Problem 2659: Make Array Empty

Problem Information

Difficulty: Hard
Acceptance Rate: 26.15%
Paid Only: No
Tags: Array, Binary Search, Greedy, Binary Indexed Tree, Segment Tree, Sorting, Ordered Set

Problem Description

You are given an integer array `nums` containing **distinct** numbers, and you can perform the following operations **until the array is empty** :

* If the first element has the **smallest** value, remove it * Otherwise, put the first element at the **end** of the array.

Return _an integer denoting the number of operations it takes to make_`nums` _empty._

Example 1:

Input: nums = [3,4,-1] **Output:** 5

Operation | Array ---|--- 1 | [4, -1, 3] 2 | [-1, 3, 4] 3 | [3, 4] 4 | [4] 5 | [] **Example 2:**

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

Operation | Array ---|--- 1 | [2, 4, 3] 2 | [4, 3] 3 | [3, 4] 4 | [4] 5 | [] **Example 3:**

Input: nums = [1,2,3] **Output:** 3

Operation | Array ---|--- 1 | [2, 3] 2 | [3] 3 | []

Constraints:

* `1 <= nums.length <= 105` * `-109 <= nums[i] <= 109` * All values in `nums` are **distinct**.

Code Snippets

C++:

```
class Solution {
public:
long long countOperationsToEmptyArray(vector<int>& nums) {

}
};
```

Java:

```
class Solution {
public long countOperationsToEmptyArray(int[] nums) {

}
}
```

Python3:

```
class Solution:
def countOperationsToEmptyArray(self, nums: List[int]) -> int:
```