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Data Structure & Algorithms Programme (CCDSAP)   EXAM DATE 26 **AUGUST 2018**   KNOW MORE

Courses in an university | Problem Code: **UNICOURS**

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There are **n** courses in a university being offered. These courses are numbered from 1 to **n** in the increasing order of their difficulty. For each course, you can have some courses as prerequisites. The prerequisite courses for a course should be of lower difficulty than it. You are given an array **a** of size **n**, where a_i denotes that there should be at least a_i prerequisite courses for i-th course.

The university wants to estimate the efficiency of the allocation of prerequisites of courses by maximizing the number of courses that are not prerequisites for any other course. Find out what's the maximum such number of courses possible. It is guaranteed that $a_i < i$, thus making sure that it is possible to allocate the prerequisites for each of the course.

Input

The first line of the input contains an integer **T** denoting the number of test cases. The description of **T** test cases follows.

The first line of each test case contains an integer **n**.

The second line of each test case contains **n** space separated integers denoting array **a**.

Output

For each test case, output a single line containing an integer corresponding to the maximum number of possible courses which are not prerequisite for any other course.

Constraints

- **1 ≤ T ≤ 10**
- **1 ≤ n ≤ 10^5**
- **0 ≤ a_i < i**

Subtask #1 (40 points) : 1 ≤ n ≤ 100
Subtask #2 (60 points) : original constraints

Example

```
Input:
2
3
0 1 1
3
0 1 2

Output:
2
1
```

Explanation

Example case 1. Both the courses 2 and 3 can have course 1 as a prerequisite. In this case, course 2 and course 3 are not prerequisites for any course. So, we have two such courses.

Other possibility could be following. Course 2 has course 1 as a prerequisite, and course 3 has course 2 as a prerequisite. Thus only course 3 is the only course that is not the prerequisite of any other course.

Thus answer is 2.

Author:	admin2
Editorial:	https://discuss.codechef.com/problems/UNICOURS
Tags:	admin2, long-contest, may17
Date Added:	4-05-2017
Time Limit:	2 secs
Source Limit:	50000 Bytes
Languages:	C, CPP14, JAVA, PYTH, PYTH 3.5, PYPY, CS2, PAS fpc, PAS gpc, RUBY, PHP, GO, NODEJS, HASK, SCALA, D, PERL, FORT, WSPC, ADA, CAML, ICK, BF, ASM, CLPS, PRLG, ICON, SCM qobi, PIKE, ST, NICE, LUA, BASH, NEM, LISP sbcl, LISP clisp, SCM guile, JS, ERL, TCL, PERL6, TEXT, SCM chicken, CLOJ, FS

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