

1016-97-175

**Elan Y. Ding\*** (jiudin@gmail.com), 14 Summer Place, Hattiesburg, MS 39402, and **Jiu Ding** (Jiu.Ding@usm.edu), Department of Mathematics, Mathematics118 College Dr. #5045, The University of Southern Mississippi, Hattiesburg, MS 39406-0001. *Equations of Symmetric Images of Plane Curves with Respect to a Straight Line.*

We study the following geometric problem: Find the equation of the curve which is symmetric to a given curve with respect to a straight line in the same plane. We give three approaches to this problem based on high school algebra, linear algebra, and calculus, respectively. The authors, especially the first one, a ninth grade high school student who has studied differential calculus, believe that this topic could be a good supplement to the high school algebra and college algebra. (Received February 11, 2006)