

Expt. No. : 4(A)
Date : 11-1-2023

NUMBER SERIES

PROGRAM:

Print Arithmetic series 0 2 6 12 20 30...

```
n=int(input("Enter the range of number(Limit):"))
```

```
i=1
```

```
while i<=n:
```

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

```
    i+=1
```

OUTPUT:

Enter the range of number(Limit):7

0 2 6 12 20 30 42

PROGRAM:

Program to Find the sum of series 0,2 , 8,14,24,34.....

```
n=int(input("Enter the range of number(limit):"))
```

```
the range of number(Limit):))
```

```
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+=1
```

OUTPUT:

Enter the range of number(Limit):8

0 2 8 14 24 34 48 62

Expt. No. : 4(b)
Date : 11-1-2023

NUMBER PATTERNS

PROGRAM:

```
for i in range(1,6):  
    print()  
    for j in range(i):  
        print(i,end = "")
```

OUTPUT:

```
Enter a number : 5  
1  
22  
333  
4444  
55555
```

Expt. No. : 4(D)
Date : 11-1-2023

PYRAMID PATTERN

PROGRAM:

```
for i in range(1,6):  
    print()  
    for j in range(i):  
        print("*",end = "")
```

OUTPUT:

```
Enter number of rows : 5  
*  
  
**  
  
***  
  
****  
  
*****
```

Expt. No. : 4(D)
Date : 11-1-2023

BINARY TO DECIMAL

PROGRAM:

```
# convert binary to decimal
n = int(input("Enter a number: "))
s = []
while (n>=1):
    a = n%2
    n = n// 2
    s.insert(0,str(a))
i = 0
b = ''
while (i < len(s)):
    b += s[i]
    i += 1
print(int(b))
```

OUTPUT:

Enter a number: 567

1000110111