F. Yet Another Problem About Pairs Satisfying an Inequality

time limit per test: 2 seconds
memory limit per test: 256 megabytes

You are given an array $a_1, a_2, \ldots a_n$. Count the number of pairs of indices $1 \le i, j \le n$ such that $a_i < i < a_j < j$.

Input

The first line contains an integer t ($1 \le t \le 1000$) — the number of test cases.

The first line of each test case contains an integer n ($2 \le n \le 2 \cdot 10^5$) — the length of the array.

The second line of each test case contains n integers $a_1, a_2, \ldots, a_n$ ($0 \le a_i \le 10^9$) — the elements of the array.

It is guaranteed that the sum of n across all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, output a single integer — the number of pairs of indices satisfying the condition in the statement.

Please note, that the answer for some test cases won't fit into 32-bit integer type, so you should use at least 64-bit integer type in your programming language (like `long long` for C++).

Example

input Copy

```
5
8
1 1 2 3 8 2 1 4
2
1 2
10
0 2 1 6 3 4 1 2 8 3
2
1 1000000000
3
0 1000000000 2
```

output Copy

```
3
0
10
0
1
```

Note

For the first test cases the pairs are $(i, j) = \{(2, 4), (2, 8), (3, 8)\}$.

- The pair $(2, 4)$ is true because $a_2 = 1$, $a_4 = 3$ and $1 < 2 < 3 < 4$.
- The pair $(2, 8)$ is true because $a_2 = 1$, $a_8 = 4$ and $1 < 2 < 4 < 8$.
- The pair $(3, 8)$ is true because $a_3 = 2$, $a_8 = 4$ and $2 < 3 < 4 < 8$.

Codeforces Round 806 (Div. 4)
Finished
Practice

→ Virtual participation

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Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
276412380	Aug/14/2024 17:35	Accepted

→ Problem tags

binary search data structures dp greedy sortings *1300

No tag edit access

→ Contest materials

- Announcement (en)
- Tutorial (en)