



# STUDENT REPORT

## DETAILS

Name

SRINIVAS RAO B

Roll Number

3BR23AI156

## EXPERIMENT

Title

MATHS TEST

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

def smallest_prime_greater_than(N):
    candidate = N + 1 # Start checking from the next integer
    while True:
        if is_prime(candidate):
            return candidate
        candidate += 1 # Move to the next integer

# Input handling
N = int(input())

# Output the result
print(smallest_prime_greater_than(N))
```

### RESULT

5 / 5 Test Cases Passed | 100 %