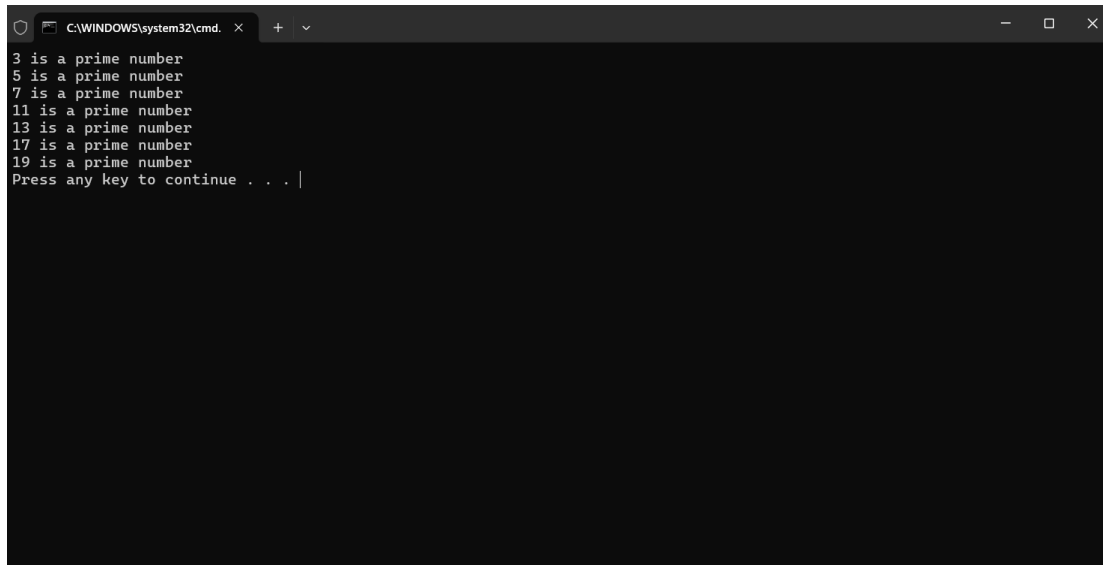


8) Write a program to generate all the prime numbers using recursion

CODE:

```
def isprime(num):
    prime=False
    for i in range(2,num):
        if num%i==0:
            prime=False
            break
        else:
            prime=True
    return prime
a=20
for i in range(2,a):
    if isprime(i):
        print(f"{i} is a prime number")
```

OUTPUT:

A screenshot of a Windows command prompt window. The title bar shows the path 'C:\WINDOWS\system32\cmd.' and standard window controls. The command prompt displays the output of the program: '3 is a prime number', '5 is a prime number', '7 is a prime number', '11 is a prime number', '13 is a prime number', '17 is a prime number', and '19 is a prime number'. Below these, it shows 'Press any key to continue . . . |' with a cursor.

TIME COMPLEXITY : $O(a^{3/2})$