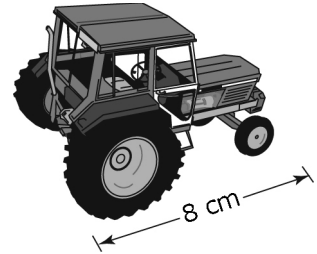Name: _____   Date: _____

**Chapter 2 PRACTICE**
Scale Factors & Similarity

1. A local farm equipment dealership sells toy tractors that are 8 cm long. The length of the actual tractor is 5.6 m. What is the scale of the reduction (as a ratio)?
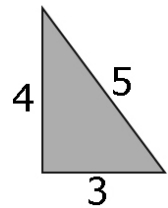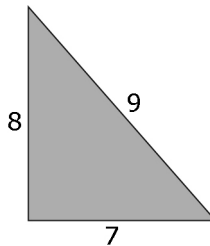
8 cm

2. A penny has a diameter of 19 mm. Brenda used a scale factor of 3 to create a scale drawing of the penny. What is the diameter of Brenda's drawing?
.

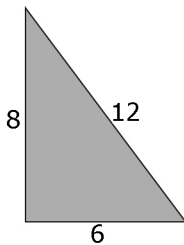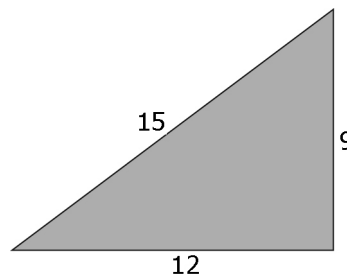3. Which of the following triangles is similar to the given triangle?

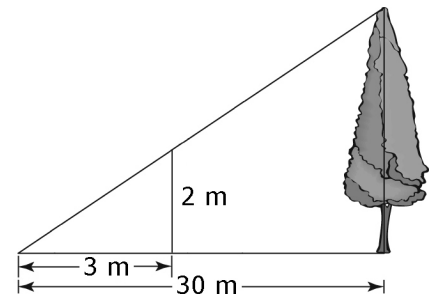   **A**
   6   5
   3

   B
   8   9
   7

   4   5
   3

   C
   8   12
   6

   D
   15   9
   12
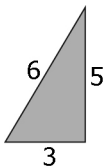
4. Using the information given in the diagram, the height of the actual tree is _____ m.

   2 m
   3 m
   30 m

5. A standard stop sign is 75 cm across from one side of the red octagon to the opposite side, with a 2-cm white border. The letters forming the word STOP are 25 cm tall.

Determine the following dimensions on a 1:4 scale drawing of a stop sign:

- Width of octagon: _____ cm

- Height of letters: _____ cm

- Width of border: _____ mm

STOP

|←————75 cm————→|
2 cm

Actual lengths shown.
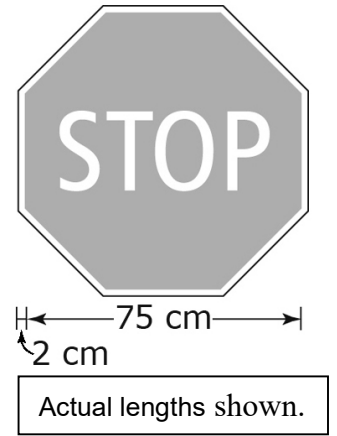
6. Use a scale factor of 0.5 to draw a reduction of the arrow.
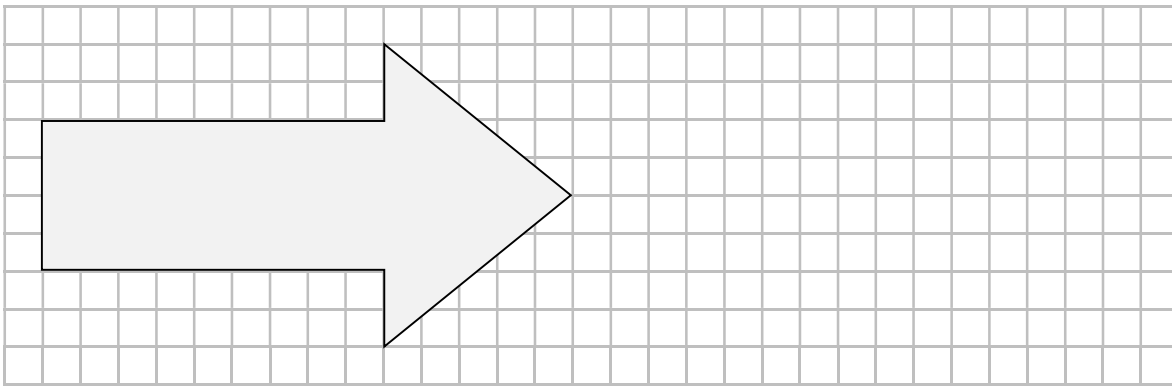
7. Paul's grandfather collects models of ships such as *Bluenose*. The model measures 120 mm in length and the scale used to make the model is 1 : 470. Calculate the length of the actual sailing ship to the nearest tenth of a metre.
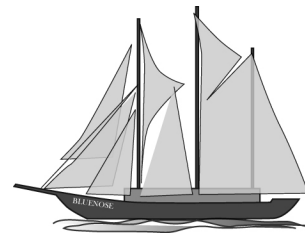
8. Determine whether or not the two triangles are similar. Show how you know.