

1145-VP-1345      **Emily N Hoard\*** (ehoard1@murraystate.edu). *A Graphical Game, Southwesterly Snakes.*

We consider a single player combinatorial game, “Southwesterly Snakes,” played on a pair of partitions, each with the same fixed maximum part size and fixed maximum number of parts. The objective of the game is to find the least number of “snake moves” to move from one partition to another, where a snake move is an addition or removal of a series of adjacent boxes in the partition with the middle box lying on the main diagonal of the partition. We evaluate a strategy for completing the game by building a lattice based on partitions that summarizes the possible moves from each partition. Using this, we are able to determine, for any two partitions, which moves are necessary to move from one partition to the other. (Received September 21, 2018)