

Name: \_\_\_\_\_

**Outcome:**

- **SS3:** Demonstrate an understanding of similarity of polygons.
- **SS4:** Draw and interpret scale diagrams of 2-D shapes.

$$\overline{20} = \text{_____}\%$$

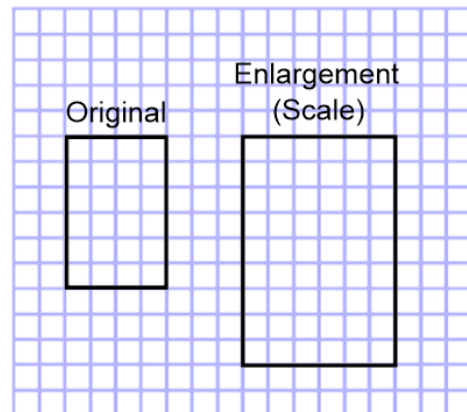
**Instructions:** Complete the following questions in the space provided. Be sure to show ALL work!

1. A photo has dimensions 12.4 cm by 8.3 cm. The photo is to be enlarged by a **scale factor of 4.5**. Calculate the dimensions of the enlargement. **(2)**

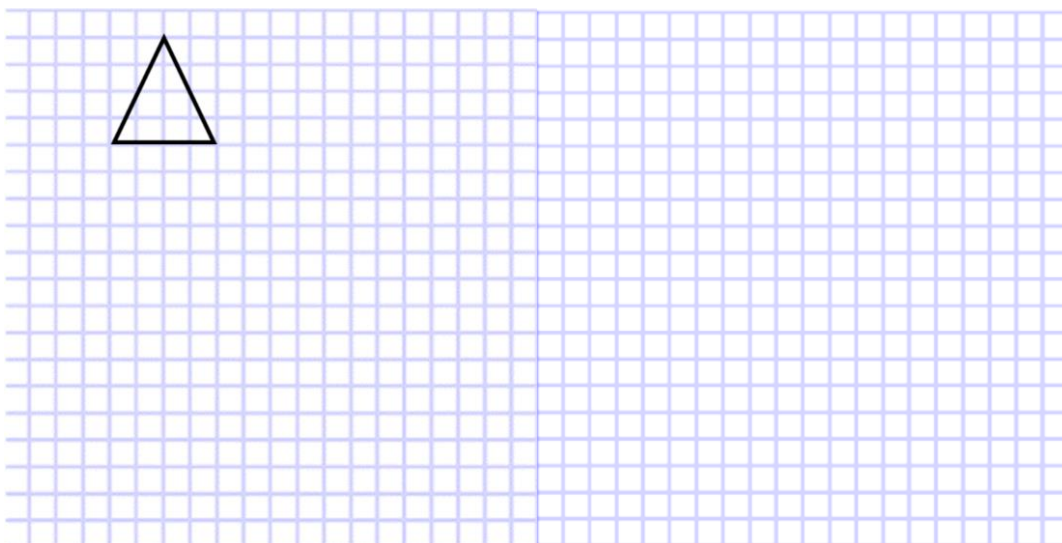
Original Dimensions	Scale factor	Enlarged (Scale) Dimensions (S = O x SF)
Length 12.4cm	4.5	
Width 8.3 cm	4.5	

2. Determine the **scale factor** of this enlargement. **(2)**

$$\text{Scale Factor} = \frac{\text{Scale (enlargement)}}{\text{Original}}$$



3. Draw a scale diagram of triangle shown with **scale factor of 3**. **(4)**



4. Determine the value of  $y$  in this proportion. **(2)**

$$\frac{y}{7} = \frac{9}{3}$$

5. These quadrilaterals are similar.

a) Identify the corresponding sides and angles. **(4)**

•  $\overline{AB} =$  \_\_\_\_\_

•  $\angle A =$  \_\_\_\_\_

•  $\overline{BC} =$  \_\_\_\_\_

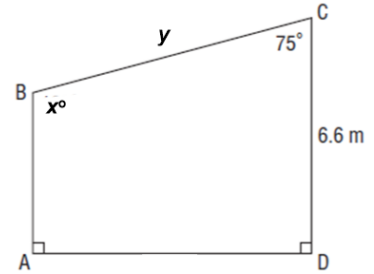
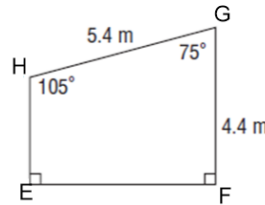
•  $\angle B =$  \_\_\_\_\_

•  $\overline{CD} =$  \_\_\_\_\_

•  $\angle C =$  \_\_\_\_\_

•  $\overline{DA} =$  \_\_\_\_\_

•  $\angle D =$  \_\_\_\_\_



b) Determine the value of  $x^\circ$ . **(1)**

$x^\circ =$  \_\_\_\_\_

c) Determine the value of side  $y$ . **(2)**

$$\frac{CB}{GH} = \frac{CD}{GF}$$

7. This scale diagram shows the measurements that a surveyor made to determine the length of Lac Lalune. What is the length of the lake? **(3)**

$$\frac{\text{base}}{\text{base}} = \frac{\text{height}}{\text{height}}$$

