2447. Number of Subarrays With GCD Equal to K

Description

Given an integer array `nums` and an integer `k`, return *the number of* **subarrays** *of* `nums` *where the greatest common divisor of the subarray's elements is* `k`.

A **subarray** is a contiguous non-empty sequence of elements within an array.

The **greatest common divisor of an array** is the largest integer that evenly divides all the array elements.

Example 1:

```
Input: nums = [9,3,1,2,6,3], k = 3
Output: 4
Explanation: The subarrays of nums where 3 is the greatest common divisor of all the subarray's elements are:
- [9, 3 ,1,2,6,3]
- [9,3,1,2,6, 3 ]
- [ 9,3 ,1,2,6,3]
- [9,3,1,2, 6,3 ]
```

Example 2:

```
Input: nums = [4], k = 7
Output: 0
Explanation: There are no subarrays of nums where 7 is the greatest common divisor of all the subarray's elements.
```

Constraints:

- `1 <= nums.length <= 1000`
- `1 <= nums[i], k <= 10` ^{9}