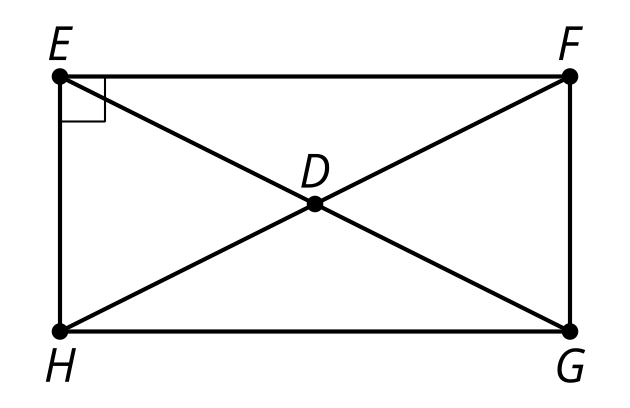
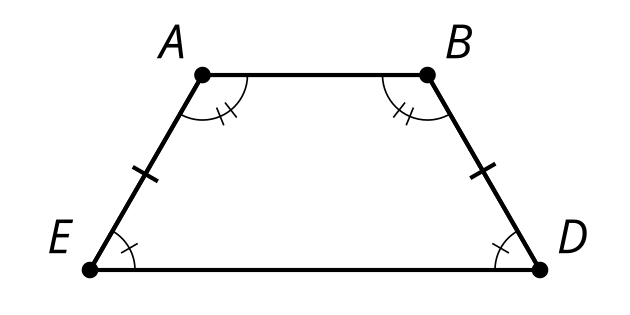
### Lesson 12 Practice Problems

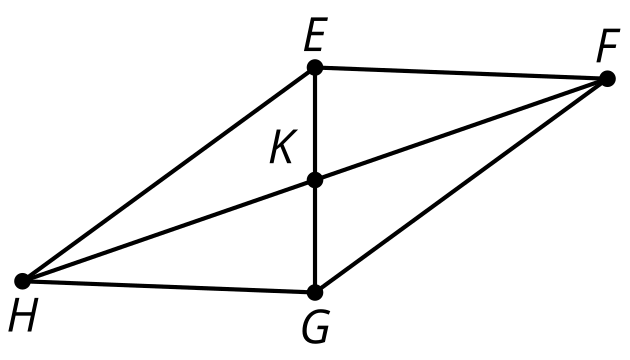
1. Lin is using the diagram to prove the statement, “If a parallelogram has one right angle, it is a rectangle.” Given that is a parallelogram and angle is right, which reasoning about angles will help her prove that angle is also a right angle?

* 
  1. Corresponding angles are congruent when parallel lines are cut by a transversal.
  2. Opposite angles in a parallelogram are congruent.
  3. Vertical angles are congruent.
  4. The base angles of an isosceles triangle are congruent.

1. is an isosceles trapezoid. Select **all** pairs of congruent triangles.

* 
* ​​​​​​
  1. Triangle and triangle
  2. Triangle and triangle
  3. Triangle and triangle
  4. Triangle and triangle
  5. Triangle and triangle

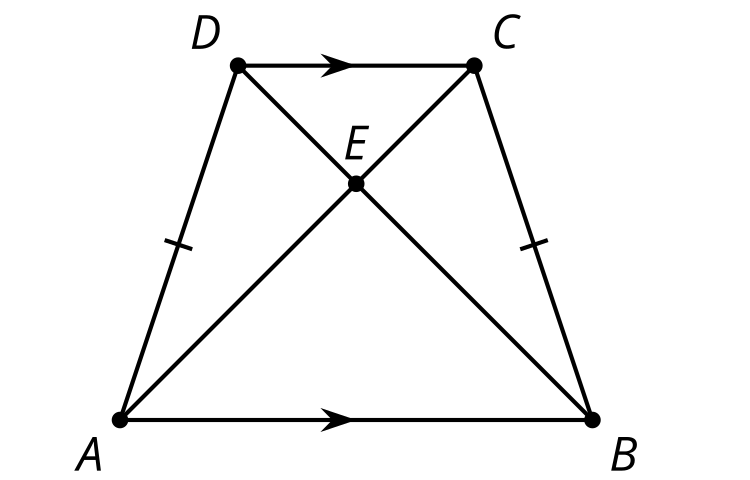
1. Match each conjecture with the rephrased statement of proof connected to the diagram.

* 
  1. The diagonals of a parallelogram bisect each other.
  2. In a parallelogram, opposite sides are congruent.
  3. A quadrilateral with opposite sides congruent is a parallelogram.
  4. If the diagonals of a quadrilateral bisect each other, then it is a parallelogram.
  5. In quadrilateral with congruent to and congruent to , show is a parallelogram.
  6. In parallelogram , show  is congruent to and congruent to .
  7. In quadrilateral with congruent to and congruent to , show is a parallelogram.
  8. In parallelogram , show  is congruent to and congruent to .

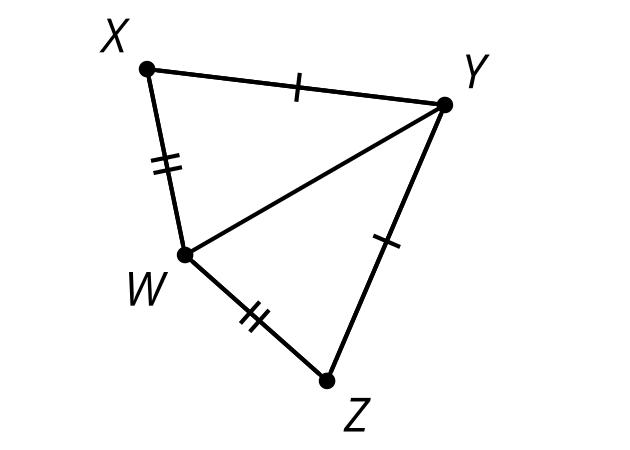
1. Which of the following criteria *always* proves triangles congruent? Select **all** that apply.
   1. Corresponding congruent Angle-Side-Angle
   2. Corresponding congruent Side-Angle-Side
   3. Corresponding congruent Side-Side-Angle
   4. 3 congruent sides
   5. 2 congruent sides
   6. 3 congruent angles

* (From Unit 2, Lesson 11.)

1. Select **all** true statements based on the diagram.

* 
  1. Segment is congruent to segment .
  2. Segment is congruent to segment .
  3. Segment is congruent to segment .
  4. Angle is congruent to angle .
  5. Angle is congruent to angle .
  6. Line is parallel to line .
  7. Line is parallel to line .
* (From Unit 2, Lesson 10.)

1. Diego states that diagonal bisects angles and . Is he correct? Explain your reasoning.

* 
* (From Unit 2, Lesson 9.)

1. Sketch the unique triangles that can be made with angle measures and and side length 5. How do you know you have sketched all possibilities?

* (From Unit 2, Lesson 4.)



© CC BY 2019 by Illustrative Mathematics®