Graphing Linear Inequalities Sort

Supplies: Set of Pages 2-3 game boards and pieces for students to use in pairs

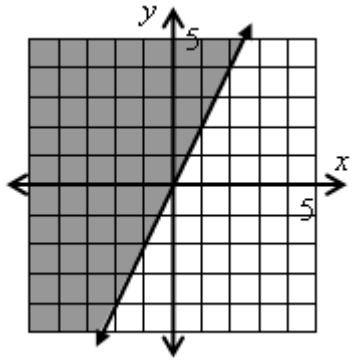
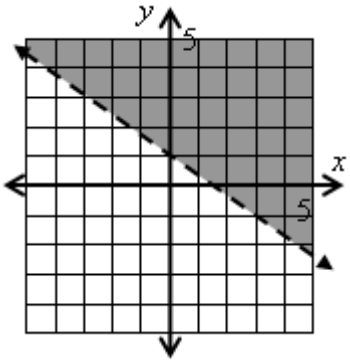
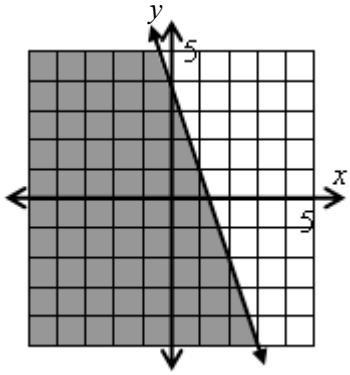
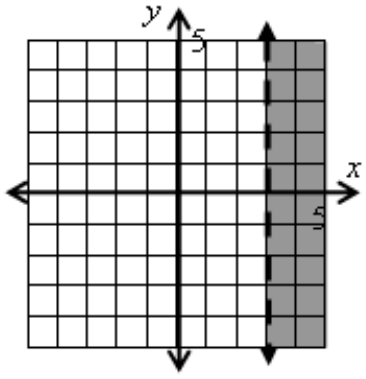
One copy of Pages 2-3 for the key

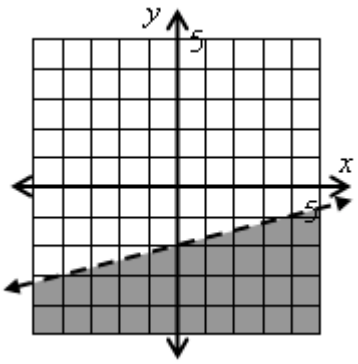
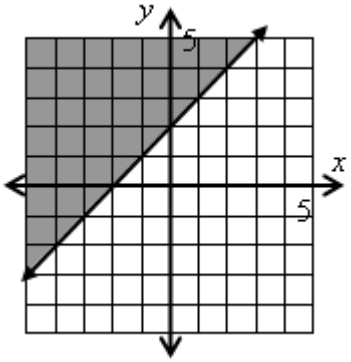
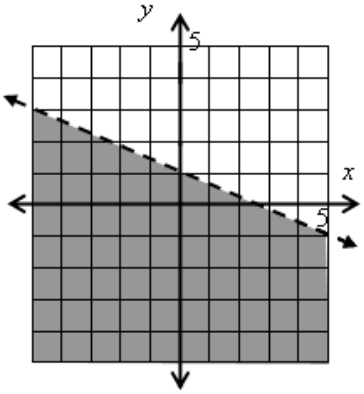
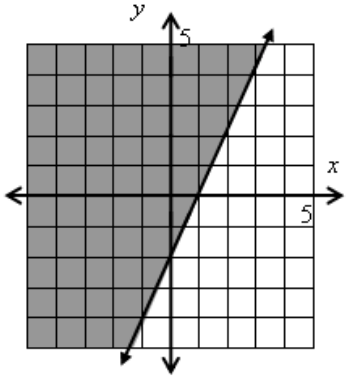
Student record sheets (Pages 4-5), one per student

Cut out the columns of graphs and leave intact. Cut the rest of the sheet into game pieces to match to column of graphs. Binder clip the pieces to the intact columns out of order.

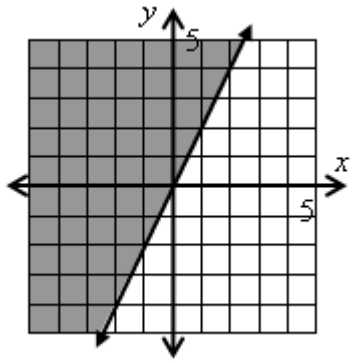
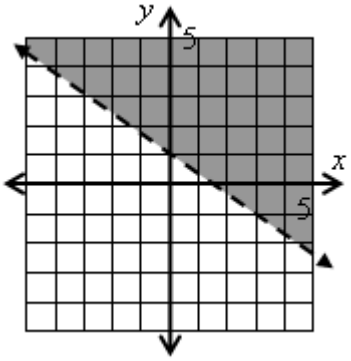
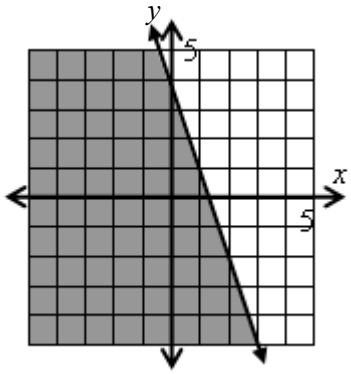
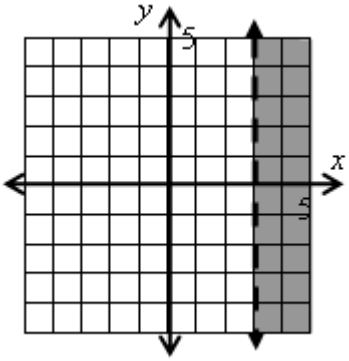
Start by having students sort their game pieces into piles of standard form, slope-intercept form and quick information and discuss the differences between forms. Next, sort the slope-intercept pile into positive and negative slope piles, and group positive slopes greater than one and positive slopes less than one.

After playing one side of the game board, debrief and have students record their work. Repeat for the second side.

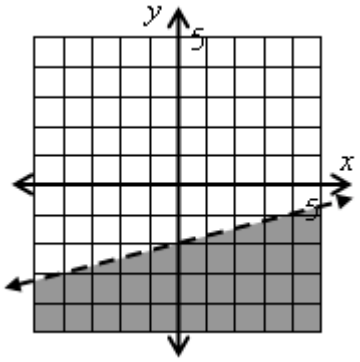
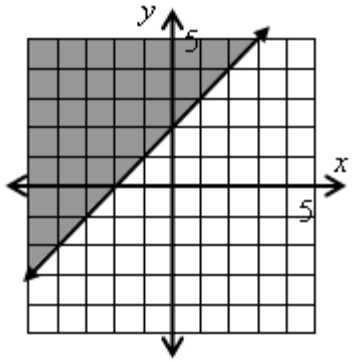
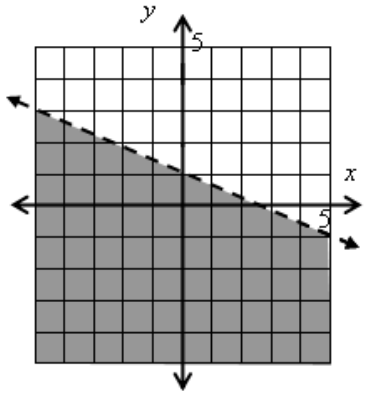
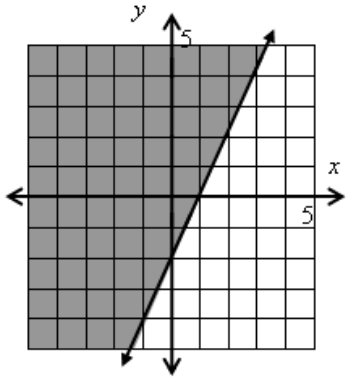
	$-2x+y\geq 0$	$y\geq 2x$	y-intercept: (0,0) slope: 2 shaded up solid boundary line
	$2x+3y>3$	$y>-\frac{2}{3}x+1$	y-intercept: (0,1) slope: $-\frac{2}{3}$ shaded up dotted boundary line
	$3x+y\leq 4$	$y\leq -3x+4$	y-intercept: (0,4) slope: -3 shaded down solid boundary line
	$x+0y>3$	$x>3$	vertical line slope: undefined shaded right dotted boundary line

	$-x+4y<-8$	$y<\frac{1}{4}x-2$	y-intercept: (0,-2) slope: $\frac{1}{4}$ shaded down dotted boundary line
	$-x+y\geq 2$	$y\geq x+2$	y-intercept: (0,2) x-intercept (-2,0) slope: 1 solid boundary line
	$2x+5y<5$	$y<-\frac{2}{5}x+1$	y-intercept: (0,1) slope: $-\frac{2}{5}$ shaded down dotted boundary line
	$-2x+y\geq -2$	$y\geq 2x-2$	y-intercept: (0,-2) x-intercept (1,0) slope: 2 solid boundary line

Name_____Per____

	Inequality in Standard Form	Inequality in Slope-Intercept Form	Quick Information
			
			
			
			

Does the point (0,0) satisfy the inequality $y \leq -3x + 4$? Show your work.

	Inequality in standard form	Inequality in slope-intercept form	Quick Information
			
			
			
			

How do you know when to use a solid or dashed line when graphing an inequality?