

Problem 1534: Count Good Triplets

Problem Information

Difficulty: Easy

Acceptance Rate: 85.50%

Paid Only: No

Tags: Array, Enumeration

Problem Description

Given an array of integers `arr`, and three integers `a`, `b` and `c`. You need to find the number of good triplets.

A triplet `(arr[i], arr[j], arr[k])` is **good** if the following conditions are true:

* `0 <= i < j < k < arr.length` * `|arr[i] - arr[j]| <= a` * `|arr[j] - arr[k]| <= b` * `|arr[i] - arr[k]| <= c`

Where `|x|` denotes the absolute value of `x`.

Return the number of good triplets.

Example 1:

Input: arr = [3,0,1,1,9,7], a = 7, b = 2, c = 3 **Output:** 4 **Explanation:** There are 4 good triplets: [(3,0,1), (3,0,1), (3,1,1), (0,1,1)].

Example 2:

Input: arr = [1,1,2,2,3], a = 0, b = 0, c = 1 **Output:** 0 **Explanation:** No triplet satisfies all conditions.

Constraints:

* `3 <= arr.length <= 100` * `0 <= arr[i] <= 1000` * `0 <= a, b, c <= 1000`

Code Snippets

C++:

```
class Solution {  
public:  
    int countGoodTriplets(vector<int>& arr, int a, int b, int c) {  
        }  
    };
```

Java:

```
class Solution {  
    public int countGoodTriplets(int[] arr, int a, int b, int c) {  
        }  
    }
```

Python3:

```
class Solution:  
    def countGoodTriplets(self, arr: List[int], a: int, b: int, c: int) -> int:
```