### Lesson 5 Practice Problems

1. What is the measure of angle $A^{′}B^{′}C$?
* 
	1. $20^{∘}$
	2. $40^{∘}$
	3. $60^{∘}$
	4. $80^{∘}$
1. Triangle $DEF$ is formed by connecting the midpoints of the sides of triangle $ABC$. The lengths of the sides of $DEF$ are shown. What is the length of $AB$?
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1. Angle $ABC$ is taken by a dilation with center $P$ and scale factor $\frac{1}{3}$ to angle $A^{′}B^{′}C^{′}$. The measure of angle $ABC$ is $21^{∘}$. What is the measure of angle $A^{′}B^{′}C^{′}$?
* (From Unit 3, Lesson 4.)
1. Draw 2 lines that could be the image of line $m$ by a dilation. Label the lines $n$ and $p$.
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* (From Unit 3, Lesson 4.)
1. Is it possible for polygon $ABCDE$ to be dilated to figure $VWXYZ$? Explain your reasoning.
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* (From Unit 3, Lesson 3.)
1. Triangle $XYZ$ is scaled and the image is $X^{′}Y^{′}Z^{′}$. Write 2equations that could be used to solve for $a$.
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* (From Unit 3, Lesson 2.)
	1. Lin is using the diagram to prove the statement, “If a parallelogram has one right angle, it is a rectangle.” Given that $EFGH$ is a parallelogram and angle $HEF$ is a right angle, write a statement that will help prove angle $FGH$ is also a right angle.
	2. Han then states that the 2 triangles created by diagonal $EG$ must be congruent. Help Han write a proof that triangle $EHG$ is congruent to triangle $GFE$.
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* (From Unit 2, Lesson 12.)



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