There is an m x 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 (startrow, startcol). You are also given an integer array homePos where homePos = [homerow, homecol] indicates that its **home** is at the cell (homerow, homecol).

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*.

**Example 1:**

Chart

Description automatically generated with low confidence

**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 == rowCosts.length
* n == colCosts.length
* 1 <= m, n <= 105
* 0 <= rowCosts[r], colCosts[c] <= 104
* startPos.length == 2
* homePos.length == 2
* 0 <= startrow, homerow < m
* 0 <= startcol, homecol < n