Rotting Oranges

You are given an m x n grid where each cell can have one of three values:

0 representing an empty cell,
1 representing a fresh orange, or
2 representing a rotten orange.
Every minute, any fresh orange that is 4-directionally adjacent to a rotten orange becomes rotten.

Return the minimum number of minutes that must elapse until no cell has a fresh orange.
If this is impossible, return -1.

Input: grid = [[2,1,1],[1,1,0],[0,1,1]]
Output: 4

Input: grid = [[2,1,1],[0,1,1],[1,0,1]]
Output: -1
Explanation: The orange in the bottom left corner (row 2, column 0) is never rotten, because rotting only happens 4-directionally.

Input: grid = [[1]]
Output: -1
Explanation: Since the orange can never rotate.

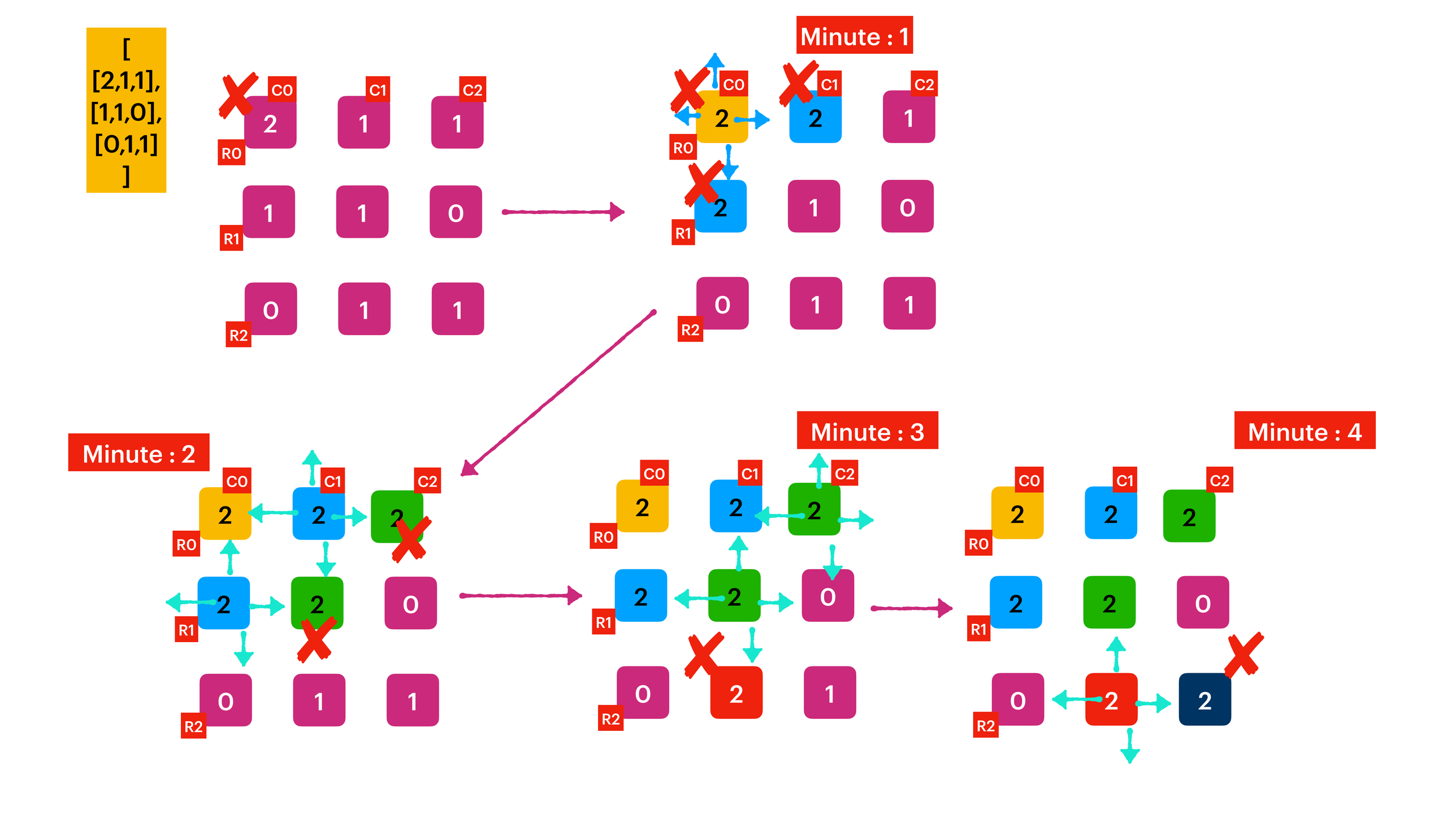
Input: grid = [[0,0,0,0,0]]
Output: 0
Explanation: Since there are no oranges to rotate.

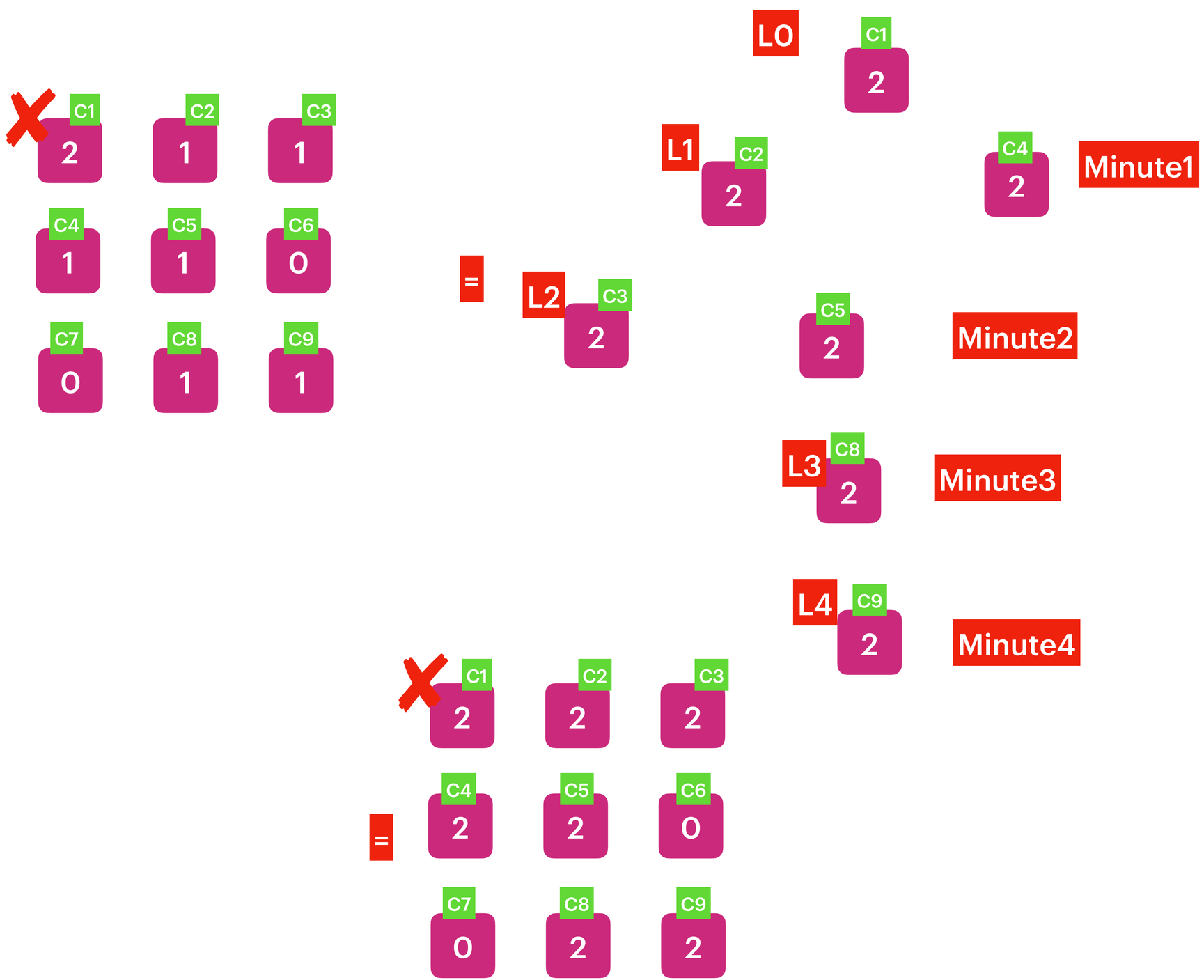
Input: grid = [[0]]
Output: 0
Explanation: Since there are already no fresh oranges at minute 0, the answer is just 0.

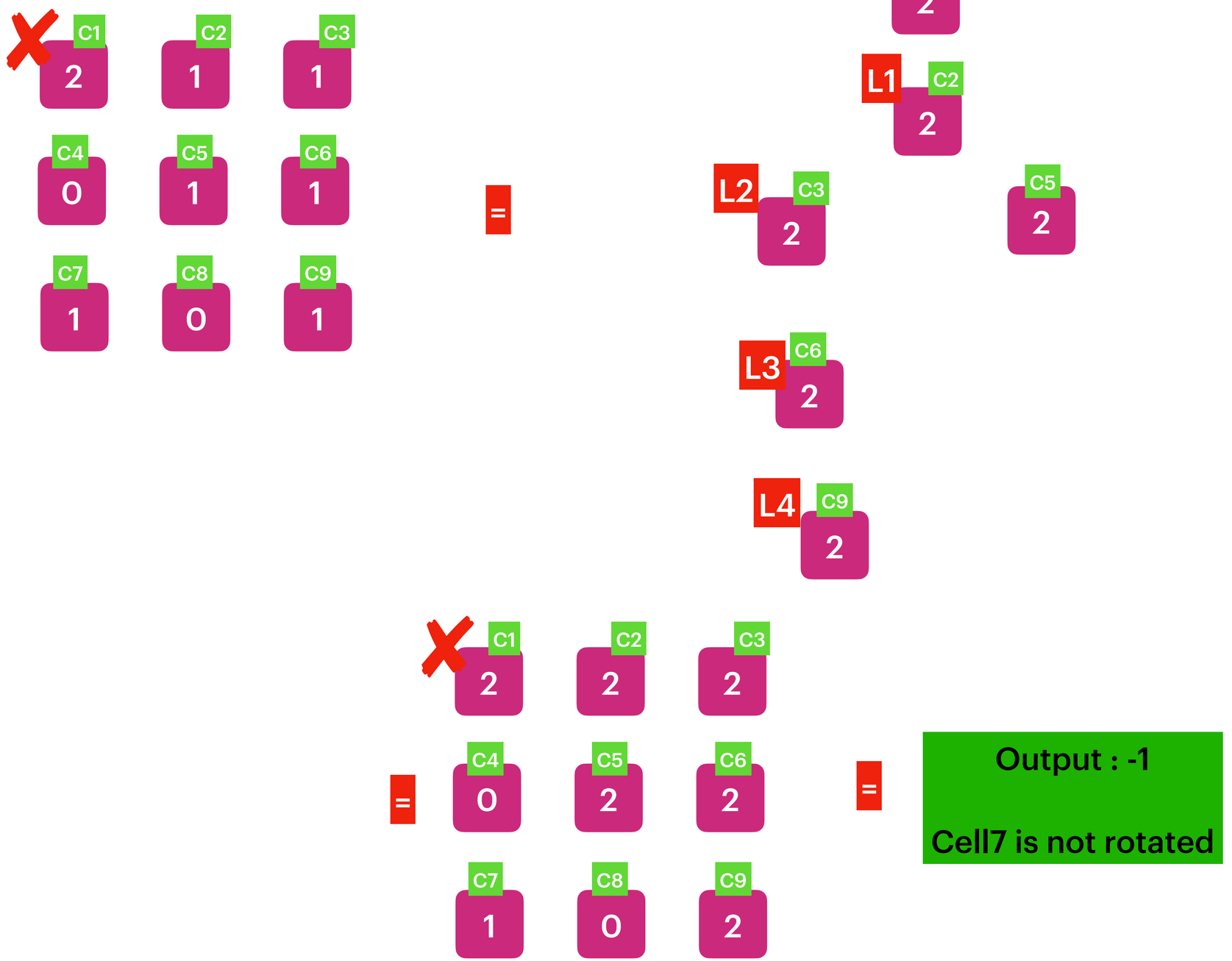
Input: grid = [[0,2]]
Output: 0
Explanation: Since there are already no fresh oranges at minute 0, the answer is just 0.

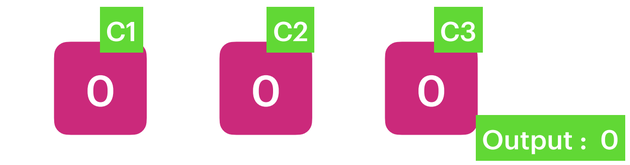
Constraints:

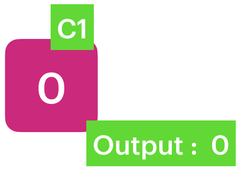
m == grid.length
n == grid[i].length
1 <= m, n <= 10
grid[i][j] is 0, 1, or 2.

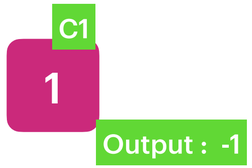

[
[2,1,1],
[1,1,0],
[0,1,1]
]
Minute : 1
Minute : 2
Minute : 3
Minute : 4
C0
C1
C2
R0
R1
R2

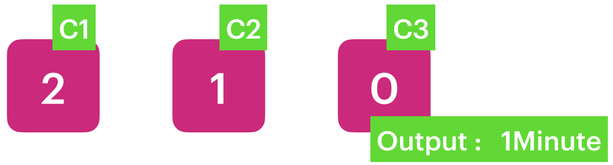

C1
2
C2
1
C3
1
C4
1
C5
1
C6
0
C7
0
C8
1
C9
1
=
L0
C1
2
L1
C2
2
C4
2
Minute1
L2
C3
2
C5
2
Minute2
L3
C8
2
Minute3
L4
C9
2
Minute4
C1
2
C2
2
C3
2
=
C4
2
C5
2
C6
0
C7
0
C8
2
C9
2


C1
2
C2
1
C3
1
C4
0
C5
1
C6
1
C7
1
C8
0
C9
1
=
C1
2
L1
C2
2
L2
C3
2
C5
2
L3
C6
2
L4
C9
2
C1
2
C2
2
C3
2
=
C4
0
C5
2
C6
2
C7
1
C8
0
C9
2
=
Output : -1
Cell7 is not rotated

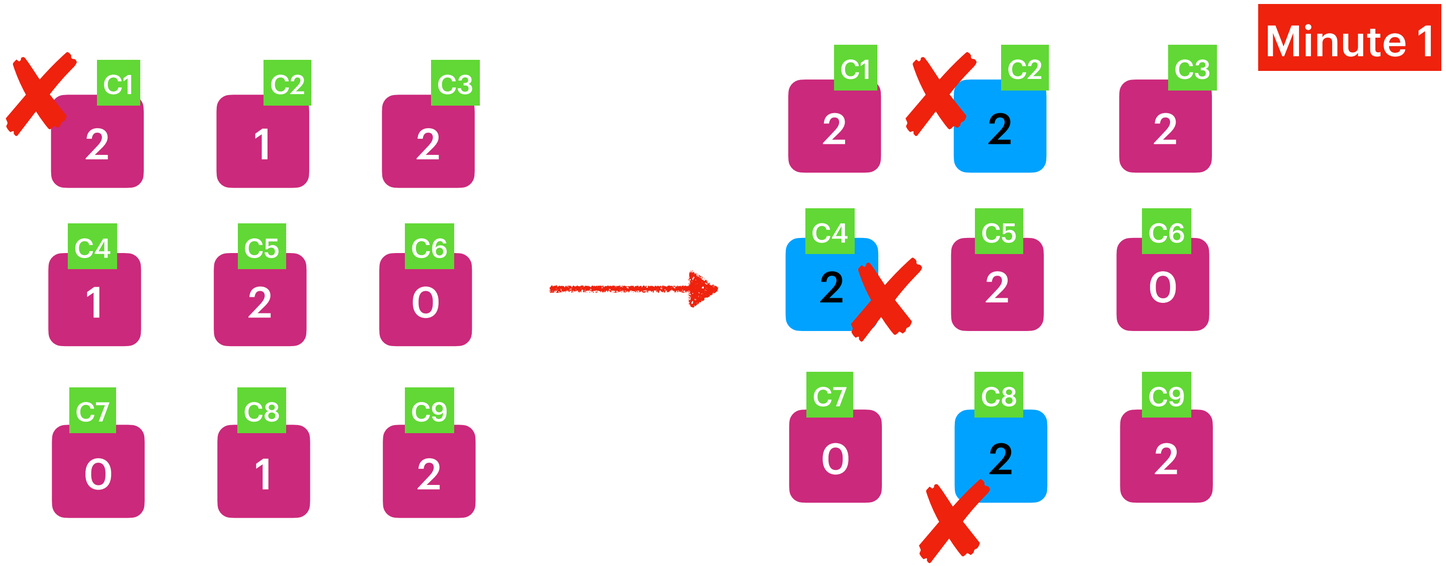

C1
0
C2
0
C3
0
Output : 0

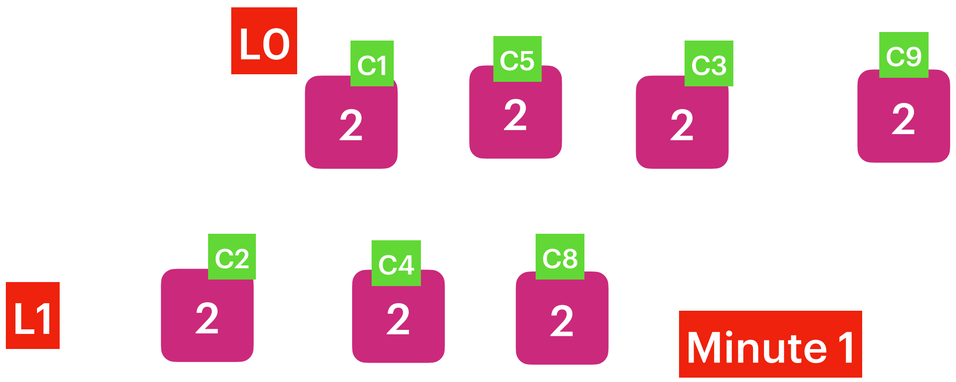

C1
0
Output : 0


C1
1
Output : -1


C1
2
C2
1
C3
0
Output : 1Minute


C1
0
C2
1
C3
0
Output : -1


C1
2
C2
1
C3
2
C4
1
C5
2
C6
0
C7
0
C8
1
C9
2
Minute 1
C1
2
C2
2
C3
2
C4
2
C5
2
C6
0
C7
0
C8
2
C9
2


LO
C1
2
C5
2
C3
2
C9
2
L1
C2
2
C4
2
C8
2
Minute 1

Number of Islands

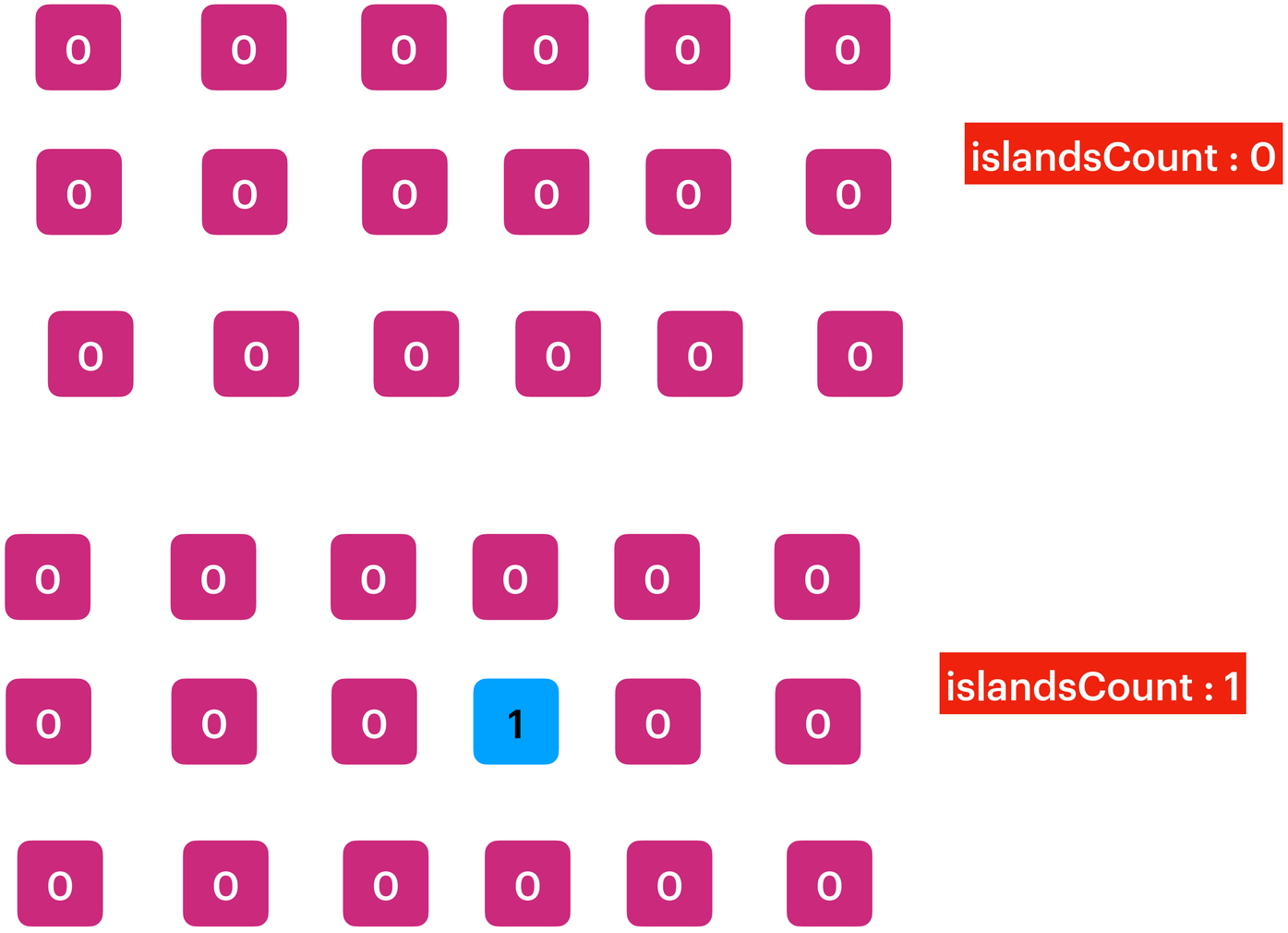
Given an m x n 2D binary grid grid which represents a map of '1's (land) and '0's (water), return the number of islands.

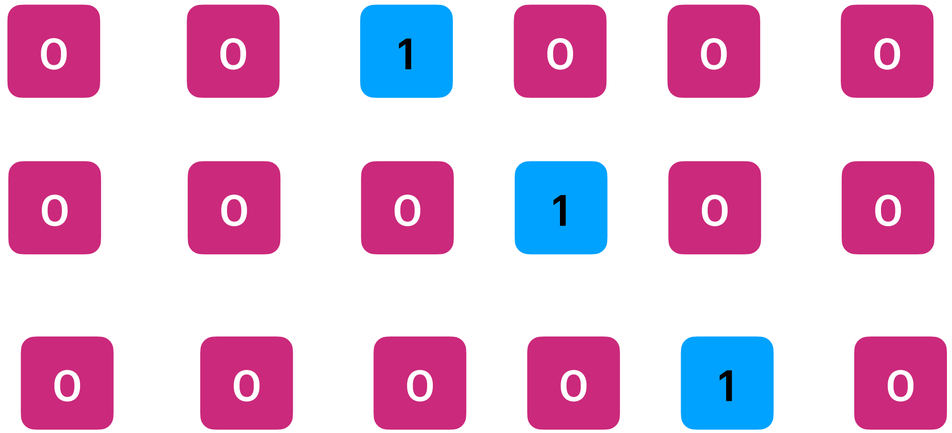
An island is surrounded by water and is formed by connecting adjacent lands horizontally or vertically.
You may assume all four edges of the grid are all surrounded by water.

Input: grid = [
["1","1","1","1","0"],
["1","1","0","1","0"],
["1","1","0","0","0"],
["0","0","0","0","0"]
]
Output: 1

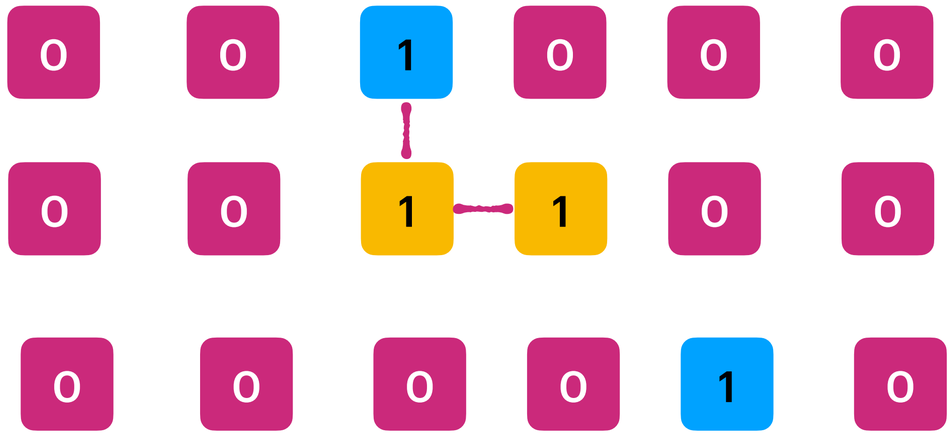
Input: grid = [
["1","1","0","0","0"],
["1","1","0","0","0"],
["0","0","1","0","0"],
["0","0","0","1","1"]
]
Output: 3

m == grid.length
n == grid[i].length
1 <= m, n <= 300
grid[i][j] is '0' or '1'.

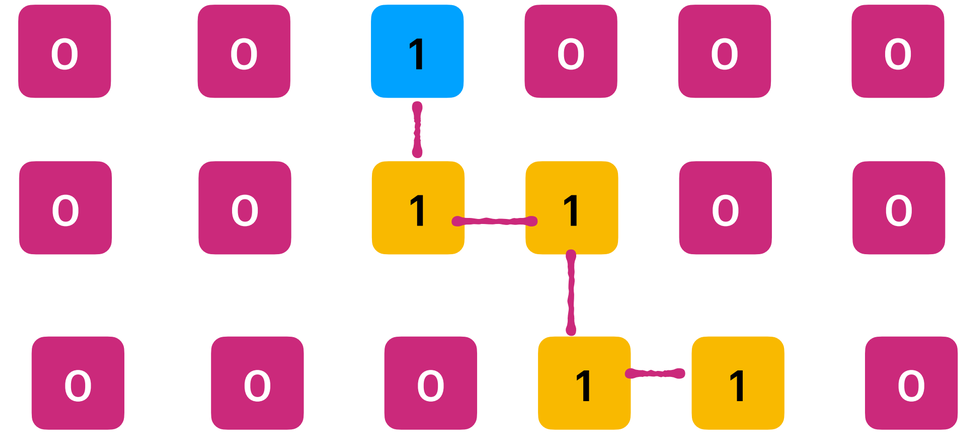

0 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
islandsCount : 0
0 0 0 0 0 0
0 0 0 1 0 0
0 0 0 0 0 0
islandsCount : 1



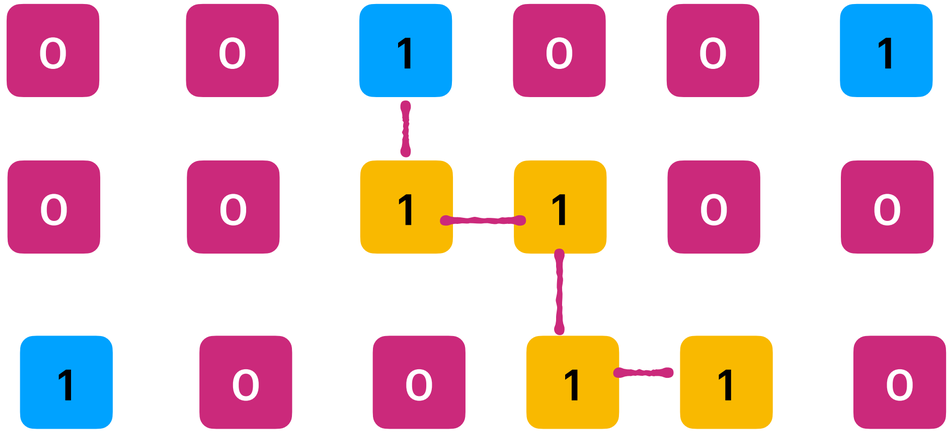
islandsCount : 3



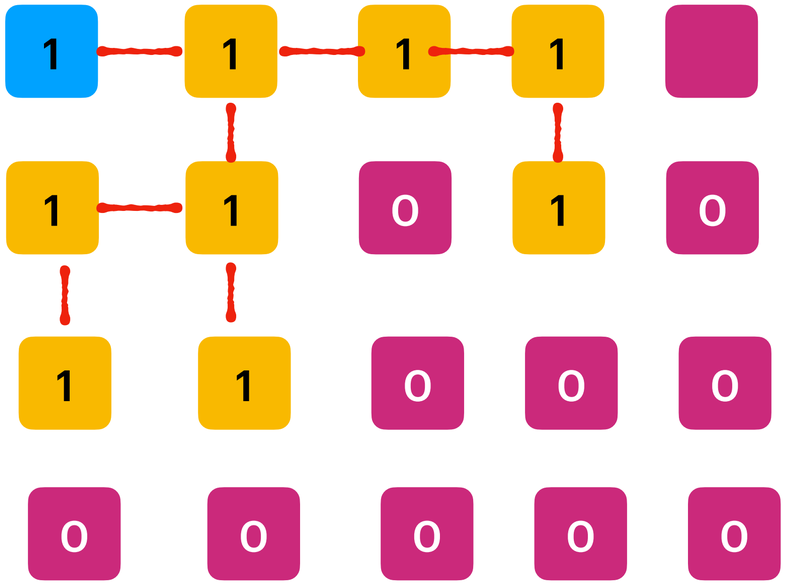
islandsCount : 2



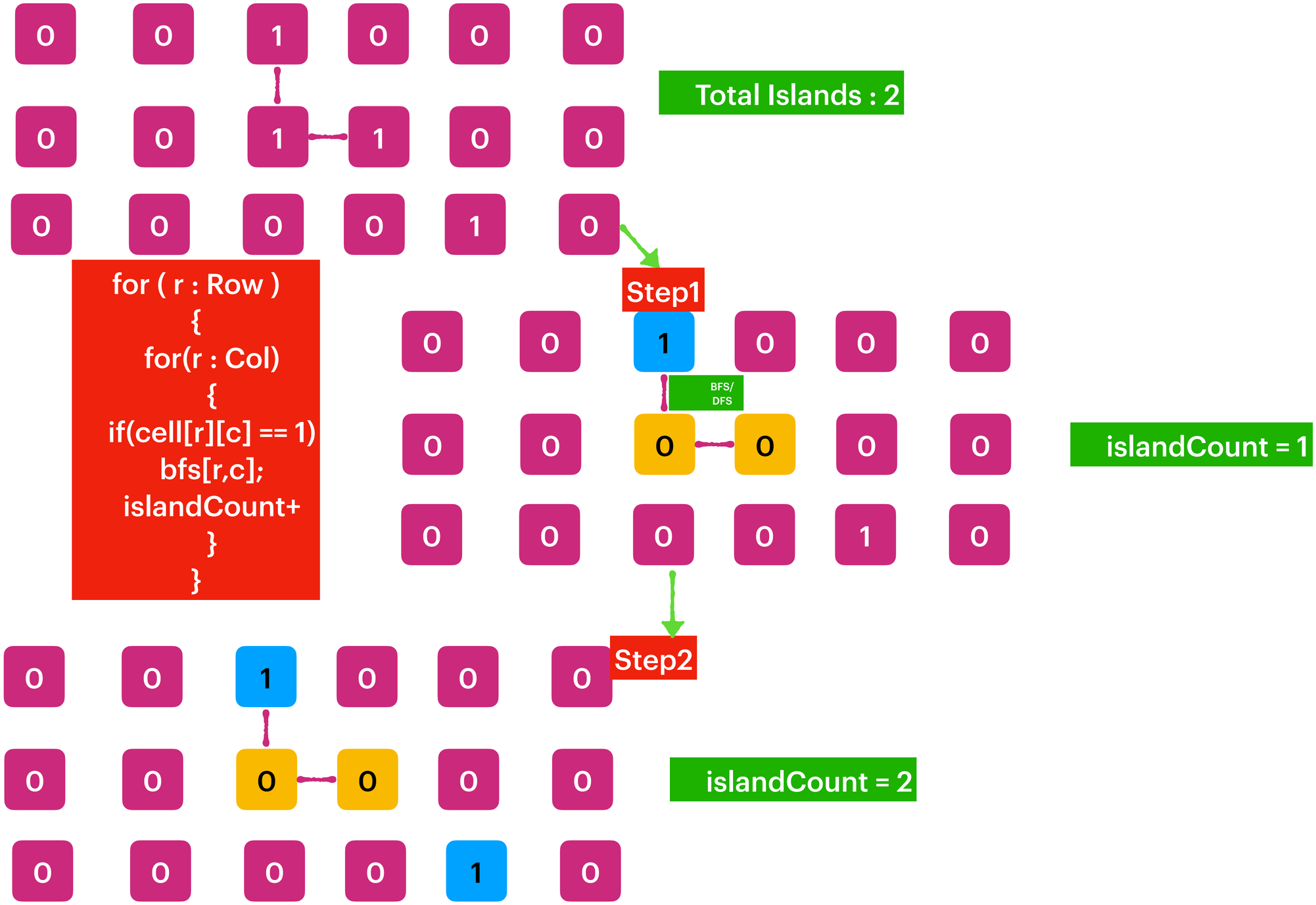
islandsCount : 1



islandsCount : 3



islandsCount : 1


0 0 1 0 0 0
0 0 1 1 0 0
0 0 0 0 1 0
Total Islands : 2
for (r : Row)
{
for(r : Col)
{
if(cell[r][c] == 1)
bfs[r,c];
islandCount+
}
}
Step1
0 0 1 0 0 0
BFS/
DFS
0 0 0 0 0 0
islandCount = 1
0 0 0 0 1 0
Step2
0 0 1 0 0 0
0 0 0 0 0 0
islandCount = 2
0 0 0 0 1 0