

NAME: _____

Math ____, Period ____

Mr. Rogove

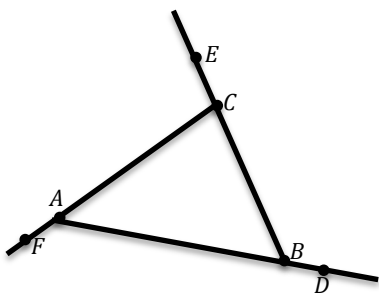
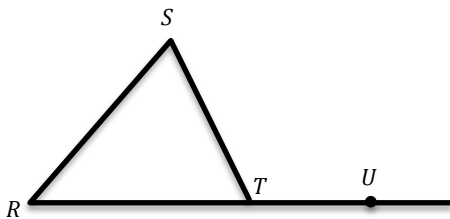
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LEARNING OBJECTIVE: We will use the angle sum theorem to find missing interior and exterior angles of triangles. (G8M2L11)

CONCEPT DEVELOPMENT:

The exterior angle of a triangle: This is formed when one of the sides of a triangle is extended. The interior angles of a triangle are inside and the **exterior angles are outside along the extended side.**

Examples:



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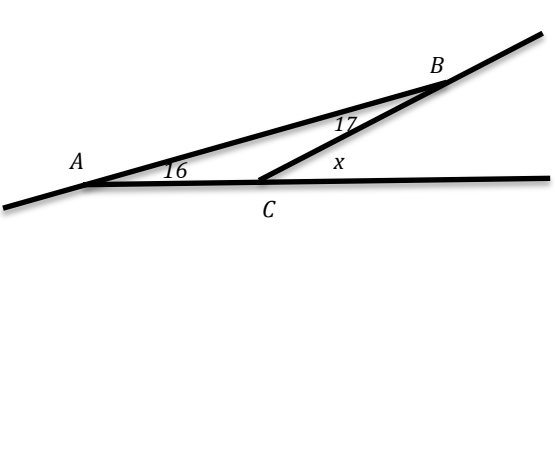
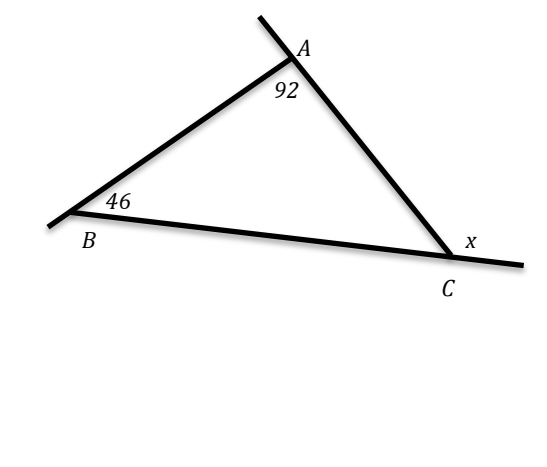
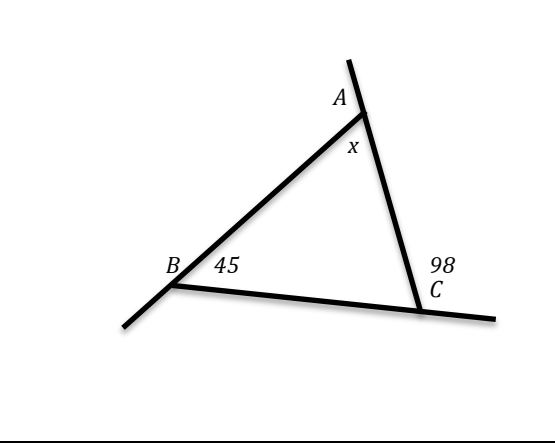
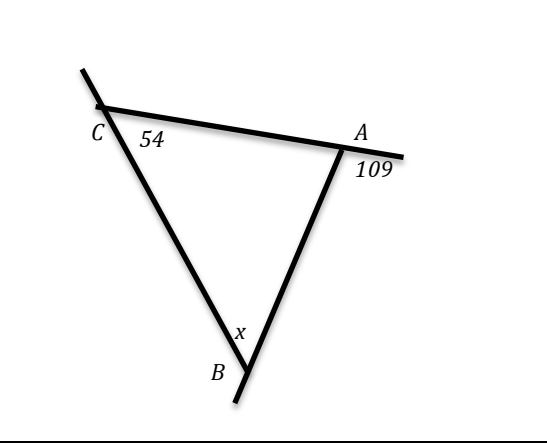
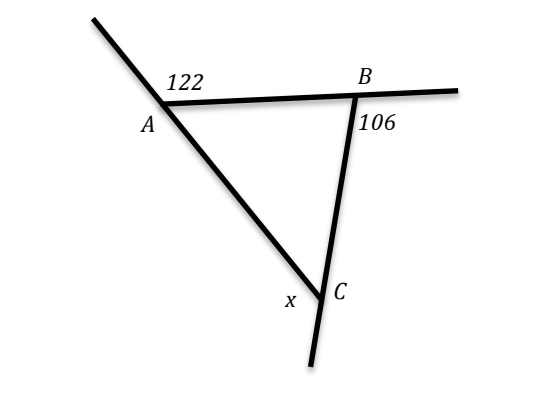
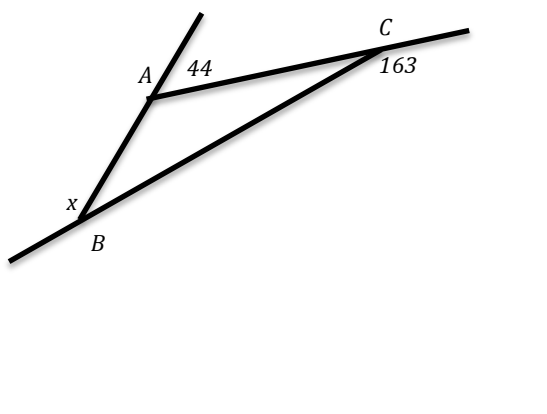
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GUIDED PRACTICE:

Steps for Finding Missing Angle Measures

1. Find the available measures of the angles of your triangle.
2. Use the facts we have learned about triangles (especially that all triangles are 180° or that straight angles are 180°) to help solve for your unknown angle measure.

 <p>A triangle with interior angles 16°, 17°, and x°. Exterior angles are labeled A and B.</p>	 <p>A triangle with interior angles 46° and x°. Exterior angles are labeled A and C.</p>
 <p>A triangle with interior angles 45° and 98°. Exterior angles are labeled A and C.</p>	 <p>A triangle with interior angles 54° and x°. Exterior angles are labeled A and B.</p>
 <p>A triangle with interior angles 122° and 106°. Exterior angles are labeled A and C.</p>	 <p>A triangle with interior angles x° and 163°. Exterior angles are labeled A and C.</p>

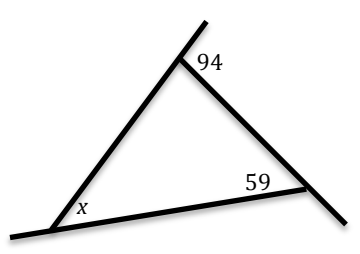
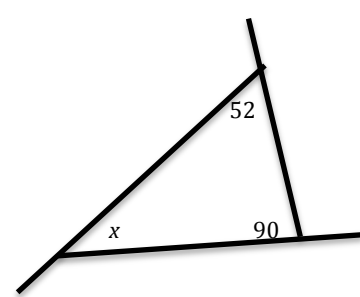
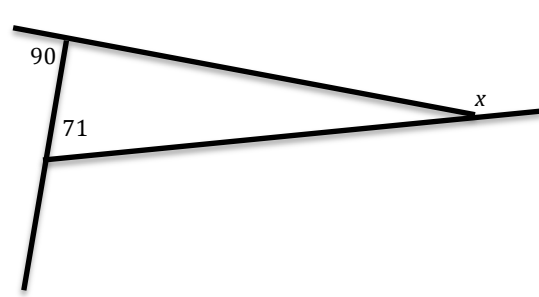
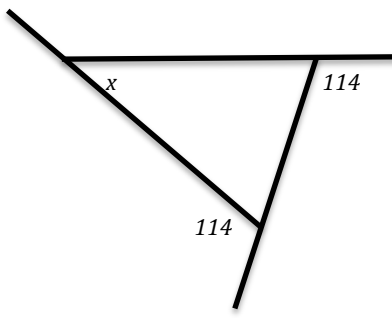
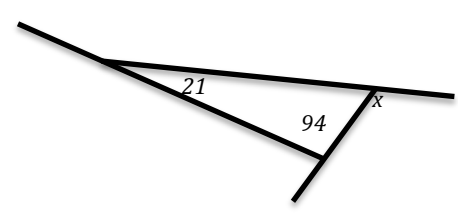
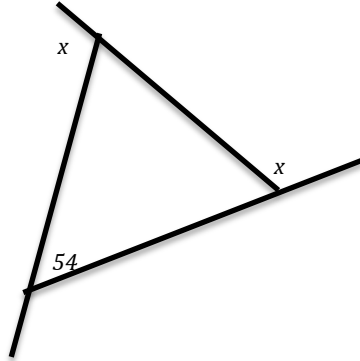
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INDEPENDENT PRACTICE:

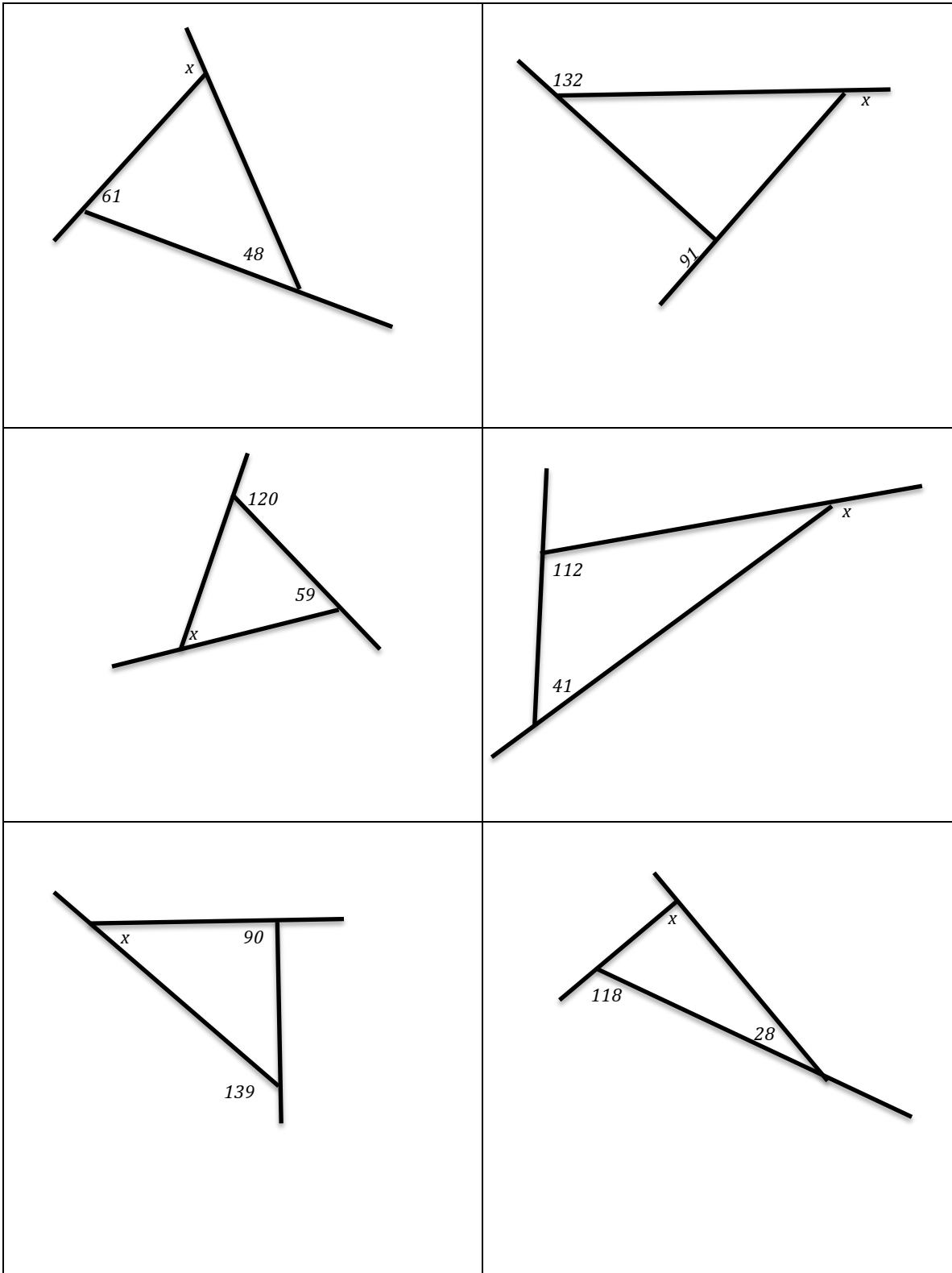
 <p>A triangle with an interior angle labeled x. The exterior angle at the top vertex is labeled 94. The exterior angle at the bottom-right vertex is labeled 59.</p>	 <p>A triangle with an interior angle labeled x. The exterior angle at the top vertex is labeled 52. The exterior angle at the bottom-right vertex is labeled 90.</p>
 <p>A triangle with an interior angle labeled x. The exterior angle at the top-left vertex is labeled 90. The exterior angle at the bottom-left vertex is labeled 71.</p>	 <p>A triangle with an interior angle labeled x. The exterior angle at the top-right vertex is labeled 114. The exterior angle at the bottom vertex is labeled 114.</p>
 <p>A triangle with an interior angle labeled x. The exterior angle at the top vertex is labeled 21. The exterior angle at the bottom-right vertex is labeled 94.</p>	 <p>A triangle with an interior angle labeled x. The exterior angle at the top vertex is labeled x. The exterior angle at the bottom-left vertex is labeled 54.</p>

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ACTIVATING PRIOR KNOWLEDGE:

Review triangle sum theorem.

CLOSURE:

