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Jodie D Novak* (jdnovak@unco.edu), Jodie Novak, Department of Mathematical Sciences, Ross Hall, Greeley, CO 80639. *The Sprague-Grundy Theorem: Nim Games in Disguise.*

The Sprague-Grundy theorem, proved independently in 1936 and 1939, states that every 2 person, zero-sum game that is impartial and deterministic is a Nim game (with magic chips) in disguise. This theorem is of particular interest because the game of Nim has been completely analyzed and a strategy is known for winning the game. In this session, we will look at the history of Nim, the proof of the theorem and applications of the theorem. We will apply the theorem by looking at several games to see how they are Nim games in disguise. (Received September 14, 2000)