

Practice C

For use with pages 32–39

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

1. Nine more than a number
2. Thirteen decreased by a number
3. Twelve times a given number
4. Two thirds of a given number
5. Quotient of a number and three fifths
6. Ten more than twice a given number
7. Seven more than half of a number
8. Five less than a number, divided by three
9. Three cubed divided by a number
10. Four times the sum of a number and seven

Write the verbal sentence as an equation or an inequality.

11. Seven more than a number x is 13.
12. Eight more than a number y is greater than or equal to 22.
13. The difference of a number a and two is less than or equal to 16.
14. Eighteen is greater than two times a number x .
15. The product of ten and a number x is four.
16. A number a divided by three is greater than 9.
17. The quotient of a number t and 3.5 is 8.
18. Four less than the product of six and a number a is less than 14.
19. Six more than the quotient of a number b and 5 is ten.
20. Three times the quantity one less than a number b is 24.

In Exercises 21 and 22, which equation correctly models the situation?

21. **Height** You are 65 inches tall. You are 9 inches shorter than your older brother. Let h be your brother's height in inches.
 - a. $h - 9 = 65$
 - b. $h + 9 = 65$
22. **Music** An eighth note is played twice as fast as a quarter note. Four quarter notes can be played in one measure of music. Let e be the number of eighth notes played in one measure of music.
 - a. $2e = 4$
 - b. $\frac{e}{2} = 4$

Exercising In Exercises 23–25, use the following information.

A person who weighs 120 pounds burns 5.4 calories per minute swimming. Lou Ann weighs 120 pounds. While swimming, she burned a total of 135 calories.

23. Write a verbal model that relates the number of calories burned per minute, the number of minutes spent swimming, and the total number of calories burned.
24. Assign labels and write an algebraic model based on your verbal model.
25. Use mental math to solve the equation. Check to see if your answer is reasonable.