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Contest Code: JUNE222D **Problem Code:** PAIREQ


Chef has an array A of length N .

In one operation, Chef can choose any two **distinct** indices i, j ($1 \leq i, j \leq N, i \neq j$) and **either** change A_i to A_j **or** change A_j to A_i .

Find the **minimum** number of operations required to make all the elements of the array **equal**.

Input Format

- First line will contain T , number of test cases. Then the test cases follow.
- First line of each test case consists of an integer N - denoting the size of array A .
- Second line of each test case consists of N space-separated integers A_1, A_2, \dots, A_N - denoting the array A .

Output Format

For each test case, output the minimum number of operations required to make all the elements equal.

Constraints

- $1 \leq T \leq 100$
- $2 \leq N \leq 1000$
- $1 \leq A_i \leq 1000$

Sample Input 1

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

Sample Output 1

```
2
0
2
1
```

Explanation

Test Case 1: You can make all the elements equal in 2 operations. In the first operation, you can choose indices 1, 2 and convert A_1 to A_2 . So the array becomes $[2, 2, 3]$. Now you can choose indices 1, 3 and convert A_3 to A_1 , so the final array becomes $[2, 2, 2]$.

Test Case 2: Since all the elements are already equal there is no need to perform any operation.







Test Case 3: You can make all the elements equal in 2 operations. In the first operation, you can choose indices 1, 3 and convert A_1 to A_3 . So the array becomes $[1, 2, 1, 1]$. Now you can choose indices 1, 2 and convert A_2 to A_1 , so the final array becomes $[1, 1, 1, 1]$.

Test Case 4: You can make all the elements equal in 1 operation. You can pick indices 2, 3 and convert A_3 to A_2 after which the array becomes [1, 1, 1].


Status Correct Answer  Time 0.42 sec Solution 67532480



Sub-Task	Task #	Result (time)
1	1	AC (0.077152)
1	2	AC (0.411313)
1	3	AC (0.422056)
1	4	AC (0.402015)
1	5	AC (0.407994)
1	6	AC (0.408516)
1	7	AC (0.409344)
1	8	AC (0.415748)
Subtask Score: 100.00%		Result - AC
Total Score = 100.00%		

JAVA   Code gets autosaved every second    

```
11 {
12     Scanner sc = new Scanner(System.in);
13     int n = sc.nextInt();
14     for(int i = 0; i < n; i++){
15         int len =sc.nextInt();
16         int[] array = new int[len];
17         for(int j = 0; j < len; j++){
18             array[j] = sc.nextInt();
19         }
20         quickSort(array, 0, len - 1); // doing swapping since takes less time to find element repeating mo
21         int count = 1;
22         int temp = 1;
23         for(int j = 0; j < len - 1; j++){
24             if(array[j] != array[j + 1]){
25                 if(temp > count){
26                     count = temp;
27                 }
28                 temp = 0;
29             }
30             temp++;
31         }
32         count = count > temp ? count : temp;
33         System.out.println(len - count);
34     }
35 }
36
37 public static int partition(int[] arr, int low, int high)
38
```

19:137 

Open File

Run

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Custom Input

4

3
1 2 3
4
5 5 5 5
4

Status Successfully executed Date 2022-06-24 16:31:19 Time 0.097849 sec Mem 39408 kB ✕

Input

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

Output

2 1
0 4
2 2
1 2

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