



HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API CALENDAR HELP 10 YEARS! 🛍

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS ROOM STANDINGS CUSTOM INVOCATION

B. CopyCopyCopyCopyCopy

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input output: standard output

Ehab has an array a of length n. He has just enough free time to make a new array consisting of n copies of the old array, written back-to-back. What will be the length of the new array's longest increasing subsequence?

A sequence a is a subsequence of an array b if a can be obtained from b by deletion of several (possibly, zero or all) elements. The longest increasing subsequence of an array is the longest subsequence such that its elements are ordered in strictly increasing order.

Input

The first line contains an integer t — the number of test cases you need to solve. The description of the test cases follows.

The first line of each test case contains an integer n ($1 \le n \le 10^5$) — the number of elements in the array a.

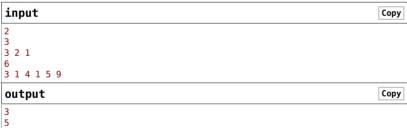
The second line contains n space-separated integers a_1 , a_2 , . . . , a_n ($1 \le a_i \le 10^9$) — the elements of the array a.

The sum of n across the test cases doesn't exceed 10^5 .

Output

For each testcase, output the length of the longest increasing subsequence of \boldsymbol{a} if you concatenate it to itself \boldsymbol{n} times.

Example



Note

In the first sample, the new array is [3,2,1,3,2,1,3,2,1]. The longest increasing subsequence is marked in bold.

In the second sample, the longest increasing subsequence will be [1,3,4,5,9].

Codeforces Round #628 (Div. 2) Finished Practice

→ Virtual participation

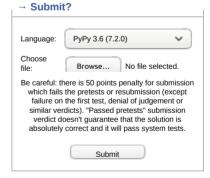
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Start virtual contest

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup You can clone this contest to a mashup. Clone Contest





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