1.1 Practice

Go to **BigIdeasMath.com** to get HELP with solving the exercises.

Review & Refresh

Evaluate the expression.

1. $(3^2 - 8) + 4$ **2.** $1 + 5 \times 3^2$ **3.** $4 \times 3 + 10^2$

Identify the terms, coefficients, and constants in the expression.

4. $11q + 2$ **5.** $h + 9 + g$ **6.** $6m^2 + 7n$

Write the phrase as an expression.

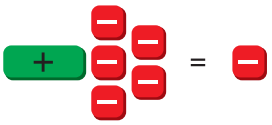
7. the quotient of 22 and a number a

8. the difference of a number t and 9

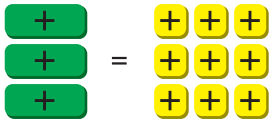
Concepts, Skills, & Problem Solving

USING PROPERTIES OF EQUALITY **Which property of equality can you use to solve the equation modeled by the algebra tiles? Solve the equation and explain your method.** (See Exploration 1, p. 3.)

9.



10.



SOLVING EQUATIONS USING ADDITION OR SUBTRACTION **Solve the equation. Check your solution.**

11. $x + 12 = 7$ **12.** $g - 16 = 8$ **13.** $-9 + p = 12$

14. $2.5 + y = -3.5$ **15.** $x - 8\pi = \pi$ **16.** $4\pi = w - 6\pi$

17. $\frac{5}{6} = \frac{1}{6} + d$ **18.** $\frac{3}{8} = r + \frac{2}{3}$ **19.** $n - 1.4 = -6.3$

20. MP **MODELING REAL LIFE** A discounted concert ticket costs \$14.50 less than the original price p. You pay \$53 for a discounted ticket. Write and solve an equation to find the original price.

21. MP **PROBLEM SOLVING** A game of bowling has ten frames. After five frames, your friend's bowling score is 65 and your bowling score is 8 less than your friend's score.

a. Write and solve an equation to find your score.

b. By the end of the game, your friend's score doubles and your score increases by 80. Who wins the game? Explain.

SOLVING EQUATIONS USING MULTIPLICATION OR DIVISION **Solve the equation. Check your solution.**

22. $7x = 35$

23. $4 = -0.8n$

24. $6 = -\frac{w}{8}$

25. $\frac{m}{\pi} = 7.3$

26. $-4.3g = 25.8$

27. $\frac{3}{2} = \frac{9}{10}k$

28. $-7.8x = -1.56$

29. $-2 = \frac{6}{7}p$

30. $3\pi d = 12\pi$

31. MP **YOU BE THE TEACHER** Your friend solves the equation. Is your friend correct? Explain your reasoning.

$-1.5 + k = 8.2$

$k = 8.2 + (-1.5)$

$k = 6.7$

32. MP **STRUCTURE** A gym teacher orders 42 tennis balls. The tennis balls come in packs of 3. Which of the following equations represents the number x of packs?

$x + 3 = 42$ $\quad$ $3x = 42$ $\quad$ $\frac{x}{3} = 42$ $\quad$ $x = \frac{3}{42}$

33. MP **MODELING REAL LIFE** You clean a community park for 6.5 hours. You earn $42.25. How much do you earn per hour?

34. MP **MODELING REAL LIFE** A rocket is scheduled to launch from a command center in 3.75 hours. What time is it now?

35. MP **MODELING REAL LIFE** After earning interest, the balance of an account is $420. The new balance is $\frac{7}{6}$ of the original balance. How much interest did it earn?

36. MP **MODELING REAL LIFE** After a cleanup, algae covers 2 miles of a coastline. The length of the coastline covered after the cleanup is $\frac{1}{3}$ of the previous length. How many miles of the coast did the algae previously cover?

Roller Coasters at Cedar Point	
Coaster	**Height (feet)**
Top Thrill Dragster	420
Millennium Force	310
Valravn	225
Rougarou	?

37. MP **PROBLEM SOLVING** Cedar Point, an amusement park in Ohio, has some of the tallest roller coasters in the United States. The Rougarou is 165 feet shorter than the Millennium Force. What is the height of the Rougarou?