**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per.\_\_\_\_\_\_\_**

**U2 CW #1** *Special Angles Formed by Transversals*

In the picture given below line *l* and line *m* are cut by a transversal line called *t*.



In your own words, define transversal.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw another transversal for the two lines above and label it line *r*.

Some of the runways at a major airport are shown in the drawing below. Identify at least 2 sets of lines to which each line given is a transversal.

1. line *a*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

1. line *b*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

 *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

1. line *c*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

 *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

1. line *e*

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

 *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

When two lines are intersected by a transversal there are special angle pairs that are formed. They are:

* Alternate Exterior Angles
* Alternate Interior Angles
* Corresponding Angles
* Vertical Angles
* Straight Angles

Use the angle names provided by your teacher to move the angle names around the picture below until you think you have found its correct location. Be ready to justify your reasoning. There will be several correct locations for each set of angle pairs and more than one term may fit at an angle.

Based on the activity, create a definition or explanation for each special angle pair.

Alternate Exterior Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Alternate Interior Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Corresponding Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vertical Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Straight Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directions: Color code the following sets of angles by coloring each set of angle pairs the same color. Find at least two sets of the special angles for each drawing.

**Alternate Exterior Angle Pairs**





**Alternate Interior Angle Pairs**



**Corresponding Angle Pairs**

****

**Vertical Angle Pairs**

****

****

**Straight Angle Pairs**

****

Refer to the figure below; identify the following pairs of angles as alternate exterior angles, alternate interior angles, corresponding angles, vertical angles, or straight angles.

###

1.  f. 
2.  g. 
3.  h. 
4.  i. 
5.  j. 