

Check My Progress

Vocabulary Check



Draw a line to match each word to its definition.

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|--|------------------------------|
| 1. Numbers such as 1, 2, 4, 5, 10, and 20. | • cubed |
| 2. A number raised to the second power. | • prime factorization |
| 3. A number raised to the third power. | • factors |
| 4. A way of expressing a composite number as a product of its prime factors. | • powers of ten |
| 5. Numbers like 10, 100, 1,000 and so on. | • squared |

Concept Check



Find the prime factorization of each number using exponents.

6. $36 =$ _____

7. $45 =$ _____

Write each product using an exponent.

8. $13 \times 13 \times 13 \times 13 =$ _____

9. $7 \times 7 \times 7 =$ _____

Write each power as a product of the same factor. Then find the value.

10. $10^4 =$ _____

11. $14^1 =$ _____

Find each product mentally.

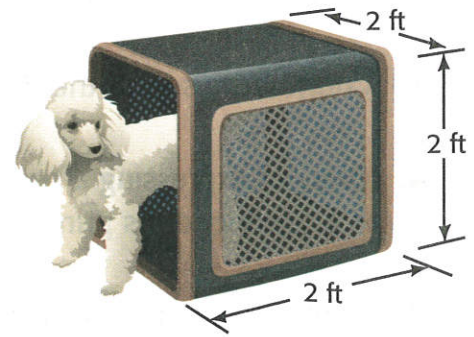
12. $23 \times 100 =$ _____

13. $150 \times 400 =$ _____



Problem Solving

14. The amount of space in the dog carrier shown can be found by multiplying its width, length, and height. Write the amount of space, in cubic units, using an exponent. Then evaluate.



15. There are 10^2 fifth-grade students attending a class field trip to the city's art museum. If each admission ticket costs \$6, what is the total cost of admission for the 10^2 students?

Test Practice

16. Dakota read 130 pages over the weekend. Dajuan read 165 pages over the weekend. Which prime number do the prime factorizations of 130 and 165 have in common?

- (A) 2 (C) 5
(B) 3 (D) 7