1067-D1-1811 **J Bradford Burkman*** (bburkman@lsmsa.edu), 715 University Pkwy, Natchitoches, LA 71457.
Using Arithmetic of Integers as a Bridge to Arithmetic of Polynomials.

When students learned to multiply 67×89, they actually multiplied $7 \cdot 9$, $60 \cdot 9$, $7 \cdot 80$, and $60 \cdot 80$ and added the results, a method that extends to 567×89. When they learned to multiply $(6x+7)(8x+9)$, they learned a cheap gimmick, FOIL, which does not extend to $(5x^2+6x+7)(8x+9)$. They did not understand that the methods for arithmetic of polynomials are perfectly analogous to those for integers. Students think that FOIL, the Distance Formula, the Midpoint Formula, and equations of lines are some kind of mysterious magic.

Would our developmental classes be more successful if we started back with arithmetic of integers and fractions, and taught students to understand those familar processes in a way that will transfer to arithmetic of polynomials and rational functions? Perhaps, but for many students, long multiplication is not a "familiar process," and to assign elementary-school math might feel condescending.

Over the years I have incorporated into my classes more topics that look advanced but whose goal is to practice basic arithmetic skills. The session will highlight several examples of how to get students to practice arithmetic of integers and basic geometry, and help them apply that knowledge to algebra topics. (Received September 21, 2010)