NAME _____ DATE _____

Practice B

For use with pages 32–39

Write the verbal phrase as an algebraic expression. Use *x* for the variable in your expression.

1. Four more than a number

2. Six less than a number

3. Difference of 12 and a number

4. The sum of a number and two

5. Five times a given number

6. One third of a given number

7. A number divided by eight

8. Nine more than twice a given number

9. Two less than a number, divided by three

10. Three more than the product of ten and a number

11. Five times the sum of a number and one

12. The sum of a number and five, divided by two

Write the verbal sentence as an equation or an inequality.

13. Seven more than a number x is ten.

14. The sum of a number y and six is 13.

15. Eight more than a number y is greater than or equal to ten.

16. The difference of a number a and two is eight.

17. Six less than a number z is less than 21.

18. Thirteen minus a number b is two.

19. The product of 11 and a number x is 22.

20. Fourteen is less than seven times a number x.

21. Four times a number b plus one is 17.

22. The quotient of a number t and three is nine.

23. A number a divided by two is greater than nine.

24. Three less than the product of six and a number a is nine.

In Exercises 25–28, which equation correctly models the situation?

25. *Model Planes*   Your model plane collection consists of 15 models. Each plane is either a propeller plane or a jet. There are seven fewer propeller planes than jets. Let x be the number of jets.

   a. $x + (x - 7) = 15$ **b.** $x - 7 = 15$

26. *Bake Sale*   You want to make six dozen cookies for a bake sale. If you follow the recipe, one batch makes two dozen cookies. Let b be the number of batches you need to bake.

   a. $2b = 6$ **b.** $\dfrac{b}{6} = 2$

27. *Height*   You are 65 inches tall. You are 18 inches taller than your younger sister. Let h be your sister's height in inches.

   a. $h - 18 = 65$ **b.** $h + 18 = 65$

28. *Music*   An eighth note is played twice as fast as a quarter note. Eight eighth notes can be played in one measure of music. Let q be the number of quarter notes played in one measure of music.

   a. $2q = 8$ **b.** $\dfrac{q}{2} = 8$

Recycling   **In Exercises 29–31, use the following information.**

A recycling center pays $.05 per aluminum can. You were paid $4 for recycling cans.

29. Write a verbal model that relates the amount of money paid per can, the number of cans recylced, and the total amount of money you were paid.

30. Assign labels and write an algebraic model based on your verbal model.

31. Use mental math to solve the equation. Check to see if your answer is reasonable.