Name:_____Number:_____Period:_____Date:_____

Unit 13 Study Guide

Equations:

Solve each for the variable indicated. Show all steps.

1) Solve for y: $6x + 3y = 18$

2) Solve for x: $4x + 1 - 4y = -(2x - 1) + 3y$

Solve each equation for x. Show all steps.

3) $3 + 2(x - 1) = 3x - 4$

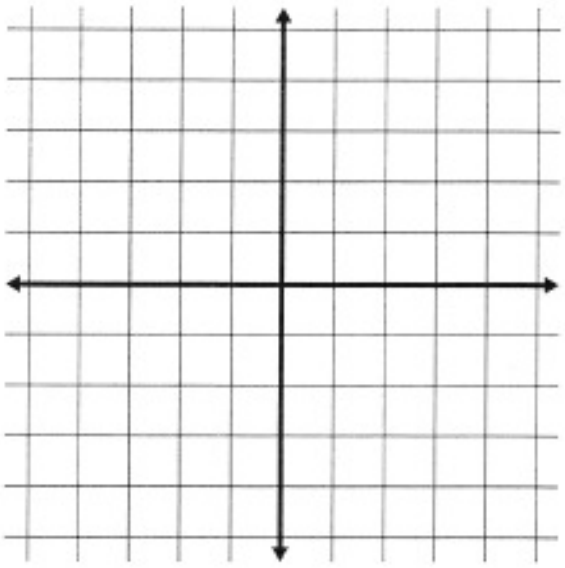
4) $-(2 - 4x) = 2(2x - 1)$

5) $6x + 4 = -6x + 4$

6) $\frac{x}{2} + \frac{x+1}{3} = \frac{5x}{6} + 1$

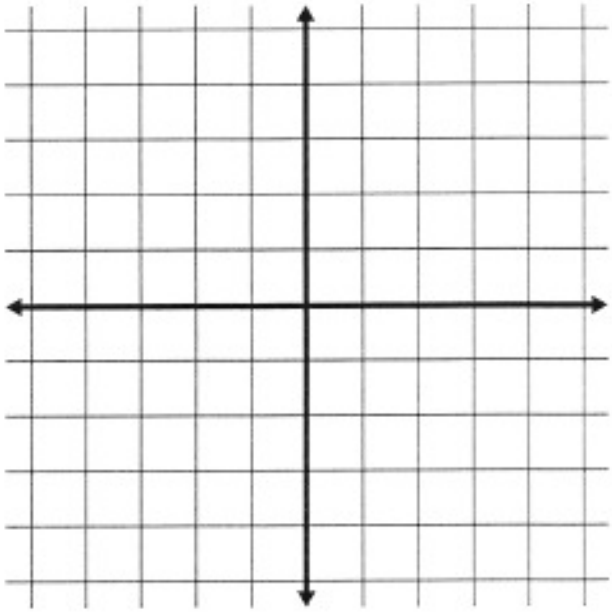
Graphing

7) Graph $y = -x + 2$ below. Find the y and x-intercepts. Give each as a ordered pair.



Systems of Equations

8) Graph $y = 2x - 5$ and $y = -3x + 5$ on the coordinate gride below. What is the point of intersection?



10) Is (2, 5) a solution to the system of equations : $y = 3x - 4$ and $y = x - 3$? Show your work.

11) Solve the system of equations algebraically: $y = 3x + 4$ and $y = 5x - 8$.

Use for 12 – 14.
Two companies offer different rental packages for skis. The first company, Winter Wonders, requires a deposit of $10 and charges $40 per day. The second company, Snow Source, requires a deposit of $40 and charges $30 per day.

12) Write an equation for each company that represents the charges to rent skis.

13) Use any method to find the point of intersection

14) What does the solution or point of intersection mean in terms of this problem?

15) Which company should you choose? Why?