Problem 26: Remove Duplicates from Sorted Array

Problem Information

Difficulty: Easy
Acceptance Rate: 61.56%
Paid Only: No
Tags: Array, Two Pointers

Problem Description

Given an integer array `nums` sorted in **non-decreasing order** , remove the duplicates [**in-place**](https://en.wikipedia.org/wiki/In-place_algorithm) such that each unique element appears only **once**. The **relative order** of the elements should be kept the **same**.

Consider the number of _unique elements_ in `nums` to be `k**[redacted]**`[redacted]. After removing duplicates, return the number of unique elements `k`.

The first `k` elements of `nums` should contain the unique numbers in **sorted order**. The remaining elements beyond index `k - 1` can be ignored.

Custom Judge:

The judge will test your solution with the following code:

int[] nums = [...]; // Input array int[] expectedNums = [...]; // The expected answer with correct length int k = removeDuplicates(nums); // Calls your implementation assert k == expectedNums.length; for (int i = 0; i < k; i++) { assert nums[i] == expectedNums[i]; }

If all assertions pass, then your solution will be **accepted**.

Example 1:

Input: nums = [1,1,2] **Output:** 2, nums = [1,2,_] **Explanation:** Your function should return k = 2, with the first two elements of nums being 1 and 2 respectively. It does not matter what you leave beyond the returned k (hence they are underscores).

Example 2:

Input: nums = [0,0,1,1,1,2,2,3,3,4] **Output:** 5, nums = [0,1,2,3,4,_,_,_,_,_]
Explanation: Your function should return k = 5, with the first five elements of nums being 0, 1, 2, 3, and 4 respectively. It does not matter what you leave beyond the returned k (hence they are underscores).

Constraints:

* `1 <= nums.length <= 3 * 104` * `-100 <= nums[i] <= 100` * `nums` is sorted in **non-decreasing** order.

Code Snippets

C++:

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

}
};
```

Java:

```
class Solution {
public int removeDuplicates(int[] nums) {

}
}
```

Python3:

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