

Problem 1121: Divide Array Into Increasing Sequences

Problem Information

Difficulty: Hard

Acceptance Rate: 65.17%

Paid Only: Yes

Tags: Array, Counting

Problem Description

Given an integer array `nums` sorted in non-decreasing order and an integer `k`, return `true` if this array can be divided into one or more disjoint increasing subsequences of length at least `k`, or `false` otherwise.

Example 1:

Input: nums = [1,2,2,3,3,4,4], k = 3 **Output:** true **Explanation:** The array can be divided into two subsequences [1,2,3,4] and [2,3,4] with lengths at least 3 each.

Example 2:

Input: nums = [5,6,6,7,8], k = 3 **Output:** false **Explanation:** There is no way to divide the array using the conditions required.

Constraints:

* `1 <= k <= nums.length <= 105` * `1 <= nums[i] <= 105` * `nums` is sorted in non-decreasing order.

Code Snippets

C++:

```
class Solution {  
public:  
    bool canDivideIntoSubsequences(vector<int>& nums, int k) {  
  
    }  
};
```

Java:

```
class Solution {  
public boolean canDivideIntoSubsequences(int[] nums, int k) {  
  
}  
}
```

Python3:

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