



STUDENT REPORT

DETAILS

Name

N Prateeth Bharadwaj

Roll Number

3BR21EC109

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:

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

Note: a, b and c are 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())
res=0
for a in range(1,N):
    for b in range(1,N):
        for c in range(1,N):
            if a*a+b*b+c*c+a*b+b*c+a*c==N:
                res+=1
print(res)
```

RESULT

3BR

109

1EC

3BR
1EC

109
3BR
21

1EC
29
3B

BR
21
EC