

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:

$0 \leq i < j < k < \text{arr.length}$ $|arr[i] - arr[j]| \leq a$ $|arr[j] - arr[k]| \leq b$ $|arr[i] - arr[k]| \leq c$

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:

$3 \leq \text{arr.length} \leq 100$ $0 \leq \text{arr}[i] \leq 1000$ $0 \leq a, b, c \leq 1000$

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:
```