

1905. Count Sub Islands

Description

You are given two `m x n` binary matrices `grid1` and `grid2` containing only `0`'s (representing water) and `1`'s (representing land). An **island** is a group of `1`'s connected **4-directionally** (horizontal or vertical). Any cells outside of the grid are considered water cells.

An island in `grid2` is considered a **sub-island** if there is an island in `grid1` that contains **all** the cells that make up **this** island in `grid2`.

Return the *number of islands in `grid2` that are considered sub-islands*.

Example 1:

1	1	1	0	0		1	1	1	0	0
0	1	1	1	1		0	0	1	1	1
0	0	0	0	0		0	1	0	0	0
1	0	0	0	0		1	0	1	1	0
1	1	0	1	1		0	1	0	1	0

Input: `grid1 = [[1,1,1,0,0],[0,1,1,1,1],[0,0,0,0,0],[1,0,0,0,0],[1,1,0,1,1]]`, `grid2 = [[1,1,1,0,0],[0,0,1,1,1],[0,1,0,0,0],[1,0,1,1,0],[0,1,0,1,0]]`
Output: 3
Explanation: In the picture above, the grid on the left is `grid1` and the grid on the right is `grid2`. The 1s colored red in `grid2` are those considered to be part of a sub-island. There are three sub-islands.

Example 2:

1	0	1	0	1		0	0	0	0	0
1	1	1	1	1		1	1	1	1	1
0	0	0	0	0		0	1	0	1	0
1	1	1	1	1		0	1	0	1	0
1	0	1	0	1		1	0	0	0	1

Input: `grid1 = [[1,0,1,0,1],[1,1,1,1,1],[0,0,0,0,0],[1,1,1,1,1],[1,0,1,0,1]]`, `grid2 = [[0,0,0,0,0],[1,1,1,1,1],[0,1,0,1,0],[0,1,0,1,0],[1,0,0,0,1]]`
Output: 2
Explanation: In the picture above, the grid on the left is `grid1` and the grid on the right is `grid2`. The 1s colored red in `grid2` are those considered to be part of a sub-island. There are two sub-islands.

Constraints:

- `m == grid1.length == grid2.length`
- `n == grid1[i].length == grid2[i].length`
- `1 <= m, n <= 500`
- `grid1[i][j]` and `grid2[i][j]` are either `0` or `1`.

