

Chapter 5 Form D

Choose the correct answer to each problem.

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

$$3x - 7y = 20$$

$$4x + 5y = -2$$

- a. $(-8, 6)$ b. $(2, -2)$ c. $(9, 1)$ d. $(16, 4)$

2. Which of the ordered pairs is not a solution to the system?

$$x - y \geq 1$$

$$y < x + 2$$

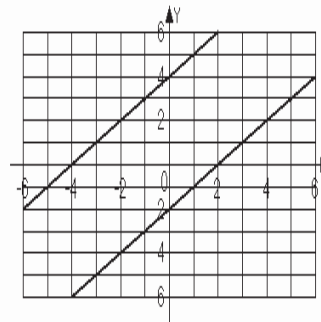
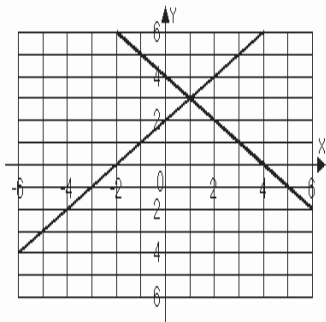
- a. $(1, 1)$ b. $(2, -2)$ c. $(3, 2)$ d. $(16, 4)$

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

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

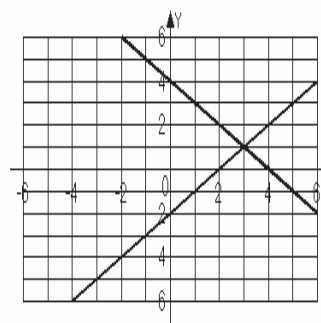
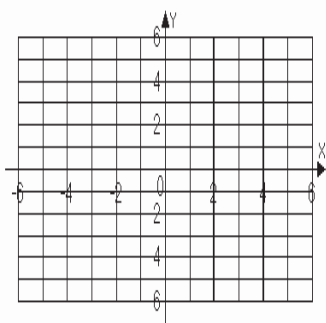
- a. $(1, 3)$

- b. No solution



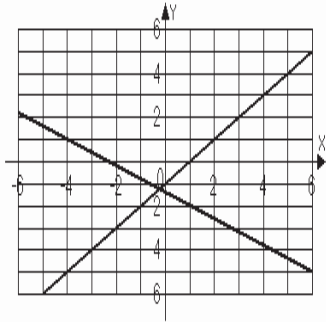
- c. No solution

- d. $(3, 1)$



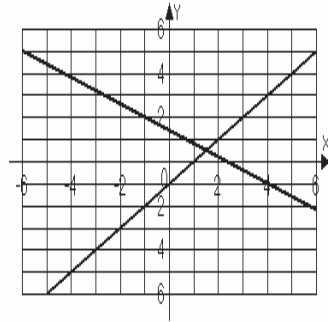
4. $3x - 5y = 7$
 $y = x - 1$

a. $\left(-\frac{1}{4}, -\frac{1}{4}\right)$

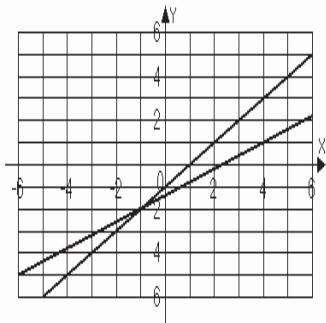


c. $(-1, -2)$

b. $\left(\frac{3}{2}, \frac{1}{2}\right)$

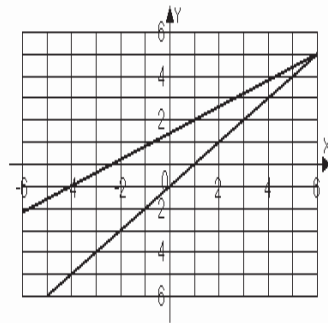


d. $(6, 5)$

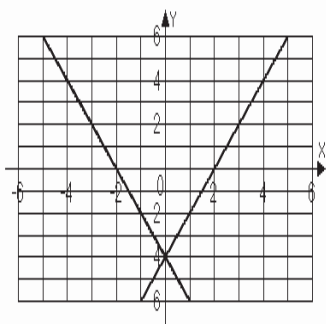


5. $-8x + 4y = 16$
 $y = 2x + 4$

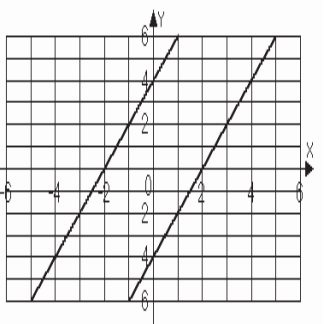
a. $(0, -4)$



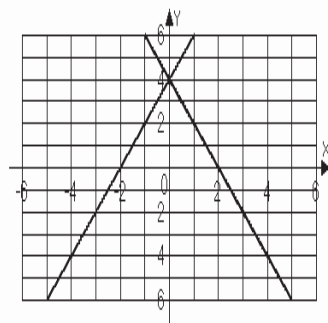
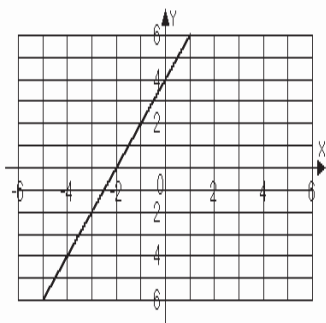
b. No solution



c. Infinite solutions

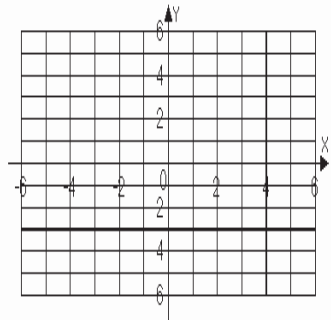


d. $(0, 4)$

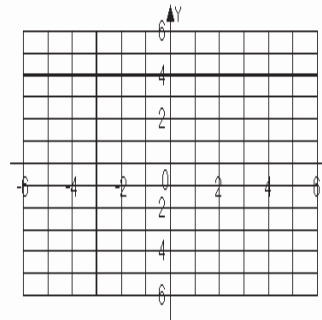


6. $y - 4 = 0$
 $x + 3 = 0$

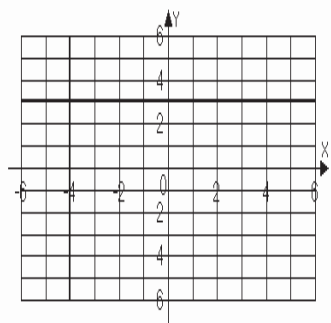
a. $(4, -3)$



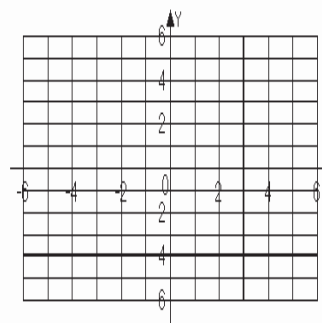
b. $(-3, 4)$



c. $(-4, 3)$



d. $(3, -4)$



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

$$x - 4y = -5$$

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

a. $2x - 8y = -5$
 $-2x + 3y = 5$

b. $2x - 8y = -10$
 $-2x + 3y = 5$

c. $x = 4y - 5$
 $-2x + 3y = 5$

b. $x = -4y - 5$
 $-2x + 3y = 5$

8. Solve the system by the substitution method.

$$x - 4y = -5$$

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

a. $(0, 0)$

b. $(-1, 1)$

c. $(1, -1)$

d. No solution

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

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

$$3x + y = -7$$

a. $4x - 2y = -6$
 $6x + 2y = -14$

b. $4x - 2y = -6$
 $6x + 2y = -7$

c. $4x - 2y = -6$
 $y = -3x - 7$

d. $4x - 2y = -6$
 $y = 3x - 7$

10. Solve the system by the elimination method.

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

$$3x + y = -7$$

a. $(2, 1)$

b. $(-2, 1)$

c. $(-2, -1)$

d. $(-1, -3)$

11. Which system of equations has no solution?

a. $x - 2y = 0$
 $x + 2y = 0$

b. $x - 2y = 0$
 $5x + 2y = 4$

c. $x - 2y = 0$
 $x - 2y = 4$

b. $x - 2y = 0$
 $4x - 8y = 0$

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

a. $x - 2y = 0$
 $x + 2y = 0$

b. $x - 2y = 0$
 $5x + 2y = 4$

c. $x - 2y = 0$
 $x - 2y = 4$

b. $x - 2y = 0$
 $4x - 8y = 0$

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

13. $5x - y = 1$
 $-2x + 3y = 10$

a. $(1, 4)$

b. $(-1, -6)$

c. $\left(\frac{7}{15}, \frac{10}{3}\right)$

d. $\left(\frac{11}{13}, \frac{42}{13}\right)$

14. $8x - 6y = 4$
 $x = \frac{3}{4}y + \frac{1}{2}$

a. $(0, 0)$

b. $\left(\frac{1}{2}, 0\right)$

c. Infinite solutions

d. No solution

For problems 15 – 16, solve each system by the elimination method.

15. $x + y = 6$
 $2x - y = 6$
 a. (4, 2) b. (2, 4) c. Infinite solutions d. No solution

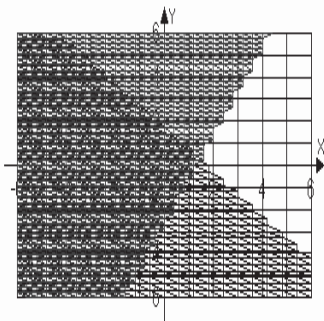
16. $-3x + 6y = 18$
 $x - 2y = -6$
 a. (0, 3) b. (2, 4) c. Infinite solutions d. No solution

17. Solve the system by the method of your choice.
 $5x + 3y = 15$
 $2x - 4y = 6$
 a. (-3, 0) b. (0, 3) c. (0, -3) d. (3, 0)

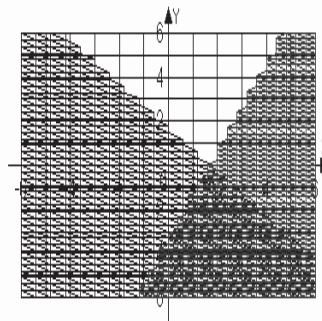
18. You want to buy T-shirts and shorts. T-shirts cost 10 dollars each and shorts cost 15 dollars each. If you have 90 dollars to buy a total of 8 T-shirts and shorts, how many of each can you buy?
 a. 3 T-shirts, 5 shorts b. 6 T-shirts, 2 shorts
 c. 5 T-shirts, 3 shorts d. 2 T-shirts, 6 shorts

19. Graph $y \leq 2x - 3$
 $y \leq -x + 2$

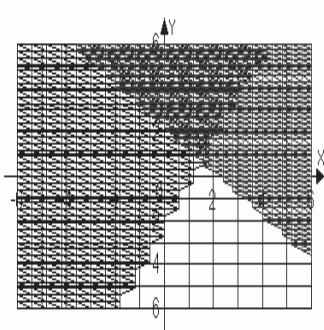
a.



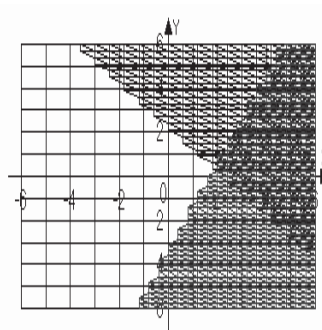
b.



c.



d.



20. Graph $x \leq 3$
 $y \leq 2$

