Problem 3: Is it a Prime?

Write a program that reads a sequence of natural numbers greater than 1 and tests whether each of them is a prime number or not.

Input

A sequence of positive integers is given in the input which ends with a sentinel integer value that is 1 or less.

Output

For each integer n in the input that is greater than 1 print:
n `is prime`
if the number n is a prime, or
n `is not prime`
if the number n is not a prime number. First time a number less or equal 1 is read ($n \leq 1$) the program should stop execution.

Sample Input	*Sample Output*
5	5 is prime
8	8 is not prime
7	7 is prime
23	23 is prime
9	9 is not prime
153	153 is not prime
97	97 is prime
0	