292. Nim Game

Hint

You are playing the following Nim Game with your friend:

- Initially, there is a heap of stones on the table.
- You and your friend will alternate taking turns, and you go first.
- On each turn, the person whose turn it is will remove 1 to 3 stones from the heap.
- The one who removes the last stone is the winner.
- Given n, the number of stones in the heap, return true if you can win the game assuming both you and your friend play optimally, otherwise return false.

Example 1:

- **Input:** n = 4
- **Output:** false
- **Explanation:** *These are the possible outcomes:*
    1. You remove 1 stone. Your friend removes 3 stones, including the last stone. Your friend wins.
    2. You remove 2 stones. Your friend removes 2 stones, including the last stone. Your friend wins.
    3. You remove 3 stones. Your friend removes the last stone. Your friend wins.

In all outcomes, your friend wins.

Example 2:

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

Example 3:

- **Input:** n = 2
- **Output:** true

Constraints:

- $1 <= n <= 2^{31} - 1$