

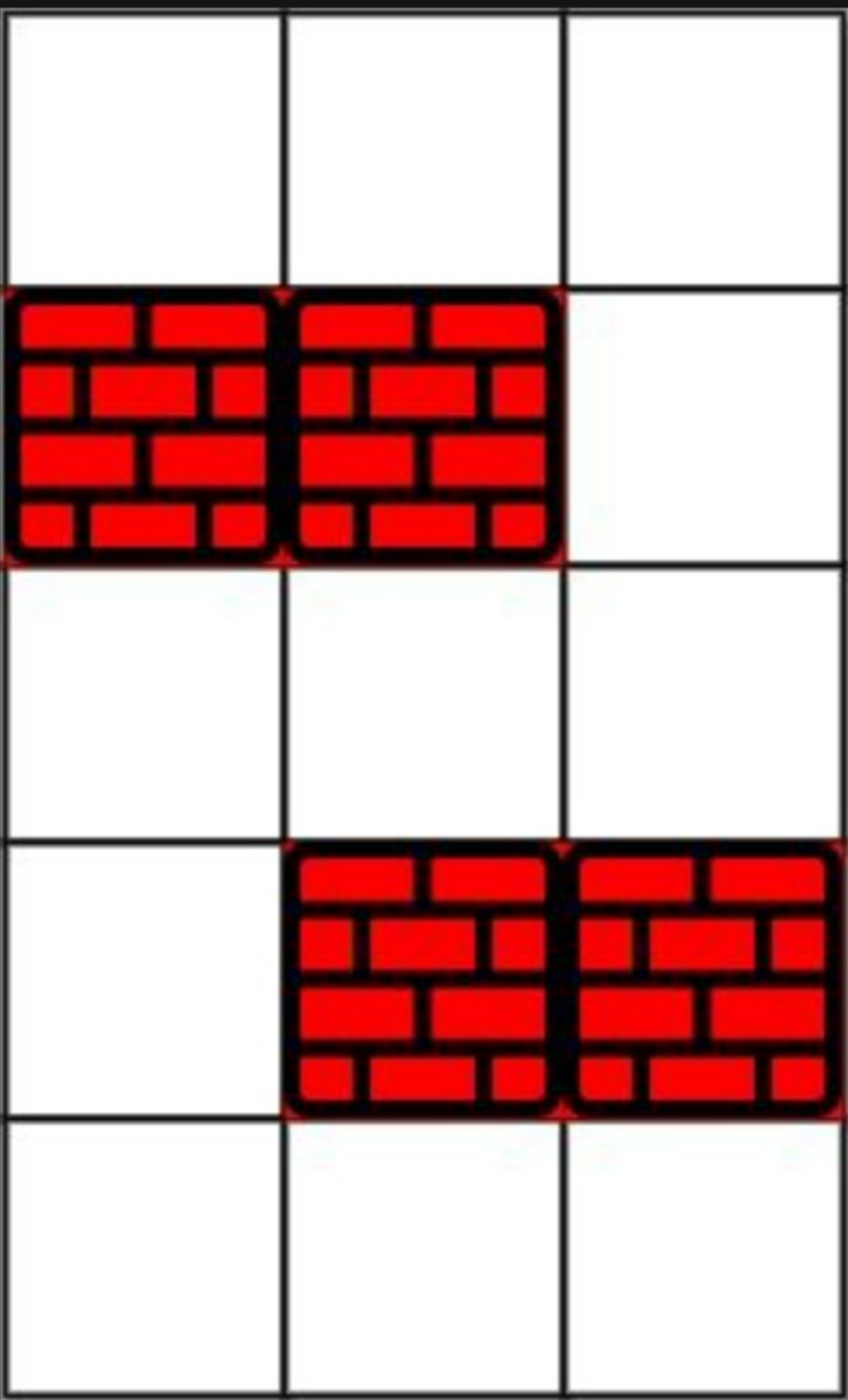
1293. Shortest Path in a Grid with Obstacles Elimination

Description

You are given an `m x n` integer matrix `grid` where each cell is either `0` (empty) or `1` (obstacle). You can move up, down, left, or right from and to an empty cell in **one step**.

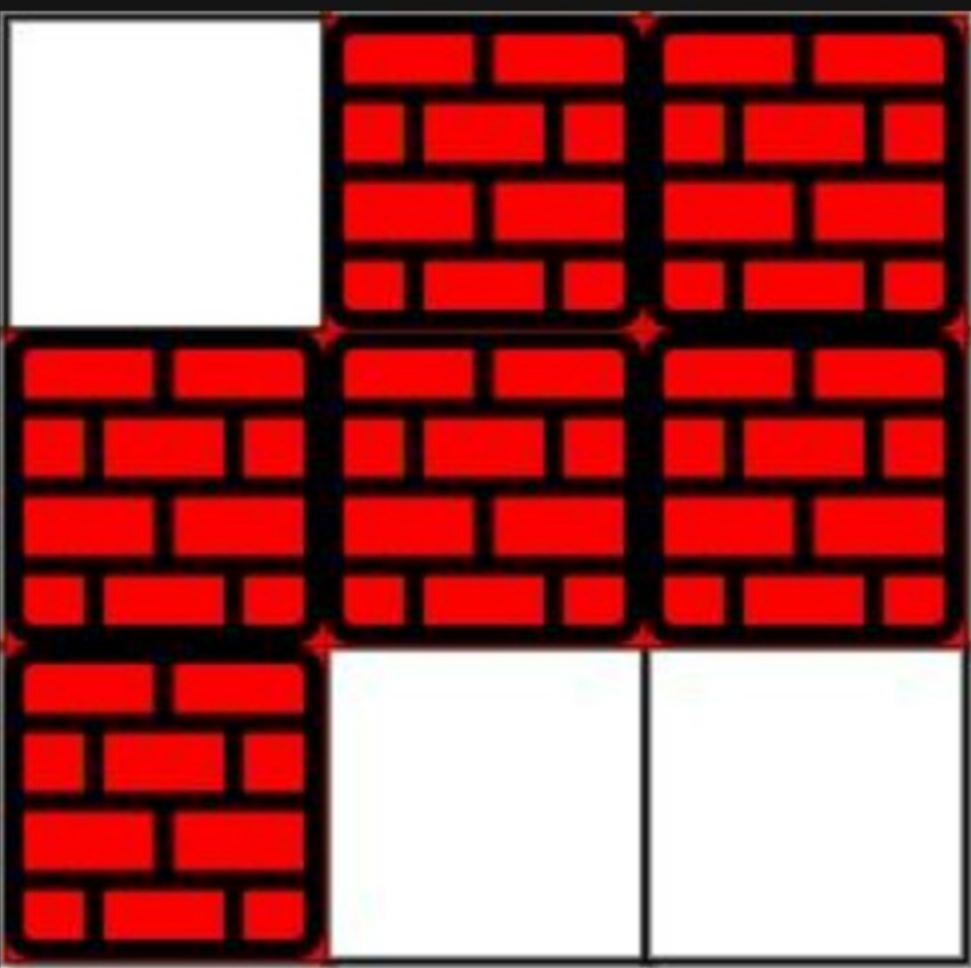
Return *the minimum number of **steps** to walk from the upper left corner `(0, 0)` to the lower right corner `(m - 1, n - 1)` given that you can eliminate at most `k` obstacles*. If it is not possible to find such walk return `-1`.

Example 1:



Input: `grid = [[0,0,0],[1,1,0],[0,0,0],[0,1,1],[0,0,0]]`, `k = 1`
Output: `6`
Explanation:
The shortest path without eliminating any obstacle is 10.
The shortest path with one obstacle elimination at position (3,2) is 6. Such path is (0,0) -> (0,1) -> (0,2) -> (1,2) -> (2,2) -> (3,2) -> (4,2).

Example 2:



Input: `grid = [[0,1,1],[1,1,1],[1,0,0]]`, `k = 1`
Output: `-1`
Explanation: We need to eliminate at least two obstacles to find such a walk.

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `1 <= m, n <= 40`
- `1 <= k <= m * n`
- `grid[i][j]` is either `0` or `1`.
- `grid[0][0] == grid[m - 1][n - 1] == 0`

