Target: 7.G.5

I can use facts about supplementary, complementary, vertical and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. (use facts) MAS ADV MTS APP BEG

**1a**. Draw an example of complementary angles. **1b.** Find the missing angle measure.

 **Explain** how you know they are

complementary.



**2a**. Draw an example of supplementary angles. **2b.** Find the missing angle measure.

 **Explain** how you know they are

supplementary.

1. **Use the figure below.**



1. Name one angle that is

complementary to EDG.

1. Name one angle that is supplementary to AGE.

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1. Is it possible for a triangle to have a 85° angle and a 55° angle? Explain why or why not.
2. For each polygon, find the missing angle measure*.* ***Show your work!***

 This polygon is a regular nonagon.



140°



b°

 How do you know?

1. Use the quadrilateral below. Find the measures of angles 1,2,3, and 4.



**1**

 Measure of angle 1 \_\_\_\_\_\_\_\_\_

Measure of angle 2 \_\_\_\_\_\_\_\_\_\_

**4**

Measure of angle 3 \_\_\_\_\_\_\_\_\_

**2**

Measure of angle 4 \_\_\_\_\_\_\_\_\_\_\_

**3**

**b.** Explain how you know that the measures in part (a) are correct without using an angle ruler or protractor.

**5.** What is the interior angle sum of a 13-sided polygon? Show your work.