Problem 1009: Complement of Base 10 Integer

Problem Information

Difficulty: Easy
Acceptance Rate: 60.67%
Paid Only: No
Tags: Bit Manipulation

Problem 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 `n`, return _its complement_.

Example 1:

Input: n = 5 **Output:** 2 **Explanation:** 5 is "101" in binary, with complement "010" in binary, which is 2 in base-10.

Example 2:

Input: n = 7 **Output:** 0 **Explanation:** 7 is "111" in binary, with complement "000" in binary, which is 0 in base-10.

Example 3:

Input: n = 10 **Output:** 5 **Explanation:** 10 is "1010" in binary, with complement "0101" in binary, which is 5 in base-10.

Constraints:

* `0 <= n < 109`

Note: This question is the same as 476:
<https://leetcode.com/problems/number-complement/>

Code Snippets

C++:

```
class Solution {
public:
int bitwiseComplement(int n) {

}
};
```

Java:

```
class Solution {
public int bitwiseComplement(int n) {

}
}
```

Python3:

```
class Solution:
def bitwiseComplement(self, n: int) -> int:
```