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

**Ans:- def factor(a):**

**result = 1**

**for i in range(a, 0, -1):**

**print(f"{result} = {result} \* {i}")**

**result = result \* i**

**print(result)**

**factor(5)**

1. Write a Python Program to Display the multiplication Table?

**Ans:- def table(a):**

**result = 1**

**for i in range(1, 11):**

**result = a \* i**

**print(f"{a}\*{i}={result}")**

**table(89)**

1. Write a Python Program to Print the Fibonacci sequence?

**Ans:- def fibonacci\_sequence(n):**

**# Initialize the first two terms**

**sequence = [0, 1]**

**# Generate the Fibonacci sequence**

**while len(sequence) < n:**

**next\_term = sequence[-1] + sequence[-2]**

**sequence.append(next\_term)**

**return sequence**

**# Take user input for the number of terms**

**num\_terms = int(input("Enter the number of terms: "))**

**# Print the Fibonacci sequence**

**fib\_sequence = fibonacci\_sequence(num\_terms)**

**print("Fibonacci Sequence:")**

**for term in fib\_sequence:**

**print(term)**

1. Write a Python Program to Check Armstrong Number?

**Ans:- result = []**

**sum = 0**

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

**result = [int(digit) for digit in str(n)]**

**num = len(result)**

**digit = [digit \*\* num for digit in result]**

**for i in digit:**

**sum += i**

**if sum == int(n):**

**print("It's an Armstrong number")**

**else:**

**print("It's not an Armstrong number")**

1. Write a Python Program to Find Armstrong Number in an Interval?

**Ans:- lower = int(input("Enter the lower bound of the interval: "))**

**upper = int(input("Enter the upper bound of the interval: "))**

**print("Armstrong numbers in the interval", lower, "to", upper, "are:")**

**for num in range(lower, upper + 1):**

**order = len(str(num))**

**sum = 0**

**temp = num**

**while temp > 0:**

**digit = temp % 10**

**sum += digit \*\* order**

**temp //= 10**

**if num == sum:**

**print(num)**

1. Write a Python Program to Find the Sum of Natural Numbers?

**Ans:- sum = 0**

**y = int(input("enter a number: "))**

**for i in range(0, y+1):**

**sum += i**

**print(sum)**