3071. Minimum Operations to Write the Letter Y on a Grid

Description

You are given a **0-indexed** `n x n` grid where `n` is odd, and `grid[r][c]` is `0`, `1`, or `2`.

We say that a cell belongs to the Letter **Y** if it belongs to one of the following:

- The diagonal starting at the top-left cell and ending at the center cell of the grid.
- The diagonal starting at the top-right cell and ending at the center cell of the grid.
- The vertical line starting at the center cell and ending at the bottom border of the grid.

The Letter **Y** is written on the grid if and only if:

- All values at cells belonging to the Y are equal.
- All values at cells not belonging to the Y are equal.
- The values at cells belonging to the Y are different from the values at cells not belonging to the Y.

Return *the **minimum** number of operations needed to write the letter Y on the grid given that in one operation you can change the value at any cell to* `0`, `1`, *or* `2`.

Example 1:

1	2	2
1	1	0
0	1	0

1	0	1
0	1	0
0	1	0

```
Input: grid = [[1,2,2],[1,1,0],[0,1,0]]
Output: 3
Explanation: We can write Y on the grid by applying the changes highlighted in blue in the image above. After the operations, all cells that belong
to Y, denoted in bold, have the same value of 1 while those that do not belong to Y are equal to 0.
It can be shown that 3 is the minimum number of operations needed to write Y on the grid.
```

Example 2:

0	1	0	1	0
2	1	0	1	2
2	2	2	0	1
2	2	2	2	2
2	1	2	2	2

0	2	2	2	0
2	0	2	0	2
2	2	0	2	2
2	2	0	2	2
2	2	0	2	2

```
Input: grid = [[0,1,0,1,0],[2,1,0,1,2],[2,2,2,0,1],[2,2,2,2,2],[2,1,2,2,2]]
Output: 12
Explanation: We can write Y on the grid by applying the changes highlighted in blue in the image above. After the operations, all cells that belong
to Y, denoted in bold, have the same value of 0 while those that do not belong to Y are equal to 2.
It can be shown that 12 is the minimum number of operations needed to write Y on the grid.
```

Constraints:

- `3 <= n <= 49`
- `n == grid.length == grid[i].length`
- `0 <= grid[i][j] <= 2`
- `n` is odd.