

1502. Can Make Arithmetic Progression From Sequence

Given an array of numbers `arr`. A sequence of numbers is called an arithmetic progression if the difference between any two consecutive elements is the same.

Return `true` if the array can be rearranged to form an arithmetic progression, otherwise, return `false`.

Example 1:

Input: `arr = [3,5,1]`

Output: `true`

Explanation: We can reorder the elements as `[1,3,5]` or `[5,3,1]` with differences 2 and -2 respectively, between each consecutive elements.

Example 2:

Input: `arr = [1,2,4]`

Output: `false`

Explanation: There is no way to reorder the elements to obtain an arithmetic progression.

Constraints:

- `2 <= arr.length <= 1000`

- `-10^6 <= arr[i] <= 10^6` Python

```
def canMakeArithmeticProgression(self, arr: List[int]) -> bool:
    arr.sort()
    for i in range(1, len(arr)-1):
        if arr[i]-arr[i-1] != arr[i+1]-arr[i]:
            return False
    return True
```