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

# Python Program to Find the Factorial of a Number

# Get a number from the user

while True:

try:

a = input("Enter the integer number : ")

a = int(a)

break

except ValueError:

print("Enter a valid integer number ")

def factorial(n):

fac = 1

if n < 0:

return 0

elif n == 0 or n == 1:

return 1

else:

while (n > 1):

fac \*= n

n -= 1

return fac

fac = factorial(a)

print("The factorial of a given number is ",fac)

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

# Python Program to print multiplication table

# Get a number from the user

while True:

try:

a = input("Enter the integer number : ")

a = int(a)

break

except ValueError:

print("Enter a valid integer number ")

# for loop to calculate the multiplication of number and print it

for i in range(1,11):

print(a,"\*",i, " = ",a\*i)

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

# Python Program to print Fibonacci series

# Get a number from the user

while True:

try:

a = input("Enter the integer number : ")

a = int(a)

break

except ValueError:

print("Enter a valid integer number ")

# Function to implement the fibonacci series

def fibonacci(n):

a = 0

b = 1

if n == 1:

print(a)

else:

print(a)

print(b)

for i in range(2,n):

c = a + b

a = b

b = c

print(c)

# Call the function by passing the number as parameter

# it will print fibonacci series as output

fibonacci(a)

1. Write a Python Program to Check Armstrong Number?

# Python Program to Check Armstrong Number

# Get a number from the user

while True:

try:

a = input("Enter the integer number : ")

a = int(a)

break

except ValueError:

print("Enter a valid integer number ")

# create variables

temp=a

sum = 0

t = len(str(temp))

# Use while loop to check if the number is armstrong number or not

while a != 0:

r = a%10

sum = sum+(r\*\*t)

a = a//10

if temp == sum:

print("The given number",temp,"is armstrong number")

else:

print("The given number",temp,"is not armstrong number")

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

# Python Program to Find Armstrong Number in an Interval

# List which has list of numbers

list1 = [1, 2, 153, 1253, 1634]

list2 =[]

# create a function to check armstrong number

def checkarmstrongnum(a):

sum = 0

temp = a

t = len(str(temp))

while a != 0:

r = a%10

sum = sum+(r\*\*t)

a = a//10

if temp == sum:

list2.append(temp)

# For loop to iterate through the list of numbers

for i in list1:

checkarmstrongnum(i)

# print the list of numbers which are armstrong

print("List of armstrong numbers ",list2)

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

# Python Program to print sum of natural numbers

# Get a number from the user

while True:

try:

a = input("Enter the integer number : ")

a = int(a)

break

except ValueError:

print("Enter a valid integer number ")

# for loop to calculate the sum of natural numbers

sum = 0

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

sum = sum + i

# Print the sum of natural numbers

print("The sum of natural numbers is ",sum)