



## 2 – BOB AND ALICE

Bob and Alice are two friends, they have an array  $A$  consisting of  $N$  integers,  $A_1, A_2, A_3 \dots, A_N$ . Alice likes the arrays in which if element  $X$  is present it must have exactly  $X$  or zero occurrences. So, Bob has decided to convert this array to an array which Alice likes. To do that, he can perform the following two operations:

- Add an element of any value to array  $A$ .
- Remove an element from array  $A$ .

Find the minimum number of operations Bob has to perform so that array is liked by Alice.

### Input

The first line contains an integer  $T$  denoting the number of test cases ( $1 \leq T \leq 20000$ ).

The first line of each test case contains an integer  $N$  ( $1 \leq N \leq 200000$ ) denoting the number of elements in array  $A$ . The second line of each test case contains  $N$  space-separated integers of array  $A$  ( $1 \leq A_i \leq 10^9$ ). The sum of  $N$  over all test cases does not exceed 200000.

### Output

Print  $T$  lines. For each test case: print: "Case #", the number of the case, ":", and the minimum number of operations to be performed.

### Sample input

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

### Sample output

```
Case #1: 1
```