

NAME: _____

Math ____, Period ____

Mr. Rogove

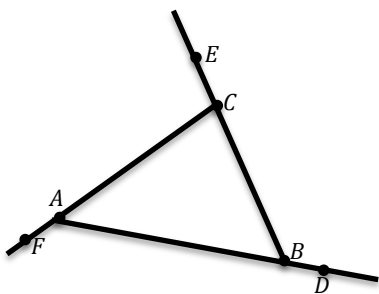
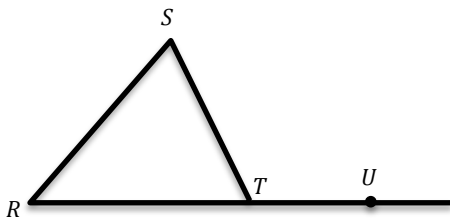
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LEARNING OBJECTIVE: We will use the angle sum theorem to find missing interior and exterior angles of triangles. (G8M2L11)

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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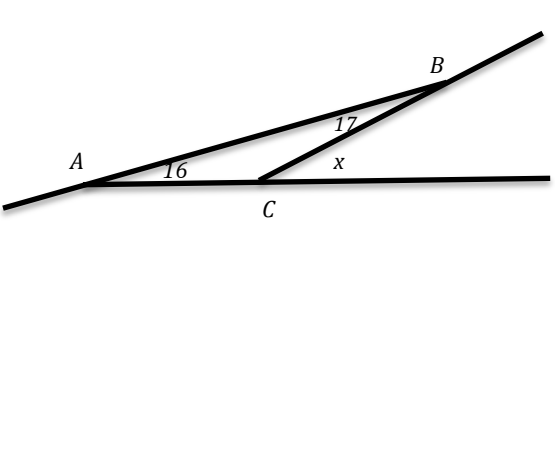
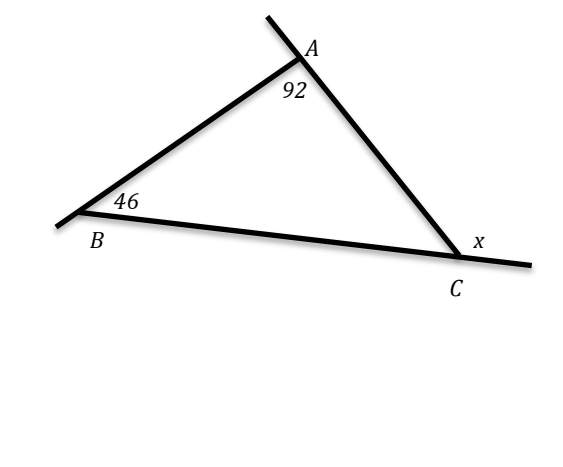
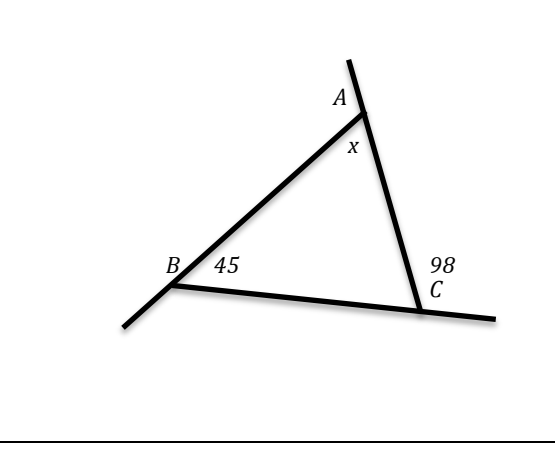
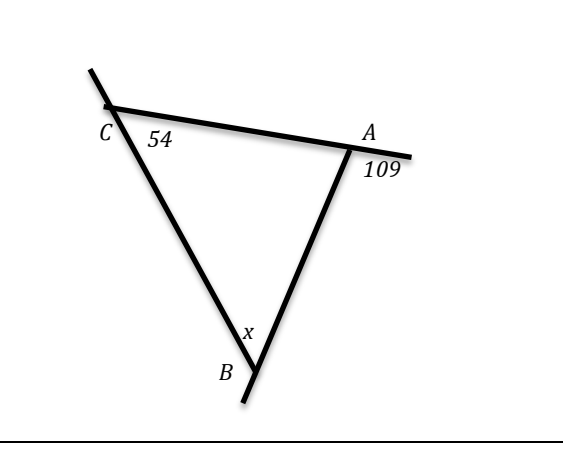
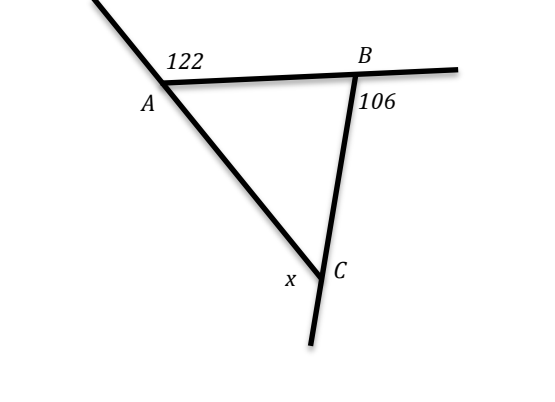
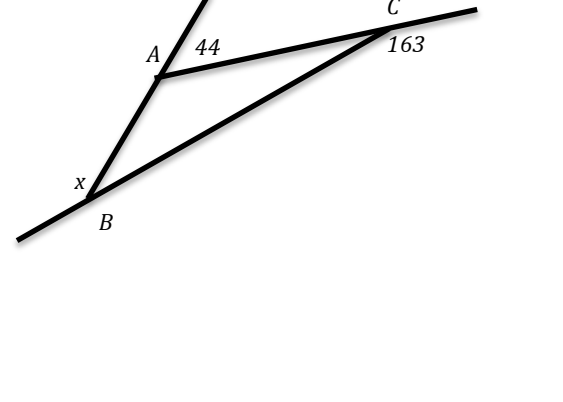
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GUIDED PRACTICE:

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>

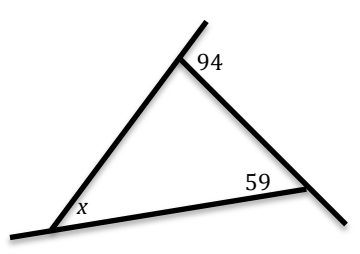
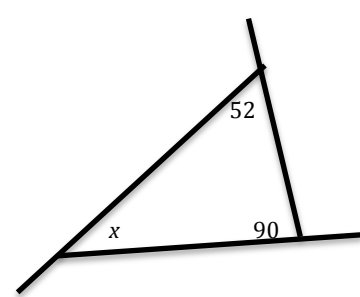
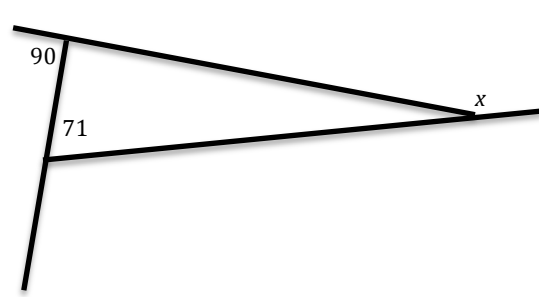
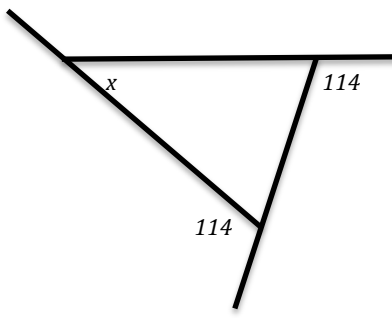
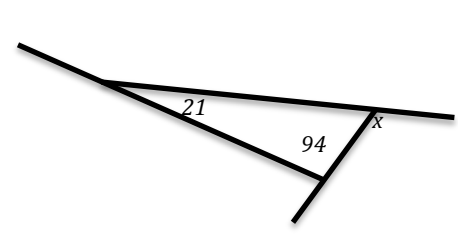
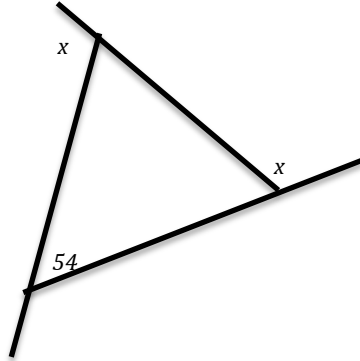
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INDEPENDENT PRACTICE:

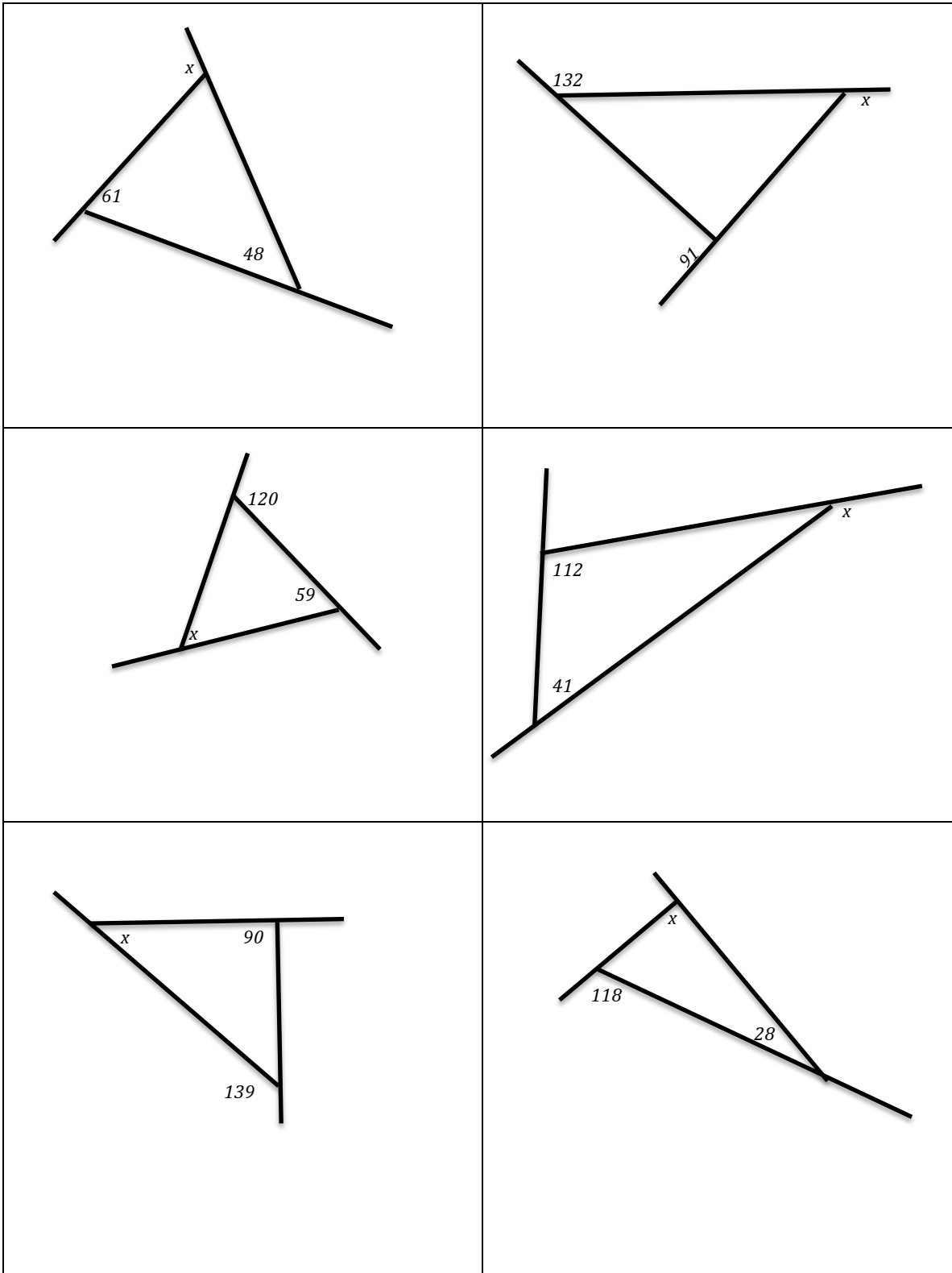
 <p>A triangle with interior angles x and 59. The exterior angle at the top vertex is 94.</p>	 <p>A triangle with interior angles x and 90. The exterior angle at the top vertex is 52.</p>
 <p>A triangle with interior angles x and 71. The exterior angle at the top vertex is 90.</p>	 <p>A triangle with interior angles x and 114. The exterior angle at the top vertex is 114.</p>
 <p>A triangle with interior angles x and 94. The exterior angle at the top vertex is 21.</p>	 <p>A triangle with interior angles x and 54. The exterior angle at the top vertex is x.</p>

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ACTIVATING PRIOR KNOWLEDGE:

Review triangle sum theorem.

CLOSURE:

