# Project Euler #9: Special Pythagorean triplet

This problem is a programming version of Problem 9 from projecteuler.net

A Pythagorean triplet is a set of three natural numbers, $a < b < c$, for which,

$$a^2 + b^2 = c^2$$

For example, $3^2 + 4^2 = 9 + 16 = 25 = 5^2$

Given $N$, Check if there exists any Pythagorean triplet for which $a + b + c = N$
Find maximum possible value of $abc$ among all such Pythagorean triplets, If there is no such Pythagorean triplet print $-1$.

### Input Format

The first line contains an integer $T$ i.e. number of test cases.
The next $T$ lines will contain an integer $N$.

### Constraints

- $1 \leqslant T \leqslant 3000$
- $1 \leqslant N \leqslant 3000$

### Output Format

Print the value corresponding to each test case in separate lines.

### Sample Input

```
2
12
4
```

### Sample Output

```
60
-1
```

### Explanation

- For $N = 12$, we have a triplet $\{3, 4, 5\}$, whose product is $60$.
- For $N = 4$, we don't have any pythagorean triple.