Sherlock and Pairs

by darkshadows

Sherlock is given an array of N integers (A_0, A_1 ... A_{N-1} by Watson. Now Watson asks Sherlock how many different pairs of indices i and j exist such that i is not equal to j but A_i is equal to A_j.

That is, Sherlock has to count the total number of pairs of indices (i, j) where $A_i = A_j$ AND $i \neq j$.

Input Format

The first line contains T, the number of test cases. T test cases follow.
Each test case consists of two lines; the first line contains an integer N, the size of array, while the next line contains N space separated integers.

Output Format

For each test case, print the required answer on a different line.

Constraints

$1 \leq T \leq 10$
$1 \leq N \leq 10^5$
$1 \leq A[i] \leq 10^6$

Sample input

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

Sample output

```
0
2
```

Explanation

In the first test case, no two pair of indices exist which satisfy the given condition.
In the second test case as *A[0] = A[1] = 1*, the pairs of indices *(0,1)* and *(1,0)* satisfy the given condition.

Related Topics

Dictionary
Counting

Submissions: 5834

Max Score: 30

Difficulty: Moderate

More

Current Buffer (saved locally, editable)

Java 8

```
1  import java.io.*;
2  import java.util.*;
3
4  public class Solution {
5
6      public 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  }
```

Line: 1 Col: 1

Upload Code as File

Test against custom input

Run Code

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