

# 476. Number Complement

## Description

The **complement** of an integer is the integer you get when you flip all the `0`'s to `1`'s and all the `1`'s to `0`'s in its binary representation.

- For example, The integer `5` is `"101"` in binary and its **complement** is `"010"` which is the integer `2`.

Given an integer `num`, return *its complement*.

### Example 1:

**Input:** `num = 5`

**Output:** `2`

**Explanation:** The binary representation of 5 is 101 (no leading zero bits), and its complement is 010. So you need to output 2.

### Example 2:

**Input:** `num = 1`

**Output:** `0`

**Explanation:** The binary representation of 1 is 1 (no leading zero bits), and its complement is 0. So you need to output 0.

### Constraints:

- $1 \leq \text{num} < 2^{31}$

**Note:** This question is the same as 1009: <https://leetcode.com/problems/complement-of-base-10-integer/>

