Given an integer array arr, remove a subarray (can be empty) from arr such that the remaining elements in arr are **non-decreasing**.

A subarray is a contiguous subsequence of the array.

Return *the length of the shortest subarray to remove*.

**Example 1:**

**Input:** arr = [1,2,3,10,4,2,3,5]

**Output:** 3

**Explanation:** The shortest subarray we can remove is [10,4,2] of length 3. The remaining elements after that will be [1,2,3,3,5] which are sorted.

Another correct solution is to remove the subarray [3,10,4].

**Example 2:**

**Input:** arr = [5,4,3,2,1]

**Output:** 4

**Explanation:** Since the array is strictly decreasing, we can only keep a single element. Therefore we need to remove a subarray of length 4, either [5,4,3,2] or [4,3,2,1].

**Example 3:**

**Input:** arr = [1,2,3]

**Output:** 0

**Explanation:** The array is already non-decreasing. We do not need to remove any elements.

**Example 4:**

**Input:** arr = [1]

**Output:** 0

**Constraints:**

* 1 <= arr.length <= 10^5
* 0 <= arr[i] <= 10^9