

Check if a number is Perfect Square

Given a natural number n , print 1 if it is perfect square else 0.

Input:

The first line of input contains an integer T denoting the number of test cases. The first line of each test case is N , N is the number to be checked whether perfect square or not.

Output:

1 if it is perfect square else 0

Constraints:

$1 \leq T \leq 30$

$1 \leq N \leq 100000$

Example:

Input:

3

100

10

125

Output:

1

0

0