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

def factorial(n):

if n == 0:

return 1

else:

result = 1

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

result = result \* i

return result

num = int(input("Enter a positive integer: "))

print("The factorial of", num, "is", factorial(num))

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

n = int(input("Enter a positive integer: "))

for i in range(1, 11):

print(n, "x", i, "=", n \* i)

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

def fibonacci(n):

if n <= 0:

print("Incorrect input")

elif n == 1:

return 0

elif n == 2:

return 1

else:

a, b = 0, 1

for i in range(2, n):

c = a + b

a = b

b = c

return b

terms = int(input("Enter the number of terms: "))

if terms <= 0:

print("Incorrect input")

else:

print("Fibonacci series:")

for i in range(1, terms + 1):

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

1. Write a Python Program to Check Armstrong Number?

def is\_armstrong(num):

num\_str = str(num)

num\_len = len(num\_str)

sum = 0

for i in range(num\_len):

sum += int(num\_str[i]) \*\* num\_len

return sum == num

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

def is\_armstrong(num):

num\_str = str(num)

num\_len = len(num\_str)

sum = 0

for i in range(num\_len):

sum += int(num\_str[i]) \*\* num\_len

return sum == num

def find\_armstrong\_numbers(start, end):

armstrong\_numbers = []

for num in range(start, end + 1):

if is\_armstrong(num):

armstrong\_numbers.append(num)

return armstrong\_numbers

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

def sum\_of\_naturals(n):

return n \* (n + 1) // 2