Problem 3164: Find the Number of Good Pairs II

Problem Information

Difficulty: Medium
Acceptance Rate: 26.40%
Paid Only: No
Tags: Array, Hash Table

Problem Description

You are given 2 integer arrays `nums1` and `nums2` of lengths `n` and `m` respectively. You are also given a **positive** integer `k`.

A pair `(i, j)` is called **good** if `nums1[i]` is divisible by `nums2[j] * k` (`0 <= i <= n - 1`, `0 <= j <= m - 1`).

Return the total number of **good** pairs.

Example 1:

Input: nums1 = [1,3,4], nums2 = [1,3,4], k = 1

Output: 5

Explanation:

The 5 good pairs are `(0, 0)`, `(1, 0)`, `(1, 1)`, `(2, 0)`, and `(2, 2)`.

Example 2:

Input: nums1 = [1,2,4,12], nums2 = [2,4], k = 3

Output: 2

Explanation:

The 2 good pairs are `(3, 0)` and `(3, 1)`.

Constraints:

* `1 <= n, m <= 105` * `1 <= nums1[i], nums2[j] <= 106` * `1 <= k <= 103`

Code Snippets

C++:

```
class Solution {
public:
long long numberOfPairs(vector<int>& nums1, vector<int>& nums2, int k) {

}
};
```

Java:

```
class Solution {
public long numberOfPairs(int[] nums1, int[] nums2, int k) {

}
}
```

Python3:

```
class Solution:
def numberOfPairs(self, nums1: List[int], nums2: List[int], k: int) -> int:
```