573. Squirrel Simulation

Description

You are given two integers height and width representing a garden of size height x width. You are also given:

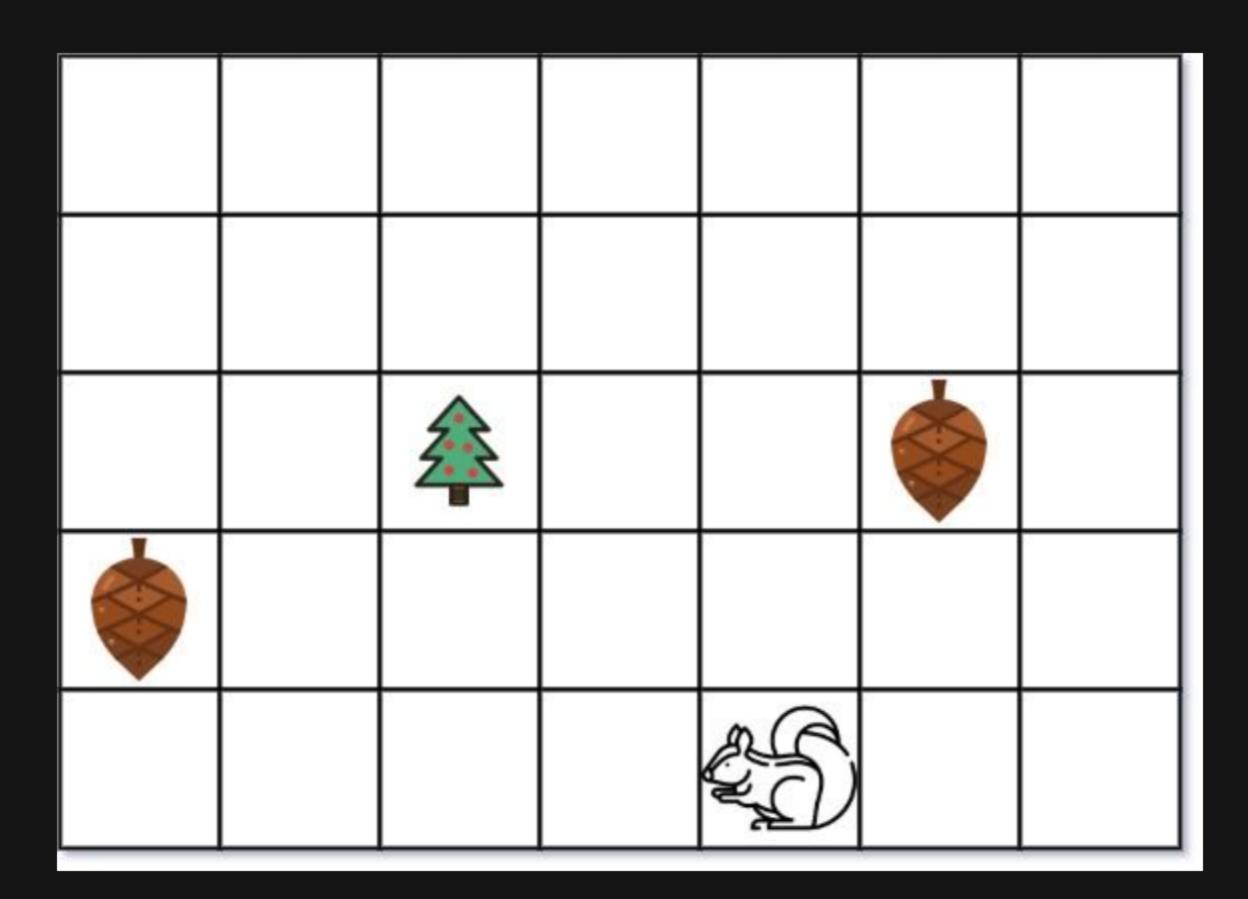
- an array tree where tree = [tree r, tree c] is the position of the tree in the garden,
- an array [squirrel] where $[squirrel = [squirrel_r, squirrel_c]]$ is the position of the squirrel in the garden,
- and an array nuts where nuts[i] = [nut ir, nut ir] is the position of the [i th] nut in the garden.

The squirrel can only take at most one nut at one time and can move in four directions: up, down, left, and right, to the adjacent cell.

Return the minimal distance for the squirrel to collect all the nuts and put them under the tree one by one.

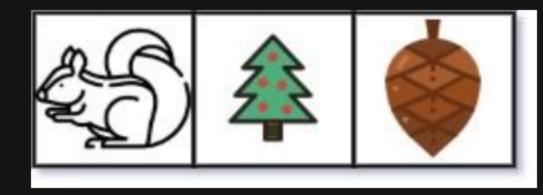
The **distance** is the number of moves.

Example 1:



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Input: height = 5, width = 7, tree = [2,2], squirrel = [4,4], nuts = [[3,0], [2,5]]
Output: 12
Explanation: The squirrel should go to the nut at [2, 5] first to achieve a minimal distance.
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Example 2:



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Input: height = 1, width = 3, tree = [0,1], squirrel = [0,0], nuts = [[0,2]]
Output: 3
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Constraints:

- 1 <= height, width <= 100
- tree.length == 2
- squirrel.length == 2
- 1 <= nuts.length <= 5000
- nuts[i].length == 2
- $0 \leftarrow tree_r$, squirrel_r, nut_{i_r} $\leftarrow tree_r$
- 0 <= tree c, squirrel c, nut i c <= width