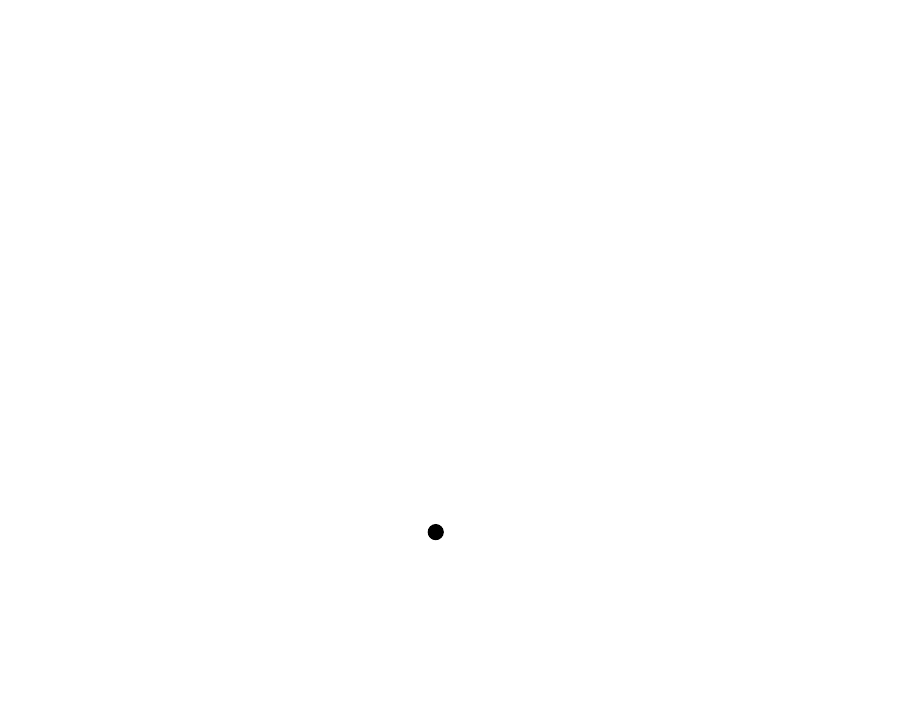
### Lesson 11 Practice Problems

1. Segment is parallel to segment .
   1. What is the length of segment ?
   2. What is the length of segment ?

* 

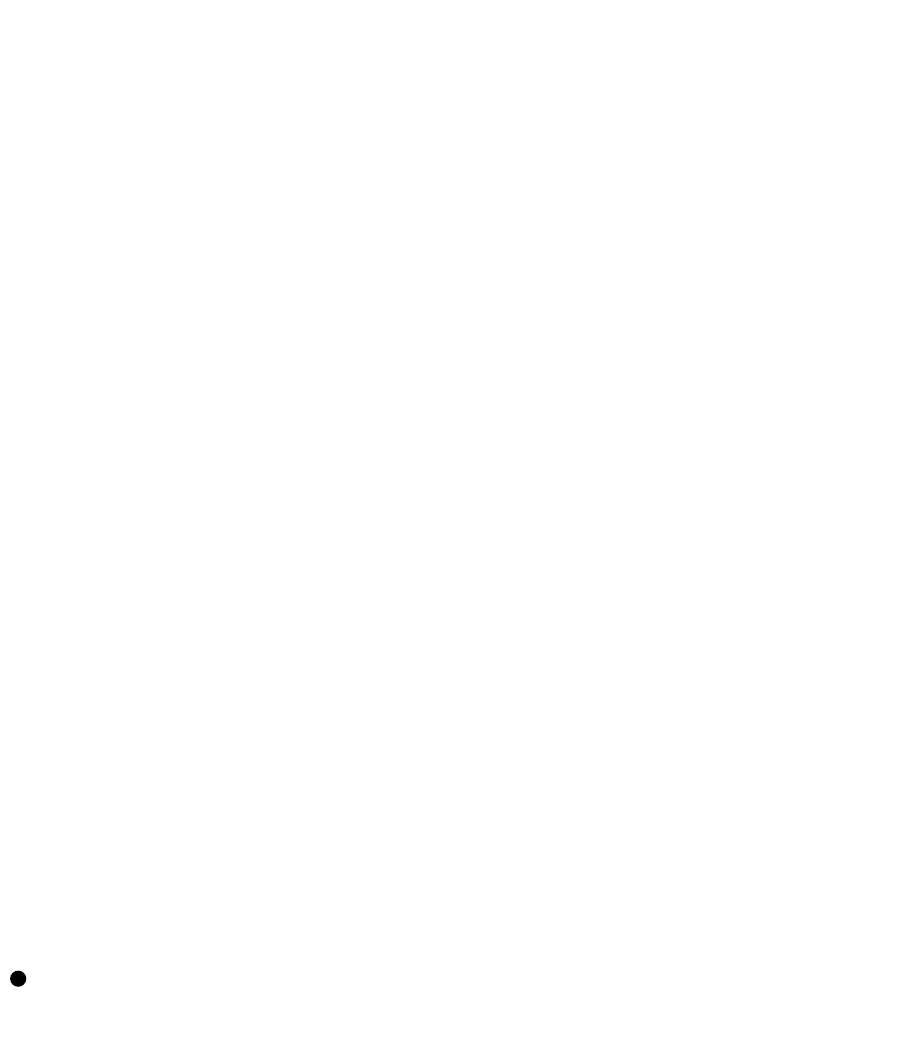
1. Explain how you know that segment is *not* parallel to segment .

* 

1. In right triangle , and . A new triangle is formed by connecting the midpoints of and .

* 
  1. What is the area of triangle ?
  2. What is the area of triangle ?
  3. Does the scale factor for the side lengths apply to the area as well?

1. Which of these statements is true?
   1. To know whether 2 triangles are similar, it is enough to know the measure of 1 angle.
   2. To know whether 2 triangles are similar, it is enough to know the length of 1 side.
   3. To know whether 2 triangles are similar, it is enough to know the measure of 2 angles in each triangle.
   4. To know whether 2 triangles are similar, it is enough to know the measure of 2 sides in each triangle.

* (From Unit 3, Lesson 10.)
  1. Are triangles and similar? Show or explain your reasoning.
  2. If possible, find the length of . If not, explain why the length of cannot be determined.
* 
* (From Unit 3, Lesson 10.)

1. What is the length of segment ?

* 
* (From Unit 3, Lesson 9.)

1. The triangle is taken to triangle by a dilation. Select **all** of the scale factors for the dilation that would result in an image that was *smaller* than the original figure.
   1. 1
   2. 2

* (From Unit 3, Lesson 3.)



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