Name: Key Period: _____

Negative and Zero Exponents Practice
Dividing Monomials—Day 2

1) $\left(\frac{x}{y}\right)^4$ $\frac{x^4}{y^4}$

2. $\left(\frac{2a^2b}{2a^2b}\right)^3$ $a^{2-2}=a^0=1$ $b^{1-1}=b^0=1$ 1

3. $\left(\frac{4x^4y^4}{2x^4y^4}\right)$ $x^{4-4}=x^0=1$ $y^{4-4}=y^0=1$ 2

4) $\frac{x^3y}{xy}$ $x^{3-1}=x^2$ $y^{1-1}=y^0=1$ x^2

5) $\frac{3a^4b^2}{9a^4b^2}$ $\frac{1}{3}$

6) $6m^3(2m^{-3})$ $m^{3+-3}=m^0=1$ 12

Negative Exponents: $x^{-n}=\frac{1}{x^n}$ and $\frac{1}{x^{-n}}=x^n$

Examples:

1. x^{-2} $\frac{1}{x^2}$

2. $\frac{1}{x^{-5}}$ x^5

3. $\frac{x^{-4}}{x^{-5}}$ $x^{-4+5}=x^1$ x

4. $\frac{(-x^{-1}y)^0}{4w^{-1}y^2}$ $\frac{w}{4y^2}$

5. $\frac{4x^{-3}y^6}{16x^2y^6z^{-5}}$ $\frac{z^5}{4x^5}$

7. $\frac{(3st)^2u^{-4}}{s^{-1}t^2u^7}$ $\frac{9s^2t^2u^{-4}}{s^{-1}t^2u^7}$ $\frac{9s^3}{u^{11}}$