

2684. Maximum Number of Moves in a Grid

Solved ●

Medium  Topics  Companies  Hint

You are given a **0-indexed** `m x n` matrix `grid` consisting of **positive** integers.

You can start at **any** cell in the first column of the matrix, and traverse the grid in the following way:

- From a cell `(row, col)`, you can move to any of the cells: `(row - 1, col + 1)`, `(row, col + 1)` and `(row + 1, col + 1)` such that the value of the cell you move to, should be **strictly** bigger than the value of the current cell.

Return the **maximum** number of **moves** that you can perform.

Example 1:

2	4	3	5
5	4	9	3
3	4	2	11
10	9	13	15

Input: `grid = [[2,4,3,5],[5,4,9,3],[3,4,2,11],[10,9,13,15]]`

Output: 3

Explanation: We can start at the cell (0, 0) and make the following moves:

- (0, 0) -> (0, 1).
- (0, 1) -> (1, 2).
- (1, 2) -> (2, 3).

It can be shown that it is the maximum number of moves that can be made.

Example 2:

3	2	4
2	1	9
1	1	7

Input: `grid = [[3,2,4],[2,1,9],[1,1,7]]`

Output: 0

Explanation: Starting from any cell in the first column we cannot perform any moves.

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `2 <= m, n <= 1000`
- `4 <= m * n <= 105`
- `1 <= grid[i][j] <= 106`

Seen this question in a real interview before? 1/5

Yes No

Accepted 121K Submissions 203.7K Acceptance Rate 59.4%

Topics	▼
Companies	▼
Hint 1	▼
Hint 2	▼
Discussion (119)	▼