

Longest Increasing Subsequence

(Time Limit: 1 second)

Problem Description

Given nonnegative integer sequence S. Find a longest increasing subsequence of S.

Technical Specification

- The number of test cases is at most 10.
- The length of S is at most 150000.
- All integers are nonnegative 31-bit integers.

Input Format

The test file contains several test cases. The first line is the number of test cases. For each test case, the first line is the length of S, and the second line contains the n integers separated by a space.

Output Format

For each test case, output the maximum length of any increasing subsequence in one line.

Example

Sample Input:	Sample Output:
2 3 1 1 1 6 3 2 5 1 6 7	1 4