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

# To take input from the user

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

factorial = 1

# check if the number is negative, positive or zero

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):

factorial = factorial\*i

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

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

# Multiplication table (from 1 to 10) in Python

# To take input from the user

num = int(input("Display multiplication table of? "))

# Iterate 10 times from i = 1 to 10

for i in range(1, 11):

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

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

nTerms = int(input ("How many terms the user wants to print? "))

# First two terms

n1 = 0

n2 = 1

count = 0

# Now, we will check if the number of terms is valid or not

if nTerms <= 0:

print ("Please enter a positive integer, the given number is not valid")

# if there is only one term, it will return n\_1

elif nTerms == 1:

print ("The Fibonacci sequence of the numbers up to", nTerms, ": ")

print(n1)

# Then we will generate Fibonacci sequence of number

else:

print ("The fibonacci sequence of the numbers is:")

while count < nTerms:

print(n1)

nth = n1 + n2

# At last, we will update values

n1 = n2

n2 = nth

count += 1

1. Write a Python Program to Check Armstrong Number?

# Python program to check if the number is an Armstrong number or not

# take input from the user

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

# initialize sum

sum = 0

# find the sum of the cube of each digit

temp = num

while temp > 0:

digit = temp % 10

sum += digit \*\* 3

temp //= 10

# display the result

if num == sum:

print(num,"is an Armstrong number")

else:

print(num,"is not an Armstrong number")

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

# Program to ask the user for a range and display all Armstrong numbers in that interval

# take input from the user

lower = int(input("Enter lower range: "))

upper = int(input("Enter upper range: "))

order=len(str(lower))

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

# initialize sum

sum = 0

# find the sum of the cube of each digit

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?

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

if num < 0:

print("Enter a positive number")

else:

sum = 0

# use while loop to iterate un till zero

while(num > 0):

sum += num

num -= 1

print("The sum is",sum)