

5737. Find XOR Sum of All Pairs Bitwise AND

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The **XOR sum** of a list is the bitwise XOR of all its elements. If the list only contains one element, then its **XOR sum** will be equal to this element.

- For example, the **XOR sum** of `[1,2,3,4]` is equal to `1 XOR 2 XOR 3 XOR 4 = 4`, and the **XOR sum** of `[3]` is equal to `3`.

You are given two **0-indexed** arrays `arr1` and `arr2` that consist only of non-negative integers.

Consider the list containing the result of `arr1[i] AND arr2[j]` (bitwise AND) for every (i, j) pair where $0 \leq i < arr1.length$ and $0 \leq j < arr2.length$.

Return the **XOR sum** of the aforementioned list.

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

Example 1:

Input: `arr1 = [1,2,3], arr2 = [6,5]`
Output: `0`
Explanation: The list = `[1 AND 6, 1 AND 5, 2 AND 6, 2 AND 5, 3 AND 6, 3 AND 5] = [0,1,2,0,2,1]`.
The XOR sum = `0 XOR 1 XOR 2 XOR 0 XOR 2 XOR 1 = 0`.

Example 2:

Input: `arr1 = [12], arr2 = [4]`
Output: `4`
Explanation: The list = `[12 AND 4] = [4]`. The XOR sum = `4`.

Constraints:

- $1 \leq arr1.length, arr2.length \leq 10^5$
- $0 \leq arr1[i], arr2[j] \leq 10^9$

JavaScript

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```
1 /**
2  * @param {number[]} arr1
3  * @param {number[]} arr2
4  * @return {number}
5  */
6 var getXORSum = function(arr1, arr2) {
7
8 };
```

☐ Custom Testcase

Use Example Testcases