Make Max

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

You are given a sequence of n positive integers $[a_1, \ldots, a_n]$. You can apply the following operation to the sequence:

- Select a subarray $a[l \ldots r]$ $(1 \leq l < r \leq n)$ where not all elements are identical (i.e., there exist two integers $l \leq i < j \leq r$ such that $a_i \neq a_j$), and then change every element in this subarray to $\max_{l \leq i \leq r} a_i$.

Determine the maximum number of such operations that can be performed.

Input

Each test contains multiple test cases. The first line contains the number of test cases t $(1 \leq t \leq 1000)$. Description of the test cases follows.

The first line of each test case contains an integer n $(1 \leq n \leq 2 \times 10^5)$.

The second line of each test case contains n integers $a_1, \ldots, a_n$ $(1 \leq a_i \leq 10^9)$.

The sum of n over all test cases does not exceed 4×10^5.

Output

For each test case, print the maximum number of operations that can be performed.

Example

standard input	standard output
4 2 1 2 2 2 2 7 1 1 1 2 2 2 2 3 1 2 3	1 0 3 3

Note

In the first test case, an optimal sequence of operations is:

1. Select $a[1 \ldots 2]$ and apply the operation, so that a becomes $[2, 2]$.

In the second test case, no operation can be performed.

In the fourth test case, an optimal sequence of operations is:

1. Select $a[1 \ldots 2]$ and apply the operation, so that a becomes $[2, 2, 3]$.
2. Select $a[2 \ldots 3]$ and apply the operation, so that a becomes $[2, 3, 3]$.
3. Select $a[1 \ldots 3]$ and apply the operation, so that a becomes $[3, 3, 3]$.