

# 1121. Divide Array Into Increasing Sequences Premium

Hard Topics Companies Hint

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.

Seen this question in a real interview before? 1/5

Yes No

Accepted **5K** | Submissions **8.2K** | Acceptance Rate **60.9%**

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Hint 1

Think in the frequency of the numbers and how this affects the number of sequences needed.

Hint 2

What is the minimum number of sequences we need to form? Considering frequency of the numbers.

Hint 3

Think about the least number of sequences to maximize the lengths.

Hint 4

The number of sequences needed is equal to the maximum frequency of an element.

Hint 5

How to put the other elements into sequences ? Think in a greedy approach.

Discussion (3)