

## FOCUS: Solve each equation.

1.  $5x + 2 = 6x - 1$

$$\begin{array}{r} -6x \quad -6x \\ \hline -x + 2 = -1 \\ \quad -2 \quad -2 \\ \hline -x = -3 \\ \quad -1 \quad -1 \\ \hline x = 3 \end{array}$$

$$x = 3$$

3.  $-4(x - 5) = 12$

$$\begin{array}{r} -4x + 20 = 12 \\ \quad -20 \quad -20 \\ \hline -4x = -8 \\ \quad -4 \quad -4 \\ \hline x = 2 \end{array}$$

$$x = 2$$

2.  $4x + 4 + 9x - 3 = 180$

$$\begin{array}{r} 13x + 1 = 180 \\ \quad -1 \quad -1 \\ \hline 13x = 179 \\ \quad 13 \quad 13 \\ \hline x = \frac{179}{13} \end{array}$$

$$x = \frac{179}{13}$$

4.  $6(2x - 4) - 9 = 13$

$$12x - 24 - 9 = 13$$

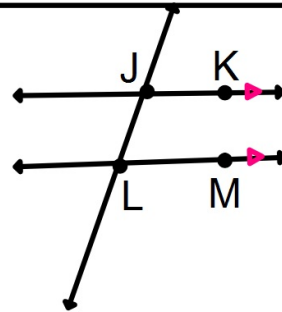
$$\begin{array}{r} 12x - 33 = 13 \\ \quad +33 \quad +33 \\ \hline 12x = 46 \\ \quad 12 \quad 12 \\ \hline x = \frac{23}{6} \end{array}$$

$$x = \frac{23}{6}$$

## p. 173 3.1 Parallel Lines and Transversals

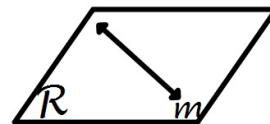
Parallel Lines:  $(\parallel)$   
coplanar lines that do not intersect.

Example:  $\overleftrightarrow{JK} \parallel \overleftrightarrow{LM}$

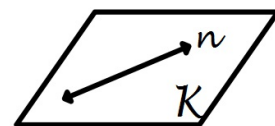


Skew Lines:  
lines that do not intersect and are not coplanar.

line  $m$  is skew to line  $n$



Parallel Planes: planes that do not intersect.



# Example:

Identify each of the following using the box below.

1. all segments parallel to  $\overline{BC}$ .

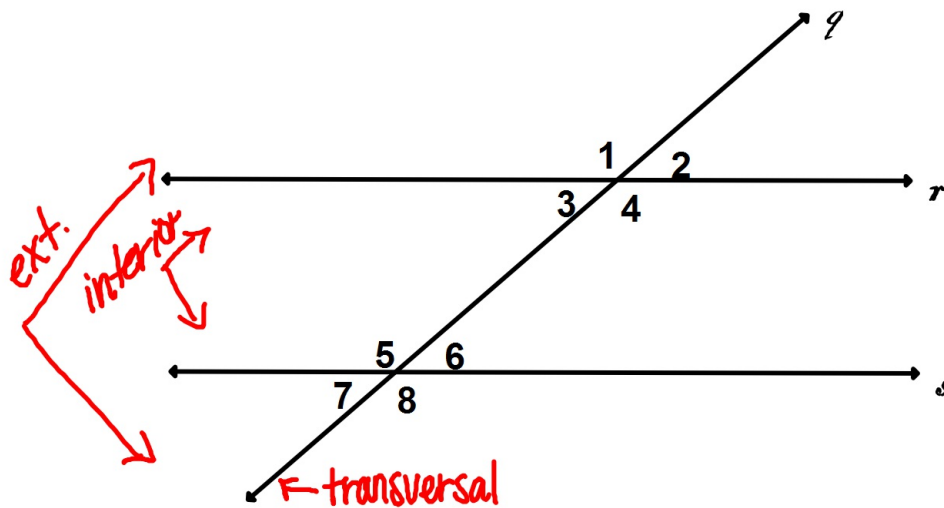
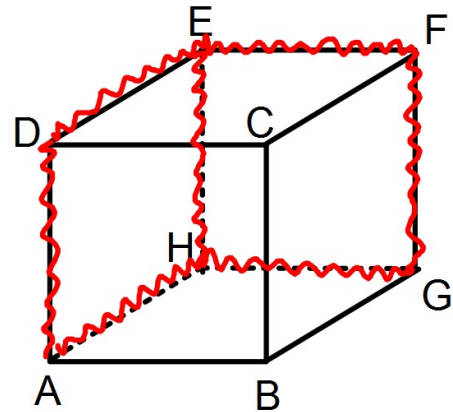
$\overline{DA}$ ,  $\overline{FG}$ ,  $\overline{EH}$

2. a segment skew to  $\overline{EH}$ .

$\overline{DC}$ ,  $\overline{CF}$ ,  $\overline{CB}$ , .....

3. a plane parallel to plane  $ABG$ .  
(bottom)

top:  $DEF$



Interior Angles:	Alternate Interior: $\angle 3, \angle 6$ ; $\angle 4, \angle 5$
Exterior Angles:	Alternate Exterior: $\angle 1, \angle 8$ ; $\angle 2, \angle 7$
Corresponding: $\angle 1, \angle 5$ ; $\angle 4, \angle 8$ ; $\angle 6, \angle 2$ ; $\angle 3, \angle 7$	Consecutive Interior: $\angle 3, \angle 5$ ; $\angle 4, \angle 6$

## Example:

Classify the relationship between each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, or *consecutive interior* angles.

1.  $\angle 1$  and  $\angle 5$

*alternate exterior*

2.  $\angle 6$  and  $\angle 7$

*consecutive interior*

3.  $\angle 2$  and  $\angle 4$

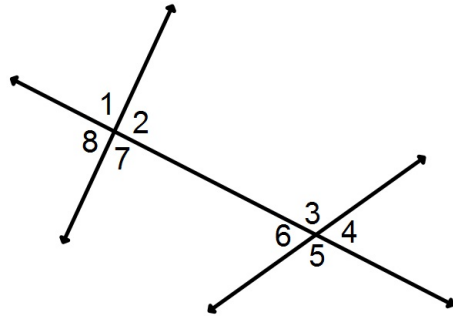
*corresponding*

4.  $\angle 2$  and  $\angle 6$

*alternate interior*

5.  $\angle 4$  and  $\angle 8$

*alternate exterior*



## Example:

Classify each angle relationship.

1.  $\angle 2$  and  $\angle 4$

*vertical*

2.  $\angle 5$  and  $\angle 12$

*alternate exterior*

3.  $\angle 6$  and  $\angle 8$

*linear pair*

4.  $\angle 4$  and  $\angle 9$

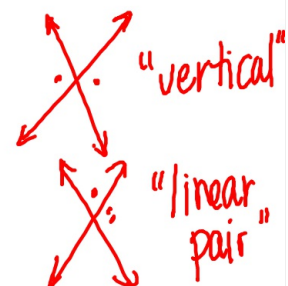
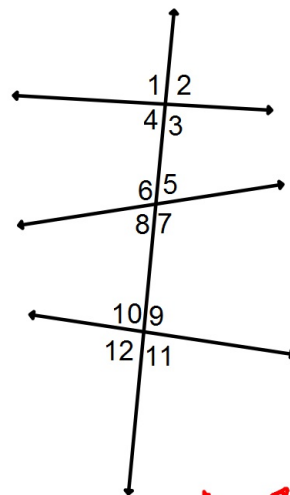
*alternate interior*

5.  $\angle 1$  and  $\angle 10$

*corresponding*

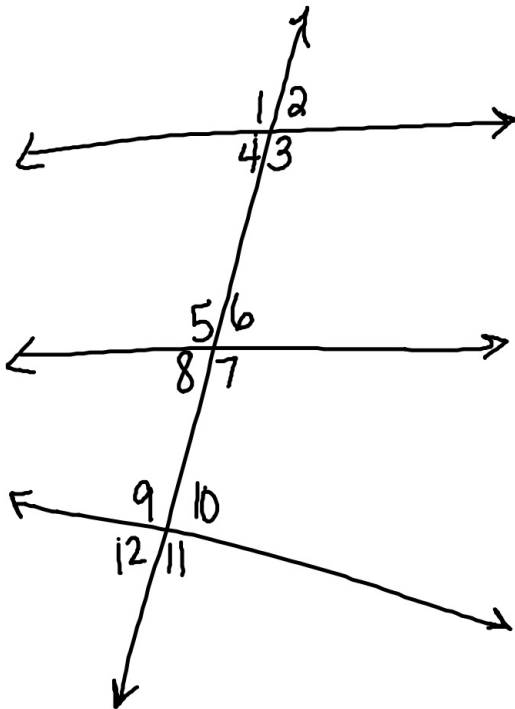
6.  $\angle 3$  and  $\angle 9$

*consecutive interior*



Turn-in:  
Board Problems

HW:  
p. 175-176 (1-8, 21-30)



①  $\angle 4, \angle 5$

②  $\angle 5, \angle 11$

③  $\angle 4, \angle 6$

④  $\angle 7, \angle 9$

⑤  $\angle 2, \angle 8$

⑥  $\angle 3, \angle 6$

⑦  $\angle 1, \angle 9$