

Name \_\_\_\_\_

Date \_\_\_\_\_

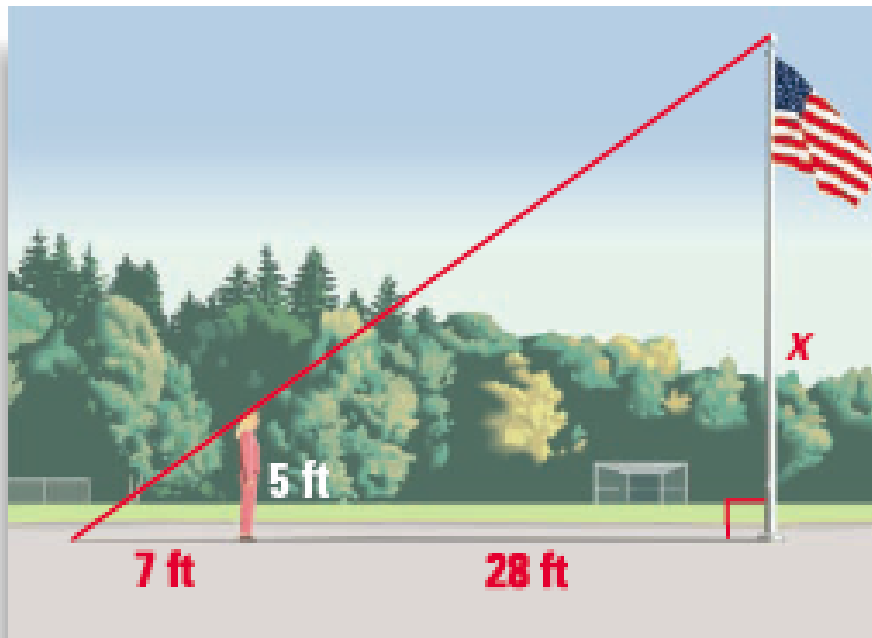
### Open-ended Task: Geometry Chapter 7

**Directions:**

To receive full credit you must do the following:

1. Show OR describe each step of your work, even if you did it in your head (“mental math”) or used a calculator,  
AND
2. Write an explanation stating the mathematical reason(s) why you chose each of your steps.

**Question:** Julia uses the shadow of a flagpole to estimate its height. She stands so that the tip of her shadow coincides with the tip of the flagpole’s shadow as shown.



A. Explain why the two overlapping triangles are similar.

**B.** Using the similar triangles, write a proportion that models the situation.

**C.** Solve the proportion to calculate the height of the flagpole.