Name:_____ Period_____Day 2

Practice 1.3

Simplify each expression. Write your answer in exponential notation.

14 $(5^5 \cdot 5^6)^2$

15 $(p^4 \cdot p^2)^6$

16 $\left[\left(\frac{1}{2}\right) \cdot \left(\frac{1}{2}\right)^3\right]^5$

17 $\left[\left(-\frac{4}{9}\right)^2 \cdot \left(-\frac{4}{9}\right)^3\right]^2$

18 $(2^2 \cdot 2^4)^3 \div 2^8$

19 $(7 \cdot 7^2)^5 \div 7^3$

20 $(s^6 \cdot s)^2 \div s^4$

21 $(t^4 \cdot t^4)^4 \div t^4$

22 $\frac{(8^8 \cdot 8^3)^2}{(8^5)^4}$

23 $\frac{(3^4 \cdot 3^2)^4}{(3^5)^2}$

24 $\frac{(b \cdot b^3)^5}{(b^2)^4}$

25 $\frac{(h^6 \cdot h^4)^2}{(h^3)^5}$

26 $(q^5 \cdot q^2)^3 \div 5q^5$

27 $(c^7 \cdot c^3)^4 \div 6c^2$

Challenge

28 $\frac{\left(\frac{2}{3}\right)^2 \cdot \left(\frac{2}{3}\right)^6}{\left(\frac{2^2}{3^2}\right)^3}$

29 $\frac{\left(\frac{x}{2}\right)^3 \cdot \left(\frac{x}{2}\right)^4}{\left(\frac{x^3}{2}\right)^2}$