Susanna S Epp* (sepp@depaul.edu), Department of Mathematical Sciences, DePaul University, 2320 N. Kenmore Ave, Chicago, IL 60614. The Role of Logic in the K-12 Mathematics Curriculum.

How can we teach children important mathematical facts in ways that are both age-appropriate and intellectually honest? Some informal explanations are both helpful and suggestive of the mathematics that underlies the facts. Other explanations help students get right answers on tests but do not provide a sound basis for future understanding. This talk will examine examples of both kinds of explanations in the context of courses for prospective and in-service mathematics teachers. (Received September 22, 2010)