

# Write the Equation of the Line: Given two points

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Date \_\_\_\_\_

Write the slope-intercept form of the equation of the line through the given points.

1) through:  $(0, -5)$  and  $(4, 3)$

2) through:  $(-4, 3)$  and  $(0, -4)$

3) through:  $(2, 5)$  and  $(0, -4)$

4) through:  $(0, -3)$  and  $(1, -4)$

5) through:  $(0, -1)$  and  $(-2, -1)$

6) through:  $(4, -1)$  and  $(0, -3)$

7) through:  $(3, -5)$  and  $(0, 0)$

8) through:  $(-5, -2)$  and  $(0, -1)$

9) through:  $(0, 0)$  and  $(-1, 1)$

10) through:  $(0, 1)$  and  $(-3, -3)$

Example: through  $(0, 3)$  and  $(-4, -1)$   
 $X_1 \ Y_1$        $X_2 \ Y_2$

$$\frac{-1 - 3}{-4 - 0} = \frac{-4}{-4} = \boxed{1}$$

$b = 3$   
y-intercept is 3  
1 is invisible -

slope formula  
 $m = \frac{y_2 - y_1}{x_2 - x_1}$

$y = mx + b$   
 $y = 1x + 3$  OR  $\boxed{y = x + 3}$