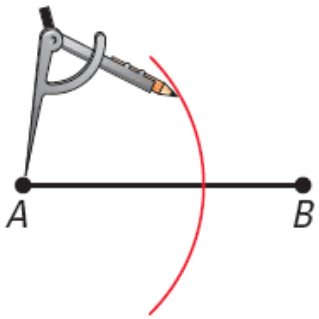
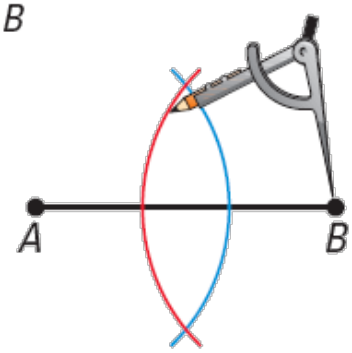
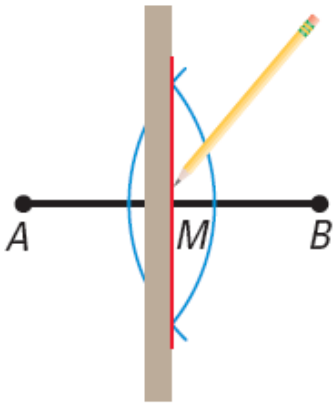
Construction of a segment bisector and midpoint

9-17



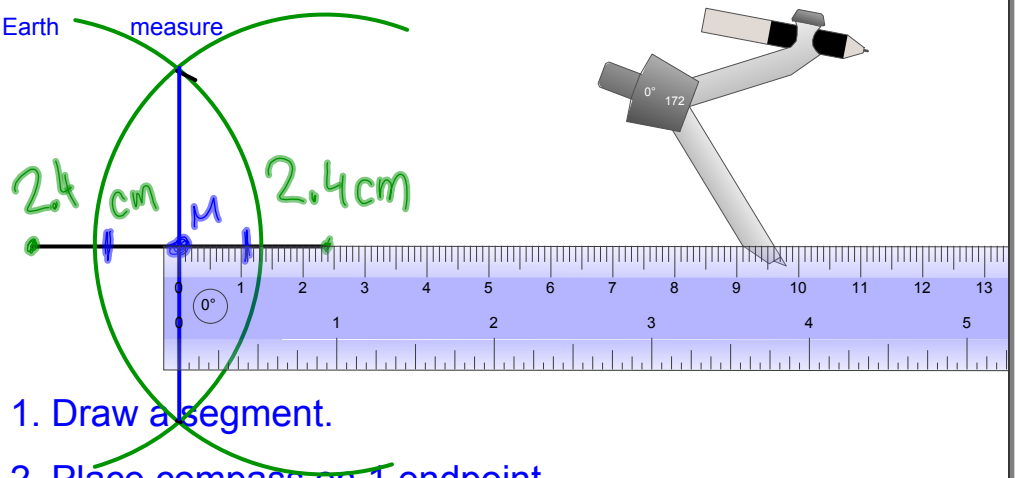




new seating chart...
see front desk
in each row

ge·om·e·try

Earth measure



1. Draw a segment.
2. Place compass on 1 endpoint.
3. Make arc more than 1/2 way across segment.
4. Repeat at other end.
5. Connect the 2 intersections.

Distance Formula

Distance $\rightarrow \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Set-up for each problem: $\sqrt{(\ \ -\ \ )^2 + (\ \ -\ \ )^2}$

(P)E² MD AS

Find the distance between . . .

1. (-4, 3) and (-1, 1)

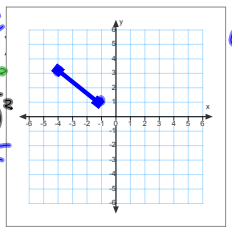
x_1, y_1 x_2, y_2

$\sqrt{(-1+4)^2 + (1-3)^2}$

$\sqrt{(3)^2 + (-2)^2}$

$\sqrt{9+4}$

$\sqrt{13} \approx 3.6$ units

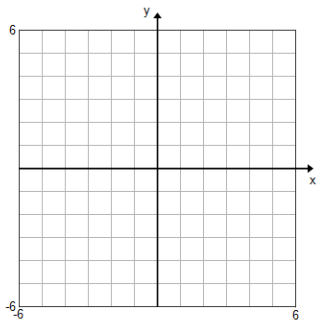


Steps:

0. Plot points
1. Label the points (x_1, y_1) and (x_2, y_2)
2. "Set-up" the distance formula
3. Substitute number into the formula
4. Find the distance - simplify down to or number

2. (2, 4) and (-2, 6)

x_1 y_1 x_2 y_2

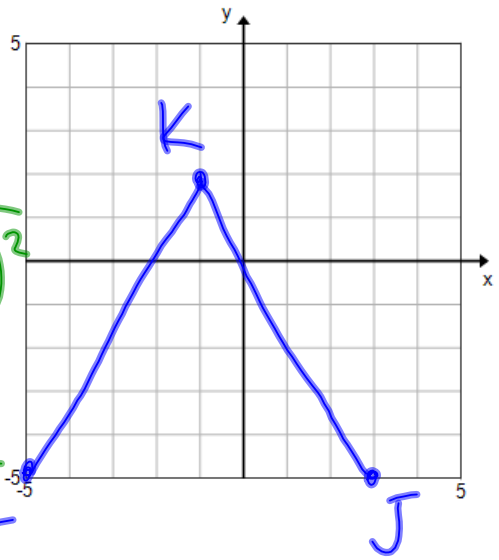


Use the Distance Formula to decide whether $\overline{JK} \cong \overline{KL}$.

$J(3, -5)$
$K(-1, 2)$
$L(-5, -5)$

$JK = \sqrt{(\ -\ )^2 + (\ -\ )^2}$

$KL = \sqrt{(\ -\ )^2 + (\ -\ )^2}$



Due Tomorrow:
pg. 197 #27-30