

292. Nim Game

Difficulty **Easy**

👍 257

💬 888

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You are playing the following Nim Game with your friend: There is a heap of stones on the table, each time one of you take turns to remove 1 to 3 stones. The one who removes the last stone will be the winner. You will take the first turn to remove the stones.

Both of you are very clever and have optimal strategies for the game. Write a function to determine whether you can win the game given the number of stones in the heap.

Example:

Input: 4

Output: false

```
public class L292 {  
    /*  
    * 如果想赢，那么最后一步一定是对面的石子小于等于3，这样稳赢。要达到这种效果，  
    * 那么必须要求对方一定位于倒数第四个。注意是一定，早一个或者晚一个都不行，要  
    * 保证一定位于倒数第四个，那么相当于我处在对方的位置，稳输。如果不是，位于第1  
    * ，2，3个的位置上，那么我会稳赢  
    */  
    public boolean canWinNim(int n) {  
        int val = n % 4;  
        if(val >= 1 && val <= 3)  
            return true;  
        return false;  
    }  
}
```