Sherlock and Pairs

HackerRank

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.