### Lesson 3 Practice Problems

1. Segment $AB$ measures 3 cm. Point $O$ is the center of dilation. How long is the image of $AB$ after a dilation with . . .
	1. Scale factor 5?
	2. Scale factor 3.7?
	3. Scale factor $\frac{1}{5}$?
	4. Scale factor $s$?
2. Here are points $A$ and $B$. Plot the points for each dilation described.
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	1. $C$ is the image of $B$ using $A$ as the center of dilation and a scale factor of 2.
	2. $D$ is the image of $A$ using $B$ as the center of dilation and a scale factor of 2.
	3. $E$ is the image of $B$ using $A$ as the center of dilation and a scale factor of $\frac{1}{2}$.
	4. $F$ is the image of $A$ using $B$ as the center of dilation and a scale factor of $\frac{1}{2}$.
1. Make a perspective drawing. Include in your work the center of dilation, the shape you dilate, and the scale factor you use.
2. Triangle $ABC$ is a scaled copy of triangle $DEF$. Side $AB$ measures 12 cm and is the longest side of $ABC$. Side $DE$ measures 8 cm and is the longest side of $DEF$.
	1. Triangle $ABC$ is a scaled copy of triangle $DEF$ with what scale factor?
	2. Triangle $DEF$ is a scaled copy of triangle $ABC$ with what scale factor?
* (From Unit 2, Lesson 1.)
1. The diagram shows two intersecting lines.
* Find the missing angle measures.
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* (From Unit 1, Lesson 14.)
	1. Show that the two triangles are congruent.
	2. Find the side lengths of $DEF$ and the angle measures of $ABC$.
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* (From Unit 1, Lesson 12.)



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