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4AL19IS002

'G' Section

Algorithm

1. Start

2. Input n

3. Repeat through Step 3
   for (i=0; i<n; i++)
       input a[i]

4. big = a[0]

5. Small = a[0]

6. Repeat through Step 4
   for (i=1; i<n; i++)
       if (a[i] < Small)
           Small = a[i]
       if (a[i] > big)
           big = a[i]

7. Printf big, Small

8. End.

Flow chart

```
                    ( Start )
                        |
                   / Input n /
                        |
    False    _____
        <---( for int i=0; i<n; i++ )--->
            |_____|
                        |
                      True
                        |
                  / Input a[i] /
                        |
              ┌──────────────────┐
              │   big = a[0]      │
              │   Small = a[0]    │
              └──────────────────┘
                        |
        _____
       ( for (int i=1; i<n; i++ )
       |_____|
                        |
                      True
                        |
    False            / if \
        <---------  < a[i] < Small >
        |            \      /
        |              True
        |               |
        |         ┌──────────┐
        |         │  Small   │
        |         │  = a[i]  │
        |         └──────────┘
        |               |
        |             / if \
        |            < a[i] > big >
        |             \      /
        |               True
        |               |
        |         ┌──────────┐
        |         │ big = a[i]│
        |         └──────────┘
        |_____|
                        |
              / Print Small & /
              /     big       /
                        |
                    ( End )
```