Equalize the Array

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Problem Submissions Leaderboard Discussions Editorial

Karl has an array of n integers defined as $A = a_0, a_1, \ldots, a_{n-1}$. In one operation, he can delete any element from the array.

Karl wants all the elements of the array to be equal to one another. To do this, he must delete zero or more elements from the array. Find and print the *minimum* number of deletion operations Karl must perform so that all the array's elements are equal.

Input Format

The first line contains an integer, n, denoting the number of elements in array A.
The next line contains n space-separated integers where element i corresponds to array element a_i $(0 \leq i < n)$.

Constraints

- $1 \leq n \leq 100$
- $1 \leq a_i \leq 100$

Output Format

Print a single integer denoting the minimum number of elements Karl must delete for all elements in the array to be equal.

Sample Input

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

Sample Output

```
2
```

Explanation

Array $A = [3, 3, 2, 1, 3]$. If we delete $a_2 = 2$ and $a_3 = 1$, all of the elements in the resulting array, $A' = [3, 3, 3]$, will be equal. Deleting these 2 elements is minimal because our only other options would be to delete 4 elements to get an array of either $[1]$ or $[2]$. Thus, we print 2 on a new line, as that is the minimum number of deletions resulting in an array where all elements are equal.

Current Buffer (saved locally, editable) C#

```
1  using System;
2  using System.Collections.Generic;
3  using System.Linq;
4  using System.Text;
5  class Solution {
6      static void Main(String[] args) {
7          /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution
   */
8
```

```
9           int n = int.Parse(Console.ReadLine());
10             int[] arr = Array.ConvertAll(Console.ReadLine().Split(' '), e => int.Parse(e));
11
12             /*almaceno la frecuencia con la que está presente cada numero en arr */
13             Dictionary<int, int> frec = arr.GroupBy(x => x)
14               .ToDictionary(x => x.Key, x => x.Count());
15
16             /* luego al tamaño del array le resto la frecuencia maxima
17              * del elemento que mas se repite */
18             Console.WriteLine(arr.Length - frec.Max(x => x.Value));
19
20      }
21  }
```

Line: 18 Col: 68

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

Congrats, you solved this challenge!

- ✔ Test Case #0
- ✔ Test Case #1
- ✔ Test Case #2
- ✔ Test Case #3
- ✔ Test Case #4
- ✔ Test Case #5
- ✔ Test Case #6
- ✔ Test Case #7
- ✔ Test Case #8
- ✔ Test Case #9
- ✔ Test Case #10
- ✔ Test Case #11
- ✔ Test Case #12
- ✔ Test Case #13
- ✔ Test Case #14
- ✔ Test Case #15
- ✔ Test Case #16

Next Challenge