

# Triple Pair

An eligible triple  $(a, b, c)$  is a triple that:

- $a, b, c$  are positive integers
- $a > b > c$
- $a - b = b - c$

Every eligible triple  $(a, b, c)$  has a fixed label  $v$ , where  $v = a^2 - b^2 - c^2$ . Of course, there are many eligible triples which have the same label.

Two triples are the same if and only if all the three numbers  $a, b, c$  are the same. Otherwise, they are different.

A triple pair is a pair composed of two different eligible triples which have the same label  $v$ . For example, triple  $(5, 3, 1)$ ,  $(7, 5, 3)$  are eligible triples, and they have the same label  $v = 5^2 - 3^2 - 1 = 7^2 - 5^2 - 3^2 = 15$ , thus they can form a triple pair.

Question: how many triple pairs you can find with the label  $v$  ranges in  $[L, U]$ ?

## Input

Input file contains multiple test cases. Each test case consists of two integers **L** and **U** within one line, it guarantees that  $1 \leq L \leq U \leq 1000000$ .

## Output

For each test case, print the number of triple pairs that you could find in separate lines.

### Sample Input

1 27

1 100

100 1000

### Sample Output

4

45

1079

### Hints

For the first example,  $L = 1$ ,  $U = 27$ .

There are only 4 triple pairs:

(5, 3, 1) and (7, 5, 3), label  $v = 15$

(5, 3, 1) and (19, 15, 11), label  $v = 15$

(7, 5, 3) and (19, 15, 11), label  $v = 15$

(12, 9, 6) and (34, 27, 20), label  $v = 27$