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C Program to count distinct elements in an array

Algorithm

1. Start

2. Input n

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

4. Repeat through Step 4
   4.1 for (i=0; i<n; i++)

   4.2 a) P = a[i]

   4.3 b) flag = 0
   4.1c) Repeat through Step 4.1c
   for (j=0; j<m; i++)
   {
   if (j! = i)
   {
   flag++
   break;
   }
   }
   4.1d) if (flag == 0)
   count ++

5. Print count
6. Stop

Flowchart

```
                    ( Start )
                        |
                        v
                  / Input n /
                        |
                        v
    false  < for i=0;i<n;i++ >
      |              |
      |             true
      |         [ input a[i] ]
      |              |
      |              v
      +---> < for i=0;i<n;i++ > ----------------+
                     |                          |
                    true                        |
                 [ P=a[i] ]                     |
                     |                          |
                     v                          |
               [ flag=0 ]                       |
    false            |                          |
                     v                          |
          < for j=0;j<n;j++ > -----------+      |
                     |                   |      |
                    true    False        |      |
                  < i!=j >                |      |
                     |                   |      |
                    true    False        |      |
                 < P==a[j] >              |      |
                     |                   |      |
                     v                   |      |
                [ flag++ ]               |      |
                     |                   |      |
                     v                   |      |
                [ break ]                |      |
                     |                   |      |
                     v           false   |      |
                < flag==0 > -------------+------+
                     |
                     v
                [ count ]
                     |
                     v
           / print count / ---> [ Stop ]
```