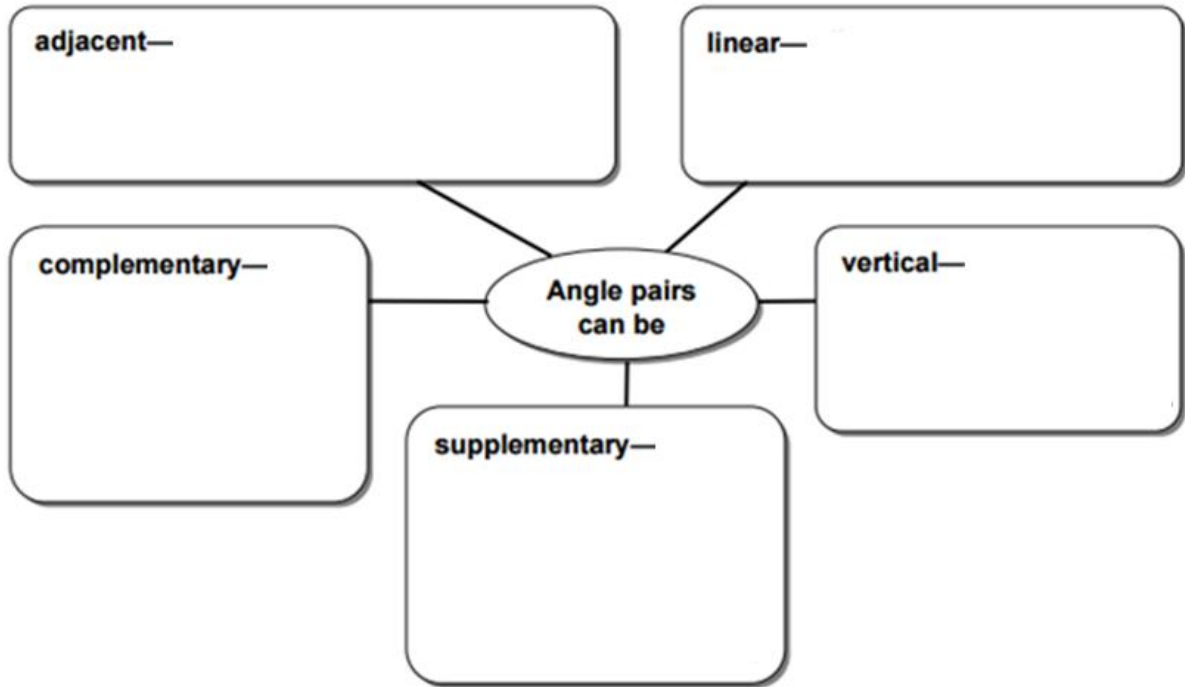




- I can identify special angle pairs.
- I can find measures of complementary and supplementary angles.

The graphic organizer below outlines the different possibilities for a pair of angles.



Example 1: Use complements and supplements

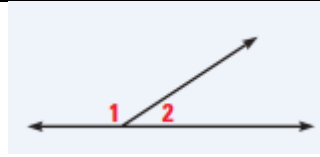
a) The measure of an angle is twice the measure of its complement. Find the measure of each angle.

b) $\angle A$ and $\angle B$ are complementary angles. $\angle C$ and $\angle D$ are supplementary angles. Find the measures of the four angles, if $m\angle A = 2x^\circ$, $m\angle B = 6y^\circ$, $m\angle C = (6x + y)^\circ$, and $m\angle D = (4x + 2y)^\circ$

Linear Pair Postulate (LPP)

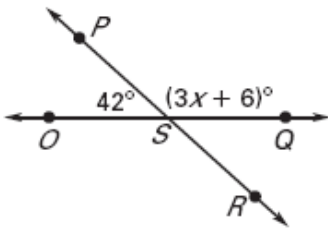
If two angles form a linear pair, then they are

_____.

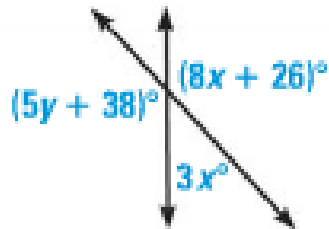


Example 2: Use the Linear Pair Postulate

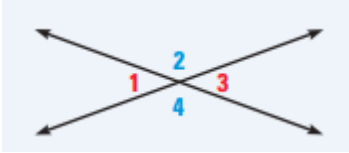
a) Solve for x in the diagram.



b) Find the values of x and y in the diagram.

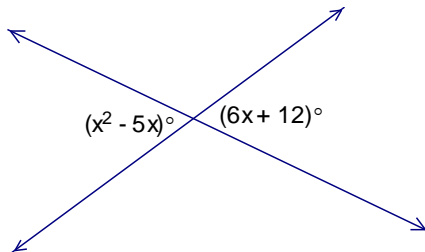


Extension...find the measures of the angles in example 6b, what do you notice about the measures of the vertical angles?

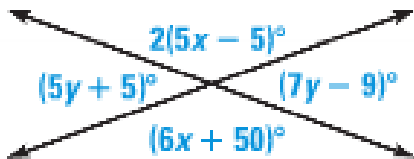
Vertical Angles Theorem (VAT)	
Vertical angles are congruent.	 <p style="text-align: center;">$\angle 1 \cong \angle 3$ and $\angle 2 \cong \angle 4$</p>

Example 6: Use the Vertical Angles Theorem.

7) a) Find the value of x and the measure of each angle in the diagram below.



b) Find the values of x and y , and then find the measure of each angle in the diagram below.



Putting it all together!

8) a) Find the values of x , y , and z , and then find the measure of each angle in the diagram below.

