

ZMATH 2016d.00647

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Exploring new geometric worlds.

Math. Teach. (Reston) 109, No. 2, 112-119 (2015).

Summary: When students work with a non-Euclidean distance formula, geometric objects such as circles and segment bisectors can look very different from their Euclidean counterparts. Students and even teachers can experience the thrill of creative discovery when investigating these differences among geometric worlds. In this article, the author describes a high school honors geometry enrichment project that enhanced his students' understanding of distance. He explains how the students used Euclidean and taxicab geometry to explore distance and shape and learned about Larger-Distance Geometry (LDG) using The Geometer's Sketchpad (GSP). (ERIC)

Classification: G40 G90

Keywords: geometric concepts; Euclidean geometry; taxicab geometry; distance

<http://www.nctm.org/Publications/Mathematics-Teacher/2015/Vol109/Issue2/Exploring-New-Geometric-Worlds/>