Lesson 12 Practice Problems

1. Quadrilateral $ABCD$ is similar to quadrilateral $A'B'C'D'$. Select **all** statements that must be true.

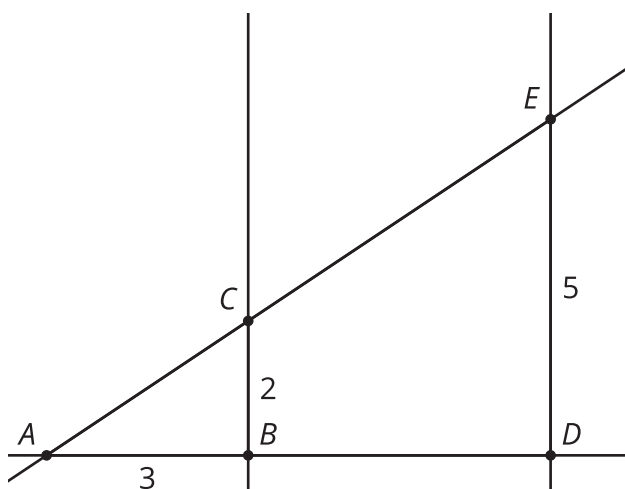   A. $\dfrac{A'B'}{AB} = \dfrac{A'C'}{AC}$

   B. $\dfrac{AD}{A'D'} = \dfrac{BC}{B'C'}$

   C. $\dfrac{BD}{B'D'} = \dfrac{C'D'}{CD}$
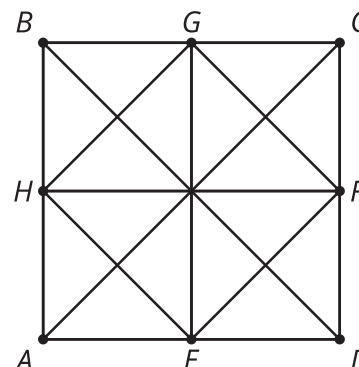
   D. $\dfrac{AB}{CD} = \dfrac{A'B'}{C'D'}$

   E. $\dfrac{BC}{A'D'} = \dfrac{B'C'}{AD}$

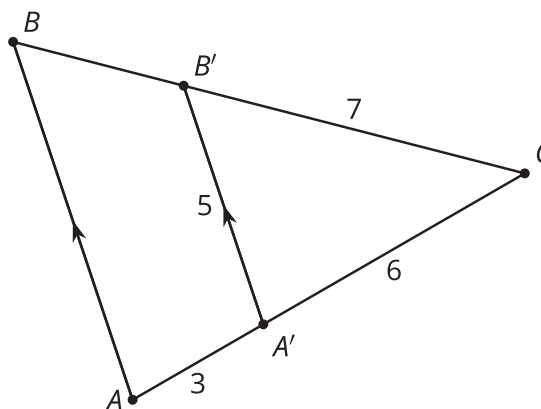2. Lines BC and DE are both vertical. What is the length of AD?

3. The quilt is made of squares with diagonals. Side length AB is 2.

   a. What is the length of BD?
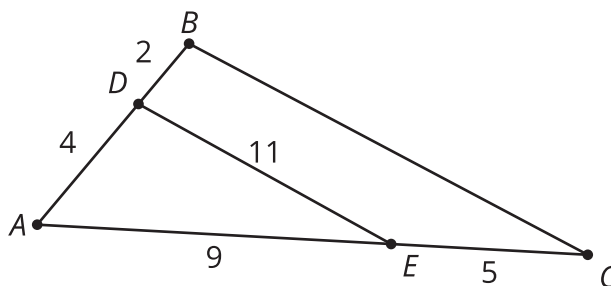
   b. What is the area of triangle AEH?

4. Segment $A'B'$ is parallel to segment AB. What is the length of segment BB'?

    A. 3.5

    B. 4

    C. 10

    D. 10.5

(From Unit 3, Lesson 11.)

5. 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.
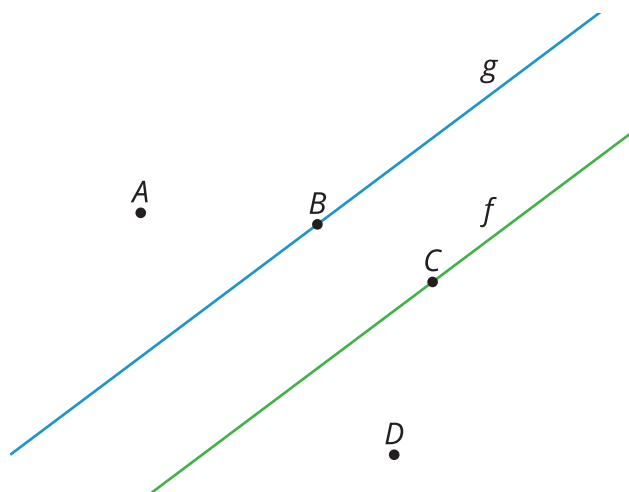

(From Unit 3, Lesson 11.)

6. 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.)

7. Line g is dilated with a center of dilation at A. The image is line f. Approximate the scale factor.

(From Unit 3, Lesson 4.)