4-5 pg. 264 #5-13 odd, 14, 15, 16, 19, 23, 24, 33-35

Do you UNDERSTAND?

5. **Vocabulary** Suppose you write an equation that gives a as a function of b. Which is the dependent variable and which is the indep

7. **Reasoning** Is the graph of a function rule that relates a square's area to its side length *continuous* or *discrete*? Explain.

Write a function rule that represents each sentence.

9. C is 8 more than half of n.

11. 2.5 more than the quotient of h and 3 is w.

Write a function rule that represents each situation.

13. **Pizza** The price p of a pizza is \$6.95 plus \$.95 for each topping t on the pizza.

14. **Weight Loads** The load L, in pounds, of a wheelbarrow is the sum of its own 42-lb weight and the weight of the bricks that it carries, as shown at the right.

15. **Baking** The almond extract a remaining in an 8-oz bottle decreases by $\frac{1}{6}$ oz for each batch b of waffle cookies made.

16. **Aviation** A helicopter hovers 40 ft above the ground. Then the helicopter climbs at a rate of 21 ft/s. Write a rule that represents the helicopter's height h above the ground as a function of time t. What is the helicopter's height after 45 s?

See Problem 2.

19. Write a function rule for the area of a triangle with a base 3 cm greater than 5 times its height. What is the area of the triangle when its height is 6 cm?

See Problem 3.

23. Writing What advantage(s) can you see of having a rule instead of a table of values to represent a function?

24. History of Math The golden ratio has been studied and used by mathematicians and artists for more than 2000 years. A golden rectangle, constructed using the golden ratio, has a length about 1.6 times its width. Write a rule for the area of a golden rectangle as a function of its width.

33. You buy x pounds of cherries for \$2.99/lb. What is a function rule for the amount of change C you receive from a \$50 bill?

(A) $C = 2.99x - 50$

(B) $C = 50 - 2.99x$

(C) $C = 50x - 2.99$

(D) $C = 2.99 - 50x$

34. What is the solution of $-5 < h + 2 < 11$?

(F) $-3 < h < 11$

(G) $-7 < h < 9$

(H) $-7 > h > 9$

(I) $h < -7$ or $h > 9$

35. Which equation do you get when you solve $-ax + by^2 = c$ for b?

(A) $b = \frac{c - ax}{y^2}$

(B) $b = y^2(c + ax)$

(C) $b = \frac{c + ax}{y^2}$

(D) $b = \frac{c}{y^2} + ax$