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?

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

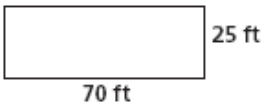
16. $\frac{x}{4} = \frac{9}{3}$ **17.** $\frac{6}{11} = \frac{x}{22}$ **18.** $\frac{6}{x} = \frac{2}{11}$

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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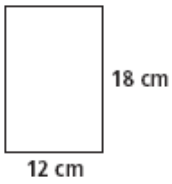

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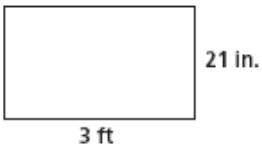
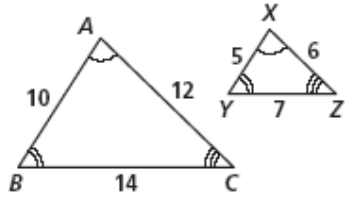


Practice 7-2 Similar Polygons

Are the polygons similar? If they are, write a similarity statement, and give the similarity ratio. If they are not, explain.

1.



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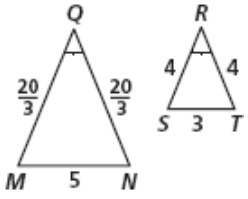

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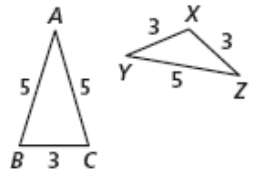

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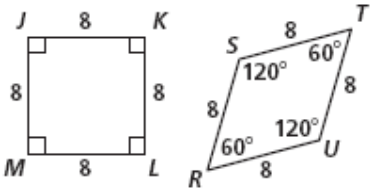

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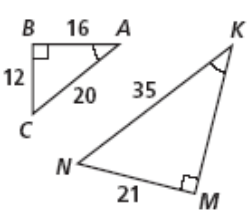

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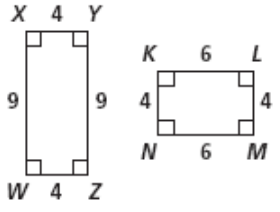
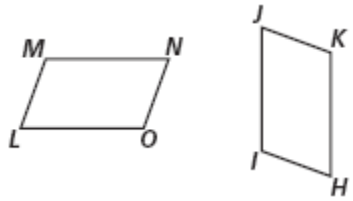


$LMNO \sim HIJK$. **Complete the proportions and congruence statements.**

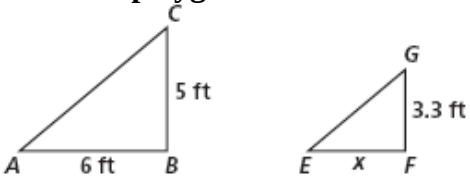
7. $\angle M \cong\ ?$ **8.** $\angle K \cong\ ?$ **9.** $\angle N \cong\ ?$



10. $\frac{MN}{IJ} = \frac{?}{JK}$ **11.** $\frac{HK}{?} = \frac{HI}{LM}$ **12.** $\frac{IJ}{MN} = \frac{HK}{?}$

Algebra **The polygons are similar. Find the values of the variables.**

13.



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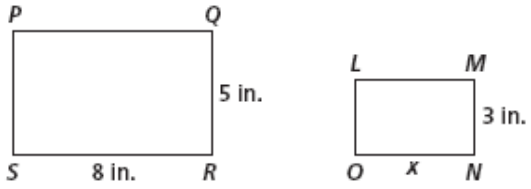

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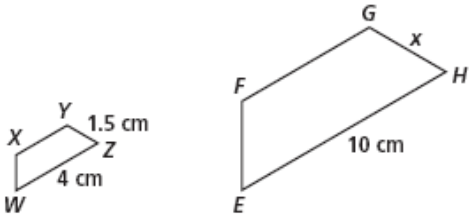

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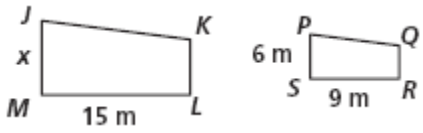
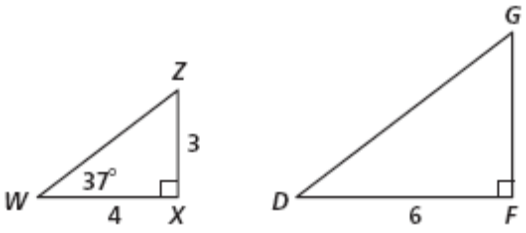


$\triangle WXZ \sim \triangle DFG$. **Use the diagram to find the following.**

17. the similarity ratio of $\triangle WXZ$ and $\triangle DFG$



18. $m\angle Z$ **19.** *DG* **20.** *GF*

21. $m\angle G$ **22.** $m\angle D$ **23.** *WZ*