

## QUIZ for Lessons 1.1–1.2

Graph the numbers on a number line. (p. 2) **1–3. See margin.**

1.  $-5, \frac{7}{2}, 1, -\frac{4}{3}$

2.  $-6.2, 5.4, \sqrt{5}, -2.5$

3.  $0, -7.3, -\frac{2}{5}, 2\sqrt{3}$

Identify the property that the statement illustrates. (p. 2)

4.  $6(4 + 9) = 6(4) + 6(9)$   
**Distributive property**

5.  $-5 \cdot 8 = 8 \cdot (-5)$

6.  $17 + (-17) = 0$   
**Inverse property of addition**

Evaluate the expression for the given value of the variable. (p. 10)

7.  $10m + 32$  when  $m = -5$  **-18** 8.  $12 + (8 - n)^3$  when  $n = 5$  **39** 9.  $p^3 - 3p^2$  when  $p = -2$  **-20**

Simplify the expression. (p. 10)

10.  $8x + 6x^2 - 9x^2 - 4x$   
 **$-3x^2 + 4x$**

11.  $5(x + 9) - 2(4 - x)$   
 **$7x + 37$**

12.  $24x - 6y + 15y - 18x$   
 **$6x + 9y$**

13. **CD COSTS** CDs are on sale for \$8 each and you have a gift card worth \$100.

Write an expression for the amount of money left on the gift card after purchasing  $n$  CDs. Evaluate the expression to find the amount of money left after purchasing 6 CDs. (p. 10)  **$100 - 8n$ ; \$52**

1. **MULTI-STEP PROBLEM** There is a \$50 annual membership fee to join an urban car rental service. Using a car costs \$8.50 per hour.
- Write a verbal model for this situation. Then use the verbal model to write an algebraic expression. **cost per hour • number of hours + annual fee;  $8.5h + 50$**
  - How much will it cost to join the service and drive for 20 hours? **\$220**

8. **OPEN-ENDED** You have two summer jobs. You mow lawns for \$20 per lawn. You also work at a restaurant for \$7.50 per hour. Write an equation for the total amount of money you earn. Then find three different ways to earn \$300 during one week. **See margin.**

**8.  $E = 20l + 7.5h$ . Sample answer:**  
**Mow 15 lawns and work 0 hours,**  
**mow 12 lawns and work 8 hours,**  
**or mow 9 lawns and work 16 hours**

4. **SHORT RESPONSE** You are in charge of buying food for a school picnic. You have \$45 to spend on ground beef and chicken. Ground beef costs \$1.80 per pound and chicken costs \$1.00 per pound. Write an equation representing the situation. You want to buy equal amounts of ground beef and chicken. How much of each can you buy? Show how you found your answer. **See margin.**

**4.  $1.8b + c = 45$ ; 16 lb; since you want equal amounts of each, use the same variable for both amounts and solve the equation.  $1.8x + x = 45$ ,  $2.8x = 45$ ,  $x \approx 16$ .**

## QUIZ for Lessons 1.3–1.5

Solve the equation. Check your solution. (p. 18)

1.  $5b - 2 = 8$  **2**

2.  $2d - 3 = 8d + 15$  **-3**

3.  $2(m - 4) = m + 2$  **10**

4.  $\frac{2}{3}k + \frac{2}{7} = \frac{3}{7}k + \frac{1}{2}$   **$\frac{9}{10}$**

Solve the equation for  $y$ . Then find the value of  $y$  for the given value of  $x$ . (p. 26)

5.  $4x + y = 12$ ;  $x = 4$   **$y = 12 - 4x$ ; -4**

6.  $3x - 2y = 14$ ;  $x = 6$   **$y = \frac{3}{2}x - 7$ ; 2**

7.  $3xy - 4x = 19$ ;  $x = 2$   **$y = \frac{4x + 19}{3x}$ ;  $4\frac{1}{2}$**

8.  $11y + 2xy = 9$ ;  $x = -5$   **$y = \frac{9}{11 + 2x}$ ; 9**