homework6.2 Longest Non-decreasing Subsequence

Description

Given an array AA of integers, please find the length of a longest non-decreasing subsequence $B(B[i]<=B[j],\forall 1\leq i<j\leq len(B))$.

For example, given 10 1 6 2 7 3 8 9, the longest non-decreasing subsequence is 1 2 3 8 9, and therefore the answer is 5.

Input Format

The first line contains an integer $T(1\leq T\leq 100)$, which indicates the number of test cases.

Each test case contains two lines : the length of array $N(1\leq N\leq 1000)$ is in the first line, and the array is in the second line. The values in the array are between$-2\text{^}31$ and $2\text{^}31-1$, inclusive..

Output Format

For each test case, output the answer in one line.

Hint

Sample Input	Sample Output
3 10 10 9 8 7 5 6 4 3 2 1 8 10 9 2 5 3 7 101 18 8 10 1 6 2 7 3 8 9	2 4 5