Leah R Childers* (lchilders@benedictine.edu). Finding Treasure: Exploring Taxicab Geometry through a Game. Preliminary report.

In a modern geometry course (mainly designed for secondary education majors) I use the game “Taxicab Treasure Hunt” (http://www.learner.org/teacherslab/math/geometry/shape/taxicab/index.html) to introduce students to metrics and a non-Euclidean geometry. Students are asked what properties a distance should have and then are asked to explore the taxicab distance using the treasure hunt game. In this talk I will discuss common misconceptions students have as well as elaborate on student research projects generated by interest in this activity regarding isometries and conics. (Received September 09, 2014)