### Lesson 4 Practice Problems

1. Triangle $ABC$ is dilated using $D$ as the center of dilation with scale factor 2.
* The image is triangle $A^{′}B^{′}C^{′}$. Clare says the two triangles are congruent, because their angle measures are the same. Do you agree? Explain how you know.
* 
1. On graph paper, sketch the image of quadrilateral PQRS under the following dilations:
	1. The dilation centered at $R$ with scale factor 2.
	2. The dilation centered at $O$ with scale factor $\frac{1}{2}$.
	3. The dilation centered at $S$ with scale factor $\frac{1}{2}$.
* 
1. The diagram shows three lines with some marked angle measures.
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* Find the missing angle measures marked with question marks.
* (From Unit 1, Lesson 14.)
1. Describe a sequence of translations, rotations, and reflections that takes Polygon P to Polygon Q.
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* (From Unit 1, Lesson 4.)
1. Point $B$ has coordinates $\left(-2,-5\right)$. After a translation 4 units down, a reflection across the $y$-axis, and a translation 6 units up, what are the coordinates of the image?
* (From Unit 1, Lesson 6.)



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