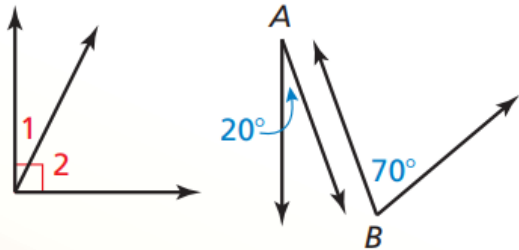


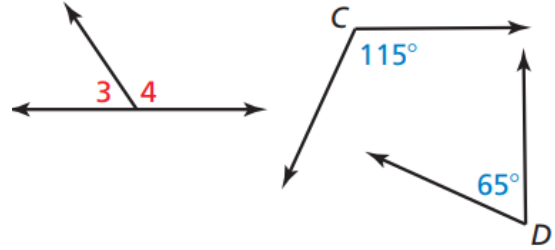
**Definition: Complementary Angles**  
Two angles are \_\_\_\_\_ if and only if the sum of their measures is \_\_\_\_\_°. Each angle is the \_\_\_\_\_ of the other.



If  $\angle 1$  and  $\angle 2$  are complementary then \_\_\_\_\_.

If  $m\angle A + m\angle B = 90^\circ$  then  $\angle A$  and  $\angle B$  are \_\_\_\_\_.

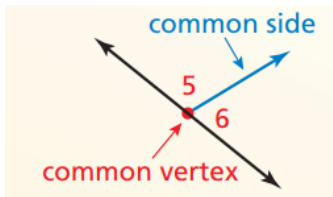
**Definition: Supplementary Angles**  
Two angles are \_\_\_\_\_ if and only if the sum of their measures is \_\_\_\_\_°. Each angle is the \_\_\_\_\_ of the other.



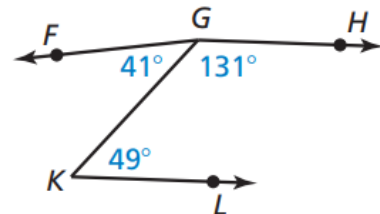
If  $\angle 3$  and  $\angle 4$  are supplementary then \_\_\_\_\_.

If  $m\angle C + m\angle D = 180^\circ$  then  $\angle C$  and  $\angle D$  are \_\_\_\_\_.

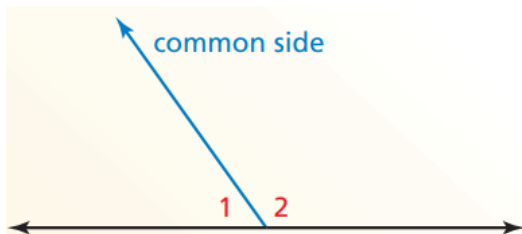
**Definition: Adjacent Angles**  
Two angles are adjacent if and only if they share a common \_\_\_\_\_ and a \_\_\_\_\_ but have no common interior points.



Example:  
 $\angle GKL$  is the complement of \_\_\_\_\_.  
 $\angle GKL$  is the supplement of \_\_\_\_\_.  
\_\_\_\_\_ and \_\_\_\_\_ are adjacent.

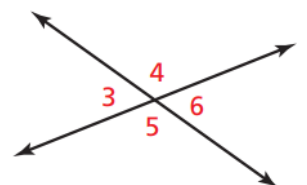


**Definition: Linear Pair**  
Two angles are a linear pair if and only if they are \_\_\_\_\_ and \_\_\_\_\_.



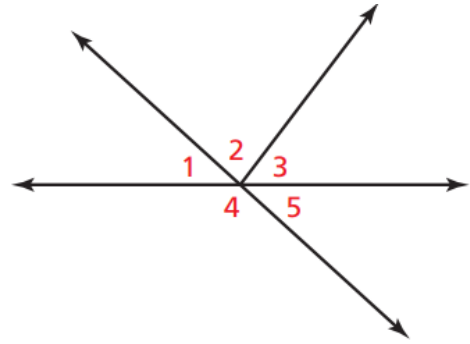
**Definition: Vertical Angles**  
Two angles are vertical angles if and only if they are nonadjacent angles formed by intersecting lines. ("opposite angles" formed by intersecting lines)

Name pairs of vertical  
\_\_\_\_\_ and \_\_\_\_\_  
\_\_\_\_\_ and \_\_\_\_\_

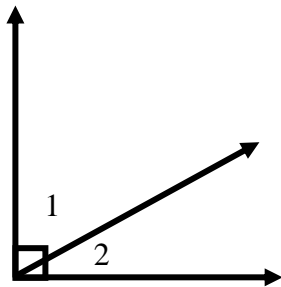


1. Decide if each statement is true or false.

- $\angle 1$  and  $\angle 2$  are supplementary. \_\_\_\_\_
- $\angle 1$  and  $\angle 2$  are adjacent. \_\_\_\_\_
- $\angle 1$  and  $\angle 4$  are supplementary. \_\_\_\_\_
- $\angle 1$  and  $\angle 4$  are adjacent. \_\_\_\_\_
- $\angle 1$  and  $\angle 4$  are a linear pair. \_\_\_\_\_
- $\angle 1$  and  $\angle 3$  are vertical angles. \_\_\_\_\_
- $\angle 1$  and  $\angle 5$  are vertical angles. \_\_\_\_\_
- $\angle 2$  and  $\angle 4$  are vertical angles. \_\_\_\_\_



2. Find the measure of each angle if  $m\angle 1 = 4x - 3$  and  $m\angle 2 = x - 7$ .



$x = \underline{\hspace{2cm}}$   
 $m\angle 1 = \underline{\hspace{2cm}}^\circ$   
 $m\angle 2 = \underline{\hspace{2cm}}^\circ$

3. Two angles form a linear pair. The measure of one angle is five times the measure of the other angle. Find the measure of each angle. Hint: Put  $x$  in the smaller angle.



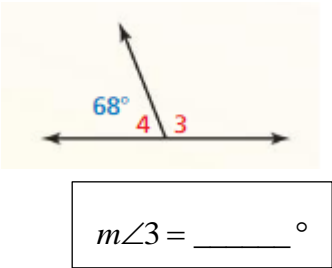
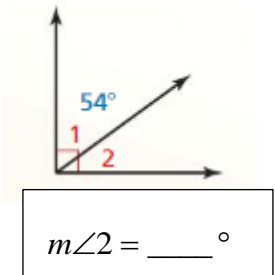
$x = \underline{\hspace{2cm}}$   
 The angles are  $\underline{\hspace{2cm}}^\circ$  and  $\underline{\hspace{2cm}}^\circ$

4. Fill in the blanks with the following word choices.

Use each once:

linear    complementary    adjacent    supplementary

$\angle 1$  and  $\angle 2$  are \_\_\_\_\_.  
 $\angle 3$  and  $\angle 4$  are \_\_\_\_\_ and \_\_\_\_\_ so they are a \_\_\_\_\_ pair.



5. With a protractor, draw  $\angle 1$  such that  $m\angle 1 = 60^\circ$ . Then draw  $\angle 2$  so it is the complement of  $\angle 1$ .  $m\angle 2 = \underline{\hspace{2cm}}^\circ$ .

6. With a protractor, draw  $\angle 1$  such that  $m\angle 1 = 60^\circ$ . Then draw  $\angle 2$  so it is the supplement of  $\angle 1$ .  $m\angle 2 = \underline{\hspace{2cm}}^\circ$ .

