

# Problem 2470: Number of Subarrays With LCM Equal to K

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 42.25%

**Paid Only:** No

**Tags:** Array, Math, Number Theory

## Problem Description

Given an integer array `nums` and an integer `k`, return \_the number of\*\*subarrays\*\* of `nums` \_where the least common multiple of the subarray 's elements is \_`k`\_.

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

The \*\*least common multiple of an array\*\* is the smallest positive integer that is divisible by all the array elements.

**Example 1:**

**Input:** nums = [3,6,2,7,1], k = 6 **Output:** 4 **Explanation:** The subarrays of nums where 6 is the least common multiple of all the subarray's elements are: - [\*\*3\*\*\_, \*\*6\*\*\_, 2,7,1] - [\*\*3\*\*\_, \*\*6\*\*\_, \*\*2\*\*\_, 7,1] - [3, \*\*6\*\*\_, 2,7,1] - [3, \*\*6\*\*\_, \*\*2\*\*\_, 7,1]

**Example 2:**

**Input:** nums = [3], k = 2 **Output:** 0 **Explanation:** There are no subarrays of nums where 2 is the least common multiple of all the subarray's elements.

**Constraints:**

\* `1 <= nums.length <= 1000` \* `1 <= nums[i], k <= 1000`

## Code Snippets

### C++:

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

### Java:

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

### Python3:

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