### Lesson 12 Practice Problems

1. Quadrilateral $ABCD$ is similar to quadrilateral $A^{′}B^{′}C^{′}D^{′}$. Select **all** statements that must be true.
	1. $\frac{A^{′}B^{′}}{AB}=\frac{A^{′}C^{′}}{AC}$
	2. $\frac{AD}{A^{′}D^{′}}=\frac{BC}{B^{′}C^{′}}$
	3. $\frac{BD}{B^{′}D^{′}}=\frac{C^{′}D^{′}}{CD}$
	4. $\frac{AB}{CD}=\frac{A^{′}B^{′}}{C^{′}D^{′}}$
	5. $\frac{BC}{A^{′}D^{′}}=\frac{B^{′}C^{′}}{AD}$
2. Lines $BC$ and $DE$ are both vertical. What is the length of $AD$?
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1. The quilt is made of squares with diagonals. Side length $AB$ is 2.
	1. What is the length of $BD$?
	2. What is the area of triangle $AEH$?
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1. Segment $A^{′}B^{′}$ is parallel to segment $AB$. What is the length of segment $BB^{′}$?
* 
	1. 3.5
	2. 4
	3. 10
	4. 10.5
* (From Unit 3, Lesson 11.)
1. Elena thinks length $BC$ is 16.5 units. Lin thinks the length of $BC$ is 17.1 units. Do you agree with either of them? Explain or show your reasoning.
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* (From Unit 3, Lesson 11.)
1. Mai thinks knowing the measures of 2 sides is enough to show triangle similarity. Do you agree? Explain or show your reasoning.
* (From Unit 3, Lesson 10.)
1. Line $g$ is dilated with a center of dilation at $A$. The image is line $f$. Approximate the scale factor.
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* (From Unit 3, Lesson 4.)



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