

# 2425. Bitwise XOR of All Pairings

## Description

You are given two **0-indexed** arrays, `nums1` and `nums2`, consisting of non-negative integers. There exists another array, `nums3`, which contains the bitwise XOR of **all pairings** of integers between `nums1` and `nums2` (every integer in `nums1` is paired with every integer in `nums2` **exactly once**).

Return *the bitwise XOR of all integers in* `nums3`.

### Example 1:

**Input:** `nums1 = [2,1,3]`, `nums2 = [10,2,5,0]`

**Output:** 13

**Explanation:**

A possible `nums3` array is `[8,0,7,2,11,3,4,1,9,1,6,3]`.

The bitwise XOR of all these numbers is 13, so we return 13.

### Example 2:

**Input:** `nums1 = [1,2]`, `nums2 = [3,4]`

**Output:** 0

**Explanation:**

All possible pairs of bitwise XORs are `nums1[0] ^ nums2[0]`, `nums1[0] ^ nums2[1]`, `nums1[1] ^ nums2[0]`, and `nums1[1] ^ nums2[1]`.

Thus, one possible `nums3` array is `[2,5,1,6]`.

$2 \oplus 5 \oplus 1 \oplus 6 = 0$ , so we return 0.

### Constraints:

- $1 \leq \text{nums1.length}, \text{nums2.length} \leq 10^5$
- $0 \leq \text{nums1}[i], \text{nums2}[j] \leq 10^9$

