

1803. Count Pairs With XOR in a Range

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Given a **(0-indexed)** integer array `nums` and two integers `low` and `high`, return the number of **nice pairs**.

A **nice pair** is a pair  $(i, j)$  where  $0 \leq i < j < \text{nums.length}$  and  $\text{low} \leq (\text{nums}[i] \text{ XOR } \text{nums}[j]) \leq \text{high}$ .

Example 1:

**Input:** `nums = [1,4,2,7]`, `low = 2`, `high = 6`  
**Output:** 6  
**Explanation:** All nice pairs  $(i, j)$  are as follows:

- $(0, 1)$ : `nums[0] XOR nums[1] = 5`
- $(0, 2)$ : `nums[0] XOR nums[2] = 3`
- $(0, 3)$ : `nums[0] XOR nums[3] = 6`
- $(1, 2)$ : `nums[1] XOR nums[2] = 6`
- $(1, 3)$ : `nums[1] XOR nums[3] = 3`
- $(2, 3)$ : `nums[2] XOR nums[3] = 5`

User Accepted:	204
User Tried:	1046
Total Accepted:	228
Total Submissions:	1752
Difficulty:	Hard

Example 2:

**Input:** `nums = [9,8,4,2,1]`, `low = 5`, `high = 14`  
**Output:** 8  
**Explanation:** All nice pairs  $(i, j)$  are as follows:

- $(0, 2)$ : `nums[0] XOR nums[2] = 13`
- $(0, 3)$ : `nums[0] XOR nums[3] = 11`
- $(0, 4)$ : `nums[0] XOR nums[4] = 8`
- $(1, 2)$ : `nums[1] XOR nums[2] = 12`
- $(1, 3)$ : `nums[1] XOR nums[3] = 10`
- $(1, 4)$ : `nums[1] XOR nums[4] = 9`
- $(2, 3)$ : `nums[2] XOR nums[3] = 6`
- $(2, 4)$ : `nums[2] XOR nums[4] = 5`

Constraints:

- $1 \leq \text{nums.length} \leq 2 * 10^4$
- $1 \leq \text{nums}[i] \leq 2 * 10^4$
- $1 \leq \text{low} \leq \text{high} \leq 2 * 10^4$

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JavaScript

1

2

3

4

5

6

7

8

9

```
/**
 * @param {number[]} nums
 * @param {number} low
 * @param {number} high
 * @return {number}
 */
var countPairs = function(nums, low, high) {
};
```