n + 2) = (1 - 2^(2 + n) + 3^(1 + n))/2 for n > 0. - Fred Daniel Kline, Oct 02 2014
[A291230] 6, 25, 96, 351, 1242, 4304, 14706, 49761, 167232, 559303, 1864110, 6197472, 20567262, 68166713, 225713280, 746866143, 2470077378, 8166190192, 26990599050, 89190984033, 294691499808, 973574384231, 3216160413654, 10623856065984, 35092075282998, 115910575744921
a(n) = 6*a(n-1) - 8*a(n-2) - 6*a(n-3) + 8*a(n-4) + 6*a(n-5) + a(n-6) for n >= 7.
[A092184] 0, 1, 6, 25, 96, 361, 1350, 5041, 18816, 70225, 262086, 978121, 3650400, 13623481, 50843526, 189750625, 708158976, 2642885281, 9863382150, 36810643321, 137379191136, 512706121225, 1913445293766, 7141075053841, 26650854921600, 99462344632561, 371198523608646
a(n) = 1/2*(-2 + (2+sqrt(3))^n + (2-sqrt(3))^n). - Ralf Stephan, Apr 14 2004
a(0)=0, a(1)=1, a(n+1) = 3 + floor(a(n)*(2+sqrt(3))). - Anton Vrba (antonvrba(AT)yahoo.com), Jan 16 2007
a(n) = 4*a(n-1) - a(n-2) + 2. - Richard R. Forberg, Sep 04 2013; corrected by Antonio Laface, Sep 18 2016
a(n) = u(n)^2, where {u(n)} is the Lucas sequence in the quadratic integer ring Z[sqrt(6)] defined by the recurrence u(0) = 0, u(1) = 1, u(n) = sqrt(6)*u(n-1) - u(n-2) for n >= 2.
a(n) = 1/2*(((sqrt(6) + sqrt(2))/2)^n - ((sqrt(6) - sqrt(2))/2)^n)^2.
[A214955] 1, 6, 25, 98, 378, 1452, 5577, 21450, 82654, 319124, 1234506, 4784276, 18572500, 72209880, 281150505, 1096087770, 4278278070, 16717354500, 65388738030, 256000696380, 1003116947820, 3933750236520, 15437682614250, 60625494924228, 238235373671148, 936735006679752
a(n) = 2*(2*n-1)^2/((n+1)*(2*n-3)) * a(n-1) for n>1; a(1) = 1.
a(n) = [x^n] x*(1 + 2*x)/(1 - x)^(n+2). - Ilya Gutkovskiy, Oct 12 2017
[A254527] 6, 26, 62, 114, 182, 266, 366, 482, 614, 762, 926, 1106, 1302, 1514, 1742, 1986, 2246, 2522, 2814, 3122, 3446, 3786, 4142, 4514, 4902, 5306, 5726, 6162, 6614, 7082, 7566, 8066, 8582, 9114, 9662, 10226, 10806, 11402, 12014, 12642, 13286, 13946, 14622, 15314

a(n) = 8*n^2 - 4*n + 2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A135036] 0, 6, 26, 68, 140, 250, 406, 616, 888, 1230, 1650, 2156, 2756, 3458, 4270, 5200, 6256, 7446, 8778, 10260, 11900, 13706, 15686, 17848, 20200, 22750, 25506, 28476, 31668, 35090, 38750, 42656, 46816, 51238, 55930, 60900, 66156, 71706, 77558, 83720
a(n) = 0*1 + 2*3 + 4*5 + ... + 2n*(2n+1).
a(n) = (4n^3-3n^2-n)/3 = (n-1)n(4n+1)/3.
a(0)=0, a(1)=6, a(2)=26, a(3)=68, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Jun 20 2013
[A001701] 1, 6, 26, 71, 155, 295, 511, 826, 1266, 1860, 2640, 3641, 4901, 6461, 8365, 10660, 13396, 16626, 20406, 24795, 29855, 35651, 42251, 49726, 58150, 67600, 78156, 89901, 102921, 117305, 133145, 150536, 169576, 190366, 213010, 237615, 264291, 293151, 324311
a(n) = n(n-1)(3n^2+17n+26)/24, n>1.
[A241452] 0, 0, 0, 6, 26, 75, 174, 350, 636, 1071, 1700, 2574, 3750, 5291, 7266, 9750, 12824, 16575, 21096, 26486, 32850, 40299, 48950, 58926, 70356, 83375, 98124, 114750, 133406, 154251, 177450, 203174, 231600, 262911, 297296, 334950, 376074, 420875, 469566, 522366
a(n) = n*(-10+9*n-4*n^2+n^3)/4 for n>1.
[A175898] 1, 6, 26, 76, 186, 386, 726, 1251, 2031, 3126, 4626, 6606, 9176, 12426, 16486, 21461, 27501, 34726, 43306, 53376, 65126, 78706, 94326, 112151, 132411, 155286, 181026, 209826, 241956, 277626, 317126, 360681, 408601, 461126, 518586, 581236, 649426, 723426
a(n) = 55*n^2/24 +185*n/96 +59/64 +35*n^4/96 +35*n^3/48 +(5*n/32+5/64)*(-1)^n.
a(2n) = (55*n^2+25*n+6+35*n^4+35*n^3)/6 = 1, 26, 186, 726,....
a(n) = +3*a(n-1) -a(n-2) -5*a(n-3) +5*a(n-4) +a(n-5) -3*a(n-6) +a(n-7).
[A255870] 1, 6, 26, 76, 191, 411, 816, 1521, 2726, 4741, 8081, 13566, 22536, 37146, 60896, 99436, 161921, 263151, 427086, 692481, 1122056, 1817281, 2942351, 4762926, 7708866, 12475686, 20188766, 32668996, 52862651, 85536891, 138405156, 223948041, 362359586, 586314421
a(n) = 3*a(n-1)-a(n-2)-4*a(n-3)+3*a(n-4)+a(n-5)-a(n-6) for n>6. - Colin Barker, Mar 12 2015
a(n) = (-307 + 5*(-1)^n - 3*2^(2-n)*s*((11-5*s)*(1-s)^n - (1+s)^n*(11+5*s)) - 150*(1+n) - 50*(1+n)*(2+n)) / 8 for n>0 where s=sqrt(5). - Colin Barker, Mar 12 2017
[A060101] 1, 6, 26, 86, 246, 622, 1442, 3102, 6292, 12122, 22374, 39754, 68354, 114114, 185614, 294866, 458601, 699556, 1048476, 1546116, 2246244, 3218644, 4553484, 6365684, 8801104, 12042732, 16319252, 21913612, 29174652, 38528732, 50495236, 65702076, 84906041
a(n) = (14175*(30827+1941*(-1)^n) + 1440*(676427+11445*(-1)^n)*n + 126*(6861329+27375*(-1)^n)*n^2 + 1600*(258451+189*(-1)^n)*n^3 + 10*(12016607+945*(-1)^n)*n^4 + 22444800*n^5 + 2754192*n^6 + 220800*n^7 + 11130*n^8 + 320*n^9 + 4*n^10)/ 464486400. - Colin Barker, Jan 17 2017
[A032196] 1, 1, 6, 26, 91, 273, 728, 1768, 3978, 8398, 16796, 32066, 58786, 104006, 178296, 297160, 482885, 766935, 1193010, 1820910, 2731365, 4032015, 5864750, 8414640, 11920740, 16689036, 23107896, 31666376, 42975796
a(n) = ceiling(binomial(n, 11)/n)) (conjecture Wolfdieter Lang).
[A011780] 1, 6, 26, 92, 291, 850, 2348, 6216, 15925, 39742, 97086, 233012, 550983, 1286442, 2970960, 6796320, 15417945, 34719510, 77672290, 172743180, 382147691, 841346306, 1844250996, 4026531832, 8758949501, 18989322990
a(n) = (n^2 +n/3 +10/3)*2^(n+3)/9 +(n/4 +1)*(-1)^n/27 -n/4 -2. [Bruno Berselli, Jun 24 2013]
[A224288] 0, 0, 0, 0, 1, 6, 26, 94, 306, 934, 2732, 7752, 21488, 58432, 156288, 411904, 1071104, 2750976, 6984704, 17545216, 43634688, 107511808, 262602752, 636223488, 1529741312, 3652059136, 8660975616, 20412104704, 47826599936, 111446851584, 258360737792, 596044152832
a(n) = 2^(-11+n)*(1504-994*n+219*n^2-18*n^3+n^4) for n>4. - Colin Barker, Apr 14 2013
[A143132] 1, 6, 26, 96, 321, 876, 2006, 4026, 7321, 12346, 19626, 29756, 43401, 61296, 84246, 113126, 148881, 192526, 245146, 307896, 382001, 468756, 569526, 685746, 818921, 970626, 1142506, 1336276, 1553721, 1796696, 2067126, 2367006, 2698401, 3063446
a(n) = (552 - 1190 n + 895 n^2 - 280 n^3 + 35 n^4)/12 [From T. D. Noe, Aug 22 2008]
[A186314] 0, 0, 1, 6, 26, 99, 352, 1200, 3977, 12918, 41338, 130779, 410048, 1276512, 3950929, 12170598, 37343834, 114209811, 348332320, 1059927312, 3218870105, 9758944470, 29544747706, 89335651851, 269843267456, 814337329344, 2455598257057, 7399746051270
a(n) = 3*a(n-1) + (3^(n-2) - a(n-2)).
[A234267] 1, 6, 26, 99, 353, 1213, 4078, 13529, 44518, 145750, 475683, 1549457, 5040985, 16387962, 53251549, 172987342, 561848146, 1824633763, 5925198353, 19240299477, 62475465318, 202861776657, 658698488006, 2138801439710, 6944686435779, 22549338805857, 73217410408753, 237735772753266, 771923874337397
a(n) = 7*a(n-1)-16*a(n-2)+13*a(n-3)-2*a(n-4) for n>3, a(0)=1, a(1)=6, a(2)=26, a(3)=99. - Philippe Deléham, Dec 25 2013
[A143955] 0, 0, 0, 1, 6, 26, 101, 376, 1377, 5017, 18277, 66727, 244377, 898129, 3312554, 12260129, 45526754, 169588754, 633580634, 2373550184, 8914719134, 33562602134, 126640791884, 478848661898, 1814142235028, 6885560250148
a(n) = 5*Sum_{k=2..n-1}(binomial(2*k,k-2)/(k+3)). - Vladimir Kruchinin, Mar 15 2016
[A255467] 1, 6, 26, 110, 450, 1822, 7330, 29406, 117794, 471518, 1886754, 7548382, 30196258, 120790494, 483172898, 1932713438, 7730897442, 30923677150, 123694883362, 494779882974, 1979120230946, 7916482321886, 31665932083746, 126663733927390, 506654946894370, 2026619809947102, 8106479284527650, 32425917227589086
a(n) = (-2*(-1)^n/15 - 2^(1+n)/3 + (9*4^n)/5).
a(n) = 5*a(n-1) - 2*a(n-2) - 8*a(n-3) for n>2.
[A167469] 6, 27, 63, 114, 180, 261, 357, 468, 594, 735, 891, 1062, 1248, 1449, 1665, 1896, 2142, 2403, 2679, 2970, 3276, 3597, 3933, 4284, 4650, 5031, 5427, 5838, 6264, 6705, 7161, 7632, 8118, 8619, 9135, 9666, 10212, 10773, 11349, 11940, 12546, 13167, 13803, 14454
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
a(n) = Sum_{i=n..4n-1} i. - Wesley Ivan Hurt, May 08 2016
[A273408] 1, 6, 27, 72, 149, 266, 431, 652, 937, 1294, 1731, 2256, 2877, 3602, 4439, 5396, 6481, 7702, 9067, 10584, 12261, 14106, 16127, 18332, 20729, 23326, 26131, 29152, 32397, 35874, 39591, 43556, 47777, 52262, 57019, 62056, 67381, 73002, 78927, 85164, 91721, 98606
a(n) = (4*n^3+12*n^2-n+3)/3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
[A085788] 6, 27, 72, 150, 270, 441, 672, 972, 1350, 1815, 2376, 3042, 3822, 4725, 5760, 6936, 8262, 9747, 11400, 13230, 15246, 17457, 19872, 22500, 25350, 28431, 31752, 35322, 39150, 43245, 47616, 52272, 57222, 62475, 68040, 73926, 80142, 86697, 93600, 100860, 108486
a(n) = sum ((j+n+1)*(n+1),j=1..n). - Zerinvary Lajos, Sep 10 2006
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: 3*x*(x+2) / (x-1)^4. - Colin Barker, Mar 17 2014
[A136105] 6, 27, 73, 155, 285, 476, 742, 1098, 1560, 2145, 2871, 3757, 4823, 6090, 7580, 9316, 11322, 13623, 16245, 19215, 22561, 26312, 30498, 35150, 40300, 45981, 52227, 59073, 66555, 74710, 83576, 93192, 103598, 114835, 126945, 139971, 153957
a(n) = SUM[j=8..n]SUM[k=8..n]{((k*(k+1)/2)-30}. a(n) = SUM[j=8..n](1/6)*(j-7)*(j^2+10*j-108).
a(n) = (n-6)(n-7)(n^2+19n-144)/24. O.g.f: x^8(6-3x-2x^2)/(1-x)^5. - R. J. Mathar, May 17 2008
a(8)=6, a(9)=27, a(10)=73, a(11)=155, a(12)=285, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a (n-5). - Harvey P. Dale, Oct 20 2013
[A239568] 0, 6, 27, 75, 165, 315, 546, 882, 1350, 1980, 2805, 3861, 5187, 6825, 8820, 11220, 14076, 17442, 21375, 25935, 31185, 37191, 44022, 51750, 60450, 70200, 81081, 93177, 106575, 121365, 137640, 155496, 175032, 196350, 219555, 244755, 272061, 301587, 333450, 367770
a(n) = n*(n-1)*(n-2)*(n+5)/8.
[A124089] 0, 6, 27, 83, 209, 461, 923, 1715, 3002, 5004, 8007, 12375, 18563, 27131, 38759, 54263, 74612, 100946, 134595, 177099, 230229, 296009, 376739, 475019, 593774, 736280, 906191, 1107567, 1344903, 1623159, 1947791, 2324783, 2760680, 3262622
a(0)=0, a(1)=6, a(2)=27, a(3)=83, a(4)=209, a(5)=461, a(6)=923, a(n)= 7*a(n-1)- 21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+ a(n-7). - Harvey P. Dale, Dec 26 2015
[A100188] 1, 6, 27, 84, 205, 426, 791, 1352, 2169, 3310, 4851, 6876, 9477, 12754, 16815, 21776, 27761, 34902, 43339, 53220, 64701, 77946, 93127, 110424, 130025, 152126, 176931, 204652, 235509, 269730, 307551, 349216
a(n) = (1/6)*(2*n^4-2*n^2+6*n).
a(1)=1, a(2)=6, a(3)=27, a(4)=84, a(5)=205, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, May 11 2016
[A125196] 1, 6, 27, 87, 228, 513, 1034, 1914, 3315, 5440, 8541, 12921, 18942, 27027, 37668, 51428, 68949, 90954, 118255, 151755, 192456, 241461, 299982, 369342, 450983, 546468, 657489, 785869, 933570, 1102695, 1295496

a(n) = (1/32)*(29*C(n+5,5) + 21*C(n+4,5) + 126*C(n+3,5) - 34*C(n+2,5) + 21*C(n+1,5) - 3*C(n,5) + 3*(-1)^n). [Stanley]. - N. J. A. Sloane, Jul 07 2014

[A100189] 1, 6, 27, 92, 245, 546, 1071, 1912, 3177, 4990, 7491, 10836, 15197, 20762, 27735, 36336, 46801, 59382, 74347, 91980, 112581, 136466, 163967, 195432, 231225, 271726, 317331, 368452, 425517, 488970, 559271, 636896

a(n) = (1/6)*(4*n^4-12*n^3+20*n^2-6*n).

a(1)=1, a(2)=6, a(3)=27, a(4)=92, a(5)=245, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Jul 05 2011

[A052267] 1, 6, 27, 92, 267, 678, 1561, 3312, 6582, 12372, 22194, 38232, 63594, 102564, 160974, 246576, 369567, 543114, 784069, 1113684, 1558557, 2151578, 2933151, 3952416, 5268796, 6953544, 9091668, 11783856, 15148836, 19325736, 24476940, 30790944, 38485773, 47812398

a(n) = ((315*(475+37*(-1)^n) + 6*(54959+945*(-1)^n)*n + (298618+630*(-1)^n)*n^2 + 150528*n^3 + 46788*n^4 + 9156*n^5 + 1092*n^6 + 72*n^7 + 2*n^8)) / 161280. - Colin Barker, Jan 16 2017

[A038166] 1, 6, 27, 92, 273, 714, 1715, 3816, 8007, 15938, 30381, 55692, 98735, 169806, 284349, 464672, 742950, 1164228, 1791426, 2710344, 4037670, 5928988, 8591154, 12294672, 17392258, 24337404, 33711510, 46251016, 62886162, 84779748

a(0)=1, a(1)=6, a(2)=27, a(3)=92, a(4)=273, a(5)=714, a(6)=1715, a(7)=3816, a(8)=8007, a(9)=15938, a(10)=30381, a(11)=55692, a(12)=98735, a(13)=169806, a(14)=284349, a(15)=464672, a(16)=742950, a(17)=1164228, a(n)=6*a(n-1)-9*a(n-2)-16*a(n-3)+60*a(n-4)-24*a(n-5)-116*a(n-6)+144*a(n-7)+ 66*a(n-8)- 220*a(n-9)+66*a(n-10)+144*a(n-11)-116*a(n-12)-24*a(n-13)+60*a(n-14)-16*a(n-15)- 9*a(n-16)+ 6*a(n-17)-a(n-18). - Harvey P. Dale, Jun 10 2013

[A001874] 1, 6, 27, 98, 315, 924, 2534, 6588, 16407, 39430, 91959, 209034, 464723, 1013292, 2171850, 4584620, 9546570, 19635840, 39940460, 80421600, 160437690, 317354740, 622844730, 1213580820, 2348773525, 4517541378, 8638447293, 16428864606, 31086197469, 58539877020

a(n)=F""'(n+5, 1)/5!, i.e. 1/5! times the 5th derivative of the (n+5)th Fibonacci polynomial evaluated at 1. - T. D. Noe, Jan 18 2006

[A005325] 1, 6, 27, 104, 369, 1242, 4037, 12804, 39897, 122694, 373581, 1128816, 3390582, 10136556, 30192102, 89662216, 265640691, 785509362, 2319218869, 6839057544, 20147488020, 59306494520, 174466248840, 512987904000, 1507780192035, 4430417492826, 13015498076181

a(n) = (sqrt(-3)/81)*((-1)^n*n*(4*n^3-15*n^2-55*n+102)/(n+7)/(n+3)/(n+2)*hypergeom([1/2, n+7],[3],4/3)-(-1)^n*(4*n^4-17*n^3+23*n^2+ 242*n-288)/(n+7)/(n+3)/(n+2)*hypergeom([1/2, n+6],[3],4/3)). - Mark van Hoeij, Oct 29 2011.

a(n) (n + 11) (n - 1) = (n + 4) (3 n + 9) a(n - 2) + (n + 4) (2 n + 9) a(n - 1). - Simon Plouffe, Feb 09 2012

a(n) = 6*sum(j=ceiling((n-5)/2)..(n+1), C(j,2*j-n+5)*C(n+1,j))/(n+1). - Vladimir Kruchinin, Mar 17 2014

[A119852] 0, 0, 0, 1, 6, 27, 106, 387, 1350, 4566, 15102, 49113, 157622, 500520, 1575558, 4923536, 15290784, 47235771, 145246224, 444814533, 1357368786, 4128880561, 12523521786, 37888119522, 114358226428, 344437708131, 1035409733820

a(0)=0, a(1)=0, a(2)=0, a(3)=1, a(4)=6, a(5)=27, a(n)=6*a(n-1)- 9*a(n-2)- 2*a(n-3)+6*a(n-4)-a(n-6). - Harvey P. Dale, Apr 28 2014

[A221863] 1, 6, 27, 110, 429, 1637, 6172, 23104, 86090, 319792, 1185305, 4386331, 16212913, 59873834, 220964744, 815057639, 3005282745, 11077802256, 40824723483, 150424044413, 554183037617, 2041477665799, 7519722443381, 27696997721940, 102010147865915, 375697698147882

a(n) = 9*a(n-1) - 28*a(n-2) + 35*a(n-3) - 15*a(n-4) + a(n-5) with a(0) = 1, a(1) = 6, a(2) = 27, a(3) = 110, a(4) = 429.

[A216263] 1, 6, 27, 110, 429, 1638, 6187, 23238, 87021, 325358, 1215435, 4538430, 16942381, 63239286, 236031147, 880918070, 3287706669, 12270039678, 45792714187, 170901341358, 637813699821, 2380355555078, 8883612714795, 33154103692710, 123732818833261, 461777205194766, 1723376069054667

a(n) = 6*a(n-1) - 9*a(n-2) + 2*a(n-3), a(0) = 1, a(1) = 6, a(2) = 27.

a(n) = (-2^(3+n) + (7-4*sqrt(3))*(2-sqrt(3))^n + (2+sqrt(3))^n*(7+4*sqrt(3))) / 6. - Colin Barker, Feb 05 2017

[A108958] 0, 1, 6, 27, 110, 430, 1652, 6307, 24054, 91866, 351692, 1350030, 5196204, 20050108, 77542376, 300507427, 1166737574, 4537436578, 17672369756, 68922740122, 269127888644, 1052047384708, 4116711169496, 16123793452942, 63205286441660, 247959232919620

a(n) = sum(binomial(binomial(n, k), 2), k=0..n);

a(n) = (1/2)*sum(i+j>n,0<=i,j<=n,binomial(i+j,i)). - Benoit Cloitre, May 26 2006

a(n) = sum_{0<i<=k<n} (-1)^(i+1)*binomial(n,k+i)*binomial(n,k-i). - Mircea Merca, Apr 05 2012

[A220101] 0, 1, 6, 27, 112, 450, 1782, 7007, 27456, 107406, 419900, 1641486, 6418656, 25110020, 98285670, 384942375, 1508593920, 5915896470, 23213240820, 91140287370, 358042932000, 1407342229020, 5534695100220, 21777424274502, 85729014099072, 337635166767500

a(n)/a(n-1) = 2*(2*n-3)*(n-1)^2/((n+1)*(n-2)^2) for n>2. - Bruno Berselli, Dec 05 2012

a(n) = 3*(n-1)/(2*n-1)*binomial(2*n-1,n-2) [Godbole et al., Theorem 4]. - Peter Bala, Dec 18 2013

a(n) = 3*2^(-2+2*n)*Gamma(-1/2+n)*(-1+n)^2/(sqrt(Pi)*Gamma(2+n)). - Peter Luschny, Dec 14 2015

[A288571] 1, 6, 27, 113, 458, 1839, 7365, 29470, 117891, 471577, 1886322, 7545303, 30181229, 120724934, 482899755, 1931599041, 7726396186, 30905584767, 123622339093, 494489356398, 1977957425619, 7911829702505, 31647318810050, 126589275240231, 506357100960957, 2025428403843862, 8101713615375483

a(n) = 5*a(n-1) - 4*a(n-2) + a(n-3) - 5*a(n-4) + 4*a(n-5) for n>4. - Colin Barker, Jun 26 2017

[A091307] 6, 28, 52, 100, 196, 388, 772, 1540, 3076, 6148, 12292, 24580, 49156, 98308, 196612, 393220, 786436, 1572868, 3145732, 6291460, 12582916, 25165828, 50331652, 100663300, 201326596, 402653188, 805306372, 1610612740, 3221225476

a(1) = 6, a(2) = 28, a(n) = 2*a(n-1) - 4 for n > 2.

[A014635] 0, 6, 28, 66, 120, 190, 276, 378, 496, 630, 780, 946, 1128, 1326, 1540, 1770, 2016, 2278, 2556, 2850, 3160, 3486, 3828, 4186, 4560, 4950, 5356, 5778, 6216, 6670, 7140, 7626, 8128, 8646, 9180, 9730, 10296, 10878, 11476, 12090, 12720, 13366, 14028, 14706

a(n) = C(4*n,2), n>=0. - Zerinvary Lajos, Jan 02 2007

a(n) = 8n^2 - 2n. - Omar E. Pol, May 07 2008

a(n) = a(n-1) + 16*n - 10 (with a(0)=0). - Vincenzo Librandi, Nov 20 2010

[A227970] 0, 0, 1, 6, 28, 66, 153, 276, 496, 780, 1225, 1770, 2556, 3486, 4753, 6216, 8128, 10296, 13041, 16110, 19900, 24090, 29161, 34716, 41328, 48516, 56953, 66066, 76636, 87990, 101025, 114960, 130816, 147696, 166753, 186966, 209628, 233586, 260281, 288420, 319600, 352380, 388521, 426426

a(n) = binomial(floor(n^2/2), 2). - Wesley Ivan Hurt, Sep 27 2013

[A144945] 0, 6, 28, 76, 160, 290, 476, 728, 1056, 1470, 1980, 2596, 3328, 4186, 5180, 6320, 7616, 9078, 10716, 12540, 14560, 16786, 19228, 21896, 24800, 27950, 31356, 35028, 38976, 43210, 47740, 52576, 57728, 63206, 69020, 75180, 81696, 88578, 95836, 103480, 111520

a(n) = (n-1)*n*(5*n-1)/3.

a(1)=0, a(2)=6, a(3)=28, a(4)=76; for n>4, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Oct 15 2011

a(n) = sum(i*(5*i+1), i=1..n-1), with a(0)=0, a(1)=6. - Bruno Berselli, Feb 10 2014

[A172132] 0, 6, 28, 96, 252, 550, 1056, 1848, 3016, 4662, 6900, 9856, 13668, 18486, 24472, 31800, 40656, 51238, 63756, 78432, 95500, 115206, 137808, 163576, 192792, 225750, 262756, 304128, 350196, 401302, 457800, 520056, 588448, 663366

a(n) = (n - 1)(n + 4)(n^2 - 3n + 4)/2

a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Apr 30 2013

[A276041] 1, 6, 28, 104, 336, 992, 2752, 7296, 18688, 46592, 113664, 272384, 643072, 1499136, 3457024, 7897088, 17891328, 40239104, 89915392, 199753728, 441450496, 970981376, 2126512128, 4638900224, 10083106816, 21843935232, 47177531392, 101602820096, 218238025728

a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3).

a(n) = 2^n*(n^2 + n + 1).

[A253068] 1, 6, 28, 112, 456, 1816, 7288, 29112, 116536, 465976, 1864248, 7456312, 29826616, 119303736, 477220408, 1908870712, 7635504696, 30541975096, 122167987768, 488671776312, 1954687454776, 7818749120056, 31274997878328, 125099988717112, 500399960460856, 2001599830658616, 8006399345004088, 32025597335277112, 128102389430586936

a(n) = ((-2)^n+4^(2+n)-8)/9. - Colin Barker, Jul 16 2015

[A008549] 0, 1, 6, 29, 130, 562, 2380, 9949, 41226, 169766, 695860, 2842226, 11576916, 47050564, 190876696, 773201629, 3128164186, 12642301534, 51046844836, 205954642534, 830382690556, 3345997029244, 13475470680616, 54244942336114, 218269673491780, 877940640368572

a(n) = 4^n - C(2*n+1, n).

a(n) = Sum_{k=1..n} Catalan(k)*4^(n-k): convolution of Catalan numbers and powers of 4.

a(n) = Sum_{k=0..n} C(2k, k)*C(2(n-k), n-k-1). - Paul Barry, Feb 16 2005

a(n) = Sum_{0<i<=k<n} binomial(n,k+i)*binomial(n,k-i). [Mircea Merca, Apr 05 2012]

a(n) = Sum_{m = n+2..2*n+1} binomial(2*n+1,m), n >= 0. - Wolfdieter Lang, May 22 2015

[A045445] 0, 1, 6, 29, 132, 590, 2628, 11732, 52608, 237129, 1074510, 4893801, 22395420, 102943815, 475139070, 2201301575, 10234016880, 47731093715, 223273611810, 1047265325255, 4924606035900, 23211459517120, 109642275853176, 518959629394294, 2460993383491632, 11691102386417575

a(n) = binomial(2n+2, n+1)/(n+2)+sum(binomial(2k, k)*binomial(n-1, k-1)*(3k-2n-3)/[(n-k+1)(k+1)], k=1..n) (n>=2). - Emeric Deutsch, Mar 26 2004

[A152743] 0, 6, 30, 72, 132, 210, 306, 420, 552, 702, 870, 1056, 1260, 1482, 1722, 1980, 2256, 2550, 2862, 3192, 3540, 3906, 4290, 4692, 5112, 5550, 6006, 6480, 6972, 7482, 8010, 8556, 9120, 9702, 10302, 10920, 11556, 12210, 12882, 13572, 14280
a(n) = a(n-1)+18*n-12 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
[A055112] 0, 6, 30, 84, 180, 330, 546, 840, 1224, 1710, 2310, 3036, 3900, 4914, 6090, 7440, 8976, 10710, 12654, 14820, 17220, 19866, 22770, 25944, 29400, 33150, 37206, 41580, 46284, 51330, 56730, 62496, 68640, 75174, 82110, 89460, 97236, 105450
a(n) = n*(n+1)*(2*n+1).
a(n) = Sum_{i = 1..2*n + 1} (n^2 + (i-1)). - Charlie Marion, Sep 14 2012
a(n) = n(n + 1)(2n + 1) = 2n^3 + 3n^2 + n. With a different offset, a(n) = n(n - 1)(2n - 1) = 2n^3 - 3n^2 + n. - Alonso del Arte, Oct 13 2013
[A119536] 0, 6, 30, 90, 204, 390, 666, 1050, 1560, 2214, 3030, 4026, 5220, 6630, 8274, 10170, 12336, 14790, 17550, 20634, 24060, 27846, 32010, 36570, 41544, 46950, 52806, 59130, 65940, 73254, 81090, 89466, 98400, 107910, 118014, 128730, 140076, 152070
a(0)=0, a(1)=6, a(2)=30, a(3)=90, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Mar 19 2013
[A033487] 0, 6, 30, 90, 210, 420, 756, 1260, 1980, 2970, 4290, 6006, 8190, 10920, 14280, 18360, 23256, 29070, 35910, 43890, 53130, 63756, 75900, 89700, 105300, 122850, 142506, 164430, 188790, 215760, 245520, 278256, 314160, 353430, 396270, 442890, 493506
a(n) = binomial(n+2,2)^2 - binomial(n+2,2). - Zerinvary Lajos, May 17 2006
a(n-1) = Sum_{j=1..n} Sum_{i=2..n}i*j = Sum_{j=1..n}j*(n+2)*(n-1)/2. - Zerinvary Lajos, May 11 2007
a(-3-n) = a(n) = 2 * binomial(binomial(n+2, 2), 2). - Michael Somos, Apr 06 2014
[A073948] 0, 0, 0, 6, 30, 90, 252, 756, 2268, 6642, 19602, 58806, 176904, 530712, 1592136, 4780782, 14351094, 43053282, 129146724, 387440172, 1162320516, 3486843450, 10460294154, 31380882462, 94143001680, 282429005040, 847287015120, 2541864234006, 7625599079310
a(n; t, s) = a(n-1; t, s) + a(n-1; t+2, s+2t+1) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A101855] 6, 30, 91, 216, 441, 812, 1386, 2232, 3432, 5082, 7293, 10192, 13923, 18648, 24548, 31824, 40698, 51414, 64239, 79464, 97405, 118404, 142830, 171080, 203580, 240786, 283185, 331296, 385671, 446896, 515592, 592416, 678062, 773262, 878787, 995448
a(1)=6, a(2)=30, a(3)=91, a(4)=216, a(5)=441, a(6)=812, a(n)=6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Feb 07 2013
[A292296] 0, 0, 0, 6, 30, 114, 402, 1386, 4746, 16218, 55386, 189114, 645690, 2204538, 7526778, 25698042, 87738618, 299558394, 1022756346, 3491908602, 11922121722, 40704669690, 138974435322, 474488401914, 1620004737018, 5531042144250, 18884159102970, 64474552123386
a(n) = 5*a(n-1) - 6*a(n-2) + 2*a(n-3), n >= 4.
a(n) = (1/2)*(-12 + (9-6*sqrt(2))*(2+sqrt(2))^n + (2-sqrt(2))^n*(9+6*sqrt(2))) for n>0.
[A255463] 1, 6, 30, 138, 606, 2586, 10830, 44778, 183486, 747066, 3027630, 12228618, 49268766, 198137946, 795740430, 3192527658, 12798808446, 51281327226, 205383589230, 822309197898, 3291561314526, 13173218826906, 52713796014030, 210917946175338, 843860071059006, 3376005143308986, 13505715150454830
a(n+1) = 7*a(n)-12*a(n-1) with a(0)=1, a(1)=6.
[A135160] 1, 6, 30, 144, 690, 3336, 16290, 80184, 396930, 1972296, 9823650, 49003224, 244667970, 1222289256, 6108282210, 30531894264, 152630871810, 763068462216, 3815084423970, 19074648065304, 95370917376450, 476847616459176, 2384217167880930, 11921023089868344, 59604927188149890, 298024071132008136
a(n) = 5^n + 3^n - 2^n.
a(0)=1, a(1)=6, a(2)=30, a(n) = 10*a(n-1) - 31*a(n-2) + 30*a(n-3). - Harvey P. Dale, Mar 10 2013
[A155097] 6, 31, 43, 68, 80, 105, 117, 142, 154, 179, 191, 216, 228, 253, 265, 290, 302, 327, 339, 364, 376, 401, 413, 438, 450, 475, 487, 512, 524, 549, 561, 586, 598, 623, 635, 660, 672, 697, 709, 734, 746, 771, 783, 808, 820, 845, 857, 882, 894, 919, 931, 956, 968
a(n) = 6*(-1)^(n+1) + 37 [n/2]. - M. F. Hasler, Jun 16 2010
a(n) = a(n-2)+37 for all n>2. - M. F. Hasler, Jun 16 2010
[A042841] 1, 1, 6, 31, 68, 235, 303, 538, 841, 8107, 8948, 17055, 26003, 95064, 216131, 1175719, 6094726, 7270445, 442321426, 449591871, 2690280781, 13900995776, 30492272333, 105377812775, 135870085108, 241247897883, 377117982991, 3635309744802, 4012427727793
a(n) = 448416152*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 30 2014
[A273790] 1, 6, 31, 80, 161, 282, 451, 676, 965, 1326, 1767, 2296, 2921, 3650, 4491, 5452, 6541, 7766, 9135, 10656, 12337, 14186, 16211, 18420, 20821, 23422, 26231, 29256, 32505, 35986, 39707, 43676, 47901, 52390, 57151, 62192, 67521, 73146, 79075, 85316, 91877, 98766
a(n) = (4*n^3+12*n^2+11*n-9)/3 for n>0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A096959] 6, 31, 96, 231, 476, 882, 1512, 2442, 3762, 5577, 8008, 11193, 15288, 20468, 26928, 34884, 44574, 56259, 70224, 86779, 106260, 129030, 155480, 186030, 221130, 261261, 306936, 358701, 417136, 482856, 556512, 638792, 730422, 832167, 944832
a(n) = (n+30)*binomial(n+4, 4)/5.
[A024447] 0, 6, 31, 101, 288, 652, 1349, 2451, 4222, 7122, 11121, 17041, 25118, 35352, 48559, 65943, 88422, 115262, 148829, 189157, 235804, 292052, 357705, 435491, 528902, 635962, 755545, 890793, 1040232, 1207472, 1409783, 1635103, 1888690, 2165022, 2481945
a(1) = 0, a(n+1) = prime(n+1)*(sum of first n primes) + a(n), for n > 1.
[A047665] 0, 1, 6, 31, 160, 841, 4494, 24319, 132864, 731281, 4048726, 22523359, 125797984, 704966809, 3961924126, 22321190911, 126027618304, 712917362209, 4039658528934, 22924714957471, 130271906898720, 741188107113961, 4221707080583086, 24070622500965631, 137369104574280960, 784622537295845041
a(n) = Sum_{j=1..n} C(2*j-1, j-1)*C(n+j, 2*j). - Stefan Hollos (stefan(AT)exstrom.com), Jul 21 2004
a(n) = (hyper2F1(-n,n+1,1,-1)-1)/2 = (hyper2F1(-n, -n, 1, 2)-1)/2. - Peter Luschny, May 19 2015
[A288961] 0, 0, 6, 32, 100, 240, 490, 896, 1512, 2400, 3630, 5280, 7436, 10192, 13650, 17920, 23120, 29376, 36822, 45600, 55860, 67760, 81466, 97152, 115000, 135200, 157950, 183456, 211932, 243600
a(n) = 2*n*binomial(n,3).
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
[A239573] 0, 1, 6, 32, 113, 329, 790, 1702, 3320, 6057, 10400, 17074, 26903, 41047, 60796, 87886, 124220, 172275, 234732, 314992, 416703, 544391, 702878, 898040, 1136098, 1424521, 1771178, 2185392, 2676947, 3257305, 3938450, 4734286, 5659306, 6730177, 7964228, 9381234
a(n) = (n^6 + 3*n^5 - 39*n^4 + 10*n^3 + 456*n^2 - 1008*n + 576)/288 + IF(MOD(n, 2) = 1)*(3*n^2 - 5*n - 5)/32 + IF(MOD(n, 3) = 1)*2/9.
[A292044] 0, 1, 6, 32, 160, 768, 3584, 16384, 73728, 327680, 1441792, 6291456, 27262976, 117440512, 503316480, 2147483648, 9126805504, 38654705664, 163208757248, 687194767360, 2886218022912, 12094627905536, 50577534877696, 211106232532992, 879609302220800, 3659174697238528
a(n) = 2^(2*n-5)*n for n > 1.
a(n) = 8*a(n-1) - 16*a(n-2) for n > 3.
[A276351] 6, 32, 374, 2664, 12278, 42176, 118182, 285704, 617894, 1225248, 2266646, 3961832, 6605334, 10581824, 16382918, 24625416, 36070982, 51647264, 72470454, 99869288, 135410486, 180925632, 238539494, 310699784, 400208358, 510253856, 644445782, 806850024, 1002025814, 1235064128, 1511627526
a(n) = 2(3 + 2 n + 3 n^2 + 3 n^3 + 3 n^4 + n^5 + n^6) for n>=0.
[A171141] 6, 33, 47, 74, 88, 115, 129, 156, 170, 197, 211, 238, 252, 279, 293, 320, 334, 361, 375, 402, 416, 443, 457, 484, 498, 525, 539, 566, 580, 607, 621, 648, 662, 689, 703, 730, 744, 771, 785, 812, 826, 853, 867, 894, 908, 935, 949, 976, 990, 1017, 1031, 1058
a(n) = (82*n + 13*(-1)^n - 45)/4. - Vincenzo Librandi, Jan 05 2013
a(n) = a(n-1) + a(n-2) - a(n-3). - Vincenzo Librandi, Jan 05 2013
[A157872] 6, 33, 78, 141, 222, 321, 438, 573, 726, 897, 1086, 1293, 1518, 1761, 2022, 2301, 2598, 2913, 3246, 3597, 3966, 4353, 4758, 5181, 5622, 6081, 6558, 7053, 7566, 8097, 8646, 9213, 9798, 10401, 11022, 11661, 12318, 12993, 13686, 14397, 15126, 15873, 16638
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 05 2012
a(n) = a(n-1) +18n -9. - Vincenzo Librandi, Feb 05 2012
[A153127] 6, 33, 80, 147, 234, 341, 468, 615, 782, 969, 1176, 1403, 1650, 1917, 2204, 2511, 2838, 3185, 3552, 3939, 4346, 4773, 5220, 5687, 6174, 6681, 7208, 7755, 8322, 8909, 9516, 10143, 10790, 11457, 12144, 12851, 13578, 14325, 15092, 15879, 16686, 17513
a(n)=a(n-1)+20*n+7 (with a(0)=6). [From Vincenzo Librandi, Dec 27 2010]
[A135526] 1, 6, 33, 95, 188, 288, 388, 488, 588, 688, 788, 888, 988, 1088, 1188, 1288, 1388, 1488, 1588, 1688, 1788, 1888, 1988, 2088, 2188, 2288, 2388, 2488, 2588, 2688, 2788, 2888, 2988, 3088, 3188, 3288, 3388, 3488, 3588, 3688, 3788, 3888, 3988, 4088, 4188, 4288
a(n) = 100*n - 212 for n>=4.
a(n) = 2*a(n-1) - a(n-2), for n >= 4.

[A204185] 0, 0, 6, 33, 102, 243, 492, 894, 1500, 2370, 3570, 5175, 7266, 9933, 13272, 17388, 22392, 28404, 35550, 43965, 53790, 65175, 78276, 93258, 110292, 129558, 151242, 175539, 202650, 232785, 266160, 303000, 343536, 388008, 436662, 489753, 547542, 610299, 678300, 751830, 831180, 916650, 1008546, 1107183, 1212882, 1325973, 1446792, 1575684, 1713000, 1859100, 2014350
a(n) = a(n-1) + floor((n+1)(n-1)(10n-3)/8).
a(n) = (3-3*(-1)^n-16*n-16*n^2+16*n^3+10*n^4)/32.
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
[A063267] 6, 33, 116, 325, 786, 1709, 3424, 6426, 11430, 19437, 31812, 50375, 77506, 116265, 170528, 245140, 346086, 480681, 657780, 888009, 1184018, 1560757, 2035776, 2629550, 3365830, 4272021, 5379588, 6724491, 8347650
a(0)=6, a(1)=33, a(2)=116, a(3)=325, a(4)=786, a(5)=1709, a(6)=3424, a(7)=6426, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8) [From Harvey P. Dale, Jan 06 2012]
[A082106] 1, 6, 33, 118, 321, 726, 1441, 2598, 4353, 6886, 10401, 15126, 21313, 29238, 39201, 51526, 66561, 84678, 106273, 131766, 161601, 196246, 236193, 281958, 334081, 393126, 459681, 534358, 617793, 710646, 813601, 927366, 1052673, 1190278
a(n) = n^4 + 4*n^2 + 1.
a(0)=1, a(1)=6, a(2)=33, a(3)=118, a(4)=321; for n>4, a(n) = 5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Dec 06 2012
[A067389] 0, 6, 34, 102, 228, 430, 726, 1134, 1672, 2358, 3210, 4246, 5484, 6942, 8638, 10590, 12816, 15334, 18162, 21318, 24820, 28686, 32934, 37582, 42648, 48150, 54106, 60534, 67452, 74878, 82830, 91326, 100384, 110022, 120258, 131110, 142596
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 3.
[A166941] 6, 34, 134, 378, 862, 1706, 3054, 5074, 7958, 11922, 17206, 24074, 32814, 43738, 57182, 73506, 93094, 116354, 143718, 175642, 212606, 255114, 303694, 358898, 421302, 491506, 570134, 657834, 755278, 863162, 982206, 1113154, 1256774
a(n) = n^4 + 6*n^3 + 11*n^2 + 10*n + 6. - Charles R Greathouse IV, Nov 02 2009, [corrected by Klaus Brockhaus, Nov 14 2009]
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + 24 for n > 3; a(0)=6, a(1)=34, a(2)=134, a(3)=378. - Klaus Brockhaus, Nov 14 2009
[A069497] 0, 6, 36, 66, 78, 120, 210, 276, 300, 378, 528, 630, 666, 780, 990, 1128, 1176, 1326, 1596, 1770, 1830, 2016, 2346, 2556, 2628, 2850, 3240, 3486, 3570, 3828, 4278, 4560, 4656, 4950, 5460, 5778, 5886, 6216, 6786, 7140, 7260, 7626, 8256, 8646, 8778, 9180
a(n) = 3*a(n-1) - 5*a(n-2) + 7*a(n-3) - 7*a(n-4) + 5*a(n-5) - 3*a(n-6) + a(n-7).
[A139249] 6, 36, 66, 96, 126, 156, 186, 216, 246, 276, 306, 336, 366, 396, 426, 456, 486, 516, 546, 576, 606, 636, 666, 696, 726, 756, 786, 816, 846, 876, 906, 936, 966, 996, 1026, 1056, 1086, 1116, 1146, 1176, 1206, 1236, 1266, 1296, 1326, 1356, 1386, 1416, 1446, 1476
a(n) = a(n-1) + 30.
[A152746] 0, 6, 36, 90, 168, 270, 396, 546, 720, 918, 1140, 1386, 1656, 1950, 2268, 2610, 2976, 3366, 3780, 4218, 4680, 5166, 5676, 6210, 6768, 7350, 7956, 8586, 9240, 9918, 10620, 11346, 12096, 12870, 13668, 14490, 15336, 16206, 17100
a(n) = a(n-1)+24*n-18 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
[A080857] 1, 6, 36, 91, 171, 276, 406, 561, 741, 946, 1176, 1431, 1711, 2016, 2346, 2701, 3081, 3486, 3916, 4371, 4851, 5356, 5886, 6441, 7021, 7626, 8256, 8911, 9591, 10296, 11026, 11781, 12561, 13366, 14196, 15051, 15931, 16836, 17766, 18721, 19701
a(n) = 25*n+a(n-1)-20 with n>0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
[A086113] 6, 36, 102, 216, 390, 636, 966, 1392, 1926, 2580, 3366, 4296, 5382, 6636, 8070, 9696, 11526, 13572, 15846, 18360, 21126, 24156, 27462, 31056, 34950, 39156, 43686, 48552, 53766, 59340, 65286, 71616, 78342, 85476, 93030, 101016, 109446, 118332
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 24 2012
[A270205] 0, 0, 6, 36, 108, 240, 450, 756, 1176, 1728, 2430, 3300, 4356, 5616, 7098, 8820, 10800, 13056, 15606, 18468, 21660, 25200, 29106, 33396, 38088, 43200, 48750, 54756, 61236, 68208, 75690, 83700, 92256
a(n) = 3*n^3 - 6*n^2 + 3*n.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. (End)
[A172137] 0, 6, 36, 112, 276, 582, 1096, 1896, 3072, 4726, 6972, 9936, 13756, 18582, 24576, 31912, 40776, 51366, 63892, 78576, 95652, 115366, 137976, 163752, 192976, 225942, 262956, 304336, 350412, 401526, 458032, 520296, 588696, 663622
a(n) = (n^4 - 9n^2 + 40n - 48)/2, n >= 2. (Christian Poisson, 1990)
[A083374] 0, 6, 36, 120, 300, 630, 1176, 2016, 3240, 4950, 7260, 10296, 14196, 19110, 25200, 32640, 41616, 52326, 64980, 79800, 97020, 116886, 139656, 165600, 195000, 228150, 265356, 306936, 353220, 404550, 461280, 523776, 592416, 667590, 749700, 839160, 936396
a(n) = binomial(n^2,2), n>=1. - Zerinvary Lajos, Jan 07 2008
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>5. - R. J. Mathar, Apr 10 2009
a(n) = Sum_{i=1..n^2-1} i. - Wesley Ivan Hurt, Nov 24 2015
[A018214] 1, 6, 36, 146, 511, 1512, 4032, 9752, 21942, 46252, 92504, 176484, 323554, 572264, 981024, 1634776, 2656511, 4218786, 6562556, 10016006, 15024009, 22177584, 32258304, 46282704, 65567164, 91792792, 127097712, 174169352
a(n) = (1/(2*10!))*(n+2)*(n+4)*(n+6)*(n+8)*(n+10)*((n+1)*(n+3)*(n+5)*(n+7)*(n+9) + 1*3*5*7*9)- (1/6)*(1/2^8)*(n^4+22*n^3+170*n^2+539*n+579)*(1/2)*(1
(-1)^n). [Yosu Yurramendi, Jun 23 2013]
[A293068] 0, 0, 0, 6, 36, 170, 768, 3458, 15596, 70314, 316296, 1418538, 6342852, 28286258, 125865936, 559075586, 2479846748, 10987635738, 48642380568, 215198769114, 951576969588, 4206079161794, 18585710106720, 82106786841074, 362660527980812, 1601624618444970
a(n) = 12*a(n-1) - 53*a(n-2) + 106*a(n-3) - 94*a(n-4) + 28*a(n-5) for n>5.
[A047670] 6, 37, 158, 529, 1486, 3653, 8086, 16449, 31222, 55941, 95470, 156305, 246910, 378085, 563366, 819457, 1166694, 1629541, 2237118, 3023761, 4029614, 5301253, 6892342, 8864321, 11287126, 14239941, 17811982, 22103313, 27225694, 33303461, 40474438, 48890881
a(n) = 1/45 * (2n^6 + 50n^4 + 173 + 45).
[A229620] 0, 6, 38, 116, 256, 478, 798, 1236, 1808, 2534, 3430, 4516, 5808, 7326, 9086, 11108, 13408, 16006, 18918, 22164, 25760, 29726, 34078, 38836, 44016, 49638, 55718, 62276, 69328, 76894, 84990, 93636, 102848, 112646, 123046, 134068, 145728, 158046, 171038, 184724, 199120, 214246, 230118, 246756, 264176, 282398, 301438, 321316, 342048, 363654
a(n) = (1-(-1)^n-8*n+18*n^2+12*n^3)/4. G.f.: -2*x*(2*x+1)*(x^2-4*x-3) / ((x-1)^4*(x+1)). - Colin Barker, Sep 29 2013
[A045949] 0, 6, 38, 116, 262, 496, 840, 1314, 1940, 2738, 3730, 4936, 6378, 8076, 10052, 12326, 14920, 17854, 21150, 24828, 28910, 33416, 38368, 43786, 49692, 56106, 63050, 70544, 78610, 87268, 96540, 106446, 117008, 128246, 140182, 152836, 166230
a(n) = [n(14n^2+9n+2)/4].
a(n)= +3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5). G.f.: 2*x*(3+10*x+7*x^2+x^3) / ((1+x)*(x-1)^4). a(n) = 7*n^3/2+9*n^2/4+n/2-1/8+(-1)^n/8. - R. J. Mathar, Sep 03 2010
[A289162] 0, 0, 0, 6, 39, 106, 321, 644, 1402, 2412, 4382, 6842, 11097, 16198, 24311, 33768, 47908, 64056, 87084, 112974, 148539, 188034, 240669, 298540, 373758, 455780, 560170, 673218, 814541, 966686, 1153971, 1354576, 1598216, 1858032, 2169880, 2501142, 2894607, 3311130
a(n) = ((-1 + n)*(15 - 193*n + 162*n^2 - 68*n^3 + 12*n^4 - 15*(-1)^n*(1 - 7*n + 2*n^2)))/240.
a(n) = 2*a(n-1)+3*a(n-2)-8*a(n-3)-2*a(n-4)+12*a(n-5)-2*a(n-6)-8*a(n-7)+3*a(n-8)+2*a(n-9)-a(n-10).
[A211065] 0, 6, 40, 96, 288, 486, 1056, 1536, 2800, 3750, 6120, 7776, 11760, 14406, 20608, 24576, 33696, 39366, 52200, 60000, 77440, 87846, 110880, 124416, 154128, 171366, 208936, 230496, 277200, 303750, 360960, 393216, 462400, 501126, 583848
a(n) = (2*n + 1 -(-1)^n)^2*(6*n + 1 -(-1)^n)*(2*n - 1 + (-1)^n)/128.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 9.
[A027777] 6, 40, 150, 420, 980, 2016, 3780, 6600, 10890, 17160, 26026, 38220, 54600, 76160, 104040, 139536, 184110, 239400, 307230, 389620, 488796, 607200, 747500, 912600, 1105650, 1330056, 1589490, 1887900, 2229520, 2618880
a(n) = C(n+1, 3)*C(n+2, 2) - Zerinvary Lajos, May 13 2005, corrected by R. J. Mathar, Feb 13 2016
[A227013] 1, 6, 40, 152, 413, 920, 1792, 3173, 5232, 8160, 12173, 17512, 24440, 33245, 44240, 57760, 74165, 93840, 117192, 144653, 176680, 213752, 256373, 305072, 360400, 422933, 493272, 572040, 659885, 757480, 865520, 984725, 1115840, 1259632, 1416893
a(n) = 47/9 + 14*n + (41*n^2)/3 + 6*n^3 + n^4 - (2/9)Cos(2*n*pi/3) (conjectured).
a(n) = 4*a(n-1) - 6*a(n-2) + 5*a(n-3) - 5*a(n-4) + 6*a(n-5) - 4*a(n-6) + a(n-7) for n > 2 (conjectured).
[A073773] 0, 0, 0, 6, 40, 152, 480, 1376, 3712, 9600, 24064, 58880, 141312, 333824, 778240, 1794048, 4096000, 9273344, 20840448, 46530560, 103284736, 228065280, 501219328, 1096810496, 2390753280, 5192548352, 11240734720, 24259854336

a(n < 3) = 0, a(n) = ((n^2 - 6)*2^(n-2))
[A001919] 6, 40, 155, 456, 1128, 2472, 4950, 9240, 16302, 27456, 44473, 69680, 106080, 157488, 228684, 325584, 455430, 627000, 850839, 1139512, 1507880, 1973400, 2556450, 3280680, 4173390, 5265936, 6594165, 8198880, 10126336, 12428768, 15164952, 18400800, 22209990
a(n) = n(n^2-1)(n^2-4)(n^2+21n+180)/5040. - Emeric Deutsch, Jan 27 2005
a(3)=6, a(4)=40, a(5)=155, a(6)=456, a(7)=1128, a(8)=2472, a(9)=4950, a(10)=9240, a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)- 28*a(n-6)+ 8*a(n-7)-a(n-8). - Harvey P. Dale, Mar 27 2013
[A232568] 0, 6, 40, 210, 681, 1919, 4443, 9481, 18206, 33164, 56570, 92996, 146175, 223565, 330981, 479779, 678508, 943586, 1287036, 1731654, 2293765, 3004011, 3883935, 4973645, 6300906, 7917064, 9857198, 12185816, 14946491, 18218969, 22056585, 26556551, 31783320
a(n) = (n^6 - 15*n^4 + 20*n^3 + 50*n^2 - 116*n + 48)/48 if n is even; a(n) = (n^6 - 15*n^4 + 28*n^3 + 29*n^2 - 76*n - 15)/48 if n is odd.
a(n) = (n^6 - 15n^4 + 28n^3 + 29n^2 - 76n - 15 - ((n+1) mod 2) * (8n^3 - 21n^2 + 40n - 63))/48. - Wesley Ivan Hurt, Dec 06 2013
[A257602] 1, 6, 41, 156, 426, 951, 1856, 3291, 5431, 8476, 12651, 18206, 25416, 34581, 46026, 60101, 77181, 97666, 121981, 150576, 183926, 222531, 266916, 317631, 375251, 440376, 513631, 595666, 687156, 788801, 901326, 1025481, 1162041, 1311806, 1475601, 1654276, 1848706, 2059791, 2288456, 2535651
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Jun 08 2015
[A097253] 0, 6, 42, 48, 294, 300, 336, 342, 2058, 2064, 2100, 2106, 2352, 2358, 2394, 2400, 14406, 14412, 14448, 14454, 14700, 14706, 14742, 14748, 16464, 16470, 16506, 16512, 16758, 16764, 16800, 16806, 100842, 100848, 100884, 100890, 101136
a(2n) = 7*a(n), a(2n+1) = a(2n)+6.
[A211616] 0, 6, 42, 102, 192, 312, 462, 642, 852, 1092, 1362, 1662, 1992, 2352, 2742, 3162, 3612, 4092, 4602, 5142, 5712, 6312, 6942, 7602, 8292, 9012, 9762, 10542, 11352, 12192, 13062, 13962, 14892, 15852, 16842, 17862, 18912, 19992, 21102, 22242, 23412, 24612, 25842
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>4.
a(n) = 3*(4 - 5*n + 5*n^2) for n>1.
[A153786] 0, 6, 42, 108, 204, 330, 486, 672, 888, 1134, 1410, 1716, 2052, 2418, 2814, 3240, 3696, 4182, 4698, 5244, 5820, 6426, 7062, 7728, 8424, 9150, 9906, 10692, 11508, 12354, 13230, 14136, 15072, 16038, 17034, 18060, 19116, 20202, 21318
a(n) = 30*n + a(n-1) - 24 for n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A256833] 6, 42, 110, 210, 342, 506, 702, 930, 1190, 1482, 1806, 2162, 2550, 2970, 3422, 3906, 4422, 4970, 5550, 6162, 6806, 7482, 8190, 8930, 9702, 10506, 11342, 12210, 13110, 14042, 15006, 16002, 17030, 18090, 19182, 20306, 21462, 22650, 23870, 25122, 26406
a(n) = 16*n^2 + 20*n + 6.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. - Vincenzo Librandi, Apr 12 2015
[A164016] 6, 42, 114, 222, 366, 546, 762, 1014, 1302, 1626, 1986, 2382, 2814, 3282, 3786, 4326, 4902, 5514, 6162, 6846, 7566, 8322, 9114, 9942, 10806, 11706, 12642, 13614, 14622, 15666, 16746, 17862, 19014, 20202, 21426, 22686, 23982, 25314
a(n) = a(n-1) + 36*n (with a(0)=6). - Vincenzo Librandi, Nov 30 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) with a(0)=6, a(1)=42, a(2)=114. - Harvey P. Dale, Dec 16 2012
[A176780] 6, 42, 156, 420, 930, 1806, 3192, 5256, 8190, 12210, 17556, 24492, 33306, 44310, 57840, 74256, 93942, 117306, 144780, 176820, 213906, 256542, 305256, 360600, 423150, 493506, 572292, 660156, 757770, 865830, 985056, 1116192, 1260006
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+24; a(0)=6, a(1)=42, a(2)=156, a(3)=420.
a(n) = a(-n-3). - Bruno Berselli, Sep 05 2011
[A169938] 0, 0, 6, 42, 156, 420, 930, 1806, 3192, 5256, 8190, 12210, 17556, 24492, 33306, 44310, 57840, 74256, 93942, 117306, 144780, 176820, 213906, 256542, 305256, 360600, 423150, 493506, 572292, 660156, 757770, 865830, 985056, 1116192, 1260006, 1417290, 1588860
a(n+1) = a(n) + 2(n+1)(2(n+1)^2+1). - Robert Munafo, Jul 27 2010
[A082986] 6, 42, 156, 420, 930, 1806, 3192, 5256, 8190, 12210, 17556, 24492, 33306, 44310, 57840, 74256, 93942, 117306, 144780, 176820, 213906, 256542, 305256, 360600, 423150, 493506, 572292, 660156, 757770, 865830, 985056, 1116192, 1260006, 1417290, 1588860, 1775556
a(n) < 3*n^4 for n>=2 (upper bound). - Carmine Suriano, Feb 20 2014
[A180355] 0, 6, 42, 258, 1044, 3150, 7806, 16842, 32808, 59094, 100050, 161106, 248892, 371358, 537894, 759450, 1048656, 1419942, 1889658, 2476194, 3200100, 4084206, 5153742, 6436458, 7962744, 9765750, 11881506, 14349042, 17210508, 20511294
a(n) = +6*a(n-1) -15*a(n-2) +20*a(n-3) -15*a(n-4) +6*a(n-5) -a(n-6). - R. J. Mathar, Sep 24 2010
[A156676] 6, 43, 242, 603, 1126, 1811, 2658, 3667, 4838, 6171, 7666, 9323, 11142, 13123, 15266, 17571, 20038, 22667, 25458, 28411, 31526, 34803, 38242, 41843, 45606, 49531, 53618, 57867, 62278, 66851, 71586, 76483, 81542, 86763, 92146, 97691, 103398
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A000561] 6, 44, 145, 336, 644, 1096, 1719, 2540, 3586, 4884, 6461, 8344, 10560, 13136, 16099, 19476, 23294, 27580, 32361, 37664, 43516, 49944, 56975, 64636, 72954, 81956, 91669, 102120, 113336, 125344, 138171, 151844, 166390, 181836, 198209, 215536, 233844, 253160, 273511, 294924, 317426, 341044
a(n) = (9/2)*n^3 - (45/2)*n^2 + 29*n. - Barbara Haas Margolius (margolius(AT)math.csuohio.edu), Feb 17 2001
[A292057] 0, 6, 44, 164, 440, 970, 1876, 3304, 5424, 8430, 12540, 17996, 25064, 34034, 45220, 58960, 75616, 95574, 119244, 147060, 179480, 216986, 260084, 309304, 365200, 428350, 499356, 578844, 667464, 765890, 874820, 994976, 1127104, 1271974, 1430380, 1603140, 1791096, 1995114
a(n) = (n - 1)*n*(3*n^2 - 2*n + 1)/3.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A054563] 0, 0, 6, 45, 190, 595, 1540, 3486, 7140, 13530, 24090, 40755, 66066, 103285, 156520, 230860, 332520, 468996, 649230, 883785, 1185030, 1567335, 2047276, 2643850, 3378700, 4276350, 5364450, 6674031, 8239770, 10100265, 12298320, 14881240
a(2)=0, a(3)=0, a(4)=6, a(5)=45, a(6)=190, a(7)=595, a(8)=1540, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Sep 20 2011
a(n)=(binomial(n+2,3)^2-binomial(n+2,3))/2, n>0. - Gary Detlefs, Nov 23 2011
[A079910] 1, 6, 46, 212, 738, 2104, 5150, 11196, 22162, 40688, 70254, 115300, 181346, 275112, 404638, 579404, 810450, 1110496, 1494062, 1977588, 2579554, 3320600, 4223646, 5314012, 6619538, 8170704, 10000750, 12145796, 14644962, 17540488, 20877854
a(0)=1, a(1)=6, a(2)=46, a(n) = n^5 - 5*n^4 + 25*n^3 - 55*n^2 + 80*n - 46.
[A027012] 1, 6, 47, 199, 661, 1954, 5442, 14696, 39065, 103025, 270655, 709716, 1859412, 4869594, 12750611, 33383659, 87401977, 228824086, 599072310, 1568395100, 4106115485, 10749954101, 28143749827, 73681298664, 192900149736, 505019154414, 1322157317687
a(1)=1, a(n) = Lucas(2*n+6) - (6*n^2+17*n+18). - Ralf Stephan, May 05 2005
a(n) = -8 + (2^(-1-n)*((3-sqrt(5))^n*(-15+7*sqrt(5))+(3+sqrt(5))^n*(15+7*sqrt(5))))/sqrt(5) + 13*(1+n) - 6*(1+n)*(2+n) for n>1.
a(n) = 6*a(n-1)-13*a(n-2)+13*a(n-3)-6*a(n-4)+a(n-5) for n>6.
[A153796] 0, 6, 48, 126, 240, 390, 576, 798, 1056, 1350, 1680, 2046, 2448, 2886, 3360, 3870, 4416, 4998, 5616, 6270, 6960, 7686, 8448, 9246, 10080, 10950, 11856, 12798, 13776, 14790, 15840, 16926, 18048, 19206, 20400, 21630, 22896, 24198, 25536, 26910, 28320, 29766
a(n) = a(n-1) + 36*n - 30 (with a(0)=0). - Vincenzo Librandi, Dec 15 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A167547] 6, 48, 160, 384, 762, 1336, 2148, 3240, 4654, 6432, 8616, 11248, 14370, 18024, 22252, 27096, 32598, 38800, 45744, 53472, 62026, 71448, 81780, 93064, 105342, 118656, 133048, 148560, 165234, 183112, 202236, 222648, 244390, 267504, 292032, 318016
a(n) = 7*n^3 - 7*n^2 + 14*n - 8.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Jun 15 2016
[A244726] 0, 6, 48, 162, 384, 750, 1296, 2058, 3072, 4374, 6000, 7986, 10368, 13182, 16464, 20250, 24576, 29478, 34992, 41154, 48000, 55566, 63888, 73002, 82944, 93750, 105456, 118098, 131712, 146334, 162000, 178746, 196608, 215622, 235824, 257250, 279936, 303918
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3.
[A208536] 0, 0, 6, 48, 204, 624, 1554, 3360, 6552, 11808, 19998, 32208, 49764, 74256, 107562, 151872, 209712, 283968, 377910, 495216, 639996, 816816, 1030722, 1287264, 1592520, 1953120, 2376270, 2869776, 3442068, 4102224, 4859994, 5725824, 6710880
a(n+2) = delta(-n) = -delta(n) for n >= 0, where delta is the p-derivation over the integers with respect to prime p = 5. - Danny Rorabaugh, Nov 10 2017
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.

[A052771] 0, 0, 0, 6, 48, 240, 960, 3360, 10752, 32256, 92160, 253440, 675840, 1757184, 4472832, 11182080, 27525120, 66846720, 160432128, 381026304, 896532480, 2091909120, 4844421120, 11142168576, 25467813888, 57881395200, 130862284800
a(n) = n*(n-1)*(n-2)/8 * 2^n. - Vaclav Kotesovec, Nov 27 2012
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4). - Chai Wah Wu, May 25 2016
[A244509] 6, 48, 480, 2016, 13200, 26208, 78336, 123120, 267168, 682080, 892800, 1822176, 2755200, 3337488, 4773696, 7738848, 11908560, 13615200, 19845936, 25048800, 28003968, 38450880, 46879728, 62029440, 87607296, 103020000, 111447648, 129843216, 139851360
a(n) = (p-1)*p*(p^2-1) where p = prime(n).
[A027766] 6, 49, 224, 756, 2100, 5082, 11088, 22308, 42042, 75075, 128128, 210392, 334152, 515508, 775200, 1139544, 1641486, 2321781, 3230304, 4427500, 5985980, 7992270, 10548720, 13775580, 17813250, 22824711, 28998144, 36549744, 45726736, 56810600, 70120512, 86017008
a(n) = C(n+1,6)*C(n+1,1). - Zerinvary Lajos, Jun 08 2005
[A035290] 0, 0, 6, 50, 194, 522, 1142, 2186, 3810, 6194, 9542, 14082, 20066, 27770, 37494, 49562, 64322, 82146, 103430, 128594, 158082, 192362, 231926, 277290, 328994, 387602, 453702, 527906, 610850, 703194, 805622, 918842, 1043586, 1180610
a(n) = n^4 - 4 n^3 + n^2 + 10 n - 6.
[A001303] 6, 50, 225, 735, 1960, 4536, 9450, 18150, 32670, 55770, 91091, 143325, 218400, 323680, 468180, 662796, 920550, 1256850, 1689765, 2240315, 2932776, 3795000, 4858750, 6160050, 7739550, 9642906, 11921175, 14631225, 17836160, 21605760, 26016936, 31154200
a(n) = binomial(n+3, 4)*binomial(n+3, 2).
a(n) = ((n+4)! / n!) ^2 / ((n+2) * (n+1) * 2*4!);
a(n) = (n-0)^2 * (n-1)^2 * (n-2) * (n-3) / (2*4!). (End)
a(n) = numbperm(n,2)*numbperm(n,4)/48, n >= 4. - Zerinvary Lajos, Apr 26 2007
a(n) = 15*binomial(n+5,6) - 10*binomial(n+4,5) + binomial(n+3,4).
a(n) = n*(n+1)(n+2)^2*(n+3)^2/48. - Jeremy Galvagni (jgalvagni(AT)mohawkteachers.org), Mar 03 2009
[A292053] 0, 6, 52, 228, 708, 1778, 3864, 7560, 13656, 23166, 37356, 57772, 86268, 125034, 176624, 243984, 330480, 439926, 576612, 745332, 951412, 1200738, 1499784, 1855640, 2276040, 2769390, 3344796, 4012092, 4781868, 5665498, 6675168, 7823904, 9125600, 10595046
a(n) = (n - 1)*n*(n + 1)*(7*n^2 + 2)/30.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A260955] 6, 54, 150, 294, 486, 726, 1014, 1350, 1734, 2166, 2646, 3174, 3750, 4374, 5046, 5766, 6534, 7350, 8214, 9126, 10086, 11094, 12150, 13254, 14406, 15606, 16854, 18150, 19494, 20886, 22326, 23814, 25350, 26934, 28566, 30246, 31974, 33750, 35574, 37446, 39366
a(n) = 24*n^2 + 24*n + 6.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Colin Barker, Aug 05 2015
a(n)*(2*h-1)^2 = a((2*h-1)*n+h-1). For h=0, a(n) = a(-n-1); for h=7, 169*a(n) = a(13*n+6). [Bruno Berselli, Aug 05 2015]
[A061792] 6, 55, 153, 300, 496, 741, 1035, 1378, 1770, 2211, 2701, 3240, 3828, 4465, 5151, 5886, 6670, 7503, 8385, 9316, 10296, 11325, 12403, 13530, 14706, 15931, 17205, 18528, 19900, 21321, 22791, 24310, 25878, 27495, 29161, 30876, 32640, 34453
a(0)=6, a(1)=55, a(2)=153, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Apr 11 2012]
[A177059] 6, 56, 156, 306, 506, 756, 1056, 1406, 1806, 2256, 2756, 3306, 3906, 4556, 5256, 6006, 6806, 7656, 8556, 9506, 10506, 11556, 12656, 13806, 15006, 16256, 17556, 18906, 20306, 21756, 23256, 24806, 26406, 28056, 29756, 31506, 33306, 35156, 37056
a(n) = (5n + 2)(5n + 3).
a(n) = 50*n+a(n-1) with a(0)=6.
[A053127] 6, 56, 252, 792, 2002, 4368, 8568, 15504, 26334, 42504, 65780, 98280, 142506, 201376, 278256, 376992, 501942, 658008, 850668, 1086008, 1370754, 1712304, 2118760, 2598960, 3162510, 3819816, 4582116, 5461512, 6471002, 7624512
a(n)= binomial(2*n-4, 5) if n >= 5 else 0; G.f.: (6+20*x+6*x^2)/(1-x)^6.
a(5)=6, a(6)=56, a(7)=252, a(8)=792, a(9)=2002, a(10)=4368, a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a (n-6). - Harvey P. Dale, Jun 03 2013
[A181430] 0, 0, 6, 57, 272, 901, 2376, 5362, 10808, 19998, 34602, 56727, 88968, 134459, 196924, 280728, 390928, 533324, 714510, 941925, 1223904, 1569729, 1989680, 2495086, 3098376, 3813130, 4654130, 5637411, 6780312, 8101527, 9621156, 11360756
a(n) = n * (51 * n^4 - 110 * n^3 + 165 * n^2 -130 * n + 24)/120 = n * (n-1) * (51*n^3 - 59*n^2 + 106*n - 24)/120.
[A004301] 0, 6, 58, 328, 1452, 5610, 19950, 67260, 218848, 695038, 2170626, 6699696, 20507988, 62407890, 189123286, 571432036, 1722945672, 5187185766, 15600353130, 46882846680, 140820504700, 422822222266, 1269221639358, 3809241974028, 11431014253872, 34299887862990
a(n) = sum((-1)^(n+k)*binomial(2*n+1,k)*stirling1(2*n-k-2,n-k-2),k=0..n-3). - Johannes W. Meijer, Oct 16 2009
[A069072] 6, 60, 210, 504, 990, 1716, 2730, 4080, 5814, 7980, 10626, 13800, 17550, 21924, 26970, 32736, 39270, 46620, 54834, 63960, 74046, 85140, 97290, 110544, 124950, 140556, 157410, 175560, 195054, 215940, 238266, 262080, 287430, 314364, 342930
a(0)=6, a(1)=60, a(2)=210, a(3)=504, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Dec 08 2013
[A292061] 0, 0, 0, 6, 60, 300, 1050, 2940, 7056, 15120, 29700, 54450, 94380, 156156, 248430, 382200, 571200, 832320, 1186056, 1656990, 2274300, 3072300, 4091010, 5376756, 6982800, 8970000, 11407500, 14373450, 17955756, 22252860, 27374550, 33442800, 40592640, 48973056, 58747920
a(n) = (n - 3)*(n - 2)^2*(n - 1)^2*n/24.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A027811] 6, 63, 336, 1260, 3780, 9702, 22176, 46332, 90090, 165165, 288288, 482664, 779688, 1220940, 1860480, 2767464, 4029102, 5753979, 8075760, 11157300, 15195180, 20424690, 27125280, 35626500, 46314450, 59638761, 76120128
a(n) = C(n+1, 2)*C(n+5, 5). - Zerinvary Lajos, May 26 2005, corrected by R. J. Mathar, Feb 10 2016
[A053700] 6, 63, 364, 1365, 3906, 9331, 19608, 37449, 66430, 111111, 177156, 271453, 402234, 579195, 813616, 1118481, 1508598, 2000719, 2613660, 3368421, 4288306, 5399043, 6728904, 8308825, 10172526, 12356631, 14900788, 17847789, 21243690, 25137931
a(n) = n^5 + n^4 + n^3 + n^2 + n + 1 = (n^6-1)/(n-1).
[A117794] 0, 6, 66, 120, 276, 378, 630, 780, 1128, 1326, 1770, 2016, 2556, 2850, 3486, 3828, 4560, 4950, 5778, 6216, 7140, 7626, 8646, 9180, 10296, 10878, 12090, 12720, 14028, 14706, 16110, 16836, 18336, 19110, 20706, 21528, 23220, 24090, 25878, 26796
a(1)=0, a(2)=6, a(3)=66, a(4)=120, a(5)=276, a(n)=a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) [From Harvey P. Dale, Aug 19 2011]
a(n)=3/2*(-1)^n(-4 n+(-1)^n(6*n(2*n-5)+19)+5) [From Harvey P. Dale, Aug 19 2011]
[A085025] 6, 66, 176, 336, 546, 806, 1116, 1476, 1886, 2346, 2856, 3416, 4026, 4686, 5396, 6156, 6966, 7826, 8736, 9696, 10706, 11766, 12876, 14036, 15246, 16506, 17816, 19176, 20586, 22046, 23556, 25116, 26726, 28386, 30096, 31856, 33666, 35526, 37436, 39396
a(0)=6, a(1)=66, a(2)=176, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 11 2015
[A192089] 0, 0, 6, 66, 402, 2028, 8790, 35118, 131982, 475344, 1658382, 5651226, 18912498, 62418180, 203768862, 659487678, 2119617474, 6774043254, 21547968726, 68274910026, 215609878962, 678936947940, 2132568719358, 6683705385078, 20906259913566, 65277851607840
a(n)=3^(n-2)+sum(psi_3(t)*3^(n-t-1),t=1..n-1)-n*sum(psi_2(t)*2^(n-t-1),t=0..n-1), where psi_N(t) is the number of primitive words of length t over an N-letter alphabet, which is expressible in terms of the Möbius function.
[A243719] 1, 6, 66, 609, 3375, 14181, 47485, 136085, 342739, 784059, 1653033, 3267471, 6107271, 10901405, 18683285, 30934341, 49659915, 77611995, 118386689, 176753639, 258774303, 372270981, 526962861, 735113445, 1011678595, 1375177451, 1847843545, 2456771055, 3234056439
a(n) = (n^8 - 54*n^6 + 144*n^5 + 1048*n^4 - 5280*n^3 - 2432*n^2 + 52800*n - 78912 + (1 - (-1)^n)/2*(14*n^4 - 48*n^3 - 158*n^2 + 768*n - 723))/192 for n >= 6.
[A152390] 6, 68, 252, 648, 1370, 2556, 4368, 6992, 10638, 15540, 21956, 30168, 40482, 53228, 68760, 87456, 109718, 135972, 166668, 202280, 243306, 290268, 343712, 404208, 472350, 548756, 634068, 728952, 834098, 950220, 1078056, 1218368, 1371942
a(n) = (n^3+8*n^2+19*n+6)*(n+1).
[A288719] 0, 6, 69, 399, 1467, 4197, 10203, 22047, 43557, 80187, 139422, 231228, 368547, 567837, 849657, 1239297, 1767453, 2470947, 3393492, 4586502, 6109947, 8033253, 10436247, 13410147, 17058597, 21498747, 26862378, 33297072, 40967427, 50056317, 60766197
a(n) = (n^6 + 9*n^5 + 29*n^4 + 39*n^3 + 18*n^2 - 48)/16 for n>3. - Andrew Howroyd, Jun 19 2017
[A282817] 0, 0, 0, 6, 72, 375, 1320, 3675, 8736, 18522, 36000, 65340, 112200, 184041, 290472, 443625, 658560, 953700, 1351296, 1877922, 2565000, 3449355, 4573800, 5987751, 7747872, 9918750, 12573600, 15795000, 19675656, 24319197, 29841000, 36369045, 44044800, 53024136
a(n) = (n-2)^2*(n-1)*n^2*(n+5)/24.

[A052791] 0, 0, 0, 6, 72, 540, 3240, 17010, 81648, 367416, 1574640, 6495390, 25981560, 101328084, 386889048, 1450833930, 5356925280, 19514513520, 70252248672, 250273635894, 883318714920, 3091615502220, 10739295955080, 37050571045026, 127030529297232, 433058622604200, 1468633589701200
a(n) = n!*sum(i+j+k=n, ijk/(i!j!k!)) - Benoit Cloitre, Nov 11 2004
[A263228] 0, 6, 76, 210, 408, 670, 996, 1386, 1840, 2358, 2940, 3586, 4296, 5070, 5908, 6810, 7776, 8806, 9900, 11058, 12280, 13566, 14916, 16330, 17808, 19350, 20956, 22626, 24360, 26158, 28020, 29946, 31936, 33990, 36108, 38290, 40536, 42846, 45220, 47658, 50160
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A181343] 6, 76, 386, 1251, 3126, 6606, 12426, 21461, 34726, 53376, 78706, 112151, 155286, 209826, 277626, 360681, 461126, 581236, 723426, 890251, 1084406, 1308726, 1566186, 1859901, 2193126, 2569256, 2991826, 3464511, 3991126, 4575626
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+140 for n > 4; a(1)=6, a(2)=76, a(3)=386, a(4)=1251.
[A167498] 6, 78, 342, 926, 1958, 3566, 5878, 9022, 13126, 18318, 24726, 32478, 41702, 52526, 65078, 79486, 95878, 114382, 135126, 158238, 183846, 212078, 243062, 276926, 313798, 353806, 397078, 443742, 493926, 547758, 605366, 666878, 732422, 802126, 876118, 954526, 1037478, 1125102
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 128.
[A250388] 6, 78, 432, 1560, 4350, 10206, 21168, 40032, 70470, 117150, 185856, 283608, 418782, 601230, 842400, 1155456, 1555398, 2059182, 2685840, 3456600, 4395006, 5527038, 6881232, 8488800, 10383750, 12603006, 15186528, 18177432, 21622110, 25570350
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A093033] 6, 79, 314, 807, 1654, 2951, 4794, 7279, 10502, 14559, 19546, 25559, 32694, 41047, 50714, 61791, 74374, 88559, 104442, 122119, 141686, 163239, 186874, 212687, 240774, 271231, 304154, 339639, 377782, 418679, 462426, 509119, 558854, 611727, 667834, 727271
a(n) = 16*n^3-15*n^2+6*n-1.
a(1)=6, a(2)=79, a(3)=314, a(4)=807, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Aug 11 2015
[A112462] 6, 83, 611, 3185, 13195, 46228, 142324, 395148, 1007760, 2393430, 5349526, 11345698, 22985326, 44722580, 83947700, 152591660, 269449830, 463484385, 778439025, 1279189275, 2060359665, 3257868120, 5064210840, 7748481000, 11682325200, 17373286476, 25507265868
a(n) = (11n+6)/12! * product(n+i, i=-5..5).
[A054605] 0, 6, 84, 780, 4200, 15810, 46956, 118104, 262800, 532350, 1001220, 1773156, 2988024, 4829370, 7532700, 11394480, 16781856, 24143094, 34018740, 47053500, 64008840, 85776306, 113391564, 148049160, 191118000, 244157550, 308934756
a(n) = n^6+n^3+2n^2+2n. - Ralf Stephan, Sep 03 2003
[A278683] 0, 0, 6, 92, 832, 4500, 18229, 58881, 163509, 401259, 898420, 1861146, 3625546, 6694982, 11829267, 20099815, 33036079, 52700901, 81916834, 124362664, 184907220, 269726216, 386776561, 545930397, 759628777, 1043027055, 1414873104, 1897655046, 2518755934, 3310591194
a(n) = (n^8 - 30*n^6 + 48*n^5 + 328*n^4 - 1056*n^3 - 200*n^2 + 4176*n - 4032 + IF(MOD(n, 2) = 1, 14*n^4 - 48*n^3 - 38*n^2 + 336*n - 459))/192 for n>=3.
a(n) = 4*a(n-1) - a(n-2) - 16*a(n-3) + 19*a(n-4) + 20*a(n-5) - 45*a(n-6) + 45*a(n-8) - 20*a(n-9) - 19*a(n-10) + 16*a(n-11) + a(n-12) - 4*a(n-13) + a(n-14) for n>=17.
[A179058] 0, 0, 6, 96, 600, 2400, 7350, 18816, 42336, 86400, 163350, 290400, 490776, 794976, 1242150, 1881600, 2774400, 3995136, 5633766, 7797600, 10613400, 14229600, 18818646, 24579456, 31740000, 40560000, 51333750, 64393056, 80110296
a(n) = 3!*binomial(n, 3)^2.
a(n) = (n^2*(2-3*n+n^2)^2)/6. - Colin Barker, Jan 08 2013
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Eric W. Weisstein, Sep 05 2017
[A115400] 0, 0, 0, 6, 96, 780, 4080, 15330, 45696, 115416, 257760, 523710, 987360, 1752036, 2957136, 4785690, 7472640, 11313840, 16675776, 24006006, 33844320, 46834620, 63737520, 85443666, 112987776, 147563400, 190538400, 243471150, 308127456
a(n) = n*(n-1)*(n-2)*(n^3 - 9*n^2 + 29*n - 32).
[A001526] 6, 104, 300, 594, 986, 1476, 2064, 2750, 3534, 4416, 5396, 6474, 7650, 8924, 10296, 11766, 13334, 15000, 16764, 18626, 20586, 22644, 24800, 27054, 29406, 31856, 34404, 37050, 39794, 42636, 45576, 48614, 51750, 54984, 58316, 61746, 65274, 68900, 72624, 76446
a(n) = 98*n + a(n-1) with a(0)=6. - Vincenzo Librandi, Nov 12 2010
[A033589] 1, 6, 105, 440, 1155, 2394, 4301, 7020, 10695, 15470, 21489, 28896, 37835, 48450, 60885, 75284, 91791, 110550, 131705, 155400, 181779, 210986, 243165, 278460, 317015, 358974, 404481, 453680, 506715
a(0)=-1, a(1)=6, a(2)=105, a(3)=440, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Sep 22 2014
[A268685] 6, 126, 630, 1950, 4680, 9576, 17556, 29700, 47250, 71610, 104346, 147186, 202020, 270900, 356040, 459816, 584766, 733590, 909150, 1114470, 1352736, 1627296, 1941660, 2299500, 2704650, 3161106, 3673026, 4244730, 4880700, 5585580, 6364176, 7221456, 8162550
a(n) = Sum_{k = 0..n} (3*k + 1)(3*k + 2)(3*k + 3).
a(n) mod 6 = 0.
[A228290] 0, 6, 126, 1092, 5460, 19530, 55986, 137256, 299592, 597870, 1111110, 1948716, 3257436, 5229042, 8108730, 12204240, 17895696, 25646166, 36012942, 49659540, 67368420, 90054426, 118778946, 154764792, 199411800, 254313150, 321272406, 402321276, 499738092
a(n) = (n+1)*(n^2+n+1)*a(n-1)/((n-1)*(n^2-3*n+3)) for n>1.
a(1) = 6, else a(n) = (n^7-n)/(n-1).
a(n) = 7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7) for n>6, a(0)=0, a(1)=6, a(2)=126, a(3)=1092, a(4)=5460, a(5)=19530, a(6)=55986. - Yosu Yurramendi, Sep 03 2013
[A286446] 0, 1, 6, 142, 1280, 7301, 29603, 96485, 266636, 652908, 1452054, 2992513, 5789499, 10629381, 18660890, 31530854, 51525116, 81772345, 126449707, 191075297, 282794784, 410784700, 586640186, 824912741, 1143620051, 1564946921, 2115898646, 2829194838, 3744093216, 4907506597
a(n) = (n^8 -12*n^7 +6*n^6 +432*n^5 -1249*n^4 -5028*n^3 +21820*n^2 +12384*n -94000)/144 + IF(MOD(n, 2) = 1, -8*n^3 +72*n^2 -208*n +189)/24 + IF(MOD(n, 3) = 0, -n^2 +3*n +7)/9 for n >= 5.
[A250389] 6, 146, 1208, 5848, 20518, 58114, 141344, 306816, 609846, 1129986, 1977272, 3299192, 5288374, 8190994, 12315904, 18044480, 25841190, 36264882, 49980792, 67773272, 90559238, 119402338, 155527840, 200338240, 255429590, 322608546
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A157626] 6, 155, 504, 1053, 1802, 2751, 3900, 5249, 6798, 8547, 10496, 12645, 14994, 17543, 20292, 23241, 26390, 29739, 33288, 37037, 40986, 45135, 49484, 54033, 58782, 63731, 68880, 74229, 79778, 85527, 91476, 97625, 103974, 110523, 117272, 124221
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A237529] 6, 156, 1191, 5565, 19620, 57351, 146391, 336951, 714555, 1417515, 2660196, 4763226, 8191911, 13604220, 21909810, 34341666, 52542036, 78664446, 115493685, 166585755, 236429886, 330634821, 456141681, 621465825, 836970225, 1115172981, 1471091706, 1922627616
a(n) = (n-1)*(n-2)*(n^6+7*n^5+13*n^4-7*n^3-230*n^2-408*n+1152)/384.
[A134632] 0, 6, 176, 1278, 5280, 15950, 39456, 84966, 165248, 297270, 502800, 809006, 1249056, 1862718, 2696960, 3806550, 5254656, 7113446, 9464688, 12400350, 16023200, 20447406, 25799136, 32217158, 39853440, 48873750, 59458256, 71802126, 86116128, 102627230, 121579200, 143233206, 167868416, 195782598, 227292720
a(n) = 5*n^5 + 3*n^3 - 2*n^2.
[A253779] 0, 6, 180, 540, 2856, 5544, 16830, 27060, 62244, 90090, 175440, 237456, 413820, 534660, 860706, 1074744, 1630200, 1983150, 2872044, 3422580, 4776480, 5597856, 7579110, 8760780, 11565756, 13214994, 17077320, 19320840, 24514644, 27500220, 34343370, 38241456, 47098800
a(n) = (81*n^5 - 270*n^4 + 396*n^3 - 312*n^2 + 96*n) / 64 for n even.
a(n) = (81*n^5 - 135*n^4 + 126*n^3 - 66*n^2 - 15*n + 9) / 64 for n odd.
[A182788] 0, 0, 0, 6, 192, 1620, 7680, 26250, 72576, 172872, 368640, 721710, 1320000, 2283996, 3773952, 5997810, 9219840, 13770000, 20054016, 28564182, 39890880, 54734820, 73920000, 98407386, 129309312, 167904600, 215654400, 274218750, 345473856
a(n) = n*(n-1)*(n-2)^4.
a(0)=0, a(1)=0, a(2)=0, a(3)=6, a(4)=192, a(5)=1620, a(6)=7680, a(n) = 7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7). - Harvey P. Dale, Dec 10 2011
[A201237] 0, 0, 6, 208, 1300, 4908, 14112, 34112, 73008, 142700, 259908, 447312, 734812, 1160908, 1774200, 2635008, 3817112, 5409612, 7518908, 10270800, 13812708, 18316012, 23978512, 31027008, 39720000, 50350508, 63249012, 78786512, 97377708, 119484300, 145618408
a(n) = n^2*(n^4-15n^2+62)/6, n>=4.

[A242850] 0, 6, 780, 6930, 30744, 96030, 241956, 526890, 1032240, 1866294, 3168060, 5111106, 7907400, 11811150, 17122644, 24192090, 33423456, 45278310, 60279660, 79015794, 102144120, 130395006, 164575620, 205573770, 254361744, 312000150, 379641756, 458535330, 550029480, 655576494
a(n) = 2*n*(2*n-1)*(2*n+1)*(4*n^2-3).
[A187179] 7, 7, 8, 9, 11, 14, 19, 27, 40, 61, 95, 150, 239, 383, 616, 993, 1603, 2590, 4187, 6771, 10952, 17717, 28663, 46374, 75031, 121399, 196424, 317817, 514235, 832046, 1346275, 2178315, 3524584, 5702893, 9227471, 14930358, 24157823
a(n) = 2*a(n-1)-a(n-3). G.f.: -x*(6*x^2+7*x-7) / ((x-1)*(x^2+x-1)). [Colin Barker, Dec 14 2012]
[A168374] 0, 7, 7, 14, 14, 21, 21, 28, 28, 35, 35, 42, 42, 49, 49, 56, 56, 63, 63, 70, 70, 77, 77, 84, 84, 91, 91, 98, 98, 105, 105, 112, 112, 119, 119, 126, 126, 133, 133, 140, 140, 147, 147, 154, 154, 161, 161, 168, 168, 175, 175, 182, 182, 189, 189, 196, 196, 203, 203, 210
a(n) = 7*n - a(n-1) - 7, with n>1, a(1)=0.
[A022090] 0, 7, 7, 14, 21, 35, 56, 91, 147, 238, 385, 623, 1008, 1631, 2639, 4270, 6909, 11179, 18088, 29267, 47355, 76622, 123977, 200599, 324576, 525175, 849751, 1374926, 2224677, 3599603, 5824280, 9423883, 15248163, 24672046, 39920209, 64592255, 104512464
a(n) = round(((14*phi-7)/5) * phi^n) (works for n>3). - Thomas Baruchel, Sep 08 2004
a(n) = 7*F(n) = F(n+4) + F(n-4) for n>3.
[A053416] 1, 1, 7, 7, 19, 19, 37, 43, 61, 73, 91, 109, 127, 151, 187, 199, 241, 253, 301, 313, 367, 397, 439, 475, 517, 571, 613, 661, 721, 757, 823, 859, 931, 979, 1045, 1111, 1165, 1237, 1303, 1381, 1459, 1519, 1615, 1663, 1765, 1813, 1921, 1993, 2083, 2173, 2263
a(n)/(n/2)^2->Pi*2/sqrt(3)
[A094248] 1, 7, 7, 19, 49, 73, 193, 391, 751, 1747, 3457, 7249, 15649, 31783, 67543, 141811, 294001, 621337, 1297057, 2712679, 5700799, 11910643, 24964993, 52325281, 109483201, 229475527, 480592807, 1006367059
a(n)/a(n-1) tends to 2.0945514...; e.g. a(12)/a(11) = 7249/3457 = 2.0969048...
[A095343] 1, 1, 7, 7, 31, 49, 145, 289, 727, 1591, 3775, 8545, 19873, 45505, 105127, 241639, 557023, 1281937, 2953009, 6798817, 15657847, 36054295, 83027839, 191190721, 440274241, 1013846401, 2334669127, 5376208327, 12380215711, 28508840689
a(1) = a(2) = 1, a(n) = a(n-1) + 3*a(n-2) - 3*(-1)^n.
[A290683] 1, 1, 7, 7, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295, 8589934591
a(n) = 2^(1+n) - 1 for n>3.
a(n) = 3*a(n-1) - 2*a(n-2) for n>5.
[A112685] 1, 1, 1, 7, 7, 37, 49, 199, 319, 1093, 1993, 6103, 12151, 34501, 72961, 196807, 433807, 1129957, 2562649, 6517399, 15073159, 37712293, 88400593, 218707783, 517427551, 1270340101, 3024553321, 7386555607, 17663446807, 42981884677, 103090345249
a(n)=(9/14)*[(1+sqrt(2))^n+(1-sqrt(2))^n]+(3/14)*sqrt(2)*[(1-sqrt(2))^n-(1+sqrt(2))^n]-(2/7)*(-2)^n, with n>=0 [From Paolo P. Lava, Apr 23 2010]
[A286985] 7, 7, 39, 115, 343, 967, 2663, 7203, 19239, 50887, 133543, 348179, 902775, 2329607, 5986535, 15327555, 39115847, 99532423, 252601127, 639548595, 1615746455, 4073951559, 10253517671, 25763632995, 64635943783, 161928486727, 405134009511, 1012371656275
a(n) = 6*a(n-1) - 11*a(n-2) + 4*a(n-3) + 5*a(n-4) - 2*a(n-5) - a(n-6) for n > 6.
[A020719] 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80
a(n) = n+7.
a(n) = 2*a(n-1) - a(n-2).
[A058367] 1, 1, 1, 1, 1, 7, 8, 9, 10, 11, 12, 19, 27, 36, 46, 57, 69, 88, 115, 151, 197, 254, 323, 411, 526, 677, 874, 1128, 1451, 1862, 2388, 3065, 3939, 5067, 6518, 8380, 10768, 13833, 17772, 22839, 29357, 37737, 48505, 62338, 80110, 102949, 132306, 170043, 218548
a(n) = 1 + n*sum(binomial(n-1-5*i, i-1)/i, i=1..n/6). a(n) = a(n-1) + a(n-6), a(n) = 1 for n = 1..5, a(6) = 7. generating function = (x+6*x^6)/(1-x-x^6).
[A120309] 1, 7, 8, 9, 10, 19, 20, 21, 22, 37, 38, 39, 40, 53, 54, 55, 56, 57, 58, 71, 72, 89, 90, 91, 92, 93, 94, 95, 96, 107, 108, 131, 132, 133, 134, 135, 136, 151, 152, 153, 154, 155, 156, 173, 174, 175, 176, 177, 178, 193, 194, 195, 196
a(n) = If[Mod[PrimePi[n], 4] == 0, n]
[A047523] 0, 1, 7, 8, 9, 15, 16, 17, 23, 24, 25, 31, 32, 33, 39, 40, 41, 47, 48, 49, 55, 56, 57, 63, 64, 65, 71, 72, 73, 79, 80, 81, 87, 88, 89, 95, 96, 97, 103, 104, 105, 111, 112, 113, 119, 120, 121, 127, 128, 129, 135, 136, 137, 143, 144, 145, 151, 152, 153, 159
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = (24*n-24+15*cos(2*n*Pi/3)+5*sqrt(3)*sin(2*Pi*n/3))/9.
a(3k) = 8k-1, a(3k-1) = 8k-7, a(3k-2) = 8k-8. (End)
[A048588] 7, 8, 10, 13, 17, 23, 32, 45, 64, 92, 133, 193, 281, 410, 599, 876, 1282, 1877, 2749, 4027, 5900, 8645, 12668, 18564, 27205, 39869, 58429, 85630, 125495, 183920, 269546, 395037, 578953, 848495, 1243528, 1822477, 2670968, 3914492, 5736965, 8407929, 12322417
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 72000 but is not known to hold in general).
[A141676] 1, 7, 8, 10, 14, 15, 19, 20, 21, 22, 24, 30, 37, 38, 39, 40, 42, 46, 53, 54, 55, 56, 57, 58, 62, 65, 66, 70, 71, 72, 78, 82, 88, 89, 90, 91, 92, 93, 94, 95, 96, 102, 104, 105, 107, 108, 110, 114, 115, 118, 119, 120, 122, 123, 125, 126, 128, 130, 131, 132, 133, 134, 135
a(n) =If[Mod[DivisorSigma[0, n]*PrimePi[n], 8] == 0,n]
[A153972] 7, 8, 10, 14, 22, 38, 70, 134, 262, 518, 1030, 2054, 4102, 8198, 16390, 32774, 65542, 131078, 262150, 524294, 1048582, 2097158, 4194310, 8388614, 16777222, 33554438, 67108870, 134217734, 268435462, 536870918, 1073741830, 2147483654
a(n) = 2^n + 6
a(n) = 3*a(n-1) - 2*a(n-2). (End)
[A117619] 7, 8, 11, 16, 23, 32, 43, 56, 71, 88, 107, 128, 151, 176, 203, 232, 263, 296, 331, 368, 407, 448, 491, 536, 583, 632, 683, 736, 791, 848, 907, 968, 1031, 1096, 1163, 1232, 1303, 1376, 1451, 1528, 1607, 1688, 1771, 1856, 1943, 2032, 2123, 2216, 2311, 2408
a(n) = a(n-1) + 2*n - 1 (with a(0) = 7). - Vincenzo Librandi, Nov 13 2010
[A156605] 7, 8, 12, 28, 92, 348, 1372, 5468, 21852, 87388, 349532, 1398108, 5592412, 22369628, 89478492, 357913948, 1431655772, 5726623068, 22906492252, 91625968988, 366503875932, 1466015503708, 5864062014812, 23456248059228, 93824992236892, 375299968947548
a(n) = 4*a(n-1)-20, n>0.
[A228210] 7, 8, 13, 17, 32, 43, 83, 112, 217, 293, 568, 767, 1487, 2008, 3893, 5257, 10192, 13763, 26683, 36032, 69857, 94333, 182888, 246967, 478807, 646568, 1253533, 1692737, 3281792, 4431643, 8591843, 11602192, 22493737, 30374933, 58889368, 79522607, 154174367
a(n) = 3*a(n-2)-a(n-4).
[A047274] 0, 1, 7, 8, 14, 15, 21, 22, 28, 29, 35, 36, 42, 43, 49, 50, 56, 57, 63, 64, 70, 71, 77, 78, 84, 85, 91, 92, 98, 99, 105, 106, 112, 113, 119, 120, 126, 127, 133, 134, 140, 141, 147, 148, 154, 155, 161, 162, 168, 169
a(n) = 7*n - a(n-1) - 13 (with a(1)=0). - Vincenzo Librandi, Aug 05 2010
a(n) = 7*n/2 - 19/4 - 5*(-1)^n/4.
[A047521] 0, 7, 8, 15, 16, 23, 24, 31, 32, 39, 40, 47, 48, 55, 56, 63, 64, 71, 72, 79, 80, 87, 88, 95, 96, 103, 104, 111, 112, 119, 120, 127, 128, 135, 136, 143, 144, 151, 152, 159, 160, 167, 168, 175, 176, 183, 184, 191, 192, 199, 200, 207, 208, 215, 216, 223, 224, 231, 232
a(n)=8*n-a(n-1)-9 (with a(1)=0) [From Vincenzo Librandi, Aug 06 2010]
a(n) = 3*(-1)^n/2-5/2+4*n. G.f. x^2*(7+x) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A022097] 1, 7, 8, 15, 23, 38, 61, 99, 160, 259, 419, 678, 1097, 1775, 2872, 4647, 7519, 12166, 19685, 31851, 51536, 83387, 134923, 218310, 353233, 571543, 924776, 1496319, 2421095, 3917414, 6338509, 10255923, 16594432, 26850355, 43444787, 70295142, 113739929
a(n) = a(n-1) + a(n-2) for n>=2, a(0)=1, a(1)=7, a(-1):=6.
a(n) = (2^(-1-n)*((1 - sqrt(5))^n*(-13 + sqrt(5)) + (1 + sqrt(5))^n*(13 + sqrt(5))))/sqrt(5). - Herbert Kociemba
[A041693] 1, 7, 8, 15, 23, 61, 755, 1571, 2326, 3897, 6223, 47458, 1809627, 12714847, 14524474, 27239321, 41763795, 110766911, 1370966727, 2852700365, 4223667092, 7076367457, 11300034549, 86176609300, 3286011187949, 23088254924943, 26374266112892, 49462521037835
a(n) = 1815850*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 23 2013
[A042001] 1, 1, 7, 8, 15, 23, 107, 237, 818, 11689, 12507, 274336, 286843, 4290138, 13157257, 30604652, 135575865, 166180517, 301756382, 467936899, 3109377776, 3577314675, 160511223476, 164088538151, 1145042452382, 1309130990533, 2454173442915, 3763304433448
a(n) = 163620601252*a(n-22) - a(n-44) for n>43. [Bruno Berselli, Jan 12 2014]

[A191413] 7, 8, 15, 28, 47, 72, 103, 140, 183, 232, 287, 348, 415, 488, 567, 652, 743, 840, 943, 1052, 1167, 1288, 1415, 1548, 1687, 1832, 1983, 2140, 2303, 2472, 2647, 2828, 3015, 3208, 3407, 3612, 3823, 4040, 4263, 4492, 4727, 4968, 5215, 5468, 5727, 5992, 6263
a(0)=7, a(1)=8, a(2)=15, a(n)=3*a(n-1)-3*a(n-2)+a(n-3)
[A084377] 7, 8, 15, 34, 71, 132, 223, 350, 519, 736, 1007, 1338, 1735, 2204, 2751, 3382, 4103, 4920, 5839, 6866, 8007, 9268, 10655, 12174, 13831, 15632, 17583, 19690, 21959, 24396, 27007, 29798, 32775, 35944, 39311, 42882, 46663, 50660, 54879, 59326
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Jun 10 2016
[A041675] 1, 1, 7, 8, 15, 38, 53, 462, 515, 1492, 2007, 3499, 23001, 26500, 977001, 1003501, 6998007, 8001508, 14999515, 38000538, 53000053, 462000962, 515001015, 1492002992, 2007004007, 3499006999, 23001046001, 26500053000, 977002954001, 1003503007001
a(n) = 1000002*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Dec 22 2013
[A222624] 1, 7, 8, 17, 23, 31, 35, 49, 55, 62, 71, 74, 80, 89, 95, 97, 119, 120, 127, 143, 146, 161, 174, 199, 215, 223, 224, 241, 244, 251, 287, 288, 293, 299, 305, 323, 337, 359, 360, 362, 383, 391, 424, 440, 449, 479, 483, 489, 503, 511, 566, 574, 575, 577, 587, 599
a(n)=k is the n-th occurrence for which k=sqrt((k-j)/(2*(k+1)*(j+1))) is rational for at least one value of j in the range 0<=j<k.
[A295337] 1, 1, 7, 8, 23, 31, 209, 240, 689, 929, 6263, 7192, 20647, 27839, 187681, 215520, 618721, 834241, 5624167, 6458408, 18540983, 24999391, 168537329, 193536720, 555610769, 749147489, 5050495703, 5799643192, 16649782087
a(n) = 30*a(n-4) - a(n-8), n >= 8, with inputs a(0)..a(7).
[A042391] 1, 1, 7, 8, 23, 77, 177, 4679, 9535, 33284, 76103, 109387, 732425, 841812, 44506649, 45348461, 316597415, 361945876, 1040489167, 3483413377, 8007315921, 211673627323, 431354570567, 1505737339024, 3442829248615, 4948566587639, 33134228774449
a(n) = 45239074*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 21 2014
[A042023] 1, 7, 8, 23, 100, 123, 469, 592, 2837, 6266, 9103, 69987, 3228505, 22669522, 25898027, 74465576, 323760331, 398225907, 1518438052, 1916663959, 9185093888, 20286851735, 29471945623, 226590471096, 10452633616039, 73395025783369, 83847659399408, 241090344582185
a(n) = 3237608*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 12 2014
[A042875] 1, 7, 8, 31, 101, 132, 233, 365, 963, 1328, 2291, 3619, 13148, 43063, 56211, 436540, 27121691, 190288377, 217410068, 842518581, 2744965811, 3587484392, 6332450203, 9919934595, 26172319393, 36092253988, 62264573381, 98356827369, 357335055488
a(n) = 27177902*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 31 2014
[A033044] 0, 1, 7, 8, 49, 50, 56, 57, 343, 344, 350, 351, 392, 393, 399, 400, 2401, 2402, 2408, 2409, 2450, 2451, 2457, 2458, 2744, 2745, 2751, 2752, 2793, 2794, 2800, 2801, 16807, 16808, 16814, 16815, 16856, 16857, 16863, 16864, 17150, 17151, 17157
a(n) = Sum{d(i)*7^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 7*a(n), a(2n+1) = a(2n)+1.
[A041109] 1, 1, 7, 8, 119, 127, 881, 1008, 14993, 16001, 110999, 127000, 1888999, 2015999, 13984993, 16000992, 237998881, 253999873, 1761998119, 2015997992, 29985970007, 32001967999, 221997778001, 253999746000, 3777994222001, 4031993968001, 27969958030007
a(n) = 126*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A041259] 1, 1, 7, 8, 183, 191, 1329, 1520, 34769, 36289, 252503, 288792, 6605927, 6894719, 47974241, 54868960, 1255091361, 1309960321, 9114853287, 10424813608, 238460752663, 248885566271, 1731774150289, 1980659716560, 45306287914609, 47286947631169
a(n) = 190*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 14 2013
[A041473] 1, 1, 7, 8, 247, 255, 1777, 2032, 62737, 64769, 451351, 516120, 15934951, 16451071, 114641377, 131092448, 4047414817, 4178507265, 29118458407, 33296965672, 1028027428567, 1061324394239, 7395973794001, 8457298188240, 261114919441201, 269572217629441
a(n) = 254*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 18 2013
[A041751] 1, 1, 7, 8, 311, 319, 2225, 2544, 98897, 101441, 707543, 808984, 31448935, 32257919, 224996449, 257254368, 10000662433, 10257916801, 71548163239, 81806080040, 3180179204759, 3261985284799, 22752090913553, 26014076198352, 1011286986450929, 1037301062649281
a(n) = 318*a(n-4) - a(n-8) for n>7, - Vincenzo Librandi, Dec 24 2013
[A004169] 7, 9, 11, 13, 14, 18, 19, 21, 22, 23, 25, 26, 27, 28, 29, 31, 33, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 65, 66, 67, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 86, 87, 88, 89, 90, 91
a(n) = n + O(log^2 n). - Charles R Greathouse IV, Oct 23 2015
[A020742] 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139
a(n) = 2n+7. a(n) = 2a(n-1) - a(n-2).
[A020720] 7, 9, 12, 16, 21, 28, 37, 49, 65, 86, 114, 151, 200, 265, 351, 465, 616, 816, 1081, 1432, 1897, 2513, 3329, 4410, 5842, 7739, 10252, 13581, 17991, 23833, 31572, 41824, 55405, 73396, 97229, 128801, 170625, 226030, 299426, 396655, 525456, 696081, 922111, 1221537
a(n) = a(n-2) + a(n-3) for n>=3. (Proved using the PtoRv program of Ekhad-Sloane-Zeilberger.) - N. J. A. Sloane, Sep 09 2016
[A048589] 7, 9, 12, 16, 22, 31, 44, 63, 91, 132, 192, 280, 409, 598, 875, 1281, 1876, 2748, 4026, 5899, 8644, 12667, 18563, 27204, 39868, 58428, 85629, 125494, 183919, 269545, 395036, 578952, 848494, 1243527, 1822476, 2670967, 3914491, 5736964, 8407928, 12322416, 18059377
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A129069] 7, 9, 13, 17, 25, 29, 37, 41, 49, 61, 65, 77, 85, 89, 97, 109, 121, 125, 137, 145, 149, 161, 169, 181, 197, 205, 209, 217, 221, 229, 257, 265, 277, 281, 301, 305, 317, 329, 337, 349, 361, 365, 385, 389, 397, 401, 425, 449, 457, 461, 469, 481, 485, 505, 517, 529
a(n) = 2*prime(n) + 3. - Zak Seidov, May 12 2007
[A027692] 7, 9, 13, 19, 27, 37, 49, 63, 79, 97, 117, 139, 163, 189, 217, 247, 279, 313, 349, 387, 427, 469, 513, 559, 607, 657, 709, 763, 819, 877, 937, 999, 1063, 1129, 1197, 1267, 1339, 1413, 1489, 1567, 1647, 1729, 1813, 1899, 1987, 2077, 2169, 2263
a(n)=2*n+a(n-1) (with a(0)=7) - Vincenzo Librandi, Aug 05 2010
[A047522] 1, 7, 9, 15, 17, 23, 25, 31, 33, 39, 41, 47, 49, 55, 57, 63, 65, 71, 73, 79, 81, 87, 89, 95, 97, 103, 105, 111, 113, 119, 121, 127, 129, 135, 137, 143, 145, 151, 153, 159, 161, 167, 169, 175, 177, 183, 185, 191, 193, 199, 201, 207, 209, 215, 217, 223, 225, 231, 233
a(n) = 4n-2+(-1)^n = a(n-2)+8. G.f.: x(1+6x+x^2)/((1+x)(1-x)^2). - R. J. Mathar, Feb 19 2009
a(n) = 8*n-a(n-1)-8. - Vincenzo Librandi, Aug 06 2010
a(n) = -a(-n+1) = a(n-1)+a(n-2)-a(n-3).
[A112072] 7, 9, 15, 17, 31, 33, 39, 41, 55, 57, 63, 65, 79, 81, 87, 89, 103, 105, 111, 113, 127, 129, 135, 137, 151, 153, 159, 161, 175, 177, 183, 185, 199, 201, 207, 209, 223, 225, 231, 233, 247, 249, 255, 257, 271, 273, 279, 281, 295, 297, 303, 305, 319, 321, 327
a(n)=-7+Sum_{k=0..n}{-2*(k mod 4)+2*((k+1) mod 4)+4*((k+3) mod 4)} - Paolo P. Lava, Aug 29 2007
[A249333] 7, 9, 16, 19, 29, 33, 46, 51, 67, 73, 92, 99, 121, 129, 154, 163, 191, 201, 232, 243, 277, 289, 326, 339, 379, 393, 436, 451, 497, 513, 562, 579, 631, 649, 704, 723, 781, 801, 862, 883, 947, 969, 1036, 1059, 1129, 1153, 1226, 1251, 1327, 1353, 1432, 1459, 1541, 1569, 1654, 1683, 1771, 1801
a(n) = (n^2+2)/2, n even, and a(n) = (n^2+n+2)/2, n odd.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Colin Barker, Dec 14 2014
[A083582] 1, 7, 9, 23, 41, 87, 169, 343, 681, 1367, 2729, 5463, 10921, 21847, 43689, 87383, 174761, 349527, 699049, 1398103, 2796201, 5592407, 11184809, 22369623, 44739241, 89478487, 178956969, 357913943, 715827881, 1431655767, 2863311529
a(n) = (8*2^n-5(-1)^n)/3.
a(n) = 2^(n+2)th coefficient of - eta(z)^3 eta(z^5) eta(z^10)^2 /eta(z^2)^2. - Kok Seng Chua (chuaks(AT)ihpc.a-star.edu.sg), Aug 30 2005
[A154260] 0, 7, 9, 30, 34, 69, 75, 124, 132, 195, 205, 282, 294, 385, 399, 504, 520, 639, 657, 790, 810, 957, 979, 1140, 1164, 1339, 1365, 1554, 1582, 1785, 1815, 2032, 2064, 2295, 2329, 2574, 2610, 2869, 2907, 3180, 3220, 3507, 3549, 3850, 3894, 4209, 4255, 4584
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = (1/4)*(8*n^2 + 6*(-1)^n*n - 8*n - 3*(-1)^n + 3).
[A085903] 1, 1, 7, 9, 31, 49, 127, 225, 511, 961, 2047, 3969, 8191, 16129, 32767, 65025, 131071, 261121, 524287, 1046529, 2097151, 4190209, 8388607, 16769025, 33554431, 67092481, 134217727, 268402689, 536870911, 1073676289, 2147483647
a(n) = (sqrt(2)^n - 1)*(sqrt(2)^n - (-1)^n)).
a(n) = Product_{k = 1..n} (2 - exp(4*k*Pi*i/n)). (End)
[A057590] 0, 1, 7, 9, 39, 42, 126, 130, 310, 315, 645, 651, 1197, 1204, 2044, 2052, 3276, 3285, 4995, 5005, 7315, 7326, 10362, 10374, 14274, 14287, 19201, 19215, 25305, 25320, 32760, 32776, 41752, 41769, 52479, 52497, 65151, 65170, 79990, 80010, 97230, 97251, 117117

a(n) = (2*n^4 + 4*n^3 + 6*n^2 + 4*n - 7)/64 + (-1)^n * (7 - 2*n - 2*n^2)*(1 + 2*n)/64.
a(n+8)-4*a(n+6)+6*a(n+4)-4*a(n+2)+a(n) = 12. (End)
[A140787] 1, 1, 7, 9, 39, 57, 199, 313, 967, 1593, 4551, 7737, 20935, 36409, 94663, 167481, 422343, 757305, 1864135, 3378745, 8155591, 14913081, 35418567, 65244729, 152859079, 283348537, 656175559, 1222872633, 2803659207, 5249404473
a(n) = 2^n*(n/3+11/18) + (-1)^n* (2^(n-1)-1/9).
[A189053] 1, 1, 7, 9, 41, 61, 225, 369, 1195, 2101, 6227, 11529, 32059, 61741, 163727, 325089, 831505, 1690981, 4206145, 8717049, 21215481, 44633821, 106782837, 227363409, 536618341, 1153594261, 2693492305, 5835080169, 13507578125, 29443836301
a(n)=n*sum(k=1..n, (binomial((n-2)/2,(n-k)/2)*2^(n-k-1)*((-1)^(n-k)+1))/k);
[A079004] 7, 10, 10, 34, 106, 322, 970, 2914, 8746, 26242, 78730, 236194, 708586, 2125762, 6377290, 19131874, 57395626, 172186882, 516560650, 1549681954, 4649045866, 13947137602, 41841412810, 125524238434, 376572715306, 1129718145922
a(1)=7, a(2)=10, a(3)=10; for n>3, a(n) = 3*a(n-1) + 4.
a(n) = 4*3^(n-2)-2 for n >= 3.
[A184114] 1, 7, 10, 12, 15, 17, 19, 21, 23, 25, 26, 28, 30, 32, 33, 35, 37, 38, 40, 41, 43, 44, 46, 47, 49, 51, 52, 53, 55, 56, 58, 59, 61, 62, 64, 65, 67, 68, 69, 71, 72, 74, 75, 76, 78, 79, 80, 82, 83, 85, 86, 87, 89, 90, 91, 93, 94, 95, 97, 98, 99, 101, 102, 103, 105, 106, 107, 108, 110, 111, 112, 114, 115, 116, 118, 119, 120, 121, 123, 124, 125, 127, 128, 129, 130, 132, 133, 134, 135, 137, 138, 139, 140, 142, 143, 144, 145, 147, 148, 149
a(n) = n + floor(5*sqrt(n-1))
[A112414] 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 97, 100, 103, 106, 109, 112, 115, 118, 121, 124, 127, 130, 133, 136, 139, 142, 145, 148, 151, 154, 157, 160, 163, 166, 169, 172, 175, 178, 181, 184
a(n) = C(1+n,1)+C(2+n,1)+C(4+n,1).
[A212979] 1, 1, 1, 7, 10, 13, 19, 25, 34, 40, 49, 61, 70, 82, 94, 109, 124, 136, 154, 172, 190, 208, 226, 250, 271, 292, 316, 340, 367, 391, 418, 448, 475, 505, 535, 568, 601, 631, 667, 703, 739, 775, 811, 853, 892, 931, 973, 1015, 1060, 1102, 1147, 1195, 1240
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4)+a(n-5)-2*a(n-6)+2*a(n-7)-2*a(n-8)+a(n-9).
[A178508] 1, 7, 10, 13, 31, 49, 70, 97, 100, 130, 310, 490, 700, 970, 1000, 1300, 3100, 4900, 7000, 9700, 10000, 13000, 31000, 49000, 70000, 97000, 100000, 130000, 310000, 490000, 700000, 970000, 1000000, 1300000, 3100000, 4900000, 7000000, 9700000, 10000000
a(n) = {10^floor[(n-3)/6]/2}*{-[(n-1) mod 6]+5*[(n+2) mod 6]+35*[(n+3) mod 6]-3*[(n+4) mod 6]}-6*{C[2*(n-1),n-1] mod 2}-(27/10)*[C(n^2,n+2) mod 2], with n>=1. [Paolo P. Lava, Jul 08 2010]
a(n) = 10^floor((n-3)/6)*(45+8*cos((n-2)*Pi)+25*cos((n-2)*Pi/3)+19*cos(2*(n-2)*Pi/3)-4*sqrt(3)*(4*sin((n-2)*Pi/3)+sin(2*(n-2)*Pi/3))) for n>2. - Wesley Ivan Hurt, Jun 18 2016
[A030123] 0, 1, 7, 10, 14, 17, 21, 24, 28, 31, 35, 38, 42, 45, 49, 52, 56, 59, 63, 66, 70, 73, 77, 80, 84, 87, 91, 94, 98, 101, 105, 108, 112, 115, 119, 122, 126, 129, 133, 136, 140, 143, 147, 150, 154, 157, 161, 164, 168, 171, 175, 178, 182, 185, 189, 192
a(n) = floor(7n/2).
a(n) = a(n-1) + a(n-2) - a(n-3).
[A020721] 7, 10, 14, 20, 29, 42, 61, 89, 130, 190, 278, 407, 596, 873, 1279, 1874, 2746, 4024, 5897, 8642, 12665, 18561, 27202, 39866, 58426, 85627, 125492, 183917, 269543, 395034, 578950, 848492, 1243525, 1822474, 2670965, 3914489, 5736962, 8407926, 12322414, 18059375
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A120312] 7, 10, 21, 37, 40, 53, 55, 57, 71, 89, 108, 134, 135, 136, 151, 152, 174, 176, 178, 194, 196, 223, 226, 263, 264, 265, 267, 268, 312, 337, 338, 339, 341, 342, 343, 345, 359, 361, 362, 366, 384, 388
a(n) = If[Mod[PrimePi[n], 4] == 0 Mod[Prime[n], 4] - 1 == 0, n]
[A074377] 0, 1, 7, 10, 22, 27, 45, 52, 76, 85, 115, 126, 162, 175, 217, 232, 280, 297, 351, 370, 430, 451, 517, 540, 612, 637, 715, 742, 826, 855, 945, 976, 1072, 1105, 1207, 1242, 1350, 1387, 1501, 1540, 1660, 1701, 1827, 1870, 2002, 2047, 2185, 2232, 2376, 2425
a(2*k) = k*(4*k+3); a(2*k+1) = (2*k+1)^2+k. [Benoit Jubin, Feb 05 2009]
a(n) = n^2+n-1/4+(-1)^n/4+n*(-1)^n/2. - R. J. Mathar, Oct 08 2011
[A280173] 1, 7, 10, 25, 46, 97, 190, 385, 766, 1537, 3070, 6145, 12286, 24577, 49150, 98305, 196606, 393217, 786430, 1572865, 3145726, 6291457, 12582910, 25165825, 50331646, 100663297, 201326590, 402653185, 805306366, 1610612737, 3221225470, 6442450945, 12884901886
a(2n) = 3*4^n - 2, a(2n+1) = 6*4^n + 1.
a(n+2) = a(n) + 9*2^n, a(0) = 1, a(1) = 7.
a(n) = 3*2^n - 2 for n even.
a(n) = 3*2^n + 1 for n odd.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>2.
a(n) = -1/2 -3/2*(-1)^n + 3*2^n. - Paolo P. Lava, May 18 2017
[A258284] 1, 1, 7, 10, 40, 64, 215, 373, 1076, 1823, 5052, 8519, 21279, 36836, 86354, 148550, 338354, 571638, 1242227, 2156661, 4453444, 7573979, 15612927, 26325001, 52042210, 88853970, 170752721, 288367364, 550431942, 916369374, 1706148831, 2877961566, 5219075925
a(n) = 1/6! * [(x*y*z*u*v*w)^n] Product_{j>0} (1+x^j+y^j+z^j+u^j+v^j+w^j).
[A091901] 7, 11, 13, 14, 15, 17, 19, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 86, 87, 88, 89
a(n) = n + 27 for n > 5039, if and only if the Riemann Hypothesis is true. -Charles R Greathouse IV, May 31 2011
[A110547] 7, 11, 13, 14, 16, 17, 19, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 37, 38, 39, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 73
a(n)=[(n-2)*180)]/n
[A279622] 7, 11, 13, 14, 17, 19, 21, 22, 23, 26, 28, 29, 31, 33, 34, 35, 37, 38, 39, 41, 42, 43, 44, 46, 47, 49, 51, 52, 53, 55, 56, 57, 58, 59, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 73, 74, 76, 77, 78, 79, 82, 83, 84, 85, 86, 87, 88, 89, 91, 92, 93, 94
a(n) = n + O(log^3 n). - Charles R Greathouse IV, Dec 22 2016
[A007775] 1, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 49, 53, 59, 61, 67, 71, 73, 77, 79, 83, 89, 91, 97, 101, 103, 107, 109, 113, 119, 121, 127, 131, 133, 137, 139, 143, 149, 151, 157, 161, 163, 167, 169, 173, 179, 181, 187, 191, 193, 197, 199, 203, 209
a(n+8) = a(n) + 30.
a(n) = a(n-1) + a(n-8) - a(n-9).
a(n) = 4*n - 3 - 2*floor((n-1)/8) + (1 + (-1)^floor((n-2)/2))*(-1)^floor((n-2)/4), n >= 1. - Timothy Hopper, Mar 14 2010
a(1 - n) = -a(n). - Michael Somos, Feb 05 2011
a(n) = 3*(floor((5*n-2)/4) - floor((n mod 8)/6)) + (n mod 2) + floor(((n-1) mod 8)/7) - floor(((n-2) mod 8)/7) + 1. - Gary Detlefs, Jan 08 2012
a(n) = 4*n - 3 + 2*(floor((n+6)/8) - floor((n+4)/8) - floor((n+2)/8) + floor(n/8) - floor((n-1)/8)), n >= 1. From the o.g.f. given above by R. J. Mathar (with the denominator written as (1-x^8)*(1-x)), and a two-step reduction of the floor functions. Compare with Hopper's and Detlefs's formulas above. - Wolfdieter Lang, Jan 26 2012
[A103485] 7, 11, 13, 17, 23, 29, 39, 51, 67, 89, 117, 155, 205, 271, 359, 475, 629, 833, 1103, 1461, 1935, 2563, 3395, 4497, 5957, 7891, 10453, 13847, 18343, 24299, 32189, 42641, 56487, 74829, 99127, 131315, 173955, 230441, 305269, 404395, 535709, 709663, 940103
a(0)=7; a(1)=11; a(2)=13; a(3)=17; a(n) = a(n-1)+a(n-2)-a(n-4).
[A245179] 7, 11, 13, 19, 25, 35, 49, 67, 97, 131, 193, 259, 385, 515, 769, 1027, 1537, 2051, 3073, 4099, 6145, 8195, 12289, 16387, 24577, 32771, 49153, 65539, 98305, 131075, 196609, 262147, 393217, 524291, 786433, 1048579, 1572865, 2097155, 3145729, 4194307, 6291457
a(2k) = 2^(k+2)+3, a(2k+1) = 3*2^(k+1)+1. - N. J. A. Sloane, Jul 19 2014
a(n) = 3*a(n-2)-2*a(n-4). G.f.: -x*(14*x^3+8*x^2-11*x-7) / ((x-1)*(x+1)*(2*x^2-1)). - Colin Barker, Jul 19 2014
[A131229] 1, 7, 11, 17, 21, 27, 31, 37, 41, 47, 51, 57, 61, 67, 71, 77, 81, 87, 91, 97, 101, 107, 111, 117, 121, 127, 131, 137, 141, 147, 151, 157, 161, 167, 171, 177, 181, 187, 191, 197, 201, 207, 211, 217, 221, 227, 231, 237, 241, 247, 251, 257, 261, 267, 271, 277, 281
a(n) = -3 + sum(5-(-1)^k, k=0..n). - Paolo P. Lava, Nov 05 2007
a(n) = a(n-2) + 10 = 5*n + ((-1)^n-7)/2. G.f.: x*(1+6*x+3*x^2)/((-1+x)^2*(1+x)). - R. J. Mathar, Apr 17 2008
a(n) = 10*n - a(n-1) - 12 with n>1, a(1)=1. - Vincenzo Librandi, Nov 23 2010

a(1)=1, a(2)=7, a(3)=11; for n>3, a(n) = a(n-1) + a(n-2) - a(n-3). - Harvey P. Dale, May 20 2012
[A088981] 7, 11, 17, 25, 37, 55, 83, 127, 197, 309, 489, 779, 1247, 2003, 3225, 5201, 8397, 13567, 21931, 35463, 57357, 92781, 150097, 242835, 392887, 635675, 1028513, 1664137, 2692597, 4356679, 7049219, 11405839, 18454997
a(n) = [(2*(alpha^(n+3))) - (2*(beta^(n+3))) + ((2*sqrt5)*n) + (3*sqrt5)] / (sqrt5) where alpha = (1 + sqrt5) / 2 and beta = (1 - sqrt5) / 2.
[A224868] 7, 11, 17, 26, 39, 58, 86, 127, 187, 275, 404, 593, 870, 1276, 1871, 2743, 4021, 5894, 8639, 12662, 18558, 27199, 39863, 58423, 85624, 125489, 183914, 269540, 395031, 578947, 848489, 1243522, 1822471, 2670962, 3914486, 5736959, 8407923, 12322411, 18059372
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (conjectured).
[A168489] 7, 11, 19, 23, 31, 35, 43, 47, 55, 59, 67, 71, 79, 83, 91, 95, 103, 107, 115, 119, 127, 131, 139, 143, 151, 155, 163, 167, 175, 179, 187, 191, 199, 203, 211, 215, 223, 227, 235, 239, 247, 251, 259, 263, 271, 275, 283, 287, 295, 299, 307, 311, 319, 323, 331, 335
a(n) = 12*n - a(n-1) - 6 (with a(1)=7).
a(n) = 6*n - (-1)^n.
a(n) = a(n-1) + a(n-2) - a(n-3).
[A081352] 1, 7, 11, 21, 29, 43, 55, 73, 89, 111, 131, 157, 181, 211, 239, 273, 305, 343, 379, 421, 461, 507, 551, 601, 649, 703, 755, 813, 869, 931, 991, 1057, 1121, 1191, 1259, 1333, 1405, 1483, 1559, 1641, 1721, 1807, 1891, 1981, 2069, 2163, 2255, 2353, 2449, 2551
a(n) = (n + 1)*(n + 2) - (-1)^n = 2*C(n+2, 2) - (-1)^n.
a(n) -2*a(n-1) +2*a(n-3) -a(n-4) = 0 with n>3. [Bruno Berselli, Aug 01 2010]
[A211433] 1, 1, 7, 11, 23, 27, 45, 53, 77, 85, 115, 127, 163, 175, 217, 233, 281, 297, 351, 371, 431, 451, 517, 541, 613, 637, 715, 743, 827, 855, 945, 977, 1073, 1105, 1207, 1243, 1351, 1387, 1501, 1541, 1661, 1701, 1827, 1871, 2003, 2047, 2185, 2233
a(n) = a(n-1) + a(n-2) - a(n-3) + a(n-4) - a(n-5) - a(n-6) + a(n-7) for n>6.
[A210981] 0, 1, 7, 11, 23, 30, 48, 58, 82, 95, 125, 141, 177, 196, 238, 260, 308, 333, 387, 415, 475, 506, 572, 606, 678, 715, 793, 833, 917, 960, 1050, 1096, 1192, 1241, 1343, 1395, 1503, 1558, 1672, 1730, 1850, 1911, 2037, 2101, 2233, 2300, 2438, 2508, 2652, 2725, 2875, 2951, 3107, 3186, 3348
a(n) = (18*n^2+14*n-5+(6*n+5)*(-1)^n)/16. - Luce ETIENNE, Oct 14 2014
[A002810] 1, 7, 11, 27, 77, 107, 111, 127, 177, 777, 1127, 1177, 1777, 7777, 11777, 27777, 77777, 107777, 111777, 127777, 177777, 777777, 1127777, 1177777, 1777777, 7777777, 11777777, 27777777, 77777777, 107777777, 111777777, 127777777, 177777777, 777777777
a(n+12) = a(n)*1000+777, as long as a(n+12) is less than one quadrillion (whatever scale is used). - M. F. Hasler, Nov 03 2013
[A045736] 1, 7, 11, 27, 77, 111, 127, 177, 777, 1127, 1177, 1777, 7777, 11777, 27777, 77777, 111777, 127777, 177777, 777777, 1127777, 1177777, 1777777, 7777777, 11777777, 27777777, 77777777, 111777777, 127777777, 177777777, 777777777, 1127777777
a(n+11) = a(n)*1000+777, as long as a(n+11) is less than one quadrillion (whatever scale is used). - M. F. Hasler, Nov 03 2013
[A193867] 1, 7, 11, 29, 37, 67, 79, 121, 137, 191, 211, 277, 301, 379, 407, 497, 529, 631, 667, 781, 821, 947, 991, 1129, 1177, 1327, 1379, 1541, 1597, 1771, 1831, 2017, 2081, 2279, 2347, 2557, 2629, 2851, 2927, 3161, 3241, 3487, 3571, 3829, 3917, 4187, 4279
a(n) = (4*n^2+2*(-1)^n*n-4*n-(-1)^n+3)/2.
a(n) = 2*n^2-n+1 for n even.
a(n) = 2*n^2-3*n+2 for n odd.
[A083363] 1, 7, 11, 30, 38, 69, 81, 124, 140, 195, 215, 282, 306, 385, 413, 504, 536, 639, 675, 790, 830, 957, 1001, 1140, 1188, 1339, 1391, 1554, 1610, 1785, 1845, 2032, 2096, 2295, 2363, 2574, 2646, 2869, 2945, 3180, 3260, 3507, 3591, 3850, 3938, 4209, 4301, 4584
a(0) = 1; a(2n-1) = 8n^2 - n (n>0); a(2n) = 8n^2 + 3n (n>0).
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Colin Barker, Sep 26 2014
a(n) = (4n+3)*(2n+1-(-1)^n)/4+0^n. - Wesley Ivan Hurt, Sep 26 2014
[A293046] 0, 0, 1, 1, 7, 11, 31, 57, 127, 247, 511, 1013, 2047, 4083, 8191, 16369, 32767, 65519, 131071, 262125, 524287, 1048555, 2097151, 4194281, 8388607, 16777191, 33554431, 67108837, 134217727, 268435427, 536870911, 1073741793, 2147483647, 4294967263, 8589934591
a(n) = 2^(n-1) - 1 for even n > 0.
[A132355] 0, 7, 11, 32, 40, 75, 87, 136, 152, 215, 235, 312, 336, 427, 455, 560, 592, 711, 747, 880, 920, 1067, 1111, 1272, 1320, 1495, 1547, 1736, 1792, 1995, 2055, 2272, 2336, 2567, 2635, 2880, 2952, 3211, 3287, 3560, 3640, 3927, 4011, 4312, 4400, 4715, 4807
a(2*k) = k*(9*k-2), a(2*k+1) = k*(9*k+2).
a(n) = n^2 - n + 5*floor(n/2)^2. - Gary Detlefs, Feb 23 2010
a(n) = +a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5).
a(n) = (2*n - 1 + (-1)^n)*(9*(2*n - 1) + (-1)^n)/16. - Luce ETIENNE, Sep 13 2014
[A268579] 1, 7, 11, 41, 48, 120, 130, 262, 275, 485, 501, 807, 826, 1246, 1268, 1820, 1845, 2547, 2575, 3445, 3476, 4532, 4566, 5826, 5863, 7345, 7385, 9107, 9150, 11130, 11176, 13432, 13481, 16031, 16083, 18945, 19000, 22192, 22250, 25790, 25851, 29757, 29821
a(n) = Sum_{k = 0..n} (6*k + (-1)^k +3)*(3*k - (-1)^k*(3*k + 1) + 5)/16.
a(n) = 1 + (n*(6*n^2 + 27*n + 35) - (9*n^2 + 15*n + 2)*(-1)^n + 2)/16.
[A062730] 7, 12, 14, 19, 21, 23, 32, 34, 45, 47, 60, 62, 77, 79, 96, 98, 117, 119, 140, 142, 165, 167, 192, 194, 221, 223, 252, 254, 285, 287, 320, 322, 357, 359, 396, 398, 437, 439, 480, 482, 525, 527, 572, 574, 621, 623, 672, 674, 725, 727, 780, 782, 837, 839
a(n)=(n^2+8*n+8)/4 for n>4 and even; a(n)=(n^2+10*n+9)/4 for n>4 and odd (conjectured). - Colin Barker, Aug 29 2013
[A091573] 7, 12, 17, 24, 31, 36, 41, 48, 55, 60, 65, 72, 79, 84, 89, 96, 103, 108, 113, 120, 127, 132, 137, 144, 151, 156, 161, 168, 175, 180, 185, 192, 199, 204, 209, 216, 223, 228, 233, 240, 247, 252, 257, 264, 271, 276, 281, 288, 295, 300, 305, 312, 319, 324, 329
a(n) = 6*n+6 (n odd), 6*n+7 (n==0 (mod 4)), 6*n+5 (n==2 (mod 4)).
a(n) = 2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4) for n>3.
a(n) = (12+(-i)^n+i^n+12*n)/2 where i = sqrt(-1).
[A131912] 1, 7, 12, 18, 23, 29, 34, 40, 45, 51, 56, 62, 67, 73, 78, 84, 89, 95, 100, 106, 111, 117, 122, 128, 133, 139, 144, 150, 155, 161, 166, 172, 177, 183, 188, 194, 199, 205, 210, 216, 221, 227, 232, 238, 243, 249, 254, 260, 265, 271, 276, 282, 287, 293, 298
a(n)=11*n-a(n-1)-14 (with a(1)=1) [From Vincenzo Librandi, Nov 23 2010]
[A247159] 7, 12, 18, 24, 36, 42, 54, 60, 72, 90, 96, 114, 126, 132, 144, 162, 180, 186, 204, 216, 222, 240, 252, 270, 294, 306, 312, 324, 330, 342, 384, 396, 414, 420, 450, 456, 474, 492, 504, 522, 540, 546, 576, 582, 594, 600, 636, 672, 684, 690, 702
a(n) = 3*prime(n) + 3 for n > 1. - Charles R Greathouse IV, Nov 22 2014
[A272975] 0, 7, 12, 19, 24, 31, 36, 43, 48, 55, 60, 67, 72, 79, 84, 91, 96, 103, 108, 115, 120, 127, 132, 139, 144, 151, 156, 163, 168, 175, 180, 187, 192, 199, 204, 211, 216, 223, 228, 235, 240, 247, 252, 259, 264, 271, 276, 283, 288, 295, 300, 307, 312, 319, 324
a(n) = a(n-1) + a(n-2) - a(n-3) for n>3.
a(n) = (12*n - 11 + (-1)^n)/2.
[A104584] 0, 1, 7, 12, 26, 35, 57, 70, 100, 117, 155, 176, 222, 247, 301, 330, 392, 425, 495, 532, 610, 651, 737, 782, 876, 925, 1027, 1080, 1190, 1247, 1365, 1426, 1552, 1617, 1751, 1820, 1962, 2035, 2185, 2262, 2420
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Vincenzo Librandi, Apr 04 2013
a(n) = (1/2) * (3*n^2 + n*(-1)^n). - Ralf Stephan, May 20 2007
[A198306] 7, 12, 37, 62, 187, 312, 937, 1562, 4687, 7812, 23437, 39062, 117187, 195312, 585937, 976562, 2929687, 4882812, 14648437, 24414062, 73242187, 122070312, 366210937, 610351562, 1831054687, 3051757812, 9155273437, 15258789062
a(2*i) = 2 sum_{j=0}^{i-1}5^j = string "2"^i read in base 5.
a(2*i+1) = 5^i + 2 sum_{j=0}^{i-1}5^j = string "1"*"2"^i read in base 5.
a(n) = a(n-1)+5*a(n-2)-5*a(n-3). G.f.: -x^3*(10*x^2-5*x-7) / ((x-1)*(5*x^2-1)). - Colin Barker, Feb 01 2013
a(n) = (5^(n/2) - 1)/2 for n>2 and even.
a(n) = (3*5^((n-1)/2) - 1)/2 for n>2 and odd.
[A192779] 0, 0, 1, 1, 7, 12, 47, 107, 337, 868, 2520, 6808, 19192, 52756, 147185, 407069, 1131599, 3136292, 8707655, 24151335, 67025633, 185946904, 515971328, 1431563056, 3972149312, 11021051864, 30579529249, 84846231017, 235416993159, 653192251196
a(n)=a(n-1)+6*a(n-2)-a(n-3)-6*a(n-4)+a(n-5)+a(n-6).

[A045979] 1, 7, 13, 17, 19, 31, 37, 43, 47, 49, 59, 61, 67, 71, 73, 79, 91, 97, 101, 103, 107, 109, 127, 133, 137, 139, 149, 151, 157, 163, 167, 169, 181, 193, 197, 199, 211, 217, 223, 227, 229, 241, 247, 257, 259, 263, 269, 271, 277, 283, 289
a(n) seems to be asymptotic to c*n 5<c<6. - Benoit Cloitre, Oct 19 2002
[A121058] 7, 13, 19, 22, 31, 37, 42, 43, 46, 47, 49, 61, 62, 67, 73, 79, 82, 91, 97, 103, 109, 118, 121, 122, 126, 127, 133, 139, 142, 151, 157, 163, 166, 167, 169, 172, 181, 193, 199, 202, 206, 211, 212, 213, 214, 217, 218, 223, 229, 241, 242, 246, 247, 250, 256, 257
a(n)=n-th number x such that x+d+1 is composite for all divisors d of x.
[A016921] 1, 7, 13, 19, 25, 31, 37, 43, 49, 55, 61, 67, 73, 79, 85, 91, 97, 103, 109, 115, 121, 127, 133, 139, 145, 151, 157, 163, 169, 175, 181, 187, 193, 199, 205, 211, 217, 223, 229, 235, 241, 247, 253, 259, 265, 271, 277, 283, 289, 295, 301, 307, 313, 319, 325, 331
a(n) = 4*(3*n-1) - a(n-1) (with a(0)=1). - Vincenzo Librandi, Nov 20 2010
[A023255] 7, 13, 19, 31, 43, 73, 211, 223, 241, 307, 397, 409, 631, 661, 727, 757, 769, 829, 883, 1123, 1741, 1783, 1867, 2131, 2143, 2269, 2287, 2467, 2521, 2551, 2857, 2917, 3253, 3319, 3793, 3967, 4297, 4423, 4597, 4957, 5449, 5563, 5701, 6229, 6427, 6469, 6679
a(n) == 1 mod 6. - John Cerkan, Sep 14 2016
[A054858] 1, 7, 13, 20, 35, 66, 118, 218, 402, 738, 1358, 2498, 4594, 8450, 15542, 28586, 52578, 96706, 177870, 327154, 601730, 1106754, 2035638, 3744122, 6886514, 12666274, 23296910, 42849698, 78812882, 144959490, 266622070
a(n) = a(n-1)+a(n-2)+a(n-3) for n>8, a(1)=1, a(2)=7, a(3)=13, a(4)=20, a(5)=35, a(6)=66, a(7)=218
[A106349] 7, 13, 23, 29, 43, 47, 73, 79, 97, 101, 137, 139, 149, 163, 167, 199, 227, 233, 257, 269, 271, 293, 313, 347, 373, 389, 421, 439, 443, 449, 467, 487, 491, 499, 577, 607, 631, 647, 653, 661, 673, 677, 727, 751, 757, 811, 821, 823, 829, 839, 907, 929, 937, 947
a(n) = prime(semiprime(n)).
[A090992] 7, 13, 24, 45, 84, 158, 296, 557, 1045, 1966, 3691, 6942, 13038, 24516, 46055, 86585, 162680, 305809, 574624, 1080106, 2029680, 3814941, 7169145, 13474502, 25322375, 47592650, 89441626, 168100324, 315917527, 593742597, 1115852904, 2097145317
a(n+4) = a(n+3) + 3*a(n+2) - 2*a(n+1) - a(n).
[A111721] 1, 1, 7, 13, 25, 43, 73, 121, 199, 325, 529, 859, 1393, 2257, 3655, 5917, 9577, 15499, 25081, 40585, 65671, 106261, 171937, 278203, 450145, 728353, 1178503, 1906861, 3085369, 4992235, 8077609, 13069849, 21147463, 34217317, 55364785, 89582107
a(n) = 3/2^n*((1+sqrt(5))^n+(1-sqrt(5))^n)+3/(sqrt(5)*2^n)*((1+sqrt(5))^n-(1-sqrt(5))^n)-5. - Paolo P. Lava, Jul 27 2011
[A213663] 7, 13, 25, 49, 95, 185, 361, 705, 1379, 2701, 5297, 10401, 20447, 40241, 79281, 156353, 308643, 609813, 1205881, 2386481, 4726463, 9367401, 18577497, 36865665, 73199171, 145419549, 289038817, 574766401, 1143442495, 2275683169, 4530762977, 9023630465, 17977560259
a(1)=7, a(2)=13, a(3)=25, a(n)=a(n-1)+a(n-2)+a(n-3)+2^(n-2)for n>=4.
[A060455] 1, 1, 1, 1, 1, 1, 1, 7, 13, 25, 49, 97, 193, 385, 769, 1531, 3049, 6073, 12097, 24097, 48001, 95617, 190465, 379399, 755749, 1505425, 2998753, 5973409, 11898817, 23702017, 47213569, 94047739, 187339729, 373174033, 743349313, 1480725217
a(n) = a(n-1)+a(n-2)+...+a(n-7) for n > 6, a(0)=a(1)=...=a(6)=1
[A067870] 7, 13, 27, 33, 47, 53, 67, 73, 87, 93, 107, 113, 127, 133, 147, 153, 167, 173, 187, 193, 207, 213, 227, 233, 247, 253, 267, 273, 287, 293, 307, 313, 327, 333, 347, 353, 367, 373, 387, 393, 407, 413, 427, 433, 447, 453, 467, 473, 487, 493, 507, 513, 527, 533
a(2*n+1) = 20*n-13, a(2*n) = 20*n-7;
a(n) = 20*(n-1)-a(n-1) for n>1, a(1)=7. [Vincenzo Librandi, Aug 08 2010]
[A023243] 7, 13, 31, 37, 67, 73, 79, 139, 151, 181, 367, 541, 613, 661, 709, 739, 787, 811, 829, 997, 1087, 1117, 1123, 1249, 1327, 1669, 1753, 1801, 1861, 1999, 2011, 2113, 2179, 2239, 2293, 2473, 2557, 2659, 2713, 2719, 3037, 3181, 3187, 3271, 3301, 3517, 3727, 3793
a(n) == 1 mod 6. John Cerkan, Sep 12 2016
[A284353] 1, 1, 7, 13, 31, 61, 127, 253, 511, 1021, 2047, 4093, 8191, 16381, 32767, 65533, 131071, 262141, 524287, 1048573, 2097151, 4194301, 8388607, 16777213, 33554431, 67108861, 134217727, 268435453, 536870911, 1073741821, 2147483647, 4294967293, 8589934591
a(n) = 2^(n+1) - 1 for n even.
a(n) = 2^(n+1) - 3 for n odd.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>2. (End)
[A102002] 1, 7, 13, 31, 85, 199, 493, 1231, 3013, 7447, 18397, 45343, 111925, 276199, 681421, 1681519, 4149157, 10237879, 25262269, 62334655, 153810709, 379529095, 936489133, 2310790159, 5701884805, 14069421655, 34716351901, 85662734431, 211373124853, 521564001319
a(n) = a(n-1) + 2*a(n-2) + 4*a(n-3), a>3. a(n) = center term in M^n * [1 1 1], where M = the 3X3 matrix [0 1 0 / 0 0 1 / 4 2 1]; M^n * [1 1 1] = [a(n-1) a(n) a(n+1)].
[A239679] 7, 13, 31, 91, 307, 1123, 4291, 16771, 66307, 263683, 1051651, 4200451, 16789507, 67133443, 268484611, 1073840131, 4295163907, 17180262403, 68720263171, 274879479811, 1099514773507, 4398052802563, 17592198627331, 70368769343491, 281475027042307, 1125900007505923
a(n) = 3 + 3*2^n + 2^(2*n).
[A267985] 7, 13, 37, 43, 67, 73, 97, 103, 127, 133, 157, 163, 187, 193, 217, 223, 247, 253, 277, 283, 307, 313, 337, 343, 367, 373, 397, 403, 427, 433, 457, 463, 487, 493, 517, 523, 547, 553, 577, 583, 607, 613, 637, 643, 667, 673, 697, 703, 727, 733, 757, 763
a(n) = a(n-1) + a(n-2) - a(n-3), n >= 4.
a(n) = a(n-2) + 30.
a(n) = 10*(3*n - 4) - a(n-1).
a(n) = (30*n-9*(-1)^n-25)/2 for n>0.
a(n) = 15*n-17 for n>0 and even.
a(n) = 15*n-8 for n odd.
[A052378] 7, 13, 37, 97, 103, 223, 307, 457, 853, 877, 1087, 1297, 1423, 1483, 1867, 1993, 2683, 3457, 4513, 4783, 5227, 5647, 6823, 7873, 8287, 10453, 13687, 13873, 15727, 16057, 16063, 16183, 17383, 19417, 19423, 20743, 21013, 21313, 22273, 23053, 23557
a(n) is the initial prime of a [p, p+4, p+6, p+6+4] prime-quadruple consisting of two 4-twins: [p, p+4] and [p+6, p+10].
[A023286] 7, 13, 43, 223, 757, 883, 2143, 2269, 2521, 2917, 3253, 3967, 4297, 4423, 6229, 6427, 6679, 7621, 7741, 10429, 11353, 12739, 14593, 14929, 15259, 15541, 15937, 16981, 17449, 17911, 21187, 23899, 24697, 25633, 27481, 28789, 29611, 29833, 30253, 30703
a(n) == 1 (mod 6). - John Cerkan, Sep 21 2016
[A015441] 0, 1, 1, 7, 13, 55, 133, 463, 1261, 4039, 11605, 35839, 105469, 320503, 953317, 2876335, 8596237, 25854247, 77431669, 232557151, 697147165, 2092490071, 6275373061, 18830313487, 56482551853, 169464432775, 508359743893, 1525146340543, 4575304803901, 13726182847159
a(n) = a(n-1) + 6*a(n-2).
a(n) = (1/5)*((3^n)-((-2)^n)). - henryk.wicke(AT)stud.uni-hannover.de
a(n+1) = Sum_{k=0..ceiling(n/2)} 6^k*binomial(n-k, k). - Benoit Cloitre, Mar 06 2004
a(n) = (Sum_{1<=k<=n, k odd} binomial(n,k)*5^(k-1))/2^(n-1). - Vladimir Shevelev, Feb 05 2014
a(-n) = -(-1)^n * a(n) / 6^n for all n in Z. - Michael Somos, Mar 18 2014
[A110293] 1, 7, 13, 97, 181, 1351, 2521, 18817, 35113, 262087, 489061, 3650401, 6811741, 50843527, 94875313, 708158977, 1321442641, 9863382151, 18405321661, 137379191137, 256353060613, 1913445293767, 3570537526921, 26650854921601, 49731172316281, 371198523608647
a(n) = ((-1)*((-3+(-1)^n)*((2-sqrt(3))^n*(-3+2*sqrt(3))+(2+sqrt(3))^n*(3+2*sqrt(3)))))/(8*sqrt(3)).
a(n) = 14*a(n-2)-a(n-4) for n>3.
[A004759] 7, 14, 15, 28, 29, 30, 31, 56, 57, 58, 59, 60, 61, 62, 63, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244
a(2n) = 2a(n), a(2n+1) = 2a(n) + 1 + 6[n==0].
a(2^m+k) = 7*2^m + k, m >= 0, 0 <= k < 2^m. - Yosu Yurramendi, Aug 08 2016
[A213604] 1, 7, 14, 18, 24, 28, 35, 41, 42, 48, 55, 59, 65, 69, 76, 82, 83, 89, 96, 100, 106, 110, 117, 123, 124, 130, 137, 141, 147, 151, 158, 164, 165, 171, 178, 182, 188, 192, 199, 205, 206, 212, 219, 223, 229, 233, 240, 246, 247, 253, 260, 264, 270, 274, 281, 287
a(n+9) = -a(n) + a(n+1) + a(n+8), a(0)=1, a(1)=7, a(2)=14, a(3)=18, a(4)=24, a(5)=28, a(6)=35, a(7)=41, a(8)=42.
[A102041] 7, 14, 18, 26, 32, 34, 38, 46, 52, 54, 58, 66, 72, 74, 78, 86, 92, 94, 98, 106, 112, 114, 118, 126, 132, 134, 138, 146, 152, 154, 158, 166, 172, 174, 178, 186, 192, 194, 198, 206, 212, 214, 218, 226, 232, 234, 238, 246, 252, 254, 258, 266, 272, 274, 278, 286
a(n) = 5+(1/2+i)*(-i)^n+(1/2-i)*i^n+5*n for n>1, where i = sqrt(-1).

[A008589] 0, 7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, 105, 112, 119, 126, 133, 140, 147, 154, 161, 168, 175, 182, 189, 196, 203, 210, 217, 224, 231, 238, 245, 252, 259, 266, 273, 280, 287, 294, 301, 308, 315, 322, 329, 336, 343, 350, 357, 364, 371, 378
a(n) = 7*n = 2*a(n-1)-a(n-2); G.f.: 7*x/(x-1)^2. - Vincenzo Librandi, Dec 24 2010
[A187395] 7, 14, 21, 28, 35, 42, 50, 57, 64, 71, 78, 85, 93, 100, 107, 114, 121, 128, 136, 143, 150, 157, 164, 171, 179, 186, 193, 200, 207, 214, 222, 229, 236, 243, 250, 257, 265, 272, 279, 286, 293, 300, 307, 315, 322, 329, 336, 343, 350, 358, 365, 372, 379, 386, 393, 401, 408, 415, 422, 429, 436, 444, 451, 458, 465, 472, 479, 487, 494, 501
a(n)=floor(r*n), where r=4+sqrt(10).
[A164005] 0, 7, 14, 21, 32, 45, 60, 77, 96, 117, 140, 165, 192, 221, 252, 285, 320, 357, 396, 437, 480, 525, 572, 621, 672, 725, 780, 837, 896, 957, 1020, 1085, 1152, 1221, 1292, 1365, 1440, 1517, 1596, 1677, 1760, 1845, 1932, 2021, 2112, 2205, 2300, 2397, 2496, 2597
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), n >= 3.
a(n) = n*(n+4), n >= 3.
[A100451] 0, 0, 7, 14, 21, 32, 45, 60, 77, 96, 117, 140, 165, 192, 221, 252, 285, 320, 357, 396, 437, 480, 525, 572, 621, 672, 725, 780, 837, 896, 957, 1020, 1085, 1152, 1221, 1292, 1365, 1440, 1517, 1596, 1677, 1760, 1845, 1932, 2021, 2112, 2205, 2300, 2397, 2496, 2597, 2700
a(n) = (n-2)*(n+2), n>=5. - R. J. Mathar, Aug 17 2009
[A246172] 1, 7, 14, 22, 31, 41, 52, 64, 77, 91, 106, 122, 139, 157, 176, 196, 217, 239, 262, 286, 311, 337, 364, 392, 421, 451, 482, 514, 547, 581, 616, 652, 689, 727, 766, 806, 847, 889, 932, 976, 1021, 1067, 1114, 1162, 1211, 1261, 1312, 1364, 1417, 1471
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) = 2*a(n-1)-a(n-2)+1.
[A089644] 7, 14, 28, 35, 49, 56, 70, 77, 91, 98, 112, 119, 133, 140, 154, 161, 175, 182, 196, 203, 217, 224, 238, 245, 259, 266, 280, 287, 301, 308, 322, 329, 343, 350, 364, 371, 385, 392, 406, 413, 427, 434, 448, 455, 469, 476, 490, 497, 511, 518, 532, 539, 553, 560
a(n) = 21*(n-1)-a(n-1), with n>1, a(1)=7. [Vincenzo Librandi, Nov 16 2010]
[A290398] 1, 7, 14, 28, 49, 84, 147, 252, 434, 749, 1288, 2219, 3822, 6580, 11333, 19516, 33607, 57876, 99666, 171633, 295568, 508991, 876526, 1509452, 2599401, 4476388, 7708715, 13275052, 22860754, 39368133, 67795224, 116749059, 201051662, 346227812, 596233309
a(n+4) = a(n+3) + a(n+2) + a(n+1) - a(n), for n >= 1. (proved)
[A196876] 1, 1, 1, 1, 1, 1, 1, 7, 14, 28, 56, 112, 224, 448, 896, 1786, 3559, 7091, 14127, 28143, 56063, 111679, 222463, 443141, 882724, 1758358, 3502590, 6977038, 13898014, 27684350, 55146238, 109849336, 218815949, 435873541, 868244493, 1729511949, 3445125885
a(n)=1 if n<=7, else a(n) = n-no-2+sum_{i=1..no+1} a(n-i), no=6.
[A005009] 7, 14, 28, 56, 112, 224, 448, 896, 1792, 3584, 7168, 14336, 28672, 57344, 114688, 229376, 458752, 917504, 1835008, 3670016, 7340032, 14680064, 29360128, 58720256, 117440512, 234881024, 469762048, 939524096, 1879048192, 3758096384
a(n)=2*a(n-1), n>0 ; a(0)=7 . [Philippe Deléham, Nov 23 2008]
[A135092] 1, 7, 14, 28, 56, 112, 224, 448, 896, 1792, 3584, 7168, 14336, 28672, 57344, 114688, 229376, 458752, 917504, 1835008, 3670016, 7340032, 14680064, 29360128, 58720256, 117440512, 234881024, 469762048, 939524096, 1879048192, 3758096384, 7516192768, 15032385536
a(n) = 7*2^(n-1) for n>0, a(0)=1.
[A293359] 7, 14, 29, 59, 118, 236, 472, 945, 1891, 3783, 7566, 15132, 30265, 60531, 121062, 242124, 484249, 968498, 1936996, 3873993, 7747986, 15495973, 30991947, 61983895, 123967790, 247935580, 495871160, 991742321, 1983484643, 3966969286, 7933938573, 15867877146
a(n) = floor(r*2^n), where r = e^2.
[A237686] 1, 7, 14, 50, 63, 105, 148, 364, 413, 491, 546, 798, 883, 1141, 1400, 2696, 2961, 3255, 3382, 3850, 3983, 4313, 4620, 6132, 6469, 6979, 7322, 8870, 9387, 10941, 12496, 20272, 21833, 23423, 23982, 25746, 26167, 26929, 27524, 30332, 30933
a(2n+1) = 7a(n) + a(n-1), a(2n+2) = a(n+1) + 7a(n).
[A110496] 7, 14, 63, 172, 666, 1099, 2457, 3430, 6084, 12195, 14896, 25327, 34461, 39754, 51912, 74439, 102690, 113491, 150382, 178956, 194509, 246520, 285894, 352485, 456337, 515151, 546364, 612522, 647515, 721449, 1024192, 1124046, 1285677
a(n) = (prime(n)^3 + 1)/2 for n>1.
[A117867] 7, 14, 70, 126, 574, 1022, 4606, 8190, 36862, 65534, 294910, 524286, 2359294, 4194302, 18874366, 33554430, 150994942, 268435454, 1207959550, 2147483646, 9663676414, 17179869182, 77309411326, 137438953470, 618475290622, 1099511627774, 4947802324990
a(n) = 9*8^((n-1)/2)-2 (n odd), 2*8^(n/2)-2 (n even).
a(n) = a(n-1) + 8*a(n-2) - 8*a(n-3).
a(n) = (1/(4*sqrt(2)))*(-8*sqrt(2) + 9*(1 - (-1)^n)*2^(3*n/2) + (1 + (-1)^n)*2^((3*n+5)/2)).
[A291008] 0, 7, 14, 70, 224, 868, 3080, 11368, 41216, 150640, 548576, 2000992, 7293440, 26592832, 96946304, 353449600, 1288577024, 4697851648, 17127165440, 62441440768, 227645874176, 829940392960, 3025756030976, 11031154419712, 40216845025280, 146620616568832
a(n) = 2*a(n-1) + 6*a(n-2) for n >= 3.
a(n) = (sqrt(7)*((1+sqrt(7))^n - (1-sqrt(7))^n)) / 2. - Colin Barker, Aug 23 2017
[A237054] 1, 1, 7, 15, 17, 17, 31, 47, 49, 49, 55, 79, 81, 81, 111, 111, 145, 177, 215, 255, 257, 257, 271, 319, 321, 321, 327, 383, 385, 385, 447, 511, 513, 513, 519, 527, 529, 529, 543, 623, 689, 753, 823, 847, 849, 849, 943, 1007, 1041, 1137, 1175, 1279, 1281, 1281
a(1)=1, then a(n) = (a(n-1) + n) XOR n, where XOR is the bitwise exclusive-OR operator.
[A151971] 0, 1, 7, 15, 21, 22, 28, 36, 42, 43, 49, 57, 63, 64, 70, 78, 84, 85, 91, 99, 105, 106, 112, 120, 126, 127, 133, 141, 147, 148, 154, 162, 168, 169, 175, 183, 189, 190, 196, 204, 210, 211, 217, 225, 231, 232, 238, 246, 252, 253, 259, 267, 273, 274, 280, 288, 294, 295, 301, 309
a(n) = (42*n +14*i^((n-1)*n) -3*(-1)^n -3)/8 -7, where i=sqrt(-1). (End)
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. - Wesley Ivan Hurt, Jun 07 2016
[A041935] 1, 7, 15, 22, 103, 434, 1839, 2273, 6385, 46968, 2072977, 14557807, 31188591, 45746398, 214174183, 902443130, 3823946703, 4726389833, 13276726369, 97663474416, 4310469600673, 30270950679127, 64852370958927, 95123321638054, 445345657511143, 1876505951682626
a(n) = 2079362*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 27 2013
[A004215] 7, 15, 23, 28, 31, 39, 47, 55, 60, 63, 71, 79, 87, 92, 95, 103, 111, 112, 119, 124, 127, 135, 143, 151, 156, 159, 167, 175, 183, 188, 191, 199, 207, 215, 220, 223, 231, 239, 240, 247, 252, 255, 263, 271, 279, 284, 287, 295, 303, 311, 316, 319, 327, 335, 343
a(n) = 6n + O(log n). - Charles R Greathouse IV, Dec 19 2013
[A004771] 7, 15, 23, 31, 39, 47, 55, 63, 71, 79, 87, 95, 103, 111, 119, 127, 135, 143, 151, 159, 167, 175, 183, 191, 199, 207, 215, 223, 231, 239, 247, 255, 263, 271, 279, 287, 295, 303, 311, 319, 327, 335, 343, 351, 359, 367, 375, 383, 391, 399, 407, 415, 423, 431
a(n) = floor((24*n-2)/3) with offset 1, a(1) = 7. - Gary Detlefs, Mar 07 2010
a(n) = 2*a(n-1) - a(n-2) for n > 1, a(0)=7, a(1)=15. - Vincenzo Librandi, May 28 2011
a(n) = t(t(t(n))), where t(i) = 2*i+1.
[A056119] 0, 7, 15, 24, 34, 45, 57, 70, 84, 99, 115, 132, 150, 169, 189, 210, 232, 255, 279, 304, 330, 357, 385, 414, 444, 475, 507, 540, 574, 609, 645, 682, 720, 759, 799, 840, 882, 925, 969, 1014, 1060, 1107, 1155, 1204, 1254, 1305, 1357, 1410, 1464, 1519, 1575
a(n) = C(n,2) - 6*n, n>=13. - Zerinvary Lajos, Nov 25 2006
a(n) = n + a(n-1) + 6 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
a(n) = 7n - floor(n/2) + floor(n/2). - Wesley Ivan Hurt, Jun 15 2013
[A082111] 1, 7, 15, 25, 37, 51, 67, 85, 105, 127, 151, 177, 205, 235, 267, 301, 337, 375, 415, 457, 501, 547, 595, 645, 697, 751, 807, 865, 925, 987, 1051, 1117, 1185, 1255, 1327, 1401, 1477, 1555, 1635, 1717, 1801, 1887, 1975, 2065, 2157, 2251, 2347, 2445, 2545, 2647
a(n) = n^2 + 5*n + 1.
a(n) = 2*n + a(n-1) + 4 (with a(0)=1). - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=7, a(2)=15, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 22 2012
[A195041] 0, 1, 7, 15, 28, 43, 63, 85, 112, 141, 175, 211, 252, 295, 343, 393, 448, 505, 567, 631, 700, 771, 847, 925, 1008, 1093, 1183, 1275, 1372, 1471, 1575, 1681, 1792, 1905, 2023, 2143, 2268, 2395, 2527, 2661, 2800, 2941, 3087, 3235, 3388, 3543
a(n) = 7*n^2/4+3*((-1)^n-1)/8.
a(n) = n^2 + floor(3*n^2/4). - Bruno Berselli, Aug 08 2013
[A139597] 0, 7, 15, 30, 46, 69, 93, 124, 156, 195, 235, 282, 330, 385, 441, 504, 568, 639, 711, 790, 870, 957, 1045, 1140, 1236, 1339, 1443, 1554, 1666, 1785, 1905, 2032, 2160, 2295, 2431, 2574, 2718, 2869, 3021, 3180, 3340, 3507, 3675, 3850

a(n) = (3-3*(-1)^n+14*n+8*n^2)/4. a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: x*(7+x)/((1-x)^3*(1+x)). [Colin Barker, Jul 22 2012]
[A210675] 0, 1, 7, 15, 30, 54, 94, 159, 265, 437, 716, 1168, 1900, 3085, 5003, 8107, 13130, 21258, 34410, 55691, 90125, 145841, 235992, 381860, 617880, 999769, 1617679, 2617479, 4235190, 6852702, 11087926, 17940663, 29028625, 46969325, 75997988, 122967352, 198965380
a(n) = 3*a(n-1)-2*a(n-2)-a(n-3)+a(n-4). G.f.: x*(4*x^2-4*x-1) / ((x-1)^2*(x^2+x-1)). - Colin Barker, May 31 2013
[A293361] 7, 15, 30, 59, 118, 236, 473, 946, 1892, 3783, 7566, 15133, 30266, 60531, 121062, 242125, 484249, 968498, 1936997, 3873993, 7747987, 15495974, 30991948, 61983895, 123967790, 247935580, 495871161, 991742322, 1983484643, 3966969287, 7933938573, 15867877147
a(n) = floor(1/2 + (e^2)*2^n).
[A078485] 0, 1, 1, 1, 7, 15, 31, 63, 127, 255, 511, 1023, 2047, 4095, 8191, 16383, 32767, 65535, 131071, 262143, 524287, 1048575, 2097151, 4194303, 8388607, 16777215, 33554431, 67108863, 134217727, 268435455, 536870911, 1073741823, 2147483647, 4294967295, 8589934591
a(n) = 2^(n-1)-1 for n>3.
a(n) = 3*a(n-1)-2*a(n-2) for n>2. - Colin Barker, May 27 2016
[A159695] 7, 15, 32, 68, 144, 304, 640, 1344, 2816, 5888, 12288, 25600, 53248, 110592, 229376, 475136, 983040, 2031616, 4194304, 8650752, 17825792, 36700160, 75497472, 155189248, 318767104, 654311424, 1342177280, 2751463424, 5637144576
a(n)=Sum_{k=0..n} (k+7)*binomial(n,k).
a(n) = (14+n)*2^(n-1) = 4*a(n-1)-4*a(n-2). G.f.: (7-13x)/(1-2x)^2. [From R. J. Mathar, Apr 20 2009]
[A271995] 7, 15, 33, 51, 83, 115, 165, 215, 287, 359, 457, 555, 683, 811, 973, 1135, 1335, 1535, 1777, 2019, 2307, 2595, 2933, 3271, 3663, 4055, 4505, 4955, 5467, 5979, 6557, 7135, 7783, 8431, 9153, 9875, 10675, 11475, 12357, 13239, 14207, 15175, 16233, 17291, 18443
a(n) = (6*(-7+(-1)^n)+(25+3*(-1)^n)*n+12*n^2+2*n^3)/12.
a(n) = (n^3+6*n^2+14*n-18)/6 for n even.
a(n) = (n^3+6*n^2+11*n-24)/6 for n odd.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>7.
[A048694] 1, 7, 15, 37, 89, 215, 519, 1253, 3025, 7303, 17631, 42565, 102761, 248087, 598935, 1445957, 3490849, 8427655, 20346159, 49119973, 118586105, 286292183, 691170471, 1668633125, 4028436721, 9725506567
a(n) = ((6+sqrt(2))(1+sqrt(2))^n - (6-sqrt(2))(1-sqrt(2))^n)/2*sqrt(2).
a(n) = 2*a(n-1) + a(n-2); a(0)=1, a(1)=7.
a(n) = ((1+sqrt(18))(1+sqrt(2))^n+(1-sqrt(18))(1-sqrt(2))^n)/2 offset 0. a(n) = first binomial transform of 1,6,2,12,4,24. - Al Hakanson (hawkuu(AT)gmail.com), Aug 01 2009
[A042287] 1, 1, 7, 15, 37, 126, 163, 1593, 1756, 3349, 8454, 11803, 150090, 612163, 762253, 1374416, 2136669, 3511085, 5647754, 93875149, 99522903, 193398052, 292920955, 486319007, 779239962, 3603278855, 44018586222, 47621865077, 139262316376, 186884181453
a(n) = 28452235718108270*a(n-38) - a(n-76) for n>75. Vincenzo Librandi, Jan 19 2014
[A171064] 0, 1, 1, 7, 15, 64, 175, 631, 1905, 6433, 20224, 66529, 212625, 692119, 2226799, 7217728, 23284815, 75343591, 243328225, 786800449, 2542156800, 8217744577, 26556314401, 85835882791, 277405671375, 896595420736, 2897714688751
a(n) = +a(n-1) +7*a(n-2) +a(n-3) -a(n-4).
[A042313] 1, 7, 15, 67, 216, 283, 499, 12758, 13257, 26015, 91302, 391223, 873748, 6507459, 339261616, 2381338771, 5101939158, 22789095403, 73469225367, 96258320770, 169727546137, 4339446974195, 4509174520332, 8848621494527, 31055039003913, 133068777510179
a(n) = 340135364*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 20 2014
[A041413] 1, 1, 7, 15, 97, 112, 3233, 3345, 23303, 49951, 323009, 372960, 10765889, 11138849, 77598983, 166336815, 1075619873, 1241956688, 35850407137, 37092363825, 258404590087, 553901543999, 3581813854081, 4135715398080, 119381845000321, 123517560398401
a(n) = 3330*a(n-6) - a(n-12). - Vincenzo Librandi, Dec 17 2013
[A144536] 1, 1, 7, 15, 97, 209, 1351, 2911, 18817, 40545, 262087, 564719, 3650401, 7865521, 50843527, 109552575, 708158977, 1525870529, 9863382151, 21252634831, 137379191137, 296011017105, 1913445293767, 4122901604639, 26650854921601, 57424611447841, 371198523608647
a(n) = 14*a(n-2) - a(n-4). - Sergei N. Gladkovskii, Jun 07 2015
a(n) = ((3+sqrt(3))*((-2+sqrt(3))^n + (2+sqrt(3))^n) - (-3+sqrt(3))*((-2-sqrt(3))^n + (2-sqrt(3))^n))/12. - Vaclav Kotesovec, Jun 08 2015
[A243470] 1, 7, 15, 112, 239, 1785, 3809, 28448, 60705, 453383, 967471, 7225680, 15418831, 115157497, 245733825, 1835294272, 3916322369, 29249550855, 62415424079, 466157519408, 994730462895, 7429270759673, 15853271982241, 118402174635360, 252657621252961, 1887005523406087
a(2*n + 1) = product {k = 1..n} (14 + 4*cos^2(k*Pi/(2*n+1));
a(2*n) = 7*product {k = 1..n-1} (14 + 4*cos^2(k*Pi/(2*n)).
[A060914] 7, 16, 20, 21, 26, 32, 34, 45, 49, 50, 52, 54, 57, 58, 61, 70, 72, 79, 81, 86, 92, 94, 98, 103, 111, 112, 114, 116, 119, 122, 125, 130, 136, 137, 141, 143, 147, 152, 157, 160, 170, 176, 179, 181, 184, 186, 197, 198, 199, 214, 221, 222, 225, 231, 234, 236, 240
a(n) = n-th integer i such that i^3 - 2 has two prime factors > i.
[A017245] 7, 16, 25, 34, 43, 52, 61, 70, 79, 88, 97, 106, 115, 124, 133, 142, 151, 160, 169, 178, 187, 196, 205, 214, 223, 232, 241, 250, 259, 268, 277, 286, 295, 304, 313, 322, 331, 340, 349, 358, 367, 376, 385, 394, 403, 412, 421, 430, 439, 448, 457, 466, 475, 484
a(n) = 18*n - a(n-1) + 5, with a(0)=7. - Vincenzo Librandi, Dec 24 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. - Vincenzo Librandi, Apr 30 2015
[A028560] 0, 7, 16, 27, 40, 55, 72, 91, 112, 135, 160, 187, 216, 247, 280, 315, 352, 391, 432, 475, 520, 567, 616, 667, 720, 775, 832, 891, 952, 1015, 1080, 1147, 1216, 1287, 1360, 1435, 1512, 1591, 1672, 1755, 1840, 1927, 2016, 2107, 2200, 2295, 2392
a(n) = (n+3)^2 - 3^2 = n*(n+6).
a(n) = 2*n + a(n-1) + 5. - Vincenzo Librandi, Aug 05 2010
[A133694] 1, 7, 16, 28, 43, 61, 82, 106, 133, 163, 196, 232, 271, 313, 358, 406, 457, 511, 568, 628, 691, 757, 826, 898, 973, 1051, 1132, 1216, 1303, 1393, 1486, 1582, 1681, 1783, 1888, 1996, 2107, 2221, 2338, 2458, 2581, 2707, 2836, 2968, 3103, 3241, 3382, 3526, 3673
a(n) = a(n-1) + 3*n for n>1, a(1)=1. - Vincenzo Librandi, Nov 23 2010
[A211784] 1, 7, 16, 29, 45, 66, 89, 117, 148, 183, 221, 264, 309, 359, 412, 469, 529, 594, 661, 733, 808, 887, 969, 1056, 1145, 1239, 1336, 1437, 1541, 1650, 1761, 1877, 1996, 2119, 2245, 2376, 2509, 2647, 2788, 2933, 3081, 3234, 3389, 3549, 3712, 3879
a(n) = a(n-1)+a(n-2)-a(n-4)-a(n-5)+a(n-6) for n>=7.
[A234717] 1, 7, 16, 30, 47, 69, 94, 124, 157, 195, 236, 282, 331, 385, 442, 504, 569, 639, 712, 790, 871, 957, 1046, 1140, 1237, 1339, 1444, 1554, 1667, 1785, 1906, 2032, 2161, 2295, 2432, 2574, 2719, 2869, 3022, 3180, 3341, 3507
a(n) = (1/4)*(8n^2 - 2n - 1 + (-1)^n). G.f.: x*(2*x^2 + 5*x + 1)/((1-x^2)*(1-x)^2). - Ralf Stephan, Mar 28 2014
[A121470] 1, 7, 16, 31, 49, 73, 100, 133, 169, 211, 256, 307, 361, 421, 484, 553, 625, 703, 784, 871, 961, 1057, 1156, 1261, 1369, 1483, 1600, 1723, 1849, 1981, 2116, 2257, 2401, 2551, 2704, 2863, 3025, 3193, 3364, 3541, 3721, 3907, 4096, 4291, 4489, 4693, 4900
a(n)=2*a(n-1)-2*a(n-3)+a(n-4) = 5/8-3n/2+9n^2/4+3*(-1)^n/8. G.f.: x*(1+5*x+2*x^2+x^3)/((1+x)*(1-x)^3). - R. J. Mathar, Jul 10 2009
[A176449] 7, 16, 34, 70, 142, 286, 574, 1150, 2302, 4606, 9214, 18430, 36862, 73726, 147454, 294910, 589822, 1179646, 2359294, 4718590, 9437182, 18874366, 37748734, 75497470, 150994942, 301989886, 603979774, 1207959550, 2415919102
a(n) = 2*(a(n-1)+1) with a(0)=7.
a(n) = 3*a(n-1) -2*a(n-2). G.f.: (7-5*x) / ((2*x-1)*(x-1)). [From R. J. Mathar, May 02 2010]
[A154141] 1, 7, 16, 46, 97, 271, 568, 1582, 3313, 9223, 19312, 53758, 112561, 313327, 656056, 1826206, 3823777, 10643911, 22286608, 62037262, 129895873, 361579663, 757088632, 2107440718, 4412635921, 12283064647, 25718726896, 71590947166, 149899725457, 417262618351
a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) - a(n-4) + a(n-5).
a(1..4) = (1,7,16,46); a(n) = 6*a(n-2) - a(n-4) + 2, for n>4. - Ctibor O. Zizka, Nov 10 2009
[A173661] 1, 7, 16, 47, 121, 322, 841, 2207, 5776, 15127, 39601, 103682, 271441, 710647, 1860496, 4870847, 12752041, 33385282, 87403801, 228826127, 599074576, 1568397607, 4106118241, 10749957122, 28143753121, 73681302247, 192900153616, 505019158607
a(n) = Lucas(n)^2 for odd n, a(n) = Lucas(n)^2 - 2 for even n>0.
[A175901] 7, 17, 19, 26, 31, 41, 49, 53, 55, 65, 71, 76, 97, 109, 127, 129, 161, 191, 197, 199, 209, 239, 241, 251, 271, 289, 295, 351, 391, 401, 433, 449, 485, 511, 575, 577, 626, 647, 649, 685, 701, 703, 721, 727, 799, 811, 881, 883, 901, 967, 989, 1025, 1055, 1079
a(1)=7 because set of prime divisors of 7^2-1 is the same as for 5^2-1. The set is {2,3}.

[A253408] 1, 1, 7, 17, 23, 31, 41, 47, 49, 71, 73, 79, 89, 97, 103, 113, 119, 127, 137, 151, 161, 167, 191, 193, 199, 217, 223, 233, 239, 241, 257, 263, 271, 281, 287, 289, 311, 313, 329, 337, 343, 353, 359, 367, 383, 391, 401, 409, 431, 433, 439, 449, 457, 463, 479, 487
a(n)^2 mod 8 = 1.
[A273745] 7, 17, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = 2*a(n-1)-a(n-2) for n>3.
[A017353] 7, 17, 27, 37, 47, 57, 67, 77, 87, 97, 107, 117, 127, 137, 147, 157, 167, 177, 187, 197, 207, 217, 227, 237, 247, 257, 267, 277, 287, 297, 307, 317, 327, 337, 347, 357, 367, 377, 387, 397, 407, 417, 427, 437, 447, 457, 467, 477, 487, 497, 507, 517, 527, 537
a(n) = 10*n + 7.
a(n) = 2*a(n-1) - a(n-2). (End)
[A059845] 0, 7, 17, 30, 46, 65, 87, 112, 140, 171, 205, 242, 282, 325, 371, 420, 472, 527, 585, 646, 710, 777, 847, 920, 996, 1075, 1157, 1242, 1330, 1421, 1515, 1612, 1712, 1815, 1921, 2030, 2142, 2257, 2375, 2496, 2620, 2747, 2877, 3010, 3146, 3285, 3427, 3572, 3720
a(n) = 3*n + a(n-1) + 4 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
[A056220] 1, 1, 7, 17, 31, 49, 71, 97, 127, 161, 199, 241, 287, 337, 391, 449, 511, 577, 647, 721, 799, 881, 967, 1057, 1151, 1249, 1351, 1457, 1567, 1681, 1799, 1921, 2047, 2177, 2311, 2449, 2591, 2737, 2887, 3041, 3199, 3361, 3527, 3697, 3871, 4049, 4231, 4417
a(0) = -1,
a(n) = a(n-1) + 4*n-2 (with a(0)=-1). - Vincenzo Librandi, Dec 25 2010
a(n) = j^2 + k^2 - 2 or 2*j*k if n>=2 and j = n + sqrt(2)/2 and k = n - sqrt(2)/2. - Avi Friedlich, Mar 30 2015
[A102770] 7, 17, 38, 71, 110, 161, 218, 333, 449, 573, 758, 881, 1010, 1245, 1563, 1799, 2043, 2378, 2591, 2883, 3278, 3693, 4316, 4898, 5201, 5510, 5831, 6158, 7175, 8318, 8973, 9521, 10355, 11249, 11853, 12795, 13610, 14445, 15483, 16199, 17285, 18431, 19010
a(n) = (prime(n + 1)*prime(n + 2) - 1)/2.
[A061722] 7, 17, 47, 97, 167, 257, 367, 497, 647, 817, 1007, 1217, 1447, 1697, 1967, 2257, 2567, 2897, 3247, 3617, 4007, 4417, 4847, 5297, 5767, 6257, 6767, 7297, 7847, 8417, 9007, 9617, 10247, 10897, 11567, 12257, 12967, 13697, 14447, 15217, 16007, 16817
a(n) = 10 * n^2 + 7.
[A104164] 7, 17, 47, 107, 167, 197, 257, 317, 347, 557, 677, 827, 947, 1097, 1217, 1307, 1367, 1427, 1607, 1847, 1877, 2027, 2207, 2267, 2297, 2417, 2477, 2657, 2927, 3257, 3557, 3617, 3677, 3917, 3947, 4157, 4397, 4457, 4877, 4967, 5507, 5717, 5867, 5927, 6257
a(n) = If (5*Prime[n]-1)/2 is prime, then a[m]=(5*Prime[n]-1)/2
[A221591] 0, 7, 17, 49, 139, 393, 1113, 3151, 8921, 25257, 71507, 202449, 573169, 1622743, 4594273, 13007201, 36825691, 104260057, 295178697, 835703199, 2366023849, 6698632793, 18965016483, 53693322401, 152015310561, 430382282407, 1218488508337, 3449756892049
a(n) = 2*a(n-1) +2*a(n-2) +a(n-3) for n>4.
[A045821] 1, 1, 1, 1, 7, 17, 49, 145, 415, 1201, 3473, 10033, 28999, 83809, 242209, 700001, 2023039, 5846689, 16897249, 48833953, 141132743, 407881201, 1178798545, 3406791025, 9845808799, 28454915537, 82236232177, 237667122001
a(n)=2(a(n-1)+a(n-2)+a(n-3))-a(n-4). Also a(n)=Sum{v=0 to [n/2]} C(n, 2v)*f(n-v-2) where f(m) is the m-th Fibonacci number.
[A081632] 1, 7, 17, 55, 161, 487, 1457, 4375, 13121, 39367, 118097, 354295, 1062881, 3188647, 9565937, 28697815, 86093441, 258280327, 774840977, 2324522935, 6973568801, 20920706407, 62762119217, 188286357655, 564859072961, 1694577218887
a(0)=1, a(1)=7, a(n)=2*a(n-1)+3*a(n-2) [Harvey P. Dale, May 24 2011]
[A216073] 1, 7, 17, 71, 169, 703, 1673, 6959, 16561, 68887, 163937, 681911, 1622809, 6750223, 16064153, 66820319, 159018721, 661452967, 1574123057, 6547709351, 15582211849, 64815640543, 154247995433, 641608696079, 1526897742481, 6351271320247, 15114729429377, 62871104506391
a(n) = 10*a(n-2) - a(n-4).
a(n) = a(n-1) + 10*a(n-2) - 10*a(n-3) - a(n-4) + a(n-5).
a(2*n+1) = ((1+r)*(5+2*r)^n+(1-r)*(5-2*r)^n)/2 where r=sqrt(6) and 0<=n.
a(2*n+2) = ((7+3*r)*(5+2*r)^n+(7-3*r)*(5-2*r)^n)/2 where r=sqrt(6) and 0<=n.
a(n) = -((5-2*r)^(1/4)*((2*r+5)^((-1)^n/4+n/2)*(-1)^n-r*(2*r+5)^((-1)^n/4+n/2))+(2*r+5)^(1/4)*((5-2*r)^((-1)^n/4+n/2)*(-1)^n+(5-2*r)^((-1)^n/4+n/2)*r))/(2*(5-2*r)^(1/4)*(2*r+5)^(1/4)) with r=sqrt(6) and 1<=n.- Alexander R. Povolotsky, Sep 01 2012
[A056021] 1, 7, 18, 24, 26, 32, 43, 49, 51, 57, 68, 74, 76, 82, 93, 99, 101, 107, 118, 124, 126, 132, 143, 149, 151, 157, 168, 174, 176, 182, 193, 199, 201, 207, 218, 224, 226, 232, 243, 249, 251, 257, 268, 274, 276, 282, 293, 299, 301, 307, 318, 324, 326, 332, 343, 349
a(n) = (-25 - (-1)^n + (9-9*I)*(-I)^n + (9+9*I)*I^n + 50*n) / 8. - Colin Barker, Oct 16 2015
[A017473] 7, 18, 29, 40, 51, 62, 73, 84, 95, 106, 117, 128, 139, 150, 161, 172, 183, 194, 205, 216, 227, 238, 249, 260, 271, 282, 293, 304, 315, 326, 337, 348, 359, 370, 381, 392, 403, 414, 425, 436, 447, 458, 469, 480, 491, 502, 513, 524, 535, 546, 557, 568, 579, 590
a(n) = 2*a(n-1)-a(n-2). G.f.: (7+4*x)/(1-x)^2. - Colin Barker, Jun 06 2012
[A156619] 7, 18, 32, 43, 57, 68, 82, 93, 107, 118, 132, 143, 157, 168, 182, 193, 207, 218, 232, 243, 257, 268, 282, 293, 307, 318, 332, 343, 357, 368, 382, 393, 407, 418, 432, 443, 457, 468, 482, 493, 507, 518, 532, 543, 557, 568, 582, 593, 607, 618, 632, 643, 657, 668
a(n) = 2*a(n-1)-a(n-2)-3, if n is even, and a(n) = 2*a(n-1)-a(n-2)+3, if n is odd, with a(1)=7, a(2)=18.
a(n) = a(n-1)+a(n-2)-a(n-3).
a(n) = 25*n/2-25/4-3*(-1)^n/4.
[A033537] 0, 7, 18, 33, 52, 75, 102, 133, 168, 207, 250, 297, 348, 403, 462, 525, 592, 663, 738, 817, 900, 987, 1078, 1173, 1272, 1375, 1482, 1593, 1708, 1827, 1950, 2077, 2208, 2343, 2482, 2625, 2772, 2923, 3078
a(n) = a(n-1) + 4*n + 3 (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
[A000566] 0, 1, 7, 18, 34, 55, 81, 112, 148, 189, 235, 286, 342, 403, 469, 540, 616, 697, 783, 874, 970, 1071, 1177, 1288, 1404, 1525, 1651, 1782, 1918, 2059, 2205, 2356, 2512, 2673, 2839, 3010, 3186, 3367, 3553, 3744, 3940, 4141, 4347, 4558, 4774, 4995, 5221, 5452, 5688
a(n) = Sum_{k = 1..n} (4n - 3k). - Paul Barry, Sep 06 2005
a(n) = 3a(n-1) - 3a(n-2) + a(n-3), a(0) = 0, a(1) = 1, a(2) = 7. - Jaume Oliver Lafont, Dec 02 2008
a(n) = 2*a(n-1) - a(n-2) + 5 with a(0) = 0 and a(1) = 1. - Mohamed Bouhamida (bhmd95(AT)yahoo.fr), May 05 2010
a(n) = a(n-1) + 5*n - 4 (with a(0) = 0). - Vincenzo Librandi, Nov 20 2010
a(5*a(n) + 11*n + 1) = a(5*a(n) + 11*n) + a(5*n + 1). - Vladimir Shevelev, Jan 24 2014
a(n+m) = a(n) + 5nm + a(m);
[A192751] 0, 1, 7, 18, 39, 75, 136, 237, 403, 674, 1115, 1831, 2992, 4873, 7919, 12850, 20831, 33747, 54648, 88469, 143195, 231746, 375027, 606863, 981984, 1588945, 2571031, 4160082, 6731223, 10891419, 17622760, 28514301, 46137187, 74651618, 120788939
a(n) = 5*Fibonacci(n+3) - (4*n+10). - N. J. A. Sloane, Dec 15 2015
[A272459] 0, 1, 7, 18, 40, 71, 119, 180, 264, 365, 495, 646, 832, 1043, 1295, 1576, 1904, 2265, 2679, 3130, 3640, 4191, 4807, 5468, 6200, 6981, 7839, 8750, 9744, 10795, 11935, 13136, 14432, 15793, 17255, 18786, 20424, 22135, 23959, 25860, 27880, 29981, 32207, 34518
a(n) = (n*(-1-3*(-1)^n-12*n+10*n^2))/24.
a(n) = (5*n^3-6*n^2-2*n)/12 for n even.
a(n) = (5*n^3-6*n^2+n)/12 for n odd.
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>6.
[A262489] 7, 18, 78, 187, 781, 1860, 7740, 18421, 76627, 182358, 758538, 1805167, 7508761, 17869320, 74329080, 176888041, 735782047, 1751011098, 7283491398, 17333222947, 72099131941, 171581218380, 713707828020, 1698478960861, 7064979148267, 16813208390238
a(n) = a(n-1)+10*a(n-2)-10*a(n-3)-a(n-4)+a(n-5) for n>5.
[A030982] 0, 1, 1, 7, 18, 80, 284, 1169, 4628, 19137, 79165, 333058, 1410608, 6029816, 25941384, 112315945, 488862888, 2138161043, 9391903131, 41414729419, 183264846010, 813564012660, 3622193670040, 16170171489820, 72364908958800, 324586284275500, 1458976377988636
a(n) = 5*Sum_{k=2..n} ((-1)^(n-k)*2^(n-k)*k*C(n,k)*C(3*k-2,k-2)/(2*k+1))/n.
[A017605] 7, 19, 31, 43, 55, 67, 79, 91, 103, 115, 127, 139, 151, 163, 175, 187, 199, 211, 223, 235, 247, 259, 271, 283, 295, 307, 319, 331, 343, 355, 367, 379, 391, 403, 415, 427, 439, 451, 463, 475, 487, 499, 511, 523, 535, 547, 559, 571, 583, 595, 607, 619, 631
a(n) = 2*(12*n+1) - a(n-1) = 2*a(n-1) - a(n-2) with a(0) = 7, a(1) = 19. - Vincenzo Librandi, Nov 19 2010

[A003215] 1, 7, 19, 37, 61, 91, 127, 169, 217, 271, 331, 397, 469, 547, 631, 721, 817, 919, 1027, 1141, 1261, 1387, 1519, 1657, 1801, 1951, 2107, 2269, 2437, 2611, 2791, 2977, 3169, 3367, 3571, 3781, 3997, 4219, 4447, 4681, 4921, 5167, 5419, 5677, 5941, 6211, 6487
a(n) = (n+1)^3 - n^3 = a(-1-n).
a(n) = 1 + Sum_{j=0..n} (6*j). E.g., a(2)=19 because 1+ 6*0 + 6*1 + 6*2 = 19. - Xavier Acloque, Oct 06 2003
a(n) = right term in M^n * [1 1 1], where M = the 3 X 3 matrix [1 0 0 / 2 1 0 / 3 3 1]. M^n * [1 1 1] = [1 2n+1 a(n)]. E.g., a(4) = 61, right term in M^4 * [1 1 1], since M^4 * [1 1 1] = [1 9 61] = [1 2n+1 a(4)]. - Gary W. Adamson, Dec 22 2004
a(n) = 3*n^2 + 3*n + 1. Proof: 1) If n occurs once, it may be in 3 positions; for the two other ones, n terms are independently possible, then we have 3*n^2 different triples. 2) If the term n occurs twice, the third one may be placed in 3 positions and have n possible values, then we have 3*n more different triples. 3) The term n may occurs 3 times in one way only that gives the formula. - Philippe Lallouet (philip.lallouet(AT)wanadoo.fr), Aug 20 2007
a(n) = integral((sin((n+1/2)x)/sin(x/2))^3, x=0..Pi)/Pi. - Yalcin Aktar, Dec 03 2011
[A098484] 1, 1, 1, 1, 7, 19, 37, 61, 145, 397, 979, 2107, 4591, 10915, 26857, 63649, 146347, 339751, 808885, 1936717, 4588705, 10803133, 25559287, 60893551, 145231309, 345462145, 821110051, 1955736379, 4668132067, 11146642903, 26605635949
a(n)=sum{k=0..floor(n/2), binomial(n-2k, k)binomial(n-3k, k)3^k}.
[A213489] 1, 7, 19, 37, 64, 103, 154, 217, 295, 391, 505, 637, 790, 967, 1168, 1393, 1645, 1927, 2239, 2581, 2956, 3367, 3814, 4297, 4819, 5383, 5989, 6637, 7330, 8071, 8860, 9697, 10585, 11527, 12523, 13573, 14680, 15847, 17074, 18361, 19711, 21127
a(n) = 4*a(n-1)-7*a(n-2)+8*a(n-3)-7*a(n-4)+4*a(n-5)-a(n-6).
[A098481] 1, 1, 1, 7, 19, 37, 115, 361, 937, 2599, 7777, 22195, 62701, 182647, 531829, 1534903, 4461571, 13034917, 38015899, 110994193, 325011151, 952442557, 2792471239, 8198275933, 24093817531, 70852613041, 208516575043, 614145137137
a(n) = Sum_{k=0..floor(n/2)} binomial(n-k, k)*binomial(n-2k, k)*3^k.
[A051937] 1, 7, 19, 38, 65, 101, 147, 204, 273, 355, 451, 562, 689, 833, 995, 1176, 1377, 1599, 1843, 2110, 2401, 2717, 3059, 3428, 3825, 4251, 4707, 5194, 5713, 6265, 6851, 7472, 8129, 8823, 9555, 10326, 11137, 11989, 12883, 13820, 14801, 15827, 16899, 18018
a(n) = 1/6*(n-3)*(n^2+6*n-34).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Apr 28 2012
[A119327] 1, 1, 7, 19, 38, 66, 106, 162, 239, 343, 481, 661, 892, 1184, 1548, 1996, 2541, 3197, 3979, 4903, 5986, 7246, 8702, 10374, 12283, 14451, 16901, 19657, 22744, 26188, 30016, 34256, 38937, 44089, 49743, 55931, 62686, 70042, 78034, 86698, 96071
a(n)=sum{j=0..n, C(4,2j)*C(n,2j)}
[A152728] 0, 0, 0, 1, 7, 19, 38, 68, 110, 165, 237, 327, 436, 568, 724, 905, 1115, 1355, 1626, 1932, 2274, 2653, 3073, 3535, 4040, 4592, 5192, 5841, 6543, 7299, 8110, 8980, 9910, 10901, 11957, 13079, 14268, 15528, 16860, 18265, 19747, 21307, 22946, 24668, 26474
a(n) = 3*a(n-1) -3*a(n-2) +2*a(n-3) -3*a(n-4) +3*a(n-5) -a(n-5). - Charles R Greathouse IV, Jul 10 2013
a(3n) = n*(9n^2-9n+1), a(3n+1) = n*(9n^2-2), a(3n+2) = n*(9n^2+9n+1). - Ralf Stephan, Jul 12 2013
a(n) = ceil((n^3 - 3*n^2 + n)/3). - Robert Israel, Dec 01 2014
[A108766] 1, 1, 7, 19, 39, 69, 111, 167, 239, 329, 439, 571, 727, 909, 1119, 1359, 1631, 1937, 2279, 2659, 3079, 3541, 4047, 4599, 5199, 5849, 6551, 7307, 8119, 8989, 9919, 10911, 11967, 13089, 14279, 15539, 16871, 18277, 19759, 21319, 22959, 24681, 26487, 28379, 30359, 32429, 34591, 36847, 39199, 41649
a(n) = n*(n+2)*(n+1)/3 - 1.
[A213782] 1, 7, 19, 41, 72, 118, 176, 254, 347, 465, 601, 767, 954, 1176, 1422, 1708, 2021, 2379, 2767, 3205, 3676, 4202, 4764, 5386, 6047, 6773, 7541, 8379, 9262, 10220, 11226, 12312, 13449, 14671, 15947, 17313, 18736, 20254, 21832, 23510, 25251, 27097, 29009, 31031
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).
a(n) = (16*n^3+66*n^2+6*(-1)^n*n-34*n-3*(-1)^n+3)/48.
a(n) = (8*n^3+33*n^2-14*n)/24 for n even.
a(n) = (8*n^3+33*n^2-20*n+3)/24 for n odd.
[A067889] 7, 19, 41, 103, 137, 199, 307, 349, 491, 739, 823, 919, 1013, 1061, 1193, 1277, 1289, 1409, 1433, 1447, 1481, 1543, 1609, 1667, 1721, 1747, 2153, 2357, 2441, 2617, 2683, 2777, 3259, 3319, 3463, 3581, 3593, 3769, 3797, 3911, 3943, 4013, 4217, 4423, 4457
a(n) seems curiously to be asymptotic to 25*n*Log(n)
[A265676] 0, 1, 7, 19, 43, 67, 97, 139, 181, 229, 289, 349, 415, 493, 571, 655, 751, 847, 949, 1063, 1177, 1297, 1429, 1561, 1699, 1849, 1999, 2155, 2323, 2491, 2665, 2851, 3037, 3229, 3433, 3637, 3847, 4069, 4291, 4519, 4759, 4999, 5245, 5503, 5761, 6025, 6301, 6577
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - 2*a(n-4) + a(n-5) for n>5.
[A259486] 1, 7, 19, 43, 73, 109, 157, 211, 271, 343, 421, 505, 601, 703, 811, 931, 1057, 1189, 1333, 1483, 1639, 1807, 1981, 2161, 2353, 2551, 2755, 2971, 3193, 3421, 3661, 3907, 4159, 4423, 4693, 4969, 5257, 5551, 5851, 6163, 6481, 6805, 7141, 7483, 7831, 8191, 8557
a(n) = 2*a(n-1)-a(n-2)+a(n-3)-2*a(n-4)+a(n-5), n>5.
a(n) = 4*n^2 - 6*n + 1 if 3 divides n, 4*n^2 - 6*n + 3 otherwise.
a(n) = 4*n^2 - 6*n + 3^sign(n mod 3). - Wesley Ivan Hurt, Jul 13 2015
[A247905] 1, 7, 19, 43, 79, 139, 223, 355, 535, 811, 1183, 1747, 2503, 3643, 5167, 7459, 10519, 15115, 21247, 30451, 42727, 61147, 85711, 122563, 171703, 245419, 343711, 491155, 687751, 982651, 1375855, 1965667, 2752087, 3931723, 5504575, 7863859, 11009575, 15728155, 22019599, 31456771, 44039671, 62914027, 88079839, 125828563, 176160199, 251657659
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+2*a(n-4). - Colin Barker, Sep 26 2014
[A048488] 1, 7, 19, 43, 91, 187, 379, 763, 1531, 3067, 6139, 12283, 24571, 49147, 98299, 196603, 393211, 786427, 1572859, 3145723, 6291451, 12582907, 25165819, 50331643, 100663291, 201326587, 402653179, 805306363, 1610612731
a(n) = 2*a(n-1) + 5, n > 0, a(0) = 1. - Paul Barry, Aug 25 2004
a(n) = 3*2^(1+n) - 5. a(n) = 3*a(n-1) - 2*a(n-2). G.f.: (1+4*x)/((1-x)*(1-2*x)). - Colin Barker, Sep 17 2012
a(n + 1) = 3 * 2^n - 5 = 1 + 2 * sum(i = 0..n - 1, 3i) for n > 0. - Gerasimov Sergey and Alonso del Arte, May 03 2014
[A097039] 0, 1, 7, 19, 47, 102, 210, 413, 789, 1473, 2703, 4892, 8756, 15529, 27331, 47791, 83103, 143810, 247814, 425445, 727985, 1241981, 2113247, 3587064, 6075432, 10269457, 17326975, 29185483, 49083599, 82429278, 138244218, 231565037
a(n) = n*L(n+2) - L(n+3) + 4.
[A090025] 0, 7, 19, 49, 91, 175, 253, 415, 571, 805, 1033, 1423, 1723, 2263, 2713, 3313, 3913, 4825, 5491, 6625, 7513, 8701, 9811, 11461, 12637, 14497, 16045, 18043, 19807, 22411, 24163, 27133, 29485, 32425, 35065, 38593, 41221, 45433, 48727, 52831
a(n) = sum(moebius(k)*((floor(n/k)+1)^3-1), k=1..n). - Vladeta Jovovic, Dec 03 2004
a(n) = (n+1)^3 - sum(a(floor(n/j)), j=2..n+1). - Seth A. Troisi, Aug 29 2013
[A100545] 7, 19, 50, 131, 343, 898, 2351, 6155, 16114, 42187, 110447, 289154, 757015, 1981891, 5188658, 13584083, 35563591, 93106690, 243756479, 638162747, 1670731762, 4374032539, 11451365855, 29980065026, 78488829223, 205486422643, 537970438706, 1408424893475, 3687304241719, 9653487831682, 25273159253327
a(n) = 3*a(n-1)-a(n-2) with a(0)=7 and a(1)=19. - Philippe Deléham, Nov 16 2008
a(n) = (2^(-1-n)*((3-sqrt(5))^n*(-17+7*sqrt(5)) + (3+sqrt(5))^n*(17+7*sqrt(5)))) / sqrt(5). - Colin Barker, Oct 14 2015
[A249608] 1, 1, 7, 19, 115, 451, 2521, 11677, 63379, 318115, 1716517, 8981017, 48623389, 260410333, 1418640055, 7707719299, 42263782099, 231857347603, 1278917211061, 7065478018585, 39174182961865, 217591443710905, 1211736702238795, 6759723716824855, 37785032547293245, 211540175726995501
a(n) = Sum_{k=0..n} (-1)^k * C(n,k) * C(2*k,k) * (Sum_{j=0..n-k} C(n-k,j)^2 * 2^j).
[A140676] 0, 7, 20, 39, 64, 95, 132, 175, 224, 279, 340, 407, 480, 559, 644, 735, 832, 935, 1044, 1159, 1280, 1407, 1540, 1679, 1824, 1975, 2132, 2295, 2464, 2639, 2820, 3007, 3200, 3399, 3604, 3815, 4032, 4255, 4484, 4719, 4960, 5207, 5460
a(n) = 3*n^2 + 4*n.
a(n) = 6*n + a(n-1) + 1 for n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=7, a(2)=20; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 04 2013
[A011934] 0, 1, 7, 20, 44, 81, 135, 208, 304, 425, 575, 756, 972, 1225, 1519, 1856, 2240, 2673, 3159, 3700, 4300, 4961, 5687, 6480, 7344, 8281, 9295, 10388, 11564, 12825, 14175, 15616, 17152, 18785, 20519, 22356, 24300, 26353, 28519, 30800, 33200, 35721, 38367, 41140
a(n) = |(1/8)*(-1 + (-1)^n - 6*(-1)^n*n^2 - 4*(-1)^n*n^3)|. - Henry Bottomley, Nov 13 2000
a(n) = Sum_{k=1..n} floor((2*n+1)*k/2). - Wesley Ivan Hurt, Apr 01 2017

[A100206] 0, 7, 20, 46, 98, 202, 410, 826, 1658, 3322, 6650, 13306, 26618, 53242, 106490, 212986, 425978, 851962, 1703930, 3407866, 6815738, 13631482, 27262970, 54525946, 109051898, 218103802, 436207610, 872415226, 1744830458, 3489660922
a(0)=0; for n>0, a(n) = 13*2^(n-1) - 6. - Max Alekseyev, May 12 2005
a(n) = 3*a(n-1) - 2*a(n-2) for n > 1.
[A047862] 1, 7, 20, 48, 108, 236, 508, 1084, 2300, 4860, 10236, 21500, 45052, 94204, 196604, 409596, 851964, 1769468, 3670012, 7602172, 15728636, 32505852, 67108860, 138412028, 285212668, 587202556, 1207959548, 2483027964, 5100273660, 10468982780, 21474836476
a(n) = 2^(n-1)*(n+10)-4. (End)
a(0)=1, a(1)=7, a(2)=20; for n>2, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Vincenzo Librandi, Sep 28 2011
a(n) = 2^(n-1)*(n+10)-4. G.f.: (1+2*x-7*x^2) / ((1-x)*(1-2*x)^2). - Colin Barker, Feb 18 2016
[A048755] 1, 7, 20, 52, 129, 315, 764, 1848, 4465, 10783, 26036, 62860, 151761, 366387, 884540, 2135472, 5155489, 12446455, 30048404, 72543268, 175134945, 422813163, 1020761276, 2464335720, 5949432721, 14363201167, 34675835060, 83714871292, 202105577649, 487926026595
a(n)=2*a(n-1)+a(n-2)+5; a(0)=1, a(1)=6.
a(n)=[{(6+(7/2)*sqrt(2))(1+sqrt(2))^n - (6-(7/2)*sqrt(2))(1-sqrt(2))^n}/ 2*sqrt(2)]-5/2.
a(0)=1, a(1)=7, a(2)=20, a(n)=3*a(n-1)-a(n-2)-a(n-3). - Harvey P. Dale, Mar 29 2013
[A055267] 1, 7, 20, 53, 139, 364, 953, 2495, 6532, 17101, 44771, 117212, 306865, 803383, 2103284, 5506469, 14416123, 37741900, 98809577, 258686831, 677250916, 1773065917, 4641946835, 12152774588, 31816376929, 83296356199
a(n) = (7*(((3+sqrt(5))/2)^n - ((3-sqrt(5))/2)^n) - (((3+sqrt(5))/2)^(n-1) - ((3-sqrt(5))/2)^(n-1)))/sqrt(5).
[A147587] 7, 21, 35, 49, 63, 77, 91, 105, 119, 133, 147, 161, 175, 189, 203, 217, 231, 245, 259, 273, 287, 301, 315, 329, 343, 357, 371, 385, 399, 413, 427, 441, 455, 469, 483, 497, 511, 525, 539, 553, 567, 581, 595, 609, 623, 637, 651, 665, 679, 693, 707, 721, 735
a(n) = 28*n - a(n-1) (with a(0)=7). - Vincenzo Librandi, Nov 24 2010
a(n) = 2*a(n-1)-a(n-2). (End)
[A063292] 1, 7, 21, 36, 51, 66, 81, 96, 111, 126, 141, 154, 171, 186, 201, 214, 231, 244, 261, 274, 291, 304, 321, 332, 351, 364, 381, 392, 411, 422, 441, 452, 471, 482, 501, 510, 531, 542, 561, 570, 591, 600, 621, 630, 651, 660, 681, 688, 711, 720
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A024966] 0, 7, 21, 42, 70, 105, 147, 196, 252, 315, 385, 462, 546, 637, 735, 840, 952, 1071, 1197, 1330, 1470, 1617, 1771, 1932, 2100, 2275, 2457, 2646, 2842, 3045, 3255, 3472, 3696, 3927, 4165, 4410, 4662, 4921, 5187, 5460, 5740, 6027, 6321, 6622
a(n) = (7/2)*n*(n+1).
a(n) = a(n-1) + 7*n with n > 0, a(0)=0. - Vincenzo Librandi, Nov 19 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 7, a(2) = 21.
a(n) = Sum_{i=3*n..4*n} i. - Wesley Ivan Hurt, Dec 22 2015
[A054569] 1, 7, 21, 43, 73, 111, 157, 211, 273, 343, 421, 507, 601, 703, 813, 931, 1057, 1191, 1333, 1483, 1641, 1807, 1981, 2163, 2353, 2551, 2757, 2971, 3193, 3423, 3661, 3907, 4161, 4423, 4693, 4971, 5257, 5551, 5853, 6163, 6481, 6807, 7141, 7483, 7833, 8191
a(n+1) = 4*n^2+2*n+1. - Paul Barry, Apr 02 2003
a(n) = 4*n^2-6*n+3-3*0^n (with leading zero). - Paul Barry, Jun 11 2003
a(n) = 8*n+a(n-1)-10 (with a(1)=1). - Vincenzo Librandi, Aug 07 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(1+x)*(1+3*x)/(1-x)^3. - Colin Barker, Mar 23 2012
[A287431] 7, 21, 45, 129, 373, 1177, 3741, 12065, 38949, 125993, 407597, 1318961, 4268085, 13811769, 44695613, 144638017, 468058181, 1514668105, 4901568589, 15861809233, 51329892437, 166107021401, 537533612125, 1739495309409, 5629125066853, 18216231370857, 58948963008621
a(n) = 1 + 4*n + (1-sqrt(5))^n + (1+sqrt(5))^n.
a(n) = 4*a(n-1) - a(n-2) - 6*a(n-3) + 4*a(n-4) for n>4. (End)
[A127736] 1, 7, 21, 46, 85, 141, 217, 316, 441, 595, 781, 1002, 1261, 1561, 1905, 2296, 2737, 3231, 3781, 4390, 5061, 5797, 6601, 7476, 8425, 9451, 10557, 11746, 13021, 14385, 15841, 17392, 19041, 20791, 22645, 24606, 26677, 28861, 31161, 33580, 36121, 38787, 41581
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: -x*(x^2-3*x-1) / (x-1)^4. - Colin Barker, Mar 12 2014
[A212677] 0, 0, 1, 7, 21, 46, 86, 144, 223, 327, 459, 622, 820, 1056, 1333, 1655, 2025, 2446, 2922, 3456, 4051, 4711, 5439, 6238, 7112, 8064, 9097, 10215, 11421, 12718, 14110, 15600, 17191, 18887, 20691, 22606, 24636, 26784, 29053, 31447, 33969
a(n)=3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
[A233329] 1, 7, 21, 51, 102, 186, 310, 490, 735, 1065, 1491, 2037, 2716, 3556, 4572, 5796, 7245, 8955, 10945, 13255, 15906, 18942, 22386, 26286, 30667, 35581, 41055, 47145, 53880, 61320, 69496, 78472, 88281, 98991, 110637, 123291, 136990, 151810, 167790, 185010, 203511
a(n) = (2*(n^4+10*n^3+34*n^2+(45+(-1)^(n+1))*n)+37+5*(-1)^(n+1))/32.
a(n) = sum_{j=1..n+1} (sum_{i=1..j+1} floor(i*j/2)). - Wesley Ivan Hurt, Nov 17 2014
[A088656] 1, 7, 21, 60, 167, 466, 1297, 3613, 10060, 28012, 77998, 217180, 604723, 1683804, 4688422, 13054548, 36349377, 101212019, 281817012, 784697597, 2184929553, 6083766752, 16939776315, 47167492325, 131334221349, 365689945495
a(n) = Floor[If[n-1==0, 1, 1/N[((E/2)/(E/(E-2)))^n]]]
[A005032] 7, 21, 63, 189, 567, 1701, 5103, 15309, 45927, 137781, 413343, 1240029, 3720087, 11160261, 33480783, 100442349, 301327047, 903981141, 2711943423, 8135830269, 24407490807, 73222472421, 219667417263, 659002251789, 1977006755367, 5931020266101, 17793060798303
a(n) = 3*a(n-1), a(0)=7. (End)
[A063130] 7, 22, 38, 54, 70, 86, 102, 118, 134, 150, 166, 182, 198, 214, 230, 246, 262, 278, 294, 310, 326, 342, 358, 374, 390, 406, 422, 438, 454, 470, 486, 502, 518, 534, 550, 566, 582, 598, 614, 630, 646, 662, 678, 694, 710, 726, 742, 758, 774, 790
a(n) = 2*(8*n-5) for n>1.
a(n) = 2*a(n-1)-a(n-2) for n>3.
[A033954] 0, 7, 22, 45, 76, 115, 162, 217, 280, 351, 430, 517, 612, 715, 826, 945, 1072, 1207, 1350, 1501, 1660, 1827, 2002, 2185, 2376, 2575, 2782, 2997, 3220, 3451, 3690, 3937, 4192, 4455, 4726, 5005, 5292, 5587, 5890, 6201, 6520, 6847, 7182, 7525, 7876, 8235
a(n) = 8*n+a(n-1)-1 with a(0)=0. - Vincenzo Librandi, Jul 20 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 7, a(2) = 22. - Philippe Deléham, Mar 26 2013
[A038764] 1, 7, 22, 46, 79, 121, 172, 232, 301, 379, 466, 562, 667, 781, 904, 1036, 1177, 1327, 1486, 1654, 1831, 2017, 2212, 2416, 2629, 2851, 3082, 3322, 3571, 3829, 4096, 4372, 4657, 4951, 5254, 5566, 5887, 6217, 6556, 6904, 7261, 7627, 8002, 8386, 8779, 9181
a(n) = (9*n^2 + 3*n + 2)/2.
a(n) = a(n-1) + 3*(3*n-1) for n>0, a(0)=1. - Vincenzo Librandi, Nov 17 2010
a(n) = hypergeometric([-n, -2], [1], 3). - Peter Luschny, Nov 19 2014
[A129109] 7, 22, 49, 88, 139, 202, 277, 364, 463, 574, 697, 832, 979, 1138, 1309, 1492, 1687, 1894, 2113, 2344, 2587, 2842, 3109, 3388, 3679, 3982, 4297, 4624, 4963, 5314, 5677, 6052, 6439, 6838, 7249, 7672, 8107, 8554, 9013, 9484, 9967, 10462, 10969, 11488
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) with G.f. (7+x+4*x^2)/(1-x)^3. [Colin Barker, Feb 20 2012]
[A002412] 0, 1, 7, 22, 50, 95, 161, 252, 372, 525, 715, 946, 1222, 1547, 1925, 2360, 2856, 3417, 4047, 4750, 5530, 6391, 7337, 8372, 9500, 10725, 12051, 13482, 15022, 16675, 18445, 20336, 22352, 24497, 26775, 29190, 31746, 34447, 37297, 40300
a(n) = n(n + 1)(4n - 1)/6.
a(n) = n^3 - sum(i^2, i=1..(n-1)). - Klaus Strassburger (strass(AT)ddfi.uni-duesseldorf.de)
a(n) = Sum_{i=0..n-1} (n - i)*(n + i). - Jon Perry, Sep 26 2004
a(n) = sum{i=0..n} (2i^2 + 3i + 1), for n >= 0 (Omits the leading 0). - William A. Tedeschi, Aug 25 2010
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4), with a(0)=0, a(1)=1, a(2)=7, a(3)=22. - Harvey P. Dale, Jul 16 2011
a(n) = sum a*b, where the summing is over all unordered partitions 2*n = a+b. - Vladimir Shevelev, May 11 2012
[A184629] 1, 7, 22, 51, 100, 173, 274, 409, 583, 800, 1064, 1382, 1757, 2195, 2700, 3276, 3930, 4665, 5487, 6400, 7408, 8518, 9733, 11059, 12500, 14060, 15746, 17561, 19511, 21600, 23832, 26214, 28749, 31443, 34300, 37324, 40522, 43897, 47455, 51200, 55136, 59270, 63605, 68147, 72900, 77868, 83058, 88473, 94119, 100000
a(n)=floor(1/{(5+n^4)^(1/4)}), where {}=fractional part.

[A041215] 1, 1, 7, 22, 51, 532, 1115, 3877, 24377, 28254, 589457, 617711, 4295723, 13504880, 31305483, 326559710, 684424903, 2379834419, 14963431417, 17343265836, 361828748137, 379172013973, 2636860831975, 8289754509898, 19216369851771, 200453453027608
a(n) = 613834*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 13 2013
[A011926] 0, 0, 0, 0, 1, 7, 22, 52, 105, 189, 315, 495, 742, 1072, 1501, 2047, 2730, 3570, 4590, 5814, 7267, 8977, 10972, 13282, 15939, 18975, 22425, 26325, 30712, 35626, 41107, 47197, 53940, 61380, 69564, 78540
a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -6*a(n-4) +6*a(n-5) -10*a(n-6) +10*a(n-7) -5*a(n-8) +a(n-9). G.f.: x^4*(x^4+1+2*x-3*x^2+2*x^3) / ((1-x)^5*(x^4+1)). [From R. J. Mathar, Apr 15 2010]
[A101120] 7, 22, 52, 112, 239, 494, 1004, 2024, 4071, 8166, 16356, 32736, 65503, 131038, 262108, 524248, 1048535, 2097110, 4194260, 8388560, 16777167, 33554382, 67108812, 134217672, 268435399, 536870854, 1073741764, 2147483584
a(n) = 2^(n+3) - 2^((n-1)(mod 4)) - 8*floor((n+3)/4).
a(n) = 3*a(n-1) - 2*a(n-2) + a(n-4) - 3*a(n-5) + 2*a(n-6) for n > 6.
[A188377] 7, 22, 53, 106, 187, 302, 457, 658, 911, 1222, 1597, 2042, 2563, 3166, 3857, 4642, 5527, 6518, 7621, 8842, 10187, 11662, 13273, 15026, 16927, 18982, 21197, 23578, 26131, 28862, 31777, 34882, 38183, 41686, 45397, 49322, 53467, 57838, 62441, 67282, 72367
a(n+1) = (n+1)^3 - 4*(n+1)^2 + 6*(n+1) - 2
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A213585] 1, 7, 22, 54, 116, 232, 443, 821, 1490, 2664, 4710, 8256, 14373, 24883, 42878, 73594, 125880, 214664, 365087, 619425, 1048666, 1771852, 2988362, 5031744, 8459401, 14201887, 23811238, 39873726, 66695420, 111440104, 186016835
a(n) = 4*a(n-1) - 4*a(n-2) - 2*a(n-3) + 4*a(n-4) + a(n-5).
[A085287] 1, 7, 22, 70, 211, 637, 1912, 5740, 17221, 51667, 155002, 465010, 1395031, 4185097, 12555292, 37665880, 112997641, 338992927, 1016978782, 3050936350, 9152809051, 27458427157, 82375281472, 247125844420, 741377533261, 2224132599787, 6672397799362, 20017193398090
a(n) = (-10 - 3(-1)^n + 21*3^n)/8.
a(n) = 2*a(n-1) + 3*a(n-2) + 5, a(0)=0, a(1)=1. [Zerinvary Lajos, Dec 14 2008]
[A041913] 1, 1, 7, 22, 95, 117, 212, 1177, 1389, 3955, 13254, 17209, 30463, 47672, 78135, 125807, 1713626, 1839433, 38502286, 40341719, 562944633, 603286352, 1166230985, 1769517337, 2935748322, 4705265659, 17051545299, 38808356257, 55859901556, 318107864037
a(n) = 3234639155983486*a(n-36) - a(n-72) for n>71. [Bruno Berselli, Dec 27 2013]
[A183126] 0, 1, 7, 23, 39, 79, 95, 135, 175, 287, 303, 343, 383, 495, 535, 647, 759, 1087, 1103, 1143, 1183, 1295, 1335, 1447, 1559, 1887, 1927, 2039, 2151, 2479, 2591, 2919, 3247, 4223, 4239, 4279, 4319, 4431, 4471, 4583, 4695
a(1 + 2^n) = 2^(n+2)+4^(n+1)-1, n >= 0.
[A073577] 7, 23, 47, 79, 119, 167, 223, 287, 359, 439, 527, 623, 727, 839, 959, 1087, 1223, 1367, 1519, 1679, 1847, 2023, 2207, 2399, 2599, 2807, 3023, 3247, 3479, 3719, 3967, 4223, 4487, 4759, 5039, 5327, 5623, 5927, 6239, 6559, 6887, 7223, 7567, 7919, 8279, 8647
a(n) = 8*n + a(n-1) (with a(1)=7). - Vincenzo Librandi, Aug 08 2010
a(n) = (2*n+1)+(2*n-1) + (2*n+1)*(2*n-1). - J. M. Bergot, Apr 17 2016
a(n) = (2*n+1)^2 - 2. - Zhandos Mambetaliyev, Jun 13 2017
[A062725] 0, 7, 23, 48, 82, 125, 177, 238, 308, 387, 475, 572, 678, 793, 917, 1050, 1192, 1343, 1503, 1672, 1850, 2037, 2233, 2438, 2652, 2875, 3107, 3348, 3598, 3857, 4125, 4402, 4688, 4983, 5287, 5600, 5922, 6253, 6593, 6942, 7300, 7667, 8043, 8428, 8822, 9225
a(n) = n*(9*n+5)/2.
a(n) = 9*n + a(n-1) - 2 with a(0)=0. - Vincenzo Librandi, Aug 07 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A004068] 0, 1, 7, 23, 54, 105, 181, 287, 428, 609, 835, 1111, 1442, 1833, 2289, 2815, 3416, 4097, 4863, 5719, 6670, 7721, 8877, 10143, 11524, 13025, 14651, 16407, 18298, 20329, 22505, 24831, 27312, 29953, 32759, 35735, 38886, 42217, 45733, 49439
a(n) = 5*binomial(n + 1, 3) + binomial(n, 1).
a(n) = 5*n^3/6 + n/6.
[A261893] 1, 7, 23, 55, 109, 191, 307, 463, 665, 919, 1231, 1607, 2053, 2575, 3179, 3871, 4657, 5543, 6535, 7639, 8861, 10207, 11683, 13295, 15049, 16951, 19007, 21223, 23605, 26159, 28891, 31807, 34913, 38215, 41719, 45431, 49357, 53503, 57875, 62479, 67321, 72407
a(n) = n^3 + 2*n^2 + 3*n + 1.
[A022815] 1, 7, 23, 55, 110, 196, 322, 498, 735, 1045, 1441, 1937, 2548, 3290, 4180, 5236, 6477, 7923, 9595, 11515, 13706, 16192, 18998, 22150, 25675, 29601, 33957, 38773, 44080, 49910, 56296, 63272, 70873, 79135, 88095, 97791, 108262, 119548, 131690
a(n) = n*(n+1)*(n^2+13*n-2)/24. - John W. Layman, Apr 27 2000
[A172252] 1, 7, 23, 55, 119, 247, 503, 1015, 2039, 4087, 8183, 16375, 32759, 65527, 131063, 262135, 524279, 1048567, 2097143, 4194295, 8388599, 16777207, 33554423, 67108855, 134217719, 268435447, 536870903, 1073741815, 2147483639
a(n) = 2*a(n-1) +9, a(1)= -1. - Vincenzo Librandi, Mar 20 2011
[A027116] 7, 23, 56, 120, 241, 467, 886, 1660, 3087, 5715, 10552, 19452, 35825, 65943, 121342, 223240, 410663, 755391, 1389448, 2555664, 4700673, 8645963, 15902486, 29249316, 53797967, 98949979, 181997480, 334745652, 615693345
a(n) = 3*a(n-1)-2*a(n-2)-a(n-4)+a(n-5) for n>7.
[A058195] 1, 7, 23, 57, 118, 218, 370, 590, 895, 1305, 1841, 2527, 3388, 4452, 5748, 7308, 9165, 11355, 13915, 16885, 20306, 24222, 28678, 33722, 39403, 45773, 52885, 60795, 69560, 79240, 89896, 101592, 114393, 128367, 143583, 160113, 178030, 197410, 218330, 240870
a(n) = [(2n^4+10n^3+13n^2+2n)/24], where [] denotes floor. (For even n there is no need for truncation. For odd n the [] removes 1/8.) A formula without [] is (4n^4+20n^3+26n^2+4n+3+3(-1)^(n+1))/48.
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6) for n>6.
a(n) = (2*n^4+10*n^3+13*n^2+2*n)/24 for n even.
a(n) = (2*n^4+10*n^3+13*n^2+2*n-3)/24 for n odd.
[A213770] 1, 7, 23, 58, 126, 250, 467, 837, 1457, 2484, 4172, 6932, 11429, 18739, 30603, 49838, 81002, 131470, 213175, 345425, 559461, 905832, 1466328, 2373288, 3840841, 6215455, 10057727, 16274722, 26334102, 42610594, 68946587, 111559197
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A126284] 1, 7, 23, 59, 135, 291, 607, 1243, 2519, 5075, 10191, 20427, 40903, 81859, 163775, 327611, 655287, 1310643, 2621359, 5242795, 10485671, 20971427, 41942943, 83885979, 167772055, 335544211, 671088527, 1342177163, 2684354439
a(n) = right term of M^n * [1,0,0], where M = the 3 X 3 matrix [1,0,0; 1,1,0; 14,2].
a(1) = 1; a(2) = 7; a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3), n > 2.
[A198644] 7, 23, 71, 215, 647, 1943, 5831, 17495, 52487, 157463, 472391, 1417175, 4251527, 12754583, 38263751, 114791255, 344373767, 1033121303, 3099363911, 9298091735, 27894275207, 83682825623, 251048476871, 753145430615, 2259436291847, 6778308875543
a(n) = 3*a(n-1)+2, a(0)=7.
[A242496] 0, 1, 7, 23, 72, 204, 564, 1521, 4059, 10747, 28336, 74504, 195576, 512865, 1344063, 3521007, 9221688, 24148468, 63230860, 165555665, 433454835, 1134839091, 2971111392, 7778574288, 20364739632, 53315851969, 139583151799, 365434146311, 956720165544
a(n) = L(n)*F(n+3) - L(n+2) + (1-3*(-1)^n)/2. - Colin Barker, May 18 2014
[A217233] 1, 1, 7, 23, 89, 329, 1231, 4591, 17137, 63953, 238679, 890759, 3324361, 12406681, 46302367, 172802783, 644908769, 2406832289, 8982420391, 33522849271, 125108976697, 466913057513, 1742543253359, 6503259955919, 24270496570321, 90578726325361
a(n) = (4*(-2)^n+(1-sqrt(3))^(2*n+1)+(1+sqrt(3))^(2*n+1))/(6*2^n).
a(n) = -a(-n-1) = 3*a(n-1)+3*a(n-2)-a(n-3) = 4*a(n-1)-a(n-2)+4*(-1)^n.
[A154612] 7, 24, 41, 58, 75, 92, 109, 126, 143, 160, 177, 194, 211, 228, 245, 262, 279, 296, 313, 330, 347, 364, 381, 398, 415, 432, 449, 466, 483, 500, 517, 534, 551, 568, 585, 602, 619, 636, 653, 670, 687, 704, 721, 738, 755, 772, 789, 806, 823, 840, 857, 874, 891
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 26 2012
[A168668] 0, 7, 24, 51, 88, 135, 192, 259, 336, 423, 520, 627, 744, 871, 1008, 1155, 1312, 1479, 1656, 1843, 2040, 2247, 2464, 2691, 2928, 3175, 3432, 3699, 3976, 4263, 4560, 4867, 5184, 5511, 5848, 6195, 6552, 6919, 7296, 7683, 8080, 8487, 8904, 9331, 9768, 10215, 10672
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).

[A212511] 0, 0, 0, 7, 24, 57, 135, 259, 432, 732, 1125, 1638, 2376, 3302, 4410, 5915, 7680, 9765, 12393, 15447, 18900, 23170, 27951, 33348, 39744, 46900, 54756, 63999, 74088, 85185, 97875, 111755, 126720, 143792, 162129, 181962, 204120, 227994, 253422, 281827, 312000
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A081436] 1, 7, 24, 58, 115, 201, 322, 484, 693, 955, 1276, 1662, 2119, 2653, 3270, 3976, 4777, 5679, 6688, 7810, 9051, 10417, 11914, 13548, 15325, 17251, 19332, 21574, 23983, 26565, 29326, 32272, 35409, 38743, 42280, 46026, 49987, 54169, 58578, 63220
a(n) = (n+1)*(2*n^2 + 3*n + 2)/2.
a(n) = (n+1)*T(n+1) + n*T(n), where T( ) are triangular numbers. Binomial transform of [1, 6, 11, 6, 0, 0, 0,...]. - Gary W. Adamson, Dec 28 2007
[A008779] 1, 7, 24, 59, 120, 216, 357, 554, 819, 1165, 1606, 2157, 2834, 3654, 4635, 5796, 7157, 8739, 10564, 12655, 15036, 17732, 20769, 24174, 27975, 32201, 36882, 42049, 47734, 53970, 60791, 68232, 76329, 85119, 94640, 104931, 116032, 127984, 140829, 154610, 169371
a(n) = (n+1)(n^3 + 21*n^2 + 38*n + 24)/24. - M. F. Hasler, Sep 15 2009
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, May 21 2015
[A014205] 0, 1, 7, 24, 60, 125, 231, 392, 624, 945, 1375, 1936, 2652, 3549, 4655, 6000, 7616, 9537, 11799, 14440, 17500, 21021, 25047, 29624, 34800, 40625, 47151, 54432, 62524, 71485, 81375, 92256, 104192, 117249, 131495, 147000, 163836, 182077, 201799, 223080, 246000
a(n) = 2*C(n+3,4) - C(n+1,2). - Zerinvary Lajos, May 02 2007
a(0)=0, a(1)=1, a(2)=7, a(3)=24, a(4)=60, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Aug 10 2014
[A211381] 0, 0, 0, 0, 7, 24, 63, 130, 242, 408, 650, 980, 1425, 2000, 2737, 3654, 4788, 6160, 7812, 9768, 12075, 14760, 17875, 21450, 25542, 30184, 35438, 41340, 47957, 55328, 63525, 72590, 82600, 93600, 105672, 118864, 133263, 148920, 165927, 184338, 204250, 225720
a(n) = 1/24*n*(n-4)*(n-6)*(2*n-7) for n even.
a(n) = 1/24*n*(n-3)*(n-5)*(2*n-11) for n odd.
[A212504] 0, 0, 0, 7, 24, 76, 162, 333, 576, 976, 1500, 2275, 3240, 4572, 6174, 8281, 10752, 13888, 17496, 21951, 27000, 33100, 39930, 48037, 57024, 67536, 79092, 92443, 107016, 123676, 141750, 162225, 184320, 209152, 235824, 265591, 297432
a(n) = 2a(n-1)+2a(n-2)-6a(n-3)+6a(n-5)-2a(n-6)-2a(n-7)+a(n-8).
[A140716] 7, 25, 31, 49, 55, 73, 79, 97, 103, 121, 127, 145, 151, 169, 175, 193, 199, 217, 223, 241, 247, 265, 271, 289, 295, 313, 319, 337, 343, 361, 367, 385, 391, 409, 415, 433, 439, 457, 463, 481, 487, 505, 511, 529, 535, 553, 559, 577, 583
a(n) = 8*(s-1)+1 for n odd, a(n) = 8*(s-1)+7 for n even. - Artur Jasinski, Oct 30 2008
a(n)= a(n-2) + 24 = 12n - 2 + 3*(-1)^n. (End)
a(n) = a(n-1) + a(n-2) - a(n-3). - Colin Barker, May 12 2012
[A075927] 7, 25, 42, 75, 385, 642, 1155, 2184, 4233, 8330, 16523, 98305, 163842, 294915, 557064, 1081353, 2129930, 4227083, 8421504, 16810113, 33587330, 67141763, 134250632, 268468361, 536903818, 1073774731, 6442450945, 10737418242
a(n) = b(2^n), where b is the Hamming code d=3.
[A119617] 1, 7, 25, 43, 79, 109, 163, 205, 277, 331, 421, 487, 595, 673, 799, 889, 1033, 1135, 1297, 1411, 1591, 1717, 1915, 2053, 2269, 2419, 2653, 2815, 3067, 3241, 3511, 3697, 3985, 4183, 4489, 4699, 5023, 5245, 5587, 5821, 6181, 6427, 6805, 7063, 7459, 7729
a(n) = (30*n*(n-1)-3*(2*n-1)*(-1)^n+5)/8. (End)
[A179436] 7, 25, 52, 88, 133, 187, 250, 322, 403, 493, 592, 700, 817, 943, 1078, 1222, 1375, 1537, 1708, 1888, 2077, 2275, 2482, 2698, 2923, 3157, 3400, 3652, 3913, 4183, 4462, 4750, 5047, 5353, 5668, 5992, 6325, 6667, 7018, 7378, 7747
a(n) = a(n-1)+9*(n+1) = (14+27*n+9*n^2)/2.
a(n) = 2*a(n-1)-a(n-2) +9.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).
[A227776] 7, 25, 55, 97, 151, 217, 295, 385, 487, 601, 727, 865, 1015, 1177, 1351, 1537, 1735, 1945, 2167, 2401, 2647, 2905, 3175, 3457, 3751, 4057, 4375, 4705, 5047, 5401, 5767, 6145, 6535, 6937, 7351, 7777, 8215, 8665, 9127, 9601, 10087, 10585, 11095, 11617, 12151
a(n) = 6*n^2 + 1 for n>=1.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A213390] 1, 7, 25, 55, 109, 181, 289, 421, 601, 811, 1081, 1387, 1765, 2185, 2689, 3241, 3889, 4591, 5401, 6271, 7261, 8317, 9505, 10765, 12169, 13651, 15289, 17011, 18901, 20881, 23041, 25297, 27745, 30295, 33049, 35911, 38989, 42181, 45601
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
a(n) = (6*n^3+24*n^2+21*n+8+3*n*(-1)^n)/8. - Luce ETIENNE, Jul 17 2016
[A071778] 1, 7, 25, 55, 115, 181, 307, 439, 637, 841, 1171, 1447, 1915, 2329, 2881, 3433, 4249, 4879, 5905, 6745, 7861, 8911, 10429, 11557, 13297, 14773, 16663, 18355, 20791, 22495, 25285, 27541, 30361, 32905, 36289, 38845, 42841, 46027, 49987, 53395
a(n) = Sum(k=1..n, mu(k)*floor(n/k)^3). - Benoit Cloitre, May 11 2003
a(n) = n^3 - Sum(j=2..n, a(floor(n/j))). - Vladeta Jovovic, Nov 30 2004
[A213481] 1, 7, 25, 59, 117, 202, 323, 482, 689, 945, 1261, 1637, 2085, 2604, 3207, 3892, 4673, 5547, 6529, 7615, 8821, 10142, 11595, 13174, 14897, 16757, 18773, 20937, 23269, 25760, 28431, 31272, 34305, 37519, 40937, 44547, 48373, 52402, 56659
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A162264] 7, 25, 60, 118, 205, 327, 490, 700, 963, 1285, 1672, 2130, 2665, 3283, 3990, 4792, 5695, 6705, 7828, 9070, 10437, 11935, 13570, 15348, 17275, 19357, 21600, 24010, 26593, 29355, 32302, 35440, 38775, 42313, 46060, 50022, 54205, 58615, 63258
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A213392] 1, 7, 25, 61, 115, 199, 319, 469, 667, 919, 1213, 1573, 2005, 2491, 3061, 3721, 4447, 5275, 6211, 7225, 8359, 9619, 10969, 12457, 14089, 15823, 17713, 19765, 21931, 24271, 26791, 29437, 32275, 35311, 38485, 41869, 45469, 49219, 53197
a(n) = 2*a(n-1)-a(n-2)+2*a(n-3)-4*a(n-4)+2*a(n-5)-a(n-6)+2*a(n-7)-a(n-8).
[A061600] 1, 1, 7, 25, 61, 121, 211, 337, 505, 721, 991, 1321, 1717, 2185, 2731, 3361, 4081, 4897, 5815, 6841, 7981, 9241, 10627, 12145, 13801, 15601, 17551, 19657, 21925, 24361, 26971, 29761, 32737, 35905, 39271, 42841, 46621, 50617, 54835, 59281, 63961
a(n) = 1 + Sum_{k=1..n} 3*(k-1)*k. - Luce ETIENNE and Michel Marcus, Nov 01 2014
[A185787] 1, 7, 25, 62, 125, 221, 357, 540, 777, 1075, 1441, 1882, 2405, 3017, 3725, 4536, 5457, 6495, 7657, 8950, 10381, 11957, 13685, 15572, 17625, 19851, 22257, 24850, 27637, 30625, 33821, 37232, 40865, 44727, 48825, 53166, 57757, 62605, 67717, 73100, 78761, 84707, 90945, 97482, 104325, 111481, 118957, 126760, 134897, 143375
a(n)=n*(7*n^2-6*n+5)/6.
[A001845] 1, 7, 25, 63, 129, 231, 377, 575, 833, 1159, 1561, 2047, 2625, 3303, 4089, 4991, 6017, 7175, 8473, 9919, 11521, 13287, 15225, 17343, 19649, 22151, 24857, 27775, 30913, 34279, 37881, 41727, 45825, 50183, 54809, 59711, 64897, 70375, 76153, 82239
a(n) = (2*n+1)*(2*n^2 + 2*n + 3)/3.
a(n) = a(n-1) + 4*n^2 + 2, a(0)=1. - Vincenzo Librandi, Mar 27 2011
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), with a(0)=1, a(1)=7, a(2)=25, a(3)=63. - Harvey P. Dale, Jun 05 2013
a(n) = Sum_{k=0..min(3,n)} 2^k * binomial(3,k) * binomial(n,k). See Bump et al. - Tom Copeland, Sep 05 2014
[A001296] 0, 1, 7, 25, 65, 140, 266, 462, 750, 1155, 1705, 2431, 3367, 4550, 6020, 7820, 9996, 12597, 15675, 19285, 23485, 28336, 33902, 40250, 47450, 55575, 64701, 74907, 86275, 98890, 112840, 128216, 145112, 163625, 183855, 205905, 229881, 255892, 284050, 314470
a(n) = n*(1+n)*(2+n)*(1+3*n)/24. - T. D. Noe, Jan 21 2008
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + 3. - Kieren MacMillan, Sep 29 2008
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Jaume Oliver Lafont, Nov 23 2008
a(n) = 1*(1+2+...+n) + 2*(2+3+...+n) + ... + n*n. For example, a(6) = 266 = 1(1+2+3+4+5+6) + 2*(2+3+4+5+6) + 3*(3+4+5+6) + 4*(4+5+6) + 5*(5+6) + 6*(6).- J. M. Bergot, Apr 20 2017
[A247620] 1, 7, 25, 67, 157, 343, 721, 1483, 3013, 6079, 12217, 24499, 49069, 98215, 196513, 393115, 786325, 1572751, 3145609, 6291331, 12582781, 25165687, 50331505, 100663147, 201326437, 402653023, 805306201, 1610612563, 3221225293, 6442450759, 12884901697
a(n) = (-11+3*2^(2+n)-6*n).
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3).

[A213569] 1, 7, 25, 71, 181, 435, 1009, 2287, 5101, 11243, 24553, 53223, 114661, 245731, 524257, 1114079, 2359261, 4980699, 10485721, 22020055, 46137301, 96468947, 201326545, 419430351, 872415181, 1811939275, 3758096329, 7784628167
a(n) = 6*a(n-1) - 13*a(n-2) + 12*a(n-3) - 4*a(n-4).
a(n) = Sum_{k=1..n} Sum_{i=0..n} (n-i) * C(k,i). - Wesley Ivan Hurt, Sep 19 2017
[A048477] 1, 7, 25, 73, 193, 481, 1153, 2689, 6145, 13825, 30721, 67585, 147457, 319489, 688129, 1474561, 3145729, 6684673, 14155777, 29884417, 62914561, 132120577, 276824065, 578813953, 1207959553, 2516582401, 5234491393, 10871635969, 22548578305, 46707769345
a(n) = 6*n * 2^(n-1) + 1.
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3) for n>2. - Colin Barker, Feb 18 2016
[A294837] 1, 1, 7, 25, 73, 236, 688, 1994, 5573, 15272, 40896, 107526, 277999, 707209, 1774067, 4390665, 10734216, 25941541, 62022609, 146793160, 344129900, 799517074, 1841734224, 4208327222, 9542121050, 21477834062, 48005313446, 106579556936, 235107392079, 515441826521, 1123360284127, 2434346065621
a(0) = 1 and a(n) = (1/(2*n)) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d^2*(5*d-3)*(-1)^(1+n/d). - Seiichi Manyama, Nov 14 2017
[A117152] 0, 0, 1, 7, 25, 75, 195, 468, 1056, 2280, 4755, 9650, 19154, 37328, 71635, 135685, 254125, 471317, 866669, 1581620, 2866970, 5165630, 9256871, 16507092, 29304660, 51812160, 91264885, 160207603, 280340161, 489117135, 851054535
a(n) = C(n,2) F(n+2) - n F(n+3) + F(n+5) - 5
[A247173] 1, 1, 7, 25, 101, 397, 1583, 6337, 25513, 103161, 418727, 1705129, 6963165, 28504981, 116941727, 480667137, 1979039633, 8160609457, 33696358983, 139308985465, 576583448021, 2388853677981, 9906585874127, 41118073118785, 170799570803001, 710003165365417
a(n) = (n+1)*sum(k=0..n, (C(n-k-1,k)*sum(i=0..n-k, 2^i*C(k+1,n-k-i) *C(k+i,k)*(-1)^(n-k-i)))/(k+1)).
[A098127] 7, 26, 33, 59, 92, 151, 243, 394, 637, 1031, 1668, 2699, 4367, 7066, 11433, 18499, 29932, 48431, 78363, 126794, 205157, 331951, 537108, 869059, 1406167, 2275226, 3681393, 5956619, 9638012, 15594631, 25232643, 40827274, 66059917, 106887191, 172947108
a(n) = a(n-1) + a(n-2).
[A283427] 0, 1, 7, 26, 34, 55, 65, 91, 137, 152, 208, 251, 270, 315, 394, 471, 502, 591, 656, 685, 790, 864, 977, 1139, 1227, 1268, 1354, 1395, 1494, 1847, 1945, 2109, 2157, 2455, 2512, 2693, 2878, 3005, 3202, 3396, 3471, 3826, 3902, 4045, 4119, 4581, 5059, 5226, 5307
a(n) = pi(min(prime(n+1)^2, Product_{k 1..n} (prime(k)))) - n.
[A206481] 0, 1, 1, 7, 26, 57, 99, 159, 244, 353, 485, 647, 846, 1081, 1351, 1663, 2024, 2433, 2889, 3399, 3970, 4601, 5291, 6047, 6876, 7777, 8749, 9799, 10934, 12153, 13455, 14847, 16336, 17921, 19601, 21383, 23274, 25273, 27379, 29599, 31940, 34401, 36981, 39687
a(n)=(1/2)*((n-3)*n^2-4*cos((Pi*n)/2)+2). - Harvey P. Dale, Sep 14 2012
[A049453] 0, 7, 26, 57, 100, 155, 222, 301, 392, 495, 610, 737, 876, 1027, 1190, 1365, 1552, 1751, 1962, 2185, 2420, 2667, 2926, 3197, 3480, 3775, 4082, 4401, 4732, 5075, 5430, 5797, 6176, 6567, 6970, 7385, 7812, 8251, 8702, 9165, 9640, 10127, 10626
a(n) = 12*n + a(n-1) - 5 with n>0, a(0)=0. - Vincenzo Librandi, Aug 06 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - G. C. Greubel, Jun 07 2017
[A135300] 1, 7, 26, 63, 124, 215, 342, 511, 728, 999, 1330, 1727, 2196, 2743, 3374, 4095, 4912, 5831, 6858, 7999, 9260, 10647, 12166, 13823, 15624, 17575, 19682, 21951, 24388, 26999, 29790, 32767, 35936, 39303, 42874
a(1) = 1 and a(n)= n^3 - 1 with n>=2.
[A068601] 0, 7, 26, 63, 124, 215, 342, 511, 728, 999, 1330, 1727, 2196, 2743, 3374, 4095, 4912, 5831, 6858, 7999, 9260, 10647, 12166, 13823, 15624, 17575, 19682, 21951, 24388, 26999, 29790, 32767, 35936, 39303, 42874, 46655, 50652, 54871, 59318, 63999, 68920
a(n) = sum_{i=1..n-1} (i+1)^3 - i^3. - Wesley Ivan Hurt, Jul 23 2014
[A006325] 0, 0, 1, 7, 26, 70, 155, 301, 532, 876, 1365, 2035, 2926, 4082, 5551, 7385, 9640, 12376, 15657, 19551, 24130, 29470, 35651, 42757, 50876, 60100, 70525, 82251, 95382, 110026, 126295, 144305, 164176, 186032, 210001, 236215, 264810, 295926
a(n) = n*(n-1)*(n^2-n+1)/6.
a(n) = ((n^5 - (n-1)^5) - (n^1 - (n-1)^1))/30 = (n^5 - (n-1)^5 - 1)/30. - Xavier Acloque, Jan 25 2003
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), n > 4. - Yosu Yurramendi, Sep 03 2013
[A180669] 0, 0, 1, 7, 26, 72, 171, 371, 760, 1500, 2889, 5475, 10266, 19116, 35435, 65495, 120832, 222664, 410017, 754671, 1388650, 2554784, 4699707, 8644907, 15901336, 29248068, 53796617, 98948523, 181995914, 334743972, 615691547
a(n) = a(n-1)+a(n-2)+a(n-3)+4*(n-2)^2+2 with a(0)=0, a(1)=0 and a(2)=1.
a(n) = 3*a(n-1)-2a(n-2)-a(n-4)+a(n-5)+8 for n>4.
a(n)-4*a(n-1)+5a(n-2)-2*a(n-3)+a(n-4)-2*a(n-5)+a(n-6) = 0 for n>5. (End)
[A078501] 1, 7, 26, 78, 211, 537, 1312, 3112, 7217, 16443, 36934, 82002, 180319, 393325, 852092, 1835148, 3932317, 8388783, 17825986, 37748950, 79692011, 167772417, 352321816, 738197808, 1543504201, 3221225827, 6710886782, 13958644122
a(n) = 2*(n-2)*2^n + n*(n+1)/2 + 4
[A282703] 7, 26, 85, 281, 928, 3065, 10123, 33434, 110425, 364709, 1204552, 3978365, 13139647, 43397306, 143331565, 473392001, 1563507568, 5163914705, 17055251683, 56329669754, 186044260945, 614462452589, 2029431618712, 6702757308725, 22137703544887, 73115867943386, 241485307375045
a(n) = (2^(-1-n)*((3-sqrt(13))^n*(-31+7*sqrt(13)) + (3+sqrt(13))^n*(31+7*sqrt(13)))) / sqrt(13). - Colin Barker, Feb 26 2017
[A022271] 0, 7, 27, 60, 106, 165, 237, 322, 420, 531, 655, 792, 942, 1105, 1281, 1470, 1672, 1887, 2115, 2356, 2610, 2877, 3157, 3450, 3756, 4075, 4407, 4752, 5110, 5481, 5865, 6262, 6672, 7095, 7531, 7980, 8442, 8917, 9405, 9906, 10420, 10947, 11487, 12040
a(n) = 13*n + a(n-1) - 6 with n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2 - Vincenzo Librandi, Mar 31 2015
[A269449] 7, 27, 60, 181, 227, 612, 1085, 1985, 3492, 9047, 11161, 28860, 50607, 91987, 161276, 416685, 513883, 1327652, 2327541, 4230121, 7415908, 19159167, 23628161, 61043836, 107016983, 194494283, 340971196, 880905701, 1086382227, 2806689508, 4920454381, 8942507601
a(1)=7, a(2)=27, a(3)=60, a(4)=181, a(5)=227, a(6)=612, a(7)=1085, a(8)=1985, a(9)=3492, a(10)=9047, a(11)=11161, a(12)=28860, a(n)=46*a(n-6)-a(n-12)+704. - Daniel Mondot, Aug 08 2016
[A159065] 0, 1, 7, 27, 65, 147, 261, 461, 737, 1143, 1637, 2349, 3217, 4401, 5769, 7457, 9433, 11945, 14753, 18235, 22173, 26771, 31801, 37813, 44449, 52161, 60489, 69955, 80289, 92203, 104941, 119493, 135261, 152705, 171205, 191649, 213473, 237877
a(n) = Sum((n-a)*(n-b); 1<=a<n, 1<=b<n, (a,b)=1) - Sum((n-2*a)*(n-2*b); 1<=2*a<n, 1<=2*b<n, (a,b)=1). a(n) = Sum(f(a,b)-g(a,b); 1<=a<n, 1<=b<n,), f(a,b) the number of irreducible fractions p/q with 1<=p<=a,1<=q<=b, g(a,b) the number of rationals admitting at least one reducible form p/q with 1 <= p <= a, 1 <= q <= b (Philippe Paclet).
a(n) = (9/(8*Pi^2))*n^4 + O(n^3 log(n)).
[A098931] 1, 7, 27, 69, 141, 251, 407, 617, 889, 1231, 1651, 2157, 2757, 3459, 4271, 5201, 6257, 7447, 8779, 10261, 11901, 13707, 15687, 17849, 20201, 22751, 25507, 28477, 31669, 35091, 38751, 42657, 46817, 51239, 55931, 60901, 66157, 71707, 77559, 83721
a(n) = 1 + 3*n^2 + n*(5 + 4*n^2)/3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Jul 28 2015
[A007715] 1, 7, 27, 75, 170, 336, 602, 1002, 1575, 2365, 3421, 4797, 6552, 8750, 11460, 14756, 18717, 23427, 28975, 35455, 42966, 51612, 61502, 72750, 85475, 99801, 115857, 133777, 153700, 175770, 200136, 226952, 256377, 288575, 323715, 361971, 403522, 448552, 497250
a(n) = n*(n+1)*(5*n^2+n+6)/24. - T. D. Noe, Feb 09 2007
a(1)=1, a(2)=7, a(3)=27, a(4)=75, a(5)=170, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Jul 20 2011
[A039623] 1, 7, 27, 76, 175, 351, 637, 1072, 1701, 2575, 3751, 5292, 7267, 9751, 12825, 16576, 21097, 26487, 32851, 40300, 48951, 58927, 70357, 83376, 98125, 114751, 133407, 154252, 177451, 203175, 231601, 262912, 297297, 334951, 376075, 420876, 469567
a(1)=1, a(2)=7, a(3)=27, a(4)=76, a(5)=175; for n>5, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). (End)
[A005585] 1, 7, 27, 77, 182, 378, 714, 1254, 2079, 3289, 5005, 7371, 10556, 14756, 20196, 27132, 35853, 46683, 59983, 76153, 95634, 118910, 146510, 179010, 217035, 261261, 312417, 371287, 438712, 515592, 602888, 701624, 812889, 937839, 1077699, 1233765, 1407406
a(n) = 2*C(n+4, 5) - C(n+3, 4). - Paul Barry, Mar 04 2003
a(n) = C(n+3, 5) + C(n+4, 5). - Paul Barry, Mar 17 2003
a(n) = C(n+2, 6) - C(n, 6), n>=4. - Zerinvary Lajos, Jul 21 2006
a(n) = Sum[T(k)*T(k+1)/3, {k,1,n}], where T(n) = n(n+1)/2 is a triangular number. - Alexander Adamchuk, May 08 2007
a(n) = C(n+4,4)+2*C(n+4,5). [Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009]

a(1) = 1, a(2)=7, a(3)=27, a(4)=77, a(5)=182, a(6)=378, a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Oct 04 2011

[A027180] 1, 7, 27, 79, 199, 459, 1003, 2119, 4383, 8947, 18115, 36495, 73303, 146971, 294363, 589207, 1178959, 2358531, 4717747, 9436255, 18873351, 37747627, 75496267, 150993639, 301988479, 603978259, 1207957923, 2415917359, 4831836343, 9663674427, 19327350715

a(n) = 18*2^n - 2*n^2 - 10*n - 17.

a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4) for n>3.

[A059769] 1, 7, 27, 83, 239, 659, 1781, 4751, 12583, 33175, 87231, 228983, 600473, 1573655, 4122467, 10796939, 28273519, 74031979, 193835949, 507497759, 1328692751, 3478637807, 9107313407, 23843452463, 62423286769, 163426800679, 427857750891, 1120147480451

a(n) = (F(n)-1)*(F(n+1)-1)-1 where F(n) is the n-th Fibonacci number.

a(n) = F(n)*F(n+1) - F(n+2). - Clark Kimberling, Mar 05 2016

[A135914] 1, 7, 27, 91, 291, 907, 2787, 8491, 25731, 77707, 234147, 704491, 2117571, 6360907, 19099107, 57330091, 172055811, 516298507, 1549157667, 4647997291, 13945040451, 41837218507, 125515849827, 376555938091, 1129684591491, 3389087328907, 10167329095587

a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3). G.f.: (1+x-4*x^2)/((1-x)*(1-2*x)*(1-3*x)). - Colin Barker, Aug 13 2012

[A294262] 1, 1, 7, 27, 117, 493, 2091, 8855, 37513, 158905, 673135, 2851443, 12078909, 51167077, 216747219, 918155951, 3889371025, 16475640049, 69791931223, 295643364939, 1252365390981, 5305104928861, 22472785106427, 95196245354567, 403257766524697, 1708227311453353, 7236167012338111, 30652895360805795, 129847748455561293, 550043889183050965

a(n) = (1/20)*(10*(-1)^n + (2-sqrt(5))^n*(5-sqrt(5)) + (2+sqrt(5))^n*(5+sqrt(5))).

a(n) = 4*a(n-1) + a(n-2) + 2*(-1)^n for n >= 2.

a(n) = Sum_{k=0..floor(3*n/4)} binomial(3*n-2*k, 2*k).

a(n) = Fibonacci(3*n + 1)/2 + (-1)^n/2.

[A118120] 0, 7, 28, 51, 88, 207, 340, 555, 1248, 2023, 3276, 7315, 11832, 19135, 42676, 69003, 111568, 248775, 402220, 650307, 1450008, 2344351, 3790308, 8451307, 13663920, 22091575, 49257868, 79639203, 128759176, 287095935, 464171332, 750463515, 1673317776

a(n) = 6*a(n-3)-a(n-6)+34 for n > 5; a(0)=0, a(1)=7, a(2)=28, a(3)=51, a(4)=88, a(5)=207.

[A033582] 0, 7, 28, 63, 112, 175, 252, 343, 448, 567, 700, 847, 1008, 1183, 1372, 1575, 1792, 2023, 2268, 2527, 2800, 3087, 3388, 3703, 4032, 4375, 4732, 5103, 5488, 5887, 6300, 6727, 7168, 7623, 8092, 8575, 9072

a(n) = 14*n + a(n-1) - 7 (with a(0) = 0). - Vincenzo Librandi, Aug 05 2010

[A073995] 1, 1, 7, 28, 76, 256, 1072, 4288, 16576, 65536, 262912, 1051648, 4197376, 16777216, 67121152, 268484608, 1073790976, 4294967296, 17180065792, 68720263168, 274878693376, 1099511627776, 4398049656832, 17592198627328, 70368756760576, 281474976710656, 1125899957174272, 4503599828697088, 1801439871080

a(n; t, s) = a(n-1; t, s) + a(n-1; t-1, s-(t-1)) + a(n-1; t-2, s-2(t-2)) + a(n-1; t-3, s-3(t-3)) where t is the trace and s is the subtrace. Note that all operations involving operands t or s are carried out over GF(4).

[A073363] 1, 7, 28, 84, 175, 421, 847, 1288, 1939, 3780, 5656, 9247, 15148, 22099, 25375, 39676, 54607, 75208, 90559, 129360, 166321, 209832, 240268, 320719, 399595, 536956, 672672, 816733, 906444, 1115275, 1321741, 1595832, 1908088, 2323944

a(n)=(1/6)[...[[[[[n(2/1)](3/2)](4/3)](5/4)](6/5)](8/7]...(k+1)/k]..., k>0 (mod 6), where [x] = floor of x; this infinite nested floor product will eventually level-off at a(n).

[A247608] 1, 7, 28, 84, 195, 381, 662, 1058, 1589, 2275, 3136, 4192, 5463, 6969, 8730, 10766, 13097, 15743, 18724, 22060, 25771, 29877, 34398, 39354, 44765, 50651, 57032, 63928, 71359, 79345, 87906, 97062, 106833, 117239, 128300, 140036, 152467, 165613, 179494

a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).

a(n) = (6+31*n-15*n^2+20*n^3)/6.

a(n) = 1+6*Binomial(n,1)+15*Binomial(n,2)+20*Binomial(n,3).

[A008499] 1, 7, 28, 84, 210, 462, 923, 1709, 2975, 4921, 7798, 11914, 17640, 25416, 35757, 49259, 66605, 88571, 116032, 149968, 191470, 241746, 302127, 374073, 459179, 559181, 675962, 811558, 968164, 1148140

a(n) = C(n, 0) + 6*C(n, 1) + 15*C(n, 2) + 15*C(n, 3) + 10*C(n, 4) + 6*C(n, 5); a(n) = C(n+6, 6) - C(n, 6); a(n)=(6*n^5 + 15*n^4 + 160*n^3 + 225*n^2 + 314*n + 120)/120. - Paul Barry, Jul 01 2003

a(0)=1, a(1)=7, a(2)=28, a(3)=84, a(4)=210, a(5)=462; for n>5, a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). [Harvey P. Dale, Sep 15 2011]

[A008489] 1, 7, 28, 84, 210, 462, 924, 1715, 2996, 4977, 7924, 12166, 18102, 26208, 37044, 51261, 69608, 92939, 122220, 158536, 203098, 257250, 322476, 400407, 492828, 601685, 729092, 877338, 1048894, 1246420, 1472772, 1731009, 2024400, 2356431, 2730812, 3151484

a(n) = 7*n*(35*n^2+84+n^4)/120, n>0. - R. J. Mathar, Mar 17 2011

[A000579] 0, 0, 0, 0, 0, 0, 1, 7, 28, 84, 210, 462, 924, 1716, 3003, 5005, 8008, 12376, 18564, 27132, 38760, 54264, 74613, 100947, 134596, 177100, 230230, 296010, 376740, 475020, 593775, 736281, 906192, 1107568, 1344904, 1623160, 1947792, 2324784, 2760681, 3262623

a(n) = (n^6 - 15*n^5 + 85*n^4 - 225*n^3 + 274*n^2 - 120*n)/720.

a(n) = n(n - 1)(n - 2)(n - 3)(n - 4)(n - 5)/720. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009

a(0) = 0, a(1) = 0, a(2) = 0, a(3) = 0, a(4) = 0, a(5) = 0, a(6) = 1, a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Harvey P. Dale, Dec 30 2012

a(n) = a(5-n) for all n in Z. - Michael Somos, Oct 07 2014

[A290994] 0, 0, 0, 0, 0, 0, 1, 7, 28, 84, 210, 462, 924, 1717, 3017, 5110, 8568, 14756, 27132, 54264, 116281, 257775, 572264, 1246784, 2641366, 5430530, 10861060, 21242341, 40927033, 78354346, 150402700, 291693136, 574274008, 1148548016, 2326683921, 4749439975

a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + 2*a(n-7) for n >= 8.

[A145135] 0, 1, 7, 28, 84, 211, 470, 960, 1836, 3334, 5806, 9769, 15973, 25495, 39869, 61266, 92743, 138587, 204790, 299705, 434952, 626669, 897239, 1277674, 1810906, 2556330, 3596075, 5043660, 7055942, 9849608, 13723939, 19092231, 26525165

a(n) = 7a(n-1) -21a(n-2) +35a(n-3) -34a(n-4) +15a(n-5) +8a(n-6) -19a(n-7) +15a(n-8) -6a(n-9) +a(n-10).

[A054469] 1, 7, 28, 85, 218, 499, 1053, 2092, 3970, 7272, 12958, 22596, 38739, 65535, 109714, 182185, 300620, 493635, 807555, 1317360, 2144396, 3485032, 5657028, 9174560, 14869613, 24088399, 39009168, 63156437, 102233030, 165466347, 267786673

a(n) = a(n-1)+a(n-2)+(n+2)*C(n+3, 3)/2;

a(n) = a(n-1)+a(n-2)+(n+1)(n+2)^2(n+3)/12;

a(-n) = 0.

a(n) = sum{C(n+5-i, n+2-2i); i=1 to [(n+2)/2]}+2*sum{C(n+5-i, n+1-2i); i=1 to [(n+1)/2]; where [x]=greatest integer in x.

[A156928] 1, 7, 28, 86, 227, 545, 1230, 2664, 5613, 11611, 23728, 48106, 97031, 195077, 391394, 784284, 1570353, 3142815, 6288100, 12579070, 25161451, 50326697, 100657718, 201320336, 402646197, 805298595

a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) + 2.

a(n) = 6*a(n-1) - 14*a(n-2) + 16*a(n-3) - 9*a(n-4) + 2*a(n-5).

a(n) = -(1/3)*n^3 - (3/2)*n^2 - (25/6)*n - 6 + 6*2^n.

a(n) = Sum_{k=1..n+1} Sum_{i=1..n+1} (k-1)^2 * C(n-k+1,i). - Wesley Ivan Hurt, Sep 22 2017

[A041621] 1, 7, 29, 65, 94, 159, 730, 889, 1619, 4127, 18127, 131016, 4734703, 33273937, 137830451, 308934839, 446765290, 755700129, 3469565806, 4225265935, 7694831741, 19614929417, 86154549409, 622696775280, 22503238459489, 158145365991703, 655084702426301

a(n) = 4752830*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 22 2013

[A022272] 0, 7, 29, 66, 118, 185, 267, 364, 476, 603, 745, 902, 1074, 1261, 1463, 1680, 1912, 2159, 2421, 2698, 2990, 3297, 3619, 3956, 4308, 4675, 5057, 5454, 5866, 6293, 6735, 7192, 7664, 8151, 8653, 9170, 9702, 10249, 10811, 11388, 11980, 12587, 13209, 13846, 14498

a(n) = 15*n + a(n-1) - 8 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. (End)

[A185438] 1, 7, 29, 67, 121, 191, 277, 379, 497, 631, 781, 947, 1129, 1327, 1541, 1771, 2017, 2279, 2557, 2851, 3161, 3487, 3829, 4187, 4561, 4951, 5357, 5779, 6217, 6671, 7141, 7627, 8129, 8647, 9181, 9731, 10297, 10879, 11477, 12091, 12721, 13367, 14029, 14707, 15401, 16111, 16837, 17579

a(n) = a(n-1) + 16*n - 10 (n>0).

a(n) = 2*a(n-1) - a(n-2) + 16 (n>1).

a(n) = 3*(n-1) - 3*a(n-2) + a(n-3) (n>2).

[A242727] 1, 7, 29, 86, 198, 396, 719, 1203, 1899, 2866, 4156, 5840, 7997, 10695, 14025, 18086, 22962, 28764, 35611, 43603, 52871, 63554, 75768, 89664, 105401, 123111, 142965, 165142, 189790, 217100, 247271, 280467, 316899, 356786, 400308, 447696, 499189, 554983
a(n) = 7/27*n^4 + 35/27*n^3 + 22/9*n^2 + 59/27*n + O(1). - Ralf Stephan, May 26 2014
[A001779] 1, 7, 29, 91, 239, 553, 1163, 2269, 4166, 7274, 12174, 19650, 30738, 46782, 69498, 101046, 144111, 201993, 278707, 379093, 508937, 675103, 885677, 1150123, 1479452, 1886404, 2385644, 2993972
a(n) = (-1)^{7-n}*Sum_{i=0..n} ((-1)^(7-i)*binomial(7+i,i)). - Sergio Falcon, Feb 13 2007
[A053295] 1, 7, 29, 92, 247, 591, 1300, 2683, 5270, 9955, 18228, 32551, 56967, 98086, 166681, 280271, 467301, 773906, 1274856, 2091266, 3419252, 5576298, 9076280, 14750858, 23945893, 38839257, 62955061, 101995694
a(n) = Sum_{i=0..floor(n/2)} C(n+6-i, n-2i), n >= 0.
a(n) = Sum_{k=1..n} C(n-k+6,k+5), with n>=0. - Paolo P. Lava, Apr 16 2008
[A055798] 1, 7, 29, 93, 255, 627, 1419, 3003, 6006, 11440, 20878, 36686, 62322, 102714, 164730, 257754, 394383, 591261, 870067, 1258675, 1792505, 2516085, 3484845, 4767165, 6446700, 8625006, 11424492, 14991724, 19501108, 25158980, 32208132, 40932804, 51664173
a(n-8) = binomial(n,8)-2*binomial(n-2,7), n=8,9,10,.... - Milan Janjic, Dec 28 2007
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9). Vincenzo Librandi, May 01 2012
[A002664] 0, 0, 0, 0, 0, 1, 7, 29, 93, 256, 638, 1486, 3302, 7099, 14913, 30827, 63019, 127858, 258096, 519252, 1042380, 2089605, 4185195, 8377705, 16764265, 33539156, 67090962, 134196874, 268411298, 536843071, 1073709893
a(n) = Sum_{k=0..n} C(n, k+5) = Sum_{k=5..n} C(n, k); a(n) = 2a(n-1) + C(n-1, 4). - Paul Barry, Aug 23 2004
a(n) = 2^n - n^4/24 + n^3/12 - 11*n^2/24 - 7*n/12 - 1. - Bruno Berselli, May 19 2011 [Robinson (1985) gives an alternative version of this formula, for a different offset. - N. J. A. Sloane, Oct 20 2015]
[A290901] 0, 0, 1, 7, 29, 93, 260, 689, 1845, 5150, 14897, 43663, 127451, 368383, 1056682, 3022366, 8651672, 24818978, 71319058, 205070493, 589550733, 1694075057, 4866102091, 13975547842, 40139685023, 115298782211, 331216158188, 951506566087, 2733431466995
a(n) = 8*a(n-1) - 28*a(n-2) + 57*a(n-3) - 71*a(n-4) + 57*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
[A102485] 1, 7, 29, 103, 341, 1087, 3389, 10423, 31781, 96367, 291149, 877543, 2640821, 7938847, 23849309, 71613463, 214971461, 645176527, 1936053869, 5809210183, 17429727701, 52293377407, 156888520829, 470682339703, 1412080573541, 4236308829487, 12709060706189
a(n) = 5*a(n - 1) - 6*a(n - 2).
[A139274] 0, 7, 30, 69, 124, 195, 282, 385, 504, 639, 790, 957, 1140, 1339, 1554, 1785, 2032, 2295, 2574, 2869, 3180, 3507, 3850, 4209, 4584, 4975, 5382, 5805, 6244, 6699, 7170, 7657, 8160, 8679, 9214, 9765, 10332, 10915, 11514, 12129, 12760, 13407, 14070, 14749
a(n) = 16*n + a(n-1) - 9 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = (1/3) * Sum_{i=n..(7*n-1)} i. - Wesley Ivan Hurt, Dec 04 2016
[A086640] 7, 30, 71, 130, 207, 302, 415, 546, 695, 862, 1047, 1250, 1471, 1710, 1967, 2242, 2535, 2846, 3175, 3522, 3887, 4270, 4671, 5090, 5527, 5982, 6455, 6946, 7455, 7982, 8527, 9090, 9671, 10270, 10887, 11522, 12175, 12846, 13535, 14242, 14967, 15710
a(n) = 9n^2-4n+2.
[A045889] 1, 7, 30, 102, 303, 825, 2116, 5200, 12381, 28779, 65658, 147594, 327835, 721069, 1573056, 3408084, 7340265, 15728895, 33554710, 71303470, 150995271, 318767457, 671089020, 1409286552, 2952790453, 6174015955, 12884902386
a(n) = (n^2+11*n+34)/2 + (n-2)*2^(n+3).
a(n) = Sum_{k=1..n+4} Sum_{i=1..n+4} (i-k) * C(n-k+4,i). - Wesley Ivan Hurt, Sep 19 2017
[A038739] 1, 7, 30, 103, 314, 895, 2455, 6590, 17480, 46070, 121016, 317342, 831465, 2177613, 5702054, 14929365, 39087010, 102332805, 267912735, 701406940, 1836309856, 4807524652, 12586266400, 32951277148, 86267567969, 225851430035
a(n) = Sum_{k=0..n}(binomial(n+3,k+4)*Fibonacci(k)). - Vladimir Kruchinin, Oct 24 2016
[A276289] 0, 1, 7, 30, 104, 320, 912, 2464, 6400, 16128, 39680, 95744, 227328, 532480, 1232896, 2826240, 6422528, 14483456, 32440320, 72220672, 159907840, 352321536, 772800512, 1688207360, 3674210304, 7969177600, 17230200832, 37144756224, 79859548160, 171261820928, 366414397440
a(n) = 6*a(n-1) - 12*a(n-2) + 8*a(n-3).
a(n) = Sum_{k = 0..n} binomial(n,k)*k*(3*k - 1)/2.
a(n) = 2^(n-3)*n*(3*n + 1).
[A055269] 1, 7, 30, 116, 437, 1635, 6106, 22792, 85065, 317471, 1184822, 4421820, 16502461, 61588027, 229849650, 857810576, 3201392657, 11947760055, 44589647566, 166410830212, 621053673285, 2317803862931, 8650161778442, 32282843250840, 120481211224921, 449642001648847
a(n) = (((17-5*(2-sqrt(3)))(2+sqrt(3))^n+(5*(2+sqrt(3))-17)(2-sqrt(3))^n)/(4*sqrt(3))) - 3/2.
[A171733] 1, 1, 1, 7, 31, 41, 137, 151, 391, 409, 889, 911, 1751, 1777, 3121, 3151, 5167, 5201, 8081, 8119, 12079, 12121, 17401, 17447, 24311, 24361, 33097, 33151, 44071, 44129, 57569, 57631, 73951, 74017, 93601, 93671, 116927, 117001, 144361, 144439, 176359, 176441, 213401, 213487, 255991
a(n) = n^3/8 +n^2/16 -15/32 +n^4/16 +(-1)^n*(n^3/8+3*n^2/16-n-17/32).
a(n)= +a(n-1) +4*a(n-2) -4*a(n-3) -6*a(n-4) +6*a(n-5) +4*a(n-6) -4*a(n-7) -a(n-8) +a(n-9).
[A135659] 7, 31, 55, 79, 103, 127, 151, 175, 199, 223, 247, 271, 295, 319, 343, 367, 391, 415, 439, 463, 487, 511, 535, 559, 583, 607, 631, 655, 679, 703, 727, 751, 775, 799, 823, 847, 871, 895, 919, 943, 967, 991, 1015, 1039, 1063, 1087, 1111, 1135, 1159, 1183, 1207
a(n) = 2*a(n-1) - a(n-2).
[A157914] 7, 31, 71, 127, 199, 287, 391, 511, 647, 799, 967, 1151, 1351, 1567, 1799, 2047, 2311, 2591, 2887, 3199, 3527, 3871, 4231, 4607, 4999, 5407, 5831, 6271, 6727, 7199, 7687, 8191, 8711, 9247, 9799, 10367, 10951, 11551, 12167, 12799, 13447, 14111, 14791
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A226838] 1, 1, 1, 1, 7, 31, 91, 211, 1681, 25537, 192361, 949081, 4830871, 85109311, 951416467, 6696998491, 119863554721, 2004272484481, 25344895874641, 237953743909297, 4116426696101671, 65285723209356511, 903886886890585291, 10132514132979331171, 165368713321379497777, 983553550481248784928 1
a(n) == 1 (mod 6) (conjecture - valid up to n=1024; if true for n>=0, why?).
[A107392] 7, 31, 103, 303, 831, 2175, 5503, 13567, 32767, 77823, 182271, 421887, 966655, 2195455, 4947967, 11075583, 24641535, 54525951, 120061951, 263192575, 574619647, 1249902591, 2709520383, 5855248383, 12616466431, 27111981055, 58116276223, 124285616127
a(n) = (2^n)*(n^2 + 7n + 8) -1 with n=0..14.
[A054497] 1, 7, 31, 105, 300, 756, 1732, 3676, 7330, 13870, 25102, 43714, 73612, 120340, 191620, 298012, 453739, 677677, 994565, 1436435, 2044328, 2870296, 3979768, 5454280, 7394660, 9924668, 13195196, 17389028, 22726280, 29470520, 37935704, 48493928, 61584149
a(0)=1, a(1)=7, a(2)=31, a(3)=105, a(4)=300, a(5)=756, a(6)=1732, a(7)=3676, a(8)=7330, a(9)=13870, a(10)=25102, a(11)=43714, a(12)=73612, a(n) = 7*a(n-1) - 18*a(n-2) + 14*a(n-3) + 25*a(n-4) - 63*a(n-5) + 36*a(n-6) + 36*a(n-7) - 63*a(n-8) + 25*a(n-9) + 14*a(n-10) - 18*a(n-11) + 7*a(n-12) - a(n-13). - Harvey P. Dale, Feb 03 2012
a(n) = ((2835*(4017+79*(-1)^n) + 18*(1513217+4095*(-1)^n)*n + 90*(284609+63*(-1)^n)*n^2 + 12771104*n^3 + 3787056*n^4 + 701400*n^5 + 81900*n^6 + 5856*n^7 + 234*n^8 + 4*n^9)) / 11612160. - Colin Barker, Jan 15 2017
[A235593] 0, 0, 0, 1, 7, 31, 106, 301, 742, 1638, 3312, 6237, 11077, 18733, 30394, 47593, 72268, 106828, 154224, 218025, 302499, 412699, 554554, 734965, 961906, 1244530, 1593280, 2020005, 2538081, 3162537, 3910186, 4799761, 5852056, 7090072, 8539168, 10227217, 12184767, 14445207, 17044938, 20023549, 23423998, 27292798
a(n) = (720-2136*n+2450*n^2-1395*n^3+425*n^4-69*n^5+5*n^6)/720. G.f.: -x^4*(x^3+3*x^2+1) / (x-1)^7. Colin Barker, Jan 16 2014
[A205492] 1, 7, 31, 109, 334, 937, 2475, 6267, 15393, 36976, 87369, 203915, 471546, 1082849, 2473535, 5627684, 12765052, 28887838, 65260270, 147233926, 331842395, 747355066, 1682185342, 3784718431, 8512408455, 19141037360, 43032743620
a(n) = 7*a(n-1) - 17*a(n-2) + 12*a(n-3) + 15*a(n-4) - 26*a(n-5) + 3*a(n-6) + 13*a(n-7) - 5*a(n-8) - 2*a(n-9) + a(n-10), n>9, {a(m)} = {1, 7, 31, 109, 334, 937, 2475, 6267, 15393, 36976}, m=0,...,9.
[A055580] 1, 7, 31, 111, 351, 1023, 2815, 7423, 18943, 47103, 114687, 274431, 647167, 1507327, 3473407, 7929855, 17956863, 40370175, 90177535, 200278015, 442499071, 973078527, 2130706431, 4647288831, 10099884031, 21877489663
a(n) = Sum_{k=0..n+1} Sum_{i=0..n+1} i^2 * C(k,i). - Wesley Ivan Hurt, Sep 21 2017
[A197649] 0, 1, 7, 31, 115, 390, 1254, 3893, 11789, 35045, 102695, 297516, 853932, 2432041, 6881395, 19361995, 54214939, 151164018, 419910354, 1162585565, 3209268665, 8835468881, 24266461007, 66501634776, 181882282200, 496539007825, 1353272290399, 3682496714743
a(n) = n*F(2*n+1)-F(2*n), For F(n)= Fibonacci(n)

a(n) = ((F(2*n+1)*((n-1)*h(n-1)-(n-1)*h(n-2))-h(n)*F(2*n))/h(n), n>2. Where h(n)=n-th harmonic number
[A006458] 1, 7, 31, 115, 391, 1267, 3979, 12271, 37423, 113371, 342091, 1029799, 3095671, 9298147, 27914179, 83777503, 251394415, 754292827, 2263072411, 6789560407, 20369288455, 61108939795, 183328720435, 549989524879, 1649974525855, 4949934107083, 14849820951115
a(n+6)-5a(n+5)+5a(n+4)+5a(n+3)-4a(n+2)-8a(n+1)+6a(n)=0.
[A091344] 0, 1, 7, 31, 115, 391, 1267, 3991, 12355, 37831, 115027, 348151, 1050595, 3164071, 9516787, 28599511, 85896835, 257887111, 774054547, 2322950071, 6970423075, 20914414951, 62749536307, 188261191831, 564808741315, 1694476555591
a(n)=Sum(i!*i^2*Stirling2(n,i)*(-1)^(n-i), i=1,..,n)
a(n)=5*a(n-1)-6*a(n-2)+2 (a(0)=0, a(1)=1) [From Vincenzo Librandi, Nov 25 2010]
[A048775] 1, 7, 31, 121, 456, 1709, 6427, 24301, 92368, 352705, 1352066, 5200287, 20058286, 77558745, 300540179, 1166803093, 4537567632, 17672631881, 68923264390, 269128937199, 1052049481838, 4116715363777, 16123801841526, 63205303218851, 247959266474026, 973469712824029
a(n) = (1/2)*Sum[Sum[(i+j)!/(i!*j!),{i,1,n}],{j,1,n}]. - Alexander Adamchuk, Jul 04 2006. Corrected by N. J. A. Sloane, Jan 30 2009.
a(n) = Sum{k=0..n, (n-k+1)*C(n+k+1,n) }= [x^n](1+x)^n*F(-n-2,-n-1;1;x/(1+x)). [Paul Barry, Oct 01 2010]
a(n) = (1/2) * Sum_{k=1..n} Sum_{i=1..n} C(k+i,i). - Wesley Ivan Hurt, Sep 19 2017
[A013656] 0, 7, 32, 75, 136, 215, 312, 427, 560, 711, 880, 1067, 1272, 1495, 1736, 1995, 2272, 2567, 2880, 3211, 3560, 3927, 4312, 4715, 5136, 5575, 6032, 6507, 7000, 7511, 8040, 8587, 9152, 9735, 10336, 10955, 11592, 12247, 12920, 13611, 14320, 15047, 15792, 16555
a(n) = a(n-1)+18*n-11 with n>0, a(0)=0. - Vincenzo Librandi, Nov 22 2010
a(0)=0, a(1)=7, a(2)=32, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 07 2012
[A126562] 0, 7, 32, 81, 160, 275, 432, 637, 896, 1215, 1600, 2057, 2592, 3211, 3920, 4725, 5632, 6647, 7776, 9025, 10400, 11907, 13552, 15341, 17280, 19375, 21632, 24057, 26656, 29435, 32400, 35557, 38912, 42471, 46240, 50225, 54432, 58867, 63536, 68445
a(n) = 6 * (n-1)^2 + (n-1)^3.
[A182820] 1, 7, 32, 119, 385, 1127, 3057, 7799, 18914, 43950, 98434, 213486, 450051, 925013, 1858355, 3657052, 7062245, 13404195, 25038741, 46086250, 83669927, 149970936, 265608168, 465149039, 806022315, 1382822644, 2350101516, 3958427938
a(n) = Sum_{k = 0..4*n} i^k*b(k)*b(4*n-k), where b(n) := Sum_{k = 0..n} (-1)^k*p(k)*p(n-k). (End)
[A001794] 1, 7, 32, 120, 400, 1232, 3584, 9984, 26880, 70400, 180224, 452608, 1118208, 2723840, 6553600, 15597568, 36765696, 85917696, 199229440, 458752000, 1049624576, 2387607552, 5402263552, 12163481600, 27262976000, 60850962432
a(n) = 2^(n-2)*(n+1)*(n+2)*(n+6)/3.
a(n) = Sum_{k=0..floor((n+6)/2)} C(n+6, 2*k)*C(k, 3). - Paul Barry, May 15 2003
a(n) = Sum_{i=0..n+1} (Sum{k=0..i} (k^2*binomial(n+1, i))). - Jon Perry, Feb 26 2004 [corrected by Michel Marcus, Mar 25 2017]
a(n) = 2^(n-1)/3*Binomial(n+2,2)*(n+6). - Brad Clardy, Mar 08 2012
[A178851] 0, 0, 1, 7, 32, 121, 412, 1317, 4048, 12144, 35904, 105249, 306968, 892217, 2585468, 7468532, 21500800, 61688513, 176477988, 503906221, 1438235592, 4110846808, 11789919200, 33991337521, 98657320240, 288505634480, 850146795840, 2522918119392, 7531922736384
a(n) = Sum Binomial(n,p)*2^(n-p) where the sum is taken over the prime numbers.
[A249999] 1, 7, 32, 122, 423, 1389, 4414, 13744, 42245, 128771, 390396, 1179366, 3554467, 10696153, 32153978, 96592988, 290041089, 870647535, 2612991160, 7841070610, 23527406111, 70590606917, 211788597942, 635399348232, 1906265153533, 5718929678299, 17157057470324, 51471709281854
a(n) = 9/4 - 2^(n+3) + n/2 + 3^(n+3)/4. - R. J. Mathar, Jan 09 2015
[A275163] 7, 33, 85, 189, 397, 813, 1645, 3309, 6637, 13293, 26605, 53229, 106477, 212973, 425965, 851949, 1703917, 3407853, 6815725, 13631469, 27262957, 54525933, 109051885, 218103789, 436207597, 872415213, 1744830445, 3489660909, 6979321837, 13958643693
a(0) = 7; a(n) = 2*a(n-1) + 19 for n>=1.
[A051895] 0, 7, 33, 90, 190, 345, 567, 868, 1260, 1755, 2365, 3102, 3978, 5005, 6195, 7560, 9112, 10863, 12825, 15010, 17430, 20097, 23023, 26220, 29700, 33475, 37557, 41958, 46690, 51765, 57195, 62992, 69168
a(n) = n*(n+1)*(4*n+3)/2.
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Apr 27 2012
[A168574] 1, 7, 33, 95, 209, 391, 657, 1023, 1505, 2119, 2881, 3807, 4913, 6215, 7729, 9471, 11457, 13703, 16225, 19039, 22161, 25607, 29393, 33535, 38049, 42951, 48257, 53983, 60145, 66759, 73841, 81407, 89473, 98055, 107169, 116831, 127057, 137863, 149265, 161279
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 16.
[A215054] 1, 7, 33, 124, 397, 1125, 2893, 6871, 15269, 32065, 64130, 122916, 226922, 405218, 702378, 1185263, 1952198, 3145208, 4966118, 7697483, 11729498, 17594247, 26008887, 37929627, 54618663, 77726559, 109392935, 152368731, 210163767, 287223815, 389141943
a(n) = 1/11*(binomial(n,11) - floor(n/11)).
[A066810] 0, 0, 1, 7, 33, 131, 473, 1611, 5281, 16867, 52905, 163835, 502769, 1532883, 4651897, 14070379, 42456897, 127894979, 384799049, 1156756443, 3475250065, 10436235955, 31330727961, 94038321227, 282211432673, 846835624611
a(n) = 3^n - 2^n - n*2^(n-1).
a(n) = 3*a(n-1) + (n-1)*2^(n-2). (End)
[A262600] 0, 0, 0, 0, 1, 7, 33, 132, 484, 1684, 5661, 18579, 59917, 190696, 600744, 1877256, 5828185, 17998783, 55342617, 169552428, 517884748, 1577812060, 4796682165, 14555626635, 44100374341, 133436026192, 403279293648, 1217616622992, 3673214880049, 11072960931319
a(n) = 7*a(n-1)-16*a(n-2)+13*a(n-3)-3*a(n-4) for n>4.
a(n) = 2^(-1-n)*(5*2^n*(3+3^n)+3*(-5+sqrt(5))*(3+sqrt(5))^n-3*(3-sqrt(5))^n*(5+sqrt(5)))/15 for n>0.
[A259055] 7, 34, 79, 142, 223, 322, 439, 574, 727, 898, 1087, 1294, 1519, 1762, 2023, 2302, 2599, 2914, 3247, 3598, 3967, 4354, 4759, 5182, 5623, 6082, 6559, 7054, 7567, 8098, 8647, 9214, 9799, 10402, 11023, 11662, 12319, 12994, 13687, 14398, 15127
a(n) = 9*(n+1)^2 - 2, n >= 0.
[A195018] 0, 7, 34, 81, 148, 235, 342, 469, 616, 783, 970, 1177, 1404, 1651, 1918, 2205, 2512, 2839, 3186, 3553, 3940, 4347, 4774, 5221, 5688, 6175, 6682, 7209, 7756, 8323, 8910, 9517, 10144, 10791, 11458, 12145, 12852, 13579, 14326, 15093, 15880, 16687
a(0)=0, a(1)=7, a(2)=34, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) From Harvey P. Dale, May 27 2012
[A219756] 0, 0, 0, 0, 1, 7, 34, 141, 537, 1942, 6786, 23143, 77513, 256021, 836330, 2707652, 8701723, 27793375, 88310920, 279354069, 880300371, 2764788010, 8658249900, 27045078415, 84287831231, 262161737197, 813944768564, 2523027912296, 7809442203157, 24140652097687
a(n) = 14*a(n-1) - 81*a(n-2) + 250*a(n-3) - 444*a(n-4) + 458*a(n-5) - 265*a(n-6) + 78*a(n-7) - 9*a(n-8). - Vincenzo Librandi, Dec 15 2012
[A094256] 1, 7, 34, 143, 560, 2108, 7752, 28101, 100947, 360526, 1282735, 4552624, 16131656, 57099056, 201962057, 714012495, 2523515514, 8916942687, 31504028992, 111295205284, 393151913464, 1388758662221, 4905479957435, 17327203698086, 61202661233823, 216176614077600
a(n) = 2/9*Sum(r, 1, 8, sin(r*Pi/9)sin(7*r*Pi/9)(2*cos(r*Pi/9))^(2n+4)).
a(n) = 7a(n-1) - 15a(n-2) + 10a(n-3) - a(n-4).
[A192803] 0, 0, 1, 7, 34, 144, 575, 2239, 8632, 33164, 127297, 488571, 1875346, 7199124, 27637959, 106107659, 407374592, 1564024808, 6004739025, 23053921567, 88510638482, 339817775144, 1304657986015, 5008956298247, 19230819824088, 73832632141076
a(n) = 7*a(n-1)-15*a(n-2)+11*a(n-3).
[A256391] 1, 7, 35, 79, 243, 319, 787, 1155, 1859, 2295, 4267, 4891, 8295, 9743, 11851, 14539, 22191, 24359, 35427, 39387, 45915, 51687, 71171, 76407, 94911, 105047, 123251, 134447, 174003, 180835, 229783, 253007, 281447, 305111, 343315, 360215, 442547, 476115, 523111, 552307
a(n) = sum_a sum_b sum_c sum_d mu(a) mu(b) mu(c) mu(d) [n/gcd(a,b)][n/gcd(b,c)][n/gcd(c,d)][n/gcd(d,a)], where mu is Moebius function, a,b,c,d run through natural numbers.
[A152744] 0, 7, 35, 84, 154, 245, 357, 490, 644, 819, 1015, 1232, 1470, 1729, 2009, 2310, 2632, 2975, 3339, 3724, 4130, 4557, 5005, 5474, 5964, 6475, 7007, 7560, 8134, 8729, 9345, 9982, 10640, 11319, 12019, 12740, 13482, 14245, 15029
a(n) = a(n-1)+21*n-14 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
a(0)=0, a(1)=7, a(2)=35, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 08 2013
[A169607] 0, 7, 35, 98, 210, 385, 637, 980, 1428, 1995, 2695, 3542, 4550, 5733, 7105, 8680, 10472, 12495, 14763, 17290, 20090, 23177, 26565, 30268, 34300, 38675, 43407, 48510, 53998, 59885, 66185, 72912, 80080, 87703, 95795, 104370, 113442, 123025, 133133, 143780, 154980, 166747, 179095
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 02 2012

[A130884] 1, 7, 35, 103, 229, 431, 727, 1135, 1673, 2359, 3211, 4247, 5485, 6943, 8639, 10591, 12817, 15335, 18163, 21319, 24821, 28687, 32935, 37583, 42649, 48151, 54107, 60535, 67453, 74879, 82831, 91327, 100385, 110023, 120259, 131111
a(0)=1, a(1)=7, a(2)=35, a(3)=103, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [Harvey P. Dale, Jan 17 2012]
[A059595] 1, 7, 35, 133, 434, 1246, 3262, 7890, 17913, 38479, 78883, 155141, 294280, 540344, 963832, 1674568, 2841006, 4715970, 7673834, 12259142, 19254676, 29768972, 45355660, 68164628, 101143574, 148289946
a(2*k)= binomial(k+10, 10)* (16*k^3+212*k^2+708*k+429)/(13*3*11);
a(2*k+1)= binomial(k+10, 10)*(16*k^3+316*k^2+1852*k+3003)/(13*3*11), k >= 0.
[A001875] 1, 7, 35, 140, 490, 1554, 4578, 12720, 33705, 85855, 211519, 506408, 1182650, 2702350, 6056850, 13343820, 28947240, 61926900, 130814600, 273163100, 564415390, 1154933230, 2342193350, 4710707400, 9401674275, 18629923053, 36670044621, 71728832280, 139485074370
a(n) = F""(n+6, 1)/6!, i.e., 1/6! times the 6th derivative of the (n+6)th Fibonacci polynomial evaluated at 1. - T. D. Noe, Jan 18 2006
a(n) = Sum_{k=ceiling(n/2)..n} (k+1)*(k+2)*(k+3)*(k+4)*(k+5)*(k+6)*binomial(k,n-k)/720. - Vladimir Kruchinin, Apr 26 2011
[A265612] 0, 1, 7, 35, 156, 660, 2717, 11011, 44200, 176358, 700910, 2778446, 10994920, 43459650, 171655785, 677688675, 2674776720, 10555815270, 41656918050, 164401379610, 648887951400, 2561511781920, 10113397410402, 39937416869070, 157743149913776, 623178050662300
a(n) = 2*4^n*Gamma(3/2+n)*n*(1+3*n)/(sqrt(Pi)*Gamma(4+n)).
a(n) = (rf(5+n, n-1)-(n-1)*(n-2)*rf(5+n, n-3))/(n-1)! for n>=3, rf(n,k) the rising factorial.
a(n) = a(n-1)*(2*n*(1+3*n)*(1+2*n)/((n-1)*(3*n-2)*(3+n))) for n>=2.
a(n) = [x^n] x*(1 + x)/(1 - x)^(n+4). - Ilya Gutkovskiy, Oct 09 2017
[A041603] 1, 1, 7, 36, 43, 208, 667, 875, 3292, 14043, 17335, 100718, 621643, 722361, 25181917, 25904278, 180607585, 928942203, 1109549788, 5367141355, 17210973853, 22578115208, 84945319477, 362359393116, 447304712593, 2598882956081, 16040602449079, 18639485405160
a(n) = 25803560*a(n-14) - a(n-28) for n>27. [Bruno Berselli, Dec 22 2013]
[A063168] 7, 36, 66, 96, 126, 156, 186, 216, 246, 276, 306, 336, 366, 396, 426, 456, 486, 516, 546, 576, 606, 636, 666, 696, 726, 756, 786, 816, 846, 876, 906, 936, 966, 996, 1026, 1056, 1086, 1116, 1146, 1176, 1206, 1236, 1266, 1296, 1326, 1356
a(n) = 2*a(n-1) - a(n-2) for n > 3 (conjectured).
[A163683] 0, 7, 36, 99, 208, 375, 612, 931, 1344, 1863, 2500, 3267, 4176, 5239, 6468, 7875, 9472, 11271, 13284, 15523, 18000, 20727, 23716, 26979, 30528, 34375, 38532, 43011, 47824, 52983, 58500, 64387, 70656, 77319, 84388, 91875, 99792, 108151, 116964, 126243, 136000
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A212088] 0, 0, 7, 36, 117, 292, 612, 1143, 1963, 3159, 4833, 7099, 10080, 13914, 18751, 24750, 32085, 40942, 51516, 64017, 78667, 95697, 115353, 137893, 163584, 192708, 225559, 262440, 303669, 349576, 400500, 456795, 518827, 586971, 661617
a(n) = 4*a(n-1)-6*a(n-2)+5*a(n-3)-5*a(n-4)+6*a(n-5)-4*a(n-6)+a(n-7).
[A128471] 7, 37, 67, 97, 127, 157, 187, 217, 247, 277, 307, 337, 367, 397, 427, 457, 487, 517, 547, 577, 607, 637, 667, 697, 727, 757, 787, 817, 847, 877, 907, 937, 967, 997, 1027, 1057, 1087, 1117, 1147, 1177, 1207, 1237, 1267, 1297, 1327, 1357, 1387, 1417, 1447, 1477
a(n) = 2*a(n-1)-a(n-2). [Vincenzo Librandi, Sep 05 2010]
[A154105] 7, 37, 91, 169, 271, 397, 547, 721, 919, 1141, 1387, 1657, 1951, 2269, 2611, 2977, 3367, 3781, 4219, 4681, 5167, 5677, 6211, 6769, 7351, 7957, 8587, 9241, 9919, 10621, 11347, 12097, 12871, 13669, 14491, 15337, 16207, 17101, 18019, 18961, 19927, 20917, 21931
a(0) = 7; for n > 0, a(n) = a(n-1) + 24*n + 6.
[A082113] 1, 7, 37, 127, 337, 751, 1477, 2647, 4417, 6967, 10501, 15247, 21457, 29407, 39397, 51751, 66817, 84967, 106597, 132127, 162001, 196687, 236677, 282487, 334657, 393751, 460357, 535087, 618577, 711487, 814501, 928327, 1053697, 1191367
a(n)=n^4+5n^2+1
[A094729] 0, 1, 1, 7, 37, 151, 541, 1807, 5797, 18151, 55981, 171007, 519157, 1569751, 4733821, 14250607, 42850117, 128746951, 386634061, 1160688607, 3483638677, 10454061751, 31368476701, 94118013007, 282379204837, 847187946151, 2541664501741, 7625194831807
a(n) = 4-3*2^n+3^n for n>0.
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3) for n>3.
[A208737] 0, 0, 0, 1, 7, 37, 175, 778, 3325, 13837, 56524, 227866, 909832, 3607294, 14227447, 55894252, 218937532, 855650749, 3338323915, 13007422705, 50631143323, 196928737582, 765495534433, 2974251390529, 11552064922624, 44856304154086
a(n) = 10*a(n-1) - 36*a(n-2) + 57*a(n-3) - 39*a(n-4) + 9*a(n-5), a(1) = 0, a(2) = 0, a(3) = 1, a(4) = 7, a(5) = 37.
[A006419] 0, 1, 7, 37, 176, 794, 3473, 14893, 63004, 263950, 1097790, 4540386, 18696432, 76717268, 313889477, 1281220733, 5219170052, 21224674118, 86188320962, 349550141078, 1416102710912, 5731427140268, 23177285611082, 93655986978002, 378195990166136, 1526289367335244
a(n) = Sum_{k=0..n}(binomial(2*(n+1),n-k-1)). - Vladimir Kruchinin, Oct 23 2016
a(n) = [x^n] x/((1 - 2*x)*(1 - x)^(n+3)). - Ilya Gutkovskiy, Oct 25 2017
[A277178] 0, 1, 7, 37, 177, 807, 3579, 15591, 67071, 285861, 1209641, 5089517, 21314453, 88918353, 369734553, 1533115953, 6341759073, 26177411943, 107853629643, 443633635743, 1822098923943, 7473806605563, 30618895206483, 125303348573883, 512274592771083, 2092407173242983, 8539348101568335
a(n) = binomial(2*n,n) * (2*n + 1 - hypergeom([1,-n], [1/2-n], 1/4))/3.
[A164135] 7, 40, 54, 87, 101, 134, 148, 181, 195, 228, 242, 275, 289, 322, 336, 369, 383, 416, 430, 463, 477, 510, 524, 557, 571, 604, 618, 651, 665, 698, 712, 745, 759, 792, 806, 839, 853, 886, 900, 933, 947, 980, 994, 1027, 1041, 1074, 1088, 1121, 1135, 1168, 1182
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
a(n) = (47+19*(-1)^n+94*(n-1))/4.
[A230018] 7, 41, 129, 298, 575, 987, 1561, 2324, 3303, 4525, 6017, 7806, 9919, 12383, 15225, 18472, 22151, 26289, 30913, 36050, 41727, 47971, 54809, 62268, 70375, 79157, 88641, 98854, 109823, 121575, 134137, 147536, 161799, 176953, 193025, 210042, 228031, 247019
a(n) = ceil(1/f(n))/2, where f(n) = (n + 1/(3*n)) - (n^3 + n)^(1/3), n > 0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: x*(7*x^2+13*x+7) / (x-1)^4. - Colin Barker, Apr 01 2014
[A165563] 1, 7, 41, 151, 409, 911, 1777, 3151, 5201, 8119, 12121, 17447, 24361, 33151, 44129, 57631, 74017, 93671, 117001, 144439, 176441, 213487, 256081, 304751, 360049, 422551, 492857, 571591, 659401, 756959, 864961, 984127, 1115201, 1258951, 1416169, 1587671
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4)+a(n-5).
[A110451] 0, 7, 42, 129, 292, 555, 942, 1477, 2184, 3087, 4210, 5577, 7212, 9139, 11382, 13965, 16912, 20247, 23994, 28177, 32820, 37947, 43582, 49749, 56472, 63775, 71682, 80217, 89404, 99267, 109830, 121117, 133152, 145959, 159562, 173985, 189252
a(n) = 4*a(n-1) - 6*a(n-1) + 4*a(n-2) - a(n-4).
[A266387] 0, 0, 0, 0, 0, 7, 42, 147, 392, 882, 1764, 3234, 5544, 9009, 14014, 21021, 30576, 43316, 59976, 81396, 108528, 142443, 184338, 235543, 297528, 371910, 460460, 565110, 687960, 831285, 997542, 1189377, 1409632, 1661352, 1947792, 2272424, 2638944, 3051279
a(n) = 7*(n-1)*(n-2)*(n-3)*(n-4)*(n-5)/120.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) for n>6.
[A045800] 1, 7, 43, 49, 101, 107, 143, 149, 201, 207, 243, 249, 301, 307, 343, 349, 401, 407, 443, 449, 501, 507, 543, 549, 601, 607, 643, 649, 701, 707, 743, 749, 801, 807, 843, 849, 901, 907, 943, 949, 1001, 1007, 1043, 1049, 1101, 1107, 1143, 1149, 1201, 1207
a(n) = (50*n-8*i^(n*(n+1))-19*(-1)^n-75)/2, where i=sqrt(-1). - Bruno Berselli, Feb 22 2012
[A159254] 7, 43, 57, 93, 107, 143, 157, 193, 207, 243, 257, 293, 307, 343, 357, 393, 407, 443, 457, 493, 507, 543, 557, 593, 607, 643, 657, 693, 707, 743, 757, 793, 807, 843, 857, 893, 907, 943, 957, 993, 1007, 1043, 1057, 1093, 1107, 1143, 1157, 1193, 1207, 1243, 1257
a(1)=7, a(2)=43, a(n)=50+a(n-2).
a(n) = (11*(-1)^n+50*n-25)/2.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A216301] 7, 43, 103, 106, 145, 238, 271, 409, 472, 544, 574, 670, 721, 904, 934, 1009, 1183, 1204, 1261, 1282, 1372, 1636, 1669, 1729, 1792, 1921, 1975, 2002, 2149, 2152, 2254, 2320, 2437, 2560, 2593, 2611, 2695, 2779, 2857, 2866, 2875, 3085, 3115, 3118, 3256
a(n) » n log^3 n. - Charles R Greathouse IV, Sep 07 2012
[A023316] 7, 43, 883, 2269, 2917, 7621, 15541, 15937, 36541, 38113, 54787, 60961, 67033, 71359, 77491, 79693, 82531, 84967, 112621, 129589, 176461, 185683, 192547, 239671, 248071, 267373, 271489, 271549, 310231, 316471, 340957, 343267, 350617, 382303
a(n) == 1 or 19 (mod 42) for n > 1. - John Cerkan, Oct 07 2016

[A178719] 0, 0, 1, 7, 44, 266, 1599, 9597, 57586, 345520, 2073125, 12438755, 74632536, 447795222, 2686771339, 16120628041, 96723768254, 580342609532, 3482055657201, 20892333943215, 125354003659300, 752124021955810, 4512744131734871, 27076464790409237, 162458788742455434, 974752732454732616
a(n) = (1/5)*round((24*6^n-70*n-49)/140).
a(n) = (1/5)*floor((12*6^n-35*n-12)/70).
a(n) = (1/5)*ceil((12*6^n-35*n-37)/70).
a(n) = (1/5)*round((12*6^n-35*n-12)/70).
a(n) = a(n-2) + (6^(n-1)-1)/5 , n>1.
a(n) = 7*a(n-1)-5*a(n-2)-7*a(n-3)+6*a(n-4), n>3.
[A206808] 7, 45, 156, 400, 855, 1617, 2800, 4536, 6975, 10285, 14652, 20280, 27391, 36225, 47040, 60112, 75735, 94221, 115900, 141120, 170247, 203665, 241776, 285000, 333775, 388557, 449820, 518056, 593775, 677505, 769792, 871200, 982311
a(n) = (3*n^4-2*n^3-n^2)/4. G.f.: -x^2*(x^2+10*x+7) / (x-1)^5. - Colin Barker, Jul 11 2014
[A278682] 0, 0, 7, 45, 225, 709, 1974, 4524, 9614, 18382, 33425, 56895, 93447, 146715, 224280, 331814, 480844, 679724, 945099, 1288737, 1733725, 2296065, 3006762, 3886960, 4977210, 6304794, 7921589, 9862099, 12191459, 14952567, 18225900, 22064010, 26564952, 31792280
a(n) = ((n^6 - 15*n^4 + 32*n^3 + 14*n^2 - 116*n + 96) + IF(MOD(n, 2) = 1, 8*n^3 - 9*n^2 - 20*n + 9))/48.
a(n) = 3*a(n-1) + a(n-2) - 11*a(n-3) + 6*a(n-4) + 14*a(n-5) - 14*a(n-6) - 6*a(n-7) + 11*a(n-8) - a(n-9) - 3*a(n-10) + a(n-11).
a(n) = (n^6 - 15*n^4 + 32*n^3 + 14*n^2 - 116*n + 96)/48 for n even.
a(n) = (n^6 - 15*n^4 + 40*n^3 + 5*n^2 - 136*n + 105)/48 for n odd.
[A152777] 0, 7, 49, 126, 238, 385, 567, 784, 1036, 1323, 1645, 2002, 2394, 2821, 3283, 3780, 4312, 4879, 5481, 6118, 6790, 7497, 8239, 9016, 9828, 10675, 11557, 12474, 13426, 14413, 15435, 16492, 17584, 18711, 19873, 21070, 22302, 23569
a(n) = a(n-1)+35*n-28 (with a(0)=0). - Vincenzo Librandi, Dec 15 2010
[A163827] 7, 49, 163, 385, 751, 1297, 2059, 3073, 4375, 6001, 7987, 10369, 13183, 16465, 20251, 24577, 29479, 34993, 41155, 48001, 55567, 63889, 73003, 82945, 93751, 105457, 118099, 131713, 146335, 162001, 178747, 196609, 215623, 235825, 257251, 279937
a(n) = 6n^3+1.
a(1)=7, a(2)=49, a(3)=163, a(4)=385, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). [Harvey P. Dale, Dec 12 2011]
[A141783] 1, 7, 49, 231, 924, 3108, 9324, 25236, 63090, 147070, 323554, 676270, 1352540, 2600612, 4829708, 8692788, 15212379, 25949469, 43249115, 70562765, 112900424, 177412664, 274183208, 417232088, 625848132, 926250780, 1353751140
a(n) = 1/2*(binomial(n-1,12) + binomial((n-2+n mod 2)/2, 6)).
a(n) = (1/(2*12!))*(n+2)*(n+4)*(n+6)*(n+8)*(n+10)*(n+12)*((n+1)*(n+3)*(n+5)*(n+7)*(n+9)*(n+11) + 1*3*5*7*9*11) - (1/15)*(1/2^10)*(n^5+(65/2)*n^4+400*n^3+(4615/2)*n^2+6154*n+(11895/2))*(1/2)*(1-(-1)^n) [Yosu Yurramendi, Jun 24 2013]
[A200783] 1, 7, 49, 308, 1946, 12152, 75992, 474566, 2964416, 18514405, 115637431, 722234149, 4510869636, 28173535572, 175963587528, 1099016234232, 6864129384252, 42871313869692, 267761500599901, 1672358840069239, 10445056851917149, 65236724277810632, 407449213173792062, 2544806826734163992, 15894107968042546424, 99269879145585901 46
a(n) = 7*a(n-1) - 35*a(n-3) + 35*a(n-4) - 7*a(n-6) + a(n-7).
[A293475] 0, 7, 50, 195, 560, 1330, 2772, 5250, 9240, 15345, 24310, 37037, 54600, 78260, 109480, 149940, 201552, 266475, 347130, 446215, 566720, 711942, 885500, 1091350, 1333800, 1617525, 1947582, 2329425, 2768920, 3272360, 3846480, 4498472, 5236000, 6067215, 7000770
a(n) = n*Stirling2(3 + n, 1 + n).
a(n) = n*(24 + 62*n + 57*n^2 + 22*n^3 + 3*n^4)/24.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5. (End)
[A057675] 1, 7, 52, 192, 507, 1101, 2102, 3662, 5957, 9187, 13576, 19372, 26847, 36297, 48042, 62426, 79817, 100607, 125212, 154072, 187651, 226437, 270942, 321702, 379277, 444251, 517232, 598852, 689767, 790657, 902226, 1025202, 1160337
a(0)=1, a(1)=7, a(2)=52, a(3)=192, a(4)=507, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Apr 28 2016
[A206809] 7, 52, 208, 608, 1463, 3080, 5880, 10416, 17391, 27676, 42328, 62608, 89999, 126224, 173264, 233376, 309111, 403332, 519232, 660352, 830599, 1034264, 1276040, 1561040, 1894815, 2283372, 2733192, 3251248, 3845023, 4522528, 5292320
a(n) = (n*(-4-15*n-5*n^2+15*n^3+9*n^4))/60. G.f.: x^2*(x^2+10*x+7) / (x-1)^6. - Colin Barker, Jul 11 2014
[A014637] 1, 7, 55, 81, 189, 235, 403, 469, 697, 783, 1071, 1177, 1525, 1651, 2059, 2205, 2673, 2839, 3367, 3553, 4141, 4347, 4995, 5221, 5929, 6175, 6943, 7209, 8037, 8323, 9211, 9517, 10465, 10791, 11799, 12145, 13213, 13579, 14707, 15093, 16281, 16687, 17935
a(n) = (1/8)*(1+(-1)^n+4*n)*(-1+5*(-1)^n+20*n)
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5)
a(n) = 80+2*a(n-2)-a(n-4)
[A097254] 0, 7, 56, 63, 448, 455, 504, 511, 3584, 3591, 3640, 3647, 4032, 4039, 4088, 4095, 28672, 28679, 28728, 28735, 29120, 29127, 29176, 29183, 32256, 32263, 32312, 32319, 32704, 32711, 32760, 32767, 229376, 229383, 229432, 229439, 229824
a(2n-1) = 8*a(n), a(2n) = 8*a(n)+7.
[A153797] 0, 7, 56, 147, 280, 455, 672, 931, 1232, 1575, 1960, 2387, 2856, 3367, 3920, 4515, 5152, 5831, 6552, 7315, 8120, 8967, 9856, 10787, 11760, 12775, 13832, 14931, 16072, 17255, 18480, 19747, 21056, 22407, 23800, 25235, 26712, 28231
a(n) = a(n-1) + 42*n - 35 (with a(0)=0). - Vincenzo Librandi, Nov 27 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A244727] 0, 7, 56, 189, 448, 875, 1512, 2401, 3584, 5103, 7000, 9317, 12096, 15379, 19208, 23625, 28672, 34391, 40824, 48013, 56000, 64827, 74536, 85169, 96768, 109375, 123032, 137781, 153664, 170723, 189000, 208537, 229376, 251559, 275128, 300125, 326592, 354571
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3.
[A007291] 7, 63, 254, 710, 1605, 3157, 5628, 9324, 14595, 21835, 31482, 44018, 59969, 79905, 104440, 134232, 169983, 212439, 262390, 320670, 388157, 465773, 554484, 655300, 769275, 897507, 1041138, 1201354, 1379385
a(n)=n(n-1)(11n^2-13n+3)/6 - T. D. Noe, Feb 09 2007
a(2)=7, a(3)=63, a(4)=254, a(5)=710, a(6)=1605, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Oct 17 2012
[A157706] 7, 75, 385, 1365, 3850, 9282, 19950, 39270, 72105, 125125, 207207, 329875, 507780, 759220, 1106700, 1577532, 2204475, 3026415, 4089085, 5445825, 7158382, 9297750, 11945050, 15192450, 19144125, 23917257
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7)
a(n) = 1/18*n^6+1/6*n^5+1/72*n^4-1/4*n^3-5/72*n^2+1/12*n
[A180356] 0, 7, 76, 747, 4120, 15655, 46692, 117691, 262192, 531495, 1000060, 1771627, 2986056, 4826887, 7529620, 11390715, 16777312, 24137671, 34012332, 47045995, 64000120, 85766247, 113380036, 148036027, 191103120, 244140775, 308915932
a(n) = +7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7). G.f.: x*(-7-27*x-362*x^2-242*x^3-87*x^4+5*x^5)/(x-1)^7. [From R. J. Mathar, Sep 24 2010]
[A139264] 7, 77, 147, 217, 287, 357, 427, 497, 567, 637, 707, 777, 847, 917, 987, 1057, 1127, 1197, 1267, 1337, 1407, 1477, 1547, 1617, 1687, 1757, 1827, 1897, 1967, 2037, 2107, 2177, 2247, 2317, 2387, 2457, 2527, 2597, 2667, 2737, 2807, 2877, 2947, 3017, 3087
a(n) = a(n-1) + 70.
a(n)=70*n-63, with n>=1 [From Paolo P. Lava, Sep 06 2010]
[A079911] 1, 7, 79, 478, 2108, 7364, 21652, 55532, 127604, 268108, 523244, 960212, 1672972, 2788724, 4475108, 6948124, 10480772, 15412412, 22158844, 31223108, 43207004, 58823332, 78908852, 104437964, 136537108, 176499884, 225802892, 286122292
a(0)=1, a(2)=7, a(3)=79, a(n)=n^6-9*n^5+60*n^4-225*n^3+555*n^3-774*n+484.
[A053128] 7, 84, 462, 1716, 5005, 12376, 27132, 54264, 100947, 177100, 296010, 475020, 736281, 1107568, 1623160, 2324784, 3262623, 4496388, 6096454, 8145060, 10737573, 13983816, 18009460, 22957480, 28989675, 36288252, 45057474, 55525372, 67945521, 82598880, 99795696
a(n) = binomial(2*n-5, 6) if n >= 6 else 0.
[A027819] 7, 84, 504, 2100, 6930, 19404, 48048, 108108, 225225, 440440, 816816, 1447992, 2469012, 4069800, 6511680, 10147368, 15444891, 23015916, 33649000, 48348300, 68378310, 95315220, 131105520, 178132500, 239291325, 318073392
a(n) = C(n+1,2)*C(n+6,6). - Zerinvary Lajos, May 26 2005

[A058795] 7, 85, 301, 751, 1555, 2857, 4825, 7651, 11551, 16765, 23557, 32215, 43051, 56401, 72625, 92107, 115255, 142501, 174301, 211135, 253507, 301945, 357001, 419251, 489295, 567757, 655285, 752551, 860251, 979105, 1109857, 1253275, 1410151
a(n) = n^4 + 10*n^3 + 32*n^2 + 35*n + 7.
[A254473] 7, 87, 335, 847, 1719, 3047, 4927, 7455, 10727, 14839, 19887, 25967, 33175, 41607, 51359, 62527, 75207, 89495, 105487, 123279, 142967, 164647, 188415, 214367, 242599, 273207, 306287, 341935, 380247, 421319, 465247, 512127, 562055, 615127, 671439, 731087
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) - a(n-4).
[A085026] 7, 91, 247, 475, 775, 1147, 1591, 2107, 2695, 3355, 4087, 4891, 5767, 6715, 7735, 8827, 9991, 11227, 12535, 13915, 15367, 16891, 18487, 20155, 21895, 23707, 25591, 27547, 29575, 31675, 33847, 36091, 38407, 40795, 43255, 45787, 48391, 51067, 53815, 56635
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: (7+70*x-5*x^2)/(1-x)^3. - Colin Barker, Oct 28 2012
[A181475] 1, 7, 91, 397, 1141, 2611, 5167, 9241, 15337, 24031, 35971, 51877, 72541, 98827, 131671, 172081, 221137, 279991, 349867, 432061, 527941, 638947, 766591, 912457, 1078201, 1265551, 1476307, 1712341, 1975597, 2268091, 2591911, 2949217, 3342241, 3773287, 4244731
a(n) = a(-n-1) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+6*12.
a(n) = 7*(3*n^2+3*n-1)*sum(k^6, k=1..n)/(5*sum(k^4, k=1..n)), n>0. - Gary Detlefs, Oct 18 2011
[A015225] 1, 7, 95, 161, 525, 715, 1547, 1925, 3417, 4047, 6391, 7337, 10725, 12051, 16675, 18445, 24497, 26775, 34447, 37297, 46781, 50267, 61755, 65941, 79625, 84575, 100647, 106425, 125077, 131747, 153171, 160797, 185185, 193831, 221375, 231105
a(n) = a(n-1) +3*a(n-2) -3*a(n-3) -3*a(n-4) +3*a(n-5) +a(n-6) -a(n-7).
a(n) = 3*a(n-2) -3*a(n-4) +a(n-6) +256.
a(n) = (8*n-2*(-1)^n-7)*(1+(-1)^n-4*n)*(3+(-1)^n-4*n)/24.
[A219088] 0, 7, 97, 525, 1845, 5032, 11602, 23730, 44370, 77378, 127628, 201135, 305175, 448403, 640973, 894660, 1222981, 1641308, 2166998, 2819506, 3620506, 4594013, 5766503, 7167031, 8827351, 10782039, 13068609, 15727636, 18802876
a(n) = [(n + 1/2)^5].
[A238472] 7, 99, 476, 1463, 3510, 7192, 13209, 22386, 35673, 54145, 79002, 111569, 153296, 205758, 270655, 349812, 445179, 558831, 692968, 849915, 1032122, 1242164, 1482741, 1756678, 2066925, 2416557, 2808774, 3246901, 3734388, 4274810
a(n) = binomial(5*n+7, 4)/5 for n >= 0.
[A112463] 7, 111, 930, 5480, 25500, 99756, 341088, 1046520, 2936070, 7638950, 18631932, 42969336, 94348300, 198354300, 401166000, 783610920, 1483311285, 2728813725, 4891144350, 8560278000, 14656684680, 24591569640, 40493836800, 65527390800, 104329399500, 163608855372
a(n) = (13*n+7)/14! * Product_{i=-6..6} (n+i).
[A127877] 7, 115, 297, 1237, 2171, 5527, 8221, 16441, 22335, 38731, 49697, 78445, 96787, 142927, 171381, 240817, 282551, 382051, 440665, 577861, 657387, 840775, 945677, 1184617, 1319791, 1624507, 1795281, 2176861, 2388995, 2859391, 3119077, 3691105, 4004967, 4692307
a(n) = (11+5*(-1)^n+16*(2+(-1)^n)*n+18*(3+(-1)^n)*n^2+36*(1+(-1)^n)*n^3+54*n^4)/16.
a(n) = (27*n^4+36*n^3+36*n^2+24*n+8)/8 for n even.
a(n) = (27*n^4+18*n^2+8*n+3)/8 for n odd.
a(n) = a(n-1)+4*a(n-2)-4*a(n-3)-6*a(n-4)+6*a(n-5)+4*a(n-6)-4*a(n-7)-a(n-8)+a(n-9) for n>9.
[A057769] 1, 7, 119, 527, 1519, 3479, 6887, 12319, 20447, 32039, 47959, 69167, 96719, 131767, 175559, 229439, 294847, 373319, 466487, 576079, 703919, 851927, 1022119, 1216607, 1437599, 1687399, 1968407, 2283119, 2634127, 3024119, 3455879, 3932287, 4456319, 5031047, 5659639, 6345359, 7091567
a(0)=-1, a(1)=7, a(2)=119, a(3)=527, a(4)=1519, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, Oct 20 2011]
[A053716] 7, 127, 1093, 5461, 19531, 55987, 137257, 299593, 597871, 1111111, 1948717, 3257437, 5229043, 8108731, 12204241, 17895697, 25646167, 36012943, 49659541, 67368421, 90054427, 118778947, 154764793, 199411801, 254313151, 321272407, 402321277, 499738093
a(n) = n^6+n^5+n^4+n^3+n^2+n+1 = (n^7-1)/(n-1).
[A001533] 7, 135, 391, 775, 1287, 1927, 2695, 3591, 4615, 5767, 7047, 8455, 9991, 11655, 13447, 15367, 17415, 19591, 21895, 24327, 26887, 29575, 32391, 35335, 38407, 41607, 44935, 48391, 51975, 55687, 59527, 63495, 67591, 71815, 76167, 80647, 85255, 89991, 94855
a(n) = 128*n + a(n-1) with a(0)=7. - Vincenzo Librandi, Nov 12 2010
[A239575] 0, 0, 7, 176, 1976, 12565, 57275, 207018, 634166, 1711262, 4181915, 9428657, 19892816, 39684027, 75473209, 137721045, 242391212, 413215132, 684733527, 1106194950, 1746637600, 2701244609, 4099429895, 6114748948, 8977257362, 12988406970, 18539308619, 26132434991
a(n) = (n^10 + 5*n^9 - 130*n^8 - 310*n^7 + 7465*n^6 - 1336*n^5 - 202980*n^4 + 464160*n^3 + 1783424*n^2 - 8360064*n + 9192960)/23040 + IF(MOD(n,2) = 1)*(25*n^4 - 94*n^3 - 418*n^2 + 2053*n - 1779)/1536.
[A202655] 0, 0, 0, 7, 223, 2429, 15045, 66122, 230074, 675798, 1745318, 4073993, 8764753, 17630795, 33522531, 60756612, 105666148, 177293340, 288246972, 455749371, 702898611, 1060173961, 1567213681, 2274896558, 3247759614, 4566786770, 6332604226, 8669120733, 11727651845
a(n) = n^8/24 - 2*n^7/3 + 41*n^6/9 - 257*n^5/15 + 341*n^4/9 - 97*n^3/2 + 2341*n^2/72 - 87*n/10 + (n/2 - 1/2)*floor(n/2).
[A228291] 0, 7, 254, 3279, 21844, 97655, 335922, 960799, 2396744, 5380839, 11111110, 21435887, 39089244, 67977559, 113522234, 183063615, 286331152, 435984839, 648232974, 943531279, 1347368420, 1891142967, 2613136834, 3559590239, 4785883224, 6357828775, 8353082582
a(1) = 7, else a(n) = (n^8-n)/(n-1).
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) with n > 7, a(0)=0, a(1)=7, a(2)=254, a(3)=3279, a(4)=21844, a(5)=97655, a(6)=335922, a(7)=960799. - Yosu Yurramendi, Sep 03 2013
[A242851] 1, 7, 2911, 40391, 242047, 950599, 2883167, 7338631, 16451071, 33489287, 63202399, 112211527, 189447551, 306634951, 478821727, 724955399, 1068505087, 1538129671, 2168392031, 3000519367, 4083209599, 5473483847, 7237584991, 9451922311, 12204062207, 15593764999
a(n) = (8*n^3-4*n^2-4*n+1)*(8*n^3+4*n^2-4*n-1).
[A023344] 7, 7621, 15937, 382933, 462271, 518803, 866941, 1025407, 1142503, 1427347, 1742473, 1980067, 2343619, 2910031, 3015283, 4344121, 4352269, 4544209, 5081893, 5116543, 5127043, 5482531, 5484379, 5501473, 5648221, 6452899, 7213897, 7968469
a(n) == 19 (mod 42) for n>1. - John Cerkan, Oct 22 2016
[A187107] 8, 8, 9, 10, 12, 15, 20, 28, 41, 62, 96, 151, 240, 384, 617, 994, 1604, 2591, 4188, 6772, 10953, 17718, 28664, 46375, 75032, 121400, 196425, 317818, 514236, 832047, 1346276, 2178316, 3524585, 5702894, 9227472, 14930359, 24157824, 39088176
a(n) = 2*a(n-1)-a(n-3). G.f.: -x*(7*x^2+8*x-8) / ((x-1)*(x^2+x-1)). [Colin Barker, Dec 14 2012]
[A168337] 1, 8, 8, 15, 15, 22, 22, 29, 29, 36, 36, 43, 43, 50, 50, 57, 57, 64, 64, 71, 71, 78, 78, 85, 85, 92, 92, 99, 99, 106, 106, 113, 113, 120, 120, 127, 127, 134, 134, 141, 141, 148, 148, 155, 155, 162, 162, 169, 169, 176, 176, 183, 183, 190, 190, 197, 197, 204, 204, 211
a(n) = 7*n - a(n-1) - 5, with n>1, a(1)=1.
a(n) = a(n-1) +a(n-2) -a(n-3).
a(n) = (14*n + 7*(-1)^n - 3)/4. (End)
[A168397] 0, 8, 8, 16, 16, 24, 24, 32, 32, 40, 40, 48, 48, 56, 56, 64, 64, 72, 72, 80, 80, 88, 88, 96, 96, 104, 104, 112, 112, 120, 120, 128, 128, 136, 136, 144, 144, 152, 152, 160, 160, 168, 168, 176, 176, 184, 184, 192, 192, 200, 200, 208, 208, 216, 216, 224, 224, 232, 232, 240, 240, 248
a(n) = 8*n - a(n-1) - 8, with n>1, a(1)=0.
a(n) = 4*n + 2*(-1)^n - 2. - Paolo P. Lava, Nov 27 2009
[A022091] 0, 8, 8, 16, 24, 40, 64, 104, 168, 272, 440, 712, 1152, 1864, 3016, 4880, 7896, 12776, 20672, 33448, 54120, 87568, 141688, 229256, 370944, 600200, 971144, 1571344, 2542488, 4113832, 6656320, 10770152, 17426472, 28196624, 45623096, 73819720, 119442816
a(n) = round((16phi-8)/5 phi^n) (works for n>4). - Thomas Baruchel, Sep 08 2004
[A135405] 0, 1, 8, 8, 17, 19, 30, 34, 47, 53, 68, 76, 93, 103, 122, 134, 155, 169, 192, 208, 233, 251, 278, 298, 327, 349, 380, 404, 437, 463, 498, 526, 563, 593, 632, 664, 705, 739, 782, 818, 863, 901, 948, 988, 1037, 1079, 1130, 1174, 1227, 1273, 1328, 1376, 1433, 1483
a(n) = (n+2)*(n+1)/2 + 2*(-1)^n for n>0.
a(n) = (-4*(-1)^n+n+n^2)/2 for n>1.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>4.
[A164683] 1, 8, 8, 64, 64, 512, 512, 4096, 4096, 32768, 32768, 262144, 262144, 2097152, 2097152, 16777216, 16777216, 134217728, 134217728, 1073741824, 1073741824, 8589934592, 8589934592, 68719476736, 68719476736, 549755813888
a(n) = 2^(1/4*(6*n-3+3*(-1)^n)).

[A020722] 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80
a(n) = n+8.
a(n) = 2*a(n-1) - a(n-2).
[A294238] 0, 0, 0, 0, 0, 0, 0, 8, 9, 10, 11, 12, 13, 14, 15, 32, 34, 54, 57, 60, 63, 66, 69, 96, 100, 104, 108, 112, 116, 120, 124, 160, 165, 170, 175, 216, 222, 228, 234, 280, 287, 294, 301, 308, 315, 322, 329, 384, 392, 450, 459, 468, 477, 540, 550, 616, 627, 638
a(n) = n * Sum_{i=1..n} (1 - mu(i)^2).
[A058366] 1, 1, 1, 1, 1, 1, 8, 9, 10, 11, 12, 13, 14, 22, 31, 41, 52, 64, 77, 91, 113, 144, 185, 237, 301, 378, 469, 582, 726, 911, 1148, 1449, 1827, 2296, 2878, 3604, 4515, 5663, 7112, 8939, 11235, 14113, 17717, 22232, 27895, 35007, 43946, 55181, 69294, 87011
a(n) = 1 + n*sum(binomial(n-1-6*i, i-1)/i, i=1..n/7). a(n) = a(n-1) + a(n-7), a(n) = 1 for n = 1..6, a(7) = 8. generating function = (x+7*x^7)/(1-x-x^7).
[A164276] 0, 1, 8, 9, 10, 14, 15, 16, 20, 21, 22, 24, 25, 26, 27, 28, 32, 33, 34, 35, 36, 38, 39, 40, 44, 45, 46, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 62, 63, 64, 65, 66, 68, 69, 70, 74, 75, 76, 77, 78, 80, 81, 82, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 98, 99, 100, 104, 105, 106, 110
a(n) = n + n / log n + O(n / (log n)^2) by Brun's theorem. - Charles R Greathouse IV, Mar 15, 2011
[A054966] 0, 1, 8, 9, 10, 17, 18, 19, 26, 27, 28, 35, 36, 37, 44, 45, 46, 53, 54, 55, 62, 63, 64, 71, 72, 73, 80, 81, 82, 89, 90, 91, 98, 99, 100, 107, 108, 109, 116, 117, 118, 125, 126, 127, 134, 135, 136, 143, 144, 145, 152, 153, 154, 161, 162, 163, 170, 171, 172, 179, 180
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 3*n-3+2*cos(2*n*Pi/3)+2*sin(2*n*Pi/3)/sqrt(3).
a(3k) = 9k-1, a(3k-1) = 9k-8, a(3k-2) = 9k-9. (End)
[A048000] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 8, 9, 10, 50, 55, 60, 180, 195, 210, 490, 525, 560, 1240, 1326, 1413, 3645, 3933, 4230, 12750, 13860, 15015, 45375, 49335, 53460, 150524, 163175, 176345, 470665, 509067, 549094, 1461278, 1580761
a(n) = Sum_{k=1}^floor(n/5) binomial(floor(n/3), 4*k)*binomial(ceil(2*n/3), k). - Robert Israel, Feb 05 2017
[A048590] 8, 9, 11, 14, 18, 24, 32, 43, 58, 79, 108, 148, 203, 279, 384, 529, 729, 1005, 1386, 1912, 2638, 3640, 5023, 6932, 9567, 13204, 18224, 25153, 34717, 47918, 66139, 91289, 126003, 173918, 240054, 331340, 457340, 631255, 871306, 1202643, 1659980, 2291232, 3162535
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - a(n-5) (holds at least up to n = 1000 but is not known to hold in general).
[A168415] 8, 9, 11, 15, 23, 39, 71, 135, 263, 519, 1031, 2055, 4103, 8199, 16391, 32775, 65543, 131079, 262151, 524295, 1048583, 2097159, 4194311, 8388615, 16777223, 33554439, 67108871, 134217735, 268435463, 536870919, 1073741831, 2147483655
a(n) = 2*a(n-1) - 7, n>1.
[A174041] 8, 9, 14, 15, 20, 21, 26, 27, 32, 33, 38, 39, 44, 45, 50, 51, 56, 57, 62, 63, 68, 69, 74, 75, 80, 81, 86, 87, 92, 93, 98, 99, 104, 105, 110, 111, 116, 117, 122, 123, 128, 129, 134, 135, 140, 141, 146, 147, 152, 153, 158, 159, 164, 165, 170, 171, 176, 177, 182, 183
a(2n-1) = 6n+2, a(2n) = 6n+3.
[A175859] 8, 9, 14, 15, 24, 25, 32, 33, 38, 39, 54, 55, 62, 63, 74, 75, 90, 91, 92, 93, 98, 99, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 140, 141, 142, 143, 144, 145, 158, 159, 182, 183, 184, 185, 186, 187, 212, 213
a(2k) = a(2k-1) + 1 for k >=1.
[A047393] 0, 1, 8, 9, 16, 17, 24, 25, 32, 33, 40, 41, 48, 49, 56, 57, 64, 65, 72, 73, 80, 81, 88, 89, 96, 97, 104, 105, 112, 113, 120, 121, 128, 129, 136, 137, 144, 145, 152, 153, 160, 161, 168, 169, 176, 177, 184, 185, 192, 193, 200, 201, 208, 209, 216, 217, 224, 225, 232
a(n) = 8*n - a(n-1) - 15 for n>1, a(1)=0. - Vincenzo Librandi, Aug 05 2010
a(n) = 4*n - 11/2 - 3*(-1)^n/2.
[A145820] 8, 9, 16, 25, 40, 89, 144, 233, 520, 841, 1360, 3033, 4904, 7929, 17680, 28585, 46216, 103049, 166608, 269369, 600616, 971065, 1570000, 3500649, 5659784, 9150633, 20403280, 32987641, 53333800, 118919033, 192266064, 310852169, 693110920
a(n) = a(n-1) + 6*a(n-3) - 6*a(n-4) - a(n-6) + a(n-7), with a(1)=8, a(2)=9, a(3)=16, a(4)=25, a(5)=40, a(6)=89, a(7)=144
[A274406] 0, 8, 9, 17, 18, 26, 27, 35, 36, 44, 45, 53, 54, 62, 63, 71, 72, 80, 81, 89, 90, 98, 99, 107, 108, 116, 117, 125, 126, 134, 135, 143, 144, 152, 153, 161, 162, 170, 171, 179, 180, 188, 189, 197, 198, 206, 207, 215, 216, 224, 225, 233, 234, 242, 243, 251, 252, 260, 261, 269
a(n) = (18*n + 7*(-1)^n - 11)/4. Therefore: a(2*m) = 9*m-1, a(2*m+1) = 9*m. It follows that a(j)+a(k) and a(j)*a(k) belong to the sequence if j and k are not both even.
a(n) = a(n-1) + a(n-2) - a(n-3).
a(2*r+1) + a(2*r+s+1) = a(4*r+s+1) and a(2*r) + a(2*r+2*s+1) = a(4*r+2*s). A particular case provided by these identities: a(n) = a(n - 2*floor(n/6)) + a(2*floor(n/6) + 1).
[A022098] 1, 8, 9, 17, 26, 43, 69, 112, 181, 293, 474, 767, 1241, 2008, 3249, 5257, 8506, 13763, 22269, 36032, 58301, 94333, 152634, 246967, 399601, 646568, 1046169, 1692737, 2738906, 4431643, 7170549, 11602192, 18772741, 30374933, 49147674, 79522607, 128670281
a(n) = a(n-1) + a(n-2) for n>1, a(0)=1, a(1)=8, and a(-1):=7.
a(n) = ((1 + sqrt(5))^n - (1 - sqrt(5))^n)/(2^n*sqrt(5)) + 3.5*((1 + sqrt(5))^(n-1) - (1 - sqrt(5))^(n-1))/(2^(n-2)*sqrt(5)) for n>0. - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
a(n) = 2^(-1-n)*((1 - sqrt(5))^n*(-15 + sqrt(5)) + (1 + sqrt(5))^n*(15 + sqrt(5)))/sqrt(5). - Herbert Kociemba, Dec 18 2011
a(n) = Lucas(n+3) + Lucas(n-3) - 3*Lucas(n) for n>1. - Bruno Berselli, Dec 29 2016
[A041307] 1, 1, 8, 9, 17, 26, 69, 302, 371, 1415, 3201, 39827, 82855, 288392, 371247, 1773380, 3918007, 5691387, 9609394, 15300781, 116714861, 132015642, 3285090269, 3417105911, 27204831646, 30621937557, 57826769203, 88448706760, 234724182723, 1027345437652
a(n) = 3401805130*a(n-22) - a(n-44) for n>43. [Bruno Berselli, Dec 15 2013]
[A042289] 1, 1, 8, 9, 17, 26, 147, 1496, 7627, 9123, 16750, 25873, 197861, 223734, 11384561, 11608295, 92642626, 104250921, 196893547, 301144468, 1702615887, 17327303338, 88339132577, 105666435915, 194005568492, 299672004407, 2291709599341, 2591381603748
a(n) = 11582422*a(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 19 2014
[A042727] 1, 1, 8, 9, 17, 77, 1095, 1172, 3439, 4611, 8050, 20711, 28761, 49472, 127705, 177177, 2608183, 10609909, 13218092, 23828001, 180014099, 203842100, 12002855899, 12206697999, 97449741892, 109656439891, 207106181783, 938081167023, 13340242520105, 14278323687128
a(n) = 12182869998*a(n-22) - a(n-44) for n>43. - Vincenzo Librandi, Jan 27 2014
[A120311] 8, 9, 19, 20, 22, 38, 39, 54, 56, 58, 72, 90, 91, 92, 93, 94, 95, 96, 107, 131, 132, 133, 153, 154, 155, 156, 173, 175, 177, 193, 195, 224, 225, 239, 240, 266, 281, 282, 311, 340, 344, 346, 360, 363, 364, 365, 383, 385, 386, 387
a(n) = If[Mod[PrimePi[n], 4] == 0 Mod[Prime[n], 4] - 3 == 0, n]
[A081351] 1, 8, 9, 24, 25, 48, 49, 80, 81, 120, 121, 168, 169, 224, 225, 288, 289, 360, 361, 440, 441, 528, 529, 624, 625, 728, 729, 840, 841, 960, 961, 1088, 1089, 1224, 1225, 1368, 1369, 1520, 1521, 1680, 1681, 1848, 1849, 2024, 2025, 2208, 2209, 2400, 2401, 2600
a(n) = (n+1)*(n+2)-(n+1)*(-1)^n = 2*C(n+2,2)-C(n+1,1)*(-1)^n.
[A041317] 1, 8, 9, 26, 61, 87, 148, 531, 3334, 10533, 13867, 24400, 62667, 149734, 212401, 1848942, 48284893, 388128086, 436412979, 1260954044, 2958321067, 4219275111, 7177596178, 25752063645, 161689978048, 510821997789, 672511975837, 1183333973626, 3039179923089
a(n) = 48497294*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Dec 15 2013]
[A042311] 1, 8, 9, 26, 139, 304, 1659, 3622, 5281, 45870, 2390521, 19170038, 21560559, 62291156, 333016339, 728323834, 3974635509, 8677594852, 12652230361, 109895437740, 5727214992841, 45927615380468, 51654830373309, 149237276127086, 797841211008739, 1744919698144564
a(n) = 2395802*a(n-10) - a(n-20) for n>19 Vincenzo Librandi, Jan 20 2014
[A217843] 0, 1, 8, 9, 27, 35, 36, 64, 91, 99, 100, 125, 189, 216, 224, 225, 341, 343, 405, 432, 440, 441, 512, 559, 684, 729, 748, 775, 783, 784, 855, 1000, 1071, 1196, 1241, 1260, 1287, 1295, 1296, 1331, 1584, 1728, 1729, 1800, 1925, 1989, 2016, 2024, 2025, 2197
a(n) » n^2. Probably a(n) ~ kn^2 for some k but I cannot prove this. - Charles R Greathouse IV, Aug 07 2013
[A120776] 8, 9, 35, 39, 65, 119, 125, 219, 341, 515, 749, 755, 905, 935, 989, 1043, 1119, 1343, 1355, 1469, 1649, 1829, 1859, 2519, 3005, 3161, 3563, 3953, 4193, 4269, 4359, 4613, 4685, 4769, 4859, 5123, 5165, 5249, 5585, 5699, 5723, 6005, 6059, 6239, 6629, 6879
a(n)=n-th number such that n is composite and n+d+1 is prime for all divisors d greater than 1.
[A041915] 1, 1, 8, 9, 35, 79, 1694, 3467, 12095, 15562, 121029, 136591, 5857851, 5994442, 47818945, 53813387, 209259106, 472331599, 10128222685, 20728776969, 72314553592, 93043330561, 723617867519, 816661198080, 35023388186879, 35840049384959
a(n) = 5978880*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Dec 27 2013

[A129548] 1, 1, 8, 9, 36, 43, 120, 147, 329, 406, 784, 966, 1680, 2058, 3312, 4026, 6105, 7359, 10648, 12727, 17732, 21021, 28392, 33397, 43953, 51324, 66080, 76636, 96832, 111588, 138720, 158916, 194769, 221901, 268584, 304437, 364420, 411103, 487256, 547239, 642873
a(n) = [x^(2n)] (1+x^4)*(1+x^4+x^8)/((1-x^2)*(1-x^4)^5*(1-x^6)).
a(n) = (2*n+3+(-1)^n)*(2*n+7+(-1)^n)*(2*n+11+(-1)^n)*(2*n^3+27*n^2+169*n+387-3*(n^2-5*n-31)*(-1)^n)/184320. - Luce ETIENNE, Oct 15 2015.
a(n) = (n^6+24*n^5+280*n^4+1920*n^3+7504*n^2+14976*n+11520)/11520 (n even).
a(n) = (n^6+24*n^5+235*n^4+1200*n^3+3319*n^2+4536*n+2205)/11520 (n odd).
a(n) = 2*a(n-1)+4*(n-2)-10*a(n-3)-5*a(n-4)+20*a(n-5)-20*a(n-7)+5*a(n-8)+10*a(n-9)-4*a(n-10)-2*a(n-11)+a(n-12) for n>11. - Wesley Ivan Hurt, Oct 15 2015
[A042847] 1, 1, 8, 9, 53, 168, 389, 2502, 5393, 18681, 98798, 117479, 921151, 1038630, 63238951, 64277581, 513182018, 577459599, 3400480013, 10778899638, 24958279289, 160528575372, 346015430033, 1198574865471, 6338889757388, 7537464622859, 59101142117401
a(n) = 64160102*s(n-14) - a(n-28) for n>27. - Vincenzo Librandi, Jan 30 2014
[A033045] 0, 1, 8, 9, 64, 65, 72, 73, 512, 513, 520, 521, 576, 577, 584, 585, 4096, 4097, 4104, 4105, 4160, 4161, 4168, 4169, 4608, 4609, 4616, 4617, 4672, 4673, 4680, 4681, 32768, 32769, 32776, 32777, 32832, 32833, 32840, 32841, 33280, 33281, 33288
a(n) = Sum_{i=0..m} d(i)*8^i, where Sum_{i=0..m} d(i)*2^i is the base 2 representation of n.
a(2n) = 8*a(n), a(2n+1) = a(2n)+1.
[A256162] 1, 8, 9, 98, 99, 998, 999, 9998, 9999, 99998, 99999, 999998, 999999, 9999998, 9999999, 99999998, 99999999, 999999998, 999999999, 9999999998, 9999999999, 99999999998, 99999999999, 999999999998, 999999999999, 9999999999998, 9999999999999
a(n) = 10^floor(n/2) - 2*floor(n/2) + n - 2 = 10^floor(n/2)-(1+(-1)^n)/2 - 1 for n>1, a(1) = 1.
[A041141] 1, 1, 8, 9, 152, 161, 1279, 1440, 24319, 25759, 204632, 230391, 3890888, 4121279, 32739841, 36861120, 622517761, 659378881, 5238169928, 5897548809, 99598950872, 105496499681, 838074448639, 943570948320, 15935209621759, 16878780570079
a(n) = 160*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 11 2013
[A041605] 1, 1, 8, 9, 314, 323, 2575, 2898, 101107, 104005, 829142, 933147, 32556140, 33489287, 266981149, 300470436, 10482975973, 10783446409, 85967100836, 96750547245, 3375485707166, 3472236254411, 27681139488043, 31153375742454, 1086895914731479, 1118049290473933
a(n) = 322*a(n-4) - a(n-8) for n>7. - Vincenzo Librandi, Dec 21 2013
[A020744] 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138
a(n) = 2n+8. a(n) = 2a(n-1) - a(n-2).
[A184116] 8, 10, 13, 15, 17, 19, 21, 23, 24, 26, 28, 30, 31, 33, 35, 36, 38, 39, 41, 42, 44, 45, 47, 49, 50, 51, 53, 54, 56, 57, 59, 60, 62, 63, 65, 66, 67, 69, 70, 72, 73, 74, 76, 77, 78, 80, 81, 83, 84, 85, 87, 88, 89, 91, 92, 93, 95, 96, 97, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 119, 121, 122, 123, 125, 126, 127, 128, 130, 131, 132, 133, 135, 136, 137, 138, 140, 141, 142, 143, 145, 146, 147, 149, 150
a(n) = n + floor(5*sqrt(n))
[A167487] 8, 10, 13, 17, 22, 28, 35, 43, 52, 62, 73, 85, 98, 112, 127, 143, 160, 178, 197, 217, 238, 260, 283, 307, 332, 358, 385, 413, 442, 472, 503, 535, 568, 602, 637, 673, 710, 748, 787, 827, 868, 910, 953, 997, 1042, 1088, 1135, 1183, 1232, 1282, 1333, 1385, 1438
a(n) = n + a(n-1) + 1 with n>1, a(1)=10.
a(n) = Sum_{i=n-5..n+7} i*(i+1)/26. - Bruno Berselli, Oct 20 2016
[A275627] 8, 10, 13, 17, 22, 28, 36, 46, 59, 76, 98, 126, 162, 208, 267, 343, 441, 567, 729, 937, 1204, 1547, 1988, 2555, 3284, 4221, 5425, 6972, 8960, 11515, 14799, 19020, 24445, 31417, 40377, 51892, 66691, 85711, 110156, 141573, 181950, 233842, 300533, 386244, 496400, 637973, 819923, 1053765, 1354298
a(n) = a(n-1)+a(n-6) for n>5. - Colin Barker, Aug 21 2016
[A048591] 8, 10, 13, 17, 23, 32, 45, 64, 92, 133, 193, 281, 410, 599, 876, 1282, 1877, 2749, 4027, 5900, 8645, 12668, 18564, 27205, 39869, 58429, 85630, 125495, 183920, 269546, 395037, 578953, 848495, 1243528, 1822477, 2670968, 3914492, 5736965, 8407929, 12322417, 18059378
a(n) = 2*a(n-1) - a(n-2) + a(n-3) - a(n-4) (holds at least up to n = 1000 but is not known to hold in general).
[A027693] 8, 10, 14, 20, 28, 38, 50, 64, 80, 98, 118, 140, 164, 190, 218, 248, 280, 314, 350, 388, 428, 470, 514, 560, 608, 658, 710, 764, 820, 878, 938, 1000, 1064, 1130, 1198, 1268, 1340, 1414, 1490, 1568, 1648, 1730, 1814, 1900, 1988, 2078, 2170
a(n)=2*n+a(n-1) (with a(0)=8) - Vincenzo Librandi, Aug 05 2010
a(0)=8, a(1)=10, a(2)=14, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Dec 13 2011]
[A058633] 0, 1, 8, 10, 15, 23, 39, 42, 61, 67, 81, 90, 99, 116, 133, 137, 149, 169, 189, 196, 203, 218, 233, 243, 266, 276, 387, 405, 423, 441, 547, 552, 578, 591, 604
a(n) = Sum(i from 0 to n) Collatz(i) a(n) = a(n-1) + Collatz(n)
[A155966] 8, 10, 16, 26, 40, 58, 80, 106, 136, 170, 208, 250, 296, 346, 400, 458, 520, 586, 656, 730, 808, 890, 976, 1066, 1160, 1258, 1360, 1466, 1576, 1690, 1808, 1930, 2056, 2186, 2320, 2458, 2600, 2746, 2896, 3050, 3208, 3370, 3536, 3706, 3880, 4058
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A056020] 1, 8, 10, 17, 19, 26, 28, 35, 37, 44, 46, 53, 55, 62, 64, 71, 73, 80, 82, 89, 91, 98, 100, 107, 109, 116, 118, 125, 127, 134, 136, 143, 145, 152, 154, 161, 163, 170, 172, 179, 181, 188, 190, 197, 199, 206, 208, 215, 217, 224, 226, 233, 235, 242, 244, 251, 253
a(1) = 1; a(n) = 9(n-1) - a(n-1) - Rolf Pleisch, Jan 31 2008 [Offset corrected by Jon E. Schoenfield, Dec 22 2008]
a(n)=(1/4)*(-9+5*(-1)^n+18*n) [From Paolo P. Lava, Apr 26 2010]
[A153382] 0, 8, 10, 18, 30, 48, 80, 128, 210, 338, 550, 888, 1440, 2328, 3770, 6098, 9870, 15968, 25840, 41808, 67650, 109458, 177110, 286568, 463680, 750248, 1213930, 1964178, 3178110, 5142288, 8320400, 13462688, 21783090, 35245778, 57028870, 92274648
a(n)=-1+(-1)^n+2*sqrt(5)*{[(1/2)+(1/2)*sqrt(5)]^n-[(1/2)-(1/2)*sqrt(5)]^n}, with n>=0 [From Paolo P. Lava, Jan 09 2009]
[A236653] 1, 8, 10, 19, 26, 28, 37, 44, 46, 55, 62, 64, 73, 80, 82, 91, 98, 100, 109, 116, 118, 127, 134, 136, 145, 152, 154, 163, 170, 172, 181, 188, 190, 199, 206, 208, 217, 224, 226, 235, 242, 244, 253, 260, 262, 271, 278, 280, 289, 296, 298, 307, 314, 316, 325
a(n) = a(n-1)+a(n-3)-a(n-4).
[A259713] 1, 8, 10, 26, 46, 98, 190, 386, 766, 1538, 3070, 6146, 12286, 24578, 49150, 98306, 196606, 393218, 786430, 1572866, 3145726, 6291458, 12582910, 25165826, 50331646, 100663298, 201326590, 402653186, 805306366, 1610612738, 3221225470, 6442450946, 12884901886
a(n) = a(n-1) + 2*a(n-2) for n>1, a(0)=1, a(1)=8.
a(n) = 2*a(n-1) - 6*(-1)^n for n>0, a(0)=1.
[A024869] 8, 10, 27, 32, 61, 70, 114, 128, 190, 210, 293, 320, 427, 462, 596, 640, 804, 858, 1055, 1120, 1353, 1430, 1702, 1792, 2106, 2210, 2569, 2688, 3095, 3230, 3688, 3840, 4352, 4522, 5091, 5280, 5909, 6118, 6810, 7040, 7798, 8050, 8877, 9152, 10051, 10350, 11324, 11648
a(n) = (4*n^3+3*((-1)^n+13)*n^2+4*(6*(-1)^n+17)*n+42*((-1)^n-1))/48.
a(n) = (2*n^3+21*n^2+46*n)/24 for n even.
a(n) = (2*n^3+18*n^2+22*n-42)/24 for n odd.
[A212767] 1, 1, 8, 10, 29, 35, 72, 84, 145, 165, 256, 286, 413, 455, 624, 680, 897, 969, 1240, 1330, 1661, 1771, 2168, 2300, 2769, 2925, 3472, 3654, 4285, 4495, 5216, 5456, 6273, 6545, 7464, 7770, 8797, 9139, 10280, 10660, 11921, 12341, 13728, 14190
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
a(n) = (4*n^3+15*n^2+20*n+12+3*(n^2+4*n+4)*(-1)^n)/24. - Luce ETIENNE, Jun 03 2014
[A061570] 0, 1, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, 41, 44, 47, 50, 53, 56, 59, 62, 65, 68, 71, 74, 77, 80, 83, 86, 89, 92, 95, 98, 101, 104, 107, 110, 113, 116, 119, 122, 125, 128, 131, 134, 137, 140, 143, 146, 149, 152, 155, 158, 161, 164, 167, 170, 173, 176, 179
a(1)=0, a(2)=1, a(n)=3*n+2 for n >= 3.
a(1)=0, a(2)=1, a(3)=8, a(4)=11, a(n)=2*a(n-1)-a(n-2). [From Harvey P. Dale, Dec 12 2011]
[A243520] 0, 8, 11, 19, 22, 30, 33, 41, 44, 52, 55, 63, 66, 74, 77, 85, 88, 96, 99, 107, 110, 118, 121, 129, 132, 140, 143, 151, 154, 162, 165, 173, 176, 184, 187, 195, 198, 206, 209, 217, 220, 228, 231, 239, 242, 250, 253, 261, 264, 272, 275, 283, 286, 294, 297, 305
a(n) = -5/4*(-1)^n + 11*n/2 + 5/4.
a(n) = 5*n + 2*(n mod 2) + ceiling(n/2).
[A129730] 8, 11, 20, 26, 35, 48, 110, 159, 231, 339, 814, 1215, 1826, 2757, 6765, 10303, 15744, 24133, 60020, 92490, 142850, 221086, 554694, 861613, 1340498, 2088639, 5272838, 8237436, 12884170, 20174539, 51167078, 80281281, 126077316, 198168886
a(n) = Ceiling[(16/(n + 1))*Fibonacci[n + 1 + Floor[(n + 1)/4]]]

[A195160] 0, 1, 8, 11, 25, 30, 51, 58, 86, 95, 130, 141, 183, 196, 245, 260, 316, 333, 396, 415, 485, 506, 583, 606, 690, 715, 806, 833, 931, 960, 1065, 1096, 1208, 1241, 1360, 1395, 1521, 1558, 1691, 1730, 1870, 1911, 2058, 2101, 2255, 2300, 2461, 2508, 2676
a(n) = (18*n*(n+1)+5*(2*n+1)*(-1)^n-5)/16.
[A258285] 1, 1, 8, 11, 52, 91, 326, 567, 1925, 3361, 10114, 17998, 50084, 89303, 236472, 414418, 1036205, 1872828, 4394636, 7781405, 18111119, 31868623, 70513669, 125728510, 269084037, 475275290, 1005278492, 1749029589, 3594394017, 6355048530, 12651552078, 22036692845, 43804062866, 75652893831
a(n) = 1/7! * [Product_{i=1..7} x_i^n] Product_{j>0} (1+Sum_{i=1..7} x_i^j).
[A111087] 1, 8, 12, 16, 18, 20, 24, 27, 28, 30, 32, 36, 40, 42, 44, 45, 48, 50, 52, 54, 56, 60, 63, 64, 66, 68, 70, 72, 75, 76, 78, 80, 81, 84, 88, 90, 92, 96, 98, 99, 100, 102, 104, 105, 108, 110, 112, 114, 116, 117, 120, 124, 125, 126, 128, 130, 132, 135, 136, 138, 140, 144
a(n) = n + O(n log log n/log n). - Charles R Greathouse IV, Nov 13 2016
[A078609] 8, 12, 16, 21, 25, 29, 34, 38, 42, 47, 51, 55, 60, 64, 68, 73, 77, 81, 86, 90, 94, 99, 103, 107, 112, 116, 120, 125, 129, 133, 138, 142, 146, 150, 155, 159, 163, 168, 172, 176, 181, 185, 189, 194, 198, 202, 207, 211, 215, 220, 224, 228, 233, 237, 241, 246, 250
a(n) = ceiling(3/(2^(1/n)-1)). For most n, a(n) = floor(3n/log(2)-1/2), but there are exceptions, starting with n=32 and n=52113.
[A276403] 8, 12, 18, 27, 36, 48, 72, 108, 162, 243, 324, 432, 648, 972, 1458, 2187, 2916, 3888, 5832, 8748, 13122, 19683, 26244, 34992, 52488, 78732, 118098, 177147, 236196, 314928, 472392, 708588, 1062882, 1594323, 2125764, 2834352, 4251528, 6377292, 9565938, 14348907, 19131876, 25509168, 38263752
a(n) = 9*a(n-6) for n > 13.
[A105936] 8, 12, 18, 30, 42, 52, 68, 78, 138, 172, 186, 222, 258, 268, 410, 434, 508, 548, 618, 668, 762, 772, 786, 892, 906, 946, 978, 1002, 1030, 1132, 1334, 1374, 1446, 1542, 1606, 1758, 1866, 1878, 1948, 2006, 2022, 2252, 2334, 2414, 2452, 2468, 2486, 2572, 2588
a(n) is equal to the product of 3 primes if the arithmetic mean of prime(n) and prime(n+1) is a semiprime.
[A168670] 1, 8, 12, 19, 23, 30, 34, 41, 45, 52, 56, 63, 67, 74, 78, 85, 89, 96, 100, 107, 111, 118, 122, 129, 133, 140, 144, 151, 155, 162, 166, 173, 177, 184, 188, 195, 199, 206, 210, 217, 221, 228, 232, 239, 243, 250, 254, 261, 265, 272, 276, 283, 287, 294, 298, 305, 309, 316
a(n) = (-15+3*(-1)^n+22*n)/4. a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: x*(1+7*x+3*x^2)/((1-x)^2*(1+x)). [Colin Barker, May 15 2012, modified Jul 07 2015]
[A232867] 8, 12, 19, 30, 45, 64, 87, 114, 145, 180, 219, 262, 309, 360, 415, 474, 537, 604, 675, 750, 829, 912, 999, 1090, 1185, 1284, 1387, 1494, 1605, 1720, 1839, 1962, 2089, 2220, 2355, 2494, 2637, 2784, 2935, 3090, 3249, 3412, 3579, 3750, 3925, 4104, 4287, 4474
a(n+1) = 2*n^2 + n + 9 for n >= 1 (conjectured).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n >= 5 (conjectured).
[A072902] 1, 8, 12, 21, 24, 28, 33, 40, 44, 56, 57, 60, 65, 69, 76, 77, 85, 88, 92, 93, 104, 105, 120, 124, 129, 133, 136, 140, 141, 145, 152, 156, 161, 165, 168, 172, 177, 184, 185, 188, 201, 204, 205, 209, 213, 217, 220, 221, 232, 236, 237, 248, 249, 253, 264, 265, 268
a(n) appears to be asymptotic to C*n with C=3.91.....
[A241482] 8, 12, 24, 60, 60, 364, 984, 1596, 1596, 1596, 3705, 58444, 84396, 164620, 172236, 369105, 369105, 731676, 731676, 3442296, 3442296, 32169916, 32169916, 47973864, 47973864, 47973864, 313114620, 313114620, 313114620, 313114620, 13461106065, 27765196680, 40527839121, 55213498824, 55213498824, 381031123720
a(n) > prime(n)^(4*sqrt(e) + o(1)). - Charles R Greathouse IV, Apr 23 2014
[A210982] 0, 1, 8, 12, 26, 33, 54, 64, 92, 105, 140, 156, 198, 217, 266, 288, 344, 369, 432, 460, 530, 561, 638, 672, 756, 793, 884, 924, 1022, 1065, 1170, 1216, 1328, 1377, 1496, 1548, 1674, 1729, 1862, 1920, 2060, 2121, 2268, 2332, 2486, 2553, 2714, 2784, 2952, 3025, 3200, 3276, 3458, 3537, 3726
a(n) = (10*n^2 +8*n -3 +(4*n+3)*(-1)^n)/8. - Luce ETIENNE, Oct 14 2014
[A132356] 0, 8, 12, 36, 44, 84, 96, 152, 168, 240, 260, 348, 372, 476, 504, 624, 656, 792, 828, 980, 1020, 1188, 1232, 1416, 1464, 1664, 1716, 1932, 1988, 2220, 2280, 2528, 2592, 2856, 2924, 3204, 3276, 3572, 3648, 3960, 4040, 4368, 4452, 4796, 4884, 5244, 5336, 5712
a(n) = 10*x^2 - 2*x, where x = floor(n/2)*(-1)^n for n >= 1. - William A. Tedeschi, Sep 12 2010
a(n) = ((2*n+1-(-1)^n)*(10*(2*n+1)-2*(-1)^n))/16. - Luce ETIENNE, Sep 13 2014
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n > 4. - Chai Wah Wu, May 24 2016
[A204221] 0, 1, 8, 13, 17, 24, 45, 56, 64, 77, 112, 129, 141, 160, 209, 232, 248, 273, 336, 365, 385, 416, 493, 528, 552, 589, 680, 721, 749, 792, 897, 944, 976, 1025, 1144, 1197, 1233, 1288, 1421, 1480, 1520, 1581, 1728, 1793, 1837, 1904, 2065, 2136, 2184, 2257, 2432
a(-1 - n) = a(n).
a(n) = (30*n-10*i^(n(n-1))+3*(-1)^n+7)*(30*n-10*i^(n(n-1))+3*(-1)^n+23)/960, where i=sqrt(-1). - Bruno Berselli, Nov 28 2012
[A224251] 8, 13, 18, 23, 48, 73, 98, 123, 248, 373, 498, 623, 1248, 1873, 2498, 3123, 6248, 9373, 12498, 15623, 31248, 46873, 62498, 78123, 156248, 234373, 312498, 390623, 781248, 1171873, 1562498, 1953123, 3906248, 5859373, 7812498, 9765623, 19531248, 29296873
a(n) = 5*(n + 1)- 2, for n <= 4; a(5) = (5^2)*2 - 2; a(n)= a(n-1)+ 5*a(n-4)- 5*a(n-5) for n>=6.
[A219721] 1, 8, 13, 20, 22, 29, 34, 41, 43, 50, 55, 62, 64, 71, 76, 83, 85, 92, 97, 104, 106, 113, 118, 125, 127, 134, 139, 146, 148, 155, 160, 167, 169, 176, 181, 188, 190, 197, 202, 209, 211, 218, 223, 230, 232, 239, 244, 251, 253, 260, 265, 272, 274, 281, 286, 293
a(n) = -a(-n-1) = (42*n-6*i^(n*(n-1))-7*(-1)^n+5)/8 +2, where i=sqrt(-1).
[A246639] 8, 13, 28, 68, 173, 448, 1168, 3053, 7988, 20908, 54733, 143288, 375128, 982093, 2571148, 6731348, 17622893, 46137328, 120789088, 316229933, 827900708, 2167472188, 5674515853, 14856075368, 38893710248, 101825055373, 266581455868, 697919312228, 1827176480813, 4783610130208, 12523653909808
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3), n >=1, a(-2) = 13, a(-1) = 8, a(0) = 8.
a(n) = 2^(-1-n)*(3*2^(1+n)-(3-sqrt(5))^n*(-5+sqrt(5))+(3+sqrt(5))^n*(5+sqrt(5))). - Colin Barker, Nov 02 2016
[A287922] 8, 13, 29, 53, 125, 173, 293, 365, 533, 845, 965, 1373, 1685, 1853, 2213, 2813, 3485, 3725, 4493, 5045, 5333, 6245, 6893, 7925, 9413, 10205, 10613, 11453, 11885, 12773, 16133, 17165, 18773, 19325, 22205, 22805, 24653, 26573, 27893, 29933, 32045, 32765, 36485
a(n) = 4 + prime(n)^2.
[A096229] 0, 8, 14, 18, 20, 190, 198, 204, 208, 210, 580, 588, 594, 598, 600, 1170, 1178, 1184, 1188, 1190, 1960, 1968, 1974, 1978, 1980, 2950, 2958, 2964, 2968, 2970, 4140, 4148, 4154, 4158, 4160, 5530, 5538, 5544, 5548, 5550, 7120, 7128, 7134, 7138, 7140, 8910
a(n) = (floor(n/5)*10+(n mod 5)) * (floor(n,5)*10+9-(n mod 5)) - Colin Barker, Feb 21 2013
[A063216] 1, 8, 14, 22, 28, 35, 42, 49, 55, 63, 69, 76, 83, 90, 96, 104, 110, 117, 124, 131, 137, 145, 151, 158, 165, 172, 178, 186, 192, 199, 206, 213, 219, 227, 233, 240, 247, 254, 260, 268, 274, 281, 288, 295, 301, 309, 315, 322, 329, 336
a(n) = a(n-2)+a(n-3)-a(n-5). G.f.: x*(1 +8*x +13*x^2 +13*x^3 +6*x^4)/((1 -x)^2*(1 +x)*(1 +x +x^2)). [Colin Barker, Sep 27 2012]
[A238290] 0, 8, 14, 22, 28, 36, 42, 50, 56, 64, 70, 78, 84, 92, 98, 106, 112, 120, 126, 134, 140, 148, 154, 162, 168, 176, 182, 190, 196, 204, 210, 218, 224, 232, 238, 246, 252, 260, 266, 274, 280, 288, 294, 302, 308, 316, 322, 330, 336, 344, 350, 358, 364, 372, 378
a(n) = floor((2*n+1)/4) + 2*floor((2*n+1)/2) + 3*floor(3*(2*n+1)/4).
a(n) = 8*floor((n+1)/2) + 6*floor(n/2).
[A100315] 8, 14, 22, 34, 54, 90, 158, 290, 550, 1066, 2094, 4146, 8246, 16442, 32830, 65602, 131142, 262218, 524366, 1048658, 2097238, 4194394, 8388702, 16777314, 33554534, 67108970, 134217838, 268435570, 536871030, 1073741946, 2147483774, 4294967426, 8589934726
a(n) = 2^n+4*n+2.
a(n) = 4*a(n-1) - 5*a(n-2) + 2*a(n-3) for n > 3.
[A248427] 8, 14, 24, 36, 48, 64, 80, 100, 120, 144, 168, 196, 224, 256, 288, 324, 360, 400, 440, 484, 528, 576, 624, 676, 728, 784, 840, 900, 960, 1024, 1088, 1156, 1224, 1296, 1368, 1444, 1520, 1600, 1680, 1764, 1848, 1936, 2024
a(n) = (-1+(-1)^n+2*n^2)/2 for n>4.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>8.
[A090993] 8, 14, 24, 42, 72, 126, 216, 378, 648, 1134, 1944, 3402, 5832, 10206, 17496, 30618, 52488, 91854, 157464, 275562, 472392, 826686, 1417176, 2480058, 4251528, 7440174, 12754584, 22320522, 38263752, 66961566, 114791256, 200884698
a(n+4) = 4*a(n+2) - 3*a(n).
a(n) = 3*a(n-2). G.f.: 2*x*(4+7*x)/(1-3*x^2). [Colin Barker, May 03 2012]
a(n) = (11+3*(-1)^n) * 3^floor((n-1)/2). - Ralf Stephan, Jul 19 2013
[A187062] 0, 0, 8, 14, 26, 42, 64, 90, 134, 172, 232, 300, 378, 464, 584, 690, 834, 990, 1160, 1342, 1574, 1784, 2048, 2328, 2626, 2940, 3320, 3670, 4090, 4530, 4992, 5474, 6038, 6564, 7176, 7812, 8474, 9160, 9944, 10682, 11522, 12390, 13288, 14214
a(n) = 2*a(n-2) + 2*a(n-3) - a(n-4) - 4*a(n-5) - a(n-6) + 2*a(n-7) + 2*a(n-8) - a(n-10) .

[A198307] 8, 14, 50, 86, 302, 518, 1814, 3110, 10886, 18662, 65318, 111974, 391910, 671846, 2351462, 4031078, 14108774, 24186470, 84652646, 145118822, 507915878, 870712934, 3047495270, 5224277606, 18284971622, 31345665638, 109709829734, 188073993830, 658258978406
a(2*i) = 2 sum_{j=0}^{i-1}6^j = string "2"^i read in base 6.
a(2*i+1) = 6^i + 2 sum_{j=0}^{i-1}6^j = string "1"*"2"^i read in base 6.
a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) for n>5.
a(n) = 2*(6^(n/2) - 1)/5 for n>2 and even.
a(n) = (7*6^(n/2-1/2) - 2)/5 for n>2 and odd.
[A016993] 1, 8, 15, 22, 29, 36, 43, 50, 57, 64, 71, 78, 85, 92, 99, 106, 113, 120, 127, 134, 141, 148, 155, 162, 169, 176, 183, 190, 197, 204, 211, 218, 225, 232, 239, 246, 253, 260, 267, 274, 281, 288, 295, 302, 309, 316, 323, 330, 337, 344, 351, 358, 365, 372, 379
a(n) = 7*n + 1.
[A123526] 1, 1, 1, 1, 1, 1, 1, 1, 8, 15, 29, 57, 113, 225, 449, 897, 1793, 3578, 7141, 14253, 28449, 56785, 113345, 226241, 451585, 901377, 1799176, 3591211, 7168169, 14307889, 28558993, 57004641, 113783041, 227114497, 453327617, 904856058, 1806120905
a(n)=1 for 1 <= n <= 8, a(n) = a(n-1) + a(n-2) +...+ a(n-8) for n > 8.
[A083686] 8, 15, 29, 57, 113, 225, 449, 897, 1793, 3585, 7169, 14337, 28673, 57345, 114689, 229377, 458753, 917505, 1835009, 3670017, 7340033, 14680065, 29360129, 58720257, 117440513, 234881025, 469762049, 939524097, 1879048193, 3758096385, 7516192769, 15032385537
a(n) = 7*2^n + 1. - David Brotherton (dbroth01(AT)aol.com), Jul 29 2003
a(n) = 3*a(n-1) - 2*a(n-2), n>1. - Vincenzo Librandi, Nov 03 2011
[A293360] 8, 15, 30, 60, 119, 237, 473, 946, 1892, 3784, 7567, 15133, 30266, 60532, 121063, 242125, 484250, 968499, 1936997, 3873994, 7747987, 15495974, 30991948, 61983896, 123967791, 247935581, 495871161, 991742322, 1983484644, 3966969287, 7933938574, 15867877147
a(n) = ceiling(r*2^n), where r = e^2.
[A197602] 8, 15, 37, 76, 140, 234, 364, 536, 756, 1030, 1364, 1764, 2236, 2786, 3420, 4144, 4964, 5886, 6916, 8060, 9324, 10714, 12236, 13896, 15700, 17654, 19764, 22036, 24476, 27090, 29884, 32864, 36036, 39406, 42980, 46764, 50764, 54986, 59436, 64120, 69044, 74214, 79636, 85316, 91260, 97474, 103964, 110736, 117796, 125150
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>7.
[A275277] 1, 1, 1, 1, 8, 15, 43, 113, 295, 778, 2045, 5377, 14141, 37185, 97784, 257139, 676187, 1778141, 4675903, 12296026, 32334345, 85028273, 223595289, 587979169, 1546184200, 4065935847, 10692021243, 28116360553, 73936416023, 194427497258, 511277848229
a(n) = a(n-1) + 3*a(n-2) + 3*a(n-3) + a(n-4), where a(0) = a(1) = a(2) = a(3) = 1.
[A161342] 0, 1, 8, 15, 64, 71, 120, 169, 512, 519, 568, 617, 960, 1009, 1352, 1695, 4096, 4103, 4152, 4201, 4544, 4593, 4936, 5279, 7680, 7729, 8072, 8415, 10816, 11159, 13560, 15961, 32768, 32775, 32824, 32873
a(2^n) = 2^{3n}.
[A015442] 0, 1, 1, 8, 15, 71, 176, 673, 1905, 6616, 19951, 66263, 205920, 669761, 2111201, 6799528, 21577935, 69174631, 220220176, 704442593, 2245983825, 7177081976, 22898968751, 73138542583, 233431323840, 745401121921, 2379420388801
a(n) = (((1+sqrt(29))/2)^(n+1) - ((1-sqrt(29))/2)^(n+1))/sqrt(29).
a(n) = (sum{1<=k<=n, k odd}C(n,k)*29^((k-1)/2))/2^(n-1). - Vladimir Shevelev, Feb 05 2014
[A247061] 1, 8, 16, 17, 24, 32, 33, 40, 48, 49, 56, 64, 65, 72, 80, 81, 88, 96, 97, 104, 112, 113, 120, 128, 129, 136, 144, 145, 152, 160, 161, 168, 176, 177, 184, 192, 193, 200, 208, 209, 216, 224, 225, 232, 240, 241, 248, 256
a(n) = a(n-1) + a(n-3) - a(n-4). - Colin Barker, Sep 11 2014
[A022144] 1, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360
a(n) = [x^(2*n)] ((1 + x)/(1 - x))^2.
a(n) = (2n+1)^2 - (2n-1)^2. Binomial transform of [1, 7, 1, -1, 1, -1, 1,...]. - Gary W. Adamson, Dec 27 2007
a(n) = 0^n+8*n. - Vincenzo Librandi, Aug 21 2011
[A008590] 0, 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 136, 144, 152, 160, 168, 176, 184, 192, 200, 208, 216, 224, 232, 240, 248, 256, 264, 272, 280, 288, 296, 304, 312, 320, 328, 336, 344, 352, 360, 368, 376, 384, 392, 400, 408, 416, 424, 432
a(n) = (2*n+1)^2 - (2*n-1)^2. - Xavier Acloque, Oct 22 2003
a(n) = 8*n = 2*a(n-1) - a(n-2).
a(n) = Sum_{k=1..4n} (i^k + 1)*(i^(4n-k) + 1), where i=sqrt(-1). - Bruno Berselli, Mar 19 2012
a(n) = (n+2)^2 - (n-2)^2 = 4*(n+2) + 4*(n-2), as exemplified below. - Peter M. Chema, Apr 03 2016
[A186544] 8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 129, 137, 145, 153, 161, 169, 177, 185, 193, 201, 209, 217, 225, 233, 241, 249, 258, 266, 274, 282, 290, 298, 306, 314, 322, 330, 338, 346, 354, 362, 370, 378, 387, 395, 403, 411, 419, 427, 435, 443, 451, 459, 467, 475, 483, 491, 499, 507, 516, 524, 532, 540, 548, 556, 564, 572, 580, 588, 596, 604, 612, 620, 628, 636, 645
a(n)=floor((pi-2)*n/(pi-3)).
[A018922] 8, 16, 31, 60, 116, 224, 432, 833, 1606, 3096, 5968, 11504, 22175, 42744, 82392, 158816, 306128, 590081, 1137418, 2192444, 4226072, 8146016, 15701951, 30266484, 58340524, 112454976, 216763936, 417825921, 805385358, 1552430192, 2992405408, 5768046880
a(n) = 2*a(n-1) - a(n-5).
[A259751] 8, 16, 32, 40, 56, 64, 80, 88, 104, 112, 128, 136, 152, 160, 176, 184, 200, 208, 224, 232, 248, 256, 272, 280, 296, 304, 320, 328, 344, 352, 368, 376, 392, 400, 416, 424, 440, 448, 464, 472, 488, 496, 512, 520, 536, 544, 560, 568, 584, 592, 608, 616, 632
a(n) = 12*n-2*(-1)^n-6.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A139598] 0, 8, 16, 32, 48, 72, 96, 128, 160, 200, 240, 288, 336, 392, 448, 512, 576, 648, 720, 800, 880, 968, 1056, 1152, 1248, 1352, 1456, 1568, 1680, 1800, 1920, 2048, 2176, 2312, 2448, 2592, 2736, 2888, 3040, 3200, 3360, 3528, 3696, 3872
a(n) = (1-(-1)^n+4*n+2*n^2). a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: 8*x/((1-x)^3*(1+x)). [Colin Barker, Jul 22 2012]
[A137243] 8, 16, 32, 48, 80, 96, 144, 176, 224, 256, 336, 368, 464, 512, 576, 640, 768, 816, 960, 1024, 1120, 1200, 1376, 1440, 1600, 1696, 1840, 1936, 2160, 2224, 2464, 2592, 2752, 2880, 3072, 3168, 3456, 3600, 3792, 3920, 4240, 4336, 4672, 4832, 5024, 5200, 5568
a(n) = a(n-1) + 8*EulerPhi(n), with a(1)=8. - Juan M. Marquez, Apr 24 2015
[A146541] 1, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592
a(0)=1, a(n) = 2^(n+2) for n>0.
[A271994] 8, 16, 34, 52, 84, 116, 166, 216, 288, 360, 458, 556, 684, 812, 974, 1136, 1336, 1536, 1778, 2020, 2308, 2596, 2934, 3272, 3664, 4056, 4506, 4956, 5468, 5980, 6558, 7136, 7784, 8432, 9154, 9876, 10676, 11476, 12358, 13240, 14208, 15176, 16234, 17292, 18444
a(n) = 2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6) for n>7.
a(n) = (2*n^3 + 12*n^2 + 25*n + (-1)^n*3*(n + 2) - 30)/12. - Ilya Gutkovskiy, May 29 2016
[A197986] 8, 16, 37, 77, 141, 235, 364, 536, 756, 1030, 1364, 1764, 2236, 2786, 3420, 4144, 4964, 5886, 6916, 8060, 9324, 10714, 12236, 13896, 15700, 17654, 19764, 22036, 24476, 27090, 29884, 32864, 36036, 39406, 42980, 46764, 50764
a(1)= 8, a{2}=16, a(3)=37, a(4)=77, a(5)=141, a(6)=235, a(7)=364, a(8)=536, a(9)=756, a(10)=1030, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) [From Harvey P. Dale, Apr 05 2012]
[A212764] 0, 1, 8, 16, 54, 81, 192, 256, 500, 625, 1080, 1296, 2058, 2401, 3584, 4096, 5832, 6561, 9000, 10000, 13310, 14641, 19008, 20736, 26364, 28561, 35672, 38416, 47250, 50625, 61440, 65536, 78608, 83521, 99144, 104976, 123462, 130321
a(n) = a(n-1) +4*a(n-2) -4*a(n-3) -6*a(n-4) +6*a(n-5) +4*a(n-6) -4*a(n-7) -a(n-8) +a(n-9).
a(n) = (2*n^4+10*n^3+18*n^2+12*n+1+(2*n^3+6*n^2+4*n-1)*(-1)^n)/32. - Luce ETIENNE, May 12 2015
[A117868] 8, 16, 88, 160, 808, 1456, 7288, 13120, 65608, 118096, 590488, 1062880, 5314408, 9565936, 47829688, 86093440, 430467208, 774840976, 3874204888, 6973568800, 34867844008, 62762119216, 313810596088, 564859072960, 2824295364808, 5083731656656, 25418658283288
a(n) = 10*9^((n-1)/2)-2 (n odd), 2*9^(n/2)-2 (n even).
a(1)=0, a(2)=8, a(3)=16, a(n)=a(n-1)+9*a(n-2)-9*a(n-3). - Harvey P. Dale, Jul 17 2012

a(n) = 8 * 3^(n-1) + 2 * (-3)^(n-1) - 2. - Robert Israel, Apr 26 2015
[A291001] 0, 8, 16, 88, 288, 1192, 4400, 17144, 65088, 250184, 955984, 3663256, 14018400, 53679592, 205487984, 786733112, 3011882112, 11530896008, 44144966800, 169006205656, 647027178912, 2477097797416, 9483385847216, 36306456276344, 138996613483200, 532138420900808
a(n) = 2*a(n-1) + 7*a(n-2) for n >= 3.
a(n) = sqrt(2)*((1+2*sqrt(2))^n - (1-2*sqrt(2))^n). - Colin Barker, Aug 23 2017
[A041831] 1, 1, 8, 17, 25, 42, 67, 913, 2806, 6525, 15856, 85805, 101661, 187466, 851525, 8702716, 35662389, 44365105, 80027494, 444502575, 969032644, 2382567863, 8116736233, 107900138892, 116016875125, 223917014017, 339933889142, 903784792301, 6666427435249, 7570212227550
a(n) = 316141343972498*a(n-30) - a(n-60) for n>59. - Vincenzo Librandi, Dec 25 2013
[A277052] 8, 17, 26, 35, 43, 52, 61, 70, 79, 87, 96, 105, 114, 123, 131, 140, 149, 158, 166, 175, 184, 193, 202, 210, 219, 228, 237, 246, 254, 263, 272, 281, 290, 298, 307, 316, 325, 333, 342, 351, 360, 369, 377, 386, 395, 404, 413, 421, 430, 439, 448, 457, 465, 474
a(n) = n + floor(n/(2/sqrt(Pi) - 1)).
[A017257] 8, 17, 26, 35, 44, 53, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188, 197, 206, 215, 224, 233, 242, 251, 260, 269, 278, 287, 296, 305, 314, 323, 332, 341, 350, 359, 368, 377, 386, 395, 404, 413, 422, 431, 440, 449, 458, 467, 476, 485
a(n) = 18*n-a(n-1)+7. - Vincenzo Librandi, Nov 19 2010
a(0)=8, a(1)=17, a(n) = 2*a(n-1)-a(n-2). G.f.: (8+x)/(1-x)^2. - Colin Barker, Jan 24 2012
[A056121] 0, 8, 17, 27, 38, 50, 63, 77, 92, 108, 125, 143, 162, 182, 203, 225, 248, 272, 297, 323, 350, 378, 407, 437, 468, 500, 533, 567, 602, 638, 675, 713, 752, 792, 833, 875, 918, 962, 1007, 1053, 1100, 1148, 1197, 1247, 1298, 1350, 1403, 1457, 1512, 1568, 1625
a(n-15) = C(n,2) - 7*n. - Zerinvary Lajos, Nov 26 2006
a(n) = n + a(n-1) + 7 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
a(n) = 8*n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A028884] 1, 8, 17, 28, 41, 56, 73, 92, 113, 136, 161, 188, 217, 248, 281, 316, 353, 392, 433, 476, 521, 568, 617, 668, 721, 776, 833, 892, 953, 1016, 1081, 1148, 1217, 1288, 1361, 1436, 1513, 1592, 1673, 1756, 1841, 1928, 2017, 2108, 2201, 2296, 2393
a(n) = a(n-1) + 2*n + 5 (with a(0) = 1). - Vincenzo Librandi, Aug 05 2010
[A099358] 1, 8, 17, 30, 43, 61, 68, 87, 105, 106, 122, 140, 162, 184, 202, 227, 246, 273, 283, 290, 317, 339, 370, 397, 422, 459, 477, 505, 530, 539, 561, 592, 619, 644, 663, 699, 727, 752, 770, 783, 814, 841, 866, 903, 921, 958, 1001, 1028, 1059, 1072, 1099, 1124, 1161
a(n) = a(n-1) + sum of decimal digits of n^4.
a(n) = sum(k=1, n, sum(m=0, floor(log(k^4)), floor(10((k^4)/(10^(((floor(log(k^4))+1))-m)) - floor((k^4)/(10^(((floor(log(k^4))+1))-m))))))).
[A077221] 0, 1, 8, 17, 32, 49, 72, 97, 128, 161, 200, 241, 288, 337, 392, 449, 512, 577, 648, 721, 800, 881, 968, 1057, 1152, 1249, 1352, 1457, 1568, 1681, 1800, 1921, 2048, 2177, 2312, 2449, 2592, 2737, 2888, 3041, 3200, 3361, 3528, 3697, 3872, 4049, 4232
a(2n) = 8*n^2, a(2n+1) = 8*n(n+1)+1.
a(n) = 2*n^2+4*n+1 [+1 if n is odd] with a(0)=1. G.f.: x*(x^2+6*x+1)/(1-x)^3/(1+x). - Ralf Stephan, Mar 31 2003
a(n) = 2*n^2+((-1)^n-1)/2. - Omar E. Pol, Sep 28 2011
[A106648] 8, 17, 32, 53, 80, 113, 152, 197, 248, 305, 368, 437, 512, 593, 680, 773, 872, 977, 1088, 1205, 1328, 1457, 1592, 1733, 1880, 2033, 2192, 2357, 2528, 2705, 2888, 3077, 3272, 3473, 3680, 3893, 4112, 4337, 4568, 4805, 5048, 5297, 5552, 5813, 6080, 6353, 6632
a(0)=8, a(1)=17, a(2)=32, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Sep 20 2012
[A159696] 8, 17, 36, 76, 160, 336, 704, 1472, 3072, 6400, 13312, 27648, 57344, 118784, 245760, 507904, 1048576, 2162688, 4456448, 9175040, 18874368, 38797312, 79691776, 163577856, 335544320, 687865856, 1409286144, 2885681152, 5905580032
a(n)=Sum_{k=0..n} (k+8)*binomial(n,k).
a(n)=(16+n)*2^(n-1) = 4*a(n-1)-4*a(n-2). G.f.: (8-15x)/(1-2x)^2. [From R. J. Mathar, Apr 20 2009]
[A188129] 8, 17, 41, 113, 353, 1217, 4481, 17153, 67073, 265217, 1054721, 4206593, 16801793, 67158017, 268533761, 1073938433, 4295360513, 17180655617, 68721049601, 274881052673, 1099517919233, 4398059094017, 17592211210241, 70368794509313, 281475077373953, 1125900108169217, 4503600030023681, 1801439931478
72057595648540673
a(n) = 7*a(n-1)-14*a(n-2)+8*a(n-3). G.f.: -(34*x^2-39*x+8)/((x-1)*(2*x-1)*(4*x-1)). [Colin Barker, Nov 11 2012]
[A048695] 1, 8, 17, 42, 101, 244, 589, 1422, 3433, 8288, 20009, 48306, 116621, 281548, 679717, 1640982, 3961681, 9564344, 23090369, 55745082, 134580533, 324906148, 784392829, 1893691806, 4571776441, 11037244688
a(n) = 2*a(n-1) + a(n-2); a(0)=1, a(1)=8.
a(n) = ((7+sqrt(2))(1+sqrt(2))^n - (7-sqrt(2))(1-sqrt(2))^n)/2*sqrt(2).
[A153873] 8, 17, 44, 116, 305, 800, 2096, 5489, 14372, 37628, 98513, 257912, 675224, 1767761, 4628060, 12116420, 31721201, 83047184, 217420352, 569213873, 1490221268, 3901449932, 10214128529, 26740935656, 70008678440, 183285099665, 479846620556, 1256254762004, 3288917665457
a(n) = 3*a(n-1) - a(n-2) + 1.
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = 3*a(n-1) - 3*a(n-3) + a(n-4).
a(n) = -1 + (9/2)*(((3/2)+(1/2)*sqrt(5))^n + ((3/2)-(1/2)*sqrt(5))^n) + (9/10)*sqrt(5)*(((3/2)+(1/2)*sqrt(5))^n - ((3/2)-(1/2)*sqrt(5))^n), with n>=0. Paolo P. Lava, Jan 20 2009
[A171065] 0, 1, 1, 8, 17, 81, 224, 881, 2737, 9928, 32481, 113761, 380800, 1313441, 4441121, 15215688, 51677297, 176530481, 600723424, 2049428881, 6980069457, 23799693448, 81088954561, 276417142721, 941948403200, 3210574806081
a(n)= +a(n-1) +8*a(n-2) +a(n-3) -a(n-4).
a(n) = (T(n,alpha) - T(n,beta))/(alpha - beta), where alpha = (1 + sqrt(41))/4 and beta = (1 - sqrt(41))/4 and T(n,x) denotes the Chebyshev polynomial of the first kind.
a(n) = the bottom left entry of the 2 X 2 matrix T(n, M), where M is the 2 X 2 matrix [0, 5/2; 1, 1/2].
a(n) = U(n-1,i*(1 + sqrt(2))/2)*U(n-1,i*(1 + sqrt(2))/2), where U(n,x) denotes the Chebyshev polynomial of the second kind.
[A041537] 1, 1, 8, 17, 127, 144, 4735, 4879, 38888, 82655, 617473, 700128, 23021569, 23721697, 189073448, 401868593, 3002153599, 3404022192, 111930863743, 115334885935, 919275065288, 1953885016511, 14596470180865, 16550355197376, 544207836496897, 560758191694273
a(n) = 4862*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 19 2013
[A171607] 8, 18, 24, 32, 50, 64, 72, 81, 98, 128, 160, 162, 192, 200, 242, 288, 324, 338, 375, 384, 392, 450, 512, 578, 648, 722, 800, 882, 896, 968, 1024, 1029, 1058, 1152, 1215, 1250, 1352, 1458, 1536, 1568, 1682, 1800, 1922, 2048, 2178, 2187, 2312, 2450, 2500, 2592
a(n) = 2n^2 - O(n^(5/3)). - Charles R Greathouse IV, Feb 19 2017
[A017365] 8, 18, 28, 38, 48, 58, 68, 78, 88, 98, 108, 118, 128, 138, 148, 158, 168, 178, 188, 198, 208, 218, 228, 238, 248, 258, 268, 278, 288, 298, 308, 318, 328, 338, 348, 358, 368, 378, 388, 398, 408, 418, 428, 438, 448, 458, 468, 478, 488, 498, 508, 518, 528, 538
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, May 29 2011
[A028563] 0, 8, 18, 30, 44, 60, 78, 98, 120, 144, 170, 198, 228, 260, 294, 330, 368, 408, 450, 494, 540, 588, 638, 690, 744, 800, 858, 918, 980, 1044, 1110, 1178, 1248, 1320, 1394, 1470, 1548, 1628, 1710, 1794, 1880, 1968, 2058, 2150, 2244, 2340, 2438, 2538, 2640, 2744, 2850, 2958, 3068, 3180, 3294
a(n) = 2*n+a(n-1)+6. - Vincenzo Librandi, Aug 05 2010
[A134062] 1, 8, 18, 38, 78, 158, 318, 638, 1278, 2558, 5118, 10238, 20478, 40958, 81918, 163838, 327678, 655358, 1310718, 2621438, 5242878, 10485758, 20971518, 41943038, 83886078, 167772158, 335544318, 671088638, 1342177278, 2684354558, 5368709118, 10737418238
a(n) = 3*a(n-1) - 2*a(n-2) for n>2.
[A067563] 8, 18, 40, 63, 110, 156, 238, 285, 368, 522, 620, 777, 902, 1032, 1175, 1378, 1593, 1708, 2010, 2272, 2409, 2686, 2905, 3204, 3686, 3939, 4120, 4494, 4796, 5085, 5842, 6288, 6713, 6950, 7599, 7852, 8478, 8965, 9352, 9861, 10382, 10860, 11842, 12159
a(n) = prime(n) * composite(n).
[A153388] 8, 18, 48, 128, 338, 888, 2328, 6098, 15968, 41808, 109458, 286568, 750248, 1964178, 5142288, 13462688, 35245778, 92274648, 241578168, 632459858, 1655801408, 4334944368, 11349031698, 29712150728, 77787420488, 203650110738, 533162911728, 1395838624448
a(n) = 2^(-n)*(-2^(1+n)-(3-sqrt(5))^n*(-5+sqrt(5))+(3+sqrt(5))^n*(5+sqrt(5))). - Colin Barker, Nov 03 2016
[A017485] 8, 19, 30, 41, 52, 63, 74, 85, 96, 107, 118, 129, 140, 151, 162, 173, 184, 195, 206, 217, 228, 239, 250, 261, 272, 283, 294, 305, 316, 327, 338, 349, 360, 371, 382, 393, 404, 415, 426, 437, 448, 459, 470, 481, 492, 503, 514, 525, 536, 547, 558, 569, 580, 591, 602, 613

a(n) = 22*n-a(n-1)+5, with n>0, a(0)=8. - Vincenzo Librandi, Dec 24 2010
a(n) = 2*a(n-1)-a(n-2). G.f.: (3*x+8) / (x-1)^2. - Colin Barker, Oct 05 2014
[A140672] 0, 8, 19, 33, 50, 70, 93, 119, 148, 180, 215, 253, 294, 338, 385, 435, 488, 544, 603, 665, 730, 798, 869, 943, 1020, 1100, 1183, 1269, 1358, 1450, 1545, 1643, 1744, 1848, 1955, 2065, 2178, 2294, 2413, 2535, 2660, 2788, 2919, 3053
a(n) = (3*n^2 + 13*n)/2.
a(n) = 3*n + a(n-1) + 5 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=8, a(2)=19, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Dec 16 2011
[A289877] 1, 8, 19, 36, 60, 93, 136, 191, 259, 342, 441, 558, 694, 851, 1030, 1233, 1461, 1716, 1999, 2312, 2656, 3033, 3444, 3891, 4375, 4898, 5461, 6066, 6714, 7407, 8146, 8933, 9769, 10656, 11595, 12588, 13636, 14741, 15904, 17127
a(n) = (2*n*(22 - n + 2*n^2) - 95 - (-1)^n)/16.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
[A192975] 1, 1, 8, 19, 41, 78, 141, 245, 416, 695, 1149, 1886, 3081, 5017, 8152, 13227, 21441, 34734, 56245, 91053, 147376, 238511, 385973, 624574, 1010641, 1635313, 2646056, 4281475, 6927641, 11209230, 18136989, 29346341, 47483456, 76829927
a(n) = 3*a(n-1) - 2*a(n-2) - a(n-3) + a(n-4).
[A156198] 8, 19, 41, 85, 173, 349, 701, 1405, 2813, 5629, 11261, 22525, 45053, 90109, 180221, 360445, 720893, 1441789, 2883581, 5767165, 11534333, 23068669, 46137341, 92274685, 184549373, 369098749, 738197501, 1476395005, 2952790013
a(n) = 3*a(n-1)-2*a(n-2) = 11*2^(n-1)-3. [R. J. Mathar, Feb 19 2009]
[A153026] 0, 8, 19, 45, 80, 136, 207, 305, 424, 576, 755, 973, 1224, 1520, 1855, 2241, 2672, 3160, 3699, 4301, 4960, 5688, 6479, 7345, 8280, 9296, 10387, 11565, 12824, 14176, 15615, 17153, 18784, 20520, 22355, 24301, 26352, 28520, 30799, 33201, 35720, 38368
a(n)= -1/8+3*n^2/4+n^3/2+9*(-1)^n/8. (End)
[A017617] 8, 20, 32, 44, 56, 68, 80, 92, 104, 116, 128, 140, 152, 164, 176, 188, 200, 212, 224, 236, 248, 260, 272, 284, 296, 308, 320, 332, 344, 356, 368, 380, 392, 404, 416, 428, 440, 452, 464, 476, 488, 500, 512, 524, 536, 548, 560, 572, 584, 596, 608, 620, 632
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jun 08 2011
[A139570] 0, 8, 20, 36, 56, 80, 108, 140, 176, 216, 260, 308, 360, 416, 476, 540, 608, 680, 756, 836, 920, 1008, 1100, 1196, 1296, 1400, 1508, 1620, 1736, 1856, 1980, 2108, 2240, 2376, 2516, 2660, 2808, 2960, 3116, 3276, 3440, 3608, 3780
a(n) = a(n-1)+4*n+4 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
[A265207] 1, 8, 20, 36, 60, 92, 140, 204, 300, 428, 620, 876, 1260, 1772, 2540, 3564, 5100, 7148, 10220, 14316, 20460, 28652, 40940, 57324, 81900, 114668, 163820, 229356, 327660, 458732, 655340, 917484, 1310700, 1834988, 2621420, 3669996, 5242860, 7340012, 10485740, 14680044, 20971500, 29360108, 41943020, 58720236
a(0)=1,
a(1)=8,
a(2)=20, and thereafter
a(n)=2*a(n-2)+20.
a(n)=4*sum_{k=1}^{[(n+1)/2]}(2^k)+6*sum_{k=1}^{[n/2]}(2^k).
a(n) = (-20+2^(1/2*(-1+n))*(10-10*(-1)^n+7*sqrt(2)+7*(-1)^n*sqrt(2))) for n>1.
[A006416] 1, 8, 20, 38, 63, 96, 138, 190, 253, 328, 416, 518, 635, 768, 918, 1086, 1273, 1480, 1708, 1958, 2231, 2528, 2850, 3198, 3573, 3976, 4408, 4870, 5363, 5888, 6446, 7038, 7665, 8328, 9028, 9766, 10543, 11360, 12218, 13118, 14061, 15048
a(n-3) = (1/6)*n^3-(1/2)*n^2-(8/3)*n+6, n=6,7,... - Milan Janjic, Nov 09 2007
a(2)=1, a(3)=8, a(4)=20, a(5)=38, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Aug 25 2013
a(n+2) = Hyper2F1([-3, n], [1], -1). - Peter Luschny, Aug 02 2014
[A295933] 8, 20, 55, 160, 475, 1420, 4255, 12760, 38275, 114820, 344455, 1033360, 3100075, 9300220, 27900655, 83701960, 251105875, 753317620, 2259952855, 6779858560, 20339575675, 61018727020, 183056181055, 549168543160, 1647505629475, 4942516888420, 14827550665255
a(n) = 5*(3 + 7*3^(n - 1))/6 for n > 1.
a(n) = 4*a(n-1) - 3*a(n-2) for n > 1.
[A212758] 1, 8, 20, 57, 118, 172, 299, 468, 594, 865, 1196, 1424, 1893, 2440, 2800, 3521, 4338, 4860, 5887, 7028, 7742, 9129, 10648, 11584, 13385, 15336, 16524, 18793, 21230, 22700, 25491, 28468, 30250, 33617, 37188, 39312, 43309, 47528, 50024
a(n)=a(n-1)+3*a(n-3)-3*a(n-4)-3*a(n-6)+3*a(n-7)+a(n-9)-a(n-10).
[A003685] 1, 8, 20, 62, 132, 336, 688, 1578, 3190, 6902, 13878, 29038, 58238, 119518, 239390, 485822, 972414, 1960830, 3923326, 7882494, 15768574, 31616510, 63240702, 126655486, 253327358, 507033598, 1014102014, 2029023230
a(n) = 3a(n-1) + 2a(n-2) - 12a(n-3) + 4a(n-4) + 12a(n-5) - 8a(n-6), n>8.
a(2m) = 121*2^(2m-4) - 4m*2^m - 25*2^(m-2) - 2, m > 1; a(2m+1) = 121*2^(2m-3) - 31m*2^(m-2) - 23*2^(m-1) - 2, m > 0. Simpler recurrence relation: a(n) = 8a(n-2) - 20a(n-4) + 16a(n-6) + 6, n > 8. - David Bevan, Jul 21 2006
[A000567] 0, 1, 8, 21, 40, 65, 96, 133, 176, 225, 280, 341, 408, 481, 560, 645, 736, 833, 936, 1045, 1160, 1281, 1408, 1541, 1680, 1825, 1976, 2133, 2296, 2465, 2640, 2821, 3008, 3201, 3400, 3605, 3816, 4033, 4256, 4485, 4720, 4961, 5208, 5461
a(n) = n*(3*n-2).
a(n) = Sum_{k=1..n} (5*n - 4*k). - Paul Barry, Sep 06 2005
a(n) = C(n+1,2) + 5*C(n,2).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(0)=0, a(1)=1, a(2)=8. - Jaume Oliver Lafont, Dec 02 2008
a(n) = a(n-1) + 6*n - 5 (with a(0)=0). - Vincenzo Librandi, Nov 20 2010
a(n) = 2*a(n-1) - a(n-2) + 6. - Ant King, Sep 01 2011
[A137742] 1, 8, 21, 40, 66, 100, 143, 196, 260, 336, 425, 528, 646, 780, 931, 1100, 1288, 1496, 1725, 1976, 2250, 2548, 2871, 3220, 3596, 4000, 4433, 4896, 5390, 5916, 6475, 7068, 7696, 8360, 9061, 9800, 10578, 11396, 12255, 13156, 14100, 15088, 16121, 17200, 18326, 19500
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A275874] 0, 8, 21, 40, 66, 100, 143, 196, 260, 336, 425, 528, 646, 780, 931, 1100, 1288, 1496, 1725, 1976, 2250, 2548, 2871, 3220, 3596, 4000, 4433, 4896, 5390, 5916, 6475, 7068, 7696, 8360, 9061, 9800, 10578, 11396, 12255, 13156, 14100, 15088, 16121, 17200, 18326, 19500, 20723, 21996
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>7.
[A180672] 0, 8, 21, 42, 76, 131, 220, 364, 597, 974, 1584, 2571, 4168, 6752, 10933, 17698, 28644, 46355, 75012, 121380, 196405, 317798, 514216, 832027, 1346256, 2178296, 3524565, 5702874, 9227452, 14930339, 24157804, 39088156, 63245973
a(n) = a(n-1) + a(n-2) + 13 for n>1, a(0)=0, a(1)=8, and where 13 = F(7).
a(n) = (-13 + (2^(-1-n)*((1-sqrt(5))^n*(-29+13*sqrt(5)) + (1+sqrt(5))^n*(29+13*sqrt(5)))) / sqrt(5)).
a(n) = 2*a(n-1) - a(n-3) for n>2.
[A138179] 1, 8, 21, 48, 85, 144, 217, 320, 441, 600, 781, 1008, 1261, 1568, 1905, 2304, 2737, 3240, 3781, 4400, 5061, 5808, 6601, 7488, 8425, 9464, 10557, 11760, 13021, 14400, 15841, 17408, 19041, 20808, 22645, 24624, 26677, 28880, 31161, 33600, 36121, 38808
a(2n+1) = (2n+1)(2n^2+4*n+1); a(2n)=4n^2*(n+1).
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6).
[A067334] 8, 21, 50, 105, 210, 404, 758, 1395, 2530, 4535, 8052, 14184, 24820, 43185, 74770, 128901, 221382, 378940, 646690, 1100655, 1868738, 3165811, 5352360, 9032400, 15216800, 25595469, 42990578, 72110625
a(0)=8, a(1)=21, a(2)=50, a(3)=105, a(n)=2*a(n-1)+a(n-2)-2*a(n-3)- a(n-4) [From Harvey P. Dale, Apr 07 2012]
[A227653] 8, 21, 54, 138, 352, 897, 2285, 5820, 14823, 37752, 96148, 244872, 623645, 1588311, 4045140, 10302237, 26237926, 66823230, 170186624, 433434405, 1103878665, 2811378360, 7160069791, 18235396608, 46442241368, 118279949136, 301237536249, 767197263003
a(n) = 3*a(n-1) - a(n-2) - a(n-4) (conjectured).G.f.: (8 - 3 x - x^2 - 3 x^3)/(1 - 3 x + x^2 + x^4) (conjectured).
[A080144] 0, 8, 21, 63, 165, 440, 1152, 3024, 7917, 20735, 54285, 142128, 372096, 974168, 2550405, 6677055, 17480757, 45765224, 119814912, 313679520, 821223645, 2149991423, 5628750621, 14736260448, 38580030720, 101003831720
a(n) = (2*Lucas(2*n + 6) + 11*(-1)^(n+1) - 25)/10. - Ehren Metcalfe, Aug 21 2017

[A156304] 1, 1, 8, 21, 77, 199, 661, 1663, 4852, 12382, 33289, 82877, 213026, 518109, 1279852, 3053404, 7312985, 17093793, 39952528, 91661695, 209709116, 473095589, 1062567288, 2359804486, 5214774263, 11415904502, 24860918943, 53709881911
a(n) = (1/n)*Sum_{k=1..n} sigma(k^3) * a(n-k) for n>0, with a(0)=1.
[A069099] 1, 8, 22, 43, 71, 106, 148, 197, 253, 316, 386, 463, 547, 638, 736, 841, 953, 1072, 1198, 1331, 1471, 1618, 1772, 1933, 2101, 2276, 2458, 2647, 2843, 3046, 3256, 3473, 3697, 3928, 4166, 4411, 4663, 4922, 5188, 5461, 5741, 6028, 6322, 6623, 6931, 7246
a(n) = (7*n^2 - 7*n + 2)/2.
a(n) = 1 + Sum_{k=1..n} 7*k. - Xavier Acloque, Oct 26 2003
a(n) = 7*n+a(n-1)-7 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=8, a(2)=22, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 04 2011
a(n) = 2*a(n-1) - a(n-2) + 7. - Ant King, Jun 17 2012
a(n) == 1 (mod 7) for all n.
[A048489] 1, 8, 22, 50, 106, 218, 442, 890, 1786, 3578, 7162, 14330, 28666, 57338, 114682, 229370, 458746, 917498, 1835002, 3670010, 7340026, 14680058, 29360122, 58720250, 117440506, 234881018, 469762042, 939524090, 1879048186
a(n) = 2*a(n-1)+6 with n>0, a(0)=1. [Vincenzo Librandi, Aug 06 2010]
[A199110] 8, 22, 64, 190, 568, 1702, 5104, 15310, 45928, 137782, 413344, 1240030, 3720088, 11160262, 33480784, 100442350, 301327048, 903981142, 2711943424, 8135830270, 24407490808, 73222472422, 219667417264, 659002251790, 1977006755368, 5931020266102
a(n) = 3*a(n-1)-2.
a(n) = 4*a(n-1)-3*a(n-2).
[A164131] 8, 23, 39, 54, 70, 85, 101, 116, 132, 147, 163, 178, 194, 209, 225, 240, 256, 271, 287, 302, 318, 333, 349, 364, 380, 395, 411, 426, 442, 457, 473, 488, 504, 519, 535, 550, 566, 581, 597, 612, 628, 643, 659, 674, 690, 705, 721, 736, 752, 767, 783, 798, 814
a(n) = a(n-1)+a(n-2)-a(n-3).
a(n) = (31+(-1)^(n-1)+62(n-1))/4.
a(n) = 31*(n-1)-a(n-1) with n>1, a(1)=8. - Vincenzo Librandi, Nov 30 2010
[A033951] 1, 8, 23, 46, 77, 116, 163, 218, 281, 352, 431, 518, 613, 716, 827, 946, 1073, 1208, 1351, 1502, 1661, 1828, 2003, 2186, 2377, 2576, 2783, 2998, 3221, 3452, 3691, 3938, 4193, 4456, 4727, 5006, 5293, 5588, 5891, 6202, 6521, 6848, 7183, 7526, 7877, 8236
a(n) = 4*n^2 + 3*n + 1.
a(n) = a(n-1) + 8*n-1 (with a(0)=1). - Vincenzo Librandi, Nov 17 2010
a(0)=1, a(1)=8, a(2)=23, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Feb 07 2015
[A027054] 1, 8, 23, 52, 107, 210, 401, 754, 1405, 2604, 4811, 8872, 16343, 30086, 55365, 101862, 187385, 344688, 634015, 1166172, 2144963, 3945242, 7256473, 13346778, 24548597, 45151956, 83047443, 152748112, 280947631, 516743310
a(n) = 3*a(n-1)-2*a(n-2)-a(n-4)+a(n-5) for n>6.
[A048467] 1, 8, 23, 55, 123, 267, 571, 1211, 2555, 5371, 11259, 23547, 49147, 102395, 212987, 442363, 917499, 1900539, 3932155, 8126459, 16777211, 34603003, 71303163, 146800635, 301989883, 620756987, 1275068411, 2617245691
a(0)=1, a(1)=8, a(2)=23, a(n)=5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale, Jul 07 2011
a(n) = 2^(n-1)*(n+12)-5. - Vincenzo Librandi, Sep 2011
[A048770] 1, 8, 23, 60, 149, 364, 883, 2136, 5161, 12464, 30095, 72660, 175421, 423508, 1022443, 2468400, 5959249, 14386904, 34733063, 83853036, 202439141, 488731324, 1179901795, 2848534920, 6876971641, 16602478208, 40081928063
a(n) = ((7+4*sqrt(2))*(1+sqrt(2))^n-(7-4*sqrt(2))*(1-sqrt(2))^n)/(2*sqrt(2))-3.
a(n) = 2*a(n-1)+a(n-2)+6 with n>1, a(0)=1, a(1)=8.
a(n) = 3*a(n-1)-a(n-2)-a(n-3). G.f.: (1+5*x)/((1-x)*(1-2*x-x^2)). - Colin Barker, Jun 23 2012
[A055273] 1, 8, 23, 61, 160, 419, 1097, 2872, 7519, 19685, 51536, 134923, 353233, 924776, 2421095, 6338509, 16594432, 43444787, 113739929, 297775000, 779585071, 2040980213, 5343355568, 13989086491, 36623903905, 95882625224
a(n) = (8*(((3+sqrt(5))/2)^n - ((3-sqrt(5))/2)^n) - (((3+sqrt(5))/2)^(n-1) - ((3-sqrt(5))/2)^(n-1)))/sqrt(5).
[A140403] 0, 0, 0, 0, 8, 24, 32, 56, 72, 96, 128, 160, 192, 232, 272, 320, 368, 424, 472, 536, 600, 664, 736, 808, 880, 968, 1048, 1136, 1224, 1320, 1416, 1520, 1624, 1728, 1840, 1960, 2072, 2200, 2320, 2448, 2584, 2720, 2856, 3000, 3144, 3296, 3448, 3608, 3760, 3928, 4096
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=8, a(5)=24, a(6)=32, a(7)=56, a(8)=72, a(9)=96, a(n)=a(n-2)+a(n-3)-a(n-7)-a(n-8)+a(n-10) [From Harvey P. Dale, Mar 22 2012]
[A051062] 8, 24, 40, 56, 72, 88, 104, 120, 136, 152, 168, 184, 200, 216, 232, 248, 264, 280, 296, 312, 328, 344, 360, 376, 392, 408, 424, 440, 456, 472, 488, 504, 520, 536, 552, 568, 584, 600, 616, 632, 648, 664, 680, 696, 712, 728, 744, 760, 776, 792, 808, 824, 840
a(n) = 32*n-a(n-1), (with a(0)=8). - Vincenzo Librandi, Aug 06 2010
a(-1 - n) = - a(n). - Michael Somos, Jun 02 2014
[A033996] 0, 8, 24, 48, 80, 120, 168, 224, 288, 360, 440, 528, 624, 728, 840, 960, 1088, 1224, 1368, 1520, 1680, 1848, 2024, 2208, 2400, 2600, 2808, 3024, 3248, 3480, 3720, 3968, 4224, 4488, 4760, 5040, 5328, 5624, 5928, 6240, 6560, 6888, 7224, 7568, 7920, 8280
a(n) = 4*n^2 + 4*n = (2*n+1)^2 - 1.
a(n) = a(n-1)+8*n (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Wesley Ivan Hurt, Mar 25 2015
[A064225] 1, 8, 24, 49, 83, 126, 178, 239, 309, 388, 476, 573, 679, 794, 918, 1051, 1193, 1344, 1504, 1673, 1851, 2038, 2234, 2439, 2653, 2876, 3108, 3349, 3599, 3858, 4126, 4403, 4689, 4984, 5288, 5601, 5923, 6254, 6594, 6943, 7301, 7668, 8044, 8429, 8823, 9226
a(n) = 9*n+a(n-1)-2, with n>0, a(0) = 1. - Vincenzo Librandi, Aug 07 2010
a(0)=1, a(1)=8, a(2)=24, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Sep 13 2011
[A054275] 1, 8, 24, 52, 90, 140, 200, 272, 354, 448, 552, 668, 794, 932, 1080, 1240, 1410, 1592, 1784, 1988, 2202, 2428, 2664, 2912, 3170, 3440, 3720, 4012, 4314, 4628, 4952, 5288, 5634, 5992, 6360, 6740, 7130, 7532, 7944, 8368, 8802, 9248, 9704, 10172, 10650, 11140
a(n) = (11*n^2+4)/2 for n>0 and even.
a(n) = (11*n^2+5)/2 for n odd.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n>4.
[A256857] 0, 1, 8, 24, 52, 95, 156, 238, 344, 477, 640, 836, 1068, 1339, 1652, 2010, 2416, 2873, 3384, 3952, 4580, 5271, 6028, 6854, 7752, 8725, 9776, 10908, 12124, 13427, 14820, 16306, 17888, 19569, 21352, 23240, 25236, 27343, 29564, 31902, 34360
a(n) = Sum_{i=1..n} (n-i-1) mod (n+1). - Wesley Ivan Hurt, Sep 15 2017
[A212972] 1, 8, 24, 53, 100, 168, 261, 384, 540, 733, 968, 1248, 1577, 1960, 2400, 2901, 3468, 4104, 4813, 5600, 6468, 7421, 8464, 9600, 10833, 12168, 13608, 15157, 16820, 18600, 20501, 22528, 24684, 26973, 29400, 31968, 34681, 37544, 40560, 43733
a(n) = 3*a(n-1)-3*a(n-2)+2*a(n-3)-3*a(n-4)+3*a(n-5)-a(n-6).
[A152134] 8, 24, 54, 102, 174, 270, 396, 556, 756, 996, 1282, 1618, 2010, 2458, 2968, 3544, 4192, 4912, 5710, 6590, 7558, 8614, 9764, 11012, 12364, 13820, 15386, 17066, 18866, 20786, 22832, 25008, 27320, 29768, 32358, 35094, 37982, 41022, 44220, 47580
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-4) - 3*a(n-5) + 3*a(n-6) - a(n-7). - Vincenzo Librandi, Dec 19 2012
[A011925] 0, 0, 0, 0, 1, 8, 24, 56, 112, 201, 336, 528, 792, 1144, 1601, 2184, 2912, 3808, 4896, 6201, 7752, 9576, 11704, 14168, 17001, 20240, 23920, 28080, 32760, 38001, 43848, 50344, 57536, 65472, 74201, 83776
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-5) -4*a(n-6) +6*a(n-7) -4*a(n-8) +a(n-9). G.f.: x^4*(x^4+4*x^3-2*x^2+4*x+1) / ((1-x)^5*(x^4+x^3+x^2+x+1)). [R. J. Mathar, Apr 15 2010]
[A159741] 8, 24, 56, 120, 248, 504, 1016, 2040, 4088, 8184, 16376, 32760, 65528, 131064, 262136, 524280, 1048568, 2097144, 4194296, 8388600, 16777208, 33554424, 67108856, 134217720, 268435448, 536870904, 1073741816, 2147483640
a(n)=3*a(n-1)-2*a(n-2) = 8*(2^n-1). G.f.: 8*x/((2*x-1)*(x-1)). - R. J. Mathar, Apr 22 2009
a(n) = sum (i=3,n+2, 2^i) = sum (i=1,n, 2^(i+2)). a(n) = a(n-1) + 2^(n+2) for n >= 2. - Jaroslav Krizek, Jun 18 2009
[A129959] 1, 1, 8, 24, 59, 115, 202, 322, 485, 693, 956, 1276, 1663, 2119, 2654, 3270, 3977, 4777, 5680, 6688, 7811, 9051, 10418, 11914, 13549, 15325, 17252, 19332, 21575, 23983, 26566, 29326, 32273, 35409, 38744, 42280, 46027, 49987, 54170, 58578, 63221

a(n) = (1+(-1)^n+n-n^2+2*n^3)/2. G.f.: (1-2*x+7*x^2+4*x^3+2*x^4)/((1-x)^4*(1+x)). [Colin Barker, Sep 10 2012]
[A083583] 1, 8, 24, 72, 216, 648, 1944, 5832, 17496, 52488, 157464, 472392, 1417176, 4251528, 12754584, 38263752, 114791256, 344373768, 1033121304, 3099363912, 9298091736, 27894275208, 83682825624, 251048476872, 753145430616, 2259436291848
a(n)=(8*3^n-5*(0)^n)/3.
[A005051] 8, 24, 72, 216, 648, 1944, 5832, 17496, 52488, 157464, 472392, 1417176, 4251528, 12754584, 38263752, 114791256, 344373768, 1033121304, 3099363912, 9298091736, 27894275208, 83682825624, 251048476872, 753145430616, 2259436291848, 6778308875544, 20334926626632
a(n) = 3*a(n-1). G.f.: 8/(1-3*x). - Colin Barker, Jul 02 2012
[A063515] 1, 8, 24, 104, 216, 384, 1080, 2160, 4896, 13656, 32552, 51312, 137160, 287408, 573600, 1999872, 3034368, 4778400, 11098080, 20984560, 49533120, 137218560, 294000768, 417361152, 958698064, 1755253280, 4362821232, 10552800000
a(n) = sigma(n*2^n-1).
[A246030] 1, 8, 24, 112, 416, 1728, 6784, 27392, 109056, 437248, 1746944, 6991872, 27959296, 111853568, 447381504, 1789591552, 7158235136, 28633202688, 114532286464, 458130194432, 1832518680576, 7330078916608, 29320307277824, 117281245888512, 469124949999616, 1876499867107328, 7505999334211584
a(0)=1, a(1)=8; thereafter a(n)=2*a(n-1)+8*a(n-2).
[A279483] 0, 0, 0, 8, 24, 144, 240, 672, 960, 2000, 2640, 4680, 5880, 9408, 11424, 17024, 20160, 28512, 33120, 45000, 51480, 67760, 76560, 98208, 109824, 137904, 152880, 188552, 207480, 252000, 275520, 330240, 359040, 425408, 460224, 539784, 581400, 675792, 725040, 836000, 893760, 1023120, 1090320, 1240008
a(n) = (3*n^4 - 8*n^3 - 12*n^2 + 32*n)/8 for n even.
a(n) = (3*n^4 - 4*n^3 - 10*n^2 + 4*n + 7)/8 for n odd.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n>8.
[A273743] 1, 8, 25, 49, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>4.
[A204467] 1, 8, 25, 50, 85, 128, 181, 242, 313, 392, 481, 578, 685, 800, 925, 1058, 1201, 1352, 1513, 1682, 1861, 2048, 2245, 2450, 2665, 2888, 3121, 3362, 3613, 3872, 4141, 4418, 4705, 5000, 5305, 5618, 5941, 6272, 6613, 6962, 7321, 7688, 8065, 8450, 8845, 9248, 9661
a(n) = 1+floor((3+9/2*n)*n).
a(n) = (6*n*(3*n+2)+(-1)^n+3)/4. - Bruno Berselli, Jan 17 2012
a(0)=1, a(1)=8, a(2)=25, a(3)=50, a(n)=2*a(n-1)-2*a(n-3)+a(n-4). - Harvey P. Dale, May 25 2015
[A062728] 0, 8, 25, 51, 86, 130, 183, 245, 316, 396, 485, 583, 690, 806, 931, 1065, 1208, 1360, 1521, 1691, 1870, 2058, 2255, 2461, 2676, 2900, 3133, 3375, 3626, 3886, 4155, 4433, 4720, 5016, 5321, 5635, 5958, 6290, 6631, 6981, 7340, 7708, 8085, 8471, 8866, 9270
a(n) = n*(9n+7)/2.
a(n) = 9*n + a(n-1) - 1 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
[A273982] 1, 8, 25, 52, 89, 136, 193, 260, 337, 424, 521, 628, 745, 872, 1009, 1156, 1313, 1480, 1657, 1844, 2041, 2248, 2465, 2692, 2929, 3176, 3433, 3700, 3977, 4264, 4561, 4868, 5185, 5512, 5849, 6196, 6553, 6920, 7297, 7684, 8081, 8488, 8905, 9332, 9769, 10216
a(n) = 5*n^2 - 8*n + 4.
a(n) = n^3 - (n-2)^3 - (n-2)^2. - Joerg Arndt, Jun 06 2016
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 3. - Wesley Ivan Hurt, Oct 06 2017
[A131423] 1, 8, 25, 56, 105, 176, 273, 400, 561, 760, 1001, 1288, 1625, 2016, 2465, 2976, 3553, 4200, 4921, 5720, 6601, 7568, 8625, 9776, 11025, 12376, 13833, 15400, 17081, 18880, 20801, 22848, 25025, 27336, 29785, 32376, 35113, 38000, 41041, 44240, 47601, 51128
a(n) = n*(n+2)*(2*n-1)/3. - Emeric Deutsch, Sep 06 2008
a(n) = a(n-1) + 2*n^2 - 1.
a(1)=0, a(2)=1, a(3)=8, a(4)=25; for n>4, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Feb 03 2012
[A270867] 1, 8, 25, 58, 113, 196, 313, 470, 673, 928, 1241, 1618, 2065, 2588, 3193, 3886, 4673, 5560, 6553, 7658, 8881, 10228, 11705, 13318, 15073, 16976, 19033, 21250, 23633, 26188, 28921, 31838, 34945, 38248, 41753, 45466, 49393, 53540, 57913, 62518, 67361, 72448
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A011924] 0, 0, 0, 0, 1, 8, 25, 60, 120, 216, 360, 565, 848, 1225, 1716, 2340, 3120, 4080, 5245, 6644, 8305, 10260, 12540, 15180, 18216, 21685, 25628, 30085, 35100, 40716, 46980, 53940, 61645, 70148, 79501, 89760
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) +a(n-7) -4*a(n-8) +6*a(n-9) -4*a(n-10) +a(n-11). G.f.: x^4*(x^6+4*x^5-x^4+4*x^3-x^2+4*x+1) / ((1-x)^5*(x^6+x^5+x^4+x^3+x^2+x+1)). - R. J. Mathar, Apr 15 2010
[A169831] 1, 8, 25, 62, 139, 296, 613, 1250, 2527, 5084, 10201, 20438, 40915, 81872, 163789, 327626, 655303, 1310660, 2621377, 5242814, 10485691, 20971448, 41942965, 83886002, 167772079, 335544236, 671088553, 1342177190, 2684354467, 5368709024, 10737418141, 21474836378
a(n) - 4*a(n-1) + 5*a(n-2) - 2*a(n-3) = 0, with n>2. (End)
a(n) = 2*a(n-1)+3(n+1) with a(0)=1. [Vincenzo Librandi, Jun 03 2010]
[A295911] 8, 25, 76, 229, 688, 2065, 6196, 18589, 55768, 167305, 501916, 1505749, 4517248, 13551745, 40655236, 121965709, 365897128, 1097691385, 3293074156, 9879222469, 29637667408, 88913002225, 266739006676, 800217020029, 2400651060088, 7201953180265
a(n) = (17*3^n - 3)/6.
a(n) = 4*a(n-1) - 3*a(n-2).
[A005897] 1, 8, 26, 56, 98, 152, 218, 296, 386, 488, 602, 728, 866, 1016, 1178, 1352, 1538, 1736, 1946, 2168, 2402, 2648, 2906, 3176, 3458, 3752, 4058, 4376, 4706, 5048, 5402, 5768, 6146, 6536, 6938, 7352, 7778, 8216, 8666, 9128, 9602, 10088, 10586
a(0) = 1, a(n) = (n+1)^3 - (n-1)^3. - Ilya Nikulshin (ilyanik(AT)gmail.com), Aug 11 2009
a(0)=1, a(1)=8, a(2)=26, a(3)=56; for n>3, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 25 2011
[A215097] 0, 1, 8, 26, 56, 99, 160, 244, 352, 485, 648, 846, 1080, 1351, 1664, 2024, 2432, 2889, 3400, 3970, 4600, 5291, 6048, 6876, 7776, 8749, 9800, 10934, 12152, 13455, 14848, 16336, 17920, 19601, 21384, 23274, 25272, 27379, 29600, 31940, 34400, 36981, 39688, 42526
a(n) = (n*(n^2-3)-(1-(-1)^n)*i^(n+1))/2, where i=sqrt(-1). - Bruno Berselli, Aug 07 2012
[A111694] 0, 8, 26, 57, 104, 170, 258, 371, 512, 684, 890, 1133, 1416, 1742, 2114, 2535, 3008, 3536, 4122, 4769, 5480, 6258, 7106, 8027, 9024, 10100, 11258, 12501, 13832, 15254, 16770, 18383, 20096, 21912, 23834, 25865, 28008, 30266, 32642, 35139, 37760
a(n) = (n-1)*(n^2 + 5*n + 2)/2.
[A129111] 8, 26, 59, 107, 170, 248, 341, 449, 572, 710, 863, 1031, 1214, 1412, 1625, 1853, 2096, 2354, 2627, 2915, 3218, 3536, 3869, 4217, 4580, 4958, 5351, 5759, 6182, 6620, 7073, 7541, 8024, 8522, 9035, 9563, 10106, 10664, 11237, 11825, 12428, 13046, 13679
a(n) = (15/2)*n^2 + (21/2)*n + 8.
[A002413] 0, 1, 8, 26, 60, 115, 196, 308, 456, 645, 880, 1166, 1508, 1911, 2380, 2920, 3536, 4233, 5016, 5890, 6860, 7931, 9108, 10396, 11800, 13325, 14976, 16758, 18676, 20735, 22940, 25296, 27808, 30481, 33320, 36330, 39516, 42883, 46436, 50180, 54120
a(n) = n*(n + 1)*(5*n - 2)/6.
a(n) = a(n - 1) + n*(5*n - 3)/2.
a(n) = 3*a(n - 1) - 3*a(n - 2) + a(n - 3) + 5.
a(n) = 4*a(n - 1) - 6*a(n - 2) + 4*a(n - 3) - a(n - 4)
a(n) = binomial(n + 2, 3) + 4*binomial(n + 1, 3) = (5*n - 2) * binomial(n + 1, 2)/3.
a(n) = Sum_{i=0..n-1} (n-i)*(5*i+1), with a(0)=0. - Bruno Berselli, Feb 10 2014
[A218325] 8, 26, 60, 196, 308, 456, 880, 1166, 1508, 2380, 2920, 3536, 5016, 5890, 6860, 9108, 10396, 11800, 14976, 16758, 18676, 22940, 25296, 27808, 33320, 36330, 39516, 46436, 50180, 54120, 62608, 67166, 71940, 82156, 87608, 93296, 105400, 111826, 118508, 132660
a(n) = a(n-1) + 3*a(n-3) - 3*a(n-4) - 3*a(n-6) + 3*a(n-7) + a(n-9) - a(n-10).
a(n) = 3*a(n-3) - 3*a(n-6) + a(n-9) + 320.
a(n) = (phi(n)+3)*(phi(n)+12)(5*phi(n)-3)/4374, where phi(n) = 12*n - 3*cos(2*n*pi/3) + sqrt(3)*sin(2*n*pi/3).
[A213039] 0, 1, 8, 26, 63, 124, 208, 335, 504, 702, 973, 1304, 1664, 2133, 2680, 3250, 3971, 4788, 5616, 6643, 7784, 8918, 10305, 11824, 13312, 15113, 17064, 18954, 21223, 23660, 26000, 28791, 31768, 34606, 37973, 41544, 44928, 48925, 53144, 57122
a(n) = a(n-1)+3*a(n-3)-3*a(n-4)-3*a(n-6)+3*a(n-7)+a(n-9)-a(n-10).

[A213769] 1, 8, 26, 63, 136, 272, 521, 968, 1762, 3159, 5600, 9840, 17169, 29784, 51418, 88399, 151432, 258592, 440345, 747960, 1267586, 2143783, 3618816, 6098208, 10260001, 17236712, 28918106, 48454623, 81093832, 135569264, 226404905
a(n) = 4*a(n-1) - 4*a(n-2) - 2*a(n-3) + 4*a(n-4) - a(n-6).
[A027004] 1, 8, 26, 73, 196, 518, 1361, 3568, 9346, 24473, 64076, 167758, 439201, 1149848, 3010346, 7881193, 20633236, 54018518, 141422321, 370248448, 969323026, 2537720633, 6643838876, 17393795998, 45537549121, 119218851368, 312119004986, 817138163593, 2139295485796
a(n) = Fibonacci(2*n+3) + 2*Fibonacci(2*n+2) - 3.
a(n) = 2^(-n)*(-3*2^n-(3-sqrt(5))^n*(-2+sqrt(5))+(2+sqrt(5))*(3+sqrt(5))^n).
a(n) = 4*a(n-1)-4*a(n-2)+a(n-3) for n>2.
[A086213] 1, 8, 27, 36, 71, 134, 241, 446, 821, 1508, 2775, 5104, 9387, 17266, 31757, 58410, 107433, 197600, 363443, 668476, 1229519, 2261438, 4159433, 7650390, 14071261, 25881084, 47602735, 87555080, 161038899, 296196714, 544790693, 1002026306
a(n) = a(n-1) + a(n-2) + a(n-3).
[A144619] 8, 27, 46, 65, 84, 103, 122, 141, 160, 179, 198, 217, 236, 255, 274, 293, 312, 331, 350, 369, 388, 407, 426, 445, 464, 483, 502, 521, 540, 559, 578, 597, 616, 635, 654, 673, 692, 711, 730, 749, 768, 787, 806, 825, 844, 863, 882, 901, 920, 939, 958, 977, 996
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, May 14 2012
[A213488] 0, 1, 8, 27, 61, 113, 189, 295, 434, 609, 826, 1091, 1407, 1777, 2207, 2703, 3268, 3905, 4620, 5419, 6305, 7281, 8353, 9527, 10806, 12193, 13694, 15315, 17059, 18929, 20931, 23071, 25352, 27777, 30352, 33083, 35973, 39025, 42245, 45639
a(n) = 4*a(n-1)-7*a(n-2)+8*a(n-3)-7*a(n-4)+4*a(n-5)-a(n-6).
[A151675] 8, 27, 63, 122, 210, 333, 497, 708, 972, 1295, 1683, 2142, 2678, 3297, 4005, 4808, 5712, 6723, 7847, 9090, 10458, 11957, 13593, 15372, 17300, 19383, 21627, 24038, 26622, 29385, 32333, 35472, 38808, 42347, 46095, 50058, 54242, 58653, 63297
a(n)=n*(2*n^2+5*n+9)/2 = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: x*(8-5*x+3*x^2)/(x-1)^4. [From R. J. Mathar, May 31 2009]
[A093322] 1, 8, 27, 64, 100, 199, 390, 753, 1442, 2784, 5369, 10348, 19943, 38444, 74104, 142839, 275330, 530717, 1022990, 1971876, 3800913, 7326496, 14122275, 27221560, 52471244, 101141575, 194956654, 375791033, 724360506, 1396249768, 2691357961
a(n) = a(n-1) + a(n-2) + a(n-3) + a(n-4).
[A213491] 1, 8, 27, 64, 125, 204, 305, 420, 569, 714, 909, 1096, 1327, 1550, 1833, 2086, 2411, 2706, 3071, 3402, 3815, 4176, 4635, 5038, 5533, 5972, 6519, 6988, 7577, 8088, 8717, 9264, 9941, 10518, 11241, 11860, 12619, 13274, 14085, 14770, 15623
a(n) = a(n-2)+a(n-3)+a(n-4)-a(n-5)-a(n-6)-a(n-7)+a(n-9).
[A254521] 1, 8, 27, 64, 125, 216, 343, 504, 729, 1000, 1331, 1728, 2197, 2744, 3375, 4032, 4913, 5832, 6859, 8000, 9261, 10648, 12167, 13608, 15625, 17576, 19656, 21952, 24389, 27000, 29791, 32256, 35937, 39304, 42875, 46656, 50653, 54872, 59319
a(n) = n^3 * Sum_{d^3 | n} (moebius(d) / d^6).
[A000578] 0, 1, 8, 27, 64, 125, 216, 343, 512, 729, 1000, 1331, 1728, 2197, 2744, 3375, 4096, 4913, 5832, 6859, 8000, 9261, 10648, 12167, 13824, 15625, 17576, 19683, 21952, 24389, 27000, 29791, 32768, 35937, 39304, 42875, 46656, 50653, 54872, 59319, 64000
a(n) = binomial(n+2,3) + 4*binomial(n+1,3) + binomial(n,3).
a(n) = 1 + 7(n-1) + 6(n-1)(n-2) + (n-1)(n-2)(n-3). - Antonio Alberto Olivares, Apr 03 2013
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3)+6. - Ant King Apr 29 2013
a(k) = det(S(4,k,(1,1,-1))) = k*b(k)^2, where b(1)=1, b(2)=2, b(k) = 2*b(k-1) - b(k-2) = b(2)*b(k-1) - b(k-2). - Ryan Stees, Dec 14 2014
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Jon Tavasanis, Feb 21 2016
a(n) = n + Sum_{j=0..n-1} Sum_{k=1..2} binomial(3,k)*j^(3-k). - Patrick J. McNab, Mar 28 2016
[A212745] 1, 8, 27, 83, 162, 277, 495, 730, 1025, 1513, 1988, 2547, 3413, 4212, 5119, 6471, 7678, 9017, 10963, 12662, 14517, 17165, 19440, 21895, 25353, 28288, 31427, 35803, 39482, 43389, 48791, 53298, 58057, 64593, 70012, 75707, 83485, 89900
a(n)=a(n-1)+3*a(n-3)-3*a(n-4)-3*a(n-6)+3*a(n-7)+a(n-9)-a(n-10).
[A166867] 0, 1, 8, 27, 84, 237, 644, 1695, 4376, 11129, 28000, 69859, 173180, 427141, 1049308, 2569447, 6275584, 15295377, 37215864, 90426155, 219466276, 532154909, 1289368500, 3122076719, 7555891560, 18278599081, 44202568208, 106862692467
a(n) = 3*a(n-1) + a(n-2) - 5*a(n-3) - 2*a(n-4). - G. C. Greubel, May 25 2016
[A056570] 0, 1, 1, 8, 27, 125, 512, 2197, 9261, 39304, 166375, 704969, 2985984, 12649337, 53582633, 226981000, 961504803, 4073003173, 17253512704, 73087061741, 309601747125, 1311494070536, 5555577996431, 23533806109393, 99690802348032, 422297015640625
a(n) = (Fibonacci(3n) - 3(-1)^n*Fibonacci(n))/5. - Ralf Stephan, May 14 2004
a(n) = F(n-2)*F(n+1)^2 + F(n-1)*(-1)^n. - J. M. Bergot, Mar 17 2016
a(n) = ((-3*(1/2*(-1-sqrt(5)))^n-(2-sqrt(5))^n+3*(1/2*(-1+sqrt(5)))^n+(2+sqrt(5))^n)) / (5*sqrt(5)). - Colin Barker, Jun 04 2016
[A033580] 0, 8, 28, 60, 104, 160, 228, 308, 400, 504, 620, 748, 888, 1040, 1204, 1380, 1568, 1768, 1980, 2204, 2440, 2688, 2948, 3220, 3504, 3800, 4108, 4428, 4760, 5104, 5460, 5828, 6208, 6600, 7004, 7420, 7848
a(n) = 12*n+a(n-1)-4 (with a(0)=0). - Vincenzo Librandi, Aug 05 2010
[A212515] 0, 0, 0, 8, 28, 63, 150, 280, 468, 780, 1200, 1728, 2508, 3458, 4620, 6160, 8000, 10125, 12852, 15960, 19530, 23870, 28798, 34272, 40848, 48100, 56160, 65520, 75852, 87075, 100050, 114080, 129360, 146608, 165308, 185328, 207900, 231990, 257868, 286520
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A007331] 0, 1, 8, 28, 64, 126, 224, 344, 512, 757, 1008, 1332, 1792, 2198, 2752, 3528, 4096, 4914, 6056, 6860, 8064, 9632, 10656, 12168, 14336, 15751, 17584, 20440, 22016, 24390, 28224, 29792, 32768, 37296, 39312, 43344, 48448, 50654, 54880, 61544, 64512
a(n) = Sum_{0<d|n, n/d odd} d^3.
[A100182] 1, 8, 28, 68, 135, 236, 378, 568, 813, 1120, 1496, 1948, 2483, 3108, 3830, 4656, 5593, 6648, 7828, 9140, 10591, 12188, 13938, 15848, 17925, 20176, 22608, 25228, 28043, 31060, 34286, 37728, 41393, 45288, 49420, 53796, 58423, 63308, 68458, 73880, 79581, 85568, 91848, 98428, 105315, 112516
a(n)=(1/6)*(7*n^3-3*n^2+2*n) [Corrected by Luca Colucci, Mar 01 2011]
[A105636] 0, 1, 8, 28, 72, 153, 288, 496, 800, 1225, 1800, 2556, 3528, 4753, 6272, 8128, 10368, 13041, 16200, 19900, 24200, 29161, 34848, 41328, 48672, 56953, 66248, 76636, 88200, 101025, 115200, 130816, 147968, 166753, 187272, 209628, 233928, 260281, 288800, 319600
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
a(n) = (2*n^4+8*n^3+8*n^2-1)/16+(-1)^n/16.
a(n) = sum(k=0..floor((n-1)/2), (n-2k)^3).
a(n+1) = sum(k=0..n, k^3*(1-(-1)^(n+k-1))/2).
[A212565] 0, 0, 1, 8, 28, 74, 159, 304, 528, 860, 1325, 1960, 2796, 3878, 5243, 6944, 9024, 11544, 14553, 18120, 22300, 27170, 32791, 39248, 46608, 54964, 64389, 74984, 86828, 100030, 114675, 130880, 148736, 168368, 189873, 213384, 239004, 266874, 297103, 329840
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = 1/96*(14*n^4-12*n^3-8*n^2-6*((-1)^n-1)*n+3*((-1)^n-1)).
[A209408] 0, 0, 0, 0, 0, 8, 28, 74, 175, 377, 799, 1673, 3471, 7192, 14784, 30208, 61440, 124416, 251328, 506712, 1020015, 2051015, 4119775, 8268215, 16582735, 33239558, 66599068, 133392344, 267099120, 534709192, 1070244924, 2141826898, 4285816671, 8575127217
a(n) = 2^n - Prod_{i=0 to 3} F[(floor((n + i)/4) + 2) where F(n) is the n-th Fibonacci number.
a(n) = 3*a(n-1) - a(n-2) -2*a(n-3) -2*a(n-4) + 6*a(n-5) - 2*a(n-6) - 4*a(n-7) + 2*a(n-8) - 6*a(n-9) + 2*a(n-10) + 4*a(n-11) + a(n-12) - 3*a(n-13) + a(n-14) + 2*a(n-15).
[A134638] 1, 8, 28, 76, 182, 406, 868, 1808, 3706, 7522, 15176, 30508, 61198, 122606, 245452, 491176, 982658, 1965658, 3931696, 7863812, 15728086, 31456678, 62913908, 125828416, 251657482, 503315666, 1006632088, 2013264988, 4026530846, 8053062622, 16106126236
a(n) = -8 + 15*2^(n-1) - 5*n - n^2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) for n>4.
[A212516] 0, 0, 0, 8, 28, 88, 186, 378, 660, 1104, 1700, 2575, 3660, 5148, 6972, 9310, 12096, 15616, 19656, 24624, 30330, 37100, 44770, 53845, 63888, 75600, 88608, 103428, 119756, 138376, 158550, 181350, 206160, 233728, 263568, 296803, 332316, 371628, 413820, 459914
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A037157] 8, 29, 71, 147, 278, 498, 862, 1459, 2433, 4017, 6588, 10756, 17508, 28441, 46139, 74783, 121138, 196150, 317530, 513935, 831733, 1345949, 2177976, 3524232, 5702528, 9227093, 14929967, 24157419, 39087758, 63245562, 102333718

a(n) = F(n+10)-(47+13*n); G.f.: (8+5*x)/((1-x-x^2)*(1-x)^2); 47=L(8), Lucas number;
[A100178] 1, 8, 29, 72, 145, 256, 413, 624, 897, 1240, 1661, 2168, 2769, 3472, 4285, 5216, 6273, 7464, 8797, 10280, 11921, 13728, 15709, 17872, 20225, 22776, 25533, 28504, 31697, 35120, 38781, 42688
a(n) = (1/6)*(8*n^3-6*n^2+4*n).
[A290312] 1, 8, 29, 75, 160, 301, 518, 834, 1275, 1870, 2651, 3653, 4914, 6475, 8380, 10676, 13413, 16644, 20425, 24815, 29876, 35673, 42274, 49750, 58175, 67626, 78183, 89929, 102950, 117335, 133176, 150568, 169609, 190400, 213045, 237651, 264328, 293189, 324350, 357930
a(n) = (24 + 70*n + 69*n^2 + 26*n^3 + 3*n^4) / 24.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4.
[A048478] 1, 8, 29, 85, 225, 561, 1345, 3137, 7169, 16129, 35841, 78849, 172033, 372737, 802817, 1720321, 3670017, 7798785, 16515073, 34865153, 73400321, 154140673, 322961409, 675282945, 1409286145, 2936012801, 6106906625, 12683575297, 26306674689, 54492397569
a(n) = 7*n * 2^(n-1) + 1.
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3) for n>2. G.f.: (1+3*x-3*x^2) / ((1-x)*(1-2*x)^2). - Colin Barker, Feb 18 2016
[A294838] 1, 1, 8, 29, 89, 301, 915, 2763, 8040, 22910, 63776, 174174, 467448, 1233836, 3209679, 8234149, 20857621, 52206847, 129227514, 316543962, 767767628, 1844925743, 4394337797, 10379319118, 24320964976, 56557678603, 130571770387, 299357973400, 681777058604, 1542840256421, 3470045577372
a(0) = 1 and a(n) = (1/n) * Sum_{k=1..n} b(k)*a(n-k) where b(n) = Sum_{d|n} d^2*(3*d-2)*(-1)^(1+n/d). - Seiichi Manyama, Nov 14 2017
[A116952] 1, 8, 29, 92, 281, 848, 2549, 7652, 22961, 68888, 206669, 620012, 1860041, 5580128, 16740389, 50221172, 150663521, 451990568, 1355971709, 4067915132, 12203745401, 36611236208, 109833708629, 329501125892, 988503377681, 2965510133048, 8896530399149
a(n) = (7/2)3^n-(5/2). [Emeric Deutsch]
a(n) = 4*a(n-1)-3*a(n-2). G.f.: (4*x+1) / ((x-1)*(3*x-1)). - Colin Barker, Jul 18 2013
[A072264] 1, 1, 8, 29, 127, 526, 2213, 9269, 38872, 162961, 683243, 2864534, 12009817, 50352121, 211105448, 885076949, 3710758087, 15557659006, 65226767453, 273468597389, 1146539629432, 4806961875241, 20153583772883, 84495560694854, 354254600948977, 1485241606321201
a(n) = (1/2)*(((3/2)+(1/2)*sqrt(29))^n+((3/2)-(1/2)*sqrt(29))^n)+(1/58)*sqrt(29)*(((3/2)-(1/2)*sqrt(29))^n-((3/2)+(1/2)*sqrt(29))^n). - Paolo P. Lava, Mar 31 2009
[A092277] 0, 8, 30, 66, 116, 180, 258, 350, 456, 576, 710, 858, 1020, 1196, 1386, 1590, 1808, 2040, 2286, 2546, 2820, 3108, 3410, 3726, 4056, 4400, 4758, 5130, 5516, 5916, 6330, 6758, 7200, 7656, 8126, 8610, 9108, 9620, 10146, 10686, 11240, 11808, 12390, 12986, 13596
a(n) = a(n-1) + 14*n - 6 with n>0, a(0)=0. - Vincenzo Librandi, Nov 17 2010
[A055832] 8, 30, 73, 145, 255, 413, 630, 918, 1290, 1760, 2343, 3055, 3913, 4935, 6140, 7548, 9180, 11058, 13205, 15645, 18403, 21505, 24978, 28850, 33150, 37908, 43155, 48923, 55245, 62155, 69688, 77880, 86768, 96390
a(n) = (n-3)*(n-4)*(n^2+13*n+6)/24, n>4, sign corrected Mar 13 2016.
[A100175] 1, 8, 30, 76, 155, 276, 448, 680, 981, 1360, 1826, 2388, 3055, 3836, 4740, 5776, 6953, 8280, 9766, 11420, 13251, 15268, 17480, 19896, 22525, 25376, 28458, 31780, 35351, 39180, 43276, 47648
a(n)=(3*n^3-3*n^2+2*n)/2.
[A063489] 1, 8, 30, 77, 159, 286, 468, 715, 1037, 1444, 1946, 2553, 3275, 4122, 5104, 6231, 7513, 8960, 10582, 12389, 14391, 16598, 19020, 21667, 24549, 27676, 31058, 34705, 38627, 42834, 47336, 52143, 57265, 62712, 68494, 74621, 81103, 87950
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4), with a(1)=1, a(2)=8, a(3)=30, a(4)=77. - Harvey P. Dale, Aug 20 2012
[A002417] 1, 8, 30, 80, 175, 336, 588, 960, 1485, 2200, 3146, 4368, 5915, 7840, 10200, 13056, 16473, 20520, 25270, 30800, 37191, 44528, 52900, 62400, 73125, 85176, 98658, 113680, 130355, 148800, 169136, 191488, 215985, 242760, 271950, 303696, 338143, 375440, 415740
a(n) = n^2*(n+1)*(n+2)/6.
a(n) = C(n+2, 2)*n^2/3. - Paul Barry, Jun 26 2003
a(n) = C(n+3, n)*C(n+1, 1). - Zerinvary Lajos, Apr 27 2005
a(n) = (binomial(n+3,n-1) - binomial(n+2,n-2))*(binomial(n+1,n-1) - binomial(n,n-2)). - Zerinvary Lajos, May 12 2006
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5), n>5. - Wesley Ivan Hurt, Aug 01 2015
[A213776] 1, 8, 30, 81, 184, 376, 717, 1304, 2294, 3941, 6656, 11104, 18361, 30168, 49342, 80441, 130840, 212472, 344645, 558600, 904886, 1465293, 2372160, 3839616, 6214129, 10056296, 16273182, 26332449, 42608824, 68944696, 111557181
a(n) = 4*a(n-1) - 5*a(n-2) + a(n-3) + 2*a(n-4) - a(n-5).
[A022273] 0, 8, 31, 69, 122, 190, 273, 371, 484, 612, 755, 913, 1086, 1274, 1477, 1695, 1928, 2176, 2439, 2717, 3010, 3318, 3641, 3979, 4332, 4700, 5083, 5481, 5894, 6322, 6765, 7223, 7696, 8184, 8687, 9205, 9738, 10286, 10849, 11427, 12020, 12628, 13251, 13889
a(n) = 15*n + a(n-1) - 7 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) - a(n-3) for n>2. - Vincenzo Librandi, Mar 31 2015
[A212579] 0, 1, 8, 31, 80, 171, 308, 509, 780, 1137, 1584, 2143, 2812, 3615, 4552, 5645, 6892, 8321, 9924, 11731, 13736, 15967, 18416, 21117, 24056, 27269, 30744, 34515, 38568, 42943, 47620, 52641, 57988, 63701, 69760, 76211, 83028, 90259, 97880
a(n) = a(n-1)+2*a(n-2)-a(n-3)-2*a(n-4)-a(n-5)+2*a(n-6)+a(n-7)-a(n-8).
[A005338] 1, 8, 31, 85, 190, 360, 610, 956, 1415, 2005, 2745, 3655, 4756, 6070, 7620, 9430, 11525, 13931, 16675, 19785, 23290, 27220, 31606, 36480, 41875, 47825, 54365, 61531, 69360, 77890, 87160, 97210, 108081, 119815, 132455, 146045, 160630
a(n) = (n^4 + 10*n^3 - 445*n^2 + 2690*n - 1656)/24 for n > 9. - Colin Barker, May 10 2012
[A006322] 1, 8, 31, 85, 190, 371, 658, 1086, 1695, 2530, 3641, 5083, 6916, 9205, 12020, 15436, 19533, 24396, 30115, 36785, 44506, 53383, 63526, 75050, 88075, 102726, 119133, 137431, 157760, 180265, 205096, 232408, 262361, 295120, 330855
a(n) = 5*C(n + 2, 4) + C(n + 1, 2) = (C(5*n+4, 4)-1)/5^3 = n*(n+1)*(5*n^2+5*n+2)/24.
a(n) = (((n+1)^5-n^5)-((n+1)^3-n^3))/24. - Xavier Acloque, Jan 14 2003, corrected by Eric Rowland, Aug 15 2017
a(n) = sum(i=1..n, sum(j=1..n, i * min(i,j))). - Enrique Pérez Herrero, Jan 30 2013
[A213764] 1, 8, 31, 90, 225, 516, 1123, 2366, 4885, 9960, 20151, 40578, 81481, 163340, 327115, 654726, 1310013, 2620656, 5242015, 10484810, 20970481, 41941908, 83884851, 167770830, 335542885, 671087096, 1342175623, 2684352786
a(n) = -10 + 5*2^(n+1) - 7*n - 2*n^2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4).
[A018842] 1, 8, 32, 68, 96, 120, 148, 176, 204, 232, 260, 288, 316, 344, 372, 400, 428, 456, 484, 512, 540, 568, 596, 624, 652, 680, 708, 736, 764, 792, 820, 848, 876, 904, 932, 960, 988, 1016, 1044, 1072, 1100, 1128, 1156
a(n) = 28*n-20, n >= 5.
[A130809] 8, 32, 80, 160, 280, 448, 672, 960, 1320, 1760, 2288, 2912, 3640, 4480, 5440, 6528, 7752, 9120, 10640, 12320, 14168, 16192, 18400, 20800, 23400, 26208, 29232, 32480, 35960, 39680, 43648, 47872, 52360, 57120, 62160, 67488, 73112, 79040, 85280
a(n) = (4/3)*n*(n-1)*(n-2).
a(n) = C(n,n-3)*2^3, n >= 3. - Zerinvary Lajos, Dec 07 2007
[A008412] 1, 8, 32, 88, 192, 360, 608, 952, 1408, 1992, 2720, 3608, 4672, 5928, 7392, 9080, 11008, 13192, 15648, 18392, 21440, 24808, 28512, 32568, 36992, 41800, 47008, 52632, 58688, 65192, 72160, 79608, 87552, 96008, 104992, 114520, 124608, 135272
a(n) = 8*n*(n^2+2)/3 for n>1.
[A132117] 1, 8, 32, 90, 205, 406, 728, 1212, 1905, 2860, 4136, 5798, 7917, 10570, 13840, 17816, 22593, 28272, 34960, 42770, 51821, 62238, 74152, 87700, 103025, 120276, 139608, 161182, 185165, 211730, 241056, 273328, 308737, 347480, 389760, 435786, 485773, 539942, 598520
a(n) = (4*n+6*n^2+8*n^3+6*n^4)/24. - Alois P. Heinz, Aug 07 2008
[A159941] 8, 32, 92, 212, 416, 728, 1172, 1772, 2552, 3536, 4748, 6212, 7952, 9992, 12356, 15068, 18152, 21632, 25532, 29876, 34688, 39992, 45812, 52172, 59096, 66608, 74732, 83492, 92912, 103016, 113828, 125372, 137672
a(n) = (4 n^3 - 18 n^2 + 38 n - 28) where n is the number of carbons.
[A241204] 1, 8, 32, 96, 256, 640, 1536, 3584, 8192, 18432, 40960, 90112, 196608, 425984, 917504, 1966080, 4194304, 8912896, 18874368, 39845888, 83886080, 176160768, 369098752, 771751936, 1610612736, 3355443200, 6979321856, 14495514624, 30064771072, 62277025792
a(n) = 2^(2+n)*n for n>0. - Colin Barker, Apr 23 2014
a(n) = 4*a(n-1)-4*a(n-2) for n>2. - Colin Barker, Apr 23 2014

[A234272] 1, 8, 32, 120, 448, 1672, 6240, 23288, 86912, 324360, 1210528, 4517752, 16860480, 62924168, 234836192, 876420600, 3270846208, 12206964232, 45557010720, 170021078648, 634527303872, 2368088136840, 8837825243488, 32983212837112, 123095026104960, 459396891582728, 1714492540225952, 6398573269321080
a(n) = 4*a(n-1)-a(n-2) for n>2.
a(n) = 4*(-(2-sqrt(3))^n+(2+sqrt(3))^n)/sqrt(3) for n>1.
[A022274] 0, 8, 33, 75, 134, 210, 303, 413, 540, 684, 845, 1023, 1218, 1430, 1659, 1905, 2168, 2448, 2745, 3059, 3390, 3738, 4103, 4485, 4884, 5300, 5733, 6183, 6650, 7134, 7635, 8153, 8688, 9240, 9809, 10395, 10998, 11618, 12255, 12909, 13580, 14268, 14973
a(n) = 17*n + a(n-1) - 9 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. (End)
[A118312] 1, 8, 33, 76, 129, 196, 277, 372, 481, 604, 741, 892, 1057, 1236, 1429, 1636, 1857, 2092, 2341, 2604, 2881, 3172, 3477, 3796, 4129, 4476, 4837, 5212, 5601, 6004, 6421, 6852, 7297, 7756, 8229, 8716, 9217, 9732, 10261, 10804, 11361, 11932, 12517, 13116, 13729, 14356, 14997, 15652
a(n) = -3 + 4*n + 7*n^2 + 4*Sign[(n - 2)(n - 1)].
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Jul 09 2012
[A212679] 0, 1, 8, 33, 80, 165, 288, 469, 704, 1017, 1400, 1881, 2448, 3133, 3920, 4845, 5888, 7089, 8424, 9937, 11600, 13461, 15488, 17733, 20160, 22825, 25688, 28809, 32144, 35757, 39600, 43741, 48128, 52833, 57800, 63105, 68688, 74629, 80864
a(n)=2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A212133] 0, 1, 8, 33, 88, 185, 336, 553, 848, 1233, 1720, 2321, 3048, 3913, 4928, 6105, 7456, 8993, 10728, 12673, 14840, 17241, 19888, 22793, 25968, 29425, 33176, 37233, 41608, 46313, 51360, 56761, 62528, 68673, 75208, 82145, 89496, 97273, 105488, 114153, 123280
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = n * (2*n^2 - 3*n + 2). - J. M. Bergot, Jun 22 2012
[A212574] 0, 1, 8, 33, 88, 197, 380, 673, 1104, 1721, 2560, 3681, 5128, 6973, 9268, 12097, 15520, 19633, 24504, 30241, 36920, 44661, 53548, 63713, 75248, 88297, 102960, 119393, 137704, 158061, 180580, 205441, 232768, 262753, 295528, 331297
a(n) = 3*a(n-1)-a*(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
[A210698] 1, 8, 33, 90, 209, 528, 889, 1432, 2673, 3802, 5297, 8448, 11025, 14216, 20625, 25546, 31393, 42768, 51145, 60824, 79233, 92394, 107297, 135168, 154657, 176392, 216513, 244090, 274481, 330000, 367641, 408728, 483153, 533050, 587089
a(n) = a(n-1) + 4*a(n-3) - 4*a(n-4) - 6*a(n-6) + 6*a(n-7) + 4*a(n-9) - 4*a(n-10) - a(n-12) + a(n-13) for n > 13.
a(n) = r^4 + 4*r^3*s + 4*r^3*t + 4*r^2*s^2 + 8*r^2*s*t + 4*r^2*t^2 + s^4 + 6*s^2*t^2 + t^4.
[A014820] 1, 8, 33, 96, 225, 456, 833, 1408, 2241, 3400, 4961, 7008, 9633, 12936, 17025, 22016, 28033, 35208, 43681, 53600, 65121, 78408, 93633, 110976, 130625, 152776, 177633, 205408, 236321, 270600, 308481
a(n-1) = C(n+3,4) + 3 C(n+2,4) + 3 C(n+1,4) + C(n,4).
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), with n>4, a(0)=1, a(1)=8, a(2)=33, a(3)=96, a(4)=225. - Yosu Yurramendi, Sep 03 2013
[A051836] 0, 1, 8, 33, 98, 238, 504, 966, 1716, 2871, 4576, 7007, 10374, 14924, 20944, 28764, 38760, 51357, 67032, 86317, 109802, 138138, 172040, 212290, 259740, 315315, 380016, 454923, 541198, 640088, 752928, 881144, 1026256, 1189881, 1373736
a(n) = C(n+4, n)*(3n+5)/5.
[A087235] 8, 33, 120, 360, 1134, 3094, 8472, 24300, 64720, 175197, 481452, 1304719, 3524654, 9560100, 25874784, 70119985, 189969354, 514278263, 1394199300, 3779856633, 10246936436, 27788573803, 75370126416, 204475055200, 554805820556, 1505578026105, 4086199303004, 11091501633008
a(n) = Max{x; n*pi(x)=x}.
[A154516] 8, 34, 78, 140, 220, 318, 434, 568, 720, 890, 1078, 1284, 1508, 1750, 2010, 2288, 2584, 2898, 3230, 3580, 3948, 4334, 4738, 5160, 5600, 6058, 6534, 7028, 7540, 8070, 8618, 9184, 9768, 10370, 10990, 11628, 12284, 12958, 13650, 14360
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 30 2012
[A212744] 1, 8, 34, 83, 181, 314, 532, 791, 1177, 1604, 2206, 2843, 3709, 4598, 5776, 6959, 8497, 10016, 11962, 13859, 16261, 18578, 21484, 24263, 27721, 31004, 35062, 38891, 43597, 48014, 53416, 58463, 64609, 70328, 77266, 83699, 91477, 98666, 107332, 115319, 124921
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
a(n) = (30*n^3+3*((-1)^n+15)*n^2+3*((-1)^n+15)*n+(-1)^n+15)/16.
a(n) = (15*n^3+24*n^2+24*n+8)/8 for n even.
a(n) = (15*n^3+21*n^2+21*n+7)/8 for n odd.
[A066804] 1, 8, 34, 100, 235, 476, 868, 1464, 2325, 3520, 5126, 7228, 9919, 13300, 17480, 22576, 28713, 36024, 44650, 54740, 66451, 79948, 95404, 113000, 132925, 155376, 180558, 208684, 239975, 274660, 312976, 355168, 401489, 452200, 507570, 567876
a(n) = n*(n+1)*(2*n^2-n+2)/6.
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4)+a(n-5), with n>4, a(0)=1, a(1)=8, a(2)=34, a(3)=100, a(4)=235. [Yosu Yurramendi, Sep 03 2013]
[A053298] 1, 8, 34, 107, 281, 654, 1397, 2801, 5353, 9859, 17643, 30869, 53062, 89951, 150833, 250780, 414210, 680665, 1114160, 1818310, 2960806, 4813018, 7814074, 12674542, 20544191, 33283434, 53902532, 87272241, 141273663, 228658744
a(n) = a(n-1) + a(n-2) + (3n+4)*C(n+3, 3)/4.
[A212903] 1, 8, 35, 94, 209, 398, 697, 1130, 1743, 2568, 3661, 5060, 6833, 9024, 11711, 14946, 18817, 23382, 28741, 34958, 42143, 50368, 59753, 70376, 82369, 95816, 110859, 127590, 146161, 166670, 189281, 214098, 241295, 270984, 303349, 338508
a(n) = 2*a(n-1)+a(n-2)-3*a(n-3)-a(n-4)+a(n-5)+3*a(n-6)-a(n-7)-2*a(n-8)+a(n-9).
[A168566] 0, 8, 35, 99, 224, 440, 783, 1295, 2024, 3024, 4355, 6083, 8280, 11024, 14399, 18495, 23408, 29240, 36099, 44099, 53360, 64008, 76175, 89999, 105624, 123200, 142883, 164835, 189224, 216224, 246015, 278783, 314720, 354024, 396899, 443555, 494208
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A212674] 0, 1, 8, 35, 104, 247, 504, 925, 1568, 2501, 3800, 5551, 7848, 10795, 14504, 19097, 24704, 31465, 39528, 49051, 60200, 73151, 88088, 105205, 124704, 146797, 171704, 199655, 230888, 265651, 304200, 346801, 393728, 445265, 501704
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
[A244882] 1, 8, 35, 110, 280, 616, 1218, 2220, 3795, 6160, 9581, 14378, 20930, 29680, 41140, 55896, 74613, 98040, 127015, 162470, 205436, 257048, 318550, 391300, 476775, 576576, 692433, 826210, 979910, 1155680, 1355816, 1582768, 1839145, 2127720, 2451435, 2813406
a(n) = (24 + 62*n + 63*n^2 + 33*n^3 + 9*n^4 + n^5) / 24.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A040977] 1, 8, 35, 112, 294, 672, 1386, 2640, 4719, 8008, 13013, 20384, 30940, 45696, 65892, 93024, 128877, 175560, 235543, 311696, 407330, 526240, 672750, 851760, 1068795, 1330056, 1642473, 2013760, 2452472, 2968064, 3570952, 4272576, 5085465
a(n-3) = Sum_{i+j+k=n} i*j*k^2. - Benoit Cloitre, Nov 01 2002
a(n) = 2*binomial(n+6, 6) - binomial(n+5, 5). - Paul Barry, Mar 04 2003
a(n-3) = 1/(1!*2!*3!)*Sum_{1 <= x_1, x_2, x_3 <= n} |det V(x_1,x_2,x_3)| = 1/12*Sum_{1 <= i,j,k <= n} |(i-j)(i-k)(j-k)|, where V(x_1,x_2,x_3} is the Vandermonde matrix of order 3. - Peter Bala, Sep 13 2007
a(n) = binomial(n+5,5) + 2*binomial(n+5,6). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
a(n) = (n+1)*(n+2)*(n+3)^2*(n+4)*(n+5)/360. - Wesley Ivan Hurt, May 05 2015
[A292479] 0, 1, 8, 35, 120, 392, 1336, 4725, 16792, 59191, 207536, 727440, 2553264, 8968569, 31502248, 110627195, 388451624, 1364010648, 4789766120, 16819647565, 59063332152, 207403715119, 728306773600, 2557481457440, 8980717116000, 31536219644721, 110740934436168
a(n) = 6*a(n-1) - 14*a(n-2) + 22*a(n-3) - 14*a(n-4) + 6*a(n-5) - a(n-6) for n >= 7.
[A139608] 8, 36, 64, 92, 120, 148, 176, 204, 232, 260, 288, 316, 344, 372, 400, 428, 456, 484, 512, 540, 568, 596, 624, 652, 680, 708, 736, 764, 792, 820, 848, 876, 904, 932, 960, 988, 1016, 1044, 1072, 1100, 1128, 1156, 1184, 1212, 1240, 1268, 1296, 1324, 1352, 1380
a(0)=8, a(1)=36, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Dec 14 2012
[A035006] 0, 8, 36, 96, 200, 360, 588, 896, 1296, 1800, 2420, 3168, 4056, 5096, 6300, 7680, 9248, 11016, 12996, 15200, 17640, 20328, 23276, 26496, 30000, 33800, 37908, 42336, 47096, 52200, 57660, 63488, 69696, 76296, 83300, 90720, 98568, 106856
a(n) = (n-1)*2*n^2.
a(n) = sum (((n+j-1)^2-(n-j+1)^2),j=1..n). - Zerinvary Lajos, Sep 13 2006
a(1)=0, a(2)=8, a(3)=36, a(4)=96, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). [Harvey P. Dale, May 12 2012]

[A032768] 0, 8, 36, 100, 224, 432, 756, 1232, 1900, 2808, 4004, 5544, 7488, 9900, 12852, 16416, 20672, 25704, 31600, 38456, 46368, 55440, 65780, 77500, 90720, 105560, 122148, 140616, 161100, 183744, 208692, 236096, 266112, 298900, 334628, 373464, 415584
a(n) = floor(n(n+1)(n+3)(n+4)/5). [Bruno Berselli, Jun 20 2012]
[A006636] 8, 36, 102, 231, 456, 819, 1372, 2178, 3312, 4862, 6930, 9633, 13104, 17493, 22968, 29716, 37944, 47880, 59774, 73899, 90552, 110055, 132756, 159030, 189280, 223938, 263466, 308357, 359136, 416361, 480624, 552552, 632808, 722092, 821142, 930735
a(n) = (n + 1) * (n + 2) * (n + 4) * (n + 8) * (n + 15) / 120. - Sean A. Irvine, May 30 2017
[A092365] 1, 8, 36, 112, 275, 576, 1078, 1856, 2997, 4600, 6776, 9648, 13351, 18032, 23850, 30976, 39593, 49896, 62092, 76400, 93051, 112288, 134366, 159552, 188125, 220376, 256608, 297136, 342287, 392400, 447826, 508928, 576081, 649672, 730100, 817776
a(n) = n^2*(binomial(n, 2) + 1).
[A008500] 1, 8, 36, 120, 330, 792, 1716, 3431, 6427, 11404, 19328, 31494, 49596, 75804, 112848, 164109, 233717, 326656, 448876, 607412, 810510, 1067760, 1390236, 1790643, 2283471, 2885156, 3614248, 4491586, 5540480, 6786900, 8259672
a(-1-n) = a(n).
[A008490] 1, 8, 36, 120, 330, 792, 1716, 3432, 6434, 11432, 19412, 31704, 50058, 76728, 114564, 167112, 238722, 334664, 461252, 625976, 837642, 1106520, 1444500, 1865256, 2384418, 3019752, 3791348, 4721816, 5836490, 7163640, 8734692, 10584456, 12751362, 15277704
a(n) = (180 + 469*n^2 + 70*n^4 + n^6) / 90 for n>0. - Colin Barker, Jan 06 2017
[A000580] 1, 8, 36, 120, 330, 792, 1716, 3432, 6435, 11440, 19448, 31824, 50388, 77520, 116280, 170544, 245157, 346104, 480700, 657800, 888030, 1184040, 1560780, 2035800, 2629575, 3365856, 4272048, 5379616, 6724520, 8347680, 10295472
a(n) = (n^7-21*n^6+175*n^5-735*n^4+1624*n^3-1764*n^2+720*n)/5040.
a(n) = n(n-1)(n-2)(n-3)(n-4)(n-5)(n-6)/7!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8) with a(7)=1, a(8)=8, a(9)=36, a(10)=120, a(11)=330, a(12)=792, a(13)=1716, a(14)=3432. - Harvey P. Dale, Nov 28 2011
[A290995] 0, 0, 0, 0, 0, 0, 0, 1, 8, 36, 120, 330, 792, 1716, 3432, 6436, 11456, 19584, 32640, 54264, 93024, 170544, 341088, 735472, 1653632, 3749760, 8386560, 18289440, 38724480, 79594560, 159189120, 311058496, 597137408, 1133991936, 2147450880, 4089171840
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) for n >= 9.
[A145136] 0, 1, 8, 36, 120, 331, 801, 1761, 3597, 6931, 12737, 22506, 38479, 63974, 103843, 165109, 257852, 396439, 601229, 900934, 1335886, 1962555, 2859794, 4137468, 5948374, 8504704, 12100779, 17144439, 24200381, 34049989, 47773928, 66866159, 93391324, 130201994
a(0)=0, a(1)=1, a(2)=8, a(3)=36, a(4)=120, a(5)=331, a(6)=801, a(7)=1761, a(8)=3597, a(9)=6931, a(10)=12737, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)- 69*a(n-4) +49*a(n-5)-7*a(n-6)-27*a(n-7)+34*a(n-8)-21*a(n-9)+7*a(n-10)-a(n-11). - Harvey P. Dale, Jan 03 2012
[A290892] 0, 0, 0, 1, 8, 36, 120, 331, 808, 1852, 4248, 10312, 26968, 74012, 204968, 558253, 1483336, 3860588, 9938488, 25570103, 66214096, 172926104, 454504816, 1197527184, 3152221296, 8275051544, 21663395536, 56615219385, 147898879304, 386593228980, 1011521607736
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 69*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
[A054470] 1, 8, 36, 121, 339, 838, 1891, 3983, 7953, 15225, 28183, 50779, 89518, 155053, 264767, 446952, 747572, 1241207, 2048762, 3366122, 5510518, 8995550, 14652578, 23827138, 38696751, 62785150, 101794318, 164950755, 267183785, 432650132
a(n) = a(n-1) + a(n-2) + (2n+5)*C(n+4, 4)/5; a(-n)=0.
a(n) = sum{C(n+6-i, n+2-2i); i=1 to [(n+2)/2]}+2*sum{C(n+6-i, n+1-2i); i=1 to [(n+1)/2]; where [x]=greatest integer in x.
[A213581] 1, 8, 36, 124, 367, 988, 2498, 6048, 14197, 32576, 73472, 163508, 360027, 785908, 1703294, 3669240, 7863393, 16776120, 35650300, 75495980, 159381831, 335542348, 704640826, 1476392464, 3087004877, 6442447728, 13421769208
a(n) = 8*a(n-1) - 26*a(n-2) + 44*a(n-3) - 41*a(n-4) + 20*a(n-5) - 4*a(n-6).
a(n) = 8 +(n-2)*2^(n+2) -(n-2)*n*(n+5)/6. - Bruno Berselli, Jul 09 2012
[A210379] 0, 8, 36, 128, 300, 648, 1176, 2048, 3240, 5000, 7260, 10368, 14196, 19208, 25200, 32768, 41616, 52488, 64980, 80000, 97020, 117128, 139656, 165888, 195000, 228488, 265356, 307328, 353220, 405000, 461280, 524288, 592416, 668168
a(n) = (n + 1)^2*((n + 1)^2 - (2*n + 1 -(-1)^n)^2/16 - (2*n + 3 + (-1)^n)^2/16).
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n > 7.
[A178744] 0, 0, 1, 8, 36, 149, 604, 2424, 9705, 38832, 155340, 621373, 2485508, 9942048, 39768209, 159072856, 636291444, 2545165797, 10180663212, 40722652872, 162890611513, 651562446080, 2606249784348, 10424999137421, 41699996549716, 166799986198896
a(n) = round((8*4^n-24*n-17)/54).
a(n) = floor(4*(4^n-3*n-1)/27).
a(n) = ceil((4*4^n-12*n-13)/27).
a(n) = round(4*(4^n-3*n-1)/27).
a(n) = a(n-3) + (7*4^(n-2)-4)/3 , n>3.
a(n) = 5*a(n-1)-4*a(n-2)+a(n-3)-5*a(n-4)+4*a(n-5), n>5.
[A244870] 1, 8, 37, 121, 318, 717, 1446, 2678, 4639, 7614, 11955, 18087, 26516, 37835, 52732, 71996, 96525, 127332, 165553, 212453, 269434, 338041, 419970, 517074, 631371, 765050, 920479, 1100211, 1306992, 1543767, 1813688, 2120120, 2466649, 2857088, 3295485
a(n) = 7*n^5/120 + 7*n^4/16 + 35*n^3/24 + 21*n^2/8 + 149*n/60 + (-1)^n/32 + 31/32. [Bruno Berselli, Jul 08 2014]
[A052387] 0, 1, 8, 37, 127, 358, 876, 1926, 3894, 7359, 13156, 22451, 36829, 58396, 89896, 134844, 197676, 283917, 400368, 555313, 758747, 1022626, 1361140, 1791010, 2331810, 3006315, 3840876, 4865823, 6115897, 7630712, 9455248
a(n) = n*(n+1)*(n+2)*(n+3)*(n^3 +22*n^2 +53*n +134)/5040.
[A001780] 1, 8, 37, 128, 367, 920, 2083, 4352, 8518, 15792, 27966, 47616, 78354, 125136, 194634, 295680, 439791, 641784, 920491, 1299584, 1808521, 2483624, 3369301, 4519424, 5998876, 7885280, 10270924, 13264896
a(n) = 431*n/168 +(-1)^n/512 +391*n^3/288+ 26011*n^2/10080 +797*n^4/1920 +11*n^5/144 +n^6/120 +n^7/2016 +n^8/80640 +511/512. - R. J. Mathar, Mar 15 2011
[A053296] 1, 8, 37, 129, 376, 967, 2267, 4950, 10220, 20175, 38403, 70954, 127921, 226007, 392688, 672959, 1140260, 1914166, 3189022, 5280288, 8699540, 14275838, 23352118, 38102976, 62048869, 100888126, 163843187, 265838881
a(n) = Sum_{i=0..floor(n/2)} C(n+7-i, n-2i), n >= 0.
a(n) = Sum_{k=1..n} C(n-k+7,k+6), with n>=0. - Paolo P. Lava, Apr 16 2008
[A055799] 1, 8, 37, 130, 385, 1012, 2431, 5434, 11440, 22880, 43758, 80444, 142766, 245480, 410210, 667964, 1062347, 1653608, 2523675, 3782350, 5574855, 8090940, 11575785, 16342950, 22789650, 31414656, 42839148, 57830872
a(n-9) = binomial(n,9) - 2*binomial(n-2,8), n=9, 10, ... - Milan Janjic, Dec 28 2007
a(n) = 10*a(n-1) - 45*a(n-2) + 120*a(n-3) - 210*a(n-4)+ 252*a(n-5) - 210*a(n-6) + 120*a(n-7) - 45*a(n-8) + 10*a(n-9) - a(n-10). - Vincenzo Librandi, May 01 2012
[A035038] 0, 0, 0, 0, 0, 0, 1, 8, 37, 130, 386, 1024, 2510, 5812, 12911, 27824, 58651, 121670, 249528, 507624, 1026876, 2069256, 4158861, 8344056, 16721761, 33486026, 67025182, 134116144, 268313018, 536724316, 1073567387, 2147277280, 4294724471, 8589650318, 17179537972
a(n) = sum_{k=0..n}, C(n, k+6) = sum_{k=6..n} C(n, k).
a(n) = 2*a(n-1) + C(n-1, 5). (End)
[A163832] 0, 8, 38, 102, 212, 380, 618, 938, 1352, 1872, 2510, 3278, 4188, 5252, 6482, 7890, 9488, 11288, 13302, 15542, 18020, 20748, 23738, 27002, 30552, 34400, 38558, 43038, 47852, 53012, 58530, 64418, 70688, 77352, 84422, 91910, 99828, 108188, 117002
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A139798] 8, 38, 111, 256, 511, 924, 1554, 2472, 3762, 5522, 7865, 10920, 14833, 19768, 25908, 33456, 42636, 53694, 66899, 82544, 100947, 122452, 147430, 176280, 209430, 247338, 290493, 339416, 394661, 456816, 526504, 604384, 691152, 787542
a(n) = n(n+1)(n+2)(n^2 + 27n + 132)/5!
[A034009] 1, 8, 38, 140, 443, 1268, 3384, 8584, 20965, 49744, 115402, 262996, 590831, 1311900, 2884956, 6293040, 13633305, 29362200, 62916910, 134220380, 285215651, 603983108, 1275072128, 2684358680, 5637149133, 11811165088
a(n) = (n-3)*2^(n+4)+binomial(n+3,3)+4*(binomial(n+1,2)+4*n+12)
a(n) = binomial(n+3,3)*hypergeom([2,-n],[-n-3],2). - Peter Luschny, Sep 19 2014

a(n) = Sum_{k=0..n+4} Sum_{i=0..n+4} (i-k) * C(n-k+4,i+2). - Wesley Ivan Hurt, Sep 19 2017
[A101374] 0, 1, 8, 39, 124, 305, 636, 1183, 2024, 3249, 4960, 7271, 10308, 14209, 19124, 25215, 32656, 41633, 52344, 64999, 79820, 97041, 116908, 139679, 165624, 195025, 228176, 265383, 306964, 353249, 404580, 461311, 523808, 592449, 667624, 749735, 839196
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4. - Harvey P. Dale, Sep 28 2012
[A060446] 0, 1, 8, 39, 136, 377, 888, 1855, 3536, 6273, 10504, 16775, 25752, 38233, 55160, 77631, 106912, 144449, 191880, 251047, 324008, 413049, 520696, 649727, 803184, 984385, 1196936, 1444743, 1732024, 2063321, 2443512, 2877823
a(n) = (n^5+5*n^3+4*n)/10.
[A055581] 1, 8, 39, 150, 501, 1524, 4339, 11762, 30705, 77808, 192495, 466926, 1114093, 2621420, 6094827, 14024682, 31981545, 72351720, 162529255, 362807270, 805306341, 1778384868, 3909091299, 8556380130, 18656264161, 40533753824
a(n) = (n^2-n+4)2^(n+1)-7-n - Emeric Deutsch, May 21 2003
a(0)=1, a(1)=8, a(2)=39, a(3)=150, a(4)=501, a(n) = 8*a(n-1)- 25*a(n-2)+ 38*a(n-3)-28*a(n-4)+8*a(n-5). [Harvey P. Dale, Nov 07 2011]
[A014642] 0, 8, 40, 96, 176, 280, 408, 560, 736, 936, 1160, 1408, 1680, 1976, 2296, 2640, 3008, 3400, 3816, 4256, 4720, 5208, 5720, 6256, 6816, 7400, 8008, 8640, 9296, 9976, 10680, 11408, 12160, 12936, 13736, 14560, 15408, 16280, 17176, 18096, 19040, 20008, 21000, 22016
a(n) = a(n-1) + 24*n - 16 (with a(0)=0). - Vincenzo Librandi, Nov 20 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - G. C. Greubel, Jun 07 2017
[A143943] 8, 40, 114, 248, 460, 768, 1190, 1744, 2448, 3320, 4378, 5640, 7124, 8848, 10830, 13088, 15640, 18504, 21698, 25240, 29148, 33440, 38134, 43248, 48800, 54808, 61290, 68264, 75748, 83760, 92318, 101440, 111144, 121448, 132370, 143928
a(n) = n*(2 + 3*n + 3*n^2).
[A105374] 0, 8, 40, 120, 272, 520, 888, 1400, 2080, 2952, 4040, 5368, 6960, 8840, 11032, 13560, 16448, 19720, 23400, 27512, 32080, 37128, 42680, 48760, 55392, 62600, 70408, 78840, 87920, 97672, 108120, 119288, 131200, 143880, 157352, 171640, 186768
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 26 2012
[A191903] 0, 8, 40, 128, 312, 648, 1200, 2048, 3280, 5000, 7320, 10368, 14280, 19208, 25312, 32768, 41760, 52488, 65160, 80000, 97240, 117128, 139920, 165888, 195312, 228488, 265720, 307328, 353640, 405000, 461760, 524288, 592960, 668168, 750312
a(n) = ((n + 1)^4 - (1 + (-1)^n)/2)/2.
a(n) = floor(n^4/2). [Wesley Ivan Hurt, Jun 14 2013]
[A125198] 1, 8, 40, 144, 417, 1032, 2272, 4568, 8545, 15072, 25320, 40824, 63553, 95984, 141184, 202896, 285633, 394776, 536680, 718784, 949729, 1239480, 1599456, 2042664, 2583841, 3239600, 4028584, 4971624, 6091905, 7415136, 8969728, 10786976, 12901249, 15350184
a(n) = (15*(31+(-1)^n) + 1152*n + 1216*n^2 + 720*n^3 + 250*n^4 + 48*n^5 + 4*n^6) / 480.
a(n) = 6*a(n-1) - 14*a(n-2) + 14*a(n-3) - 14*a(n-5) + 14*a(n-6) - 6*a(n-7) + a(n-8) for n>7.
[A068774] 0, 0, 0, 8, 40, 240, 1120, 4480, 17280, 65280, 253440, 1015808, 4126720, 16773120, 67624960, 270499840, 1077903360, 4294901760, 17146183680, 68585259008, 274608947200, 1099510579200, 4400191897600, 17600767590400, 70385915658240, 281474959933440
a(n; t, s) = a(n-1; t, s) + a(n-1; t+3, s+3t+1) + a(n-1; t+2, s+2t) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A171714] 1, 8, 41, 128, 313, 648, 1201, 2048, 3281, 5000, 7321, 10368, 14281, 19208, 25313, 32768, 41761, 52488, 65161, 80000, 97241, 117128, 139921, 165888, 195313, 228488, 265721, 307328, 353641, 405000, 461761, 524288, 592961, 668168, 750313, 839808
a(n) = 1/2*((n + 1)^4 + ((1 + (-1)^n)*1/2)^4).
a(n) = +4*a(n-1) -5*a(n-2) +5*a(n-4) -4*a(n-5) +1*a(n-6).
a(n) = (n+1)^4 - floor((n+1)^4/2). - Bruno Berselli, Jan 18 2017
[A133106] 1, 8, 41, 168, 602, 1968, 6021, 17512, 48950, 132496, 349258, 900368, 2277556, 5667936, 13906221, 33695208, 80746846, 191601872, 450642654, 1051472048, 2435679852, 5605044640, 12820922530, 29164511376, 66004709148, 148678206880
a(n)=[(2*n^2-16*n+6)*a(n-1)+(4*n^2-68*n+240)*a(n-2)-(8*n^2-88*n+240)*a(n-3)]/(n^2-14*n+48) with a(6)=0, a(7)=0, a(8)=1. G.F.=(1-(1-4*x^2)^(1/2))*x^6/(2*(2*x-1)^4)
[A176177] 0, 1, 8, 41, 176, 689, 2552, 9113, 31712, 108257, 364136, 1210505, 3985808, 13020305, 42249560, 136314617, 437641664, 1399018433, 4455335624, 14140847849, 44747066480, 141214768241, 444565011128, 1396457152601, 4377657815456, 13697832519329, 42788074776872, 133447955987273, 415595062931792, 1292538773705297, 4014877075845656
a(n) = 7*a(n-1) - 15*a(n-2) + 9*a(n-3) for n>2. - Vincenzo Librandi, Jun 17 2014
[A292059] 1, 8, 42, 104, 251, 464, 852, 1360, 2165, 3160, 4606, 6328, 8687, 11424, 15016, 19104, 24297, 30120, 37330, 45320, 55011, 65648, 78332, 92144, 108381, 125944, 146342, 168280, 193495, 220480, 251216, 283968, 320977, 360264, 404346, 450984, 502987, 557840, 618660, 682640
a(n) = (3 + 2*n - 6*n^2 - 8*n^3 + 6*n^4 + 3*(-1)^n*(-1 - 2*n + 2*n^2))/24.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8).
[A027903] 0, 8, 42, 120, 260, 480, 798, 1232, 1800, 2520, 3410, 4488, 5772, 7280, 9030, 11040, 13328, 15912, 18810, 22040, 25620, 29568, 33902, 38640, 43800, 49400, 55458, 61992, 69020, 76560, 84630, 93248, 102432, 112200, 122570, 133560, 145188, 157472, 170430
a(n) = n(n + 1)(3n + 1).
a(n) = 3n^3 + 4n^2 + n.
[A212337] 1, 8, 42, 184, 731, 2736, 9844, 34448, 118101, 398584, 1328606, 4384392, 14348911, 46633952, 150663528, 484275616, 1549681961, 4939611240, 15690529810, 49686677720, 156905298051, 494251688848, 1553362450652, 4871909504304, 15251194969981, 47659984281176
a(n) = 1+n*(1+9*3^n)/4. - Bruno Berselli, May 11 2012
[A094865] 0, 0, 0, 1, 8, 43, 196, 820, 3264, 12597, 47652, 177859, 657800, 2417416, 8844448, 32256553, 117378336, 426440955, 1547491404, 5610955132, 20332248992, 73645557469, 266668876540, 965384509651, 3494279574288, 12646311635088, 45764967830976, 165605867248465
a(n) = (1/5)*Sum(r=1..9, sin(r*Pi/10)*sin(4*r*Pi/5)*(2*cos(r*Pi/10))^(2*n+1));
a(n) = 8*a(n-1)-21*a(n-2)+20*a(n-3)-5*a(n-4).
a(n) = 2^(-2-n)*(-(3-sqrt(5))^n*(-1+sqrt(5)) + (5-sqrt(5))^n*(1+sqrt(5)) - (1+sqrt(5))*(3+sqrt(5))^n + (-1+sqrt(5))*(5+sqrt(5))^n)/sqrt(5). - Colin Barker, Apr 27 2016
[A100583] 0, 8, 44, 124, 268, 492, 816, 1256, 1832, 2560, 3460, 4548, 5844, 7364, 9128, 11152, 13456, 16056, 18972, 22220, 25820, 29788, 34144, 38904, 44088, 49712, 55796, 62356, 69412, 76980, 85080, 93728, 102944, 112744, 123148, 134172, 145836
a(n) = (12*n^3+18*n^2+4*n+(-1)^n-1)/4. (For a proof see the Richeson link.)
a(n) = 4*Sum{i=1 to n}(i^2 + (n+1-i)*(n+1-round(i/2))).
[A036464] 0, 0, 8, 44, 140, 340, 700, 1288, 2184, 3480, 5280, 7700, 10868, 14924, 20020, 26320, 34000, 43248, 54264, 67260, 82460, 100100, 120428, 143704, 170200, 200200, 234000, 271908, 314244, 361340, 413540, 471200, 534688, 604384
a(n) = C(n, 3)*(3*n-1).
a(n) = 2*sum_{i=1..n-2} i(i + 1)^2. - Wesley Ivan Hurt, Mar 18 2014
[A000938] 0, 8, 44, 152, 372, 824, 1544, 2712, 4448, 6992, 10332, 15072, 21012, 28688, 38520, 50880, 65480, 83640, 104676, 130264, 160556, 195848, 235600, 282840, 336384, 397136, 465876, 544464, 630684, 729744, 837744, 958384, 1091904, 1238520, 1400140, 1581384, 1776084
a(n) = 2*Sum(Sum((n - k + 1)*(n - m + 1)*gcd(k - 1, m - 1), k, 2, n), m, 2, n) - n^2(n^2 - 1)/6. - Ignacio Larrosa Cañestro, May 23 2010
[A165618] 0, 8, 44, 164, 494, 1286, 3002, 6434, 12869, 24309, 43757, 75581, 125969, 203489, 319769, 490313, 735470, 1081574, 1562274, 2220074, 3108104, 4292144, 5852924, 7888724, 10518299, 13884155, 18156203, 23535819, 30260339, 38608019, 48903491
a(n) = binomial(n+8,8)-1=binomial(n+8,8)-1
a(n) = sum(r=1,r=n, binomial(8,r)*binomial(n,r))
a(n) = n(n+9)(n^6 + 27n^5 + 303n^4 + 1809n^3 + 6168n^2 + 11772n + 12176)/40320
[A283077] 1, 8, 44, 192, 726, 2464, 7704, 22527, 62329, 164516, 416948, 1019690, 2416246, 5565864, 12498215, 27421815, 58903768, 124088548, 256749822, 522450250, 1046735092, 2066948472, 4026431543, 7743987036, 14715788745, 27648250012, 51390298666, 94550761844
a(n) = (1/n)*Sum_{k=1..n} sigma(7*k)*a(n-k). - Seiichi Manyama, Mar 05 2017
[A265613] 0, 1, 8, 44, 210, 935, 4004, 16744, 68952, 281010, 1136960, 4576264, 18349630, 73370115, 292746300, 1166182800, 4639918800, 18443677230, 73261092240, 290845019400, 1154169552900, 4578702310182, 18159992594568, 72014135814704, 285542883894800, 1132125641947300
a(n) = (4^(n+1)*n*(n+1)*(3*n+2)*Gamma(n+3/2))/(sqrt(Pi)*Gamma(n+5)).

a(n) = (rf(n+6, n-1)-(n-1)*(n-2)*rf(n+6, n-3))/(n-1)! for n>=3, rf(n,k) the rising factorial.
a(n) = a(n-1)*((2*(n+1))*(3*n+2)*(1+2*n)/((n-1)*(3*n-1)*(4+n))) for n>=2.
a(n) = [x^n] x*(1 + x)/(1 - x)^(n+5). - Ilya Gutkovskiy, Oct 09 2017
[A210378] 1, 8, 45, 128, 325, 648, 1225, 2048, 3321, 5000, 7381, 10368, 14365, 19208, 25425, 32768, 41905, 52488, 65341, 80000, 97461, 117128, 140185, 165888, 195625, 228488, 266085, 307328, 354061, 405000, 462241, 524288, 593505, 668168
a(n) = (n + 1)^2*((2*n + 1 -(-1)^n)^2 + (2*n + 3 + (-1)^n)^2)/16.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n > 7.
[A128091] 1, 8, 45, 160, 425, 936, 1813, 3200, 5265, 8200, 12221, 17568, 24505, 33320, 44325, 57856, 74273, 93960, 117325, 144800, 176841, 213928, 256565, 305280, 360625, 423176, 493533, 572320, 660185, 757800, 865861, 985088, 1116225, 1260040, 1417325
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3 - 5*a(n-4) + a(n-5), a(1) = 1, a(2) = 8, a(3) = 45, a(4) = 160, a(5) = 425. - Philippe Deléham, Mar 16 2014
[A190048] 8, 46, 150, 370, 770, 1428, 2436, 3900, 5940, 8690, 12298, 16926, 22750, 29960, 38760, 49368, 62016, 76950, 94430, 114730, 138138, 164956, 195500, 230100, 269100, 312858, 361746, 416150, 476470, 543120, 616528, 697136, 785400, 881790, 986790, 1100898
a(n) = 8*binomial(n+4,4)+6*binomial(n+3,4)
a(n) = (7*n^4+58*n^3+173*n^2+218*n+96)/12
[A212673] 0, 0, 8, 46, 152, 378, 792, 1476, 2528, 4060, 6200, 9090, 12888, 17766, 23912, 31528, 40832, 52056, 65448, 81270, 99800, 121330, 146168, 174636, 207072, 243828, 285272, 331786, 383768, 441630, 505800, 576720, 654848, 740656, 834632
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
a(n) = (-1+(-1)^n-8*n^2+10*n^4)/16. [Colin Barker, Jun 10 2012]
[A139279] 8, 48, 88, 128, 168, 208, 248, 288, 328, 368, 408, 448, 488, 528, 568, 608, 648, 688, 728, 768, 808, 848, 888, 928, 968, 1008, 1048, 1088, 1128, 1168, 1208, 1248, 1288, 1328, 1368, 1408, 1448, 1488, 1528, 1568, 1608, 1648, 1688, 1728, 1768, 1808, 1848
a(n) = a(n-1) + 40.
[A067239] 1, 8, 48, 120, 224, 360, 528, 728, 960, 1224, 1520, 1848, 2208, 2600, 3024, 3480, 3968, 4488, 5040, 5624, 6240, 6888, 7568, 8280, 9024, 9800, 10608, 11448, 12320, 13224, 14160, 15128, 16128, 17160, 18224, 19320, 20448, 21608, 22800, 24024
a(n) = a(n-1) + 32*n - 24 (with a(1)=8). - Vincenzo Librandi, Dec 15 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A152750] 0, 8, 48, 120, 224, 360, 528, 728, 960, 1224, 1520, 1848, 2208, 2600, 3024, 3480, 3968, 4488, 5040, 5624, 6240, 6888, 7568, 8280, 9024, 9800, 10608, 11448, 12320, 13224, 14160, 15128, 16128, 17160, 18224, 19320, 20448, 21608, 22800, 24024, 25280, 26568
a(n) = a(n-1)+32*n-24 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
[A280056] 0, 0, 0, 8, 48, 144, 360, 720, 1344, 2240, 3600, 5400, 7920, 11088, 15288, 20384, 26880, 34560, 44064, 55080, 68400, 83600, 101640, 121968, 145728, 172224, 202800, 236600, 275184, 317520, 365400, 417600, 476160, 539648, 610368, 686664, 771120, 861840, 961704, 1068560, 1185600
a(n) = (1/4)*(n-3)*(n-2)*(2*n^2 - 4*n + 1 - (-1)^n) for n>=0.
a(n) = (n^4 - 3*n^3 + 2*n^2)/2 for n even.
a(n) = (n^4 - 3*n^3 + n^2 + 3*n - 2)/2 for n odd.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n>7.
[A035471] 1, 8, 48, 152, 352, 680, 1168, 1848, 2752, 3912, 5360, 7128, 9248, 11752, 14672, 18040, 21888, 26248, 31152, 36632, 42720, 49448, 56848, 64952, 73792, 83400, 93808, 105048, 117152, 130152, 144080
a(m)=add(2^k*binomial(n, k)*binomial(m-1, k-1), k=0..n)+2^n*binomial((n+2*m)/2-1, n-1); with n=4.
a(0)=1, a(1)=8, a(2)=48, a(3)=152, a(4)=352, a(n)=4*a(n-1)- 6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Oct 20 2015
[A212571] 0, 0, 8, 48, 168, 428, 916, 1728, 2992, 4840, 7440, 10960, 15608, 21588, 29148, 38528, 50016, 63888, 80472, 100080, 123080, 149820, 180708, 216128, 256528, 302328, 354016, 412048, 476952, 549220, 629420, 718080, 815808, 923168, 1040808, 1169328, 1309416
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = 1/48*(38*n^4-20*n^3-32*n^2+2*(3*(-1)^n+13)*n+3*((-1)^n-1)).
[A033463] 1, 8, 50, 248, 1048, 3952, 13696, 44480, 137216, 406016, 1160704, 3223552, 8734720, 23171072, 60342272, 154615808, 390529024, 973864960, 2400845824, 5857869824, 14159446016, 33935065088, 80698408960, 190534647808, 446911479808, 1041898668032, 2415348678656, 5570035712000
a(n) = 2^(n-4)*(n^4+6*n^3+19*n^2+22*n+16). E.g.f.: (1+3*x+x^2)^2*exp(2*x). O.g.f.: (1-2*x+10*x^2-12*x^3+8*x^4)/(1-2*x)^5. Recurrence: a(n) = 10*a(n-1)-40*a(n-2)+80*a(n-3)-80*a(n-4)+32*a(n-5). a(n) = Sum_{k=0..n} binomial(n, k)*(k+1)^2*(n-k+1)^2. - Vladeta Jovovic, Sep 17 2003
[A054620] 0, 1, 8, 51, 208, 629, 1560, 3367, 6560, 11817, 20008, 32219, 49776, 74269, 107576, 151887, 209728, 283985, 377928, 495235, 640016, 816837, 1030744, 1287287, 1592544, 1953145, 2376296, 2869803, 3442096, 4102253, 4860024
a(n) = (n^5+4*n)/5 = n*(n^2-2*n+2)*(n^2+2*n+2)/5.
a(n) = -a(-n). - Bruno Berselli, Aug 31 2011
[A035288] 0, 8, 52, 184, 480, 1040, 1988, 3472, 5664, 8760, 12980, 18568, 25792, 34944, 46340, 60320, 77248, 97512, 121524, 149720, 182560, 220528, 264132, 313904, 370400, 434200, 505908, 586152, 675584, 774880, 884740, 1005888, 1139072, 1285064
a(n) = (3 n^4 - 4 n^3 + 3 n^2 - 2 n)/3.
a(1)=0, a(2)=8, a(3)=52, a(4)=184, a(5)=480, a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5). [Harvey P. Dale, Nov 19 2011]
[A212754] 0, 8, 53, 184, 472, 1008, 1905, 3296, 5336, 8200, 12085, 17208, 23808, 32144, 42497, 55168, 70480, 88776, 110421, 135800, 165320, 199408, 238513, 283104, 333672, 390728, 454805, 526456, 606256, 694800, 792705, 900608, 1019168
a(n)=4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
[A244501] 1, 8, 55, 248, 820, 2212, 5163, 10815, 20833, 37540, 64067, 104518, 164150, 249568, 368935, 532197, 751323, 1040560, 1416703, 1899380, 2511352, 3278828, 4231795, 5404363, 6835125, 8567532, 10650283, 13137730, 16090298, 19574920, 23665487, 28443313, 33997615
a(n) = 1/48*n^6 + 1/16*n^5 - 13/16*n^4 + 61/48*n^3 + 247/24*n^2 - 293/6*n + 6 for n >= 3.
[A267522] 8, 56, 176, 400, 760, 1288, 2016, 2976, 4200, 5720, 7568, 9776, 12376, 15400, 18880, 22848, 27336, 32376, 38000, 44240, 51128, 58696, 66976, 76000, 85800, 96408, 107856, 120176, 133400, 147560, 162688, 178816, 195976, 214200, 233520, 253968, 275576, 298376, 322400
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A268599] 0, 0, 0, 0, 0, 0, 8, 60, 294, 1180, 4200, 13776, 42560, 125568, 357120, 985600, 2652672, 6988800, 18077696, 46018560, 115507200, 286326784, 701890560, 1703411712, 4096655360, 9771417600, 23132110848, 54384394240, 127049662464, 295069286400, 681574400000
a(n) = 2^(n-10)*(n-5)*(n-4)*(n^2+3*n+10) for n>3. - Colin Barker, Feb 08 2016
[A071401] 0, 8, 61, 207, 490, 958, 1655, 2628, 3924, 5586, 7663, 10200, 13242, 16836, 21028, 25863, 31388, 37649, 44691, 52561, 61305, 70968, 81597, 93237, 105935, 119736, 134687, 150833, 168221, 186896, 206904, 228292, 251105, 275390, 301191, 328556
a(n) = round(n^3 * (15+7*sqrt(5))/4)
[A118719] 0, 1, 8, 64, 125, 343, 512, 1000, 1331, 2197, 2744, 4096, 4913, 6859, 8000, 10648, 12167, 15625, 17576, 21952, 24389, 29791, 32768, 39304, 42875, 50653, 54872, 64000, 68921, 79507, 85184, 97336, 103823, 117649, 125000, 140608, 148877
a(n) = (floor(3*n/2)-2)^3 for n >= 2. - Nathaniel Johnston, May 05 2011
[A153808] 0, 8, 64, 168, 320, 520, 768, 1064, 1408, 1800, 2240, 2728, 3264, 3848, 4480, 5160, 5888, 6664, 7488, 8360, 9280, 10248, 11264, 12328, 13440, 14600, 15808, 17064, 18368, 19720, 21120, 22568, 24064, 25608, 27200, 28840, 30528, 32264
a(n) = a(n-1) + 48*n - 40 (with a(0)=0). - Vincenzo Librandi, Nov 27 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A016743] 0, 8, 64, 216, 512, 1000, 1728, 2744, 4096, 5832, 8000, 10648, 13824, 17576, 21952, 27000, 32768, 39304, 46656, 54872, 64000, 74088, 85184, 97336, 110592, 125000, 140608, 157464, 175616, 195112, 216000, 238328, 262144, 287496, 314432
a(n) = (2*n)^3 = 8*n^3.
[A086114] 8, 64, 216, 528, 1080, 1968, 3304, 5216, 7848, 11360, 15928, 21744, 29016, 37968, 48840, 61888, 77384, 95616, 116888, 141520, 169848, 202224, 239016, 280608, 327400, 379808, 438264, 503216, 575128, 654480, 741768, 837504, 942216, 1056448
a(n) = 2/3*n*(n^3+6*n^2+11*n-6). More generally, number of m X n (0, 1) matrices such that each row and each column is increasing or decreasing is 2*n*(2*binomial(n+m-1, n)-m) = 4/Beta(m, n)-2*m*n.

[A008893] 0, 8, 66, 258, 710, 1590, 3108, 5516, 9108, 14220, 21230, 30558, 42666, 58058, 77280, 100920, 129608, 164016, 204858, 252890, 308910, 373758, 448316, 533508, 630300, 739700, 862758, 1000566, 1154258, 1325010, 1514040, 1722608, 1952016, 2203608, 2478770
a(n) = n*(n+1)*(7*n^2+7*n+2)/4.
[A121782] 0, 8, 66, 288, 900, 2280, 4998, 9856, 17928, 30600, 49610, 77088, 115596, 168168, 238350, 330240, 448528, 598536, 786258, 1018400, 1302420, 1646568, 2059926, 2552448, 3135000, 3819400, 4618458, 5546016, 6616988, 7847400
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A247112] 0, 8, 67, 267, 746, 1690, 3333, 5957, 9892, 15516, 23255, 33583, 47022, 64142, 85561, 111945, 144008, 182512, 228267, 282131, 345010, 417858, 501677, 597517, 706476, 829700, 968383, 1123767, 1297142, 1489846, 1703265, 1938833, 2198032, 2482392, 2793491
a(n) = floor(sum(j = n^2+1..(n+1)^2-1, j^(3/2))).
a(n) = n *(4*n^3 + 6*n^2 + 5*n + 1)/2.
[A124152] 0, 8, 70, 360, 1292, 3640, 8658, 18200, 34840, 61992, 104030, 166408, 255780, 380120, 548842, 772920, 1065008, 1439560, 1912950, 2503592, 3232060, 4121208, 5196290, 6485080, 8017992, 9828200, 11951758, 14427720, 17298260, 20608792, 24408090, 28748408
a(n) = n*(3 + 4*n^2 + n^4).
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A293069] 0, 0, 0, 0, 8, 70, 418, 2156, 10388, 48342, 220746, 996996, 4472564, 19975774, 88948426, 395220140, 1753302020, 7768999014, 34394485578, 152166756084, 672863006900, 2974140030862, 13142067477610, 58058237351324, 256439661695684, 1132519514646870
a(n) = 13*a(n-1) - 65*a(n-2) + 159*a(n-3) - 200*a(n-4) + 122*a(n-5) - 28*a(n-6), n >= 7.
[A097255] 0, 8, 72, 80, 648, 656, 720, 728, 5832, 5840, 5904, 5912, 6480, 6488, 6552, 6560, 52488, 52496, 52560, 52568, 53136, 53144, 53208, 53216, 58320, 58328, 58392, 58400, 58968, 58976, 59040, 59048, 472392, 472400, 472464, 472472, 473040
a(2n) = 9*a(n), a(2n+1) = a(2n)+8.
[A254371] 0, 8, 72, 288, 800, 1800, 3528, 6272, 10368, 16200, 24200, 34848, 48672, 66248, 88200, 115200, 147968, 187272, 233928, 288800, 352800, 426888, 512072, 609408, 720000, 845000, 985608, 1143072, 1318688, 1513800, 1729800, 1968128, 2230272, 2517768, 2832200, 3175200
a(n) = 2*n^2*(n + 1)^2.
[A143945] 0, 8, 72, 320, 1000, 2520, 5488, 10752, 19440, 33000, 53240, 82368, 123032, 178360, 252000, 348160, 471648, 627912, 823080, 1064000, 1358280, 1714328, 2141392, 2649600, 3250000, 3954600, 4776408, 5729472, 6828920, 8091000, 9533120
a(n) = n^3*(n^2-1)/3.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), a(2)=8, a(3)=72, a(4)=320, a(5)=1000, a(6)=2520, a(7)=5488. - Harvey P. Dale, Feb 07 2014
[A288487] 1, 8, 75, 400, 1445, 4056, 9583, 20000, 38025, 67240, 112211, 178608, 273325, 404600, 582135, 817216, 1122833, 1513800, 2006875, 2620880, 3376821, 4298008, 5410175, 6741600, 8323225, 10188776, 12374883, 14921200, 17870525, 21268920, 25165831, 29614208
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A144410] 8, 80, 224, 440, 728, 1088, 1520, 2024, 2600, 3248, 3968, 4760, 5624, 6560, 7568, 8648, 9800, 11024, 12320, 13688, 15128, 16640, 18224, 19880, 21608, 23408, 25280, 27224, 29240, 31328, 33488, 35720, 38024, 40400, 42848, 45368, 47960, 50624, 53360, 56168, 59048, 62000, 65024, 68120, 71288, 74528, 77840, 81224, 84680, 88208, 91808, 95480
a(n) = a(m) + 36*(n - m)*(n + m + 1). For m = n-1, a(n) = a(n-1) + 72*n. - Bruno Berselli, Sep 29 2017
[A100431] 8, 80, 336, 960, 2200, 4368, 7840, 13056, 20520, 30800, 44528, 62400, 85176, 113680, 148800, 191488, 242760, 303696, 375440, 459200, 556248, 667920, 795616, 940800, 1105000, 1289808, 1496880, 1727936, 1984760, 2269200, 2583168, 2928640, 3307656, 3722320
a(n) = (4/3)*(2*n^4 + 11*n^3 + 22*n^2 + 19*n + 6). - Ralf Stephan, May 15 2007
[A102698] 8, 80, 368, 1264, 3448, 7792, 16176, 30696, 54216, 90104, 143576, 220328, 326680, 471232, 664648, 916344, 1241856, 1655208, 2172584, 2812664, 3598664, 4553800, 5702776, 7075264, 8705088, 10628928, 12880056, 15496616, 18523472, 22003808
a(n) approximately equals n^4.989; also lim log(a(n))/log(n) exists. - Eugen J. Ionascu, Dec 09 2006
[A159710] 0, 0, 0, 0, 8, 80, 528, 2912, 14592, 69120, 316160, 1413632, 6223872, 27103232, 117067776, 502456320, 2145517568, 9122349056, 38644678656, 163186343936, 687144960000, 2886107922432, 12094385684480, 50577004298240, 211105074905088, 879606785638400
a(n) = 2^(-5+n)*(4+2^n-4*n)*n for n>1. - Colin Barker, Oct 26 2015
[A002072] 1, 8, 80, 4374, 9800, 123200, 336140, 11859210, 11859210, 177182720, 1611308699, 3463199999, 63927525375, 421138799639, 1109496723125, 1453579866024, 20628591204480, 31887350832896, 31887350832896, 119089041053696, 2286831727304144, 9591468737351909375, 9591468737351909375, 9591468737351909375, 9591468737351909375, 9591468737351909375, 193161583776073923834000
a(n) < 10^n/n except for n=4. (Conjectured, from experimental data.) - M. F. Hasler, Jan 16 2015
[A284069] 8, 88, 89, 98, 888, 889, 898, 899, 988, 989, 998, 8888, 8889, 8898, 8899, 8988, 8989, 8998, 8999, 9888, 9889, 9898, 9899, 9988, 9989, 9998, 88888, 88889, 88898, 88899, 88988, 88989, 88998, 88999, 89888, 89889, 89898, 89899, 89988, 89989, 89998, 89999, 98888
a(2*j+2^(m+1)-m-3) = 10*a(j+2^m-m-1)+8 for j=1..2^m-1.
a(2*j+2^(m+1)-m-2) = 10*a(j+2^m-m-1)+9 for j=1..2^m-1.
a(2^(m+1)-m-2) = 10^m-2. (End)
[A116149] 8, 91, 405, 1196, 2800, 5643, 10241, 17200, 27216, 41075, 59653, 83916, 114920, 153811, 201825, 260288, 330616, 414315, 512981, 628300, 762048, 916091, 1092385, 1292976, 1520000, 1775683, 2062341, 2382380, 2738296, 3132675, 3568193
a(n) = (1/4)*n^2*(1 + 3*n)*(3 + 5*n).
[A086302] 8, 120, 528, 1520, 3480, 6888, 12320, 20448, 32040, 47960, 69168, 96720, 131768, 175560, 229440, 294848, 373320, 466488, 576080, 703920, 851928, 1022120, 1216608, 1437600, 1687400, 1968408, 2283120, 2634128, 3024120, 3455880, 3932288, 4456320, 5031048
a(n) = 4*(n+1)*(n+2)*(n^2 + 3*n + 1). - Bruno Berselli, Mar 26 2012
[A053129] 8, 120, 792, 3432, 11440, 31824, 77520, 170544, 346104, 657800, 1184040, 2035800, 3365856, 5379616, 8347680, 12620256, 18643560, 26978328, 38320568, 53524680, 73629072, 99884400, 133784560, 177100560, 231917400, 300674088, 386206920
a(n) = binomial(2*n-6, 7) if n >= 7 else 0.
[A016791] 8, 125, 512, 1331, 2744, 4913, 8000, 12167, 17576, 24389, 32768, 42875, 54872, 68921, 85184, 103823, 125000, 148877, 175616, 205379, 238328, 274625, 314432, 357911, 405224, 456533, 512000, 571787, 636056, 704969, 778688, 857375, 941192
a(0)=8, a(1)=125, a(2)=512, a(3)=1331, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Feb 20 2013
[A061996] 0, 0, 0, 8, 140, 964, 3920, 11860, 29708, 65240, 129984, 240240, 418220, 693308, 1103440, 1696604, 2532460, 3684080, 5239808, 7305240, 10005324, 13486580, 17919440, 23500708, 30456140, 39043144, 49553600, 62316800
a(n) = (n - 1)*(n - 2)*(n^4 + 3*n^3 - 20*n^2 - 30*n + 132)/6, n >= 1.
[A001534] 8, 170, 494, 980, 1628, 2438, 3410, 4544, 5840, 7298, 8918, 10700, 12644, 14750, 17018, 19448, 22040, 24794, 27710, 30788, 34028, 37430, 40994, 44720, 48608, 52658, 56870, 61244, 65780, 70478, 75338, 80360, 85544, 90890, 96398, 102068, 107900, 113894, 120050
a(n) = 162*n + a(n-1) with a(0)=8. - Vincenzo Librandi, Nov 12 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0)=8, a(1)=170, a(2)=494. [Harvey P. Dale, Aug 20 2011]
[A016875] 8, 343, 1728, 4913, 10648, 19683, 32768, 50653, 74088, 103823, 140608, 185193, 238328, 300763, 373248, 456533, 551368, 658503, 778688, 912673, 1061208, 1225043, 1404928, 1601613, 1815848, 2048383
a(0)=8, a(1)=343, a(2)=1728, a(3)=4913, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Apr 30 2013
[A272357] 0, 8, 520, 4056, 15656, 42880, 95808, 187040, 331696, 547416, 854360, 1275208, 1835160, 2561936, 3485776, 4639440, 6058208, 7779880, 9844776, 12295736, 15178120, 18539808, 22431200, 26905216, 32017296, 37825400, 44390008, 51774120, 60043256, 69265456
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), for n>4.
[A270871] 8, 691, 5030, 25511, 100372, 324323, 898706, 2206135, 4914656, 10116467, 19506238, 35604071, 62028140, 103822051, 167841962, 263208503, 401828536, 598991795, 874047446, 1251165607, 1760188868, 2437578851, 3327462850, 4482785591, 5966571152, 7853300083
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
[A001547] 8, 792, 4320, 12650, 27840, 51948, 87032, 135150, 198360, 278720, 378288, 499122, 643280, 812820, 1009800, 1236278, 1494312, 1785960, 2113280, 2478330, 2883168, 3329852, 3820440, 4356990, 4941560, 5576208, 6262992, 7003970, 7801200, 8656740, 9572648
a(0)=8, a(1)=792, a(2)=4320, a(3)=12650, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Jan 12 2013

[A114617] 1, 8, 1520, 50624, 62000, 103040, 199808, 221840, 269360, 463760, 690560, 848240, 986048, 1252160, 1418480, 2169728, 2692880, 2792240, 3448448, 3721040, 3932288, 5574320, 5716880, 6066368, 6890624, 6922160, 8485568
a(n) mod tau(a(n)) = 0 and (a(n)+1) mod tau(a(n)+1) = 0 where tau(n) is the number of divisors of n. - Walter Kehowski, Jun 19 2006
[A275485] 1, 1, 1, 1, 9, 9, 9, 9, 21, 25, 25, 25, 37, 45, 49, 49, 69, 69, 77, 81, 101, 109, 117, 117, 141, 149, 157, 165, 189, 197, 205, 213, 241, 261, 269, 269, 305, 321, 333, 341, 377, 385, 401, 413, 449, 465, 481, 489, 529, 545
a(n) = (2*floor(n*(sqrt(2)-1)/2)+1)^2+4*Sum_{i=ceiling(-n*(sqrt(2)-1)/2)..floor(n*(sqrt(2)-1)/2)} ceiling(n/4-i^2/n)-1-floor(n*(sqrt(2)-1)/2).
[A168419] 0, 9, 9, 18, 18, 27, 27, 36, 36, 45, 45, 54, 54, 63, 63, 72, 72, 81, 81, 90, 90, 99, 99, 108, 108, 117, 117, 126, 126, 135, 135, 144, 144, 153, 153, 162, 162, 171, 171, 180, 180, 189, 189, 198, 198, 207, 207, 216, 216, 225, 225, 234, 234, 243, 243, 252, 252, 261
a(n) = 9*n - a(n-1) - 9, with n>1, a(1)=0.
a(n) = (9/4)*(-1 + (-1)^n + 2*n). - Paolo P. Lava, Nov 27 2009
a(n) = a(n-1) +a(n-2) -a(n-3). - Vincenzo Librandi, Sep 19 2013
[A022092] 0, 9, 9, 18, 27, 45, 72, 117, 189, 306, 495, 801, 1296, 2097, 3393, 5490, 8883, 14373, 23256, 37629, 60885, 98514, 159399, 257913, 417312, 675225, 1092537, 1767762, 2860299, 4628061, 7488360, 12116421, 19604781, 31721202, 51325983, 83047185, 134373168
a(n) = round((18phi-9)/5 phi^n) (works for n>4) - Thomas Baruchel, Sep 08 2004
a(n) = 9F(n) = F(n+4) + F(n+1) + F(n-2) + F(n-4), n>3.
[A095344] 1, 1, 9, 9, 49, 81, 281, 601, 1729, 4129, 11049, 27561, 71761, 182001, 469049, 1197049, 3073249, 7861441, 20154441, 51600201, 132217969, 338618769, 867490649, 2221965721, 5691928321, 14579791201, 37347504489, 95666669289, 245056687249, 627723364401
a(1) = a(2) = 1; for n>1, a(n) = a(n-1) + 4*a(n-2) - 4*(-1)^n.
a(n) = 5*a(n-2) + 4*a(n-3). - Colin Barker, Mar 25 2012
a(n) = 2*(-1)^n + (2^(-1-n)*(-(-7+sqrt(17))*(1+sqrt(17))^n - (1-sqrt(17))^n*(7+sqrt(17))))/sqrt(17). - Colin Barker, Apr 20 2016
[A020723] 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81
a(n) = n+9. a(n) = 2a(n-1) - a(n-2).
[A058365] 1, 1, 1, 1, 1, 1, 1, 9, 10, 11, 12, 13, 14, 15, 16, 25, 35, 46, 58, 71, 85, 100, 116, 141, 176, 222, 280, 351, 436, 536, 652, 793, 969, 1191, 1471, 1822, 2258, 2794, 3446, 4239, 5208, 6399, 7870, 9692, 11950, 14744, 18190, 22429, 27637, 34036, 41906
a(n) = 1 + n*sum(binomial(n-1-7*i, i-1)/i, i=1..n/8). a(n) = a(n-1) + a(n-8), a(n) = 1 for n = 1..7, a(8) = 9. generating function = (x+8*x^8)/(1-x-x^8).
[A121816] 9, 10, 11, 12, 13, 14, 16, 17, 19, 20, 22, 23, 25, 26, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41, 43, 44, 46, 47, 49, 50, 52, 53, 55, 56, 58, 59, 61, 62, 64, 65, 67, 68, 70, 71, 73, 74, 76, 77, 79, 80, 82, 83, 85, 86, 88, 89, 91, 92, 94, 95, 97, 98, 100
a(n) = n + 5 if 4 <= n <= 7; floor[3*n/2] + 1 if n => 8.
a(n) = (3+(-1)^n+6*n)/4 for n>7. a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: x^4*(x^6-8*x^2+x+9) / ((x-1)^2*(x+1)). - Colin Barker, Apr 30 2013
[A054967] 0, 1, 9, 10, 11, 19, 20, 21, 29, 30, 31, 39, 40, 41, 49, 50, 51, 59, 60, 61, 69, 70, 71, 79, 80, 81, 89, 90, 91, 99, 100, 101, 109, 110, 111, 119, 120, 121, 129, 130, 131, 139, 140, 141, 149, 150, 151, 159, 160, 161, 169, 170, 171, 179, 180, 181, 189, 190, 191, 199
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4. - Vincenzo Librandi, Feb 24 2016
a(n) = (30*n-30+21*cos(2*n*Pi/3)+7*sqrt(3)*sin(2*n*Pi/3))/9.
a(3k) = 10k-1, a(3k-1) = 10k-9, a(3k-2) = 10k-10. (End)
[A048592] 9, 10, 12, 15, 19, 25, 33, 44, 59, 80, 109, 149, 204, 280, 385, 530, 730, 1006, 1387, 1913, 2639, 3641, 5024, 6933, 9568, 13205, 18225, 25154, 34718, 47919, 66140, 91290, 126004, 173919, 240055, 331341, 457341, 631256, 871307, 1202644, 1659981, 2291233, 3162536
a(n) = 2*a(n-1) - a(n-2) + a(n-4) - a(n-5) (holds at least up to n = 1000 but is not known to hold in general).
[A242475] 9, 10, 12, 16, 24, 40, 72, 136, 264, 520, 1032, 2056, 4104, 8200, 16392, 32776, 65544, 131080, 262152, 524296, 1048584, 2097160, 4194312, 8388616, 16777224, 33554440, 67108872, 134217736, 268435464, 536870920, 1073741832
a(n) = 2*a(n-1) - 8 = 3*a(n-1) - 2*a(n-2).
[A247512] 9, 10, 13, 20, 35, 64, 119, 224, 428, 821, 1576, 3030, 5828, 11215, 21584, 41545, 79968, 153931, 296306, 570371, 1097933, 2113463, 4068308, 7831289, 15074840, 29018319, 55858826, 107525476, 206981225, 398428629, 766955420, 1476351286, 2841903278, 5470523390
a(n) = floor(r(n)) with the rational curvatures r(n) satisfying the one step nonlinear recurrence relation r(n) = (11*r(n-1) - 9 + 20*sqrt((r(n-1) - 9)*r(n-1)/10))/9 with input r(0) = 9. (In the link r(n) is called b'(n).)
[A090570] 0, 1, 9, 10, 18, 19, 27, 28, 36, 37, 45, 46, 54, 55, 63, 64, 72, 73, 81, 82, 90, 91, 99, 100, 108, 109, 117, 118, 126, 127, 135, 136, 144, 145, 153, 154, 162, 163, 171, 172, 180, 181, 189, 190, 198, 199, 207, 208, 216, 217, 225, 226
a(n) = 9*n-a(n-1)-17 (with a(1)=0). [Vincenzo Librandi, Nov 16 2010]
a(n) = 9*n/2 -25/4 -7*(-1)^n/4. G.f.: x^2*(1+8*x)/((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A022099] 1, 9, 10, 19, 29, 48, 77, 125, 202, 327, 529, 856, 1385, 2241, 3626, 5867, 9493, 15360, 24853, 40213, 65066, 105279, 170345, 275624, 445969, 721593, 1167562, 1889155, 3056717, 4945872, 8002589, 12948461, 20951050, 33899511, 54850561, 88750072, 143600633, 232350705
a(n) = a(n-1) + a(n-2), n>=2, a(0)=1, a(1)=9. a(-1):=8.
a(n+1) = ((1 + sqrt(5))^n - (1 - sqrt(5))^n)/(2^n*sqrt(5))+ 4*((1 + sqrt(5))^(n-1) - (1 - sqrt(5))^(n-1))/(2^(n-2)*sqrt(5)). - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
[A042113] 1, 9, 10, 19, 29, 48, 77, 279, 3146, 3425, 13421, 30267, 195023, 420313, 1455962, 1876275, 22094987, 68161236, 90256223, 158417459, 248673682, 407091141, 655764823, 6308974548, 303486543127, 2737687862691, 3041174405818, 5778862268509, 8820036674327, 14598898942836
a(n) = 304142307950*a(n-24) - a(n-48) for n>47. - Vincenzo Librandi, Jan 15 2014
[A042613] 1, 1, 9, 10, 19, 29, 164, 193, 743, 2422, 3165, 5587, 14339, 77282, 168903, 246185, 415088, 1491449, 4889435, 6380884, 36793855, 43174739, 79968594, 123143333, 1065115258, 1188258591, 67607596354, 68795854945, 617974435914, 686770290859, 1304744726773
a(n) = 68672711612*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Jan 25 2014
[A022314] 0, 9, 10, 20, 31, 52, 84, 137, 222, 360, 583, 944, 1528, 2473, 4002, 6476, 10479, 16956, 27436, 44393, 71830, 116224, 188055, 304280, 492336, 796617, 1288954, 2085572, 3374527, 5460100, 8834628, 14294729, 23129358, 37424088, 60553447, 97977536, 158530984
a(n) = -1 + (1/2)*((1 + sqrt(5))/2)^n + (19/10)sqrt(5)*((1 + sqrt(5))/2)^n - (19/10)*sqrt(5)*((1 - sqrt(5))/2)^n + (1/2)*((1 - sqrt(5))/2)^n, obtained using PURRS. - Alexander R. Povolotsky, Apr 22 2008
[A271062] 1, 9, 10, 58, 59, 179, 180, 404, 405, 765, 766, 1294, 1295, 2023, 2024, 2984, 2985, 4209, 4210, 5730, 5731, 7579, 7580, 9788, 9789, 12389, 12390, 15414, 15415, 18895, 18896, 22864, 22865, 27353, 27354, 32394, 32395, 38019, 38020, 44260, 44261, 51149, 51150
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7) for n > 6.
[A135332] 1, 9, 10, 74, 75, 291, 292, 804, 805, 1805, 1806, 3534, 3535, 6279, 6280, 10376, 10377, 16209, 16210, 24210, 24211, 34859, 34860, 48684, 48685, 66261, 66262, 88214, 88215, 115215, 115216, 147984, 147985, 187289, 187290, 233946, 233947, 288819
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9).
a(n) = (1/16)*(5 - 5*(-1)^n + 4*(-1)^n*n^3 + 4*n^3 + 6*(-1)^n*n^2 + 2*n^2 + 8*n + 2*n^4), with n>=1. - Paolo P. Lava, Mar 02 2009
[A033046] 0, 1, 9, 10, 81, 82, 90, 91, 729, 730, 738, 739, 810, 811, 819, 820, 6561, 6562, 6570, 6571, 6642, 6643, 6651, 6652, 7290, 7291, 7299, 7300, 7371, 7372, 7380, 7381, 59049, 59050, 59058, 59059, 59130, 59131, 59139, 59140, 59778, 59779, 59787
a(n) = Sum{d(i)*9^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 9*a(n), a(2n+1) = a(2n)+1.
[A041177] 1, 1, 9, 10, 189, 199, 1781, 1980, 37421, 39401, 352629, 392030, 7409169, 7801199, 69818761, 77619960, 1466978041, 1544598001, 13823762049, 15368360050, 290454242949, 305822602999, 2737035066941, 3042857669940, 57508473125861, 60551330795801, 541919119492269
a(n) = 198*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 12 2013
[A041415] 1, 1, 9, 10, 289, 299, 2681, 2980, 86121, 89101, 798929, 888030, 25663769, 26551799, 238078161, 264629960, 7647717041, 7912347001, 70946493049, 78858840050, 2278994014449, 2357852854499, 21141816850441, 23499669704940, 679132568588761, 702632238293701
a(n) = 298*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 17 2013
[A263772] 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79
a(n) = n + 9 for n > 1.

[A214865] 9, 11, 13, 15, 25, 27, 29, 31, 41, 43, 45, 47, 57, 59, 61, 63, 73, 75, 77, 79, 89, 91, 93, 95, 105, 107, 109, 111, 121, 123, 125, 127, 137, 139, 141, 143, 153, 155, 157, 159, 169, 171, 173, 175, 185, 187, 189, 191, 201, 203, 205, 207, 217, 219, 221, 223, 233, 235, 237, 239, 249, 251
a(n) = 4*n + 6 + (-1)^n + 2*(-1)^((2*n+(-1)^n-1)/4) for n>=0.
a(n+4) = a(n) + 16. - Alexander R. Povolotsky, Mar 15 2013
[A027694] 9, 11, 15, 21, 29, 39, 51, 65, 81, 99, 119, 141, 165, 191, 219, 249, 281, 315, 351, 389, 429, 471, 515, 561, 609, 659, 711, 765, 821, 879, 939, 1001, 1065, 1131, 1199, 1269, 1341, 1415, 1491, 1569, 1649, 1731, 1815, 1901, 1989, 2079, 2171
a(0) = 9, a(n) = a(n - 1) + 2n. [From Vincenzo Librandi, Feb 07 2011]
[A090771] 1, 9, 11, 19, 21, 29, 31, 39, 41, 49, 51, 59, 61, 69, 71, 79, 81, 89, 91, 99, 101, 109, 111, 119, 121, 129, 131, 139, 141, 149, 151, 159, 161, 169, 171, 179, 181, 189, 191, 199, 201, 209, 211, 219, 221, 229, 231, 239, 241, 249, 251, 259, 261, 269, 271, 279, 281
a(n) = 10*n - a(n-1) - 10 (with a(1) = 1). - Vincenzo Librandi, Nov 16 2010
[A275797] 9, 11, 21, 43, 57, 119, 249, 331, 693, 1451, 1929, 4039, 8457, 11243, 23541, 49291, 65529, 137207, 287289, 381931, 799701, 1674443, 2226057, 4660999, 9759369, 12974411, 27166293, 56881771, 75620409, 158336759, 331531257, 440748043, 922854261
a(n) = 6*a(n-3)-a(n-6) for n>5. - Colin Barker, Sep 28 2016
[A050435] 9, 12, 15, 16, 18, 21, 24, 25, 26, 28, 32, 33, 34, 36, 38, 39, 40, 42, 45, 48, 49, 50, 51, 52, 55, 56, 57, 60, 63, 64, 65, 68, 69, 70, 72, 74, 76, 77, 78, 80, 81, 84, 86, 87, 88, 90, 91, 93, 94, 95, 98, 100, 102, 104, 105, 106, 110, 111, 112, 115, 116, 117, 118, 119
a(n) = n + 2n/log n + O(n/log^2 n). - Charles R Greathouse IV, Jun 25 2017
[A199593] 9, 12, 17, 19, 22, 26, 29, 31, 32, 39, 40, 41, 42, 45, 48, 49, 52, 54, 57, 59, 62, 63, 68, 69, 70, 72, 73, 74, 79, 82, 83, 85, 87, 89, 92, 96, 97, 99, 100, 101, 102, 107, 108, 109, 110, 112, 114, 115, 119, 121, 122, 124, 126, 129, 131, 132, 135, 136, 138, 139, 142, 143, 146, 149, 151, 152, 157, 158, 159, 161, 162, 165, 166, 169, 171, 172, 173, 176, 177, 178
a(n) = n + 3n/log n + o(n/log n). - Charles R Greathouse IV, Oct 27 2013, corrected Aug 07 2016
[A153973] 9, 12, 18, 30, 54, 102, 198, 390, 774, 1542, 3078, 6150, 12294, 24582, 49158, 98310, 196614, 393222, 786438, 1572870, 3145734, 6291462, 12582918, 25165830, 50331654, 100663302, 201326598, 402653190, 805306374, 1610612742, 3221225478
a(n) = 3*a(n-1) - 2*a(n-2), with a(1) = 9, a(2) = 12. - Harvey P. Dale, May 09 2012
a(n) = (3/2)*(4 + 2^n).
[A072702] 9, 12, 18, 51, 69, 72, 78, 111, 129, 132, 138, 171, 189, 192, 198, 231, 249, 252, 258, 291, 309, 312, 318, 351, 369, 372, 378, 411, 429, 432, 438, 471, 489, 492, 498, 531, 549, 552, 558, 591, 609, 612, 618, 651, 669, 672, 678, 711, 729, 732, 738, 771, 789
a(n) = (-60 + 6*(-1)^n + (9+21*i)*(-i)^n + (9-i*21)*i^n + 60*n) / 4 where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A195162] 0, 1, 9, 12, 28, 33, 57, 64, 96, 105, 145, 156, 204, 217, 273, 288, 352, 369, 441, 460, 540, 561, 649, 672, 768, 793, 897, 924, 1036, 1065, 1185, 1216, 1344, 1377, 1513, 1548, 1692, 1729, 1881, 1920, 2080, 2121, 2289, 2332, 2508, 2553, 2737, 2784, 2976, 3025
a(n) = a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5).
a(n) = (10*n*(n+1)+3*(2*n+1)*(-1)^n-3)/8.
a(n) = a(-n-1). (End)
[A140145] 1, 9, 12, 76, 81, 297, 304, 816, 825, 1825, 1836, 3564, 3577, 6321, 6336, 10432, 10449, 16281, 16300, 24300, 24321, 34969, 34992, 48816, 48841, 66417, 66444, 88396, 88425, 115425, 115456, 148224, 148257, 187561, 187596, 234252, 234289, 289161
a(n)=a(n-1)+{[1-(-1)^n]/2}*n+{[1+(-1)^n]/2}*n^3, with a(1)=1 a(n)=(3/16)-(1/4)*(-1)^n*n-(3/16)*(-1)^n+(1/4)*(-1)^n*n^3+(1/4)*n^3+(3/8)*(-1)^n*n^2+(3/8)*n^2+(1/4) *n+(1/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
a(n)=a(n-1)+4a(n-2)-4a(n-3)-6a(n-4)+6a(n-5)+4a(n-6)-4a(n-7)-a(n-8)+a(n-9). G.f.: -x*(1+8*x-x^2+32*x^3-x^4+8*x^5+x^6)/((1+x)^4*(x-1)^5). [From R. J. Mathar, Feb 22 2009]
[A294357] 9, 13, 17, 21, 25, 27, 29, 33, 37, 39, 45, 47, 51, 53, 63, 65, 71, 77, 83, 89, 95, 101, 107, 113, 119, 125, 131, 137, 143, 149, 161, 167, 173, 185, 191, 197, 203, 209, 215, 221, 227, 233, 239, 245, 247, 251, 257, 269, 277, 281, 287, 293, 299
a(1)=9 because 9=3+3+3 is the smallest number that can be represented as sum of 3 odd primes.
[A263941] 1, 9, 13, 18, 22, 27, 31, 36, 40, 45, 49, 54, 58, 63, 67, 72, 76, 81, 85, 90, 94, 99, 103, 108, 112, 117, 121, 126, 130, 135, 139, 144, 148, 153, 157, 162, 166, 171, 175, 180, 184, 189, 193, 198, 202, 207, 211, 216, 220, 225
a(n) = floor(9*n/2) = (18*n + (-1)^n - 1)/4 with n>1, a(1)=1.
a(n) = a(n-1) + a(n-2) - a(n-3) for n>4.
[A026045] 9, 13, 19, 28, 39, 53, 70, 91, 117, 147, 182, 222, 268, 321, 380, 446, 519, 600, 690, 788, 895, 1011, 1137, 1274, 1421, 1579, 1748, 1929, 2123, 2329, 2548, 2780, 3026, 3287, 3562, 3852, 4157, 4478, 4816, 5170, 5541, 5929, 6335, 6760, 7203, 7665, 8146, 8647, 9169, 9711, 10274, 10858, 11464
a(n)=(n + 5)*(2*n^2 + 11*n + 54)/30 - (1 + (- 1/2 - 1/10*5^(1/2))*cos(2*n*Pi/5) + (1/10*(3*(5 - 5^(1/2))^(1/2) + 2*(5 + 5^(1/2))^(1/2))*2^(1/2))*sin(2*n*Pi/5) + (1/10*5^(1/2) - 1/2)*cos(4*n*Pi/5) + (1/10*(2*(5 - 5^(1/2))^(1/2) - 3*(5 + 5^(1/2))^(1/2))*2^(1/2))*sin(4*n*Pi/5))/5 [From Richard Choulet, Dec 14 2008]
[A219257] 0, 9, 13, 40, 48, 93, 105, 168, 184, 265, 285, 384, 408, 525, 553, 688, 720, 873, 909, 1080, 1120, 1309, 1353, 1560, 1608, 1833, 1885, 2128, 2184, 2445, 2505, 2784, 2848, 3145, 3213, 3528, 3600, 3933, 4009, 4360, 4440, 4809, 4893, 5280, 5368, 5773, 5865
a(n) = a(-n+1) = (22*n*(n-1)+7*(-1)^n*(2*n-1)-1)/8 + 1 = (1/176)*(22*n+7*(-1)^n-15)*(22*n+7*(-1)^n-7).
[A160117] 0, 1, 9, 13, 41, 49, 101, 113, 189, 205, 305, 325, 449, 473, 621, 649, 821, 853, 1049, 1085, 1305, 1345, 1589, 1633, 1901, 1949, 2241, 2293, 2609, 2665, 3005, 3065, 3429, 3493, 3881, 3949, 4361, 4433, 4869, 4945, 5405, 5485, 5969, 6053, 6561, 6649, 7181, 7273
a(2n) = 5 + 2n(7n-5) for n>=1, a(2n+1) = 5 + 2n(7n-3) for n>=1. - Nathaniel Johnston, Nov 06 2010
[A270936] 1, 9, 13, 57, 66, 182, 191, 411, 420, 776, 785, 1309, 1318, 2042, 2051, 3007, 3016, 4236, 4245, 5761, 5770, 7614, 7623, 9827, 9836, 12432, 12441, 15461, 15470, 18946, 18955, 22919, 22928, 27412, 27421, 32457, 32466, 38086, 38095, 44331, 44340, 51224, 51233
a(n) = (33*(-1+(-1)^n)+(46-24*(-1)^n)*n-12*(-2+(-1)^n)*n^2+8*n^3)/12 for n>1.
a(n) = (4*n^3+6*n^2+11*n)/6 for n>1 and even.
a(n) = (4*n^3+18*n^2+35*n-33)/6 for n>1 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>8.
[A271006] 1, 9, 13, 57, 70, 182, 207, 415, 452, 792, 841, 1345, 1406, 2106, 2179, 3107, 3192, 4380, 4477, 5957, 6066, 7870, 7991, 10151, 10284, 12832, 12977, 15945, 16102, 19522, 19691, 23595, 23776, 28196, 28389, 33357, 33562, 39110, 39327, 45487, 45716, 52520, 52761
a(n) = 1/4*(71-7*(-1)^n)-(25*n)/6-(-3+(-1)^n)*n^2+(2*n^3)/3 for n>4.
a(n) = (4*n^3+12*n^2-25*n+96)/6 for n>4 and even.
a(n) = (4*n^3+24*n^2-25*n+117)/6 for n>4 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>9.
[A271052] 1, 9, 13, 57, 70, 186, 199, 419, 432, 788, 801, 1325, 1338, 2062, 2075, 3031, 3044, 4264, 4277, 5793, 5806, 7650, 7663, 9867, 9880, 12476, 12489, 15509, 15522, 18998, 19011, 22975, 22988, 27472, 27485, 32521, 32534, 38154, 38167, 44403, 44416, 51300, 51313
a(n) = (8*n^3 + 12*n^2 + 46*n - 48) / 12 for n>1 and even.
a(n) = (8*n^3 + 36*n^2 + 94*n - 138) / 12 for n>1 and odd.
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7) for n>8.
[A258286] 1, 1, 9, 13, 66, 111, 475, 852, 3128, 5668, 19011, 34804, 108328, 195267, 567674, 1059291, 2849122, 5212695, 13785287, 25156313, 62613272, 115799409, 277245609, 508970856, 1196118973, 2161689541
a(n) = 1/8! * [Product_{i=1..8} x_i^n] Product_{j>0} (1+Sum_{i=1..8} x_i^j).
[A184218] 0, 0, 0, 0, 9, 14, 20, 27, 35, 44, 54, 65, 77, 90, 104, 119, 135, 152, 170, 189, 209, 230, 252, 275, 299, 324, 350, 377, 405, 434, 464, 495, 527, 560, 594, 629, 665, 702, 740, 779, 819, 860, 902, 945, 989, 1034, 1080, 1127, 1175, 1224, 1274, 1325, 1377
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 7.
[A151915] 1, 9, 14, 22, 30, 35, 43, 48, 56, 64, 69, 77, 85, 90, 98, 103, 111, 119, 124, 132, 137, 145, 153, 158, 166, 174, 179, 187, 192, 200, 208, 213, 221, 229, 234, 242, 247, 255, 263, 268, 276, 281, 289, 297, 302, 310, 318, 323, 331, 336, 344, 352, 357, 365, 370, 378
a(n) = 3*floor(n*Phi)+2*n-4 where Phi=(1+sqrt(5))/2.
[A272566] 1, 9, 14, 58, 71, 183, 208, 416, 453, 793, 842, 1346, 1407, 2107, 2180, 3108, 3193, 4381, 4478, 5958, 6067, 7871, 7992, 10152, 10285, 12833, 12978, 15946, 16103, 19523, 19692, 23596, 23777, 28197, 28390, 33358, 33563, 39111, 39328, 45488, 45717, 52521, 52762

a(n) = 1/4*(75-7*(-1)^n)-(25*n)/6-(-3+(-1)^n)*n^2+(2*n^3)/3 for n>4.
a(n) = (4*n^3+12*n^2-25*n+102)/6 for n>4 and even.
a(n) = (4*n^3+24*n^2-25*n+123)/6 for n>4 and odd.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>9.
[A070876] 9, 15, 18, 30, 36, 60, 72, 120, 144, 240, 288, 480, 576, 960, 1152, 1920, 2304, 3840, 4608, 7680, 9216, 15360, 18432, 30720, 36864, 61440, 73728, 122880, 147456, 245760, 294912, 491520, 589824, 983040, 1179648, 1966080, 2359296, 3932160
a(n) = 3*(4-(-1)^n)*2^((2*n+(-1)^n-1)/4). Therefore: a(n) = 9*2^(n/2) for n even, otherwise a(n) = 15*2^((n-1)/2).
a(n) = 2*a(n-2) for n>1. (End)
[A007962] 9, 15, 21, 29, 39, 47, 57, 65, 71, 93, 99, 115, 129, 137, 143, 149, 183, 189, 205, 219, 225, 241, 251, 269, 287, 309, 317, 327, 335, 357, 371, 377, 417, 419, 441, 459, 465, 493, 503, 509, 543, 545, 567, 587, 597, 609, 621, 653, 657, 695, 701, 723, 725, 743, 749, 755, 785
a(n) « n log n. - Charles R Greathouse IV, Sep 19 2012
[A274757] 0, 9, 15, 42, 54, 99, 117, 180, 204, 285, 315, 414, 450, 567, 609, 744, 792, 945, 999, 1170, 1230, 1419, 1485, 1692, 1764, 1989, 2067, 2310, 2394, 2655, 2745, 3024, 3120, 3417, 3519, 3834, 3942, 4275, 4389, 4740, 4860, 5229, 5355, 5742, 5874, 6279, 6417
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5.
a(n) = 3*(2*n - 1)*(2*n + (-1)^n - 1)/4. Therefore:
a(n) = 3*n*(2*n - 1)/2 for n even,
a(n) = 3*(n-1)*(2*n - 1)/2 for n odd.
[A151973] 0, 1, 9, 16, 24, 25, 33, 40, 48, 49, 57, 64, 72, 73, 81, 88, 96, 97, 105, 112, 120, 121, 129, 136, 144, 145, 153, 160, 168, 169, 177, 184, 192, 193, 201, 208, 216, 217, 225, 232, 240, 241, 249, 256, 264, 265, 273, 280, 288, 289, 297, 304, 312, 313, 321, 328, 336, 337, 345
a(n) = a(n-1)+a(n-4)-a(n-5) for n>5. G.f.: x^2*(8*x^3+7*x^2+8*x+1) / ((x-1)^2*(x+1)*(x^2+1)). - Colin Barker, Nov 29 2012
a(n) = (12*n+3*i^(n*(n-1))-2*(-1)^n-17)/2, where i=sqrt(-1). - Bruno Berselli, Nov 29 2012
[A026062] 9, 16, 25, 36, 51, 68, 88, 111, 137, 168, 202, 240, 282, 328, 380, 436, 497, 563, 634, 712, 795, 884, 979, 1080, 1189, 1304, 1426, 1555, 1691, 1836, 1988, 2148, 2316, 2492, 2678, 2872, 3075, 3287, 3508, 3740, 3981, 4232, 4493, 4764, 5047, 5340, 5644, 5959, 6285, 6624, 6974, 7336, 7710, 8096
a(n)=(n + 5)*(n^2 + 25*n + 54)/30 - 1/5*(1 + (- 1/2 - 1/2*5^(1/2))*cos(2*n*Pi/5) + (- 3/10*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(2*n*Pi/5) + (- 1/2 + 1/2*5^(1/2))*cos(4*n*Pi/5) + (3/10*2^(1/2)*(5 + 5^(1/2))^(1/2))*sin(4*n*Pi/5)) [From Richard Choulet, Dec 14 2008]
[A198308] 9, 16, 65, 114, 457, 800, 3201, 5602, 22409, 39216, 156865, 274514, 1098057, 1921600, 7686401, 13451202, 53804809, 94158416, 376633665, 659108914, 2636435657, 4613762400, 18455049601, 32296336802, 129185347209, 226074357616, 904297430465, 1582520503314
a(2*i) = 2 Sum_{j=0..i-1} 7^j = string "2"^i read in base 7.
a(2*i+1) = 7^i + 2 Sum_{j=0..i-1} 7^j = string "1"*"2"^i read in base 7.
a(n) = a(n-1) + 7*a(n-2) - 7*a(n-3) for n>5.
a(n) = (7^(n/2) - 1)/3 for n even.
a(n) = (4*7^(n/2-1/2) - 1)/3 for n odd.
[A017077] 1, 9, 17, 25, 33, 41, 49, 57, 65, 73, 81, 89, 97, 105, 113, 121, 129, 137, 145, 153, 161, 169, 177, 185, 193, 201, 209, 217, 225, 233, 241, 249, 257, 265, 273, 281, 289, 297, 305, 313, 321, 329, 337, 345, 353, 361, 369, 377, 385, 393, 401, 409, 417, 425, 433
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Mar 14 2014
[A004768] 9, 17, 25, 33, 41, 49, 57, 65, 73, 81, 89, 97, 105, 113, 121, 129, 137, 145, 153, 161, 169, 177, 185, 193, 201, 209, 217, 225, 233, 241, 249, 257, 265, 273, 281, 289, 297, 305, 313, 321, 329, 337, 345, 353, 361, 369, 377, 385, 393, 401, 409, 417, 425, 433, 441, 449, 457, 465, 473, 481, 489
a(n) = 8*n + 9. [From Reinhard Zumkeller, Oct 30 2008]
a(0)=9, a(1)=17, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, May 10 2015
[A285009] 9, 17, 28, 42, 59, 79, 102, 128, 157, 189, 224, 262, 303, 347, 394, 444, 497, 553, 612, 674, 739, 807, 878, 952, 1029, 1109, 1192, 1278, 1367, 1459, 1554, 1652, 1753, 1857, 1964, 2074, 2187, 2303, 2422, 2544, 2669, 2797, 2928, 3062, 3199, 3339, 3482, 3628, 3777, 3929, 4084
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), for n > 5.
a(n) = (8 + (n-2)*(3*n+1))/2, for n > 2.
[A090994] 9, 17, 32, 61, 116, 222, 424, 813, 1556, 2986, 5721, 10982, 21053, 40416, 77505, 148785, 285380, 547810, 1050876, 2017126, 3869845, 7427671, 14250855, 27351502, 52479500, 100719775, 193258375, 370895324, 711682501, 1365808847, 2620797529
a(k+5)=a(k+4)+4*a(k+3)-3*a(k+2)-3*a(k+1)+a(k)
[A275543] 1, 1, 9, 17, 33, 49, 73, 97, 129, 161, 201, 241, 289, 337, 393, 449, 513, 577, 649, 721, 801, 881, 969, 1057, 1153, 1249, 1353, 1457, 1569, 1681, 1801, 1921, 2049, 2177, 2313, 2449, 2593, 2737, 2889, 3041, 3201, 3361, 3529, 3697, 3873, 4049, 4233, 4417, 4609
a(n) = (2*n^2 + (-1)^n).
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 3.
[A121442] 1, 1, 9, 17, 97, 241, 1097, 3169, 12801, 40225, 152265, 501489, 1831649, 6192785, 22176137, 76079553, 269472001, 932011841, 3281180297, 11399814865, 39998425697, 139315579185, 487901595593, 1701743382561, 5953542163713, 20781331011169, 72661467102025
a(0)=a(1)=1, a(2)=9, a(n+1) = a(n)+9*a(n-1)-a(n-2) for n>=2.
[A046412] 9, 18, 22, 27, 36, 42, 44, 45, 54, 63, 66, 72, 78, 81, 84, 88, 90, 99, 108, 110, 111, 117, 126, 132, 135, 144, 153, 154, 156, 162, 168, 171, 176, 180, 189, 198, 205, 207, 210, 216, 220, 222, 225, 234, 242, 243, 252, 261, 264, 270, 272, 279, 286, 288, 294, 297
a(n)=k where (10^k-1)/9 is not squarefree. - Ray Chandler, Aug 10 2003
[A102042] 9, 18, 26, 32, 34, 38, 46, 52, 54, 58, 66, 72, 74, 78, 86, 92, 94, 98, 106, 112, 114, 118, 126, 132, 134, 138, 146, 152, 154, 158, 166, 172, 174, 178, 186, 192, 194, 198, 206, 212, 214, 218, 226, 232, 234, 238, 246, 252, 254, 258, 266, 272, 274, 278, 286, 292
a(n) = 10+(1-i/2)*(-i)^n+(1+i/2)*i^n+5*n for n>1, where i = sqrt(-1). - Colin Barker, Oct 19 2015
[A008591] 0, 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 189, 198, 207, 216, 225, 234, 243, 252, 261, 270, 279, 288, 297, 306, 315, 324, 333, 342, 351, 360, 369, 378, 387, 396, 405, 414, 423, 432, 441, 450, 459, 468, 477
a(n) = 9*n = 2*a(n-1) - a(n-2). G.f.: 9x/(x-1)^2. - Vincenzo Librandi, Dec 24 2010
[A217373] 9, 18, 27, 36, 45, 54, 63, 72, 90, 99, 108, 117, 126, 135, 144, 153, 171, 180, 189, 198, 207, 216, 225, 234, 252, 261, 270, 279, 288, 297, 306, 315, 333, 342, 351, 360, 369, 378, 387, 396, 414, 423, 432, 441, 450, 459, 468, 477, 495, 504, 513, 522, 531, 540
a(n)/(10*n) tends to 1, as n goes to infinity.
[A194152] 9, 18, 28, 37, 47, 56, 66, 75, 85, 94, 104, 113, 123, 132, 142, 151, 161, 170, 179, 189, 198, 208, 217, 227, 236, 246, 255, 265, 274, 284, 293, 303, 312, 322, 331, 340, 350, 359, 369, 378, 388, 397, 407, 416, 426, 435, 445, 454, 464, 473, 483, 492, 502
a(n) = Floor(n*(5+2*sqrt(5))). - Vincenzo Librandi, Oct 25 2011
[A051063] 9, 18, 36, 45, 63, 72, 90, 99, 117, 126, 144, 153, 171, 180, 198, 207, 225, 234, 252, 261, 279, 288, 306, 315, 333, 342, 360, 369, 387, 396, 414, 423, 441, 450, 468, 477, 495, 504, 522, 531, 549, 558, 576, 585, 603, 612, 630, 639, 657, 666
a(n)=27*n-a(n-1) for n>0, a(0)=9. [Vincenzo Librandi, Aug 06 2010]
[A005010] 9, 18, 36, 72, 144, 288, 576, 1152, 2304, 4608, 9216, 18432, 36864, 73728, 147456, 294912, 589824, 1179648, 2359296, 4718592, 9437184, 18874368, 37748736, 75497472, 150994944, 301989888, 603979776, 1207959552, 2415919104
a(n) = 9*2^n.
a(n) = 2*a(n-1), n>0; a(0)=9. - Philippe Deléham, Nov 23 2008
[A086500] 1, 9, 18, 50, 75, 147, 196, 324, 405, 605, 726, 1014, 1183, 1575, 1800, 2312, 2601, 3249, 3610, 4410, 4851, 5819, 6348, 7500, 8125, 9477, 10206, 11774, 12615, 14415, 15376, 17424, 18513, 20825, 22050, 24642, 26011, 28899, 30420, 33620, 35301
a(n) = n*(n+1)*(2*n+1+(-1)^n)/4. - Wesley Ivan Hurt, Sep 19 2014
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7) for n>7. - Colin Barker, Sep 19 2014
[A140149] 1, 9, 18, 82, 107, 323, 372, 884, 965, 1965, 2086, 3814, 3983, 6727, 6952, 11048, 11337, 17169, 17530, 25530, 25971, 36619, 37148, 50972, 51597, 69173, 69902, 91854, 92695, 119695, 120656, 153424, 154513, 193817, 195042, 241698, 243067
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^2+{[1+(-1)^n]/2}*n^3, with a(1)=1 a(n)= (1/16)-(1/4)*(-1)^n*n-(1/16)*(-1)^n+(1/4)*(-1)^n*n^3+(5/12)*n^3+(1/8)*(-1)^n*n^2+(3/8)*n^2+(1 /12)*n+(1/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008

a(n)=a(n-1)+4a(n-2)-4a(n-3)-6a(n-4)+6a(n-5)+4a(n-6)-4a(n-7)-a(n-8)+a(n-9). G.f.: x*(-1-8*x-5*x^2-32*x^3+5*x^4-8*x^5+x^6)/((1+x)^4*(x-1)^5). [From R. J. Mathar, Feb 22 2009]

[A041369] 1, 9, 19, 28, 75, 178, 965, 4038, 5003, 9041, 122536, 131577, 254113, 1148029, 5994258, 13136545, 32267348, 45403893, 123075134, 1153080099, 32409317906, 292836941253, 618083200412, 910920141665, 2439923483742, 5790767109149, 31393759029487

a(n) = 32532393040*a(n-20) - a(n-40) for n>39. [Bruno Berselli, Dec 16 2013]

[A042523] 1, 9, 19, 28, 159, 187, 346, 1225, 5246, 6471, 31130, 37601, 181534, 582203, 763737, 1345940, 7493437, 8839377, 25172191, 235389096, 13206961567, 119098043199, 251403047965, 370501091164, 2103908503785, 2474409594949, 4578318098734, 16209363891151

a(n) = 13232133758*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Jan 23 2014

[A037085] 0, 9, 19, 29, 39, 49, 59, 69, 78, 88, 98, 108, 118, 128, 138, 148, 157, 167, 177, 187, 197, 207, 217, 227, 236, 246, 256, 266, 276, 286, 296, 305, 315, 325, 335, 345, 355, 365, 375, 384, 394, 404, 414, 424, 434, 444, 454, 463, 473, 483, 493

a(n)=floor(n*pi^2)

[A017377] 9, 19, 29, 39, 49, 59, 69, 79, 89, 99, 109, 119, 129, 139, 149, 159, 169, 179, 189, 199, 209, 219, 229, 239, 249, 259, 269, 279, 289, 299, 309, 319, 329, 339, 349, 359, 369, 379, 389, 399, 409, 419, 429, 439, 449, 459, 469, 479, 489, 499, 509, 519, 529, 539

a(n) = 10*n + 9; a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, May 29 2011

[A056126] 0, 9, 19, 30, 42, 55, 69, 84, 100, 117, 135, 154, 174, 195, 217, 240, 264, 289, 315, 342, 370, 399, 429, 460, 492, 525, 559, 594, 630, 667, 705, 744, 784, 825, 867, 910, 954, 999, 1045, 1092, 1140, 1189, 1239, 1290, 1342, 1395, 1449, 1504, 1560, 1617, 1675

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).

a(n) = a(n-1) + n + 8 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010

a(n) = 9n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013

[A190576] 1, 9, 19, 31, 45, 61, 79, 99, 121, 145, 171, 199, 229, 261, 295, 331, 369, 409, 451, 495, 541, 589, 639, 691, 745, 801, 859, 919, 981, 1045, 1111, 1179, 1249, 1321, 1395, 1471, 1549, 1629, 1711, 1795, 1881, 1969, 2059, 2151, 2245, 2341

a(1)=1, a(2)=9, a(3)=19, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 28 2015

[A195042] 0, 1, 9, 19, 36, 55, 81, 109, 144, 181, 225, 271, 324, 379, 441, 505, 576, 649, 729, 811, 900, 991, 1089, 1189, 1296, 1405, 1521, 1639, 1764, 1891, 2025, 2161, 2304, 2449, 2601, 2755, 2916, 3079, 3249, 3421, 3600, 3781, 3969, 4159, 4356, 4555, 4761, 4969, 5184, 5401, 5625

a(n) = (9*n^2+5/2*((-1)^n-1))/4.

[A159697] 9, 19, 40, 84, 176, 368, 768, 1600, 3328, 6912, 14336, 29696, 61440, 126976, 262144, 540672, 1114112, 2293760, 4718592, 9699328, 19922944, 40894464, 83886080, 171966464, 352321536, 721420288, 1476395008, 3019898880

a(n) = Sum_{k=0..n} (k+9)*binomial(n,k).

a(n) = (18+n)*2^(n-1) = 4*a(n-1)-4*a(n-2). G.f.: (9-17*x)/(1-2*x)^2. [R. J. Mathar, Apr 20 2009]

a(0)=9, a(1)=19, a(n) = 4*a(n-1)-4*a(n-2). - Harvey P. Dale, Mar 24 2013

[A048696] 1, 9, 19, 47, 113, 273, 659, 1591, 3841, 9273, 22387, 54047, 130481, 315009, 760499, 1836007, 4432513, 10701033, 25834579, 62370191, 150574961, 363520113, 877615187, 2118750487, 5115116161, 12348982809, 29813081779, 71975146367

a(n) = 2*a(n-1) + a(n-2); a(0)=1, a(1)=9.

a(n) = ((4*sqrt(2)+1)(1+sqrt(2))^n - (4*sqrt(2)-1)(1-sqrt(2))^n)/2.

[A171066] 0, 1, 1, 9, 19, 100, 279, 1189, 3781, 14661, 49600, 184141, 641421, 2333629, 8240959, 29700900, 105561739, 378777169, 1350292761, 4835148121, 17260998400, 61748847081, 220582688041, 788748162049, 2818480203099, 10076047502500

a(n)= +a(n-1) +9*a(n-2) +a(n-3) -a(n-4)

[A041677] 1, 1, 9, 19, 161, 180, 6641, 6821, 61209, 129239, 1095121, 1224360, 45172081, 46396441, 416343609, 879083659, 7449012881, 8328096540, 307260488321, 315588584861, 2831969167209, 5979526919279, 50668184521441, 56647711440720, 2089985796387361, 2146633507828081

a(n) = 6802*a(n-6) - a(n-12) for n>11. - Vincenzo Librandi, Dec 22 2013

[A094196] 1, 9, 20, 25, 44, 76, 121, 197, 304, 353, 540, 856, 1301, 2053, 3112, 3597, 5448, 8576, 12981, 20425, 30908, 35709, 54032, 84996, 128601, 202289, 306060, 353585, 534964, 841476, 1273121, 2002557, 3029784, 3500233, 5295700, 8329856, 12602701

a(0)=1, a(1)=9, a(2)=20, a(3)=25, a(4)=44, a(5)=76, a(6)=121, a(7)=197, a(8)=304, a(9)=353, a(10)=540, a(11)=856, a(12)=1301; thereafter a(n) = a(n-1)+10*a(n-6)-10*a(n-7)-a(n-12)+a(n-13). - Harvey P. Dale, Oct 10 2011

a(1)=1, a(2)=9, a(3)=20, a(4)=25, a(5)=44, a(6)=76, a(7)=121, a(8)=197, a(9)=304, a(10)=353, a(11)=540, a(12)=856; a(n)=10*a(n-6)-a(n-12) + 92 for n>12. - Daniel Mondot, Aug 05 2016

[A028566] 0, 9, 20, 33, 48, 65, 84, 105, 128, 153, 180, 209, 240, 273, 308, 345, 384, 425, 468, 513, 560, 609, 660, 713, 768, 825, 884, 945, 1008, 1073, 1140, 1209, 1280, 1353, 1428, 1505, 1584, 1665, 1748, 1833, 1920, 2009, 2100, 2193, 2288, 2385

a(n) = (n+4)^2 - 4^2 = n*(n+8), n>=0.

a(n) = 2*n + a(n-1) + 7. - Vincenzo Librandi, Aug 05 2010

[A106214] 9, 21, 27, 48, 51, 72, 75, 81, 96, 105, 114, 117, 123, 126, 132, 135, 147, 156, 159, 177, 180, 189, 198, 201, 207, 222, 234, 252, 255, 264, 273, 288, 291, 294, 309, 315, 324, 339, 357, 360, 378, 387, 393, 399, 402, 432, 438, 444, 450, 456

a(n) = 0 (mod 3) for n>=0.

[A017629] 9, 21, 33, 45, 57, 69, 81, 93, 105, 117, 129, 141, 153, 165, 177, 189, 201, 213, 225, 237, 249, 261, 273, 285, 297, 309, 321, 333, 345, 357, 369, 381, 393, 405, 417, 429, 441, 453, 465, 477, 489, 501, 513, 525, 537, 549, 561, 573, 585, 597, 609, 621, 633

a(n) = 6*(4n+1)-a(n-1) (with a(0)=9). - Vincenzo Librandi, Dec 17 2010

[A226355] 1, 9, 21, 33, 49, 61, 81, 93, 113, 129, 149, 161, 189, 201, 221, 241, 265, 277, 305, 317, 345, 365, 385, 397, 433, 449, 469, 489, 517, 529, 565, 577, 605, 625, 645, 665, 705, 717, 737, 757, 793, 805, 841, 853, 881, 909, 929, 941, 985, 1001, 1029, 1049, 1077, 1089, 1125, 1145, 1181

a(n) = 1 + 4n + 4*Sum_{k=1..n} tau(k), where tau(k) is the number of divisors of k. - Lorenz H. Menke, Jr., Mar 15 2016

[A140673] 0, 9, 21, 36, 54, 75, 99, 126, 156, 189, 225, 264, 306, 351, 399, 450, 504, 561, 621, 684, 750, 819, 891, 966, 1044, 1125, 1209, 1296, 1386, 1479, 1575, 1674, 1776, 1881, 1989, 2100, 2214, 2331, 2451, 2574, 2700, 2829, 2961, 3096

a(n) = 3*n + a(n-1) + 6 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010

[A059993] 1, 9, 21, 37, 57, 81, 109, 141, 177, 217, 261, 309, 361, 417, 477, 541, 609, 681, 757, 837, 921, 1009, 1101, 1197, 1297, 1401, 1509, 1621, 1737, 1857, 1981, 2109, 2241, 2377, 2517, 2661, 2809, 2961, 3117, 3277, 3441, 3609, 3781, 3957, 4137, 4321, 4509

a(n) = 4*n + a(n-1) + 4 for n>0, a(0)=1. - Vincenzo Librandi, Aug 07 2010

a(n) = 2*a(n-1) - a(n-2) + 4. - Vincenzo Librandi, Mar 01 2013

a(n) = Hyper2F1([-2, n], [1], -2). - Peter Luschny, Aug 02 2014

[A160414] 0, 1, 9, 21, 49, 61, 97, 133, 225, 237, 273, 309, 417, 453, 561, 669, 961, 973, 1009, 1045, 1153, 1189, 1297, 1405, 1729, 1765, 1873, 1981, 2305, 2413, 2737, 3061, 3969, 3981, 4017, 4053, 4161, 4197, 4305, 4413, 4737, 4773, 4881, 4989, 5313, 5421, 5745

a(2^k) = (2^(k+1) - 1)^2. - Omar E. Pol, Jan 05 2013

[A130861] 0, 9, 22, 39, 60, 85, 114, 147, 184, 225, 270, 319, 372, 429, 490, 555, 624, 697, 774, 855, 940, 1029, 1122, 1219, 1320, 1425, 1534, 1647, 1764, 1885, 2010, 2139, 2272, 2409, 2550, 2695, 2844, 2997, 3154, 3315, 3480, 3649, 3822, 3999, 4180, 4365

a(n) = 3*(n + 1)*(Sum_{k=1..n} k^2-1)/ (Sum_{k=1..n} k) = (-1 + n)*(5 + 2*n).

a(n) = a(n-1) +4*n +1 for n>1, a(1)=0. - Vincenzo Librandi, Nov 23 2010

a(n) = n*(2n+7) with offset 0. - Michel Marcus, Jan 28 2015

[A131895] 1, 9, 22, 40, 63, 91, 124, 162, 205, 253, 306, 364, 427, 495, 568, 646, 729, 817, 910, 1008, 1111, 1219, 1332, 1450, 1573, 1701, 1834, 1972, 2115, 2263, 2416, 2574, 2737, 2905, 3078, 3256, 3439, 3627, 3820, 4018, 4221, 4429, 4642, 4860, 5083, 5311, 5544

a(n) = a(n-1) + 5*n + 3 (with a(0)=1). - Vincenzo Librandi, Nov 23 2010

a(0)=1, a(1)=9, a(2)=22, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Sep 11 2015

[A287497] 1, 9, 22, 53, 166, 432, 1212, 3341, 9175, 25364, 69829, 192560, 530830, 1463170, 4033687, 11119101, 30651528, 84495213, 232922084, 642082488, 1769987094, 4879211973, 13450215173, 37077354584, 102208799091, 281752521488, 776689338352, 2141050324382

a(n) = a(n-1)+4*a(n-2)+3*a(n-3)-2*a(n-4)+a(n-6).

[A144390] 1, 9, 23, 43, 69, 101, 139, 183, 233, 289, 351, 419, 493, 573, 659, 751, 849, 953, 1063, 1179, 1301, 1429, 1563, 1703, 1849, 2001, 2159, 2323, 2493, 2669, 2851, 3039, 3233, 3433, 3639, 3851, 4069, 4293, 4523, 4759, 5001, 5249, 5503, 5763, 6029, 6301, 6579

a(n) = 3*n^2 - n - 1. - Paolo P. Lava, Oct 06 2008
[A212676] 0, 0, 1, 9, 23, 52, 92, 155, 234, 344, 475, 645, 841, 1084, 1358, 1687, 2052, 2480, 2949, 3489, 4075, 4740, 5456, 6259, 7118, 8072, 9087, 10205, 11389, 12684, 14050, 15535, 17096, 18784, 20553, 22457, 24447, 26580, 28804, 31179, 33650
a(n)=2*a(n-1)+a(n-2)-4*a(n-3)+a(n-4)+2*a(n-5)-a(n-6).
[A121453] 9, 24, 33, 48, 69, 84, 93, 108, 129, 144, 153, 168, 189, 204, 213, 228, 249, 264, 273, 288, 309, 324, 333, 348, 369, 384, 393, 408, 429, 444, 453, 468, 489, 504, 513, 528, 549, 564, 573, 588, 609, 624, 633, 648, 669, 684, 693, 708, 729, 744, 753, 768, 789
a(n) = 3*(sin((n*Pi)/2)- cos((n*Pi)/2)+5*n-3).
a(1)=9, a(2)=24, a(3)=33, a(4)=48, a(n)=2*a(n-1)-2*a(n-2)+2*a(n-3)-a(n-4). Empirical G.f.: 3*x*(3+2*x+x^2+4*x^3)/(1-2*x+2*x^2-2*x^3+x^4). [Colin Barker, Jan 25 2012]
[A067725] 0, 9, 24, 45, 72, 105, 144, 189, 240, 297, 360, 429, 504, 585, 672, 765, 864, 969, 1080, 1197, 1320, 1449, 1584, 1725, 1872, 2025, 2184, 2349, 2520, 2697, 2880, 3069, 3264, 3465, 3672, 3885, 4104, 4329, 4560, 4797, 5040, 5289, 5544, 5805, 6072, 6345, 6624
a(n) = a(n-1) + 6*n + 3 (with a(0)=0). - Vincenzo Librandi, Aug 08 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A001106] 0, 1, 9, 24, 46, 75, 111, 154, 204, 261, 325, 396, 474, 559, 651, 750, 856, 969, 1089, 1216, 1350, 1491, 1639, 1794, 1956, 2125, 2301, 2484, 2674, 2871, 3075, 3286, 3504, 3729, 3961, 4200, 4446, 4699, 4959, 5226, 5500, 5781, 6069, 6364
a(n) = (7*n - 5)*n/2.
a(n) = 3a(n-1) - 3a(n-2) + a(n-3), a(0) = 0, a(1) = 1, a(2) = 9. - Jaume Oliver Lafont, Dec 02 2008
a(n) = 2*a(n-1) - a(n-2) + 7. - Mohamed Bouhamida (bhmd95(AT)yahoo.fr), May 05 2010
a(n) = a(n-1) + 7*n - 6 (with a(0) = 0). - Vincenzo Librandi, Nov 12 2010
a(7*a(n) + 22*n + 1) = a(7*a(n) + 22*n) + a(7*n+1). - Vladimir Shevelev, Jan 24 2014
[A023551] 9, 24, 46, 76, 115, 164, 224, 296, 381, 480, 594, 724, 871, 1036, 1220, 1424, 1649, 1896, 2166, 2460, 2779, 3124, 3496, 3896, 4325, 4784, 5274, 5796, 6351, 6940, 7564, 8224, 8921, 9656, 10430, 11244, 12099, 12996, 13936, 14920, 15949
a(n) = n(n^2 + 15n + 38)/6. - Robert Lester (RobertLester(AT)Earthlink.net), Jan 31 2005
[A258438] 0, 1, 9, 24, 64, 117, 189, 280, 456, 657, 889, 1152, 1464, 1813, 2205, 2640, 3376, 4161, 5001, 5896, 6864, 7893, 8989, 10152, 11448, 12817, 14265, 15792, 17416, 19125, 20925, 22816, 25824, 28929, 32137, 35448, 38880, 42421, 46077, 49848, 53800
a(2^k) = (3*8^k+5*4^k)/4-2^k. - Giovanni Resta, May 30 2015
a(2^k-1) = 2^(k-2) * (4 - 7*2^k + 3*4^k). - Enrique Pérez Herrero, Jun 10 2015
[A280609] 9, 25, 27, 49, 121, 125, 169, 243, 289, 343, 361, 529, 841, 961, 1331, 1369, 1681, 1849, 2187, 2197, 2209, 2809, 3125, 3481, 3721, 4489, 4913, 5041, 5329, 6241, 6859, 6889, 7921, 9409, 10201, 10609, 11449, 11881, 12167, 12769, 16129, 16807, 17161, 18769, 19321, 22201, 22801, 24389, 24649, 26569, 27889, 29791, 29929
a(n) = p^q, where p, q are primes and p > 2.
[A247687] 9, 25, 49, 50, 98, 121, 169, 242, 289, 338, 361, 484, 529, 578, 676, 722, 841, 961, 1058, 1156, 1369, 1444, 1681, 1682, 1849, 1922, 2116, 2209, 2312, 2738, 2809, 2888, 3362, 3364, 3481, 3698, 3721, 3844, 4232, 4418, 4489, 5041, 5329, 5476, 5618, 6241, 6724, 6728, 6889, 6962, 7396, 7442, 7688, 7921, 8836, 8978, 9409
a(n, k) = 2^k * prime(n)^2 where n >= 2, 0 <= k <= floor(log2(prime(n)) - 1), and log2( ) is the logarithm to base 2.
[A016754] 1, 9, 25, 49, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569
a(n) = 4*n*(n + 1) + 1 = 4*n^2 + 4*n + 1. - Artur Jasinski, Mar 27 2008
a(n) = 8*n+a(n-1) with n>0, a(0)=1. - Vincenzo Librandi, Aug 01 2010
a(n+1) = a(n) + 4 + 4*sqrt(a(n)); a(n-1) = a(n) + 4 - 4*sqrt(a(n)).
a(n+1) = 2*a(n) - a(n-1) + 8; a(n+1) = 3*a(n) - 3*a(n-1) + a(n-2).
a(n) = binomial(2n+2,2) + binomial(2n+1,2). - John Molokach, Jul 12 2013
[A239745] 0, 9, 25, 54, 108, 211, 411, 804, 1582, 3129, 6213, 12370, 24672, 49263, 98431, 196752, 393378, 786613, 1573065, 3145950, 6291700, 12583179, 25166115, 50331964, 100663638, 201326961, 402653581, 805306794, 1610613192, 3221225959, 6442451463, 12884902440
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4).
[A048490] 1, 9, 25, 57, 121, 249, 505, 1017, 2041, 4089, 8185, 16377, 32761, 65529, 131065, 262137, 524281, 1048569, 2097145, 4194297, 8388601, 16777209, 33554425, 67108857, 134217721, 268435449, 536870905, 1073741817, 2147483641, 4294967289, 8589934585
a(n) = 8 * 2^n - 7. - Ralf Stephan, Jan 09 2009
a(n) = 2*a(n-1)+7 (with a(0)=1). - Vincenzo Librandi, Aug 06 2010
a(n) = 3*a(n-1)-2*a(n-2). G.f.: (6*x+1) / ((x-1)*(2*x-1)). - Colin Barker, Nov 26 2014
[A199111] 9, 25, 73, 217, 649, 1945, 5833, 17497, 52489, 157465, 472393, 1417177, 4251529, 12754585, 38263753, 114791257, 344373769, 1033121305, 3099363913, 9298091737, 27894275209, 83682825625, 251048476873, 753145430617, 2259436291849, 6778308875545
a(n) = 3*a(n-1)-2.
a(n) = 4*a(n-1)-3*a(n-2).
[A081267] 1, 9, 26, 52, 87, 131, 184, 246, 317, 397, 486, 584, 691, 807, 932, 1066, 1209, 1361, 1522, 1692, 1871, 2059, 2256, 2462, 2677, 2901, 3134, 3376, 3627, 3887, 4156, 4434, 4721, 5017, 5322, 5636, 5959, 6291, 6632, 6982, 7341, 7709, 8086, 8472, 8867, 9271
a(n) = C(n, 0) + 8*C(n, 1) + 9*C(n, 2).
a(n) = (9*n^2 + 7*n + 2)/2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), for n>2. a(n) = right term in M^n * [1 1 1], where M = the 3X3 matrix [1 0 0 / 3 1 0 / 5 3 1]. M^n * [1 1 1] = [1 3n+1 a(n)]. - Gary W. Adamson, Dec 22 2004
a(n) = 9*n+a(n-1)-1 with n>0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
[A052153] 1, 9, 26, 54, 95, 151, 224, 316, 429, 565, 726, 914, 1131, 1379, 1660, 1976, 2329, 2721, 3154, 3630, 4151, 4719, 5336, 6004, 6725, 7501, 8334, 9226, 10179, 11195, 12276, 13424, 14641, 15929, 17290, 18726, 20239, 21831, 23504, 25260
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). Vincenzo Librandi, Jun 22 2012
[A048468] 1, 9, 26, 62, 138, 298, 634, 1338, 2810, 5882, 12282, 25594, 53242, 110586, 229370, 475130, 983034, 2031610, 4194298, 8650746, 17825786, 36700154, 75497466, 155189242, 318767098, 654311418, 1342177274, 2751463418, 5637144570, 11542724602, 23622320122
a(n) = 2^(n-1)*(n+14)-6. a(0)=1, a(1)=9, a(2)=26, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Vincenzo Librandi, Sep 28 2011
a(n) = 2^(n-1)*(n+14)-6. G.f.: (1+4*x-11*x^2) / ((1-x)*(1-2*x)^2). - Colin Barker, Feb 18 2016
[A048771] 1, 9, 26, 68, 169, 413, 1002, 2424, 5857, 14145, 34154, 82460, 199081, 480629, 1160346, 2801328, 6763009, 16327353, 39417722, 95162804, 229743337, 554649485, 1339042314, 3232734120, 7804510561, 18841755249, 45488021066, 109817797388, 265123615849
a(n)=2*a(n-1)+a(n-1)+7; a(0)=1, a(1)=9.
a(0)=1, a(1)=9, a(2)=26, a(n)=3*a(n-1)-a(n-2)-a(n-3). - Harvey P. Dale, May 01 2013
[A055849] 1, 9, 26, 69, 181, 474, 1241, 3249, 8506, 22269, 58301, 152634, 399601, 1046169, 2738906, 7170549, 18772741, 49147674, 128670281, 336863169, 881919226, 2308894509, 6044764301, 15825398394, 41431430881, 108468894249
a(n) = (9*(((3+sqrt(5))/2)^n - ((3-sqrt(5))/2)^n) - (((3+sqrt(5))/2)^(n-1) - ((3-sqrt(5))/2)^(n-1)))/sqrt(5).
[A235163] 9, 26, 75, 217, 629, 1826, 5307, 15438, 44941, 130900, 381444, 1111926, 3242224, 9455987, 27583372, 80472698, 234799873, 685149328, 1999414181, 5835044495, 17029601028, 49702671494, 145066398937, 423412132499, 1235854038791, 3607255734629, 10529101874491
a(n) = Sum_{r=0..9} u(n,r) where u(n,r) = 0 if r<0 or r>9, u(1,0) = 0, u(1,r) = 1 for 1<=r<=9, and otherwise u(n,r) = u(n-1,r-1) + u(n-1,r) + u(n-1,r+1).
[A027468] 0, 9, 27, 54, 90, 135, 189, 252, 324, 405, 495, 594, 702, 819, 945, 1080, 1224, 1377, 1539, 1710, 1890, 2079, 2277, 2484, 2700, 2925, 3159, 3402, 3654, 3915, 4185, 4464, 4752, 5049, 5355, 5670, 5994, 6327, 6669, 7020, 7380, 7749, 8127, 8514, 8910, 9315
a(n) = (9/2)*n*(n+1).
a(n) = 9*C(n, 1) + 9*C(n, 2) (binomial transform of (0, 9, 9, 0, 0, ...)). - Paul Barry, Mar 15 2003
a(-1-n) = a(n).
a(n) = C(n+1,2)*3^2, n>=0. - Zerinvary Lajos, Aug 06 2008

a(n) = a(n-1) + 9*n (with a(0)=0). - Vincenzo Librandi, Nov 19 2010
[A112524] 1, 9, 27, 59, 109, 181, 279, 407, 569, 769, 1011, 1299, 1637, 2029, 2479, 2991, 3569, 4217, 4939, 5739, 6621, 7589, 8647, 9799, 11049, 12401, 13859, 15427, 17109, 18909, 20831, 22879, 25057, 27369, 29819, 32411, 35149, 38037, 41079, 44279, 47641
a(1)=1, a(2)=9, a(3)=27, a(4)=59, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Dec 03 2012
[A063155] 9, 28, 48, 68, 88, 108, 128, 148, 168, 188, 208, 228, 248, 268, 288, 308, 328, 348, 368, 388, 408, 428, 448, 468, 488, 508, 528, 548, 568, 588, 608, 628, 648, 668, 688, 708, 728, 748, 768, 788, 808, 828, 848, 868, 888, 908, 928, 948, 968
a(n) = 4*(5*n-3) for n>1.
a(n) = 2*a(n-1) - a(n-2) for n>3.
[A135705] 0, 9, 28, 57, 96, 145, 204, 273, 352, 441, 540, 649, 768, 897, 1036, 1185, 1344, 1513, 1692, 1881, 2080, 2289, 2508, 2737, 2976, 3225, 3484, 3753, 4032, 4321, 4620, 4929, 5248, 5577, 5916, 6265, 6624, 6993, 7372, 7761, 8160, 8569, 8988, 9417, 9856, 10305, 10764
a(n) = n*(5*n+4). (End)
a(n) = a(n-1) + 10*n - 1 (with a(0)=0). - Vincenzo Librandi, Nov 24 2009
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A294287] 0, 0, 9, 28, 100, 198, 441, 720, 1296, 1900, 3025, 4140, 6084, 7938, 11025, 13888, 18496, 22680, 29241, 35100, 44100, 52030, 64009, 74448, 90000, 103428, 123201, 140140, 164836, 185850, 216225, 241920, 278784, 309808, 354025, 391068, 443556, 487350, 549081
a(n) = Sum_{i=1..floor((n-1)/2)} i^3 + (n-i)^3.
a(n) = (1/16)*(n^2*(4 - (9 + (-1)^n)*n + 4*n^2)).
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n>9.
[A042501] 1, 1, 9, 28, 149, 177, 1388, 9893, 11281, 66298, 210175, 1747698, 1957873, 107472840, 109430713, 982918544, 3058186345, 16273850269, 19332036614, 151598106567, 1080518782583, 1232116889150, 7241103228333, 22955426574149, 190884515821525, 213839942395674
a(n) = 109220538*a(n-13) + a(n-26) for n>25. - Vincenzo Librandi, Jan 23 2014
[A136392] 1, 9, 29, 61, 105, 161, 229, 309, 401, 505, 621, 749, 889, 1041, 1205, 1381, 1569, 1769, 1981, 2205, 2441, 2689, 2949, 3221, 3505, 3801, 4109, 4429, 4761, 5105, 5461, 5829, 6209, 6601, 7005, 7421, 7849, 8289, 8741, 9205, 9681, 10169
a(n) = n*(3n-2) + (n-1)*(3n-5), n>1.
a(n) = a(n-1)+12*n-16 (with a(1)=1). [Vincenzo Librandi, Nov 24 2010]
[A162263] 9, 29, 66, 126, 215, 339, 504, 716, 981, 1305, 1694, 2154, 2691, 3311, 4020, 4824, 5729, 6741, 7866, 9110, 10479, 11979, 13616, 15396, 17325, 19409, 21654, 24066, 26651, 29415, 32364, 35504, 38841, 42381, 46130, 50094, 54279, 58691, 63336
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A273146] 1, 9, 29, 70, 127, 231, 347, 540, 733, 1045, 1337, 1794, 2203, 2835, 3383, 4216, 4921, 5985, 6869, 8190, 9271, 10879, 12179, 14100, 15637, 17901, 19697, 22330, 24403, 27435, 29807, 33264, 35953, 39865, 42893, 47286, 50671, 55575, 59339, 64780, 68941, 74949
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-2*a(n-6)+2*a(n-7)+a(n-8)-a(n-9) for n>8.
[A193004] 1, 1, 9, 29, 75, 165, 331, 623, 1123, 1963, 3357, 5651, 9405, 15525, 25477, 41633, 67831, 110281, 179031, 290339, 470511, 762111, 1234009, 1997639, 3233305, 5232745, 8468001, 13702853, 22173123, 35878413, 58054147, 93935351, 151992475
a(n) = 4*a(n-1)-5*a(n-2)+a(n-3)+2*a(n-4)-a(n-5).
[A195319] 0, 9, 30, 63, 108, 165, 234, 315, 408, 513, 630, 759, 900, 1053, 1218, 1395, 1584, 1785, 1998, 2223, 2460, 2709, 2970, 3243, 3528, 3825, 4134, 4455, 4788, 5133, 5490, 5859, 6240, 6633, 7038, 7455, 7884, 8325, 8778, 9243, 9720, 10209, 10710, 11223
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. - Harvey P. Dale, Oct 13 2013
[A000439] 9, 30, 69, 133, 230, 369, 560, 814, 1143, 1560, 2079, 2715, 3484, 4403, 5490, 6764, 8245, 9954, 11913, 14145, 16674, 19525, 22724, 26298, 30275, 34684, 39555, 44919, 50808, 57255, 64294, 71960, 80289, 89318, 99085, 109629, 120990, 133209, 146328, 160390, 175439, 191520, 208679
a(n) = (n^4 + 18*n^3 + 83*n^2 + 114*n)/24. - Philippe Deléham, Feb 13 2004
[A002414] 1, 9, 30, 70, 135, 231, 364, 540, 765, 1045, 1386, 1794, 2275, 2835, 3480, 4216, 5049, 5985, 7030, 8190, 9471, 10879, 12420, 14100, 15925, 17901, 20034, 22330, 24795, 27435, 30256, 33264, 36465, 39865, 43470, 47286, 51319, 55575, 60060, 64780
a(n) = odd numbers * triangular numbers = (2*n-1)* binomial(n+1,2). - Xavier Acloque, Oct 27 2003
a(n) = a(n-1) + n*(3*n-2).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 6.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = sum((n-i)*(6*i+1), i=0..n-1), with a(0)=0. - Bruno Berselli, Feb 10 2014
[A291919] 0, 1, 9, 30, 78, 175, 351, 644, 1100, 1773, 2725, 4026, 5754, 7995, 10843, 14400, 18776, 24089, 30465, 38038, 46950, 57351, 69399, 83260, 99108, 117125, 137501, 160434, 186130, 214803, 246675, 281976, 320944, 363825, 410873, 462350, 518526, 579679, 646095, 718068
a(n) = (n - 1)*(2*n^3 - 12*n^2 + 43*n - 48)/6.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A212517] 0, 0, 0, 9, 30, 92, 198, 396, 684, 1152, 1760, 2650, 3780, 5292, 7140, 9555, 12376, 15936, 20088, 25110, 30870, 37800, 45540, 54692, 64944, 76752, 89856, 104949, 121394, 140140, 160650, 183600, 208560, 236544, 266560, 299982, 335988, 375516, 417924, 464607
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+ a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A266397] 0, 0, 9, 31, 70, 130, 215, 329, 476, 660, 885, 1155, 1474, 1846, 2275, 2765, 3320, 3944, 4641, 5415, 6270, 7210, 8239, 9361, 10580, 11900, 13325, 14859, 16506, 18270, 20155, 22165, 24304, 26576, 28985, 31535, 34230, 37074, 40071, 43225, 46540, 50020, 53669
a(n) = (4*n^3+3*n^2-37*n+30)/6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A168297] 1, 1, 9, 31, 73, 141, 241, 379, 561, 793, 1081, 1431, 1849, 2341, 2913, 3571, 4321, 5169, 6121, 7183, 8361, 9661, 11089, 12651, 14353, 16201, 18201, 20359, 22681, 25173, 27841, 30691, 33729, 36961, 40393, 44031, 47881, 51949, 56241, 60763, 65521
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Jul 17 2016
[A004126] 0, 1, 9, 31, 74, 145, 251, 399, 596, 849, 1165, 1551, 2014, 2561, 3199, 3935, 4776, 5729, 6801, 7999, 9330, 10801, 12419, 14191, 16124, 18225, 20501, 22959, 25606, 28449, 31495, 34751, 38224, 41921, 45849, 50015, 54426, 59089, 64011
a(n) = C(2*n+1,3)-C(n+1,3), n>=0. - Zerinvary Lajos, Jan 21 2007
[A177342] 1, 9, 31, 75, 149, 261, 419, 631, 905, 1249, 1671, 2179, 2781, 3485, 4299, 5231, 6289, 7481, 8815, 10299, 11941, 13749, 15731, 17895, 20249, 22801, 25559, 28531, 31725, 35149, 38811, 42719, 46881, 51305, 55999, 60971, 66229, 71781, 77635
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A155098] 9, 32, 50, 73, 91, 114, 132, 155, 173, 196, 214, 237, 255, 278, 296, 319, 337, 360, 378, 401, 419, 442, 460, 483, 501, 524, 542, 565, 583, 606, 624, 647, 665, 688, 706, 729, 747, 770, 788, 811, 829, 852, 870, 893, 911, 934, 952, 975, 993, 1016, 1034, 1057
a(n) = 9*(-1)^(n+1) + 41 [n/2]. - M. F. Hasler, Jun 16 2010
a(n) = a(n-2)+41 for all n>2. - M. F. Hasler, Jun 16 2010
[A027620] 9, 32, 75, 144, 245, 384, 567, 800, 1089, 1440, 1859, 2352, 2925, 3584, 4335, 5184, 6137, 7200, 8379, 9680, 11109, 12672, 14375, 16224, 18225, 20384, 22707, 25200, 27869, 30720, 33759, 36992, 40425, 44064, 47915, 51984, 56277, 60800
a(n) = (n+1)*(n+3)^2. - Zerinvary Lajos, Sep 24 2006, corrected Dec 21 2010
a(n) = coefficient of x^3 in the Maclaurin expansion of -1/((n+3)*x^2 + (n+3)*x + 1). - Francesco Daddi, Aug 04 2011
[A051662] 1, 9, 32, 78, 155, 271, 434, 652, 933, 1285, 1716, 2234, 2847, 3563, 4390, 5336, 6409, 7617, 8968, 10470, 12131, 13959, 15962, 18148, 20525, 23101, 25884, 28882, 32103, 35555, 39246, 43184, 47377, 51833, 56560, 61566, 66859, 72447, 78338, 84540
a(n) = (n+1)*(8*n^2 + 13*n + 6)/6.
a(0)=1, a(1)=9, a(2)=32, a(3)=78, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Jun 23 2011
[A046895] 1, 9, 33, 65, 89, 137, 233, 297, 321, 425, 569, 665, 761, 873, 1065, 1257, 1281, 1425, 1737, 1897, 2041, 2297, 2585, 2777, 2873, 3121, 3457, 3777, 3969, 4209, 4785, 5041, 5065, 5449, 5881, 6265, 6577, 6881, 7361, 7809, 7953, 8289, 9057
a(n) = Pi^2/2 * n^2 + O(n (log n)^(2/3)) using a result of Walfisz. - Charles R Greathouse IV, Feb 18 2015
[A145923] 9, 33, 65, 105, 153, 209, 273, 345, 425, 513, 609, 713, 825, 945, 1073, 1209, 1353, 1505, 1665, 1833, 2009, 2193, 2385, 2585, 2793, 3009
a(n) = 9+4*n^2+20*n. - Paolo P. Lava, Oct 28 2008

[A081585] 1, 9, 33, 73, 129, 201, 289, 393, 513, 649, 801, 969, 1153, 1353, 1569, 1801, 2049, 2313, 2593, 2889, 3201, 3529, 3873, 4233, 4609, 5001, 5409, 5833, 6273, 6729, 7201, 7689, 8193, 8713, 9249, 9801, 10369, 10953, 11553, 12169, 12801, 13449, 14113
a(n) = 1+8n^2. G.f.: (1+3x)^2/(1-x)^3.
a(n) = 16*n+a(n-1)-8 (with a(0)=1). - Vincenzo Librandi, Aug 08 2010
[A273316] 1, 9, 33, 81, 161, 281, 449, 673, 961, 1321, 1761, 2289, 2913, 3641, 4481, 5441, 6529, 7753, 9121, 10641, 12321, 14169, 16193, 18401, 20801, 23401, 26209, 29233, 32481, 35961, 39681, 43649, 47873, 52361, 57121, 62161, 67489, 73113, 79041, 85281, 91841, 98729
a(n) = (4*n^3+12*n^2+8*n+3)/3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
[A101990] 1, 1, 9, 33, 81, 225, 729, 2241, 6561, 19521, 59049, 177633, 531441, 1592865, 4782969, 14353281, 43046721, 129127041, 387420489, 1162300833, 3486784401, 10460235105, 31381059609, 94143533121, 282429536481, 847287546561, 2541865828329, 7625600673633
a(n) = left term in M^n * [1 0 0], where M = the 3X3 matrix [1 0 2 / 2 1 0 / 0 2 1].
a(n)=(24*I)*[72-(72*I)*sqrt(3)]^(-1)*sqrt(3)*[I*sqrt(3)]^n-(72*I)*3^n*[72-(72*I) *sqrt(3)]^(-1)*sqrt(3)-72*[-I*sqrt(3)]^n*[72-(72*I)*sqrt(3)]^(-1)-(24*I)*[-I *sqrt(3)]^n*[72-(72*I)*sqrt(3)]^(-1)*sqrt(3)+72*3^n*[72-(72*I)*sqrt(3)]^(-1)+72 *[72-(72*I)*sqrt(3)]^(-1)*[I*sqrt(3)]^n, with n>=0 and I=sqrt(-1). - Paolo P. Lava, Aug 01 2008
a(n) = 2^n*n!*[x^n] (exp(3*x/2)+2*cos(sqrt(3)*x/2))/3. - Peter Luschny, Aug 01 2012
a(n) = 3^(n/2-1)*((-i)^n+i^n+3^(n/2)) where i=sqrt(-1). - Colin Barker, Sep 23 2016
[A005920] 1, 9, 33, 82, 165, 291, 469, 708, 1017, 1405, 1881, 2454, 3133, 3927, 4845, 5896, 7089, 8433, 9937, 11610, 13461, 15499, 17733, 20172, 22825, 25701, 28809, 32158, 35757, 39615, 43741, 48144, 52833, 57817, 63105, 68706, 74629, 80883, 87477, 94420
a(n) = (1/2) * (3n^3 + 7n^2 + 6n + 2). - Ralf Stephan, Apr 20 2004
a(0)=1, a(1)=9, a(2)=33, a(3)=82, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Sep 25 2012
[A048479] 1, 9, 33, 97, 257, 641, 1537, 3585, 8193, 18433, 40961, 90113, 196609, 425985, 917505, 1966081, 4194305, 8912897, 18874369, 39845889, 83886081, 176160769, 369098753, 771751937, 1610612737, 3355443201, 6979321857, 14495514625, 30064771073, 62277025793
a(n) = 8*n * 2^(n-1) + 1.
a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3) for n>2. G.f.: (1+4*x-4*x^2) / ((1-x)*(1-2*x)^2). - Colin Barker, Feb 18 2016
a(n) = Sum_{k=0..n+2} Sum_{i=0..n+2} C(n+1,i) - C(k,i). - Wesley Ivan Hurt, Sep 21 2017
[A140413] 1, 1, 9, 33, 145, 609, 2585, 10945, 46369, 196417, 832041, 3524577, 14930353, 63245985, 267914297, 1134903169, 4807526977, 20365011073, 86267571273, 365435296161, 1548008755921, 6557470319841, 27777890035289, 117669030460993, 498454011879265, 2111485077978049
a(n)= +3*a(n-1) +5*a(n-2) +a(n-3). - R. J. Mathar, Dec 17 2010
a(n) = ((-1)^n + (-(2-sqrt(5))^n + (2+sqrt(5))^n) / sqrt(5)). - Colin Barker, Jun 06 2017
[A139275] 0, 9, 34, 75, 132, 205, 294, 399, 520, 657, 810, 979, 1164, 1365, 1582, 1815, 2064, 2329, 2610, 2907, 3220, 3549, 3894, 4255, 4632, 5025, 5434, 5859, 6300, 6757, 7230, 7719, 8224, 8745, 9282, 9835, 10404, 10989, 11590, 12207, 12840
a(n) = 8*n^2 + n.
a(n) = 16*n + a(n-1) - 7 with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
[A236370] 1, 9, 34, 81, 163, 282, 454, 678, 973, 1335, 1786, 2319, 2959, 3696, 4558, 5532, 6649, 7893, 9298, 10845, 12571, 14454, 16534, 18786, 21253, 23907, 26794, 29883, 33223, 36780, 40606, 44664, 49009, 53601, 58498, 63657, 69139, 74898, 80998, 87390, 94141
a(n) = 3n * (n^2 - floor(n^2/4)) - Sum_{i=1..n} (2*i^2 - floor(i^2/4)) - Sum_{i=1..floor((n-1)/2)} (n + i) * (n - 2i).
a(n) = (-1+(-1)^n-(1+3*(-1)^n)*n-6*n^2+22*n^3)/16. G.f.: x*(2*x^4+8*x^3+15*x^2+7*x+1) / ((x-1)^4*(x+1)^2). - Colin Barker, Jan 24 2014
a(n) = Sum_{j=0..n-2} (Sum_{i=n + 1 + floor(j/2) - floor(1/j+1)..n + 2(j + 1)} i), n > 1. - Wesley Ivan Hurt, Feb 10 2014
[A273744] 1, 9, 34, 83, 164, 285, 454, 679, 968, 1329, 1770, 2299, 2924, 3653, 4494, 5455, 6544, 7769, 9138, 10659, 12340, 14189, 16214, 18423, 20824, 23425, 26234, 29259, 32508, 35989, 39710, 43679, 47904, 52393, 57154, 62195, 67524, 73149, 79078, 85319, 91880, 98769
a(n) = n*(11+12*n+4*n^2)/3 for n>0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A100179] 1, 9, 34, 86, 175, 311, 504, 764, 1101, 1525, 2046, 2674, 3419, 4291, 5300, 6456, 7769, 9249, 10906, 12750, 14791, 17039, 19504, 22196, 25125, 28301, 31734, 35434, 39411, 43675, 48236, 53104
a(n) = (1/6)*(10*n^3-9*n^2+5*n).
[A147691] 0, 1, 9, 34, 91, 192, 353, 584, 903, 1318, 1849, 2502, 3299, 4244, 5361, 6652, 8143, 9834, 11753, 13898, 16299, 18952, 21889, 25104, 28631, 32462, 36633, 41134, 46003, 51228, 56849, 62852, 69279, 76114, 83401, 91122, 99323, 107984, 117153, 126808
a(n) = 2*a(n-1) +a(n-2) -4*a(n-3) +a(n-4) +2*a(n-5) -a(n-6), n> 7.
a(n) = (3*n*(6*n^2-12*n+13)+(n-2)*(-1)^n-6)/8 for n>1, a(0)=0, a(1)=1. [Bruno Berselli, Dec 11 2012]
[A022275] 0, 9, 35, 78, 138, 215, 309, 420, 548, 693, 855, 1034, 1230, 1443, 1673, 1920, 2184, 2465, 2763, 3078, 3410, 3759, 4125, 4508, 4908, 5325, 5759, 6210, 6678, 7163, 7665, 8184, 8720, 9273, 9843, 10430, 11034, 11655, 12293, 12948, 13620, 14309, 15015
a(n) = 17*n + a(n-1) - 8 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(0)=0, a(1)=9, a(2)=35; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 06 2013
[A071398] 0, 9, 35, 78, 139, 217, 312, 424, 554, 701, 866, 1048, 1247, 1464, 1697, 1949, 2217, 2503, 2806, 3126, 3464, 3819, 4192, 4581, 4988, 5413, 5854, 6313, 6790, 7283, 7794, 8323, 8868, 9431, 10011, 10609, 11224, 11856, 12505, 13172, 13856, 14558, 15277
a(n) = round(5 * n^2 * sqrt(3))
[A005898] 1, 9, 35, 91, 189, 341, 559, 855, 1241, 1729, 2331, 3059, 3925, 4941, 6119, 7471, 9009, 10745, 12691, 14859, 17261, 19909, 22815, 25991, 29449, 33201, 37259, 41635, 46341, 51389, 56791, 62559, 68705, 75241, 82179, 89531, 97309, 105525
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). (End)
[A002418] 0, 1, 9, 35, 95, 210, 406, 714, 1170, 1815, 2695, 3861, 5369, 7280, 9660, 12580, 16116, 20349, 25365, 31255, 38115, 46046, 55154, 65550, 77350, 90675, 105651, 122409, 141085, 161820, 184760, 210056, 237864, 268345, 301665, 337995
a(0)=0, a(1)=1, a(2)=9, a(3)=35, a(4)=95, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Oct 16 2012
a(n) = Sum_{i=0..n} (n-i) * Sum_{j=i..n} j. - J. M. Bergot, May 30 2017
[A077115] 0, 1, 9, 36, 64, 144, 225, 361, 529, 729, 1024, 1369, 1764, 2209, 2809, 3481, 4096, 5041, 5929, 6889, 8100, 9409, 10816, 12321, 13924, 15625, 17689, 19881, 22201, 24649, 27225, 29929, 33124, 36100, 39601, 43264, 46656, 51076, 55225, 59536
a(n) = ceil(n^(3/2))^2. - Benoit Cloitre, Nov 01 2002
[A016766] 0, 9, 36, 81, 144, 225, 324, 441, 576, 729, 900, 1089, 1296, 1521, 1764, 2025, 2304, 2601, 2916, 3249, 3600, 3969, 4356, 4761, 5184, 5625, 6084, 6561, 7056, 7569, 8100, 8649, 9216, 9801, 10404, 11025, 11664, 12321, 12996, 13689, 14400, 15129, 15876
a(n) = a(n-1) + 9*(2*n-1) (with a(0) = 0). - Vincenzo Librandi, Nov 19 2010
[A162258] 1, 9, 36, 86, 165, 279, 434, 636, 891, 1205, 1584, 2034, 2561, 3171, 3870, 4664, 5559, 6561, 7676, 8910, 10269, 11759, 13386, 15156, 17075, 19149, 21384, 23786, 26361, 29115, 32054, 35184, 38511, 42041, 45780, 49734, 53909, 58311, 62946, 67820
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 04 2012
[A027602] 9, 36, 99, 216, 405, 684, 1071, 1584, 2241, 3060, 4059, 5256, 6669, 8316, 10215, 12384, 14841, 17604, 20691, 24120, 27909, 32076, 36639, 41616, 47025, 52884, 59211, 66024, 73341, 81180, 89559, 98496, 108009, 118116, 128835, 140184
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - 1*a(n-4) for n>=4.
a(n) = 3*n^3 + 9*n^2 + 15*n + 9.
[A000537] 0, 1, 9, 36, 100, 225, 441, 784, 1296, 2025, 3025, 4356, 6084, 8281, 11025, 14400, 18496, 23409, 29241, 36100, 44100, 53361, 64009, 76176, 90000, 105625, 123201, 142884, 164836, 189225, 216225, 246016, 278784, 314721, 354025, 396900, 443556, 494209, 549081
a(n) = Sum_{i=1..n} Sum_{j=1..n} i*j. - Alexander Adamchuk, Oct 24 2004
a(n) = Sum_{i=1..n} Sum_{j=1..n} Sum_{k=1..n} max(i,j,k). - Enrique Pérez Herrero, Feb 26 2013
a(n) = 6*C(n+2,4) + C(n+1,2), (Knuth). - Gary Detlefs, Jan 02 2014
a(n) = -Sum_{j=1..3} j*s(n+1,n+1-j)*S(n+3-j,n), where s(n,k) and S(n,k) are the Stirling numbers of the first kind and the second kind, respectively. - Mircea Merca, Jan 25 2014
a(n) = n*binomial(n+2, 3) + binomial(n+2, 4) + binomial(n+1, 4). - Tony Foster III, Nov 14 2017

[A193007] 0, 1, 1, 9, 36, 108, 268, 591, 1201, 2303, 4232, 7534, 13096, 22357, 37649, 62749, 103772, 170616, 279300, 455747, 741905, 1205651, 1956816, 3173114, 5142096, 8329033, 13486753, 21833361, 35339796, 57195108, 92559292, 149781399, 242370481
a(n)=5*a(n-1)-9*a(n-2)+6*a(n-3)+a(n-4)-3*a(n-5)+a(n-6).
[A213283] 0, 1, 9, 36, 118, 315, 711, 1414, 2556, 4293, 6805, 10296, 14994, 21151, 29043, 38970, 51256, 66249, 84321, 105868, 131310, 161091, 195679, 235566, 281268, 333325, 392301, 458784, 533386, 616743, 709515, 812386, 926064, 1051281, 1188793, 1339380, 1503846
a(n) = n*(-9+17*n-8*n^2+2*n^3)/2.
[A023872] 1, 1, 9, 36, 136, 477, 1703, 5746, 19099, 61622, 195366, 607069, 1856516, 5586870, 16579850, 48549116, 140438966, 401592524, 1136121837, 3181700219, 8825733603, 24261363403, 66124058839, 178757752892, 479513547399, 1276792213203, 3375707760306, 8864712158225
a(n) = (1/n)*Sum_{k=1..n} sigma_4(k)*a(n-k). - Seiichi Manyama, Mar 04 2017
[A273220] 9, 37, 81, 141, 217, 309, 417, 541, 681, 837, 1009, 1197, 1401, 1621, 1857, 2109, 2377, 2661, 2961, 3277, 3609, 3957, 4321, 4701, 5097, 5509, 5937, 6381, 6841, 7317, 7809, 8317, 8841, 9381, 9937, 10509, 11097, 11701, 12321, 12957, 13609, 14277, 14961, 15661
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>4.
[A022276] 0, 9, 37, 84, 150, 235, 339, 462, 604, 765, 945, 1144, 1362, 1599, 1855, 2130, 2424, 2737, 3069, 3420, 3790, 4179, 4587, 5014, 5460, 5925, 6409, 6912, 7434, 7975, 8535, 9114, 9712, 10329, 10965, 11620, 12294, 12987, 13699, 14430, 15180, 15949, 16737, 17544, 18370
a(n) = 19*n + a(n-1) - 10 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. (End)
[A213570] 1, 9, 37, 110, 272, 598, 1213, 2323, 4265, 7588, 13184, 22500, 37881, 63125, 104381, 171602, 280896, 458330, 746085, 1212415, 1967761, 3190824, 5170752, 8375400, 13561777, 21954753, 35536213, 57512918, 93073520, 150613438
a(n) = 5*a(n-1) - 9*a(n-2) + 6*a(n-3) + a(n-4) - 3*a(n-5) + a(n-6).
[A257448] 1, 9, 37, 111, 283, 657, 1441, 3051, 6319, 12909, 26149, 52695, 105859, 212265, 425161, 851043, 1702903, 3406725, 6814477, 13630095, 27261451, 54524289, 109050097, 218101851, 436205503, 872412957, 1744828021, 3489658311, 6979319059, 13958640729
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4) for n>4. - Ray Chandler, Jul 25 2015
[A071229] 0, 1, 9, 38, 102, 215, 391, 644, 988, 1437, 2005, 2706, 3554, 4563, 5747, 7120, 8696, 10489, 12513, 14782, 17310, 20111, 23199, 26588, 30292, 34325, 38701, 43434, 48538, 54027, 59915, 66216, 72944, 80113, 87737, 95830, 104406, 113479, 123063
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4).
[A071238] 0, 1, 9, 38, 110, 255, 511, 924, 1548, 2445, 3685, 5346, 7514, 10283, 13755, 18040, 23256, 29529, 36993, 45790, 56070, 67991, 81719, 97428, 115300, 135525, 158301, 183834, 212338, 244035, 279155, 317936, 360624, 407473, 458745, 514710, 575646, 641839
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4, a(0)=0, a(1)=1, a(2)=9, a(3)=38, a(4)=110. - Yosu Yurramendi, Sep 03 2013
[A213583] 1, 9, 38, 120, 327, 819, 1948, 4482, 10085, 22341, 48930, 106236, 229075, 491175, 1048184, 2227782, 4718097, 9960921, 20970910, 44039520, 92273951, 192937179, 402652308, 838859850, 1744829437, 3623877549, 7516191578, 15569255172, 32212253355, 66571991631
a(n) = 7*a(n-1) - 19*a(n-2) + 25*a(n-3) - 16*a(n-4) + 4*a(n-5).
a(n) = (1/2)*((-4+2^(2+n)-3*n)*(1+n)). - Colin Barker, Nov 04 2017
[A158447] 9, 39, 89, 159, 249, 359, 489, 639, 809, 999, 1209, 1439, 1689, 1959, 2249, 2559, 2889, 3239, 3609, 3999, 4409, 4839, 5289, 5759, 6249, 6759, 7289, 7839, 8409, 8999, 9609, 10239, 10889, 11559, 12249, 12959, 13689, 14439, 15209, 15999, 16809, 17639
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A281381] 0, 9, 39, 102, 210, 375, 609, 924, 1332, 1845, 2475, 3234, 4134, 5187, 6405, 7800, 9384, 11169, 13167, 15390, 17850, 20559, 23529, 26772, 30300, 34125, 38259, 42714, 47502, 52635, 58125, 63984, 70224, 76857, 83895, 91350, 99234, 107559, 116337, 125580, 135300, 145509, 156219, 167442, 179190, 191475
a(n) = 2*n^3 + 9*n^2/2 + 5*n/2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. (End)
[A139594] 0, 1, 9, 39, 116, 275, 561, 1029, 1744, 2781, 4225, 6171, 8724, 11999, 16121, 21225, 27456, 34969, 43929, 54511, 66900, 81291, 97889, 116909, 138576, 163125, 190801, 221859, 256564, 295191, 338025, 385361, 437504, 494769, 557481, 625975, 700596
a(n) = coefficient of X^4 in 1/((1-X)^m*(1-X^2)^binomial(m,2)).
[A034263] 1, 9, 39, 119, 294, 630, 1218, 2178, 3663, 5863, 9009, 13377, 19292, 27132, 37332, 50388, 66861, 87381, 112651, 143451, 180642, 225170, 278070, 340470, 413595, 498771, 597429, 711109, 841464, 990264, 1159400, 1350888, 1566873, 1809633, 2081583, 2385279
a(n) = (n+1)*(n+2)*(n+3)*(n+4)*(4*n+5)/120. - Emeric Deutsch and Ben Creech (mathroxmysox(AT)yahoo.com), Nov 17 2005, corrected by Eric Rowland, Aug 15 2017
[A287324] 0, 1, 9, 40, 120, 280, 552, 968, 1560, 2360, 3400, 4712, 6328, 8280, 10600, 13320, 16472, 20088, 24200, 28840, 34040, 39832, 46248, 53320, 61080, 69560, 78792, 88808, 99640, 111320, 123880, 137352, 151768, 167160, 183560, 201000, 219512, 239128, 259880, 281800
a(n) = 8*(n - 1)*((n - 1)^2 + 2)/3 + 8*(n - 2)*((n - 2)^2 + 2)/3 = 8*(2*n - 3)*(n^2 - 3*n + 5)/3 for n>2, a(0)=0, a(1)=1, a(2)=9.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>6. - Colin Barker, Jun 05 2017
[A006414] 1, 9, 40, 125, 315, 686, 1344, 2430, 4125, 6655, 10296, 15379, 22295, 31500, 43520, 58956, 78489, 102885, 133000, 169785, 214291, 267674, 331200, 406250, 494325, 597051, 716184, 853615, 1011375, 1191640, 1396736, 1629144, 1891505, 2186625, 2517480, 2887221
a(n) = (n+1)*(n+2)^3*(n+3)/24. - N. J. A. Sloane, Apr 02 2004
a(n) = (n+2)^3*((n+2)^2-1)/24. - Paul Richards, Mar 04 2007
a(n) = (Sum_{k=0..n+1} k*(n+1)*((n+1)^2 - k^2))/6 for n>0, which is the sum of all areas of Pythagorean triangles with arms 2*k*(n+1) and (n+1)^2 - k^2 with hypotenuse k^2 + (n+1)^2. - J. M. Bergot, May 12 2014
[A213758] 1, 9, 40, 130, 355, 871, 1994, 4360, 9245, 19205, 39356, 79934, 161415, 324755, 651870, 1306596, 2616609, 5237265, 10479280, 20964090, 41934571, 83876479, 167761330, 335532160, 671075045, 1342162141, 2684337764, 5368690550
a(n) = (1/6)*(-120 + 15*2^(n+3) - 81*n - 21*n^2 - 4*n^3).
a(n) = 6*a(n-1) - 14*a(n-2) + 16*a(n-3) - 9*a(n-4) + 2*a(n-5).
[A243718] 1, 9, 40, 195, 618, 1751, 4075, 8794, 17015, 31268, 53666, 88781, 140200, 215405, 320013, 465436, 659965, 920114, 1257580, 1695303, 2249206, 2950131, 3819135, 4896590, 6209683, 7810096, 9732230, 12041009, 14779220, 18027113, 21837121, 26307056, 31500345
a(n) = (n^6 - 27*n^4 + 80*n^3 + 158*n^2 - 1028*n + 1200 + (1 - (-1)^n)/2*(8*n^3 - 9*n^2 - 44*n + 45))/48 for n >= 4.
[A159754] 9, 41, 59, 91, 109, 141, 159, 191, 209, 241, 259, 291, 309, 341, 359, 391, 409, 441, 459, 491, 509, 541, 559, 591, 609, 641, 659, 691, 709, 741, 759, 791, 809, 841, 859, 891, 909, 941, 959, 991, 1009, 1041, 1059, 1091, 1109, 1141, 1159, 1191, 1209, 1241, 1259
a(1) = 9, a(2) = 41, a(n) = a(n-2)+50, n=3,4,...
a(n) = (1/2)*(50*n-25+7*(-1)^n), n=1,2,...
a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: x*(9*x^2+32*x+9) / ((x-1)^2*(x+1)). - Colin Barker, Jul 04 2014
[A198943] 1, 9, 41, 79, 351, 1559, 3001, 13329, 59201, 113959, 506151, 2248079, 4327441, 19220409, 85367801, 164328799, 729869391, 3241728359, 6240166921, 27715816449, 123100309841, 236962014199, 1052471155671, 4674570045599, 8998316372641, 39966188099049, 177510561422921
a(n+6) = 38*a(n+3)-a(n) with a(1)=1, a(2)=9, a(3)=41, a(4)=79, a(5)=351.
[A018836] 1, 9, 41, 109, 205, 325, 473, 649, 853, 1085, 1345, 1633, 1949, 2293, 2665, 3065, 3493, 3949, 4433, 4945, 5485, 6053, 6649, 7273, 7925, 8605, 9313, 10049, 10813, 11605, 12425, 13273, 14149, 15053, 15985, 16945, 17933, 18949, 19993, 21065, 22165
a(n) = 1-6*n+14*n^2+4*sign(n*(n-1)*(n-3)). - Zak Seidov, Mar 01 2005
[A274323] 1, 1, 9, 41, 129, 313, 649, 1201, 2049, 3281, 5001, 7321, 10369, 14281, 19209, 25313, 32769, 41761, 52489, 65161, 80001, 97241, 117129, 139921, 165889, 195313, 228489, 265721, 307329, 353641, 405001, 461761, 524289, 592961, 668169, 750313, 839809, 937081
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6) for n>5.
a(n) = (3+(-1)^n+2*n^4)/4.
a(n) = 1 + floor(n^4/2). - Alois P. Heinz, Oct 13 2016
[A001846] 1, 9, 41, 129, 321, 681, 1289, 2241, 3649, 5641, 8361, 11969, 16641, 22569, 29961, 39041, 50049, 63241, 78889, 97281, 118721, 143529, 172041, 204609, 241601, 283401, 330409, 383041, 441729, 506921, 579081, 658689, 746241, 842249, 947241, 1061761, 1186369
a(n) = (2*n^4+4*n^3+10*n^2+8*n+3)/3. - S. Bujnowski B. Dubalski (slawb(AT)atr.bydgoszcz.pl), Mar 07 2002
a(n) = sum(k=0..min(4,n), 2^k * binomial(4,k)* binomial(n,k)). See Bump et al. - Tom Copeland, Sep 05 2014

[A271663] 1, 9, 41, 131, 336, 742, 1470, 2682, 4587, 7447, 11583, 17381, 25298, 35868, 49708, 67524, 90117, 118389, 153349, 196119, 247940, 310178, 384330, 472030, 575055, 695331, 834939, 996121, 1181286, 1393016, 1634072, 1907400, 2216137, 2563617, 2953377, 3389163, 3874936
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (n + 1)*(n + 2)*(n + 3)*(6*n^2 + 19*n + 20)/120.
[A056243] 1, 9, 41, 146, 456, 1312, 3568, 9312, 23552, 58112, 140544, 334336, 784384, 1818624, 4173824, 9494528, 21430272, 48037888, 107020288, 237109248, 522715136, 1147142144, 2507145216, 5458886656, 11844714496, 25618808832, 55247372288
a(n)=sum_{0<=j<=n-3} (-1)^(n-3-j)*binomial(n-3, j)*binomial(n+2j-1, 2j), for n>=3. - Pab Ter (pabrlos2(AT)yahoo.com), Nov 06 2005
[A062783] 0, 9, 42, 99, 180, 285, 414, 567, 744, 945, 1170, 1419, 1692, 1989, 2310, 2655, 3024, 3417, 3834, 4275, 4740, 5229, 5742, 6279, 6840, 7425, 8034, 8667, 9324, 10005, 10710, 11439, 12192, 12969, 13770, 14595, 15444, 16317, 17214, 18135, 19080
a(n) = 24*n+a(n-1)-15 with n>0, a(0)=0. - Vincenzo Librandi, Aug 07 2010
[A027441] 0, 1, 9, 42, 130, 315, 651, 1204, 2052, 3285, 5005, 7326, 10374, 14287, 19215, 25320, 32776, 41769, 52497, 65170, 80010, 97251, 117139, 139932, 165900, 195325, 228501, 265734, 307342, 353655, 405015, 461776, 524304, 592977, 668185, 750330, 839826, 937099
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Wesley Ivan Hurt, Aug 13 2014
a(n) = (sum_{i=1..n^3} i) / n^2, for n > 0. - Wesley Ivan Hurt, Aug 13 2014
[A292481] 0, 0, 1, 9, 42, 139, 381, 984, 2685, 8061, 25434, 79695, 242577, 721584, 2131785, 6333633, 18984618, 57194883, 172319157, 517851144, 1552599333, 4651054101, 13939132698, 41810229351, 125475990057, 376585031520, 1129975049169, 3389800055481, 10168040440746
a(n) = 6*a(n-1) - 25*a(n-2) + 21*a(n-3) - 12*a(n-4) + 9*a(n-5) for n >= 6.
[A051923] 1, 9, 42, 140, 378, 882, 1848, 3564, 6435, 11011, 18018, 28392, 43316, 64260, 93024, 131784, 183141, 250173, 336490, 446292, 584430, 756470, 968760, 1228500, 1543815, 1923831, 2378754, 2919952, 3560040, 4312968, 5194112, 6220368, 7410249, 8783985, 10363626
a(n) = C(n+5, 5)*(n+2)/2.
[A180670] 0, 0, 1, 9, 42, 140, 383, 925, 2056, 4316, 8705, 17069, 32810, 62192, 116743, 217673, 404000, 747496, 1380177, 2544865, 4688186, 8631620, 15886111, 29230725, 53776968, 98926372, 181971057, 334716197, 615660634, 1132400520
a(n) = a(n-1)+a(n-2)+a(n-3)+(8*n^3-48*n^2+112*n-96)/3 with a(0)=0, a(1)=0 and a(2)=1.
[A185918] 1, 9, 43, 101, 183, 289, 419, 573, 751, 953, 1179, 1429, 1703, 2001, 2323, 2669, 3039, 3433, 3851, 4293, 4759, 5249, 5763, 6301, 6863, 7449, 8059, 8693, 9351, 10033, 10739, 11469, 12223, 13001, 13803, 14629, 15479, 16353, 17251, 18173, 19119, 20089, 21083, 22101, 23143, 24209
a(n) = a(n-1) + 24*n - 14.
a(n) = 2*a(n-1) - a(n) + 24.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A244869] 1, 9, 43, 143, 379, 859, 1738, 3226, 5597, 9197, 14453, 21881, 32095, 45815, 63876, 87236, 116985, 154353, 200719, 257619, 326755, 410003, 509422, 627262, 765973, 928213, 1116857, 1335005, 1585991, 1873391, 2201032, 2573000, 2993649, 3467609, 3999795, 4595415, 5259979, 5999307, 6819538
a(n) = (15*(63 + (-1)^n) + 2592*n + 2880*n^2 + 1660*n^3 + 510*n^4 + 68*n^5) / 960.
a(n) = 5*a(n-1) - 9*a(n-2) + 5*a(n-3) + 5*a(n-4) - 9*a(n-5) + 5*a(n-6) - a(n-7) for n>6.
[A281773] 0, 0, 1, 9, 43, 165, 571, 1869, 5923, 18405, 56491, 172029, 521203, 1573845, 4742011, 14266989, 42882883, 128812485, 386765131, 1160950749, 3484162963, 10455110325, 31370573851, 94122207309, 282387593443, 847204723365, 2541698056171, 7625261940669
a(n) = StirlingS2(n,2) + 3! StirlingS2(n,3).
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n>3.
a(n) = 2 - 5*2^(n-1) + 3^n for n>0. (End)
[A050486] 1, 9, 44, 156, 450, 1122, 2508, 5148, 9867, 17875, 30888, 51272, 82212, 127908, 193800, 286824, 415701, 591261, 826804, 1138500, 1545830, 2072070, 2744820, 3596580, 4665375, 5995431, 7637904, 9651664, 12104136, 15072200, 18643152, 22915728, 28001193
a(n) = 2*C(n+7, 7)-C(n+6, 6). - Paul Barry, Mar 04 2003
a(n) = C(n+6,6)+2*C(n+6,7). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8) for n>7. - Wesley Ivan Hurt, Jan 01 2016
[A213755] 1, 9, 44, 160, 491, 1355, 3486, 8546, 20245, 46773, 106048, 236980, 523535, 1145935, 2489202, 5372534, 11532633, 24639513, 52426420, 111146280, 234877811, 494924179, 1040183174, 2181033290, 4563397341, 9529452605
a(n) = (1/6)*(84 - 21*2^(n+2) + 23*n + 9*n*2^(n+2) - 3*n^2 - 2*n^3).
a(n) = 8*a(n-1) - 26*a(n-2) + 44*a(n-3) - 41*a(n-4) + 20*a(n-5) - 4*a(n-6).
[A084903] 1, 9, 44, 170, 576, 1792, 5248, 14688, 39680, 104192, 267264, 672256, 1662976, 4055040, 9764864, 23257088, 54853632, 128253952, 297533440, 685375488, 1568669696, 3569352704, 8078229504, 18192793600, 40785412096, 91049951232
a(n) = 2^(n-3)*(n^3+9n^2+18n+8).
a(n) = Sum_{k=0..n} C(n, k)*(1+k)^3.
[A152996] 0, 9, 45, 108, 198, 315, 459, 630, 828, 1053, 1305, 1584, 1890, 2223, 2583, 2970, 3384, 3825, 4293, 4788, 5310, 5859, 6435, 7038, 7668, 8325, 9009, 9720, 10458, 11223, 12015, 12834, 13680, 14553, 15453, 16380, 17334, 18315, 19323
a(0)=0, a(1)=9, a(2)=45, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jan 14 2016
[A220443] 0, 9, 45, 126, 270, 495, 819, 1260, 1836, 2565, 3465, 4554, 5850, 7371, 9135, 11160, 13464, 16065, 18981, 22230, 25830, 29799, 34155, 38916, 44100, 49725, 55809, 62370, 69426, 76995, 85095, 93744, 102960, 112761, 123165, 134190, 145854, 158175, 171171, 184860, 199260
a(n) = (3*n*(1+3*n+2*n^2))/2. G.f.: 9*x*(x+1) / (x-1)^4. - Colin Barker, Jul 22 2013
[A289721] 1, 9, 45, 135, 306, 585, 999, 1575, 2340, 3321, 4545, 6039, 7830, 9945, 12411, 15255, 18504, 22185, 26325, 30951, 36090, 41769, 48015, 54855, 62316, 70425, 79209, 88695, 98910, 109881, 121635, 134199, 147600, 161865, 177021, 193095, 210114, 228105, 247095, 267111, 288180
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 4.
[A212089] 0, 1, 9, 45, 139, 333, 684, 1258, 2133, 3402, 5167, 7542, 10656, 14647, 19665, 25875, 33451, 42579, 53460, 66304, 81333, 98784, 118903, 141948, 168192, 197917, 231417, 269001, 310987, 357705, 409500, 466726, 529749, 598950, 674719
a(n) = 4*a(n-1)-6*a(n-2)+5*a(n-3)-5*a(n-4)+6*a(n-5)-4*a(n-6)+a(n-7).
[A095166] 1, 9, 45, 155, 420, 966, 1974, 3690, 6435, 10615, 16731, 25389, 37310, 53340, 74460, 101796, 136629, 180405, 234745, 301455, 382536, 480194, 596850, 735150, 897975, 1088451, 1309959, 1566145, 1860930, 2198520, 2583416, 3020424, 3514665
a(n) = (2n^5 + 15n^4 + 44n^3 + 69n^2 + 62n + 24)/24.
[A247609] 1, 9, 45, 165, 495, 1231, 2639, 5055, 8885, 14605, 22761, 33969, 48915, 68355, 93115, 124091, 162249, 208625, 264325, 330525, 408471, 499479, 604935, 726295, 865085, 1022901, 1201409, 1402345, 1627515, 1878795, 2158131, 2467539, 2809105, 3184985, 3597405
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = (12 - 58*n + 217*n^2 - 98*n^3 + 35*n^4)/12.
a(n) = 1 + 8*Binomial(n, 1) + 28*Binomial(n, 2) + 56*Binomial(n, 3) + 70*Binomial(n, 4).
[A008491] 1, 9, 45, 165, 495, 1287, 3003, 6435, 12870, 24309, 43749, 75537, 125805, 202995, 318483, 487311, 729036, 1068705, 1537965, 2176317, 3032523, 4166175, 5649435, 7568955, 10027986, 13148685, 17074629, 21973545, 28040265, 35499915, 44611347, 55670823, 69015960
a(n) = (n*(3044 + 1869*n^2 + 126*n^4 + n^6)) / 560 for n>0. - Colin Barker, Jan 06 2017
[A000581] 1, 9, 45, 165, 495, 1287, 3003, 6435, 12870, 24310, 43758, 75582, 125970, 203490, 319770, 490314, 735471, 1081575, 1562275, 2220075, 3108105, 4292145, 5852925, 7888725, 10518300, 13884156, 18156204, 23535820, 30260340, 38608020, 48903492, 61523748, 76904685
a(n) = n(n-1)(n-2)(n-3)(n-4)(n-5)(n-6)(n-7)/8!. - Artur Jasinski, Dec 02 2007
[A145137] 0, 1, 9, 45, 165, 496, 1297, 3058, 6655, 13586, 26323, 48829, 87308, 151282, 255125, 420234, 678086, 1074525, 1675754, 2576688, 3912574, 5875129, 8734923, 12872391, 18820765, 27325469, 39426248, 56570687, 80771068, 114821057, 162594985
a(n) = [9, -36, 84, -125, 118, -56, -20, 61, -55, 28, -8, 1] * [a(n-1), ..., a(n-12)].
[A036826] 0, 1, 9, 45, 173, 573, 1725, 4861, 13053, 33789, 84989, 208893, 503805, 1196029, 2801661, 6488061, 14876669, 33816573, 76283901, 170917885, 380633085, 843055101, 1858076669, 4076863485, 8908701693, 19394461693, 42077257725, 90999619581, 196226318333
a(n) = 2^n*(n^2-2*n+3)-3.
a(n) = sum{k=0..n, k^2*2^(k-1)}. (End)
a(0)=0, a(1)=1, a(2)=9, a(3)=45, a(n)=7*a(n-1)-18*a(n-2)+ 20*a(n-3)- 8*a(n-4). - Harvey P. Dale, Mar 04 2015

[A260513] 1, 9, 46, 164, 460, 1091, 2289, 4376, 7779, 13045, 20856, 32044, 47606, 68719, 96755, 133296, 180149, 239361, 313234, 404340, 515536, 649979, 811141, 1002824, 1229175, 1494701, 1804284, 2163196, 2577114, 3052135, 3594791, 4212064, 4911401, 5700729, 6588470
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) for n>6. - Colin Barker, Aug 07 2015
[A001781] 1, 9, 46, 174, 541, 1461, 3544, 7896, 16414, 32206, 60172, 107788, 186142, 311278, 505912, 801592, 1241383, 1883167, 2803658, 4103242, 5911763, 8395387, 11764688, 16284112, 22282988, 30168268, 40439192
a(n) = +9*a(n-1) -35*a(n-2) +75*a(n-3) -90*a(n-4) +42*a(n-5) +42*a(n-6) -90*a(n-7) +75*a(n-8) -35*a(n-9) +9*a(n-10) -a(n-11). - R. J. Mathar, Mar 22 2011
[A053308] 1, 9, 46, 175, 551, 1518, 3785, 8735, 18955, 39130, 77533, 148487, 276408, 502415, 895103, 1568062, 2708322, 4622488, 7811510, 13091798, 21791338, 36067176, 59419294, 97522270, 159571139, 260459265, 424302452, 690141333
a(n) = Sum_{i=0..floor(n/2)} C(n+8-i, n-2i), n >= 0.
a(n) = Sum_{k=1..n} C(n-k+8,k+7), with n>=0. - Paolo P. Lava, Apr 16 2008
[A201458] 1, 9, 46, 175, 551, 1520, 3811, 8921, 19922, 43211, 92363, 196608, 419295, 897565, 1926458, 4135255, 8854359, 18875392, 40024059, 84417521, 177221602, 370688979, 773342163, 1610612736, 3350668423, 6964989333, 14466833194, 30021724351, 62233946303
a(n) = 9*a(n-1)-35*a(n-2)+76*a(n-3)-98*a(n-4)+72*a(n-5)-24*a(n-6) for a(-5)=a(-4)=a(-3)=a(-2)=a(-1)=0, a(0)=1.
a(n) = 8*2^n*(n+1)+2*((1-i)^(n-1)+(1+i)^(n-1))+((3+i*sqrt(3))/2)^(n+4)+((3-i*sqrt(3))/2)^(n+4), where i=sqrt(-1).
[A035039] 0, 0, 0, 0, 0, 0, 0, 1, 9, 46, 176, 562, 1586, 4096, 9908, 22819, 50643, 109294, 230964, 480492, 988116, 2014992, 4084248, 8243109, 16587165, 33308926, 66794952, 133820134, 267936278, 536249296, 1072973612, 2146540999
a(n) = sum_{k=0..n}, C(n, k+7) = sum_{k=7..n} C(n, k); a(n) = 2a(n-1) + C(n-1, 6). - Paul Barry, Aug 23 2004
[A213749] 1, 9, 46, 180, 603, 1827, 5164, 13878, 35905, 90189, 221274, 532584, 1261687, 2949255, 6815896, 15597738, 35389629, 79691985, 178258150, 396361980, 876609811, 1929380139, 4227858756, 9227469150, 20065550713, 43486544277, 93952410034, 202400334288
a(n) = 9*a(n-1) - 33*a(n-2) + 63*a(n-3) - 66*a(n-4) + 36*a(n-5) - 8*a(n-6).
a(n) = (1/2)*((1+n)*(4-2^(2+n) + n + 2^(1+n)*n)). - Colin Barker, Oct 30 2017
[A085385] 0, 1, 9, 46, 184, 640, 2032, 6048, 17152, 46848, 124160, 321024, 813056, 2023424, 4960256, 12001280, 28704768, 67960832, 159449088, 371064832, 857210880, 1967128576, 4486856704, 10177478656, 22968008704, 51589939200, 115376914432
a(n)=n*2^n(2n^2+9n+1)/4!
[A100790] 1, 9, 47, 183, 560, 1426, 3164, 6322, 11643, 20095, 32901, 51569, 77922, 114128, 162730, 226676, 309349, 414597, 546763, 710715, 911876, 1156254, 1450472, 1801798, 2218175, 2708251, 3281409, 3947797, 4718358, 5604860
a(0)=1, a(1)=9, a(2)=47, a(3)=183, a(4)=560, a(5)=1426, a(n)= 6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Dec 18 2013
[A055250] 1, 9, 47, 187, 630, 1898, 5282, 13866, 34831, 84575, 199977, 462973, 1053804, 2365704, 5250660, 11543700, 25177005, 54539205, 117456115, 251676495, 536892146, 1140875254, 2415947382, 5100306062, 10737455195, 22548620283
a(n) = Sum_{k=0..n+5} Sum_{i=0..n+5} (i-k) * C(n-k+5,i+3). - Wesley Ivan Hurt, Sep 19 2017
[A286437] 0, 9, 48, 153, 372, 765, 1404, 2373, 3768, 5697, 8280, 11649, 15948, 21333, 27972, 36045, 45744, 57273, 70848, 86697, 105060, 126189, 150348, 177813, 208872, 243825, 282984, 326673, 375228, 428997, 488340, 553629, 625248, 703593, 789072, 882105, 983124, 1092573
a(n) = (n^4 - 6*n^3 + 5*n^2 + 30*n - 54)/2, n>=3.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>7.
[A055582] 1, 9, 48, 198, 699, 2223, 6562, 18324, 49029, 126837, 319332, 786258, 1900351, 4521771, 10616598, 24641280, 56622825, 128974545, 291503800, 654311070, 1459617411, 3238002279, 7147093578, 15703473708, 34359737869, 74893491693
a(n)= (n^2 - 3*n + 8)*(2^(n+3) -1)/2 - 9*(n+3). [Yahia Kahloune, Aug 11 2013]
[A028375] 1, 9, 49, 81, 121, 169, 289, 361, 441, 529, 729, 841, 961, 1089, 1369, 1521, 1681, 1849, 2209, 2401, 2601, 2809, 3249, 3481, 3721, 3969, 4489, 4761, 5041, 5329, 5929, 6241, 6561, 6889, 7569, 7921, 8281, 8649, 9409, 9801, 10201, 10609, 11449, 11881, 12321
a(n) = a(n-1) +2*a(n-4) -2*a(n-5) -a(n-8) +a(n-9). - R. J. Mathar, Sep 22 2009
[A016838] 9, 49, 121, 225, 361, 529, 729, 961, 1225, 1521, 1849, 2209, 2601, 3025, 3481, 3969, 4489, 5041, 5625, 6241, 6889, 7569, 8281, 9025, 9801, 10609, 11449, 12321, 13225, 14161, 15129, 16129, 17161, 18225
a(n+1) = a(n) +16 + 8*sqrt(a(n)).
a(n+1) = 2*a(n) - a(n-1) + 32 = 3*a(n) - 3*a(n-1) + a(n-2).
a(n-1)*a(n+1) = (a(n)-16)^2 ; a(n+1) - a(n-1) = 16*sqrt(a(n)).
[A212503] 0, 1, 9, 49, 144, 361, 729, 1369, 2304, 3721, 5625, 8281, 11664, 16129, 21609, 28561, 36864, 47089, 59049, 73441, 90000, 109561, 131769, 157609, 186624, 219961, 257049, 299209, 345744, 398161, 455625, 519841, 589824, 667489, 751689
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A273374] 9, 49, 169, 289, 529, 729, 1089, 1369, 1849, 2209, 2809, 3249, 3969, 4489, 5329, 5929, 6889, 7569, 8649, 9409, 10609, 11449, 12769, 13689, 15129, 16129, 17689, 18769, 20449, 21609, 23409, 24649, 26569, 27889, 29929, 31329, 33489, 34969, 37249, 38809
a(n) = 6 + (50*(n-1)*n - 5*(2*n-1)*(-1)^n + 1)/2.
[A058031] 1, 1, 9, 49, 169, 441, 961, 1849, 3249, 5329, 8281, 12321, 17689, 24649, 33489, 44521, 58081, 74529, 94249, 117649, 145161, 177241, 214369, 257049, 305809, 361201, 423801, 494209, 573049, 660969, 758641, 866761, 986049, 1117249, 1261129, 1418481, 1590121
a(n) = (n^2-n+1)^2. - Carmine Suriano, Feb 16 2012
a(n) = (n-2)*(n-1)*n*(n+1) + (2*n-1)^2. - Charlie Marion, Apr 11 2013
a(n) = (n*(n-1))^2 + (n-1)^2 + n^2, sum of three squares. - Carmine Suriano, Jun 16 2014
a(n) = (n-1)^4 + 2*(n-1)^3 + 3*(n-1)^2 + 2*(n-1) + 1. - Bruce J. Nicholson, Apr 07 2017
[A084367] 0, 9, 50, 147, 324, 605, 1014, 1575, 2312, 3249, 4410, 5819, 7500, 9477, 11774, 14415, 17424, 20825, 24642, 28899, 33620, 38829, 44550, 50807, 57624, 65025, 73034, 81675, 90972, 100949, 111630, 123039, 135200, 148137, 161874
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 04 2012
[A006974] 1, 9, 50, 220, 840, 2912, 9408, 28800, 84480, 239360, 658944, 1770496, 4659200, 12042240, 30638080, 76873728, 190513152, 466944000, 1133117440, 2724986880, 6499598336, 15386804224, 36175872000, 84515225600, 196293427200, 453437816832
a(n)=sum{k=0..floor((n+8)/2), C(n+8, 2k)C(k, 4) } - Paul Barry, May 15 2003
a(n) = 2^(n-1)/4*Binomial(n+3,3)*(n+8). - Brad Clardy, Mar 08 2012
[A054549] 1, 9, 51, 219, 786, 2466, 6974, 18126, 43929, 100321, 217683, 451707, 901128, 1735752, 3239928, 5878328, 10393902, 17950878, 30340682, 50273658, 81787476, 130811124, 205935756, 319456044, 488764246, 738197766, 1101468114, 1624826306, 2371158504, 3425244456
a(n) = ((85135050*(256719+5425*(-1)^n) + 1890*(30592018355+141137997*(-1)^n)*n + 9*(7020005494399+6456074625*(-1)^n)*n^2 + 15288*(2534162507+393525*(-1)^n)*n^3 + 455*(33274853083+654885*(-1)^n)*n^4 + 126126*(31995443+45*(-1)^n)*n^5 + 763179408992*n^6 + 104737240608*n^7 + 10538322080*n^8 + 777020244*n^9 + 41479438*n^10 + 1559376*n^11 + 39130*n^12 + 588*n^13 + 4*n^14)) / 22317642547200. - Colin Barker, Jan 15 2017
[A213164] 1, 9, 51, 235, 966, 3702, 13546, 47994, 166095, 564679, 1893285, 6277677, 20626588, 67260540, 217924068, 702199684, 2251881645, 7191492885, 22882022695, 72568700415, 229473998466, 723725687314, 2277088137966, 7148997642270, 22400192612251, 70060176893427
a(n) = ((2*n-11)*3^(n-2)+2*n^2-2*n+3)/16
[A094793] 9, 53, 181, 465, 1001, 1909, 3333, 5441, 8425, 12501, 17909, 24913, 33801, 44885, 58501, 75009, 94793, 118261, 145845, 178001, 215209, 257973, 306821, 362305, 425001, 495509, 574453, 662481, 760265, 868501, 987909, 1119233, 1263241
a(n) = n^4 + 6*n^3 + 17*n^2 + 20*n + 9.
a(n) = sum((-1)^i*binomial(4,i)*(n-i)!/(n-4)!,i=0..4). - Fiona T. Brunk (fbrunk(AT)mcs.st-and.ac.uk), May 23 2006
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Fung Lam, Apr 17 2014
[A152994] 0, 9, 54, 135, 252, 405, 594, 819, 1080, 1377, 1710, 2079, 2484, 2925, 3402, 3915, 4464, 5049, 5670, 6327, 7020, 7749, 8514, 9315, 10152, 11025, 11934, 12879, 13860, 14877, 15930, 17019, 18144, 19305, 20502, 21735, 23004, 24309
a(n) = a(n-1)+36*n-27 (with a(0)=0). - Vincenzo Librandi, Dec 15 2010
[A242604] 0, 9, 56, 195, 504, 1085, 2064, 3591, 5840, 9009, 13320, 19019, 26376, 35685, 47264, 61455, 78624, 99161, 123480, 152019, 185240, 223629, 267696, 317975, 375024, 439425, 511784, 592731, 682920, 783029, 893760, 1015839, 1150016, 1297065
a(n) = (n - 1)*(n^3 + 1) = n^4 - n^3 + n - 1, n >= 1.

[A118674] 0, 9, 60, 93, 140, 429, 620, 893, 2576, 3689, 5280, 15089, 21576, 30849, 88020, 125829, 179876, 513093, 733460, 1048469, 2990600, 4274993, 6111000, 17430569, 24916560, 35617593, 101592876, 145224429, 207594620, 592126749, 846430076
a(n) = 6*a(n-3) - a(n-6) + 62 for n > 6; a(1)=0, a(2)=9, a(3)=60, a(4)=93, a(5)=140, a(6)=429.
[A288962] 0, 1, 9, 60, 250, 765, 1911, 4144, 8100, 14625, 24805, 39996, 61854, 92365, 133875, 189120, 261256, 353889, 471105, 617500, 798210, 1018941, 1285999, 1606320, 1987500, 2437825, 2966301, 3582684, 4297510, 5122125, 6068715, 7150336, 8380944, 9775425, 11349625, 13120380, 15105546, 17324029, 19795815, 22542000
a(n) = n*binomial(n,2)*(n^2-4*n+5)/2.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6).
[A030507] 9, 61, 243, 732, 1837, 4056, 8136, 15149, 26571, 44374, 71125, 110094, 165376, 242014, 346136, 485103, 667662, 904109, 1206463, 1588650, 2066688, 2658897, 3386099, 4271843, 5342629, 6628148, 8161525, 9979578, 12123079, 14637028
a(n) = ceiling (binomial (n, w) * 2^w / (2*n + 1)) for w = 7.
[A172208] 1, 9, 61, 260, 927, 2578, 5965, 12066, 22135, 37678, 60457, 92488, 136043, 193650, 268093, 362412, 479903, 624118, 798865, 1008208, 1256467, 1548218, 1888293, 2281780, 2734023, 3250622, 3837433, 4500568, 5246395, 6081538, 7012877
a(n) = (32*n^4 -336*n^3 +1702*n^2 -4701*n +5844) / 3, n>=9.
[A016886] 9, 64, 169, 324, 529, 784, 1089, 1444, 1849, 2304, 2809, 3364, 3969, 4624, 5329, 6084, 6889, 7744, 8649, 9604, 10609, 11664, 12769, 13924, 15129, 16384, 17689, 19044, 20449, 21904, 23409, 24964, 26569, 28224, 29929, 31684, 33489, 35344, 37249, 39204, 41209
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A181888] 0, 0, 9, 64, 259, 784, 1974, 4368, 8778, 16368, 28743, 48048, 77077, 119392, 179452, 262752, 375972, 527136, 725781, 983136, 1312311, 1728496, 2249170, 2894320, 3686670, 4651920, 5818995, 7220304, 8892009, 10874304, 13211704, 15953344, 19153288, 22870848, 27170913, 32124288, 37808043, 44305872, 51708462, 60113872
a(1)=0, a(2)=0, a(3)=0, a(4)=9, a(5)=64, a(6)=259, a(7)=784, a(n) = 7*a(n-1) -21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Jul 03 2013
[A212668] 9, 65, 201, 449, 841, 1409, 2185, 3201, 4489, 6081, 8009, 10305, 13001, 16129, 19721, 23809, 28425, 33601, 39369, 45761, 52809, 60545, 69001, 78209, 88201, 99009, 110665, 123201, 136649, 151041, 166409, 182785, 200201, 218689, 238281, 259009, 280905, 304001
a(n) = 2/(2*n+1)*Sum_{i=1..n} tan^5(Pi*i/(2*n+1)) * sin(2*Pi*i/(2*n+1)).
[A255877] 1, 9, 67, 221, 519, 1009, 1739, 2757, 4111, 5849, 8019, 10669, 13847, 17601, 21979, 27029, 32799, 39337, 46691, 54909, 64039, 74129, 85227, 97381, 110639, 125049, 140659, 157517, 175671, 195169, 216059, 238389, 262207, 287561, 314499, 343069, 373319
a(n) = (2*n-2)^3+(2*n-2)-1.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4. - Vincenzo Librandi, Mar 17 2015
[A167534] 9, 70, 88, 149, 167, 228, 246, 307, 325, 386, 404, 465, 483, 544, 562, 623, 641, 702, 720, 781, 799, 860, 878, 939, 957, 1018, 1036, 1097, 1115, 1176, 1194, 1255, 1273, 1334, 1352, 1413, 1431, 1492, 1510, 1571, 1589, 1650, 1668, 1729, 1747, 1808, 1826
a(n) = (79/4)-(43/4)*(-1)^n+(79/2)*n, with a(0)=9. [Paolo P. Lava, Nov 10 2009]
[A064201] 0, 9, 72, 189, 360, 585, 864, 1197, 1584, 2025, 2520, 3069, 3672, 4329, 5040, 5805, 6624, 7497, 8424, 9405, 10440, 11529, 12672, 13869, 15120, 16425, 17784, 19197, 20664, 22185, 23760, 25389, 27072, 28809, 30600, 32445, 34344, 36297
a(n) = 9*(n-2)*(3*n-8), with offset 2.
a(n) = a(n-1) + 54*n - 45, with n>0, a(0)=0. - Vincenzo Librandi, Dec 15 2010
[A244728] 0, 9, 72, 243, 576, 1125, 1944, 3087, 4608, 6561, 9000, 11979, 15552, 19773, 24696, 30375, 36864, 44217, 52488, 61731, 72000, 83349, 95832, 109503, 124416, 140625, 158184, 177147, 197568, 219501, 243000, 268119, 294912, 323433, 353736, 385875, 419904
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3.
[A096129] 1, 9, 73, 289, 801, 1801, 3529, 6273, 10369, 16201, 24201, 34849, 48673, 66249, 88201, 115201, 147969, 187273, 233929, 288801, 352801, 426889, 512073, 609409, 720001, 845001, 985609, 1143073, 1318689, 1513801, 1729801, 1968129, 2230273
a(n)=1+2*n^2+4*n^3+2*n^4. G.f.: -(x^4+4*x^3+38*x^2+4*x+1)/(x-1)^5. [Colin Barker, Jul 28 2012]
[A291700] 1, 1, 1, 1, 1, 1, 1, 1, 9, 73, 361, 1321, 3961, 10297, 24025, 51481, 103081, 196521, 368425, 720937, 1589161, 4069801, 11511721, 33341353, 94142313, 253860201, 650564201, 1588228228, 3716917597, 8418378043, 18699454621, 41451042556, 93508305513, 218218347865, 530189399785
a(n) = [x^n] (Sum_{k>=0} x^(k^3))^n.
[A028991] 1, 9, 75, 111, 261, 325, 559, 651, 969, 1089, 1491, 1639, 2125, 2301, 2871, 3075, 3729, 3961, 4699, 4959, 5781, 6069, 6975, 7291, 8281, 8625, 9699, 10071, 11229, 11629, 12871, 13299, 14625, 15081, 16491, 16975, 18469, 18981, 20559, 21099, 22761, 23329, 25075
a(n) = (28*n^2 + 4*n + 1 + (14*n+1)*(-1)^n)/2.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4. - Colin Barker, May 30 2015
[A102094] 9, 75, 245, 567, 1089, 1859, 2925, 4335, 6137, 8379, 11109, 14375, 18225, 22707, 27869, 33759, 40425, 47915, 56277, 65559, 75809, 87075, 99405, 112847, 127449, 143259, 160325, 178695, 198417, 219539, 242109, 266175, 291785, 318987, 347829, 378359, 410625
a(1)=9, a(2)=75, a(3)=245, a(4)=567, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4) – From Harvey P. Dale, Jul 24 2012
[A274311] 0, 0, 9, 75, 331, 1055, 2745, 6209, 12670, 23886, 42285, 71115, 114609, 178165, 268541, 394065, 564860, 793084, 1093185, 1482171, 1979895, 2609355, 3397009, 4373105, 5572026, 7032650, 8798725, 10919259, 13448925, 16448481, 19985205, 24133345, 28974584, 34598520, 41103161, 48595435, 57191715
a(n) = (240+452*n-220*n^2-101*n^3+75*n^4-15*n^5+n^6)/48 for n>3.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) for n>8.
[A097256] 0, 9, 90, 99, 900, 909, 990, 999, 9000, 9009, 9090, 9099, 9900, 9909, 9990, 9999, 90000, 90009, 90090, 90099, 90900, 90909, 90990, 90999, 99000, 99009, 99090, 99099, 99900, 99909, 99990, 99999, 900000, 900009, 900090, 900099, 900900
a(2n) = 10*a(n), a(2n+1) = a(2n)+9.
[A140160] 1, 9, 90, 154, 779, 995, 3396, 3908, 10469, 11469, 26110, 27838, 56399, 59143, 109768, 113864, 197385, 203217, 333538, 341538, 536019, 546667, 826508, 840332, 1230957, 1248533, 1779974, 1801926, 2509207, 2536207, 3459728, 3492496
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^4+{[1+(-1)^n]/2}*n^3, with a(1)=1 a(n)= n) = (1/16)+(1/4)*(-1)^n*n-(1/16)*(-1)^n-(1/4)*(-1)^n*n^3+(5/12)*n^3+(3/8)*(-1)^n*n^2+(1/8)*n^2-(1 /60)*n+(1/10)*n^5-(1/4)*(-1)^n*n^4+(3/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A076456] 9, 93, 390, 1110, 2535, 5019, 8988, 14940, 23445, 35145, 50754, 71058, 96915, 129255, 169080, 217464, 275553, 344565, 425790, 520590, 630399, 756723, 901140, 1065300, 1250925, 1459809, 1693818, 1954890, 2245035, 2566335, 2920944, 3311088, 3739065, 4207245
a(n) = n*(n+1)*(6*n^2+4*n-1)/2.
[A000562] 9, 95, 420, 1225, 2834, 5652, 10165, 16940, 26625, 39949, 57722, 80835, 110260, 147050, 192339, 247342, 313355, 391755, 484000, 591629, 716262, 859600, 1023425, 1209600, 1420069, 1656857, 1922070, 2217895, 2546600, 2910534, 3312127, 3753890, 4238415, 4768375, 5346524, 5975697
a(n) = 27/8n^4 - 135/4n^3 + 921/8n^2 - 539/4n, n>4. (End)
[A090448] 9, 96, 500, 1800, 5145, 12544, 27216, 54000, 99825, 174240, 290004, 463736, 716625, 1075200, 1572160, 2247264, 3148281, 4332000, 5865300, 7826280, 10305449, 13406976, 17250000, 21970000, 27720225, 34673184, 43022196, 52983000
a(n) = (n^6-4*n^5+5*n^4-2*n^3)/12. G.f.: -x^3*(x^3+17*x^2+33*x+9)/(x-1)^7. - Colin Barker, Jan 21 2013
[A139280] 9, 99, 189, 279, 369, 459, 549, 639, 729, 819, 909, 999, 1089, 1179, 1269, 1359, 1449, 1539, 1629, 1719, 1809, 1899, 1989, 2079, 2169, 2259, 2349, 2439, 2529, 2619, 2709, 2799, 2889, 2979, 3069, 3159, 3249, 3339, 3429, 3519, 3609, 3699, 3789, 3879, 3969
a(n) = a(n-1) + 90.
a(n) = 90*n - 81, with n>=1. - Paolo P. Lava, Sep 06 2010
[A017018] 9, 100, 289, 576, 961, 1444, 2025, 2704, 3481, 4356, 5329, 6400, 7569, 8836, 10201, 11664, 13225, 14884, 16641, 18496, 20449, 22500, 24649, 26896, 29241, 31684, 34225, 36864, 39601, 42436, 45369, 48400
a(0)=9, a(1)=100, a(2)=289, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 19 2014
[A253655] 9, 116, 2580, 19544, 295020, 804076, 4022064, 7839780, 24670536, 99133020, 147912160, 427612404, 791672280, 1053546956, 1796518224, 3694034916, 7030054140, 8586690620, 15076346164, 21349986840, 25222305336, 40514492720, 54489965796, 82830096360, 138828513824, 176919851700
a(n) = (p^6 - p^3 - p^2 + p)/6, where p = prime(n).
[A017102] 9, 121, 361, 729, 1225, 1849, 2601, 3481, 4489, 5625, 6889, 8281, 9801, 11449, 13225, 15129, 17161, 19321, 21609, 24025, 26569, 29241, 32041, 34969, 38025, 41209, 44521, 47961, 51529, 55225, 59049, 63001, 67081, 71289, 75625, 80089, 84681

a(0)=9, a(1)=121, a(2)=361, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 23 2014
[A282820] 0, 0, 0, 9, 132, 720, 2580, 7245, 17304, 36792, 71640, 130185, 223740, 367224, 579852, 885885, 1315440, 1905360, 2700144, 3752937, 5126580, 6894720, 9142980, 11970189, 15489672, 19830600, 25139400, 31581225, 39341484, 48627432, 59669820, 72724605, 88074720
a(n) = (n-2)*n*(n-1)*(n^3+3*n^2-10*n-6)/12.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>6. (End)
[A218326] 1, 9, 135, 231, 765, 1045, 2275, 2835, 5049, 5985, 9471, 10879, 15925, 17901, 24795, 27435, 36465, 39865, 51319, 55575, 69741, 74949, 92115, 98371, 118825, 126225, 150255, 158895, 186789, 196765, 228811, 240219, 276705, 289641, 330855, 345415, 391645, 407925
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7).
a(n) = 3*a(n-2) - 3*a(n-4) + a(n-6) + 384.
a(n) = (4*n-(-1)^n-1)*(4*n-(-1)^n-3)*(4*n-(-1)^n-4)/8.
[A017198] 9, 144, 441, 900, 1521, 2304, 3249, 4356, 5625, 7056, 8649, 10404, 12321, 14400, 16641, 19044, 21609, 24336, 27225, 30276, 33489, 36864, 40401, 44100, 47961, 51984, 56169, 60516, 65025, 69696
a(0)=9, a(1)=144, a(2)=441, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Dec 25 2015
[A274502] 0, 0, 9, 153, 972, 3996, 12690, 33858, 79596, 169884, 335907, 624195, 1101672, 1861704, 3031236, 4779108, 7325640, 10953576, 16020477, 22972653, 32360724, 44856900, 61274070, 82586790, 109954260, 144745380, 188565975, 243288279, 311082768, 394452432
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>11.
a(n) = (n-1)*(n-2)*(n-3)*(n-4)*(n-5)*(n-6)*(10*n-63)/560. - Wesley Ivan Hurt, Jun 25 2016
[A208545] 0, 0, 9, 156, 1170, 5580, 19995, 58824, 149796, 341640, 714285, 1391940, 2559414, 4482036, 7529535, 12204240, 19173960, 29309904, 43730001, 63847980, 91428570, 128649180, 178168419, 243201816, 327605100, 435965400, 573700725, 747168084
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>8.
[A017426] 9, 196, 625, 1296, 2209, 3364, 4761, 6400, 8281, 10404, 12769, 15376, 18225, 21316, 24649, 28224, 32041, 36100, 40401, 44944, 49729, 54756, 60025, 65536, 71289, 77284, 83521, 90000, 96721, 103684
a(0)=9, a(1)=196, a(2)=625, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Nov 02 2013
[A001535] 9, 209, 609, 1209, 2009, 3009, 4209, 5609, 7209, 9009, 11009, 13209, 15609, 18209, 21009, 24009, 27209, 30609, 34209, 38009, 42009, 46209, 50609, 55209, 60009, 65009, 70209, 75609, 81209, 87009, 93009, 99209, 105609, 112209, 119009, 126009, 133209, 140609
a(0)=9, a(1)=209, a(2)=609, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 15 2014
[A079913] 1, 9, 221, 2227, 15458, 80196, 334072, 1173240, 3598120, 9856552, 24553080, 56423032, 121013800, 244555560, 469343992, 860997880, 1517994792, 2583928360, 4262971000, 6839066232, 10699415080, 16362861352, 24513820920, 36042440440, 52091711272, 74112304680
a(0)=1, a(1)=9, a(2)=221, a(3)=2227, a(4)=15459, a(5)=80196, for n >= 6, a(n)= n^8 -20*n^7 +238*n^6 -1820*n^5 +9625*n^4 -35000*n^3 +84448*n^2 -122240*n +80680.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9), for n>8. - Wesley Ivan Hurt, Sep 17 2015
[A120319] 9, 225, 441, 1089, 1521, 2025, 2601, 3249, 4761, 5625, 6561, 7569, 8649, 12321, 15129, 16641, 19881, 25281, 31329, 33489, 35721, 40401, 45369, 47961, 50625, 56169, 62001, 71289, 84681, 91809, 95481, 99225, 103041, 106929, 114921, 145161
a(n) = odd square, 3 is the smallest prime factor and refactorable.
[A017558] 9, 225, 729, 1521, 2601, 3969, 5625, 7569, 9801, 12321, 15129, 18225, 21609, 25281, 29241, 33489, 38025, 42849, 47961, 53361, 59049, 65025, 71289, 77841, 84681, 91809, 99225, 106929, 114921, 123201
a(n) = a(n-1) +288*n -72, n>=1. - Vincenzo Librandi, Mar 20 2011
[A135099] 1, 9, 252, 316, 3441, 3657, 20464, 20976, 80025, 81025, 242076, 243804, 615097, 617841, 1377216, 1381312, 2801169, 2807001, 5283100, 5291100, 9375201, 9385849, 15822192, 15836016, 25601641, 25619217, 39968124, 39990076, 60501225
a(n) = (1/48)*(9*(1 - (-1)^n) + 4*n^2*(n + 1)^2*(n^2 + n + 1) -
[A001823] 0, 9, 259, 1974, 8778, 28743, 77077, 179452, 375972, 725781, 1312311, 2249170, 3686670, 5818995, 8892009, 13211704, 19153288, 27170913, 37808043, 51708462, 69627922, 92446431, 121181181, 157000116, 201236140, 255401965, 321205599, 400566474, 495632214
a(n) = n*(n-1)*(2*n+1)*(2*n-1)*(2*n-3)*(10*n+7)/90.
a(1)=0, a(2)=9, a(3)=259, a(4)=1974, a(5)=8778, a(6)=28743, a(7)=77077, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Jun 09 2013
[A279449] 0, 0, 9, 306, 4361, 34059, 185181, 777280, 2710074, 8181558, 22067973, 54285858, 123791067, 264749849, 536146569, 1035584592, 1919530804, 3430908108, 5937810417, 9984193986, 16358592141, 26181281511, 41019234245, 63028246512, 95136210222, 141264963970, 206611069197
a(n) = (n^10 - 30*n^8 + 90*n^7 - 27*n^6 - 218*n^5 + 340*n^4 - 340*n^3 + 376*n^2 - 192*n)/960 + IF(MOD(n, 2) = 1, 2*n^5 - 9*n^4 + 14*n^3 - 6*n^2 - 4*n + 3)/64.
a(n) = 5*a(n-1) - 4*a(n-2) - 20*a(n-3) + 40*a(n-4) + 16*a(n-5) - 100*a(n-6) + 44*a(n-7) + 110*a(n-8) - 110*a(n-9) - 44*a(n-10) + 100*a(n-11) - 16*a(n-12) - 40*a(n-13) + 20*a(n-14) + 4*a(n-15) - 5*a(n-16) + a(n-17).
[A291910] 0, 0, 9, 576, 6900, 44100, 196245, 686784, 2023056, 5232600, 12224025, 26310240, 52936884, 100663836, 182452725, 317318400, 532407360, 865571184, 1368508041, 2110550400, 3183182100, 4705372980, 6829824309, 9750223296, 13709610000, 19009965000, 26023131225
a(n) = (n-2)*(n-1)^2*n^2*(-4 + 5*n - 4*n^2 + n^3)/8.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9).
[A097041] 1, 1, 1, 10, 10, 19, 100, 109, 271, 1009, 1252, 3448, 10333, 14716, 41365, 107713, 173809, 479998, 1143226, 2044279, 5463208, 12333313, 23861719, 61502185, 134861536, 276257656, 688381201, 1490011480, 3174700105, 7685442289
a(n) = a(n-2) + 9*a(n-3).
a(n) = Sum_{k=0..floor(n/2)} binomial(floor((n-k)/2), k)*9^k.
[A168461] 0, 10, 10, 20, 20, 30, 30, 40, 40, 50, 50, 60, 60, 70, 70, 80, 80, 90, 90, 100, 100, 110, 110, 120, 120, 130, 130, 140, 140, 150, 150, 160, 160, 170, 170, 180, 180, 190, 190, 200, 200, 210, 210, 220, 220, 230, 230, 240, 240, 250, 250, 260, 260, 270, 270, 280
a(n) = 10*n - a(n-1) - 10, with n>1, a(1)=0.
a(n) = a(n-1) +a(n-2) -a(n-3). - Vincenzo Librandi, Sep 19 2013
a(n) = (5/2)*(2*n + (-1)^n - 1).
[A022093] 0, 10, 10, 20, 30, 50, 80, 130, 210, 340, 550, 890, 1440, 2330, 3770, 6100, 9870, 15970, 25840, 41810, 67650, 109460, 177110, 286570, 463680, 750250, 1213930, 1964180, 3178110, 5142290, 8320400, 13462690, 21783090, 35245780, 57028870, 92274650, 149303520, 241578170
a(n) = round((4*phi-2)*phi^n) for n>4. - Thomas Baruchel, Sep 08 2004
a(n) = F(n+5) + F(n-5) - 5*F(n) for n>0. - Bruno Berselli, Dec 29 2016
a(n) = Lucas(n+3) + Lucas(n-3), where Lucas(-i) = (-1)^i*Lucas(i) for the negative indices. - Bruno Berselli, Jun 13 2017
[A174140] 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 110, 111, 112, 113, 114, 115, 116
a(n+15) = a(n) + 25 for n >= 1.
[A058364] 1, 1, 1, 1, 1, 1, 1, 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 28, 39, 51, 64, 78, 93, 109, 126, 144, 172, 211, 262, 326, 404, 497, 606, 732, 876, 1048, 1259, 1521, 1847, 2251, 2748, 3354, 4086, 4962, 6010, 7269, 8790, 10637, 12888, 15636, 18990, 23076, 28038
a(n) = 1 + n*sum(binomial(n-1-8*i, i-1)/i, i=1..n/9). a(n) = a(n-1) + a(n-9), a(n) = 1 for n = 1..8, a(9) = 10. generating function = (x+9*x^9)/(1-x-x^9).
[A112654] 0, 1, 10, 11, 12, 21, 22, 23, 32, 33, 34, 43, 44, 45, 54, 55, 56, 65, 66, 67, 76, 77, 78, 87, 88, 89, 98, 99, 100, 109, 110, 111, 120, 121, 122, 131, 132, 133, 142, 143, 144, 153, 154, 155, 164, 165, 166, 175, 176, 177, 186, 187, 188, 197, 198, 199, 208, 209
a(n) = a(n-1) + a(n-3) - a(n-4).
[A153194] 10, 11, 13, 14, 38, 40, 44, 46, 84, 87, 93, 96, 148, 152, 160, 164, 230, 235, 245, 250, 330, 336, 348, 354, 448, 455, 469, 476, 584, 592, 608, 616, 738, 747, 765, 774, 910, 920, 940, 950, 1100, 1111, 1133, 1144, 1308, 1320, 1344, 1356
a(n+4) = 2*a(n) - a(n-4) + 18 if n>0. - Michael Somos, Mar 28 2014
[A290745] 10, 11, 13, 16, 20, 25, 31, 38, 46, 55, 64, 74, 85, 97, 110, 124, 139, 155, 172, 190, 208, 227, 247, 268, 290, 313, 337, 362, 388, 415, 442, 470, 499, 529, 560, 592, 625, 659, 694, 730, 766, 803, 841, 880, 920, 961, 1003, 1046, 1090, 1135
a(n) = binomial(n+1,2) - (s-p)*binomial(m+1,2) - p*binomial(m+2,2) + s where s=10, m=floor(n/s), p=n-m*s. - Andrew Howroyd, Aug 14 2017

[A188165] 10, 11, 13, 17, 25, 41, 73, 137, 265, 521, 1033, 2057, 4105, 8201, 16393, 32777, 65545, 131081, 262153, 524297, 1048585, 2097161, 4194313, 8388617, 16777225, 33554441, 67108873, 134217737, 268435465, 536870921, 1073741833, 2147483657, 4294967305
a(n) = 2*a(n-1)-9 = 3*a(n-1)-2*a(n-2).
[A214864] 10, 11, 14, 15, 26, 27, 30, 31, 42, 43, 46, 47, 58, 59, 62, 63, 74, 75, 78, 79, 90, 91, 94, 95, 106, 107, 110, 111, 122, 123, 126, 127, 138, 139, 142, 143, 154, 155, 158, 159, 170, 171, 174, 175, 186, 187, 190, 191, 202
a(n) = 4*n + 6 + (3*(-1)^n+1)/2 + 2*(-1)^((2*n-1+(-1)^n)/4) for n >= 0.
a(n) = 16*floor(n/4) + ((n-1) mod 2) + 4*floor(((n-1) mod 4) + 10. - Gary Detlefs, Oct 26 2013
[A197652] 0, 1, 10, 11, 20, 21, 30, 31, 40, 41, 50, 51, 60, 61, 70, 71, 80, 81, 90, 91, 100, 101, 110, 111, 120, 121, 130, 131, 140, 141, 150, 151, 160, 161, 170, 171, 180, 181, 190, 191, 200, 201, 210, 211, 220, 221, 230, 231, 240, 241, 250, 251, 260, 261, 270, 271
a(n) = a(n-2)+10.
a(n) = 5*n-7-2*(-1)^n. (End)
a(n) = a(n-1) + a(n-2) - a(n-3) for n>3. (End)
[A022100] 1, 10, 11, 21, 32, 53, 85, 138, 223, 361, 584, 945, 1529, 2474, 4003, 6477, 10480, 16957, 27437, 44394, 71831, 116225, 188056, 304281, 492337, 796618, 1288955, 2085573, 3374528, 5460101, 8834629, 14294730, 23129359, 37424089, 60553448, 97977537, 158530985
a(n)= a(n-1) + a(n-2) for n>=2, a(0)=1, a(1)=10, a(-1):=9.
a(n)=sum{k=0..n, Fib(n-k+1)(9*binomial(1, k)-8*binomial(0, k))}. - Paul Barry, May 05 2005
a(n) = ((1+sqrt5)^n-(1-sqrt5)^n)/(2^n*sqrt5)+ 4.5*((1+sqrt5)^(n-1)-(1-sqrt5)^(n-1))/(2^(n-2)*sqrt5). Offset 1. a(3)=11. - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
[A041475] 1, 1, 10, 11, 21, 32, 85, 117, 904, 3733, 8370, 20473, 49316, 217737, 1573475, 1791212, 5155899, 6947111, 12103010, 19050121, 183554099, 202604220, 6261680699, 6464284919, 64440244970, 70904529889, 135344774859, 206249304748, 547843384355, 754092689103
a(n) = 6445234798*a(n-22) - a(n-44) for n>43. [Bruno Berselli, Dec 18 2013]
[A041485] 1, 10, 11, 32, 107, 460, 1487, 3434, 4921, 52644, 1689529, 16947934, 18637463, 54222860, 181306043, 779447032, 2519647139, 5818741310, 8338388449, 89202625800, 2862822414049, 28717426766290, 31580249180339, 91877925126968, 307214024561243, 1320734023371940
a(n) = 1694450*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 18 2013
[A042413] 1, 10, 11, 54, 65, 119, 3159, 3278, 6437, 29026, 35463, 383656, 20752887, 207912526, 228665413, 1122574178, 1351239591, 2473813769, 65670397585, 68144211354, 133814608939, 603402647110, 737217256049, 7975575207600, 431418278466449, 4322158359872090
a(n) = 20788350*a(n-12) - a(n-24) for n>23. - Vincenzo Librandi, Jan 21 2014
[A007088] 0, 1, 10, 11, 100, 101, 110, 111, 1000, 1001, 1010, 1011, 1100, 1101, 1110, 1111, 10000, 10001, 10010, 10011, 10100, 10101, 10110, 10111, 11000, 11001, 11010, 11011, 11100, 11101, 11110, 11111, 100000, 100001, 100010, 100011, 100100, 100101, 100110, 100111
a(n) = Sum{d(i)*10^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(n) = (1/2)*Sum_{i>=0} (1-(-1)^floor(n/2^i))*10^i. - Benoit Cloitre, Nov 20 2001
a(2n) = 10*a(n), a(2n+1) = a(2n)+1.
a(n) = Sum_{k=0..floor(log2(n))} floor((Mod(n/2^k, 2)))*(10^k). - José de Jesús Camacho Medina, Jul 24 2014
[A041217] 1, 1, 10, 11, 230, 241, 2399, 2640, 55199, 57839, 575750, 633589, 13247530, 13881119, 138177601, 152058720, 3179352001, 3331410721, 33162048490, 36493459211, 763031232710, 799524691921, 7958753459999, 8758278151920, 183124316498399, 191882594650319, 1910067668351270
a(n) = 240*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 13 2013
[A079026] 10, 12, 13, 15, 16, 19, 20, 21, 23, 25, 27, 28, 29, 31, 32, 35, 37, 39, 40, 41, 43, 44, 45, 47, 49, 52, 53, 55, 57, 59, 61, 63, 64, 65, 67, 68, 71, 73, 75, 77, 79, 80, 83, 85, 88, 89, 91, 92, 93, 95, 97, 99, 100, 101, 103, 107, 109, 112, 113, 115, 117, 119, 121, 124, 125, 127
a(n) = 2*p + 3*q, for some primes p and q.
a(n) > 3n + O(n/log n). - Charles R Greathouse IV, Dec 04 2012
[A187710] 10, 12, 16, 22, 30, 40, 52, 66, 82, 100, 120, 142, 166, 192, 220, 250, 282, 316, 352, 390, 430, 472, 516, 562, 610, 660, 712, 766, 822, 880, 940, 1002, 1066, 1132, 1200, 1270, 1342, 1416, 1492, 1570, 1650, 1732, 1816, 1902, 1990, 2080, 2172, 2266, 2362, 2460
a(0)=10, a(1)=12, a(2)=16; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jan 18 2014
a(n) = Sum_{i=n-5..n+5} i*(i+1)/11. (End)
[A270819] 0, 0, 0, 0, 10, 12, 16, 36, 44, 84, 90, 144, 160, 210, 230, 312, 406, 420, 528, 560, 576, 702, 820, 880, 1056, 1200, 1224, 1378, 1404, 1456, 1890, 2080, 2176, 2346, 2664, 2700, 2964, 3240, 3320, 3612, 3916, 3960, 4370, 4416, 4704, 4752, 5460, 5994, 6328, 6384, 6496
a(n) = (prime(n)-1)*floor((prime(n)-2)/8).
[A255845] 10, 12, 18, 28, 42, 60, 82, 108, 138, 172, 210, 252, 298, 348, 402, 460, 522, 588, 658, 732, 810, 892, 978, 1068, 1162, 1260, 1362, 1468, 1578, 1692, 1810, 1932, 2058, 2188, 2322, 2460, 2602, 2748, 2898, 3052, 3210, 3372, 3538, 3708, 3882, 4060, 4242, 4428
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Mar 08 2015
[A082927] 10, 12, 21, 23, 32, 34, 43, 45, 54, 56, 65, 67, 76, 78, 87, 89, 98, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 112, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 132, 134, 143, 145, 154, 156, 165, 167, 176, 178, 187, 189, 198, 201, 210, 211, 212, 213
a(n) = n + O(x^0.915), where the exponent is the log(k)/log(10) with k the largest root of x^5 - 9x^4 + 4x^3 + 21x^2 - 9x - 5. - Charles R Greathouse IV, Mar 11 2014
[A175885] 1, 10, 12, 21, 23, 32, 34, 43, 45, 54, 56, 65, 67, 76, 78, 87, 89, 98, 100, 109, 111, 120, 122, 131, 133, 142, 144, 153, 155, 164, 166, 175, 177, 186, 188, 197, 199, 208, 210, 219, 221, 230, 232, 241, 243, 252, 254, 263, 265, 274, 276, 285, 287, 296, 298
a(n) = (22*n+7*(-1)^n-11)/4.
a(n) = -a(-n+1) = a(n-2)+11 = a(n-1)+a(n-2)-a(n-3).
[A129075] 10, 13, 19, 25, 37, 43, 55, 61, 73, 91, 97, 115, 127, 133, 145, 163, 181, 187, 205, 217, 223, 241, 253, 271, 295, 307, 313, 325, 331, 343, 385, 397, 415, 421, 451, 457, 475, 493, 505, 523, 541, 547, 577, 583, 595, 601, 637, 673, 685, 691, 703, 721, 727, 757
a(n) = 3*prime(n) + 4. - Zak Seidov, May 12 2007
[A195313] 0, 1, 10, 13, 31, 36, 63, 70, 106, 115, 160, 171, 225, 238, 301, 316, 388, 405, 486, 505, 595, 616, 715, 738, 846, 871, 988, 1015, 1141, 1170, 1305, 1336, 1480, 1513, 1666, 1701, 1863, 1900, 2071, 2110, 2290, 2331, 2520, 2563, 2761, 2806, 3013, 3060
a(n) = (22*n*(n+1)+7*(2*n+1)*(-1)^n-7)/16.
[A069960] 1, 10, 13, 45, 106, 289, 745, 1962, 5125, 13429, 35146, 92025, 240913, 630730, 1651261, 4323069, 11317930, 29630737, 77574265, 203092074, 531701941, 1392013765, 3644339338, 9541004265, 24978673441, 65395016074, 171206374765, 448224108237, 1173465949930
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3). G.f.: -(x-1)*(9*x+1) / ((x+1)*(x^2-3*x+1)). - Colin Barker, Jun 14 2013
a(n) = (2^(-1-n)*(-(-1)^n*2^(5+n)-(3-sqrt(5))^n*(-21+sqrt(5))+(3+sqrt(5))^n*(21+sqrt(5))))/5. - Colin Barker, Sep 30 2016
[A154142] 0, 10, 13, 63, 80, 370, 469, 2159, 2736, 12586, 15949, 73359, 92960, 427570, 541813, 2492063, 3157920, 14524810, 18405709, 84656799, 107276336, 493415986, 625252309, 2875839119, 3644237520, 16761618730, 21240172813, 97693873263, 123796799360, 569401620850
a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) - a(n-4) + a(n-5).
a(1..4) = (0,10,13,63); a(n) = 6*a(n-2) - a(n-4) + 2, for n > 4. - Ctibor O. Zizka, Nov 10 2009
[A063920] 10, 14, 20, 28, 40, 56, 80, 112, 160, 224, 320, 448, 640, 896, 1280, 1792, 2560, 3584, 5120, 7168, 10240, 14336, 20480, 28672, 40960, 57344, 81920, 114688, 163840, 229376, 327680, 458752, 655360, 917504, 1310720, 1835008, 2621440, 3670016, 5242880, 7340032, 10485760
a(n) = (12-2*(-1)^n) * 2^floor(n/2). - Ralf Stephan, Jul 19 2013
[A168671] 1, 10, 14, 23, 27, 36, 40, 49, 53, 62, 66, 75, 79, 88, 92, 101, 105, 114, 118, 127, 131, 140, 144, 153, 157, 166, 170, 179, 183, 192, 196, 205, 209, 218, 222, 231, 235, 244, 248, 257, 261, 270, 274, 283, 287, 296, 300, 309, 313, 322, 326, 335, 339, 348, 352, 361, 365, 374
a(n) = (26*n+5*(-1)^n-17)/4.
a(n) = a(n-2) +13 = a(n-1) +a(n-2) -a(n-3). (End)
[A074778] 10, 14, 30, 36, 42, 50, 54, 70, 74, 90, 98, 100, 108, 110, 114, 126, 130, 134, 150, 154, 162, 170, 174, 178, 180, 182, 190, 192, 194, 202, 210, 222, 230, 238, 250, 252, 254, 266, 270, 290, 294, 300, 310, 322, 324, 330, 340, 342, 350, 352, 354, 370, 378, 390
a(n) seems to be asymptotic to c*n with c=5.8...
[A162899] 1, 10, 14, 30, 39, 64, 80, 116, 141, 190, 226, 290, 339, 420, 484, 584, 665, 786, 886, 1030, 1151, 1320, 1464, 1660, 1829, 2054, 2250, 2506, 2731, 3020, 3276, 3600, 3889, 4250, 4574, 4974, 5335, 5776, 6176, 6660, 7101, 7630, 8114, 8690, 9219, 9844, 10420

a(n) = (60-36*(-1)^n+(109-9*(-1)^n)*n+24*n^2+2*n^3)/24. G.f.: (4*x^4-4*x^3-7*x^2+8*x+1) / ((x-1)^4*(x+1)^2). - Colin Barker, Jul 18 2013
[A115391] 1, 10, 14, 30, 55, 104, 140, 204, 285, 406, 506, 650, 819, 1044, 1240, 1496, 1785, 2146, 2470, 2870, 3311, 3840, 4324, 4900, 5525, 6254, 6930, 7714, 8555, 9516, 10416, 11440, 12529, 13754, 14910, 16206, 17575, 19096, 20540, 22140, 23821, 25670, 27434, 29370
a(n) = (2*n+1)*(2*n*(n+1)+3*(1+cos(n*Pi)-2*cos(n*Pi/2)))/12. - Luce ETIENNE, Feb 01 2017
[A164765] 1, 10, 14, 30, 66, 91, 140, 221, 285, 385, 529, 650, 819, 1044, 1240, 1496, 1820, 2109, 2470, 2911, 3311, 3795, 4371, 4900, 5525, 6254, 6930, 7714, 8614, 9455, 10416, 11505, 12529, 13685, 14981, 16206, 17575, 19096, 20540, 22140, 23904, 25585
a(n) = (n(n+1) + 6 - 8sin^2(pi(n+1)/3))(2n+1)/6
[A116955] 1, 10, 14, 30, 66, 130, 230, 374, 570, 826, 1150, 1550, 2034, 2610, 3286, 4070, 4970, 5994, 7150, 8446, 9890, 11490, 13254, 15190, 17306, 19610, 22110, 24814, 27730, 30866, 34230, 37830, 41674, 45770, 50126, 54750, 59650, 64834, 70310, 76086, 82170, 88570
a(n) = 2*(15+n-3*n^2+2*n^3)/3 for n>0. G.f.: -(9*x^4-30*x^3+20*x^2-6*x-1) / (x-1)^4. - Colin Barker, Jul 18 2013
[A105156] 10, 15, 20, 119, 308, 533, 986, 1463, 2300, 3741, 4960, 7289, 9758, 12083, 15416, 20193, 25960, 30561, 38056, 45369, 51976, 62489, 72542, 85707, 102820, 117261, 130192, 146697, 161320, 180009, 218440, 242481, 272356, 295653, 339124, 366477
a(n) = if 10 Mod[Prime[n], 10] is 1, 3 then -Prime[n] else Prime[n] a[1]=5 a[3]-2 T(n, k)=a(k)*Prime[n] aout[n]=Sum[T(n, k], {k, 1, n]
[A231643] 10, 15, 25, 45, 85, 165, 325, 645, 1285, 2565, 5125, 10245, 20485, 40965, 81925, 163845, 327685, 655365, 1310725, 2621445, 5242885, 10485765, 20971525, 41943045, 83886085, 167772165, 335544325, 671088645, 1342177285, 2684354565, 5368709125, 10737418245
a(n) = 3*a(n-1)-2*a(n-2) for n>1, a(0)=10, a(1)=15. - Philippe Deléham, Nov 15 2013
[A254362] 10, 15, 27, 57, 135, 345, 927, 2577, 7335, 21225, 62127, 183297, 543735, 1618905, 4832127, 14447217, 43243335, 129533385, 388206927, 1163834337, 3489930135, 10466644665, 31393642527, 94168344657, 282479868135, 847389272745, 2542067154927, 7626000138177
a(n) = 6*a(n-1) -11*a(n-2) +6*a(n-3). - Colin Barker, Jan 30 2015
[A271743] 10, 15, 29, 63, 149, 375, 989, 2703, 7589, 21735, 63149, 185343, 547829, 1627095, 4848509, 14479983, 43308869, 129664455, 388469069, 1164358623, 3490978709, 10468741815, 31397836829, 94176733263, 282496645349, 847422827175, 2542134263789, 7626134355903
a(n) = 4 + 2^(n-2) + 3^(n-4) for n>4.
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3) for n>7.
[A276914] 0, 1, 10, 15, 36, 45, 78, 91, 136, 153, 210, 231, 300, 325, 406, 435, 528, 561, 666, 703, 820, 861, 990, 1035, 1176, 1225, 1378, 1431, 1596, 1653, 1830, 1891, 2080, 2145, 2346, 2415, 2628, 2701, 2926, 3003, 3240, 3321, 3570, 3655, 3916, 4005, 4278, 4371, 4656
a(n) = n*(2*n + (-1)^n).
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>4.
a(n) = n*(2*n+1) for n even.
a(n) = n*(2*n-1) for n odd. (End)
[A164285] 10, 17, 31, 59, 115, 227, 451, 899, 1795, 3587, 7171, 14339, 28675, 57347, 114691, 229379, 458755, 917507, 1835011, 3670019, 7340035, 14680067, 29360131, 58720259, 117440515, 234881027, 469762051, 939524099, 1879048195, 3758096387
a(n) = 2*a(n-1) - 3.
a(n) = 3*a(n-1) - 2*a(n-2).
[A058621] 0, 1, 1, 10, 17, 126, 262, 1716, 3985, 24310, 60626, 352716, 925190, 5200300, 14168988, 77558760, 217721745, 1166803110, 3355615450, 17672631900, 51855874642, 269128937220, 803232328548, 4116715363800, 12467572005382, 63205303218876, 193873026294052
a(n) = Sum_{i=0..(n-1)/2} binomial(n,i)^2 (see Equation 2 in section 4.2.5 of Prudnikov et al. reference).
[A245578] 1, 10, 18, 22, 32, 38, 50, 58, 72, 82, 98, 110, 128, 142, 162, 178, 200, 218, 242, 262, 288, 310, 338, 362, 392, 418, 450, 478, 512, 542, 578, 610, 648, 682, 722, 758, 800, 838, 882, 922, 968, 1010, 1058, 1102, 1152, 1198, 1250, 1298, 1352, 1402, 1458, 1510, 1568, 1622, 1682, 1738, 1800, 1858, 1922, 1982, 2048, 2110
a(n) = (3+5*(-1)^n+8*n+2*n^2)/4 if n>2. - Peter Luschny, Jul 26 2014
[A090995] 10, 18, 32, 58, 104, 188, 338, 610, 1098, 1980, 3566, 6428, 11580, 20870, 37602, 67762, 122096, 220018, 396448, 714388, 1287266, 2319594, 4179738, 7531660, 13571542, 24455124, 44066548, 79405254, 143083226, 257827186, 464588384
a(k+6)=5*a(k+4)-6*a(k+2)+a(k).
[A198309] 10, 18, 82, 146, 658, 1170, 5266, 9362, 42130, 74898, 337042, 599186, 2696338, 4793490, 21570706, 38347922, 172565650, 306783378, 1380525202, 2454267026, 11044201618, 19634136210, 88353612946, 157073089682, 706828903570, 1256584717458, 5654631228562
a(2*i) = 2 Sum_{j=0..i-1} 8^j = string "2"^i read in base 8.
a(2*i+1) = 8^i + 2 Sum_{j=0..i-1} 8^j = string "1"*"2"^i read in base 8.
a(n) = a(n-1) + 8*a(n-2) - 8*a(n-3) for n>5.
a(n) = 2*(2^(3*n/2) - 1)/7 for n even.
a(n) = (9*2^((3*(n-1))/2) - 2)/7 for n odd.
[A017173] 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, 91, 100, 109, 118, 127, 136, 145, 154, 163, 172, 181, 190, 199, 208, 217, 226, 235, 244, 253, 262, 271, 280, 289, 298, 307, 316, 325, 334, 343, 352, 361, 370, 379, 388, 397, 406, 415, 424, 433, 442, 451, 460, 469, 478
a(n) = 2*a(n-1) - a(n-2) with a(0)=1, a(1)=10. - Vincenzo Librandi, Aug 01 2010
[A083705] 10, 19, 37, 73, 145, 289, 577, 1153, 2305, 4609, 9217, 18433, 36865, 73729, 147457, 294913, 589825, 1179649, 2359297, 4718593, 9437185, 18874369, 37748737, 75497473, 150994945, 301989889, 603979777, 1207959553, 2415919105, 4831838209, 9663676417, 19327352833
a(n) = 1 + 9*2^n = 3*a(n-1) - 2*a(n-2).
[A070199] 10, 19, 109, 199, 1099, 1999, 10999, 19999, 109999, 199999, 1099999, 1999999, 10999999, 19999999, 109999999, 199999999, 1099999999, 1999999999, 10999999999, 19999999999, 109999999999, 199999999999, 1099999999999, 1999999999999, 10999999999999, 19999999999999
a(n) = a(n-1) + 10*a(n-2) - 10*a(n-3).
a(n)=(-2*Sqrt[10]+10^(n/2)*(11+2*Sqrt[10]+(-1)^n*(-11+2*Sqrt[10])))/ (2*Sqrt[10]). - Harvey P. Dale, Mar 18 2016
a(n) = 2^(n/2+1)*5^(n/2) - 1 for n even.
a(n) = 11*10^((n-1)/2) - 1 for n odd.
[A179819] 10, 20, 25, 35, 45, 50, 60, 70, 75, 85, 95, 100, 110, 120, 125, 135, 145, 150, 160, 170, 175, 185, 195, 200, 210, 220, 225, 235, 245, 250, 260, 270, 275, 285, 295, 300, 310, 320, 325, 335, 345, 350, 360, 370, 375, 385, 395, 400, 410, 420, 425, 435, 445, 450, 460, 470, 475, 485, 495, 500, 510, 520, 525, 535, 545, 550, 560
a(n)= +a(n-1) +a(n-3) -a(n-4). G.f.: 5*x*(2+2*x+x^2) / ((1+x+x^2)*(x-1)^2). [From R. J. Mathar, Aug 05 2010]
[A011540] 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 301, 302
a(n) <= 10*(n - 1), equality holds for 1 <= n <= 11.
a(n) <= 9*n, for n <> 11.
a(n) < n + 10 * n^log_10(9).
a(n) < n + 2 * n^log_10(9), for n > 6*10^8.
a(n) > n + 9^log_10(9)/8 * n^log_10(9).
a(n) = n + O(n^log_10(9)) = n + n^0.95424250943932....
[A008592] 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530
a(n) = 2*a(n-1)-a(n-2) for n>1.
a(n) = 10*n. (End)
a(n) = Sum_{i=2n-2..2n+2} i. - Wesley Ivan Hurt, Apr 11 2016
[A043489] 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 120, 130, 140, 150, 160, 170, 180, 190, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 220, 230, 240, 250, 260, 270, 280, 290, 301, 302, 303
a(1 + sum_{1<=j<=n} j*9^j) = 10*(10^n - 1).
a(2 + sum_{1<=j<=n} j*9^j) = 10^(n+1) + (10^n - 1)/9 = (91*10^n - 1)/9.
a((9^(n+1) - 1)/8 + 1 + sum_{1<=j<=n} j*9^j) = 10*(10^(n+1) - 1)/9, where sum_{1<=j<=n} j*9^j = (1-(n+1)*9^n+n*9^(n+1))*9/64.
a(n+1) = a(n) + 10 + (10^j - 1)/9, if i = 0.

a(n+1) = a(n) + 1 + (10^(j-1) - 1)/9, if i = j > 0.
a(n+1) = a(n) + 1 + (10^j - 1)/9, if i > j.
[A172172] 0, 1, 10, 20, 39, 68, 116, 193, 318, 520, 847, 1376, 2232, 3617, 5858, 9484, 15351, 24844, 40204, 65057, 105270, 170336, 275615, 445960, 721584, 1167553, 1889146, 3056708, 4945863, 8002580, 12948452, 20951041, 33899502, 54850552, 88750063, 143600624, 232350696
a(n) = a(n-1) + a(n-2) + 9 with a(0)=0 and a(1)=1.
a(n) = 2*a(n-1)- a(n-3), a(0)=0, a(1)=1, a(2)=10 (Observation by G. Detlefs).
a(n) = (-9 + (2^(-1-n)*((1-sqrt(5))^n*(-11+9*sqrt(5)) + (1+sqrt(5))^n*(11+9*sqrt(5)))) / sqrt(5)). - Colin Barker, Jul 13 2017
[A294473] 0, 0, 10, 20, 60, 92, 182, 248, 408, 520, 770, 940, 1300, 1540, 2030, 2352, 2992, 3408, 4218, 4740, 5740, 6380, 7590, 8360, 9800, 10712, 12402, 13468, 15428, 16660, 18910, 20320, 22880, 24480, 27370, 29172, 32412, 34428, 38038, 40280, 44280, 46760, 51170
a(n) = 2 * Sum_{i=1..floor((n-1)/2)} i^2 + (n-i)^2.
a(n) = n*(8*n^2 - 18*n + 4) / 12 for n even.
a(n) = n*(8*n^2 - 12*n + 4) / 12 for n odd.
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7) for n > 7.
[A276764] 10, 20, 74, 100, 202, 244, 394, 452, 650, 724, 970, 1060, 1354, 1460, 1802, 1924, 2314, 2452, 2890, 3044, 3530, 3700, 4234, 4420, 5002, 5204, 5834, 6052, 6730, 6964, 7690, 7940, 8714, 8980, 9802, 10084, 10954, 11252, 12170, 12484, 13450, 13780, 14794, 15140
a(n) = (2n - 1 - ((n+1) mod 2))^2 + (2n + (n mod 2))^2.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5.
a(n) = 8*n^2 - 8*n + 4 for n even.
a(n) = 8*n^2 + 2 for n odd.
[A215878] 10, 20, 80, 100, 460, 620, 2780, 3700, 16660, 22220, 99980, 133300, 599860, 799820, 3599180, 4798900, 21595060, 28793420, 129570380, 172760500, 777422260, 1036563020, 4664533580, 6219378100, 27987201460, 37316268620, 167923208780, 223897611700, 1007539252660, 1343385670220, 6045235515980
a(n) = 3*a(n-1)+2*a(n-2) if n is odd. a(n) = 2*a(n-1)-3*a(n-2) if n is even. - R. J. Mathar, Jun 18 2014
a(n) = -5 * (-6^((n - 1)/2) * (9 + 2*sqrt(6) + (-1)^n * (2 * sqrt(6) - 9)) + 4 * (cos(n * Pi/2) + sin(n * Pi/2)))/7. - Benedict W. J. Irwin, Nov 01 2016
[A185691] 10, 21, 31, 52, 83, 135, 218, 353, 571, 924, 1495, 2419, 3914, 6333, 10247, 16580, 26827, 43407, 70234, 113641, 183875, 297516, 481391, 778907, 1260298, 2039205, 3299503, 5338708, 8638211, 13976919, 22615130, 36592049, 59207179, 95799228
a(n+2) = a(n+1) + a(n) with a(0) = 10, a(1) = 21.
a(n) = 11*Fibonacci(n) + 10*Fibonacci(n+1).
a(n) = 9*Fibonacci(n+2) + Lucas(n+1).
[A051942] 0, 10, 21, 33, 46, 60, 75, 91, 108, 126, 145, 165, 186, 208, 231, 255, 280, 306, 333, 361, 390, 420, 451, 483, 516, 550, 585, 621, 658, 696, 735, 775, 816, 858, 901, 945, 990, 1036, 1083, 1131, 1180, 1230, 1281, 1333, 1386, 1440, 1495, 1551, 1608, 1666
a(n) = (n^2+n-90)/2 = (n-9)*(n+10)/2 = n*(n+1)/2 - 45.
a(n) = +3*a(n-1) -3*a(n-2) +1*a(n-3), n>=13.
a(n) = n+a(n-1) (with a(9)=0). - Vincenzo Librandi, Aug 06 2010
a(n) = 10n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A195142] 0, 1, 10, 21, 40, 61, 90, 121, 160, 201, 250, 301, 360, 421, 490, 561, 640, 721, 810, 901, 1000, 1101, 1210, 1321, 1440, 1561, 1690, 1821, 1960, 2101, 2250, 2401, 2560, 2721, 2890, 3061, 3240, 3421, 3610, 3801, 4000, 4201, 4410, 4621, 4840, 5061, 5290
a(n) = -a(n-1)+5*n^2-5*n+1, a(0)=0. - Vincenzo Librandi, Sep 27 2011
a(n) = a(-n) = (10*n^2+3*(-1)^n-3)/4. a(n) = a(n-2)+10*(n-1). - Bruno Berselli, Sep 27 2011
a(0)=0, a(1)=1, a(2)=10, a(3)=21, a(n)=2*a(n-1)+0*a(n-2)-2*a(n-3)+a(n-4) [From Harvey P. Dale, Sep 29 2011]
[A086225] 10, 21, 43, 87, 175, 351, 703, 1407, 2815, 5631, 11263, 22527, 45055, 90111, 180223, 360447, 720895, 1441791, 2883583, 5767167, 11534335, 23068671, 46137343, 92274687, 184549375, 369098751, 738197503, 1476395007, 2952790015
a(n) = 2*a(n-1)+1.
[A042309] 1, 10, 21, 52, 73, 125, 323, 2063, 14764, 46355, 107474, 153829, 2568738, 2722567, 8013872, 26764183, 195363153, 1198943101, 2593249355, 3792192456, 6385441811, 16563076078, 39511593967, 411679015748, 21446820412863, 214879883144378
a(n) = 21486332006830*a(n-24) - a(n-48) for n>47. - Vincenzo Librandi, Jan 20 2014
[A017641] 10, 22, 34, 46, 58, 70, 82, 94, 106, 118, 130, 142, 154, 166, 178, 190, 202, 214, 226, 238, 250, 262, 274, 286, 298, 310, 322, 334, 346, 358, 370, 382, 394, 406, 418, 430, 442, 454, 466, 478, 490, 502, 514, 526, 538, 550, 562, 574, 586, 598, 610, 622, 634
a(n) = 24*n - a(n-1) + 8, (with a(0)=10). - Vincenzo Librandi, Dec 24 2010
[A217573] 10, 22, 34, 47, 60, 72, 84, 98, 110, 122, 135, 148, 160, 172, 186, 198, 210, 223, 236, 248, 260, 274, 286, 298, 311, 324, 336, 348, 362, 374, 386, 399, 412, 424, 436, 450, 462, 474, 487, 500, 512, 524, 538, 550, 562, 575, 588, 600, 612, 626, 638, 650, 663
a(n) = floor((2*n+1)*Pi) + floor((2*n+2)*Pi) + 1.
[A211482] 1, 10, 22, 35, 50, 62, 80, 92, 104, 116, 128, 140, 152, 164, 176, 188, 200, 212, 224, 236, 248, 260, 272, 284, 296, 308, 320, 332, 344, 356, 368, 380, 392, 404, 416, 428, 440, 452, 464, 476, 488, 500, 512, 524, 536, 548, 560, 572, 584, 596, 608, 620
a(n) = 12*n + 8 for n>5.
a(n) = 2*a(n-1) - a(n-2) for n>7.
[A028569] 0, 10, 22, 36, 52, 70, 90, 112, 136, 162, 190, 220, 252, 286, 322, 360, 400, 442, 486, 532, 580, 630, 682, 736, 792, 850, 910, 972, 1036, 1102, 1170, 1240, 1312, 1386, 1462, 1540, 1620, 1702, 1786, 1872, 1960, 2050, 2142, 2236, 2332, 2430
a(n) = 2*n + a(n-1) + 8. - Vincenzo Librandi, Aug 05 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Wesley Ivan Hurt, Sep 26 2014
[A079861] 10, 22, 48, 104, 224, 480, 1024, 2176, 4608, 9728, 20480, 43008, 90112, 188416, 393216, 819200, 1703936, 3538944, 7340032, 15204352, 31457280, 65011712, 134217728, 276824064, 570425344, 1174405120, 2415919104, 4966055936
a(i) = (2+i)*2^(i-8).
a(n) = 4*a(n-1)-4*a(n-2). - Colin Barker, Dec 16 2014
[A014008] 10, 22, 48, 105, 230, 504, 1104, 2418, 5296, 11600, 25408, 55652, 121896, 266992, 584800, 1280904, 2805600, 6145184, 13459968, 29481744, 64574688, 141439744, 309799425, 678562341, 1486274065, 3255427634, 7130454154, 15618033069, 34208614441, 74928084529
a(n) = floor(r*s^n+1/2), where r = 9.9972232745062827387529 6... and s = 2.1903279555017796391254143319147332185635456648746736784814730 94... . - Benoit Cloitre, Apr 21 2003
[A140674] 0, 10, 23, 39, 58, 80, 105, 133, 164, 198, 235, 275, 318, 364, 413, 465, 520, 578, 639, 703, 770, 840, 913, 989, 1068, 1150, 1235, 1323, 1414, 1508, 1605, 1705, 1808, 1914, 2023, 2135, 2250, 2368, 2489, 2613, 2740, 2870, 3003, 3139
a(n) = (3*n^2 + 17*n)/2.
a(n) = 3*n + a(n-1) + 7 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A156202] 10, 23, 49, 101, 205, 413, 829, 1661, 3325, 6653, 13309, 26621, 53245, 106493, 212989, 425981, 851965, 1703933, 3407869, 6815741, 13631485, 27262973, 54525949, 109051901, 218103805, 436207613, 872415229, 1744830461, 3489660925
a(n) = -3+13*2^(n-1).
a(n) = 3*a(n-1) - 2*a(n-2). - Vincenzo Librandi, May 02 2012
[A164578] 10, 23, 65, 94, 168, 213, 319, 380, 518, 595, 765, 858, 1060, 1169, 1403, 1528, 1794, 1935, 2233, 2390, 2720, 2893, 3255, 3444, 3838, 4043, 4469, 4690, 5148, 5385, 5875, 6128, 6650, 6919, 7473, 7758, 8344, 8645, 9263, 9580, 10230, 10563, 11245, 11594
a(n) = +a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5). G.f. x*(-10-13*x-22*x^2-3*x^3) / ((1+x)^2*(x-1)^3). - R. J. Mathar, Jan 25 2011
a(n) = (24*n^2+6*n-(-1)^n*(8*n+1)+1)/4.
a(n) = (12*n^2-n)/2 for n even.
a(n) = (12*n^2+7*n+1)/2 for n odd.
[A101156] 10, 24, 34, 58, 92, 150, 242, 392, 634, 1026, 1660, 2686, 4346, 7032, 11378, 18410, 29788, 48198, 77986, 126184, 204170, 330354, 534524, 864878, 1399402, 2264280, 3663682, 5927962, 9591644, 15519606, 25111250, 40630856, 65742106, 106372962, 172115068
a(n) = a(n-1) + a(n-2).

[A067728] 10, 24, 42, 64, 90, 120, 154, 192, 234, 280, 330, 384, 442, 504, 570, 640, 714, 792, 874, 960, 1050, 1144, 1242, 1344, 1450, 1560, 1674, 1792, 1914, 2040, 2170, 2304, 2442, 2584, 2730, 2880, 3034, 3192, 3354, 3520, 3690, 3864, 4042, 4224, 4410, 4600
a(n+1) = 2*n*n + 12*n + 10. - Frank Ellermann
a(n) = Sum_{k=0..n} Sum_{j=4..n} (j - k), n >= 4. - Zerinvary Lajos, May 11 2007
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Jul 08 2012
[A269457] 10, 25, 45, 70, 100, 135, 175, 220, 270, 325, 385, 450, 520, 595, 675, 760, 850, 945, 1045, 1150, 1260, 1375, 1495, 1620, 1750, 1885, 2025, 2170, 2320, 2475, 2635, 2800, 2970, 3145, 3325, 3510, 3700, 3895, 4095, 4300, 4510, 4725, 4945, 5170, 5400, 5635
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A163631] 1, 10, 25, 46, 71, 98, 131, 166, 205, 250, 299, 350, 405, 462, 525, 590, 659, 734, 811, 892, 977, 1064, 1155, 1248, 1343, 1442, 1547, 1658, 1773, 1890, 2009, 2130, 2253, 2378, 2507, 2640, 2775, 2916, 3059, 3204, 3351, 3504, 3659, 3818, 3979, 4144, 4313
a(n) = Sum_{x= 1st odd nonprime..n-th odd nonprime}x.
[A100536] 1, 10, 25, 46, 73, 106, 145, 190, 241, 298, 361, 430, 505, 586, 673, 766, 865, 970, 1081, 1198, 1321, 1450, 1585, 1726, 1873, 2026, 2185, 2350, 2521, 2698, 2881, 3070, 3265, 3466, 3673, 3886, 4105, 4330, 4561, 4798, 5041, 5290, 5545, 5806, 6073, 6346, 6625
a(n) = a(n-1) + 6*n - 3 for n>1. - Vincenzo Librandi, Nov 17 2010
a(n+1) = binomial(n,0) + 9*binomial(n,1) + 6*binomial(n,2). - Philippe Deléham, Mar 16 2014
a(n) = floor(1/(n*tan(1/n) - 1)). - Clark Kimberling, Dec 02 2014
[A072277] 10, 25, 51, 91, 148, 225, 325, 451, 606, 793, 1015, 1275, 1576, 1921, 2313, 2755, 3250, 3801, 4411, 5083, 5820, 6625, 7501, 8451, 9478, 10585, 11775, 13051, 14416, 15873, 17425, 19075, 20826, 22681, 24643, 26715, 28900, 31201, 33621, 36163
a(n) = (n^3-n^2+2)/2.
a(3)=10, a(4)=25, a(5)=51, a(6)=91, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) [From Harvey P. Dale, Aug 19 2011]
[A137930] 0, 1, 10, 25, 56, 101, 170, 261, 384, 537, 730, 961, 1240, 1565, 1946, 2381, 2880, 3441, 4074, 4777, 5560, 6421, 7370, 8405, 9536, 10761, 12090, 13521, 15064, 16717, 18490, 20381, 22400, 24545, 26826, 29241, 31800, 34501, 37354, 40357, 43520, 46841, 50330
a(n) = mod(n^(n+1),n+1) + floor(n/2)^2*(6-4(-1)^n) + [16*floor(n/2)^3 + floor(n/2)*(14-12(-1)^n)]/3
[A071289] 0, 1, 10, 25, 68, 117, 222, 325, 520, 697, 1010, 1281, 1740, 2125, 2758, 3277, 4112, 4785, 5850, 6697, 8020, 9061, 10670, 11925, 13848, 15337, 17602, 19345, 21980, 23997, 27030, 29341, 32800, 35425, 39338, 42297, 46692, 50005, 54910, 58597, 64040, 68121, 74130
a(n)= +a(n-1) +3*a(n-2) -3*a(n-3) -3*a(n-4) +3*a(n-5) +a(n-6) -a(n-7). G.f.: x*(1+9*x+12*x^2+16*x^3+7*x^4+3*x^5) / ((1+x)^3*(x-1)^4). [From R. J. Mathar, Oct 19 2010]
[A067264] 10, 26, 33, 35, 49, 57, 69, 88, 90, 96, 136, 142, 160, 178, 198, 201, 206, 209, 215, 216, 253, 262, 265, 276, 302, 323, 328, 346, 348, 377, 380, 395, 398, 458, 459, 469, 473, 501, 504, 513, 516, 528, 542, 544, 545, 551, 568, 579, 581, 586, 640, 644, 671, 681
a(n) seems to be asymptotic to c*n*log(n) with c=2.2...
[A113770] 1, 10, 26, 42, 58, 74, 90, 106, 122, 138, 154, 170, 186, 202, 218, 234, 250, 266, 282, 298, 314, 330, 346, 362, 378, 394, 410, 426, 442, 458, 474, 490, 506, 522, 538, 554, 570, 586, 602, 618, 634, 650, 666, 682, 698, 714, 730, 746, 762, 778, 794
a(n) = 7*0^n + 2*(8*n-3).
a(n) = sum{k=0..n, (4-C(1, k)-2*C(0, k))^2}.
a(0)=1, a(1)=10, a(2)=26, a(n) = 2*a(n-1)-a(n-2). [Harvey P. Dale, Aug 19 2011]
[A198017] 1, 10, 26, 49, 79, 116, 160, 211, 269, 334, 406, 485, 571, 664, 764, 871, 985, 1106, 1234, 1369, 1511, 1660, 1816, 1979, 2149, 2326, 2510, 2701, 2899, 3104, 3316, 3535, 3761, 3994, 4234, 4481, 4735, 4996, 5264, 5539, 5821, 6110, 6406, 6709, 7019, 7336, 7660, 7991
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) = 2*a(n-1)-a(n-2)+7.
[A221568] 0, 10, 26, 100, 342, 1210, 4240, 14898, 52306, 183684, 645006, 2264978, 7953568, 27929338, 98075178, 344395620, 1209361446, 4246729738, 14912591664, 52366268642, 183886620962, 645726538244, 2267499179678, 7962430263202, 27960449231680, 98184435580010
a(n) = 3*a(n-1) +2*a(n-2) -a(n-3) +a(n-4).
[A001107] 0, 1, 10, 27, 52, 85, 126, 175, 232, 297, 370, 451, 540, 637, 742, 855, 976, 1105, 1242, 1387, 1540, 1701, 1870, 2047, 2232, 2425, 2626, 2835, 3052, 3277, 3510, 3751, 4000, 4257, 4522, 4795, 5076, 5365, 5662, 5967, 6280, 6601, 6930, 7267, 7612, 7965, 8326
a(n) = 3a(n-1) - 3a(n-2) + a(n-3), a(0) = 0, a(1) = 1, a(2) = 10. - Jaume Oliver Lafont, Dec 02 2008
a(n) = 8*n + a(n-1) - 7 (with a(0) = 0). - Vincenzo Librandi, Jul 10 2010
a(n) = 8 + 2a(n-1) - a(n-2). - Ant King, Sep 04 2011
a(8*a(n) + 29*n+1) = a(8*a(n) + 29*n) + a(8*n + 1). - Vladimir Shevelev, Jan 24 2014
[A060544] 1, 10, 28, 55, 91, 136, 190, 253, 325, 406, 496, 595, 703, 820, 946, 1081, 1225, 1378, 1540, 1711, 1891, 2080, 2278, 2485, 2701, 2926, 3160, 3403, 3655, 3916, 4186, 4465, 4753, 5050, 5356, 5671, 5995, 6328, 6670, 7021, 7381, 7750, 8128, 8515, 8911, 9316
a(1-n) = a(n).
a(n) = C(n-1, 0) + 9*C(n-1, 1) + 9*C(n-1, 2); binomial transform of (1, 9, 9, 0, 0, 0, ...).
a(n-1) = Pochhammer(4,3*n)/(Pochhammer(2,n)*Pochhammer(n+1,2*n)).
a(n-1) = 1/Hypergeometric([-3*n,3*n+3,1],[3/2,2],3/4). - Peter Luschny, Jan 09 2012
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = 2*a(n-1) - a(n-2) + 9.
[A048491] 1, 10, 28, 64, 136, 280, 568, 1144, 2296, 4600, 9208, 18424, 36856, 73720, 147448, 294904, 589816, 1179640, 2359288, 4718584, 9437176, 18874360, 37748728, 75497464, 150994936, 301989880, 603979768, 1207959544, 2415919096
a(n) = 9 * 2^n - 8. - Ralf Stephan
a(n) = 2*a(n-1) + 8 (with a(0)=1). - Vincenzo Librandi, Aug 06 2010
a(n) = 3*a(n-1) - 2*a(n-2) with a(0)=1, a(1)=10. - Philippe Deléham, Apr 15 2013
[A079273] 1, 10, 29, 58, 97, 146, 205, 274, 353, 442, 541, 650, 769, 898, 1037, 1186, 1345, 1514, 1693, 1882, 2081, 2290, 2509, 2738, 2977, 3226, 3485, 3754, 4033, 4322, 4621, 4930, 5249, 5578, 5917, 6266, 6625, 6994, 7373, 7762, 8161, 8570, 8989, 9418, 9857, 10306
a(n) = 10*n+a(n-1)-11 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(1) = 1, a(2) = 10, a(3) = 29, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 03 2011
[A048469] 1, 10, 29, 69, 153, 329, 697, 1465, 3065, 6393, 13305, 27641, 57337, 118777, 245753, 507897, 1048569, 2162681, 4456441, 9175033, 18874361, 38797305, 79691769, 163577849, 335544313, 687865849, 1409286137, 2885681145, 5905580025, 12079595513, 24696061945
a(n) = 2^(n-1)*(n+16)-7. a(0)=1, a(1)=10, a(2)=29, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Vincenzo Librandi, Sep 28 2011
a(n) = 2^(n-1)*(n+16)-7. G.f.: (1+5*x-13*x^2) / ((1-x)*(1-2*x)^2). - Colin Barker, Feb 18 2016
[A055850] 1, 10, 29, 77, 202, 529, 1385, 3626, 9493, 24853, 65066, 170345, 445969, 1167562, 3056717, 8002589, 20951050, 54850561, 143600633, 375951338, 984253381, 2576808805, 6746173034, 17661710297, 46238957857, 121055163274
a(n) = (10*(((3+sqrt(5))/2)^n - ((3-sqrt(5))/2)^n) - (((3+sqrt(5))/2)^(n-1) - ((3-sqrt(5))/2)^(n-1)))/sqrt(5).
a(n) = Lucas(2n+1) + 6*Fibonacci(2n).
[A124080] 0, 10, 30, 60, 100, 150, 210, 280, 360, 450, 550, 660, 780, 910, 1050, 1200, 1360, 1530, 1710, 1900, 2100, 2310, 2530, 2760, 3000, 3250, 3510, 3780, 4060, 4350, 4650, 4960, 5280, 5610, 5950, 6300, 6660, 7030, 7410, 7800, 8200, 8610, 9030, 9460, 9900, 10350
a(n) = 10*C(n,2), n>=1.
a(n) = 5*n*(n+1), n>=0. - Zerinvary Lajos, Mar 06 2007
a(n) = 10*n + a(n-1) (with a(0)=0). - Vincenzo Librandi, Nov 12 2009
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(0)=0, a(1)=10, a(2)=30. - Harvey P. Dale, Jul 21 2011
[A211013] 0, 10, 31, 63, 106, 160, 225, 301, 388, 486, 595, 715, 846, 988, 1141, 1305, 1480, 1666, 1863, 2071, 2290, 2520, 2761, 3013, 3276, 3550, 3835, 4131, 4438, 4756, 5085, 5425, 5776, 6138, 6511, 6895, 7290, 7696, 8113, 8541, 8980, 9430, 9891, 10363
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) with a(0) = 0, a(1) = 10, a(2) = 31. - Philippe Deléham, Mar 27 2013
[A085473] 1, 10, 31, 64, 109, 166, 235, 316, 409, 514, 631, 760, 901, 1054, 1219, 1396, 1585, 1786, 1999, 2224, 2461, 2710, 2971, 3244, 3529, 3826, 4135, 4456, 4789, 5134, 5491, 5860, 6241, 6634, 7039, 7456, 7885, 8326, 8779, 9244, 9721, 10210, 10711, 11224
a(n) = C(2*n+3,3) - C(2*n,3).

a(n)=12*n+a(n-1)-3 (with a(0)=1). - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=10, a(2)=31, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Nov 15 2011
[A051943] 0, 10, 31, 64, 110, 170, 245, 336, 444, 570, 715, 880, 1066, 1274, 1505, 1760, 2040, 2346, 2679, 3040, 3430, 3850, 4301, 4784, 5300, 5850, 6435, 7056, 7714, 8410, 9145, 9920, 10736, 11594, 12495, 13440, 14430, 15466, 16549, 17680, 18860, 20090
a(n) = (n+20)*(n-8)*(n-9)/6.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 18 2012
[A192023] 1, 10, 31, 68, 125, 206, 315, 456, 633, 850, 1111, 1420, 1781, 2198, 2675, 3216, 3825, 4506, 5263, 6100, 7021, 8030, 9131, 10328, 11625, 13026, 14535, 16156, 17893, 19750, 21731, 23840, 26081, 28458, 30975, 33636, 36445, 39406, 42523, 45800, 49241, 52850, 56631
a(n) = n*(2*n^2 + 6*n - 5)/3.
[A163655] 0, 10, 31, 69, 130, 220, 345, 511, 724, 990, 1315, 1705, 2166, 2704, 3325, 4035, 4840, 5746, 6759, 7885, 9130, 10500, 12001, 13639, 15420, 17350, 19435, 21681, 24094, 26680, 29445, 32395, 35536, 38874, 42415, 46165, 50130, 54316, 58729, 63375
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
[A111500] 1, 10, 31, 72, 137, 234, 367, 544, 769, 1050, 1391, 1800, 2281, 2842, 3487, 4224, 5057, 5994, 7039, 8200, 9481, 10890, 12431, 14112, 15937, 17914, 20047, 22344, 24809, 27450, 30271, 33280, 36481, 39882, 43487, 47304, 51337, 55594, 60079, 64800, 69761, 74970
a(n) = n^3 + n^2/2 - 1/4 + 1/4*(-1)^n.
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5) for n>4. - Colin Barker, May 28 2015
[A042849] 1, 1, 10, 31, 196, 227, 423, 2342, 28527, 144977, 173504, 318481, 2084390, 6571651, 61229249, 67800900, 4129283249, 4197084149, 41903040590, 129906205919, 821340276104, 951246482023, 1772586758127, 9814180272658, 119542750030023, 607527930422773, 727070680452796
a(n) = 4190512498*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 31 2014
[A202804] 0, 10, 32, 66, 112, 170, 240, 322, 416, 522, 640, 770, 912, 1066, 1232, 1410, 1600, 1802, 2016, 2242, 2480, 2730, 2992, 3266, 3552, 3850, 4160, 4482, 4816, 5162, 5520, 5890, 6272, 6666, 7072, 7490, 7920, 8362, 8816, 9282, 9760, 10250, 10752, 11266, 11792
a(0)=0, a(1)=10, a(2)=32, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Dec 28 2015
[A081437] 1, 10, 33, 76, 145, 246, 385, 568, 801, 1090, 1441, 1860, 2353, 2926, 3585, 4336, 5185, 6138, 7201, 8380, 9681, 11110, 12673, 14376, 16225, 18226, 20385, 22708, 25201, 27870, 30721, 33760, 36993, 40426, 44065, 47916, 51985, 56278, 60801, 65560
a(n) = n^3 + 4*n^2 + 4*n + 1.
a(0)=1, a(1)=10, a(2)=33, a(3)=76; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Jan 24 2012
[A162433] 1, 10, 33, 76, 157, 264, 425, 626, 897, 1230, 1629, 2174, 2653, 3448, 4119, 4978, 6197, 7114, 8457, 9870, 11477, 13070, 15001, 17104, 19181, 21732, 24327, 26926, 30247, 33232, 36695, 40674, 44065, 48554, 52827, 57664, 62361, 67704, 73347, 78728
a(n) = Sum_{m=n(n+1)/2..n(n+1)/2+n} [x^m] S(x)^4 for n>=0 where S(x) = Sum_{n>=0} x^(n(n+1)/2).
[A094170] 0, 0, 1, 10, 33, 88, 187, 360, 625, 1024, 1581, 2350, 3361, 4680, 6343, 8428, 10977, 14080, 17785, 22194, 27361, 33400, 40371, 48400, 57553, 67968, 79717, 92950, 107745, 124264, 142591, 162900, 185281, 209920, 236913, 266458, 298657, 333720, 371755, 412984, 457521
a(n) = (1/32)*(6*n^4 - 12*n^3 + 32*n^2 - 58*n + 29 - (6*n-3)*(-1)^n). - Ralf Stephan, Dec 03 2004
[A211033] 1, 10, 33, 152, 297, 528, 1217, 1834, 2673, 4744, 6385, 8448, 13073, 16506, 20625, 29336, 35545, 42768, 57457, 67642, 79233, 102152, 117729, 135168, 168929, 191530, 216513, 264088, 295561, 330000, 394721, 437130, 483153, 568712, 624337, 684288, 794737, 866074
a(n) = a(n-1) + 4*a(n-3) - 4*a(n-4) - 6*a(n-6) + 6*a(n-7) + 4*a(n-9) - 4*a(n-10) - a(n-12) + a(n-13) for n > 12.
a(n) = r^4 + 4*r^3*s + 4*r^3*t + 4*r^2*s^2 + 8*r^2*s*t + 4*r^2*t^2 + s^4 + 6*s^2*t^2 + t^4.
[A008527] 1, 10, 34, 74, 130, 202, 290, 394, 514, 650, 802, 970, 1154, 1354, 1570, 1802, 2050, 2314, 2594, 2890, 3202, 3530, 3874, 4234, 4610, 5002, 5410, 5834, 6274, 6730, 7202, 7690, 8194, 8714, 9250, 9802
a(0) = 1; a(n) = 8*n^2+2 for n>0.
a(n) = (2n+1)^2 + (2n-1)^2 for n>0. Binomial transform of [1, 9, 15, 1, -1, 1, -1, 1,...]. - Gary W. Adamson, Dec 27 2007
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3. G.f.: (1+x)*(1+6*x+x^2)/(1-x)^3. [Colin Barker, Apr 13 2012]
[A007584] 0, 1, 10, 34, 80, 155, 266, 420, 624, 885, 1210, 1606, 2080, 2639, 3290, 4040, 4896, 5865, 6954, 8170, 9520, 11011, 12650, 14444, 16400, 18525, 20826, 23310, 25984, 28855, 31930, 35216, 38720, 42449, 46410, 50610, 55056, 59755, 64714, 69940, 75440, 81221
a(n) = (7*n-4)*binomial(n+1, 2)/3.
a(n) = a(n-1) + n*(7*n-5)/2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 7.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = binomial(n+2,3) + 6*binomial(n+1,3). (End)
a(n) = sum((n-i)*(7*i+1), i=0..n-1), with a(0)=0. - Bruno Berselli, Feb 10 2014
[A218329] 10, 34, 80, 266, 420, 624, 1210, 1606, 2080, 3290, 4040, 4896, 6954, 8170, 9520, 12650, 14444, 16400, 20826, 23310, 25984, 31930, 35216, 38720, 46410, 50610, 55056, 64714, 69940, 75440, 87290, 93654, 100320, 114586, 122200, 130144, 147050, 156026, 165360
a(n) = a(n-1) + 3*a(n-3) - 3*a(n-4) - 3*a(n-6) + 3*a(n-7) + a(n-9) - a(n-10).
a(n) = 3*a(n-3) - 3*a(n-6) + a(n-9) + 448.
a(n) = phi(n)*(phi(n)+9)*(7*phi(n)-36)/4374, where phi(n) = 3 + 12*n - 3*cos(2*n*Pi/3) + sqrt(3)*sin(2*n*Pi/3).
[A020877] 10, 34, 106, 344, 1102, 3546, 11394, 36628, 117730, 378426, 1216378, 3909832, 12567446, 40395794, 129844994, 417363332, 1341539194, 4312135922, 13860583626, 44552347608, 143205490526, 460308235562, 1479577849602, 4755836293844, 15286778495570, 49136593930954
a(n) = 2*a(n-1) + 4*a(n-2) - a(n-3). - Eric W. Weisstein, Oct 03 2017
[A000447] 0, 1, 10, 35, 84, 165, 286, 455, 680, 969, 1330, 1771, 2300, 2925, 3654, 4495, 5456, 6545, 7770, 9139, 10660, 12341, 14190, 16215, 18424, 20825, 23426, 26235, 29260, 32509, 35990, 39711, 43680, 47905, 52394, 57155, 62196, 67525, 73150, 79079, 85320, 91881, 98770, 105995, 113564, 121485
a(n) = -a(-n) for all n in Z.
a(n+1) = (2*n+1)*(2*n+2)(2*n+3)/6. - Valentin Bakoev (v_bakoev(AT)yahoo.com), Mar 03 2009
a(0)=0, a(1)=1, a(2)=10, a(3)=35, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, May 25 2012
a(n) = v(n,n-1), where v(n,k) is the central factorial numbers of the first kind with odd indices. - Mircea Merca, Jan 25 2014
[A052472] 0, 10, 35, 84, 168, 300, 495, 770, 1144, 1638, 2275, 3080, 4080, 5304, 6783, 8550, 10640, 13090, 15939, 19228, 23000, 27300, 32175, 37674, 43848, 50750, 58435, 66960, 76384, 86768, 98175, 110670, 124320, 139194, 155363, 172900, 191880
a(n) = n*(n+1)*(n+2)*(n-3)/12 for n >= 3.
a(n) = 2*C(n,4) - C(n,3), n>=5. - Zerinvary Lajos, Nov 25 2006
[A272352] 10, 35, 91, 210, 456, 957, 1969, 4004, 8086, 16263, 32631, 65382, 130900, 261953, 524077, 1048344, 2096898, 4194027, 8388307, 16776890, 33554080, 67108485, 134217321, 268435020, 536870446, 1073741327, 2147483119, 4294966734, 8589933996, 17179868553
a(n) = (2^n - 2 - 2*n - 2*binomial(n, 2))/2.
a(n) = 5*a(n-1) - 9*a(n-2) + 7*a(n-3) - 2*a(n-4), for n>3.
[A048507] 1, 10, 35, 101, 269, 685, 1693, 4093, 9725, 22781, 52733, 120829, 274429, 618493, 1384445, 3080189, 6815741, 15007741, 32899069, 71827453, 156237821, 338690045, 731906045, 1577058301, 3388997629, 7264534525, 15535702013, 33151778813, 70598524925
a(n) = (n^2+9*n+16) * 2^(n-2) - 3. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Nov 27 2014
[A033585] 0, 10, 36, 78, 136, 210, 300, 406, 528, 666, 820, 990, 1176, 1378, 1596, 1830, 2080, 2346, 2628, 2926, 3240, 3570, 3916, 4278, 4656, 5050, 5460, 5886, 6328, 6786, 7260, 7750, 8256, 8778, 9316, 9870, 10440
a(n) = 16*n + a(n-1) - 6 (with a(0) = 0). - Vincenzo Librandi, Aug 05 2010
[A050509] 1, 10, 36, 88, 175, 306, 490, 736, 1053, 1450, 1936, 2520, 3211, 4018, 4950, 6016, 7225, 8586, 10108, 11800, 13671, 15730, 17986, 20448, 23125, 26026, 29160, 32536, 36163, 40050, 44206, 48640, 53361, 58378, 63700, 69336, 75295, 81586, 88218
a(n) = (1/2) *(3*n+2)*(n+1)^2.
a(0)=1, a(1)=10, a(2)=36, a(3)=88, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Jun 26 2011
a(n) = Sum_{i=0..n} (n+1)*(3*i+1). - Bruno Berselli, Sep 08 2015

[A247792] 1, 10, 37, 82, 145, 226, 325, 442, 577, 730, 901, 1090, 1297, 1522, 1765, 2026, 2305, 2602, 2917, 3250, 3601, 3970, 4357, 4762, 5185, 5626, 6085, 6562, 7057, 7570, 8101, 8650, 9217, 9802, 10405, 11026, 11665, 12322, 12997, 13690, 14401, 15130, 15877, 16642, 17425, 18226, 19045, 19882
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. - Wesley Ivan Hurt, Jun 25 2016
[A096000] 1, 10, 37, 92, 185, 326, 525, 792, 1137, 1570, 2101, 2740, 3497, 4382, 5405, 6576, 7905, 9402, 11077, 12940, 15001, 17270, 19757, 22472, 25425, 28626, 32085, 35812, 39817, 44110, 48701, 53600, 58817, 64362, 70245, 76476, 83065, 90022, 97357, 105080, 113201, 121730
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4), n>4. - Wesley Ivan Hurt, May 23 2015
[A047672] 1, 10, 37, 94, 193, 346, 565, 862, 1249, 1738, 2341, 3070, 3937, 4954, 6133, 7486, 9025, 10762, 12709, 14878, 17281, 19930, 22837, 26014, 29473, 33226, 37285, 41662, 46369, 51418, 56821, 62590, 68737, 75274, 82213, 89566, 97345
a(n) = 2n^3 - 3n^2 + 4n - 2.
[A200872] 10, 37, 94, 195, 356, 595, 932, 1389, 1990, 2761, 3730, 4927, 6384, 8135, 10216, 12665, 15522, 18829, 22630, 26971, 31900, 37467, 43724, 50725, 58526, 67185, 76762, 87319, 98920, 111631, 125520, 140657, 157114, 174965, 194286, 215155, 237652, 261859
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>5.
[A212755] 1, 10, 37, 96, 205, 386, 665, 1072, 1641, 2410, 3421, 4720, 6357, 8386, 10865, 13856, 17425, 21642, 26581, 32320, 38941, 46530, 55177, 64976, 76025, 88426, 102285, 117712, 134821, 153730, 174561, 197440, 222497, 249866, 279685
a(n)=5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
[A048480] 1, 10, 37, 109, 289, 721, 1729, 4033, 9217, 20737, 46081, 101377, 221185, 479233, 1032193, 2211841, 4718593, 10027009, 21233665, 44826625, 94371841, 198180865, 415236097, 868220929, 1811939329, 3774873601, 7851737089, 16307453953, 33822867457, 70061654017
a(n) = 9*n * 2^(n-1) + 1.
a(0)=1, a(1)=10, a(2)=37, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale, Jul 09 2014
[A154517] 10, 38, 84, 148, 230, 330, 448, 584, 738, 910, 1100, 1308, 1534, 1778, 2040, 2320, 2618, 2934, 3268, 3620, 3990, 4378, 4784, 5208, 5650, 6110, 6588, 7084, 7598, 8130, 8680, 9248, 9834, 10438, 11060, 11700, 12358, 13034, 13728, 14440
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 31 2012
[A257051] 0, 0, 0, 10, 38, 98, 208, 390, 670, 1078, 1648, 2418, 3430, 4730, 6368, 8398, 10878, 13870, 17440, 21658, 26598, 32338, 38960, 46550, 55198, 64998, 76048, 88450, 102310, 117738, 134848, 153758, 174590, 197470, 222528, 249898, 279718, 312130, 347280, 385318
a(n) = (n^4-n^2-12)/6 for n>1.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>6.
[A027982] 1, 10, 38, 108, 270, 632, 1426, 3148, 6854, 14784, 31674, 67508, 143278, 303016, 638882, 1343388, 2817942, 5898128, 12320650, 25689988, 53477246, 111148920, 230686578, 478150508, 989855590, 2046820192, 4227858266, 8724152148, 17985175374, 37044092744
a(n) = (-10+11*2^n+2*(-3+2^n)*n).
a(n) = 6*a(n-1)-13*a(n-2)+12*a(n-3)-4*a(n-4).
[A156674] 10, 39, 59, 88, 108, 137, 157, 186, 206, 235, 255, 284, 304, 333, 353, 382, 402, 431, 451, 480, 500, 529, 549, 578, 598, 627, 647, 676, 696, 725, 745, 774, 794, 823, 843, 872, 892, 921, 941, 970, 990, 1019, 1039, 1068, 1088, 1117, 1137, 1166, 1186, 1215
a(n)=a(n-1)+a(n-2)-a(n-3) = 49n/2-49/4+9*(-1)^n/4. G.f.: x(2x+5)(5x+2)/((1+x)(1-x)^2). [From R. J. Mathar, Feb 19 2009]
[A022277] 0, 10, 39, 87, 154, 240, 345, 469, 612, 774, 955, 1155, 1374, 1612, 1869, 2145, 2440, 2754, 3087, 3439, 3810, 4200, 4609, 5037, 5484, 5950, 6435, 6939, 7462, 8004, 8565, 9145, 9744, 10362, 10999, 11655, 12330, 13024, 13737, 14469, 15220, 15990, 16779, 17587, 18414
a(n) = 19*n + a(n-1) - 9 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. - Vincenzo Librandi, Mar 31 2015
[A059722] 0, 1, 10, 39, 100, 205, 366, 595, 904, 1305, 1810, 2431, 3180, 4069, 5110, 6315, 7696, 9265, 11034, 13015, 15220, 17661, 20350, 23299, 26520, 30025, 33826, 37935, 42364, 47125, 52230, 57691, 63520, 69729, 76330, 83335, 90756, 98605, 106894, 115635, 124840
a(n) = sum(j=1..n, (n+j-1)^2-j^2+1). - Zerinvary Lajos, Sep 13 2006
[A210376] 0, 0, 10, 40, 85, 140, 206, 284, 375, 480, 600, 736, 889, 1060, 1250, 1460, 1691, 1944, 2220, 2520, 2845, 3196, 3574, 3980, 4415, 4880, 5376, 5904, 6465, 7060, 7690, 8356, 9059, 9800, 10580, 11400, 12261, 13164, 14110, 15100, 16135, 17216
a(n) = (-270 + 107*n + 18*n^2 + n^3) / 6 for n>2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4.
[A033583] 0, 10, 40, 90, 160, 250, 360, 490, 640, 810, 1000, 1210, 1440, 1690, 1960, 2250, 2560, 2890, 3240, 3610, 4000, 4410, 4840, 5290, 5760, 6250, 6760, 7290, 7840, 8410, 9000, 9610, 10240, 10890, 11560, 12250, 12960, 13690, 14440, 15210, 16000, 16810
a(n) = 20*n+a(n-1)-10 for n>0, a(0)=0. - Vincenzo Librandi, Aug 05 2010
[A071233] 0, 10, 40, 102, 208, 370, 600, 910, 1312, 1818, 2440, 3190, 4080, 5122, 6328, 7710, 9280, 11050, 13032, 15238, 17680, 20370, 23320, 26542, 30048, 33850, 37960, 42390, 47152, 52258, 57720, 63550, 69760, 76362, 83368, 90790, 98640, 106930, 115672, 124878, 134560
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4)
[A063490] 1, 10, 40, 105, 219, 396, 650, 995, 1445, 2014, 2716, 3565, 4575, 5760, 7134, 8711, 10505, 12530, 14800, 17329, 20131, 23220, 26610, 30315, 34349, 38726, 43460, 48565, 54055, 59944, 66246, 72975, 80145, 87770, 95864, 104441, 113515
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A002419] 1, 10, 40, 110, 245, 476, 840, 1380, 2145, 3190, 4576, 6370, 8645, 11480, 14960, 19176, 24225, 30210, 37240, 45430, 54901, 65780, 78200, 92300, 108225, 126126, 146160, 168490, 193285, 220720, 250976, 284240, 320705, 360570, 404040, 451326
a(n) = (3*n-1)*binomial(n+2, 3)/2.
a(n) = (3*n^4 + 8*n^3 + 3*n^2 - 2*n)/12. - Chai Wah Wu, Jan 24 2016
[A027981] 1, 10, 40, 124, 340, 868, 2116, 4996, 11524, 26116, 58372, 129028, 282628, 614404, 1327108, 2850820, 6094852, 12976132, 27525124, 58195972, 122683396, 257949700, 541065220, 1132462084, 2365587460, 4932501508, 10267656196
a(2n+1) = 6(4n+1) * 4^n + 4. - Ralf Stephan, Mar 22 2004
a(n) = 4+3*2^n*(2*n-1). G.f. (-1-5*x+2*x^2) / ((x-1)*(-1+2*x)^2). - R. J. Mathar, May 22 2013
a(0)=1, a(1)=10, a(2)=40, a(n)=5*a(n-1)-8*a(n-2)+4*a(n-3). - Harvey P. Dale, Apr 17 2015
[A022278] 0, 10, 41, 93, 166, 260, 375, 511, 668, 846, 1045, 1265, 1506, 1768, 2051, 2355, 2680, 3026, 3393, 3781, 4190, 4620, 5071, 5543, 6036, 6550, 7085, 7641, 8218, 8816, 9435, 10075, 10736, 11418, 12121
a(n) = 21*n + a(n-1) - 11 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A266396] 0, 0, 0, 10, 41, 105, 215, 385, 630, 966, 1410, 1980, 2695, 3575, 4641, 5915, 7420, 9180, 11220, 13566, 16245, 19285, 22715, 26565, 30866, 35650, 40950, 46800, 53235, 60291, 68005, 76415, 85560, 95480, 106216, 117810, 130305, 143745, 158175, 173641, 190190
a(n) = (n^4+30*n^3-205*n^2+390*n-216)/24.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>5.
[A006323] 1, 10, 41, 115, 260, 511, 910, 1506, 2355, 3520, 5071, 7085, 9646, 12845, 16780, 21556, 27285, 34086, 42085, 51415, 62216, 74635, 88826, 104950, 123175, 143676, 166635, 192241, 220690, 252185, 286936, 325160, 367081, 412930
a(n) = 7*C(n + 2, 4) + C(n + 1, 2).
[A178073] 1, 10, 41, 116, 265, 526, 945, 1576, 2481, 3730, 5401, 7580, 10361, 13846, 18145, 23376, 29665, 37146, 45961, 56260, 68201, 81950, 97681, 115576, 135825, 158626, 184185, 212716, 244441, 279590, 318401, 361120, 408001, 459306, 515305
a(n) = n*(n^3+n^2+2*n-1)/3.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) with n>5.
[A294604] 10, 41, 120, 283, 566, 1029, 1738, 2745, 4150, 6049, 8504, 11661, 15646, 20525, 26496, 33715, 42246, 52345, 64198, 77861, 93654, 111793, 132320, 155625, 181954, 211329, 244216, 280891, 321350, 366141, 415570, 469601, 528870, 593713, 664056, 740629, 823798, 913445, 1010400, 1115059, 1227254
a(n) = (1/18)*(7*n^4-24*n^3+39*n^2-36*n+18) if n is divisible by 3; a(n) = (1/18)*(7*n^4-24*n^3+37*n^2-30*n+10) otherwise. For n = 3, 4, 5,...
a(n) = 2*a(n-1) - a(n-2) + 3*a(n-3) - 6*a(n-4) + 3*a(n-5) - 3*a(n-6) + 6*a(n-7) - 3*a(n-8) + a(n-9) - 2*a(n-10) + a(n-11) for n>10.
[A211064] 1, 10, 41, 160, 337, 810, 1345, 2560, 3761, 6250, 8521, 12960, 16801, 24010, 30017, 40960, 49825, 65610, 78121, 100000, 117041, 146410, 168961, 207360, 236497, 285610, 322505, 384160, 430081, 506250, 562561, 655360, 723521, 835210
a(n) = n^4 - (2*n + 1 -(-1)^n)^2*(6*n + 1 -(-1)^n)*(2*n - 1 + (-1)^n)/128.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 9.

[A163815] 0, 10, 42, 108, 220, 390, 630, 952, 1368, 1890, 2530, 3300, 4212, 5278, 6510, 7920, 9520, 11322, 13338, 15580, 18060, 20790, 23782, 27048, 30600, 34450, 38610, 43092, 47908, 53070, 58590, 64480, 70752, 77418, 84490, 91980, 99900, 108262, 117078, 126360, 136120
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A244802] 1, 10, 43, 100, 181, 286, 415, 568, 745, 946, 1171, 1420, 1693, 1990, 2311, 2656, 3025, 3418, 3835, 4276, 4741, 5230, 5743, 6280, 6841, 7426, 8035, 8668, 9325, 10006, 10711, 11440, 12193, 12970, 13771, 14596, 15445, 16318, 17215, 18136, 19081, 20050, 21043, 22060, 23101, 24166, 25255
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A126964] 0, 10, 44, 102, 184, 290, 420, 574, 752, 954, 1180, 1430, 1704, 2002, 2324, 2670, 3040, 3434, 3852, 4294, 4760, 5250, 5764, 6302, 6864, 7450, 8060, 8694, 9352, 10034, 10740, 11470, 12224, 13002, 13804, 14630, 15480, 16354, 17252, 18174, 19120, 20090, 21084
a(n) = 24*n + a(n-1) - 14 for n>0, a(0)=0. - Vincenzo Librandi, Nov 23 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2, a(0)=0, a(1)=10, a(2)=44.
a(n) = Sum_{i=n..5*n-1} i. - Wesley Ivan Hurt, Dec 04 2016
[A257052] 0, 0, 0, 10, 44, 123, 274, 530, 930, 1519, 2348, 3474, 4960, 6875, 9294, 12298, 15974, 20415, 25720, 31994, 39348, 47899, 57770, 69090, 81994, 96623, 113124, 131650, 152360, 175419, 200998, 229274, 260430, 294655, 332144, 373098, 417724, 466235, 518850
a(n) = (n^4-7*n^2+10*n-8)/4 for n>1.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>6.
[A008532] 1, 10, 44, 126, 280, 530, 900, 1414, 2096, 2970, 4060, 5390, 6984, 8866, 11060, 13590, 16480, 19754, 23436, 27550, 32120, 37170, 42724, 48806, 55440, 62650, 70460, 78894, 87976, 97730, 108180, 119350, 131264, 143946, 157420, 171710, 186840, 202834, 219716, 237510
a(n) = 4*n^3 + 6*n, n >= 1.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4. - Colin Barker, Mar 03 2015
[A058310] 1, 10, 44, 133, 319, 656, 1210, 2059, 3293, 5014, 7336, 10385, 14299, 19228, 25334, 32791, 41785, 52514, 65188, 80029, 97271, 117160, 139954, 165923, 195349, 228526, 265760, 307369, 353683, 405044, 461806, 524335, 593009, 668218, 750364, 839861, 937135
a(n) = sum(i, i = n..(n+1)^2).
[A005720] 1, 10, 44, 135, 336, 728, 1428, 2598, 4455, 7282, 11440, 17381, 25662, 36960, 52088, 72012, 97869, 130986, 172900, 225379, 290444, 370392, 467820, 585650, 727155, 895986, 1096200, 1332289, 1609210, 1932416, 2307888, 2742168, 3242393, 3816330, 4472412, 5219775
a(n)= binomial(n+1, 3)*(n^3+15*n^2+86*n-120)/120, n >= 2.
a(0)=1, a(1)=10, a(2)=44, a(3)=135, a(4)=336, a(5)=728, a(6)=1428, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Jun 23 2011
[A105938] 10, 45, 126, 280, 540, 945, 1540, 2376, 3510, 5005, 6930, 9360, 12376, 16065, 20520, 25840, 32130, 39501, 48070, 57960, 69300, 82225, 96876, 113400, 131950, 152685, 175770, 201376, 229680, 260865, 295120, 332640, 373626, 418285, 466830, 519480, 576460
a(0)=10, a(1)=45, a(2)=126, a(3)=280, a(4)=540; for n>4, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Harvey P. Dale, Sep 05 2013
[A037270] 0, 1, 10, 45, 136, 325, 666, 1225, 2080, 3321, 5050, 7381, 10440, 14365, 19306, 25425, 32896, 41905, 52650, 65341, 80200, 97461, 117370, 140185, 166176, 195625, 228826, 266085, 307720, 354061, 405450
a(n) = a(n-1) + n^3 + (n-1)^3.
a(n) = Sum_{k=0..n^2} k. - William A. Tedeschi, Feb 27 2008
a(n) = (1/8)*sinh(2*arcsinh(n)). - Artur Jasinski, Feb 10 2010
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5) n>4, a(0)=0, a(1)=1, a(2)=10, a(3)=45, a(4)=136. - Yosu Yurramendi, Sep 02 2013
[A005714] 1, 10, 45, 141, 357, 784, 1554, 2850, 4917, 8074, 12727, 19383, 28665, 41328, 58276, 80580, 109497, 146490, 193249, 251713, 324093, 412896, 520950, 651430, 807885, 994266, 1214955, 1474795, 1779121, 2133792, 2545224, 3020424, 3567025
a(n) = binomial(n, 3)*(n^3+18*n^2+17*n-120) /120.
a(n) = 7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7). Vincenzo Librandi, Jun 16 2012
a(n) = GegenbauerC(N, -n, -1/2) where N = 6 if 6<n else 2*n-6. - Peter Luschny, May 10 2016
[A141499] 0, 1, 10, 45, 190, 780, 3160, 12720, 51040, 204480, 818560, 3275520, 13104640, 52423680, 209704960, 838840320, 3355402240, 13421690880, 53686927360, 214748037120, 858992803840, 3435972526080, 13743892725760, 54975576145920, 219902315069440, 879609281249280
a(n)=5*2^(-5+n)*(-4+5*2^n) for n>1. a(n)=6*a(n-1)-8*a(n-2) for n>3. G.f.: x*(1+4*x-7*x^2)/((1-2*x)*(1-4*x)). [Colin Barker, Aug 16 2012]
[A248575] 0, 10, 46, 128, 272, 498, 822, 1264, 1840, 2570, 3470, 4560, 5856, 7378, 9142, 11168, 13472, 16074, 18990, 22240, 25840, 29810, 34166, 38928, 44112, 49738, 55822, 62384, 69440, 77010, 85110, 93760, 102976, 112778, 123182, 134208, 145872, 158194, 171190, 184880, 199280, 214410, 230286, 246928, 264352, 282578, 301622
a(n) = round[sum(j from n^3+1 to (n+1)^3-1, j^(1/3))].
a(n) = ((n+1)*a(n-2) + 3*a(n-1) - 30)/(n-2) - 20.
a(n) = (1-(-1)^n+8*n+18*n^2+12*n^3)/4. - Colin Barker, Dec 30 2014
[A081583] 1, 10, 46, 136, 307, 586, 1000, 1576, 2341, 3322, 4546, 6040, 7831, 9946, 12412, 15256, 18505, 22186, 26326, 30952, 36091, 41770, 48016, 54856, 62317, 70426, 79210, 88696, 98911, 109882, 121636, 134200, 147601, 161866, 177022, 193096
a(n) = (2+9*n+9*n^3)/2.
a(n) = hypergeom([-n, -3], [1], 3). - Peter Luschny, Nov 19 2014
[A213834] 1, 10, 46, 140, 335, 686, 1260, 2136, 3405, 5170, 7546, 10660, 14651, 19670, 25880, 33456, 42585, 53466, 66310, 81340, 98791, 118910, 141956, 168200, 197925, 231426, 269010, 310996, 357715, 409510, 466736
a(n) = n*(n+1)*(3*n^2 - 2*n + 2)/6.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A024166] 0, 1, 10, 46, 146, 371, 812, 1596, 2892, 4917, 7942, 12298, 18382, 26663, 37688, 52088, 70584, 93993, 123234, 159334, 203434, 256795, 320804, 396980, 486980, 592605, 715806, 858690, 1023526, 1212751, 1428976, 1674992, 1953776, 2268497, 2622522, 3019422
a(n) = n*(n+1)*(n+2)*(3*n^2 + 6*n + 1)/60. (End)
a(n) = Sum_{k=0..n} k^3*(n+1-k). - Paul Barry, Sep 14 2003; edited by Jon E. Schoenfield, Dec 29 2014
a(n) = Sum_{i=1..n} binomial(i+1, 2)^2. - André F. Labossière, Jul 03 2003
a(n) = 2*n*(n+1)*(n+2)*((n+1)^2 + 2*n*(n+2))/5!. This sequence could be obtained from the general formula a(n) = n*(n+1)*(n+2)*(n+3)* ...* (n+k) *(n*(n+k) + (k-1)*k/6)/((k+3)!/6) at k=2. - Alexander R. Povolotsky, May 17 2008
a(n) = (6*n^2 + 12*n + 2)*(n+2)!/(120*(n-1)!), n > 0. - Gary Detlefs, Mar 01 2013
a(n) = Sum_{i=1..n} Sum_{j=1..n} i*j*(n - max(i, j) + 1) - Melvin Peralta, May 12 2016
[A213575] 1, 10, 47, 158, 441, 1098, 2539, 5590, 11909, 24818, 50967, 103662, 209521, 421786, 846947, 1697990, 3400893, 6807618, 13622095, 27252190, 54513641, 109037930, 218088027, 436189878, 872395381, 1744808338, 3489636359
a(n) = 6*a(n-1) - 14*a(n-2) + 16*a(n-3) - 9*a(n-4) + 2*a(n-5).
a(n) = 2^(n+1)*13-(n^3+6*n^2+18*n+26). - Stanislav Sykora, Nov 27 2013
[A195023] 0, 10, 48, 114, 208, 330, 480, 658, 864, 1098, 1360, 1650, 1968, 2314, 2688, 3090, 3520, 3978, 4464, 4978, 5520, 6090, 6688, 7314, 7968, 8650, 9360, 10098, 10864, 11658, 12480, 13330, 14208, 15114, 16048, 17010, 18000, 19018, 20064, 21138, 22240
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: 2*x*(5+9*x)/(1-x)^3. - Colin Barker, Apr 09 2012
[A277229] 0, 1, 10, 48, 158, 413, 924, 1848, 3396, 5841, 9526, 14872, 22386, 32669, 46424, 64464, 87720, 117249, 154242, 200032, 256102, 324093, 405812, 503240, 618540, 754065, 912366, 1096200, 1308538, 1552573, 1831728, 2149664, 2510288, 2917761, 3376506, 3891216
a(n) = binomial(n+2, 3)*(4*n^2 + 3*n + 3)/10 = n*(n + 1)*(n + 2)*(4*n^2 + 3*n + 3)/60.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5. - Colin Barker, Oct 21 2016
[A271638] 1, 10, 48, 170, 512, 1398, 3580, 8770, 20808, 48206, 109652, 245850, 544864, 1196134, 2605164, 5636210, 12124280, 25952382, 55312516, 117440650, 248512656, 524288150, 1103102108, 2315255970, 4848615592, 10133438638, 21139292340, 44023414970, 91536490688
a(n) = (13*n - 36)*2^(n - 1) + 6*n + 18.
[A084857] 0, 1, 10, 48, 176, 560, 1632, 4480, 11776, 29952, 74240, 180224, 430080, 1011712, 2351104, 5406720, 12320768, 27852800, 62521344, 139460608, 309329920, 682622976, 1499463680, 3279945728, 7147094016, 15518924800, 33587986432
a(n)=n(3n - 1)2^(n - 2).

[A271662] 1, 10, 49, 164, 434, 980, 1974, 3648, 6303, 10318, 16159, 24388, 35672, 50792, 70652, 96288, 128877, 169746, 220381, 282436, 357742, 448316, 556370, 684320, 834795, 1010646, 1214955, 1451044, 1722484, 2033104, 2387000, 2788544, 3242393, 3753498, 4327113, 4968804, 5684458
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (n + 1)*(n + 2)*(n + 3)*(9*n^2 + 21*n + 20)/120.
[A051947] 1, 10, 49, 168, 462, 1092, 2310, 4488, 8151, 14014, 23023, 36400, 55692, 82824, 120156, 170544, 237405, 324786, 437437, 580888, 761530, 986700, 1264770, 1605240, 2018835, 2517606, 3115035, 3826144, 4667608, 5657872, 6817272, 8168160, 9735033, 11544666
a(n) = C(n+5, 5)*(2n+3)/3.
[A153780] 0, 10, 50, 120, 220, 350, 510, 700, 920, 1170, 1450, 1760, 2100, 2470, 2870, 3300, 3760, 4250, 4770, 5320, 5900, 6510, 7150, 7820, 8520, 9250, 10010, 10800, 11620, 12470, 13350, 14260, 15200, 16170, 17170, 18200, 19260, 20350
a(n) = 30*n + a(n-1) - 20 for n>0, a(0) = 0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A008413] 1, 10, 50, 170, 450, 1002, 1970, 3530, 5890, 9290, 14002, 20330, 28610, 39210, 52530, 69002, 89090, 113290, 142130, 176170, 216002, 262250, 315570, 376650, 446210, 525002, 613810, 713450, 824770, 948650, 1086002, 1237770, 1404930
a(n) = (4/3)*n^4 + (20/3)*n^2 + 2 for n > 0. - Michael De Vlieger, Oct 04 2016
[A006542] 1, 10, 50, 175, 490, 1176, 2520, 4950, 9075, 15730, 26026, 41405, 63700, 95200, 138720, 197676, 276165, 379050, 512050, 681835, 896126, 1163800, 1495000, 1901250, 2395575, 2992626, 3708810, 4562425, 5573800, 6765440, 8162176, 9791320, 11682825, 13869450
a(n) = C(n, 6) + 3*C(n+1, 6) + C(n+2, 6). - Mike Zabrocki, Aug 26 2004
a(n) = C(n-2, n-4)*C(n-1, n-3)*C(n, n-2)/18. - Zerinvary Lajos, Jul 29 2005
a(n) = C(n,4)C(n,3)/n. - Mitch Harris, Jul 06 2006
a(n+2) = 1/4*sum {1 <= x_1, x_2 <= n} x_1*x_2*(det V(x_1,x_2))^2 = 1/4*sum {1 <= i,j <= n} i*j*(i-j)^2, where V(x_1,x_2} is the Vandermonde matrix of order 2. - Peter Bala, Sep 21 2007
a(n) = C(n-1,3)^2 - C(n-1,2)*C(n-1,4). - Gary Detlefs, Dec 05 2011
[A237655] 1, 10, 50, 175, 510, 1376, 3625, 9500, 24875, 65125, 170500, 446375, 1168625, 3059500, 8009875, 20970125, 54900500, 143731375, 376293625, 985149500, 2579154875, 6752315125, 17677790500, 46281056375, 121165378625, 317215079500, 830479859875, 2174224500125, 5692193640500, 14902356421375, 39014875623625
a(n) = 3*a(n-1) - a(n-2), n>=8. - Fung Lam, May 19 2014
[A143855] 1, 10, 51, 124, 229, 366, 535, 736, 969, 1234, 1531, 1860, 2221, 2614, 3039, 3496, 3985, 4506, 5059, 5644, 6261, 6910, 7591, 8304, 9049, 9826, 10635, 11476, 12349, 13254, 14191, 15160, 16161, 17194, 18259, 19356, 20485, 21646, 22839, 24064
a(n) = 16n^2-39n+24. - R. J. Mathar, Sep 08 2008
[A077044] 0, 1, 10, 51, 155, 381, 780, 1451, 2460, 3951, 6000, 8801, 12435, 17151, 23030, 30381, 39280, 50101, 62910, 78151, 95875, 116601, 140360, 167751, 198780, 234131, 273780, 318501, 368235, 423851, 485250, 553401, 628160, 710601, 800530
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8).
[A069038] 0, 1, 10, 51, 180, 501, 1182, 2471, 4712, 8361, 14002, 22363, 34332, 50973, 73542, 103503, 142544, 192593, 255834, 334723, 432004, 550725, 694254, 866295, 1070904, 1312505, 1595906, 1926315, 2309356, 2751085, 3258006, 3837087, 4495776
a(n) = 5-crosspolytope(n) = n*(2*n^4 + 10*n^2 + 3)/15. E.g. a(5) = 501 because 5*(2*5^4 + 10*5^2 + 3)/15 = 501. - Jonathan Vos Post, Nov 16 2004
a(n) = C(n+4,5) + 4 C(n+3,5) + 6 C(n+2,5) + 4 C(n+1,5) + C(n,5)
[A213563] 1, 10, 51, 182, 518, 1260, 2730, 5412, 9999, 17446, 29029, 46410, 71708, 107576, 157284, 224808, 314925, 433314, 586663, 782782, 1030722, 1340900, 1725230, 2197260, 2772315, 3467646, 4302585, 5298706, 6479992, 7873008, 9507080
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A028994] 0, 10, 52, 126, 232, 370, 540, 742, 976, 1242, 1540, 1870, 2232, 2626, 3052, 3510, 4000, 4522, 5076, 5662, 6280, 6930, 7612, 8326, 9072, 9850, 10660, 11502, 12376, 13282, 14220, 15190, 16192, 17226, 18292, 19390, 20520, 21682, 22876
a(n) = 2*n*(8*n - 3). - Omar E. Pol, Aug 19 2011
[A257042] 0, 10, 52, 144, 304, 550, 900, 1372, 1984, 2754, 3700, 4840, 6192, 7774, 9604, 11700, 14080, 16762, 19764, 23104, 26800, 30870, 35332, 40204, 45504, 51250, 57460, 64152, 71344, 79054, 87300, 96100, 105472, 115434, 126004, 137200, 149040, 161542, 174724
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Apr 15 2015
[A092966] 0, 10, 52, 149, 324, 600, 1000, 1547, 2264, 3174, 4300, 5665, 7292, 9204, 11424, 13975, 16880, 20162, 23844, 27949, 32500, 37520, 43032, 49059, 55624, 62750, 70460, 78777, 87724, 97324, 107600, 118575, 130272, 142714, 155924, 169925, 184740, 200392, 216904
a(n) = (1/6)*(n-1)*(23*n^2-19*n+6).
a(0)=0, a(1)=10, a(2)=52, a(3)=149, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Jun 15 2011
[A050494] 1, 10, 52, 192, 570, 1452, 3300, 6864, 13299, 24310, 42328, 70720, 114036, 178296, 271320, 403104, 586245, 836418, 1172908, 1619200, 2203630, 2960100, 3928860, 5157360, 6701175, 8625006, 11003760, 13923712, 17483752, 21796720, 26990832, 33211200, 40621449
a(n)=C(n+6, 6)*(3n+7)/7.
[A292058] 0, 10, 54, 168, 400, 810, 1470, 2464, 3888, 5850, 8470, 11880, 16224, 21658, 28350, 36480, 46240, 57834, 71478, 87400, 105840, 127050, 151294, 178848, 210000, 245050, 284310, 328104, 376768, 430650, 490110, 555520, 627264, 705738, 791350, 884520, 985680, 1095274
a(n) = (n - 1)*n^2*(n + 3)/2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) -5 *a(n-4) + a(n-5).
[A152762] 0, 0, 1, 1, 10, 54, 204, 243, 1594, 4210, 18484, 62174, 275828, 1131980, 7434360, 10522755, 72469530, 268486410, 1442238420, 4284331050, 18146556060, 62021100660, 248289237960, 798007353390, 2832660378756, 11922780597588
a(n)=sigma(binom(2n,n)/(n+1)) - binom(2n,n)/(n+1), where sigma(m) is the sum of the divisors of m. [From Emeric Deutsch, Dec 24 2008]
[A053347] 1, 10, 54, 210, 660, 1782, 4290, 9438, 19305, 37180, 68068, 119340, 201552, 329460, 523260, 810084, 1225785, 1817046, 2643850, 3782350, 5328180, 7400250, 10145070, 13741650, 18407025, 24402456, 32040360, 41692024, 53796160
a(n) = 2*C(n+8, 8) - C(n+7, 7). - Paul Barry, Mar 04 2003
a(n) = C(n+7, 7) + 2*C(n+7, 8). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
a(n) = (n^8 + 32*n^7 + 434*n^6 + 3248*n^5 + 14609*n^4 + 40208*n^3 + 65596*n^2 + 57312*n + 20160)/20160. - Chai Wah Wu, Jan 24 2016
[A244871] 1, 10, 55, 217, 672, 1755, 4030, 8386, 16135, 29140, 49941, 81915, 129430, 198037, 294652, 427780, 607725, 846846, 1159795, 1563805, 2078956, 2728495, 3539130, 4541382, 5769907, 7263880, 9067345, 11229631, 13805730, 16856745, 20450296, 24661000, 29570905
a(n) = n^6/48 + 3*n^5/16 + 77*n^4/96 + 2*n^3 + 37*n^2/12 - n*(-1)^n/32 + 89*n/32 - 3*(-1)^n/64 + 67/64. [Bruno Berselli, Jul 08 2014]
[A070212] 1, 10, 55, 220, 715, 2001, 4995, 11385, 24090, 47905, 90376, 162955, 282490, 473110, 768570, 1215126, 1875015, 2830620, 4189405, 6089710, 8707501, 12264175, 17035525, 23361975, 31660200, 42436251, 56300310, 73983205
a(n) = (1/8064) * (n+4)*(n+3)*(n+2)*(n+1)*(n^2+5n+8)*(n^2+5n+42)
[A008492] 1, 10, 55, 220, 715, 2002, 5005, 11440, 24310, 48620, 92377, 167950, 293875, 497200, 816475, 1305502, 2037970, 3113110, 4662515, 6858280, 9922627, 14139190, 19866145, 27551380, 37749910, 51143752, 68564485, 91018730, 119716795, 156104740, 201900127
a(n) = (8064 + 26060*n^2 + 5985*n^4 + 210*n^6 + n^8) / 4032 for n>0. - Colin Barker, Jan 06 2017
[A000582] 1, 10, 55, 220, 715, 2002, 5005, 11440, 24310, 48620, 92378, 167960, 293930, 497420, 817190, 1307504, 2042975, 3124550, 4686825, 6906900, 10015005, 14307150, 20160075, 28048800, 38567100, 52451256, 70607460, 94143280, 124403620, 163011640, 211915132
a(n+8) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)/9!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
[A290893] 0, 0, 0, 0, 1, 10, 55, 220, 715, 2003, 5025, 11650, 25850, 57475, 134883, 345090, 952195, 2722455, 7765010, 21615771, 58293475, 152593575, 390679925, 988851150, 2502813930, 6394182650, 16569837550, 43533891575, 115440190725, 307108317769, 815362167365
a(n) = 10*a(n-1) - 45*a(n-2) + 120*a(n-3) - 210*a(n-4) + 253*a(n-5) - 210*a(n-6) + 120*a(n-7) - 45*a(n-8) + 10*a(n-9) - a(n-10).
[A249460] 0, 0, 0, 1, 10, 55, 230, 770, 2156, 5250, 11460, 22935, 42790, 75361, 126490, 203840, 317240, 479060, 704616, 1012605, 1425570, 1970395, 2678830, 3588046, 4741220, 6188150, 7985900, 10199475, 12902526, 16178085, 20119330
a(n) = (n*(n-1)*(n-2)*(n^3-9*n^2+29*n-32) + 3*n*(n-1)*(n-2)^2)/24 = (n-2)*(n-1)*n*(n^3-9*n^2+32*n-38)/24.
[A228888] 10, 56, 165, 364, 680, 1140, 1771, 2600, 3654, 4960, 6545, 8436, 10660, 13244, 16215, 19600, 23426, 27720, 32509, 37820, 43680, 50116, 57155, 64824, 73150, 82160, 91881, 102340, 113564, 125580, 138415, 152096, 166650, 182104, 198485, 215820, 234136, 253460

a(n) = binomial(3*n + 2, 3) = 1/6*(3*n)*(3*n + 1)*(3*n + 2).
[A137931] 0, 10, 56, 170, 384, 730, 1240, 1946, 2880, 4074, 5560, 7370, 9536, 12090, 15064, 18490, 22400, 26826, 31800, 37354, 43520, 50330, 57816, 66010, 74944, 84650, 95160, 106506, 118720, 131834, 145880, 160890, 176896, 193930, 212024, 231210, 251520, 272986, 295640
a(n) = 2n^2 + 2n + (16n^3 + 2n)/3
[A053493] 1, 10, 56, 214, 641, 1620, 3616, 7340, 13825, 24510, 41336, 66850, 104321, 157864, 232576, 334680, 471681, 652530, 887800, 1189870, 1573121, 2054140, 2651936, 3388164, 4287361, 5377190, 6688696, 8256570, 10119425, 12320080, 14905856, 17928880, 21446401
a(0)=1, a(1)=10, a(2)=56, a(3)=214, a(4)=641, a(5)=1620, a(6)=3616, a(7)=7340, a(n) = 6*a(n-1) - 14*a(n-2) + 14*a(n-3) - 14*a(n-5) + 14*a(n-6) - 6*a(n-7) + a(n-8). - Harvey P. Dale, Oct 31 2011
a(n) = (9*(31+(-1)^n) + 768*n + 928*n^2 + 624*n^3 + 238*n^4 + 48*n^5 + 4*n^6) / 288. - Colin Barker, Jan 14 2017
[A198833] 1, 10, 56, 220, 680, 1771, 4060, 8436, 16215, 29260, 50116, 82160, 129766, 198485, 295240, 428536, 608685, 848046, 1161280, 1565620, 2081156, 2731135, 3542276, 4545100, 5774275, 7268976, 9073260, 11236456, 13813570, 16865705, 20460496, 24672560, 29583961
a(n) = n*(n+1)*(n^2+n+2)*(n^2+n+4)/48.
a(n)=C(n,1)+8C(n,2)+29C(n,3)+52C(n,4)+45C(n,5)+15Binomial(n,6). Each term indicates the number of ways to use n colors to color the octahedron vertices (cube faces) with exactly 1, 2, 3, 4, 5, or 6 colors.
[A268462] 0, 0, 0, 0, 10, 56, 224, 768, 2400, 7040, 19712, 53248, 139776, 358400, 901120, 2228224, 5431296, 13074432, 31129600, 73400320, 171573248, 397934592, 916455424, 2097152000, 4771020800, 10796138496, 24310185984, 54492397568, 121634816000, 270448721920, 599147937792
a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-3)-16*a(n-4) for n>3. - Vincenzo Librandi, Feb 05 2016
a(n) = 2^(n-4)*(n-3)*(n+1)*(n+2)/3 for n>2. - Colin Barker, Feb 08 2016
[A053309] 1, 10, 56, 231, 782, 2300, 6085, 14820, 33775, 72905, 150438, 298925, 575333, 1077748, 1972851, 3540913, 6249235, 10871723, 18683233, 31775031, 53566369, 89633545, 149052839, 246575109, 406146248, 666605513, 1090907965
a(n) = Sum_{i=0..floor(n/2)} C(n+9-i, n-2i), n >= 0.
a(n) = Sum_{k=1..n} C(n-k+9,k+8), with n>=0. - Paolo P. Lava, Apr 16 2008
[A035040] 0, 0, 0, 0, 0, 0, 0, 0, 1, 10, 56, 232, 794, 2380, 6476, 16384, 39203, 89846, 199140, 430104, 910596, 1898712, 3913704, 7997952, 16241061, 32828226, 66137152, 132932104, 266752238, 534688516, 1070937812, 2143911424, 4290452423
a(n) = sum_{k=0..n} C(n, k+8) = sum_{k=8..n} C(n, k); a(n) = 2a(n-1) + C(n-1, 7). - Paul Barry, Aug 23 2004
[A087076] 0, 1, 10, 56, 240, 880, 2912, 8960, 26112, 72960, 197120, 518144, 1331200, 3354624, 8314880, 20316160, 49020928, 116981760, 276430848, 647495680, 1504706560, 3471835136, 7958691840, 18136170496, 41104179200, 92694118400, 208071032832
a(n) = 2^(n - 2)*n*(n + 1)*(2*n + 1)/3.
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4). - Matthew House, Feb 13 2017
a(n) = (1/2) * Sum_{k=0..n} Sum_{i=0..n} i^2 * C(n,k). - Wesley Ivan Hurt, Sep 21 2017
[A014483] 1, 10, 56, 240, 880, 2912, 8960, 26112, 72960, 197120, 518144, 1331200, 3354624, 8314880, 20316160, 49020928, 116981760, 276430848, 647495680, 1504706560, 3471835136, 7958691840, 18136170496, 41104179200, 92694118400, 208071032832, 465064427520
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4) for n>3.
a(n) = (2^(n-1)*(6 + 13*n + 9*n^2 + 2*n^3)) / 3. (End)
a(n) = (1/2) * Sum_{k=0..n+1} Sum_{i=0..n+1} (n-i+1)^2 * C(n+1,k). - Wesley Ivan Hurt, Sep 21 2017
[A055251] 1, 10, 57, 244, 874, 2772, 8054, 21920, 56751, 141326, 341303, 804276, 1858080, 4223784, 9474444, 21018144, 46195149, 100734354, 218190469, 469866964, 1006759110, 2147634364, 4563581746, 9663887808, 20401343003, 42949963286, 90194651043, 188978952404
a(n) = Sum_{k=0..n+6} Sum_{i=0..n+6} (i-k) * C(n-k+6,i+4). - Wesley Ivan Hurt, Sep 19 2017
a(n) = (1/120)*(38520 - 75*2^(9+n) + 2*(9637 + 15*2^(8+n))*n + 4285*n^2 + 525*n^3 + 35*n^4 + n^5). - Colin Barker, Sep 20 2017
[A006529] 0, 1, 10, 57, 272, 885, 2226, 4725, 8912, 15417, 24970, 38401, 56640, 80717, 111762, 151005, 199776, 259505, 331722, 418057, 520240, 640101, 779570, 940677, 1125552, 1336425, 1575626, 1845585, 2148832, 2487997, 2865810
a(0)=0, a(1)=1, a(2)=10, a(3)=57, a(4)=272, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, Oct 30 2011]
[A045950] 0, 10, 59, 177, 394, 740, 1245, 1939, 2852, 4014, 5455, 7205, 9294, 11752, 14609, 17895, 21640, 25874, 30627, 35929, 41810, 48300, 55429, 63227, 71724, 80950, 90935, 101709, 113302, 125744, 139065, 153295, 168464, 184602, 201739, 219905, 239130, 259444
a(n) = n*(10*n^2+9*n+1)/2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Dec 02 2014
[A144560] 0, 10, 60, 150, 280, 450, 660, 910, 1200, 1530, 1900, 2310, 2760, 3250, 3780, 4350, 4960, 5610, 6300, 7030, 7800, 8610, 9460, 10350, 11280, 12250, 13260, 14310, 15400, 16530, 17700, 18910, 20160, 21450, 22780, 24150, 25560, 27010
a(n) = a(n-1)+40*n-30 (with a(0)=0). - Vincenzo Librandi, Dec 14 2010
[A266732] 0, 10, 60, 210, 560, 1260, 2520, 4620, 7920, 12870, 20020, 30030, 43680, 61880, 85680, 116280, 155040, 203490, 263340, 336490, 425040, 531300, 657800, 807300, 982800, 1187550, 1425060, 1699110, 2013760, 2373360, 2782560, 3246320, 3769920, 4358970, 5019420
a(n) = n*(1+n)*(2+n)*(3+n)*(4+n)/12.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n > 5.
[A228581] 0, 0, 0, 1, 10, 60, 246, 777, 2044, 4704, 9780, 18777, 33814, 57772, 94458, 148785, 226968, 336736, 487560, 690897, 960450, 1312444, 1765918, 2343033, 3069396, 3974400, 5091580, 6458985, 8119566, 10121580, 12519010, 15372001, 18747312, 22718784, 27367824, 32783905
a(n) = (1/4)*(binomial(2*n,6) + 3*binomial(n,3)).
a(n) = 7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7) with n>6, a(0)=a(1)=a(2)=0, a(3)=1, a(4)=10, a(5)=60, a(6)=246.
[A241929] 1, 10, 60, 264, 930, 2766, 7205, 16880, 36279, 72610, 136906, 245400, 421200, 696294, 1113915, 1731296, 2622845, 3883770, 5634184, 8023720, 11236686, 15497790, 21078465, 28303824, 37560275, 49303826, 64069110, 82479160, 105255964, 133231830, 167361591, 208735680
a(n) = n*(n^2+6)*(n^4+15*n^2+8)/168.
[A169797] 1, 10, 65, 340, 1550, 6412, 24650, 89440, 309605, 1030490, 3317445, 10377180, 31655820, 94451520, 276313200, 794169792, 2246410560, 6262748160, 17230138880, 46831339520, 125870737408, 334826700800, 882159984640, 2303540756480, 5965195018240, 15327324667904
a(n) = 2^(n-17)*(n+11) *(n^8 +124*n^7 +5986*n^6 +143944*n^5 +1836529*n^4 +12358156*n^3 +42005484*n^2 +64730736*n +33747840)/2835, n>0. - R. J. Mathar, Mar 14 2011
[A024391] 10, 66, 231, 595, 1275, 2415, 4186, 6786, 10440, 15400, 21945, 30381, 41041, 54285, 70500, 90100, 113526, 141246, 173755, 211575, 255255, 305371, 362526, 427350, 500500, 582660, 674541, 776881, 890445, 1016025, 1154440, 1306536, 1473186, 1655290
a(n) = n*(n+1)*(3*n+2)*(3*n+5)/8.
[A271040] 0, 0, 0, 0, 0, 0, 10, 70, 280, 840, 2100, 4620, 9240, 17160, 30030, 50050, 80080, 123760, 185640, 271320, 387600, 542640, 746130, 1009470, 1345960, 1771000, 2302300, 2960100, 3767400, 4750200, 5937750, 7362810, 9061920, 11075680, 13449040, 16231600, 19477920
a(n) = n*(n-1)*(n-2)*(n-3)*(n-4)*(n-5)/72.
a(n) = binomial(n,3) * binomial(n-3,3) / 2. - Joerg Arndt, Mar 29 2016
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) for n>6.
[A228316] 0, 10, 72, 448, 1450, 4482, 10388, 23552, 45360, 86250, 147620, 250560, 395122, 619458, 919800, 1359872, 1928208, 2725002, 3725520, 5080000, 6742890, 8931010, 11568172, 14957568, 18980000, 24048362, 29985228, 37340352, 45859730, 56261250
a(n) = n^2*(n^2-1)*(7*n^2+12*n-3)/96 if n is odd; a(n) = n^4*(7*n^2+12*n+8)/96 if n is even.
[A279284] 0, 1, 10, 74, 469, 2662, 14115, 71360, 348143, 1652200, 7669883, 34969286, 157060011, 696514465, 3055404733, 13277356490, 57222978070, 244831062184, 1040760406476, 4398642943496, 18493603597214, 77388169532299, 322451025667910, 1338291853544522, 5534486308363461, 22812231761335189, 93741611639348947, 384122032722040412
a(n) = 12*a(n-1) - 51*a(n-2) + 91*a(n-3) - 75*a(n-4) + 66*a(n-5) - 28*a(n-6) + 15*a(n-7) - 3*a(n-8) + a(n-9).
[A027778] 10, 75, 315, 980, 2520, 5670, 11550, 21780, 38610, 65065, 105105, 163800, 247520, 364140, 523260, 736440, 1017450, 1382535, 1850695, 2443980, 3187800, 4111250, 5247450, 6633900, 8312850, 10331685, 12743325, 15606640, 18986880
a(n) = C(n+1, 4)*C(n+2, 2) - Zerinvary Lajos, Apr 28 2005, corrected by R. J. Mathar, Feb 13 2016
[A061319] 0, 1, 10, 76, 430, 1870, 6601, 19810, 52326, 124785, 273790, 560626, 1083160, 1991626, 3509065, 5957260, 9789076, 15628185, 24317226, 36975520, 55067530, 80483326, 115632385, 163552126, 228032650, 313759225, 426474126, 573159510

a(n) = n*(n+1)*(n^2+n+4)*(n^4+2*n^3+5*n^2+4*n+36)/576 . R. J. Mathar, Aug 11 2012
[A006469] 10, 79, 340, 1071, 2772, 6258, 12768, 24090, 42702, 71929, 116116, 180817, 273000, 401268, 576096, 810084, 1118226, 1518195, 2030644, 2679523, 3492412, 4500870, 5740800, 7252830, 9082710, 11281725, 13907124, 17022565, 20698576, 25013032, 30051648, 35908488
a(n) = (n*(474 + 1247*n + 1215*n^2 + 545*n^3 + 111*n^4 + 8*n^5)) / 360.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A244729] 0, 10, 80, 270, 640, 1250, 2160, 3430, 5120, 7290, 10000, 13310, 17280, 21970, 27440, 33750, 40960, 49130, 58320, 68590, 80000, 92610, 106480, 121670, 138240, 156250, 175760, 196830, 219520, 243890, 270000, 297910, 327680, 359370, 393040, 428750, 466560
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3.
[A000575] 10, 80, 365, 1246, 3535, 8800, 19855, 41470, 81367, 151580, 270270, 464100, 771290, 1245488, 1960610, 3016820, 4547840, 6729800, 9791859, 14028850, 19816225, 27627600, 38055225, 51833730, 69867525, 93262260, 123360780, 161784040, 210477476, 271763360
a(n) = Sum_{k=1..10} (-1)^k * binomial(10,k) * a(n-k), a(0)=10. - G. C. Greubel, Aug 03 2015
a(n) = [x^9] (1+x+x^2+x^3+x^4)^(n+3). - Joerg Arndt, Aug 04 2015
[A267031] 0, 10, 84, 286, 680, 1330, 2300, 3654, 5456, 7770, 10660, 14190, 18424, 23426, 29260, 35990, 43680, 52394, 62196, 73150, 85320, 98770, 113564, 129766, 147440, 166650, 187460, 209934, 234136, 260130, 287980, 317750, 349504, 383306, 419220, 457310, 497640, 540274, 585276, 632710, 682640, 735130, 790244
a(n) = 32/3*n^3 - 2/3*n.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Colin Barker, Jan 10 2016
[A289163] 0, 0, 0, 10, 84, 322, 1172, 2780, 7016, 13532, 27720, 47318, 84796, 133294, 217756, 322392, 492240, 696216, 1009680, 1377474, 1918500, 2541946, 3426852, 4431988, 5816888, 7371572, 9460568, 11782862, 14837004, 18204326, 22551340, 27310384, 33355168, 39932592, 48168480
a(n) = (-165 - 282*n + 972*n^2 - 730*n^3 + 280*n^4 - 68*n^5 + 8*n^6 - 5*(-1)^n*(-33 - 26*n + 96*n^2 - 46*n^3 + 6*n^4))/240.
a(n) = 2*a(n-1)+4*a(n-2)-10*a(n-3)-5*a(n-4)+20*a(n-5)-20*a(n-7)+5*a(n-8)+10*a(n-9)-4*a(n-10)-2*a(n-11)+a(n-12).
[A227512] 10, 92, 318, 760, 1490, 2581, 4103, 6129, 8731, 11981, 15952, 20714, 26340, 32902, 40472, 49123, 58925, 69951, 82273, 95963, 111094, 127736, 145962, 165844, 187454, 210865, 236147, 263373, 292615, 323945, 357436, 393158, 431184, 471586, 514436, 559807
a(n) = 12*n^3 - floor(9*n/5) - 1. (conjectured, based on computations by Peter J. C. Moses, Jul 14 2013)
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-5) - 3*a(n-6) + 3*a(n-7) - a(n-8) (conjectured; verified up to n = 100000).
[A227513] 10, 92, 319, 761, 1491, 2581, 4103, 6130, 8732, 11982, 15952, 20714, 26341, 32903, 40473, 49123, 58925, 69952, 82274, 95964, 111094, 127736, 145963, 165845, 187455, 210865, 236147, 263374, 292616, 323946, 357436, 393158, 431185, 471587, 514437, 559807
a(n) = 12*n^3 - round(9*n/5) (conjectured, based on computations by Peter J. C. Moses, Jul 14 2013).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + a(n-5) - 3*a(n-6) + 3*a(n-7) - a(n-8) (conjectured; verified up to n = 100000).
[A197083] 0, 10, 96, 445, 1431, 3681, 8141, 16142, 29466, 50412, 81862, 127347, 191113, 278187, 394443, 546668, 742628, 991134, 1302108, 1686649, 2157099, 2727109, 3411705, 4227354, 5192030, 6325280, 7648290, 9183951, 10956925, 12993711, 15322711, 17974296, 20980872
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) for n>5, a(0)=0, a(1)=10,a(2)=96, a(3)=445, a(4)=1431, a(5)=3681.
a(n) = (66*n^5+275*n^4+440*n^3+325*n^2+94*n)/120 = n*(n+1)*(66*n^3+209*n^2+231*n+94)/120.
[A276349] 10, 100, 110, 1000, 1100, 1110, 10000, 11000, 11100, 11110, 100000, 110000, 111000, 111100, 111110, 1000000, 1100000, 1110000, 1111000, 1111100, 1111110, 10000000, 11000000, 11100000, 11110000, 11111000, 11111100, 11111110, 100000000, 110000000, 111000000
a((m^2-m)/2+j) = 10^(m+1)*(1-10^(-j))/9 for m>=1, 1<=j<=m.
[A086115] 10, 100, 390, 1080, 2470, 4980, 9170, 15760, 25650, 39940, 59950, 87240, 123630, 171220, 232410, 309920, 406810, 526500, 672790, 849880, 1062390, 1315380, 1614370, 1965360, 2374850, 2849860, 3397950, 4027240, 4746430, 5564820
a(n) = 1/6*n*(n^4+10*n^3+35*n^2+50*n-36). More generally, number of m X n (0, 1) matrices such that each row and each column is increasing or decreasing is 2*n*(2*binomial(n+m-1, n)-m) = 4/Beta(m, n)-2*m*n.
[A222716] 0, 10, 100, 460, 1460, 3710, 8120, 15960, 28920, 49170, 79420, 122980, 183820, 266630, 376880, 520880, 705840, 939930, 1232340, 1593340, 2034340, 2567950, 3208040, 3969800, 4869800, 5926050, 7158060, 8586900, 10235260, 12127510, 14289760, 16749920, 19537760, 22684970, 26225220, 30194220, 34629780, 39571870, 45062680, 51146680
a(n) = (3*n^5 - 5*n^3 + 2*n)/6 = (n-1)*n*(n+1)*(3*n^2 - 2)/6.
[A177060] 10, 108, 304, 598, 990, 1480, 2068, 2754, 3538, 4420, 5400, 6478, 7654, 8928, 10300, 11770, 13338, 15004, 16768, 18630, 20590, 22648, 24804, 27058, 29410, 31860, 34408, 37054, 39798, 42640, 45580, 48618, 51754, 54988, 58320, 61750, 65278
a(n)=98*n+a(n-1) with a(0)=10
[A097257] 0, 10, 110, 120, 1210, 1220, 1320, 1330, 13310, 13320, 13420, 13430, 14520, 14530, 14630, 14640, 146410, 146420, 146520, 146530, 147620, 147630, 147730, 147740, 159720, 159730, 159830, 159840, 160930, 160940, 161040, 161050, 1610510
a(2n) = 11*a(n), a(2n+1) = a(2n)+10.
[A158492] 10, 110, 410, 910, 1610, 2510, 3610, 4910, 6410, 8110, 10010, 12110, 14410, 16910, 19610, 22510, 25610, 28910, 32410, 36110, 40010, 44110, 48410, 52910, 57610, 62510, 67610, 72910, 78410, 84110, 90010, 96110, 102410, 108910, 115610, 122510
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 21 2012
[A249845] 10, 110, 560, 1920, 5170, 11830, 24080, 44880, 78090, 128590, 202400, 306800, 450450, 643510, 897760, 1226720, 1645770, 2172270, 2825680, 3627680, 4602290, 5775990, 7177840, 8839600, 10795850, 13084110, 15744960, 18822160, 22362770
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A027770] 10, 121, 792, 3718, 14014, 45045, 128128, 330616, 787644, 1755182, 3695120, 7407036, 14226212, 26313518, 47070144, 81719000, 138105110, 227779695, 367447080, 580870290, 901350450, 1374917115, 2064391680, 3054514320, 4458356760, 6425278860, 9150726816
a(n) = C(n+1, 10)*C(n+1, 1). - Zerinvary Lajos, Jun 08 2005, corrected by R. J. Mathar, Feb 13 2016
[A173044] 10, 135, 740, 2545, 6750, 15155, 30280, 55485, 95090, 154495, 240300, 360425, 524230, 742635, 1028240, 1395445, 1860570, 2441975, 3160180, 4037985, 5100590, 6375715, 7893720, 9687725, 11793730, 14250735, 17100860, 20389465, 24165270, 28480475, 33390880, 38956005
a(n) = (n+2)*(n^4+8*n^3+19*n^2+12*n+5) = n^5+10*n^4+35*n^3+50*n^2+29*n+10. [Bruno Berselli, Jun 25 2012]
[A134633] 0, 10, 192, 1314, 5344, 16050, 39600, 85162, 165504, 297594, 503200, 809490, 1249632, 1863394, 2697744, 3807450, 5255680, 7114602, 9465984, 12401794, 16024800, 20449170, 25801072, 32219274, 39855744, 48876250, 59460960, 71805042, 86119264, 102630594, 121582800, 143237050, 167872512, 195786954, 227297344
a(n) = 5*n^5 + 3*n^3 + 2*n^2.
a(0)=0, a(1)=10, a(2)=192, a(3)=1314, a(4)=5344, a(5)=16050, a(n)= 6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Apr 25 2012
[A249846] 10, 198, 1500, 6916, 23526, 65226, 156184, 335016, 659682, 1213102, 2109492, 3501420, 5587582, 8621298, 12919728, 18873808, 26958906, 37746198, 51914764, 70264404, 93729174, 123391642, 160497864, 206473080, 262938130, 331726590
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A278125] 10, 215, 665, 1565, 3365, 6965, 14165, 28565, 57365, 114965, 230165, 460565, 921365, 1842965, 3686165, 7372565, 14745365, 29490965, 58982165, 117964565, 235929365, 471858965, 943718165, 1887436565, 3774873365, 7549746965, 15099494165, 30198988565, 60397977365, 120795954965
a(n) = 3*a(n-1) - 2*a(n-2).
[A001536] 10, 252, 736, 1462, 2430, 3640, 5092, 6786, 8722, 10900, 13320, 15982, 18886, 22032, 25420, 29050, 32922, 37036, 41392, 45990, 50830, 55912, 61236, 66802, 72610, 78660, 84952, 91486, 98262, 105280, 112540, 120042, 127786, 135772, 144000, 152470, 161182
a(n) = 242*n + a(n-1) with a(0)=10. - Vincenzo Librandi, Nov 12 2010
[A168459] 1, 11, 11, 21, 21, 31, 31, 41, 41, 51, 51, 61, 61, 71, 71, 81, 81, 91, 91, 101, 101, 111, 111, 121, 121, 131, 131, 141, 141, 151, 151, 161, 161, 171, 171, 181, 181, 191, 191, 201, 201, 211, 211, 221, 221, 231, 231, 241, 241, 251, 251, 261, 261, 271, 271, 281
a(n) = 10*n - a(n-1) - 8 with n>1, a(1)=1.
a(n) = a(n-1) +a(n-2) -a(n-3). (End)
a(n) = 1 + 10*floor(n/2). - Vincenzo Librandi, Sep 19 2013
[A022345] 0, 11, 11, 22, 33, 55, 88, 143, 231, 374, 605, 979, 1584, 2563, 4147, 6710, 10857, 17567, 28424, 45991, 74415, 120406, 194821, 315227, 510048, 825275, 1335323, 2160598, 3495921, 5656519, 9152440, 14808959, 23961399, 38770358, 62731757, 101502115, 164233872

a(n) = Fibonacci(n+5) - Fibonacci(n-5), where Fibonacci(-5..-1) = 5, -3, 2, -1, 1. - Bruno Berselli, May 22 2015
[A124297] 1, 11, 11, 31, 61, 151, 361, 911, 2311, 5951, 15401, 40051, 104401, 272611, 712531, 1863551, 4875781, 12760031, 33398201, 87424711, 228859951, 599129311, 1568486161, 4106261531, 10750188961, 28144128251, 73681909211, 192901135711
a(n) = 5*Fibonacci(n)^2 + 5*Fibonacci(n) + 1.
[A266705] 1, 11, 11, 45, 101, 281, 719, 1899, 4955, 12989, 33989, 89001, 232991, 609995, 1596971, 4180941, 10945829, 28656569, 75023855, 196415019, 514221179, 1346248541, 3524524421, 9227324745, 24157449791, 63245024651, 165577624139, 433487847789, 1134885919205
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3) for n > 3.
a(n) = (2^(-n)*(-23*(-2)^n-(3-sqrt(5))^n*(-9+sqrt(5))+(3+sqrt(5))^n*(9+sqrt(5))))/5 for n>0. - Colin Barker, Sep 29 2016
[A038687] 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69
a(n) = n + O(log n). - Charles R Greathouse IV, Jan 13 2015
[A061082] 11, 12, 13, 104, 105, 106, 107, 108, 109, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 10032, 10033, 10034, 10035, 10036, 10037, 10038, 10039, 10040, 10041, 10042
a(n) = 10^floor(1 + 2log_10 n) + n. - Charles R Greathouse IV, Sep 20 2012
[A246139] 11, 12, 14, 18, 26, 42, 74, 138, 266, 522, 1034, 2058, 4106, 8202, 16394, 32778, 65546, 131082, 262154, 524298, 1048586, 2097162, 4194314, 8388618, 16777226, 33554442, 67108874, 134217738, 268435466, 536870922, 1073741834, 2147483658, 4294967306
a(n) = 3*a(n-1) - 2*a(n-2).
[A098752] 1, 11, 12, 21, 101, 102, 201, 1001, 1002, 2001, 10001, 10002, 20001, 100001, 100002, 200001, 1000001, 1000002, 2000001, 10000001, 10000002, 20000001, 100000001, 100000002, 200000001, 1000000001, 1000000002, 2000000001, 10000000001
a(n) = 11*a(n-3) - 10*a(n-6) for n > 7.
[A112651] 0, 1, 11, 11, 12, 22, 23, 33, 34, 44, 45, 55, 56, 66, 67, 77, 78, 88, 89, 99, 100, 110, 111, 121, 122, 132, 133, 143, 144, 154, 155, 165, 166, 176, 177, 187, 188, 198, 199, 209, 210, 220, 221, 231, 232, 242, 243, 253, 254, 264, 265, 275, 276, 286, 287, 297, 298
a(n)=11*n-a(n-1)-21 (with a(1)=0) - Vincenzo Librandi, Nov 13 2010
a(n) = 11*n/2-31/4-9*(-1)^n/4. G.f. x^2*(1+10*x) / ((1+x)*(x-1)^2). - R. J. Mathar, Oct 08 2011
[A022101] 1, 11, 12, 23, 35, 58, 93, 151, 244, 395, 639, 1034, 1673, 2707, 4380, 7087, 11467, 18554, 30021, 48575, 78596, 127171, 205767, 332938, 538705, 871643, 1410348, 2281991, 3692339, 5974330, 9666669, 15640999, 25307668, 40948667, 66256335, 107205002, 173461337, 280666339
a(n) = a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=11. a(-1)=10.
a(n-1) = ((1+sqrt5)^n-(1-sqrt5)^n)/(2^n*sqrt5)+ 5*((1+sqrt5)^(n-1) -(1-sqrt5)^(n-1))/ (2^(n-2)*sqrt5). - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
[A042633] 1, 11, 12, 23, 35, 58, 93, 151, 395, 546, 941, 1487, 2428, 3915, 6343, 73688, 4280247, 47156405, 51436652, 98593057, 150029709, 248622766, 398652475, 647275241, 1693202957, 2340478198, 4033681155, 6374159353, 10407840508, 16781999861, 27189840369
a(n) = 4286590*a(n-16) - a(n-32) for n>31. - Vincenzo Librandi, Jan 26 2014
[A172173] 0, 1, 1, 11, 12, 32, 44, 85, 129, 223, 352, 584, 936, 1529, 2465, 4003, 6468, 10480, 16948, 27437, 44385, 71831, 116216, 188056, 304272, 492337, 796609, 1288955, 2085564, 3374528, 5460092, 8834629, 14294721, 23129359, 37424080, 60553448, 97977528, 158530985
a(n) = a(n-1) + 2*a(n-2) - a(n-3) - a(n-4) for n>3.
a(n) = (2^(-1-n)*(-45*((-2)^n+2^n) + (45-7*sqrt(5))*(1+sqrt(5))^n + (1-sqrt(5))^n*(45+7*sqrt(5)))) / 5. - Colin Barker, Jul 13 2017
[A033047] 0, 1, 11, 12, 121, 122, 132, 133, 1331, 1332, 1342, 1343, 1452, 1453, 1463, 1464, 14641, 14642, 14652, 14653, 14762, 14763, 14773, 14774, 15972, 15973, 15983, 15984, 16093, 16094, 16104, 16105, 161051, 161052, 161062, 161063, 161172
a(n) = Sum{d(i)*11^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 11*a(n), a(2n+1) = a(2n)+1.
[A094624] 0, 1, 11, 12, 121, 122, 1221, 1222, 12221, 12222, 122221, 122222, 1222221, 1222222, 12222221, 12222222, 122222221, 122222222, 1222222221, 1222222222, 12222222221, 12222222222, 122222222221, 122222222222, 1222222222221, 1222222222222, 12222222222221
a(n) = 10^(n/2)(11/18+11*sqrt(10)/180-(11*sqrt(10)/180-11/18)(-1)^n)-13/18-(-1)^n/2.
a(n) = 11*a(n-2)-10*a(n-4) for n>3.
[A249312] 1, 11, 12, 122, 134, 1354, 1488, 15028, 16516, 166796, 183312, 1851272, 2034584, 20547304, 22581888, 228054928, 250636816, 2531186096, 2781822912, 28093683872, 30875506784, 311812345504, 342687852288, 3460811307328, 3803499159616, 38411612232896
a(1)=1, a(2)=11, a(3)=12, a(4)=122, a(n)=12*a(n-2)-10*a(n-4). - Harvey P. Dale, Feb 02 2015
[A041261] 1, 1, 11, 12, 275, 287, 3145, 3432, 78649, 82081, 899459, 981540, 22493339, 23474879, 257242129, 280717008, 6433016305, 6713733313, 73570349435, 80284082748, 1839820169891, 1920104252639, 21040862696281, 22960966948920, 526182135572521, 549143102521441
a(n) = 286*a(n-4) - a(n-8). - Vincenzo Librandi, Dec 14 2013
[A008364] 1, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 121, 127, 131, 137, 139, 143, 149, 151, 157, 163, 167, 169, 173, 179, 181, 187, 191, 193, 197, 199, 209, 211, 221, 223, 227, 229, 233, 239, 241, 247
a(n) = a(n-1) + a(n-48) - a(n-49). - Charles R Greathouse IV, Dec 21 2011
a(n) = 35n/8 + O(1). - Charles R Greathouse IV, Sep 14 2015
[A230462] 1, 11, 13, 17, 19, 29, 31, 41, 43, 47, 49, 59, 61, 71, 73, 77, 79, 89, 91, 101, 103, 107, 109, 119, 121, 131, 133, 137, 139, 149, 151, 161, 163, 167, 169, 179, 181, 191, 193, 197, 199, 209, 211, 221, 223, 227, 229, 239, 241, 251, 253, 257, 259, 269
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7; a(n) = a(n-6) + 30 for n>6.
a(n) = (30*n - 15 - 6*cos(n*Pi/3) + 6*cos(2*n*Pi/3) + 9*cos(n*Pi) + 6*sqrt(3)*sin(n*Pi/3) - 2*sqrt(3)*sin(2*n*Pi/3))/6.
a(6k) = 30k-1, a(6k-1) = 30k-11, a(6k-2) = 30k-13, a(6k-3) = 30k-17, a(6k-4) = 30k-19, a(6k-5) = 30k-29. (End)
[A045798] 11, 13, 17, 19, 31, 33, 37, 39, 51, 53, 57, 59, 71, 73, 77, 79, 91, 93, 97, 99, 111, 113, 117, 119, 131, 133, 137, 139, 151, 153, 157, 159, 171, 173, 177, 179, 191, 193, 197, 199, 211, 213, 217, 219, 231, 233, 237, 239, 251, 253, 257, 259
a(n) = 5n + O(1). - Charles R Greathouse IV, Feb 07 2017
a(n+4) = a(n)+20. This confirms Barker's conjecture. - Robert Israel, Mar 27 2017
[A088265] 11, 13, 17, 19, 101, 103, 107, 109, 1001, 1003, 1007, 1009, 10001, 10003, 10007, 10009, 100001, 100003, 100007, 100009, 1000001, 1000003, 1000007, 1000009, 10000001, 10000003, 10000007, 10000009, 100000001, 100000003, 100000007, 100000009, 1000000001, 1000000003, 1000000007, 1000000009
a(4n+r) = 10^(n+1) + k, (r, k) = (1, 1), (2, 3), (3, 7) or (4, 9).
[A048058] 11, 13, 17, 23, 31, 41, 53, 67, 83, 101, 121, 143, 167, 193, 221, 251, 283, 317, 353, 391, 431, 473, 517, 563, 611, 661, 713, 767, 823, 881, 941, 1003, 1067, 1133, 1201, 1271, 1343, 1417, 1493, 1571, 1651, 1733, 1817, 1903, 1991, 2081
a(n)=2*n+a(n-1) (with a(0)=11) - Vincenzo Librandi, Aug 06 2010
[A091998] 1, 11, 13, 23, 25, 35, 37, 47, 49, 59, 61, 71, 73, 83, 85, 95, 97, 107, 109, 119, 121, 131, 133, 143, 145, 155, 157, 167, 169, 179, 181, 191, 193, 203, 205, 215, 217, 227, 229, 239, 241, 251, 253, 263, 265, 275, 277, 287, 289, 299, 301, 311, 313, 323, 325, 335
a(n) = 12*n-a(n-1)-12 (with a(1)=1). [From Vincenzo Librandi, Nov 16 2010]
a(n) = 6*n+2*(-1)^n-3.
a(n)-a(n-1)-a(n-2)+a(n-3) = 0 for n>3.
a(n) = a(n-2)+12 for n>2.
[A154292] 11, 13, 46, 50, 105, 111, 188, 196, 295, 305, 426, 438, 581, 595, 760, 776, 963, 981, 1190, 1210, 1441, 1463, 1716, 1740, 2015, 2041, 2338, 2366, 2685, 2715, 3056, 3088, 3451, 3485, 3870, 3906, 4313, 4351, 4780, 4820, 5271, 5313, 5786, 5830, 6325, 6371
a(n) = (12*n^2 - 10*(-1)^n*n + 12*n - 5*(-1)^n + 5)/4.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5.
[A114948] 11, 14, 19, 26, 35, 46, 59, 74, 91, 110, 131, 154, 179, 206, 235, 266, 299, 334, 371, 410, 451, 494, 539, 586, 635, 686, 739, 794, 851, 910, 971, 1034, 1099, 1166, 1235, 1306, 1379, 1454, 1531, 1610, 1691, 1774, 1859, 1946, 2035, 2126, 2219, 2314, 2411, 2510
a(n)=2*n+a(n-1)-1 (with a(1)=11) - Vincenzo Librandi, Nov 13 2010
[A106389] 1, 11, 14, 24, 27, 37, 40, 50, 53, 63, 66, 76, 79, 89, 92, 102, 105, 115, 118, 128, 131, 141, 144, 154, 157, 167, 170, 180, 183, 193, 196, 206, 209, 219, 222, 232, 235, 245, 248, 258, 261, 271, 274, 284, 287, 297, 300, 310, 313, 323, 326, 336, 339, 349, 352
a(n) = (-15+7*(-1)^n+26*n)/4. G.f.: x*(2*x^2+10*x+1) / ((x-1)^2*(x+1)). - Colin Barker, Apr 16 2014

[A195818] 0, 1, 11, 14, 34, 39, 69, 76, 116, 125, 175, 186, 246, 259, 329, 344, 424, 441, 531, 550, 650, 671, 781, 804, 924, 949, 1079, 1106, 1246, 1275, 1425, 1456, 1616, 1649, 1819, 1854, 2034, 2071, 2261, 2300, 2500, 2541, 2751, 2794, 3014, 3059, 3289
a(n) = (3*n*(n+1)+(2*n+1)*(-1)^n-1)/2. - Vincenzo Librandi, Sep 30 2011
[A228205] 11, 15, 24, 41, 80, 141, 249, 440, 869, 1536, 2715, 4799, 9479, 16755, 29616, 52349, 103400, 182769, 323061, 571040, 1127921, 1993704, 3524055, 6229091, 12303731, 21747975, 38441544, 67948961, 134213120, 237234021, 419332929, 741209480, 1464040589
a(n) = 11*a(n-4)-a(n-8).
[A214863] 11, 15, 27, 31, 43, 47, 59, 63, 75, 79, 91, 95, 107, 111, 123, 127, 139, 143, 155, 159, 171, 175, 187, 191, 203, 207, 219, 223, 235, 239, 251, 255, 267, 271, 283, 287, 299, 303, 315, 319, 331, 335, 347, 351, 363
a(n)= 1+8*n-2*(-1)^n.
[A097512] 11, 15, 34, 87, 227, 594, 1555, 4071, 10658, 27903, 73051, 191250, 500699, 1310847, 3431842, 8984679, 23522195, 61581906, 161223523, 422088663, 1105042466, 2893038735, 7574073739, 19829182482, 51913473707, 135911238639
a(n+1)/a(n) approaches the golden ratio phi + 1 = (3+sqrt(5))/2.
a(n) = 3*a(n-1)-a(n-2) with a(0)=11 and a(1)=15. G.f.: (11-18x)/(1-3x+x^2). [Philippe Deléham, Nov 16 2008]
a(n) = (11/2)*[(3/2)+(1/2)*sqrt(5)]^n-(3/10)*[(3/2)+(1/2)*sqrt4(5)]^n*sqrt(5)+(3/10)*[(3/2)-(1/2) *sqrt(5]^n*sqrt(5)+(11/2)*[(3/2)-(1/2)*sqrt(5)]^n, with n>=0. [Paolo P. Lava, Nov 19 2008]
a(n) = 4*Fibonacci(2n+1) + 7*Fibonacci(2n-1) = 4*Lucas(2n) + 3*Fibonacci(2n-1). [Ron Knott, Jul 01 2013]
[A219389] 0, 11, 15, 48, 56, 111, 123, 200, 216, 315, 335, 456, 480, 623, 651, 816, 848, 1035, 1071, 1280, 1320, 1551, 1595, 1848, 1896, 2171, 2223, 2520, 2576, 2895, 2955, 3296, 3360, 3723, 3791, 4176, 4248, 4655, 4731, 5160, 5240, 5691, 5775, 6248, 6336, 6831, 6923
a(n) = a(-n+1) = (26*n*(n-1)+9*(-1)^n*(2*n-1)+1)/8 +1.
[A258588] 1, 11, 16, 22, 27, 33, 38, 44, 49, 55, 60, 66, 71, 77, 82, 88, 93, 99, 104, 110, 115, 121, 126, 132, 137, 143, 148, 154, 159, 165, 170, 176, 181, 187, 192, 198, 203, 209, 214, 220, 225, 231, 236, 242, 247, 253, 258, 264, 269, 275
a(n) = floor(11*n/2) = (22*n + (-1)^n - 1)/4 with n>1, a(1)=1.
a(n) = a(n-1) + a(n-2) - a(n-3) for n>4.
[A128835] 11, 16, 32, 37, 38, 40, 53, 58, 74, 79, 80, 82, 95, 100, 116, 121, 122, 124, 137, 142, 158, 163, 164, 166, 179, 184, 200, 205, 206, 208, 221, 226, 242, 247, 248, 250, 263, 268, 284, 289, 290, 292, 305, 310, 326, 331, 332, 334, 347, 352, 368, 373, 374, 376, 389
a(1)=11, a(2)=16, a(3)=32, a(4)=37, a(5)=38, a(6)=40; n>=7: a(n)=a(n-6)+42.
[A085487] 1, 11, 16, 71, 151, 506, 1261, 3791, 10096, 29051, 79531, 224786, 622441, 1746371, 4858576, 13590431, 37883311, 105835466, 295252021, 824429351, 2300689456, 6422836211, 17926283491, 50040464546, 139671882001, 389874204731, 1088233614736
a(n) = n*sum(k=1..n, (C(k,n-k)*1^(2*k-n)*(5)^(n-k))/k). - Dmitry Kruchinin, May 16 2011
a(n) = a(n-1) + 5a(n-2), n>1.
a(n) = [x^n] ((1 + x + sqrt(1 + 2*x + 21*x^2))/2)^n. - Peter Bala, Jun 23 2015
[A184551] 0, 11, 17, 22, 28, 39, 45, 50, 56, 67, 73, 78, 84, 95, 101, 106, 112, 123, 129, 134, 140, 151, 157, 162, 168, 179, 185, 190, 196, 207, 213, 218, 224, 235, 241, 246, 252, 263, 269, 274, 280, 291, 297
a(n) = +1*a(n-1) +1*a(n-4) -1*a(n-5). (End)
[A128464] 11, 17, 29, 41, 47, 59, 71, 77, 89, 101, 107, 119, 131, 137, 149, 161, 167, 179, 191, 197, 209, 221, 227, 239, 251, 257, 269, 281, 287, 299, 311, 317, 329, 341, 347, 359, 371, 377, 389, 401, 407, 419, 431, 437, 449, 461, 467, 479, 491, 497, 509, 521, 527, 539
a(n) = a(n-1) + a(n-3) - a(n-4) for n>4.
a(n) = 10*n-1+4*sin(2*n*Pi/3)/sqrt(3).
a(3k) = 30k-1, a(3k-1) = 30k-13, a(3k-2) = 30k-19. (End)
[A111255] 11, 17, 29, 41, 67, 73, 89, 97, 107, 127, 151, 157, 181, 191, 271, 307, 337, 347, 389, 409, 439, 461, 491, 499, 547, 701, 709, 733, 757, 769, 821, 877, 911, 929, 971, 1009, 1033, 1063, 1171, 1187, 1249, 1289, 1297, 1307, 1453, 1571, 1597, 1609, 1667, 1697
a(n) = If Prime[n+2]+Prime[n] is prime then Prime[n+2]+Prime[n]
[A271999] 1, 11, 17, 35, 53, 85, 117, 167, 217, 289, 361, 459, 557, 685, 813, 975, 1137, 1337, 1537, 1779, 2021, 2309, 2597, 2935, 3273, 3665, 4057, 4507, 4957, 5469, 5981, 6559, 7137, 7785, 8433, 9155, 9877, 10677, 11477, 12359, 13241, 14209, 15177, 16235, 17293
a(n) = (1/12)*(2*n^3 + 12*n^2 + 28*n - 12) for n>2 and even.
a(n) = (1/12)*(2*n^3 + 12*n^2 + 22*n - 24) for n>2 and odd.
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>8.
[A004769] 11, 19, 27, 35, 43, 51, 59, 67, 75, 83, 91, 99, 107, 115, 123, 131, 139, 147, 155, 163, 171, 179, 187, 195, 203, 211, 219, 227, 235, 243, 251, 259, 267, 275, 283, 291, 299, 307, 315, 323, 331, 339, 347, 355, 363, 371, 379, 387, 395, 403, 411, 419, 427, 435, 443, 451, 459, 467, 475, 483, 491
a(n) = 8*n+11; [From Vincenzo Librandi, Jul 12 2011]
[A271779] 11, 19, 37, 71, 127, 211, 329, 487, 691, 947, 1261, 1639, 2087, 2611, 3217, 3911, 4699, 5587, 6581, 7687, 8911, 10259, 11737, 13351, 15107, 17011, 19069, 21287, 23671, 26227, 28961, 31879, 34987, 38291, 41797, 45511, 49439, 53587, 57961, 62567, 67411, 72499
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3.
[A034844] 11, 19, 41, 61, 89, 101, 109, 149, 181, 191, 199, 401, 409, 419, 449, 461, 491, 499, 601, 619, 641, 661, 691, 809, 811, 881, 911, 919, 941, 991, 1009, 1019, 1049, 1061, 1069, 1091, 1109, 1181, 1409, 1481, 1489, 1499, 1601, 1609, 1619, 1669, 1699, 1801
a(n) » n^1.285. [Charles R Greathouse IV, Feb 20 2012]
[A167535] 11, 19, 41, 149, 181, 251, 449, 491, 499, 641, 811, 1009, 1289, 1361, 1699, 2251, 2549, 4001, 4289, 4441, 4729, 6449, 6481, 6761, 7841, 8419, 9001, 9619, 10891, 11369, 11681, 12149, 12251, 12401, 12601, 12809, 13249, 13691, 13721, 14449, 14489
a(n) = m^2 * 10^k + n^2 for a k-digit square number n^2
[A265802] 1, 11, 19, 59, 145, 389, 1009, 2651, 6931, 18155, 47521, 124421, 325729, 852779, 2232595, 5845019, 15302449, 40062341, 104884561, 274591355, 718889491, 1882077131, 4927341889, 12899948549, 33772503745, 88417562699, 231480184339, 606022990331, 1586588786641
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3) for n>3.
a(n) = (2^(-n)*(-13*(-2)^n + 3*(3-sqrt(5))^(1+n) + 3*(3+sqrt(5))^(1+n)))/5. - Colin Barker, Oct 20 2016
[A199338] 1, 11, 19, 89, 151, 701, 1189, 5519, 9361, 43451, 73699, 342089, 580231, 2693261, 4568149, 21203999, 35964961, 166938731, 283151539, 1314305849, 2229247351, 10347508061, 17550827269, 81465758639, 138177370801, 641378561051, 1087868139139, 5049562729769
a(n+4) = 8*a(n+2) - a(n) with a(1)=1, a(2)=11, a(3)=19, a(4)=89.
[A100038] 11, 20, 33, 50, 71, 96, 125, 158, 195, 236, 281, 330, 383, 440, 501, 566, 635, 708, 785, 866, 951, 1040, 1133, 1230, 1331, 1436, 1545, 1658, 1775, 1896, 2021, 2150, 2283, 2420, 2561, 2706, 2855, 3008, 3165, 3326, 3491, 3660, 3833, 4010, 4191, 4376, 4565
a(n) = 2*n^2 + 3*n + 6 (conjectured). - Ralf Stephan, May 15 2007
[A160843] 0, 1, 11, 20, 35, 52, 75, 100, 131, 164, 203, 244, 291, 340, 395, 452, 515, 580, 651, 724, 803, 884, 971, 1060, 1155, 1252, 1355, 1460, 1571, 1684, 1803, 1924, 2051, 2180, 2315, 2452, 2595, 2740, 2891, 3044, 3203, 3364, 3531, 3700, 3875, 4052, 4235, 4420
a(n) = 2*n^2 + 3 - n mod 2.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4) for n > 5. - Colin Barker, May 24 2015
[A164576] 1, 11, 20, 46, 63, 105, 130, 188, 221, 295, 336, 426, 475, 581, 638, 760, 825, 963, 1036, 1190, 1271, 1441, 1530, 1716, 1813, 2015, 2120, 2338, 2451, 2685, 2806, 3056, 3185, 3451, 3588, 3870, 4015, 4313, 4466, 4780, 4941, 5271, 5440, 5786, 5963, 6325, 6510
a(n) = 1/4*(12*n^2 - 6*n + (-1)^n*(4*n-1) + 1). - Colin Barker, Dec 26 2015
[A017281] 1, 11, 21, 31, 41, 51, 61, 71, 81, 91, 101, 111, 121, 131, 141, 151, 161, 171, 181, 191, 201, 211, 221, 231, 241, 251, 261, 271, 281, 291, 301, 311, 321, 331, 341, 351, 361, 371, 381, 391, 401, 411, 421, 431, 441, 451, 461, 471, 481, 491, 501, 511, 521, 531
a(n) = 20*n - a(n-1) - 8, with a(0)=1. - Vincenzo Librandi, Nov 20 2010
a(n) = 2*a(n-1) - a(n-2), for n > 2. - Wesley Ivan Hurt, Jun 17 2015
[A129638] 11, 21, 40, 77, 148, 286, 552, 1069, 2068, 4010, 7768, 15074, 29225, 56736, 110055, 213705, 414676, 805314, 1562977, 3035514, 5892257, 11443768, 22215753, 43146726, 83766396, 162686691, 315860810, 613439352, 1191054193, 2313133481
a(k+6) = a(k+5) +5*a(k+4) -4*a(k+3) -6*a(k+2) +3*a(k+1) +a(k).

[A164006] 0, 11, 22, 27, 44, 50, 66, 84, 104, 126, 150, 176, 204, 234, 266, 300, 336, 374, 414, 456, 500, 546, 594, 644, 696, 750, 806, 864, 924, 986, 1050, 1116, 1184, 1254, 1326, 1400, 1476, 1554, 1634, 1716, 1800, 1886, 1974, 2064, 2156, 2250, 2346, 2444, 2544, 2646
a(n) = n*(n+5) for n > 4.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 7.
[A008593] 0, 11, 22, 33, 44, 55, 66, 77, 88, 99, 110, 121, 132, 143, 154, 165, 176, 187, 198, 209, 220, 231, 242, 253, 264, 275, 286, 297, 308, 319, 330, 341, 352, 363, 374, 385, 396, 407, 418, 429, 440, 451, 462, 473, 484, 495, 506, 517, 528, 539, 550, 561, 572, 583
a(n) = 11*n.
[A059544] 11, 22, 33, 44, 55, 66, 77, 89, 100, 111, 122, 133, 144, 155, 167, 178, 189, 200, 211, 222, 233, 245, 256, 267, 278, 289, 300, 311, 323, 334, 345, 356, 367, 378, 389, 401, 412, 423, 434, 445, 456, 467, 479, 490, 501, 512, 523, 534, 545, 557, 568, 579, 590
a(n) = floor(n*log(3)/(log(3)-1)). - Michel Marcus, Jan 05 2015
[A026037] 11, 22, 40, 67, 105, 156, 222, 305, 407, 530, 676, 847, 1045, 1272, 1530, 1821, 2147, 2510, 2912, 3355, 3841, 4372, 4950, 5577, 6255, 6986, 7772, 8615, 9517, 10480, 11506, 12597, 13755, 14982, 16280, 17651, 19097, 20620, 22222, 23905, 25671, 27522, 29460, 31487, 33605, 35816, 38122, 40525, 43027
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 20 2012
[A005015] 11, 22, 44, 88, 176, 352, 704, 1408, 2816, 5632, 11264, 22528, 45056, 90112, 180224, 360448, 720896, 1441792, 2883584, 5767168, 11534336, 23068672, 46137344, 92274688, 184549376, 369098752, 738197504, 1476395008, 2952790016, 5905580032, 11811160064
a(n) = 2*a(n-1), n>0; a(0)=11. - Philippe Deléham, Nov 23 2008
[A094620] 0, 11, 22, 141, 242, 1441, 2442, 14441, 24442, 144441, 244442, 1444441, 2444442, 14444441, 24444442, 144444441, 244444442, 1444444441, 2444444442, 14444444441, 24444444442, 144444444441, 244444444442, 1444444444441, 2444444444442, 14444444444441
a(n) = 10^(n/2)*(11/9 + 13*sqrt(10)/18 + (11/9 - 13*sqrt(10)/18)*(-1)^n) + (-1)^n/2 - 53/18.
a(n) = 11*a(n-2) - 10*a(n-4) for n>3.
[A097657] 11, 23, 34, 57, 91, 148, 239, 387, 626, 1013, 1639, 2652, 4291, 6943, 11234, 18177, 29411, 47588, 76999, 124587, 201586, 326173, 527759, 853932, 1381691, 2235623, 3617314, 5852937, 9470251, 15323188, 24793439
a(n) = a(n-1) + a(n-2) for n > 1, a(0) = 11, a(1) = 23.
a(n) = h*Fibonacci(n+k) + Fibonacci(n+k-h) with h=7, k=3. - Bruno Berselli, Feb 20 2017
[A017653] 11, 23, 35, 47, 59, 71, 83, 95, 107, 119, 131, 143, 155, 167, 179, 191, 203, 215, 227, 239, 251, 263, 275, 287, 299, 311, 323, 335, 347, 359, 371, 383, 395, 407, 419, 431, 443, 455, 467, 479, 491, 503, 515, 527, 539, 551, 563, 575, 587, 599, 611, 623, 635
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jun 08 2011
[A101859] 0, 11, 23, 36, 50, 65, 81, 98, 116, 135, 155, 176, 198, 221, 245, 270, 296, 323, 351, 380, 410, 441, 473, 506, 540, 575, 611, 648, 686, 725, 765, 806, 848, 891, 935, 980, 1026, 1073, 1121, 1170, 1220, 1271, 1323, 1376, 1430, 1485, 1541, 1598, 1656, 1715, 1775, 1836
a(n) = C(n,2) - 10*n, n>=21. - Zerinvary Lajos, Nov 26 2006
a(n) = n + a(n-1) + 11 (with a(-1)=0). - Vincenzo Librandi, Nov 16 2010
a(n) = 11n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
a(-1)=0, a(0)=11, a(1)=23, a(n)=3*a(n-1)-3*a(n-2)+a (n-3). - Harvey P. Dale, May 01 2016
[A275591] 1, 11, 23, 37, 53, 71, 91, 113, 137, 163, 191, 221, 253, 287, 323, 361, 401, 443, 487, 533, 581, 631, 683, 737, 793, 851, 911, 973, 1037, 1103, 1171, 1241, 1313, 1387, 1463, 1541, 1621, 1703, 1787, 1873, 1961, 2051, 2143, 2237, 2333, 2431, 2531, 2633, 2737
a(n) = a(-n-9) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Colin Barker, Aug 03 2016
a(n) + a(-n) = (n-1)^2 + (n+1)^2.
[A195043] 0, 1, 11, 23, 44, 67, 99, 133, 176, 221, 275, 331, 396, 463, 539, 617, 704, 793, 891, 991, 1100, 1211, 1331, 1453, 1584, 1717, 1859, 2003, 2156, 2311, 2475, 2641, 2816, 2993, 3179, 3367, 3564, 3763, 3971, 4181, 4400, 4621, 4851, 5083, 5324, 5567
a(n) = 11*n^2/4+7*((-1)^n-1)/8.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: -x*(x^2+9*x+1) / ((x-1)^3*(x+1)). - Colin Barker, Sep 15 2013
[A267437] 11, 23, 67, 151, 275, 487, 963, 2039, 4211, 8327, 16291, 32407, 65363, 131623, 263043, 524087, 1046579, 2095559, 4196707, 8394199, 16778003, 33544039, 67096899, 134226551, 268468211, 536886023, 1073691427, 2147403031, 4294987475, 8590116007, 17180010243
a(n) = 4*a(n-1) - 7*a(n-2) + 8*a(n-3) - 4*a(n-4).
a(n) = 1 + 2^(2+n) + 2*(1/2-(i*sqrt(7))/2)^n + 2*(1/2+(i*sqrt(7))/2)^n where i=sqrt(-1). - Colin Barker, Jul 02 2017
[A060160] 1, 11, 23, 79, 223, 703, 2175, 6911, 22015, 70655, 227327, 733183, 2367487, 7651327, 24739839, 80019455, 258867199, 837550079, 2710044671, 8769241087, 28376563711, 91825897471, 297149661183, 961586135039, 3111737360383, 10069752152063
a(n)= 5*a(n-1) -4*a(n-2) -8*a(n-3) +8*a(n-4). G.f.: x*(1+6*x-28*x^2+16*x^3)/ ((1-x) * (2*x-1) * (4*x^2+2*x-1)). [From R. J. Mathar, Feb 06 2010]
[A106388] 11, 23, 131, 167, 383, 443, 767, 851, 1283, 1391, 1931, 2063, 2711, 2867, 3623, 3803, 4667, 4871, 5843, 6071, 7151, 7403, 8591, 8867, 10163, 10463, 11867, 12191, 13703, 14051, 15671, 16043, 17771, 18167, 20003, 20423, 22367, 22811, 24863, 25331, 27491, 27983
a(1)=11, a(2)=23; if n odd a(n)=a(n-1)+54*(n-1), if n even a(n)=a(n-1)+12*(n-1).
a(n) = (66*n*(n-1)-21*(2*n-1)*(-1)^n+23)/4.
a(n)-a(n-1)-2*a(n-2)+2*a(n-3)+a(n-4)-a(n-5) = 0 for n>5.
[A063307] 1, 11, 24, 36, 48, 60, 72, 82, 96, 106, 120, 132, 144, 152, 168, 178, 192, 202, 216, 224, 240, 248, 264, 274, 288, 294, 312, 320, 336, 344, 360, 366, 384, 390, 408, 416, 432, 436, 456, 462, 480, 486, 504, 508, 528, 532, 552, 558, 576, 578
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A098603] 0, 11, 24, 39, 56, 75, 96, 119, 144, 171, 200, 231, 264, 299, 336, 375, 416, 459, 504, 551, 600, 651, 704, 759, 816, 875, 936, 999, 1064, 1131, 1200, 1271, 1344, 1419, 1496, 1575, 1656, 1739, 1824, 1911, 2000, 2091, 2184, 2279, 2376, 2475, 2576, 2679, 2784
a(n) = (n+5)^2 - 5^2 = n*(n+10), n>=0.
a(n) = 2*n + a(n-1) + 9, (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(0)=0, a(1)=11, a(2)=24, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 26 2014
[A053061] 11, 24, 39, 416, 525, 636, 749, 864, 981, 10100, 11121, 12144, 13169, 14196, 15225, 16256, 17289, 18324, 19361, 20400, 21441, 22484, 23529, 24576, 25625, 26676, 27729, 28784, 29841, 30900, 31961, 321024, 331089, 341156, 351225, 361296
a(n) = n*(10^floor(2*log10(n) + 1) + n). - Henry Bottomley, May 18 2000
[A140675] 0, 11, 25, 42, 62, 85, 111, 140, 172, 207, 245, 286, 330, 377, 427, 480, 536, 595, 657, 722, 790, 861, 935, 1012, 1092, 1175, 1261, 1350, 1442, 1537, 1635, 1736, 1840, 1947, 2057, 2170, 2286, 2405, 2527, 2652, 2780, 2911, 3045, 3182
a(n) = (3*n^2 + 19*n)/2.
a(n) = 3*n + a(n-1) + 8 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A161532] 1, 11, 25, 43, 65, 91, 121, 155, 193, 235, 281, 331, 385, 443, 505, 571, 641, 715, 793, 875, 961, 1051, 1145, 1243, 1345, 1451, 1561, 1675, 1793, 1915, 2041, 2171, 2305, 2443, 2585, 2731, 2881, 3035, 3193, 3355, 3521, 3691, 3865, 4043, 4225, 4411, 4601
a(n) = a(n-1) + 4*n + 6 (with a(0)=1). - Vincenzo Librandi, Nov 30 2010
[A139576] 0, 11, 26, 45, 68, 95, 126, 161, 200, 243, 290, 341, 396, 455, 518, 585, 656, 731, 810, 893, 980, 1071, 1166, 1265, 1368, 1475, 1586, 1701, 1820, 1943, 2070, 2201, 2336, 2475, 2618, 2765, 2916, 3071, 3230, 3393, 3560, 3731, 3906
a(n) = 2*n^2 + 9*n.
a(n) = a(n-1) + 4*n + 7 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
[A238147] 1, 11, 26, 126, 191, 341, 516, 1516, 2081, 2731, 3206, 4706, 5631, 7381, 9256, 19256, 24821, 30471, 33946, 40446, 44171, 48921, 52796, 67796, 76221, 85471, 91846, 109346, 119971, 138721, 158096, 258096, 313661, 369311
a(2n+1) = 11a(n) + 5a(n-1), a(2n+2) = a(n+1) + 15a(n).
[A106839] 11, 27, 43, 59, 75, 91, 107, 123, 139, 155, 171, 187, 203, 219, 235, 251, 267, 283, 299, 315, 331, 347, 363, 379, 395, 411, 427, 443, 459, 475, 491, 507, 523, 539, 555, 571, 587, 603, 619, 635, 651, 667, 683, 699, 715, 731, 747, 763, 779, 795, 811, 827, 843
a(n) = 11+16*n; a(n) = 32*n-a(n-1)+6, a(0)=11. - Vincenzo Librandi, Oct 10 2011
[A140677] 0, 11, 28, 51, 80, 115, 156, 203, 256, 315, 380, 451, 528, 611, 700, 795, 896, 1003, 1116, 1235, 1360, 1491, 1628, 1771, 1920, 2075, 2236, 2403, 2576, 2755, 2940, 3131, 3328, 3531, 3740, 3955, 4176, 4403, 4636, 4875, 5120, 5371, 5628
a(n) = 3*n^2 + 8*n.

a(n) = 6*n + a(n-1) + 5, with a(0)=0. - Vincenzo Librandi, Aug 03 2010
[A264443] 0, 11, 28, 52, 84, 125, 176, 238, 312, 399, 500, 616, 748, 897, 1064, 1250, 1456, 1683, 1932, 2204, 2500, 2821, 3168, 3542, 3944, 4375, 4836, 5328, 5852, 6409, 7000, 7626, 8288, 8987, 9724, 10500, 11316, 12173, 13072, 14014, 15000
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Vincenzo Librandi, Nov 16 2015
[A061086] 11, 28, 327, 464, 5125, 6216, 7343, 8512, 9729, 101000, 111331, 121728, 132197, 142744, 153375, 164096, 174913, 185832, 196859, 208000, 219261, 2210648, 2312167, 2413824, 2515625, 2617576, 2719683, 2821952, 2924389, 3027000, 3129791, 3232768, 3335937
a(n) = n*10^floor(1+log10(n^3)) + n^3, with n>=1. - Paolo P. Lava, Nov 14 2008
[A082108] 1, 11, 29, 55, 89, 131, 181, 239, 305, 379, 461, 551, 649, 755, 869, 991, 1121, 1259, 1405, 1559, 1721, 1891, 2069, 2255, 2449, 2651, 2861, 3079, 3305, 3539, 3781, 4031, 4289, 4555, 4829, 5111, 5401, 5699, 6005, 6319, 6641, 6971, 7309, 7655, 8009, 8371
a(n) = 8*n + a(n-1) + 2. - Vincenzo Librandi, Aug 08 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A088460] 11, 29, 137, 239, 641, 1151, 1931, 2339, 3851, 4091, 5639, 6359, 8231, 9011, 9431, 11351, 12161, 14561, 15731, 17837, 20441, 25931, 26951, 29207, 33767, 37781, 40847, 42407, 44381, 46439, 59471, 60917, 61979, 65171, 67427, 80831, 81929
a(n) == 5 (mod 6).
[A249993] 1, 1, 11, 29, 147, 525, 2227, 8653, 35123, 139469, 559923, 2235597, 8950579, 35785933, 143176499, 572640461, 2290692915, 9162509517, 36650562355, 146601200845, 586406900531, 2345623407821, 9382502019891, 37529991302349, 150119998763827, 600479927946445
a(n) = (2^(3+2*n)+(5*2^(1+n)-3)*(-1)^n)/15. Colin Barker, Dec 28 2014
a(n) = a(n-1) + 10*a(n-2) + 8*a(n-3). - Colin Barker, Dec 28 2014
[A051682] 0, 1, 11, 30, 58, 95, 141, 196, 260, 333, 415, 506, 606, 715, 833, 960, 1096, 1241, 1395, 1558, 1730, 1911, 2101, 2300, 2508, 2725, 2951, 3186, 3430, 3683, 3945, 4216, 4496, 4785, 5083, 5390, 5706, 6031, 6365, 6708, 7060, 7421, 7791, 8170
a(n) = n*(9*n-7)/2.
a(n) = 9*n + a(n-1) - 8 (with a(0)=0). - Vincenzo Librandi, Aug 06 2010
a(0)=0, a(1)=1, a(2)=11, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 07 2012
a(9*a(n)+37*n+1) = a(9*a(n)+37*n) + a(9*n+1). - Vladimir Shevelev, Jan 24 2014
a(n+y) - a(n-y-1) = (a(n+x) - a(n-x-1))*(2*y+1)/(2*x+1), 0<=x<n, y<=x, a(0)=0. - Gionata Neri, May 03 2015
[A062786] 1, 11, 31, 61, 101, 151, 211, 281, 361, 451, 551, 661, 781, 911, 1051, 1201, 1361, 1531, 1711, 1901, 2101, 2311, 2531, 2761, 3001, 3251, 3511, 3781, 4061, 4351, 4651, 4961, 5281, 5611, 5951, 6301, 6661, 7031, 7411, 7801, 8201, 8611, 9031, 9461, 9901
a(n) = 5n(n-1) + 1.
a(n) = 10*n + a(n-1) - 10 (with a(1)=1). - Vincenzo Librandi, Aug 07 2010
[A139634] 1, 11, 31, 71, 151, 311, 631, 1271, 2551, 5111, 10231, 20471, 40951, 81911, 163831, 327671, 655351, 1310711, 2621431, 5242871, 10485751, 20971511, 41943031, 83886071, 167772151, 335544311, 671088631, 1342177271, 2684354551
a(n) = 2*a(n-1) + 9, with n>1, a(1)=1. - Vincenzo Librandi, Nov 24 2010
a(n) = 3*a(n-1) - 2*a(n-2). G.f.: x*(8*x+1) / ((x-1)*(2*x-1)). - Colin Barker, Oct 10 2013
[A124296] 1, 1, 1, 11, 31, 101, 281, 781, 2101, 5611, 14851, 39161, 102961, 270281, 708761, 1857451, 4865911, 12744061, 33372361, 87382901, 228792301, 599019851, 1568309051, 4105974961, 10749725281, 28143378001, 73680695281, 192899171531
a(n) = 5*Fibonacci(n)^2 - 5*Fibonacci(n) + 1.
[A272263] 1, 1, 11, 31, 111, 351, 1151, 3711, 12031, 38911, 125951, 407551, 1318911, 4268031, 13811711, 44695551, 144637951, 468058111, 1514668031, 4901568511, 15861809151, 51329892351, 166107021311, 537533612031, 1739495309311, 5629125066751, 18216231370751
a(n) = (-1+(1-sqrt(5))^n+(1+sqrt(5))^n).
a(n) = 3*a(n-1)+2*a(n-2)-4*a(n-3) for n>2.
[A023279] 11, 31, 211, 1151, 3181, 5051, 5261, 6101, 6661, 9391, 9551, 10501, 11701, 13171, 15901, 16481, 19531, 22051, 24181, 26261, 27031, 28351, 28591, 28661, 29411, 30941, 31321, 32621, 38011, 40471, 42101, 48371, 49921, 57571, 59791, 61981, 66161, 67271
a(n) == 1 (mod 10). - John Cerkan, Sep 16 2016
[A195857] 1, 11, 32, 76, 168, 360, 760, 1592, 3320, 6904, 14328, 29688, 61432, 126968, 262136, 540664, 1114104, 2293752, 4718584, 9699320, 19922936, 40894456, 83886072, 171966456, 352321528, 721420280, 1476395000, 3019898872, 6174015480, 12616466424, 25769803768
a(n) = 2^(n-1)*(n+18)-8.
a(0)=1, a(1)=11, a(2)=32, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3).
[A048773] 1, 11, 32, 84, 209, 511, 1240, 3000, 7249, 17507, 42272, 102060, 246401, 594871, 1436152, 3467184, 8370529, 20208251, 48787040, 117782340, 284351729, 686485807, 1657323352, 4001132520, 9659588401, 23320309331, 56300207072, 135920723484, 328141654049
a(n)=2*a(n-1)+a(n-2)+9; a(0)=1, a(1)=11.
a(n)=[{(10+(11/2)*sqrt(2))(1+sqrt(2))^n - (10-(11/2)*sqrt(2))(1-sqrt(2))^n}/ 2*sqrt(2)]-9/2.
[A056123] 1, 11, 32, 85, 223, 584, 1529, 4003, 10480, 27437, 71831, 188056, 492337, 1288955, 3374528, 8834629, 23129359, 60553448, 158530985, 415039507, 1086587536, 2844723101, 7447581767, 19498022200, 51046484833, 133641432299
a(n)={11*[((3+sqrt(5))/2)^n - ((3-sqrt(5))/2)^n]-[((3+sqrt(5))/2)^(n-1) - ((3-sqrt(5))/2)^(n-1)]}/sqrt(5).
[A152740] 0, 11, 33, 66, 110, 165, 231, 308, 396, 495, 605, 726, 858, 1001, 1155, 1320, 1496, 1683, 1881, 2090, 2310, 2541, 2783, 3036, 3300, 3575, 3861, 4158, 4466, 4785, 5115, 5456, 5808, 6171, 6545, 6930, 7326, 7733, 8151, 8580, 9020, 9471, 9933, 10406, 10890
a(n) = a(n-1)+11*n with n>0, a(0)=0. - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2, a(0)=0, a(1)=11, a(2)=33.
a(n) = Sum_{i=5n..6n} i. - Wesley Ivan Hurt, Dec 22 2015
[A080859] 1, 11, 33, 67, 113, 171, 241, 323, 417, 523, 641, 771, 913, 1067, 1233, 1411, 1601, 1803, 2017, 2243, 2481, 2731, 2993, 3267, 3553, 3851, 4161, 4483, 4817, 5163, 5521, 5891, 6273, 6667, 7073, 7491, 7921, 8363, 8817, 9283, 9761, 10251, 10753, 11267
a(n) = C(4,0) + C(4,1)n + C(4,2)n^2.
a(n) = 12*n + a(n-1) - 2 with n > 0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
a(n) = (n+1)^4 mod n^3 for n >= 7. - J. M. Bergot, Aug 14 2017
[A163673] 0, 11, 33, 72, 134, 225, 351, 518, 732, 999, 1325, 1716, 2178, 2717, 3339, 4050, 4856, 5763, 6777, 7904, 9150, 10521, 12023, 13662, 15444, 17375, 19461, 21708, 24122, 26709, 29475, 32426, 35568, 38907, 42449, 46200, 50166
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A120354] 11, 33, 99, 297, 891, 2673, 8019, 24057, 72171, 216513, 649539, 1948617, 5845851, 17537553, 52612659, 157837977, 473513931, 1420541793, 4261625379, 12784876137, 38354628411, 115063885233, 345191655699, 1035574967097, 3106724901291, 9320174703873
a(n) = 3*a(n-1), n>0 ; a(0)=11. G.f.: 11/(1-3*x). [Philippe Deléham, Nov 23 2008]
[A211014] 0, 11, 34, 69, 116, 175, 246, 329, 424, 531, 650, 781, 924, 1079, 1246, 1425, 1616, 1819, 2034, 2261, 2500, 2751, 3014, 3289, 3576, 3875, 4186, 4509, 4844, 5191, 5550, 5921, 6304, 6699, 7106, 7525, 7956, 8399, 8854, 9321, 9800, 10291, 10794
a(n) = -2*Sum_{k=0..n-1} binomial(6*n+5, 6*k+8)*bernoulli(6*k+8)). - Michel Marcus, Jan 11 2016
[A041539] 1, 1, 11, 34, 113, 260, 893, 2939, 30283, 33222, 1093387, 1126609, 12359477, 38205040, 126974597, 292154234, 1003437299, 3302466131, 34028098609, 37330564740, 1228606170289, 1265936735029, 13887973520579, 42929857296766, 142677545410877, 328284948118520
a(n) = 1123670*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 19 2013
[A118554] 0, 11, 35, 56, 104, 147, 204, 336, 455, 731, 980, 1311, 2079, 2772, 4380, 5831, 7760, 12236, 16275, 25647, 34104, 45347, 71435, 94976, 149600, 198891, 264420, 416472, 553679, 872051, 1159340, 1541271, 2427495, 3227196, 5082804, 6757247, 8983304
a(0)=0, a(1)=11, a(2)=35, a(3)=56, a(4)=104, a(5)=147, a(6)=204, a(7)=336, a(8)=455, a(9)=731, a(10)=980, a(n)=a(n-1)+6*a(n-5)-6*a(n-6)- a(n-10)+a(n-11). [From Harvey P. Dale, Aug 19 2011]
[A003777] 1, 11, 35, 79, 149, 251, 391, 575, 809, 1099, 1451, 1871, 2365, 2939, 3599, 4351, 5201, 6155, 7219, 8399, 9701, 11131, 12695, 14399, 16249, 18251, 20411, 22735, 25229, 27899, 30751, 33791, 37025, 40459, 44099, 47951, 52021, 56315, 60839, 65599, 70601, 75851
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 4. - Wesley Ivan Hurt, Oct 08 2017

[A093500] 11, 36, 76, 131, 201, 286, 386, 501, 631, 776, 936, 1111, 1301, 1506, 1726, 1961, 2211, 2476, 2756, 3051, 3361, 3686, 4026, 4381, 4751, 5136, 5536, 5951, 6381, 6826, 7286, 7761, 8251, 8756, 9276, 9811, 10361, 10926, 11506, 12101, 12711, 13336, 13976
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(11+3*x+x^2)/(1-x)^3. - Colin Barker, Apr 30 2012
[A081438] 1, 11, 36, 82, 155, 261, 406, 596, 837, 1135, 1496, 1926, 2431, 3017, 3690, 4456, 5321, 6291, 7372, 8570, 9891, 11341, 12926, 14652, 16525, 18551, 20736, 23086, 25607, 28305, 31186, 34256, 37521, 40987, 44660, 48546, 52651, 56981, 61542, 66340
a(n) = (2*n^3+9*n^2+9*n+2)/2.
a(n) = (n+1)*(2*n^2+7*n+2)/2.
a(n) -4*a(n-1) +6*a(n-2) -4*a(n-3) +a(n-4) = 0, with n>3. (End)
[A191296] 11, 36, 140, 540, 2108, 8316, 33020, 131580, 525308, 2099196, 8392700, 33562620, 134234108, 536903676, 2147549180, 8590065660, 34360000508, 137439477756, 549756862460, 2199025352700, 8796097216508, 35184380477436, 140737505132540, 562949986975740, 2251799880794108, 9007199388958716, 36028797287399420
a(n) = 2*(2^(n-1) + 2)*(2^(n-1) - 1) for n>=3. - Nathaniel Johnston, May 30 2011
a(0)=11, a(1)=36, a(2)=140, a(3)=540, a(n)=7*a(n-1)-14*a(n-2)+8*a(n-3). - Harvey P. Dale, Jun 10 2011
[A188135] 1, 11, 37, 79, 137, 211, 301, 407, 529, 667, 821, 991, 1177, 1379, 1597, 1831, 2081, 2347, 2629, 2927, 3241, 3571, 3917, 4279, 4657, 5051, 5461, 5887, 6329, 6787, 7261, 7751, 8257, 8779, 9317, 9871, 10441, 11027, 11629, 12247, 12881
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A217947] 11, 37, 87, 172, 305, 501, 777, 1152, 1647, 2285, 3091, 4092, 5317, 6797, 8565, 10656, 13107, 15957, 19247, 23020, 27321, 32197, 37697, 43872, 50775, 58461, 66987, 76412, 86797, 98205, 110701, 124352, 139227, 155397, 172935, 191916, 212417, 234517, 258297, 283840, 311231
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) n>4. - Vincenzo Librandi, Dec 12 2014
[A139276] 0, 11, 38, 81, 140, 215, 306, 413, 536, 675, 830, 1001, 1188, 1391, 1610, 1845, 2096, 2363, 2646, 2945, 3260, 3591, 3938, 4301, 4680, 5075, 5486, 5913, 6356, 6815, 7290, 7781, 8288, 8811, 9350, 9905, 10476, 11063, 11666, 12285, 12920
a(n) = 8*n^2 + 3*n.
a(n) = 16*n+a(n-1)-5 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A007585] 0, 1, 11, 38, 90, 175, 301, 476, 708, 1005, 1375, 1826, 2366, 3003, 3745, 4600, 5576, 6681, 7923, 9310, 10850, 12551, 14421, 16468, 18700, 21125, 23751, 26586, 29638, 32915, 36425, 40176, 44176, 48433, 52955, 57750
a(n) = (8*n-5)*binomial(n+1, 2)/3.
a(n) = (8*n^3+3*n^2-5*n)/6. - Vincenzo Librandi, Aug 01 2010
a(0)=0, a(1)=1, a(2)=11, a(3)=38, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Dec 20 2011
a(n) = a(n-1) + n*(4*n-3).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 8.
a(n) = binomial(n+2,3) + 7*binomial(n+1,3).
[A024202] 1, 11, 38, 96, 205, 385, 662, 1068, 1635, 2401, 3410, 4706, 6339, 8365, 10840, 13826, 17391, 21603, 26536, 32270, 38885, 46467, 55108, 64900, 75941, 88335, 102186, 117604, 134705, 153605, 174426, 197296, 222343, 249701, 279510, 311910, 347047, 385073
a(n) = (n^4+4*n^3+4*n^2+n-4)/6 if n == 1 (mod 3).
[A213775] 1, 11, 38, 97, 213, 432, 833, 1555, 2838, 5097, 9045, 15904, 27761, 48171, 83174, 143009, 244997, 418384, 712465, 1210195, 2050966, 3468681, 5855333, 9867072, 16600993, 27889547, 46790438, 78401185, 131212533, 219355632
a(n) = 4*a(n-1) - 4*a(n-2) - 2*a(n-3) + 4*a(n-4) - a(n-6).
[A045801] 11, 39, 73, 77, 111, 139, 173, 177, 211, 239, 273, 277, 311, 339, 373, 377, 411, 439, 473, 477, 511, 539, 573, 577, 611, 639, 673, 677, 711, 739, 773, 777, 811, 839, 873, 877, 911, 939, 973, 977, 1011, 1039, 1073, 1077, 1111, 1139, 1173, 1177, 1211, 1239
a(n) = (50*n-12*i^(n*(n-1))-9*(-1)^n-25)/2, where i=sqrt(-1). - Bruno Berselli, Feb 23 2012
[A162261] 0, 11, 39, 90, 170, 285, 441, 644, 900, 1215, 1595, 2046, 2574, 3185, 3885, 4680, 5576, 6579, 7695, 8930, 10290, 11781, 13409, 15180, 17100, 19175, 21411, 23814, 26390, 29145, 32085, 35216, 38544, 42075, 45815, 49770, 53946, 58349, 62985, 67860
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 04 2012
[A004188] 0, 1, 11, 39, 94, 185, 321, 511, 764, 1089, 1495, 1991, 2586, 3289, 4109, 5055, 6136, 7361, 8739, 10279, 11990, 13881, 15961, 18239, 20724, 23425, 26351, 29511, 32914, 36569, 40485, 44671, 49136, 53889, 58939, 64295, 69966, 75961
a(n) = C(2*n+1,3) + C(n+1,3), n >= 0. - Zerinvary Lajos, Jan 21 2007
[A147296] 0, 11, 40, 87, 152, 235, 336, 455, 592, 747, 920, 1111, 1320, 1547, 1792, 2055, 2336, 2635, 2952, 3287, 3640, 4011, 4400, 4807, 5232, 5675, 6136, 6615, 7112, 7627, 8160, 8711, 9280, 9867, 10472, 11095, 11736, 12395, 13072, 13767, 14480, 15211, 15960
a(n) = n*(9*n + 2), as conjectured by V. Librandi. - From M. F. Hasler, Mar 01 2009
a(n) = floor((3*n + 1/3)^2). - Reinhard Zumkeller, Apr 14 2010
[A192820] 11, 41, 59, 97, 149, 151, 227, 229, 233, 239, 263, 307, 367, 373, 401, 409, 569, 571, 587, 593, 599, 641, 643, 647, 653, 719, 751, 821, 937, 941, 1009, 1019, 1021, 1031, 1049, 1051, 1061, 1063, 1217, 1367, 1373, 1423, 1427, 1439, 1481, 1487, 1549, 1553, 1559
a(n) < p(8n) for n >= 5315 (Paksoy 2012).
[A128467] 11, 41, 71, 101, 131, 161, 191, 221, 251, 281, 311, 341, 371, 401, 431, 461, 491, 521, 551, 581, 611, 641, 671, 701, 731, 761, 791, 821, 851, 881, 911, 941, 971, 1001, 1031, 1061, 1091, 1121, 1151, 1181, 1211, 1241, 1271, 1301, 1331, 1361, 1391, 1421, 1451
a(n) = 30*n + 11. (End)
[A158187] 1, 11, 41, 91, 161, 251, 361, 491, 641, 811, 1001, 1211, 1441, 1691, 1961, 2251, 2561, 2891, 3241, 3611, 4001, 4411, 4841, 5291, 5761, 6251, 6761, 7291, 7841, 8411, 9001, 9611, 10241, 10891, 11561, 12251, 12961, 13691, 14441, 15211, 16001, 16811, 17641
a(n) = a(-n) = 3*a(n-1) -3*a(n-2) +a(n-3). (End)
[A027086] 11, 41, 108, 246, 517, 1035, 2010, 3828, 7199, 13429, 24920, 46090, 85065, 156791, 288758, 531528, 978099, 1799521, 3310404, 6089406, 11200845, 20602307, 37894354, 69699452, 128198215, 235794285, 433694384, 797689490, 1467180945, 2698567791, 4963441390
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3)-a(n-4)+2*a(n-5)-a(n-6) for n>9.
[A156733] 1, 1, 11, 41, 176, 606, 2391, 8091, 28636, 95056, 316048, 1014240, 3237325, 10082015, 31109500, 94352346, 283209381, 838650191, 2458835711, 7127912979, 20471486368, 58224189612, 164181018330, 458982667630, 1273039111210, 3503609456548, 9572771822745, 25971150308985
a(n) = (1/n)*Sum_{k=1..n} sigma_2(k^2)*a(n-k) for n>0, with a(0) = 1.
[A055437] 11, 42, 93, 164, 255, 366, 497, 648, 819, 1010, 1221, 1452, 1703, 1974, 2265, 2576, 2907, 3258, 3629, 4020, 4431, 4862, 5313, 5784, 6275, 6786, 7317, 7868, 8439, 9030, 9641, 10272, 10923, 11594, 12285, 12996, 13727, 14478, 15249, 16040, 16851, 17682, 18533
a(n) = Sum_{i=0..2*n} (-1)^i*(2*n+i)^2.
a(n) = Sum_{i=1..2*n} (-1)^i*(4*n+i)^2. (End)
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3.
a(n) = (1/5) * Sum_{i=0..10*n} i. (End)
[A055436] 11, 42, 93, 164, 255, 366, 497, 648, 819, 10010, 12111, 14412, 16913, 19614, 22515, 25616, 28917, 32418, 36119, 40020, 44121, 48422, 52923, 57624, 62525, 67626, 72927, 78428, 84129, 90030, 96131, 102432, 108933, 115634, 122535, 129636
a(n) = n^2*floor(log10(n) + 1) + n.
[A213772] 1, 11, 42, 106, 215, 381, 616, 932, 1341, 1855, 2486, 3246, 4147, 5201, 6420, 7816, 9401, 11187, 13186, 15410, 17871, 20581, 23552, 26796, 30325, 34151, 38286, 42742, 47531, 52665, 58156, 64016, 70257, 76891
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A022279] 0, 11, 43, 96, 170, 265, 381, 518, 676, 855, 1055, 1276, 1518, 1781, 2065, 2370, 2696, 3043, 3411, 3800, 4210, 4641, 5093, 5566, 6060, 6575, 7111, 7668, 8246, 8845, 9465, 10106, 10768, 11451, 12155
a(n) = 21*n + a(n-1) - 10 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(0)=0, a(1)=11, a(2)=43; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 06 2014
[A213763] 1, 11, 43, 127, 331, 807, 1891, 4319, 9691, 21463, 47059, 102351, 221131, 475079, 1015747, 2162623, 4587451, 9699255, 20447155, 42991535, 90177451, 188743591, 394264483, 822083487, 1711275931, 3556769687, 7381974931
a(n) = -1 + 2^n - 4*n + n*2^(n+1).

a(n) = 6*a(n-1) - 13*a(n-2) + 12*a(n-3) - 4*a(n-4).
[A033584] 0, 11, 44, 99, 176, 275, 396, 539, 704, 891, 1100, 1331, 1584, 1859, 2156, 2475, 2816, 3179, 3564, 3971, 4400, 4851, 5324, 5819, 6336, 6875, 7436, 8019, 8624, 9251, 9900, 10571, 11264, 11979, 12716
a(n)=22*n+a(n-1)-11 (with a(0)=0) - Vincenzo Librandi, Aug 05 2010
[A111080] 11, 44, 110, 220, 385, 616, 924, 1320, 1815, 2420, 3146, 4004, 5005, 6160, 7480, 8976, 10659, 12540, 14630, 16940, 19481, 22264, 25300, 28600, 32175, 36036, 40194, 44660, 49445, 54560, 60016, 65824, 71995, 78540, 85470, 92796, 100529, 108680, 117260
a(n) = 11n(n^2 + 3n + 2)/6. - Charles R Greathouse IV, Jun 22 2013
a(n) = (11*(1+n)*(2+n)*(3+n))/6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
[A022816] 1, 11, 44, 121, 271, 532, 952, 1590, 2517, 3817, 5588, 7943, 11011, 14938, 19888, 26044, 33609, 42807, 53884, 67109, 82775, 101200, 122728, 147730, 176605, 209781, 247716, 290899, 339851, 395126, 457312, 527032, 604945, 691747
a(n) = n*(n+1)*(n^3+24*n^2+81*n-46)/120. G.f.: x*(1+5*x-7*x^2+2*x^3)/(x-1)^6. - R. J. Mathar, Sep 15 2009
[A042521] 1, 11, 45, 56, 101, 258, 875, 1133, 15604, 47945, 63549, 175043, 3214323, 6603689, 9818012, 36057725, 478568437, 514626162, 2022446923, 4559520008, 6581966931, 11141486939, 51147914687, 573768548496, 32182186630463, 354577821483589
a(n) = 32233334545150*a(n-24) - a(n-48) for n>47. - Vincenzo Librandi, Jan 23 2014
[A022280] 0, 11, 45, 102, 182, 285, 411, 560, 732, 927, 1145, 1386, 1650, 1937, 2247, 2580, 2936, 3315, 3717, 4142, 4590, 5061, 5555, 6072, 6612, 7175, 7761, 8370, 9002, 9657, 10335, 11036, 11760, 12507, 13277
a(n) = 23*n + a(n-1) - 12 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A154106] 11, 45, 103, 185, 291, 421, 575, 753, 955, 1181, 1431, 1705, 2003, 2325, 2671, 3041, 3435, 3853, 4295, 4761, 5251, 5765, 6303, 6865, 7451, 8061, 8695, 9353, 10035, 10741, 11471, 12225, 13003, 13805, 14631, 15481, 16355, 17253, 18175, 19121
a(0) = 11; for n > 0, a(n) = a(n-1) + 24*n + 10.
[A051740] 1, 11, 45, 125, 280, 546, 966, 1590, 2475, 3685, 5291, 7371, 10010, 13300, 17340, 22236, 28101, 35055, 43225, 52745, 63756, 76406, 90850, 107250, 125775, 146601, 169911, 195895, 224750, 256680, 291896, 330616, 373065, 419475, 470085, 525141
a(n) = C(n+3, 3)*(7n+4)/4.
a(n) = (7*n+4)*binomial(n+3, 3)/4.
[A081587] 1, 11, 46, 106, 191, 301, 436, 596, 781, 991, 1226, 1486, 1771, 2081, 2416, 2776, 3161, 3571, 4006, 4466, 4951, 5461, 5996, 6556, 7141, 7751, 8386, 9046, 9731, 10441, 11176, 11936, 12721, 13531, 14366, 15226, 16111, 17021, 17956, 18916, 19901
a(n)=(2-5n+25n^2)/2. G.f. (1+4x)^2/(1-x)^3.
a(n)=25*n+a(n-1)-15 (with a(0)=1). - Vincenzo Librandi, Aug 08 2010
[A006324] 1, 11, 46, 130, 295, 581, 1036, 1716, 2685, 4015, 5786, 8086, 11011, 14665, 19160, 24616, 31161, 38931, 48070, 58730, 71071, 85261, 101476, 119900, 140725, 164151, 190386, 219646, 252155, 288145, 327856, 371536, 419441, 471835, 528990, 591186
a(n) = 8*C(n + 2, 4) + C(n + 1, 2).
[A158463] 1, 11, 47, 107, 191, 299, 431, 587, 767, 971, 1199, 1451, 1727, 2027, 2351, 2699, 3071, 3467, 3887, 4331, 4799, 5291, 5807, 6347, 6911, 7499, 8111, 8747, 9407, 10091, 10799, 11531, 12287, 13067, 13871, 14699, 15551, 16427, 17327, 18251, 19199
a(-n) = a(n).
[A267614] 1, 1, 11, 47, 191, 767, 3071, 12287, 49151, 196607, 786431, 3145727, 12582911, 50331647, 201326591, 805306367, 3221225471, 12884901887, 51539607551, 206158430207, 824633720831, 3298534883327, 13194139533311, 52776558133247, 211106232532991, 844424930131967
a(n) = 5*a(n-1)-4*a(n-2) for n>3.
a(n) = 3*4^(n-1)-1 for n>1. - Colin Barker, Nov 25 2016
[A117066] 1, 11, 48, 140, 325, 651, 1176, 1968, 3105, 4675, 6776, 9516, 13013, 17395, 22800, 29376, 37281, 46683, 57760, 70700, 85701, 102971, 122728, 145200, 170625, 199251, 231336, 267148, 306965, 351075, 399776, 453376, 512193, 576555, 646800, 723276, 806341
a(n) = Sum_{i=1..n} (1/3)*(i+1)*(5*i^2+7*i+3).
a(n) = n^2*(n+1)*(5*n+1)/12. - Vaclav Kotesovec, Jan 03 2017
[A042984] 1, 11, 48, 140, 326, 657, 1197, 2024, 3231, 4927, 7238, 10308, 14300, 19397, 25803, 33744, 43469, 55251, 69388, 86204, 106050, 129305, 156377, 187704, 223755, 265031, 312066, 365428, 425720, 493581, 569687, 654752, 749529, 854811, 971432
a(n) = (n+1)*(n+4)*(n^3+40*n^2+61*n+30)/120. - Robert Israel, Jul 06 2016
[A241406] 11, 50, 72, 111, 133, 172, 194, 233, 255, 294, 316, 355, 377, 416, 438, 477, 499, 538, 560, 599, 621, 660, 682, 721, 743, 782, 804, 843, 865, 904, 926, 965, 987, 1026, 1048, 1087, 1109, 1148, 1170, 1209, 1231, 1270, 1292, 1331, 1353, 1392, 1414, 1453, 1475, 1514
a(n) = a(n-1) + a(n-2) - a(n-3) for n>2.
a(n) = a(n-2) + 61 for all n>2.
a(n) = -11*(-1)^n + 61*floor(n/2).
[A212560] 0, 1, 11, 50, 150, 355, 721, 1316, 2220, 3525, 5335, 7766, 10946, 15015, 20125, 26440, 34136, 43401, 54435, 67450, 82670, 100331, 120681, 143980, 170500, 200525, 234351, 272286, 314650, 361775, 414005, 471696, 535216, 604945, 681275
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
a(n) = (n + 2*n^3 + 3*n^4)/6. - Clark Kimberling, Jul 10 2012
[A185505] 1, 11, 51, 156, 375, 771, 1421, 2416, 3861, 5875, 8591, 12156, 16731, 22491, 29625, 38336, 48841, 61371, 76171, 93500, 113631, 136851, 163461, 193776, 228125, 266851, 310311, 358876, 412931, 472875, 539121, 612096, 692241, 780011, 875875, 980316, 1093831, 1216931, 1350141, 1494000, 1649061, 1815891, 1995071, 2187196, 2392875, 2612731, 2847401, 3097536, 3363801, 3646875, 3947451, 4266236, 4603951, 4961331, 5339125, 5738096, 6159021, 6602691, 7069911, 7561500
a(n) = (7*n^4 + 5*n^2)/12.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 5.
[A051843] 0, 1, 11, 51, 161, 406, 882, 1722, 3102, 5247, 8437, 13013, 19383, 28028, 39508, 54468, 73644, 97869, 128079, 165319, 210749, 265650, 331430, 409630, 501930, 610155, 736281, 882441, 1050931, 1244216, 1464936, 1715912, 2000152, 2320857, 2681427
a(n) = C(n+3,4) * (6*n-1)/5
a(n) = n*(n+1)*(n+2)*(n+3)*(6n-1)/120. - Derek I. Thomas (dithom02(AT)louisville.edu), Jun 30 2007
[A107464] 11, 51, 175, 527, 1471, 3903, 9983, 24831, 60415, 144383, 339967, 790527, 1818623, 4145151, 9371647, 21037055, 46923775, 104071167, 229638143, 504365055, 1103101951, 2403336191, 5217714175, 11291066367, 24360517631, 52412022783, 112474456063, 240786604031
a(n) = 2^(n+1)*(n^2 + 6n + 6) - 1.
[A027942] 1, 11, 51, 176, 530, 1490, 4043, 10773, 28445, 74770, 196116, 513876, 1345861, 3524111, 9226935, 24157220, 63245318, 165579398, 433493615, 1134902265, 2971214081, 7778740966, 20365009896, 53316289896, 139583861065, 365435294675, 956722024443, 2504730780248
a(n) = Fibonacci(2*n+5) - 2*n^2 - 5*n - 5.
[A213840] 1, 11, 54, 170, 415, 861, 1596, 2724, 4365, 6655, 9746, 13806, 19019, 25585, 33720, 43656, 55641, 69939, 86830, 106610, 129591, 156101, 186484, 221100, 260325, 304551, 354186, 409654, 471395, 539865, 615536, 698896, 790449, 890715, 1000230, 1119546, 1249231
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A153449] 0, 11, 55, 132, 242, 385, 561, 770, 1012, 1287, 1595, 1936, 2310, 2717, 3157, 3630, 4136, 4675, 5247, 5852, 6490, 7161, 7865, 8602, 9372, 10175, 11011, 11880, 12782, 13717, 14685, 15686, 16720, 17787, 18887, 20020, 21186, 22385
a(n) = 33*n + a(n-1) - 22 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A072025] 1, 11, 55, 181, 461, 991, 1891, 3305, 5401, 8371, 12431, 17821, 24805, 33671, 44731, 58321, 74801, 94555, 117991, 145541, 177661, 214831, 257555, 306361, 361801, 424451, 494911, 573805, 661781, 759511, 867691, 987041, 1118305, 1262251, 1419671, 1591381
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4.
[A098992] 0, 0, 1, 11, 55, 190, 526, 1254, 2682, 5280, 9735, 17017, 28457, 45838, 71500, 108460, 160548, 232560, 330429, 461415, 634315, 859694, 1150138, 1520530, 1988350, 2574000, 3301155, 4197141, 5293341, 6625630, 8234840, 10167256, 12475144, 15217312, 18459705

a(n) = (n*(-540 + 476*n + 469*n^2 - 490*n^3 + 70*n^4 + 14*n^5 + n^6)) / 5040.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>8.
[A079547] 0, 1, 11, 56, 192, 517, 1183, 2408, 4488, 7809, 12859, 20240, 30680, 45045, 64351, 89776, 122672, 164577, 217227, 282568, 362768, 460229, 577599, 717784, 883960, 1079585, 1308411
a(n+1) = Sum_{i=1..n} (i^2 + i^4)/2 = n*(2*n+1)*(n+1)*(3*n^2+3*n+4)/60. - Vladeta Jovovic, Mar 17 2006
a(n) = Sum_{i=1..n-1} Sum_{j=1..n-1} min(i,j)^3. - Enrique Pérez Herrero, Jan 16 2013
[A051946] 1, 11, 56, 196, 546, 1302, 2772, 5412, 9867, 17017, 28028, 44408, 68068, 101388, 147288, 209304, 291669, 399399, 538384, 715484, 938630, 1216930, 1560780, 1981980, 2493855, 3111381, 3851316, 4732336, 5775176, 7002776, 8440432
a(n) = C(n+5,5)*(5*n+6)/6.
a(n) = (n+1)*(n+2)*(n+3)*(n+4)*(n+5)*(5*n+6)/720. - Emeric Deutsch, Jun 18 2005
[A211614] 0, 1, 11, 57, 160, 344, 633, 1051, 1622, 2370, 3319, 4493, 5916, 7612, 9605, 11919, 14578, 17606, 21027, 24865, 29144, 33888, 39121, 44867, 51150, 57994, 65423, 73461, 82132, 91460, 101469, 112183, 123626, 135822, 148795, 162569, 177168, 192616, 208937
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>5.
a(n) = (8*n^3 - 15*n^2 + 15*n - 12)/2 for n>1.
[A244497] 1, 11, 57, 197, 533, 1223, 2494, 4654, 8105, 13355, 21031, 31891, 46837, 66927, 93388, 127628, 171249, 226059, 294085, 377585, 479061, 601271, 747242, 920282, 1123993, 1362283, 1639379, 1959839, 2328565, 2750815, 3232216, 3778776, 4396897, 5093387, 5875473, 6750813, 7727509, 8814119
a(n) = (3*(63+(-1)^n) + 576*n + 720*n^2 + 460*n^3 + 150*n^4 + 20*n^5) / 192.
a(n) = 5*a(n-1) - 9*a(n-2) + 5*a(n-3) + 5*a(n-4) - 9*a(n-5) + 5*a(n-6) - a(n-7) for n>6.
[A187693] 0, 0, 1, 11, 57, 229, 815, 2715, 8701, 27233, 83979, 256519, 778745, 2354637, 7100743, 21375923, 64275189, 193120441, 579951107, 1741032927, 5225458033, 15681092645, 47052715071, 141177019531, 423568807277, 1270781919249, 3812496752635, 11437792247735, 34313980722921, 102943150128253, 308831866303799, 926500430749539
a(n) = n + (7 + 3^(n+1) - 9*2^n)/2, n>0. - R. J. Mathar, Mar 18 2011
[A290360] 0, 1, 11, 58, 206, 571, 1337, 2772, 5244, 9237, 15367, 24398, 37258, 55055, 79093, 110888, 152184, 204969, 271491, 354274, 456134, 580195, 729905, 909052, 1121780, 1372605, 1666431, 2008566, 2404738, 2861111, 3384301, 3981392, 4659952, 5428049, 6294267
a(n) = (4*n^5+5*n^4+10*n^3+10*n^2+n)/30.
[A253207] 11, 59, 359, 1799, 7091, 22995, 64143, 159093, 359348, 752180, 1478204, 2754752, 4906202, 8402522, 13907394, 22337388, 34933761, 53348561, 79746821, 116926733, 168459797, 238853045, 333735545, 460071495, 626402322, 843120306, 1122776354
a(n) = n!*(1/(384*(n-8)!)+1/(24*(n-7)!)+13/(72*(n-6)!)+1/(5*(n-5)!)+1/(8*(n-4)!)+1/(3*(n-3)!)) for n>=8.
[A050483] 1, 11, 60, 228, 690, 1782, 4092, 8580, 16731, 30745, 53768, 90168, 145860, 228684, 348840, 519384, 756789, 1081575, 1519012, 2099900, 2861430, 3848130, 5112900, 6718140, 8736975, 11254581, 14369616, 18195760, 22863368, 28521240, 35338512
a(n)=C(n+6, 6)*(4n+7)/7.
[A222408] 1, 11, 61, 211, 551, 1201, 2311, 4061, 6661, 10351, 15401, 22111, 30811, 41861, 55651, 72601, 93161, 117811, 147061, 181451, 221551, 267961, 321311, 382261, 451501, 529751, 617761, 716311, 826211, 948301, 1083451
a(n) = (4+10*n+15*n^2+10*n^3+5*n^4)/4. G.f.: -(x^4+6*x^3+16*x^2+6*x+1) / (x-1)^5. [Colin Barker, Mar 08 2013]
[A001847] 1, 11, 61, 231, 681, 1683, 3653, 7183, 13073, 22363, 36365, 56695, 85305, 124515, 177045, 246047, 335137, 448427, 590557, 766727, 982729, 1244979, 1560549, 1937199, 2383409, 2908411, 3522221, 4235671, 5060441, 6009091, 7095093, 8332863, 9737793, 11326283
a(n) = (4*n^5+10*n^4+40*n^3+50*n^2+46*n+15)/15. - S. Bujnowski B. Dubalski (slawb(AT)atr.bydgoszcz.pl), Mar 07 2002
a(n) = sum(k=0..min(5,n), 2^k * binomial(5,k)* binomial(n,k)). See Bump et al. - Tom Copeland, Sep 05 2014
[A115565] 11, 61, 281, 911, 2311, 4961, 9461, 16531, 27011, 41861, 62161, 89111, 124031, 168361, 223661, 291611, 374011, 472781, 589961, 727711, 888311, 1074161, 1287781, 1531811, 1809011, 2122261, 2474561, 2869031, 3308911, 3797561, 4338461, 4935211, 5591531
a(1-n) = a(n) = 5*(n^2-n)^2 +15*(n^2-n) +11. - Michael Somos, May 15 2006
a(1)=11, a(2)=61, a(3)=281, a(4)=911, a(5)=2311, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Oct 03 2011
[A191596] 1, 11, 62, 242, 743, 1925, 4396, 9108, 17469, 31471, 53834, 88166, 139139, 212681, 316184, 458728, 651321, 907155, 1241878, 1673882, 2224607, 2918861, 3785156, 4856060, 6168565, 7764471, 9690786, 12000142, 14751227, 18009233, 21846320
a(n) = (n+1)*(n+2)*(2*n^4+12*n^3+40*n^2+66*n+45)/90.
a(n) = a(-n-3) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7).
[A054333] 1, 11, 65, 275, 935, 2717, 7007, 16445, 35750, 72930, 140998, 260338, 461890, 791350, 1314610, 2124694, 3350479, 5167525, 7811375, 11593725, 16921905, 24322155, 34467225, 48208875, 66615900, 91018356, 123058716, 164750740
a(n) = 2*C(n+9, 9) - C(n+8, 8). - Paul Barry, Mar 04 2003
a(n) = C(n+8,8) + 2*C(n+8,9). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
[A154617] 0, 11, 66, 165, 308, 495, 726, 1001, 1320, 1683, 2090, 2541, 3036, 3575, 4158, 4785, 5456, 6171, 6930, 7733, 8580, 9471, 10406, 11385, 12408, 13475, 14586, 15741, 16940, 18183, 19470, 20801, 22176, 23595, 25058, 26565, 28116, 29711
a(n) = a(n-1)+44*n-33 (With a(0)=0). - Vincenzo Librandi, Dec 15 2010
[A063842] 1, 11, 66, 276, 900, 2451, 5831, 12496, 24651, 45475, 79376, 132276, 211926, 328251, 493725, 723776, 1037221, 1456731, 2009326, 2726900, 3646776, 4812291, 6273411, 8087376, 10319375, 13043251, 16342236, 20309716, 25050026, 30679275, 37326201, 45133056
a(n) = (1/4!)*(n^6 + 6*n^5 + 24*n^4 + 56*n^3 + 83*n^2 + 70*n + 24).
[A247610] 1, 11, 66, 286, 1001, 3003, 7798, 17858, 36873, 70003, 124130, 208110, 333025, 512435, 762630, 1102882, 1555697, 2147067, 2906722, 3868382, 5070009, 6554059, 8367734, 10563234, 13198009, 16335011, 20042946, 24396526, 29476721, 35371011, 42173638, 49985858
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (20 + 508*n - 925*n^2 + 820*n^3 - 245*n^4 + 42*n^5)/20.
[A008493] 1, 11, 66, 286, 1001, 3003, 8008, 19448, 43758, 92378, 184756, 352715, 646635, 1144000, 1960970, 3267759, 5308732, 8428277, 13103662, 19986252, 29952637, 44167409, 64159524, 91914394, 129984074, 181618140, 250918096, 343018401, 464297471, 622622286
a(n) = 11*(n*(193248 + 152900*n^2 + 16401*n^4 + 330*n^6 + n^8)) / 362880 for n>0. - Colin Barker, Jan 06 2017
[A001287] 1, 11, 66, 286, 1001, 3003, 8008, 19448, 43758, 92378, 184756, 352716, 646646, 1144066, 1961256, 3268760, 5311735, 8436285, 13123110, 20030010, 30045015, 44352165, 64512240, 92561040, 131128140, 183579396, 254186856, 348330136, 472733756, 635745396
a(n+9) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)/10!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
[A000460] 1, 11, 66, 302, 1191, 4293, 14608, 47840, 152637, 478271, 1479726, 4537314, 13824739, 41932745, 126781020, 382439924, 1151775897, 3464764515, 10414216090, 31284590870, 93941852511, 282010106381, 846416194536, 2540053889352, 7621839388981, 22869007827143
a(n+2) = 3^(n+2) - (n+3)*2^(n+2) + (1/2)*(n+2)*(n+3). - Randall L. Rathbun (randallr(AT)abac.com), Jan 22 2002
a(n) = 3^n - (n+1)*2^n + (1/2)*n*(n+1). [Gary Detlefs, Nov 11 2011]
[A293550] 0, 1, 11, 69, 354, 1650, 7293, 31213, 130832, 540702, 2212550, 8989090, 36327810, 146228940, 586823265, 2349424125, 9389012160, 37467344310, 149345215290, 594753416790, 2366845396500, 9413555798556, 37423053793026, 148719333293394, 590842248405024, 2346813893147500
a(n) = [x^n] x*(1 + 4*x + x^2)/(1 - x)^(n+5).
a(n) = 2^(2*n+1)*n^2*(13*n + 7)*Gamma(n+3/2)/(sqrt(Pi)*Gamma(n+5)).
[A173200] 0, 11, 70, 225, 524, 1015, 1746, 2765, 4120, 5859, 8030, 10681, 13860, 17615, 21994, 27045, 32816, 39355, 46710, 54929, 64060, 74151, 85250, 97405, 110664, 125075, 140686, 157545, 175700, 195199, 216090, 238421, 262240, 287595, 314534, 343105
a(n) = 8*n^3 - 24*n^2 + 27*n - 11.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jul 02 2012
[A211386] 1, 11, 71, 351, 1471, 5503, 18943, 61183, 187903, 553983, 1579007, 4374527, 11829247, 31326207, 81461247, 208470015, 525991935, 1310457855, 3228041215, 7870611455, 19012780031, 45541752831, 108246597631, 255466668031, 598980165631, 1395931480063, 3235049897983
a(n) = 2^n*(24+18*n+23*n^2+6*n^3+n^4)/12-1.
a(0)=1, a(1)=11, a(2)=71, a(3)=351, a(4)=1471, a(5)=5503, a(n)=11*a(n-1)- 50*a(n-2)+ 120*a(n-3)-160*a(n-4)+112*a(n-5)-32*a(n-6). - Harvey P. Dale, Mar 02 2015

[A258402] 0, 11, 72, 243, 608, 1275, 2376, 4067, 6528, 9963, 14600, 20691, 28512, 38363, 50568, 65475, 83456, 104907, 130248, 159923, 194400, 234171, 279752, 331683, 390528, 456875, 531336, 614547, 707168, 809883, 923400, 1048451, 1185792, 1336203, 1500488, 1679475
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Jun 06 2015
[A282816] 0, 0, 1, 11, 76, 340, 1135, 3101, 7336, 15576, 30405, 55495, 95876, 158236, 251251, 385945, 576080, 838576, 1193961, 1666851, 2286460, 3087140, 4108951, 5398261, 7008376, 9000200, 11442925, 14414751, 18003636, 22308076, 27437915, 33515185, 40674976, 49066336
a(n) = n*(n-1)*(n^4-2*n^3+n^2+8)/24.
[A261391] 0, 11, 82, 393, 1364, 3775, 8886, 18557, 35368, 62739, 105050, 167761, 257532, 382343, 551614, 776325, 1069136, 1444507, 1918818, 2510489, 3240100, 4130511, 5206982, 6497293, 8031864, 9843875, 11969386, 14447457, 17320268, 20633239, 24435150, 28778261, 33718432, 39315243, 45632114
a(n) = ((n+sqrt(n^2+4))/2)^5 - 1/((n+sqrt(n^2+4))/2)^5.
a(n) = -a(-n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Colin Barker, Aug 18 2015
[A192827] 11, 88, 231, 440, 715, 1056, 1463, 1936, 2475, 3080, 3751, 4488, 5291, 6160, 7095, 8096, 9163, 10296, 11495, 12760, 14091, 15488, 16951, 18480, 20075, 21736, 23463, 25256, 27115, 29040
a(n) = 11*n*(3*n-2).
[A199394] 11, 90, 357, 996, 2255, 4446, 7945, 13192, 20691, 31010, 44781, 62700, 85527, 114086, 149265, 192016, 243355, 304362, 376181, 460020, 557151, 668910, 796697, 941976, 1106275, 1291186, 1498365, 1729532, 1986471, 2271030, 2585121, 2930720, 3309867, 3724666
a(n)= 8*n^4/3 + 4*n^3 + 10*n^2/3 + n.
[A163933] 11, 105, 510, 1750, 4830, 11466, 24360, 47520, 86625, 149435, 246246, 390390, 598780, 892500, 1297440, 1844976, 2572695, 3525165, 4754750, 6322470, 8298906, 10765150, 13813800, 17550000, 22092525, 27574911, 34146630, 41974310
a(n) = (n-2)*(n-1)*stirling1(n+1,n-1)/2
[A132123] 0, 11, 110, 469, 1356, 3135, 6266, 11305, 18904, 29811, 44870, 65021, 91300, 124839, 166866, 218705, 281776, 357595, 447774, 554021, 678140, 822031, 987690, 1177209, 1392776, 1636675, 1911286, 2219085, 2562644, 2944631, 3367810, 3835041
a(0)=0, a(1)=11, a(2)=110, a(3)=469, a(4)=1356, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Jun 02 2015
[A274119] 11, 120, 435, 1064, 2115, 3696, 5915, 8880, 12699, 17480, 23331, 30360, 38675, 48384, 59595, 72416, 86955, 103320, 121619, 141960, 164451, 189200, 216315, 245904, 278075, 312936, 350595, 391160, 434739, 481440, 531371, 584640
a(n) = B(4,n,2,1) = (Product_{i=0..4}(i*n+2) - Product_{i=0..4}(-i*n-1))/(4*n+3), n >= 0. - Hong-Chang Wang, Jun 14 2016
a(n) = 11+42*n+49*n^2+18*n^3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
[A084969] 11, 121, 143, 187, 209, 253, 319, 341, 407, 451, 473, 517, 583, 649, 671, 737, 781, 803, 869, 913, 979, 1067, 1111, 1133, 1177, 1199, 1243, 1331, 1397, 1441, 1507, 1529, 1573, 1639, 1661, 1727, 1793, 1837, 1859, 1903, 1969, 1991, 2057, 2101, 2123, 2167
a(n) = a(n-48) + 2310 = a(n-1) + a(n-48) - a(n-49). - Charles R Greathouse IV, Nov 19 2014
[A097258] 0, 11, 132, 143, 1584, 1595, 1716, 1727, 19008, 19019, 19140, 19151, 20592, 20603, 20724, 20735, 228096, 228107, 228228, 228239, 229680, 229691, 229812, 229823, 247104, 247115, 247236, 247247, 248688, 248699, 248820, 248831, 2737152
a(2n) = 12*a(n), a(2n+1) = a(2n)+11.
[A158536] 11, 132, 495, 1100, 1947, 3036, 4367, 5940, 7755, 9812, 12111, 14652, 17435, 20460, 23727, 27236, 30987, 34980, 39215, 43692, 48411, 53372, 58575, 64020, 69707, 75636, 81807, 88220, 94875, 101772, 108911, 116292, 123915, 131780, 139887
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3). G.f.: 11*(1+9*x+12*x^2)/(1-x)^3. - R. J. Mathar, Oct 16 2009
[A027771] 11, 144, 1014, 5096, 20475, 69888, 210392, 572832, 1436058, 3359200, 7407036, 15519504, 31097794, 59907456, 111435000, 200880160, 352023165, 601277040, 1003321410, 1638819000, 2624841765, 4128783360, 6386711760, 9727323840, 14602906500, 21628990656
a(n) = C(n+1, 11)*C(n+1, 1) - Zerinvary Lajos, Jun 08 2005, corrected by R. J. Mathar, Feb 13 2016
[A218330] 1, 11, 175, 301, 1005, 1375, 3003, 3745, 6681, 7923, 12551, 14421, 21125, 23751, 32915, 36425, 48433, 52955, 68191, 73853, 92701, 99631, 122475, 130801, 158025, 167875, 199863, 211365, 248501, 261783, 304451, 319641, 368225, 385451, 440335, 459725, 521293
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7).
a(n) = 3*a(n-2) - 3*a(n-4) + a(n-6) + 512.
a(n) = (16*n-4*(-1)^n-17)*(4*n-(-1)^n-3)*(4*n-(-1)^n-1)/24.
[A243646] 0, 0, 0, 0, 11, 196, 1195, 4544, 13215, 32276, 69671, 137120, 251139, 434180, 715891, 1134496, 1738295, 2587284, 3754895, 5329856, 7418171, 10145220, 13657979, 18127360, 23750671, 30754196, 39395895, 49968224, 62801075, 78264836, 96773571, 118788320, 144820519
a(n) = (n^6-6*n^5-6*n^4+88*n^3-73*n^2-310*n+426)/6 for n>=4, a(n) = 0 for n<4.
[A179339] 11, 221, 461, 1091, 1571, 2621, 3341, 4811, 5771, 7661, 8861, 11171, 12611, 15341, 17021, 20171, 22091, 25661, 27821, 31811, 34211, 38621, 41261, 46091, 48971, 54221, 57341, 63011, 66371, 72461, 76061, 82571, 86411, 93341, 97421
a(n) = (330*n*(n-1)+45*(2*n-1)*(-1)^n+89)/4.
a(n) = a(-n+1) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A219089] 0, 11, 244, 1838, 8303, 27680, 75418, 177978, 377149, 735091, 1340095, 2313060, 3814697, 6053445, 9294114, 13867245, 20179187, 28722900, 40089475, 54980371, 74220378, 98771297, 129746337, 168425239, 216270112, 274941996
a(n) = [(n + 1/2)^6].
[A003389] 11, 266, 521, 776, 1031, 1286, 1541, 1796, 2051, 2306, 2561, 2816, 6571, 6826, 7081, 7336, 7591, 7846, 8101, 8356, 8611, 8866, 9121, 13131, 13386, 13641, 13896, 14151, 14406, 14661, 14916, 15171, 15426, 19691, 19946, 20201, 20456, 20711, 20966, 21221
a(n) > 8n/3. (Work mod 32.) - Charles R Greathouse IV, May 04 2015
[A001538] 11, 299, 875, 1739, 2891, 4331, 6059, 8075, 10379, 12971, 15851, 19019, 22475, 26219, 30251, 34571, 39179, 44075, 49259, 54731, 60491, 66539, 72875, 79499, 86411, 93611, 101099, 108875, 116939, 125291, 133931, 142859, 152075, 161579, 171371, 181451, 191819
a(n) = 288*n + a(n-1) with a(0)=11. - Vincenzo Librandi, Nov 12 2010
[A064161] 12, 12, 20, 42, 66, 78, 102, 114, 138, 174, 186, 222, 246, 258, 282, 318, 354, 366, 402, 426, 438, 474, 498, 534, 582, 606, 618, 642, 654, 678, 762, 786, 822, 834, 894, 906, 942, 978, 1002, 1038, 1074, 1086, 1146, 1158, 1182, 1194, 1266, 1338, 1362, 1374
a(n) = 6*prime(n) for n>=4. - Jose Brox (tautocrona(AT)terra.es), Mar 24 2003
[A022346] 0, 12, 12, 24, 36, 60, 96, 156, 252, 408, 660, 1068, 1728, 2796, 4524, 7320, 11844, 19164, 31008, 50172, 81180, 131352, 212532, 343884, 556416, 900300, 1456716, 2357016, 3813732, 6170748, 9984480, 16155228, 26139708, 42294936, 68434644, 110729580, 179164224, 289893804, 469058028, 758951832, 1228009860
a(n) = F(n+6) + F(n-6) - 6*F(n). - Bruno Berselli, Dec 29 2016
[A133894] 12, 13, 14, 15, 28, 29, 30, 31, 44, 45, 46, 47, 60, 61, 62, 63, 76, 77, 78, 79, 92, 93, 94, 95, 108, 109, 110, 111, 124, 125, 126, 127, 140, 141, 142, 143, 156, 157, 158, 159, 172, 173, 174, 175, 188, 189, 190, 191, 204, 205, 206, 207, 220, 221, 222, 223, 236, 237
a(n)=4n+12-3*(n mod 4).
a(n) = 4*n+3*((1-i)*i^n+(1+i)*(-i)^n+(-1)^n+5)/2, where i=sqrt(-1). - Bruno Berselli, Apr 08 2011
[A267615] 12, 13, 15, 19, 27, 43, 75, 139, 267, 523, 1035, 2059, 4107, 8203, 16395, 32779, 65547, 131083, 262155, 524299, 1048587, 2097163, 4194315, 8388619, 16777227, 33554443, 67108875, 134217739, 268435467, 536870923, 1073741835, 2147483659, 4294967307, 8589934603, 17179869195, 34359738379
a(n) = 3*a(n - 1) - 2*a(n - 2) for n>1, a(0)=12, a(1)=13.
[A241748] 12, 13, 16, 21, 28, 37, 48, 61, 76, 93, 112, 133, 156, 181, 208, 237, 268, 301, 336, 373, 412, 453, 496, 541, 588, 637, 688, 741, 796, 853, 912, 973, 1036, 1101, 1168, 1237, 1308, 1381, 1456, 1533, 1612, 1693, 1776, 1861, 1948, 2037, 2128, 2221, 2316
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A022102] 1, 12, 13, 25, 38, 63, 101, 164, 265, 429, 694, 1123, 1817, 2940, 4757, 7697, 12454, 20151, 32605, 52756, 85361, 138117, 223478, 361595, 585073, 946668, 1531741, 2478409, 4010150, 6488559, 10498709
a(n) = a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=12. a(-1):=11.
a(n) = ((1+sqrt5)^n-(1-sqrt5)^n)/(2^n*sqrt5)+ 5.5*((1+sqrt5)^(n-1)-(1-sqrt5)^(n-1))/(2^(n-2)*sqrt5). Offset 1. a(3)=13. - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
[A033048] 0, 1, 12, 13, 144, 145, 156, 157, 1728, 1729, 1740, 1741, 1872, 1873, 1884, 1885, 20736, 20737, 20748, 20749, 20880, 20881, 20892, 20893, 22464, 22465, 22476, 22477, 22608, 22609, 22620, 22621, 248832, 248833, 248844, 248845, 248976
a(n) = Sum{d(i)*12^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.

a(2n) = 12*a(n), a(2n+1) = a(2n)+1.
[A255842] 12, 14, 20, 30, 44, 62, 84, 110, 140, 174, 212, 254, 300, 350, 404, 462, 524, 590, 660, 734, 812, 894, 980, 1070, 1164, 1262, 1364, 1470, 1580, 1694, 1812, 1934, 2060, 2190, 2324, 2462, 2604, 2750, 2900, 3054, 3212, 3374, 3540, 3710, 3884, 4062, 4244, 4430
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A175886] 1, 12, 14, 25, 27, 38, 40, 51, 53, 64, 66, 77, 79, 90, 92, 103, 105, 116, 118, 129, 131, 142, 144, 155, 157, 168, 170, 181, 183, 194, 196, 207, 209, 220, 222, 233, 235, 246, 248, 259, 261, 272, 274, 285, 287, 298, 300, 311, 313, 324, 326, 337, 339, 350
a(n) = (26*n+9*(-1)^n-13)/4.
a(n) = -a(-n+1) = a(n-1)+a(n-2)-a(n-3).
a(n) = a(n-2)+13.
[A196224] 12, 15, 19, 44, 51, 63, 76, 83, 108, 112, 115, 140, 143, 147, 172, 179, 204, 211, 236, 240, 243, 255, 268, 271, 275, 300, 307, 332, 339, 364, 368, 371, 396, 399, 403, 428, 435, 448, 460, 467, 492, 496, 499, 524, 527, 531, 556, 563, 575, 588, 595, 620, 624
a(n) = 12n + O(log(n)). - David W. Wilson, Oct 21 2011
[A277082] 0, 1, 12, 15, 37, 42, 75, 82, 126, 135, 190, 201, 267, 280, 357, 372, 460, 477, 576, 595, 705, 726, 847, 870, 1002, 1027, 1170, 1197, 1351, 1380, 1545, 1576, 1752, 1785, 1972, 2007, 2205, 2242, 2451, 2490, 2710, 2751, 2982, 3025, 3267, 3312, 3565, 3612, 3876, 3925, 4200, 4251, 4537, 4590, 4887, 4942
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
a(n) = (26*n^2 + 26*n + 9*(-1)^n*(2*n+1) - 9)/16.
[A024875] 12, 15, 38, 45, 82, 94, 148, 166, 240, 265, 362, 395, 518, 560, 712, 764, 948, 1011, 1230, 1305, 1562, 1650, 1948, 2050, 2392, 2509, 2898, 3031, 3470, 3620, 4112, 4280, 4828, 5015, 5622, 5829, 6498, 6726, 7460, 7710, 8512, 8785, 9658, 9955, 10902, 11224, 12248, 12596
a(n) = (4*n^3+3*((-1)^n+19)*n^2+2*(15*(-1)^n+61)*n+75*((-1)^n-1))/48.
a(n) = (2*n^3+30*n^2+76*n)/24 for n even.
a(n) = (2*n^3+27*n^2+46*n-75)/24 for n odd. (End)
[A219390] 0, 12, 16, 52, 60, 120, 132, 216, 232, 340, 360, 492, 516, 672, 700, 880, 912, 1116, 1152, 1380, 1420, 1672, 1716, 1992, 2040, 2340, 2392, 2716, 2772, 3120, 3180, 3552, 3616, 4012, 4080, 4500, 4572, 5016, 5092, 5560, 5640, 6132, 6216, 6732, 6820
a(n) = a(-n+1) = (14*n*(n-1)+5*(-1)^n*(2*n-1)+1)/4 +1.
[A155096] 12, 17, 41, 46, 70, 75, 99, 104, 128, 133, 157, 162, 186, 191, 215, 220, 244, 249, 273, 278, 302, 307, 331, 336, 360, 365, 389, 394, 418, 423, 447, 452, 476, 481, 505, 510, 534, 539, 563, 568, 592, 597, 621, 626, 650, 655, 679, 684, 708, 713, 737, 742, 766
a(n) = 12*(-1)^(n+1) + 29 [n/2]. - M. F. Hasler, Jun 16 2010
a(n) = a(n-2)+29 for all n>2. - M. F. Hasler, Jun 16 2010
[A007624] 12, 18, 20, 24, 28, 30, 32, 40, 42, 44, 45, 48, 50, 52, 54, 56, 60, 63, 66, 68, 70, 72, 75, 76, 78, 80, 84, 88, 90, 92, 96, 98, 99, 102, 104, 105, 108, 110, 112, 114, 116, 117, 120, 124, 126, 128, 130, 132, 135, 136, 138, 140, 147, 148, 150, 152, 153, 154
a(n) = n + O(n/log n). - Charles R Greathouse IV, Oct 23 2015
[A177425] 12, 18, 20, 24, 28, 40, 44, 45, 48, 50, 52, 54, 56, 63, 68, 72, 75, 76, 80, 88, 92, 96, 98, 99, 104, 108, 112, 116, 117, 124, 135, 136, 144, 147, 148, 152, 153, 160, 162, 164, 171, 172, 175, 176, 184, 188, 189, 192, 200, 207, 208, 212, 224, 232, 236, 242, 244, 245
a(n) « n log n. - Charles R Greathouse IV, Mar 25 2014
[A005101] 12, 18, 20, 24, 30, 36, 40, 42, 48, 54, 56, 60, 66, 70, 72, 78, 80, 84, 88, 90, 96, 100, 102, 104, 108, 112, 114, 120, 126, 132, 138, 140, 144, 150, 156, 160, 162, 168, 174, 176, 180, 186, 192, 196, 198, 200, 204, 208, 210, 216, 220, 222, 224, 228, 234, 240, 246, 252, 258, 260, 264, 270
a(n) is asymptotic to C*n with C=4.038... (Deleglise 1998). - Benoit Cloitre, Sep 04 2002
[A280014] 12, 18, 22, 28, 42, 48, 52, 58, 72, 78, 82, 88, 102, 108, 112, 118, 132, 138, 142, 148, 162, 168, 172, 178, 192, 198, 202, 208, 222, 228, 232, 238, 252, 258, 262, 268, 282, 288, 292, 298, 312, 318, 322, 328, 342, 348, 352, 358, 372, 378, 382, 388, 402, 408, 412, 418, 432, 438, 442, 448, 462, 468, 472, 478, 492, 498, 502, 508, 522
a(n+4) = a(n)+30
[A143800] 0, 12, 19, 24, 28, 31, 34, 36, 38, 40, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 54, 55, 56, 56, 57, 58, 58, 59, 59, 60, 61, 61, 62, 62, 63, 63, 63, 64, 64, 65, 65, 66, 66, 66, 67, 67, 67, 68, 68, 68, 69, 69, 69, 70, 70, 70, 71, 71, 71, 71, 72, 72, 72, 73, 73, 73, 73, 74
a(n) = round(log2(n)*12)
[A272100] 12, 19, 44, 51, 76, 83, 108, 115, 140, 147, 172, 179, 204, 211, 236, 243, 268, 275, 300, 307, 332, 339, 364, 371, 396, 403, 428, 435, 460, 467, 492, 499, 524, 531, 556, 563, 588, 595, 620, 627, 652, 659, 684, 691, 716, 723, 748, 755, 780, 787, 812, 819, 844, 851, 876, 883, 908, 915
a(n) = (32*n-17-9*(-1)^n)/2.
a(n) = 16*n-13 for n even.
a(n) = 16*n-4 for n odd.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A035511] 12, 20, 25, 38, 46, 59, 72, 80, 93, 109, 114, 127, 135, 148, 164, 169, 182, 198, 203, 216, 224, 237, 253, 258, 271, 279, 292, 308, 313, 326, 342, 347, 360, 368, 381, 397, 402, 415, 423, 436, 449, 457, 470, 486, 491, 504, 512, 525, 541, 546, 559, 575, 580, 593
a(n)=(2round(n*tau)+1)+3(floor((round(n*tau)+1/2)tau)+1) for n>0 and a(0)=12, tau=(1+sqrt(5))/2 - C. Ronaldo (aga_new_ac(AT)hotmail.com), Jan 01 2005
[A082296] 12, 20, 34, 42, 56, 64, 78, 86, 100, 108, 122, 130, 144, 152, 166, 174, 188, 196, 210, 218, 232, 240, 254, 262, 276, 284, 298, 306, 320, 328, 342, 350, 364, 372, 386, 394, 408, 416, 430, 438, 452, 460, 474, 482, 496, 504, 518, 526, 540, 548, 562, 570, 584
a(n) = (-1-3*(-1)^n+22*n)/2.
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A137480] 12, 21, 48, 84, 192, 336, 768, 1344, 3072, 5376, 12288, 21504, 49152, 86016, 196608, 344064, 786432, 1376256, 3145728, 5505024, 12582912, 22020096, 50331648, 88080384, 201326592, 352321536, 805306368, 1409286144, 3221225472, 5637144576, 12884901888
a(n) = -(9/4)*sqrt(2)*(1/2)^(-1/2*(-1)^n)*(-2)^n + (33/4)*2^n*sqrt(2)*(1/2)^(-(1/2)*(-1)^n) - Alexander R. Povolotsky, Apr 25 2008
[A098955] 1, 12, 22, 32, 42, 52, 62, 72, 82, 92, 103, 113, 123, 133, 143, 153, 163, 173, 183, 193, 203, 213, 223, 233, 243, 253, 263, 273, 283, 293, 303, 313, 323, 333, 343, 353, 363, 373, 383, 393, 403, 413, 423, 433, 443, 453, 463, 473, 483, 493, 503
a(n) = 10(n-1)+2 = 10n-8 for n=2,...,10,
a(n) = 10(n-1)+3 = 10n-7 for n=11,...,100,
a(n) = 10(n-1)+4 = 10n-6 for n=101,...,1000, and so on,
a(n) = 10(n-1)+k+1 = 10n-(9-k) for 10^(k-1) < n <= 10^k, up to
a(n) = 10(n-1)+9 = 10n-1 for n=10^7+1,...,10^8. - M. F. Hasler, Jan 06 2013
[A285470] 12, 22, 32, 42, 52, 62, 72, 82, 92, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 620, 621, 622, 623, 624, 625, 626, 627
a(10*n+j) = 10*a(n)+j for 0<=j<=9 and n >= 1.
[A014633] 0, 12, 22, 70, 92, 176, 210, 330, 376, 532, 590, 782, 852, 1080, 1162, 1426, 1520, 1820, 1926, 2262, 2380, 2752, 2882, 3290, 3432, 3876, 4030, 4510, 4676, 5192, 5370, 5922, 6112, 6700, 6902, 7526, 7740, 8400, 8626, 9322
a(n) = a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5).
a(n) = 48+2*a(n-2)-a(n-4).
a(n) = 1/8*(1-3*(-1)^(n+1)+12*(n+1))*(1-(-1)^(n+1)+4*(n+1)).(End)
[A228157] 12, 23, 34, 45, 56, 67, 78, 89, 101, 112, 123, 134, 145, 156, 167, 178, 189, 201, 212, 223, 234, 245, 256, 267, 278, 289, 301, 312, 323, 334, 345, 356, 367, 378, 389, 401, 412, 423, 434, 445, 456, 467, 478, 489, 501, 512, 523, 534, 545, 556, 567, 578, 589
a(n) = a(n-1) + a(n-9) - a(n-10) for n > 10.
[A001704] 12, 23, 34, 45, 56, 67, 78, 89, 910, 1011, 1112, 1213, 1314, 1415, 1516, 1617, 1718, 1819, 1920, 2021, 2122, 2223, 2324, 2425, 2526, 2627, 2728, 2829, 2930, 3031, 3132, 3233, 3334, 3435, 3536, 3637, 3738, 3839, 3940, 4041, 4142, 4243, 4344, 4445, 4546
a(n) = n*10^(1 + floor(log(n+1))) + n + 1, with n >= 1. - Paolo P. Lava, May 09 2008

[A127421] 1, 12, 23, 34, 45, 56, 67, 78, 89, 910, 1011, 1112, 1213, 1314, 1415, 1516, 1617, 1718, 1819, 1920, 2021, 2122, 2223, 2324, 2425, 2526, 2627, 2728, 2829, 2930, 3031, 3132, 3233, 3334, 3435, 3536, 3637, 3738, 3839, 3940, 4041, 4142, 4243, 4344, 4445, 4546
a(n)=n*10^{1+floor[log(n+1)]}+n+1, with n>=0 - Paolo P. Lava, May 09 2008
[A083683] 12, 23, 45, 89, 177, 353, 705, 1409, 2817, 5633, 11265, 22529, 45057, 90113, 180225, 360449, 720897, 1441793, 2883585, 5767169, 11534337, 23068673, 46137345, 92274689, 184549377, 369098753, 738197505, 1476395009, 2952790017, 5905580033, 11811160065
a(n) = 2*a(n-1) - 1.
a(n) = 3*a(n-1) - 2*a(n-2), n>1. - Vincenzo Librandi, Nov 03 2011
[A294139] 0, 0, 12, 23, 70, 105, 210, 282, 468, 590, 880, 1065, 1482, 1743, 2310, 2660, 3400, 3852, 4788, 5355, 6510, 7205, 8602, 9438, 11100, 12090, 14040, 15197, 17458, 18795, 21390, 22920, 25872, 27608, 30940, 32895, 36630, 38817, 42978, 45410, 50020, 52710, 57792
a(n) = Sum_{i=1..floor((n-1)/2)} 2*i^2 + 2*(n-i)^2 + i*(n-i).
a(n) = n*(6*n - 1)*(n - 2) / 8 for n even.
a(n) = n*(3*n - 1)*(n - 1) / 4 for n odd.
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7) for n > 7.
[A119588] 12, 24, 25, 36, 48, 50, 56, 60, 72, 75, 84, 91, 96, 100, 108, 110, 112, 120, 132, 144, 150, 153, 156, 168, 175, 180, 182, 192, 200, 204, 216, 220, 224, 225, 228, 240, 252, 264, 273, 275, 276, 280, 300, 306, 312, 324, 325, 330, 336, 342, 348, 350, 360, 364, 372
a(n) = {k: tau(Fibonacci(k)) != 2^i for all i}.
[A008594] 0, 12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, 168, 180, 192, 204, 216, 228, 240, 252, 264, 276, 288, 300, 312, 324, 336, 348, 360, 372, 384, 396, 408, 420, 432, 444, 456, 468, 480, 492, 504, 516, 528, 540, 552, 564, 576, 588, 600, 612, 624, 636
a(n) = 12*n. a(n) = 2*a(n-1)-a(n-2) for n>1. G.f.: 12*x/(1-x)^2. - Vincenzo Librandi, Jun 11 2011
[A019550] 12, 24, 36, 48, 510, 612, 714, 816, 918, 1020, 1122, 1224, 1326, 1428, 1530, 1632, 1734, 1836, 1938, 2040, 2142, 2244, 2346, 2448, 2550, 2652, 2754, 2856, 2958, 3060, 3162, 3264, 3366, 3468, 3570, 3672, 3774, 3876, 3978, 4080
a(n) = n * 10^floor(log10(2*n) + 1) + 2*n. - Paolo P. Lava, Mar 24 2010
a(n+2) - 2*a(n+1) + a(n) = 45*10^(2*k+1) if n = 5*10^k-2, 90*10^k-450*10^(2*k) if n = 5*10^k-1, 0 otherwise. (End)
[A081808] 12, 24, 48, 96, 192, 384, 768, 1536, 3072, 6144, 12288, 24576, 49152, 98304, 196608, 393216, 786432, 1572864, 3145728, 6291456, 12582912, 25165824, 50331648, 100663296, 201326592, 402653184, 805306368, 1610612736, 3221225472
a(n) = 3*2^(n+1).
[A260261] 0, 1, 12, 24, 48, 97, 188, 199, 211, 233, 255, 277, 299, 322, 355, 388, 422, 466, 511, 566, 622, 688, 755, 833, 922, 1013, 1024, 1035, 1046, 1057, 1068, 1079, 1090, 1101, 1112, 1123, 1134, 1145, 1156, 1167, 1178, 1189, 1200, 1211, 1222, 1233, 1244, 1255, 1266, 1277
a(10^7)=178567225.
[A042851] 1, 1, 12, 25, 37, 62, 99, 161, 1226, 9969, 11195, 32359, 75913, 108272, 292457, 400729, 5902663, 6303392, 18509447, 24812839, 68135125, 161083089, 229218214, 1994828801, 14193019821, 16187848622, 30380868443, 46568717065, 76949585508, 200467888081
a(n) = 153518047257598*a(n-32) - a(n-64) for n>63. - Vincenzo Librandi, Jan 31 2014
[A132754] 0, 12, 25, 39, 54, 70, 87, 105, 124, 144, 165, 187, 210, 234, 259, 285, 312, 340, 369, 399, 430, 462, 495, 529, 564, 600, 637, 675, 714, 754, 795, 837, 880, 924, 969, 1015, 1062, 1110, 1159, 1209, 1260, 1312, 1365, 1419, 1474, 1530
a(n) = n*(n+23)/2.
a(n) = n + a(n-1) + 11 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=12, a(2)=25, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Jun 21 2011
a(n) = 12n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A195143] 0, 1, 12, 25, 48, 73, 108, 145, 192, 241, 300, 361, 432, 505, 588, 673, 768, 865, 972, 1081, 1200, 1321, 1452, 1585, 1728, 1873, 2028, 2185, 2352, 2521, 2700, 2881, 3072, 3265, 3468, 3673, 3888, 4105, 4332, 4561, 4800, 5041, 5292, 5545, 5808, 6073, 6348
a(n) = 3*n^2+(-1)^n-1.
a(n) = -a(n-1) + 6*n^2 - 6*n + 1. (End)
a(n) = sum_{k=1..n} (2*(-1)^(n-k+1) + 3*(2*k-1)), n>0, a(0) = 0. - L. Edson Jeffery, Sep 14 2014
[A280321] 1, 12, 25, 49, 81, 121, 169, 225, 289, 361, 441, 529, 625, 729, 841, 961, 1089, 1225, 1369, 1521, 1681, 1849, 2025, 2209, 2401, 2601, 2809, 3025, 3249, 3481, 3721, 3969, 4225, 4489, 4761, 5041, 5329, 5625, 5929, 6241, 6561, 6889, 7225, 7569, 7921, 8281, 8649, 9025, 9409, 9801, 10201
a(n+1) = (((n-2)*a(n))/(n-1)) + ((12*(n)^2-12*(n)+1)/(n-1)) for n>=1.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>4.
[A198274] 12, 25, 51, 103, 207, 415, 831, 1663, 3327, 6655, 13311, 26623, 53247, 106495, 212991, 425983, 851967, 1703935, 3407871, 6815743, 13631487, 27262975, 54525951, 109051903, 218103807, 436207615, 872415231, 1744830463, 3489660927, 6979321855, 13958643711
a(n+1) = 2*a(n) + 1.
[A292493] 1, 1, 12, 25, 61, 266, 963, 3053, 10220, 35413, 120345, 405682, 1376119, 4676201, 15859212, 53768225, 182400581, 618792826, 2098887003, 7119249973, 24149097580, 81915342653, 277858469505, 942504046562, 3197013067439, 10844389616401, 36784545696012
a(n) = 3*a(n-1) - 2*a(n-2) + 11*a(n-3) + a(n-4) for n >= 5.
[A184826] 12, 26, 40, 53, 67, 81, 96, 109, 123, 137, 150, 164, 179, 192, 205, 219, 233, 246, 261, 275, 289, 302, 316, 330, 344, 358, 372, 385, 398, 412, 427, 440, 454, 468, 482, 495, 509, 524, 537, 551, 565, 578, 591, 606, 620, 633, 647, 661, 675, 689, 703, 717, 730, 744, 758, 772, 785, 799, 813, 826, 840, 855, 869, 882, 896, 910, 923, 938, 952, 965, 978, 992, 1006, 1019, 1034, 1048, 1062, 1075, 1089, 1103, 1117, 1131, 1144, 1158, 1171, 1185, 1200, 1213, 1227, 1241, 1255, 1268, 1283, 1297, 1310, 1324, 1337, 1351
a(n) = n + floor(n*q/p) + floor(n*r/p) + floor(n*s/p), where p=t, q=t^2, r=t^3, s=t^4, and t is the tetranacci constant.
[A119412] 0, 12, 26, 42, 60, 80, 102, 126, 152, 180, 210, 242, 276, 312, 350, 390, 432, 476, 522, 570, 620, 672, 726, 782, 840, 900, 962, 1026, 1092, 1160, 1230, 1302, 1376, 1452, 1530, 1610, 1692, 1776, 1862, 1950, 2040, 2132, 2226, 2322, 2420, 2520
a(n) = 2*a(n-1) - a(n-2) + 2 with a(0)=0, a(1)=12. - Vincenzo Librandi, Aug 01 2010
[A105814] 12, 26, 42, 60, 80, 102, 126, 152, 180, 1110, 1232, 1356, 1482, 1610, 1740, 1872, 2006, 2142, 2280, 2420, 2562, 2706, 2852, 3000, 3150, 3302, 3456, 3612, 3770, 3930, 4092, 4256, 4422, 4590, 4760, 4932, 5106, 5282, 5460, 5640, 5822, 6006, 6192, 6380, 6570
a(n) = n^2 + n*(1+10^(1+floor(log_10(n)))). - Robert Israel, Jul 30 2015
[A151542] 0, 12, 27, 45, 66, 90, 117, 147, 180, 216, 255, 297, 342, 390, 441, 495, 552, 612, 675, 741, 810, 882, 957, 1035, 1116, 1200, 1287, 1377, 1470, 1566, 1665, 1767, 1872, 1980, 2091, 2205, 2322, 2442, 2565, 2691, 2820, 2952, 3087, 3225, 3366, 3510, 3657, 3807, 3960
a(n) = a(n-1) + 3*n + 9 (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
a(n) = 3*n*(n+7)/2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A184838] 12, 28, 42, 58, 72, 88, 103, 117, 132, 147, 162, 178, 192, 208, 221, 237, 252, 267, 282, 297, 312, 328, 341, 357, 371, 387, 402, 417, 432, 445, 460, 476, 490, 506, 520, 536, 551, 565, 580, 595, 610, 626, 640, 656, 669, 685, 700, 715, 730, 745, 760, 775, 789, 805, 819, 835, 850, 865, 880, 893, 909, 924, 939, 954, 969, 984, 999, 1013, 1029, 1043, 1059, 1074, 1089, 1104, 1118, 1133, 1149, 1163, 1179, 1193, 1209, 1223, 1238, 1253, 1268, 1283, 1299, 1313, 1327, 1341, 1357, 1372, 1387, 1402, 1417, 1432, 1447
a(n) = n + floor(n*p/q) + floor(n*r/q) + floor(n*s/q) + floor(n*u/q), where p=t, q=t^2, r=t^3, s=t^4, u=t^5, and t is the pentanacci constant.
[A097427] 12, 28, 78, 153, 380, 530, 907, 1134, 1661, 2642, 3019, 4300, 5281, 5808, 6939, 8824, 10935, 11689, 14102, 15836, 16741, 19606, 21642, 24884, 29559, 32047, 33329, 35968, 37325, 40114, 50670, 53912, 58964, 60698, 69746, 71631, 77437, 83468
a(n) = floor(Pi*prime(n)^2). - Michel Marcus, Mar 11 2015
[A019557] 1, 12, 30, 48, 66, 84, 102, 120, 138, 156, 174, 192, 210, 228, 246, 264, 282, 300, 318, 336, 354, 372, 390, 408, 426, 444, 462, 480, 498, 516, 534, 552, 570, 588, 606, 624, 642, 660, 678, 696, 714, 732, 750, 768, 786, 804, 822, 840, 858, 876, 894, 912, 930, 948, 966, 984, 1002, 1020, 1038, 1056
a(n) = 18*n-6, n >= 1; G.f.: (1 + 10*x + 7*x^2)/(1-x)^2.
[A131874] 1, 12, 30, 55, 87, 126, 172, 225, 285, 352, 426, 507, 595, 690, 792, 901, 1017, 1140, 1270, 1407, 1551, 1702, 1860, 2025, 2197, 2376, 2562, 2755, 2955, 3162, 3376, 3597, 3825, 4060, 4302, 4551, 4807, 5070, 5340, 5617, 5901, 6192, 6490, 6795, 7107, 7426
a(n) = a(n-1) + 7*n + 4, (with a(0)=1). - Vincenzo Librandi, Nov 23 2010
a(n) = (2 + 15*n + 7*n^2)/2;

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3);
[A111396] 0, 12, 30, 55, 88, 130, 182, 245, 320, 408, 510, 627, 760, 910, 1078, 1265, 1472, 1700, 1950, 2223, 2520, 2842, 3190, 3565, 3968, 4400, 4862, 5355, 5880, 6438, 7030, 7657, 8320, 9020, 9758, 10535, 11352, 12210, 13110, 14053, 15040, 16072, 17150, 18275, 19448
a(n) = binomial(n+8,3)-2*binomial(n+8,2). - Zerinvary Lajos, Nov 25 2006, corrected by R. J. Mathar, Mar 15 2011
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 27 2012
[A120090] 12, 30, 56, 90, 132, 154, 182, 208, 234, 240, 306, 340, 374, 380, 408, 418, 456, 462, 494, 546, 552, 598, 644, 650, 690, 700, 736, 756, 800, 850, 864, 870, 918, 928, 986, 992, 1026, 1044, 1054, 1102, 1116, 1122, 1160, 1178, 1240, 1254, 1260, 1302, 1320
a(n) = 2*u*v, where u=sqrt(j/2) and v=sqrt(j+k) {for coprime pairs(j,k) j>k with odd k such that pairs (u,v) are coprime with v odd}.
[A280344] 0, 12, 30, 56, 90, 132, 182, 240, 306, 380, 462, 552, 650, 756, 870, 992, 1122, 1260, 1406, 1560, 1722, 1892, 2070, 2256, 2450, 2652, 2862, 3080, 3306, 3540, 3782, 4032, 4290, 4556, 4830, 5112, 5402, 5700, 6006, 6320, 6642, 6972, 7310, 7656, 8010, 8372, 8742, 9120, 9506, 9900, 10302
a(n) = (((n-2)*a(n-1))/(n-4)) - (6*(3*(n-1)+1)/(n-4)) for n>=4.
a(n) = 2 + 6*n + 4*n^2 for n>0.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A242371] 12, 32, 40, 72, 84, 128, 144, 200, 220, 288, 312, 392, 420, 512, 544, 648, 684, 800, 840, 968, 1012, 1152, 1200, 1352, 1404, 1568, 1624, 1800, 1860, 2048, 2112, 2312, 2380, 2592, 2664, 2888, 2964, 3200, 3280, 3528, 3612, 3872, 3960, 4232, 4324, 4608, 4704
a(n) = 2*n*(n-1) if n is odd; and a(n) = 2*n^2 if n is even (n>2).
[A166959] 12, 32, 56, 76, 100, 120, 144, 164, 188, 208, 232, 252, 276, 296, 320, 340, 364, 384, 408, 428, 452, 472, 496, 516, 540, 560, 584, 604, 628, 648, 672, 692, 716, 736, 760, 780, 804, 824, 848, 868, 892, 912, 936, 956, 980, 1000, 1024, 1044, 1068
a(n) = a(n-1) + a(n-2) - a(n-3).
a(n) = 22*n - (-1)^n - 11.
[A134582] 0, 12, 32, 60, 96, 140, 192, 252, 320, 396, 480, 572, 672, 780, 896, 1020, 1152, 1292, 1440, 1596, 1760, 1932, 2112, 2300, 2496, 2700, 2912, 3132, 3360, 3596, 3840, 4092, 4352, 4620, 4896, 5180, 5472, 5772, 6080, 6396, 6720, 7052, 7392, 7740, 8096, 8460
a(n) = a(n-1) + 8*n - 4 (with a(1)=0). - Vincenzo Librandi, Nov 23 2010
[A081268] 1, 12, 32, 61, 99, 146, 202, 267, 341, 424, 516, 617, 727, 846, 974, 1111, 1257, 1412, 1576, 1749, 1931, 2122, 2322, 2531, 2749, 2976, 3212, 3457, 3711, 3974, 4246, 4527, 4817, 5116, 5424, 5741, 6067, 6402, 6746, 7099, 7461, 7832, 8212, 8601, 8999, 9406
a(n)=C(n, 0)+11C(n, 1)+9C(n, 2); binomial transform of (1, 11, 9, 0, 0, 0, ...). a(n)=(9n^2+13n+2)/2. G.f.(1+9x-x^2)/(1-x)^3.
a(n)=9*n+a(n-1)+2 (with a(0)=1) - Vincenzo Librandi, Aug 08 2010
[A063296] 1, 12, 33, 55, 77, 99, 121, 143, 165, 187, 209, 229, 253, 275, 297, 317, 341, 361, 385, 405, 429, 449, 473, 491, 517, 537, 561, 579, 605, 623, 649, 667, 693, 711, 737, 753, 781, 799, 825, 841, 869, 885, 913, 929, 957, 973, 1001, 1015, 1045
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A051624] 0, 1, 12, 33, 64, 105, 156, 217, 288, 369, 460, 561, 672, 793, 924, 1065, 1216, 1377, 1548, 1729, 1920, 2121, 2332, 2553, 2784, 3025, 3276, 3537, 3808, 4089, 4380, 4681, 4992, 5313, 5644, 5985, 6336, 6697, 7068, 7449, 7840, 8241, 8652
a(n) = Sum_{k=0..n-1} 10*k+1. - Klaus Brockhaus, Nov 20 2008
a(n) = 10*n + a(n-1) - 9 (with a(0)=0). - Vincenzo Librandi, Aug 06 2010
a(10*a(n) + 46*n + 1) = a(10*a(n) + 46*n) + a(10*n+1). - Vladimir Shevelev, Jan 24 2014
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(0)=0, a(1)=1, a(2)=12. - G. C. Greubel, Jul 31 2015
[A118337] 0, 12, 33, 69, 133, 252, 460, 832, 1525, 2737, 4905, 8944, 16008, 28644, 52185, 93357, 167005, 304212, 544180, 973432, 1773133, 3171769, 5673633, 10334632, 18486480, 33068412, 60234705, 107747157, 192736885, 351073644, 627996508, 1123352944, 2046207205
a(n) = 6*a(n-3) - a(n-6) + 46 for n > 6; a(1)=0, a(2)=12, a(3)=33, a(4)=69, a(5)=133, a(6)=252.
[A117476] 12, 33, 133, 252, 832, 1525, 4905, 8944, 28644, 52185, 167005, 304212, 973432, 1773133, 5673633, 10334632, 33068412, 60234705, 192736885, 351073644, 1123352944, 2046207205, 6547380825, 11926169632, 38160932052, 69510810633
a(1)=12, a(2)=33, a(3)=133, a(4)=252, a(n) = 6*a(n-2) - a(n-4) + 46.
[A069125] 1, 12, 34, 67, 111, 166, 232, 309, 397, 496, 606, 727, 859, 1002, 1156, 1321, 1497, 1684, 1882, 2091, 2311, 2542, 2784, 3037, 3301, 3576, 3862, 4159, 4467, 4786, 5116, 5457, 5809, 6172, 6546, 6931, 7327, 7734, 8152, 8581, 9021, 9472, 9934, 10407, 10891
a(n) = 1+ sum_{j=0..n-1} (11*j). - Xavier Acloque, Oct 22 2003
a(n) = 11*n+a(n-1)-11 with n>1, a(1)=1. - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=12, a(2)=34, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 25 2011
[A142245] 0, 12, 34, 68, 124, 214, 360, 596, 978, 1596, 2596, 4214, 6832, 11068, 17922, 29012, 46956, 75990, 122968, 198980, 321970, 520972, 842964, 1363958, 2206944, 3570924, 5777890, 9348836, 15126748, 24475606, 39602376, 64078004, 103680402, 167758428, 271438852, 439197302
a(n) = (1/5)*(-110 + (55-23*sqrt(5))*((1-sqrt(5))/2)^n + ((1+sqrt(5))/2)^n*(55+23*sqrt(5))). - Colin Barker, Nov 13 2017
[A139635] 1, 12, 34, 78, 166, 342, 694, 1398, 2806, 5622, 11254, 22518, 45046, 90102, 180214, 360438, 720886, 1441782, 2883574, 5767158, 11534326, 23068662, 46137334, 92274678, 184549366, 369098742, 738197494, 1476394998, 2952790006, 5905580022, 11811160054
a(n) = 11*2^(n-1)-10. - Emeric Deutsch, May 03 2008
a(n) = 2*a(n-1)+10, with n>1, a(1)=1. - Vincenzo Librandi, Nov 24 2010]
a(n) = 3*a(n-1)-2*a(n-2). G.f.: x*(9*x+1) / ((x-1)*(2*x-1)). - Colin Barker, Mar 11 2014
[A280364] 0, 12, 35, 56, 99, 132, 195, 240, 323, 380, 483, 552, 675, 756, 899, 992, 1155, 1260, 1443, 1560, 1763, 1892, 2115, 2256, 2499, 2652, 2915, 3080, 3363, 3540, 3843, 4032, 4355, 4556, 4899, 5112, 5475, 5700, 6083, 6320, 6723, 6972, 7395, 7656, 8099, 8372, 8835, 9120, 9603, 9900, 10403
a(n-1) = (((-2*(n-1)-1)*a(n-1))/(2*(n-1)-1)) + 8*(n-1)^2 + 10*(n-1) + 3 for n>=2, with a(0)=0.
a(n) = 4*n^2 + 8*n + 3 for n>0 and even.
a(n) = 4*n^2 + 6*n + 2 for n odd.
a(n) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5) for n>5.
[A033570] 1, 12, 35, 70, 117, 176, 247, 330, 425, 532, 651, 782, 925, 1080, 1247, 1426, 1617, 1820, 2035, 2262, 2501, 2752, 3015, 3290, 3577, 3876, 4187, 4510, 4845, 5192, 5551, 5922, 6305, 6700, 7107, 7526, 7957, 8400, 8855, 9322, 9801, 10292, 10795, 11310, 11837
a(n) = a(n-1) + 12*n-1 (with a(0)=1). - Vincenzo Librandi, Nov 17 2010
a(n) = Sum_{i..2n-1} 4n - 2 - i. - Wesley Ivan Hurt, Mar 18 2014
[A163661] 0, 12, 35, 75, 138, 230, 357, 525, 740, 1008, 1335, 1727, 2190, 2730, 3353, 4065, 4872, 5780, 6795, 7923, 9170, 10542, 12045, 13685, 15468, 17400, 19487, 21735, 24150, 26738, 29505, 32457, 35600, 38940, 42483, 46235, 50202, 54390, 58805, 63453
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A142074] 12, 35, 81, 147, 213, 321, 411, 477, 589, 677, 783, 873, 987, 1113, 1179, 1257, 1447, 1539, 1667, 1797, 1909, 2001, 2127, 2201, 2457, 2523, 2631, 2767, 2899, 2987, 3093, 3237, 3423, 3501, 3717, 3843, 3957, 4109, 4219, 4371
a(n) = 10*prime(2n-2)+prime(2n-1), n>1.
[A195858] 1, 12, 35, 83, 183, 391, 823, 1719, 3575, 7415, 15351, 31735, 65527, 135159, 278519, 573431, 1179639, 2424823, 4980727, 10223607, 20971511, 42991607, 88080375, 180355063, 369098743, 754974711, 1543503863, 3154116599, 6442450935, 13153337335, 26843545591
a(n) = 2^(n-1)*(n+20)-9.
a(0)=1, a(1)=12, a(2)=35, a(n) = 5*a(n-1)-8*a(n-2)+4*a(n-3).
[A063298] 1, 12, 36, 59, 82, 105, 128, 151, 174, 197, 220, 244, 266, 289, 312, 336, 358, 382, 404, 428, 450, 474, 496, 521, 542, 566, 588, 613, 634, 659, 680, 705, 726, 751, 772, 798, 818, 843, 864, 890, 910, 936, 956, 982, 1002, 1028, 1048, 1075
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A073762] 12, 36, 60, 84, 108, 132, 156, 180, 204, 228, 252, 276, 300, 324, 348, 372, 396, 420, 444, 468, 492, 516, 540, 564, 588, 612, 636, 660, 684, 708, 732, 756, 780, 804, 828, 852, 876, 900, 924, 948, 972, 996, 1020, 1044, 1068, 1092, 1116, 1140, 1164, 1188, 1212
a(n) = 24n-12. - Max Alekseyev, Mar 03 2007
[A049598] 0, 12, 36, 72, 120, 180, 252, 336, 432, 540, 660, 792, 936, 1092, 1260, 1440, 1632, 1836, 2052, 2280, 2520, 2772, 3036, 3312, 3600, 3900, 4212, 4536, 4872, 5220, 5580, 5952, 6336, 6732, 7140, 7560, 7992, 8436, 8892, 9360, 9840, 10332, 10836, 11352
a(n) = 6*n*(n+1).

a(n) = 12*n + a(n-1) (with a(0)=0). - Vincenzo Librandi, Aug 06 2010
[A152135] 12, 36, 74, 134, 216, 328, 470, 650, 868, 1132, 1442, 1806, 2224, 2704, 3246, 3858, 4540, 5300, 6138, 7062, 8072, 9176, 10374, 11674, 13076, 14588, 16210, 17950, 19808, 21792, 23902, 26146, 28524, 31044, 33706, 36518, 39480, 42600, 45878
a(n) = +3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5). a(n) = 19*n/3+3/2+2*n^3/3+4*n^2+(-1)^n/2. [From R. J. Mathar, May 13 2010]
[A212963] 0, 0, 0, 12, 36, 84, 156, 264, 408, 600, 840, 1140, 1500, 1932, 2436, 3024, 3696, 4464, 5328, 6300, 7380, 8580, 9900, 11352, 12936, 14664, 16536, 18564, 20748, 23100, 25620, 28320, 31200, 34272, 37536, 41004, 44676, 48564, 52668, 57000
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
[A005892] 1, 12, 37, 76, 129, 196, 277, 372, 481, 604, 741, 892, 1057, 1236, 1429, 1636, 1857, 2092, 2341, 2604, 2881, 3172, 3477, 3796, 4129, 4476, 4837, 5212, 5601, 6004, 6421, 6852, 7297, 7756, 8229, 8716, 9217, 9732, 10261, 10804, 11361, 11932
a(n) = a(n-1) + 14*n - 3 (with a(0)=1). - Vincenzo Librandi, Nov 18 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A266398] 0, 0, 12, 37, 76, 130, 200, 287, 392, 516, 660, 825, 1012, 1222, 1456, 1715, 2000, 2312, 2652, 3021, 3420, 3850, 4312, 4807, 5336, 5900, 6500, 7137, 7812, 8526, 9280, 10075, 10912, 11792, 12716, 13685, 14700, 15762, 16872, 18031, 19240, 20500, 21812, 23177
a(n) = (n^3+30*n^2-97*n+66)/6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A212510] 0, 0, 0, 0, 12, 38, 81, 185, 336, 549, 900, 1365, 1944, 2794, 3822, 5070, 6720, 8680, 10935, 13821, 17100, 20853, 25410, 30569, 36288, 43148, 50700, 59076, 68796, 79506, 91125, 104545, 119040, 134805, 152592, 171853, 192456, 215670, 240426, 266994, 296400, 327860
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A213490] 0, 0, 0, 0, 0, 12, 38, 92, 160, 286, 422, 632, 870, 1194, 1542, 2010, 2502, 3126, 3788, 4598, 5446, 6472, 7532, 8786, 10092, 11604, 13164, 14964, 16812, 18912, 21074, 23504, 25996, 28786, 31634, 34796, 38034, 41598, 45234, 49230, 53298
a(n) = a(n-1)+a(n-2)-2*a(n-5)+a(n-8)+a(n-9)-a(n-10).
[A154266] 12, 39, 66, 93, 120, 147, 174, 201, 228, 255, 282, 309, 336, 363, 390, 417, 444, 471, 498, 525, 552, 579, 606, 633, 660, 687, 714, 741, 768, 795, 822, 849, 876, 903, 930, 957, 984, 1011, 1038, 1065, 1092, 1119, 1146, 1173, 1200, 1227, 1254, 1281, 1308, 1335
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Feb 02 2012
[A236267] 1, 12, 39, 82, 141, 216, 307, 414, 537, 676, 831, 1002, 1189, 1392, 1611, 1846, 2097, 2364, 2647, 2946, 3261, 3592, 3939, 4302, 4681, 5076, 5487, 5914, 6357, 6816, 7291, 7782, 8289, 8812, 9351, 9906, 10477, 11064, 11667, 12286, 12921, 13572, 14239, 14922
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Colin Barker, Jan 21 2014
[A033586] 0, 12, 40, 84, 144, 220, 312, 420, 544, 684, 840, 1012, 1200, 1404, 1624, 1860, 2112, 2380, 2664, 2964, 3280, 3612, 3960, 4324, 4704, 5100, 5512, 5940, 6384, 6844, 7320, 7812, 8320, 8844, 9384, 9940, 10512, 11100, 11704, 12324, 12960, 13612, 14280
a(n) = 16*n+a(n-1)-4 (with a(0)=0). - Vincenzo Librandi, Aug 05 2010
a(0)=0, a(1)=12, a(2)=40, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2. - Harvey P. Dale, May 10 2011
a(n) = Sum_{i=3n..5n} i.
[A211786] 1, 12, 40, 96, 187, 324, 514, 768, 1093, 1500, 1996, 2592, 3295, 4116, 5062, 6144, 7369, 8748, 10288, 12000, 13891, 15972, 18250, 20736, 23437, 26364, 29524, 32928, 36583, 40500, 44686, 49152, 53905, 58956, 64312, 69984, 75979, 82308
a(n) = 3*a(n-1)-2*a(n-2)-2*a(n-3)+3*a(n-4)-a(n-5).
a(n) = floor(3*n^3/2) = (6*n^3+(-1)^n-1)/4. [Bruno Berselli, May 06 2012]
[A270700] 12, 42, 78, 114, 150, 186, 222, 258, 294, 330, 366, 402, 438, 474, 510, 546, 582, 618, 654, 690, 726, 762, 798, 834, 870, 906, 942, 978, 1014, 1050, 1086, 1122, 1158, 1194, 1230, 1266, 1302, 1338, 1374, 1410, 1446, 1482, 1518, 1554, 1590, 1626, 1662, 1698, 1734
a(0) = 12; thereafter, a(n) = 36*n + 6.
a(n) = 2*a(n-1)-a(n-2) for n>2. - Colin Barker, Mar 22 2016
[A045945] 0, 12, 42, 90, 156, 240, 342, 462, 600, 756, 930, 1122, 1332, 1560, 1806, 2070, 2352, 2652, 2970, 3306, 3660, 4032, 4422, 4830, 5256, 5700, 6162, 6642, 7140, 7656, 8190, 8742, 9312, 9900, 10506, 11130, 11772, 12432, 13110, 13806, 14520, 15252, 16002
a(n) = a(n-1) + 6*(3*n-1) (with a(0)=0). - Vincenzo Librandi, Nov 18 2010
[A009948] 1, 12, 42, 96, 170, 264, 378, 516, 674, 852, 1050, 1272, 1514, 1776, 2058, 2364, 2690, 3036, 3402, 3792, 4202, 4632, 5082, 5556, 6050, 6564, 7098, 7656, 8234, 8832, 9450, 10092, 10754, 11436, 12138, 12864, 13610, 14376, 15162, 15972, 16802
a(n) = (5-(-1)^n+2*(-i)^n+2*i^n+42*n^2)/4 for n>0, where i=sqrt(-1).
a(n) = 2*a(n-1)-a(n-2)+a(n-4)-2*a(n-5)+a(n-6) for n>6.
[A193068] 12, 42, 98, 188, 320, 502, 742, 1048, 1428, 1890, 2442, 3092, 3848, 4718, 5710, 6832, 8092, 9498, 11058, 12780, 14672, 16742, 18998, 21448, 24100, 26962, 30042, 33348, 36888, 40670, 44702, 48992, 53548, 58378, 63490, 68892, 74592, 80598, 86918, 93560
a(n) = n*(4*n^2 + 15*n + 17)/3.
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 04 2012
[A007586] 0, 1, 12, 42, 100, 195, 336, 532, 792, 1125, 1540, 2046, 2652, 3367, 4200, 5160, 6256, 7497, 8892, 10450, 12180, 14091, 16192, 18492, 21000, 23725, 26676, 29862, 33292, 36975, 40920, 45136, 49632, 54417, 59500, 64890, 70596, 76627, 82992, 89700, 96760, 104181
a(0)=0, a(1)=1, a(2)=12, a(3)=42; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Apr 09 2012
a(n) = sum((n-i)*(9*i+1), i=0..n-1), with a(0)=0. - Bruno Berselli, Feb 10 2014
[A228391] 1, 12, 42, 100, 196, 339, 538, 804, 1145, 1570, 2090, 2714, 3451, 4310, 5301, 6433, 7717, 9160, 10774, 12566, 14547, 16725, 19111, 21714, 24543, 27608, 30917, 34482, 38310, 42411, 46795, 51471, 56449, 61738, 67347, 73287, 79565, 86192, 93178, 100530, 108260, 116377
a(n) = floor(Pi*n^3/2).
[A074356] 0, 0, 0, 0, 12, 42, 180, 561, 1833, 5373, 15798, 44367, 123561, 336243, 906054, 2408094, 6344832, 16561824, 42922602, 110472933, 282678423, 719404803, 1822117962, 4594816221, 11540742615, 28880919975, 72033463644, 179107709004
a(n) = 3*a(n-1) + 6*a(n-2) - 17*a(n-3) - 18*a(n-4) + 27*a(n-5) + 27*a(n-6) for n>7.
[A007899] 1, 12, 44, 96, 170, 264, 380, 516, 674, 852, 1052, 1272, 1514, 1776, 2060, 2364, 2690, 3036, 3404, 3792, 4202, 4632, 5084, 5556, 6050, 6564, 7100, 7656, 8234, 8832, 9452, 10092, 10754, 11436, 12140, 12864, 13610
a(0)=1, a(1)=12, a(2)=44, a(3)=96, a(4)=170, a(n)=2*a(n-1)-2*a(n-3)+ a(n-4). - Harvey P. Dale, Feb 15 2014
[A100156] 1, 12, 44, 108, 215, 376, 602, 904, 1293, 1780, 2376, 3092, 3939, 4928, 6070, 7376, 8857, 10524, 12388, 14460, 16751, 19272, 22034, 25048, 28325, 31876, 35712, 39844, 44283, 49040, 54126, 59552
a(n) = (1/6)*(11*n^3-3*n^2-2*n).
a(0)=1, a(1)=12, a(2)=44, a(3)=108, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). G.f.: x*(2*x*(x+4)+1)/(x-1)^4. - Harvey P. Dale, Sep 28 2011
[A015237] 0, 1, 12, 45, 112, 225, 396, 637, 960, 1377, 1900, 2541, 3312, 4225, 5292, 6525, 7936, 9537, 11340, 13357, 15600, 18081, 20812, 23805, 27072, 30625, 34476, 38637, 43120, 47937, 53100, 58621, 64512
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 12, a(0)=1, a(1)=1, a(2)=12. - G. C. Greubel, Jul 31 2015
a(n) = Sum_{i=0..n-1} n*(4*i+1) for n>0. - Bruno Berselli, Sep 08 2015
a(n) = Sum_{i=n^2-n+1..n^2+n-1} i. - Wesley Ivan Hurt, Dec 27 2016
[A100183] 1, 12, 46, 116, 235, 416, 672, 1016, 1461, 2020, 2706, 3532, 4511, 5656, 6980, 8496, 10217, 12156, 14326, 16740, 19411, 22352, 25576, 29096, 32925, 37076, 41562, 46396, 51591, 57160, 63116, 69472
a(n)=(1/6)*(13*n^3-9*n^2+2*n) [Corrected by Luca Colucci, Mar 01 2011]
[A022281] 0, 12, 47, 105, 186, 290, 417, 567, 740, 936, 1155, 1397, 1662, 1950, 2261, 2595, 2952, 3332, 3735, 4161, 4610, 5082, 5577, 6095, 6636, 7200, 7787, 8397, 9030, 9686, 10365, 11067, 11792, 12540, 13311
a(n) = 23*n + a(n-1) - 11 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A244803] 1, 12, 47, 106, 189, 296, 427, 582, 761, 964, 1191, 1442, 1717, 2016, 2339, 2686, 3057, 3452, 3871, 4314, 4781, 5272, 5787, 6326, 6889, 7476, 8087, 8722, 9381, 10064, 10771, 11502, 12257, 13036, 13839, 14666, 15517, 16392, 17291, 18214, 19161, 20132, 21127, 22146, 23189, 24256, 25347
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A024183] 12, 47, 119, 245, 445, 742, 1162, 1734, 2490, 3465, 4697, 6227, 8099, 10360, 13060, 16252, 19992, 24339, 29355, 35105, 41657, 49082, 57454, 66850, 77350, 89037, 101997, 116319, 132095, 149420, 168392, 189112, 211684, 236215, 262815, 291597, 322677

a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Colin Barker, Aug 15 2014
[A051673] 0, 1, 12, 47, 120, 245, 436, 707, 1072, 1545, 2140, 2871, 3752, 4797, 6020, 7435, 9056, 10897, 12972, 15295, 17880, 20741, 23892, 27347, 31120, 35225, 39676, 44487, 49672, 55245, 61220, 67611, 74432, 81697, 89420, 97615, 106296, 115477, 125172
a(n) = n*(n*(7*n-6)+2)/3.
a(0)=0, a(1)=1, a(2)=12, a(3)=47, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Jul 22 2011
[A213493] 0, 0, 0, 0, 0, 0, 12, 48, 96, 204, 300, 480, 684, 972, 1260, 1692, 2124, 2700, 3288, 4044, 4812, 5784, 6744, 7932, 9144, 10584, 12024, 13752, 15480, 17496, 19524, 21864, 24216, 26916, 29604, 32664, 35748, 39204, 42660, 46548, 50436, 54756
a(n) = a(n-1)+a(n-2)-2a(n-5)+a(n-8)+a(n-9)-a(n-10).
[A135453] 0, 12, 48, 108, 192, 300, 432, 588, 768, 972, 1200, 1452, 1728, 2028, 2352, 2700, 3072, 3468, 3888, 4332, 4800, 5292, 5808, 6348, 6912, 7500, 8112, 8748, 9408, 10092, 10800, 11532, 12288, 13068, 13872, 14700, 15552, 16428, 17328, 18252, 19200
a(n) = a(n-1)+24*n-12, n>0. - Vincenzo Librandi, Nov 24 2010
[A280058] 0, 0, 0, 12, 48, 120, 240, 420, 672, 1008, 1440, 1980, 2640, 3432, 4368, 5460, 6720, 8160, 9792, 11628, 13680, 15960, 18480, 21252, 24288, 27600, 31200, 35100, 39312, 43848, 48720, 53940, 59520, 65472, 71808, 78540, 85680, 93240, 101232, 109668, 118560
a(n) = 2*((n+1)^3 - 6*(n+1)^2 + 11*(n+1) - 6), for n>0.
a(n) == 12 (mod 12).
a(n) = 2*n*(n-1)*(n-2).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). (End)
[A006564] 1, 12, 48, 124, 255, 456, 742, 1128, 1629, 2260, 3036, 3972, 5083, 6384, 7890, 9616, 11577, 13788, 16264, 19020, 22071, 25432, 29118, 33144, 37525, 42276, 47412, 52948, 58899, 65280, 72106, 79392, 87153, 95404, 104160, 113436, 123247, 133608
a(n) = C(n+2,3) + 8*C(n+1,3) + 6*C(n,3).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) with a(0)=1, a(1)=12, a(2)=48, a(3)=124. - Harvey P. Dale, May 26 2011
[A239352] 0, 0, 1, 12, 48, 130, 285, 546, 952, 1548, 2385, 3520, 5016, 6942, 9373, 12390, 16080, 20536, 25857, 32148, 39520, 48090, 57981, 69322, 82248, 96900, 113425, 131976, 152712, 175798, 201405, 229710, 260896, 295152, 332673, 373660, 418320, 466866, 519517
a(n) = (n^4 - 5n^2 + 4n)/4 = n*(n - 1)*(n^2 + n - 4)/4, which shows the formula is an integer.
[A292022] 12, 48, 132, 288, 540, 912, 1428, 2112, 2988, 4080, 5412, 7008, 8892, 11088, 13620, 16512, 19788, 23472, 27588, 32160, 37212, 42768, 48852, 55488, 62700, 70512, 78948, 88032, 97788, 108240, 119412, 131328, 144012, 157488, 171780, 186912, 202908, 219792, 237588
a(n) = 4*n*(n^2 + 2).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A059162] 12, 48, 144, 384, 960, 2304, 5376, 12288, 27648, 61440, 135168, 294912, 638976, 1376256, 2949120, 6291456, 13369344, 28311552, 59768832, 125829120, 264241152, 553648128, 1157627904, 2415919104, 5033164800, 10468982784, 21743271936, 45097156608, 93415538688
a(n) = 3*(2^(2+n)*(1+n)).
a(n) = 4*a(n-1)-4*a(n-2) for n>1.
[A022282] 0, 12, 49, 111, 198, 310, 447, 609, 796, 1008, 1245, 1507, 1794, 2106, 2443, 2805, 3192, 3604, 4041, 4503, 4990, 5502, 6039, 6601, 7188, 7800, 8437, 9099, 9786, 10498, 11235, 11997, 12784, 13596, 14433
a(n) = 25*n + a(n-1) - 13 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A218832] 0, 1, 12, 49, 132, 289, 552, 961, 1560, 2401, 3540, 5041, 6972, 9409, 12432, 16129, 20592, 25921, 32220, 39601, 48180, 58081, 69432, 82369, 97032, 113569, 132132, 152881, 175980, 201601, 229920, 261121, 295392, 332929, 373932, 418609, 467172, 519841, 576840, 638401
a(n) = floor(n^4/4-n^2+1).
[A288516] 1, 12, 49, 146, 373, 872, 1929, 4118, 8589, 17644, 35889, 72538, 146021, 293200, 587801, 1177278, 2356541, 4715412, 9433537, 18870210, 37744021, 75492152, 150988969, 301983206, 603972333, 1207951292, 2415909969, 4831828138, 9663665349, 19327340704
a(n) = 18*(2^n - 1) - n*(n^2 + 9*n + 41)/3. - Eric W. Weisstein, Jun 30 2017
a(n) = 6*a(n-1)-14*a(n-2)+16*a(n-3)-9*a(n-4)+2*a(n-5) for n > 5.
a(n) = 18*(2^n-1) - (41*n)/3 - 3*n^2 - n^3/3. - Colin Barker, Jun 11 2017
[A110907] 1, 12, 50, 108, 194, 300, 434, 588, 770, 972, 1202, 1452, 1730, 2028, 2354, 2700, 3074, 3468, 3890, 4332, 4802, 5292, 5810, 6348, 6914, 7500, 8114, 8748, 9410, 10092, 10802, 11532, 12290, 13068, 13874, 14700, 15554, 16428, 17330, 18252, 19202
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4), n>4.
a(n) = 1 + (-1)^n + 12*n^2, n>0.
[A066644] 12, 50, 113, 201, 314, 452, 615, 804, 1017, 1256, 1520, 1809, 2123, 2463, 2827, 3216, 3631, 4071, 4536, 5026, 5541, 6082, 6647, 7238, 7853, 8494, 9160, 9852, 10568, 11309, 12076, 12867, 13684, 14526, 15393, 16286, 17203, 18145, 19113, 20106, 21124, 22167
a(n) = floor(4*Pi*n^2).
[A063491] 1, 12, 50, 133, 279, 506, 832, 1275, 1853, 2584, 3486, 4577, 5875, 7398, 9164, 11191, 13497, 16100, 19018, 22269, 25871, 29842, 34200, 38963, 44149, 49776, 55862, 62425, 69483, 77054, 85156, 93807, 103025, 112828, 123234, 134261
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4) n > 3, a(1)=1, a(2)=12, a(3)=50, a(4)=133. - Yosu Yurramendi, Sep 04 2013
[A083559] 1, 12, 50, 134, 280, 507, 834, 1277, 1855, 2586, 3489, 4580, 5878, 7401, 9168, 11195, 13501, 16104, 19023, 22274, 25876, 29847, 34206, 38969, 44155, 49782, 55869, 62432, 69490, 77061, 85164, 93815, 103033, 112836, 123243, 134270, 145936
a(n) = floor(3*n^3-9/2*n^2+15/4*n-3/4) for n>3.
[A051797] 1, 12, 50, 140, 315, 616, 1092, 1800, 2805, 4180, 6006, 8372, 11375, 15120, 19720, 25296, 31977, 39900, 49210, 60060, 72611, 87032, 103500, 122200, 143325, 167076, 193662, 223300, 256215, 292640, 332816, 376992, 425425, 478380, 536130
a(n) = C(n+3,3)*(2*n+1) = (n+1)*(n+2)*(n+3)*(2*n+1)/6.
[A268351] 0, 12, 51, 117, 210, 330, 477, 651, 852, 1080, 1335, 1617, 1926, 2262, 2625, 3015, 3432, 3876, 4347, 4845, 5370, 5922, 6501, 7107, 7740, 8400, 9087, 9801, 10542, 11310, 12105, 12927, 13776, 14652, 15555, 16485, 17442, 18426, 19437, 20475, 21540, 22632, 23751, 24897, 26070, 27270
a(n) = binomial(9*n,2)/3.
[A200887] 12, 51, 144, 325, 636, 1127, 1856, 2889, 4300, 6171, 8592, 11661, 15484, 20175, 25856, 32657, 40716, 50179, 61200, 73941, 88572, 105271, 124224, 145625, 169676, 196587, 226576, 259869, 296700, 337311, 381952, 430881, 484364, 542675, 606096, 674917
a(n) = (1+n)^2 * (3+5*n+n^2) / 3.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>5.
[A236770] 0, 1, 12, 51, 145, 330, 651, 1162, 1926, 3015, 4510, 6501, 9087, 12376, 16485, 21540, 27676, 35037, 43776, 54055, 66045, 79926, 95887, 114126, 134850, 158275, 184626, 214137, 247051, 283620, 324105, 368776, 417912, 471801, 530740, 595035, 665001, 740962
a(n) = a(-n-1) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A054410] 1, 12, 52, 148, 328, 620, 1052, 1652, 2448, 3468, 4740, 6292, 8152, 10348, 12908, 15860, 19232, 23052, 27348, 32148, 37480, 43372, 49852, 56948, 64688, 73100, 82212, 92052, 102648, 114028, 126220, 139252, 153152, 167948, 183668, 200340, 217992, 236652
a(n) = 2*(n*(11 + 7*n^2))/3 for n>0.
a(0)=1, a(1)=12, a(2)=52, a(3)=148, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4.
[A185355] 0, 1, 12, 52, 150, 345, 686, 1232, 2052, 3225, 4840, 6996, 9802, 13377, 17850, 23360, 30056, 38097, 47652, 58900, 72030, 87241, 104742, 124752, 147500, 173225, 202176, 234612, 270802, 311025, 355570, 404736, 458832, 518177, 583100, 653940, 731046, 814777
a(n) = Sum_{k=0..2} C(C(n,2),k)*C(n,4-2*k).
a(n) = n^2*(n-1)*(5*n-7)/12.
[A213549] 1, 12, 53, 155, 360, 721, 1302, 2178, 3435, 5170, 7491, 10517, 14378, 19215, 25180, 32436, 41157, 51528, 63745, 78015, 94556, 113597, 135378, 160150, 188175, 219726, 255087, 294553, 338430, 387035, 440696, 499752, 564553, 635460
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = (11*n^4 + 14*n^3 + n^2 - 2*n)/24 = n*(n+1)*(11*n^2 + 3*n - 2)/24.
[A060785] 0, 12, 54, 126, 228, 360, 522, 714, 936, 1188, 1470, 1782, 2124, 2496, 2898, 3330, 3792, 4284, 4806, 5358, 5940, 6552, 7194, 7866, 8568, 9300, 10062, 10854, 11676, 12528, 13410, 14322, 15264, 16236, 17238, 18270, 19332, 20424, 21546
a(n) = 30*n + a(n-1) - 78 with n>2, a(2)=0. - Vincenzo Librandi, Aug 07 2010

[A059986] 0, 12, 54, 144, 300, 540, 882, 1344, 1944, 2700, 3630, 4752, 6084, 7644, 9450, 11520, 13872, 16524, 19494, 22800, 26460, 30492, 34914, 39744, 45000, 50700, 56862, 63504, 70644, 78300, 86490, 95232, 104544, 114444, 124950, 136080, 147852, 160284, 173394
a(n) = 3*n*(n+1)^2. - Neven Juric (neven.juric(AT)apis-it.hr), Sep 28 2005
a(n) = a(n-1) + 9*n^2 + 3*n.
[A088941] 0, 12, 54, 154, 349, 685, 1217, 2009, 3134, 4674, 6720, 9372, 12739, 16939, 22099, 28355, 35852, 44744, 55194, 67374, 81465, 97657, 116149, 137149, 160874, 187550, 217412, 250704, 287679, 328599, 373735, 423367, 477784, 537284, 602174, 672770
a(n)=(n/24)*(9*n^3 + 58*n^2 + 123*n + 98).
[A019582] 0, 0, 1, 12, 54, 160, 375, 756, 1372, 2304, 3645, 5500, 7986, 11232, 15379, 20580, 27000, 34816, 44217, 55404, 68590, 84000, 101871, 122452, 146004, 172800, 203125, 237276, 275562, 318304, 365835, 418500, 476656, 540672, 610929, 687820, 771750, 863136
a(n+1) = sum(k=0..n, n^2(n-k)) = n^3*(n+1)/2. - Paul Barry, Sep 02 2003
[A143856] 1, 12, 55, 130, 237, 376, 547, 750, 985, 1252, 1551, 1882, 2245, 2640, 3067, 3526, 4017, 4540, 5095, 5682, 6301, 6952, 7635, 8350, 9097, 9876, 10687, 11530, 12405, 13312, 14251, 15222, 16225, 17260, 18327, 19426, 20557, 21720, 22915, 24142
a(n) = 16*n^2-37*n+22. [From R. J. Mathar, Sep 08 2008]
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 10 2012
[A104188] 0, 12, 56, 132, 240, 380, 552, 756, 992, 1260, 1560, 1892, 2256, 2652, 3080, 3540, 4032, 4556, 5112, 5700, 6320, 6972, 7656, 8372, 9120, 9900, 10712, 11556, 12432, 13340, 14280, 15252, 16256, 17292, 18360, 19460, 20592, 21756, 22952, 24180
a(n) = (4(n-1)!)/((4(n-1)) - 2)!).
a(n) = 32*n + a(n-1) - 20 (with a(0)=0). - Vincenzo Librandi, Nov 13 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A035005] 0, 12, 56, 152, 320, 580, 952, 1456, 2112, 2940, 3960, 5192, 6656, 8372, 10360, 12640, 15232, 18156, 21432, 25080, 29120, 33572, 38456, 43792, 49600, 55900, 62712, 70056, 77952, 86420, 95480, 105152, 115456, 126412, 138040, 150360
a(n) = (n-1)*2*n^2 + (4*n^3-6*n^2+2*n)/3.
a(0)=0, a(1)=12, a(2)=56, a(3)=152, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Aug 24 2011
a(n) = 2*n*(1-6*n+5*n^2)/3. G.f.: 4*x^2*(3+2*x)/(1-x)^4. - Colin Barker, Mar 11 2012
[A212507] 0, 1, 12, 56, 168, 399, 810, 1480, 2496, 3965, 6000, 8736, 12312, 16891, 22638, 29744, 38400, 48825, 61236, 75880, 93000, 112871, 135762, 161976, 191808, 225589, 263640, 306320, 353976, 406995, 465750, 530656, 602112, 680561, 766428
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = (2*n*(9*n^3+6*n^2+1)-(2*n-1)*(-1)^n-1)/32. [Bruno Berselli, May 31 2012]
[A212508] 0, 1, 12, 56, 168, 418, 837, 1554, 2640, 4209, 6375, 9373, 13176, 18161, 24402, 32110, 41472, 52948, 66339, 82384, 101100, 122801, 147741, 176665, 209088, 246225, 287976, 334764, 386904, 445486, 509625, 581126, 659712, 745921
a(n)=2a(n-2)+2a(n-3)-a(n-4)-4a(n-5)+2a(n-7)-2a(n-9)+4a(n-11)+a(n-12)-2a(n-13)-2a(n-14)+a(n-16).
[A035289] 0, 12, 56, 192, 504, 1100, 2112, 3696, 6032, 9324, 13800, 19712, 27336, 36972, 48944, 63600, 81312, 102476, 127512, 156864, 191000, 230412, 275616, 327152, 385584, 451500, 525512, 608256, 700392, 802604, 915600, 1040112, 1176896
a(n) = n^4 - 9 n^2 + 24 n - 16.
[A212682] 0, 1, 12, 57, 168, 395, 792, 1435, 2400, 3789, 5700, 8261, 11592, 15847, 21168, 27735, 35712, 45305, 56700, 70129, 85800, 103971, 124872, 148787, 175968, 206725, 241332, 280125, 323400, 371519, 424800, 483631, 548352, 619377, 697068
a(n)=3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
[A212134] 0, 1, 12, 57, 172, 405, 816, 1477, 2472, 3897, 5860, 8481, 11892, 16237, 21672, 28365, 36496, 46257, 57852, 71497, 87420, 105861, 127072, 151317, 178872, 210025, 245076, 284337, 328132, 376797, 430680, 490141, 555552, 627297, 705772, 791385, 884556, 985717
a(n) = n*(n^3 + 2*n^2 - 3*n + 2)/2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A071270] 0, 1, 12, 57, 176, 425, 876, 1617, 2752, 4401, 6700, 9801, 13872, 19097, 25676, 33825, 43776, 55777, 70092, 87001, 106800, 129801, 156332, 186737, 221376, 260625, 304876, 354537, 410032, 471801, 540300, 616001, 699392, 790977, 891276, 1000825, 1120176
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), with n>4, a(0)=0, a(1)=1, a(2)=12, a(3)=57, a(4)=176. [Yosu Yurramendi, Sep 03 2013]
[A051877] 1, 12, 57, 182, 462, 1008, 1974, 3564, 6039, 9724, 15015, 22386, 32396, 45696, 63036, 85272, 113373, 148428, 191653, 244398, 308154, 384560, 475410, 582660, 708435, 855036, 1024947, 1220842, 1445592, 1702272, 1994168, 2324784, 2697849, 3117324, 3587409
a(n) = C(n+4, 4)*(7n+5)/5.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6).
a(n) = (n+1)*(n+2)*(n+3)*(n+4)*(7*n+5)/120. (End)
[A121693] 0, 0, 1, 12, 57, 216, 741, 2412, 7617, 23616, 72381, 220212, 666777, 2012616, 6062421, 18236412, 54807537, 164619216, 494250861, 1483539012, 4452189897, 13359715416, 40085437701, 120268896012, 360831853857, 1082545893216
a(n) = 23*3^(n-3)/2 + 3/2 - 3*2^(n-1) for n >= 3.
[A167533] 12, 59, 83, 130, 154, 201, 225, 272, 296, 343, 367, 414, 438, 485, 509, 556, 580, 627, 651, 698, 722, 769, 793, 840, 864, 911, 935, 982, 1006, 1053, 1077, 1124, 1148, 1195, 1219, 1266, 1290, 1337, 1361, 1408, 1432, 1479, 1503, 1550, 1574, 1621, 1645
a(n) = (71/4)-(23/4)*(-1)^n+(71/2)*n, with n(0)=12. - Paolo P. Lava, Nov 10 2009
[A158443] 12, 60, 140, 252, 396, 572, 780, 1020, 1292, 1596, 1932, 2300, 2700, 3132, 3596, 4092, 4620, 5180, 5772, 6396, 7052, 7740, 8460, 9212, 9996, 10812, 11660, 12540, 13452, 14396, 15372, 16380, 17420, 18492, 19596, 20732, 21900, 23100, 24332, 25596
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A153792] 0, 12, 60, 144, 264, 420, 612, 840, 1104, 1404, 1740, 2112, 2520, 2964, 3444, 3960, 4512, 5100, 5724, 6384, 7080, 7812, 8580, 9384, 10224, 11100, 12012, 12960, 13944, 14964, 16020, 17112, 18240, 19404, 20604, 21840, 23112, 24420
a(n) = 36*n + a(n-1) - 24 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=12, a(2)=60; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Mar 11 2012
[A112415] 12, 60, 180, 420, 840, 1512, 2520, 3960, 5940, 8580, 12012, 16380, 21840, 28560, 36720, 46512, 58140, 71820, 87780, 106260, 127512, 151800, 179400, 210600, 245700, 285012, 328860, 377580, 431520
a(0)=12, a(1)=60, a(2)=180, a(3)=420, a(4)=840, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, Jul 24 2011]
[A033486] 0, 12, 60, 180, 420, 840, 1512, 2520, 3960, 5940, 8580, 12012, 16380, 21840, 28560, 36720, 46512, 58140, 71820, 87780, 106260, 127512, 151800, 179400, 210600, 245700, 285012, 328860, 377580, 431520, 491040, 556512, 628320, 706860, 792540, 885780, 987012
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) with a(0)=0, a(1)=12, a(2)=60, a(3)=180, a(4)=420. - Harvey P. Dale, Feb 04 2015
[A213818] 1, 12, 60, 190, 465, 966, 1792, 3060, 4905, 7480, 10956, 15522, 21385, 28770, 37920, 49096, 62577, 78660, 97660, 119910, 145761, 175582, 209760, 248700, 292825, 342576, 398412, 460810, 530265, 607290, 692416
a(n) = (2*n - n^2 + 3*n^4)/4.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A004302] 0, 1, 12, 60, 200, 525, 1176, 2352, 4320, 7425, 12100, 18876, 28392, 41405, 58800, 81600, 110976, 148257, 194940, 252700, 323400, 409101, 512072, 634800, 780000, 950625, 1149876, 1381212, 1648360, 1955325
a(n) = C(n, 2)*C(n+1, 3). (End)
a(n) = 3*C(n,3)^2/n, n>= 2. - Zerinvary Lajos, May 09 2008
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5. - Harvey P. Dale, Oct 19 2014
a(n) = Sum_{k=0..n} Sum_{i=0..n} i*C(k+1,k-1). - Wesley Ivan Hurt, Sep 21 2017
a(n) = Sum_{i=0..n} (n+2)*(n-i)^3/3. - Bruno Berselli, Oct 31 2017
[A000554] 12, 60, 210, 630, 1736, 4536, 11430, 28050, 67452, 159588, 372554, 859950, 1965840, 4456176, 10026702, 22412970, 49806980, 110100060, 242220594, 530578950, 1157627352, 2516581800, 5452594550, 11777604930, 25367149836, 54492396756, 116769422490, 249644973150
a(n) = n(n-1)*S2(n-2, 2) where S2(n, k) denotes the Stirling numbers of 2nd kind. - Victor Adamchik (adamchik(AT)cs.cmu.edu), Jul 19 2001
a(n) = Sum_{k=1..n-3} binomial(n,2)*binomial(n-2,k). The sum gives the number of Prüfer sequences with exactly 2 distinct digits. - Geoffrey Critzer, Sep 17 2016

a(n) = (2^n-8)*(n-1)*n/8. - Colin Barker, Sep 18 2016
[A120571] 12, 60, 220, 612, 1404, 2812, 5100, 8580, 13612, 20604, 30012, 42340, 58140, 78012, 102604, 132612, 168780, 211900, 262812, 322404, 391612, 471420, 562860, 667012, 785004, 918012, 1067260, 1234020, 1419612, 1625404, 1852812, 2103300, 2378380
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 5.
[A086950] 0, 1, 12, 60, 224, 720, 2112, 5824, 15360, 39168, 97280, 236544, 565248, 1331200, 3096576, 7127040, 16252928, 36765696, 82575360, 184287232, 408944640, 902823936, 1983905792, 4341104640, 9462349824, 20552089600, 44493176832
a(n) = n*2^n*(2*n-1)/2.
a(0)=0, a(1)=1, a(2)=12, a(n)=6*a(n-1)-12*a(n-2)+8*a(n-3). - Harvey P. Dale, Dec 13 2015
[A177677] 12, 62, 147, 266, 419, 607, 828, 1084, 1375, 1699, 2057, 2450, 2877, 3338, 3833, 4362, 4926, 5523, 6155, 6821, 7521, 8256, 9024, 9827, 10664, 11535, 12440, 13379, 14353, 15360, 16402, 17478, 18588, 19732, 20911, 22123, 23370, 24651, 25966, 27315
a(n) = max {d: Pi^d/2 * n^d / Gamma(1+d/2) > 1}.
[A212509] 0, 1, 12, 63, 180, 437, 891, 1628, 2736, 4392, 6600, 9646, 13608, 18669, 24990, 32955, 42432, 54033, 67797, 84010, 102900, 125118, 150282, 179444, 212544, 249977, 292032, 339687, 392196, 451165, 516375, 588336, 667392, 754908, 849660, 953922, 1067256
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A212249] 0, 1, 12, 63, 202, 496, 1034, 1923, 3289, 5280, 8062, 11820, 16761, 23110, 31111, 41030, 53151, 67777, 85233, 105862, 130026, 158109, 190513, 227659, 269990, 317967, 372070, 432801, 500680, 576246, 660060, 752701, 854767, 966878
a(n) = 4*a(n-1)-6*a(n-2)+5*a(n-3)-5*a(n-4)+6*a(n-5)-4*a(n-6)+a(n-7).
a(n) = (59*n^4 -10*n^3 +5*n^2 -6*n -8*((((n+1) mod 3) +(-1)^((n+1) mod 3))*(-1)^(n mod 3)))/72. [Bruno Berselli, Jun 05 2012]
[A085463] 1, 12, 63, 219, 594, 1365, 2786, 5202, 9063, 14938, 23529, 35685, 52416, 74907, 104532, 142868, 191709, 253080, 329251, 422751, 536382, 673233, 836694, 1030470, 1258595, 1525446, 1835757, 2194633, 2607564, 3080439, 3619560, 4231656
a(n) = n + 10*binomial(n, 2) + 30*binomial(n, 3) + 35*binomial(n, 4) + 14*binomial(n, 5).
a(n) = n*(n+1)*(2*n+1)*(7*n^2 + 7*n + 6)/120.
[A258617] 0, 12, 64, 180, 384, 700, 1152, 1764, 2560, 3564, 4800, 6292, 8064, 10140, 12544, 15300, 18432, 21964, 25920, 30324, 35200, 40572, 46464, 52900, 59904, 67500, 75712, 84564, 94080, 104284, 115200, 126852, 139264, 152460, 166464, 181300, 196992, 213564
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Jun 06 2015
[A289223] 0, 0, 12, 66, 204, 480, 960, 1722, 2856, 4464, 6660, 9570, 13332, 18096, 24024, 31290, 40080, 50592, 63036, 77634, 94620, 114240, 136752, 162426, 191544, 224400, 261300, 302562, 348516, 399504, 455880, 518010, 586272, 661056, 742764, 831810, 928620, 1033632, 1147296
a(n) = (n^4 -4*n^3 -7*n^2 +46*n -48)/2 for n>=2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>6.
[A271870] 1, 12, 66, 236, 651, 1512, 3108, 5832, 10197, 16852, 26598, 40404, 59423, 85008, 118728, 162384, 218025, 287964, 374794, 481404, 610995, 767096, 953580, 1174680, 1435005, 1739556, 2093742, 2503396, 2974791, 3514656, 4130192, 4829088, 5619537, 6510252, 7510482, 863002888
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (n + 1)*(n + 2)*(n + 3)*(4*n^2 + 6*n + 5)/30.
[A114243] 1, 12, 66, 245, 714, 1764, 3864, 7722, 14355, 25168, 42042, 67431, 104468, 157080, 230112, 329460, 462213, 636804, 863170, 1152921, 1519518, 1978460, 2547480, 3246750, 4099095, 5130216, 6368922, 7847371, 9601320, 11670384, 14098304, 16933224, 20227977
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Wesley Ivan Hurt, May 03 2015
[A091074] 12, 67, 79, 146, 225, 371, 596, 967, 1563, 2530, 4093, 6623, 10716, 17339, 28055, 45394, 73449, 118843, 192292, 311135, 503427, 814562, 1317989, 2132551, 3450540, 5583091, 9033631, 14616722, 23650353, 38267075, 61917428, 100184503
a(n) = (61*sqrt(5)/5 + 6)*(1/2 + sqrt(5)/2)^n + (-61*sqrt(5)/5 + 6)*(1/2 - sqrt(5)/2)^n. - Antonio Alberto Olivares, May 23 2013
[A212687] 0, 1, 12, 67, 212, 527, 1096, 2045, 3496, 5621, 8580, 12591, 17852, 24627, 33152, 43737, 56656, 72265, 90876, 112891, 138660, 168631, 203192, 242837, 287992, 339197, 396916, 461735, 534156, 614811, 704240, 803121, 912032, 1031697
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
[A059585] 0, 0, 12, 68, 235, 636, 1478, 3088, 5958, 10800, 18612, 30756, 49049, 75868, 114270, 168128, 242284, 342720, 476748, 653220, 882759, 1178012, 1553926, 2028048, 2620850, 3356080, 4261140, 5367492, 6711093, 8332860, 10279166, 12602368
a(n) = binomial(n + 7, n) - 3*binomial(n + 3, n) + 2*binomial(n + 1, n) = n*(n - 1)*(n + 1)*(n^4 + 28*n^3 + 323*n^2 + 1988*n + 4572)/5040.
[A213547] 1, 12, 68, 260, 777, 1960, 4368, 8856, 16665, 29524, 49764, 80444, 125489, 189840, 279616, 402288, 566865, 784092, 1066660, 1429428, 1889657, 2467256, 3185040, 4069000, 5148585, 6456996, 8031492, 9913708, 12149985, 14791712
a(n) = (n^6 + 6*n^5 + 15*n^4 + 20*n^3 + 14*n^2 + 4*n)/60.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
a(n) = a(-2-n) and a(n-1) = (n^6 - n^2) / 60 for all n in Z. - Michael Somos, Oct 08 2017
[A050484] 1, 12, 68, 264, 810, 2112, 4884, 10296, 20163, 37180, 65208, 109616, 177684, 279072, 426360, 635664, 927333, 1326732, 1865116, 2580600, 3519230, 4736160, 6296940, 8278920, 10772775, 13884156, 17735472, 22467808, 28242984, 35245760
a(n) = C(n+6, 6)*(5n+7)/7.
[A212753] 0, 12, 69, 228, 568, 1192, 2225, 3816, 6136, 9380, 13765, 19532, 26944, 36288, 47873, 62032, 79120, 99516, 123621, 151860, 184680, 222552, 265969, 315448, 371528, 434772, 505765, 585116, 673456, 771440, 879745, 999072, 1130144
a(n)=4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
[A210427] 0, 1, 12, 69, 260, 751, 1812, 3843, 7400, 13221, 22252, 35673, 54924, 81731, 118132, 166503, 229584, 310505, 412812, 540493, 698004, 890295, 1122836, 1401643, 1733304, 2125005, 2584556, 3120417, 3741724, 4458315, 5280756, 6220367, 7289248, 8500305, 9867276
a(n) = n*(12+(35+13*n^2)*n^2)/60.
[A143698] 0, 12, 72, 180, 336, 540, 792, 1092, 1440, 1836, 2280, 2772, 3312, 3900, 4536, 5220, 5952, 6732, 7560, 8436, 9360, 10332, 11352, 12420, 13536, 14700, 15912, 17172, 18480, 19836, 21240, 22692, 24192, 25740, 27336, 28980, 30672, 32412
a(n)=a(n-1)+48*n-36 (with a(0)=0). - Vincenzo Librandi, Dec 14 2010
[A047928] 0, 12, 72, 240, 600, 1260, 2352, 4032, 6480, 9900, 14520, 20592, 28392, 38220, 50400, 65280, 83232, 104652, 129960, 159600, 194040, 233772, 279312, 331200, 390000, 456300, 530712, 613872, 706440, 809100, 922560, 1047552, 1184832
a(n) = floor((n-1)^6/((n-1)^2+1)). - Gary Detlefs, Feb 11 2010
[A008533] 1, 12, 72, 272, 762, 1752, 3512, 6372, 10722, 17012, 25752, 37512, 52922, 72672, 97512, 128252, 165762, 210972, 264872, 328512, 403002, 489512, 589272, 703572, 833762, 981252, 1147512, 1334072, 1542522, 1774512, 2031752, 2316012, 2629122, 2972972, 3349512
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>5. - Colin Barker, Mar 03 2015
[A010024] 1, 12, 72, 292, 862, 2052, 4212, 7772, 13242, 21212, 32352, 47412, 67222, 92692, 124812, 164652, 213362, 272172, 342392, 425412, 522702, 635812, 766372, 916092, 1086762, 1280252, 1498512, 1743572, 2017542, 2322612, 2661052, 3035212, 3447522, 3900492, 4396712
a(n) = 10/3*n^4-5/3*n^3+20/3*n^2+5/3*n+2 for n>0 (from Maple section).
[A008414] 1, 12, 72, 292, 912, 2364, 5336, 10836, 20256, 35436, 58728, 93060, 142000, 209820, 301560, 423092, 581184, 783564, 1038984, 1357284, 1749456, 2227708, 2805528, 3497748, 4320608, 5291820, 6430632, 7757892, 9296112, 11069532
a(n) = 4*n*(2/15*n^4+4/3*n^2+23/15) for n > 0. - S. Bujnowski (slawb(AT)atr.bydgoszcz.pl), Nov 26 2002
[A035472] 1, 12, 72, 356, 1296, 3708, 8920, 18900, 36384, 65004, 109416, 175428, 270128, 402012, 581112, 819124, 1129536, 1527756, 2031240, 2659620, 3434832, 4381244, 5525784, 6898068, 8530528, 10458540, 12720552, 15358212, 18416496, 21943836
a(m)=add(2^k*binomial(n, k)*binomial(m-1, k-1), k=0..n)+2^n*binomial((n+2*m)/2-1, n-1); with n=6.
[A069039] 0, 1, 12, 73, 304, 985, 2668, 6321, 13504, 26577, 48940, 85305, 142000, 227305, 351820, 528865, 774912, 1110049, 1558476, 2149033, 2915760, 3898489, 5143468, 6704017, 8641216, 11024625, 13933036, 17455257, 21690928, 26751369, 32760460
a(n) = 6-crosspolytope(n) = (n^2)*(2*n^4 + 20*n^2 + 23)/45. E.g. a(12) = 142000 because (12^2)*(2*12^4 + 20*12^2 + 23)/45. - Jonathan Vos Post, Nov 16 2004
[A292532] 0, 0, 1, 12, 75, 329, 1158, 3606, 10971, 35601, 126168, 467541, 1722714, 6173070, 21563906, 74452230, 257613930, 899546303, 3166966692, 11185908147, 39459021883, 138761604786, 486746839758, 1705955898935, 5982257083623, 20999661326520, 73772324787965
a(n) = 9*a(n-1) - 36*a(n-2) + 85*a(n-3) - 123*a(n-4) + 129*a(n-5) - 83*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n >= 10.

[A053310] 1, 12, 75, 330, 1155, 3432, 9009, 21450, 47190, 97240, 189618, 352716, 629850, 1085280, 1812030, 2941884, 4657983, 7210500, 10935925, 16280550, 23828805, 34337160, 48774375, 68368950, 94664700, 129585456, 175509972, 235358200
a(n) = binomial(n+8,n+2)*binomial(n+3,n)/28. - Zerinvary Lajos, May 12 2006
[A054334] 1, 12, 77, 352, 1287, 4004, 11011, 27456, 63206, 136136, 277134, 537472, 999362, 1790712, 3105322, 5230016, 8580495, 13748020, 21559395, 33153120, 50075025, 74397180, 108864405, 157073280, 223689180, 314707536, 437766252, 602516992, 821063892, 1108479152
a(n) = 2*binomial(n+10, 10) - binomial(n+9, 9). - Paul Barry, Mar 04 2003
a(n) = binomial(n+9,9) + 2*binomial(n+9,10). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
a(n) = binomial(n+9,9)*(n+5)/5. - Antal Pinter, Dec 27 2015
[A008494] 1, 12, 78, 364, 1365, 4368, 12376, 31824, 75582, 167960, 352716, 705432, 1352077, 2496132, 4457322, 7725796, 13036530, 21469812, 34584914, 54595476, 84596733, 128856520, 193184004, 285392328, 415873822, 598309152, 850534752, 1195596128, 1663018149
a(n) = (604800 + 2286636*n^2 + 696905*n^4 + 39963*n^6 + 495*n^8 + n^10) / 302400 for n>0.
[A001288] 1, 12, 78, 364, 1365, 4368, 12376, 31824, 75582, 167960, 352716, 705432, 1352078, 2496144, 4457400, 7726160, 13037895, 21474180, 34597290, 54627300, 84672315, 129024480, 193536720, 286097760, 417225900, 600805296, 854992152, 1203322288, 1676056044
a(n+10)=n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)(n+10)/11!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
[A290894] 0, 0, 0, 0, 0, 1, 12, 78, 364, 1365, 4368, 12377, 31848, 75882, 170560, 370266, 803712, 1827099, 4531980, 12346791, 35783396, 105681186, 308229948, 873545479, 2392395276, 6336768804, 16309261148, 41095234896, 102361858716, 254804224832, 640481466012
a(n) = 12*a(n-1) - 66*a(n-2) + 220*a(n-3) - 495*a(n-4) + 792*a(n-5) - 923*a(n-6) + 792*a(n-7) - 495*a(n-8) + 22*a(n-9) - 66*a(n-10) + 12*a(n-11) - a(n-12).
[A007010] 1, 12, 81, 372, 1332, 3984, 10420, 24540, 53145, 107436, 205065, 372792, 649936, 1092672, 1779408, 2817288, 4350105, 6567660, 9716905, 14114892, 20163924, 28368912, 39357396, 53902212, 72947329, 97636812, 129347505, 169725360, 220726080, 284659968, 364241728
a(n) = (n^8+16*n^7+106*n^6+376*n^5+784*n^4+1024*n^3+864*n^2+384*n)/3840 for n even.
a(n) = (n^8+16*n^7+106*n^6+376*n^5+784*n^4+1024*n^3+894*n^2+504*n+135)/3840 for n odd.
[A085409] 0, 12, 84, 270, 624, 1200, 2052, 3234, 4800, 6804, 9300, 12342, 15984, 20280, 25284, 31050, 37632, 45084, 53460, 62814, 73200, 84672, 97284, 111090, 126144, 142500, 160212, 179334, 199920, 222024, 245700, 271002, 297984, 326700, 357204, 389550
a(n) = 9n^3 + 3n^2
[A283119] 1, 12, 86, 469, 2141, 8594, 31247, 104945, 330094, 982284, 2786861, 7584060, 19893185, 50494558, 124437410, 298555264, 699017259, 1600364304, 3589048673, 7896510620, 17067607791, 36283650153, 75947406513, 156672628539, 318804641925, 640390347979
a(n) = (1/n)*Sum_{k=1..n} sigma(6*k)*a(n-k). - Seiichi Manyama, Mar 05 2017
[A046023] 0, 1, 12, 87, 416, 1475, 4236, 10437, 22912, 45981, 85900, 151371, 254112, 409487, 637196, 962025, 1414656, 2032537, 2860812, 3953311, 5373600, 7196091, 9507212, 12406637, 16008576, 20443125, 25857676, 32418387, 40311712
a(n) = (n^6+3*n^4+8*n^2)/12.
[A192848] 12, 96, 300, 672, 1260, 2112, 3276, 4800, 6732, 9120, 12012, 15456, 19500, 24192, 29580, 35712, 42636, 50400, 59052, 68640, 79212, 90816, 103500, 117312, 132300, 148512, 165996, 184800, 204972, 226560, 249612, 274176, 300300, 328032, 357420, 388512, 421356, 456000, 492492, 530880, 571212, 613536
a(n) = 4*n*(2+n)*(-1+2*n).
[A177071] 12, 110, 306, 600, 992, 1482, 2070, 2756, 3540, 4422, 5402, 6480, 7656, 8930, 10302, 11772, 13340, 15006, 16770, 18632, 20592, 22650, 24806, 27060, 29412, 31862, 34410, 37056, 39800, 42642, 45582, 48620, 51756, 54990, 58322, 61752, 65280
a(n) = 98*n+a(n-1) with n>0, a(0)=12.
a(0)=12, a(1)=110, a(2)=306, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Oct 09 2011]
[A133386] 0, 0, 0, 0, 12, 120, 750, 3780, 16856, 69552, 272250, 1026300, 3762132, 13498056, 47615750, 165683700, 570024240, 1942538592, 6566094450, 22038141420, 73510278380, 243854707320, 804962754750, 2645408201700, 8658857196552, 28237920483600, 91778694166250
a(n) = n*(n-1)*stirling2(n-1,3).
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=12, a(5)=120, a(6)=750, a(7)=3780, a(8)=16856, a(n)=18*a(n-1)-141*a(n-2)+630*a(n-3)-1767*a(n-4)+ 3222*a(n-5)-3815*a(n-6)+2826*a(n-7)-1188*a(n-8)+216*a(n-9). - Harvey P. Dale, May 02 2015
[A001703] 12, 123, 234, 345, 456, 567, 678, 789, 8910, 91011, 101112, 111213, 121314, 131415, 141516, 151617, 161718, 171819, 181920, 192021, 202122, 212223, 222324, 232425, 242526, 252627, 262728, 272829, 282930, 293031, 303132, 313233, 323334, 333435, 343536, 353637, 363738
a(n) = (n-1)*10^floor[log10(b)+1]+b, with b=n*10^floor[log10(n+1)+1]+n+1 and n>=1. - Paolo P. Lava, Aug 04 2008
[A215774] 0, 12, 127, 742, 3157, 10857, 31899, 82929, 195459, 425139, 864864, 1662661, 3045406, 5349526, 9059946, 14858646, 23684298, 36804558, 55902693, 83180328, 121478203, 174416935, 246559885, 343600335, 472575285, 642108285, 862683822, 1146955887, 1510093452
a(n) = n*(n+1)*(n+2)*(n+3)*(n+4)*(15*n^3+30*n^2+245*n+286)/5760.
[A111085] 1, 12, 132, 847, 3921, 14286, 43687, 116757, 280656, 619219, 1273125, 2467302, 4547458, 8027223, 13648170, 22454470, 35884827, 55883718, 85034962, 126719913, 185303679, 266351932, 376882089, 525651699, 723488194, 983663109, 1322315307
a(n) = 81*(-1)^n/256 +513*n^3/160 +3653*n^2/1120 +27*(-1)^n*n/128 +1341*n^4/640 +297*n^5/320 +87*n^6/320 +27*n^7/560 +9*n^8/2240 +175/256 +9087*n/4480. - R. J. Mathar, Nov 04 2011
[A002721] 1, 12, 132, 847, 3921, 14506, 45402, 124707, 308407, 699766, 1477686, 2936517, 5540107, 9993192, 17333536, 29048541, 47220357, 74703832, 115341952, 174223731, 257989821, 375191422, 536708382, 756232687, 1050823851, 1441543026, 1954172962
a(n) = (1/4032) * m * (m * (m * (31 * m + 1004) + 6820) + 4272) + 1, where m = n*(n+1) (from the Bell reference). - Sean A. Irvine, Jul 01 2014
[A172210] 1, 12, 143, 770, 3368, 12632, 38566, 98968, 222351, 450682, 843169, 1479116, 2460912, 3917228, 6006056, 8917888, 12878847, 18153806, 25049515, 33917724, 45158308, 59222392, 76615476, 97900560, 123701269, 154704978, 191665937
a(n) = (625n^5-11250n^4+98875n^3-515250n^2+1566016n-2194944)/24, n>=16.
[A097259] 0, 12, 156, 168, 2028, 2040, 2184, 2196, 26364, 26376, 26520, 26532, 28392, 28404, 28548, 28560, 342732, 342744, 342888, 342900, 344760, 344772, 344916, 344928, 369096, 369108, 369252, 369264, 371124, 371136, 371280, 371292, 4455516
a(2n) = 13*a(n), a(2n+1) = a(2n)+12.
[A158546] 12, 156, 588, 1308, 2316, 3612, 5196, 7068, 9228, 11676, 14412, 17436, 20748, 24348, 28236, 32412, 36876, 41628, 46668, 51996, 57612, 63516, 69708, 76188, 82956, 90012, 97356, 104988, 112908, 121116, 129612, 138396, 147468, 156828, 166476
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A099745] 0, 0, 0, 0, 12, 168, 1409, 9187, 51362, 258674, 1207855, 5326205, 22459080, 91368900, 360977373, 1391835607, 5257593566, 19515948358, 71358739003, 257521313441, 918732810340, 3244576312440, 11355547678665, 39423281302875, 135876498446042, 465248862099418
a(n) = (162*(-239*2^n+80*3^(1+n)) - (9909*2^n+6128*3^n)*n - 24*(27*2^n-2*3^n)*n^2 + (27*2^n+32*3^n)*n^3) / 2592. - Colin Barker, Feb 14 2017
[A027772] 12, 169, 1274, 6825, 29120, 105196, 334152, 957372, 2519400, 6172530, 14226212, 31097794, 64899744, 130007500, 251100200, 469364220, 851809140, 1504982115, 2594796750, 4374736275, 7225370880, 11708971560, 18644037360, 29205813000, 45060397200, 68541870852
a(n) = C(n+1, 12)*C(n+1, 1). - Zerinvary Lajos, Jun 08 2005, corrected by R. J. Mathar, Feb 13 2016
[A022347] 0, 13, 13, 26, 39, 65, 104, 169, 273, 442, 715, 1157, 1872, 3029, 4901, 7930, 12831, 20761, 33592, 54353, 87945, 142298, 230243, 372541, 602784, 975325, 1578109, 2553434, 4131543, 6684977, 10816520
a(n) = 13*Fibinacci(n). - G. C. Greubel, Aug 25 2017
[A241749] 13, 14, 17, 22, 29, 38, 49, 62, 77, 94, 113, 134, 157, 182, 209, 238, 269, 302, 337, 374, 413, 454, 497, 542, 589, 638, 689, 742, 797, 854, 913, 974, 1037, 1102, 1169, 1238, 1309, 1382, 1457, 1534, 1613, 1694, 1777, 1862, 1949, 2038, 2129, 2222, 2317
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A112653] 0, 1, 13, 14, 26, 27, 39, 40, 52, 53, 65, 66, 78, 79, 91, 92, 104, 105, 117, 118, 130, 131, 143, 144, 156, 157, 169, 170, 182, 183, 195, 196, 208, 209, 221, 222, 234, 235, 247, 248, 260, 261, 273, 274, 286, 287, 299, 300, 312, 313, 325, 326, 338, 339, 351
a(n) = (11*(-1+(-1)^n)+26*n)/4.
a(n) = a(n-1) + a(n-2) - a(n-3) for n > 2.
[A022103] 1, 13, 14, 27, 41, 68, 109, 177, 286, 463, 749, 1212, 1961, 3173, 5134, 8307, 13441, 21748, 35189, 56937, 92126, 149063, 241189, 390252, 631441, 1021693, 1653134, 2674827, 4327961, 7002788, 11330749, 18333537, 29664286, 47997823, 77662109, 125659932, 203322041, 328981973
a(n) = a(n-1) + a(n-2) for n>=2, a(0)=1, a(1)=13, and a(-1):=12.

a(n) = ((1 + sqrt(5))^n-(1 - sqrt(5))^n)/(2^n*sqrt(5))+ 6*((1 + sqrt(5))^(n-1)-(1 - sqrt(5))^(n-1))/(2^(n-2)*sqrt(5)) for n>0. - Al Hakanson (hawkuu(AT)gmail.com), Jan 14 2009
a(n) = Lucas(n+5) - 5*Lucas(n). - Bruno Berselli, Dec 30 2016
[A033049] 0, 1, 13, 14, 169, 170, 182, 183, 2197, 2198, 2210, 2211, 2366, 2367, 2379, 2380, 28561, 28562, 28574, 28575, 28730, 28731, 28743, 28744, 30758, 30759, 30771, 30772, 30927, 30928, 30940, 30941, 371293, 371294, 371306, 371307, 371462
a(n) = Sum{d(i)*13^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 13*a(n), a(2n+1) = a(2n)+1.
[A041083] 1, 1, 13, 14, 181, 195, 2521, 2716, 35113, 37829, 489061, 526890, 6811741, 7338631, 94875313, 102213944, 1321442641, 1423656585, 18405321661, 19828978246, 256353060613, 276182038859, 3570537526921, 3846719565780, 49731172316281, 53577891882061
a(n) = 14*a(n-2)-a(n-4). G.f.: (1+x-x^2)/((1-4*x+x^2)*(1+4*x+x^2)). [Colin Barker, Jul 15 2012]
a(n) = product {k = 1..floor((n-1)/2)} (12 + 4*cos^2(k*Pi/n)).
[A180642] 13, 15, 16, 20, 21, 24, 25, 26, 28, 29, 30, 33, 36, 42, 44, 50, 53, 58, 66, 69, 92, 106, 138, 141, 149, 173, 177, 188, 236, 249, 269, 282, 293, 298, 317, 321, 332, 346, 354, 389, 428, 498, 501, 509, 537, 538, 557, 586, 634, 642, 653, 668, 681, 716, 773, 778, 789
a(n) » n log^2 n. - Charles R Greathouse IV, Feb 04 2013
[A113801] 1, 13, 15, 27, 29, 41, 43, 55, 57, 69, 71, 83, 85, 97, 99, 111, 113, 125, 127, 139, 141, 153, 155, 167, 169, 181, 183, 195, 197, 209, 211, 223, 225, 237, 239, 251, 253, 265, 267, 279, 281, 293, 295, 307, 309, 321, 323, 335, 337, 349, 351, 363, 365, 377, 379
a(n) = 14*(n-1)-a(n-1), n>1. - R. J. Mathar, Jan 30 2010
a(n) = -a(-n+1) = (14*n+5*(-1)^n-7)/2.
a(n) = a(n-2)+14 for n>2.
a(0)=1, a(1)=13, a(2)=15, a(n)=a(n-1)+a(n-2)-a(n-3) [From Harvey P. Dale, May 11 2011]
[A274978] 0, 1, 13, 16, 40, 45, 81, 88, 136, 145, 205, 216, 288, 301, 385, 400, 496, 513, 621, 640, 760, 781, 913, 936, 1080, 1105, 1261, 1288, 1456, 1485, 1665, 1696, 1888, 1921, 2125, 2160, 2376, 2413, 2641, 2680, 2920, 2961, 3213, 3256, 3520, 3565, 3841, 3888, 4176, 4225, 4525, 4576
a(n) = (14*(n-1)*n - 5*(2*n-1)*(-1)^n - 5)/8.
[A049482] 13, 17, 19, 23, 29, 31, 41, 47, 53, 59, 61, 67, 71, 73, 83, 97, 101, 103, 107, 127, 137, 139, 149, 157, 163, 173, 179, 191, 199, 211, 223, 229, 233, 239, 251, 257, 269, 277, 281, 293, 311, 313, 331, 337, 347, 353, 359, 367, 383, 389, 397, 409, 421, 431, 433
a(n) » n log^2 n. - Charles R Greathouse IV, Feb 23 2017
[A156666] 13, 17, 19, 23, 29, 37, 47, 59, 67, 79, 89, 103, 107, 109, 113, 127, 137, 139, 149, 157, 167, 179, 223, 227, 229, 239, 257, 269, 307, 317, 337, 347, 349, 359, 367, 379, 389, 409, 419, 439, 449, 457, 467, 479
a(n) » n^k where k = log 10/log 9 = 1.04795.... - Charles R Greathouse IV, Feb 23 2017
[A168447] 13, 17, 19, 23, 31, 43, 47, 67, 71, 79, 83, 103, 107, 139, 179, 191, 223, 227, 251, 263, 283, 359, 367, 431, 439, 443, 479, 499, 503, 587, 607, 619, 643, 647, 659, 683, 787, 823, 827, 839, 907, 911, 947, 983, 1039, 1087, 1091, 1151, 1163, 1187, 1367, 1399
a(n) » n log^2 n. - Charles R Greathouse IV, Feb 23 2017
[A141076] 13, 17, 23, 29, 37, 41, 43, 59, 67, 71, 73, 89, 97, 103, 107, 131, 149, 157, 167, 173, 179, 181, 197, 199, 211, 223, 227, 229, 241, 257, 271, 281, 283, 293, 307, 311, 313, 317, 331, 337, 359, 379, 397, 409, 421, 431, 433, 439, 443, 449, 463, 479, 487, 499
a(n) + a(229-n) = 2*3*5*7*11.
[A129070] 13, 17, 25, 33, 49, 57, 73, 81, 97, 121, 129, 153, 169, 177, 193, 217, 241, 249, 273, 289, 297, 321, 337, 361, 393, 409, 417, 433, 441, 457, 513, 529, 553, 561, 601, 609, 633, 657, 673, 697, 721, 729, 769, 777, 793, 801, 849, 897, 913, 921, 937, 961, 969
a(n) = 4*prime(n) + 5. - Zak Seidov, May 12 2007
[A155923] 13, 17, 25, 53, 85, 137, 305, 493, 797, 1777, 2873, 4645, 10357, 16745, 27073, 60365, 97597, 157793, 351833, 568837, 919685, 2050633, 3315425, 5360317, 11951965, 19323713, 31242217, 69661157, 112626853, 182092985, 406014977, 656437405
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1) = 13, a(2) = 17, a(3) = 25, a(4) = 53, a(5) = 85, a(6) = 137.
[A283358] 1, 1, 1, 13, 17, 29, 49, 125, 241, 509, 1009, 2045, 4081, 8189, 16369, 32765, 65521, 131069, 262129, 524285, 1048561, 2097149, 4194289, 8388605, 16777201, 33554429, 67108849, 134217725, 268435441, 536870909, 1073741809, 2147483645, 4294967281, 8589934589
a(n) = 2^n - 15 for n>4 and even.
a(n) = 2^n - 3 for n>4 and odd.
a(n) = 2*a(n-1) + a(n-2) - 2*a(n-3) for n>5.
[A248474] 13, 17, 43, 47, 73, 77, 103, 107, 133, 137, 163, 167, 193, 197, 223, 227, 253, 257, 283, 287, 313, 317, 343, 347, 373, 377, 403, 407, 433, 437, 463, 467, 493, 497, 523, 527, 553, 557, 583, 587, 613, 617
a(n) = (-15-11*(-1)^n+30*n)/2.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A214393] 13, 17, 53, 73, 125, 161, 229, 281, 365, 433, 533, 617, 733, 833, 965, 1081, 1229, 1361, 1525, 1673, 1853, 2017, 2213, 2393, 2605, 2801, 3029, 3241, 3485, 3713, 3973, 4217, 4493, 4753, 5045, 5321, 5629, 5921, 6245, 6553, 6893, 7217, 7573, 7913, 8285, 8641
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).
a(n) = 4*n*(n+3)+6*(-1)^n+7.
[A131019] 13, 18, 24, 30, 36, 44, 51, 60, 69, 76, 84, 92, 101, 110, 120, 129, 136, 145, 153, 162, 174, 185, 195, 204, 210, 216, 228, 240, 254, 267, 278, 288, 298, 310, 319, 330, 341, 350, 362, 372, 381, 390, 400, 415, 430, 445, 456, 464, 471, 482, 494, 506, 520, 530
a(n) = (prime(n) + prime(n+1) + prime(n+2) + prime(n+3))/2 for n>1.
[A037158] 13, 18, 28, 35, 44, 52, 61, 70, 80, 91, 104, 120, 141, 170, 212, 275, 372, 524, 765, 1150, 1768, 2763, 4368, 6960, 11149, 17922, 28876, 46595, 75260, 121636, 196669, 318070, 514496, 832315, 1346552, 2178600, 3524877, 5703194, 9227780, 14930675
a(n) = F(n-3)+(11+8*n); G.f. (13-21*x)/((1-x-x^2)*(1-x)^2); 11=L(5) Lucas number;
[A274407] 13, 19, 23, 26, 29, 39, 46, 49, 59, 69, 79, 89, 101, 102, 104, 105, 148, 167, 201, 202, 204, 205, 208, 257, 301, 302, 303, 304, 305, 306, 313, 323, 326, 346, 347, 348, 401, 402, 404, 405, 408, 437, 501, 502, 504, 505, 527, 548, 601, 602, 603, 604, 605, 606, 608, 613, 617, 623, 626, 646, 701, 702
a(n) = a(n-1134) + 12600. - Charles R Greathouse IV, Jun 20 2016
a(n) = 100n/9 + O(1), in particular |a(n) - 100n/9| <= 192. - Charles R Greathouse IV, Jun 20 2016
[A258589] 1, 13, 19, 26, 32, 39, 45, 52, 58, 65, 71, 78, 84, 91, 97, 104, 110, 117, 123, 130, 136, 143, 149, 156, 162, 169, 175, 182, 188, 195, 201, 208, 214, 221, 227, 234, 240, 247, 253, 260, 266, 273, 279, 286, 292, 299, 305, 312, 318, 325, 331, 338, 344, 351, 357
a(n) = floor(13*n/2) = (26*n + (-1)^n - 1)/4 with n>1, a(1)=1.
a(n) = a(n-1) + a(n-2) - a(n-3) for n>4.
[A164485] 13, 21, 33, 53, 85, 137, 221, 357, 577, 933, 1509, 2441, 3949, 6389, 10337, 16725, 27061, 43785, 70845, 114629, 185473, 300101, 485573, 785673, 1271245, 2056917, 3328161, 5385077, 8713237, 14098313, 22811549, 36909861, 59721409, 96631269
a(n) = 4*Fibonacci(n) + 1. - Bruno Berselli, Jul 26 2017
a(n) = 1 - (4*(((1 - sqrt(5))/2)^n - ((1 + sqrt(5))/2)^n))/sqrt(5) for n>3.
a(n) = 2*a(n-1) - a(n-3) for n>6.
[A164459] 13, 21, 35, 58, 96, 159, 264, 439, 730, 1215, 2023, 3369, 5612, 9349, 15576, 25952, 43241, 72050, 120054, 200043, 333329, 555423, 925499, 1542157, 2569695, 4281884, 7134907, 11888905, 19810501, 33010271, 55005074, 91655056, 152724992
a(0)=13, a(1)=21, a(2)=35, a(3)=58, a(4)=96, a(5)=159, a(6)=264, a(n)= 2*a(n-1)-2*a(n-4)+a(n-5)-a(n-6)+a(n-7) [From Harvey P. Dale, May 06 2011]
[A164495] 13, 22, 37, 62, 105, 178, 301, 508, 857, 1446, 2441, 4122, 6961, 11754, 19845, 33504, 56565, 95502, 161245, 272246, 459657, 776074, 1310301, 2212276, 3735153, 6306350, 10647505, 17977010, 30351969, 51245554, 86521797, 146081400, 246640477
a(4)=13, a(5)=22, a(6)=37, a(7)=62, a(8)=105, a(9)=178, a(n)=2*a(n-1)- a(n-2)+ a(n-4)+a(n-6). - Harvey P. Dale, Mar 07 2015
[A213655] 13, 23, 41, 77, 141, 259, 477, 877, 1613, 2967, 5457, 10037, 18461, 33955, 62453, 114869, 211277, 388599, 714745, 1314621, 2417965, 4447331, 8179917, 15045213, 27672461, 50897591, 93615265, 172185317, 316698173, 582498755
a(n) = a(n-1) + a(n-2) + a(n-3) for n>=4; a(1)=13, a(2)=23, a(3)=41.
[A213665] 13, 23, 43, 79, 145, 267, 491, 903, 1661, 3055, 5619, 10335, 19009, 34963, 64307, 118279, 217549, 400135, 735963, 1353647, 2489745, 4579355, 8422747, 15491847, 28493949, 52408543, 96394339, 177296831, 326099713, 599790883, 1103187427

a(3)=13, a(4)=23, a(5)=43, a(n)=a(n-1)+a(n-2)+a(n-3) for n>=6
[A266912] 13, 24, 35, 46, 57, 68, 79, 102, 113, 124, 135, 146, 157, 168, 179, 202, 213, 224, 235, 246, 257, 268, 279, 302, 313, 324, 335, 346, 357, 368, 379, 402, 413, 424, 435, 446, 457, 468, 479, 502, 513, 524, 535, 546, 557, 568, 579, 602, 613, 624, 635, 646, 657
a(n) = a(n-1) + a(n-8) - a(n-9) for n > 9.
[A032607] 13, 24, 35, 46, 57, 68, 79, 810, 911, 1012, 1113, 1214, 1315, 1416, 1517, 1618, 1719, 1820, 1921, 2022, 2123, 2224, 2325, 2426, 2527, 2628, 2729, 2830, 2931, 3032, 3133, 3234, 3335, 3436, 3537, 3638, 3739, 3840, 3941, 4042, 4143, 4244
a(n)=n*floor(log10(n+2)+1)+n+2, with n>=1 [From Paolo P. Lava, Oct 09 2008]
[A017533] 1, 13, 25, 37, 49, 61, 73, 85, 97, 109, 121, 133, 145, 157, 169, 181, 193, 205, 217, 229, 241, 253, 265, 277, 289, 301, 313, 325, 337, 349, 361, 373, 385, 397, 409, 421, 433, 445, 457, 469, 481, 493, 505, 517, 529, 541, 553, 565, 577, 589, 601, 613, 625, 637
a(n) = 24*n - a(n-1) - 10, (with a(0)=1). - Vincenzo Librandi, Dec 24 2010
[A026058] 13, 25, 41, 63, 90, 123, 162, 209, 263, 325, 395, 475, 564, 663, 772, 893, 1025, 1169, 1325, 1495, 1678, 1875, 2086, 2313, 2555, 2813, 3087, 3379, 3688, 4015, 4360, 4725, 5109, 5513, 5937, 6383, 6850, 7339, 7850, 8385, 8943, 9525, 10131, 10763, 11420, 12103, 12812, 13549, 14313, 15105, 15925
a(n)= - 0.125 - 0.125*(- 1)^n + 0.25*cos(n*Pi/2) + (n + 4)*(n^2 + 20*n + 39)/12 [From Richard Choulet, Dec 13 2008]
[A163551] 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 13, 25, 49, 97, 193, 385, 769, 1537, 3073, 6145, 12289, 24577, 49153, 98305, 196597, 393169, 786289, 1572481, 3144769, 6289153, 12577537, 25153537, 50304001, 100601857, 201191425, 402358273, 804667393
a(n) = a(n-1)+a(n-2)+...+a(n-13) for n > 12, a(0)=a(1)=...=a(12)=1
[A164007] 0, 13, 26, 33, 52, 55, 78, 91, 112, 135, 160, 187, 216, 247, 280, 315, 352, 391, 432, 475, 520, 567, 616, 667, 720, 775, 832, 891, 952, 1015, 1080, 1147, 1216, 1287, 1360, 1435, 1512, 1591, 1672, 1755, 1840, 1927, 2016, 2107, 2200, 2295, 2392, 2491, 2592, 2695
a(n) = n*(n+6), n >= 7.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), n >= 7.
[A008595] 0, 13, 26, 39, 52, 65, 78, 91, 104, 117, 130, 143, 156, 169, 182, 195, 208, 221, 234, 247, 260, 273, 286, 299, 312, 325, 338, 351, 364, 377, 390, 403, 416, 429, 442, 455, 468, 481, 494, 507, 520, 533, 546, 559, 572, 585, 598, 611, 624, 637, 650, 663, 676
a(n) = 13*n = 2*a(n-1) - a(n-2). G.f.: 13x/(x-1)^2. - Vincenzo Librandi, Dec 24 2010
[A019551] 13, 26, 39, 412, 515, 618, 721, 824, 927, 1030, 1133, 1236, 1339, 1442, 1545, 1648, 1751, 1854, 1957, 2060, 2163, 2266, 2369, 2472, 2575, 2678, 2781, 2884, 2987, 3090, 3193, 3296, 3399, 34102, 35105, 36108
a(n) = n * 10^floor(log10(3*n) + 1) + 3*n. [Paolo P. Lava, Mar 24 2010].
[A005029] 13, 26, 52, 104, 208, 416, 832, 1664, 3328, 6656, 13312, 26624, 53248, 106496, 212992, 425984, 851968, 1703936, 3407872, 6815744, 13631488, 27262976, 54525952, 109051904, 218103808, 436207616, 872415232, 1744830464, 3489660928, 6979321856, 13958643712
a(n) = 2*a(n-1), n>0; a(0)=13. G.f.: 13/(1-2*x). - Philippe Deléham, Nov 23 2008
[A041765] 1, 13, 27, 40, 147, 187, 708, 895, 2498, 33369, 1337258, 17417723, 36172704, 53590427, 196943985, 250534412, 948547221, 1199081633, 3346710487, 44706317964, 1791599429047, 23335498895575, 48462597220197, 71798096115772, 263856885567513, 335654981683285
a(n) = 1339756*a(n-10) - a(n-20) for n>19. - Vincenzo Librandi, Dec 24 2013
[A132755] 0, 13, 27, 42, 58, 75, 93, 112, 132, 153, 175, 198, 222, 247, 273, 300, 328, 357, 387, 418, 450, 483, 517, 552, 588, 625, 663, 702, 742, 783, 825, 868, 912, 957, 1003, 1050, 1098, 1147, 1197, 1248, 1300, 1353, 1407, 1462, 1518, 1575
a(n) = n + a(n-1) + 12 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 13*n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
a(0)=0, a(1)=13, a(2)=27; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Aug 09 2014
[A195045] 0, 1, 13, 27, 52, 79, 117, 157, 208, 261, 325, 391, 468, 547, 637, 729, 832, 937, 1053, 1171, 1300, 1431, 1573, 1717, 1872, 2029, 2197, 2367, 2548, 2731, 2925, 3121, 3328, 3537, 3757, 3979, 4212, 4447, 4693, 4941, 5200, 5461, 5733, 6007, 6292, 6579, 6877, 7177, 7488, 7801, 8125
a(n) = 13*n^2/4+9*((-1)^n-1)/8.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4) for n>3. - Wesley Ivan Hurt, Nov 22 2015
[A098847] 0, 13, 28, 45, 64, 85, 108, 133, 160, 189, 220, 253, 288, 325, 364, 405, 448, 493, 540, 589, 640, 693, 748, 805, 864, 925, 988, 1053, 1120, 1189, 1260, 1333, 1408, 1485, 1564, 1645, 1728, 1813, 1900, 1989, 2080, 2173, 2268, 2365, 2464, 2565, 2668, 2773
a(n) = (n+6)^2 - 6^2 = n*(n + 12), n>=0.
a(n) = 2*n + a(n-1) + 11 (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(0)=0, a(1)=13, a(2)=28, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 24 2012
[A026054] 13, 28, 50, 80, 119, 168, 228, 300, 385, 484, 598, 728, 875, 1040, 1224, 1428, 1653, 1900, 2170, 2464, 2783, 3128, 3500, 3900, 4329, 4788, 5278, 5800, 6355, 6944, 7568, 8228, 8925, 9660, 10434, 11248, 12103, 13000, 13940, 14924, 15953, 17028, 18150, 19320, 20539, 21808, 23128, 24500, 25925
a(n) = n*(n^2+9*n-10)/6. G.f.: x^3*(13-24*x+16*x^2-4*x^3)/(1-x)^4. [Colin Barker, Sep 17 2012]
[A082285] 13, 29, 45, 61, 77, 93, 109, 125, 141, 157, 173, 189, 205, 221, 237, 253, 269, 285, 301, 317, 333, 349, 365, 381, 397, 413, 429, 445, 461, 477, 493, 509, 525, 541, 557, 573, 589, 605, 621, 637, 653, 669, 685, 701, 717, 733, 749, 765, 781, 797, 813, 829, 845
a(n) = 16n + 13. - Max Alekseyev, Mar 03 2007
a(n) = 32*n - a(n-1) + 10; a(0)=13. - Vincenzo Librandi, Oct 10 2011
[A243138] 13, 29, 47, 67, 89, 113, 139, 167, 197, 229, 263, 299, 337, 377, 419, 463, 509, 557, 607, 659, 713, 769, 827, 887, 949, 1013, 1079, 1147, 1217, 1289, 1363, 1439, 1517, 1597, 1679, 1763, 1849, 1937, 2027, 2119, 2213, 2309, 2407, 2507, 2609, 2713, 2819, 2927, 3037, 3149
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A139577] 0, 13, 30, 51, 76, 105, 138, 175, 216, 261, 310, 363, 420, 481, 546, 615, 688, 765, 846, 931, 1020, 1113, 1210, 1311, 1416, 1525, 1638, 1755, 1876, 2001, 2130, 2263, 2400, 2541, 2686, 2835, 2988, 3145, 3306, 3471, 3640, 3813, 3990
a(n) = 2*n^2 + 11*n.
a(n) = a(n-1) + 4*n + 9 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
[A023274] 13, 31, 37, 67, 73, 181, 367, 541, 661, 997, 1087, 1117, 1327, 1861, 2179, 2293, 2473, 2713, 2719, 3271, 3727, 4363, 5281, 5443, 5749, 7459, 8089, 8707, 9109, 9181, 9337, 10357, 10639, 12553, 13183, 14923, 16183, 16249, 17341, 17419, 17761, 17923, 17989
a(n) == 1 (mod 6). - John Cerkan, Sep 16 2016
[A166143] 1, 13, 31, 55, 85, 121, 163, 211, 265, 325, 391, 463, 541, 625, 715, 811, 913, 1021, 1135, 1255, 1381, 1513, 1651, 1795, 1945, 2101, 2263, 2431, 2605, 2785, 2971, 3163, 3361, 3565, 3775, 3991, 4213, 4441, 4675, 4915, 5161, 5413, 5671, 5935, 6205
a(n) = a(n-1)+6n, a(1)=1.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A160772] 13, 31, 91, 133, 241, 307, 463, 757, 871, 1261, 1561, 1723, 2071, 2653, 3307, 3541, 4291, 4831, 5113, 6007, 6643, 7657, 9121, 9901, 10303, 11131, 11557, 12433, 15751, 16771, 18361, 18907, 21757, 22351, 24181, 26083, 27391, 29413, 31507, 32221, 35911, 36673
a(n) = (prime(n)-2)*(prime(n)-1) + 1.
[A023304] 13, 31, 181, 541, 661, 1087, 1861, 2179, 2719, 3727, 7459, 8089, 8707, 9109, 10639, 17341, 19333, 22501, 23293, 29287, 32797, 39847, 40387, 42703, 46591, 51613, 53101, 56149, 56809, 57829, 59233, 80779, 87643, 89113, 89413, 91291, 93979, 94261, 98899
a(n) == 1 (mod 6). - John Cerkan, Sep 27 2016
[A212757] 1, 1, 13, 32, 56, 80, 177, 213, 297, 472, 580, 688, 1037, 1169, 1385, 1872, 2124, 2376, 3133, 3421, 3829, 4784, 5240, 5696, 7017, 7521, 8181, 9760, 10480, 11200, 13241, 14021, 14993, 17352, 18396, 19440, 22357, 23473, 24817, 28112, 29540
a(n)=-a(n-1)+a(n-2)+4*a(n-3)+3*a(n-4)-3*a(n-5)-6*a(n-6)-3*a(n-7)+3*a(n-8)+4*a(n-9)+a(n-10)-a(n-11)-a(n-12).
[A140678] 0, 13, 32, 57, 88, 125, 168, 217, 272, 333, 400, 473, 552, 637, 728, 825, 928, 1037, 1152, 1273, 1400, 1533, 1672, 1817, 1968, 2125, 2288, 2457, 2632, 2813, 3000, 3193, 3392, 3597, 3808, 4025, 4248, 4477, 4712, 4953, 5200, 5453, 5712
a(n) = 3*n^2 + 10*n.
a(n) = 6*n + a(n-1) + 7, with a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), with a(0)=0, a(1)=13, a(2)=32. - Harvey P. Dale, Jun 05 2012
[A082109] 1, 13, 33, 61, 97, 141, 193, 253, 321, 397, 481, 573, 673, 781, 897, 1021, 1153, 1293, 1441, 1597, 1761, 1933, 2113, 2301, 2497, 2701, 2913, 3133, 3361, 3597, 3841, 4093, 4353, 4621, 4897, 5181, 5473, 5773, 6081, 6397, 6721, 7053, 7393, 7741, 8097, 8461
a(n) = 4n^2 + 8n + 1.

a(n) = 8*n + a(n-1) + 4 (with a(0)=1). - Vincenzo Librandi, Aug 08 2010
[A081271] 1, 13, 34, 64, 103, 151, 208, 274, 349, 433, 526, 628, 739, 859, 988, 1126, 1273, 1429, 1594, 1768, 1951, 2143, 2344, 2554, 2773, 3001, 3238, 3484, 3739, 4003, 4276, 4558, 4849, 5149, 5458, 5776, 6103, 6439, 6784, 7138, 7501, 7873, 8254, 8644, 9043, 9451
a(n) = binomial(n, 0) + 12*binomial(n, 1) + 9*binomial(n, 2).
a(n) = (9*n^2 + 15*n + 2)/2.
a(0) = 1, a(n) = a(n-1) + 9*n + 3 for n > 0 - Gerald McGarvey, Aug 18 2004
[A180673] 0, 13, 34, 68, 123, 212, 356, 589, 966, 1576, 2563, 4160, 6744, 10925, 17690, 28636, 46347, 75004, 121372, 196397, 317790, 514208, 832019, 1346248, 2178288, 3524557, 5702866, 9227444, 14930331, 24157796, 39088148, 63245965, 102334134
a(n) = a(n-1) + a(n-2) + 21 for n>1, a(0)=0, a(1)=13, and where 21 = F(8).
a(n) = (-21 + (2^(-1-n)*((1-sqrt(5))^n*(-47+21*sqrt(5)) + (1+sqrt(5))^n*(47+21*sqrt(5)))) / sqrt(5)).
a(n) = 2*a(n-1) - a(n-3) for n>2.
[A214729] 0, 13, 34, 102, 267, 712, 1864, 4893, 12810, 33550, 87835, 229968, 602064, 1576237, 4126642, 10803702, 28284459, 74049688, 193864600, 507544125, 1328767770, 3478759198, 9107509819, 23843770272, 62423800992, 163427632717, 427859097154, 1120149658758
a(n) = (9*(-1)^(n+1) - 20 + Lucas(2*n + 7))/5. - Ehren Metcalfe, Aug 21 2017
a(n) = (2^(-1-n)*(-2^(1+n)*(20 + 9*(-1)^n) + (29-13*sqrt(5))*(3-sqrt(5))^n + (3+sqrt(5))^n*(29+13*sqrt(5)))) / 5.
a(n) = 2*a(n-1) + 2*a(n-2) + 2*a(n-3) - a(n-4) for n>3.
[A063300] 1, 13, 35, 56, 77, 99, 120, 141, 163, 184, 205, 227, 248, 269, 291, 312, 333, 355, 376, 397, 419, 440, 461, 483, 504, 525, 547, 568, 589, 611, 632, 653, 675, 696, 717, 739, 760, 781, 803, 824, 845, 867, 888, 909, 931, 952, 973, 995, 1016, 1037
a(n) = a(n-1)+a(n-3)-a(n-4) for n>6.
[A101103] 1, 13, 36, 60, 84, 108, 132, 156, 180, 204, 228, 252, 276, 300, 324, 348, 372, 396, 420, 444, 468, 492, 516, 540, 564, 588, 612, 636, 660, 684, 708, 732, 756, 780, 804
a(n)= +2*a(n-1) -a(n-2), n>4.
a(n) = 24*n-36, n>=3.
a(n) = sum_{j=0..n} (-1)^j*binomial(3, j)*(n - j)^4. [Indices shifted, Nov 01 2010]
[A051865] 0, 1, 13, 36, 70, 115, 171, 238, 316, 405, 505, 616, 738, 871, 1015, 1170, 1336, 1513, 1701, 1900, 2110, 2331, 2563, 2806, 3060, 3325, 3601, 3888, 4186, 4495, 4815, 5146, 5488, 5841, 6205, 6580, 6966, 7363, 7771, 8190, 8620, 9061, 9513
a(n) = 11*n + a(n-1) - 10 with n > 0, a(0) = 0. - Vincenzo Librandi, Aug 06 2010
a(11*a(n) + 56*n + 1) = a(11*a(n) + 56*n) + a(11*n+1). - Vladimir Shevelev, Jan 24 2014
[A220462] 13, 37, 41, 67, 73, 97, 127, 137, 173, 179, 181, 211, 229, 239, 263, 307, 311, 347, 367, 379, 431, 433, 443, 449, 479, 487, 541, 563, 587, 599, 607, 641, 643, 673, 739, 757, 787, 797, 809, 823, 827, 859, 937, 967, 997, 1019, 1031, 1039, 1049, 1061, 1087
a(n)<=prime(4*(n+1)).
[A045809] 13, 37, 59, 91, 113, 137, 159, 191, 213, 237, 259, 291, 313, 337, 359, 391, 413, 437, 459, 491, 513, 537, 559, 591, 613, 637, 659, 691, 713, 737, 759, 791, 813, 837, 859, 891, 913, 937, 959, 991, 1013, 1037, 1059, 1091, 1113, 1137, 1159, 1191, 1213, 1237
a(n) = (50*n+4*i^(n*(n-1))+3*(-1)^n-25)/2, where i=sqrt(-1). - Bruno Berselli, Feb 22 2012
[A003154] 1, 13, 37, 73, 121, 181, 253, 337, 433, 541, 661, 793, 937, 1093, 1261, 1441, 1633, 1837, 2053, 2281, 2521, 2773, 3037, 3313, 3601, 3901, 4213, 4537, 4873, 5221, 5581, 5953, 6337, 6733, 7141, 7561, 7993, 8437, 8893, 9361, 9841, 10333, 10837
a(n) = 1 + (sum(12*n)). E.g., a(2)=37 because 1 + 12*0 + 12*1 + 12*2 = 37. - _Xavier Acloque_, Oct 06 2003
a(n) = numerator in B_2(x) = (1/2)x^2 - (1/2)x + 1/12 = Bernoulli polynomial of degree 2. - Gary W. Adamson, May 30 2005
a(n) = 12*(n-1) + a(n-1), with n>1, a(1)=1. - Vincenzo Librandi, Aug 08 2010
[A222964] 0, 13, 37, 76, 124, 189, 261, 352, 448, 565, 685, 828, 972, 1141, 1309, 1504, 1696, 1917, 2133, 2380, 2620, 2893, 3157, 3456, 3744, 4069, 4381, 4732, 5068, 5445, 5805, 6208, 6592, 7021, 7429, 7884, 8316, 8797, 9253, 9760, 10240, 10773, 11277, 11836, 12364, 12949, 13501, 14112, 14688
a(n) = (50*n*(n-1)+(2*n-1)*(-1)^n+1)/8.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A163675] 0, 13, 37, 78, 142, 235, 363, 532, 748, 1017, 1345, 1738, 2202, 2743, 3367, 4080, 4888, 5797, 6813, 7942, 9190, 10563, 12067, 13708, 15492, 17425, 19513, 21762, 24178, 26767, 29535, 32488, 35632, 38973, 42517, 46270, 50238, 54427, 58843, 63492, 68380
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A139697] 1, 13, 37, 85, 181, 373, 757, 1525, 3061, 6133, 12277, 24565, 49141, 98293, 196597, 393205, 786421, 1572853, 3145717, 6291445, 12582901, 25165813, 50331637, 100663285, 201326581, 402653173, 805306357, 1610612725, 3221225461, 6442450933, 12884901877
a(n) = 12*2^(n-1) - 11. - Emeric Deutsch, May 05 2008
a(n) = 2*a(n-1) + 11 (with a(1)=1). - Vincenzo Librandi, Nov 24 2010
a(n) = 3*2^(n+1) - 11.
a(n) = 3*a(n-1) - 2*a(n-2).
[A152741] 0, 13, 39, 78, 130, 195, 273, 364, 468, 585, 715, 858, 1014, 1183, 1365, 1560, 1768, 1989, 2223, 2470, 2730, 3003, 3289, 3588, 3900, 4225, 4563, 4914, 5278, 5655, 6045, 6448, 6864, 7293, 7735, 8190, 8658, 9139, 9633, 10140, 10660, 11193, 11739, 12298, 12870
a(n) = a(n-1)+13*n (with a(0)=0). - Vincenzo Librandi, Nov 26 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
a(n) = Sum_{i=6n..7n} i. (End)
[A168235] 13, 39, 79, 133, 201, 283, 379, 489, 613, 751, 903, 1069, 1249, 1443, 1651, 1873, 2109, 2359, 2623, 2901, 3193, 3499, 3819, 4153, 4501, 4863, 5239, 5629, 6033, 6451, 6883, 7329, 7789, 8263, 8751, 9253, 9769, 10299, 10843, 11401, 11973, 12559, 13159, 13773
a(1)=13, a(2)=39, a(3)=79, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 07 2015
[A258597] 13, 39, 117, 351, 1053, 3159, 9477, 28431, 85293, 255879, 767637, 2302911, 6908733, 20726199, 62178597, 186535791, 559607373, 1678822119, 5036466357, 15109399071, 45328197213, 135984591639, 407953774917, 1223861324751, 3671583974253, 11014751922759
a(n) = 3*a(n-1).
[A041755] 1, 1, 13, 40, 173, 1597, 1770, 5137, 6907, 18951, 25858, 44809, 115476, 160285, 436046, 596331, 5803025, 23808431, 77228318, 950548247, 1027776565, 40006057717, 41033834282, 532412069101, 1638270041585, 7085492235441, 65407700160554, 72493192395995
a(n) = 40956605964*a(n-21) + a(n-42) for n>41. - Vincenzo Librandi, Dec 24 2013
[A102083] 1, 13, 41, 85, 145, 221, 313, 421, 545, 685, 841, 1013, 1201, 1405, 1625, 1861, 2113, 2381, 2665, 2965, 3281, 3613, 3961, 4325, 4705, 5101, 5513, 5941, 6385, 6845, 7321, 7813, 8321, 8845, 9385, 9941, 10513, 11101, 11705, 12325, 12961, 13613, 14281, 14965, 15665
a(n) = 4*(4*n-1)+a(n-1) (with a(0)=1). - Vincenzo Librandi, Nov 16 2010
[A167585] 13, 41, 93, 169, 269, 393, 541, 713, 909, 1129, 1373, 1641, 1933, 2249, 2589, 2953, 3341, 3753, 4189, 4649, 5133, 5641, 6173, 6729, 7309, 7913, 8541, 9193, 9869, 10569, 11293, 12041, 12813, 13609, 14429, 15273, 16141, 17033, 17949, 18889
a(n) = a(n-1) + 24*n - 20, with a(1)=13. - Vincenzo Librandi, Dec 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - G. C. Greubel, Jun 17 2016
[A139277] 0, 13, 42, 87, 148, 225, 318, 427, 552, 693, 850, 1023, 1212, 1417, 1638, 1875, 2128, 2397, 2682, 2983, 3300, 3633, 3982, 4347, 4728, 5125, 5538, 5967, 6412, 6873, 7350, 7843, 8352, 8877, 9418, 9975, 10548, 11137, 11742, 12363, 13000
a(n) = 8*n^2 + 5n.
a(n) = 16*n + a(n-1) - 3 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A162265] 1, 13, 42, 94, 175, 291, 448, 652, 909, 1225, 1606, 2058, 2587, 3199, 3900, 4696, 5593, 6597, 7714, 8950, 10311, 11803, 13432, 15204, 17125, 19201, 21438, 23842, 26419, 29175, 32116, 35248, 38577, 42109, 45850, 49806, 53983, 58387, 63024, 67900
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A146507] 1, 13, 43, 55, 85, 97, 127, 139, 169, 181, 211, 223, 253, 265, 295, 307, 337, 349, 379, 391, 421, 433, 463, 475, 505, 517, 547, 559, 589, 601, 631, 643, 673, 685, 715, 727, 757, 769, 799, 811, 841, 853, 883, 895, 925, 937, 967, 979
a(2k-1) = 42*(k-1)+1, a(2k) = 42*(k-1)+13, where k>0.

[A082369] 13, 43, 73, 103, 133, 163, 193, 223, 253, 283, 313, 343, 373, 403, 433, 463, 493, 523, 553, 583, 613, 643, 673, 703, 733, 763, 793, 823, 853, 883, 913, 943, 973, 1003, 1033, 1063, 1093, 1123, 1153, 1183, 1213, 1243, 1273, 1303, 1333, 1363, 1393, 1423, 1453
a(n) = 30n + 13.
[A187677] 13, 43, 89, 151, 229, 433, 701, 859, 1033, 1223, 1429, 1889, 2143, 2699, 3001, 3319, 4003, 4751, 5563, 7873, 10009, 11173, 11779, 12401, 13693, 17203, 18719, 19501, 21943, 25423, 27259, 28201, 30133, 31123, 33151, 36313
a(n) = 2((2n - 1)^2 - n) - 1 (or, find the number in the corresponding spot in the better known Ulam spiral, double it and subtract 1)
[A082040] 1, 13, 43, 91, 157, 241, 343, 463, 601, 757, 931, 1123, 1333, 1561, 1807, 2071, 2353, 2653, 2971, 3307, 3661, 4033, 4423, 4831, 5257, 5701, 6163, 6643, 7141, 7657, 8191, 8743, 9313, 9901, 10507, 11131, 11773, 12433, 13111, 13807, 14521, 15253, 16003
a(n) = 18*n+a(n-1)-6 with n>0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
[A023262] 13, 43, 103, 139, 199, 349, 397, 577, 727, 733, 829, 967, 1039, 1303, 1567, 1597, 1753, 2131, 2161, 2311, 2707, 2719, 2857, 3109, 3319, 3613, 3673, 3697, 3853, 4051, 4129, 4201, 4297, 4441, 4507, 4513, 4639, 4663, 4789, 5503, 5701, 5743, 5857, 5953, 6121
a(n) = 1 mod 6 - John Cerkan, Sep 16 2016
[A243894] 13, 43, 149, 317, 853, 1277, 2281, 2957, 4507, 7433, 8693, 12671, 15887, 17839, 21701, 28099, 35407, 38327, 46997, 53359, 56911, 67511, 75289, 87541, 105173, 115067, 120473, 130829, 136573, 147919, 189139, 202519, 223009, 230449, 267413, 275711
a(n) = prime((n^2 + prime(n)^2) + 1).
[A226514] 13, 44, 99, 184, 305, 468, 679, 944, 1269, 1660, 2123, 2664, 3289, 4004, 4815, 5728, 6749, 7884, 9139, 10520, 12033, 13684, 15479, 17424, 19525, 21788, 24219, 26824, 29609, 32580, 35743, 39104, 42669, 46444, 50435, 54648, 59089, 63764, 68679, 73840, 79253, 84924, 90859, 97064, 103545, 110308, 117359, 124704
a(n) = (n+1)*(n^2+8*n+13).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Jun 17 2013
[A159742] 13, 44, 108, 236, 492, 1004, 2028, 4076, 8172, 16364, 32748, 65516, 131052, 262124, 524268, 1048556, 2097132, 4194284, 8388588, 16777196, 33554412, 67108844, 134217708, 268435436, 536870892, 1073741804, 2147483628, 4294967276, 8589934572, 17179869164
a(n)=3*a(n-1)-2*a(n-2), n>3. a(n)=16*2^n-20, n>1. [From R. J. Mathar, Apr 22 2009]
[A007587] 0, 1, 13, 46, 110, 215, 371, 588, 876, 1245, 1705, 2266, 2938, 3731, 4655, 5720, 6936, 8313, 9861, 11590, 13510, 15631, 17963, 20516, 23300, 26325, 29601, 33138, 36946, 41035, 45415, 50096, 55088, 60401, 66045, 72030, 78366, 85063, 92131, 99580, 107420, 115661
a(n) = (10*n-7)*binomial(n+1, 2)/3.
a(n) = Sum_{k=0..n} k*(5*k-4). - Klaus Brockhaus, Nov 20 2008
a(n) = sum((n-i)*(10*i+1), i=0..n-1), with a(0)=0. - Bruno Berselli, Feb 10 2014
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Wesley Ivan Hurt, Oct 23 2014
[A004467] 0, 1, 13, 47, 114, 225, 391, 623, 932, 1329, 1825, 2431, 3158, 4017, 5019, 6175, 7496, 8993, 10677, 12559, 14650, 16961, 19503, 22287, 25324, 28625, 32201, 36063, 40222, 44689, 49475, 54591, 60048
a(0)=0, a(1)=1, a(2)=13, a(3)=47; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Sep 22 2013
[A135712] 1, 13, 48, 118, 235, 411, 658, 988, 1413, 1945, 2596, 3378, 4303, 5383, 6630, 8056, 9673, 11493, 13528, 15790, 18291, 21043, 24058, 27348, 30925, 34801, 38988, 43498, 48343, 53535, 59086, 65008, 71313, 78013, 85120, 92646, 100603, 109003, 117858, 127180
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A158480] 13, 49, 109, 193, 301, 433, 589, 769, 973, 1201, 1453, 1729, 2029, 2353, 2701, 3073, 3469, 3889, 4333, 4801, 5293, 5809, 6349, 6913, 7501, 8113, 8749, 9409, 10093, 10801, 11533, 12289, 13069, 13873, 14701, 15553, 16429, 17329, 18253, 19201
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A274974] 1, 13, 49, 117, 225, 381, 593, 869, 1217, 1645, 2161, 2773, 3489, 4317, 5265, 6341, 7553, 8909, 10417, 12085, 13921, 15933, 18129, 20517, 23105, 25901, 28913, 32149, 35617, 39325, 43281, 47493, 51969, 56717, 61745, 67061, 72673, 78589, 84817, 91365, 98241
a(n) = (4*n^3+24*n^2+8*n+3)/3.
[A289999] 13, 49, 217, 937, 3913, 16009, 64777, 260617, 1045513, 4188169, 16764937, 67084297, 268386313, 1073643529, 4294770697, 17179475977, 68718690313, 274876334089, 1099508482057, 4398040219657, 17592173461513, 70368719011849, 281474926379017, 1125899806179337, 4503599426043913, 18014398106828809
a(n) = -3*2^(n + 2) + 2^(2n + 4) + 9.
a(n) = 7*a(n-1) - 14*a(n-2) + 8*a(n-3) for n>2.
[A050410] 0, 1, 13, 50, 126, 255, 451, 728, 1100, 1581, 2185, 2926, 3818, 4875, 6111, 7540, 9176, 11033, 13125, 15466, 18070, 20951, 24123, 27600, 31396, 35525, 40001, 44838, 50050, 55651, 61655, 68076, 74928, 82225, 89981, 98210, 106926, 116143
a(n)=n*(7*n-1)*(2*n-1)/6.
a(0)=0, a(1)=1, a(2)=13, a(3)=50, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). [Harvey P. Dale, Feb 29 2012]
[A121991] 0, 1, 13, 50, 148, 393, 993, 2450, 5976, 14497, 35077, 84770, 204748, 494409, 1193721, 2882018, 6957936, 16798081, 40554301, 97906898, 236368324, 570643785, 1377656145, 3325956338, 8029569096, 19385094817
a(n) = ((11 - 7*sqrt(2))*(1 - sqrt(2))^n + (1 + sqrt(2))^n*(11 + 7*sqrt(2)) - 24*n - 22)/4 .
[A121990] 1, 13, 50, 149, 409, 1090, 2873, 7541, 19762, 51757, 135521, 354818, 928945, 2432029, 6367154, 16669445, 43641193, 114254146, 299121257, 783109637, 2050207666, 5367513373, 14052332465, 36789484034, 96316119649, 252158874925
a(n) = 3*a(n - 1) - a(n - 2) + 12.
a(n) = (1/10)*(-120 + (65 - 11*sqrt(5))*((1/2)*(3 - sqrt(5)))^n + ((1/2)*(3 + sqrt(5)))^n*(65 + 11*sqrt(5))).
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
[A022283] 0, 13, 51, 114, 202, 315, 453, 616, 804, 1017, 1255, 1518, 1806, 2119, 2457, 2820, 3208, 3621, 4059, 4522, 5010, 5523, 6061, 6624, 7212, 7825, 8463, 9126, 9814, 10527, 11265, 12028, 12816, 13629, 14467
a(n) = a(n-1) + 25*n - 12 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(0)=0, a(1)=13, a(2)=51; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 04 2014
[A152742] 0, 13, 52, 117, 208, 325, 468, 637, 832, 1053, 1300, 1573, 1872, 2197, 2548, 2925, 3328, 3757, 4212, 4693, 5200, 5733, 6292, 6877, 7488, 8125, 8788, 9477, 10192, 10933, 11700, 12493, 13312, 14157, 15028, 15925, 16848, 17797, 18772
a(n)=a(n-1)+26*n-13 (with a(0)=0) [From Vincenzo Librandi, Nov 26 2010]
a(0)=0, a(1)=13, a(2)=52, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 18 2015
[A213837] 1, 13, 52, 134, 275, 491, 798, 1212, 1749, 2425, 3256, 4258, 5447, 6839, 8450, 10296, 12393, 14757, 17404, 20350, 23611, 27203, 31142, 35444, 40125, 45201, 50688, 56602, 62959, 69775, 77066, 84848, 93137
a(n) = n*(5 - 15*n + 16*n^2)/6.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A022284] 0, 13, 53, 120, 214, 335, 483, 658, 860, 1089, 1345, 1628, 1938, 2275, 2639, 3030, 3448, 3893, 4365, 4864, 5390, 5943, 6523, 7130, 7764, 8425, 9113, 9828, 10570, 11339, 12135, 12958, 13808, 14685, 15589
a(n) = a(n-1) + 27*n - 14 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A195024] 0, 13, 54, 123, 220, 345, 498, 679, 888, 1125, 1390, 1683, 2004, 2353, 2730, 3135, 3568, 4029, 4518, 5035, 5580, 6153, 6754, 7383, 8040, 8725, 9438, 10179, 10948, 11745, 12570, 13423, 14304, 15213, 16150, 17115, 18108, 19129, 20178, 21255, 22360
a(n) = 14*n^2 - n.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(13+15*x)/(1-x)^3. - Colin Barker, Apr 09 2012
[A071230] 0, 1, 13, 54, 142, 295, 531, 868, 1324, 1917, 2665, 3586, 4698, 6019, 7567, 9360, 11416, 13753, 16389, 19342, 22630, 26271, 30283, 34684, 39492, 44725, 50401, 56538, 63154, 70267, 77895, 86056, 94768, 104049, 113917, 124390, 135486
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4)
[A158485] 13, 55, 125, 223, 349, 503, 685, 895, 1133, 1399, 1693, 2015, 2365, 2743, 3149, 3583, 4045, 4535, 5053, 5599, 6173, 6775, 7405, 8063, 8749, 9463, 10205, 10975, 11773, 12599, 13453, 14335, 15245, 16183, 17149, 18143, 19165, 20215, 21293, 22399
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A274973] 1, 13, 55, 139, 277, 481, 763, 1135, 1609, 2197, 2911, 3763, 4765, 5929, 7267, 8791, 10513, 12445, 14599, 16987, 19621, 22513, 25675, 29119, 32857, 36901, 41263, 45955, 50989, 56377, 62131, 68263, 74785, 81709, 89047, 96811, 105013, 113665, 122779, 132367

a(n) = 2*n^3+9*n^2+n+1.
[A005902] 1, 13, 55, 147, 309, 561, 923, 1415, 2057, 2869, 3871, 5083, 6525, 8217, 10179, 12431, 14993, 17885, 21127, 24739, 28741, 33153, 37995, 43287, 49049, 55301, 62063, 69355, 77197, 85609, 94611, 104223, 114465, 125357, 136919, 149171
a(n) = (2*n+1)*(5*n^2+5*n+3)/3.
a(-1 - n) = -a(n). - Michael Somos, Jun 03 2012
[A051798] 1, 13, 55, 155, 350, 686, 1218, 2010, 3135, 4675, 6721, 9373, 12740, 16940, 22100, 28356, 35853, 44745, 55195, 67375, 81466, 97658, 116150, 137150, 160875, 187551, 217413, 250705, 287680, 328600, 373736, 423368, 477785, 537285
a(n) = C(n+3, 3)*(9*n+4)/4.
a(0)=1, a(1)=13, a(2)=55, a(3)=155, a(4)=350, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Aug 19 2012
[A264853] 0, 1, 13, 56, 160, 365, 721, 1288, 2136, 3345, 5005, 7216, 10088, 13741, 18305, 23920, 30736, 38913, 48621, 60040, 73360, 88781, 106513, 126776, 149800, 175825, 205101, 237888, 274456, 315085, 360065, 409696, 464288, 524161, 589645, 661080, 738816, 823213, 914641
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Nov 27 2015
[A007202] 1, 13, 57, 153, 323, 587, 967, 1483, 2157, 3009, 4061, 5333, 6847, 8623, 10683, 13047, 15737, 18773, 22177, 25969, 30171, 34803, 39887, 45443, 51493, 58057, 65157, 72813, 81047, 89879, 99331, 109423, 120177, 131613, 143753, 156617
a(n) = 7*(2*n+1)*(2*n^2+2*n+1)/8 +(-1)^n/8. - R. J. Mathar, Mar 24 2011
a(0)=1, a(1)=13, a(2)=57, a(3)=153, a(4)=323, a(n)=3*a(n-1)- 2*a(n-2)- 2*a(n-3)+3*a(n-4)-a(n-5) [From Harvey P. Dale, Jul 15 2011]
[A103220] 0, 1, 13, 58, 170, 395, 791, 1428, 2388, 3765, 5665, 8206, 11518, 15743, 21035, 27560, 35496, 45033, 56373, 69730, 85330, 103411, 124223, 148028, 175100, 205725, 240201, 278838, 321958, 369895, 422995, 481616, 546128, 616913, 694365, 778890
a(n) = sum(i=1..n, sum(j=1..n, max(i,j)^2)). - Enrique Pérez Herrero, Jan 15 2013
a(n) = a(n-1) + (2*n-1)*n^2 with a(0)=0. - J. M. Bergot, Jun 10 2017
[A163833] 0, 13, 59, 156, 322, 575, 933, 1414, 2036, 2817, 3775, 4928, 6294, 7891, 9737, 11850, 14248, 16949, 19971, 23332, 27050, 31143, 35629, 40526, 45852, 51625, 57863, 64584, 71806, 79547, 87825, 96658, 106064, 116061, 126667, 137900, 149778
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A213567] 1, 13, 59, 183, 476, 1108, 2409, 4993, 10007, 19559, 37504, 70832, 132145, 244029, 446763, 811847, 1465676, 2630836, 4697945, 8350305, 14779671, 26058903, 45784224, 80179968, 139995361, 243755533, 423324539, 733409943
a(n) = 6*a(n-1) - 12*a(n-2) - 5*a(n-3) + 12*a(n-4) - 12*a(n-5) - 3*a(n-6) + 6*a(n-7) - a(n-9).
[A118711] 1, 13, 61, 82, 898, 2962, 2989, 9133, 20077, 20653, 28669, 29266, 35581, 35842, 37501, 99133, 236674, 286717, 424621, 424957, 821698, 941650, 1704301, 1722370, 2978413, 3328258, 4494466, 10022317, 40392829, 49870141, 50668882, 53933053
a(n)=m if the m-th triangular number t_m=m*(m+1)/2 has its base 12 digits contained in {1,5,7,11}.
[A081589] 1, 13, 61, 145, 265, 421, 613, 841, 1105, 1405, 1741, 2113, 2521, 2965, 3445, 3961, 4513, 5101, 5725, 6385, 7081, 7813, 8581, 9385, 10225, 11101, 12013, 12961, 13945, 14965, 16021, 17113, 18241, 19405, 20605, 21841, 23113, 24421, 25765, 27145
a(n) = 1-6*n+18*n^2.
[A127876] 1, 13, 61, 172, 373, 691, 1153, 1786, 2617, 3673, 4981, 6568, 8461, 10687, 13273, 16246, 19633, 23461, 27757, 32548, 37861, 43723, 50161, 57202, 64873, 73201, 82213, 91936, 102397, 113623, 125641, 138478, 152161, 166717, 182173, 198556, 215893, 234211
a(n) = (9*n^3-18*n^2+15*n-4)/2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A268201] 0, 13, 62, 171, 364, 665, 1098, 1687, 2456, 3429, 4630, 6083, 7812, 9841, 12194, 14895, 17968, 21437, 25326, 29659, 34460, 39753, 45562, 51911, 58824, 66325, 74438, 83187, 92596, 102689, 113490, 125023, 137312, 150381, 164254, 178955, 194508, 210937, 228266, 246519, 265720
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4. - Wesley Ivan Hurt, Apr 17 2016
[A213843] 1, 13, 62, 190, 455, 931, 1708, 2892, 4605, 6985, 10186, 14378, 19747, 26495, 34840, 45016, 57273, 71877, 89110, 109270, 132671, 159643, 190532, 225700, 265525, 310401, 360738, 416962, 479515, 548855, 625456, 709808, 802417, 903805, 1014510
a(n) = n*(1 + n)*(1 - 2*n + 4*n^2)/6.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A175109] 1, 13, 63, 171, 365, 665, 1099, 1687, 2457, 3429, 4631, 6083, 7813, 9841, 12195, 14895, 17969, 21437, 25327, 29659, 34461, 39753, 45563, 51911, 58825, 66325, 74439, 83187, 92597, 102689, 113491, 125023, 137313, 150381, 164255, 178955
a(n) = 3*a(n-1) -2*a(n-2) -2*a(n-3) +3*a(n-4) -a(n-5).
[A051878] 1, 13, 63, 203, 518, 1134, 2226, 4026, 6831, 11011, 17017, 25389, 36764, 51884, 71604, 96900, 128877, 168777, 217987, 278047, 350658, 437690, 541190, 663390, 806715, 973791, 1167453, 1390753
a(n) = C(n+4, 4)*(8n+5)/5.
[A153793] 0, 13, 65, 156, 286, 455, 663, 910, 1196, 1521, 1885, 2288, 2730, 3211, 3731, 4290, 4888, 5525, 6201, 6916, 7670, 8463, 9295, 10166, 11076, 12025, 13013, 14040, 15106, 16211, 17355, 18538, 19760, 21021, 22321, 23660, 25038, 26455
a(n) = 39*n + a(n-1) - 26 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A086689] 1, 13, 67, 227, 602, 1358, 2730, 5034, 8679, 14179, 22165, 33397, 48776, 69356, 96356, 131172, 175389, 230793, 299383, 383383, 485254, 607706, 753710, 926510, 1129635, 1366911, 1642473, 1960777, 2326612, 2745112
a(n) = n*(n+1)*(n+2)*(12*n^2+9*n-1)/120.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Wesley Ivan Hurt, Nov 19
a(n) = Sum_{i=1..n} (i*Sum_{k=1..i} i*k). - Wesley Ivan Hurt, Nov 19 2014
[A258618] 0, 13, 68, 189, 400, 725, 1188, 1813, 2624, 3645, 4900, 6413, 8208, 10309, 12740, 15525, 18688, 22253, 26244, 30685, 35600, 41013, 46948, 53429, 60480, 68125, 76388, 85293, 94864, 105125, 116100, 127813, 140288, 153549, 167620, 182525, 198288, 214933
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Jun 06 2015
[A085461] 1, 13, 70, 246, 671, 1547, 3164, 5916, 10317, 17017, 26818, 40690, 59787, 85463, 119288, 163064, 218841, 288933, 375934, 482734, 612535, 768867, 955604, 1176980, 1437605, 1742481, 2097018, 2507050, 2978851, 3519151, 4135152, 4834544
a(n) = n+11*binomial(n, 2) + 34*binomial(n, 3) + 40*binomial(n, 4) + 16*binomial(n, 5) = 1/30*n*(n+1)*(2*n+1)*(2*n^2 + 2*n + 1).
[A050403] 1, 13, 70, 252, 714, 1722, 3696, 7260, 13299, 23023, 38038, 60424, 92820, 138516, 201552, 286824, 400197, 548625, 740278, 984676, 1292830, 1677390, 2152800, 2735460, 3443895, 4298931, 5323878, 6544720
a(n) = C(n+5, 5)*(7n+6)/6.
[A060103] 1, 13, 71, 259, 742, 1806, 3906, 7722, 14223, 24739, 41041, 65429, 100828, 150892, 220116, 313956, 438957, 602889, 814891, 1085623, 1427426, 1854490, 2383030, 3031470, 3820635, 4773951, 5917653
a(n)=(4*n^2+20*n+15)*binomial(n+4, 4)/15.
a(0)=1, a(1)=13, a(2)=71, a(3)=259, a(4)=742, a(5)=1806, a(6)=3906, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Dec 16 2012
[A060886] 1, 1, 13, 73, 241, 601, 1261, 2353, 4033, 6481, 9901, 14521, 20593, 28393, 38221, 50401, 65281, 83233, 104653, 129961, 159601, 194041, 233773, 279313, 331201, 390001, 456301, 530713, 613873, 706441, 809101, 922561, 1047553, 1184833, 1335181, 1499401
a(n) = (n^2 - 1/2)^2 + 3/4. - Alonso del Arte, Dec 20 2015
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5), for n>4. - Vincenzo Librandi, Dec 20 2015
[A081586] 1, 13, 73, 245, 593, 1181, 2073, 3333, 5025, 7213, 9961, 13333, 17393, 22205, 27833, 34341, 41793, 50253, 59785, 70453, 82321, 95453, 109913, 125765, 143073, 161901, 182313, 204373, 228145, 253693, 281081, 310373, 341633, 374925, 410313, 447861
a(n) = (3 + 28n - 24n^2 + 32n^3)/3.
a(0)=1, a(1)=13, a(2)=73, a(3)=245, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). (End)
[A143008] 1, 13, 73, 253, 661, 1441, 2773, 4873, 7993, 12421, 18481, 26533, 36973, 50233, 66781, 87121, 111793, 141373, 176473, 217741, 265861, 321553, 385573, 458713, 541801, 635701, 741313, 859573, 991453, 1137961, 1300141, 1479073, 1675873, 1891693, 2127721
a(0)=1, a(1)=13, a(2)=73, a(3)=253, a(4)=661, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Jun 14 2011

[A051361] 0, 0, 0, 13, 75, 263, 720, 1688, 3550, 6882, 12516, 21615, 35761, 57057, 88244, 132834, 195260, 281044, 396984, 551361, 754167, 1017355, 1355112, 1784156, 2324058, 2997590, 3831100, 4854915, 6103773, 7617285, 9440428, 11624070, 14225528, 17309160, 20946992, 25219381
a(n) = n*(n-1)*(n-2)*(n^4+31*n^3+287*n^2+1499*n+2922)/7!.
a(0)=0, a(1)=0, a(2)=0, a(3)=13, a(4)=75, a(5)=263, a(6)=720, a(7)=1688, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+ 8*a(n-7)-a(n-8) [From Harvey P. Dale, Jul 19 2011]
[A034265] 1, 13, 76, 300, 930, 2442, 5676, 12012, 23595, 43615, 76648, 129064, 209508, 329460, 503880, 751944, 1097877, 1571889, 2211220, 3061300, 4177030, 5624190, 7480980, 9839700, 12808575, 16513731, 21101328, 26739856, 33622600, 41970280
a(0)=1, a(1)=13, a(2)=76, a(3)=300, a(4)=930, a(5)=2442, a(6)=5676, a(7)=12012, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)- 28*a(n-6)+ 8*a(n-7)-a(n-8). - Harvey P. Dale, Jul 29 2014
[A072474] 1, 13, 77, 294, 855, 2071, 4403, 8492, 15189, 25585, 41041, 63218, 94107, 136059, 191815, 264536, 357833, 475797, 623029, 804670, 1026431, 1294623, 1616187, 1998724, 2450525, 2980601, 3598713, 4315402, 5142019, 6090755, 7174671
a(n) = k(k+1)(2k+1)/6 - r(r+1)(2r+1)/6, where k = n(n+1)/2 and r = n(n-1)/2.
a(n) = (n/12) *(3n^2+1)*(n^2+2). - Benoit Cloitre, Jun 26 2002
[A194713] 0, 13, 78, 195, 364, 585, 858, 1183, 1560, 1989, 2470, 3003, 3588, 4225, 4914, 5655, 6448, 7293, 8190, 9139, 10140, 11193, 12298, 13455, 14664, 15925, 17238, 18603, 20020, 21489, 23010, 24583, 26208, 27885, 29614, 31395, 33228, 35113, 37050, 39039
a(0)=0, a(n) = a(n-1)+52*n-39. - Vincenzo Librandi, Oct 03 2011
[A081584] 1, 13, 79, 307, 886, 2086, 4258, 7834, 13327, 21331, 32521, 47653, 67564, 93172, 125476, 165556, 214573, 273769, 344467, 428071, 526066, 640018, 771574, 922462, 1094491, 1289551, 1509613, 1756729, 2033032, 2340736, 2682136, 3059608
a(n) = (8+6*n+81*n^2-18*n^3+27*n^4)/8.
[A101102] 1, 13, 82, 354, 1200, 3432, 8646, 19734, 41613, 82225, 153868, 274924, 472056, 782952, 1259700, 1972884, 3016497, 4513773, 6624046, 9550750, 13550680, 18944640, 26129610, 35592570, 47926125, 63846081, 84211128, 110044792, 142559824, 183185200, 233595912
a(n) = n*(n+1)*(n+2)*(n+3)*(n+4)*(n+5)*(10 + 3*n*(n+5))/20160.
[A001848] 1, 13, 85, 377, 1289, 3653, 8989, 19825, 40081, 75517, 134245, 227305, 369305, 579125, 880685, 1303777, 1884961, 2668525, 3707509, 5064793, 6814249, 9041957, 11847485, 15345233, 19665841, 24957661, 31388293, 39146185, 48442297, 59511829, 72616013, 88043969
a(n) = 4/45*n^6+4/15*n^5+14/9*n^4+8/3*n^3+196/45*n^2+46/15*n+1. - S. Bujnowski B. Dubalski (slawb(AT)atr.bydgoszcz.pl), Nov 25 2002
a(n)= sum(k=0..min(6,n), 2^k * binomial(6,k)* binomial(n,k)). See Bump et al. - Tom Copeland, Sep 05 2014
[A055843] 1, 13, 85, 385, 1375, 4147, 11011, 26455, 58630, 121550, 238238, 445094, 797810, 1379210, 2309450, 3759074, 5965487, 9253475, 14060475, 20967375, 30735705, 44352165, 63081525, 88529025, 122713500, 168152556, 227961228, 305965660
a(n) = (4n+9)*C(n+8, 8)/9.
[A057788] 1, 13, 90, 442, 1729, 5733, 16744, 44200, 107406, 243542, 520676, 1058148, 2057510, 3848222, 6953544, 12183560, 20764055, 34512075, 56071470, 89224590, 139299615, 213696795, 322561200, 479634480, 703323660, 1018031196, 1455797448, 2058314440, 2879378332
a(n) = 2*C(n+11, 11) - C(n+10, 10). - Paul Barry, Mar 04 2003
a(n) = C(n+10,10) + 2*C(n+10,11). - Borislav St. Borisov (b.st.borisov(AT)abv.bg), Mar 05 2009
a(n) = C(n+10,10)*(2n+11)/11. - Antal Pinter, Dec 27 2015
a(n) = 12*a(n-1)-66*a(n-2)+220*a(n-3)-495*a(n-4)+792*a(n-5)-924*a(n-6)+792*a(n-7)-495*a(n-8)+220*a(n-9)-66*a(n-10)+12*a(n-11)-a(n-12) for n >11. - Vincenzo Librandi, Feb 14 2016
[A247611] 1, 13, 91, 455, 1820, 6188, 18564, 49596, 119139, 260743, 527065, 996205, 1778966, 3027038, 4942106, 7785882, 11891061, 17673201, 25643527, 36422659, 50755264, 69525632, 93774176, 124714856, 163753527, 212507211, 272824293, 346805641, 436826650
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
a(n) = (120 - 8042*n + 20581*n^2 - 17380*n^3 + 7645*n^4 -1518*n^5 + 154*n^6)/120.
[A008495] 1, 13, 91, 455, 1820, 6188, 18564, 50388, 125970, 293930, 646646, 1352078, 2704156, 5200299, 9657687, 17383769, 30421300, 51894115, 86487037, 141101961, 225742452, 354691350, 548060110, 833805154, 1250325622, 1849778840, 2702274848, 3901139736, 5569469620
a(n) = 13*(n*(19056960 + 18128396*n^2 + 2641925*n^4 + 88803*n^6 + 715*n^8 + n^10))/39916800 for n>0.
[A010965] 1, 13, 91, 455, 1820, 6188, 18564, 50388, 125970, 293930, 646646, 1352078, 2704156, 5200300, 9657700, 17383860, 30421755, 51895935, 86493225, 141120525, 225792840, 354817320, 548354040, 834451800, 1251677700, 1852482996, 2707475148, 3910797436, 5586853480
a(n+11) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)(n+10)(n+11)/12!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
[A283121] 1, 13, 104, 633, 3224, 14404, 58151, 216294, 751582, 2464860, 7689669, 22961822, 65955677, 182985947, 492016590, 1285829996, 3274100475, 8139933477, 19795490575, 47165634583, 110259083454, 253208634687, 571880965638, 1271549402110, 2785836824325, 6019078365425
a(n) = (1/n)*Sum_{k=1..n} sigma(9*k)*a(n-k). - Seiichi Manyama, Mar 05 2017
[A076457] 13, 129, 534, 1510, 3435, 6783, 12124, 20124, 31545, 47245, 68178, 95394, 130039, 173355, 226680, 291448, 369189, 461529, 570190, 696990, 843843, 1012759, 1205844, 1425300, 1673425, 1952613, 2265354, 2614234, 3001935, 3431235, 3905008, 4426224, 4997949, 5623345
a(n) = n*(n+1)*(8*n^2+6*n-1)/2.
[A023329] 13, 139, 293, 1889, 2939, 3719, 6089, 7741, 12823, 19753, 21391, 22861, 28513, 36721, 37967, 40949, 60899, 76519, 83621, 101747, 121687, 127549, 128239, 142099, 149197, 153817, 155581, 158489, 160159, 169283, 173651, 180749, 185831, 192037, 198221
a(n) == 9 or 13 (mod 14). - John Cerkan, Oct 09 2016
[A204766] 13, 154, 180, 321, 347, 488, 514, 655, 681, 822, 848, 989, 1015, 1156, 1182, 1323, 1349, 1490, 1516, 1657, 1683, 1824, 1850, 1991, 2017, 2158, 2184, 2325, 2351, 2492, 2518, 2659, 2685, 2826, 2852, 2993, 3019, 3160
a(n) = (-167+115*(-1)^n+334*n)/4.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A118673] 0, 13, 160, 213, 280, 1113, 1420, 1809, 6660, 8449, 10716, 38989, 49416, 62629, 227416, 288189, 365200, 1325649, 1679860, 2128713, 7726620, 9791113, 12407220, 45034213, 57066960, 72314749, 262478800, 332610789, 421481416, 1529838729, 1938597916, 2456573889
a(n)=6*a(n-3)-a(n-6)+142 with a(0)=0, a(1)=13, a(2)=160, a(3)=213, a(4)=280, a(5)=1113.
[A216300] 13, 160, 376, 391, 421, 547, 586, 712, 745, 748, 754, 808, 883, 985, 1006, 1210, 1291, 1333, 1375, 1462, 1513, 1588, 1702, 1798, 2203, 2269, 2302, 2353, 2497, 2584, 2854, 2920, 3205, 3358, 3436, 3583, 3823, 3832, 3856, 3982, 4003, 4084, 4138, 4339, 4402
a(n) » n log^3 n. - Charles R Greathouse IV, Sep 07 2012
[A084970] 13, 169, 221, 247, 299, 377, 403, 481, 533, 559, 611, 689, 767, 793, 871, 923, 949, 1027, 1079, 1157, 1261, 1313, 1339, 1391, 1417, 1469, 1651, 1703, 1781, 1807, 1937, 1963, 2041, 2119, 2171, 2197, 2249, 2327, 2353, 2483, 2509, 2561, 2587, 2743, 2873
a(n) = a(n-480) + 30030 = a(n-1) + a(n-480) - a(n-481). - Charles R Greathouse IV, Nov 19 2014
[A097260] 0, 13, 182, 195, 2548, 2561, 2730, 2743, 35672, 35685, 35854, 35867, 38220, 38233, 38402, 38415, 499408, 499421, 499590, 499603, 501956, 501969, 502138, 502151, 535080, 535093, 535262, 535275, 537628, 537641, 537810, 537823, 6991712
a(2n) = 14*a(n), a(2n+1) = a(2n)+13.
[A158548] 13, 182, 689, 1534, 2717, 4238, 6097, 8294, 10829, 13702, 16913, 20462, 24349, 28574, 33137, 38038, 43277, 48854, 54769, 61022, 67613, 74542, 81809, 89414, 97357, 105638, 114257, 123214, 132509, 142142, 152113, 162422, 173069, 184054, 195377
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A000563] 13, 192, 1085, 3880, 10656, 24626, 50380, 94128, 163943, 270004, 424839, 643568, 944146, 1347606, 1878302, 2564152, 3436881, 4532264, 5890369, 7555800, 9577940, 12011194, 14915232, 18355232, 22402123, 27132828, 32630507, 38984800, 46292070
a(n) = 81/40n^5 - 135/4n^4 + 1719/8n^3 - 2487/4n^2 + 3463/5n, n>4. (End)
[A023357] 13, 293, 6089, 12823, 37967, 40949, 121687, 192037, 243487, 379679, 409499, 471841, 1006193, 1217131, 1397311, 1438793, 1503613, 1541063, 1754591, 2058629, 2088421, 2346791, 2360357, 2428243, 2458609, 2621527, 2646167, 2721053, 3223247, 3280003
a(n) == 13 mod 14. - John Cerkan, Aug 26 2016
[A217674] 13, 313, 613, 3613, 4513, 21013, 52813, 86113, 99013, 148513, 165313, 241513, 255613, 332113, 787513, 800113, 904513, 1073113, 1720513, 2279113, 2679613, 2940313, 3471613, 4307113, 4605613, 4789513, 5168113, 6072613, 6498013, 6716113, 7469113, 8925313
a(n) == 13 (mod 300).

[A023332] 13, 541, 1087, 1861, 3727, 23293, 40387, 87643, 98899, 109111, 115153, 116329, 119101, 131617, 133597, 163909, 197521, 214021, 215389, 218227, 238207, 263239, 294751, 489901, 493693, 665527, 734131, 767881, 808693, 895351, 1038127, 1051957
a(n) == 1 (mod 6). - John Cerkan, Oct 09 2016
[A076461] 13, 571, 5306, 26470, 93455, 264313, 640276, 1383276, 2736465, 5047735, 8796238, 14621906, 23357971, 36066485, 54076840, 79027288, 112909461, 158115891, 217490530, 294382270, 392701463, 516979441, 672431036, 865020100, 1101528025, 1389625263, 1737945846, 2156164906
a(n) = n*(n+1)*(25*n^4+26*n^3-6*n^2-7*n+1)/6.
[A289225] 0, 13, 859, 9585, 56520, 231635, 749223, 2051819, 4965960, 10924065, 22268395, 42654733, 77575104, 135020535, 226306535, 367085655, 578573168, 889013589, 1335417435, 1965599305, 2840550040, 4037177403, 5651451399, 7801992035, 10634139000, 14324544425, 19086331563
a(n) = (n^8 -8*n^7 -50*n^6 +556*n^5 +231*n^4 -12388*n^3 +17914*n^2 +86648*n -198528)/24.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n>12.
[A114962] 14, 15, 18, 23, 30, 39, 50, 63, 78, 95, 114, 135, 158, 183, 210, 239, 270, 303, 338, 375, 414, 455, 498, 543, 590, 639, 690, 743, 798, 855, 914, 975, 1038, 1103, 1170, 1239, 1310, 1383, 1458, 1535, 1614, 1695, 1778, 1863, 1950, 2039, 2130, 2223, 2318, 2415, 2514
a(n) = 2*n + a(n-1) - 3 for n>1, with a(1)=14. - Vincenzo Librandi, Nov 13 2010
[A022104] 1, 14, 15, 29, 44, 73, 117, 190, 307, 497, 804, 1301, 2105, 3406, 5511, 8917, 14428, 23345, 37773, 61118, 98891, 160009, 258900, 418909, 677809, 1096718, 1774527, 2871245, 4645772, 7517017, 12162789
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=14. a(-1):=13.
[A041919] 1, 1, 14, 15, 29, 44, 205, 864, 1069, 1933, 3002, 40959, 43961, 1887321, 1931282, 26993987, 28925269, 55919256, 84844525, 395297356, 1666033949, 2061331305, 3727365254, 5788696559, 78980420521, 84769117080, 3639283337881, 3724052454961, 52051965252374
a(n) = 1928280*a(n-13) + a(n-26) for n>25. - Vincenzo Librandi, Dec 27 2013
[A041929] 1, 14, 15, 44, 191, 235, 426, 1513, 3452, 18773, 22225, 152123, 174348, 326471, 7030239, 7356710, 14386949, 93678404, 108065353, 634005169, 1376075691, 4762232242, 6138307933, 10900540175, 49740468633, 110381477441, 160121946074, 2352088722477, 103652025735062
a(n) = 103812147681136*a(n-28) - a(n-56) for n>55. - Vincenzo Librandi, Dec 27 2013
[A033050] 0, 1, 14, 15, 196, 197, 210, 211, 2744, 2745, 2758, 2759, 2940, 2941, 2954, 2955, 38416, 38417, 38430, 38431, 38612, 38613, 38626, 38627, 41160, 41161, 41174, 41175, 41356, 41357, 41370, 41371, 537824, 537825, 537838, 537839, 538020
a(n) = Sum{d(i)*14^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 14*a(n), a(2n+1) = a(2n)+1.
[A255846] 14, 16, 22, 32, 46, 64, 86, 112, 142, 176, 214, 256, 302, 352, 406, 464, 526, 592, 662, 736, 814, 896, 982, 1072, 1166, 1264, 1366, 1472, 1582, 1696, 1814, 1936, 2062, 2192, 2326, 2464, 2606, 2752, 2902, 3056, 3214, 3376, 3542, 3712, 3886, 4064, 4246, 4432
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A228207] 14, 16, 26, 34, 64, 86, 166, 224, 434, 586, 1136, 1534, 2974, 4016, 7786, 10514, 20384, 27526, 53366, 72064, 139714, 188666, 365776, 493934, 957614, 1293136, 2507066, 3385474, 6563584, 8863286, 17183686, 23204384, 44987474, 60749866, 117778736, 159045214
a(n) = 3*a(n-2)-a(n-4).
[A175887] 1, 14, 16, 29, 31, 44, 46, 59, 61, 74, 76, 89, 91, 104, 106, 119, 121, 134, 136, 149, 151, 164, 166, 179, 181, 194, 196, 209, 211, 224, 226, 239, 241, 254, 256, 269, 271, 284, 286, 299, 301, 314, 316, 329, 331, 344, 346, 359, 361, 374, 376, 389, 391, 404
a(n) = (30*n+11*(-1)^n-15)/4.
a(n) = -a(-n+1) = a(n-1)+a(n-2)-a(n-3).
[A067844] 14, 16, 34, 36, 54, 56, 74, 76, 94, 96, 114, 116, 134, 136, 154, 156, 174, 176, 194, 196, 214, 216, 234, 236, 254, 256, 274, 276, 294, 296, 314, 316, 334, 336, 354, 356, 374, 376, 394, 396, 414, 416, 434, 436, 454, 456, 474, 476, 494, 496, 514, 516, 534, 536
a(n) = 10*n-4*(-1)^n. a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: 2*x*(2*x^2+x+7)/((x-1)^2*(x+1)). [Colin Barker, Dec 01 2012]
[A165719] 14, 17, 45, 50, 92, 99, 155, 164, 234, 245, 329, 342, 440, 455, 567, 584, 710, 729, 869, 890, 1044, 1067, 1235, 1260, 1442, 1469, 1665, 1694, 1904, 1935, 2159, 2192, 2430, 2465, 2717, 2754, 3020, 3059, 3339, 3380, 3674, 3717, 4025, 4070, 4392, 4439, 4775
a(n)= a(n-1) +2*a(n-2) -2*a(n-3) -a(n-4) +a(n-5). - R. J. Mathar, Sep 25 2009
a(n)= 2*n^2+6*n+9/4-3*(-1)^n*(2*n+3)/4. - R. J. Mathar, Sep 25 2009
[A241199] 14, 19, 31, 38, 54, 63, 83, 94, 118, 131, 159, 174, 206, 223, 259, 278, 318, 339, 383, 406, 454, 479, 531, 558, 614, 643, 703, 734, 798, 831, 899, 934, 1006, 1043, 1119, 1158, 1238, 1279, 1363, 1406, 1494, 1539, 1631, 1678, 1774, 1823, 1923, 1974, 2078, 2131
a(n) = (55-7*(-1)^n-2*(-21+(-1)^n)*n+6*n^2)/8. G.f.: -x*(6*x^4-3*x^3-16*x^2+5*x+14) / ((x-1)^3*(x+1)^2). - Colin Barker, Apr 18 2014 and Apr 29 2015
a(2*k-1) = 3*k^2 + 8*k + 3, a(2*k) = 3*k^2 + 10*k + 6. - Robert Israel, Apr 28 2015
[A074851] 14, 20, 21, 33, 34, 35, 38, 39, 44, 45, 50, 51, 54, 55, 56, 57, 62, 68, 74, 75, 76, 85, 86, 87, 91, 92, 93, 94, 95, 98, 99, 111, 115, 116, 117, 118, 122, 123, 133, 134, 135, 141, 142, 143, 144, 145, 146, 147, 152, 158, 159, 160, 161, 171, 175, 176, 177, 183, 184
a(n) seems to be asymptotic to c*n*log(n)^2 with c=0.13...
[A224771] 14, 21, 26, 29, 30, 35, 38, 41, 42, 45, 46, 49, 50, 53, 54, 59, 61, 62, 65, 66, 69, 70, 74, 75, 77, 78, 81, 83, 86, 89, 90, 91, 93, 94, 98, 101, 105, 106, 107, 109, 110, 113, 114, 115, 117, 118, 121, 122, 125, 126, 129, 131, 133, 134, 137, 138, 139, 141, 142, 145
a(n) is the n-th largest number m which satisfies: m = a^2 + b^2 + c^2, with integers a, b, and c, 0 < a < b < c, and gcd(a,b,c) = 1. Such a solution is denoted by the triplet (a, b, c).
[A259750] 14, 22, 38, 46, 62, 70, 86, 94, 110, 118, 134, 142, 158, 166, 182, 190, 206, 214, 230, 238, 254, 262, 278, 286, 302, 310, 326, 334, 350, 358, 374, 382, 398, 406, 422, 430, 446, 454, 470, 478, 494, 502, 518, 526, 542, 550, 566, 574, 590, 598, 614, 622, 638
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
[A026065] 14, 23, 36, 51, 69, 90, 114, 143, 175, 211, 251, 295, 345, 399, 458, 522, 591, 667, 748, 835, 928, 1027, 1134, 1247, 1367, 1494, 1628, 1771, 1921, 2079, 2245, 2419, 2603, 2795, 2996, 3206, 3425, 3655, 3894, 4143, 4402, 4671, 4952, 5243, 5545, 5858, 6182, 6519, 6867, 7227, 7599, 7983, 8381
a(n)=(n + 6)*(n^2 + 30*n + 71)/30 - 1/5*(1 + 2/5*5^(1/2)*cos(2*n*Pi/5) + 2/5*2^(1/2)*(5 + 5^(1/2))^(1/2)*sin(2*n*Pi/5) - 2/5*5^(1/2)*cos(4*n*Pi/5) + 2/5*2^(1/2)*(5 - 5^(1/2))^(1/2)*sin(4*n*Pi/5)) [Richard Choulet, Dec 14 2008]
[A032608] 14, 25, 36, 47, 58, 69, 710, 811, 912, 1013, 1114, 1215, 1316, 1417, 1518, 1619, 1720, 1821, 1922, 2023, 2124, 2225, 2326, 2427, 2528, 2629, 2730, 2831, 2932, 3033, 3134, 3235, 3336, 3437, 3538, 3639, 3740, 3841, 3942, 4043, 4144, 4245
a(n)=n*10^floor(log10(n+3)+1)+n+3, with n>=1 [From Paolo P. Lava, Oct 09 2008]
[A079505] 14, 25, 61, 121, 211, 337, 505, 721, 991, 1321, 1717, 2185, 2731, 3361, 4081, 4897, 5815, 6841, 7981, 9241, 10627, 12145, 13801, 15601, 17551, 19657, 21925, 24361, 26971
a(n)=n^3-n+1 (except for n=2, a(2)=14)
[A199405] 1, 14, 25, 155, 274, 1691, 2989, 18446, 32605, 201215, 355666, 2194919, 3879721, 23942894, 42321265, 261176915, 461654194, 2849003171, 5035874869, 31077857966, 54932969365, 339007434455, 599226788146, 3698003921039, 6536561700241, 40339035696974
a(n+4) = 11*a(n+2)-a(n) with a(1)=1, a(2)=14, a(3)=25, a(4)=155.
a(n) = 2^(-1-n)*(2*(3-sqrt(13))^n+(-3-sqrt(13))^n*(-3+sqrt(13))-3*(-3+sqrt(13))^n-sqrt(13)*(-3+sqrt(13))^n+2*(3+sqrt(13))^n). - Colin Barker, Mar 27 2016
[A190991] 1, 14, 27, 40, 53, 66, 79, 92, 105, 118, 131, 144, 157, 170, 183, 196, 209, 222, 235, 248, 261, 274, 287, 300, 313, 326, 339, 352, 365, 378, 391, 404, 417, 430, 443, 456, 469, 482, 495, 508, 521, 534, 547, 560, 573, 586, 599, 612, 625, 638, 651, 664, 677
a(n) = 13*n+1; a(n) = 2*a(n-1)-a(n-2). [From Vincenzo Librandi, Jun 11 2011]
[A168596] 14, 27, 53, 105, 209, 417, 833, 1665, 3329, 6657, 13313, 26625, 53249, 106497, 212993, 425985, 851969, 1703937, 3407873, 6815745, 13631489, 27262977, 54525953, 109051905, 218103809, 436207617, 872415233, 1744830465, 3489660929
a(n) = 13*2^n + 1.
a(n) = 3*a(n-1) - 2*a(n-2). (End)
[A008596] 0, 14, 28, 42, 56, 70, 84, 98, 112, 126, 140, 154, 168, 182, 196, 210, 224, 238, 252, 266, 280, 294, 308, 322, 336, 350, 364, 378, 392, 406, 420, 434, 448, 462, 476, 490, 504, 518, 532, 546, 560, 574, 588, 602, 616, 630, 644, 658, 672, 686, 700, 714, 728
a(n) = 14n = 2*a(n-1) - a(n-2). G.f.: 14x/(x-1)^2. - R. J. Mathar, Jun 23 2009
[A077265] 14, 28, 52, 94, 170, 312, 584, 1114, 2158, 4228, 8348, 16566, 32978, 65776, 131344, 262450, 524630, 1048956, 2097572, 4194766, 8389114, 16777768, 33555032, 67109514, 134218430, 268436212, 536871724, 1073742694, 2147484578, 4294968288, 8589935648, 17179870306
a(n) = 2^n+n*(n-1). - Eric W. Weisstein, Dec 16 2013

a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4). - Colin Barker, May 06 2014
[A212890] 0, 14, 28, 152, 276, 702, 1128, 2144, 3160, 5150, 7140, 10584, 14028, 19502, 24976, 33152, 41328, 52974, 64620, 80600, 96580, 117854, 139128, 166752, 194376, 229502, 264628, 308504, 352380, 406350, 460320, 525824, 591328, 669902
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A019552] 14, 28, 312, 416, 520, 624, 728, 832, 936, 1040, 1144, 1248, 1352, 1456, 1560, 1664, 1768, 1872, 1976, 2080, 2184, 2288, 2392, 2496, 25100, 26104, 27108, 28112, 29116, 30120, 31124, 32128, 33132, 34136, 35140, 36144, 37148, 38152, 39156, 40160, 41164
a(n) = n*10^floor[log10(4*n)+1]+4*n, with n>=1. [Paolo P. Lava, Mar 24 2010]
[A132756] 0, 14, 29, 45, 62, 80, 99, 119, 140, 162, 185, 209, 234, 260, 287, 315, 344, 374, 405, 437, 470, 504, 539, 575, 612, 650, 689, 729, 770, 812, 855, 899, 944, 990, 1037, 1085, 1134, 1184, 1235, 1287, 1340, 1394, 1449, 1505, 1562, 1620
a(n) = n + a(n-1) + 13 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 14*n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A192836] 14, 29, 48, 83, 126, 193, 272, 383, 510, 677, 864, 1099, 1358, 1673, 2016, 2423, 2862, 3373, 3920, 4547, 5214, 5969, 6768, 7663, 8606, 9653, 10752, 11963, 13230, 14617, 16064, 17639, 19278, 21053, 22896, 24883, 26942, 29153, 31440, 33887, 36414, 39109, 41888
a(n) = (1/4)*(26+27*n+4*n^2+2*n^3+(-1)^n*(2+n)).
[A195145] 0, 1, 14, 29, 56, 85, 126, 169, 224, 281, 350, 421, 504, 589, 686, 785, 896, 1009, 1134, 1261, 1400, 1541, 1694, 1849, 2016, 2185, 2366, 2549, 2744, 2941, 3150, 3361, 3584, 3809, 4046, 4285, 4536, 4789, 5054, 5321, 5600, 5881, 6174, 6469, 6776, 7085, 7406
a(n) = (14*n^2+5*(-1)^n-5)/4; a(n) = a(-n) = -a(n-1)+7*n^2-7*n+1. - Vincenzo Librandi, Sep 27 2011
[A196305] 14, 29, 59, 119, 239, 479, 959, 1919, 3839, 7679, 15359, 30719, 61439, 122879, 245759, 491519, 983039, 1966079, 3932159, 7864319, 15728639, 31457279, 62914559, 125829119, 251658239, 503316479, 1006632959, 2013265919, 4026531839, 8053063679, 16106127359
a(n) = 15*2^n - 1.
a(n) = 2*a(n-1)+1. a(n)=3*a(n-2)-2*a(n-2). - Philippe Deléham, Feb 17 2014
[A063311] 1, 14, 30, 45, 60, 75, 90, 103, 120, 133, 150, 165, 180, 191, 210, 223, 240, 253, 270, 281, 300, 311, 330, 343, 360, 369, 390, 401, 420, 431, 450, 459, 480, 489, 510, 521, 540, 547, 570, 579, 600, 609, 630, 637, 660, 667, 690, 699, 720, 725
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A132759] 0, 14, 30, 48, 68, 90, 114, 140, 168, 198, 230, 264, 300, 338, 378, 420, 464, 510, 558, 608, 660, 714, 770, 828, 888, 950, 1014, 1080, 1148, 1218, 1290, 1364, 1440, 1518, 1598, 1680, 1764, 1850, 1938, 2028, 2120, 2214, 2310, 2408
a(n) = 2*n + a(n-1) + 12 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A027575] 14, 30, 54, 86, 126, 174, 230, 294, 366, 446, 534, 630, 734, 846, 966, 1094, 1230, 1374, 1526, 1686, 1854, 2030, 2214, 2406, 2606, 2814, 3030, 3254, 3486, 3726, 3974, 4230, 4494, 4766, 5046, 5334, 5630, 5934, 6246, 6566, 6894, 7230, 7574
a(n) = 4*n^2 + 12*n + 14. - Al Hakanson (hawkuu(AT)gmail.com), May 20 2009
a(n) = a(n-1)+8*(n+1) for n>0, a(0)=14. - Vincenzo Librandi, Nov 19 2010
a(n) is defined for n < 0 and a(-n) = a(n-3) for any n.
[A228124] 1, 14, 30, 91, 140, 285, 385, 650, 819, 1240, 1496, 2109, 2470, 3311, 3795, 4900, 5525, 6930, 7714, 9455, 10416, 12529, 13685, 16206, 17575, 20540, 22140, 25585, 27434, 31395, 33511, 38024, 40425, 45526, 48230, 53955, 56980, 63365, 66729, 73810, 77531, 85344
a(n) = (n*(1+3*n)*(1+3*(-1)^n+6*n))/16.
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-4)+3*a(n-5)+a(n-6)-a(n-7).
[A015222] 14, 30, 140, 204, 506, 650, 1240, 1496, 2470, 2870, 4324, 4900, 6930, 7714, 10416, 11440, 14910, 16206, 20540, 22140, 27434, 29370, 35720, 38024, 45526, 48230, 56980, 60116, 70210, 73810, 85344, 89440, 102510, 107134, 121836, 127020
a(n) = (3+4*n-(-1)^n)*(2+4*n-(-1)^n)*(1+4*n-(-1)^n)/24.
a(n) = 3*a(n-2)-3*a(n-4)+a(n-6)+128.
[A156203] 14, 31, 65, 133, 269, 541, 1085, 2173, 4349, 8701, 17405, 34813, 69629, 139261, 278525, 557053, 1114109, 2228221, 4456445, 8912893, 17825789, 35651581, 71303165, 142606333, 285212669, 570425341, 1140850685, 2281701373
a(n) = 17*2^(n-1)-3.
[A178933] 1, 1, 14, 35, 205, 521, 2507, 6709, 26712, 73834, 262431, 724537, 2384988, 6552033, 20289864, 55244988, 163342701, 439201501, 1251532060, 3321188863, 9177476977, 24028568664, 64709650590, 167153761523, 440300702427, 1122562426240, 2900254892900, 7301575351055, 18544013542057
a(0)=0 and a(n)=1/n*sum(k=1,n,sigma(k)^3*a(n-k)) for n>0.
[A051866] 0, 1, 14, 39, 76, 125, 186, 259, 344, 441, 550, 671, 804, 949, 1106, 1275, 1456, 1649, 1854, 2071, 2300, 2541, 2794, 3059, 3336, 3625, 3926, 4239, 4564, 4901, 5250, 5611, 5984, 6369, 6766, 7175, 7596, 8029, 8474, 8931, 9400, 9881, 10374
a(n) = 12*n+a(n-1)-11, with n>0, a(0)=0. - Vincenzo Librandi, Aug 06 2010
a(12*a(n)+67*n+1) = a(12*a(n)+67*n) + a(12*n+1). - Vladimir Shevelev, Jan 24 2014
[A162266] 14, 39, 81, 146, 240, 369, 539, 756, 1026, 1355, 1749, 2214, 2756, 3381, 4095, 4904, 5814, 6831, 7961, 9210, 10584, 12089, 13731, 15516, 17450, 19539, 21789, 24206, 26796, 29565, 32519, 35664, 39006, 42551, 46305, 50274, 54464, 58881, 63531
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Mar 05 2012
[A069126] 1, 14, 40, 79, 131, 196, 274, 365, 469, 586, 716, 859, 1015, 1184, 1366, 1561, 1769, 1990, 2224, 2471, 2731, 3004, 3290, 3589, 3901, 4226, 4564, 4915, 5279, 5656, 6046, 6449, 6865, 7294, 7736, 8191, 8659, 9140, 9634, 10141, 10661, 11194
a(n) = (13n^2 - 13n + 2)/2
a(n) = 13*n+a(n-1)-13 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A005587] 0, 14, 42, 90, 165, 275, 429, 637, 910, 1260, 1700, 2244, 2907, 3705, 4655, 5775, 7084, 8602, 10350, 12350, 14625, 17199, 20097, 23345, 26970, 31000, 35464, 40392, 45815, 51765, 58275, 65379, 73112, 81510, 90610, 100450, 111069, 122507, 134805, 148005
a(n) = C(7+n, 4) - C(7+n, 3). - Zerinvary Lajos, Dec 09 2005
[A212514] 0, 0, 0, 0, 14, 42, 90, 200, 364, 585, 960, 1440, 2052, 2926, 4004, 5280, 7000, 9000, 11340, 14280, 17670, 21483, 26180, 31416, 37296, 44252, 52000, 60480, 70434, 81270, 93150, 106720, 121520, 137445, 155584, 175032, 196020, 219450, 244644, 271440, 301340
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A292051] 0, 1, 14, 42, 124, 251, 506, 852, 1432, 2165, 3270, 4606, 6484, 8687, 11634, 15016, 19376, 24297, 30462, 37330, 45740, 55011, 66154, 78332, 92744, 108381, 126646, 146342, 169092, 193495, 221410, 251216, 285024, 320977, 361454, 404346, 452316, 502987, 559322, 618660
a(n) = (3 - 10*n + 6*n^2 - 8*n^3 + 6*n^4 - 3*(-1)^n*(1 - 2*n + 2*n^2))/24.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8).
[A033587] 0, 14, 44, 90, 152, 230, 324, 434, 560, 702, 860, 1034, 1224, 1430, 1652, 1890, 2144, 2414, 2700, 3002, 3320, 3654, 4004, 4370, 4752, 5150, 5564, 5994, 6440, 6902, 7380, 7874, 8384, 8910, 9452, 10010, 10584, 11174, 11780, 12402, 13040, 13694, 14364, 15050
a(n)=16*n+a(n-1)-2 (with a(0)=0) - Vincenzo Librandi, Aug 05 2010
[A090197] 1, 14, 45, 100, 185, 306, 469, 680, 945, 1270, 1661, 2124, 2665, 3290, 4005, 4816, 5729, 6750, 7885, 9140, 10521, 12034, 13685, 15480, 17425, 19526, 21789, 24220, 26825, 29610, 32581, 35744, 39105, 42670, 46445, 50436, 54649, 59090, 63765
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 24 2012
[A005914] 1, 14, 50, 110, 194, 302, 434, 590, 770, 974, 1202, 1454, 1730, 2030, 2354, 2702, 3074, 3470, 3890, 4334, 4802, 5294, 5810, 6350, 6914, 7502, 8114, 8750, 9410, 10094, 10802, 11534, 12290, 13070, 13874, 14702, 15554, 16430, 17330, 18254, 19202, 20174, 21170
a(n) = (2n-1)^2+(2n)^2+(2n+1)^2 for n>0. - Bruno Berselli, Jan 30 2012
a(0)=1, a(1)=14, a(2)=50, a(3)=110, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 09 2012
[A050441] 0, 1, 14, 50, 120, 235, 406, 644, 960, 1365, 1870, 2486, 3224, 4095, 5110, 6280, 7616, 9129, 10830, 12730, 14840, 17171, 19734, 22540, 25600, 28925, 32526, 36414, 40600, 45095, 49910, 55056, 60544, 66385, 72590, 79170, 86136, 93499, 101270
a(n) = n(n+1)(11n-8)/6.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Bruno Berselli, Aug 19 2010
a(n) = sum((n-i)*(11*i+1), i=0..n-1), with a(0)=0. - Bruno Berselli, Feb 10 2014

[A281699] 14, 50, 218, 938, 3914, 16010, 64778, 260618, 1045514, 4188170, 16764938, 67084298, 268386314, 1073643530, 4294770698, 17179475978, 68718690314, 274876334090, 1099508482058, 4398040219658, 17592173461514, 70368719011850, 281474926379018, 1125899806179338, 4503599426043914, 18014398106828810
a(n) = 8*(2^(2*n+1)+2) - 6*(2^(n+1)+1).
a(n) = 7*a(n-1) - 14*a(n-2) + 8*a(n-3) for n>2.
[A244804] 1, 14, 51, 112, 197, 306, 439, 596, 777, 982, 1211, 1464, 1741, 2042, 2367, 2716, 3089, 3486, 3907, 4352, 4821, 5314, 5831, 6372, 6937, 7526, 8139, 8776, 9437, 10122, 10831, 11564, 12321, 13102, 13907, 14736, 15589, 16466, 17367, 18292, 19241, 20214, 21211, 22232, 23277, 24346, 25439
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A059997] 14, 51, 120, 230, 390, 609, 896, 1260, 1710, 2255, 2904, 3666, 4550, 5565, 6720, 8024, 9486, 11115, 12920, 14910, 17094, 19481, 22080, 24900, 27950, 31239, 34776, 38570, 42630, 46965, 51584, 56496, 61710, 67235, 73080, 79254, 85766, 92625
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A007588] 0, 1, 14, 51, 124, 245, 426, 679, 1016, 1449, 1990, 2651, 3444, 4381, 5474, 6735, 8176, 9809, 11646, 13699, 15980, 18501, 21274, 24311, 27624, 31225, 35126, 39339, 43876, 48749, 53970, 59551, 65504, 71841, 78574, 85715, 93276, 101269, 109706, 118599, 127960
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), n>3. - Harvey P. Dale, Sep 16 2011
[A214659] 0, 1, 14, 53, 132, 265, 466, 749, 1128, 1617, 2230, 2981, 3884, 4953, 6202, 7645, 9296, 11169, 13278, 15637, 18260, 21161, 24354, 27853, 31672, 35825, 40326, 45189, 50428, 56057, 62090, 68541, 75424, 82753, 90542, 98805, 107556, 116809, 126578, 136877
a(n) = (7*n^3-3*n^2-n)/3.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). (End)
[A006597] 0, 1, 14, 54, 136, 275, 486, 784, 1184, 1701, 2350, 3146, 4104, 5239, 6566, 8100, 9856, 11849, 14094, 16606, 19400, 22491, 25894, 29624, 33696, 38125, 42926, 48114, 53704, 59711, 66150, 73036, 80384, 88209, 96526, 105350, 114696, 124579, 135014, 146016
a(n) = (1/6)*(15*n^3-9*n^2). - James A. Record (james.record(AT)gmail.com), Nov 07 2004
a(n) = Sum_{i=0..n-1} n*(5*i+1) for n>0. [Bruno Berselli, Sep 08 2015]
[A022285] 0, 14, 55, 123, 218, 340, 489, 665, 868, 1098, 1355, 1639, 1950, 2288, 2653, 3045, 3464, 3910, 4383, 4883, 5410, 5964, 6545, 7153, 7788, 8450, 9139, 9855, 10598, 11368, 12165, 12989, 13840, 14718, 15623
a(n) = a(n-1) + 27*n - 13 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(0)=0, a(1)=14, a(2)=55; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). -Harvey P. Dale, Sep 20 2011
a(n) = 12/(n+2)!*Sum_{j=0..n} (-1)^(n-j)*binomial(n,j)*(j+n)^(n+2). - Vladimir Kruchinin, Jun 04 2013
[A100157] 1, 14, 55, 140, 285, 506, 819, 1240, 1785, 2470, 3311, 4324, 5525, 6930, 8555, 10416, 12529, 14910, 17575, 20540, 23821, 27434, 31395, 35720, 40425, 45526, 51039, 56980, 63365, 70210, 77531, 85344
a(n) = (16*n^3-12*n^2+2*n)/6.
a(n) = binomial(2n+1,3) + binomial(2n,3). - John Molokach, Jul 10 2013
a(n) = sum((n+i)^2, i=-(n-1)..(n-1)). - Bruno Berselli, Jul 24 2014
[A144555] 0, 14, 56, 126, 224, 350, 504, 686, 896, 1134, 1400, 1694, 2016, 2366, 2744, 3150, 3584, 4046, 4536, 5054, 5600, 6174, 6776, 7406, 8064, 8750, 9464, 10206, 10976, 11774, 12600, 13454, 14336, 15246, 16184, 17150, 18144, 19166, 20216, 21294, 22400, 23534, 24696
a(n) = a(n-1) + 14*(2*n-1), with a(0) = 0. - Vincenzo Librandi, Nov 25 2010
[A192846] 14, 56, 126, 256, 430, 696, 1022, 1472, 1998, 2680, 3454, 4416, 5486, 6776, 8190, 9856, 11662, 13752, 15998, 18560, 21294, 24376, 27646, 31296, 35150, 39416, 43902, 48832, 53998, 59640
a(n) = n*(2*n*(n+3)+(-1)^n+7).
[A115129] 14, 56, 146, 311, 586, 1015, 1652, 2562, 3822, 5522, 7766, 10673, 14378, 19033, 24808, 31892, 40494, 50844, 63194, 77819, 95018, 115115, 138460, 165430, 196430, 231894, 272286, 318101, 369866, 428141, 493520, 566632, 648142, 738752, 839202
a(0)=14, a(1)=56, a(2)=146, a(3)=311, a(4)=586, a(5)=1015, a(n)= 6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Apr 24 2016
[A022286] 0, 14, 57, 129, 230, 360, 519, 707, 924, 1170, 1445, 1749, 2082, 2444, 2835, 3255, 3704, 4182, 4689, 5225, 5790, 6384, 7007, 7659, 8340, 9050, 9789, 10557, 11354, 12180, 13035, 13919, 14832, 15774, 16745
a(n) = 29*n + a(n-1) - 15 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A005915] 1, 14, 57, 148, 305, 546, 889, 1352, 1953, 2710, 3641, 4764, 6097, 7658, 9465, 11536, 13889, 16542, 19513, 22820, 26481, 30514, 34937, 39768, 45025, 50726, 56889, 63532, 70673, 78330, 86521, 95264, 104577, 114478, 124985, 136116, 147889
a(n)=(n+1)^3 + 6* (n*(n+1)*(2*n+1)/6). - Klaus Strassburger (strass(AT)ddfi.uni-duesseldorf.de)
a(0)=1, a(1)=14, a(2)=57, a(3)=148, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Jun 25 2011
[A212675] 0, 1, 14, 57, 158, 353, 688, 1217, 2004, 3121, 4650, 6681, 9314, 12657, 16828, 21953, 28168, 35617, 44454, 54841, 66950, 80961, 97064, 115457, 136348, 159953, 186498, 216217, 249354, 286161, 326900, 371841, 421264, 475457, 534718
a(n)=4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
[A143861] 1, 14, 59, 136, 245, 386, 559, 764, 1001, 1270, 1571, 1904, 2269, 2666, 3095, 3556, 4049, 4574, 5131, 5720, 6341, 6994, 7679, 8396, 9145, 9926, 10739, 11584, 12461, 13370, 14311, 15284, 16289, 17326, 18395, 19496, 20629, 21794, 22991, 24220
a(n) = 16n^2 - 35n + 20. - R. J. Mathar, Sep 08 2008
[A100174] 1, 14, 59, 156, 325, 586, 959, 1464, 2121, 2950, 3971, 5204, 6669, 8386, 10375, 12656, 15249, 18174, 21451, 25100, 29141, 33594, 38479, 43816, 49625, 55926, 62739, 70084, 77981, 86450, 95511, 105184
a(n)=(1/6)*(20*n^3-24*n^2+10*n).
[A277986] 14, 60, 134, 208, 282, 356, 430, 504, 578, 652, 726, 800, 874, 948, 1022, 1096, 1170, 1244, 1318, 1392, 1466, 1540, 1614, 1688, 1762, 1836, 1910, 1984, 2058, 2132, 2206, 2280, 2354, 2428, 2502, 2576, 2650, 2724, 2798, 2872, 2946, 3020, 3094, 3168
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Nov 13 2016
[A158058] 14, 60, 138, 248, 390, 564, 770, 1008, 1278, 1580, 1914, 2280, 2678, 3108, 3570, 4064, 4590, 5148, 5738, 6360, 7014, 7700, 8418, 9168, 9950, 10764, 11610, 12488, 13398, 14340, 15314, 16320, 17358, 18428, 19530, 20664, 21830, 23028, 24258, 25520
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A100171] 1, 14, 60, 160, 335, 606, 994, 1520, 2205, 3070, 4136, 5424, 6955, 8750, 10830, 13216, 15929, 18990, 22420, 26240, 30471, 35134, 40250, 45840, 51925, 58526, 65664, 73360, 81635, 90510, 100006, 110144
a(n)=(1/6)*(21*n^3-27*n^2+12*n).
a(0)=1, a(1)=14, a(2)=60, a(3)=160, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Jun 28 2011
[A063492] 1, 14, 60, 161, 339, 616, 1014, 1555, 2261, 3154, 4256, 5589, 7175, 9036, 11194, 13671, 16489, 19670, 23236, 27209, 31611, 36464, 41790, 47611, 53949, 60826, 68264, 76285, 84911, 94164, 104066, 114639, 125905, 137886, 150604, 164081, 178339, 193400, 209286, 226019
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4. - Wesley Ivan Hurt, Dec 16 2015
[A051799] 1, 14, 60, 170, 385, 756, 1344, 2220, 3465, 5170, 7436, 10374, 14105, 18760, 24480, 31416, 39729, 49590, 61180, 74690, 90321, 108284, 128800, 152100, 178425, 208026, 241164, 278110, 319145, 364560, 414656, 469744, 530145, 596190
a(n) = C(n+3, 3)*(5*n+2)/2 = (n+1)*(n+2)*(n+3)*(5*n+2)/12.
[A264854] 0, 1, 14, 61, 175, 400, 791, 1414, 2346, 3675, 5500, 7931, 11089, 15106, 20125, 26300, 33796, 42789, 53466, 66025, 80675, 97636, 117139, 139426, 164750, 193375, 225576, 261639, 301861, 346550, 396025, 450616, 510664, 576521, 648550, 727125, 812631, 905464, 1006031
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Nov 27 2015
[A003695] 1, 14, 62, 276, 1006, 3610, 12010, 38984, 122188, 375122, 1128446, 3342794, 9767588, 28217820, 80709424, 228864620, 644060262, 1800346140, 5002457832, 13825549136, 38026348240, 104133664506, 284037629690, 771953153918, 2091075938320, 5647162827592, 15208169217918
a(1) = 1,
a(2) = 14,
a(3) = 62,
a(4) = 276,
a(5) = 1006,
a(6) = 3610,

[A050492] 1, 14, 63, 172, 365, 666, 1099, 1688, 2457, 3430, 4631, 6084, 7813, 9842, 12195, 14896, 17969, 21438, 25327, 29660, 34461, 39754, 45563, 51912, 58825, 66326, 74439, 83188, 92597, 102690, 113491, 125024, 137313, 150382, 164255, 178956
a(n) = n*(4*n^2-6*n+3).
a(1)=1, a(2)=14, a(3)=63, a(4)=172, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Oct 02 2011
a(n) = ((2n-1)^3 + 1)/2. - Dave Durgin, May 07 2014
[A255499] 0, 1, 14, 63, 184, 425, 846, 1519, 2528, 3969, 5950, 8591, 12024, 16393, 21854, 28575, 36736, 46529, 58158, 71839, 87800, 106281, 127534, 151823, 179424, 210625, 245726, 285039, 328888, 377609, 431550, 491071, 556544, 628353, 706894, 792575, 885816, 987049, 1096718, 1215279, 1343200
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, Sep 05 2015
[A074354] 0, 0, 0, 0, 0, 14, 64, 218, 692, 1982, 5496, 14562, 37692, 95142, 236032, 576074, 1387780, 3304078, 7787656, 18190386, 42151116, 96972534, 221651472, 503650970, 1138286740, 2559944414, 5731095704, 12776843138, 28374100572
a(n) = 4*a(n-1) + 2*a(n-2) - 20*a(n-3) - a(n-4) + 40*a(n-5) + 8*a(n-6) - 32*a(n-7) - 16*a(n-8) for n>10.
[A212743] 0, 14, 64, 224, 528, 1134, 2064, 3584, 5680, 8750, 12720, 18144, 24864, 33614, 44128, 57344, 72864, 91854, 113760, 140000, 169840, 204974, 244464, 290304, 341328, 399854, 464464, 537824, 618240, 708750, 807360, 917504, 1036864
a(n)=2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A213757] 1, 14, 65, 214, 597, 1518, 3649, 8462, 19157, 42646, 93777, 204294, 441781, 949598, 2030849, 4324510, 9174069, 19397574, 40893265, 85981910, 180353621, 377485774, 788527425, 1644165294, 3422550037, 7113537398, 14763947729
a(n) = -2 + 2^(n+1) - 6*n + n*2^(n+2) -3*n^2.
a(n) = 7*a(n-1) - 19*a(n-2) + 25*a(n-3) - 16*a(n-4) + 4*a(n-5).
[A008354] 0, 1, 14, 69, 216, 525, 1086, 2009, 3424, 5481, 8350, 12221, 17304, 23829, 32046, 42225, 54656, 69649, 87534, 108661, 133400, 162141, 195294, 233289, 276576, 325625, 380926, 442989, 512344, 589541
a(0)=0, a(1)=1, a(2)=14, a(3)=69, a(4)=216, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Feb 12 2015
[A051879] 1, 14, 69, 224, 574, 1260, 2478, 4488, 7623, 12298, 19019, 28392, 41132, 58072, 80172, 108528, 144381, 189126, 244321, 311696, 393162, 490820, 606970, 744120, 904995, 1092546, 1309959, 1560664
a(n) = C(n+4, 4)*(9n+5)/5.
[A212751] 1, 14, 70, 198, 477, 924, 1696, 2768, 4405, 6510, 9486, 13134, 18025, 23828, 31312, 39984, 50841, 63198, 78310, 95270, 115621, 138204, 164880, 194208, 228397, 265694, 308686, 355278, 408465, 465780, 530656, 600224, 678385, 761838
a(n)=2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A212749] 1, 14, 70, 222, 537, 1116, 2056, 3512, 5605, 8550, 12486, 17694, 24325, 32732, 43072, 55776, 71001, 89262, 110710, 135950, 165121, 198924, 237480, 281592, 331357, 387686, 450646, 521262, 599565, 686700, 782656, 888704, 1004785
a(n)=2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A201106] 0, 1, 14, 70, 230, 595, 1316, 2604, 4740, 8085, 13090, 20306, 30394, 44135, 62440, 86360, 117096, 156009, 204630, 264670, 338030, 426811, 533324, 660100, 809900, 985725, 1190826, 1428714, 1703170, 2018255, 2378320, 2788016, 3252304, 3776465, 4366110, 5027190
a(n) = (n-1)*n*(n^3+n^2-2*n-2)/12.
[A212572] 0, 1, 14, 71, 220, 533, 1094, 2015, 3416, 5449, 8270, 12071, 17044, 23421, 31430, 41343, 53424, 67985, 85326, 105799, 129740, 157541, 189574, 226271, 268040, 315353, 368654, 428455, 495236, 569549, 651910, 742911, 843104, 953121, 1073550, 1205063, 1348284
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = 1/48*(38*n^4+20*n^3-32*n^2-2*(3*(-1)^n-11)*n+3*((-1)^n-1)).
[A186707] 1, 14, 71, 224, 547, 1134, 2101, 3584, 5741, 8750, 12811, 18144, 24991, 33614, 44297, 57344, 73081, 91854, 114031, 140000, 170171, 204974, 244861, 290304, 341797, 399854, 465011, 537824, 618871, 708750, 808081, 917504, 1037681, 1169294, 1313047, 1469664
a(n)= +4*a(n-1) -5*a(n-2) +5*a(n-4) -4*a(n-5) +a(n-6) = 7*n*(n^3/8+n^2/2+3*n/4+1/2)+(15+(-1)^n)/16. G.f. (-1-10*x-20*x^2-10*x^3-x^4) / ((1+x)*(x-1)^5). - R. J. Mathar, Mar 24 2011
[A212752] 0, 14, 71, 238, 580, 1224, 2265, 3896, 6236, 9550, 13975, 19854, 27336, 36848, 48545, 62944, 80200, 100926, 125271, 153950, 187100, 225544, 269401, 319608, 376260, 440414, 512135, 592606, 681856, 781200, 890625, 1011584, 1144016
a(n)=2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A074086] 0, 0, 0, 0, 0, 14, 71, 282, 997, 3298, 10439, 32012, 95834, 281494, 814131, 2324422, 6564135, 18362810, 50947395, 140329400, 384031508, 1044880222, 2828084399, 7618214354, 20432838121, 54585196818, 145287466799, 385397215108
a(n)=8a(n-1)-20a(n-2)+8a(n-3)+26a(n-4)-8a(n-5)-20a(n-6)-8a(n-7)-a(n-8) for n>=11.
[A212750] 1, 14, 72, 216, 529, 1070, 1984, 3336, 5345, 8070, 11816, 16624, 22897, 30646, 40384, 52080, 66369, 83166, 103240, 126440, 153681, 184734, 220672, 261176, 307489, 359190, 417704, 482496, 555185, 635110, 724096, 821344, 928897
a(n)=2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A279447] 0, 1, 14, 73, 301, 890, 2321, 5166, 10654, 20055, 35880, 60511, 98419, 153608, 233331, 343820, 496076, 699261, 969234, 1318885, 1770185, 2340646, 3059749, 3950618, 5051786, 6393075, 8023756, 9981531, 12328239, 15110740, 18405415, 22269656, 26796504, 32055353, 38158166
a(n) = (n^6 - 5*n^4 + 14*n^3 - 14*n^2 + 4*n)/48 + IF(MOD(n, 2) = 1, 2*n^3 - 3*n^2 + 1)/16.
a(n) = 3*a(n-1) + a(n-2) - 11*a(n-3) + 6*a(n-4) + 14*a(n-5) - 14*a(n-6) - 6*a(n-7) + 11*a(n-8) - a(n-9) - 3*a(n-10) + a(n-11).
[A213284] 0, 1, 14, 74, 276, 895, 2506, 6104, 13224, 26061, 47590, 81686, 133244, 208299, 314146, 459460, 654416, 910809, 1242174, 1663906, 2193380, 2850071, 3655674, 4634224, 5812216, 7218725, 8885526, 10847214, 13141324, 15808451, 18892370, 22440156, 26502304
a(n) = n*(94-204*n+155*n^2-45*n^3+6*n^4)/6.
[A108650] 1, 14, 75, 260, 700, 1596, 3234, 6000, 10395, 17050, 26741, 40404, 59150, 84280, 117300, 159936, 214149, 282150, 366415, 469700, 595056, 745844, 925750, 1138800, 1389375, 1682226, 2022489, 2415700, 2867810, 3385200, 3974696, 4643584
a(n) = (n+1)*stirling2(n+3,n+1). - Zerinvary Lajos, Jan 20 2007
[A270704] 0, 14, 76, 186, 344, 550, 804, 1106, 1456, 1854, 2300, 2794, 3336, 3926, 4564, 5250, 5984, 6766, 7596, 8474, 9400, 10374, 11396, 12466, 13584, 14750, 15964, 17226, 18536, 19894, 21300, 22754, 24256, 25806, 27404, 29050, 30744, 32486, 34276, 36114, 38000
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = 2*n*(12*n - 5).
[A152100] 1, 14, 76, 218, 472, 870, 1444, 2226, 3248, 4542, 6140, 8074, 10376, 13078, 16212, 19810, 23904, 28526, 33708, 39482, 45880, 52934, 60676, 69138, 78352, 88350, 99164, 110826, 123368, 136822, 151220, 166594, 182976, 200398, 218892, 238490
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), n > 4. a(n) = 2*n*(8*n^2 + 12*n + 1)/3, n > 0. - R. J. Mathar, Sep 22 2009
[A173962] 14, 76, 234, 536, 1030, 1764, 2786, 4144, 5886, 8060, 10714, 13896, 17654, 22036, 27090, 32864, 39406, 46764, 54986, 64120, 74214, 85316, 97474, 110736, 125150, 140764, 157626, 175784, 195286, 216180, 238514, 262336, 287694, 314636, 343210
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Jan 17 2015
[A085462] 1, 14, 77, 273, 748, 1729, 3542, 6630, 11571, 19096, 30107, 45695, 67158, 96019, 134044, 183260, 245973, 324786, 422617, 542717, 688688, 864501, 1074514, 1323490, 1616615, 1959516, 2358279, 2819467, 3350138, 3957863, 4650744
a(n) = n + 12*binomial(n, 2) + 38*binomial(n, 3) + 45*binomial(n, 4) + 18*binomial(n, 5).
a(n) = n*(n+1)*(2*n+1)*(3*n+1)*(3*n+2)/120.
a(n) = sum(i=1..n, sum(j=1..n, i^2 * Min(i,j))). - Enrique Pérez Herrero, Jan 30 2013
[A050404] 1, 14, 77, 280, 798, 1932, 4158, 8184, 15015, 26026, 43043, 68432, 105196, 157080, 228684, 325584, 454461, 623238, 841225, 1119272, 1469930, 1907620, 2448810, 3112200, 3918915, 4892706, 6060159, 7450912
a(n)=C(n+5, 5)*(4n+3)/3.
[A058895] 0, 0, 14, 78, 252, 620, 1290, 2394, 4088, 6552, 9990, 14630, 20724, 28548, 38402, 50610, 65520, 83504, 104958, 130302, 159980, 194460, 234234, 279818, 331752, 390600, 456950, 531414, 614628, 707252, 809970, 923490, 1048544, 1185888, 1336302, 1500590, 1679580
a(n) = floor(n^7/(n^3+1)). - Gary Detlefs, Feb 11 2010
a(n)^3 = (a(n)/n)^4 + (a(n)/n)^3. - Vincenzo Librandi, Feb 23 2012
a(n) = 14*C(n,2) + 36*C(n,3) + 24*C(n,4). - Dennis P. Walsh, Mar 21 2013

[A176010] 14, 83, 111, 180, 208, 277, 305, 374, 402, 471, 499, 568, 596, 665, 693, 762, 790, 859, 887, 956, 984, 1053, 1081, 1150, 1178, 1247, 1275, 1344, 1372, 1441, 1469, 1538, 1566, 1635, 1663, 1732, 1760, 1829, 1857, 1926, 1954, 2023, 2051, 2120, 2148, 2217
a(n) = (-97+41*(-1)^n+194*n)/4.
a(n) = a(n-1)+a(n-2)-a(n-3) with n>3, a(1)=14, a(2)=83, a(3)=111.
a(n) = a(n-1)+69 for n even, a(n) = a(n-1)+28 for n odd, a(1)=14.
[A033276] 0, 14, 84, 300, 825, 1925, 4004, 7644, 13650, 23100, 37400, 58344, 88179, 129675, 186200, 261800, 361284, 490314, 655500, 864500, 1126125, 1450449, 1848924, 2334500, 2921750, 3627000, 4468464, 5466384, 6643175, 8023575, 9634800, 11506704, 13671944
a(n) = binomial(n+2, 3)*binomial(n-3, 3)/4.
[A006858] 0, 1, 14, 84, 330, 1001, 2548, 5712, 11628, 21945, 38962, 65780, 106470, 166257, 251720, 371008, 534072, 752913, 1041846, 1417780, 1900514, 2513049, 3281916, 4237520, 5414500, 6852105, 8594586, 10691604, 13198654, 16177505, 19696656
a(n) = (n+1)*binomial(2n+4, 5)/12. - Philippe Deléham, Mar 06 2004
[A027818] 1, 14, 84, 336, 1050, 2772, 6468, 13728, 27027, 50050, 88088, 148512, 241332, 379848, 581400, 868224, 1268421, 1817046, 2557324, 3542000, 4834830, 6512220, 8665020, 11400480, 14844375, 19143306, 24467184, 31011904
a(n) = C(n+1, 1)*C(n+6, 6). - Zerinvary Lajos, May 26 2005
a(n) = n*(n-1)*(n-2)*(n-3)*(n-4)*(n-5)^2/6!, n=>6. - Zerinvary Lajos, Oct 19 2006
[A272103] 1, 14, 85, 320, 910, 2156, 4494, 8520, 15015, 24970, 39611, 60424, 89180, 127960, 179180, 245616, 330429, 437190, 569905, 733040, 931546, 1170884, 1457050, 1796600, 2196675, 2665026, 3210039, 3840760, 4566920, 5398960, 6348056, 7426144, 8645945, 10020990, 11565645, 13295136
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (n + 1)*(n + 2)*(n + 3)*(5*n^2 + 5*n + 4)/24.
[A244865] 1, 14, 85, 336, 1023, 2610, 5860, 11942, 22555, 40068, 67677, 109578, 171157, 259196, 382096, 550116, 775629, 1073394, 1460845, 1958396, 2589763, 3382302, 4367364, 5580666, 7062679, 8859032, 11020933, 13605606, 16676745, 20304984, 24568384, 29552936, 35353081, 42072246, 49823397, 58729608
a(n) = (15*(127+(-1)^n) + 6432*n + 8936*n^2 + 6480*n^3 + 2570*n^4 + 528*n^5 + 44*n^6) / 1920.
a(n) = 6*a(n-1) - 14*a(n-2) + 14*a(n-3) - 14*a(n-5) + 14*a(n-6) - 6*a(n-7) + a(n-8) for n>7.
[A059600] 1, 14, 85, 344, 1086, 2892, 6798, 14520, 28743, 53482, 94523, 159952, 260780, 411672, 631788, 945744, 1384701, 1987590, 2802481, 3888104, 5315530, 7170020, 9553050, 12584520, 16405155, 21179106, 27096759
a(n)= binomial(n+5, 5)*(4*n^2+24*n+21)/21.
[A114242] 1, 14, 90, 385, 1274, 3528, 8568, 18810, 38115, 72358, 130130, 223587, 369460, 590240, 915552, 1383732, 2043621, 2956590, 4198810, 5863781, 8065134, 10939720, 14651000, 19392750, 25393095, 32918886, 42280434, 53836615, 68000360
a(n-2) = 1/6*sum_{1 <= x_1, x_2 <= n} (x_1)^2*x_2*(det V(x_1,x_2))^2 = 1/6*sum {1 <= i,j <= n} i^2*j*(i-j)^2, where V(x_1,x_2} is the Vandermonde matrix of order 2. - Peter Bala, Sep 21 2007
a(0)=1, a(1)=14, a(2)=90, a(3)=385, a(4)=1274, a(5)=3528, a(6)=8568, a(7)=18810, a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8). - Harvey P. Dale, Aug 21 2013
[A220892] 1, 14, 91, 364, 1085, 2666, 5719, 11096, 19929, 33670, 54131, 83524, 124501, 180194, 254255, 350896, 474929, 631806, 827659, 1069340, 1364461, 1721434, 2149511, 2658824, 3260425, 3966326, 4789539, 5744116, 6845189, 8109010, 9552991, 11195744, 13057121, 15158254, 17521595, 20170956, 23131549
a(n) = (3+9*n+13*n^2+11*n^3+5*n^4+n^5)/3. [Colin Barker, Jan 03 2013]
[A241205] 0, 0, 1, 14, 95, 436, 1554, 4632, 12078, 28380, 61347, 123838, 236093, 428792, 746980, 1255008, 2042652, 3232584, 4989381, 7530270, 11137819, 16174796, 23101430, 32495320, 45074250, 61722180, 83518695, 111772206, 148057209, 194255920, 252604616, 325745024, 416781112, 529341648, 667648905
a(n) = n^2*(n-1)*(n-2)*(n+2)*(n+1)*(3*n^2+1)/10080. - corrected by Eric Rowland, Aug 15 2017
[A055844] 1, 14, 95, 440, 1595, 4862, 13013, 31460, 70070, 145860, 286858, 537472, 965770, 1673140, 2806870, 4576264, 7272991, 11296450, 17185025, 25654200, 37642605, 54367170, 77388675, 108689100, 150762300, 206719656, 280412484, 376573120
a(n) = (5n+9)*C(n+8, 8)/9.
[A254469] 1, 14, 96, 450, 1650, 5082, 13728, 33462, 75075, 157300, 311168, 586092, 1058148, 1841100, 3100800, 5073684, 8090181, 12603954, 19228000, 28778750, 42329430, 61274070, 87403680, 122996250, 170922375, 234768456, 318979584, 429024376, 571584200, 754769400
a(n) = n*(1 + n)^2*(2 + n)*(3 + n)*(4 + n)*(5 + n)^2*(6 + n)/60480.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) + n^3.
[A008534] 1, 14, 98, 462, 1596, 4410, 10374, 21658, 41272, 73206, 122570, 195734, 300468, 446082, 643566, 905730, 1247344, 1685278, 2238642, 2928926, 3780140, 4818954, 6074838, 7580202, 9370536, 11484550
a(n) = (7/6)*n*(n^2+2)*(n^2+3) for n>0, a(0)=1 (see Maple line). [Bruno Berselli, Feb 28 2013]
[A008415] 1, 14, 98, 462, 1666, 4942, 12642, 28814, 59906, 115598, 209762, 361550, 596610, 948430, 1459810, 2184462, 3188738, 4553486, 6376034, 8772302, 11879042, 15856206, 20889442, 27192718, 35011074, 44623502, 56345954, 70534478
a(n) = 4*n*n*(2*n*n +7)*(n*n +14)/45 +2-0**n . George F. Johnson, Feb 21 2013
[A099193] 0, 1, 14, 99, 476, 1765, 5418, 14407, 34232, 74313, 149830, 284075, 511380, 880685, 1459810, 2340495, 3644272, 5529233, 8197758, 11905267, 16970060, 23784309, 32826266, 44673751, 60018984, 79684825, 104642486, 136030779, 175176964, 223619261, 283131090, 355747103
a(n) = 7-crosspolytope(n) = n*(4*n^6 + 70*n^4 + 196*n^2 + 45)/315.
[A244883] 1, 14, 100, 472, 1691, 4988, 12744, 29160, 61149, 119482, 220220, 386464, 650455, 1056056, 1661648, 2543472, 3799449, 5553510, 7960468, 11211464, 15540019, 21228724, 28616600, 38107160, 50177205, 65386386, 84387564, 107938000, 136911407, 172310896, 215282848
a(n) = ((n+1)*(n+2)*(n+3)*(n*(n+4)*(n*(16*n+57)+137)+420))/2520. - Todd Silvestri, Nov 16 2014
[A266561] 1, 14, 104, 546, 2275, 8008, 24752, 68952, 176358, 419900, 940576, 1998724, 4056234, 7904456, 14858000, 27041560, 47805615, 82317690, 138389160, 227613750, 366913365, 580610160, 903171360, 1382805840, 2086129500, 3104160696, 4559958144, 6618272584
a(n) = binomial(n+11,11)*(n+6)/6.
a(n) = 2*binomial(n+12,12) - binomial(n+11,11).
a(n) = binomial(n+11,11) + 2*binomial(n+11,12) for n>0.
[A131709] 1, 14, 104, 904, 8004, 71004, 630004, 5590004, 49600004, 440100004, 3905000004, 34649000004, 307440000004, 2727910000004, 24204700000004, 214767900000004, 1905632000000004, 16908641000000004, 150030090000000004, 1331214490000000004, 11811844000000000004, 104806295100000000004, 929944511000000
8251382159000000000004, 7321437648000000000004, 6496299432100000000004
a(n) = Product_{v_i} m_i + Sum_{c_j} (se_j - 1)*(Product_{v_k E (G_n-c_j)} m_k - {number of partitions of (G_n-c_i) which has cycles}) where:
[A139614] 14, 105, 196, 287, 378, 469, 560, 651, 742, 833, 924, 1015, 1106, 1197, 1288, 1379, 1470, 1561, 1652, 1743, 1834, 1925, 2016, 2107, 2198, 2289, 2380, 2471, 2562, 2653, 2744, 2835, 2926, 3017, 3108, 3199, 3290, 3381, 3472, 3563, 3654
a(0)=14, a(1)=105, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Feb 25 2015
[A008506] 1, 14, 105, 560, 2380, 8568, 27132, 77520, 203490, 497420, 1144066, 2496144, 5200300, 10400599, 20058286, 37442055, 67863355, 119757470, 206244507, 347346468, 573088920, 927780270, 1475840380, 2309645534, 3559971156, 5409749996
a(n) = 1+13n(n+1)(n^10 +5n^9 +864n^8 +3426n^7 +136197n^6 +396621n^5 +5502866n^4 +10348684n^3 +56939592n^2 +51830784n+114341760)/479001600. - Bruno Berselli, Mar 22 2012
[A010966] 1, 14, 105, 560, 2380, 8568, 27132, 77520, 203490, 497420, 1144066, 2496144, 5200300, 10400600, 20058300, 37442160, 67863915, 119759850, 206253075, 347373600, 573166440, 927983760, 1476337800, 2310789600, 3562467300, 5414950296, 8122425444, 12033222880
a(n+12) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)(n+10)(n+11)(n+12)/13!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
a(n) = n/(n-13) * a(n-1), n > 13. - Vincenzo Librandi, Mar 26 2011
[A290895] 0, 0, 0, 0, 0, 0, 1, 14, 105, 560, 2380, 8568, 27132, 77521, 203518, 497826, 1148126, 2527609, 5401676, 11508168, 25437917, 60978022, 162008098, 468103230, 1409724358, 4259541790, 12617126893, 36241765553, 100599743538, 269998374114, 702694008002
a(n) = 14*a(n-1) - 91*a(n-2) + 364*a(n-3) - 1001*a(n-4) + 2002*a(n-5) - 3003*a(n-6) + 3433*a(n-7) - 3003*a(n-8) + 2002*a(n-9) - 1001*a(n-10) + 364*a(n-11) - 91*a(n-12) + 14*a(n-13) - a(n-14).
[A007817] 1, 14, 113, 720, 4033, 20864, 102356, 483680, 2223482, 10009570, 44330931, 193798624, 838329841, 3595080184, 15305823256, 64766503744, 272635026526, 1142528179324, 4769415499234, 19842220567264, 82303947852506, 340491603805344, 1405318295426488, 5788074933453632, 23794580648906708, 97653338015578634, 400157876088981431

a(n) = 4^(n-1)-2*(29*n^3-77*n^2+106*n-88)*binomial(2*n-5,n-1)/((n-3)*(n+1)*(n+2)). - Mark van Hoeij, Oct 30 2011
[A167567] 0, 14, 124, 601, 2120, 6096, 15168, 33858, 69432, 132990, 240812, 415987, 690352, 1106768, 1721760, 2608548, 3860496, 5595006, 7957884, 11128205, 15323704, 20806720, 27890720, 36947430, 48414600, 62804430, 80712684
a(n) = (27*n^7 - 287*n^6 + 1113*n^5 - 1925*n^4 + 1428*n^3 - 308*n^2 - 48*n)/7!.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
a(n) - 7*a(n-1) + 21*a(n-2) - 35*a(n-3) + 35*a(n-4) - 21*a(n-5) + 7*a(n-6) - a(n-7) = 27.
[A238473] 14, 143, 612, 1771, 4095, 8184, 14763, 24682, 38916, 58565, 84854, 119133, 162877, 217686, 285285, 367524, 466378, 583947, 722456, 884255, 1071819, 1287748, 1534767, 1815726, 2133600, 2491489, 2892618, 3340337, 3838121, 4389570
a(n) = binomial(5*n+8, 4)/5 = (5*n+8)*(5*n+7)*(5*n+6)*(n+1)/4! for n >= 0.
[A177072] 14, 176, 500, 986, 1634, 2444, 3416, 4550, 5846, 7304, 8924, 10706, 12650, 14756, 17024, 19454, 22046, 24800, 27716, 30794, 34034, 37436, 41000, 44726, 48614, 52664, 56876, 61250, 65786, 70484, 75344, 80366, 85550, 90896, 96404, 102074
a(n) = 162*n+a(n-1) with n>0, a(0)=14.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Apr 08 2013
[A109764] 0, 14, 204, 1240, 4900, 14910, 38024, 85344, 173880, 328350, 583220, 984984, 1594684, 2490670, 3771600, 5559680, 8004144, 11284974, 15616860, 21253400, 28491540, 37676254, 49205464, 63535200, 81185000, 102743550, 128874564
a(n) = n^2*(n^2-1)*(2*n^2-1)/6. G.f.: 2*x^2*(1+x)*(7*x^2+46*x+7)/(1-x)^7. [From R. J. Mathar, Jun 28 2010]
[A097261] 0, 14, 210, 224, 3150, 3164, 3360, 3374, 47250, 47264, 47460, 47474, 50400, 50414, 50610, 50624, 708750, 708764, 708960, 708974, 711900, 711914, 712110, 712124, 756000, 756014, 756210, 756224, 759150, 759164, 759360, 759374, 10631250
a(2n) = 15*a(n), a(2n+1) = a(2n)+14.
[A158555] 14, 210, 798, 1778, 3150, 4914, 7070, 9618, 12558, 15890, 19614, 23730, 28238, 33138, 38430, 44114, 50190, 56658, 63518, 70770, 78414, 86450, 94878, 103698, 112910, 122514, 132510, 142898, 153678, 164850, 176414, 188370, 200718, 213458, 226590
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A215544] 0, 14, 275, 1260, 3705, 8602, 17199, 31000, 51765, 81510, 122507, 177284, 248625, 339570, 453415, 593712, 764269, 969150, 1212675, 1499420, 1834217, 2222154, 2668575, 3179080, 3759525, 4416022, 5154939, 5982900, 6906785, 7933730, 9071127, 10326624, 11708125
a(n) = (4*n-3)*(4*n+3)*(2*n+1)*(n+1)/3 for n>0, a(0) = 0.
[A279113] 0, 0, 1, 14, 277, 2154, 10855, 39926, 120961, 315150, 737089, 1577406, 3150841, 5934034, 10651567, 18332614, 30452605, 49011606, 76753681, 117268590, 175315789, 256949306, 369978631, 524114454, 731604457, 1007394974, 1369985905, 1841600286, 2449309201, 3225197730
a(n) = (n^8 - 54*n^6 + 72*n^5 + 1024*n^4 - 2640*n^3 - 4928*n^2 + 21888*n - 17280 + IF(MOD(n, 2) = 1, 14*n^4 - 72*n^3 + 154*n^2 - 240*n - 51))/192 for n>=3.
a(n) = 4*a(n-1) - a(n-2) - 16*a(n-3) + 19*a(n-4) + 20*a(n-5) - 45*a(n-6) + 45*a(n-8) - 20*a(n-9) - 19*a(n-10) + 16*a(n-11) + a(n-12) - 4*a(n-13) + a(n-14) for n>=17.
[A157824] 14, 4063, 15312, 33761, 59410, 92259, 132308, 179557, 234006, 295655, 364504, 440553, 523802, 614251, 711900, 816749, 928798, 1048047, 1174496, 1308145, 1448994, 1597043, 1752292, 1914741, 2084390, 2261239, 2445288, 2636537
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A022349] 0, 15, 15, 30, 45, 75, 120, 195, 315, 510, 825, 1335, 2160, 3495, 5655, 9150, 14805, 23955, 38760, 62715, 101475, 164190, 265665, 429855, 695520, 1125375, 1820895, 2946270, 4767165, 7713435, 12480600, 20194035, 32674635, 52868670, 85543305, 138411975, 223955280, 362367255, 586322535, 948689790, 1535012325
a(n) = Lucas(n+4) - Lucas(n-4), where Lucas(i) for i = 0..3 gives 7, -4, 3, -1. (End)
[A241750] 15, 16, 19, 24, 31, 40, 51, 64, 79, 96, 115, 136, 159, 184, 211, 240, 271, 304, 339, 376, 415, 456, 499, 544, 591, 640, 691, 744, 799, 856, 915, 976, 1039, 1104, 1171, 1240, 1311, 1384, 1459, 1536, 1615, 1696, 1779, 1864, 1951, 2040, 2131, 2224, 2319
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A022105] 1, 15, 16, 31, 47, 78, 125, 203, 328, 531, 859, 1390, 2249, 3639, 5888, 9527, 15415, 24942, 40357, 65299, 105656, 170955, 276611, 447566, 724177, 1171743, 1895920, 3067663, 4963583, 8031246, 12994829
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=15. a(-1):=14.
[A041456] 15, 16, 31, 47, 78, 125, 328, 453, 2593, 3046, 5639, 53797, 59436, 410413, 469849, 4639054, 5108903, 9747957, 53848688, 63596645, 181041978, 244638623, 425680601, 670319224, 1095999825, 1766319049
a(n) = 3532638098*a(n-26) - a(n-52) for n>51. [Bruno Berselli, Nov 16 2013]
[A033051] 0, 1, 15, 16, 225, 226, 240, 241, 3375, 3376, 3390, 3391, 3600, 3601, 3615, 3616, 50625, 50626, 50640, 50641, 50850, 50851, 50865, 50866, 54000, 54001, 54015, 54016, 54225, 54226, 54240, 54241, 759375, 759376, 759390, 759391, 759600
a(n) = Sum{d(i)*15^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 15*a(n), a(2n+1) = a(2n)+1.
[A157716] 0, 15, 17, 62, 66, 141, 147, 252, 260, 395, 405, 570, 582, 777, 791, 1016, 1032, 1287, 1305, 1590, 1610, 1925, 1947, 2292, 2316, 2691, 2717, 3122, 3150, 3585, 3615, 4080, 4112, 4607, 4641, 5166, 5202, 5757, 5795, 6380, 6420, 7035, 7077, 7722, 7766, 8441
a(n) = (2*n-1 + 7/8*(-1)^n)^2 -1/64. - Robert Israel, Apr 20 2014
[A113968] 0, 0, 1, 1, 15, 17, 239, 273, 3823, 4369, 61167, 69905, 978671, 1118481, 15658735, 17895697, 250539759, 286331153, 4008636143, 4581298449, 64138178287, 73300775185, 1026210852591, 1172812402961, 16419373641455, 18764998447377
a(n) = (5*(-4)^n+16*(-1)^n+9*4^n)/240 for n>0. G.f.: -x^2*(2*x+1) / ((x+1)*(4*x-1)*(4*x+1)). [Colin Barker, Dec 03 2012]
[A274979] 0, 1, 15, 18, 46, 51, 93, 100, 156, 165, 235, 246, 330, 343, 441, 456, 568, 585, 711, 730, 870, 891, 1045, 1068, 1236, 1261, 1443, 1470, 1666, 1695, 1905, 1936, 2160, 2193, 2431, 2466, 2718, 2755, 3021, 3060, 3340, 3381, 3675, 3718, 4026, 4071, 4393, 4440, 4776, 4825
a(n) = (8*(n-1)*n - 3*(2*n-1)*(-1)^n - 3)/4.
[A219394] 0, 15, 19, 64, 72, 147, 159, 264, 280, 415, 435, 600, 624, 819, 847, 1072, 1104, 1359, 1395, 1680, 1720, 2035, 2079, 2424, 2472, 2847, 2899, 3304, 3360, 3795, 3855, 4320, 4384, 4879, 4947, 5472, 5544, 6099, 6175, 6760, 6840, 7455, 7539, 8184, 8272, 8947
a(n) = a(-n+1) = (34*n*(n-1)+13*(-1)^n*(2*n-1)+5)/8 +1.
[A273061] 15, 21, 25, 30, 34, 37, 41, 44, 47, 50, 53, 56, 59, 62, 64, 67, 70, 72, 75, 77, 80, 82, 85, 87, 90, 92, 94, 97, 99, 101, 103, 106, 108, 110, 112, 114, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 142, 144, 146, 148, 150, 151, 153, 155, 157, 159, 161, 163
a(n) = round(2*Pi*(n - 11/8)/LambertW((n - 11/8)/exp(1))).
a(n) = round(2*Pi*exp(1)*exp(LambertW((n - 11/8)/exp(1)))). - Mats Granvik, Feb 27 2017
a(n) = round(2*Pi*exp(1 + LambertW((8*(n - 3/2) + 1)/(8*e)))) after the formula in MathWorld. - Mats Granvik, Feb 25 2017
[A026048] 15, 21, 28, 39, 52, 68, 88, 111, 140, 173, 211, 255, 304, 361, 424, 494, 572, 657, 752, 855, 967, 1089, 1220, 1363, 1516, 1680, 1856, 2043, 2244, 2457, 2683, 2923, 3176, 3445, 3728, 4026, 4340, 4669, 5016, 5379, 5759, 6157, 6572, 7007, 7460, 7932, 8424, 8935, 9468, 10021, 10595, 11191
a(n)=(n + 6)*(n^2 + 6*n + 38)/15 - 1/5*(1 - 2/5*5^(1/2)*cos(2*n*Pi/5) + 2/5*2^(1/2)*(5 - 5^(1/2))^(1/2)*sin(2*n*Pi/5) + 2/5*5^(1/2)*cos(4*n*Pi/5) - 2/5*2^(1/2)*(5 + 5^(1/2))^(1/2)*sin(4*n*Pi/5)) [From Richard Choulet, Dec 14 2008]
[A254365] 15, 21, 35, 69, 155, 381, 995, 2709, 7595, 21741, 63155, 185349, 547835, 1627101, 4848515, 14479989, 43308875, 129664461, 388469075, 1164358629, 3490978715, 10468741821, 31397836835, 94176733269, 282496645355, 847422827181, 2542134263795, 7626134355909
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3). - Colin Barker, Jan 30 2015
[A242412] 15, 23, 39, 63, 95, 135, 183, 239, 303, 375, 455, 543, 639, 743, 855, 975, 1103, 1239, 1383, 1535, 1695, 1863, 2039, 2223, 2415, 2615, 2823, 3039, 3263, 3495, 3735, 3983, 4239, 4503, 4775, 5055, 5343, 5639, 5943, 6255, 6575, 6903, 7239, 7583, 7935, 8295, 8663, 9039, 9423, 9815
a(n) = 4*n^2 - 4*n + 15.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: -x*(15*x^2-22*x+15) / (x-1)^3. - Colin Barker, May 14 2014
[A195036] 0, 15, 23, 53, 69, 114, 138, 198, 230, 305, 345, 435, 483, 588, 644, 764, 828, 963, 1035, 1185, 1265, 1430, 1518, 1698, 1794, 1989, 2093, 2303, 2415, 2640, 2760, 3000, 3128, 3383, 3519, 3789, 3933, 4218, 4370, 4670, 4830, 5145, 5313, 5643, 5819, 6164, 6348
a(n) = (2*n*(23*n+53)-(14*n+37)*(-1)^n+37)/16.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). (End)

[A079721] 15, 24, 34, 51, 72, 76, 88, 102, 110, 131, 153, 162, 173, 189, 255, 324, 342, 353, 374, 545, 705, 721, 736, 741, 747, 756, 765, 838, 922, 939, 947, 960, 969, 977, 987, 1000, 1015, 1026, 1032, 1047, 1065, 1080, 1094, 1100, 1106, 1130, 1152, 1167, 1187
a(n) = (x(n)+x(n+1))/2 where x(n) is the n-th emirp number
[A167709] 0, 1, 15, 24, 220, 351, 560, 5124, 8175, 74801, 119340, 190399, 1742145, 2779476, 25432120, 40575249, 64735100, 592324176, 945013665, 8646845999, 13795465320, 22009743601, 201388477695, 321301866624, 2939902207540, 4690417633551
a(n+10) = 340*a(n+5) - a(n).
a(n+5) = 170*a(n) + 39*sqrt(19*a(n)^2 + 81).
[A032609] 15, 26, 37, 48, 59, 610, 711, 812, 913, 1014, 1115, 1216, 1317, 1418, 1519, 1620, 1721, 1822, 1923, 2024, 2125, 2226, 2327, 2428, 2529, 2630, 2731, 2832, 2933, 3034, 3135, 3236, 3337, 3438, 3539, 3640, 3741, 3842, 3943, 4044, 4145, 4246
a(n)=n*10^floor(log10(n+4)+1)+n+4, with n>=1 [From Paolo P. Lava, Oct 09 2008]
[A096022] 15, 27, 39, 51, 75, 87, 99, 111, 135, 147, 159, 171, 195, 207, 219, 231, 255, 267, 279, 291, 315, 327, 339, 351, 375, 387, 399, 411, 435, 447, 459, 471, 495, 507, 519, 531, 555, 567, 579, 591, 615, 627, 639, 651, 675, 687, 699, 711, 735, 747, 759, 771, 795
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.
a(n) = 3*(10*n-3-i^(2*n)-(1-i)*i^(-n)-(1+i)*i^n)/2 where i=sqrt(-1). (End)
[A227804] 15, 27, 48, 85, 150, 264, 464, 815, 1431, 2512, 4409, 7738, 13580, 23832, 41823, 73395, 128800, 226029, 396654, 696080, 1221536, 2143647, 3761839, 6601568, 11584945, 20330162, 35676948, 62608680, 109870575, 192809419, 338356944, 593775045, 1042002566
a(n) = 3*a(n-1) - 3*a(n-2) + 2*a(n-3) - a(n-4) (conjectured).
[A213661] 15, 27, 53, 103, 199, 387, 753, 1467, 2863, 5595, 10949, 21455, 42095, 82691, 162625, 320179, 631031, 1244907, 2458261, 4858487, 9610231, 19024131, 37687153, 74710123, 148198623, 294150331, 584167941, 1160734623, 2307488351, 4589261827
a(n) = a(n-1) + a(n-2) + a(n-3) + 2^(n-4) (n >= 7); a(4) = 15, a(5)=27, a(6)=53.
[A106499] 15, 28, 40, 45, 66, 77, 84, 91, 104, 120, 126, 144, 153, 170, 187, 190, 198, 209, 220, 228, 231, 260, 273, 276, 286, 299, 312, 322, 325, 345, 350, 378, 390, 400, 420, 432, 435, 442, 459, 464, 476, 493, 496, 510, 522, 527, 544, 551, 558, 561, 570, 589, 608
a(n)=s*(r+s), where r<s<2r and (r, s)=1.
[A014095] 1, 1, 15, 29, 135, 310, 870, 1830, 3993, 7535, 14157, 24427, 41535, 66812, 105740, 160956, 241281, 351405, 504811, 709225, 984423, 1342418, 1811250, 2408770, 3173625, 4131387, 5334057, 6817175, 8649279, 10878520, 13593624, 16858424, 20785985, 25459353
a(n) = n*(n+1)*(n+2)*(2*n*(n+2)*(2*n^2+4*n-1)-735*(-1)^n+915)/10080. [Bruno Berselli, Jan 31 2013]
a(0)=1, a(1)=1, a(2)=15, a(3)=29, a(4)=135, a(5)=310, a(6)=870, a(7)=1830, a(8)=3993, a(9)=7535, a(10)=14157, a(11)=24427, a(n)=4*a(n-1)- 2*a(n-2)- 12*a(n-3)+17*a(n-4)+8*a(n-5)-28*a(n-6)+8*a(n-7)+17*a(n-8)- 12*a(n-9)- 2*a(n-10)+4*a(n-11)-a(n-12). - Harvey P. Dale, Nov 13 2013
[A110286] 15, 30, 60, 120, 240, 480, 960, 1920, 3840, 7680, 15360, 30720, 61440, 122880, 245760, 491520, 983040, 1966080, 3932160, 7864320, 15728640, 31457280, 62914560, 125829120, 251658240, 503316480, 1006632960, 2013265920, 4026531840, 8053063680, 16106127360
a(n)=2*a(n-1) (with a(0)=15). - Vincenzo Librandi, Dec 26 2010
[A125169] 15, 31, 47, 63, 79, 95, 111, 127, 143, 159, 175, 191, 207, 223, 239, 255, 271, 287, 303, 319, 335, 351, 367, 383, 399, 415, 431, 447, 463, 479, 495, 511, 527, 543, 559, 575, 591, 607, 623, 639, 655, 671, 687, 703, 719, 735, 751, 767, 783, 799, 815, 831, 847
a(0)=15, a(1)=31, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Jan 03 2012
[A132757] 0, 15, 31, 48, 66, 85, 105, 126, 148, 171, 195, 220, 246, 273, 301, 330, 360, 391, 423, 456, 490, 525, 561, 598, 636, 675, 715, 756, 798, 841, 885, 930, 976, 1023, 1071, 1120, 1170, 1221, 1273, 1326, 1380, 1435, 1491, 1548, 1606, 1665
a(n) = n + a(n-1) + 14 with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = 15n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A195046] 0, 1, 15, 31, 60, 91, 135, 181, 240, 301, 375, 451, 540, 631, 735, 841, 960, 1081, 1215, 1351, 1500, 1651, 1815, 1981, 2160, 2341, 2535, 2731, 2940, 3151, 3375, 3601, 3840, 4081, 4335, 4591, 4860, 5131, 5415, 5701, 6000, 6301, 6615, 6931, 7260, 7591
a(n) = 15*n^2/4+11*((-1)^n-1)/8.
a(0)=0, a(1)=1, a(2)=15, a(3)=31, a(n)=2*a(n-1)-2*a(n-3)+a(n-4) [From Harvey P. Dale, Feb 23 2012]
[A098848] 0, 15, 32, 51, 72, 95, 120, 147, 176, 207, 240, 275, 312, 351, 392, 435, 480, 527, 576, 627, 680, 735, 792, 851, 912, 975, 1040, 1107, 1176, 1247, 1320, 1395, 1472, 1551, 1632, 1715, 1800, 1887, 1976, 2067, 2160, 2255, 2352, 2451, 2552, 2655, 2760, 2867
a(n) = (n+7)^2 - 7^2 = n*(n + 14), n>=0.
a(n) = 2*n + a(n-1) + 13 (with a(0)=0). - Vincenzo Librandi, Nov 16 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A228318] 15, 33, 59, 93, 135, 185, 243, 309, 383, 465, 555, 653, 759, 873, 995, 1125, 1263, 1409, 1563, 1725, 1895, 2073, 2259, 2453, 2655, 2865, 3083, 3309, 3543, 3785, 4035, 4293, 4559, 4833, 5115, 5405, 5703, 6009
a(n) = 4n^2 + 6n + 5.
[A228321] 15, 33, 62, 103, 156, 221, 298, 387, 488, 601, 726, 863, 1012, 1173, 1346, 1531, 1728, 1937, 2158, 2391, 2636, 2893, 3162, 3443, 3736, 4041, 4358, 4687, 5028, 5381, 5746, 6123, 6512, 6913, 7326, 7751, 8188, 8637, 9098, 9571, 10056, 10553, 11062
a(2)=15; a(n) = 6n^2 - 13n + 18 (n>=3).
[A277385] 15, 33, 65, 105, 153, 209, 273, 345, 425, 513, 609, 713, 825, 945, 1073, 1209, 1353, 1505, 1665, 1833, 2009, 2193, 2385, 2585, 2793, 3009, 3233, 3465, 3705, 3953, 4209, 4473, 4745, 5025, 5313, 5609, 5913, 6225, 6545, 6873, 7209, 7553, 7905, 8265, 8633, 9009
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>4.
a(n) = 4*n^2 + 12*n - 7 for n>1.
[A139578] 0, 15, 34, 57, 84, 115, 150, 189, 232, 279, 330, 385, 444, 507, 574, 645, 720, 799, 882, 969, 1060, 1155, 1254, 1357, 1464, 1575, 1690, 1809, 1932, 2059, 2190, 2325, 2464, 2607, 2754, 2905, 3060, 3219, 3382, 3549, 3720, 3895, 4074
a(n) = 2*n^2 + 13*n.
a(n) = a(n-1) + 4*n + 11 (with a(0)=0). - Vincenzo Librandi, Nov 24 2010
[A067707] 15, 36, 63, 96, 135, 180, 231, 288, 351, 420, 495, 576, 663, 756, 855, 960, 1071, 1188, 1311, 1440, 1575, 1716, 1863, 2016, 2175, 2340, 2511, 2688, 2871, 3060, 3255, 3456, 3663, 3876, 4095, 4320, 4551, 4788, 5031, 5280, 5535, 5796, 6063, 6336, 6615, 6900
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A166146] 1, 15, 36, 64, 99, 141, 190, 246, 309, 379, 456, 540, 631, 729, 834, 946, 1065, 1191, 1324, 1464, 1611, 1765, 1926, 2094, 2269, 2451, 2640, 2836, 3039, 3249, 3466, 3690, 3921, 4159, 4404, 4656, 4915, 5181, 5454, 5734, 6021, 6315, 6616, 6924, 7239, 7561
a(n) = a(n-1) + 7n, a(1)=1.
a(n) = -6 + (7/2)*n^2 + (7/2)*n, a(1)=1. - Paolo P. Lava, Nov 10 2009
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), a(1)=1, a(2)=15, a(3)=36.
[A293156] 15, 36, 99, 292, 876, 2628, 7884, 23652, 70956, 212868, 638604, 1915812, 5747436, 17242308, 51726924, 155180772, 465542316, 1396626948, 4189880844, 12569642532, 37708927596, 113126782788, 339380348364, 1018141045092, 3054423135276, 9163269405828, 27489808217484
a(n) = 292*3^(n-4) for n>3.
a(n) = 3*a(n-1) for n>4.
[A082112] 1, 15, 37, 67, 105, 151, 205, 267, 337, 415, 501, 595, 697, 807, 925, 1051, 1185, 1327, 1477, 1635, 1801, 1975, 2157, 2347, 2545, 2751, 2965, 3187, 3417, 3655, 3901, 4155, 4417, 4687, 4965, 5251, 5545, 5847, 6157, 6475, 6801, 7135, 7477, 7827, 8185, 8551
a(n)=8*n+a(n-1)+6 (with a(0)=1) - Vincenzo Librandi, Aug 08 2010
[A126950] 1, 15, 39, 89, 161, 271, 415, 609, 849, 1151, 1511, 1945, 2449, 3039, 3711, 4481, 5345, 6319, 7399, 8601, 9921, 11375, 12959, 14689, 16561, 18591, 20775, 23129, 25649, 28351, 31231, 34305, 37569, 41039, 44711, 48601, 52705, 57039, 61599, 66401
a(n) = ((2*n +1)*(2*n^2 + 2*n -1)+ 5*(-1)^n)/4; a(n) = a(n-1)+2n^3; G.f. = (1 - 2*x + 14*x^2 - 2*x^3 + x^4)/((1 + x)(1 - x)^4).
[A067724] 15, 40, 75, 120, 175, 240, 315, 400, 495, 600, 715, 840, 975, 1120, 1275, 1440, 1615, 1800, 1995, 2200, 2415, 2640, 2875, 3120, 3375, 3640, 3915, 4200, 4495, 4800, 5115, 5440, 5775, 6120, 6475, 6840, 7215, 7600, 7995, 8400, 8815, 9240, 9675
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Jul 08 2012

[A005337] 15, 40, 76, 124, 185, 260, 350, 456, 579, 720, 880, 1060, 1261, 1484, 1730, 2000, 2295, 2616, 2964, 3340, 3745, 4180, 4646, 5144, 5675, 6240, 6840, 7476, 8149, 8860, 9610, 10400, 11231, 12104, 13020, 13980, 14985
a(n) = (546 - 169*n + 6*n^2 + n^3)/6. [Colin Barker, Jul 08 2012]
[A239325] 1, 15, 41, 79, 129, 191, 265, 351, 449, 559, 681, 815, 961, 1119, 1289, 1471, 1665, 1871, 2089, 2319, 2561, 2815, 3081, 3359, 3649, 3951, 4265, 4591, 4929, 5279, 5641, 6015, 6401, 6799, 7209, 7631, 8065, 8511, 8969, 9439, 9921, 10415, 10921, 11439, 11969
a(0) = 1, a(1) = 15, a(2) = 41; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(n) = C(n,0) + 14*C(n,1) + 12*C(n,2).
[A154267] 15, 42, 69, 96, 123, 150, 177, 204, 231, 258, 285, 312, 339, 366, 393, 420, 447, 474, 501, 528, 555, 582, 609, 636, 663, 690, 717, 744, 771, 798, 825, 852, 879, 906, 933, 960, 987, 1014, 1041, 1068, 1095, 1122, 1149, 1176, 1203, 1230, 1257, 1284, 1311, 1338
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Feb 02 2012
[A051867] 0, 1, 15, 42, 82, 135, 201, 280, 372, 477, 595, 726, 870, 1027, 1197, 1380, 1576, 1785, 2007, 2242, 2490, 2751, 3025, 3312, 3612, 3925, 4251, 4590, 4942, 5307, 5685, 6076, 6480, 6897, 7327, 7770, 8226, 8695, 9177, 9672, 10180, 10701
a(n) = 13*n+a(n-1)-12 (with a(0)=0) - Vincenzo Librandi, Aug 06 2010
a(0)=0, a(1)=1, a(2)=15, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 29 2012
a(13*a(n)+79*n+1) = a(13*a(n)+79*n) + a(13*n+1). - Vladimir Shevelev, Jan 24 2014
[A069127] 1, 15, 43, 85, 141, 211, 295, 393, 505, 631, 771, 925, 1093, 1275, 1471, 1681, 1905, 2143, 2395, 2661, 2941, 3235, 3543, 3865, 4201, 4551, 4915, 5293, 5685, 6091, 6511, 6945, 7393, 7855, 8331, 8821, 9325, 9843, 10375, 10921, 11481, 12055, 12643, 13245
a(n) = 7*n^2 - 7*n + 1.
a(n) = 14*n+a(n-1)-14 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A173873] 1, 15, 43, 99, 211, 435, 883, 1779, 3571, 7155, 14323, 28659, 57331, 114675, 229363, 458739, 917491, 1834995, 3670003, 7340019, 14680051, 29360115, 58720243, 117440499, 234881011, 469762035, 939524083, 1879048179, 3758096371
a(n) = 3*a(n-1) -2*a(n-2). - Vincenzo Librandi_, Jul 15 2012
[A292018] 1, 15, 44, 88, 147, 221, 310, 414, 533, 667, 816, 980, 1159, 1353, 1562, 1786, 2025, 2279, 2548, 2832, 3131, 3445, 3774, 4118, 4477, 4851, 5240, 5644, 6063, 6497, 6946, 7410, 7889, 8383, 8892, 9416, 9955, 10509, 11078, 11662, 12261, 12875, 13504, 14148, 14807, 15481
a(n) = (5*n - 4)*(3*n - 1)/2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A194715] 0, 15, 45, 90, 150, 225, 315, 420, 540, 675, 825, 990, 1170, 1365, 1575, 1800, 2040, 2295, 2565, 2850, 3150, 3465, 3795, 4140, 4500, 4875, 5265, 5670, 6090, 6525, 6975, 7440, 7920, 8415, 8925, 9450, 9990, 10545, 11115, 11700, 12300, 12915, 13545, 14190, 14850, 15525
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
a(n) = Sum_{i=7n..8n} i. (End)
[A014634] 1, 15, 45, 91, 153, 231, 325, 435, 561, 703, 861, 1035, 1225, 1431, 1653, 1891, 2145, 2415, 2701, 3003, 3321, 3655, 4005, 4371, 4753, 5151, 5565, 5995, 6441, 6903, 7381, 7875, 8385, 8911, 9453, 10011, 10585, 11175, 11781, 12403, 13041, 13695, 14365, 15051
a(n) = a(n-1)+16*n-2 (with a(0)=1). - Vincenzo Librandi, Nov 20 2010
[A139278] 0, 15, 46, 93, 156, 235, 330, 441, 568, 711, 870, 1045, 1236, 1443, 1666, 1905, 2160, 2431, 2718, 3021, 3340, 3675, 4026, 4393, 4776, 5175, 5590, 6021, 6468, 6931, 7410, 7905, 8416, 8943, 9486, 10045, 10620, 11211, 11818, 12441, 13080
a(n) = 8*n^2 + 7*n.
a(n) = 16*n+a(n-1)-1 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A166118] 15, 47, 111, 239, 495, 1007, 2031, 4079, 8175, 16367, 32751, 65519, 131055, 262127, 524271, 1048559, 2097135, 4194287, 8388591, 16777199, 33554415, 67108847, 134217711, 268435439, 536870895, 1073741807, 2147483631, 4294967279
a(n) = 2*a(n-1) + 17, a(1) = 15.
a(n) = 16*2^n - 17.
a(n) = 3*a(n-1) - 2*a(n-2), a(1)=15, a(2)=47.
[A065906] 15, 48, 55, 197, 206, 221, 235, 283, 297, 408, 444, 472, 489, 577, 578, 623, 641, 677, 701, 703, 763, 854, 930, 1049, 1081, 1134, 1140, 1159, 1160, 1201, 1253, 1303, 1311, 1328, 1374, 1385, 1415, 1458, 1459, 1495, 1501, 1517, 1557, 1585, 1714, 1723, 1726
a(n) = n-th integer i such that i^4 - 2 has three prime factors > i.
[A272039] 1, 15, 49, 103, 177, 271, 385, 519, 673, 847, 1041, 1255, 1489, 1743, 2017, 2311, 2625, 2959, 3313, 3687, 4081, 4495, 4929, 5383, 5857, 6351, 6865, 7399, 7953, 8527, 9121, 9735, 10369, 11023, 11697, 12391, 13105, 13839, 14593, 15367, 16161, 16975, 17809, 18663, 19537
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A193608] 15, 52, 125, 246, 427, 680, 1017, 1450, 1991, 2652, 3445, 4382, 5475, 6736, 8177, 9810, 11647, 13700, 15981, 18502, 21275, 24312, 27625, 31226, 35127, 39340, 43877, 48750, 53971, 59552, 65505, 71842, 78575, 85716, 93277, 101270, 109707, 118600
a(n) = (n+2)*(n^2 + (n+1)^2).
[A063436] 0, 15, 54, 117, 204, 315, 450, 609, 792, 999, 1230, 1485, 1764, 2067, 2394, 2745, 3120, 3519, 3942, 4389, 4860, 5355, 5874, 6417, 6984, 7575, 8190, 8829, 9492, 10179, 10890, 11625, 12384, 13167, 13974, 14805, 15660, 16539, 17442, 18369
a(n) = 24*n+a(n-1)-9 (with a(0)=0). [Vincenzo Librandi, Aug 07 2010]
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: 3*x*(5+3*x)/(1-x)^3. [Colin Barker, Jul 07 2012]
[A172073] 0, 1, 15, 54, 130, 255, 441, 700, 1044, 1485, 2035, 2706, 3510, 4459, 5565, 6840, 8296, 9945, 11799, 13870, 16170, 18711, 21505, 24564, 27900, 31525, 35451, 39690, 44254, 49155, 54405, 60016, 66000, 72369, 79135, 86310, 93906, 101935, 110409, 119340
a(n) = n*(n+1)*(4*n-3)/2.
a(0)=0, a(1)=1, a(2)=15, a(3)=54; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Jan 29 2013
a(n) = Sum_{i=0..n-1} (n-i)*(12*i+1), with a(0)=0. - Bruno Berselli, Feb 10 2014
[A179741] 1, 15, 55, 119, 207, 319, 455, 615, 799, 1007, 1239, 1495, 1775, 2079, 2407, 2759, 3135, 3535, 3959, 4407, 4879, 5375, 5895, 6439, 7007, 7599, 8215, 8855, 9519, 10207, 10919, 11655, 12415, 13199, 14007, 14839, 15695, 16575, 17479, 18407
a(n) = a(n-1) + 24*n + 16.
a(n) = 2*a(n-1) - a(n-2) + 16.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A144312] 0, 15, 55, 120, 210, 325, 465, 630, 820, 1035, 1275, 1540, 1830, 2145, 2485, 2850, 3240, 3655, 4095, 4560, 5050, 5565, 6105, 6670, 7260, 7875, 8515, 9180, 9870, 10585, 11325, 12090, 12880, 13695, 14535, 15400, 16290, 17205, 18145, 19110, 20100
a(n)=a(n-1)+25*n-10 (with a(0)=0). - Vincenzo Librandi, Nov 25 2010
[A062025] 0, 1, 15, 55, 134, 265, 461, 735, 1100, 1569, 2155, 2871, 3730, 4745, 5929, 7295, 8856, 10625, 12615, 14839, 17310, 20041, 23045, 26335, 29924, 33825, 38051, 42615, 47530, 52809, 58465, 64511, 70960, 77825, 85119, 92855, 101046, 109705
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A158482] 15, 57, 127, 225, 351, 505, 687, 897, 1135, 1401, 1695, 2017, 2367, 2745, 3151, 3585, 4047, 4537, 5055, 5601, 6175, 6777, 7407, 8065, 8751, 9465, 10207, 10977, 11775, 12601, 13455, 14337, 15247, 16185, 17151, 18145, 19167, 20217, 21295, 22401
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A022287] 0, 15, 59, 132, 234, 365, 525, 714, 932, 1179, 1455, 1760, 2094, 2457, 2849, 3270, 3720, 4199, 4707, 5244, 5810, 6405, 7029, 7682, 8364, 9075, 9815, 10584, 11382, 12209, 13065, 13950, 14864, 15807, 16779
a(n) = 29*n + a(n-1) - 14 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A064761] 0, 15, 60, 135, 240, 375, 540, 735, 960, 1215, 1500, 1815, 2160, 2535, 2940, 3375, 3840, 4335, 4860, 5415, 6000, 6615, 7260, 7935, 8640, 9375, 10140, 10935, 11760, 12615, 13500, 14415, 15360, 16335, 17340, 18375, 19440, 20535, 21660, 22815
a(n) = a(n-1) + 30*n - 15 for n>0, a(0)=0. - Vincenzo Librandi, Dec 15 2010
[A005945] 0, 1, 15, 60, 154, 315, 561, 910, 1380, 1989, 2755, 3696, 4830, 6175, 7749, 9570, 11656, 14025, 16695, 19684, 23010, 26691, 30745, 35190, 40044, 45325, 51051, 57240, 63910, 71079, 78765, 86986, 95760, 105105, 115039, 125580, 136746
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Jun 18 2012

[A022288] 0, 15, 61, 138, 246, 385, 555, 756, 988, 1251, 1545, 1870, 2226, 2613, 3031, 3480, 3960, 4471, 5013, 5586, 6190, 6825, 7491, 8188, 8916, 9675, 10465, 11286, 12138, 13021, 13935, 14880, 15856, 16863, 17901
a(n) = 31*n + a(n-1) - 16 for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
a(0)=0, a(1)=15, a(2)=61; for n>2, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 31 2014
[A157446] 15, 62, 141, 252, 395, 570, 777, 1016, 1287, 1590, 1925, 2292, 2691, 3122, 3585, 4080, 4607, 5166, 5757, 6380, 7035, 7722, 8441, 9192, 9975, 10790, 11637, 12516, 13427, 14370, 15345, 16352, 17391, 18462, 19565, 20700, 21867, 23066, 24297, 25560
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A220084] 1, 15, 62, 162, 335, 601, 980, 1492, 2157, 2995, 4026, 5270, 6747, 8477, 10480, 12776, 15385, 18327, 21622, 25290, 29351, 33825, 38732, 44092, 49925, 56251, 63090, 70462, 78387, 86885, 95976, 105680, 116017, 127007, 138670, 151026, 164095, 177897, 192452
a(0)=1, a(1)=15, a(2)=62, a(3)=162; for n>3, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Dec 23 2012
[A104473] 15, 63, 168, 360, 675, 1155, 1848, 2808, 4095, 5775, 7920, 10608, 13923, 17955, 22800, 28560, 35343, 43263, 52440, 63000, 75075, 88803, 104328, 121800, 141375, 163215, 187488, 214368, 244035, 276675, 312480, 351648, 394383, 440895, 491400
a(n) = (1/4)*(n+1)*(n+2)*(n+5)*(n+6).
a(n) = Sum_{i=1..n+1} i*(i+2)*(i+4). [Bruno Berselli, Apr 28 2014]
[A005917] 1, 15, 65, 175, 369, 671, 1105, 1695, 2465, 3439, 4641, 6095, 7825, 9855, 12209, 14911, 17985, 21455, 25345, 29679, 34481, 39775, 45585, 51935, 58849, 66351, 74465, 83215, 92625, 102719, 113521, 125055, 137345, 150415, 164289, 178991
a(n) = (2*n - 1)*(2*n^2 - 2*n + 1).
a(n) = sum of the next (2*n-1) odd numbers; i.e., group the odd numbers so that the n-th group contains (2*n-1) elements like this: (1), (3, 5, 7), (9, 11, 13, 15, 17), (19, 21, 23, 25, 27, 29, 31), ... E.g., a(3)=65 because 9+11+13+15+17 = 65. - Xavier Acloque Oct 11 2003
a(n) = 2*n - 1 + 12*Sum_{i = 1..n} (i-1)^2. - Xavier Acloque Oct 16 2003
a(n) = (4*binomial(n, 2) + 1)*sqrt(8*binomial(n, 2) + 1). - Paul Barry, Mar 14 2004
[A152729] 0, 0, 1, 15, 65, 176, 384, 736, 1281, 2079, 3201, 4720, 6720, 9296, 12545, 16575, 21505, 27456, 34560, 42960, 52801, 64239, 77441, 92576, 109824, 129376, 151425, 176175, 203841, 234640, 268800, 306560, 348161, 393855, 443905, 498576, 558144
a(n)=-(1/3)+(4/3)*(n-1)^3+(2/3)*(n-1)^2-(4/3)*(n-1)-[(1/6)*I]*sqrt(3)*[-(1/2)+(1/2)*I*sqrt(3)]^(n-1)+(1/6)*[-(1/2)-(1/2)*I*sqrt(3)]^(n-1)+(1/3)*(n-1)^4+(1/6)*[-(1/2)+(1/2)*I*sqrt(3)]^(n-1)+(1/6)*I*sqrt(3)*[-(1/2)-(1/2)*I*sqrt(3)]^(n-1) with n>=0 and I=sqrt(-1). - Paolo P. Lava, Dec 19 2008
[A062392] 0, 1, 15, 66, 190, 435, 861, 1540, 2556, 4005, 5995, 8646, 12090, 16471, 21945, 28680, 36856, 46665, 58311, 72010, 87990, 106491, 127765, 152076, 179700, 210925, 246051, 285390, 329266, 378015, 431985, 491536, 557040, 628881, 707455
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 4. - Harvey P. Dale, Oct 19 2011
[A085474] 1, 15, 69, 195, 425, 791, 1325, 2059, 3025, 4255, 5781, 7635, 9849, 12455, 15485, 18971, 22945, 27439, 32485, 38115, 44361, 51255, 58829, 67115, 76145, 85951, 96565, 108019, 120345, 133575, 147741, 162875, 179009, 196175, 214405, 233731
a(n) = (16*n^3 + 12*n^2 + 14*n + 3)/3.
[A126274] 1, 15, 72, 220, 525, 1071, 1960, 3312, 5265, 7975, 11616, 16380, 22477, 30135, 39600, 51136, 65025, 81567, 101080, 123900, 150381, 180895, 215832, 255600, 300625, 351351, 408240, 471772, 542445, 620775, 707296, 802560, 907137, 1021615
a(n) = sum(i=0..n, (i + 1)*(3*i^2 + 3*i + 1)) = (3*n^4 + 6*n^3 + 3*n^2)/4 + 2*n^3 + 5*n^2 + 4*n + 1.
a(n) = (1/4)*(n + 1)^2*(n + 2)*(3*n + 2). - N-E. Fahssi, May 03 2008
a(n) = sum_{i=1..n} sum_{j=1..n} sum_{k=1..n} max(i,j,k). - Enrique Pérez Herrero, Feb 26 2013
[A212562] 0, 1, 15, 73, 228, 551, 1137, 2097, 3568, 5701, 8675, 12681, 17940, 24683, 33173, 43681, 56512, 71977, 90423, 112201, 137700, 167311, 201465, 240593, 285168, 335661, 392587, 456457, 527828, 607251, 695325, 792641, 899840, 1017553, 1146463, 1287241, 1440612
a(n) = 3*a(n-1) - a(n-2) - 5*a(n-3) + 5*a(n-4) + a(n-5) - 3*a(n-6) + a(n-7).
a(n) = 1/96*(82*n^4 + 12*n^3 + 8*n^2 + 6*((-1)^n-1)*n - 3*(-1)^n + 3).
[A022817] 1, 15, 74, 237, 599, 1301, 2541, 4586, 7785, 12583, 19536, 29327, 42783, 60893, 84827, 115956, 155873, 206415, 269686, 348081, 444311, 561429, 702857, 872414, 1074345, 1313351, 1594620, 1923859, 2307327, 2751869, 3264951, 3854696, 4529921, 5300175, 6175778
a(n) = n/720 * (n^5 + 39*n^4 + 355*n^3 + 645*n^2 - 356*n + 36).
[A135916] 0, 0, 15, 75, 222, 510, 1005, 1785, 2940, 4572, 6795, 9735, 13530, 18330, 24297, 31605, 40440, 51000, 63495, 78147, 95190, 114870, 137445, 163185, 192372, 225300, 262275, 303615, 349650, 400722, 457185, 519405, 587760, 662640, 744447, 833595, 930510
a(1)=0, a(2)=0, a(3)=15, a(4)=75, a(5)=222, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)- 5*a(n-4)+a(n-5). - Harvey P. Dale, Aug 12 2013
[A266395] 0, 0, 0, 0, 15, 75, 225, 525, 1050, 1890, 3150, 4950, 7425, 10725, 15015, 20475, 27300, 35700, 45900, 58140, 72675, 89775, 109725, 132825, 159390, 189750, 224250, 263250, 307125, 356265, 411075, 471975, 539400, 613800, 695640, 785400, 883575, 990675, 1107225
a(n) = 5*(n-1)*(n-2)*(n-3)*(n-4)/8.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>5.
[A051880] 1, 15, 75, 245, 630, 1386, 2730, 4950, 8415, 13585, 21021, 31395, 45500, 64260, 88740, 120156, 159885, 209475, 270655, 345345, 435666, 543950, 672750, 824850, 1003275, 1211301, 1452465, 1730575, 2049720, 2414280, 2828936, 3298680, 3828825, 4425015, 5093235
a(n) = C(n+4, 4)*(2n+1).
[A000477] 0, 1, 15, 76, 275, 720, 1666, 3440, 6129, 11250, 17545, 28896, 41405, 65072, 85950, 128960, 162996, 238545, 286995, 404600, 482160, 662112, 756470, 1042560, 1150625, 1549730, 1732590, 2257920, 2443105, 3250800, 3421160, 4452096, 4791600, 6039522, 6296500
a(n) = Sum_{k=1..n-1} k^2*sigma(k)*sigma(n-k). - Sean A. Irvine, Nov 14 2010
[A257925] 1, 15, 77, 247, 609, 1271, 2365, 4047, 6497, 9919, 14541, 20615, 28417, 38247, 50429, 65311, 83265, 104687, 129997, 159639, 194081, 233815, 279357, 331247, 390049, 456351, 530765, 613927, 706497, 809159, 922621
a(n) = (n^2 - n + 1)*(n^2 + n - 1).
[A180579] 15, 78, 189, 348, 555, 810, 1113, 1464, 1863, 2310, 2805, 3348, 3939, 4578, 5265, 6000, 6783, 7614, 8493, 9420, 10395, 11418, 12489, 13608, 14775, 15990, 17253, 18564, 19923, 21330, 22785, 24288, 25839, 27438, 29085, 30780, 32523, 34314
a(n) = 3n(8n-3).
[A081591] 1, 15, 78, 190, 351, 561, 820, 1128, 1485, 1891, 2346, 2850, 3403, 4005, 4656, 5356, 6105, 6903, 7750, 8646, 9591, 10585, 11628, 12720, 13861, 15051, 16290, 17578, 18915, 20301, 21736, 23220, 24753, 26335, 27966, 29646, 31375, 33153, 34980
a(n) = (2-21*n+49*n^2)/2.
a(0)=1, a(1)=15, a(2)=78, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) – From Harvey P. Dale, Aug 03 2012
[A212746] 1, 15, 79, 225, 529, 975, 1711, 2625, 3985, 5535, 7711, 10065, 13249, 16575, 20959, 25425, 31201, 36975, 44335, 51585, 60721, 69615, 80719, 91425, 104689, 117375, 132991, 147825, 165985, 183135, 204031, 223665, 247489, 269775, 296719, 321825, 352081, 380175
a(n) = a(n-1)+3*a(n-2)-3*a(n-3)-3*a(n-5)+3*a(n-6)+a(n-7)-a(n-8).
a(n) = (3*n*(10*n^2+n+(-1)^n*(n-1)+9)+2*((-1)^n+1))/4.
a(n) = (15*n^3+3*n^2+12*n+2)/2 for n even.
a(n) = (15*n^3+15*n)/2 for n odd.
[A212741] 1, 15, 79, 239, 593, 1199, 2239, 3759, 6049, 9119, 13391, 18815, 25969, 34719, 45823, 59039, 75329, 94319, 117199, 143439, 174481, 209615, 250559, 296399, 349153, 407679, 474319, 547679, 630449, 720959, 822271, 932415, 1054849
a(n) = 2*a(n-1)+2*a(n-2)-6*a(n-3)+6*a(n-5)-2*a(n-6)-2*a(n-7)+a(n-8).
[A082540] 1, 15, 79, 239, 607, 1199, 2303, 3823, 6223, 9279, 13919, 19183, 27007, 35743, 47519, 60735, 78719, 97103, 122447, 148527, 181839, 216959, 262543, 306863, 365343, 423855, 495855, 569055, 661679, 748527, 862047, 972191, 1104831, 1237247
a(n)=sum(k=1, n, mu(k)*floor(n/k)^4); a(n) is asymptotic to c*n^4 with c=0.92393....
[A180577] 15, 80, 195, 360, 575, 840, 1155, 1520, 1935, 2400, 2915, 3480, 4095, 4760, 5475, 6240, 7055, 7920, 8835, 9800, 10815, 11880, 12995, 14160, 15375, 16640, 17955, 19320, 20735, 22200, 23715, 25280, 26895, 28560, 30275, 32040, 33855, 35720
a(n) = 5n(5n-2).
[A059377] 1, 15, 80, 240, 624, 1200, 2400, 3840, 6480, 9360, 14640, 19200, 28560, 36000, 49920, 61440, 83520, 97200, 130320, 149760, 192000, 219600, 279840, 307200, 390000, 428400, 524880, 576000, 707280, 748800, 923520, 983040, 1171200
a(n) = sum(d|n, d^4*mu(n/d)). - Benoit Cloitre, Apr 05 2002

a(n) = Sum_{k=1..n} GCD(k,n)^4 * Cos(2*Pi*k/n). - Enrique Pérez Herrero, Jan 18 2013
a(n) = n^4*Product_{distinct primes p dividing n} (1-1/p^4). - Tom Edgar, Jan 09 2015
[A266288] 1, 15, 81, 241, 624, 1215, 2402, 3855, 6561, 9360, 14640, 19521, 28562, 36030, 50544, 61681, 83520, 98415, 130322, 150384, 194562, 219600, 279840, 312255, 390001, 428430, 531441, 578882, 707280, 758160, 923522, 986895, 1185840, 1252800, 1498848, 1581201
a(n) is multiplicative with a(p^e) = ((p^4)^(e+1) - s^(e+1)) / (p^4 - s) where s = 0 if p = 3, s = 1 if p == 1 (mod 3), s = -1 if p == 2 (mod 3).
[A213552] 1, 15, 81, 281, 756, 1722, 3486, 6462, 11187, 18337, 28743, 43407, 63518, 90468, 125868, 171564, 229653, 302499, 392749, 503349, 637560, 798974, 991530, 1219530, 1487655, 1800981, 2164995, 2585611, 3069186, 3622536, 4252952
a(n) = n*(1 + n)*(2 + n)(-3 + 7*n + 16*n^2)/120.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A279395] 1, 15, 82, 271, 626, 1230, 2402, 4367, 6643, 9390, 14642, 22222, 28562, 36030, 51332, 69903, 83522, 99645, 130322, 169646, 196964, 219630, 279842, 358094, 391251, 428430, 538084, 650942, 707282, 769980, 923522, 1118479, 1200644, 1252830, 1503652, 1800253, 1874162, 1954830, 2342084, 2733742
a(n) = Sum_{ d >= 1, d divides n} (-1)^(n-d)*d^4.
[A050405] 1, 15, 84, 308, 882, 2142, 4620, 9108, 16731, 29029, 48048, 76440, 117572, 175644, 255816, 364344, 508725, 697851, 942172, 1253868, 1647030, 2137850, 2744820, 3488940, 4393935, 5486481, 6796440, 8357104
a(n)=C(n+5, 5)*(3n+2)/2.
[A160747] 1, 15, 85, 295, 771, 1681, 3235, 5685, 9325, 14491, 21561, 30955, 43135, 58605, 77911, 101641, 130425, 164935, 205885, 254031, 310171, 375145, 449835, 535165, 632101, 741651, 864865, 1002835, 1156695, 1327621, 1516831, 1725585, 1955185, 2206975
a(n) = 1+7*n*(n+1)*(n^2+n+2)/4. [R. J. Mathar, Dec 16 2009]
[A064058] 1, 15, 85, 320, 951, 2415, 5475, 11385, 22110, 40612, 71214, 120055, 195650, 309570, 477258, 718998, 1061055, 1537005, 2189275, 3070914, 4247617, 5800025, 7826325, 10445175, 13798980, 18057546, 23422140
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) with a(0)=1, a(1)=15, a(2)=85, a(3)=320, a(4)=951, a(5)=2415, a(6)=5475, a(7)=11385, a(8)=22110. [From Harvey P. Dale, Oct 30 2011]
[A151974] 0, 15, 90, 315, 840, 1890, 3780, 6930, 11880, 19305, 30030, 45045, 65520, 92820, 128520, 174420, 232560, 305235, 395010, 504735, 637560, 796950, 986700, 1210950, 1474200, 1781325, 2137590, 2548665, 3020640, 3560040, 4173840, 4869480
a(n) = n*(n+1)*(n+2)*(n+3)*(n+4)/8.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - Eric W. Weisstein, Aug 14 2017
[A001297] 0, 1, 15, 90, 350, 1050, 2646, 5880, 11880, 22275, 39325, 66066, 106470, 165620, 249900, 367200, 527136, 741285, 1023435, 1389850, 1859550, 2454606, 3200450, 4126200, 5265000, 6654375, 8336601, 10359090, 12774790, 15642600, 19027800
a(n) = (binomial(n+4, n-1) - binomial(n+3, n-2))*(binomial(n+2, n-1) - binomial(n+1, n-2)). - Zerinvary Lajos, May 12 2006
a(n) = binomial(n+1, 2)*binomial(n+3, 4). - Vladimir Shevelev, Dec 18 2011
a(n) = Sum_{k=1..n} Sum_{i=1..n} i * C(k+2,k-1). - Wesley Ivan Hurt, Sep 21 2017
[A005716] 1, 15, 90, 357, 1107, 2907, 6765, 14355, 28314, 52624, 93093, 157950, 258570, 410346, 633726, 955434, 1409895, 2040885, 2903428, 4065963, 5612805, 7646925, 10293075, 13701285, 18050760, 23554206, 30462615, 39070540, 49721892
a(n) = binomial(n+1, 5)*(n^2+23*n-84)*(n+10)/336, n >= 4.
a(n) = 9*a(n-1) -36*a(n-2) +84*a(n-3) -126*a(n-4) +126*a(n-5) -84*a(n-6) +36*a(n-7) -9*a(n-8) +a(n-9). Vincenzo Librandi, Jun 16 2012
a(n) = GegenbauerC(N, -n, -1/2) where N = 8 if 8<n else 2*n-8. - Peter Luschny, May 10 2016
[A237516] 1, 15, 91, 325, 861, 1891, 3655, 6441, 10585, 16471, 24531, 35245, 49141, 66795, 88831, 115921, 148785, 188191, 234955, 289941, 354061, 428275, 513591, 611065, 721801, 846951, 987715, 1145341, 1321125, 1516411, 1732591, 1971105, 2233441, 2521135, 2835771, 3178981, 3552445, 3957891, 4397095, 4871881
a(n) = 2n^4 - 4n^3 + 5n^2 - 3n + 1.
a(n) = Sum_{i = 1..(2n(n + 1) + 1)} i.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Colin Barker, Jan 17 2015
[A289705] 0, 0, 15, 96, 330, 855, 1866, 3624, 6468, 10818, 17193, 26208, 38598, 55209, 77028, 105168, 140904, 185652, 241011, 308736, 390786, 489291, 606606, 745272, 908076, 1098006, 1318317, 1572480, 1864254, 2197629, 2576904, 3006624, 3491664, 4037160, 4648599, 5331744, 6092730
a(n) = (24*n^5 + 170*n^4 - 660*n^3 + 160*n^2 + 606*n - 165 + (-1)^n*(165 - 30*n))/320.
a(n) = 4*a(n-1)-4*a(n-2)-4*a(n-3)+10*a(n-4)-4*a(n-5)-4*a(n-6)+4*a(n-7)-a(n-8).
[A000973] 1, 15, 99, 429, 1430, 3978, 9690, 21318, 43263, 82225, 148005, 254475, 420732, 672452, 1043460, 1577532, 2330445, 3372291, 4790071, 6690585, 9203634, 12485550, 16723070, 22137570, 28989675, 37584261, 48275865, 61474519
a(n) = binomial(2*n-8, 7)/8.
[A034266] 0, 1, 15, 99, 435, 1485, 4257, 10725, 24453, 51480, 101530, 189618, 338130, 579462, 959310, 1540710, 2408934, 3677355, 5494401, 8051725, 11593725, 16428555, 22940775, 31605795, 43006275, 57850650, 76993956, 101461140, 132473044, 171475260, 220170060, 280551612
a(n+1) = (7*n+8)*C(n+7, 7)/8.
[A085465] 1, 15, 102, 442, 1443, 3885, 9100, 19188, 37269, 67771, 116754, 192270, 304759, 467481, 696984, 1013608, 1442025, 2011815, 2758078, 3722082, 4951947, 6503365, 8440356, 10836060, 13773565, 17346771, 21661290, 26835382, 33000927, 40304433
a(n) = n + 13*binomial(n, 2) + 60*binomial(n, 3) + 120*binomial(n, 4) + 108*binomial(n, 5) + 36*binomial(n, 6) = 1/20*n*(n+1)*(n^2+1)*(n^2+2*n+2) = Sum_{i=1..n} ((n+1-i)^3-(n-i)^3)*i^3. More generally, number of monotone n-weightings of complete bipartite digraph K(s, t) is Sum_{i=1..n} ((n+1-i)^s-(n-i)^s)*i^t = Sum_{i=1..n} ((n+1-i)^t-(n-i)^t)*i^s.
[A061550] 15, 105, 315, 693, 1287, 2145, 3315, 4845, 6783, 9177, 12075, 15525, 19575, 24273, 29667, 35805, 42735, 50505, 59163, 68757, 79335, 90945, 103635, 117453, 132447, 148665, 166155, 184965, 205143, 226737, 249795, 274365, 300495, 328233, 357627
a(n)=(-1)^(n+1)*(4*n^2+12*n+7)/Integral_{x=0..Pi/2} (cos((2*n+3)*x))*(sin(x))^2 dx. - Francesco Daddi, Aug 03 2011
[A090454] 15, 105, 396, 1110, 2600, 5390, 10220, 18096, 30345, 48675, 75240, 112710, 164346, 234080, 326600, 447440, 603075, 801021, 1049940, 1359750, 1741740, 2208690, 2774996, 3456800, 4272125, 5241015, 6385680, 7730646, 9302910, 11132100
a(n)= (n+9)*(n+6)*(n+2)*(n+1)*(n^2+15*n+20)/144,
[A240440] 0, 0, 15, 105, 420, 1260, 3150, 6930, 13860, 25740, 45045, 75075, 120120, 185640, 278460, 406980, 581400, 813960, 1119195, 1514205, 2018940, 2656500, 3453450, 4440150, 5651100, 7125300, 8906625, 11044215, 13592880, 16613520, 20173560, 24347400, 29216880
a(n) = (n+3)*(n+2)*(n+1)*n*(n-1)*(n-2)/48.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) for n>7. - Wesley Ivan Hurt, Dec 03 2015
[A006857] 1, 15, 105, 490, 1764, 5292, 13860, 32670, 70785, 143143, 273273, 496860, 866320, 1456560, 2372112, 3755844, 5799465, 8756055, 12954865, 18818646, 26883780, 37823500, 52474500, 71867250, 97260345, 130179231, 172459665, 226296280, 294296640, 379541184
a(n) = (4+n)!*(5+n)!/(2880*n!*(n+1)!).
a(n) = C(n+5,8) + 6*C(n+6,8) + 6*C(n+7,8) + C(n+8,8).
a(n) = C(n+4,4)*C(n+5,4)/5.
a(n)= C(n+4,4)^2 - C(n+4,3)*C(n+4,5). - Gary Detlefs, Dec 05 2011
[A000478] 15, 105, 490, 1918, 6825, 22935, 74316, 235092, 731731, 2252341, 6879678, 20900922, 63259533, 190957923, 575363776, 1731333808, 5205011031, 15638101281, 46962537810, 140988276150, 423174543025, 1269959836015, 3810785476980, 11434235478348, 34306598748315, 102927849307725
a(n) = (1+n+n^2)/2 - (1/2 + n/4)*2^n + 3^n/6. - Michael Steyer (m.steyer(AT)osram.de), Jan 09 2005
a(n) = 10*a(n-1)-40*a(n-2)+82*a(n-3)-91*a(n-4)+52*a(n-5)-12*a(n-6), n>11. - Harvey P. Dale based on Michael Steyer's formula, Jul 17 2011
[A055848] 1, 15, 105, 495, 1815, 5577, 15015, 36465, 81510, 170170, 335478, 629850, 1133730, 1967070, 3304290, 5393454, 8580495, 13339425, 20309575, 30341025, 44549505, 64382175, 91695825, 128849175, 178811100, 245286756, 332863740, 447180580
a(n)=(2n+3)*C(n+8, 8)/3. G.f.(x)=(1+5x)/(1-x)^10.
[A243212] 0, 15, 107, 428, 1282, 3198, 7022, 14020, 26000, 45445, 75665, 120960, 186802, 280028, 409052, 584088, 817392, 1123515, 1519575, 2025540, 2664530, 3463130, 4451722, 5664828, 7141472, 8925553, 11066237, 13618360, 16642850, 20207160, 24385720, 29260400, 34920992
a(n) = C(n*(n+1)/2, 3) - floor((n-1)*(n+1)*(2*n-1)/8).
a(n) = (-3+3*(-1)^n+20*n+8*n^2-23*n^3-3*n^4+3*n^5+n^6)/48. - Colin Barker, Jun 09 2014

[A290361] 0, 1, 15, 111, 518, 1789, 5026, 12166, 26328, 52221, 96613, 168861, 281502, 450905, 697984, 1048972, 1536256, 2199273, 3085467, 4251307, 5763366, 7699461, 10149854, 13218514, 17024440, 21703045, 27407601, 34310745, 42606046, 52509633, 64261884, 78129176
a(n) = (61*n^6+69*n^5+145*n^4+195*n^3+154*n^2+96*n)/6!.
[A254869] 1, 15, 111, 561, 2211, 7293, 21021, 54483, 129558, 286858, 598026, 1184118, 2242266, 4083366, 7184166, 12257850, 20348031, 32951985, 52179985, 80958735, 123288165, 184562235, 271965915, 394962165, 565884540, 800652996, 1119632580, 1548656956
a(n) = n*(1 + n)*(2 + n)*(3 + n)*(4 + n)*(5 + n)*(6 + n)*(7 + n)*(7 + 7*n + n^2)/604800.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) + n^3.
[A222410] 1, 15, 113, 575, 2171, 6581, 16955, 38613, 79885, 153091, 275661, 471395, 771863, 1217945, 1861511, 2767241, 4014585, 5699863, 7938505, 10867431, 14647571, 19466525, 25541363, 33121565, 42492101, 53976651
a(n) = 1+(7/36)*n*(n+1)*(n^4+2*n^3+8*n^2+7*n+18). [Bruno Berselli, Feb 28 2013]
[A001849] 1, 15, 113, 575, 2241, 7183, 19825, 48639, 108545, 224143, 433905, 795455, 1392065, 2340495, 3800305, 5984767, 9173505, 13726991, 20103025, 28875327, 40754369, 56610575, 77500017, 104692735, 139703809, 184327311, 240673265, 311207743, 398796225, 506750351
a(n) = (8*n^7+28*n^6+224*n^5+490*n^4+1232*n^3+1372*n^2+1056*n+315)/315 - Johannes W. Meijer, Jul 14 2013
[A244872] 1, 15, 114, 569, 2138, 6562, 17329, 40765, 87512, 174452, 327137, 582784, 993895, 1632561, 2595510, 4009958, 6040323, 8895861, 12839284, 18196419, 25366968, 34836428, 47189231, 63123163, 83465122, 109188274, 141430667, 181515362, 230972141, 291560851, 365296444
a(n) = 17*n^7/1440 + 119*n^6/960 + 28*n^5/45 + 721*n^4/384 + 5243*n^3/1440 + 721*n^2/160 + 129*n/40 + (-1)^n/256 + 255/256. [Bruno Berselli, Jul 08 2014]
[A196506] 0, 15, 120, 435, 1128, 2415, 4560, 7875, 12720, 19503, 28680, 40755, 56280, 75855, 100128, 129795, 165600, 208335, 258840, 318003, 386760, 466095, 557040, 660675, 778128, 910575, 1059240, 1225395, 1410360, 1615503, 1842240, 2092035
a(n) = ((4n^2 - 1)*(2n + 3)*(2n + 5) + 15)/ 8 = Sum_{i=1..n} (2i - 1)*(2i + 1)*(2i + 3).
a(n) = 2 n^4 + 8 n^3 + 7 n^2 - 2 n. - Harvey P. Dale, Mar 14 2015, corrected by Eric Rowland, Aug 15 2017
[A247612] 1, 15, 120, 680, 3060, 11628, 38760, 116280, 316767, 788161, 1805100, 3840420, 7660250, 14446134, 25947612, 44668692, 74091645, 118941555, 185495056, 281936688, 418766304, 609260960, 869994720, 1221419808, 1688512539, 2301487461, 3096583140, 4116923020
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
a(n) = (1680 + 386012*n - 958048*n^2 + 943761*n^3 - 455455*n^4 + 123123*n^5 - 17017*n^6 + 1144*n^7)/1680.
[A010967] 1, 15, 120, 680, 3060, 11628, 38760, 116280, 319770, 817190, 1961256, 4457400, 9657700, 20058300, 40116600, 77558760, 145422675, 265182525, 471435600, 818809200, 1391975640, 2319959400, 3796297200, 6107086800, 9669554100, 15084504396, 23206929840, 35240152720
a(n+13) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)(n+10)(n+11)(n+12)(n+13)/14!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
a(n) = n/(n-14) * a(n-1), n > 14. - Vincenzo Librandi, Mar 26 2011
[A244878] 1, 15, 130, 760, 3355, 12043, 36935, 100135, 245870, 556580, 1177295, 2351165, 4469610, 8141210, 14284170, 24247962, 39970575, 64178685, 100639000, 154470030, 232524589, 343854445, 500269705, 717006745, 1013519780, 1414412506, 1950527645, 2660213675, 3590789540, 4800229700
a(n) = (945*(507+5*(-1)^n) + 1480896*n + 2062800*n^2 + 1747040*n^3 + 989100*n^4 + 383628*n^5 + 100800*n^6 + 17160*n^7 + 1710*n^8 + 76*n^9) / 483840. - Colin Barker, Jan 12 2017
[A228583] 0, 0, 0, 0, 1, 15, 135, 777, 3270, 11034, 31650, 80190, 184239, 391105, 777777, 1464255, 2630940, 4540836, 7567380, 12228780, 19229805, 29512035, 44313643, 65239845, 94345218, 134229150, 188145750, 260129610, 355138875, 479217141, 639675765, 845298235, 1106568312
a(n) = (1/4)*(binomial(2*n,8) + 3*binomial(n,4)).
a(n) = 9*a(n-1)-36*a(n-2)+84*a(n-3)-126*a(n-4)+126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9) n>8, with a(0)=0, a(1)=0, a(2)=0, a(3)=1, a(4)=15, a(5)=135, a(6)=777, a(7)=3270, a(8)=11034.
[A027630] 1, 15, 135, 870, 3992, 14142, 41400, 104870, 237288, 490654, 942888, 1705510, 2932344, 4829246, 7664856, 11782374, 17612360, 25686558, 36652744, 51290598, 70528600, 95461950, 127371512, 167743782, 218291880, 280977566, 358034280, 451991206, 565698360
a(n) = 2*(3060 - 6138*n + 5933*n^2 - 3120*n^3 + 1100*n^4 - 192*n^5 + 32*n^6) / 45 for n>2.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>9.
[A027629] 1, 15, 135, 870, 3993, 14157, 41535, 105740, 241281, 504811, 984423, 1811250, 3173625, 5334057, 8649279, 13593624, 20785985, 31020615, 45302023, 64884222, 91314585, 126482565, 172673535, 232628004, 309606465, 407460131, 530707815, 684619210, 875304825
a(n) = (630 + 2376*n + 2891*n^2 + 1673*n^3 + 980*n^4 + 644*n^5 + 224*n^6 + 32*n^7) / 630.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>7.
[A175707] 1, 15, 139, 862, 4079, 15791, 52450, 154279, 411180, 1009741, 2314278, 5000125, 10264997, 20152950, 38037517, 69323949, 122448455, 210271756, 351989816, 575711716, 921889652, 1447822620, 2233501928, 3389114724, 5064582169, 7461570579, 10848490675, 15579077786, 22115241763, 31054971635, 43166197978, 59427633555, 81077755892, 109673237289, 147158299390, 195946638641
a(n) = (5382*n^11 +236808*n^10 +4643760*n^9 +53507520*n^8 +402098796*n^7 +2067612624*n^6 +7421736960*n^5 +18616942080*n^4 +32101468047*n^3 +36555545268*n^2 +25131098880*n +8024016000 +7016625*(-1)^n*n^3 +84199500*(-1)^n*n^2 +359251200*(-1)^n*n +538876800*(-1)^n) / (2^11*3^7*5^2*7*11) +5/3^6*(-1)^n * (sin(n*Pi/3)/sqrt(3) +cos(n*Pi/3)).
[A177065] 15, 143, 399, 783, 1295, 1935, 2703, 3599, 4623, 5775, 7055, 8463, 9999, 11663, 13455, 15375, 17423, 19599, 21903, 24335, 26895, 29583, 32399, 35343, 38415, 41615, 44943, 48399, 51983, 55695, 59535, 63503, 67599, 71823, 76175, 80655
a(n) = 128*n+a(n-1) with n>0, a(0)=15.
a(0)=15, a(1)=143, a(2)=399, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 13 2013
[A071700] 15, 143, 3599, 5183, 11663, 32399, 36863, 51983, 57599, 97343, 121103, 176399, 186623, 359999, 435599, 685583, 1040399, 1065023, 1192463, 1327103, 1742399, 2039183, 2108303, 2214143, 2585663, 2624399, 2782223
a(n) » n^2 log^4 n. - Charles R Greathouse IV, Jul 03 2013
[A206810] 15, 145, 670, 2146, 5501, 12131, 23996, 43716, 74667, 121077, 188122, 282022, 410137, 581063, 804728, 1092488, 1457223, 1913433, 2477334, 3166954, 4002229, 5005099, 6199604, 7611980, 9270755, 11206845, 13453650, 16047150
a(n) = n^5-p(n), where p(n) is the n-th partial sum of (j^4).
a(n) = (n-10*n^3-15*n^4+24*n^5)/30. G.f.: x^2*(x^3+25*x^2+55*x+15) / (x-1)^6. - Colin Barker, Jul 11 2014
[A206811] 15, 160, 830, 2976, 8477, 20608, 44604, 88320, 162987, 284064, 472186, 754208, 1164345, 1745408, 2550136, 3642624, 5099847, 7013280, 9490614, 12657568, 16659797, 21664896, 27864500, 35476480, 44747235, 55954080, 69407730
a(n) = (n*(1+n)^2*(1-6*n+n^2+4*n^3))/30. G.f.: -x^2*(x^3+25*x^2+55*x+15) / (x-1)^7. - Colin Barker, Jul 11 2014
[A024197] 15, 176, 950, 3480, 10045, 24640, 53676, 106800, 197835, 345840, 576290, 922376, 1426425, 2141440, 3132760, 4479840, 6278151, 8641200, 11702670, 15618680, 20570165, 26765376, 34442500, 43872400, 55361475, 69254640, 85938426, 105844200, 129451505
a(n) = n*(n+1)*(n+2)^2*(n^2+3*n+1)/6.
[A293476] 0, 15, 180, 1050, 4200, 13230, 35280, 83160, 178200, 353925, 660660, 1171170, 1987440, 3248700, 5140800, 7907040, 11860560, 17398395, 25017300, 35331450, 49092120, 67209450, 90776400, 121095000, 159705000, 208415025, 269336340, 344919330, 437992800, 551806200
a(n) = n*Stirling2(4 + n, 1 + n).
a(n) = (1/48)*(n*(2 + 3*n + n^2)^2*(12 + 7*n + n^2)).
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>7.
[A019553] 15, 210, 315, 420, 525, 630, 735, 840, 945, 1050, 1155, 1260, 1365, 1470, 1575, 1680, 1785, 1890, 1995, 20100, 21105, 22110, 23115, 24120, 25125, 26130, 27135, 28140, 29145, 30150, 31155, 32160, 33165, 34170, 35175, 36180, 37185, 38190, 39195, 40200
a(n) = n*10^floor[log10(5*n)+1]+5*n, with n>=1. [Paolo P. Lava, Mar 24 2010]
[A234249] 15, 210, 1365, 5985, 20475, 58905, 148995, 341055, 720720, 1426425, 2672670, 4780230, 8214570, 13633830, 21947850, 34389810, 52602165, 78738660, 115584315, 166695375, 236561325, 330791175, 456326325, 621682425, 837222750, 1115465715, 1471429260, 1923014940
a(n) = n*(n + 1)*(n - 1)*(n + 2)*(n - 2)*(n + 3)*(n^2 + n - 4)/384.
a(n) = C(C(n + 1, 2), 4).
[A289160] 0, 0, 0, 15, 220, 1253, 5412, 15642, 44368, 97158, 218816, 410209, 797052, 1350435, 2367668, 3733284, 6068736, 9065724, 13907808, 19916451, 29188092, 40399953, 57056164, 76789790, 105186576, 138276450, 184618720, 237885141, 310761308, 393568879, 504579828
a(n) = 2*a(n-1)+5*a(n-2)-12*a(n-3)-9*a(n-4)+30*a(n-5)+5*a(n-6)-40*a(n-7)+5*a(n-8)+30*a(n-9)-9*a(n-10)-12*a(n-11)+5*a(n-12)+2*a(n-13)-a(n-14).

[A129836] 0, 15, 228, 291, 368, 1575, 1940, 2387, 9416, 11543, 14148, 55115, 67512, 82695, 321468, 393723, 482216, 1873887, 2295020, 2810795, 10922048, 13376591, 16382748, 63658595, 77964720, 95485887, 371029716, 454411923, 556532768
a(n) = 6*a(n-3) - a(n-6) + 194 for n > 6; a(1)=0, a(2)=15, a(3)=228, a(4)=291, a(5)=368, a(6)=1575.
[A097262] 0, 15, 240, 255, 3840, 3855, 4080, 4095, 61440, 61455, 61680, 61695, 65280, 65295, 65520, 65535, 983040, 983055, 983280, 983295, 986880, 986895, 987120, 987135, 1044480, 1044495, 1044720, 1044735, 1048320, 1048335, 1048560, 1048575
a(2n) = 16*a(n), a(2n+1) = a(2n)+15.
[A158557] 15, 240, 915, 2040, 3615, 5640, 8115, 11040, 14415, 18240, 22515, 27240, 32415, 38040, 44115, 50640, 57615, 65040, 72915, 81240, 90015, 99240, 108915, 119040, 129615, 140640, 152115, 164040, 176415, 189240, 202515, 216240, 230415, 245040, 260115
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A055659] 0, 15, 253, 1653, 6786, 21115, 54615, 123753, 253828, 481671, 858705, 1454365, 2359878, 3692403, 5599531, 8264145, 11909640, 16805503, 23273253, 31692741, 42508810, 56238315, 73477503, 94909753, 121313676, 153571575, 192678265
a(n)= (1/2) *(n-1)*(n^2+n-1)*(n^3-2*n+2).
[A249961] 15, 285, 2010, 8790, 28785, 77595, 181860, 383580, 745155, 1355145, 2334750, 3845010, 6094725, 9349095, 13939080, 20271480, 28839735, 40235445, 55160610, 74440590, 99037785, 130066035, 168805740, 216719700, 275469675, 346933665
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A133766] 15, 315, 1287, 3315, 6783, 12075, 19575, 29667, 42735, 59163, 79335, 103635, 132447, 166155, 205143, 249795, 300495, 357627, 421575, 492723, 571455, 658155, 753207, 856995, 969903, 1092315, 1224615, 1367187, 1520415, 1684683, 1860375
a(0)=15, a(1)=315, a(2)=1287, a(3)=3315; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, May 06 2012
[A079610] 15, 480, 2145, 5760, 12075, 21840, 35805, 54720, 79335, 110400, 148665, 194880, 249795, 314160, 388725, 474240, 571455, 681120, 803985, 940800, 1092315, 1259280, 1442445, 1642560, 1860375, 2096640, 2352105, 2627520, 2923635, 3241200, 3580965, 3943680
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). Vincenzo Librandi, Jun 23 2012
[A241751] 16, 17, 20, 25, 32, 41, 52, 65, 80, 97, 116, 137, 160, 185, 212, 241, 272, 305, 340, 377, 416, 457, 500, 545, 592, 641, 692, 745, 800, 857, 916, 977, 1040, 1105, 1172, 1241, 1312, 1385, 1460, 1537, 1616, 1697, 1780, 1865, 1952, 2041, 2132, 2225, 2320
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A151977] 0, 1, 16, 17, 32, 33, 48, 49, 64, 65, 80, 81, 96, 97, 112, 113, 128, 129, 144, 145, 160, 161, 176, 177, 192, 193, 208, 209, 224, 225, 240, 241, 256, 257, 272, 273, 288, 289, 304, 305, 320, 321, 336, 337, 352, 353, 368, 369, 384, 385, 400, 401, 416, 417, 432, 433, 448, 449
a(n) = (32*n-14*(-1^n-46)/4. - Vincenzo Librandi, Jul 11 2012
[A022106] 1, 16, 17, 33, 50, 83, 133, 216, 349, 565, 914, 1479, 2393, 3872, 6265, 10137, 16402, 26539, 42941, 69480, 112421, 181901, 294322, 476223, 770545, 1246768, 2017313, 3264081, 5281394, 8545475, 13826869
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=16. a(-1):=15.
[A042195] 1, 1, 16, 17, 33, 50, 233, 283, 2214, 4711, 115278, 235267, 1762147, 1997414, 9751803, 11749217, 21501020, 33250237, 520254575, 553504812, 27088485551, 27641990363, 441718340996, 469360331359, 911078672355, 1380439003714, 6432834687211, 7813273690925
a(n) = 27608740126*a(n-20) - a(n-40) for n>39. - Vincenzo Librandi, Jan 16 2014
[A042205] 1, 16, 17, 50, 267, 1118, 2503, 3621, 9745, 23111, 79078, 102189, 385645, 4729929, 14575432, 19305361, 72491515, 164288391, 401068297, 565356688, 1531781673, 6692483380, 34994198573, 76680880526, 111675079099, 1863482146110, 93285782384599, 1494436000299694
a(n) = 93397457463698*a(n-26) - a(n-52) for n>51. - Vincenzo Librandi, Jan 16 2014
[A033052] 0, 1, 16, 17, 256, 257, 272, 273, 4096, 4097, 4112, 4113, 4352, 4353, 4368, 4369, 65536, 65537, 65552, 65553, 65792, 65793, 65808, 65809, 69632, 69633, 69648, 69649, 69888, 69889, 69904, 69905, 1048576, 1048577, 1048592, 1048593, 1048832
a(n) = Sum{d(i)*16^i: i=0, 1, ..., m}, where Sum{d(i)*2^i: i=0, 1, ..., m} is the base 2 representation of n.
a(2n) = 16*a(n), a(2n+1) = a(2n)+1.
[A255847] 16, 18, 24, 34, 48, 66, 88, 114, 144, 178, 216, 258, 304, 354, 408, 466, 528, 594, 664, 738, 816, 898, 984, 1074, 1168, 1266, 1368, 1474, 1584, 1698, 1816, 1938, 2064, 2194, 2328, 2466, 2608, 2754, 2904, 3058, 3216, 3378, 3544, 3714, 3888, 4066, 4248, 4434, 4624
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A219395] 0, 16, 20, 68, 76, 156, 168, 280, 296, 440, 460, 636, 660, 868, 896, 1136, 1168, 1440, 1476, 1780, 1820, 2156, 2200, 2568, 2616, 3016, 3068, 3500, 3556, 4020, 4080, 4576, 4640, 5168, 5236, 5796, 5868, 6460, 6536, 7160, 7240, 7896, 7980, 8668, 8756, 9476, 9568
a(n) = a(-n+1) = (18*n*(n-1) + 7*(-1)^n*(2*n-1) - 1)/4 + 2.
[A179370] 16, 23, 163, 184, 464, 499, 919, 968, 1528, 1591, 2291, 2368, 3208, 3299, 4279, 4384, 5504, 5623, 6883, 7016, 8416, 8563, 10103, 10264, 11944, 12119, 13939, 14128, 16088, 16291, 18391, 18608, 20848, 21079, 23459, 23704, 26224, 26483
a(n) = (154*n*(n-1)-63*(2*n-1)*(-1)^n+65)/8.
a(n) = a(-n+1) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A247065] 1, 16, 24, 32, 40, 49, 64, 65, 80, 88, 96, 104, 113, 128, 129, 144, 152, 160, 168, 177, 192, 193, 208, 216, 224, 232, 241, 256, 257, 272, 280, 288, 296, 305, 320, 321, 336, 344, 352, 360, 369, 384, 385, 400, 408, 416, 424, 433, 448, 449, 464, 472, 480, 488, 497, 512, 513, 528
a(n) = a(n-1)+a(n-7)-a(n-8). - Colin Barker, Sep 14 2014
[A273801] 16, 24, 32, 48, 56, 72, 80, 96, 120, 128, 152, 168, 176, 192, 216, 240, 248, 272, 288, 296, 320, 336, 360, 392, 408, 416, 432, 440, 456, 512, 528, 552, 560, 600, 608, 632, 656, 672, 696, 720, 728, 768, 776, 792, 800, 848, 896, 912, 920, 936, 960, 968, 1008, 1032
a(n) = 4*(prime(n+1) + 1). - Paolo P. Lava, Sep 06 2017
[A100316] 16, 24, 34, 48, 70, 108, 178, 312, 574, 1092, 2122, 4176, 8278, 16476, 32866, 65640, 131182, 262260, 524410, 1048704, 2097286, 4194444, 8388754, 16777368, 33554590, 67109028, 134217898, 268435632, 536871094, 1073742012, 2147483842, 4294967496, 8589934798
a(n) = 2^n + 6*n + 8.
[A111026] 16, 25, 27, 32, 49, 121, 125, 128, 169, 225, 243, 289, 343, 361, 512, 529, 625, 729, 841, 961, 1000, 1225, 1331, 1369, 1681, 1849, 2025, 2048, 2187, 2197, 2209, 2401, 2809, 3025, 3125, 3375, 3481, 3721, 3969, 4225, 4489, 4913, 5041, 5329, 5625, 5929, 6241
a(n)=3p+q+3 where p and q are primes and a(n) is a perfect power.
[A088247] 16, 27, 32, 64, 81, 125, 128, 243, 256, 343, 512, 625, 729, 1024, 1331, 2048, 2187, 2197, 2401, 3125, 4096, 4913, 6561, 6859, 8192, 12167, 14641, 15625, 16384, 16807, 19683, 24389, 28561, 29791, 32768, 50653, 59049, 65536, 68921, 78125, 79507
a(n) = n^3 log^3 n + O(n^3 log^2 n log log n). - Charles R Greathouse IV, Mar 11 2014
[A032610] 16, 27, 38, 49, 510, 611, 712, 813, 914, 1015, 1116, 1217, 1318, 1419, 1520, 1621, 1722, 1823, 1924, 2025, 2126, 2227, 2328, 2429, 2530, 2631, 2732, 2833, 2934, 3035, 3136, 3237, 3338, 3439, 3540, 3641, 3742, 3843, 3944, 4045, 4146, 4247
a(n) = n*10^floor(log10(n+5)+1)+n+5, with n >= 0. [From Paolo P. Lava, Oct 09 2008]
[A286429] 0, 0, 0, 0, 16, 27, 40, 55, 72, 91, 112, 135, 160, 187, 216, 247, 280, 315, 352, 391, 432, 475, 520, 567, 616, 667, 720, 775, 832, 891, 952, 1015, 1080, 1147, 1216, 1287, 1360, 1435, 1512, 1591, 1672, 1755, 1840, 1927, 2016, 2107, 2200, 2295, 2392
a(n) = n^2 + 2*n - 8 for n>3.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>6.
[A220000] 16, 31, 47, 63, 78, 94, 109, 125, 141, 156, 172, 188, 203, 219, 234, 250, 266, 281, 297, 313, 328, 344, 359, 375, 391, 406, 422, 438, 453, 469, 484, 500, 516, 531, 547, 563, 578, 594, 609, 625, 641, 656, 672, 688, 703, 719, 734, 750, 766, 781
a(n) = round(125n/8), with 0.5 rounded up.
[A008598] 0, 16, 32, 48, 64, 80, 96, 112, 128, 144, 160, 176, 192, 208, 224, 240, 256, 272, 288, 304, 320, 336, 352, 368, 384, 400, 416, 432, 448, 464, 480, 496, 512, 528, 544, 560, 576, 592, 608, 624, 640, 656, 672, 688, 704, 720, 736, 752, 768, 784, 800, 816, 832
a(n) = sum((i^k+1)*(i^(8n-k)+1), k=1..8n), where i=sqrt(-1). - Bruno Berselli, Mar 19 2012
[A018923] 16, 32, 63, 124, 244, 480, 944, 1856, 3649, 7174, 14104, 27728, 54512, 107168, 210687, 414200, 814296, 1600864, 3147216, 6187264, 12163841, 23913482, 47012668, 92424472, 181701728, 357216192, 702268543, 1380623604, 2714234540, 5336044608, 10490387488
a(n+1) = ceiling(a(n)^2/a(n-1))-1 for n>0. - Bruno Berselli, Feb 15 2016
[A151981] 0, 1, 16, 33, 48, 49, 64, 81, 96, 97, 112, 129, 144, 145, 160, 177, 192, 193, 208, 225, 240, 241, 256, 273, 288, 289, 304, 321, 336, 337, 352, 369, 384, 385, 400, 417, 432, 433, 448, 465, 480, 481, 496, 513, 528, 529, 544, 561, 576, 577, 592, 609, 624, 625, 640, 657, 672
a(n) = a(n-1) + a(n-4) - a(n-5) for n>5. (End)

a(n) = 12*n-(35+3*i^(2*n))/2+(2+2*i)*i^(-n)+(2-2*i)*i^n where i=sqrt(-1). - Wesley Ivan Hurt, Jun 07 2016
[A132758] 0, 16, 33, 51, 70, 90, 111, 133, 156, 180, 205, 231, 258, 286, 315, 345, 376, 408, 441, 475, 510, 546, 583, 621, 660, 700, 741, 783, 826, 870, 915, 961, 1008, 1056, 1105, 1155, 1206, 1258, 1311, 1365, 1420, 1476, 1533, 1591, 1650
a(n) = n*(n+31)/2.
a(n)=n+a(n-1)+15 (with a(0)=0) - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=16, a(2)=33, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 21 2012
a(n) = 16n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A195146] 0, 1, 16, 33, 64, 97, 144, 193, 256, 321, 400, 481, 576, 673, 784, 897, 1024, 1153, 1296, 1441, 1600, 1761, 1936, 2113, 2304, 2497, 2704, 2913, 3136, 3361, 3600, 3841, 4096, 4353, 4624, 4897, 5184, 5473, 5776, 6081, 6400, 6721, 7056, 7393, 7744, 8097, 8464
a(n) = (8*n^2+3*(-1)^n-3)/2; a(n) = -a(n-1) + 8*n^2 - 8*n + 1. -Vincenzo Librandi, Sep 27 2011
[A198275] 16, 33, 67, 135, 271, 543, 1087, 2175, 4351, 8703, 17407, 34815, 69631, 139263, 278527, 557055, 1114111, 2228223, 4456447, 8912895, 17825791, 35651583, 71303167, 142606335, 285212671, 570425343, 1140850687, 2281701375, 4563402751, 9126805503, 18253611007
a(n+1) = 2*a(n) + 1.
a(0)=16, a(1)=33, a(n)=3*a(n-1)-2*a(n-2). - Harvey P. Dale, Dec 03 2011
a(n) + a(n-1)^2 = (a(n-1)+1)^2. - Vincenzo Librandi, Jun 11 2014
[A132760] 0, 16, 34, 54, 76, 100, 126, 154, 184, 216, 250, 286, 324, 364, 406, 450, 496, 544, 594, 646, 700, 756, 814, 874, 936, 1000, 1066, 1134, 1204, 1276, 1350, 1426, 1504, 1584, 1666, 1750, 1836, 1924, 2014, 2106, 2200, 2296, 2394, 2494
a(n) = n*(n + 15).
a(n) = 2*n + a(n-1) + 14 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A153819] 16, 34, 88, 232, 610, 1600, 4192, 10978, 28744, 75256, 197026, 515824, 1350448, 3535522, 9256120, 24232840, 63442402, 166094368, 434840704, 1138427746, 2980442536, 7802899864, 20428257058, 53481871312, 140017356880, 366570199330, 959693241112, 2512509524008
a(n) = (2^(-n)*(-5*2^(1+n)-9*(3-sqrt(5))^n*(-5+sqrt(5))+9*(3+sqrt(5))^n*(5+sqrt(5))))/5. - Colin Barker, Nov 02 2016
[A022040] 16, 36, 80, 177, 391, 863, 1904, 4200, 9264, 20433, 45067, 99399, 219232, 483532, 1066464, 2352161, 5187855, 11442175, 25236512, 55660880, 122763936, 270764385, 597189651, 1317143239, 2905050864, 6407291380, 14131726000, 31168502865, 68744297111
a(n+1) = ceiling(a(n)^2/a(n-1))-1 for n>0. - Bruno Berselli, Feb 15 2016
[A182461] 16, 40, 88, 184, 376, 760, 1528, 3064, 6136, 12280, 24568, 49144, 98296, 196600, 393208, 786424, 1572856, 3145720, 6291448, 12582904, 25165816, 50331640, 100663288, 201326584, 402653176, 805306360, 1610612728, 3221225464, 6442450936, 12884901880
a(n) = a(n-1)*2 + 8.
[A197903] 16, 40, 124, 327, 732, 1447, 2604, 4359, 6892, 10407, 15132, 21319, 29244, 39207, 51532, 66567, 84684, 106279, 131772, 161607, 196252, 236199, 281964, 334087, 393132, 459687, 534364, 617799, 710652, 813607, 927372, 1052679, 1190284, 1340967, 1505532, 1684807
a(n) = n^4 +4*n^2 +7, n>=3.
[A134593] 1, 16, 41, 76, 121, 176, 241, 316, 401, 496, 601, 716, 841, 976, 1121, 1276, 1441, 1616, 1801, 1996, 2201, 2416, 2641, 2876, 3121, 3376, 3641, 3916, 4201, 4496, 4801, 5116, 5441, 5776, 6121, 6476, 6841, 7216, 7601, 7996, 8401, 8816, 9241, 9676, 10121
a(n)=5*n^2+10*n+1
a(n)=a(n-1)+10*n+5 (with a(0)=1) [From Vincenzo Librandi, Nov 23 2010]
[A200408] 1, 16, 41, 121, 316, 841, 2201, 5776, 15121, 39601, 103676, 271441, 710641, 1860496, 4870841, 12752041, 33385276, 87403801, 228826121, 599074576, 1568397601, 4106118241, 10749957116, 28143753121, 73681302241, 192900153616, 505019158601, 1322157322201
a(n) = 3*a(n-1)-3*a(n-3)+a(n-4). G.f.: -x*(x^3-7*x^2+13*x+1) / ((x-1)*(x+1)*(x^2-3*x+1)). - Colin Barker, Sep 01 2013
[A210375] 0, 1, 16, 44, 80, 125, 180, 246, 324, 415, 520, 640, 776, 929, 1100, 1290, 1500, 1731, 1984, 2260, 2560, 2885, 3236, 3614, 4020, 4455, 4920, 5416, 5944, 6505, 7100, 7730, 8396, 9099, 9840, 10620, 11440, 12301, 13204, 14150, 15140, 16175
a(n) = (-120 + 74*n + 15*n^2 + n^3) / 6 for n>1.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>5.
[A051868] 0, 1, 16, 45, 88, 145, 216, 301, 400, 513, 640, 781, 936, 1105, 1288, 1485, 1696, 1921, 2160, 2413, 2680, 2961, 3256, 3565, 3888, 4225, 4576, 4941, 5320, 5713, 6120, 6541, 6976, 7425, 7888, 8365, 8856, 9361, 9880, 10413, 10960, 11521
a(n) = 14*n + a(n-1) - 13, with n>0, a(0)=0. - Vincenzo Librandi, Aug 06 2010
a(0)=0, a(1)=1, a(2)=16; for n>2, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 07 2011
a(14*a(n) + 92*n + 1) = a(14*a(n) + 92*n) + a(14*n+1). - Vladimir Shevelev, Jan 24 2014
[A069128] 1, 16, 46, 91, 151, 226, 316, 421, 541, 676, 826, 991, 1171, 1366, 1576, 1801, 2041, 2296, 2566, 2851, 3151, 3466, 3796, 4141, 4501, 4876, 5266, 5671, 6091, 6526, 6976, 7441, 7921, 8416, 8926, 9451, 9991, 10546, 11116, 11701, 12301, 12916, 13546, 14191, 14851, 15526
a(n) = (15*n^2 - 15*n + 2)/2.
a(n) = 15*n+a(n-1)-15 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A099003] 1, 16, 46, 106, 226, 466, 946, 1906, 3826, 7666, 15346, 30706, 61426, 122866, 245746, 491506, 983026, 1966066, 3932146, 7864306, 15728626, 31457266, 62914546, 125829106, 251658226, 503316466, 1006632946, 2013265906, 4026531826
a(n) = 15*2^n-14.
[A244094] 16, 46, 109, 222, 407, 690, 1099, 1669, 2437, 3445, 4737, 6363, 8376, 10834, 13797, 17330, 21503, 26389, 32064, 38608, 46108, 54651, 64331, 75243, 87489, 101172, 116402, 133290, 151953, 172511, 195088, 219813, 246817, 276236, 308211, 342885, 380407, 420927, 464601, 511590
a(n) = floor(Pi/area(n)) where area(n) = Pi*r(n)^2, r(n) = (1 - cos(Pi/n))/2 = sin(Pi/(2*n))^2, n >= 3.
[A194268] 1, 16, 47, 94, 157, 236, 331, 442, 569, 712, 871, 1046, 1237, 1444, 1667, 1906, 2161, 2432, 2719, 3022, 3341, 3676, 4027, 4394, 4777, 5176, 5591, 6022, 6469, 6932, 7411, 7906, 8417, 8944, 9487, 10046, 10621, 11212, 11819, 12442, 13081, 13736, 14407
a(0)=1, a(1)=16, a(2)=47, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 06 2014
[A035008] 0, 16, 48, 96, 160, 240, 336, 448, 576, 720, 880, 1056, 1248, 1456, 1680, 1920, 2176, 2448, 2736, 3040, 3360, 3696, 4048, 4416, 4800, 5200, 5616, 6048, 6496, 6960, 7440, 7936, 8448, 8976, 9520, 10080, 10656, 11248, 11856, 12480, 13120, 13776
a(n) = 8*n*(n+1).
a(n) = C(n+1,2)*4^2, n>=0. - Zerinvary Lajos, Aug 07 2008
a(n) = a(n-1)+16*n, (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
[A016778] 1, 16, 49, 100, 169, 256, 361, 484, 625, 784, 961, 1156, 1369, 1600, 1849, 2116, 2401, 2704, 3025, 3364, 3721, 4096, 4489, 4900, 5329, 5776, 6241, 6724, 7225, 7744, 8281, 8836, 9409, 10000, 10609, 11236
a(n) = a(n-1)+3*(6*n-1) (with a(0)=1). [Vincenzo Librandi, Nov 20 2010]
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3), with a(0)=1, a(1)=16, a(2)=49. - Harvey P. Dale, Mar 03 2013
[A080860] 1, 16, 51, 106, 181, 276, 391, 526, 681, 856, 1051, 1266, 1501, 1756, 2031, 2326, 2641, 2976, 3331, 3706, 4101, 4516, 4951, 5406, 5881, 6376, 6891, 7426, 7981, 8556, 9151, 9766, 10401, 11056, 11731, 12426, 13141, 13876, 14631, 15406, 16201, 17016, 17851
a(n) = C(5,0) + C(5,1)*n + C(5,2)*n^2.
a(n) = 20*n+a(n-1)-5 with n>0, a(0)=1. - Vincenzo Librandi, Aug 08 2010
[A137741] 1, 16, 54, 119, 218, 360, 555, 814, 1149, 1573, 2100, 2745, 3524, 4454, 5553, 6840, 8335, 10059, 12034, 14283, 16830, 19700, 22919, 26514, 30513, 34945, 39840, 45229, 51144, 57618, 64685, 72380, 80739, 89799, 99598, 110175, 121570, 133824, 146979, 161078
a(n) = n^4 for n=1,2; a(n) = 1/24*(n+3)*(n^3+15*n^2+50*n-96) for n>2 (conjectured).
[A122658] 0, 0, 16, 54, 512, 1000, 3888, 6174, 16384, 23328, 50000, 66550, 124416, 158184, 268912, 330750, 524288, 628864, 944784, 1111158, 1600000, 1852200, 2576816, 2944414, 3981312, 4500000, 5940688, 6652854, 8605184, 9560488, 12150000, 13405950, 16777216, 18399744
a(n) = (n^3*(1-(-1)^n+2*(-1+(-1)^n)*n+2*n^2))/4. G.f.: 2*x^2*(x^8 +7*x^7 +95*x^6 +113*x^5 +379*x^4 +149*x^3 +189*x^2 +19*x +8) / ((x -1)^6*(x +1)^5). - Colin Barker, Sep 20 2013
[A244805] 1, 16, 55, 118, 205, 316, 451, 610, 793, 1000, 1231, 1486, 1765, 2068, 2395, 2746, 3121, 3520, 3943, 4390, 4861, 5356, 5875, 6418, 6985, 7576, 8191, 8830, 9493, 10180, 10891, 11626, 12385, 13168, 13975, 14806, 15661, 16540, 17443, 18370, 19321, 20296, 21295, 22318, 23365, 24436, 25531
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.

[A295986] 1, 1, 1, 16, 56, 192, 624, 1920, 5632, 15872, 43264, 114688, 296960, 753664, 1880064, 4620288, 11206656, 26869760, 63766528, 149946368, 349700096, 809500672, 1861222400, 4253024256, 9663676416, 21843935232, 49140465664, 110058536960, 245484224512, 545460846592
a(n) = 2^(n - 4)*(n^2 - 5*n + 12)*(n + 2)/3 for n > 3.
a(n) = 8*a(n-1) - 24*a(n-2) + 32*a(n-3) - 16*a(n-4) for n > 7.
[A202993] 1, 1, 16, 56, 296, 1052, 4952, 17292, 70512, 249712, 931226, 3212690, 11399590, 38331770, 130310820, 428389292, 1408697596, 4524980036, 14486512316, 45558807176, 142488702483, 439559056419, 1347096766984, 4082169772704, 12286806024269, 36629267989081
a(n) = (1/n)*Sum_{k=1..n} sigma(k^4) * a(n-k) for n>0, with a(0)=1.
[A177890] 0, 1, 16, 58, 140, 275, 476, 756, 1128, 1605, 2200, 2926, 3796, 4823, 6020, 7400, 8976, 10761, 12768, 15010, 17500, 20251, 23276, 26588, 30200, 34125, 38376, 42966, 47908, 53215, 58900, 64976, 71456, 78353, 85680, 93450, 101676, 110371, 119548, 129220
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 04 2012
a(n) = sum((n-i)*(13*i+1), i=0..n-1), with a(0)=0. [Bruno Berselli, Feb 10 2014]
[A027117] 16, 59, 155, 352, 738, 1475, 2861, 5444, 10232, 19079, 35395, 65452, 120786, 222615, 409965, 754616, 1388592, 2554723, 4699643, 8644840, 15901266, 29247995, 53796541, 98948444, 181995832, 334743887, 615691459, 1132434708
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3)-a(n-4)+2*a(n-5)-a(n-6) for n>9.
[A022289] 0, 16, 63, 141, 250, 390, 561, 763, 996, 1260, 1555, 1881, 2238, 2626, 3045, 3495, 3976, 4488, 5031, 5605, 6210, 6846, 7513, 8211, 8940, 9700, 10491, 11313, 12166, 13050, 13965, 14911, 15888, 16896, 17935
a(n) = 31*n + a(n-1) - 15, for n>0, a(0)=0. - Vincenzo Librandi, Aug 04 2010
[A143860] 1, 16, 63, 142, 253, 396, 571, 778, 1017, 1288, 1591, 1926, 2293, 2692, 3123, 3586, 4081, 4608, 5167, 5758, 6381, 7036, 7723, 8442, 9193, 9976, 10791, 11638, 12517, 13428, 14371, 15346, 16353, 17392, 18463, 19566, 20701, 21868, 23067, 24298
a(n) = 16*n^2-33*n+18. [From R. J. Mathar, Sep 08 2008]
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 10 2012
[A100176] 1, 16, 63, 160, 325, 576, 931, 1408, 2025, 2800, 3751, 4896, 6253, 7840, 9675, 11776, 14161, 16848, 19855, 23200, 26901, 30976, 35443, 40320, 45625, 51376, 57591, 64288, 71485, 79200, 87451, 96256, 105633, 115600, 126175, 137376, 149221
a(n) = 3*n^3 - 2*n^2.
a(n) = Sum_{i=0..n-1} n*(6*i+1). - Bruno Berselli, Sep 08 2015
[A060091] 0, 0, 0, 16, 63, 162, 341, 636, 1092, 1764, 2718, 4032, 5797, 8118, 11115, 14924, 19698, 25608, 32844, 41616, 52155, 64714, 79569, 97020, 117392, 141036, 168330, 199680, 235521, 276318, 322567, 374796, 433566, 499472, 573144, 655248, 746487
a(n) = binomial(n + 5, 5) - 4*binomial(n + 2, 2) - 3*binomial(n + 1, 1) + 12*binomial(n, 0) - 6*binomial(n - 1, - 1);
a(n) = (n+5)*(n-1)*(n-2)*(n^2+13*n+72)/120, n>0. - R. J. Mathar, Aug 15 2017
[A016802] 0, 16, 64, 144, 256, 400, 576, 784, 1024, 1296, 1600, 1936, 2304, 2704, 3136, 3600, 4096, 4624, 5184, 5776, 6400, 7056, 7744, 8464, 9216, 10000, 10816, 11664, 12544, 13456, 14400, 15376, 16384, 17424, 18496, 19600, 20736, 21904, 23104, 24336, 25600, 26896
a(n)=a(n-1)+16*(2*n-1) (with a(0)=0) - Vincenzo Librandi, Nov 20 2010
[A102860] 0, 16, 64, 160, 320, 560, 896, 1344, 1920, 2640, 3520, 4576, 5824, 7280, 8960, 10880, 13056, 15504, 18240, 21280, 24640, 28336, 32384, 36800, 41600, 46800, 52416, 58464, 64960, 71920, 79360, 87296, 95744, 104720, 114240, 124320, 134976, 146224
a(n) = 16*C(n, 3) = 2*C(2*n, 3)-8*C(n, 2).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4).
a(n) = 8*n*(n-1)*(n-2)/3. (End)
[A100184] 1, 16, 64, 164, 335, 596, 966, 1464, 2109, 2920, 3916, 5116, 6539, 8204, 10130, 12336, 14841, 17664, 20824, 24340, 28231, 32516, 37214, 42344, 47925, 53976, 60516, 67564, 75139, 83260, 91946, 101216
a(n)=(1/6)*(19*n^3-15*n^2+2*n) [Corrected by Luca Colucci, Mar 01 2011]
[A212506] 0, 1, 16, 64, 196, 441, 900, 1600, 2704, 4225, 6400, 9216, 12996, 17689, 23716, 30976, 40000, 50625, 63504, 78400, 96100, 116281, 139876, 166464, 197136, 231361, 270400, 313600, 362404, 416025, 476100, 541696, 614656, 693889, 781456
a(n) = 2a(n-1)+2a(n-2)-6a(n-3)+6a(n-5)-2a(n-6)-2a(n-7)+a(n-8).
[A212512] 0, 1, 16, 64, 196, 462, 930, 1680, 2860, 4485, 6800, 9888, 13908, 19019, 25564, 33440, 43200, 54900, 68796, 85120, 104470, 126511, 152218, 181560, 214896, 252525, 295360, 342720, 396116, 455370, 520950, 593216, 673456, 760529, 856596, 961272, 1075140
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A034720] 1, 16, 65, 168, 345, 616, 1001, 1520, 2193, 3040, 4081, 5336, 6825, 8568, 10585, 12896, 15521, 18480, 21793, 25480, 29561, 34056, 38985, 44368, 50225, 56576, 63441, 70840, 78793, 87320, 96441, 106176, 116545, 127568, 139265, 151656
a(n) =n(2n-1)(5n-2)/3 - Henry Bottomley, Apr 11 2002
[A216306] 16, 67, 121, 220, 229, 247, 283, 295, 334, 361, 379, 394, 481, 592, 604, 673, 724, 757, 760, 772, 793, 844, 880, 913, 988, 1024, 1066, 1108, 1144, 1159, 1186, 1192, 1234, 1243, 1303, 1318, 1396, 1417, 1453, 1465, 1471, 1501, 1507, 1537, 1549, 1660, 1762, 1858
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A100186] 1, 16, 67, 176, 365, 656, 1071, 1632, 2361, 3280, 4411, 5776, 7397, 9296, 11495, 14016, 16881, 20112, 23731, 27760, 32221, 37136, 42527, 48416, 54825, 61776, 69291, 77392, 86101, 95440, 105431, 116096
a(n) = (1/6)*(22*n^3-24*n^2+8*n).
[A005906] 1, 16, 68, 180, 375, 676, 1106, 1688, 2445, 3400, 4576, 5996, 7683, 9660, 11950, 14576, 17561, 20928, 24700, 28900, 33551, 38676, 44298, 50440, 57125, 64376, 72216, 80668, 89755, 99500, 109926, 121056, 132913, 145520, 158900, 173076
a(n) = binomial(3*n, 3) - 4*binomial(n+1, 3) = n*(23*n^2 -27*n +10)/6.
[A200839] 16, 69, 194, 435, 846, 1491, 2444, 3789, 5620, 8041, 11166, 15119, 20034, 26055, 33336, 42041, 52344, 64429, 78490, 94731, 113366, 134619, 158724, 185925, 216476, 250641, 288694, 330919, 377610, 429071, 485616, 547569, 615264, 689045, 769266
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>5.
[A063493] 1, 16, 70, 189, 399, 726, 1196, 1835, 2669, 3724, 5026, 6601, 8475, 10674, 13224, 16151, 19481, 23240, 27454, 32149, 37351, 43086, 49380, 56259, 63749, 71876, 80666, 90145, 100339, 111274, 122976, 135471, 148785, 162944, 177974, 193901
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Dec 16 2015
[A220212] 0, 1, 16, 70, 200, 455, 896, 1596, 2640, 4125, 6160, 8866, 12376, 16835, 22400, 29240, 37536, 47481, 59280, 73150, 89320, 108031, 129536, 154100, 182000, 213525, 248976, 288666, 332920, 382075, 436480, 496496, 562496, 634865, 714000, 800310, 894216, 996151
a(n) = n*(n+1)*(n+2)*(3*n-2)/6.
[A212513] 0, 1, 16, 72, 210, 483, 990, 1760, 2964, 4680, 7040, 10176, 14364, 19551, 26180, 34320, 44200, 56025, 70308, 86800, 106330, 128898, 154836, 184416, 218448, 256373, 299520, 347760, 401534, 461175, 527850, 600576, 681296, 769692, 866320, 971568, 1087020
a(n) = 2*a(n-2)+2*a(n-3)-a(n-4)-4*a(n-5)+2*a(n-7)-2*a(n-9)+4*a(n-11)+a(n-12)-2*a(n-13)-2*a(n-14)+a(n-16).
[A279905] 0, 0, 0, 16, 72, 216, 480, 960, 1680, 2800, 4320, 6480, 9240, 12936, 17472, 23296, 30240, 38880, 48960, 61200, 75240, 91960, 110880, 133056, 157872, 186576, 218400, 254800, 294840, 340200, 389760, 445440, 505920, 573376, 646272, 727056, 813960, 909720
a(n) = ((n-2)*(n-1)*(2*(n+1)^2-(-1)^n-1))/4 for n>=0 .
a(n) = (n^4 - n^3 - 4*n^2 + 4*n)/2 for n even.
a(n) = (n^4 - n^3 - 3*n^2 + n + 2)/2 for n odd.
a(n) = 2*a(n-1) + 2*a(n-2) - 6*a(n-3) + 6*a(n-5) - 2*a(n-6) - 2*a(n-7) + a(n-8) for n>7.
[A200786] 16, 75, 225, 530, 1071, 1946, 3270, 5175, 7810, 11341, 15951, 21840, 29225, 38340, 49436, 62781, 78660, 97375, 119245, 144606, 173811, 207230, 245250, 288275, 336726, 391041, 451675, 519100, 593805, 676296, 767096, 866745, 975800, 1094835
a(n) = (24 + 106*n + 151*n^2 + 86*n^3 + 17*n^4) / 24.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>5.
[A212690] 0, 1, 16, 75, 236, 567, 1172, 2157, 3672, 5861, 8920, 13031, 18436, 25355, 34076, 44857, 58032, 73897, 92832, 115171, 141340, 171711, 206756, 246885, 292616, 344397, 402792, 468287, 541492, 622931, 713260, 813041, 922976, 1043665
a(n)=3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).

[A200873] 16, 77, 236, 567, 1168, 2163, 3704, 5973, 9184, 13585, 19460, 27131, 36960, 49351, 64752, 83657, 106608, 134197, 167068, 205919, 251504, 304635, 366184, 437085, 518336, 611001, 716212, 835171, 969152, 1119503, 1287648, 1475089, 1683408
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A082966] 0, 1, 16, 77, 319, 920, 2397, 5278, 10874, 20355, 36390, 61171, 99441, 154882, 235179, 346060, 499172, 702933, 974124, 1324585, 1777555, 2349116, 3070441, 3962762, 5066814, 6409975, 8044322, 10004463, 12355749, 15141190, 18441495, 22309336, 26843016, 32106217
a(n) = 1/48*(n-1)*(n^5+n^4-2*n^3+14*n^2-5*n+3) if n is odd;
a(n) = 1/48*n*(n-1)*(n^2-n+2)*(n^2+2*n-2) if n is even.
[A061995] 0, 0, 0, 16, 78, 228, 520, 1020, 1806, 2968, 4608, 6840, 9790, 13596, 18408, 24388, 31710, 40560, 51136, 63648, 78318, 95380, 115080, 137676, 163438, 192648, 225600, 262600, 303966, 350028, 401128, 457620, 519870, 588256
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), n >= 6.
a(n) = (n - 1)*(n - 2)*(n^2 + 3*n - 2)/2, n >= 1.
[A212563] 0, 1, 16, 78, 240, 577, 1182, 2172, 3680, 5865, 8900, 12986, 18336, 25193, 33810, 44472, 57472, 73137, 91800, 113830, 139600, 169521, 204006, 243508, 288480, 339417, 396812, 461202, 533120, 613145, 701850, 799856, 907776, 1026273, 1156000, 1297662, 1451952
a(n) = 3*a(n-1)-a(n-2)-5*a(n-3)+5*a(n-4)+a(n-5)-3*a(n-6)+a(n-7).
a(n) = 1/96*(82*n^4+36*n^3-16*n^2-6*((-1)^n-1)*n+9*((-1)^n-1)).
[A212896] 1, 16, 79, 240, 551, 1066, 1839, 2924, 4375, 6246, 8591, 11464, 14919, 19010, 23791, 29316, 35639, 42814, 50895, 59936, 69991, 81114, 93359, 106780, 121431, 137366, 154639, 173304, 193415, 215026, 238191, 262964, 289399, 317550
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>=6.
a(n) = 9*n^3-6*n^2+20*n-9 with n>1, a(0)=1, a(1)=16. [Bruno Berselli, Jun 12 2012]
[A008511] 0, 16, 80, 240, 544, 1040, 1776, 2800, 4160, 5904, 8080, 10736, 13920, 17680, 22064, 27120, 32896, 39440, 46800, 55024, 64160, 74256, 85360, 97520, 110784, 125200, 140816, 157680, 175840
a(n) = (n+1)^4-(n-1)^4.
a(0)=0, a(1)=16, a(2)=80, a(3)=240, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Oct 15 2012
[A130810] 16, 80, 240, 560, 1120, 2016, 3360, 5280, 7920, 11440, 16016, 21840, 29120, 38080, 48960, 62016, 77520, 95760, 117040, 141680, 170016, 202400, 239200, 280800, 327600, 380016, 438480, 503440, 575360, 654720, 742016, 837760, 942480, 1056720
a(n) = binomial(2*n,4) +binomial(n,2) -n*binomial(2*n-2,2).
a(n) = C(n,n-4)*2^4, n>=4. - Zerinvary Lajos, Dec 07 2007
[A212090] 0, 1, 16, 80, 251, 610, 1261, 2331, 3970, 6351, 9670, 14146, 20021, 27560, 37051, 48805, 63156, 80461, 101100, 125476, 154015, 187166, 225401, 269215, 319126, 375675, 439426, 510966, 590905, 679876, 778535, 887561, 1007656, 1139545
a(n) = 5a(n-1)-10a(n-2)+10a(n-3)-5a(n-4)+a(n-5).
a(n) = n*(-2+(1+(2+23*n)*n)*n)/24.
[A050468] 1, 16, 80, 256, 626, 1280, 2400, 4096, 6481, 10016, 14640, 20480, 28562, 38400, 50080, 65536, 83522, 103696, 130320, 160256, 192000, 234240, 279840, 327680, 391251, 456992, 524960, 614400, 707282, 801280, 923520, 1048576, 1171200
a(n) is multiplicative with a(2^e) = 16^e, a(p^e) = ((p^4)^(e+1) - 1) / (p^4 - 1) if p == 1 (mod 4), a(p^e) = ((p^4)^(e+1) - (-1)^(e+1)) / (p^4 + 1) if p == 3 (mod 4). - Michael Somos, Jan 14 2012
[A016898] 16, 81, 196, 361, 576, 841, 1156, 1521, 1936, 2401, 2916, 3481, 4096, 4761, 5476, 6241, 7056, 7921, 8836, 9801, 10816, 11881, 12996, 14161, 15376, 16641, 17956, 19321, 20736, 22201, 23716, 25281, 26896, 28561, 30276, 32041, 33856, 35721, 37636, 39601, 41616
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A212898] 1, 16, 81, 254, 609, 1234, 2215, 3640, 5599, 8182, 11479, 15580, 20575, 26554, 33607, 41824, 51295, 62110, 74359, 88132, 103519, 120610, 139495, 160264, 183007, 207814, 234775, 263980, 295519, 329482, 365959, 405040, 446815, 491374
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>=9.
a(n) = 15*n^3-48*n^2+144*n-161 with n>4, a(0)=1, a(1)=16, a(2)=81, a(3)=254, a(4)=609. [Bruno Berselli, Jun 12 2012]
[A212145] 0, 1, 16, 81, 255, 621, 1285, 2377, 4050, 6481, 9870, 14441, 20441, 28141, 37835, 49841, 64500, 82177, 103260, 128161, 157315, 191181, 230241, 275001, 325990, 383761, 448890, 521977, 603645, 694541, 795335, 906721, 1029416, 1164161
a(n) = 4*a(n-1)-5*a(n-2)+5*a(n-4)-4*a(n-5)+a(n-6).
a(n) = (3-3*(-1)^n-8*n-4*n^2+8*n^3+94*n^4)/96. - Colin Barker, Nov 21 2014
[A000583] 0, 1, 16, 81, 256, 625, 1296, 2401, 4096, 6561, 10000, 14641, 20736, 28561, 38416, 50625, 65536, 83521, 104976, 130321, 160000, 194481, 234256, 279841, 331776, 390625, 456976, 531441, 614656, 707281, 810000, 923521, 1048576, 1185921
a(n) = C(n+3,4) + 11*C(n+2,4) + 11*C(n+1,4) + C(n,4).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + 24. - Ant King, Sep 23 2013
[A056118] 1, 16, 81, 266, 686, 1512, 2982, 5412, 9207, 14872, 23023, 34398, 49868, 70448, 97308, 131784, 175389, 229824, 296989, 378994, 478170, 597080, 738530, 905580, 1101555, 1330056, 1594971, 1900486, 2251096, 2651616, 3107192, 3623312
a(n) = (11*n+5)*binomial(n+4,4)/5.
a(0)=1, a(1)=16, a(2)=81, a(3)=266, a(4)=686, a(5)=1512; for n>5, a(n) = 6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Oct 18 2013
[A231303] 0, 1, 16, 82, 272, 707, 1568, 3108, 5664, 9669, 15664, 24310, 36400, 52871, 74816, 103496, 140352, 187017, 245328, 317338, 405328, 511819, 639584, 791660, 971360, 1182285, 1428336, 1713726, 2042992, 2421007, 2852992, 3344528, 3901568, 4530449, 5237904
a(n) = Sum_{k=0..floor(n/2)} (n-2k)^4.
a(n) = 1/30*n*(3*n^4+15*n^3+20*n^2-8).
[A118675] 0, 16, 85, 141, 225, 616, 940, 1428, 3705, 5593, 8437, 21708, 32712, 49288, 126637, 190773, 287385, 738208, 1112020, 1675116, 4302705, 6481441, 9763405, 25078116, 37776720, 56905408, 146166085, 220178973, 331669137, 851918488, 1283297212, 1933109508
a(n) = 6*a(n-3)-a(n-6)+94 for n > 6; a(1)=0, a(2)=16, a(3)=85, a(4)=141, a(5)=225, a(6)=616.
[A050256] 16, 86, 185, 307, 448, 606, 778, 965, 1164, 1376, 1599, 1832, 2077, 2331, 2595, 2868, 3150, 3440, 3739, 4047, 4362, 4685, 5016, 5354, 5699, 6052, 6411, 6777, 7150, 7530, 7916, 8309, 8708, 9113, 9524, 9941, 10364, 10793, 11227, 11667
a(n) = floor(47*(n-1.5)^(3/2)). - Derek Orr, Sep 05 2015
[A225007] 16, 86, 296, 791, 1792, 3612, 6672, 11517, 18832, 29458, 44408, 64883, 92288, 128248, 174624, 233529, 307344, 398734, 510664, 646415, 809600, 1004180, 1234480, 1505205, 1821456, 2188746, 2613016, 3100651, 3658496, 4293872, 5014592, 5828977
a(n) = (2/15)*n^5 + (7/6)*n^4 + (23/6)*n^3 + (35/6)*n^2 + (121/30)*n + 1.
[A035291] 0, 0, 16, 88, 280, 680, 1400, 2576, 4368, 6960, 10560, 15400, 21736, 29848, 40040, 52640, 68000, 86496, 108528, 134520, 164920, 200200, 240856, 287408, 340400, 400400, 468000, 543816, 628488, 722680, 827080, 942400, 1069376, 1208768
a(n) = (3 n^4 - 10 n^3 + 9 n^2 - 2 n)/3.
[A055920] 1, 16, 90, 328, 886, 2016, 3986, 7208, 12050, 19096, 28802, 41936, 59030, 81048, 108586, 142816, 184386, 234688, 294410, 365176, 447702, 543856, 654370, 781368, 925586, 1089416, 1273586, 1480768, 1711670, 1969256, 2254202, 2569776, 2916610, 3298288, 3715386
a(n) = (133*n^4 + 524*n^2 + 96)/48 for n>0 and even.
a(n) = (133*n^4 + 542*n^2 + 93)/48 for n odd.
[A050406] 1, 16, 91, 336, 966, 2352, 5082, 10032, 18447, 32032, 53053, 84448, 129948, 194208, 282948, 403104, 562989, 772464, 1043119, 1388464, 1824130, 2368080, 3040830, 3865680, 4868955, 6080256, 7532721, 9263296
a(n)=C(n+5, 5)*(5n+3)/3.
[A294433] 1, 16, 94, 331, 871, 1906, 3676, 6469, 10621, 16516, 24586, 35311, 49219, 66886, 88936, 116041, 148921, 188344, 235126, 290131, 354271, 428506, 513844, 611341, 722101, 847276, 988066, 1145719, 1321531, 1516846, 1733056, 1971601, 2233969, 2521696, 2836366
a(n) = 1 + 7*n/2 + 11*n^2/2 + 4*n^3 + 2*n^4. - Robert Israel, Oct 30 2017
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4.
[A160750] 1, 16, 94, 331, 880, 1951, 3811, 6784, 11251, 17650, 26476, 38281, 53674, 73321, 97945, 128326, 165301, 209764, 262666, 325015, 397876, 482371, 579679, 691036, 817735, 961126, 1122616, 1303669, 1505806, 1730605, 1979701, 2254786, 2557609

a(n) = 19*n^4/8 +7*n^3/4 +77*n^2/8 +5*n/4 +1. - R. J. Mathar, Sep 11 2011
[A277044] 0, 0, 0, 16, 96, 216, 600, 1008, 2064, 3040, 5280, 7200, 11280, 14616, 21336, 26656, 36960, 44928, 59904, 71280, 92160, 107800, 135960, 156816, 193776, 220896, 268320, 302848, 362544, 405720, 479640, 532800, 623040, 687616, 796416, 873936, 1003680, 1095768, 1248984, 1357360, 1536720, 1663200
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n>8.
a(n) = (5*n^4 - 8*n^3 + 4*n^2 - 16*n)/8 for n even.
a(n) = (5*n^4 - 12*n^3 + 2*n^2 + 12*n - 7)/8 for n odd.
[A001249] 1, 16, 100, 400, 1225, 3136, 7056, 14400, 27225, 48400, 81796, 132496, 207025, 313600, 462400, 665856, 938961, 1299600, 1768900, 2371600, 3136441, 4096576, 5290000, 6760000, 8555625, 10732176, 13351716, 16483600, 20205025, 24601600, 29767936, 35808256
a(n) = (n+3)*C(n+2, 2)*C(n+3, 3)/3. - Gary Detlefs, Jan 06 2014
[A210687] 16, 104, 303, 653, 1196, 1978, 3032, 4410, 6148, 8292, 10875, 13955, 17556, 21730, 26522, 31966, 38104, 44988, 52645, 61133, 70482, 80738, 91940, 104140, 117368, 131670, 147091, 163671, 181446, 200474, 220776, 242410, 265412, 289822, 315685, 343047, 371938
a(n) = (1678*n^3+3117*n^2+88*n-345*Mod[n,2]-320*Mod[n,3]-90*Mod[n,4]-288*Mod[n^3-n^2+n,5])/240. (Bill Daly)
[A010079] 1, 16, 104, 344, 792, 1528, 2632, 4152, 6200, 8792, 12072, 16024, 20824, 26424, 33032, 40568, 49272, 59032, 70120, 82392, 96152, 111224, 127944, 146104, 166072, 187608, 211112, 236312, 263640, 292792, 324232, 357624, 393464, 431384, 471912, 514648, 560152
a(n) = 2*(-4*(-1)^n+(3+(-1)^n)*n+6*n^3) for n>1. G.f.: -(8*x^7 -25*x^6 +2*x^5 -63*x^4 -124*x^3 -71*x^2 -14*x -1) / ((x-1)^4*(x+1)^2). - Colin Barker, Jul 07 2013
[A081588] 1, 16, 106, 396, 1011, 2076, 3716, 6056, 9221, 13336, 18526, 24916, 32631, 41796, 52536, 64976, 79241, 95456, 113746, 134236, 157051, 182316, 210156, 240696, 274061, 310376, 349766, 392356, 438271, 487636, 540576, 597216, 657681, 722096
a(n) = (6+115*n-150*n^2+125*n^3)/6.
[A276159] 1, 16, 106, 416, 1211, 2912, 6132, 11712, 20757, 34672, 55198, 84448, 124943, 179648, 252008, 345984, 466089, 617424, 805714, 1037344, 1319395, 1659680, 2066780, 2550080, 3119805, 3787056, 4563846, 5463136, 6498871, 7686016, 9040592, 10579712, 12321617, 14285712, 16492602, 18964128
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (n + 1)*(n + 2)*(n + 3)*(9*n^2 + 6*n + 5)/30.
[A056001] 1, 16, 108, 480, 1650, 4752, 12012, 27456, 57915, 114400, 213928, 381888, 655044, 1085280, 1744200, 2728704, 4167669, 6229872, 9133300, 13156000, 18648630, 26048880, 35897940, 48859200, 65739375, 87512256, 115345296, 150629248
a(n) = (n+1)*C(n+7, 7).
[A053526] 0, 0, 0, 0, 16, 110, 435, 1295, 3220, 7056, 14070, 26070, 45540, 75790, 121121, 187005, 280280, 409360, 584460, 817836, 1124040, 1520190, 2026255, 2665355, 3464076, 4452800, 5666050, 7142850, 8927100, 11067966, 13620285
a(n) = (n-3)*(n-2)*(n-1)*n*(n^2+3*n+4)/48.
[A107908] 1, 16, 110, 490, 1666, 4704, 11592, 25740, 52635, 100672, 182182, 314678, 522340, 837760, 1303968, 1976760, 2927349, 4245360, 6042190, 8454754, 11649638, 15827680, 21229000, 28138500, 36891855, 47882016, 61566246, 78473710
a(0)=1, a(1)=16, a(2)=110, a(3)=490, a(4)=1666, a(5)=4704, a(6)=11592, a(7)=25740, a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8). - Harvey P. Dale, Aug 07 2013
[A177046] 16, 111, 143, 238, 270, 365, 397, 492, 524, 619, 651, 746, 778, 873, 905, 1000, 1032, 1127, 1159, 1254, 1286, 1381, 1413, 1508, 1540, 1635, 1667, 1762, 1794, 1889, 1921, 2016, 2048, 2143, 2175, 2270, 2302, 2397, 2429, 2524, 2556, 2651, 2683, 2778, 2810, 2905, 2937, 3032, 3064
a(n) = (127-63*(-1)^(n-1)+254*(n-1))/4.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A234250] 0, 16, 111, 439, 1305, 3240, 7091, 14126, 26154, 45660, 75955, 121341, 187291, 280644, 409815, 585020, 818516, 1124856, 1521159, 2027395, 2666685, 3465616, 4454571, 5668074, 7145150, 8929700, 11070891, 13623561, 16648639, 20213580, 24392815, 29268216, 34929576
a(n) = (n - 1)*(n - 2)*(n^4 + 6*n^3 + 13*n^2 + 16*n - 24)/48.
[A144449] 16, 112, 280, 520, 832, 1216, 1672, 2200, 2800, 3472, 4216, 5032, 5920, 6880, 7912, 9016, 10192, 11440, 12760, 14152, 15616, 17152, 18760, 20440, 22192, 24016, 25912, 27880, 29920, 32032, 34216, 36472, 38800, 41200, 43672, 46216, 48832, 51520, 54280, 57112
a(n) = 4*(4+9*n^2+15*n), with n>=0 [From Paolo P. Lava, Oct 28 2008]
a(n)=a(n-1)+24*(3n+1)=a(n-1)+72n+24, a(0)=16.
[A055994] 1, 16, 115, 550, 2035, 6292, 17017, 41470, 92950, 194480, 384098, 722228, 1301690, 2261000, 3801710, 6210644, 9887999, 15382400, 23434125, 35027850, 51456405, 74397180, 106002975, 149009250, 206859900, 283853856, 385314996, 517788040
a(n) = (7n+9)*C(n+8, 8)/9.
[A145216] 1, 16, 118, 560, 2003, 5888, 14988, 34176, 71445, 139216, 255970, 448240, 752999, 1220480, 1917464, 2931072, 4373097, 6384912, 9142990, 12865072, 17817019, 24320384, 32760740, 43596800, 57370365, 74717136, 96378426, 123213808
a(n) = C(n+2,3)*(3*n*(n+2)*(n^2+2*n+3)+16)/70
[A210428] 0, 1, 16, 119, 560, 1955, 5552, 13573, 29632, 59229, 110320, 193963, 325040, 523055, 813008, 1226345, 1801984, 2587417, 3639888, 5027647, 6831280, 9145115, 12078704, 15758381, 20328896, 25955125, 32823856, 41145651, 51156784, 63121255, 77332880, 94117457
a(n) = n^2*(76+(85+19*n^2)*n^2)/180.
[A248621] 0, 16, 120, 456, 1240, 2760, 5376, 9520, 15696, 24480, 36520, 52536, 73320, 99736, 132720, 173280, 222496, 281520, 351576, 433960, 530040, 641256, 769120, 915216, 1081200, 1268800, 1479816, 1716120, 1979656, 2272440, 2596560, 2954176, 3347520, 3778896, 4250680
a(n) = floor[sum(j from n^3+1 to (n+1)^3-1, j^(2/3))].
a(n) = 2*n + 5*n^2 + 6*n^3 + 3*n^4.
[A190049] 16, 120, 482, 1412, 3402, 7168, 13692, 24264, 40524, 64504, 98670, 145964, 209846, 294336, 404056, 544272, 720936, 940728, 1211098, 1540308, 1937474, 2412608, 2976660, 3641560, 4420260, 5326776, 6376230, 7584892
a(n) = 16*binomial(n+5,5)+24*binomial(n+4,5)+2*binomial(n+3,5)
a(n) = (21*n^5+245*n^4+1105*n^3+2395*n^2+2474*n+960)/60
[A014805] 1, 16, 120, 576, 2060, 6048, 15424, 35200, 73518, 143280, 263584, 461376, 775160, 1256928, 1973760, 3017088, 4503557, 6572880, 9411984, 13249280, 18340932, 25034976, 33739520, 44879616, 59057510, 76949920, 99212352, 126838080, 160884264, 202296960, 252645376
a(n) = 1/192 * Sum_{a, b, x, y > 0, a*x + b*y = 2*n + 4, a == b == x == y == 1 mod 2 and a > b} a*b*(a^2 - b^2)^2. - Seiichi Manyama, May 05 2017
[A191902] 0, 16, 121, 512, 1562, 3888, 8403, 16384, 29524, 50000, 80525, 124416, 185646, 268912, 379687, 524288, 709928, 944784, 1238049, 1600000, 2042050, 2576816, 3218171, 3981312, 4882812, 5940688, 7174453, 8605184, 10255574, 12150000, 14314575
a(n)=((n + 1)^5 - (1 + (-1)^n)/2)/2.
[A191484] 1, 16, 122, 512, 1563, 3888, 8404, 16384, 29525, 50000, 80526, 124416, 185647, 268912, 379688, 524288, 709929, 944784, 1238050, 1600000, 2042051, 2576816, 3218172, 3981312, 4882813, 5940688
a(n)= ((n + 1)^5 + (1 + (-1)^n)/2)/2.
a(n) = +5*a(n-1) -9*a(n-2) +5*a(n-3) +5*a(n-4) -9*a(n-5) +5*a(n-6) -1*a(n-7)
[A030508] 16, 122, 549, 1837, 5069, 12203, 26510, 53141, 99840, 177811, 302759, 496128, 786545, 1211476, 1819136, 2670647, 3842461, 5429083, 7546084, 10333440, 13959209, 18623545, 24563096, 32055772, 41425920, 53049910, 67362149
a(n) = ceil (binomial (n, w) * 2^w / (2*n + 1))
[A060633] 16, 123, 361, 778, 1428, 2371, 3673, 5406, 7648, 10483, 14001, 18298, 23476, 29643, 36913, 45406, 55248, 66571, 79513, 94218, 110836, 129523, 150441, 173758, 199648, 228291, 259873, 294586, 332628, 374203, 419521, 468798, 522256, 580123
a(n) = (n^4+22n^3+105n^2-56n-8)/4.
[A133111] 0, 0, 0, 1, 16, 126, 672, 2772, 9504, 28314, 75504, 184041, 416416, 884884, 1782144, 3426384, 6325632, 11267532, 19442016, 32605881, 53300016, 85131970, 133138720, 204246900, 307850400, 456528150, 666928080, 960846705, 1366537536, 1920285576, 2668289536
a(n) = 1/288*sum {1 <= i,j,k,l <= n} |(i-j)(i-k)(j-k)(i-l)(j-l)(k-l)|. G.f.: x^4*(1 + 5x + 5x^2 + x^3)/(1 - x)^11 . a(n) = n^2(n^2 - 1)^2(n^2 - 4)(n^2 - 9)/302400.
a(n) = sum {i + j + k + l = n} i*j*k^2*l^3.
[A290031] 0, 0, 0, 16, 128, 640, 2560, 8960, 28672, 86016, 245760, 675840, 1802240, 4685824, 11927552, 29818880, 73400320, 178257920, 427819008, 1016070144, 2390753280, 5578424320, 12918456320, 29712449536, 67914170368, 154350387200, 348966092800, 785173708800, 1758789107712
a(n) = 2^(n + 1)*binomial(n, 3).

a(n) = 8*a(n-1)-24*a(n-2)+32*a(n-4)-16*a(n-4).
[A035473] 1, 16, 128, 688, 3072, 11472, 36224, 99184, 241664, 535440, 1097344, 2107952, 3834880, 6661200, 11119488, 17932016, 28057600, 42745616, 63597696, 92637616, 132389888, 185967568, 257169792, 350589552, 471732224, 627145360, 824560256, 1073045808, 1383175168
a(m) = sum(2^k*binomial(n, k)*binomial(m-1, k-1), k=0..n)+2^n*binomial((n+2*m)/2-1, n-1), where n=8, a(0)=1.
[A099195] 0, 1, 16, 129, 704, 2945, 10128, 29953, 78592, 187137, 411280, 845185, 1640640, 3032705, 5373200, 9173505, 15158272, 24331777, 38058768, 58161793, 87037120, 127791489, 184402064, 261902081, 366594816, 506298625, 690625936, 931299201, 1242506944, 1641303169, 2148053520
a(n) = 8-crosspolytope(n) = (n^2)*(n^6 + 28*n^4 + 154*n^2 + 132)/315.
[A010968] 1, 16, 136, 816, 3876, 15504, 54264, 170544, 490314, 1307504, 3268760, 7726160, 17383860, 37442160, 77558760, 155117520, 300540195, 565722720, 1037158320, 1855967520, 3247943160, 5567902560, 9364199760, 15471286560, 25140840660, 40225345056, 63432274896
a(n+14) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)(n+10)(n+11)(n+12)(n+13)(n+14)/15!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
a(n) = n/(n-15) * a(n-1), n > 15. - Vincenzo Librandi, Mar 26 2011
[A290896] 0, 0, 0, 0, 0, 0, 0, 1, 16, 136, 816, 3876, 15504, 54264, 170544, 490315, 1307536, 3269288, 7732144, 17436220, 37819152, 79883544, 167737776, 362063944, 839161648, 2158258904, 6136548496, 18586871324, 57486027952, 176258492200, 527387147664, 1529591016109
a(n) = 16*a(n-1) - 120*a(n-2) + 560*a(n-3) - 1820*a(n-4) + 4368*a(n-5) - 8008*a(n-6) + 11440*a(n-7) - 12869*a(n-8) + 11440*a(n-9) - 8008*a(n-10) + 4368*a(n-11) - 1820*a(n-12) + 560*a(n-13) - 120*a(n-14) + 16*a(n-15) - a(n-16).
[A052388] 0, 1, 16, 146, 955, 4905, 20907, 76851, 250530, 739612, 2009177, 5085119, 12109526, 27348478, 58955082, 121956402, 243172488, 469115187, 878387366, 1600751976, 2845918041, 4946262815, 8419256605, 14057377245, 23055913530, 37192403430, 59075703351, 92488040301
a(n) = n*(n+1)*(n+2)*(n+3)*(n+4)*(n^10 +110*n^9 +5445*n^8 +160050*n^7 +2906463*n^6 +30644250*n^5 +176659055*n^4 +711220750*n^3 +1781493036*n^2 +4034382840*n +4159814400)/1307674368000.
[A215687] 0, 16, 174, 690, 1876, 4140, 7986, 14014, 22920, 35496, 52630, 75306, 104604, 141700, 187866, 244470, 312976, 394944, 492030, 605986, 738660, 891996, 1068034, 1268910, 1496856, 1754200, 2043366, 2366874, 2727340, 3127476, 3570090, 4058086, 4594464, 5182320
a(n) = n*(2*n-1)*(2*n^2+7*n+7).
[A245828] 0, 16, 216, 1280, 5000, 15120, 38416, 86016, 174960, 330000, 585640, 988416, 1599416, 2497040, 3780000, 5570560, 8018016, 11302416, 15638520, 21280000, 28523880, 37715216, 49252016, 63590400, 81250000, 102819600, 128963016, 160425216, 198038680, 242730000, 295526720, 357564416, 430094016, 514489360
a(n) = (1/3)*n^4*(n^2 - 1).
[A239096] 0, 0, 0, 16, 216, 1584, 8096, 32256, 106992, 308352, 795168, 1873872, 4098952, 8422128, 16406208, 30522752, 54556128, 94140288, 157458624, 256141584, 406401336, 630447664, 958234464, 1429591680, 2096803280, 3027697920, 4309325280, 6052297680, 8395883496, 11513946096, 15621829504, 20984299776, 27924659136, 36835158272, 48188840832
a(n) = (n - 2)*(n - 1)*n*(n + 1)*(n + 2)*(n^4 + 5*n^2 + 42)/1260. [Bruno Berselli, May 12 2014]
[A017438] 16, 225, 676, 1369, 2304, 3481, 4900, 6561, 8464, 10609, 12996, 15625, 18496, 21609, 24964, 28561, 32400, 36481, 40804, 45369, 50176, 55225, 60516, 66049, 71824, 77841, 84100, 90601, 97344, 104329
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A017570] 16, 256, 784, 1600, 2704, 4096, 5776, 7744, 10000, 12544, 15376, 18496, 21904, 25600, 29584, 33856, 38416, 43264, 48400, 53824, 59536, 65536, 71824, 78400, 85264, 92416, 99856, 107584, 115600
a(n) = a(n-1) +288*n -48, n>=1. - Vincenzo Librandi, Mar 20 2011
[A158574] 16, 272, 1040, 2320, 4112, 6416, 9232, 12560, 16400, 20752, 25616, 30992, 36880, 43280, 50192, 57616, 65552, 74000, 82960, 92432, 102416, 112912, 123920, 135440, 147472, 160016, 173072, 186640, 200720, 215312, 230416, 246032, 262160, 278800, 295952
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A038758] 16, 281, 1785, 7175, 22015, 56406, 126966, 259170, 490050, 871255, 1472471, 2385201, 3726905, 5645500, 8324220, 11986836, 16903236, 23395365, 31843525, 42693035, 56461251, 73744946, 95228050, 121689750, 154012950, 193193091
a(n) = (1/24)*n*(n-1)*(n+1)*(12*n^3-11*n-10).
[A155122] 0, 16, 360, 1920, 6160, 15120, 31416, 58240, 99360, 159120, 242440, 354816, 502320, 691600, 929880, 1224960, 1585216, 2019600, 2537640, 3149440, 3865680, 4697616, 5657080, 6756480, 8008800, 9427600, 11027016, 12821760, 14827120, 17058960
a(n)=16+ 80*n + 140 *n^2 + 100*n^3 + 24* n^4.
[A051360] 0, 0, 0, 16, 389, 3112, 16231, 66177, 228438, 697219, 1932601, 4953493, 11892484, 27003029, 58421782, 121154728, 241995312, 467422242, 875997590, 1597434614, 2841382379, 4940146414, 8411111897, 14046656347, 23041951126, 37174397565, 59052693975, 92458885395
a(n) = n*(n-1)*(n-2)*(n^12 + 123*n^11 + 6947*n^10 + 238995*n^9 + 5406153*n^8 + 81325989*n^7 + 826126601*n^6 + 6015252225*n^5 + 31515483346*n^4 + 95237254188*n^3 + 64213530552*n^2-798617063520*n-2101517913600)/15!.
[A289707] 0, 0, 16, 911, 8013, 38130, 129932, 358272, 851710, 1815124, 3554910, 6510729, 11289019, 18704640, 29823436, 46014402, 69002190, 100930284, 144424446, 202667301, 279473821, 379377584, 507719550, 670746120, 875712560, 1130992902, 1446199474, 1832304547, 2301777585, 2868718404
a(n) = 3*a(n-1)+a(n-2)-10*a(n-3)+3*a(n-4)+13*a(n-5)-3*a(n-6)-12*a(n-7)-3*a(n-8)+13*a(n-9)+3*a(n-10)-10*a(n-11)+a(n-12)+3*a(n-13)-a(n-14).
[A290940] 0, 0, 16, 920, 7800, 36260, 122080, 334656, 794640, 1696200, 3334320, 6137560, 10706696, 17859660, 28683200, 44591680, 67393440, 99365136, 143334480, 202771800, 281890840, 385759220, 520418976, 693017600, 911950000, 1187011800, 1529564400, 1952712216, 2471492520
a(n) = 2*binomial(n, 4) (n^3 + 27*n^2 - 220*n + 392).
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
[A272358] 0, 16, 4112, 65208, 387424, 1439480, 4068096, 9611392, 20012288, 37931904, 66862960, 111243176, 176568672, 269507368, 398012384, 571435440, 800640256, 1098115952, 1478090448, 1956643864, 2551821920, 3283749336, 4174743232, 5249426528, 6534841344, 8060562400
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6), for n>5.
[A241847] 17, 18, 21, 26, 33, 42, 53, 66, 81, 98, 117, 138, 161, 186, 213, 242, 273, 306, 341, 378, 417, 458, 501, 546, 593, 642, 693, 746, 801, 858, 917, 978, 1041, 1106, 1173, 1242, 1313, 1386, 1461, 1538, 1617, 1698, 1781, 1866, 1953, 2042, 2133, 2226, 2321
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A151978] 0, 1, 17, 18, 34, 35, 51, 52, 68, 69, 85, 86, 102, 103, 119, 120, 136, 137, 153, 154, 170, 171, 187, 188, 204, 205, 221, 222, 238, 239, 255, 256, 272, 273, 289, 290, 306, 307, 323, 324, 340, 341, 357, 358, 374, 375, 391, 392, 408, 409, 425, 426, 442, 443, 459, 460, 476
a(n) = (34*n-15*(-1)^n-49)/4.
a(n) = a(n-1)+a(n-2)-a(n-3) = a(n-2)+17.
a(n)+a(n+1) = a(2n). (End)
[A022107] 1, 17, 18, 35, 53, 88, 141, 229, 370, 599, 969, 1568, 2537, 4105, 6642, 10747, 17389, 28136, 45525, 73661, 119186, 192847, 312033, 504880, 816913, 1321793, 2138706, 3460499, 5599205, 9059704, 14658909
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=17. a(-1):=16.
[A140142] 1, 17, 18, 274, 275, 1571, 1572, 5668, 5669, 15669, 15670, 36406, 36407, 74823, 74824, 140360, 140361, 245337, 245338, 405338, 405339, 639595, 639596, 971372, 971373, 1428349, 1428350, 2043006, 2043007, 2853007, 2853008, 3901584, 3901585
a(n)=a(n-1)+{[1-(-1)^n]/2}+{[1+(-1)^n]/2}*n^4, with a(1)=1 a(n)=(1/4)-(1/4)*(-1)^n*n-(1/4)*(-1)^n+(1/2)*(-1)^n*n^3+(1/6)*n^3+(29/60)*n+(1/10)*n^5+(1/4)*(-1)^n *n^4+(1/4)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A041143] 0, 1, 1, 17, 18, 305, 323, 5473, 5796, 98209, 104005, 1762289, 1866294, 31622993, 33489287, 567451585, 600940872, 10182505537, 10783446409, 182717648081, 193501094490, 3278735159921, 3472236254411, 58834515230497, 62306751484908, 1055742538989025
a(n) = 18*a(n-2) - a(n-4).
a(n) = product {k = 1..floor((n-1)/2)} (16 + 4*cos^2(k*Pi/n)).
[A008366] 1, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97, 101, 103, 107, 109, 113, 127, 131, 137, 139, 149, 151, 157, 163, 167, 173, 179, 181, 191, 193, 197, 199, 211, 223, 227, 229, 233, 239, 241, 251, 257, 263, 269, 271, 277, 281, 283
a(n) = a(n-1) + a(n-5760) - a(n-5761). - Vaclav Kotesovec, Mar 18 2016
[A205646] 17, 19, 25, 43, 97, 259, 745, 2203, 6577, 19699, 59065, 177163, 531457, 1594339, 4782985, 14348923, 43046737, 129140179, 387420505, 1162261483, 3486784417, 10460353219, 31381059625, 94143178843, 282429536497, 847288609459, 2541865828345, 7625597485003

a(n) = 3^n + 16.
a(n) = 4*a(n-1)-3*a(n-2). G.f.: -(49*x-17) / ((x-1)*(3*x-1)). - Colin Barker, May 02 2013
[A045803] 17, 19, 31, 33, 117, 119, 131, 133, 217, 219, 231, 233, 317, 319, 331, 333, 417, 419, 431, 433, 517, 519, 531, 533, 617, 619, 631, 633, 717, 719, 731, 733, 817, 819, 831, 833, 917, 919, 931, 933, 1017, 1019, 1031, 1033, 1117, 1119, 1131, 1133, 1217, 1219
a(n) = -75/2 - (23*(-1)^n)/2 - (9-9*i)*(-i)^n - (9+9*i)*i^n + 25*n where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A218864] 0, 1, 17, 20, 52, 57, 105, 112, 176, 185, 265, 276, 372, 385, 497, 512, 640, 657, 801, 820, 980, 1001, 1177, 1200, 1392, 1417, 1625, 1652, 1876, 1905, 2145, 2176, 2432, 2465, 2737, 2772, 3060, 3097, 3401, 3440, 3760, 3801, 4137, 4180, 4532, 4577, 4945, 4992
a(n) = (18*n*(n-1)-7*(-1)^n*(2*n-1)-7)/8. [Bruno Berselli, Nov 13 2012]
[A069961] 1, 17, 20, 73, 169, 464, 1193, 3145, 8212, 21521, 56321, 147472, 386065, 1010753, 2646164, 6927769, 18137113, 47483600, 124313657, 325457401, 852058516, 2230718177, 5840095985, 15289569808, 40028613409, 104796270449, 274360197908, 718284323305, 1880492771977
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3). G.f.: -(x-1)*(16*x+1) / ((x+1)*(x^2-3*x+1)). - Colin Barker, Jun 14 2013
a(n) = (2^(-1-n)*(-15*(-1)^n*2^(2+n)-(3-sqrt(5))^n*(-35+sqrt(5))+(3+sqrt(5))^n*(35+sqrt(5))))/5. - Colin Barker, Oct 01 2016
[A140146] 1, 17, 20, 276, 281, 1577, 1584, 5680, 5689, 15689, 15700, 36436, 36449, 74865, 74880, 140416, 140433, 245409, 245428, 405428, 405449, 639705, 639728, 971504, 971529, 1428505, 1428532, 2043188, 2043217, 2853217, 2853248, 3901824, 3901857
a(n)=a(n-1)+{[1-(-1)^n]/2}*n+{[1+(-1)^n]/2}*n^4, with a(1)=1 a(n)=(1/8)-(1/2)*(-1)^n*n-(1/8)*(-1)^n+(1/2)*(-1)^n*n^3+(1/6)*n^3+(1/4)*n^2+(7/30)*n+(1/10)*
-1)^n*n^4+(1/4)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A259555] 17, 21, 29, 41, 57, 77, 101, 129, 161, 197, 237, 281, 329, 381, 437, 497, 561, 629, 701, 777, 857, 941, 1029, 1121, 1217, 1317, 1421, 1529, 1641, 1757, 1877, 2001, 2129, 2261, 2397, 2537, 2681, 2829, 2981, 3137, 3297, 3461, 3629, 3801, 3977, 4157, 4341, 4529
a(n) = 2*n^2 - 2*n + 17.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Colin Barker, Jul 01 2015
[A219396] 0, 17, 21, 72, 80, 165, 177, 296, 312, 465, 485, 672, 696, 917, 945, 1200, 1232, 1521, 1557, 1880, 1920, 2277, 2321, 2712, 2760, 3185, 3237, 3696, 3752, 4245, 4305, 4832, 4896, 5457, 5525, 6120, 6192, 6821, 6897, 7560, 7640, 8337, 8421, 9152, 9240
a(n) = a(-n+1) = (38*n*(n-1) + 15*(-1)^n*(2*n - 1)-1)/8 + 2.
[A156567] 17, 23, 37, 65, 115, 205, 373, 667, 1193, 2173, 3887, 6953, 12665, 22655, 40525, 73817, 132043, 236197, 430237, 769603, 1376657, 2507605, 4485575, 8023745, 14615393, 26143847, 46765813, 85184753, 152377507, 272571133, 496493125
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=17, a(2)=23, a(3)=37, a(4)=65, a(5)=115, a(6)=205.
[A267984] 17, 23, 47, 53, 77, 83, 107, 113, 137, 143, 167, 173, 197, 203, 227, 233, 257, 263, 287, 293, 317, 323, 347, 353, 377, 383, 407, 413, 437, 443, 467, 473, 497, 503, 527, 533, 557, 563, 587, 593, 617, 623, 647, 653, 677, 683, 707, 713, 737, 743, 767, 773
a(n) = a(n-1) + a(n-2) - a(n-3), n >= 4.
a(n) = a(n-2) + 30.
a(n) = 10*(3*n - 2) - a(n-1).
a(n) = (30*n - 9*(-1)^n - 5)/2 for n>0.
a(n) = 15*n - 7 for n>0 and even.
a(n) = 15*n + 2 for n odd.
[A214493] 17, 23, 65, 89, 149, 191, 269, 329, 425, 503, 617, 713, 845, 959, 1109, 1241, 1409, 1559, 1745, 1913, 2117, 2303, 2525, 2729, 2969, 3191, 3449, 3689, 3965, 4223, 4517, 4793, 5105, 5399, 5729, 6041, 6389, 6719, 7085, 7433, 7817, 8183, 8585, 8969, 9389, 9791, 10229, 10649, 11105, 11543, 12017, 12473, 12965, 13439, 13949
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).
a(n) = (6*n*(3*n+10)+27*(-1)^n+41)/4.
[A231963] 17, 24, 31, 48, 55, 62, 79, 86, 93, 109, 116, 123, 130, 147, 154, 161, 178, 185, 192, 208, 215, 222, 239, 246, 253, 260, 277, 284, 291, 307, 314, 321, 338, 345, 352, 369, 376, 383, 390, 406, 413, 420, 437, 444, 451, 468, 475, 482, 499, 505, 512, 529, 536, 543, 550, 567, 574, 581
a(n) = 10n + c(n), where c(n) = -((sum(i = 1 .. floor(L/2), d(2i - 1)) + 3(sum(j = 0 .. floor(L/2), d(2j)))) mod 10, where L is how many digits n has, d(L - 1) is the most significant digit of n, ..., and d(0) is the one's place digit.
[A158803] 17, 24, 58, 65, 99, 106, 140, 147, 181, 188, 222, 229, 263, 270, 304, 311, 345, 352, 386, 393, 427, 434, 468, 475, 509, 516, 550, 557, 591, 598, 632, 639, 673, 680, 714, 721, 755, 762, 796, 803, 837, 844, 878, 885, 919, 926, 960, 967, 1001, 1008, 1042, 1049
a(n) = a(n-1)+a(n-2)-a(n-3).
a(n) = (1/4)*(41+27*(-1)^(n-1)+82*(n-1)).
[A154277] 17, 26, 197, 530, 1025, 1682, 2501, 3482, 4625, 5930, 7397, 9026, 10817, 12770, 14885, 17162, 19601, 22202, 24965, 27890, 30977, 34226, 37637, 41210, 44945, 48842, 52901, 57122, 61505, 66050, 70757, 75626, 80657, 85850, 91205, 96722
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Feb 02 2012
[A140150] 1, 17, 26, 282, 307, 1603, 1652, 5748, 5829, 15829, 15950, 36686, 36855, 75271, 75496, 141032, 141321, 246297, 246658, 406658, 407099, 641355, 641884, 973660, 974285, 1431261, 1431990, 2046646, 2047487, 2857487, 2858448, 3907024, 3908113
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^2+{[1+(-1)^n]/2}*n^4, with a(1)=1 a(n)= -(1/2)*(-1)^n*n+(1/2)*(-1)^n*n^3+(1/3)*n^3-(1/4)*(-
1)^n*n^2+(1/4)*n^2+(1/15)*n+(1/10)*n^5+(1/4) *(-1)^n*n^4+(1/4)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A032611] 17, 28, 39, 410, 511, 612, 713, 814, 915, 1016, 1117, 1218, 1319, 1420, 1521, 1622, 1723, 1824, 1925, 2026, 2127, 2228, 2329, 2430, 2531, 2632, 2733, 2834, 2935, 3036, 3137, 3238, 3339, 3440, 3541, 3642, 3743, 3844, 3945, 4046, 4147, 4248
a(n)=n*10^floor(log10(n+6)+1)+n+6, with n>=0 [From Paolo P. Lava, Oct 09 2008]
[A069755] 17, 29, 89, 125, 251, 323, 539, 659, 989, 1169, 1637, 1889, 2519, 2855, 3671, 4103, 5129, 5669, 6929, 7589, 9107, 9899, 11699, 12635, 14741, 15833, 18269, 19529, 22319, 23759, 26927, 28559, 32129, 33965, 37961, 40013, 44459, 46739, 51659
a(n) = (-14 + 6*(-1)^n + (3+9*(-1)^n)*n + 3*(5+(-1)^n)*n^2 + 6*n^3)/8.
a(n) = (6*n^3 + 18*n^2 + 12*n - 8)/8 for n even.
a(n) = (6*n^3 + 12*n^2 - 6*n - 20)/8 for n odd. (End)
[A267781] 17, 31, 47, 61, 107, 137, 151, 167, 181, 197, 211, 227, 241, 257, 271, 287, 301, 317, 331, 347, 361, 377, 391, 407, 421, 437, 451, 467, 481, 497, 511, 527, 541, 557, 571, 587, 601, 617, 631, 647, 661, 677, 691, 707, 721, 737, 751, 767, 781, 797, 811, 827, 841, 857, 871, 887, 901, 917, 931, 947, 961, 977, 991, 1007
a(n) = (30*n-(-1)^n+123)/2 for n>4. - Colin Barker, Jan 21 2016
[A158057] 1, 17, 33, 49, 65, 81, 97, 113, 129, 145, 161, 177, 193, 209, 225, 241, 257, 273, 289, 305, 321, 337, 353, 369, 385, 401, 417, 433, 449, 465, 481, 497, 513, 529, 545, 561, 577, 593, 609, 625, 641, 657, 673, 689, 705, 721, 737, 753, 769, 785, 801, 817, 833, 849
a(n) = 16*n + 1.
a(n) = 2*a(n-1)-a(n-2), a(0) = 1, a(1) = 17.
[A249356] 1, 17, 33, 49, 65, 97, 129, 161, 193, 241, 289, 337, 385, 449, 513, 577, 641, 721, 801, 881, 961, 1057, 1153, 1249, 1345, 1457, 1569, 1681, 1793, 1921, 2049, 2177, 2305, 2449, 2593, 2737, 2881, 3041, 3201, 3361, 3521, 3697, 3873, 4049, 4225, 4417, 4609, 4801
a(n) = 2*n*(n+2)+(-1)^n-4*sin((Pi*n)/2).
a(n) = 2*a(n-1) - a(n-2) + 16 if n == 2 mod 4, a(n) = 2*a(n-1) - a(n-2) otherwise. - Robert Israel, Nov 04 2014
a(n) = 2*n*(n+2) - (1-(-1)^n)*(1-2*i^(n+1)) + 1, where i=sqrt(-1). - Bruno Berselli, Nov 18 2014
[A008599] 0, 17, 34, 51, 68, 85, 102, 119, 136, 153, 170, 187, 204, 221, 238, 255, 272, 289, 306, 323, 340, 357, 374, 391, 408, 425, 442, 459, 476, 493, 510, 527, 544, 561, 578, 595, 612, 629, 646, 663, 680, 697, 714, 731, 748, 765, 782, 799, 816, 833, 850, 867, 884
a(n) = 17*n = 2*a(n-1) - a(n-2). G.f.: 17x/(x-1)^2. - Vincenzo Librandi, Dec 24 2010
[A249988] 0, 17, 34, 52, 69, 87, 104, 121, 139, 156, 173, 190, 207, 224, 241, 258, 275, 292, 309, 325, 342, 358, 374, 390, 406, 422, 438, 453, 469, 484, 500, 515, 529, 544, 559, 573, 587, 601, 615, 629, 642, 656, 669, 681, 694, 707, 719, 731, 743, 754, 766, 777, 788, 798, 809, 819, 829, 838, 848, 857, 866
a(n) = round(1000*sin(pi*n/180)), where round() is the rounding towards zero function.
a(360+n) = a(n).
a(180+n) = -a(n).
[A110287] 17, 34, 68, 136, 272, 544, 1088, 2176, 4352, 8704, 17408, 34816, 69632, 139264, 278528, 557056, 1114112, 2228224, 4456448, 8912896, 17825792, 35651584, 71303168, 142606336, 285212672, 570425344, 1140850688, 2281701376, 4563402752, 9126805504, 18253611008

a(n)=2*a(n-1) (with a(0)=17). - Vincenzo Librandi, Dec 26 2010
[A239129] 17, 35, 53, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 269, 287, 305, 323, 341, 359, 377, 395, 413, 431, 449, 467, 485, 503, 521, 539, 557, 575, 593, 611, 629, 647, 665, 683, 701, 719, 737, 755, 773, 791, 809, 827, 845, 863, 881
a(n) = 18*n - 1 for n >= 1.
[A212427] 0, 17, 35, 54, 74, 95, 117, 140, 164, 189, 215, 242, 270, 299, 329, 360, 392, 425, 459, 494, 530, 567, 605, 644, 684, 725, 767, 810, 854, 899, 945, 992, 1040, 1089, 1139, 1190, 1242, 1295, 1349, 1404, 1460, 1517, 1575, 1634, 1694, 1755, 1817, 1880, 1944, 2009
a(n) = (16+n)*(17+n)/2 - 16*17/2 = 17*n + (n-1)*n/2 = n*(n+33)/2.
a(n) = 17n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A195047] 0, 1, 17, 35, 68, 103, 153, 205, 272, 341, 425, 511, 612, 715, 833, 953, 1088, 1225, 1377, 1531, 1700, 1871, 2057, 2245, 2448, 2653, 2873, 3095, 3332, 3571, 3825, 4081, 4352, 4625, 4913, 5203, 5508, 5815, 6137, 6461, 6800, 7141, 7497, 7855, 8228, 8603, 8993
a(n) = 17*n^2/4+13*((-1)^n-1)/8.
[A098849] 0, 17, 36, 57, 80, 105, 132, 161, 192, 225, 260, 297, 336, 377, 420, 465, 512, 561, 612, 665, 720, 777, 836, 897, 960, 1025, 1092, 1161, 1232, 1305, 1380, 1457, 1536, 1617, 1700, 1785, 1872, 1961, 2052, 2145, 2240, 2337, 2436, 2537, 2640, 2745, 2852, 2961
a(n) = (n+8)^2 - 8^2 = n*(n + 16), n>=0.
a(n) = a(n-1) + 2*n + 15 (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A161549] 1, 17, 37, 61, 89, 121, 157, 197, 241, 289, 341, 397, 457, 521, 589, 661, 737, 817, 901, 989, 1081, 1177, 1277, 1381, 1489, 1601, 1717, 1837, 1961, 2089, 2221, 2357, 2497, 2641, 2789, 2941, 3097, 3257, 3421, 3589, 3761, 3937, 4117, 4301, 4489, 4681
a(n) = a(n-1) + 4*n + 12 (with a(0)=1). - Vincenzo Librandi, Nov 30 2010
[A269788] 17, 37, 61, 89, 157, 197, 241, 397, 457, 521, 661, 1277, 1381, 1489, 1601, 2089, 2221, 2357, 2789, 3257, 3761, 4877, 5077, 5281, 5701, 6361, 7057, 7297, 7541, 7789, 8297, 8821, 10781, 11681, 12301, 13921, 15289, 15641, 17837, 18217, 19381, 19777, 20177, 21401
a(1) = 17 because 2*17 + 47 = 81, which is a square.
[A139579] 0, 17, 38, 63, 92, 125, 162, 203, 248, 297, 350, 407, 468, 533, 602, 675, 752, 833, 918, 1007, 1100, 1197, 1298, 1403, 1512, 1625, 1742, 1863, 1988, 2117, 2250, 2387, 2528, 2673, 2822, 2975, 3132, 3293, 3458, 3627, 3800, 3977, 4158
a(n) = a(n-1) + 4*n + 13 (with a(0)=0). - _ Vincenzo Librandi_, Nov 24 2010
[A140679] 0, 17, 40, 69, 104, 145, 192, 245, 304, 369, 440, 517, 600, 689, 784, 885, 992, 1105, 1224, 1349, 1480, 1617, 1760, 1909, 2064, 2225, 2392, 2565, 2744, 2929, 3120, 3317, 3520, 3729, 3944, 4165, 4392, 4625, 4864, 5109, 5360, 5617
a(n) = 3*n^2 + 14*n.
a(n) = a(n-1) + 6*n + 11, with a(0)=0. - Vincenzo Librandi, Aug 03 2010
a(n) = 3a(n-1) - 3a(n-2) + a(n-3), with a(1)=0, a(2)=17, a(3)=40. - Harvey P. Dale, Apr 29 2011
[A166147] 1, 17, 41, 73, 113, 161, 217, 281, 353, 433, 521, 617, 721, 833, 953, 1081, 1217, 1361, 1513, 1673, 1841, 2017, 2201, 2393, 2593, 2801, 3017, 3241, 3473, 3713, 3961, 4217, 4481, 4753, 5033, 5321, 5617, 5921, 6233, 6553, 6881, 7217, 7561, 7913, 8273, 8641
a(n) = a(n-1)+8*n with n>1, a(1)=1.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). (End)
[A118587] 17, 43, 47, 131, 397, 947, 1883, 3307, 5321, 8027, 11527, 15923, 21317, 27811, 35507, 44507, 54913, 66827, 80351, 95587, 112637, 131603, 152587, 175691, 201017, 228667, 258743, 291347, 326581, 364547, 405347, 449083, 495857, 545771, 598927
a(n) = 17*n^3-62*n^2+71*n+17.
[A172044] 1, 17, 43, 79, 125, 181, 247, 323, 409, 505, 611, 727, 853, 989, 1135, 1291, 1457, 1633, 1819, 2015, 2221, 2437, 2663, 2899, 3145, 3401, 3667, 3943, 4229, 4525, 4831, 5147, 5473, 5809, 6155, 6511, 6877, 7253, 7639, 8035, 8441, 8857, 9283, 9719, 10165
a(n)= +3*a(n-1) -3*a(n-2) +a(n-3). G.f.: (-1-14*x+5*x^2)/(x-1)^3. - R. J. Mathar, Jan 04 2011
[A227721] 17, 44, 83, 134, 197, 272, 359, 458, 569, 692, 827, 974, 1133, 1304, 1487, 1682, 1889, 2108, 2339, 2582, 2837, 3104, 3383, 3674, 3977, 4292, 4619, 4958, 5309, 5672, 6047, 6434, 6833, 7244, 7667, 8102, 8549, 9008, 9479, 9962, 10457, 10964, 11483, 12014, 12557
a(n) = 2 + 9*n + 6*n^2 (conjectured).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) (conjectured).
[A140155] 1, 17, 44, 300, 425, 1721, 2064, 6160, 6889, 16889, 18220, 38956, 41153, 79569, 82944, 148480, 153393, 258369, 265228, 425228, 434489, 668745, 680912, 1012688, 1028313, 1485289, 1504972, 2119628, 2144017, 2954017, 2983808, 4032384
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^3+{[1+(-1)^n]/2}*n^4, with a(1)=1 a(n)= (-1/16)-(1/4)*(-1)^n*n+(1/16)*(-1)^n+(1/4)*(-1)^n*n^3+(5/12)*n^3-(3/8)*(-1)^n*n^2+(1/8)*n^2-(1 /60)*n+(1/10)*n^5+(1/4)*(-1)^n*n^4+(3/8)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A051869] 0, 1, 17, 48, 94, 155, 231, 322, 428, 549, 685, 836, 1002, 1183, 1379, 1590, 1816, 2057, 2313, 2584, 2870, 3171, 3487, 3818, 4164, 4525, 4901, 5292, 5698, 6119, 6555, 7006, 7472, 7953, 8449, 8960, 9486, 10027, 10583, 11154, 11740, 12341
a(n) = 15*n+a(n-1)-14 with n>0, a(0)=0. - Vincenzo Librandi, Aug 06 2010
a(15*a(n)+106*n+1) = a(15*a(n)+106*n) + a(15*n+1). - Vladimir Shevelev, Jan 24 2014
[A069129] 1, 17, 49, 97, 161, 241, 337, 449, 577, 721, 881, 1057, 1249, 1457, 1681, 1921, 2177, 2449, 2737, 3041, 3361, 3697, 4049, 4417, 4801, 5201, 5617, 6049, 6497, 6961, 7441, 7937, 8449, 8977, 9521, 10081, 10657, 11249, 11857, 12481, 13121, 13777, 14449
a(n) = 8*n^2 - 8*n + 1.
a(n) = 16*n + a(n-1) - 16 with n>1, a(1)=1. - Vincenzo Librandi, Aug 08 2010
[A005570] 17, 50, 99, 164, 245, 342, 455, 584, 729, 890, 1067, 1260, 1469, 1694, 1935, 2192, 2465, 2754, 3059, 3380, 3717, 4070, 4439, 4824, 5225, 5642, 6075, 6524, 6989, 7470, 7967, 8480, 9009, 9554, 10115, 10692, 11285
a(n) = 8*n^2 + 9*n.
[A195037] 0, 17, 51, 102, 170, 255, 357, 476, 612, 765, 935, 1122, 1326, 1547, 1785, 2040, 2312, 2601, 2907, 3230, 3570, 3927, 4301, 4692, 5100, 5525, 5967, 6426, 6902, 7395, 7905, 8432, 8976, 9537, 10115, 10710, 11322, 11951, 12597, 13260, 13940, 14637, 15351, 16082, 16830
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
a(n) = Sum_{i=8n..9n} i. (End)
[A258598] 17, 51, 153, 459, 1377, 4131, 12393, 37179, 111537, 334611, 1003833, 3011499, 9034497, 27103491, 81310473, 243931419, 731794257, 2195382771, 6586148313, 19758444939, 59275334817, 177826004451, 533478013353, 1600434040059, 4801302120177, 14403906360531
a(n) = 3*a(n-1).
[A042295] 1, 1, 17, 52, 277, 606, 2095, 2701, 4796, 31477, 36273, 212842, 249115, 461957, 711072, 1173029, 1884101, 3057130, 4941231, 7998361, 44933036, 52931397, 362521418, 415452815, 777974233, 2749375514, 6276725261, 34133001819, 108675730718, 1772944693307
a(n) = 97626910587864*a(n-31) + a(n-62) for n>61. - Vincenzo Librandi, Jan 19 2014
[A180456] 17, 53, 109, 157, 173, 193, 227, 229, 281, 349, 439, 607, 659, 701, 709, 827, 883, 977, 1153, 1187, 1301, 1619, 1667, 1867, 2207, 2281, 2287, 2293, 2339, 2671, 2819, 2843, 3001, 3067, 3313, 3457, 3461, 3539, 3673, 3727, 3833, 3943, 4013, 4051, 4517, 4951
a(n)=[p(n-3)+p(n-2)+p(n-1)+p(n)+p(n+1)+p(n+2)+p(n+3)]/7
[A072895] 17, 54, 110, 186, 281, 396, 532, 686, 861, 1055, 1269, 1503, 1757, 2030, 2323, 2636, 2968, 3320, 3692, 4084, 4495, 4927, 5377, 5848, 6338, 6849, 7378, 7928, 8497, 9087, 9695, 10324, 10972, 11640, 12328, 13036, 13763, 14510, 15277, 16063, 16869
a(n) = k means k is the least integer such that Sum_{i=1..k} arctan(1/sqrt(i)) > 2n*Pi.
[A048508] 1, 17, 58, 160, 408, 1000, 2392, 5624, 13048, 29944, 68088, 153592, 344056, 765944, 1695736, 3735544, 8191992, 17891320, 38928376, 84410360, 182452216, 393215992, 845152248, 1811939320, 3875536888, 8271167480, 17616076792
a(n) = (n+4)*(n+9) * 2^(n-2) - 8. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Feb 25 2015
[A104165] 17, 59, 101, 311, 353, 479, 521, 941, 983, 1109, 1361, 1571, 1613, 1823, 1949, 2243, 2663, 2789, 2999, 3083, 3251, 3671, 3881, 4133, 4259, 4931, 5939, 5981, 6569, 6653, 7283, 7451, 7829, 8039, 8081, 8543, 8669, 9173, 9551, 9719, 9803, 9929, 10139
a(n) = If (7*Prime[n]-1)/2 is prime, then a[m]=(7*Prime[n]-1)/2
[A195025] 0, 17, 62, 135, 236, 365, 522, 707, 920, 1161, 1430, 1727, 2052, 2405, 2786, 3195, 3632, 4097, 4590, 5111, 5660, 6237, 6842, 7475, 8136, 8825, 9542, 10287, 11060, 11861, 12690, 13547, 14432, 15345, 16286, 17255, 18252, 19277, 20330, 21411, 22520

a(n) = 14*n^2 + 3*n.
[A172076] 0, 1, 17, 62, 150, 295, 511, 812, 1212, 1725, 2365, 3146, 4082, 5187, 6475, 7960, 9656, 11577, 13737, 16150, 18830, 21791, 25047, 28612, 32500, 36725, 41301, 46242, 51562, 57275, 63395, 69936, 76912, 84337, 92225, 100590, 109446, 118807, 128687
a(n) = Sum_{i=0..n-1} (n-i)*(14*i+1), with a(0)=0. [Bruno Berselli, Feb 10 2014]
[A130885] 1, 17, 65, 163, 329, 581, 937, 1415, 2033, 2809, 3761, 4907, 6265, 7853, 9689, 11791, 14177, 16865, 19873, 23219, 26921, 30997, 35465, 40343, 45649, 51401, 57617, 64315, 71513, 79229, 87481, 96287, 105665, 115633, 126209, 137411
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Feb 12 2013
[A157474] 17, 66, 147, 260, 405, 582, 791, 1032, 1305, 1610, 1947, 2316, 2717, 3150, 3615, 4112, 4641, 5202, 5795, 6420, 7077, 7766, 8487, 9240, 10025, 10842, 11691, 12572, 13485, 14430, 15407, 16416, 17457, 18530, 19635, 20772, 21941, 23142, 24375, 25640
a(1)=17, a(2)=66, a(3)=147, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Nov 08 2011
[A024215] 1, 17, 66, 166, 335, 591, 952, 1436, 2061, 2845, 3806, 4962, 6331, 7931, 9780, 11896, 14297, 17001, 20026, 23390, 27111, 31207, 35696, 40596, 45925, 51701, 57942, 64666, 71891, 79635, 87916, 96752, 106161, 116161, 126770, 138006, 149887, 162431, 175656, 189580
a(n) = n*(6*n^2-3*n-1)/2.
[A244630] 0, 17, 68, 153, 272, 425, 612, 833, 1088, 1377, 1700, 2057, 2448, 2873, 3332, 3825, 4352, 4913, 5508, 6137, 6800, 7497, 8228, 8993, 9792, 10625, 11492, 12393, 13328, 14297, 15300, 16337, 17408, 18513, 19652, 20825, 22032, 23273, 24548, 25857, 27200
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.
[A157910] 17, 71, 161, 287, 449, 647, 881, 1151, 1457, 1799, 2177, 2591, 3041, 3527, 4049, 4607, 5201, 5831, 6497, 7199, 7937, 8711, 9521, 10367, 11249, 12167, 13121, 14111, 15137, 16199, 17297, 18431, 19601, 20807, 22049, 23327, 24641, 25991, 27377, 28799
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 08 2012
[A130748] 17, 72, 190, 395, 711, 1162, 1772, 2565, 3565, 4796, 6282, 8047, 10115, 12510, 15256, 18377, 21897, 25840, 30230, 35091, 40447, 46322, 52740, 59725, 67301, 75492, 84322, 93815, 103995, 114886, 126512, 138897, 152065, 166040, 180846, 196507, 213047, 230490
a(n) = C(3*(n+1), 3) - 3*C(n+2, 3) where n>0.
a(n) = (8n^3 + 15n^2 + 9n + 2)/2 Charles R Greathouse IV, Feb 14 2013
[A172045] 0, 1, 17, 80, 240, 565, 1141, 2072, 3480, 5505, 8305, 12056, 16952, 23205, 31045, 40720, 52496, 66657, 83505, 103360, 126560, 153461, 184437, 219880, 260200, 305825, 357201, 414792, 479080, 550565, 629765, 717216, 813472, 919105, 1034705
a(n) = n*(n+1)*(9*n^2+n-4)/12. - Bruno Berselli, Apr 21 2010
[A065960] 1, 17, 82, 272, 626, 1394, 2402, 4352, 6642, 10642, 14642, 22304, 28562, 40834, 51332, 69632, 83522, 112914, 130322, 170272, 196964, 248914, 279842, 356864, 391250, 485554, 538002, 653344, 707282, 872644, 923522, 1114112, 1200644
a(n) = n^4*sum(d|n, mu(d)^2/d^4). - Benoit Cloitre, Apr 07 2002
[A294288] 0, 0, 17, 82, 354, 898, 2275, 4420, 8772, 14708, 25333, 38678, 60710, 86870, 127687, 174216, 243848, 320808, 432345, 552666, 722666, 902506, 1151403, 1410508, 1763020, 2125084, 2610621, 3103646, 3756718, 4413374, 5273999, 6131984, 7246096, 8348496, 9768353
a(n) = Sum_{i=1..floor((n-1)/2)} i^4 + (n-i)^4.
a(n) = (1/480)*(n*(-16 + 160*n^2 - 15*(17 + (-1)^n)*n^3 + 96*n^4)).
a(n) = a(n-1) + 5*a(n-2) - 5*a(n-3) - 10*a(n-4) + 10*a(n-5) + 10*a(n-6) - 10*a(n-7) - 5*a(n-8) + 5*a(n-9) + a(n-10) - a(n-11) for n>11.
[A193046] 1, 1, 17, 83, 275, 727, 1673, 3505, 6873, 12843, 23155, 40639, 69889, 118353, 198097, 328659, 541667, 888311, 1451433, 2365089, 3846201, 6245771, 10131747, 16423103, 26606785, 43088737, 69761873, 112925075, 182770163, 295787863
a(n) = 5*a(n-1)-9*a(n-2)+6*a(n-3)+a(n-4)-3*a(n-5)+a(n-6).
[A213436] 1, 17, 84, 260, 625, 1281, 2352, 3984, 6345, 9625, 14036, 19812, 27209, 36505, 48000, 62016, 78897, 99009, 122740, 150500, 182721, 219857, 262384, 310800, 365625, 427401, 496692, 574084, 660185, 755625, 861056, 977152, 1104609
a(n) = (11*n^4 + 6*n^3 - 5*n^2)/12.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A080770] 17, 86, 157, 260, 401, 586, 821, 1112, 1465, 1886, 2381, 2956, 3617, 4370, 5221, 6176, 7241, 8422, 9725, 11156, 12721, 14426, 16277, 18280, 20441, 22766, 25261, 27932, 30785, 33826, 37061, 40496, 44137, 47990, 52061, 56356, 60881, 65642, 70645
a(1)=17 n>1 a(n)=n^3+7*n^2+17*n+16
[A061679] 17, 87, 277, 647, 1257, 2167, 3437, 5127, 7297, 10007, 13317, 17287, 21977, 27447, 33757, 40967, 49137, 58327, 68597, 80007, 92617, 106487, 121677, 138247, 156257, 175767, 196837, 219527, 243897, 270007
a(n) = 10 * n^3 + 7.
[A271567] 1, 17, 87, 287, 742, 1638, 3234, 5874, 9999, 16159, 25025, 37401, 54236, 76636, 105876, 143412, 190893, 250173, 323323, 412643, 520674, 650210, 804310, 986310, 1199835, 1448811, 1737477, 2070397, 2452472, 2888952, 3385448, 3947944, 4582809, 5296809, 6097119
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
a(n) = (n + 1)*(n + 2)*(n + 3)*(n + 4)*(12*n + 5)/120.
[A213574] 1, 17, 93, 349, 1093, 3093, 8221, 20957, 51861, 125509, 298477, 699789, 1621285, 3718325, 8453181, 19069885, 42728245, 95156901, 210762253, 464517485, 1019214021, 2227173397, 4848613213, 10519312029, 22749902293, 49056576773, 105495131181, 226291086157
a(n) = 9*a(n-1) - 33*a(n-2) + 63*a(n-3) - 66*a(n-4) + 36*a(n-5) - 8*a(n-6).
a(n) = (-3 - 4*n - 4*n^2 + 2^n*(3+2*n+n^2)). - Colin Barker, Oct 30 2017
[A081593] 1, 17, 97, 241, 449, 721, 1057, 1457, 1921, 2449, 3041, 3697, 4417, 5201, 6049, 6961, 7937, 8977, 10081, 11249, 12481, 13777, 15137, 16561, 18049, 19601, 21217, 22897, 24641, 26449, 28321, 30257, 32257, 34321, 36449, 38641, 40897, 43217, 45601
a(n) = 1-16*n+32*n^2.
[A008514] 1, 17, 97, 337, 881, 1921, 3697, 6497, 10657, 16561, 24641, 35377, 49297, 66977, 89041, 116161, 149057, 188497, 235297, 290321, 354481, 428737, 514097, 611617, 722401, 847601, 988417, 1146097
a(n) = 2*n^4 + 4*n^3 + 6*n^2 + 4*n + 1. - Al Hakanson (hawkuu(AT)gmail.com), May 27 2009, corrected R. J. Mathar, May 29 2009
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), with a(0) = 1, a(1) = 17, a(2) = 97, a(3) = 337, a(4) = 881. - Harvey P. Dale, Jan 28 2013
a(n) = 4*(n+n^2) + 2*(n+n^2)^2 + 1. - Avi Friedlich, Mar 31 2015
[A253707] 17, 98, 291, 644, 1205, 2022, 3143, 4616, 6489, 8810, 11627, 14988, 18941, 23534, 28815, 34832, 41633, 49266, 57779, 67220, 77637, 89078, 101591, 115224, 130025, 146042, 163323, 181916, 201869, 223230, 246047, 270368, 296241, 323714, 352835, 383652, 416213
a(n) = n(8n(n+1)+1).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Jan 10 2015
[A000538] 0, 1, 17, 98, 354, 979, 2275, 4676, 8772, 15333, 25333, 39974, 60710, 89271, 127687, 178312, 243848, 327369, 432345, 562666, 722666, 917147, 1151403, 1431244, 1763020, 2153645, 2610621, 3142062, 3756718, 4463999, 5273999, 6197520, 7246096, 8432017, 9768353
a(n) = n*(1+n)*(1+2*n)*(-1+3*n+3*n^2)/30.
a(n) = 5*a(n-1) - 10* a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) + 24. - Ant King, Sep 23 2013
a(n) = -Sum_{j=1..4} j*s(n+1,n+1-j)*S(n+4-j,n), where s(n,k) and S(n,k) are the Stirling numbers of the first kind and the second kind, respectively. - Mircea Merca, Jan 25 2014
a(n) = (n + 1)*(n + 1/2)*n*(n + 1/2 + sqrt(7/12))*(n + 1/2 - sqrt(7/12))/5, see the Graham et al. reference, p. 275. - Wolfdieter Lang, Apr 02 2015
[A257449] 1, 17, 99, 373, 1115, 2901, 6907, 15509, 33483, 70405, 145451, 296997, 601819, 1213493, 2439195, 4893301, 9804587, 19630629, 39286603, 78602885, 157240251, 314520277, 629086139, 1258224213, 2516507275, 5033080901, 10066236267, 20132555749, 40265204123
a(n) = 6*a(n-1) -14*a(n-2) +16*a(n-3) -9*a(n-4) +2*a(n-5) for n>5.
[A160767] 1, 17, 103, 367, 971, 2131, 4117, 7253, 11917, 18541, 27611, 39667, 55303, 75167, 99961, 130441, 167417, 211753, 264367, 326231, 398371, 481867, 577853, 687517, 812101, 952901, 1111267, 1288603, 1486367, 1706071, 1949281, 2217617, 2512753
a(n) = 9*n^4/4 +9*n^3/2 +23*n^2/4 +7*n/2 +1. - R. J. Mathar, Sep 11 2011
a(0)=1, a(1)=17, a(2)=103, a(3)=367, a(4)=971, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Feb 28 2015
[A194131] 0, 0, 1, 17, 105, 407, 1216, 3036, 6696, 13428, 25005, 43861, 73277, 117471, 181880, 273268, 399960, 572076, 801825, 1103625, 1494541, 1994387, 2626152, 3416300, 4395148, 5596992, 7060737, 8830137, 10954197, 13487527, 16490972, 20031672
a(n) = ((n^2+n+2)/2) * binomial(n+2,4) - (3/2) * Sum_{k=2..n} (n-k+1) * (n-k+2) * Sum_{m=2..k} gcd(k-1,m-1). - David Bevan, Jan 01 2012

[A135400] 1, 17, 108, 382, 995, 2151, 4102, 7148, 11637, 17965, 26576, 37962, 52663, 71267, 94410, 122776, 157097, 198153, 246772, 303830, 370251, 447007, 535118, 635652, 749725, 878501, 1023192, 1185058, 1365407, 1565595
a(1)=1, a(2)=17, a(3)=108, a(4)=382, a(5)=995, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Harvey P. Dale, May 25 2012
[A108649] 1, 17, 111, 457, 1428, 3710, 8442, 17382, 33099, 59191, 100529, 163527, 256438, 389676, 576164, 831708, 1175397, 1630029, 2222563, 2984597, 3952872, 5169802, 6684030, 8551010, 10833615, 13602771, 16938117, 20928691, 25673642, 31282968
a(0)=1, a(1)=17, a(2)=111, a(3)=457, a(4)=1428, a(5)=3710, a(6)=8442, a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Harvey P. Dale, Jul 01 2012
[A086020] 1, 17, 117, 517, 1742, 4878, 11934, 26334, 53559, 101959, 183755, 316251, 523276, 836876, 1299276, 1965132, 2904093, 4203693, 5972593, 8344193, 11480634, 15577210, 20867210, 27627210, 36182835, 46915011, 60266727, 76750327
a(n) = Sum_(i=1..n) C(i+2, 3)^2.
a(n) = (C(n+3, 4)/35)*(35 +84*C(n-1, 1) +70*C(n-1, 2) +20*C(n-1, 3)).
a(n) = n*(n+1)*(n+2)*(n+3)*(2*n+3)(5*n^2 +15*n +1)/2520. - Emeric Deutsch, Aug 02 2005
[A056117] 1, 17, 117, 525, 1815, 5247, 13299, 30459, 64350, 127270, 238238, 425646, 730626, 1211250, 1947690, 3048474, 4657983, 6965343, 10214875, 14718275, 20868705, 29156985, 40190085, 54712125, 73628100, 98030556, 129229452, 168785452
a(n)=[9n+8]*C(n+7, 7)/8. G.F.(x)=(1+8x)/(1-x)^9.
[A083200] 0, 1, 17, 118, 514, 1681, 4529, 10612, 22380, 43473, 79057, 136202, 224302, 355537, 545377, 813128, 1182520, 1682337, 2347089, 3217726, 4342394, 5777233, 7587217, 9847036, 12642020, 16069105, 20237841, 25271442, 31307878, 38501009, 47021761
a(n) = ((n^7-(n-1)^7)-(n^3-(n-1)^3))/120.
[A274325] 1, 1, 17, 122, 513, 1563, 3889, 8404, 16385, 29525, 50001, 80526, 124417, 185647, 268913, 379688, 524289, 709929, 944785, 1238050, 1600001, 2042051, 2576817, 3218172, 3981313, 4882813, 5940689, 7174454, 8605185, 10255575, 12150001, 14314576, 16777217
a(n) = (3+(-1)^n+2*n^5)/4.
a(n) = 5*a(n-1)-9*a(n-2)+5*a(n-3)+5*a(n-4)-9*a(n-5)+5*a(n-6)-a(n-7) for n>6.
[A108682] 1, 17, 122, 560, 1946, 5586, 13944, 31284, 64515, 124267, 226226, 392756, 654836, 1054340, 1646688, 2503896, 3718053, 5405253, 7710010, 10810184, 14922446, 20308310, 27280760, 36211500, 47538855, 61776351, 79522002, 101468332, 128413160, 161271176, 201086336
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8). - Wesley Ivan Hurt, May 23 2015
[A021003] 0, 1, 17, 123, 514, 1565, 3891, 8407, 16388, 29529, 50005, 80531, 124422, 185653, 268919, 379695, 524296, 709937, 944793, 1238059, 1600010, 2042061, 2576827, 3218183, 3981324, 4882825, 5940701, 7174467, 8605198, 10255589, 12150015
a(0)=0, a(1)=1, a(2)=17, a(3)=123, a(4)=514, a(5)=1565, a(n)=6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Dec 18 2011
a(n) = -a(-n) for all n in Z. - Michael Somos, Jul 11 2017
[A056122] 1, 17, 125, 605, 2255, 7007, 19019, 46475, 104390, 218790, 432718, 814606, 1469650, 2554930, 4299130, 7027834, 11195503, 17425375, 26558675, 39714675, 58363305, 84412185, 120310125, 169169325, 234908700, 322420956, 437766252
a(n) = (362880 + 1308816*n + 1939788*n^2 + 1550548*n^3 + 740313*n^4 + 220416*n^5 + 41202*n^6 + 4692*n^7 + 297*n^8 + 8*n^9)/362880. - Harvey P. Dale, Mar 09 2011
[A036828] 0, 1, 17, 125, 637, 2637, 9549, 31501, 97037, 283661, 795661, 2158605, 5697549, 14696461, 37175309, 92471309, 226689037, 548667405, 1313079309, 3111125005, 7305429005, 17016291341, 39346765837, 90378862605, 206342979597, 468486979597, 1058239676429
a(n) = 2^n*(n^3-3*n^2+9*n-13)+13. - Bruno Berselli, Mar 06 2012
[A244874] 1, 17, 137, 707, 2709, 8417, 22408, 53008, 114251, 228431, 429325, 766167, 1308451, 2151643, 3423880, 5293736, 7979133, 11757477, 16977097, 24070067, 33566489, 46110317, 62476800, 83591624, 110551831, 144648595, 187391933, 240537431, 306115063, 386460183, 484246768
a(n) = (-315*(-129+(-1)^n) + 138528*n + 202104*n^2 + 171248*n^3 + 93030*n^4 + 32312*n^5 + 6636*n^6 + 632*n^7) / 40320. - Colin Barker, Jan 11 2017
[A277387] 1, 17, 138, 670, 2355, 6671, 16212, 35148, 69765, 129085, 225566, 375882, 601783, 931035, 1398440, 2046936, 2928777, 4106793, 5655730, 7663670, 10233531, 13484647, 17554428, 22600100, 28800525, 36358101, 45500742, 56483938, 69592895, 85144755, 103490896, 125019312, 150157073, 179372865, 213179610
a(n) = n*(1+n)*(3+2*n+n^2+n^3+2*n^4)/18.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) for n>7.
[A008417] 1, 17, 145, 833, 3649, 13073, 40081, 108545, 265729, 598417, 1256465, 2485825, 4673345, 8405905, 14546705, 24331777, 39490049, 62390545, 96220561, 145198913, 214828609, 312193553, 446304145, 628496897, 872893441, 1196924561, 1621925137, 2173806145, 2883810113, 3789356689, 4934985233
a(n) = (2*n^8 + 8*n^7 + 84*n^6 + 224*n^5 + 798*n^4 + 1232*n^3 + 1636*n^2 + 1056*n + 315)/315. - Alexander Adamchuk, May 23 2006
[A247613] 1, 17, 153, 969, 4845, 20349, 74613, 245157, 735471, 2031535, 5189327, 12316239, 27322191, 57029103, 112740255, 212383935, 383358645, 666220005, 1119362365, 1824861005, 2895653673, 4484253081, 6793194849, 10087438257, 14708950035, 21093714291
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9).
a(n) = (20160 - 15076944*n + 40499716*n^2 - 42247940*n^3 + 23174515*n^4 - 7234136*n^5 + 1335334*n^6 - 134420*n^7 + 6435*n^8) / 20160.
[A010969] 1, 17, 153, 969, 4845, 20349, 74613, 245157, 735471, 2042975, 5311735, 13037895, 30421755, 67863915, 145422675, 300540195, 601080390, 1166803110, 2203961430, 4059928950, 7307872110, 12875774670, 22239974430, 37711260990, 62852101650, 103077446706, 166509721602
a(n+15) = n(n+1)(n+2)(n+3)(n+4)(n+5)(n+6)(n+7)(n+8)(n+9)(n+10)(n+11)(n+12)(n+13)(n+14)(n+15)/16!. - Artur Jasinski, Dec 02 2007
a(n) = n/(n-16) * a(n-1), n > 16. - Vincenzo Librandi, Mar 26 2011
[A160699] 0, 17, 154, 531, 1268, 2485, 4302, 6839, 10216, 14553, 19970, 26587, 34524, 43901, 54838, 67455, 81872, 98209, 116586, 137123, 159940, 185157, 212894, 243271, 276408, 312425, 351442, 393579, 438956, 487693, 539910, 595727, 655264, 718641, 785978, 857395
a(0)=0, a(1)=17, a(2)=154, a(3)=531, a(n)=4a(n-1)-6a(n-2)+4a(n-3)-a(n-4) - Harvey P. Dale, May 07 2011
[A076458] 17, 165, 678, 1910, 4335, 8547, 15260, 25308, 39645, 59345, 85602, 119730, 163163, 217455, 284280, 365432, 462825, 578493, 714590, 873390, 1057287, 1268795, 1510548, 1785300, 2095925, 2445417, 2836890, 3273578, 3758835, 4296135, 4889072, 5541360
a(n) = n*(n+1)*(10*n^2+8*n-1)/2.
[A279448] 0, 1, 17, 202, 1397, 6582, 24185, 73496, 195086, 463875, 1013505, 2061426, 3956947, 7222992, 12640817, 21312992, 34801420, 55215621, 85424721, 129174250, 191397185, 278361226, 398108777, 560635032, 778491962, 1066995527, 1445034305, 1935301746, 2565356031, 3367870500
a(n) = (n^8 - 14*n^6 + 30*n^5 + 12*n^4 - 60*n^3 + 40*n^2)/192 + IF(MOD(n, 2) = 1, 4*n^4 - 20*n^3 + 22*n^2 - 2*n - 7)/64.
a(n) = 4*a(n-1) - a(n-2) - 16*a(n-3) + 19*a(n-4) + 20*a(n-5) - 45*a(n-6) + 45*a(n-8) - 20*a(n-9) - 19*a(n-10) + 16*a(n-11) + a(n-12) - 4*a(n-13) + a(n-14).
[A135214] 1, 17, 260, 516, 3641, 4937, 21744, 25840, 84889, 94889, 255940, 276676, 647969, 686385, 1445760, 1511296, 2931153, 3036129, 5512228, 5672228, 9756329, 9990585, 16426928, 16758704, 26524329, 26981305, 41330212, 41944868, 62456017
a(2*n-1) = n*(-8 + 80*n^2 + 48*n^4 + 80*n^5 + 35*n - 220*n^3)/15.
a(2*n) = n*(-8 + 80*n^2 + 48*n^4 + 80*n^5 + 35*n + 20*n^3)/15 . (End)
[A245940] 0, 0, 17, 279, 1960, 8875, 30555, 87122, 216384, 483570, 994125, 1909985, 3469752, 6013189, 10010455, 16096500, 25111040, 38144532, 56590569, 82205115, 117173000, 164182095, 226505587, 308092774, 413668800, 548843750, 720231525, 935578917, 1203905304
a(n) = n^3*(2*n^3 + 2*n^2 - 3*n - 1)*(n + 1)/24 = n^3*(n - 1)*(n + 1)*(2*n^2 + 4*n + 1)/24.
[A158585] 17, 306, 1173, 2618, 4641, 7242, 10421, 14178, 18513, 23426, 28917, 34986, 41633, 48858, 56661, 65042, 74001, 83538, 93653, 104346, 115617, 127466, 139893, 152898, 166481, 180642, 195381, 210698, 226593, 243066, 260117, 277746, 295953, 314738
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A129992] 0, 17, 308, 381, 468, 2117, 2540, 3045, 12648, 15113, 18056, 74025, 88392, 105545, 431756, 515493, 615468, 2516765, 3004820, 3587517, 14669088, 17513681, 20909888, 85498017, 102077520, 121872065, 498319268, 594951693, 710322756, 2904417845, 3467632892
a(n) = 6*a(n-3)-a(n-6)+254 for n > 6; a(1)=0, a(2)=17, a(3)=308, a(4)=381, a(5)=468, a(6)=2117.
[A022352] 0, 18, 18, 36, 54, 90, 144, 234, 378, 612, 990, 1602, 2592, 4194, 6786, 10980, 17766, 28746, 46512, 75258, 121770, 197028, 318798, 515826, 834624, 1350450, 2185074, 3535524, 5720598, 9256122, 14976720
a(n) = 9*(Lucas(n) - Fibonacci(n)). - Harvey P. Dale, Oct 09 2013
[A241848] 18, 19, 22, 27, 34, 43, 54, 67, 82, 99, 118, 139, 162, 187, 214, 243, 274, 307, 342, 379, 418, 459, 502, 547, 594, 643, 694, 747, 802, 859, 918, 979, 1042, 1107, 1174, 1243, 1314, 1387, 1462, 1539, 1618, 1699, 1782, 1867, 1954, 2043, 2134, 2227, 2322
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.

[A022108] 1, 18, 19, 37, 56, 93, 149, 242, 391, 633, 1024, 1657, 2681, 4338, 7019, 11357, 18376, 29733, 48109, 77842, 125951, 203793, 329744, 533537, 863281, 1396818, 2260099, 3656917, 5917016, 9573933, 15490949
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=18. a(-1):=17.
[A042507] 1, 1, 18, 19, 37, 56, 317, 373, 690, 3133, 3823, 6956, 38603, 45559, 84162, 129721, 2289419, 2419140, 132922979, 135342119, 2433739002, 2569081121, 5002820123, 7571901244, 42862326343, 50434227587, 93296553930, 423620443307, 516916997237
a(n) = 135212398*a(n-18) - a(n-36) for n>35. - Vincenzo Librandi, Jan 23 2014
[A041668] 18, 19, 75, 94, 263, 357, 620, 977, 1597, 2574, 4171, 10916, 15087, 56177, 71264, 2621681, 2692945, 10700516, 13393461, 37487438, 50880899, 88368337, 139249236, 227617573, 366866809, 594484382
a(n) = 142528*a(n-15) + a(n-30) for n>29. [Bruno Berselli, Nov 06 2013]
[A255848] 18, 20, 26, 36, 50, 68, 90, 116, 146, 180, 218, 260, 306, 356, 410, 468, 530, 596, 666, 740, 818, 900, 986, 1076, 1170, 1268, 1370, 1476, 1586, 1700, 1818, 1940, 2066, 2196, 2330, 2468, 2610, 2756, 2906, 3060, 3218, 3380, 3546, 3716, 3890, 4068, 4250, 4436
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Mar 08 2015
[A072904] 18, 20, 27, 32, 45, 48, 50, 52, 54, 63, 68, 72, 75, 80, 84, 90, 96, 98, 99, 108, 112, 116, 117, 125, 126, 128, 132, 135, 147, 148, 150, 153, 160, 162, 164, 171, 175, 176, 180, 189, 192, 198, 200, 207, 208, 212, 216, 224, 228, 234, 240, 242, 243, 244, 245, 250
a(n) appears to be asymptotic to C*n with C=3.4.....
[A113541] 1, 18, 20, 37, 39, 56, 58, 75, 77, 94, 96, 113, 115, 132, 134, 151, 153, 170, 172, 189, 191, 208, 210, 227, 229, 246, 248, 265, 267, 284, 286, 303, 305, 322, 324, 341, 343, 360, 362, 379, 381, 398, 400, 417, 419, 436, 438, 455, 457, 474, 476, 493, 495, 512
a(1)=1, a(2)=18 then add alternatively 2 and 17.
a(n) = 19*(n-1) - a(n-1), (with a(1)=1). - Vincenzo Librandi, Nov 13 2010
[A088341] 0, 1, 18, 21, 28, 38, 42, 45, 46, 49, 51, 52, 56, 58, 62, 69, 74, 77, 79, 81, 82, 83, 86, 88, 93, 101, 103, 104, 107, 110, 113, 125, 128, 136, 140, 147, 158, 159, 164, 165, 173, 178, 180, 190, 193, 195, 196, 197, 198, 200, 203, 206, 210, 217, 218, 231, 233, 238, 241
a(n) appears to be asymptotic to 4*n.
[A154151] 0, 18, 21, 111, 128, 650, 749, 3791, 4368, 22098, 25461, 128799, 148400, 750698, 864941, 4375391, 5041248, 25501650, 29382549, 148634511, 171254048, 866305418, 998141741, 5049197999, 5817596400, 29428882578, 33907436661, 171524097471, 197627023568
a(n)= +a(n-1) +6*a(n-2) -6*a(n-3) -a(n-4) +a(n-5).
[A002505] 18, 23, 28, 32, 35, 39, 42, 46, 49, 52, 55, 58, 60, 63, 66, 68, 71, 74, 76, 79, 81, 84, 86, 88, 91, 93, 95, 98, 100, 102, 104, 107, 109, 111, 113, 115, 118, 120, 122, 124, 126
a(n) = round(2*Pi*exp(1 + LambertW((8*n + 1)/(8*exp(1))))), Eric Weisstein's World of Mathematics.
a(n+1) = round(2*Pi*(n - 7/8)/LambertW((n - 7/8)/exp(1))), after Guilherme França, André LeClair formula (163) page 47.
[A032612] 18, 29, 310, 411, 512, 613, 714, 815, 916, 1017, 1118, 1219, 1320, 1421, 1522, 1623, 1724, 1825, 1926, 2027, 2128, 2229, 2330, 2431, 2532, 2633, 2734, 2835, 2936, 3037, 3138, 3239, 3340, 3441, 3542, 3643, 3744, 3845, 3946, 4047, 4148, 4249
a(n)=n*10^floor(log10(n+7)+1)+n+7, with n>=0 [From Paolo P. Lava, Oct 09 2008]
[A014640] 0, 18, 34, 112, 148, 286, 342, 540, 616, 874, 970, 1288, 1404, 1782, 1918, 2356, 2512, 3010, 3186, 3744, 3940, 4558, 4774, 5452, 5688, 6426, 6682, 7480, 7756, 8614, 8910, 9828, 10144, 11122, 11458, 12496, 12852, 13950, 14326, 15484, 15880, 17098, 17514, 18792
a(0)=0, a(1)=18, a(2)=34, a(3)=112, a(4)=148, a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5). - Harvey P. Dale, Jun 16 2014
a(n) = (20*n^2-10*(-1)^n*n+4*n-(-1)^n+1)/2.
a(n) = 10*n^2-3*n for n even.
a(n) = 10*n^2+7*n+1 for n odd.
[A160844] 0, 1, 18, 35, 62, 93, 136, 181, 238, 299, 370, 445, 532, 621, 722, 827, 942, 1061, 1192, 1325, 1470, 1619, 1778, 1941, 2116, 2293, 2482, 2675, 2878, 3085, 3304, 3525, 3758, 3995, 4242, 4493, 4756, 5021, 5298, 5579, 5870, 6165, 6472, 6781, 7102, 7427, 7762
a(n) = 2*a(n-1) - a(n-2) + C(mod(n+2,6) + 1)), C=(10,4,12,2,12,4).
[A154575] 18, 36, 58, 84, 114, 148, 186, 228, 274, 324, 378, 436, 498, 564, 634, 708, 786, 868, 954, 1044, 1138, 1236, 1338, 1444, 1554, 1668, 1786, 1908, 2034, 2164, 2298, 2436, 2578, 2724, 2874, 3028, 3186, 3348, 3514, 3684, 3858, 4036, 4218, 4404, 4594, 4788
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 26 2012
[A097926] 18, 36, 70, 134, 258, 498, 960, 1850, 3566, 6874, 13250, 25540, 49230, 94894, 182914, 352578, 679616, 1310002, 2525110, 4867306, 9382034, 18084452, 34858902, 67192694, 129518082, 249654130, 481223808, 927588714, 1787984734, 3446451386
a(n) = 2a(n-1) - a(n-k-1), k=4, n >= 2k+2. - R. J. Mathar, Oct 31 2006
[A212428] 0, 18, 37, 57, 78, 100, 123, 147, 172, 198, 225, 253, 282, 312, 343, 375, 408, 442, 477, 513, 550, 588, 627, 667, 708, 750, 793, 837, 882, 928, 975, 1023, 1072, 1122, 1173, 1225, 1278, 1332, 1387, 1443, 1500, 1558, 1617, 1677, 1738, 1800, 1863, 1927, 1992
a(n) = (17+n)*(18+n)/2 - 17*18/2 = 18*n + (n-1)*n/2 = n*(n+35)/2.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 10 2012
a(n) = 18n - floor(n/2) + floor(n^2/2). - Wesley Ivan Hurt, Jun 15 2013
[A195147] 0, 1, 18, 37, 72, 109, 162, 217, 288, 361, 450, 541, 648, 757, 882, 1009, 1152, 1297, 1458, 1621, 1800, 1981, 2178, 2377, 2592, 2809, 3042, 3277, 3528, 3781, 4050, 4321, 4608, 4897, 5202, 5509, 5832, 6157, 6498, 6841, 7200, 7561, 7938, 8317, 8712, 9109
a(n) = (18*n^2+7*(-1)^n-7)/4; a(n) = -a(n-1) + 9*n^2-9*n+1. - Vincenzo Librandi, Sep 27 2011
[A198276] 18, 37, 75, 151, 303, 607, 1215, 2431, 4863, 9727, 19455, 38911, 77823, 155647, 311295, 622591, 1245183, 2490367, 4980735, 9961471, 19922943, 39845887, 79691775, 159383551, 318767103, 637534207, 1275068415, 2550136831, 5100273663, 10200547327, 20401094655
a(n+1) = 2*a(n) + 1.
a(n) + a(n-1)^2 = (a(n-1)+1)^2. - Vincenzo Librandi, Jun 11 2014
[A114698] 1, 18, 38, 58, 78, 98, 118, 138, 158, 178, 198, 218, 238, 258, 278, 298, 318, 338, 358, 378, 398, 418, 438, 458, 478, 498, 518, 538, 558, 578, 598, 618, 638, 658, 678, 698, 718, 738, 758, 778, 798, 818, 838, 858, 878, 898, 918, 938, 958, 978, 998, 1018, 1038
a(1)=1 then a(n)=20n-22.
[A132761] 0, 18, 38, 60, 84, 110, 138, 168, 200, 234, 270, 308, 348, 390, 434, 480, 528, 578, 630, 684, 740, 798, 858, 920, 984, 1050, 1118, 1188, 1260, 1334, 1410, 1488, 1568, 1650, 1734, 1820, 1908, 1998, 2090, 2184, 2280, 2378, 2478, 2580
a(n) = n*(n + 17).
a(n) = 2*n + a(n-1) + 16 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A079862] 18, 38, 80, 168, 352, 736, 1536, 3200, 6656, 13824, 28672, 59392, 122880, 253952, 524288, 1081344, 2228224, 4587520, 9437184, 19398656, 39845888, 81788928, 167772160, 343932928, 704643072, 1442840576, 2952790016, 6039797760, 12348030976, 25232932864
a(n) = (n+8)*2^(n-10).
a(n) = 4*a(n-1) - 4*a(n-2) for n>11.
[A067726] 18, 48, 90, 144, 210, 288, 378, 480, 594, 720, 858, 1008, 1170, 1344, 1530, 1728, 1938, 2160, 2394, 2640, 2898, 3168, 3450, 3744, 4050, 4368, 4698, 5040, 5394, 5760, 6138, 6528, 6930, 7344, 7770, 8208, 8658, 9120, 9594, 10080, 10578, 11088, 11610
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A273459] 18, 50, 578, 1458, 3362, 4802, 6962, 10082, 15842, 20402, 31250, 34322, 55778, 57122, 59858, 167042, 171698, 293378, 559682, 916658, 982802, 1062882, 1104098, 1158242, 1195058, 1367858, 1407842, 1414562, 1468898, 1659842, 2380562, 2406818, 2705138, 2789522
a(n) » n^2. - Charles R Greathouse IV, Jun 08 2016
[A051870] 0, 1, 18, 51, 100, 165, 246, 343, 456, 585, 730, 891, 1068, 1261, 1470, 1695, 1936, 2193, 2466, 2755, 3060, 3381, 3718, 4071, 4440, 4825, 5226, 5643, 6076, 6525, 6990, 7471, 7968, 8481, 9010, 9555, 10116, 10693, 11286, 11895, 12520
a(n) = 16*n + a(n-1) - 15, with n > 0, a(0) = 0. - Vincenzo Librandi, Aug 06 2010
a(16*a(n)+121*n+1) = a(16*a(n)+121*n) + a(16*n+1). - Vladimir Shevelev, Jan 24 2014
[A069130] 1, 18, 52, 103, 171, 256, 358, 477, 613, 766, 936, 1123, 1327, 1548, 1786, 2041, 2313, 2602, 2908, 3231, 3571, 3928, 4302, 4693, 5101, 5526, 5968, 6427, 6903, 7396, 7906, 8433, 8977, 9538, 10116, 10711, 11323, 11952, 12598, 13261, 13941, 14638, 15352
a(n) = (17*n^2 - 17*n + 2)/2.
a(n) = 17*n+a(n-1)-17 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010

a(0)=1, a(1)=18, a(2)=52, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 05 2011
[A033571] 1, 18, 55, 112, 189, 286, 403, 540, 697, 874, 1071, 1288, 1525, 1782, 2059, 2356, 2673, 3010, 3367, 3744, 4141, 4558, 4995, 5452, 5929, 6426, 6943, 7480, 8037, 8614, 9211, 9828, 10465, 11122, 11799, 12496
a(n)=a(n-1)+20*n-3 (with a(0)=1) [From Vincenzo Librandi, Nov 17 2010]
[A244806] 1, 18, 59, 124, 213, 326, 463, 624, 809, 1018, 1251, 1508, 1789, 2094, 2423, 2776, 3153, 3554, 3979, 4428, 4901, 5398, 5919, 6464, 7033, 7626, 8243, 8884, 9549, 10238, 10951, 11688, 12449, 13234, 14043, 14876, 15733, 16614, 17519, 18448, 19401, 20378, 21379, 22404, 23453, 24526, 25623
a(n) = 12*n^2 - 19*n + 8.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A027055] 1, 18, 59, 146, 319, 652, 1281, 2456, 4637, 8670, 16111, 29822, 55067, 101528, 187013, 344276, 633561, 1165674, 2144419, 3944650, 7255831, 13346084, 24547849, 45151152, 83046581, 152747190, 280946647, 516742262, 950438067
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3)-a(n-4)+2*a(n-5)-a(n-6) for n>9.
[A010006] 1, 18, 66, 146, 258, 402, 578, 786, 1026, 1298, 1602, 1938, 2306, 2706, 3138, 3602, 4098, 4626, 5186, 5778, 6402, 7058, 7746, 8466, 9218, 10002, 10818, 11666, 12546, 13458, 14402, 15378, 16386, 17426, 18498, 19602, 20738, 21906, 23106, 24338, 25602, 26898
a(0)=1, a(n) = 16*n^2 + 2, n >= 1; G.f.: (1+15*x+15*x^2+x^3)/(1-x)^3.
a(0)=1, a(1)=18, a(2)=66, a(3)=146, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 15 2012
[A143859] 1, 18, 67, 148, 261, 406, 583, 792, 1033, 1306, 1611, 1948, 2317, 2718, 3151, 3616, 4113, 4642, 5203, 5796, 6421, 7078, 7767, 8488, 9241, 10026, 10843, 11692, 12573, 13486, 14431, 15408, 16417, 17458, 18531, 19636, 20773, 21942, 23143, 24376
a(n) = 16n^2-31n+16. - R. J. Mathar, Sep 08 2008
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3), a(1)=1, a(2)=18, a(3)=67. - Harvey P. Dale, Mar 24 2012
[A063523] 0, 1, 18, 67, 164, 325, 566, 903, 1352, 1929, 2650, 3531, 4588, 5837, 7294, 8975, 10896, 13073, 15522, 18259, 21300, 24661, 28358, 32407, 36824, 41625, 46826, 52443, 58492, 64989, 71950, 79391, 87328, 95777, 104754, 114275, 124356
a(0)=0, a(1)=1, a(2)=18, a(3)=67, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4). - Harvey P. Dale, Jul 11 2011
[A158056] 18, 68, 150, 264, 410, 588, 798, 1040, 1314, 1620, 1958, 2328, 2730, 3164, 3630, 4128, 4658, 5220, 5814, 6440, 7098, 7788, 8510, 9264, 10050, 10868, 11718, 12600, 13514, 14460, 15438, 16448, 17490, 18564, 19670, 20808, 21978, 23180, 24414, 25680
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A262000] 0, 1, 18, 72, 184, 375, 666, 1078, 1632, 2349, 3250, 4356, 5688, 7267, 9114, 11250, 13696, 16473, 19602, 23104, 27000, 31311, 36058, 41262, 46944, 53125, 59826, 67068, 74872, 83259, 92250, 101866, 112128, 123057, 134674, 147000, 160056, 173863, 188442, 203814, 220000
a(n) = Sum_{i=0..n-1} n*(7*i+1) for n>0, a(0)=0.
[A211619] 0, 1, 18, 73, 192, 395, 710, 1157, 1764, 2551, 3546, 4769, 6248, 8003, 10062, 12445, 15180, 18287, 21794, 25721, 30096, 34939, 40278, 46133, 52532, 59495, 67050, 75217, 84024, 93491, 103646, 114509, 126108, 138463, 151602, 165545, 180320, 195947, 212454
a(n) = 3*a(n-1) - 2*a(n-2) - 2*a(n-3) + 3*a(n-4) - a(n-5) for n>6.
a(n) = 4*n^3 - 5*n^2 + 5*n - 4 for n>1 and even.
a(n) = 4*n^3 - 5*n^2 + 5*n - 5 for n>1 and odd.
[A022145] 1, 18, 74, 170, 306, 482, 698, 954, 1250, 1586, 1962, 2378, 2834, 3330, 3866, 4442, 5058, 5714, 6410, 7146, 7922, 8738, 9594, 10490, 11426, 12402, 13418, 14474, 15570, 16706, 17882, 19098, 20354, 21650
a(n) = 20*n^2-4*n+2, for n>0.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3. G.f.: (1+15*x+23*x^2+x^3)/(1-x)^3. [Colin Barker, Apr 13 2012]
[A139757] 1, 18, 75, 196, 405, 726, 1183, 1800, 2601, 3610, 4851, 6348, 8125, 10206, 12615, 15376, 18513, 22050, 26011, 30420, 35301, 40678, 46575, 53016, 60025, 67626, 75843, 84700, 94221, 104430, 115351, 127008, 139425, 152626, 166635, 181476
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4); G.f.: (1+14*x+9*x^2)/(x-1)^4. - R. J. Mathar, Sep 19 2010
a(n) = Sum_{i=1..2n-1} (n^2 + n*i - i). - Wesley Ivan Hurt, Sep 29 2014
[A262402] 0, 18, 76, 200, 414, 742, 1208, 1836, 2650, 3674, 4932, 6448, 8246, 10350, 12784, 15572, 18738, 22306, 26300, 30744, 35662, 41078, 47016, 53500, 60554, 68202, 76468, 85376, 94950, 105214, 116192, 127908, 140386, 153650, 167724, 182632, 198398, 215046, 232600
a(n) = 4*n^3 - 3*n^2 - 3*n + 4, n>=2.
[A100187] 1, 18, 77, 204, 425, 766, 1253, 1912, 2769, 3850, 5181, 6788, 8697, 10934, 13525, 16496, 19873, 23682, 27949, 32700, 37961, 43758, 50117, 57064, 64625, 72826, 81693, 91252, 101529, 112550, 124341, 136928
a(n) = (1/6)*(26*n^3-30*n^2+10*n).
a(1)=1, a(2)=18, a(3)=77, a(4)=204, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Dec 24 2012
[A063495] 1, 18, 80, 217, 459, 836, 1378, 2115, 3077, 4294, 5796, 7613, 9775, 12312, 15254, 18631, 22473, 26810, 31672, 37089, 43091, 49708, 56970, 64907, 73549, 82926, 93068, 104005, 115767, 128384, 141886, 156303, 171665, 188002, 205344
a(1)=1, a(2)=18, a(3)=80, a(4)=217, a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) - a(n-4).
[A264850] 0, 1, 18, 80, 230, 525, 1036, 1848, 3060, 4785, 7150, 10296, 14378, 19565, 26040, 34000, 43656, 55233, 68970, 85120, 103950, 125741, 150788, 179400, 211900, 248625, 289926, 336168, 387730, 445005, 508400, 578336, 655248, 739585, 831810, 932400, 1041846
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Nov 27 2015
[A008528] 1, 18, 102, 318, 732, 1410, 2418, 3822, 5688, 8082, 11070, 14718, 19092, 24258, 30282, 37230, 45168, 54162, 64278, 75582, 88140, 102018, 117282, 133998, 152232, 172050, 193518, 216702, 241668
a(n) = n*(11*n^2+7) with n>0, a(0)=1 (see MAPLE line).
[A019584] 0, 0, 1, 18, 108, 400, 1125, 2646, 5488, 10368, 18225, 30250, 47916, 73008, 107653, 154350, 216000, 295936, 397953, 526338, 685900, 882000, 1120581, 1408198, 1752048, 2160000, 2640625, 3203226
a(n) = Sum_{j=1..n-2} Sum_{i=1..n-2} (i^3 + j^3)/2. - Alexander Adamchuk, Oct 24 2004
a(n) = Sum_{i=0..n-1} (n-1)*(n-1-i)^3 for n>0. - Bruno Berselli, Oct 31 2017
[A213562] 1, 18, 109, 407, 1152, 2723, 5670, 10746, 18939, 31504, 49995, 76297, 112658, 161721, 226556, 310692, 418149, 553470, 721753, 928683, 1180564, 1484351, 1847682, 2278910, 2787135, 3382236, 4074903, 4876669, 5799942, 6858037
a(n) = (4/15)*n^5 + (11/24)*n^4 + (1/4)*n^3 + (1/24)*n^2 - (1/16)*n.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A160765] 1, 18, 112, 403, 1071, 2356, 4558, 8037, 13213, 20566, 30636, 44023, 61387, 83448, 110986, 144841, 185913, 235162, 293608, 362331, 442471, 535228, 641862, 763693, 902101, 1058526, 1234468, 1431487, 1651203, 1895296, 2165506, 2463633, 2791537
a(n) = (n^2+n+1)*(5*n^2+5*n+2)/2. - R. J. Mathar, Sep 11 2011
[A244866] 1, 18, 114, 438, 1263, 3024, 6356, 12132, 21501, 35926, 57222, 87594, 129675, 186564, 261864, 359720, 484857, 642618, 839002, 1080702, 1375143, 1730520, 2155836, 2660940, 3256565, 3954366, 4766958, 5707954, 6792003, 8034828, 9453264, 11065296, 12890097, 14948066, 17260866, 19851462, 22744159
a(n) = (n + 1)*(n + 2)*(19*n^3 + 63*n^2 + 68*n + 30) / 60.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A061803] 1, 18, 115, 452, 1333, 3254, 6951, 13448, 24105, 40666, 65307, 100684, 149981, 216958, 305999, 422160, 571217, 759714, 995011, 1285332, 1639813, 2068550, 2582647, 3194264, 3916665, 4764266, 5752683, 6898780, 8220717, 9737998
a(n) = n(6n^4 + 10n^2 - 1)/15. - Dean Hickerson, Jun 06 2001
[A101089] 1, 18, 116, 470, 1449, 3724, 8400, 17172, 32505, 57838, 97812, 158522, 247793, 375480, 553792, 797640, 1125009, 1557354, 2120020, 2842686, 3759833, 4911236, 6342480, 8105500, 10259145, 12869766, 16011828, 19768546, 24232545, 29506544
a(n) = (1/60)*n*(n+1)^2*(n+2)*(2*n*(n+2)-1).
a(n) = Sum_{i=1..n} i*(n+1-i)^4, by the definition. - Bruno Berselli, Jan 31 2014
a(n) = 2*a(n-1) - a(n-2) + n^4. - Luciano Ancora, Jan 08 2015
[A190705] 0, 18, 120, 378, 864, 1650, 2808, 4410, 6528, 9234, 12600, 16698, 21600, 27378, 34104, 41850, 50688, 60690, 71928, 84474, 98400, 113778, 130680, 149178, 169344, 191250, 214968, 240570, 268128, 297714, 329400
a(0)=0, a(1)=18, a(2)=120, a(3)=378, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Mar 20 2016

[A107417] 1, 18, 126, 560, 1890, 5292, 12936, 28512, 57915, 110110, 198198, 340704, 563108, 899640, 1395360, 2108544, 3113397, 4503114, 6393310, 8925840, 12273030, 16642340, 22281480, 29484000, 38595375, 50019606, 64226358, 81758656
a(0)=1, a(1)=18, a(2)=126, a(3)=560, a(4)=1890, a(5)=5292, a(6)=12936, a(7)=28512, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)- 28*a(n-6)+ 8*a(n-7)-a(n-8) [From Harvey P. Dale, Feb 18 2012]
[A056125] 1, 18, 126, 570, 1980, 5742, 14586, 33462, 70785, 140140, 262548, 469404, 806208, 1337220, 2151180, 3368244, 5148297, 7700814, 11296450, 16280550, 23088780, 32265090, 44482230, 60565050, 81516825, 108548856, 143113608, 186941656
a(0)=1, a(1)=18, a(2)=126, a(3)=570, a(4)=1980, a(5)=5742, a(6)=14586, a(7)=33462, a(8)=70785, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3)- 126*a(n-4)+ 126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). - Harvey P. Dale, Jan 18 2013
[A244879] 1, 18, 129, 571, 1884, 5103, 11998, 25362, 49347, 89848, 154935, 255333, 404950, 621453, 926892, 1348372, 1918773, 2677518, 3671389, 4955391, 6593664, 8660443, 11241066, 14433030, 18347095, 23108436, 28857843, 35752969, 43969626, 53703129, 65169688, 78607848
a(n) = (120 + 438*n + 677*n^2 + 570*n^3 + 275*n^4 + 72*n^5 + 8*n^6) / 120.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 6.
[A142965] 1, 18, 129, 646, 2685, 10002, 34777, 115566, 372453, 1175290, 3654369, 11245110, 34349005, 104373282, 315969705, 954002878, 2874983541, 8652474378, 26015617585, 78169534470, 234766551261, 704840716978, 2115654610809, 6349329417486, 19052920751365, 57169029907482
a(n) = 10a(n-1) - 40a(n-2) + 82a(n-3) - 91a(n-4) + 52a(n-5) - 12a(n-6).
a(n) = 35/2 + 2*n^2 + 12*n - 84*2^n - 24*2^n*n + 135/2*3^n
[A056003] 1, 18, 135, 660, 2475, 7722, 21021, 51480, 115830, 243100, 481338, 906984, 1637610, 2848860, 4796550, 7845024, 12503007, 19468350, 29683225, 44401500, 65270205, 94427190, 134617275, 189329400, 262957500, 360988056, 490217508
a(n) = (n+1)*C(n+8, 8).
[A114239] 1, 18, 136, 650, 2331, 6860, 17472, 39852, 83325, 162382, 298584, 522886, 878423, 1423800, 2236928, 3419448, 5101785, 7448874, 10666600, 15008994, 20786227, 28373444, 38220480, 50862500, 66931605, 87169446, 112440888, 143748766
a(n-2) = (n^7-n^3)/(2^7-2^3). - David Radcliffe, Dec 27 2008
[A108680] 1, 18, 140, 700, 2646, 8232, 22176, 53460, 117975, 242242, 468468, 861224, 1516060, 2570400, 4217088, 6720984, 10439037, 15844290, 23554300, 34364484, 49286930, 69595240, 96876000, 133087500, 180626355, 242402706, 321924708, 423393040
a(n) = (n + 1)*(n + 2)^3*(n + 3)^2*(n + 4)*(n + 5)/1440 (from Maple section).
[A127408] 18, 144, 625, 1980, 5145, 11648, 23814, 45000, 79860, 134640, 217503, 338884, 511875, 752640, 1080860, 1520208, 2098854, 2850000, 3812445, 5031180, 6558013, 8452224, 10781250, 13621400, 17058600, 21189168, 26120619, 31972500, 38877255
a(n+2) = n*(n+1)*(n+2)^3*(2n+14)/(2 * 4!) for n>=1.
a(n) = (n^6+2*n^5-13*n^4+10*n^3)/4! for n>=3.
[A178759] 0, 0, 0, 18, 144, 750, 3240, 12642, 46368, 163350, 559800, 1881066, 6229872, 20406750, 66273480, 213759090, 685601856, 2188698150, 6959413080, 22053083514, 69672773520, 219535296750, 690106487400, 2164714299138, 6777100916064, 21179698653750, 66083277045240, 205880260458762
a(n) = (3^n-3*2^n+3)*n. - Mark van Hoeij, May 13 2013
[A244876] 1, 18, 154, 813, 3157, 9880, 26429, 62713, 135470, 271285, 510485, 911840, 1558368, 2564093, 4082142, 6313934, 9519951, 14031732, 20265700, 28738335, 40083439, 55070862, 74627587, 99860383, 132081092, 172833583, 223923623, 287450506, 365841890, 461890475, 578794188
a(n) = 3*n^7/160 + 63*n^6/320 + 151*n^5/160 + 339*n^4/128 + 2251*n^3/480 + n^2*(-1)^n/64 + 1677*n^2/320 + 3*n*(-1)^n/64 + 3259*n/960 + 9*(-1)^n/256 + 247/256. [Bruno Berselli, Jul 08 2014]
[A271899] 1, 18, 162, 927, 3906, 13248, 38256, 97614, 225819, 482482, 965250, 1827189, 3299556, 5720976, 9574128, 15531132, 24508917, 37735938, 56831698, 83900619, 121641894, 173477040, 243696960, 337630410, 461835855, 624318786, 834776658, 1104873697, 1448547912, 1882352736, 2425835808
a(n) = (n+4)*(n+3)*(n+2)*(n+1)*(11*n^4+70*n^3+196*n^2+269*n+210)/5040.
[A099196] 0, 1, 18, 163, 996, 4645, 17718, 57799, 166344, 432073, 1030490, 2286955, 4772780, 9446125, 17852030, 32398735, 56730512, 96220561, 158611106, 254831667, 400030580, 614859189, 927052742, 1373356887, 2001853784, 2874747225, 4071671786, 5693596923, 7867403068, 10751213181
a(n) = 9-crosspolytope(n) = n*(2*n^8 + 84*n^6 + 798*n^4 + 1636*n^2 + 315)/2835.
[A010970] 1, 18, 171, 1140, 5985, 26334, 100947, 346104, 1081575, 3124550, 8436285, 21474180, 51895935, 119759850, 265182525, 565722720, 1166803110, 2333606220, 4537567650, 8597496600, 15905368710, 28781143380, 51021117810, 88732378800, 151584480450, 254661927156
a(n+16) = n*(n+1)*(n+2)*(n+3)*(n+4)*(n+5)*(n+6)*(n+7)*(n+8)*(n+9)*(n+10)*(n+11)*(n+12)*(n+13)*(n+14)*(n+15)*(n+16)/17!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
a(n) = n/(n-17) * a(n-1), n > 17. - Vincenzo Librandi, Mar 26 2011
[A071910] 0, 18, 180, 900, 3150, 8820, 21168, 45360, 89100, 163350, 283140, 468468, 745290, 1146600, 1713600, 2496960, 3558168, 4970970, 6822900, 9216900, 12273030, 16130268, 20948400, 26910000, 34222500, 43120350, 53867268, 66758580, 82123650, 100328400, 121777920
a(n) = ((n+1)(n+2))^3/8 - sum(i=1, n+1, i^3) - Jon Perry, Feb 13 2004
a(n) = C(2+n, n)*C(3+n, 1+n)*C(4+n, 2+n) - Zerinvary Lajos, Jul 29 2005
[A255377] 0, 0, 0, 0, 0, 0, 0, 1, 18, 261, 3420, 42300, 504000, 5850000, 66600000, 746999991, 8279999757, 90899995383, 989999925399, 10709998904070, 115199984885400, 1232999800740000, 13139997460650000, 139499968482900081, 1475999617032002916, 15569995426740068526
a(0) = a(1) = ... = a(6) = 0, a(7) = 1, a(n) = 9*(10^(n-8) - a(n-8) + sum_{i=7..n-1} a(i)) for n>=8.
[A255378] 0, 0, 0, 0, 0, 0, 0, 0, 1, 18, 261, 3420, 42300, 504000, 5850000, 66600000, 747000000, 8279999991, 90899999757, 989999995383, 10709999925399, 115199999904070, 1232999984885400, 13139999800740000, 139499997460650000, 1475999968482900000, 15569999617032000081
a(0) = a(1) = ... = a(7) = 0, a(8) = 1, a(n) = 9*(10^(n-9) - a(n-9) + sum_{i=8..n-1} a(i)) for n>=9.
[A255379] 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 18, 261, 3420, 42300, 504000, 5850000, 66600000, 747000000, 8280000000, 90899999991, 989999999757, 10709999995383, 115199999925399, 1232999998904070, 13139999984885400, 139499999800740000, 1475999997460650000, 15569999968482900000
a(0) = a(1) = ... = a(8) = 0, a(9) = 1, a(n) = 9*(10^(n-10) - a(n-10) + sum_{i=9..n-1} a(i)) for n>=10.
[A255380] 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 18, 261, 3420, 42300, 504000, 5850000, 66600000, 747000000, 8280000000, 90900000000, 989999999991, 10709999999757, 115199999995383, 1232999999925399, 13139999998904070, 139499999984885400, 1475999999800740000
a(0) = a(1) = ... = a(9) = 0, a(10) = 1, a(n) = 9*(10^(n-11) - a(n-11) + sum_{i=10..n-1} a(i)) for n>=11.
[A288959] 0, 18, 288, 1800, 7200, 22050, 56448, 127008, 259200, 490050, 871200, 1472328, 2384928, 3726450, 5644800, 8323200, 11985408, 16901298, 23392800, 31840200, 42688800, 56455938, 73738368, 95220000, 121680000, 154001250, 193179168, 240330888, 296704800, 363690450
a(n) = n^2*(n^2 - 1)^2/2.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7).
[A208537] 0, 0, 18, 312, 2340, 11160, 39990, 117648, 299592, 683280, 1428570, 2783880, 5118828, 8964072, 15059070, 24408480, 38347920, 58619808, 87460002, 127695960, 182857140, 257298360, 356336838, 486403632, 655210200, 871930800, 1147401450
a(n+2) = delta(-n) = -delta(n) for n >= 0, where delta is the p-derivation over the integers with respect to prime p = 7. - Danny Rorabaugh, Nov 10 2017
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>8.
[A212669] 18, 340, 2022, 7400, 20602, 48060, 99022, 186064, 325602, 538404, 850102, 1291704, 1900106, 2718604, 3797406, 5194144, 6974386, 9212148, 11990406, 15401608, 19548186, 24543068, 30510190, 37585008, 45915010, 55660228, 66993750, 80102232, 95186410, 112461612
a(n) = 2/(2*n+1)*Sum_{i=1..n} tan^6(Pi*i/(2*n+1)).
[A158590] 18, 342, 1314, 2934, 5202, 8118, 11682, 15894, 20754, 26262, 32418, 39222, 46674, 54774, 63522, 72918, 82962, 93654, 104994, 116982, 129618, 142902, 156834, 171414, 186642, 202518, 219042, 236214, 254034, 272502, 291618, 311382, 331794
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A243215] 0, 0, 0, 18, 2593, 39979, 281514, 1301950, 4618099, 13628193, 35115244, 81502564, 174076485, 347418199, 655313518, 1178436234, 2034127639, 3388621645, 5472091824, 8596923568, 13179641449, 19766948739, 29066362930, 41981957974, 59655750843, 83515296889
a(n) = (4*n^8 -16*n^7 -60*n^6 +308*n^5 +171*n^4 -1942*n^3 +872*n^2 +3963*n -3366)/6 for n>=4, a(3) = 18, a(n) = 0 for n<=2.
[A241849] 19, 20, 23, 28, 35, 44, 55, 68, 83, 100, 119, 140, 163, 188, 215, 244, 275, 308, 343, 380, 419, 460, 503, 548, 595, 644, 695, 748, 803, 860, 919, 980, 1043, 1108, 1175, 1244, 1315, 1388, 1463, 1540, 1619, 1700, 1783, 1868, 1955, 2044, 2135, 2228, 2323
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.

[A151979] 0, 1, 19, 20, 38, 39, 57, 58, 76, 77, 95, 96, 114, 115, 133, 134, 152, 153, 171, 172, 190, 191, 209, 210, 228, 229, 247, 248, 266, 267, 285, 286, 304, 305, 323, 324, 342, 343, 361, 362, 380, 381, 399, 400, 418, 419, 437, 438, 456, 457, 475, 476, 494, 495, 513, 514, 532
a(n) = a(n-1)+a(n-2)-a(n-3). - Colin Barker, Apr 09 2012
[A022109] 1, 19, 20, 39, 59, 98, 157, 255, 412, 667, 1079, 1746, 2825, 4571, 7396, 11967, 19363, 31330, 50693, 82023, 132716, 214739, 347455, 562194, 909649, 1471843, 2381492, 3853335, 6234827, 10088162, 16322989
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=19. a(-1):=18.
[A041730] 19, 20, 39, 59, 98, 157, 569, 726, 2021, 2747, 10262, 13009, 23271, 36280, 59551, 95831, 3701129, 3796960, 7498089, 11295049, 18793138, 30088187, 109057699, 139145886, 387349471, 526495357, 1966835542
a(n) = 191662*a(n-16) - a(n-32) for n>31. [Bruno Berselli, Nov 07 2013]
[A129071] 19, 25, 37, 49, 73, 85, 109, 121, 145, 181, 193, 229, 253, 265, 289, 325, 361, 373, 409, 433, 445, 481, 505, 541, 589, 613, 625, 649, 661, 685, 769, 793, 829, 841, 901, 913, 949, 985, 1009, 1045, 1081, 1093, 1153, 1165, 1189, 1201, 1273, 1345, 1369, 1381
a(n) = 6*prime(n) + 7. - Zak Seidov, May 12 2007
[A259054] 19, 27, 43, 67, 99, 139, 187, 243, 307, 379, 459, 547, 643, 747, 859, 979, 1107, 1243, 1387, 1539, 1699, 1867, 2043, 2227, 2419, 2619, 2827, 3043, 3267, 3499, 3739, 3987, 4243, 4507, 4779, 5059
a(n) = 4*n^2 - 4*n + 19, n >= 1.
[A094677] 19, 28, 37, 46, 55, 64, 73, 82, 91, 109, 118, 127, 136, 145, 154, 163, 172, 181, 190, 208, 217, 226, 235, 244, 253, 262, 271, 280, 299, 307, 316, 325, 334, 343, 352, 361, 370, 389, 398, 406, 415, 424, 433, 442, 451, 460, 479, 488, 497, 505, 514, 523, 532, 541
a(n)=10n+r(n) where r(n) takes values in {0, 1, 2, 3, 4, 5, 6, 7, 8, 9}.
[A265804] 1, 19, 29, 95, 229, 619, 1601, 4211, 11005, 28831, 75461, 197579, 517249, 1354195, 3545309, 9281759, 24299941, 63618091, 166554305, 436044851, 1141580221, 2988695839, 7824507269, 20484825995, 53629970689, 140405086099, 367585287581, 962350776671
a(n) = 2*a(n-1) + 2*a(n-2) - a(n-3).
[A184750] 0, 0, 0, 0, 19, 32, 48, 67, 89, 114, 142, 173, 207, 244, 284, 327, 373, 422, 474, 529, 587, 648, 712, 779, 849, 922, 998, 1077, 1159, 1244, 1332, 1423, 1517, 1614, 1714, 1817, 1923, 2032, 2144, 2259, 2377, 2498, 2622, 2749
a(n) = (3n^2-7n-2)/2 for n >= 5 and a(n) = 0 for n <= 4.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>7. G.f.: x^5*(9*x^2-25*x+19) / (1-x)^3. - Colin Barker, Apr 05 2014
[A161705] 1, 19, 37, 55, 73, 91, 109, 127, 145, 163, 181, 199, 217, 235, 253, 271, 289, 307, 325, 343, 361, 379, 397, 415, 433, 451, 469, 487, 505, 523, 541, 559, 577, 595, 613, 631, 649, 667, 685, 703, 721, 739, 757, 775, 793, 811, 829, 847, 865, 883, 901, 919, 937, 955
a(n) = a(n-1) + 18 (with a(0)=1). - Vincenzo Librandi, Dec 27 2010
a(n) = 2*a(n-1) - a(n-2). (End)
[A131600] 19, 37, 55, 397, 1063, 2053, 9199, 28333, 65287, 230869, 740863, 1916029, 6071671, 19407205, 53895727, 163185805, 512515495, 1482638581, 4419983071, 13645261981, 40332756439, 119892451717, 365507167375, 1091496783277, 3249560914183, 9828689926933, 29475632025919
a(n) = a(n-1) + (k-1)*a(n-m-1), where k=19, m=2.
[A008601] 0, 19, 38, 57, 76, 95, 114, 133, 152, 171, 190, 209, 228, 247, 266, 285, 304, 323, 342, 361, 380, 399, 418, 437, 456, 475, 494, 513, 532, 551, 570, 589, 608, 627, 646, 665, 684, 703, 722, 741, 760, 779, 798, 817, 836, 855, 874, 893, 912, 931, 950, 969, 988
a(n) = 19*n = 2*a(n-1) - a(n-2). G.f.: 19x/(x-1)^2. - Vincenzo Librandi, Dec 24 2010
[A042629] 1, 19, 39, 58, 329, 387, 1490, 1877, 3367, 5244, 8611, 13855, 36321, 231781, 268102, 2108495, 4485092, 15563771, 35612634, 86789039, 990292063, 4047957291, 5038249354, 19162705353, 273316124296, 839111078241, 1112427202537, 5288819888389, 59289445974816
a(n) = 3099246293203352572899 98*a(n-48) - a(n-96) for n>95. - Vincenzo Librandi, Jan 26 2014
[A079044] 19, 39, 59, 78, 98, 118, 138, 157, 177, 197, 217, 236, 256, 276, 296, 315, 335, 355, 375, 394, 414, 434, 454, 473, 493, 513, 532, 552, 572, 592, 611, 631, 651, 671, 690, 710, 730, 750, 769, 789, 809, 829, 848, 868, 888, 908, 927, 947, 967, 986
a(n) is asymptotic to c*n where c=19.7...
[A195048] 0, 1, 19, 39, 76, 115, 171, 229, 304, 381, 475, 571, 684, 799, 931, 1065, 1216, 1369, 1539, 1711, 1900, 2091, 2299, 2509, 2736, 2965, 3211, 3459, 3724, 3991, 4275, 4561, 4864, 5169, 5491, 5815, 6156, 6499, 6859, 7221, 7600, 7981, 8379, 8779, 9196
a(n) = 19*n^2/4+15*((-1)^n-1)/8.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: x*(1+17*x+x^2)/((1-x)^3*(1+x)). - Colin Barker, Sep 16 2012
[A098850] 0, 19, 40, 63, 88, 115, 144, 175, 208, 243, 280, 319, 360, 403, 448, 495, 544, 595, 648, 703, 760, 819, 880, 943, 1008, 1075, 1144, 1215, 1288, 1363, 1440, 1519, 1600, 1683, 1768, 1855, 1944, 2035, 2128, 2223, 2320, 2419, 2520, 2623, 2728, 2835, 2944, 3055
a(n) = (n+9)^2 - 9^2 = n*(n + 18), n>=0.
a(n) = 2*n + a(n-1) + 17 (with a(0)=0). - Vincenzo Librandi, Nov 17 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A248339] 19, 41, 63, 85, 107, 129, 151, 173, 195, 217, 239, 261, 283, 305, 327, 349, 371, 393, 415, 437, 459, 481, 503, 525, 547, 569, 591, 613, 635, 657, 679, 701, 723, 745, 767, 789, 811, 833, 855, 877, 899, 921, 943, 965, 987, 1009
a(n) = 22*n + 19.
a(n) = 2*a(n-1)-a(n-2). G.f.: (3*x+19) / (x-1)^2. - Colin Barker, Oct 05 2014
[A139580] 0, 19, 42, 69, 100, 135, 174, 217, 264, 315, 370, 429, 492, 559, 630, 705, 784, 867, 954, 1045, 1140, 1239, 1342, 1449, 1560, 1675, 1794, 1917, 2044, 2175, 2310, 2449, 2592, 2739, 2890, 3045, 3204, 3367, 3534, 3705, 3880, 4059
a(n) = 2*n^2 + 17*n.
a(n) = a(n-1) + 4*n + 15 (with a(0)=0) - _ Vincenzo Librandi_, Nov 24 2010
[A063313] 1, 19, 44, 67, 94, 117, 144, 165, 194, 215, 244, 263, 294, 313, 344, 361, 394, 411, 444, 459, 494, 509, 544, 557, 594, 607, 644, 655, 694, 705, 744, 753, 794, 803, 844, 851, 894, 901, 944, 949, 994, 999, 1044, 1047, 1094, 1097, 1144, 1145
a(n) = a(n-2)+a(n-4)-a(n-6) for n>8.
[A140680] 0, 19, 44, 75, 112, 155, 204, 259, 320, 387, 460, 539, 624, 715, 812, 915, 1024, 1139, 1260, 1387, 1520, 1659, 1804, 1955, 2112, 2275, 2444, 2619, 2800, 2987, 3180, 3379, 3584, 3795, 4012, 4235, 4464, 4699, 4940, 5187, 5440, 5699
a(n) = 3*n^2 + 16*n.
a(n) = 6*n + a(n-1) + 13 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A166148] 1, 19, 46, 82, 127, 181, 244, 316, 397, 487, 586, 694, 811, 937, 1072, 1216, 1369, 1531, 1702, 1882, 2071, 2269, 2476, 2692, 2917, 3151, 3394, 3646, 3907, 4177, 4456, 4744, 5041, 5347, 5662, 5986, 6319, 6661, 7012, 7372, 7741, 8119, 8506, 8902, 9307
a(n) = a(n-1)+9*n with n>1, a(1)=1.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). (End)
[A156376] 19, 49, 79, 109, 139, 169, 199, 229, 259, 289, 319, 349, 379, 409, 439, 469, 499, 529, 559, 589, 619, 649, 679, 709, 739, 769, 799, 829, 859, 889, 919, 949, 979, 1009, 1039, 1069, 1099, 1129, 1159, 1189, 1219, 1249, 1279, 1309, 1339, 1369, 1399, 1429, 1459
a(n) = 2*a(n-1) -a(n-2).
[A051871] 0, 1, 19, 54, 106, 175, 261, 364, 484, 621, 775, 946, 1134, 1339, 1561, 1800, 2056, 2329, 2619, 2926, 3250, 3591, 3949, 4324, 4716, 5125, 5551, 5994, 6454, 6931, 7425, 7936, 8464, 9009, 9571, 10150, 10746, 11359, 11989, 12636, 13300
a(n) = n(17n-15)/2.
a(n) = 17*n + a(n-1) - 16 (with a(0) = 0). - Vincenzo Librandi, Aug 06 2010
a(17*a(n) + 137*n + 1) = a(17*a(n) + 137*n) + a(17*n+1). - Vladimir Shevelev, Jan 24 2014
[A069131] 1, 19, 55, 109, 181, 271, 379, 505, 649, 811, 991, 1189, 1405, 1639, 1891, 2161, 2449, 2755, 3079, 3421, 3781, 4159, 4555, 4969, 5401, 5851, 6319, 6805, 7309, 7831, 8371, 8929, 9505, 10099, 10711, 11341, 11989, 12655, 13339, 14041, 14761, 15499, 16255
a(n) = 9*n^2 - 9*n + 1.
a(n) = 18*n+a(n-1)-18 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(1)=1, a(2)=19, a(3)=55, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jan 20 2014
[A250024] 19, 59, 99, 139, 179, 219, 259, 299, 339, 379, 419, 459, 499, 539, 579, 619, 659, 699, 739, 779, 819, 859, 899, 939, 979, 1019, 1059, 1099, 1139, 1179, 1219, 1259, 1299, 1339, 1379, 1419, 1459, 1499, 1539, 1579, 1619, 1659, 1699, 1739, 1779, 1819, 1859, 1899

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Nov 11 2014
[A093485] 1, 19, 64, 136, 235, 361, 514, 694, 901, 1135, 1396, 1684, 1999, 2341, 2710, 3106, 3529, 3979, 4456, 4960, 5491, 6049, 6634, 7246, 7885, 8551, 9244, 9964, 10711, 11485, 12286, 13114, 13969, 14851, 15760, 16696, 17659, 18649, 19666, 20710, 21781
a(n) = (n+1)*(3*(n+1)-1)*(3*(n+1)-2)/2-n*(3*n-1)*(3*n-2)/2.
[A165806] 19, 67, 145, 253, 391, 559, 757, 985, 1243, 1531, 1849, 2197, 2575, 2983, 3421, 3889, 4387, 4915, 5473, 6061, 6679, 7327, 8005, 8713, 9451, 10219, 11017, 11845, 12703, 13591, 14509, 15457, 16435, 17443, 18481, 19549, 20647, 21775, 22933, 24121, 25339
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A172078] 0, 1, 19, 70, 170, 335, 581, 924, 1380, 1965, 2695, 3586, 4654, 5915, 7385, 9080, 11016, 13209, 15675, 18430, 21490, 24871, 28589, 32660, 37100, 41925, 47151, 52794, 58870, 65395, 72385, 79856, 87824, 96305, 105315, 114870, 124986, 135679
a(n) = n*(n+1)*(16*n-13)/6.
a(n) = Sum_{i=0..n-1} (n-i)*(16*i+1), with a(0)=0. - Bruno Berselli, Feb 10 2014
[A157889] 19, 73, 163, 289, 451, 649, 883, 1153, 1459, 1801, 2179, 2593, 3043, 3529, 4051, 4609, 5203, 5833, 6499, 7201, 7939, 8713, 9523, 10369, 11251, 12169, 13123, 14113, 15139, 16201, 17299, 18433, 19603, 20809, 22051, 23329, 24643, 25993, 27379, 28801
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 05 2012
[A244631] 0, 19, 76, 171, 304, 475, 684, 931, 1216, 1539, 1900, 2299, 2736, 3211, 3724, 4275, 4864, 5491, 6156, 6859, 7600, 8379, 9196, 10051, 10944, 11875, 12844, 13851, 14896, 15979, 17100, 18259, 19456, 20691, 21964, 23275, 24624, 26011, 27436, 28899, 30400
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.
[A213832] 1, 19, 78, 202, 415, 741, 1204, 1828, 2637, 3655, 4906, 6414, 8203, 10297, 12720, 15496, 18649, 22203, 26182, 30610, 35511, 40909, 46828, 53292, 60325, 67951, 76194, 85078, 94627, 104865, 115816, 127504
a(n) = (n - 7*n^2 + 8*n^3)/2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A158491] 19, 79, 179, 319, 499, 719, 979, 1279, 1619, 1999, 2419, 2879, 3379, 3919, 4499, 5119, 5779, 6479, 7219, 7999, 8819, 9679, 10579, 11519, 12499, 13519, 14579, 15679, 16819, 17999, 19219, 20479, 21779, 23119, 24499, 25919, 27379, 28879, 30419
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A063496] 1, 19, 85, 231, 489, 891, 1469, 2255, 3281, 4579, 6181, 8119, 10425, 13131, 16269, 19871, 23969, 28595, 33781, 39559, 45961, 53019, 60765, 69231, 78449, 88451, 99269, 110935, 123481, 136939, 151341, 166719, 183105, 200531, 219029
a(n+1) = integral((sin((n+1/2)x)/sin(x/2))^4, x=0..Pi)/Pi. - Yalcin Aktar, Nov 02 2011, corrected by R. J. Mathar, Dec 01 2011
[A027005] 1, 19, 101, 370, 1148, 3278, 8967, 23993, 63483, 167040, 438346, 1148844, 3009181, 7879855, 20631713, 54016798, 141420392, 370246298, 969320643, 2537718005, 6643835991, 17393792844, 45537545686, 119218847640, 312119000953, 817138159243, 2139295481117
a(n) = (-6+(2^(-1-n)*((3-sqrt(5))^n*(-25+11*sqrt(5)) + (3+sqrt(5))^n*(25+11*sqrt(5))))/sqrt(5) + 7*(1+n) - 6*(1+n)*(2+n)).
a(n) = 6*a(n-1)-13*a(n-2)+13*a(n-3)-6*a(n-4)+a(n-5) for n>5.
[A213556] 1, 19, 118, 446, 1271, 3017, 6300, 11964, 21117, 35167, 55858, 85306, 126035, 181013, 253688, 348024, 468537, 620331, 809134, 1041334, 1324015, 1664993, 2072852, 2556980, 3127605, 3795831, 4573674, 5474098, 6511051, 7699501
a(n) = (9*n^5 + 15*n^4 + 5*n^3 + n)/30.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A070302] 1, 19, 121, 439, 1171, 2581, 4999, 8821, 14509, 22591, 33661, 48379, 67471, 91729, 122011, 159241, 204409, 258571, 322849, 398431, 486571, 588589, 705871, 839869, 992101, 1164151, 1357669, 1574371, 1816039, 2084521, 2381731, 2709649
a(n) = 25*n^2/4 -7*n/2 -11*n^3/2 +11*n^4/4+1. - R. J. Mathar, Sep 04 2011
[A085464] 1, 19, 134, 586, 1919, 5173, 12124, 25572, 49677, 90343, 155650, 256334, 406315, 623273, 929272, 1351432, 1922649, 2682363, 3677374, 4962706, 6602519, 8671069, 11253716, 14447980, 18364645, 23128911, 28881594, 35780374, 44001091
a(n) = n + 17*binomial(n, 2) + 80*binomial(n, 3) + 160*binomial(n, 4) + 144*binomial(n, 5) + 48*binomial(n, 6).
a(n) = (1/30)*n*(n+1)*(2*n^4+4*n^3+6*n^2+4*n-1).
a(n) = Sum_{i=1..n} ((n+1-i)^4-(n-i)^4)*i^2.
a(n) = Sum_{i=1..n} ((n+1-i)^2-(n-i)^2)*i^4.
a(n) = sum(i=1..n, sum (j=1..n, min(i,j)^4)). - Enrique Pérez Herrero, Jan 16 2013
[A215863] 0, 19, 135, 540, 1610, 3990, 8694, 17220, 31680, 54945, 90805, 144144, 221130, 329420, 478380, 679320, 945744, 1293615, 1741635, 2311540, 3028410, 3920994, 5022050, 6368700, 8002800, 9971325, 12326769, 15127560, 18438490, 22331160, 26884440, 32184944, 38327520
a(n) = C(n+3,4)*(n^2+13*n+24)/2.
[A101090] 1, 19, 135, 605, 2054, 5778, 14178, 31350, 63855, 121693, 219505, 378027, 625820, 1001300, 1555092, 2352732, 3477741, 5035095, 7155115, 9997801, 13757634, 18668870, 25011350, 33116850, 43375995, 56245761, 72257589, 92026135
a(n) = (n*(1+n)*(2+n)*(3+n)*(3+2*n)*(-1+2*n*(3+n)))/840.
a(n)= (2*n+3)*(12*n^2+36*n-6)*(n+3)!/(5040*(n-1)!), n>0 - Gary Detlefs, Mar 01 2013
[A110694] 1, 19, 142, 664, 2330, 6726, 16848, 37884, 78243, 150865, 274846, 477412, 796276, 1282412, 2003280, 3046536, 4524261, 6577743, 9382846, 13156000, 18160846, 24715570, 33200960, 44069220, 57853575, 75178701, 96772014, 123475852
a(n) = (n+1)*(n+2)*(n+3)*(n+4)*(34*n^3 + 199*n^2 + 355*n + 210)/7!.
a(0)=1, a(1)=19, a(2)=142, a(3)=664, a(4)=2330, a(5)=6726, a(6)=16848, a(7)=37884, a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8). - Harvey P. Dale, Feb 16 2014
[A081590] 1, 19, 145, 595, 1585, 3331, 6049, 9955, 15265, 22195, 30961, 41779, 54865, 70435, 88705, 109891, 134209, 161875, 193105, 228115, 267121, 310339, 357985, 410275, 467425, 529651, 597169, 670195, 748945, 833635, 924481, 1021699, 1125505
a(n)=1+36*n-54*n^2+36*n^3. G.f. (1+5x)^3/(1-x)^4.
a(0)=1, a(1)=19, a(2)=145, a(3)=595, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Sep 07 2011]
[A093646] 1, 19, 145, 715, 2695, 8437, 23023, 56485, 127270, 267410, 529958, 999362, 1805570, 3142790, 5293970, 8662214, 13810511, 21511325, 32807775, 49088325, 72177105, 104442195, 148924425, 209489475, 291006300, 399555156, 542668764, 729610420
a(n)= (10*n+9)*binomial(n+8, 8)/9. G.f.: (1+9*x)/(1-x)^10.
[A107891] 1, 19, 155, 805, 3136, 9996, 27468, 67320, 150645, 313027, 611611, 1134497, 2012920, 3436720, 5673648, 9093096, 14194881, 21643755, 32310355, 47319349, 68105576, 96479020, 134699500, 185562000, 252493605, 339663051, 452103939
a(n-2) = 1/8*sum {1 <= x_1, x_2 <= n} (x_1*x_2)^2*(det V(x_1,x_2))^2 = 1/8*sum {1 <= i,j <= n} (i*j*(i-j))^2, where V(x_1,x_2} is the Vandermonde matrix of order 2. - Peter Bala, Sep 21 2007
[A261791] 19, 157, 532, 1263, 2467, 4263, 6770, 10106, 14389, 19739, 26272, 34109, 43367, 54164, 66619, 80851, 96978, 115119, 135391, 157913, 182804, 210183, 240166, 272874, 308425, 346936, 388526, 433315, 481419, 532958
a(n) = floor(2*Pi^2*n^3).
[A008419] 1, 19, 181, 1159, 5641, 22363, 75517, 224143, 598417, 1462563, 3317445, 7059735, 14218905, 27298155, 50250765, 89129247, 152951073, 254831667, 413442773, 654862247, 1014889769, 1541911931, 2300409629, 3375210671, 4876601009, 6946419011, 9765268709
a(n) = (4*n^9+18*n^8+240*n^7+756*n^6+3612*n^5+7182*n^4+14360*n^3+14724*n^2+ 10134*n+2835)/2835 - Johannes W. Meijer, Jul 14 2013
a(0)=1, a(1)=19, a(2)=181, a(3)=1159, a(4)=5641, a(5)=22363, a(6)=75517, a(7)=224143, a(8)=598417, a(9)=1462563, a(n)=10*a(n-1)-45*a(n-2)+ 120*a(n-3)-210*a(n-4)+252*a(n-5)-210*a(n-6)+120*a(n-7)-45*a(n-8)+ 10*a(n-9)- a(n-10). - Harvey P. Dale, Jul 25 2013
[A193575] 0, 19, 189, 936, 3250, 9045, 21609, 46144, 90396, 165375, 286165, 472824, 751374, 1154881, 1724625, 2511360, 3576664, 4994379, 6852141, 9253000, 12317130, 16183629, 21012409, 26986176, 34312500, 43225975, 53990469, 66901464, 82288486, 100517625, 121994145
a(n) = (n^3*(n^3+3*n^2+3*n-7)/8) = (1/8)*(n-1)*(n^2+4*n+7)*n^3.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7).
a(n) = sum_{i=1..n} sum_{j=1..n} sum_{k=1..n} (i*j*k-1).
[A139619] 19, 190, 361, 532, 703, 874, 1045, 1216, 1387, 1558, 1729, 1900, 2071, 2242, 2413, 2584, 2755, 2926, 3097, 3268, 3439, 3610, 3781, 3952, 4123, 4294, 4465, 4636, 4807, 4978, 5149, 5320, 5491, 5662, 5833, 6004, 6175, 6346, 6517, 6688
a(n) = 2*a(n-1) - a(n-2) for n > 1.

[A010971] 1, 19, 190, 1330, 7315, 33649, 134596, 480700, 1562275, 4686825, 13123110, 34597290, 86493225, 206253075, 471435600, 1037158320, 2203961430, 4537567650, 9075135300, 17672631900, 33578000610, 62359143990, 113380261800, 202112640600, 353697121050, 608359048206
a(n+17) = n*(n+1)*(n+2)*(n+3)*(n+4)*(n+5)*(n+6)*(n+7)*(n+8)*(n+9)*(n+10)*(n+11)*(n+12)*(n+13)*(n+14)*(n+15)*(n+16)*(n+17)/18!. - Artur Jasinski, Dec 02 2007, R. J. Mathar, Jul 07 2009
[A113596] 0, 1, 19, 200, 1320, 6230, 23086, 71484, 192900, 467115, 1036585, 2140996, 4164524, 7698600, 13623260, 23210440, 38252856, 61222389, 95462175, 145416880, 216905920, 317444666, 456618954, 646518500, 902235100, 1242431775, 1689989301, 2272736844
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9)
[A032613] 19, 210, 311, 412, 513, 614, 715, 816, 917, 1018, 1119, 1220, 1321, 1422, 1523, 1624, 1725, 1826, 1927, 2028, 2129, 2230, 2331, 2432, 2533, 2634, 2735, 2836, 2937, 3038, 3139, 3240, 3341, 3442, 3543, 3644, 3745, 3846, 3947, 4048, 4149
a(n)=n*10^floor(log10(n+8)+1)+n+8, with n>=0 [From Paolo P. Lava, Oct 09 2008]
[A023283] 19, 373, 607, 1171, 1381, 1867, 2137, 2539, 3181, 4021, 5689, 5827, 5857, 6163, 7213, 7507, 11497, 12007, 13291, 13687, 14173, 15193, 16453, 21997, 22501, 24799, 25657, 28723, 31393, 31957, 32587, 35863, 40813, 42667, 42859, 43321, 43951, 45061, 45691
a(n) == 1 (mod 6). - John Cerkan, Sep 20 2016
[A158592] 19, 380, 1463, 3268, 5795, 9044, 13015, 17708, 23123, 29260, 36119, 43700, 52003, 61028, 70775, 81244, 92435, 104348, 116983, 130340, 144419, 159220, 174743, 190988, 207955, 225644, 244055, 263188, 283043, 303620, 324919, 346940, 369683
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A133895] 20, 21, 22, 23, 24, 45, 46, 47, 48, 49, 70, 71, 72, 73, 74, 95, 96, 97, 98, 99, 120, 121, 122, 123, 124, 145, 146, 147, 148, 149, 170, 171, 172, 173, 174, 195, 196, 197, 198, 199, 220, 221, 222, 223, 224, 245, 246, 247, 248, 249, 270, 271, 272, 273, 274, 295
a(n)=5n+20-4*(n mod 5).
[A241850] 20, 21, 24, 29, 36, 45, 56, 69, 84, 101, 120, 141, 164, 189, 216, 245, 276, 309, 344, 381, 420, 461, 504, 549, 596, 645, 696, 749, 804, 861, 920, 981, 1044, 1109, 1176, 1245, 1316, 1389, 1464, 1541, 1620, 1701, 1784, 1869, 1956, 2045, 2136, 2229, 2324
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A022110] 1, 20, 21, 41, 62, 103, 165, 268, 433, 701, 1134, 1835, 2969, 4804, 7773, 12577, 20350, 32927, 53277, 86204, 139481, 225685, 365166, 590851, 956017, 1546868, 2502885, 4049753, 6552638, 10602391
a(n)= a(n-1)+a(n-2), n>=2, a(0)=1, a(1)=20. a(-1):=19.
[A042855] 1, 1, 20, 21, 41, 62, 413, 1714, 2127, 3841, 5968, 9809, 25586, 35395, 167166, 202561, 1990215, 4182991, 127479945, 259142881, 2459765874, 2718908755, 13335400894, 16054309649, 45444020192, 61498329841, 106942350033, 168440679874, 275383029907
a(n) = 33525044660851198*a(n-36) - a(n-72) for n>71. - Vincenzo Librandi, Jan 31 2014
[A042865] 1, 20, 21, 62, 393, 455, 848, 2999, 3847, 6846, 10693, 17539, 203622, 221161, 1088266, 3485959, 4574225, 67525109, 72099334, 283823111, 1207391778, 1491214889, 17610755557, 19101970446, 36712726003, 55814696449, 92527422452, 333396963805, 425924386257
a(n) = 20170287114002498*a(n-34) - a(n-68) for n>67. - Vincenzo Librandi, Jan 31 2014
[A063013] 0, 1, 20, 21, 300, 301, 320, 321, 4000, 4001, 4020, 4021, 4300, 4301, 4320, 4321, 50000, 50001, 50020, 50021, 50300, 50301, 50320, 50321, 54000, 54001, 54020, 54021, 54300, 54301, 54320, 54321, 600000, 600001, 600020, 600021, 600300
a(n) = a(n-2^[log2(n)])+[log2(n)+1]*10^[log2(n)]
[A063012] 0, 1, 20, 21, 400, 401, 420, 421, 8000, 8001, 8020, 8021, 8400, 8401, 8420, 8421, 160000, 160001, 160020, 160021, 160400, 160401, 160420, 160421, 168000, 168001, 168020, 168021, 168400, 168401, 168420, 168421, 3200000, 3200001, 3200020
a(n) = a(n-2^[log2(n)])+20^[log2(n)]. a(2n) = 20*a(n); a(2n+1) = a(2n)+1 = 20*a(n)+1.
[A171696] 0, 20, 24, 31, 34, 36, 41, 48, 50, 54, 57, 69, 71, 79, 86, 88, 89, 92, 97, 104, 106, 111, 116, 119, 130, 132, 134, 136, 139, 141, 145, 149, 150, 154, 160, 167, 171, 174, 176, 179, 180, 189, 190, 191, 193, 196, 201, 207, 209, 211, 212, 219, 222, 223, 224, 225
a(n) = n + O(n/log n). - Charles R Greathouse IV, Feb 17 2017
[A219392] 0, 20, 24, 84, 92, 192, 204, 344, 360, 540, 560, 780, 804, 1064, 1092, 1392, 1424, 1764, 1800, 2180, 2220, 2640, 2684, 3144, 3192, 3692, 3744, 4284, 4340, 4920, 4980, 5600, 5664, 6324, 6392, 7092, 7164, 7904, 7980, 8760, 8840, 9660, 9744, 10604, 10692
a(n) = a(-n+1) = (22*n*(n-1) + 9*(-1)^n*(2*n - 1) + 1)/4 + 2.
[A254363] 20, 35, 77, 203, 605, 1955, 6677, 23723, 86765, 324275, 1231877, 4738043, 18396125, 71940995, 282882677, 1116985163, 4424500685, 17568076115, 69883311077, 278367837083, 1109978272445, 4429440153635, 17686354389077, 70651224045803, 282322365983405, 1128441973997555, 4511225627508677, 1803727610724
72126226025905565
a(n) = 10*a(n-1)-35*a(n-2)+50*a(n-3)-24*a(n-4). - Colin Barker, Jan 30 2015
[A061830] 0, 20, 40, 60, 80, 200, 220, 240, 260, 280, 400, 420, 440, 460, 480, 600, 620, 640, 660, 680, 800, 820, 840, 860, 880, 2000, 2020, 2040, 2060, 2080, 2200, 2220, 2240, 2260, 2280, 2400, 2420, 2440, 2460, 2480, 2600, 2620, 2640, 2660, 2680, 2800, 2820, 2840
a(0)=0, a(1)=20, a(2)=40, a(3)=60, a(4)=80, a(5)=200, a(6)=220, a(7)=240, a(8)=260, a(9)=280, a(10)=400, a(11)=420, a(12)=440, a(13)=460, a(14)=480, a(15)=600, a(16)=620, a(17)=640, a(18)=660, a(19)=680, a(20)=800, a(21)=820, a(22)=840, a(23)=860, a(24)=880, a(25)=2000, a(n)=a(n-1)+ a(n-25)- a(n-26). - Harvey P. Dale, Feb 24 2014
[A195148] 0, 1, 20, 41, 80, 121, 180, 241, 320, 401, 500, 601, 720, 841, 980, 1121, 1280, 1441, 1620, 1801, 2000, 2201, 2420, 2641, 2880, 3121, 3380, 3641, 3920, 4201, 4500, 4801, 5120, 5441, 5780, 6121, 6480, 6841, 7220, 7601, 8000, 8401, 8820, 9241, 9680, 10121
a(n) = 5*n^2+2*(-1)^n-2; a(n) = -a(n-1)+10*n^2-10*n+1. - Vincenzo Librandi, Sep 27 2011
[A171389] 20, 41, 83, 167, 335, 671, 1343, 2687, 5375, 10751, 21503, 43007, 86015, 172031, 344063, 688127, 1376255, 2752511, 5505023, 11010047, 22020095, 44040191, 88080383, 176160767, 352321535, 704643071, 1409286143, 2818572287
a(n+1) = 2*a(n) + 1.
a(n) = 3*a(n-1) - 2*a(n-2). - Vincenzo Librandi, Jul 06 2012
a(n) + a(n-1)^2 = (a(n-1) + 1)^2. - Vincenzo Librandi, Jun 11 2014
[A132762] 0, 20, 42, 66, 92, 120, 150, 182, 216, 252, 290, 330, 372, 416, 462, 510, 560, 612, 666, 722, 780, 840, 902, 966, 1032, 1100, 1170, 1242, 1316, 1392, 1470, 1550, 1632, 1716, 1802, 1890, 1980, 2072, 2166, 2262, 2360, 2460, 2562, 2666
a(n) = n*(n + 19).
a(n) = 2*n + a(n-1) + 18 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A228319] 20, 45, 82, 131, 192, 265, 350, 447, 556, 677, 810, 955, 1112, 1281, 1462, 1655, 1860, 2077, 2306, 2547, 2800, 3065, 3342, 3631, 3932, 4245, 4570, 4907, 5256, 5617, 5990, 6375, 6772, 7181, 7602, 8035, 8480, 8937, 9406, 9887, 10380
a(n) = 6n^2 + 7n + 7.
[A264444] 0, 20, 48, 85, 132, 190, 260, 343, 440, 552, 680, 825, 988, 1170, 1372, 1595, 1840, 2108, 2400, 2717, 3060, 3430, 3828, 4255, 4712, 5200, 5720, 6273, 6860, 7482, 8140, 8835, 9568, 10340, 11152, 12005, 12900, 13838, 14820, 15847, 16920
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Vincenzo Librandi, Nov 16 2015
[A182462] 20, 50, 110, 230, 470, 950, 1910, 3830, 7670, 15350, 30710, 61430, 122870, 245750, 491510, 983030, 1966070, 3932150, 7864310, 15728630, 31457270, 62914550, 125829110, 251658230, 503316470, 1006632950, 2013265910, 4026531830, 8053063670, 16106127350
a(n) = a(n-1)*2 + 10.
[A128905] 20, 51, 59, 60, 65, 68, 69, 76, 77, 83, 91, 92, 105, 110, 114, 115, 123, 129, 131, 139, 154, 156, 165, 182, 185, 186, 187, 194, 210, 212, 221, 227, 228, 235, 236, 237, 246, 254, 258, 265, 266, 267, 273, 276, 286, 290, 291, 307, 309, 318, 321, 322, 330, 345
a(n)=k and T(k)=k(k+1)/2=p*q*r*s for some k, p, q, r, s where T(k) is triangular number and p, q, r, s are distinct primes.
[A051872] 0, 1, 20, 57, 112, 185, 276, 385, 512, 657, 820, 1001, 1200, 1417, 1652, 1905, 2176, 2465, 2772, 3097, 3440, 3801, 4180, 4577, 4992, 5425, 5876, 6345, 6832, 7337, 7860, 8401, 8960, 9537, 10132, 10745, 11376, 12025, 12692, 13377, 14080
a(n) = 18*n + a(n-1) - 17, with n > 0, a(0) = 0. - Vincenzo Librandi, Aug 06 2010
a(18*a(n) + 154*n + 1) = a(18*a(n) + 154*n) + a(18*n + 1). - Vladimir Shevelev, Jan 24 2014
[A069132] 1, 20, 58, 115, 191, 286, 400, 533, 685, 856, 1046, 1255, 1483, 1730, 1996, 2281, 2585, 2908, 3250, 3611, 3991, 4390, 4808, 5245, 5701, 6176, 6670, 7183, 7715, 8266, 8836, 9425, 10033, 10660, 11306, 11971, 12655, 13358, 14080, 14821, 15581, 16360, 17158
a(n) = (19*n^2 - 19*n + 2)/2.

a(n) = 19*n+a(n-1)-19 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=20, a(2)=58, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 21 2011
[A041780] 20, 61, 81, 142, 223, 4379, 4602, 8981, 13583, 49730, 2002783, 6058079, 8060862, 14118941, 22179803, 435535198, 457715001, 893250199, 1350965200, 4946145799, 199196797160, 602536537279, 801733334439, 1404269871718, 2206003206157, 43318330788701
a(n) = 99460*a(n-10)-a(n-20). - Vincenzo Librandi, Nov 08 2013
[A033577] 1, 20, 63, 130, 221, 336, 475, 638, 825, 1036, 1271, 1530, 1813, 2120, 2451, 2806, 3185, 3588, 4015, 4466, 4941, 5440, 5963, 6510, 7081, 7676, 8295, 8938, 9605, 10296, 11011, 11750, 12513, 13300, 14111, 14946, 15805, 16688, 17595, 18526, 19481, 20460, 21463
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A053741] 20, 70, 120, 170, 220, 270, 320, 370, 420, 470, 520, 570, 620, 670, 720, 770, 820, 870, 920, 970, 1020, 1070, 1120, 1170, 1220, 1270, 1320, 1370, 1420, 1470, 1520, 1570, 1620, 1670, 1720, 1770, 1820, 1870, 1920, 1970, 2020, 2070, 2120, 2170, 2220, 2270
a(n) = 50*n+20.
a(n) = 2*a(n-1)-a(n-2). G.f.: 10*(2+3*x)/(1-x)^2. [Colin Barker, Jun 27 2012]
[A052516] 0, 0, 0, 0, 0, 0, 20, 70, 182, 420, 912, 1914, 3938, 8008, 16172, 32526, 65262, 130764, 261800, 523906, 1048154, 2096688, 4193796, 8388054, 16776614, 33553780, 67108160, 134216970
a(n) = max(0,2^n-n^2-n-2). - Dennis P. Walsh, Dec 09 2014
[A143854] 1, 20, 71, 154, 269, 416, 595, 806, 1049, 1324, 1631, 1970, 2341, 2744, 3179, 3646, 4145, 4676, 5239, 5834, 6461, 7120, 7811, 8534, 9289, 10076, 10895, 11746, 12629, 13544, 14491, 15470, 16481, 17524, 18599, 19706, 20845, 22016, 23219, 24454
a(n) = 14-29*n+16*n^2. G.f.: x*(1+17*x+14*x^2)/(1-x)^3. - Colin Barker, Aug 03 2012
[A010008] 1, 20, 74, 164, 290, 452, 650, 884, 1154, 1460, 1802, 2180, 2594, 3044, 3530, 4052, 4610, 5204, 5834, 6500, 7202, 7940, 8714, 9524, 10370, 11252, 12170, 13124, 14114, 15140, 16202, 17300, 18434, 19604, 20810, 22052, 23330, 24644, 25994, 27380, 28802, 30260
a(n) = (3*n-1)^2+(3*n+1)^2 = (n-1)^2+(n+1)^2+(4*n)^2 for n>0. - Bruno Berselli, Feb 06 2012
[A005565] 20, 75, 189, 392, 720, 1215, 1925, 2904, 4212, 5915, 8085, 10800, 14144, 18207, 23085, 28880, 35700, 43659, 52877, 63480, 75600, 89375, 104949, 122472, 142100, 163995, 188325, 215264, 244992, 277695, 313565, 352800, 395604, 442187, 492765, 547560, 606800
a(n) = 1/4*(n^4+14n^3+69n^2+136n+80). G.f.: (20-25x+14x^2-3x^3)/(1-x)^5. - Ralf Stephan, Apr 23 2004
a(n) = binomial(n+4,2)^2 - binomial(n+4,1)^2. - Gary Detlefs, Nov 22 2011
[A211613] 0, 1, 20, 78, 199, 407, 726, 1180, 1793, 2589, 3592, 4826, 6315, 8083, 10154, 12552, 15301, 18425, 21948, 25894, 30287, 35151, 40510, 46388, 52809, 59797, 67376, 75570, 84403, 93899, 104082, 114976, 126605, 138993, 152164, 166142, 180951, 196615, 213158
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4.
a(n) = (-6 + 9*n - 9*n^2 + 8*n^3)/2 for n>0.
[A292360] 0, 1, 20, 78, 300, 980, 3120, 9527, 28560, 84114, 244750, 704836, 2013120, 5709613, 16097900, 45155190, 126099120, 350765012, 972333360, 2687024099, 7404969000, 20355783546, 55829853970, 152808294148, 417451104000, 1138438728025, 3099690135620, 8427213134622
a(n) = n*Sum_{k=1..n} Lucas(k)^2 (by Adnan Ali, see References).
a(n) = 6*a(n-1) - 9*a(n-2) - 6*a(n-3) + 20*a(n-4) - 6*a(n-5) - 9*a(n-6) + 6*a(n-7) - a(n-8) for n > 7. (End)
a(n) = n*(Lucas(2*n+1)-1) for n even, otherwise a(n) = n*(Lucas(2*n+1)-3). - Bruno Berselli, Sep 15 2017
[A195322] 0, 20, 80, 180, 320, 500, 720, 980, 1280, 1620, 2000, 2420, 2880, 3380, 3920, 4500, 5120, 5780, 6480, 7220, 8000, 8820, 9680, 10580, 11520, 12500, 13520, 14580, 15680, 16820, 18000, 19220, 20480, 21780, 23120, 24500, 25920, 27380, 28880, 30420, 32000
a(0)=0, a(1)=20, a(2)=80, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jan 18 2013
[A103532] 1, 20, 81, 208, 425, 756, 1225, 1856, 2673, 3700, 4961, 6480, 8281, 10388, 12825, 15616, 18785, 22356, 26353, 30800, 35721, 41140, 47081, 53568, 60625, 68276, 76545, 85456, 95033, 105300, 116281, 128000, 140481, 153748, 167825, 182736
a(n) = (4*n+1)*(n+1)^2.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Harvey P. Dale, Jan 21 2013
a(n) = Sum_{i=0..n} (n+1)*(8*i+1). [Bruno Berselli, Sep 08 2015]
[A006566] 0, 1, 20, 84, 220, 455, 816, 1330, 2024, 2925, 4060, 5456, 7140, 9139, 11480, 14190, 17296, 20825, 24804, 29260, 34220, 39711, 45760, 52394, 59640, 67525, 76076, 85320, 95284, 105995, 117480, 129766, 142880, 156849, 171700, 187460, 204156
a(n) = C(n+2,3) + 16 C(n+1,3) + 10 C(n,3).
a(0)=0, a(1)=1, a(2)=20, a(3)=84, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Jul 24 2013
[A211158] 20, 84, 528, 1040, 3060, 4788, 10304, 14400, 26100, 34100, 55440, 69264, 104468, 126420, 180480, 213248, 291924, 338580, 448400, 512400, 660660, 745844, 940608, 1051200, 1301300, 1441908, 1756944, 1932560, 2322900, 2538900, 3015680, 3277824, 3852948, 4167380
a(n) = n*(n + 1)*(3*n + 1 + 3*n^2 - (-1)^n*(2*n + 1)). Therefore:
a(n) = n^2*(n + 1)*(3*n + 1) if n is even,
a(n) = n*(n + 1)^2*(3*n + 2) if n is odd.
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 9.
a(n) = a(-n-1). - Bruno Berselli, Dec 14 2016
[A027849] 1, 20, 87, 232, 485, 876, 1435, 2192, 3177, 4420, 5951, 7800, 9997, 12572, 15555, 18976, 22865, 27252, 32167, 37640, 43701, 50380, 57707, 65712, 74425, 83876, 94095, 105112, 116957, 129660, 143251
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 3.
[A243645] 0, 0, 0, 1, 20, 87, 244, 545, 1056, 1855, 3032, 4689, 6940, 9911, 13740, 18577, 24584, 31935, 40816, 51425, 63972, 78679, 95780, 115521, 138160, 163967, 193224, 226225, 263276, 304695, 350812, 401969, 458520, 520831, 589280, 664257, 746164, 835415, 932436
a(n) = (n^4-4*n^3-n^2+18*n-16)/2 for n>=2, a(n) = 0 for n<2.
[A213839] 1, 20, 89, 240, 505, 916, 1505, 2304, 3345, 4660, 6281, 8240, 10569, 13300, 16465, 20096, 24225, 28884, 34105, 39920, 46361, 53460, 61249, 69760, 79025, 89076, 99945, 111664, 124265, 137780, 152241, 167680
a(n) = (8*n - 21*n^2 + 16*n^3)/3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A264851] 0, 1, 20, 90, 260, 595, 1176, 2100, 3480, 5445, 8140, 11726, 16380, 22295, 29680, 38760, 49776, 62985, 78660, 97090, 118580, 143451, 172040, 204700, 241800, 283725, 330876, 383670, 442540, 507935, 580320, 660176, 748000, 844305, 949620, 1064490, 1189476
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Nov 27 2015
[A169711] 1, 20, 93, 256, 545, 996, 1645, 2528, 3681, 5140, 6941, 9120, 11713, 14756, 18285, 22336, 26945, 32148, 37981, 44480, 51681, 59620, 68333, 77856, 88225, 99476, 111645, 124768, 138881, 154020, 170221, 187520, 205953, 225556, 246365, 268416, 291745, 316388
a(n) = 6*n^3 - 9*n^2 + 4*n. - Peter Luschny, May 27 2017
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, May 28 2017
[A158446] 20, 95, 220, 395, 620, 895, 1220, 1595, 2020, 2495, 3020, 3595, 4220, 4895, 5620, 6395, 7220, 8095, 9020, 9995, 11020, 12095, 13220, 14395, 15620, 16895, 18220, 19595, 21020, 22495, 24020, 25595, 27220, 28895, 30620, 32395, 34220, 36095
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A188050] 0, 20, 100, 280, 600, 1100, 1820, 2800, 4080, 5700, 7700, 10120, 13000, 16380, 20300, 24800, 29920, 35700, 42180, 49400, 57400, 66220, 75900, 86480, 98000, 110500, 124020, 138600, 154280, 171100, 189100, 208320, 228800, 250580, 273700
a(n) = (10/3)*n*(n + 1)*(2*n + 1).
[A187756] 0, 1, 20, 105, 336, 825, 1716, 3185, 5440, 8721, 13300, 19481, 27600, 38025, 51156, 67425, 87296, 111265, 139860, 173641, 213200, 259161, 312180, 372945, 442176, 520625, 609076, 708345, 819280, 942761, 1079700, 1231041, 1397760, 1580865, 1781396, 2000425
a(n) = a(-n) for all n in Z.
[A173963] 0, 0, 20, 108, 336, 800, 1620, 2940, 4928, 7776, 11700, 16940, 23760, 32448, 43316, 56700, 72960, 92480, 115668, 142956, 174800, 211680, 254100, 302588, 357696, 420000, 490100, 568620, 656208, 753536, 861300, 980220, 1111040, 1254528
a(n) = (n^2 - 4) * (n-1)^2.
a(n) = 5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5), with a(1)=0, a(2)=0, a(3)=20, a(4)=108, a(5)=336. [Harvey P. Dale, Aug 16 2011]

[A086605] 0, 1, 20, 111, 328, 725, 1356, 2275, 3536, 5193, 7300, 9911, 13080, 16861, 21308, 26475, 32416, 39185, 46836, 55423, 65000, 75621, 87340, 100211, 114288, 129625, 146276, 164295, 183736, 204653, 227100, 251131, 276800, 304161, 333268, 364175
a(0)=0, a(1)=1, a(2)=20, a(3)=111, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Mar 05 2013
[A093566] 0, 0, 0, 0, 1, 20, 120, 455, 1330, 3276, 7140, 14190, 26235, 45760, 76076, 121485, 187460, 280840, 410040, 585276, 818805, 1125180, 1521520, 2027795, 2667126, 3466100, 4455100, 5668650, 7145775, 8930376, 11071620, 13624345, 16649480, 20214480
a(n) = binomial(binomial(n-3, 2), 3).
[A085284] 0, 1, 20, 135, 560, 1750, 4536, 10290, 21120, 40095, 71500, 121121, 196560, 307580, 466480, 688500, 992256, 1400205, 1939140, 2640715, 3542000, 4686066, 6122600, 7908550, 10108800, 12796875, 16055676, 19978245, 24668560, 30242360, 36828000
a(n)=n^3(n+1)(n+2)(n+3)/4!
[A144965] 0, 20, 136, 444, 1040, 2020, 3480, 5516, 8224, 11700, 16040, 21340, 27696, 35204, 43960, 54060, 65600, 78676, 93384, 109820, 128080, 148260, 170456, 194764, 221280, 250100, 281320, 315036, 351344, 390340, 432120, 476780, 524416, 575124
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 30 2012
[A054389] 1, 20, 140, 620, 2016, 5364, 12292, 25228, 47488, 83508, 138908, 220748, 337568, 499668, 719124, 1010092, 1388800, 1873876, 2486316, 3249836, 4190816, 5338676, 6725796, 8387916, 10364032, 12696820, 15432508, 18621324, 22317344, 26578964, 31468724, 37053804
a(n) = 4*a(n-1) - 4*a(n-2) - 4*a(n-3) + 10*a(n-4) - 4*a(n-5) - 4*a(n-6) + 4*a(n-7) - a(n-8) for n>8.
a(n) = (77*n^5 + 630*n^3 + 448*n)/60 for n>0 and even.
a(n) = (77*n^5 + 630*n^3 + 493*n)/60 for n odd.
[A071816] 1, 20, 141, 580, 1751, 4332, 9331, 18152, 32661, 55252, 88913, 137292, 204763, 296492, 418503, 577744, 782153, 1040724, 1363573, 1762004, 2248575, 2837164, 3543035, 4382904, 5375005, 6539156, 7896825, 9471196, 11287235, 13371756
a(n) = n*(11*n^4+5*n^2+4)/20. Recurrence: a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). G.f.: x*(1+14*x+36*x^2+14*x^3+x^4)/(1-x)^6. - Vladeta Jovovic, Jun 09 2002
[A108647] 1, 20, 150, 700, 2450, 7056, 17640, 39600, 81675, 157300, 286286, 496860, 828100, 1332800, 2080800, 3162816, 4694805, 6822900, 9728950, 13636700, 18818646, 25603600, 34385000, 45630000, 59889375, 77808276, 100137870, 127747900
a(n)=C(n+4,4)*C(n+3,2)(n+1)/3. - Paul Barry, May 13 2006
a(n)= 4*C(n,4)^2/n, n >= 4. - Zerinvary Lajos, May 09 2008
[A101091] 1, 20, 155, 760, 2814, 8592, 22770, 54120, 117975, 239668, 459173, 837200, 1463020, 2464320, 4019412, 6372144, 9849885, 14884980, 22040095, 32037896, 45795530, 64464400, 89475750, 122592600, 165968595, 222214356, 294471945, 386498080
a(n) = n*(1 + n)*(2 + n)^2*(3 + n)*(4 + n)*(-1 + 3*n*(4 + n))/5040.
a(1)=1, a(2)=20, a(3)=155, a(4)=760, a(5)=2814, a(6)=8592, a(7)=22770, a(8)=54120, a(9)=117975, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3)- 126*a(n-4)+126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). [Harvey P. Dale, Dec 30 2011]
[A118676] 0, 20, 161, 237, 341, 1140, 1580, 2184, 6837, 9401, 12921, 40040, 54984, 75500, 233561, 320661, 440237, 1361484, 1869140, 2566080, 7935501, 10894337, 14956401, 46251680, 63497040, 87172484, 269574737, 370088061, 508078661, 1571196900, 2157031484, 2961299640
a(n) = 6*a(n-3)-a(n-6)+158 for n > 6; a(1)=0, a(2)=20, a(3)=161, a(4)=237, a(5)=341, a(6)=1140.
[A056114] 1, 20, 165, 880, 3575, 12012, 35035, 91520, 218790, 486200, 1016158, 2015520, 3821090, 6963880, 12257850, 20920064, 34730575, 56241900, 89049675, 138138000, 210315105, 314757300, 463681725, 673171200, 964177500, 1363732656, 1906401420, 2636011840, 3607704980
a(n) = (n+1)*C(n+9, 9).
[A292281] 1, 20, 167, 867, 3322, 10309, 27410, 64770, 139479, 278674, 523457, 933725, 1594008, 2620411, 4168756, 6444020, 9711165, 14307456, 20656363, 29283143, 40832198, 56086305, 75987814, 101661910, 134442035, 175897566, 227863845, 292474657, 372197252, 469870007, 588742824
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>7.
[A056932] 1, 20, 168, 887, 3490, 11196, 30900, 75966, 170379, 354640, 693836, 1288365, 2287844, 3908776, 6456600, 10352796, 16167765, 24660252, 36824128, 53943395, 77656326, 110029700, 153644140, 211691610, 288086175, 387589176, 515950020, 680063833, 888147272
a(n) = 48 C(n+8, 8) - 96 C(n+7, 7) + 63 C(n+6, 6) - 15 C(n+5, 5) + C(n+4, 4). G.f.: (1+11*x+24*x^2+11*x^3+x^4)/(1-x)^9. [Berman and Koehler]
[A056128] 1, 20, 174, 988, 4277, 15288, 47320, 130832, 330174, 772616, 1696396, 3527160, 6995534, 13312768, 24426552, 43385360, 74847175, 125777340, 206390730, 331405620, 521690715, 806403000, 1225732560, 1834391520, 2706007980, 3938612496, 5661434520, 8043259504
a(n) = (9n+11)*C(n+10, 10)/11.
[A047819] 1, 20, 175, 980, 4116, 14112, 41580, 108900, 259545, 572572, 1184183, 2318680, 4331600, 7768320, 13441968, 22535064, 36729945, 58373700, 90684055, 138003404, 206108980, 302588000, 437287500, 622849500, 875343105, 1215006156, 1667110095
a(n) = C(n,n-1)*C(n+1,n-2)*C(n+2,n-3)/12, n>=3 . - Zerinvary Lajos, May 29 2007
a(n-3) = 1/24*sum {1 <= x_1, x_2, x_3 <= n} (det V(x_1,x_2,x_3))^2 = 1/24*sum {1 <= i,j,k <= n} ((i-j)(i-k)(j-k))^2, where V(x_1,x_2,x_3) is the Vandermonde matrix of order 3. - Peter Bala, Sep 21 2007
a(n) = -a(-6-n) for all n in Z. - Michael Somos, Dec 26 2016
[A177073] 20, 182, 506, 992, 1640, 2450, 3422, 4556, 5852, 7310, 8930, 10712, 12656, 14762, 17030, 19460, 22052, 24806, 27722, 30800, 34040, 37442, 41006, 44732, 48620, 52670, 56882, 61256, 65792, 70490, 75350, 80372, 85556, 90902, 96410, 102080
a(n) = 162*n+a(n-1) with n>0, a(0)=20.
a(0)=20, a(1)=182, a(2)=506, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 24 2011
[A210429] 0, 1, 20, 189, 1100, 4615, 15372, 43219, 106808, 238581, 491380, 946913, 1726308, 3002987, 5018092, 8098695, 12679024, 19324937, 28761876, 41906533, 59902460, 84159855, 116399756, 158702875, 213563304, 283947325, 373357556, 485902665, 626372884, 800321555
a(n) = n*(180+(637+(385+58*n^2)*n^2)*n^2)/1260.
[A035474] 1, 20, 200, 1340, 6800, 29028, 108120, 355980, 1047840, 2793140, 6830056, 15502300, 32993200, 66410500, 127335800, 233975084, 414071360, 708767060, 1177632520, 1905107580, 3008636112, 4648808100, 7041860760, 10474929100, 15324477280, 22078385140, 31362209320
a(m) = sum(2^k*binomial(n, k)*binomial(m-1, k-1), k=0..n)+2^n*binomial((n+2*m)/2-1, n-1), where n=10, a(0)=1.
[A099197] 0, 1, 20, 201, 1360, 7001, 29364, 104881, 329024, 927441, 2390004, 5707449, 12767184, 26986089, 54284244, 104535009, 193664256, 346615329, 601446996, 1014889769, 1669752016, 2684641785, 4226553716, 6526963345, 9902174016, 14778775025, 21725194036, 31490462745
a(n) = 10-crosspolytope(n) = (n^2)*(2*n^8+120*n^6+1806*n^4+7180*n^2+5067)/14175.
[A094311] 1, 20, 210, 1309, 5720, 19536, 55825, 139490, 314019, 650440, 1258796, 2302455, 4015570, 6724004, 10870035, 17041156, 26003285, 38738700, 56489014, 80803505, 113593116, 157190440, 214416005, 288651174, 383917975, 504966176, 657367920
a(1)=1, a(2)=20, a(3)=210, a(4)=1309, a(5)=5720, a(6)=19536, a(7)=55825, a(8)=139490, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a (n-8) [From Harvey P. Dale, Oct 17 2011]
[A028294] 1, 20, 281, 1357, 4281, 10666, 22825, 43891, 77937, 130096, 206681, 315305, 465001, 666342, 931561, 1274671, 1711585, 2260236, 2940697, 3775301, 4788761, 6008290, 7463721, 9187627, 11215441, 13585576, 16339545, 19522081, 23181257, 27368606, 32139241
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Wesley Ivan Hurt, Aug 28 2015
[A054621] 0, 1, 20, 315, 2344, 11165, 39996, 117655, 299600, 683289, 1428580, 2783891, 5118840, 8964085, 15059084, 24408495, 38347936, 58619825, 87460020, 127695979, 182857160, 257298381, 356336860, 486403655, 655210224, 871930825, 1147401476, 1494336195, 1927561240
a(n) = (1/7) * Sum_{d|7} phi(d)*n^(7/d) = (1/7) * (n^7 + 6*n). [corrected by Klaus Wagner, Sep 15 2015]
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8), n>7. - Wesley Ivan Hurt, Sep 15 2015
[A158601] 20, 420, 1620, 3620, 6420, 10020, 14420, 19620, 25620, 32420, 40020, 48420, 57620, 67620, 78420, 90020, 102420, 115620, 129620, 144420, 160020, 176420, 193620, 211620, 230420, 250020, 270420, 291620, 313620, 336420, 360020, 384420, 409620
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A022355] 0, 21, 21, 42, 63, 105, 168, 273, 441, 714, 1155, 1869, 3024, 4893, 7917, 12810, 20727, 33537, 54264, 87801, 142065, 229866, 371931, 601797, 973728, 1575525, 2549253, 4124778, 6674031, 10798809, 17472840, 28271649, 45744489, 74016138, 119760627, 193776765
a(n) = 21*Fibonacci(n) = h*Fibonacci(n+k) + Fibonacci(n+k-h) with h=8, k=2. - Bruno Berselli, Feb 20 2017
a(n) = -21*(((1-sqrt(5))/2)^n - ((1+sqrt(5))/2)^n) / sqrt(5).
a(n) = a(n-1) + a(n-2) for n>1.

[A241851] 21, 22, 25, 30, 37, 46, 57, 70, 85, 102, 121, 142, 165, 190, 217, 246, 277, 310, 345, 382, 421, 462, 505, 550, 597, 646, 697, 750, 805, 862, 921, 982, 1045, 1110, 1177, 1246, 1317, 1390, 1465, 1542, 1621, 1702, 1785, 1870, 1957, 2046, 2137, 2230, 2325
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A022391] 1, 21, 22, 43, 65, 108, 173, 281, 454, 735, 1189, 1924, 3113, 5037, 8150, 13187, 21337, 34524, 55861, 90385, 146246, 236631, 382877, 619508, 1002385, 1621893, 2624278, 4246171, 6870449, 11116620
a(n) = a(n-1) + a(n-2), n>=2, a(0)=1, a(1)=21. a(-1):=20.
[A219393] 0, 21, 25, 88, 96, 201, 213, 360, 376, 565, 585, 816, 840, 1113, 1141, 1456, 1488, 1845, 1881, 2280, 2320, 2761, 2805, 3288, 3336, 3861, 3913, 4480, 4536, 5145, 5205, 5856, 5920, 6613, 6681, 7416, 7488, 8265, 8341, 9160, 9240, 10101, 10185, 11088, 11176, 12121, 12213
a(n) = a(-n+1) = (46*n*(n-1) + 19*(-1)^n*(2*n - 1) + 3)/8 + 2.
[A254368] 21, 28, 44, 82, 176, 418, 1064, 2842, 7856, 22258, 64184, 187402, 551936, 1635298, 4864904, 14512762, 43374416, 129795538, 388731224, 1164882922, 3492027296, 10470838978, 31402031144, 94185121882, 282513422576, 847456381618, 2542201372664, 7626268573642, 22878134632256, 68633061719458, 205896500803784, 617684133702202
a(n) = 6*a(n-1)-11*a(n-2)+6*a(n-3). - Colin Barker, Jan 30 2015
[A228142] 1, 21, 30, 82, 99, 183, 208, 324, 357, 505, 546, 726, 775, 987, 1044, 1288, 1353, 1629, 1702, 2010, 2091, 2431, 2520, 2892, 2989, 3393, 3498, 3934, 4047, 4515, 4636, 5136, 5265, 5797, 5934, 6498, 6643, 7239, 7392, 8020, 8181, 8841, 9010, 9702, 9879, 10603
a(n) = (-3/4*(-1+(-1)^n)+(-5/2+3*(-1)^n)*n+5*n^2).
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A034111] 21, 31, 43, 57, 73, 91, 111, 133, 157, 183, 211, 241, 273, 307, 343, 381, 421, 463, 507, 553, 601, 651, 703, 757, 813, 871, 931, 993, 1057, 1123, 1191, 1261, 1333, 1407, 1483, 1561, 1641, 1723, 1807, 1893, 1981, 2071, 2163, 2257, 2353, 2451, 2551, 2653
a(n) = n^2 + 9*n + 21. - Charles R Greathouse IV, Aug 10 2010
[A168004] 21, 32, 43, 54, 65, 76, 86, 97, 108, 119, 131, 141, 151, 161, 171, 181, 191, 201, 211, 221, 231, 241, 252, 262, 272, 282, 292, 302, 312, 322, 332, 342, 352, 362, 372, 383, 393, 403, 413, 423, 433, 443, 453, 463, 473, 483, 493, 504, 514, 524, 534, 544, 554
a(n) - a(n-1) can be 1 : 8*624 = 4992 and 8*625 = 5000. - Altug Alkan, Jul 04 2016
[A026068] 21, 33, 49, 68, 90, 116, 145, 179, 217, 259, 306, 357, 414, 476, 543, 616, 694, 779, 870, 967, 1071, 1181, 1299, 1424, 1556, 1696, 1843, 1999, 2163, 2335, 2516, 2705, 2904, 3112, 3329, 3556, 3792, 4039, 4296, 4563, 4841, 5129, 5429, 5740, 6062, 6396, 6741
a(n)=(n + 7)*(n^2 + 35*n + 90)/30 - 1/5*(1 + (- 1/2 + 3/10*5^(1/2))*cos(2*n*Pi/5) + (1/5*2^(1/2)*(5 + 5^(1/2))^(1/2) + 1/10*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(2*n*Pi/5) + (- 1/2 - 3/10*5^(1/2))*cos(4*n*Pi/5) + (- 1/10*2^(1/2)*(5 + 5^(1/2))^(1/2) + 1/5*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(4*n*Pi/5)) [From Richard Choulet, Dec 14 2008]
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3) +a(n-5) -3*a(n-6) +3*a(n-7) -a(n-8). G.f.: -x^7*(-21+30*x-13*x^2+x^3+20*x^5-29*x^6+11*x^7)/((x^4+x^3+x^2+x+1) * (x-1)^4). [From R. J. Mathar, Oct 05 2009]
[A072708] 21, 39, 42, 48, 81, 99, 102, 108, 141, 159, 162, 168, 201, 219, 222, 228, 261, 279, 282, 288, 321, 339, 342, 348, 381, 399, 402, 408, 441, 459, 462, 468, 501, 519, 522, 528, 561, 579, 582, 588, 621, 639, 642, 648, 681, 699, 702, 708, 741, 759, 762, 768, 801
a(n) = (-3/4+(3*i)/4)*((1+i)*(-1)^n + (5+2*i)*(-i)^n + (2+5*i)*i^n - (10+10*i)*n) where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A104393] 21, 41, 51, 55, 76, 86, 90, 106, 110, 120, 132, 142, 146, 162, 166, 176, 197, 201, 211, 216, 226, 230, 231, 246, 250, 260, 281, 285, 295, 315, 336, 337, 341, 346, 350, 351, 366, 370, 371, 380, 401, 405, 406, 415, 435, 457, 461, 471, 491, 501
a(n) = Ptop(i) + Ptop(j) + Ptop(k) for some positive i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A154576] 21, 41, 65, 93, 125, 161, 201, 245, 293, 345, 401, 461, 525, 593, 665, 741, 821, 905, 993, 1085, 1181, 1281, 1385, 1493, 1605, 1721, 1841, 1965, 2093, 2225, 2361, 2501, 2645, 2793, 2945, 3101, 3261, 3425, 3593, 3765, 3941, 4121, 4305, 4493, 4685, 4881
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 22 2012
[A173960] 21, 41, 69, 105, 149, 201, 261, 329, 405, 489, 581, 681, 789, 905, 1029, 1161, 1301, 1449, 1605, 1769, 1941, 2121, 2309, 2505, 2709, 2921, 3141, 3369, 3605, 3849, 4101, 4361, 4629, 4905, 5189, 5481, 5781, 6089, 6405, 6729, 7061, 7401, 7749, 8105, 8469
a(n) = ((2*n-1)^2+(2*n+1)^2+(2*n+3)^2+(2*n+5)^2)/4 = 4*n^2+8*n+9.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(21-22*x+9*x^2)/(1-x)^3. - Colin Barker, Apr 15 2012
[A195034] 0, 21, 41, 83, 123, 186, 246, 330, 410, 515, 615, 741, 861, 1008, 1148, 1316, 1476, 1665, 1845, 2055, 2255, 2486, 2706, 2958, 3198, 3471, 3731, 4025, 4305, 4620, 4920, 5256, 5576, 5933, 6273, 6651, 7011, 7410, 7790, 8210, 8610, 9051, 9471
a(n) = (2*n*(41*n+83)-(2*n+43)*(-1)^n+43)/16.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A235497] 21, 42, 63, 84, 105, 126, 147, 168, 189, 2010, 2211, 2412, 2613, 2814, 3015, 3216, 3417, 3618, 3819, 4020, 4221, 4422, 4623, 4824, 5025, 5226, 5427, 5628, 5829, 6030, 6231, 6432, 6633, 6834, 7035, 7236, 7437, 7638, 7839, 8040, 8241, 8442, 8643, 8844, 9045
a(n) = 2*n*10^floor(log_10(n) + 1) + n.
[A175805] 21, 42, 84, 168, 336, 672, 1344, 2688, 5376, 10752, 21504, 43008, 86016, 172032, 344064, 688128, 1376256, 2752512, 5505024, 11010048, 22020096, 44040192, 88080384, 176160768, 352321536, 704643072, 1409286144, 2818572288, 5637144576, 11274289152, 22548578304, 45097156608
a(n) = 2*a(n-1). - Vincenzo Librandi, Jul 08 2016
[A135391] 21, 43, 65, 87, 109, 131, 152, 174, 196, 218, 240, 262, 284, 305, 327, 349, 371, 393, 415, 437, 458, 480, 502, 524, 546, 568, 590, 611, 633, 655, 677, 699, 721, 743, 764, 786, 808, 830, 852, 874, 896, 917, 939, 961, 983, 1005, 1027, 1049, 1070, 1092, 1114
a(n)/n has the limit 1/(1-Log[9]/Log[10]) = 21.85434... - Stefan Steinerberger, Dec 12 2007
[A195049] 0, 1, 21, 43, 84, 127, 189, 253, 336, 421, 525, 631, 756, 883, 1029, 1177, 1344, 1513, 1701, 1891, 2100, 2311, 2541, 2773, 3024, 3277, 3549, 3823, 4116, 4411, 4725, 5041, 5376, 5713, 6069, 6427, 6804, 7183, 7581, 7981, 8400, 8821, 9261, 9703, 10164
a(n) = 21*n^2/4 + 17*((-1)^n-1)/8.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A120071] 0, 21, 44, 69, 96, 125, 156, 189, 224, 261, 300, 341, 384, 429, 476, 525, 576, 629, 684, 741, 800, 861, 924, 989, 1056, 1125, 1196, 1269, 1344, 1421, 1500, 1581, 1664, 1749, 1836, 1925, 2016, 2109, 2204, 2301
a(n) = (n+10)^2 - 10^2 = n*(n+20), n>=0.
a(n) = 2*n + a(n-1) + 19 (with a(0)=0). - Vincenzo Librandi, Nov 13 2010
[A180863] 21, 44, 75, 114, 161, 216, 279, 350, 429, 516, 611, 714, 825, 944, 1071, 1206, 1349, 1500, 1659, 1826, 2001, 2184, 2375, 2574, 2781, 2996, 3219, 3450, 3689, 3936, 4191, 4454, 4725, 5004, 5291, 5586, 5889, 6200, 6519, 6846, 7181, 7524, 7875, 8234, 8601
a(n) = n(4*n-5).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n). - Eric W. Weisstein, Sep 07 2017
[A139581] 0, 21, 46, 75, 108, 145, 186, 231, 280, 333, 390, 451, 516, 585, 658, 735, 816, 901, 990, 1083, 1180, 1281, 1386, 1495, 1608, 1725, 1846, 1971, 2100, 2233, 2370, 2511, 2656, 2805, 2958, 3115, 3276, 3441, 3610, 3783, 3960, 4141
a(n)=2*n^2+19*n.
a(n)=a(n-1)+4*n+17 (with a(0)=0) [From Vincenzo Librandi, Nov 24 2010]
[A140681] 0, 21, 48, 81, 120, 165, 216, 273, 336, 405, 480, 561, 648, 741, 840, 945, 1056, 1173, 1296, 1425, 1560, 1701, 1848, 2001, 2160, 2325, 2496, 2673, 2856, 3045, 3240, 3441, 3648, 3861, 4080, 4305, 4536, 4773, 5016, 5265, 5520, 5781
a(n) = 6*n + a(n-1) + 15 with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
[A166150] 1, 21, 51, 91, 141, 201, 271, 351, 441, 541, 651, 771, 901, 1041, 1191, 1351, 1521, 1701, 1891, 2091, 2301, 2521, 2751, 2991, 3241, 3501, 3771, 4051, 4341, 4641, 4951, 5271, 5601, 5941, 6291, 6651, 7021, 7401, 7791, 8191, 8601, 9021, 9451, 9891, 10341
a(n) = a(n-1)+10n (with a(1)=1).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A224334] 21, 51, 93, 147, 213, 291, 381, 483, 597, 723, 861, 1011, 1173, 1347, 1533, 1731, 1941, 2163, 2397, 2643, 2901, 3171, 3453, 3747, 4053, 4371, 4701, 5043, 5397, 5763, 6141, 6531, 6933, 7347, 7773, 8211, 8661, 9123, 9597, 10083, 10581, 11091, 11613, 12147
a(n) = 6*n^2 + 12*n + 3
[A180674] 0, 21, 55, 110, 199, 343, 576, 953, 1563, 2550, 4147, 6731, 10912, 17677, 28623, 46334, 74991, 121359, 196384, 317777, 514195, 832006, 1346235, 2178275, 3524544, 5702853, 9227431, 14930318, 24157783, 39088135, 63245952, 102334121

a(n) = a(n-1) + a(n-2) + 34 for n>1, a(0)=0, a(1)=21, and where 34 = F(9).
a(n) = (-34 + (2^(-n)*((1-sqrt(5))^n*(-38+17*sqrt(5)) + (1+sqrt(5))^n*(38+17*sqrt(5)))) / sqrt(5)).
a(n) = 2*a(n-1) - a(n-3) for n>2.
[A067727] 21, 56, 105, 168, 245, 336, 441, 560, 693, 840, 1001, 1176, 1365, 1568, 1785, 2016, 2261, 2520, 2793, 3080, 3381, 3696, 4025, 4368, 4725, 5096, 5481, 5880, 6293, 6720, 7161, 7616, 8085, 8568, 9065, 9576, 10101, 10640, 11193, 11760, 12341, 12936
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A118057] 1, 21, 57, 109, 177, 261, 361, 477, 609, 757, 921, 1101, 1297, 1509, 1737, 1981, 2241, 2517, 2809, 3117, 3441, 3781, 4137, 4509, 4897, 5301, 5721, 6157, 6609, 7077, 7561, 8061, 8577, 9109, 9657, 10221, 10801, 11397, 12009, 12637, 13281, 13941, 14617
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(1+18*x-3*x^2)/(1-x)^3. - Colin Barker, Jul 01 2012
a(n)+(a(n)+1)+...+(a(n)+8n+5)=(a(n)+8n+6)+...+a(n+1)-1; a(n+1)-1=a(n)+16n+3.
a(n)+(a(n)+1)+...+(a(n)+8n+5)=(4n-1)(4n+1)(4n+3); e.g., 21+22+...+56=693=7*9*11.
a(n) = 16*n+a(n-1)-12 (with a(1)=1). - Vincenzo Librandi, Nov 13 2010
[A051873] 0, 1, 21, 60, 118, 195, 291, 406, 540, 693, 865, 1056, 1266, 1495, 1743, 2010, 2296, 2601, 2925, 3268, 3630, 4011, 4411, 4830, 5268, 5725, 6201, 6696, 7210, 7743, 8295, 8866, 9456, 10065, 10693, 11340, 12006, 12691, 13395, 14118
a(n) = 19*n+a(n-1)-18 with n>0, a(0)=0. [Vincenzo Librandi, Aug 06 2010]
a(19*a(n)+172*n+1) = a(19*a(n)+172*n) + a(19*n+1). - Vladimir Shevelev, Jan 24 2014
[A069133] 1, 21, 61, 121, 201, 301, 421, 561, 721, 901, 1101, 1321, 1561, 1821, 2101, 2401, 2721, 3061, 3421, 3801, 4201, 4621, 5061, 5521, 6001, 6501, 7021, 7561, 8121, 8701, 9301, 9921, 10561, 11221, 11901, 12601, 13321, 14061, 14821, 15601, 16401, 17221, 18061
a(n) = 10n^2 - 10n + 1.
a(n) = 20*n+a(n-1)-20 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(0)=1, a(1)=21, a(2)=61, a(n)=3a(n-1)-3a(n-2)+a(n-3). - Harvey P. Dale, Apr 29 2011
[A014641] 1, 21, 65, 133, 225, 341, 481, 645, 833, 1045, 1281, 1541, 1825, 2133, 2465, 2821, 3201, 3605, 4033, 4485, 4961, 5461, 5985, 6533, 7105, 7701, 8321, 8965, 9633, 10325, 11041, 11781, 12545, 13333, 14145, 14981, 15841, 16725, 17633, 18565, 19521, 20501, 21505
a(n) = a(n-1) + 24*n - 4, with n>0, a(0)=1. - Vincenzo Librandi, Dec 28 2010
[A168240] 21, 67, 139, 237, 361, 511, 687, 889, 1117, 1371, 1651, 1957, 2289, 2647, 3031, 3441, 3877, 4339, 4827, 5341, 5881, 6447, 7039, 7657, 8301, 8971, 9667, 10389, 11137, 11911, 12711, 13537, 14389, 15267, 16171, 17101, 18057, 19039, 20047, 21081, 22141, 23227
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A195026] 0, 21, 70, 147, 252, 385, 546, 735, 952, 1197, 1470, 1771, 2100, 2457, 2842, 3255, 3696, 4165, 4662, 5187, 5740, 6321, 6930, 7567, 8232, 8925, 9646, 10395, 11172, 11977, 12810, 13671, 14560, 15477, 16422, 17395, 18396, 19425, 20482, 21567, 22680, 23821, 24990
a(n) = 14*n^2 + 7*n.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
a(n) = Sum_{i=6n..8n} i. - Wesley Ivan Hurt, Dec 23 2015
[A085027] 21, 77, 165, 285, 437, 621, 837, 1085, 1365, 1677, 2021, 2397, 2805, 3245, 3717, 4221, 4757, 5325, 5925, 6557, 7221, 7917, 8645, 9405, 10197, 11021, 11877, 12765, 13685, 14637, 15621, 16637, 17685, 18765, 19877, 21021, 22197, 23405, 24645, 25917, 27221, 28557, 29925, 31325, 32757, 34221
a(n) = 16*n^2+40*n+21. - Vincenzo Librandi, Aug 13 2011
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: (21+14*x-3*x^2)/(1-x)^3. - Colin Barker, Jul 11 2012
[A144314] 0, 21, 78, 171, 300, 465, 666, 903, 1176, 1485, 1830, 2211, 2628, 3081, 3570, 4095, 4656, 5253, 5886, 6555, 7260, 8001, 8778, 9591, 10440, 11325, 12246, 13203, 14196, 15225, 16290, 17391, 18528, 19701, 20910, 22155, 23436, 24753, 26106, 27495
a(n) = a(n-1)+36*n-15 for n>0, a(0)=0. - Vincenzo Librandi, Dec 27 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A172082] 0, 1, 21, 78, 190, 375, 651, 1036, 1548, 2205, 3025, 4026, 5226, 6643, 8295, 10200, 12376, 14841, 17613, 20710, 24150, 27951, 32131, 36708, 41700, 47125, 53001, 59346, 66178, 73515, 81375, 89776, 98736, 108273, 118405, 129150, 140526
a(0)=0, a(1)=1, a(2)=21, a(3)=78; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). [Harvey P. Dale, Jun 29 2011]
a(n) = Sum_{i=0..n-1} (n-i)*(18*i+1), with a(0)=0. [Bruno Berselli, Feb 10 2014]
[A158493] 1, 21, 81, 181, 321, 501, 721, 981, 1281, 1621, 2001, 2421, 2881, 3381, 3921, 4501, 5121, 5781, 6481, 7221, 8001, 8821, 9681, 10581, 11521, 12501, 13521, 14581, 15681, 16821, 18001, 19221, 20481, 21781, 23121, 24501, 25921, 27381, 28881, 30421
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 21 2012
[A071397] 0, 21, 83, 186, 330, 516, 743, 1012, 1321, 1672, 2065, 2498, 2973, 3489, 4047, 4645, 5285, 5967, 6689, 7453, 8258, 9105, 9993, 10922, 11892, 12904, 13957, 15051, 16186, 17363, 18581, 19841, 21141, 22483, 23866, 25291, 26757, 28264, 29812
a(n) = round(3 * n^2 * sqrt(25+10*sqrt(5)))
[A064762] 0, 21, 84, 189, 336, 525, 756, 1029, 1344, 1701, 2100, 2541, 3024, 3549, 4116, 4725, 5376, 6069, 6804, 7581, 8400, 9261, 10164, 11109, 12096, 13125, 14196, 15309, 16464, 17661, 18900, 20181, 21504, 22869, 24276, 25725, 27216, 28749
a(n) = 42*n+a(n-1)-21 for n>0, a(0)=0. - Vincenzo Librandi, Aug 07 2010
[A158540] 21, 87, 197, 351, 549, 791, 1077, 1407, 1781, 2199, 2661, 3167, 3717, 4311, 4949, 5631, 6357, 7127, 7941, 8799, 9701, 10647, 11637, 12671, 13749, 14871, 16037, 17247, 18501, 19799, 21141, 22527, 23957, 25431, 26949, 28511, 30117, 31767
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). G.f.: x*(-21-24*x+x^2)/(x-1)^3.
[A193218] 1, 21, 95, 259, 549, 1001, 1651, 2535, 3689, 5149, 6951, 9131, 11725, 14769, 18299, 22351, 26961, 32165, 37999, 44499, 51701, 59641, 68355, 77879, 88249, 99501, 111671, 124795, 138909, 154049, 170251, 187551, 205985, 225589, 246399, 268451, 291781, 316425
a(n) = 6*n^3-9*n^2+5*n-1.
[A076454] 1, 21, 102, 310, 735, 1491, 2716, 4572, 7245, 10945, 15906, 22386, 30667, 41055, 53880, 69496, 88281, 110637, 136990, 167790, 203511, 244651, 291732, 345300, 405925, 474201, 550746, 636202, 731235, 836535, 952816, 1080816, 1221297, 1375045, 1542870, 1725606, 1924111
a(n) = n*(n+1)*(2*n^2-1)/2.
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5), n>=6, with a(1)=1, a(2)=21, a(3)=102, a(4)=310, a(5)=735. - L. Edson Jeffery, Dec 30 2013
[A116689] 0, 1, 21, 105, 325, 780, 1596, 2926, 4950, 7875, 11935, 17391, 24531, 33670, 45150, 59340, 76636, 97461, 122265, 151525, 185745, 225456, 271216, 323610, 383250, 450775, 526851, 612171, 707455, 813450, 930930, 1060696, 1203576, 1360425
a(n) = sum(i=0..n) i*(3*i-1)*(3*i-2)/2.
a(n) = n*(9*n^3+6*n^2-5*n-2)/8. G.f.: x*(1+16*x+10*x^2)/(1-x)^5. [Colin Barker, Apr 04 2012]
[A157265] 21, 112, 275, 510, 817, 1196, 1647, 2170, 2765, 3432, 4171, 4982, 5865, 6820, 7847, 8946, 10117, 11360, 12675, 14062, 15521, 17052, 18655, 20330, 22077, 23896, 25787, 27750, 29785, 31892, 34071, 36322, 38645, 41040, 43507, 46046, 48657, 51340
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 27 2012
[A121628] 0, 21, 114, 333, 732, 1365, 2286, 3549, 5208, 7317, 9930, 13101, 16884, 21333, 26502, 32445, 39216, 46869, 55458, 65037, 75660, 87381, 100254, 114333, 129672, 146325, 164346, 183789, 204708, 227157, 251190, 276861, 304224, 333333, 364242, 397005
a(n) = 3*(n - 1)*(3*n^2 - 3*n + 1) with n>0. Corresponding cubes are 3*a(n) + 1 = (3*n - 2)^3.
[A200888] 21, 121, 422, 1121, 2507, 4977, 9052, 15393, 24817, 38313, 57058, 82433, 116039, 159713, 215544, 285889, 373389, 480985, 611934, 769825, 958595, 1182545, 1446356, 1755105, 2114281, 2529801, 3008026, 3555777, 4180351, 4889537, 5691632, 6595457
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A213565] 1, 21, 127, 467, 1302, 3038, 6258, 11754, 20559, 33979, 53625, 81445, 119756, 171276, 239156, 327012, 438957, 579633, 754243, 968583, 1229074, 1542794, 1917510, 2361710, 2884635, 3496311, 4207581, 5030137, 5976552, 7060312
a(n) = (16*n^5 + 85*n^4 + 15*n^3 - 25*n^2 - n)/60.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A008384] 1, 21, 131, 471, 1251, 2751, 5321, 9381, 15421, 24001, 35751, 51371, 71631, 97371, 129501, 169001, 216921, 274381, 342571, 422751, 516251, 624471, 748881, 891021, 1052501, 1235001, 1440271
a(n) = 1 +5*n*(n+1)*(7*n^2+7*n+10)/12. - T. D. Noe, Apr 29 2007
a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5), n> 4. - Harvey P. Dale, Aug 22 2011

[A243201] 1, 21, 133, 481, 1281, 2821, 5461, 9633, 15841, 24661, 36741, 52801, 73633, 100101, 133141, 173761, 223041, 282133, 352261, 434721, 530881, 642181, 770133, 916321, 1082401, 1270101, 1481221, 1717633, 1981281, 2274181, 2598421, 2956161, 3349633, 3781141, 4253061, 4767841, 5328001
a(n) = 3*n^4 + 6*n^3 + 7*n^2 + 4*n + 1.
a(n) = (n^2 + n + 1)*(3*n^2 + 3*n + 1).
a(n) = ((3*n^2 + 3*n + 2)^2 - 1)/3.
[A107731] 1, 21, 141, 521, 1401, 3101, 6021, 10641, 17521, 27301, 40701, 58521, 81641, 111021, 147701, 192801, 247521, 313141, 391021, 482601, 589401, 713021, 855141, 1017521, 1202001, 1410501, 1645021, 1907641, 2200521, 2525901, 2886101, 3283521
a(n)= 1 + (n^2+n)*(n^2+n+1)*10/3. a(-1-n)= a(n). - Michael Somos, Mar 20 2007
[A239569] 0, 1, 21, 151, 615, 1845, 4571, 9926, 19566, 35805, 61765, 101541, 160381, 244881, 363195, 525260, 743036, 1030761, 1405221, 1886035, 2495955, 3261181, 4211691, 5381586, 6809450, 8538725, 10618101, 13101921, 16050601, 19531065, 23617195, 28390296, 33939576
a(n) = (n-1)*(n-2)*(n^4+6*n^3-23*n^2-92*n+264)/48.
[A266733] 0, 21, 168, 756, 2520, 6930, 16632, 36036, 72072, 135135, 240240, 408408, 668304, 1058148, 1627920, 2441880, 3581424, 5148297, 7268184, 10094700, 13813800, 18648630, 24864840, 32776380, 42751800, 55221075, 70682976, 89713008, 112971936, 141214920, 175301280
a(n) = n*(1+n)*(2+n)*(3+n)*(4+n)*(5+n)*(6+n)/240.
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8) for n>7.
[A105249] 1, 21, 168, 840, 3150, 9702, 25872, 61776, 135135, 275275, 528528, 965328, 1689324, 2848860, 4651200, 7379904, 11415789, 17261937, 25573240, 37191000, 53183130, 74890530, 103980240, 142506000, 192976875, 258434631, 342540576, 449672608
a(0)=1, a(1)=21, a(2)=168, a(3)=840, a(4)=3150, a(5)=9702, a(6)=25872, a(7)=61776, a(8)=135135, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3)- 126*a(n-4)+ 126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). - Harvey P. Dale, Oct 08 2012
[A254681] 1, 21, 176, 936, 3750, 12342, 35112, 89232, 207207, 446875, 906048, 1743248, 3206268, 5670588, 9690000, 16062144, 25912029, 40797009, 62837104, 94875000, 140670530, 205134930, 294610680, 417203280, 583171875, 805386231
a(n) = n^2*(1 + n)*(2 + n)*(3 + n)*(4 + n)*(5 + n)^2*(5 + 2*n)/30240.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) + n^4.
[A244875] 1, 21, 179, 938, 3612, 11242, 29947, 70855, 152720, 305330, 573812, 1023939, 1748545, 2875153, 4574922, 7073018, 10660515, 15707931, 22680505, 32155320, 44840378, 61595732, 83456781, 111659833, 147670042, 193211824, 250301858, 321284777, 408871655, 516181395
a(n) = (315*(255+(-1)^n) + 306144*n + 498456*n^2 + 452312*n^3 + 250530*n^4 + 86576*n^5 + 17724*n^6 + 1688*n^7) / 80640. - Colin Barker, Jan 11 2017
[A108679] 1, 21, 196, 1176, 5292, 19404, 60984, 169884, 429429, 1002001, 2186184, 4504864, 8836464, 16604784, 30046752, 52581816, 89311761, 147685461, 238369516, 376372920, 582481900, 885069900, 1322357400, 1945206900, 2820550005, 4035556161, 5702666256, 7965629056
a(n) = binomial(n+5,5)^2 - binomial(n+5,4)*binomial(n+5,6). - Gary Detlefs, Dec 05 2011
[A160768] 21, 203, 896, 2681, 6371, 13011, 23878, 40481, 64561, 98091, 143276, 202553, 278591, 374291, 492786, 637441, 811853, 1019851, 1265496, 1553081, 1887131, 2272403, 2713886, 3216801, 3786601, 4428971, 5149828, 5955321, 6851831
a(n) = 29*n^4/3 +233*n^3/6 +214*n^2/3 +373*n/6 +21. - R. J. Mathar, Sep 11 2011
[A160769] 21, 206, 917, 2757, 6571, 13446, 24711, 41937, 66937, 101766, 148721, 210341, 289407, 388942, 512211, 662721, 844221, 1060702, 1316397, 1615781, 1963571, 2364726, 2824447, 3348177, 3941601, 4610646, 5361481, 6200517, 7134407
a(n) = 121*n^4/12 +40*n^3+869*n^2/12 +125*n/2 +21. - R. J. Mathar, Sep 11 2011
[A160787] 21, 209, 938, 2833, 6771, 13881, 25544, 43393, 69313, 105441, 154166, 218129, 300223, 403593, 531636, 688001, 876589, 1101553, 1367298, 1678481, 2040011, 2457049, 2935008, 3479553, 4096601, 4792321, 5573134, 6445713, 7416983
a(n) = 21*n^4/2 +247*n^3/6 +147*n^2/2 +377*n/6 +21. - R. J. Mathar, Sep 11 2011
[A133355] 1, 21, 210, 1386, 6930, 28314, 99099, 306735, 858858, 2212210, 5309304, 11992344, 25697880, 52581816, 103285710, 195635286, 358664691, 638489775, 1106715610, 1872263250, 3097744650, 5021809650, 7989242625, 12491007165, 19216934100, 29124331236, 43526473056
a(n) = 14*(C(n+6,7)^2-C(n+6,6)*C(n+6,8))/((n+6)*(n+1)). - Gary Detlefs, Jan 06 2014
[A008421] 1, 21, 221, 1561, 8361, 36365, 134245, 433905, 1256465, 3317445, 8097453, 18474633, 39753273, 81270333, 158819253, 298199265, 540279585, 948062325, 1616336765, 2684641785, 4354393801, 6911195501, 10753517061, 16429137361, 24680949041, 36503969061
a(n) = (4*n^10+20*n^9+330*n^8+1200*n^7+7392*n^6+18060*n^5+50270*n^4 +71800*n^3+83754*n^2+50670*n+14175)/14175 - Johannes W. Meijer, Jul 14 2013
[A171108] 0, 0, 21, 225, 882, 2370, 5175, 9891, 17220, 27972, 43065, 63525, 90486, 125190, 168987, 223335, 289800, 370056, 465885, 579177, 711930, 866250, 1044351, 1248555, 1481292, 1745100, 2042625, 2376621, 2749950, 3165582, 3626595, 4136175, 4697616, 5314320
a(1)=0, a(2)=0, a(3)=21, a(4)=225, a(5)=882, a(n)=5*a(n-1)-10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a (n-5). - Harvey P. Dale, Feb 01 2013
[A176711] 21, 285, 1365, 4221, 10197, 21021, 38805, 66045, 105621, 160797, 235221, 332925, 458325, 616221, 811797, 1050621, 1338645, 1682205, 2088021, 2563197, 3115221, 3751965, 4481685, 5313021, 6254997, 7317021, 8508885, 9840765, 11323221
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) + 384 for n > 3; a(0)=21, a(1)=285, a(2)=1365, a(3)=4221.
a(n) = (2*n + 1)*(2*n + 3)*(4*n^2 + 8*n + 7). - corrected by Eric Rowland, Aug 15 2017
a(n) = a(-n-2). - Bruno Berselli, Sep 05 2011
[A275359] 0, 0, 21, 292, 1566, 5664, 16375, 40716, 90552, 184576, 350649, 628500, 1072786, 1756512, 2774811, 4249084, 6331500, 9209856, 13112797, 18315396, 25145094, 33988000, 45295551, 59591532, 77479456, 99650304, 126890625, 160090996, 200254842, 248507616
a(n) = (n^3 - 3*n^2 + 27*n - 8) / 2 * (n-1)^3 for n>0.
a(n) = (n^6-6*n^5+39*n^4-99*n^3+108*n^2-51*n+8)/2 for n>0.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7) for n>7.
[A113531] 1, 21, 321, 2005, 7737, 22461, 54121, 114381, 219345, 390277, 654321, 1045221, 1604041, 2379885, 3430617, 4823581, 6636321, 8957301, 11886625, 15536757, 20033241, 25515421, 32137161, 40067565, 49491697, 60611301, 73645521
a(n) = 1 + 2*n + 3*n^2 + 4*n^3 + 5*n^4 + 6*n^5.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), a(0)=1, a(1)=21, a(2)=321, a(3)=2005, a(4)=7737, a(5)=22461. - Harvey P. Dale, Nov 02 2011
[A158603] 21, 462, 1785, 3990, 7077, 11046, 15897, 21630, 28245, 35742, 44121, 53382, 63525, 74550, 86457, 99246, 112917, 127470, 142905, 159222, 176421, 194502, 213465, 233310, 254037, 275646, 298137, 321510, 345765, 370902, 396921, 423822, 451605
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A006298] 21, 483, 6468, 66066, 570570, 4390386, 31039008, 205633428, 1293938646, 7808250450, 45510945480, 257611421340, 1422156202740, 7683009544980, 40729207226400, 212347275857640, 1090848505817070, 5530195966465170, 27704671055301240, 137308238124957900, 673903972248687180, 3278143051447003740, 15816495077491530240, 75740811006275677080, 360195962116311020700, 1702004224469594857812, 7994567449203067400976, 37343992994700814841496, 173539732151
80255498129585219725284 0, 369470710407611956330387 2, 1693691194368534532532961 6
a(n+1) = ((5*n+3)*(4n*+2)*a(n))/((5*n-2)(n-3)).
[A129993] 0, 21, 504, 597, 704, 3441, 3980, 4601, 20540, 23681, 27300, 120197, 138504, 159597, 701040, 807741, 930680, 4086441, 4708340, 5424881, 23818004, 27442697, 31619004, 138821981, 159948240, 184289541, 809114280, 932247141, 1074118640
a(n) = 6*a(n-3)-a(n-6)+398 for n > 6; a(1)=0, a(2)=21, a(3)=504, a(4)=597, a(5)=704, a(6)=3441.
a(1)=0, a(2)=21, a(3)=504, a(4)=597, a(5)=704, a(6)=3441, a(7)=3980, a(n)=a(n-1)+6*a(n-3)-6*a(n-4)-a(n-6)+a(n-7) From Harvey P. Dale, Jun 03 2012
[A022392] 1, 22, 23, 45, 68, 113, 181, 294, 475, 769, 1244, 2013, 3257, 5270, 8527, 13797, 22324, 36121, 58445, 94566, 153011, 247577, 400588, 648165, 1048753, 1696918, 2745671, 4442589, 7188260, 11630849
a(n) = a(n-1) + a(n-2), n>=2, a(0)=1, a(1)=22. a(-1):=21.
[A129073] 22, 29, 43, 57, 85, 99, 127, 141, 169, 211, 225, 267, 295, 309, 337, 379, 421, 435, 477, 505, 519, 561, 589, 631, 687, 715, 729, 757, 771, 799, 897, 925, 967, 981, 1051, 1065, 1107, 1149, 1177
a(n) = 7*prime(n) + 8. - Zak Seidov, May 12 2007
[A026044] 22, 33, 49, 70, 97, 132, 176, 229, 292, 367, 455, 556, 671, 802, 950, 1115, 1298, 1501, 1725, 1970, 2237, 2528, 2844, 3185, 3552, 3947, 4371, 4824, 5307, 5822, 6370, 6951, 7566, 8217, 8905, 9630, 10393, 11196, 12040, 12925, 13852, 14823, 15839, 16900, 18007, 19162, 20366, 21619, 22922, 24277

a(n)=(n + 5)*(2*n^2 + 11*n + 54)/12 - 1/4 - (1/4)*cos(Pi*n/2) - (1/4)*sin(Pi*n/2) [From Richard Choulet, Dec 13 2008]
[A061561] 22, 35, 84, 105, 180, 225, 360, 405, 744, 837, 1488, 1581, 3024, 3213, 6048, 6237, 12192, 12573, 24384, 24765, 48960, 49725, 97920, 98685, 196224, 197757, 392448, 393981, 785664, 788733, 1571328, 1574397, 3144192, 3150333, 6288384, 6294525
a(0) = 22; a(1) = 35; for n > 1 and n = 2 (mod 4): a(n) = 6*2^(2*k)-3*2^k where k = (n+6)/4; n = 3 (mod 4): a(n) = 6*2^(2*k)+3*2^k-3 where k = (n+5)/4; n = 0 (mod 4): a(n) = 12*2^(2*k)-3*2^k where k = (n+4)/4; n = 1 (mod 4): a(n) = 12*2^(2*k)+9*2^k-3 where k = (n+3)/4. [From Klaus Brockhaus, Sep 05 2002]
[A063327] 1, 22, 42, 64, 86, 106, 128, 150, 170, 192, 214, 234, 256, 278, 298, 320, 342, 362, 384, 406, 426, 448, 470, 490, 512, 534, 554, 576, 598, 618, 640, 662, 682, 704, 726, 746, 768, 790, 810, 832, 854, 874, 896, 918, 938, 960, 982, 1002, 1024
a(n) = a(n-1)+a(n-3)-a(n-4) for n>6.
[A277051] 22, 44, 66, 88, 110, 133, 155, 177, 199, 221, 244, 266, 288, 310, 332, 355, 377, 399, 421, 443, 465, 488, 510, 532, 554, 576, 599, 621, 643, 665, 687, 710, 732, 754, 776, 798, 820, 843, 865, 887, 909, 931, 954, 976, 998, 1020, 1042, 1065, 1087, 1109, 1131, 1153, 1175
a(n) = floor(n/(1-3/Pi)).
[A248422] 22, 44, 66, 88, 1010, 1212, 1414, 1616, 1818, 2020, 2222, 2424, 2626, 2828, 3030, 3232, 3434, 3636, 3838, 4040, 4242, 4444, 4646, 4848, 5050, 5252, 5454, 5656, 5858, 6060, 6262, 6464, 6666, 6868, 7070, 7272, 7474, 7676, 7878, 8080, 8282, 8484, 8686, 8888, 9090, 9292, 9494, 9696, 9898, 100100
a(n) = 2*n*10^ceil(log_10(2*n)) + 2*n. - Tom Edgar, Oct 21 2014
[A038153] 22, 44, 67, 89, 112, 134, 157, 179, 202, 224, 247, 269, 291, 314, 336, 359, 381, 404, 426, 449, 471, 494, 516, 539, 561, 583, 606, 628, 651, 673, 696, 718, 741, 763, 786, 808, 830, 853, 875, 898, 920, 943, 965, 988, 1010, 1033, 1055, 1078, 1100, 1122, 1145
a(n) = floor(n * 22.4591577...).
[A195149] 0, 1, 22, 45, 88, 133, 198, 265, 352, 441, 550, 661, 792, 925, 1078, 1233, 1408, 1585, 1782, 1981, 2200, 2421, 2662, 2905, 3168, 3433, 3718, 4005, 4312, 4621, 4950, 5281, 5632, 5985, 6358, 6733, 7128, 7525, 7942, 8361, 8800, 9241, 9702, 10165, 10648, 11133
a(n) = (22*n^2+9*(-1)^n-9)/4; a(n) = -a(n-1)+11*n^2-11*n+1. - Vincenzo Librandi, Sep 27 2011
[A132763] 0, 22, 46, 72, 100, 130, 162, 196, 232, 270, 310, 352, 396, 442, 490, 540, 592, 646, 702, 760, 820, 882, 946, 1012, 1080, 1150, 1222, 1296, 1372, 1450, 1530, 1612, 1696, 1782, 1870, 1960, 2052, 2146, 2242, 2340, 2440, 2542, 2646, 2752
a(n) = n*(n + 21).
a(n) = 2*n + a(n-1) + 20 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=22, a(2)=46, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 25 2014
[A015226] 22, 50, 252, 372, 946, 1222, 2360, 2856, 4750, 5530, 8372, 9500, 13482, 15022, 20336, 22352, 29190, 31746, 40300, 43460, 53922, 57750, 70312, 74872, 89726, 95082, 112420, 118636, 138650, 145790, 168672, 176800, 202742, 211922, 241116
a(n) = a(n-1) +3*a(n-2) -3*a(n-3) -3*a(n-4) +3*a(n-5) +a(n-6) -a(n-7).
a(n) = 3*a(n-2) -3*a(n-4) +a(n-6) +256.
a(n) = (4*n+(-1)^n+5)*(4*n+(-1)^n+7)*(8*n+2*(-1)^n+9)/24.
[A277979] 0, 22, 52, 90, 136, 190, 252, 322, 400, 486, 580, 682, 792, 910, 1036, 1170, 1312, 1462, 1620, 1786, 1960, 2142, 2332, 2530, 2736, 2950, 3172, 3402, 3640, 3886, 4140, 4402, 4672, 4950, 5236, 5530, 5832, 6142, 6460, 6786, 7120, 7462, 7812, 8170, 8536, 8910, 9292, 9682
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A063302] 1, 22, 56, 91, 126, 161, 196, 231, 266, 301, 336, 369, 406, 441, 476, 509, 546, 579, 616, 649, 686, 719, 756, 787, 826, 859, 896, 927, 966, 997, 1036, 1067, 1106, 1137, 1176, 1205, 1246, 1277, 1316, 1345, 1386, 1415, 1456, 1485, 1526
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A131878] 1, 22, 57, 106, 169, 246, 337, 442, 561, 694, 841, 988, 1163, 1352, 1555, 1772, 2003, 2248, 2507, 2780, 3067, 3368, 3683, 4012, 4355, 4712, 5083, 5468, 5867, 6280, 6707, 7148, 7603, 8072, 8569, 9066, 9577, 10102, 10641
a(n)=a(n-1)+14*n+7 (with a(0)=1) [From Vincenzo Librandi, Nov 23 2010]
[A216299] 22, 61, 85, 142, 166, 169, 178, 199, 268, 316, 415, 451, 478, 541, 682, 775, 787, 862, 1045, 1111, 1237, 1387, 1618, 1720, 1738, 2014, 2035, 2074, 2131, 2215, 2305, 2362, 2410, 2710, 2773, 2938, 3013, 3055, 3271, 3334, 3361, 3412, 3652, 4012, 4042, 4069
a(n) » n log^3 n. - Charles R Greathouse IV, Sep 07 2012
[A051874] 0, 1, 22, 63, 124, 205, 306, 427, 568, 729, 910, 1111, 1332, 1573, 1834, 2115, 2416, 2737, 3078, 3439, 3820, 4221, 4642, 5083, 5544, 6025, 6526, 7047, 7588, 8149, 8730, 9331, 9952, 10593, 11254, 11935, 12636, 13357, 14098, 14859
a(n) = 2*a(n-1)-a(n-2)+20 with n>1, a(0)=0, a(1)=1. - Zerinvary Lajos, Feb 18 2008
a(n) = 20*n+a(n-1)-19 with n>0, a(0)=0. - Vincenzo Librandi, Aug 06 2010
a(20*a(n)+191*n+1) = a(20*a(n)+191*n) + a(20*n+1). - Vladimir Shevelev, Jan 24 2014
[A069178] 1, 22, 64, 127, 211, 316, 442, 589, 757, 946, 1156, 1387, 1639, 1912, 2206, 2521, 2857, 3214, 3592, 3991, 4411, 4852, 5314, 5797, 6301, 6826, 7372, 7939, 8527, 9136, 9766, 10417, 11089, 11782, 12496, 13231, 13987, 14764, 15562, 16381, 17221, 18082, 18964
a(n) = (21n^2 - 21n + 2)/2
a(n) = 21*n + a(n-1) - 21 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(n) = 1 + sum_{i=1..n} 21*(i-1). - Wesley Ivan Hurt, May 25 2013
[A164136] 0, 22, 66, 132, 220, 330, 462, 616, 792, 990, 1210, 1452, 1716, 2002, 2310, 2640, 2992, 3366, 3762, 4180, 4620, 5082, 5566, 6072, 6600, 7150, 7722, 8316, 8932, 9570, 10230, 10912, 11616, 12342, 13090, 13860, 14652, 15466, 16302, 17160, 18040
a(n) = 22*n + a(n-1) with n>0, a(0)=0. - Vincenzo Librandi, Nov 30 2010
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Sep 12 2013
[A080861] 1, 22, 73, 154, 265, 406, 577, 778, 1009, 1270, 1561, 1882, 2233, 2614, 3025, 3466, 3937, 4438, 4969, 5530, 6121, 6742, 7393, 8074, 8785, 9526, 10297, 11098, 11929, 12790, 13681, 14602, 15553, 16534, 17545, 18586, 19657, 20758, 21889, 23050
a(n) = C(6,0) + C(6,1)*n + C(6,2)*n^2.
[A241521] 22, 75, 119, 172, 216, 269, 313, 366, 410, 463, 507, 560, 604, 657, 701, 754, 798, 851, 895, 948, 992, 1045, 1089, 1142, 1186, 1239, 1283, 1336, 1380, 1433, 1477, 1530, 1574, 1627, 1671, 1724, 1768, 1821, 1865, 1918, 1962, 2015, 2059, 2112, 2156, 2209, 2253
a(n) = a(n-1) + a(n-2) - a(n-3) for n>2.
a(n) = a(n-2) + 97 for all n>2.
a(n) = -22*(-1)^n + 97*floor(n/2).
[A143838] 1, 22, 75, 160, 277, 426, 607, 820, 1065, 1342, 1651, 1992, 2365, 2770, 3207, 3676, 4177, 4710, 5275, 5872, 6501, 7162, 7855, 8580, 9337, 10126, 10947, 11800, 12685, 13602, 14551, 15532, 16545, 17590, 18667, 19776, 20917, 22090, 23295, 24532
a(n) = 16n^2-27n+12, n>0. - R. J. Mathar, Sep 04 2008
[A195323] 0, 22, 88, 198, 352, 550, 792, 1078, 1408, 1782, 2200, 2662, 3168, 3718, 4312, 4950, 5632, 6358, 7128, 7942, 8800, 9702, 10648, 11638, 12672, 13750, 14872, 16038, 17248, 18502, 19800, 21142, 22528, 23958, 25432, 26950, 28512, 30118, 31768, 33462, 35200, 36982, 38808
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). [Harvey P. Dale, Sep 19 2011]
[A272378] 0, 1, 22, 99, 268, 565, 1026, 1687, 2584, 3753, 5230, 7051, 9252, 11869, 14938, 18495, 22576, 27217, 32454, 38323, 44860, 52101, 60082, 68839, 78408, 88825, 100126, 112347, 125524, 139693, 154890, 171151, 188512, 207009, 226678, 247555, 269676, 293077
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), for n>3.
[A264852] 0, 1, 22, 100, 290, 665, 1316, 2352, 3900, 6105, 9130, 13156, 18382, 25025, 33320, 43520, 55896, 70737, 88350, 109060, 133210, 161161, 193292, 230000, 271700, 318825, 371826, 431172, 497350, 570865, 652240, 742016, 840752, 949025, 1067430, 1196580, 1337106
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Nov 27 2015
[A156795] 22, 103, 184, 265, 346, 427, 508, 589, 670, 751, 832, 913, 994, 1075, 1156, 1237, 1318, 1399, 1480, 1561, 1642, 1723, 1804, 1885, 1966, 2047, 2128, 2209, 2290, 2371, 2452, 2533, 2614, 2695, 2776, 2857, 2938, 3019, 3100, 3181, 3262, 3343, 3424, 3505, 3586
a(n) = 2*a(n-1)-a(n-2).
[A260810] 0, 1, 22, 117, 376, 925, 1926, 3577, 6112, 9801, 14950, 21901, 31032, 42757, 57526, 75825, 98176, 125137, 157302, 195301, 239800, 291501, 351142, 419497, 497376, 585625, 685126, 796797, 921592, 1060501, 1214550, 1384801, 1572352, 1778337, 2003926, 2250325, 2518776
a(n) = a(-n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).

[A215626] 1, 22, 129, 468, 1309, 3101, 6539, 12644, 22857, 39148, 64141, 101256, 154869, 230491, 334967, 476696, 665873, 914754, 1237945, 1652716, 2179341, 2841465, 3666499, 4686044, 5936345, 7458776, 9300357, 11514304, 14160613, 17306679, 21027951, 25408624, 30542369
a(n) = n*(n+6)*(n^5+50*n^4+568*n^3+722*n^2-713*n+92)/5040.
[A238170] 0, 1, 22, 140, 512, 1397, 3174, 6352, 11585, 19683, 31622, 48558, 71831, 102978, 143739, 196069, 262144, 344365, 445375, 568056, 715541, 891223, 1098758, 1342070, 1625363, 1953125, 2330129, 2761448, 3252453, 3808824, 4436552, 5141947, 5931641, 6812597, 7792110
a(n) = floor(n^(9/2)).
a(n) = floor(n^4*sqrt(n)).
[A275799] 1, 22, 140, 578, 1785, 4612, 10416, 21340, 40425, 72010, 121836, 197582, 308945, 468328, 690880, 995352, 1404081, 1944030, 2646700, 3549370, 4694921, 6133292, 7921200, 10123828, 12814425, 16076242, 20001996, 24696070, 30273825, 36864080
a(n) = (n^6-3*n^4+2*n^2)/24 for n even.
a(n) = (n^6-3*n^4+5*n^2-3)/24 for n odd. (End)
a(n) = C(n^2,3)/4 for n even,
a(n) = (C(n^2,3) + (n^2-1)/2)/4 for n odd. (End)
[A244868] 1, 22, 158, 654, 1980, 4906, 10577, 20588, 37059, 62710, 100936, 155882, 232518, 336714, 475315, 656216, 888437, 1182198, 1548994, 2001670, 2554496, 3223242, 4025253, 4979524, 6106775, 7429526, 8972172, 10761058, 12824554, 15193130, 17899431, 20978352, 24467113, 28405334, 32835110, 37801086
a(n) = (24 + 94*n + 165*n^2 + 155*n^3 + 75*n^4 + 15*n^5) / 24.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A189416] 0, 1, 22, 158, 674, 2159, 5664, 13004, 26904, 51401, 92094, 156710, 255090, 400359, 608656, 900100, 1299336, 1836461, 2546550, 3472162, 4661898, 6173123, 8071952, 10434600, 13346080, 16905033, 21221558, 26419338, 32636098, 40027283, 48761448
a(n) = Sum_{a=1..n-1} Sum_{b=1..n-1} (n-a)*(n-b)*(2*a*b - gcd(a,b)). - Andrew Howroyd, Sep 19 2017
[A243143] 1, 22, 170, 816, 2947, 8765, 22703, 52823, 113042, 225817, 426299, 766905, 1324282, 2206478, 3563770, 5599258, 8584775, 12875840, 18934040, 27347390, 38860741, 54402707, 75125825, 102441321, 138070912, 184090795, 242997153, 317760863, 411908932, 529591532, 675681764
a(n) = (n^8 + 4*n^7 - 14*n^6 - 56*n^5 + 136*n^4 - 104*n^3 + 552*n^2 - 672*n)/2304 + IF(MOD(n, 2) = 1)*(28*n^3 - 198*n^2 + 296*n + 21)/768) + IF(MOD(n-1, 4) <= 1)*(-1/8).
[A129126] 22, 185, 810, 2580, 6765, 15525, 32305, 62337, 113265, 195910, 325193, 521235, 810654, 1228080, 1817910, 2636326, 3753600, 5256711, 7252300, 9869990, 13266099, 17627775, 23177583, 30178575, 38939875, 49822812, 63247635
a(n) = n*(n+6)*(n+3)*(n+1)*(4200+(9994+(1571+(74+n)*n)*n)*n)/40320. (End)
[A110690] 1, 22, 193, 1045, 4180, 13566, 37764, 93456, 210705, 440440, 864721, 1610401, 2866864, 4908580, 8123280, 13046616, 20404233, 31162242, 46587145, 68316325, 98440276, 139597810, 195085540, 268983000, 366294825, 493111476, 656790057
a(n) = (n+1)*(n+2)^2*(n+3)*(n+4)(31*n^3 + 236*n^2 + 545*n + 420)/20160.
[A254470] 1, 22, 198, 1134, 4884, 17226, 52338, 141570, 348777, 795652, 1701700, 3444948, 6651216, 12321804, 22011804, 38073948, 63985977, 104782986, 167620090, 262495090, 403165620, 608300550, 902911230, 1320114510, 1903286385, 2708672616, 3808530792, 5294887048
a(n) = n*(1 + n)*(2 + n)*(3 + n)^2*(4 + n)*(5 + n)*(6 + n)*(1 + 12*n + 2*n^2)/302400.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) + n^4.
[A290362] 0, 1, 22, 223, 1344, 5727, 19193, 54046, 133476, 297633, 611644, 1175845, 2138500, 3711279, 6187767, 9965276, 15570232, 23687409, 35193282, 51193771, 73066648, 102508879, 141589173, 192806010, 259151420, 344180785, 452088936, 587792817, 757020988, 966410239
a(n) = (272*n^7+273*n^6+749*n^5+1365*n^4+1043*n^3+882*n^2+456*n)/7!.
[A172226] 0, 0, 22, 276, 1474, 5248, 14690, 35012, 74326, 144544, 262398, 450580, 739002, 1166176, 1780714, 2642948, 3826670, 5420992, 7532326, 10286484, 13830898, 18336960, 24002482, 31054276, 39750854, 50385248, 63287950
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Vincenzo Librandi, Apr 30 2013
[A158629] 22, 506, 1958, 4378, 7766, 12122, 17446, 23738, 30998, 39226, 48422, 58586, 69718, 81818, 94886, 108922, 123926, 139898, 156838, 174746, 193622, 213466, 234278, 256058, 278806, 302522, 327206, 352858, 379478, 407066, 435622, 465146, 495638
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A241889] 23, 24, 27, 32, 39, 48, 59, 72, 87, 104, 123, 144, 167, 192, 219, 248, 279, 312, 347, 384, 423, 464, 507, 552, 599, 648, 699, 752, 807, 864, 923, 984, 1047, 1112, 1179, 1248, 1319, 1392, 1467, 1544, 1623, 1704, 1787, 1872, 1959, 2048, 2139, 2232, 2327
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A022393] 1, 23, 24, 47, 71, 118, 189, 307, 496, 803, 1299, 2102, 3401, 5503, 8904, 14407, 23311, 37718, 61029, 98747, 159776, 258523, 418299, 676822, 1095121, 1771943, 2867064, 4639007, 7506071, 12145078
a(n) = a(n-1) + a(n-2), n>=2, a(0)=1, a(1)=23. a(-1):=22.
[A219259] 0, 23, 27, 96, 104, 219, 231, 392, 408, 615, 635, 888, 912, 1211, 1239, 1584, 1616, 2007, 2043, 2480, 2520, 3003, 3047, 3576, 3624, 4199, 4251, 4872, 4928, 5595, 5655, 6368, 6432, 7191, 7259, 8064, 8136, 8987, 9063, 9960, 10040, 10983, 11067, 12056, 12144
a(n) = a(-n+1) = (50*n*(n-1) + 21*(-1)^n*(2*n - 1) + 5)/8 + 2.
[A155107] 23, 30, 76, 83, 129, 136, 182, 189, 235, 242, 288, 295, 341, 348, 394, 401, 447, 454, 500, 507, 553, 560, 606, 613, 659, 666, 712, 719, 765, 772, 818, 825, 871, 878, 924, 931, 977, 984, 1030, 1037, 1083, 1090, 1136, 1143, 1189, 1196, 1242, 1249, 1295
a(n) = 23*(-1)^(n+1) + 53*floor(n/2). - M. F. Hasler, Jun 16 2010
a(n) = a(n-2) + 53 for all n>2. - M. F. Hasler, Jun 16 2010
a(n) = a(n-1) + a(n-2) - a(n-3) = 53*n/2-53/4-39*(-1)^n/4. G.f.: x*(23+7*x+23*x^2)/((1+x)*(1-x)^2). [R. J. Mathar, Feb 19 2009]
[A026051] 23, 31, 40, 53, 68, 86, 109, 135, 167, 203, 244, 292, 345, 406, 473, 547, 630, 720, 820, 928, 1045, 1173, 1310, 1459, 1618, 1788, 1971, 2165, 2373, 2593, 2826, 3074, 3335, 3612, 3903, 4209, 4532, 4870, 5226, 5598, 5987, 6395, 6820, 7265, 7728, 8210, 8713, 9235, 9779, 10343, 10928, 11536
a(n)=(n + 7)*(2*n^2 + 13*n + 102)/30 - 1/5*(2 + (- 1/5*5^(1/2) + 1)*cos(2*n*Pi/5) + (2/5*2^(1/2)*(5 - 5^(1/2))^(1/2))*sin(2*n*Pi/5) + (1/5*5^(1/2) + 1)*cos(4*n*Pi/5) + (- 2/5*2^(1/2)*(5 + 5^(1/2))^(1/2))*sin(4*n*Pi/5)) [From Richard Choulet, Dec 14 2008]
[A045533] 23, 35, 57, 711, 1113, 1317, 1719, 1923, 2329, 2931, 3137, 3741, 4143, 4347, 4753, 5359, 5961, 6167, 6771, 7173, 7379, 7983, 8389, 8997, 97101, 101103, 103107, 107109, 109113, 113127, 127131, 131137
a(n) = prime(n)*(10^floor(log10(prime(n+1)))+1)+prime(n+1). - Conner L. Delahanty, May 10 2014
[A154114] 23, 37, 41, 43, 59, 73, 79, 83, 109, 113, 127, 137, 151, 163, 197, 199, 223, 227, 229, 233, 239, 251, 263, 269, 283, 313, 337, 349, 373, 383, 389, 409, 421, 449, 457, 463, 479, 523, 557, 599, 617, 647, 691, 727, 739, 743, 751, 757, 761, 773, 797, 811, 821
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 02 2016
[A092622] 23, 37, 53, 73, 127, 137, 157, 173, 229, 239, 251, 263, 271, 283, 293, 307, 313, 317, 331, 347, 359, 367, 379, 383, 397, 433, 457, 503, 521, 547, 563, 571, 587, 593, 653, 673, 677, 739, 743, 751, 787, 797, 823, 827, 853, 857, 877, 937, 953, 977, 1033, 1123
a(n) » n^1.285
[A153037] 23, 41, 63, 89, 119, 153, 191, 233, 279, 329, 383, 441, 503, 569, 639, 713, 791, 873, 959, 1049, 1143, 1241, 1343, 1449, 1559, 1673, 1791, 1913, 2039, 2169, 2303, 2441, 2583, 2729, 2879, 3033, 3191, 3353, 3519, 3689, 3863, 4041, 4223, 4409, 4599, 4793, 4991
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 22 2012
[A023264] 23, 43, 83, 109, 193, 379, 389, 569, 643, 659, 853, 1063, 1129, 1283, 1423, 1493, 1759, 1789, 1889, 2003, 2129, 2293, 2459, 2713, 2729, 2879, 2969, 3373, 3823, 4519, 4603, 4649, 4663, 4703, 4783, 4789, 5023, 5153, 5209, 5639, 5653, 5669, 5693, 5783, 6203
a(n) == 3 or 9 (mod 10). - John Cerkan, Sep 16 2016
[A122041] 23, 45, 89, 177, 353, 705, 1409, 2817, 5633, 11265, 22529, 45057, 90113, 180225, 360449, 720897, 1441793, 2883585, 5767169, 11534337, 23068673, 46137345, 92274689, 184549377, 369098753, 738197505, 1476395009, 2952790017
a(n)=11*2^n+1, with n>=1 [From Paolo P. Lava, Oct 01 2008]
a(1)=23, a(2)=45, a(n)=3*a(n-1)-2*a(n-2). - Harvey P. Dale, Dec 13 2012
[A038152] 23, 46, 69, 92, 115, 138, 161, 185, 208, 231, 254, 277, 300, 323, 347, 370, 393, 416, 439, 462, 485, 509, 532, 555, 578, 601, 624, 647, 671, 694, 717, 740, 763, 786, 809, 833, 856, 879, 902, 925, 948, 971, 995, 1018, 1041, 1064
a(n) = int(n*23.1406926327...)

[A183010] 1, 23, 47, 71, 95, 119, 143, 167, 191, 215, 239, 263, 287, 311, 335, 359, 383, 407, 431, 455, 479, 503, 527, 551, 575, 599, 623, 647, 671, 695, 719, 743, 767, 791, 815, 839, 863, 887, 911, 935, 959, 983, 1007, 1031, 1055, 1079, 1103, 1127, 1151, 1175, 1199
a(1)=23, a(2)=47, a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jan 23 2011
[A195058] 0, 1, 23, 47, 92, 139, 207, 277, 368, 461, 575, 691, 828, 967, 1127, 1289, 1472, 1657, 1863, 2071, 2300, 2531, 2783, 3037, 3312, 3589, 3887, 4187, 4508, 4831, 5175, 5521, 5888, 6257, 6647, 7039, 7452, 7867, 8303, 8741, 9200, 9661, 10143, 10627
a(n) = 23*n^2/4 + 19*((-1)^n-1)/8.
a(n) = 2*a(n-1) - 2*a(n-3) + a(n-4).
[A132764] 0, 23, 48, 75, 104, 135, 168, 203, 240, 279, 320, 363, 408, 455, 504, 555, 608, 663, 720, 779, 840, 903, 968, 1035, 1104, 1175, 1248, 1323, 1400, 1479, 1560, 1643, 1728, 1815, 1904, 1995, 2088, 2183, 2280, 2379, 2480, 2583, 2688, 2795
a(n) = n*(n + 22).
a(n) = 2*n + a(n-1) + 21 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=23, a(2)=48, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, May 02 2012
[A140689] 0, 23, 52, 87, 128, 175, 228, 287, 352, 423, 500, 583, 672, 767, 868, 975, 1088, 1207, 1332, 1463, 1600, 1743, 1892, 2047, 2208, 2375, 2548, 2727, 2912, 3103, 3300, 3503, 3712, 3927, 4148, 4375, 4608, 4847, 5092, 5343, 5600, 5863
a(n) = 3*n^2 + 20*n.
a(n) = a(n-1) + 6*n + 17 (with a(0)=0). - Vincenzo Librandi, Dec 15 2010
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3), with a(0)=0, a(1)=23, a(2)=52. - Harvey P. Dale, Apr 29 2016
[A166144] 1, 23, 56, 100, 155, 221, 298, 386, 485, 595, 716, 848, 991, 1145, 1310, 1486, 1673, 1871, 2080, 2300, 2531, 2773, 3026, 3290, 3565, 3851, 4148, 4456, 4775, 5105, 5446, 5798, 6161, 6535, 6920, 7316, 7723, 8141, 8570, 9010, 9461, 9923, 10396, 10880
a(n) = a(n-1) + 11*n, a(1)=1, with n>1.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). (End)
[A055821] 1, 23, 60, 122, 217, 354, 543, 795, 1122, 1537, 2054, 2688, 3455, 4372, 5457, 6729, 8208, 9915, 11872, 14102, 16629, 19478, 22675, 26247, 30222, 34629, 39498, 44860, 50747, 57192, 64229, 71893, 80220, 89247, 99012, 109554, 120913, 133130, 146247, 160307, 175354
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n > 9.
[A051875] 0, 1, 23, 66, 130, 215, 321, 448, 596, 765, 955, 1166, 1398, 1651, 1925, 2220, 2536, 2873, 3231, 3610, 4010, 4431, 4873, 5336, 5820, 6325, 6851, 7398, 7966, 8555, 9165, 9796, 10448, 11121, 11815, 12530, 13266, 14023, 14801, 15600
a(n) = 21*n + a(n-1) - 20 with n > 0, a(0) = 0. - Vincenzo Librandi, Aug 06 2010
a(21*a(n)+211*n+1) = a(21*a(n)+211*n) + a(21*n+1). - Vladimir Shevelev, Jan 24 2014
[A069173] 1, 23, 67, 133, 221, 331, 463, 617, 793, 991, 1211, 1453, 1717, 2003, 2311, 2641, 2993, 3367, 3763, 4181, 4621, 5083, 5567, 6073, 6601, 7151, 7723, 8317, 8933, 9571
a(n) = 11n^2 - 11n + 1.
a(n) = 22*n+a(n-1)-22 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A195039] 0, 23, 69, 138, 230, 345, 483, 644, 828, 1035, 1265, 1518, 1794, 2093, 2415, 2760, 3128, 3519, 3933, 4370, 4830, 5313, 5819, 6348, 6900, 7475, 8073, 8694, 9338, 10005, 10695, 11408, 12144, 12903, 13685, 14490, 15318, 16169, 17043, 17940, 18860
a(0)=0, a(1)=23, a(2)=69, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 28 2012
[A248877] 23, 71, 167, 359, 743, 1511, 3047, 6119, 12263, 24551, 49127, 98279, 196583, 393191, 786407, 1572839, 3145703, 6291431, 12582887, 25165799, 50331623, 100663271, 201326567, 402653159, 805306343, 1610612711, 3221225447, 6442450919, 12884901863, 25769803751
a(n+1) = a(n)+3*2^(n+3) with a(1) = 23.
a(n) = 3*a(n-1)-2*a(n-2). - Colin Barker, Mar 05 2015
[A167573] 23, 83, 183, 323, 503, 723, 983, 1283, 1623, 2003, 2423, 2883, 3383, 3923, 4503, 5123, 5783, 6483, 7223, 8003, 8823, 9683, 10583, 11523, 12503, 13523, 14583, 15683, 16823, 18003, 19223, 20483, 21783, 23123, 24503, 25923, 27383, 28883, 30423
a(n) = 20*n^2 + 3.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - G. C. Greubel, Jun 16 2016
[A172117] 0, 1, 23, 86, 210, 415, 721, 1148, 1716, 2445, 3355, 4466, 5798, 7371, 9205, 11320, 13736, 16473, 19551, 22990, 26810, 31031, 35673, 40756, 46300, 52325, 58851, 65898, 73486, 81635, 90365, 99696, 109648, 120241, 131495, 143430, 156066
a(0)=0, a(1)=1, a(2)=23, a(3)=86; for n>3, a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). [Harvey P. Dale, May 15 2011]
a(n) = Sum_{i=0..n-1} (n-i)*(20*i+1), with a(0)=0. [Bruno Berselli, Feb 11 2014]
[A217529] 23, 86, 284, 856, 2416, 6496, 16832, 42368, 104192, 251392, 596992, 1398784, 3239936, 7430144, 16891904, 38109184, 85393408, 190185472, 421265408, 928514048, 2037383168, 4452253696, 9693036544, 21030240256, 45483032576, 98079604736, 210923159552
a(n) = 6*a(n-1)-12*a(n-2)+8*a(n-3). G.f.: -x^4*(44*x^2-52*x+23)/(2*x-1)^3. [Colin Barker, Oct 17 2012]
[A193018] 23, 87, 119, 201, 312, 376, 455, 616, 760, 840, 1055, 1136, 1248, 1472, 1719, 1959, 2064, 2472, 2764, 2976, 3264, 3407, 3584, 4032, 4336, 4848, 4992, 5088, 5523, 5900, 6112, 6624, 7360, 7680, 7680, 8448, 8960, 9152, 9856, 10208, 11136, 11904, 12256, 12256
a(n) < n^4 + 6n^3 + 11n^2 + 6n by Sylvester's theorem. [Charles R Greathouse IV, Jul 14 2011]
[A158537] 1, 23, 89, 199, 353, 551, 793, 1079, 1409, 1783, 2201, 2663, 3169, 3719, 4313, 4951, 5633, 6359, 7129, 7943, 8801, 9703, 10649, 11639, 12673, 13751, 14873, 16039, 17249, 18503, 19801, 21143, 22529, 23959, 25433, 26951, 28513, 30119, 31769
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A244632] 0, 23, 92, 207, 368, 575, 828, 1127, 1472, 1863, 2300, 2783, 3312, 3887, 4508, 5175, 5888, 6647, 7452, 8303, 9200, 10143, 11132, 12167, 13248, 14375, 15548, 16767, 18032, 19343, 20700, 22103, 23552, 25047, 26588, 28175, 29808, 31487, 33212, 34983, 36800
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.
[A158544] 23, 95, 215, 383, 599, 863, 1175, 1535, 1943, 2399, 2903, 3455, 4055, 4703, 5399, 6143, 6935, 7775, 8663, 9599, 10583, 11615, 12695, 13823, 14999, 16223, 17495, 18815, 20183, 21599, 23063, 24575, 26135, 27743, 29399, 31103, 32855, 34655
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 14 2012
[A154376] 23, 96, 219, 392, 615, 888, 1211, 1584, 2007, 2480, 3003, 3576, 4199, 4872, 5595, 6368, 7191, 8064, 8987, 9960, 10983, 12056, 13179, 14352, 15575, 16848, 18171, 19544, 20967, 22440, 23963, 25536, 27159, 28832, 30555, 32328, 34151, 36024
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). (End)
[A214092] 1, 23, 102, 274, 575, 1041, 1708, 2612, 3789, 5275, 7106, 9318, 11947, 15029, 18600, 22696, 27353, 32607, 38494, 45050, 52311, 60313, 69092, 78684, 89125, 100451, 112698, 125902, 140099, 155325, 171616
a(n) = (5*n - 15*n^2 + 12*n^3)/2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A253679] 23, 118, 333, 716, 1315, 2178, 3353, 4888, 6831, 9230, 12133, 15588, 19643, 24346, 29745, 35888, 42823, 50598, 59261, 68860, 79443, 91058, 103753, 117576, 132575, 148798, 166293, 185108, 205291, 226890, 249953, 274528, 300663, 328406, 357805, 388908, 421763, 456418, 492921, 531320, 571663, 613998, 658373, 704836, 753435, 804218, 857233, 912528, 970151, 1030150, 1092573, 1157468
a(n) = (2n+1)^3 - (3n+1).
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Colin Barker, Jan 09 2015
[A069756] 23, 119, 359, 839, 1679, 3023, 5039, 7919, 11879, 17159, 24023, 32759, 43679, 57119, 73439, 93023, 116279, 143639, 175559, 212519, 255023, 303599, 358799, 421199, 491399, 570023, 657719, 755159, 863039, 982079, 1113023, 1256639, 1413719, 1585079, 1771559
a(n) = n^2*(n+1)^2-n^2-(n+1)^2 = n^4+2*n^3-n^2-2*n-1.
a(n) = Numerator of ((n + 2)! - (n - 2)!)/n!, n >=2. - Artur Jasinski, Jan 09 2007
[A248698] 0, 23, 166, 621, 1676, 3715, 7218, 12761, 21016, 32751, 48830, 70213, 97956, 133211, 177226, 231345, 297008, 375751, 469206, 579101, 707260, 855603, 1026146, 1221001, 1442376, 1692575, 1973998, 2289141, 2640596, 3031051, 3463290, 3940193, 4464736, 5039991
a(n) = floor[sum(j from n^4+1 to (n+1)^4-1, j^(1/4))].
a(n) = 3*n + 8*n^2 + 8*n^3 + 4*n^4.
[A167467] 23, 190, 652, 1559, 3061, 5308, 8450, 12637, 18019, 24746, 32968, 42835, 54497, 68104, 83806, 101753, 122095, 144982, 170564, 198991, 230413, 264980, 302842, 344149, 389051, 437698, 490240, 546827, 607609, 672736, 742358, 816625, 895687, 979694, 1068796

a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A108646] 1, 23, 194, 985, 3668, 11074, 28728, 66438, 140415, 276001, 511082, 900263, 1519882, 2473940, 3901024, 5982300, 8950653, 13101051, 18802210, 26509637, 36780128, 50287798, 67841720, 90405250, 119117115, 155314341, 200557098
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n > 7.
[A254870] 1, 23, 221, 1355, 6239, 23465, 75803, 217373, 566150, 1361802, 3063502, 6508450, 13159666, 25481470, 47493274, 85567222, 149553199, 254336185, 421956275, 684451365, 1087616985, 1695917535, 2598828765, 3918943275, 5822229660, 8530902276, 12339433068
a(n) = n*(1 + n)*(2 + n)*(3 + n)*(4 + n)*(5 + n)*(6 + n)*(7 + n)*(7 + 2*n)*(7 + 42*n + 6*n^2)/19958400.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) + n^4.
[A242279] 1, 23, 252, 1666, 7509, 26865, 79920, 209096, 491425, 1064575, 2150076, 4104738, 7458437, 13005041, 21857984, 35598880, 56353185, 87019191, 131364700, 194364050, 282314901, 403316353, 567402672, 787201416, 1078078209, 1459020095, 1952782300, 2587048786, 3394568325
a(n) = (n^8 - 6*n^6 + 40*n^4 - 48*n^3 + 16*n^2 + IF(MOD(n, 2) = 1)*(14*n^4 - 48*n^3 + 34*n^2 - 3))/192.
[A158631] 23, 552, 2139, 4784, 8487, 13248, 19067, 25944, 33879, 42872, 52923, 64032, 76199, 89424, 103707, 119048, 135447, 152904, 171419, 190992, 211623, 233312, 256059, 279864, 304727, 330648, 357627, 385664, 414759, 444912, 476123, 508392, 541719
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A129991] 0, 23, 620, 723, 840, 4223, 4820, 5499, 25200, 28679, 32636, 147459, 167736, 190799, 860036, 978219, 1112640, 5013239, 5702060, 6485523, 29219880, 33234623, 37800980, 170306523, 193706160, 220320839, 992619740, 1129002819, 1284124536, 5785412399, 6580311236
a(n) = 6*a(n-3)-a(n-6)+482 for n > 6; a(1)=0, a(2)=23, a(3)=620, a(4)=723, a(5)=840, a(6)=4223.
[A023278] 23, 683, 1663, 2753, 3203, 6073, 6323, 7523, 8243, 9293, 9613, 15173, 19913, 21023, 21683, 25183, 26633, 29663, 34613, 34703, 39293, 41953, 43283, 45533, 52813, 59393, 62473, 65053, 66763, 71713, 71993, 81533, 81953, 84523, 87833, 103843, 104183
a(n) == 3 (mod 10). - John Cerkan, Sep 16 2016
[A202656] 0, 0, 0, 0, 0, 23, 1104, 16945, 141696, 810746, 3568352, 12948318, 40514560, 112720393, 285073712, 666143975, 1456288512, 3007576740, 5913372864, 11138305068, 20202100224, 35433809451, 60316600080, 99947225741, 161638967424, 255701773822, 396439174560, 603407582570
a(n) = n^10/120 - 2*n^9/9 + 95*n^8/36 - 183*n^7/10 + 14663*n^6/180 - 1201*n^5/5 + 16753*n^4/36 - 25364*n^3/45 + 68293*n^2/180 - 12781*n/120 + (n^3/2 - 6*n^2 + 39*n/2 - 61/4)*floor(n/2).
[A241890] 24, 25, 28, 33, 40, 49, 60, 73, 88, 105, 124, 145, 168, 193, 220, 249, 280, 313, 348, 385, 424, 465, 508, 553, 600, 649, 700, 753, 808, 865, 924, 985, 1048, 1113, 1180, 1249, 1320, 1393, 1468, 1545, 1624, 1705, 1788, 1873, 1960, 2049, 2140, 2233, 2328
a(n) = a(-n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 2*n - 1.
[A008856] 0, 1, 24, 25, 49, 51, 75, 76, 99, 100, 101, 124, 125, 149, 151, 175, 176, 199, 200, 201, 224, 225, 249, 251, 275, 276, 299, 300, 301, 324, 325, 349, 351, 375, 376, 399, 400, 401, 424, 425, 449, 451, 475, 476, 499, 500, 501, 524, 525, 549, 551, 575, 576, 599
a(9n)=100n, a(9n+1)=100n+1, a(9n+2)=100n+24, a(9n+3)=100n+25, a(9n+4)=100n+49, a(9n+5)=100n+51, a(9n+6)=100n+75, a(9n+7)=100n+76, a(9n+8)=100n+99. - Franklin T. Adams-Watters, Mar 13 2006
a(n) = a(n-1)+a(n-9)-a(n-10) for n>10.
[A042154] 24, 25, 49, 319, 368, 687, 33344, 34031, 67375, 438281, 505656, 943937, 45814632, 46758569, 92573201, 602197775, 694770976, 1296968751, 62949271024, 64246239775, 127195510799, 827419304569, 954614815368, 1782034119937, 86492252572344, 88274286692281
a(n) = 1374*a(n-6) - a(n-12). - Vincenzo Librandi, Nov 18 2013
[A079720] 24, 26, 28, 42, 46, 48, 62, 64, 68, 82, 84, 86, 204, 206, 208, 214, 216, 218, 224, 226, 228, 402, 404, 406, 408, 412, 416, 418, 422, 426, 428, 432, 436, 438, 442, 446, 448, 452, 456, 458, 462, 466, 468, 472, 476, 478, 482, 486, 488, 492, 496, 498, 602
a(n) = 0 (mod 2) and R(n)= 0 (mod 2), but n does not equal R(n)
[A217441] 0, 24, 28, 100, 108, 228, 240, 408, 424, 640, 660, 924, 948, 1260, 1288, 1648, 1680, 2088, 2124, 2580, 2620, 3124, 3168, 3720, 3768, 4368, 4420, 5068, 5124, 5820, 5880, 6624, 6688, 7480, 7548, 8388, 8460, 9348, 9424, 10360, 10440, 11424, 11508, 12540, 12628
a(n) = a(-n+1) = (26*n*(n-1) + 11*(-1)^n*(2*n - 1) - 3)/4 + 3 = (26*n + 11*(-1)^n - 15)*(26*n + 11*(-1)^n - 11)/104.
[A048260] 24, 30, 32, 36, 38, 40, 42, 44, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150
a(n) = n + 1456 if n > 18705. - Charles R Greathouse IV, Feb 21 2017
[A075422] 24, 30, 36, 40, 54, 84, 100, 102, 112, 126, 132, 140, 156, 176, 198, 208, 220, 228, 234, 260, 272, 276, 294, 308, 340, 342, 348, 350, 364, 372, 380, 392, 414, 444, 460, 462, 476, 490, 492, 516, 522, 532, 546, 558, 564, 572, 580, 608, 620, 636, 644, 666, 708
a(n) appears to be asymptotic to c*n with 12 < c < 15. - Benoit Cloitre, Sep 16 2002
[A266984] 1, 1, 24, 31, 384, 511, 6144, 8191, 98304, 131071, 1572864, 2097151, 25165824, 33554431, 402653184, 536870911, 6442450944, 8589934591, 103079215104, 137438953471, 1649267441664, 2199023255551, 26388279066624, 35184372088831, 422212465065984, 562949953421311
a(n) = ((-4)^n+(-1)^n-1)/2+4^n for n>0.
a(n) = 17*a(n-2)-16*a(n-4) for n>4.
[A026040] 24, 40, 64, 98, 144, 204, 280, 374, 488, 624, 784, 970, 1184, 1428, 1704, 2014, 2360, 2744, 3168, 3634, 4144, 4700, 5304, 5958, 6664, 7424, 8240, 9114, 10048, 11044, 12104, 13230, 14424, 15688, 17024, 18434, 19920, 21484, 23128, 24854, 26664
a(n) = n(n^2 - 3n + 14)/3 (n >= 4). - Emeric Deutsch, Nov 27 2006
[A063323] 1, 24, 46, 69, 92, 115, 138, 162, 184, 208, 230, 253, 276, 301, 322, 346, 368, 392, 414, 439, 460, 485, 506, 530, 552, 578, 598, 623, 644, 669, 690, 716, 736, 762, 782, 807, 828, 855, 874, 900, 920, 946, 966, 993, 1012, 1039, 1058, 1084
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A028992] 0, 24, 46, 154, 204, 396, 474, 750, 856, 1216, 1350, 1794, 1956, 2484, 2674, 3286, 3504, 4200, 4446, 5226, 5500, 6364, 6666, 7614, 7944, 8976, 9334, 10450, 10836, 12036, 12450, 13734, 14176, 15544, 16014, 17466, 17964, 19500, 20026, 21646, 22200, 23904
a(n) = (1/2)*(28*(n-1)^2 + 60*(n-1) + 33 + (14*(n-1)+15)*(-1)^(n-1)).
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>4. - Colin Barker, May 30 2015
[A129837] 0, 24, 49, 57, 85, 136, 180, 196, 261, 357, 481, 616, 660, 816, 1105, 1357, 1449, 1824, 2380, 3100, 3885, 4141, 5049, 6732, 8200, 8736, 10921, 14161, 18357, 22932, 24424, 29716, 39525, 48081, 51205, 63940, 82824, 107280, 133945, 142641, 173485, 230656
a(n) = 6*a(n-9)-a(n-18)+238 for n > 18; a(1)=0, a(2)=24, a(3)=49, a(4)=57, a(5)=85, a(6)=136, a(7)=180, a(8)=196, a(9)=261, a(10)=357, a(11)=481, a(12)=616, a(13)=660, a(14)=816, a(15)=1105, a(16)=1357, a(17)=1449, a(18)=1824.
[A195158] 0, 1, 24, 49, 96, 145, 216, 289, 384, 481, 600, 721, 864, 1009, 1176, 1345, 1536, 1729, 1944, 2161, 2400, 2641, 2904, 3169, 3456, 3745, 4056, 4369, 4704, 5041, 5400, 5761, 6144, 6529, 6936, 7345, 7776, 8209, 8664, 9121, 9600, 10081, 10584, 11089
a(n) = 6*n^2+5*((-1)^n-1)/2.
a(n) = 2*a(n-1)-2*a(n-3)+a(n-4). G.f.: x*(1+22*x+x^2)/((1-x)^3*(1+x)). - Colin Barker, Sep 16 2012
[A132765] 0, 24, 50, 78, 108, 140, 174, 210, 248, 288, 330, 374, 420, 468, 518, 570, 624, 680, 738, 798, 860, 924, 990, 1058, 1128, 1200, 1274, 1350, 1428, 1508, 1590, 1674, 1760, 1848, 1938, 2030, 2124, 2220, 2318, 2418, 2520, 2624, 2730, 2838
a(n) = n*(n + 23).
a(n) = 2*n + a(n-1) + 22 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A101860] 1, 24, 60, 110, 175, 256, 354, 470, 605, 760, 936, 1134, 1355, 1600, 1870, 2166, 2489, 2840, 3220, 3630, 4071, 4544, 5050, 5590, 6165, 6776, 7424, 8110, 8835, 9600, 10406, 11254, 12145, 13080, 14060, 15086, 16159, 17280, 18450, 19670, 20941
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 26 2012
[A182464] 24, 60, 132, 276, 564, 1140, 2292, 4596, 9204, 18420, 36852, 73716, 147444, 294900, 589812, 1179636, 2359284, 4718580, 9437172, 18874356, 37748724, 75497460, 150994932, 301989876, 603979764, 1207959540, 2415919092, 4831838196, 9663676404, 19327352820, 38654705652
a(n) = a(n-1)*2 + 12.
[A090386] 0, 24, 64, 126, 217, 345, 519, 749, 1046, 1422, 1890, 2464, 3159, 3991, 4977, 6135, 7484, 9044, 10836, 12882, 15205, 17829, 20779, 24081, 27762, 31850, 36374, 41364, 46851, 52867, 59445, 66619, 74424, 82896, 92072, 101990, 112689
a(0)=0, a(1)=24, a(2)=64, a(3)=126, a(4)=217, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Feb 23 2014

[A051876] 0, 1, 24, 69, 136, 225, 336, 469, 624, 801, 1000, 1221, 1464, 1729, 2016, 2325, 2656, 3009, 3384, 3781, 4200, 4641, 5104, 5589, 6096, 6625, 7176, 7749, 8344, 8961, 9600, 10261, 10944, 11649, 12376, 13125, 13896, 14689, 15504, 16341
a(n) = 22*n+a(n-1)-21, with n>0, a(0)=0. - Vincenzo Librandi, Aug 06 2010
a(22*a(n)+232*n+1) = a(22*a(n)+232*n) + a(22*n+1). - Vladimir Shevelev, Jan 24 2014
[A069174] 1, 24, 70, 139, 231, 346, 484, 645, 829, 1036, 1266, 1519, 1795, 2094, 2416, 2761, 3129, 3520, 3934, 4371, 4831, 5314, 5820, 6349, 6901, 7476, 8074, 8695, 9339, 10006
a(n) = (23*n^2 - 23*n + 2)/2.
a(n) = 23*n+a(n-1)-23 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
[A090860] 24, 72, 120, 264, 504, 1032, 2040, 4104, 8184, 16392, 32760, 65544, 131064, 262152, 524280, 1048584, 2097144, 4194312, 8388600, 16777224, 33554424, 67108872, 134217720, 268435464, 536870904, 1073741832, 2147483640, 4294967304
a(n)=m*((m-2)^(n-1)+(-1)^(n-1)*(m-2)) for m = 4; recurrence m=4, b(1)=0, b(2)=(m-1)*(m-2), b(n)=(m-2)*b(n-2)+(m-3)*b(n-1), a(n)=m*b(n-1)
a(n) = 2^(n+1)-8*(-1)^n. - Vincenzo Librandi, Oct 10 2011
[A192833] 24, 72, 180, 336, 600, 936, 1428, 2016, 2808, 3720, 4884, 6192, 7800, 9576, 11700, 14016, 16728, 19656, 23028, 26640, 30744, 35112, 40020, 45216, 51000, 57096, 63828, 70896, 78648, 86760, 95604, 104832, 114840, 125256, 136500, 148176, 160728, 173736, 187668
a(n) = -(3/2)*n*(-9+(-1)^n -4*n -2*n^2).
[A161587] 1, 24, 73, 148, 249, 376, 529, 708, 913, 1144, 1401, 1684, 1993, 2328, 2689, 3076, 3489, 3928, 4393, 4884, 5401, 5944, 6513, 7108, 7729, 8376, 9049, 9748, 10473, 11224, 12001, 12804, 13633, 14488, 15369, 16276, 17209, 18168, 19153, 20164
a(n) = a(n-1) + 26*n - 3 (with a(0)=1). - Vincenzo Librandi, Nov 30 2010
[A185940] 24, 74, 228, 698, 2124, 6434, 19428, 58538, 176124, 529394, 1590228, 4774778, 14332524, 43013954, 129074628, 387289418, 1161999324, 3486260114, 10459304628, 31378962458, 94138984524, 282421147874, 847271832228, 2541832273898, 7625530376124, 22876658237234
a(n+2) = -6*a(n) + 5*a(n+1)+2. (End)
a(n) = 6*a(n-1) - 11*a(n-2) + 6*a(n-3). - G. C. Greubel, Feb 25 2017
[A033572] 1, 24, 75, 154, 261, 396, 559, 750, 969, 1216, 1491, 1794, 2125, 2484, 2871, 3286, 3729, 4200, 4699, 5226, 5781, 6364, 6975, 7614, 8281, 8976, 9699, 10450, 11229, 12036, 12871, 13734, 14625, 15544, 16491
a(n) = a(n-1) + 28*n - 5 for n>0, a(0)=1. - Vincenzo Librandi, Nov 17 2010
[A195027] 0, 24, 76, 156, 264, 400, 564, 756, 976, 1224, 1500, 1804, 2136, 2496, 2884, 3300, 3744, 4216, 4716, 5244, 5800, 6384, 6996, 7636, 8304, 9000, 9724, 10476, 11256, 12064, 12900, 13764, 14656, 15576, 16524, 17500, 18504, 19536, 20596, 21684, 22800
a(0)=0, a(1)=24, a(2)=76, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) – From Harvey P. Dale, Jul 24 2012
[A144459] 1, 24, 77, 160, 273, 416, 589, 792, 1025, 1288, 1581, 1904, 2257, 2640, 3053, 3496, 3969, 4472, 5005, 5568, 6161, 6784, 7437, 8120, 8833, 9576, 10349, 11152, 11985, 12848, 13741, 14664, 15617, 16600, 17613, 18656, 19729, 20832, 21965, 23128, 24321, 25544, 26797, 28080
a(0)=1, a(1)=24, a(2)=77, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 02 2015
[A290710] 24, 77, 178, 373, 724, 1331, 2364, 4127, 7186, 12625, 22558, 41153, 76680, 145607, 280792, 547867, 1078006, 2133461, 4238634, 8442221, 16841500, 33630907, 67199188, 134323703, 268559034, 537014201, 1073907094, 2147673337, 4295184016, 8590181135
a(n) = 2^(n+1) + n*(n^3 - 2*n^2 + 3*n + 2)/4 - 1 for n > 3. - Andrew Howroyd, Aug 11 2017
a(n) = 7*a(n-1) - 20*a(n-2) + 30*a(n-3) - 25*a(n-4) + 11*a(n-5) - 2*a(n-6) for n > 9.
[A143839] 1, 24, 79, 166, 285, 436, 619, 834, 1081, 1360, 1671, 2014, 2389, 2796, 3235, 3706, 4209, 4744, 5311, 5910, 6541, 7204, 7899, 8626, 9385, 10176, 10999, 11854, 12741, 13660, 14611, 15594, 16609, 17656, 18735, 19846, 20989, 22164, 23371, 24610
a(n) = 16*n^2-25*n+10 for n>1. - R. J. Mathar, Sep 04 2008
a(1) = 1, a(2) = 24, a(3) = 79, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 26 2012
[A068379] 1, 24, 80, 168, 288, 440, 624, 840, 1088, 1368, 1680, 2024, 2400, 2808, 3248, 3720, 4224, 4760, 5328, 5928, 6560, 7224, 7920, 8648, 9408, 10200, 11024, 11880, 12768, 13688, 14640, 15624, 16640, 17688, 18768, 19880, 21024, 22200, 23408, 24648, 25920, 27224
a(0) = 1, a(n) = 4*n*(4n+2).
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3. G.f.: (1+21*x+11*x^2-x^3)/(1-x)^3. - Colin Barker, Apr 13 2012
[A167561] 24, 80, 192, 384, 680, 1104, 1680, 2432, 3384, 4560, 5984, 7680, 9672, 11984, 14640, 17664, 21080, 24912, 29184, 33920, 39144, 44880, 51152, 57984, 65400, 73424, 82080, 91392, 101384, 112080, 123504, 135680, 148632, 162384, 176960
a(n) = 4*n^3 + 4*n^2 + 16*n.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Jun 15 2016
[A045946] 0, 24, 84, 180, 312, 480, 684, 924, 1200, 1512, 1860, 2244, 2664, 3120, 3612, 4140, 4704, 5304, 5940, 6612, 7320, 8064, 8844, 9660, 10512, 11400, 12324, 13284, 14280, 15312, 16380, 17484, 18624, 19800, 21012, 22260, 23544, 24864, 26220, 27612
a(n)=24C(n, 1)+36C(n, 2); binomial transform of (0, 24, 36, 0, 0, 0, ...). - Paul Barry, Mar 15 2003
a(0)=0, a(1)=24, a(2)=84, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Nov 23 2012
[A192838] 24, 84, 180, 360, 600, 972, 1428, 2064, 2808, 3780, 4884, 6264, 7800, 9660, 11700, 14112, 16728, 19764, 23028, 26760, 30744, 35244, 40020, 45360, 51000, 57252, 63828, 71064, 78648, 86940
a(n) = (3/2)*n*(11 + (-1)^n + 2*n*(2 + n)).
[A280304] 0, 24, 84, 198, 384, 660, 1044, 1554, 2208, 3024, 4020, 5214, 6624, 8268, 10164, 12330, 14784, 17544, 20628, 24054, 27840, 32004, 36564, 41538, 46944, 52800, 59124, 65934, 73248, 81084, 89460, 98394, 107904, 118008, 128724, 140070, 152064, 164724, 178068, 192114, 206880, 222384, 238644, 255678, 273504, 292140, 311604, 331914, 353088, 375144, 398100
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 3. - Colin Barker, Dec 31 2016
[A168538] 0, 24, 84, 204, 414, 750, 1254, 1974, 2964, 4284, 6000, 8184, 10914, 14274, 18354, 23250, 29064, 35904, 43884, 53124, 63750, 75894, 89694, 105294, 122844, 142500, 164424, 188784, 215754, 245514, 278250, 314154, 353424, 396264, 442884, 493500, 548334
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = sum_{k=1..n} (k+3)*(k+2)*(k+1), with offset 0.
a(n) = (n/4)*(n+5)*(n^2 + 5n + 10), with offset 0. (End)
[A256718] 0, 1, 24, 90, 220, 435, 756, 1204, 1800, 2565, 3520, 4686, 6084, 7735, 9660, 11880, 14416, 17289, 20520, 24130, 28140, 32571, 37444, 42780, 48600, 54925, 61776, 69174, 77140, 85695, 94860, 104656, 115104, 126225, 138040, 150570, 163836, 177859, 192660
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) with n>3, a(0)=0, a(1)=1, a(2)=24, a(3)=90.
a(n) = Sum_{i=0..n-1} (n-i)*(21*i+1) for n>0.
[A076799] 1, 24, 92, 140, 171, 199, 226, 251, 277, 320, 363, 391, 425, 449, 474, 500, 524, 548, 575, 632, 673, 777, 801, 836, 861, 903, 932, 959, 983, 1011, 1054, 1087, 1113, 1148, 1176, 1228, 1261, 1286, 1316, 1348, 1394, 1427, 1452, 1480, 1510, 1536, 1571, 1600
a(n)=sum_{k=1..n}floor(g_k) where g_1=1, g_{n+1}=log_x(x^frac(g_n) - x) (n>0) at x=(e/3) and frac(y) = y - floor(y).
[A195824] 0, 24, 96, 216, 384, 600, 864, 1176, 1536, 1944, 2400, 2904, 3456, 4056, 4704, 5400, 6144, 6936, 7776, 8664, 9600, 10584, 11616, 12696, 13824, 15000, 16224, 17496, 18816, 20184, 21600, 23064, 24576, 26136, 27744, 29400, 31104, 32856, 34656, 36504
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Wesley Ivan Hurt, Aug 05 2014
[A272871] 0, 0, 24, 96, 240, 480, 840, 1344, 2016, 2880, 3960, 5280, 6864, 8736, 10920, 13440, 16320, 19584, 23256, 27360, 31920, 36960, 42504, 48576, 55200, 62400, 70200, 78624, 87696, 97440, 107880, 119040, 130944, 143616, 157080, 171360, 186480, 202464, 219336
a(n) = 4*(n-1)*n*(n+1).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
a(n) = 24*binomial(n+1,3).
[A157514] 24, 98, 222, 396, 620, 894, 1218, 1592, 2016, 2490, 3014, 3588, 4212, 4886, 5610, 6384, 7208, 8082, 9006, 9980, 11004, 12078, 13202, 14376, 15600, 16874, 18198, 19572, 20996, 22470, 23994, 25568, 27192, 28866, 30590, 32364, 34188, 36062
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Jan 26 2012
[A100152] 1, 24, 100, 260, 535, 956, 1554, 2360, 3405, 4720, 6336, 8284, 10595, 13300, 16430, 20016, 24089, 28680, 33820, 39540, 45871, 52844, 60490, 68840, 77925, 87776, 98424, 109900, 122235, 135460, 149606, 164704
a(n) = (1/6)*n*(31*n^2-27*n+2).

a(1)=1, a(2)=24, a(3)=100, a(4)=260, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Jan 11 2016
[A213842] 1, 24, 101, 264, 545, 976, 1589, 2416, 3489, 4840, 6501, 8504, 10881, 13664, 16885, 20576, 24769, 29496, 34789, 40680, 47201, 54384, 62261, 70864, 80225, 90376, 101349, 113176, 125889, 139520, 154101, 169664
a(n) = (2*n - 15*n^2 + 16*n^3)/3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A100155] 1, 24, 103, 272, 565, 1016, 1659, 2528, 3657, 5080, 6831, 8944, 11453, 14392, 17795, 21696, 26129, 31128, 36727, 42960, 49861, 57464, 65803, 74912, 84825, 95576, 107199, 119728, 133197, 147640, 163091, 179584
a(n) = (1/3)*n*(17*n^2-18*n+4).
[A011199] 1, 24, 105, 280, 585, 1056, 1729, 2640, 3825, 5320, 7161, 9384, 12025, 15120, 18705, 22816, 27489, 32760, 38665, 45240, 52521, 60544, 69345, 78960, 89425, 100776, 113049, 126280, 140505, 155760, 172081, 189504, 208065, 227800, 248745, 270936, 294409, 319200
a(n) = 6*n^3 + 11*n^2 + 6*n + 1. - Reinhard Zumkeller, Jun 08 2015
[A100149] 1, 24, 106, 284, 595, 1076, 1764, 2696, 3909, 5440, 7326, 9604, 12311, 15484, 19160, 23376, 28169, 33576, 39634, 46380, 53851, 62084, 71116, 80984, 91725, 103376, 115974, 129556, 144159, 159820, 176576, 194464
a(n) = (1/6)*(37*n^3-45*n^2+14*n).
[A100150] 1, 24, 107, 288, 605, 1096, 1799, 2752, 3993, 5560, 7491, 9824, 12597, 15848, 19615, 23936, 28849, 34392, 40603, 47520, 55181, 63624, 72887, 83008, 94025, 105976, 118899, 132832, 147813, 163880, 181071, 199424
a(n) = (1/6)*(38*n^3-48*n^2+16*n).
[A101862] 24, 108, 302, 671, 1296, 2275, 3724, 5778, 8592, 12342, 17226, 23465, 31304, 41013, 52888, 67252, 84456, 104880, 128934, 157059, 189728, 227447, 270756, 320230, 376480, 440154, 511938, 592557, 682776, 783401, 895280, 1019304, 1156408, 1307572, 1473822, 1656231
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n > 6. - Wesley Ivan Hurt, Dec 06 2016
[A052762] 0, 0, 0, 0, 24, 120, 360, 840, 1680, 3024, 5040, 7920, 11880, 17160, 24024, 32760, 43680, 57120, 73440, 93024, 116280, 143640, 175560, 212520, 255024, 303600, 358800, 421200, 491400, 570024, 657720, 755160, 863040, 982080, 1113024
a(n) = n*(n-1)*(n-2)*(n-3) = n!/(n-4)! (for n >= 4).
a(n) = numbperm(n, 4). - Zerinvary Lajos, Apr 26 2007
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), with a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=24. - Harvey P. Dale, May 09 2012
a(n) = (n)_4 = Pochhammer(n,4), using the "falling factorial" convention; other authors write Pochhammer(x,k) for what is denoted x^(k) in the Wikipedia article, then a(n) = (n-3)^(4). - M. F. Hasler, Oct 20 2013
[A290313] 1, 24, 145, 545, 1575, 3836, 8274, 16290, 29865, 51700, 85371, 135499, 207935, 309960, 450500, 640356, 892449, 1222080, 1647205, 2188725, 2870791, 3721124, 4771350, 6057350, 7619625, 9503676, 11760399, 14446495, 17624895, 21365200, 25744136, 30846024, 36763265, 43596840, 51456825, 60462921, 70744999, 82443660, 95710810, 110710250
a(n) = (48 + 256*n + 422*n^2 + 303*n^3 + 105*n^4 + 17*n^5 + n^6) / 48.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 6.
[A092181] 1, 24, 153, 544, 1425, 3096, 5929, 10368, 16929, 26200, 38841, 55584, 77233, 104664, 138825, 180736, 231489, 292248, 364249, 448800, 547281, 661144, 791913, 941184, 1110625, 1301976, 1517049, 1757728, 2025969, 2323800, 2653321, 3016704
a(n) = n^2*((3*n^2)-(4*n)+2).
a(n) = C(n+3,4) + 19 C(n+2,4) + 43 C(n+1,4) + 9 C(n,4).
a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5). G.f.: x*(1+19*x+43*x^2+9*x^3)/(1-x)^5. [R. J. Mathar, Jun 21 2010]
[A001702] 1, 24, 154, 580, 1665, 4025, 8624, 16884, 30810, 53130, 87450, 138424, 211939, 315315, 457520, 649400, 903924, 1236444, 1664970, 2210460, 2897125, 3752749, 4809024, 6101900, 7671950, 9564750, 11831274, 14528304, 17718855, 21472615, 25866400, 30984624
a(n) = (1/48)*(n-1)*n*(n+1)*(n+4)*(n^2+7n+14), n>1.
[A288486] 0, 24, 168, 624, 1680, 3720, 7224, 12768, 21024, 32760, 48840, 70224, 97968, 133224, 177240, 231360, 297024, 375768, 469224, 579120, 707280, 855624, 1026168, 1221024, 1442400, 1692600, 1974024, 2289168, 2640624, 3031080, 3463320, 3940224, 4464768, 5040024
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A272125] 0, 1, 24, 171, 704, 2125, 5256, 11319, 22016, 39609, 67000, 107811, 166464, 248261, 359464, 507375, 700416, 948209, 1261656, 1653019, 2136000, 2725821, 3439304, 4294951, 5313024, 6515625, 7926776, 9572499, 11480896, 13682229, 16209000, 19096031, 22380544, 26102241
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6).
[A165187] 1, 24, 180, 800, 2625, 7056, 16464, 34560, 66825, 121000, 207636, 340704, 538265, 823200, 1224000, 1775616, 2520369, 3508920, 4801300, 6468000, 8591121, 11265584, 14600400, 18720000, 23765625, 29896776, 37292724, 46154080, 56704425, 69192000
a(n)= 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). G.f.: -x*(1+17*x+33*x^2+9*x^3)/(x-1)^7.
[A123197] 1, 24, 195, 728, 1935, 4224, 8099, 14160, 23103, 35720, 52899, 75624, 104975, 142128, 188355, 245024, 313599, 395640, 492803, 606840, 739599, 893024, 1069155, 1270128, 1498175, 1755624, 2044899, 2368520, 2729103, 3129360, 3572099, 4060224, 4596735, 5184728, 5827395, 6528024
a(n)-a(n-1) = (4*n + 1)*(4*n^2 + 2*n - 1).
a(0)=-1, a(1)=24, a(2)=195, a(3)=728, a(4)=1935, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, May 29 2014
[A132458] 0, 0, 0, 1, 24, 200, 1000, 3675, 10976, 28224, 64800, 136125, 266200, 490776, 861224, 1449175, 2352000, 3699200, 5659776, 8450649, 12346200, 17689000, 24901800, 34500851, 47110624, 63480000, 84500000, 111223125, 144884376, 186924024, 239012200, 303075375
a(n) = (n-3)^2*(n-2)^3*(n-1)^2/72.
[A239574] 0, 1, 24, 200, 1053, 3932, 11988, 31298, 73046, 155880, 310046, 581414, 1038634, 1779531, 2942114, 4714412, 7350595, 11184786, 16654116, 24317554, 34886940, 49252544, 68523846, 94062350, 127534794, 170954603, 226748678, 297809946, 387580007, 500113190, 640178710
a(n) = (n^8 +4*n^7 -78*n^6 -104*n^5 +2556*n^4 -3152*n^3 -27280*n^2 +89664*n -78336)/2304 +IF(n == 1 mod 2)*(28*n^3 -54*n^2 -160*n +129)/768 +IF(n == 1 mod 3)*(n^2 +n -14)/18.
[A047659] 0, 0, 0, 0, 24, 204, 1024, 3628, 10320, 25096, 54400, 107880, 199400, 348020, 579264, 926324, 1431584, 2148048, 3141120, 4490256, 6291000, 8656860, 11721600, 15641340, 20597104, 26797144, 34479744, 43915768, 55411720, 69312516, 86004800, 105919940
a(n) = n(n - 2)^2(2n^3 - 12n^2 + 23n - 10)/12 if n is even and (n - 1)(n - 3)(2n^4 - 12n^3 + 25n^2 - 14n + 1)/12 if n is odd (Landau, 1896).
a(n) = 5a(n - 1) - 8a(n - 2) + 14a(n - 4) - 14a(n - 5) + 8a(n - 7) - 5a(n - 8) + a(n - 9) for n >= 9.
a(0)=0, a(1)=0, a(2)=0, a(3)=0, a(4)=24, a(5)=204, a(6)=1024, a(7)=3628, a(8)=10320, a(n) = 5*a(n-1)-8*a(n-2)+14*a(n-4)-14*a(n-5)+8*a(n-7)- 5*a(n-8)+ a(n-9). - Harvey P. Dale, Nov 06 2011
a(n) = n^6/6 - 5*n^5/3 + 79*n^4/12 - 25*n^3/2 + 11*n^2 - 43*n/12 + 1/8 + (-1)^n*(n/4 - 1/8) [Chaiken et al.]. - N. J. A. Sloane, Feb 16 2013
a(n) = (3*(2*n-1)*(-1)^n +4*n^6 -40*n^5 +158*n^4 -300*n^3 +264*n^2 -86*n +3)/24. - Antal Pinter, Oct 03 2014
[A133754] 0, 0, 24, 216, 960, 3000, 7560, 16464, 32256, 58320, 99000, 159720, 247104, 369096, 535080, 756000, 1044480, 1414944, 1883736, 2469240, 3192000, 4074840, 5142984, 6424176, 7948800, 9750000, 11863800, 14329224, 17188416, 20486760, 24273000, 28599360, 33521664
a(n) = 12*n*(2*binomial(n+2,4)- binomial(n+1,3)). - Gary Detlefs, Mar 25 2012
[A192491] 24, 240, 864, 2112, 4200, 7344, 11760, 17664, 25272, 34800, 46464, 60480, 77064, 96432, 118800, 144384, 173400, 206064, 242592, 283200, 328104, 377520, 431664, 490752, 555000, 624624, 699840, 780864, 867912, 961200
a(n) = 12*n^2*(3*n-1).
[A167548] 24, 240, 960, 2688, 6144, 12264, 22200, 37320, 59208, 89664, 130704, 184560, 253680, 340728, 448584, 580344, 739320, 929040, 1153248, 1415904, 1721184, 2073480, 2477400, 2937768, 3459624, 4048224, 4709040, 5447760, 6270288
a(n) = 9*n^4 - 6*n^3 + 63*n^2 - 66*n + 24.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - G. C. Greubel, Jun 15 2016
[A192849] 0, 0, 24, 240, 1080, 3360, 8400, 18144, 35280, 63360, 106920, 171600, 264264, 393120, 567840, 799680, 1101600, 1488384, 1976760, 2585520, 3335640, 4250400, 5355504, 6679200, 8252400, 10108800, 12285000, 14820624, 17758440, 21144480
a(n) = (-2+n)^2*n*(-1+n^2).
[A253285] 0, 24, 240, 1200, 4200, 11760, 28224, 60480, 118800, 217800, 377520, 624624, 993720, 1528800, 2284800, 3329280, 4744224, 6627960, 9097200, 12289200, 16364040, 21507024, 27931200, 35880000, 45630000, 57493800, 71823024, 89011440, 109498200, 133771200, 162370560
a(n) = ((n+1)*(n+2))^2*(n+3)*n/6.

a(n) = (N^3 + 4*N^2 + 4*N)/6 with N = n^2 + 3*n.
[A052796] 0, 0, 0, 0, 24, 240, 1440, 6720, 26880, 96768, 322560, 1013760, 3041280, 8785920, 24600576, 67092480, 178913280, 467927040, 1203240960, 3048210432, 7620526080, 18827182080, 46022000640, 111421685760, 267412045824, 636695347200, 1504916275200
a(n) = (n-3)*(n-2)*(n-1)*n * 2^(n-4). - Vaclav Kotesovec, Nov 27 2012
[A126904] 1, 24, 264, 1800, 8736, 32952, 102744, 276648, 663744, 1451736, 2944104, 5607624, 10131552, 17499768, 29077176, 46711656, 72852864, 110689176, 164304072, 238853256, 340763808, 477956664, 660093720, 898850856, 1208218176, 1604828760, 2108317224
a(0)=1, a(1)=24, a(2)=264, a(3)=1800, a(4)=8736, a(5)=32952, a(6)=102744, a(7)=276648, a(8)=663744, a(n)=8*a(n-1)-28*a(n-2)+56*a(n-3)- 70*a(n-4)+ 56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8) [From Harvey P. Dale, Apr 09 2012]
[A000915] 24, 274, 1624, 6769, 22449, 63273, 157773, 357423, 749463, 1474473, 2749747, 4899622, 8394022, 13896582, 22323822, 34916946, 53327946, 79721796, 116896626, 168423871, 238810495, 333685495, 460012995, 626334345, 843041745, 1122686019, 1480321269, 1933889244
a(n) = binomial(n+4, 5)*(15*n^3 + 150*n^2 + 485*n + 502)/48. - André F. Labossière, Sep 30 2004
[A014809] 1, 24, 276, 2048, 11178, 48576, 177400, 565248, 1612875, 4200352, 10131156, 22892544, 48897678, 99448320, 193740408, 363315200, 658523925, 1157743824, 1980143600, 3303168000, 5386270686, 8602175744, 13477895856, 20748607488, 31425764410, 46883528256, 68969957700
a(n) = 1/72 * Sum_{a, b, x, y > 0, a*x + b*y = n + 3, x == y == 1 mod 2 and a > b} (a*b)^3*(a^2 - b^2)^2. - Seiichi Manyama, May 05 2017
[A290939] 0, 0, 24, 312, 1584, 5376, 14448, 33264, 68544, 129888, 230472, 387816, 624624, 969696, 1458912, 2136288, 3055104, 4279104, 5883768, 7957656, 10603824, 13941312, 18106704, 23255760, 29565120, 37234080, 46486440, 57572424, 70770672, 86390304, 104773056, 126295488
a(n) = 12/5 * binomial(n, 4) * (n^2 + 7*n - 34).
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A069779] 1, 24, 315, 2080, 8925, 29016, 77959, 182400, 384345, 746200, 1356531, 2336544, 3847285, 6097560, 9352575, 13943296, 20276529, 28845720, 40242475, 55168800, 74450061, 99048664, 130078455, 168819840, 216735625, 275487576, 346953699, 433246240, 536730405, 660043800
a(n) = (n + 1)*(n^2 + n + 1)*(n^3 + n^2 + n + 1).
[A289706] 0, 0, 24, 324, 1692, 5796, 15516, 35388, 71988, 134460, 234972, 389304, 617400, 943992, 1399272, 2019528, 2847960, 3935304, 5340816, 7132860, 9390084, 12201948, 15670116, 19908900, 25046892, 31227300, 38609844, 47370960, 57705984, 69829200, 83976336, 100404432
a(n) = (1095 - 4770*n + 934*n^2 + 4680*n^3 - 3170*n^4 + 540*n^5 +
a(n) = 4*a(n-1) - 3*a(n-2) - 8*a(n-3) + 14*a(n-4) - 14*a(n-6) + 8*a(n-7) + 3*a(n-8) - 4*a(n-9) + a(n-10).
[A228406] 0, 24, 384, 2064, 7104, 18984, 43008, 86688, 160128, 276408, 451968, 706992, 1065792, 1557192, 2214912, 3077952, 4190976, 5604696, 7376256, 9569616, 12255936, 15513960, 19430400, 24100320, 29627520, 36124920, 43714944, 52529904, 62712384, 74415624, 87803904
a(n) = (n+1)*(n+2)*(n+3)*(4+44*n/5+16*n^2/5).
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Wesley Ivan Hurt, Oct 24 2014
[A292282] 0, 24, 576, 4320, 19200, 63000, 169344, 395136, 829440, 1603800, 2904000, 4983264, 8176896, 12918360, 19756800, 29376000, 42614784, 60488856, 84214080, 115231200, 155232000, 206186904, 270374016, 350409600, 449280000, 570375000, 717522624, 895025376, 1107697920
a(n) = 2*(n-1)^3*n^2*(n+1).
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A158637] 24, 600, 2328, 5208, 9240, 14424, 20760, 28248, 36888, 46680, 57624, 69720, 82968, 97368, 112920, 129624, 147480, 166488, 186648, 207960, 230424, 254040, 278808, 304728, 331800, 360024, 389400, 419928, 451608, 484440, 518424, 553560, 589848
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A179059] 0, 0, 0, 24, 600, 5400, 29400, 117600, 381024, 1058400, 2613600, 5880600, 12269400, 24048024, 44717400, 79497600, 135945600, 224726400, 360561024, 563376600, 859685400, 1284221400, 1881864600, 2709885024, 3840540000, 5364060000
a(n) = 4! binom{n}{4}^2.
a(n) = (n^2*(-6+11*n-6*n^2+n^3)^2)/24. G.f.: -24*x^4*(x^4 +16*x^3 +36*x^2 +16*x +1) / (x -1)^9. [Colin Barker, Jan 08 2013]
[A022359] 0, 25, 25, 50, 75, 125, 200, 325, 525, 850, 1375, 2225, 3600, 5825, 9425, 15250, 24675, 39925, 64600, 104525, 169125, 273650, 442775, 716425, 1159200, 1875625, 3034825, 4910450, 7945275, 12855725, 20801000, 33656725, 54457725, 88114450, 142572175, 230686625
a(n) = Lucas(n+5) + Lucas(n-5), with Lucas(-i) = (-1)^i*Lucas(i) for the negative indices. - Bruno Berselli, Dec 27 2016
[A140058] 25, 26, 27, 28, 29, 35, 36, 37, 38, 39, 45, 46, 47, 48, 49, 55, 56, 57, 58, 59, 65, 66, 67, 68, 69, 75, 76, 77, 78, 79, 85, 86, 87, 88, 89, 95, 96, 97, 98, 99, 105, 106, 107, 108, 109, 115, 116, 117, 118, 119, 125, 126, 127, 128, 129, 135, 136, 137, 138, 139, 145, 146
a(n) = 10 + a(n-5) for n >= 6.
a(n) = a(n-1) + a(n-5) - a(n-6) for n > 6.
a(n) = 25 + ((n-1) mod 5) + 10*floor((n-1)/5). - Wesley Ivan Hurt, Nov 03 2016
[A219258] 0, 25, 29, 104, 112, 237, 249, 424, 440, 665, 685, 960, 984, 1309, 1337, 1712, 1744, 2169, 2205, 2680, 2720, 3245, 3289, 3864, 3912, 4537, 4589, 5264, 5320, 6045, 6105, 6880, 6944, 7769, 7837, 8712, 8784, 9709, 9785, 10760, 10840, 11865, 11949, 13024, 13112
a(n) = a(-n+1) = (54*n*(n-1) + 23*(-1)^n*(2*n - 1) - 1)/8 + 3.
[A284045] 1, 25, 30, 40, 45, 70, 95, 215, 220, 385, 425, 455, 560, 565, 710, 775, 975, 980, 1060, 1130, 1500, 1540, 1605, 1755, 1815, 1995, 2280, 2305, 2335, 2425, 2705, 2775, 3010, 3020, 3090, 3190, 3230, 3600, 3640, 3895, 3945, 4455, 4480, 4615, 4900, 5045, 5495, 5525, 5750, 5880
a(n) == 0 (mod 5) for n > 1.
[A157646] 25, 31, 41, 109, 155, 221, 629, 899, 1285, 3665, 5239, 7489, 21361, 30535, 43649, 124501, 177971, 254405, 725645, 1037291, 1482781, 4229369, 6045775, 8642281, 24650569, 35237359, 50370905, 143674045, 205378379, 293583149, 837393701
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=25, a(2)=31, a(3)=41, a(4)=109, a(5)=155, a(6)=221.
[A050694] 25, 32, 125, 128, 135, 175, 243, 250, 256, 324, 375, 432, 512, 625, 735, 875, 1024, 1250, 1352, 1372, 1593, 1675, 1715, 1792, 2048, 2176, 2304, 2500, 2510, 2560, 2570, 2744, 3072, 3087, 3125, 3375, 3645, 3675, 3792, 4232, 4375, 5120, 5210, 5230, 5832
a(n) « n log n. - Charles R Greathouse IV, Jul 09 2015
[A129074] 25, 33, 49, 65, 97, 113, 145, 161, 193, 241, 257, 305, 337, 353, 385, 433, 481, 497, 545, 577, 593, 641, 673, 721, 785, 817, 833, 865, 881, 913, 1025, 1057, 1105, 1121, 1201, 1217, 1265, 1313, 1345, 1393, 1441, 1457, 1537, 1553, 1585, 1601, 1697, 1793, 1825
a(n) = 8*prime(n) + 9. - Zak Seidov, May 12 2007
[A063149] 25, 35, 55, 65, 85, 95, 115, 125, 145, 155, 175, 185, 205, 215, 235, 245, 265, 275, 295, 305, 325, 335, 355, 365, 385, 395, 415, 425, 445, 455, 475, 485, 505, 515, 535, 545, 565, 575, 595, 605, 625, 635, 655, 665, 685, 695, 715, 725, 745, 755, 775, 785, 805
a(n) = 30*n-a(n-1) for n>1, a(1)=25. [Vincenzo Librandi, Aug 07 2010]
a(n) = (15/2)*(1-3*(-1)^n+2*n). [Paolo P. Lava, Aug 31 2010]
[A104777] 1, 25, 49, 121, 169, 289, 361, 529, 625, 841, 961, 1225, 1369, 1681, 1849, 2209, 2401, 2809, 3025, 3481, 3721, 4225, 4489, 5041, 5329, 5929, 6241, 6889, 7225, 7921, 8281, 9025, 9409, 10201, 10609, 11449, 11881, 12769, 13225, 14161, 14641, 15625, 16129
a(n) = 9*n^2 - 9*n + 5/2 + (-1)^n * (3*n - 3/2). a(n+4) = 2*a(n+2) - a(n) + 72. - Robert Israel, Dec 12 2014
a(n) == 1 (mod 24). - Joerg Arndt, Jan 03 2017
[A169860] 0, 25, 50, 76, 101, 127, 152, 177, 203, 228, 254, 279, 304, 330, 355, 381, 406, 431, 457, 482, 508, 533, 558, 584, 609, 635, 660, 685, 711, 736, 762, 787, 812, 838, 863, 889, 914, 939, 965, 990, 1016, 1041, 1066, 1092, 1117, 1143, 1168, 1193, 1219, 1244
a(n) = floor(n*25.4) = floor(n*127/5).
[A132766] 0, 25, 52, 81, 112, 145, 180, 217, 256, 297, 340, 385, 432, 481, 532, 585, 640, 697, 756, 817, 880, 945, 1012, 1081, 1152, 1225, 1300, 1377, 1456, 1537, 1620, 1705, 1792, 1881, 1972, 2065, 2160, 2257, 2356, 2457, 2560, 2665, 2772, 2881
a(n) = n*(n + 24).
a(n) = 2*n + a(n-1) + 23 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=25, a(2)=52, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 11 2016
[A166873] 1, 25, 61, 109, 169, 241, 325, 421, 529, 649, 781, 925, 1081, 1249, 1429, 1621, 1825, 2041, 2269, 2509, 2761, 3025, 3301, 3589, 3889, 4201, 4525, 4861, 5209, 5569, 5941, 6325, 6721, 7129, 7549, 7981, 8425, 8881, 9349, 9829, 10321, 10825, 11341, 11869
a(n) = 6*n^2 + 6*n - 11.
a(n) = 2*a(n-1) - a(n-2) + 12.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).

[A159008] 25, 64, 114, 153, 203, 242, 292, 331, 381, 420, 470, 509, 559, 598, 648, 687, 737, 776, 826, 865, 915, 954, 1004, 1043, 1093, 1132, 1182, 1221, 1271, 1310, 1360, 1399, 1449, 1488, 1538, 1577, 1627, 1666, 1716, 1755, 1805, 1844, 1894, 1933, 1983, 2022, 2072
a(n) = a(n-1)+a(n-2)-a(n-3).
a(n) = (89+11*(-1)^(n-1)+178*(n-1))/4.
[A063308] 1, 25, 70, 112, 154, 196, 238, 280, 322, 364, 406, 452, 490, 532, 574, 620, 658, 704, 742, 788, 826, 872, 910, 960, 994, 1040, 1078, 1128, 1162, 1212, 1246, 1296, 1330, 1380, 1414, 1468, 1498, 1548, 1582, 1636, 1666, 1720, 1750, 1804
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A182323] 25, 72, 122, 169, 219, 266, 316, 363, 413, 460, 510, 557, 607, 654, 704, 751, 801, 848, 898, 945, 995, 1042, 1092, 1139, 1189, 1236, 1286, 1333, 1383, 1430, 1480, 1527, 1577, 1624, 1674, 1721, 1771, 1818, 1868, 1915, 1965, 2012, 2062, 2109, 2159, 2206, 2256
a(n) = -a(-n-1) = a(n-1) + a(n-2) - a(n-3).
[A069190] 1, 25, 73, 145, 241, 361, 505, 673, 865, 1081, 1321, 1585, 1873, 2185, 2521, 2881, 3265, 3673, 4105, 4561, 5041, 5545, 6073, 6625, 7201, 7801, 8425, 9073, 9745, 10441, 11161, 11905, 12673, 13465, 14281, 15121, 15985, 16873, 17785, 18721, 19681, 20665, 21673
a(n) = 12*n^2 - 12*n + 1.
a(n) = 24*n+a(n-1)-24 (with a(1)=1). - Vincenzo Librandi, Aug 08 2010
a(1)=1, a(2)=25, a(3)=73, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 17 2011
[A053742] 25, 75, 125, 175, 225, 275, 325, 375, 425, 475, 525, 575, 625, 675, 725, 775, 825, 875, 925, 975, 1025, 1075, 1125, 1175, 1225, 1275, 1325, 1375, 1425, 1475, 1525, 1575, 1625, 1675, 1725, 1775, 1825, 1875, 1925, 1975, 2025, 2075, 2125, 2175, 2225, 2275
a(n) = 25+50*n.
a(n) = a(n-1)+50. - Harvey P. Dale, Aug 11 2011
a(n) = 2*a(n-1)-a(n-2). G.f.: 25*(1+x)/(1-x)^2. - Colin Barker, Jun 27 2012
[A123296] 0, 25, 75, 150, 250, 375, 525, 700, 900, 1125, 1375, 1650, 1950, 2275, 2625, 3000, 3400, 3825, 4275, 4750, 5250, 5775, 6325, 6900, 7500, 8125, 8775, 9450, 10150, 10875, 11625
a(n)=25*n+a(n-1) (with a(0)=0) - Vincenzo Librandi, Nov 13 2010
[A008852] 0, 1, 25, 76, 100, 101, 125, 176, 200, 201, 225, 276, 300, 301, 325, 376, 400, 401, 425, 476, 500, 501, 525, 576, 600, 601, 625, 676, 700, 701, 725, 776, 800, 801, 825, 876, 900, 901, 925, 976, 1000, 1001, 1025, 1076, 1100, 1101, 1125, 1176, 1200, 1201
a(4n)=100n, a(4n+1)=100n+1, a(4n+2)=100n+25, a(4n+3)=100n+76. - Franklin T. Adams-Watters, Mar 13 2006
[A016814] 1, 25, 81, 169, 289, 441, 625, 841, 1089, 1369, 1681, 2025, 2401, 2809, 3249, 3721, 4225, 4761, 5329, 5929, 6561, 7225, 7921, 8649, 9409, 10201, 11025, 11881, 12769, 13689, 14641, 15625, 16641, 17689, 18769, 19881, 21025, 22201, 23409, 24649, 25921, 27225, 28561, 29929
a(n) = a(n-1) + 32 * n - 8, n > 0. - Vincenzo Librandi, Dec 15 2010
a(n+1) = a(n) + 16 + 8*sqrt(a(n)).
a(n+1) = 2*a(n) - a(n-1) + 32 = 3*a(n) - 3*a(n-1) + a(n-2).
a(n-1)*a(n+1) = (a(n) - 16)^2 ; a(n+1) - a(n-1) = 16*sqrt(a(n)).
a(0) = 1, a(n) = a(n - 1) + 32(n - 1) - 8. - Alonso del Arte, Aug 19 2017
[A166080] 1, 25, 85, 145, 221, 265, 365, 481, 545, 685, 841, 925, 1105, 1405, 1513, 1625, 1985, 2245, 2665, 2813, 2965, 3281, 3445, 3785, 3961, 4141, 4325, 4705, 4901, 5305, 5513, 5725, 5941, 6161, 6385, 6613, 6845, 7081, 7565, 7813, 8065, 8321, 8845, 9113, 9385
a(n) = 2n^2 + O(n^2/log n). - Charles R Greathouse IV, Mar 21 2014
[A081272] 1, 25, 85, 181, 313, 481, 685, 925, 1201, 1513, 1861, 2245, 2665, 3121, 3613, 4141, 4705, 5305, 5941, 6613, 7321, 8065, 8845, 9661, 10513, 11401, 12325, 13285, 14281, 15313, 16381, 17485, 18625, 19801, 21013, 22261, 23545, 24865, 26221, 27613, 29041, 30505
a(n) = C(n, 0) + 24*C(n, 1) + 36*C(n, 2).
a(n) = 18*n^2 + 6*n + 1.
[A256716] 0, 1, 25, 94, 230, 455, 791, 1260, 1884, 2685, 3685, 4906, 6370, 8099, 10115, 12440, 15096, 18105, 21489, 25270, 29470, 34111, 39215, 44804, 50900, 57525, 64701, 72450, 80794, 89755, 99355, 109616, 120560, 132209, 144585, 157710, 171606, 186295, 201799
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) with n>3, a(0)=0, a(1)=1, a(2)=25, a(3)=94.
a(n) = Sum_{i=0..n-1} (n-i)*(22*i+1) for n>0.
[A158547] 1, 25, 97, 217, 385, 601, 865, 1177, 1537, 1945, 2401, 2905, 3457, 4057, 4705, 5401, 6145, 6937, 7777, 8665, 9601, 10585, 11617, 12697, 13825, 15001, 16225, 17497, 18817, 20185, 21601, 23065, 24577, 26137, 27745, 29401, 31105, 32857, 34657
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A114254] 1, 25, 101, 261, 537, 961, 1565, 2381, 3441, 4777, 6421, 8405, 10761, 13521, 16717, 20381, 24545, 29241, 34501, 40357, 46841, 53985, 61821, 70381, 79697, 89801, 100725, 112501, 125161, 138737, 153261, 168765, 185281, 202841, 221477, 241221
a(n) = 1 + 10*n^2 + [(16n^3 + 26n)/3]. [Corrected by Arie Groeneveld, Aug 17 2008]
[A158551] 25, 103, 233, 415, 649, 935, 1273, 1663, 2105, 2599, 3145, 3743, 4393, 5095, 5849, 6655, 7513, 8423, 9385, 10399, 11465, 12583, 13753, 14975, 16249, 17575, 18953, 20383, 21865, 23399, 24985, 26623, 28313, 30055, 31849, 33695, 35593, 37543
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A174371] 1, 25, 121, 289, 529, 841, 1225, 1681, 2209, 2809, 3481, 4225, 5041, 5929, 6889, 7921, 9025, 10201, 11449, 12769, 14161, 15625, 17161, 18769, 20449, 22201, 24025, 25921, 27889, 29929, 32041, 34225, 36481, 38809, 41209, 43681, 46225, 48841, 51529
a(n) = 36n^2 - 12n + 1. - Omar E. Pol, Jul 28 2016
[A062938] 1, 25, 121, 361, 841, 1681, 3025, 5041, 7921, 11881, 17161, 24025, 32761, 43681, 57121, 73441, 93025, 116281, 143641, 175561, 212521, 255025, 303601, 358801, 421201, 491401, 570025, 657721, 755161, 863041, 982081, 1113025, 1256641
a(n+1) = Numerator of ((n + 2)! + (n - 2)!)/(n!) n=3,4,5,... - Artur Jasinski, Jan 09 2007
a(n) = n*(n+1)*(n+2)*(n+3)+1^4 = 1*(1+n)*(1+2*n)*(1+3*n)+n^4=(n^2+3*n+1)^2;
[A100255] 0, 1, 25, 144, 484, 1225, 2601, 4900, 8464, 13689, 21025, 30976, 44100, 61009, 82369, 108900, 141376, 180625, 227529, 283024, 348100, 423801, 511225, 611524, 725904, 855625, 1002001, 1166400, 1350244, 1555009, 1782225, 2033476
a(n) = 5*a(n-1) - 10*(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). (End)
[A007204] 1, 25, 169, 625, 1681, 3721, 7225, 12769, 21025, 32761, 48841, 70225, 97969, 133225, 177241, 231361, 297025, 375769, 469225, 579121, 707281, 855625, 1026169, 1221025, 1442401, 1692601, 1974025, 2289169, 2640625, 3031081, 3463321, 3940225, 4464769, 5040025
a(0)=1, a(1)=25, a(2)=169, a(3)=625, a(4)=1681, a(n)=5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Harvey P. Dale, Mar 03 2013
[A213546] 1, 25, 170, 674, 1979, 4795, 10164, 19524, 34773, 58333, 93214, 143078, 212303, 306047, 430312, 592008, 799017, 1060257, 1385746, 1786666, 2275427, 2865731, 3572636, 4412620, 5403645, 6565221, 7918470, 9486190, 11292919
a(n) = (16*n^5 + 15*n^4 - n)/30.
a(n) = 6*a(n-1) - 10*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A243209] 1, 25, 186, 881, 3146, 9264, 23810, 55058, 117205, 233135, 438544, 786541, 1354696, 2252202, 3630684, 5694984, 8718963, 13060515, 19184110, 27681103, 39300096, 54974216, 75861038, 103377456, 139251749, 185567453, 244828780, 320015885, 414665890, 532940080
a(n) = (n^8 + 4*n^7 - 6*n^6 - 80*n^5 + 60*n^4 + 208*n^3 + 464*n^2 - 1152*n)/2304 + IF(MOD(n, 2) = 1)*(28*n^3 - 206*n^2 + 312*n + 33)/768 + IF(MOD(n, 3) = 1)*(n^2 - 2*n + 4)/18 + IF(MOD(n, 6) = 1)*(- 1/6).
a(n) = 3*a(n-1) - 6*a(n-3) + 6*a(n-5) + 8*a(n-6) - 12*a(n-7) - 9*a(n-8) + 13*a(n-9) + 6*a(n-10) - 6*a(n-11) - 13*a(n-12) + 9*a(n-13) + 12*a(n-14) - 8*a(n-15) - 6*a(n-16) + 6*a(n-18) - 3*a(n-20) + a(n-21). - Vaclav Kotesovec, Jun 02 2014
[A017222] 25, 196, 529, 1024, 1681, 2500, 3481, 4624, 5929, 7396, 9025, 10816, 12769, 14884, 17161, 19600, 22201, 24964, 27889, 30976, 34225, 37636, 41209, 44944, 48841, 52900, 57121, 61504, 66049, 70756
a(0)=25, a(1)=196, a(2)=529, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) Harvey P. Dale, May 22 2012
[A271535] 0, 1, 25, 196, 900, 3025, 8281, 19600, 41616, 81225, 148225, 256036, 422500, 670761, 1030225, 1537600, 2238016, 3186225, 4447881, 6100900, 8236900, 10962721, 14402025, 18696976, 24010000, 30525625, 38452401, 48024900, 59505796, 73188025, 89397025, 108493056
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
[A288876] 1, 25, 225, 1225, 4900, 15876, 44100, 108900, 245025, 511225, 1002001, 1863225, 3312400, 5664400, 9363600, 15023376, 23474025, 35820225, 53509225, 78411025, 112911876, 160022500, 223502500, 308002500, 419225625, 564110001, 751034025, 990046225, 1293121600, 1674446400, 2150733376

a(n) = binomial(n+4, n)^2, n >= 0.
[A088890] 0, 1, 25, 234, 1290, 5115, 16211, 43700, 104244, 226005, 453805, 855646, 1530750, 2619279, 4313895, 6873320, 10638056, 16048425, 23665089, 34192210, 48503410, 67670691, 92996475, 126048924, 168700700, 223171325
a(n) = ((n^8-(n-1)^8)-(n^2-(n-1)^2))/252 = ((n^8-(n-1)^8)-(n^2-(n-1)^2))/(2^8-2^2).
[A017450] 25, 256, 729, 1444, 2401, 3600, 5041, 6724, 8649, 10816, 13225, 15876, 18769, 21904, 25281, 28900, 32761, 36864, 41209, 45796, 50625, 55696, 61009, 66564, 72361, 78400, 84681, 91204, 97969, 104976
a(0)=25, a(1)=256, a(2)=729, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Dec 08 2013
[A210430] 0, 1, 25, 294, 2090, 10460, 40677, 131131, 366088, 912519, 2075965, 4381168, 8683962, 16321682, 29310113, 50595765, 84373024, 136476493, 214859601, 330171322, 496443610, 731902920, 1059919949, 1510112495, 2119617096, 2934545875, 4011645781, 5420178180
a(n) = n^2*(n^2+3)*(1124+(1205+191*n^2)*n^2)/10080.
[A059255] 0, 25, 365, 2030, 7230, 19855, 45955, 94220, 176460, 308085, 508585, 802010, 1217450, 1789515, 2558815, 3572440, 4884440, 6556305, 8657445, 11265670, 14467670, 18359495, 23047035, 28646500, 35284900, 43100525, 52243425, 62875890, 75172930, 89322755
a(0)=0, a(1)=25, a(2)=365, a(3)=2030, a(4)=7230, a(5)=19855, a(n)= 6a(n-1)-15a(n-2)+20a(n-3)-15a(n-4)+6a(n-5)-a(n-6). - Harvey P. Dale, May 09 2011
a(0)=0, a(n) = 25 + 340*C(n-1,1) + 1325*C(n-1,2) + 2210*C(n-1,3) + 1680*C(n-1,4) + 480*C(n-1,5) for n >= 1, where C(a,b) are binomial coefficients. - Kieren MacMillan, Sep 16 2014
[A056090] 25, 429, 3364, 17602, 71385, 242347, 720792, 1934076, 4777337, 11021713, 24008532, 49790614, 98954626, 189457350, 350941064, 631167840, 1105440045, 1890167329, 3162113836, 5185330818, 8348369731, 13215102985, 20593381200, 31626858540, 47916657405, 71681161365
a(n) = C(n + 14, 14) - 12*C(n + 10, 10) + 24*C(n + 8, 8) + 4*C(n + 7, 7) - 18*C(n + 6, 6) + 6*C(n + 5, 5) - 36*C(n + 4, 4) + 36*C(n + 3, 3) + 11*C(n + 2, 2) - 22*C(n + 1, 1) + 6*C(n, 0).
a(n) = (-104270181120 n + 236073062016 n^2 - 169534943760 n^3 + 28403538800 n^4 + 12862329480 n^5 - 2983956976 n^6 - 613678065 n^7 + 39763295 n^8 + 21456435 n^9 + 2461459 n^10 + 143325 n^11 + 5005 n^12 + 105 n^13 + n^14)/(14)!. - G. C. Greubel, Oct 06 2017
[A286439] 0, 1, 25, 747, 7459, 42983, 176373, 575775, 1595487, 3908979, 8701313, 17936083, 34713675, 63739327, 111921149, 189119943, 309074343, 490526475, 758575017, 1146284219, 1696579123, 2464458903, 3519561925, 4949117807, 6861323439, 9389181603, 12694842513, 16974490275
a(n) = (n^8 -12*n^7 +6*n^6 +432*n^5 -1279*n^4 -4692*n^3 +20592*n^2 +13320*n -91800)/24, for n>=5.
[A056081] 1, 26, 28, 53, 55, 80, 82, 107, 109, 134, 136, 161, 163, 188, 190, 215, 217, 242, 244, 269, 271, 296, 298, 323, 325, 350, 352, 377, 379, 404, 406, 431, 433, 458, 460, 485, 487, 512, 514, 539, 541, 566, 568, 593, 595, 620, 622, 647, 649, 674, 676, 701, 703
a(n) = 27*(n-1)-a(n-1) with n>1, a(1)=1. [Vincenzo Librandi, Aug 07 2010]
[A069962] 1, 26, 29, 109, 250, 689, 1769, 4666, 12181, 31925, 83546, 218761, 572689, 1499354, 3925325, 10276669, 26904634, 70437281, 184407161, 482784250, 1263945541, 3309052421, 8663211674, 22680582649, 59378536225, 155455026074, 406986541949, 1065504599821
a(n) = 2*a(n-1)+2*a(n-2)-a(n-3). G.f.: -(x-1)*(25*x+1) / ((x+1)*(x^2-3*x+1)). - Colin Barker, Jun 14 2013
a(n) = (2^(-1-n)*(-3*(-1)^n*2^(5+n)-(3-sqrt(5))^n*(-53+sqrt(5))+(3+sqrt(5))^n*(53+sqrt(5))))/5. - Colin Barker, Oct 01 2016
[A217775] 26, 44, 68, 98, 134, 176, 224, 278, 338, 404, 476, 554, 638, 728, 824, 926, 1034, 1148, 1268, 1394, 1526, 1664, 1808, 1958, 2114, 2276, 2444, 2618, 2798, 2984, 3176, 3374, 3578, 3788, 4004, 4226, 4454, 4688, 4928, 5174, 5426, 5684, 5948, 6218, 6494, 6776, 7064
a(n) = 3*n^2 + 15*n + 26. - Bruno Berselli, Mar 29 2013
[A261932] 26, 48, 68, 126, 468, 866, 1226, 2268, 8406, 15548, 22008, 40706, 150848, 279006, 394926, 730448, 2706866, 5006568, 7086668, 13107366, 48572748, 89839226, 127165106, 235202148, 871602606, 1612099508, 2281885248, 4220531306, 15640274168, 28927951926
a(n) = a(n-1) + 18*a(n-4) - 18*a(n-5) - a(n-8) + a(n-9) for n>8. - Vincenzo Librandi, Sep 07 2015
[A158060] 26, 51, 76, 101, 126, 151, 176, 201, 226, 251, 276, 301, 326, 351, 376, 401, 426, 451, 476, 501, 526, 551, 576, 601, 626, 651, 676, 701, 726, 751, 776, 801, 826, 851, 876, 901, 926, 951, 976, 1001, 1026, 1051, 1076, 1101, 1126, 1151, 1176, 1201, 1226, 1251
a(n) = 2*a(n-1) -a(n-2).
[A169861] 0, 26, 51, 77, 102, 127, 153, 178, 204, 229, 254, 280, 305, 331, 356, 381, 407, 432, 458, 483, 534, 559, 585, 610, 635, 661, 686, 712, 737, 762, 788, 813, 839, 864, 889, 915, 940, 966, 1016, 1042, 1067, 1093, 1118, 1143, 1169, 1194, 1220, 1245
a(n) = ceiling(n*25.4) = ceiling(n*127/5).
[A252994] 0, 26, 52, 78, 104, 130, 156, 182, 208, 234, 260, 286, 312, 338, 364, 390, 416, 442, 468, 494, 520, 546, 572, 598, 624, 650, 676, 702, 728, 754, 780, 806, 832, 858, 884, 910, 936, 962, 988, 1014, 1040, 1066, 1092, 1118, 1144, 1170, 1196, 1222, 1248, 1274, 1300, 1326, 1352, 1378
a(n) = 26*n.
[A132767] 0, 26, 54, 84, 116, 150, 186, 224, 264, 306, 350, 396, 444, 494, 546, 600, 656, 714, 774, 836, 900, 966, 1034, 1104, 1176, 1250, 1326, 1404, 1484, 1566, 1650, 1736, 1824, 1914, 2006, 2100, 2196, 2294, 2394, 2496, 2600, 2706, 2814, 2924
a(n) = 2*n + a(n-1) + 24 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(n) = n^2 + 25*n. - Omar E. Pol, Nov 04 2016
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A184839] 26, 56, 85, 115, 144, 174, 204, 232, 262, 291, 321, 351, 380, 410, 438, 468, 497, 526, 556, 585, 615, 645, 673, 703, 732, 762, 792, 821, 851, 878, 908, 938, 966, 996, 1025, 1055, 1085, 1113, 1143, 1172, 1202, 1232, 1261, 1291, 1319, 1349, 1379, 1408, 1437, 1466, 1496, 1525, 1554, 1584, 1613, 1643, 1673, 1702, 1731, 1759, 1789, 1819, 1848, 1878, 1906, 1936, 1965, 1994, 2024, 2053, 2083, 2113, 2142, 2172, 2200, 2230, 2260, 2289, 2319, 2348, 2377, 2406, 2435, 2465, 2494, 2524, 2554, 2583, 2611, 2640, 2670
a(n) = n + floor(n*q/p) + floor(n*r/p) + floor(n*s/p) + floor(n*u/p), where p=t, q=t^2, r=t^3, s=t^4, u=t^5, and t is the pentanacci constant.
[A162316] 1, 26, 61, 106, 161, 226, 301, 386, 481, 586, 701, 826, 961, 1106, 1261, 1426, 1601, 1786, 1981, 2186, 2401, 2626, 2861, 3106, 3361, 3626, 3901, 4186, 4481, 4786, 5101, 5426, 5761, 6106, 6461, 6826
a(n) = a(n-1) + 10*n + 15 (with a(0)=1). - Vincenzo Librandi, Dec 02 2010
[A173085] 26, 62, 86, 118, 134, 566, 706, 982, 1198, 1322, 1346, 1678, 1706, 1822, 2386, 2402, 2498, 2654, 2966, 3086, 3142, 3158, 3326, 3662, 4222, 4874, 5158, 5354, 5774, 6602, 6638, 6746, 6998, 7142, 7586, 7646, 7834, 8006, 8482, 8486, 8846, 9134, 9406, 10558
a(n) » n log n. - Charles R Greathouse IV, Sep 14 2015
[A063304] 1, 26, 65, 105, 145, 185, 225, 265, 305, 345, 385, 423, 465, 505, 545, 583, 625, 663, 705, 743, 785, 823, 865, 901, 945, 983, 1025, 1061, 1105, 1141, 1185, 1221, 1265, 1301, 1345, 1379, 1425, 1461, 1505, 1539, 1585, 1619, 1665, 1699, 1745
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A262221] 1, 26, 76, 151, 251, 376, 526, 701, 901, 1126, 1376, 1651, 1951, 2276, 2626, 3001, 3401, 3826, 4276, 4751, 5251, 5776, 6326, 6901, 7501, 8126, 8776, 9451, 10151, 10876, 11626, 12401, 13201, 14026, 14876, 15751, 16651, 17576, 18526, 19501, 20501, 21526, 22576, 23651
a(n) = a(-n-1) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A139698] 1, 26, 76, 176, 376, 776, 1576, 3176, 6376, 12776, 25576, 51176, 102376, 204776, 409576, 819176, 1638376, 3276776, 6553576, 13107176, 26214376, 52428776, 104857576, 209715176, 419430376, 838860776, 1677721576, 3355443176, 6710886376, 13421772776, 26843545576
a(n) = 25*2^(n-1)-24. - Emeric Deutsch, May 03 2008
a(n) = 2*a(n-1) + 24 (with a(1)=1). - Vincenzo Librandi, Nov 24 2010
a(n) = 3*a(n-1)-2*a(n-2). G.f.: x*(23*x+1) / ((x-1)*(2*x-1)). - Colin Barker, Mar 11 2014
[A173307] 0, 26, 78, 156, 260, 390, 546, 728, 936, 1170, 1430, 1716, 2028, 2366, 2730, 3120, 3536, 3978, 4446, 4940, 5460, 6006, 6578, 7176, 7800, 8450, 9126, 9828, 10556, 11310, 12090, 12896, 13728, 14586, 15470, 16380, 17316, 18278, 19266, 20280
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Sep 28 2013
[A048509] 1, 26, 87, 233, 577, 1377, 3217, 7409, 16881, 38129, 85489, 190449, 421873, 929777, 2039793, 4456433, 9699313, 21037041, 45481969, 98041841, 210763761, 451936241, 966787057, 2063597553, 4395630577, 9344909297, 19830669297, 42010148849, 88852135921
a(n) = (n^2+17*n+64) * 2^(n-2) - 15. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Mar 04 2015
[A010014] 1, 26, 98, 218, 386, 602, 866, 1178, 1538, 1946, 2402, 2906, 3458, 4058, 4706, 5402, 6146, 6938, 7778, 8666, 9602, 10586, 11618, 12698, 13826, 15002, 16226, 17498, 18818, 20186, 21602, 23066, 24578, 26138, 27746, 29402, 31106, 32858, 34658, 36506, 38402, 40346
a(n) = (2*n+1)^3-(2*n-1)^3 (with different offset). - Xavier Acloque, Oct 20 2003
a(n) = (2n-1)^2+(2n+1)^2+(4n)^2 for n>0. - Bruno Berselli, Feb 06 2012

[A095796] 1, 26, 98, 238, 467, 806, 1276, 1898, 2693, 3682, 4886, 6326, 8023, 9998, 12272, 14866, 17801, 21098, 24778, 28862, 33371, 38326, 43748, 49658, 56077, 63026, 70526, 78598, 87263, 96542, 106456
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4).
[A256645] 0, 1, 26, 98, 240, 475, 826, 1316, 1968, 2805, 3850, 5126, 6656, 8463, 10570, 13000, 15776, 18921, 22458, 26410, 30800, 35651, 40986, 46828, 53200, 60125, 67626, 75726, 84448, 93815, 103850, 114576, 126016, 138193, 151130, 164850, 179376, 194731, 210938
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Colin Barker, Apr 07 2015
[A144129] 0, 1, 26, 99, 244, 485, 846, 1351, 2024, 2889, 3970, 5291, 6876, 8749, 10934, 13455, 16336, 19601, 23274, 27379, 31940, 36981, 42526, 48599, 55224, 62425, 70226, 78651, 87724, 97469, 107910, 119071, 130976, 143649, 157114, 171395, 186516
a(n) = 4*n^3 - 3*n. - Klaus Brockhaus, Jan 11 2009
a(n) = cosh(3*arccosh(n)) = cos(3*arccos(n)). - Artur Jasinski, Feb 14 2010
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 30 2012
[A026915] 1, 26, 100, 272, 640, 1400, 2944, 6056, 12304, 24824, 49888, 100040, 200368, 401048, 802432, 1605224, 3210832, 6422072, 12844576, 25689608, 51379696, 102759896, 205520320, 411041192, 822082960, 1644166520, 3288333664, 6576667976, 13153336624, 26306673944
a(n) = 49*2^n - 24*n - 48.
a(n) = 4*a(n-1)-5*a(n-2)+2*a(n-3) for n>2. G.f.: (1+22*x+x^2) / ((1-x)^2*(1-2*x)). - Colin Barker, Feb 18 2016
[A136293] 26, 102, 178, 254, 330, 406, 482, 558, 634, 710, 786, 862, 938, 1014, 1090, 1166, 1242, 1318, 1394, 1470, 1546, 1622, 1698, 1774, 1850, 1926, 2002, 2078, 2154, 2230, 2306, 2382, 2458, 2534, 2610, 2686, 2762, 2838, 2914, 2990, 3066, 3142, 3218, 3294, 3370
a(n) = 76*n + 26.
a(n) = 2*a(n-1)-a(n-2). G.f.: 2*(25*x+13)/(x-1)^2. [Colin Barker, Nov 09 2012]
[A173089] 26, 102, 228, 404, 630, 906, 1232, 1608, 2034, 2510, 3036, 3612, 4238, 4914, 5640, 6416, 7242, 8118, 9044, 10020, 11046, 12122, 13248, 14424, 15650, 16926, 18252, 19628, 21054, 22530, 24056, 25632, 27258, 28934, 30660, 32436, 34262, 36138, 38064, 40040, 42066, 44142, 46268, 48444, 50670, 52946, 55272, 57648
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 04 2012
[A244633] 0, 26, 104, 234, 416, 650, 936, 1274, 1664, 2106, 2600, 3146, 3744, 4394, 5096, 5850, 6656, 7514, 8424, 9386, 10400, 11466, 12584, 13754, 14976, 16250, 17576, 18954, 20384, 21866, 23400, 24986, 26624, 28314, 30056, 31850, 33696, 35594, 37544, 39546, 41600
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 2.
[A024381] 1, 26, 107, 276, 565, 1006, 1631, 2472, 3561, 4930, 6611, 8636, 11037, 13846, 17095, 20816, 25041, 29802, 35131, 41060, 47621, 54846, 62767, 71416, 80825, 91026, 102051, 113932, 126701, 140390, 155031, 170656, 187297, 204986, 223755, 243636, 264661
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). Vincenzo Librandi, Jun 19 2012
[A100161] 1, 26, 115, 308, 645, 1166, 1911, 2920, 4233, 5890, 7931, 10396, 13325, 16758, 20735, 25296, 30481, 36330, 42883, 50180, 58261, 67166, 76935, 87608, 99225, 111826, 125451, 140140, 155933, 172870, 190991, 210336
a(n) = (1/6)*(40*n^3-48*n^2+14*n).
[A100162] 1, 26, 117, 316, 665, 1206, 1981, 3032, 4401, 6130, 8261, 10836, 13897, 17486, 21645, 26416, 31841, 37962, 44821, 52460, 60921, 70246, 80477, 91656, 103825, 117026, 131301, 146692, 163241, 180990, 199981, 220256
a(n) = (1/6)*(42*n^3-54*n^2+18*n).
[A100163] 1, 26, 119, 324, 685, 1246, 2051, 3144, 4569, 6370, 8591, 11276, 14469, 18214, 22555, 27536, 33201, 39594, 46759, 54740, 63581, 73326, 84019, 95704, 108425, 122226, 137151, 153244, 170549, 189110, 208971, 230176
a(n) = (1/6)*(44*n^3-60*n^2+22*n).
[A287992] 1, 26, 129, 444, 1285, 3366, 8281, 19544, 44829, 100770, 223201, 488916, 1061749, 2289854, 4910505, 10480176, 22275661, 47178234, 99605809, 209704940, 440390181, 922733526, 1929364729, 4026514824, 8388588925, 17448283346, 36238762881, 75161901444, 155692535509, 322122515310
a(n) = (5*2^(n + 1) - 5*n - n^2 - 13)*n.
a(n) = 8*a(n-1) - 26*a(n-2) + 44*a(n-3) - 41*a(n-4) + 20*a(n-5) - 4*a(n-6) for n>6. (End)
[A200874] 26, 163, 602, 1673, 3886, 7973, 14932, 26073, 43066, 67991, 103390, 152321, 218414, 305929, 419816, 565777, 750330, 980875, 1265762, 1614361, 2037134, 2545709, 3152956, 3873065, 4721626, 5715711, 6873958, 8216657, 9765838, 11545361
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A027001] 1, 26, 174, 743, 2552, 7784, 22193, 60882, 163430, 433495, 1142496, 3001056, 7869649, 20619098, 54001422, 141401879, 370224248, 969294632, 2537687585, 6643800690, 17393752166, 45537499111, 119218794624, 312118940928, 817138091617, 2139295405274
a(n) = (2^(-1-n)*(-11*2^(1+n)+(11-5*sqrt(5))*(3-sqrt(5))^n+(3+sqrt(5))^n*(11+5*sqrt(5)))-12*n-2*n^2-4*n^3).
[A181342] 1, 26, 186, 726, 2031, 4626, 9176, 16486, 27501, 43306, 65126, 94326, 132411, 181026, 241956, 317126, 408601, 518586, 649426, 803606, 983751, 1192626, 1433136, 1708326, 2021381, 2375626, 2774526, 3221686, 3720851, 4275906
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+140 for n > 4; a(1)=1, a(2)=26, a(3)=186, a(4)=726.
[A056026] 1, 26, 199, 224, 226, 251, 424, 449, 451, 476, 649, 674, 676, 701, 874, 899, 901, 926, 1099, 1124, 1126, 1151, 1324, 1349, 1351, 1376, 1549, 1574, 1576, 1601, 1774, 1799, 1801, 1826, 1999, 2024, 2026, 2051, 2224, 2249, 2251, 2276, 2449, 2474, 2476, 2501
a(1)=1, a(2)=26, a(3)=199, a(4)=224, a(5)=226, a(n) = a(n-1)+a(n-4)-a(n-5). - Harvey P. Dale, Nov 11 2011
a(n) = (-225 - 125*(-1)^n + (171-171*i)*(-i)^n + (171+171*i)*i^n + 450*n)/8 where i=sqrt(-1). - Colin Barker, Oct 16 2015
[A100242] 0, 1, 26, 207, 904, 2825, 7146, 15631, 30752, 55809, 95050, 153791, 238536, 357097, 518714, 734175, 1015936, 1378241, 1837242, 2411119, 3120200, 3987081, 5036746, 6296687, 7797024, 9570625, 11653226, 14083551, 16903432, 20157929, 23895450, 28167871
a(0)=0, a(1)=1, a(2)=26, a(3)=207, a(4)=904, a(5)=2825, a(n)= 6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) [From Harvey P. Dale, Aug 15 2011]
[A098994] 0, 0, 0, 1, 26, 229, 1246, 5086, 17084, 49768, 129958, 311051, 693290, 1455909, 2906436, 5554172, 10217000, 18173272, 31373636, 52731365, 86514106, 138865053, 218487442, 337533050, 512743140, 766899120, 1130650170, 1644796335, 2363118186, 3355858221, 4713974824
a(n) = 12*a(n-1) - 66*a(n-2) + 220*a(n-3) - 495*a(n-4) + 792*a(n-5) - 924*a(n-6) + 792*a(n-7) - 495*a(n-8) + 220*a(n-9) - 66*a(n-10) + 12*a(n-11) - a(n-12) for n>12. - Colin Barker, Oct 26 2017
[A172124] 0, 0, 26, 232, 1124, 3896, 10894, 26192, 56296, 110960, 204130, 355000, 589196, 940072, 1450134, 2172576, 3172944, 4530912, 6342186, 8720520, 11799860, 15736600, 20711966, 26934512, 34642744, 44107856, 55636594, 69574232
a(n) = (2*(n-2)*n*(2*n^4-4*n^3+7*n^2-6*n+4)-3*(-1)^n+3)/24. [Bruno Berselli, May 26 2013]
[A088889] 0, 1, 26, 245, 1353, 5368, 17017, 45878, 109446, 237291, 476476, 898403, 1607255, 2750202, 4529539, 7216924, 11169884, 16850757, 24848238, 35901697, 50928437, 71054060, 97646109, 132351154, 177135490, 234329615
a(n) = ((n^8-(n-1)^8)-(n^4-(n-1)^4))/240 = ((n^8-(n-1)^8)-(n^4-(n-1)^4))/(2^8-2^4).
[A060105] 1, 26, 246, 1442, 6292, 22374, 68354, 185614, 458601, 1048476, 2246244, 4553484, 8801104, 16319252, 29174652, 50495236, 84906041, 139104966, 222612170, 348732670, 535778100, 808600650, 1200499950, 1755572130, 2531579505, 3603429336, 5067360936, 7045952056
a(n)=(n+4)*(8*n^2+64*n+45)*binomial(n+7, 7)/(4*45).
[A086023] 1, 26, 251, 1476, 6376, 22252, 66352, 175252, 420277, 931502, 1933503, 3796728, 7109128, 12773528, 22137128, 37160504, 60634529, 96454754, 149963979, 228375004, 341286880, 501309380, 724811880, 1032814380, 1452040005, 2016150006, 2767184031, 3757230256
a(n) = (C(n+4,5)/126)*(126 +420*C(n-1,1) +540*C(n-1,2) +315*C(n-1,3) +70*C(n-1,4)).
a(n) = n*(n+1)*(n+2)*(n+3)*(n+4)*(35*n^4 +280*n^3 +685*n^2 +500*n +12)/181440. - Bruno Berselli, Sep 05 2013
[A187695] 0, 0, 0, 0, 1, 26, 264, 1846, 10616, 54354, 258388, 1168862, 5109696, 21805162, 91460972, 378874998, 1555269016, 6341845250, 25732834116, 104034429454, 419461348976, 1687846763418, 6781455643420, 27216164395430, 109135969307976, 437358413244466, 1751878519306484, 7014851306040126, 28081422396752416
a(n) = 27*2^(n-4)*n + 33*2^(n-4) - 2*n + 2 - 26*3^(n-2)+25*4^(n-3), n>1. - R. J. Mathar, Mar 17 2011
[A085743] 0, 0, 26, 333, 1944, 7550, 22770, 57771, 129248, 262764, 495450, 879065, 1483416, 2400138, 3746834, 5671575, 8357760, 12029336, 16956378, 23461029, 31923800, 42790230, 56577906, 73883843, 95392224, 121882500, 154237850, 193454001
a(n) = (n-1)*n^2*(n^3+n^2+1)/2.
[A053494] 1, 26, 348, 2698, 14751, 62781, 222190, 681460, 1865715, 4655535, 10756921, 23290026, 47700173, 93104473, 174248451, 314246511, 548380980, 929209095, 1533389605, 2470568045, 3894914166, 6019752376, 9136114923, 13635769173, 20039850376, 29033765566

a(n) = (189*(59981+5555*(-1)^n) + 18*(2345165+65331*(-1)^n)*n + (76615494+689850*(-1)^n)*n^2 + 40*(2138179+6237*(-1)^n)*n^3 + (63277966+47250*(-1)^n)*n^4 + 1260*(25421+3*(-1)^n)*n^5 + 11171664*n^6 + 2644080*n^7 + 405954*n^8 + 36500*n^9 + 1460*n^10) / 12386304. - Colin Barker, Jan 14 2017

[A158643] 26, 702, 2730, 6110, 10842, 16926, 24362, 33150, 43290, 54782, 67626, 81822, 97370, 114270, 132522, 152126, 173082, 195390, 219050, 244062, 270426, 298142, 327210, 357630, 389402, 422526, 457002, 492830, 530010, 568542, 608426, 649662, 692250

a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).

[A214832] 27, 29, 30, 32, 34, 36, 38, 41, 43, 46, 48, 51, 55, 58, 61, 65, 69, 73, 77, 82, 87, 92, 97, 103, 110, 116, 123, 130, 138, 146, 155, 164, 174, 184, 195, 207, 220, 233, 246, 261, 277, 293, 311, 329, 349, 369, 391, 415, 440, 466, 493, 523, 554, 587, 622, 659, 698, 739, 783, 830, 880, 932, 987, 1046, 1108, 1174, 1244, 1318, 1396, 1479, 1567, 1661, 1760, 1864, 1975, 2093, 2217, 2349, 2489, 2637, 2793, 2959, 3135, 3322, 3520, 3729, 3951, 4186

a(n) = floor[2^((n-49)/12)*440] (Hz) for 1 <= n <= 88.

[A160119] 0, 1, 27, 35, 235, 243, 443, 499, 1899, 1907, 2107, 2163, 3563, 3619, 5019, 5411, 15211, 15219, 15419, 15475, 16875, 16931, 18331, 18723, 28523, 28579, 29979, 30371, 40171, 40563, 50363, 53107, 121707

a(2n-1) = 3^d + (2^d)*Sum_{k=1..n-1}(2^d-1)^(wt(k)-1) + (2^d)*(3^d-2)*Sum_{k=1..n-2}(2^d-1)^(wt(k)-1), n >= 2.

a(2n) = 3^d + (2^d)*Sum_{k=1..n-1}(2^d-1)^(wt(k)-1) + (2^d)*(3^d-2)*Sum_{k=1..n-1}(2^d-1)^(wt(k)-1), n >= 1. (End)

[A160379] 0, 1, 27, 35, 235, 261, 881, 937, 2241, 2339, 4591, 4743, 8207, 8425, 13365, 13661, 20341, 20727, 29411, 29899, 40851, 41453, 54937, 55665, 71945, 72811, 92151, 93167, 115831, 117009, 143261, 144613, 174717, 176255, 210475, 212211, 250811, 252757, 296001

a(2n) = 46n^3 - 57n^2 + 57n - 19 for n>=1, a(2n+1) = 46n^3 - 51n^2 + 57n - 17 for n>=1. [From Nathaniel Johnston, Nov 06 2010]

[A097228] 27, 38, 127, 138, 289, 298, 1127, 1138, 1289, 1298, 11127, 11138, 11289, 11298, 111127, 111138, 111289, 111298, 1111127, 1111138, 1111289, 1111298, 11111127, 11111138, 11111289, 11111298, 111111127, 111111138, 111111289, 111111298

a(n) = 11*a(n-4) - 10*a(n-8) for n > 10.

[A241407] 27, 46, 100, 119, 173, 192, 246, 265, 319, 338, 392, 411, 465, 484, 538, 557, 611, 630, 684, 703, 757, 776, 830, 849, 903, 922, 976, 995, 1049, 1068, 1122, 1141, 1195, 1214, 1268, 1287, 1341, 1360, 1414, 1433, 1487, 1506, 1560, 1579, 1633, 1652, 1706, 1725

a(n) = a(n-1) + a(n-2) - a(n-3) for n>2.

a(n) = a(n-2) + 73 for all n>2.

a(n) = -27*(-1)^n + 73*floor(n/2).

[A154591] 27, 51, 79, 111, 147, 187, 231, 279, 331, 387, 447, 511, 579, 651, 727, 807, 891, 979, 1071, 1167, 1267, 1371, 1479, 1591, 1707, 1827, 1951, 2079, 2211, 2347, 2487, 2631, 2779, 2931, 3087, 3247, 3411, 3579, 3751, 3927, 4107, 4291, 4479, 4671, 4867, 5067, 5271

a(n)= 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 22 2012

[A160845] 0, 1, 27, 52, 93, 140, 207, 274, 361, 454, 563, 676, 809, 944, 1099, 1258, 1433, 1614, 1815, 2016, 2237, 2464, 2707, 2954, 3221, 3490, 3779, 4072, 4381, 4696, 5031, 5366, 5721, 6082, 6459, 6840, 7241, 7644, 8067, 8494, 8937, 9386, 9855, 10324, 10813

a(n) = (1/2)*(f(m,n,1)-f(m,n,2)) where f(m,n,k) = Sum((n-|kx|)*(m-|ky|)); -n < kx < n, -m < ky < m, (x,y)=1, m=5.

a(n) = a(n-1) + a(n-3) - a(n-5) - a(n-7) + a(n-8) for n > 7.

[A132768] 0, 27, 56, 87, 120, 155, 192, 231, 272, 315, 360, 407, 456, 507, 560, 615, 672, 731, 792, 855, 920, 987, 1056, 1127, 1200, 1275, 1352, 1431, 1512, 1595, 1680, 1767, 1856, 1947, 2040, 2135, 2232, 2331, 2432, 2535, 2640, 2747, 2856, 2967

a(n) = n*(n + 26).

a(n) = 2*n + a(n-1) + 25 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010

[A180574] 27, 60, 105, 174, 259, 376, 513, 690, 891, 1140, 1417, 1750, 2115, 2544, 3009, 3546, 4123, 4780, 5481, 6270, 7107, 8040, 9025, 10114, 11259, 12516, 13833, 15270, 16771, 18400, 20097, 21930, 23835, 25884, 28009, 30286, 32643, 35160, 37761, 40530

a(n) = n(n^2+4n-2)/2 if n is even; a(n) = n(n^2+4n-3)/2 if n is odd.

a(n) = n*(-5+(-1)^n+8*n+2*n^2)/4. - Colin Barker, Oct 31 2012

a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6). - Eric W. Weisstein, Sep 07 2017

[A195028] 0, 27, 82, 165, 276, 415, 582, 777, 1000, 1251, 1530, 1837, 2172, 2535, 2926, 3345, 3792, 4267, 4770, 5301, 5860, 6447, 7062, 7705, 8376, 9075, 9802, 10557, 11340, 12151, 12990, 13857, 14752, 15675, 16626, 17605, 18612, 19647, 20710, 21801, 22920

a(n) = 14*n^2 + 13*n.

[A161340] 0, 1, 27, 83, 343, 399, 791, 1183, 3375, 3431, 3823, 4215, 6959, 7351, 10095, 12839, 29791, 29847, 30239, 30631, 33375, 33767, 36511, 39255, 58463, 58855

a(n) = (2n-1)^3 if n is a power of 2

[A028993] 1, 27, 85, 175, 297, 451, 637, 855, 1105, 1387, 1701, 2047, 2425, 2835, 3277, 3751, 4257, 4795, 5365, 5967, 6601, 7267, 7965, 8695, 9457, 10251, 11077, 11935, 12825, 13747, 14701, 15687, 16705, 17755, 18837, 19951, 21097, 22275

a(n) = (2n+1)*(8n+1). - N. J. A. Sloane

[A228600] 27, 92, 125, 282, 343, 632, 729, 1190, 1331, 2004, 2197, 3122, 3375, 4592, 4913, 6462, 6859, 8780, 9261, 11594, 12167, 14952, 15625, 18902, 19683, 23492, 24389, 28770, 29791, 34784, 35937, 41582, 42875, 49212, 50653, 57722

a(n) = 4*n*(floor(n/2))^2 +2*n^2 - n.

a(n) = n^3 if n is odd; a(n) = n^3 + 2*n^2 -n if n is even.

[A154377] 27, 104, 231, 408, 635, 912, 1239, 1616, 2043, 2520, 3047, 3624, 4251, 4928, 5655, 6432, 7259, 8136, 9063, 10040, 11067, 12144, 13271, 14448, 15675, 16952, 18279, 19656, 21083, 22560, 24087, 25664, 27291, 28968, 30695, 32472, 34299, 36176

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A158549] 1, 27, 105, 235, 417, 651, 937, 1275, 1665, 2107, 2601, 3147, 3745, 4395, 5097, 5851, 6657, 7515, 8425, 9387, 10401, 11467, 12585, 13755, 14977, 16251, 17577, 18955, 20385, 21867, 23401, 24987, 26625, 28315, 30057, 31851, 33697, 35595, 37545

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A244634] 0, 27, 108, 243, 432, 675, 972, 1323, 1728, 2187, 2700, 3267, 3888, 4563, 5292, 6075, 6912, 7803, 8748, 9747, 10800, 11907, 13068, 14283, 15552, 16875, 18252, 19683, 21168, 22707, 24300, 25947, 27648, 29403, 31212, 33075, 34992, 36963, 38988, 41067, 43200

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.

[A134171] 0, 0, 0, 27, 108, 270, 540, 945, 1512, 2268, 3240, 4455, 5940, 7722, 9828, 12285, 15120, 18360, 22032, 26163, 30780, 35910, 41580, 47817, 54648, 62100, 70200, 78975, 88452, 98658, 109620, 121365, 133920, 147312, 161568, 176715, 192780, 209790, 227772, 246753

a(n) = C(n+2,3)*3^3, n>=-2. - Zerinvary Lajos, Aug 06 2008

a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4.

[A193391] 27, 109, 271, 529, 899, 1397, 2039, 2841, 3819, 4989, 6367, 7969, 9811, 11909, 14279, 16937, 19899, 23181, 26799, 30769, 35107, 39829, 44951, 50489, 56459, 62877, 69759, 77121, 84979, 93349, 102247, 111689, 121691, 132269, 143439, 155217, 167619, 180661

a(n) = (27 - 26*n + 72*n^2 +8*n^3)/3.

[A193399] 27, 109, 271, 545, 931, 1493, 2199, 3145, 4267, 5693, 7327, 9329, 11571, 14245, 17191, 20633, 24379, 28685, 33327, 38593, 44227, 50549, 57271, 64745, 72651, 81373, 90559, 100625, 111187, 122693, 134727

a(n) = 4*n^3 + 16*n^2 + 8*n + 2*(-1)^n*(n - 2) - 3.

[A193393] 27, 109, 271, 545, 963, 1557, 2359, 3401, 4715, 6333, 8287, 10609, 13331, 16485, 20103, 24217, 28859, 34061, 39855, 46273, 53347, 61109, 69591, 78825, 88843, 99677, 111359, 123921, 137395, 151813, 167207, 183609, 201051, 219565, 239183, 259937, 281859, 304981, 329335, 354953

a(n) = (16*n^3 + 24*n^2 + 62*n - 21)/3.

[A143938] 27, 109, 279, 569, 1011, 1637, 2479, 3569, 4939, 6621, 8647, 11049, 13859, 17109, 20831, 25057, 29819, 35149, 41079, 47641, 54867, 62789, 71439, 80849, 91051, 102077, 113959, 126729, 140419, 155061, 170687, 187329, 205019, 223789, 243671

a(n) = (1/3)*(16*n^3 + 36*n^2 + 26*n + 3).

[A158554] 27, 111, 251, 447, 699, 1007, 1371, 1791, 2267, 2799, 3387, 4031, 4731, 5487, 6299, 7167, 8091, 9071, 10107, 11199, 12347, 13551, 14811, 16127, 17499, 18927, 20411, 21951, 23547, 25199, 26907, 28671, 30491, 32367, 34299, 36287, 38331, 40431

a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).

[A029699] 0, 1, 27, 120, 340, 765, 1491, 2632, 4320, 6705, 9955, 14256, 19812, 26845, 35595, 46320, 59296, 74817, 93195, 114760, 139860, 168861, 202147, 240120, 283200, 331825, 386451, 447552, 515620, 591165, 674715, 766816, 868032, 978945, 1100155, 1232280, 1375956

a(n) = n*(n-1)*(3*n^2+n-12)/4.

a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>5. - Colin Barker, May 28 2015
[A026917] 1, 27, 127, 399, 1039, 2439, 5383, 11439, 23743, 48567, 98455, 198495, 398863, 799911, 1602343, 3207567, 6418399, 12840471, 25685047, 51374655, 102754351, 205514247, 411034567, 822075759, 1644158719, 3288325239, 6576658903, 13153326879, 26306663503
a(n) = 98*2^n - 12*n^2 - 60*n - 97.
a(n) = 5*a(n-1)-9*a(n-2)+7*a(n-3)-2*a(n-4) for n>3.
[A180578] 27, 144, 351, 648, 1035, 1512, 2079, 2736, 3483, 4320, 5247, 6264, 7371, 8568, 9855, 11232, 12699, 14256, 15903, 17640, 19467, 21384, 23391, 25488, 27675, 29952, 32319, 34776, 37323, 39960, 42687, 45504, 48411, 51408, 54495, 57672, 60939
a(n) = 9n(5n-2).
[A192328] 27, 147, 507, 867, 1587, 2187, 3267, 4107, 5547, 6627, 8427, 9747, 11907, 13467, 15987, 17787, 20667, 22707, 25947, 28227, 31827, 34347, 38307, 41067, 45387, 48387, 53067, 56307, 61347, 64827, 70227, 73947, 79707, 83667, 89787, 93987
a(n) = 3*((10*n + (-1)^n + 5)/2)^2.
a(n) = a(-n-1) = a(n-1) + 2*a(n-2) - 2*a(n-3) - a(n-4) + a(n-5).
[A129028] 0, 27, 150, 483, 1188, 2475, 4602, 7875, 12648, 19323, 28350, 40227, 55500, 74763, 98658, 127875, 163152, 205275, 255078, 313443, 381300, 459627, 549450, 651843, 767928, 898875, 1045902, 1210275, 1393308, 1596363, 1820850, 2068227, 2340000, 2637723
a(n) = (n*(5+13*n+7*n^2+2*n^3)). G.f.: -3*x*(x^3+x^2+5*x+9) / (x-1)^5. - Colin Barker, Jul 27 2013
[A213285] 0, 1, 27, 165, 712, 2535, 8151, 23527, 60600, 140517, 297595, 584001, 1075152, 1875835, 3127047, 5013555, 7772176, 11700777, 17167995, 24623677, 34610040, 47773551, 64877527, 86815455, 114625032, 149502925, 192820251, 246138777, 311227840, 390081987, 484939335
a(n) = n*(-332+757*n-632*n^2+255*n^3-48*n^4+4*n^5)/4.
[A224454] 27, 180, 567, 1296, 2475, 4212, 6615, 9792, 13851, 18900, 25047, 32400, 41067, 51156, 62775, 76032, 91035, 107892, 126711, 147600, 170667, 196020, 223767, 254016, 286875, 322452, 360855, 402192, 446571, 494100, 544887, 599040, 656667, 717876, 782775, 851472, 924075, 1000692, 1081431, 1166400
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Dec 08 2016
[A000499] 0, 1, 27, 184, 875, 2700, 7546, 17600, 35721, 72750, 126445, 223776, 353717, 595448, 843750, 1349120, 1827636, 2808837, 3600975, 5306000, 6667920, 9599172, 11509982, 16416000, 19015625, 26605670, 30902310, 41686848, 46948825, 64233000, 70306760, 94089216
a(n) = Sum_{k=1..n-1} k^3*sigma(k)*sigma(n-k). - Michel Marcus, Feb 02 2014
[A216108] 27, 198, 585, 1260, 2295, 3762, 5733, 8280, 11475, 15390, 20097, 25668, 32175, 39690, 48285, 58032, 69003, 81270, 94905, 109980, 126567, 144738, 164565, 186120, 209475, 234702, 261873, 291060, 322335, 355770
a(n) = 12n^3+36n^2-21n.
[A216110] 27, 198, 621, 1404, 2655, 4482, 6993, 10296, 14499, 19710, 26037, 33588, 42471, 52794, 64665, 78192, 93483, 110646, 129789, 151020, 174447, 200178, 228321, 258984, 292275, 328302, 367173, 408996, 453879, 501930
a(n) = 18n^3 + 18n^2 -9n.
[A216112] 27, 198, 657, 1548, 3015, 5202, 8253, 12312, 17523, 24030, 31977, 41508, 52767, 65898, 81045, 98352, 117963, 140022, 164673, 192060, 222327, 255618, 292077, 331848, 375075, 421902, 472473, 526932, 585423, 648090
a(n) = 3n(1+8n^2).
[A033544] 0, 27, 210, 822, 2328, 5433, 11130, 20748, 36000, 59031, 92466, 139458, 203736, 289653, 402234, 547224, 731136, 961299, 1245906, 1594062, 2015832, 2522289, 3125562, 3838884, 4676640, 5654415, 6789042, 8098650, 9602712, 11322093, 13279098
a(n) = (1/10)*n*(n+1)*(4*n^3+36*n^2+79*n+16).
[A059827] 1, 27, 216, 1000, 3375, 9261, 21952, 46656, 91125, 166375, 287496, 474552, 753571, 1157625, 1728000, 2515456, 3581577, 5000211, 6859000, 9261000, 12326391, 16194277, 21024576, 27000000, 34328125, 43243551, 54010152, 66923416
a(n) = Sum_{j=1..n} Sum_{i=1..n} i*j^3. - Alexander Adamchuk, Jun 25 2006
[A059603] 1, 27, 273, 1715, 8007, 30381, 98735, 284349, 742950, 1791426, 4037670, 8591154, 17392258, 33711510, 62886162, 113381398, 198287439, 337392405, 560004575, 908737245, 1444515345, 2253115995, 3453615945, 5209188075, 7740767580, 11344196916, 16411557852
a(n)= binomial(n+8, 8)*(2*n+9)*(8*n^2+72*n+55)/(11*5*9).
[A048396] 0, 27, 315, 1638, 5670, 15345, 35217, 71820, 134028, 233415, 384615, 605682, 918450, 1348893, 1927485, 2689560, 3675672, 4931955, 6510483, 8469630, 10874430, 13796937, 17316585, 21520548, 26504100, 32370975, 39233727, 47214090, 56443338, 67062645, 79223445
a(n) = (6n^5 + 15n^4 + 18n^3 + 12n^2 + 3n) / 2.
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Wesley Ivan Hurt, Apr 10 2015
[A212670] 27, 615, 3843, 14351, 40363, 94711, 195859, 368927, 646715, 1070727, 1692195, 2573103, 3787211, 5421079, 7575091, 10364479, 13920347, 18390695, 23941443, 30757455, 39043563, 49025591, 60951379, 75091807, 91741819, 111221447, 133876835, 160081263, 190236171
a(n) = 2/(2*n+1)*Sum_{i=1..n} tan^7(Pi*i/(2*n+1))*sin(2*Pi*i/(2*n+1)).
[A158645] 27, 756, 2943, 6588, 11691, 18252, 26271, 35748, 46683, 59076, 72927, 88236, 105003, 123228, 142911, 164052, 186651, 210708, 236223, 263196, 291627, 321516, 352863, 385668, 419931, 455652, 492831, 531468, 571563, 613116, 656127, 700596, 746523
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A129999] 0, 27, 888, 1011, 1148, 6027, 6740, 7535, 35948, 40103, 44736, 210335, 234552, 261555, 1226736, 1367883, 1525268, 7150755, 7973420, 8890727, 41678468, 46473311, 51819768, 242920727, 270867120, 302028555, 1415846568, 1578730083
a(n)=6*a(n-3)-a(n-6)+674 for n > 6; a(1)=0, a(2)=27, a(3)=888, a(4)=1011, a(5)=1148, a(6)=6027.
a(0)=0, a(1)=27, a(2)=888, a(3)=1011, a(4)=1148, a(5)=6027, a(6)=6740, a(n)=a(n-1)+6*a(n-3)-6*a(n-4)-a(n-6)+a(n-7). - Harvey P. Dale, Feb 26 2015
[A239571] 0, 0, 27, 999, 11565, 74811, 342042, 1239525, 3799488, 10259640, 25076952, 56552364, 119324403, 238062357, 452774595, 826245798, 1454229216, 2479147536, 4108199481, 6636929805, 10479498849, 16207085223, 24596072424, 36687908235, 53862785520, 77929575480
a(n) = (n -3) * (n -4) * (n^8 +12*n^7 -58*n^6 -860*n^5 +2141*n^4 +23728*n^3 -61316*n^2 -244928*n +770880)/3840.
[A260637] 28, 35, 56, 91, 140, 203, 280, 371, 476, 595, 728, 875, 1036, 1211, 1400, 1603, 1820, 2051, 2296, 2555, 2828, 3115, 3416, 3731, 4060, 4403, 4760, 5131, 5516, 5915, 6328, 6755, 7196, 7651, 8120, 8603, 9100, 9611, 10136, 10675, 11228, 11795, 12376, 12971
a(n) = 7*n^2 + 42*n + 91 = 7*(n^2 + 6*n + 13) = 7*((n+3)^2 + 4).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 7*(2*n+7).
[A034964] 28, 39, 53, 67, 83, 101, 119, 139, 161, 181, 199, 221, 243, 263, 287, 311, 331, 351, 373, 395, 421, 449, 473, 497, 517, 533, 559, 587, 617, 647, 683, 707, 733, 759, 787, 811, 839, 863, 891, 917, 941, 961, 991, 1023, 1057, 1089, 1123, 1151, 1169, 1193
a(n) = Sum_{i=n..n+4} prime(i). - Wesley Ivan Hurt, Sep 14 2014
[A216303] 28, 52, 115, 172, 193, 211, 214, 259, 280, 337, 358, 382, 385, 424, 427, 442, 448, 502, 613, 655, 676, 679, 733, 901, 928, 1027, 1030, 1135, 1207, 1216, 1225, 1393, 1456, 1459, 1558, 1597, 1645, 1663, 1690, 1768, 1813, 1831, 1852, 1918, 1954, 1984, 1996, 2023
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A056028] 1, 28, 54, 62, 68, 69, 99, 116, 127, 234, 245, 262, 292, 293, 299, 307, 333, 360, 362, 389, 415, 423, 429, 430, 460, 477, 488, 595, 606, 623, 653, 654, 660, 668, 694, 721, 723, 750, 776, 784, 790, 791, 821, 838, 849, 956, 967, 984, 1014, 1015, 1021, 1029
a(n) = a(n-1) + a(n-18) - a(n-19). - Matthew House, Feb 12 2017
[A274642] 28, 55, 60, 79, 92, 95, 112, 240, 368, 448, 960, 1472, 1792, 3840, 5888, 7168, 15360, 23552, 28672, 61440, 94208, 114688, 245760, 376832, 458752, 983040, 1507328, 1835008, 3932160, 6029312, 7340032, 15728640, 24117248, 29360128, 62914560, 96468992, 117440512, 251658240, 385875968, 469762048, 1006632960
a(n) = 4*a(n-3) for n>9.
[A135628] 0, 28, 56, 84, 112, 140, 168, 196, 224, 252, 280, 308, 336, 364, 392, 420, 448, 476, 504, 532, 560, 588, 616, 644, 672, 700, 728, 756, 784, 812, 840, 868, 896, 924, 952, 980, 1008, 1036, 1064, 1092, 1120, 1148, 1176, 1204, 1232, 1260, 1288, 1316, 1344, 1372
a(n) = 28*n.
a(n) = 2*a(n-1) - a(n-2). (End)
[A132769] 0, 28, 58, 90, 124, 160, 198, 238, 280, 324, 370, 418, 468, 520, 574, 630, 688, 748, 810, 874, 940, 1008, 1078, 1150, 1224, 1300, 1378, 1458, 1540, 1624, 1710, 1798, 1888, 1980, 2074, 2170, 2268, 2368, 2470, 2574, 2680, 2788, 2898, 3010
a(n) = 2*n + a(n-1) + 26 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=28, a(2)=58, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Oct 14 2012

[A182465] 28, 70, 154, 322, 658, 1330, 2674, 5362, 10738, 21490, 42994, 86002, 172018, 344050, 688114, 1376242, 2752498, 5505010, 11010034, 22020082, 44040178, 88080370, 176160754, 352321522, 704643058, 1409286130, 2818572274, 5637144562, 11274289138, 22548578290
a(n) = a(n-1)*2 + 14.
[A277987] 28, 72, 172, 272, 372, 472, 572, 672, 772, 872, 972, 1072, 1172, 1272, 1372, 1472, 1572, 1672, 1772, 1872, 1972, 2072, 2172, 2272, 2372, 2472, 2572, 2672, 2772, 2872, 2972, 3072, 3172, 3272, 3372, 3472, 3572, 3672, 3772, 3872, 3972
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Nov 13 2016
[A161935] 0, 1, 28, 81, 160, 265, 396, 553, 736, 945, 1180, 1441, 1728, 2041, 2380, 2745, 3136, 3553, 3996, 4465, 4960, 5481, 6028, 6601, 7200, 7825, 8476, 9153, 9856, 10585, 11340, 12121, 12928, 13761, 14620, 15505, 16416, 17353, 18316, 19305, 20320, 21361, 22428
a(n+1) = a(n) + 26*n + 1. - Vincenzo Librandi, Nov 30 2010
[A272399] 1, 28, 91, 190, 325, 496, 703, 946, 1225, 1540, 1891, 2278, 2701, 3160, 3655, 4186, 4753, 5356, 5995, 6670, 7381, 8128, 8911, 9730, 10585, 11476, 12403, 13366, 14365, 15400, 16471, 17578, 18721, 19900, 21115, 22366, 23653, 24976, 26335, 27730, 29161, 30628
a(n) = 10-27*n+18*n^2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3.
[A064763] 0, 28, 112, 252, 448, 700, 1008, 1372, 1792, 2268, 2800, 3388, 4032, 4732, 5488, 6300, 7168, 8092, 9072, 10108, 11200, 12348, 13552, 14812, 16128, 17500, 18928, 20412, 21952, 23548, 25200, 26908, 28672, 30492, 32368, 34300, 36288, 38332
a(n) = 56*n+a(n-1)-28 (with a(0)=0). - Vincenzo Librandi, Aug 07 2010
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Mar 30 2015
[A101095] 1, 28, 121, 240, 360, 480, 600, 720, 840, 960, 1080, 1200, 1320, 1440, 1560, 1680, 1800, 1920, 2040, 2160, 2280, 2400, 2520, 2640, 2760, 2880, 3000, 3120, 3240, 3360, 3480, 3600, 3720, 3840, 3960, 4080, 4200, 4320, 4440, 4560, 4680, 4800, 4920, 5040, 5160, 5280
a(k+1) = Sum_{j=0..k+1} (-1)^j*binomial(n + 1 - z, j)*(k - j + 1)^n; n = 5, z = 2.
a(n) = 2*a(n-1) - a(n-2), n>5. G.f.: x*(1+26*x+66*x^2+26*x^3+x^4) / (1-x)^2. - Colin Barker, Mar 01 2012
[A045823] 1, 28, 126, 344, 757, 1332, 2198, 3528, 4914, 6860, 9632, 12168, 15751, 20440, 24390, 29792, 37296, 43344, 50654, 61544, 68922, 79508, 95382, 103824, 117993, 137592, 148878, 167832, 192080, 205380, 226982, 260408, 276948, 300764, 340704, 357912
a(n) = b(2*n+1) where b(n) is multiplicative and b(2^e) = 0^e, b(p^e) = ((p^3)^(e+1) - 1) / (p^3 - 1) if p>2. - Michael Somos, Nov 29 2007
[A192796] 0, 28, 132, 360, 760, 1380, 2268, 3472, 5040, 7020, 9460, 12408, 15912, 20020, 24780, 30240, 36448, 43452, 51300, 60040, 69720, 80388, 92092, 104880, 118800, 133900, 150228, 167832, 186760, 207060
a(n) = 2*(n-1)*n*(4*n-1).
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 04 2012
[A271636] 0, 28, 152, 468, 1072, 2060, 3528, 5572, 8288, 11772, 16120, 21428, 27792, 35308, 44072, 54180, 65728, 78812, 93528, 109972, 128240, 148428, 170632, 194948, 221472, 250300, 281528, 315252, 351568, 390572, 432360, 477028, 524672, 575388, 629272, 686420
a(n) = -a(-n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A002593] 0, 1, 28, 153, 496, 1225, 2556, 4753, 8128, 13041, 19900, 29161, 41328, 56953, 76636, 101025, 130816, 166753, 209628, 260281, 319600, 388521, 468028, 559153, 662976, 780625, 913276, 1062153, 1228528, 1413721, 1619100, 1846081
a(n) = n^2*(2n^2 - 1). - Vladimir Pletser, Jan 10 2015
[A085377] 0, 28, 164, 486, 1072, 2000, 3348, 5194, 7616, 10692, 14500, 19118, 24624, 31096, 38612, 47250, 57088, 68204, 80676, 94582, 110000, 127008, 145684, 166106, 188352, 212500, 238628, 266814, 297136, 329672, 364500, 401698, 441344, 483516, 528292
a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). G.f.: 2*x*(14+26*x-x^2)/(1-x)^4. [From R. J. Mathar, Apr 20 2009]
[A079903] 1, 28, 190, 703, 1891, 4186, 8128, 14365, 23653, 36856, 54946, 79003, 110215, 149878, 199396, 260281, 334153, 422740, 527878, 651511, 795691, 962578, 1154440, 1373653, 1622701, 1904176, 2220778, 2575315, 2970703, 3409966, 3896236, 4432753, 5022865
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5), a(0) = 1, a(1) = 28, a(2) = 190, a(3) = 703, a(4) = 1891. (End)
a(n) = (3*n^2 - 3*n + 1)*(3*n^2 - 3*n + 2)/2. - Bruno Berselli, Jan 28 2017
[A133071] 0, 1, 28, 225, 976, 3025, 7596, 16513, 32320, 58401, 99100, 159841, 247248, 369265, 535276, 756225, 1044736, 1415233, 1884060, 2469601, 3192400, 4075281, 5143468, 6424705, 7949376, 9750625, 11864476, 14329953, 17189200, 20487601, 24273900, 28600321, 33522688, 39100545, 45397276
a(n) = n^5 - n^3 + n^2.
[A135497] 0, 0, 28, 234, 1008, 3100, 7740, 16758, 32704, 58968, 99900, 160930, 248688, 371124, 537628, 759150, 1048320, 1419568, 1889244, 2475738, 3199600, 4083660, 5153148, 6435814, 7962048, 9765000, 11880700, 14348178, 17209584, 20510308, 24299100, 28628190
a(n) = floor(n^8/(n^3+1)). - Gary Detlefs, Feb 11 2010
[A112797] 28, 244, 325, 385, 730, 1025, 1729, 2188, 5185, 6562, 7777, 16385, 26245, 36865, 46657, 49153, 55297, 82945, 93313, 221185, 354295, 419905, 531442, 559873, 589825, 663553, 708589, 884737, 1119745, 1572865, 1594324, 1889569, 2985985
a(n) is in this sequence iff there exist nonnegative integers K and L such that Omega((2^K)*(3^L)+1) = 3.
[A085438] 1, 28, 244, 1244, 4619, 13880, 35832, 82488, 173613, 339988, 627484, 1102036, 1855607, 3013232, 4741232, 7256688, 10838265, 15838476, 22697476, 31958476, 44284867, 60479144, 81503720, 108503720, 142831845, 186075396, 240085548, 307008964, 389321839
a(n) = (90*n^7 +630*n^6 +1638*n^5 +1890*n^4+ 840*n^3 -48*n)/7!.
a(n) = (C(n+2, 3)/35)*(35 +210*C(n-1, 1) +399*C(n-1, 2) +315*C(n-1, 3) +90*C(n-1, 4)).
[A156711] 28, 299, 858, 1705, 2840, 4263, 5974, 7973, 10260, 12835, 15698, 18849, 22288, 26015, 30030, 34333, 38924, 43803, 48970, 54425, 60168, 66199, 72518, 79125, 86020, 93203, 100674, 108433, 116480, 124815, 133438, 142349, 151548, 161035
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A196513] 0, 28, 308, 1218, 3298, 7250, 13938, 24388, 39788, 61488, 91000, 129998, 180318, 243958, 323078, 420000, 537208, 677348, 843228, 1037818, 1264250, 1525818, 1825978, 2168348, 2556708, 2995000, 3487328, 4037958, 4651318, 5331998, 6084750
a(n) = ((3*n-2)*(3*n+1)*(3*n+4)*(3*n+7)+56)/12 = n*(3*n+5)*(9*n^2+15*n-10)/4 = sum_{i=1..n} (3*i-2)*(3*i+1)*(3*i+4).
[A134288] 1, 28, 336, 2520, 13860, 60984, 226512, 736164, 2147145, 5725720, 14158144, 32821152, 71954064, 150233760, 300467520, 578399976, 1075994073, 1941008916, 3405278800, 5824819000, 9735768900, 15931258200, 25565576400, 40293571500, 62455035825, 95315993136
a(n) = binomial(n+6,6)^2 - binomial(n+6,5)*binomial(n+6,7). - Gary Detlefs, Dec 05 2011
[A085744] 0, 0, 28, 351, 2016, 7750, 23220, 58653, 130816, 265356, 499500, 885115, 1492128, 2412306, 3763396, 5693625, 8386560, 12066328, 17003196, 23519511, 31996000, 42878430, 56684628, 74011861, 95544576, 122062500, 154449100, 193700403
a(n) = n^3*(n^3-1)/2. - Vincenzo Librandi, Sep 14 2011
[A130608] 0, 28, 385, 501, 645, 2668, 3340, 4176, 15957, 19873, 24745, 93408, 116232, 144628, 544825, 677853, 843357, 3175876, 3951220, 4915848, 18510765, 23029801, 28652065, 107889048, 134227920, 166996876, 628823857, 782338053, 973329525, 3665054428, 4559800732
a(n) = 6*a(n-3)-a(n-6)+334 for n > 6; a(1)=0, a(2)=28, a(3)=385, a(4)=501, a(5)=645, a(6)=2668.
[A024213] 28, 418, 2485, 9605, 28700, 72128, 159978, 322770, 604560, 1066450, 1790503, 2884063, 4484480, 6764240, 9936500, 14261028, 20050548, 27677490, 37581145, 50275225, 66355828, 86509808, 111523550, 142292150, 179829000, 225275778
a(n) = n*(n+1)*(n+2)*(3n+5)*(9n^2+21*n-2)/48.
[A158659] 28, 812, 3164, 7084, 12572, 19628, 28252, 38444, 50204, 63532, 78428, 94892, 112924, 132524, 153692, 176428, 200732, 226604, 254044, 283052, 313628, 345772, 379484, 414764, 451612, 490028, 530012, 571564, 614684, 659372, 705628, 753452, 802844
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A022363] 0, 29, 29, 58, 87, 145, 232, 377, 609, 986, 1595, 2581, 4176, 6757, 10933, 17690, 28623, 46313, 74936, 121249, 196185, 317434, 513619, 831053, 1344672, 2175725, 3520397, 5696122, 9216519, 14912641, 24129160, 39041801, 63170961, 102212762, 165383723
a(n) = Fibonacci(n+7) - Fibonacci(n-7), where Fibonacci(-7..-1) = 13, -8, 5, -3, 2, -1, 1. - Bruno Berselli, May 22 2015
[A042708] 29, 30, 89, 119, 327, 446, 1219, 1665, 97789, 99454, 296697, 396151, 1088999, 1485150, 4059299, 5544449, 325637341, 331181790, 988000921, 1319182711, 3626366343, 4945549054, 13517464451, 18463013505, 1084372247741, 1102835261246, 3290042770233, 4392878031479
a(n) = 3330*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 02 2013
[A157681] 29, 31, 60, 91, 151, 242, 393, 635, 1028, 1663, 2691, 4354, 7045, 11399, 18444, 29843, 48287, 78130, 126417, 204547, 330964, 535511, 866475, 1401986, 2268461, 3670447, 5938908, 9609355, 15548263, 25157618, 40705881, 65863499, 106569380
a(n) = a(n-1) + a(n-2), a(0)=29, a(1)=31.

a(n) = (29/2)*{[(1/2) + (1/2)*sqrt(5)]^n + [(1/2) - (1/2)*sqrt(5)]^n} + (33/10)*sqrt(5)*{[(1/2) + (1/2)*sqrt(5)]^n - [(1/2) - (1/2)*sqrt(5)]^n} + [(1/2) - (1/2)*sqrt(5)]^n}, with n>=0. - Paolo P. Lava, Mar 18 2009

[A261521] 29, 32, 37, 44, 53, 64, 77, 92, 109, 128, 149, 172, 197, 224, 253, 284, 317, 352, 389, 428, 469, 512, 557, 604, 653, 704, 757, 812, 869, 928, 989, 1052, 1117, 1184, 1253, 1324, 1397, 1472, 1549, 1628, 1709, 1792, 1877, 1964, 2053, 2144, 2237, 2332, 2429, 2528

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Oct 03 2015

[A057539] 1, 29, 41, 71, 139, 169, 181, 209, 211, 239, 251, 281, 349, 379, 391, 419, 421, 449, 461, 491, 559, 589, 601, 629, 631, 659, 671, 701, 769, 799, 811, 839, 841, 869, 881, 911, 979, 1009, 1021, 1049, 1051, 1079, 1091, 1121, 1189, 1219, 1231, 1259, 1261

a(n) = a(n-8) + 210 = a(n-1) + a(n-8) - a(n-9). - Charles R Greathouse IV, Oct 20 2014

a(n) = 105n/4 + O(1). - Charles R Greathouse IV, Oct 20 2014

[A157257] 29, 41, 85, 89, 205, 481, 505, 1189, 2801, 2941, 6929, 16325, 17141, 40385, 95149, 99905, 235381, 554569, 582289, 1371901, 3232265, 3393829, 7996025, 18839021, 19780685, 46604249, 109801861, 115290281, 271629469, 639972145, 671961001

a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=29, a(2)=41, a(3)=85, a(4)=89, a(5)=205, a(6)=481.

[A214405] 1, 29, 41, 85, 113, 173, 217, 293, 353, 445, 521, 629, 721, 845, 953, 1093, 1217, 1373, 1513, 1685, 1841, 2029, 2201, 2405, 2593, 2813, 3017, 3253, 3473, 3725, 3961, 4229, 4481, 4765, 5033, 5333, 5617, 5933, 6233, 6565, 6881, 7229, 7561, 7925, 8273, 8653

a(n) = 2*a(n-1)-2*a(n-3)+a(n-4).

a(n) = 4*n*(n+3)-6*(-1)^n+7.

[A195819] 0, 29, 58, 87, 116, 145, 174, 203, 232, 261, 290, 319, 348, 377, 406, 435, 464, 493, 522, 551, 580, 609, 638, 667, 696, 725, 754, 783, 812, 841, 870, 899, 928, 957, 986, 1015, 1044, 1073, 1102, 1131, 1160, 1189, 1218, 1247, 1276, 1305, 1334

a(n) = 29*n.

[A132770] 0, 29, 60, 93, 128, 165, 204, 245, 288, 333, 380, 429, 480, 533, 588, 645, 704, 765, 828, 893, 960, 1029, 1100, 1173, 1248, 1325, 1404, 1485, 1568, 1653, 1740, 1829, 1920, 2013, 2108, 2205, 2304, 2405, 2508, 2613, 2720, 2829, 2940, 3053

a(n) = 2*n + a(n-1) + 27 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010

[A161617] 1, 29, 73, 133, 209, 301, 409, 533, 673, 829, 1001, 1189, 1393, 1613, 1849, 2101, 2369, 2653, 2953, 3269, 3601, 3949, 4313, 4693, 5089, 5501, 5929, 6373, 6833, 7309, 7801, 8309, 8833, 9373, 9929, 10501, 11089, 11693, 12313, 12949, 13601

a(n) = a(n-1)+16*n+12 (with a(0)=1). - Vincenzo Librandi, Nov 30 2010

[A195314] 1, 29, 85, 169, 281, 421, 589, 785, 1009, 1261, 1541, 1849, 2185, 2549, 2941, 3361, 3809, 4285, 4789, 5321, 5881, 6469, 7085, 7729, 8401, 9101, 9829, 10585, 11369, 12181, 13021, 13889, 14785, 15709, 16661, 17641, 18649, 19685, 20749, 21841, 22961, 24109

a(n) = 14*n^2 - 14*n + 1.

a(1)=1, a(2)=29, a(3)=85, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Oct 01 2011]

[A010017] 1, 29, 110, 245, 434, 677, 974, 1325, 1730, 2189, 2702, 3269, 3890, 4565, 5294, 6077, 6914, 7805, 8750, 9749, 10802, 11909, 13070, 14285, 15554, 16877, 18254, 19685, 21170, 22709, 24302, 25949, 27650, 29405, 31214, 33077, 34994, 36965, 38990, 41069, 43202

a(n) = 3*a(n-1)-3*a(n-2)+a(n-3), n>=4, a(1)=29, a(2)=110, a(3)=245. - G. C. Greubel, Aug 02 2015

[A158556] 1, 29, 113, 253, 449, 701, 1009, 1373, 1793, 2269, 2801, 3389, 4033, 4733, 5489, 6301, 7169, 8093, 9073, 10109, 11201, 12349, 13553, 14813, 16129, 17501, 18929, 20413, 21953, 23549, 25201, 26909, 28673, 30493, 32369, 34301, 36289, 38333, 40433

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A244635] 0, 29, 116, 261, 464, 725, 1044, 1421, 1856, 2349, 2900, 3509, 4176, 4901, 5684, 6525, 7424, 8381, 9396, 10469, 11600, 12789, 14036, 15341, 16704, 18125, 19604, 21141, 22736, 24389, 26100, 27869, 29696, 31581, 33524, 35525, 37584, 39701, 41876, 44109, 46400

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.

[A158560] 29, 119, 269, 479, 749, 1079, 1469, 1919, 2429, 2999, 3629, 4319, 5069, 5879, 6749, 7679, 8669, 9719, 10829, 11999, 13229, 14519, 15869, 17279, 18749, 20279, 21869, 23519, 25229, 26999, 28829, 30719, 32669, 34679, 36749, 38879, 41069, 43319

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).

[A145980] 29, 139, 323, 581, 913, 1319, 1799, 2353, 2981, 3683, 4459, 5309, 6233, 7231, 8303, 9449, 10669, 11963, 13331, 14773, 16289, 17879, 19543, 21281, 23093, 24979, 26939, 28973, 31081, 33263, 35519, 37849, 40253, 42731, 45283, 47909, 50609, 53383, 56231, 59153, 62149, 65219, 68363

a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).

[A101096] 1, 29, 150, 390, 750, 1230, 1830, 2550, 3390, 4350, 5430, 6630, 7950, 9390, 10950, 12630, 14430, 16350, 18390, 20550, 22830, 25230, 27750, 30390, 33150, 36030, 39030, 42150, 45390, 48750, 52230, 55830, 59550, 63390, 67350, 71430, 75630, 79950, 84390, 88950

a(k+1) = 30*(1 - 2*k + 2*k^2); k>2.

[A110692] 1, 29, 275, 1498, 5846, 18250, 48546, 114480, 245751, 489247, 915629, 1627418, 2768740, 4536884, 7195828, 11091888, 16671645, 24502305, 35294647, 49928714, 69482402, 95263102, 128842550, 172095040, 227239155, 296883171, 384074289

a(n) = (n+1)*(n+2)*(n+3)*(155*n^4 +911*n^3 +2062*n^2 +2122*n +840)/7!.

[A244873] 1, 29, 289, 1640, 6604, 21122, 57271, 137155, 298184, 599954, 1132942, 2029229, 3475465, 5728289, 9132418, 14141618, 21342771, 31483251, 45501823, 64563278, 90097018, 123839804, 167882881, 224723693, 297322402, 389163424, 504322196, 647537387, 824288767, 1040880947, 1304533204

a(n) = 61*n^7/1440 + 427*n^6/960 + 1463*n^5/720 + 2009*n^4/384 + 11809*n^3/1440 + 1253*n^2/160 + 169*n/40 + (-1)^n/256 + 255/256. [Bruno Berselli, Jul 08 2014]

[A156640] 29, 338, 985, 1970, 3293, 4954, 6953, 9290, 11965, 14978, 18329, 22018, 26045, 30410, 35113, 40154, 45533, 51250, 57305, 63698, 70429, 77498, 84905, 92650, 100733, 109154, 117913, 127010, 136445, 146218, 156329, 166778

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.

[A261540] 0, 29, 478, 4287, 24476, 101785, 337434, 946043, 2333752, 5206581, 10714070, 20633239, 37597908, 65378417, 109216786, 176222355, 275832944, 420346573, 625528782, 911300591, 1302512140, 1829807049, 2530582538, 3450050347, 4642403496, 6172093925, 8115226054

a(n) = -a(-n) = ((n+sqrt(n^2+4))/2)^7 - 1/((n+sqrt(n^2+4))/2)^7.

[A201245] 0, 0, 29, 661, 6285, 35378, 143787, 468529, 1301351, 3202970, 7170593, 14872997, 28969129, 53527866, 94568255, 160741233, 264175507, 421511954, 655152581, 994751765, 1478979173, 2157585442, 3093803379, 4367119121, 6076449375, 8343762538, 11318183177

a(n) = (n^8 - 30n^6 + 48n^5 + 299n^4 - 912n^3 - 462n^2 + 4368n - 4200)/24, n>=3.

[A158665] 29, 870, 3393, 7598, 13485, 21054, 30305, 41238, 53853, 68150, 84129, 101790, 121133, 142158, 164865, 189254, 215325, 243078, 272513, 303630, 336429, 370910, 407073, 444918, 484445, 525654, 568545, 613118, 659373, 707310, 756929, 808230, 861213

a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).

[A267747] 0, 1, 30, 31, 60, 61, 90, 91, 120, 121, 150, 151, 180, 181, 210, 211, 240, 241, 270, 271, 300, 301, 330, 331, 360, 361, 390, 391, 420, 421, 450, 451, 480, 481, 510, 511, 540, 541, 570, 571, 600, 601, 630, 631, 660, 661, 690, 691, 720, 721, 750, 751, 780, 781, 810, 811, 840

a(n) = 15*n - 7*(-1)^n - 22.

[A042808] 30, 31, 61, 153, 214, 581, 795, 1376, 83355, 84731, 168086, 420903, 588989, 1598881, 2187870, 3786751, 229392930, 233179681, 462572611, 1158324903, 1620897514, 4400119931, 6021017445, 10421137376, 631289260005, 641710397381, 1272999657386, 3187709712153

a(n) = 2752*a(n-8) - a(n-16) - Vincenzo Librandi, Dec 05 2013

[A042810] 30, 31, 61, 153, 979, 2111, 3090, 5201, 315150, 320351, 635501, 1591353, 10183619, 21958591, 32142210, 54100801, 3278190270, 3332291071, 6610481341, 16553253753, 105930003859, 228413261471, 334343265330, 562756526801, 34099734873390, 34662491400191, 68762226273581

a(n) = 10402*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 05 2013

[A042842] 30, 31, 185, 216, 1481, 1697, 9966, 11663, 709746, 721409, 4316791, 5038200, 34545991, 39584191, 232466946, 272051137, 16555535166, 16827586303, 100693466681, 117521052984, 805819784585, 923340837569, 5422523972430, 6345864809999, 386174412572370, 392520277382369

a(n) = 23326*a(n-8) - a(n-16). - Vincenzo Librandi, Dec 07 2013

[A268337] 0, 1, 30, 31, 756, 3250, 3276, 3280, 81255, 81256, 81280, 81900, 81901, 82000, 59078250, 59078251, 59078280, 59078281, 31789468750, 31789468776, 31789469505, 31789469506, 31789471900, 31789471905, 31789471906, 31789472005, 946095722031, 946095800025, 946095800026, 946095800031, 946095800130

a(n) » n^k with k = log 5/log 2 = 2.321928.... - Charles R Greathouse IV, Feb 02 2016

[A090692] 30, 42, 146, 346, 942, 2430, 6398, 16714, 43794, 114618, 300110, 785662, 2056926, 5385066, 14098322, 36909850, 96631278, 252983934, 662320574, 1733977738, 4539612690, 11884860282, 31114968206, 81460044286, 213265164702, 558335449770, 1461741184658, 3826888104154

a(0)=30, a(1)=42, a(2)=146, a(n) = 2*a(n-1)+2*a(n-2)-a(n-3). - Harvey P. Dale, Aug 21 2014

a(n) = (2^(1-n)*(25*(-2)^n+(25-11*sqrt(5))*(3-sqrt(5))^n+(3+sqrt(5))^n*(25+11*sqrt(5))))/5. - Colin Barker, Oct 01 2016
[A271998] 30, 48, 80, 112, 162, 212, 284, 356, 454, 552, 680, 808, 970, 1132, 1332, 1532, 1774, 2016, 2304, 2592, 2930, 3268, 3660, 4052, 4502, 4952, 5464, 5976, 6554, 7132, 7780, 8428, 9150, 9872, 10672, 11472, 12354, 13236, 14204, 15172, 16230, 17288, 18440
a(n) = 2*a(n-1) + a(n-2) - 4*a(n-3) + a(n-4) + 2*a(n-5) - a(n-6) for n>8.
a(n) = (n^3 + 9*n^2 + 26*n - 24)/6 for n even.
a(n) = (n^3 + 9*n^2 + 29*n - 15)/6 for n odd. (End)
[A027578] 30, 55, 90, 135, 190, 255, 330, 415, 510, 615, 730, 855, 990, 1135, 1290, 1455, 1630, 1815, 2010, 2215, 2430, 2655, 2890, 3135, 3390, 3655, 3930, 4215, 4510, 4815, 5130, 5455, 5790, 6135, 6490, 6855, 7230, 7615, 8010, 8415, 8830, 9255
a(n) = n^2 + (n+1)^2 + (n+2)^2 + (n+3)^2 + (n+4)^2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2. (End)
a(n) = 5*(n + 2)^2 + 10. a(n) is never square. - Bruno Berselli, Jul 29 2015
[A248572] 1, 30, 59, 88, 117, 146, 175, 204, 233, 262, 291, 320, 349, 378, 407, 436, 465, 494, 523, 552, 581, 610, 639, 668, 697, 726, 755, 784, 813, 842, 871, 900, 929, 958, 987, 1016, 1045, 1074, 1103, 1132, 1161, 1190, 1219, 1248, 1277, 1306, 1335, 1364, 1393, 1422
a(n) = 29n + 1.
[A248739] 0, 30, 59, 88, 117, 146, 175, 204, 233, 262, 291, 320, 349, 378, 407, 436, 465, 494, 523, 552, 581, 610, 639, 668, 697, 726, 755, 784, 813, 842, 872, 901, 930, 959, 988, 1017, 1046, 1075, 1104, 1133, 1162, 1191, 1220, 1249, 1278, 1307, 1336, 1365, 1394, 1423
a(n) = 29*n + ceiling(n/29).
[A132771] 0, 30, 62, 96, 132, 170, 210, 252, 296, 342, 390, 440, 492, 546, 602, 660, 720, 782, 846, 912, 980, 1050, 1122, 1196, 1272, 1350, 1430, 1512, 1596, 1682, 1770, 1860, 1952, 2046, 2142, 2240, 2340, 2442, 2546, 2652, 2760, 2870, 2982, 3096
a(n) = 2*n + a(n-1) + 28 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
[A218327] 30, 70, 364, 540, 1386, 1794, 3480, 4216, 7030, 8190, 12420, 14100, 20034, 22330, 30256, 33264, 43470, 47286, 60060, 64780, 80410, 86130, 104904, 111720, 133926, 141934, 167860, 177156, 207090, 217770, 252000, 264160, 302974, 316710, 360396, 375804, 424650
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7)
a(n) = 3*a(n-2) - 3*a(n-4) + a(n-6) + 384
a(n) = (4*n-(-1)^n+1)*(4*n-(-1)^n+3)*(4*n-(-1)^n)/8
[A155461] 30, 83, 138, 195, 254, 315, 378, 443, 510, 579, 650, 723, 798, 875, 954, 1035, 1118, 1203, 1290, 1379, 1470, 1563, 1658, 1755, 1854, 1955, 2058, 2163, 2270, 2379, 2490, 2603, 2718, 2835, 2954, 3075, 3198, 3323, 3450, 3579, 3710, 3843, 3978, 4115
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 26 2012
[A277980] 0, 30, 84, 162, 264, 390, 540, 714, 912, 1134, 1380, 1650, 1944, 2262, 2604, 2970, 3360, 3774, 4212, 4674, 5160, 5670, 6204, 6762, 7344, 7950, 8580, 9234, 9912, 10614, 11340, 12090, 12864, 13662, 14484, 15330, 16200, 17094, 18012, 18954, 19920
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A130862] 0, 30, 85, 171, 294, 460, 675, 945, 1276, 1674, 2145, 2695, 3330, 4056, 4879, 5805, 6840, 7990, 9261, 10659, 12190, 13860, 15675, 17641, 19764, 22050, 24505, 27135, 29946, 32944, 36135, 39525, 43120, 46926, 50949, 55195, 59670, 64380, 69331, 74529, 79980, 85690, 91665, 97911, 104434, 111240, 118335, 125725, 133416, 141414
a(n) = (5/2)*(n + 2)*(n + 3)*Sum[Sum[Sum[k^2 - 1, { k, 1, m}], {m, 1, j}], {j, 1, n}]/Sum[Sum[Sum[k, {k, 1, m}], {m, 1, j}], {j, 1, n}]=(1/2)(-1 + n))((2 + n)(11 + 2 n)
a(0)=0, a(1)=30, a(2)=85, a(3)=171, a(n)=4a(n-1)-6a(n-2)+4a(n-3)-a(n-4) [From Harvey P. Dale, May 01 2011]
[A096382] 30, 96, 210, 384, 630, 960, 1386, 1920, 2574, 3360, 4290, 5376, 6630, 8064, 9690, 11520, 13566, 15840, 18354, 21120, 24150, 27456, 31050, 34944, 39150, 43680, 48546, 53760, 59334, 65280, 71610, 78336, 85470, 93024, 101010, 109440, 118326, 127680, 137514
a(n)=(n-2)*(n*2)*(n+2), n>=3 . - Zerinvary Lajos, Mar 05 2007
a(2)=30, a(3)=96, a(4)=210, a(5)=384, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, May 06 2012]
[A130863] 0, 30, 100, 231, 448, 780, 1260, 1925, 2816, 3978, 5460, 7315, 9600, 12376, 15708, 19665, 24320, 29750, 36036, 43263, 51520, 60900, 71500, 83421, 96768, 111650, 128180, 146475, 166656, 188848
a(n) =1/2)*(n + 2)*(n + 3)*(n + 4)*Sum[Sum[Sum[Sum[k^2 - 1, {k, 1, m}], {m, 1, j}], {j, 1, l}], {l, 1, n}]/Sum[Sum[Sum[Sum[k, {k, 1, m}], {m, 1, j}], { j, 1, l}], {l, 1, n}]=(1/6)*(-1 + n)(2 + n)(3 + n)(7 + n)
[A158445] 30, 105, 230, 405, 630, 905, 1230, 1605, 2030, 2505, 3030, 3605, 4230, 4905, 5630, 6405, 7230, 8105, 9030, 10005, 11030, 12105, 13230, 14405, 15630, 16905, 18230, 19605, 21030, 22505, 24030, 25605, 27230, 28905, 30630, 32405, 34230, 36105
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A244636] 0, 30, 120, 270, 480, 750, 1080, 1470, 1920, 2430, 3000, 3630, 4320, 5070, 5880, 6750, 7680, 8670, 9720, 10830, 12000, 13230, 14520, 15870, 17280, 18750, 20280, 21870, 23520, 25230, 27000, 28830, 30720, 32670, 34680, 36750, 38880, 41070, 43320, 45630, 48000
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3) for n>2.
[A291582] 30, 132, 306, 552, 870, 1260, 1722, 2256, 2862, 3540, 4290, 5112, 6006, 6972, 8010, 9120, 10302, 11556, 12882, 14280, 15750, 17292, 18906, 20592, 22350, 24180, 26082, 28056, 30102, 32220, 34410, 36672, 39006, 41412, 43890, 46440, 49062, 51756, 54522, 57360, 60270, 63252
a(n) = 6*n*(6*n-1). - Walter Trump
[A100147] 1, 30, 135, 364, 765, 1386, 2275, 3480, 5049, 7030, 9471, 12420, 15925, 20034, 24795, 30256, 36465, 43470, 51319, 60060, 69741, 80410, 92115, 104904, 118825, 133926, 150255, 167860, 186789, 207090, 228811, 252000
a(n) = (1/6)*(48*n^3-60*n^2+18*n)
a(n) = (1+(n-1))*(1+2*(n-1))*(1+4*(n-1)); g.f.: x*(1+26*x+21*x^2)/(1-x)^4. [Jaume Oliver Lafont, Sep 08 2009]
[A079588] 1, 30, 135, 364, 765, 1386, 2275, 3480, 5049, 7030, 9471, 12420, 15925, 20034, 24795, 30256, 36465, 43470, 51319, 60060, 69741, 80410, 92115, 104904, 118825, 133926, 150255, 167860, 186789, 207090, 228811, 252000, 276705, 302974, 330855, 360396, 391645
a(n) = 8*n^3 + 14*n^2 + 7*n + 1. - Reinhard Zumkeller, Jun 08 2015
[A158462] 30, 138, 318, 570, 894, 1290, 1758, 2298, 2910, 3594, 4350, 5178, 6078, 7050, 8094, 9210, 10398, 11658, 12990, 14394, 15870, 17418, 19038, 20730, 22494, 24330, 26238, 28218, 30270, 32394, 34590, 36858, 39198, 41610, 44094, 46650, 49278, 51978
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 12 2012
[A068236] 30, 180, 570, 1320, 2550, 4380, 6930, 10320, 14670, 20100, 26730, 34680, 44070, 55020, 67650, 82080, 98430, 116820, 137370, 160200, 185430, 213180, 243570, 276720, 312750, 351780, 393930, 439320, 488070, 540300, 596130, 655680, 719070, 786420, 857850, 933480
a(n) = (n+2)^5-2*(n+1)^5+n^5.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Dec 13 2014
[A054559] 30, 180, 630, 1680, 3780, 7560, 13860, 23760, 38610, 60060, 90090, 131040, 185640, 257040, 348840, 465120, 610470, 790020, 1009470, 1275120, 1593900, 1973400, 2421900, 2948400, 3562650, 4275180
a(n) = 30*C(n,5) = n*(n-1)*(n-2)*(n-3)*(n-4)/4.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - Vincenzo Librandi, Apr 29 2012
[A281999] 1, 30, 181, 600, 1501, 3150, 5881, 10080, 16201, 24750, 36301, 51480, 70981, 95550, 126001, 163200, 208081, 261630, 324901, 399000, 485101, 584430, 698281, 828000, 975001, 1140750, 1326781, 1534680, 1766101, 2022750, 2306401, 2618880, 2962081, 3337950, 3748501, 4195800
a(n) = (5*(n^2 - 1)*n^2 - (-1)^n + 1)/2.
a(n) = (n^5-(n-1)^5) - a(n-1).
a(n) = 4*a(n-1) - 5*a(n-2) + 5*a(n-4) - 4*a(n-5) + a(n-6) for n>6. - Colin Barker, Feb 27 2017
[A215627] 1, 30, 210, 867, 2690, 6956, 15833, 32775, 63024, 114235, 197241, 326976, 523575, 813671, 1231910, 1822706, 2642259, 3760860, 5265508, 7262865, 9882576, 13280982, 17645255, 23197985, 30202250, 38967201, 49854195, 63283510, 79741677, 99789465, 124070556
a(n) = n*(n+1)*(n^6+75*n^5+1703*n^4+13697*n^3+29472*n^2-30788*n+6000)/40320.
[A259455] 1, 30, 270, 1400, 5250, 15876, 41160, 95040, 200475, 393250, 726726, 1277640, 2153060, 3498600, 5508000, 8434176, 12601845, 18421830, 26407150, 37191000, 51546726, 70409900, 94902600, 126360000, 166359375, 216751626, 279695430, 357694120, 453635400, 570834000
a(n) = n^3*(n+3)*(n+2)*(n+1)^2/48.
a(n) = n*Stirling2(n+3,n). (End)

[A113754] 1, 30, 285, 1496, 5525, 16206, 40425, 89440, 180441, 338350, 597861, 1005720, 1623245, 2529086, 3822225, 5625216, 8087665, 11389950, 15747181, 21413400, 28686021, 37910510, 49485305, 63866976, 81575625, 103200526, 129406005, 160937560, 198628221, 243405150
a(n) = n^2*(n^2+1)*(2*n^2+1)/6.
a(n) = Sum_{k=1..n^2} k^2. - L. Edson Jeffery, Sep 05 2013
[A129029] 0, 30, 288, 1134, 3120, 6990, 13680, 24318, 40224, 62910, 94080, 135630, 189648, 258414, 344400, 450270, 578880, 733278, 916704, 1132590, 1384560, 1676430, 2012208, 2396094, 2832480, 3325950, 3881280, 4503438, 5197584, 5969070, 6823440, 7766430, 8803968
a(n) = 2*(n+1)*(4*n^3+18*n^2+35*n+15).
[A006859] 1, 30, 330, 2145, 10010, 37128, 116280, 319770, 793155, 1808950, 3848130, 7719075, 14725620, 26898080, 47303520, 80454132, 132835365, 213578430, 335304970, 515175045, 776173134, 1148670600, 1672307000, 2398236750, 3391791975, 4735616886, 6533333730, 8913805255
a(n) = (n+1)*(n+2)^2*(n+3)^2*(n+4)*(2*n+3)*(2*n+5)*(2*n+7)/15120. - Peter Bala, Oct 11 2011
[A214085] 0, 1, 30, 342, 1960, 7575, 22806, 57820, 129312, 262845, 495550, 879186, 1483560, 2400307, 3747030, 5671800, 8358016, 12029625, 16956702, 23461390, 31924200, 42790671, 56578390, 73884372, 95392800, 121883125, 154238526, 193454730, 240649192, 297070635
a(0)=0, a(1)=1, a(2)=30, a(3)=342, a(4)=1960, a(5)=7575, a(6)=22806, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Dec 12 2012
[A107916] 1, 30, 350, 2450, 12348, 49392, 166320, 490050, 1297725, 3149146, 7105098, 15071420, 30321200, 58262400, 107535744, 191548044, 330569505, 554550150, 906840550, 1449035742, 2267198780, 3479762000, 5247450000, 7785618750, 11379460365, 16402583106, 23339541330
a(n) = (1/17280)(n+1)(n+2)^3*(n+3)^3*(n+4)^2*(n+5).
[A290363] 0, 1, 30, 424, 3357, 17836, 71769, 236093, 667335, 1676364, 3832477, 8113347, 16112746, 30319341, 54481246, 94072398, 156878210, 253719339, 399333792, 613438978, 921996699, 1358705458, 1966745847, 2800806163, 3929416785, 5437623230, 7430029191, 10034242245
a(n) = (1385*n^8 +1124*n^7 +4018*n^6 +6776*n^5 +7945*n^4 +9716*n^3 +6812*n^2 +2544*n)/8!.
[A210431] 0, 1, 30, 434, 3740, 22220, 100562, 370909, 1168008, 3245311, 8148590, 18821968, 40542228, 82300842, 158779362, 293092635, 520505744, 893364637, 1487517086, 2410539918, 3812130380, 5897064040, 8941168786, 13310814265, 19486468504, 28090928475, 39922889006
a(n) = n*(10080+(40484+(31395+(8106+655*n^2)*n^2)*n^2)*n^2)/90720.
[A176646] 0, 30, 780, 4980, 18840, 53490, 126420, 262920, 497520, 875430, 1453980, 2304060, 3511560, 5178810, 7426020, 10392720, 14239200, 19147950, 25325100, 33001860, 42435960, 53913090, 67748340, 84287640, 103909200, 127024950, 154081980, 185563980, 221992680, 263929290, 311975940, 366777120, 429021120, 499441470, 578818380, 667980180, 767804760, 879221010
a(n)= n*(n+1)*(12*n^3+13*n^2-8*n-2).
[A158672] 30, 930, 3630, 8130, 14430, 22530, 32430, 44130, 57630, 72930, 90030, 108930, 129630, 152130, 176430, 202530, 230430, 260130, 291630, 324930, 360030, 396930, 435630, 476130, 518430, 562530, 608430, 656130, 705630, 756930, 810030, 864930, 921630
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A245650] 31, 41, 59, 67, 101, 107, 139, 179, 193, 199, 211, 229, 239, 269, 271, 281, 293, 307, 313, 353, 353, 353, 379, 397, 409, 431, 439, 449, 449, 457, 467, 479, 491, 499, 509, 521, 547, 563, 599, 607, 617, 641, 659, 673, 709, 719, 739, 751, 761, 769, 809, 811, 821, 827, 859, 863, 881, 883, 911, 911, 919, 929
a(n) is the n-th prime member of the sequence 12*i - prime(i). a(n) = prime(n) if (12*i - prime(i)) = prime(n).
[A060834] 31, 43, 67, 103, 151, 211, 283, 367, 463, 571, 691, 823, 967, 1123, 1291, 1471, 1663, 1867, 2083, 2311, 2551, 2803, 3067, 3343, 3631, 3931, 4243, 4567, 4903, 5251, 5611, 5983, 6367, 6763, 7171, 7591, 8023, 8467, 8923, 9391, 9871, 10363, 10867, 11383
a(0)=31, a(1)=43, a(2)=67, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Aug 09 2011]
[A128470] 1, 31, 61, 91, 121, 151, 181, 211, 241, 271, 301, 331, 361, 391, 421, 451, 481, 511, 541, 571, 601, 631, 661, 691, 721, 751, 781, 811, 841, 871, 901, 931, 961, 991, 1021, 1051, 1081, 1111, 1141, 1171, 1201, 1231, 1261, 1291, 1321, 1351, 1381, 1411, 1441, 1471
a(n) = 2*a(n-1) - a(n-2). for n>1. - Vincenzo Librandi, Dec 30 2014
[A195744] 31, 61, 121, 241, 481, 961, 1921, 3841, 7681, 15361, 30721, 61441, 122881, 245761, 491521, 983041, 1966081, 3932161, 7864321, 15728641, 31457281, 62914561, 125829121, 251658241, 503316481, 1006632961, 2013265921, 4026531841, 8053063681, 16106127361
a(n) = 2*a(n-1)-1.
[A135631] 0, 31, 62, 93, 124, 155, 186, 217, 248, 279, 310, 341, 372, 403, 434, 465, 496, 527, 558, 589, 620, 651, 682, 713, 744, 775, 806, 837, 868, 899, 930, 961, 992, 1023, 1054, 1085, 1116, 1147, 1178, 1209, 1240, 1271, 1302, 1333, 1364, 1395, 1426, 1457, 1488
a(n) = 31*n.
a(n) = 2*a(n-1) - a(n-2). (End)
[A132772] 0, 31, 64, 99, 136, 175, 216, 259, 304, 351, 400, 451, 504, 559, 616, 675, 736, 799, 864, 931, 1000, 1071, 1144, 1219, 1296, 1375, 1456, 1539, 1624, 1711, 1800, 1891, 1984, 2079, 2176, 2275, 2376, 2479, 2584, 2691, 2800, 2911, 3024
a(n) = 2*n + a(n-1) + 29 (with a(0)=0). - Vincenzo Librandi, Aug 03 2010
a(0)=0, a(1)=31, a(2)=64, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 06 2015
[A139700] 1, 31, 91, 211, 451, 931, 1891, 3811, 7651, 15331, 30691, 61411, 122851, 245731, 491491, 983011, 1966051, 3932131, 7864291, 15728611, 31457251, 62914531, 125829091, 251658211, 503316451, 1006632931, 2013265891, 4026531811, 8053063651, 16106127331
a(n) = 30*2^(n-1)-29. - Emeric Deutsch, May 07 2008
a(n) = 2*a(n-1)+29 (with a(1)=1). [From Vincenzo Librandi, Nov 24 2010]
a(n) = 3*a(n-1)-2*a(n-2). G.f.: x*(28*x+1) / ((x-1)*(2*x-1)). - Colin Barker, Mar 11 2014
[A042896] 31, 94, 313, 407, 720, 1847, 2567, 4414, 15809, 51841, 3229951, 9741694, 32455033, 42196727, 74651760, 191500247, 266152007, 457652254, 1639108769, 5374978561, 334887779551, 1010038317214, 3365002731193, 4375041048407, 7740043779600, 19855128607607, 27595172387207, 47450300994814, 169946075371649
a(n) = 103682*a(n-10) - a(n-20). - Vincenzo Librandi, Dec 08 2013
[A081275] 1, 31, 97, 199, 337, 511, 721, 967, 1249, 1567, 1921, 2311, 2737, 3199, 3697, 4231, 4801, 5407, 6049, 6727, 7441, 8191, 8977, 9799, 10657, 11551, 12481, 13447, 14449, 15487, 16561, 17671, 18817, 19999, 21217, 22471, 23761, 25087, 26449, 27847
a(n) = C(n, 0) + 30*C(n, 1) + 36*C(n, 2).
a(n) = 18*n^2+12*n+1.
a(0)=1, a(1)=31, a(2)=97, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 30 2011
[A289134] 1, 31, 103, 217, 373, 571, 811, 1093, 1417, 1783, 2191, 2641, 3133, 3667, 4243, 4861, 5521, 6223, 6967, 7753, 8581, 9451, 10363, 11317, 12313, 13351, 14431, 15553, 16717, 17923, 19171, 20461, 21793, 23167, 24583, 26041, 27541, 29083, 30667, 32293
a(n) = 21*n^2 - 33*n + 13. - Omar E. Pol, Jun 25 2017
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3. - Colin Barker, Jul 29 2017
[A206526] 31, 106, 168, 243, 305, 380, 442, 517, 579, 654, 716, 791, 853, 928, 990, 1065, 1127, 1202, 1264, 1339, 1401, 1476, 1538, 1613, 1675, 1750, 1812, 1887, 1949, 2024, 2086, 2161, 2223, 2298, 2360, 2435, 2497, 2572, 2634, 2709, 2771, 2846, 2908, 2983
a(n) = (-137+13*(-1)^n+274*n)/4.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A063397] 1, 31, 111, 343, 979, 2655, 6943, 17663, 43967, 107519, 259071, 616447, 1451007, 3383295, 7823359, 17956863, 40943615, 92798975, 209190911, 469237759, 1047789567, 2329935871, 5161091071, 11391729663, 25060966399, 54962159615, 120191975423, 262127222783
a(n) = (6*(-4+27*2^n)+191*2^n*n+15*2^(1+n)*n^2+2^n*n^3)/24 for n>0. - Colin Barker, May 27 2015
[A158558] 1, 31, 121, 271, 481, 751, 1081, 1471, 1921, 2431, 3001, 3631, 4321, 5071, 5881, 6751, 7681, 8671, 9721, 10831, 12001, 13231, 14521, 15871, 17281, 18751, 20281, 21871, 23521, 25231, 27001, 28831, 30721, 32671, 34681, 36751, 38881, 41071, 43321
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A158563] 31, 127, 287, 511, 799, 1151, 1567, 2047, 2591, 3199, 3871, 4607, 5407, 6271, 7199, 8191, 9247, 10367, 11551, 12799, 14111, 15487, 16927, 18431, 19999, 21631, 23327, 25087, 26911, 28799, 30751, 32767, 34847, 36991, 39199, 41471, 43807, 46207
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A165568] 1, 1, 31, 137, 391, 889, 1751, 3121, 5167, 8081, 12079, 17401, 24311, 33097, 44071, 57569, 73951, 93601, 116927, 144361, 176359, 213401, 255991, 304657, 359951, 422449, 492751, 571481, 659287, 756841, 864839, 984001, 1115071, 1258817, 1416031, 1587529, 1774151
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) .

a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+24.
[A157373] 31, 158, 383, 706, 1127, 1646, 2263, 2978, 3791, 4702, 5711, 6818, 8023, 9326, 10727, 12226, 13823, 15518, 17311, 19202, 21191, 23278, 25463, 27746, 30127, 32606, 35183, 37858, 40631, 43502, 46471, 49538, 52703, 55966, 59327, 62786, 66343
a(n) = 49*n^2-20*n+2.
a(1) = 31, a(2)=158, a(3)=383, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jun 20 2011
[A107953] 31, 175, 703, 2415, 7551, 22143, 61951, 167167, 438271, 1122303, 2818047, 6959103, 16941055, 40730623, 96862207, 228130815, 532676607, 1234173951, 2839543807, 6491734015, 14755561471, 33361494015, 75061264383, 168124481535, 375004332031, 833223655423
a(n) = 2^(n+1)*(((n^2)/2)(n+13) + 21n + 16)-1.
a(0)=31, a(1)=175, a(2)=703, a(3)=2415, a(4)=7551, a(n)=9*a(n-1)- 32*a(n-2)+ 56*a(n-3)-48*a(n-4)+16*a(n-5). - Harvey P. Dale, Feb 10 2015
[A272130] 1, 31, 177, 535, 1201, 2271, 3841, 6007, 8865, 12511, 17041, 22551, 29137, 36895, 45921, 56311, 68161, 81567, 96625, 113431, 132081, 152671, 175297, 200055, 227041, 256351, 288081, 322327, 359185, 398751, 441121, 486391, 534657, 586015, 640561, 698391
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
[A274501] 0, 1, 31, 196, 756, 2226, 5502, 12012, 23892, 44187, 77077, 128128, 204568, 315588, 472668, 689928, 984504, 1376949, 1891659, 2557324, 3407404, 4480630, 5821530, 7480980, 9516780, 11994255, 14986881, 18576936, 22856176, 27926536, 33900856, 40903632, 49071792
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7).
a(n) = (n-1)*(n-2)*(n-3)*(n-4)*(n-5)*(25*n-144)/720. - Wesley Ivan Hurt, Jun 25 2016
[A152730] 0, 0, 1, 31, 211, 782, 2132, 4862, 9813, 18093, 31143, 50764, 79144, 118924, 173225, 245675, 340475, 462426, 616956, 810186, 1048957, 1340857, 1694287, 2118488, 2623568, 3220568, 3921489, 4739319, 5688099, 6782950, 8040100, 9476950
a(n)=(1/3)*[n^5-5*n^4+(10/3)*n^3+10*n^2-5*n-(13/3)]+(13/54*I)*sqrt(3)*{[-(1/2)-(1/2)*I*sqrt(3)]^n -[-(1/2)+(1/2)*I*sqrt(3)]^n}+(13/18)*{[-(1/2)-(1/2)*I*sqrt(3)]^n+[-(1/2)+(1/2)*I*sqrt(3)]^n} with n>=0. - Paolo P. Lava, Dec 23 2008
[A062393] 0, 1, 31, 212, 812, 2313, 5463, 11344, 21424, 37625, 62375, 98676, 150156, 221137, 316687, 442688, 605888, 813969, 1075599, 1400500, 1799500, 2284601, 2869031, 3567312, 4395312, 5370313, 6511063, 7837844, 9372524, 11138625, 13161375
a(n) = (2*n^5 + 5*n^4 - 5*n^2 + 1 - (-1)^n)/4 = n^5 - a(n-1).
a(0)=0, a(1)=1, a(2)=31, a(3)=212, a(4)=812, a(5)=2313, a(6)=5463, a(n) = 5*a(n-1) - 9*a(n-2) + 5*a(n-3) + 5*a(n-4) - 9*a(n-5) + 5*a(n-6) - a(n-7). - Harvey P. Dale, Feb 01 2013
[A082544] 1, 31, 241, 991, 3091, 7501, 16531, 31711, 57781, 96601, 157651, 240031, 362491, 519961, 739201, 1012441, 1383721, 1822711, 2409241, 3091441, 3966301, 4974751, 6257461, 7680781, 9481681, 11474941, 13916191, 16610371, 19911151, 23435191
a(n)=sum(k=1, n, mu(k)*floor(n/k)^5); a(n) is asymptotic to c*n^5 with c=0.9643....
[A059378] 1, 31, 242, 992, 3124, 7502, 16806, 31744, 58806, 96844, 161050, 240064, 371292, 520986, 756008, 1015808, 1419856, 1822986, 2476098, 3099008, 4067052, 4992550, 6436342, 7682048, 9762500, 11510052, 14289858, 16671552, 20511148
a(n) = sum(d|n, d^5*mu(n/d)). - Benoit Cloitre, Apr 05 2002
a(n) = n^5*Product_{distinct primes p dividing n} (1-1/p^5). - Tom Edgar, Jan 09 2015
[A258807] 0, 31, 242, 1023, 3124, 7775, 16806, 32767, 59048, 99999, 161050, 248831, 371292, 537823, 759374, 1048575, 1419856, 1889567, 2476098, 3199999, 4084100, 5153631, 6436342, 7962623, 9765624, 11881375, 14348906, 17210367, 20511148, 24299999, 28629150, 33554431
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A001298] 0, 1, 31, 301, 1701, 6951, 22827, 63987, 159027, 359502, 752752, 1479478, 2757118, 4910178, 8408778, 13916778, 22350954, 34952799, 53374629, 79781779, 116972779, 168519505, 238929405, 333832005, 460192005, 626551380, 843303006, 1122998436, 1480692556
a(n) = Stirling2(n+4, n) = Sum_{L=1..n} (Sum_{k=1..L} (Sum_{j=1..k} (Sum_{i=1..j} i*j*k*L))) = (n+4)*(n+3)*(n+2)*(n+1)*n *(15*n^3 + 30*n^2 + 5*n - 2)/5760 = (15*n^3 + 30*n^2 + 5*n - 2)*binomial(n+4, 5)/48. - Vladeta Jovovic, Jan 31 2005
[A158675] 31, 992, 3875, 8680, 15407, 24056, 34627, 47120, 61535, 77872, 96131, 116312, 138415, 162440, 188387, 216256, 246047, 277760, 311395, 346952, 384431, 423832, 465155, 508400, 553567, 600656, 649667, 700600, 753455, 808232, 864931, 923552, 984095
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A130004] 0, 31, 1204, 1347, 1504, 8151, 8980, 9891, 48600, 53431, 58740, 284347, 312504, 343447, 1658380, 1822491, 2002840, 9666831, 10623340, 11674491, 56343504, 61918447, 68045004, 328395091, 360888240, 396596431, 1914027940, 2103411891, 2311534480, 11155773447
a(n) = 6*a(n-3)-a(n-6)+898 for n > 6; a(1)=0, a(2)=31, a(3)=1204, a(4)=1347, a(5)=1504, a(6)=8151.
[A115421] 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124
a(n + 32) = a(n) + 64.
[A151983] 0, 1, 32, 33, 64, 65, 96, 97, 128, 129, 160, 161, 192, 193, 224, 225, 256, 257, 288, 289, 320, 321, 352, 353, 384, 385, 416, 417, 448, 449, 480, 481, 512, 513, 544, 545, 576, 577, 608, 609, 640, 641, 672, 673, 704, 705, 736, 737, 768, 769, 800, 801, 832, 833, 864, 865
a(n) = a(n-1)+a(n-2)-a(n-3) for n>3.
a(n) = (32*n-15*(-1)^n-47)/2.
[A029925] 32, 34, 36, 37, 39, 41, 43, 45, 46, 48, 50, 52, 54, 55, 57, 59, 61, 63, 64, 66, 68, 70, 72, 73, 75, 77, 79, 81, 82, 84, 86, 88, 90, 91, 93, 95, 97, 99, 100, 102, 104, 106, 108, 109, 111, 113, 115, 117, 118, 120
a(n) = floor((18*n + 325)/10). - Reinhard Zumkeller, May 03 2010
[A159007] 32, 41, 105, 114, 178, 187, 251, 260, 324, 333, 397, 406, 470, 479, 543, 552, 616, 625, 689, 698, 762, 771, 835, 844, 908, 917, 981, 990, 1054, 1063, 1127, 1136, 1200, 1209, 1273, 1282, 1346, 1355, 1419, 1428, 1492, 1501, 1565, 1574, 1638, 1647, 1711, 1720
a(n) = a(n-1)+a(n-2)-a(n-3) with a(1)=32, a(2)=41, a(3)=105.
a(n) = (73+55*(-1)^(n-1)+146*(n-1))/4.
[A046304] 32, 48, 64, 72, 80, 96, 108, 112, 120, 128, 144, 160, 162, 168, 176, 180, 192, 200, 208, 216, 224, 240, 243, 252, 256, 264, 270, 272, 280, 288, 300, 304, 312, 320, 324, 336, 352, 360, 368, 378, 384, 392, 396, 400, 405, 408, 416, 420, 432, 440, 448, 450, 456
a(n) = n + O(n (log log n)^3/log n). - Charles R Greathouse IV, Apr 07 2017
[A099048] 32, 50, 68, 86, 104, 122, 140, 158, 176, 194, 212, 230, 248, 266, 284, 302, 320, 338, 356, 374, 392, 410, 428, 446, 464, 482, 500, 518, 536, 554, 572, 590, 608, 626, 644, 662, 680, 698, 716, 734, 752, 770, 788, 806, 824, 842, 860, 878, 896, 914, 932, 950
a(n) = 18*n+14.
[A176542] 32, 50, 98, 128, 200, 242, 338, 392, 512, 578, 722, 800, 968, 1058, 1250, 1352, 1568, 1682, 1922, 2048, 2312, 2450, 2738, 2888, 3200, 3362, 3698, 3872, 4232, 4418, 4802, 5000, 5408, 5618, 6050, 6272, 6728, 6962, 7442, 7688, 8192, 8450, 8978, 9248, 9800
a(n) = (9*n^2+24*n+16)/2 for n even.
a(n) = (9*n^2+30*n+25)/2 for n odd.
a(n) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5) for n>5.
[A206371] 32, 63, 125, 249, 497, 993, 1985, 3969, 7937, 15873, 31745, 63489, 126977, 253953, 507905, 1015809, 2031617, 4063233, 8126465, 16252929, 32505857, 65011713, 130023425, 260046849, 520093697, 1040187393, 2080374785, 4160749569, 8321499137, 16642998273
a(n) = 31*2^n + 1.
[A132773] 0, 32, 66, 102, 140, 180, 222, 266, 312, 360, 410, 462, 516, 572, 630, 690, 752, 816, 882, 950, 1020, 1092, 1166, 1242, 1320, 1400, 1482, 1566, 1652, 1740, 1830, 1922, 2016, 2112, 2210, 2310, 2412, 2516, 2622, 2730, 2840, 2952, 3066
a(n) = 2*n + a(n-1) + 30, with n>0, a(0)=0. - Vincenzo Librandi, Aug 03 2010
[A153981] 32, 68, 176, 464, 1220, 3200, 8384, 21956, 57488, 150512, 394052, 1031648, 2700896, 7071044, 18512240, 48465680, 126884804, 332188736, 869681408, 2276855492, 5960885072, 15605799728, 40856514116, 106963742624, 280034713760, 733140398660
a(n) = 3*a(n-1) - a(n-2) + 4.
a(n) = 4*a(n-1) - 4*a(n-2) + a(n-3).
a(n) = 3*a(n-1) - 3*a(n-3) + a(n-4).
a(n) = -4 + 18*(((3 + sqrt(5))/2)^n + ((3 - sqrt(5))/2)^n) + (18/5)*sqrt(5)*(((3 + sqrt(5))/2)^n - ((3 - sqrt(5))/2)^n), with n>=0. - Paolo P. Lava, Jan 20 2009

[A182466] 32, 80, 176, 368, 752, 1520, 3056, 6128, 12272, 24560, 49136, 98288, 196592, 393200, 786416, 1572848, 3145712, 6291440, 12582896, 25165808, 50331632, 100663280, 201326576, 402653168, 805306352, 1610612720, 3221225456, 6442450928, 12884901872, 25769803760, 51539607536
a(n) = a(n-1)*2 + 16.
a(n) = 8*(3*2^n-2). - Harvey P. Dale, Aug 23 2012
[A287925] 32, 97, 641, 2417, 14657, 28577, 83537, 130337, 279857, 707297, 923537, 1874177, 2825777, 3418817, 4879697, 7890497, 12117377, 13845857, 20151137, 25411697, 28398257, 38950097, 47458337, 62742257, 88529297, 104060417, 112550897, 131079617, 141158177
a(n) = 2^4 + prime(n)^4.
[A197904] 32, 98, 412, 1387, 3803, 8918, 18594, 35410, 62786, 105102, 167817, 257593, 382409, 551685, 776401, 1069217, 1444593, 1918909, 2510585, 3240201, 4130617, 5207093, 6497409, 8031985, 9844001, 11969517, 14447593, 17320409, 20633385, 24435301, 28778417, 33718593
a(n) = n^5 + 5n^3 + 10n for n > 10. [Charles R Greathouse IV, Nov 21 2011]
[A172517] 0, 0, 0, 32, 100, 288, 588, 1152, 1944, 3200, 4840, 7200, 10140, 14112, 18900, 25088, 32368, 41472, 51984, 64800, 79380, 96800, 116380, 139392, 165000, 194688, 227448, 264992, 306124, 352800, 403620, 460800, 522720, 591872, 666400, 749088, 837828
a(n) = n^2*(n-2)^2/2 if n is even and a(n) = n^2*(n-1)(n-3)/2 if n is odd.
[A247155] 32, 125, 280, 497, 776, 1117, 1520, 1985, 2512, 3101, 3752, 4465, 5240, 6077, 6976, 7937, 8960, 10045, 11192, 12401, 13672, 15005, 16400, 17857, 19376, 20957, 22600, 24305, 26072, 27901, 29792, 31745, 33760, 35837, 37976, 40177, 42440, 44765, 47152, 49601, 52112, 54685, 57320, 60017, 62776, 65597, 68480, 71425, 74432, 77501, 80632, 83825, 87080, 90397, 93776, 97217, 100720, 104285, 107912, 111601, 115352, 119165, 123040, 126977, 130976, 135037, 139160, 143345, 147592, 151901, 156272, 160705, 165200, 169757, 174376, 179057, 183800, 188605, 193472, 198401, 203392, 208445, 213560, 218737, 223976, 229277, 234640, 240065, 245552, 251101, 256712, 262385, 268120, 273917, 279776, 285697, 291680, 297725, 303832
a(1)=32, a(2)=125, a(3)=280, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 28 2016
[A137740] 1, 32, 138, 348, 700, 1246, 2050, 3188, 4749, 6836, 9567, 13076, 17514, 23050, 29872, 38188, 48227, 60240, 74501, 91308, 110984, 133878, 160366, 190852, 225769, 265580, 310779, 361892, 419478, 484130, 556476, 637180, 726943, 826504, 936641, 1058172, 1191956
a(n) = (n+4)(n^2+3n-8)(n^2+23n+150)/5!+4 for n>4.
[A100164] 1, 32, 143, 384, 805, 1456, 2387, 3648, 5289, 7360, 9911, 12992, 16653, 20944, 25915, 31616, 38097, 45408, 53599, 62720, 72821, 83952, 96163, 109504, 124025, 139776, 156807, 175168, 194909, 216080, 238731, 262912
a(n) = (1/6)*(50*n^3-60*n^2+16*n) = (1/3)*n*(5*n-2)*(5*n-4).
a(n) = (5*(n-1)+1)*(5*(n-1)+3)*(5*(n-1)+5)/15
[A100165] 1, 32, 147, 400, 845, 1536, 2527, 3872, 5625, 7840, 10571, 13872, 17797, 22400, 27735, 33856, 40817, 48672, 57475, 67280, 78141, 90112, 103247, 117600, 133225, 150176, 168507, 188272, 209525, 232320, 256711, 282752
a(n) = (1/6)*(54*n^3-72*n^2+24*n) = n*(3*n-2)^2 .
a(n) = (3*(n-1)+1)^2*(3*(n-1)+3)/3.
[A100173] 1, 32, 148, 404, 855, 1556, 2562, 3928, 5709, 7960, 10736, 14092, 18083, 22764, 28190, 34416, 41497, 49488, 58444, 68420, 79471, 91652, 105018, 119624, 135525, 152776, 171432, 191548, 213179, 236380, 261206, 287712
a(n)=(1/6)*(55*n^3-75*n^2+26*n).
[A100172] 1, 32, 150, 412, 875, 1596, 2632, 4040, 5877, 8200, 11066, 14532, 18655, 23492, 29100, 35536, 42857, 51120, 60382, 70700, 82131, 94732, 108560, 123672, 140125, 157976, 177282, 198100, 220487, 244500, 270196, 297632
a(n)=(1/6)*(57*n^3-81*n^2+30*n).
[A035286] 0, 0, 32, 156, 456, 1040, 2040, 3612, 5936, 9216, 13680, 19580, 27192, 36816, 48776, 63420, 81120, 102272, 127296, 156636, 190760, 230160, 275352, 326876, 385296, 451200, 525200, 607932, 700056, 802256, 915240, 1039740, 1176512, 1326336
a(n) = n^4 - 9 n^2 + 12 n - 4.
[A200840] 32, 191, 676, 1817, 4108, 8239, 15128, 25953, 42184, 65615, 98396, 143065, 202580, 280351, 380272, 506753, 664752, 859807, 1098068, 1386329, 1732060, 2143439, 2629384, 3199585, 3864536, 4635567, 5524876, 6545561, 7711652, 9038143
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A019560] 1, 32, 192, 608, 1408, 2720, 4672, 7392, 11008, 15648, 21440, 28512, 36992, 47008, 58688, 72160, 87552, 104992, 124608, 146528, 170880, 197792, 227392, 259808, 295168, 333600, 375232, 420192, 468608
a(n) = (32/3)*n*(1 + 2*n^2) for n>0.
[A130811] 32, 192, 672, 1792, 4032, 8064, 14784, 25344, 41184, 64064, 96096, 139776, 198016, 274176, 372096, 496128, 651168, 842688, 1076768, 1360128, 1700160, 2104960, 2583360, 3144960, 3800160, 4560192, 5437152, 6444032, 7594752, 8904192
a(n) = binomial(2*n,5) + (2*n-4)*binomial(n,2) - n*binomial(2*n-2,3).
a(n) = C(n,n-5)*2^5, for n>=5. - Zerinvary Lajos, Dec 07 2007
[A200787] 32, 216, 840, 2425, 5796, 12152, 23136, 40905, 68200, 108416, 165672, 244881, 351820, 493200, 676736, 911217, 1206576, 1573960, 2025800, 2575881, 3239412, 4033096, 4975200, 6085625, 7385976, 8899632, 10651816, 12669665, 14982300
a(n) = (1 + n)^2*(12 + 44*n + 33*n^2 + 7*n^3) / 12 .
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A022146] 1, 32, 224, 768, 1856, 3680, 6432, 10304, 15488, 22176, 30560, 40832, 53184, 67808, 84896, 104640, 127232, 152864, 181728, 214016, 249920, 289632, 333344, 381248, 433536, 490400, 552032, 618624, 690368
a(0) = 1, a(n) = 32*n^3 - 16*n^2 + 16*n. - Ralf Stephan, Sep 03 2003
[A000584] 0, 1, 32, 243, 1024, 3125, 7776, 16807, 32768, 59049, 100000, 161051, 248832, 371293, 537824, 759375, 1048576, 1419857, 1889568, 2476099, 3200000, 4084101, 5153632, 6436343, 7962624, 9765625, 11881376, 14348907, 17210368, 20511149
a(n) = 5*a(n-1) - 10* a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) + 120. - Ant King, Sep 23 2013
a(n) = n + Sum_{j=0..n-1}{k=1..4}binomial(5,k)*j^(5-k). - Patrick J. McNab, Mar 28 2016
[A231304] 0, 1, 32, 244, 1056, 3369, 8832, 20176, 41600, 79225, 141600, 240276, 390432, 611569, 928256, 1370944, 1976832, 2790801, 3866400, 5266900, 7066400, 9351001, 12220032, 15787344, 20182656, 25552969, 32064032, 39901876, 49274400, 60413025, 73574400, 89042176
a(n) = Sum_{k=0..floor(n/2)} (n-2k)^5.
a(0)=0, a(1)=1, a(2)=32, a(3)=244, a(4)=1056, a(5)=3369, a(6)=8832, a(7)=20176, a(n) = 6*a(n-1)-14*a(n-2)+14*a(n-3)-14*a(n-5)+ 14*a(n-6)- 6*a(n-7)+ a(n-8). - Harvey P. Dale, Jul 22 2014
a(n) = 1/24*(2*n^6+12*n^5+20*n^4-16*n^2-3*(-1)^n+3).
[A060158] 0, 0, 0, 0, 0, 32, 300, 1852, 9576, 45096, 201060, 866324, 3650592, 15154240, 62260380, 253939116, 1030367448, 4165106264, 16790875860, 67553807428, 271383782544, 1089035545968, 4366631897100, 17497971562460, 70086163646280, 280627369334152, 1123357369925700
a(n) = 2n-7+(6-n)2^(n-1)-3^n+4^(n-1).
[A244867] 1, 32, 320, 1784, 7040, 22104, 58980, 139320, 299343, 596200, 1115972, 1983488, 3374150, 5527952, 8765880, 13508880, 20299581, 29826960, 42954136, 60749480, 84521228, 115855784, 156659900, 209206920, 276187275, 360763416, 466629372, 598075120, 760055954, 958267040, 1199223344, 1490345120
a(n) = (5040 + 22164*n + 43092*n^2 + 46963*n^3 + 30240*n^4 + 11326*n^5 + 2268*n^6 + 187*n^7) / 5040.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>7.
[A191901] 0, 32, 364, 2048, 7812, 23328, 58824, 131072, 265720, 500000, 885780, 1492992, 2413404, 3764768, 5695312, 8388608, 12068784, 17006112, 23522940, 32000000, 42883060, 56689952, 74017944, 95551488, 122070312, 154457888, 193710244, 240945152, 297411660, 364500000, 443751840
a(n) = ((n + 1)^6 - (1 + (-1)^n)/2)/2.
a(0)=0, a(1)=32, a(2)=364, a(3)=2048, a(4)=7812, a(5)=23328, a(6)=58824, a(7)=131072, a(n)=6*a(n-1)-14*a(n-2)+14*a(n-3)-14*a(n-5)+ 14*a(n-6)- 6*a(n-7)+a(n-8). - Harvey P. Dale, Apr 12 2015
[A191489] 1, 32, 365, 2048, 7813, 23328, 58825, 131072, 265721, 500000, 885781, 1492992, 2413405, 3764768, 5695313, 8388608, 12068785, 17006112, 23522941, 32000000, 42883061, 56689952, 74017945, 95551488, 122070313, 154457888
a(n)=((n + 1)^6 + (1+(-1)^n)/2)/2.
[A130609] 0, 32, 533, 669, 833, 3672, 4460, 5412, 21945, 26537, 32085, 128444, 155208, 187544, 749165, 905157, 1093625, 4366992, 5276180, 6374652, 25453233, 30752369, 37154733, 148352852, 179238480, 216554192, 864664325, 1044678957, 1262170865, 5039633544, 6088835708
a(n) = 6*a(n-3)-a(n-6)+446 for n > 6; a(1)=0, a(2)=32, a(3)=533, a(4)=669, a(5)=833, a(6)=3672.

[A158685] 32, 1056, 4128, 9248, 16416, 25632, 36896, 50208, 65568, 82976, 102432, 123936, 147488, 173088, 200736, 230432, 262176, 295968, 331808, 369696, 409632, 451616, 495648, 541728, 589856, 640032, 692256, 746528, 802848, 861216, 921632, 984096
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A265021] 0, 32, 1056, 8832, 41600, 141600, 390432, 928256, 1976832, 3866400, 7066400, 12220032, 20182656, 32064032, 49274400, 73574400, 107128832, 152564256, 213030432, 292265600, 394665600, 525356832, 690273056, 896236032, 1151040000, 1463540000, 1843744032
a(n) = 32 * Sum_{i=0..n} i^5 = (8/3)*n^2*(n+1)^2*(2*n^2+2*n-1).
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Vincenzo Librandi, Dec 01 2015
[A140143] 1, 33, 34, 1058, 1059, 8835, 8836, 41604, 41605, 141605, 141606, 390438, 390439, 928263, 928264, 1976840, 1976841, 3866409, 3866410, 7066410, 7066411, 12220043, 12220044, 20182668, 20182669, 32064045, 32064046
a(n)=a(n-1)+{[1-(-1)^n]/2}+{[1+(-1)^n]/2}*n^5, with a(1)=1 a(n)=(1/8)-(1/8)*(-1)^n-(5/8)*(-1)^n*n^2-(1/24)*n^2+(1/2)*n+(1/12)*n^6+(1/4)*(-1)^n*n^5+(1/4)*n^5+(5/8) *(-1)^n*n^4+(5/24)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
a(n)=a(n-1)+6a(n-2)-6a(n-3)-15a(n-4)+15a(n-5)+20a(n-6)-20a(n-7)-15a(n-8)+15a(n-9)+6a(n-10)-6a(n-11)-a(n-12)+a(n-13). G.f.: x*(-1-32*x+5*x^2-832*x^3-10*x^4-2112*x^5+10*x^6-832*x^7-5*x^8-32*x^9+x^10)/((1+x)^6*(x-1)^7). [From R. J. Mathar, Feb 22 2009]
[A140147] 1, 33, 36, 1060, 1065, 8841, 8848, 41616, 41625, 141625, 141636, 390468, 390481, 928305, 928320, 1976896, 1976913, 3866481, 3866500, 7066500, 7066521, 12220153, 12220176, 20182800, 20182825, 32064201, 32064228, 49274596, 49274625
a(n)=a(n-1)+{[1-(-1)^n]/2}*n+{[1+(-1)^n]/2}*n^5, with a(1)=1 a(n)=-(1/4)*(-1)^n*n-(5/8)*(-1)^n*n^2+(5/24)*n^2+(1/4)*n+(1/12)*n^6+(1/4)*(-1)^n*n^5+(1/4)*n^5+(5/8) *(-1)^n*n^4+(5/24)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A140151] 1, 33, 42, 1066, 1091, 8867, 8916, 41684, 41765, 141765, 141886, 390718, 390887, 928711, 928936, 1977512, 1977801, 3867369, 3867730, 7067730, 7068171, 12221803, 12222332, 20184956, 20185581, 32066957, 32067686, 49278054, 49278895
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^2+{[1+(-1)^n]/2}*n^5, with a(1)=1 a(n)= (-1/8)-(1/4)*(-1)^n*n+(1/8)*(-1)^n+(1/6)*n^3-(7/8)*(-1)^n*n^2+(5/24)*n^2+(1/12)*n+(1/12)*n^6+(1/4)*(-1)^n*n^5+(1/4)*n^5+(5/8)*(-1)^n*n^4+(5/24)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A140156] 1, 33, 60, 1084, 1209, 8985, 9328, 42096, 42825, 142825, 144156, 392988, 395185, 933009, 936384, 1984960, 1989873, 3879441, 3886300, 7086300, 7095561, 12249193, 12261360, 20223984, 20239609, 32120985, 32140668, 49351036, 49375425
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^3+{[1+(-1)^n]/2}*n^5, with a(1)=1 a(n)= (-3/16)+(3/16)*(-1)^n-(1/4)*(-1)^n*n^3+(1/4)*n^3-(-1)^n*n^2+(1/12)*n^2+(1/12)*n^6+(1/4)*(-1)^n *n^5+(1/4)*n^5+(5/8)*(-1)^n*n^4+(1/3)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A154600] 33, 61, 93, 129, 169, 213, 261, 313, 369, 429, 493, 561, 633, 709, 789, 873, 961, 1053, 1149, 1249, 1353, 1461, 1573, 1689, 1809, 1933, 2061, 2193, 2329, 2469, 2613, 2761, 2913, 3069, 3229, 3393, 3561, 3733, 3909, 4089, 4273, 4461, 4653, 4849, 5049, 5253
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 26 2012
[A067705] 33, 88, 165, 264, 385, 528, 693, 880, 1089, 1320, 1573, 1848, 2145, 2464, 2805, 3168, 3553, 3960, 4389, 4840, 5313, 5808, 6325, 6864, 7425, 8008, 8613, 9240, 9889, 10560, 11253, 11968, 12705, 13464, 14245, 15048, 15873, 16720, 17589, 18480
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A098923] 0, 1, 33, 96, 190, 315, 471, 658, 876, 1125, 1405, 1716, 2058, 2431, 2835, 3270, 3736, 4233, 4761, 5320, 5910, 6531, 7183, 7866, 8580, 9325, 10101, 10908, 11746, 12615, 13515, 14446, 15408, 16401, 17425, 18480, 19566, 20683, 21831, 23010
a(n) = n(31n-29)/2.
a(n) = 31*n + a(n-1) - 30 (with a(0)=0). - Vincenzo Librandi, Nov 16 2010
[A195315] 1, 33, 97, 193, 321, 481, 673, 897, 1153, 1441, 1761, 2113, 2497, 2913, 3361, 3841, 4353, 4897, 5473, 6081, 6721, 7393, 8097, 8833, 9601, 10401, 11233, 12097, 12993, 13921, 14881, 15873, 16897, 17953, 19041, 20161, 21313, 22497, 23713, 24961, 26241
a(n) = 16*n^2 - 16*n + 1.
[A140161] 1, 33, 114, 1138, 1763, 9539, 11940, 44708, 51269, 151269, 165910, 414742, 443303, 981127, 1031752, 2080328, 2163849, 4053417, 4183738, 7383738, 7578219, 12731851, 13011692, 20974316, 21364941, 33246317, 33777758, 50988126
a(n)=a(n-1)+{[1-(-1)^n]/2}*n^4+{[1+(-1)^n]/2}*n^5, with a(1)=1 a(n)= (-1/8)+(1/4)*(-1)^n*n+(1/8)*(-1)^n-(1/2)*(-1)^n*n^3+(1/6)*n^3-(5/8)*(-1)^n*n^2-(1/24)*n^2-(1/60) *n+(1/12)*n^6+(1/4)*(-1)^n*n^5+(7/20)*n^5+(3/8)*(-1)^n*n^4+(11/24)*n^4, with n>=1 - Paolo P. Lava, Jun 06 2008
[A158575] 1, 33, 129, 289, 513, 801, 1153, 1569, 2049, 2593, 3201, 3873, 4609, 5409, 6273, 7201, 8193, 9249, 10369, 11553, 12801, 14113, 15489, 16929, 18433, 20001, 21633, 23329, 25089, 26913, 28801, 30753, 32769, 34849, 36993, 39201, 41473, 43809, 46209
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158588] 33, 135, 305, 543, 849, 1223, 1665, 2175, 2753, 3399, 4113, 4895, 5745, 6663, 7649, 8703, 9825, 11015, 12273, 13599, 14993, 16455, 17985, 19583, 21249, 22983, 24785, 26655, 28593, 30599, 32673, 34815, 37025, 39303, 41649, 44063, 46545, 49095
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A005904] 1, 33, 155, 427, 909, 1661, 2743, 4215, 6137, 8569, 11571, 15203, 19525, 24597, 30479, 37231, 44913, 53585, 63307, 74139, 86141, 99373, 113895, 129767, 147049, 165801, 186083, 207955, 231477, 256709, 283711, 312543, 343265, 375937, 410619, 447371
a(n) = (2*n+1)*(5*n^2+5*n+1).
[A155883] 1, 33, 173, 505, 1113, 2081, 3493, 5433, 7985, 11233, 15261, 20153, 25993, 32865, 40853, 50041, 60513, 72353, 85645, 100473, 116921, 135073, 155013, 176825, 200593, 226401, 254333, 284473, 316905, 351713, 388981, 428793, 471233, 516385, 564333, 615161, 668953
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 30 2012
[A046142] 1, 33, 185, 553, 1233, 2321, 3913, 6105, 8993, 12673, 17241, 22793, 29425, 37233, 46313, 56761, 68673, 82145, 97273, 114153, 132881, 153553, 176265, 201113, 228193, 257601, 289433, 323785, 360753, 400433, 442921, 488313, 536705, 588193, 642873, 700841
a(n) = (2*n - 1)*(8*n^2 - 14*n + 7).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4. - Wesley Ivan Hurt, Mar 02 2016
[A294300] 0, 0, 33, 244, 1300, 4182, 12201, 27984, 61776, 117700, 220825, 374100, 630708, 985194, 1539825, 2266432, 3347776, 4708584, 6657201, 9033300, 12333300, 16256350, 21571033, 27758544, 35970000, 45364332, 57617001, 71428084, 89176276, 108928050, 133987425
a(n) = Sum_{i=1..floor(n/2)-((n+1) mod 2)} i^5 + (n-i)^5.
a(n) = (1/192)*(n^2*(-16 + 80*n^2 - 3*(33 + (-1)^n)*n^3 + 32*n^4)).
a(n) = a(n-1) + 6*a(n-2) - 6*a(n-3) - 15*a(n-4) + 15*a(n-5) + 20*a(n-6) - 20*a(n-7) - 15*a(n-8) + 15*a(n-9) + 6*a(n-10) - 6*a(n-11) - a(n-12) + a(n-13) for n>13.
[A271208] 1, 1, 33, 245, 1027, 3129, 7781, 16813, 32775, 59057, 100009, 161061, 248843, 371305, 537837, 759389, 1048591, 1419873, 1889585, 2476117, 3200019, 4084121, 5153653, 6436365, 7962647, 9765649, 11881401, 14348933, 17210395, 20511177, 24300029, 28629181, 33554463
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5)- a (n-6), n > 5. (End)
[A008515] 1, 33, 275, 1267, 4149, 10901, 24583, 49575, 91817, 159049, 261051, 409883, 620125, 909117, 1297199, 1807951, 2468433, 3309425, 4365667, 5676099, 7284101, 9237733, 11589975, 14398967, 17728249, 21647001, 26230283, 31559275, 37721517, 44811149, 52929151, 62183583, 72689825, 84570817, 97957299, 112988051, 129810133, 148579125
a(n) = n^5+(n+1)^5 = 2*n^5+5*n^4+10*n^3+10*n^2+5*n+1.
a(n) = -a(-n-1) = +6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). (End)
[A179995] 1, 33, 276, 1299, 4392, 11925, 27708, 57351, 108624, 191817, 320100, 509883, 781176, 1157949, 1668492, 2345775, 3227808, 4358001, 5785524, 7565667, 9760200, 12437733, 15674076, 19552599, 24164592, 29609625, 35995908
a(n) = n*(3*n^4 + 20*n^2 + 10) for n>0, a(0)=1. (End)
a(0)=1, a(1)=33, a(2)=276, a(3)=1299, a(4)=4392, a(5)=11925, a(6)=27708; for n>6, a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - Harvey P. Dale, Apr 10 2015
[A000539] 0, 1, 33, 276, 1300, 4425, 12201, 29008, 61776, 120825, 220825, 381876, 630708, 1002001, 1539825, 2299200, 3347776, 4767633, 6657201, 9133300, 12333300, 16417401, 21571033, 28007376, 35970000, 45735625, 57617001, 71965908, 89176276, 109687425, 133987425
a(n) = n^2*(n+1)^2*(2*n^2+2*n-1)/12.
a(n) = sqrt(Sum_{j=1..n}Sum_{i=1..n}(i*j)^5). - Alexander Adamchuk, Oct 26 2004
a(n) = 6*a(n-1) - 15* a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) + 120. - Ant King, Sep 23 2013
a(n) = 120*C(n+3,6) + 30*C(n+2,4) + C(n+1,2) (Knuth). - Gary Detlefs, Jan 02 2014

a(n) = -Sum_{j=1..5} j*s(n+1,n+1-j)*S(n+5-j,n)), where s(n,k) and S(n,k) are the Stirling numbers of the first kind and the second kind, respectively. - Mircea Merca, Jan 25 2014
a(n) = (n + 1)^2*n^2*(n + 1/2 + sqrt(3/4))*(n + 1/2 - sqrt(3/4))/6. See the Graham et al. reference, p. 275. - Wolfdieter Lang, Apr 02 2015
[A257450] 1, 33, 277, 1335, 4771, 14193, 37417, 90795, 207871, 456693, 974437, 2036655, 4195771, 8558073, 17337697, 34964595, 70300471, 141070653, 282727837, 566179575, 1133243251, 2267556033, 4536394777, 9074315835, 18150434671, 36302985093, 72608437717, 145219736895
a(n) = 7*a(n-1) -20*a(n-2) +30*a(n-3) -25*a(n-4) +11*a(n-5) -2*a(n-6) for n>6.
[A209359] 0, 1, 33, 357, 2405, 12405, 53877, 207541, 731829, 2411445, 7531445, 22523829, 64991157, 181977013, 496680885, 1326120885, 3473604533, 8947236789, 22706651061, 56869519285, 140755599285, 344683708341, 835954147253, 2009692372917, 4792831180725, 11346431180725
a(n) = (1/2) * Sum_{k=0..n} Sum_{i=0..n} k^4 * C(k,i). - Wesley Ivan Hurt, Sep 21 2017
[A085742] 0, 0, 33, 372, 2070, 7860, 23415, 58968, 131292, 266040, 500445, 886380, 1493778, 2414412, 3766035, 5696880, 8390520, 12071088, 17008857, 23526180, 32003790, 42887460, 56695023, 74023752, 95558100, 122077800, 154466325, 193719708
a(n) = (n-1)*n*(n+1)*(n^3+n+1)/2.
[A244502] 33, 378, 2190, 9110, 30300, 85563, 213293, 482085, 1006950, 1971185, 3655053, 6472533, 11017505, 18120840, 28919970, 44942618, 68206473, 101336700, 147703280, 211580280, 298329258, 414609113, 568614795, 770347395, 1031918240, 1367889723, 1795655703, 2335864415
a(n) = 1/384*n^8 + 1/96*n^7 - 13/64*n^6 + 5/48*n^5 + 875/128*n^4 - 2543/96*n^3 - 4141/96*n^2 + 3759/8*n - 837, for n >= 5.
[A058796] 33, 492, 2055, 5898, 13797, 28248, 52587, 91110, 149193, 233412, 351663, 513282, 729165, 1011888, 1375827, 1837278, 2414577, 3128220, 4000983, 5058042, 6327093, 7838472, 9625275, 11723478, 14172057, 17013108, 20291967, 24057330
a(n) = 33+173*n+189*n^2+81*n^3+15*n^4+n^5. G.f.: 3*(6*x^5-37*x^4+96*x^3-134*x^2+98*x+11) / (x-1)^6. [Colin Barker, Jan 16 2013]
[A158688] 33, 1122, 4389, 9834, 17457, 27258, 39237, 53394, 69729, 88242, 108933, 131802, 156849, 184074, 213477, 245058, 278817, 314754, 352869, 393162, 435633, 480282, 527109, 576114, 627297, 680658, 736197, 793914, 853809, 915882, 980133, 1046562
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A281239] 34, 38, 66, 102, 162, 358, 578, 934, 2082, 3366, 5442, 12134, 19618, 31718, 70722, 114342, 184866, 412198, 666434, 1077478, 2402466, 3884262, 6280002, 14002598, 22639138, 36602534, 81613122, 131950566, 213335202, 475676134, 769064258, 1243408678, 2772443682
a(n) = 6*a(n-3) - a(n-6) for n>6.
[A074757] 34, 46, 62, 74, 86, 94, 142, 188, 202, 214, 218, 231, 243, 244, 262, 278, 302, 356, 375, 394, 422, 423, 428, 436, 446, 459, 478, 494, 584, 596, 604, 621, 628, 634, 664, 698, 716, 837, 861, 885, 903, 916, 922, 944, 956, 982, 1004, 1017, 1018, 1028, 1042, 1052
a(n) seems to be asymptotic to c*n with c around 23
[A241520] 34, 55, 123, 144, 212, 233, 301, 322, 390, 411, 479, 500, 568, 589, 657, 678, 746, 767, 835, 856, 924, 945, 1013, 1034, 1102, 1123, 1191, 1212, 1280, 1301, 1369, 1390, 1458, 1479, 1547, 1568, 1636, 1657, 1725, 1746, 1814, 1835, 1903, 1924, 1992, 2013, 2081
a(n) = a(n-1) + a(n-2) - a(n-3) for n>2.
a(n) = a(n-2) + 89 for all n>2.
a(n) = -34*(-1)^n + 89*floor(n/2).
[A280931] 34, 62, 96, 158, 254, 412, 666, 1078, 1744, 2822, 4566, 7388, 11954, 19342, 31296, 50638, 81934, 132572, 214506, 347078, 561584, 908662, 1470246, 2378908, 3849154, 6228062, 10077216, 16305278, 26382494, 42687772, 69070266, 111758038, 180828304, 292586342
a(n) = a(n-1) + a(n-2).
[A277113] 34, 68, 102, 137, 171, 205, 239, 274, 308, 342, 376, 411, 445, 479, 513, 548, 582, 616, 650, 685, 719, 753, 787, 822, 856, 890, 924, 959, 993, 1027, 1061, 1096, 1130, 1164, 1198, 1233, 1267, 1301, 1335, 1370, 1404, 1438, 1472, 1507, 1541, 1575, 1609, 1644, 1678
a(n) = floor(n/(1-Pi/(sqrt(5)+1))).
[A063331] 1, 34, 70, 105, 140, 175, 210, 243, 280, 313, 350, 385, 420, 451, 490, 523, 560, 593, 630, 661, 700, 731, 770, 803, 840, 869, 910, 941, 980, 1011, 1050, 1079, 1120, 1149, 1190, 1221, 1260, 1287, 1330, 1359, 1400, 1429, 1470, 1497, 1540
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A079863] 34, 70, 144, 296, 608, 1248, 2560, 5248, 10752, 22016, 45056, 92160, 188416, 385024, 786432, 1605632, 3276800, 6684672, 13631488, 27787264, 56623104, 115343360, 234881024, 478150656, 973078528, 1979711488, 4026531840, 8187281408, 16642998272, 33822867456
a(n) = (n+22)*2^(n-12).
a(n) = 4*a(n-1) - 4*a(n-2) for n>13.
[A213025] 34, 86, 94, 122, 142, 185, 194, 202, 214, 218, 262, 289, 302, 314, 321, 358, 371, 394, 407, 413, 415, 422, 446, 471, 489, 493, 497, 517, 535, 562, 581, 586, 626, 634, 669, 687, 698, 734, 785, 791, 815, 838, 842, 922, 982, 989, 1042, 1057, 1079, 1135, 1138
a(n) = 1/3 * (sp(i) + sp(i + 1) + sp(i + 2), for some i(n).
[A173308] 0, 34, 102, 204, 340, 510, 714, 952, 1224, 1530, 1870, 2244, 2652, 3094, 3570, 4080, 4624, 5202, 5814, 6460, 7140, 7854, 8602, 9384, 10200, 11050, 11934, 12852, 13804, 14790, 15810, 16864, 17952, 19074, 20230, 21420, 22644, 23902, 25194, 26520
a(0)=0, a(1)=34, a(2)=102, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: 34*x/(1-x)^3. - Colin Barker, Jan 25 2012
[A216308] 34, 127, 202, 223, 226, 265, 352, 355, 412, 433, 454, 463, 496, 619, 694, 730, 838, 853, 859, 967, 976, 1000, 1003, 1042, 1093, 1105, 1171, 1177, 1321, 1339, 1399, 1438, 1444, 1486, 1528, 1741, 1759, 1765, 1774, 1783, 1795, 1828, 1969, 2047, 2050, 2071, 2080
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A010021] 1, 34, 130, 290, 514, 802, 1154, 1570, 2050, 2594, 3202, 3874, 4610, 5410, 6274, 7202, 8194, 9250, 10370, 11554, 12802, 14114, 15490, 16930, 18434, 20002, 21634, 23330, 25090, 26914, 28802, 30754, 32770, 34850, 36994, 39202, 41474, 43810, 46210, 48674, 51202
a(n) = (4n+1)^2+(4n-1)^2 for n>0. [Bruno Berselli, Jun 24 2014]
[A158062] 34, 140, 318, 568, 890, 1284, 1750, 2288, 2898, 3580, 4334, 5160, 6058, 7028, 8070, 9184, 10370, 11628, 12958, 14360, 15834, 17380, 18998, 20688, 22450, 24284, 26190, 28168, 30218, 32340, 34534, 36800, 39138, 41548, 44030, 46584, 49210, 51908
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 11 2012
[A192398] 1, 34, 153, 436, 985, 1926, 3409, 5608, 8721, 12970, 18601, 25884, 35113, 46606, 60705, 77776, 98209, 122418, 150841, 183940, 222201, 266134, 316273, 373176, 437425, 509626, 590409, 680428, 780361, 890910, 1012801, 1146784, 1293633, 1454146, 1629145, 1819476
a(n) = binomial transform of [1, 33, 86, 78, 24, 0, 0, 0,...].
a(n) = lower right term in the 2 X 2 matrix M^4, M = {{1,n-1}{1,n}}.
a(n) = ((n-1) + a) * ((n-1) + b) * ((n-1) + c) * ((n-1) + d), where a, b, c, d, = {k=1,2,3,4} 4*cos^2 (2*Pi*k)/9.
[A191593] 1, 34, 169, 478, 1033, 1906, 3169, 4894, 7153, 10018, 13561, 17854, 22969, 28978, 35953, 43966, 53089, 63394, 74953, 87838, 102121, 117874, 135169, 154078, 174673, 197026, 221209, 247294, 275353, 305458, 337681
a(n)=12*n^3+15*n^2+6*n+1.
[A269237] 1, 34, 189, 616, 1525, 3186, 5929, 10144, 16281, 24850, 36421, 51624, 71149, 95746, 126225, 163456, 208369, 261954, 325261, 399400, 485541, 584914, 698809, 828576, 975625, 1141426, 1327509, 1535464, 1766941, 2023650, 2307361, 2619904, 2963169, 3339106, 3749725, 4197096
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A081219] 1, 34, 259, 1092, 3333, 8294, 17927, 34952, 62985, 106666, 171787, 265420, 396045, 573678, 809999, 1118480, 1514513, 2015538, 2641171, 3413332, 4356373, 5497206, 6865431, 8493464, 10416665, 12673466, 15305499, 18357724, 21878557, 25919998
a(n) = n*(16*n^4 - 1)/15.
[A101092] 1, 34, 310, 1610, 6035, 18236, 47244, 109020, 229845, 450670, 832546, 1463254, 2465255, 4005080, 6304280, 9652056, 14419689, 21076890, 30210190, 42543490, 58960891, 80531924, 108539300, 144509300, 190244925, 247861926, 319827834, 409004110, 518691535
a(n) = (n*(1 + n)*(2 + n)*(-1 + n*(2 + n))*(1 + 2*n*(2 + n)))/84.
a(n) = Sum_{i=1..n} i*(n+1-i)^5, by the definition. - Bruno Berselli, Jan 31 2014
a(n) = 2*a(n-1) - a(n-2) + n^5. - Luciano Ancora, Jan 08 2015
[A244881] 1, 34, 353, 2037, 8272, 26585, 72302, 173502, 377739, 760804, 1437799, 2576795, 4415346, 7280131, 11609996, 17982668, 27145413, 40049910, 57891613, 82153873, 114657092, 157613181, 213685594, 286055210, 378492335, 495435096, 642074499, 824446423, 1049530822
a(n) = (2520 + 11526*n + 22617*n^2 + 24724*n^3 + 16275*n^4 + 6454*n^5 + 1428*n^6 + 136*n^7) / 2520.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>7.

[A168122] 0, 1, 34, 369, 2056, 7825, 23346, 58849, 131104, 265761, 500050, 885841, 1493064, 2413489, 3764866, 5695425, 8388736, 12068929, 17006274, 23523121, 32000200, 42883281, 56690194, 74018209, 95551776, 122070625, 154458226, 193710609
a(0)=0, a(1)=1, a(2)=34, a(3)=369, a(4)=2056, a(5)=7825, a(6)=23346; for n>6, a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Harvey P. Dale, Apr 21 2014
[A244495] 1, 34, 451, 3380, 17531, 70466, 235014, 679722, 1757085, 4147792, 9084361, 18683314, 36421463, 67798940, 121239308, 209285436, 350158809, 569759574, 904194895, 1402934104, 2132700691, 3182223374, 4667981330, 6741092150, 9595505205, 13477677876, 18697927509, 25643668006, 34794756655
a(k) = 1+(25/6)*k+(3337/420)*k^2+(13777/1512)*k^3+(3289/480)*k^4+(9983/2880)*k^5+(281/240)*k^6+(73/288)*k^7+(107/3360)*k^8+(107/60480)*k^9. - Robert Israel, Jul 06 2014
[A277226] 1, 34, 464, 3182, 14769, 53044, 158976, 416140, 980625, 2124310, 4295376, 8199674, 14907809, 25992232, 43700224, 71167704, 112680801, 173990730, 262690000, 388656070, 564571601, 806527964, 1134722304, 1574255332, 2156041329, 2917838014, 3905408976, 5173826770, 6788930625
a(n) = (n^8-6*n^6+14*n^4)/96 for n even.
a(n) = (n^8-6*n^6+14*n^4-6*n^2-3)/96 for n odd. (End)
a(n) = (C(n^2,4) + C(n^2/2,2) + n^2/2)/4 for n even,
a(n) = (C(n^2,4) + C((n^2-1)/2,2) + (n^2-1)/2)/4 for n odd. (End)
[A158731] 34, 1190, 4658, 10438, 18530, 28934, 41650, 56678, 74018, 93670, 115634, 139910, 166498, 195398, 226610, 260134, 295970, 334118, 374578, 417350, 462434, 509830, 559538, 611558, 665890, 722534, 781490, 842758, 906338, 972230, 1040434
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A026064] 35, 59, 90, 127, 172, 225, 287, 357, 437, 527, 628, 739, 862, 997, 1145, 1305, 1479, 1667, 1870, 2087, 2320, 2569, 2835, 3117, 3417, 3735, 4072, 4427, 4802, 5197, 5613, 6049, 6507, 6987, 7490, 8015, 8564, 9137, 9735, 10357, 11005, 11679, 12380, 13107, 13862, 14645, 15457, 16297
a(n)=(n + 6)*(n^2 + 30*n + 71)/12 - 0.375 + 0.125*(- 1)^n - 0.25*cos(n*Pi/2) [From Richard Choulet, Dec 13 2008]
[A156126] 1, 35, 84, 165, 286, 455, 680, 969, 1330, 1771, 2300, 2925, 3654, 4495, 5456, 6545, 7770, 9139, 10660, 12341, 14190, 16215, 18424, 20825, 23426, 26235, 29260, 32509, 35990, 39711, 43680
a(n) = (2*n+5)*(2*n+3)*(n+2)/3, n>0. - R. J. Mathar, Oct 13 2011
[A220481] 1, 35, 130, 273, 595, 1001, 1885, 2925, 4886, 7410, 11466, 16660, 24955, 35191, 50505, 70252, 98085, 133455, 182819, 244790, 329121, 435420, 576030, 752609, 984165, 1271998, 1643460, 2105450, 2693522, 3420235, 4338552, 5466370, 6878235, 8607417
a(n) = 12spt(n) + Tr(n) = 12(3spt(n) + N_2(n)) - p(n), n >= 1.
[A158586] 1, 35, 137, 307, 545, 851, 1225, 1667, 2177, 2755, 3401, 4115, 4897, 5747, 6665, 7651, 8705, 9827, 11017, 12275, 13601, 14995, 16457, 17987, 19585, 21251, 22985, 24787, 26657, 28595, 30601, 32675, 34817, 37027, 39305, 41651, 44065, 46547, 49097
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A157286] 35, 142, 321, 572, 895, 1290, 1757, 2296, 2907, 3590, 4345, 5172, 6071, 7042, 8085, 9200, 10387, 11646, 12977, 14380, 15855, 17402, 19021, 20712, 22475, 24310, 26217, 28196, 30247, 32370, 34565, 36832, 39171, 41582, 44065, 46620, 49247, 51946
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).
[A005339] 35, 154, 424, 930, 1775, 3080, 4985, 7650, 11256, 16006, 22126, 29866, 39501, 51332, 65687, 82922, 103422, 127602, 155908, 188818, 226843, 270528, 320453, 377234, 441524, 514014, 595434, 686554, 788185, 901180, 1026435, 1164890, 1317530
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6), a(12)=35, a(13)=154, a(14)=424, a(15)=930, a(16)=1775, a(17)=3080, a(18)=4985. - Harvey P. Dale, Aug 12 2011
[A015219] 1, 35, 165, 455, 969, 1771, 2925, 4495, 6545, 9139, 12341, 16215, 20825, 26235, 32509, 39711, 47905, 57155, 67525, 79079, 91881, 105995, 121485, 138415, 156849, 176851, 198485, 221815, 246905, 273819, 302621, 333375, 366145, 400995, 437989
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = 64 + 3*a(n-1) - 3*a(n-2) + a(n-3). (End)
[A194716] 0, 1, 35, 181, 523, 1145, 2131, 3565, 5531, 8113, 11395, 15461, 20395, 26281, 33203, 41245, 50491, 61025, 72931, 86293, 101195, 117721, 135955, 155981, 177883, 201745, 227651, 255685, 285931, 318473, 353395, 390781, 430715, 473281, 518563, 566645, 617611
a(0) = 0, a(n) = 1+(6+(14+14*(n-1))*(n-1))*(n-1) for n>0.
[A104474] 35, 224, 840, 2400, 5775, 12320, 24024, 43680, 75075, 123200, 194480, 297024, 440895, 638400, 904400, 1256640, 1716099, 2307360, 3059000, 4004000, 5180175, 6630624, 8404200, 10556000, 13147875, 16248960, 19936224, 24295040, 29419775
a(n) = (1/36)*(n+1)*(n+2)*(n+3)*(n+5)*(n+6)*(n+7).
[A068722] 1, 35, 247, 925, 2501, 5551, 10795, 19097, 31465, 49051, 73151, 105205, 146797, 199655, 265651, 346801, 445265, 563347, 703495, 868301, 1060501, 1282975, 1538747, 1830985, 2163001, 2538251, 2960335, 3432997, 3960125, 4545751
a(n) = (1+2*n+2*n^2) * (1+3*n+3*n^2).
[A055658] 0, 0, 1, 35, 286, 1330, 4495, 12341, 29260, 62196, 121485, 221815, 383306, 632710, 1004731, 1543465, 2303960, 3353896, 4775385, 6666891, 9145270, 12347930, 16435111, 21592285, 28032676, 35999900, 45770725, 57657951, 72013410
a(n)=(1/6)*(n-1)*(n-2)*(n^2-3*n+3)*(n^2-3*n+1).
[A163935] 35, 340, 1750, 6440, 19110, 48720, 110880, 231000, 448305, 820820, 1431430, 2395120, 3867500, 6054720, 9224880, 13721040, 19975935, 28528500, 40042310, 55326040, 75356050, 101301200, 134550000, 176740200, 229790925, 295937460
a(n) = (n-2)*(n-1)*(n)*stirling1(n+2,n)/3!.
[A101099] 1, 35, 345, 1955, 7990, 26226, 73470, 182490, 412335, 863005, 1695551, 3158805, 5624060, 9629140, 15933420, 25585476, 40005165, 61082055, 91292245, 133835735, 192796626, 273328550, 381867850, 526377150, 716622075, 964484001, 1284311835
a(n) = n*(1 + n)*(2 + n)*(3 + n)*(-1 + n*(2 + n))*(2 + n*(4 + n))/336.
a(1)=1, a(2)=35, a(3)=345, a(4)=1955, a(5)=7990, a(6)=26226, a(7)=73470, a(8)=182490, a(9)=412335, a(n)=9*a(n-1)-36*a(n-2)+84*a(n-3)- 126*a(n-4)+ 126*a(n-5)- 84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). - Harvey P. Dale, Feb 20 2015
[A133458] 1, 35, 393, 2128, 8135, 24017, 60691, 134512, 273127, 512365, 908755, 1528688, 2473325, 3852919, 5832765, 8582336, 12354469, 17395119, 24072133, 32726960, 43874139, 57971221, 75715487, 97702640, 124853275, 157924585, 198105727
a(n)= 2*a(n-1) +4*a(n-2) -10*a(n-3) -5*a(n-4) +20*a(n-5) -20*a(n-7) +5*a(n-8) +10*a(n-9) -4*a(n-10) -2*a(n-11) +a(n-12).
a(n) = -25*(-1)^n/512 +2261*n^2/23040 +25/512 +5887*n^6/11520 -77*(-1)^n*n^4/1536 +847*n^4/4608 -91*(-1)^n*n^2/1536. (End)
[A075664] 1, 35, 405, 2584, 11375, 38961, 111475, 278720, 627669, 1300375, 2516921, 4604040, 8030035, 13446629, 21738375, 34080256, 52004105, 77474475, 112974589, 161603000, 227181591, 314375545, 428825915, 577295424, 767828125, 1009923551, 1314725985, 1695229480, 2166499259
a(1)=1; a(n)=sum(i^s, {i, n(n-1)/2+1, n(n-1)/2+1+n}).
a(n) = (n^7 + 4n^5 + 3n^3)/8. - Charles R Greathouse IV, Sep 17 2009
[A240928] 35, 750, 6174, 31025, 114961, 346193, 896876, 2072694, 4379055, 8606312, 15936426, 28073487, 47400509, 77164915, 121695128, 186650684, 279308283, 408886194, 586909430, 827618109, 1148421417, 1570399589, 2118856324, 2823924050, 3721224455, 4852586700
a(n) = n*(n-1)*(1208*n^5+151*n^4+291*n^3+116*n^2+88*n+60)/2520
[A158733] 35, 1260, 4935, 11060, 19635, 30660, 44135, 60060, 78435, 99260, 122535, 148260, 176435, 207060, 240135, 275660, 313635, 354060, 396935, 442260, 490035, 540260, 592935, 648060, 705635, 765660, 828135, 893060, 960435, 1030260, 1102535
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A135923] 0, 35, 1430, 13941, 75205, 289800, 897165, 2379300, 5620846, 12135825, 24377000, 46145495, 83119995, 143526526, 238971495, 385462350, 604641900, 925264015, 1384940106, 2032187465, 2928812225, 4152661380, 5800779985, 7993011336, 10876079610, 14628196125
a(n) = (n-3)*(n+6)*(n^6-3*n^5-33*n^4+135*n^3+161*n^2-1257*n+1320)/24 .
a(n)=9*a(n-1)-36*a(n-2)+ 84*a(n-3)-126*a(n-4)+126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9), n>=12 [Harvey P. Dale, Oct 20 2011]
[A130005] 0, 35, 1568, 1731, 1908, 10595, 11540, 12567, 63156, 68663, 74648, 369495, 401592, 436475, 2154968, 2342043, 2545356, 12561467, 13651820, 14836815, 73214988, 79570031, 86476688, 426729615, 463769520, 504024467, 2487163856, 2703048243
a(n) = 6*a(n-3)-a(n-6)+1154 for n > 6; a(1)=0, a(2)=35, a(3)=1568, a(4)=1731, a(5)=1908, a(6)=10595.
[A129288] 0, 36, 39, 123, 319, 336, 820, 1960, 2059, 4879, 11523, 12100, 28536, 67260, 70623, 166419, 392119, 411720, 970060, 2285536, 2399779, 5654023, 13321179, 13987036, 32954160, 77641620, 81522519, 192071019, 452528623, 475148160, 1119472036
a(n) = 6*a(n-3) - a(n-6) + 82 for n > 6; a(1)=0, a(2)=36, a(3)=39, a(4)=123, a(5)=319, a(6)=336.

[A082295] 36, 64, 72, 100, 108, 128, 144, 180, 192, 196, 200, 216, 225, 252, 256, 288, 300, 320, 324, 360, 384, 392, 396, 400, 432, 441, 448, 450, 468, 484, 500, 504, 512, 540, 576, 588, 600, 612, 640, 648, 675, 676, 684, 700, 704, 720, 729, 756, 768, 784, 792, 800
a(n) < 17n for n > 25. - Charles R Greathouse IV, Oct 16 2015
[A044102] 0, 36, 72, 108, 144, 180, 216, 252, 288, 324, 360, 396, 432, 468, 504, 540, 576, 612, 648, 684, 720, 756, 792, 828, 864, 900, 936, 972, 1008, 1044, 1080, 1116, 1152, 1188, 1224, 1260, 1296, 1332, 1368, 1404, 1440, 1476, 1512, 1548, 1584, 1620, 1656, 1692
a(n) = 36*n. - Vincenzo Librandi, Jan 26 2011
[A153642] 36, 72, 116, 168, 228, 296, 372, 456, 548, 648, 756, 872, 996, 1128, 1268, 1416, 1572, 1736, 1908, 2088, 2276, 2472, 2676, 2888, 3108, 3336, 3572, 3816, 4068, 4328, 4596, 4872, 5156, 5448, 5748, 6056, 6372, 6696, 7028, 7368, 7716, 8072, 8436, 8808, 9188
a(n)= 3*a(n-1) - 3*a(n-2) + a(n-3).
[A226264] 36, 84, 180, 372, 756, 1524, 3060, 6132, 12276, 24564, 49140, 98292, 196596, 393204, 786420, 1572852, 3145716, 6291444, 12582900, 25165812, 50331636, 100663284, 201326580, 402653172, 805306356, 1610612724, 3221225460, 6442450932, 12884901876, 25769803764
a(n) = 12*(2^(1+n) - 1) for n>0.
a(n) = 3*a(n-1) - 2*a(n-2) for n>2.
[A182467] 36, 90, 198, 414, 846, 1710, 3438, 6894, 13806, 27630, 55278, 110574, 221166, 442350, 884718, 1769454, 3538926, 7077870, 14155758, 28311534, 56623086, 113246190, 226492398, 452984814, 905969646, 1811939310, 3623878638, 7247757294, 14495514606, 28991029230
a(n) = a(n-1)*2 + 18
[A027603] 36, 100, 224, 432, 748, 1196, 1800, 2584, 3572, 4788, 6256, 8000, 10044, 12412, 15128, 18216, 21700, 25604, 29952, 34768, 40076, 45900, 52264, 59192, 66708, 74836, 83600, 93024, 103132, 113948, 125496, 137800, 150884, 164772
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4) for n>=4.
[A016862] 1, 36, 121, 256, 441, 676, 961, 1296, 1681, 2116, 2601, 3136, 3721, 4356, 5041, 5776, 6561, 7396, 8281, 9216, 10201, 11236, 12321, 13456, 14641, 15876, 17161, 18496, 19881, 21316, 22801, 24336, 25921
a(0)=1, a(1)=36, a(2)=121, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) From Harvey P. Dale, Jul 11 2012
[A067865] 36, 136, 236, 336, 436, 536, 636, 736, 836, 936, 1036, 1136, 1236, 1336, 1436, 1536, 1636, 1736, 1836, 1936, 2036, 2136, 2236, 2336, 2436, 2536, 2636, 2736, 2836, 2936, 3036, 3136, 3236, 3336, 3436, 3536, 3636, 3736, 3836, 3936, 4036, 4136, 4236, 4336
a(n) = 36+100(n-1).
a(n) = 2*a(n-1)-a(n-2). G.f.: 4*x*(9+16*x)/(1-x)^2. [Colin Barker, Dec 01 2012]
[A016910] 0, 36, 144, 324, 576, 900, 1296, 1764, 2304, 2916, 3600, 4356, 5184, 6084, 7056, 8100, 9216, 10404, 11664, 12996, 14400, 15876, 17424, 19044, 20736, 22500, 24336, 26244, 28224, 30276, 32400, 34596
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A275496] 0, 1, 36, 153, 528, 1225, 2628, 4753, 8256, 13041, 20100, 29161, 41616, 56953, 77028, 101025, 131328, 166753, 210276, 260281, 320400, 388521, 468996, 559153, 664128, 780625, 914628, 1062153, 1230096, 1413721, 1620900, 1846081, 2098176, 2370753, 2673828
a(n) = n^4 + Sum_{k=0..(n^2 - (n mod 2))} 2k.
a(n) = n^2*(2*n^2 + (-1)^n).
a(n) = 2*n^4 + n^2 for n even.
a(n) = 2*n^4 - n^2 for n odd.
[A017054] 36, 169, 400, 729, 1156, 1681, 2304, 3025, 3844, 4761, 5776, 6889, 8100, 9409, 10816, 12321, 13924, 15625, 17424, 19321, 21316, 23409, 25600, 27889, 30276, 32761, 35344, 38025, 40804, 43681, 46656
a(0)=36, a(1)=169, a(2)=400, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 28 2016
[A074363] 0, 0, 0, 0, 36, 246, 1293, 6057, 26592, 111934, 457353, 1827529, 7176636, 27789976, 106371588, 403204880, 1515647250, 5656172420, 20974163475, 77339044883, 283743384228, 1036296662574, 3769287797151, 13658724680991, 49325767966842, 177570110818794
a(n) = 12*a(n-1) - 50*a(n-2) + 72*a(n-3) + 21*a(n-4) - 72*a(n-5) - 50*a(n-6) - 12*a(n-7) - a(n-8) for n>9.
[A133072] 0, 1, 36, 261, 1072, 3225, 7956, 17101, 33216, 59697, 100900, 162261, 250416, 373321, 540372, 762525, 1052416, 1424481, 1895076, 2482597, 3207600, 4092921, 5163796, 6447981, 7975872, 9780625, 11898276, 14367861, 17231536, 20534697, 24326100, 28657981, 33586176, 39170241, 45473572
a(n) = n^5 + n^3 - n^2.
[A288963] 0, 0, 36, 288, 1320, 4464, 12348, 29568, 63504, 125280, 230868, 402336, 669240, 1070160, 1654380, 2483712, 3634464, 5199552, 7290756, 10041120, 13607496, 18173232, 23951004, 31185792, 40158000, 51186720, 64633140, 80904096, 100455768, 123797520
a(n) = 6*n*binomial(n,3)*(n^2-2*n+7)/5.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7).
[A185096] 0, 36, 300, 1176, 3240, 7260, 14196, 25200, 41616, 64980, 97020, 139656, 195000, 265356, 353220, 461280, 592416, 749700, 936396, 1155960, 1412040, 1708476, 2049300, 2438736, 2881200, 3381300, 3943836, 4573800, 5276376, 6056940, 6921060, 7874496, 8923200, 10073316, 11331180, 12703320, 14196456, 15817500, 17573556, 19471920, 21520080
a(n) = 2*n*(n + 1)*(2*n + 1)^2.
[A237128] 36, 324, 396, 684, 756, 1044, 1116, 1404, 1476, 1764, 1836, 2124, 2196, 2484, 2556, 2844, 2916, 3204, 3276, 3564, 3636, 3924, 3996, 4284, 4356, 4644, 4716, 5004, 5076, 5364, 5436, 5724, 5796, 6084, 6156, 6444, 6516, 6804, 6876, 7164, 7236, 7524, 7596, 7884
a(n) = 18*(-5+3*(-1)^n+10*n). a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: 36*x*(x^2+8*x+1) / ((x-1)^2*(x+1)). - Colin Barker, Feb 04 2014
[A017594] 36, 324, 900, 1764, 2916, 4356, 6084, 8100, 10404, 12996, 15876, 19044, 22500, 26244, 30276, 34596, 39204, 44100, 49284, 54756, 60516, 66564, 72900, 79524, 86436, 93636, 101124, 108900, 116964
a(n) = a(n-1) +288*n, n>=1. - Vincenzo Librandi, Mar 19 2011
a(0)=36, a(1)=324, a(2)=900, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) From Harvey P. Dale, Jun 04 2012
[A071232] 0, 1, 36, 378, 2080, 7875, 23436, 58996, 131328, 266085, 500500, 886446, 1493856, 2414503, 3766140, 5697000, 8390656, 12071241, 17009028, 23526370, 32004000, 42887691, 56695276, 74024028, 95558400, 122078125, 154466676, 193720086, 240956128, 297423855, 364513500
a(0)=0, a(1)=1, a(2)=36, a(3)=378, a(4)=2080, a(5)=7875, a(6)=23436, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). [Harvey P. Dale, Nov 06 2011]
[A027782] 36, 405, 2475, 10890, 38610, 117117, 315315, 772200, 1750320, 3719430, 7482618, 14360580, 26453700, 47006190, 80901810, 135326664, 220641300, 351511875, 548358525, 839188350, 1261890630, 1867083075, 2721610125, 3912807600, 5553662400, 7789011516, 10802941380
a(n) = Binomial(n+1, 8)*binomial(n+2, 2). - Zerinvary Lajos, Apr 28 2005, corrected by R. J. Mathar, Feb 13 2016
[A244498] 1, 36, 446, 3172, 15891, 62408, 204828, 585672, 1501269, 3521452, 7674810, 15723500, 30556903, 56739216, 101252408, 174482832, 291507177, 473741364, 751024438, 1164218484, 1768415099, 2636848984, 3865629780, 5579414360, 7938153405, 11145058236, 15455946546, 21190138876, 28743091407
a(n) = (7560 + 34164*n + 67044*n^2 + 75190*n^3 + 53382*n^4 + 25095*n^5 + 7896*n^6 + 1620*n^7 + 198*n^8 + 11*n^9)) / 7560.
a(n) = 10*a(n-1) - 45*a(n-2) + 120*a(n-3) - 210*a(n-4) + 252*a(n-5) - 210*a(n-6) + 120*a(n-7) - 45*a(n-8) + 10*a(n-9) - a(n-10) for n>9.
[A099764] 0, 36, 576, 3600, 14400, 44100, 112896, 254016, 518400, 980100, 1742400, 2944656, 4769856, 7452900, 11289600, 16646400, 23970816, 33802596, 46785600, 63680400, 85377600, 112911876, 147476736, 190440000, 243360000, 308002500, 386358336
a(n) = (Sum_{k=0..n} (2*k+1))^3 - Sum_{k=0..n} (2*k+1)^3. - Philippe Deléham, Mar 10 2014
[A210432] 0, 1, 36, 630, 6512, 45628, 239316, 1007083, 3570240, 11042199, 30569012, 77221232, 180646896, 395884866, 820217412, 1618520277, 3060257024, 5572071725, 9810869508, 16763347626, 27879160048, 45246275592, 71818632820, 111707913791, 170553162816, 255984075075
a(n) = n^2*(126432+(206020+(101031+(18930+1187*n^2)*n^2)*n^2)*n^2)/453600.
[A014772] 36, 784, 4356, 14400, 36100, 76176, 142884, 246016, 396900, 608400, 894916, 1272384, 1758276, 2371600, 3132900, 4064256, 5189284, 6533136, 8122500, 9985600, 12152196, 14653584, 17522596, 20793600, 24502500, 28686736
a(1)=36, a(2)=784, a(3)=4356, a(4)=14400, a(5)=36100, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) [From Harvey P. Dale, May 11 2012]
[A158739] 36, 1332, 5220, 11700, 20772, 32436, 46692, 63540, 82980, 105012, 129636, 156852, 186660, 219060, 254052, 291636, 331812, 374580, 419940, 467892, 518436, 571572, 627300, 685620, 746532, 810036, 876132, 944820, 1016100, 1089972, 1166436
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A069963] 1, 37, 40, 153, 349, 964, 2473, 6525, 17032, 44641, 116821, 305892, 800785, 2096533, 5488744, 14369769, 37620493, 98491780, 257854777, 675072621, 1767363016, 4627016497, 12113686405, 31714042788, 83028441889, 217371282949, 569085406888, 1489884937785

a(n) = 2*a(n-1)+2*a(n-2)-a(n-3). G.f.: -(x-1) *(36*x+1) / ((x+1)*(x^2-3*x+1)). - Colin Barker, Jun 14 2013
a(n) = (2^(-1-n)*(-35*(-1)^n*2^(2+n) - (3-sqrt(5))^n*(-75+sqrt(5)) + (3+sqrt(5))^n*(75+sqrt(5))))/5. - Colin Barker, Sep 28 2016
[A159750] 37, 47, 65, 157, 235, 353, 905, 1363, 2053, 5273, 7943, 11965, 30733, 46295, 69737, 179125, 269827, 406457, 1044017, 1572667, 2369005, 6084977, 9166175, 13807573, 35465845, 53424383, 80476433, 206710093, 311380123, 469051025, 1204794713
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=37, a(2)=47, a(3)=65, a(4)=157, a(5)=235, a(6)=353.
[A129072] 37, 49, 73, 97, 145, 169, 217, 241, 289, 361, 385, 457, 505, 529, 577, 649, 721, 745, 817, 865, 889, 961, 1009, 1081, 1177, 1225, 1249, 1297, 1321, 1369, 1537, 1585, 1657, 1681, 1801, 1825, 1897, 1969
a(n) = 12*prime(n) + 13. - Zak Seidov, May 12 2007
[A158065] 37, 73, 109, 145, 181, 217, 253, 289, 325, 361, 397, 433, 469, 505, 541, 577, 613, 649, 685, 721, 757, 793, 829, 865, 901, 937, 973, 1009, 1045, 1081, 1117, 1153, 1189, 1225, 1261, 1297, 1333, 1369, 1405, 1441, 1477, 1513, 1549, 1585, 1621
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 11 2012
[A085959] 0, 37, 74, 111, 148, 185, 222, 259, 296, 333, 370, 407, 444, 481, 518, 555, 592, 629, 666, 703, 740, 777, 814, 851, 888, 925, 962, 999, 1036, 1073, 1110, 1147, 1184, 1221, 1258, 1295, 1332, 1369, 1406, 1443, 1480, 1517, 1554, 1591, 1628, 1665, 1702, 1739
a(n) = a(n-1)+37; a(0)=0.
[A216287] 37, 78, 113, 124, 133, 134, 139, 154, 167, 180, 218, 234, 248, 276, 288, 291, 310, 314, 323, 331, 347, 374, 418, 430, 436, 444, 476, 484, 499, 512, 524, 532, 536, 545, 558, 560, 575, 596, 609, 616, 624, 640, 648, 650, 674, 692, 696, 706, 708, 713, 717, 726
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A216329] 37, 78, 124, 139, 154, 180, 234, 276, 288, 291, 310, 331, 436, 444, 499, 532, 558, 609, 616, 624, 648, 696, 706, 717, 750, 820, 856, 873, 894, 951, 961, 973, 1047, 1072, 1099, 1114, 1188, 1270, 1309, 1347, 1351, 1356, 1366, 1383, 1414, 1419, 1429, 1447, 1473
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 06 2012
[A172193] 1, 37, 83, 139, 205, 281, 367, 463, 569, 685, 811, 947, 1093, 1249, 1415, 1591, 1777, 1973, 2179, 2395, 2621, 2857, 3103, 3359, 3625, 3901, 4187, 4483, 4789, 5105, 5431, 5767, 6113, 6469, 6835, 7211, 7597, 7993, 8399, 8815, 9241, 9677, 10123, 10579
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Apr 07 2013
[A063325] 1, 37, 86, 135, 182, 231, 278, 331, 374, 427, 470, 525, 566, 623, 662, 721, 758, 817, 854, 917, 950, 1013, 1046, 1111, 1142, 1209, 1238, 1307, 1334, 1403, 1430, 1503, 1526, 1599, 1622, 1697, 1718, 1795, 1814, 1893, 1910, 1989, 2006, 2089
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A145480] 37, 97, 109, 157, 181, 241, 277, 349, 409, 421, 577, 661, 709, 757, 829, 877, 937, 1009, 1117, 1201, 1249, 1381, 1429, 1609, 1621, 1669, 1777, 1801, 2029, 2089, 2137, 2221, 2269, 2389, 2437, 2521, 2557, 2617, 2857, 3049, 3061, 3121, 3181, 3217, 3301, 3361
a(n) » n log^2 n. - Charles R Greathouse IV, Jan 23 2017
[A195316] 1, 37, 109, 217, 361, 541, 757, 1009, 1297, 1621, 1981, 2377, 2809, 3277, 3781, 4321, 4897, 5509, 6157, 6841, 7561, 8317, 9109, 9937, 10801, 11701, 12637, 13609, 14617, 15661, 16741, 17857, 19009, 20197, 21421, 22681, 23977, 25309, 26677, 28081, 29521
a(n) = 18*n^2 - 18*n + 1.
[A048510] 1, 37, 122, 320, 776, 1816, 4168, 9448, 21224, 47336, 104936, 231400, 507880, 1109992, 2416616, 5242856, 11337704, 24444904, 52559848, 112721896, 241172456, 514850792, 1096810472, 2332033000, 4949278696, 10485759976, 22179479528, 46841987048, 98784247784
a(n) = (n^2+21*n+100) * 2^(n-2) - 24. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Mar 04 2015
[A158591] 1, 37, 145, 325, 577, 901, 1297, 1765, 2305, 2917, 3601, 4357, 5185, 6085, 7057, 8101, 9217, 10405, 11665, 12997, 14401, 15877, 17425, 19045, 20737, 22501, 24337, 26245, 28225, 30277, 32401, 34597, 36865, 39205, 41617, 44101, 46657, 49285, 51985
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157324] 37, 146, 327, 580, 905, 1302, 1771, 2312, 2925, 3610, 4367, 5196, 6097, 7070, 8115, 9232, 10421, 11682, 13015, 14420, 15897, 17446, 19067, 20760, 22525, 24362, 26271, 28252, 30305, 32430, 34627, 36896, 39237, 41650, 44135, 46692, 49321, 52022
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A158596] 37, 151, 341, 607, 949, 1367, 1861, 2431, 3077, 3799, 4597, 5471, 6421, 7447, 8549, 9727, 10981, 12311, 13717, 15199, 16757, 18391, 20101, 21887, 23749, 25687, 27701, 29791, 31957, 34199, 36517, 38911, 41381, 43927, 46549, 49247, 52021, 54871
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A172080] 0, 1, 37, 190, 590, 1415, 2891, 5292, 8940, 14205, 21505, 31306, 44122, 60515, 81095, 106520, 137496, 174777, 219165, 271510, 332710, 403711, 485507, 579140, 685700, 806325, 942201, 1094562, 1264690, 1453915, 1663615, 1895216, 2150192
a(n) = n*(n+1)*(12*n^2-2*n-7)/6.
[A200889] 37, 292, 1268, 3985, 10213, 22736, 45648, 84681, 147565, 244420, 388180, 595049, 884989, 1282240, 1815872, 2520369, 3436245, 4610692, 6098260, 7961569, 10272053, 13110736, 16569040, 20749625, 25767261, 31749732, 38838772, 47191033, 56979085
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A086025] 1, 37, 478, 3614, 19490, 82994, 296438, 923702, 2580071, 6588075, 15606084, 34685508, 72976852, 146387476, 281597860, 521971876, 936053677, 1629533233, 2761788434, 4568378450, 7391175350, 11718183750, 18235516650, 27894475050, 41997225075, 62305185111
a(n) = n*(2*n+5)*(n+5)*(n+4)*(n+3)*(n+2)*(n+1)*(63*n^4 +630*n^3 +1855*n^2 +1400*n +12) / 19958400. (End)
[A158741] 37, 1406, 5513, 12358, 21941, 34262, 49321, 67118, 87653, 110926, 136937, 165686, 197173, 231398, 268361, 308062, 350501, 395678, 443593, 494246, 547637, 603766, 662633, 724238, 788581, 855662, 925481, 998038, 1073333, 1151366, 1232137
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A130013] 0, 37, 1768, 1941, 2128, 11937, 12940, 14025, 71148, 76993, 83316, 416245, 450312, 487165, 2427616, 2626173, 2840968, 14150745, 15308020, 16559937, 82478148, 89223241, 96519948, 480719437, 520032720, 562561045, 2801839768, 3030974373
a(n) = 6*a(n-3)-a(n-6)+1294 for n > 6; a(1)=0, a(2)=37, a(3)=1768, a(4)=1941, a(5)=2128, a(6)=11937.
[A026047] 38, 52, 72, 97, 130, 170, 220, 279, 350, 432, 528, 637, 762, 902, 1060, 1235, 1430, 1644, 1880, 2137, 2418, 2722, 3052, 3407, 3790, 4200, 4640, 5109, 5610, 6142, 6708, 7307, 7942, 8612, 9320, 10065, 10850, 11674, 12540, 13447, 14398, 15392, 16432, 17517, 18650, 19830, 21060, 22339, 23670
a(n)=(n + 6)*(n^2 + 6*n + 38)/6 - 0.5*sin(n*Pi/2)^2 [From Richard Choulet, Dec 13 2008]
[A177044] 38, 65, 141, 168, 244, 271, 347, 374, 450, 477, 553, 580, 656, 683, 759, 786, 862, 889, 965, 992, 1068, 1095, 1171, 1198, 1274, 1301, 1377, 1404, 1480, 1507, 1583, 1610, 1686, 1713, 1789, 1816, 1892, 1919, 1995, 2022, 2098, 2125, 2201, 2228, 2304, 2331, 2407, 2434, 2510, 2537
a(n) = (103+49*(-1)^(n-1)+206*(n-1))/4.
[A160846] 0, 1, 38, 75, 136, 207, 306, 405, 534, 673, 836, 1003, 1200, 1401, 1632, 1869, 2128, 2397, 2696, 2995, 3324, 3661, 4022, 4389, 4786, 5187, 5616, 6051, 6510, 6979, 7478, 7975, 8502, 9039, 9600, 10167, 10762, 11361, 11990, 12625, 13284, 13951, 14648
a(n) = (1/2)*(f(m,n,1)-f(m,n,2)) where f(m,n,k) = Sum((n-|kx|)*(m-|ky|)); -n < kx < n, -m < ky < m, (x,y)=1, m=6.
[A219999] 38, 79, 114, 125, 134, 135, 140, 155, 168, 181, 219, 235, 249, 277, 289, 292, 311, 315, 324, 332, 348, 375, 419, 431, 437, 445, 477, 485, 500, 513, 525, 533, 537, 546, 559, 561, 576, 597, 610, 617, 625, 641, 649, 651, 675, 693, 697, 707, 709, 714, 718, 727
a(n) » n log^2 n.
[A219997] 38, 79, 125, 140, 155, 181, 235, 277, 289, 292, 311, 332, 437, 445, 500, 533, 559, 610, 617, 625, 649, 697, 707, 718, 751, 821, 857, 874, 895, 952, 962, 974, 1048, 1073, 1100, 1115, 1189, 1271, 1310, 1348, 1352, 1357, 1367, 1384, 1415, 1420, 1430, 1448, 1474
a(n) » n log^2 n.
[A218331] 38, 90, 476, 708, 1826, 2366, 4600, 5576, 9310, 10850, 16468, 18700, 26586, 29638, 40176, 44176, 57750, 62826, 79820, 86100, 106898, 114510, 139496, 148568, 178126, 188786, 223300, 235676, 275530, 289750, 335328, 351520, 403206, 421498, 479676, 500196
a(n) = a(n-1) + 3*a(n-2) - 3*a(n-3) - 3*a(n-4) + 3*a(n-5) + a(n-6) - a(n-7).
a(n) = 3*a(n-2) - 3*a(n-4) + a(n-6) + 512.
a(n) = (16*n-4*(-1)^n-1)*(4*n-(-1)^n+3)*(4*n-(-1)^n+1)/24.
[A186439] 38, 100, 200, 300, 400, 462, 500, 538, 600, 700, 800, 900, 962, 1000, 1038, 1100, 1200, 1300, 1400, 1462, 1500, 1538, 1600, 1700, 1800, 1900, 1962, 2000, 2038, 2100, 2200, 2300, 2400, 2462, 2500, 2538, 2600, 2700, 2800, 2900, 2962, 3000, 3038, 3100, 3200, 3300, 3400, 3462
a(n) = a(n-7) + 500 for n > 7. - Zak Seidov and Bruno Berselli, Feb 23 2011

[A173309] 0, 38, 114, 228, 380, 570, 798, 1064, 1368, 1710, 2090, 2508, 2964, 3458, 3990, 4560, 5168, 5814, 6498, 7220, 7980, 8778, 9614, 10488, 11400, 12350, 13338, 14364, 15428, 16530, 17670, 18848, 20064, 21318, 22610, 23940, 25308, 26714, 28158, 29640
a(0)=0, a(1)=38, a(2)=114, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 12 2012
a(0)=0, a(n)=a(n-1) +38*n. - Vincenzo Librandi, Oct 13 2012
[A158064] 38, 148, 330, 584, 910, 1308, 1778, 2320, 2934, 3620, 4378, 5208, 6110, 7084, 8130, 9248, 10438, 11700, 13034, 14440, 15918, 17468, 19090, 20784, 22550, 24388, 26298, 28280, 30334, 32460, 34658, 36928, 39270, 41684, 44170, 46728, 49358, 52060
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 11 2012
[A100167] 1, 38, 171, 460, 965, 1746, 2863, 4376, 6345, 8830, 11891, 15588, 19981, 25130, 31095, 37936, 45713, 54486, 64315, 75260, 87381, 100738, 115391, 131400, 148825, 167726, 188163, 210196, 233885, 259290, 286471, 315488
a(n)=(1/6)*(60*n^3-72*n^2+18*n).
[A100168] 1, 38, 174, 472, 995, 1806, 2968, 4544, 6597, 9190, 12386, 16248, 20839, 26222, 32460, 39616, 47753, 56934, 67222, 78680, 91371, 105358, 120704, 137472, 155725, 175526, 196938, 220024, 244847, 271470, 299956, 330368
a(1)=1, a(2)=38, a(3)=174, a(4)=472, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Dec 18 2011]
[A201244] 0, 0, 38, 340, 1630, 5552, 15210, 35828, 75530, 146240, 264702, 453620, 742918, 1171120, 1786850, 2650452, 3835730, 5431808, 7545110, 10301460, 13848302, 18357040, 24025498, 31080500, 39780570, 50418752, 63325550, 78871988, 97472790, 119589680, 145734802
a(n) = (n-2)*(n^5 + 2n^4 - 11n^3 + 2n^2 + 54n - 60)/6, n>=2.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Vincenzo Librandi, Apr 30 2013
[A254471] 1, 38, 456, 3210, 16290, 65922, 225576, 677742, 1834755, 4559620, 10547888, 22958364, 47415108, 93547260, 177288240, 324223524, 574358277, 988774554, 1658764600, 2718164150, 4359769830, 6856910190, 10591453080, 16089775650, 24068499975, 35492110056
a(n) = n*(1 + n)*(2 + n)*(3 + n)*(4 + n)*(5 + n)*(6 + n)*(-29 + 54*n + 81*n^2 + 24*n^3 + 2*n^4)/665280.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) + n^5.
[A039685] 38, 462, 538, 962, 1038, 1462, 1538, 1962, 2038, 2462, 2538, 2962, 3038, 3462, 3538, 3962, 4038, 4462, 4538, 4962, 5038, 5462, 5538, 5962, 6038, 6462, 6538, 6962, 7038, 7462, 7538, 7962, 8038, 8462, 8538, 8962, 9038, 9462, 9538, 9962, 10038, 10462
a(2n+1) = 500n + 38 and a(2n+2) = 500n - 38.
a(n) = 250*n+87*(-1)^n-125.
a(n)-a(n-1)-a(n-2)+a(n-3)=0 for n>3. (End)
[A158766] 38, 1482, 5814, 13034, 23142, 36138, 52022, 70794, 92454, 117002, 144438, 174762, 207974, 244074, 283062, 324938, 369702, 417354, 467894, 521322, 577638, 636842, 698934, 763914, 831782, 902538, 976182, 1052714, 1132134, 1214442, 1299638
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A243577] 39, 71, 87, 119, 191, 255, 287, 351, 471, 567, 615, 711, 879, 1007, 1071, 1199, 1415, 1575, 1655, 1815, 2079, 2271, 2367, 2559, 2871, 3095, 3207, 3431, 3791, 4047, 4175, 4431, 4839, 5127, 5271, 5559, 6015, 6335, 6495, 6815, 7319, 7671, 7847, 8199, 8751, 9135, 9327, 9711
a(n) = -3*(-7+(-i)^n+i^n)-(1-i)*((-6-6*i)+(-i)^n+i*i^n)*n+4*n^2 where i=sqrt(-1). - Colin Barker, Jun 09 2014
[A063335] 1, 39, 80, 120, 160, 200, 240, 278, 320, 358, 400, 440, 480, 516, 560, 598, 640, 678, 720, 756, 800, 836, 880, 918, 960, 994, 1040, 1076, 1120, 1156, 1200, 1234, 1280, 1314, 1360, 1396, 1440, 1472, 1520, 1554, 1600, 1634, 1680, 1712, 1760
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A242181] 39, 89, 139, 189, 239, 289, 339, 389, 439, 489, 539, 589, 639, 689, 739, 789, 839, 889, 939, 989, 1039, 1089, 1139, 1189, 1239, 1289, 1339, 1389, 1439, 1489, 1539, 1589, 1639, 1689, 1739, 1789, 1839, 1889, 1939, 1989, 2039, 2089, 2139, 2189, 2239, 2289, 2339
a(n) = 50n - 11. - Charles R Greathouse IV, May 06 2014
[A063318] 1, 39, 92, 143, 194, 249, 300, 351, 406, 457, 508, 561, 614, 665, 720, 769, 822, 875, 928, 977, 1034, 1083, 1136, 1187, 1242, 1291, 1348, 1395, 1450, 1501, 1556, 1603, 1662, 1709, 1764, 1813, 1870, 1917, 1976, 2021, 2078, 2127, 2184
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A033576] 1, 39, 125, 259, 441, 671, 949, 1275, 1649, 2071, 2541, 3059, 3625, 4239, 4901, 5611, 6369, 7175, 8029, 8931, 9881, 10879, 11925, 13019, 14161, 15351, 16589, 17875, 19209, 20591, 22021, 23499, 25025
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: (1+36*x+11*x^2)/(1-x)^3. [Colin Barker, Jun 10 2012
[A158593] 1, 39, 153, 343, 609, 951, 1369, 1863, 2433, 3079, 3801, 4599, 5473, 6423, 7449, 8551, 9729, 10983, 12313, 13719, 15201, 16759, 18393, 20103, 21889, 23751, 25689, 27703, 29793, 31959, 34201, 36519, 38913, 41383, 43929, 46551, 49249, 52023, 54873
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158598] 39, 159, 359, 639, 999, 1439, 1959, 2559, 3239, 3999, 4839, 5759, 6759, 7839, 8999, 10239, 11559, 12959, 14439, 15999, 17639, 19359, 21159, 23039, 24999, 27039, 29159, 31359, 33639, 35999, 38439, 40959, 43559, 46239, 48999, 51839, 54759
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A193228] 1, 39, 185, 511, 1089, 1991, 3289, 5055, 7361, 10279, 13881, 18239, 23425, 29511, 36569, 44671, 53889, 64295, 75961, 88959, 103361, 119239, 136665, 155711, 176449, 198951, 223289, 249535, 277761, 308039, 340441, 375039, 411905, 451111, 492729, 536831, 583489
a(n) = 12*n^3-18*n^2+8*n-1.
a(0)=1, a(1)=39, a(2)=185, a(3)=511, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Aug 27 2011]
[A243578] 39, 191, 471, 879, 1415, 2079, 2871, 3791, 4839, 6015, 7319, 8751, 10311, 11999, 13815, 15759, 17831, 20031, 22359, 24815, 27399, 30111, 32951, 35919, 39015, 42239, 45591, 49071, 52679, 56415, 60279, 64271, 68391, 72639, 77015, 81519, 86151, 90911, 95799
a(n) = 64*n^2-40*n+15.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3.
[A290071] 0, 39, 196, 664, 1809, 4250, 8954, 17346, 31434, 53949, 88500, 139744, 213571, 317304, 459914, 652250, 907284, 1240371, 1669524, 2215704, 2903125, 3759574, 4816746, 6110594, 7681694, 9575625, 11843364, 14541696, 17733639, 21488884, 25884250, 31004154, 36941096
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 6.
[A254871] 1, 39, 495, 3705, 19995, 85917, 311493, 989235, 2823990, 7383610, 17931498, 40889862, 88304970, 181852230, 359140470, 683363994, 1257722271, 2246496825, 3905261425, 6623425575, 10983195405, 17840105595, 28431558675, 44521334325, 68589834300, 104081944356
a(n) = n*(1 + n)*(2 + n)*(3 + n)*(4 + n)*(5 + n)*(6 + n)*(7 + n)*(-21 + 49*n + 56*n^2 + 14*n^3 + n^4)/3991680.
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) + n^5.
[A158768] 39, 1560, 6123, 13728, 24375, 38064, 54795, 74568, 97383, 123240, 152139, 184080, 219063, 257088, 298155, 342264, 389415, 439608, 492843, 549120, 608439, 670800, 736203, 804648, 876135, 950664, 1028235, 1108848, 1192503, 1279200, 1368939
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A082763] 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152
a(n+50) = a(n) + 100 for n >= 1 [a(n+L) = a(n) + C for n >= I], a(1) = 40 [a(I) = XL], a(n+1) = a(n) + 1 for 1 <= n <= 49 [a(n+I) = a(n) + I for I <= n <= XLIX]; so a(n) = floor((n-1)/50)*100 + 40 + ((n-1)(mod 50)) for n >= 1 [a(n) = floor((n-I)/L)*C + XL + ((n-I)(mod L)) for n >= I].
[A216305] 40, 49, 70, 76, 91, 157, 253, 274, 301, 304, 322, 349, 370, 388, 475, 505, 517, 622, 652, 715, 769, 817, 868, 931, 994, 1015, 1039, 1063, 1078, 1132, 1168, 1228, 1240, 1279, 1315, 1324, 1378, 1441, 1477, 1555, 1567, 1687, 1723, 1735, 1819, 1837, 1867, 1900
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 07 2012
[A063310] 1, 40, 96, 153, 210, 267, 324, 381, 438, 495, 552, 607, 666, 723, 780, 835, 894, 949, 1008, 1063, 1122, 1177, 1236, 1289, 1350, 1405, 1464, 1517, 1578, 1631, 1692, 1745, 1806, 1859, 1920, 1971, 2034, 2087, 2148, 2199, 2262, 2313, 2376
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A192791] 40, 112, 240, 448, 760, 1200, 1792, 2560, 3528, 4720, 6160, 7872, 9880, 12208, 14880, 17920, 21352, 25200, 29488, 34240, 39480, 45232, 51520, 58368, 65800, 73840, 82512, 91840, 101848, 112560
a(n) = 4*n*(n^2+n+8).
a(n) = +4*a(n-1) -6*a(n-2) +4*a(n-3) -1*a(n-4).
[A261191] 0, 1, 40, 117, 232, 385, 576, 805, 1072, 1377, 1720, 2101, 2520, 2977, 3472, 4005, 4576, 5185, 5832, 6517, 7240, 8001, 8800, 9637, 10512, 11425, 12376, 13365, 14392, 15457, 16560, 17701, 18880, 20097, 21352, 22645, 23976, 25345, 26752, 28197, 29680, 31201

a(n) = n*(19*n - 18).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3), for n > 2. - Colin Barker, Aug 11 2015
[A211155] 40, 168, 1056, 2080, 6120, 9576, 20608, 28800, 52200, 68200, 110880, 138528, 208936, 252840, 360960, 426496, 583848, 677160, 896800, 1024800, 1321320, 1491688, 1881216, 2102400, 2602600, 2883816, 3513888, 3865120, 4645800, 5077800, 6031360, 6555648, 7705896, 8334760, 9707040
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 9.
[A068790] 0, 0, 0, 0, 40, 240, 1120, 4608, 17280, 65280, 253440, 1013760, 4126720, 16773120, 67624960, 270532608, 1077903360, 4294901760, 17146183680, 68584734720, 274608947200, 1099510579200, 4400191897600, 17600775979008, 70385915658240, 281474959933440
a(n; t, s) = a(n-1; t, s) + a(n-1; t+3, s+3t+1) + a(n-1; t+2, s+2t) + a(n-1; t+1, s+t+1) where t is the trace and s is the subtrace.
[A008355] 1, 40, 370, 1640, 4930, 11752, 24050, 44200, 75010, 119720, 182002, 265960, 376130, 517480, 695410, 915752, 1184770, 1509160, 1896050, 2353000, 2888002, 3509480, 4226290, 5047720, 5983490, 7043752
a(n) = 2*(9*n^2+1)*(n^2+1) (see MAPLE line).
[A130610] 0, 40, 901, 1077, 1281, 6160, 7180, 8364, 36777, 42721, 49621, 215220, 249864, 290080, 1255261, 1457181, 1691577, 7317064, 8493940, 9860100, 42647841, 49507177, 57469741, 248570700, 288549840, 334959064, 1448777077, 1681792581
a(n) = 6*a(n-3)-a(n-6)+718 for n > 6; a(1)=0, a(2)=40, a(3)=901, a(4)=1077, a(5)=1281, a(6)=6160.
[A202018] 41, 43, 47, 53, 61, 71, 83, 97, 113, 131, 151, 173, 197, 223, 251, 281, 313, 347, 383, 421, 461, 503, 547, 593, 641, 691, 743, 797, 853, 911, 971, 1033, 1097, 1163, 1231, 1301, 1373, 1447, 1523, 1601, 1681, 1763, 1847, 1933, 2021, 2111, 2203, 2297, 2393
a(a(n)+n) = a(n)*a(n+1). - Vladimir Shevelev, Jul 16 2012 (This identity holds for all sequences of the form n^2+n+c, Joerg Arndt, Jul 17 2012).
a(0) = 41 and for n > 0, a(n) = a(n-1) + 2*n. - Jean-Christophe Hervé, Sep 27 2014
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Colin Barker, Sep 28 2014
a(n) = 2*a(n-1)-a(n-2)+2. - Vincenzo Librandi, Mar 04 2016
[A259552] 41, 43, 53, 83, 151, 281, 503, 853, 1373, 2111, 3121, 4463, 6203, 8413, 11171, 14561, 18673, 23603, 29453, 36331, 44351, 53633, 64303, 76493, 90341, 105991, 123593, 143303, 165283, 189701, 216731, 246553, 279353, 315323, 354661, 397571, 444263, 494953
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5), n>5. - Wesley Ivan Hurt, Jul 09 2015
[A157194] 41, 43, 84, 127, 211, 338, 549, 887, 1436, 2323, 3759, 6082, 9841, 15923, 25764, 41687, 67451, 109138, 176589, 285727, 462316, 748043, 1210359, 1958402, 3168761, 5127163, 8295924, 13423087, 21719011, 35142098, 56861109, 92003207, 148864316
a(n) = a(n-1) + a(n-2), a(0)=41, a(1)=43.
a(n) = (41/2)*{[(1/2) + (1/2)*sqrt(5)]^n + [(1/2) - (1/2)*sqrt(5)]^n} + (9/2)*sqrt(5)*{[(1/2) + (1/2)*sqrt(5)]^n-[(1/2) - (1/2)*sqrt(5)]^n}, with n>=0. - Paolo P. Lava, Mar 02 2009
[A113338] 41, 59, 419, 473, 1193, 1283, 2363, 2489, 3929, 4091, 5891, 6089, 8249, 8483, 11003, 11273, 14153, 14459, 17699, 18041, 21641, 22019, 25979, 26393, 30713, 31163, 35843, 36329, 41369, 41891, 47291, 47849, 53609, 54203, 60323, 60953
a(n) = a(-n+1) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
a(n) = (198*n*(n-1)-81*(2*n-1)*(-1)^n+83)/4. (End)
[A195317] 1, 41, 121, 241, 401, 601, 841, 1121, 1441, 1801, 2201, 2641, 3121, 3641, 4201, 4801, 5441, 6121, 6841, 7601, 8401, 9241, 10121, 11041, 12001, 13001, 14041, 15121, 16241, 17401, 18601, 19841, 21121, 22441, 23801, 25201, 26641, 28121, 29641, 31201, 32801
a(n) = 20*n^2 - 20*n + 1.
[A158602] 1, 41, 161, 361, 641, 1001, 1441, 1961, 2561, 3241, 4001, 4841, 5761, 6761, 7841, 9001, 10241, 11561, 12961, 14441, 16001, 17641, 19361, 21161, 23041, 25001, 27041, 29161, 31361, 33641, 36001, 38441, 40961, 43561, 46241, 49001, 51841, 54761
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158626] 41, 167, 377, 671, 1049, 1511, 2057, 2687, 3401, 4199, 5081, 6047, 7097, 8231, 9449, 10751, 12137, 13607, 15161, 16799, 18521, 20327, 22217, 24191, 26249, 28391, 30617, 32927, 35321, 37799, 40361, 43007, 45737, 48551, 51449, 54431, 57497
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A088319] 41, 205, 389, 689, 1565, 1625, 1781, 3865, 4105, 4549, 5989, 7421, 9161, 9685, 10225, 10685, 13025, 17509, 17965, 18329, 21349, 21701, 25801, 33161, 33169, 33529, 36749, 38581, 39709, 49325, 51649, 52429, 52721, 56785, 57065, 67205, 70801
a(n)=e^2+f^2, where e>f, e=j^2 - jk + k^2/2 and f=jk for coprime pairs (j, k) with k even.
[A172085] 0, 1, 41, 212, 660, 1585, 3241, 5936, 10032, 15945, 24145, 35156, 49556, 67977, 91105, 119680, 154496, 196401, 246297, 305140, 373940, 453761, 545721, 650992, 770800, 906425, 1059201, 1230516, 1421812, 1634585, 1870385, 2130816, 2417536
a(n) = n*(n+1)*(27*n^2-5*n-16)/12.
[A175110] 1, 41, 313, 1201, 3281, 7321, 14281, 25313, 41761, 65161, 97241, 139921, 195313, 265721, 353641, 461761, 592961, 750313, 937081, 1156721, 1412881, 1709401, 2050313, 2439841, 2882401, 3382601, 3945241, 4575313, 5278001, 6058681
a(n) = 5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5).
[A282867] 41, 313, 3593, 4481, 32633, 42961, 66361, 67073, 165233, 198593, 237161, 266921, 378953, 462073, 465041, 487073, 559001, 594161, 750353, 757633, 815401, 1157033, 1414081, 1416161, 1687393, 2439881, 2793481, 2866121, 2947561, 3344161, 3577913, 3759713, 4295281, 4617073, 4795481, 5654641
a(n) == 1 (mod 8).
a(n) == 1 or 33 (mod 40).
[A211154] 41, 457, 1345, 4481, 8521, 18985, 30017, 54721, 78121, 126281, 168961, 252097, 322505, 454441, 562561, 759425, 916777, 1197001, 1416641, 1800961, 2097481, 2608937, 2998465, 3662401, 4162601, 5006665, 5636737, 6690881, 7471561, 8768041, 9721601, 11294977, 12445225, 14332361, 15704641
a(n) = a(n-1) + 4*a(n-2) - 4*a(n-3) - 6*a(n-4) + 6*a(n-5) + 4*a(n-6) - 4*a(n-7) - a(n-8) + a(n-9) for n > 9.
[A076462] 41, 1471, 12938, 62870, 218555, 611821, 1471316, 3161388, 6227565, 11448635, 19895326, 32995586, 52606463, 81092585, 121411240, 177204056, 252895281, 353796663, 486218930, 657589870, 876579011, 1153228901, 1499092988, 1927380100, 2453105525, 3093248691
a(n) = n*(n+1)*(55*n^4+74*n^3+6*n^2-13*n+1)/6.
[A133897] 42, 43, 44, 45, 46, 47, 48, 91, 92, 93, 94, 95, 96, 97, 140, 141, 142, 143, 144, 145, 146, 189, 190, 191, 192, 193, 194, 195, 238, 239, 240, 241, 242, 243, 244, 287, 288, 289, 290, 291, 292, 293, 336, 337, 338, 339, 340, 341, 342, 385, 386, 387, 388, 389, 390
a(n)=7n+42-6*(n mod 7).
[A153644] 42, 82, 130, 186, 250, 322, 402, 490, 586, 690, 802, 922, 1050, 1186, 1330, 1482, 1642, 1810, 1986, 2170, 2362, 2562, 2770, 2986, 3210, 3442, 3682, 3930, 4186, 4450, 4722, 5002, 5290, 5586, 5890, 6202, 6522, 6850, 7186, 7530, 7882, 8242, 8610, 8986, 9370
a(1)=42, a(2)=82, a(3)=130, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A063329] 1, 42, 94, 144, 198, 248, 302, 350, 406, 454, 510, 556, 614, 660, 718, 762, 822, 866, 926, 968, 1030, 1072, 1134, 1174, 1238, 1278, 1342, 1380, 1446, 1484, 1550, 1586, 1654, 1690, 1758, 1792, 1862, 1896, 1966, 1998, 2070, 2102, 2174
a(n) = a(n-2)+a(n-4)-a(n-6) for n>8.
[A158479] 42, 150, 330, 582, 906, 1302, 1770, 2310, 2922, 3606, 4362, 5190, 6090, 7062, 8106, 9222, 10410, 11670, 13002, 14406, 15882, 17430, 19050, 20742, 22506, 24342, 26250, 28230, 30282, 32406, 34602, 36870, 39210, 41622, 44106, 46662, 49290, 51990
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A158484] 42, 189, 434, 777, 1218, 1757, 2394, 3129, 3962, 4893, 5922, 7049, 8274, 9597, 11018, 12537, 14154, 15869, 17682, 19593, 21602, 23709, 25914, 28217, 30618, 33117, 35714, 38409, 41202, 44093, 47082, 50169, 53354, 56637, 60018, 63497, 67074
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A193392] 42, 215, 636, 1401, 2622, 4427, 6960, 10381, 14866, 20607, 27812, 36705, 47526, 60531, 75992, 94197, 115450, 140071, 168396, 200777, 237582, 279195, 326016, 378461, 436962, 501967, 573940, 653361, 740726, 836547, 941352, 1055685, 1180106, 1315191, 1461532
a(n) = (2*n^4 + 28*n^3 + 154*n^2 - 169*n + 111)/3.
[A193400] 42, 215, 636, 1513, 2862, 5211, 8352, 13229, 19314, 28063, 38532, 52785, 69366, 91043, 115752, 147061, 182202, 225639, 273804, 332153, 396222, 472555, 555696, 653373, 759042, 881711, 1013652, 1165249, 1327494, 1512243, 1709112, 1931525, 2167626, 2432503, 2712732
a(n) = (6*n^4 +40*n^3 +114*n^2 +16*n -45 +(-1)^n*(6*n^2 +20*n -63))/4.
[A193394] 42, 215, 636, 1513, 3118, 5787, 9920, 15981, 24498, 36063, 51332, 71025, 95926, 126883, 164808, 210677, 265530, 330471, 406668, 495353, 597822, 715435, 849616, 1001853, 1173698, 1366767, 1582740, 1823361, 2090438, 2385843, 2711512, 3069445, 3461706, 3890423, 4357788
a(n) = (8*n^4 + 24*n^3 + 28*n^2 + 147*n - 81)/3.

[A193390] 42, 215, 680, 1661, 3446, 6387, 10900, 17465, 26626, 38991, 55232, 76085, 102350, 134891, 174636, 222577, 279770, 347335, 426456, 518381, 624422, 745955, 884420, 1041321, 1218226, 1416767, 1638640, 1885605, 2159486, 2462171, 2795612, 3161825, 3562890, 4000951, 4478216
a(n) = (8*n^4 + 32*n^3 + 46*n^2 + 37*n + 3)/3.
[A234043] 1, 42, 273, 969, 2530, 5481, 10472, 18278, 29799, 46060, 68211, 97527, 135408, 183379, 243090, 316316, 404957, 511038, 636709, 784245, 956046, 1154637, 1382668, 1642914, 1938275, 2271776, 2646567, 3065923, 3533244, 4052055
a(n) = (n+1)*(5*n+2)*(5*n+3)*(5*n+4)/24.
[A095266] 1, 42, 303, 1144, 3105, 6906, 13447, 23808, 39249, 61210, 91311, 131352, 183313, 249354, 331815, 433216, 556257, 703818, 878959, 1084920, 1325121, 1603162, 1922823, 2288064, 2703025, 3172026, 3699567, 4290328, 4949169, 5681130
a(n) = (n*(-8+25*n-30*n^2+15*n^3))/2. G.f.: -x*(39*x^3+103*x^2+37*x+1)/(x-1)^5. [Colin Barker, Oct 21 2012]
[A033277] 0, 42, 330, 1485, 5005, 14014, 34398, 76440, 157080, 302940, 554268, 969969, 1633905, 2662660, 4214980, 6503112, 9806280, 14486550, 21007350, 29954925, 42063021, 58241106, 79606450, 107520400, 143629200, 189909720, 248720472, 322858305, 415621185, 530877480
a(n) = binomial(n+3, 4)*binomial(n-3, 4)/5.
[A200875] 42, 343, 1528, 4917, 12890, 29325, 60112, 113745, 201994, 340659, 550408, 857701, 1295802, 1905881, 2738208, 3853441, 5324010, 7235599, 9688728, 12800437, 16706074, 21561189, 27543536, 34855185, 43724746, 54409707, 67198888, 82415013
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>8.
[A215628] 1, 42, 345, 1597, 5436, 15217, 37148, 81901, 166819, 318857, 578413, 1004224, 1679522, 2719666, 4281488, 6574614, 9875045, 14541308, 21033513, 29935679, 41981720, 58085511, 79375484, 107234235, 143343655, 189736131, 248852397, 323606650, 417459582, 534500016
a(n) = n*(n+1)*(n^7 +98*n^6 +3148*n^5 +40826*n^4 +203887*n^3 +209204*n^2 -412380*n +136656) / 362880.
[A224455] 42, 396, 1656, 4740, 10890, 21672, 38976, 65016, 102330, 153780, 222552, 312156, 426426, 569520, 745920, 960432, 1218186, 1524636, 1885560, 2307060, 2795562, 3357816, 4000896, 4732200, 5559450, 6490692, 7534296, 8698956, 9993690, 11427840, 13011072, 14753376, 16665066, 18756780, 21039480
a(n) = (3/2)*n*(n+1)*(9*n^2 + 3*n + 2).
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - G. C. Greubel, Dec 08 2016
[A248094] 0, 42, 444, 2187, 7443, 20247, 47313, 98994, 190386, 342576, 584034, 952149, 1494909, 2272725, 3360399, 4849236, 6849300, 9491814, 12931704, 17350287, 22958103, 29997891, 38747709, 49524198, 62685990, 78637260, 97831422, 120774969, 148031457, 180225633, 218047707
a(n) = n*(66 + 407n + 670n^2 + 425n^3 + 104n^4 + 8n^5)/40 (see Corollary 3,10 in the He et al. reference).
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 6. - Wesley Ivan Hurt, Aug 16 2016
[A008387] 1, 42, 462, 2562, 9492, 27174, 65226, 137886, 264936, 472626, 794598, 1272810, 1958460, 2912910, 4208610, 5930022, 8174544, 11053434, 14692734, 19234194, 24836196, 31674678, 39944058, 49858158, 61651128, 75578370, 91917462, 110969082
a(n) = S(n,6) = 7*n*(11*n+35*n+14)/10, with S(n,d) = sum_{k=0..d} binomial(d,k)^2*binomial(n-k+d-1,d-1).
[A216109] 42, 477, 1701, 4254, 8820, 16227, 27447, 43596, 65934, 95865, 134937, 184842, 247416, 324639, 418635, 531672, 666162, 824661, 1009869, 1224630, 1471932, 1754907, 2076831, 2441124, 2851350, 3311217, 3824577, 4395426, 5027904, 5726295
a(n) = 3*(28+123*n+127*n^2+36*n^3+4*n^4)/2 = 3*(n+1)(4*n^3+32*n^2+95*n+28)/2.
[A216111] 42, 477, 1953, 5442, 12240, 23967, 42567, 70308, 109782, 163905, 235917, 329382, 448188, 596547, 778995, 1000392, 1265922, 1581093, 1951737, 2384010, 2884392, 3459687, 4117023, 4863852, 5707950, 6657417, 7720677, 8906478, 10223892, 11682315
a(n) = 3*n*(-13+14*n+18*n^2+9*n^3)/2.
[A216113] 42, 477, 2241, 6846, 16380, 33507, 61467, 104076, 165726, 251385, 366597, 517482, 710736, 953631, 1254015, 1620312, 2061522, 2587221, 3207561, 3933270, 4775652, 5746587, 6858531, 8124516, 9558150, 11173617, 12985677, 15009666, 17261496, 19757655
a(n) = 3n(16n^3 + 8n^2 - 5n +9)/2.
[A279888] 0, 1, 42, 569, 4250, 22006, 88004, 293369, 845358, 2186376, 5145646, 11282966, 23143198, 45179324, 83905292, 150271993, 258816840, 433786483, 704268402, 1119633944, 1733618768, 2640037170, 3931060364, 5777392406, 8325691750, 11873200964, 16643954724, 23133008124
a(n) = (11*sigma_9(n)-21*sigma_5(n)+10*sigma_3(n))/5040.
[A091962] 0, 1, 42, 594, 4719, 26026, 111384, 395352, 1215126, 3331251, 8321170, 19240650, 41683005, 85408596, 166768096, 312203232, 563178924, 982981701, 1665911754, 2749500754, 4430505387, 6985558206, 10797503640, 16388608600, 24462014850, 35952994935, 52091785746
a(n) = binomial(2n+6, 7)*(2n+3)*(n+1)*(n+2)/240.
a(n) = det(A*Transpose(A))/36, where A is the 2 X (n+1) matrix whose (i,j)-th element is j^(2*i-1). - Lechoslaw Ratajczak, Oct 01 2017
[A290364] 0, 1, 42, 817, 8429, 55627, 268272, 1030101, 3331117, 9425128, 23970089, 55880968, 121188860, 247272012, 478904297, 886654486, 1578265414, 2713745819, 4525019252, 7341094011, 11619845543, 17987638185, 27288156478, 40641967587, 59518495595, 85822255610
a(n) = (7936*n^9 +4635*n^8 +24756*n^7 +43974*n^6 +65352*n^5 +60795*n^4 +81524*n^3 +72036*n^2 +1872*n)/9!.
[A215545] 0, 42, 1638, 10659, 40480, 115101, 272272, 566618, 1072764, 1888460, 3137706, 4973877, 7582848, 11186119, 16043940, 22458436, 30776732, 41394078, 54756974, 71366295, 91780416, 116618337, 146562808, 182363454, 224839900, 274884896, 333467442, 401635913
a(n) = (5*n-4)*(5*n+2)*(5*n+3)*(5*n+4)*(n+1)/24 for n>0, a(0) = 0.
[A214580] 42, 2697, 29805, 163914, 616008, 1819539, 4550763, 10075380, 20321478, 38078781, 67224201, 112973694, 182160420, 283539207, 428117319, 629511528, 904331490, 1272589425, 1758136101, 2389123122, 3198491520, 4224486651, 5511199395, 7109133660, 9075800190, 11476336677, 14384154177
a(n) = (1/10)n +(17/15)n^2 -3n^3 -(55/6)n^4 +(82/5)n^5 +(548/15)n^6.
[A023293] 43, 103, 199, 1039, 1303, 2311, 2857, 3673, 4513, 4663, 5743, 5953, 8431, 9721, 12391, 14143, 14533, 17599, 18457, 19507, 21211, 23719, 24169, 25621, 28663, 29023, 31963, 33409, 35311, 36979, 37423, 40867, 40939, 43891, 44371, 44983, 45841, 46747, 46807
a(n) == 1 (mod 6). - John Cerkan, Sep 23 2016
[A158604] 1, 43, 169, 379, 673, 1051, 1513, 2059, 2689, 3403, 4201, 5083, 6049, 7099, 8233, 9451, 10753, 12139, 13609, 15163, 16801, 18523, 20329, 22219, 24193, 26251, 28393, 30619, 32929, 35323, 37801, 40363, 43009, 45739, 48553, 51451, 54433, 57499
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158628] 43, 175, 395, 703, 1099, 1583, 2155, 2815, 3563, 4399, 5323, 6335, 7435, 8623, 9899, 11263, 12715, 14255, 15883, 17599, 19403, 21295, 23275, 25343, 27499, 29743, 32075, 34495, 37003, 39599, 42283, 45055, 47915, 50863, 53899, 57023, 60235
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A213554] 1, 43, 334, 1406, 4271, 10577, 22764, 44220, 79437, 134167, 215578, 332410, 495131, 716093, 1009688, 1392504, 1883481, 2504067, 3278374, 4233334, 5398855, 6807977, 8497028, 10505780, 12877605, 15659631, 18902898, 22662514
a(n) = (39*n^5 + 15*n^4 - 25*n^3 + n)/30.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6).
[A272124] 1, 43, 369, 1507, 4273, 9771, 19393, 34819, 58017, 91243, 137041, 198243, 277969, 379627, 506913, 663811, 854593, 1083819, 1356337, 1677283, 2052081, 2486443, 2986369, 3558147, 4208353, 4943851, 5771793, 6699619, 7735057, 8886123, 10161121, 11568643
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4.
[A060888] 1, 1, 43, 547, 3277, 13021, 39991, 102943, 233017, 478297, 909091, 1623931, 2756293, 4482037, 7027567, 10678711, 15790321, 22796593, 32222107, 44693587, 60952381, 81867661, 108450343, 141867727, 183458857, 234750601, 297474451
a(0)=1, a(1)=1, a(2)=43, a(3)=547, a(4)=3277, a(5)=13021, a(6)=39991, a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Harvey P. Dale, Jul 21 2012
[A130014] 0, 43, 2440, 2643, 2860, 16443, 17620, 18879, 97980, 104839, 112176, 573199, 613176, 655939, 3342976, 3575979, 3825220, 19486419, 20844460, 22297143, 113577300, 121492543, 129959400, 661979143, 708112560, 757461019, 3858299320
a(n) = 6*a(n-3)-a(n-6)+1762 for n > 6; a(1)=0, a(2)=43, a(3)=2440, a(4)=2643, a(5)=2860, a(6)=16443.
[A178755] 44, 46, 49, 64, 66, 69, 94, 96, 99, 104, 155, 215, 221, 222, 225, 226, 251, 255, 262, 265, 333, 334, 335, 338, 339, 349, 355, 358, 385, 393, 394, 395, 469, 515, 551, 555, 557, 558, 577, 585, 587, 622, 625, 655, 695, 774, 777, 822, 825, 826, 855, 857, 862, 865
a(10) = 104 because deleting the "1" gives "04" which by OEIS protocol becomes the semiprime 4=2*2; deleting the "0" gives the semiprime 14=2*7; and deleting the "4" gives the semiprime 10=2*5.
[A156812] 44, 70, 546, 1472, 2848, 4674, 6950, 9676, 12852, 16478, 20554, 25080, 30056, 35482, 41358, 47684, 54460, 61686, 69362, 77488, 86064, 95090, 104566, 114492, 124868, 135694, 146970, 158696, 170872, 183498, 196574, 210100, 224076, 238502, 253378
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 08 2012

[A129289] 0, 44, 95, 219, 455, 744, 1460, 2832, 4515, 8687, 16683, 26492, 50808, 97412, 154583, 296307, 567935, 901152, 1727180, 3310344, 5252475, 10066919, 19294275, 30613844, 58674480, 112455452, 178430735, 341980107, 655438583, 1039970712, 1993206308, 3820176192
a(n) = 6*a(n-3)-a(n-6)+146 for n > 6; a(1)=0, a(2)=44, a(3)=95, a(4)=219, a(5)=455, a(6)=744.
[A264446] 0, 44, 119, 234, 399, 625, 924, 1309, 1794, 2394, 3125, 4004, 5049, 6279, 7714, 9375, 11284, 13464, 15939, 18734, 21875, 25389, 29304, 33649, 38454, 43750, 49569, 55944, 62909, 70499, 78750, 87699, 97384, 107844, 119119, 131250, 144279, 158249, 173204, 189189, 206250
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4. - Vincenzo Librandi, Nov 16 2015
[A060836] 0, 0, 0, 0, 44, 264, 924, 2464, 5544, 11088, 20328, 34848, 56628, 88088, 132132, 192192, 272272, 376992, 511632, 682176, 895356, 1158696, 1480556, 1870176, 2337720, 2894320, 3552120, 4324320, 5225220, 6270264, 7476084, 8860544
a(n) = 44*C(n, 5). a(n) = a(n-1)*n/(n-5).
[A094794] 44, 309, 1214, 3539, 8544, 18089, 34754, 61959, 104084, 166589, 256134, 380699, 549704, 774129, 1066634, 1441679, 1915644, 2506949, 3236174, 4126179, 5202224, 6492089, 8026194, 9837719, 11962724, 14440269, 17312534, 20624939, 24426264
a(n)=n^5 + 10*n^4 + 45*n^3 + 100*n^2 + 109*n + 44.
a(0)=44, a(1)=309, a(2)=1214, a(3)=3539, a(4)=8544, a(5)=18089, a(n)= 6*a(n-1)- 15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Jul 25 2012
[A130645] 0, 44, 1121, 1317, 1541, 7644, 8780, 10080, 45621, 52241, 59817, 266960, 305544, 349700, 1557017, 1781901, 2039261, 9076020, 10386740, 11886744, 52899981, 60539417, 69282081, 308324744, 352850640, 403806620, 1797049361, 2056565301, 2353558517, 10473972300
a(n) = 6*a(n-3)-a(n-6)+878 for n > 6; a(1)=0, a(2)=44, a(3)=1121, a(4)=1317, a(5)=1541, a(6)=7644.
[A291787] 45, 48, 56, 60, 80, 88, 92, 94, 95, 96, 112, 120, 160, 176, 184, 188, 190, 216, 252, 324, 378, 486, 567, 594, 738, 876, 1032, 1224, 1488, 1776, 2112, 2624, 2656, 2672, 2680, 2976, 3552, 4224, 5248, 5312, 5344, 5360, 5952, 7104, 8448, 10496, 10624
a(n) = 2*a(n-7) for n >= 35, which proves this is unbounded. [Guy, Wall]
[A026043] 45, 67, 98, 140, 195, 265, 352, 458, 585, 735, 910, 1112, 1343, 1605, 1900, 2230, 2597, 3003, 3450, 3940, 4475, 5057, 5688, 6370, 7105, 7895, 8742, 9648, 10615, 11645, 12740, 13902, 15133, 16435, 17810, 19260, 20787, 22393, 24080, 25850, 27705
a(n) = n(2n^2 - 9n + 49)/6 (n >= 5). - Emeric Deutsch, Nov 29 2006
[A026060] 45, 80, 126, 184, 255, 340, 440, 556, 689, 840, 1010, 1200, 1411, 1644, 1900, 2180, 2485, 2816, 3174, 3560, 3975, 4420, 4896, 5404, 5945, 6520, 7130, 7776, 8459, 9180, 9940, 10740, 11581, 12464, 13390, 14360, 15375, 16436, 17544, 18700, 19905, 21160, 22466, 23824, 25235, 26700, 28220
a(n) = n(n^2+15n-46)/6. - Ralf Stephan, Apr 30 2004
a(5)=45, a(6)=80, a(7)=126, a(8)=184, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4) [From Harvey P. Dale, Nov 05 2011]
[A063343] 1, 45, 84, 126, 168, 210, 252, 298, 336, 382, 420, 462, 504, 554, 588, 634, 672, 718, 756, 806, 840, 890, 924, 970, 1008, 1062, 1092, 1142, 1176, 1226, 1260, 1314, 1344, 1398, 1428, 1478, 1512, 1570, 1596, 1650, 1680, 1734, 1764, 1822
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A277131] 45, 127, 279, 521, 873, 1355, 1987, 2789, 3781, 4983, 6415, 8097, 10049, 12291, 14843, 17725, 20957, 24559, 28551, 32953, 37785, 43067, 48819, 55061, 61813, 69095, 76927, 85329, 94321, 103923, 114155, 125037, 136589, 148831, 161783, 175465, 189897, 205099
a(n) = 10/3*n^3 + 25*n^2 + 161/3*n + 45 with offset 0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>5.
a(n) = 11-(19*n)/3+5*n^2+(10*n^3)/3.
[A098924] 1, 45, 132, 262, 435, 651, 910, 1212, 1557, 1945, 2376, 2850, 3367, 3927, 4530, 5176, 5865, 6597, 7372, 8190, 9051, 9955, 10902, 11892, 12925, 14001, 15120, 16282, 17487, 18735, 20026, 21360, 22737, 24157, 25620, 27126, 28675, 30267
a(n) = n*(43*n-41)/2.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A195318] 1, 45, 133, 265, 441, 661, 925, 1233, 1585, 1981, 2421, 2905, 3433, 4005, 4621, 5281, 5985, 6733, 7525, 8361, 9241, 10165, 11133, 12145, 13201, 14301, 15445, 16633, 17865, 19141, 20461, 21825, 23233, 24685, 26181, 27721, 29305, 30933, 32605, 34321, 36081
a(n) = 22*n^2 - 22*n + 1.
[A053743] 45, 145, 245, 345, 445, 545, 645, 745, 845, 945, 1045, 1145, 1245, 1345, 1445, 1545, 1645, 1745, 1845, 1945, 2045, 2145, 2245, 2345, 2445, 2545, 2645, 2745, 2845, 2945, 3045, 3145, 3245, 3345, 3445, 3545, 3645, 3745, 3845, 3945, 4045, 4145, 4245, 4345
a(n) = 100*n+45.
a(n) = 2*a(n-1)-a(n-2). G.f.: 5*(9+11*x)/(1-x)^2. [Colin Barker, Jun 26 2012]
[A158630] 1, 45, 177, 397, 705, 1101, 1585, 2157, 2817, 3565, 4401, 5325, 6337, 7437, 8625, 9901, 11265, 12717, 14257, 15885, 17601, 19405, 21297, 23277, 25345, 27501, 29745, 32077, 34497, 37005, 39601, 42285, 45057, 47917, 50865, 53901, 57025, 60237
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158634] 45, 183, 413, 735, 1149, 1655, 2253, 2943, 3725, 4599, 5565, 6623, 7773, 9015, 10349, 11775, 13293, 14903, 16605, 18399, 20285, 22263, 24333, 26495, 28749, 31095, 33533, 36063, 38685, 41399, 44205, 47103, 50093, 53175, 56349, 59615, 62973
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A280059] 1, 45, 225, 637, 1377, 2541, 4225, 6525, 9537, 13357, 18081, 23805, 30625, 38637, 47937, 58621, 70785, 84525, 99937, 117117, 136161, 157165, 180225, 205437, 232897, 262701, 294945, 329725, 367137, 407277, 450241, 496125
a(n) = 16*(n+1)^3 - 28*(n+1)^2 + 16*(n+1) - 3 for n>0.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). (End)
[A272850] 1, 45, 325, 1225, 3321, 7381, 14365, 25425, 41905, 65341, 97461, 140185, 195625, 266085, 354061, 462241, 593505, 750925, 937765, 1157481, 1413721, 1710325, 2051325, 2440945, 2883601, 3383901, 3946645, 4576825, 5279625
a(n) = (2*n^2 + 2*n + 1)*(4*n^2 + 4*n + 1).
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4.
[A156719] 45, 350, 943, 1824, 2993, 4450, 6195, 8228, 10549, 13158, 16055, 19240, 22713, 26474, 30523, 34860, 39485, 44398, 49599, 55088, 60865, 66930, 73283, 79924, 86853, 94070, 101575, 109368, 117449, 125818, 134475, 143420, 152653
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A283116] 0, 0, 0, 0, 0, 0, 0, 1, 45, 533, 3546, 16917, 64345, 207327, 587922, 1505924, 3549610, 7806420, 16188690, 31919658, 60238044, 109392480, 192015912, 326985561, 541900545, 876326275, 1385991432, 2148140345, 3268293567, 4888684275, 7198705228, 10447710630, 14960606226
a(n) = (n^10 - 35*n^9 + 530*n^8 - 4526*n^7 + 23693*n^6 - 76544*n^5 + 141360*n^4 - 104944*n^3 - 67984*n^2 + 124224*n)/23040 + IF(MOD(n, 2) = 1, -45*n^4 + 1350*n^3 - 13770*n^2 + 57915*n - 81225)/23040 + IF(MOD(n, 3) = 2, -2)/9.
[A027783] 45, 550, 3630, 17160, 65065, 210210, 600600, 1555840, 3719430, 8314020, 17551820, 35271600, 67897830, 125847260, 225544440, 392251200, 663966875, 1096717050, 1771619850, 2804201400, 4356527175, 6652824750, 9999397200, 14809766400, 21636143100, 31208497320
a(n) = C(n+1, 9)*C(n+2, 2). - Zerinvary Lajos, May 13 2005, corrected R. J. Mathar, Mar 15 2016
[A160837] 1, 45, 556, 3457, 14317, 45565, 120772, 280001, 586225, 1132813, 2052084, 3524929, 5791501, 9162973, 14034364, 20898433, 30360641, 43155181, 60162076, 82425345, 111172237, 147833533, 194064916, 251769409, 323120881, 410588621, 516962980
a(n) = 1+24/5*n+38/3*n^3+207/20*n^2+61/6*n^4+68/15*n^5+89/60*n^6 = 1+ n*(n+1)*(89*n^4+183*n^3+427*n^2+333*n+288)/60. - R. J. Mathar, Dec 16 2009
[A160838] 1, 45, 557, 3473, 14417, 45965, 121997, 283137, 593281, 1147213, 2079309, 3573329, 5873297, 9295469, 14241389, 21212033, 30823041, 43821037, 61101037, 83724945, 112941137, 150205133, 197201357, 255865985, 328410881, 417348621, 525518605
a(n) = 68*n^6/45 +68*n^5/15 +91*n^4/9 +38*n^3/3 +467*n^2/45 +24*n/5 +1. - R. J. Mathar, Sep 11 2011
a(0)=1, a(1)=45, a(2)=557, a(3)=3473, a(4)=14417, a(5)=45965, a(6)=121997, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)- 7*a(n-6)+a(n-7) [From Harvey P. Dale, Sep 17 2011]
[A024379] 45, 812, 5130, 20460, 62335, 158760, 355572, 722760, 1361745, 2413620, 4068350, 6574932, 10252515, 15502480, 22821480, 32815440, 46214517, 63889020, 86866290, 116348540, 153731655, 200624952, 258871900, 330571800, 418102425, 524143620
a(n) = n*(2*n+3)*(n+2)*(n+1)*(4*n^2+8*n-3)/6.
[A130017] 0, 45, 2688, 2901, 3128, 18105, 19340, 20657, 107876, 115073, 122748, 631085, 673032, 717765, 3680568, 3925053, 4185776, 21454257, 22879220, 24398825, 125046908, 133352201, 142209108, 728829125, 777235920, 828857757, 4247929776

a(n) = 6*a(n-3)-a(n-6)+1934 for n > 6; a(1)=0, a(2)=45, a(3)=2688, a(4)=2901, a(5)=3128, a(6)=18105.
a(1)=0, a(2)=45, a(3)=2688, a(4)=2901, a(5)=3128, a(6)=18105, a(7)=19340, a(n)=a(n-1)+6*a(n-3)-6*a(n-4)-a(n-6)+a(n-7). - Harvey P. Dale, Nov 03 2013
[A282465] 1, 46, 47, 93, 140, 233, 373, 606, 979, 1585, 2564, 4149, 6713, 10862, 17575, 28437, 46012, 74449, 120461, 194910, 315371, 510281, 825652, 1335933, 2161585, 3497518, 5659103, 9156621, 14815724, 23972345, 38788069, 62760414, 101548483, 164308897, 265857380, 430166277
a(n) = a(n-1) + a(n-2).
a(n) = a(i)*Fibonacci(n-i+1) + a(i-1)*Fibonacci(n-i). Examples:
a(n) = 44*Fibonacci(n) + Fibonacci(n+2),
a(n) = 45*Fibonacci(n) + Fibonacci(n+1),
a(n) = 46*Fibonacci(n) + Fibonacci(n-1),
a(n) = 47*Fibonacci(n) - Fibonacci(n-2).
[A264445] 0, 46, 104, 175, 260, 360, 476, 609, 760, 930, 1120, 1331, 1564, 1820, 2100, 2405, 2736, 3094, 3480, 3895, 4340, 4816, 5324, 5865, 6440, 7050, 7696, 8379, 9100, 9860, 10660, 11501, 12384, 13310, 14280, 15295, 16356, 17464, 18620, 19825, 21080
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3. - Vincenzo Librandi, Nov 16 2015
[A204769] 46, 105, 197, 256, 348, 407, 499, 558, 650, 709, 801, 860, 952, 1011, 1103, 1162, 1254, 1313, 1405, 1464, 1556, 1615, 1707, 1766, 1858, 1917, 2009, 2068, 2160, 2219, 2311, 2370, 2462, 2521, 2613, 2672, 2764, 2823
a(n) = (-151-33*(-1)^n+302*n)/4.
a(n) = a(n-1) +a(n-2) -a(n-3).
[A192850] 46, 184, 414, 832, 1390, 2232, 3262, 4672, 6318, 8440, 10846, 13824, 17134, 21112, 25470, 30592, 36142, 42552, 49438, 57280, 65646, 75064, 85054, 96192, 107950, 120952, 134622, 149632, 165358, 182520
a(n) = n*(6*n^2+22*n+3*((-1)^n+7)).
[A156841] 46, 263, 1538, 3871, 7262, 11711, 17218, 23783, 31406, 40087, 49826, 60623, 72478, 85391, 99362, 114391, 130478, 147623, 165826, 185087, 205406, 226783, 249218, 272711, 297262, 322871, 349538, 377263, 406046, 435887, 466786, 498743, 531758
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A213286] 0, 1, 46, 367, 1805, 7280, 25781, 83916, 250062, 676155, 1662160, 3748261, 7839811, 15370082, 28505855, 50400890, 85502316, 139914981, 221828802, 342014155, 514390345, 756672196, 1091099801, 1545256472, 2152979930, 2955371775, 4001910276, 5351671521
a(n) = n*(11954-29577*n+27640*n^2-12831*n^3+3234*n^4-420*n^5+24*n^6)/24.
[A113922] 1, 46, 769, 5632, 18688, 44032, 85760, 147968, 234752, 350208, 498432, 683520, 909568, 1180672, 1500928, 1874432, 2305280, 2797568, 3355392, 3982848, 4684032, 5463040, 6323968, 7270912, 8307968, 9439232, 10668800, 12000768, 13439232, 14988288, 16652032
a(n)=256(n-1)(8n^2-16n+9)/3 for n>=3. - Emeric Deutsch, Apr 02 2006
[A156842] 46, 887, 2786, 5743, 9758, 14831, 20962, 28151, 36398, 45703, 56066, 67487, 79966, 93503, 108098, 123751, 140462, 158231, 177058, 196943, 217886, 239887, 262946, 287063, 312238, 338471, 365762, 394111, 423518, 453983, 485506, 518087
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A243648] 0, 0, 0, 0, 0, 46, 4431, 73098, 587149, 3125278, 12712329, 42731866, 124522115, 324628878, 773900299, 1714106922, 3569586561, 7053577342, 13321444117, 24185953530, 42413141575, 72121174766, 119308962279, 192546161866, 303861667221, 469873699038, 713211276481
a(n) = (n^10 -10*n^9 -25*n^8 +520*n^7 -435*n^6 -9982*n^5 +19925*n^4 +82740*n^3 -215906*n^2 -244868*n +728760) / 120 for n>=5, a(n) = 0 for n<5.
[A126980] 47, 61, 75, 89, 103, 117, 131, 145, 159, 173, 187, 201, 215, 229, 243, 257, 271, 285, 299, 313, 327, 341, 355, 369, 383, 397, 411, 425, 439, 453, 467, 481, 495, 509, 523, 537, 551, 565, 579, 593, 607, 621, 635, 649, 663, 677, 691, 705, 719, 733, 747
a(n) = 2*a(n-1) - a(n-2) for n > 1.
[A044234] 47, 111, 175, 239, 303, 367, 376, 431, 495, 559, 623, 687, 751, 815, 879, 888, 943, 1007, 1071, 1135, 1199, 1263, 1327, 1391, 1400, 1455, 1519, 1583, 1647, 1711, 1775, 1839, 1903, 1912, 1967, 2031, 2095, 2159, 2223, 2287, 2351
a(n) = 512*(n-7)/9 + 376 when n == 7 mod 9; otherwise a(n) = 64*(n - floor((n+1)/9) - 1) + 47. - Bob Selcoe, Apr 01 2016
a(n) = a(n-1) + a(n-9) - a(n-10). - G. C. Greubel, Apr 01 2016
[A114646] 1, 47, 117, 187, 257, 327, 397, 467, 537, 607, 677, 747, 817, 887, 957, 1027, 1097, 1167, 1237, 1307, 1377, 1447, 1517, 1587, 1657, 1727, 1797, 1867, 1937, 2007, 2077, 2147, 2217, 2287, 2357, 2427, 2497, 2567, 2637, 2707, 2777, 2847, 2917, 2987, 3057
a(1)=1 then a(n)=70n-93.
[A095311] 1, 47, 138, 274, 455, 681, 952, 1268, 1629, 2035, 2486, 2982, 3523, 4109, 4740, 5416, 6137, 6903, 7714, 8570, 9471, 10417, 11408, 12444, 13525, 14651, 15822, 17038, 18299, 19605, 20956, 22352, 23793, 25279, 26810, 28386, 30007, 31673, 33384
a(n+3) = 3*a(n+2) - 3*a(n+1) - a(n); a(1) = 1, a(2) = 47, a(3) = 138.
a(n) = (n*(45*n-43))/2.
[A055822] 1, 47, 144, 328, 640, 1131, 1863, 2910, 4359, 6311, 8882, 12204, 16426, 21715, 28257, 36258, 45945, 57567, 71396, 87728, 106884, 129211, 155083, 184902, 219099, 258135, 302502, 352724, 409358, 472995, 544261, 623818, 712365, 810639, 919416, 1039512, 1171784
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n > 11.
[A158632] 1, 47, 185, 415, 737, 1151, 1657, 2255, 2945, 3727, 4601, 5567, 6625, 7775, 9017, 10351, 11777, 13295, 14905, 16607, 18401, 20287, 22265, 24335, 26497, 28751, 31097, 33535, 36065, 38687, 41401, 44207, 47105, 50095, 53177, 56351, 59617, 62975
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A065532] 1, 47, 191, 431, 767, 1199, 1727, 2351, 3071, 3887, 4799, 5807, 6911, 8111, 9407, 10799, 12287, 13871, 15551, 17327, 19199, 21167, 23231, 25391, 27647, 29999, 32447, 34991, 37631, 40367, 43199, 46127, 49151, 52271, 55487, 58799, 62207
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 08 2012
[A157362] 47, 192, 435, 776, 1215, 1752, 2387, 3120, 3951, 4880, 5907, 7032, 8255, 9576, 10995, 12512, 14127, 15840, 17651, 19560, 21567, 23672, 25875, 28176, 30575, 33072, 35667, 38360, 41151, 44040, 47027, 50112, 53295, 56576, 59955, 63432, 67007
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A069760] 47, 287, 959, 2399, 5039, 9407, 16127, 25919, 39599, 58079, 82367, 113567, 152879, 201599, 261119, 332927, 418607, 519839, 638399, 776159, 935087, 1117247, 1324799, 1559999, 1825199, 2122847
a(n) = 4n^4+16n^3+20n^2+8n-1
a(1)=47,a(2)=287,a(3)=959,a(4)=2399,a(5)=5039,a(n)=5a(n-1)-10a(n-2) +10a(n-3)-5a(n-4)+a(n-5). [From Harvey P. Dale, Apr 25 2011]
[A217119] 47, 428, 1721, 6473, 14033, 35201, 58961, 58967, 465743, 530701, 530710, 1733741, 4250788, 4723108, 4776398, 25051529, 37327196, 42450640, 42986860, 42987589, 42996409, 225463817, 382055767, 382571822, 386888308, 386888419, 387356789
a(n) <= 9^(n+2).
a(n) <= 9^min(n+2, 6*floor((n+7)/8)).
a(n) <= 9^((3/4)*(n + 3)).
a(n+m+1) >= 9*a(n), where m := floor(log_9(a(n))) + 1.
[A244880] 1, 47, 650, 4726, 23219, 87677, 274132, 743724, 1806597, 4016683, 8306078, 16168802, 29904823, 52936313, 90209192, 148694104, 238002057, 371131047, 565361074, 843316046, 1234212155, 1775313397, 2513615996, 3507784580, 4830364045, 6570292131, 8835738822, 11757299770, 15491572031
a(n) = (630 + 3051*n + 6570*n^2 + 8211*n^3 + 6503*n^4 + 3339*n^5 + 1085*n^6 + 204*n^7 + 17*n^8) / 630.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n>8.
[A114444] 0, 48, 128, 240, 384, 560, 768, 1008, 1280, 1584, 1920, 2288, 2688, 3120, 3584, 4080, 4608, 5168, 5760, 6384, 7040, 7728, 8448, 9200, 9984, 10800, 11648, 12528, 13440, 14384, 15360, 16368, 17408, 18480, 19584, 20720, 21888, 23088, 24320, 25584, 26880, 28208, 29568, 30960
a(n) = 16*(2*n+1)+a(n-1) (with a(0)=0). - Vincenzo Librandi, Nov 13 2010
[A129428] 1, 48, 142, 283, 471, 706, 988, 1317, 1693, 2116, 2586, 3103, 3667, 4278, 4936, 5641, 6393, 7192, 8038, 8931, 9871, 10858, 11892, 12973, 14101, 15276, 16498, 17767, 19083, 20446, 21856, 23313, 24817, 26368, 27966, 29611, 31303, 33042, 34828, 36661, 38541
a(n) = 1+(47/2)*n+(47/2)*n^2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: -(x^2+45*x+1) / (x-1)^3. - Colin Barker, Jul 27 2013
[A005911] 1, 48, 186, 416, 738, 1152, 1658, 2256, 2946, 3728, 4602, 5568, 6626, 7776, 9018, 10352, 11778, 13296, 14906, 16608, 18402, 20288, 22266, 24336, 26498, 28752, 31098, 33536, 36066, 38688, 41402, 44208, 47106, 50096, 53178, 56352, 59618, 62976, 66426, 69968

a(0)=1, a(1)=48, a(2)=186, a(3)=416, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Aug 19 2014
[A130566] 1, 48, 186, 460, 915, 1596, 2548, 3816, 5445, 7480, 9966, 12948, 16471, 20580, 25320, 30736, 36873, 43776, 51490, 60060, 69531, 79948, 91356, 103800, 117325, 131976, 147798, 164836, 183135, 202740, 223696, 246048, 269841, 295120, 321930, 350316, 380323
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 29 2012
[A157923] 48, 194, 438, 780, 1220, 1758, 2394, 3128, 3960, 4890, 5918, 7044, 8268, 9590, 11010, 12528, 14144, 15858, 17670, 19580, 21588, 23694, 25898, 28200, 30600, 33098, 35694, 38388, 41180, 44070, 47058, 50144, 53328, 56610, 59990, 63468, 67044
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 05 2012
[A100146] 1, 48, 221, 600, 1265, 2296, 3773, 5776, 8385, 11680, 15741, 20648, 26481, 33320, 41245, 50336, 60673, 72336, 85405, 99960, 116081, 133848, 153341, 174640, 197825, 222976, 250173, 279496, 311025, 344840, 381021, 419648
a(n) = (1/6)*(80*n^3-102*n^2+28*n)
a(n) = ((n-1)+1)*(5*(n-1)+3)*(8*(n-1)+1)/3; g.f.: x*(1+44*x+35*x^2)/(1-x)^4. [Jaume Oliver Lafont, Sep 08 2009]
[A157913] 48, 240, 560, 1008, 1584, 2288, 3120, 4080, 5168, 6384, 7728, 9200, 10800, 12528, 14384, 16368, 18480, 20720, 23088, 25584, 28208, 30960, 33840, 36848, 39984, 43248, 46640, 50160, 53808, 57584, 61488, 65520, 69680, 73968, 78384, 82928
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 09 2012
[A181773] 0, 48, 240, 672, 1440, 2640, 4368, 6720, 9792, 13680, 18480, 24288, 31200, 39312, 48720, 59520, 71808, 85680, 101232, 118560, 137760, 158928, 182160, 207552, 235200, 265200, 297648, 332640, 370272, 410640
a(n) = 8*(n-1)*n*(2n-1).
[A115056] 0, 0, 0, 48, 264, 840, 2040, 4200, 7728, 13104, 20880, 31680, 46200, 65208, 89544, 120120, 157920, 204000, 259488, 325584, 403560, 494760, 600600, 722568, 862224, 1021200, 1201200, 1404000, 1631448, 1885464, 2168040, 2481240, 2827200
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A019558] 1, 48, 384, 1392, 3456, 6960, 12288, 19824, 29952, 43056, 59520, 79728, 104064, 132912, 166656, 205680, 250368, 301104, 358272, 422256, 493440, 572208, 658944, 754032, 857856, 970800, 1093248, 1225584
a(n) = 16*n*(2-3*n+4*n^2), n >= 1; G.f.: (1 + 44*x + 198*x^2 + 140*x^3 + x^4)/(1-x)^4.
[A192828] 48, 440, 2008, 6468, 16736, 37248, 74280, 136268, 234128, 381576, 595448, 896020, 1307328, 1857488, 2579016, 3509148, 4690160, 6169688, 8001048, 10243556, 12962848, 16231200, 20127848, 24739308, 30159696, 36491048, 43843640, 52336308, 62096768
a(n) = 2(2+n)*(6-24*n+25*n^2-13*n^3+4*n^4)/3.
[A168351] 0, 1, 48, 486, 2560, 9375, 27216, 67228, 147456, 295245, 550000, 966306, 1617408, 2599051, 4033680, 6075000, 8912896, 12778713, 17950896, 24760990, 33600000, 44925111, 59266768, 77236116, 99532800, 126953125, 160398576, 200884698
a(n) = Sum_{i=1..n} Sum_{j=1..n} Sum_{k=1..n} Sum_{l=1..n} Sum_{m=1..n} (i+j+k-l-m). - Wesley Ivan Hurt, Aug 13 2015
[A192832] 0, 48, 576, 2880, 9600, 25200, 56448, 112896, 207360, 356400, 580800, 906048, 1362816, 1987440, 2822400, 3916800, 5326848, 7116336, 9357120, 12129600, 15523200, 19636848, 24579456, 30470400, 37440000, 45630000, 55194048, 66298176, 79121280, 93855600
a(n) = 4*(-1+n)^2*n^2*(1+n).
[A136038] 0, 0, 48, 648, 3840, 15000, 45360, 115248, 258048, 524880, 990000, 1756920, 2965248, 4798248, 7491120, 11340000, 16711680, 24054048, 33907248, 46915560, 63840000, 85571640, 113145648, 147756048, 190771200, 243750000, 308458800, 386889048, 481275648
a(n)= 7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7). G.f.: 24*x^2*(1+x)*(2*x^2+11*x+2)/(1-x)^7. [From R. J. Mathar, Feb 06 2010]
[A192839] 0, 48, 768, 4320, 15360, 42000, 96768, 197568, 368640, 641520, 1056000, 1661088, 2515968, 3690960, 5268480, 7344000, 10027008, 13441968, 17729280, 23046240, 29568000, 37488528, 47021568, 58401600, 71884800, 87750000, 106299648, 127860768, 152785920, 181454160
a(n) = 8*(-1+n)^3*n*(1+n).
[A292045] 0, 48, 972, 7680, 37500, 136080, 403368, 1032192, 2361960, 4950000, 9663060, 17791488, 31188612, 52437840, 85050000, 133693440, 204459408, 305165232, 445697820, 638400000, 898502220, 1244602128, 1699194552, 2289254400, 3046875000, 4009964400, 5223002148
a(n) = (n - 1)*(n + 1)*n^5/2.
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
[A137558] 49, 69, 109, 149, 229, 269, 349, 389, 469, 589, 629, 749, 829, 869, 949, 1069, 1189, 1229, 1349, 1429, 1469, 1589, 1669, 1789, 1949, 2029, 2069, 2149, 2189, 2269
a(n) = 20p + 9, where p is the n-th prime. - Charles R Greathouse IV, Aug 25 2014
[A227863] 1, 49, 121, 169, 241, 289, 361, 409, 481, 529, 601, 649, 721, 769, 841, 889, 961, 1009, 1081, 1129, 1201, 1249, 1321, 1369, 1441, 1489, 1561, 1609, 1681, 1729, 1801, 1849, 1921, 1969, 2041, 2089, 2161, 2209, 2281, 2329, 2401, 2449, 2521, 2569, 2641, 2689
a(n) = 60*n - 6*(-1)^n - 65. [Bruno Berselli, Nov 04 2013]
[A027469] 49, 147, 294, 490, 735, 1029, 1372, 1764, 2205, 2695, 3234, 3822, 4459, 5145, 5880, 6664, 7497, 8379, 9310, 10290, 11319, 12397, 13524, 14700, 15925, 17199, 18522, 19894, 21315, 22785, 24304, 25872, 27489, 29155, 30870, 32634, 34447, 36309, 38220, 40180
a(3)=49, a(4)=147, a(5)=294, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Aug 24 2011]
[A016922] 1, 49, 169, 361, 625, 961, 1369, 1849, 2401, 3025, 3721, 4489, 5329, 6241, 7225, 8281, 9409, 10609, 11881, 13225, 14641, 16129, 17689, 19321, 21025, 22801, 24649, 26569, 28561, 30625, 32761, 34969, 37249, 39601, 42025, 44521, 47089, 49729, 52441, 55225
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Wesley Ivan Hurt, Oct 13 2014
[A158638] 1, 49, 193, 433, 769, 1201, 1729, 2353, 3073, 3889, 4801, 5809, 6913, 8113, 9409, 10801, 12289, 13873, 15553, 17329, 19201, 21169, 23233, 25393, 27649, 30001, 32449, 34993, 37633, 40369, 43201, 46129, 49153, 52273, 55489, 58801, 62209, 65713
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A157919] 49, 199, 449, 799, 1249, 1799, 2449, 3199, 4049, 4999, 6049, 7199, 8449, 9799, 11249, 12799, 14449, 16199, 18049, 19999, 22049, 24199, 26449, 28799, 31249, 33799, 36449, 39199, 42049, 44999, 48049, 51199, 54449, 57799, 61249, 64799, 68449
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A017246] 49, 256, 625, 1156, 1849, 2704, 3721, 4900, 6241, 7744, 9409, 11236, 13225, 15376, 17689, 20164, 22801, 25600, 28561, 31684, 34969, 38416, 42025, 45796, 49729, 53824, 58081, 62500, 67081, 71824
a(0)=49, a(1)=256, a(2)=625, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Apr 24 2016
[A239607] 1, 1, 49, 289, 961, 2401, 5041, 9409, 16129, 25921, 39601, 58081, 82369, 113569, 152881, 201601, 261121, 332929, 418609, 519841, 638401, 776161, 935089, 1117249, 1324801, 1560001, 1825201, 2122849, 2455489, 2825761, 3236401, 3690241, 4190209, 4739329
a(n) = sin(arcsin(n) - arccos(n))^2. G.f.: -(x^4+44*x^3+54*x^2-4*x+1) / (x-1)^5. - Colin Barker, May 24 2014
[A245033] 49, 320, 729, 1300, 2057, 3024, 4225, 5684, 7425, 9472, 11849, 14580, 17689, 21200, 25137, 29524, 34385, 39744, 45625, 52052, 59049, 66640, 74849, 83700, 93217, 103424, 114345, 126004, 138425, 151632, 165649, 180500, 196209, 212800, 230297, 248724
a(n) = 4*(n + 7)^3 - 27*(n + 7)^2.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), n >= 4, with inputs a(0), ..., a(3).
[A017606] 49, 361, 961, 1849, 3025, 4489, 6241, 8281, 10609, 13225, 16129, 19321, 22801, 26569, 30625, 34969, 39601, 44521, 49729, 55225, 61009, 67081, 73441, 80089, 87025, 94249, 101761, 109561, 117649
a(n) = a(n-1) +288*n +24, n>=1. - Vincenzo Librandi, Mar 20 2011
[A245036] 49, 2057, 4225, 11849, 17689, 34385, 74849, 93217, 165649, 230297, 268105, 355649, 519665, 727529, 807457, 1081849, 1295537, 1412185, 1803649, 2101145, 2606009, 3396649, 3845777, 4084465, 4591049, 4859329, 5426825, 7758049, 8529017, 9778649, 10220809, 12632369, 13156177, 14814049
a(n) = 4*[prime(n)]^3 - 27*prime(n)^2 = (prime(n)^2)*[4*prime(n) - 27], n >= 4.
[A014773] 1, 49, 3025, 6561, 35721, 55225, 162409, 219961, 485809, 613089, 1147041, 1385329, 2325625, 2725801, 4239481, 4862025, 7144929, 8059921, 11336689, 12623809, 17147881, 18896409, 24950025, 27258841, 35153041, 38130625, 48205249, 51969681, 64593369, 69272329
a(n) = 1/2*(200*n^4-920*n^3+1578*n^2-1196*n+338) for n even.
a(n) = 1/2*(200*n^4-520*n^3+498*n^2-208*n+32) for n odd.
[A158066] 50, 99, 148, 197, 246, 295, 344, 393, 442, 491, 540, 589, 638, 687, 736, 785, 834, 883, 932, 981, 1030, 1079, 1128, 1177, 1226, 1275, 1324, 1373, 1422, 1471, 1520, 1569, 1618, 1667, 1716, 1765, 1814, 1863, 1912, 1961, 2010, 2059, 2108, 2157, 2206
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 11 2012

[A261343] 0, 1, 50, 147, 292, 485, 726, 1015, 1352, 1737, 2170, 2651, 3180, 3757, 4382, 5055, 5776, 6545, 7362, 8227, 9140, 10101, 11110, 12167, 13272, 14425, 15626, 16875, 18172, 19517, 20910, 22351, 23840, 25377, 26962, 28595, 30276, 32005, 33782, 35607, 37480
a(n) = n*(24*n - 23).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Aug 17 2015
[A165676] 50, 154, 342, 638, 1066, 1650, 2414, 3382, 4578, 6026, 7750, 9774, 12122, 14818, 17886, 21350, 25234, 29562, 34358, 39646, 45450, 51794, 58702, 66198, 74306, 83050, 92454, 102542, 113338, 124866, 137150, 150214, 164082, 178778
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4)
a(n) = 6 + 22*n + 18*n^2 + 4*n^3
[A048511] 1, 50, 163, 421, 1005, 2317, 5245, 11741, 26077, 57565, 126429, 276445, 602077, 1306589, 2826205, 6094813, 13107165, 28114909, 60162013, 128450525, 273678301, 581959645, 1235222493, 2617245661, 5536481245, 11693719517
a(n) = (n+9)*(n+16) * 2^(n-2) - 35. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Feb 25 2015
[A173141] 50, 198, 444, 788, 1230, 1770, 2408, 3144, 3978, 4910, 5940, 7068, 8294, 9618, 11040, 12560, 14178, 15894, 17708, 19620, 21630, 23738, 25944, 28248, 30650, 33150, 35748, 38444, 41238, 44130, 47120, 50208, 53394, 56678, 60060, 63540, 67118, 70794, 74568, 78440, 82410, 86478, 90644, 94908, 99270, 103730, 108288
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A293608] 0, 50, 390, 1680, 5320, 13860, 31500, 64680, 122760, 218790, 370370, 600600, 939120, 1423240, 2099160, 3023280, 4263600, 5901210, 8031870, 10767680, 14238840, 18595500, 24009700, 30677400, 38820600, 48689550, 60565050, 74760840, 91626080, 111547920, 134954160
a(n) = n*(n+1)*Stirling2(4 + n, 2 + n).
a(n) = (1/24)*(n*(168 + 422*n + 395*n^2 + 175*n^3 + 37*n^4 + 3*n^5)).
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>6.
[A022147] 1, 50, 530, 2562, 8130, 20082, 42130, 78850, 135682, 218930, 335762, 494210, 703170, 972402, 1312530, 1735042, 2252290, 2877490, 3624722, 4508930, 5545922, 6752370, 8145810, 9744642, 11568130, 13636402
a(0) = 1; for n>0, a(n) = (108*n^4 - 88*n^3 + 156*n^2 - 32*n + 6)/3 . - Philippe Deléham, Feb 20 2004
[A206525] 51, 62, 164, 175, 277, 288, 390, 401, 503, 514, 616, 627, 729, 740, 842, 853, 955, 966, 1068, 1079, 1181, 1192, 1294, 1305, 1407, 1418, 1520, 1531, 1633, 1644, 1746, 1757, 1859, 1870, 1972, 1983, 2085, 2096, 2198, 2209
a(n) = (-113-91*(-1)^n+226*n)/4.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A075894] 51, 91, 157, 235, 337, 505, 673, 925, 1213, 1465, 1777, 2137, 2587, 3055, 3625, 4183, 4645, 5275, 5875, 6595, 7615, 8605, 9535, 10417, 11035, 11677, 13057, 14485, 16207, 17845, 19363, 20773, 22243, 24055, 25477, 27259, 29107, 30655, 32803
a(n) = (prime(n)^2 + prime(n+1)^2 + prime(n+2)^2 + prime(n+3)^2)/4, n>=2.
[A160847] 0, 1, 51, 100, 181, 274, 405, 536, 709, 894, 1111, 1330, 1591, 1858, 2167, 2482, 2825, 3180, 3577, 3974, 4413, 4860, 5339, 5824, 6351, 6884, 7455, 8032, 8641, 9262, 9925, 10584, 11285, 11998, 12743, 13494, 14283, 15078, 15915, 16758, 17633, 18516
a(n) = (1/2)*(f(m,n,1)-f(m,n,2)) where f(m,n,k) = Sum((n - |kx|)*(m - |ky|)); -n < kx <n, -m < ky <m, (x,y)=1, m=7.
[A063314] 1, 51, 120, 190, 260, 330, 400, 470, 540, 610, 680, 748, 820, 890, 960, 1028, 1100, 1168, 1240, 1308, 1380, 1448, 1520, 1586, 1660, 1728, 1800, 1866, 1940, 2006, 2080, 2146, 2220, 2286, 2360, 2424, 2500, 2566, 2640, 2704, 2780, 2844
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A129298] 0, 51, 120, 267, 540, 931, 1780, 3367, 5644, 10591, 19840, 33111, 61944, 115851, 193200, 361251, 675444, 1126267, 2105740, 3936991, 6564580, 12273367, 22946680, 38261391, 71534640, 133743267, 223003944, 416934651, 779513100, 1299762451
a(n) = 6*a(n-3)-a(n-6)+178 with for n > 6; a(1)=0, a(2)=51, a(3)=120, a(4)=267, a(5)=540, a(6)=931.
a(1)=0, a(2)=51, a(3)=120, a(4)=267, a(5)=540, a(6)=931, a(7)=1780, a(n)=a(n-1)+6*a(n-3)-6*a(n-4)-a(n-6)+a(n-7). - Harvey P. Dale, Sep 21 2013
[A245829] 51, 192, 285, 648, 847, 1536, 1881, 3000, 3531, 5184, 5941, 8232, 9255, 12288, 13617, 17496, 19171, 24000, 26061, 31944, 34431, 41472, 44425, 52728, 56187, 65856, 69861, 81000, 85591, 98304, 103521, 117912, 123795, 139968, 146557, 164616, 171951, 192000
a(n) = 3n^3 if n is even; a(n) = 3n^3 - 4n^2 + 2n if n is odd. Follows from Theorem 2.1 of the Klavzar et al. reference.
[A157365] 51, 200, 447, 792, 1235, 1776, 2415, 3152, 3987, 4920, 5951, 7080, 8307, 9632, 11055, 12576, 14195, 15912, 17727, 19640, 21651, 23760, 25967, 28272, 30675, 33176, 35775, 38472, 41267, 44160, 47151, 50240, 53427, 56712, 60095, 63576, 67155
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157916] 51, 201, 451, 801, 1251, 1801, 2451, 3201, 4051, 5001, 6051, 7201, 8451, 9801, 11251, 12801, 14451, 16201, 18051, 20001, 22051, 24201, 26451, 28801, 31251, 33801, 36451, 39201, 42051, 45001, 48051, 51201, 54451, 57801, 61251, 64801, 68451
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Feb 10 2012
[A158640] 51, 207, 467, 831, 1299, 1871, 2547, 3327, 4211, 5199, 6291, 7487, 8787, 10191, 11699, 13311, 15027, 16847, 18771, 20799, 22931, 25167, 27507, 29951, 32499, 35151, 37907, 40767, 43731, 46799, 49971, 53247, 56627, 60111, 63699, 67391
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A193250] 1, 51, 245, 679, 1449, 2651, 4381, 6735, 9809, 13699, 18501, 24311, 31225, 39339, 48749, 59551, 71841, 85715, 101269, 118599, 137801, 158971, 182205, 207599, 235249, 265251, 297701, 332695, 370329, 410699, 453901, 500031, 549185, 601459, 656949, 715751
a(n)= 16*n^3-24*n^2+10*n-1.
a(0)=1, a(1)=51, a(2)=245, a(3)=679, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Aug 27 2011]
[A152579] 51, 351, 851, 1551, 2451, 3551, 4851, 6351, 8051, 9951, 12051, 14351, 16851, 19551, 22451, 25551, 28851, 32351, 36051, 39951, 44051, 48351, 52851, 57551, 62451, 67551, 72851, 78351, 84051, 89951, 96051, 102351, 108851, 115551, 122451, 129551, 136851, 144351, 152051, 159951
a(n) = 2*a(n-2)-a(n-2)+200.
[A083669] 1, 51, 381, 1451, 3951, 8801, 17151, 30381, 50101, 78151, 116601, 167751, 234131, 318501, 423851, 553401, 710601, 899131, 1122901, 1386051, 1692951, 2048201, 2456631, 2923301, 3453501, 4052751, 4726801, 5481631, 6323451, 7258701
a(n)= 1+5*n*(n+1)*(23*n^2+23*n+14)/12.
a(n)= integral((sin((n+1/2)x)/sin(x/2))^5, x=0..Pi)/Pi. - Yalcin Aktar, Dec 03 2011
[A142994] 1, 51, 501, 2471, 8361, 22363, 50973, 103503, 192593, 334723, 550725, 866295, 1312505, 1926315, 2751085, 3837087, 5242017, 7031507, 9279637, 12069447, 15493449, 19654139, 24664509, 30648559, 37741809, 46091811, 55858661, 67215511, 80349081
a(n) = (2*n+1)*(32*n^4+64*n^3+88*n^2+56*n+15)/15.
a(n) = Sum_{k = 0..5} binomial(10,2k)*binomial(n+k,5).
a(n) = Sum_{k = 0..5} binomial(10,2k+1)*binomial(n+k+1/2,5).
a(n) = 6*a(n-1) -15*a(n-2)+ 20*a(n-3) -15*a(n-4)+ 6*a(n-5) -a(n-6), for n>5. - Vincenzo Librandi, Dec 16 2015
[A160829] 1, 51, 673, 4287, 17931, 57321, 152251, 353333, 740077, 1430311, 2590941, 4450051, 7310343, 11563917, 17708391, 26364361, 38294201, 54422203, 75856057, 103909671, 140127331, 186309201, 244538163, 317207997, 407052901, 517178351
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7), with a(0)=1, a(1)=51, a(2)=673, a(3)=4287, a(4)=17931, a(5)=57321, a(6)=152251. - Harvey P. Dale, Jun 21 2011
a(n) = (1/36)*(36 + 174*n + 391*n^2 + 513*n^3 + 442*n^4 + 213*n^5 + 67*n^6). - Harvey P. Dale, Jun 21 2011, corrected by Eric Rowland, Aug 15 2017
[A160835] 1, 51, 675, 4319, 18131, 58121, 154701, 359605, 754189, 1459111, 2645391, 4546851, 7473935, 11828909, 18122441, 26991561, 39219001, 55753915, 77733979, 106508871, 143665131, 191052401, 250811045, 325401149, 417632901, 530698351
a(n) = 1+n*(n+1)*(23*n^4+48*n^3+98*n^2+73*n+58)/12. - R. J. Mathar, Sep 17 2011
[A227703] 52, 150, 328, 610, 1020, 1582, 2320, 3258, 4420, 5830, 7512, 9490, 11788, 14430, 17440, 20842, 24660, 28918, 33640, 38850, 44572, 50830, 57648, 65050, 73060, 81702, 91000, 100978, 111660, 123070, 135232, 148170, 161908, 176470, 191880
a(n) = 2*n*(1 + 2*n + 2*n^2).
[A161478] 0, 52, 175, 339, 615, 1312, 2260, 3864, 7923, 13447, 22795, 46452, 78648, 133132, 271015, 458667, 776223, 1579864, 2673580, 4524432, 9208395, 15583039, 26370595, 53670732, 90824880, 153699364, 312816223, 529366467, 895825815, 1823226832, 3085374148
a(n) = 6*a(n-3)-a(n-6)+226 for n > 6; a(1)=0, a(2)=52, a(3)=175, a(4)=339, a(5)=615, a(6)=1312.

[A288919] 0, 0, 52, 176, 372, 640, 980, 1392, 1876, 2432, 3060, 3760, 4532, 5376, 6292, 7280, 8340, 9472, 10676, 11952, 13300, 14720, 16212, 17776, 19412, 21120, 22900, 24752, 26676, 28672
a(n) = 36*n^2 - 128*n + 112 for n>1. - Andrew Howroyd, Jun 19 2017
[A005946] 1, 52, 358, 1304, 3455, 7556, 14532, 25488, 41709, 64660, 95986, 137512, 191243, 259364, 344240, 448416, 574617, 725748, 904894, 1115320, 1360471, 1643972, 1969628, 2341424, 2763525, 3240276, 3776202, 4376008, 5044579, 5786980, 6608456
a(n) = h(5,n) where h(n, m) = Sum_{j} (n!/f(j)) * Product_{k=1..n} h(k,m-1)^(j(k)) and the sum runs over all partitions j=(j(1),...,j(n)) of n and f(j) = Product_{k=1..n} j(k)! * (k!)^(j(k)). That is, j satisfies Sum_{k=1..n} k*j(k) = n [From Hogg Huberman]. - Sean A. Irvine, Oct 11 2016
[A156854] 52, 2726, 9450, 20224, 35048, 53922, 76846, 103820, 134844, 169918, 209042, 252216, 299440, 350714, 406038, 465412, 528836, 596310, 667834, 743408, 823032, 906706, 994430, 1086204, 1182028, 1281902, 1385826, 1493800, 1605824, 1721898
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A160041] 53, 73, 125, 193, 365, 697, 1105, 2117, 4057, 6437, 12337, 23645, 37517, 71905, 137813, 218665, 419093, 803233, 1274473, 2442653, 4681585, 7428173, 14236825, 27286277, 43294565, 82978297, 159036077, 252339217, 483632957, 926930185
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=53, a(2)=73, a(3)=125, a(4)=193, a(5)=365, a(6)=697.
[A063363] 1, 53, 102, 157, 212, 259, 314, 367, 416, 469, 526, 573, 628, 679, 730, 783, 840, 885, 942, 993, 1044, 1095, 1154, 1199, 1256, 1305, 1358, 1409, 1468, 1511, 1570, 1619, 1672, 1721, 1782, 1825, 1884, 1931, 1986, 2035, 2096, 2137, 2198
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A158644] 1, 53, 209, 469, 833, 1301, 1873, 2549, 3329, 4213, 5201, 6293, 7489, 8789, 10193, 11701, 13313, 15029, 16849, 18773, 20801, 22933, 25169, 27509, 29953, 32501, 35153, 37909, 40769, 43733, 46801, 49973, 53249, 56629, 60113, 63701, 67393
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158656] 53, 215, 485, 863, 1349, 1943, 2645, 3455, 4373, 5399, 6533, 7775, 9125, 10583, 12149, 13823, 15605, 17495, 19493, 21599, 23813, 26135, 28565, 31103, 33749, 36503, 39365, 42335, 45413, 48599, 51893, 55295, 58805, 62423, 66149, 69983
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A157618] 53, 1042, 3281, 6770, 11509, 17498, 24737, 33226, 42965, 53954, 66193, 79682, 94421, 110410, 127649, 146138, 165877, 186866, 209105, 232594, 257333, 283322, 310561, 339050, 368789, 399778, 432017, 465506, 500245, 536234, 573473, 611962
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A248598] 0, 0, 54, 174, 372, 660, 1050, 1554, 2184, 2952, 3870, 4950, 6204, 7644, 9282, 11130, 13200, 15504, 18054, 20862, 23940, 27300, 30954, 34914, 39192, 43800, 48750, 54054, 59724, 65772, 72210, 79050, 86304, 93984, 102102, 110670, 119700
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Oct 09 2014
[A068380] 1, 54, 180, 378, 648, 990, 1404, 1890, 2448, 3078, 3780, 4554, 5400, 6318, 7308, 8370, 9504, 10710, 11988, 13338, 14760, 16254, 17820, 19458, 21168, 22950, 24804, 26730, 28728, 30798, 32940, 35154, 37440, 39798, 42228, 44730, 47304, 49950
a(0) = 1, a(n) = 36n^2 + 18n. - Ralf Stephan, Sep 03 2003
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3. G.f.: (1+51*x+21*x^2-x^3)/(1-x)^3. - Colin Barker, Apr 13 2012
[A245830] 54, 243, 656, 1381, 2506, 4119, 6308, 9161, 12766, 17211, 22584, 28973, 36466, 45151, 55116, 66449, 79238, 93571, 109536, 127221, 146714, 168103, 191476, 216921, 244526, 274379, 306568, 341181, 378306, 418031
a(n) = (44*n^3 + 72*n^2 + 43*n + 3)/3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Dec 08 2016
[A245833] 54, 540, 2610, 8820, 23940, 55944, 117180, 225720, 406890, 694980, 1135134, 1785420, 2719080, 4026960, 5820120, 8232624, 11424510, 15584940, 20935530, 27733860, 36277164, 46906200, 60009300, 76026600, 95454450, 118850004, 146835990, 180105660
a(k) = (k^6+12k^5+49k^4+84k^3+58k^2+12k)/4.
[A218130] 0, 0, 54, 696, 4020, 15480, 46410, 117264, 261576, 530640, 998910, 1770120, 2984124, 4824456, 7526610, 11387040, 16772880, 24132384, 34006086, 47038680, 63991620, 85756440, 113368794, 148023216, 191088600, 244124400, 308897550, 387400104, 481867596, 594798120
a(n) = n^6-n^3-n^2+n.
[A245832] 54, 1008, 6656, 27340, 84990, 219604, 497168, 1019016, 1932630, 3443880, 5830704, 9458228, 14795326, 22432620, 33101920, 47697104, 67296438, 93186336, 126886560, 170176860, 225125054, 294116548, 379885296, 485546200, 614628950, 771113304, 959465808, 1184677956
a(k) = (12k^6+72k^5+137k^92k^3+13k^2-2k)/6.
[A101286] 55, 58, 62, 65, 69, 73, 78, 82, 87, 92, 98, 104, 110, 117, 123, 131, 139, 147, 156, 165, 175, 185, 196, 208, 220, 233, 247, 262, 277, 294, 311, 330, 349, 370, 392, 415, 440, 466, 494, 523, 554, 587, 622, 659, 698, 740, 784, 831, 880, 932, 988, 1047, 1109, 1175
a(1+n) = round(55*2^(n/12)). - R. J. Mathar, Mar 12 2008
[A101285] 55, 62, 65, 73, 82, 87, 98, 110, 123, 131, 147, 165, 175, 196, 220, 247, 262, 294, 330, 349, 392, 440, 494, 523, 587, 659, 698, 784, 880, 988, 1047, 1175, 1319, 1397, 1568, 1760, 1976, 2093, 2349, 2637, 2794, 3136, 3520, 3951, 4186, 4699, 5274, 5588, 6272
a(7n) = round(55*2^(n-1/6));
a(7n+1) = 55*2^n;
a(7n+2) = round(55*2^(n+1/6));
a(7n+3) = round(55*2^(n+1/4));
a(7n+4) = round(55*2^(n+5/12));
a(7n+5) = round(110*2^(n-5/12));
[A004434] 55, 66, 75, 79, 82, 87, 88, 90, 94, 95, 99, 100, 103, 106, 110, 111, 114, 115, 118, 120, 121, 123, 126, 127, 129, 130, 131, 132, 134, 135, 138, 139, 142, 143, 144, 145, 146, 147, 148, 150, 151, 152, 154, 155, 156, 157, 158, 159, 160, 162, 163
a(n) = n + 124 for n > 121. [Charles R Greathouse IV, Jul 17 2011]
[A027865] 55, 91, 139, 199, 271, 355, 451, 559, 679, 811, 955, 1111, 1279, 1459, 1651, 1855, 2071, 2299, 2539, 2791, 3055, 3331, 3619, 3919, 4231, 4555, 4891, 5239, 5599, 5971, 6355, 6751, 7159, 7579, 8011
a(n) = 6*n^2 + 30*n + 55.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) = a(n-1) + 12*(n+2). - Jean-Christophe Hervé, Nov 11 2015
[A128880] 1, 55, 91, 253, 325, 595, 703, 1081, 1225, 1711, 1891, 2485, 2701, 3403, 3655, 4465, 4753, 5671, 5995, 7021, 7381, 8515, 8911, 10153, 10585, 11935, 12403, 13861, 14365, 15931, 16471, 18145, 18721, 20503, 21115, 23005, 23653, 25651, 26335, 28441
a(1)=Tr(1), a(2)=Tr(10), where Tr(k)=k(k+1)/2 is triangular number; for n>=3 a(n)=Tr(k(n)), where k(n)=k(n-2)+12 with k(1)=1, k(2)=10.
a(n) = (36*n^2+18*(-1)^n*n-36*n-9*(-1)^n+11)/2.
a(n) = 18*n^2-9*n+1 for n even.
a(n) = 18*n^2-27*n+10 for n odd.
[A063345] 1, 55, 119, 184, 247, 312, 375, 441, 503, 569, 631, 698, 759, 826, 887, 955, 1015, 1083, 1143, 1212, 1271, 1340, 1399, 1469, 1527, 1597, 1655, 1726, 1783, 1854, 1911, 1983, 2039, 2111, 2167, 2240, 2295, 2368, 2423, 2497, 2551, 2625, 2679
a(n) = a(n-2)+a(n-4)-a(n-6) for n>8.
[A224459] 55, 133, 259, 442, 691, 1015, 1423, 1924, 2527, 3241, 4075, 5038, 6139, 7387, 8791, 10360, 12103, 14029, 16147, 18466, 20995, 23743, 26719, 29932, 33391, 37105, 41083, 45334, 49867, 54691, 59815, 65248, 70999, 77077, 83491, 90250, 97363, 104839, 112687
a(n) = (3*n^3 +21*n^2 -6*n +14)/2.
[A158646] 1, 55, 217, 487, 865, 1351, 1945, 2647, 3457, 4375, 5401, 6535, 7777, 9127, 10585, 12151, 13825, 15607, 17497, 19495, 21601, 23815, 26137, 28567, 31105, 33751, 36505, 39367, 42337, 45415, 48601, 51895, 55297, 58807, 62425, 66151, 69985
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158658] 55, 223, 503, 895, 1399, 2015, 2743, 3583, 4535, 5599, 6775, 8063, 9463, 10975, 12599, 14335, 16183, 18143, 20215, 22399, 24695, 27103, 29623, 32255, 34999, 37855, 40823, 43903, 47095, 50399, 53815, 57343, 60983, 64735, 68599, 72575
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A053138] 1, 55, 715, 5005, 24310, 92378, 293930, 817190, 2042975, 4686825, 10015005, 20160075, 38567100, 70607460, 124403620, 211915132, 350343565, 563921995, 886163135, 1362649145, 2054455634, 3042312350, 4431613550, 6358402050, 8996462475, 12565671261, 17341763505

a(n) = 10*a(n-1) - 45*a(n-2) + 120*a(n-3) - 210*a(n-4) + 252*a(n-5) - 210*a(n-6) + 120*a(n-7) - 45*a(n-8) + 10*a(n-9) - a(n-10) for n > 9. - Wesley Ivan Hurt, Dec 05 2016

[A133898] 56, 57, 58, 59, 60, 61, 62, 63, 120, 121, 122, 123, 124, 125, 126, 127, 184, 185, 186, 187, 188, 189, 190, 191, 248, 249, 250, 251, 252, 253, 254, 255, 312, 313, 314, 315, 316, 317, 318, 319, 376, 377, 378, 379, 380, 381, 382, 383, 440, 441, 442, 443, 444

a(n)=8n-56-7*(n mod 8).

[A254369] 56, 84, 156, 354, 936, 2754, 8736, 29274, 102216, 368274, 1359216, 5110794, 19495896, 75203394, 292596096, 1145977914, 4511183976, 17827536114, 70660511376, 280697078634, 1116961278456, 4450379734434, 17749154257056, 70839585900954, 282887376051336, 1130136853206354, 4516309963145136, 1805252851017
72171982026734616

a(n) = 10*a(n-1)-35*a(n-2)+50*a(n-3)-24*a(n-4). - Colin Barker, Jan 30 2015

[A104394] 56, 91, 111, 121, 125, 147, 167, 177, 181, 202, 212, 216, 231, 232, 236, 246, 251, 261, 265, 286, 296, 300, 316, 320, 330, 342, 351, 352, 356, 371, 372, 376, 381, 385, 386, 406, 407, 411, 416, 420, 421, 436, 440, 441, 450, 462, 472, 476, 492, 496

a(n) = Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).

[A280932] 56, 97, 153, 250, 403, 653, 1056, 1709, 2765, 4474, 7239, 11713, 18952, 30665, 49617, 80282, 129899, 210181, 340080, 550261, 890341, 1440602, 2330943, 3771545, 6102488, 9874033, 15976521, 25850554, 41827075, 67677629, 109504704, 177182333, 286687037

a(n) = a(n-1) + a(n-2).

[A063347] 1, 56, 114, 171, 228, 285, 342, 397, 456, 511, 570, 627, 684, 737, 798, 853, 912, 967, 1026, 1079, 1140, 1193, 1254, 1309, 1368, 1419, 1482, 1535, 1596, 1649, 1710, 1761, 1824, 1875, 1938, 1991, 2052, 2101, 2166, 2217, 2280, 2331, 2394

a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.

[A157330] 56, 120, 184, 248, 312, 376, 440, 504, 568, 632, 696, 760, 824, 888, 952, 1016, 1080, 1144, 1208, 1272, 1336, 1400, 1464, 1528, 1592, 1656, 1720, 1784, 1848, 1912, 1976, 2040, 2104, 2168, 2232, 2296, 2360, 2424, 2488, 2552, 2616, 2680, 2744, 2808, 2872

a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 29 2012

[A158481] 56, 203, 448, 791, 1232, 1771, 2408, 3143, 3976, 4907, 5936, 7063, 8288, 9611, 11032, 12551, 14168, 15883, 17696, 19607, 21616, 23723, 25928, 28231, 30632, 33131, 35728, 38423, 41216, 44107, 47096, 50183, 53368, 56651, 60032, 63511, 67088

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A158487] 56, 248, 568, 1016, 1592, 2296, 3128, 4088, 5176, 6392, 7736, 9208, 10808, 12536, 14392, 16376, 18488, 20728, 23096, 25592, 28216, 30968, 33848, 36856, 39992, 43256, 46648, 50168, 53816, 57592, 61496, 65528, 69688, 73976, 78392, 82936

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 09 2012

[A005912] 1, 56, 311, 920, 2037, 3816, 6411, 9976, 14665, 20632, 28031, 37016, 47741, 60360, 75027, 91896, 111121, 132856, 157255, 184472, 214661, 247976, 284571, 324600, 368217, 415576, 466831, 522136, 581645, 645512, 713891, 786936, 864801, 947640, 1035607, 1128856

a(n) = (3*n+1)^3-8*(n)*(n+1)*(n+2)/6=77/3*n^3+23*n^2+19/3*n+1.

a(0)=1, a(1)=56, a(2)=311, a(3)=920, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Aug 14 2011

[A287702] 0, 1, 56, 381, 1192, 2705, 5136, 8701, 13616, 20097, 28360, 38621, 51096, 66001, 83552, 103965, 127456, 154241, 184536, 218557, 256520, 298641, 345136, 396221, 452112, 513025, 579176, 650781, 728056, 811217, 900480, 996061, 1098176, 1207041, 1322872, 1445885

a(n) = 46*n - 81*n^2 + 36*n^3.

a(n) = [x^n] (x + 52*x^2 + 163*x^3) / (1 - x)^4.

[A182866] 0, 56, 810, 4992, 20000, 61560, 158466, 358400, 734832, 1395000, 2488970, 4219776, 6854640, 10737272, 16301250, 24084480, 34744736, 49076280, 68027562, 92720000, 124467840, 164799096, 215477570, 278525952, 356250000, 451263800, 566516106, 705317760

a(n) = (1/2)*n^4*(-1 - 2*n + 3*n^2).

a(1)=0, a(2)=56, a(3)=810, a(4)=4992, a(5)=20000, a(6)=61560, a(7)=158466, a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7). - Harvey P. Dale, Oct 30 2011

[A243206] 0, 0, 0, 56, 1044, 6632, 26172, 78536, 196916, 434584, 871612, 1622552, 2845076, 4749576, 7609724, 11773992, 17678132, 25858616, 36967036, 51785464, 71242772, 96431912, 128628156, 169308296, 220170804, 283156952, 360472892, 454612696, 568382356, 704924744

a(n) = (4*n^6-12*n^5-30*n^4+116*n^3+14*n^2-272*n+156)/3 for n>=3, a(n) = 0 for n<3.

[A130646] 0, 56, 1925, 2181, 2465, 13056, 14540, 16188, 77865, 86513, 96117, 455588, 505992, 561968, 2657117, 2950893, 3277145, 15488568, 17200820, 19102356, 90275745, 100255481, 111338445, 526167356, 584333520, 648929768, 3066729845

a(n) = 6*a(n-3)-a(n-6)+1454 for n > 6; a(1)=0, a(2)=56, a(3)=1925, a(4)=2181, a(5)=2465, a(6)=13056.

[A056082] 1, 57, 68, 124, 126, 182, 193, 249, 251, 307, 318, 374, 376, 432, 443, 499, 501, 557, 568, 624, 626, 682, 693, 749, 751, 807, 818, 874, 876, 932, 943, 999, 1001, 1057, 1068, 1124, 1126, 1182, 1193, 1249, 1251, 1307, 1318, 1374, 1376, 1432, 1443, 1499, 1501

a(n) = a(n-1) + a(n-4) - a(n-5) for n>5.

a(n) = (250*n-125+99*i^(2*n)+(9-9*i)*i^(-n)+(9+9*i)*i^n)/8 where i=sqrt(-1). (End)

[A063316] 1, 57, 133, 210, 287, 364, 441, 518, 595, 672, 749, 824, 903, 980, 1057, 1132, 1211, 1286, 1365, 1440, 1519, 1594, 1673, 1746, 1827, 1902, 1981, 2054, 2135, 2208, 2289, 2362, 2443, 2516, 2597, 2668, 2751, 2824, 2905, 2976, 3059, 3130

a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.

[A158660] 1, 57, 225, 505, 897, 1401, 2017, 2745, 3585, 4537, 5601, 6777, 8065, 9465, 10977, 12601, 14337, 16185, 18145, 20217, 22401, 24697, 27105, 29625, 32257, 35001, 37857, 40825, 43905, 47097, 50401, 53817, 57345, 60985, 64737, 68601, 72577

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A158668] 57, 231, 521, 927, 1449, 2087, 2841, 3711, 4697, 5799, 7017, 8351, 9801, 11367, 13049, 14847, 16761, 18791, 20937, 23199, 25577, 28071, 30681, 33407, 36249, 39207, 42281, 45471, 48777, 52199, 55737, 59391, 63161, 67047, 71049, 75167

a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).

[A157651] 57, 308, 759, 1410, 2261, 3312, 4563, 6014, 7665, 9516, 11567, 13818, 16269, 18920, 21771, 24822, 28073, 31524, 35175, 39026, 43077, 47328, 51779, 56430, 61281, 66332, 71583, 77034, 82685, 88536, 94587, 100838, 107289, 113940, 120791, 127842

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A076459] 1, 57, 390, 1510, 4335, 10311, 21532, 40860, 72045, 119845, 190146, 290082, 428155, 614355, 860280, 1179256, 1586457, 2099025, 2736190, 3519390, 4472391, 5621407, 6995220, 8625300, 10545925, 12794301, 15410682, 18438490, 21924435, 25918635, 30474736, 35650032

a(n) = n*(n+1)*(2*n^3+2*n^2-2*n-1)/2.

[A290779] 0, 0, 1, 57, 486, 2360, 8394, 24354, 61104, 137412, 283635, 546403, 994422, 1725516, 2875028, 4625700, 7219152, 10969080, 16276293, 23645709, 33705430, 47228016, 65154078, 88618310, 118978080, 157844700, 207117495, 269020791, 346143942, 441484516, 558494760

a(n) = binomial(n + 1, 4)*(-62 + 11*n - 109*n^2 + 40*n^3)/70.

a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).

[A180571] 58, 136, 259, 436, 676, 988, 1381, 1864, 2446, 3136, 3943, 4876, 5944, 7156, 8521, 10048, 11746, 13624, 15691, 17956, 20428, 23116, 26029, 29176, 32566, 36208, 40111, 44284, 48736, 53476, 58513, 63856, 69514, 75496, 81811, 88468, 95476

a(n) = (2 + 9n + 18n^2 + 3n^3)/2.

[A225788] 0, 0, 58, 143, 235, 328, 422, 517, 610, 703, 795, 886, 976, 1066, 1154, 1242, 1329, 1415, 1501, 1585, 1669, 1752, 1835, 1917, 1998, 2079, 2159, 2238, 2317, 2395, 2473, 2551, 2627, 2704, 2780, 2855, 2930, 3005, 3079, 3152, 3226, 3299, 3371, 3443, 3515, 3587

a(n) = floor(72*n^(1/2)*(log(n))^(3/2)).

[A156639] 58, 425, 1130, 2173, 3554, 5273, 7330, 9725, 12458, 15529, 18938, 22685, 26770, 31193, 35954, 41053, 46490, 52265, 58378, 64829, 71618, 78745, 86210, 94013, 102154, 110633, 119450, 128605, 138098, 147929, 158098

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A220463] 59, 137, 139, 149, 223, 241, 347, 353, 383, 389, 563, 569, 593, 613, 631, 641, 821, 823, 853, 929, 937, 1009, 1013, 1061, 1069, 1277, 1279, 1361, 1427, 1433, 1481, 1487, 1597, 1601, 1607, 1609, 1613, 1973, 1979, 1997, 2011, 2081, 2083, 2113, 2203, 2269, 2273, 2297

a(n)<=prime(11*(n+1)).

[A156796] 59, 140, 221, 302, 383, 464, 545, 626, 707, 788, 869, 950, 1031, 1112, 1193, 1274, 1355, 1436, 1517, 1598, 1679, 1760, 1841, 1922, 2003, 2084, 2165, 2246, 2327, 2408, 2489, 2570, 2651, 2732, 2813, 2894, 2975, 3056, 3137, 3218, 3299, 3380, 3461, 3542

a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Mar 01 2012

[A158666] 1, 59, 233, 523, 929, 1451, 2089, 2843, 3713, 4699, 5801, 7019, 8353, 9803, 11369, 13051, 14849, 16763, 18793, 20939, 23201, 25579, 28073, 30683, 33409, 36251, 39209, 42283, 45473, 48779, 52201, 55739, 59393, 63163, 67049, 71051, 75169
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158670] 59, 239, 539, 959, 1499, 2159, 2939, 3839, 4859, 5999, 7259, 8639, 10139, 11759, 13499, 15359, 17339, 19439, 21659, 23999, 26459, 29039, 31739, 34559, 37499, 40559, 43739, 47039, 50459, 53999, 57659, 61439, 65339, 69359, 73499, 77759
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A274503] 0, 0, 1, 59, 745, 4665, 19995, 67287, 191103, 478335, 1085370, 2276560, 4476758, 8340982, 14844570, 25397490, 41986770, 67351314, 105193671, 160433625, 239508775, 350727575, 504680605, 714716145, 997486425, 1373571225, 1868185800, 2511980406, 3341939004
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9).
a(n) = (n-1)*(n-2)*(n-3)*(n-4)*(n-5)*(n-6)*(301*n^2-4099*n+14000)/40320. - Wesley Ivan Hurt, Jun 25 2016
[A248974] 59, 959, 4859, 15359, 37499, 77759, 144059, 245759, 393659, 599999, 878459, 1244159, 1713659, 2304959, 3037499, 3932159, 5011259, 6298559, 7819259, 9599999, 11668859, 14055359, 16790459, 19906559, 23437499, 27418559, 31886459, 36879359, 42436859, 48599999
a(n) = 60*n^4 - 1.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Colin Barker, Oct 22 2014
[A245941] 0, 0, 59, 1040, 7014, 29580, 94105, 247884, 570220, 1184424, 2271735, 4087160, 6977234, 11399700, 17945109, 27360340, 40574040, 58723984, 83186355, 115606944, 157934270, 212454620, 281829009, 369132060, 477892804, 612137400, 776433775, 975938184, 1216443690
a(n) = (n-1)*n*(2*n-1)*(8*n^3-3*n+1)/6. [Bruno Berselli, Aug 08 2014]
a(0)=0, a(1)=0, a(2)=59, a(3)=1040, a(4)=7014, a(5)=29580, a(6)=94105, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Apr 13 2015
[A069976] 60, 90, 108, 120, 129, 135, 140, 144, 147, 150, 152, 154, 156, 158, 159, 160, 161, 162, 163, 164, 164, 165, 166, 166, 167, 167, 168, 168, 168, 169, 169, 169, 170, 170, 170, 171, 171, 171, 171, 171, 172, 172, 172, 172, 172, 173, 173, 173, 173, 173, 173, 173, 173, 174
a(n) = round(((n-2)*180)/n).
[A097714] 60, 100, 140, 220, 340, 540, 900, 1500, 2500, 4140, 6900, 11500, 19140, 31900, 53140, 88540, 147540, 245900, 409820, 683020, 1138340, 1897220, 3162020, 5270020, 8783340, 14638900, 24398140, 40663540, 67772540, 112954220, 188257020
a(n) = 100*floor(a(n-1)/60) + mod(a(n-1), 60).
[A257146] 60, 168, 1092, 2448, 5616, 6072, 25308, 29120, 32736, 39732, 51888, 74412, 150348, 194472, 285852, 546312, 612468, 1285608, 1934868, 2097024, 2165292, 2588772, 3594432, 3822588, 5848428, 6324552, 7174332, 8487168, 9095592, 10626828, 11332452, 12576732, 14467068, 15331992, 15927348
a(n) » n^3 log^3 n. - Charles R Greathouse IV, Apr 20 2015
[A249911] 0, 1, 60, 177, 352, 585, 876, 1225, 1632, 2097, 2620, 3201, 3840, 4537, 5292, 6105, 6976, 7905, 8892, 9937, 11040, 12201, 13420, 14697, 16032, 17425, 18876, 20385, 21952, 23577, 25260, 27001, 28800, 30657, 32572, 34545, 36576, 38665, 40812, 43017, 45280
a(n+1) = a(n) + 58*n + 1. - Jon Perry, Nov 09 2014
[A224335] 60, 212, 508, 996, 1724, 2740, 4092, 5828, 7996, 10644, 13820, 17572, 21948, 26996, 32764, 39300, 46652, 54868, 63996, 74084, 85180, 97332, 110588, 124996, 140604, 157460, 175612, 195108, 215996, 238324, 262140, 287492, 314428, 342996, 373244
a(n) = 8*n^3 + 24*n^2 + 24*n + 4.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Colin Barker, Sep 20 2014
[A277990] 0, 60, 228, 504, 888, 1380, 1980, 2688, 3504, 4428, 5460, 6600, 7848, 9204, 10668, 12240, 13920, 15708, 17604, 19608, 21720, 23940, 26268, 28704, 31248, 33900, 36660, 39528, 42504, 45588, 48780, 52080, 55488, 59004, 62628, 66360, 70200, 74148, 78204, 82368, 86640
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Nov 13 2016
[A100153] 1, 60, 276, 748, 1575, 2856, 4690, 7176, 10413, 14500, 19536, 25620, 32851, 41328, 51150, 62416, 75225, 89676, 105868, 123900, 143871, 165880, 190026, 216408, 245125, 276276, 309960, 346276, 385323, 427200, 472006, 519840
a(n) = (1/2)*n*(33*n^2-41*n+10).
a(1)=1, a(2)=60, a(3)=276, a(4)=748, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Dec 09 2012
[A100154] 1, 60, 282, 772, 1635, 2976, 4900, 7512, 10917, 15220, 20526, 26940, 34567, 43512, 53880, 65776, 79305, 94572, 111682, 130740, 151851, 175120, 200652, 228552, 258925, 291876, 327510, 365932, 407247, 451560, 498976, 549600
a(n) = (1/2)*n*(35*n^2-47*n+14).
[A100148] 1, 60, 285, 784, 1665, 3036, 5005, 7680, 11169, 15580, 21021, 27600, 35425, 44604, 55245, 67456, 81345, 97020, 114589, 134160, 155841, 179740, 205965, 234624, 265825, 299676, 336285, 375760, 418209, 463740, 512461, 564480
a(n)=(1/6)*(108*n^3-150*n^2+48*n)
a(1)=1, a(2)=60, a(3)=285, a(4)=784, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Oct 10 2011]
[A100151] 1, 60, 286, 788, 1675, 3056, 5040, 7736, 11253, 15700, 21186, 27820, 35711, 44968, 55700, 68016, 82025, 97836, 115558, 135300, 157171, 181280, 207736, 236648, 268125, 302276, 339210, 379036, 421863, 467800, 516956, 569440
a(n) = (1/6)*n*(109*n^2-153*n+50).
[A063497] 0, 60, 300, 840, 1800, 3300, 5460, 8400, 12240, 17100, 23100, 30360, 39000, 49140, 60900, 74400, 89760, 107100, 126540, 148200, 172200, 198660, 227700, 259440, 294000, 331500, 372060, 415800, 462840, 513300, 567300, 624960, 686400, 751740, 821100, 894600
a(n) = 20*n^3+30*n^2+10*n.
[A033591] 1, 60, 315, 910, 1989, 3696, 6175, 9570, 14025, 19684, 26691, 35190, 45325, 57240, 71079, 86986, 105105, 125580, 148555, 174174, 202581, 233920, 268335, 305970, 346969, 391476, 439635, 491590, 547485
a(0)=1, a(1)=60, a(2)=315, a(3)=910, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Oct 24 2014
[A024184] 60, 342, 1175, 3135, 7140, 14560, 27342, 48150, 80520, 129030, 199485, 299117, 436800, 623280, 871420, 1196460, 1616292, 2151750, 2826915, 3669435, 4710860, 5986992, 7538250, 9410050, 11653200, 14324310, 17486217, 21208425, 25567560
a(n) = n*(n+1)*(n+2)*(n+7)(n^2+13*n+46)/48.
a(1)=60, a(2-)=342, a(3)=1175, a(4)=3135, a(5)=7140, a(6)=14560, a(7)=27342, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+ 21*a(n-5)- 7*a(n-6)+a (n-7). [From Harvey P. Dale, Oct 31 2011]
[A293615] 0, 60, 360, 1260, 3360, 7560, 15120, 27720, 47520, 77220, 120120, 180180, 262080, 371280, 514080, 697680, 930240, 1220940, 1580040, 2018940, 2550240, 3187800, 3946800, 4843800, 5896800, 7125300, 8550360, 10194660, 12082560, 14240160, 16695360, 19477920, 22619520
a(n) = n*(n+1)*(n+2)*Stirling2(4 + n, 3 + n).
a(n) = (1/2)*(n*(1 + n)*(2 + n)*(3 + n)*(4 + n)).
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A060489] 60, 375, 1392, 4020, 9960, 22200, 45730, 88543, 163000, 287650, 489610, 807625, 1295944, 2029165, 3108220, 4667690, 6884660, 9989345, 14277740, 20126570, 28010840, 38524310, 52403246, 70553825, 94083600, 124337460, 162938550
a(n)=binomial(n+9, 9)-15*binomial(n+3, 3)+45*binomial(n+1, 1)-40*binomial(n, 0)+9*binomial(n-1, -1); G.f.: y^3*(-225*y^3+60-225*y+342*y^2+90*y^5-50*y^6+9*y^7)/(-1+y)^10; E.g.f. for ordered k-block tricoverings of an unlabeled n-set is exp(-x+x^2/2+x^3/3*y/(1-y))*Sum_{k=0..inf}1/(1-y)^binomial(k, 3)*exp(-x^2/2*1/(1-y)^n)*x^k/k!.
[A088942] 0, 60, 390, 1450, 4045, 9421, 19361, 36281, 63326, 104466, 164592, 249612, 366547, 523627, 730387, 997763, 1338188, 1765688, 2295978, 2946558, 3736809, 4688089, 5823829, 7169629, 8753354, 10605230, 12757940, 15246720, 18109455, 21386775
a(n) = n/120 * (96n^4 + 765n^3 + 2210n^2 + 2275n + 1354).
[A135037] 0, 60, 396, 1386, 3570, 7650, 14490, 25116, 40716, 62640, 92400, 131670, 182286, 246246, 325710, 423000, 540600, 681156, 847476, 1042530, 1269450, 1531530, 1832226, 2175156, 2564100, 3003000, 3495960, 4047246, 4661286, 5342670
a(1) = 0*1*2, a(2) = 0*1*2 + 3*4*5, ..., a(n) = 0*1*2 + 3*4*5 + 6*7*8 + ... + (2n-1)*(2n)*(2n+1).
a(n) = (27*n^4 - 18*n^3 - 15*n^2 + 6*n)/4.
[A069140] 0, 60, 504, 1716, 4080, 7980, 13800, 21924, 32736, 46620, 63960, 85140, 110544, 140556, 175560, 215940, 262080, 314364, 373176, 438900, 511920, 592620, 681384, 778596, 884640, 999900, 1124760, 1259604, 1404816, 1560780, 1727880, 1906500
a(0)=0, a(1)=60, a(2)=504, a(3)=1716, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Dec 24 2012

[A288960] 0, 0, 60, 1248, 8400, 35520, 114660, 309120, 731808, 1569600, 3114540, 5802720, 10261680, 17367168, 28310100, 44674560, 68527680, 102522240, 150012828, 215186400, 303208080, 420383040, 574335300, 774204288, 1030860000, 1357137600, 1768092300, 2281275360, 2917032048, 3698822400
a(n) = (n-1)*(n-2)*n^2*(n+2)*(n^2+2*n-11)/6.
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)+a(n-8).
[A053528] 0, 0, 0, 0, 0, 60, 1701, 14952, 81228, 331884, 1116675, 3256407, 8500734, 20306286, 45093048, 94189095, 186736368, 353904096, 644842674, 1134910242, 1936817820, 3215467584, 5207403663, 8245956642, 12793342716, 19481177100, 29161079805, 42967291185, 62393475690
a(n) = (n-4)(n-3)(n-2)(n-1)n(n^5+5n^4+5n^3-85n^2-374n-960)/3840.
[A130647] 0, 60, 2241, 2517, 2821, 15180, 16780, 18544, 90517, 99841, 110121, 529600, 583944, 643860, 3088761, 3405501, 3754717, 18004644, 19850740, 21886120, 104940781, 115700617, 127563681, 611641720, 674354640, 743497644, 3564911217
a(n) = 6*a(n-3)-a(n-6)+1678 for n > 6; a(1)=0, a(2)=60, a(3)=2241, a(4)=2517, a(5)=2821, a(6)=15180.
[A106390] 1, 61, 97, 277, 349, 649, 757, 1177, 1321, 1861, 2041, 2701, 2917, 3697, 3949, 4849, 5137, 6157, 6481, 7621, 7981, 9241, 9637, 11017, 11449, 12949, 13417, 15037, 15541, 17281, 17821, 19681, 20257, 22237, 22849, 24949, 25597, 27817, 28501, 30841
a(1)=1, a(2)=61; for odd n a(n) = a(n-1)+18*(n-1), for even n a(n) = a(n-1)+60*(n-1).
a(n) = (25-21*(-1)^n+6*(-13+7*(-1)^n)*n+78*n^2)/4. - Colin Barker, Apr 16 2014
[A158673] 1, 61, 241, 541, 961, 1501, 2161, 2941, 3841, 4861, 6001, 7261, 8641, 10141, 11761, 13501, 15361, 17341, 19441, 21661, 24001, 26461, 29041, 31741, 34561, 37501, 40561, 43741, 47041, 50461, 54001, 57661, 61441, 65341, 69361, 73501, 77761
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A174333] 0, 61, 244, 549, 976, 1525, 2196, 2989, 3904, 4941, 6100, 7381, 8784, 10309, 11956, 13725, 15616, 17629, 19764, 22021, 24400, 26901, 29524, 32269, 35136, 38125, 41236, 44469, 47824, 51301, 54900, 58621, 62464, 66429, 70516, 74725, 79056
a(n) = (31*n)^2-(30*n)^2.
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 12 2012
[A158680] 61, 247, 557, 991, 1549, 2231, 3037, 3967, 5021, 6199, 7501, 8927, 10477, 12151, 13949, 15871, 17917, 20087, 22381, 24799, 27341, 30007, 32797, 35711, 38749, 41911, 45197, 48607, 52141, 55799, 59581, 63487, 67517, 71671, 75949, 80351
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A283869] 61, 661, 1201, 4261, 5101, 6121, 6361, 12421, 12541, 12841, 13921, 15361, 17041, 18301, 19801, 21661, 26821, 31321, 36901, 47521, 54121, 55921, 56101, 71341, 80701, 83221, 87421, 91381, 101161, 107761, 109441, 126481, 128461, 129841, 131101, 135601, 146941, 151141, 151561
a(n) == 1 (mod 60).
[A158067] 62, 252, 570, 1016, 1590, 2292, 3122, 4080, 5166, 6380, 7722, 9192, 10790, 12516, 14370, 16352, 18462, 20700, 23066, 25560, 28182, 30932, 33810, 36816, 39950, 43212, 46602, 50120, 53766, 57540, 61442, 65472, 69630, 73916, 78330, 82872
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 11 2012
[A100158] 1, 62, 293, 804, 1705, 3106, 5117, 7848, 11409, 15910, 21461, 28172, 36153, 45514, 56365, 68816, 82977, 98958, 116869, 136820, 158921, 183282, 210013, 239224, 271025, 305526, 342837, 383068, 426329, 472730, 522381, 575392
a(n) = (1/6)*(110*n^3-150*n^2+46*n).
[A100166] 1, 62, 295, 812, 1725, 3146, 5187, 7960, 11577, 16150, 21791, 28612, 36725, 46242, 57275, 69936, 84337, 100590, 118807, 139100, 161581, 186362, 213555, 243272, 275625, 310726, 348687, 389620, 433637, 480850, 531371, 585312
a(n) = (1/6)*(112*n^3-156*n^2+50*n).
[A100159] 1, 62, 297, 820, 1745, 3186, 5257, 8072, 11745, 16390, 22121, 29052, 37297, 46970, 58185, 71056, 85697, 102222, 120745, 141380, 164241, 189442, 217097, 247320, 280225, 315926, 354537, 396172, 440945, 488970, 540361, 595232
a(n) = (1/6)*(114*n^3-162*n^2+54*n) = n*(19*n^2-27*n+9).
[A100160] 1, 62, 299, 828, 1765, 3226, 5327, 8184, 11913, 16630, 22451, 29492, 37869, 47698, 59095, 72176, 87057, 103854, 122683, 143660, 166901, 192522, 220639, 251368, 284825, 321126, 360387, 402724, 448253, 497090, 549351, 605152
a(n)=(1/6)*(116*n^3-168*n^2+58*n).
[A069473] 62, 602, 2702, 8162, 19502, 39962, 73502, 124802, 199262, 303002, 442862, 626402, 861902, 1158362, 1525502, 1973762, 2514302, 3159002, 3920462, 4812002, 5847662, 7042202, 8411102, 9970562, 11737502, 13729562, 15965102, 18463202
a(n) = 30*n^4 + 120*n^3 + 210*n^2 + 180*n + 62.
[A038865] 63, 117, 189, 279, 387, 513, 657, 819, 999, 1197, 1413, 1647, 1899, 2169, 2457, 2763, 3087, 3429, 3789, 4167, 4563, 4977, 5409, 5859, 6327, 6813, 7317, 7839, 8379, 8937, 9513, 10107, 10719, 11349, 11997, 12663, 13347, 14049, 14769, 15507, 16263
a(1)=63, a(2)=117, a(3)=189, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Mar 04 2014
[A096023] 63, 123, 183, 243, 303, 363, 483, 543, 603, 663, 723, 783, 903, 963, 1023, 1083, 1143, 1203, 1323, 1383, 1443, 1503, 1563, 1623, 1743, 1803, 1863, 1923, 1983, 2043, 2163, 2223, 2283, 2343, 2403, 2463, 2583, 2643, 2703, 2763, 2823, 2883, 3003, 3063, 3123
a(n) = a(n-1) + a(n-6) - a(n-7) for n>7; a(n) = a(n-6) + 420 for n>6.
a(n) = (210*n - 96 - 30*cos(n*Pi/3) - 30*cos(2*n*Pi/3) - 15*cos(n*Pi) + 30*sqrt(3)*sin(n*Pi/3) + 10*sqrt(3)*sin(2*n*Pi/3))/3.
a(6k) = 420k-57, a(6k-1) = 420k-117, a(6k-2) = 420k-177, a(6k-3) = 420k-237, a(6k-4) = 420k-297, a(6k-5) = 420k-357. (End)
[A098140] 0, 1, 63, 186, 370, 615, 921, 1288, 1716, 2205, 2755, 3366, 4038, 4771, 5565, 6420, 7336, 8313, 9351, 10450, 11610, 12831, 14113, 15456, 16860, 18325, 19851, 21438, 23086, 24795, 26565, 28396, 30288, 32241, 34255, 36330, 38466
a(n) = n*(61*n - 59)/2.
a(0)=0, a(1)=1, a(2)=63, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - _Harvey P. Dale, Jun 09 2011
[A083079] 1, 63, 229, 547, 1065, 1831, 2893, 4299, 6097, 8335, 11061, 14323, 18169, 22647, 27805, 33691, 40353, 47839, 56197, 65475, 75721, 86983, 99309, 112747, 127345, 143151, 160213, 178579, 198297, 219415, 241981, 266043, 291649, 318847, 347685
a(n)=8*n^3+28*n^2+26*n+1=(n(2n+3)^3+1)/(n+1)
a(0)=1, a(1)=63, a(2)=229, a(3)=547, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) [From Harvey P. Dale, May 14 2011]
[A158676] 1, 63, 249, 559, 993, 1551, 2233, 3039, 3969, 5023, 6201, 7503, 8929, 10479, 12153, 13951, 15873, 17919, 20089, 22383, 24801, 27343, 30009, 32799, 35713, 38751, 41913, 45199, 48609, 52143, 55801, 59583, 63489, 67519, 71673, 75951, 80353
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A157948] 63, 254, 573, 1020, 1595, 2298, 3129, 4088, 5175, 6390, 7733, 9204, 10803, 12530, 14385, 16368, 18479, 20718, 23085, 25580, 28203, 30954, 33833, 36840, 39975, 43238, 46629, 50148, 53795, 57570, 61473, 65504, 69663, 73950, 78365, 82908
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 29 2012
[A158684] 63, 255, 575, 1023, 1599, 2303, 3135, 4095, 5183, 6399, 7743, 9215, 10815, 12543, 14399, 16383, 18495, 20735, 23103, 25599, 28223, 30975, 33855, 36863, 39999, 43263, 46655, 50175, 53823, 57599, 61503, 65535, 69695, 73983, 78399, 82943
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A063398] 1, 63, 255, 863, 2655, 7683, 21287, 57071, 149087, 381311, 958207, 2372095, 5796863, 14007295, 33511423, 79466495, 186949631, 436666367, 1013317631, 2337538047, 5362941951, 12242386943, 27817148415, 62934482943, 141815709695, 318372839423, 712243150847
a(n) = (24*(-8+81*2^n)+1671*2^(1+n)*n+803*2^n*n^2+27*2^(1+n)*n^3+2^n*n^4) / 192 for n>0. - Colin Barker, May 27 2015
[A152725] 0, 1, 63, 666, 3430, 12195, 34461, 83188, 178956, 352485, 647515, 1124046, 1861938, 2964871, 4564665, 6825960, 9951256, 14186313, 19825911, 27219970, 36780030, 48986091, 64393813, 83642076, 107460900, 136679725, 172236051, 215184438
a(n) = n^6-(n-1)^6+(n-2)^6-....0^6.
[A069091] 1, 63, 728, 4032, 15624, 45864, 117648, 258048, 530712, 984312, 1771560, 2935296, 4826808, 7411824, 11374272, 16515072, 24137568, 33434856, 47045880, 62995968, 85647744, 111608280, 148035888, 187858944, 244125000, 304088904, 386889048
a(n) = sum(d|n, d^6*mu(n/d)).
a(n) = n^6*Product_{distinct primes p dividing n} (1-1/p^6). - Tom Edgar, Jan 09 2015
[A123866] 0, 63, 728, 4095, 15624, 46655, 117648, 262143, 531440, 999999, 1771560, 2985983, 4826808, 7529535, 11390624, 16777215, 24137568, 34012223, 47045880, 63999999, 85766120, 113379903, 148035888, 191102975, 244140624, 308915775, 387420488
a(1)=0, a(2)=63, a(3)=728, a(4)=4095, a(5)=15624, a(6)=46655, a(7)=117648, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7). - Harvey P. Dale, Nov 18 2012

[A091027] 63, 910, 6083, 27483, 97188, 289884, 762048, 1816248, 4001613, 8264718, 16168867, 30204083, 54215070, 93980040, 157979640, 258402312, 412440315, 643939374, 985474539, 1480935379, 2188715144, 3185611044, 4571556360, 6475319760, 9061322985, 12537745038
a(n)= (n+12)*(n+9)*(n+3)*(n+2)*(n+1)*(n^5+48*n^4+769*n^3+4782*n^2+11200*n+8400)/86400. 86400=10!/(2*3*7).
[A272297] 64, 65, 80, 145, 320, 689, 1360, 2465, 4160, 6625, 10064, 14705, 20800, 28625, 38480, 50689, 65600, 83585, 105040, 130385, 160064, 194545, 234320, 279905, 331840, 390689, 457040, 531505, 614720, 707345, 810064, 923585, 1048640, 1185985, 1336400, 1500689, 1679680, 1874225, 2085200
a(n) = (n^2 - 8)^2 + (4*n)^2.
[A151984] 0, 1, 64, 65, 128, 129, 192, 193, 256, 257, 320, 321, 384, 385, 448, 449, 512, 513, 576, 577, 640, 641, 704, 705, 768, 769, 832, 833, 896, 897, 960, 961, 1024, 1025, 1088, 1089, 1152, 1153, 1216, 1217, 1280, 1281, 1344, 1345, 1408, 1409, 1472, 1473, 1536, 1537
a(n) = (-95-31*(-1)^n+64*n)/2. a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: x^2*(63*x+1)/((x-1)^2*(x+ 1)). [Colin Barker, Nov 29 2012]
[A135124] 1, 64, 65, 4096, 4097, 4160, 4161, 262144, 262145, 262208, 262209, 266240, 266241, 266304, 266305, 16777216, 16777217, 16777280, 16777281, 16781312, 16781313, 16781376, 16781377, 17039360, 17039361, 17039424, 17039425, 17043456
a(n)=(1/2)*sum{0<=k<=floor(log_2(n)), (1-(-1)^floor(n/2^k))*64^k}.
[A046305] 64, 96, 128, 144, 160, 192, 216, 224, 240, 256, 288, 320, 324, 336, 352, 360, 384, 400, 416, 432, 448, 480, 486, 504, 512, 528, 540, 544, 560, 576, 600, 608, 624, 640, 648, 672, 704, 720, 729, 736, 756, 768, 784, 792, 800, 810, 816, 832, 840, 864, 880, 896
a(n) = n + O(n (log log n)^4/log n). - Charles R Greathouse IV, Apr 07 2017
[A152691] 0, 64, 128, 192, 256, 320, 384, 448, 512, 576, 640, 704, 768, 832, 896, 960, 1024, 1088, 1152, 1216, 1280, 1344, 1408, 1472, 1536, 1600, 1664, 1728, 1792, 1856, 1920, 1984, 2048, 2112, 2176, 2240, 2304, 2368, 2432, 2496, 2560, 2624, 2688, 2752, 2816, 2880
a(n) = 64*n.
[A273321] 64, 206, 488, 960, 1672, 2674, 4016, 5748, 7920, 10582, 13784, 17576, 22008, 27130, 32992, 39644, 47136, 55518, 64840, 75152, 86504, 98946, 112528, 127300, 143312, 160614, 179256, 199288, 220760, 243722, 268224, 294316, 322048, 351470, 382632, 415584, 450376, 487058, 525680, 566292
a(n) = (25/3)*n^3 + 20*n^2 + (71/3)*n + 12.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>4.
[A263924] 64, 256, 272, 324, 513, 514, 516, 544, 1026, 1028, 1032, 1064, 1088, 1089, 1216, 1544, 1552, 1568, 1569, 2052, 2056, 2064, 2188, 2192, 2193, 2194, 2208, 2224, 2244, 2248, 2304, 2313, 2314
a(n) » n^1.014. (This is surely not optimal.) - Charles R Greathouse IV, Jan 18 2016
[A141478] 64, 256, 640, 1280, 2240, 3584, 5376, 7680, 10560, 14080, 18304, 23296, 29120, 35840, 43520, 52224, 62016, 72960, 85120, 98560, 113344, 129536, 147200, 166400, 187200, 209664, 233856, 259840, 287680, 317440, 349184, 382976, 418880, 456960
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 29 2012
[A137739] 1, 64, 355, 1014, 2218, 4217, 7343, 12018, 18767, 28233, 41193, 58575, 81476, 111181, 149183, 197204, 257217, 331469, 422505, 533193, 666750, 826769, 1017247, 1242614, 1507763, 1818081, 2179481, 2598435, 3082008, 3637893, 4274447, 5000728, 5826533, 6762437
a(n) = 1/720*(n+9)*(n^5+36*n^4+451*n^3+1716*n^2-380*n-8880)-1 for n>4.
[A130812] 64, 448, 1792, 5376, 13440, 29568, 59136, 109824, 192192, 320320, 512512, 792064, 1188096, 1736448, 2480640, 3472896, 4775232, 6460608, 8614144, 11334400, 14734720, 18944640, 24111360, 30401280, 38001600, 47121984, 57996288, 70884352, 86073856, 103882240
a(n) = binomial(2*n,6) + binomial(n,2)*binomial(2*n-4,2) - n*binomial(2*n-2,4) - binomial(n,3).
a(n) = C(n,n-6)*2^6, n>=6. - Zerinvary Lajos, Dec 07 2007
[A016803] 0, 64, 512, 1728, 4096, 8000, 13824, 21952, 32768, 46656, 64000, 85184, 110592, 140608, 175616, 216000, 262144, 314432, 373248, 438976, 512000, 592704, 681472, 778688, 884736, 1000000, 1124864, 1259712, 1404928, 1560896, 1728000, 1906624, 2097152
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Jul 05 2014
[A200841] 64, 529, 2356, 7587, 19930, 45465, 93472, 177381, 315844, 533929, 864436, 1349335, 2041326, 3005521, 4321248, 6083977, 8407368, 11425441, 15294868, 20197387, 26342338, 33969321, 43350976, 54795885, 68651596, 85307769, 105199444
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A200788] 64, 622, 3136, 11100, 31395, 75992, 164004, 324087, 597190, 1039654, 1726660, 2756026, 4252353, 6371520, 9305528, 13287693, 18598188, 25569934, 34594840, 46130392, 60706591, 78933240, 101507580, 129222275, 162973746, 203770854
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n>7.
[A001014] 0, 1, 64, 729, 4096, 15625, 46656, 117649, 262144, 531441, 1000000, 1771561, 2985984, 4826809, 7529536, 11390625, 16777216, 24137569, 34012224, 47045881, 64000000, 85766121, 113379904, 148035889, 191102976, 244140625, 308915776, 387420489, 481890304
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) + 720. (End)
[A231305] 0, 1, 64, 730, 4160, 16355, 50816, 134004, 312960, 665445, 1312960, 2437006, 4298944, 7263815, 11828480, 18654440, 28605696, 42792009, 62617920, 89837890, 126617920, 175604011, 239997824, 323639900, 431100800, 567780525, 740016576, 955201014, 1221906880
a(n) = Sum_{k=0..floor(n/2)}(n-2k)^6.
a(n) = 1/42*n*(3*n^6+21*n^5+42*n^4-56*n^2+32).
[A191900] 0, 64, 1093, 8192, 39062, 139968, 411771, 1048576, 2391484, 5000000, 9743585, 17915904, 31374258, 52706752, 85429687, 134217728, 205169336, 306110016, 446935869, 640000000, 900544270, 1247178944, 1702412723, 2293235712, 3051757812, 4015905088
a(n)=((n + 1)^7 - (1 + (-1)^n)/2)/2.
[A191494] 1, 64, 1094, 8192, 39063, 139968, 411772, 1048576, 2391485, 5000000, 9743586, 17915904, 31374259, 52706752, 85429688, 134217728, 205169337, 306110016, 446935870, 640000000, 900544271, 1247178944, 1702412724, 2293235712, 3051757813, 4015905088
a(n)= ((n + 1)^7 + (1+(-1)^n)/2)/2.
[A240930] 0, 0, 64, 1458, 12288, 62500, 233280, 705894, 1835008, 4251528, 9000000, 17715610, 32845824, 57921708, 97883968, 159468750, 251658240, 386201104, 578207808, 846825858, 1216000000, 1715322420, 2380977984, 3256789558, 4395368448, 5859375000, 7722894400, 10072932714
a(n) = n^6*(n-1) = n^7 - n^6.
[A014794] 0, 64, 1600, 9216, 30976, 78400, 166464, 313600, 541696, 876096, 1345600, 1982464, 2822400, 3904576, 5271616, 6969600, 9048064, 11560000, 14561856, 18113536, 22278400, 27123264, 32718400, 39137536, 46457856, 54760000
a(n) = 16n^2*(3n-1)^2. - Vincenzo Librandi, Jan 07 2012
[A130764] 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90
a(n)=64+n, 0<n<27.
[A174928] 1, 65, 66, 130, 131, 195, 196, 260, 261, 325, 326, 390, 391, 455, 456, 520, 521, 585, 586, 650, 651, 715, 716, 780, 781, 845, 846, 910, 911, 975, 976, 1040, 1041, 1105, 1106, 1170, 1171, 1235, 1236, 1300, 1301, 1365, 1366, 1430, 1431, 1495, 1496, 1560
a(n) = (67+130*n-63*(-1)^n)/4.
a(n) = a(n-2)+65 for n > 1; a(0) = 1, a(1) = 65.
a(n) = ((n+1) mod 2) + 65*floor((n+1)/2).
[A159758] 65, 79, 101, 289, 395, 541, 1669, 2291, 3145, 9725, 13351, 18329, 56681, 77815, 106829, 330361, 453539, 622645, 1925485, 2643419, 3629041, 11222549, 15406975, 21151601, 65409809, 89798431, 123280565, 381236305, 523383611, 718531789
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=65, a(2)=79, a(3)=101, a(4)=289, a(5)=395, a(6)=541.
[A224770] 65, 85, 130, 145, 170, 185, 205, 221, 265, 290, 305, 325, 365, 370, 377, 410, 425, 442, 445, 481, 485, 493, 505, 530, 533, 545, 565, 610, 629, 650, 685, 689, 697, 725, 730, 745, 754, 785, 793, 845, 850, 865, 890, 901, 905, 925, 949, 962, 965, 970
a(n) = a^2 + b^2, a and integers, 0 < a < b and gcd(a,b) = 1 in exactly two ways. These representations of a(n) are denoted by two different pairs (a,b).
[A160055] 65, 89, 149, 241, 445, 829, 1381, 2581, 4825, 8045, 15041, 28121, 46889, 87665, 163901, 273289, 510949, 955285, 1592845, 2978029, 5567809, 9283781, 17357225, 32451569, 54109841, 101165321, 189141605, 315375265, 589634701, 1102398061
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=65, a(2)=89, a(3)=149, a(4)=241, a(5)=445, a(6)=829.
[A158071] 65, 129, 193, 257, 321, 385, 449, 513, 577, 641, 705, 769, 833, 897, 961, 1025, 1089, 1153, 1217, 1281, 1345, 1409, 1473, 1537, 1601, 1665, 1729, 1793, 1857, 1921, 1985, 2049, 2113, 2177, 2241, 2305, 2369, 2433, 2497, 2561, 2625, 2689, 2753, 2817, 2881
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 11 2012
[A048512] 1, 65, 210, 536, 1264, 2880, 6448, 14288, 31440, 68816, 149968, 325584, 704464, 1519568, 3268560, 7012304, 15007696, 32047056, 68288464, 145227728, 308281296, 653262800, 1382023120, 2919235536, 6157238224, 12968787920

a(n) = (n^2+29*n+196) * 2^(n-2) - 48. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Feb 25 2015
[A158686] 1, 65, 257, 577, 1025, 1601, 2305, 3137, 4097, 5185, 6401, 7745, 9217, 10817, 12545, 14401, 16385, 18497, 20737, 23105, 25601, 28225, 30977, 33857, 36865, 40001, 43265, 46657, 50177, 53825, 57601, 61505, 65537, 69697, 73985, 78401, 82945
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A165798] 65, 260, 585, 1040, 1625, 2340, 3185, 4160, 5265, 6500, 7865, 9360, 10985, 12740, 14625, 16640, 18785, 21060, 23465, 26000, 28665, 31460, 34385, 37440, 40625, 43940, 47385, 50960, 54665, 58500, 62465, 66560, 70785, 75140, 79625, 84240
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A158693] 65, 263, 593, 1055, 1649, 2375, 3233, 4223, 5345, 6599, 7985, 9503, 11153, 12935, 14849, 16895, 19073, 21383, 23825, 26399, 29105, 31943, 34913, 38015, 41249, 44615, 48113, 51743, 55505, 59399, 63425, 67583, 71873, 76295, 80849, 85535
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A200890] 65, 704, 3823, 14288, 42182, 105813, 235538, 478467, 904111, 1611038, 2734601, 4455802, 7011356, 10705019, 15920244, 23134229, 32933421, 46030540, 63283187, 85714100, 114533122, 151160945, 197254694, 254735415, 325817531, 413040330
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n>8.
[A294301] 0, 0, 65, 730, 4890, 19786, 67171, 180724, 446964, 962780, 1978405, 3703310, 6735950, 11445110, 19092295, 30220776, 47260136, 70866264, 105409929, 151455810, 216455810, 300450370, 415601835, 560651740, 754740700, 994054516, 1307797101, 1687688054, 2177107894
a(n) = Sum_{i=1..floor((n-1)/2)} i^6 + (n-i)^6.
a(n) = (n/42 - n^3/6 + n^5/2 - 1/128*(65 + (-1)^n)*n^6 + n^7/7).
a(n) = a(n-1) + 7*a(n-2) - 7*a(n-3) - 21*a(n-4) + 21*a(n-5) + 35*a(n-6) - 35*a(n-7) - 35*a(n-8) + 35*a(n-9) + 21*a(n-10) - 21*a(n-11) - 7*a(n-12) + 7*a(n-13) + a(n-14) - a(n-15) for n>15.
[A000540] 0, 1, 65, 794, 4890, 20515, 67171, 184820, 446964, 978405, 1978405, 3749966, 6735950, 11562759, 19092295, 30482920, 47260136, 71397705, 105409929, 152455810, 216455810, 302221931, 415601835, 563637724, 754740700, 998881325, 1307797101, 1695217590
a(n) = n*(n+1)*(2*n+1)*(3*n^4+6*n^3-3*n+1)/42.
a(n) = Sqrt[Sum[Sum[(i*j)^6, {i, 1, n}], {j, 1, n}]]. - Alexander Adamchuk, Oct 26 2004
a(n) = 7*a(n-1) - 21* a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) + 720. - Ant King, Sep 24 2013
a(n) = -sum(j=1..6, j*s(n+1,n+1-j)*S(n+6-j,n)), where s(n,k) and S(n,k) are the Stirling numbers of the first kind and the second kind, respectively. - Mircea Merca, Jan 25 2014
a(n) = (n + 1)*(n + 1/2)*n*(n + 1/2 + z)*(n + 1/2 - z)*(n + 1/2 + zbar)*(n + 1/2 - zbar)/7, with I^2 = -1 and z = 2^(-3/2)*3^(-1/4)*(sqrt(sqrt(31) + 3*sqrt(3)) + I*sqrt(sqrt(31) - 3*sqrt(3)), and zbar is the complex conjugate of z. See the Graham et al. reference, eq. (6.98), pp. 288-289 (with n -> n+1). (There was a typo in the first edition, which was corrected in the second edition.) - Wolfdieter Lang, Apr 03 2015
[A086021] 1, 65, 1065, 9065, 51940, 227556, 820260, 2548260, 7040385, 17688385, 41082041, 89310585, 183506960, 359122960, 673554960, 1216893456, 2126746665, 3608290665, 5960927665, 9613191665, 15167828676, 23459298500, 35626298500, 53202298500, 78227501625, 113386110201
a(n) = (C(n+3, 4)/1)*(1 +12*C(n-1, 1) +46*C(n-1, 2) +84*C(n-1, 3) +81*C(n-1, 4) +40*C(n-1, 5) +8*C(n-1, 6)). - Edited by Colin Barker, May 02 2014
a(n) = n^2*(-36 + 300*n + 1535*n^2 + 2700*n^3 + 2442*n^4 + 1260*n^5 + 375*n^6 + 60*n^7 + 4*n^8)/8640. - G. C. Greubel, Nov 22 2017
[A128896] 66, 78, 105, 190, 231, 406, 435, 465, 561, 595, 741, 861, 903, 946, 1378, 1653, 2211, 2278, 2485, 3081, 3655, 3741, 4371, 4465, 5151, 5253, 5995, 6441, 7021, 7503, 8515, 8911, 9453, 9591, 10011, 10153, 10585, 11026, 12561, 13366, 14878, 15051, 15753
a(n)=T(k)=k(k+1)/2=p*q*r for some k,p,q,r, where T(k) is triangular number and p, q, r are distinct primes.
[A160848] 0, 1, 66, 131, 238, 361, 534, 709, 938, 1183, 1470, 1759, 2104, 2459, 2870, 3287, 3740, 4209, 4734, 5261, 5844, 6437, 7070, 7711, 8408, 9115, 9872, 10637, 11444, 12265, 13142, 14015, 14944, 15889, 16876, 17871, 18914, 19967, 21076, 22193, 23352
a(n) = (1/2)*(f(m,n,1)-f(m,n,2)) where f(m,n,k)=Sum((n-|kx|)*(m-|ky|)); -n<kx<n, -m<ky<m, (x,y)=1, m=8
[A174929] 1, 66, 132, 262, 393, 588, 784, 1044, 1305, 1630, 1956, 2346, 2737, 3192, 3648, 4168, 4689, 5274, 5860, 6510, 7161, 7876, 8592, 9372, 10153, 10998, 11844, 12754, 13665, 14640, 15616, 16656, 17697, 18802, 19908, 21078, 22249, 23484, 24720, 26020
a(n) = (71+264*n+130*n^2-63*(-1)^n)/8.
a(n) = a(n-1)+a(n-2)-a(n-3)+65 for n > 2; a(0) = 1, a(1) = 66, a(2) = 132.
[A158070] 0, 66, 260, 582, 1032, 1610, 2316, 3150, 4112, 5202, 6420, 7766, 9240, 10842, 12572, 14430, 16416, 18530, 20772, 23142, 25640, 28266, 31020, 33902, 36912, 40050, 43316, 46710, 50232, 53882, 57660, 61566, 65600, 69762, 74052, 78470, 83016
a(1)=66, a(2)=260, a(3)=582, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Jul 25 2011, corrected by M. F. Hasler, Oct 09 2014
[A279446] 0, 0, 1, 66, 2096, 25676, 187984, 983172, 4073312, 14196011, 43309138, 118818916, 298926225, 699619679, 1540212590, 3217045155, 6419240369, 12304959047, 22763742133, 40797668697, 71065355815, 120643462032, 200077436639, 324808463585, 517088445952, 808515893580
a(n) = (n^12 + 6*n^11 - 195*n^10 - 670*n^9 + 17455*n^8 + 13426*n^7 - 835256*n^6 + 1246240*n^5 + 19563664*n^4 - 68181792*n^3 - 131524224*n^2 + 969500160*n - 1298903040)/276480 + IF(MOD(n, 2) = 1, 162*n^5 - 715*n^4 - 4480*n^3 + 21955*n^2 + 1108*n - 41685)/30720 + IF(MOD(n, 3) = 1, n^2 + n - 25)/27 for n>=4.
[A163303] 67, 142, 369, 754, 1303, 2022, 2917, 3994, 5259, 6718, 8377, 10242, 12319, 14614, 17133, 19882, 22867, 26094, 29569, 33298, 37287, 41542, 46069, 50874, 55963, 61342, 67017, 72994, 79279, 85878, 92797, 100042, 107619, 115534, 123793, 132402
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Vincenzo Librandi, Sep 13 2015
[A158689] 1, 67, 265, 595, 1057, 1651, 2377, 3235, 4225, 5347, 6601, 7987, 9505, 11155, 12937, 14851, 16897, 19075, 21385, 23827, 26401, 29107, 31945, 34915, 38017, 41251, 44617, 48115, 51745, 55507, 59401, 63427, 67585, 71875, 76297, 80851, 85537
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158730] 67, 271, 611, 1087, 1699, 2447, 3331, 4351, 5507, 6799, 8227, 9791, 11491, 13327, 15299, 17407, 19651, 22031, 24547, 27199, 29987, 32911, 35971, 39167, 42499, 45967, 49571, 53311, 57187, 61199, 65347, 69631, 74051, 78607, 83299, 88127
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A254640] 1, 67, 927, 6677, 32942, 126378, 404634, 1129854, 2833479, 6515509, 13947505, 28115451, 53846156, 98669156, 173975076, 296541132, 490504893, 789878583, 1241708083, 1909993393, 2880500634, 4266609710, 6216356510, 8920844010, 12624212835, 17635378761
a(n) = n*(1 + n)*(2 + n)*(3 + n)*(3 + 2*n)*(2 - 30*n + 35*n^2 + 30*n^3 + 5*n^4)/5040.
[A157665] 67, 1238, 3867, 7954, 13499, 20502, 28963, 38882, 50259, 63094, 77387, 93138, 110347, 129014, 149139, 170722, 193763, 218262, 244219, 271634, 300507, 330838, 362627, 395874, 430579, 466742, 504363, 543442, 583979, 625974, 669427, 714338
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A281235] 68, 76, 132, 204, 324, 716, 1156, 1868, 4164, 6732, 10884, 24268, 39236, 63436, 141444, 228684, 369732, 824396, 1332868, 2154956, 4804932, 7768524, 12560004, 28005196, 45278276, 73205068, 163226244, 263901132, 426670404, 951352268, 1538128516, 2486817356
a(n) = 6*a(n-3) - a(n-6) for n>6.
[A217776] 68, 100, 140, 188, 244, 308, 380, 460, 548, 644, 748, 860, 980, 1108, 1244, 1388, 1540, 1700, 1868, 2044, 2228, 2420, 2620, 2828, 3044, 3268, 3500, 3740, 3988, 4244, 4508, 4780, 5060, 5348, 5644, 5948, 6260, 6580, 6908, 7244, 7588, 7940, 8300, 8668, 9044, 9428
a(n) = 4*n^2 + 28*n + 68.
[A063341] 1, 68, 152, 236, 318, 402, 484, 572, 650, 738, 816, 906, 982, 1074, 1148, 1242, 1314, 1408, 1480, 1578, 1646, 1744, 1812, 1912, 1978, 2080, 2144, 2248, 2310, 2414, 2476, 2584, 2642, 2750, 2808, 2918, 2974, 3086, 3140, 3254, 3306, 3420
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A292344] 68, 212, 420, 692, 1028, 1428, 1892, 2420, 3012, 3668, 4388, 5172, 6020, 6932, 7908, 8948, 10052, 11220, 12452, 13748, 15108, 16532, 18020, 19572, 21188, 22868, 24612, 26420, 28292, 30228, 32228, 34292, 36420, 38612, 40868, 43188, 45572, 48020, 50532, 53108
a(n) = 32*n^2 + 48*n - 12.
[A027850] 1, 68, 531, 2056, 5645, 12636, 24703, 43856, 72441, 113140, 168971, 243288, 339781, 462476, 615735, 804256, 1033073, 1307556, 1633411, 2016680, 2463741, 2981308, 3576431, 4256496, 5029225, 5902676
a(0)=1, a(1)=68, a(2)=531, a(3)=2056, a(4)=5645, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5) Harvey P. Dale, May 21 2012
[A200876] 68, 723, 3882, 14455, 42744, 107777, 241718, 495495, 945790, 1703537, 2924076, 4819113, 7670638, 11846955, 17820980, 26190965, 37703808, 53281111, 74048150, 101365923, 136866444, 182491453, 240534714, 313688075, 405091466, 518387013

a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n>9.
[A166067] 1, 69, 70, 139, 209, 348, 557, 905, 1462, 2367, 3829, 6196, 10025, 16221, 26246, 42467, 68713, 111180, 179893, 291073, 470966, 762039, 1233005, 1995044, 3228049, 5223093, 8451142, 13674235, 22125377, 35799612, 57924989, 93724601, 151649590
a(n) = a(n-1) + a(n-2).
[A264045] 69, 77, 106, 161, 178, 221, 254, 309, 314, 329, 341, 386, 398, 417, 422, 473, 554, 662, 674, 689, 758, 794, 934, 974, 998, 1094, 1121, 1149, 1169, 1214, 1294, 1502, 1517, 1522, 1541, 1569, 1673
a(n) » n log n. - Charles R Greathouse IV, Nov 02 2015
[A063355] 1, 69, 140, 210, 280, 350, 420, 488, 560, 628, 700, 770, 840, 906, 980, 1048, 1120, 1188, 1260, 1326, 1400, 1466, 1540, 1608, 1680, 1744, 1820, 1886, 1960, 2026, 2100, 2164, 2240, 2304, 2380, 2446, 2520, 2582, 2660, 2724, 2800, 2864
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A295926] 69, 161, 401, 961, 2241, 5121, 11521, 25601, 56321, 122881, 266241, 573441, 1228801, 2621441, 5570561, 11796481, 24903681, 52428801, 110100481, 230686721, 482344961, 1006632961, 2097152001, 4362076161, 9059696641, 18790481921, 38923141121, 80530636801, 166429982721
a(n) = 5*2^(n - 1)*n + 1 for n > 3.
a(n) = 5*a(n-1) - 8*a(n-2) + 4*a(n-3) for n > 3.
[A063322] 1, 69, 164, 258, 352, 446, 540, 634, 728, 822, 916, 1011, 1104, 1198, 1292, 1387, 1480, 1575, 1668, 1763, 1856, 1951, 2044, 2140, 2232, 2327, 2420, 2516, 2608, 2704, 2796, 2892, 2984, 3080, 3172, 3269, 3360, 3456, 3548, 3645, 3736, 3833
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A158732] 1, 69, 273, 613, 1089, 1701, 2449, 3333, 4353, 5509, 6801, 8229, 9793, 11493, 13329, 15301, 17409, 19653, 22033, 24549, 27201, 29989, 32913, 35973, 39169, 42501, 45969, 49573, 53313, 57189, 61201, 65349, 69633, 74053, 78609, 83301, 88129
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158736] 69, 279, 629, 1119, 1749, 2519, 3429, 4479, 5669, 6999, 8469, 10079, 11829, 13719, 15749, 17919, 20229, 22679, 25269, 27999, 30869, 33879, 37029, 40319, 43749, 47319, 51029, 54879, 58869, 62999, 67269, 71679, 76229, 80919, 85749, 90719
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A161486] 0, 69, 336, 573, 936, 2449, 3820, 5929, 14740, 22729, 35020, 86373, 132936, 204573, 503880, 775269, 1192800, 2937289, 4519060, 6952609, 17120236, 26339473, 40523236, 99784509, 153518160, 236187189, 581587200, 894769869, 1376600280
a(n) = 6*a(n-3)-a(n-6)+382 for n > 6; a(1)=0, a(2)=69, a(3)=336, a(4)=573, a(5)=936, a(6)=2449.
[A156718] 70, 99, 239, 268, 408, 437, 577, 606, 746, 775, 915, 944, 1084, 1113, 1253, 1282, 1422, 1451, 1591, 1620, 1760, 1789, 1929, 1958, 2098, 2127, 2267, 2296, 2436, 2465, 2605, 2634, 2774, 2803, 2943, 2972, 3112, 3141, 3281, 3310, 3450, 3479, 3619, 3648, 3788
a(n) = a(n-1) +a(n-2) -a(n-3).
[A180274] 70, 106, 158, 182, 274, 430, 650, 1022, 1546, 1786, 2702, 4250, 6430, 10114, 15302, 17678, 26746, 42070, 63650, 100118, 151474, 174994, 264758, 416450, 630070, 991066, 1499438, 1732262, 2620834, 4122430, 6237050, 9810542, 14842906, 17147626, 25943582
a(n) = +10*a(n-6) -a(n-12). G.f. (70+106*x+158*x^2+182*x^3+274*x^4+430*x^5-50*x^6-38*x^7-34*x^8-34*x^9-38*x^10-50*x^11) / (1-10*x^6+x^12). - Joerg Arndt, Jan 17 2011
[A063320] 1, 70, 161, 253, 345, 437, 529, 621, 713, 805, 897, 987, 1081, 1173, 1265, 1355, 1449, 1539, 1633, 1723, 1817, 1907, 2001, 2089, 2185, 2275, 2369, 2457, 2553, 2641, 2737, 2825, 2921, 3009, 3105, 3191, 3289, 3377, 3473, 3559, 3657, 3743
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A154361] 70, 180, 430, 680, 930, 1180, 1430, 1680, 1930, 2180, 2430, 2680, 2930, 3180, 3430, 3680, 3930, 4180, 4430, 4680, 4930, 5180, 5430, 5680, 5930, 6180, 6430, 6680, 6930, 7180, 7430, 7680, 7930, 8180, 8430, 8680, 8930, 9180
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Feb 21 2012
[A151556] 1, 70, 357, 3366, 7748, 29597, 51604, 134113, 203475, 427344, 596471, 1094240, 1444702, 2413711, 3062718, 4778067, 5884949, 8712458, 10485145, 14894314, 17595816, 24172785, 28127672, 37588181, 43189063, 56391412, 64105419, 82063428, 92438690, 116334659
a(n) = a(n-1)+5*a(n-2)-5*a(n-3)-10*a(n-4)+10*a(n-5)+10*a(n-6)-10*a(n-7)-5*a(n-8)+5*a(n-9)+a(n-10)-a(n-11). [R. J. Mathar, May 21 2009]
a(n) = ((2*n-1)*(81*n^4-162*n^3+144*n^2-63*n+58)+(135*n^4-270*n^3+210*n^2-75*n+26)*(-1)^n)/32. - Tani Akinari, Oct 25 2014
[A163434] 0, 1, 70, 425, 1426, 3577, 7526, 14065, 24130, 38801, 59302, 87001, 123410, 170185, 229126, 302177, 391426, 499105, 627590, 779401, 957202, 1163801, 1402150, 1675345, 1986626, 2339377, 2737126, 3183545, 3682450, 4237801, 4853702
a(n) = (2n^2 -4n +1)*(3n^2 -6n +1), n>1.
[A060541] 1, 70, 495, 1820, 4845, 10626, 20475, 35960, 58905, 91390, 135751, 194580, 270725, 367290, 487635, 635376, 814385, 1028790, 1282975, 1581580, 1929501, 2331890, 2794155, 3321960, 3921225, 4598126, 5359095, 6210820, 7160245, 8214570
a(n) = n*(2n-1)*(4n-1)*(4n-3)/3.
[A169712] 1, 70, 639, 2716, 7885, 18306, 36715, 66424, 111321, 175870, 265111, 384660, 540709, 740026, 989955, 1298416, 1673905, 2125494, 2662831, 3296140, 4036221, 4894450, 5882779, 7013736, 8300425, 9756526, 11396295, 13234564, 15286741, 17568810, 20097331, 22889440
a(n) = -33*n + 82*n^2 - 72*n^3 + 24*n^4. - Peter Luschny, May 27 2017
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Vincenzo Librandi, May 28 2017
[A125114] 70, 906, 4936, 10766, 17958, 25870, 35142, 45572, 56142, 66934, 77924, 89334, 101024, 113134, 125664, 138334, 151704, 165214, 179004, 192934, 207704, 223314, 239204, 255234, 271544, 288274, 305144, 322416, 339986, 357976, 376386, 395216
a(n) = O(n^2). - Charles R Greathouse IV, Jul 28 2014
[A026063] 71, 119, 180, 255, 345, 451, 574, 715, 875, 1055, 1256, 1479, 1725, 1995, 2290, 2611, 2959, 3335, 3740, 4175, 4641, 5139, 5670, 6235, 6835, 7471, 8144, 8855, 9605, 10395, 11226, 12099, 13015, 13975, 14980, 16031, 17129, 18275, 19470, 20715, 22011, 23359, 24760, 26215, 27725, 29291
a(n) = n(n^2+18n-73)/6. - Ralf Stephan, Apr 30 2004
[A157921] 71, 143, 215, 287, 359, 431, 503, 575, 647, 719, 791, 863, 935, 1007, 1079, 1151, 1223, 1295, 1367, 1439, 1511, 1583, 1655, 1727, 1799, 1871, 1943, 2015, 2087, 2159, 2231, 2303, 2375, 2447, 2519, 2591, 2663, 2735, 2807, 2879, 2951, 3023, 3095, 3167, 3239
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 28 2012
[A243579] 71, 255, 567, 1007, 1575, 2271, 3095, 4047, 5127, 6335, 7671, 9135, 10727, 12447, 14295, 16271, 18375, 20607, 22967, 25455, 28071, 30815, 33687, 36687, 39815, 43071, 46455, 49967, 53607, 57375, 61271, 65295, 69447, 73727, 78135, 82671, 87335, 92127, 97047, 102095, 107271, 112575, 118007, 123567, 129255, 135071, 141015, 147087
a(n) = 64*n^2-8*n+15.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>3.
[A158734] 1, 71, 281, 631, 1121, 1751, 2521, 3431, 4481, 5671, 7001, 8471, 10081, 11831, 13721, 15751, 17921, 20231, 22681, 25271, 28001, 30871, 33881, 37031, 40321, 43751, 47321, 51031, 54881, 58871, 63001, 67271, 71681, 76231, 80921, 85751, 90721
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158738] 71, 287, 647, 1151, 1799, 2591, 3527, 4607, 5831, 7199, 8711, 10367, 12167, 14111, 16199, 18431, 20807, 23327, 25991, 28799, 31751, 34847, 38087, 41471, 44999, 48671, 52487, 56447, 60551, 64799, 69191, 73727, 78407, 83231, 88199, 93311
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A210699] 1, 71, 918, 6667, 33665, 131616, 425866, 1192178, 2977857, 6785605, 14339006, 28451061, 53519713, 96176822, 166119570, 277155796, 448497281, 706337523, 1085753062, 1632969935, 2408039361, 3487969276, 4970360858, 6977601702, 9661669825, 13209605201, 17849708046
a(n) = (n-1)*(n^7-7*n^6+29*n^5-71*n^4+116*n^3-128*n^2+80*n-32)/16.
a(n) = 9*a(n-1)-36*a(n-2)+84*a(n-3)-126*a(n-4)+126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9). Vincenzo Librandi, May 13 2012
[A133899] 72, 73, 74, 75, 76, 77, 78, 79, 80, 153, 154, 155, 156, 157, 158, 159, 160, 161, 234, 235, 236, 237, 238, 239, 240, 241, 242, 315, 316, 317, 318, 319, 320, 321, 322, 323, 396, 397, 398, 399, 400, 401, 402, 403, 404, 477, 478, 479, 480, 481, 482, 483, 484, 485
a(n)=9n+72-8*(n mod 9).
[A099943] 72, 98, 124, 150, 176, 202, 228, 254, 280, 306, 332, 358, 384, 410, 436, 462, 488, 514, 540, 566, 592, 618, 644, 670, 696, 722, 748, 774, 800, 826, 852, 878, 904, 930, 956, 982, 1008, 1034, 1060, 1086, 1112, 1138, 1164, 1190, 1216, 1242, 1268, 1294, 1320
a(n) = 26*n + 20.

[A102562] 72, 108, 120, 144, 168, 180, 200, 216, 240, 252, 264, 270, 280, 288, 300, 312, 324, 336, 360, 378, 392, 396, 400, 408, 420, 432, 440, 450, 456, 468, 480, 500, 504, 520, 528, 540, 552, 560, 576, 588, 594, 600, 612, 616, 624, 630, 648, 660, 672, 675, 680
a(n) = n + O(n(log log n)^3/log n). - Charles R Greathouse IV, Mar 24 2014
[A052486] 72, 108, 200, 288, 392, 432, 500, 648, 675, 800, 864, 968, 972, 1125, 1152, 1323, 1352, 1372, 1568, 1800, 1944, 2000, 2312, 2592, 2700, 2888, 3087, 3200, 3267, 3456, 3528, 3872, 3888, 4000, 4232, 4500, 4563, 4608, 5000, 5292, 5324, 5400, 5408, 5488
a(n) = O(n^2). - Daniel Forgues, Aug 11 2015
a(n) = O(n^2 / log log n). - Daniel Forgues, Aug 12 2015
[A157336] 72, 136, 200, 264, 328, 392, 456, 520, 584, 648, 712, 776, 840, 904, 968, 1032, 1096, 1160, 1224, 1288, 1352, 1416, 1480, 1544, 1608, 1672, 1736, 1800, 1864, 1928, 1992, 2056, 2120, 2184, 2248, 2312, 2376, 2440, 2504, 2568, 2632, 2696, 2760, 2824, 2888, 2952
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 29 2012
[A137883] 72, 144, 280, 456, 728, 1056, 1512, 2040, 2728, 3504, 4472, 5544, 6840, 8256, 9928, 11736, 13832, 16080, 18648, 21384, 24472, 27744, 31400, 35256, 39528, 44016, 48952, 54120, 59768, 65664, 72072, 78744, 85960, 93456, 101528, 109896, 118872, 128160, 138088
a(n) = (-1)^n*n*(-1 + (-1)^n*(5 + 2*n^2)). - Eric W. Weisstein, Dec 16 2013
[A158488] 72, 264, 584, 1032, 1608, 2312, 3144, 4104, 5192, 6408, 7752, 9224, 10824, 12552, 14408, 16392, 18504, 20744, 23112, 25608, 28232, 30984, 33864, 36872, 40008, 43272, 46664, 50184, 53832, 57608, 61512, 65544, 69704, 73992, 78408, 82952
a(1)=72, a(2)=264, a(3)=584, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Nov 16 2011
[A277991] 0, 72, 306, 702, 1260, 1980, 2862, 3906, 5112, 6480, 8010, 9702, 11556, 13572, 15750, 18090, 20592, 23256, 26082, 29070, 32220, 35532, 39006, 42642, 46440, 50400, 54522, 58806, 63252, 67860, 72630, 77562, 82656, 87912, 93330, 98910
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Nov 13 2016
[A157909] 72, 315, 720, 1287, 2016, 2907, 3960, 5175, 6552, 8091, 9792, 11655, 13680, 15867, 18216, 20727, 23400, 26235, 29232, 32391, 35712, 39195, 42840, 46647, 50616, 54747, 59040, 63495, 68112, 72891, 77832, 82935, 88200, 93627, 99216, 104967
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 08 2012
[A008399] 1, 72, 1062, 6696, 26316, 77688, 189810, 405720, 785304, 1408104, 2376126, 3816648, 5885028, 8767512, 12684042, 17891064, 24684336, 33401736, 44426070, 58187880, 75168252, 95901624, 120978594, 151048728, 186823368, 229078440, 278657262, 336473352, 403513236
a(n) = 9*n*(13*n^2+7)*(n^2+1)/5 for n >= 1.
[A192847] 0, 0, 0, 72, 1080, 7020, 30240, 100800, 281232, 687960, 1520640, 3100680, 5920200, 10702692, 18476640, 30663360, 49180320, 76561200, 116093952, 171978120, 249502680, 355245660, 497296800, 685504512, 931748400, 1250238600, 1657843200, 2174445000, 2823328872, 3631600980
a(n) = n*(n-1)*(n-2)*(n-3)^2*(n^2-3*n+8)/4. - Andrew Howroyd, May 23 2017
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8). - Eric W. Weisstein, Jun 26 2017
[A008391] 1, 72, 1332, 11832, 66222, 271224, 889716, 2476296, 6077196, 13507416, 27717948, 53265960, 96900810, 168278760, 280819260, 452715672, 708113304, 1078467624, 1604095524, 2335932504, 3337508646, 4687156248, 6480461988, 8832976488, 11883194148, 15795816120
a(0)=1, a(1)=72, a(2)=1332, a(3)=11832, a(4)=66222, a(5)=271224, a(6)=889716, a(7)=2476296, a(8)=6077196, a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8). - Harvey P. Dale, Mar 04 2012
[A286930] 0, 72, 4608, 52488, 294912, 1125000, 3359232, 8470728, 18874368, 38263752, 72000000, 127552392, 214990848, 347530248, 542126592, 820125000, 1207959552, 1737904968, 2448880128, 3387303432, 4608000000, 6175160712, 8163353088, 10658584008, 13759414272, 17578125000
a(n) = 72*(n-1)^6. - David A. Corneth, May 16 2017
[A157120] 73, 103, 205, 233, 515, 1157, 1325, 2987, 6737, 7717, 17407, 39265, 44977, 101455, 228853, 262145, 591323, 1333853, 1527893, 3446483, 7774265, 8905213, 20087575, 45311737, 51903385, 117078967, 264096157, 302515097, 682386227, 1539265205
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1) = 73, a(2) = 103, a(3) = 205, a(4) = 233, a(5) = 515, a(6) = 1157.
[A196655] 73, 139, 271, 535, 1063, 2119, 4231, 8455, 16903, 33799, 67591, 135175, 270343, 540679, 1081351, 2162695, 4325383, 8650759, 17301511, 34603015, 69206023, 138412039, 276824071, 553648135, 1107296263, 2214592519, 4429185031, 8858370055, 17716740103
a(n) = 33*2^(n+1) + 7.
[A158740] 1, 73, 289, 649, 1153, 1801, 2593, 3529, 4609, 5833, 7201, 8713, 10369, 12169, 14113, 16201, 18433, 20809, 23329, 25993, 28801, 31753, 34849, 38089, 41473, 45001, 48673, 52489, 56449, 60553, 64801, 69193, 73729, 78409, 83233, 88201, 93313
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A174334] 0, 73, 292, 657, 1168, 1825, 2628, 3577, 4672, 5913, 7300, 8833, 10512, 12337, 14308, 16425, 18688, 21097, 23652, 26353, 29200, 32193, 35332, 38617, 42048, 45625, 49348, 53217, 57232, 61393, 65700, 70153, 74752, 79497, 84388, 89425, 94608
a(n) = (37*n)^2-(36*n)^2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3) for n>2.
[A158744] 73, 295, 665, 1183, 1849, 2663, 3625, 4735, 5993, 7399, 8953, 10655, 12505, 14503, 16649, 18943, 21385, 23975, 26713, 29599, 32633, 35815, 39145, 42623, 46249, 50023, 53945, 58015, 62233, 66599, 71113, 75775, 80585, 85543, 90649, 95903
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A228306] 75, 165, 315, 546, 882, 1350, 1980, 2805, 3861, 5187, 6825, 8820, 11220, 14076, 17442, 21375, 25935, 31185, 37191, 44022, 51750, 60450, 70200, 81081, 93177, 106575, 121365, 137640, 155496, 175032, 196350, 219555, 244755, 272061, 301587, 333450
a(n) = (1/8)*n*(n-1)*(n-2)*(n+5).
[A201916] 0, 75, 203, 323, 552, 708, 1020, 1127, 1311, 1428, 1608, 1820, 1955, 2336, 2675, 3128, 3311, 3627, 3927, 4140, 4508, 4743, 5535, 6003, 6800, 7280, 7848, 8211, 8588, 9240, 9860, 11063, 11895, 13583, 14168, 15180, 15827, 16827, 18011, 18768, 20915, 22836
a(n) = a(n-1) + 6*a(n-27) - 6*a(n-28) - a(n-54) + a(n-55), where the 55 initial terms can be computed using the Mathematica program.
[A098230] 0, 1, 75, 222, 442, 735, 1101, 1540, 2052, 2637, 3295, 4026, 4830, 5707, 6657, 7680, 8776, 9945, 11187, 12502, 13890, 15351, 16885, 18492, 20172, 21925, 23751, 25650, 27622, 29667, 31785, 33976, 36240, 38577, 40987, 43470, 46026, 48655, 51357, 54132, 56980, 59901, 62895, 65962, 69102, 72315, 75601, 78960, 82392, 85897, 89475
a(n) = n(73n - 71)/2.
[A158742] 1, 75, 297, 667, 1185, 1851, 2665, 3627, 4737, 5995, 7401, 8955, 10657, 12507, 14505, 16651, 18945, 21387, 23977, 26715, 29601, 32635, 35817, 39147, 42625, 46251, 50025, 53947, 58017, 62235, 66601, 71115, 75777, 80587, 85545, 90651, 95905
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158765] 75, 303, 683, 1215, 1899, 2735, 3723, 4863, 6155, 7599, 9195, 10943, 12843, 14895, 17099, 19455, 21963, 24623, 27435, 30399, 33515, 36783, 40203, 43775, 47499, 51375, 55403, 59583, 63915, 68399, 73035, 77823, 82763, 87855, 93099, 98495
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A226741] 75, 308, 807, 1704, 3155, 5340, 8463, 12752, 18459, 25860, 35255, 46968, 61347, 78764, 99615, 124320, 153323, 187092, 226119, 270920, 322035, 380028, 445487, 519024, 601275, 692900, 794583, 907032, 1030979, 1167180, 1316415, 1479488, 1657227, 1850484
a(n) = (n+1)^4+12*(n+1)^3+36*(n+1)^2+26*(n+1).
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5).
[A193252] 1, 75, 365, 1015, 2169, 3971, 6565, 10095, 14705, 20539, 27741, 36455, 46825, 58995, 73109, 89311, 107745, 128555, 151885, 177879, 206681, 238435, 273285, 311375, 352849, 397851, 446525, 499015, 555465, 616019, 680821, 750015, 823745, 902155, 985389, 1073591
a(n) = 24*n^3-36*n^2+14*n-1.
a(0)=1, a(1)=75, a(2)=365, a(3)=1015, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4) [From Harvey P. Dale, Jul 27 2011]
[A015223] 1, 75, 405, 1183, 2601, 4851, 8125, 12615, 18513, 26011, 35301, 46575, 60025, 75843, 94221, 115351, 139425, 166635, 197173, 231231, 269001, 310675, 356445, 406503, 461041, 520251, 584325, 653455, 727833, 807651, 893101, 984375
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 192.
[A129625] 0, 75, 432, 699, 1092, 3115, 4660, 6943, 18724, 27727, 41032, 109695, 162168, 239715, 639912, 945747, 1397724, 3730243, 5512780, 8147095, 21742012, 32131399, 47485312, 126722295, 187276080, 276765243, 738592224, 1091525547, 1613106612
a(n) = 6*a(n-3)-a(n-6)+466 for n > 6; a(1)=0, a(2)=75, a(3)=432, a(4)=699, a(5)=1092, a(6)=3115.

[A210505] 0, 75, 1380, 1725, 4575, 7095, 10020, 10620, 31800, 38355, 58710, 61170, 67125, 92235, 92310, 94845, 118530, 137415, 156000, 168765, 189705, 238815, 249450, 257370, 339375, 353925, 507270, 584265, 590040, 617265, 625845, 631740, 761760, 845295, 866910, 943605
a(n)==0 (mod15)
[A026046] 76, 105, 144, 195, 260, 341, 440, 559, 700, 865, 1056, 1275, 1524, 1805, 2120, 2471, 2860, 3289, 3760, 4275, 4836, 5445, 6104, 6815, 7580, 8401, 9280, 10219, 11220, 12285, 13416, 14615, 15884, 17225, 18640, 20131, 21700, 23349, 25080, 26895, 28796, 30785, 32864, 35035, 37300
a(n) = n(n^2-6n+38)/3. - Ralf Stephan, Apr 30 2004
[A063359] 1, 76, 154, 231, 308, 385, 462, 537, 616, 691, 770, 847, 924, 997, 1078, 1153, 1232, 1307, 1386, 1459, 1540, 1613, 1694, 1769, 1848, 1919, 2002, 2075, 2156, 2229, 2310, 2381, 2464, 2535, 2618, 2691, 2772, 2841, 2926, 2997, 3080, 3151
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A099944] 76, 164, 340, 692, 1396, 2804, 5620, 11252, 22516, 45044, 90100, 180212, 360436, 720884, 1441780, 2883572, 5767156, 11534324, 23068660, 46137332, 92274676, 184549364, 369098740, 738197492, 1476394996, 2952790004, 5905580020
a(n) = 11*2^n - 12.
a(n) = 3*a(n-1) - 2*a(n-2) for n > 4.
[A005571] 76, 288, 700, 1376, 2380, 3776, 5628, 8000, 10956, 14560, 18876, 23968, 29900, 36736, 44540, 53376, 63308, 74400, 86716, 100320, 115276, 131648, 149500, 168896, 189900, 212576, 236988, 263200, 291276, 321280, 353276, 387328, 423500, 461856, 502460, 545376
a(n) = 4(n+1)(n+3)(8n+19)/3.
[A167586] 76, 372, 1020, 2212, 4140, 6996, 10972, 16260, 23052, 31540, 41916, 54372, 69100, 86292, 106140, 128836, 154572, 183540, 215932, 251940, 291756, 335572, 383580, 435972, 492940, 554676, 621372, 693220, 770412, 853140, 941596
a(n) = 32*n^3 - 16*n^2 + 120*n - 60.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Jun 17 2016
[A129626] 0, 76, 559, 843, 1239, 3976, 5620, 7920, 23859, 33439, 46843, 139740, 195576, 273700, 815143, 1140579, 1595919, 4751680, 6648460, 9302376, 27695499, 38750743, 54218899, 161421876, 225856560, 316011580, 940836319, 1316389179, 1841851143, 5483596600
a(n) = 6*a(n-3)-a(n-6)+562 for n > 6; a(1)=0, a(2)=76, a(3)=559, a(4)=843, a(5)=1239, a(6)=3976.
[A118611] 0, 77, 132, 245, 392, 585, 728, 1029, 1428, 1725, 2352, 3185, 4292, 5117, 6860, 9177, 10904, 14553, 19404, 25853, 30660, 40817, 54320, 64385, 85652, 113925, 151512, 179529, 238728, 317429, 376092, 500045, 664832, 883905, 1047200, 1392237, 1850940, 2192853
a(n) = 6*a(n-7)-a(n-14)+686 for n > 14; a(1)=0, a(2)=77, a(3)=132, a(4)=245, a(5)=392, a(6)=585, a(7)=728, a(8)=1029, a(9)=1428, a(10)=1725, a(11)=2352, a(12)=3185, a(13)=4292, a(14)=5117.
[A075253] 77, 166, 267, 684, 897, 1416, 1557, 2904, 3333, 5904, 6189, 11952, 12813, 24096, 24669, 48480, 50205, 97344, 98493, 195264, 198717, 391296, 393597, 783744, 790653, 1569024, 1573629, 3140352, 3154173, 6283776, 6292989, 12572160
a(0) = 77; a(1) = 166; a(2) = 267; for n > 2 and
[A158767] 1, 77, 305, 685, 1217, 1901, 2737, 3725, 4865, 6157, 7601, 9197, 10945, 12845, 14897, 17101, 19457, 21965, 24625, 27437, 30401, 33517, 36785, 40205, 43777, 47501, 51377, 55405, 59585, 63917, 68401, 73037, 77825, 82765, 87857, 93101, 98497
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158771] 77, 311, 701, 1247, 1949, 2807, 3821, 4991, 6317, 7799, 9437, 11231, 13181, 15287, 17549, 19967, 22541, 25271, 28157, 31199, 34397, 37751, 41261, 44927, 48749, 52727, 56861, 61151, 65597, 70199, 74957, 79871, 84941, 90167, 95549, 101087
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A063328] 1, 79, 190, 298, 406, 514, 622, 730, 838, 946, 1054, 1166, 1270, 1378, 1486, 1598, 1702, 1814, 1918, 2030, 2134, 2246, 2350, 2466, 2566, 2678, 2782, 2898, 2998, 3114, 3214, 3330, 3430, 3546, 3646, 3766, 3862, 3978, 4078, 4198, 4294
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A180455] 79, 281, 349, 439, 643, 677, 787, 883, 1171, 1321, 1733, 1811, 2141, 2347, 2389, 2767, 2791, 3323, 3329, 3529, 3929, 4157, 4349, 4751, 4799, 4919, 4951, 5003, 5189, 5323, 5347, 5521, 5527, 5857, 5861, 6287, 6337, 6473, 6827, 6967, 6997, 7507, 7933, 8233
a(n)=[p(n-2)+p(n-1)+p(n)+p(n+1)+p(n+2)]/5 not always a(n)=p(n).
[A158769] 1, 79, 313, 703, 1249, 1951, 2809, 3823, 4993, 6319, 7801, 9439, 11233, 13183, 15289, 17551, 19969, 22543, 25273, 28159, 31201, 34399, 37753, 41263, 44929, 48751, 52729, 56863, 61153, 65599, 70201, 74959, 79873, 84943, 90169, 95551, 101089
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158774] 79, 319, 719, 1279, 1999, 2879, 3919, 5119, 6479, 7999, 9679, 11519, 13519, 15679, 17999, 20479, 23119, 25919, 28879, 31999, 35279, 38719, 42319, 46079, 49999, 54079, 58319, 62719, 67279, 71999, 76879, 81919, 87119, 92479, 97999, 103679
a(n)=3*a(n-1)-3*a(n-2)+a(n-3). [R. J. Mathar, Jul 26 2009]
[A157507] 79, 320, 723, 1288, 2015, 2904, 3955, 5168, 6543, 8080, 9779, 11640, 13663, 15848, 18195, 20704, 23375, 26208, 29203, 32360, 35679, 39160, 42803, 46608, 50575, 54704, 58995, 63448, 68063, 72840, 77779, 82880, 88143, 93568, 99155, 104904
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).- Vincenzo Librandi, Jan 26 2012
[A023315] 79, 401, 1259, 2477, 3019, 4409, 10303, 15679, 20509, 24499, 34127, 43987, 44389, 53101, 66359, 71287, 74857, 81097, 85903, 90803, 93053, 102811, 103231, 104999, 112601, 125453, 132533, 144731, 156347, 157793, 160817, 161839, 163981, 170641
a(n) == 9 or 13 (mod 14). - John Cerkan, Oct 07 2016
[A023343] 79, 34127, 345431, 549089, 669937, 703663, 948593, 978749, 999007, 1251329, 1255333, 1279133, 1500277, 1517413, 1525421, 1642769, 1670629, 1688101, 1727161, 1770127, 2152159, 2161343, 2328517, 2622167, 2745451, 2786681, 2837557, 3281777
a(n) == 9 (mod 14). - John Cerkan, Oct 20 2016
[A157912] 80, 272, 592, 1040, 1616, 2320, 3152, 4112, 5200, 6416, 7760, 9232, 10832, 12560, 14416, 16400, 18512, 20752, 23120, 25616, 28240, 30992, 33872, 36880, 40016, 43280, 46672, 50192, 53840, 57616, 61520, 65552, 69712, 74000, 78416, 82960
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Feb 09 2012
[A157953] 80, 322, 726, 1292, 2020, 2910, 3962, 5176, 6552, 8090, 9790, 11652, 13676, 15862, 18210, 20720, 23392, 26226, 29222, 32380, 35700, 39182, 42826, 46632, 50600, 54730, 59022, 63476, 68092, 72870, 77810, 82912, 88176, 93602, 99190, 104940
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 29 2012
[A204342] 1, 80, 626, 2400, 6481, 14640, 28562, 50080, 83522, 130320, 192000, 279840, 391251, 524960, 707282, 923520, 1171200, 1502400, 1874162, 2284960, 2825762, 3418800, 4057106, 4879680, 5762401, 6681760, 7890482, 9164640, 10425600
a(n) = b(2*n + 1) where b(n) is multiplicative with b(2^e) = 0^e, b(p^e) = ((p^4)^(e+1) + 1) / (p^4 + 1) if p == 3 (mod 4), b(p^e) = ((p^4)^(e+1) - 1) / (p^4 - 1) if p == 1 (mod 4).
[A024392] 80, 806, 4040, 14155, 39655, 95200, 204036, 400830, 734910, 1273910, 2107820, 3353441, 5159245, 7710640, 11235640, 16010940, 22368396, 30701910, 41474720, 55227095, 72584435, 94265776, 121092700, 153998650, 194038650, 242399430
a(n) = n*(n+1)*(n+2)*(3*n+7)*(9*n^2+33*n+22)/48.
[A120457] 81, 108, 162, 216, 256, 324, 378, 486, 504, 512, 540, 648, 756, 810, 896, 972, 1024, 1080, 1280, 1512, 1620, 1764, 1792, 1944, 2048, 2268, 2520, 2560, 2916, 3136, 3240, 3528, 3584, 3780, 4096, 4480, 4536, 4860, 5120, 5400, 5832, 6272, 6400, 7168, 7560
a(n) = Sorted[16*Powerof[((Prime[n] + 1)/2)*((Prime[m] + 1)/2)*((Prime[o] + 1)/2)*((Prime[p] + 1)/2)]]
[A273372] 1, 81, 121, 361, 441, 841, 961, 1521, 1681, 2401, 2601, 3481, 3721, 4761, 5041, 6241, 6561, 7921, 8281, 9801, 10201, 11881, 12321, 14161, 14641, 16641, 17161, 19321, 19881, 22201, 22801, 25281, 25921, 28561, 29241, 32041, 32761, 35721, 36481, 39601, 40401
a(n) = (5*n - 5/2 + (3/2)*(-1)^n)^2 = 25*n^2 - 25*n + 17/2 + 15*n*(-1)^n - (15/2)*(-1)^n. - David A. Corneth, May 21 2016
[A158776] 1, 81, 321, 721, 1281, 2001, 2881, 3921, 5121, 6481, 8001, 9681, 11521, 13521, 15681, 18001, 20481, 23121, 25921, 28881, 32001, 35281, 38721, 42321, 46081, 50001, 54081, 58321, 62721, 67281, 72001, 76881, 81921, 87121, 92481, 98001, 103681
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A017162] 0, 81, 324, 729, 1296, 2025, 2916, 3969, 5184, 6561, 8100, 9801, 11664, 13689, 15876, 18225, 20736, 23409, 26244, 29241, 32400, 35721, 39204, 42849, 46656, 50625, 54756, 59049, 63504, 68121, 72900
a(0)=0, a(1)=81, a(2)=324, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Nov 06 2012
[A017378] 81, 361, 841, 1521, 2401, 3481, 4761, 6241, 7921, 9801, 11881, 14161, 16641, 19321, 22201, 25281, 28561, 32041, 35721, 39601, 43681, 47961, 52441, 57121, 62001, 67081, 72361, 77841, 83521, 89401, 95481, 101761, 108241, 114921, 121801, 128881, 136161, 143641

a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>2.
[A017498] 81, 400, 961, 1764, 2809, 4096, 5625, 7396, 9409, 11664, 14161, 16900, 19881, 23104, 26569, 30276, 34225, 38416, 42849, 47524, 52441, 57600, 63001, 68644, 74529, 80656, 87025, 93636, 100489, 107584
a(0)=81, a(1)=400, a(2)=961, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Oct 30 2011]
[A017630] 81, 441, 1089, 2025, 3249, 4761, 6561, 8649, 11025, 13689, 16641, 19881, 23409, 27225, 31329, 35721, 40401, 45369, 50625, 56169, 62001, 68121, 74529, 81225, 88209, 95481, 103041, 110889, 119025
a(0)=81, a(1)=441, a(2)=1089, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Mar 31 2012]
[A045792] 81, 841, 8100, 8281, 8464, 8649, 8836, 80089, 80656, 81225, 81796, 82369, 82944, 83521, 84100, 84641, 85264, 85849, 86436, 87025, 87616, 88209, 88804, 89401, 801025, 802816, 804609, 806404, 808201, 810000, 811801, 813604, 815409, 817216
a(n) = ceiling(sqrt(8*10^n))^2. - Sascha Kurz, Mar 18 2002
[A158123] 82, 163, 244, 325, 406, 487, 568, 649, 730, 811, 892, 973, 1054, 1135, 1216, 1297, 1378, 1459, 1540, 1621, 1702, 1783, 1864, 1945, 2026, 2107, 2188, 2269, 2350, 2431, 2512, 2593, 2674, 2755, 2836, 2917, 2998, 3079, 3160, 3241, 3322, 3403, 3484, 3565
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 03 2012
[A048513] 1, 82, 263, 665, 1553, 3505, 7777, 17089, 37313, 81089, 175553, 378817, 815041, 1748929, 3743681, 7995329, 17039297, 36241345, 76939201, 163053505, 344981441, 728760257, 1537212353, 3238002625, 6811549633, 14310965185
a(n) = (n^2+33*n+256) * 2^(n-2) - 63. - Ralf Stephan, Feb 05 2004
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Feb 25 2015
[A227704] 82, 273, 692, 1475, 2790, 4837, 7848, 12087, 17850, 25465, 35292, 47723, 63182, 82125, 105040, 132447, 164898, 202977, 247300, 298515, 357302, 424373, 500472, 586375, 682890, 790857, 911148, 1044667, 1192350, 1355165, 1534112, 1730223
a(n) = n*(15 + 14*n + 12*n^2 + 4*n^3)/3 (see Example 1 in the Eliasi et al. reference).
[A288920] 0, 0, 82, 430, 1030, 1882, 2986, 4342, 5950, 7810, 9922, 12286, 14902, 17770, 20890, 24262, 27886, 31762, 35890, 40270, 44902, 49786, 54922, 60310, 65950, 71842, 77986, 84382, 91030, 97930, 105082, 112486, 120142, 128050, 136210, 144622, 153286, 162202
a(n) = 550 - 534*n + 126*n^2 for n>2.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>4.
[A002309] 1, 82, 707, 3108, 9669, 24310, 52871, 103496, 187017, 317338, 511819, 791660, 1182285, 1713726, 2421007, 3344528, 4530449, 6031074, 7905235, 10218676, 13044437, 16463238, 20563863, 25443544, 31208345, 37973546, 45864027, 55014652, 65570653, 77688014
a(n) = (48*n^5 - 40*n^3 + 7*n)/15. - Ralf Stephan, Jan 29 2003
a(1)=1, a(2)=82, a(3)=707, a(4)=3108, a(5)=9669, a(6)=24310, a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - Harvey P. Dale, Oct 24 2011
a(n) = v(n,n-2) - v(n,n-1)*V(n,n-1), where v(n,k) and V(n,k) are the central factorial numbers of the first kind and the second kind, respectively, with odd indices. - Mircea Merca, Jan 25 2014
[A085439] 1, 82, 1378, 11378, 62003, 256484, 871140, 2550756, 6651381, 15802006, 34776742, 71791798, 140366759, 261917384, 469277384, 811379400, 1359360681, 2214396762, 3517606762, 5462416762, 8309813083, 12406965164, 18209748140, 26309748140, 37466388765, 52644875166
a(n) = (2520*n^9 +22680*n^8 +79920*n^7 +136080*n^6 +107352*n^5 +22680*n^4 -10080*n^3 +1728*n)/9!.
[A160849] 0, 1, 83, 164, 299, 454, 673, 894, 1183, 1492, 1855, 2218, 2653, 3102, 3623, 4148, 4719, 5310, 5973, 6638, 7375, 8124, 8923, 9730, 10609, 11502, 12459, 13424, 14443, 15478, 16585, 17686, 18859, 20052, 21299, 22554, 23869, 25198, 26599, 28008
a(n) = (1/2)*(f(m,n,1) - f(m,n,2)) where f(m,n,k) = Sum((n-|kx|)*(m-|ky|)); -n < kx < n, -m < ky < m, (x,y)=1, m=9.
[A177099] 83, 328, 735, 1304, 2035, 2928, 3983, 5200, 6579, 8120, 9823, 11688, 13715, 15904, 18255, 20768, 23443, 26280, 29279, 32440, 35763, 39248, 42895, 46704, 50675, 54808, 59103, 63560, 68179, 72960, 77903, 83008, 88275, 93704, 99295, 105048, 110963, 117040, 123279, 129680, 136243, 142968, 149855, 156904, 164115
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 03 2012
[A061525] 83, 361, 951, 1997, 3667, 6153, 9671, 14461, 20787, 28937, 39223, 51981, 67571, 86377, 108807, 135293, 166291, 202281, 243767, 291277, 345363, 406601, 475591, 552957, 639347, 735433, 841911, 959501, 1088947, 1231017, 1386503, 1556221
a(n) = (n^4 + 32n^3 + 278n^2 + 656n + 361)/16 when n is odd.
[A202657] 0, 0, 0, 0, 0, 83, 6107, 126376, 1377328, 9984758, 54399330, 239675936, 895773148, 2935757573, 8641608781, 23259768860, 58039719112, 135720432200, 299995484600, 631220344328, 1271607596876, 2464466665667, 4613731163831, 8372196591052, 14769606793684, 25395151577010
a(n) = n^12/720 - n^11/18 + 73*n^10/72 - 72247*n^9/6480 + 5909*n^8/72 - 320653*n^7/756 + 112795*n^6/72 - 8892919*n^5/2160 + 8086231*n^4/1080 - 5740271*n^3/648 + 2598425*n^2/432 - 13161367*n/7560 + (n^5/4 - 77*n^4/12 + 757*n^3/12 - 7007*n^2/24 + 14581*n/24 - 1677/4)*floor(n/2) + (64*n/9 - 88/9)*floor(n/3) + (8*n/3 - 52/9)*floor((n + 1)/3).
[A157119] 0, 84, 105, 309, 765, 884, 2060, 4712, 5405, 12257, 27713, 31752, 71688, 161772, 185313, 418077, 943125, 1080332, 2436980, 5497184, 6296885, 14204009, 32040185, 36701184, 82787280, 186744132, 213910425, 482519877, 1088424813, 1246761572
a(n) = 6*a(n-3)-a(n-6)+206 for n > 6; a(1) = 0, a(2) = 84, a(3) = 105, a(4) = 309, a(5) = 765, a(6) = 884.
[A096383] 84, 240, 486, 840, 1320, 1944, 2730, 3696, 4860, 6240, 7854, 9720, 11856, 14280, 17010, 20064, 23460, 27216, 31350, 35880, 40824, 46200, 52026, 58320, 65100, 72384, 80190, 88536, 97440, 106920, 116994, 127680, 138996, 150960, 163590
a(n)=(n-3)*(n*3)*(n+3), n>=3 . - Zerinvary Lajos, Mar 05 2007
a(3)=84, a(4)=240, a(5)=486, a(6)=840, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Aug 28 2011]
[A069080] 84, 864, 3300, 8736, 18900, 35904, 62244, 100800, 154836, 228000, 324324, 448224, 604500, 798336, 1035300, 1321344, 1662804, 2066400, 2539236, 3088800, 3722964, 4449984, 5278500, 6217536, 7276500, 8465184, 9793764, 11272800, 12913236, 14726400, 16724004
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
a(n) = 16*n^4 + 128*n^3 + 332*n^2 + 304*n + 84. (End)
[A027794] 84, 960, 5940, 26400, 94380, 288288, 780780, 1921920, 4375800, 9335040, 18845112, 36279360, 67016040, 119380800, 205931880, 345181056, 563861100, 899870400, 1406047500, 2154952800, 3244861620, 4807202400, 7015706100, 10097568000, 14346961200, 20141282304
a(n) = C(n+1, 7)*C(n+3, 3) - Zerinvary Lajos, May 10 2005, corrected by R. J. Mathar, Mar 16 2016
[A027821] 84, 1050, 6930, 32340, 120120, 378378, 1051050, 2642640, 6126120, 13273260, 27159132, 52907400, 98760480, 177578940, 308897820, 521694096, 858049500, 1377926550, 2165313150, 3336032700, 5047562520, 7511253750, 11007400950, 15903669600, 22677454800, 31942814904
a(n) = C(n+1, 4)*C(n+6, 6) - Zerinvary Lajos, Jun 08 2005, corrected by R. J. Mathar, Feb 13 2016
[A156650] 85, 89, 91, 101, 119, 145, 175, 185, 221, 289, 349, 371, 461, 595, 769, 959, 1021, 1241, 1649, 2005, 2135, 2665, 3451, 4469, 5579, 5941, 7225, 9605, 11681, 12439, 15529, 20111, 26045, 32515, 34625, 42109, 55981, 68081, 72499, 90509, 117215, 151801
a(n) = 6*a(n-9)-a(n-18) for n > 18; a(1)=85, a(2)=89, a(3)=91, a(4)=101, a(5)=119, a(6)=145, a(7)=175, a(8)=185, a(9)=221, a(10)=289, a(11)=349, a(12)=371, a(13)=461, a(14)=595, a(15)=769, a(16)=959, a(17)=1021, a(18)=1241.
[A157469] 85, 97, 113, 397, 485, 593, 2297, 2813, 3445, 13385, 16393, 20077, 78013, 95545, 117017, 454693, 556877, 682025, 2650145, 3245717, 3975133, 15446177, 18917425, 23168773, 90026917, 110258833, 135037505, 524715325, 642635573, 787056257
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=85, a(2)=97, a(3)=113, a(4)=397, a(5)=485, a(6)=593.
[A161479] 85, 113, 173, 337, 565, 953, 1937, 3277, 5545, 11285, 19097, 32317, 65773, 111305, 188357, 383353, 648733, 1097825, 2234345, 3781093, 6398593, 13022717, 22037825, 37293733, 75901957, 128445857, 217363805, 442389025, 748637317, 1266889097
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=85, a(2)=113, a(3)=173, a(4)=337, a(5)=565, a(6)=953.
[A157110] 85, 2522, 8321, 17482, 30005, 45890, 65137, 87746, 113717, 143050, 175745, 211802, 251221, 294002, 340145, 389650, 442517, 498746, 558337, 621290, 687605, 757282, 830321, 906722, 986485, 1069610, 1156097, 1245946, 1339157, 1435730, 1535665
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 25 2012
[A157443] 86, 411, 978, 1787, 2838, 4131, 5666, 7443, 9462, 11723, 14226, 16971, 19958, 23187, 26658, 30371, 34326, 38523, 42962, 47643, 52566, 57731, 63138, 68787, 74678, 80811, 87186, 93803, 100662, 107763, 115106, 122691, 130518, 138587, 146898
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A272379] 0, 1, 86, 759, 3100, 8765, 19986, 39571, 70904, 117945, 185230, 277871, 401556, 562549, 767690, 1024395, 1340656, 1725041, 2186694, 2735335, 3381260, 4135341, 5009026, 6014339, 7163880, 8470825, 9948926, 11612511, 13476484, 15556325, 17868090, 20428411

a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A067749] 87, 187, 287, 387, 487, 587, 687, 787, 887, 987, 1087, 1187, 1287, 1387, 1487, 1587, 1687, 1787, 1887, 1987, 2087, 2187, 2287, 2387, 2487, 2587, 2687, 2787, 2887, 2987, 3087, 3187, 3287, 3387, 3487, 3587, 3687, 3787, 3887, 3987, 4087, 4187, 4287, 4387
a(n)=100n-13
[A063349] 1, 87, 192, 297, 400, 505, 608, 717, 816, 925, 1024, 1135, 1232, 1345, 1440, 1555, 1648, 1763, 1856, 1975, 2064, 2183, 2272, 2393, 2480, 2603, 2688, 2813, 2896, 3021, 3104, 3233, 3312, 3441, 3520, 3651, 3728, 3861, 3936, 4071, 4144
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A063336] 1, 87, 197, 305, 413, 525, 633, 741, 853, 961, 1069, 1179, 1289, 1397, 1509, 1615, 1725, 1835, 1945, 2051, 2165, 2271, 2381, 2489, 2601, 2707, 2821, 2925, 3037, 3145, 3257, 3361, 3477, 3581, 3693, 3799, 3913, 4017, 4133, 4235, 4349
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A243580] 87, 287, 615, 1071, 1655, 2367, 3207, 4175, 5271, 6495, 7847, 9327, 10935, 12671, 14535, 16527, 18647, 20895, 23271, 25775, 28407, 31167, 34055, 37071, 40215, 43487, 46887, 50415, 54071, 57855, 61767, 65807, 69975, 74271, 78695, 83247, 87927, 92735, 97671, 102735, 107927, 113247, 118695, 124271, 129975, 135807, 141767, 147855
a(n) = 64*n^2 + 8*n + 15.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>3.
[A157730] 88, 923, 2640, 5239, 8720, 13083, 18328, 24455, 31464, 39355, 48128, 57783, 68320, 79739, 92040, 105223, 119288, 134235, 150064, 166775, 184368, 202843, 222200, 242439, 263560, 285563, 308448, 332215, 356864, 382395, 408808, 436103, 464280
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A253648] 89, 91, 107, 117, 119, 121, 125, 127, 137, 141, 143, 151, 154, 155, 157, 159, 161, 163, 167, 170, 171, 173, 175, 178, 179, 181, 182, 185, 187, 189, 190, 191, 193, 195, 196, 197, 199, 201, 202, 203, 205, 206, 207, 209, 211, 213, 215, 217, 218, 221, 224, 225, 226, 227, 229, 233, 234, 235, 236, 237, 238, 239, 241, 242, 243, 244
a(n)=n+231 for n>2289.
[A069764] 89, 773, 3611, 12179, 33349, 78889, 167383, 326471, 595409, 1027949, 1695539, 2690843, 4131581, 6164689, 8970799, 12769039, 17822153, 24441941, 32995019, 43908899, 57678389, 74872313, 96140551, 122221399, 153949249, 192262589, 238212323
a(n)=((1/3)n(2n^2+1)-1)((1/3)(n+1)(2(n+1)^2+1)-1)-1.
a(2)=89, a(3)=773, a(4)=3611, a(5)=12179, a(6)=33349, a(7)=78889, a(8)=167383, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+ 21*a(n-5)- 7*a(n-6)+a(n-7). - Harvey P. Dale, Nov 19 2015
[A290314] 1, 89, 814, 4179, 15659, 47775, 125853, 296703, 641058, 1290718, 2451449, 4432792, 7686042, 12851762, 20818302, 32792898, 50387031, 75717831, 111527416, 161322161, 229533997, 321705945, 444704195, 606959145, 818737920, 1092450996, 1442995659, 1888139134, 2448944324, 3150241204, 4021147020, 5095638548
a(n) = (5760 + 67248*n + 158180*n^2 + 161700*n^3 + 87695*n^4 + 26952*n^5 + 4670*n^6 + 420*n^7 + 15*n^8) / 5760.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9) for n>8.
[A157757] 89, 3898, 13325, 28370, 49033, 75314, 107213, 144730, 187865, 236618, 290989, 350978, 416585, 487810, 564653, 647114, 735193, 828890, 928205, 1033138, 1143689, 1259858, 1381645, 1509050, 1642073, 1780714, 1924973, 2074850
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A027621] 90, 288, 700, 1440, 2646, 4480, 7128, 10800, 15730, 22176, 30420, 40768, 53550, 69120, 87856, 110160, 136458, 167200, 202860, 243936, 290950, 344448, 405000, 473200, 549666, 635040, 729988, 835200, 951390, 1079296, 1219680
a(n) = (n+3)^2*(n^2+7*n+10). - Bruno Berselli, Aug 05 2011
[A157888] 90, 333, 738, 1305, 2034, 2925, 3978, 5193, 6570, 8109, 9810, 11673, 13698, 15885, 18234, 20745, 23418, 26253, 29250, 32409, 35730, 39213, 42858, 46665, 50634, 54765, 59058, 63513, 68130, 72909, 77850, 82953, 88218, 93645, 99234, 104985
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 05 2012
[A158490] 90, 390, 890, 1590, 2490, 3590, 4890, 6390, 8090, 9990, 12090, 14390, 16890, 19590, 22490, 25590, 28890, 32390, 36090, 39990, 44090, 48390, 52890, 57590, 62490, 67590, 72890, 78390, 84090, 89990, 96090, 102390, 108890, 115590, 122490, 129590
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A289792] 0, 0, 0, 0, 90, 540, 1995, 5775, 14280, 31500, 63630, 119790, 212850, 360360, 585585, 918645, 1397760, 2070600, 2995740, 4244220, 5901210, 8067780, 10862775, 14424795, 18914280, 24515700, 31439850, 39926250, 50245650, 62702640, 77638365, 95433345, 116510400
a(n) = binomial(n - 1, 4) * (210 - 41*n + 7*n^2)/2.
a(n) = 7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)-7*a(n-6)+a(n-7).
[A065949] 0, 0, 0, 90, 630, 2520, 7560, 18900, 41580, 83160, 154440, 270270, 450450, 720720, 1113840, 1670760, 2441880, 3488400, 4883760, 6715170, 9085230, 12113640, 15939000, 20720700, 26640900, 33906600, 42751800, 53439750, 66265290, 81557280, 99681120, 121041360, 146084400
a(n) = ((-2+n)*(-1+n)*n*(1+n)*(2+n)*(3+n))/8.
[A263170] 0, 90, 840, 4410, 20118, 64890, 186168, 440730, 972030, 2094330, 4013850, 7512570, 13279548, 21906810, 34902498, 54772410, 84444690, 124785210, 181983378, 259292154, 358930146, 492406650, 664548816, 889272570, 1186319550, 1559209530, 2012668266, 2568943290, 3232452450, 4031692410
a(n) mod 2 = 0.
[A279438] 0, 1, 90, 1428, 10600, 51525, 190806, 584080, 1552608, 3701025, 8088850, 16470036, 31616520, 57743413, 101055150, 170433600, 278290816, 441610785, 683206218, 1033218100, 1530887400, 2226630021, 3184447750, 4484709648, 6227340000, 8535450625, 11559457026, 15481719540
a(n) = (n^8 - 14*n^6 + 30*n^5 - 17*n^4 - 6*n^3 + 6*n^2)/24.
a(n) = 9*a(n-1) - 36*a(n-2) + 84*a(n-3) - 126*a(n-4) + 126*a(n-5) - 84*a(n-6) + 36*a(n-7) - 9*a(n-8) + a(n-9).
[A060094] 0, 0, 0, 0, 90, 1716, 11350, 49860, 173745, 519345, 1389078, 3411060, 7821950, 16949910, 35013240, 69404416, 132703770, 245767890, 442372300, 776064960, 1330117230, 2231754820, 3672227850, 5934754020, 9432962515, 14763202395
a(n) = binomial(n + 14, n) - 6*binomial(n + 9, 9) - 15*binomial(n + 6, 6) + 30*binomial(n + 5, 5) + 60*binomial(n + 3, 3) - 50*binomial(n + 2, 2) - 180*binomial(n + 1, 1) + 240*binomial(n, 0) - 80*binomial(n - 1, - 1); G.f.: - y^4*(366*y - 16950*y^8 + 36420*y^7 - 54120*y^6 + 56290*y^5 - 40335*y^4 + 18840*y^3 - 4940*y^2 - 960*y^10 + 80*y^11 + 5220*y^9 + 90)/(- 1 + y)^15; E.g.f. for k-block ordered bicoverings of an unlabeled n-set is exp(- x - x^2/2*y/(1 - y))*Sum_{k = 0..inf} 1/(1 - y)^binomial(k, 2)*x^k/k!.
[A179338] 1, 91, 131, 401, 481, 931, 1051, 1681, 1841, 2651, 2851, 3841, 4081, 5251, 5531, 6881, 7201, 8731, 9091, 10801, 11201, 13091, 13531, 15601, 16081, 18331, 18851, 21281, 21841, 24451, 25051, 27841, 28481, 31451, 32131, 35281, 36001, 39331
a(n) = (110*n*(n-1)+35*(2*n-1)*(-1)^n+39)/4.
a(n) = a(-n+1) = a(n-1)+2*a(n-2)-2*a(n-3)-a(n-4)+a(n-5).
[A159961] 91, 169, 217, 469, 721, 817, 1027, 1141, 1261, 1387, 1519, 2107, 2611, 2977, 3367, 3781, 3997, 4681, 4921, 5677, 5941, 6487, 6769, 7651, 7957, 8587, 8911, 9577, 9919, 10621, 10981, 11347, 12481, 12871, 14077, 14491, 14911, 15337, 15769, 16207, 17101, 17557
a(1)=1+3t*(t+1) with t=5, a(2)=1+3t*(t+1) with t=7.
[A063367] 1, 91, 184, 276, 368, 460, 552, 642, 736, 826, 920, 1012, 1104, 1192, 1288, 1378, 1472, 1562, 1656, 1744, 1840, 1928, 2024, 2114, 2208, 2294, 2392, 2480, 2576, 2664, 2760, 2846, 2944, 3030, 3128, 3216, 3312, 3396, 3496, 3582, 3680, 3766
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A224460] 91, 263, 589, 1126, 1940, 3106, 4708, 6839, 9601, 13105, 17471, 22828, 29314, 37076, 46270, 57061, 69623, 84139, 100801, 119810, 141376, 165718, 193064, 223651, 257725, 295541, 337363, 383464, 434126, 489640, 550306, 616433, 688339, 766351, 850805, 942046, 1040428, 1146314, 1260076
a(n) = (3*n^4 +34*n^3 +145*n^2 -190*n +208)/8.
[A213287] 0, 1, 91, 869, 4895, 21562, 83728, 296268, 977026, 2990967, 8418649, 21740455, 51758345, 114517208, 237528214, 465636886, 868918932, 1553027197, 2672453415, 4447208761, 7183467523, 11298758534, 17352329324, 26081348272, 38443650358, 55667772435, 79311064261
a(n) = n*(-417562 +1092135*n -1113650*n^2 +587165*n^3 -175728*n^4 +30520*n^5 -2880*n^6 +120*n^7)/120.
[A185375] 0, 0, 1, 91, 966, 5082, 18447, 53053, 129948, 282948, 562989, 1043119, 1824130, 3040830, 4868955, 7532721, 11313016, 16556232, 23683737, 33201987, 45713278, 61927138, 82672359, 108909669, 141745044, 182443660
a(n) = n*(n-1)*(2*n+1)*(2*n-1)*(2*n-3)*(10*n-17)/90.
a(n) = binomial(2*n+1,5)*(10*n-17)/3.

[A157802] 91, 30464, 115287, 254560, 448283, 696456, 999079, 1356152, 1767675, 2233648, 2754071, 3328944, 3958267, 4642040, 5380263, 6172936, 7020059, 7921632, 8877655, 9888128, 10953051, 12072424, 13246247, 14474520, 15757243, 17094416
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A063326] 1, 92, 208, 325, 442, 559, 676, 793, 910, 1027, 1144, 1259, 1378, 1495, 1612, 1727, 1846, 1961, 2080, 2195, 2314, 2429, 2548, 2661, 2782, 2897, 3016, 3129, 3250, 3363, 3484, 3597, 3718, 3831, 3952, 4063, 4186, 4299, 4420, 4531, 4654
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A100169] 1, 92, 438, 1204, 2555, 4656, 7672, 11768, 17109, 23860, 32186, 42252, 54223, 68264, 84540, 103216, 124457, 148428, 175294, 205220, 238371, 274912, 315008, 358824, 406525, 458276, 514242, 574588, 639479, 709080, 783556, 863072
a(n) = (1/6)*(165*n^3-225*n^2+66*n).
a(n) = (55*n^3 - 75*n^2 + 22*n)/2. - Wesley Ivan Hurt, Nov 26 2013
[A100170] 1, 92, 444, 1228, 2615, 4776, 7882, 12104, 17613, 24580, 33176, 43572, 55939, 70448, 87270, 106576, 128537, 153324, 181108, 212060, 246351, 284152, 325634, 370968, 420325, 473876, 531792, 594244, 661403, 733440, 810526, 892832
a(n)=(1/6)*(171*n^3-243*n^2+78*n).
[A172449] 0, 0, 0, 0, 0, 0, 0, 0, 92, 1066, 7828, 44148, 195270, 707698, 2211868, 6120136, 15324708, 35312064, 75937606, 153942964, 296590536, 546621416, 968910732, 1659114170, 2754780934, 4449361442, 7009572728, 10796663102, 16292133888
a(n) = n^8 - 84*n^7 + 3378*n^6 - 85078*n^5 + 1467563*n^4 - 17723656*n^3 + 145910074*n^2 - 745654756*n + 1802501048, for n >= 31. - Vaclav Kotesovec, Feb 03 2010
[A157838] 92, 4843, 16794, 35945, 62296, 95847, 136598, 184549, 239700, 302051, 371602, 448353, 532304, 623455, 721806, 827357, 940108, 1060059, 1187210, 1321561, 1463112, 1611863, 1767814, 1930965, 2101316, 2278867, 2463618, 2655569
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A193248] 1, 93, 455, 1267, 2709, 4961, 8203, 12615, 18377, 25669, 34671, 45563, 58525, 73737, 91379, 111631, 134673, 160685, 189847, 222339, 258341, 298033, 341595, 389207, 441049, 497301, 558143, 623755, 694317, 770009, 851011, 937503, 1029665, 1127677, 1231719
a(n)= 30*n^3-45*n^2+17*n-1.
a(1)=1, a(2)=93, a(3)=455, a(4)=1267, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)- a(n-4) [From Harvey P. Dale, Aug 28 2011]
[A160174] 1, 93, 545, 1645, 3681, 6941, 11713, 18285, 26945, 37981, 51681, 68333, 88225, 111645, 138881, 170221, 205953, 246365, 291745, 342381, 398561, 460573, 528705, 603245, 684481, 772701, 868193, 971245, 1082145, 1201181, 1328641, 1464813, 1609985, 1764445
a(n) = 48*n^3-108*n^2+80*n-19.
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 01 2012
[A160250] 1, 93, 617, 1957, 4497, 8621, 14713, 23157, 34337, 48637, 66441, 88133, 114097, 144717, 180377, 221461, 268353, 321437, 381097, 447717, 521681, 603373, 693177, 791477, 898657, 1015101, 1141193
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 01 2012
[A174337] 0, 94, 376, 846, 1504, 2350, 3384, 4606, 6016, 7614, 9400, 11374, 13536, 15886, 18424, 21150, 24064, 27166, 30456, 33934, 37600, 41454, 45496, 49726, 54144, 58750, 63544, 68526, 73696, 79054, 84600, 90334, 96256, 102366, 108664
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Aug 21 2014
[A063371] 1, 95, 188, 282, 376, 470, 564, 659, 752, 847, 940, 1034, 1128, 1224, 1316, 1411, 1504, 1599, 1692, 1788, 1880, 1976, 2068, 2163, 2256, 2353, 2444, 2540, 2632, 2728, 2820, 2917, 3008, 3105, 3196, 3292, 3384, 3482, 3572, 3669, 3760, 3857
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A225931] 95, 273, 539, 1156, 3566, 5603, 8751, 18346, 34364, 75443, 95656, 146882, 308254, 426656, 576345, 762412, 990326, 1120595, 1985636, 2976016, 3591434, 5103526, 6017672, 8208724, 12553402, 14326796, 17326739, 20785106, 26163886, 29214704, 39981062, 44156775
a(n) = q^4 + 2q^3 + 6q^2 + 10q + 19 if q == 0 mod 2.
a(n) = q^4 + 2q^3 + 7q^2 + 15q + 30 if q == 0 mod 3.
a(n) = q^4 + 2q^3 + 7q^2 + 15q + 31 otherwise.
[A055823] 1, 95, 336, 848, 1800, 3422, 6017, 9974, 15782, 24045, 35498, 51024, 71672, 98676, 133475, 177734, 233366, 302555, 387780, 491840, 617880, 769418, 950373, 1165094, 1418390, 1715561, 2062430, 2465376, 2931368, 3468000, 4083527, 4786902, 5587814, 6496727, 7524920
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 13.
[A161482] 0, 96, 189, 453, 969, 1496, 3020, 6020, 9089, 17969, 35453, 53340, 105096, 207000, 311253, 612909, 1206849, 1814480, 3572660, 7034396, 10575929, 20823353, 40999829, 61641396, 121367760, 238964880, 359272749, 707383509, 1392789753
a(n) = 6*a(n-3)-a(n-6)+302 for n > 6; a(1)=0, a(2)=96, a(3)=189, a(4)=453, a(5)=969, a(6)=1496.
[A062027] 1, 1, 1, 96, 274, 720, 1680, 3520, 6750, 12048, 20284, 32544, 50154, 74704, 108072, 152448, 210358, 284688, 378708, 496096, 640962, 817872, 1031872, 1288512, 1593870, 1954576, 2377836, 2871456, 3443866, 4104144, 4862040, 5728000
a(n) = (n+1)(n)(n-1)(n-2)(n-3)/5 + n(n^2 -n +6).
[A216106] 96, 652, 1968, 4344, 8080, 13476, 20832, 30448, 42624, 57660, 75856, 97512, 122928, 152404, 186240, 224736, 268192, 316908, 371184, 431320, 497616, 570372, 649888, 736464, 830400, 931996, 1041552, 1159368, 1285744, 1420980
a(n) = 50n^3 + 80n^2 - 34n.
[A027628] 1, 96, 944, 4057, 11811, 27446, 55066, 99639, 166997, 263836, 397716, 577061, 811159, 1110162, 1485086, 1947811, 2511081, 3188504, 3994552, 4944561, 6054731, 7342126, 8824674, 10521167, 12451261, 14635476, 17095196, 19852669, 22931007, 26354186, 30147046
a(n) = (2 + 13*n + 33*n^2 + 72*n^3 + 72*n^4) / 2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4.
[A168526] 0, 1, 96, 1458, 10240, 46875, 163296, 470596, 1179648, 2657205, 5500000, 10629366, 19408896, 33787663, 56471520, 91125000, 142606336, 217238121, 323116128, 470458810, 672000000, 943427331, 1303868896, 1776430668, 2388787200, 3173828125, 4170362976
a(n) = 8*a(n-1) -28*a(n-2) +56*a(n-3) -70*a(n-4) +56*a(n-5) -28*a(n-6) +8*a(n-7) -a(n-8).
[A130765] 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122
a(n) = 96 + n, 0 < n < 27.
[A157213] 97, 137, 277, 305, 685, 1565, 1733, 3973, 9113, 10093, 23153, 53113, 58825, 134945, 309565, 342857, 786517, 1804277, 1998317, 4584157, 10516097, 11647045, 26718425, 61292305, 67883953, 155726393, 357237733, 395656673, 907639933
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=97, a(2)=137, a(3)=277, a(4)=305, a(5)=685, a(6)=1565.
[A157924] 97, 195, 293, 391, 489, 587, 685, 783, 881, 979, 1077, 1175, 1273, 1371, 1469, 1567, 1665, 1763, 1861, 1959, 2057, 2155, 2253, 2351, 2449, 2547, 2645, 2743, 2841, 2939, 3037, 3135, 3233, 3331, 3429, 3527, 3625, 3723, 3821, 3919, 4017, 4115, 4213, 4311
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 05 2012
[A174338] 0, 97, 388, 873, 1552, 2425, 3492, 4753, 6208, 7857, 9700, 11737, 13968, 16393, 19012, 21825, 24832, 28033, 31428, 35017, 38800, 42777, 46948, 51313, 55872, 60625, 65572, 70713, 76048, 81577, 87300, 93217, 99328, 105633, 112132, 118825
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 25 2012
a(n) = (49n)^2-(48n)^2 = (9n)^2+(4n)^2. - Vincenzo Librandi, Feb 25 2012
[A157331] 97, 449, 1057, 1921, 3041, 4417, 6049, 7937, 10081, 12481, 15137, 18049, 21217, 24641, 28321, 32257, 36449, 40897, 45601, 50561, 55777, 61249, 66977, 72961, 79201, 85697, 92449, 99457, 106721, 114241, 122017, 130049, 138337, 146881
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 29 2012
[A144130] 1, 1, 97, 577, 1921, 4801, 10081, 18817, 32257, 51841, 79201, 116161, 164737, 227137, 305761, 403201, 522241, 665857, 837217, 1039681, 1276801, 1552321, 1870177, 2234497, 2649601, 3120001, 3650401, 4245697, 4910977, 5651521
a(n) = 8*n^4-8*n^2+1. (End)
[A162674] 0, 1, 97, 956, 4780, 16745, 46921, 112672, 241536, 474585, 870265, 1508716, 2496572, 3972241, 6111665, 9134560, 13311136, 18969297, 26502321, 36377020, 49142380, 65438681, 86007097, 111699776, 143490400, 182485225, 229934601
a(n) = n*(n-1)*(8*n^4-16*n^3-9*n^2+17*n+8)/12.
[A262925] 0, 1, 97, 962, 4578, 14979, 38995, 86996, 173636, 318597, 547333, 891814, 1391270, 2092935, 3052791, 4336312, 6019208, 8188169, 10941609, 14390410, 18658666, 23884427, 30220443, 37834908, 46912204, 57653645, 70278221, 85023342, 102145582, 121921423

a(n) = n*(-1+70*n^2-225*n^3+186*n^4)/30.
[A160828] 98, 354, 978, 2258, 4578, 8418, 14354, 23058, 35298, 51938, 73938, 102354, 138338, 183138, 238098, 304658, 384354, 478818, 589778, 719058, 868578, 1040354, 1236498, 1459218, 1710818, 1993698, 2310354, 2663378, 3055458, 3489378, 3968018, 4494354
a(0)=98, a(1)=354, a(2)=978, a(3)=2258, a(4)=4578, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). [Harvey P. Dale, Mar 25 2012]
[A158129] 98, 396, 894, 1592, 2490, 3588, 4886, 6384, 8082, 9980, 12078, 14376, 16874, 19572, 22470, 25568, 28866, 32364, 36062, 39960, 44058, 48356, 52854, 57552, 62450, 67548, 72846, 78344, 84042, 89940, 96038, 102336, 108834, 115532, 122430, 129528
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A190636] 1, 98, 1647, 12304, 58625, 210006, 617743, 1572992, 3587409, 7500250, 14615711, 26874288, 47061937, 79060814, 128145375, 201327616, 307755233, 459166482, 670405519, 960002000, 1350818721, 1870771078, 2553622127, 3439857024, 4577640625, 6023862026, 7845269823
a(n) = ((n^3+n)/2)^3 - ((n^3-n)/2)^3.
[A178974] 0, 0, 0, 0, 0, 0, 98, 3328, 17496, 99600, 316052, 1041408, 2501538, 6157536, 12531150, 25938944, 47168268, 86938272, 145818008, 247240000, 390084786, 620964256, 933865918, 1414946304, 2047225000, 2980849040, 4177648224, 5886858432, 8032809818, 11012886000, 14689386642, 19674427392, 25732782504, 33779841296, 43433208000, 56027023488, 70963952198, 90145026976, 112667956362, 141187744000
a(n)= (1/4)*n^2*(n^6/6 -4*n^5 +197*n^4/6 -66*n^3 -1941*n^2/4 +2638*n -18907/6 +(n^4/2 -10*n^3 +289*n^2/4 -210*n +357/2)*(-1)^n +18*cos(Pi*n/2) +32/3*cos(4*Pi*n/3)), n>=10.
[A157947] 99, 197, 295, 393, 491, 589, 687, 785, 883, 981, 1079, 1177, 1275, 1373, 1471, 1569, 1667, 1765, 1863, 1961, 2059, 2157, 2255, 2353, 2451, 2549, 2647, 2745, 2843, 2941, 3039, 3137, 3235, 3333, 3431, 3529, 3627, 3725, 3823, 3921, 4019, 4117, 4215, 4313
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A157659] 99, 398, 897, 1596, 2495, 3594, 4893, 6392, 8091, 9990, 12089, 14388, 16887, 19586, 22485, 25584, 28883, 32382, 36081, 39980, 44079, 48378, 52877, 57576, 62475, 67574, 72873, 78372, 84071, 89970, 96069, 102368, 108867, 115566, 122465, 129564
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A154359] 99, 649, 3699, 9249, 17299, 27849, 40899, 56449, 74499, 95049, 118099, 143649, 171699, 202249, 235299, 270849, 308899, 349449, 392499, 438049, 486099, 536649, 589699, 645249, 703299, 763849, 826899, 892449, 960499, 1031049
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 21 2012
[A157370] 99, 3480, 11663, 24648, 42435, 65024, 92415, 124608, 161603, 203400, 249999, 301400, 357603, 418608, 484415, 555024, 630435, 710648, 795663, 885480, 980099, 1079520, 1183743, 1292768, 1406595, 1525224, 1648655, 1776888, 1909923
a(1)=99, a(2)=3480, a(3)=11663, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Dec 03 2011]
[A292275] 100, 125, 150, 200, 250, 300, 400, 500, 600, 800, 1000, 1250, 1500, 2000, 2500, 3000, 4000, 5000, 6000, 8000, 10000, 12500, 15000, 20000, 25000, 30000, 40000, 50000, 60000, 80000, 100000, 125000, 150000, 200000, 250000, 300000, 400000, 500000, 600000, 800000, 1000000
a(n) = 10^n * 1 if n mod 10 = 0;
[A172178] 1, 100, 199, 298, 397, 496, 595, 694, 793, 892, 991, 1090, 1189, 1288, 1387, 1486, 1585, 1684, 1783, 1882, 1981, 2080, 2179, 2278, 2377, 2476, 2575, 2674, 2773, 2872, 2971, 3070, 3169, 3268, 3367, 3466, 3565, 3664, 3763, 3862, 3961, 4060, 4159, 4258
a(n) = a(n-1) + 99 with a(1) = 1.
a(0) = 1, a(1) = 100, a(n) = 2*a(n-1) - a(n-2). [From Harvey P. Dale, Apr 09 2012]
[A027604] 100, 225, 440, 775, 1260, 1925, 2800, 3915, 5300, 6985, 9000, 11375, 14140, 17325, 20960, 25075, 29700, 34865, 40600, 46935, 53900, 61525, 69840, 78875, 88660, 99225, 110600, 122815, 135900, 149885, 164800, 180675, 197540
a(n)=+4*a(n-1)-6*a(n-2)+4*a(n-3)-1*a(n-4) for n>=4
[A261276] 0, 1, 100, 297, 592, 985, 1476, 2065, 2752, 3537, 4420, 5401, 6480, 7657, 8932, 10305, 11776, 13345, 15012, 16777, 18640, 20601, 22660, 24817, 27072, 29425, 31876, 34425, 37072, 39817, 42660, 45601, 48640, 51777, 55012, 58345, 61776, 65305, 68932, 72657, 76480
a(n) = n*(49*n - 48).
[A124437] 0, 100, 300, 600, 1000, 1500, 2100, 2800, 3600, 4500, 5500, 6600, 7800, 9100, 10500, 12000, 13600, 15300, 17100, 19000, 21000, 23100, 25300, 27600, 30000, 32500, 35100, 37800, 40600, 43500, 46500, 49600, 52800, 56100, 59500, 63000, 66600
a(n) = a(n-1)+(n-1)*100; a(1) = 0.
a(n) = 50*n*(n-1).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 3.
[A017270] 0, 100, 400, 900, 1600, 2500, 3600, 4900, 6400, 8100, 10000, 12100, 14400, 16900, 19600, 22500, 25600, 28900, 32400, 36100, 40000, 44100, 48400, 52900, 57600, 62500, 67600, 72900, 78400, 84100
a(n) = a(n-1)+200n-100, n>0 ; a(0)=0. - Miquel Cerda, Oct 30 2016
[A172518] 0, 0, 0, 0, 100, 576, 2156, 7168, 17496, 41600, 82280, 161280, 280540, 486080, 774900, 1232896, 1844976, 2757888, 3933456, 5606400, 7699860, 10570560, 14081980, 18754560, 24365000, 31647616, 40258296, 51204608, 63979916
a(n) = n^2*(n-2)*(n-4)*(n^2-6*n+12)/6 if n is even and a(n) = n^2*(n-1)*(n-3)*(n^2-8*n+18)/6 if n is odd. - Vaclav Kotesovec, Jan 31 2010
[A129725] 0, 100, 1159, 1563, 2079, 8080, 10420, 13416, 48363, 61999, 79459, 283140, 362616, 464380, 1651519, 2114739, 2707863, 9627016, 12326860, 15783840, 56111619, 71847463, 91996219, 327043740, 418758960, 536194516, 1906151863, 2440707339, 3125171919, 11109868480
a(n) = 6*a(n-3)-a(n-6)+1042 for n > 6; a(1)=0, a(2)=100, a(3)=1159, a(4)=1563, a(5)=2079, a(6)=8080.
[A035790] 101, 137, 419, 1019, 1049, 1481, 1871, 1931, 2081, 2111, 2969, 3251, 3461, 4259, 5009, 5651, 5867, 6689, 6947, 7331, 7547, 8219, 8969, 10007, 11057, 11159, 11699, 12239, 13001, 13709, 13997, 14561, 15641, 15731, 16061, 16631, 17579, 17909
a(10)=2111, a(10^2)=77261, a(10^3)=1603697, a(10^4)=27397631, a(10^5)=435140477, a(10^6)=6391490657. - M. F. Hasler, May 04 2015
[A100775] 101, 198, 295, 392, 489, 586, 683, 780, 877, 974, 1071, 1168, 1265, 1362, 1459, 1556, 1653, 1750, 1847, 1944, 2041, 2138, 2235, 2332, 2429, 2526, 2623, 2720, 2817, 2914, 3011, 3108, 3205, 3302, 3399, 3496, 3593, 3690, 3787, 3884, 3981, 4078, 4175, 4272
a(0)=101, a(1)=198, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Nov 26 2013
[A158128] 101, 201, 301, 401, 501, 601, 701, 801, 901, 1001, 1101, 1201, 1301, 1401, 1501, 1601, 1701, 1801, 1901, 2001, 2101, 2201, 2301, 2401, 2501, 2601, 2701, 2801, 2901, 3001, 3101, 3201, 3301, 3401, 3501, 3601, 3701, 3801, 3901, 4001, 4101, 4201, 4301, 4401
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 11 2012
[A127348] 101, 236, 466, 838, 1330, 1918, 2862, 3856, 5350, 7096, 8622, 10558, 12654, 15228, 18090, 21550, 24916, 27702, 31500, 35068, 39298, 45322, 51240, 56980, 62398, 66130, 69958, 77854, 86230, 96618, 106888, 115842, 124342, 133122, 144090
a(n)=p(n)p(n+1)+p(n)p(n+2)+p(n)p(n+3)+p(n+1)p(n+2)+p(n+1)p(n+3)+p(n+2)p(n+3), where p(k) is the k-th prime (by Viete's formula relating the zeros and the coefficients of a polynomial). - Emeric Deutsch, Jan 20 2007
[A139701] 1, 101, 301, 701, 1501, 3101, 6301, 12701, 25501, 51101, 102301, 204701, 409501, 819101, 1638301, 3276701, 6553501, 13107101, 26214301, 52428701, 104857501, 209715101, 419430301, 838860701, 1677721501, 3355443101, 6710886301, 13421772701, 26843545501
a(n) = 100*2^(n-1)-99. - Emeric Deutsch, May 03 2008
a(n) = 2*a(n-1)+99 for n > 1. [Vincenzo Librandi, Nov 24 2010]
a(n) = 3*a(n-1) - 2*a(n-2) for n > 2. G.f.: x*(98*x+1) / ((x-1)*(2*x-1)). - Colin Barker, Mar 11 2014
[A195855] 1, 101, 322, 808, 1872, 4192, 9232, 20144, 43696, 94384, 203184, 436144, 933808, 1994672, 4251568, 9043888, 19201968, 40697776, 86114224, 181927856, 383778736, 808452016, 1700790192, 3573546928, 7499415472, 15720251312
a(n) = (n^2+37*n+324)*2^(n-2)-80.
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Feb 25 2015
[A055438] 101, 402, 903, 1604, 2505, 3606, 4907, 6408, 8109, 10010, 12111, 14412, 16913, 19614, 22515, 25616, 28917, 32418, 36119, 40020, 44121, 48422, 52923, 57624, 62525, 67626, 72927, 78428, 84129, 90030, 96131, 102432, 108933, 115634, 122535
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 04 2012
[A078787] 1, 102, 203, 304, 405, 506, 607, 708, 809, 910, 1011, 1112, 1213, 1314, 1415, 1516, 1617, 1718, 1819, 1920, 2021, 2122, 2223, 2324, 2425, 2526, 2627, 2728, 2829, 2930, 3031, 3132, 3233, 3334, 3435, 3536, 3637, 3738, 3839, 3940, 4041, 4142, 4243, 4344
a(0)=1, a(1)=102, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Feb 02 2015
[A160850] 0, 1, 102, 203, 370, 563, 836, 1111, 1470, 1855, 2306, 2757, 3298, 3857, 4506, 5159, 5868, 6603, 7428, 8255, 9172, 10105, 11098, 12101, 13194, 14305, 15496, 16697, 17964, 19251, 20628, 21997, 23456, 24941, 26492, 28053, 29688, 31341, 33084

a(n) = (1/2)*(f(m,n,1) - f(m,n,2)) where f(m,n,k) = Sum((n-|kx|)*(m-|ky|)); -n < kx < n, -m < ky < m, (x,y)=1, m=10.
[A158127] 102, 404, 906, 1608, 2510, 3612, 4914, 6416, 8118, 10020, 12122, 14424, 16926, 19628, 22530, 25632, 28934, 32436, 36138, 40040, 44142, 48444, 52946, 57648, 62550, 67652, 72954, 78456, 84158, 90060, 96162, 102464, 108966, 115668, 122570
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 11 2012
[A163435] 0, 0, 102, 1792, 11550, 46848, 144550, 371712, 838782, 1715200, 3247398, 5779200, 9774622, 15843072, 24766950, 37531648, 55357950, 79736832, 112466662, 155692800, 211949598, 284204800, 375906342, 491031552, 634138750, 810421248
a(n) = 2/3*n^2*(n-2)^2*(5*n^2-10*n+2), n>1.
[A076460] 1, 103, 1130, 6070, 22355, 64981, 160468, 351660, 703365, 1308835, 2297086, 3841058, 6166615, 9562385, 14390440, 21097816, 30228873, 42438495, 58506130, 79350670, 106046171, 139838413, 182162300, 234660100, 299200525, 377898651, 473136678, 587585530, 724227295
a(n) = n*(n+1)*(7*n^4+2*n^3-6*n^2-n+1)/6.
[A026066] 105, 168, 246, 340, 451, 580, 728, 896, 1085, 1296, 1530, 1788, 2071, 2380, 2716, 3080, 3473, 3896, 4350, 4836, 5355, 5908, 6496, 7120, 7781, 8480, 9218, 9996, 10815, 11676, 12580, 13528, 14521, 15560, 16646, 17780, 18963, 20196, 21480, 22816, 24205, 25648, 27146, 28700, 30311
a(n) = (1/6) * (n^2 + 21n - 106) * n. - Ralf Stephan, Apr 05 2004
[A228307] 105, 225, 420, 714, 1134, 1710, 2475, 3465, 4719, 6279, 8190, 10500, 13260, 16524, 20349, 24795, 29925, 35805, 42504, 50094, 58650, 68250, 78975, 90909, 104139, 118755, 134850, 152520, 171864, 192984, 215985, 240975, 268065, 297369, 329004, 363090
a(n) = (1/8)*n*(n-1)*(n-2)*(n+9).
[A190577] 105, 384, 945, 1920, 3465, 5760, 9009, 13440, 19305, 26880, 36465, 48384, 62985, 80640, 101745, 126720, 156009, 190080, 229425, 274560, 326025, 384384, 450225, 524160, 606825, 698880, 801009, 913920, 1038345, 1175040, 1324785
a(n) = ((n+2)*(n+4)-2^2)^2-2^4.
[A277605] 106, 114, 119, 122, 127, 130, 132, 135, 140, 143, 145, 148, 151, 153, 156, 158, 161, 164, 166, 169, 171, 172, 174, 177, 179, 182, 184, 185, 187, 190, 192, 193, 195, 197, 198, 200, 203, 205, 206, 208, 210, 211, 213, 214, 216, 218, 219, 221, 224, 226
a(n) = n + O(log n). - Charles R Greathouse IV, Oct 30 2016
[A069759] 107, 647, 2159, 5399, 11339, 21167, 36287, 58319, 89099, 130679, 185327, 255527, 343979, 453599, 587519, 749087, 941867, 1169639, 1436399, 1746359, 2103947, 2513807, 2980799, 3509999, 4106699, 4776407
a(n) = 9*n^4+36*n^3+45*n^2+18*n-1; with offset 2, a(n) = 9*n^4-9*n^2-1.
[A192793] 108, 360, 900, 1872, 3420, 5688, 8820, 12960, 18252, 24840, 32868, 42480, 53820, 67032, 82260, 99648, 119340, 141480, 166212, 193680, 224028, 257400, 293940, 333792, 377100, 424008, 474660, 529200, 587772, 650520
a(n) = 12*n*(2*n^2+7).
[A129027] 0, 108, 600, 1932, 4752, 9900, 18408, 31500, 50592, 77292, 113400, 160908, 222000, 299052, 394632, 511500, 652608, 821100, 1020312, 1253772, 1525200, 1838508, 2197800, 2607372, 3071712, 3595500, 4183608, 4841100, 5573232, 6385452, 7283400, 8272908
a(n) = 4*(n*(5+13*n+7*n^2+2*n^3)). G.f.: -12*x*(x^3+x^2+5*x+9) / (x-1)^5. - Colin Barker, Jul 27 2013
[A292343] 108, 888, 3268, 8560, 18460, 35048, 60788, 98528, 151500, 223320, 317988, 439888, 593788, 784840, 1018580, 1300928, 1638188, 2037048, 2504580, 3048240, 3675868, 4395688, 5216308, 6146720, 7196300, 8374808, 9692388, 11159568, 12787260, 14586760, 16569748
a(n) = (4/3)*n*(12*n^3 + 44*n^2 + 36*n - 11).
[A101213] 0, 108, 1152, 6000, 21600, 61740, 150528, 326592, 648000, 1197900, 2090880, 3480048, 5564832, 8599500, 12902400, 18865920, 26967168, 37779372, 51984000, 70383600, 93915360, 123665388, 160883712, 207000000, 263640000, 332642700
a(0)=0, a(1)=108, a(2)=1152, a(3)=6000, a(4)=21600, a(5)=61740, a(6)=150528, a(n)=7*a(n-1)-21*a(n-2)+35*a(n-3)-35*a(n-4)+21*a(n-5)- 7*a(n-6)+ a(n-7). - Harvey P. Dale, Mar 29 2012
[A115135] 0, 108, 1407, 1851, 2407, 9768, 12340, 15568, 58435, 73423, 92235, 342076, 429432, 539076, 1995255, 2504403, 3143455, 11630688, 14598220, 18322888, 67790107, 85086151, 106795107, 395111188, 495919920, 622448988, 2302878255, 2890434603
a(n) = 6*a(n-3)-a(n-6)+1234 for n > 6; a(1)=0, a(2)=108, a(3)=1407, a(4)=1851, a(5)=2407, a(6)=9768.
[A161483] 109, 151, 265, 389, 755, 1481, 2225, 4379, 8621, 12961, 25519, 50245, 75541, 148735, 292849, 440285, 866891, 1706849, 2566169, 5052611, 9948245, 14956729, 29448775, 57982621, 87174205, 171640039, 337947481, 508088501, 1000391459, 1969702265
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=109, a(2)=151, a(3)=265, a(4)=389, a(5)=755, a(6)=1481.
[A193397] 109, 271, 553, 955, 1541, 2279, 3265, 4435, 5917, 7615, 9689, 12011, 14773, 17815, 21361, 25219, 29645, 34415, 39817, 45595, 52069, 58951, 66593, 74675, 83581, 92959, 103225, 113995, 125717, 137975, 151249, 165091, 180013, 195535, 212201, 229499, 248005, 267175, 287617
a(n) = 4*n^3 + 20*n^2 - 12*n + 2*(-1)^n*(n-2) + 21.
[A193395] 109, 271, 553, 971, 1573, 2375, 3425, 4739, 6365, 8319, 10649, 13371, 16533, 20151, 24273, 28915, 34125, 39919, 46345, 53419, 61189, 69671, 78913, 88931, 99773, 111455, 124025, 137499, 151925, 167319, 183729, 201171, 219693, 239311, 260073, 281995, 305125, 329479, 355105
a(n) = (16*n^3 + 24*n^2 + 74*n +6*(-1)^n - 51)/3.
[A174339] 0, 109, 436, 981, 1744, 2725, 3924, 5341, 6976, 8829, 10900, 13189, 15696, 18421, 21364, 24525, 27904, 31501, 35316, 39349, 43600, 48069, 52756, 57661, 62784, 68125, 73684, 79461, 85456, 91669, 98100, 104749, 111616, 118701, 126004, 133525
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 25 2012
a(n) = (55n)^2-(54n)^2 = (10n)^2+(3n)^2. - Vincenzo Librandi, Feb 25 2012
[A274945] 110, 121, 152, 240, 251, 282, 390, 1010, 1021, 1052, 1103, 1174, 1265, 1376, 1507, 1658, 1829, 2040, 2051, 2082, 2133, 2204, 2295, 2406, 2537, 2688, 2859, 3090, 3101, 3132, 3183, 3254, 3345, 3456, 3587, 3738, 3909, 4160, 4171, 4202, 4253, 4324, 4415, 4526, 4657, 4808, 4979, 5250, 5261, 5292, 5343, 5414, 5505, 5616
a(n) = 11*a(n-90) - 10*a(n-180) for n > 263. - Chai Wah Wu, Jul 24 2016
a(n) = i(n)*10^(D_10(n)-1) + (i(n)^2+j(n)^2)*10 + j(n) for n > 83, where:
[A146081] 110, 184, 258, 332, 406, 480, 554, 628, 702, 776, 850, 924, 998, 1072, 1146, 1220, 1294, 1368, 1442, 1516, 1590, 1664, 1738, 1812, 1886, 1960, 2034, 2108, 2182, 2256, 2330, 2404, 2478, 2552, 2626, 2700, 2774, 2848, 2922, 2996, 3070, 3144, 3218, 3292
a(n) = 2*a(n-1)-a(n-2).
a(n) = 74*n + 110.
[A032614] 110, 211, 312, 413, 514, 615, 716, 817, 918, 1019, 1120, 1221, 1322, 1423, 1524, 1625, 1726, 1827, 1928, 2029, 2130, 2231, 2332, 2433, 2534, 2635, 2736, 2837, 2938, 3039, 3140, 3241, 3342, 3443, 3544, 3645, 3746, 3847, 3948, 4049, 4150
a(n)=n*10^floor(log10(n+9)+1)+n+9, with n>=0 [From Paolo P. Lava, Oct 09 2008]
[A120727] 110, 211, 321, 532, 853, 1385, 2238, 3623, 5861, 9484, 15345, 24829, 40174, 65003, 105177, 170180, 275357, 445537, 720894, 1166431, 1887325, 3053756, 4941081, 7994837, 12935918, 20930755, 33866673, 54797428, 88664101, 143461529
a(0)=101, a(1)=110, a(n) = a(n-1) + a(n-2).
[A264447] 0, 110, 276, 510, 825, 1235, 1755, 2401, 3190, 4140, 5270, 6600, 8151, 9945, 12005, 14355, 17020, 20026, 23400, 27170, 31365, 36015, 41151, 46805, 53010, 59800, 67210, 75276, 84035, 93525, 103785, 114855, 126776, 139590, 153340, 168070, 183825, 200651, 218595, 237705, 258030
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4. - Vincenzo Librandi, Nov 16 2015
[A158539] 110, 473, 1078, 1925, 3014, 4345, 5918, 7733, 9790, 12089, 14630, 17413, 20438, 23705, 27214, 30965, 34958, 39193, 43670, 48389, 53350, 58553, 63998, 69685, 75614, 81785, 88198, 94853, 101750, 108889, 116270, 123893, 131758, 139865
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 21 2012
[A177769] 111, 222, 333, 444, 555, 666, 777, 888, 999, 1110, 1221, 1332, 1443, 1554, 1665, 1776, 1887, 1998, 2109, 2220, 2331, 2442, 2553, 2664, 2775, 2886, 2997, 3108, 3219, 3330, 3441, 3552, 3663, 3774, 3885, 3996, 4107, 4218, 4329, 4440, 4551, 4662, 4773, 4884
a(n) = a(n-1)+111.
[A101152] 0, 111, 1260, 1707, 2280, 8791, 11380, 14707, 52624, 67711, 87100, 308091, 396024, 509031, 1797060, 2309571, 2968224, 10475407, 13462540, 17301451, 61056520, 78466807, 100841620, 355864851, 457339440, 587749407, 2074133724, 2665570971
a(n) = 6*a(n-3)-a(n-6)+1138 for n > 6; a(1)=0, a(2)=111, a(3)=1260, a(4)=1707, a(5)=2280, a(6)=8791.
[A061281] 112, 147, 185, 224, 273, 283, 294, 331, 331, 336, 370, 403, 441, 448, 485, 520, 546, 555, 559, 560, 566, 588, 592, 637, 645, 662, 662, 672, 691, 735, 740, 784, 806, 819, 849
a(n) is the largest term in the n-th quadruple (a, b, c, d) satisfying the triangle equation 3*(a^4 + b^4 + c^4 + d^4) = (a^2 + b^2 + c^2 + d^2)^2.

[A264891] 0, 1, 112, 783, 2839, 7480, 16281, 31192, 54538, 89019, 137710, 204061, 291897, 405418, 549199, 728190, 947716, 1213477, 1531548, 1908379, 2350795, 2865996, 3461557, 4145428, 4925934, 5811775, 6812026, 7936137, 9193933, 10595614, 12151755, 13873306
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Vincenzo Librandi, Nov 28 2015
[A159466] 113, 127, 145, 533, 635, 757, 3085, 3683, 4397, 17977, 21463, 25625, 104777, 125095, 149353, 610685, 729107, 870493, 3559333, 4249547, 5073605, 20745313, 24768175, 29571137, 120912545, 144359503, 172353217, 704729957, 841388843, 1004548165
a(n) = 6*a(n-3)-a(n-6)for n > 6; a(1)=113, a(2)=127, a(3)=145, a(4)=533, a(5)=635, a(6)=757.
[A180441] 113, 131, 139, 173, 233, 421, 953, 1013, 1021, 1051, 1583, 1747, 1901, 2099, 2423, 2579, 2819, 2939, 3761, 3779, 3931, 4211, 4253, 4451, 4591, 5003, 5861, 5903, 6427, 6691, 6949, 7079, 7481, 7541, 7717, 8263, 8783, 8831, 9127, 9227, 9413, 9923, 10061
a(n)=[p(n)+p(n+1)+p(n+2)+p(n+3)]/4 a(n) being a prime
[A094932] 113, 199, 317, 619, 863, 1069, 1129, 1789, 2861, 3089, 3169, 3259, 3677, 3739, 4733, 4973, 5419, 5591, 6581, 7649, 7963, 8243, 8297, 8629, 9973, 10463, 10799, 10909, 11093, 11119, 12347, 12379, 12619, 12983, 14011, 14327, 15331, 15649, 16007
a(n) = If[(Prime[n-3]+Prime[n-2]+Prime[n-1]+Prime[n])/4-Prime[n-1]-1==0, then Prime[n-1]
[A124586] 113, 293, 317, 523, 773, 839, 863, 887, 953, 1069, 1129, 1259, 1327, 1381, 1409, 1583, 1637, 1669, 1759, 1831, 1847, 1913, 1933, 1951, 2039, 2113, 2161, 2179, 2221, 2251, 2311, 2357, 2423, 2477, 2503, 2557, 2593, 2633, 2753, 2803, 2819, 2861, 2939, 2971
a(n) = n log n + O(n log^2 n). - Charles R Greathouse IV, May 05 2017
[A239570] 0, 1, 114, 1137, 6100, 23265, 71211, 186739, 436437, 932850, 1856305, 3483546, 6224439, 10668112, 17640000, 28271370, 44083006, 67084839, 99893412, 145869175, 209275710, 295463091, 411077689, 564300837, 765118875, 1025627200, 1360371051, 1786725864, 2325320137
a(n) = (n-2)*(n-3)*(n^6+9*n^5-39*n^4-353*n^3+950*n^2+4040*n-11904)/384.
[A129544] 0, 115, 136, 411, 1036, 1155, 2740, 6375, 7068, 16303, 37488, 41527, 95352, 218827, 242368, 556083, 1275748, 1412955, 3241420, 7435935, 8235636, 18892711, 43340136, 48001135, 110115120, 252605155, 279771448, 641798283, 1472291068, 1630627827, 3740674852
a(n) = 6*a(n-3)-a(n-6)+274 for n > 6; a(1)=0, a(2)=115, a(3)=136, a(4)=411, a(5)=1036, a(6)=1155.
[A122562] 115, 236, 369, 520, 695, 900, 1141, 1424, 1755, 2140, 2585, 3096, 3679, 4340, 5085, 5920, 6851, 7884, 9025, 10280, 11655, 13156, 14789, 16560, 18475, 20540, 22761, 25144, 27695, 30420, 33325, 36416, 39699, 43180, 46865, 50760, 54871, 59204
a(1)=115, a(2)=236, a(3)=369, a(4)=520, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Mar 14 2015
[A063361] 1, 115, 248, 379, 514, 645, 780, 909, 1046, 1175, 1312, 1439, 1578, 1705, 1844, 1969, 2110, 2235, 2376, 2499, 2642, 2765, 2908, 3029, 3174, 3295, 3440, 3559, 3706, 3825, 3972, 4089, 4238, 4355, 4504, 4619, 4770, 4885, 5036, 5149, 5302
a(n) = a(n-2)+a(n-4)-a(n-6) for n>8.
[A218324] 1, 115, 645, 1911, 4233, 7931, 13325, 20735, 30481, 42883, 58261, 76935, 99225, 125451, 155933, 190991, 230945, 276115, 326821, 383383, 446121, 515355, 591405, 674591, 765233, 863651, 970165, 1085095, 1208761, 1341483, 1483581, 1635375, 1797185, 1969331
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4)
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 320
a(n) = (2*n-1)*(4*n-3)*(20*n-17)/3
[A063332] 1, 117, 261, 406, 551, 696, 841, 986, 1131, 1276, 1421, 1564, 1711, 1856, 2001, 2144, 2291, 2434, 2581, 2724, 2871, 3014, 3161, 3302, 3451, 3594, 3741, 3882, 4031, 4172, 4321, 4462, 4611, 4752, 4901, 5040, 5191, 5332, 5481, 5620, 5771
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A063338] 1, 117, 272, 424, 576, 728, 880, 1032, 1184, 1336, 1488, 1644, 1792, 1944, 2096, 2252, 2400, 2556, 2704, 2860, 3008, 3164, 3312, 3472, 3616, 3772, 3920, 4080, 4224, 4384, 4528, 4688, 4832, 4992, 5136, 5300, 5440, 5600, 5744, 5908, 6048
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A261464] 118, 321, 1287, 2083, 4755, 6583, 11823, 23879, 28973, 49721, 67583, 77863, 102015, 146711, 202617, 223553, 297101, 353483, 384043, 487781, 565619, 698159, 904835, 1020981, 1082623, 1214535, 1283683, 1431123, 2035723, 2232075, 2554319, 2666981, 3288765
a(n) = prime(n+2)^3 - prime(n+1)^2 + prime(n).
[A026049] 119, 156, 204, 265, 341, 434, 546, 679, 835, 1016, 1224, 1461, 1729, 2030, 2366, 2739, 3151, 3604, 4100, 4641, 5229, 5866, 6554, 7295, 8091, 8944, 9856, 10829, 11865, 12966, 14134, 15371, 16679, 18060, 19516, 21049, 22661, 24354, 26130, 27991, 29939, 31976, 34104, 36325, 38641, 41054
a(n) = n(2n^2-15n+109)/6. - Ralf Stephan, Apr 30 2004
[A243581] 119, 351, 711, 1199, 1815, 2559, 3431, 4431, 5559, 6815, 8199, 9711, 11351, 13119, 15015, 17039, 19191, 21471, 23879, 26415, 29079, 31871, 34791, 37839, 41015, 44319, 47751, 51311, 54999, 58815, 62759, 66831, 71031, 75359, 79815
a(n) = 64*n^2 + 40*n + 15.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Colin Barker, Jun 09 2014
[A157040] 119, 480, 1083, 1928, 3015, 4344, 5915, 7728, 9783, 12080, 14619, 17400, 20423, 23688, 27195, 30944, 34935, 39168, 43643, 48360, 53319, 58520, 63963, 69648, 75575, 81744, 88155, 94808, 101703, 108840, 116219, 123840, 131703, 139808
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158130] 120, 241, 362, 483, 604, 725, 846, 967, 1088, 1209, 1330, 1451, 1572, 1693, 1814, 1935, 2056, 2177, 2298, 2419, 2540, 2661, 2782, 2903, 3024, 3145, 3266, 3387, 3508, 3629, 3750, 3871, 3992, 4113, 4234, 4355, 4476, 4597, 4718, 4839, 4960, 5081, 5202
a(n) = 2*a(n-1) -a(n-2).
[A090391] 0, 120, 312, 606, 1040, 1661, 2526, 3703, 5272, 7326, 9972, 13332, 17544, 22763, 29162, 36933, 46288, 57460, 70704, 86298, 104544, 125769, 150326, 178595, 210984, 247930, 289900, 337392, 390936, 451095, 518466, 593681, 677408
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) for n>5. - Colin Barker, Feb 12 2015
[A118058] 1, 120, 337, 652, 1065, 1576, 2185, 2892, 3697, 4600, 5601, 6700, 7897, 9192, 10585, 12076, 13665, 15352, 17137, 19020, 21001, 23080, 25257, 27532, 29905, 32376, 34945, 37612, 40377, 43240, 46201, 49260, 52417, 55672, 59025, 62476, 66025
a(n)+(a(n)+1)+...+(a(n)+98n+34)=7(7n-2)(7n+5)(14n+3)/2; e.g., 337+338+...+518=77805=7*19*26*45/2.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(1+117*x-20*x^2)/(1-x)^3. - Colin Barker, Jun 30 2012
[A052768] 0, 0, 0, 0, 0, 120, 360, 840, 1680, 3024, 5040, 7920, 11880, 17160, 24024, 32760, 43680, 57120, 73440, 93024, 116280, 143640, 175560, 212520, 255024, 303600, 358800, 421200, 491400, 570024, 657720, 755160, 863040, 982080, 1113024
a(n)=0, n <= 4; a(n) = n*(n-1)*(n-2)*(n-3), n >= 5.
[A167562] 120, 480, 1344, 3072, 6144, 11160, 18840, 30024, 45672, 66864, 94800, 130800, 176304, 232872, 302184, 386040, 486360, 605184, 744672, 907104, 1094880, 1310520, 1556664, 1836072, 2151624, 2506320, 2903280, 3345744, 3837072
a(n) = 5*n^4 + 10*n^3 + 67*n^2 + 14*n + 24.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - G. C. Greubel, Jun 16 2016
[A157960] 120, 482, 1086, 1932, 3020, 4350, 5922, 7736, 9792, 12090, 14630, 17412, 20436, 23702, 27210, 30960, 34952, 39186, 43662, 48380, 53340, 58542, 63986, 69672, 75600, 81770, 88182, 94836, 101732, 108870, 116250, 123872, 131736, 139842
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A100145] 1, 120, 579, 1600, 3405, 6216, 10255, 15744, 22905, 31960, 43131, 56640, 72709, 91560, 113415, 138496, 167025, 199224, 235315, 275520, 320061, 369160, 423039, 481920, 546025, 615576, 690795, 771904, 859125, 952680, 1052791, 1159680
a(n) = (1/6)*(222*n^3 - 312*n^2 + 96*n).
a(n) = (1+(n-1))*(1+22*(n-1)+37*(n-1)^2);
[A052787] 0, 0, 0, 0, 0, 120, 720, 2520, 6720, 15120, 30240, 55440, 95040, 154440, 240240, 360360, 524160, 742560, 1028160, 1395360, 1860480, 2441880, 3160080, 4037880, 5100480, 6375600, 7893600, 9687600, 11793600, 14250600, 17100720, 20389320
a(n) = n*(n-1)*(n-2)*(n-3)*(n-4)=n!/(n-5)!.
[A011245] 1, 120, 945, 3640, 9945, 22176, 43225, 76560, 126225, 196840, 293601, 422280, 589225, 801360, 1066185, 1391776, 1786785, 2260440, 2822545, 3483480, 4254201, 5146240, 6171705, 7343280, 8674225, 10178376
a(0)=1, a(1)=120, a(2)=945, a(3)=3640, a(4)=9945, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Oct 05 2012
[A092182] 1, 120, 947, 3652, 9985, 22276, 43435, 76952, 126897, 197920, 295251, 424700, 592657, 806092, 1072555, 1400176, 1797665, 2274312, 2839987, 3505140, 4280801, 5178580, 6210667, 7389832, 8729425, 10243376, 11946195, 13852972, 15979377
a(n) = n*((145*n^3)-(280*n^2)+(179*n)-38)/6

a(n) = C(n+3,4) + 115 C(n+2,4) + 357 C(n+1,4) + 107 C(n,4)
a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5). G.f.: x*(1+115*x+357*x^2+107*x^3)/(1-x)^5. [R. J. Mathar, Jun 21 2010]
[A175112] 1, 120, 1442, 6840, 21122, 51000, 105122, 194040, 330242, 528120, 804002, 1176120, 1664642, 2291640, 3081122, 4059000, 5253122, 6693240, 8411042, 10440120, 12816002, 15576120, 18759842, 22408440, 26565122, 31275000, 36585122
a(n)= 4*a(n-1) -5*a(n-2) +5*a(n-4) -4*a(n-5) +a(n-6), n>6.
a(n) = ((2*n+1)^5-(2*n-1)^5)/2+(-1)^n, n>0.
[A261618] 121, 232, 343, 454, 565, 676, 787, 898, 9109, 101110, 111211, 121312, 131413, 141514, 151615, 161716, 171817, 181918, 192019, 202120, 212221, 222322, 232423, 242524, 252625, 262726, 272827, 282928, 293029, 303130, 313231, 323332, 333433, 343534, 353635, 363736
a(n) = ((n*10^floor(log10(10*(n+1)))+(n+1))*10^floor(log10(10*n)]) + n.
[A017282] 1, 121, 441, 961, 1681, 2601, 3721, 5041, 6561, 8281, 10201, 12321, 14641, 17161, 19881, 22801, 25921, 29241, 32761, 36481, 40401, 44521, 48841, 53361, 58081, 63001, 68121, 73441, 78961, 84681, 90601, 96721, 103041, 109561, 116281, 123201
a(n) = a(n-1) + 200n - 80, n > 0; a(0)=1. - Miquel Cerda, Oct 30 2016
[A175111] 1, 121, 1563, 8403, 29525, 80525, 185647, 379687, 709929, 1238049, 2042051, 3218171, 4882813, 7174453, 10255575, 14314575, 19567697, 26260937, 34671979, 45112099, 57928101, 73504221, 92264063, 114672503, 141237625, 172512625
a(n)= 5*a(n-1) -9*a(n-2) +5*a(n-3) +5*a(n-4) -9*a(n-5) +5*a(n-6) -a(n-7).
[A158131] 122, 243, 364, 485, 606, 727, 848, 969, 1090, 1211, 1332, 1453, 1574, 1695, 1816, 1937, 2058, 2179, 2300, 2421, 2542, 2663, 2784, 2905, 3026, 3147, 3268, 3389, 3510, 3631, 3752, 3873, 3994, 4115, 4236, 4357, 4478, 4599, 4720, 4841, 4962, 5083, 5204
a(n) = 2*a(n-1)-a(n-2).
[A195856] 1, 122, 387, 965, 2221, 4941, 10813, 23453, 50589, 108701, 232861, 497565, 1060765, 2256797, 4792221, 10157981, 21495709, 45416349, 95813533, 201850781, 424673181, 892338077, 1872756637, 3925868445, 8220835741, 17196646301
a(n) = (n^2+41*n+400)*2^(n-2)-99.
a(n) = 7*a(n-1)-18*a(n-2)+20*a(n-3)-8*a(n-4). - Colin Barker, Feb 25 2015
[A173267] 122, 486, 1092, 1940, 3030, 4362, 5936, 7752, 9810, 12110, 14652, 17436, 20462, 23730, 27240, 30992, 34986, 39222, 43700, 48420, 53382, 58586, 64032, 69720, 75650, 81822, 88236, 94892, 101790, 108930, 116312, 123936, 131802, 139910, 148260, 156852, 165686, 174762, 184080, 193640, 203442, 213486, 223772
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 06 2012
[A181679] 123, 488, 1095, 1944, 3035, 4368, 5943, 7760, 9819, 12120, 14663, 17448, 20475, 23744, 27255, 31008, 35003, 39240, 43719, 48440, 53403, 58608, 64055, 69744, 75675, 81848, 88263, 94920, 101819, 108960, 116343, 123968, 131835, 139944, 148295, 156888, 165723, 174800, 184119, 193680
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A193251] 1, 123, 605, 1687, 3609, 6611, 10933, 16815, 24497, 34219, 46221, 60743, 78025, 98307, 121829, 148831, 179553, 214235, 253117, 296439, 344441, 397363, 455445, 518927, 588049, 663051, 744173, 831655, 925737, 1026659, 1134661, 1249983, 1372865, 1503547
a(n)= 40*n^3-60*n^2+22n-1.
[A259907] 1, 123, 1557, 6719, 16800, 31920, 52080, 77280, 107520, 142800, 183120, 228480, 278880, 334320, 394800, 460320, 530880, 606480, 687120, 772800, 863520, 959280, 1060080, 1165920, 1276800, 1392720, 1513680, 1639680, 1770720, 1906800, 2047920, 2194080, 2345280, 2501520, 2662800
a(n) = 840*(3*n^2 - 9*n + 8) for n>3.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n>6. - Vincenzo Librandi, Jul 08 2015
[A129010] 0, 124, 168, 187, 343, 399, 595, 624, 915, 952, 1260, 1372, 1768, 1827, 1975, 2499, 3135, 3367, 3468, 4312, 4620, 5712, 5875, 7524, 7735, 9499, 10143, 12427, 12768, 13624, 16660, 20352, 21700, 22287, 27195, 28987, 35343, 36292, 45895, 47124
a(n) = 6*a(n-15)-a(n-30)+1666 for n > 30; a(1) = 0, a(2) = 124, a(3) = 168, a(4) = 187, a(5) = 343, a(6) = 399, a(7) = 595, a(8) = 624, a(9) = 915, a(10) = 952, a(11) = 1260, a(12) = 1372, a(13) = 1768, a(14) = 1827, a(15) = 1975, a(16) = 2499, a(17) = 3135, a(18) = 3367, a(19) = 3468, a(20) = 4312, a(21) = 4620, a(22) = 5712, a(23) = 5875, a(24) = 7524, a(25) = 7735, a(26) = 9499, a(27) = 10143, a(28) = 12427, a(29) = 12768, a(30) = 13624.
[A038866] 124, 208, 316, 448, 604, 784, 988, 1216, 1468, 1744, 2044, 2368, 2716, 3088, 3484, 3904, 4348, 4816, 5308, 5824, 6364, 6928, 7516, 8128, 8764, 9424, 10108, 10816, 11548, 12304, 13084, 13888, 14716, 15568, 16444, 17344, 18268, 19216, 20188
a(n) = 12*n^2 + 48*n + 64. - Charles R Greathouse IV, Nov 12 2014
[A038867] 125, 215, 335, 485, 665, 875, 1115, 1385, 1685, 2015, 2375, 2765, 3185, 3635, 4115, 4625, 5165, 5735, 6335, 6965, 7625, 8315, 9035, 9785, 10565, 11375, 12215, 13085, 13985, 14915, 15875, 16865, 17885, 18935, 20015, 21125, 22265, 23435, 24635, 25865
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A172460] 125, 253, 496, 752, 1095, 1607, 2232, 2961, 3985, 5014, 6229, 7479, 8759, 10090, 11459, 12917, 14453, 16134, 17835, 19550, 21342, 23191, 25066, 27114, 29301, 31498, 33707, 36108, 38668, 41477, 44602, 48083, 51667, 55312, 59033, 63129
a(n) = SUM[i=1..n] {n written as a product of primes raised to powers, where D(n) = number of digits in product, l(n) = number of digits in n; sequence gives n such that D(n)<l(n)}.
[A141480] 125, 500, 1250, 2500, 4375, 7000, 10500, 15000, 20625, 27500, 35750, 45500, 56875, 70000, 85000, 102000, 121125, 142500, 166250, 192500, 221375, 253000, 287500, 325000, 365625, 409500, 456750, 507500, 561875, 620000, 682000, 748000, 818125
a(n) = C(n+2,3)*5^3, n>=1.
a(1)=125, a(2)=500, a(3)=1250, a(4)=2500, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Oct 20 2012
[A060093] 0, 0, 0, 0, 125, 722, 2565, 7180, 17335, 37750, 76093, 144340, 260590, 451440, 755040, 1224964, 1935050, 2985380, 4509590, 6683720, 9736835, 13963670, 19739575, 27538060, 37951265, 51713706, 69729675, 93104700, 123181500
a(n) = binomial(n + 9, 9) - 5*binomial(n + 5, 5) - 10*binomial(n + 3, 3) + 20*binomial(n + 2, 2) + 30*binomial(n + 1, 1) - 60*binomial(n, 0) + 24*binomial(n - 1, - 1);
a(n) = (n-1) *(n-2) *(n-3) *(n^6 +51*n^5 +1165*n^4 +15885*n^3 +130954*n^2 +660504*n +1451520)/ 362880, n>0. - R. J. Mathar, Aug 10 2017
[A016815] 1, 125, 729, 2197, 4913, 9261, 15625, 24389, 35937, 50653, 68921, 91125, 117649, 148877, 185193, 226981, 274625, 328509, 389017, 456533, 531441, 614125, 704969, 804357, 912673, 1030301, 1157625
a(0)=1, a(1)=125, a(2)=729, a(3)=2197, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Sep 01 2013
[A016851] 0, 125, 1000, 3375, 8000, 15625, 27000, 42875, 64000, 91125, 125000, 166375, 216000, 274625, 343000, 421875, 512000, 614125, 729000, 857375, 1000000, 1157625, 1331000, 1520875, 1728000, 1953125, 2197000, 2460375, 2744000, 3048625, 3375000, 3723875, 4096000
a(0)=0, a(1)=125, a(2)=1000, a(3)=3375, a(n)=4*a(n-1)-6*a(n-2)+ 4*a(n-3)- a(n-4). - Harvey P. Dale, Jun 18 2011
[A255181] 1, 125, 1806, 10206, 35406, 92526, 201726, 388206, 682206, 1119006, 1738926, 2587326, 3714606, 5176206, 7032606, 9349326, 12196926, 15651006, 19792206, 24706206, 30483726, 37220526, 45017406, 53980206, 64219806, 75852126, 88998126, 103783806, 120340206
a(n) = 42*(3 - 10*n + 15*n^2 - 10*n^3 + 5*n^4) for n>1, a(0)=1, a(1)=125.
[A104395] 126, 182, 217, 237, 247, 251, 266, 301, 321, 331, 335, 357, 377, 386, 387, 391, 412, 421, 422, 426, 441, 442, 446, 451, 455, 456, 477, 497, 507, 511, 532, 542, 546, 551, 561, 562, 566, 576, 581, 586, 591, 595, 606, 616, 620, 626, 630, 642, 646, 650
a(n) = Ptop(g) + Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive g=/=h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A063334] 1, 126, 280, 435, 590, 745, 900, 1055, 1210, 1365, 1520, 1673, 1830, 1985, 2140, 2293, 2450, 2603, 2760, 2913, 3070, 3223, 3380, 3531, 3690, 3843, 4000, 4151, 4310, 4461, 4620, 4771, 4930, 5081, 5240, 5389, 5550, 5701, 5860, 6009, 6170
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A194717] 0, 1, 126, 1181, 4966, 14289, 32966, 65821, 118686, 198401, 312814, 470781, 682166, 957841, 1309686, 1750589, 2294446, 2956161, 3751646, 4697821, 5812614, 7114961, 8624806, 10363101, 12351806, 14613889, 17173326, 20055101, 23285206, 26890641, 30899414, 35340541
a(0) = 0, a(n) = 1+(8+(27+(48+42*(n-1))*(n-1))*(n-1))*(n-1) for n>0.
[A189345] 0, 1, 126, 1820, 12650, 58905, 211876, 635376, 1663740, 3921225, 8495410, 17178876, 32795126, 59626385, 103962600, 174792640, 284660376, 450710001, 695946630, 1050739900, 1554599970, 2258257001, 3226076876, 4538847600, 6296972500, 8624108025, 11671285626
a(n) = binomial(n^2,4) = (1/24)*n^2*(n^2-1)*(n^2-2)*(n^2-3).
[A156702] 1, 127, 161, 287, 289, 415, 449, 575, 577, 703, 737, 863, 865, 991, 1025, 1151, 1153, 1279, 1313, 1439, 1441, 1567, 1601, 1727, 1729, 1855, 1889, 2015, 2017, 2143, 2177, 2303, 2305, 2431, 2465, 2591, 2593, 2719, 2753, 2879, 2881, 3007, 3041, 3167, 3169
a(n)=-36+27*(-1)^n+(4-4*I)*(-I)^n+(4+4*I)*I^n+72*n [From Harvey P. Dale, Apr 25 2012]

[A138127] 0, 127, 254, 381, 508, 635, 762, 889, 1016, 1143, 1270, 1397, 1524, 1651, 1778, 1905, 2032, 2159, 2286, 2413, 2540, 2667, 2794, 2921, 3048, 3175, 3302, 3429, 3556, 3683, 3810, 3937, 4064, 4191, 4318, 4445, 4572, 4699, 4826, 4953, 5080
a(n)=127*n
[A157949] 127, 255, 383, 511, 639, 767, 895, 1023, 1151, 1279, 1407, 1535, 1663, 1791, 1919, 2047, 2175, 2303, 2431, 2559, 2687, 2815, 2943, 3071, 3199, 3327, 3455, 3583, 3711, 3839, 3967, 4095, 4223, 4351, 4479, 4607, 4735, 4863, 4991, 5119, 5247, 5375, 5503
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jan 29 2012
[A129537] 127, 449, 811, 2089, 2521, 4651, 4969, 6427, 13697, 17351, 23831, 38393, 52321, 53569, 69119, 69767, 112571, 113021, 116089, 143257, 156941, 168409, 171757, 196561, 197569, 228751, 250489, 250969, 294641, 328121, 337627, 350281, 355321
a(n)=p=x^2+y^3; q=x^2-y3;r=x^3+y^2;s=x^3-y^2 ; x > y ; a(n),q,r,s are prime numbers.
[A258808] 0, 127, 2186, 16383, 78124, 279935, 823542, 2097151, 4782968, 9999999, 19487170, 35831807, 62748516, 105413503, 170859374, 268435455, 410338672, 612220031, 893871738, 1279999999, 1801088540, 2494357887, 3404825446, 4586471423, 6103515624, 8031810175
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8).
[A130813] 128, 1024, 4608, 15360, 42240, 101376, 219648, 439296, 823680, 1464320, 2489344, 4073472, 6449664, 9922560, 14883840, 21829632, 31380096, 44301312, 61529600, 84198400, 113667840, 151557120, 199779840, 260582400, 336585600, 430829568
a(n) = binomial(2*n,7) + binomial(n,2)*binomial(2*n-4,3) - n*binomial(2*n-2,5) - (2*n-6)*binomial(n,3).
a(n) = C(n,n-7)*2^7, n>=7. - Zerinvary Lajos, Dec 07 2007
[A134630] 0, 0, 128, 1116, 4896, 15200, 38160, 82908, 162176, 292896, 496800, 801020, 1238688, 1849536, 2680496, 3786300, 5230080, 7083968, 9429696, 12359196, 15975200, 20391840, 25735248, 32144156, 39770496, 48780000, 59352800, 71684028, 85984416, 102480896, 121417200, 143054460, 167671808, 195566976, 227056896
a(n) = 5*n^5 - 3*n^3 - 2*n^2.
a(0)=0, a(1)=0, a(2)=128, a(3)=1116, a(4)=4896, a(5)=15200, a(n)= 6*a(n-1)- 15*a(n-2)+ 20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Harvey P. Dale, Jun 01 2014
[A001015] 0, 1, 128, 2187, 16384, 78125, 279936, 823543, 2097152, 4782969, 10000000, 19487171, 35831808, 62748517, 105413504, 170859375, 268435456, 410338673, 612220032, 893871739, 1280000000, 1801088541, 2494357888, 3404825447, 4586471424, 6103515625, 8031810176
a(n) = 7*a(n-1) - 21* a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) + 5040. - Ant King, Sep 24 2013
a(n) = n + Sum_{j=0..n-1}{k=1..6}binomial(7,k)*j^(7-k). - Patrick J. McNab, Mar 28 2016
[A231306] 0, 1, 128, 2188, 16512, 80313, 296448, 903856, 2393600, 5686825, 12393600, 25173996, 48225408, 87922513, 153638912, 258781888, 422074368, 669120561, 1034294400, 1562992300, 2314294400, 3364080841, 4808652288, 6768906288, 9395123712, 12872421913, 17426933888
a(n) = Sum_{k=0..floor(n/2)} (n-2k)^7.
a(n) = 1/96*(6*n^8+48*n^7+112*n^6-224*n^4+256*n^2+51*((-1)^n-1)).
[A191899] 0, 128, 3280, 32768, 195312, 839808, 2882400, 8388608, 21523360, 50000000, 107179440, 214990848, 407865360, 737894528, 1281445312, 2147483648, 3487878720, 5509980288, 8491781520, 12800000000, 18911429680, 27437936768, 39155492640, 55037657088, 76293945312, 104413532288
a(n) = 1/2*((n + 1)^8 - (1 + (-1)^n)/2).
[A191495] 1, 128, 3281, 32768, 195313, 839808, 2882401, 8388608, 21523361, 50000000, 107179441, 214990848, 407865361, 737894528, 1281445313, 2147483648, 3487878721, 5509980288, 8491781521, 12800000000, 18911429681, 27437936768, 39155492641, 55037657088, 76293945313, 104413532288
a(n)=((n+1)^8 + (1+(-1)^n)/2)/2.
a(0)=1, a(1)=128, a(2)=3281, a(3)=32768, a(4)=195313, a(5)=839808, a(6)=2882401, a(7)=8388608, a(8)=21523361, a(9)=50000000, a(n)=8*a(n-1)-27*a(n-2)+ 48*a(n-3)- 42*a(n-4)+42*a(n-6)-48*a(n-7)+27*a(n-8)-8*a(n-9)+a(n-10). - Harvey P. Dale, Mar 13 2013
[A240931] 0, 0, 128, 4374, 49152, 312500, 1399680, 4941258, 14680064, 38263752, 90000000, 194871710, 394149888, 752982204, 1370375552, 2392031250, 4026531840, 6565418768, 10407740544, 16089691302, 24320000000, 36021770820, 52381515648, 74906159834, 105488842752, 146484375000
a(n) = n^7*(n-1) = n^8 - n^7.
[A157951] 129, 257, 385, 513, 641, 769, 897, 1025, 1153, 1281, 1409, 1537, 1665, 1793, 1921, 2049, 2177, 2305, 2433, 2561, 2689, 2817, 2945, 3073, 3201, 3329, 3457, 3585, 3713, 3841, 3969, 4097, 4225, 4353, 4481, 4609, 4737, 4865, 4993, 5121, 5249, 5377, 5505
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A294302] 0, 0, 129, 2188, 18700, 94638, 376761, 1183920, 3297456, 8002300, 18080425, 37287660, 73399404, 135324378, 241561425, 410323648, 680856256, 1086411960, 1703414961, 2587286700, 3877286700, 5658888070, 8172733129, 11541726768, 16164030000, 22204797108
a(n) = Sum_{i=1..floor((n-1)/2)} i^7 + (n-i)^7.
a(n) = (1/768)*(n^2*(64 - 224*n^2 + 448*n^4 - 3*(129 + (-1)^n)*n^5 + 96*n^6)).
a(n) = a(n-1) + 8*a(n-2) - 8*a(n-3) - 28*a(n-4) + 28*a(n-5) + 56*a(n-6) - 56*a(n-7) - 70*a(n-8) + 70*a(n-9) + 56*a(n-10) - 56*a(n-11) - 28*a(n-12) + 28*a(n-13) + 8*a(n-14) - 8*a(n-15) - a(n-16) + a(n-17) for n>17.
[A000541] 0, 1, 129, 2316, 18700, 96825, 376761, 1200304, 3297456, 8080425, 18080425, 37567596, 73399404, 136147921, 241561425, 412420800, 680856256, 1091194929, 1703414961, 2597286700, 3877286700, 5678375241, 8172733129, 11577558576, 16164030000, 22267545625
a(n) = n^2*(n+1)^2*(3*n^4+6*n^3-n^2-4*n+2)/24.
a(n) = Sqrt[Sum[Sum[(i*j)^7, {i, 1, n}], {j, 1, n}]]. - Alexander Adamchuk, Oct 26 2004
a(n) = 8*a(n-1) - 28* a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) + 5040. - Ant King, Sep 24 2013
a(n) = -sum(j=1..7, j*s(n+1,n+1-j)*S(n+7-j,n)), where s(n,k) and S(n,k) are the Stirling numbers of the first kind and the second kind, respectively. - Mircea Merca, Jan 25 2014
[A250212] 1, 130, 2446, 21146, 117971, 494732, 1695036, 4992492, 13072917, 31153342, 68720938, 142120342, 278268263, 519829688, 932250488, 1613106744, 2704301673, 4407716634, 7005003334, 10882290034, 16560665275, 24733398404, 36310956980, 52474986980, 74742532605, 105041888406
a(n) = n*(n+1)*(n+2)*(5*n^6 + 30*n^5 + 50*n^4 - 37*n^2 + 6*n + 6)/360.
a(n) = 2*a(n-1) - a(n-2) + n^7.
[A063365] 1, 132, 286, 440, 592, 746, 898, 1056, 1204, 1362, 1510, 1670, 1816, 1978, 2122, 2286, 2428, 2592, 2734, 2902, 3040, 3208, 3346, 3516, 3652, 3824, 3958, 4132, 4264, 4438, 4570, 4748, 4876, 5054, 5182, 5362, 5488, 5670, 5794, 5978, 6100
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A278128] 132, 420, 996, 2148, 4452, 9060, 18276, 36708, 73572, 147300, 294756, 589668, 1179492, 2359140, 4718436, 9437028, 18874212, 37748580, 75497316, 150994788, 301989732, 603979620, 1207959396, 2415918948, 4831838052, 9663676260, 19327352676, 38654705508
a(n) = 3*a(n-1) - 2*a(n-2).
[A064059] 132, 429, 1001, 2002, 3640, 6188, 9996, 15504, 23256, 33915, 48279, 67298, 92092, 123970, 164450, 215280, 278460, 356265, 451269, 566370, 704816, 870232, 1066648, 1298528, 1570800, 1888887, 2258739, 2686866, 3180372, 3746990, 4395118, 5133856, 5973044
a(n) = binomial(n+1,6)-2*binomial(n,5), for n>=12. - Zerinvary Lajos, Jul 19 2006
[A158543] 132, 564, 1284, 2292, 3588, 5172, 7044, 9204, 11652, 14388, 17412, 20724, 24324, 28212, 32388, 36852, 41604, 46644, 51972, 57588, 63492, 69684, 76164, 82932, 89988, 97332, 104964, 112884, 121092, 129588, 138372, 147444, 156804, 166452
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 14 2012
[A033278] 0, 132, 1287, 7007, 28028, 91728, 259896, 659736, 1534896, 3325608, 6789783, 13180167, 24496472, 43835792, 75869640, 127481640, 208606320, 333316620, 521215695, 799197399, 1203649524, 1783184480, 2601993680, 3743934480, 5317472160, 7461614160, 10352989647
a(n) = binomial(n+4, 5)*binomial(n-3, 5)/6.
[A129975] 0, 132, 2295, 2859, 3535, 15792, 19060, 22984, 94363, 113407, 136275, 552292, 663288, 796572, 3221295, 3868227, 4645063, 18777384, 22547980, 27075712, 109444915, 131421559, 157811115, 637894012, 765983280, 919792884, 3717921063
a(n) = 6*a(n-3)-a(n-6)+1906 for n > 6; a(1)=0, a(2)=132, a(3)=2295, a(4)=2859, a(5)=3535, a(6)=15792.
a(1)=0, a(2)=132, a(3)=2295, a(4)=2859, a(5)=3535, a(6)=15792, a(7)=19060, a(n)=a(n-1)+6*a(n-3)-6*a(n-4)-a(n-6)+a(n-7). - Harvey P. Dale, Apr 12 2013
[A157734] 135, 1064, 2875, 5568, 9143, 13600, 18939, 25160, 32263, 40248, 49115, 58864, 69495, 81008, 93403, 106680, 120839, 135880, 151803, 168608, 186295, 204864, 224315, 244648, 265863, 287960, 310939, 334800, 359543, 385168, 411675, 439064
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A281241] 136, 152, 264, 408, 648, 1432, 2312, 3736, 8328, 13464, 21768, 48536, 78472, 126872, 282888, 457368, 739464, 1648792, 2665736, 4309912, 9609864, 15537048, 25120008, 56010392, 90556552, 146410136, 326452488, 527802264, 853340808, 1902704536, 3076257032
a(n) = 6*a(n-3) - a(n-6) for n>6.
[A215864] 0, 137, 1267, 6412, 23597, 70707, 183099, 424809, 904299, 1795794, 3367364, 6017011, 10318126, 17075786, 27395466, 42765846, 65157498, 97139343, 142014873, 203980238, 288306403, 401547685, 551779085, 748864935, 1004761485, 1333856160, 1753346322, 2283660477
a(n) = C(n+4,5)*(15*n^3+390*n^2+2285*n+3886)/48.
[A276026] 140, 204, 284, 380, 492, 620, 764, 924, 1100, 1292, 1500, 1724, 1964, 2220, 2492, 2780, 3084, 3404, 3740, 4092, 4460, 4844, 5244, 5660, 6092, 6540, 7004, 7484, 7980, 8492, 9020, 9564, 10124, 10700, 11292, 11900, 12524, 13164, 13820, 14492, 15180, 15884, 16604, 17340, 18092, 18860, 19644, 20444, 21260, 22092, 22940
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
a(-n) = a(n-7).
a(n) = n^2 + (n+1)^2 + (n+2)^2 + (n+3)^2 + (n+4)^2 + (n+5)^2 + (n+6)^2 + (n+7)^2.
a(n) = 8*n^2 + 56*n + 140.
[A228598] 141, 240, 365, 516, 693, 896, 1125, 1380, 1661, 1968, 2301, 2660, 3045, 3456, 3893, 4356, 4845, 5360, 5901, 6468, 7061, 7680, 8325, 8996, 9693, 10416, 11165, 11940, 12741, 13568, 14421, 15300, 16205, 17136, 18093, 19076, 20085, 21120
a(n) = 13*n^2 + 8*n.
[A063373] 1, 141, 302, 463, 625, 786, 948, 1107, 1271, 1430, 1594, 1752, 1917, 2074, 2240, 2396, 2563, 2719, 2886, 3040, 3209, 3363, 3532, 3685, 3855, 4007, 4178, 4329, 4501, 4652, 4824, 4973, 5147, 5296, 5470, 5618, 5793, 5940, 6116, 6262, 6439
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A228597] 141, 445, 941, 1629, 2509, 3581, 4845, 6301, 7949, 9789, 11821, 14045, 16461, 19069, 21869, 24861, 28045, 31421, 34989, 38749, 42701, 46845, 51181, 55709, 60429, 65341, 70445, 75741, 81229, 86909, 92781, 98845, 105101, 111549, 118189
a(n) = 96*n^2 + 16*n + 29.
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - G. C. Greubel, Dec 08 2016
[A158135] 142, 572, 1290, 2296, 3590, 5172, 7042, 9200, 11646, 14380, 17402, 20712, 24310, 28196, 32370, 36832, 41582, 46620, 51946, 57560, 63462, 69652, 76130, 82896, 89950, 97292, 104922, 112840, 121046, 129540, 138322, 147392, 156750, 166396
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 11 2012
[A257767] 143, 253, 440, 1133, 1397, 3608, 6325, 11495, 20152, 52063, 64207, 165880, 290807, 528517, 926552, 2393765, 2952125, 7626872, 13370797, 24300287, 42601240, 110061127, 135733543, 350670232, 614765855, 1117284685, 1958730488, 5060418077, 6240790853
a(n) = 46*a(n-6)-a(n-12).
[A158136] 143, 287, 431, 575, 719, 863, 1007, 1151, 1295, 1439, 1583, 1727, 1871, 2015, 2159, 2303, 2447, 2591, 2735, 2879, 3023, 3167, 3311, 3455, 3599, 3743, 3887, 4031, 4175, 4319, 4463, 4607, 4751, 4895, 5039, 5183, 5327, 5471, 5615, 5759, 5903, 6047, 6191
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 11 2012
[A156635] 143, 574, 1293, 2300, 3595, 5178, 7049, 9208, 11655, 14390, 17413, 20724, 24323, 28210, 32385, 36848, 41599, 46638, 51965, 57580, 63483, 69674, 76153, 82920, 89975, 97318, 104949, 112868, 121075, 129570, 138353, 147424, 156783, 166430
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A279115] 0, 0, 0, 0, 143, 7855, 153311, 1505465, 9729830, 47235703, 186615092, 630338668, 1882894541, 5092130575, 12686490993, 29498296651, 64664954532, 134715649055, 268438970166, 514318521438, 951646716171, 1706721390223, 2976056379875, 5058962536429, 8402677784738, 13663807273607
a(n) = (n^12 - 135*n^10 + 180*n^9 + 7465*n^8 - 18840*n^7 - 202468*n^6 + 749880*n^5 + 2446764*n^4 - 13439400*n^3 - 3570352*n^2 + 89413920*n - 107694720 + IF(MOD(n, 2) = 1, 122*n^6 - 1020*n^5 + 1955*n^4 + 840*n^3 + 5753*n^2 - 42840*n + 132975))/5760 for n>=5.
a(n) = 6*a(n-1) - 8*a(n-2) - 22*a(n-3) + 69*a(n-4) - 8*a(n-5) - 176*a(n-6) + 168*a(n-7) + 182*a(n-8) - 364*a(n-9) + 364*a(n-11) - 182*a(n-12) - 168*a(n-13) + 176*a(n-14) + 8*a(n-15) - 69*a(n-16) + 22*a(n-17) + 8*a(n-18) - 6*a(n-19) + a(n-20) for n>=25.
[A134341] 144, 288, 432, 576, 720, 864, 1008, 1152, 1296, 1440, 1584, 1728, 1872, 2016, 2160, 2304, 2448, 2592, 2736, 2880, 3024, 3168, 3312, 3456, 3600, 3744, 3888, 4032, 4176, 4320, 4464, 4608, 4752, 4896, 5040, 5184, 5328, 5472, 5616, 5760, 5904, 6048, 6192
a(n) = 144*k if n is not congruent to 0 mod 593 or a(n) = 85359*j when n is congruent to 0 mod 593 {where k,j successive integers}
[A178972] 0, 0, 0, 0, 0, 144, 392, 896, 1620, 2800, 4356, 6624, 9464, 13328, 18000, 24064, 31212, 40176, 50540, 63200, 77616, 94864, 114264, 137088, 162500, 191984, 224532, 261856, 302760, 349200, 399776, 456704, 518364, 587248, 661500, 743904, 832352, 929936, 1034280, 1148800
a(n) = 1/2*n^2*(n^2 -4*n -9/2 +(-1)^n/2), n>=5.
[A281240] 0, 144, 480, 816, 1344, 3024, 4896, 7920, 17664, 28560, 46176, 102960, 166464, 269136, 600096, 970224, 1568640, 3497616, 5654880, 9142704, 20385600, 32959056, 53287584, 118815984, 192099456, 310582800, 692510304, 1119637680, 1810209216, 4036245840
a(n) = 6*a(n-3) - a(n-6) for n>6.
[A017402] 1, 144, 529, 1156, 2025, 3136, 4489, 6084, 7921, 10000, 12321, 14884, 17689, 20736, 24025, 27556, 31329, 35344, 39601, 44100, 48841, 53824, 59049, 64516, 70225, 76176, 82369, 88804, 95481, 102400
a(0)=1, a(1)=144, a(2)=529, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, May 05 2014
[A180413] 0, 144, 576, 1440, 2880, 5040, 8064, 12096, 17280, 23760, 31680, 41184, 52416, 65520, 80640, 97920, 117504, 139536, 164160, 191520, 221760, 255024, 291456, 331200, 374400, 421200, 471744, 526176, 584640, 647280, 714240, 785664, 861696
a(n)=24*n*(n^2-1).
a(1)=0, a(2)=144, a(3)=576, a(4)=1440, a(n)=4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Harvey P. Dale, Feb 13 2013
[A137885] 144, 576, 1920, 5760, 16128, 43008, 110592, 276480, 675840, 1622016, 3833856, 8945664, 20643840, 47185920, 106954752, 240648192, 537919488, 1195376640, 2642411520, 5813305344, 12733906944, 27783069696, 60397977600, 130862284800, 282662535168, 608811614208
a(n) = 12*2^(n-1)*n*(n+1). - Eric W. Weisstein, Dec 16 2013
a(n) = 5*a(n-1)-6*a(n-2)-4*a(n-3)+8*a(n-4). - Colin Barker, May 06 2014
[A120089] 144, 900, 3136, 8100, 17424, 23716, 33124, 43264, 54756, 57600, 93636, 115600, 139876, 144400, 166464, 174724, 207936, 213444, 244036, 298116, 304704, 357604, 414736, 422500, 476100, 490000, 541696, 571536, 640000, 722500, 746496, 756900
a(n) = (2*u*v)^2, where u=sqrt(j/2) and v=sqrt(j+k) {for coprime pairs (j,k),j>k with odd k such that pairs (u,v),u<v are coprime with v odd}.
[A159777] 145, 167, 197, 673, 835, 1037, 3893, 4843, 6025, 22685, 28223, 35113, 132217, 164495, 204653, 770617, 958747, 1192805, 4491485, 5587987, 6952177, 26178293, 32569175, 40520257, 152578273, 189827063, 236169365, 889291345, 1106393203
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=145, a(2)=167, a(3)=197, a(4)=673, a(5)=835, a(6)=1037.
[A158133] 145, 289, 433, 577, 721, 865, 1009, 1153, 1297, 1441, 1585, 1729, 1873, 2017, 2161, 2305, 2449, 2593, 2737, 2881, 3025, 3169, 3313, 3457, 3601, 3745, 3889, 4033, 4177, 4321, 4465, 4609, 4753, 4897, 5041, 5185, 5329, 5473, 5617, 5761, 5905, 6049, 6193
a(n) = 2*a(n-1)-a(n-2).
[A158132] 146, 580, 1302, 2312, 3610, 5196, 7070, 9232, 11682, 14420, 17446, 20760, 24362, 28252, 32430, 36896, 41650, 46692, 52022, 57640, 63546, 69740, 76222, 82992, 90050, 97396, 105030, 112952, 121162, 129660, 138446, 147520, 156882, 166532
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A268428] 149, 151, 157, 167, 179, 193, 211, 233, 257, 283, 313, 347, 383, 421, 463, 509, 557, 607, 661, 719, 779, 841, 907, 977, 1049, 1123, 1201, 1283, 1367, 1453, 1543, 1637, 1733, 1831, 1933, 2039, 2147, 2257, 2371, 2489, 2609, 2731, 2857, 2987, 3119
a(n) = 2*floor(3*n*(n + 1)/4) + 149.
a(n) = (3*(n^2+n+99)+(-1)^binomial(n+1,2))/2. (Suggested by Michel Marcus)
a(n) - a(-n-1) = 0. - Altug Alkan, Feb 04 2016
a(n) = ((1/4+i/4)*((297-297*i)-i*(-i)^n+i^n)+(3*n)/2+(3*n^2)/2) where i is the imaginary unit. - Colin Barker, Feb 09 2016
[A161487] 149, 191, 269, 625, 955, 1465, 3601, 5539, 8521, 20981, 32279, 49661, 122285, 188135, 289445, 712729, 1096531, 1687009, 4154089, 6391051, 9832609, 24211805, 37249775, 57308645, 141116741, 217107599, 334019261, 822488641, 1265395819
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=149, a(2)=191, a(3)=269, a(4)=625, a(5)=955, a(6)=1465.
[A023290] 149, 439, 1319, 2069, 2089, 2389, 2699, 2819, 4259, 4919, 5059, 5689, 6469, 7559, 8429, 8669, 9199, 9239, 9319, 9769, 10159, 10529, 14449, 14479, 17659, 18899, 19289, 23879, 25189, 29819, 33119, 33149, 34159, 34439, 35089, 36229, 38839, 39829, 40699

a(n) == 9 (mod 10). - John Cerkan, Sep 23 2016
[A273322] 150, 536, 1336, 2712, 4826, 7840, 11916, 17216, 23902, 32136, 42080, 53896, 67746, 83792, 102196, 123120, 146726, 173176, 202632, 235256, 271210, 310656, 353756, 400672, 451566, 506600, 565936, 629736, 698162, 771376, 849540, 932816, 1021366
a(n) = 27*n^3 + 45*n^2 + 62*n + 16.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>4.
[A054558] 150, 960, 3605, 10360, 25200, 54600, 108570, 201960, 356070, 600600, 975975, 1536080, 2351440, 3512880, 5135700, 7364400, 10377990, 14395920, 19684665, 26565000, 35420000, 46703800, 60951150, 78787800, 100941750, 128255400
a(n) = 150*C(n,5) +60*C(n,6) +35*C(n,7) = n*(n-1)*(n-2)*(n-3)*(n-4)*(n^2+n+150)/144.
[A239065] 1, 152, 2403, 17344, 81125, 287496, 840007, 2129408, 4841289, 10099000, 19646891, 36078912, 63117613, 105948584, 171615375, 269479936, 411753617, 614103768, 896340979, 1283192000, 1805163381, 2499500872, 3411249623, 4594420224, 6113265625, 8043673976
a(n) = n^7 + n^5 - n^3.
[A193249] 1, 153, 755, 2107, 4509, 8261, 13663, 21015, 30617, 42769, 57771, 75923, 97525, 122877, 152279, 186031, 224433, 267785, 316387, 370539, 430541, 496693, 569295, 648647, 735049, 828801, 930203, 1039555, 1157157, 1283309, 1418311, 1562463, 1716065, 1879417
a(n) = 50*n^3-75*n^2+27*n-1 = (2*n-1)*(25*n^2-25*n+1).
[A063340] 1, 155, 341, 528, 715, 902, 1089, 1276, 1463, 1650, 1837, 2022, 2211, 2398, 2585, 2770, 2959, 3144, 3333, 3518, 3707, 3892, 4081, 4264, 4455, 4640, 4829, 5012, 5203, 5386, 5577, 5760, 5951, 6134, 6325, 6506, 6699, 6882, 7073, 7254
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A129640] 0, 155, 464, 939, 1764, 3515, 6260, 11055, 21252, 37247, 65192, 124623, 217848, 380723, 727112, 1270467, 2219772, 4238675, 7405580, 12938535, 24705564, 43163639, 75412064, 143995335, 251576880, 439534475, 839267072, 1466298267, 2561795412, 4891607723
a(n) = 6*a(n-3)-a(n-6)+626 for n > 6; a(1)=0, a(2)=155, a(3)=464, a(4)=939, a(5)=1764, a(6)=3515.
[A224336] 155, 805, 2555, 6245, 12955, 24005, 40955, 65605, 99995, 146405, 207355, 285605, 384155, 506245, 655355, 835205, 1049755, 1303205, 1599995, 1944805, 2342555, 2798405, 3317755, 3906245, 4569755, 5314405, 6146555, 7072805, 8099995, 9235205
a(n) = 10*n^4 + 40*n^3 + 60*n^2 + 40*n + 5.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5). - Colin Barker, Sep 20 2014
[A218328] 1, 155, 885, 2639, 5865, 11011, 18525, 28855, 42449, 59755, 81221, 107295, 138425, 175059, 217645, 266631, 322465, 385595, 456469, 535535, 623241, 720035, 826365, 942679, 1069425, 1207051, 1356005, 1516735, 1689689, 1875315, 2074061, 2286375, 2512705
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) + 448.
a(n) = (2*n-1)*(4*n-3)*(28*n-25)/3.
[A158550] 156, 663, 1508, 2691, 4212, 6071, 8268, 10803, 13676, 16887, 20436, 24323, 28548, 33111, 38012, 43251, 48828, 54743, 60996, 67587, 74516, 81783, 89388, 97331, 105612, 114231, 123188, 132483, 142116, 152087, 162396, 173043, 184028, 195351
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A093472] 159, 258, 357, 456, 555, 654, 753, 852, 951, 11599, 12589, 13579, 14569, 15559, 16549, 17539, 18529, 19519, 21598, 22588, 23578, 24568, 25558, 26548, 27538, 28528, 29518, 31597, 32587, 33577, 34567, 35557, 36547, 37537, 38527, 39517
a(n) = (10^(m+1))n+5(10^m)+(10^m-n)
[A278129] 160, 508, 1204, 2596, 5380, 10948, 22084, 44356, 88900, 177988, 356164, 712516, 1425220, 2850628, 5701444, 11403076, 22806340, 45612868, 91225924, 182452036, 364904260, 729808708, 1459617604, 2919235396, 5838470980, 11676942148, 23353884484
a(n) = 3*a(n-1) - 2*a(n-2).
[A060641] 161, 257, 373, 509, 665, 841, 1037, 1253, 1489, 1745, 2021, 2317, 2633, 2969, 3325, 3701, 4097, 4513, 4949, 5405, 5881, 6377, 6893, 7429, 7985, 8561, 9157, 9773, 10409, 11065, 11741, 12437, 13153, 13889, 14645, 15421, 16217, 17033
a(n) = 10n^2 + 46n + 29 with n>1.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x^2*(161-226*x+85*x^2)/(1-x)^3. [Colin Barker, Apr 22 2012]
[A157954] 161, 323, 485, 647, 809, 971, 1133, 1295, 1457, 1619, 1781, 1943, 2105, 2267, 2429, 2591, 2753, 2915, 3077, 3239, 3401, 3563, 3725, 3887, 4049, 4211, 4373, 4535, 4697, 4859, 5021, 5183, 5345, 5507, 5669, 5831, 5993, 6155, 6317, 6479, 6641, 6803, 6965
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 29 2012
[A157337] 161, 577, 1249, 2177, 3361, 4801, 6497, 8449, 10657, 13121, 15841, 18817, 22049, 25537, 29281, 33281, 37537, 42049, 46817, 51841, 57121, 62657, 68449, 74497, 80801, 87361, 94177, 101249, 108577, 116161, 124001, 132097, 140449, 149057
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 29 2012
[A157952] 163, 325, 487, 649, 811, 973, 1135, 1297, 1459, 1621, 1783, 1945, 2107, 2269, 2431, 2593, 2755, 2917, 3079, 3241, 3403, 3565, 3727, 3889, 4051, 4213, 4375, 4537, 4699, 4861, 5023, 5185, 5347, 5509, 5671, 5833, 5995, 6157, 6319, 6481, 6643, 6805, 6967
a(0)=163, a(1)=325, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Aug 10 2011
[A063354] 1, 164, 356, 548, 740, 932, 1124, 1316, 1508, 1700, 1892, 2084, 2276, 2468, 2660, 2852, 3044, 3236, 3428, 3620, 3812, 4004, 4196, 4388, 4580, 4772, 4964, 5156, 5348, 5540, 5732, 5924, 6116, 6308, 6500, 6692, 6884, 7076, 7268, 7460
a(n) = 2*a(n-1)-a(n-2) for n>4.
[A158218] 167, 672, 1515, 2696, 4215, 6072, 8267, 10800, 13671, 16880, 20427, 24312, 28535, 33096, 37995, 43232, 48807, 54720, 60971, 67560, 74487, 81752, 89355, 97296, 105575, 114192, 123147, 132440, 142071, 152040, 162347, 172992, 183975, 195296
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A167574] 167, 741, 2043, 4409, 8175, 13677, 21251, 31233, 43959, 59765, 78987, 101961, 129023, 160509, 196755, 238097, 284871, 337413, 396059, 461145, 533007, 611981, 698403, 792609, 894935, 1005717, 1125291, 1253993, 1392159, 1540125
a(n) = 56*n^3 + 28*n^2 + 98*n - 15.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - G. C. Greubel, Jun 16 2016
[A158219] 168, 337, 506, 675, 844, 1013, 1182, 1351, 1520, 1689, 1858, 2027, 2196, 2365, 2534, 2703, 2872, 3041, 3210, 3379, 3548, 3717, 3886, 4055, 4224, 4393, 4562, 4731, 4900, 5069, 5238, 5407, 5576, 5745, 5914, 6083, 6252, 6421, 6590, 6759, 6928, 7097, 7266
a(n) = 2*a(n-1)-a(n-2).
[A157998] 168, 674, 1518, 2700, 4220, 6078, 8274, 10808, 13680, 16890, 20438, 24324, 28548, 33110, 38010, 43248, 48824, 54738, 60990, 67580, 74508, 81774, 89378, 97320, 105600, 114218, 123174, 132468, 142100, 152070, 162378, 173024, 184008, 195330
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A216107] 168, 1720, 6636, 17796, 38980, 74868, 131040, 213976, 331056, 490560, 701668, 974460, 1319916, 1749916, 2277240, 2915568, 3679480, 4584456, 5646876, 6884020, 8314068, 9956100, 11830096, 13956936, 16358400, 19057168, 22076820, 25441836, 29177596, 33310380
a(n) = (75n^4 +210n^3 + 229n^2-178n)/2.
[A017534] 1, 169, 625, 1369, 2401, 3721, 5329, 7225, 9409, 11881, 14641, 17689, 21025, 24649, 28561, 32761, 37249, 42025, 47089, 52441, 58081, 64009, 70225, 76729, 83521, 90601, 97969, 105625, 113569, 121801
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jul 07 2012
[A158221] 170, 339, 508, 677, 846, 1015, 1184, 1353, 1522, 1691, 1860, 2029, 2198, 2367, 2536, 2705, 2874, 3043, 3212, 3381, 3550, 3719, 3888, 4057, 4226, 4395, 4564, 4733, 4902, 5071, 5240, 5409, 5578, 5747, 5916, 6085, 6254, 6423, 6592, 6761, 6930, 7099, 7268
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Feb 02 2012
[A173275] 170, 678, 1524, 2708, 4230, 6090, 8288, 10824, 13698, 16910, 20460, 24348, 28574, 33138, 38040, 43280, 48858, 54774, 61028, 67620, 74550, 81818, 89424, 97368, 105650, 114270, 123228, 132524, 142158, 152130, 162440, 173088, 184074, 195398, 207060, 219060, 231398, 244074, 257088, 270440, 284130, 298158, 312524
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A158220] 171, 680, 1527, 2712, 4235, 6096, 8295, 10832, 13707, 16920, 20471, 24360, 28587, 33152, 38055, 43296, 48875, 54792, 61047, 67640, 74571, 81840, 89447, 97392, 105675, 114296, 123255, 132552, 142187, 152160, 162471, 173120, 184107, 195432
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 02 2012

[A063344] 1, 176, 385, 595, 805, 1015, 1225, 1435, 1645, 1855, 2065, 2273, 2485, 2695, 2905, 3113, 3325, 3533, 3745, 3953, 4165, 4373, 4585, 4791, 5005, 5213, 5425, 5631, 5845, 6051, 6265, 6471, 6685, 6891, 7105, 7309, 7525, 7731, 7945, 8149
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A243647] 0, 0, 0, 0, 1, 176, 3145, 22969, 106819, 376796, 1101151, 2805825, 6438909, 13602304, 26866541, 50186401, 89436655, 153088924, 253052339, 405702361, 633123801, 964595760, 1438347889, 2103619049, 3023051131, 4275452476, 5958967015, 8194686929, 11130748309
a(n) = (n^8 -8*n^7 -14*n^6 +244*n^5 -201*n^4 -2428*n^3 +4042*n^2 +7700*n -15576) / 24 for n>=4, a(n) = 0 for n<4.
[A292185] 177, 488, 1159, 2460, 4781, 8656, 14787, 24068, 37609, 56760, 83135, 118636, 165477, 226208, 303739, 401364, 522785, 672136, 854007, 1073468, 1336093, 1647984, 2015795, 2446756, 2948697, 3530072, 4199983, 4968204, 5845205, 6842176, 7971051, 9244532, 10676113
a(n) = ((n^5 + (n+1)^5 + (n+2)^5 + (n+3)^5 + (n+4)^5) /5) /5.
a(n) = 6*a(n-1)- 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>6.
[A157842] 178, 5379, 17780, 37381, 64182, 98183, 139384, 187785, 243386, 306187, 376188, 453389, 537790, 629391, 728192, 834193, 947394, 1067795, 1195396, 1330197, 1472198, 1621399, 1777800, 1941401, 2112202, 2290203, 2475404, 2667805
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A063350] 1, 179, 408, 634, 860, 1086, 1312, 1538, 1764, 1990, 2216, 2446, 2668, 2894, 3120, 3350, 3572, 3802, 4024, 4254, 4476, 4706, 4928, 5162, 5380, 5610, 5832, 6066, 6284, 6518, 6736, 6970, 7188, 7422, 7640, 7878, 8092, 8326, 8544, 8782
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A066164] 180, 360, 540, 720, 900, 1080, 1260, 1440, 1620, 1800, 1980, 2160, 2340, 2520, 2700, 2880, 3060, 3240, 3420, 3600, 3780, 3960, 4140, 4320, 4500, 4680, 4860, 5040, 5220, 5400, 5580, 5760, 5940, 6120, 6300, 6480, 6660, 6840, 7020, 7200, 7380, 7560, 7740
a(n) = (n-2)*180.
[A243465] 0, 0, 0, 180, 4890, 36028, 154434, 488660, 1271450, 2883900, 5907298, 11182644, 19877850, 33562620, 54291010, 84691668, 128065754, 188492540, 270942690, 381399220, 526986138, 716104764, 958577730, 1265800660, 1650901530, 2128907708, 2716920674, 3434298420
a(n) = (2574-2328*n-144*n^5-96*n^4+1188*n^3-854*n^2+32*n^6)/3 for n>=3, a(n) = 0 for n<3.
[A159548] 181, 199, 221, 865, 995, 1145, 5009, 5771, 6649, 29189, 33631, 38749, 170125, 196015, 225845, 991561, 1142459, 1316321, 5779241, 6658739, 7672081, 33683885, 38809975, 44716165, 196324069, 226201111, 260624909, 1144260529, 1318396691
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=181, a(2)=199, a(3)=221, a(4)=865, a(5)=995, a(6)=1145.
[A158553] 182, 770, 1750, 3122, 4886, 7042, 9590, 12530, 15862, 19586, 23702, 28210, 33110, 38402, 44086, 50162, 56630, 63490, 70742, 78386, 86422, 94850, 103670, 112882, 122486, 132482, 142870, 153650, 164822, 176386, 188342, 200690, 213430, 226562
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A193253] 1, 183, 905, 2527, 5409, 9911, 16393, 25215, 36737, 51319, 69321, 91103, 117025, 147447, 182729, 223231, 269313, 321335, 379657, 444639, 516641, 596023, 683145, 778367, 882049, 994551, 1116233, 1247455, 1388577, 1539959, 1701961, 1874943, 2059265, 2255287
a(n) = 60*n^3-90*n^2+32*n-1.
[A272126] 1, 183, 1205, 3787, 8649, 16511, 28093, 44115, 65297, 92359, 126021, 167003, 216025, 273807, 341069, 418531, 506913, 606935, 719317, 844779, 984041, 1137823, 1306845, 1491827, 1693489, 1912551, 2149733, 2405755, 2681337, 2977199, 3294061, 3632643, 3993665
a(n) = (2*n+1)*(60*n^2+1).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4) for n>3.
[A157297] 185, 233, 317, 793, 1165, 1717, 4573, 6757, 9985, 26645, 39377, 58193, 155297, 229505, 339173, 905137, 1337653, 1976845, 5275525, 7796413, 11521897, 30748013, 45440825, 67154537, 179212553, 264848537, 391405325, 1044527305, 1543650397
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=185, a(2)=233, a(3)=317, a(4)=793, a(5)=1165, a(6)=1717.
[A063346] 1, 187, 408, 630, 852, 1074, 1296, 1518, 1740, 1962, 2184, 2404, 2628, 2850, 3072, 3292, 3516, 3736, 3960, 4180, 4404, 4624, 4848, 5066, 5292, 5512, 5736, 5954, 6180, 6398, 6624, 6842, 7068, 7286, 7512, 7728, 7956, 8174, 8400, 8616
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A134163] 1, 187, 1531, 5977, 16441, 36811, 71947, 127681, 210817, 329131, 491371, 707257, 987481, 1343707, 1788571, 2335681, 2999617, 3795931, 4741147, 5852761, 7149241, 8650027, 10375531, 12347137, 14587201, 17119051, 19966987, 23156281, 26713177
a(n) = (3(3n + 1)^4 + 6(3n + 1)^3 - (3n + 1)^2 - 4 (3n + 1) + 2)/6.
a(n) = (sum_{k=1..3n+1} k^7) / (sum_{k=1..3n+1} k^3).
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5). - Wesley Ivan Hurt, Oct 23 2014
[A099945] 188, 404, 836, 1700, 3428, 6884, 13796, 27620, 55268, 110564, 221156, 442340, 884708, 1769444, 3538916, 7077860, 14155748, 28311524, 56623076, 113246180, 226492388, 452984804, 905969636, 1811939300, 3623878628, 7247757284
a(n) = 27*2^n-28.
[A215688] 0, 192, 7020, 52808, 229680, 738192, 1950512, 4488180, 9314448, 17841200, 32050452, 54630432, 89126240, 140105088, 213336120, 315984812, 456821952, 646447200, 897527228, 1225048440, 1646584272, 2182577072, 2856634560, 3695840868, 4731082160, 5997386832
a(n) = (3*n-1)*(3*n-2)*(3*n^2+13*n+16)*(3*n^2+5*n+4)/4 for n>0, a(0) = 0.
[A166540] 0, 0, 0, 193, 1548, 6714, 21280, 55395, 125748, 257908, 489024, 870885, 1473340, 2388078, 3732768, 5655559, 8339940, 12009960, 16935808, 23439753, 31902444, 42769570, 56558880, 73867563, 95379988, 121875804, 154238400, 193463725, 240669468, 297104598, 364159264
a(n) = (n^6 - (3*n-2)^3) / 2 = (n^6)/2 - (27*n^3)/2 + 27*n^2 - 18*n + 4 for n>0. - Andrew Woods, Aug 30 2011
[A158224] 194, 780, 1758, 3128, 4890, 7044, 9590, 12528, 15858, 19580, 23694, 28200, 33098, 38388, 44070, 50144, 56610, 63468, 70718, 78360, 86394, 94820, 103638, 112848, 122450, 132444, 142830, 153608, 164778, 176340, 188294, 200640, 213378, 226508
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A158225] 195, 391, 587, 783, 979, 1175, 1371, 1567, 1763, 1959, 2155, 2351, 2547, 2743, 2939, 3135, 3331, 3527, 3723, 3919, 4115, 4311, 4507, 4703, 4899, 5095, 5291, 5487, 5683, 5879, 6075, 6271, 6467, 6663, 6859, 7055, 7251, 7447, 7643, 7839, 8035, 8231, 8427
a(n) = 2*a(n-1)-a(n-2).
[A158003] 195, 782, 1761, 3132, 4895, 7050, 9597, 12536, 15867, 19590, 23705, 28212, 33111, 38402, 44085, 50160, 56627, 63486, 70737, 78380, 86415, 94842, 103661, 112872, 122475, 132470, 142857, 153636, 164807, 176370, 188325, 200672, 213411, 226542
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A277792] 0, 1, 196, 2601, 15376, 60025, 181476, 461041, 1032256, 2099601, 3960100, 7027801, 11861136, 19193161, 29964676, 45360225, 66846976, 96216481, 135629316, 187662601, 255360400, 342287001, 452583076, 591024721, 763085376, 975000625, 1233835876, 1547556921, 1925103376, 2376465001, 2912760900
a(n) = a(-n).
a(n) = n^2*(2*n^2 - 1)^2.
[A159809] 197, 223, 257, 925, 1115, 1345, 5353, 6467, 7813, 31193, 37687, 45533, 181805, 219655, 265385, 1059637, 1280243, 1546777, 6176017, 7461803, 9015277, 35996465, 43490575, 52544885, 209802773, 253481647, 306254033, 1222820173, 1477399307
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=197, a(2)=223, a(3)=257, a(4)=925, a(5)=1115, a(6)=1345.
[A158223] 197, 393, 589, 785, 981, 1177, 1373, 1569, 1765, 1961, 2157, 2353, 2549, 2745, 2941, 3137, 3333, 3529, 3725, 3921, 4117, 4313, 4509, 4705, 4901, 5097, 5293, 5489, 5685, 5881, 6077, 6273, 6469, 6665, 6861, 7057, 7253, 7449, 7645, 7841, 8037, 8233, 8429
a(n) = 2*a(n-1)-a(n-2).
[A158222] 198, 788, 1770, 3144, 4910, 7068, 9618, 12560, 15894, 19620, 23738, 28248, 33150, 38444, 44130, 50208, 56678, 63540, 70794, 78440, 86478, 94908, 103730, 112944, 122550, 132548, 142938, 153720, 164894, 176460, 188418, 200768, 213510, 226644
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A156771] 198, 927, 1656, 2385, 3114, 3843, 4572, 5301, 6030, 6759, 7488, 8217, 8946, 9675, 10404, 11133, 11862, 12591, 13320, 14049, 14778, 15507, 16236, 16965, 17694, 18423, 19152, 19881, 20610, 21339, 22068, 22797, 23526, 24255, 24984, 25713
a(n) = 2*a(n-1) -a(n-2).
[A156840] 1, 199, 251, 449, 451, 649, 701, 899, 901, 1099, 1151, 1349, 1351, 1549, 1601, 1799, 1801, 1999, 2051, 2249, 2251, 2449, 2501, 2699, 2701, 2899, 2951, 3149, 3151, 3349, 3401, 3599, 3601, 3799, 3851, 4049, 4051, 4249, 4301, 4499, 4501, 4699, 4751, 4949, 4951
a(n) = a(n-1) + a(n-4) - a(n-5). - R. J. Mathar, Aug 18 2009
a(n) = (2*n + 1)*225/4 + f(n mod 4)/4, where f(0)=-221, f(1)=121, f(2)=-121, f(3)=221, so a nonrecursive formula for a(n) is:

a(n) = (450*n + 225 - (100*floor(((n-1) mod 4)/2) + 121)*(-1^n)/4. (End)
[A157955] 199, 399, 599, 799, 999, 1199, 1399, 1599, 1799, 1999, 2199, 2399, 2599, 2799, 2999, 3199, 3399, 3599, 3799, 3999, 4199, 4399, 4599, 4799, 4999, 5199, 5399, 5599, 5799, 5999, 6199, 6399, 6599, 6799, 6999, 7199, 7399, 7599, 7799, 7999, 8199, 8399, 8599
a(n) = 2*a(n-1)-a(n-2).
[A117412] 200, 400, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000, 4200, 4400, 4600, 4800, 5000, 5200, 5400, 5600, 5800, 6000, 6200, 6400, 6600, 6800, 7000, 7200, 7400, 7600, 7800, 8000, 8200, 8400, 8600
a(n)=(n-2)*200 for n>=3
[A129641] 0, 200, 611, 1227, 2291, 4620, 8180, 14364, 27927, 48671, 84711, 163760, 284664, 494720, 955451, 1660131, 2884427, 5569764, 9676940, 16812660, 32463951, 56402327, 97992351, 189214760, 328737840, 571142264, 1102825427, 1916025531, 3328862051, 6427738620
a(n) = 6*a(n-3)-a(n-6)+818 for n > 6; a(1)=0, a(2)=200, a(3)=611, a(4)=1227, a(5)=2291, a(6)=4620.
[A157956] 201, 401, 601, 801, 1001, 1201, 1401, 1601, 1801, 2001, 2201, 2401, 2601, 2801, 3001, 3201, 3401, 3601, 3801, 4001, 4201, 4401, 4601, 4801, 5001, 5201, 5401, 5601, 5801, 6001, 6201, 6401, 6601, 6801, 7001, 7201, 7401, 7601, 7801, 8001, 8201, 8401, 8601
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 04 2012
[A228320] 203, 280, 369, 470, 583, 708, 845, 994, 1155, 1328, 1513, 1710, 1919, 2140, 2373, 2618, 2875, 3144, 3425, 3718, 4023, 4340, 4669, 5010, 5363, 5728, 6105, 6494, 6895, 7308, 7733, 8170, 8619, 9080, 9553, 10038, 10535, 11044, 11565
a(n) = 6n^2 - 13n.
[A154518] 204, 420, 636, 852, 1068, 1284, 1500, 1716, 1932, 2148, 2364, 2580, 2796, 3012, 3228, 3444, 3660, 3876, 4092, 4308, 4524, 4740, 4956, 5172, 5388, 5604, 5820, 6036, 6252, 6468, 6684, 6900, 7116, 7332, 7548, 7764, 7980, 8196, 8412, 8628
a(n) = 12*(18n-1). O.g.f.: 12*x*(17+x)/(x-1)^2. - R. J. Mathar, Jul 29 2009
a(n) = 2*a(n-1)-a(n-2).
[A157441] 209, 1540, 2871, 4202, 5533, 6864, 8195, 9526, 10857, 12188, 13519, 14850, 16181, 17512, 18843, 20174, 21505, 22836, 24167, 25498, 26829, 28160, 29491, 30822, 32153, 33484, 34815, 36146, 37477, 38808, 40139, 41470, 42801, 44132, 45463
a(n) = 2*a(n-1) -a(n-2). - Vincenzo Librandi, Jan 29 2012
[A236432] 210, 630, 1050, 1470, 1890, 2310, 2730, 3150, 3570, 3990, 4410, 4830, 5250, 5670, 6090, 6510, 6930, 7350, 7770, 8190, 8610, 9030, 9450, 9870, 10290, 10710, 11130, 11550, 11970, 12390, 12810, 13230, 13650, 14070, 14490, 14910, 15330, 15750, 16170, 16590, 17010
a(n) = (2n-1) * 210 = 420*n - 210.
[A158559] 210, 885, 2010, 3585, 5610, 8085, 11010, 14385, 18210, 22485, 27210, 32385, 38010, 44085, 50610, 57585, 65010, 72885, 81210, 89985, 99210, 108885, 119010, 129585, 140610, 152085, 164010, 176385, 189210, 202485, 216210, 230385, 245010, 260085
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A046302] 210, 1155, 5005, 17017, 46189, 96577, 215441, 392863, 765049, 1363783, 2022161, 3065857, 4391633, 6319667, 8965109, 12780049, 17120443, 21182921, 27433619, 33984931, 42600829, 56606581, 72370439, 89809099, 107972737, 121330189
a(n) = Product_{j=n..n+3} prime(j). - Jon E. Schoenfield, Jan 07 2015
[A063358] 1, 215, 480, 742, 1004, 1266, 1528, 1790, 2052, 2314, 2576, 2842, 3100, 3362, 3624, 3890, 4148, 4414, 4672, 4938, 5196, 5462, 5720, 5990, 6244, 6510, 6768, 7038, 7292, 7562, 7816, 8086, 8340, 8610, 8864, 9138, 9388, 9658, 9912, 10186
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A193398] 215, 636, 1557, 3018, 5555, 8968, 14225, 20790, 30159, 41364, 56525, 74146, 97067, 123168, 156105, 193038, 238535, 288940, 349829, 416634, 496035, 582456, 683777, 793318, 920255, 1056708, 1213245, 1380690, 1571099, 1773904, 2002745, 2245566, 2517687, 2805468
a(n) = (6*n^4 + 48*n^3 + 146*n^2 - 316*n + 439 + (-1)^n*(6*n^2 + 24*n-83))/4.
[A193396] 215, 636, 1557, 3162, 5875, 10008, 16113, 24630, 36239, 51508, 71245, 96146, 127147, 165072, 210985, 265838, 330823, 407020, 495749, 598218, 715875, 850056, 1002337, 1174182, 1367295, 1583268, 1823933, 2091010, 2386459, 2712128, 3070105, 3462366, 3891127, 4358492
a(n) = (8*n^4 + 24*n^3 + 28*n^2 + 213*n + 33*(-1)^n - 246)/3.
[A016911] 0, 216, 1728, 5832, 13824, 27000, 46656, 74088, 110592, 157464, 216000, 287496, 373248, 474552, 592704, 729000, 884736, 1061208, 1259712, 1481544, 1728000, 2000376, 2299968, 2628072, 2985984, 3375000, 3796416, 4251528, 4741632, 5268024, 5832000
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Jul 05 2014
[A017139] 216, 2744, 10648, 27000, 54872, 97336, 157464, 238328, 343000, 474552, 636056, 830584, 1061208, 1331000, 1643032, 2000376, 2406104, 2863288, 3375000, 3944312, 4574296, 5268024, 6028568, 6859000, 7762392, 8741816, 9800344, 10941048
a(0)=216, a(1)=2744, a(2)=10648, a(3)=27000, a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4). - Harvey P. Dale, Dec 11 2012
[A159565] 221, 241, 265, 1061, 1205, 1369, 6145, 6989, 7949, 35809, 40729, 46325, 208709, 237385, 270001, 1216445, 1383581, 1573681, 7089961, 8064101, 9172085, 41323321, 47001025, 53458829, 240849965, 273942049, 311580889, 1403776469, 1596651269
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=221, a(2)=241, a(3)=265, a(4)=1061, a(5)=1205, a(6)=1369.
[A063352] 1, 222, 481, 741, 1001, 1261, 1521, 1781, 2041, 2301, 2561, 2819, 3081, 3341, 3601, 3859, 4121, 4379, 4641, 4899, 5161, 5419, 5681, 5937, 6201, 6459, 6721, 6977, 7241, 7497, 7761, 8017, 8281, 8537, 8801, 9055, 9321, 9577, 9841, 10095
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A092623] 223, 227, 233, 257, 277, 337, 353, 373, 523, 557, 577, 727, 733, 757, 773, 1223, 1237, 1277, 1327, 1373, 1523, 1553, 1723, 1733, 1753, 1777, 2027, 2053, 2137, 2153, 2203, 2207, 2213, 2221, 2239, 2243, 2251, 2267, 2287, 2293, 2297, 2339, 2347, 2351, 2371
a(n) » x^1.285
[A220474] 223, 227, 269, 349, 359, 569, 587, 593, 739, 809, 857, 991, 1009, 1019, 1259, 1481, 1483, 1487, 1489, 1861, 1867, 1993, 1997, 2003, 2027, 2267, 2269, 2657, 2671, 2687, 2689, 2699, 3181, 3187, 3307, 3313, 3319, 3323, 3457, 3461, 3491, 3527, 3529, 3581, 3623, 3769, 4049, 4201, 4391, 4481
a(n)<=prime(31*(n+1)).
[A158226] 223, 896, 2019, 3592, 5615, 8088, 11011, 14384, 18207, 22480, 27203, 32376, 37999, 44072, 50595, 57568, 64991, 72864, 81187, 89960, 99183, 108856, 118979, 129552, 140575, 152048, 163971, 176344, 189167, 202440, 216163, 230336, 244959, 260032
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158227] 224, 449, 674, 899, 1124, 1349, 1574, 1799, 2024, 2249, 2474, 2699, 2924, 3149, 3374, 3599, 3824, 4049, 4274, 4499, 4724, 4949, 5174, 5399, 5624, 5849, 6074, 6299, 6524, 6749, 6974, 7199, 7424, 7649, 7874, 8099, 8324, 8549, 8774, 8999, 9224, 9449, 9674
a(n) = 2*a(n-1)-a(n-2).
[A061524] 224, 705, 1600, 3065, 5280, 8449, 12800, 18585, 26080, 35585, 47424, 61945, 79520, 100545, 125440, 154649, 188640, 227905, 272960, 324345, 382624, 448385, 522240, 604825, 696800, 798849, 911680, 1036025, 1172640, 1322305, 1485824, 1664025
a(n) = (n^4 + 32n^3 + 344n^2 + 768n + 400)/16 for even n.
[A156813] 224, 898, 2022, 3596, 5620, 8094, 11018, 14392, 18216, 22490, 27214, 32388, 38012, 44086, 50610, 57584, 65008, 72882, 81206, 89980, 99204, 108878, 119002, 129576, 140600, 152074, 163998, 176372, 189196, 202470, 216194, 230368, 244992, 260066
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 08 2012
[A027470] 225, 675, 1350, 2250, 3375, 4725, 6300, 8100, 10125, 12375, 14850, 17550, 20475, 23625, 27000, 30600, 34425, 38475, 42750, 47250, 51975, 56925, 62100, 67500, 73125, 78975, 85050, 91350, 97875, 104625, 111600, 118800, 126225
a(3)=225, a(4)=675, a(5)=1350, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Feb 01 2013
[A014771] 1, 225, 2025, 8281, 23409, 53361, 105625, 189225, 314721, 494209, 741321, 1071225, 1500625, 2047761, 2732409, 3575881, 4601025, 5832225, 7295401, 9018009, 11029041, 13359025, 16040025, 19105641, 22591009, 26532801, 30969225, 35940025, 41486481, 47651409
a(0)=1, a(1)=225, a(2)=2025, a(3)=8281, a(4)=23409, a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>5. - Harvey P. Dale, Jun 23 2011
a(n) = (2*n-1)^2*(4*n-3)^2. - Wesley Ivan Hurt, Jul 31 2016
[A158229] 226, 451, 676, 901, 1126, 1351, 1576, 1801, 2026, 2251, 2476, 2701, 2926, 3151, 3376, 3601, 3826, 4051, 4276, 4501, 4726, 4951, 5176, 5401, 5626, 5851, 6076, 6301, 6526, 6751, 6976, 7201, 7426, 7651, 7876, 8101, 8326, 8551, 8776, 9001, 9226, 9451, 9676
a(n) = 2*a(n-1)-a(n-2).
[A156814] 226, 902, 2028, 3604, 5630, 8106, 11032, 14408, 18234, 22510, 27236, 32412, 38038, 44114, 50640, 57616, 65042, 72918, 81244, 90020, 99246, 108922, 119048, 129624, 140650, 152126, 164052, 176428, 189254, 202530, 216256, 230432, 245058, 260134
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 08 2012

[A259059] 227, 265, 307, 353, 403, 457, 515, 577, 643, 713, 787, 865, 947, 1033, 1123, 1217, 1315, 1417, 1523, 1633, 1747, 1865, 1987, 2113, 2243, 2377, 2515, 2657, 2803, 2953, 3107, 3265, 3427, 3593, 3763, 3937, 4115, 4297, 4483, 4673, 4867, 5065, 5267, 5473
a(n) = 2*n^2 + 36*n + 227.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Aug 13 2015
[A158228] 227, 904, 2031, 3608, 5635, 8112, 11039, 14416, 18243, 22520, 27247, 32424, 38051, 44128, 50655, 57632, 65059, 72936, 81263, 90040, 99267, 108944, 119071, 129648, 140675, 152152, 164079, 176456, 189283, 202560, 216287, 230464, 245091, 260168
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A154519] 228, 444, 660, 876, 1092, 1308, 1524, 1740, 1956, 2172, 2388, 2604, 2820, 3036, 3252, 3468, 3684, 3900, 4116, 4332, 4548, 4764, 4980, 5196, 5412, 5628, 5844, 6060, 6276, 6492, 6708, 6924, 7140, 7356, 7572, 7788, 8004, 8220, 8436, 8652
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 30 2012
[A201238] 0, 0, 0, 228, 3850, 27225, 122892, 423152, 1213380, 3046025, 6907890, 14454972, 28330822, 52586065, 93218400, 158854080, 261593552, 418045617, 650576150, 988799100, 1471339170, 2147897257, 3081651412, 4352027760, 6057877500, 8321097785, 11290735962
a(n) = n^2*(n^2-11)*(n^4 - 19n^2 + 114)/24, n>=5.
[A157348] 229, 281, 365, 1009, 1405, 1961, 5825, 8149, 11401, 33941, 47489, 66445, 197821, 276785, 387269, 1152985, 1613221, 2257169, 6720089, 9402541, 13155745, 39167549, 54802025, 76677301, 228285205, 319409609, 446908061, 1330543681
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=229, a(2)=281, a(3)=365, a(4)=1009, a(5)=1405, a(6)=1961.
[A260302] 0, 0, 231, 1378, 4753, 12246, 26335, 50086, 87153, 141778, 218791, 323610, 462241, 641278, 867903, 1149886, 1495585, 1913946, 2414503, 3007378, 3703281, 4513510, 5449951, 6525078, 7751953, 9144226, 10716135, 12482506, 14458753, 16660878, 19105471, 21809710
a(n) = (1/2)*(7*n^2 - 18*n + 12) (7*n^2 - 18*n + 13) for n > 2.
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>7.
[A126979] 233, 257, 281, 305, 329, 353, 377, 401, 425, 449, 473, 497, 521, 545, 569, 593, 617, 641, 665, 689, 713, 737, 761, 785, 809, 833, 857, 881, 905, 929, 953, 977, 1001, 1025, 1049, 1073, 1097, 1121, 1145, 1169, 1193, 1217, 1241, 1265, 1289, 1313, 1337, 1361
a(n) = 2*a(n-1) - a(n-2) for n > 1.
[A160574] 233, 313, 493, 905, 1565, 2725, 5197, 9077, 15857, 30277, 52897, 92417, 176465, 308305, 538645, 1028513, 1796933, 3139453, 5994613, 10473293, 18298073, 34939165, 61042825, 106648985, 203640377, 355783657, 621595837, 1186903097
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=233, a(2)=313, a(3)=493, a(4)=905, a(5)=1565, a(6)=2725.
[A023338] 233, 709, 11699, 16417, 24481, 31663, 63317, 94999, 172279, 185243, 205081, 228713, 240347, 266681, 285539, 334511, 372059, 395719, 479327, 583501, 734197, 786613, 856627, 863711, 1146091, 1187167, 1188259, 1423067, 1534591, 1562269, 1594301
a(n) == 9 (mod 14). - John Cerkan, Oct 11 2016
[A129857] 0, 235, 1696, 2571, 3796, 12075, 17140, 24255, 72468, 101983, 143448, 424447, 596472, 838147, 2475928, 3478563, 4887148, 14432835, 20276620, 28486455, 84122796, 118182871, 166033296, 490305655, 688822320, 967715035, 2857712848
a(n) = 6*a(n-3)-a(n-6)+1714 for n > 6; a(1)=0, a(2)=235, a(3)=1696, a(4)=2571, a(5)=3796, a(6)=12075.
[A154378] 240, 490, 740, 990, 1240, 1490, 1740, 1990, 2240, 2490, 2740, 2990, 3240, 3490, 3740, 3990, 4240, 4490, 4740, 4990, 5240, 5490, 5740, 5990, 6240, 6490, 6740, 6990, 7240, 7490, 7740, 7990, 8240, 8490, 8740, 8990, 9240, 9490, 9740, 9990, 10240, 10490
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jan 30 2012
[A063372] 1, 240, 521, 800, 1079, 1362, 1641, 1920, 2203, 2482, 2761, 3042, 3323, 3602, 3885, 4162, 4443, 4724, 5005, 5282, 5567, 5844, 6125, 6404, 6687, 6964, 7249, 7524, 7807, 8086, 8369, 8644, 8931, 9206, 9489, 9766, 10051, 10326, 10613
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A124352] 240, 816, 2400, 6480, 16660, 41440, 100836, 241520, 571692, 1340832, 3121456, 7222040, 16622220, 38085312, 86918688, 197677368, 448182640, 1013320480, 2285339532, 5142429512, 11547488652, 25881229248, 57906534100, 129352490384, 288522099360, 642668803056, 1429687270740, 3176714397960
a(n) = 5*a(n-1)-6*a(n-2)-4*a(n-3)+7*a(n-4)+5*a(n-5)-5*a(n-6)-3*a(n-7)+a(n-8)+a(n-9) for n>11.
[A158562] 240, 1008, 2288, 4080, 6384, 9200, 12528, 16368, 20720, 25584, 30960, 36848, 43248, 50160, 57584, 65520, 73968, 82928, 92400, 102384, 112880, 123888, 135408, 147440, 159984, 173040, 186608, 200688, 215280, 230384, 246000, 262128, 278768, 295920
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A157961] 241, 483, 725, 967, 1209, 1451, 1693, 1935, 2177, 2419, 2661, 2903, 3145, 3387, 3629, 3871, 4113, 4355, 4597, 4839, 5081, 5323, 5565, 5807, 6049, 6291, 6533, 6775, 7017, 7259, 7501, 7743, 7985, 8227, 8469, 8711, 8953, 9195, 9437, 9679, 9921, 10163
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A157958] 243, 485, 727, 969, 1211, 1453, 1695, 1937, 2179, 2421, 2663, 2905, 3147, 3389, 3631, 3873, 4115, 4357, 4599, 4841, 5083, 5325, 5567, 5809, 6051, 6293, 6535, 6777, 7019, 7261, 7503, 7745, 7987, 8229, 8471, 8713, 8955, 9197, 9439, 9681, 9923, 10165
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 06 2012
[A113335] 243, 1458, 5103, 13608, 30618, 61236, 112266, 192456, 312741, 486486, 729729, 1061424, 1503684, 2082024, 2825604, 3767472, 4944807, 6399162, 8176707, 10328472, 12910590, 15984540, 19617390, 23882040, 28857465, 34628958
a(n)=C(n+4,5)*3^5, n>=1.
[A029700] 0, 1, 243, 3936, 20860, 72315, 197421, 460768, 961416, 1843245, 3306655, 5621616, 9142068, 14321671, 21730905, 32075520, 46216336, 65190393, 90233451, 122803840, 164607660, 217625331, 284139493, 366764256, 468475800, 592644325, 743067351, 924004368
a(n) = n*(n-1)*(15*n^4+30*n^3-105*n^2-700*n+1344)/8.
[A157246] 245, 265, 287, 343, 427, 493, 637, 833, 1097, 1295, 1715, 2275, 2693, 3577, 4753, 6317, 7483, 9947, 13223, 15665, 20825, 27685, 36805, 43603, 57967, 77063, 91297, 121373, 161357, 214513, 254135, 337855, 449155, 532117, 707413, 940457, 1250273
a(n) = 6*a(n-7)-a(n-14) for n > 14; a(1)=245, a(2)=265, a(3)=287, a(4)=343, a(5)=427, a(6)=493, a(7)=637, a(8)=833, a(9)=1097, a(10)=1295, a(11)=1715, a(12)=2275, a(13)=2693, a(14)=3577.
[A137521] 245, 345, 545, 745, 1145, 1345, 1745, 1945, 2345, 2945, 3145, 3745, 4145, 4345, 4745, 5345, 5945, 6145, 6745, 7145, 7345, 7945, 8345, 8945, 9745, 10145, 10345, 10745, 10945, 11345
a(n) = prime(n) concatenated with 45
[A257781] 245, 385, 495, 655, 795, 1055, 1365, 2205, 2855, 3795, 4615, 6135, 7945, 12845, 16635, 22115, 26895, 35755, 46305, 74865, 96955, 128895, 156755, 208395, 269885, 436345, 565095, 751255, 913635, 1214615, 1573005, 2543205, 3293615, 4378635, 5325055, 7079295
a(n) = 6*a(n-6)-a(n-12).
[A063356] 1, 247, 533, 820, 1107, 1394, 1681, 1968, 2255, 2542, 2829, 3114, 3403, 3690, 3977, 4262, 4551, 4836, 5125, 5410, 5699, 5984, 6273, 6556, 6847, 7132, 7421, 7704, 7995, 8278, 8569, 8852, 9143, 9426, 9717, 9998, 10291, 10574, 10865
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A104396] 252, 336, 392, 427, 447, 456, 457, 461, 512, 547, 567, 577, 581, 596, 621, 631, 651, 661, 665, 677, 687, 707, 712, 717, 721, 732, 742, 746, 752, 756, 761, 772, 776, 786, 796, 816, 826, 830, 841, 852, 872, 881, 882, 886, 897, 907, 916, 917, 921, 932
a(n) = Ptop(f) + Ptop(g) + Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive f=/=g=/=h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A242570] 0, 252, 504, 756, 1008, 1260, 1512, 1764, 2016, 2268, 2520, 2772, 3024, 3276, 3528, 3780, 4032, 4284, 4536, 4788, 5040, 5292, 5544, 5796, 6048, 6300, 6552, 6804, 7056, 7308, 7560, 7812, 8064, 8316, 8568, 8820, 9072, 9324, 9576, 9828, 10080, 10332, 10584, 10836, 11088, 11340
a(n) = 252(n-1).
[A169713] 1, 252, 4653, 31504, 127905, 384156, 948157, 2039808, 3965409, 7132060, 12062061, 19407312, 29963713, 44685564, 64699965, 91321216, 126065217, 170663868, 227079469, 297519120, 384449121, 490609372, 619027773, 773034624, 956277025, 1172733276
a(n) = 120*n^5 - 600*n^4 + 1250*n^3 - 1225*n^2 + 456*n. - Peter Luschny, May 27 2017
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6). - Vincenzo Librandi, May 28 2017
[A255182] 1, 253, 5796, 46620, 213444, 697788, 1832292, 4131036, 8329860, 15426684, 26721828, 43858332, 68862276, 104183100, 152733924, 217931868, 303738372, 414699516, 555986340, 733435164, 953587908, 1223732412, 1551942756, 1947119580, 2419030404, 2978349948
a(n) = 84*(2*n - 1)*(2*n^4 - 4*n^3 + 8*n^2 - 6*n + 3) for n>1, a(0)=1, a(1)=253.
[A158249] 254, 1020, 2298, 4088, 6390, 9204, 12530, 16368, 20718, 25580, 30954, 36840, 43238, 50148, 57570, 65504, 73950, 82908, 92378, 102360, 112854, 123860, 135378, 147408, 159950, 173004, 186570, 200648, 215238, 230340, 245954, 262080, 278718, 295868

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A101745] 255, 384, 511, 575, 639, 728, 767, 896, 1088, 1295, 1376, 1407, 1599, 1700, 1727, 1792, 1919, 1920, 2015, 2024, 2375, 2431, 2672, 2815, 2880, 2915, 2944, 2975, 3104, 3159, 3199, 3327, 3375, 3392, 3456, 3583, 3744, 3999, 4031, 4032, 4160, 4223, 4256
a(n)*(a(n)+1)/2 has exactly 10 prime factors.
[A158250] 255, 511, 767, 1023, 1279, 1535, 1791, 2047, 2303, 2559, 2815, 3071, 3327, 3583, 3839, 4095, 4351, 4607, 4863, 5119, 5375, 5631, 5887, 6143, 6399, 6655, 6911, 7167, 7423, 7679, 7935, 8191, 8447, 8703, 8959, 9215, 9471, 9727, 9983, 10239, 10495
a(n) = 2*a(n-1)-a(n-2).
[A158010] 255, 1022, 2301, 4092, 6395, 9210, 12537, 16376, 20727, 25590, 30965, 36852, 43251, 50162, 57585, 65520, 73967, 82926, 92397, 102380, 112875, 123882, 135401, 147432, 159975, 173030, 186597, 200676, 215267, 230370, 245985, 262112, 278751, 295902
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A259320] 0, 256, 3584, 21504, 84480, 256256, 652288, 1462272, 2976768, 5617920, 9974272, 16839680, 27256320, 42561792, 64440320, 94978048, 136722432, 192745728, 266712576, 362951680, 486531584, 643340544, 840170496, 1084805120, 1386112000, 1754138880, 2200214016
a(n) = (64*(n^2-5*n^4+4*n^6))/45. - Colin Barker, Jun 29 2015
[A191680] 0, 256, 9841, 131072, 976562, 5038848, 20176803, 67108864, 193710244, 500000000, 1178973845, 2579890176, 5302249686, 10330523392, 19221679687, 34359738368, 59293938248, 99179645184, 161343848889, 256000000000, 397140023290, 603634608896, 900576330731, 1320903770112, 1907348632812, 2714751839488
a(n) = ((n + 1)^9 - (1 + (-1)^n)/2)/2.
a(n) = +9*a(n-1) -35*a(n-2) +75*a(n-3) -90*a(n-4) +42*a(n-5) +42*a(n-6) -90*a(n-7) +75*a(n-8) -35*a(n-9) +9*a(n-10) -a(n-11). - R. J. Mathar, Jun 29 2011
[A191496] 1, 256, 9842, 131072, 976563, 5038848, 20176804, 67108864, 193710245, 500000000, 1178973846, 2579890176, 5302249687, 10330523392, 19221679688, 34359738368, 59293938249, 99179645184, 161343848890, 256000000000, 397140023291, 603634608896, 900576330732, 1320903770112, 1907348632813, 2714751839488
a(n)= ((n+1)^9 + (1+(-1)^n)/2)/2.
a(n) = +9*a(n-1) -35*a(n-2) +75*a(n-3) -90*a(n-4) +42*a(n-5) +42*a(n-6) -90*a(n-7) +75*a(n-8) -35*a(n-9) +9*a(n-10) -a(n-11).
[A158231] 257, 513, 769, 1025, 1281, 1537, 1793, 2049, 2305, 2561, 2817, 3073, 3329, 3585, 3841, 4097, 4353, 4609, 4865, 5121, 5377, 5633, 5889, 6145, 6401, 6657, 6913, 7169, 7425, 7681, 7937, 8193, 8449, 8705, 8961, 9217, 9473, 9729, 9985, 10241, 10497
a(1)=257, a(2)=513, a(n)=2*a(n-1)-a(n-2). [Harvey P. Dale, Nov 21 2011]
[A158230] 258, 1028, 2310, 4104, 6410, 9228, 12558, 16400, 20754, 25620, 30998, 36888, 43290, 50204, 57630, 65568, 74018, 82980, 92454, 102440, 112938, 123948, 135470, 147504, 160050, 173108, 186678, 200760, 215354, 230460, 246078, 262208, 278850, 296004
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A154379] 260, 510, 760, 1010, 1260, 1510, 1760, 2010, 2260, 2510, 2760, 3010, 3260, 3510, 3760, 4010, 4260, 4510, 4760, 5010, 5260, 5510, 5760, 6010, 6260, 6510, 6760, 7010, 7260, 7510, 7760, 8010, 8260, 8510, 8760, 9010, 9260, 9510, 9760, 10010, 10260
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jan 30 2012
[A063364] 1, 261, 582, 900, 1218, 1536, 1854, 2172, 2490, 2808, 3126, 3448, 3762, 4080, 4398, 4720, 5034, 5356, 5670, 5992, 6306, 6628, 6942, 7268, 7578, 7900, 8214, 8540, 8850, 9176, 9486, 9812, 10122, 10448, 10758, 11088, 11394, 11720, 12030
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A023314] 263, 1217, 2141, 4673, 5333, 6983, 10973, 11423, 26669, 27143, 28697, 74843, 85061, 101063, 102647, 114113, 121001, 133349, 141623, 150497, 154823, 199877, 200183, 202409, 203039, 207953, 259697, 259781, 275813, 280487, 294167, 305477, 322727
a(n) == 11 or 41 (mod 42). - John Cerkan, Oct 07 2016
[A123654] 0, 264, 1491, 2427, 3811, 10764, 16180, 24220, 64711, 96271, 143127, 379120, 563064, 836160, 2211627, 3283731, 4875451, 12892260, 19140940, 28418164, 75143551, 111563527, 165635151, 437970664, 650241840, 965394360, 2552682051
a(n) = 6*a(n-3)-a(n-6)+1618 for n > 6; a(1)=0, a(2)=264, a(3)=1491, a(4)=2427, a(5)=3811, a(6)=10764.
[A094795] 265, 2119, 9403, 30637, 81901, 190435, 398959, 770713, 1395217, 2394751, 3931555, 6215749, 9513973, 14158747, 20558551, 29208625, 40702489, 55744183, 75161227, 99918301, 131131645, 170084179, 218241343, 277267657, 349044001, 435685615
a(n)=n^6 + 15*n^5 + 100*n^4 + 355*n^3 + 694*n^2 + 689*n + 265.
[A278130] 270, 762, 1746, 3714, 7650, 15522, 31266, 62754, 125730, 251682, 503586, 1007394, 2015010, 4030242, 8060706, 16121634, 32243490, 64487202, 128974626, 257949474, 515899170, 1031798562, 2063597346, 4127194914, 8254390050, 16508780322, 33017560866, 66035121954, 132070244130
a(n) = 3*a(n-1) - 2*a(n-2).
[A245969] 271, 537, 931, 1477, 2199, 3121, 4267, 5661, 7327, 9289, 11571, 14197, 17191, 20577, 24379, 28621, 33327, 38521, 44227, 50469, 57271, 64657, 72651, 81277, 90559, 100521, 111187, 122581, 134727, 147649, 161371, 175917, 191311, 207577, 224739, 242821, 261847, 281841
a(n)=4n^3 + 16n^2 + 6n + 1 (n>=3) (see p. 45 of the Gutman-Klavzar reference).
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Colin Barker, Aug 31 2014
[A158587] 272, 1139, 2584, 4607, 7208, 10387, 14144, 18479, 23392, 28883, 34952, 41599, 48824, 56627, 65008, 73967, 83504, 93619, 104312, 115583, 127432, 139859, 152864, 166447, 180608, 195347, 210664, 226559, 243032, 260083, 277712, 295919, 314704
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A157374] 273, 616, 959, 1302, 1645, 1988, 2331, 2674, 3017, 3360, 3703, 4046, 4389, 4732, 5075, 5418, 5761, 6104, 6447, 6790, 7133, 7476, 7819, 8162, 8505, 8848, 9191, 9534, 9877, 10220, 10563, 10906, 11249, 11592, 11935, 12278, 12621, 12964, 13307, 13650
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 28 2012
[A279114] 0, 0, 0, 0, 273, 5335, 50021, 291171, 1263125, 4434783, 13355477, 35672426, 86686721, 194886975, 410820269, 819819261, 1561128613, 2853802623, 5033838173, 8602315716, 14291999441, 23150803815, 36654054741, 56841404455, 86496828245, 129363299967, 190419751685, 276205278030
a(n) = (n^10 - 90*n^8 + 120*n^7 + 3115*n^6 - 7748*n^5 - 46050*n^4 + 173140*n^3 + 158584*n^2 - 1255952*n + 1252800 + (1/2-(-1)^n/2) * (52*n^5 - 305*n^4 + 180*n^3 + 320*n^2 + 3488*n - 375))/960 for n >= 4.
a(n) = 5*a(n-1) - 4*a(n-2) - 20*a(n-3) + 40*a(n-4) + 16*a(n-5) - 100*a(n-6) + 44*a(n-7) + 110*a(n-8) - 110*a(n-9) - 44*a(n-10) + 100*a(n-11) - 16*a(n-12) - 40*a(n-13) + 20*a(n-14) + 4*a(n-15) - 5*a(n-16) + a(n-17) for n >= 21.
[A165677] 274, 1044, 2754, 5944, 11274, 19524, 31594, 48504, 71394, 101524, 140274, 189144, 249754, 323844, 413274, 520024, 646194, 794004, 965794, 1164024, 1391274, 1650244, 1943754, 2274744, 2646274, 3061524, 3523794, 4036504
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5)
a(n) = 24 + 100*n + 105*n^2 + 40*n^3 + 5*n^4
[A063368] 1, 275, 606, 934, 1262, 1590, 1918, 2246, 2574, 2902, 3230, 3562, 3886, 4214, 4542, 4874, 5198, 5530, 5854, 6186, 6510, 6842, 7166, 7502, 7822, 8154, 8478, 8814, 9134, 9470, 9790, 10126, 10446, 10782, 11102, 11442, 11758, 12094
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A288037] 285, 984, 2855, 7488, 18431, 43504, 99783, 224280, 496727, 1087992, 2362607, 5095216, 10926255, 23318880, 49563959, 104972328, 221623847, 466594600, 979869471, 2053083648, 4292838335, 8958997584, 18664612775, 38822433208, 80631250551, 167235234264, 346415895503
a(n) = n*(-104+89*2^n-52*n-8*n^2)/4.
a(n) = 8*a(n-1)-26*a(n-2)+44*a(n-3)-41*a(n-4)+20*a(n-5)-4*a(n-6).
[A176712] 285, 2805, 9405, 22197, 43677, 76725, 124605, 190965, 279837, 395637, 543165, 727605, 954525, 1229877, 1559997, 1951605, 2411805, 2948085, 3568317, 4280757, 5094045, 6017205, 7059645, 8231157, 9541917, 11002485, 12623805, 14417205
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+384 for n > 3; a(0)=21, a(1)=285, a(2)=1365, a(3)=4221.
a(n) = (2*n+1)*(2*n+15)*(4*n^2+32*n+19).
a(n) = a(-n-8). - Bruno Berselli, Sep 05 2011
[A157997] 287, 575, 863, 1151, 1439, 1727, 2015, 2303, 2591, 2879, 3167, 3455, 3743, 4031, 4319, 4607, 4895, 5183, 5471, 5759, 6047, 6335, 6623, 6911, 7199, 7487, 7775, 8063, 8351, 8639, 8927, 9215, 9503, 9791, 10079, 10367, 10655, 10943, 11231, 11519
a(n) = 2*a(n-1)-a(n-2).
[A063362] 1, 287, 616, 946, 1276, 1606, 1936, 2266, 2596, 2926, 3256, 3584, 3916, 4246, 4576, 4904, 5236, 5564, 5896, 6224, 6556, 6884, 7216, 7542, 7876, 8204, 8536, 8862, 9196, 9522, 9856, 10182, 10516, 10842, 11176, 11500, 11836, 12162
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.

[A158252] 287, 1152, 2595, 4616, 7215, 10392, 14147, 18480, 23391, 28880, 34947, 41592, 48815, 56616, 64995, 73952, 83487, 93600, 104291, 115560, 127407, 139832, 152835, 166416, 180575, 195312, 210627, 226520, 242991, 260040, 277667, 295872, 314655
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158253] 288, 577, 866, 1155, 1444, 1733, 2022, 2311, 2600, 2889, 3178, 3467, 3756, 4045, 4334, 4623, 4912, 5201, 5490, 5779, 6068, 6357, 6646, 6935, 7224, 7513, 7802, 8091, 8380, 8669, 8958, 9247, 9536, 9825, 10114, 10403, 10692, 10981, 11270, 11559
a(n) = 2*a(n-1)-a(n-2).
[A292054] 288, 708, 1580, 3144, 5804, 9996, 16388, 25660, 38808, 56808, 81048, 112856, 154080, 206448, 272332, 353920, 454172, 575784, 722372, 897196, 1104592, 1348436, 1633848, 1965376, 2348992, 2789964, 3295180, 3870688, 4524356, 5263060, 6095716, 7030084, 8076192
a(n) = 2*a(n-1) + a(n-2) - 3*a(n-3) - a(n-5) + 2*a(n-6) + 2*a(n-7) - a(n-8) - 3*a(n-10) + a(n-11) + 2*a(n-12) - a(n-13) for n > 17.
[A281236] 0, 288, 960, 1632, 2688, 6048, 9792, 15840, 35328, 57120, 92352, 205920, 332928, 538272, 1200192, 1940448, 3137280, 6995232, 11309760, 18285408, 40771200, 65918112, 106575168, 237631968, 384198912, 621165600, 1385020608, 2239275360, 3620418432, 8072491680
a(n) = 6*a(n-3) - a(n-6) for n>6.
[A157990] 289, 577, 865, 1153, 1441, 1729, 2017, 2305, 2593, 2881, 3169, 3457, 3745, 4033, 4321, 4609, 4897, 5185, 5473, 5761, 6049, 6337, 6625, 6913, 7201, 7489, 7777, 8065, 8353, 8641, 8929, 9217, 9505, 9793, 10081, 10369, 10657, 10945, 11233, 11521
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A158255] 290, 579, 868, 1157, 1446, 1735, 2024, 2313, 2602, 2891, 3180, 3469, 3758, 4047, 4336, 4625, 4914, 5203, 5492, 5781, 6070, 6359, 6648, 6937, 7226, 7515, 7804, 8093, 8382, 8671, 8960, 9249, 9538, 9827, 10116, 10405, 10694, 10983, 11272, 11561
a(n) = 2*a(n-1)-a(n-2).
[A158254] 291, 1160, 2607, 4632, 7235, 10416, 14175, 18512, 23427, 28920, 34991, 41640, 48867, 56672, 65055, 74016, 83555, 93672, 104367, 115640, 127491, 139920, 152927, 166512, 180675, 195416, 210735, 226632, 243107, 260160, 277791, 296000, 314787
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A023305] 293, 2063, 4583, 9203, 14723, 20123, 25733, 29453, 40253, 54713, 76103, 97523, 99833, 109433, 138683, 149993, 158243, 196853, 199403, 218873, 253103, 297623, 379913, 416963, 445463, 468113, 508073, 551963, 562403, 564713, 574703, 583733
a(n) == 3 (mod 10). - John Cerkan, Oct 04 2016
[A085502] 1, 293, 2728, 12318, 38835, 98411, 215138, 422668, 765813, 1302145, 2103596, 3258058, 4870983, 7066983, 9991430, 13812056, 18720553, 24934173, 32697328, 42283190, 53995291, 68169123, 85173738, 105413348, 129328925, 157399801, 190145268, 228126178, 271946543
a(n) = (n + 1) (80 n^4 + 310 n^3 + 362 n^2 + 121 n + 6) / 6. - Dean Hickerson
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A256101] 301, 721, 1141, 1561, 1981, 2401, 2821, 3241, 3661, 4081, 4501, 4921, 5341, 5761, 6181, 6601, 7021, 7441, 7861, 8281, 8701, 9121, 9541, 9961, 10381, 10801, 11221, 11641, 12061, 12481, 12901, 13321, 13741, 14161, 14581, 15001, 15421, 15841
a(n) = 420*n-119, n >= 1, (note that 420 = 3*4*5*7, with pairwise coprime factors needed for the Chinese remainder theorem).
[A160577] 305, 409, 641, 1189, 2045, 3541, 6829, 11861, 20605, 39785, 69121, 120089, 231881, 402865, 699929, 1351501, 2348069, 4079485, 7877125, 13685549, 23776981, 45911249, 79765225, 138582401, 267590369, 464905801, 807717425, 1559630965
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=305, a(2)=409, a(3)=641, a(4)=1189, a(5)=2045, a(6)=3541.
[A158589] 306, 1278, 2898, 5166, 8082, 11646, 15858, 20718, 26226, 32382, 39186, 46638, 54738, 63486, 72882, 82926, 93618, 104958, 116946, 129582, 142866, 156798, 171378, 186606, 202482, 219006, 236178, 253998, 272466, 291582, 311346, 331758
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 16 2012
[A220475] 307, 347, 563, 569, 733, 821, 1427, 1429, 1433, 1439, 1447, 1481, 1867, 1931, 1973, 2657, 2659, 2663, 2671, 2683, 3187, 3191, 3313, 3319, 3323, 3461, 3511, 3517, 4001, 4217, 4231, 4597, 4621, 4783, 5387, 5393, 5413, 5417, 5477, 5501, 5639, 5641, 5651, 6067, 6311, 6823, 6857, 7477, 7523, 7537
a(n) <= prime(32*(n+1)).
[A289793] 0, 0, 0, 0, 312, 3024, 14868, 51744, 145152, 350784, 759528, 1511136, 2810808, 4948944, 8324316, 13470912, 21088704, 32078592, 47581776, 69023808, 98163576, 137147472, 188568996, 255534048, 341732160, 451513920, 589974840, 763045920, 977591160, 1241512272
a(n) = 6*binomial(n, 5)*(-78 + 21*n + n^2).
a(n) = 8*a(n-1)-28*a(n-2)+56*a(n-3)-70*a(n-4)+56*a(n-5)-28*a(n-6)+8*a(n-7)-a(n-8).
[A159574] 313, 337, 365, 1513, 1685, 1877, 8765, 9773, 10897, 51077, 56953, 63505, 297697, 331945, 370133, 1735105, 1934717, 2157293, 10112933, 11276357, 12573625, 58942493, 65723425, 73284457, 343542025, 383064193, 427133117, 2002309657
a(n) = 6*a(n-3)-a(n-6)for n > 6; a(1)=313, a(2)=337, a(3)=365, a(4)=1513, a(5)=1685, a(6)=1877.
[A157621] 314, 1825, 4586, 8597, 13858, 20369, 28130, 37141, 47402, 58913, 71674, 85685, 100946, 117457, 135218, 154229, 174490, 196001, 218762, 242773, 268034, 294545, 322306, 351317, 381578, 413089, 445850, 479861, 515122, 551633, 589394, 628405
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A278131] 318, 909, 2091, 4455, 9183, 18639, 37551, 75375, 151023, 302319, 604911, 1210095, 2420463, 4841199, 9682671, 19365615, 38731503, 77463279, 154926831, 309853935, 619708143, 1239416559, 2478833391, 4957667055, 9915334383, 19830669039, 39661338351
a(n) = 3*a(n-1) - 2*a(n-2).
[A075153] 318, 1071, 5040, 5985, 10710, 20400, 24225, 43350, 81600, 85425, 165750, 327360, 342705, 664950, 1309440, 1324785, 2629110, 5241600, 5303025, 10524150, 20966400, 21027825, 41973750, 83880960, 84126705, 167925750, 335523840
a(0) = 318; a(1) = 1071; for n > 1 and n = 2 (mod 6): a(n) = 5*4^(2*k+5)-5*4^(k+2) where k = (n-2)/6; n = 3 (mod 6): a(n) = 5*4^(2*k+5)+55*4^(k+2)-15 where k = (n-3)/6; n = 4 (mod 6): a(n) = 10*4^(2*k+5)+30*4^(k+2)-10 where k = (n-4)/6; n = 5 (mod 6): a(n) = 20*4^(2*k+5)-5*4^(k+2) where k = (n-5)/6; n = 0 (mod 6): a(n) = 20*4^(2*k+5)+235*4^(k+2)-15 where k = (n-6)/6; n = 1 (mod 6): a(n) = 40*4^(2*k+5)+150*4^(k+2)-10 where k = (n-7)/6.
[A144124] 1, 321, 2641, 10321, 28401, 63601, 124321, 220641, 364321, 568801, 849201, 1222321, 1706641, 2322321, 3091201, 4036801, 5184321, 6560641, 8194321, 10115601, 12356401, 14950321, 17932641, 21340321, 25212001, 29588001
a(n) = 70*n^4+140*n^3+90*n^2+20*n+1.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4)+1680 for n > 3; a(0)=1, a(1)=321, a(2)=2641, a(3)=10321.
[A114358] 1, 322, 1186, 2110, 3034, 3958, 4882, 5806, 6730, 7654, 8578, 9502, 10426, 11350, 12274, 13198, 14122, 15046, 15970, 16894, 17818, 18742, 19666, 20590, 21514, 22438, 23362, 24286, 25210, 26134, 27058, 27982, 28906, 29830, 30754, 31678
a(n) = 924n-1586 with n>2, a(1)=1, a(2)=322.
a(n) = 2*a(n-1)-a(n-2) for n>4. G.f.: x*(1+320*x+543*x^2+60*x^3)/(1-x)^2. [Colin Barker, Mar 18 2012]
[A158305] 322, 1292, 2910, 5176, 8090, 11652, 15862, 20720, 26226, 32380, 39182, 46632, 54730, 63476, 72870, 82912, 93602, 104940, 116926, 129560, 142842, 156772, 171350, 186576, 202450, 218972, 236142, 253960, 272426, 291540, 311302, 331712
a(1)=322, a(2)=1292, a(3)=2910, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). (End)
[A158306] 323, 647, 971, 1295, 1619, 1943, 2267, 2591, 2915, 3239, 3563, 3887, 4211, 4535, 4859, 5183, 5507, 5831, 6155, 6479, 6803, 7127, 7451, 7775, 8099, 8423, 8747, 9071, 9395, 9719, 10043, 10367, 10691, 11015, 11339, 11663, 11987, 12311, 12635, 12959
a(n) = 2*a(n-1)-a(n-2).
[A272298] 324, 325, 340, 405, 580, 949, 1620, 2725, 4420, 6885, 10324, 14965, 21060, 28885, 38740, 50949, 65860, 83845, 105300, 130645, 160324, 194805, 234580, 280165, 332100, 390949, 457300, 531765, 614980, 707605, 810324, 923845, 1048900, 1186245, 1336660, 1500949, 1679940, 1874485, 2085460
a(n) = (n^2 - 18)^2 + (6*n)^2.
[A014792] 0, 324, 1156, 12544, 21904, 81796, 116964, 291600, 379456, 763876, 940900, 1658944, 1971216, 3175524, 3678724, 5550736, 6310144, 9060100, 10150596, 14017536, 15523600, 20775364, 22791076, 29724304, 32353344, 41293476, 44649124, 55950400, 60155536, 74200996
a(n) = 1/2*(200*n^4-120*n^3+18*n^2) for n even.
a(n) = 1/2*(200*n^4+280*n^3+138*n^2+28*n+2) for n odd.
[A159844] 325, 359, 401, 1549, 1795, 2081, 8969, 10411, 12085, 52265, 60671, 70429, 304621, 353615, 410489, 1775461, 2061019, 2392505, 10348145, 12012499, 13944541, 60313409, 70013975, 81274741, 351532309, 408071351, 473703905, 2048880445
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=325, a(2)=359, a(3)=401, a(4)=1549, a(5)=1795, a(6)=2081.
[A160580] 325, 457, 877, 1073, 2285, 4937, 6113, 13253, 28745, 35605, 77233, 167533, 207517, 450145, 976453, 1209497, 2623637, 5691185, 7049465, 15291677, 33170657, 41087293, 89126425, 193332757, 239474293, 519466873, 1126825885, 1395758465

a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=325, a(2)=457, a(3)=877, a(4)=1073, a(5)=2285, a(6)=4937.
[A158272] 325, 649, 973, 1297, 1621, 1945, 2269, 2593, 2917, 3241, 3565, 3889, 4213, 4537, 4861, 5185, 5509, 5833, 6157, 6481, 6805, 7129, 7453, 7777, 8101, 8425, 8749, 9073, 9397, 9721, 10045, 10369, 10693, 11017, 11341, 11665, 11989, 12313, 12637, 12961
a(n) = 2*a(n-1)-a(n-2).
[A158271] 326, 1300, 2922, 5192, 8110, 11676, 15890, 20752, 26262, 32420, 39226, 46680, 54782, 63532, 72930, 82976, 93670, 105012, 117002, 129640, 142926, 156860, 171442, 186672, 202550, 219076, 236250, 254072, 272542, 291660, 311426, 331840
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A097401] 332, 528, 796, 1148, 1596, 2152, 2828, 3636, 4588, 5696, 6972, 8428, 10076, 11928, 13996, 16292, 18828, 21616, 24668, 27996, 31612, 35528, 39756, 44308, 49196, 54432, 60028, 65996, 72348, 79096, 86252, 93828, 101836, 110288, 119196, 128572
a(n) = 2*n^3-18*n^2+68*n-84.
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 25 2012
[A273529] 337, 409, 449, 577, 1009, 1129, 1489, 1801, 2377, 2521, 2609, 2689, 2833, 3041, 3169, 3329, 3361, 3433, 3529, 3889, 4049, 4513, 4657, 5209, 5569, 5689, 5857, 5881, 5953, 6529, 6553, 6569, 7177, 7297, 8009, 8089, 8209, 8329, 8641, 8737, 8761, 9433, 9697, 9769, 10169, 10321
a(n) mod 8 = 1.
[A157999] 337, 675, 1013, 1351, 1689, 2027, 2365, 2703, 3041, 3379, 3717, 4055, 4393, 4731, 5069, 5407, 5745, 6083, 6421, 6759, 7097, 7435, 7773, 8111, 8449, 8787, 9125, 9463, 9801, 10139, 10477, 10815, 11153, 11491, 11829, 12167, 12505, 12843, 13181, 13519
a(n) = 2*a(n-1)-a(n-2).
[A158000] 339, 677, 1015, 1353, 1691, 2029, 2367, 2705, 3043, 3381, 3719, 4057, 4395, 4733, 5071, 5409, 5747, 6085, 6423, 6761, 7099, 7437, 7775, 8113, 8451, 8789, 9127, 9465, 9803, 10141, 10479, 10817, 11155, 11493, 11831, 12169, 12507, 12845, 13183, 13521
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A172255] 341, 902, 1547, 2652, 4039, 5768, 7673, 9720, 12185, 14886, 17707, 20984, 25017, 29386, 33757, 38438, 43899, 50500, 58457, 66778, 75259, 84170, 94431, 105016, 116321, 129122, 142863, 156610, 170591, 185082, 200791, 216632, 233337, 252042
a(n) = SUM[i=1..n] {odd composite numbers n such that 2^(n-1) == 1 mod n}.
[A121205] 342, 438, 546, 666, 798, 942, 1098, 1266, 1446, 1638, 1842, 2058, 2286, 2526, 2778, 3042, 3318, 3606, 3906, 4218, 4542, 4878, 5226, 5586, 5958, 6342, 6738, 7146, 7566, 7998, 8442, 8898, 9366, 9846, 10338, 10842, 11358, 11886, 12426
a(n) = 6*(n^2 + n + 1) = a(n-1) + 12*n.
[A158595] 342, 1425, 3230, 5757, 9006, 12977, 17670, 23085, 29222, 36081, 43662, 51965, 60990, 70737, 81206, 92397, 104310, 116945, 130302, 144381, 159182, 174705, 190950, 207917, 225606, 244017, 263150, 283005, 303582, 324881, 346902, 369645
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A272380] 0, 1, 342, 6315, 40492, 157125, 456546, 1099567, 2321880, 4448457, 7907950, 13247091, 21145092, 32428045, 48083322, 69273975, 97353136, 133878417, 180626310, 239606587, 313076700, 403556181, 513841042, 647018175, 806479752, 995937625, 1219437726, 1481374467
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6), for n>5.
[A016983] 0, 343, 2744, 9261, 21952, 42875, 74088, 117649, 175616, 250047, 343000, 456533, 592704, 753571, 941192, 1157625, 1404928, 1685159, 2000376, 2352637, 2744000, 3176523, 3652264, 4173281, 4741632, 5359375, 6028568, 6751269, 7529536, 8365427, 9261000, 10218313
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n > 3. - Vincenzo Librandi, Jul 05 2014
[A277636] 1, 343, 6859, 50653, 226981, 753571, 2048383, 4826809, 10218313, 19902511, 36264691, 62570773, 103161709, 163667323, 251239591, 374805361, 545338513, 776151559, 1083206683, 1485446221, 2005142581, 2668267603, 3504881359, 4549540393, 5841725401, 7426288351
a(n) = (3*n^2 - 3*n + 1)^3.
[A063370] 1, 345, 736, 1128, 1520, 1912, 2304, 2696, 3088, 3480, 3872, 4262, 4656, 5048, 5440, 5830, 6224, 6614, 7008, 7398, 7792, 8182, 8576, 8964, 9360, 9750, 10144, 10532, 10928, 11316, 11712, 12100, 12496, 12884, 13280, 13666, 14064, 14452
a(n) = a(n-4) + a(n-6) - a(n-10) for n>13.
[A287700] 0, 1, 346, 6219, 36628, 124405, 316206, 672511, 1267624, 2189673, 3540610, 5436211, 8006076, 11393629, 15756118, 21264615, 28104016, 36473041, 46584234, 58663963, 72952420, 89703621, 109185406, 131679439, 157481208, 186900025, 220259026, 257895171, 300159244
a(n) = -1899*n + 3916*n^2 - 2592*n^3 + 576*n^4.
a(n) = [x^n] (x + 341*x^2 + 4499*x^3 + 8983*x^4) / (1 - x)^5.
[A129642] 0, 348, 495, 1371, 3255, 4088, 9140, 20096, 24947, 54383, 118235, 146508, 318072, 690228, 855015, 1854963, 4024047, 4984496, 10812620, 23454968, 29052875, 63021671, 136706675, 169333668, 367318320, 796785996, 986950047, 2140889163
a(n) = 6*a(n-3)-a(n-6)+914 for n > 6; a(1)=0, a(2)=348, a(3)=495, a(4)=1371, a(5)=3255, a(6)=4088.
a(1)=0, a(2)=348, a(3)=495, a(4)=1371, a(5)=3255, a(6)=4088, a(7)=9140, a(n)=a(n-1)+6*a(n-3)-6*a(n-4)-a(n-6)+a(n-7) [From Harvey P. Dale, May 13 2012]
[A157668] 354, 2099, 5302, 9963, 16082, 23659, 32694, 43187, 55138, 68547, 83414, 99739, 117522, 136763, 157462, 179619, 203234, 228307, 254838, 282827, 312274, 343179, 375542, 409363, 444642, 481379, 519574, 559227, 600338, 642907, 686934, 732419
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158307] 359, 1440, 3243, 5768, 9015, 12984, 17675, 23088, 29223, 36080, 43659, 51960, 60983, 70728, 81195, 92384, 104295, 116928, 130283, 144360, 159159, 174680, 190923, 207888, 225575, 243984, 263115, 282968, 303543, 324840, 346859, 369600
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3).
[A069478] 360, 480, 600, 720, 840, 960, 1080, 1200, 1320, 1440, 1560, 1680, 1800, 1920, 2040, 2160, 2280, 2400, 2520, 2640, 2760, 2880, 3000, 3120, 3240, 3360, 3480, 3600, 3720, 3840, 3960, 4080, 4200, 4320, 4440, 4560, 4680, 4800, 4920, 5040, 5160, 5280
a(n)=(n+2)*120
[A158308] 360, 721, 1082, 1443, 1804, 2165, 2526, 2887, 3248, 3609, 3970, 4331, 4692, 5053, 5414, 5775, 6136, 6497, 6858, 7219, 7580, 7941, 8302, 8663, 9024, 9385, 9746, 10107, 10468, 10829, 11190, 11551, 11912, 12273, 12634, 12995, 13356, 13717, 14078
a(1)=360, a(2)=721, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Aug 18 2011
[A140801] 360, 1080, 1800, 2520, 3240, 3960, 4680, 5400, 6120, 6840, 7560, 8280, 9000, 9720, 10440, 11160, 11880, 12600, 13320, 14040, 14760, 15480, 16200, 16920, 17640, 18360, 19080, 19800, 20520, 21240, 21960, 22680, 23400, 24120, 24840, 25560, 26280, 27000, 27720, 28440, 29160
a(n) = 360+720*n
[A033592] 1, 360, 3465, 14560, 41769, 96096, 191425, 344520, 575025, 905464, 1361241, 1970640, 2764825, 3777840, 5046609, 6610936, 8513505, 10799880, 13518505, 16720704, 20460681, 24795520, 29785185, 35492520, 41983249, 49325976, 57592185, 66856240, 77195385
a(0)=1, a(1)=360, a(2)=3465, a(3)=14560, a(4)=41769, a(n)=5*a(n-1)- 10*a(n-2)+ 10*a(n-3)-5*a(n-4)+a(n-5). - Harvey P. Dale, Nov 28 2013
[A192829] 360, 8064, 68928, 355470, 1340424, 4086180, 10680384, 24847938, 52769640, 104137704, 193478400, 341772054, 578400648, 943453260, 1490419584, 2289301770, 3430174824, 5027225808, 7223302080, 10194998814, 14158316040, 19374915444, 26159007168, 34884896850, 45995223144, 60009915960, 77535905664, 99277613478, 126048253320
a(n) = n*(24-66*n+36*n^2+4*n^3-3*n^4-7*n^5+6*n^6).
[A158310] 362, 723, 1084, 1445, 1806, 2167, 2528, 2889, 3250, 3611, 3972, 4333, 4694, 5055, 5416, 5777, 6138, 6499, 6860, 7221, 7582, 7943, 8304, 8665, 9026, 9387, 9748, 10109, 10470, 10831, 11192, 11553, 11914, 12275, 12636, 12997, 13358, 13719, 14080
a(n) = 2*a(n-1)-a(n-2).
[A243131] 0, 1, 362, 3363, 15124, 47525, 120126, 262087, 514088, 930249, 1580050, 2550251, 3946812, 5896813, 8550374, 12082575, 16695376, 22619537, 30116538, 39480499, 51040100, 65160501, 82245262, 102738263, 127125624, 155937625, 189750626, 229188987
a(n) = n*(16*n^4-20*n^2+5) = (-1/4)*n *(-8*n^2+5+sqrt(5))*(8*n^2-5+sqrt(5)).
[A157442] 362, 19601, 68122, 145925, 253010, 389377, 555026, 749957, 974170, 1227665, 1510442, 1822501, 2163842, 2534465, 2934370, 3363557, 3822026, 4309777, 4826810, 5373125, 5948722, 6553601, 7187762, 7851205, 8543930, 9265937
a(1)=362, a(2)=19601, a(3)=68122, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Oct 22 2011]
[A158309] 363, 1448, 3255, 5784, 9035, 13008, 17703, 23120, 29259, 36120, 43703, 52008, 61035, 70784, 81255, 92448, 104363, 117000, 130359, 144440, 159243, 174768, 191015, 207984, 225675, 244088, 263223, 283080, 303659, 324960, 346983, 369728
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A023313] 373, 1171, 13687, 21997, 25657, 61603, 74413, 76471, 84199, 87181, 93487, 114691, 135859, 170761, 174877, 184333, 192979, 196177, 207931, 209743, 244219, 276229, 286687, 292561, 297811, 334603, 338893, 405037, 408361, 417097, 439141, 446323
a(n) == 31 or 37 (mod 42). - John Cerkan, Oct 07 2016
[A008853] 0, 1, 376, 625, 1000, 1001, 1376, 1625, 2000, 2001, 2376, 2625, 3000, 3001, 3376, 3625, 4000, 4001, 4376, 4625, 5000, 5001, 5376, 5625, 6000, 6001, 6376, 6625, 7000, 7001, 7376, 7625, 8000, 8001, 8376, 8625, 9000, 9001, 9376, 9625, 10000
a(4n)=1000n, a(4n+1)=1000n+1, a(4n+2)=1000n+376, a(4n+3)=1000n+625. - Franklin T. Adams-Watters, Mar 13 2006
[A157116] 378, 1303, 2059, 2984, 3740, 4665, 5421, 6346, 7102, 8027, 8783, 9708, 10464, 11389, 12145, 13070, 13826, 14751, 15507, 16432, 17188, 18113, 18869, 19794, 20550, 21475, 22231, 23156, 23912, 24837, 25593, 26518, 27274, 28199, 28955, 29880
a(1)=378, a(2)=1303; a(n) = 2*a(n-1)-a(n-2)-13^2 if n is odd, and a(n) = 2*a(n-1)-a(n-2)+13^2 if n is even.
a(n) = (3362n-1681+169*(-1)^n)/4. [R. J. Mathar, Mar 08 2009]
[A224337] 378, 2910, 12282, 37494, 93306, 201678, 393210, 708582, 1199994, 1932606, 2985978, 4455510, 6453882, 9112494, 12582906, 17038278, 22674810, 29713182, 38399994, 49009206, 61843578, 77236110, 95551482, 117187494, 142576506, 172186878
a(n) = 12*n^5 + 60*n^4 + 120*n^3 + 120*n^2 + 60*n + 6.
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - Colin Barker, Sep 20 2014
[A158597] 380, 1580, 3580, 6380, 9980, 14380, 19580, 25580, 32380, 39980, 48380, 57580, 67580, 78380, 89980, 102380, 115580, 129580, 144380, 159980, 176380, 193580, 211580, 230380, 249980, 270380, 291580, 313580, 336380, 359980, 384380, 409580
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A134241] 0, 0, 0, 384, 4800, 25920, 91200, 248640, 572544, 1169280, 2183040, 3801600, 6262080, 9856704, 14938560, 21927360, 31315200, 43672320, 59652864, 80000640, 105554880, 137256000, 176151360, 223401024, 280283520, 348201600, 428688000, 523411200
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6). - G. C. Greubel, May 30 2016
[A052377] 389, 479, 1559, 3209, 8669, 12269, 12401, 13151, 14411, 14759, 21851, 28859, 31469, 33191, 36551, 39659, 40751, 50321, 54311, 64601, 70229, 77339, 79601, 87671, 99551, 102539, 110261, 114749, 114761, 118661, 129449, 132611, 136511
a(n) is the initial term of a [p, p+8, p+12, p+12+8] quadruple of consecutive primes.
[A069477] 390, 750, 1230, 1830, 2550, 3390, 4350, 5430, 6630, 7950, 9390, 10950, 12630, 14430, 16350, 18390, 20550, 22830, 25230, 27750, 30390, 33150, 36030, 39030, 42150, 45390, 48750, 52230, 55830, 59550, 63390, 67350, 71430, 75630, 79950, 84390, 88950, 93630, 98430
a(1)=390, a(2)=750, a(3)=1230, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Apr 06 2012]
[A158004] 391, 783, 1175, 1567, 1959, 2351, 2743, 3135, 3527, 3919, 4311, 4703, 5095, 5487, 5879, 6271, 6663, 7055, 7447, 7839, 8231, 8623, 9015, 9407, 9799, 10191, 10583, 10975, 11367, 11759, 12151, 12543, 12935, 13327, 13719, 14111, 14503, 14895
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A264448] 0, 391, 910, 1575, 2405, 3420, 4641, 6090, 7790, 9765, 12040, 14641, 17595, 20930, 24675, 28860, 33516, 38675, 44370, 50635, 57505, 65016, 73205, 82110, 91770, 102225, 113516, 125685, 138775, 152830, 167895, 184016, 201240, 219615, 239190, 260015, 282141, 305620, 330505
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5) for n>4. - Vincenzo Librandi, Nov 16 2015
[A158002] 1, 393, 785, 1177, 1569, 1961, 2353, 2745, 3137, 3529, 3921, 4313, 4705, 5097, 5489, 5881, 6273, 6665, 7057, 7449, 7841, 8233, 8625, 9017, 9409, 9801, 10193, 10585, 10977, 11369, 11761, 12153, 12545, 12937, 13329, 13721, 14113, 14505, 14897
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A158316] 398, 1596, 3594, 6392, 9990, 14388, 19586, 25584, 32382, 39980, 48378, 57576, 67574, 78372, 89970, 102368, 115566, 129564, 144362, 159960, 176358, 193556, 211554, 230352, 249950, 270348, 291546, 313544, 336342, 359940, 384338, 409536
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158317] 399, 799, 1199, 1599, 1999, 2399, 2799, 3199, 3599, 3999, 4399, 4799, 5199, 5599, 5999, 6399, 6799, 7199, 7599, 7999, 8399, 8799, 9199, 9599, 9999, 10399, 10799, 11199, 11599, 11999, 12399, 12799, 13199, 13599, 13999, 14399, 14799, 15199
a(n) = 2*a(n-1)-a(n-2).
[A159890] 401, 439, 485, 1921, 2195, 2509, 11125, 12731, 14569, 64829, 74191, 84905, 377849, 432415, 494861, 2202265, 2520299, 2884261, 12835741, 14689379, 16810705, 74812181, 85615975, 97979969, 436037345, 499006471, 571069109, 2541411889
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=401, a(2)=439, a(3)=485, a(4)=1921, a(5)=2195, a(6)=2509.
[A158313] 401, 801, 1201, 1601, 2001, 2401, 2801, 3201, 3601, 4001, 4401, 4801, 5201, 5601, 6001, 6401, 6801, 7201, 7601, 8001, 8401, 8801, 9201, 9601, 10001, 10401, 10801, 11201, 11601, 12001, 12401, 12801, 13201, 13601, 14001, 14401, 14801, 15201
a(n) = 2*a(n-1)-a(n-2).
[A158312] 402, 1604, 3606, 6408, 10010, 14412, 19614, 25616, 32418, 40020, 48422, 57624, 67626, 78428, 90030, 102432, 115634, 129636, 144438, 160040, 176442, 193644, 211646, 230448, 250050, 270452, 291654, 313656, 336458, 360060, 384462, 409664
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A165808] 403, 4579, 16945, 41917, 83911, 147343, 236629, 356185, 510427, 703771, 940633, 1225429, 1562575, 1956487, 2411581, 2932273, 3522979, 4188115, 4932097, 5759341, 6674263, 7681279, 8784805, 9989257, 11299051, 12718603, 14252329, 15904645
a(n) = 1-13*n-321*n^2+736*n^3.
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A157263] 408, 2136, 3864, 5592, 7320, 9048, 10776, 12504, 14232, 15960, 17688, 19416, 21144, 22872, 24600, 26328, 28056, 29784, 31512, 33240, 34968, 36696, 38424, 40152, 41880, 43608, 45336, 47064, 48792, 50520, 52248, 53976, 55704, 57432, 59160
a(n) = 2*a(n-1) -a(n-2). - Vincenzo Librandi, Jan 27 2012
[A052376] 409, 1039, 2017, 2719, 3571, 4219, 4231, 4261, 4327, 6079, 6121, 6679, 6781, 8209, 11047, 11149, 11959, 12241, 15277, 19531, 19687, 21577, 21589, 26881, 27529, 28087, 28297, 29389, 30829, 30859, 31069, 32401, 42061, 45307, 47797, 48109
a(n)=p, a prime which begins a [p, p+d, p+D, p+D+d]=[p, p+10, p+12, p+22] prime quadruple.
[A157431] 410, 495, 588, 689, 798, 915, 1040, 1173, 1314, 1463, 1620, 1785, 1958, 2139, 2328, 2525, 2730, 2943, 3164, 3393, 3630, 3875, 4128, 4389, 4658, 4935, 5220, 5513, 5814, 6123, 6440, 6765, 7098, 7439, 7788, 8145, 8510, 8883, 9264, 9653, 10050, 10455
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A070237] 1, 420, 660, 780, 840, 1320, 1560, 4620, 5460, 7140, 7980, 8580, 9240, 9660, 10920, 11220, 12012, 12180, 12540, 13020, 13260, 14280, 14820, 15180, 15540, 15708, 15960, 17160, 17220, 17556, 17940, 18060, 18564, 19140, 19320, 19380, 19740
a(n) = C*n + O(n), with C a constant conjectured to be a(2) = 420.
[A145678] 420, 1743, 3948, 7035, 11004, 15855, 21588, 28203, 35700, 44079, 53340, 63483, 74508, 86415, 99204, 112875, 127428, 142863, 159180, 176379, 194460, 213423, 233268, 253995, 275604, 298095, 321468, 345723, 370860, 396879, 423780, 451563
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 12 2012
[A159589] 421, 449, 481, 2045, 2245, 2465, 11849, 13021, 14309, 69049, 75881, 83389, 402445, 442265, 486025, 2345621, 2577709, 2832761, 13671281, 15023989, 16510541, 79682065, 87566225, 96230485, 464421109, 510373361, 560872369, 2706844589
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=421, a(2)=449, a(3)=481, a(4)=2045, a(5)=2245, a(6)=2465.
[A096024] 423, 1263, 2103, 2943, 3783, 4623, 5463, 6303, 7143, 7983, 8823, 9663, 10503, 11343, 12183, 13023, 13863, 14703, 15543, 16383, 17223, 18063, 18903, 19743, 20583, 21423, 22263, 23103, 23943, 24783, 25623, 26463, 27303, 28143, 28983, 29823
a(n) = 2*a(n-1)-a(n-2). G.f.: 3*x*(139*x+141) / (x-1)^2. - Colin Barker, Apr 11 2013
a(n) = 840*n-417. [Bruno Berselli, Apr 11 2013]
[A160098] 425, 601, 1261, 1289, 3005, 7141, 7309, 17429, 41585, 42565, 101569, 242369, 248081, 591985, 1412629, 1445921, 3450341, 8233405, 8427445, 20110061, 47987801, 49118749, 117210025, 279693401, 286285049, 683150089, 1630172605
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=425, a(2)=601, a(3)=1261, a(4)=1289, a(5)=3005, a(6)=7141.
[A064061] 429, 1430, 3432, 7072, 13260, 23256, 38760, 62016, 95931, 144210, 211508, 303600, 427570, 592020, 807300, 1085760, 1442025, 1893294, 2459664, 3164480, 4034712, 5101360, 6399888, 7970688, 9859575, 12118314, 14805180, 17985552, 21732542, 26127660, 31261516
a(n) = C(n,7)-C(n,5), n>=13 - Zerinvary Lajos, Nov 25 2006
[A157737] 439, 1760, 3963, 7048, 11015, 15864, 21595, 28208, 35703, 44080, 53339, 63480, 74503, 86408, 99195, 112864, 127415, 142848, 159163, 176360, 194439, 213400, 233243, 253968, 275575, 298064, 321435, 345688, 370823, 396840, 423739, 451520

a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158319] 440, 881, 1322, 1763, 2204, 2645, 3086, 3527, 3968, 4409, 4850, 5291, 5732, 6173, 6614, 7055, 7496, 7937, 8378, 8819, 9260, 9701, 10142, 10583, 11024, 11465, 11906, 12347, 12788, 13229, 13670, 14111, 14552, 14993, 15434, 15875, 16316, 16757
a(n) = 2*a(n-1)-a(n-2).
[A075268] 442, 629, 1326, 2259, 5508, 6585, 11628, 15129, 24912, 26259, 52038, 77337, 155394, 221931, 442374, 639009, 1179738, 1917027, 3539130, 5062869, 10666542, 18285939, 45369156, 54513657, 96444396, 125792217, 207562704, 220034931
a(0), ..., a(28) as above; a(29) = 703932681; a(30) =1310348526; a(31) = 2309980455; a(32) = 6143702712; a(33) = 7131271077; a(34) = 12699398352; a(35) = 13441412493; for n > 35 and
[A158322] 442, 883, 1324, 1765, 2206, 2647, 3088, 3529, 3970, 4411, 4852, 5293, 5734, 6175, 6616, 7057, 7498, 7939, 8380, 8821, 9262, 9703, 10144, 10585, 11026, 11467, 11908, 12349, 12790, 13231, 13672, 14113, 14554, 14995, 15436, 15877, 16318, 16759
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 24 2012
[A158321] 443, 1768, 3975, 7064, 11035, 15888, 21623, 28240, 35739, 44120, 53383, 63528, 74555, 86464, 99255, 112928, 127483, 142920, 159239, 176440, 194523, 213488, 233335, 254064, 275675, 298168, 321543, 345800, 370939, 396960, 423863, 451648
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 24 2012
[A160583] 445, 521, 629, 2041, 2605, 3329, 11801, 15109, 19345, 68765, 88049, 112741, 400789, 513185, 657101, 2335969, 2991061, 3829865, 13615025, 17433181, 22322089, 79354181, 101608025, 130102669, 462510061, 592214969, 758293925, 2695706185, 3451681789, 4419660881
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=445, a(2)=521, a(3)=629, a(4)=2041, a(5)=2605, a(6)=3329.
[A259058] 454, 530, 614, 706, 806, 914, 1030, 1154, 1286, 1426, 1574, 1730, 1894, 2066, 2246, 2434, 2630, 2834, 3046, 3266, 3494, 3730, 3974, 4226, 4486, 4754, 5030, 5314, 5606, 5906, 6214, 6530, 6854, 7186, 7526, 7874, 8230, 8594, 8966, 9346, 9734
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Aug 13 2015
[A224456] 459, 1008, 1845, 3024, 4599, 6624, 9153, 12240, 15939, 20304, 25389, 31248, 37935, 45504, 54009, 63504, 74043, 85680, 98469, 112464, 127719, 144288, 162225, 181584, 202419, 224784, 248733, 274320, 301599, 330624, 361449, 394128, 428715, 465264, 503829, 544464, 587223, 632160
a(n)=9n(n^2+4n-4).
[A104397] 462, 582, 666, 722, 747, 757, 777, 787, 791, 831, 887, 922, 942, 951, 952, 956, 967, 1007, 1042, 1051, 1062, 1072, 1076, 1091, 1107, 1126, 1142, 1146, 1156, 1160, 1162, 1171, 1172, 1176, 1182, 1202, 1212, 1216, 1227, 1237, 1247, 1251, 1253, 1262, 1267
a(n) = Ptop(e) + Ptop(f) + Ptop(g) + Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive e=/=f=/=g=/=h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A158627] 462, 1914, 4334, 7722, 12078, 17402, 23694, 30954, 39182, 48378, 58542, 69674, 81774, 94842, 108878, 123882, 139854, 156794, 174702, 193578, 213422, 234234, 256014, 278762, 302478, 327162, 352814, 379434, 407022, 435578, 465102, 495594
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 17 2012
[A194718] 0, 1, 462, 7941, 48838, 185193, 530526, 1265677, 2654646, 5060433, 8960878, 14964501, 23826342, 36463801, 53972478, 77642013, 108971926, 149687457, 201755406, 267399973, 349118598, 449697801, 572229022, 720124461, 897132918, 1107355633, 1355262126, 1645706037
a(0) = 0, a(n) = 1+(10+(44+(110+(165+132*(n-1))*(n-1))*(n-1))*(n-1)) * (n-1) for n>0.
[A104744] 470, 1000, 1678, 2445, 3265, 4120, 5000, 5897, 6808, 7729, 8659, 9595, 10537, 11483, 12434, 13388, 14345, 15305, 16267, 17231, 18197, 19165, 20134, 21105, 22077, 23050, 24025, 25000, 25976, 26953, 27931
a(n)=round(1000*x), x = 5^(n-x).
[A157434] 473, 564, 663, 770, 885, 1008, 1139, 1278, 1425, 1580, 1743, 1914, 2093, 2280, 2475, 2678, 2889, 3108, 3335, 3570, 3813, 4064, 4323, 4590, 4865, 5148, 5439, 5738, 6045, 6360, 6683, 7014, 7353, 7700, 8055, 8418, 8789, 9168, 9555, 9950, 10353, 10764
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158329] 482, 1932, 4350, 7736, 12090, 17412, 23702, 30960, 39186, 48380, 58542, 69672, 81770, 94836, 108870, 123872, 139842, 156780, 174686, 193560, 213402, 234212, 255990, 278736, 302450, 327132, 352782, 379400, 406986, 435540, 465062, 495552
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A281047] 483, 525, 635, 2015, 2043, 3335, 3575, 4275, 10317, 14955, 17855, 22547, 49433, 51695, 52773, 79877, 125807, 132725, 176417, 242073, 314177, 451937, 463517, 590663, 598793, 707817, 795143, 798335, 963815, 994565, 1095465
a(n) » n log^8 n. - Charles R Greathouse IV, Jan 13 2017
[A158330] 483, 967, 1451, 1935, 2419, 2903, 3387, 3871, 4355, 4839, 5323, 5807, 6291, 6775, 7259, 7743, 8227, 8711, 9195, 9679, 10163, 10647, 11131, 11615, 12099, 12583, 13067, 13551, 14035, 14519, 15003, 15487, 15971, 16455, 16939, 17423, 17907
a(n) = 2*a(n-1)-a(n-2).
[A160090] 485, 569, 689, 2221, 2845, 3649, 12841, 16501, 21205, 74825, 96161, 123581, 436109, 560465, 720281, 2541829, 3266629, 4198105, 14814865, 19039309, 24468349, 86347361, 110969225, 142611989, 503269301, 646776041, 831203585, 2933268445
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=485, a(2)=569, a(3)=689, a(4)=2221, a(5)=2845, a(6)=3649.
[A158326] 485, 969, 1453, 1937, 2421, 2905, 3389, 3873, 4357, 4841, 5325, 5809, 6293, 6777, 7261, 7745, 8229, 8713, 9197, 9681, 10165, 10649, 11133, 11617, 12101, 12585, 13069, 13553, 14037, 14521, 15005, 15489, 15973, 16457, 16941, 17425, 17909
a(n) = 2*a(n-1)-a(n-2).
[A156774] 485, 3482, 19601, 48842, 91205, 146690, 215297, 297026, 391877, 499850, 620945, 755162, 902501, 1062962, 1236545, 1423250, 1623077, 1836026, 2062097, 2301290, 2553605, 2819042, 3097601, 3389282, 3694085, 4012010, 4343057, 4687226
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158325] 486, 1940, 4362, 7752, 12110, 17436, 23730, 30992, 39222, 48420, 58586, 69720, 81822, 94892, 108930, 123936, 139910, 156852, 174762, 193640, 213486, 234300, 256082, 278832, 302550, 327236, 352890, 379512, 407102, 435660, 465186, 495680
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A179428] 0, 0, 0, 0, 0, 486, 346381, 36285336, 956078397, 12428297150, 104000525596, 643409498286, 3191250652226, 13361641961066, 48905750870775, 160414160371552, 480243686391743, 1330654487994234, 3449609146025210, 8439769551278350, 19624142987739108, 43616849672119790, 93112709811981557, 191696927842663704, 381920049400830625, 738532765420347014, 1389708580432837752, 2550402748009811870, 4573836436177381798, 8029626473495462850
a(n) = 1/40320*n^2 * (n^14 -252*n^12 +27874*n^10 -1759800*n^8 +68745649*n^6 -1669136028*n^4 +23447322156*n^2 -147931524720), n>=9.
[A180457] 491, 617, 757, 1489, 1787, 2141, 2143, 2269, 3529, 3571, 4723, 5563, 6337, 6451, 6659, 6961, 6991, 7741, 7873, 7907, 8821, 10141, 10267, 10657, 12911, 13399, 14629, 15299, 16189, 16451, 16487, 17027, 18223, 18701, 19801, 19843, 19853, 19937
a(n)=[p(n-4)+p(n-3)+p(n-2)+p(n-1)+p(n)+p(n+1)+p(n+2)+p(n+3)+p(n+4)]/9.
[A271664] 491, 668, 844, 1183, 1474, 1961, 2293, 2936, 4190, 4686, 6244, 7363, 7999, 9266, 11456, 13835, 14766, 17449, 19348, 20419, 23578, 25781, 29375, 34549, 37228, 38644, 41471, 43018, 46001, 57454, 60913, 66371, 68263, 77960, 80016, 86254, 92689, 97076, 103946, 111005, 113496
a(n) = (13*p^2 + 145*p + 1338 + 80*gcd(p-1,3) + 45*gcd(p-1,4) + 8*gcd(p-1, 5) + 8*gcd(p-1,6))/4 for n>2 and where p = prime(n). See [Rodney James].
[A157447] 496, 1008, 1520, 2032, 2544, 3056, 3568, 4080, 4592, 5104, 5616, 6128, 6640, 7152, 7664, 8176, 8688, 9200, 9712, 10224, 10736, 11248, 11760, 12272, 12784, 13296, 13808, 14320, 14832, 15344, 15856, 16368, 16880, 17392, 17904, 18416, 18928
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 26 2012
[A216114] 500, 3400, 9900, 21200, 38500, 63000, 95900, 138400, 191700, 257000, 335500, 428400, 536900, 662200, 805500, 968000, 1150900, 1355400, 1582700, 1834000, 2110500, 2413400, 2743900, 3103200, 3492500, 3913000, 4365900, 4852400, 5373700, 5931000
a(n) = 100*n*(2n^2 + 6n - 3).
[A121577] 0, 502, 1004, 1506, 2008, 2510, 3013, 3515, 4017, 4519, 5021, 5523, 10025, 10527, 11029, 11531, 12034, 12536, 13038, 13540, 14042, 14544, 15046, 15548, 20050, 20552, 21055, 21557, 22059, 22601, 23103, 23605, 24107, 24609, 25111, 25613
a(n)=round(43200*n/143) expressed in doubly-spaced sexagesimal scale. In other words, the required times occur at 143 successive positions after every (12/143)hr, i.e., 5min2s and 14/143s from noon or midnight.
[A226265] 504, 1176, 2520, 5208, 10584, 21336, 42840, 85848, 171864, 343896, 687960, 1376088, 2752344, 5504856, 11009880, 22019928, 44040024, 88080216, 176160600, 352321368, 704642904, 1409285976, 2818572120, 5637144408, 11274288984, 22548578136, 45097156440
a(n) = 168*(2^(1+n) - 1) for n>0.
a(n) = 3*a(n-1) - 2*a(n-2) for n>2.

[A158633] 506, 2093, 4738, 8441, 13202, 19021, 25898, 33833, 42826, 52877, 63986, 76153, 89378, 103661, 119002, 135401, 152858, 171373, 190946, 211577, 233266, 256013, 279818, 304681, 330602, 357581, 385618, 414713, 444866, 476077, 508346, 541673
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158011] 511, 1023, 1535, 2047, 2559, 3071, 3583, 4095, 4607, 5119, 5631, 6143, 6655, 7167, 7679, 8191, 8703, 9215, 9727, 10239, 10751, 11263, 11775, 12287, 12799, 13311, 13823, 14335, 14847, 15359, 15871, 16383, 16895, 17407, 17919, 18431, 18943
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 10 2012
[A046311] 512, 768, 1024, 1152, 1280, 1536, 1728, 1792, 1920, 2048, 2304, 2560, 2592, 2688, 2816, 2880, 3072, 3200, 3328, 3456, 3584, 3840, 3888, 4032, 4096, 4224, 4320, 4352, 4480, 4608, 4800, 4864, 4992, 5120, 5184, 5376, 5632, 5760, 5832, 5888, 6048, 6144
a(n) = n + O(n (log log n)^7/log n). - Charles R Greathouse IV, Apr 07 2017
[A076338] 1, 513, 1025, 1537, 2049, 2561, 3073, 3585, 4097, 4609, 5121, 5633, 6145, 6657, 7169, 7681, 8193, 8705, 9217, 9729, 10241, 10753, 11265, 11777, 12289, 12801, 13313, 13825, 14337, 14849, 15361, 15873, 16385, 16897, 17409, 17921, 18433
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 23 2012
[A253637] 1, 514, 20710, 303050, 2538515, 14851676, 67518444, 254402940, 828707925, 2403012910, 6335265586, 15427298614, 35123831015, 75481410200, 154282348760, 301802764056, 567911055849, 1032378638010, 1819533917950, 3118689197890, 5212124524411, 8512829068724, 13614686274500, 21358351020500, 32916713032125, 49904578722726
a(n) = n*(n+1)*(n+2)*(n^2+n-1)*(n^2+3n+1)*(6*n^4+24*n^3+5*n^2-38*n+25)/660.
a(n) = 2*a(n-1)-a(n-2)+n^9.
[A094903] 520, 2397, 3500, 3518, 3826, 4439, 4662, 6620, 7518, 8926, 9206, 10220, 10780, 10938, 12498, 12640, 12740, 14049, 14358, 18623, 20118, 20262, 22569, 24419, 25300, 25706, 26920, 27498, 28482, 29500, 30398, 30438, 31600, 31820, 31986
a(n) = if Sf(Prime[n])=0 then (Prime[n-3]+Prime[n-2]+Prime[n-1]+Prime[n])/2
[A124587] 523, 887, 1069, 1129, 1259, 1327, 1381, 1637, 1669, 1759, 1831, 1913, 1933, 1951, 2113, 2161, 2179, 2221, 2251, 2311, 2477, 2503, 2557, 2593, 2803, 2861, 2971, 3089, 3121, 3137, 3229, 3271, 3373, 3391, 3413, 3433, 3469, 3643, 3739, 3803, 3889, 3947, 3967
a(n) = n log n + O(n log^2 n). - Charles R Greathouse IV, May 05 2017
[A158364] 527, 2112, 4755, 8456, 13215, 19032, 25907, 33840, 42831, 52880, 63987, 76152, 89375, 103656, 118995, 135392, 152847, 171360, 190931, 211560, 233247, 255992, 279795, 304656, 330575, 357552, 385587, 414680, 444831, 476040, 508307, 541632
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157475] 528, 1040, 1552, 2064, 2576, 3088, 3600, 4112, 4624, 5136, 5648, 6160, 6672, 7184, 7696, 8208, 8720, 9232, 9744, 10256, 10768, 11280, 11792, 12304, 12816, 13328, 13840, 14352, 14864, 15376, 15888, 16400, 16912, 17424, 17936, 18448, 18960
a(1)=528, a(2)=1040, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Dec 07 2011
[A158365] 528, 1057, 1586, 2115, 2644, 3173, 3702, 4231, 4760, 5289, 5818, 6347, 6876, 7405, 7934, 8463, 8992, 9521, 10050, 10579, 11108, 11637, 12166, 12695, 13224, 13753, 14282, 14811, 15340, 15869, 16398, 16927, 17456, 17985, 18514, 19043, 19572
a(n) = 2*a(n-1)-a(n-2).
[A158368] 530, 1059, 1588, 2117, 2646, 3175, 3704, 4233, 4762, 5291, 5820, 6349, 6878, 7407, 7936, 8465, 8994, 9523, 10052, 10581, 11110, 11639, 12168, 12697, 13226, 13755, 14284, 14813, 15342, 15871, 16400, 16929, 17458, 17987, 18516, 19045, 19574
a(n) = 2*a(n-1)-a(n-2).
[A156772] 531, 1260, 1989, 2718, 3447, 4176, 4905, 5634, 6363, 7092, 7821, 8550, 9279, 10008, 10737, 11466, 12195, 12924, 13653, 14382, 15111, 15840, 16569, 17298, 18027, 18756, 19485, 20214, 20943, 21672, 22401, 23130, 23859, 24588, 25317, 26046
a(n) = 2*a(n-1) -a(n-2).
[A158367] 531, 2120, 4767, 8472, 13235, 19056, 25935, 33872, 42867, 52920, 64031, 76200, 89427, 103712, 119055, 135456, 152915, 171432, 191007, 211640, 233331, 256080, 279887, 304752, 330675, 357656, 385695, 414792, 444947, 476160, 508431, 541760
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A160176] 533, 617, 733, 2465, 3085, 3865, 14257, 17893, 22457, 83077, 104273, 130877, 484205, 607745, 762805, 2822153, 3542197, 4445953, 16448713, 20645437, 25912913, 95870125, 120330425, 151031525, 558772037, 701337113, 880276237
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=533, a(2)=617, a(3)=733, a(4)=2465, a(5)=3085, a(6)=3865.
[A165989] 534, 659, 1727, 1852, 2920, 3045, 4113, 4238, 5306, 5431, 6499, 6624, 7692, 7817, 8885, 9010, 10078, 10203, 11271, 11396, 12464, 12589, 13657, 13782, 14850, 14975, 16043, 16168, 17236, 17361, 18429, 18554, 19622, 19747, 20815, 20940, 22008, 22133, 23201
a(1) = 534, a(2) = 659, a(3) = 1727, a(n) = a(n-1) +a(n-2) -a(n-3). - Harvey P. Dale, Oct 22 2012
a(n) = (-1193 -943*(-1)^n +2386*n)/4.
[A077076] 537, 1146, 1899, 3618, 4713, 9522, 14427, 28386, 37533, 84966, 138123, 353004, 466209, 738024, 833301, 1525224, 1718853, 3048912, 3239469, 6196176, 6583437, 12389280, 12770397, 24975264, 25749789, 49944384, 50706621, 100282176
a(0), ..., a(11) as above; for n > 11 and
[A111258] 0, 539, 560, 1803, 4740, 4859, 12020, 29103, 29796, 71519, 171080, 175119, 418296, 998579, 1022120, 2439459, 5821596, 5958803, 14219660, 33932199, 34731900, 82879703, 197772800, 202433799, 483059760, 1152705803, 1179872096
a(n) = 6*a(n-3)-a(n-6)+1202 for n > 6; a(1)=0, a(2)=539, a(3)=560, a(4)=1803, a(5)=4740, a(6)=4859.
[A118630] 0, 539, 924, 1220, 1715, 2744, 3503, 4095, 5096, 7203, 9996, 12075, 13703, 16464, 22295, 26640, 30044, 35819, 48020, 64239, 76328, 85800, 101871, 135828, 161139, 180971, 214620, 285719, 380240, 450695, 505899, 599564, 797475, 944996, 1060584
a(n)=6*a(n-9)-a(n-18)+4802 for n > 18; a(1)=0, a(2)=539, a(3)=924, a(4)=1220, a(5)=1715, a(6)=2744, a(7)=3503, a(8)=4095, a(9)=5096, a(10)=7203, a(11)=9996, a(12)=12075, a(13)=13703, a(14)=16464,a (15)=22295, a(16)=26640, a(17)=30044, a(18)=35819.
[A069474] 540, 2100, 5460, 11340, 20460, 33540, 51300, 74460, 103740, 139860, 183540, 235500, 296460, 367140, 448260, 540540, 644700, 761460, 891540, 1035660, 1194540, 1368900, 1559460, 1766940, 1992060, 2235540, 2498100, 2780460, 3083340
a(n) = 120*n^3 + 540*n^2 + 900*n + 540.
[A160200] 541, 761, 1465, 1781, 3805, 8249, 10145, 22069, 48029, 59089, 128609, 279925, 344389, 749585, 1631521, 2007245, 4368901, 9509201, 11699081, 25463821, 55423685, 68187241, 148414025, 323032909, 397424365, 865020329, 1882773769
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=541, a(2)=761, a(3)=1465, a(4)=1781, a(5)=3805, a(6)=8249.
[A226800] 541, 2612, 7803, 18424, 37625, 69516, 119287, 193328, 299349, 446500, 645491, 908712, 1250353, 1686524, 2235375, 2917216, 3754637, 4772628, 5998699, 7463000, 9198441, 11240812, 13628903, 16404624, 19613125, 23302916, 27525987, 32337928, 37798049, 43969500
a(n) = (n + 1)*(n^4 + 24*n^3 + 186*n^2 + 554*n + 541).
a(n) = 6*a(n-1) -15*a(n-2) +20*a(n-3) -15*a(n-4) +6*a(n-5) -a(n-6).
[A159626] 545, 577, 613, 2657, 2885, 3133, 15397, 16733, 18185, 89725, 97513, 105977, 522953, 568345, 617677, 3047993, 3312557, 3600085, 17765005, 19306997, 20982833, 103542037, 112529425, 122296913, 603487217, 655869553, 712798645, 3517381265
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=545, a(2)=577, a(3)=613, a(4)=2657, a(5)=2885, a(6)=3133.
[A103537] 548, 1000, 1582, 2258, 3000, 3788, 4609, 5456, 6322, 7203, 8096, 9000, 9912, 10831, 11757, 12687, 13623, 14562, 15505, 16451, 17400, 18351, 19305, 20261, 21219, 22179, 23140, 24103, 25068, 26033, 27000
a(n)=round(1000*x), x = 3^(n-x).
[A158636] 552, 2280, 5160, 9192, 14376, 20712, 28200, 36840, 46632, 57576, 69672, 82920, 97320, 112872, 129576, 147432, 166440, 186600, 207912, 230376, 253992, 278760, 304680, 331752, 359976, 389352, 419880, 451560, 484392, 518376, 553512, 589800
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A083733] 561, 1105, 2465, 3277, 8321, 10585, 18721, 29341, 46657, 62745, 75361, 104653, 115921, 162401, 219781, 226801, 252601, 278545, 294409, 314821, 334153, 340561, 399001, 410041, 449065, 488881, 512461, 530881, 534061, 552721, 574561, 587861
a(n) = n-th positive integer k(>1) such that 2^(k-1) = 1 (mod k) and 7^(k-1) = 1 (mod k)
[A083732] 561, 1729, 2821, 5461, 6601, 8911, 12801, 13981, 15841, 29341, 41041, 46657, 52633, 63973, 68101, 75361, 101101, 113201, 115921, 126217, 137149, 162401, 172081, 188461, 252601, 294409, 314821, 334153, 340561, 399001, 401401, 410041, 488881
a(n) = n-th positive integer k(>1) such that 2^(k-1) = 1 (mod k) and 5^(k-1) = 1 (mod k)

[A213071] 561, 13833, 62745, 170625, 360801, 656601, 1081353, 1658385, 2411025, 3362601, 4536441, 5955873, 7644225, 9624825, 11921001, 14556081, 17553393, 20936265, 24728025, 28952001, 33631521, 38789913, 44450505, 50636625, 57371601, 64678761, 72581433, 81102945, 90266625
a(n) = 3888n^3 - 5508n^2 + 2580n - 399. - Charles R Greathouse IV, Oct 01 2012
[A083736] 561, 29341, 46657, 75361, 115921, 162401, 252601, 294409, 314821, 334153, 340561, 399001, 410041, 488881, 512461, 530881, 552721, 656601, 658801, 710533, 721801, 852841, 1024651, 1141141, 1152271, 1168513, 1193221, 1461241, 1569457, 1615681
a(n) = n-th positive integer k(>1) such that 2^(k-1) = 1 (mod k), 5^(k-1) = 1 (mod k) and 7^(k-1) = 1 (mod k).
[A097061] 561, 63973, 75361, 162401, 278545, 656601, 825265, 838201, 852841, 1050985, 1857241, 1909001, 3224065, 3828001, 4903921, 5444489, 5481451, 5632705, 5968873, 6049681, 6189121, 7995169, 8355841, 8830801, 8927101, 9494101
a(n) = if(sum of digits(n-1))/number of digits<>int(sum of digits(n-1)/number of digits, n, 0)
[A158371] 574, 2300, 5178, 9208, 14390, 20724, 28210, 36848, 46638, 57580, 69674, 82920, 97318, 112868, 129570, 147424, 166430, 186588, 207898, 230360, 253974, 278740, 304658, 331728, 359950, 389324, 419850, 451528, 484358, 518340, 553474, 589760
a(1)=574, a(2)=2300, a(3)=5178, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). (End)
[A158372] 575, 1151, 1727, 2303, 2879, 3455, 4031, 4607, 5183, 5759, 6335, 6911, 7487, 8063, 8639, 9215, 9791, 10367, 10943, 11519, 12095, 12671, 13247, 13823, 14399, 14975, 15551, 16127, 16703, 17279, 17855, 18431, 19007, 19583, 20159, 20735, 21311
a(n) = 2*a(n-1)-a(n-2).
[A281242] 0, 576, 1920, 3264, 5376, 12096, 19584, 31680, 70656, 114240, 184704, 411840, 665856, 1076544, 2400384, 3880896, 6274560, 13990464, 22619520, 36570816, 81542400, 131836224, 213150336, 475263936, 768397824, 1242331200, 2770041216, 4478550720, 7240836864
a(n) = 6*a(n-3) - a(n-6) for n>6.
[A158370] 577, 1153, 1729, 2305, 2881, 3457, 4033, 4609, 5185, 5761, 6337, 6913, 7489, 8065, 8641, 9217, 9793, 10369, 10945, 11521, 12097, 12673, 13249, 13825, 14401, 14977, 15553, 16129, 16705, 17281, 17857, 18433, 19009, 19585, 20161, 20737, 21313
a(n) = 2*a(n-1)-a(n-2).
[A154514] 577, 2449, 5617, 10081, 15841, 22897, 31249, 40897, 51841, 64081, 77617, 92449, 108577, 126001, 144721, 164737, 186049, 208657, 232561, 257761, 284257, 312049, 341137, 371521, 403201, 436177, 470449, 506017, 542881, 581041, 620497, 661249
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 30 2012
[A157264] 577, 15841, 51841, 108577, 186049, 284257, 403201, 542881, 703297, 884449, 1086337, 1308961, 1552321, 1816417, 2101249, 2406817, 2733121, 3080161, 3447937, 3836449, 4245697, 4675681, 5126401, 5597857, 6090049, 6602977
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 27 2012
[A158369] 578, 2308, 5190, 9224, 14410, 20748, 28238, 36880, 46674, 57620, 69718, 82968, 97370, 112924, 129630, 147488, 166498, 186660, 207974, 230440, 254058, 278828, 304750, 331824, 360050, 389428, 419958, 451640, 484474, 518460, 553598, 589888
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A127694] 580, 1175, 2070, 3325, 5000, 7155, 9850, 13145, 17100, 21775, 27230, 33525, 40720, 48875, 58050, 68305, 79700, 92295, 106150, 121325, 137880, 155875, 175370, 196425, 219100, 243455, 269550, 297445, 327200, 358875, 392530, 428225, 466020
a(n) = 5*(n+3)*(2*n^2+12*n+15). G.f.: 5*x*(116-229*x+170*x^2-45*x^3)/(1-x)^4. [Colin Barker, Mar 28 2012]
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jun 28 2012
[A122694] 0, 583, 820, 2283, 5440, 6783, 15220, 33579, 41400, 90559, 197556, 243139, 529656, 1153279, 1418956, 3088899, 6723640, 8272119, 18005260, 39190083, 48215280, 104944183, 228418380, 281021083, 611661360, 1331321719, 1637912740
a(n) = 6*a(n-3)-a(n-6)+1522 for n > 6; a(1)=0, a(2)=583, a(3)=820, a(4)=2283, a(5)=5440, a(6)=6783.
[A230716] 588, 1029, 1323, 2888, 4704, 8232, 8281, 9747, 10584, 15876, 23104, 27783, 33124, 35113, 35721, 37632, 47089, 65856, 66248, 73500, 74529, 77976, 84672, 103544, 114075, 127008, 127896, 128625, 165375, 184832, 201684, 222264, 223587, 263169, 264992, 280904
a(n)^2 = a^3 + b^3 = c^3 - d^3 for some natural numbers a, b, c, d.
[A178973] 0, 0, 0, 0, 0, 0, 588, 3328, 9720, 27600, 59048, 124992, 226460, 408464, 666900, 1086464, 1650768, 2505168, 3610000, 5198400, 7191828, 9945232, 13320220, 17835264, 23265000, 30341584, 38718648, 49401408, 61880780, 77504400, 95550308, 117788672, 143225280, 174144464, 209210400, 251325504, 298732228, 355068048, 418062060, 492217600
a(n) = 1/3*n^2*(n^4/2 -6*n^3 +61*n^2/4 +42*n -285/2 +(3*n^2/4 -6*n +21/2)*(-1)^n), n>=7.
[A156835] 593, 595, 623, 637, 697, 707, 733, 833, 965, 1015, 1037, 1225, 1295, 1547, 1585, 1973, 2023, 2443, 2597, 3145, 3227, 3433, 4165, 5057, 5383, 5525, 6713, 7147, 8687, 8917, 11245, 11543, 14035, 14945, 18173, 18655, 19865, 24157, 29377, 31283, 32113
a(n) = 6*a(n-15)-a(n-30) for n > 30; a(1) = 593, a(2) = 595, a(3) = 623, a(4) = 637, a(5) = 697, a(6) = 707, a(7) = 733, a(8) = 833, a(9) = 965, a(10) = 1015, a(11) = 1037, a(12) = 1225, a(13) = 1295, a(14) = 1547, a(15) = 1585, a(16) = 1973, a(17) = 2023, a(18) = 2443, a(19) = 2597, a(20) = 3145, a(21) = 3227, a(22) = 3433, a(23) = 4165, a(24) = 5057, a(25) = 5383, a(26) = 5525, a(27) = 6713, a(28) = 7147, a(29) = 8687, a(30) = 8917.
[A157918] 600, 2475, 5600, 9975, 15600, 22475, 30600, 39975, 50600, 62475, 75600, 89975, 105600, 122475, 140600, 159975, 180600, 202475, 225600, 249975, 275600, 302475, 330600, 359975, 390600, 422475, 455600, 489975, 525600, 562475, 600600, 639975
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 10 2012
[A092183] 1, 600, 4983, 19468, 53505, 119676, 233695, 414408, 683793, 1066960, 1592151, 2290740, 3197233, 4349268, 5787615, 7556176, 9701985, 12275208, 15329143, 18920220, 23108001, 27955180, 33527583, 39894168, 47127025, 55301376
a(n) = n*((261*n^3)-(504*n^2)+(283*n)-38)/2.
a(n) = C(n+3,4) + 595 C(n+2,4) + 1993 C(n+1,4) + 543 C(n,4).
a(n) = +5*a(n-1) -10*a(n-2) +10*a(n-3) -5*a(n-4) +a(n-5). G.f.: x*(1+595*x+1993*x^2+543*x^3)/(1-x)^5. [R. J. Mathar, Jun 21 2010]
[A159641] 613, 647, 685, 2993, 3235, 3497, 17345, 18763, 20297, 101077, 109343, 118285, 589117, 637295, 689413, 3433625, 3714427, 4018193, 20012633, 21649267, 23419745, 116642173, 126181175, 136500277, 679840405, 735437783, 795581917
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=613, a(2)=647, a(3)=685, a(4)=2993, a(5)=3235, a(6)=3497.
[A158373] 623, 2496, 5619, 9992, 15615, 22488, 30611, 39984, 50607, 62480, 75603, 89976, 105599, 122472, 140595, 159968, 180591, 202464, 225587, 249960, 275583, 302456, 330579, 359952, 390575, 422448, 455571, 489944, 525567, 562440, 600563, 639936
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158374] 624, 1249, 1874, 2499, 3124, 3749, 4374, 4999, 5624, 6249, 6874, 7499, 8124, 8749, 9374, 9999, 10624, 11249, 11874, 12499, 13124, 13749, 14374, 14999, 15624, 16249, 16874, 17499, 18124, 18749, 19374, 19999, 20624, 21249, 21874, 22499, 23124
a(n) = 2*a(n-1)-a(n-2).
[A158383] 626, 1251, 1876, 2501, 3126, 3751, 4376, 5001, 5626, 6251, 6876, 7501, 8126, 8751, 9376, 10001, 10626, 11251, 11876, 12501, 13126, 13751, 14376, 15001, 15626, 16251, 16876, 17501, 18126, 18751, 19376, 20001, 20626, 21251, 21876, 22501, 23126
a(n) = 2*a(n-1)-a(n-2).
[A129974] 0, 627, 1128, 2811, 6188, 9027, 18740, 38375, 54908, 111503, 225936, 322295, 652152, 1319115, 1880736, 3803283, 7690628, 10963995, 22169420, 44826527, 63905108, 129215111, 261270408, 372468527, 753123120, 1522797795, 2170907928
a(n) = 6*a(n-3)-a(n-6)+1874 for n > 6; a(1)=0, a(2)=627, a(3)=1128, a(4)=2811, a(5)=6188, a(6)=9027.
[A158382] 627, 2504, 5631, 10008, 15635, 22512, 30639, 40016, 50643, 62520, 75647, 90024, 105651, 122528, 140655, 160032, 180659, 202536, 225663, 250040, 275667, 302544, 330671, 360048, 390675, 422552, 455679, 490056, 525683, 562560, 600687, 640064
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A264449] 0, 638, 1656, 3162, 5280, 8151, 11934, 16807, 22968, 30636, 40052, 51480, 65208, 81549, 100842, 123453, 149776, 180234, 215280, 255398, 301104, 352947, 411510, 477411, 551304, 633880, 725868, 828036, 941192, 1066185, 1203906, 1355289, 1521312, 1702998, 1901416, 2117682
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6), for n>5. - Vincenzo Librandi, Nov 16 2015
[A178975] 0, 0, 0, 0, 0, 0, 0, 640, 7290, 123640, 640574, 3869280, 12950132, 47022360, 123467040, 340840960, 759697190, 1758672648, 3494388306, 7150739360, 13041285516, 24354594440, 41566378136, 72345297024, 117101090250, 192694385416, 298703838186, 469581881888, 702148696580, 1062719841960, 1541332566284, 2259300468736, 3192255589842, 4552716843720, 6288527141890, 8758324830240, 11859789616944, 16178716174856, 21527161542900, 28834708173440
a(n) = n^2/5*(1/24*n^8 -5/3*n^7 +635/24*n^6 -1145/6*n^5 +4139/16*n^4 +10985/2*n^3 -916385/24*n^2 +273775/3*n -128930/3 +(5/24*n^6 -15/2*n^5 +5315/48*n^4 -1675/2*n^3 +25855/8*n^2 -4935*n -2290/3)*(-1)^n +(45/2*n^2 -390*n +1630)*cos(n*Pi/2) +400/3*cos(n*Pi/3) +(40/3*n^2 -640/3*n+2480/3)*cos(2*n*Pi/3) +16*cos(4*n*Pi/5) +16*cos(8*n*Pi/5)), n>=15.

[A160203] 641, 809, 1105, 2741, 4045, 5989, 15805, 23461, 34829, 92089, 136721, 202985, 536729, 796865, 1183081, 3128285, 4644469, 6895501, 18232981, 27069949, 40189925, 106269601, 157775225, 234244049, 619384625, 919581401, 1365274369
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=641, a(2)=809, a(3)=1105, a(4)=2741, a(5)=4045, a(6)=5989.
[A157432] 648, 712, 776, 840, 904, 968, 1032, 1096, 1160, 1224, 1288, 1352, 1416, 1480, 1544, 1608, 1672, 1736, 1800, 1864, 1928, 1992, 2056, 2120, 2184, 2248, 2312, 2376, 2440, 2504, 2568, 2632, 2696, 2760, 2824, 2888, 2952, 3016, 3080, 3144, 3208, 3272, 3336
a(n) = 2*a(n-1)-a(n-2).
[A157915] 650, 2525, 5650, 10025, 15650, 22525, 30650, 40025, 50650, 62525, 75650, 90025, 105650, 122525, 140650, 160025, 180650, 202525, 225650, 250025, 275650, 302525, 330650, 360025, 390650, 422525, 455650, 490025, 525650, 562525, 600650, 640025
a(n)=3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Feb 10 2012
[A158639] 650, 2678, 6058, 10790, 16874, 24310, 33098, 43238, 54730, 67574, 81770, 97318, 114218, 132470, 152074, 173030, 195338, 218998, 244010, 270374, 298090, 327158, 357578, 389350, 422474, 456950, 492778, 529958, 568490, 608374, 649610, 692198
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A257827] 652, 724, 788, 1012, 1828, 2372, 2596, 2908, 6164, 6908, 7564, 9836, 17996, 23404, 25628, 28724, 60988, 68356, 74852, 97348, 178132, 231668, 253684, 284332, 603716, 676652, 740956, 963644, 1763324, 2293276, 2511212, 2814596, 5976172, 6698164, 7334708
a(n) = 10*a(n-8) -a(n-16).
[A023294] 659, 2549, 5189, 6269, 7229, 7949, 9209, 11579, 16139, 18089, 22739, 25589, 26099, 26339, 29009, 30689, 40289, 51719, 55799, 59669, 60689, 61379, 63599, 69959, 70229, 74609, 85829, 94949, 95819, 102539, 109589, 118169, 121469, 135599, 136889
a(n) == 29 (mod 30). - John Cerkan, Sep 23 2016
[A157363] 672, 1358, 2044, 2730, 3416, 4102, 4788, 5474, 6160, 6846, 7532, 8218, 8904, 9590, 10276, 10962, 11648, 12334, 13020, 13706, 14392, 15078, 15764, 16450, 17136, 17822, 18508, 19194, 19880, 20566, 21252, 21938, 22624, 23310, 23996, 24682
a(n) = 2*a(n-1) -a(n-2).
[A160209] 673, 937, 1685, 2353, 4685, 9437, 13445, 27173, 54937, 78317, 158353, 320185, 456457, 922945, 1866173, 2660425, 5379317, 10876853, 15506093, 31352957, 63394945, 90376133, 182738425, 369492817, 526750705, 1065077593, 2153561957
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=673, a(2)=937, a(3)=1685, a(4)=2353, a(5)=4685, a(6)=9437.
[A158392] 674, 2700, 6078, 10808, 16890, 24324, 33110, 43248, 54738, 67580, 81774, 97320, 114218, 132468, 152070, 173024, 195330, 218988, 243998, 270360, 298074, 327140, 357558, 389328, 422450, 456924, 492750, 529928, 568458, 608340, 649574, 692160
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158393] 675, 1351, 2027, 2703, 3379, 4055, 4731, 5407, 6083, 6759, 7435, 8111, 8787, 9463, 10139, 10815, 11491, 12167, 12843, 13519, 14195, 14871, 15547, 16223, 16899, 17575, 18251, 18927, 19603, 20279, 20955, 21631, 22307, 22983, 23659, 24335
a(n) = 2*a(n-1)-a(n-2).
[A239608] 0, 1, 676, 9801, 59536, 235225, 715716, 1825201, 4096576, 8346321, 15760900, 27994681, 47279376, 76545001, 119552356, 181037025, 266864896, 384199201, 541679076, 749609641, 1020163600, 1367594361, 1808460676, 2361862801, 3049690176, 3896880625, 4931691076
a(n) = n^2*(3-4*n^2)^2. G.f.: -x*(x+1)*(x^4+668*x^3+4422*x^2+668*x+1) / (x-1)^7. - Colin Barker, May 24 2014
[A159893] 677, 727, 785, 3277, 3635, 4033, 18985, 21083, 23413, 110633, 122863, 136445, 644813, 716095, 795257, 3758245, 4173707, 4635097, 21904657, 24326147, 27015325, 127669697, 141783175, 157456853, 744113525, 826372903, 917725793
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=677, a(2)=727, a(3)=785, a(4)=3277, a(5)=3635, a(6)=4033.
[A158386] 677, 1353, 2029, 2705, 3381, 4057, 4733, 5409, 6085, 6761, 7437, 8113, 8789, 9465, 10141, 10817, 11493, 12169, 12845, 13521, 14197, 14873, 15549, 16225, 16901, 17577, 18253, 18929, 19605, 20281, 20957, 21633, 22309, 22985, 23661, 24337
a(n) = 2*a(n-1)-a(n-2).
[A158385] 678, 2708, 6090, 10824, 16910, 24348, 33138, 43280, 54774, 67620, 81818, 97368, 114270, 132524, 152130, 173088, 195398, 219060, 244074, 270440, 298158, 327228, 357650, 389424, 422550, 457028, 492858, 530040, 568574, 608460, 649698, 692288
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A200860] 0, 682, 1364, 2046, 2728, 3410, 4092, 4774, 5456, 6138, 6820, 7502, 8184, 8866, 9548, 10230, 10912, 11594, 12276, 12958, 13640, 14322, 15004, 15686, 16368, 17050, 17732, 18414, 19096, 19778, 20460, 21142, 21824, 22506, 23188, 23870, 24552, 25234, 25916
a(n) = 2*a(n-1) - a(n-2), a(0)=0, a(1)=682.
[A157435] 696, 760, 824, 888, 952, 1016, 1080, 1144, 1208, 1272, 1336, 1400, 1464, 1528, 1592, 1656, 1720, 1784, 1848, 1912, 1976, 2040, 2104, 2168, 2232, 2296, 2360, 2424, 2488, 2552, 2616, 2680, 2744, 2808, 2872, 2936, 3000, 3064, 3128, 3192, 3256, 3320, 3384
a(n) = 2*a(n-1)-a(n-2).
[A160206] 697, 857, 1117, 3065, 4285, 6005, 17693, 24853, 34913, 103093, 144833, 203473, 600865, 844145, 1185925, 3502097, 4920037, 6912077, 20411717, 28676077, 40286537, 118968205, 167136425, 234807145, 693397513, 974142473, 1368556333
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=697, a(2)=857, a(3)=1117, a(4)=3065, a(5)=4285, a(6)=6005.
[A118059] 1, 697, 1969, 3817, 6241, 9241, 12817, 16969, 21697, 27001, 32881, 39337, 46369, 53977, 62161, 70921, 80257, 90169, 100657, 111721, 123361, 135577, 148369, 161737, 175681, 190201, 205297, 220969, 237217, 254041, 271441, 289417, 307969
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(1+694*x-119*x^2)/(1-x)^3. - Colin Barker, Jul 01 2012
a(n)+(a(n)+1)+...+(a(n)+288n+203)=(a(n)+288n+204)+...+a(n+1)-1; a(n+1)-1=a(n)+576n+119.
a(n)+(a(n)+1)+...+(a(n)+288n+203)=6(24n-7)(24n+5)(24n+17); e.g., 1969+1970+...+3036=2672670=6*65*77*89.
[A157366] 700, 1386, 2072, 2758, 3444, 4130, 4816, 5502, 6188, 6874, 7560, 8246, 8932, 9618, 10304, 10990, 11676, 12362, 13048, 13734, 14420, 15106, 15792, 16478, 17164, 17850, 18536, 19222, 19908, 20594, 21280, 21966, 22652, 23338, 24024, 24710
a(n) = 2*a(n-1)-a(n-2).
[A158655] 702, 2889, 6534, 11637, 18198, 26217, 35694, 46629, 59022, 72873, 88182, 104949, 123174, 142857, 163998, 186597, 210654, 236169, 263142, 291573, 321462, 352809, 385614, 419877, 455598, 492777, 531414, 571509, 613062, 656073, 700542, 746469
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A083735] 703, 1105, 2465, 10585, 18721, 19345, 29341, 38503, 46657, 50881, 75361, 76627, 88831, 104653, 115921, 146611, 162401, 188191, 213265, 226801, 252601, 278545, 286903, 294409, 314821, 334153, 340561, 359341, 385003, 385201, 399001, 410041
a(n) = n-th positive integer k(>1) such that 3^(k-1) = 1 (mod k) and 7^(k-1) = 1 (mod k)
[A090392] 0, 720, 1812, 3428, 5768, 9090, 13721, 20069, 28636, 40032, 54990, 74382, 99236, 130754, 170331, 219575, 280328, 354688, 445032, 554040, 684720, 840434, 1024925, 1242345, 1497284, 1794800, 2140450, 2540322, 3001068, 3529938, 4134815
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5) - 7*a(n-6) + a(n-7) for n > 6.
[A053625] 0, 0, 0, 0, 0, 0, 720, 5040, 20160, 60480, 151200, 332640, 665280, 1235520, 2162160, 3603600, 5765760, 8910720, 13366080, 19535040, 27907200, 39070080, 53721360, 72681840, 96909120, 127512000, 165765600, 213127200, 271252800, 342014400
a(n)=numbperm (n,6), n>=0. - Zerinvary Lajos, Apr 26 2007
a(n) = 7*a(n-1) - 21*a(n-2) + 35*a(n-3) - 35*a(n-4) + 21*a(n-5)-7*a(n-6)+a(n-7). Vincenzo Librandi, Apr 28 2012
[A159295] 1, 721, 1842, 4025, 7856, 14124, 23936, 38654, 60090, 90407, 132374, 189223, 264972, 364230, 492596, 656404, 863206, 1121449, 1441050, 1832997, 2310024, 2886128, 3577352, 4401210, 5377586, 6528059, 7876926, 9450419, 11277860
a(1) = 1, a(2) = 721, and if n > 2 then a(n) = (1/144)*(n^6 + 30*n^5 + 463*n^4 + 3132*n^3 + 11506*n^2 + 10716*n - 1152 + (n odd)(9*n^2 + 90*n + 261)).
[A158394] 727, 2912, 6555, 11656, 18215, 26232, 35707, 46640, 59031, 72880, 88187, 104952, 123175, 142856, 163995, 186592, 210647, 236160, 263131, 291560, 321447, 352792, 385595, 419856, 455575, 492752, 531387, 571480, 613031, 656040, 700507, 746432
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A056084] 1, 728, 730, 1457, 1459, 2186, 2188, 2915, 2917, 3644, 3646, 4373, 4375, 5102, 5104, 5831, 5833, 6560, 6562, 7289, 7291, 8018, 8020, 8747, 8749, 9476, 9478, 10205, 10207, 10934, 10936, 11663, 11665, 12392, 12394, 13121, 13123, 13850, 13852
a(2n+1) = 729*n + 1 (n >= 0), a(2n) = 729*n - 1 (n >= 1), a(n) = 729*floor(n/2)-(-1)^n. - M. F. Hasler, Apr 13 2015
a(n) = (1458*n-729+(-1)^n*725)/4. - Conjectured by Philipp Emanuel Weidmann, explained by Robert Israel, Apr 13 2015
a(n) = a(n-1) + a(n-2) - a(n-3) for n>2. - Vincenzo Librandi, Apr 14 2015

[A158395] 728, 1457, 2186, 2915, 3644, 4373, 5102, 5831, 6560, 7289, 8018, 8747, 9476, 10205, 10934, 11663, 12392, 13121, 13850, 14579, 15308, 16037, 16766, 17495, 18224, 18953, 19682, 20411, 21140, 21869, 22598, 23327, 24056, 24785, 25514, 26243
a(n) = 2*a(n-1)-a(n-2).
[A158397] 730, 1459, 2188, 2917, 3646, 4375, 5104, 5833, 6562, 7291, 8020, 8749, 9478, 10207, 10936, 11665, 12394, 13123, 13852, 14581, 15310, 16039, 16768, 17497, 18226, 18955, 19684, 20413, 21142, 21871, 22600, 23329, 24058, 24787, 25516, 26245
a(n) = 2*a(n-1)-a(n-2).
[A158396] 731, 2920, 6567, 11672, 18235, 26256, 35735, 46672, 59067, 72920, 88231, 105000, 123227, 142912, 164055, 186656, 210715, 236232, 263207, 291640, 321531, 352880, 385687, 419952, 455675, 492856, 531495, 571592, 613147, 656160, 700631, 746560
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A180919] 1, 733, 1467, 2203, 2941, 3681, 4423, 5167, 5913, 6661, 7411, 8163, 8917, 9673, 10431, 11191, 11953, 12717, 13483, 14251, 15021, 15793, 16567, 17343, 18121, 18901, 19683, 20467, 21253, 22041, 22831, 23623, 24417, 25213, 26011, 26811
a(0)=1, a(1)=733, a(2)=1467; for n>2, a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Harvey P. Dale, Oct 14 2012
[A067866] 736, 1736, 2736, 3736, 4736, 5736, 6736, 7736, 8736, 9736, 10736, 11736, 12736, 13736, 14736, 15736, 16736, 17736, 18736, 19736, 20736, 21736, 22736, 23736, 24736, 25736, 26736, 27736, 28736, 29736, 30736, 31736, 32736, 33736, 34736
a(n) = 736 + 1000(n-1).
a(n) = 2*a(n-1)-a(n-2). G.f.: 8*x*(92+33*x)/(1-x)^2. [Colin Barker, Dec 01 2012]
[A158657] 756, 3108, 7028, 12516, 19572, 28196, 38388, 50148, 63476, 78372, 94836, 112868, 132468, 153636, 176372, 200676, 226548, 253988, 282996, 313572, 345716, 379428, 414708, 451556, 489972, 529956, 571508, 614628, 659316, 705572, 753396, 802788
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A247486] 766, 838, 842, 857, 858, 859, 861, 1073, 1087, 1091, 1093, 1094, 1106, 1107, 1108, 1109, 1112, 1114, 1117, 1118, 1123, 1132, 1138, 1142, 1154, 1157, 1163, 1174, 1178, 1223, 1226, 1258, 1262, 1268, 1273, 1276, 1277, 1278, 1281, 1282, 1283, 1286, 1289, 1291
a(n) = n + 2359 for n >= 6642. - Alois P. Heinz, Sep 22 2014
[A077077] 775, 1674, 2325, 5022, 8919, 23976, 26757, 47376, 49581, 96048, 102669, 193056, 197469, 388704, 401949, 779328, 788157, 1563840, 1590333, 3131520, 3149181, 6273408, 6326397, 12554496, 12589821, 25129728, 25235709, 50274816, 50345469
a(0), ..., a(5) as above; for n > 5 and
a(n) = -a(n-1)+2*a(n-2)+2*a(n-3)+2*a(n-4)+2*a(n-5)-4*a(n-6)-4*a(n-7)-3 for n > 12; a(0), ..., a(12) as above.
[A158398] 782, 3132, 7050, 12536, 19590, 28212, 38402, 50160, 63486, 78380, 94842, 112872, 132470, 153636, 176370, 200672, 226542, 253980, 282986, 313560, 345702, 379412, 414690, 451536, 489950, 529932, 571482, 614600, 659286, 705540, 753362, 802752
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158399] 783, 1567, 2351, 3135, 3919, 4703, 5487, 6271, 7055, 7839, 8623, 9407, 10191, 10975, 11759, 12543, 13327, 14111, 14895, 15679, 16463, 17247, 18031, 18815, 19599, 20383, 21167, 21951, 22735, 23519, 24303, 25087, 25871, 26655, 27439, 28223
a(n) = 2*a(n-1)-a(n-2).
[A159896] 785, 839, 901, 3809, 4195, 4621, 22069, 24331, 26825, 128605, 141791, 156329, 749561, 826415, 911149, 4368761, 4816699, 5310565, 25463005, 28073779, 30952241, 148409269, 163625975, 180402881, 864992609, 953682071, 1051465045
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=785, a(2)=839, a(3)=901, a(4)=3809, a(5)=4195, a(6)=4621.
[A104398] 792, 957, 1077, 1161, 1177, 1217, 1252, 1272, 1282, 1286, 1297, 1381, 1437, 1462, 1463, 1472, 1492, 1502, 1506, 1546, 1583, 1602, 1637, 1657, 1666, 1667, 1671, 1722, 1723, 1748, 1757, 1758, 1777, 1778, 1787, 1788, 1791, 1792, 1806, 1827, 1832, 1841
a(n) = Ptop(d) + Ptop(e) + Ptop(f) + Ptop(g) + Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive d=/=e=/=f=/=g=/=h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A158667] 812, 3335, 7540, 13427, 20996, 30247, 41180, 53795, 68092, 84071, 101732, 121075, 142100, 164807, 189196, 215267, 243020, 272455, 303572, 336371, 370852, 407015, 444860, 484387, 525596, 568487, 613060, 659315, 707252, 756871, 808172, 861155
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A135639] 0, 839, 1678, 2517, 3356, 4195, 5034, 5873, 6712, 7551, 8390, 9229, 10068, 10907, 11746, 12585, 13424, 14263, 15102, 15941, 16780, 17619, 18458, 19297, 20136, 20975, 21814, 22653, 23492, 24331, 25170, 26009, 26848, 27687, 28526
a(n) = 839*n.
a(n) = 2*a(n-1) - a(n-2).
[A158401] 839, 3360, 7563, 13448, 21015, 30264, 41195, 53808, 68103, 84080, 101739, 121080, 142103, 164808, 189195, 215264, 243015, 272448, 303563, 336360, 370839, 407000, 444843, 484368, 525575, 568464, 613035, 659288, 707223, 756840, 808139, 861120
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n > 3.
[A158402] 840, 1681, 2522, 3363, 4204, 5045, 5886, 6727, 7568, 8409, 9250, 10091, 10932, 11773, 12614, 13455, 14296, 15137, 15978, 16819, 17660, 18501, 19342, 20183, 21024, 21865, 22706, 23547, 24388, 25229, 26070, 26911, 27752, 28593, 29434
a(n) = 2*a(n-1)-a(n-2).
[A159690] 841, 881, 925, 4121, 4405, 4709, 23885, 25549, 27329, 139189, 148889, 159265, 811249, 867785, 928261, 4728305, 5057821, 5410301, 27558581, 29479141, 31533545, 160623181, 171817025, 183790969, 936180505, 1001423009, 1071212269
a(n) = 6*a(n-3)-a(n-6)for n > 6; a(1)=841, a(2)=881, a(3)=925, a(4)=4121, a(5)=4405, a(6)=4709.
[A158404] 842, 1683, 2524, 3365, 4206, 5047, 5888, 6729, 7570, 8411, 9252, 10093, 10934, 11775, 12616, 13457, 14298, 15139, 15980, 16821, 17662, 18503, 19344, 20185, 21026, 21867, 22708, 23549, 24390, 25231, 26072, 26913, 27754, 28595, 29436
a(n) = 2*a(n-1)-a(n-2).
[A096025] 843, 1683, 3363, 4203, 5883, 6723, 8403, 9243, 10923, 11763, 13443, 14283, 15963, 16803, 18483, 19323, 21003, 21843, 23523, 24363, 26043, 26883, 28563, 29403, 31083, 31923, 33603, 34443, 36123, 36963, 38643, 39483, 41163, 42003, 43683
a(n) = -3*(209+70*(-1)^n-420*n). a(n) = a(n-1)+a(n-2)-a(n-3). G.f.: 3*x*(279*x^2+280*x+281) / ((x-1)^2*(x+1)). - Colin Barker, Apr 11 2013
[A158403] 843, 3368, 7575, 13464, 21035, 30288, 41223, 53840, 68139, 84120, 101783, 121128, 142155, 164864, 189255, 215328, 243083, 272520, 303639, 336440, 370923, 407088, 444935, 484464, 525675, 568568, 613143, 659400, 707339, 756960, 808263, 861248
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A114359] 1, 843, 3827, 7252, 10684, 14116, 17548, 20980, 24412, 27844, 31276, 34708, 38140, 41572, 45004, 48436, 51868, 55300, 58732, 62164, 65596, 69028, 72460, 75892, 79324, 82756, 86188, 89620, 93052, 96484, 99916, 103348, 106780, 110212, 113644
a(n) = 3432n-6476 with n>3, a(1)=1, a(2)=843, a(3)=3827.
a(n) = 2*a(n-1)-a(n-2) for n>5. G.f.: x*(1+841*x+2142*x^2+441*x^3+7*x^4)/(1-x)^2. [Colin Barker, Mar 18 2012]
[A160212] 845, 953, 1093, 3977, 4765, 5713, 23017, 27637, 33185, 134125, 161057, 193397, 781733, 938705, 1127197, 4556273, 5471173, 6569785, 26555905, 31888333, 38291513, 154779157, 185858825, 223179293, 902119037, 1083264617, 1300784245
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=845, a(2)=953, a(3)=1093, a(4)=3977, a(5)=4765, a(6)=5713.
[A163304] 858, 3139, 13142, 36807, 80098, 149003, 249534, 387727, 569642, 801363, 1088998, 1438679, 1856562, 2348827, 2921678, 3581343, 4334074, 5186147, 6143862, 7213543, 8401538, 9714219, 11157982, 12739247, 14464458, 16340083, 18372614, 20568567, 22934482, 25476923
a(n) = 5*a(n-) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5).
[A158669] 870, 3570, 8070, 14370, 22470, 32370, 44070, 57570, 72870, 89970, 108870, 129570, 152070, 176370, 202470, 230370, 260070, 291570, 324870, 359970, 396870, 435570, 476070, 518370, 562470, 608370, 656070, 705570, 756870, 809970, 864870, 921570
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158408] 898, 3596, 8094, 14392, 22490, 32388, 44086, 57584, 72882, 89980, 108878, 129576, 152074, 176372, 202470, 230368, 260066, 291564, 324862, 359960, 396858, 435556, 476054, 518352, 562450, 608348, 656046, 705544, 756842, 809940, 864838, 921536
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 12 2012
[A158409] 899, 1799, 2699, 3599, 4499, 5399, 6299, 7199, 8099, 8999, 9899, 10799, 11699, 12599, 13499, 14399, 15299, 16199, 17099, 17999, 18899, 19799, 20699, 21599, 22499, 23399, 24299, 25199, 26099, 26999, 27899, 28799, 29699, 30599, 31499
a(1)=899, a(2)=1799, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Dec 08 2011

[A158407] 901, 1801, 2701, 3601, 4501, 5401, 6301, 7201, 8101, 9001, 9901, 10801, 11701, 12601, 13501, 14401, 15301, 16201, 17101, 18001, 18901, 19801, 20701, 21601, 22501, 23401, 24301, 25201, 26101, 27001, 27901, 28801, 29701, 30601, 31501
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 09 2012
[A158406] 902, 3604, 8106, 14408, 22510, 32412, 44114, 57616, 72918, 90020, 108922, 129624, 152126, 176428, 202530, 230432, 260134, 291636, 324938, 360040, 396942, 435644, 476146, 518448, 562550, 608452, 656154, 705656, 756958, 810060, 864962, 921664
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Feb 09 2012
[A289794] 0, 0, 0, 0, 920, 17760, 122640, 537040, 1794240, 4994640, 12178320, 26840880, 54620280, 104184080, 188348160, 325459680, 541078720, 869994720, 1358615520, 2067768480, 3075954840, 4483100160, 6414845360, 9027424560, 12513177600, 17106746800, 23092009200
a(n) = 5*binomial(n, 5)*(454 - 409*n + 66*n^2 + n^3).
a(n) = 9*a(n-1)-36*a(n-2)+84*a(n-3)-126*a(n-4)+126*a(n-5)-84*a(n-6)+36*a(n-7)-9*a(n-8)+a(n-9).
[A159701] 925, 967, 1013, 4537, 4835, 5153, 26297, 28043, 29905, 153245, 163423, 174277, 893173, 952495, 1015757, 5205793, 5551547, 5920265, 30341585, 32356787, 34505833, 176843717, 188589175, 201114733, 1030720717, 1099178263
a(n) = 6*a(n-3)-a(n-6) for n > 6; a(1)=925, a(2)=967, a(3)=1013, a(4)=4537, a(5)=4835, a(6)=5153.
[A158679] 930, 3813, 8618, 15345, 23994, 34565, 47058, 61473, 77810, 96069, 116250, 138353, 162378, 188325, 216194, 245985, 277698, 311333, 346890, 384369, 423770, 465093, 508338, 553505, 600594, 649605, 700538, 753393, 808170, 864869, 923490, 984033
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A158410] 959, 3840, 8643, 15368, 24015, 34584, 47075, 61488, 77823, 96080, 116259, 138360, 162383, 188328, 216195, 245984, 277695, 311328, 346883, 384360, 423759, 465080, 508323, 553488, 600575, 649584, 700515, 753368, 808143, 864840, 923459, 984000
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158412] 960, 1921, 2882, 3843, 4804, 5765, 6726, 7687, 8648, 9609, 10570, 11531, 12492, 13453, 14414, 15375, 16336, 17297, 18258, 19219, 20180, 21141, 22102, 23063, 24024, 24985, 25946, 26907, 27868, 28829, 29790, 30751, 31712, 32673, 33634
a(n) = 2*a(n-1)-a(n-2).
[A158414] 962, 1923, 2884, 3845, 4806, 5767, 6728, 7689, 8650, 9611, 10572, 11533, 12494, 13455, 14416, 15377, 16338, 17299, 18260, 19221, 20182, 21143, 22104, 23065, 24026, 24987, 25948, 26909, 27870, 28831, 29792, 30753, 31714, 32675, 33636
a(n) = 2*a(n-1)-a(n-2).
[A158413] 963, 3848, 8655, 15384, 24035, 34608, 47103, 61520, 77859, 96120, 116303, 138408, 162435, 188384, 216255, 246048, 277763, 311400, 346959, 384440, 423843, 465168, 508415, 553584, 600675, 649688, 700623, 753480, 808259, 864960, 923583, 984128
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157515] 980, 1980, 2980, 3980, 4980, 5980, 6980, 7980, 8980, 9980, 10980, 11980, 12980, 13980, 14980, 15980, 16980, 17980, 18980, 19980, 20980, 21980, 22980, 23980, 24980, 25980, 26980, 27980, 28980, 29980, 30980, 31980, 32980, 33980, 34980
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 26 2012
[A131640] 985, 1035, 1085, 1160, 1210, 1260, 1335, 1385, 1435, 1510, 1560, 1610, 1685, 1735, 1785, 1860, 1910, 1960, 2035, 2085, 2135, 2210, 2260, 2310, 2385, 2435, 2485, 2560, 2610, 2660, 2735, 2785, 2835, 2910, 2960, 3010, 3085, 3135, 3185, 3260, 3310, 3360
a(n)=910+Sum_{k=0..n}{25/9*[4*(k mod 3)+7*((k+1) mod 3)+10*((k+2) mod 3)]}. - Paolo P. Lava, Sep 26 2007
[A237991] 1, 992, 3965, 8920, 15857, 24776, 35677, 48560, 63425, 80272, 99101, 119912, 142705, 167480, 194237, 222976, 253697, 286400, 321085, 357752, 396401, 437032, 479645, 524240, 570817, 619376, 669917, 722440, 776945, 833432, 891901, 952352, 1014785, 1079200
a(n) = a(n-1) + 991*(2*n - 1).
[A158683] 992, 4064, 9184, 16352, 25568, 36832, 50144, 65504, 82912, 102368, 123872, 147424, 173024, 200672, 230368, 262112, 295904, 331744, 369632, 409568, 451552, 495584, 541664, 589792, 639968, 692192, 746464, 802784, 861152, 921568, 984032, 1048544
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A195163] 0, 1, 1000, 2997, 5992, 9985, 14976, 20965, 27952, 35937, 44920, 54901, 65880, 77857, 90832, 104805, 119776, 135745, 152712, 170677, 189640, 209601, 230560, 252517, 275472, 299425, 324376, 350325, 377272, 405217, 434160, 464101, 495040, 526977, 559912, 593845, 628776
a(n) = 998*n*(n-1)/2 + n, according to the common formula for s-gonal numbers, a(n) = (s-2)*n*(n-1)/2 + n. - Sergey Pavlov, Aug 14 2015
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3) for n >= 4. - Muniru A Asiru, Sep 12 2017
[A017511] 1000, 9261, 32768, 79507, 157464, 274625, 438976, 658503, 941192, 1295029, 1728000, 2248091, 2863288, 3581577, 4410944, 5359375, 6434856, 7645373, 8998912, 10503459, 12167000, 13997521, 16003008, 18191447, 20570824, 23149125, 25934336, 28934443, 32157432
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), for n>3. - Vincenzo Librandi, May 26 2016
[A017643] 1000, 10648, 39304, 97336, 195112, 343000, 551368, 830584, 1191016, 1643032, 2197000, 2863288, 3652264, 4574296, 5639752, 6859000, 8242408, 9800344, 11543176, 13481272, 15625000, 17984728, 20570824, 23393656, 26463592, 29791000, 33386248, 37259704
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) with a(0)=1000, a(1)=10648, a(2)=39304, a(3)=97336. [Harvey P. Dale, Sep 30 2011]
[A153814] 1001, 2002, 3003, 4004, 5005, 6006, 7007, 8008, 9009, 10010, 11011, 12012, 13013, 14014, 15015, 16016, 17017, 18018, 19019, 20020, 21021, 22022, 23023, 24024, 25025, 26026, 27027, 28028, 29029, 30030, 31031, 32032, 33033, 34034, 35035, 36036, 37037, 38038
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Feb 26 2012
[A160451] 1008, 2080, 6440, 10208, 22360, 31416, 57408, 75208, 122816, 153680, 232408, 281520, 402600, 476008, 652400, 757016, 1003408, 1147008, 1479816, 1671040, 2108408, 2356760, 2918560, 3234408, 3942240, 4336816, 5214008, 5699408
a(n) = a(n-1)+4*a(n-2)-4*a(n-3)-6*a(n-4)+6*a(n-5)+4*a(n-6)-4*a(n-7)-a(n-8)+a(n-9). G.f.: -8*x*(126+134*x+41*x^2-65*x^3+95*x^4+52*x^5-61*x^6-13*x^7+15*x^8)/((1+x)^4* (x-1)^5). [R. J. Mathar, May 15 2009]
[A139665] 1009, 1129, 1201, 1801, 2521, 2689, 3049, 3361, 3529, 3889, 4201, 4561, 4729, 5209, 5569, 5881, 6841, 7561, 7681, 8089, 8521, 8689, 8761, 8929, 9241, 9601, 9769, 10369, 12049, 12289, 12601, 12721, 12889, 13441, 13729, 14281, 14401, 14449, 15121, 15241
a(n) == {1,25,49,73} (mod 96);
a(n)^2 == {1,49} (mod 96};
a(n)^4 == 1 (mod 96). (End)
a(n) == {1,9,25} (mod 56). - Gary Detlefs, Jan 27 2014
[A157010] 1010, 5297, 12946, 23957, 38330, 56065, 77162, 101621, 129442, 160625, 195170, 233077, 274346, 318977, 366970, 418325, 473042, 531121, 592562, 657365, 725530, 797057, 871946, 950197, 1031810, 1116785, 1205122, 1296821, 1391882, 1490305
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157510] 1020, 2020, 3020, 4020, 5020, 6020, 7020, 8020, 9020, 10020, 11020, 12020, 13020, 14020, 15020, 16020, 17020, 18020, 19020, 20020, 21020, 22020, 23020, 24020, 25020, 26020, 27020, 28020, 29020, 30020, 31020, 32020, 33020, 34020, 35020
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 04 2012
[A216115] 1020, 11020, 39600, 99960, 208900, 386820, 657720, 1049200, 1592460, 2322300, 3277120, 4498920, 6033300, 7929460, 10240200, 13021920, 16334620, 20241900, 24810960, 30112600, 36221220, 43214820, 51175000, 60186960, 70339500, 81725020, 94439520, 108582600, 124257460, 141570900
a(n) = 10*n*(15n^3 +70n^2 + 134n - 117).
[A158420] 1022, 4092, 9210, 16376, 25590, 36852, 50162, 65520, 82926, 102380, 123882, 147432, 173030, 200676, 230370, 262112, 295902, 331740, 369626, 409560, 451542, 495572, 541650, 589776, 639950, 692172, 746442, 802760, 861126, 921540, 984002
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158421] 1023, 2047, 3071, 4095, 5119, 6143, 7167, 8191, 9215, 10239, 11263, 12287, 13311, 14335, 15359, 16383, 17407, 18431, 19455, 20479, 21503, 22527, 23551, 24575, 25599, 26623, 27647, 28671, 29695, 30719, 31743, 32767, 33791, 34815, 35839
a(n) = 2*a(n-1)-a(n-2).
[A046313] 1024, 1536, 2048, 2304, 2560, 3072, 3456, 3584, 3840, 4096, 4608, 5120, 5184, 5376, 5632, 5760, 6144, 6400, 6656, 6912, 7168, 7680, 7776, 8064, 8192, 8448, 8640, 8704, 8960, 9216, 9600, 9728, 9984, 10240, 10368, 10752, 11264, 11520, 11664, 11776
a(n) = n + O(n (log log n)^8/log n). - Charles R Greathouse IV, Apr 07 2017
[A158692] 1056, 4323, 9768, 17391, 27192, 39171, 53328, 69663, 88176, 108867, 131736, 156783, 184008, 213411, 244992, 278751, 314688, 352803, 393096, 435567, 480216, 527043, 576048, 627231, 680592, 736131, 793848, 853743, 915816, 980067, 1046496
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).

[A224457] 1062, 2760, 5715, 10386, 17304, 27072, 40365, 57930, 80586, 109224, 144807, 188370, 241020, 303936, 378369, 465642, 567150, 684360, 818811, 972114, 1145952, 1342080, 1562325, 1808586, 2082834, 2387112, 2723535, 3094290
a(n) = (3/2)n(2n^3 +15n^2 + 45n -88).
[A165809] 1083, 8124, 26703, 62400, 120795, 207468, 327999, 487968, 692955, 948540, 1260303, 1633824, 2074683, 2588460, 3180735, 3857088, 4623099, 5484348, 6446415, 7514880, 8695323, 9993324, 11414463, 12964320, 14648475, 16472508
a(n) = 3*n*(63*n-12+310*n^2). (End)
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4).
[A083738] 1105, 2465, 10585, 18721, 29341, 46657, 75361, 104653, 115921, 162401, 226801, 252601, 278545, 294409, 314821, 334153, 340561, 399001, 410041, 449065, 488881, 512461, 530881, 534061, 552721, 574561, 658801, 721801, 852841, 1024651
a(n) = n-th positive integer k(>1) such that 2^(k-1) = 1 (mod k), 3^(k-1) = 1 (mod k) and 7^(k-1) = 1 (mod k).
[A157376] 1107, 13058, 38131, 76326, 127643, 192082, 269643, 360326, 464131, 581058, 711107, 854278, 1010571, 1179986, 1362523, 1558182, 1766963, 1988866, 2223891, 2472038, 2733307, 3007698, 3295211, 3595846, 3909603, 4236482, 4576483
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A027622] 1114, 3413, 8476, 18247, 35414, 63529, 107128, 171851, 264562, 393469, 568244, 800143, 1102126, 1488977, 1977424, 2586259, 3336458, 4251301, 5356492, 6680279, 8253574, 10110073, 12286376, 14822107, 17760034, 21146189, 25029988, 29464351, 34505822, 40214689
a(n) = 6*a(n-1) - 15*a(n-2) + 20*a(n-3) - 15*a(n-4) + 6*a(n-5) - a(n-6) for n>5.
[A157444] 1122, 2453, 3784, 5115, 6446, 7777, 9108, 10439, 11770, 13101, 14432, 15763, 17094, 18425, 19756, 21087, 22418, 23749, 25080, 26411, 27742, 29073, 30404, 31735, 33066, 34397, 35728, 37059, 38390, 39721, 41052, 42383, 43714, 45045, 46376
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 26 2012
[A158729] 1122, 4590, 10370, 18462, 28866, 41582, 56610, 73950, 93602, 115566, 139842, 166430, 195330, 226542, 260066, 295902, 334050, 374510, 417282, 462366, 509762, 559470, 611490, 665822, 722466, 781422, 842690, 906270, 972162, 1040366
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A069984] 1123, 22583, 44043, 65503, 86963, 108423, 129883, 151343, 172803, 194263, 215723, 237183, 258643, 280103, 301563, 323023, 344483, 365943, 387403, 408863, 430323, 451783, 473243, 494703, 516163, 537623, 559083, 580543, 602003, 623463
a(0)=1123, a(1)=22583, a(n)=2*a(n-1)-a(n-2). - Harvey P. Dale, Feb 04 2015
[A023307] 1129, 10009, 11489, 12539, 13859, 30029, 63079, 77359, 99119, 121039, 124669, 169409, 194749, 205589, 246329, 330329, 349519, 351829, 354839, 361279, 369539, 384589, 395719, 399769, 416989, 429109, 446819, 527599, 532489, 544259, 575119
a(n) == 9 or 69 (mod 70). - John Cerkan, Oct 04 2016
[A166957] 1, 1131, 7829, 25141, 58113, 111791, 191221, 301449, 447521, 634483, 867381, 1151261, 1491169, 1892151, 2359253, 2897521, 3512001, 4207739, 4989781, 5863173, 6832961, 7904191, 9081909, 10371161, 11776993, 13304451
a(n) = 841*n^3 + 261*n^2 + 28*n + 1.
a(n) = 4*a(n-1) -6*a(n-2) +4*a(n-3) -a(n-4). - Vincenzo Librandi, Jul 01 2012
[A154374] 1151, 4801, 10951, 19601, 30751, 44401, 60551, 79201, 100351, 124001, 150151, 178801, 209951, 243601, 279751, 318401, 359551, 403201, 449351, 498001, 549151, 602801, 658951, 717601, 778751, 842401, 908551, 977201, 1048351, 1122001
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Vincenzo Librandi, Jan 29 2012
[A158735] 1190, 4865, 10990, 19565, 30590, 44065, 59990, 78365, 99190, 122465, 148190, 176365, 206990, 240065, 275590, 313565, 353990, 396865, 442190, 489965, 540190, 592865, 647990, 705565, 765590, 828065, 892990, 960365, 1030190, 1102465
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158737] 1260, 5148, 11628, 20700, 32364, 46620, 63468, 82908, 104940, 129564, 156780, 186588, 218988, 253980, 291564, 331740, 374508, 419868, 467820, 518364, 571500, 627228, 685548, 746460, 809964, 876060, 944748, 1016028, 1089900, 1166364
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A104399] 1287, 1507, 1672, 1792, 1793, 1876, 1932, 1958, 1967, 1987, 1997, 2001, 2078, 2157, 2162, 2178, 2218, 2253, 2273, 2283, 2287, 2298, 2322, 2382, 2438, 2442, 2463, 2473, 2493, 2503, 2507, 2526, 2542, 2547, 2582, 2603, 2612, 2617, 2637, 2638, 2647, 2651
a(n) = Ptop(c) + Ptop(d) + Ptop(e) + Ptop(f) + Ptop(g) + Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive c=/=d=/=e=/=f=/=g=/=h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A023318] 1319, 2699, 4259, 4919, 5689, 8669, 10159, 10529, 29819, 33119, 82339, 86689, 98669, 174079, 177949, 196739, 207869, 210599, 222499, 231809, 253369, 267299, 275699, 323699, 362459, 371639, 378179, 388529, 397799, 402529, 421079, 448859, 468499
a(n) == 9 (mod 10). - John Cerkan, Oct 08 2016
[A157266] 1320, 3048, 4776, 6504, 8232, 9960, 11688, 13416, 15144, 16872, 18600, 20328, 22056, 23784, 25512, 27240, 28968, 30696, 32424, 34152, 35880, 37608, 39336, 41064, 42792, 44520, 46248, 47976, 49704, 51432, 53160, 54888, 56616, 58344
a(n) = 2*a(n-1) -a(n-2). - Vincenzo Librandi, Jan 27 2012
[A134116] 1327, 8467, 9973, 11743, 12163, 17257, 19087, 20443, 21433, 29683, 32653, 34549, 37747, 41299, 47743, 49957, 54217, 59887, 61057, 61297, 64237, 73483, 74653, 77383, 78367, 80863, 85159, 88177, 88609, 89329, 91639, 93337, 97039, 100069
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 14 2015
[A158743] 1332, 5439, 12284, 21867, 34188, 49247, 67044, 87579, 110852, 136863, 165612, 197099, 231324, 268287, 307988, 350427, 395604, 443519, 494172, 547563, 603692, 662559, 724164, 788507, 855588, 925407, 997964, 1073259, 1151292, 1232063
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A154375] 1351, 5201, 11551, 20401, 31751, 45601, 61951, 80801, 102151, 126001, 152351, 181201, 212551, 246401, 282751, 321601, 362951, 406801, 453151, 502001, 553351, 607201, 663551, 722401, 783751, 847601, 913951, 982801, 1054151, 1128001
a(1)=1351, a(2)=5201, a(3)=11551, a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3). - Harvey P. Dale, Apr 25 2011
[A243132] 1, 1, 1351, 19601, 119071, 470449, 1431431, 3650401, 8193151, 16692641, 31521799, 55989361, 94558751, 153090001, 239104711, 362074049, 533729791, 768398401, 1083358151, 1499219281, 2040327199, 2735188721, 3616921351, 4723725601, 6099380351, 7793761249
a(n) = (2*n^2 - 1)*(16*n^4 - 16*n^2 + 1).
[A178485] 1371, 1372, 1381, 1383, 1392, 1393, 1471, 1472, 1491, 1494, 1502, 1504, 1581, 1583, 1591, 1594, 1613, 1614, 1692, 1693, 1702, 1704, 1713, 1714, 2371, 2372, 2381, 2383, 2392, 2393, 2571, 2572, 2601, 2605, 2612, 2615, 2681, 2683, 2701, 2705, 2723, 2725
a(n) + a(5!+1-n) = 7406.
a(n) == 1, 2, 3, 4 or 5 (mod 10).
a(n+6)-a(n) is an element of { 100, 110, 111, 200, 220, 222, 679 }.
a(n+6)-a(n) = 679 iff (n-1)%24 > 17, where % denotes the remainder upon division.
a(n+6)-a(n) = 200, 220 or 222 iff (n-1)%30 > 23, i.e. n==25,...,30 (mod 30).
[A158764] 1406, 5738, 12958, 23066, 36062, 51946, 70718, 92378, 116926, 144362, 174686, 207898, 243998, 282986, 324862, 369626, 417278, 467818, 521246, 577562, 636766, 698858, 763838, 831706, 902462, 976106, 1052638, 1132058, 1214366, 1299562
a(n)= 3*a(n-1) -3*a(n-2) +a(n-3).
[A156853] 1428, 6854, 16330, 29856, 47432, 69058, 94734, 124460, 158236, 196062, 237938, 283864, 333840, 387866, 445942, 508068, 574244, 644470, 718746, 797072, 879448, 965874, 1056350, 1150876, 1249452, 1352078, 1458754, 1569480, 1684256
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A124087] 1430, 4862, 11934, 25194, 48450, 87210, 149226, 245157, 389367, 600875, 904475, 1332045, 1924065, 2731365, 3817125, 5259150, 7152444, 9612108, 12776588, 16811300, 21912660, 28312548, 36283236, 46142811, 58261125, 73066305, 91051857, 112784399, 138912059
a(n) = C(n,8)-C(n,6).
[A221004] 1437, 4263, 15675, 68163, 325779, 1602483, 7835379, 37613427, 176915571, 816731763, 3710601843, 16633811571, 73738101363, 323845964403, 1411137700467, 6107956052595, 26286286307955, 112564798489203, 479941662081651, 2038504721744499, 8628988563948147, 36415869693198963, 153263217907335795, 643451990789063283, 2695404780741722739, 11268007106608890483
a(n) = 627 + 2^n*(936*n+1602)+4^n*(432*n-792).

[A157508] 1440, 2898, 4356, 5814, 7272, 8730, 10188, 11646, 13104, 14562, 16020, 17478, 18936, 20394, 21852, 23310, 24768, 26226, 27684, 29142, 30600, 32058, 33516, 34974, 36432, 37890, 39348, 40806, 42264, 43722, 45180, 46638, 48096, 49554
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 26 2012
[A023311] 1447, 2207, 6211, 6607, 8369, 9769, 11821, 13537, 13729, 13781, 15581, 17231, 17497, 27817, 32059, 32569, 32611, 33647, 36251, 39079, 46381, 47417, 55127, 55171, 57077, 60869, 63361, 64327, 68927, 77951, 81619, 85469, 86767, 88001, 94099, 94477, 96149
a(n) == 3 or 9 (mod 14). - John Cerkan, Oct 04 2016
[A157505] 1476, 2934, 4392, 5850, 7308, 8766, 10224, 11682, 13140, 14598, 16056, 17514, 18972, 20430, 21888, 23346, 24804, 26262, 27720, 29178, 30636, 32094, 33552, 35010, 36468, 37926, 39384, 40842, 42300, 43758, 45216, 46674, 48132, 49590
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 04 2012
[A158770] 1482, 6045, 13650, 24297, 37986, 54717, 74490, 97305, 123162, 152061, 184002, 218985, 257010, 298077, 342186, 389337, 439530, 492765, 549042, 608361, 670722, 736125, 804570, 876057, 950586, 1028157, 1108770, 1192425, 1279122, 1368861
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157375] 1520, 7743, 18768, 34595, 55224, 80655, 110888, 145923, 185760, 230399, 279840, 334083, 393128, 456975, 525624, 599075, 677328, 760383, 848240, 940899, 1038360, 1140623, 1247688, 1359555, 1476224, 1597695, 1723968, 1855043, 1990920
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 28 2012
[A083734] 1541, 1729, 1891, 2821, 6601, 8911, 15841, 29341, 41041, 46657, 52633, 63973, 75361, 88831, 101101, 112141, 115921, 126217, 146611, 162401, 172081, 188461, 218791, 252601, 294409, 314821, 334153, 340561, 342271, 399001, 410041, 416641
a(n) = n-th positive integer k(>1) such that 3^(k-1) = 1 (mod k) and 5^(k-1) = 1 (mod k)
[A158773] 1560, 6360, 14360, 25560, 39960, 57560, 78360, 102360, 129560, 159960, 193560, 230360, 270360, 313560, 359960, 409560, 462360, 518360, 577560, 639960, 705560, 774360, 846360, 921560, 999960, 1081560, 1166360, 1254360, 1345560, 1439960
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A158775] 1640, 6440, 14440, 25640, 40040, 57640, 78440, 102440, 129640, 160040, 193640, 230440, 270440, 313640, 360040, 409640, 462440, 518440, 577640, 640040, 705640, 774440, 846440, 921640, 1000040, 1081640, 1166440, 1254440, 1345640, 1440040
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). [R. J. Mathar, Jul 26 2009]
[A272127] 1, 1641, 26465, 134953, 427905, 1046441, 2172001, 4026345, 6871553, 11010025, 16784481, 24577961, 34813825, 47955753, 64507745, 85014121, 110059521, 140268905, 176307553, 218881065, 268735361, 326656681, 393471585, 470046953, 557289985, 656148201, 767609441
a(n) = (2*n+1)*(840*n^3-420*n^2+126*n+1).
a(n) = 5*a(n-1)-10*a(n-2)+10*a(n-3)-5*a(n-4)+a(n-5), for n>4
[A065903] 1689, 1741, 3306, 3894, 4362, 4587, 4999, 5754, 6025, 6371, 6668, 7012, 7982, 9054, 9158, 9695, 9742, 9832, 10056, 10664, 11005, 12027, 12385, 13676, 13895, 14026, 14059, 16104, 16239, 16903, 17050, 17153, 18079, 18202, 18642, 20349, 21060
a(n) = n-th integer i such that i^4 - 2 has no prime factor > i.
[A157287] 1704, 3432, 5160, 6888, 8616, 10344, 12072, 13800, 15528, 17256, 18984, 20712, 22440, 24168, 25896, 27624, 29352, 31080, 32808, 34536, 36264, 37992, 39720, 41448, 43176, 44904, 46632, 48360, 50088, 51816, 53544, 55272, 57000, 58728
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jan 28 2012
[A157247] 1715, 1781, 1855, 2009, 2401, 2989, 3451, 3821, 4459, 5831, 6865, 7679, 9065, 12005, 15925, 18851, 21145, 25039, 33271, 39409, 44219, 52381, 69629, 92561, 109655, 123049, 145775, 193795, 229589, 257635, 305221, 405769, 539441, 639079, 717149
a(n)=6*a(n-9)-a(n-18) for n > 18; a(1)=1715, a(2)=1781, a(3)=1855, a(4)=2009, a(5)=2401, a(6)=2989, a(7)=3451, a(8)=3821, a(9)=4459, a(10)=5831, a(11)=6865, a(12)=7679, a(13)=9065, a(14)=12005, a(15)=15925, a(16)=18851, a(17)=21145, a(18)=25039.
[A017523] 0, 1728, 13824, 46656, 110592, 216000, 373248, 592704, 884736, 1259712, 1728000, 2299968, 2985984, 3796416, 4741632, 5832000, 7077888, 8489664, 10077696, 11852352, 13824000, 16003008, 18399744, 21024576, 23887872, 27000000, 30371328, 34012224
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4) for n>3. - Vincenzo Librandi, Jul 05 2014
[A138129] 0, 1729, 3458, 5187, 6916, 8645, 10374, 12103, 13832, 15561, 17290, 19019, 20748, 22477, 24206, 25935, 27664, 29393, 31122, 32851, 34580, 36309, 38038, 39767, 41496, 43225, 44954, 46683, 48412, 50141, 51870, 53599, 55328, 57057
a(n) = 1729 * n.
[A130859] 1, 1729, 5184, 10366, 17275, 25911, 36274, 48364, 62181, 77725, 94996, 113994, 134719, 157171, 181350, 207256, 234889, 264249, 295336, 328150, 362691, 398959, 436954, 476676, 518125, 561301, 606204, 652834, 701191, 751275, 803086, 856624, 911889, 968881, 1027600, 1088046, 1150219
a(n) = (1727n^2 - 1725n)/2.
[A280428] 1729, 13832, 46683, 110656, 216125, 373464, 593047, 885248, 1260441, 1729000, 2301299, 2987712, 3798613, 4744376, 5835375, 7081984, 8494577, 10083528, 11859211, 13832000, 16012269, 18410392, 21036743, 23901696, 27015625, 30388904, 34031907, 37955008, 42168581, 46683000
a(n) = n^3 * 1729.
[A130876] 1, 1730, 5188, 10375, 17291, 25936, 36310, 48413, 62245, 77806, 95096, 114115, 134863, 157340, 181546, 207481, 235145, 264538, 295660, 328511, 363091, 399400, 437438, 477205, 518701, 561926, 606880, 653563, 701975, 752116, 803986, 857585, 912913
a(n) = 1+(1729/2)*n+(1729/2)*n^2.
[A157325] 1752, 3480, 5208, 6936, 8664, 10392, 12120, 13848, 15576, 17304, 19032, 20760, 22488, 24216, 25944, 27672, 29400, 31128, 32856, 34584, 36312, 38040, 39768, 41496, 43224, 44952, 46680, 48408, 50136, 51864, 53592, 55320, 57048, 58776
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 26 2012
[A156636] 1820, 6214, 10608, 15002, 19396, 23790, 28184, 32578, 36972, 41366, 45760, 50154, 54548, 58942, 63336, 67730, 72124, 76518, 80912, 85306, 89700, 94094, 98488, 102882, 107276, 111670, 116064, 120458, 124852, 129246, 133640, 138034, 142428
a(n) = 2*a(n-1)-a(n-2).
[A157760] 1898, 9325, 22370, 41033, 65314, 95213, 130730, 171865, 218618, 270989, 328978, 392585, 461810, 536653, 617114, 703193, 794890, 892205, 995138, 1103689, 1217858, 1337645, 1463050, 1594073, 1730714, 1872973, 2020850, 2174345
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157448] 1921, 7937, 18049, 32257, 50561, 72961, 99457, 130049, 164737, 203521, 246401, 293377, 344449, 399617, 458881, 522241, 589697, 661249, 736897, 816641, 900481, 988417, 1080449, 1176577, 1276801, 1381121, 1489537, 1602049, 1718657, 1839361
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A157627] 1960, 9960, 17960, 25960, 33960, 41960, 49960, 57960, 65960, 73960, 81960, 89960, 97960, 105960, 113960, 121960, 129960, 137960, 145960, 153960, 161960, 169960, 177960, 185960, 193960, 201960, 209960, 217960, 225960, 233960, 241960, 249960
a(n) = 2*a(n-1) - a(n-2).
[A166876] 1983, 1984, 1986, 1989, 1994, 2002, 2015, 2036, 2070, 2125, 2214, 2358, 2591, 2968, 3578, 4565, 6162, 8746, 12927, 19692, 30638, 48349, 77006, 123374, 198399, 319792, 516210, 834021, 1348250, 2180290, 3526559, 5704868, 9229446, 14932333, 24159798
a(n) = 2*a(n-1) - a(n-3).
[A104400] 2002, 2288, 2508, 2652, 2673, 2793, 2872, 2877, 2933, 2968, 2988, 2998, 3002, 3037, 3107, 3157, 3158, 3241, 3297, 3323, 3327, 3332, 3352, 3362, 3366, 3443, 3492, 3527, 3543, 3583, 3612, 3613, 3618, 3638, 3648, 3652, 3663, 3667, 3696, 3747, 3752, 3778
a(n) = Ptop(b) + Ptop(c) + Ptop(d) + Ptop(e) + Ptop(f) + Ptop(g) + Ptop(h) + Ptop(i) + Ptop(j) + Ptop(k) for some positive b=/=c=/=d=/=e=/=f=/=g=/=h=/=i=/=j=/=k and Ptop(n) = binomial(n+3,4).
[A153779] 2009, 4655, 4949, 9065, 9947, 13475, 14945, 15239, 17297, 25235, 26117, 32585, 33467, 37877, 39935, 44639, 47285, 52577, 56399, 59339, 59927, 61985, 62867, 64925, 72275, 75215, 75509, 76097, 79037, 82565, 86387, 89915, 92855, 94619
a(n) » n log^2 n. - Charles R Greathouse IV, Aug 28 2016
[A156855] 2024, 8098, 18222, 32396, 50620, 72894, 99218, 129592, 164016, 202490, 245014, 291588, 342212, 396886, 455610, 518384, 585208, 656082, 731006, 809980, 893004, 980078, 1071202, 1166376, 1265600, 1368874, 1476198, 1587572, 1702996, 1822470
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A156856] 2026, 8102, 18228, 32404, 50630, 72906, 99232, 129608, 164034, 202510, 245036, 291612, 342238, 396914, 455640, 518416, 585242, 656118, 731044, 810020, 893046, 980122, 1071248, 1166424, 1265650, 1368926, 1476252, 1587628, 1703054, 1822530
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: 2x(1013+1012x)/(1-x)^3. - R. J. Mathar, Mar 09 2009

[A194605] 0, 0, 0, 2080, 27768, 181032, 807040, 2817240, 8271480, 21328048, 49692672, 106717680, 214322680, 406928280, 736614528, 1279735912, 2145244920, 3484996320, 5506324480, 8487206208, 12794341752, 18904506760, 27429548160, 39145417080, 55025652088, 76279746192
a(n) = (n^8 - (3*n-2)^4) / 2 for n>0.
[A201917] 0, 2085, 2325, 5253, 6141, 6293, 7728, 10013, 11960, 12920, 14637, 16940, 17112, 18737, 21648, 21948, 23541, 24633, 26588, 27716, 31620, 33012, 34937, 35145, 38012, 40641, 42716, 44268, 47633, 49848, 52785, 54237, 56420, 56840, 60605, 63828, 67541, 70448
a(n) = a(n-1) + 6*a(n-81) - 6*a(n-82) - a(n-162) + a(n-163), where the 163 initial terms can be computed using the Mathematica program. The initial terms begin with 0 and end with 1696940.
[A157768] 2135, 44608, 141531, 292904, 498727, 759000, 1073723, 1442896, 1866519, 2344592, 2877115, 3464088, 4105511, 4801384, 5551707, 6356480, 7215703, 8129376, 9097499, 10120072, 11197095, 12328568, 13514491, 14754864, 16049687, 17398960
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A118576] 0, 2145, 3773, 6468, 8540, 12005, 19208, 24521, 28665, 35672, 41148, 50421, 61388, 69972, 84525, 95921, 115248, 156065, 186480, 210308, 250733, 282405, 336140, 399797, 449673, 534296, 600600, 713097, 950796, 1127973, 1266797, 1502340
a(n) = 6*a(n-11)-a(n-22)+33614 for n > 22; a(1) = 0, a(2) = 2145, a(3) = 3773, a(4) = 6468, a(5) = 8540, a(6) = 12005, a(7) = 19208, a(8) = 24521, a(9) = 28665, a(10) = 35672, a(11) = 41148, a(12) = 50421, a(13) = 61388, a(14) = 69972, a(15) = 84525, a(16) = 95921, a(17) = 115248, a(18) = 156065, a(19) = 186480, a(20) = 210308, a(21) = 250733, a(22) = 282405.
[A157476] 2177, 8449, 18817, 33281, 51841, 74497, 101249, 132097, 167041, 206081, 249217, 296449, 347777, 403201, 462721, 526337, 594049, 665857, 741761, 821761, 905857, 994049, 1086337, 1182721, 1283201, 1387777, 1496449, 1609217, 1726081, 1847041
a(1)=2177, a(2)=8449, a(3)=18817, a(n)=3*a(n-1)-3*a(n-2)+a(n-3). (End)
[A157853] 2177, 11376, 27775, 51374, 82173, 120172, 165371, 217770, 277369, 344168, 418167, 499366, 587765, 683364, 786163, 896162, 1013361, 1137760, 1269359, 1408158, 1554157, 1707356, 1867755, 2035354, 2210153, 2392152, 2581351, 2777750
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A194585] 2184, 27830, 32214, 57860, 62244, 87890, 92274, 117920, 122304, 147950, 152334, 177980, 182364, 208010, 212394, 238040, 242424, 268070, 272454, 298100, 302484, 328130, 332514, 358160, 362544, 388190, 392574, 418220, 422604, 448250
a(n) = (-15031+10631*(-1)^n+30030*n)/2.
a(n) = a(n-1)+a(n-2)-a(n-3).
[A134158] 1, 2191, 24583, 109513, 324013, 759811, 1533331, 2785693, 4682713, 7414903, 11197471, 16270321, 22898053, 31369963, 42000043, 55126981, 71114161, 90349663, 113246263, 140241433, 171797341, 208400851, 250563523, 298821613, 353736073, 415892551, 485901391
a(n) = (3(7n + 1)^4 + 6(7n + 1)^3 - 3 (7n + 1) + 1)/7.
a(n) = (Sum_{k=1..7n+1} k^6) / (Sum_{k=1..7n+1} k^2).
a(n) = 5*a(n-1) - 10*a(n-2) + 10*a(n-3) - 5*a(n-4) + a(n-5) for n>4. - Colin Barker, Aug 12 2017
[A017535] 1, 2197, 15625, 50653, 117649, 226981, 389017, 614125, 912673, 1295029, 1771561, 2352637, 3048625, 3869893, 4826809, 5929741, 7189057, 8615125, 10218313, 12008989, 13997521, 16194277, 18609625, 21253933, 24137569, 27270901, 30664297, 34328125, 38272753
a(n) = 4*a(n-1) - 6*a(n-2) + 4*a(n-3) - a(n-4), for n>3. - Vincenzo Librandi, May 26 2016
[A114360] 1, 2207, 12389, 25147, 38017, 50887, 63757, 76627, 89497, 102367, 115237, 128107, 140977, 153847, 166717, 179587, 192457, 205327, 218197, 231067, 243937, 256807, 269677, 282547, 295417, 308287, 321157, 334027, 346897, 359767, 372637, 385507
a(n) = 12870n-26333, with n> 3, a(1)=1, a(2)=2207, a(3)=12389.
a(n) = 2*a(n-1)-a(n-2) for n>5. G.f.: x*(1+2205*x+7976*x^2+2576*x^3+112*x^4)/(1-x)^2. [Colin Barker, Mar 18 2012]
[A287701] 0, 1, 2252, 111753, 1297504, 7120505, 25461756, 70250257, 163191008, 335493009, 629597260, 1100904761, 1819504512, 2871901513, 4362744764, 6416555265, 9179454016, 12820890017, 17535368268, 23544177769, 31097119520, 40474234521, 51987531772, 65982716273, 82840917024, 102980415025, 126858371276, 154972554777
a(n) = 163476*n - 375375*n^2 + 305500*n^3 - 108000*n^4 + 14400*n^5.
a(n) = [x^n] (x + 2246*x^2 + 98256*x^3 + 660746*x^4 + 966751*x^5) / (1 - x)^6.
[A247698] 2308, 4261, 6569, 10830, 17399, 28229, 45628, 73857, 119485, 193342, 312827, 506169, 818996, 1325165, 2144161, 3469326, 5613487, 9082813, 14696300, 23779113, 38475413, 62254526, 100729939, 162984465, 263714404, 426698869, 690413273, 1117112142, 1807525415, 2924637557, 4732162972, 7656800529
a(n) = a(n-1) + a(n-2).
a(n) = k*phi^n + o(1), where k = 976.5 + sqrt(354578.45) = 1571.96.... - Charles R Greathouse IV, Sep 28 2014
[A166931] 2519, 5039, 7559, 10079, 12599, 15119, 17639, 20159, 22679, 25199, 27719, 30239, 32759, 35279, 37799, 40319, 42839, 45359, 47879, 50399, 52919, 55439, 57959, 60479, 62999, 65519, 68039, 70559, 73079, 75599, 78119, 80639, 83159, 85679
a(n) = 2519 + n*2520.
a(n) = 2*a(n-1) - a(n-2).
[A156627] 2574, 6968, 11362, 15756, 20150, 24544, 28938, 33332, 37726, 42120, 46514, 50908, 55302, 59696, 64090, 68484, 72878, 77272, 81666, 86060, 90454, 94848, 99242, 103636, 108030, 112424, 116818, 121212, 125606, 130000, 134394, 138788, 143182
a(n) = 2*a(n-1) -a(n-2).
[A157609] 2640, 5302, 7964, 10626, 13288, 15950, 18612, 21274, 23936, 26598, 29260, 31922, 34584, 37246, 39908, 42570, 45232, 47894, 50556, 53218, 55880, 58542, 61204, 63866, 66528, 69190, 71852, 74514, 77176, 79838, 82500, 85162, 87824, 90486
a(n) = 2*a(n-1)-a(n-2) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157613] 2684, 5346, 8008, 10670, 13332, 15994, 18656, 21318, 23980, 26642, 29304, 31966, 34628, 37290, 39952, 42614, 45276, 47938, 50600, 53262, 55924, 58586, 61248, 63910, 66572, 69234, 71896, 74558, 77220, 79882, 82544, 85206, 87868, 90530
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 21 2012
[A100896] 3003, 3113, 3223, 3333, 3443, 3553, 3663, 3773, 3883, 3993, 310103, 311113, 312123, 313133, 314143, 315153, 316163, 317173, 318183, 319193, 320203, 321213, 322223, 323233, 324243, 325253, 326263, 327273, 328283, 329293, 330303, 331313, 332323
a(n) = 3nn3 where n=0, 1, 2, 3, ...
[A103523] 3103, 7107, 13113, 31131, 37137, 67167, 73173, 79179, 97197, 127227, 139239, 151251, 157257, 163263, 181281, 193293, 211311, 283383, 331431, 349449, 367467, 379479, 409509, 421521, 457557, 463563, 487587, 499599, 541641, 547647, 577677
a(n) = Concatenate(P, P+100) iff P prime and P+100 prime.
[A023309] 3181, 9551, 22051, 30941, 32621, 61981, 76651, 99961, 134291, 151901, 163661, 185951, 226691, 227671, 240551, 288191, 342821, 374501, 394411, 402881, 423781, 426301, 446461, 456151, 459091, 460951, 554011, 572321, 577601, 617191, 653831
a(n) == 1 or 31 (mod 70). - John Cerkan, Oct 04 2016
[A023337] 3181, 61981, 134291, 342821, 459091, 882451, 984931, 1016011, 1028471, 1181701, 1391561, 1897801, 2009311, 2272301, 2476421, 2769791, 3048041, 3085421, 3128821, 3207221, 3545111, 4092931, 4690591, 5015321, 5863651, 6027941, 6361351, 6796541
a(n) == 31 (mod 70). - John Cerkan, Oct 11 2016
[A023308] 3203, 21683, 34613, 52813, 103843, 116933, 117443, 165443, 172933, 193603, 195053, 213973, 226783, 321053, 322193, 357613, 360323, 362233, 363403, 368743, 472393, 474143, 496333, 518543, 528673, 569083, 571303, 631853, 654623, 714893, 758503
a(n) == 33 or 53 (mod 70). - John Cerkan, Oct 04 2016
[A261241] 3213, 3950, 4807, 5796, 6929, 8218, 9675, 11312, 13141, 15174, 17423, 19900, 22617, 25586, 28819, 32328, 36125, 40222, 44631, 49364, 54433, 59850, 65627, 71776, 78309, 85238, 92575, 100332, 108521, 117154, 126243, 135800, 145837, 156366
a(n) = (n+9)*(2*n^2 + 36*n + 357), n >= 0.
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Aug 13 2015
[A264450] 0, 3519, 8372, 14805, 23088, 33516, 46410, 62118, 81016, 103509, 130032, 161051, 197064, 238602, 286230, 340548, 402192, 471835, 550188, 638001, 736064, 845208, 966306, 1100274, 1248072, 1410705, 1589224, 1784727, 1998360, 2231318, 2484846, 2760240, 3058848, 3382071
a(n) = 6*a(n-1)-15*a(n-2)+20*a(n-3)-15*a(n-4)+6*a(n-5)-a(n-6) for n>5. - Vincenzo Librandi, Nov 16 2015
[A004972] 0, 3572, 7143, 10714, 14285, 17856, 21427, 24998, 28569, 32140, 35711, 39282, 42853, 46424, 49995, 53566, 57137, 60708, 64279, 67850, 71421, 74992, 78563, 82134, 85705, 89276, 92847, 96418, 99989, 103560, 107131, 110702, 114273, 117844, 121415, 124986
a(n) = 3571*n+1 for n>0.

a(n) = 2*a(n-1)-a(n-2) for n>2.
[A156845] 3588, 15755, 27922, 40089, 52256, 64423, 76590, 88757, 100924, 113091, 125258, 137425, 149592, 161759, 173926, 186093, 198260, 210427, 222594, 234761, 246928, 259095, 271262, 283429, 295596, 307763, 319930, 332097, 344264, 356431, 368598
a(n) = 2*a(n-1) -a(n-2).
[A157857] 3599, 14398, 32397, 57596, 89995, 129594, 176393, 230392, 291591, 359990, 435589, 518388, 608387, 705586, 809985, 921584, 1040383, 1166382, 1299581, 1439980, 1587579, 1742378, 1904377, 2073576, 2249975, 2433574, 2624373, 2822372
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 25 2012
[A096472] 3600, 7200, 10800, 14400, 18000, 21600, 25200, 28800, 32400, 36000, 39600, 43200, 46800, 50400, 54000, 57600, 61200, 64800, 68400, 72000, 75600, 79200, 82800, 86400, 90000, 93600, 97200, 100800, 104400, 108000, 111600, 115200, 118800
a(n) = n*60^2.
[A157861] 3601, 14402, 32403, 57604, 90005, 129606, 176407, 230408, 291609, 360010, 435611, 518412, 608413, 705614, 810015, 921616, 1040417, 1166418, 1299619, 1440020, 1587621, 1742422, 1904423, 2073624, 2250025, 2433626, 2624427, 2822428
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 25 2012
[A118060] 1, 4060, 11481, 22264, 36409, 53916, 74785, 99016, 126609, 157564, 191881, 229560, 270601, 315004, 362769, 413896, 468385, 526236, 587449, 652024, 719961, 791260, 865921, 943944, 1025329, 1110076, 1198185, 1289656, 1384489, 1482684, 1584241
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(1+4057*x-696*x^2)/(1-x)^3. - Colin Barker, Jul 01 2012
a(n)+(a(n)+1)+...+(a(n)+1681n+1188) = (a(n)+1681n+1189)+ ... +a(n+1)-1; a(n+1)-1 = a(n)+3362n+696.
a(n)+(a(n)+1)+...+(a(n)+1681n+1188)=41(41n-12)(41n+29)(82n+17)/2; e.g., 11481+11482+...+17712=90965388=41*111*152*263/2.
[A023346] 4259, 174079, 253369, 275699, 448859, 527159, 539639, 649969, 1101509, 1218559, 1230629, 1319729, 1426889, 1780939, 1929899, 1947109, 1960919, 2082469, 2087419, 2262409, 2479619, 2499169, 2797999, 2808359, 2809439, 2813339, 3089059, 3363749
a(n) == 9 (mod 10). - John Cerkan, Oct 24 2016
[A157364] 4607, 18817, 42631, 76049, 119071, 171697, 233927, 305761, 387199, 478241, 578887, 689137, 808991, 938449, 1077511, 1226177, 1384447, 1552321, 1729799, 1916881, 2113567, 2319857, 2535751, 2761249, 2996351, 3241057, 3495367
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A226801] 4683, 25988, 87135, 227304, 507035, 1014348, 1871583, 3242960, 5342859, 8444820, 12891263, 19103928, 27595035, 38979164, 53985855, 73472928, 98440523, 130045860, 169618719, 218677640, 278946843, 352373868, 441147935, 547719024, 674817675, 825475508
a(n) = (n + 1)*(n^5 + 35*n^4 + 430*n^3 + 2320*n^2 + 5525*n + 4683).
a(n) = 7*a(n-1) -21*a(n-2) +35*a(n-3) -35*a(n-4) +21*a(n-5) -7*a(n-6) +a(n-7).
[A157516] 4801, 19601, 44401, 79201, 124001, 178801, 243601, 318401, 403201, 498001, 602801, 717601, 842401, 977201, 1122001, 1276801, 1441601, 1616401, 1801201, 1996001, 2200801, 2415601, 2640401, 2875201, 3120001, 3374801, 3639601
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A124088] 4862, 16796, 41990, 90440, 177650, 326876, 572033, 961400, 1562275, 2466750, 3798795, 5722860, 8454225, 12271350, 17530500, 24682944, 34295052, 47071640, 63882940, 85795600, 114108148, 150391384, 196534195, 254795320, 327861625, 418913482, 531697881
a(n) = C(n,9)-C(n,7).
[A157367] 4999, 19601, 43807, 77617, 121031, 174049, 236671, 308897, 390727, 482161, 583199, 693841, 814087, 943937, 1083391, 1232449, 1391111, 1559377, 1737247, 1924721, 2121799, 2328481, 2544767, 2770657, 3006151, 3251249, 3505951
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A090393] 0, 5040, 12288, 22572, 36992, 56990, 84432, 121703, 171816, 238536, 326520, 441474, 590328, 781430, 1024760, 1332165, 1717616, 2197488, 2790864, 3519864, 4410000, 5490558, 6795008, 8361443, 10233048, 12458600, 15093000, 18197838
a(n) = 8*a(n-1) - 28*a(n-2) + 56*a(n-3) - 70*a(n-4) + 56*a(n-5) - 28*a(n-6) + 8*a(n-7) - a(n-8) for n > 7.
[A157511] 5201, 20401, 45601, 80801, 126001, 181201, 246401, 321601, 406801, 502001, 607201, 722401, 847601, 982801, 1128001, 1283201, 1448401, 1623601, 1808801, 2004001, 2209201, 2424401, 2649601, 2884801, 3130001, 3385201, 3650401
a(1)=5201, a(2)=20401, a(3)=45601, a(n)=3*a(n-1)-3*a(n-2)+a(n-3).
[A178027] 0, 5291, 10582, 15873, 21164, 26455, 31746, 37037, 42328, 47619, 52910, 58201, 63492, 68783, 74074, 79365, 84656, 89947, 95238, 100529, 105820, 111111, 116402, 121693, 126984, 132275, 137566, 142857, 148148, 153439, 158730, 164021, 169312
a(n) = n*5291. [R. J. Mathar, May 24 2010]
[A023342] 5333, 26669, 294167, 324869, 344189, 578297, 676829, 807407, 894893, 1078559, 1114427, 1174487, 1624349, 1883363, 2247923, 2926769, 3075029, 3196871, 3427871, 3558407, 4037039, 4205879, 5392799, 6130823, 6479423, 6714497, 6750113, 6915299
a(n) == 41 mod 42. - John Cerkan, Oct 20 2016
[A114361] 1, 5778, 40169, 87727, 136338, 184958, 233578, 282198, 330818, 379438, 428058, 476678, 525298, 573918, 622538, 671158, 719778, 768398, 817018, 865638, 914258, 962878, 1011498, 1060118, 1108738, 1157358, 1205978, 1254598, 1303218, 1351838
a(n)= 48620n-106762, with n>4, a(1)=1, a(2)=5778, a(3)=40169, a(4)=87727.
a(n) = 2*a(n-1)-a(n-2) for n>6. G.f.: x*(1+5776*x+28614*x^2+13167*x^3+1053*x^4+9*x^5)/(1-x)^2. [Colin Barker, Mar 18 2012]
[A157666] 5967, 25650, 45333, 65016, 84699, 104382, 124065, 143748, 163431, 183114, 202797, 222480, 242163, 261846, 281529, 301212, 320895, 340578, 360261, 379944, 399627, 419310, 438993, 458676, 478359, 498042, 517725, 537408, 557091, 576774, 596457
a(1)=5967, a(2)=25650, a(n)=2*a(n-1)-a(n-2). (End)
[A157652] 6040, 14040, 22040, 30040, 38040, 46040, 54040, 62040, 70040, 78040, 86040, 94040, 102040, 110040, 118040, 126040, 134040, 142040, 150040, 158040, 166040, 174040, 182040, 190040, 198040, 206040, 214040, 222040, 230040, 238040, 246040, 254040
a(n) = 2*a(n-1) - a(n-2).
[A157267] 6049, 32257, 79201, 146881, 235297, 344449, 474337, 624961, 796321, 988417, 1201249, 1434817, 1689121, 1964161, 2259937, 2576449, 2913697, 3271681, 3650401, 4049857, 4470049, 4910977, 5372641, 5855041, 6358177, 6882049
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 27 2012
[A259060] 6426, 7900, 9614, 11592, 13858, 16436, 19350, 22624, 26282, 30348, 34846, 39800, 45234, 51172, 57638, 64656, 72250, 80444, 89262, 98728, 108866, 119700, 131254, 143552, 156618, 170476, 185150, 200664, 217042, 234308, 252486, 271600, 291674
a(n) = 4*a(n-1)-6*a(n-2)+4*a(n-3)-a(n-4). - Vincenzo Librandi, Aug 13 2015
[A100897] 7007, 7117, 7227, 7337, 7447, 7557, 7667, 7777, 7887, 7997, 710107, 711117, 712127, 713137, 714147, 715157, 716167, 717177, 718187, 719197, 720207, 721217, 722227, 723237, 724247, 725257, 726267, 727277, 728287, 729297, 730307
a(n) = 7nn7 where n=0, 1, 2, 3, ...
[A023322] 7949, 25589, 55799, 61379, 69959, 70229, 74609, 174569, 188369, 204719, 220469, 225629, 233759, 250919, 286619, 363659, 552749, 592139, 658349, 735419, 783269, 827549, 931949, 1018889, 1065839, 1126319, 1132739, 1187939, 1215629, 1378529
a(n) == 9 (mod 10). - John Cerkan, Oct 08 2016
[A157660] 7960, 15960, 23960, 31960, 39960, 47960, 55960, 63960, 71960, 79960, 87960, 95960, 103960, 111960, 119960, 127960, 135960, 143960, 151960, 159960, 167960, 175960, 183960, 191960, 199960, 207960, 215960, 223960, 231960, 239960, 247960, 255960
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 28 2012
[A157663] 8040, 16040, 24040, 32040, 40040, 48040, 56040, 64040, 72040, 80040, 88040, 96040, 104040, 112040, 120040, 128040, 136040, 144040, 152040, 160040, 168040, 176040, 184040, 192040, 200040, 208040, 216040, 224040, 232040, 240040, 248040, 256040
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 04 2012
[A157731] 8274, 26796, 45318, 63840, 82362, 100884, 119406, 137928, 156450, 174972, 193494, 212016, 230538, 249060, 267582, 286104, 304626, 323148, 341670, 360192, 378714, 397236, 415758, 434280, 452802, 471324, 489846, 508368, 526890, 545412, 563934
a(n) = 2*a(n-1) - a(n-2).
[A023321] 8431, 9721, 24169, 35311, 63577, 74203, 109471, 109891, 140269, 174613, 176599, 182857, 210187, 241561, 270553, 274837, 274909, 276517, 281557, 324763, 326737, 383659, 464089, 474127, 489109, 498403, 540781, 563587, 576943, 582949, 633253
a(n) == 19 or 31 (mod 42). - John Cerkan, Oct 08 2016

[A156846] 8579, 20746, 32913, 45080, 57247, 69414, 81581, 93748, 105915, 118082, 130249, 142416, 154583, 166750, 178917, 191084, 203251, 215418, 227585, 239752, 251919, 264086, 276253, 288420, 300587, 312754, 324921, 337088, 349255, 361422, 373589
a(n) = 2*a(n-1) -a(n-2).
[A067867] 8736, 18736, 28736, 38736, 48736, 58736, 68736, 78736, 88736, 98736, 108736, 118736, 128736, 138736, 148736, 158736, 168736, 178736, 188736, 198736, 208736, 218736, 228736, 238736, 248736, 258736, 268736, 278736, 288736, 298736, 308736
a(n) = 8736 + 10^4(n-1).
a(n) = 2*a(n-1)-a(n-2). G.f.: 16*x*(546+79*x)/(1-x)^2. [Colin Barker, Dec 01 2012]
[A157619] 9100, 40350, 71600, 102850, 134100, 165350, 196600, 227850, 259100, 290350, 321600, 352850, 384100, 415350, 446600, 477850, 509100, 540350, 571600, 602850, 634100, 665350, 696600, 727850, 759100, 790350, 821600, 852850, 884100, 915350
a(n) = 2*a(n-1) - a(n-2).
[A134117] 9551, 12853, 14107, 15823, 18803, 22193, 22307, 22817, 24281, 27143, 28351, 29881, 32261, 40387, 42863, 45083, 45197, 46771, 46957, 47981, 50461, 57601, 60041, 60457, 62423, 65993, 66301, 68171, 69073, 69557, 71597, 72577, 72823, 73783
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 14 2015
[A126978] 9977, 10081, 10185, 10289, 10393, 10497, 10601, 10705, 10809, 10913, 11017, 11121, 11225, 11329, 11433, 11537, 11641, 11745, 11849, 11953, 12057, 12161, 12265, 12369, 12473, 12577, 12681, 12785, 12889, 12993, 13097, 13201, 13305, 13409, 13513, 13617
a(0)=9977, a(1)=10081, a(n) = 2*a(n-1)-a(n-2). - Harvey P. Dale, Dec 16 2011
[A167149] 0, 1, 10000, 29997, 59992, 99985, 149976, 209965, 279952, 359937, 449920, 549901, 659880, 779857, 909832, 1049805, 1199776, 1359745, 1529712, 1709677, 1899640, 2099601, 2309560, 2529517, 2759472, 2999425, 3249376, 3509325, 3779272, 4059217, 4349160, 4649101
a(n) = 3*a(n-1) - 3*a(n-2) + a(n-3).
[A173029] 10007, 20016, 60025, 130026, 200029, 270038, 360039, 450046, 550049, 750052, 950061, 1250068, 1650077, 2150086, 2850087, 3750088, 4650095, 5650098, 6650131, 7650168, 8650207, 9650288, 10650387, 11650690, 12651093, 13651502, 14652009, 15652618, 16653525
a(n) = SUM[i=1..n] {p such that p is prime and the number of zeros in the decimal representation of p is greater than the number of all other digits}.
[A023356] 10061, 20071, 161093, 200713, 291419, 564979, 600791, 606839, 693079, 1826519, 1876807, 2106407, 2249207, 2471471, 3335369, 3955499, 4542547, 4765609, 4829603, 4955981, 5090507, 5534993, 5866247, 5987921, 6091213, 6399521, 6519613, 6522539
a(n) == 9 (mod 14). - John Cerkan, Aug 26 2016
[A157288] 10081, 40897, 92449, 164737, 257761, 371521, 506017, 661249, 837217, 1033921, 1251361, 1489537, 1748449, 2028097, 2328481, 2649601, 2991457, 3354049, 3737377, 4141441, 4566241, 5011777, 5478049, 5965057, 6472801, 7001281
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 28 2012
[A157735] 10248, 28770, 47292, 65814, 84336, 102858, 121380, 139902, 158424, 176946, 195468, 213990, 232512, 251034, 269556, 288078, 306600, 325122, 343644, 362166, 380688, 399210, 417732, 436254, 454776, 473298, 491820, 510342, 528864, 547386
a(n) = 2*a(n-1) - a(n-2).
[A226599] 10370, 10730, 11570, 12410, 13130, 19610, 22490, 25010, 31610, 38090, 38930, 39338, 39962, 40970, 41810, 55250, 55970, 59330, 59930, 69530, 70850, 73730, 76850, 77090, 89570, 98090, 98930, 103298, 118898, 125450, 126290, 130730, 135218, 139490
a(n) = p^2 + q^2; p, q are (not necessarily different) primes
[A157445] 10405, 49730, 118337, 216226, 343397, 499850, 685585, 900602, 1144901, 1418482, 1721345, 2053490, 2414917, 2805626, 3225617, 3674890, 4153445, 4661282, 5198401, 5764802, 6360485, 6985450, 7639697, 8323226, 9036037, 9778130
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A179426] 0, 0, 0, 0, 0, 10596, 486668, 7063520, 55345356, 299491100, 1263811604, 4455716184, 13701863604, 37823872044, 95648273100, 224887404416, 497181121100, 1042609380588, 2088337713332, 4017815773400, 7459198321428, 13414493857116, 23444476061772, 39928736913120, 66425550447500, 108162598959740, 172697249542932, 270794133842456, 417578468928308, 634036069773900
a(n) = 1/720*n^2*(n^10 -135*n^8 +7525*n^6 -217665*n^4 +3289354*n^2 -20949480), n>=7.
[A157326] 10657, 42049, 94177, 167041, 260641, 374977, 510049, 665857, 842401, 1039681, 1257697, 1496449, 1755937, 2036161, 2337121, 2658817, 3001249, 3364417, 3748321, 4152961, 4578337, 5024449, 5491297, 5978881, 6487201, 7016257
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A156713] 12005, 12467, 12985, 14063, 15025, 16807, 19073, 20923, 24157, 26747, 31213, 40817, 48055, 53753, 63455, 71077, 84035, 99413, 111475, 131957, 148015, 175273, 232897, 275863, 309533, 366667, 411437, 487403, 577405, 647927, 767585, 861343
a(n) = 6*a(n-11)-a(n-22) for n > 22; a(1) = 12005, a(2) = 12467, a(3) = 12985, a(4) = 14063, a(5) = 15025, a(6) = 16807, a(7) = 19073, a(8) = 20923, a(9) = 24157, a(10) = 26747, a(11) = 31213, a(12) = 40817, a(13) = 48055, a(14) = 53753, a(15) = 63455, a(16) = 71077, a(17) = 84035, a(18) = 99413, a(19) = 111475, a(20) = 131957, a(21) = 148015, a(22) = 175273.
[A178475] 12345, 12354, 12435, 12453, 12534, 12543, 13245, 13254, 13425, 13452, 13524, 13542, 14235, 14253, 14325, 14352, 14523, 14532, 15234, 15243, 15324, 15342, 15423, 15432, 21345, 21354, 21435, 21453, 21534, 21543, 23145, 23154, 23415
a(n) + a(5!+1-n) = 66666.
a(n) == 6 (mod 9).
[A157509] 12799, 51841, 117127, 208657, 326431, 470449, 640711, 837217, 1059967, 1308961, 1584199, 1885681, 2213407, 2567377, 2947591, 3354049, 3786751, 4245697, 4730887, 5242321, 5779999, 6343921, 6934087, 7550497, 8193151, 8862049
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3). - Vincenzo Librandi, Jan 26 2012
[A157433] 13121, 15841, 18817, 22049, 25537, 29281, 33281, 37537, 42049, 46817, 51841, 57121, 62657, 68449, 74497, 80801, 87361, 94177, 101249, 108577, 116161, 124001, 132097, 140449, 149057, 157921, 167041, 176417, 186049, 195937, 206081, 216481
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A157506] 13447, 53137, 119071, 211249, 329671, 474337, 645247, 842401, 1065799, 1315441, 1591327, 1893457, 2221831, 2576449, 2957311, 3364417, 3797767, 4257361, 4743199, 5255281, 5793607, 6358177, 6948991, 7566049, 8209351, 8878897
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). - Vincenzo Librandi, Feb 04 2012
[A157669] 13716, 33399, 53082, 72765, 92448, 112131, 131814, 151497, 171180, 190863, 210546, 230229, 249912, 269595, 289278, 308961, 328644, 348327, 368010, 387693, 407376, 427059, 446742, 466425, 486108, 505791, 525474, 545157, 564840, 584523
a(n) = 2*a(n-1) - a(n-2).
[A178486] 13717, 13718, 13727, 13729, 13738, 13739, 13817, 13818, 13837, 13840, 13848, 13850, 13927, 13929, 13937, 13940, 13959, 13960, 14038, 14039, 14048, 14050, 14059, 14060, 14717, 14718, 14727, 14729, 14738, 14739, 14917, 14918, 14947, 14951, 14958, 14961
a(n) + a(6!+1-n) = 86419.
a(n) == 0, 1, 2, 7, 8 or 9 (mod 10).
[A157786] 14112, 80539, 201416, 376743, 606520, 890747, 1229424, 1622551, 2070128, 2572155, 3128632, 3739559, 4404936, 5124763, 5899040, 6727767, 7610944, 8548571, 9540648, 10587175, 11688152, 12843579, 14053456, 15317783, 16636560, 18009787, 19437464, 20919591
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A023333] 14723, 20123, 54713, 109433, 594653, 604883, 676493, 759953, 847103, 935843, 1035743, 1049603, 1079033, 1099823, 1222253, 1263323, 1499153, 1754033, 1835003, 1893173, 2017283, 2071493, 2099213, 2199653, 2895743, 2998313, 3389693, 4133663
a(n) == 23 (mod 30). - John Cerkan, Oct 10 2016
[A177412] 14831, 41069, 55900, 96969, 152869, 249838, 402707, 652545, 1055252, 1707797, 2763049, 4470846, 7233895, 11704741, 18938636, 30643377, 49582013, 80225390, 129807403, 210032793, 339840196, 549872989, 889713185, 1439586174, 2329299359, 3768885533, 6098184892, 9867070425, 15965255317, 25832325742, 41797581059
a(n) = a(n-1) + a(n-2).
a(n) = (2^(-1-n)*((1-sqrt(5))^n*(-67307+14831*sqrt(5)) + (1+sqrt(5))^n*(67307+14831*sqrt(5)))) / sqrt(5). - Colin Barker, May 03 2017
[A259711] 15120, 20160, 25200, 30240, 35280, 40320, 45360, 50400, 55440, 60480, 65520, 70560, 75600, 80640, 85680, 90720, 95760, 100800, 105840, 110880, 115920, 120960, 126000, 131040, 136080, 141120, 146160, 151200, 156240, 161280, 166320, 171360, 176400, 181440, 186480
a(n) = 2*a(n-1) - a(n-2). - Colin Barker, Jul 03 2015

[A157436] 15137, 18049, 21217, 24641, 28321, 32257, 36449, 40897, 45601, 50561, 55777, 61249, 66977, 72961, 79201, 85697, 92449, 99457, 106721, 114241, 122017, 130049, 138337, 146881, 155681, 164737, 174049, 183617, 193441, 203521, 213857, 224449
a(n) = 3*a(n-1) -3*a(n-2) +a(n-3).
[A254029] 15621, 31246, 46871, 62496, 78121, 93746, 109371, 124996, 140621, 156246, 171871, 187496, 203121, 218746, 234371, 249996, 265621, 281246, 296871, 312496, 328121, 343746, 359371, 374996, 390621, 406246, 421871, 437496, 453121, 468746
a(n) = 2*a(n-1) - a(n-2) = a(n-1) + 15625.
[A181098] 16718, 26378, 31173, 39336, 46406, 46524, 51782, 55187, 58374, 58452, 60129, 60850, 63338, 63762, 67898, 69587, 71299, 75652, 78035, 78269, 80277, 83674, 84213, 89052, 95490, 97080, 100881, 101527, 103438, 105916, 111772, 112967
a(n) = n + 100n/log n - O(n/log^2 n). - Charles R Greathouse IV, Sep 08 2017
[A157738] 18480, 37002, 55524, 74046, 92568, 111090, 129612, 148134, 166656, 185178, 203700, 222222, 240744, 259266, 277788, 296310, 314832, 333354, 351876, 370398, 388920, 407442, 425964, 444486, 463008, 481530, 500052, 518574, 537096, 555618
a(n) = 2*a(n-1) - a(n-2). - Vincenzo Librandi, Jan 25 2012
[A157740] 18564, 37086, 55608, 74130, 92652, 111174, 129696, 148218, 166740, 185262, 203784, 222306, 240828, 259350, 277872, 296394, 314916, 333438, 351960, 370482, 389004, 407526, 426048, 444570, 463092, 481614, 500136, 518658, 537180, 555702
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Feb 05 2012
[A204665] 19609, 25471, 35677, 43801, 48679, 59281, 74959, 103237, 152311, 167809, 188197, 206827, 257731, 315127, 323149, 326257, 326779, 348097, 359929, 363067, 365851, 377911, 381859, 405091, 417037, 428899, 432661, 444349, 459961, 501511, 521929, 528559, 544549, 547171, 554977, 561109, 569269, 582319, 590437, 610339, 622189
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 14 2015
[A157622] 22150, 53400, 84650, 115900, 147150, 178400, 209650, 240900, 272150, 303400, 334650, 365900, 397150, 428400, 459650, 490900, 522150, 553400, 584650, 615900, 647150, 678400, 709650, 740900, 772150, 803400, 834650, 865900, 897150, 928400
a(n) = 2*a(n-1) - a(n-2).
[A118061] 1, 23661, 66921, 129781, 212241, 314301, 435961, 577221, 738081, 918541, 1118601, 1338261, 1577521, 1836381, 2114841, 2412901, 2730561, 3067821, 3424681, 3801141, 4197201, 4612861, 5048121, 5502981, 5977441, 6471501
a(n)+(a(n)+1)+...+(a(n)+9800n+6929)=(a(n)+9800n+6930)+...+(a(n)+19600n+4059); a(n)+19600n+4059=a(n+1)-1; a(n+1)-1=a(n)+19600n+4059.
a(n)+(a(n)+1)+...+(a(n)+576n+203)=35(140n-41)(140n+29)(140n+99); e.g., 66921+66922+...+103250=3091156215=35*379*449*519.
a(n) = 3*a(n-1)-3*a(n-2)+a(n-3). G.f.: x*(1+23658*x-4059*x^2)/(1-x)^3. - Colin Barker, Jul 01 2012
[A023350] 25589, 220469, 225629, 286619, 783269, 1215629, 1407389, 1542029, 1642919, 2329469, 2776979, 3104159, 4082759, 4229129, 5405999, 5905619, 6548849, 6862859, 7681409, 7904669, 8623799, 8971049, 9599309, 9658469, 9725039, 11420579
a(n) == 29 (mod 30). - John Cerkan, Nov 08 2016
[A083740] 29341, 46657, 75361, 88831, 115921, 146611, 162401, 252601, 294409, 314821, 334153, 340561, 399001, 410041, 488881, 512461, 530881, 552721, 658801, 721801, 852841, 954271, 1024651, 1152271, 1193221, 1314631, 1461241, 1569457, 1615681
a(n) = n-th positive integer k(>1) such that 3^(k-1) = 1 (mod k), 5^(k-1) = 1 (mod k) and 7^(k-1) = 1 (mod k).
[A083739] 29341, 46657, 75361, 115921, 162401, 252601, 294409, 314821, 334153, 340561, 399001, 410041, 488881, 512461, 530881, 552721, 658801, 721801, 852841, 1024651, 1152271, 1193221, 1461241, 1569457, 1615681, 1857241, 1909001, 2100901
a(n) = n-th positive integer k(>1) such that 2^(k-1) = 1 (mod k), 3^(k-1) = 1 (mod k), 5^(k-1) = 1 (mod k) and 7^(k-1) = 1 (mod k)
[A067885] 30030, 39270, 43890, 46410, 51870, 53130, 62790, 66990, 67830, 71610, 72930, 79170, 81510, 82110, 84630, 85470, 91770, 94710, 98670, 99330, 101010, 102102, 103530, 106590, 108570, 110670, 111930, 114114, 115710, 117390, 122430, 123690
a(n) = n(log log n)^5/(120 log n). - Charles R Greathouse IV, Sep 14 2015
[A157111] 30996, 168838, 306680, 444522, 582364, 720206, 858048, 995890, 1133732, 1271574, 1409416, 1547258, 1685100, 1822942, 1960784, 2098626, 2236468, 2374310, 2512152, 2649994, 2787836, 2925678, 3063520, 3201362, 3339204, 3477046
a(n) = 2*a(n-1)-a(n-2). - Vincenzo Librandi, Jan 25 2012
[A134124] 31907, 45893, 60539, 69263, 95651, 112691, 162293, 167543, 172883, 181553, 197837, 206699, 212507, 220613, 225167, 246839, 272813, 274529, 291569, 293021, 298943, 334793, 338609, 345329, 349241, 355211, 362801, 368957, 369419, 380657
a(n) » n log^2 n. - Charles R Greathouse IV, Sep 14 2015
[A023336] 34613, 165443, 321053, 363403, 474143, 496333, 528673, 631853, 834503, 957563, 1199623, 1274803, 1817093, 1918733, 2063423, 2611663, 2889703, 3224233, 3652703, 3697433, 3824413, 3852973, 4655873, 4708793, 5089943, 5508263, 5937853, 6067073
a(n) == 33 (mod 70). - John Cerkan, Oct 10 2016
[A165479] 43690, 131070, 174761, 262141, 305832, 393212, 436903, 524283, 567974, 655354, 699045, 786425, 830116, 917496, 961187, 1048567, 1092258, 1179638, 1223329, 1310709, 1354400, 1441780, 1485471, 1572851, 1616542, 1703922
a(n) = floor(n/2)*131071 + (1+2*(n modulo 2))*43690
[A067869] 48736, 148736, 248736, 348736, 448736, 548736, 648736, 748736, 848736, 948736, 1048736, 1148736, 1248736, 1348736, 1448736, 1548736, 1648736, 1748736, 1848736, 1948736, 2048736, 2148736, 2248736, 2348736, 2448736, 2548736
a(n) = 48736+10^5(n-1).
a(n) = 2*a(n-1)-a(n-2). G.f.: x*(48736+51264*x)/(1-x)^2. - Colin Barker, Jun 05 2012
[A155557] 53089, 53093, 53101, 53113, 53129, 53149, 53173, 53201, 53233, 53269, 53309, 53353, 53401, 53453, 53509, 53569, 53633, 53701, 53773, 53849, 53929, 54013, 54101, 54193, 54289, 54389, 54493, 54601, 54713, 54829
a(n) = 2*n^2 - 2*n + 53089.
a(1)=53089, a(2)=53093, a(3)=53101, a(n)=3*a(n-1)-3*a(n-2)+a(n-3) [From Harvey P. Dale, Jul 19 2011]
[A135403] 1, 111111, 222221, 333331, 444441, 555551, 666661, 777771, 888881, 999991, 1111101, 1222211, 1333321, 1444431, 1555541, 1666651, 1777761, 1888871, 1999981, 2111091, 2222201, 2333311, 2444421, 2555531, 2666641, 2777751, 2888861, 2999971, 3111081, 3222191
a(n) = 2*a(n-1) - a(n-2). (End)
[A178476] 123456, 123465, 123546, 123564, 123645, 123654, 124356, 124365, 124536, 124563, 124635, 124653, 125346, 125364, 125436, 125463, 125634, 125643, 126345, 126354, 126435, 126453, 126534, 126543, 132456, 132465, 132546, 132564, 132645, 132654
a(n) + a(6!+1-n) = 777777.
a(n)==3 (mod 9).
[A165478] 0, 131070, 131071, 262141, 262142, 393212, 393213, 524283, 524284, 655354, 655355, 786425, 786426, 917496, 917497, 1048567, 1048568, 1179638, 1179639, 1310709, 1310710, 1441780, 1441781, 1572851, 1572852, 1703922, 1703923
a(n) = floor(n/2)*131071 + (n modulo 2)*131070
[A023341] 135859, 174877, 192979, 244219, 292561, 679297, 842341, 964897, 1076029, 1470241, 1990579, 2004943, 2339263, 2615707, 2625577, 2633557, 2892277, 3003787, 3201901, 3758233, 4406797, 5065861, 5157547, 5390857, 5424961, 5546173, 5875369, 7746217
a(n) == 31 (mod 42). - John Cerkan, Oct 17 2016
[A014889] 761664, 817499, 817500, 817507, 817508, 819609, 823543, 1585207, 1641042, 1641043, 1641050, 1641051, 1643152, 1647086, 2408750, 2464585, 2464586, 2464593, 2464594, 2466695, 2470629, 3232293, 3288128, 3288129, 3288136, 3288137, 3290238, 3294172, 4055836, 4111671, 4111672, 4111679, 4111680, 4113781
a(n) = a(n-1) + a(n-7) - a(n-8) for 8 < n <= 34. - Chai Wah Wu, Jun 06 2016
[A271027] 3661529, 14846339, 26031149, 37215959, 48400769, 59585579, 70770389, 81955199, 93140009, 104324819, 115509629, 126694439, 137879249, 149064059, 160248869, 171433679, 182618489, 193803299, 204988109, 216172919, 227357729, 238542539, 249727349, 260912159, 272096969, 283281779, 294466589
a(n) = 2*a(n-1) - a(n-2) for n>1.
[A270994] 9454129, 20638939, 31823749, 43008559, 54193369, 65378179, 76562989, 87747799, 98932609, 110117419, 121302229, 132487039, 143671849, 154856659, 166041469, 177226279, 188411089, 199595899, 210780709, 221965519, 233150329, 244335139, 255519949, 266704759, 277889569, 289074379, 300259189
a(n) = 2*a(n-1) - a(n-2) for n>1.

[A099600] 0, 0, 33333333333, 97777777778, 188000000000, 296266666667, 413555555556, 530844444444, 640314074074, 736230320988, 815361224691, 876907483128, 922041405981, 953224843588, 973494078033, 985863508285, 992931754142, 996701485266, 998570643615, 999428257446, 999790361064, 999930120355, 999979036106, 999994409628, 999998695580, 999999739116, 999999956519, 999999994203, 999999999420, 999999999961, 999999999999, 1000000000000

a(n) = round(10^12 * (1. - 30!/ ((30-n)! * 30^n))) for 0 <= n <= 30. This corresponds, with d=30, to P_2(n, d) at the MathWorld Birthday Problem link. Clearly the probability is 1 and so a(n) = 10^12 here for all n > 30.

[A204189] 43142746595714191, 48425980631694091, 53709214667673991, 58992448703653891, 64275682739633791, 69558916775613691, 74842150811593591, 80125384847573491, 85408618883553391, 90691852919533291, 95975086955513191, 101258320991493091, 106541555027472991, 111824789063452891, 117108023099432791, 122391257135412691, 127674491171392591, 132957725207372491, 138240959243352391, 143524193279332291, 148807427315312191, 154090661351292091, 159373895387272, 164657129423251891, 169940363459231791, 175223597495211691

a(n) = 43142746595714191 + 5283234035979900*(n-1) for n = 1, 2, ..., 26.