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

def rec\_fibonacci(n\_terms):  
 *"""will take number of terms and call print\_fibo"""* def print\_fibo(num):  
 if num <= 1:  
 return num  
 else:  
 return print\_fibo(num - 1) + print\_fibo(num - 2)  
  
 # check if the number of terms is valid  
 if n\_terms <= 0:  
 print("Please enter a positive number")  
 else:  
 print("Fibonacci sequence: ", end=" ")  
 for n in range(1, n\_terms+1):  
 print(print\_fibo(n), end=" ")

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

def rec\_factorial(n):  
 if n == 1 or n == 0:  
 return 1  
 return n\*rec\_factorial(n-1)

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

def calbmi():  
 unit = int(input("Please choose the unit of height: "  
 "1 for meters, 2 for inches, 3 for centimeters: "))  
 wt = float(input("Please enter weight in kg: "))  
 if unit == 1:  
 ht = float(input("Input height in meters: "))  
 elif unit == 2:  
 ht = float(input("Input height in inches: "))\*(2.54/100)  
 else:  
 ht = float(input("Input height in centimeters: "))/100  
 bmi = wt / (ht\*\*2)  
 print(f"\n Your BMI is: {bmi}")  
  
 return "Thank you for using..."

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

def find\_log():  
 *"""Calculating log of a number using taylor series"""* n = float(input("Give number: "))  
 it = int(input("Input number of iterations: "))  
 z = (n - 1) / (n + 1)  
 i = 1  
 power = 1  
 ans = 0  
  
 while i <= it:  
 y = (z \*\* power) / power  
 ans += y  
 power += 2  
 i += 1  
  
 return 2 \* ans

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

def cube\_sum(n):  
 sm = 0  
 for i in range(1, n + 1):  
 sm += i \*\* 3  
  
 return sm