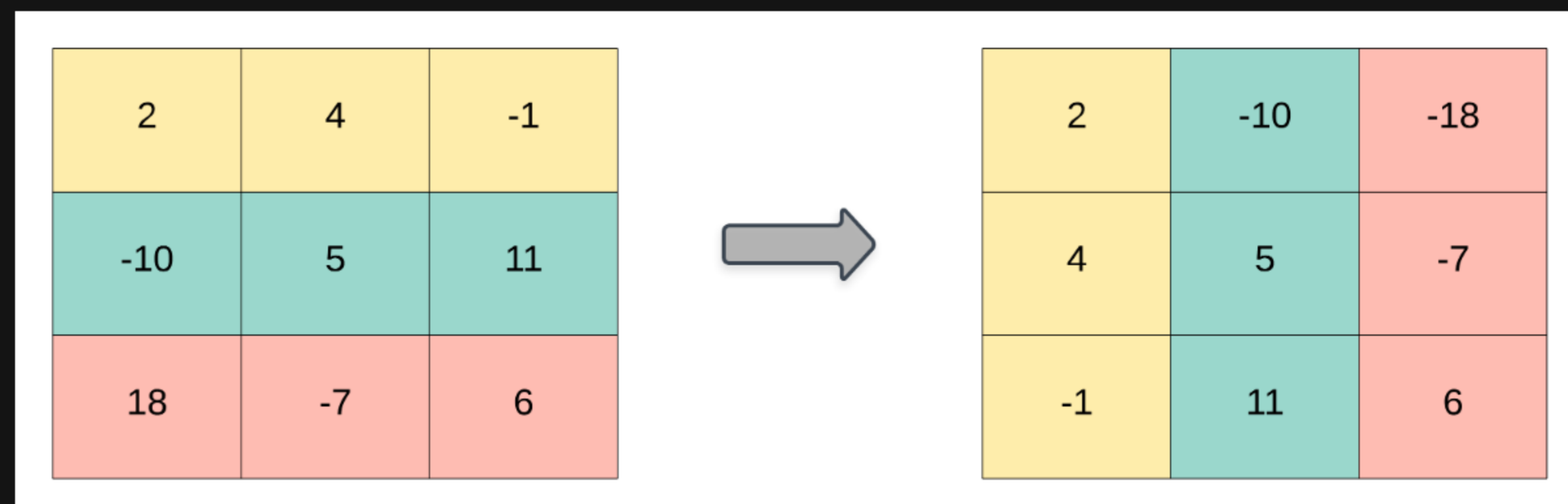


# 867. Transpose Matrix

## Description

Given a 2D integer array `matrix`, return *the transpose of* `matrix`.

The **transpose** of a matrix is the matrix flipped over its main diagonal, switching the matrix's row and column indices.



### Example 1:

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

### Example 2:

Input: `matrix = [[1,2,3],[4,5,6]]`  
Output: `[[1,4],[2,5],[3,6]]`

### Constraints:

- `m == matrix.length`
- `n == matrix[i].length`
- `1 <= m, n <= 1000`
- `1 <= m * n <= 10^5`
- `-10^9 <= matrix[i][j] <= 10^9`

