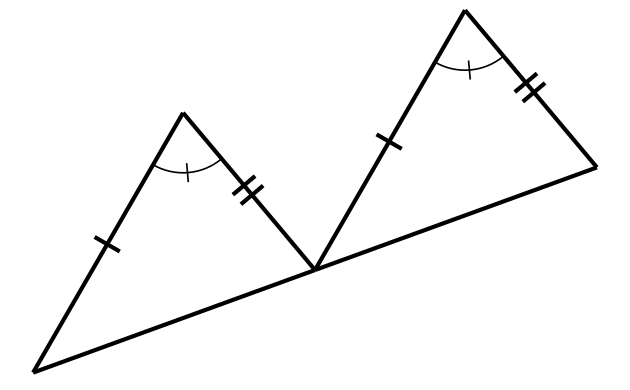
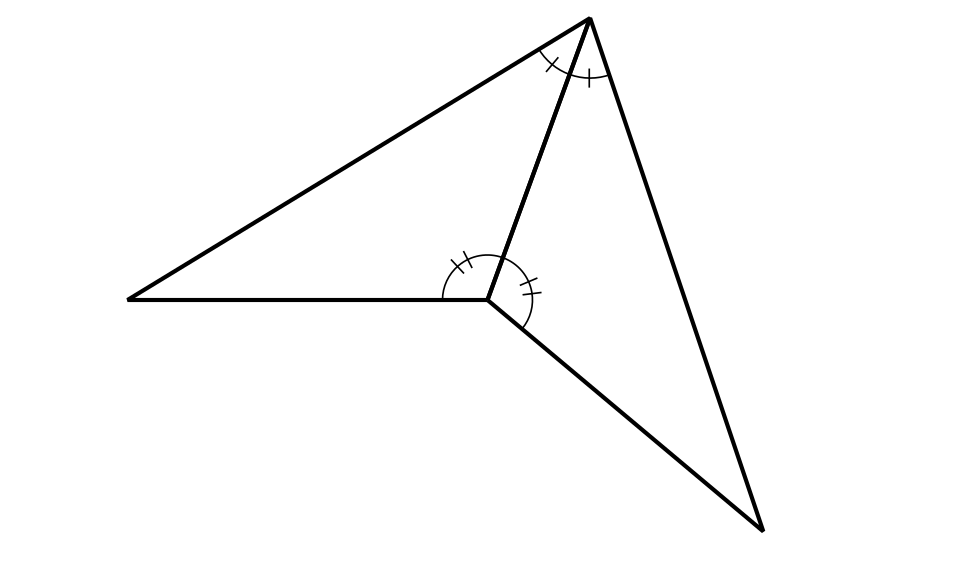
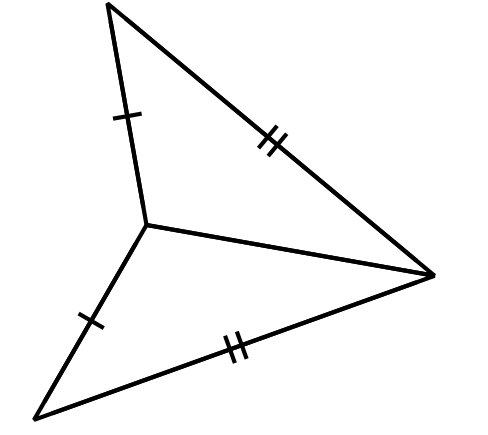
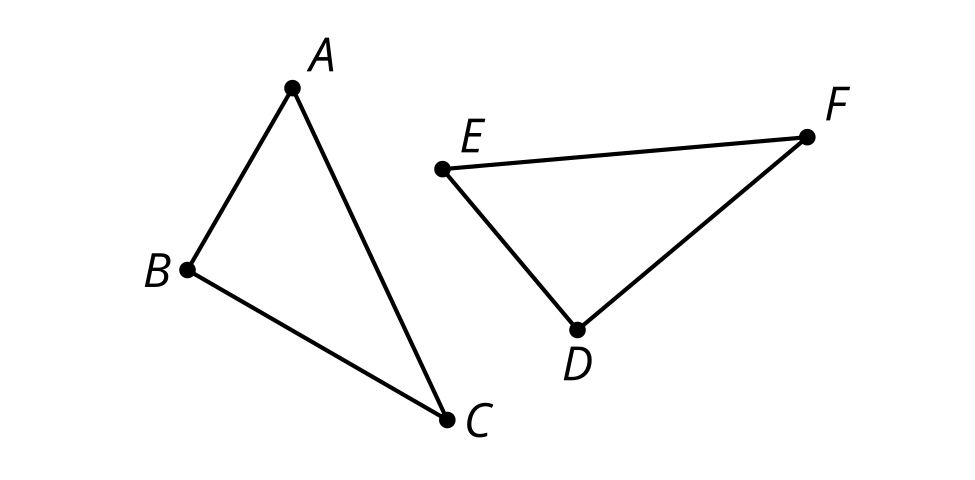
### Lesson 4 Practice Problems

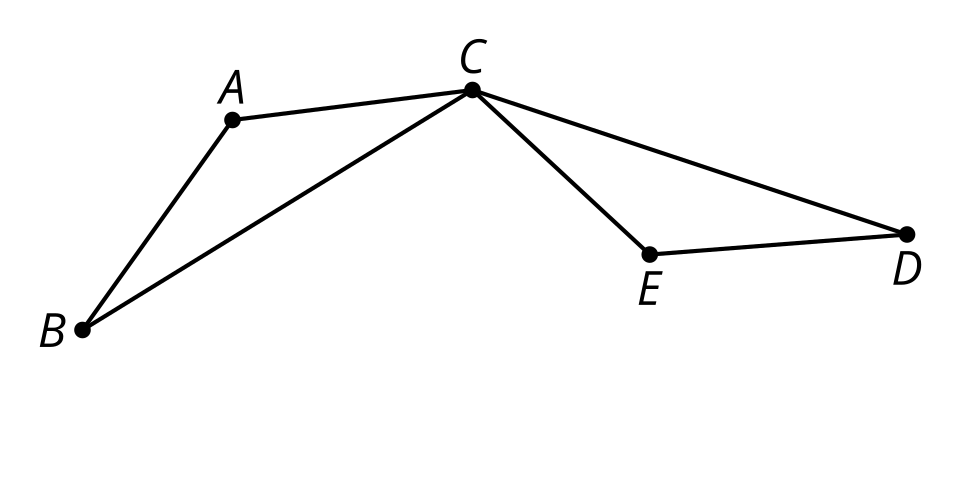
1. Match each statement using only the information shown in the pairs of congruent triangles.
   1. In the 2 triangles there are 3 pairs of congruent sides.
   2. The 2 sides and the included angle of one triangle are congruent to 2 sides and the included angle of another triangle.
   3. The 2 angles and the included side of one triangle are congruent to 2 angles and the included side of another triangle.
   4. 
   5. 
   6. 
2. Sketch the unique triangles that can be made with angle measures and and side length 3. How do you know you have sketched all possibilities?
3. What is the least amount of information that you need to construct a triangle congruent to this one?

* 

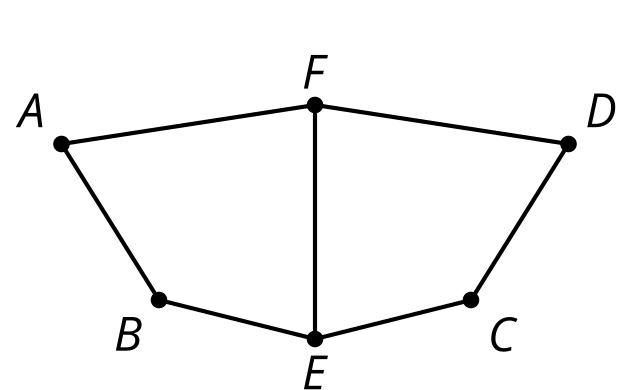
1. Triangle is congruent to triangle . So, Mai knows that there is a sequence of rigid motions that takes to .

* 
* Select **all** true statements after the transformations:
  1. Angle coincides with angle .
  2. Angle coincides with angle .
  3. Segment coincides with segment .
  4. Segment coincides with segment .
  5. Segment coincides with segment .
* (From Unit 2, Lesson 3.)

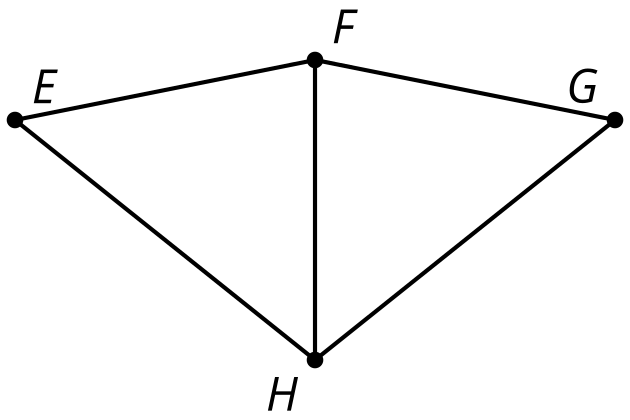
1. A rotation by angle using point as the center takes triangle onto triangle .

* 
  1. Explain why the image of segment  lines up with segment .
  2. Explain why the image of  coincides with .
  3. Is triangle congruent to triangle ? Explain your reasoning.
* (From Unit 2, Lesson 3.)

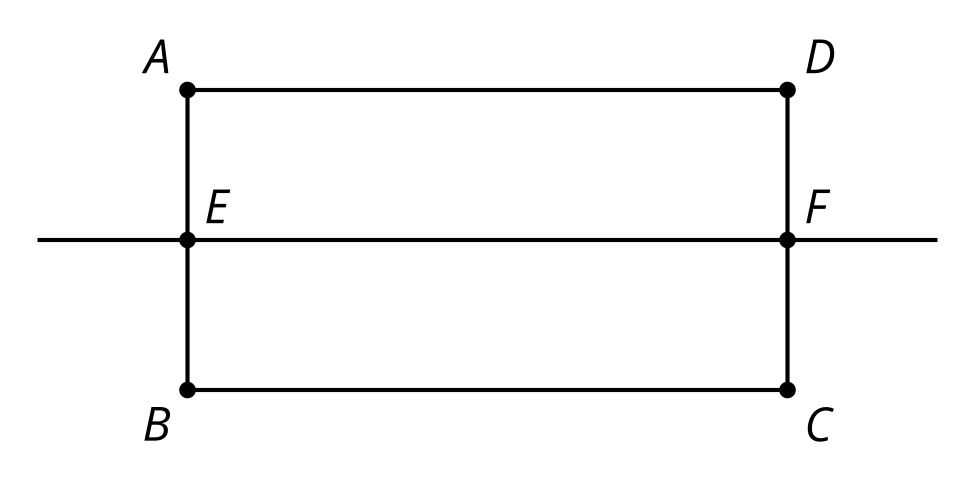
1. Line is a line of symmetry for figure . Clare says that is congruent to because sides and are corresponding.

* 
  1. Why is Clare's congruence statement incorrect?
  2. Write a correct congruence statement for the quadrilaterals.
* (From Unit 2, Lesson 2.)

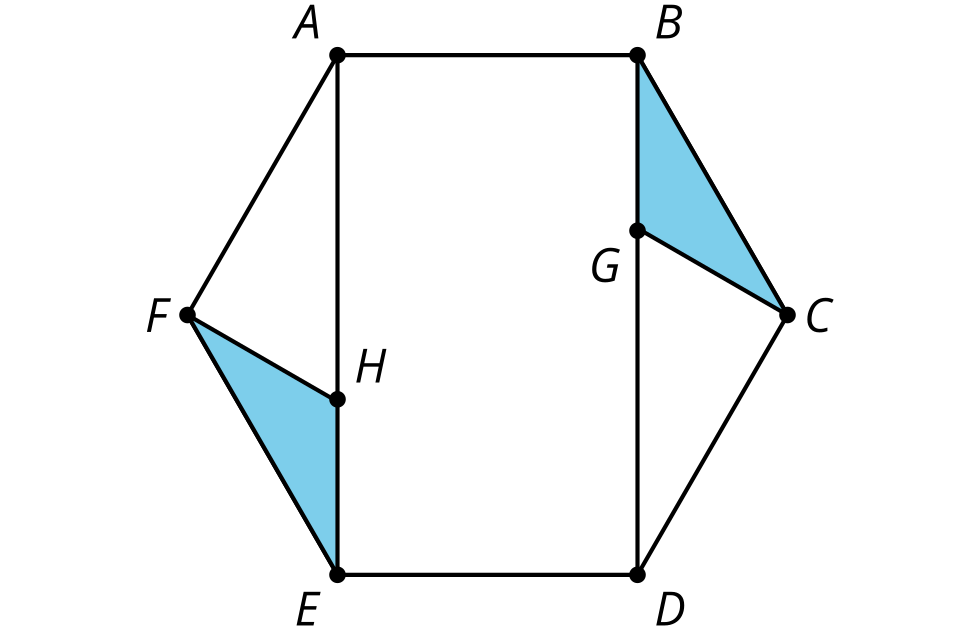
1. Triangle is the image of triangle after a reflection across line . Select **all** statements that must be true.

* 
  1. Triangle  is congruent to triangle .
  2. Triangle  is congruent to triangle .
  3. Angle  is congruent to angle .
  4. Angle  is congruent to angle .
  5. Segment  is congruent to segment .
  6. Segment  is congruent to segment .
* (From Unit 2, Lesson 2.)

1. When rectangle is reflected across line , the image is . How do you know that segment  is congruent to segment ?

* 
  1. A rectangle has 2 pairs of parallel sides.
  2. Any 2 sides of a rectangle are congruent.
  3. Corresponding parts of congruent figures are congruent.
  4. Congruent parts of congruent figures are corresponding.
* (From Unit 2, Lesson 1.)

1. This design began from the construction of a regular hexagon. Describe a rigid motion that will take the figure onto itself.

* 
* (From Unit 1, Lesson 22.)



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