**Python Assignment 4**

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

num = int(input("Enter Number : "))

fact = 1

if num < 0:

print("Sorry, factorial does not exist for negative numbers")

elif num == 0:

print("The factorial of 0 is 1")

else:

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

fact = fact\*i

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

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

num = int(input("Enter Number : "))

for i in range(1, 11):

print(num, 'x', i, '=', num\*i)

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

nterms = int(input("How many terms? "))

n1, n2 = 0, 1

count = 0

if nterms <= 0:

print("Please enter a positive integer")

elif nterms == 1:

print("Fibonacci sequence upto",nterms,":")

print(n1)

else:

print("Fibonacci sequence:")

while count < nterms:

print(n1)

nth = n1 + n2

n1 = n2

n2 = nth

count += 1

4. Write a Python Program to Check Armstrong Number?

number = int(input("Enter Number ? "))

digits = len(str(number))

temp = number

add\_sum = 0

while temp != 0:

k = temp % 10

add\_sum += k\*\*digits

temp = temp//10

if add\_sum == number:

print('Given number is an Armstrong Number')

else:

print('Given number is not a Armstrong Number')

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

lower = int(input("Enter First Number ? "))

upper = int(input("Enter Last Number ? "))

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)

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

num = 5

if num < 0:

print("Enter a positive number")

else:

sum = 0

while(num > 0):

sum += num

num -= 1

print("The sum is", sum)