

CHAPTER

At-Home Practice

5 Ratios, Rates, and Proportions

Simplify each ratio.

1. $\frac{6}{8}$

2. $\frac{12}{9}$

3. $\frac{20}{30}$

Simplify to tell whether the ratios are equal.

4. $\frac{12}{15}$ and $\frac{28}{35}$

5. $\frac{12}{30}$ and $\frac{30}{75}$

6. $\frac{45}{63}$ and $\frac{36}{96}$

Determine the lower unit price.

7. 6 cans of soup for \$3.39
or 4 cans of soup for \$2.29

8. 28-oz bottle of juice for \$2.29
or 64-oz bottle of juice for \$5.59

Find the appropriate factor for each conversion.

9. It took Sam 40 seconds to run the 160 yards from his house to Steve's house. Find Sam's average speed in yards per second. Use dimensional analysis to check the reasonableness of your answer.

10. A truck traveled 550 ft down a road in 11 seconds. How many miles per hour was the truck traveling?

Tell whether each pair of ratios is proportional.

11. $\frac{15}{24}$ and $\frac{5}{8}$

12. $\frac{9}{7}$ and $\frac{11}{19}$

13. $\frac{14}{16}$ and $\frac{35}{40}$

Solve each proportion.

14. $\frac{m}{9} = \frac{16}{12}$

15. $\frac{12}{7} = \frac{42}{x}$

16. $\frac{3}{5} = \frac{d}{60}$

Answers: 1. $\frac{2}{3}$ 2. $\frac{4}{3}$ 3. $\frac{2}{3}$ 4. The ratios are in proportion. 5. The ratios are in proportion. 6. The ratios are not in proportion. 7. 6 cans for \$3.39 8. 28 oz for \$2.29 9. 4 yd/s; 8.2 mi/h is reasonable 10. 34 mi/h 11. yes 12. no 13. yes 14. $m = 12$ 15. $x = 24$ 16. $d = 36$

CHAPTER

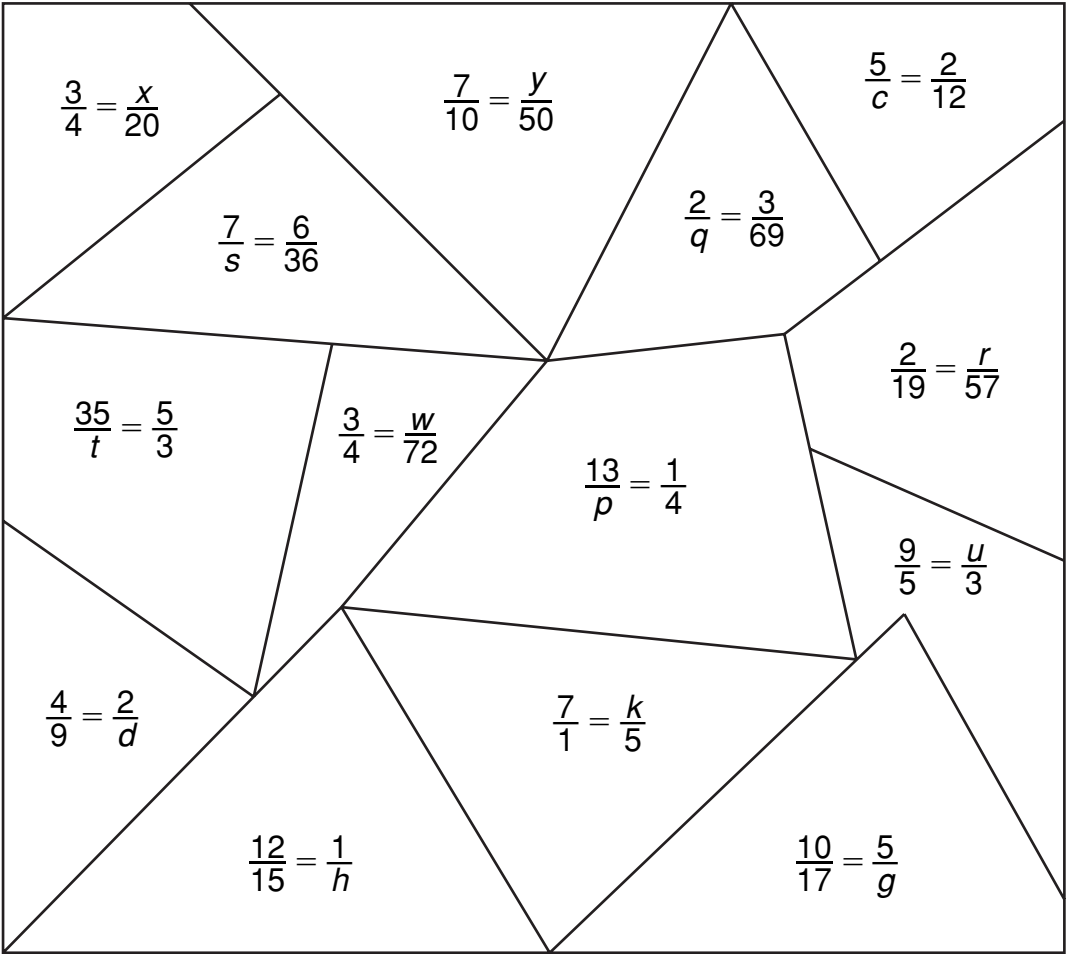
5

Family Fun

Proportional Patterns

Materials
Red and blue markers

Directions
Solve the proportions. If the last digit of the unknown value is even, color that particular area blue. If the last digit of the answer is odd, color that particular area red.



Answers: $c = 30, x = 15, y = 35, q = 46, t = 21, w = 54, p = 52, r = 6, d = 4.5, s = 42, g = 8.5, k = 35, h = 1.25, u = 5.4$