

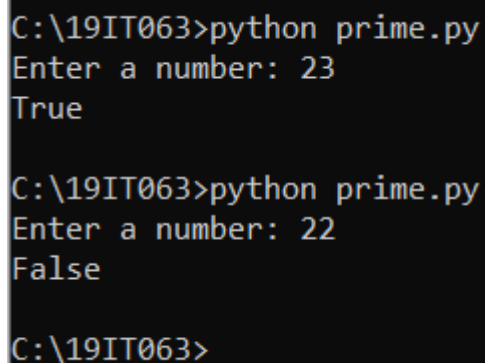
## PYTHON PROGRAMS

**Program 1:**

Write a python program to test a given number is prime or not.

**CODE:**

```
def isprime(num):  
    for n in range(2,int(num**0.5)+1):  
        if num%n==0:  
            return False  
    return True  
  
num = int(input("Enter a number: "))  
print(isprime(num))
```

**OUTPUT:**

```
C:\19IT063>python prime.py  
Enter a number: 23  
True  
  
C:\19IT063>python prime.py  
Enter a number: 22  
False  
  
C:\19IT063>
```

**Program 2:**

Write a program to generate odd numbers from m to n using while loop.

**CODE:**

```
def odd(lower,upper):  
    while lower <= upper:  
        if(lower % 2 != 0):
```

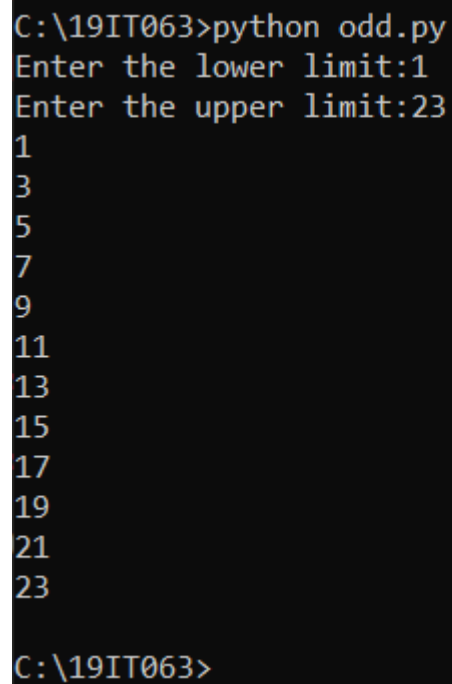
```
print("{0}".format(lower))

lower = lower + 1

lower=int(input("Enter the lower limit:"))

upper=int(input("Enter the upper limit:"))

odd(lower,upper)
```

**OUTPUT:**

```
C:\19IT063>python odd.py
Enter the lower limit:1
Enter the upper limit:23
1
3
5
7
9
11
13
15
17
19
21
23
C:\19IT063>
```

**Program 3:**

Write a Python program to display prime number series up to given number.

**CODE:**

```
def isprime(r):

    for a in range(2,r+1):

        k=0

        for i in range(2,a//2+1):

            if(a%i==0):
```

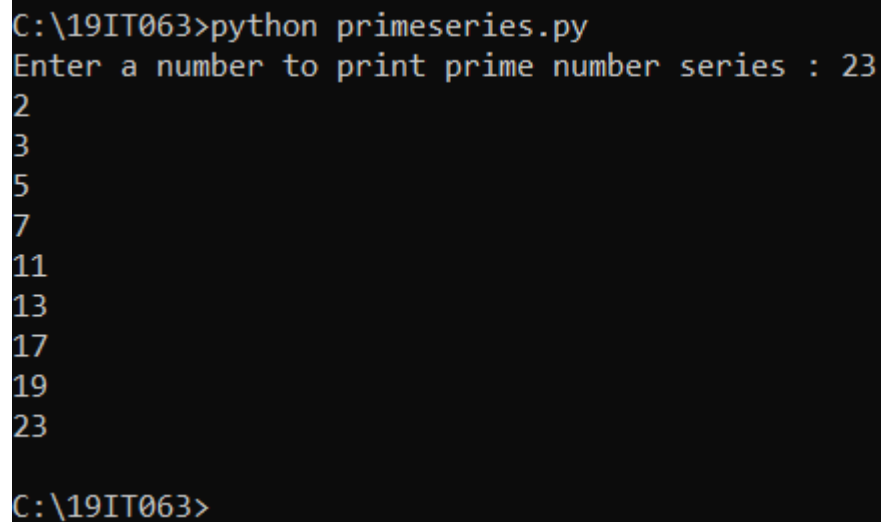
```
        k=k+1

    if(k<=0):

        print(a)

r=int(input("Enter a number to print prime number series : "))

isprime(r)
```

**OUTPUT:**

```
C:\19IT063>python primeseries.py
Enter a number to print prime number series : 23
2
3
5
7
11
13
17
19
23
C:\19IT063>
```

**Program 4;**

Write a Python program to generate Fibonacci series.

**CODE:**

```
def fibonacci_nums(n):

    if n <= 0:

        return [0]

    sequence = [0, 1]

    while len(sequence) <= n:

        next_value = sequence[len(sequence) - 1] + sequence[len(sequence) - 2]

        sequence.append(next_value)
```

return sequence

```
num = int(input("Enter a number: "))
```

```
print(fibonacci_nums(num))
```

**OUTPUT:**

```
C:\19IT063>python fibonacci.py
Enter a number: 21
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765, 10946]
C:\19IT063>
```