Prime Number Checker

A prime number is a natural number greater than 1 that is not a product of two smaller natural numbers. In other words, a prime number is only divisible by 1 and itself. Note that 1 is not considered a prime number.

You are tasked with writing a program that determines whether a series of positive integers are prime. The program should continuously accept integers as input and print whether each number is "prime" or "non-prime". The program should terminate when a negative integer is entered.

Function Description

Complete the function `‘check_primes’` in the editor below.

`‘check_primes’` reads integers from input and prints whether each number is prime or non-prime. It stops reading when a negative integer is entered.

Output

For each integer (except the negative integer that terminates the input), print "prime" if the number is a prime number, otherwise print "non-prime".

Input Format

The input consists of a series of positive integers, one per line. The input is terminated by a single negative integer.

Constraints

- $0 \leq integer\ value \leq 10^9$
- The sequence ends with a negative integer.

Sample Input & Output

Input	Output
2	prime
1	non-prime
3	prime
10	non-prime
11	prime
30	non-prime
82589933	prime
-1	

Explanation

- 2 is a prime number.
- 1 is not a prime number.
- 3 is a prime number.
- 10 is not a prime number.
- 11 is a prime number.
- 30 is not a prime number.
- 82589933 is a prime number.

The program stops when a negative integer is input.