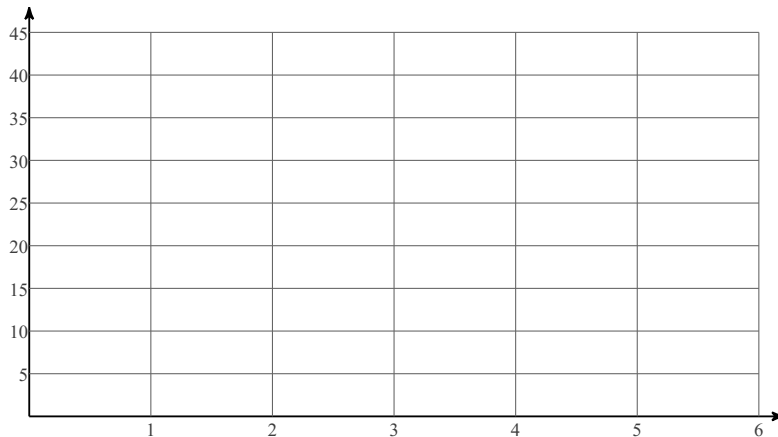


Solving Systems by Graphing - Class Notes Date _____ Period _____

Suppose you have \$20 in your bank account. You start saving \$5 each week. Your friend has \$5 in his account and is saving \$10 each week. Assume neither of you make any withdrawals.

- 1) Write an equation that determines the balance in the account y , each week x for your account.
- 2) Write an equation that determines the balance in the account y , each week x for your friend's account.

3) Label each axis and graph the two equations on the grid below.

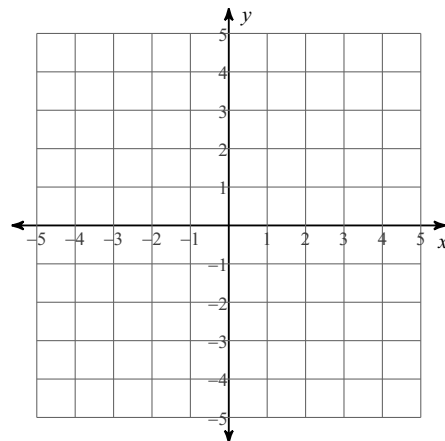
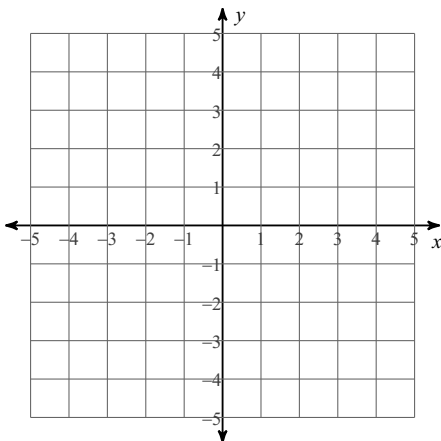


- 4) When will the accounts have the same balance?
- 5) Who will have more money after 2 weeks?
- 6) Who will have more money after 6 weeks?

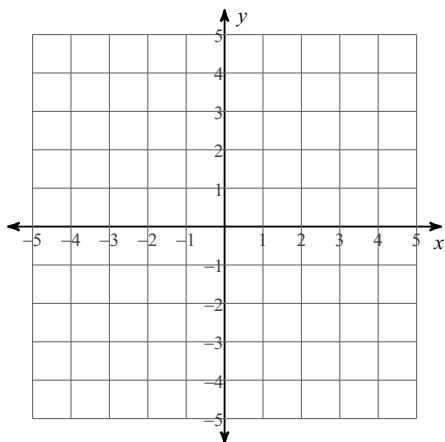
Solve each system by graphing.

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

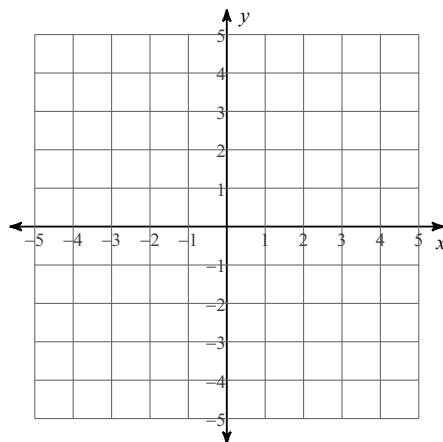
8) $y = -\frac{3}{2}x - 4$
 $x = -4$



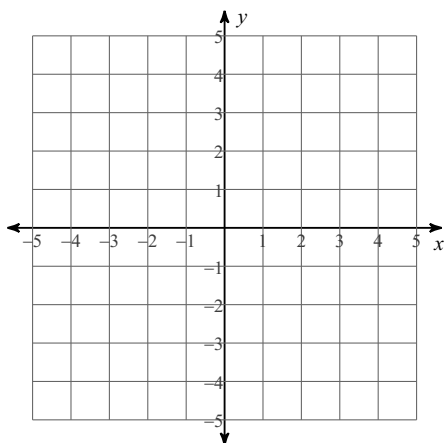
9) $y = 2x - 4$
 $y = 2x + 3$



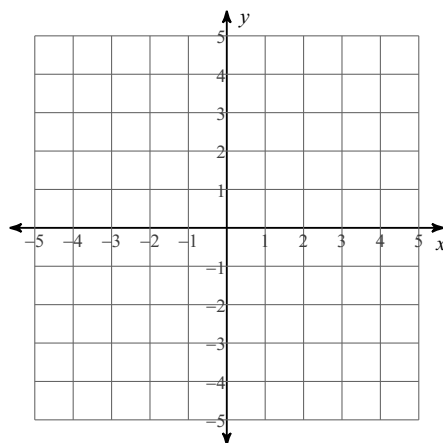
10) $2x + 3y = -6$
 $-4x - 6y = 12$



11) $x + 4y = -12$
 $3x - 4y = -4$



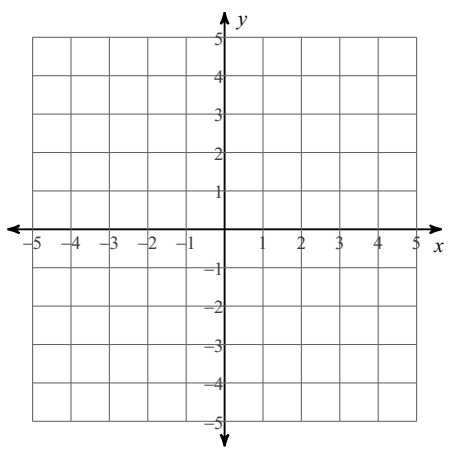
12) $x + y = 4$
 $x + y = -2$



Sketch the solution to each system of inequalities.

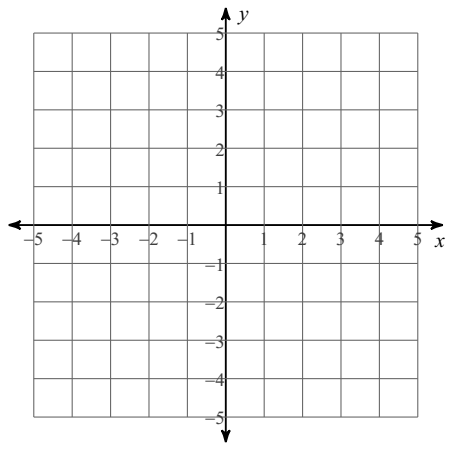
13) $y \geq -\frac{4}{3}x - 3$

$y \leq \frac{1}{3}x + 2$

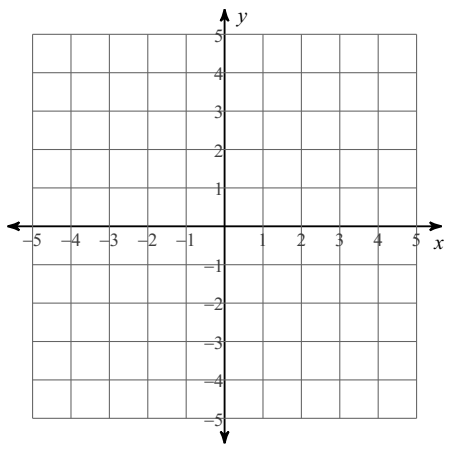


14) $y > -\frac{4}{3}x - 1$

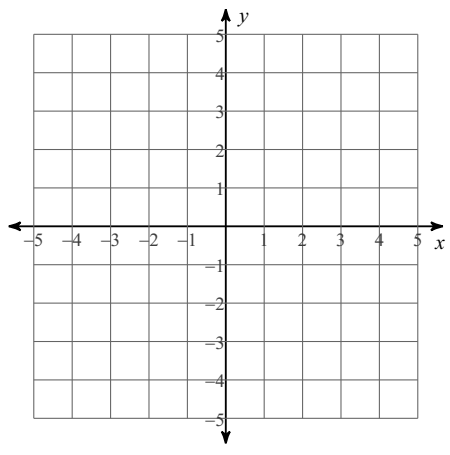
$x \geq -3$



15) $5x + 2y > 4$
 $x + 2y < -4$



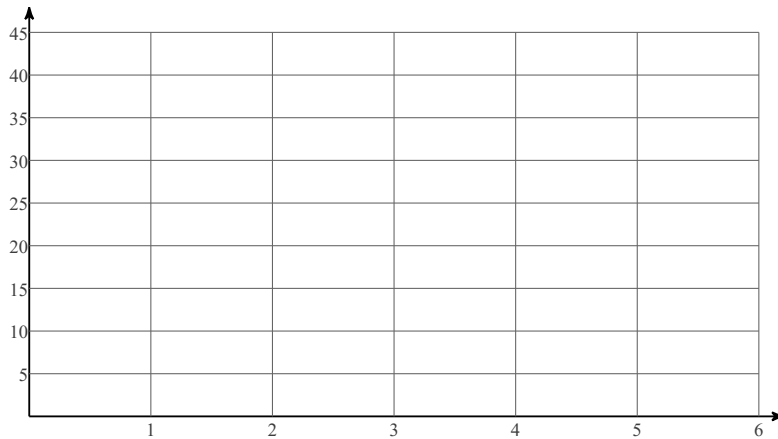
16) $3x - 2y \geq 2$
 $x + 2y < 6$



Solving Systems by Graphing - Class Notes Date _____ Period _____

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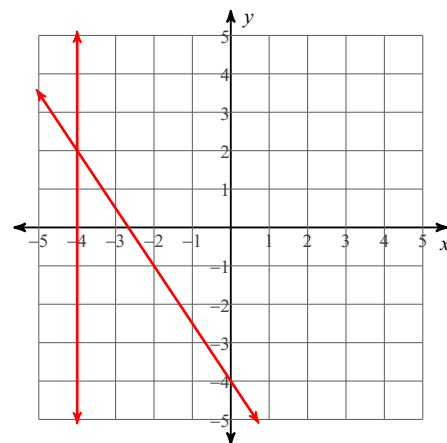
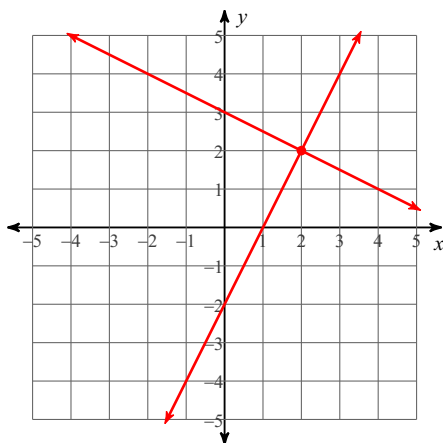


- 4) When will the accounts have the same balance?
- 5) Who will have more money after 2 weeks?
- 6) Who will have more money after 6 weeks?

Solve each system by graphing.

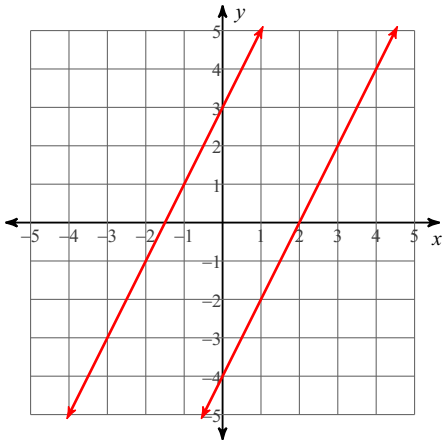
7) $y = 2x - 2$
 $y = -\frac{1}{2}x + 3$

8) $y = -\frac{3}{2}x - 4$
 $x = -4$



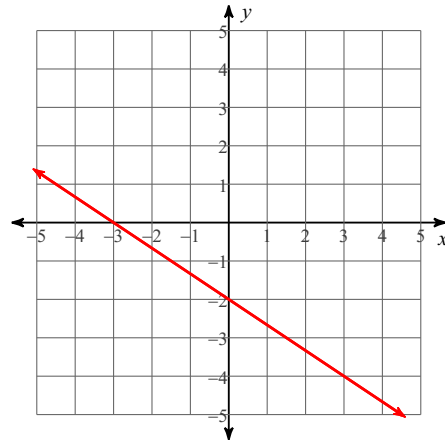
(2, 2)

9) $y = 2x - 4$
 $y = 2x + 3$

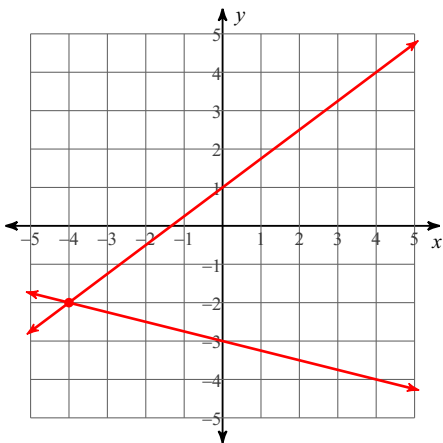


No solution

10) $2x + 3y = -6$
 $-4x - 6y = 12$

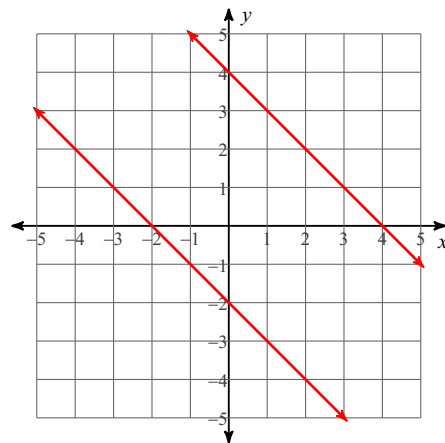


11) $x + 4y = -12$
 $3x - 4y = -4$



$(-4, -2)$

12) $x + y = 4$
 $x + y = -2$

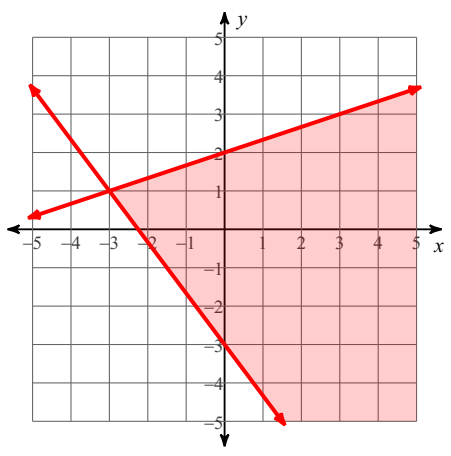


No solution

Sketch the solution to each system of inequalities.

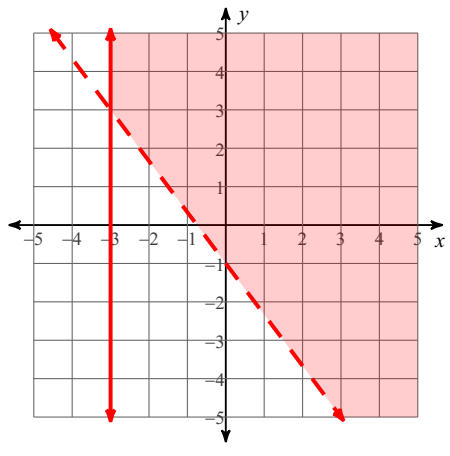
13) $y \geq -\frac{4}{3}x - 3$

$y \leq \frac{1}{3}x + 2$

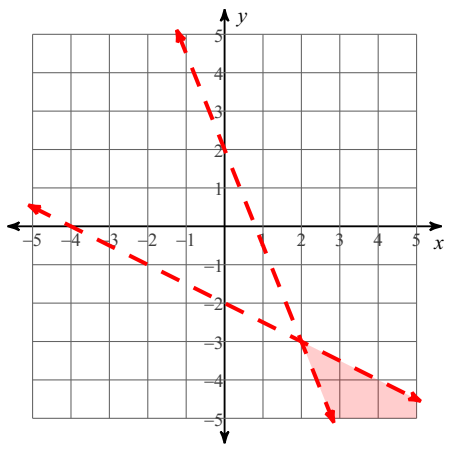


14) $y > -\frac{4}{3}x - 1$

$x \geq -3$



15) $5x + 2y > 4$
 $x + 2y < -4$



16) $3x - 2y \geq 2$
 $x + 2y < 6$

