

1023-M1-1460 **Cynthia J. Woodburn*** (cwoodbur@pittstate.edu), Mathematics Department, Pittsburg State University, 1701 S. Broadway, Pittsburg, KS 66762. *Proofs, Equivalence Classes and Groups Sudoku-Style.*

Sudoku is not just an addictive logic puzzle. It can also serve as an instructional tool in introduction to proof and abstract algebra courses. We will take a look at connections between techniques for solving Sudoku puzzles and proof techniques including proof by contradiction and conjugate pairs (either/or proofs). In addition, the work by Ed Russell and Frazer Jarvis on the Sudoku symmetry group provides opportunity for students to investigate equivalence classes, symmetry groups, and quotient groups. Sample puzzles will be provided to attendees. (Received September 26, 2006)