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Concatenate Array AZ101

? Ask Doubt

Time-Limit: 1 sec Score: 100.00/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100

Description

You are given an array A of N integers. Find the length of the largest increasing subsequence if the array A is concatenated to itself N times. 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 should be strictly increasing.

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains one integer N - the length of the array.

The second line of each test case contains N space-separated integers.

Output Format

For each test case, print the length of the largest increasing subsequence if the array A is concatenated to itself N times.

Constraints

$1 \le T \le 2*10^5$

$1 \le N \le 10^6$

$1 \le A_i \le 10^9$

It is guaranteed that the sum of N over all test cases does not exceed 10^6.

Sample Input 1

Copy

```
3
3
2 1 3
5
3 1 1 1 4
4
3 2 1 4
```

Sample Output 1

Copy

C++14[GCC]

Submit

```
1
```