Mathematics9 Date _____

Unit 6 Multiplying & Dividing Polynomials
6.1 Multiplying & Dividing Monomials

- **Use exponent laws from unit 3**

1. <u>Multiplication</u>

Ex. Simplify

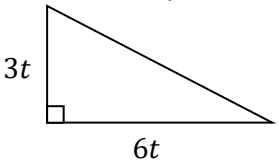
$3^4 \times 3^2$ $x^4 \cdot x^2$ $b \cdot b^3$

Ex. Simplify

$2x \cdot 3x$ $-4q^2 \cdot 2q$ $2(3x)(5x^3)$

$-a(-2b)$ $(2xy^2)(-4x^2y^3)$

Ex. Find an expression for the area of the triangle shown:



2. <u>Division</u>

Ex. Simplify

$\frac{5^6}{5^2}$ $\frac{x^6}{x^2}$ $\frac{b^3}{b}$ $\frac{q^2}{q^5}$

Ex. Simplify

$\frac{12x}{4x}$ $\frac{-8x^3}{2x}$ $\frac{10xy}{5x}$ $\frac{6q^5}{8q^2}$

Ex. Simplify

$\frac{-10b}{-25b^3}$ $\frac{-4x^2}{12x^6}$ $\frac{18x^2y^3}{3xy^6}$

Ex. The area of a rectangle is $15x^2y$. If the width is $3x$, determine an expression for the length.

Practice: Worksheet (#63/76) – write answers on sheet