

Escape of Velu

Velu visits Madurai for a Kabbadi competition. While jogging during a pleasant morning, he witnesses Muthupandi abducting Dhanalakshmi in front of Meenakshi Amman Temple. Reacting swiftly, Velu intervenes, thrashes Muthupandi, and rescues Dhanalakshmi, and they both try to escape.

While on a flee, they found themselves trapped in a mxn maze (*0-indexed*) with **empty cells (represented as '.')** and **walls (represented as '+')**. You are also given the initial position at which they both are stuck at. They can move *one cell up, down, left, or right*.

They cannot step into a cell with a wall, and cannot step outside the maze. An exit is defined as an empty cell that is at the border of the maze. The entrance does not count as an exit.

Help Velu and Dhanalakshmi find the number of steps to reach the **nearest exit** from the point where they are standing to escape from Muthupandi.

Return -1 if no such path exists.

Input Format

The first line of the input contains two integers denoting the m and n (dimensions of the maze).

The second line contains a $mxn(2D)$ array depicting the **Maze**.

The third line contains a array depicting the **Entrance** where the protagonists stand.

Constraints

```
maze.length == m
maze[i].length == n
1 <= m, n <= 100
maze[i][j] is either '.' or '+'
entrance.length == 2
0 <= entrancerow < m
0 <= entrancecol < n
```

Output Format

Return an Integer corresponding to the steps to reach the nearest exit.

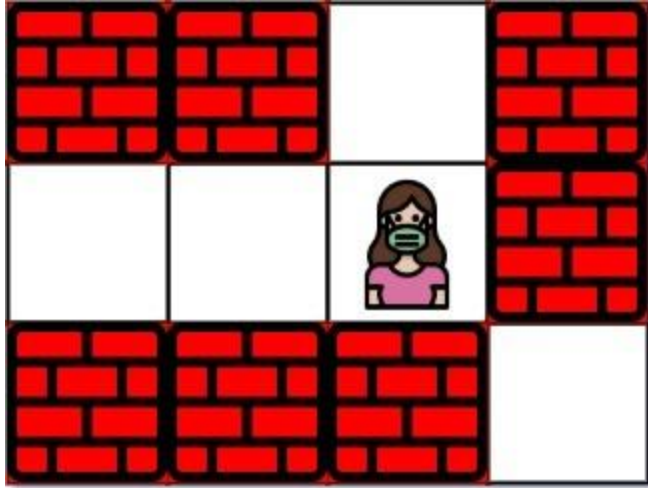
Sample Input 0

```
[["+","+", ".", "+"], [".", ".", ".", "+"], [ "+", "+", "+", ". "]]
[1,2]
```

Sample Output 0

1

Explanation 0



There are 3 exits in this maze at [1,0], [0,2], and [2,3].

Initially, you are at the entrance cell [1,2].

- You can reach [1,0] by moving 2 steps left.

- You can reach [0,2] by moving 1 step up.

It is impossible to reach [2,3] from the entrance.

Thus, the nearest exit is [0,2], which is 1 step away.

Sample Input 1

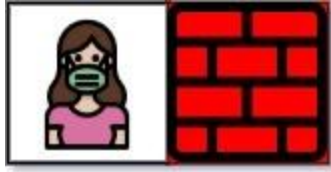
```
[[".","+"]]
```

```
[0,0]
```

Sample Output 1

```
-1
```

Explanation 1



There are no exits in this maze.