### Lesson 9 Practice Problems

1. What is the length of segment ?

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1. In triangle , angle is 35º and angle is 20º. Select **all** triangles which are similar to triangle .
   1. triangle where angle is 35º and angle is 20º
   2. triangle where angle is 35º and angle is 30º
   3. triangle where angle is 35º and angle is 125º
   4. triangle where angle is 20º and angle is 125º
   5. triangle where angle is 20º and angle is 30º
2. Decide whether triangles and are similar. Explain or show your reasoning.

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1. Lin is trying to convince Andre that all circles are similar. Help her write a valid justification for why all circles are similar.

* (From Unit 3, Lesson 8.)

1. Must these parallelograms be similar? Explain your reasoning.

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* (From Unit 3, Lesson 8.)

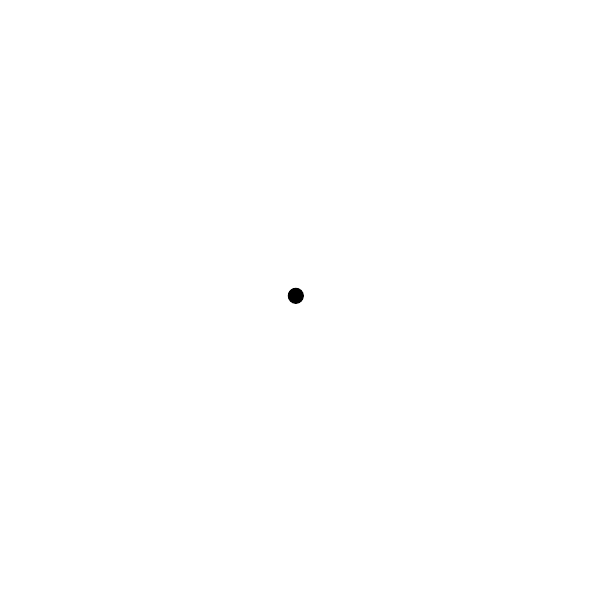
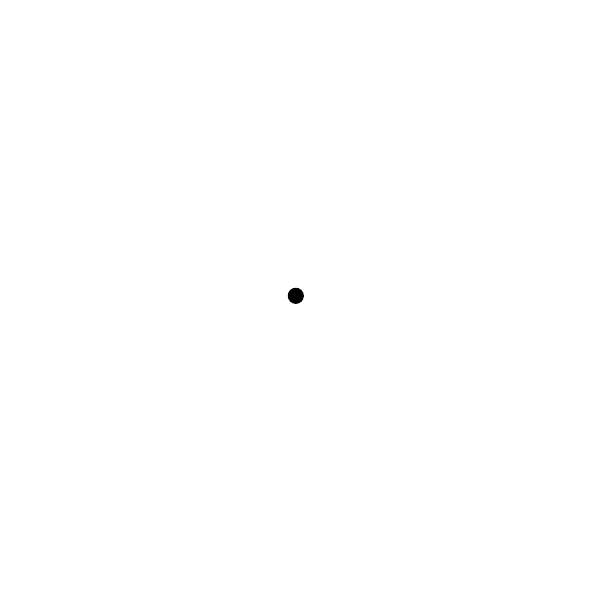
1. Determine if each statement must be true, could possibly be true, or definitely can't be true. Explain or show your reasoning.
   1. An equilateral triangle and a right triangle are similar.
   2. A right triangle and an isosceles triangle are similar.

* (From Unit 3, Lesson 7.)

1. Quadrilaterals and  are similar.

* What is the scale factor of the dilation that takes  to ?
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* (From Unit 3, Lesson 6.)

1. The circle centered at  is a scaled copy of the circle centered at .
   1. Find the scale factor.
   2. Find the value of .

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* (From Unit 3, Lesson 1.)



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