2979 - Another Sorting Problem

Description

A permutation of the integers between 1 and N is given. Initially, they are positioned in an arbitrary order, but you want to rearrange the numbers, leaving them in increasing order. To do so, you use the following procedure:

•First, pick any number which is not in their corresponding position.

•Then, move this number into its corresponding position. Another number may be occupying this location, so you must also move this number to its correct position. Repeat this step while possible.

•Finally, repeat from the first step while possible.

Once these steps finish, the sequence will be ordered. You wish to know the amount of affected numbers during this sorting procedure. A number is considered affected if their initial position is distinct to their final position.

Input specification

The first line contain a integer number T (1 <= T <= 100), the number of test cases. For each case:

•The first line contains an integer number N (1 <= N <= 50), the number of integers in the sequence.

•The second line contains N space-separated integer numbers, a permutation of the numbers between 1 and N.

Output specification

For each case, you must print a line with the amount of affected numbers during the described sorting procedure.

Sample input

```
3
1
1
5
2 3 1 5 4
9
3 2 1 5 4 7 8 6 9
```

Sample output

```
0
5
7
```

Hint(s)

Source	[Yonny Mondelo Hernández]
Added by	**ymondelo20**
Addition date	2014-07-17
Time limit (ms)	30000
Test limit (ms)	1000
Memory limit (kb)	256000
Output limit (mb)	64
Size limit (bytes)	15000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text