

# An Easy Math Problem

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            1 second  
Memory limit:         128 megabytes

You are given an integer  $n$ . For each  $p \leq q$ , where  $pq \mid n$ , denote  $r = \frac{p}{q}$ . Find the number of different values of  $r$ .

## Input

The first line of the input contains one integer  $q$  ( $1 \leq q \leq 2000$ ), denoting the number of test cases. The next  $q$  lines each contain one integer  $n$  ( $1 \leq n \leq 10^{10}$ ).

## Output

For each test case, print one line: an integer, the number of different values of  $r$ .

## Example

standard input	standard output
10	1
1	2
2	2
3	3
4	2
5	5
6	2
7	4
8	3
9	5
10	