

# Problem 3131: Find the Integer Added to Array I

## Problem Information

**Difficulty:** Easy

**Acceptance Rate:** 82.58%

**Paid Only:** No

**Tags:** Array

## Problem Description

You are given two arrays of equal length, `nums1`` and `nums2``.

Each element in `nums1`` has been increased (or decreased in the case of negative) by an integer, represented by the variable `x``.

As a result, `nums1`` becomes **equal** to `nums2``. Two arrays are considered **equal** when they contain the same integers with the same frequencies.

Return the integer `x``.

**Example 1:**

**Input:** `nums1 = [2,6,4]`, `nums2 = [9,7,5]`

**Output:** 3

**Explanation:**

The integer added to each element of `nums1`` is 3.

**Example 2:**

**Input:** `nums1 = [10]`, `nums2 = [5]`

**Output:** -5

**\*\*Explanation:\*\***

The integer added to each element of `nums1` is -5.

**\*\*Example 3:\*\***

**\*\*Input:\*\*** nums1 = [1,1,1,1], nums2 = [1,1,1,1]

**\*\*Output:\*\*** 0

**\*\*Explanation:\*\***

The integer added to each element of `nums1` is 0.

**\*\*Constraints:\*\***

\* `1 <= nums1.length == nums2.length <= 100` \* `0 <= nums1[i], nums2[i] <= 1000` \* The test cases are generated in a way that there is an integer `x` such that `nums1` can become equal to `nums2` by adding `x` to each element of `nums1`.

## Code Snippets

### C++:

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

    }
};
```

### Java:

```
class Solution {
    public int addedInteger(int[] nums1, int[] nums2) {

    }
}
```

**Python3:**

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