

NOTES & HOMEWORK

Name _____

Date _____ Period _____

Rearranging Linear Equations

REVIEW:

In this class, we have used two different formats for linear equations:

Slope-intercept form $\rightarrow y = a + bx$

AND

Standard form $\rightarrow Ax + By = C$

Sometimes you will find that a linear equation will be written with the numbers and variables in a different order. In this worksheet you will practice rearranging the equations so that they are in one of the above forms and then identify the slope and y-intercept for each equation.

Homework:

Rearrange the following equations so that they are in the $y = a + bx$ form. Then identify the slope and y-intercept.

1.) $3x + y = -4$

Slope =

y-intercept =

2.) $x + y = 0$

Slope =

y-intercept =

3.) $x = 3 - 3y$

Slope =

y-intercept =

4.) $4x + 3y = -15$

Slope =

y-intercept =

5.) $4y = 3x + 12$

Slope =

y-intercept =

6.) $x + 2y = -4$

Slope =

y-intercept =

Rearrange the following linear equations in the system and then solve the system by graphing.

System:
 $3x + y = 5$
 $x - y = 7$

Rearrange:
 $3x + y = 5$

Slope =

y-intercept =

Coordinate for y-intercept (0, __)

Rearrange:
 $x - y = 7$

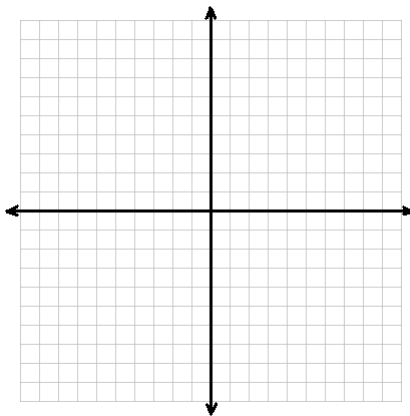
Slope =

y-intercept =

Coordinate for y-intercept (0, __)

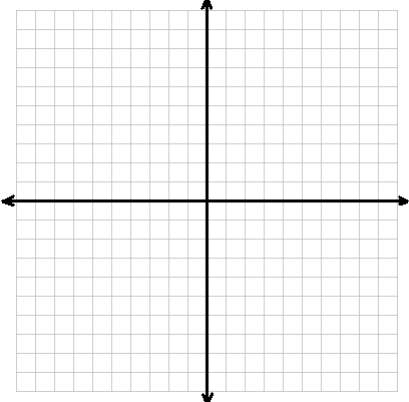
Graph:

Ans: _____

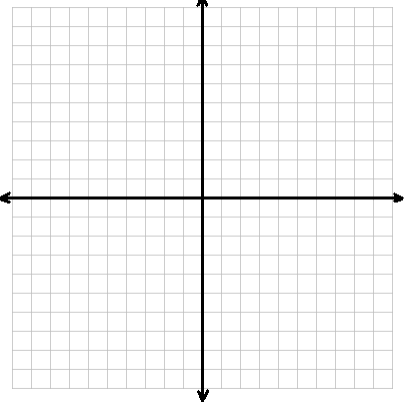


Check:

<p>System: $x + 2y = 3$ $-x = 2y - 3$</p>	<p>Rearrange: $x + 2y = 3$</p> <p>Slope =</p> <p>y-intercept =</p> <p>Coordinate for y-intercept (0, __)</p>	<p>Rearrange: $-x = 2y - 3$</p> <p>Slope =</p> <p>y-intercept =</p> <p>Coordinate for y-intercept (0, __)</p>
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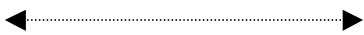
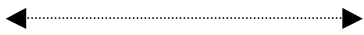
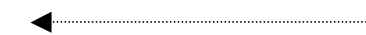
<p>Graph:</p>  <p>Ans: _____</p>	<p>Check:</p>
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<p>System: $y + 5 = \frac{3}{4}x$ $x = 4$</p>	<p>Rearrange: $y + 5 = \frac{3}{4}x$</p> <p>Slope =</p> <p>y-intercept =</p> <p>Coordinate for y-intercept (0, __)</p>	<p>Rearrange: $x = 4$</p> <p>Slope =</p> <p>y-intercept =</p> <p>Coordinate for y-intercept (0, __)</p>
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<p>Graph:</p>  <p>Ans: _____</p>	<p>Check:</p>
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Can you remember? Review from really old stuff:

Solve the equation for the variable.		
1.) $3(2x + 3) = 15$	2.) $2(5t + 4) = 18$	3.) $(2x + 3)5 = 25$
4.) $2(3 + x) = 10$	5.) $-(2x - 1) = 15$	6.) $\frac{1}{2}(x - 2) = 7$

Solve the inequality and then graph on a number line.		
1.) $-8r < 16$	2.) $12 > \frac{d + 44}{12}$	3.) $4k + 15 > -2k + 3$
		
4.) $\frac{2f + 3}{5} < -9$	5.) $-3n + 2 \geq -4n$	6.) $-4x + 1 \leq -x + 19$
