

## 7.2 Division Properties of Exponents

Monomials –

### Division Properties of Exponents

Quotient of Powers	
Power of a Quotient	

Example 1:  $\frac{a^4 b^7}{ab^2}$

Example 2:  $\left(\frac{2a^3 b^5}{3b^2}\right)^3$

1.  $\frac{a^2}{a}$

2.  $\frac{x^5 y^3}{x^5 y^2}$

3.  $\frac{-2y^7}{14y^5}$

4.  $\left(\frac{2r^5 w^3}{r^4 w^3}\right)^4$

5.  $\left(\frac{3r^6 n^3}{2r^5 n}\right)^4$

6.  $\frac{r^7 n^7 t^2}{n^3 r^3 t^2}$

### Special Exponent Rules

<b>Zero Exponent</b>	$a^0 =$
<b>Negative Exponent Property</b>	

**Example:**  $\frac{4a^{-3}b^6}{16a^2b^6c^{-5}}$

**1.**  $\frac{x^3y^5}{x^2y}$

**2.**  $\frac{m}{m^{-4}}$

**3.**  $\left(\frac{4ab^3}{8y^4}\right)^5$

**4.**  $\frac{y^0}{x^{-2}}$

**5.**  $\left(\frac{a^{-1}b}{7}\right)^4$

**6.**  $\frac{3rtu^{-4}}{r^{-1}t^2u^7}$

**7.**  $\left(\frac{-2mn^2}{4m^{-6}n^4}\right)^3$

**8.**  $\left(\frac{-39xy^2}{49x^{-6}y^4}\right)^0$

**Homework Problems:**  
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