

# Problem C. Make It Good

**Time limit** 1000 ms

**Mem limit** 262144 kB

You are given an array  $a$  consisting of  $n$  integers. You have to find the length of the smallest (shortest) *prefix* of elements you need to erase from  $a$  to make it a *good* array. Recall that the prefix of the array  $a = [a_1, a_2, \dots, a_n]$  is a subarray consisting several first elements: the prefix of the array  $a$  of length  $k$  is the array  $[a_1, a_2, \dots, a_k]$  ( $0 \leq k \leq n$ ).

The array  $b$  of length  $m$  is called *good*, if you can obtain a **non-decreasing** array  $c$  ( $c_1 \leq c_2 \leq \dots \leq c_m$ ) from it, repeating the following operation  $m$  times (initially,  $c$  is empty):

- select either the first or the last element of  $b$ , remove it from  $b$ , and append it to the end of the array  $c$ .

For example, if we do 4 operations: take  $b_1$ , then  $b_m$ , then  $b_{m-1}$  and at last  $b_2$ , then  $b$  becomes  $[b_3, b_4, \dots, b_{m-3}]$  and  $c = [b_1, b_m, b_{m-1}, b_2]$ .

Consider the following example:  $b = [1, 2, 3, 4, 4, 2, 1]$ . This array is **good** because we can obtain **non-decreasing** array  $c$  from it by the following sequence of operations:

1. take the first element of  $b$ , so  $b = [2, 3, 4, 4, 2, 1]$ ,  $c = [1]$ ;
2. take the last element of  $b$ , so  $b = [2, 3, 4, 4, 2]$ ,  $c = [1, 1]$ ;
3. take the last element of  $b$ , so  $b = [2, 3, 4, 4]$ ,  $c = [1, 1, 2]$ ;
4. take the first element of  $b$ , so  $b = [3, 4, 4]$ ,  $c = [1, 1, 2, 2]$ ;
5. take the first element of  $b$ , so  $b = [4, 4]$ ,  $c = [1, 1, 2, 2, 3]$ ;
6. take the last element of  $b$ , so  $b = [4]$ ,  $c = [1, 1, 2, 2, 3, 4]$ ;
7. take the only element of  $b$ , so  $b = []$ ,  $c = [1, 1, 2, 2, 3, 4, 4]$  —  $c$  is non-decreasing.

Note that the array consisting of one element is *good*.

Print the length of the shortest prefix of  $a$  to delete (erase), to make  $a$  to be a *good* array. Note that the required length can be 0.

You have to answer  $t$  independent test cases.

## Input

The first line of the input contains one integer  $t$  ( $1 \leq t \leq 2 \cdot 10^4$ ) — the number of test cases. Then  $t$  test cases follow.

The first line of the test case contains one integer  $n$  ( $1 \leq n \leq 2 \cdot 10^5$ ) — the length of  $a$ . The second line of the test case contains  $n$  integers  $a_1, a_2, \dots, a_n$  ( $1 \leq a_i \leq 2 \cdot 10^5$ ), where  $a_i$  is the  $i$ -th element of  $a$ .

It is guaranteed that the sum of  $n$  does not exceed  $2 \cdot 10^5$  ( $\sum n \leq 2 \cdot 10^5$ ).

### Output

For each test case, print the answer: the length of the shortest *prefix* of elements you need to erase from  $a$  to make it a *good* array.

### Sample 1

Input	Output
5	0
4	4
1 2 3 4	0
7	2
4 3 3 8 4 5 2	3
3	
1 1 1	
7	
1 3 1 4 5 3 2	
5	
5 4 3 2 3	

### Note

In the first test case of the example, the array  $a$  is already good, so we don't need to erase any prefix.

In the second test case of the example, the initial array  $a$  is not good. Let's erase first 4 elements of  $a$ , the result is  $[4, 5, 2]$ . The resulting array is good. You can prove that if you erase fewer number of first elements, the result will not be good.