

5650. Minimize Hamming Distance After Swap Operations

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You are given two integer arrays, `source` and `target`, both of length `n`. You are also given an array `allowedSwaps` where each `allowedSwaps[i] = [ai, bi]` indicates that you are allowed to swap the elements at index `ai` and index `bi` (**0-indexed**) of array `source`. Note that you can swap elements at a specific pair of indices **multiple** times and in **any** order.

The **Hamming distance** of two arrays of the same length, `source` and `target`, is the number of positions where the elements are different. Formally, it is the number of indices `i` for `0 ≤ i ≤ n-1` where `source[i] != target[i]` (**0-indexed**).

Return the **minimum Hamming distance** of `source` and `target` after performing **any** amount of swap operations on array `source`.

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:

Input: `source = [1,2,3,4]`, `target = [2,1,4,5]`, `allowedSwaps = [[0,1],[2,3]]`

Output: 1

Explanation: source can be transformed the following way:

– Swap indices 0 and 1: `source = [2,1,3,4]`

– Swap indices 2 and 3: `source = [2,1,4,3]`

The Hamming distance of `source` and `target` is 1 as they differ in 1 position: index 3.

Example 2:

Input: `source = [1,2,3,4]`, `target = [1,3,2,4]`, `allowedSwaps = []`

Output: 2

Explanation: There are no allowed swaps.

The Hamming distance of `source` and `target` is 2 as they differ in 2 positions: index 1 and index 2.

Example 3:

Input: `source = [5,1,2,4,3]`, `target = [1,5,4,2,3]`, `allowedSwaps = [[0,4],[4,2],[1,3],[1,4]]`

Output: 0

Constraints:

- `n == source.length == target.length`
- `1 ≤ n ≤ 105`
- `1 ≤ source[i], target[i] ≤ 105`
- `0 ≤ allowedSwaps.length ≤ 105`
- `allowedSwaps[i].length == 2`
- `0 ≤ ai, bi ≤ n - 1`
- `ai != bi`

JavaScript



```

1 /**
2  * @param {number[]} source
3  * @param {number[]} target
4  * @param {number[][]} allowedSwaps
5  * @return {number}
6  */
7 var minimumHammingDistance = function(source, target, allowedSwaps) {
8
9 };

```