Angles and Parallel Lines

A   B

C   D

E   F
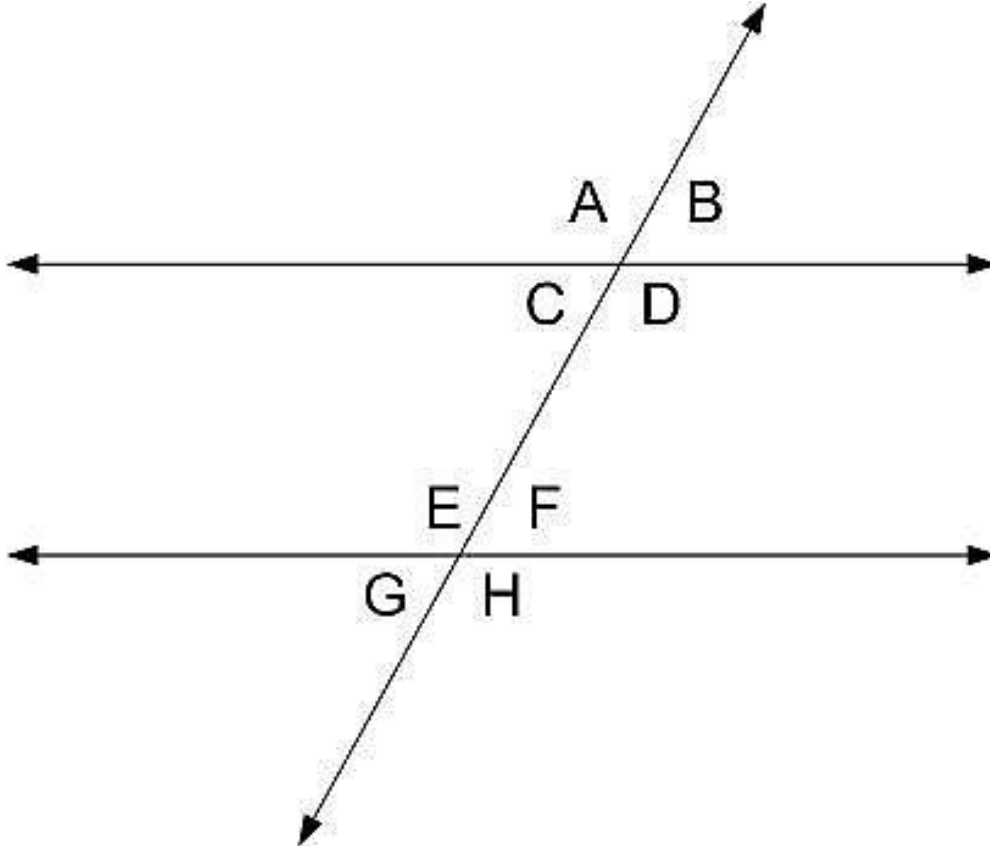
G   H

Relationships Between Angles

➢ **Adjacent Angles**: Angles that are *"next to each other"*.

➢ **Vertical Angles**: Angles that are *"across from each other"*.

➢ **Corresponding Angles**: Angles that *"match up"* from top to bottom.
    They are in the *SAME POSITION*

➢ **Alternate Interior Angles**: Angles that are *INSIDE* the parallel lines <u>AND</u> on
    OPPOSITE SIDES OF THE TRANSVERSAL.

➢ **Alternate Exterior Angles**: Angles that are *OUTSIDE* the parallel lines <u>AND</u> on
    OPPOSITE SIDES OF THE TRANSVERSAL.

Remember…….

| Corresponding angles are **EQUAL**. | Alternate Interior angles are **EQUAL.** | Alternate Exterior angles are **EQUAL.** |

Finding the measure of angles within parallel lines:

1. **Determine the relationship between the two given angles.**

   You have <u>3</u> choices……

   The angles are <u>EQUAL</u>

   or

   The angles <u>ADD UP TO 90</u>

   or

   The angles <u>ADD UP TO 180</u>

2. **Set-up an equation using the two angles.**

   You have <u>2</u> choices…..

   Set the angles <u>EQUAL to each other</u>

   or

   Put <u>ADDITION between</u> the angles

3. **Solve the equation.**

4. **Substitute your <u>ANSWER</u> into each angle's <u>EQUATION</u>.**