

[All Domains](#) > [Algorithms](#) > [Implementation](#) > [Sherlock and Squares](#)Badge Progress [\(Details\)](#)

Points: 730.13 Rank: 15336

Sherlock and Squares

by [darkshadows](#)

Problem

Submissions

Leaderboard

Discussions

Editorial

Topics

Problem Statement

Watson gives two integers (A and B) to Sherlock and asks if he can count the number of square integers between A and B (both inclusive).

Note: A square integer is an integer which is the square of any integer. For example, 1 , 4 , 9 , and 16 are some of the square integers as they are squares of 1 , 2 , 3 , and 4 , respectively.

Input Format

The first line contains T , the number of test cases. T test cases follow, each in a new line. Each test case contains two space-separated integers denoting A and B .

Output Format

For each test case, print the required answer in a new line.

Constraints

$$1 \leq T \leq 100$$

$$1 \leq A \leq B \leq 10^9$$

Sample Input

```
2
3 9
17 24
```

Sample output

```
2
0
```

Explanation

Test Case #00: In range $[3, 9]$, 4 and 9 are the two square numbers.

Test Case #01: In range $[17, 24]$, there are no square numbers.

Related Topics



[Square Root](#)[Ceil Floor](#)




Submissions: 26808

Max Score: 20

Difficulty: Easy

[More](#)

Current Buffer (saved locally, editable)  

Java 8   

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named
8         Solution. */
9     }
10 }
```

Line: 1 Col: 1

 [Upload Code as File](#)☐ Test against custom input

Run Code

Submit Code

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.[Contest Calendar](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Privacy Policy](#) | [Request a Feature](#)