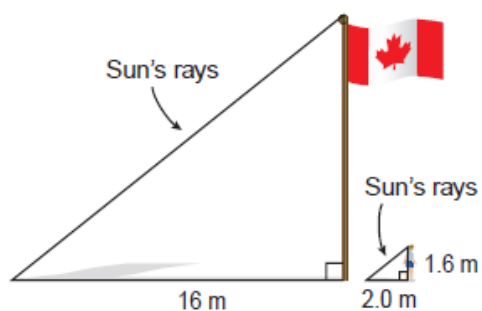
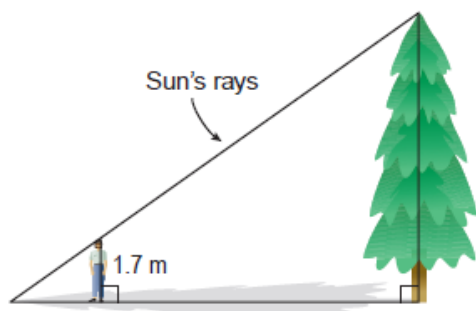


## ASSUME Similarity

7. Jaquie is 1.6 m tall. When her shadow is 2.0 m long, the shadow of the school's flagpole is 16 m long. How tall is the flagpole, to the nearest tenth of a metre?



9. Tina wants to estimate the heights of two trees. For each tree, she stands so that one end of her shadow coincides with one end of the shadow of the tree. Tina's friend measures the lengths of her shadow and the tree's shadow. Tina is 1.7 m tall.



- a) Tina's shadow is 2.4 m and the first tree's shadow is 10.8 m. What is the height of the tree?

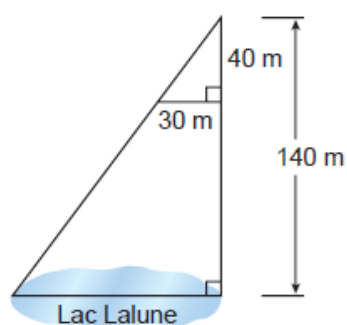
## ASSUME Similarity

10. When the shadow of a building is 16 m long, a 4-m fence post casts a shadow 3 m long.

- Sketch a diagram.
- How tall is the building?

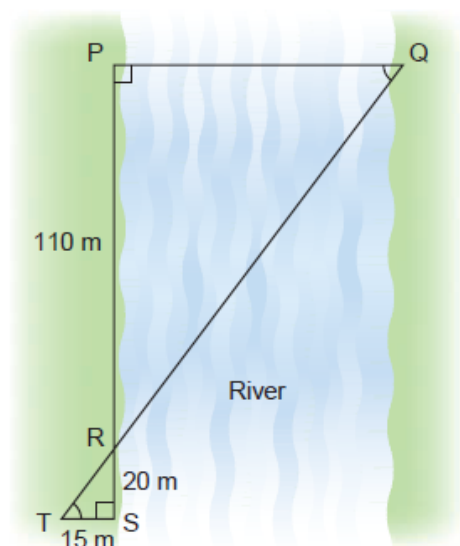
11. This scale diagram shows the measurements a surveyor made to determine the length of Lac Lalune. What is this length?

How do you know?



## ASSUME Similarity

12. To help calculate the distance PQ across a river, Emil drew the diagram below based on measurements he made. What is the distance across the river?



14. The foot of a ladder is 3 m from the base of a wall. The ladder just touches the top of a 1.4-m fence that is 2.4 m from the wall. How high up the wall does the ladder reach? How do you know?

