

2021 ICPC ASIA DHAKA REGIONAL ONLINE PRELIMINARY CONTEST - REHEARSAL

Finished

THE CONTEST HAS ENDED.

D. Stick to Triangle

Score: 1

CPU: 1s

Memory: 2048MB

You are given a stick of length N . You want to break it in three pieces such that it can form a triangle. In how many distinct triangles can you make? Two triangles are equal if all the side length is same when sorted in ascending order of length. So $(1, 3, 2)$ is same to $(3, 1, 2)$ because their side lengths are same as we sort them which is $(1, 2, 3)$. But $(1, 3, 4)$ is not same with $(1, 2, 3)$. Suppose the lengths of three pieces are X, Y, Z respectively. Following constraints should be maintained:

1. $X, Y, Z > 0$.
2. X, Y, Z is an integer.
3. $X + Y + Z = N$

A triangle with zero area is considered a valid triangle. For example if $N = 14$, then there are 7 triangles: $(1, 6, 7), (2, 5, 7), (2, 6, 6), (3, 4, 7), (3, 5, 6), (4, 4, 6), (4, 5, 5)$.

Input

First line will give you the number of test cases, T ($T \leq 100$). Then each line will have an integer N ($0 < N \leq 300000$).

Output

For each case print one line with the number of distinct triangles possible.

Sample

Input	Output
3	1
3	2
6	7
14	