1 .a)#SUM SERIES 2+4+6+8+….+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:5

the sum of the series is 2

the sum of the series is 6

1.b)#SUM 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:10

10987654321

>>>

2.#ARMSTRONG NUMBER

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

sum=0

temp=n

while temp>0:

d=temp%10

sum+=d\*\*3

temp//=10

if n==sum:

print(n,"is an Armstrong number")

else:

print(n,"is not an Armstrong number")

OUTPUT

Enter a number: 153

153 is an Armstrong number

>>>

3.#write a python code for downward full pyramid pattern of star.

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

\* \* \* \* \* \*

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

>>>

4.#write a python code for inverted pyramid pattern of numbers

n=6

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

for j in range(1,i):

print(j,end="")

print("\r")

OUTPUT

11111

2222

333

44

5