

1035-97-352

**Jerrold W. Grossman\*** ([grossman@oakland.edu](mailto:grossman@oakland.edu)), Department of Mathematics and Statistics, Oakland University, Rochester, MI 48309-4485. *Exposing Pre-service Elementary and Middle School Teachers to Mathematics in Depth.*

Unfortunately, most college students entering the dreaded “math content” course for prospective elementary school teachers think of mathematics as a sequence of basic facts and algorithms. They view the purpose of the educational process, especially at the K–8 level, to be the training of children to memorize the facts and become proficient at the algorithms. Thus part of the goal of such a course—in addition to handing down important knowledge and conveying insight about elementary arithmetic, geometry, statistics, etc., and their applications—is to disabuse them of this destructive notion. One way I have approached this challenge, in teaching a traditional “Math for Elementary Education Majors” course at a regional state university in Michigan over the past couple of decades, is to include extended projects for the students to work on in small groups outside of class. In this talk I will share some examples and provide a handout that includes Web addresses for pdf files of about 20 of these assignments. (Received September 04, 2007)