ABSTRACT

TITLE:	A Game of Chutes and Ladders as a Markov Chain
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PRESENTED AT:	4th Annual Natural & Behavioral Sciences Undergraduate Research Symposium, Fort Lewis College

ABSTRACT: A Markov chain is a system consisting of finitely many states and a set of probabilities that dictate the likelihood of moving from any given state to a different state in a fixed time period. The long-term behavior of movement between states in such a system can be modeled using matrices. In the game of Chutes and Ladders, the player moves between positions on the board based on the roll of dice. We use Markov Chains to analyze the game, and then develop other versions of the game that are interesting from that standpoint of probability.