**Ex:4(a)[i] Number series**

**Date:7/1/23**

**AIM**

To print number series of 0, 2, 6, 12, 20, 30,……,N

**PROGRAM**

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

i=1

while i<=n:

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

i=i+1

**OUTPUT**

n=5

0, 2, 6, 12, 20

**RESULT**

The given program is performed on python and verified.

**Ex:4(a)[ii] Number series**

**Date:7/1/23**

**AIM**

To print number series of 0, 2, 8, 14, 24, 34,……,N

**PROGRAM**

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

i=1

pr=0

while(i<=n):

if(i%2==0):

pr=pow(i,2)-2

print(pr,end=" ")

else:

pr=pow(i,2)-1

print(pr,end=" ")

i=i+1

**OUTPUT**

n=4

0, 2, 8, 14

**RESULT**

The given program is performed on python and verified.

**Ex:4(b) Number pattern**

**Date:7/1/23**

**AIM**

To print pyramid pattern with numbers.

**PROGRAM**

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

for i in range(row):

for j in range(i):

print(i,end=" ")

print(' ')

**OUTPUT**

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

**RESULT**

The given program is performed on python and verified.

**Ex:4(c) Number pattern**

**Date:7/1/23**

**AIM**

To print pyramid pattern.

**PROGRAM**

for i in range(1,6):

print()

for j in range(i):

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

**OUTPUT**

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

**RESULT**

The given program is performed on python and verified.

**Ex:4(d) Number pattern**

**Date:7/1/23**

**AIM**

To convert decimal to binary.

**PROGRAM**

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

bin\_num=0

while(n>0):

rem=n%2

bin\_num=bin\_num\*10+rem

n=n//2

print("Binary equivalent= ",bin\_num)

**OUTPUT**

Enter a number: 7

Binary equivalent= 111

**RESULT**

The given program is performed on python and verified.