Lesson 9T ~ Proportions and Similar Figures
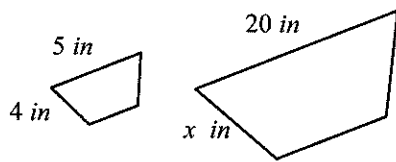
Name_____ Period_____ Date_____

The shapes below are similar. Use proportions to solve for each variable.
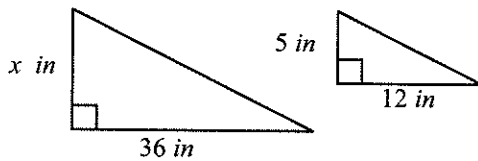
1.

5 in 20 in

4 in x in

Write a proportion → $\dfrac{5}{20} = \dfrac{4}{\rule{1cm}{0.4pt}}$

Solve the proportion → $5 \cdot x = 20 \cdot 4$

$5x = \rule{1.5cm}{0.4pt}$

$x = \rule{1.5cm}{0.4pt}$

2.

x in 5 in

36 in 12 in

Write a proportion → $\dfrac{x}{5} = \dfrac{36}{\rule{1cm}{0.4pt}}$

Solve the proportion → $12 \cdot x = 5 \cdot 36$

$12x = \rule{1.5cm}{0.4pt}$

$x = \rule{1.5cm}{0.4pt}$

3.

21 ft y ft

24 ft 8 ft
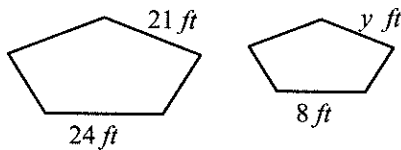
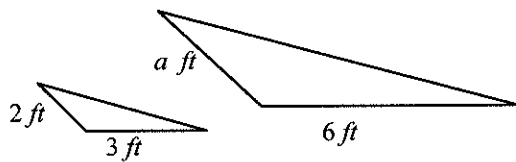Write a proportion →

Solve the proportion →

4.

10 m 15 m y m 6 m
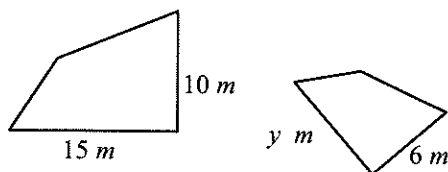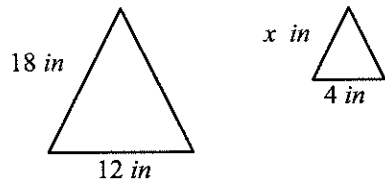
Write a proportion →

Solve the proportion →

5.

6.

7. Sandra wanted to find the height of the tree outside her house. She measured the shadow from the tree on the ground to be 15 feet. She measured her own shadow on the ground to be 2 feet. Sandra is 6 feet tall. Find the height of the tree.