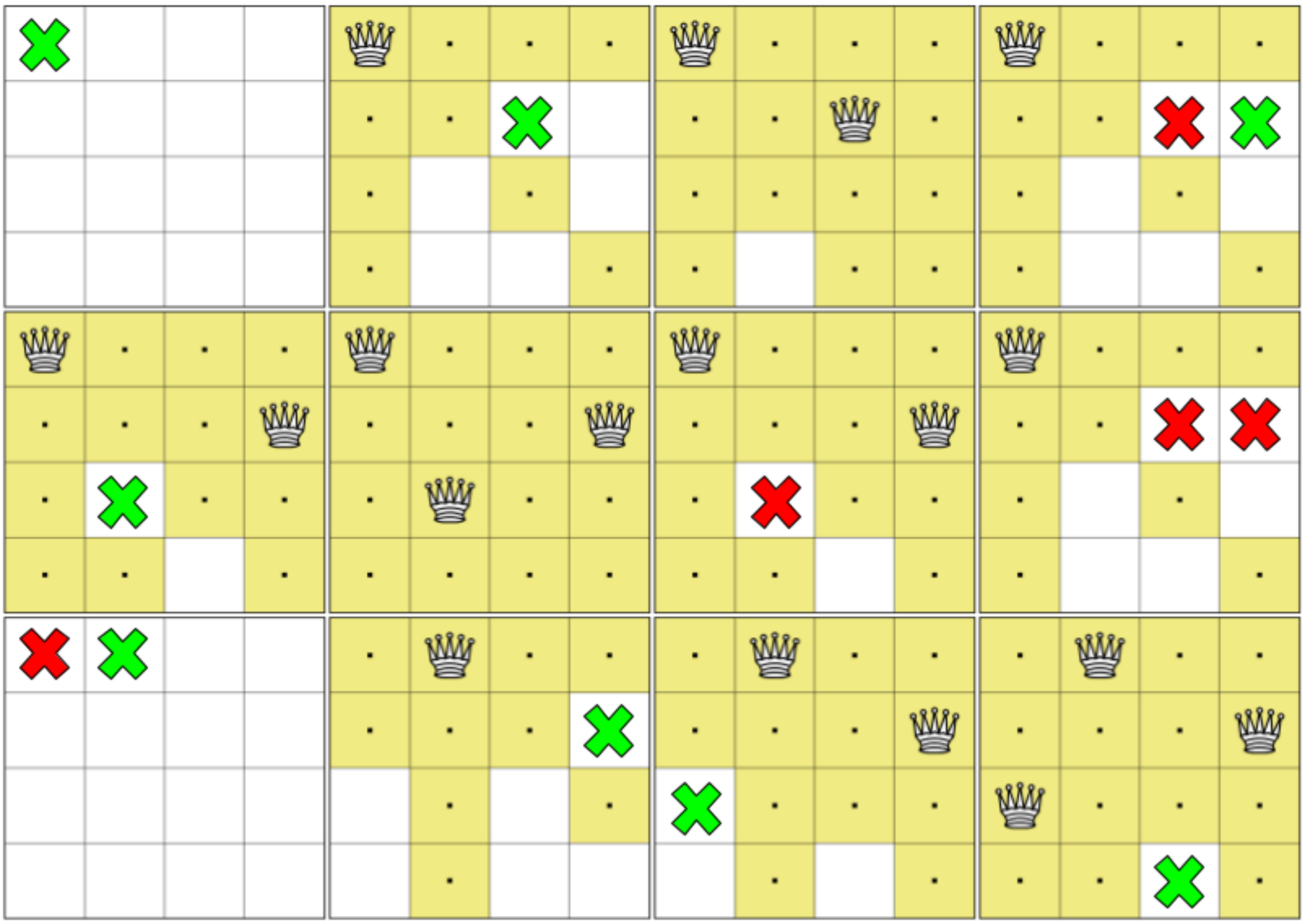
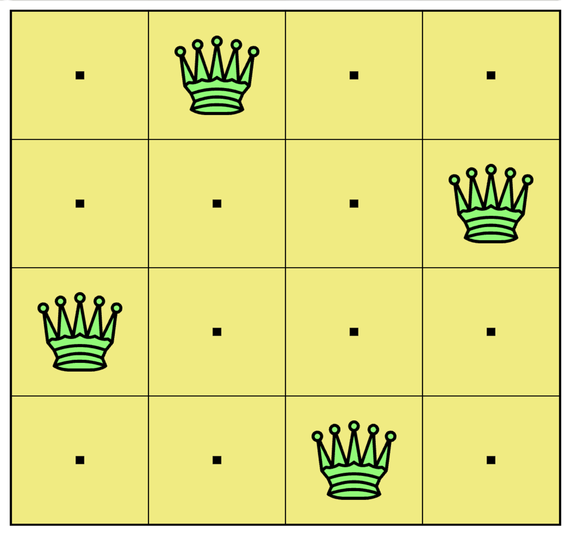
SOLVING N-QUEENS WITH BACKTRACKING



1. Go row by row, starting with the leftmost column.
2. Place the queen or move over 1 column if it was backtracked to.
3. If the queen is in conflict in its column and is not off the board, move it to the next column until it isn't.
4. If the queen is placed off the board, go to step 2.
5. Either all queens will be placed or the 1st row queen will be forced to be placed off of the board. **To find all solutions, continue backtracking and storing new solutions until the first queen is placed off the board.** (*all possibilities are exhausted*)



A **Green X** represents the next valid queen placement. A **Red X** represents a spot the queen was previously placed. **Yellow Squares** are currently threatened spots.

Caden W. Roberts

[1]"8 Queens Puzzle," *Brainbashers.com*, 2024. https://www.brainbashers.com/queens.asp