Name _____ Class _____ Date _____

Practice 4-1

Ratio and Proportion

Find each unit rate.

1. \$60 for 8 h

2. $\frac{\$3}{4\text{ lb}}$

3. $\frac{861\text{ bagels}}{3\text{ d}}$

4. $\frac{850\text{ cal}}{1.25\text{ h}}$

5. An 8-ounce bottle of lotion costs \$4.50. What is the cost per ounce?

6. A pound of coffee costs \$14.99. What is the cost per ounce?

Which pairs of ratios could form a proportion? Justify your answer.

7. $\frac{10}{24}, \frac{7}{18}$

8. $\frac{6}{9}, \frac{10}{15}$

9. $\frac{3}{4}, \frac{18}{24}$

10. $\frac{16}{2}, \frac{8}{1}$

11. $-\frac{4.8}{4}, -\frac{6.4}{5}$

Solve each proportion.

12. $\frac{g}{5} = \frac{6}{10}$

13. $\frac{z}{4} = \frac{7}{8}$

14. $\frac{13.2}{6} = \frac{m}{12}$

15. $-\frac{m}{5} = -\frac{2}{5}$

16. $\frac{5.5}{11} = \frac{x}{5}$

17. $-\frac{2}{3} = -\frac{10}{t}$

18. $\frac{4}{6} = \frac{x}{24}$

19. $\frac{s}{3} = \frac{7}{10}$

20. $\frac{4}{9} = \frac{10}{r}$

21. $\frac{x}{4.8} = \frac{6}{3.2}$

22. $\frac{5}{4} = \frac{c}{12}$

23. $-\frac{32}{h} = -\frac{1}{3}$

24. $\frac{2}{6} = \frac{p}{9}$

25. $\frac{f}{6} = \frac{3}{4}$

26. $\frac{15}{a} = \frac{3}{8}$

27. $\frac{3}{4} = \frac{k}{24}$

28. $\frac{a}{6} = \frac{3}{9}$

29. $\frac{4}{5} = \frac{k}{9}$

30. $\frac{3}{y} = \frac{5}{8}$

31. $\frac{t}{7} = \frac{9}{21}$

32. $\frac{2}{9} = \frac{10}{x}$

33. $\frac{x}{15} = \frac{3}{4}$

34. $\frac{18}{11} = \frac{49.5}{x}$

35. $\frac{2}{1.2} = \frac{5}{x}$

36. $-\frac{x-1}{4} = \frac{2}{3}$

37. $\frac{3}{6} = \frac{x-3}{8}$

38. $\frac{2x-2}{14} = \frac{2x-4}{6}$

39. $\frac{x+2}{x-2} = \frac{4}{8}$

40. $\frac{x+2}{6} = \frac{x-1}{12}$

41. $-\frac{x+8}{10} = -\frac{x-3}{2}$

42. You are riding your bicycle. It takes you 28 min to go 8 mi. If you continue traveling at the same rate, how long will it take you to go 15 mi?

43. Suppose you traveled 84 mi in 1.5 h. Moving at the same speed, how many mi would you cover in $3\frac{1}{4}$ h?

44. A canary's heart beats 130 times in 12 s. Use a proportion to find how many times its heart beats in 50 s.

45. Your car averages 18 mi per gal on the highway. If gas costs \$1.85 per gal, how much does it cost in dollars per mi to drive your car on the highway?