

## 54. Spiral Matrix

Given an  $m \times n$  matrix, return *all elements of the* matrix *in spiral order*.

### Example 1:

1 →	2 →	3
4 →	5	↓ 6
↑ 7	← 8 ←	↓ 9

Input: matrix = [[1,2,3],[4,5,6],[7,8,9]]

Output: [1,2,3,6,9,8,7,4,5]

**Example 2:**

1 →	2 →	3 →	4
5 →	6 →	7	↓ 8
↑ 9	←10	←11	←12

**Input:** matrix = [[1,2,3,4],[5,6,7,8],[9,10,11,12]]

**Output:** [1,2,3,4,8,12,11,10,9,5,6,7]

**Constraints:**

m == matrix.length

n == matrix[i].length

1 <= m, n <= 10

-100 <= matrix[i][j] <= 100