1085 – All Possible Increasing Subsequences

An increasing subsequence from a sequence $\mathbf{A_1, A_2 \dots A_n}$ is defined by $\mathbf{A_{i1}, A_{i2} \dots A_{ik}}$, where the following properties hold

1. $\mathbf{i_1 < i_2 < i_3 < \dots < i_k}$ and
2. $\mathbf{A_{i1} < A_{i2} < A_{i3} < \dots < A_{ik}}$

Now you are given a sequence, you have to find the number of all possible increasing subsequences.

Input

Input starts with an integer **T (≤ 10)**, denoting the number of test cases.

Each case contains an integer **n (1 ≤ n ≤ 10^5)** denoting the number of elements in the initial sequence. The next line will contain **n** integers separated by spaces, denoting the elements of the sequence. Each of these integers will be fit into a 32 bit signed integer.

Output

For each case of input, print the case number and the number of possible increasing subsequences modulo **1000000007**.

Sample Input	Output for Sample Input
3 3 1 1 2 5 1 2 1000 1000 1001 3 1 10 11	Case 1: 5 Case 2: 23 Case 3: 7

Notes

1. For the first case, the increasing subsequences are **(1), (1, 2), (1), (1, 2), 2**.
2. Dataset is huge, use faster I/O methods.