

1. Write a program to find the largest element in an array using pointers.

Output screen-

```
Enter the number of items in array 5
Enter the 1 element of array 10
Enter the 2 element of array 30
Enter the 3 element of array 20
Enter the 4 element of array 15
Enter the 5 element of array 29
The largest number in the array is 30
```

2. Write a program that stores a list of floating-point numbers in an array and sorts them in an ascending order using functions and pointers.

Output screen-

```
Enter the Number of items in array 5
Enter 1 item in array 80
Enter 2 item in array 50
Enter 3 item in array 70
Enter 4 item in array 30
Enter 5 item in array 10
Bubble sorted list is :
10
30
50
70
80
```

3. Define a structure called Student with suitable appropriate attributes. Write a program that reads the details of some students and displays the data in ascending order according to either their roll number or their first name.

Output screen-

```
How many students?
3

Enter the details of student no. 1.

Enter the name of the student: Samir
Enter the roll no. of the student: 60
Enter the grade of the student: A

Enter the details of student no. 2.

Enter the name of the student: Mohit
Enter the roll no. of the student: 45
Enter the grade of the student: B+

Enter the details of student no. 3.

Enter the name of the student: Abiral
Enter the roll no. of the student: 2
Enter the grade of the student: A+

The sorted student details:
Name: Abiral
Roll no.: 2
Grade Achived: A+
Name: Mohit
Roll no.: 45
Grade Achived: B+
Name: Samir
Roll no.: 60
Grade Achived: A
```

4. Re-write the program of question 3 from Lab 5 using structures.
(The program uses the Heron's formula for calculating the area of a triangle to find the area of a polygon.)

Output screen-

```
Enter the x and y coordinates of the points in order - 0,0
Enter the x and y coordinates of the points in order - 0,1
Enter the x and y coordinates of the points in order - 1,1
Enter the x and y coordinates of the points in order - 1,0
The area is 1.000000
```