### Lesson 1 Practice Problems

1. When rectangle $ABCD$ is reflected across line $EF$, the image is $DCBA$. How do you know that segment $AB$ is congruent to segment $DC$?
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	1. A rectangle has 2 pairs of parallel sides.
	2. Any 2 sides of a rectangle are congruent.
	3. Congruent parts of congruent figures are corresponding.
	4. Corresponding parts of congruent figures are congruent.
1. Triangle $FGH$ is the image of isosceles triangle $FEH$ after a reflection across line $HF$. Select **all** the statements that are a result of corresponding parts of congruent triangles being congruent.
* $\overset{¯}{FE}≅\overset{¯}{HE}$
* 
	1. $EFGH$ is a rectangle.
	2. $EFGH$  has 4 congruent sides.
	3. Diagonal $FH$ bisects angles $EFG$ and $EHG$.
	4. Diagonal $FH$ is perpendicular to side $FE$.
	5. Angle $FEH$ is congruent to angle $FGH$.
1. Reflect right triangle $ABC$ across line $BC$. Classify triangle $ACA^{′}$ according to its side lengths. Explain how you know.
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1. Triangles $FAD$ and $DCE$ are translations of triangle $ABC$
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* Select **all** the statements that *must* be true.
	1. Points $B$, $A$, and $F$ are collinear.
	2. The measure of angle $BCA$ is the same as the measure of angle $CED$.
	3. Line $AD$ is parallel to line $BC$.
	4. The measure of angle $CED$ is the same as the measure of angle $FAD$.
	5. The measure of angle $DAC$ is the same as the measure of angle $BCA$.
	6. Triangle $ADC$ is a reflection of triangle $FAD$.
* (From Unit 1, Lesson 21.)
1. Triangle $ABC$ is congruent to triangles $BAD$ and $CEA$.
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	1. Explain why points $D$, $A$, and $E$ are collinear.
	2. Explain why line $DE$ is parallel to line $BC$.
* (From Unit 1, Lesson 21.)
	1. Identify a figure that is the result of a rigid transformation of quadrilateral $ABCD$.
	2. Describe a rigid transformation that would take $ABCD$ to that figure.
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* (From Unit 1, Lesson 18.)



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