```
pgm pattern.py - C:/Users/USER/Dropbox/My PC (LAPTOP-36R5N85L)/Documents/sanjay python programs/pg
File Edit Format Run Options Window Help
n=int(input("enter the number of lines : "))
for i in range(1,n+1):
    for s in range (n-i, 0, -1):
        print(' ',end='')
    for j in range(1,i+1):
        print(j,end='')
    print()
IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
    Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929
    AMD64)] on win32
    Type "help", "copyright", "credits" or "license()" for more information.
    = RESTART: C:/Users/USER/Dropbox/My PC (LAPTOP-36R5N85L)/Documents/sanjay
     programs/pgm pattern.py
    enter the number of lines : 5
      1234
     12345
 >>>
```

```
pattern.py - C:\Users\shareef\Documents\python vivek\pattern.py (3.10.4)
 File Edit Format Run Options Window
n=int(input("enter the lines:"))
 coef = 1
for i in range (1, n+1):
     for s in range(1,n-i+1):
         print(" ", end="")
     for j in range(0,i):
         if (j==0 or i==0):
             coef=1
         else:
             coef = coef * (i-j)//j;
             print (coef, end=" ")
    print()
    IDLE Shell 3.10,4
                                                              0
    File Edit Shell Debug Options Window Help
       Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:
        AMD64)] on win32
        Type "help", "copyright", "credits" or "license()" for
   >>>
        ======= RESTART: C:\Users\shareef\Documents\python
   >>> enter the lines:5
          1
          2 1
         3 3 1
       4 6 4 1
ෲ
```

OUTPUT

['H', 'W', 'T', 'T', 'W', 'O', 'P']

Program 8.8 Write a program to remove all duplicates from a list.

```
print("List after removing duplicates : ", num_list)
                                                                                                                                                                                                    while i<len(num_list):
                                                                                                                                                                                                                                                   print("Original List : ", num_list)
                                                                                                                                                                                                                                                                           num_list = [1, 2, 3, 4, 5, 6, 7, 6, 5, 4]
                                                                                                                                          for j in range(i+1, len(num_list)):
                                                                                                                                                                         num = num_list[i]
                                                                                          if val == num:
                                                                                                                     val = num_list[j]
                                                         num_list.pop(j)
```

OUTPUT

List after removing duplicates: [1, 2, 3, 4, 5, 6, 7] Original List: [1, 2, 3, 4, 5, 6, 7, 6, 5, 4]

steps. Reverse the list and print its values. Program 8.9 Write a program to create a list of numbers in the spec

```
pgm2.py - C:/Users/USER/Dropbox/My PC (LAPTOP-36R5N85L)/Documents/sanjay python programs/
File Edit Format Run Options Window Help
# SANJAY 192110700 printing the letters in alphabetical order
s=input("Enter the string : ")
1=[]
for i in s:
    m=ord(i)
    1.append(m)
1.sort()
for i in 1:
     k=chr(i)
    print(k, end=' ')
  IDLE Shell 3.10.4
      Edit Shell Debug Options Window Help
  File
      Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2
      022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on
      win32
      Type "help", "copyright", "credits" or "licen
      se() " for more information.
      = RESTART: C:/Users/USER/Dropbox/My PC (LAPTO
      P-36R5N85L)/Documents/sanjay python programs/
      pgm2.py
      Enter the string : sanjay
      aajnsy
  >>>
```

