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

Ans: ##use of recursion to get the fibonacci series of given n terms

def fibonacci(x):

if x <= 1:

return x

else:

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

#user defined input

n= int(input("enter the terms "))

#Displaying fibonacci series

print("the fibonacci series for {} terms :".format(n))

for i in range(n):

print(fibonacci(i),end=",")

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

Ans: #user defined input

num=int(input("enter the number whose factorial needed :"))

#use of recursion to get the factorial of the given number

def factorial(x):

if x==1:

return 1

else:

return (x\*factorial(x-1))

print("the factorial of {} : ".format(num),factorial(num))

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

Ans: #user defined input

w=float(input("enter your weight in kgs :"))

h=float(input("enter your height in metres :"))

#displaying body mass index

print("your BMI = w/h({}/{}) = ".format(w,h),w/(h\*\*2))

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

Ans: import math

N=float(input("enter any number"))

print("the natural logarithm of {} is ".format(N),math.log(N))

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

Ans:#user defined input

N=int(input("enter the natural number till which sum of cubes you want :"))

#calculating sum of cubes of given 1st natural numbers

sum=0

#calculating cubes of nos of 1st N natural numbers

def cube(x):

return (x\*\*3)

#calculating sum of 1st N natural numbers

for i in range(N+1):

sum=sum+ cube(i)

#displaying result

print("the sum of cubes of 1st {} natural numbers :".format(N),sum)