

3092. Minimum Moves to Spread Stones Over Grid

Difficulty : Medium

<https://leetcode.com/problems/minimum-moves-to-spread-stones-over-grid>

You are given a **0-indexed** 2D integer matrix `grid` of size 3×3 , representing the number of stones in each cell. The grid contains exactly 9 stones, and there can be **multiple** stones in a single cell.

In one move, you can move a single stone from its current cell to any other cell if the two cells share a side.

Return the **minimum number of moves** required to place one stone in each cell.

Example 1:

1	1	0
1	1	1
1	2	1

Input: `grid = [[1,1,0],[1,1,1],[1,2,1]]`

Output: 3

Explanation: One possible sequence of moves to place one stone in each cell is:

1- Move one stone from cell (2,1) to cell (2,2).

2- Move one stone from cell (2,2) to cell (1,2).

3- Move one stone from cell (1,2) to cell (0,2).

In total, it takes 3 moves to place one stone in each cell of the grid.

It can be shown that 3 is the minimum number of moves required to place one stone in each cell.

Example 2:

1	3	0
1	0	0
1	0	3

Input: `grid = [[1,3,0],[1,0,0],[1,0,3]]`

Output: 4

Explanation: One possible sequence of moves to place one stone in each cell is:

1- Move one stone from cell (0,1) to cell (0,2).

2- Move one stone from cell (0,1) to cell (1,1).

3- Move one stone from cell (2,2) to cell (1,2).

4- Move one stone from cell (2,2) to cell (2,1).

In total, it takes 4 moves to place one stone in each cell of the grid.

It can be shown that 4 is the minimum number of moves required to place one stone in each cell.

Constraints:

- `grid.length == grid[i].length == 3`
- `0 <= grid[i][j] <= 9`
- Sum of `grid` is equal to 9.