Kuta Software - Infinite Pre-Algebra

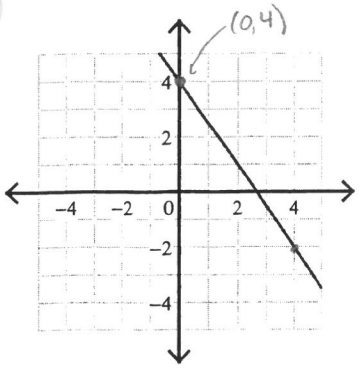
Name_____

Writing Linear Equations

Date_____ Period____

Write the slope-intercept form of the equation of each line.

1)



$(0,4)$ $(4,-2)$
$x_1\ y_1$ $x_2\ y_2$

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

$a = \frac{(-2)-(4)}{(4)-(0)}$

$a = \frac{-6}{4}$

$a = -\frac{3}{2}$

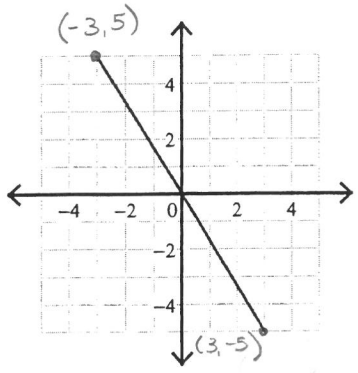
OR -1.5

$y = ax + b$

$y = -\frac{3}{2}x + b$

$y = -\frac{3}{2}x + 4$

2)



$(-3,5)$ $(3,-5)$
$x_1\ y_1$ $x_2\ y_2$

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

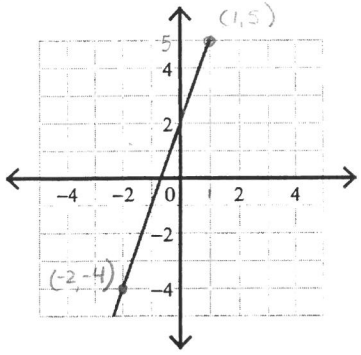
$a = \frac{(-5)-(5)}{(3)-(-3)}$

$a = \frac{-10}{6}$

$a = -\frac{5}{3}$ $b = 0$

$y = -\frac{5}{3}x$

3)



$(-2,-4)$ $(1,5)$

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

$a = \frac{(5)-(-4)}{(1)-(-2)}$

$a = \frac{5+4}{1+2}$

$a = \frac{9}{3}$

$a = 3$

$y = ax + b$

$y = 3x + b$

$-4 = 3(-2) + b$

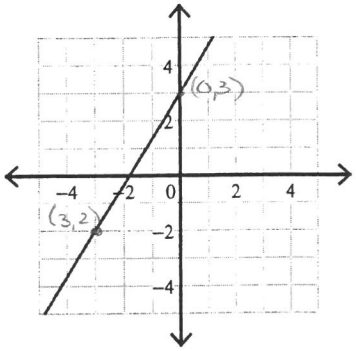
$-4 = -6 + b$

$-4 + 6 = b$

$2 = b$

$y = 3x + 2$

4)



$(-3,-2)$ $(0,3)$

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

$a = \frac{(3)-(-2)}{(0)-(-3)}$

$a = \frac{3+2}{0+3}$

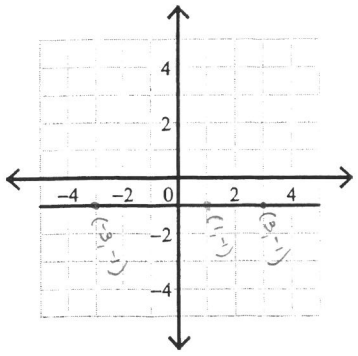
$a = \frac{5}{3}$

$y = ax + b$

$y = \frac{5}{3}x + b$

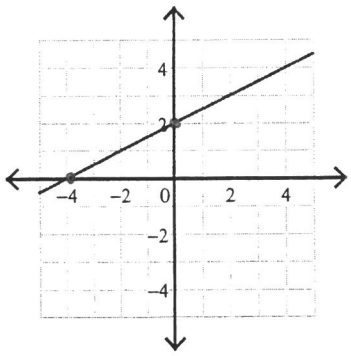
$y = \frac{5}{3}x + 3$

5)



$y = -1$

6)



$(-4,0)\ (0,2) \rightarrow b = 2$

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

$a = \frac{(2)-(0)}{(0)-(-4)}$

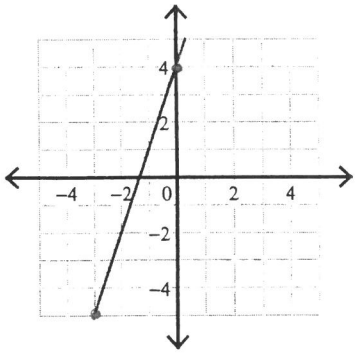
$a = \frac{2-0}{0+4}$

$a = \frac{2}{4}$

$a = \frac{1}{2} \qquad b = 2$

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

7)



$(-3,-5)\ (0,4) \rightarrow b = 4$

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

$a = \frac{(4)-(-5)}{(0)-(-3)}$

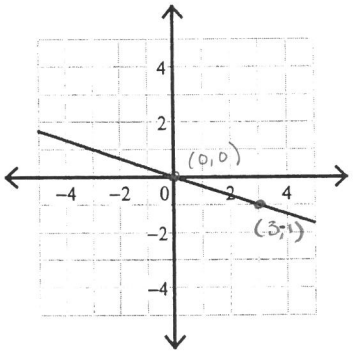
$a = \frac{4+5}{0+3}$

$a = \frac{9}{3}$

$a = 3 \qquad b = 4$

$y = 3x + 4$

8)



$(0,0)\ (3,-1)$

$b = 0 \Rightarrow y = ax + 0$

$y = ax$

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

$a = \frac{-1-0}{3-0}$

$a = -\frac{1}{3}$

$y = -\frac{1}{3}x$