

# Practice 6-1

## Ratios and Unit Rates

**Find each unit rate.**

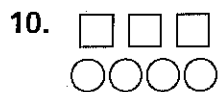
1. 78 mi on 3 gal \_\_\_\_\_
2. \$52.50 in 7 h \_\_\_\_\_
3. 416 mi in 8 h \_\_\_\_\_
4. 9 bull's eyes in 117 throws \_\_\_\_\_

**Write each ratio as a fraction in simplest form.**

5. 7th-grade boys to 8th-grade boys \_\_\_\_\_
6. 7th-grade girls to 7th-grade boys \_\_\_\_\_
7. 7th graders to 8th graders \_\_\_\_\_
8. boys to girls \_\_\_\_\_
9. girls to all students \_\_\_\_\_

	Boys	Girls
7th Grade	26	34
8th Grade	30	22

**Write three different ratios for each model.**



\_\_\_\_\_

**Write each ratio as a fraction in simplest form.**

13. 7 : 12 \_\_\_\_\_
14. 3 is to 6 \_\_\_\_\_
15. 10 : 45 \_\_\_\_\_
16. 32 out of 40 \_\_\_\_\_
17. 36 is to 60 \_\_\_\_\_
18. 13 out of 14 \_\_\_\_\_
19. 9 out of 21 \_\_\_\_\_
20. 45 : 63 \_\_\_\_\_
21. 24 is to 18 \_\_\_\_\_
22. 15 out of 60 \_\_\_\_\_

**Practice 6-2**

Proportions

Write a proportion for each phrase. Then solve. When necessary, round to the nearest hundredth.

1. 420 ft<sup>2</sup> painted in 36 min;  $f$  ft<sup>2</sup> painted in 30 min

\_\_\_\_\_

2. 75 points scored in 6 games;  $p$  points scored in 4 games

\_\_\_\_\_

3. 6 apples for \$1.00; 15 apples for  $d$  dollars

\_\_\_\_\_

Tell whether each pair of ratios forms a proportion.

4.  $\frac{3}{4}$  and  $\frac{9}{12}$  \_\_\_\_\_

5.  $\frac{25}{40}$  and  $\frac{5}{8}$  \_\_\_\_\_

6.  $\frac{8}{12}$  and  $\frac{14}{21}$  \_\_\_\_\_

7.  $\frac{13}{15}$  and  $\frac{4}{5}$  \_\_\_\_\_

8.  $\frac{4}{5}$  and  $\frac{5}{6}$  \_\_\_\_\_

9.  $\frac{49}{21}$  and  $\frac{28}{12}$  \_\_\_\_\_

Solve each proportion. Where necessary, round to the nearest tenth.

10.  $\frac{3}{5} = \frac{15}{x}$  \_\_\_\_\_

11.  $\frac{15}{30} = \frac{n}{34}$  \_\_\_\_\_

12.  $\frac{h}{36} = \frac{21}{27}$  \_\_\_\_\_

13.  $\frac{11}{6} = \frac{f}{60}$  \_\_\_\_\_

14.  $\frac{26}{15} = \frac{130}{m}$  \_\_\_\_\_

15.  $\frac{36}{j} = \frac{7}{20}$  \_\_\_\_\_

16.  $\frac{r}{23} = \frac{17}{34}$  \_\_\_\_\_

17.  $\frac{77}{93} = \frac{x}{24}$  \_\_\_\_\_

18. At Discount Copy, 12 copies cost \$0.66. Melissa needs 56 copies. How much should they cost?

\_\_\_\_\_

19. You estimate that you can do 12 math problems in 45 min. How long should it take you to do 20 math problems?

\_\_\_\_\_

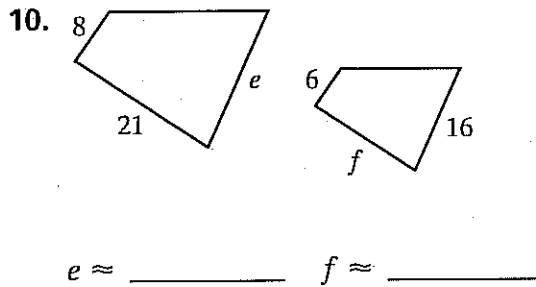
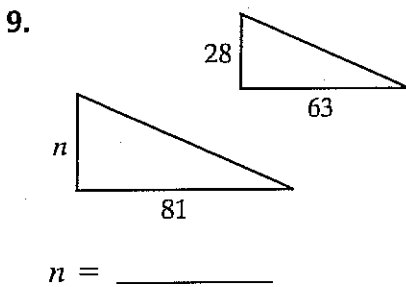
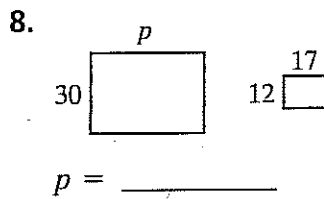
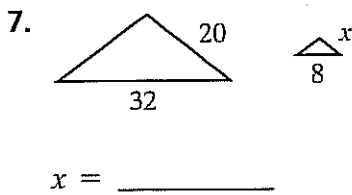
# Practice 6-3

## Similar Figures and Scale Drawings

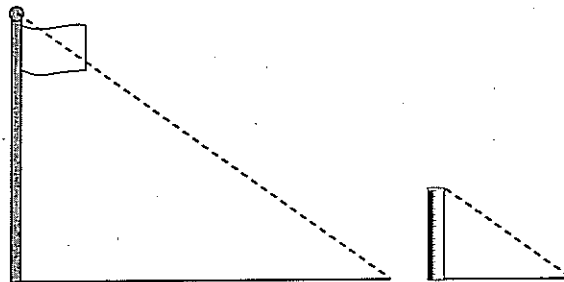
The scale of a map is  $\frac{1}{2}$  in. : 8 mi. Find the actual distance for each map distance.

- |                    |                   |                                |
|--------------------|-------------------|--------------------------------|
| 1. 2 in.<br>_____  | 2. 5 in.<br>_____ | 3. $3\frac{1}{2}$ in.<br>_____ |
| 4. 10 in.<br>_____ | 5. 8 in.<br>_____ | 6. $7\frac{1}{4}$ in.<br>_____ |

Each pair of figures is similar. Find the missing length. Round to the nearest tenth where necessary.



11. A meter stick casts a shadow 1.4 m long at the same time a flagpole casts a shadow 7.7 m long. The triangle formed by the meterstick and its shadow is similar to the triangle formed by the flagpole and its shadow. How tall is the flagpole?
- \_\_\_\_\_



A scale drawing has a scale of  $\frac{1}{4}$  in. : 6 ft. Find the length on the drawing for each actual length.

- |                    |                    |                     |
|--------------------|--------------------|---------------------|
| 12. 18 ft<br>_____ | 13. 66 ft<br>_____ | 14. 204 ft<br>_____ |
|--------------------|--------------------|---------------------|

# Practice 6-4

Probability

Find each probability for choosing a letter at random from the word **PROBABILITY**.

1.  $P(B)$  \_\_\_\_\_                      2.  $P(P)$  \_\_\_\_\_  
 3.  $P(A \text{ or } I)$  \_\_\_\_\_                      4.  $P(\text{not } P)$  \_\_\_\_\_

A child is chosen at random from the Erb and Smith families. Find the odds in favor of each of the following being chosen.

5. a girl \_\_\_\_\_                      6. an Erb \_\_\_\_\_  
 7. an Erb girl \_\_\_\_\_                      8. a Smith girl \_\_\_\_\_  
 9. not a Smith boy \_\_\_\_\_                      10. a Smith \_\_\_\_\_

	Erb family	Smith family
Girls	2	5
Boys	4	3

A box contains 7 red, 14 yellow, 21 green, 42 blue, and 84 purple marbles. A marble is drawn at random from the box. Find each probability.

11.  $P(\text{red})$  \_\_\_\_\_                      12.  $P(\text{yellow})$  \_\_\_\_\_  
 13.  $P(\text{green or blue})$  \_\_\_\_\_                      14.  $P(\text{purple, yellow, or red})$  \_\_\_\_\_  
 15.  $P(\text{not green})$  \_\_\_\_\_                      16.  $P(\text{not purple, yellow, or red})$  \_\_\_\_\_

Find the odds in favor of each selection when a marble is chosen at random from the box described above.

17. blue \_\_\_\_\_                      18. purple \_\_\_\_\_  
 19. not red \_\_\_\_\_                      20. not green or blue \_\_\_\_\_  
 21. yellow \_\_\_\_\_                      22. not purple or yellow \_\_\_\_\_

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**Practice 6-5**

Fractions, Decimals, and Percents

Write each decimal or fraction as a percent. Round to the nearest tenth of a percent where necessary.

1. 0.16 \_\_\_\_\_

2. 0.72 \_\_\_\_\_

3.  $\frac{24}{25}$  \_\_\_\_\_

4.  $\frac{31}{40}$  \_\_\_\_\_

5.  $\frac{111}{200}$  \_\_\_\_\_

6.  $\frac{403}{1,000}$  \_\_\_\_\_

7. 3.04 \_\_\_\_\_

8. 5.009 \_\_\_\_\_

9. 0.0004 \_\_\_\_\_

10.  $\frac{40}{13}$  \_\_\_\_\_

11.  $\frac{4}{7}$  \_\_\_\_\_

12.  $\frac{57}{99}$  \_\_\_\_\_

Write each percent as a decimal.

13. 8% \_\_\_\_\_

14. 12.4% \_\_\_\_\_

15. 145% \_\_\_\_\_

16. 0.07% \_\_\_\_\_

17.  $7\frac{1}{2}\%$  \_\_\_\_\_

18.  $15\frac{1}{4}\%$  \_\_\_\_\_

Write each percent as a fraction or mixed number in simplest form.

19. 60% \_\_\_\_\_

20. 5% \_\_\_\_\_

21. 35% \_\_\_\_\_

22. 32% \_\_\_\_\_

23. 140% \_\_\_\_\_

24. 0.8% \_\_\_\_\_

Use  $>$ ,  $<$ , or  $=$  to complete each statement.

25.  $0.7$    $7\%$

26.  $80\%$    $\frac{4}{5}$

27.  $\frac{1}{3}$    $33\%$

28. In the United States in 1990, about one person in twenty was 75 years old or older. Write this fraction as a percent.

\_\_\_\_\_

**Practice 6-6**

## Proportions and Percents

Write a proportion. Then solve. Where necessary, round to the nearest tenth or tenth of a percent.

1.  $62\frac{1}{2}\%$  of  $t$  is 35. What is  $t$ ? \_\_\_\_\_
2. 38% of  $n$  is 33.44. What is  $n$ ? \_\_\_\_\_
3. 120% of  $y$  is 42. What is  $y$ ? \_\_\_\_\_
4. 300% of  $m$  is 600. What is  $m$ ? \_\_\_\_\_
5. 1.5% of  $h$  is 12. What is  $h$ ? \_\_\_\_\_
6. What percent of 40 is 12? \_\_\_\_\_
7. What percent of 48 is 18? \_\_\_\_\_
8. What percent is 54 of 60? \_\_\_\_\_
9. What percent is 39 of 50? \_\_\_\_\_
10. Find 80% of 25. \_\_\_\_\_
11. Find 150% of 74. \_\_\_\_\_
12. Find 44% of 375. \_\_\_\_\_
13. Find 65% of 180. \_\_\_\_\_
14. The Eagles won 70% of the 40 games that they played. How many games did they win?  
\_\_\_\_\_
15. Thirty-five of 40 students surveyed said that they favored recycling. What percent of those surveyed favored recycling?  
\_\_\_\_\_
16. Candidate Carson received 2,310 votes, 55% of the total. How many total votes were cast?  
\_\_\_\_\_

**Practice 6-7**

Write and solve an equation. Where necessary, round to the nearest tenth or tenth of a percent.

1. What percent of 25 is 17? \_\_\_\_\_
2. What percent is 10 of 8? \_\_\_\_\_
3. What percent is 63 of 84? \_\_\_\_\_
4. What percent is 3 of 600? \_\_\_\_\_
5. Find 45% of 60. \_\_\_\_\_
6. Find 325% of 52. \_\_\_\_\_
7. Find  $66\frac{2}{3}\%$  of 87. \_\_\_\_\_
8. Find 1% of 3,620. \_\_\_\_\_
9.  $62\frac{1}{2}\%$  of  $x$  is 5. What is  $x$ ? \_\_\_\_\_
10. 300% of  $k$  is 42. What is  $k$ ? \_\_\_\_\_
11.  $33\frac{1}{3}\%$  of  $p$  is 19. What is  $p$ ? \_\_\_\_\_
12. 70% of  $c$  is 49. What is  $c$ ? \_\_\_\_\_
13. 15% of  $n$  is 1,050. What is  $n$ ? \_\_\_\_\_
14. 38% of  $y$  is 494. What is  $y$ ? \_\_\_\_\_
15. A camera regularly priced at \$295 was placed on sale at \$236. What percent of the regular price was the sale price?  
\_\_\_\_\_
16. Nine hundred thirty-six students, 65% of the entire student body, attended the football game. Find the size of the student body.  
\_\_\_\_\_

**Practice 6-8**Percent of Change  
.....

Find each percent of change. Round to the nearest tenth of a percent. Tell whether the change is an increase or a decrease.

1. 24 to 21 \_\_\_\_\_
  2. 64 to 80 \_\_\_\_\_
  3. 100 to 113 \_\_\_\_\_
  4. 50 to 41 \_\_\_\_\_
  5. 63 to 105 \_\_\_\_\_
  6. 42 to 168 \_\_\_\_\_
  7. 80 to 24 \_\_\_\_\_
  8. 200 to 158 \_\_\_\_\_
  9. 56 to 71 \_\_\_\_\_
  10. 127 to 84 \_\_\_\_\_
  11. 20 to 24 \_\_\_\_\_
  12. 44 to 22 \_\_\_\_\_
  13. 16 to 12 \_\_\_\_\_
  14. 10 to 100 \_\_\_\_\_
  15. 20 to 40 \_\_\_\_\_
  16. 10 to 50 \_\_\_\_\_
  17. 12 to 16 \_\_\_\_\_
  18. 80 to 100 \_\_\_\_\_
  19. 69 to 117 \_\_\_\_\_
  20. 19 to 9 \_\_\_\_\_
  21. 95 to 145 \_\_\_\_\_
  22. 88 to 26 \_\_\_\_\_
23. Mark weighed 110 pounds last year. He weighs 119 pounds this year. What is the percent of increase in his weight, to the nearest tenth of a percent?  
\_\_\_\_\_
24. Susan had \$140 in her savings account last month. She added \$20 this month and earned \$.50 interest. What is the percent of increase in the amount in her savings account to the nearest tenth of a percent?  
\_\_\_\_\_
25. The population density of California was 151.4 people per square mile in 1980. By 1990 it had increased to 190.8 people per square mile. Find the percent increase to the nearest percent.  
\_\_\_\_\_



**Practice 6-9****Markup and Discount**

Find each sale price. Round to the nearest cent where necessary.

	Regular Price	Percent of Discount	Sale Price
1.	\$46	25%	
2.	\$35.45	15%	
3.	\$174	40%	
4.	\$1.40	30%	
5.	\$87	50%	
6.	\$675	20%	

Find each selling price. Round to the nearest cent where necessary.

	Cost	Percent Markup	Selling Price
7.	\$5.50	75%	
8.	\$25	50%	
9.	\$170	85%	
10.	\$159.99	70%	
11.	\$12.65	90%	
12.	\$739	20%	

13. A company buys a sweater for \$14 and marks it up 90%. It later discounts the sweater 25%.

a. Find the selling price of the sweater after markup.

\_\_\_\_\_

b. How much was the discount?

\_\_\_\_\_

c. Find the sale price after the discount.

\_\_\_\_\_

d. The company's profit on the sweater can be found by subtracting the final selling price minus the cost. What was the company's profit on the sweater?

\_\_\_\_\_

e. The profit was what percent of the cost?

\_\_\_\_\_

# Practice 6-10

Make a Table

Make a table to solve each problem.

1. A car was worth \$12,500 in 1998. Its value depreciates, or decreases, 15% per year. Find its value in 2002.

Year	1998	1999	2000	2001	2002
Car's Value	\$12,500				

2. Marcus spent \$105 on 6 items at a sale. Videotapes were on sale for \$15 each and music CD's were on sale for \$20 each. How many of each item did Marcus buy?

Number of Videotapes	1	2	3	4	5
Number of CD's	5	4	3	2	1
Total Cost					

3. Karina likes to mix either apple, orange, or grape juice with either lemon-lime soft drink or sparkling water to make a fizz. How many different fizzes can she make?

4. How many ways can you have 25 cents in change?

5. The deer population of a state park has increased 8% a year for the last 4 years. If there are 308 deer in the park this year, find how large the population was 4 years ago by completing the table.

Year		1	2	3	4
Deer Population					308

6. How many different sandwiches can you make from 3 types of bread, 2 types of cheese, and 2 types of meat? Assume that only one type of each item is used per sandwich.

7. A bus leaves a station at 8:00 A.M. and averages 30 mi/h. Another bus leaves the same station following the same route two hours after the first and averages 50 mi/h. When will the second bus catch up with the first bus?

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# Chapter 6 Answers

## Practice 6-1

1. 26 mi/gal 2. \$7.50/h 3. 52 mi/h  
4. 13 throws/bull's eye 5.  $\frac{13}{15}$  6.  $\frac{17}{13}$  7.  $\frac{15}{13}$   
8.  $\frac{1}{1}$  9.  $\frac{1}{2}$  10.  $\frac{3}{4}, \frac{3}{7}, \frac{4}{7}$  11.  $\frac{3}{2}, \frac{3}{5}, \frac{2}{5}$  12.  $\frac{2}{4}, \frac{2}{6}, \frac{4}{6}$   
13.  $\frac{7}{12}$  14.  $\frac{1}{2}$  15.  $\frac{2}{9}$  16.  $\frac{4}{5}$  17.  $\frac{3}{5}$  18.  $\frac{13}{14}$   
19.  $\frac{3}{7}$  20.  $\frac{5}{7}$  21.  $\frac{4}{3}$  22.  $\frac{1}{4}$

## Practice 6-2

1.  $\frac{420}{36} = \frac{f}{30}$ ,  $f = 350$  ft<sup>2</sup> 2.  $\frac{75}{6} = \frac{p}{4}$ ,  $p = 50$  pts  
3.  $\frac{6}{1.00} = \frac{15}{d}$ ,  $d = \$2.50$  4. proportion 5. proportion  
6. proportion 7. not a proportion  
8. not a proportion 9. proportion 10.  $x = 25$   
11.  $n = 17$  12.  $h = 28$  13.  $f = 110$   
14.  $m = 75$  15.  $j = 102.9$  16.  $r = 11.5$   
17.  $x = 19.9$  18. \$3.08 19. 75 min

## Practice 6-3

1. 32 mi 2. 80 mi 3. 56 mi 4. 160 mi  
5. 128 mi 6. 116 mi 7. 5 8. 42.5 9. 36  
10. 21.3, 15.8 11. 5.5 m 12.  $\frac{3}{4}$  in. 13.  $2\frac{3}{4}$  in.  
14.  $8\frac{1}{2}$  in.

## Practice 6-4

1.  $\frac{2}{11}$  2.  $\frac{1}{11}$  3.  $\frac{3}{11}$  4.  $\frac{10}{11}$  5. 1 to 1 6. 3 to 4  
7. 1 to 6 8. 5 to 9 9. 11 to 3 10. 4 to 3  
11.  $\frac{1}{24}$  12.  $\frac{1}{12}$  13.  $\frac{3}{8}$  14.  $\frac{5}{8}$  15.  $\frac{7}{8}$  16.  $\frac{3}{8}$   
17. 1 to 3 18. 1 to 1 19. 23 to 1 20. 5 to 3  
21. 1 to 11 22. 5 to 7

## Practice 6-5

1. 16% 2. 72% 3. 96% 4. 77.5%  
5. 55.5% 6. 40.3% 7. 304% 8. 500.9%  
9. 0.04% 10. 307.7% 11. 57.1% 12. 57.6%  
13. 0.08 14. 0.124 15. 1.45 16. 0.0007  
17. 0.075 18. 0.1525 19.  $\frac{3}{5}$  20.  $\frac{1}{20}$  21.  $\frac{7}{20}$   
22.  $\frac{8}{25}$  23.  $1\frac{2}{5}$  24.  $\frac{1}{125}$  25.  $>$  26.  $=$  27.  $>$   
28. 5%

## Practice 6-6

1. 56 2. 88 3. 35 4. 200 5. 800 6. 30%  
7. 37.5% 8. 90% 9. 78% 10. 20 11. 111

12. 165 13. 117 14. 28 games 15. 87.5%  
16. 4,200 votes

## Practice 6-7

1. 68% 2. 125% 3. 75% 4. 0.5% 5. 27  
6. 169 7. 58 8. 36.2 9. 8 10. 14 11. 57  
12. 70 13. 7,000 14. 1,300 15. 80%  
16. 1,440 students

## Practice 6-8

1. 12.5%; decrease 2. 25%; increase 3. 13%;  
increase 4. 18%; decrease 5. 66.7%; increase  
6. 300%; increase 7. 70%; decrease 8. 21%;  
decrease 9. 26.8%; increase 10. 33.9%;  
decrease 11. 20%; increase 12. 50%; decrease  
13. 25%; decrease 14. 900%; increase  
15. 100%; increase 16. 400%; increase  
17. 33.3%; increase 18. 25%; increase  
19. 69.6%; increase 20. 52.6%; decrease  
21. 52.6% increase 22. 70.5%; decrease  
23. 8.2% 24. 14.6% 25. 26%

## Practice 6-9

1. \$34.50 2. \$30.13 3. 104.40 4. \$.98  
5. \$43.50 6. \$540.00 7. \$9.63 8. \$37.50  
9. \$314.50 10. \$271.98 11. \$24.04  
12. \$886.80 13.a. \$26.60 b. \$6.65 c. \$19.95  
d. \$5.95 e. 42.5%

## Practice 6-10

1. \$10,625; \$9,031.25; \$7,676.56; \$6,525.08  
2. \$115, \$110, \$105, \$100, \$95; Marcus bought 3  
videotapes and 3 CD's 3. 6 fizzes 4. 13 ways  
5. 226; 244; 264; 285 6. 12 different sandwiches  
7. 1:00 P.M.

## Reteaching 6-1

1. \$6.50/h 2. 62 mi/h 3. \$1.095/gal  
4. 9.5 gal/min 5. 13.5¢/oz 6. 74 words/min  
7. \$.09/fl oz; \$.11/fl oz; 12 fl oz bottle 8. 8.2  
mi/gal; 9.5 mi/gal; returning from the museum

## Reteaching 6-2

1.  $p = 14$  2.  $x = 8$  3.  $y = 39$  4.  $x = 5.25$   
5.  $t = 72$  6.  $y = 46.67$  7.  $e = 24.5$   
8.  $k = 15$  9.  $m = 22.5$  10.  $w = 38.4$

# Chapter 6 Answers (continued)

11.  $z = 4$  12.  $a = 28$  13.  $r = 52$  14.  $t = 48$   
15.  $c = 6.3$  16.  $e = 18$

## Reteaching 6-3

- 1.a.  $\frac{MN}{ST} = \frac{MP}{SW}, \frac{MN}{ST} = \frac{NP}{TW}$  b.  $\frac{20}{15} = \frac{NP}{24}$ ;  
 $SW = 27, NP = 32$  2.  $DK = 55, RV = 84$   
3.  $AN = 39, GS = 42$

## Reteaching 6-4

1.  $\frac{1}{4}$  2.  $\frac{1}{6}$  3.  $\frac{5}{6}$  4. 1 5.  $\frac{3}{4}$  6. 0 7.  $\frac{1}{20}$  8.  $\frac{1}{2}$   
9.  $\frac{1}{5}$  10. 0 11.  $\frac{11}{20}$  12.  $\frac{2}{5}$  13.  $\frac{1}{4}$  14. 1  
15.  $\frac{1}{5}$  16.  $\frac{1}{2}$

## Reteaching 6-5

1. 70% 2. 60% 3. 55% 4. 68% 5. 20%  
6. 39% 7. 5% 8. 26% 9. 62.5%  
10. 18.75% 11.  $\frac{3}{20}$  12.  $\frac{1}{8}$  13.  $\frac{19}{25}$  14.  $\frac{7}{50}$   
15.  $\frac{3}{5}$  16.  $\frac{97}{100}$  17.  $\frac{1}{4}$  18.  $\frac{3}{10}$  19.  $\frac{41}{50}$  20.  $\frac{11}{16}$

## Reteaching 6-6

1. 80% 2. 75% 3. 68% 4. 127.5%  
5. 87.5% 6. 26.3% 7. 28.8 8. 57 9. 78  
10. 26.4 11. 12.2 12. 14.5 13. 70  
14. 300 15. 16 16. 30,666.7 17. 1,607.7  
18. 64.7

## Reteaching 6-7

1. 140% 2. 65% 3. 66.7% 4. 87.5%  
5. 37.5% 6. 22.2% 7. 39 8. 0.1 9. 102  
10. 117 11. 7 12. 47.3 13. 63.2 14. 70.8  
15. 140 16. 175 17. 384 18. 325

## Reteaching 6-8

1. 12.5% 2. 66.7% 3. 126.7% 4. 700%  
5. 62.5% 6. 75% 7. 40% 8. 175% 9. 75%  
10. 37.5% 11. 45% 12. 33.3% 13. 30.3%  
14. 12% 15. 100% 16. 68%

## Reteaching 6-9

1. \$25.50 2. \$81.60 3. \$203.50 4. \$143.55  
5. \$452.25 6. \$14.25 7. \$115.60 8. \$594.30  
9. \$17.99 10. \$1.68

## Reteaching 6-10

1. \$90; \$1,890 2. \$1,890; \$94.50; \$1,984.50  
3. \$1,984.50; \$99.23; \$2,083.73 4. \$2,083.73;  
\$104.19; \$2,187.92 5. \$2,187.92; \$109.40;  
\$2,297.32 6. \$2,297.32; \$114.87; \$2,412.19;  
7. \$2,412.19; \$120.61; \$2,532.80 8. \$2,532.80;  
\$126.64; \$2,659.44 9. \$2,659.44; \$132.97;  
\$2,792.41 10. \$2,792.41; \$139.62; \$2,932.03,  
\$2,932.03

## Enrichment 6-1

1. 460 2a.  $\frac{3}{10}$  2b.  $\frac{1}{20}$  2c.  $\frac{2}{5}$  2d.  $\frac{1}{4}$   
3a. 423,200 people 3b. 3,385,600 people  
4. 168 5a.  $\frac{1}{3}$  5b.  $\frac{5}{12}$  5c.  $\frac{1}{4}$  6. 29 7.  $\frac{29}{42}$

## Enrichment 6-2

1. Sample answers:  $\frac{4}{5} = \frac{8}{10}, \frac{4}{8} = \frac{5}{10}$ , true 2. true  
3. true 4. true 5. false 6. false 7. true  
8. true 9.  $\frac{C+D}{D}, \frac{C-D}{D}$  10. Sample answers:  
 $\frac{9}{-1} = \frac{18}{-2}, \frac{5}{-1} = \frac{15}{-3}, \frac{15}{-1} = \frac{30}{-2}$  11. yes

## Enrichment 6-3

1. Check students' work. 2. Check students'  
work. 3. Check students' drawings.

## Enrichment 6-4

1.  $\frac{1}{8}$ , 1 to 7 2.  $\frac{1}{2}$ , 1 to 1 3.  $\frac{3}{4}$ , 3 to 1 4.  $\frac{3}{8}$ , 3 to 5  
5.  $\frac{a}{a+b}$  6. 1 to 7 7. 13 to 3 8. 3 to 5  
9. 3 to 1 10.  $\frac{1}{8}$  11.  $\frac{13}{16}$  12.  $\frac{3}{8}$  13.  $\frac{3}{4}$

## Enrichment 6-5

1. 40% E 2. 35% A 3. 30% A 4. 8% A  
5. 25% I 6. 20% G 7.  $33\frac{1}{3}\%$  R 8. 80% C  
9. 37.5% N 10. 2% D 11. 3% S 12. 200%  
W 13. 2.5% L  
A SCALE DRAWING

## Enrichment 6-6

1. 400 2. 60%, 35%, 7% 3. age 20–39  
4. 120 males 5. 12.5% 6. 6,400 females  
7. 30 respondents 8.a. 35% b. 14 respondents