

Name:C.V.SURYA NAARAAYANAN

22CSEA61

### I. Number series

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

Write a Program to print the Fibonacci series.

#### PROGRAM:

```
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

## II. Number Pyramid - Inverted Pyramid pattern with the same digit

### PROGRAM:

```
rows = 5
num = rows
for i in range(rows, 0, -1):
    for j in range(0, i):
        print(num, end="")
    print("\r")
```

### OUTPUT:

```
55555
5555
555
55
5
```

### III. Pyramid Pattern - Right down mirror star Pattern

#### PROGRAM:

```
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 number of rows:5**

```
* * * * *
* * * *
* * *
* *
*
```

#### IV. Reversing a Number

##### **PROGRAM:**

```
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:345
```

```
Reversed Number:543
```