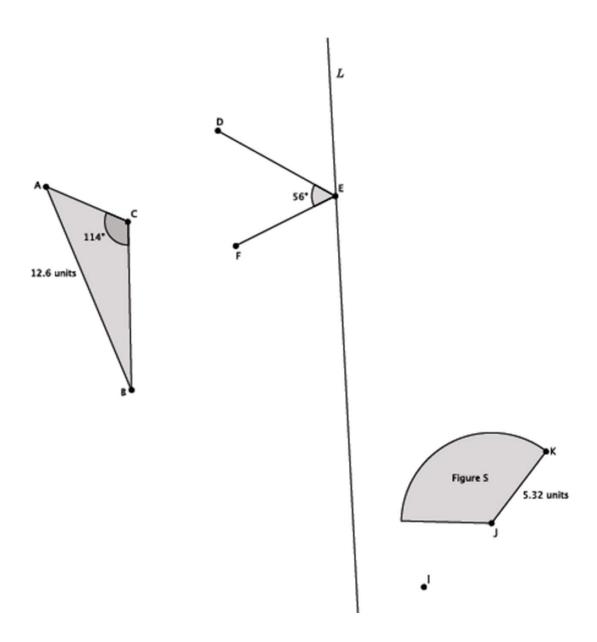
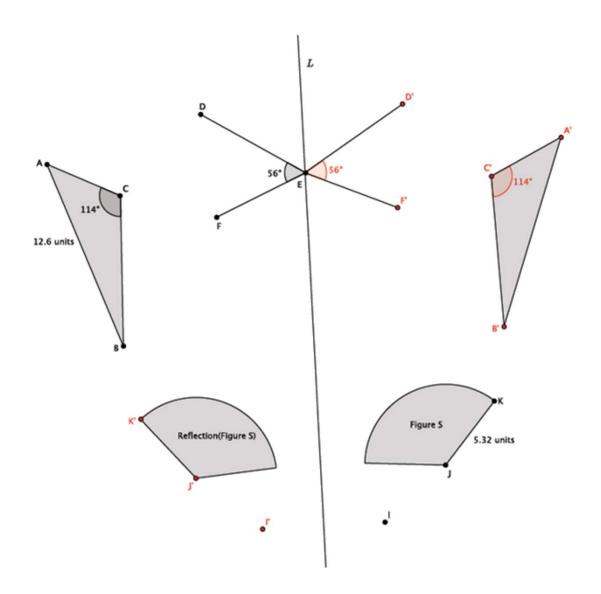
1. In the picture below, $\angle DEF = 56^{\circ}$, $\angle ACB = 114^{\circ}$, AB = 12.6 units, JK = 5.32 units, point E is on line L, and point I is off of line L. Let there be a reflection across line L. Reflect and label each of the figures, and answer the questions that follow.



2. What is the measure of $Reflection(\angle DEF)$? Explain.
3. What is the length of $Reflection(JK)$? Explain.
4. What is the measure of $Reflection(\angle ACB)$?
5. What is the length of $Reflection(AB)$?
6. Two figures in the picture were not moved under the reflection. Name the two figures, and explain why they were not moved.
7. Connect points I and I' . Name the point of intersection of the segment with the line of reflection point Q . What do you know about the lengths of segments IQ and QI' ?

1. In the picture below, $\angle DEF = 56^{\circ}$, $\angle ACB = 114^{\circ}$, AB = 12.6 units, JK = 5.32 units, point E is on line E, and point E is off of line E. Let there be a reflection across line E. Reflect and label each of the figures, and answer the questions that follow.



2. What is the measure of $Reflection(\angle DEF)$? Explain.

The measure of $Reflection(\angle DEF)$ is 56°. Reflections preserve degrees of angles.

3. What is the length of Reflection(JK)? Explain.

The length of Reflection(JK) is 5.32 units. Reflections preserve lengths of segments.

4. What is the measure of $Reflection(\angle ACB)$?

The measure of Reflection($\angle ACB$) is 114°.

5. What is the length of Reflection(AB)?

The length of Reflection(AB) is 12.6 units.

6. Two figures in the picture were not moved under the reflection. Name the two figures, and explain why they were not moved.

Point E and line L were not moved. All of the points that make up the line of reflection remain in the same location when reflected. Since point E is on the line of reflection, it is not moved.

7. Connect points I and I'. Name the point of intersection of the segment with the line of reflection point Q. What do you know about the lengths of segments IQ and QI'?

Segments IQ and QI' are equal in length. The segment II' connects point I to its image, I'. The line of reflection will go through the midpoint, or bisect, the segment created when you connect a point to its image.

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