<div align="center">

Problem A
A Prime?
Time limit: 1 second
Memory: 1024 megabytes

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Problem Description

In mathematics, prime numbers are an important and fundamental concept. A prime number is a natural number greater than 1 that has exactly two distinct positive divisors: 1 and itself. This means that a prime number cannot be evenly divided by any natural number other than 1 and itself. For example, numbers like 2, 3, 5, 7, and 11 are prime numbers because they have no divisors other than 1 and themselves. On the other hand, numbers like 4, 6, 8, 9, and 10 are not prime numbers because they have more than two divisors.

The concept of prime numbers is not only important in pure mathematics but also has many practical applications in various fields of computer science, such as cryptography, algorithms, and number theory. Understanding and checking the primality of a number can be applied to many real-world problems, from optimizing algorithms to ensuring information security in modern computer systems.

For this problem, you will need to check whether any given positive integer is a prime number. This requires writing a program that processes a set of integers and outputs the result for each number in that set. The program must determine for each number whether it satisfies the properties of a prime number and return the corresponding result.

Problem description: Write a program to check the primality of a positive integer. Specifically, the program needs to take a number of integers as input and, for each number, check whether it is a prime number. The result of each check will be printed on the screen in the required format, where:

If the number is prime, print "1". If the number is not prime, print "0".

Detailed requirements: The program must handle input and output according to the following rules:

Input data:

- The first line contains an integer T ($1 \le T \le 100$), which is the number of integers to be checked.
- The next T lines contain one integer n ($-10^9 \le n \le 10^9$) each, representing the numbers to check for primality.

The program must ensure accurate reading of T positive integers and process them in the order they appear.

Output data:

The program should output T lines corresponding to the T numbers that were checked.

- Each line should contain one value: "1" if the number n is prime, or "0" if the number n is not prime.

Example:

INPUT	OUTPUT
2 2 4	1 0