Problem 2444: Count Subarrays With Fixed Bounds

Problem Information

Difficulty: Hard
Acceptance Rate: 69.29%
Paid Only: No
Tags: Array, Queue, Sliding Window, Monotonic Queue

Problem Description

You are given an integer array `nums` and two integers `minK` and `maxK`.

A **fixed-bound subarray** of `nums` is a subarray that satisfies the following conditions:

* The **minimum** value in the subarray is equal to `minK`. * The **maximum** value in the subarray is equal to `maxK`.

Return _the**number** of fixed-bound subarrays_.

A **subarray** is a **contiguous** part of an array.

Example 1:

Input: nums = [1,3,5,2,7,5], minK = 1, maxK = 5 **Output:** 2 **Explanation:** The fixed-bound subarrays are [1,3,5] and [1,3,5,2].

Example 2:

Input: nums = [1,1,1,1], minK = 1, maxK = 1 **Output:** 10 **Explanation:** Every subarray of nums is a fixed-bound subarray. There are 10 possible subarrays.

Constraints:

* `2 <= nums.length <= 105` * `1 <= nums[i], minK, maxK <= 106`

Code Snippets

C++:

```
class Solution {
public:
long long countSubarrays(vector<int>& nums, int minK, int maxK) {

}
};
```

Java:

```
class Solution {
public long countSubarrays(int[] nums, int minK, int maxK) {

}
}
```

Python3:

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