Problem 5

A natural number k is divisor of another natural number if K completely divides N, means N % k = 0. For example 6 has 4 positive divisors 1, 2, 3, and 6. Now given a natural number N you have to find number of its positive divisors.

Input

First line contains T the number of test cases. Each of next T lines contain one integer N.
1<=N<=10^9

Output

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

Example

Input:
2
6
7

Output:
4
2