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

def fibonacci(n):

if n <= 1:

return n

else:

return(fibonacci(n-1) + fibonacci(n-2))

limit = int(input("Till: "))

# check if the number of terms is valid

if limit <= 0:

print("Invalid")

else:

print("Fibonacci sequence:")

for i in range(limit):

print(fibonacci(i))

>>>

Till: 10

Fibonacci sequence:

0

1

1

2

3

5

8

13

21

34

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

def factorial(n):

if n == 1:

return n

else:

return n\*factorial(n-1)

num = int(input("Enter a Number: "))

# check if the number is negative

if num < 0:

print("Invalid")

elif num == 0:

print(1)

else:

print("The factorial of", num, "is", factorial(num))

>>> Enter a Number: 3

The factorial of 3 is 6

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

height = float(input("Enter your height in cm: "))/100

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

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

>>>

Enter your height in cm: 167

Enter your weight in kg: 85

Your BMI is: 30.48

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

import math

num = int(input("Enter a Number: "))

print("LOG RESULT: ", math.log(num))

>>>

Enter a Number: 30

LOG RESULT: 3.4011973816621555

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

num = int(input("Get Sum Till: "))

def sumNN(n):

sum = 0

for i in range(1, n+1):

sum +=i\*i\*i

return sum

print("SUM :",sumNN(num))

>>> Get Sum Till: 4

SUM : 100