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**Jeanne-Marie Linker\***, Mathematics Department, Texas State University, 601 University Dr., San Marcos, TX 78666, and **Sonalee Bhattacharyya**, **Nama Namakshi** and **Christina Starkey**. *Using the Coordinate Plane to Connect Algebra and Geometry and Develop Symbol Sense.*

There is great emphasis on the development of number sense in younger students as they begin working with arithmetic operations; it is certainly necessary to develop a parallel “symbol sense” in students of algebra. In addition, mathematics educators call for implementation of tasks that promote reasoning and problem solving by engaging students in solving and discussing tasks that promote mathematical reasoning and problem solving with varied strategies. This presentation will include a discussion of different classroom settings (elementary through college) in which this activity can be implemented and the results observed. Building on experience and prior knowledge, students explore the relationship between a variable, its square, and its reciprocal using similar triangles. The activity’s geometric element gives students the opportunity to develop the intuition and symbol sense that will allow them to more effectively utilize these concepts in higher-level mathematics. (Received August 01, 2014)