

Resources

- ExamView Assessment Suite
- Spanish Assessment Resources
- ExamView Assessment Suite CD-ROM
- Online Chapter 5 Test at www.PHSchool.com

Pgs 268
1-35
Review

Below Level Chapter Test L2

Chapter Test L3

Chapter Test Form A
Chapter 5

1. There are 14 boys and 16 girls in a class. Write the ratio of boys to girls in simplest form.
7 : 8

Determine whether the ratios in each pair are proportional.

2. 1 : 10; 2 : 5 3. 4 to 7; 28 to 49 4. $\frac{10}{15}$; $\frac{2}{3}$
no **yes** **no**

5. Which is a better buy, 6 apples for \$1.74 or 5 apples for \$1.20? Why?
5 apples for \$1.20; the unit rate, \$.24 < \$.29.

Write the unit rate for each situation.

6. bike 21 km in 50 min **0.42 km/min**

7. earn \$18 for 1 hr 15 min work **\$.24/min**

8. sew 9 curtain panels in 15 days **0.6 curtain panels per day**

9. Wyatt spent $\frac{1}{4}$ of his money on a train set and $\frac{1}{8}$ on tickets to a play. He now has \$18. How much money did Wyatt start with? Explain why you chose the method you did.
\$72; sample answer: Work backwards.

Write each ratio in two other ways.

10. $\frac{2}{5}$ 11. 8 to 3 12. 12 : 15
5 to 9; 5 : 9 8 : 3; $\frac{8}{3}$ 12 to 15; $\frac{12}{15}$

Solve each proportion.

13. $\frac{2}{5} = \frac{m}{10}$ 14. $\frac{0.1}{x} = \frac{2}{3}$ 15. $\frac{100}{3} = \frac{1}{t}$
n = 5 x = 0.15 t = 16

16. Alonso can jog 2 miles in 16 minutes. Is it reasonable to assume that it will take him 24 minutes to jog 3 miles? Explain.
Yes; sample answer: The ratios form a proportion; 24 min/3 mi = 16 min/2 mi.

1. Write a ratio for the following information in three ways: In the United States, 98 million out of 99.6 million homes have at least one television. **98 : 99.6, $\frac{98}{99.6}$, 98 to 99.6**

Write each ratio in two other ways. 2-7. See margin.

2. $\frac{9}{7}$ 3. 48 : 100 4. 33 to 9
5. 46 : 50 6. 19 to 91 7. 6 : 7

8. **Gas Mileage** Engineers test four cars to find their fuel efficiency. Use the information in the table below. Which car gets the most miles per gallon? **Car C**

Car	Miles	Gallons Used
A	225	14
B	312	15
C	315	10
D	452	16

Find the unit rate for each situation.

9. running 2.3 km in 7 min **0.33 km/min**
10. earning \$36.00 in 4 h **\$9.00/h**

11. **Writing in Math** You need to buy 10 lb of rice. A 2-lb bag costs \$1.29. A 10-lb bag costs \$6.99. You want to buy a 10-lb bag. Your friend thinks buying five 2-lb bags is a better deal because the unit rate is lower. Is your friend correct? Explain. **See margin.**

Solve each proportion.

12. $\frac{6}{5} = \frac{n}{7}$ **8.4** 13. $\frac{3}{7} = \frac{8}{x}$ **18 $\frac{2}{3}$** 14. $\frac{k}{4} = \frac{9}{32}$ **1 $\frac{1}{8}$**
15. $\frac{3.5}{d} = \frac{14}{15}$ 16. $\frac{80}{35} = \frac{w}{7}$ 17. $\frac{y}{18} = \frac{2.4}{15}$
3.75 **16** **2.88**

18. The ratio of teachers to students in a middle school is 2 to 25. There are 350 students in the school. Find the number of teachers.
28 teachers

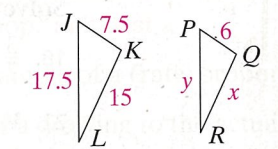
2. **9 : 7, 9 to 7** 7. **$\frac{6}{7}$, 6 to 7**
3. **$\frac{48}{100}$, 48 to 100**
4. **33 : 9, $\frac{33}{9}$**
5. **$\frac{46}{50}$, 46 to 50**
6. **19 : 91, $\frac{19}{91}$**

19. **Maps** A map with a scale of 1 in. : 80 miles shows two cities 5 in. apart. How many miles apart are the cities? **875 mi**

Write each ratio in simplest form.

20. $\frac{7}{49}$ 21. $\frac{12}{4}$ 22. $\frac{8}{2}$
23. $\frac{14}{18}$ 24. $\frac{68}{100}$ 25. $\frac{15}{95}$

26. In the figure below, $\triangle JKL \sim \triangle PQR$. Find x and y. **x = 12, y = 14**



27. **Utilities** Last month, your electric bill was \$25.32 for 450 kilowatt-hours of electricity. At that rate, what would be the bill for 240 kilowatt-hours? **\$13.50**

28. A person who is 60 in. tall casts a shadow that is 15 in. long. How tall is a nearby person who casts a shadow that is 40 in. long? **160 in.**

Use mental math to solve each proportion.

29. $\frac{14}{36} = \frac{7}{x}$ **18** 30. $\frac{40}{16} = \frac{x}{2}$ **5**
31. $\frac{x}{1} = \frac{24}{2}$ **12** 32. $\frac{4}{9} = \frac{12}{x}$ **27**

33. Suppose you are making a scale drawing of a giraffe that is 5.5 m tall. The drawing is 7 cm tall. Find the scale of the drawing. **See margin.**

34. **Ballooning** A hot-air balloon 2,100 ft above the ground can descend at a rate of 1.5 ft/s. The balloon is scheduled to start descending at 3:30 P.M. When should the balloon start descending? **about 3:07 P.M.**

35. **Science** A 380-cubic-centimeter sample of titanium has a mass of 1,170 g. Find the mass of a titanium sample that has a volume of 532 cubic centimeters.

11. **Yes; the 2-lb bag for \$.65/lb is a better buy than the 10-lb bag for \$.70/lb.**
33. **Answers may vary. Sample: 1 cm : 78.6 cm**