-Grab a paper from the back table

- Grab a computer (the number from your desk)...keep computer closed until after the warmup

Warm Up:

Solve the system of equations

$y = 2x + 13$

$-x - 4y = 16$

$-x - 4(2x + 13) = 16$

$-x - 8x - 52 = 16$

$-9x - 52 = 16$

$-9x = 68$

$\frac{-9x}{-9} = \frac{68}{-9}$

$x = -7.6$

$y = 2(-7.6) + 13$

$= -15.2 + 13$

$y = -2.2$

$(-7.6, -2.2)$

$2x + 3y = -12$

$+ \quad -x - 3y = 18$

$x = 6$

$2(6) + 3y = -12$

$12 + 3y = -12$

$3y = -24$

$y = -8$

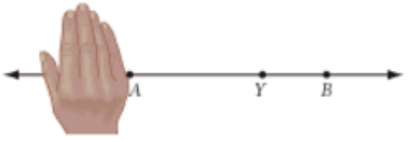
$(6, -8)$

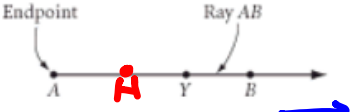
Congruent - two segments are congruent if and only if they have equal measures, or lengths

Midpoint - the point on the segment that is the same distance from both endpoints. The midpoint **bisects** the segment.

Look and do the example on page 27

Ray - begins at a point and extends infinitely in one direction





$\overrightarrow{AB}$, $\overrightarrow{AY}$, $\overrightarrow{AH}$

$\overrightarrow{BY}$ $\overrightarrow{BA}$

Coordinate Geometry 1 - Midpoint

Follow directions on the investigation sheet.

Once your table agrees on the midpoint formula:

1) Check with Ms. Mayden to see if it's correct

2) Go to Ms. Maydens' website, click on Geometry, then Chapter 1, and use the link to practice using Midpoint Formula

Midpoint Formula

$$\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}$$

Example: A line has endpoints (2, -5) and (10, 9). What is the midpoint of the line?

$\frac{2+10}{2}, \frac{-5+9}{2}$

$\frac{12}{2}, \frac{4}{2}$

(6, 2)

August 19, 2019