675. Cut Off Trees for Golf Event

Description

You are asked to cut off all the trees in a forest for a golf event. The forest is represented as an `m x n` matrix. In this matrix:

- `0` means the cell cannot be walked through.
- `1` represents an empty cell that can be walked through.
- A number greater than `1` represents a tree in a cell that can be walked through, and this number is the tree's height.

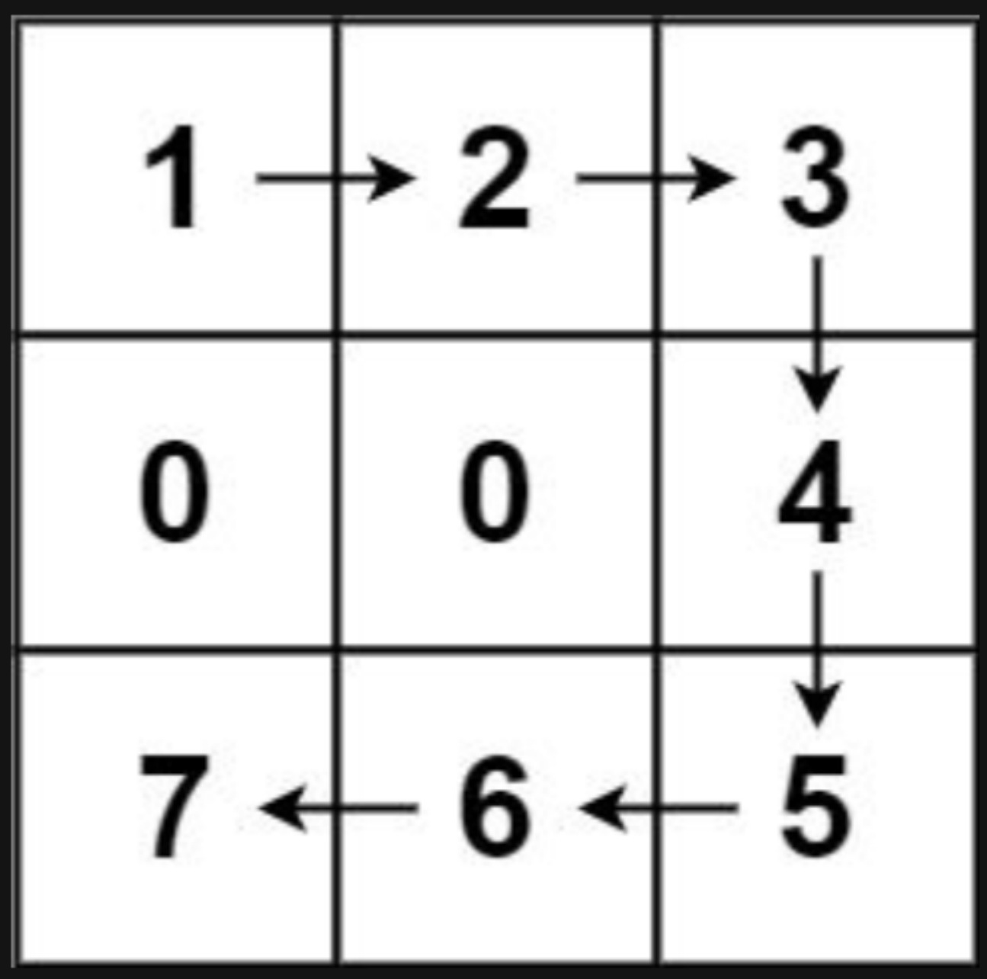
In one step, you can walk in any of the four directions: north, east, south, and west. If you are standing in a cell with a tree, you can choose whether to cut it off.

You must cut off the trees in order from shortest to tallest. When you cut off a tree, the value at its cell becomes `1` (an empty cell).

Starting from the point `(0, 0)`, return *the minimum steps you need to walk to cut off all the trees*. If you cannot cut off all the trees, return `-1`.

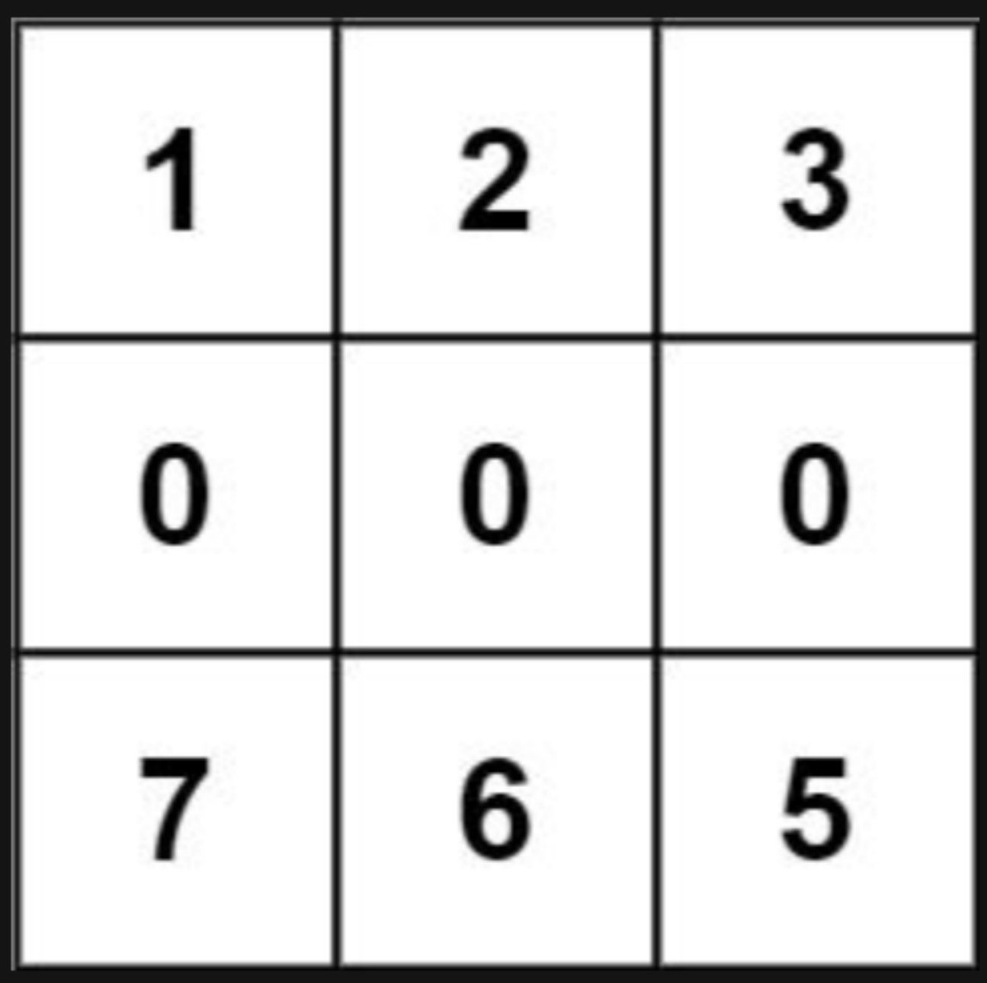
Note: The input is generated such that no two trees have the same height, and there is at least one tree needs to be cut off.

Example 1:



```
Input: forest = [[1,2,3],[0,0,4],[7,6,5]]
Output: 6
Explanation: Following the path above allows you to cut off the trees from shortest to tallest in 6 steps.
```

Example 2:



```
Input: forest = [[1,2,3],[0,0,0],[7,6,5]]
Output: -1
Explanation: The trees in the bottom row cannot be accessed as the middle row is blocked.
```

Example 3:

```
Input: forest = [[2,3,4],[0,0,5],[8,7,6]]
Output: 6
Explanation: You can follow the same path as Example 1 to cut off all the trees.
Note that you can cut off the first tree at (0, 0) before making any steps.
```

Constraints:

- `m == forest.length`
- `n == forest[i].length`
- `1 <= m, n <= 50`
- `0 <= forest[i][j] <= 10`^{9}
- Heights of all trees are **distinct**.