Subject: Mathematics - Algebra I   Grade: Tenth

Standard: #7 Polynomials

Key Concept: Students add, subtract, multiply, and divide polynomials.

Generalization: Students divide polynomials by monomials.

Background:
Students are already familiar with adding, subtracting, and multiplying polynomials. All students have worked with some form of algebraic manipulatives, such as alge-tiles or algeblocks, to illustrate the addition, subtraction, and multiplication of polynomials. This lesson would be used to introduce division of polynomials by monomials.

The teacher reviews dividing a monomial by a monomial. Several problems should be illustrated with and without using the manipulatives. Next the teacher should review the long division algorithm using large numbers. The teacher then demonstrates several problems of dividing a polynomial by a monomial using the manipulatives.

This lesson is tiered in *process* according to *learning style*.

Tier I: *Logical-Mathematical Learners*
Students in this tier are given several illustrated examples to follow either from their text or teacher prepared examples. Pairs of students complete a series of increasingly difficult problems from their text, e.g. <u>Algebra 1 An Integrated Approach</u>, ISBN #0-669-43359-4, page 603.

Tier II: *Kinesthetic Learners*
Students in this tier use the manipulatives to solve the same series of problems from their text.

Assessment:
Grade the assignment for accuracy of the answers.