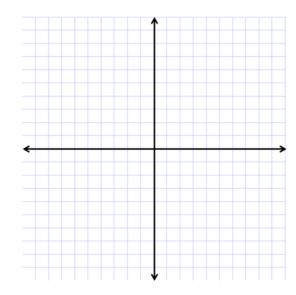
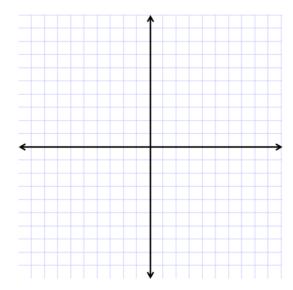
## Quiz 7.1-7.4 Study Guide

Solve by graphing

1. 
$$y = \frac{2}{3}x - 1$$
  
 $y = -x + 4$ 

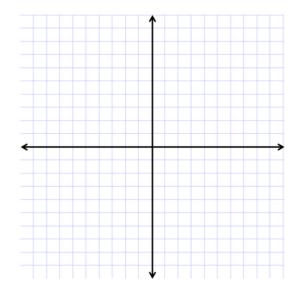
2. 
$$y = x - 1$$
  
 $x + 4y = 16$ 

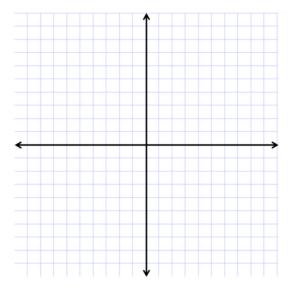




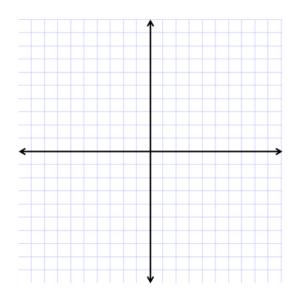
$$3. \quad x - y = 7$$
$$x - y = -4$$

4. 
$$5x + 2y = 4$$
  
 $9x + 2y = 12$ 





5. 
$$x + 2y = 4$$
  
 $y = -\frac{1}{2}x + 2$ 



## **Solve Using Substitution**

$$6. \quad 5x + 4y = 5$$
$$y = 5x$$

$$7. \quad 3x + y = 4 \\
2x - y = 6$$

8. 
$$6m-2n = 7$$
  
 $3m + n = 4$ 

9. 
$$4x + 9y = 24$$
  
 $y = -\frac{1}{3}x + 2$ 

## **Solve Using Elimination**

10. 
$$3x - 4y = 7$$
  
 $2x + 4y = 8$ 

11. 
$$5m + 3n = 22$$
  
 $5m + 6n = 34$ 

12. 
$$-6x + 5y = 4$$
  
 $3x + 4y = 11$ 

13. 
$$7p + 5q = 2$$
  
 $8p - 9q = 17$ 

**Solving system of linear equations word problems**. Write the equations and then solve the system.

14. The difference of two numbers is 3. Their sum is 13. Find the numbers.

15. The school that Stefan goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 3 senior citizen tickets and 1 child ticket for a total of \$38. The school took in \$52 on the second day by selling 3 senior citizen tickets and 2 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.
16. The sum of the digits of a certain two-digit number is 7. Reversing its digits increases the number by 9. What is the number?
17. Kristin spent \$131 on shirts. Fancy shirts cost \$28 and plain shirts cost \$15. If she bought a total of 7 then how many of each kind did she buy?
18. A class of 195 students went on a field trip. They took 7 vehicles, some cars and some buses. Find the number of cars and the number of buses they took if each car holds 5 students and each bus hold 45 students.