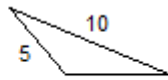## HOMEWORK 8-3
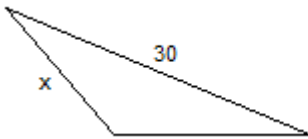## Similar Figures   Unit 8

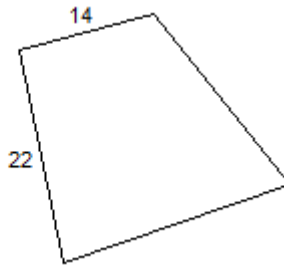**There are TWO proportions that are set up INCORRECTLY. Which ones are set up incorrectly?**
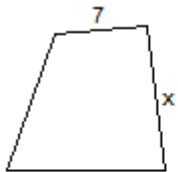
1.

A. $\dfrac{x}{10} = \dfrac{30}{5}$ B. $\dfrac{x}{30} = \dfrac{10}{5}$

C. $\dfrac{30}{x} = \dfrac{10}{5}$ D. $\dfrac{x}{5} = \dfrac{30}{10}$

2.
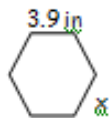
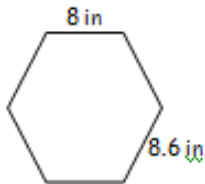A. $\dfrac{x}{7} = \dfrac{22}{14}$ B. $\dfrac{x}{14} = \dfrac{7}{22}$
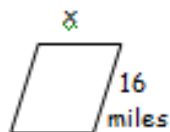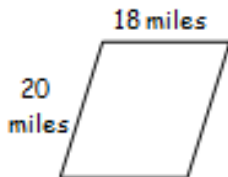
C. $\dfrac{7}{x} = \dfrac{22}{14}$ D. $\dfrac{7}{14} = \dfrac{x}{22}$

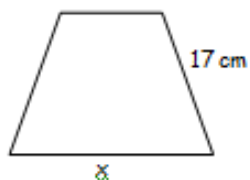**Find the length of the missing side of each similar shape. SHOW YOUR WORK.**

3.

8 in

3.9 in

8.6 in   x

4.

18 miles

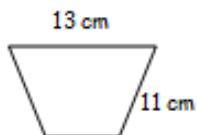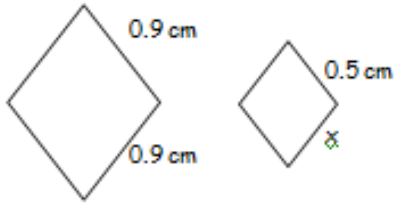20 miles   16 miles   x

5.

13 cm

11 cm   17 cm

x

Find the length of the missing side of each similar shape. SHOW YOUR WORK.

6.
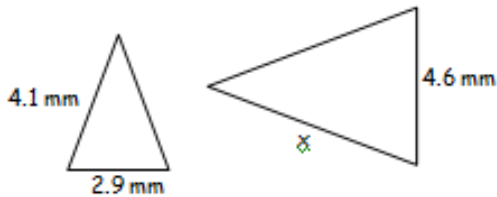
0.9 cm

0.5 cm

0.9 cm

x

7.

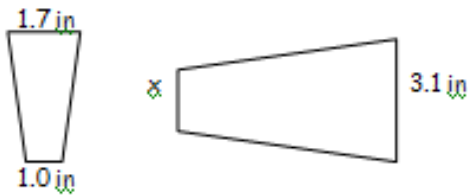4.1 mm

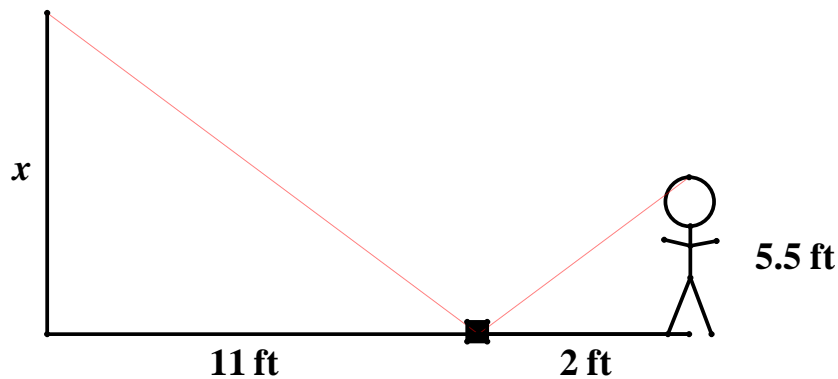4.6 mm

x

2.9 mm

8. 1.7 in

x

3.1 in

1.0 in

Write the problem as a proportion and solve the ratio for the missing side. Round your answer to the nearest tenth.

9.   Mary is standing next to the flag pole outside the school. She uses a mirror to help her calculate the height of the flag pole. Mary is 5.5 feet tall and she is standing 2 feet from the mirror. The mirror was placed 11 feet from the base of the flagpole. What is the height of the flagpole?

x

5.5 ft

11 ft

2 ft

10.   Identify a shape similar to:

A.

B.

C.