1852. Distinct Numbers in Each Subarray

Description

Given an integer array `nums` and an integer `k`, you are asked to construct the array `ans` of size `n-k+1` where `ans[i]` is the number of **distinct** numbers in the subarray `nums[i:i+k-1] = [nums[i], nums[i+1], ..., nums[i+k-1]]`.

Return *the array* `ans`.

Example 1:

```
Input: nums = [1,2,3,2,2,1,3], k = 3
Output: [3,2,2,2,3]
Explanation: The number of distinct elements in each subarray goes as follows:
- nums[0:2] = [1,2,3] so ans[0] = 3
- nums[1:3] = [2,3,2] so ans[1] = 2
- nums[2:4] = [3,2,2] so ans[2] = 2
- nums[3:5] = [2,2,1] so ans[3] = 2
- nums[4:6] = [2,1,3] so ans[4] = 3
```

Example 2:

```
Input: nums = [1,1,1,1,2,3,4], k = 4
Output: [1,2,3,4]
Explanation: The number of distinct elements in each subarray goes as follows:
- nums[0:3] = [1,1,1,1] so ans[0] = 1
- nums[1:4] = [1,1,1,2] so ans[1] = 2
- nums[2:5] = [1,1,2,3] so ans[2] = 3
- nums[3:6] = [1,2,3,4] so ans[3] = 4
```

Constraints:

- `1 <= k <= nums.length <= 10^5`
- `1 <= nums[i] <= 10^5`