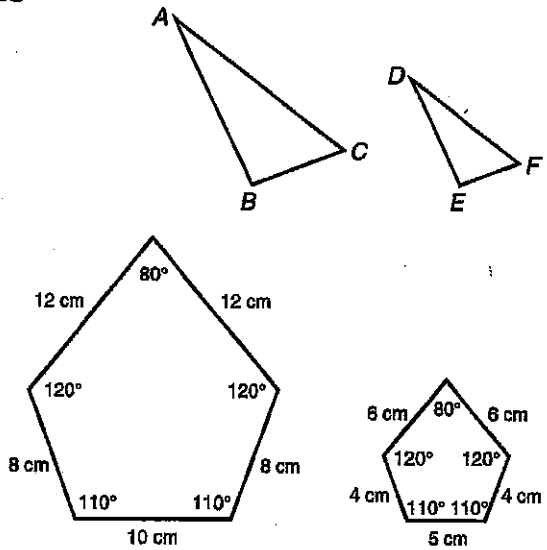


SECTION 5B **Ready to Go On? Quiz**

5-7 Similar Figures and Proportions
 Use the similar triangles to the to name the following.

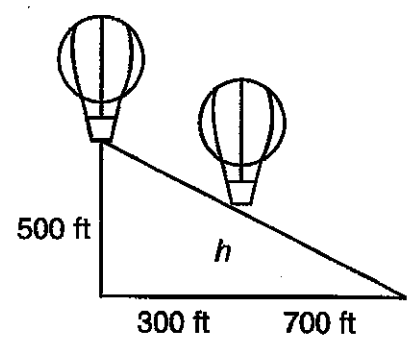
1. corresponding side to \overline{AC} \overline{DF}
2. corresponding side to \overline{EF} \overline{BC}
3. corresponding angle to $\angle ACB$ $\angle DFE$
4. corresponding angle to $\angle EDF$ $\angle BAC$
5. Are the pentagons similar? Yes



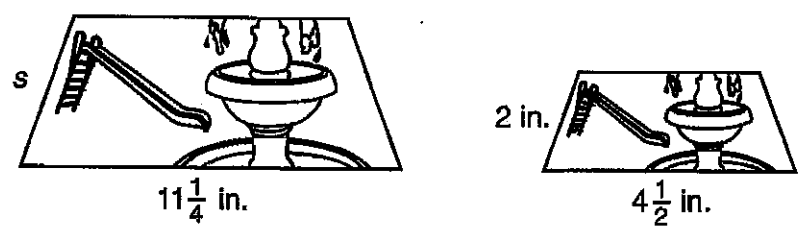
5-8 Using Similar Figures Show work.

6. Araxi has a photo of her cat that is 6 inches by 4 inches. She ordered a copy reduced to a width of 2 inches for her wallet. What is the length of the reduced copy? 3 in

7. Two hot-air balloons are heading for their landing target, as shown below. How high is the balloon closest to the target? 350 ft



8. A company sells two trapezoid-shaped jigsaw puzzles with the same picture and the same shape, as shown below. What is the length, s , of the side in the larger version of the puzzle?



5 in

SECTION **Ready to Go On? Quiz** continued

5B

5-9 Scale Drawings and Scale Models *Show work.*

9. The wingspan of an airplane is 108 feet. On a scale model of the airplane, the wingspan is 3 feet. What is the scale factor? $\frac{1}{36}$

10. In Angel Stadium, located in Anaheim, California, the distance from home plate to the left field wall is 330 ft. What will that distance be in a diagram of the field with a scale factor of $\frac{1}{200}$?
1.65 ft or about 1ft 8in

11. On a map, the distance from one city to another measures about 5.3 cm. What is the approximate distance between those two cities if the map scale is 1 cm = 50 km. 265 Km

12. The blueprint of the Nguyen house is done with a scale factor of $\frac{1}{16}$. If the length of a bedroom measures 8.5 in. on the diagram, what is the approximate length of the actual bedroom?
about 11.3 ft or 11ft. 4in

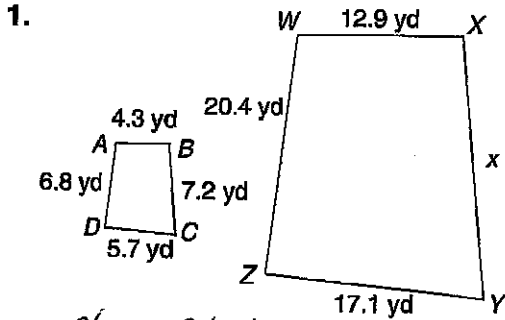
13. What is the exact scale factor of the model of a bridge, if the distance from end to end of the model is 5 in. and that same distance on the actual bridge is 120 ft? $\frac{1}{288}$

14. A scale model of Tyrannosaurus Rex has a scale factor of $\frac{1}{36}$ and a height of 6 inches. How tall would it the actual dinosaur be? 18ft. or 216in

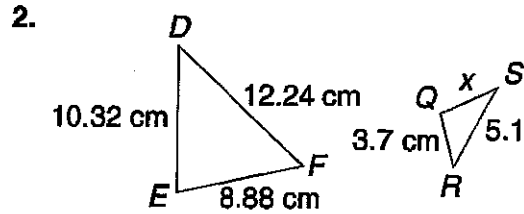
15. The distance between Dallas, Texas, and Denver, Colorado, measures 10 cm on a map. The actual distance is 663 miles. What would be the approximate map measurement for the distance between Dallas and El Paso, Texas, which lie 572 miles apart? 8.6 cm

LESSON **Practice C**
5-8 **Using Similar Figures**

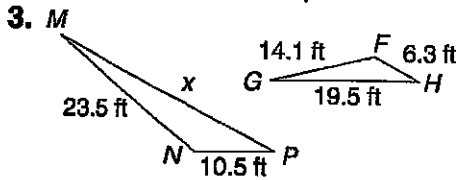
Find the unknown length in each pair of similar figures.



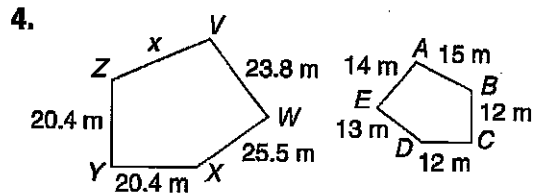
$x = 21.6 \text{ yd}$



$x = 4.3 \text{ cm}$

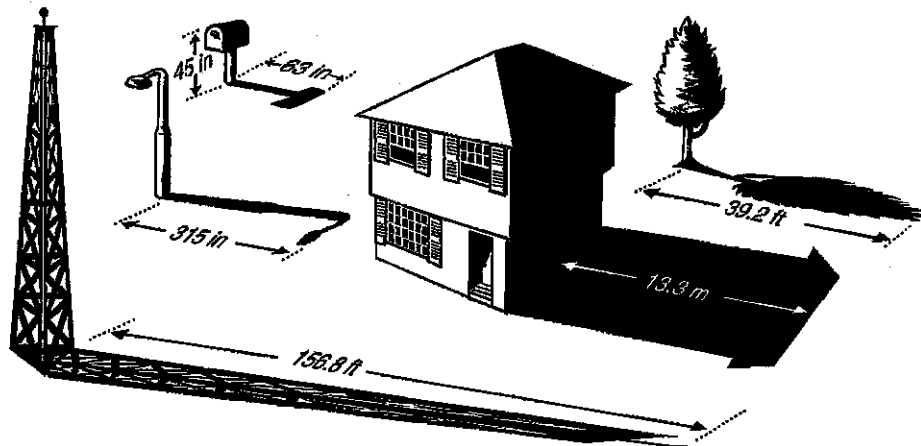


$x = 32.5 \text{ ft}$



$x = 22.1 \text{ m}$

Estimate the height of each object in the picture below.



5. house 9.5 m

6. tree 28 ft

7. lamppost 225 in

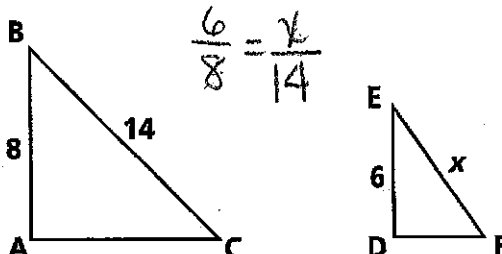
8. radio tower 112 ft

Name: _____

SIMILAR TRIANGLES

10.5

1. Triangle ABC is similar to Triangle DEF. Use a proportion to determine the value of x.



$$\frac{6}{8} = \frac{x}{14}$$

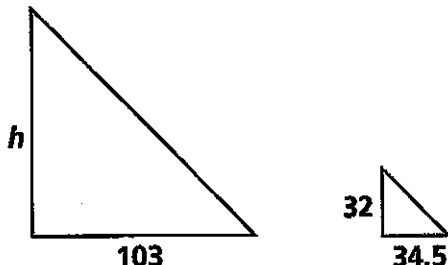
$$\frac{6}{x} = \frac{8}{14}$$

$$8x = 84$$

$$x = 10.5$$

65.7

2. The two triangles are similar. Use a proportion to determine the value of h. Round your answer to the nearest tenth.



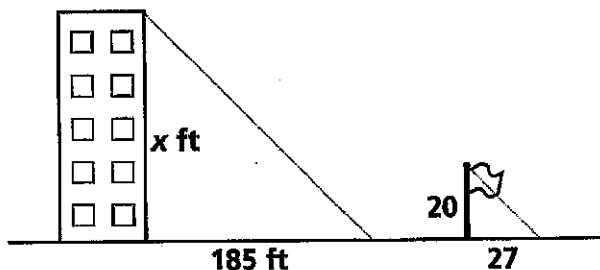
$$\frac{h}{103} = \frac{32}{34.5}$$

$$34.5h = 2,266$$

$$h = 65.7$$

137 ft

3. If a flagpole is 20 ft tall and casts a shadow of 27 ft, how tall is a building that casts a shadow of 185 ft? Write a proportion and solve. Round your answer to the nearest foot.



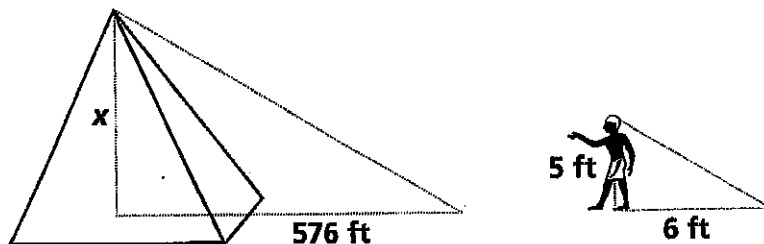
$$\frac{20}{x} = \frac{27}{185}$$

$$27x = 3,700$$

$$x = 137$$

480 ft.

4. If an Egyptian man is 5 feet tall and casts a shadow of 6 ft, how tall is a pyramid that casts a shadow of 576 ft? Write a proportion and solve.



$$\frac{5}{6} = \frac{x}{576}$$

$$6x = 2,880$$