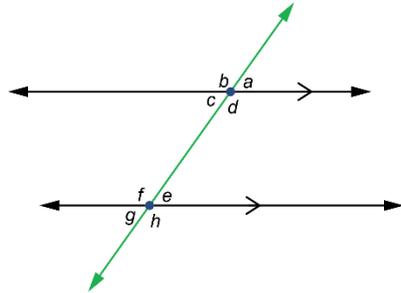


# Lesson 4 Assessment

## Exploring Angle Properties

### Exploring Angle Properties

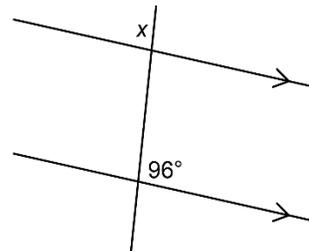
Identifies types of angles formed by parallel lines and a transversal



Alternate angles:  $c$  and  $e$ ,  $d$  and  $f$   
 Corresponding angles:  $a$  and  $e$ ,  $b$  and  $f$ ,  $c$  and  $g$ , and  $d$  and  $h$   
 Interior angles:  $c$  and  $f$ ,  $d$  and  $e$

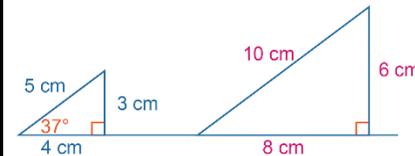
Uses properties of parallel lines and transversal to determine angle measures

Determine the measure of angle  $x$ .



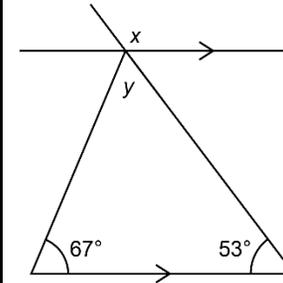
The alternate angle is  $96^\circ$ , which is the supplementary angle to  $x$ .  
 So, angle  $x$  is  $180^\circ - 96^\circ$ , or  $84^\circ$ .

Uses properties of similar shapes to determine angle measures



These triangles are similar because the corresponding sides are proportional with scale factor 2. So, corresponding angles will be equal. Small triangle: the unknown angle measure is  $53^\circ$  because interior angles of triangle add to  $180^\circ$ .

Uses angle properties to determine angle measures



$y = 60^\circ$ ; sum of interior angles of triangle add to  $180^\circ$   
 $x = 127^\circ$ ; alternate angle is  $53^\circ$ , which is supplementary angle to angle  $x$

### Observations/Documentation