Math 2
Ch 1.4.B
Problems: #6-44 Even Page 32

Name:
Period:

In Exercises 5–12, evaluate the expression. *(See Example 1.)*

In Exercises 13–22, simplify the expression. Write your answer using only positive exponents. *(See Example 2.)*

6. 4^0

8. $(-2)^{-5}$

14. y^0

16. $15c^{-8}d^0$

18. $\dfrac{10^0 r^{-11} s}{3^2}$

10. $\dfrac{5^{-1}}{-9^0}$

12. $\dfrac{(-8)^{-2}}{3^{-4}}$

20. $\dfrac{p^{-8}}{7^{-2}q^{-9}}$

22. $\dfrac{13x^{-5}y^0}{5^{-3}z^{-10}}$

In Exercises 23–32, simplify the expression. Write your answer using only positive exponents. *(See Example 3.)*

24. $\dfrac{(-6)^8}{(-6)^5}$

26. $4^{-5} \cdot 4^5$

28. $(s^{-5})^3$

30. $-7 \cdot (-7)^{-4}$

32. $\dfrac{z^8 \cdot z^2}{z^5}$

ERROR ANALYSIS **In Exercises 35 and 36, describe and correct the error in simplifying the expression.**

34. **USING PROPERTIES** The area of the rectangular computer chip is $112a^3b^2$ square microns. What is the length?

width = $8ab$ microns

36.

$$\frac{x^5 \cdot x^3}{x^4} = \frac{x^8}{x^4}$$
$$= x^{8/4}$$
$$= x^2$$

In Exercises 37–44, simplify the expression. Write your answer using only positive exponents. *(See Example 4.)*

38. $(4x)^{-4}$

40. $\left(\frac{-t}{3}\right)^2$

42. $(-5p^3)^3$

44. $\left(\frac{1}{2r^6}\right)^{-6}$