

3064. Guess the Number Using Bitwise Questions I Premium

Medium Topics Hint

There is a number `n` that you have to find.

There is also a pre-defined API `int commonSetBits(int num)`, which returns the number of bits where both `n` and `num` are `1` in that position of their binary representation. In other words, it returns the number of **set bits** in `n & num`, where `&` is the bitwise **AND** operator.

Return *the number* `n`.

Example 1:

Input: `n = 31`

Output: `31`

Explanation: It can be proven that it's possible to find `31` using the provided API.

Example 2:

Input: `n = 33`

Output: `33`

Explanation: It can be proven that it's possible to find `33` using the provided API.

Constraints:

- `1 <= n <= 230 - 1`
- `0 <= num <= 230 - 1`
- If you ask for some `num` out of the given range, the output wouldn't be reliable.

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

Yes No

Accepted 1.4K | Submissions 1.5K | Acceptance Rate 90.9%

Topics

Bit ManipulationInteractive

Hint 1

Ask `2i` for `0 <= i < 30`.

Hint 2

If the result is greater than zero for some `i`, this bit is a set bit in `n`.

Discussion (4)