3.1 - Lines and Angles

1) Check Assignment: Are you Ready?
2) Test, PR, and Retake Info
3) Notes: Types of Lines
4) Notes: Angle Pair Names
5) Assignment Time

Pg. 143, #1-5, 9-16, 21-24
For retaking the Unit 2 Test...

- must be retaken by November 5
- review with me before retaking
- must make ALL corrections on original test before retake
- only before or after school (please let me know)
- if you earned below a 63%, you may retake
  and earn up to a 70%
- if you earned above a 63%, you may retake
  and earn up to an 80%

3.1a Line Relations

Parallel Lines
- coplanar lines that do not intersect
- indicated in a diagram with similar arrowheads
- math symbol is $\parallel$

Skew Lines
- lines that do not intersect and are not parallel
- not coplanar
- difficult to draw

Perpendicular Lines
- lines that intersect at a 90° angle
- indicated in a diagram with right angle marks
- math symbol is $\perp$

Parallel Planes
- planes that do not intersect
- still uses the $\parallel$ symbol, but name the planes carefully
3.1a Line Relations

**Parallel Lines**

\[ \overline{AB} \parallel \overline{CD} \]
\[ \overline{AE} \parallel \overline{GD} \]

**Skew Lines**

\[ \overline{FB} \text{ and } \overline{EH} \]

**Perpendicular Lines**

\[ \overline{AB} \perp \overline{BF} \]

**Parallel Planes**

\[ \text{Plane } AEB \parallel \text{Plane } CDG \]

3.1a Special Angle Pairs

**Transversal**

-a line that intersects two other lines at two distinct (separate) points
-when this happens, 8 smaller angles are formed

For this case, we will consider p to be the transversal

**Interior Angles (not in pairs)**

\[ \angle 3, \angle 4, \angle 5, \angle 6 \]

**Alternate Interior Angles**

\[ \angle 3 \text{ and } \angle 6 \]
\[ \angle 4 \text{ and } \angle 5 \]

**Alternate Exterior Angles**

\[ \angle 1 \text{ and } \angle 8 \]
\[ \angle 2 \text{ and } \angle 7 \]

**Consecutive Interior Angles**

\[ \angle 3 \text{ and } \angle 5 \]
\[ \angle 4 \text{ and } \angle 6 \]

(Same-side Interior Angles)

**Corresponding Angles**

\[ \angle 1 \text{ and } \angle 5 \]
\[ \angle 2 \text{ and } \angle 6 \]
\[ \angle 3 \text{ and } \angle 7 \]
\[ \angle 4 \text{ and } \angle 8 \]
Assignment (Due Tuesday 10/23)

1) Pg. 149 #14-29, 35-38, 44-48

2) Progress Report

3) Review Test and decide on Retake

4) Test Retake