2429. Minimize XOR

Solved ●

Medium Topics Companies Hint

Given two positive integers `num1` and `num2`, find the positive integer `x` such that:

- `x` has the same number of set bits as `num2`, and
- The value `x XOR num1` is **minimal**.

Note that `XOR` is the bitwise XOR operation.

Return *the integer* `x`. The test cases are generated such that `x` is **uniquely determined**.

The number of **set bits** of an integer is the number of `1`'s in its binary representation.

Example 1:

> **Input:** num1 = 3, num2 = 5
> **Output:** 3
> **Explanation:**
> The binary representations of num1 and num2 are 0011 and 0101, respectively.
> The integer **3** has the same number of set bits as num2, and the value `3 XOR 3 = 0` is minimal.

Example 2:

> **Input:** num1 = 1, num2 = 12
> **Output:** 3
> **Explanation:**
> The binary representations of num1 and num2 are 0001 and 1100, respectively.
> The integer **3** has the same number of set bits as num2, and the value `3 XOR 1 = 2` is minimal.

Constraints:

- `1 <= num1, num2 <= 10^9`

Seen this question in a real interview before? 1/5

Yes No

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Hint 1

Hint 2

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