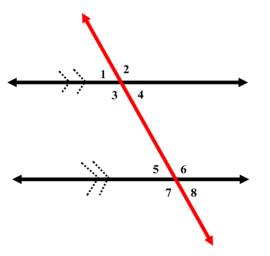


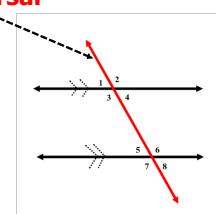
### Parallel Lines and Their Angles



Oct 26-11:34 AM

### Transversal

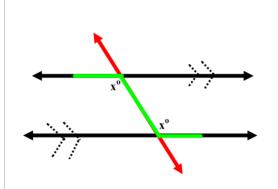
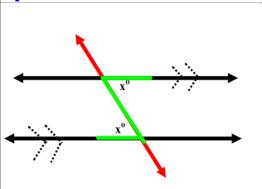
When a line intersects two parallel lines, eight angles are formed.  
The line is called a Transversal



Oct 26-11:35 AM

### Alternate interior Angles

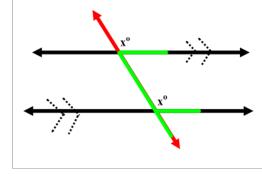
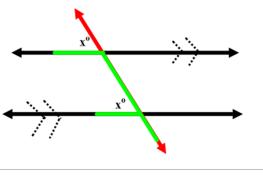
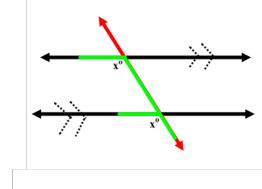
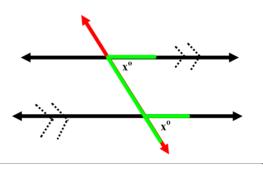
Alternate Interior Angles are equal and form a "Z" pattern.



Oct 26-11:36 AM

### Corresponding Angles

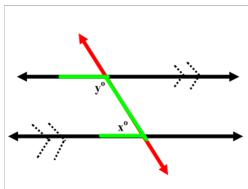
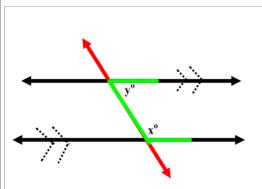
Corresponding Angles are equal and form a "F" pattern.



Oct 26-11:38 AM

### Co-interior Angles

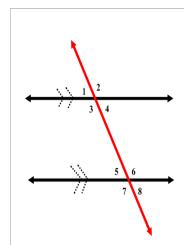
Co-interior Angles have a sum of  $180^\circ$  and form a "C" pattern. ( $x^\circ + y^\circ = 180^\circ$ )



Oct 26-11:39 AM

From the diagram, name all the Alternate Interior Angles.

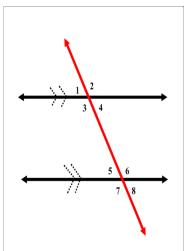
$$\text{angle } 3 = \text{angle } 6 \\ \text{angle } 4 = \text{angle } 5$$



Oct 26-11:41 AM

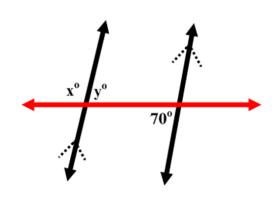
**From the diagram, name all the Corresponding Angles.**

- angle 4 = angle 8
- angle 3 = angle 7
- angle 2 = angle 6
- angle 1 = angle 5



**Example 1:**

**CALCULATE THE UNKNOWN ANGLE MEASURES.**



Oct 26-11:43 AM

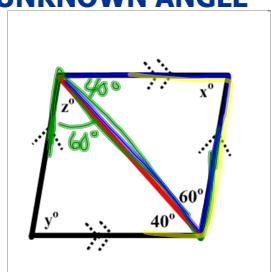
Oct 26-11:45 AM

**Warm-up**

**Oct. 28, 2011**

**CALCULATE THE UNKNOWN ANGLE MEASURES.**

$$\begin{aligned} z &= 60^\circ \\ x &= 80^\circ \\ y &= 80^\circ \end{aligned}$$



Math 10

Parallel lines and their Angles Name \_\_\_\_\_

1. Calculate the unknown angle measures.

a.  $x = 110^\circ$   
 $y = 70^\circ$   
 $z = 110^\circ$

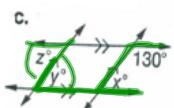


b.  $x = 65^\circ$   
 $y = 65^\circ$   
 $z = 115^\circ$

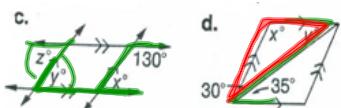
Oct 26-11:46 AM

Oct 28-10:34 AM

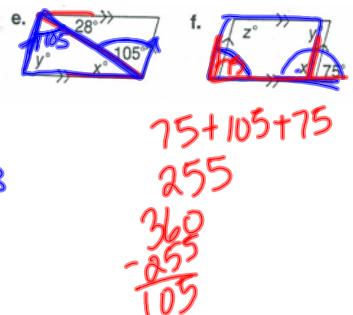
c.  
 $x = 50^\circ$   
 $y = 50^\circ$   
 $z = 50^\circ$



d.  $x = 115^\circ$   
 $y = 35^\circ$  ( $180 - 30 - 35$ )



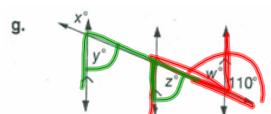
e.  $x = 28^\circ$   
 $y = 27^\circ$   
 $180 - 153 = 27$   
 $\frac{28}{153}$   
f.  $x = 105^\circ$   
 $y = 75^\circ$   
 $z = 105^\circ$



Oct 28-10:35 AM

Oct 28-10:35 AM

$$\begin{aligned}W &= 70^\circ \\X &= 70^\circ \\Y &= 70^\circ \\Z &= 70^\circ\end{aligned}$$



Oct 28-10:35 AM

Oct 28-11:37 AM