Lesson 3.2 Worksheet

Name: _____

Solve the system using the substitution method.

1.) $2x + 5y = 7$
$x = -4y - 2$

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

3.) $6x - 3y = 15$
$-2x = -y - 5$

solution: _____

solution: _____

solution: _____

Solve the system using the elimination method.

4.) $3x - 4y = -10$
$6x + 3y = -42$

5.) $-4y = 3x - 18$
$6x + 8y = 18$

6.) $7x + 2y = 11$
$-2x = -3y + 29$

solution: _____

solution: _____

solution: _____

Solve the system using any algebraic method.

7.) $2x - 3y = 8$
$-4x + 5y = -10$

8.) $3x + 2 = y$
$5x + 2y = 15$

9.) $4x - 3y = 8$
$6y = 8x + 16$

solution: _____

solution: _____

solution: _____

10.) In one week, a music store sold 9 guitars for a total of $3611. Electric guitars sold for $479 each and acoustic guitars sold for $339 each.

a. Write a system of linear equations that relates the unknowns. Be sure to define your variables. Solve the system using the method of your choice.

b. How many of each type of guitar were sold?

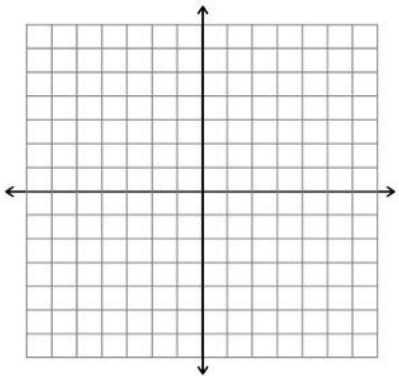
11.) An adult pass for a county fair costs $2 more than a children's pass. When 378 adult and 214 children's passes were sold, the total revenue was $2384.

a. Write a system of linear equations that relates the unknowns. Be sure to define your variables. Solve the system using the method of your choice.

b. How much does an adult ticket cost?

Solve the linear system by graphing (be sure that it is clear to me how you graphed your lines). You must check your solution algebraically. Then classify the system as *consistent and independent*, *consistent and dependent*, or *inconsistent*.

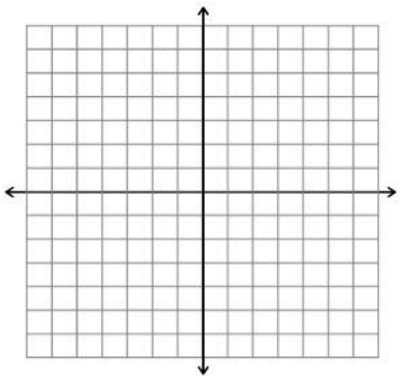
12.) $y = 4x + 3$
$20x - 5y = -15$



solution: _____

classify: _____

13.) $y = -3x - 13$
$-x - 2y = -4$



solution: _____

classify: _____