Problem 1551: Minimum Operations to Make Array Equal

Problem Information

Difficulty: Medium
Acceptance Rate: 82.59%
Paid Only: No
Tags: Math

Problem Description

You have an array `arr` of length `n` where `arr[i] = (2 * i) + 1` for all valid values of `i` (i.e., `0 <= i < n`).

In one operation, you can select two indices `x` and `y` where `0 <= x, y < n` and subtract `1` from `arr[x]` and add `1` to `arr[y]` (i.e., perform `arr[x] -=1 `and `arr[y] += 1`). The goal is to make all the elements of the array **equal**. It is **guaranteed** that all the elements of the array can be made equal using some operations.

Given an integer `n`, the length of the array, return _the minimum number of operations_ needed to make all the elements of arr equal.

Example 1:

Input: n = 3 **Output:** 2 **Explanation:** arr = [1, 3, 5] First operation choose x = 2 and y = 0, this leads arr to be [2, 3, 4] In the second operation choose x = 2 and y = 0 again, thus arr = [3, 3, 3].

Example 2:

Input: n = 6 **Output:** 9

Constraints:

* `1 <= n <= 104`

Code Snippets

C++:

```
class Solution {
public:
int minOperations(int n) {

}
};
```

Java:

```
class Solution {
public int minOperations(int n) {

}
}
```

Python3:

```
class Solution:
def minOperations(self, n: int) -> int:
```