Many students who are preservice elementary school teachers have difficulty with basic number facts, mental arithmetic and logic. Studies about math anxiety suggest that intervention is needed to reduce the anxiety that some student exhibit and that games are an appropriate approach to alleviate these problems.

This presentation discusses how to design Sudoku puzzles that ask students to complete the 9 by 9 grid with numbers that all share a greatest common divisor, or are all multiples of a common number. Construction of several examples given one basic grid is explained. (Received September 21, 2011)