# 2373. Largest Local Values in a Matrix

## Description

You are given an [n x n] integer matrix [grid].

Generate an integer matrix maxLocal of size (n - 2) x (n - 2) such that:

• maxLocal[i][j] is equal to the largest value of the  $3 \times 3$  matrix in grid centered around row [i + 1] and column [j + 1].

In other words, we want to find the largest value in every contiguous  $3 \times 3$  matrix in grid.

Return the generated matrix.

#### Example 1:

9	9	8	1		
5	6	2	6	9	9
8	2	6	4	8	6
6	2	2	2		

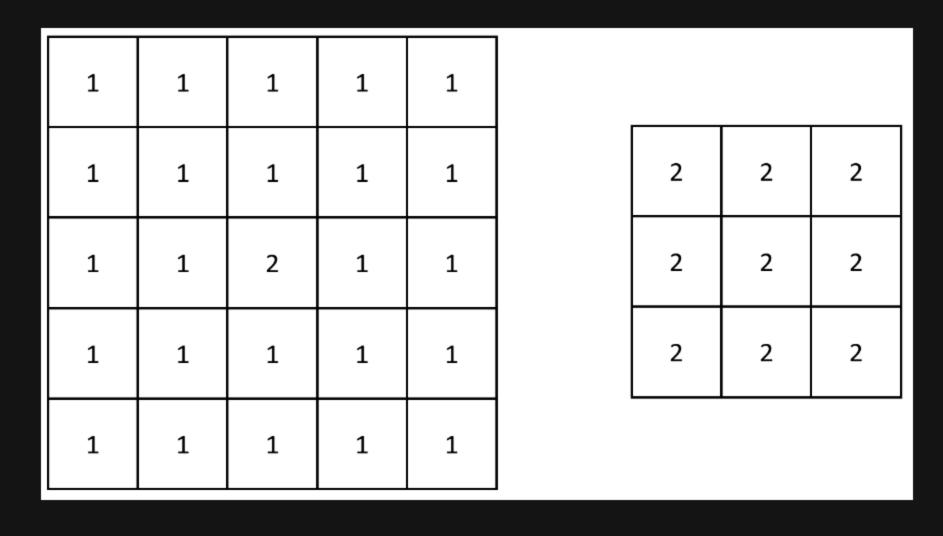
**Input:** grid = [[9,9,8,1],[5,6,2,6],[8,2,6,4],[6,2,2,2]]

Output: [[9,9],[8,6]]

**Explanation:** The diagram above shows the original matrix and the generated matrix.

Notice that each value in the generated matrix corresponds to the largest value of a contiguous  $3 \times 3$  matrix in grid.

#### Example 2:



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

Output: [[2,2,2],[2,2,2],[2,2,2]]

**Explanation:** Notice that the 2 is contained within every contiguous  $3 \times 3$  matrix in grid.

### **Constraints:**

- n == grid.length == grid[i].length
- 3 <= n <= 100
- 1 <= grid[i][j] <= 100

