

## Homework solutions

### Pg. 233 - 234

2. a)  $\angle 6$                       b)  $\angle 3$
- c)  $\angle 3$                         d)  $\angle 3$
3. a)  $\angle 7$ , using lines  $l_3$  and  $l_4$  with transversal  $l_1$ .  
     $\angle 3$ , using lines  $l_1$  and  $l_2$  with transversal  $l_3$ .
- b)  $\angle 4$ , using lines  $l_3$  and  $l_4$  with transversal  $l_2$ .
- c)  $\angle 10$ , using lines  $l_3$  and  $l_4$  with transversal  $l_2$ .
- d)  $\angle 5$ , using lines  $l_3$  and  $l_4$  with transversal  $l_2$ .

### Pg. 235

4. CB and BD intersect AB and AD.
5. Line  $t$  cannot be a transversal because it does not pass through two distinct points. It is concurrent to  $l_1$  and  $l_2$  because they all pass through the same point.
6.  ~~$t$  and  $l_3$  are intersected by  $l_1$  and  $l_2$ .~~

May 14-11:10 PM

GMF 10
Lesson 7.4

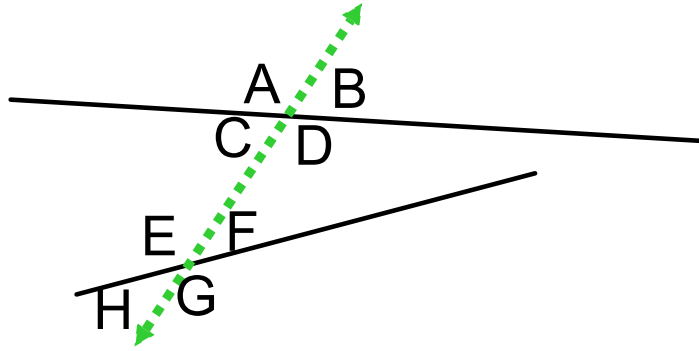
Parallel Lines and Transversals

7.4

Sep 23-3:37 PM

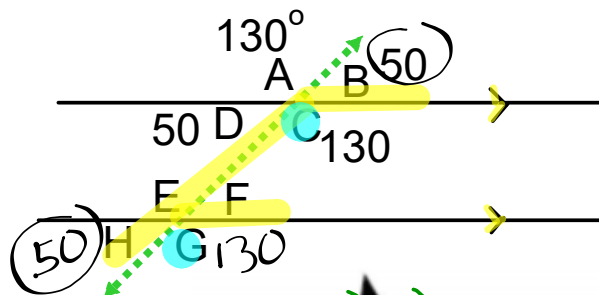
# Lets review Parallel and non-parallel lines

Non-parallel line relationships: (lines that will intersect)



Dec 9-1:42 PM

Parallel line relationships:

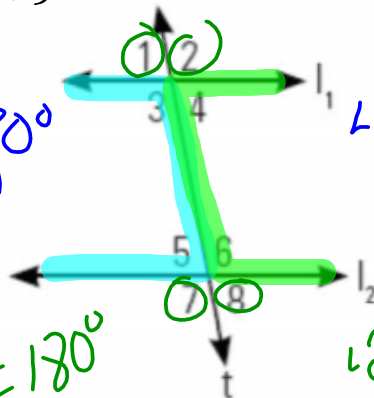


$\angle 3 + \angle 5 = 180^\circ$   
"co-interior"

$\angle 4 + \angle 6 = 180^\circ$

"co-exterior"  
 $\angle 1 + \angle 7 = 180^\circ$

$\angle 2 + \angle 8 = 180^\circ$



Dec 9-1:49 PM

## Rules (postulates) of parallel line relationships:



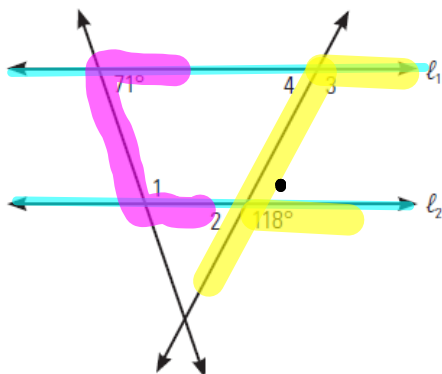
- Vertically opposite angles (equal)
- Co - interior (add to equal  $180^\circ$ )
- Corresponding (equal)
- Straight or adjacent (add to equal  $180^\circ$ )
- Alternate interior (equal)
- Alternate exterior (equal)
- Co - exterior (add to equal  $180^\circ$ )

Feb 13-4:41 PM

Pg. 240

### BUILD YOUR SKILLS

1. In the diagram below,  $l_1$  is parallel to  $l_2$ . State the measures of the indicated angles and explain your reasoning.



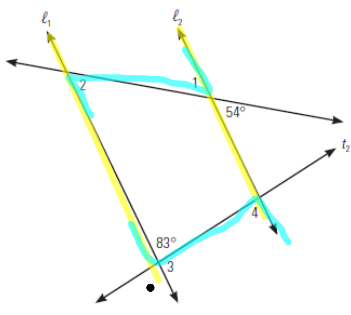
$$\begin{aligned} \angle 3 &= 118^\circ \\ \angle 2 &= 62^\circ \\ & (180 - 118) \\ \angle 4 &= 62^\circ \\ & (180 - 118) \\ \angle 1 &= 109^\circ \\ & (180 - 71) \end{aligned}$$

Apr 4-10:39 AM

BUILD YOUR SKILLS

Pg. 244

7. If  $\ell_1$  and  $\ell_2$  are parallel and are intersected by transversals  $t_1$  and  $t_2$ , what are the measures of the indicated angles? Solve for the measures in the given order, stating your reasoning.



$\angle 1 = 54^\circ$  opposite

$\angle 2 = 54^\circ$  alternate interior

$\angle 3 = 97^\circ$  supplementary  
( $180 - 83$ )

$\angle 4 = 83^\circ$  alternate interior

SOLVING ANGLE MEASURES	
Angle Measure	Reason
$\angle 1 =$	
$\angle 2 =$	
$\angle 3 =$	
$\angle 4 =$	

Apr 4-10:43 AM

# Homework

Do 7.4 worksheet

Pg. 240 - 241 Q. 2 & 3

Pg. 242- 243 Q. 4 - 6

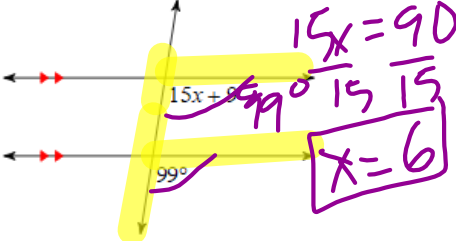
Pg. 245 Q. 8 & 9

May 8-9:43 PM

GMF 10 - 7.4 -Parallel Lines & Angles

Name \_\_\_\_\_

Solve for x.

1) 

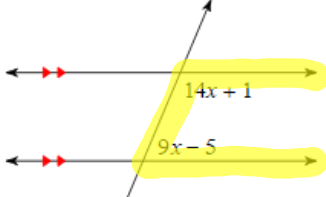
$$-9 - 9$$

$$15x + 9 = 99$$

$$15x = 90$$

$$\frac{15x}{15} = \frac{90}{15}$$

$$x = 6$$

2) 

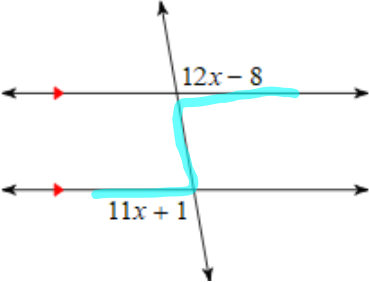
$$(14x + 1) + (9x - 5) = 180$$

$$23x - 4 = 180$$

$$23x = \frac{184}{23}$$

$$x = 8$$

Nov 13-1:42 PM

4) 

$$12x - 8 = 11x + 1$$

Nov 13-2:03 PM