## Math 9

Name: \_\_\_\_\_

## **5.6 - Dividing Polynomials**

*Date:* \_\_\_\_\_

**Review: Simplifying Fractions** 

Simplify: 
$$\frac{6}{12}$$
 =

$$\frac{6}{12} =$$

$$\frac{18}{12}$$
 =

$$\frac{42}{14}$$
 =

**Review: Quotient Law for Exponents** 

$$\frac{x^7}{x^2}$$

$$\frac{d^{12}}{d^5} =$$

$$\frac{m^3}{m^{17}} =$$

Dividing Monomials...also called: "Simplifying" and "Finding the Quotient"

Divide/Simplify the following:

$$\frac{9x}{3}$$
 =

$$\frac{9x^3}{-3} =$$

$$\frac{24x^3m^5}{6} =$$

$$\frac{45x^5y^5}{-15} =$$

$$\frac{9x^5}{-3x^2} =$$

$$\frac{28m^{13}n^7}{4m^2n^6} =$$

Find the quotient:

$$\frac{-36a^6b^9c^2}{18a^2b^9c}$$

**Dividing Polynomials** 

Evaluate: 
$$\frac{12-4}{2}$$
 Method 1:  $\frac{12-4}{2}$  =

Method 1: 
$$\frac{12-4}{2}$$
 =

Method 2: 
$$\frac{12-4}{2}$$
 =

Divide/Simplify the following:

$$\frac{4x^2-8}{4} =$$

$$\frac{-3m^2 + 15}{-3} =$$

$$\frac{7x^2 - 42x}{7} =$$

$$\frac{-5n^2 + 10n - 25}{-5} =$$

$$\frac{-3m^2-15m}{3m} =$$

$$\frac{9x^4 - 3x^3 + 3x^2}{-3x^2} =$$

The area of the rectangle given below is  $-7x^5 + 14x^2$  and the length is 7x . Determine the width of the rectangle.

$$7x$$

$$Area = -7x^5 + 14x^2$$
?