

5924. Minimum Cost Homecoming of a Robot in a Grid

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There is an $m \times n$ grid, where $(0, 0)$ is the top-left cell and $(m - 1, n - 1)$ is the bottom-right cell. You are given an integer array `startPos` where `startPos = [startrow, startcol]` indicates that **initially**, a **robot** is at the cell $(start_{row}, start_{col})$. You are also given an integer array `homePos` where `homePos = [homerow, homecol]` indicates that its **home** is at the cell $(home_{row}, home_{col})$.

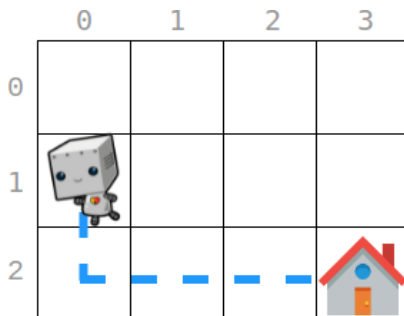
The robot needs to go to its home. It can move one cell in four directions: **left**, **right**, **up**, or **down**, and it can not move outside the boundary. Every move incurs some cost. You are further given two **0-indexed** integer arrays: `rowCosts` of length m and `colCosts` of length n .

- If the robot moves **up** or **down** into a cell whose **row** is r , then this move costs `rowCosts[r]`.
- If the robot moves **left** or **right** into a cell whose **column** is c , then this move costs `colCosts[c]`.

Return the **minimum total cost** for this robot to return home.

User Accepted:	924
User Tried:	1431
Total Accepted:	928
Total Submissions:	2605
Difficulty:	Medium

Example 1:



Input: `startPos = [1, 0]`, `homePos = [2, 3]`, `rowCosts = [5, 4, 3]`, `colCosts = [8, 2, 6, 7]`

Output: 18

Explanation: One optimal path is that:

Starting from $(1, 0)$

-> It goes down to $(2, 0)$. This move costs `rowCosts[2] = 3`.

-> It goes right to $(2, 1)$. This move costs `colCosts[1] = 2`.

-> It goes right to $(2, 2)$. This move costs `colCosts[2] = 6`.

-> It goes right to $(2, 3)$. This move costs `colCosts[3] = 7`.

The total cost is $3 + 2 + 6 + 7 = 18$

Example 2:

Input: `startPos = [0, 0]`, `homePos = [0, 0]`, `rowCosts = [5]`, `colCosts = [26]`

Output: 0

Explanation: The robot is already at its home. Since no moves occur, the total cost is 0.

Constraints:

- $m == \text{rowCosts.length}$
- $n == \text{colCosts.length}$
- $1 \leq m, n \leq 10^5$
- $0 \leq \text{rowCosts}[r], \text{colCosts}[c] \leq 10^4$
- `startPos.length == 2`
- `homePos.length == 2`
- $0 \leq \text{start}_{row}, \text{home}_{row} < m$
- $0 \leq \text{start}_{col}, \text{home}_{col} < n$

JavaScript



```
1  /**
2   * @param {number[]} startPos
3   * @param {number[]} homePos
4   * @param {number[]} rowCosts
5   * @param {number[]} colCosts
6   * @return {number}
7   */
8  var minCost = function(startPos, homePos, rowCosts, colCosts) {
9
10 };
```

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