Review & Refresh

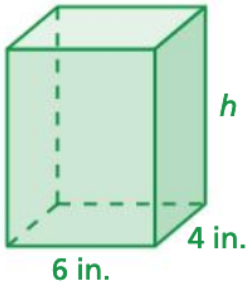
Write the product as a power.

1. $11 \times 11 \times 11 \times 11$

2. $13 \times 13 \times 13 \times 13 \times 13$

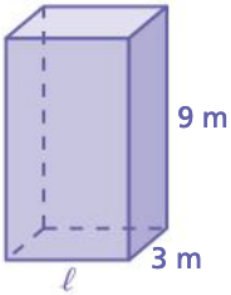
Find the missing dimension of the rectangular prism.

3.



Volume = 192 in.^{3}

4.



Volume = 135 m^3

Tell whether the number is prime or composite.

5. 9

6. 11

7. 23

COMPARING DIFFERENT ORDERS **Find the value of the expression by using different orders of operations. Are your answers the same?** (See Exploration 1, p. 9.)

8. Add, then multiply. $4 + 6 \times 6$ Multiply, then add. $4 + 6 \times 6$

9. Subtract, then multiply. $5 \times 5 - 3$ Multiply, then subtract. $5 \times 5 - 3$

USING ORDER OF OPERATIONS **Evaluate the expression.**

10. $5 + 18 \div 6$

11. $(11 - 3) \div 2 + 1$

12. $45 \div 9 \times 12$

13. $6^2 - 3 \cdot 4$

14. $42 \div (15 - 2^3)$

15. $4^2 \cdot 2 + 8 \cdot 7$

16. $(5^2 - 2) \times 1^5 + 4$

17. $4 + 2 \times 3^2 - 9$

18. $8 \div 2 \times 3 + 4^2 \div 4$

19. $3^2 + 12 \div (6 - 3) \times 8$

20. $(10 + 4) \div (26 - 19)$

21. $(5^2 - 4) \cdot 2 - 18$

22. $2 \times [(16 - 8) \times 2]$

23. $12 + 8 \times 3^3 - 24$

24. $6^2 \div [(2 + 4) \times 2^3]$

YOU BE THE TEACHER **Your friend evaluates the expression. Is your friend correct? Explain your reasoning.**

25.

$$9 + 3 \times 3^2 = 12 \times 9$$
$$= 108$$

26.

$$19 - 6 + 12 = 19 - 18$$
$$= 1$$

27. **MP PROBLEM SOLVING** You need to read 20 poems in 5 days for an English project. Each poem is 2 pages long. Evaluate the expression $20 \times 2 \div 5$ to find how many pages you need to read each day.

USING ORDER OF OPERATIONS **Evaluate the expression.**

28. $12 - 2(7 - 4)$

29. $4(3 + 5) - 3(6 - 2)$

30. $6 + \frac{1}{4}(12 - 8)$

31. $9^2 - 8(6 + 2)$

32. $4(3 - 1)^3 + 7(6) - 5^2$

33. $8\left[\left(1\frac{1}{6} + \frac{5}{6}\right) \div 4\right]$

34. $7^2 - 2\left(\frac{11}{8} - \frac{3}{8}\right)$

35. $8(7.3 + 3.7 - 8) \div 2$

36. $2^4(5.2 - 3.2) \div 4$

37. $\frac{6^2(3 + 5)}{4}$

38. $\frac{12^2 - 4(6) + 1}{11^2}$

39. $\frac{26 \div 2 + 5}{3^2 - 3}$