1066. Campus Bikes II

Medium 363 30 Add to List Share

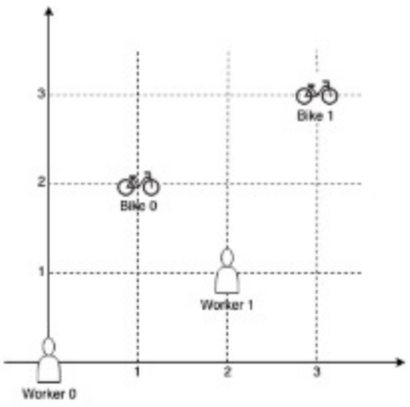
On a campus represented as a 2D grid, there are `N` workers and `M` bikes, with `N <= M`. Each worker and bike is a 2D coordinate on this grid.

We assign one unique bike to each worker so that the sum of the Manhattan distances between each worker and their assigned bike is minimized.

The Manhattan distance between two points `p1` and `p2` is `Manhattan(p1, p2) = |p1.x - p2.x| + |p1.y - p2.y|`.

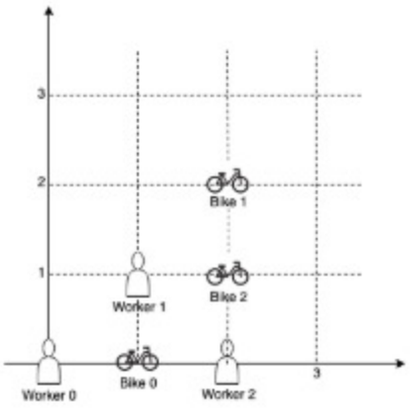
Return the minimum possible sum of Manhattan distances between each worker and their assigned bike.

Example 1:




```
Input: workers = [[0,0],[2,1]], bikes = [[1,2],[3,3]]
Output: 6
Explanation:
We assign bike 0 to worker 0, bike 1 to worker 1. The Manhattan distance of both assignments is 3, so the output is 6.
```

Example 2:




```
Input: workers = [[0,0],[1,1],[2,0]], bikes = [[1,0],[2,2],[2,1]]
Output: 4
Explanation:
We first assign bike 0 to worker 0, then assign bike 1 to worker 1 or worker 2, bike 2 to worker 2 or worker 1. Both assignments l
distances as 4.
```

Note:

1. `0 <= workers[i][0], workers[i][1], bikes[i][0], bikes[i][1] < 1000`
2. All worker and bike locations are distinct.
3. `1 <= workers.length <= bikes.length <= 10`

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Seen this question in a real interview before? Yes No

Contributor