

## 1.2 Exercises



### Vocabulary and Concept Check

1. **VOCABULARY** How are exponents and powers different? \_\_\_\_\_

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2. **VOCABULARY** Is 10 a perfect square? Is 100 a perfect square? Explain.

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3. **WHICH ONE DOESN'T BELONG?** Which one does *not* belong with the other three? Explain your reasoning.

$$2^4 = 2 \times 2 \times 2 \times 2$$

$$3 + 3 + 3 + 3 = 3(4)$$

$$3^2 = 3 \times 3$$

$$5 \cdot 5 \cdot 5 = 5^3$$

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13. **ERROR ANALYSIS** Describe and correct the error in writing the product as a power.



$$4 \cdot 4 \cdot 4 = 3^4$$

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**Find the value of the power.**

14.  $5^2$  \_\_\_\_\_      16.  $2^5$  \_\_\_\_\_

**Use a calculator to find the value of the power.**

18.  $7^6$  \_\_\_\_\_      20.  $12^4$  \_\_\_\_\_

22. **ERROR ANALYSIS** Describe and correct the error in finding the value of the power.



$$8^3 = 8 \cdot 3 = 24$$

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24. **FIGURINES** The smallest figurine in a gift shop is 2 inches tall. The height of each figurine is twice the height of the previous figurine. Write a power to represent the height of the tallest figurine. Then find the height.



Power: \_\_\_\_\_

Height: \_\_\_\_\_

**Determine whether the number is a perfect square.**

25. 8 \_\_\_\_\_

27. 81 \_\_\_\_\_

33. **PAINTING** A square painting measures 2 meters on each side. What is the area of the painting in square centimeters?
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35. **CHECKERS** A checkers board has 64 squares. How many squares are in each row?
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### Fair Game Review What you learned in previous grades & lessons

Find the value of the expression. *(Skills Review Handbook)*

40.  $6 \times 14$

41.  $11 \times 15$

42.  $56 \div 7$

43.  $112 \div 16$

44. **MULTIPLE CHOICE** You buy a box of gum that has 12 packs. Each pack has 5 pieces. Which expression represents the total number of pieces of gum?

*(Skills Review Handbook)*

(A)  $12 + 5$

(B)  $12 - 5$

(C)  $12 \times 5$

(D)  $12 \div 5$

40. \_\_\_\_\_

41. \_\_\_\_\_

42. \_\_\_\_\_

43. \_\_\_\_\_



