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2021300045
SE Comps A
Batch C

DAA EXPERIMENT 1

Aim – To implement the various functions e.g. linear, non-linear, quadratic, exponential etc.

Details – A function is a relation between a set of inputs and a set of permissible outputs with the property that each
input is related to exactly one output. Let A & B be any two non-empty sets; mapping from A to B will be a function
only when every element in set A has one end, only one image in set B.

Code -

```
#include <stdio.h>
#include <math.h>

// (3/2)^n
float one (int n) {
        return pow(1.5,n);
}

// ln(ln(n))
float two (int n) {
        return log(log(n));
}

// 2^(log2(n))
float three (int n) {
        return pow(2,log2(n));
}
```

```
// log2(log2(n))
float four (int n) {
	return log2(log2(n));
}

// n^3
float five (int n) {
	return pow(n,3);
}

// log2(n)
float six (int n) {
	return log2(n);
}

// log2(n)^log2(n)
float seven (int n) {
	return pow(log2(n),log2(n));
}

// 2^2log2(n)^1/2
float eight (int n) {
	return pow(2,pow(2*log2(n),1/2));
}

// log2(n)^2
float nine (int n) {
	return pow(log2(n),2);
}

// n*2^n
float ten (int n) {
	return n*pow(2,n);
}

// n!
float fact (int n) {
	int ans = 1;
	for (int i = 2; i<n+1; ++i) ans*=i;
```

```
	return ans;
}

int main () {

	printf ("Sr No.\t(3/2)^n\tln(ln(n))\t2^(log2(n))\tlog2(log2(n))\tn^3\tlog2(n)\tlog2(n)^log2(n)\t2^2log2(n)^1/2\t2^2log2(n)^1/2\tn*2^n\tn!\n");
	int cnt = 0;
	for (int i = 0; i<101; ++i) {
		printf ("%d\t", i);
		printf ("%.3f\t", one(i));
		printf ("%.3f\t", two(i));
		printf ("%.3f\t", three(i));
		printf ("%.3f\t", four(i));
		printf ("%.3f\t", five(i));
		printf ("%.3f\t", six(i));
		printf ("%.3f\t", seven(i));
		printf ("%.3f\t", eight(i));
		printf ("%.3f\t", nine(i));
		printf ("%.3f\t", ten(i));
		if (cnt++<21) printf ("%.3f\t", fact(i));
		printf("\n");
	}

	return 0;
}
```

Output -

Sr No.	(3/2)^n	ln(ln(n))	2^(log2(n))	log2(log2(n))	n^3	log2(n)	log2(n)^log2(n)	2^2log2(n)^1/2	2^2log2(n)^1/2	n*2^n	n!
0	1.000	-nan	0.000	-nan	0.000	-inf	0.000	2.000	inf	0.000	1.000
1	1.500	-inf	1.000	-inf	1.000	0.000	1.000	2.000	0.000	2.000	1.000
2	2.250	-0.367	2.000	0.000	8.000	1.000	1.000	2.000	1.000	8.000	2.000
3	3.375	0.094	3.000	0.664	27.000	1.585	2.075	2.000	2.512	24.000	6.000
4	5.062	0.327	4.000	1.000	64.000	2.000	4.000	2.000	4.000	64.000	24.000
5	7.594	0.476	5.000	1.215	125.000	2.322	7.071	2.000	5.391	160.000	120.000
6	11.391	0.583	6.000	1.370	216.000	2.585	11.646	2.000	6.682	384.000	720.000
7	17.086	0.666	7.000	1.489	343.000	2.807	18.136	2.000	7.881	896.000	5040.000
8	25.629	0.732	8.000	1.585	512.000	3.000	27.000	2.000	9.000	2048.000	40320.000
9	38.443	0.787	9.000	1.664	729.000	3.170	38.751	2.000	10.048	4608.000	362880.000
10	57.665	0.834	10.000	1.732	1000.000		3.322	53.954	2.000	11.035	10240.000	3628800.000
11	86.498	0.875	11.000	1.791	1331.000		3.459	73.223	2.000	11.968	22528.000	39916800.000
12	129.746	0.910	12.000	1.842	1728.000		3.585	97.231	2.000	12.852	49152.000	479001600.000
13	194.620	0.942	13.000	1.888	2197.000		3.700	126.703	2.000	13.693	106496.000	1932053504.000
14	291.929	0.970	14.000	1.929	2744.000		3.807	162.420	2.000	14.496	229376.000	1278945280.000
15	437.894	0.996	15.000	1.966	3375.000		3.907	205.220	2.000	15.264	491520.000	2004310016.000
16	656.841	1.020	16.000	2.000	4096.000		4.000	256.000	2.000	16.000	1048576.000	2004189184.000
17	985.261	1.041	17.000	2.031	4913.000		4.087	315.715	2.000	16.707	2228224.000	-288522240.000
18	1477.892		1.061	18.000	2.060	5832.000		4.170	385.379	2.000	17.388	4718592.000	-898433024.000
19	2216.838		1.080	19.000	2.087	6859.000		4.248	466.070	2.000	18.045	9961472.000	109641728.000
20	3325.257		1.097	20.000	2.112	8000.000		4.322	558.924	2.000	18.679	20971520.000	-2102132736.000
21	4987.885		1.113	21.000	2.135	9261.000		4.392	665.143	2.000	19.292	44040192.000	
22	7481.828		1.129	22.000	2.157	10648.000		4.459	785.991	2.000	19.887	92274688.000	
23	11222.741		1.143	23.000	2.177	12167.000		4.524	922.798	2.000	20.463	192937984.000	
24	16834.111		1.156	24.000	2.197	13824.000		4.585	1076.961		2.000	21.022	402653184.

25	25251.168		1.169	25.000	2.215	15625.000		4.644	1249.940		2.000	21.565	838860800.000
26	37876.754		1.181	26.000	2.233	17576.000		4.700	1443.266		2.000	22.094	1744830464.000
27	56815.129		1.193	27.000	2.249	19683.000		4.755	1658.539		2.000	22.609	3623878656.000
28	85222.695		1.204	28.000	2.265	21952.000		4.807	1897.427		2.000	23.111	7516192768.000
29	127834.039		1.214	29.000	2.280	24389.000		4.858	2161.669		2.000	23.600	15569256448.000
30	191751.062		1.224	30.000	2.295	27000.000		4.907	2453.078		2.000	24.078	32212254720.000
31	287626.594		1.234	31.000	2.309	29791.000		4.954	2773.535		2.000	24.544	66571993088.000
32	431439.875		1.243	32.000	2.322	32768.000		5.000	3125.000		2.000	25.000	137438953472.000
33	647159.812		1.252	33.000	2.335	35937.000		5.044	3509.503		2.000	25.446	283467841536.000
34	970739.750		1.260	34.000	2.347	39304.000		5.087	3929.152		2.000	25.882	584115552256.000
35	1456109.625		1.268	35.000	2.359	42875.000		5.129	4386.131		2.000	26.310	1202590842880.000
36	2184164.500		1.276	36.000	2.370	46656.000		5.170	4882.700		2.000	26.728	2473901162496.000
37	3276246.500		1.284	37.000	2.381	50653.000		5.209	5421.198		2.000	27.138	5085241278464.000
38	4914370.000		1.291	38.000	2.392	54872.000		5.248	6004.045		2.000	27.541	10445360463872.000
39	7371555.000		1.298	39.000	2.402	59319.000		5.285	6633.738		2.000	27.935	21440476741632.000
40	11057332.000		1.305	40.000	2.412	64000.000		5.322	7312.856		2.000	28.323	43980465111040.000
41	16585998.000		1.312	41.000	2.422	68921.000		5.358	8044.062		2.000	28.703	90159953477632.000
42	24878998.000		1.318	42.000	2.431	74088.000		5.392	8830.098		2.000	29.077	184717953466368.000
43	37318496.000		1.325	43.000	2.440	79507.000		5.426	9673.793		2.000	29.444	3782319999

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43      37318496.000    1.325   43.000  2.440   79507.000       5.426   9673.793        2.000   29.444  3782319999
54944.000
44      55977744.000    1.331   44.000  2.449   85184.000       5.459   10578.060       2.000   29.805  7740561859
54304.000
45      83966616.000    1.337   45.000  2.457   91125.000       5.492   11545.895       2.000   30.160  1583296743
997440.000
46      125949928.000   1.343   46.000  2.466   97336.000       5.524   12580.384       2.000   30.510  3236962232
172544.000
47      188924896.000   1.348   47.000  2.474   103823.000      5.555   13684.699       2.000   30.853  6614661952
700416.000
48      283387328.000   1.354   48.000  2.482   110592.000      5.585   14862.099       2.000   31.192  1351079888
2111488.000
49      425080992.000   1.359   49.000  2.489   117649.000      5.615   16115.934       2.000   31.525  2758454771
7644288.000
50      637621504.000   1.364   50.000  2.497   125000.000      5.644   17449.643       2.000   31.853  5629499534
2131200.000
51      956432256.000   1.369   51.000  2.504   132651.000      5.672   18866.754       2.000   32.176  1148417904
97947648.000
52      1434648320.000  1.374   52.000  2.511   140608.000      5.700   20370.891       2.000   32.495  2341871806
23265792.000
53      2151972608.000  1.379   53.000  2.518   148877.000      5.728   21965.768       2.000   32.809  4773815605
01272576.000
54      3227958784.000  1.384   54.000  2.525   157464.000      5.755   23655.193       2.000   33.119  9727775195
12027136.000
55      4841938432.000  1.388   55.000  2.531   166375.000      5.781   25443.068       2.000   33.424  1981583836
043018240.000
56      7262907392.000  1.393   56.000  2.538   175616.000      5.807   27333.393       2.000   33.725  4035225266
123964416.000
57      10894361600.000 1.397   57.000  2.544   185193.000      5.833   29330.260       2.000   34.023  8214565720
323784704.000
58      16341541888.000 1.401   58.000  2.550   195112.000      5.858   31437.857       2.000   34.316  1671736181
6799281152.000
59      24512313344.000 1.405   59.000  2.556   205379.000      5.883   33660.480       2.000   34.605  3401118438
5901985792.000
60      36768468992.000 1.410   60.000  2.562   216000.000      5.907   36002.512       2.000   34.891  6917529027
6410818560.000
61      55152701440.000 1.414   61.000  2.568   226981.000      5.931   38468.441       2.000   35.174  1406564235
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61      55152701440.000 1.414   61.000  2.568   226981.000      5.931   38468.441       2.000   35.174  1406564235
62035331072.000
62      82729058304.000 1.418   62.000  2.574   238328.000      5.954   41062.855       2.000   35.452  2859245331
42498050048.000
63      124093579264.000        1.421   63.000  2.579   250047.000      5.977   43790.445       2.000   35.728 581
072438321850875904.000
64      186140377088.000        1.425   64.000  2.585   262144.000      6.000   46656.000       2.000   36.000 118
0591620717411303424.000
65      279210557440.000        1.429   65.000  2.590   274625.000      6.022   49664.418       2.000   36.269 239
807672958224171008O.000
66      418815836160.000        1.433   66.000  2.596   287496.000      6.044   52820.695       2.000   36.535 486
994043545932162662 4.000
67      628223770624.000        1.436   67.000  2.601   300763.000      6.066   56129.938       2.000   36.797 988
7454823508319666176.000
68      942335655936.000        1.440   68.000  2.606   314432.000      6.087   59597.352       2.000   37.057 200
7005755219599215820 8.000
69      1413503516672.000       1.443   69.000  2.611   328509.000      6.109   63228.258       2.000   37.314 407
3041091475068996812 8.000
70      2120255143936.000       1.447   70.000  2.616   343000.000      6.129   67028.078       2.000   37.568 826
4141345021879123968 0.000
71      3180382650368.000       1.450   71.000  2.621   357911.000      6.150   71002.336       2.000   37.819 167
6440101418724050862 08.000
72      4770574106624.000       1.453   72.000  2.625   373248.000      6.170   75156.688       2.000   38.068 340
0103867666144553861 12.000
73      7155861159936.000       1.456   73.000  2.630   389017.000      6.190   79496.867       2.000   38.314 689
4655064989682011996 16.000
74      10733792264192.000      1.460   74.000  2.634   405224.000      6.209   84028.750       2.000   38.557 139
7820478929414983254016.000
75      16100687347712.000      1.463   75.000  2.639   421875.000      6.229   88758.305       2.000   38.798 283
3419889721787128217600.000
76      24151031021568.000      1.466   76.000  2.643   438976.000      6.248   93691.617       2.000   39.037 574
2397643169488579854336.000
77      36226547580928.000      1.469   77.000  2.648   456533.000      6.267   98834.883       2.000   39.273 116
3591101379080580654 6944.000
78      54339821371392.000      1.472   78.000  2.652   474552.000      6.285   104194.422      2.000   39.506 235
7405348248526890677 0432.000
79      81509729959936.000      1.475   79.000  2.656   493039.000      6.304   109776.664      2.000   39.738 477
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82      275095339663360.000     1.483   82.000  2.668   551368.000      6.358   127925.594      2.000   40.418 396
527668833598369303625728.000
83      412643009495040.000     1.486   83.000  2.672   571787.000      6.375   134465.250      2.000   40.641 802
726744224113772004900864.000
84      618964514242560.000     1.489   84.000  2.676   592704.000      6.392   141261.500      2.000   40.862 162
479630156206161080510054 4.000
85      928446771363840.000     1.491   85.000  2.680   614125.000      6.409   148321.484      2.000   41.080 328
827822935179135520079872 0.000
86      1392670123491328.000    1.494   86.000  2.684   636056.000      6.426   155652.453      2.000   41.297 665
392771115891897758279270 4.000
87      2089005252345856.000    1.496   87.000  2.688   658503.000      6.443   163261.797      2.000   41.512 134
625979272285104895279759 36.000
88      3133508012736512.000    1.499   88.000  2.691   681472.000      6.459   171157.016      2.000   41.724 272
346808642783660477807329 28.000
89      4700261884887040.000    1.502   89.000  2.695   704969.000      6.476   179345.734      2.000   41.935 550
883317481994222330110279 68.000
90      7050392827330560.000    1.504   90.000  2.699   729000.000      6.492   187835.703      2.000   42.144 111
414603535684224740921180 160.000
91      10575589240995840.000   1.506   91.000  2.702   753571.000      6.508   196634.797      2.000   42.351 225
305087149939210031640608 768.000
92      15863383324622848.000   1.509   92.000  2.706   778688.000      6.524   205751.016      2.000   42.557 455
561934457019941162877714 432.000
93      23795076597547008.000   1.511   93.000  2.709   804357.000      6.539   215192.500      2.000   42.761 921
027389228322924524948422 656.000
94      35692612748836864.000   1.514   94.000  2.713   830584.000      6.555   224967.469      2.000   42.963 186
186181908521193344828283 2896.000
95      53538919123255296.000   1.516   95.000  2.716   857375.000      6.570   235084.344      2.000   43.163 376
333771942755603569333764 0960.000
96      80308380832366592.000   1.518   96.000  2.719   884736.000      6.585   245551.625      2.000   43.362 760
590360136937640898021923 2256.000
97      120462571248549888.000  1.521   97.000  2.722   912673.000      6.600   256377.969      2.000   43.559 153
702635277672814931475263 65184.000
98      180693861167792128.000  1.523   98.000  2.726   941192.000      6.615   267572.125      2.000   43.754 310
574397055916203366692285 31712.000
99      271040783161753600.000  1.525   99.000  2.729   970299.000      6.629   279143.000      2.000   43.948 627
487047112973553740868086 66112.000
100     406561191922499584.000  1.527   100.000 2.732   1000000.000     6.644   291099.656      2.000   44.141 126
765060022822940149670320 537600.000
```

Table -

Sr No.	(3/2)^n	ln(ln(n))		2^(log2(n))	log2(log2(n))	n^3	log2(n)	log2(n)^log2(n)	2^2log2(n)^1/2	2^2log2(n)^1/2	n*2^n	n!
0	1		0	0	0	0	0	0	2	0	0	1
1	1.5		0	1	0	1	0	1	2	0	2	1
2	2.25	-0.367	2	0	8	1	1	2	1	8	2	
3	3.375	0.094	3	0.664	27	1.585	2.075	2	2.512	24	6	
4	5.062	0.327	4	1	64	2	4	2	4	64	24	
5	7.594	0.476	5	1.215	125	2.322	7.071	2	5.391	160	120	
6	11.391	0.583	6	1.37	216	2.585	11.646	2	6.682	384	720	
7	17.086	0.666	7	1.489	343	2.807	18.136	2	7.881	896	5040	
8	25.629	0.732	8	1.585	512	3	27	2	9	2048	40320	
9	38.443	0.787	9	1.664	729	3.17	38.751	2	10.048	4608	362880	
10	57.665	0.834	10	1.732	1000	3.322	53.954	2	11.035	10240	3628800	
11	86.498	0.875	11	1.791	1331	3.459	73.223	2	11.968	22528	39916800	
12	129.746	0.91	12	1.842	1728	3.585	97.231	2	12.852	49152	479001600	
13	194.62	0.942	13	1.888	2197	3.7	126.703	2	13.693	106496	1932053504	
14	291.929	0.97	14	1.929	2744	3.807	162.42	2	14.496	229376	1278945280	
15	437.894	0.996	15	1.966	3375	3.907	205.22	2	15.264	491520	2004310016	
16	656.841	1.02	16	2	4096	4	256	2	16	1048576	2004189184	
17	985.261	1.041	17	2.031	4913	4.087	315.715	2	16.707	2228224		
18	1477.892	1.061	18	2.06	5832	4.17	385.379	2	17.388	4718592		
19	2216.838	1.08	19	2.087	6859	4.248	466.07	2	18.045	9961472		
20	3325.257	1.097	20	2.112	8000	4.322	558.924	2	18.679	20971520		
21	4987.885	1.113	21	2.135	9261	4.392	665.143	2	19.292	44040192		
22	7481.828	1.129	22	2.157	10648	4.459	785.991	2	19.887	92274688		
23	11222.741	1.143	23	2.177	12167	4.524	922.798	2	20.463	192937984		
24	16834.111	1.156	24	2.197	13824	4.585	1076.961	2	21.022	402653184		
25	25251.168	1.169	25	2.215	15625	4.644	1249.94	2	21.565	838860800		
26	37876.754	1.181	26	2.233	17576	4.7	1443.266	2	22.094	1744830464		
27	56815.129	1.193	27	2.249	19683	4.755	1658.539	2	22.609	3623878656		
28	85222.695	1.204	28	2.265	21952	4.807	1897.427	2	23.111	7516192768		
29	127834.039	1.214	29	2.28	24389	4.858	2161.669	2	23.6	15569256448		
30	191751.062	1.224	30	2.295	27000	4.907	2453.078	2	24.078	32212254720		
31	287626.594	1.234	31	2.309	29791	4.954	2772.525	2	24.544	66571993088		

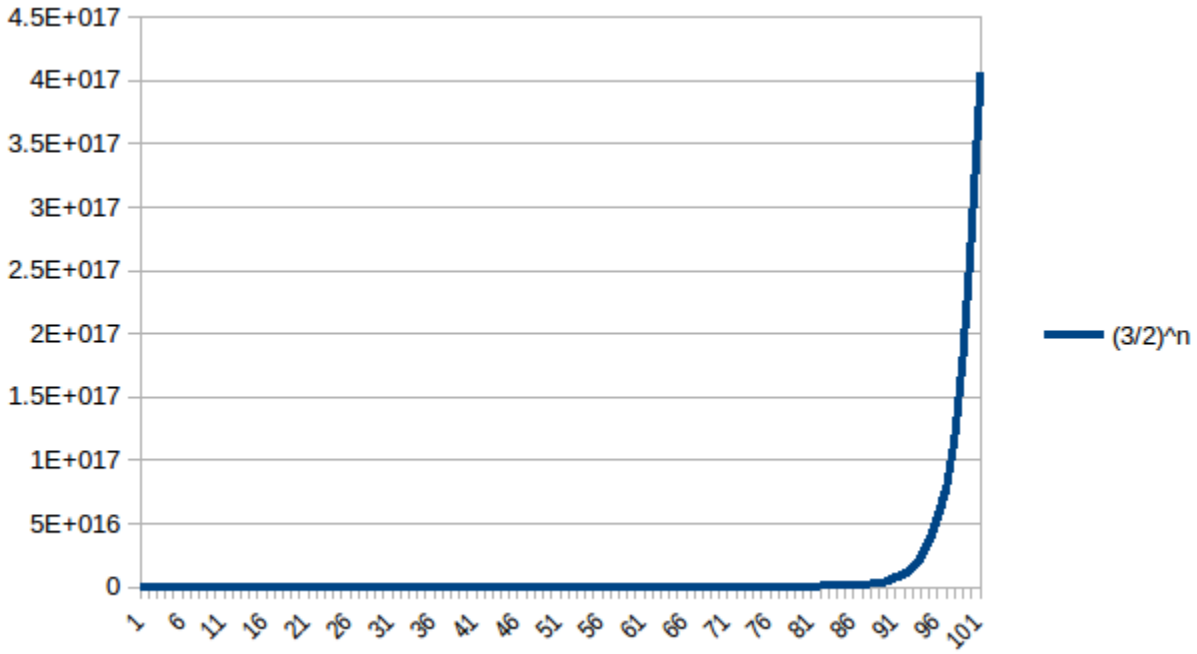
29	127834.039	1.214	29	2.28	24389	4.858	2161.669	2	23.6	15569256448
30	191751.062	1.224	30	2.295	27000	4.907	2453.078	2	24.078	32212254720
31	287626.594	1.234	31	2.309	29791	4.954	2773.535	2	24.544	66571993088
32	431439.875	1.243	32	2.322	32768	5	3125	2	25	1.37439E+11
33	647159.812	1.252	33	2.335	35937	5.044	3509.503	2	25.446	2.83468E+11
34	970739.75	1.26	34	2.347	39304	5.087	3929.152	2	25.882	5.84116E+11
35	1456109.625	1.268	35	2.359	42875	5.129	4386.131	2	26.31	1.20259E+12
36	2184164.5	1.276	36	2.37	46656	5.17	4882.7	2	26.728	2.4739E+12
37	3276246.5	1.284	37	2.381	50653	5.209	5421.198	2	27.138	5.08524E+12
38	4914370	1.291	38	2.392	54872	5.248	6004.045	2	27.541	1.04454E+13
39	7371555	1.298	39	2.402	59319	5.285	6633.738	2	27.935	2.14405E+13
40	11057332	1.305	40	2.412	64000	5.322	7312.856	2	28.323	4.39805E+13
41	16585998	1.312	41	2.422	68921	5.358	8044.062	2	28.703	9.016E+13
42	24878998	1.318	42	2.431	74088	5.392	8830.098	2	29.077	1.84718E+14
43	37318496	1.325	43	2.44	79507	5.426	9673.793	2	29.444	3.78232E+14
44	55977744	1.331	44	2.449	85184	5.459	10578.06	2	29.805	7.74056E+14
45	83966616	1.337	45	2.457	91125	5.492	11545.895	2	30.16	1.5833E+15
46	125949928	1.343	46	2.466	97336	5.524	12580.384	2	30.51	3.23696E+15
47	188924896	1.348	47	2.474	103823	5.555	13684.699	2	30.853	6.61466E+15
48	283387328	1.354	48	2.482	110592	5.585	14862.099	2	31.192	1.35108E+16
49	425080992	1.359	49	2.489	117649	5.615	16115.934	2	31.525	2.75845E+16
50	637621504	1.364	50	2.497	125000	5.644	17449.643	2	31.853	5.6295E+16
51	956432256	1.369	51	2.504	132651	5.672	18866.754	2	32.176	1.14842E+17
52	1434648320	1.374	52	2.511	140608	5.7	20370.891	2	32.495	2.34187E+17
53	2151972608	1.379	53	2.518	148877	5.728	21965.768	2	32.809	4.77382E+17
54	3227958784	1.384	54	2.525	157464	5.755	23655.193	2	33.119	9.72778E+17
55	4841938432	1.388	55	2.531	166375	5.781	25443.068	2	33.424	1.98158E+18
56	7262907392	1.393	56	2.538	175616	5.807	27333.393	2	33.725	4.03523E+18
57	10894361600	1.397	57	2.544	185193	5.833	29330.26	2	34.023	8.21457E+18
58	16341541888	1.401	58	2.55	195112	5.858	31437.857	2	34.316	1.67174E+19
59	24512313344	1.405	59	2.556	205379	5.883	33660.48	2	34.605	3.40112E+19
60	36768468992	1.41	60	2.562	216000	5.907	36002.512	2	34.891	6.91753E+19

59	24512313344	1.405	59	2.556	205379	5.883	33660.48	2	34.605	3.40112E+19
60	36768468992	1.41	60	2.562	216000	5.907	36002.512	2	34.891	6.91753E+19
61	55152701440	1.414	61	2.568	226981	5.931	38468.441	2	35.174	1.40656E+20
62	82729058304	1.418	62	2.574	238328	5.954	41062.855	2	35.452	2.85925E+20
63	1.24094E+11	1.421	63	2.579	250047	5.977	43790.445	2	35.728	5.81072E+20
64	1.8614E+11	1.425	64	2.585	262144	6	46656	2	36	1.18059E+21
65	2.79211E+11	1.429	65	2.59	274625	6.022	49664.418	2	36.269	2.39808E+21
66	4.18816E+11	1.433	66	2.596	287496	6.044	52820.695	2	36.535	4.86994E+21
67	6.28224E+11	1.436	67	2.601	300763	6.066	56129.938	2	36.797	9.88745E+21
68	9.42336E+11	1.44	68	2.606	314432	6.087	59597.352	2	37.057	2.00701E+22
69	1.4135E+12	1.443	69	2.611	328509	6.109	63228.258	2	37.314	4.07304E+22
70	2.12026E+12	1.447	70	2.616	343000	6.129	67028.078	2	37.568	8.26414E+22
71	3.18038E+12	1.45	71	2.621	357911	6.15	71002.336	2	37.819	1.67644E+23
72	4.77057E+12	1.453	72	2.625	373248	6.17	75156.688	2	38.068	3.4001E+23
73	7.15586E+12	1.456	73	2.63	389017	6.19	79496.867	2	38.314	6.89466E+23
74	1.07338E+13	1.46	74	2.634	405224	6.209	84028.75	2	38.557	1.39782E+24
75	1.61007E+13	1.463	75	2.639	421875	6.229	88758.305	2	38.798	2.83342E+24
76	2.4151E+13	1.466	76	2.643	438976	6.248	93691.617	2	39.037	5.7424E+24
77	3.62265E+13	1.469	77	2.648	456533	6.267	98834.883	2	39.273	1.16359E+25
78	5.43398E+13	1.472	78	2.652	474552	6.285	104194.422	2	39.506	2.35741E+25
79	8.15097E+13	1.475	79	2.656	493039	6.304	109776.664	2	39.738	4.77526E+25
80	1.22265E+14	1.478	80	2.66	512000	6.322	115588.141	2	39.967	9.67141E+25
81	1.83397E+14	1.48	81	2.664	531441	6.34	121635.523	2	40.194	1.95846E+26
82	2.75095E+14	1.483	82	2.668	551368	6.358	127925.594	2	40.418	3.96528E+26
83	4.12643E+14	1.486	83	2.672	571787	6.375	134465.25	2	40.641	8.02727E+26
84	6.18965E+14	1.489	84	2.676	592704	6.392	141261.5	2	40.862	1.6248E+27
85	9.28447E+14	1.491	85	2.68	614125	6.409	148321.484	2	41.08	3.28828E+27
86	1.39267E+15	1.494	86	2.684	636056	6.426	155652.453	2	41.297	6.65393E+27
87	2.08901E+15	1.496	87	2.688	658503	6.443	163261.797	2	41.512	1.34626E+28
88	3.13351E+15	1.499	88	2.691	681472	6.459	171157.016	2	41.724	2.72347E+28
89	4.70026E+15	1.502	89	2.695	704969	6.476	179345.734	2	41.935	5.50883E+28
90	7.05039E+15	1.504	90	2.699	729000	6.492	187835.703	2	42.144	1.11415E+29

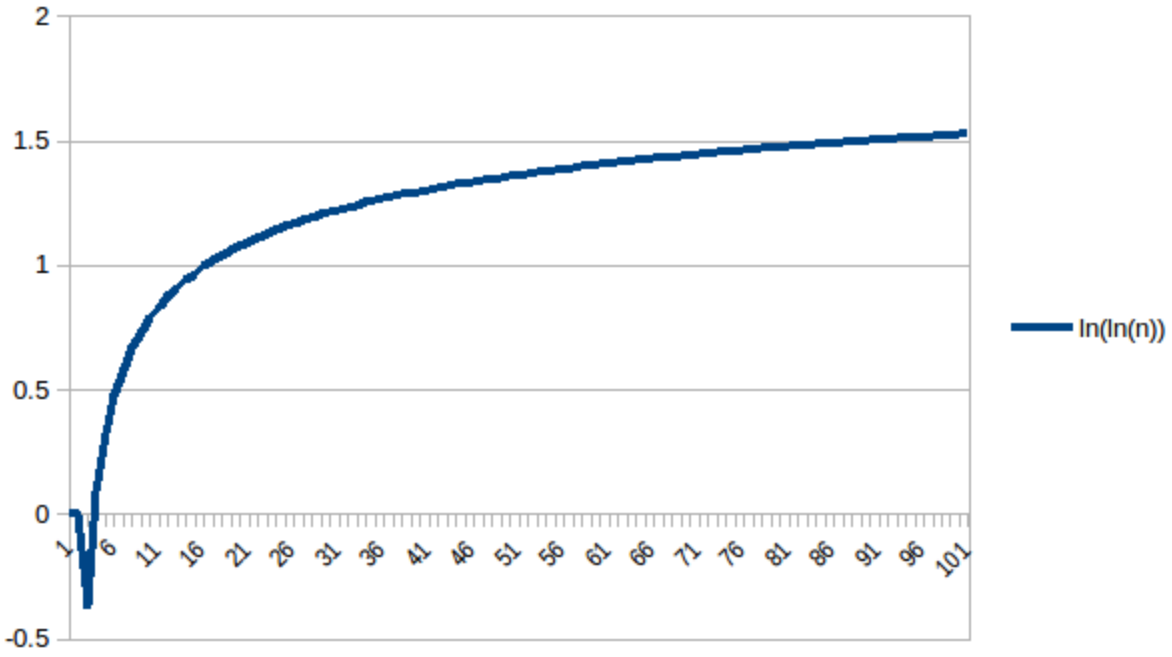
88	3.13351E+15	1.499	88	2.691	681472	6.459	171157.016	2	41.724	2.72347E+28
89	4.70026E+15	1.502	89	2.695	704969	6.476	179345.734	2	41.935	5.50883E+28
90	7.05039E+15	1.504	90	2.699	729000	6.492	187835.703	2	42.144	1.11415E+29
91	1.05756E+16	1.506	91	2.702	753571	6.508	196634.797	2	42.351	2.25305E+29
92	1.58634E+16	1.509	92	2.706	778688	6.524	205751.016	2	42.557	4.55562E+29
93	2.37951E+16	1.511	93	2.709	804357	6.539	215192.5	2	42.761	9.21027E+29
94	3.56926E+16	1.514	94	2.713	830584	6.555	224967.469	2	42.963	1.86186E+30
95	5.35389E+16	1.516	95	2.716	857375	6.57	235084.344	2	43.163	3.76334E+30
96	8.03084E+16	1.518	96	2.719	884736	6.585	245551.625	2	43.362	7.6059E+30
97	1.20463E+17	1.521	97	2.722	912673	6.6	256377.969	2	43.559	1.53703E+31
98	1.80694E+17	1.523	98	2.726	941192	6.615	267572.125	2	43.754	3.10574E+31
99	2.71041E+17	1.525	99	2.729	970299	6.629	279143	2	43.948	6.27487E+31
100	4.06561E+17	1.527	100	2.732	1000000	6.644	291099.656	2	44.141	1.26765E+32

Graphs -

(1) (3/2)^n



(2) ln(ln(n))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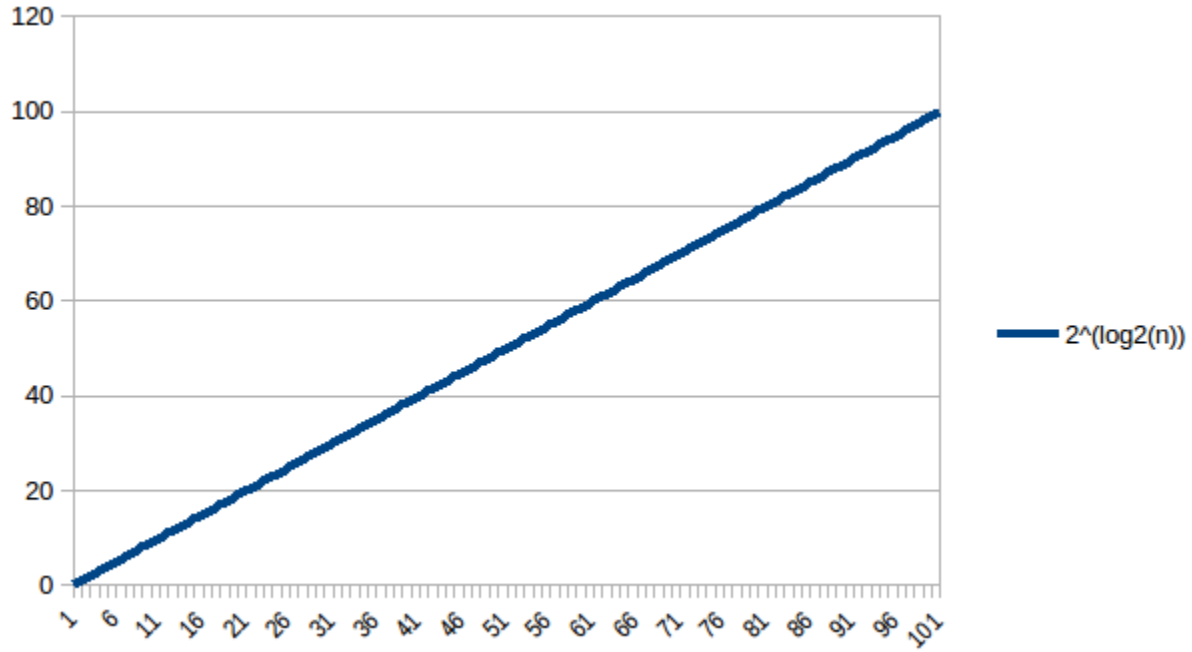
0.5
0
-0.5
1
6
11
16
21
26
31
36
41
46
51
56
61
66
71
76
81
86
91
96
101
ln(ln(n))

(3) 2^(log2(n))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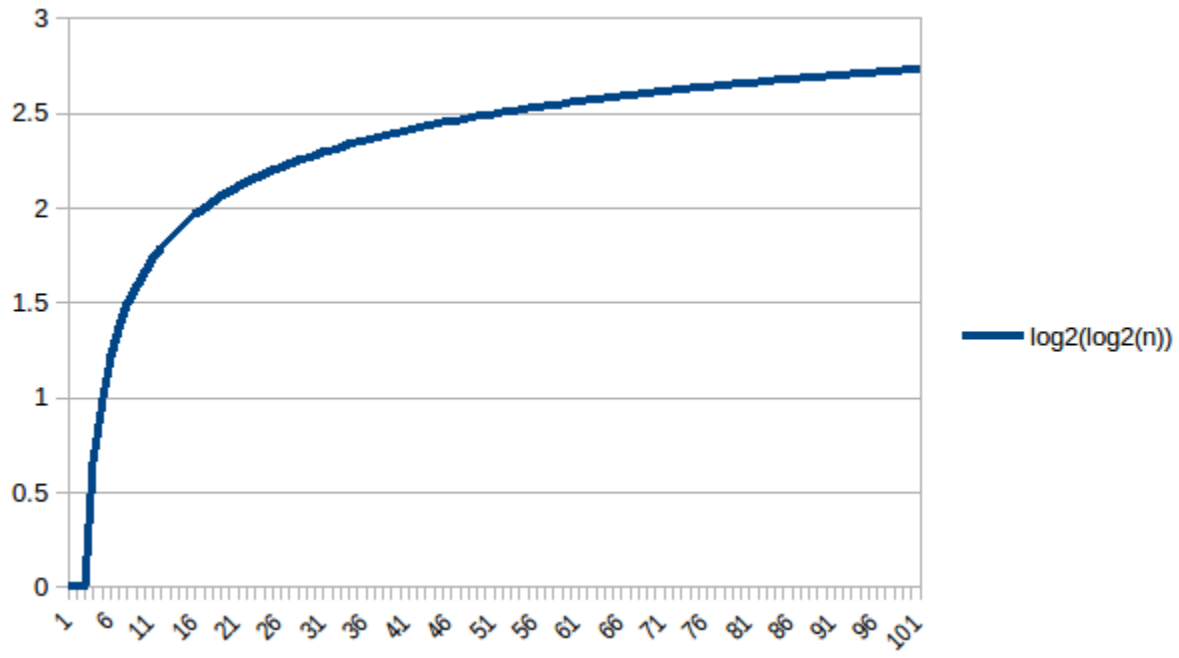
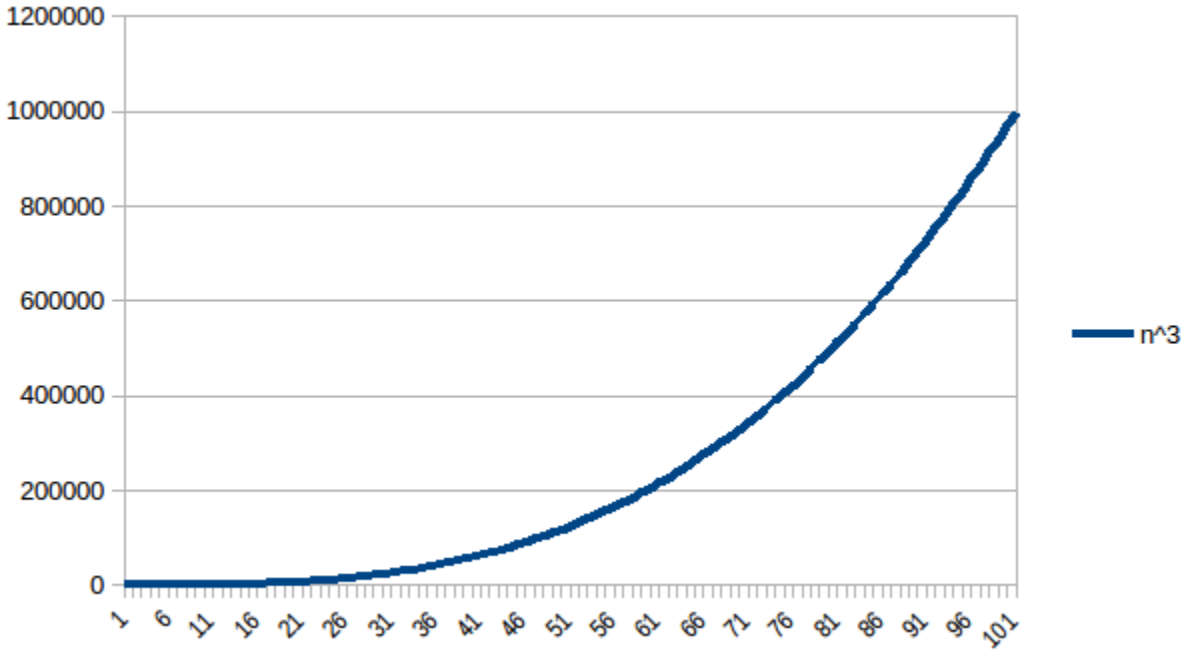
1
6
11
16
21
26
31
36
41
46
51
56
61
66
71
76
81
86
91
96
101
2^(log2(n))

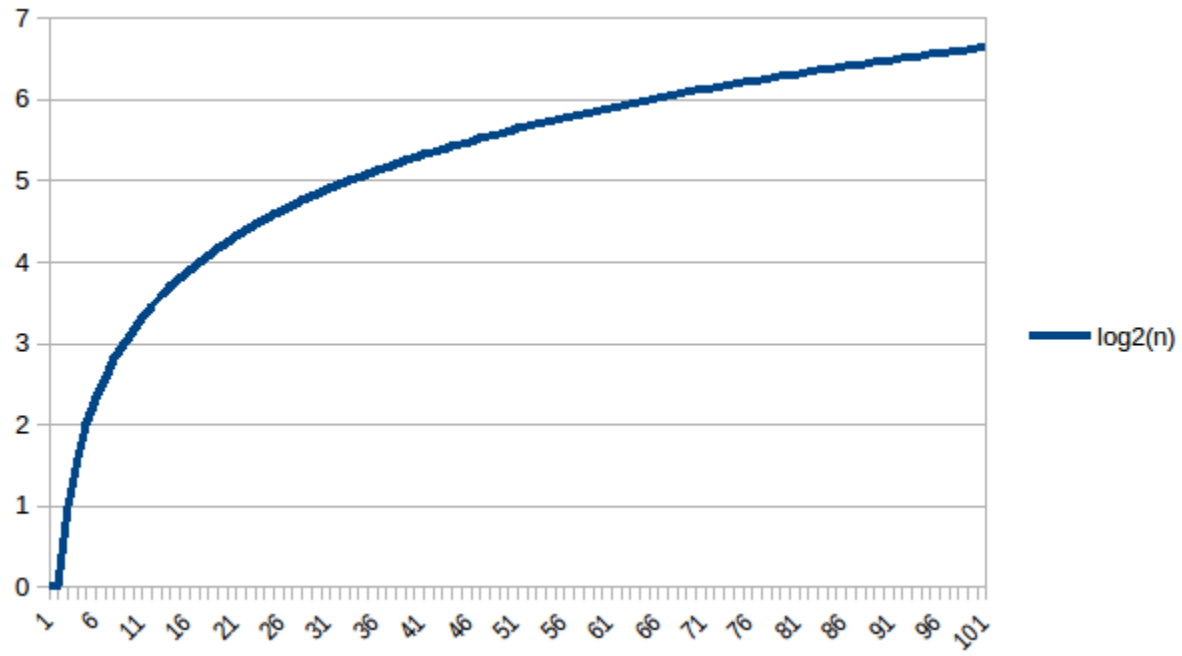
(4) log2(log2(n))



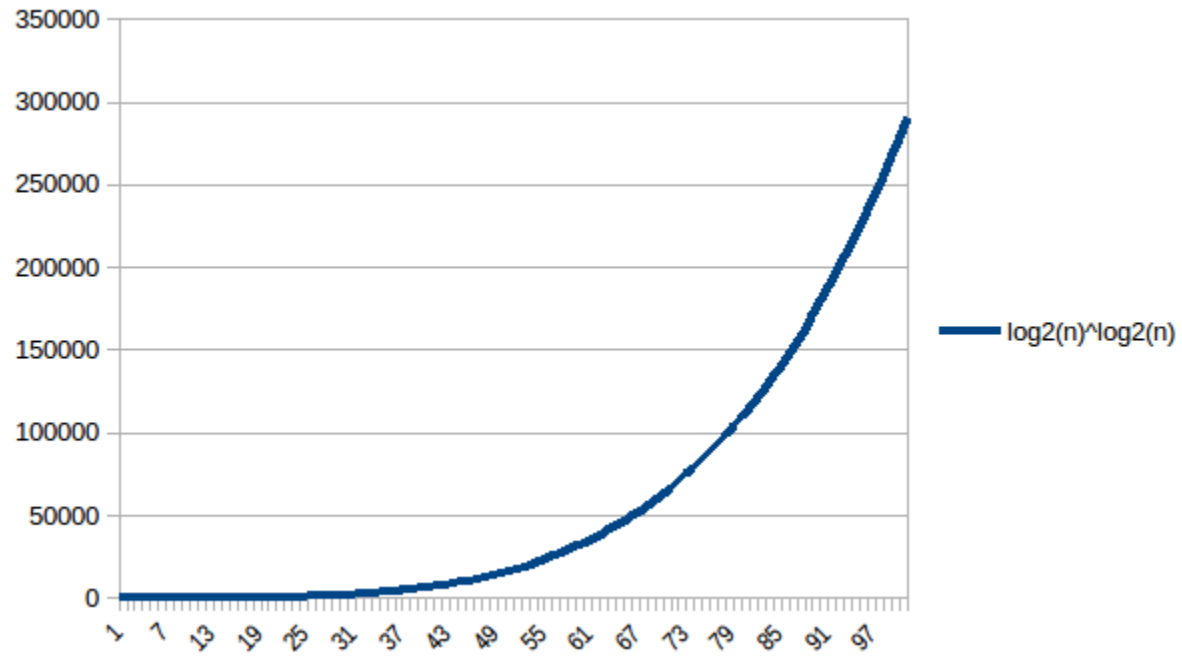
(5) n^3



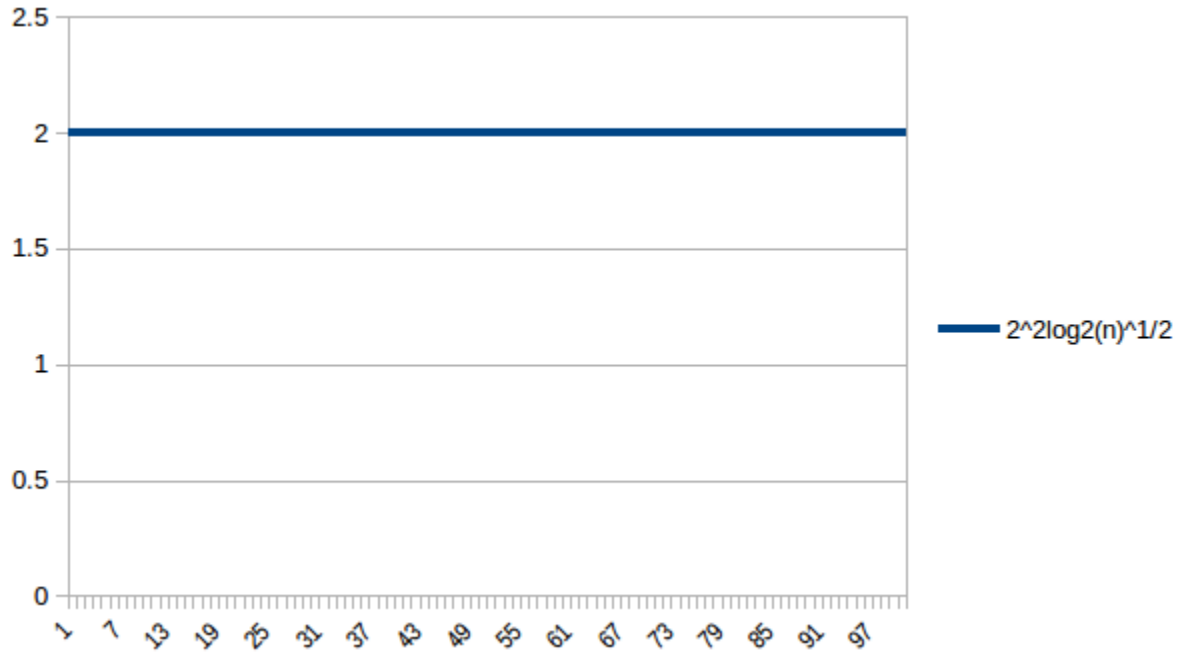
(6) log2(n)



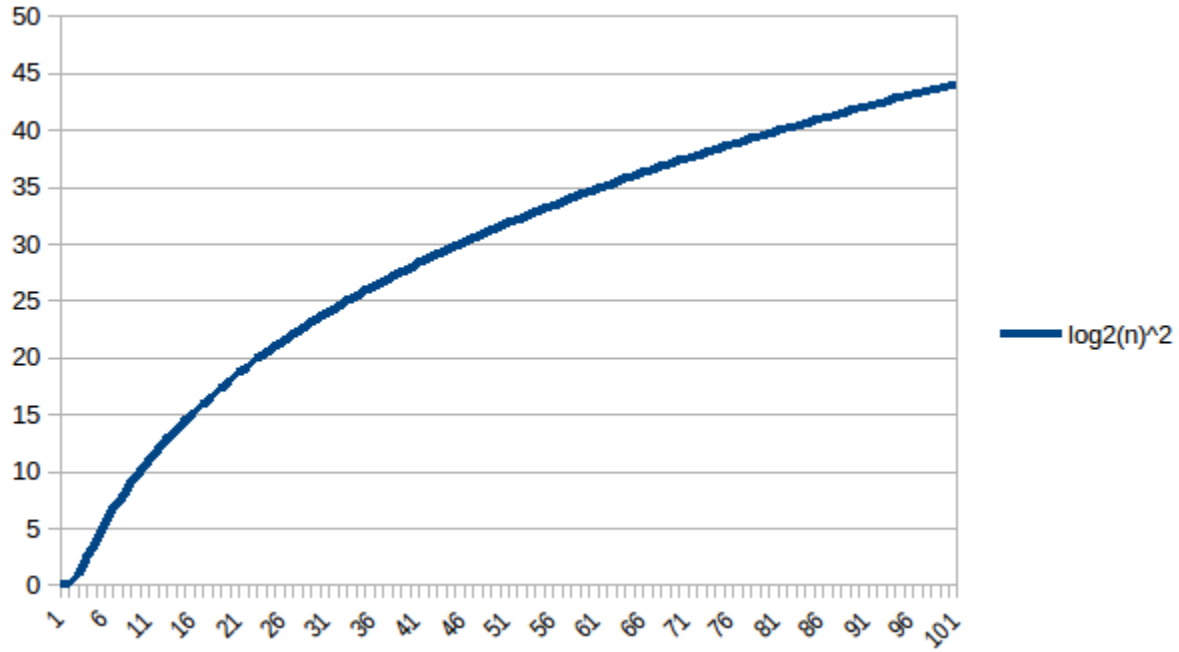
(7) log2(n)^log2(n)



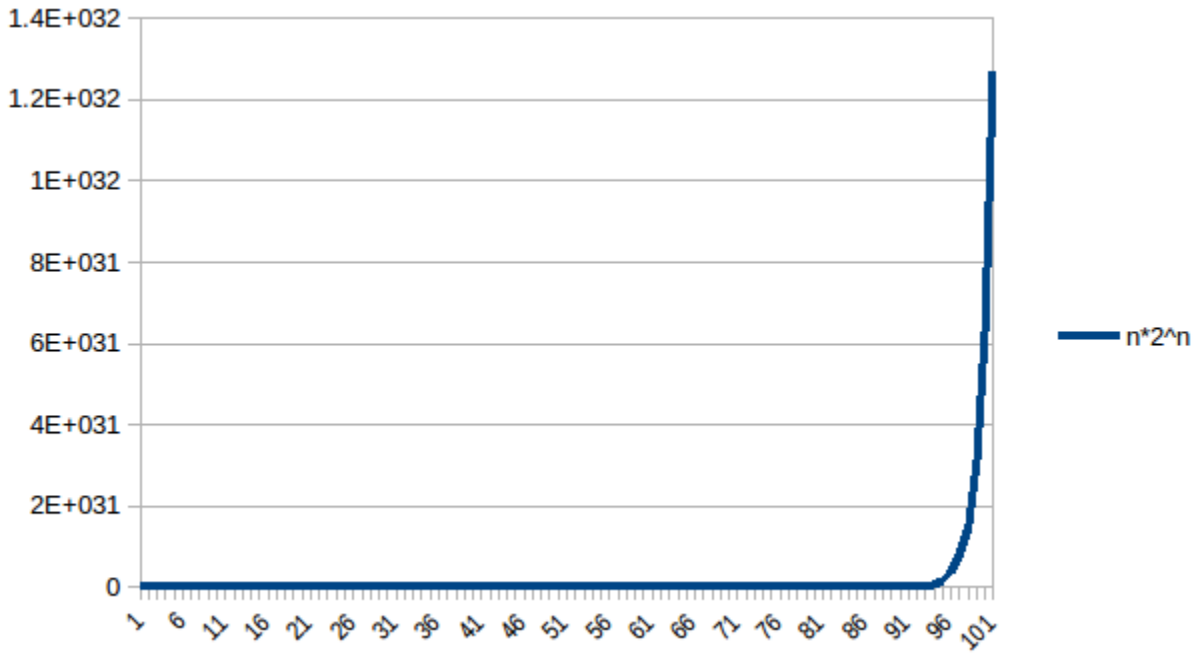
(8) 2^2log2(n)^½



(9) log2(n)^2



(10) n*2^n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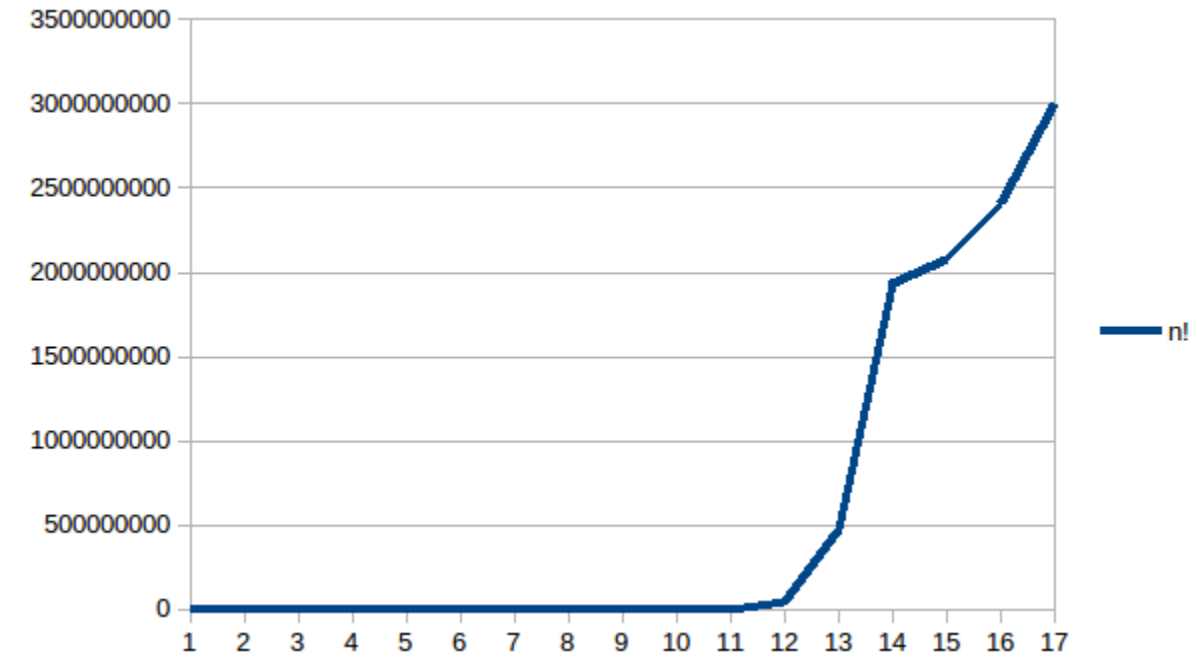
11
16
21
26
31
36
41
46
51
56
61
66
71
76
81
86
91
96
101
n*2^n

(11) n!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1
2
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4
5
6
7
8
9
10
11
12
13
14
15
16
17
n!

Conclusion -

I have successfully computed the calculations of more than 10 functions, elaborated them for over a hundred values, and visualized them in the form of graphs. What I have learned from this is that some numerical values cannot be stored in programming variables, it is a phenomenon known as buffer overloading. The graphical representation of several functions also helped me visualize the working of several functions and helped me understand how they work conceptually behind the scenes.