

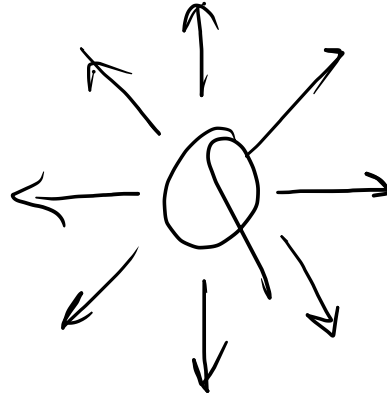
N - Queens Problem

N = 4

N

	Q		
			Q
Q			
		Q	

N



row 2 0

row 2 1

row 2 2

row 2 3

row 2 4

N

	0	1	2	3
0		Q		
1	X	X	X	Q
2	Q			
3	.	.	Q	

		Q	
Q			
			Q
	Q		

[.q.] [..q] [q...] [..q.]

row = 0

is safe(r, c)



row = n

pseudo code

```
queen()  
{  
    if (row == n)  
    {  
        ans.add(board)
```

```
    }  
    for (col = 0; col < n; col++)  
    {  
        if (isSafe(row, col))  
        {  
            board[row][col] = 'Q';  
            queen(row+1);  
            board[row][col] = '.';
```

```
        }  
    }  
}
```

is Safe ()

{

// check vertical

// check left diagonal

// check right diagonal

}