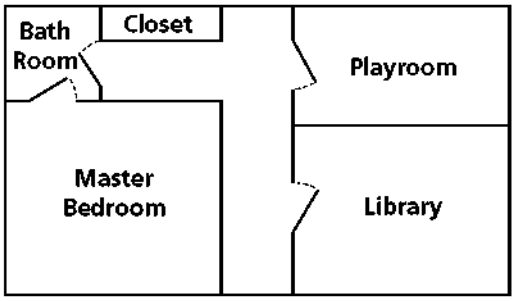
Name_____ Class_____ Date_____

Practice 7-1

Ratios and Proportions

1. The Washington Monument in Washington, D.C., is about 556 ft tall. A three-dimensional puzzle of the Washington Monument is 24 in. tall. What is the ratio of the height of the puzzle to the height of the real monument?

Find the actual dimensions of each room.



Scale: 1 in. = 16 ft

2. playroom

3. library

4. master bedroom

5. bathroom

6. closet

Algebra **If $\frac{x}{y} = \frac{5}{8}$, which of the following must be true?**

7. $8x = 5y$ **8.** $5x = 8y$ **9.** $\frac{y}{x} = \frac{8}{5}$

10. $\frac{x}{5} = \frac{y}{8}$ **11.** $\frac{x}{8} = \frac{y}{5}$ **12.** $\frac{x + y}{y} = \frac{13}{8}$

13. $\frac{x}{y} = \frac{10}{16}$ **14.** $\frac{x}{2y} = \frac{5}{4}$ **15.** $\frac{x}{x - y} = \frac{5}{3}$

Algebra **Solve each proportion for *x*.**

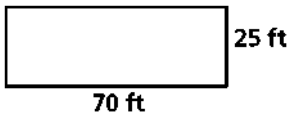
16. $\frac{x}{4} = \frac{9}{3}$ **17.** $\frac{6}{11} = \frac{x}{22}$ **18.** $\frac{6}{x} = \frac{2}{11}$

19. $\frac{7}{5} = \frac{x}{3}$ **20.** $\frac{2}{x} = \frac{x}{32}$ **21.** $\frac{3}{11} = \frac{8}{x}$

22. $\frac{x}{x + 2} = \frac{3}{4}$ **23.** $\frac{x + 1}{x} = \frac{7}{5}$ **24.** $\frac{5}{x} = \frac{3}{x + 1}$

For each rectangle, find the ratio of the longer side to the shorter side.

25.



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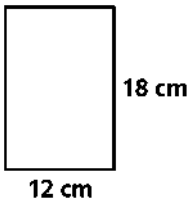

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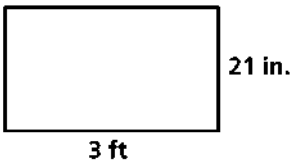

Complete each of the following.

28. If $3x = 8y$, then $\frac{x}{y} = \frac{?}{?}$.

29. If $\frac{a}{7} = \frac{b}{13}$, then $\frac{a}{b} = \frac{?}{?}$.

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