

CA Content Standards:

- Grade 7 AF3.3 Graph linear functions, noting that the vertical change (change in y value) per unit of horizontal change (change in x value) is always the same and know that the ratio ("rise over run") is called the slope of a graph.
- Algebra I 6.0 Students graph a linear equation and compute the x - and y -intercepts.

- Supplies: Set of Pages 2-3 game board and pieces for students to use in pairs
- One copy of Pages 2-3 for the key
- Student record sheets and discussion questions (Pages 4-5), one per student

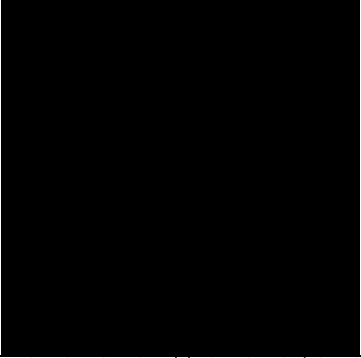
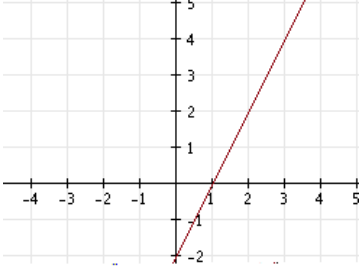
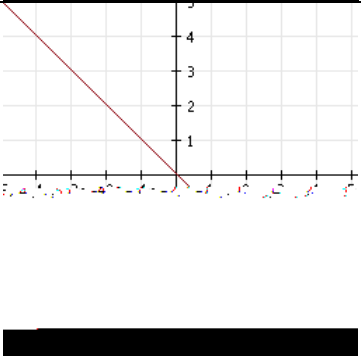
From the copies of pages 2-3 that students will use in pairs, cut out the columns of the graphs and leave intact. Cut the rest of the sheet into game pieces to be matched to the column of graphs. Place pieces in a large envelope or binder clip the pieces to the intact columns out of order. Make one set of supplies per pair.

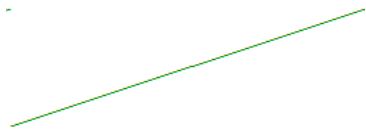
Hand each pair of students an envelope/binder clip of game pieces.

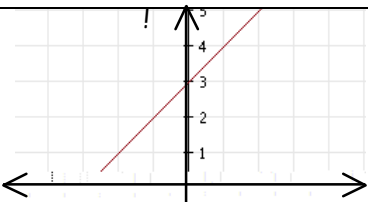
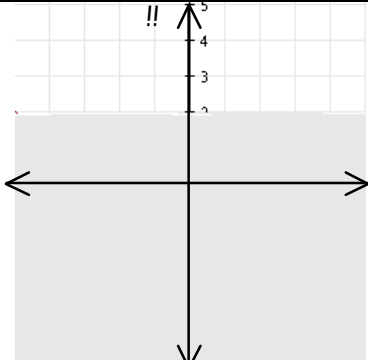
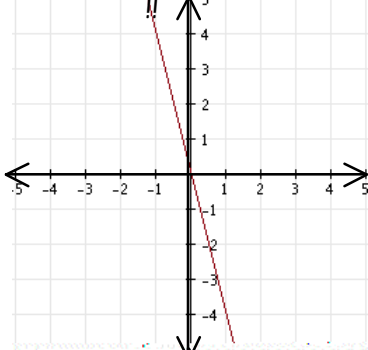
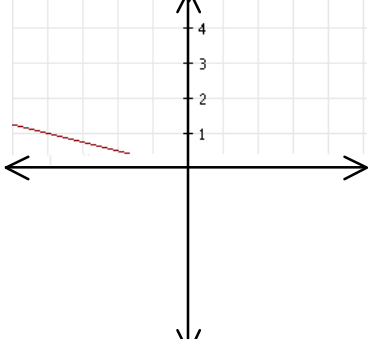
Start by having students separate their pieces into 2 piles.

1 pile of equations in slope-intercept form and the 2nd with the x -intercept and slope pieces

Graphing Lines Sort KEY/PIECES

	$= 2x + 1$	<p>-intercept: (,)</p> <p>Slope: $\frac{2}{1}$ $\frac{!}{!}$</p>
	$y = x - 2$	<p>-intercept: (0, -2)</p> <p>Slope: $\frac{2}{1}$ $\frac{\Delta}{\Delta}$</p>
	$y = -x$	<p>-intercept: (0, 0)</p> <p>Slope: — —</p>

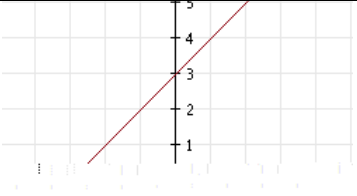
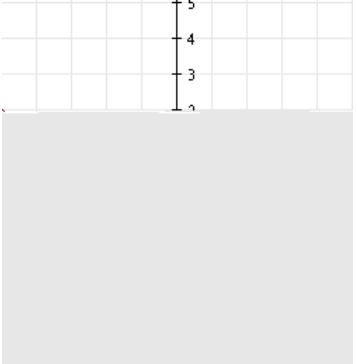
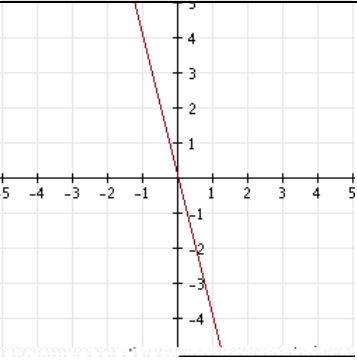
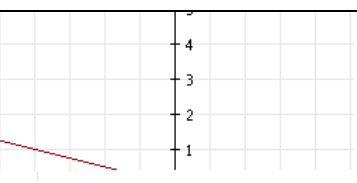


Graph	Equation	Slope and -intercept (0 , __)
	$y = x + 3$	-intercept: 0,3 Slope: 1
	$y = -3$	-intercept: -3 Slope: 0
	$y = -4x$	-intercept: (0,0) Slope: -4
	$y = -\frac{1}{4}x$	-intercept: (0,0) Slope: $-\frac{1}{4}$

Graph

Equation

Slope and -intercept (0 , __)

		<p>-intercept: (__ , __)</p> <p>Slope: $\frac{\Delta}{\Delta}$</p>
		<p>-intercept: (__ , __)</p> <p>Slope: $\frac{y}{x}$</p>
		<p>-intercept: (__ , __)</p> <p>Slope: $\frac{\Delta y}{\Delta x}$</p>
		<p>-intercept: (__ , __)</p> <p>Slope: $\frac{\Delta y}{\Delta x}$</p>

Starting from the intercept, how do you use the slope to find additional points of the line? _____