

Name _____ Class _____ Date _____

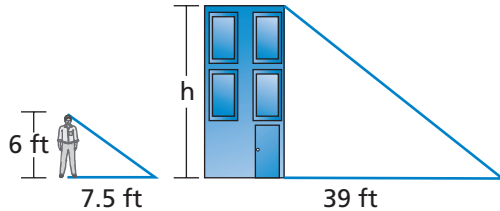
Practice It!



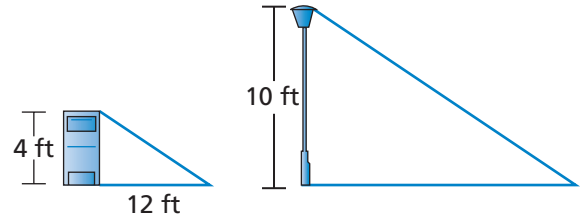
MA.8.G.2.1 Use similar triangles to solve problems that include height and distances.

Indirect Measurement

1. Find the height of the building.



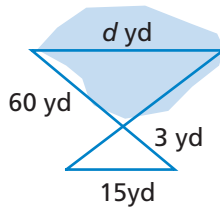
2. Find the length of the lamppost's shadow.



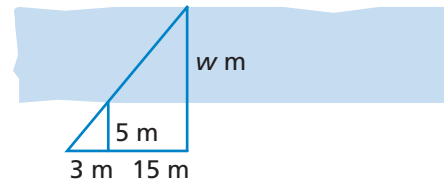
3. A building casts a shadow that is 420 meters long. At the same time, a person who is 2 meters tall casts a shadow that is 24 meters long. How tall is the building?

4. On a sunny day around noon, a tree casts a shadow that is 12 feet long. At the same time, a person who is 6 feet tall standing beside the tree casts a shadow that is 2 feet long. How tall is the tree?

5. How wide is the lake?



6. How wide is the river?



7. The lower cable meets the tree at a height of 6 feet and extends out 16 feet from the base of the tree. The triangles are similar.

- a. How tall is the tree? _____

- b. How long is the upper cable to the nearest tenth of a foot? _____

