

### Description

Alice has a mathematics test for which she is underprepared. She has to do at least one question correctly to pass the test. He decides to do a question which needs her to find the smallest prime number which is larger than a given integer N. Your task is to find and return an integer value representing the smallest prime number larger than N.

#### **Input Format:**

input1: An integer value N

### **Output Format:**

Return an integer value representing the smallest prime number larger than N.

### Sample Input

6

### **Sample Output**

7

## Source Code:

```
def next_prime(N):
    num = N + 1

while True:
    is_prime = True
    for i in range(2, int(num**0.5) + 1):
        if num % i == 0:
            is_prime = False
            break

    if is_prime:
        return num

num += 1

N = int(input())

result = next_prime(N)

print(result)
```

# **RESULT**

```
5 / 5 Test Cases Passed | 100 \%
```