Find the solution to each system of equations by graphing.

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

2. 
$$y = 4$$

3. 
$$y = 3x - 3$$

4. 
$$x = -3$$

$$y = 2x + 5$$

$$2x - 5y = 40$$

$$y = -x + 5$$

$$6x + 18y = 36$$

Without graphing determine if each system of equations has ONE, NONE, or MANY solutions.

5. 
$$y = 2x - 6$$

5. 
$$y = 2x - 6$$
 6.  $y = -\frac{1}{4}x + 5$  7.  $y = 3x + 2$ 

7. 
$$y = 3x + 2$$

8. 
$$x = 6$$

$$y = -\frac{1}{2}x + 3$$
  $2x + 8y = 40$   $18x - 6y = 24$   $6x + 2y = 8$ 

$$2x + 8y = 40$$

$$18x - 6y = 24$$

$$6x + 2y = 8$$

Solve each system of equations using substitution.

9. 
$$y = 4x + 3$$

10 
$$y = 3x - 8$$

11. 
$$y = 2x + 5$$

12 
$$x + y = 4$$

$$y = -2x + 15$$

$$7x + 2y = 101$$

$$4x - 3y = -24$$

$$6x - 9y = 24$$

Solve each system of equations using elimination.

13. 
$$4x + 3y = 6$$

14. 
$$7x - 2y = 40$$

15. 
$$9x + 5y = 37$$

16. 
$$10x + 9y = 25$$

17. 
$$6x + 7y = 34$$

$$4x + 8y = -4$$

$$5x + 2y = 32$$

$$x + 2y = 7$$

$$4x - 3y = -23$$

$$4x + 11y = 48$$

18. One day you went to the store and bought 3 shirts and 4 hats for \$96. Another day, when the price of each was the same, you bought 5 shirts and 6 hats for \$150. Write and solve a system of equations to find the cost of a shirt and the cost of a hat.

19. The number of calories I burn per mile when I run is five more than twice the number of calories I burn per mile when I walk. I ran 2 miles and walked 3 miles and burned a total of 430 calories. Write and solve a system of equations to find the number of calories I burn per mile for walking and for running.

Algebra 1 1. (-2,1)

## 2. (3,4)

7. None

18. Shirst are \$12 each and hats are \$15 each.

19. Walking burns 60 cal/mi and running burns 125 cal/mi.

## Sec 6-6 Review Spring 2016

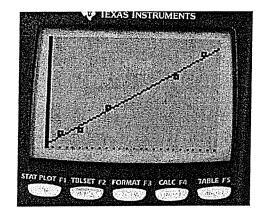
1. Use the table below and a graphing calculator. Round decimals to the nearest hundredth.

# Hours	Gallons of Water
2	225
5	248
9	401
19	611
23	767

- a. Find the equation of the trendline.
- b. Make a scatter plot of this data using the graphing calculator. Graph the line with the scatter plot. Sketch the scatter plot and the trendline.
- c. Predict the number of gallons you will have in 13 hours.
- d. Predict the number of hours it will take to reach 2000 gallons.



- 1. a. y = 25.75x + 151.69
- b. y = 23.73x + 131.6



- c. 486.44 gallons
- d. approximately 71.78 hours