RICHARD NOWAKOWSKI, Dalhousie University

Guys and Mols

Adelaide and Nathan each have an $n \times n$ matrix. They can place a number between 1 and n in either matrix provided that each matrix has the latin property (no repeated entry in any row or column) and that the pair of matrices are mutually orthogonal (no repeated ordered pairs). The winner is the one with the most entries in their matrix. We show that the second player has a drawing strategy for all n. This is also true for mutually orthogonal sudoku squares. The proof follows from re-interpreting the latin squares as a graph game where the graphs have a matching with properties. Since drawing is not necessarily the best outcome —the second player wins in the 2×2 game—there are lots of open questions.