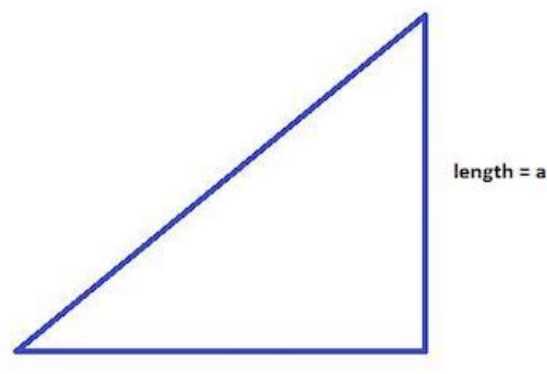


Pythagorean Triple

A *Pythagorean triple* consists of three positive integers a , b , and c , such that $a^2 + b^2 = c^2$. Such a triple is commonly written as (a, b, c) . This term comes from the [Pythagorean theorem](#), which says that a Pythagorean Triple will be the lengths of the sides of a [right-angled triangle](#).

You have been given an integer a which represents the length of one of [cathetus](#) of a right-angle triangle.



You need to find the lengths of the remaining sides. There may be multiple possible answers; any one will be accepted.

Hints:

- Every odd number $2k + 1$ can be represented as $(k + 1)^2 - k^2$.
- If m and n are integers and $m > n$, then $(m^2 - n^2)^2 + (2mn)^2 = (m^2 + n^2)^2$.

Input Format

The first line contains an integer a denoting the length of one of cathetus of the right-angled triangle.

Constraints

- $5 \leq a < 10^9$

Output Format

A single line containing the possible values of a , b and c . You may print them in any order.

Sample Input 0

5

Sample Output 0

5 12 13

Explanation 0

We can see that the triple **(5, 12, 13)** is a pythagorean triple:

$$5^2 + 12^2 = 13^2$$