

Exploring Linear Equations

Name -----

Date ----- Per -----

Activity 3
Graphing Lines

Objective: In this lesson you will see how to graph equations that are not in the slope-intercept form $y = mx + b$.

Solve each equation for y then write the equation in slope-intercept form. Find the slope, and x - and y -intercepts, and graph the line. An example is solved.

Equation	Equation in slope-intercept form	sketch
$2x + y - 3 = 0$ Solve for y : $2x + y - 3 = 0$ $\frac{-2x}{-2x} = \frac{-2x}{-2x}$ $Y - 3 = -2x$ $\frac{+3}{+3} = \frac{+3}{+3}$ $Y = -2x + 3$	$Y = -2x + 3$ Slope = -2 y -intercept = (0,3) x -intercept = (1.5,0)	
$Y + 3x = 4$		
$Y - 3.5 = 2x$		
$5x - y = 15$		

Exploring Linear Equations

Equation	Equation in slope-intercept form	sketch
$-1x = 4 + y$		
$2y + 5x - 7 = 0$		
Challenge: Write your own problem below. Follow the directions above to solve and graph the line.		