Bellwork:

Write the equation of the line in (1) point slope form and (2) slope intercept form for each situation:

A. Slope = 3 Point (-2,5)

B. Points (-2,7) and (12, 0)

A. $y-5=3(x+2)$ point-slope

$y-5=3x+6$

$+5 \quad +5$

$y=3x+11$ slope-intercept

B. $m=\frac{0-7}{12--2}=\frac{-7}{14}=\frac{-1}{2}$

$(-2,7)$

$y-7=-\frac{1}{2}(x+2)$

$y-7=-\frac{1}{2}x-1$

$+7 \qquad +7$

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

$(12, 0)$

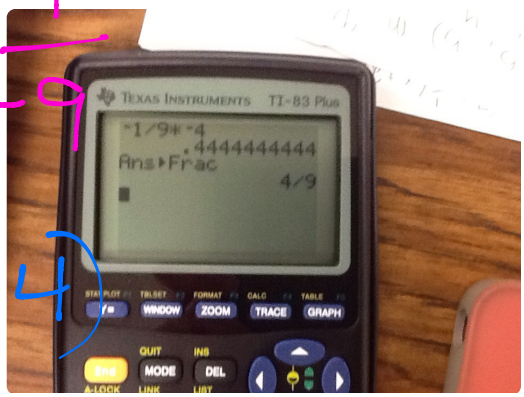
$y - 0 = -\frac{1}{2}(x - 12)$

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

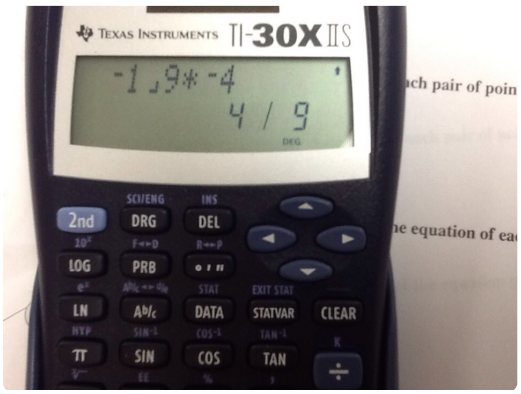
$y = -\frac{1}{2}x + 6$

(11) $(4,-3)\ (-5,-2)$

$$m = \frac{-2-(-3)}{-5-4} = \frac{1}{-9}$$



$$y+3 = -\frac{1}{9}(x-4)$$



$$y+3 = -\frac{1}{9}x + \frac{4}{9}$$

$$-3 \qquad\qquad -3$$

$$\boxed{y = -\frac{1}{9}x - \frac{23}{9}}$$

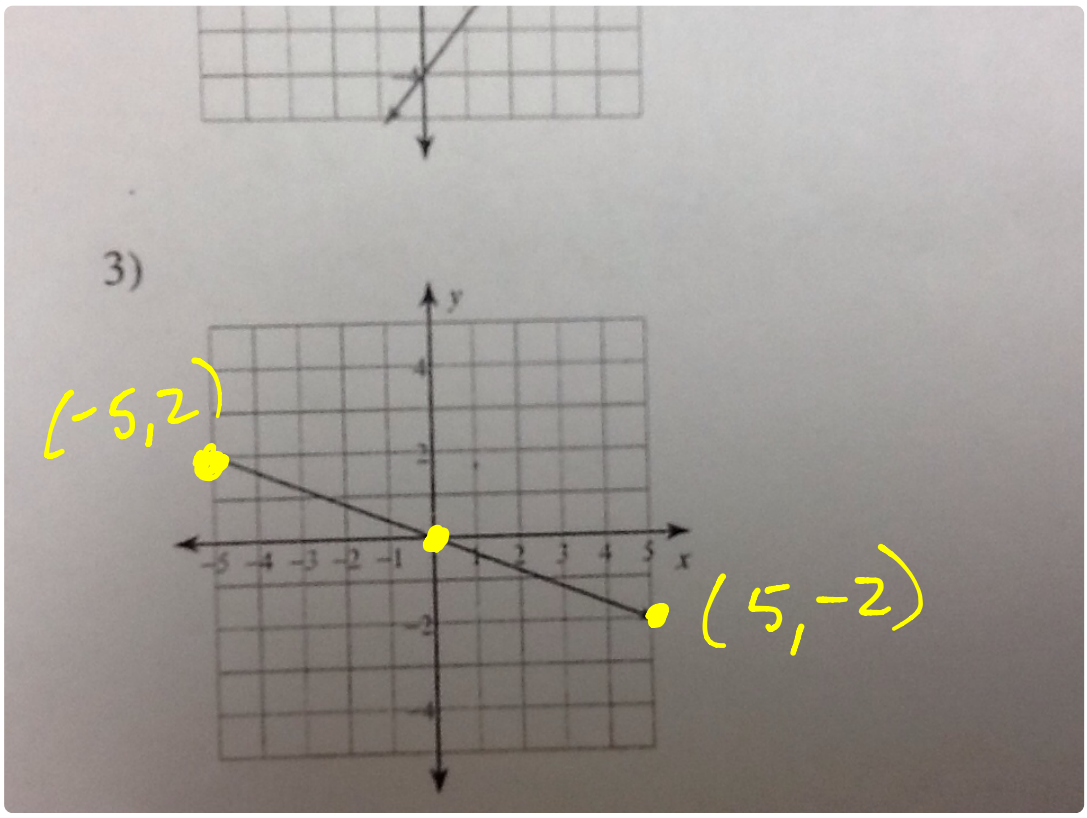
Use other point $(-5, -2)$

$$y + 2 = -\frac{1}{9}(x + 5)$$

$$y + 2 = -\frac{1}{9}x - \frac{5}{9}$$

$$-2 \qquad -2$$

$$y = -\frac{1}{9}x - \frac{23}{9}$$


3)
y
x
(-5,2)
(5,-2)

Quiz

2, 6, 18

Bellwork

$y = mx + b$

Write the equation of the line in (1) point slope form and (2) slope intercept form for each situation:

A. Slope = 3 Point (-2,5)

B. Points (-2,7) and (12, 0)

m x_1, y_1 $y - y_1 = m(x - x_1)$

A. $y - 5 = 3(x + 2)$

$y - 5 = 3x + 6$

$+5 \quad +5$

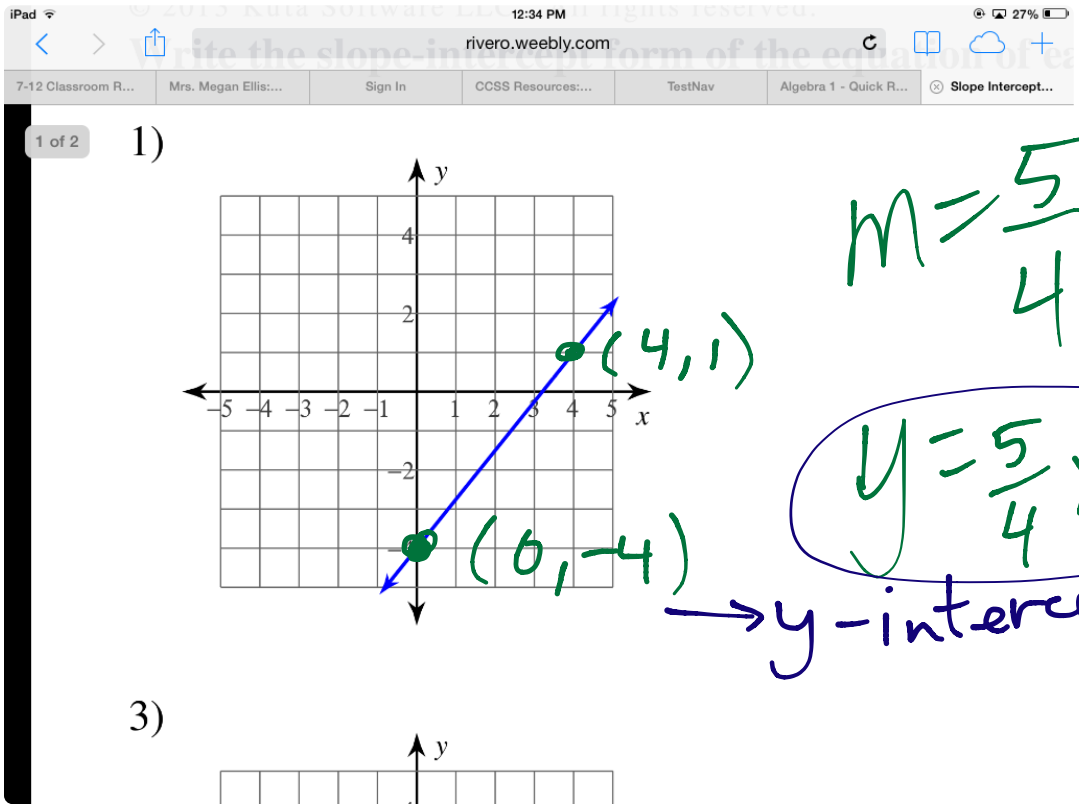
$y = 3x + 11$

B. $\frac{0 - 7}{12 - -2} = \frac{-7}{14} = \frac{-1}{2}$ OR -0.5

$(12, 0)$ $(-2, 7)$

$y - 0 = -\frac{1}{2}(x - 12)$ p/s form

$y = -\frac{1}{2}x + 6$ slope intercept



$m = \frac{5}{4}$

$y = \frac{5}{4}x - 4$

→ y-intercept

(5) $-5, -5 \quad m = \frac{9}{5}$

$$y + 5 = \frac{9}{5}(x + 5)$$

$$y + 5 = \frac{9}{5}x + 9$$

$$-5 \qquad -5$$

$$y = \frac{9}{5}x + 4$$

(13) $(-4, -4) \quad (5, -5)$

$$m = \frac{-5 - -4}{5 - -4} = \frac{-1}{9}$$

$$y+4=-\frac{1}{9}(x+4) \quad \text{p/s form}$$

$$y+4=-\frac{1}{9}x-\frac{4}{9}$$

$-4 \qquad -4$

$$\boxed{y=-\frac{1}{9}x-\frac{40}{9}}$$