Name _____ Date _____

10.3 Practice

For use after Lesson 10.3

Simplify the expression. Write your answer as a power.

1. $\frac{7^6}{7^5}$

2. $\frac{(-21)^{15}}{(-21)^9}$

3. $\frac{(3.9)^{20}}{(3.9)^{10}}$

4. $\frac{t^7}{t^3}$

5. $\frac{8^7 \cdot 8^4}{8^9}$

6. $\frac{(-1.1)^{13} \cdot (-1.1)^{12}}{(-1.1)^{10} \cdot (-1.1)^1}$

Simplify the expression.

7. $\frac{k \cdot 3^9}{3^5}$

8. $\frac{x^4 \cdot y^{10} \cdot 2^{11}}{y^8 \cdot 2^7}$

9. The radius of a basketball is about 3.6 times greater than the radius of a tennis ball. How many times greater is the volume of a basketball than the volume of a tennis ball? $\left(\text{Note: The volume of a sphere is } V = \frac{4}{3}\pi r^3.\right)$