

## 36. Valid Sudoku

Determine if a 9 x 9 Sudoku board is valid. Only the filled cells need to be validated **according to the following rules**:

1. Each row must contain the digits 1–9 without repetition.
2. Each column must contain the digits 1–9 without repetition.
3. Each of the nine 3 x 3 sub-boxes of the grid must contain the digits 1–9 without repetition.

**Note:**

- A Sudoku board (partially filled) could be valid but is not necessarily solvable.
- Only the filled cells need to be validated according to the mentioned rules.

**Example 1:**

5	3			7				
6			1	9	5			
	9	8					6	
8				6				3
4			8		3			1
7				2				6
	6					2	8	
			4	1	9			5
				8			7	9

```
Input: board =
[["5","3",".",".","7",".",".",".","."],
["6",".",".","1","9","5",".",".","."],
[[".","9","8",".",".",".",".","6","."],
["8",".",".",".","6",".",".",".","3"],
["4",".",".","8",".","3",".",".","1"],
["7",".",".",".","2",".",".",".","6"],
[[".","6",".",".",".",".","2","8","."],
[[".",".",".","4","1","9",".",".","5"],
[[".",".",".",".","8",".",".","7","9"]]

Output: true
```

**Example 2:**

```
Input: board =
[["8","3",".",".","7",".",".",".","."],
["6",".",".","1","9","5",".",".","."],
[[".","9","8",".",".",".",".","6","."],
["8",".",".",".","6",".",".",".","3"],
["4",".",".","8",".","3",".",".","1"],
["7",".",".",".","2",".",".",".","6"],
[[".","6",".",".",".",".","2","8","."],
[[".",".",".","4","1","9",".",".","5"],
[[".",".",".",".","8",".",".","7","9"]]

Output: false
Explanation: Same as Example 1, except with the 5 in the top left corner being modified to 8. Since there are two 8's in the top left 3x3 sub-box, it is invalid.
```

**Constraints:**

- board.length == 9
- board[i].length == 9
- board[i][j] is a digit 1–9 or '.'.