Problem 1228: Missing Number In Arithmetic Progression

Problem Information

Difficulty: Easy
Acceptance Rate: 52.13%
Paid Only: Yes
Tags: Array, Math

Problem Description

In some array `arr`, the values were in arithmetic progression: the values `arr[i + 1] - arr[i]` are all equal for every `0 <= i < arr.length - 1`.

A value from `arr` was removed that **was not the first or last value in the array**.

Given `arr`, return _the removed value_.

Example 1:

Input: arr = [5,7,11,13] **Output:** 9 **Explanation:** The previous array was [5,7,**9**,11,13].

Example 2:

Input: arr = [15,13,12] **Output:** 14 **Explanation:** The previous array was [15,**14**,13,12].

Constraints:

* `3 <= arr.length <= 1000` * `0 <= arr[i] <= 105` * The given array is **guaranteed** to be a valid array.

Code Snippets

C++:

```
class Solution {
public:
int missingNumber(vector<int>& arr) {

}
};
```

Java:

```
class Solution {
public int missingNumber(int[] arr) {

}
}
```

Python3:

```
class Solution:
def missingNumber(self, arr: List[int]) -> int:
```