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

Ans: #user defined input

N=int(input("enter a number"))

#defining a list to store the factor of the number

F=[]

#getting factors of the number

for i in range(1,N):

if(N%i==0):

F.append(i)

print("the factors of number {} are".format(N),set(F))

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

Ans: #user defined input

N=int(input("enter a number"))

#displaying multiplication table

for i in range(1,11):

print("{} x {} = ".format(i,N),i\*N)

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

Ans: #user defined input

N=int(input("enter a number"))

F=[]

#displaying fibonacci series

a=0

b=1

for i in range(0,N):

F.append(a)

a,b= a+b,a

print("the fibonacci series for given occurence {} is ".format(N),tuple(F))

1. Write a Python Program to Check Armstrong Number?

Ans: #user defined input

N=int(input("enter a number"))

A=N

sum=0

#extracting digits and summing cubes of digits

while(N>0):

d=N%10

sum=sum+(d\*\*3)

N=N-d

N=N/10

#checking if number is Armstrong or not

if(sum==A):

print("the given number {} is a armstrong number".format(A))

else:

print("the given number {} is not a armstrong number".format(A))

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

Ans: #user defined input

L=int(input("enter the lower limit"))

U=int(input("enter the upper limit"))

A=[]

for i in range(L,U):

a=i

sum=0

while(i>0):

d=i%10

sum=sum+(d\*\*3)

i=i-d

i=i/10

if(sum==a):

A.append(a)

print("the armstrong numbers in interval {} and {} are".format(L,U),tuple(A))

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

Ans: #user defined input

N=int(input("enter the limit"))

#finding the sum of natural numbers

sum=(N\*(N+1))/2

print(" sum of {} natural numbers is ".format(N),sum)