

## Day 9 - Writing Equations from a Point and Slope - Practice

Directions: Write the equation of the line using the given information. You must do it algebraically and graphically to ensure your equations are correct.

1.  $(1, 2)$ , slope = 3  
 $x$   $y$

$$y = mx + b$$

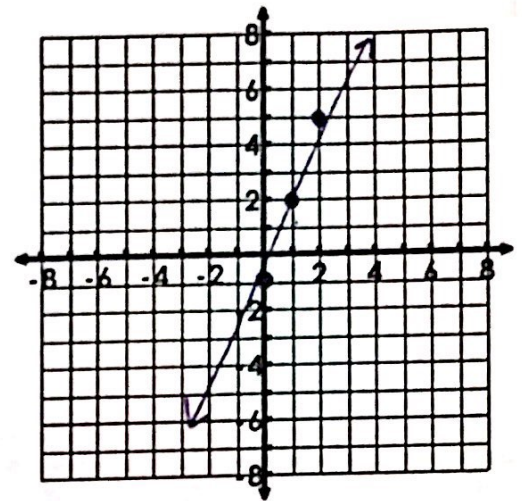
$$2 = 3(1) + b$$

$$2 = 3 + b$$

$$-1 = b$$

$m = 3$   $b = (0, -1)$

Slope Intercept Equation:  $y = 3x - 1$



2.  $(-2, 5)$ , slope = -4  
 $x$   $y$

$$y = mx + b$$

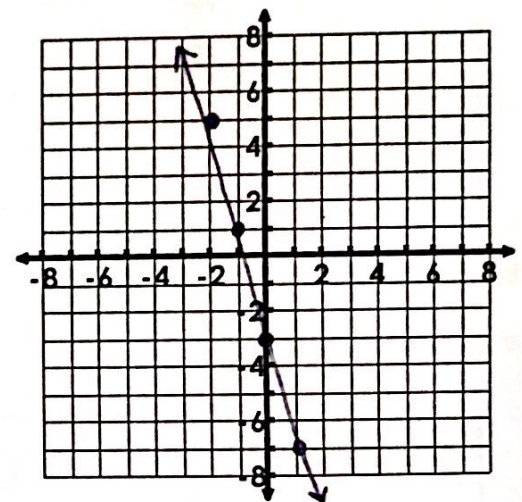
$$5 = -4(-2) + b$$

$$5 = 8 + b$$

$$-3 = b$$

$m = -4$   $b = (0, -3)$

Slope Intercept Equation:  $y = -4x - 3$



3.  $(4, 1)$ , slope =  $\frac{1}{2}$   
 $x$   $y$

$$y = mx + b$$

$$1 = \frac{1}{2}(4) + b$$

$$1 = 2 + b$$

$$-1 = b$$

$m = \frac{1}{2}$   $b = (0, -1)$

Slope Intercept Equation:  $y = \frac{1}{2}x - 1$

