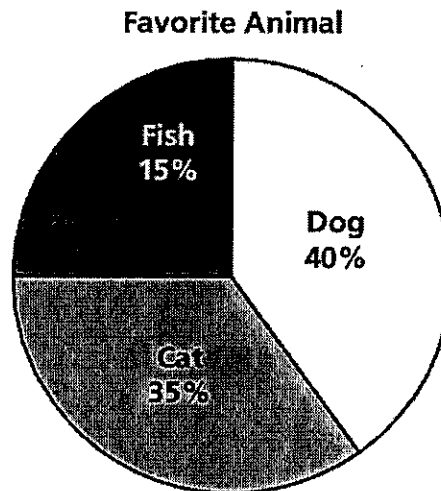


**Chapter
6****Cumulative Assessment**

- Which of the following points is the reflection of $(8, -5)$ in the y -axis?
 - $(8, 5)$
 - $(-5, 8)$
 - $(-8, 5)$
 - $(-8, -5)$
- A survey asked 80 students to name their favorite animal. The results are shown in the circle graph.



- You survey 20 more students. How many do you expect to say cats are their favorite animal?
- 7
 - 8
 - 12
 - 28
- GRIDDED RESPONSE** What is the least common multiple of 10 and 16?
 - Which set of ordered pairs are the vertices of a square?
 - $W(1, 0), X(1, 3), Y(3, 1), Z(3, 0)$
 - $W(-4, 2), X(-1, 2), Y(-1, -2), Z(-4, -2)$
 - $W(1, -3), X(4, -2), Y(4, -5), Z(1, -6)$
 - $W(-2, 5), X(2, 5), Y(2, 1), Z(-2, 1)$

7.1**Practice**

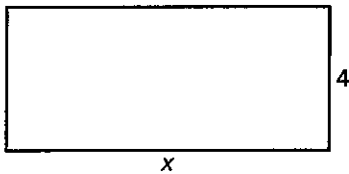
For use after Lesson 7.1

Write the word sentence as an equation.

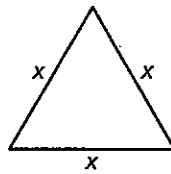
1. 27 is 3 times a number y .
2. The difference of a number x and 4 is 3.
3. 8 more than a number p is 17.
4. Half of a number q is 14.

Write an equation that can be used to find the value of x .

5. Perimeter of rectangle: 32 cm



6. Perimeter of triangle: 20 in.



7. You spend \$16 on 3 notebooks and x binders. Notebooks cost \$2 each and binders cost \$5 each. Write an equation you can use to find the number of binders you bought.

7.1

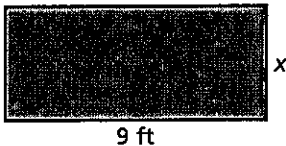
Practice B

Write the word sentence as an equation.

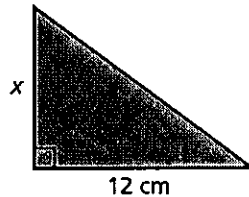
1. 17 is 41 less than n .
2. 168 divided by a number x equals 14.
3. The product of 17 and a number s is 153.
4. A number b increased by 37 is 112.
5. 23 is the quotient of a number t and 61.
6. 114 is 37 more than a number g .
7. 46 less than a is 33.
8. One-fifth of a number d is 22.

Write an equation that can be used to find the value of x .

9. Area of rectangle: 36 ft



10. Area of triangle: 108 cm^2



11. You want to put 520 quarters in coin wrappers. You need one wrapper for every \$10 in quarters. Write an equation you can use to find how many wrappers w you need.
12. You use a metal detector at the beach. You find 2 quarters, 12 dimes, and 23 pennies. Write an equation you can use to find how many more pennies p you need to find in order to have a total of \$2.00.
13. In one minute, you climb halfway up a rock wall. In another minute, you are 24 feet above the ground after covering half of the remaining height. Write an equation you can use to find the total height h of the rock wall.

14. A golf driving range has small buckets of golf balls for \$6 each and medium buckets of golf balls for \$8 each. One day, golfers use 27 small buckets and some medium buckets for a total cost of \$626. Write an equation you can use to find the number m of medium buckets used.



15. A silkworm winds its cocoon out of one long silk fiber. To make silk thread, 3 to 10 of these silk fibers are unwound from their cocoons and combined into a single thread with a typical length of 300 yards.
- a. Explain why you cannot write an equation to find the exact total length of the silk fibers used in a 300-yard silk thread.
 - b. Choose a reasonable number of silk fibers in a thread. Write an equation to find the total length of the silk fibers used in 300 yards of the thread.

7.2 Practice A

Tell whether the given value is a solution of the equation.

1. $x + 16 = 20$; $x = 4$

2. $p - 4 = 28$; $p = 32$

3. $4w = 44$; $w = 10$

4. $\frac{y}{6} = 6$; $y = 24$

Solve the equation. Check your solution.

5. $x - 5 = 9$

6. $y - 12 = 0$

7. $q + 8 = 25$

8. $f - 22 = 14$

9. $8 + s = 10$

10. $r - 3.2 = 1.7$

11. $8.9 = v + 7.3$

12. $\frac{1}{3} + n = \frac{2}{3}$

13. $\frac{2}{3} = \frac{1}{4} + g$

Describe and correct the error in solving the equation.

14.
$$\begin{array}{r} \times \quad 13 + m = 56 \\ \quad \underline{+13} \qquad \quad \underline{+13} \\ \qquad \qquad m = 69 \end{array}$$

15.
$$\begin{array}{r} \times \quad 27 = n - 15 \\ \quad \underline{-15} \qquad \quad \underline{+15} \\ \qquad \qquad 12 = n \end{array}$$

Write the word sentence as an equation. Then solve the equation.

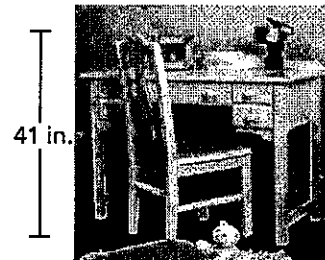
16. 20 equals 8 more than a number y .

17. The sum of a number x and 12 equals 15.

18. 4 less than a number g equals 9.

19. A number w decreased by 10 is 3.

20. The height of a desk is 11 inches shorter than the height of a chair. Write and solve an equation to find the height of the desk.



21. The Florida Panther has an average height of 30 inches. It is 20 inches taller than the Northern Mockingbird. Write and solve an equation to find the average height of the Northern Mockingbird.

22. The advertised price of a cell phone is \$149 after a \$50 mail-in rebate. Write and solve an equation to find the price of the cell phone before the rebate is applied.

7.2

Practice B

Tell whether the given value is a solution of the equation.

1. $2.5w = 12.5$; $w = 5$

2. $\frac{y}{8} = 7$; $y = 64$

3. $39 = 3.9t$; $t = 10$

4. $\frac{1}{4} = \frac{1}{8}m$; $m = 2$

Write the word sentence as an equation. Then solve the equation.

5. A number a decreased by 13.4 is 2.6.

6. 27 less than a number h equals 3.5.

7. 46 equals 2.5 more than a number z .

8. The sum of a number b and 4.7 equals 10.9.

Solve the equation. Check your solution.

9. $x - 72 = 136$

10. $251 = 148 + j$

11. $\frac{4}{5} + a = 1$

12. $n - 10 = 13 + 5$

13. $v + 17 - 11 = 65$

14. $47 - 15 + c = 79$

15. $7 + 57 = 3 + y$

16. $30 + 12 = e - 42$

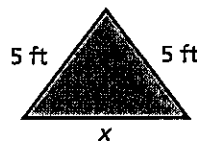
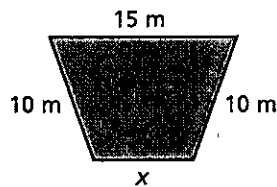
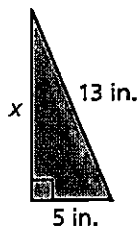
17. $21 - 16 + \ell = 14 - 4$

Write and solve an addition equation to find x .

18. Perimeter = 30 in.

19. Perimeter = 43 m

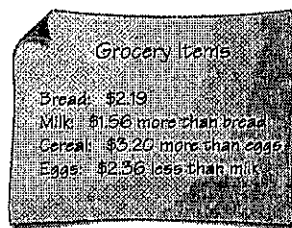
20. Perimeter = 16 ft



21. You are grocery shopping. You have \$12.

a. Write and solve three equations to find the cost m of the milk, the cost c of the cereal, and the cost e of the eggs.

b. How much money do you have left if you purchase one of each item?



22. A jacket is on sale for \$10 off. You have a coupon worth \$5.80 that brings the cost of the jacket down to \$33.19. Write and solve an equation to find the original cost c of the jacket.