



## **EXAMPLE 2** Find Unknown Angle Measures

In the figure,  $a \parallel b$ . What are the measures of  $\angle 4$  and  $\angle 5$ ? Explain.

Use what you know about the angles created when parallel lines are cut by a transversal.

$$m\angle 4 = 99^{\circ}$$

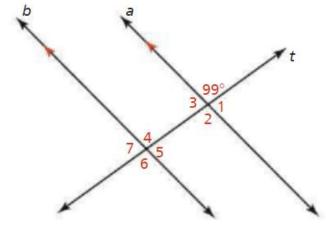
The 99 $^{\circ}$  angle and  $\angle 4$  are corresponding angles.

 $\angle 4$  and  $\angle 5$  are supplementary angles.

$$m \angle 4 + m \angle 5 = 180^{\circ}$$

 $m/5 = 180^{\circ} - 99^{\circ}$ 

$$m \angle 5 = 81^{\circ}$$

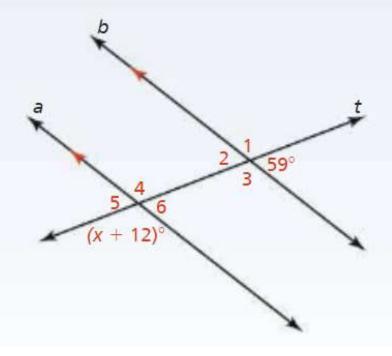




What are the measures of  $\angle 7$  and  $\angle 2$ ? Explain.

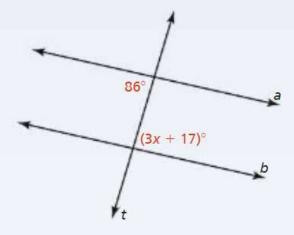


In the figure,  $a \parallel b$ . What is the value of x?





**a.** What must x equal if  $a \parallel b$ ? Explain.



**b.** What must x equal if  $g \parallel h$ ? Explain.

