

## 4.3 Finding Missing Parts

### Using Similarity to Find Measurements

When two figures are similar, you can find missing lengths in two ways.

#### One Method

Use the scale factor from one figure to the other.

OR

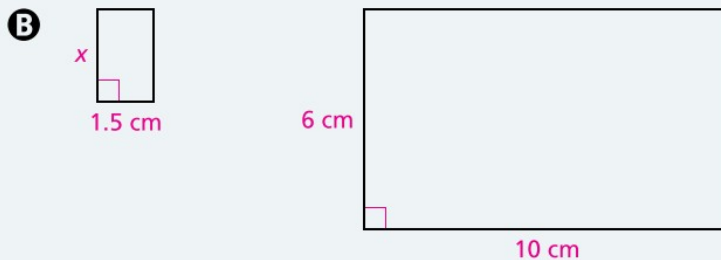
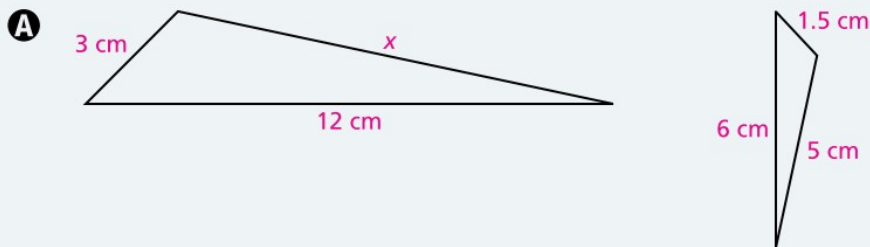
#### Another Method

Use the ratios of the side lengths within each figure.



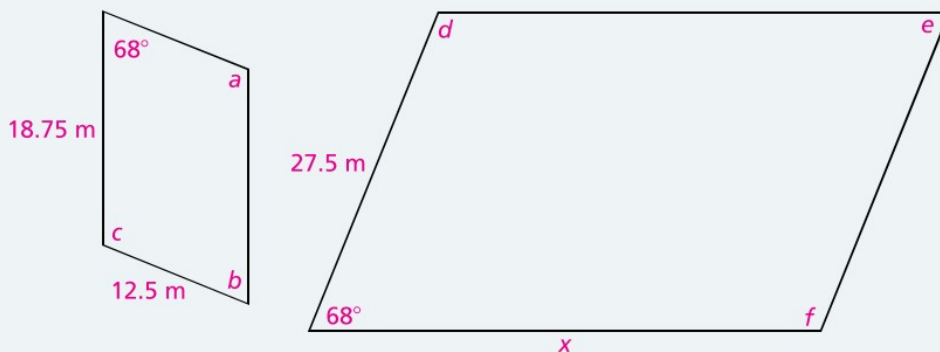
#### Problem 4.3

For Questions A and B, each pair of figures is similar. Find the missing side lengths. Explain how you know your answer is correct.

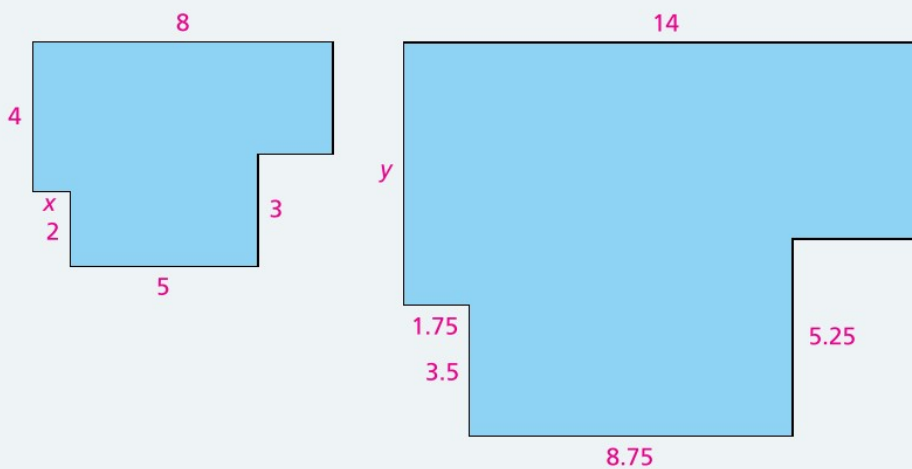


**Problem 4.3** continued

- C** The parallelograms below are similar. Find the missing measurements. Explain how you found your answers.



- D** The figures below are similar. Each side length is in centimeters.



1. Find the value of  $x$ . Explain how you found it.
2. Find the value of  $y$ . Explain.
3. Find the area and perimeter of one of the figures.
4. Use your answer to part (3) and the scale factor. Find the area and perimeter of the other figure. Explain.

**A C E** Homework starts on page 90.