

Problem 342: Power of Four

Problem Information

Difficulty: Easy

Acceptance Rate: 51.38%

Paid Only: No

Tags: Math, Bit Manipulation, Recursion

Problem Description

Given an integer `n`, return `true` if it is a power of four. Otherwise, return `false`.

An integer `n` is a power of four, if there exists an integer `x` such that `n == 4x`.

Example 1:

Input: `n = 16` **Output:** `true`

Example 2:

Input: `n = 5` **Output:** `false`

Example 3:

Input: `n = 1` **Output:** `true`

Constraints:

`-231 ≤ n ≤ 231 - 1`

Follow up: Could you solve it without loops/recursion?

Code Snippets

C++:

```
class Solution {  
public:  
    bool isPowerOfFour(int n) {  
  
    }  
};
```

Java:

```
class Solution {  
    public boolean isPowerOfFour(int n) {  
  
    }  
}
```

Python3:

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