INPUT

```
# WAP to create and display upto n prime series (Ripunjay, Manasvi)
limit = int(input("Enter the limit  :  "))
print("The prime number series is as follows :- ")
for i in range(2,limit+1) :
    for j in range(2,i) :
        if i % j == 0 :
            break
    else :
        print(i , end = ' , ')
```

OUTPUT

```
Enter the limit  :  10
The prime number series is as follows :-
2 , 3 , 5 , 7
```

INPUT

```
# 1 + x + x^2/ے2 + x^3/ے3 + ..... (Ripunjay, Manasvi)
x = int(input("Enter the series number : "))
n = int(input("Enter the number of terms : "))
sum = 0
for i in range(0 , n+1) :
    fact = 1
    for j in range(1 , i+1) :
        fact = fact * j
    term = (x**i)/fact
sum = sum + term
print("sum of",n,"terms of series is =" , sum)
```

OUTPUT

```
Enter the series number : 2
Enter the number of terms : 20
sum of 20 terms of series is = 4.3099804121821766e-13
```

INPUT

```
# 1 - x/∠1 + x^2/∠3 - x^3/∠5 + ..... ± x^n /∠2n-1 (Ripunjay, Manasvi)
x = int(input("Enter a Number : "))
n = int(input("Enter the Limit : "))
sum = 1
for i in range(1 , n+1) :
    fact = 1
    for j in range(1 , 2*i) :
        fact = fact * j
    term = x**i/fact
    if i%2 == 0 :
        sum = sum + term
    else :
        sum = sum - term
print("Sum of Series = " , sum)
```

OUPUT

```
Enter a Number : 2
Enter the Limit : 2
Sum of Series =  -0.33333333333333337
```

INPUT

```
# pyramidal numbers (Ripunjay, Manasvi)
n = int(input("Enter the number of rows = "))
for i in range(1 , n+1) :
    for j in range(1 , n-i+1) :
        print(end=" ")
    for j in range(i , 0 , -1) :
        print(j , end=" ")
    for j in range(2 , i+1) :
        print(j , end=" ")
    print()
```

OUTPUT

```
Enter the number of rows = 5
    1
  2 1 2
 3 2 1 2 3
4 3 2 1 2 3 4
5 4 3 2 1 2 3 4 5
```

INPUT

```
# To find the factorial of a number(Ripunjay,Manasvi)
a = int(input("Enter the number for factorial :  "))
fact = 1
for i in range(a,0,-1):
   fact = fact*i
print("Factorial of",a,"is", fact)
```

OUTPUT

```
Enter the number for factorial :  5
Factorial of 5 is 120
```