Math 9 Polynomials Unit Part 2:

BIG IDEA: *The principals and processes underlying operations with numbers apply equally to algebraic situations and can be described and analyzed.*

CURRICULAR COMPETENCIES:

Reasoning and Analyzing: Demonstrate and apply mental math strategies. (ie: Learning Goals 2/3)

Understanding and Solving: Apply multiple strategies to solve problems and visualize to explore mathematical concepts. (ie: Learning Goals 1-3)
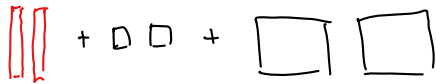
Communicating and Representing: Representing mathematical ideas in symbolic forms. (ie: Learning Goal 1)

Complete Self Assessment of Learning Goals:

1. I can use algebra tiles to represent a polynomial.

Example Question: Represent this polynomial with appropriate algebra tiles: $2(-r + 1 + r^2)$

$= -2r + 2 + 2r^2$

2. I can multiply a polynomial by a constant/monomial.

Example Question: 3 (-x + 5)   Example Question: 2x (2x -1)

stretegy ① $(3 \cdot -x) + (3 \cdot 5)$ stretegy ②

$= -3x + 15$

$4x^2 - 2x$

3. I can divide a polynomial by a constant/monomial.

Example Question: $\frac{2x+6}{2}$ Example Question: $\frac{3x^2+6x}{3x}$

$= \frac{2x}{2} + \frac{6}{2}$ $\frac{3x^2}{3x} + \frac{6x}{3x}$

$= x + 3$ $= x^{2-1} + 2x^{1-1}$

$= x^1 + 2$