Problem 954: Array of Doubled Pairs

Problem Information

Difficulty: Medium
Acceptance Rate: 39.63%
Paid Only: No
Tags: Array, Hash Table, Greedy, Sorting

Problem Description

Given an integer array of even length `arr`, return `true` _if it is possible to reorder_`arr` _such that_`arr[2 * i + 1] = 2 * arr[2 * i]`_for every_`0 <= i < len(arr) / 2` _, or_`false` _otherwise_.

Example 1:

Input: arr = [3,1,3,6] **Output:** false

Example 2:

Input: arr = [2,1,2,6] **Output:** false

Example 3:

Input: arr = [4,-2,2,-4] **Output:** true **Explanation:** We can take two groups, [-2,-4] and [2,4] to form [-2,-4,2,4] or [2,4,-2,-4].

Constraints:

* `2 <= arr.length <= 3 * 104` * `arr.length` is even. * `-105 <= arr[i] <= 105`

Code Snippets

C++:

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

}
};
```

Java:

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

}
}
```

Python3:

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