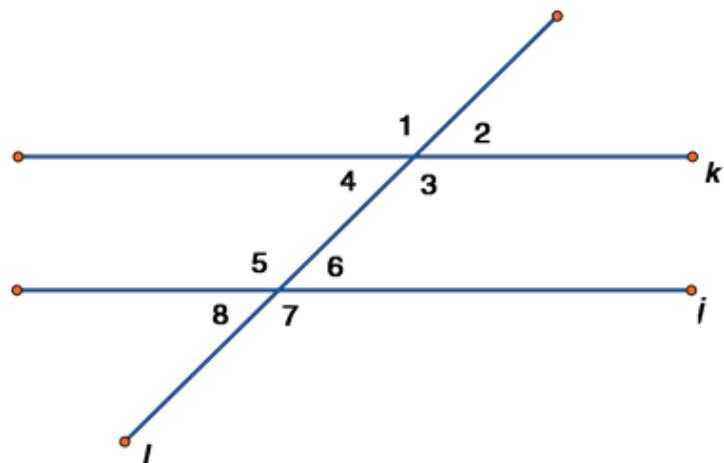
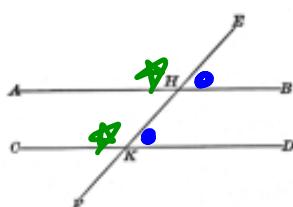


**Brain dump: How many different relationships can you identify in the picture below.**

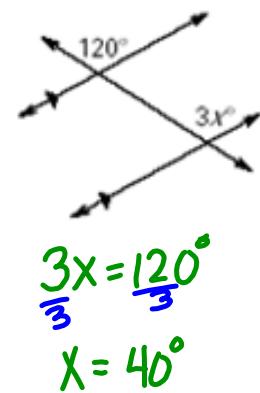


**Corresponding**

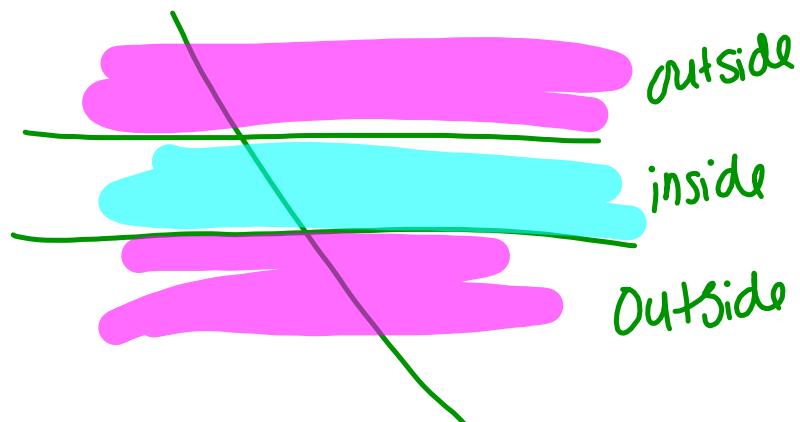
Two angles that lie in the Same position.

**Corresponding Angles Postulate:**

If parallel lines are cut by a transversal, then the pairs of corresponding angles are Congruent.



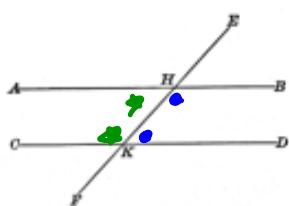
<b>Alternate Interior Angles</b>		<b>Alternate Interior Angles Theorem:</b> If 2 <u>parallel</u> <u>lines</u> are cut by a transversal, then the pairs of alternate interior angles are <u>congruent</u> .	
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<p><b>Alternate Exterior Angles</b></p> <p>Two angles in the <u>outside</u> of the parallel lines and on <u>opposite</u> sides. <u>of the transversal</u></p>		<p><b>Alternate Exterior Angles Theorem:</b> If 2 <u>parallel</u> <u>lines</u> are cut by a transversal, then the pairs of alternate exterior angles are <u><math>\cong</math></u>.</p>	$\begin{aligned} 2x - 4 &= 92 \\ \frac{2x}{2} - \frac{4}{2} &= \frac{92}{2} \\ x &= 48 \end{aligned}$
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**Consecutive (Same-Side) Interior Angles**

Two angles in the inside of the parallel lines and on Same sides.

**Consecutive (Same Side) Interior Angles Theorem:**

If 2 parallel lines are cut by a transversal, then the pairs of consecutive interior angles are Supplementary.

$$\begin{array}{rcl} 2x + 110 & = & 180 \\ -110 & & -110 \\ \hline 2x & = & 70 \\ x & = & 35 \end{array}$$

<p><b>Consecutive (Same-Side) Exterior Angle</b></p> <p>Two angles in the <u>Outside</u> of the parallel lines and on <u>Same</u> sides.</p>		<p><b>Consecutive (Same Side) Exterior Angles Theorem:</b> If 2 <u>lines</u> are cut by a transversal, then the pairs of consecutive exterior angles are <u>Supplementary</u>.</p>	$\begin{aligned} 11x + 2y + 4x - 8 &= 180 \\ 15x + 2y - 8 &= 180 \\ 15(18) + 2y - 8 &= 180 \\ 270 + 2y - 8 &= 180 \\ 262 + 2y &= 180 \\ -262 &\quad \cancel{-262} \\ 2y &= 82 \\ y &= 41 \end{aligned}$
$\begin{array}{r} 4x - 8 = 3x + 10 \\ -3x \quad -3x \\ \hline x - 8 = 10 \\ +8 \quad +8 \\ \hline x = 18 \end{array}$			

## What is on your quiz?

**-take 7 minutes and try  
and think of all the  
material on your quiz.**

- Vocab / Symbols
- Relationships among angles and segments.
- Angle bisectors
- Segment bisectors.
- Corresponding  $\angle$ s
- Supplementary  $\angle$ s
- Complementary  $\angle$ s
- alt. ext  $\angle$ s
- alt. int  $\angle$ s
- Consecutive  $\angle$ s ext.
- linear pair
- vertical  $\angle$ s
- Types of Angles
  - obtuse
  - acute
  - right
  - straight