

<https://course.acciojob.com/idle?question=30dabb54-e56d-4d89-9fa8-2b805a28c139>

● EASY

● Max Score: 30 Points

Which angled triangle

Given the 3 sides of a triangle, find out whether it is acute-angled, right-angled, or obtuse-angled.

You need to output 1 for acute, 2 for right-angled, and 3 for an obtuse-angled triangle. You can assume that the input values always form a triangle and are valid integers.

Note

A triangle is acute-angled, if twice the square of the largest side is less than the sum of squares of all the sides.

A triangle is obtuse-angled, if twice the square of its largest side is greater than the sum of squares of all the sides.

A triangle is right-angled, if twice the square of its largest side is exactly equal to the sum of squares of all the sides.

Example 1

Input

3 4 5

Output

2

**** Explanation **** Since 2×5^2 is equal to $5^2 + 3^2 + 4^2$, So this is a right-angled triangle and hence, the answer is 2.

Example 2

Input

3 3 3

Output

1

Explanation

Since $2 \times 3 \times 3$ is less than $3 \times 3 + 3 \times 3 + 3 \times 3$, So this is an acute-angled triangle and hence, the answer is 1.

Constraints

$1 < a, b, c \leq 10^5$

Topic Tags

- Math

My code

// in java

```
import java.util.*;  
import java.lang.*;  
import java.io.*;
```

```
public class Main  
{
```

```
    public static void main (String[] args) throws java.lang.Exception  
    {
```

```
        //your code here
Scanner s=new Scanner(System.in);
int a=s.nextInt();
int b=s.nextInt();
int c=s.nextInt();
int e;
int max= a > b ? ( a > c ? a : c ) : ( b > c ? b : c ) ;
max=max*max;
max=max*2;
int sum=a*a+b*b+c*c;
if(sum<max) e=3;
else if(sum==max) e=2;
else e=1;
System.out.print(e);

    }
}
```