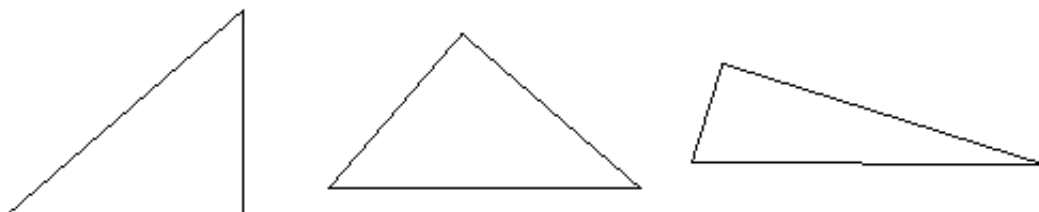


Problem G

Triangle Counting

Input: Standard Input
Output: Standard Output



You are given n rods of length $1, 2, \dots, n$. You have to pick any 3 of them & build a triangle. How many distinct triangles can you make? Note that, two triangles will be considered different if they have at least 1 pair of arms with different length.

Input

The input for each case will have only a single positive integer n ($3 \leq n \leq 1000000$). The end of input will be indicated by a case with $n < 3$. This case should not be processed.

Output

For each test case, print the number of distinct triangles you can make.

Sample Input

Output for Sample Input

5	3
8	22
0	

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