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Mary L Garner* (mgarner@kennesaw.edu), Kennesaw State University, 1000 Chastain Road #1204, Science and Mathematics Bldg #12, Kennesaw, GA 30144. *The History and Nature of Mathematics in the Works of Jorge Luis Borges*. Preliminary report.

With the development of non-Euclidean geometry and set theory, the nineteenth century brought a series of revolutions in mathematics, both in how mathematicians viewed the nature of mathematics and how the foundations of mathematics were understood. How did those revolutions influence literature? Or could mathematics influence literary thinking? Jorge Luis Borges is an Argentinian writer who is generally considered one of the greatest literary figures in the twentieth century and one who has had a most profound influence on Latin American literature. In his short stories can be found numerous metaphors for the revolutionary mathematical ideas of the nineteenth century. In this paper, I will explore Borges' works from the perspective of nineteenth century developments in mathematics and what Borges has to say about the nature of mathematics. In addition, I will present reactions from students, with a variety of backgrounds, who have participated in discussions of the interplay of Borges' stories and mathematics. (Received September 28, 2005)