Interesting Array

Suppose, there is an array of square numbers. Let the array A = { 1,4,9,16,25,.....,10^10 } . This array may not be sorted.

Input:

There are Q queries. In every query you are given an integer n.

Output:

For every query you have to count the numbers of elements in the array such that every element is less than n.

Input Format

3

10000000000

1

2

Constraints

1. 1<=Q<=10^4
2. 1<=n<=10^10

Output Format

99999

0

1

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