

Problem 1217: Minimum Cost to Move Chips to The Same Position

Problem Information

Difficulty: Easy

Acceptance Rate: 72.61%

Paid Only: No

Tags: Array, Math, Greedy

Problem Description

We have n chips, where the position of the i th chip is $position[i]$.

We need to move all the chips to **the same position**. In one step, we can change the position of the i th chip from $position[i]$ to:

$position[i] + 2$ or $position[i] - 2$ with $cost = 0$. $position[i] + 1$ or $position[i] - 1$ with $cost = 1$.

Return the minimum cost needed to move all the chips to the same position.

Example 1:



Input: $position = [1, 2, 3]$ **Output:** 1 **Explanation:** First step: Move the chip at position 3 to position 1 with $cost = 0$. Second step: Move the chip at position 2 to position 1 with $cost = 1$. Total cost is 1.

Example 2:



Input: $position = [2, 2, 2, 3, 3]$ **Output:** 2 **Explanation:** We can move the two chips at position 3 to position 2. Each move has $cost = 1$. The total cost = 2.

****Example 3:****

****Input:**** position = [1,1000000000] ****Output:**** 1

****Constraints:****

*`1` <= position.length <= 100` *`1` <= position[i] <= 10⁹`

Code Snippets

C++:

```
class Solution {
public:
    int minCostToMoveChips(vector<int>& position) {

    }
};
```

Java:

```
class Solution {
    public int minCostToMoveChips(int[] position) {

    }
}
```

Python3:

```
class Solution:
    def minCostToMoveChips(self, position: List[int]) -> int:
```