

1106-VM-1116 **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)