

1025-60-220

**Laurence D. Robinson\*** (L-Robinson.1@onu.edu), Ohio Northern University, Department of Mathematics, Ada, OH 45810, and **Clinton R. Louiso.** *Outcome Probabilities For Randomized Tic-Tac-Toe.*

The game of tic-tac-toe can end in any one of three outcomes: 1) Player X (who moves first) wins; 2) Player O (who moves second) wins; 3) The game is a draw (called a "cats game"). Assuming that both players make each of their moves at random, we determine the probabilities associated with each of the three outcomes. The talk will emphasize how calculations of these probabilities can be greatly simplified by adopting a particular perspective. (Received January 23, 2007)