

Skill and Concept Check

- Writing Math** Explain how to determine if two ratios are equivalent.
- OPEN ENDED** Write a proportion that has $\frac{12}{15}$ as one of the ratios.
- Which One Doesn't Belong?** Identify the ratio that is not equivalent to the other three. Explain your reasoning.

$$\frac{2}{3}$$

$$\frac{6}{9}$$

$$\frac{4}{6}$$

$$\frac{2}{9}$$

GUIDED PRACTICE

Determine whether each pair of ratios forms a proportion.

4. $\frac{2}{3}$ and $\frac{6}{9}$

5. $\frac{16}{30}$ and $\frac{8}{10.5}$

6. $\frac{5 \text{ ft}}{7 \text{ s}}$ and $\frac{25 \text{ ft}}{49 \text{ s}}$

Solve each proportion.

7. $\frac{24}{6} = \frac{8}{x}$

8. $\frac{n}{5} = \frac{20}{25}$

9. $\frac{7}{t} = \frac{3}{9}$

10. $\frac{8}{12} = \frac{n}{3}$

11. $\frac{a}{6} = \frac{12}{8}$

12. $\frac{13}{25} = \frac{39}{r}$

13. $\frac{21}{5} = \frac{c}{7}$

14. $\frac{7}{x} = \frac{3.5}{9}$

15. **NUTRITION** An 8-ounce glass of orange juice contains 72 milligrams of vitamin C. How much juice contains 60 milligrams of vitamin C?

Practice and Applications

Determine whether each pair of ratios forms a proportion.

16. $\frac{1}{6}$ and $\frac{4}{24}$

17. $\frac{3}{9}$ and $\frac{2}{15}$

18. $\frac{27}{6}$ and $\frac{9}{2}$

19. $\frac{1}{4}$ and $\frac{4}{1}$

20. $\frac{\$8}{20 \text{ lb}}$ and $\frac{\$24}{60 \text{ lb}}$

21. $\frac{21 \text{ mi}}{6 \text{ h}}$ and $\frac{14.3 \text{ mi}}{3 \text{ h}}$

22. If there are 12 wheels, how many bicycles are there?
23. If there are 32 paws, how many kittens are there?

Solve each proportion.

24. $\frac{5}{9} = \frac{10}{x}$

25. $\frac{2}{12} = \frac{a}{36}$

26. $\frac{16}{t} = \frac{2}{3}$

27. $\frac{n}{8} = \frac{3}{4}$

28. $\frac{c}{7} = \frac{18}{42}$

29. $\frac{30}{w} = \frac{8}{20}$

30. $\frac{9}{15} = \frac{b}{10}$

31. $\frac{3}{n} = \frac{27}{18}$

32. $\frac{x}{12} = \frac{12}{4}$

33. $\frac{45}{5} = \frac{t}{7}$

34. $\frac{6}{3} = \frac{5}{w}$

35. $\frac{y}{36} = \frac{15}{24}$

36. $\frac{350}{a} = \frac{2}{10}$

37. $\frac{380}{520} = \frac{760}{n}$

38. $\frac{3}{5} = \frac{0.2}{d}$

39. $\frac{2.5}{4.5} = \frac{7.5}{x}$

40. **MODELS** The toy car shown at the right is modeled after a real car. If the real car is 4.79 meters long, how wide is it? Write the width to the nearest hundredth of a meter.

41. **TESTS** Suppose you received a score of 13 out of 15 on a quiz. Write a proportion to find the percent. Then solve. Round to the nearest percent.

HOMEWORK HELP

For Exercises See Examples

16–21 1, 2

22–46 3, 4

Extra Practice
See pages 580, 602.

