Problem: Sherlock & Squares

Watson gives two integers (and) to Sherlock and asks if he can count the number of square integers between and (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 , the number of test cases. test cases follow, each in a new line.
Each test case contains two space-separated integers denoting and .

Constraints

Output Format

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

Sample Input

```
2
3 9
17 24
```

Sample Output

```
2
0
```

Explanation

Test Case #00: In range , and are the two square numbers.
Test Case #01: In range , there are no square numbers.

Solution

```
int main()
   {
      int cases;
      long range1, range2;
      cin>>cases;

      for(int i=0; i<cases; i++)
         {
           cin>>range1 >>range2 ;
           cout<<floor(sqrt(range2))-ceil(sqrt(range1))+1<<endl;
         }
      return 0;
   }
```

- Anshul Aggarwal