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

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```
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 %
```