

1037-97-222

William McCallum* (wmc@math.arizona.edu), Department of Mathematics, University of Arizona, Tucson, AZ 85721. *Elementary algebra from an advanced perspective.*

We use the term elementary algebra to mean the representation of numbers by letters, the representation of calculations with numbers by algebraic expressions, and the representation of questions and statements about numbers by algebraic equations. These ideas have the combination of simplicity and reach that are the hallmark of profound mathematics, and yet algebra is often regarded by students and teachers as if it does not have ideas at all, only procedures. We will illustrate these ideas using examples from a capstone course for prospective high school teachers, and an in-service course in algebra for middle school teachers. (Received February 03, 2008)