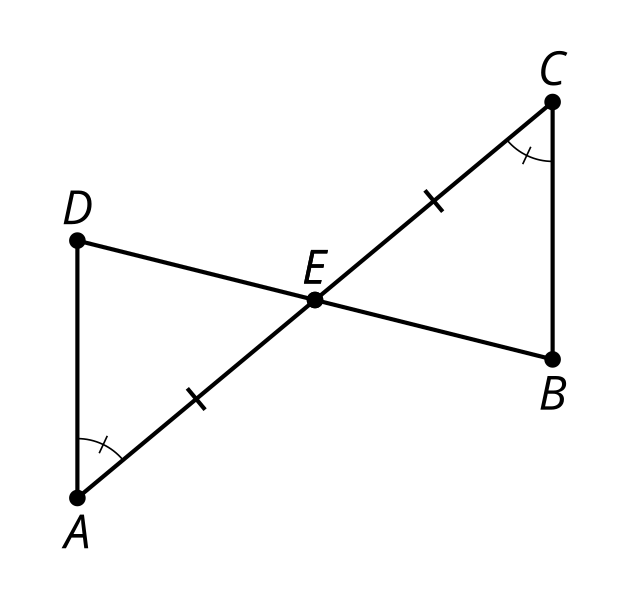
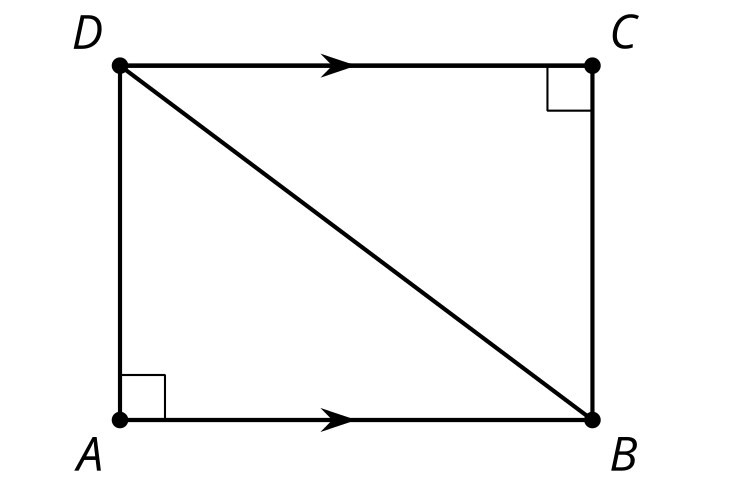
### Lesson 7 Practice Problems

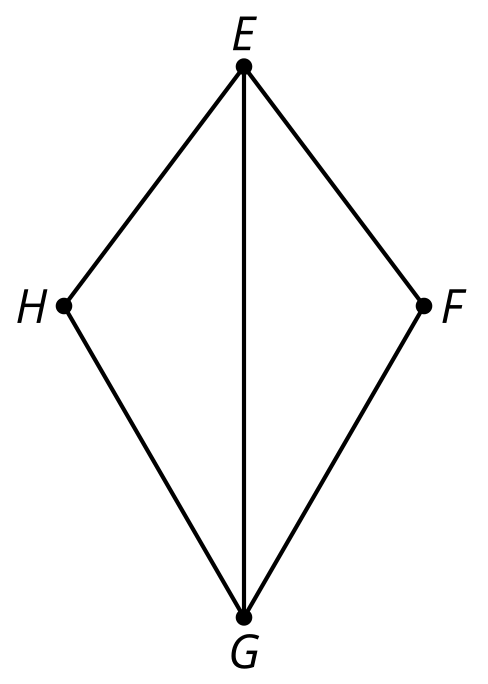
1. What triangle congruence theorem could you use to prove triangle is congruent to triangle ?

* 

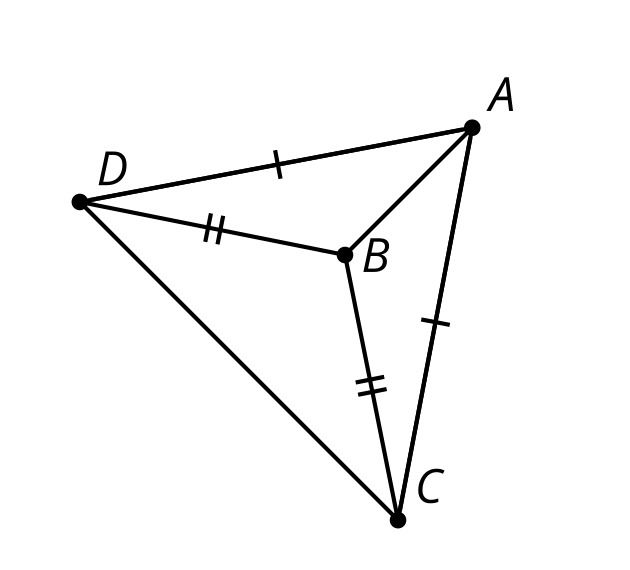
1. Han wrote a proof that triangle  is congruent to triangle . Han's proof is incomplete. How can Han fix his proof?

* 
  + Line  is parallel to line  and cut by transversal . So angles  and  are alternate interior angles and must be congruent.
  + Side  is congruent to side  because they're the same segment.
  + Angle  is congruent to angle  because they're both right angles.
  + By the Angle-Side-Angle Triangle Congruence Theorem, triangle  is congruent to triangle .

1. Segment  is an angle bisector of both angle  and angle . Prove triangle  is congruent to triangle .

* 

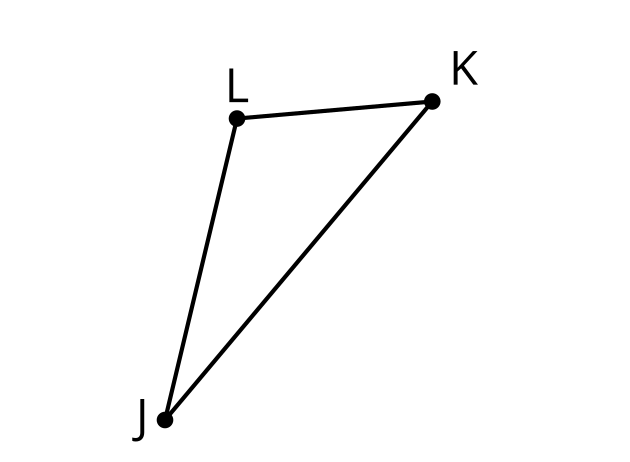
1. Triangles and are isosceles. Angle has a measure of 33 degrees and angle has a measure of 35 degrees. Find the measure of angle .

* 
* (From Unit 2, Lesson 6.)

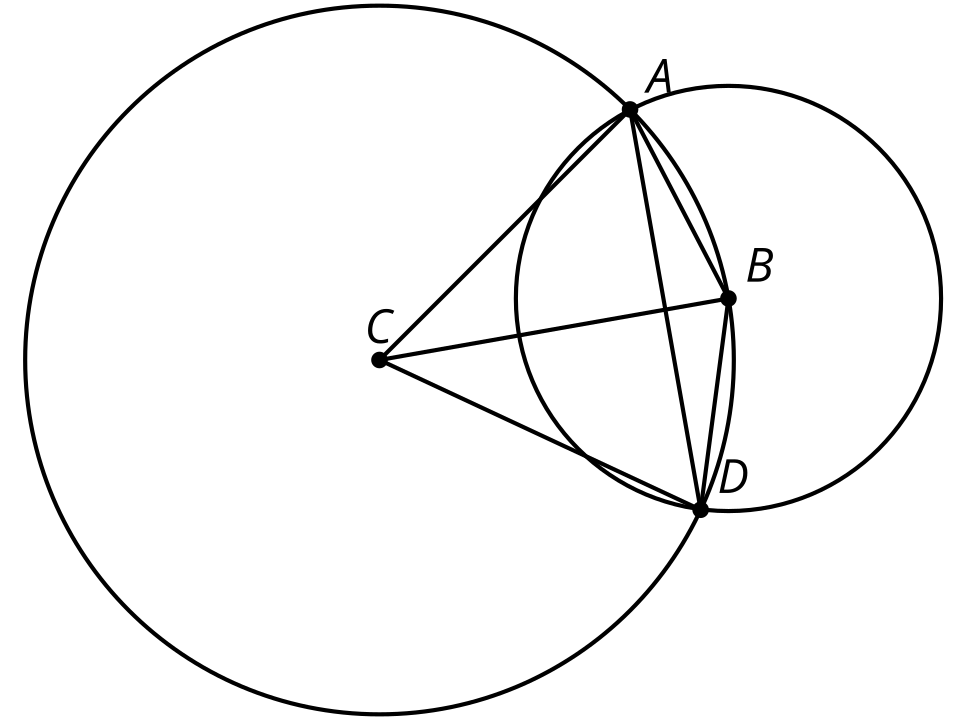
1. Which conjecture is possible to prove?
   1. All triangles with at least one side length of 5 are congruent.
   2. All pentagons with at least one side length of 5 are congruent.
   3. All rectangles with at least one side length of 5 are congruent.
   4. All squares with at least one side length of 5 are congruent.

* (From Unit 2, Lesson 5.)

1. Andre is drawing a triangle that is congruent to this one. He begins by constructing an angle congruent to angle . What is the least amount of additional information that Andre needs to construct a triangle congruent to this one?

* 
* (From Unit 2, Lesson 4.)

1. Here is a diagram of a straightedge and compass construction. is the center of one circle, and is the center of the other. Which segment has the same length as segment ?

* 
* (From Unit 1, Lesson 1.)



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