Algorithm:

Step 1: Start

Step 2: Read value for size

Step 3: Enter the elements of array

    for(i=0; i<size; i++)

      read a[i]

Step 4: big = a[0]

Step 5: for (i=1; i<size; i++)

    if (big < a[i])

      big = a[i]

    print the big value

Step 6: small = a[0]

Step 7: for (i=1; i<size; i++)

    if (small ≥ a[i])

      a[i] = small

    Print the smallest element

Step 8: Stop

Flowchart:

```
                    ( Start )
                       │
                       ▼
                  / read size /
                       │
                       ▼
          / Enter array element /
          /    read a[i]        /
                       │
                       ▼
                 [ big = a[0] ]
                       │
                       ▼
                    ╱ for ╲        False
              ◄────╱ (i=1; i<size; ╲─────────┐
                   ╲   i++)        ╱         │
                    ╲────╱                   │
                       │ True               │
                       ▼                     │
        False    ╱   if    ╲                 │
      ◄─────────╱  big < a[i] ╲              │
                   ╲         ╱               │
                    ╲───╱                    │
                       │ True               │
                       ▼                     │
              [ big = a[i]        ]          │
              [ print big value   ]          │
                       │                     │
                       ▼                     │
                 [ small = a[0] ] ◄──────────┘
                       │
                       ▼
                    ╱ for ╲        False
              ◄────╱ (i=1; i<size; ╲─────────┐
                   ╲   i++)        ╱         │
                    ╲────╱                   │
                       │ True               │
                       ▼                     │
        False    ╱   if    ╲                 │
      ◄─────────╱ small > a[i] ╲             │
                   ╲         ╱               │
                    ╲───╱                    │
                       │ True               │
                       ▼                     │
              [ a[i] = small      ]          │
              [ print small value ]          │
                       │                     │
                       ▼                     │
                    ( Stop ) ◄───────────────┘
```