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

ANS: # Python program to display the Fibonacci sequence

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))

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

ANS: 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))

The factorial of 7 is 5040

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

ANS: height = float(input("Enter your height(m): "))

weight = float(input("Enter your weight(kg): "))

print("Your BMI is: ", round(weight / (height \* height), 2))

Enter your height 157

Enter your weight 40

Yor BIM is 0.0

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

ANS: # Calculate the natural log in Python with math.log

import math

print(math.log(math.e))

print(math.log(1))

print(math.log(10))

# Returns:

# 1.0

# 0.0

# 2.302585092994046

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

ANS: def CubeSum(n):

s=0

for i in range(n+1):

s+=i\*\*3

return s

n=int(input("enter n: "))

print("sum of cubes of first {} natural numbers: ".format(n),CubeSum(n))