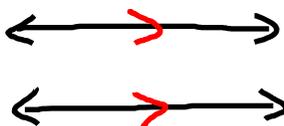
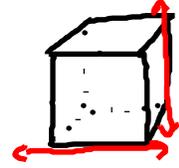
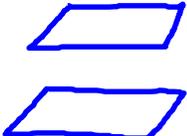
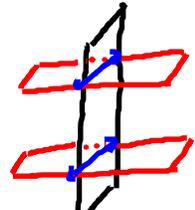
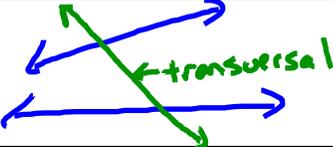
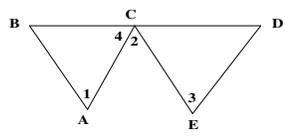


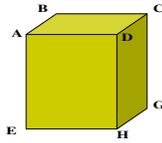
## Vocabulary Sheet for Lesson 3-1: Definitions and Theorems

Definitions	Diagram/ Notes
<p><u>Definition:</u> <b>Parallel Lines</b> - parallel lines (symbol <math>\parallel</math>) are two or more coplanar lines that do not intersect.</p>	
<p><u>Definition:</u> <b>Skew lines</b> - skew lines are noncoplanar lines that do not intersect</p>	
<p><u>Definition:</u> <b>Parallel planes</b> - two or more planes that do not intersect</p>	
<p><u>Theorem 3-1:</u> If two parallel planes are cut by a third plane, then the lines of intersection are parallel</p>	
<p><u>Definition:</u> <b>Transversal</b> - a line that intersects two or more coplanar lines in different points.</p>	
<p><b>Example 1</b></p> <p>□ Name the two lines and the transversal that form each pair of angles</p> <p>a) <math>\angle 1</math> and <math>\angle 2</math></p> <p>b) <math>\angle 2</math> and <math>\angle 3</math></p> 	<p>a) trans = <math>\overleftrightarrow{AC}</math>            Lines = <math>\overleftrightarrow{BA} \parallel \overleftrightarrow{CE}</math></p> <p>b) trans = <math>\overleftrightarrow{CE}</math>            Lines = <math>\overleftrightarrow{AC} \parallel \overleftrightarrow{ED}</math></p>

### Example 2

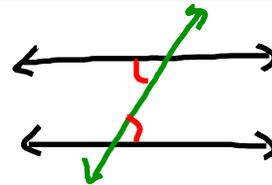
□ Classify each pair of lines as intersecting, parallel, or skew (the hidden point is F)

- A) Line AE and line DH
- B) Line AB and line BC
- C) Line AE and line CG
- D) Line DH and line AB

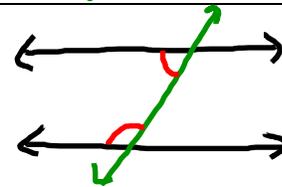


- A) parallel
- B) intersecting
- C) parallel
- D) skew

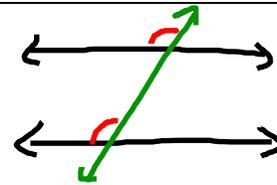
**Definition: Alternate Interior Angles** - two nonadjacent interior angles on opposite sides of the transversal



**Definition: Same-side Interior Angles** - two interior angles on the same side of the transversal



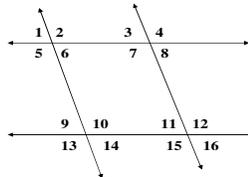
**Definition: Corresponding Angles** - two angles in corresponding positions relative to the two lines



### Example 3

□ Classify each pair of angles if possible

- 1)  $\angle 7$  and  $\angle 11$
- 2)  $\angle 4$  and  $\angle 10$
- 3)  $\angle 2$  and  $\angle 3$

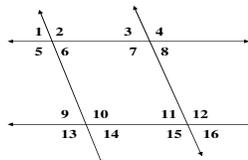


- 1) S. S. I.
- 2) none
- 3) S. S. I.

### Example 4

□ Classify each pair of angles if possible

- 4)  $\angle 14$  and  $\angle 16$
- 5)  $\angle 3$  and  $\angle 6$
- 6)  $\angle 2$  and  $\angle 10$



- 4) Corr.
- 5) A. I.
- 6) Corr.