Name: _____ Date: _____

Chapter 4 Review

Key Words
For #1 to #4, unscramble the letters for each term. Use the clues to help you.

1. LGYNOPO

    A _____ is a closed figure with 3 or more sides.

2. DIECNTURO

    A _____ makes an object smaller by a constant factor.

3. CASEL OTCAFR

    The _____ _____ is the constant amount by which a
    shape is enlarged or reduced (2 words).
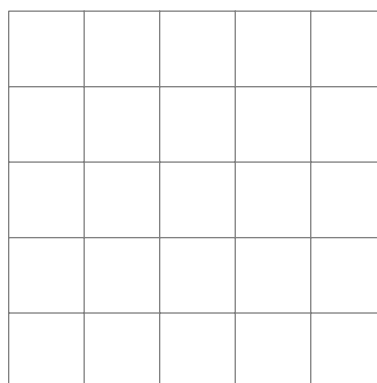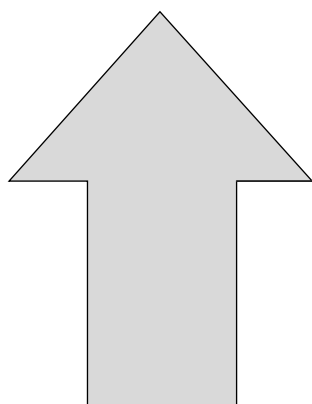
4. IRISLMA

    _____ figures have equal corresponding angles and related corresponding sides.

5. RROOPPTINO

    A _____ is a statement that says that 2 ratios are equal.
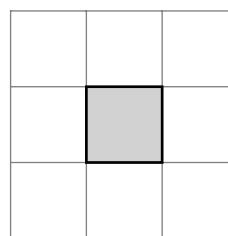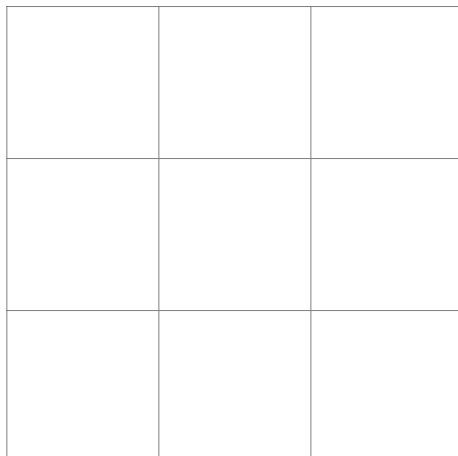
4.1 Enlargements and Reductions, pages 178–187

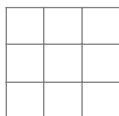6. Reduce the arrow by $\frac{1}{2}$ and draw it.

Name: _____ Date: _____

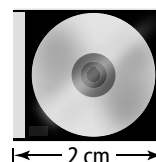**7.** Draw the image for each scale factor.

a) scale factor of 2

b) scale factor of 0.5

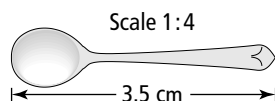## 4.2 Scale Diagrams, pages 189–195

8. An actual CD case is 14 cm long. Find the scale factor of the image.

2 cm

Sentence: _____
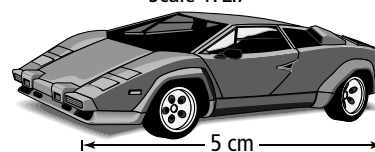
9. Find the actual length of each object.

a) Scale 1:4

3.5 cm

Use $\dfrac{\text{picture length}}{\text{actual length}}$

$\dfrac{1}{4} = \dfrac{\quad}{\quad}$

b) Scale 1:2.7

5 cm

10. A highway is 600 km in length.
On the map, the length of the highway is 6 cm.

a) How far is 1 cm on the map?
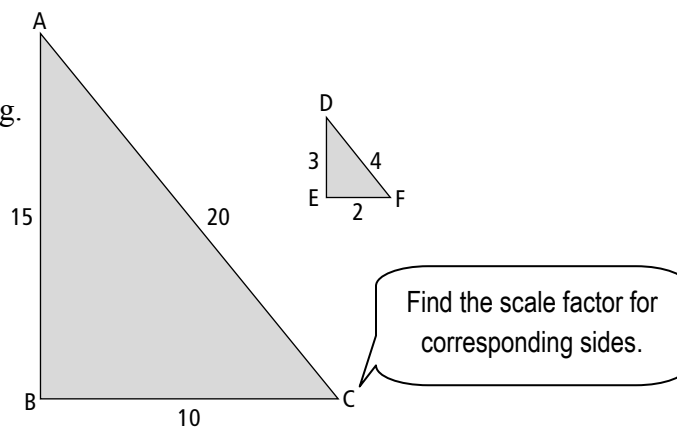
Sentence: _____

b) What is the scale factor?

1 km = 100 000 cm

> Change your answer from part a) to cm.

Sentence: _____

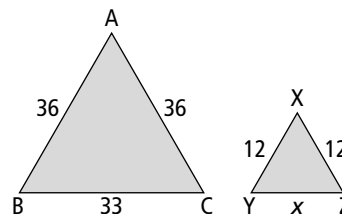## 4.3 Similar Triangles, pages 197–207
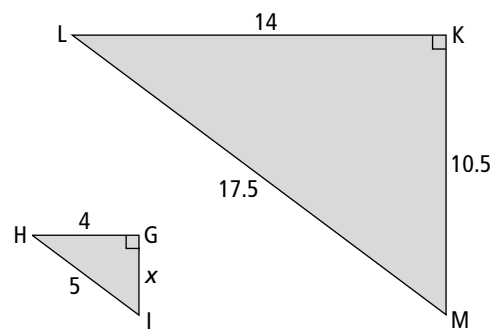
11. Are these triangles similar? Show your thinking.

> Find the scale factor for corresponding sides.

Sentence: _____

12. ΔABC is similar to ΔXYZ.
Use a proportion to find the missing length of side YZ.

Sentence: _____

218 MHR • Chapter 4: Scale Factors and Similarity

13. ΔKLM and ΔGHI are similar triangles.
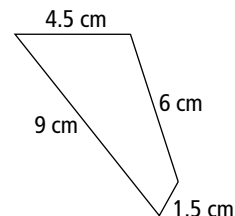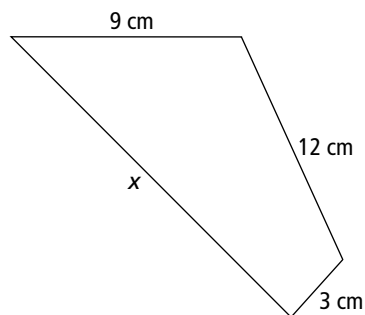Use the scale factor to find the length of side IG.

4.4 Similar Polygons, pages 209–214

14. Use the scale factor to determine if the polygons are similar.
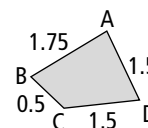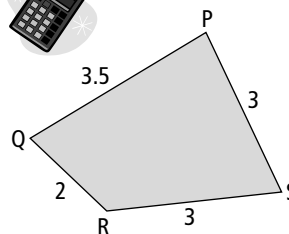
The 2 polygons are _____.
(*similar* or *not similar*)

15. The quadrilaterals are similar.
Use a proportion to find the missing side length.

16. Pentagons DEFGH and JKLMN are similar.
Use the scale factor or proportions to determine the side lengths of EF and FG.