

EXERCISES

 For more practice, see *Extra Practice*.

A Practice by Example



Solve each equation. Then check the solution.

Example 1 (page 90)

- $x + 46 = 72$
- $d + 5 = 53$
- $y + 12 = 64$
- $n + 17 = 56$
- $m + 1.3 = 2.8$
- $n + 4.5 = 10.8$
- $k + 8 = 15$
- $2.7 + g = 8.2$
- $2.6 = 1.9 + g$

Example 2 (page 91)

Write and solve an equation. Then check the solution.


-  **Biology** A hippopotamus can hold its breath for about 15 minutes. A sea otter can hold its breath about 10 minutes less than a hippopotamus. How long can a sea otter hold its breath?
-  **Sale** Jeans that were on sale last week now cost \$29.97. The savings were \$4.99. What was the sale price of the jeans?

Example 3 (page 92)

Solve each equation.

- $x - 16 = 72$
- $x - 5.7 = 5.7$
- $n - 2 = 18$
- $d - 8 = 40$
- $y - 12 = 23$
- $k - 56 = 107$
- $5.8 = n - 0.35$
- $0.6 = h - 2.9$
- $q - 8 = 154$

Example 4 (page 92)

-  **Biology** The height of the female giraffe in one zoo is 14.1 feet. The female is 3.2 feet shorter than the male giraffe. Write and solve an equation to find the male's height.

B Apply Your Skills

Solve each equation.

- $y + 13.82 = 24$
- $1.5 + x = 9.7$
- $p - 1.23 = 8.77$
- $0.4 + g = 1.9$
- $n - 10.5 = 11.7$
- $11.4 = h + 5.9$

- Writing in Math** Write a real-world problem that can be solved by writing an equation that contains a variable. Then solve the equation.
- Estimation** Use estimation to check whether 59.4 is a reasonable solution for the equation $x + 27.6 = 31.8$. Explain your answer.
- You buy a poster and a framing kit. The total cost is \$18.95. You have \$7.05 left in your wallet. Write and solve an equation to find how much money was in your wallet before these purchases.

- 31. National Seashores** The area of Cape Canaveral National Seashore in Florida is approximately 57,627 acres. The area of Cape Cod National Seashore in Massachusetts is approximately 14,101 acres smaller. Write and solve an equation to find the approximate area of Cape Cod National Seashore.
- 32. a. Data File, p. 61** Write and solve an equation to find the last Year of the Monkey prior to 2004.
- b.** Write and solve an equation to find the next Year of the Dragon.

C Challenge



The earliest known number square, the *lo-shu*, was written on a tortoise shell. It may have looked like this drawing.

- 33. Error Analysis** Sonja says the solution to $y - 1,214 = 31,214$ is 30,000. What is her error?

- 34. Number Squares** In a number square, the sum of the numbers in each row, column, and main diagonal is the same.

a	7	2
1	5	b
8	c	4

- a.** Find the sum for the square at the right.
- b.** Use the sum to write and solve equations to find the values of a , b , and c .

- 35. Stretch Your Thinking** A large stepping stone in a garden weighs five times as much as a brick. Together, one brick and one stepping stone weigh 30 pounds. Find the weight of the stepping stone.



Test Prep

Multiple Choice

36. Which of the following operations would you use to get the variable in $x + 6 = 27$ alone on one side of the equation?
- A. Add 6 to both sides. B. Subtract 6 from both sides.
C. Add 27 to both sides. D. Subtract 27 from both sides.
37. What is the solution of $x - 42 = 17$?
- F. 25 G. 35 H. 49 I. 59
38. What is the solution of $n + 16 = 85$?
- A. 86 B. 83 C. 73 D. 69
39. What is the solution of $z - 2.71 = 5$?
- F. 2.29 G. 2.76 H. 3.21 I. 7.71
40. What is the solution of $86.04 = 57.2 + y$?
- A. 143.24 B. 29.24 C. 29.2 D. 28.84



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Mixed Review

Lesson 2-1

41. **Algebra** Write the first five terms in the number pattern *start with 37 and add 3 repeatedly*.

Lesson 1-10

Find the value of each expression.

42. $24 \div 4 - 2 \times 3$

43. $24 \div 3 - 2 \times 4$

44. $24 \div (3 - 2) \times 4$

45. $(24 \div 3 - 2) \times 4$