

## C - Three-Square

Time Limit: 1 sec

Memory Limit: 16MB

Lagrange's four-square theorem states that every positive integer can be expressed as the sum of four squares of integers. For example:

$$3 = 1^2 + 1^2 + 1^2 + 0^2$$

$$31 = 5^2 + 2^2 + 1^2 + 1^2$$

However some positive integers can be expressed even as the sum of three squares of non-negative integers. For example:

$$3 = 1^2 + 1^2 + 1^2$$

$$17 = 0^2 + 1^2 + 4^2$$

In this problem you have to find expression of given integer K as the sum of three squares, or state that it is impossible.

### INPUT:

The first line contains integer N ( $0 < N \leq 10000$ ), it is number of tests. Each of the next N lines contains a positive integers K ( $0 < K \leq 50000$ ).

### OUTPUT:

For each test case print a line formatted like this: „a b c“. Where  $a \leq b \leq c$  and

$K = a^2 + b^2 + c^2$ . If there is more than one possible answer, print the one that comes first lexicographically. If expression in three squares of non-negative integers do not exist print „-1“ (see examples).

### SAMPLE INPUT:

```
3
13
15
17
```

### SAMPLE OUTPUT:

```
0 2 3
-1
0 1 4
```

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Huge Easy Contest #1