**1. Program to print right angled triangle**

for i in range(1,6):

print("\*"\*i)

**2. Program to print left angled triangle**

for i in range(1,6):

print(" "(6-i)+""\*i)

**3. Program to print pascal’s triangle**

n=5

triangle=[[1]\*(i+1) for i in range(n)]

for i in range(2,n):

for j in range(1,i):

triangle[i][j]=triangle[i-1][j-1]+triangle[i-1][j]

for i in range(n):

row=" ".join(str(x)for x in triangle[i])

print(row.center(n\*2))

**4. Program to reverse a string using slicing**

s="welcome"

print(s[::-1])

**5. Program to concatenate two strings without using “+” operator**

s1="wel"

s2="come" s3=" ".join([s1,s2])

print(s3)

**6. Program to print number of vowels and consonants in a string**

a="welcome"

vowels="aeiouAEIOU"

vowel=0

conso=0

for i in a:

if i in vowels:

vowel+=1

else:

conso+=1

print("Vowels:",vowel)

print("Consonants:",conso)

**7. Program to remove duplicate numbers in the lists**

num=[1,2,3,4,3,5,5]

result=[]

for i in num:

if i not in result:

result.append(i)

print(result)

**8. Program to find the duplicate elements ad count how many times it occurred**

num=[1,2,3,4,3,5,1,2,2]

coun={}

for i in num:

if i in coun:

coun[i]+=1

else:

coun[i]=1

for key,value in coun.items():

if value>1:

print(key,":",value,"times")

**9. Program to find the frequency of the string**

num=[1,2,3,4,3,5,1,2,2]

coun={}

for i in num:

if i in coun:

coun[i]+=1

else:

coun[i]=1

for key,value in coun.items():

if value>1:

print(key,":",value,"times")

**10. Program to check whether the email is valid or not**

email="aaa@gmail.com"

if "@gmail.com" in email and ' ' not in email:

print("valid")

else:

print("invalid")