

1023-M1-1916      **John Lorch\*** (jlorch@bsu.edu), Department of Mathematical Sciences, Ball State University, Muncie, IN 47306, and **Crystal Lorch** (clorch@bsu.edu), Department of Mathematical Sciences, Ball State University, Muncie, IN 47306. *Two methods for counting small sudoku puzzles.*

We discuss two methods for counting small ‘essentially different’ sudoku puzzles: one using an invariant property, and another using Burnside’s formula. We indicate how Mathematica can be used in the counting process. Both methods are accessible to students in an introductory abstract algebra course. (Received October 03, 2006)