

# KHM Infusion Lab (aka Lines/Angles Lab 1)

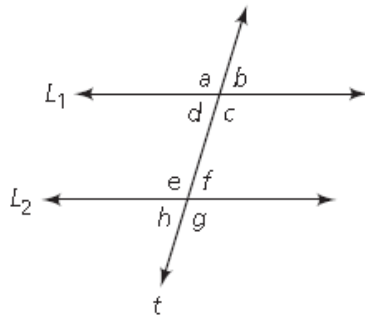


Figure 1



Figure 2

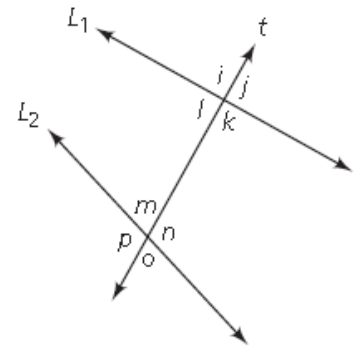


Figure 3

## Section 1

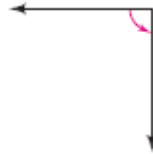
- In Figure 1, lines  $L_1$  and  $L_2$  are parallel. They are intersected by a transversal  $t$ . Measure the angles labeled with small letters. What patterns do you observe among the angle measures?
- In Figure 2, lines  $L_1$  and  $L_2$  are also parallel.
  - Using a copy of Figure 2, draw a transversal  $t$  that intersects both lines.
  - Measure the angles that are formed.
  - What patterns do you observe among the angle measures?
- In Figure 3, lines  $L_1$  and  $L_2$  are *not* parallel.
  - Measure the angles formed by the transversal intersecting lines  $L_1$  and  $L_2$ .
  - Which patterns you observed in Figures 1 and 2 appear in Figure 3? Explain.
- Make one or more conjectures about the measures of the angles formed when a transversal intersects two parallel lines.

Without using an angle ruler, decide whether the measure of each angle is closest to  $30^\circ$ ,  $60^\circ$ ,  $90^\circ$ ,  $120^\circ$ ,  $150^\circ$ ,  $180^\circ$ ,  $270^\circ$ , or  $360^\circ$ . Be prepared to explain your reasoning.

a.



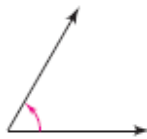
b.



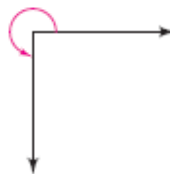
c.



d.



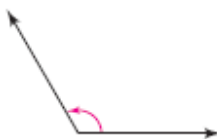
e.



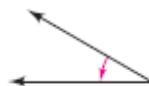
f.



g.



h.



Try  
This!!!!!!

## Section 2

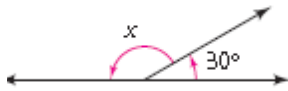
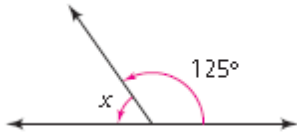
Section 3

You have learned that a  $90^\circ$  angle is called a **right angle**. An angle with measure less than  $90^\circ$  is an **acute angle**. An angle with measure greater than  $90^\circ$  and less than  $180^\circ$  is an **obtuse angle**. An angle with measure exactly  $180^\circ$  is sometimes called a **straight angle**. Look at each angle in Section 2 and decide whether it is right, acute, obtuse, straight, or none of these.

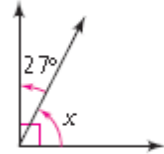
Write your answers next to each figure on the front side of this paper.

For each figure below, find the measure of the angle labeled  $x$ , *without* measuring.

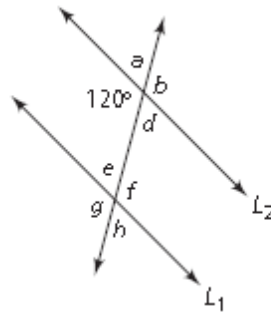
Complimentary



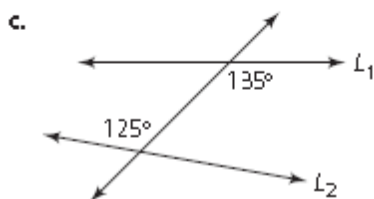
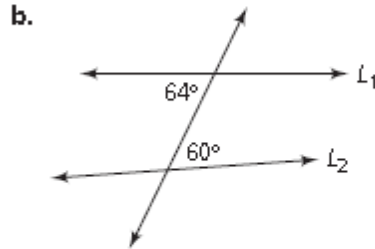
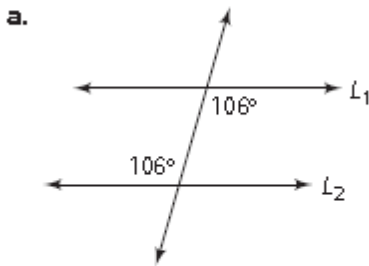
Hint:  
Think  
"supplementary"



In the figure to the right, lines  $L_1$  and  $L_2$  are parallel lines cut by a transversal. The measure of one of the angles is given. Based on what you discovered in section 1, find the measure of the missing angles.



In parts (a)–(c), lines  $L_1$  and  $L_2$  are intersected by a transversal. The measures of some of the angles formed are given. In each part, tell whether you think the lines are parallel. Explain.



Section 4