

Problem List

DescriptionEditorialSolutionsSubmissions

1228. Missing Number In Arithmetic Progression

Premium

Solved

EasyTopicsCompaniesHint

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.

Seen this question in a real interview before? 1/5

YesNo

Accepted 27K | Submissions 52K | Acceptance Rate 51.9%

Topics

Companies

Hint 1

Hint 2

Hint 3

Discussion (3)

Copyright © 2024 LeetCode All rights reserved

3143

</> Code

Python3Auto

```
1 class Solution:
2     def missingNumber(self, arr: List[int]) -> int:
3
4         diff = [arr[1]-arr[0], arr[2]-arr[1], arr[-1]-arr[-2]]
5
6         res = 0
7
8         if diff.count(diff[0]) >= 2:
9             res = diff[0]
10
11         if diff.count(diff[1]) >= 2:
12             res = diff[1]
13
14         for i in range(1, len(arr)):
15             if arr[i] != arr[i-1] + res:
16                 return arr[i-1] + res
17
18         return arr[0]
```

SavedLn 9, Col 26

TestcaseTest Result

AcceptedRuntime: 26 ms

Case 1Case 2Case 3

Input

arr =
[5,7,11,13]

Stdout