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

num = int(input("Enter a number: "))

# Initialize the factorial to 1

factorial = 1

# Compute the factorial

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

factorial \*= i

# Print the factorial

print("The factorial of {0} is {1}".format(num, factorial))

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

num = int(input("Enter a number: "))

# Loop from 1 to 10 and display the multiplication table

for i in range(1, 11):

print("{0} x {1} = {2}".format(num, i, num\*i))

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

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

# Initialize the first two terms

a, b = 0, 1

# Check if the number of terms is valid

if num\_terms <= 0:

print("Invalid input. Please enter a positive integer.")

elif num\_terms == 1:

print("The Fibonacci sequence up to {0} terms is:".format(num\_terms))

print(a)

else:

print("The Fibonacci sequence up to {0} terms is:".format(num\_terms))

print(a, b, end=" ")

for i in range(2, num\_terms):

c = a + b

print(c, end=" ")

a, b = b, c

1. **Write a Python Program to Check Armstrong Number?**

num = int(input("Enter a number: "))

# Find the number of digits in the number

num\_digits = len(str(num))

# Initialize the sum variable

sum = 0

# Compute the sum of the cubes of the digits

temp = num

while temp > 0:

digit = temp % 10

sum += digit \*\* num\_digits

temp //= 10

# Check if the number is an Armstrong number

if num == sum:

print("{0} is an Armstrong number".format(num))

else:

print("{0} is not an Armstrong number".format(num))

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

start\_num = int(input("Enter the starting number: "))

end\_num = int(input("Enter the ending number: "))

# Loop through the numbers in the interval

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

# Find the number of digits in the number

num\_digits = len(str(num))

# Initialize the sum variable

sum = 0

# Compute the sum of the cubes of the digits

temp = num

while temp > 0:

digit = temp % 10

sum += digit \*\* num\_digits

temp //= 10

# Check if the number is an Armstrong number

if num == sum:

print(num)

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

n = int(input("Enter the number of natural numbers to add: "))

# Initialize the sum variable

sum = 0

# Loop through the first n natural numbers and add them to the sum

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

sum += i

# Print the sum of the natural numbers

print("The sum of the first {0} natural numbers is {1}".format(n, sum))