Name _____   Parent Signature: _____

Due: Tuesday 12/13/16
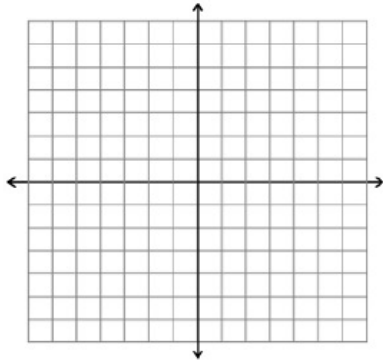
Systems of Equations Review

Graph the following system of equations then write the solution as a coordinate pair.
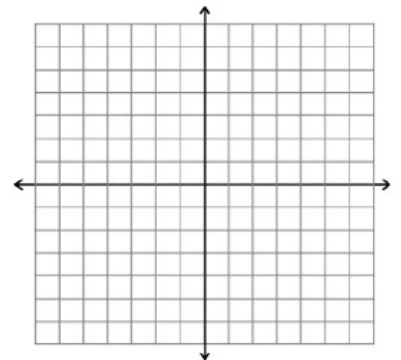
_____1)

$x + y = 3$

$y = \frac{5}{2}x - 4$

_____2)

$-2x + y = -4$

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

3) Match *each* phrase in the first column to the statement in the second column.

_____ a. A system of equations has ONE solution when...

_____ b. A system of equations has NO solution when...

_____ c. A system of equations has INFINITELY MANY solutions when...

i. The slope of each equation is different. The y-intercept may be the same or different.

ii. The slope is the same and the y-intercept is the same

iii. The slope is the same but the y-intercept is different. The lines are parallel.

_____5)   Write the solution to this system of equations as an ordered pair.

$4x - y = 10$
$y = 2x - 2$

_____6)   Write the solution to this system of equations as an ordered pair.

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

_____7)   Write the solution to this system of equations as an ordered pair.

$$6x + 2y = 20$$
$$6x - 5y = -8$$

_____8) Draw a line from each system of linear equations to the correct description of the solution to the system.

| $y = 2x + 7$ $y - 2x = 7$ | | no solution |

| $y + 4x = -5$ $2y = -8x - 20$ | | exactly one solution |

| $y = -\frac{3}{4}x - 2$ $y = \frac{3}{4}x + 1$ | | infinitely many solutions |

_____ 10)   A pair of lines intersects at the point (-3, 4). Which pairs of equations could represent these lines? Mark all that apply.

a. 2x + 3y = 6 y = x - 7	b. 2x + 3y = 6 y = -3x + 4
c. 2x + 3y = 6 $y = -\frac{5}{3}x - 1$	d. 2x + 3y = 6 $y = \frac{4}{3}x + 4$
e. 2x + 3y = 6 y = 2x + 10	e. 2x + 3y = 6 $y = -\frac{2}{3}x + 1$

_____ 11)   What solution(s) does the system of equations have? $y = \frac{2}{5}x + 2$

$$-4x + 10y = 20$$

a. There are infinitely many solutions.
b. The only solution is (5, 4).
c. The only solution is (10,6).
d. There are not any solutions.