

Dividing with Exponents
Day 9 Unit 1 Principles

Name: _____
 Pd: _____ Date: _____

OBJECTIVE: To simplify algebraic expressions using exponent rules.

Expression	Expression written as repeated Multiplication, then cancel out common factors	Quotient using only one exponent
$\frac{6^5}{6^3}$		
$\frac{3^4}{3}$		
$\frac{2^4}{2^9}$		
$\frac{m^6}{m^2}$		
$\frac{a^2}{a^5}$		
$\frac{m^2n^5}{mn^2}$		
$\frac{a^3b^7}{a^6b^3}$		
$\frac{25x^6}{10x^2}$		
$\frac{24m^3n^8}{4m^7n^5}$		

EXAMPLES: Simplify. Show all work!

1. $\frac{7^{13}}{7^5}$

2. $\frac{x^{16}}{x^9}$

3. $\frac{63m^4}{7m^8}$

4. $\frac{x^9y^5}{x^2y^7}$

5. $\frac{42u^{10}}{12u^2}$

6. $\frac{33k^{11}m^4}{18k^6m^5}$

7. $\frac{2x^7 \cdot 12x^4}{28x^3}$