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

from functools import \* #Using functools to import reduce()

n = int(input('Enter a number '))

def mul(x,y):

return x\*y

print (reduce(mul, range(1,n+1)))

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

n = int(input('enter the number '))

l= int(input('enter length of the table '))

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

print (n,'\*',i,'=',n\*i)

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

n = int(input('How many numbers you want in the series? '))

x1=0

x2=1

for i in range(n):

print (x1)

s=x1+x2 #as sum of previous two numbers becomes next number in series

x1=x2

x2=s

1. Write a Python Program to Check Armstrong Number?

n = int(input('enter a number '))

y = str(n) #convert to string so digits can be isolated

l = len(y) #to know the number of digits

s = 0

for i in range(l):

s = ((int(y[i]))\*\*l)+s #to know sum of cubes of each digit

if s == n:

print ('It is armstrong number')

else:

print ('Not an armstrong number')

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

a = int(input('starting of the interval = '))

b = int(input('ending of the interal = '))

for j in range(a,b+1): #create a range to check each number in interval

y = str(j)

l = len(y)

s=0

for i in range(l):

s = ((int(y[i]))\*\*l)+s

if s==j: #if number fulfils armstrong num criteria, print it

print(j)

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

from functools import \* #module to import reduce() function

n = int(input('How many natural numbers you want to add? '))

sum = reduce(lambda x,y: x+y, range(1,n+1))

print ('Sum is ', sum)