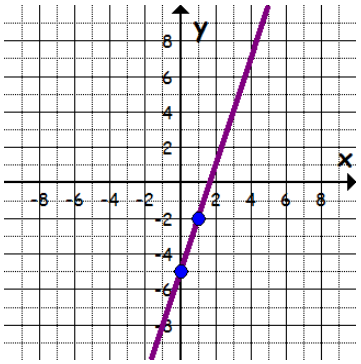
G6-2 investigation Name _____

Slope review

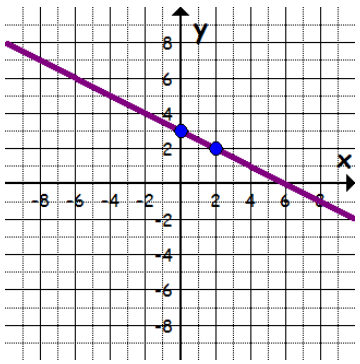
Remember to find the slope of a line use:

$$m = \frac{\Delta y}{\Delta x} = \frac{rise}{run} = \frac{y_2 - y_1}{x_2 - x_1}$$

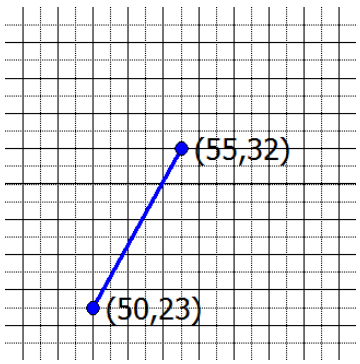
1. Find the slope for each situation below:

a. 

slope =

b. 

slope =

c. 

slope =

d. (3, 4) and (5, 7)

slope =

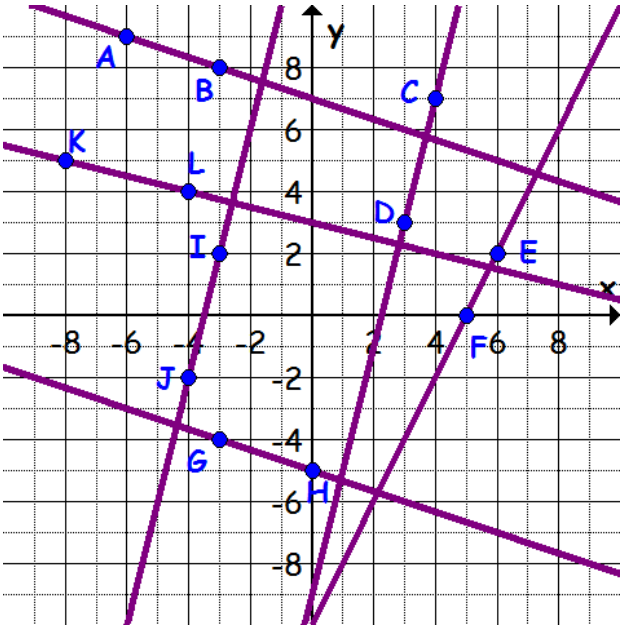
e. (-1, -4) and (-5, -7)

slope =

f. (1, -5) and (-3, 4)

slope =

2. **Slopes of parallel lines:**
Find the slopes of each line:



$\overleftrightarrow{AB}$ $\overleftrightarrow{CD}$:

$\overleftrightarrow{EF}$: $\overleftrightarrow{GH}$:

$\overleftrightarrow{IJ}$: $\overleftrightarrow{KL}$:

Which lines are parallel? _____ || _____

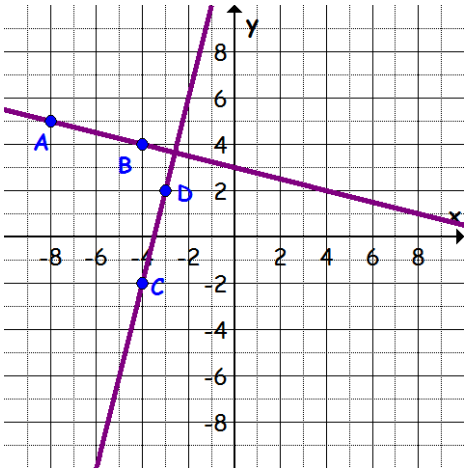
_____ || _____

If two lines are parallel, then their slopes are _____.

3. Slopes of perpendicular lines:

Remember, perpendicular lines intersect at a right (90°) angle. Find the slopes of the perpendicular lines below.

$\overleftrightarrow{AB} \perp \overleftrightarrow{CD}$



Slope

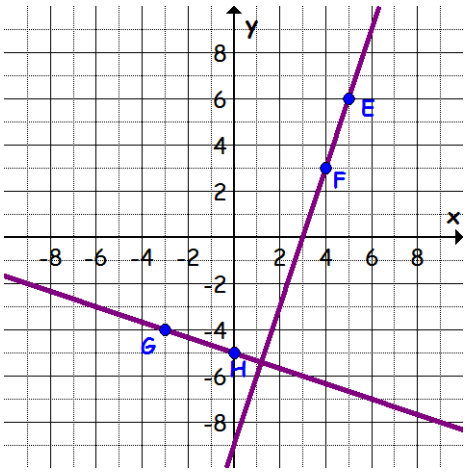
$\overleftrightarrow{AB}$:

$\overleftrightarrow{CD}$:

$\overleftrightarrow{EF}$:

$\overleftrightarrow{GH}$:

$\overleftrightarrow{EF} \perp \overleftrightarrow{GH}$



If two lines are perpendicular, then their slopes are _____.

Complete the table:

Slope of the given line	Slope of a perpendicular line	Slope of a parallel line
$\frac{1}{2}$		
-5		
$-\frac{2}{3}$		
$\frac{5}{4}$		
3		

4. Complete each sentence:

Options: square, rhombus, rectangle, parallelogram, right triangle.

a. _____, _____, _____and

_____ have two pair of parallel sides.

b. _____and _____ have two pair of perpendicular sides.

c. _____ and _____ have perpendicular diagonals.

d. _____ have one pair of perpendicular sides.