5447. Stone Game IV

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Alice and Bob take turns playing a game, with Alice starting first.

Initially, there are `n` stones in a pile. On each player's turn, that player makes a *move* consisting of removing **any** non-zero **square number** of stones in the pile.

Also, if a player cannot make a move, he/she loses the game.

Given a positive integer `n`. Return `True` if and only if Alice wins the game otherwise return `False`, assuming both players play optimally.

User Accepted:	987
User Tried:	1485
Total Accepted:	1047
Total Submissions:	2684
Difficulty:	Hard

Example 1:

```
Input: n = 1
Output: true
Explanation: Alice can remove 1 stone winning the game because Bob doesn't have any moves.
```

Example 2:

```
Input: n = 2
Output: false

Explanation: Alice can only remove 1 stone, after that Bob removes the last one winning th
```

Example 3:

```
Input: n = 4
Output: true
Explanation: n is already a perfect square, Alice can win with one move, removing 4 stones
```

Example 4:

```
Input: n = 7
Output: false
Explanation: Alice can't win the game if Bob plays optimally.
If Alice starts removing 4 stones, Bob will remove 1 stone then Alice should remove only 1
If Alice starts removing 1 stone, Bob will remove 4 stones then Alice only can remove 1 st
```

Example 5:

```
Input: n = 17
Output: false
Explanation: Alice can't win the game if Bob plays optimally.
```

Constraints:

- `1 <= n <= 10^5`

JavaScript

```
/**
 * @param {number} n
 * @return {boolean}
 */
var winnerSquareGame = function(n) {

};
```

Custom Testcase Use Example Testcases

Run Submit