

Name: _____ Date: _____

Chapter 7 Review

For each type of question, the achievement level is indicated. Showing work is an important strategy in communicating your knowledge and ideas so please be thorough.

Learning Goal 7.1	I can convert between metric units in given problems.
--------------------------	-------------------------------------------------------

1. Write out all the necessary metric prefixes **in order of magnitude** and the conversion factor to move from one to the next. (May I suggest you take this one **very** seriously 😊)

Developing			
2. Convert each measurement as indicated without using a calculator .			
a. 8 cm to mm	b. 10 km to m	c. 15 hm to m	d. 28 dam to dm
e. 75 m to mm	f. 30 dm to cm	g. 45 m to dam	h. 5 dm to mm
Proficient			
i. 8 cm to m	j. 10 g to kg	k. 100 mL to L	l. 15 hm to km
m. 3000 mm to dam	n. 48.5 m to km	o. 38.7 L to mL	p. 0.85 kg to g
Extending			
3. Convert the following measurements into a more appropriate metric unit.			
a. The diameter of an orange is 0.071 m.			
b. The African Bush Elephant is 3300 mm tall.			
c. The Eiffel Tower is 0.324 km tall.			
d. Ms. L is 0.00180 km tall.			

Name: _____ Date: _____

Chapter 7 Review

Name: _____ Date: _____

Chapter 7 Review

For each type of question, the achievement level is indicated. Showing work is an important strategy in communicating your knowledge and ideas so please be thorough.

Learning Goal 7.2	I can determine the scale factor of an enlargement or reduction and use it to enlarge or reduce an image.
--------------------------	-----------------------------------------------------------------------------------------------------------

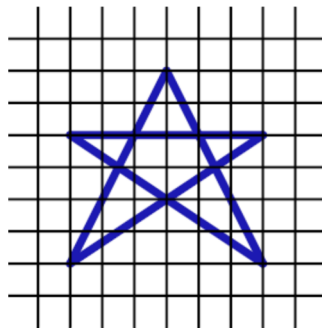
Developing

1. Decide whether the following are reductions or enlargements.

- | | | |
|-------------------------------|---------------------------------------------------------|---------------------------------------------|
| a. A photograph of a bicycle. | b. Looking through a microscope at a bacteria specimen. | c. Looking through a telescope at the moon. |
|-------------------------------|---------------------------------------------------------|---------------------------------------------|

Proficient

2. Use graph paper to scale the following image by the given scale factor.



- | | | |
|---------------------|---------------------------------|---------------------|
| a. Scale factor = 2 | b. Scale factor = $\frac{1}{3}$ | c. Scale factor = 1 |
|---------------------|---------------------------------|---------------------|

4. A model train car is 8 cm long. An actual train car is 20 m long. What is the scale factor?

5. The side length of Triangle D is 6mm. The corresponding side length of Triangle F is 24 cm. What is the scale factor from F to D?

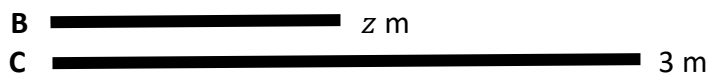
6. A lion stands 1.2 metres tall. A toy model of the lion is 4 cm tall. What is the scale factor?

Extending

7. The side length of rectangle A is 5 metres. If the scale factor from A to B is 3, how long is the side length on rectangle B?

8. A scale drawing of a truck is drawn to a scale factor of $\frac{1}{8}$. How long is the actual truck if the scale drawing is 12 cm?

9. Find the missing length if the scale factor from B to C is 2.



10. If I wanted to **enlarge** the heart, to put this on a **big** poster, what kind of value could I use for the scale factor?



11. If I wanted to **reduce** the lightning bolt, to make it into a **small** sticker, what kind of value would I use for the scale factor?



Name: _____ Date: _____

Chapter 7 Review

Name: _____ Date: _____

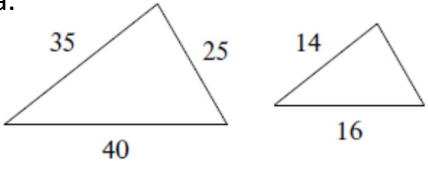
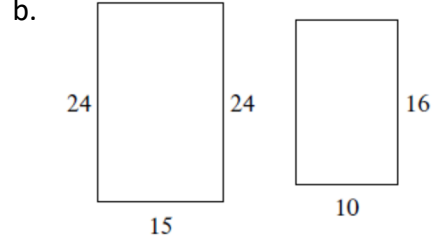
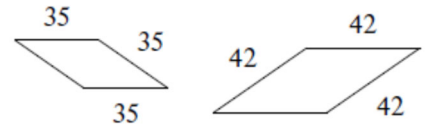
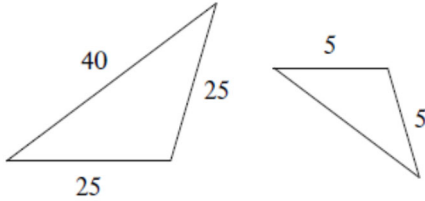
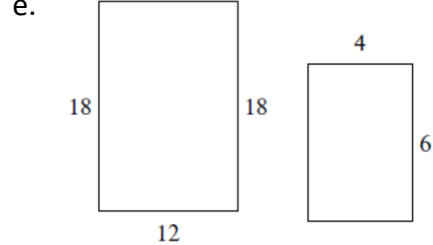
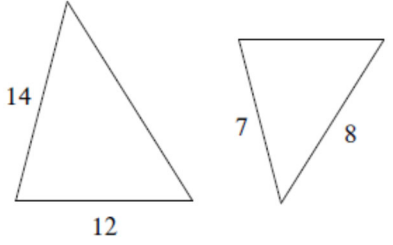
Chapter 7 Review

For each type of question, the achievement level is indicated. Showing work is an important strategy in communicating your knowledge and ideas so please be thorough.

Learning Goal 7.3	I can solve problems involving similar polygons and triangles.
--------------------------	----------------------------------------------------------------

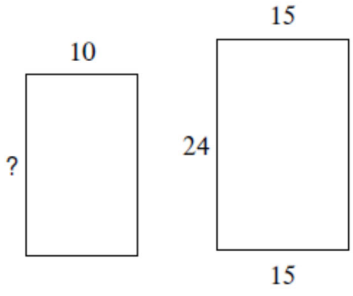
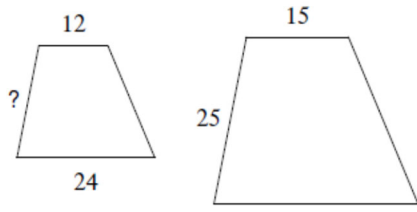
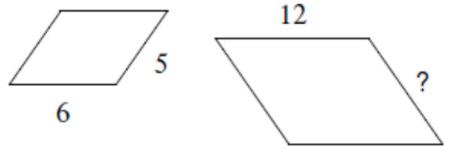
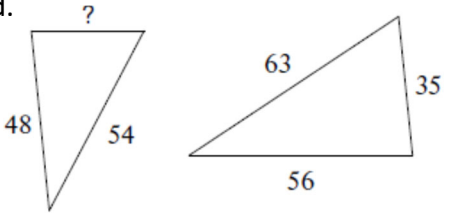

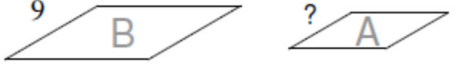
Developing

1. Given that the following polygons are similar, find the scale factor.

<p>a.</p> 	<p>b.</p> 	<p>c.</p> 
<p>d.</p> 	<p>e.</p> 	<p>f.</p> 

Proficient

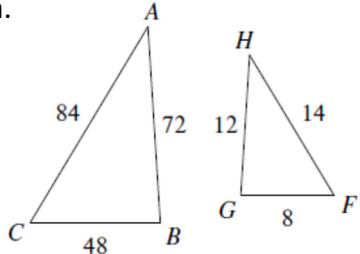
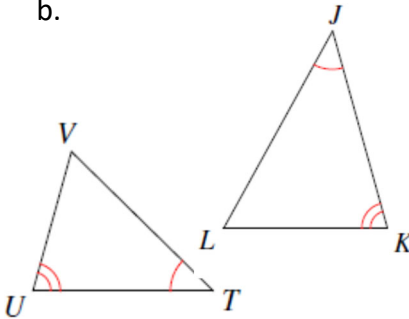
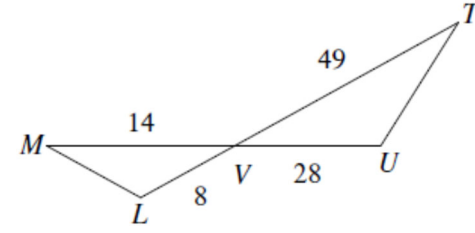
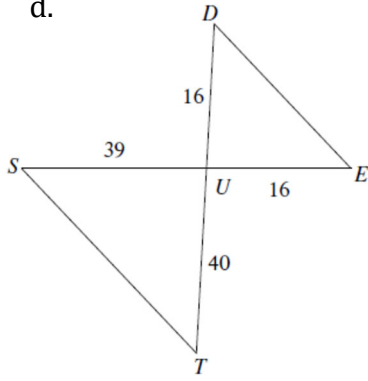
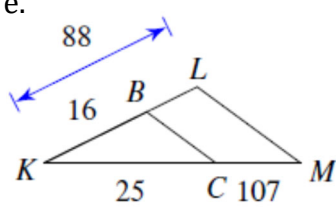
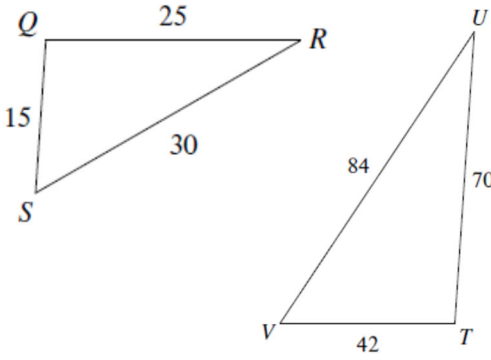
2. Given that the following polygons are similar, find the missing side length.

<p>a.</p> 	<p>b.</p> 	<p>c.</p> 
<p>d.</p> 	<p>e. Given that the scale factor from B to A is $\frac{1}{7}$.</p> 	<p>f. Given that the scale factor from A to B is $\frac{3}{2}$.</p> 

Name: _____ Date: _____

Chapter 7 Review

3. Decide whether the following triangles are similar, and provide the similarity statement (ex. $\triangle ABC \sim \triangle XYZ$)

<p>a.</p> 	<p>b.</p> 	<p>c.</p> 
<p>d.</p> 	<p>e.</p> 	<p>f.</p> 

Extending

1. A photo of a gymnast is to be enlarged. The dimensions of the photo are 15 cm by 10 cm. What are the dimensions of the enlargement with a scale factor of $\frac{7}{5}$?
2. A tree casts a shadow 8 m long. At the same time a 2 m wall casts a shadow 1.6 m long. What is the height of the tree (**hint** drawing a diagram will help!)
3. Jaya is 1.6 m tall. When her shadow is 2.0 m long, the shadow of the school's flagpole is 16 m long. How tall is the flagpole, to the nearest tenth of a metre?