766. Toeplitz Matrix

Description

Given an `m x n` `matrix`, return `true` *if the matrix is Toeplitz. Otherwise, return* `false`.

A matrix is **Toeplitz** if every diagonal from top-left to bottom-right has the same elements.

Example 1:


```
Input: matrix = [[1,2,3,4],[5,1,2,3],[9,5,1,2]]
Output: true
Explanation:
In the above grid, the diagonals are:
"[9]", "[5, 5]", "[1, 1, 1]", "[2, 2, 2]", "[3, 3]", "[4]".
In each diagonal all elements are the same, so the answer is True.
```

Example 2:


```
Input: matrix = [[1,2],[2,2]]
Output: false
Explanation:
The diagonal "[1, 2]" has different elements.
```

Constraints:

- `m == matrix.length`
- `n == matrix[i].length`
- `1 <= m, n <= 20`
- `0 <= matrix[i][j] <= 99`

Follow up:

- What if the `matrix` is stored on disk, and the memory is limited such that you can only load at most one row of the matrix into the memory at once?
- What if the `matrix` is so large that you can only load up a partial row into the memory at once?