

1067-T1-1395 **Martin E. Flashman*** (flashman@humboldt.edu), Department of Mathematics, Humboldt State University, Humboldt State University, Arcata, CA 95521. *Square Roots: Adding Philosophical Contexts and Issues to Enhance Understanding*. Preliminary report.

The nature of numbers can be confusing to students in a variety of learning contexts. One frequently encountered area of confusion surrounds numbers described as square roots, such as the square root of 2 and the square root of -1. The author will examine how illuminating some philosophical approaches to the nature of numbers (ontology) and knowledge about numbers and their properties (epistemology) can help students avoid some possible confusion. Time permitting the author may suggest possible empirical studies for (college level) students to provide evidence for the utility of introducing more philosophical approaches to pedagogy. (Received September 20, 2010)