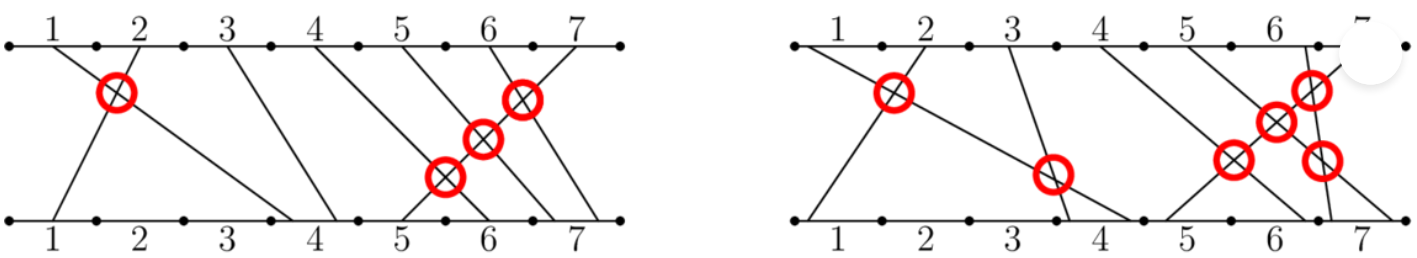
H1. Maximum Crossings (Easy Version)

time limit per test: 1 second
memory limit per test: 256 megabytes

The only difference between the two versions is that in this version $n \le 1000$ and the sum of n over all test cases does not exceed 1000.

A *terminal* is a row of n equal segments numbered 1 to n in order. There are two terminals, one above the other.

You are given an array a of length n. For all $i = 1, 2, \ldots, n$, there should be a straight wire from some point on segment i of the top terminal to some point on segment a_i of the bottom terminal. You can't select the endpoints of a segment. For example, the following pictures show two possible wirings if $n = 7$ and $a = [4, 1, 4, 6, 7, 7, 5]$.



A *crossing* occurs when two wires share a point in common. In the picture above, crossings are circled in red.

What is the **maximum** number of crossings there can be if you place the wires optimally?

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 ($1 \le n \le 1000$) — the length of the array.

The second line of each test case contains n integers $a_1, a_2, \ldots, a_n$ ($1 \le a_i \le n$) — the elements of the array.

The sum of n across all test cases does not exceed 1000.

Output

For each test case, output a single integer — the **maximum** number of crossings there can be if you place the wires optimally.

Example

input Copy

```
4
7
4 1 4 6 7 7 5
2
2 1
1
1
3
2 2 2
```

output Copy

```
6
1
0
3
```

Note

The first test case is shown in the second picture in the statement.

In the second test case, the only wiring possible has the two wires cross, so the answer is 1.

In the third test case, the only wiring possible has one wire, so the answer is 0.

Codeforces Round 790 (Div. 4)
Finished
Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

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
231144992	Nov/03/2023 17:44	Accepted
231134256	Nov/03/2023 17:26	Accepted

→ Problem tags

brute force *1400

No tag edit access

→ Contest materials

- Announcement (en)
- Tutorial (en)