**Adjacent, Complementary and
Supplementary Angles**   Name_____

1. <u>Access Prior Knowledge</u>

   a. What is an angle? (Use the drawing to help you as you explain)

   b. Look around you. What are some angles you see?

   c. A unit of measure we use for angles is called a _____.

   d. Write what you think the following words might mean. What do they sound like?
- **Adjacent**

- **Vertical**

- **Supplementary**

- **Complementary**

2. **<u>Build your understanding</u>** Estimate and Measure angles in Pattern Block pieces.

   a. Look at the angles in the green triangle piece. Estimate the measure of each
angle. Trace the piece and measure the angles. Write the degrees.

     What is the sum of the three angles?

   b. Look at the angles in the orange square piece. Estimate the measure of each
angle. Trace the piece and measure the angles. Write the degrees.

     What is the sum of the four angles?

   c. Look at the angles in the blue rhombus piece. Estimate the measure of each
angle. Trace the piece and measure the angles. Write the degrees.

     What is the sum of the four angles?

   d. Look at the angles in the tan rhombus piece. Estimate the measure of each
angle. Trace the piece and measure the angles. Write the degrees.

     What is the sum of the four angles

e. Look at the angles in the red trapezoid piece. Estimate the measure of each angle. Trace the piece and measure the angles. Write the degrees.

What is the sum of the four angles?

f. Look at the angles in the yellow hexagon piece. Estimate the measure of each angle. Trace the piece and measure the angles. Write the degrees.

What is the sum of the six angles?

3. **Predict and Prove** Predict the sum of the **adjacent angles** formed at the shared vertex when you place the following pattern block angles adjacent to each other. Then prove your predictions by sketching and measuring.

a. a tan rhombus adjacent to a blue rhombus (small angles) _____degrees

b. three adjacent blue rhombi (small angles) _____degrees

c. a trapezoid (large angle) adjacent to a green triangle _____degrees

d. three adjacent tan rhombi (small angles) _____degrees

e. three adjacent yellow hexagons _____degrees

f. a tan rhombus (small angle) next to a green triangle _____degrees

g. Which of the above angles you created are **complementary**? (sum is 90°) Write the equations to prove they are complementary under the problem.

h. Which of the above angles you created are **supplementary**?(sum is 180°) Write the equations to prove they are supplementary under the problem.