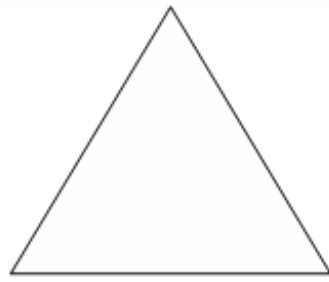
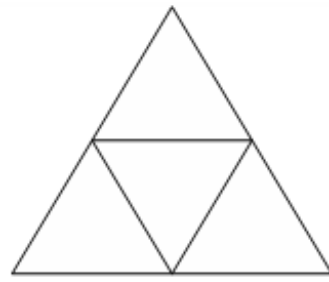


Counting Triangles II

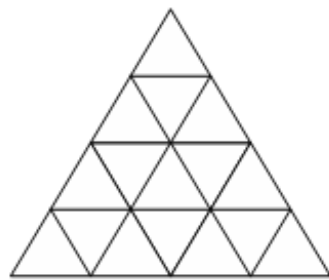
We define the LEVEL of a triangle as in the following illustrative image:



LEVEL 1



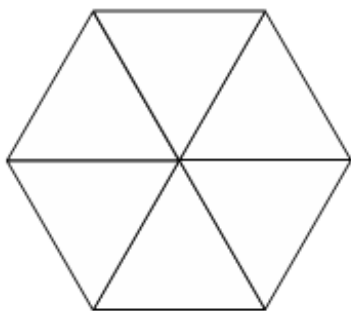
LEVEL 2



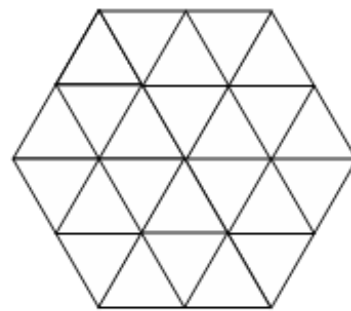
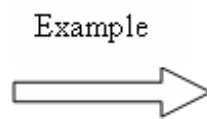
LEVEL 4

.....

And we continue defining the LEVEL of a hexagon. It's called level N hexagon if it's joined by 6 triangles, each one is a level N triangle.



Each triangle has level N



"LEVEL 2" HEXAGON

Task: All you have to do is to count all triangles in the "level N" hexagon.

Input

The first line of the input contains an integer T - the number of test cases and T lines follow. Each line contains an integer N which is the level of the hexagon in that test case.

Output

For each test case, you should write a separate line: the number of triangles in the “level N” hexagon. (All answers will fit within the range of a 64-bit positive integer)

Example

Input:

1
1

Output:

6

Be careful with certain languages