Problem C. Pythagorean triple

Description

Today is Carrie's first day in Blaniel high school.

In her first math class, the teacher Mr. Jeffery tells her a well-known story of little Gauss.

When little Gauss was still at primary school, Gauss' teacher, probably to get a bit of rest for himself, asked his class to add up all the numbers from 1 to 100.

However, much to the teacher's astonishment, Gauss quickly noted the trick of adding the numbers in pairs and wrote down the answer $101 \times 50 = 5050$.

Probably because Mr. Jeffery is tired after telling the story, he asks the class to count the number of Pythagorean triples under a given integer N.

A triple (a,b,c) is called a Pythagorean triple if a,b,c are positive integers and $a^2+b^2=c^2$

Carrie should count the number of different Pythagorean triples in which c <= N.

Notice that due to the symmetric position of a and b, Pythagorean triples (a,b,c) and (b,a,c) should be counted only once.

Carrie is not as talented at math as Gauss, but she knows her boyfriend might be.

Now as Carrie's boyfriend, can you help her solve Mr. Jeffery's problem?

Input

The first line of the input is a single integer T (T <= 10) indicating the number of test cases.

Each of the following T lines contains an integer N ($1 <= N <= 10^9$), meaning that you should count the number of triples (a,b,c) in which c <= N.

Output

For each test case, output the answer in a single line.

Sample Input

2
5
20

Sample Output

1
6

Sample Explaination

All Pythagorean triples under 20 are:
(3,4,5) (5,12,13) (6,8,10) (8,15,17) (9,12,15) (12,16,20)