PARALLEL & PERPENDICULAR LINES – Day 2

Find the slopes of the lines containing each segment.

Segment	Slope
$\overline{AB}$	
$\overline{BC}$	
$\overline{CD}$	
$\overline{DA}$	
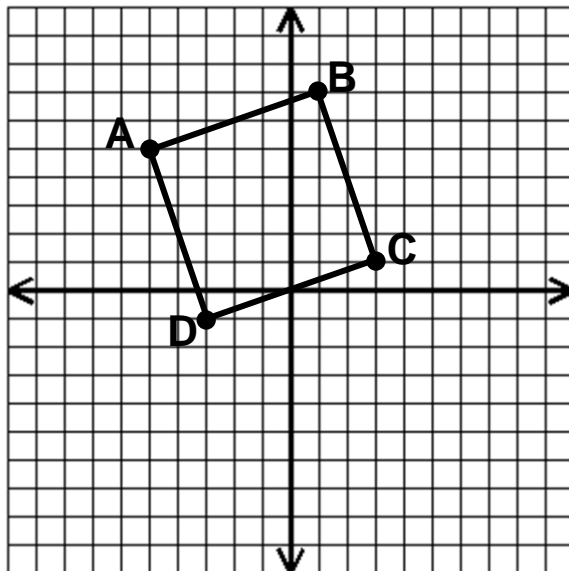
What can you conclude about $\overline{AB}$ and $\overline{CD}$? Why?

What can you conclude about $\overline{DA}$ and $\overline{AB}$? Why?

EXAMPLES.

1. Find the slope of a line that would be parallel to 2x – 3y = -12.

2. Find the slope of a line that would be perpendicular to 4x + 5y = -15.

3. Given the equation 4x – 2y = -10, write the equations, in slope-intercept form, of the lines that pass through the point (8, 10) and are:

a) *PARALLEL* to the graph of the given line.

    A. $y = 2x - 6$

    B. $y = -\frac{1}{2}x + 6$

    C. $y = -\frac{1}{2}x + 14$

    D. $y = 2x + 6$

b) *PERPENDICULAR* to the graph of the given line.

4. Given the equation x = 3, write the equations of the lines that pass through the point (-7, 2) and are:

a) *PARALLEL* to the graph of the given line.

b) *PERPENDICULAR* to the graph of the given line.