

Exponent Rules Review

Add and Subtract Monomials

COMBINE LIKE TERMS! "Last name stays the same"

$$3x^2y + 2xy - 4xy - 5x^2y =$$

Multiply Monomials

PRODUCT RULE (add your exponents)

$$a^m (a^n) = a^{m+n}$$

$$3x^2 (-5xy^5) =$$

$$-2a^3 (-15b^2) (3ab) =$$

Raise a Power to a Power

POWER RULE (multiply your exponents)

$$(a^m)^n = a^{mn}$$

$$(x^2)^5 =$$

$$(-2x^3)^2 (3x)^2 =$$

Dividing Monomials

QUOTIENT RULE (subtract your exponents)

$$\frac{a^m}{a^n} = a^{m-n}$$

$$\frac{4x^7y^{15}}{-8xy^{11}} =$$

$$\frac{(-x^2)^4}{3x^3y^2} =$$

Negative Exponents

Take reciprocal and make it positive!

$$a^{-m} = \frac{1}{a^m}$$

$$x^{-3} =$$

$$\left(\frac{4x^{-5}}{8x^7}\right)^{-2} =$$

Multi-Step

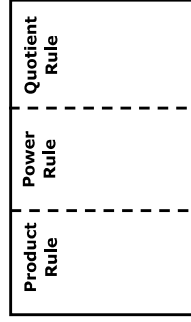
REMEMBER YOUR RULES!

$$\frac{(4x^5y^7)^2}{(-2x^4)^3 (2xy)^0} \cdot (x^{-2}y^{-4})^{-2} =$$

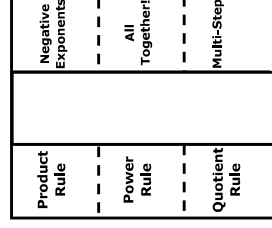
Rules of Exponents Foldable

You will create a foldable (style of your choice) to use as a reference for simplifying expressions involving exponents.

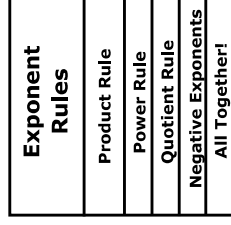
Instructions: Choose a style of foldable (your choice) – several EXAMPLES are shown below.



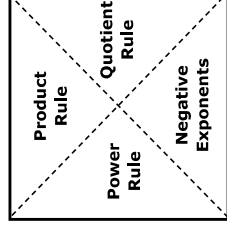
Tri-Panel Brochure



Fold and Cut Foldable



Flip Book



Triangle Fold and Cut Foldable

- Your foldable must include sections for each of the topics listed below:
 - Multiplying Monomials (**Product Rule**)
 - Power to a Power (**Power Rule**) – this is when you have an exponent outside the parentheses!
 - Dividing Monomials (**Quotient Rule**)
 - **Negative Exponents**
 - **Multi-Step** – includes multiple exponent rules per example – Remember PEMDAS!
- For each topic, you must include the following:
 - **Name** of the Exponent Rule
 - A **description** of how to apply the exponent rule AND the **formula**
 - AT LEAST TWO **examples** (use your notes! – Don't forget to include some of the more difficult examples!)