

5999. Count Good Triplets in an Array

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You are given two **0-indexed** arrays `nums1` and `nums2` of length `n`, both of which are **permutations** of `[0, 1, ..., n - 1]`.

A **good triplet** is a set of 3 **distinct** values which are present in **increasing order** by position both in `nums1` and `nums2`. In other words, if we consider `pos1v` as the index of the value `v` in `nums1` and `pos2v` as the index of the value `v` in `nums2`, then a good triplet will be a set  $(x, y, z)$  where  $0 \leq x, y, z \leq n - 1$ , such that `pos1x < pos1y < pos1z` and `pos2x < pos2y < pos2z`.

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

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

Example 1:

**Input:** `nums1 = [2,0,1,3], nums2 = [0,1,2,3]`  
**Output:** 1  
**Explanation:**  
There are 4 triplets  $(x,y,z)$  such that `pos1x < pos1y < pos1z`. They are  $(2,0,1)$ ,  $(2,0,3)$ ,  $(2,1,3)$ , and  $(0,1,3)$ . Out of those triplets, only the triplet  $(0,1,3)$  satisfies `pos2x < pos2y < pos2z`. Hence, there is only 1 good triplet.

Example 2:

**Input:** `nums1 = [4,0,1,3,2], nums2 = [4,1,0,2,3]`  
**Output:** 4  
**Explanation:** The 4 good triplets are  $(4,0,3)$ ,  $(4,0,2)$ ,  $(4,1,3)$ , and  $(4,1,2)$ .

Constraints:

- `n == nums1.length == nums2.length`
- `3 <= n <= 105`
- `0 <= nums1[i], nums2[i] <= n - 1`
- `nums1` and `nums2` are permutations of `[0, 1, ..., n - 1]`.

C++   

```
1 class Solution {
2     public:
3         long long goodTriplets(vector<int>& nums1, vector<int>& nums2) {
4
5         }
6     };
```