

Finding Square Roots

In olden days finding square roots seemed to be difficult but nowadays it can be easily done using in-built functions available across many languages .

Assume that you happen to hear the above words and you want to give a try in finding the square root of any given integer using in-built functions. So here's your chance.

Input

The first line of the input contains an integer T, the number of test cases. T lines follow. Each line contains an integer N whose square root needs to be computed.

Output

For each line of the input, output the square root of the input integer, rounded down to the nearest integer, in a new line.

Constraints

1<=T<=20
1<=N<=10000

Sample 1:

Input		
Output		
3 10 5 10000		
	3 2 100	