

## 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]