GROUP 2

I. Number series

write a program to print Arithmetic series 1 4 7 10...

PROGRAM:

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

sum=0

i=1

while(i<=n):

print(i,end=" ")

i=i+3

output:

Enter value:20

1 4 7 10 13 16 19

Write a Program to Find the sum of series 1³+2³+3³+4³.....+N³.

PROGRAM:

n=int(input("enter value:"))

sum=0

i=1

while(i<=n):

sum=sum+(i\*\*3)

i=i+1

print(sum)

OUTPUT:

enter value:5

225

II. Number Patterns :   
Pyramid pattern of numbers  
Let’s see how to print the following half pyramid pattern of numbers  
1   
1 2   
1 2 3   
1 2 3 4   
1 2 3 4 5

PROGRAM:

for i in range(1,6):

print()

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

print(j,end=" ")

OUTPUT:

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

III. Pyramid Patterns- Downward half-Pyramid Pattern of Star  
Pattern: –  
\* \* \* \* \*   
\* \* \* \*   
\* \* \*   
\* \*   
\*

PROGRAM:

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

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

for j in range(0,i):

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

print()

OUTPUT:

Enter number of rows:5

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*  
IV. Convert binary to decimal number

PROGRAM:

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

s=0

i=0

while(n>0):

r=n%10

s=s+r\*(2\*\*i)

n//=10

i+=1

print(s)

OUTPUT:

Enter a binary number:1010

10