Question 2

Due on 2019-08-29, 23:59 IST

Find the number of distinct numbers in a given sequence. The sequence need not be sorted.

Input
The input consists of two lines. The first line consists of a positive number N. N is at most 1000. The second line consists of N numbers separated by spaces.

Output
The output should be the number of distinct elements in the sequence.

Sample Input
4
1 2 3 1

Sample Output
3

Sample Test Cases

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 33 66 77 66</td>
<td>3</td>
</tr>
<tr>
<td>7 0 0 0 0 0 0 0</td>
<td>1</td>
</tr>
<tr>
<td>5 1 2 3 4 -5</td>
<td>5</td>
</tr>
</tbody>
</table>
The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)

```c
#include <stdio.h>
#define SIZE 1000

int main()
{
    int arr[SIZE];
    int i;
    int n;
    int count=0;
    int found=0;

    scanf("%d",&n);
    for(i=0;i<n;i++){
        scanf("%d",&arr[i]);
    }
    printf("\n");
    for(i=0;i<n;i++){
        int found=0;
        for(j=0;j<i;j++){
            if(arr[j] == arr[i]){
                found=1;
                break;
            }
        }
        if (found == 0){ /* arr[i] is a new element */
            count = count + 1;
        }
    }
    printf("%d\n",count);
    return 0;
}
```