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Jim Fulmer* (jrfulmer@ualr.edu), Mathematics Department, University of Arkansas at Little Rock, 2801 South University Ave., Little Rock, AR 72204. *Using History to Teach Mathematics with Some Examples.*

The history of mathematics can substantially humanize the teaching of mathematics. This talk will discuss three ways of using history in teaching mathematics. The focus will be on ways to use history to enhance the teaching of mathematics courses other than history of mathematics courses. Key items to be examined across all grade levels are communicating, connecting, and valuing mathematics. History allows us to study all three. Patterns on Pascals Triangle will be used as an example to make connections to several mathematical topics including Fibonacci numbers, binomial expansions involving positive integer and negative integer powers, Catalan numbers, triangular numbers, square numbers, and powers of eleven and two. Another example will involve the diagram of the complex number system with its various number set subsets. This talk will offer reasons to make the history of mathematics a part of classroom instruction by presenting a richer historical curriculum. (Received September 28, 2005)