

Chapter 5
Form F

Choose the correct answer to each problem.

1. Which of the ordered pairs is a solution to the system?

$$-2x - y = -23$$

$$3x + 2y = 1$$

- a. (5, -7) b. (-2, 7) c. (1, -1) d. (1, 1)

2. Which of the ordered pairs is a solution to the system?

$$x - 2y \leq 4$$

$$x - y \geq 6$$

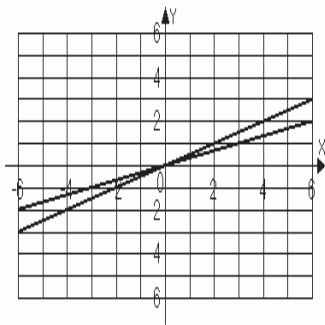
- a. (0, 2) b. (3, 0) c. (20, 8) d. (15, -20)

For problems 3 – 6, solve each system by graphing.

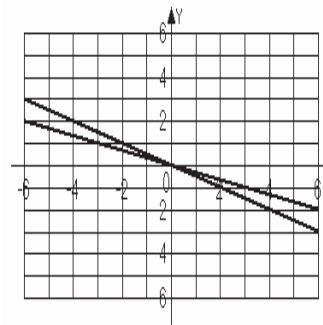
3. $2x - 4y = 0$

$$x + 3y = 0$$

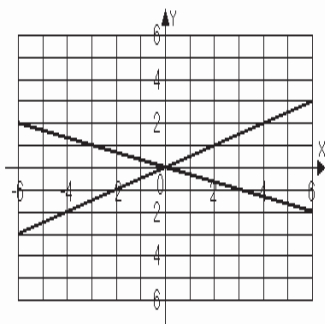
- a. (0, 0)



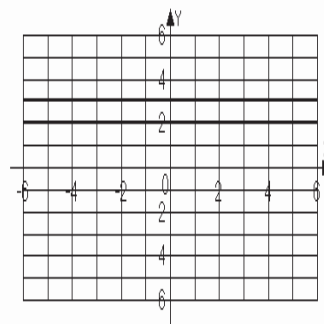
- b. (0, 0)



- c. (0, 0)



- d. No Solution

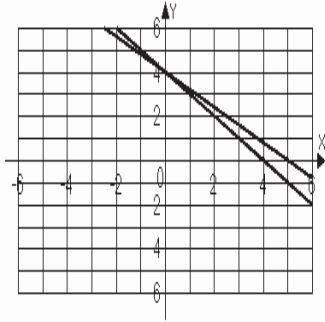


Name _____

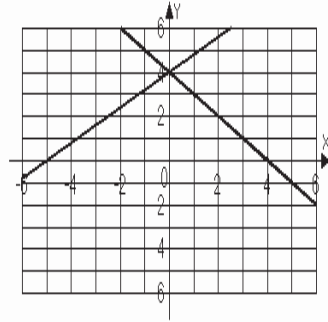
Date _____

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

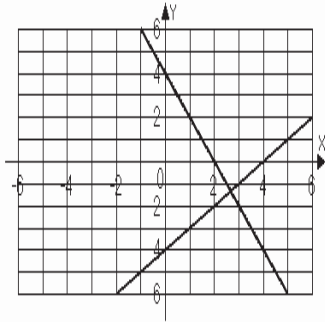
a. $(0, -4)$



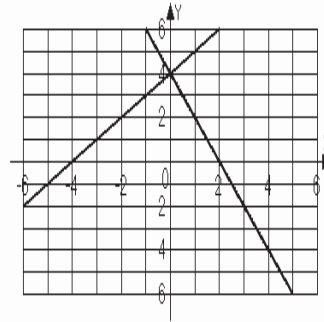
b. $(0, 4)$



c. $(\frac{8}{3}, -\frac{4}{3})$



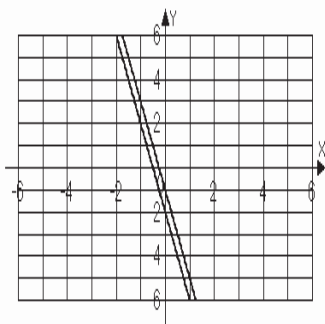
d. $(0, 4)$



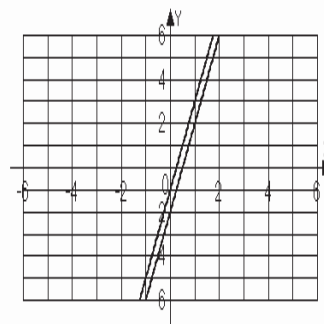
5.

$8x - 2y = 4$
 $4x - y = 2$

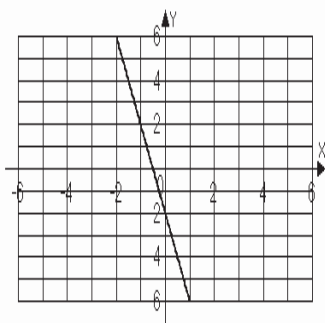
a. No solution



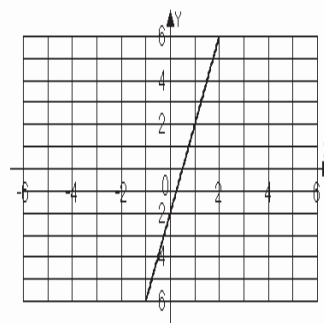
b. No solution



c. Infinite solutions



d. Infinite solutions

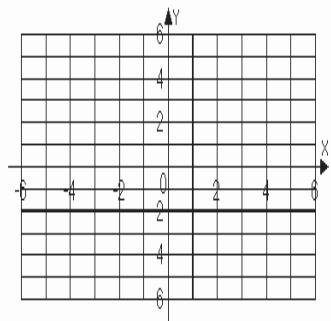


Name _____

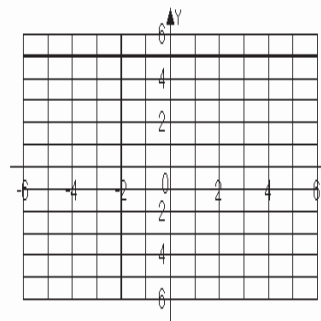
Date _____

6. $y - 2 = 3$
 $x - 4 = -6$

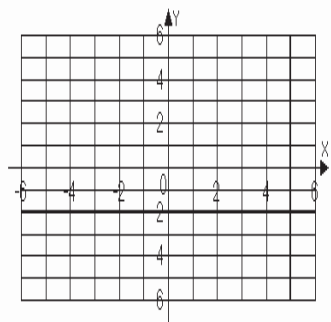
a. $(1, -2)$



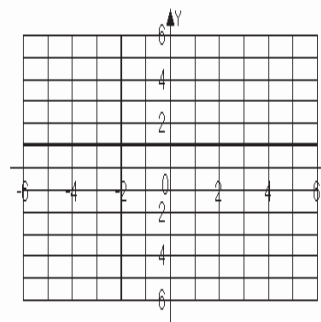
b. $(-2, 5)$



c. $(5, -2)$



d. $(-2, 1)$



7. In order to solve the system with the substitution method, which of the following might be the result of the first step?

$$\begin{aligned} 3x + 3y &= 9 \\ -2x + y &= -12 \end{aligned}$$

a. $3x + 3y = 9$
 $6x - 3y = 36$

b. $x + y = 3$
 $-2x + y = -12$

c. $3x + 3y = 9$
 $y = -2x - 12$

b. $3x + 3y = -9$
 $y = 2x - 12$

8. Solve the system by the substitution method.

$$\begin{aligned} 3x + 3y &= 9 \\ -2x + y &= -12 \end{aligned}$$

a. $(9, -6)$

b. $(-15, 18)$

c. $(5, -2)$

d. $(3, 6)$

Name _____

Date _____

9. In order to solve the system with the elimination method, which of the following might be the result of the first step?

$$-2x + 5y = -24$$

$$3x + y = 2$$

a. $-2x + 5y = -24$
 $-15x - 5y = -10$

b. $-2x + 5y = -24$
 $-15x - 5y = 2$

c. $-2x + 5y = -24$
 $y = -3x + 2$

d. $-2x + 5y = -24$
 $y = 3x + 2$

10. Solve the system by the elimination method.

$$-2x + 5y = -24$$

$$3x + y = 2$$

a. $(2, -4)$

b. $(-4, 2)$

c. $(1, -1)$

d. $(7, 2)$

For problems 11 – 12, solve each system by the substitution method.

11. $y = -x - 3$

$$y = 3x + 1$$

a. $(2, -5)$

b. $(1, -2)$

c. $(-2, -5)$

d. $(-1, -2)$

12. $6x + 3y = 6$

$$x - 2y = -4$$

a. $(1, 0)$

b. $(0, 2)$

c. $(-4, 0)$

d. $(-2, 2)$

For problems 13 – 14, solve each system by the elimination method.

13. $x + y = -1$

$$-2x - 2y = 2$$

a. $(0, -1)$

b. $(3, -4)$

c. Infinite solutions

d. No solution

14. $12x - 10y = 0$

$$3x - 2y = 0$$

a. $(0, 0)$

b. $(2, 3)$

c. Infinite solutions

d. No solution

15. Solve the system by the method of your choice

$$8x + 3y = -4$$

$$3x + 4y = 10$$

a. $(4, -2)$

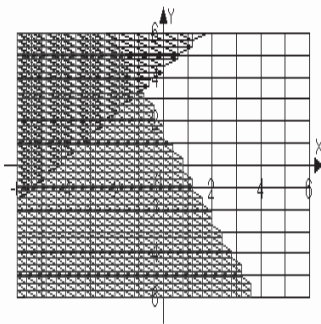
b. $(2, 4)$

c. $(4, 2)$

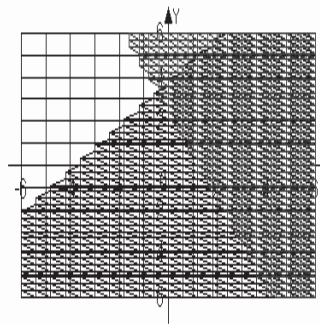
d. $(-2, 4)$

16. The perimeter of a rectangular room is 120 feet. The sum of four times the width and three times the length is 204 feet. Find the length and the width.
- a. 104 feet and 16 feet b. 51 feet and 9 feet
 c. 18 feet and 15 feet d. 36 feet and 24 feet
17. The nationwide weekly demand model for a new economy car is given by $N = -12p + 388,000$. The weekly supply model for the new economy car is $N = 8p + 20,000$. For these models, p is the price of the car and N is the number of cars sold or supplied each week. Find the price at which supply and demand are equal. At this price, how many cars can be supplied and sold each week?
- a. \$92,000 b. \$18,400 c. \$20,400 d. \$19,000
 756,000 cars 167,200 cars 183,200 cars 172,000 cars
18. The sum of a first number and a second number is 281. The second number is equal to 400 decreased by three times the first number. Find the numbers.
- a. 119 and 162 b. 227 and 54 c. 40 and 241 d. 61 and 220
19. Graph $2x + y \leq 3$
 $x - 2y \leq -1$

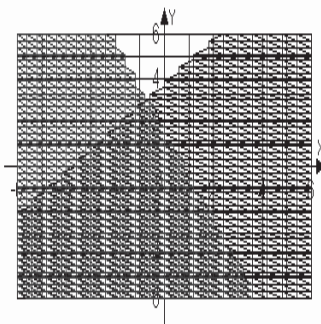
a.



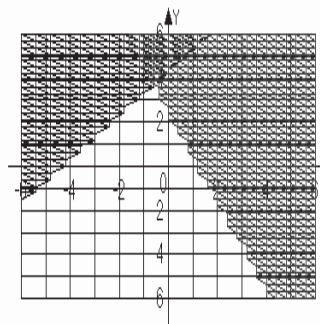
b.



c.



d.



20. Graph $x + y \leq 2$
 $x + y \geq 4$

