1)

#Number series(2+4+…N)

n=int(input("Enter the value of n:"))

sum=0

for i in range(2,n+1,2):

sum=sum+i

print("The sum of the series is:",sum)

#output

Enter the value of n:6

The sum of the series is: 12

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#sum of series(1+11+111+...+N)

n=int(input("Enter the value of n:"))

sum=0

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

sum=sum+i\*(10\*\*(i-1))

print(sum)

#output

Enter the value of n:11

120987654321

2)

#number pattern-inverted pyramid pattern of numbers

rows=5

b=0

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

b+=1

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

print(b,end=" ")

print("\r")

#output

1 1 1 1 1

2 2 2 2

3 3 3

4 4

5

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3)

#Pyramid pattern-Downward full pyramid pattern of stars

num=int(input("Enter the number of rows:"))

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

for j in range(0,i):

print("\*",end=" ")

print()

#output

Enter the number of rows:6

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