1014-A1-1158 Carl E. Behrens* (cbehrens@crs.loc.gov), 5107 Cedar Rd., Alexandria, VA 22309. What Are Mathematical Objects? An Empiricist Hypothesis.

Many current philosophical problems may be simplified by approaching mathematics, and other mental activity, as purely physical phenomena that occur in the brains of human beings. The purpose of the presentation is not to determine whether the hypothesis is or can be true, but to explore the consequences for the philosophy of mathematics if it were true. Questions to be examined include: What are numbers and other mathematical objects? What is the relationship between mathematical laws and physical phenomena? What is the nature of mathematical knowledge? This topic was recently the subject of an extended discussion on the POMSIGMAA ListServe. (Received September 27, 2005)