Arrays 1D - Count distinct elements

Problem	Submissions	Leaderboard	Discussions

Harish and Rajesh were developing a plan to find the ideal woman for Sheldon Cooper. There were puzzles, translations, and questions to check a person's intelligence. One such question was to come up with a program to count the number of distinct elements in an array. Harini is a postdoctoral researcher and a former graduate student of Caltech who is a huge fan of Sheldon's work and she wanted to impress Sheldon by writing a program to count the number of distinct element in an array. Can you help Harini?

Input Format

Input consists of 1 integer and 1 array. The first integer corresponds to the size of the array.

Constraints

NA

Output Format

The output prints the number of distinct element in an array.

Sample Input 0

```
5
1
2
3
3
4
```

Sample Output 0

```
There are 4 distinct element in the array.
```

Explanation 0

Since there are 4 distinct elements it will print There are 4 distinct element in the array.

Sample Input 1

```
5
1
1
2
3
3
```

Sample Output 1

```
There are 3 distinct element in the array.
```

Explanation 1

Since there are 3 distinct element it will print There are 3 distinct element in the array.

Submissions: 664
Max Score: 100
Difficulty: Medium

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☆ ☆ ☆ ☆ ☆

More

```
C                                              ⌄      ⤢    ⚙
```

```c
 1 ▾#include <stdio.h>
 2  #include <string.h>
 3  #include <math.h>
 4  #include <stdlib.h>
 5
 6 ▾int main() {
 7
 8 ▾    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
 9      int n;
10      scanf("%d",&n);
11 ▾    int a[n];
12 ▾     for(int i=0;i<n;i++){
13 ▾        scanf("%d",&a[i]);
14      }
15      int c=0;
16 ▾    for(int i=0;i<n;i++){
17          c+=1;
18 ▾        for(int j=i+1;j<n;j++){
19 ▾            if(a[i]==a[j]){
20                  c-=1;
21                  break;
22              }
23          }
24      }
25      printf("There are %d distinct element in the array.",c);
26      return 0;
27 }
28
```

Line: 1 Col: 1

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

Testcase 0 ✔   Testcase 1 ✔

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

```
5
1
2
3
3
4
```

Your Output (stdout)

```
There are 4 distinct element in the array.
```

Expected Output

```
There are 4 distinct element in the array.
```