

# 2794. Maximum Number of Moves in a Grid

## Difficulty : Medium

<https://leetcode.com/problems/maximum-number-of-moves-in-a-grid>

You are given a **0-indexed**  $m \times n$  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:

- $(0, 0) \rightarrow (0, 1)$ .
- $(0, 1) \rightarrow (1, 2)$ .
- $(1, 2) \rightarrow (2, 3)$ .

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:

- $m == \text{grid.length}$
- $n == \text{grid}[i].\text{length}$
- $2 \leq m, n \leq 1000$
- $4 \leq m * n \leq 10^5$
- $1 \leq \text{grid}[i][j] \leq 10^6$