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

def recur\_fibo(n):

if n <= 1:

return n

else:

return(recur\_fibo(n-1) + recur\_fibo(n-2))

nterms = 10

# check if the number of terms is valid

if nterms <= 0:

print("Plese enter a positive integer")

else:

print("Fibonacci sequence:")

for i in range(nterms):

print(recur\_fibo(i))

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

def recur\_factorial(n):

if n == 1:

return n

else:

return n\*recur\_factorial(n-1)

num = 7

# check if the number is negative

if num < 0:

print("Sorry, factorial does not exist for negative numbers")

elif num == 0:

print("The factorial of 0 is 1")

else:

print("The factorial of", num, "is", recur\_factorial(num))

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

**Sol:**

#asking for inputs from the user

body\_weight = float(input("enter your weight"))

body\_height = float(input("enter your height"))

#formula for BMI

BMI = body\_weight/(body\_height/100)\*\*2

print(BMI)

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

**Sol:**

#import math library

import math

print(math.log(9))

print(math.log(28))

print(math.log(1))

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

**SOL:**

def sumOfseries(n):

    sum = 0

    for i in range(1,n+1):

        sum = sum+i\*i

        return sum

print(sumOfseries(n))