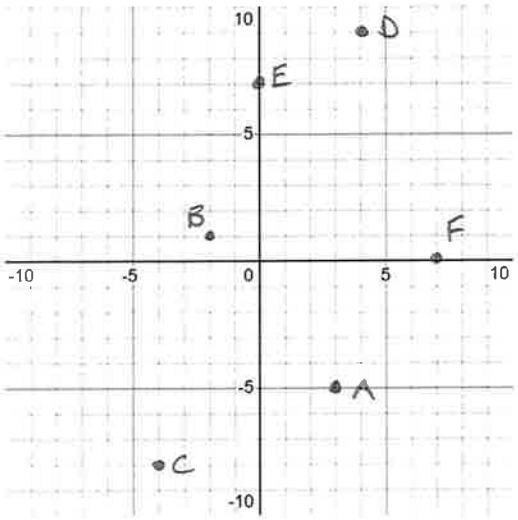
Foundations of Math 9 KEY

Section 7.1 Part 1 – Practice Refresher

Place the following points on the grid provided.

a) $(3,-5)$	b) $(-2,1)$	c) $(-4,-8)$
d) $(4,9)$	e) $(0,7)$	f) $(7,0)$

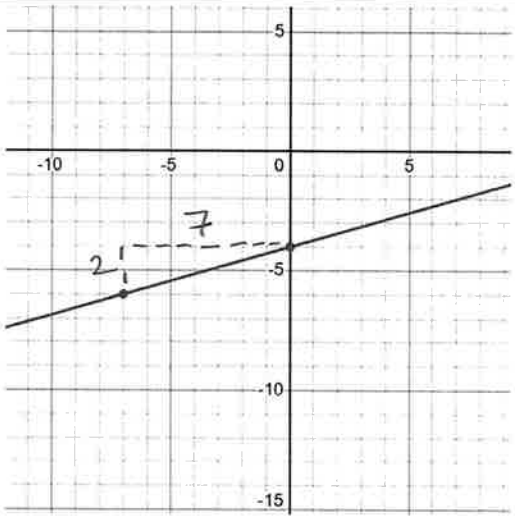


Use the Slope Equation to determine the Slope of the line connecting the following sets of points.

$$y = \frac{y_2 - y_1}{x_2 - x_1}$$

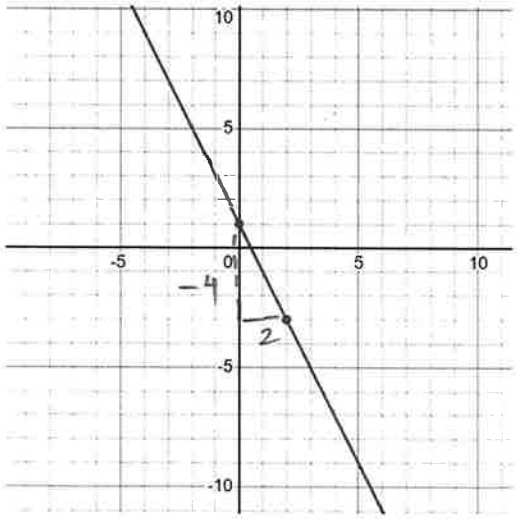
a) $(2,3)$ and $(-5,7)$ pt 1 pt 2 $\frac{7-3}{-5-2} = \boxed{\frac{4}{-7}}$	b) $(1,6)$ and $(-2,5)$ $\frac{5-6}{-2-1} = \frac{-1}{-3}$ $\boxed{\frac{1}{3}}$	c) $(4,0)$ and $(4,-2)$ $\frac{-2-0}{4-4} = \frac{-2}{0}$ $\boxed{\text{UNDEFINED}}$
d) $(-3,-7)$ and $(6,11)$ $\frac{11-(-7)}{6-(-3)} = \frac{18}{9}$ $\downarrow$ $\boxed{2}$	e) $(2,5)$ and $(3,6)$ $\frac{6-5}{3-2} = \frac{1}{1}$ $\boxed{1}$	f) $(6,5)$ and $(-2,5)$ $\frac{5-5}{-2-6} = \frac{0}{-8}$ $\boxed{0}$

Determine (Map) the slopes, and the y-intercepts of the following graphs (Draw and Count)



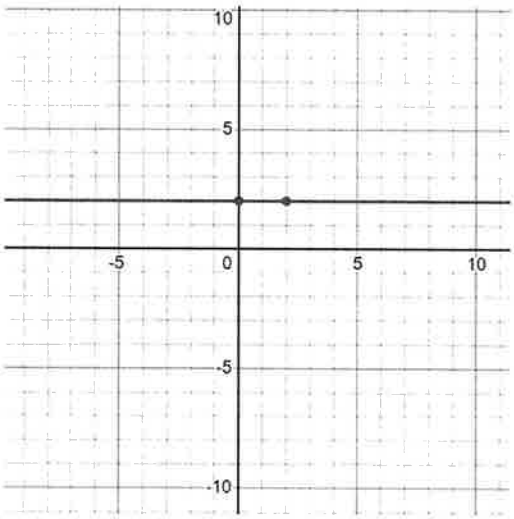
Slope is: $2/7$

y-intercept: $(0,4)$



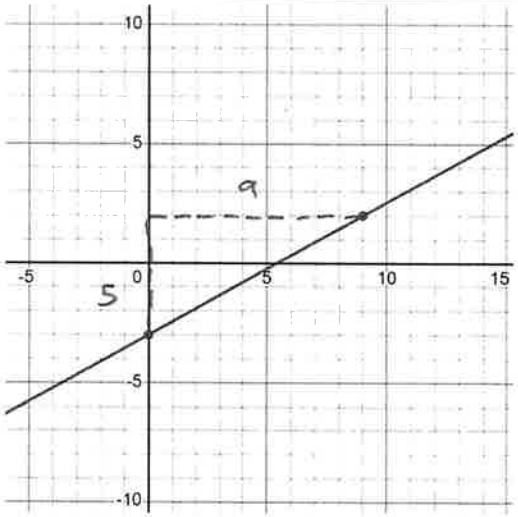
Slope is: $-\frac{4}{2} = -2$

y-intercept: $(0,1)$



Slope is: 0

y-intercept: $(0,2)$



Slope is: $5/9$

y-intercept: $(0,-3)$

Are the following points solutions to the given equations? (Are the Points on the Line?) Prove it. No Graphing.

a) $y = -\frac{2}{5}x - 2\,;\,(5,4)$ ← sub (x,y) into the x and y

$4 = -\frac{2}{\cancel{5}}(\cancel{5}) - 2$

$4 = -2 - 2$ $\quad 4 = -4$

NO

b) $y = \frac{2}{3}x + 1\,;\,(6,5)$

$5 = \frac{2}{\cancel{3}}(\cancel{6}^{2}) + 1$

$5 = 4 + 1$ $\quad 5 = 5$

YES

c) $y = -\frac{5}{7}x + 4\,;\,(-7,1)$

$1 = -\frac{5}{\cancel{7}}(-\cancel{7}) + 4$

$1 = 5 + 4$ $\quad 1 = 9$

NO

d) $y = \frac{3}{2}x - \frac{1}{2}\,;\,(5,7)$

$7 = \frac{3}{2}(5) - \frac{1}{2}$

$7 = \frac{15}{2} - \frac{1}{2}$

$7 = \frac{14}{2}$

$7 = 7$

YES

e) $y = -x + 2\,;\,(-4,2)$

$2 = -(-4) + 2$

$2 = 4 + 2$

$2 = 6$

NO

Infinite number of solution

Find three points, other than the y-intercept, that exist on the given lines.

a) $y = 2x - 5$

$x = 1$	$x = 2$	$x = 3$
$y = 2(1) - 5$	$y = 2(2) - 5$	$y = 2(3) - 5$
$y = 2 - 5$ $(1, -3)$	$y = 4 - 5$	$y = 6 - 5$
$y = -3$	$y = -1$ $(2, -1)$	$y = 1$ $(3, 1)$

b) $y = -\frac{4}{5}x - 2$

$x = 5$	$x = -5$	$x = 10$
$y = -\frac{4(5)}{5} - 2$	$y = -\frac{4}{5}(-5) - 2$	$y = -\frac{4}{5}(10) - 2$
$y = -6$ $(5, -6)$	$y = 4 - 2$ $(-5, 2)$	$y = -8 - 2$
	$y = 2$	$y = -10$ $(10, -10)$

How would you rate your Level of Understanding on this information? Emerging, Proficient, Extending?

What strategies will you implement to help you improve?