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

**Ans:** def recur\_fibo(n):  
 if n <= 1:  
 return n  
 else:  
 return(recur\_fibo(n-1) + recur\_fibo(n-2))  
# take input from the user  
nterms = int (input ("How many terms? "))  
# 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 = 9  
# 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))

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

**Ans:** height = float(input("Input your height in Feet: "))  
weight = float(input("Input your weight in Kilogram: "))  
print("Your body mass index is: ", round(weight / (height \* height), 2))

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

**Ans:** import math  
natural\_log = math.log(34)  
print(natural\_log)

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

**Ans:** def sumOfSeries(n):  
 x = (n \* (n + 1) / 2)  
 return (int) (x \* x)  
# Driver Function  
n = 8  
print(sumOfSeries(n))