Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplify each expression. State what to do to each coefficient and each exponent.

Coefficient Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Exponent Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1) $\frac{x^{5}}{x^{4}}$ 2) $\frac{5a^{10}b}{a^{4}} $

Coefficient Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Exponent Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3) $\frac{27x^{3}z^{5}}{3x^{3}z^{8}} $ 4) $\frac{9x^{2}}{45x^{-3}y}$

Coefficient Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Exponent Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Coefficient Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Exponent Rule: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simplify each expression.



7) $\frac{x^{8}y^{10}}{x^{2}y^{4}}$ 8) $\frac{a^{-5}}{a^{0}}$ 9) $\left(\frac{x^{4}y^{5}}{xy^{2}}\right)^{2}$

 





\*\*\*REVIEW adding and subtracting polynomials\*\*\*

Simplify each expression using addition or subtraction.



Anything raised to the zero power equals what number? \_\_\_\_\_\_\_\_\_\_

What do you do with a negative exponent to make it positive?\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When multiplying variables you \_\_\_\_\_\_\_\_\_\_\_\_\_ the exponents.

When dividing variables you \_\_\_\_\_\_\_\_\_\_\_\_\_the exponents.

When a variable with an exponent is raised to a power, you \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the exponent and the power.