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.

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

Constraints
$1 \le T \le 3000$
$1 \le N \le 3000$

Sample Input

```
2
12
4
```

Sample Output

```
60
-1
```