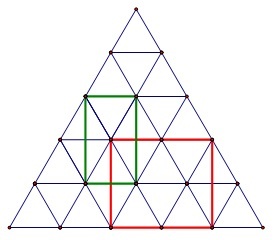
**An equilateral triangle**

Max. Marks: 100

The shape of a network is a big equilateral triangle as shown in the following picture and it consists of many small equilateral triangles of different sizes. Each point represents a computer and you have to choose a rectangle such that each of its corners is a computer and the horizontal edges are parallel with the lower edge of the network(big triangle) The size of the network is the number of small triangles on each edge of the big triangle. You need to count the number of rectangles that can be selected from the network.



Network with the size 5 and two rectangles are shown with green and red

**Input format**  
A single line which contains an integer n (1≤n≤100) that represents the length of the sides of the triangles of the network.

**Output format**  
Print an integer that represents the number of rectangles that we can choose

**SAMPLE INPUT**

5

**SAMPLE OUTPUT**

11

**Explanation**

The sample test picture is shown above, in the descreption!

**Time Limit:**1.0 sec(s) for each input file.

**Memory Limit:**32 MB

**Source Limit:**1024 KB

**Marking Scheme:**Marks are awarded if any testcase passes.

**Allowed Languages:**Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Racket, Ruby, Rust, Scala, Swift, Swift-4.1, TypeScript, Visual Basic

<https://www.hackerearth.com/challenges/competitive/april-circuits-19/algorithm/mosalas-mostatilioo-f012275c/>

<https://oeis.org/A001752>

Expansion of 1/((1+x)\*(1-x)^5).

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp2

{

class Program

{

static void Main(string[] args)

{

//int[] arr = { 1, 4, 11, 24, 46, 80, 130, 200, 295, 420, 581, 784, 1036, 1344, 1716, 2160, 2685, 3300, 4015, 4840, 5786, 6864, 8086, 9464, 11011, 12740, 14665, 16800, 19160, 21760, 24616, 27744, 31161, 34884, 38931, 43320, 48070, 53200, 58730, 64680, 71071, 77924, 85261 };

//int n = 0;

//Console.WriteLine(Math.Floor(((n + 3) ^ 2 - 1) \* ((n + 3) ^ 2 - 3) / 48));

int n = int.Parse(Console.ReadLine().Trim());

if (n < 3) Console.WriteLine(0);

else

{

n -= 3;

Console.WriteLine(Math.Floor((Math.Pow((n + 3), 2) - 1) \* (Math.Pow((n + 3), 2) - 3) / 48));

//Console.WriteLine( Math.Floor(((n+3)\*(n+3)-1) \* ((n+3)\*(n+3) - 3 )/48 )

}

Console.ReadLine();

}

}

}