Problem 1502: Can Make Arithmetic Progression From Sequence

Problem Information

Difficulty: Easy
Acceptance Rate: 69.53%
Paid Only: No
Tags: Array, Sorting

Problem Description

A sequence of numbers is called an **arithmetic progression** if the difference between any two consecutive elements is the same.

Given an array of numbers `arr`, 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` * `-106 <= arr[i] <= 106`

Code Snippets

C++:

```cpp
class Solution {
public:
bool canMakeArithmeticProgression(vector<int>& arr) {


}
};
```

Java:

```java
class Solution {
public boolean canMakeArithmeticProgression(int[] arr) {


}
}
```

Python3:

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