Anthony J. Macula* (macula@geneseo.edu), Mathematics Department, SUNY Geneseo, Geneseo, NY 14454. On the maximum and minimum number of "sets" in subspaces of the affine space represented by the cards in the game of SET.

The card game SET is a representation of the four dimensional affine space over the finite field of order three. In this talk, variations of the following question will be explored: Given a positive integer $k$, what is the maximum (minimum) number of lines (i.e., "sets" in the game) that can be contained in a subset of $k$ cards taken from the deck? A simple formula connecting the maximum and minimum values will be derived and applied. (Received September 10, 2014)