**A) FIND THE SUM OF SERIES 1/2!+2/3!+3/5!+4/6!+.....N/(N+1)!**

PROGRAM:

num=int(input("enter the 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 the limit:10

the sum of the series is: 2.7182815255731922

**B) FIBONACCI SERIES**

PROGRAM:

f1=int(input("enter f1:"))

f2=int(input("enter f2:"))

n=int(input("enter number of items:"))

print(f1)

print(f2)

i=0

while(i<n-2):

f3=f1+f2

print(f3)

f1=f

f2=f3

i=i+1

OUTPUT:

enter f1:0

enter f2:1

enter number of items:10

0

1

1

2

3

5

8

13

21

34

**C) INVERTED PYRAMID PATTERN WITH THE SAME DIGIT**

PROGRAM:

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

a=n

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

print(str(n)\*a)

a=a-1

OUT PUT:

Enter a number : 5

55555

5555

555

55

5

**D) PYRAMID PATTERN - RIGHT DOWN MIRROR STAR PATTERN**

PROGRAM:

n=int(input('Enter number of rows : '))

a='\*'

s=0

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

print(' '\*s,end='')

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

print(a,end=' ')

s+=1

print()

OUTPUT:

Enter number of rows : 5

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

**E) REVERSING A NUMBER**

PROGRAM:

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

sum=0

while(num>0):

rem=num%10

sum=(sum\*10)+rem

num=num//10

print("reversed number is:",sum)

OUTPUT:

enter a number:8977

reversed number is: 7798