LC Math I   Name_____

Exam Unit 2 Review   Date_____ Period_____
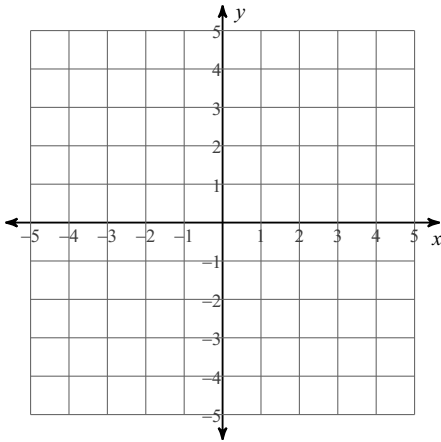
Solve each equation.

1) $\dfrac{n}{6} = \dfrac{n+2}{2}$

2) $\dfrac{2+b}{4} = 5$

Solve each system by graphing.

3) $x + 3y = 6$
   $5x - 3y = 12$

Solve each system by substitution.

4) $-2x - y = 0$
   $8x + 5y = 0$

5) $-24x + 18y = -6$
   $-8x + 6y = 3$

Solve each system by elimination.

6) $5x + 8y = 16$
   $-9x - 7y = 23$

7) $9x + 5y = 15$
   $-2x + 4y = 12$

8) The school that Amanda goes to is selling tickets to a spring musical. On the first day of ticket sales the school sold 8 adult tickets and 10 student tickets for a total of $118. The school took in $43 on the second day by selling 6 adult tickets and 1 student ticket. What is the price each of one adult ticket and one student ticket?
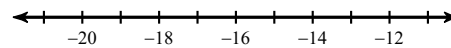
-2-

9) Molly and Heather each improved their yards by planting rose bushes and geraniums. They bought their supplies from the same store. Molly spent $171 on 13 rose bushes and 4 geraniums. Heather spent $117 on 3 rose bushes and 12 geraniums. What is the cost of one rose bush and the cost of one geranium?

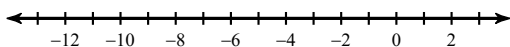**Solve each inequality and graph its solution.**
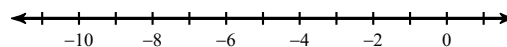
10) $0 > -8 + \dfrac{x}{2}$
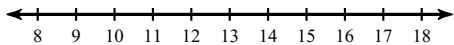
11) $52 \leq -3x + 7$

12) $5k + 5 \geq 0$ or $2k + 3 < -13$
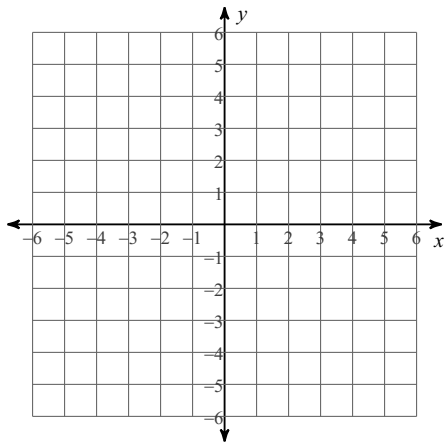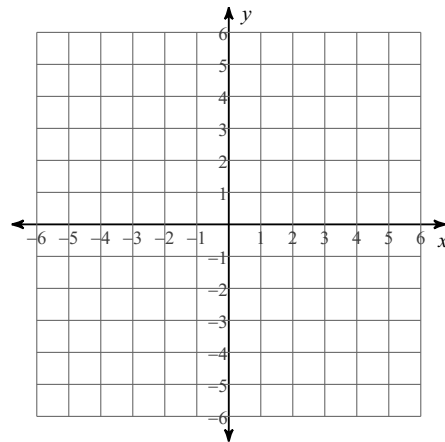

13) $-17 > 4x - 9 \geq -41$

Sketch the graph of each linear inequality.

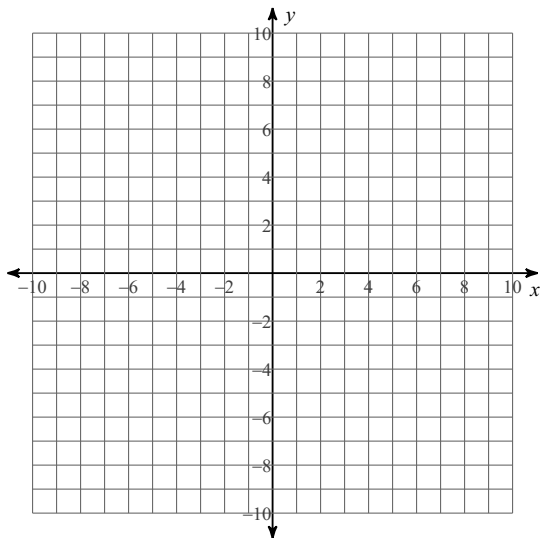14) $7x + 4y < 16$

15) $x + y \leq 4$
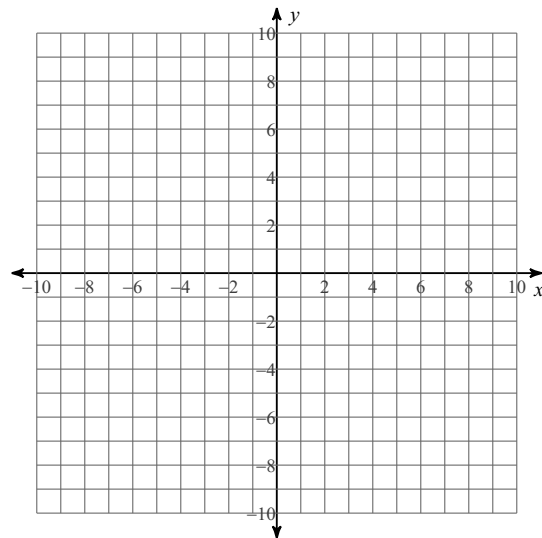

Sketch the solution to each system of inequalities.

16) $x - 2y \geq -8$
    $5x - 3y > 9$

17) $8x + 3y \leq -3$
    $x - 3y \geq -24$

18) Also Review:
    a) How to create/recognize an equation or
    system of equations with no solutions or
    with infinitely many solutions
    b) Inequalities with no solution or with
    "all numbers" as the solution.

-4- Made with Infinite Algebra 1.

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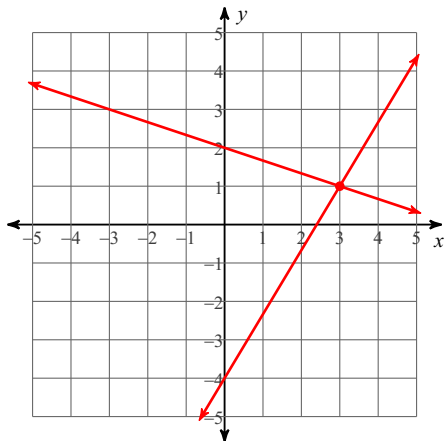
Solve each equation.

1) $\dfrac{n}{6} = \dfrac{n+2}{2}$

$\{-3\}$

2) $\dfrac{2+b}{4} = 5$

$\{18\}$

Solve each system by graphing.

3) $x + 3y = 6$
   $5x - 3y = 12$

$(3, 1)$

Solve each system by substitution.

4) $-2x - y = 0$
   $8x + 5y = 0$

   $(0, 0)$

5) $-24x + 18y = -6$
   $-8x + 6y = 3$

   No solution

Solve each system by elimination.

6) $5x + 8y = 16$
   $-9x - 7y = 23$

   $(-8, 7)$

7) $9x + 5y = 15$
   $-2x + 4y = 12$

   $(0, 3)$

8) The school that Amanda goes to is selling tickets to a spring musical. On the first day of ticket sales the school sold 8 adult tickets and 10 student tickets for a total of $118. The school took in $43 on the second day by selling 6 adult tickets and 1 student ticket. What is the price each of one adult ticket and one student ticket?

   adult ticket: $6, student ticket: $7

9) Molly and Heather each improved their yards by planting rose bushes and geraniums. They bought their supplies from the same store. Molly spent $171 on 13 rose bushes and 4 geraniums. Heather spent $117 on 3 rose bushes and 12 geraniums. What is the cost of one rose bush and the cost of one geranium?
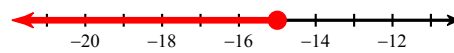
rose bush: $11, geranium: $7

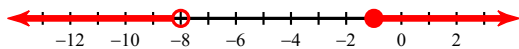**Solve each inequality and graph its solution.**

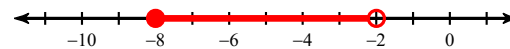10) $0 > -8 + \dfrac{x}{2}$
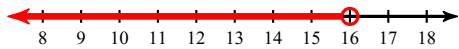
$x < 16$

11) $52 \le -3x + 7$

$x \le -15$

12) $5k + 5 \ge 0$ or $2k + 3 < -13$

$k \ge -1$ or $k < -8$

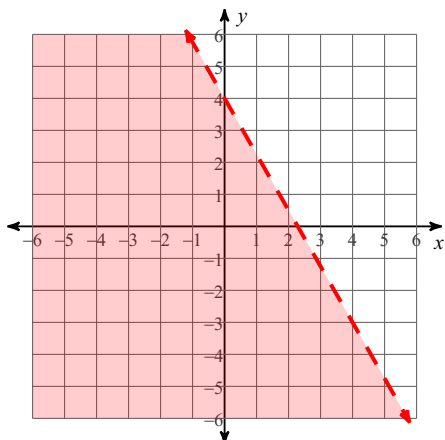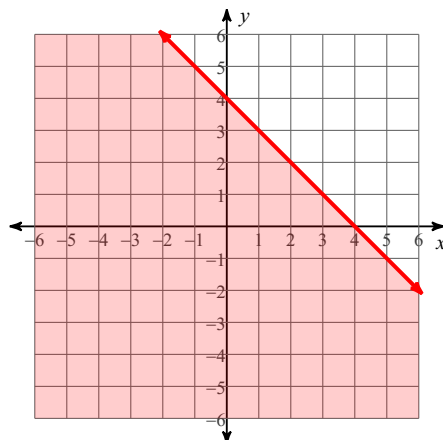13) $-17 > 4x - 9 \ge -41$

$-8 \le x < -2$

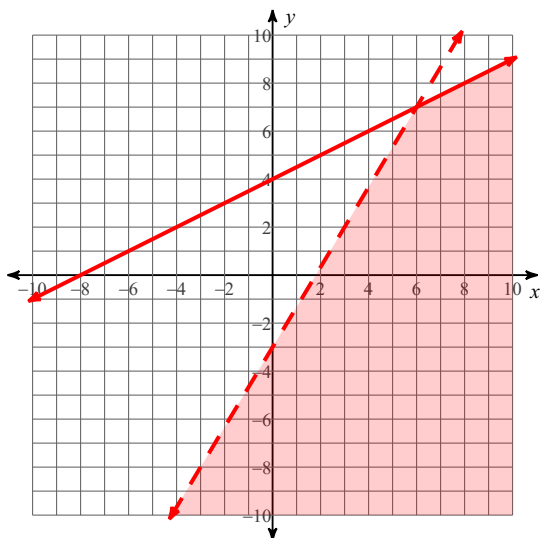**Sketch the graph of each linear inequality.**

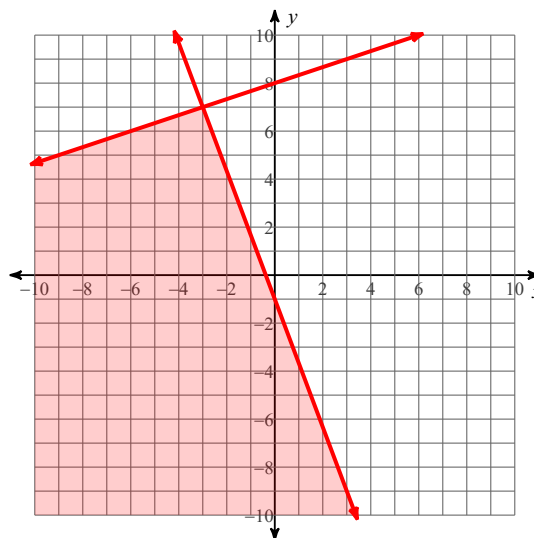14) $7x + 4y < 16$

15) $x + y \leq 4$

Sketch the solution to each system of inequalities.

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