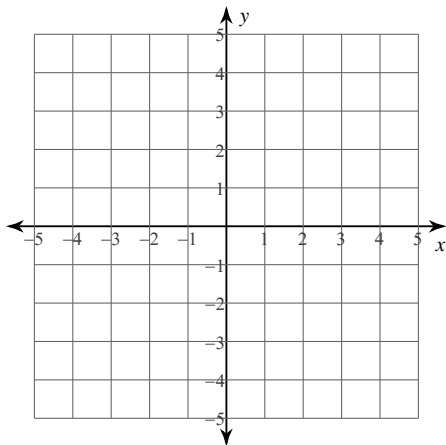


CA Unit 4

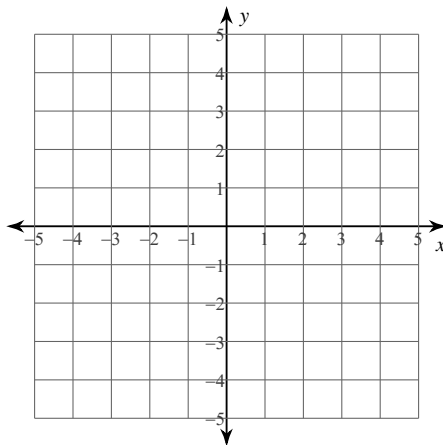
© 2013 Kuta Software LLC. All rights reserved.

Solve each system by graphing.

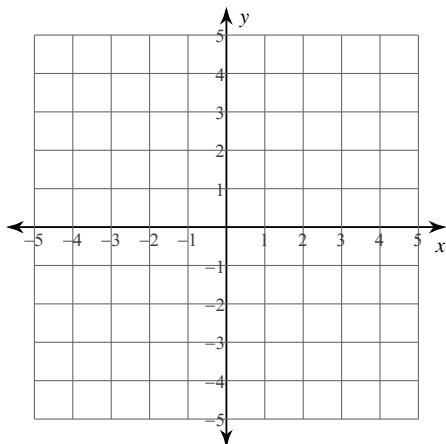
$$1) \begin{aligned} x + 2y &= 4 \\ 2x + y &= -1 \end{aligned}$$



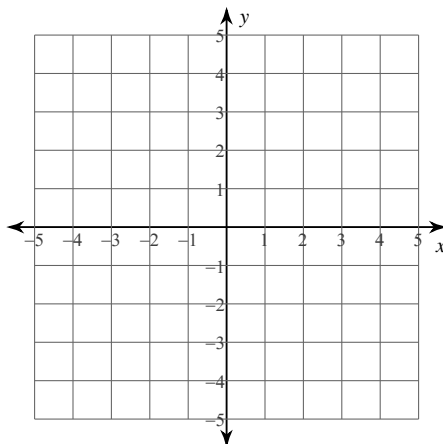
$$2) \begin{aligned} 5x - 2y &= -6 \\ x - 2y &= 2 \end{aligned}$$



$$3) \begin{aligned} x + 2y &= 6 \\ x + 2y &= -6 \end{aligned}$$



$$4) \begin{aligned} x - y &= 3 \\ 7x - y &= -3 \end{aligned}$$

**Solve each system by substitution.**

$$5) \begin{aligned} x + y &= 0 \\ 6x - 3y &= -9 \end{aligned}$$

$$6) \begin{aligned} 4x - 6y &= 10 \\ x - 3y &= -2 \end{aligned}$$

Solve each system by elimination.

7) $-2x + 8y = 12$
 $-2x + 8y = 12$

8) $4x - 4y = 0$
 $-6x + 6y = 6$

Solve using any method.

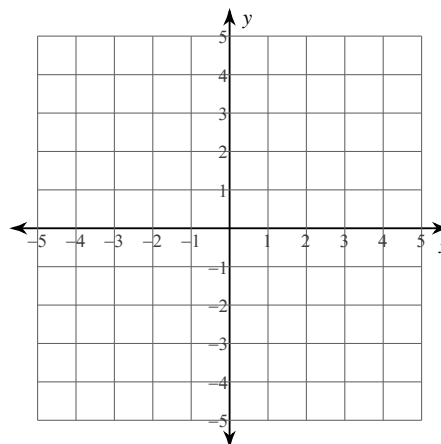
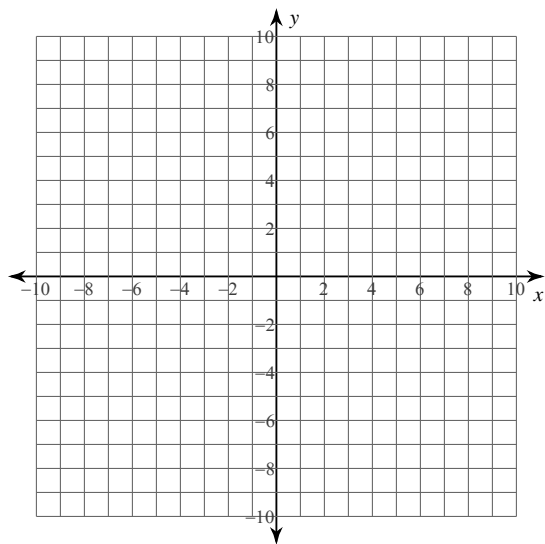
9) $2x + 2y = -4$
 $y - 2 = 3x$

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

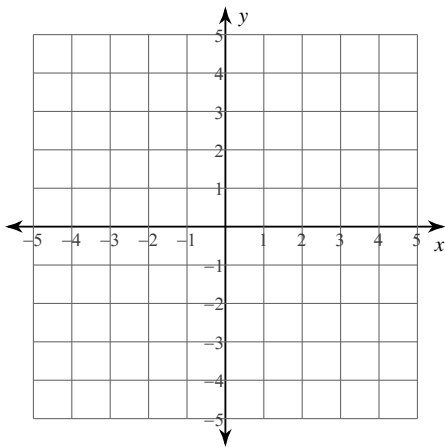
Sketch the solution to each system of inequalities.

11) $x - y \geq -8$
 $4x + 7y > -21$

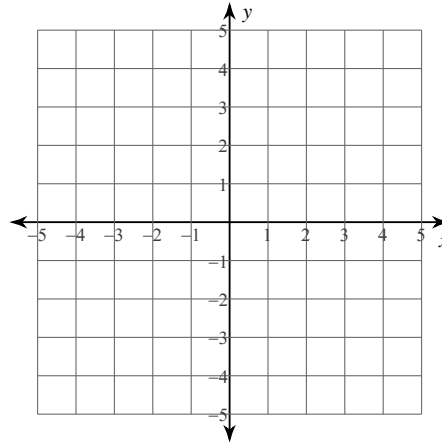
12) $x > -3$
 $y > -\frac{5}{3}x - 2$



13) $2x - y < -1$
 $2x - y \geq 2$



14) $y \geq -\frac{3}{2}x - 1$
 $y \leq 2$



15) Is the point $(0, 2)$ a solution to the system of inequalities in problem #14?

ALGEBRA SKILLZ!		
<p>GRAPH</p> <p>a. $f(2) =$</p> <p>b. y-intercept =</p> <p>c. $f(x) = 1$ when $x =$</p> <p>d. x-intcepts :</p>	<p>SIMPLIFY</p> <p>Simplify the radical</p> <p>a. $\sqrt{150}$</p> <p>b. $4\sqrt{60}$</p>	<p>SOLVE:</p> <p>Solve for x. Hint: Use the LCM!!</p> <p>a. $\frac{5x}{3} + \frac{x}{6} = 44$</p> <p>FACTOR:</p> <p>b. $x^2 - 12 - 28$</p>

Unit 4 Application

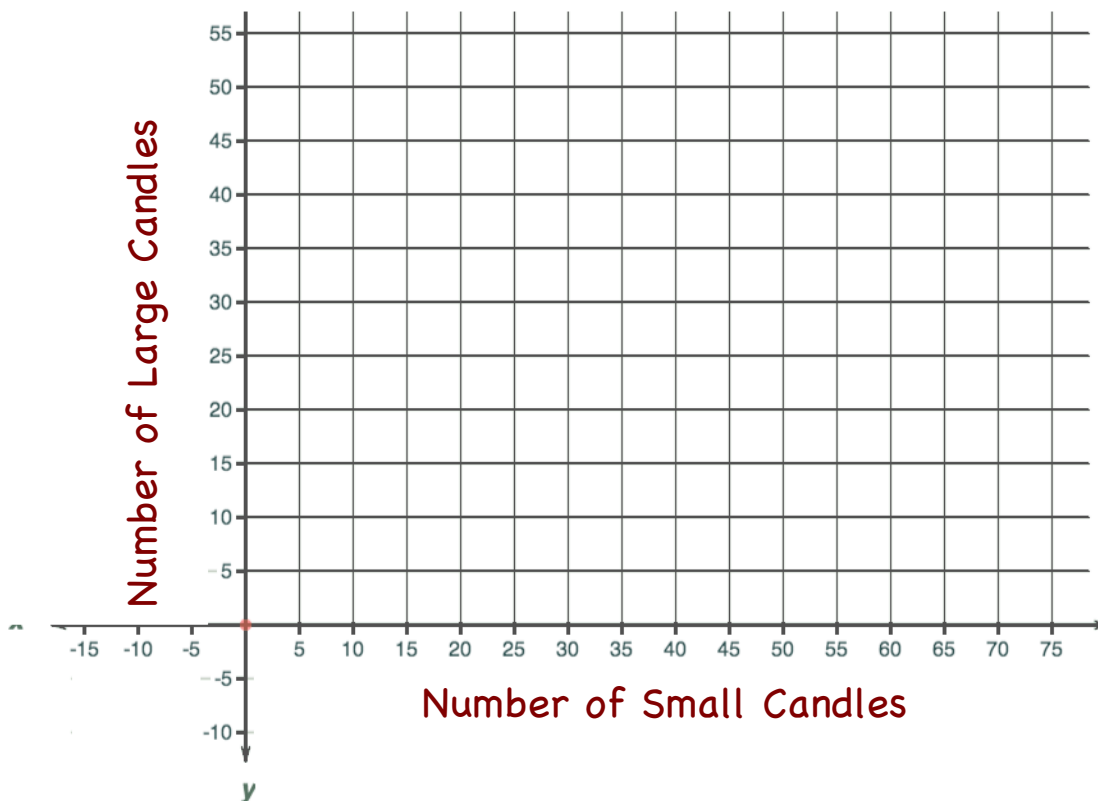
1. Brust loves creating sculptures with candles. In fact, he is going to the store to buy new candles for his new sculpture "Candelbrot Set". Small candles (x) cost \$3 and large candles (y) cost \$4. He needs to buy at least 24 candles, and he cannot spend more than \$200.

a. Write an inequality for each of the following components:

Brust wants to buy at least 24 candles: _____

Brust cannot spend more than \$200 _____

b. Graph your system of inequalities. Use a ruler.



c. Name one point that is a solution to your system of inequalities _____

d. Name one point that is NOT a solution to your system of inequalities _____

2. Bean and Brust each improved their yards by planting rose bushes and shrubs. They bought their supplies from the same store. Bean spent \$82 on 6 rose bushes and 5 shrubs. Brust spent \$116.20 on 2 rose bushes and 16 shrubs. Find the cost of one rose bush and the cost of one shrub.