

Chapter 5
Form E

Choose the correct answer to each problem.

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

$$2x - 6y = -2$$

$$5x + y = 27$$

- a. $(-4, -1)$ b. $(8, 3)$ c. $(5, 2)$ d. $(4, 7)$

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

$$3x + y > 4$$

$$y < x - 4$$

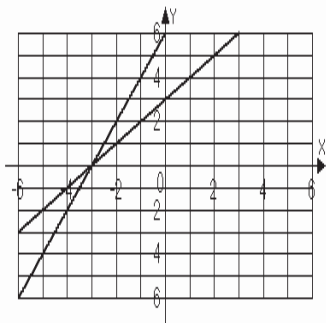
- a. $(1, 1)$ b. $(6, 1)$ c. $(0, 5)$ d. $(1, 8)$

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

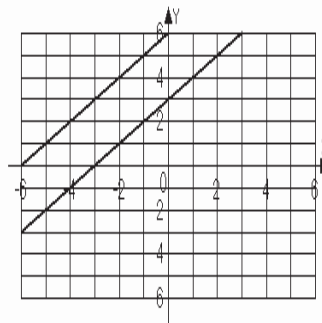
3. $-2x + y = 6$

$$-x + y = 3$$

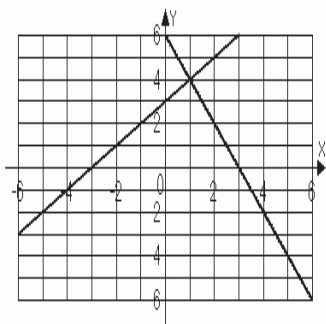
- a. $(-3, 0)$



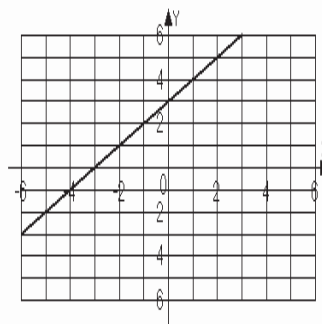
- b. No solution



- c. $(1, 4)$



- d. Infinite solutions

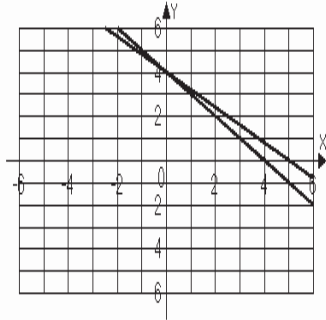


Name _____

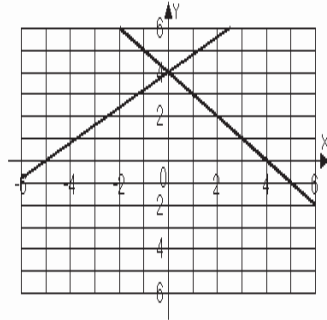
Date _____

4. $-4x + 5y = 20$
 $y = -x + 4$

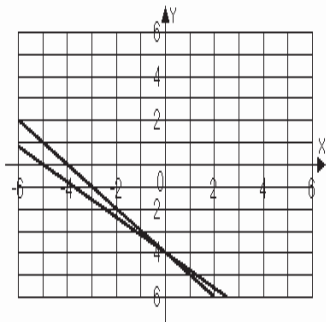
a. $(0, 4)$



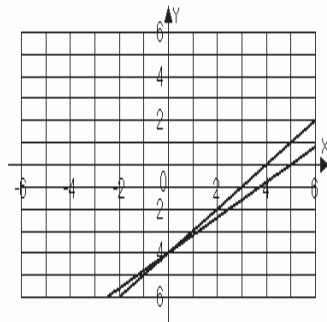
b. $(0, 4)$



c. $(0, -4)$

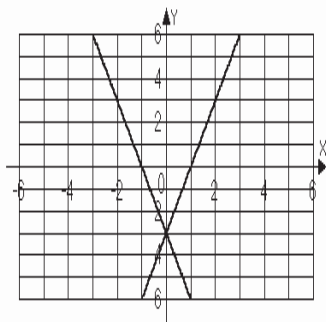


d. $(0, -4)$

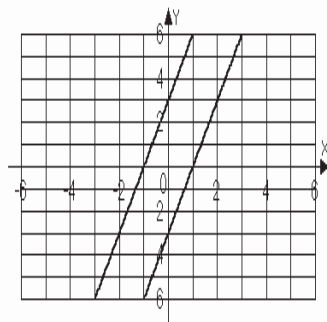


5. $-3x + y = 3$
 $y = 3x - 3$

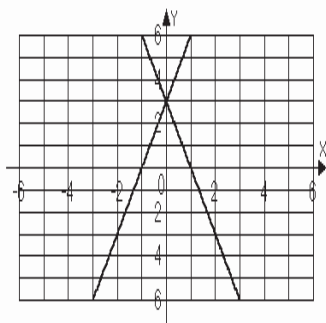
a. $(0, -3)$



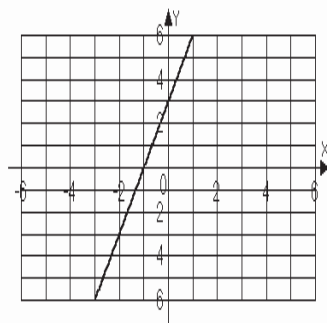
b. No solution



c. $(0, 3)$

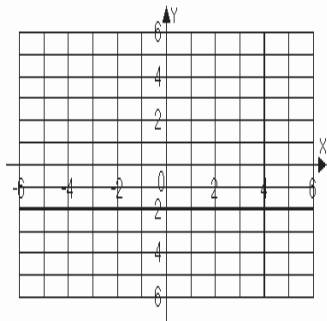


d. Infinite solutions

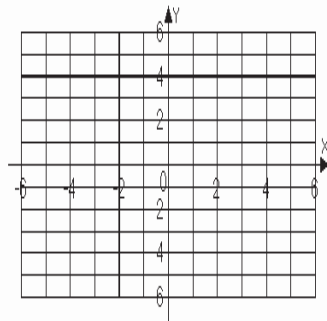


6. $y - 2 = 0$
 $x + 4 = 0$

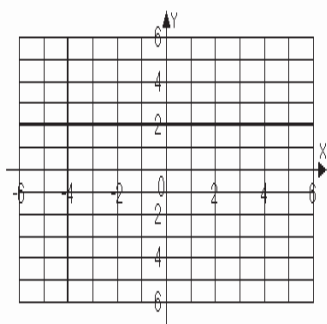
a. $(4, -2)$



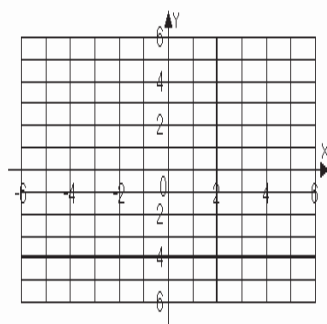
b. $(-2, 4)$



c. $(-4, 2)$



d. $(2, -4)$



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

$$4x + y = 8$$

$$-2x + 2y = 4$$

a. $4x + y = 8$

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

b. $-8x - 2y = -16$

$$-2x + 2y = 4$$

c. $y = 4x + 8$

$$-2x + 2y = 4$$

b. $y = -4x + 8$

$$-2x + 2y = 4$$

8. Solve the system by the substitution method.

$$4x + y = 8$$

$$-2x + 2y = 4$$

a. $\left(\frac{6}{5}, \frac{16}{5}\right)$

b. $(-2, 0)$

c. $(2, 0)$

d. $(0, 8)$

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?

$$11x - 4y = 11$$

$$5x + y = 5$$

- a. $11x - 4y = 11$
 $20x + 4y = 20$
- b. $11x - 4y = 11$
 $20x + 4y = 5$
- c. $11x - 4y = 11$
 $y = -5x + 5$
- d. $11x - 4y = 11$
 $y = 5x + 5$

10. Solve the system by the elimination method.

$$11x - 4y = 11$$

$$5x + y = 5$$

- a. $\left(\frac{16}{31}, \frac{75}{31}\right)$
- b. $(0, 1)$
- c. $(1, 0)$
- d. $\left(-\frac{31}{9}, -\frac{110}{9}\right)$

11. Which system of equations has an infinite number of solutions?

- a. $3x + 4y = 5$
 $3x + 4y = -5$
- b. $3x + 4y = 5$
 $12x + 16y = 20$
- c. $3x + 4y = 5$
 $3x - 4y = 5$
- d. $3x + 4y = 5$
 $5x - 2y = -5$

For problems 12 – 13, solve each system by the substitution method.

12. $x + y = -5$

$$2x - y = -7$$

- a. $(-12, -17)$
- b. $(4, -1)$
- c. $(12, -17)$
- d. $(-4, -1)$

13. $5x - 10y = 10$

$$x = 2y - 4$$

- a. $(0, 2)$
- b. $(2, 0)$
- c. Infinite solutions
- d. No solution

For problems 14 – 15, solve each system by the elimination method.

14. $2x + y = 6$

$$-4x - y = 12$$

- a. $(3, 0)$
- b. $(-9, 24)$
- c. Infinite solutions
- d. No solution

15. $-3x + 6y = 18$

$$x - 2y = -6$$

- a. $(6, 0)$
- b. $(0, 0)$
- c. $(2, 2)$
- d. $(-4, 2)$

16. Solve the system by the method of your choice.

$$2x + 3y = 5$$

$$3x + 2y = -5$$

- a.
- $(-5, 5)$
- b.
- $(5, -5)$
- c.
- $(1, 1)$
- d.
- $(-1, -1)$

For problems 17 – 18, use the following information.

The sum of twice a number and a second number is 124. The difference of the first and second number is 32.

17. What equation correctly represents this information.

a. $2x + y = 124$

$y - x = 32$

b. $2x + y = 124$

$x - y = 32$

c. $x + 2y = 124$

$x - y = 32$

b. $x + 2y = 32$

$x - y = 124$

18. Find the two numbers.

a. $\frac{92}{3}$ and $\frac{188}{3}$

b. 52 and 20

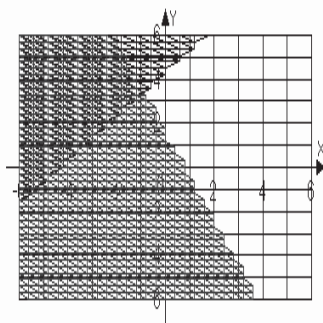
c. 50 and 24

d. $-\frac{188}{3}$ and $-\frac{92}{3}$

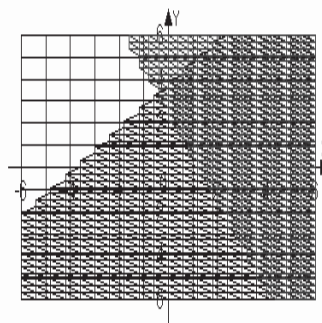
19. Graph
- $y \leq x + 4$

$y \geq -2x + 2$

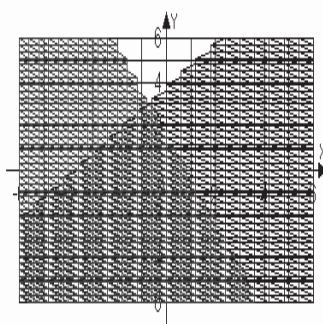
a.



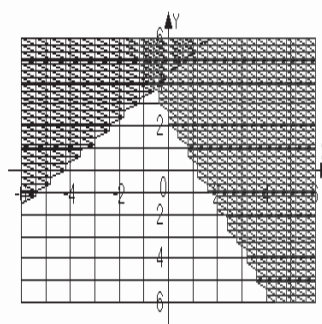
b.



c.



d.



20. Graph $x > -2$
 $y > 4$

