Name:	Date:	Period:

## Lab17: Sudoku, FC+MRV and Backtracking

- Attach a code printout.
- Describe how you generate the neighbor list.

- Forced assignments. The puzzle requires that certain slots be assigned particular numbers (otherwise, it wouldn't be a puzzle). Make sure that when you process these assignments you not only associate the prescribed number with the slot but that you also remove that number from the possibility lists of all the slot's neighbors.
- The re-use of your backtracking code from the Map of the United States problem (not just the idea but the same actual code) can be generalized further if we provide a more flexible representation for the constraints. An example of this kind of code re-use can be found in the declarative language Prolog used for logic programming.
- Fill in the blank: If we call Prolog a "declarative" language then in contrast we would call Java, Python, and C \_\_\_\_\_\_ languages.
- If we call the first line of the file Puzzle 0 and the last line of the file Puzzle 94 then what three (3) puzzles from the Top 95 took your sudoku solver the longest time to solve?

## Official Use Only

Correct Date Header: Name Program Description Style: Comments Variable Names Modular Data Structures: Obvious General Lean Algorithm: Clear Correct Efficient Scoring: Late Total Raw