1023-M1-1559 Izabela Kanaana* (izabela.kanaana@sonoma.edu), Department of Mathematics, Sonoma State University, 1801 East Cotati Avenue, Rohnert Park, CA 94928, and Bala Ravikumar. Row-Filled Completion Problem for Sudoku Latin Squares.

Sudoku is a popular paper-pencil puzzle that involves completing a partially filled 9×9 Latin square with the additional restriction that 3×3 sub-blocks (known as boxes or regions) must also have distinct entries. Completed sudoku puzzles are a special type of Latin squares (that we term sudoku Latin squares). We consider a type of completion problem in which the first j rows have been filled for some j < 9. We determine the values of j for which the completion is possible. Specifically, for the row-completion problem, we show that completion is possible for any $j \neq 5$. We also present some results and open problems regarding the generalization of the problem to $n^2 \times n^2$ size instances. We also propose an analog of Evans' conjecture for Sudoku Latin Squares. (Received September 26, 2006)