

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Notes

Algebra Section 8.2

Pages 495-501

**Goal:** "Use properties of exponents involving quotients."



**Write out the following as a quotient:**

$$\frac{a^5}{a^3} =$$

**Simplify the following expressions. Write the answer using an exponent.**

**Ex:**  $\frac{4^7}{4^2}$

**Ex:**  $\frac{8^{10}}{8^4}$

**Ex:**  $\frac{5^4 \cdot 5^8}{5^7}$

**Ex:**  $\frac{(-3)^9}{(-3)^3}$

**Ex:**  $\frac{1}{x^4} \cdot x^6$

**Ex:**  $\frac{9^{12}}{9^5}$

**Ex:**  $\frac{(-2)^4}{(-2)^3}$

**Ex:**  $\frac{6^3 \cdot 6^4}{6^2}$

**Ex:**  $\frac{1}{r^5} \cdot r^8$