Lesson 1 Practice Problems

1. Rectangle A measures 12 cm by 3 cm. Rectangle B is a scaled copy of Rectangle A. Select **all** of the measurement pairs that could be the dimensions of Rectangle B.

   A. 6 cm by 1.5 cm

   B. 10 cm by 2 cm

   C. 13 cm by 4 cm

   D. 18 cm by 4.5 cm

   E. 80 cm by 20 cm

2. Rectangle A has length 12 and width 8. Rectangle B has length 15 and width 10. Rectangle C has length 30 and width 15.

   a. Is Rectangle A a scaled copy of Rectangle B? If so, what is the scale factor?

   b. Is Rectangle B a scaled copy of Rectangle A? If so, what is the scale factor?

   c. Explain how you know that Rectangle C is *not* a scaled copy of Rectangle B.

   d. Is Rectangle A a scaled copy of Rectangle C? If so, what is the scale factor?

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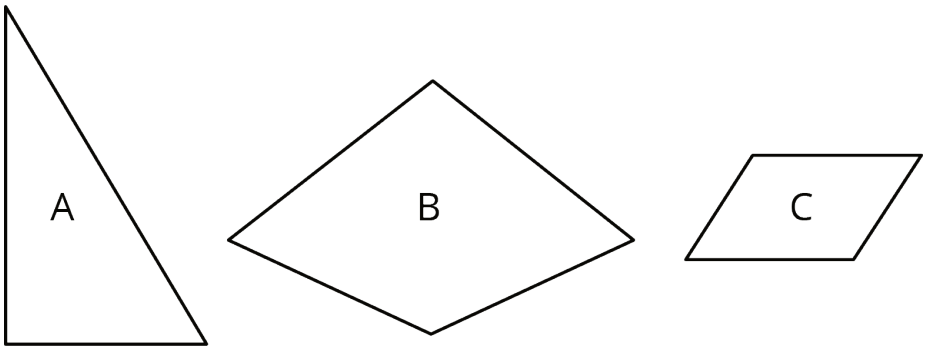
3. Here are three polygons.



a. Draw a scaled copy of Polygon A with scale factor $\frac{1}{2}$.

b. Draw a scaled copy of Polygon B with scale factor 2.

c. Draw a scaled copy of Polygon C with scale factor $\frac{1}{4}$.

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4. Which of these sets of angle measures could be the three angles in a triangle?

   A. $40^\circ, 50^\circ, 60^\circ$

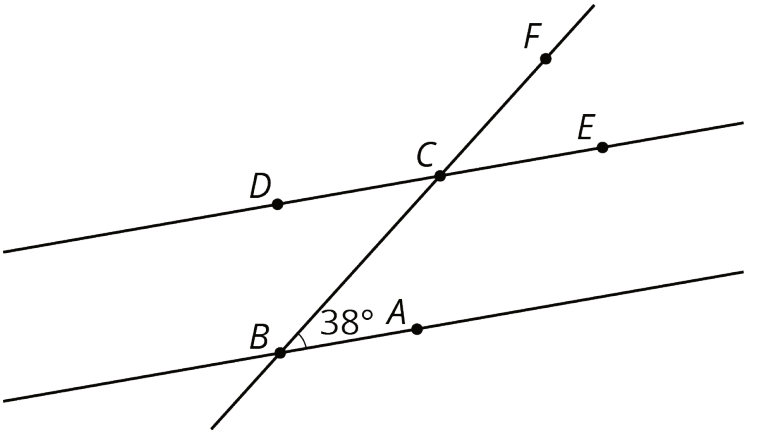
   B. $50^\circ, 60^\circ, 70^\circ$

   C. $60^\circ, 70^\circ, 80^\circ$

   D. $70^\circ, 80^\circ, 90^\circ$

   (From Unit 1, Lesson 15.)

5. In the picture lines AB and CD are parallel. Find the measures of the following angles. Explain your reasoning.



   a. $\angle BCD$

   b. $\angle ECF$

   c. $\angle DCF$

   (From Unit 1, Lesson 14.)

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