

6049. K Divisible Elements Subarrays

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Given an integer array `nums` and two integers `k` and `p`, return the number of **distinct subarrays** which have **at most** `k` elements divisible by `p`.

Two arrays `nums1` and `nums2` are said to be **distinct** if:

- They are of **different** lengths, or
- There exists **at least** one index `i` where `nums1[i] != nums2[i]`.

A **subarray** is defined as a **non-empty** contiguous sequence of elements in an array.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

Input: `nums = [2,3,3,2,2]`, `k = 2`, `p = 2`

Output: 11

Explanation:

The elements at indices 0, 3, and 4 are divisible by `p = 2`.

The 11 distinct subarrays which have at most `k = 2` elements divisible by 2 are:

[2], [2,3], [2,3,3], [2,3,3,2], [3], [3,3], [3,3,2], [3,3,2,2], [3,2], [3,2,2], and [2,2].

Note that the subarrays [2] and [3] occur more than once in `nums`, but they should each be counted only once.

The subarray [2,3,3,2,2] should not be counted because it has 3 elements that are divisible by 2.

Example 2:

Input: `nums = [1,2,3,4]`, `k = 4`, `p = 1`

Output: 10

Explanation:

All element of `nums` are divisible by `p = 1`.

Also, every subarray of `nums` will have at most 4 elements that are divisible by 1.

Since all subarrays are distinct, the total number of subarrays satisfying all the constraints is 10.

Constraints:

- `1 <= nums.length <= 200`
- `1 <= nums[i], p <= 200`
- `1 <= k <= nums.length`

JavaScript

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```
1 const countDistinct = (a, k, p) => {
2   let n = a.length, se = new Set();
3   for (let i = 0; i < n; i++) {
4     for (let j = i; j < n; j++) {
5       let sub = a.slice(i, j + 1);
6       if (ok(sub, k, p)) se.add(JSON.stringify(sub));
7     }
8   }
9   return se.size;
10 };
11
12 const ok = (a, k, p) => {
13   let cnt = 0;
14   for (const x of a) {
15     if (x % p == 0) cnt++;
16   }
17   return cnt <= k;
18 };
```

☐ Custom Testcase

Use Example Testcases

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