Programming Basic Assignment 6

1. Write a Python Program to Display Fibonacci Sequence Using Recursion?

In [8]:

```python
def fibo(a,b,c):
    if c > 0:
        c -= 1
        print(a, end=' ')
        temp = b
        b = a + b
        a = temp
        fibo(a,b,c)
```

In [9]:

```python
fibo(0,1,10)
```

0 1 1 2 3 5 8 13 21 34

2. Write a Python Program to Find Factorial of Number Using Recursion?

In [16]:

```python
def fact(n):
    if n == 0:
        return 1
    else:
        return n*fact(n-1)
```

In [18]:

```python
fact(5)
```

Out[18]:

120

In [19]:

```python
fact(7)
```

Out[19]:

5040

3. Write a Python Program to calculate your Body Mass Index?

In [24]:

```python
def bmi(height, weight):

    return weight/(height*height)
```

In [26]:

```python
bmi(1.8, 70)
```

Out[26]:

21.604938271604937

4. Write a Python Program to calculate the natural logarithm of any number?

In [30]:

```python
import math

try:
    num = int(input("Enter the number: "))
except Exception as e:
    print(e)
else:
    print(math.log(num))
```

Enter the number: 14
2.6390573296152584

5. Write a Python Program for cube sum of first n natural numbers?

In [34]:

```python
def cubN(n):
    return sum(range(n+1))**3
```

In [38]:

```python
cubN(3)
```

Out[38]:

216

In [39]:

```
1  cubN(4)
```

Out[39]:

1000

In [ ]:

```
1
```