

You are asked to cut off trees in a forest for a golf event. The forest is represented as a non-negative 2D map, in this map:

1. 0 represents the obstacle can't be reached.
2. 1 represents the ground can be walked through.
3. The place with number bigger than 1 represents a tree can be walked through, and this positive number represents the tree's height.

You are asked to cut off **all** the trees in this forest in the order of tree's height - always cut off the tree with lowest height first. And after cutting, the original place has the tree will become a grass (value 1).

You will start from the point (0, 0) and you should output the minimum steps **you need to walk** to cut off all the trees. If you can't cut off all the trees, output -1 in that situation.

You are guaranteed that no two trees have the same height and there is at least one tree needs to be cut off.

Example 1:

```
Input:
[
  [1,2,3],
  [0,0,4],
  [7,6,5]
]
Output: 6
```

Example 2:

```
Input:
[
  [1,2,3],
  [0,0,0],
  [7,6,5]
]
Output: -1
```

Example 3:

```
Input:
[
  [2,3,4],
  [0,0,5],
  [8,7,6]
]
Output: 6
Explanation: You started from the point (0,0) and you can cut off the tree in (0,0)
directly without walking.
```

Hint: size of the given matrix will not exceed 50x50.