

# 794. Valid Tic-Tac-Toe State

## Description

Given a Tic-Tac-Toe board as a string array `board` , return `true` if and only if it is possible to reach this board position during the course of a valid tic-tac-toe game.

The board is a `3 x 3` array that consists of characters `' '` , `'X'` , and `'O'` . The `' '` character represents an empty square.

Here are the rules of Tic-Tac-Toe:

- Players take turns placing characters into empty squares `' '` .
- The first player always places `'X'` characters, while the second player always places `'O'` characters.
- `'X'` and `'O'` characters are always placed into empty squares, never filled ones.
- The game ends when there are three of the same (non-empty) character filling any row, column, or diagonal.
- The game also ends if all squares are non-empty.
- No more moves can be played if the game is over.

### Example 1:

O		

**Input:** board = ["O "," "," "]  
**Output:** false  
**Explanation:** The first player always plays "X".

### Example 2:

X	O	X
	X	

**Input:** board = ["XOX"," X "," "]  
**Output:** false  
**Explanation:** Players take turns making moves.

### Example 3:

X	O	X
O		O
X	O	X

**Input:** board = ["XOX","O O","XOX"]  
**Output:** true

### Constraints:

- `board.length == 3`
- `board[i].length == 3`
- `board[i][j]` is either `'X'` , `'O'` , or `' '` .

