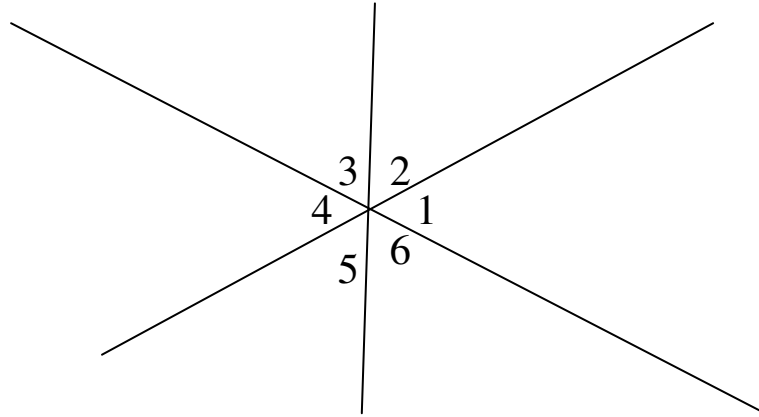
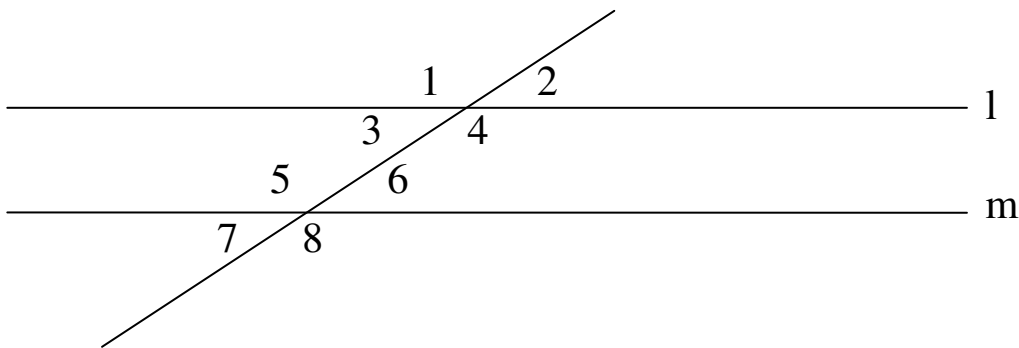


## Types of and Relationships Between Angles



Vertical angles -  $\angle 1$  and  $\angle 4$ ,  $\angle 2$  and  $\angle 5$ ,  $\angle 3$  and  $\angle 6$ .

Vertical angles are “backed up” to each other. Notice, they have the same measure. (Congruent)



In this figure, line  $l$  and line  $m$  are parallel. We write this like so:  $l \parallel m$ . The line cutting through “ $l$ ” and “ $m$ ” is called a transversal.

Some names of other angles or pairs of angles are as follows:

Corresponding angles:  $\angle 1$  and  $\angle 5$ ,  $\angle 2$  and  $\angle 6$ ,  $\angle 3$  and  $\angle 7$ ,  
 $\angle 4$  and  $\angle 8$       \*Corresponding angles are congruent.\*

Interior angles:  $\angle 3, \angle 4, \angle 5$ , and  $\angle 6$

Exterior angles:  $\angle 1, \angle 2, \angle 7$ , and  $\angle 8$

Alternate interior angles:  $\angle 3$  and  $\angle 6$ ,  $\angle 4$  and  $\angle 5$

Alternate exterior angles:  $\angle 2$  and  $\angle 7$ ,  $\angle 1$  and  $\angle 8$

\*Alternate interior and alternate exterior angles are congruent.\*