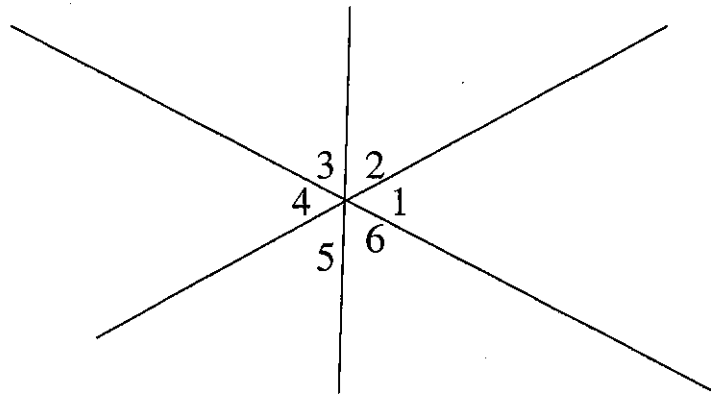
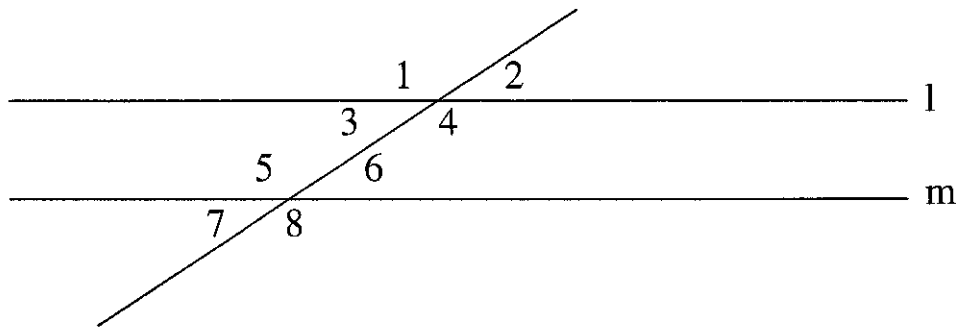


Types of and Relationships Between Angles



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.

- **Complementary Angles** – two angles in which the sum of the measures is 90 degrees.
- **Supplementary Angles** – two angles in which the sum of the measures is 180 degrees.

