Name: Key Classwork Thursday Date: 1/16/14 Period: _____

Using Technology: Systems of Equations

Activity 1

1. Use your graphing calculator to help you complete the table for each equation.

$y = 2x + 2$

X	Y
-6	-10
-3	-4
0	2
3	8
6	14
9	20

$y = x - 4$

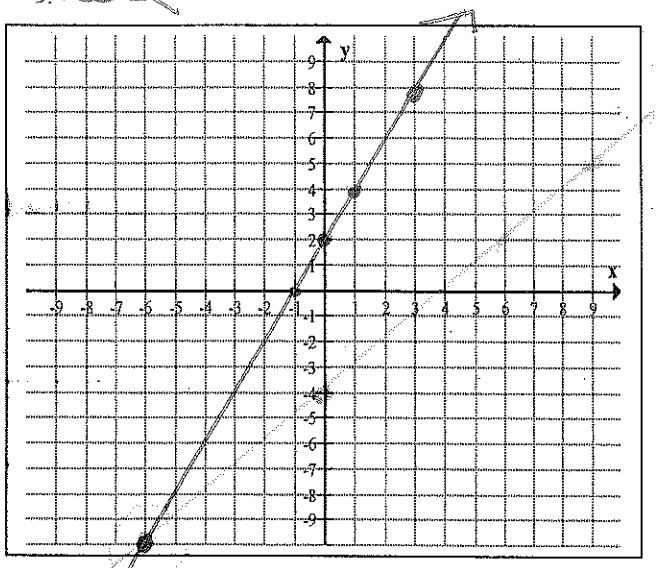
X	Y
-6	-10
-3	-7
0	-4
3	-1
6	2
9	5

y= 2nd table

2. Graph each of the equations on your calculator. Then graph each equation on the coordinate plane below using a different colored pencil for each equation. Label the graphs.

use points above in table

Equation	Color
$y = 2x + 2$	red
$y = x - 4$	green



3. Which best describes the two lines? Intersection, coinciding, or parallel? (circle one)

4. What is the solution to this system? (-6, -10)

Using Technology: Systems of Equations (continued)

Activity 2

5. Use your graphing calculator to help you complete the table for each equation.

$y = -\frac{1}{4}x$ $m = -\frac{1}{4}$ $b = 0$

X	Y
-8	2
-4	1
0	0
4	-1
8	-2
12	-3

$x + 4y = -12$

$-x \quad -x$

$\frac{4y}{4} = \frac{-x}{4} + \frac{12}{4}$

$y = -\frac{1}{4}x + 3$ $m = -\frac{1}{4}$ $b = 3$

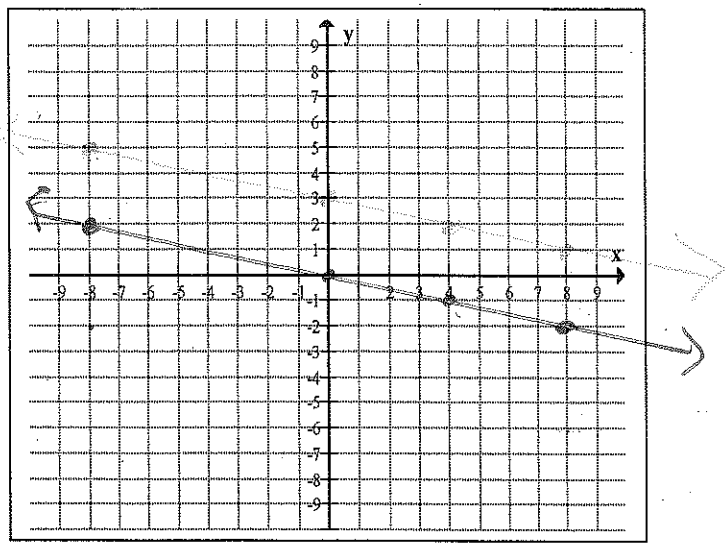
X	Y
-8	5
-4	4
0	3
4	-2
8	1
12	0

★ Parallel ★

6. Graph each of the equations on your calculator. Then graph each equation on the coordinate plane below using a different colored pencil for each equation. Label the graphs.

Use pts above

Equation	Color
$y = -\frac{1}{4}x$	
$x + 4y = -12$	



7. Which best describes the two lines? Intersection, coinciding, or parallel? (circle one)

8. What is the solution to this system? No Solution

Using Technology: Systems of Equations

Activity 3

9. Use your graphing calculator to help you complete the table for each equation.

$-2x+2y=12$

$+2x \quad +2x$

$\frac{2y}{2} = \frac{2x+12}{2}$

$y = x+6$

X	Y
-2	4
-1	5
0	6
1	7
2	8
3	9

$y = x+6$

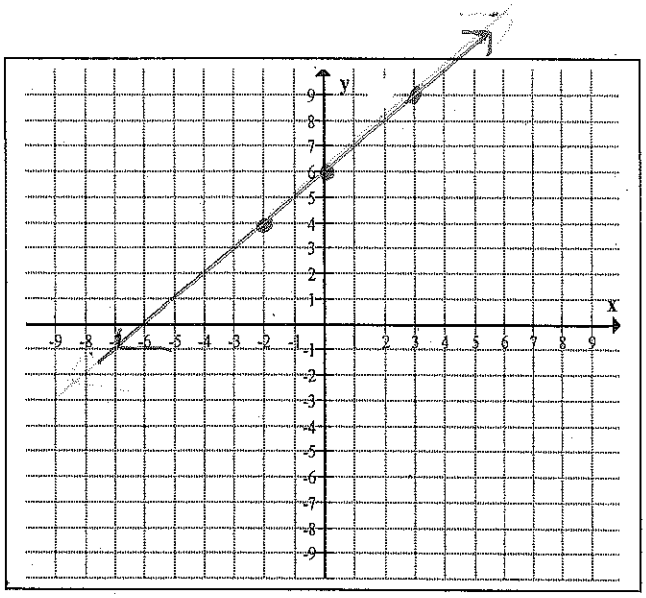
X	Y
-2	4
-1	5
0	6
1	7
2	8
3	9

★ All ordered pairs the same for both

★ same equation

10. Graph each of the equations on your calculator. Then graph each equation on the coordinate plane below using a different colored pencil for each equation. Label the graphs.

Equation	Color
$-2x+2y=12$	
$y=x+6$	



11. Which best describes the two lines? Intersection, coinciding, or parallel? (circle one)

12. What is the solution to this system? Infinitely Many Solutions