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Matching Graphs Games Lines

This is a group activity that works well with groups of three or four. There are 8 of each type of card, each with a different color. One type of card is an equation card. Another type of card has the graph for each equation. Other cards have information that is needed to make the graph, such as the slope. Each group should get a set of cards which they will sort into piles of cards which match to a graph. After the cards have been sorted give each group one blank information sheet to fill in. This makes it easier to check that they have sorted the cards correctly.

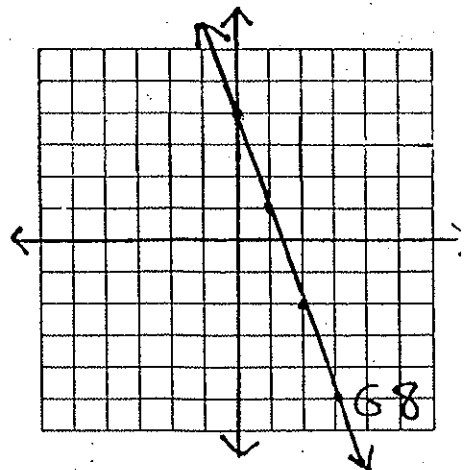
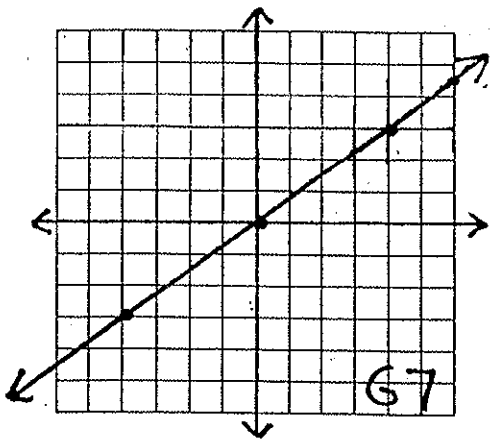
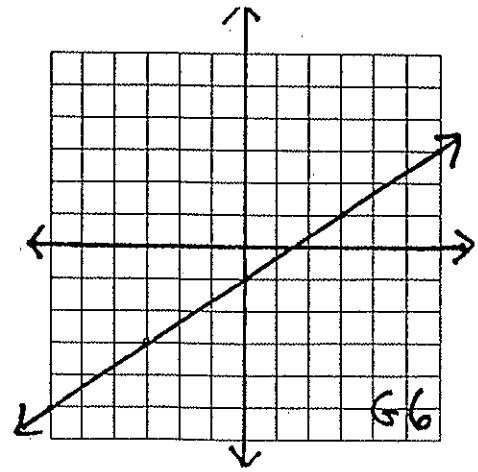
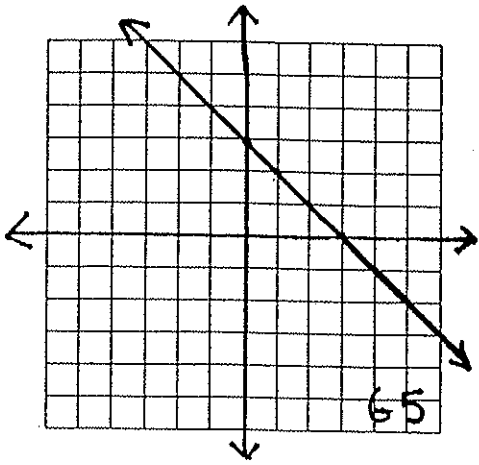
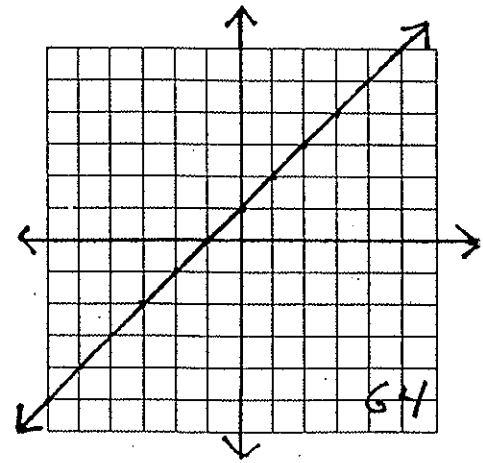
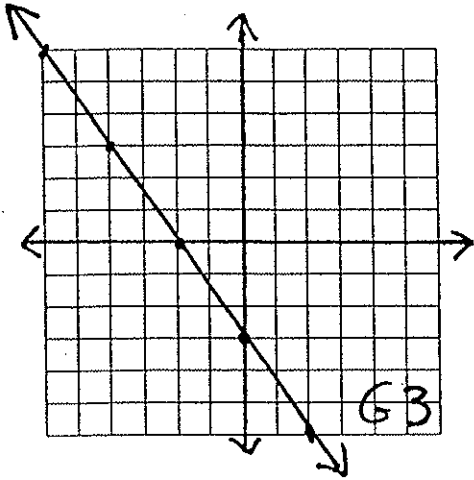
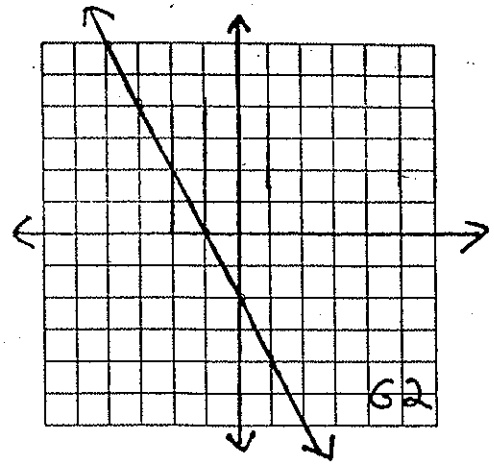
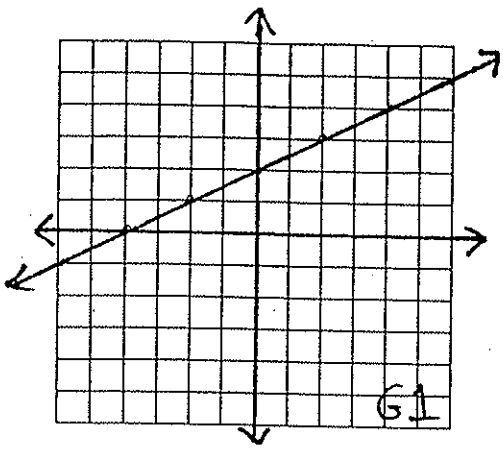
This is a good activity to do to help students see the connection between graphs and equations. I usually do this activity after students have learned how to use the slope and y-intercept to graph a line. This activity can serve as an introduction on how to take a graph and use it to write the equation.

Names _____ Groups Members _____

Graphs	Slope	y-intercept	Slope intercept form	Standard form
G1				
G2				
G3				
G4				
G5				
G6				
G7				
G8				

Names of Groups Members

Graphs	Slope	y-intercept	Slope intercept form	Standard form
G1	$\frac{1}{2}$	2	$y = \frac{1}{2}x + 2$	$-x + 2y = 4$
G2	-2	-2	$y = -2x - 2$	$2x + y = -2$
G3	$-\frac{3}{2}$	-3	$y = -\frac{3}{2}x - 3$	$3x + 2y = -6$
G4	1	1	$y = x + 1$	$x - y = -1$
G5	-1	3	$y = -x + 3$	$x + y = 3$
G6	$\frac{2}{3}$	-1	$y = \frac{2}{3}x - 1$	$2x - 3y = 3$
G7	$\frac{3}{4}$	0	$y = \frac{3}{4}x$	$3x - 4y = 0$
G8	-3	4	$y = -3x + 4$	$3x + y = 4$



$$m = \frac{1}{2}$$

$$m = -2$$

$$m = \frac{-3}{2}$$

$$m = 1$$

$$m = -1$$

$$m = \frac{2}{3}$$

$$m = \frac{3}{4}$$

$$m = -3$$

$$-x + 2y = 4$$

$$2x + y = -2$$

$$3x + 2y = -6$$

$$x - y = -1$$

$$x + y = 3$$

$$2x - 3y = 3$$

$$3x - 4y = 0$$

$$3x + y = 4$$

$$y = \frac{1}{2}x + 2$$

$$y = -2x - 2$$

$$y = \frac{-3}{2}x - 3$$

$$y = x + 1$$

$$y = -x + 3$$

$$y = \frac{2}{3}x - 1$$

$$y = \frac{3}{4}x$$

$$y = -3x + 4$$

y-intercept is
2

y-intercept is
-2

y-intercept is
-3

y-intercept is
1

y-intercept is
3

y-intercept is
-1

y-intercept is
0

y-intercept is
4