Homework 7-6
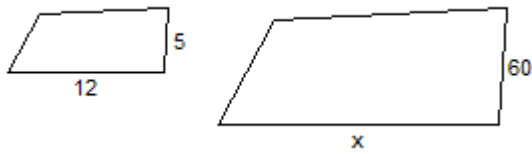
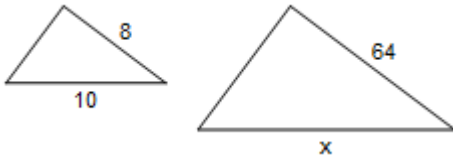**Intermediate 1**   ## Similar Figures & Scale Factor   **Unit 7**
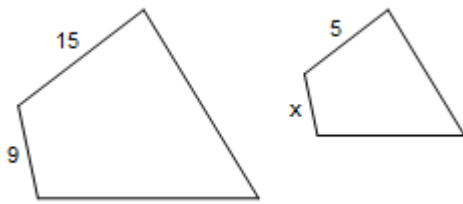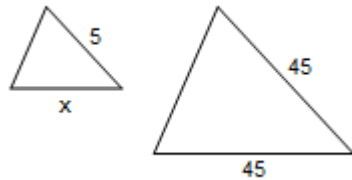
Find the missing side length.

1.

2.

3.

4.
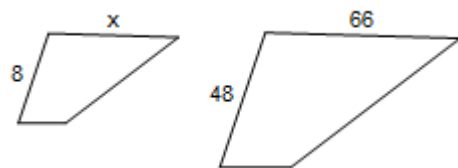
5.

6.

Use proportions to solve.

7. **How tall is the flagpole?**

?

6.5 ft →

|←9 ft→|

45ft

8. **How tall is the flagpole?**

A

mirror

E

2 m

B   16.5 m   C 3 m   D
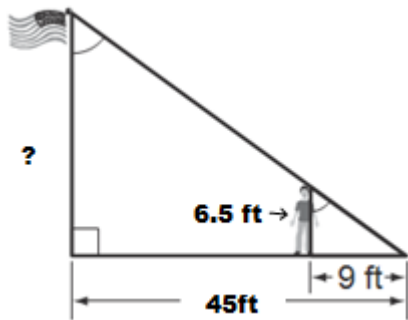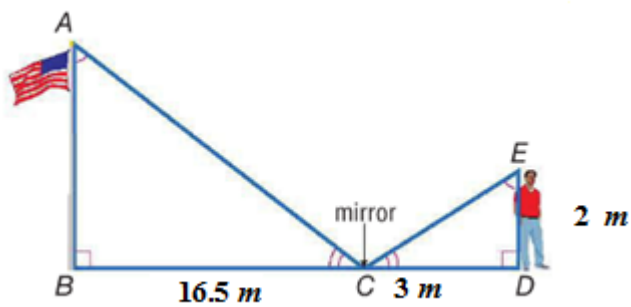
9. **How tall is the tree?**

3 ft

4 ft

14 ft
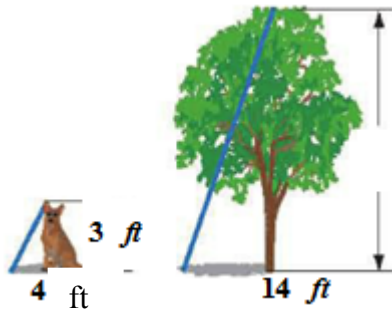
In the figure below, the scale factor from X:Y is 1:4.

10. Find the length of side GH.
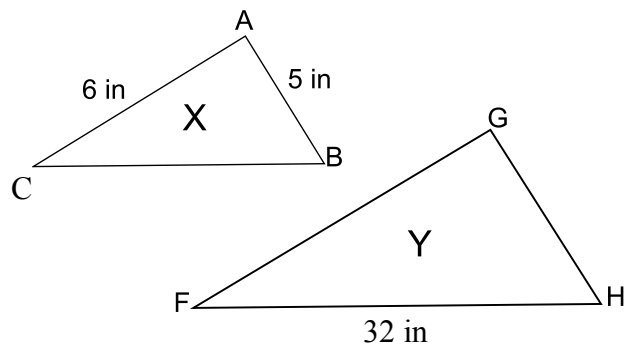
11. Find the length of side FG.

12. Find the length of side BC.

A

6 in   5 in

X

C   B

G

Y

F   H

32 in

13. Write and solve a proportion using the scale provided on the map to find the actual distance between Hagerstown and Annapolis. The distance on the map is 3½ cm.
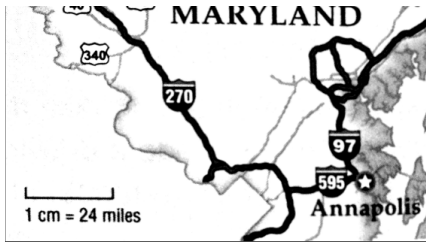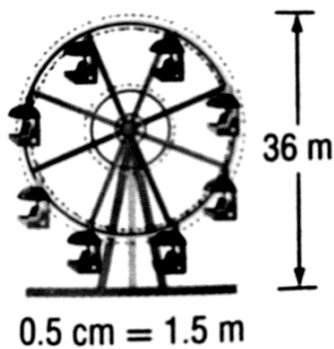

14. Write and solve a proportion using the scale provided on the map to find the distance between Clarksville and Little Rock. The distance on the map is 4 cm.
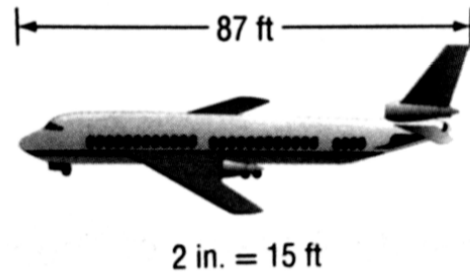

For problems 15 and 16 and the length of each model. Then, find the scale factor.
15.   16.

17. A model of a tree is made using a scale of 1 inch = 25 feet. What is the height of the actual tree if the height of the model is $4\frac{3}{8}$ inches?

18. A map of Bakersfield has a scale of 1 inch = 5 miles. If the city measures $5\frac{1}{5}$ inches on the map, what is the actual distance of the city?