342 Power of Four (link)

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 == 4^x`.

Example 1:

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

Example 2:

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

Example 3:

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

Constraints:

- `-2^31 <= n <= 2^31 - 1`

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

(scroll down for solution)

Solution

Language: cpp

Status: Accepted

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

        if (n <= 0 || (n & (n - 1)) != 0) {
            return false;
        }


        return (n & 0x55555555) != 0;
    }
};
```