Counting Inversion

Given an array $\{a_1, a_2, \ldots, a_n\}$ the number of inversion in the array is the number of pairs (a_i, a_j) such that $a_i > a_j$ and $i < j$. For example, number of inversions in array $\{1, 3, 4, 2\}$ is 2 - $(3, 2)$, $(4, 2)$.

Write a program which takes an array as input and outputs number of inversions in that array.

Input Format

First line of each input is a positive integer t - number of test cases.

Each test case contains two lines

- n - size of input array.
- n space separated integers of input array.

Constraints

- $1 \leq t \leq 5$
- $1 \leq n \leq 10000$
- $1 \leq a_i \leq 10^{15}$

Output Format

For each test case output the number of inversions.

Sample Input 0

```
4
5
1 1 1 1 1
5
1 2 3 4 5
5
5 4 3 2 1
100
49 90 34 17 25 41 29 35 78 49 55 99 86 15 47 77 56 28 29 45 50 82 13 39 7 77 99 41 98 89 8 45 25 93 3 32 58
26 33 21 25 15 100 40 81 72 72 68 27 89 8 77 81 90 42 76 94 67 33 1 20 88 84 82 63 95 5 87 35 53 59 3 10 47
65 57 44 85 5 53 46 72 76 82 66 4 92 85 22 45 43 46 13 90 74 33 15 72 90 23
```

Sample Output 0

```
0
0
10
2391
```