1.2a - Measuring Segments

1) Getting Started!

2) First Check and Correction of Assignment (pg. 9)

3) Notes 1.2 : Segment Addition and Midpoints

4) Assignment Time

5) Class Close : Books, Assignment, Advisory

Getting Started

*Have assignment (pg. 9) on desk to be checked

*Have learning target sheet on desk
   -Do you want to make a new mark?

*Think about which problems you struggled with

*If you have your syllabus, turn it in the box

*Have something ready to grade with (pen?)
Your First Geometry Postulates

Determining
Through any two points, there is exactly one line

Through any three non-collinear points, there is exactly one plane

If two points lie in a plane, the line they determine is also in the plane on the same plane

Intersection
If two lines intersect, their intersection is a point

If two planes intersect, their intersection is a line

Pg. 9, #13-28, 30-33, 39-41
Measures of Segments

**Congruent (Segments)**
- two segments are congruent if they are the same length
- written as: $\overline{AB} \cong \overline{DF}$
- can use *tick marks* in a diagram to indicate congruency

**Congruent vs. Equal**
- only numbers can be equal
- when we are using the measure/length of segments we use equal sign and no bars $AB = DF$
- when we are saying segments are congruent we use congruent sign and bars $\overline{AB} \cong \overline{DF}$
Segment Addition Postulate

If B is between A and C

then \( AB + BC = AC \)

Comments
- if there is no diagram, make one
- make sure that the points are collinear [between]
- when using segment addition "write it in letters" first
- plug in values that you know
- solve for any missing values algebraically
- check that your solution makes numeric sense

Example #1

G is between F and H, \( FG = 6 \), and \( FH = 11 \)

Find GH

\[ FG + GH = FH \]

\[ 6 + x = 11 \]

\[ x = 5 \]
Example #2

M is between N and O.

\[ \text{NM} = 17 \quad \text{NO} = \frac{5x + 2}{x(5+2)} \quad \text{MO} = 3x - 5 \]

Find NO

\[ \frac{10}{2} = \frac{2x}{2} \]

\[ 5 = x \]

\[ \text{NO} = 27 \]

\[ \frac{17}{2} = \frac{10}{2} \]

\[ \text{NM} + \text{MO} = \text{NO} \]

\[ 17 + 3x - 5 = 5x + 2 \]

\[ \cdot 3x \quad - 3x \]

\[ 17 - 5 = 2x + 2 \]

\[ \frac{17}{2} = x + 2 \]

\[ \frac{2}{2} = \frac{2}{2} \]

Assignment (Due Friday 9/5)

1) Pg. 17a, #11-12, 14-16, 20-22, 28-33, 36-39

2) First Quiz Monday (1.1 - 1.2)

3) First HW Summary Tomorrow (p. 9 and 17a)

4) Learning Targets Worksheet