**EXPT.NO:3 Problems on control statements**

**DATE:11.01.23**

**Number series**

**1.Write a program to find the sum of series 1/2!+2/3!+3/5!+4/6!+.....N/(N+1)!**

Input:

num=int(input(“enter your limit:”))

res = 0

fact = 1

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

fact \*= i

res = res + (i/ fact)

print(“the sum of the series is :”,res)

**OUTPUT:**

enter your limit:10

the sum of the series is : 2.7182815255731922

**Write a Program to print the Fibonacci series.**

INPUT

N=int(input(“enter no, of number to be print:”))

F1=int(input(“enter the first no.”))

F2=int(input(“enter the second no.”))

i=0

print(F1)

print(F2)

while(i<N-2):

F3=F1+F2

print(F3)

F1=F2

F2=F3

i+=1

OUTPUT:

enter no, of number to be print:8

enter the first no.0

enter the second no.1

0

1

1

2

3

5

8

13

**2.Number Pyramid - Inverted Pyramid pattern with the same digit  
Pattern: –**

Input:

rows = 5

num = rows

for i in range(rows, 0, -1):

for j in range(0, i):

print(num, end=' ')

print("\r")

OUTPUT:

5 5 5 5 5

5 5 5 5

5 5 5

5 5

5

**3.Pyramid Pattern - Right down mirror star Pattern  
Pattern:**

Input:

n=int(input(“Enter the number of rows:”))

space=0

for i in range(n):

for j in range(space):

print(“ ”,end= “ ”)

space=space+1

for k in range(n-i,0,-1):

print( “\*”,end= “ ”)

print(“ “)

OUTPUT:

Enter the number of rows:5

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

**4.Reversing a Number**

Input:

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

reversed\_num = 0

while (num != 0):

digit = num % 10

reversed\_num = reversed\_num \* 10 + digit

num //= 10

print("Reversed Number: " + str(reversed\_num))

OUTPUT:

enter a number 34567

Reversed Number: 76543