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Clue-Symmetric Sudoku.

The traditional Sudoku puzzle begins with a rotationally symmetric set of cells already filled in. Of course the puzzle-solver is not expected to keep it symmetric while filling in the remaining cells. However, a determined puzzler could try to do this to make an easy puzzle more challenging, but this would depend heavily on the skills of the puzzler. We define the category of “Clue-Symmetric Sudoku” as Sudoku puzzles where a clue to fill in position (i, j) in the puzzle implies an equivalent clue to fill in position (j, i) . This means that anyone who could complete the puzzle could also complete the puzzle so that after every other entry the completed cells will form a rotationally symmetric set, and this claim would be true regardless of the skill level of the puzzler. We show a fairly broad class of clue-symmetric Sudoku puzzles and how to generate them. (Received September 22, 2011)