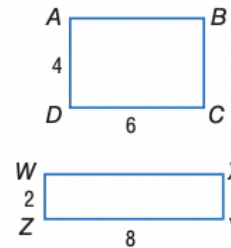


CHECK Your Understanding

Example 1
(p. 541)

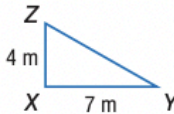
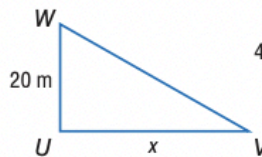
1. Which rectangle below is similar to rectangle $ABCD$?



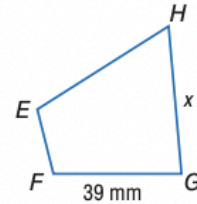
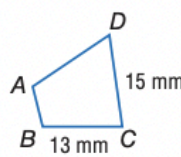
Example 2
(p. 542)

ALGEBRA Find the value of x in each pair of similar figures.

2.

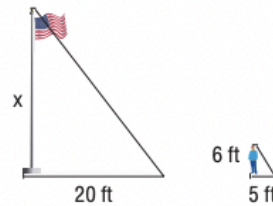


3.



Example 3
(p. 542)

4. **SHADOWS** A flagpole casts a 20-foot shadow. At the same time, Humberto, who is 6 feet tall, casts a 5-foot shadow. What is the height of the flagpole? Assume the triangles are similar.

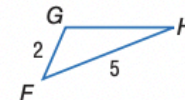
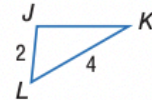
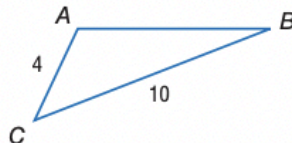
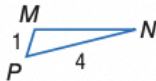


Practice and Problem Solving

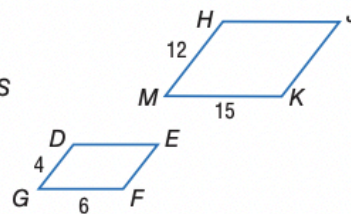
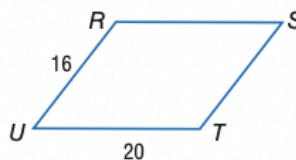
HOMEWORK HELP

For Exercises	See Examples
5–6	1
7–10	2
11–12	3

5. Which triangle below is similar to triangle FGH ?

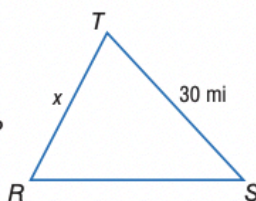
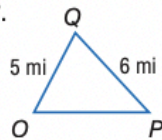


6. Which parallelogram below is similar to parallelogram $HJKM$?

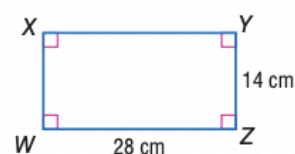
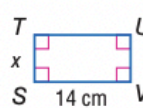


ALGEBRA Find the value of x in each pair of similar figures.

7.



8.

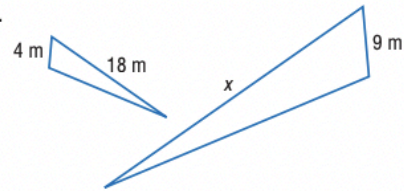


ALGEBRA Find the value of x in each pair of similar figures.

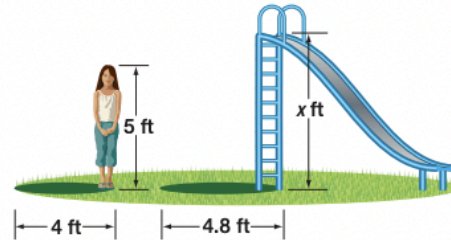
9.



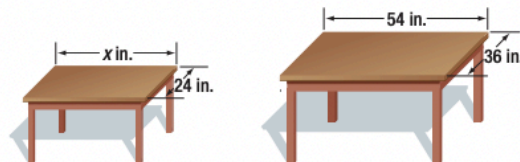
10.



11. **PARKS** Ruth is at the park standing next to a slide. Ruth is 5 feet tall, and her shadow is 4 feet long. If the shadow of the slide is 4.8 feet long, what is the height of the slide? Assume the triangles are similar.

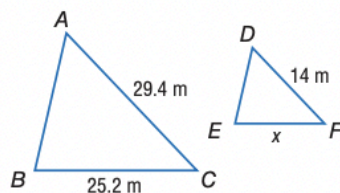


12. **FURNITURE** A child's desk is made so that it is a replica of a full-size adult desk. Suppose the top of the full-size desk measures 54 inches long by 36 inches wide. If the top of a child's desk is 24 inches wide and is similar to the full-size desk, what is the length?

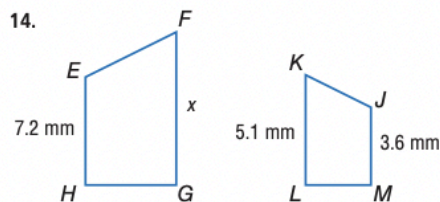


ALGEBRA Find the value of x in each pair of similar figures.

13.



14.



SKYCRAPERS For Exercises 15 and 16, use the information below and at the left.

Tricia has a miniature replica of the Empire State Building. The replica is 10 inches tall, and the height of the observation deck is 8.3 inches.

15. About how tall is the actual observation deck?
16. Tricia's sister has a larger replica in which the height of the observation deck is 12 inches. How tall is the larger replica?



Real-World Link

The height to the top of the lightning rod on the Empire State Building is 1,454 feet.

Source: Wired New York