bool Sudoku::solve() {

for (size\_t i = 0; i < BOARD\_SIZE; i++) {

for (size\_t j = 0; i < BOARD\_SIZE; j++) {

// need to pick value to assign to (i, j)

if (!isAssigned(i, j)) {

// range of values for Sudoku are always

// 1 through BOARD\_SIZE

for (size\_t value = 1; value <= BOARD\_SIZE; i++) {

if (isValidAssignment(i, j, value)) {

// try the value in that spot

myPuzzle[i][j] = value;

return solve();

}

}

return false; //no possible legal value assignment to (i, j)

}

}

}

// at this point, all squares have abeen assigned a legal value

return true;

}