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)**

**for i in range(10):**

**print(fibonacci(i))**

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

**def factorial(n):**

**if n == 1:**

**return 1**

**else:**

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

**result = factorial(5)**

**print(result)**

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

**def calculate\_bmi(weight, height):**

**bmi = weight / (height \* height)**

**return bmi**

**weight = float(input("Enter your weight (in kilograms): "))**

**height = float(input("Enter your height (in meters): "))**

**bmi = calculate\_bmi(weight, height)**

**print("Your BMI is:", bmi)**

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

**import math**

**# Prompt the user for a number**

**x = float(input("Enter a number: "))**

**ln = math.log(x)**

**print("The natural logarithm of", x, "is", ln)**

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

**def cube\_sum(n):**

**sum = 0**

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

**sum += i\*\*3**

**return sum**

**n = int(input("Enter a number: "))**

**result = cube\_sum(n)**

**print("The sum of the cubes of the first", n, "natural numbers is", result)**