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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.

User Accepted:

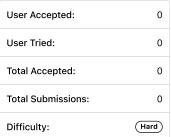
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• For example, the **XOR sum** of [1,2,3,4] is equal to 1 XOR 2 XOR 3 XOR 4 = 4, and the **XOR sum** of [3] is equal to 3.

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 $0 \le i \le arr1.length$ and $0 \le j \le arr2.length$.

Return the XOR sum of the aforementioned list.



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 <= arr1.length, arr2.length <= 10^5
- 0 <= arr1[i], arr2[j] <= 109

☐ Custom Testcase

Use Example Testcases