Logo

STUDENT REPORT

DETAILS

Name

N ABHISHEK

Roll Number

KUB23ECE025

EXPERIMENT

Title

SOLVE THE EQUATION

Description

Given an integer N, your task is to find and return the number of sets of 3 positive integers a, b and c. that satisfy the following equation:

$a^2+b^2+c^2+ab+bc+ca = N$

Note: a, b and c ore positive integers, and their values can be the same.

Input Specification:

input1: An integer value N

Output Specification:

Return an integer value, representing the number of sets of three positive integers that satisfy the equation given above.

Sample Input:

6

Sample Output:

1

Explanation:

The only pair (a,b,c) possible is (1,1,1)

Source Code:

```
n=int(input())

cnt=0
for a in range(1,int(n**0.5)+1):
    for b in range(1,int(n**0.5)+1):
        for c in range(1,int(n**0.5)+1):
            if (a*a)+(b*b)+(c*c)+(a*b)+(b*c)+(c*a)==n:
                cnt+=1
print(cnt)
```

RESULT

5 / 5 Test Cases Passed | 100 %