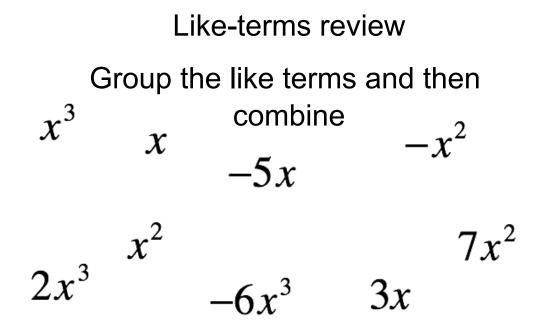
4-1 Exponent Rules Review



EXPONENT RULES

Graphic Organizer

Name	Rule	Examples
ADDING & SUBTRACTING MONOMIALS	(DO NOT CHANGE common variables and exponents!)	 9x²y-10x²y = Subtract 6_w from 8_w.
PRODUCT RULE	$x^a \cdot x^b =$	1. $h^2 \cdot h^6 =$ 2. $(-2a^2b) \cdot (7a^3b) =$
POWER RULE	$(x^{a})^{b} =$	1. $(x^2)^3 =$ 2. $(-2m^5)^2 \cdot m^3 =$
QUOTIENT RULE	$\frac{x^a}{x^b} =$	1. $\frac{27x^5}{42x} =$ 2. $\frac{(y^2)^2}{y^4} =$
NEGATIVE EXPONENT RULE	$x^{-a} =$	1. $-5x^{-2} =$ 2. $\frac{4k^2}{8k^5} =$
ZERO EXPONENT RULE	x ⁰ =	1. $7x^0 =$ 2. $\frac{(w^4)^2}{w^8} =$

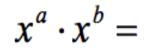
ADDING & SUBTRACTING MONOMIALS

COMBINE LIKE TERMS!!!

(DO NOT CHANGE common variables and exponents!)

- **1.** $9x^2y 10x^2y =$
- 2. Subtract 6_w from 8_w.

PRODUCT RULE $x^a \cdot x^b =$



1.
$$h^2 \cdot h^6 =$$

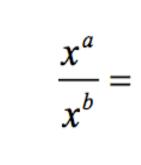
2.
$$(-2a^2b) \cdot (7a^3b) =$$

POWER RULE $(x^a)^b =$

1.
$$(x^2)^3 =$$

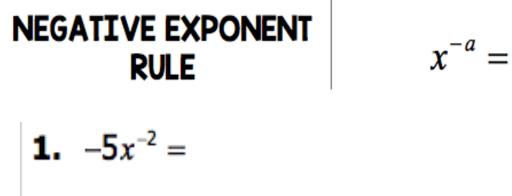
2.
$$(-2m^5)^2 \cdot m^3 =$$





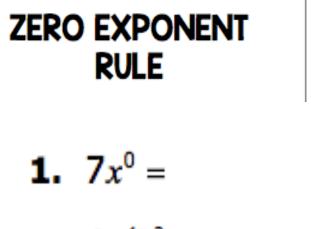
1.
$$\frac{27x^5}{42x} =$$

2. $\frac{(y^2)^2}{y^4} =$



1.
$$-5x^{2} =$$

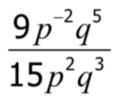
2. $\frac{4k^{2}}{8k^{5}} =$



 $x^0 =$

2.
$$\frac{(w^4)^2}{w^8} =$$

More Practice!



 $4x^2y \cdot -3x^{-5}y^2$

 $\left(\frac{-9c^3d}{c^2d^2}\right)^2$

Simplify each of the following:

 $x \cdot x \cdot x \cdot x \cdot x =$ $x^{4} \cdot x^{9} =$ $(ab)^{14} =$ $\left(\frac{a}{2}\right)^{4} =$ $\frac{k^{12}}{k^{5}} =$ $\left(\frac{1}{4}\right)^{0} =$