

Taxicab Geometry

ID: 8643

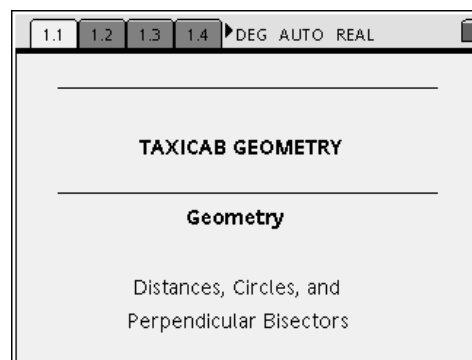
Name _____

Class _____

In this activity, you will explore:

- *taxicab distances*
- *taxicab circles*
- *taxicab perpendicular bisectors*

Open the file *GeoAct19_Taxicab_EN.tns* on your handheld and follow along with your teacher to work through the activity. Use this document as a reference and to record your answers.

**Problem 1 – Taxicab distances**

- Why is the taxicab distance between two points longer than the distance you would find in Euclidean geometry?
- Explain in words how to find the taxicab distance between two points, given their coordinates.
- What is the formula for the taxicab distance between two points?

Problem 2 – Taxicab circles

- How is a circle in taxicab geometry different from a circle in Euclidean geometry?

Problem 3 – Taxicab perpendicular bisectors

- Discuss similarities and differences between perpendicular bisectors in Euclidean geometry and taxicab geometry.
- What condition is required for two points to have a taxicab perpendicular bisector?