

1014-52-1318

Deborah E. Berg* (debbie.berg@gmail.com), Harvey Mudd College, 340 E. Foothill Blvd., Claremont, CA 91711, and **Tyler Seacrest** (tseacrest@hmc.edu), Harvey Mudd College, 340 E. Foothill Blvd., Claremont, CA 91711. *The Prison Warden's Dilemma: A Characterization of 3-Convexity.*

In this talk, we discuss properties of *m-convex* sets, which are sets such that for any m points, some line segment between two of them is entirely contained in the set. We give a necessary and sufficient condition for a set to be 3-convex, namely, that for every point $p \in S$, S is the union of a star-shaped set centered at p and a convex set. (Received September 27, 2005)