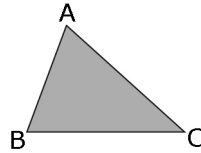


## Section 4.3 Math Link

This worksheet will help you with the Math Link on page 153.

For your design project report, include a signature logo that features your name.

1. On a sheet of  $8.5 \times 11$  paper, design your logo. Include a triangle that is similar to the one shown.



- a) To help you draw a similar triangle, follow these steps.

- Measure all the angles of the triangle.

$$\angle A = \underline{\quad}^\circ \quad \angle B = \underline{\quad}^\circ \quad \angle C = \underline{\quad}^\circ$$

- Measure the side lengths of the triangle.

$$AB = \underline{\quad} \text{ cm} \quad BC = \underline{\quad} \text{ cm} \quad AC = \underline{\quad} \text{ cm}$$

- Decide on a scale factor. \_\_\_\_\_
- Use the scale factor to determine the lengths of your new triangle.

$$A'B' = \underline{\quad} \text{ cm} \quad B'C' = \underline{\quad} \text{ cm} \quad A'C' = \underline{\quad} \text{ cm}$$

- Draw your triangle.

**Hint:** Draw one side length. Create the appropriate angle on each end of the side length. Then, draw the remaining side lengths along the angle and according to the scale factor.

- b) Show how you know that your triangle is similar to the one shown.

2. On grid paper, draw a scale diagram of the logo to fit on your design project.

For example, you might make each side length of the triangle on your logo  $\frac{1}{5}$  of the side length of the drawing you made above.

- a) Will you enlarge or reduce your logo to fit on your design project? \_\_\_\_\_

- b) Identify the scale factor you will use. \_\_\_\_\_

- c) Using the scale factor, draw your logo.