Lines: Lesson 4

Slope Intercept and Point-Slope Form: Worksheet 1
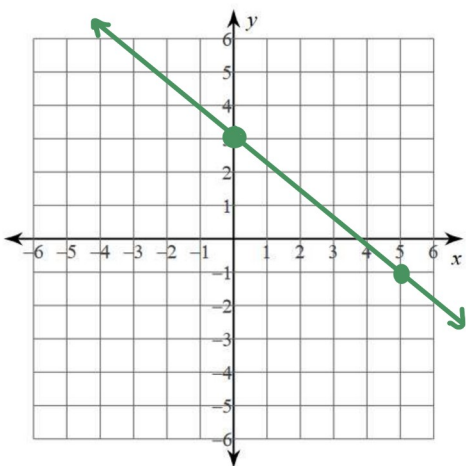
Answer Key!

MATH 4 ALL

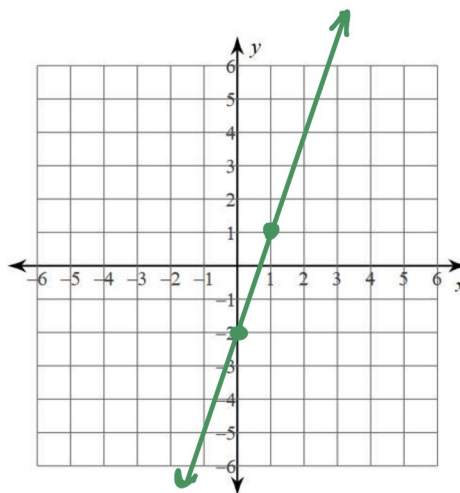Name: _____

Slope Intercept Form: $y = mx + b$

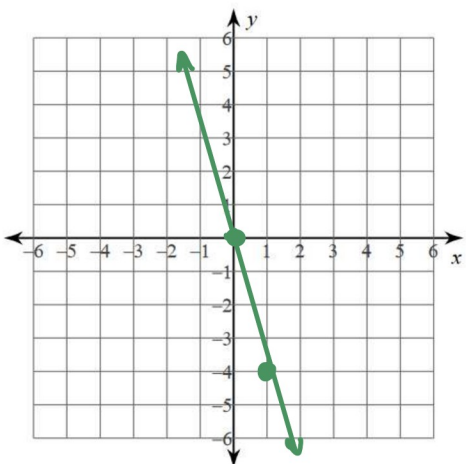**Point-Slope Form:** $y - y_1 = m(x - x_1)$

Graph:

$$y = \frac{-4}{5}x + 3$$

$$y = 3x - 2$$

$$y = -4x$$

What is the point-slope form of the line…

Through (7, -2), slope -3: $y+2=-3(x-7)$

Through (0, 5), slope 1: $y-5=x$

Through (-6, 0), slope $\frac{2}{3}$: $y=\frac{2}{3}(x+6)$

What is a point and slope of the line with equations:

$y=\frac{7}{2}(x+6)$ Point: $(-6,0)$ Slope: $\frac{7}{2}$

$y+4=-9(x-2)$ Point: $(2,-4)$ Slope: -9

$y-5=x+7$ Point: $(-7,5)$ Slope: 1

What is the <u>slope intercept</u> form of a line with…

Slope: -6 through (-1, 3):

$y-3=-6(x+1)$

$y-3=-6x-6$
$+3 \qquad\quad +3$
$y=-6x-3$

Slope: $\frac{2}{3}$ through (3, -6):

$y+6=\frac{2}{3}(x-3)$

$y+6=\frac{2}{3}x-2$
$-6 \qquad\quad -6$

$y=\frac{2}{3}x-8$