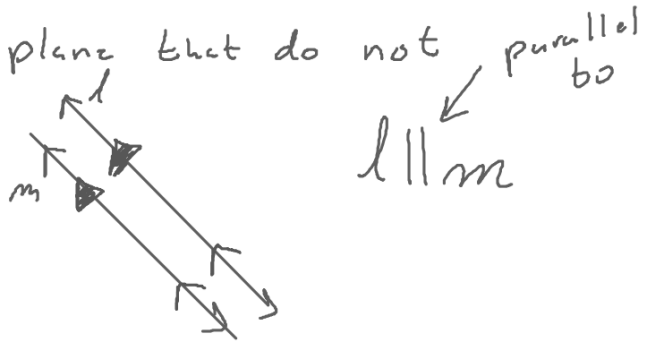
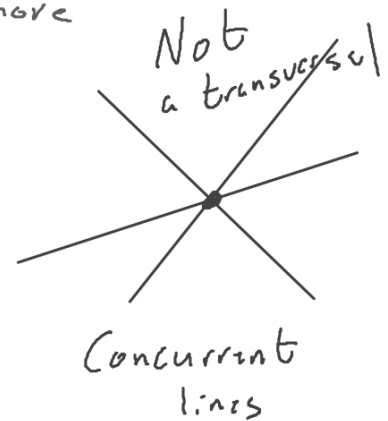
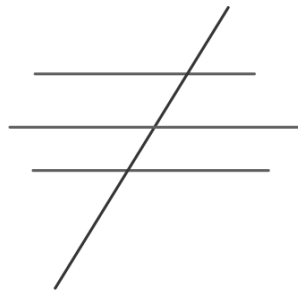
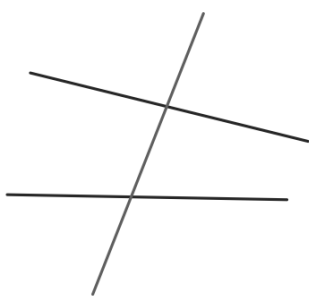


Parallel Lines - Lines in same plane that do not intersect.



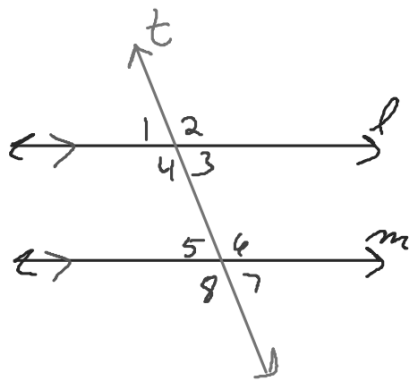
Transversal - A line that intersects two or more lines at different points.



Angle Pair Relationships

If 2 parallel lines are cut by

consecutive interior a transversal then...
Same Side Interior -



Same side Interior
angles are supplementary

$$m\angle 3 + m\angle 6 = 180$$

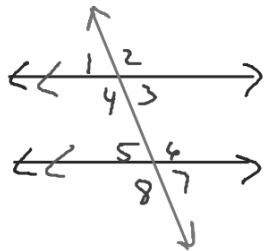
$$m\angle 4 + m\angle 5 = 180$$

Same side -
Same side
of transversal

Interior →
Between ||
lines

Angle Pair Relationships

Alternate Interior Angles



If 2 parallel lines are cut
by a transversal then alternate Interior
angles are \cong .

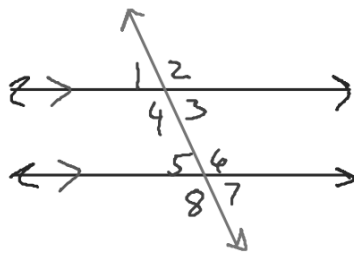
$$\angle 3 \cong \angle 5$$

$$\angle 4 \cong \angle 6$$

Alternate -
opposite sides
of transversal

Angle Pair Relationships

Cooresponding Angles



If two parallel lines are cut by a transversal then cooresponding \angle 's are \cong .

$$\angle 1 \cong \angle 5$$

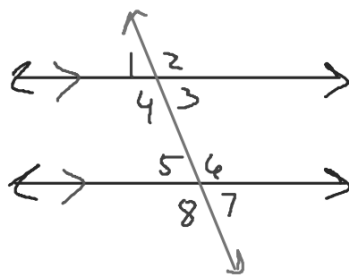
$$\angle 2 \cong \angle 6$$

$$\angle 4 \cong \angle 8$$

$$\angle 3 \cong \angle 7$$

Angle Pair Relationships

Alternate Exterior Angles



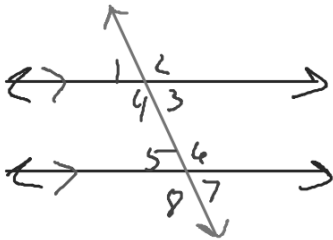
If 2 parallel lines are cut by a transversal, then Alternate interior \angle 's are congruent

$$\angle 1 \cong \angle 7$$

$$\angle 2 \cong \angle 8$$

Angle Pair Relationships

Same side exterior
Consecutive Exterior Angles

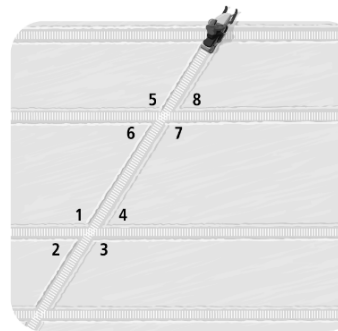


If 2 parallel lines are cut by a transversal then same side exterior \angle 's are supplementary

$$m\angle 1 + m\angle 8 = 180$$

$$m\angle 2 + m\angle 7 = 180$$

Identify the pairs of angles of each angle type made by the snowmobile tracks.



2. If $\angle 4 = 118^\circ$, what is the measure of each of the other angles?

$$m\angle 1$$

$$m\angle 5 =$$

$$m\angle 2$$

$$m\angle 6 =$$

$$m\angle 3$$

$$m\angle 7 =$$

$$m\angle 4 = 118$$

$$m\angle 8 =$$

