Name: _____ Date: _____

Learning Goal 5.3	I can multiply and divide polynomials.

Recall the area model for multiplying and dividing polynomials by a monomial.

$-3x(2-3x)$ $\frac{6x^2-9x}{-3x}$

The same rules apply if that constant is replaced with a binomial (_____).

Example Expand and simplify, if possible.

a. $(x-4)(x+1)$

b. $(2-x)(x-3)$

c. $(x+2)(4x-3)$

Example Simplify where possible.

a. $\dfrac{x^2 + 7x + 6}{x + 1}$

b. $\dfrac{x^2 + 5x + 6}{x + 2}$

c. $\dfrac{x^2 + 7x + 10}{x + 3}$

A harder (or extending) problem would be

Find the greatest common factor of the following expression, then factor the expression.

$$x^2 + 14x + 49$$