Name: _____                          Date: _____

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

1. A person is 1.9 metres tall. An action figure is built to a scale factor of $\frac{1}{12}$th. How tall is the action figure?

**0.16 m = 16 cm**

2. The side length of rectangle A is 3 metres. If the scale factor from A to B is 4, how long is the side length on rectangle B?

**12 m**

3. A scale drawing of a truck is drawn to a scale factor of $\frac{1}{10}$th. How long is the actual truck if the scale drawing is 14 cm?

**112 cm**

4. A new cell phone is 10 cm long. To show all of its features it has been pictured on a poster using a scale factor of 12. How long is the phone, in metres, on the poster?
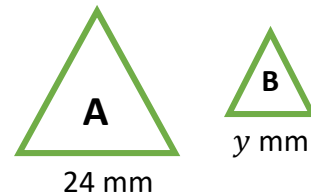
**1.2 m**

5. Find the missing side length if the scale factor from A to B is 8.

$x = $ **32 cm**

A

4 cm

B

$x$ cm

6. Find the missing side length if the scale factor from A to B is $\frac{1}{3}$.

$y = $ **8 mm**

A

24 mm

B

$y$ mm

7. Find the missing length if the scale factor from B to C is 1.5.

B ▬▬▬▬▬ $z$ m

C ▬▬▬▬▬▬▬▬ 3 m          $z = $ **2 m**

8. Find the missing length of the scale factor from B to C is $\frac{1}{5}$.

$x$ cm  C

40 cm  B

$x = $ **8 cm**
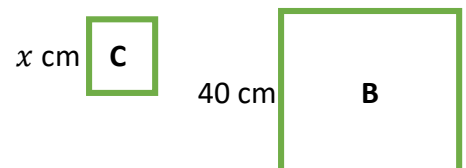
9. A horse stands 3.5 metres tall.  A toy model of the horse is 7 cm tall.  What is the scale factor?

**0.02**

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

**40**

11. A model train car is 3 cm long.  An actual train car is 10 m long.  What is the scale factor?

**0.003**

12. The original picture from Keara's birthday party was 10 cm wide by 15 cm long.   She had her picture made into a poster for her room that was 30 cm wide and 45 cm long.  What is the scale factor?

**3**