PRACTICE   COMPETE   JOBS   LEADERBOARD   Q Search   ▢ ◠²   adityakaria ⌄

All Competitions ❯ BFME 1.0 ❯ DASHAN AND PYTHAGOREAN TRIPLETS

DASHAN AND PYTHAGOREAN TRIPLETS

by failed_coder

Problem	Submissions	Leaderboard	Discussions

Dashan has been assigned to find the number of Pythagorean triplets from zero to a given number n such that the difference between the two biggest numbers is one i.e., if a, b and c are three numbers such that: $c^2 = a^2 + b^2$ and b > a, c ≤ n then c – b = 1 . But Dashan has to prepare for his mid semester examination and he needs your help.
Note: Smallest pythagorean triplet is (3, 4, 5).

Input Format

The first line contains a single integer T - the number of test cases
The next T lines contains a single integer n – as described in the problem

Constraints

T ≤ 1000000
5 ≤ n ≤ 1000000

Output Format

Print a single integer for each test case, the number of required triplets such that the value of c is less than or equal to n.

Sample Input 0

```
1
15
```

Sample Output 0

```
2
```

Explanation 0

There are 2 triplets (3,4,5), (5,12,13) which satisfy given conditions. In first triplet c = 5(<=15) and b = 4(=c-1). In second triplet c= 13(<=15) and b = 12(=c-1).

Sample Input 1

```
2
20
30
```

Sample Output 1

```
2
3
```

Explanation 1

First testcase, (3,4,5), (5,12,13) satisfy given conditions. For second testcase, (3,4,5), (5, 12, 13) and (7, 24, 25).

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Contest ends in 36 minutes

Submissions: 35
Max Score: 15
Difficulty: Easy

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```c
1 ▼ #include <stdio.h>
2   #include <string.h>
3   #include <math.h>
4   #include <stdlib.h>
5
6 ▼ int main() {
7
8 ▼     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
9       return 0;
10  }
11
```

Line: 1 Col: 1

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2 of 2   02/09/18, 10:58 PM