Practice and Applications

HOMEWORK HELP

For Exercises	See Examples
10–17, 26–27	1
18–25, 28	2–4

Extra Practice See pages 572, 599.

Write each phrase as an algebraic expression.

10. fifteen increased by t
11. five years older than Luis
12. nine dollars less than j
13. a number less six
14. the product of r and 8
15. twice as many oranges
16. Emily's age divided by 3
17. a number divided by -12

Write each sentence as an algebraic equation.

18. The sum of a number and four is -8.
19. Two more than the number of cookies is 4.
20. The product of a number and five is -20.
21. Ten times the number of students is 280.
22. Ten inches less than her height equals 26.
23. Five less than a number equals 31.
24. Seven more than twice his age is 51.
25. Three more than twice a number is 15.

MONEY **For Exercises 26 and 27, use the table.**
The table shows the average lifespan of several kinds of paper currency in the United States. Let y represent the average lifespan of a \$5 bill.

U.S. Currency	
Kind	Lifespan (years)
\$1	1.5
\$5	2
\$10	3
\$20	4
\$50	9
\$100	9

Source: Federal Reserve System

26. Which lifespan can be represented by $2y$?
27. Write an expression to represent the lifespan of a \$50 bill.

28. **TOURISM** The Washington Monument is 555 feet tall. It is 75 feet shorter than the Gateway to the West Arch. Write an equation that models this situation.

29. **CRITICAL THINKING** If x is an odd number, how would you represent the odd number immediately following it? preceding it?

Spiral Review with Standardized Test Practice

30. **MULTIPLE CHOICE** A mechanic charges a \$35 initial fee and \$32.50 for each hour he works. Which equation could be used to find the cost c of a repair job that lasts h hours?

(A) $c = 32.5 + 35h$ (B) $c = 35 + 32.5h$
(C) $c = 32.5 - 35h$ (D) $c = 32.5(35 - h)$

31. **MULTIPLE CHOICE** Translate *12 more than d* into an algebraic expression.

(F) $12d$ (G) $d - 12$ (H) $d + 12$ (I) $12 - d$

Divide. (Lesson 3-7)

32. $-18 \div 3$
33. $25 \div (-5)$
34. $-14 \div (-7)$
35. $72 \div (-9)$

GETTING READY FOR THE NEXT LESSON

PREREQUISITE SKILL **Add.** (Lesson 3-4)

36. $-8 + (-3)$
37. $-10 + 9$
38. $12 + (-20)$
39. $-15 + 15$