

Next Prime

Time limit: 2.0s **Memory limit:** 64M

Brute Force Practice 3

You love prime numbers. You own a number, but you suspect it might not be prime. You want a prime number, but it must be at least as large as the number you currently own. Find the smallest number that satisfies those conditions.

Input Specification

The first line will have the integer N ($1 \leq N \leq 2 \times 10^9$).

Output Specification

Print the number you want.

Sample Input

4

Sample Output

5