

Name:

Date:

## Similar Triangle Word Problems **WS W**

*Sketch a diagram and label it. Then solve.*

- 1) If a tree casts a 24-foot shadow at the same time that a yardstick casts a 2-foot shadow, find the height of the tree.
  
  
  
  
  
  
  
  
  
  
- 2) Ramon places a mirror on the ground 45 feet from the base of a geyser. He walks backward until he can see the top of the geyser in the middle of the mirror. At that point, Ramon's eyes are 6 ft above the ground and he is 7.5 ft from the mirror. Use similar triangles to find the height of the geyser.
  
  
  
  
  
  
  
  
  
  
- 3) On level ground, the base of a tree is 20 ft from the bottom of a 48-ft flagpole. The tree is shorter than the pole. At a certain time, their shadows end at the same point 60 ft from the base of the flagpole. How tall is the tree?
  
  
  
  
  
  
  
  
  
  
- 4) A person standing 6 feet tall is 18 feet away from a lamp post casts a 9 ft shadow. When the same person moves 4 ft farther from the lamp post he will cast a shadow how long?

5) One day Mrs. Knowlton wants to find the height of a tree. She walks 25 feet away from the base of a tree until her shadow lines up with the end of the tree's shadow. If Mrs. Knowlton is 6 feet tall and casts a shadow that is 9 feet long, how tall is the tree?

6) A particular giraffe is 12 feet tall. If a model was made of it with a scale of 1 in : 2 feet, how tall is the model?

7)