

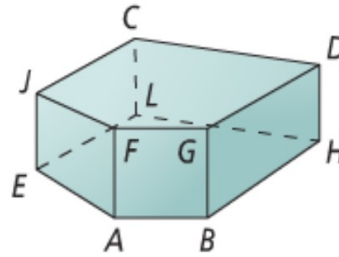
# Transversals – Lines & Angles

Hw Section 3.1

Name \_\_\_\_\_

Directions: Use the diagram to name each of the following. Assume that lines and planes that appear to be parallel are parallel.

- 1) a pair of parallel planes *Plane CDG // Plane LHB*
- 2) all lines that are parallel to  $\overleftrightarrow{AB}$   *$\overleftrightarrow{FG}$*
- 3) all lines that are parallel to  $\overleftrightarrow{DH}$   *$\overleftrightarrow{GB} // \overleftrightarrow{FA} // \overleftrightarrow{JL} // \overleftrightarrow{CL}$*
- 4) two lines that are skew to  $\overleftrightarrow{EJ}$   *$\overleftrightarrow{FG}, \overleftrightarrow{AB}, \overleftrightarrow{GD}, \overleftrightarrow{BH}, \overleftrightarrow{EH}, \overleftrightarrow{CD}$*
- 5) all lines that are parallel to plane JFAE  *$\overleftrightarrow{DNE}$*
- 6) a plane parallel to  $\overleftrightarrow{LH}$  *Plane JCD*

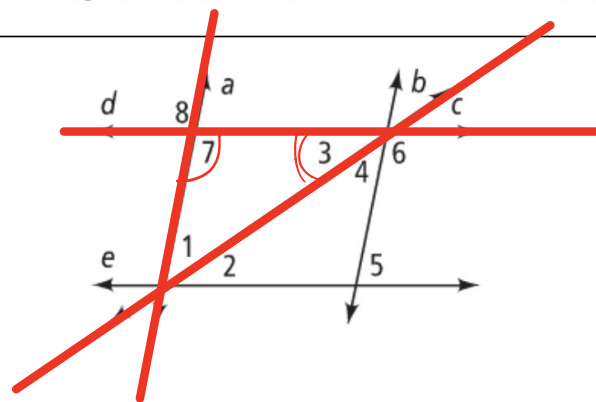


Directions: Identify each pair of angles as corresponding, alternate interior, alternate exterior, or same-side interior.

<p>7)</p> <p style="text-align: center; color: red;"><i>Alt. Ext LS</i></p>	<p>8)</p> <p style="text-align: center; color: red;"><i>Corr LS</i></p>	<p>9)</p> <p style="text-align: center; color: red;"><i>Alt. Int LS</i></p>
<p>10)</p> <p style="text-align: center; color: red;"><i>Alt. Ext LS</i></p>	<p>11)</p> <p style="text-align: center; color: red;"><i>Cons Int LS</i></p>	<p>12)</p> <p style="text-align: center; color: red;"><i>Cons. Int LS</i></p>

Directions: Identify all pairs of each type of angles in the diagram. Name the two lines and the transversal that form each pair.

- 13) corresponding angles  
 *$\angle 7, \angle 6$  transversal  $d$  cuts  $a$  and  $b$*
- 14) alternate interior angles  
 *$\angle 3, \angle 2$  transversal  $c$  cuts  $d$  &  $e$   
 $\angle 1, \angle 4$  transversal  $c$  cuts  $a$  &  $b$*
- 15) alternate exterior angles  
 *$\angle 8, \angle 6$  transversal  $d$  cuts  $a$  &  $b$*
- 16) same-side interior angles  
 *$\angle 7, \angle 3$  transversal  $d$  cuts  $a$  &  $c$*



# Transversals – Lines & Angles

Hw Section 3.1

Name \_\_\_\_\_

Directions: Determine whether each statement is always, sometimes or never true.

17) Two parallel lines are coplanar

Always

18) Two skew lines are coplanar

Never

19) Two planes that do not intersect are parallel

Always

20) Two lines in intersecting planes are skew

Sometimes

21) A line and a plane that do not intersect are skew

Never

22) Alternate interior angles are on the same side of a transversal

Never

## Algebra Review

Solve:  $-4 = \frac{x}{5} - 8$

$-20 = x - 40$   
 $20 = x$

Solve:  $4x + 3 = 17$

$4x = 14$   
 $x = \frac{14}{4}$   
 $x = \frac{7}{2}$

Factor:  $k^2 + 7k - 30$

$= (k + 10)(k - 3)$

Factor:  $-7x^2 - 28x + 42x$

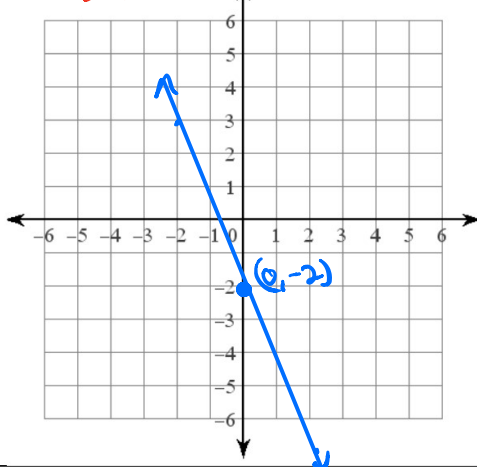
$= -7x(x^2 + 4x - 6)$

GCF

Graph:  $y = -\frac{5}{2}x - 2$

Slope

y-int



Graph:  $y = \frac{5}{2}x - 4$

Slope

y-int

