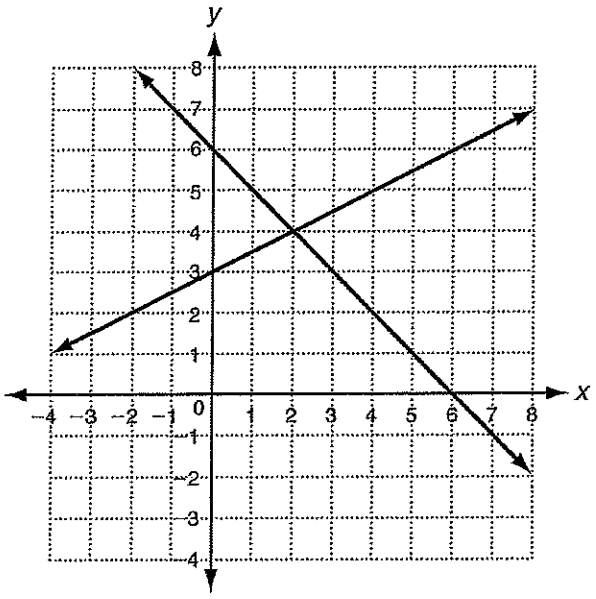
Algebra 1B - Chapter 5 Test Review

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Which ordered pair is a solution of $\begin{cases} x - y = -3 \\ 2x + y = 0 \end{cases}$?

a. $(-3, 0)$
b. $(-1, 2)$
c. $(0, 0)$
d. $(1, 4)$

____ 2. The graph of a system of linear equations is shown below. What is the solution of the system?



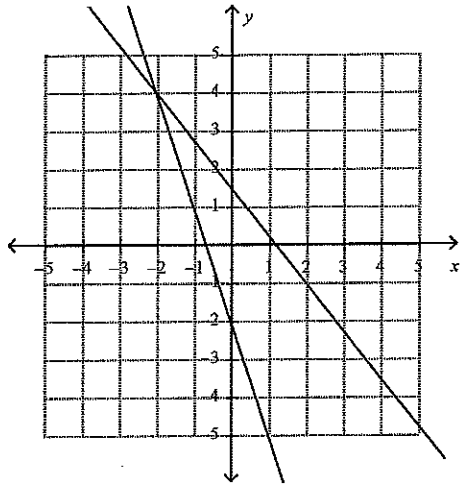
a. $(0, 3)$
b. $(0, 6)$
c. $(2, 4)$
d. $(6, 0)$

____ 3. Which ordered pair is a solution of $\begin{cases} y = 0.5x + 2 \\ -y = 3 - x \end{cases}$?

a. $(6, 5)$
b. $(10, 7)$
c. $(11, 8)$
d. $(17, 14)$

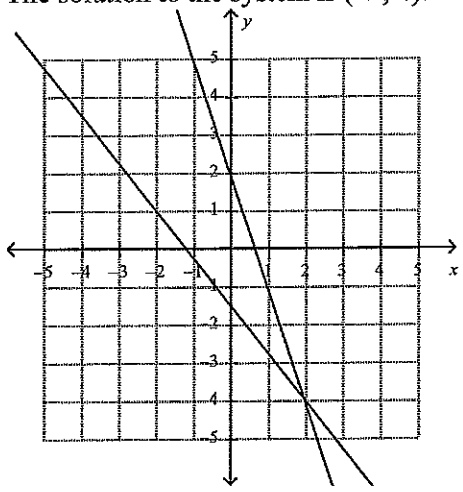
____ 4. Use a graph to solve the system $\begin{cases} -5x+4y=6 \\ 3x-y=2 \end{cases}$.

a.



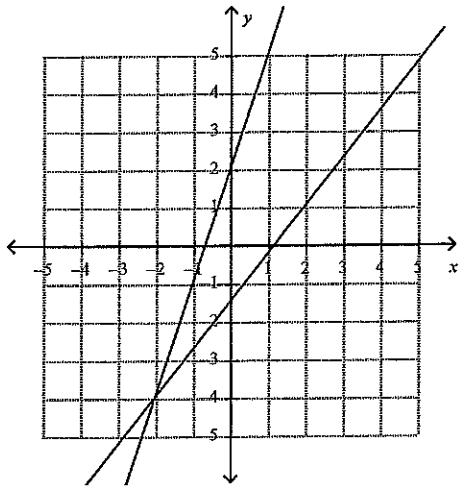
The solution to the system is (–2, 4).

b.



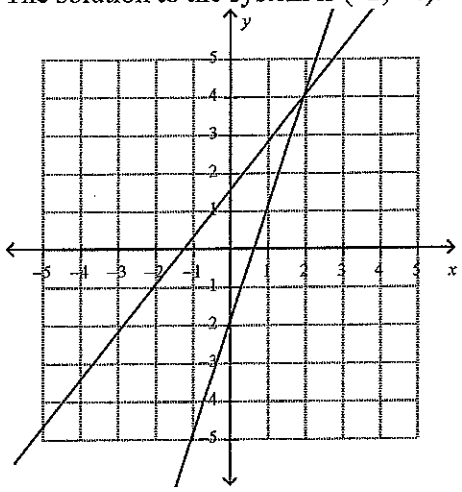
The solution to the system is (2, –4).

c.



The solution to the system is (–2, –4).

d.



The solution to the system is (2, 4).

____ 5. solve the system.

$\begin{cases} x=1+y \\ 3x-6y=-12 \end{cases}$

a. $(-2,-1)$

b. $(2, 3)$

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

d. $(6, 5)$

____ 6. Solve $\begin{cases} y=x+3 \\ 2x+y=-6 \end{cases}$ by substitution.

a. $(-9,-6)$

b. $(-3, 0)$

c. $(-1, 2)$

d. $(-3, 6)$

____ 7. Solve $\begin{cases} y = 4x - 1 \\ y = 3x + 6 \end{cases}$ by substitution.

a. $(7, -6)$
b. $(1, 3)$
c. $(7, 27)$
d. $(1, 5)$

____ 8. Solve $\begin{cases} 3x + y = -3 \\ y = x + 5 \end{cases}$ by substitution. Express your answer as an ordered pair.

a. $(3, -2)$
b. $(-2, 3)$
c. $(-\frac{4}{3}, 1)$
d. $(-\frac{8}{3}, -3)$

____ 9. Solve $\begin{cases} 2a - b + c = -5 \\ a - b = -2 \\ 2a + b = 5 \end{cases}$ by substitution.

a. $a = -2, b = 0, c = -2$
b. $a = 1, b = 3, c = -6$
c. $a = 1, b = 3, c = -4$
d. $a = -2, b = 0, c = -1$

____ 10. Solve $\begin{cases} x + y = -1 \\ x - y = -7 \end{cases}$ by elimination.

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

____ 11. Solve by elimination: $\begin{cases} 3x + 2y = -1 \\ x - 2y = 11 \end{cases}$.

a. $(-5, 8)$
b. $\left(-\frac{5}{2}, \frac{17}{4}\right)$
c. $(3, -4)$
d. $\left(4, -\frac{7}{2}\right)$

____ 12. Use elimination to solve the system $\begin{cases} 3x - 3y = 3 \\ 4x + 3y = 53 \end{cases}$.

a. $(8, 7)$
b. $(0, -1)$
c. $(7, 8)$
d. $(-2, -3)$

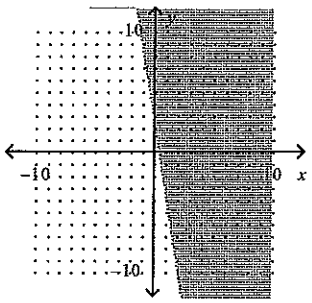
____ 13. For which would you draw a dashed boundary line and shade to the left?

a. $x \geq -4$
b. $x > -4$
c. $x \leq -4$
d. $x < -4$

____ 14. Graph.

$-y < 6x - 3$

a.



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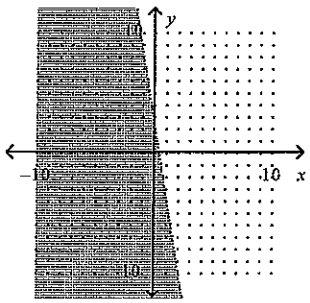
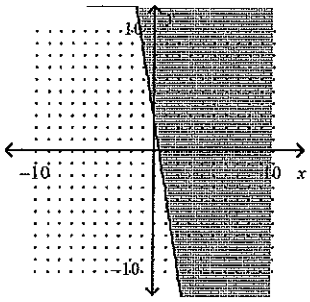


b.



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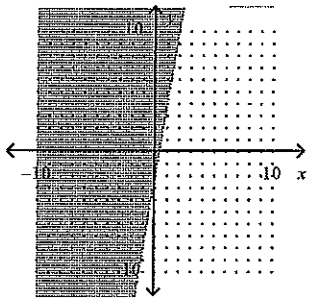
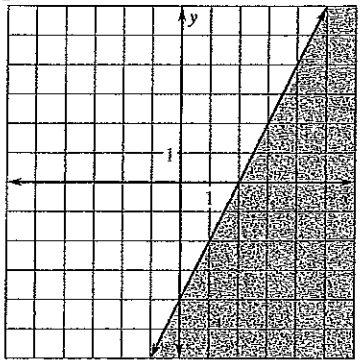


____ 15. Graph: $y \leq 2x + 4$

a.



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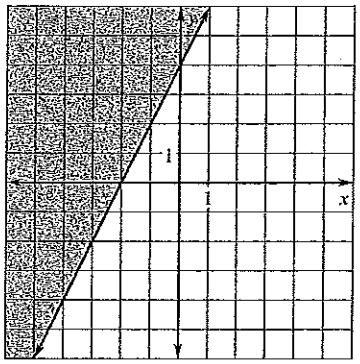

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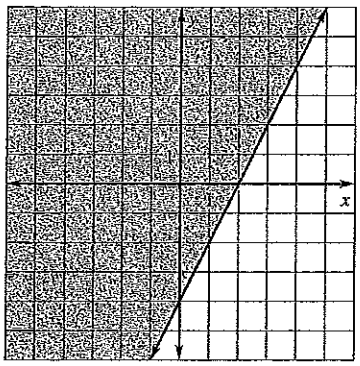

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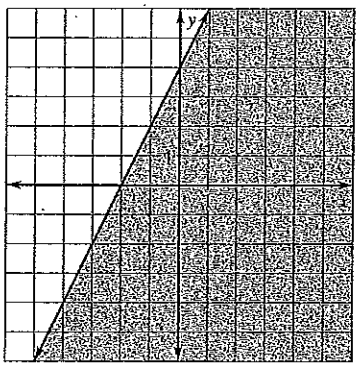
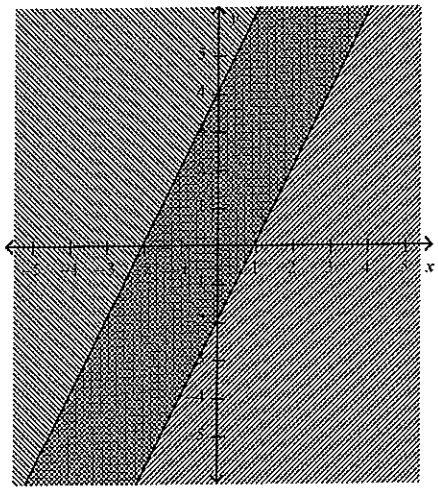
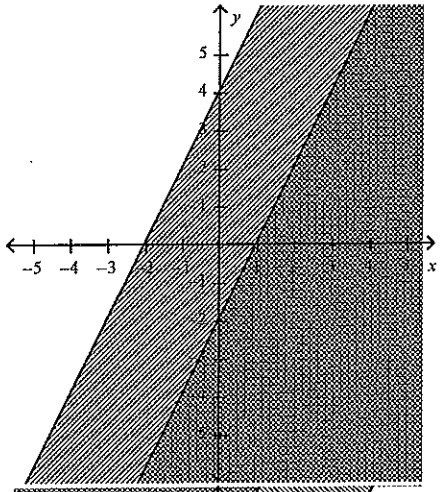


____ 16. Graph the system of linear inequalities $\begin{cases} y \geq 2x+4 \\ y \leq 2x-2 \end{cases}$.

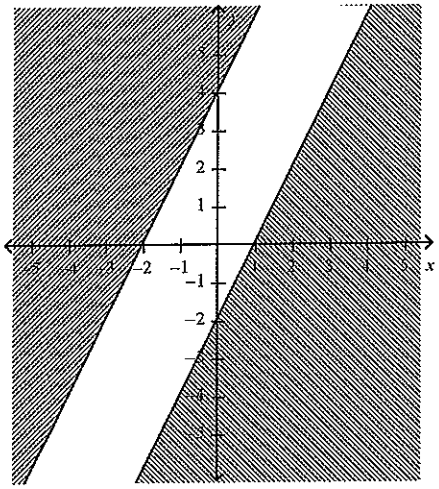
a.



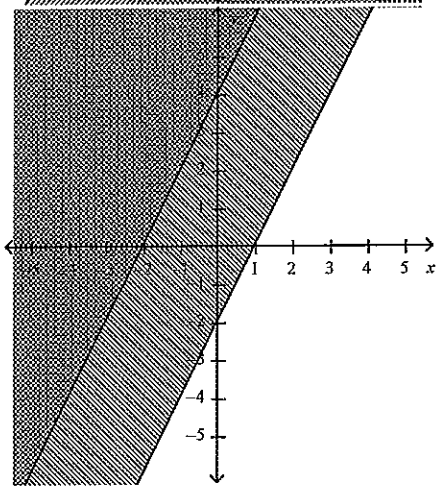
c.



b.



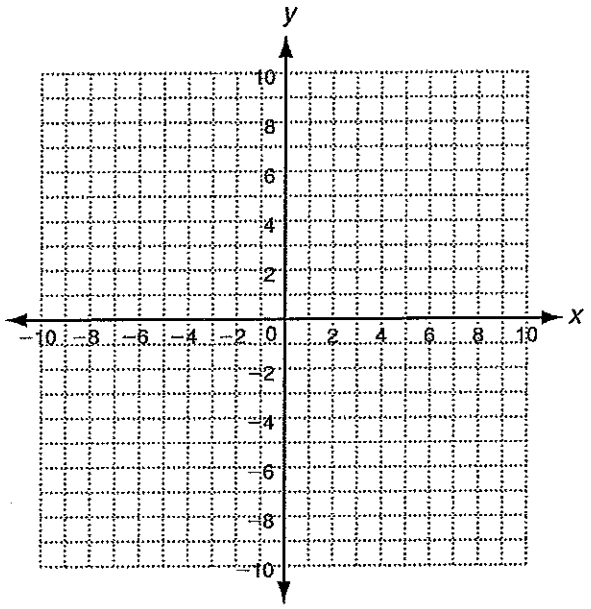
d.



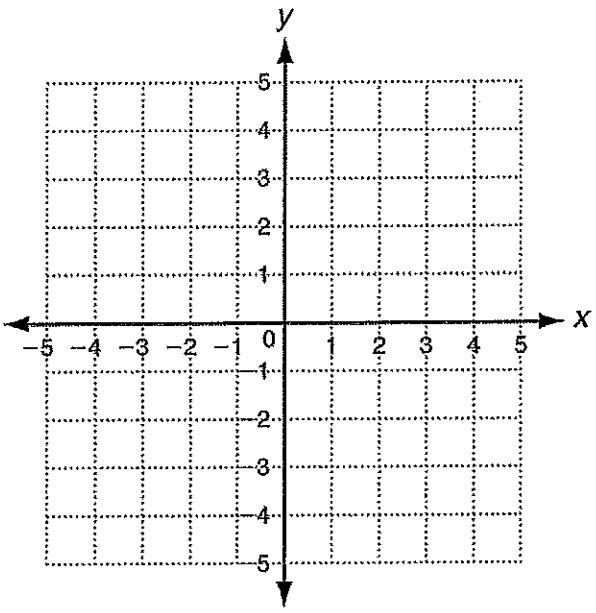
Short Answer

1. Tell whether $(-5,-6)$ is a solution of $\begin{cases} x-2y=7 \\ y-x=-1 \end{cases}$.

2. Solve $\begin{cases} x+3y=11 \\ 2x-y-3 \end{cases}$ by graphing.



3. Solve $\begin{cases} 4x+y=-1 \\ y-4=x \end{cases}$ by graphing.



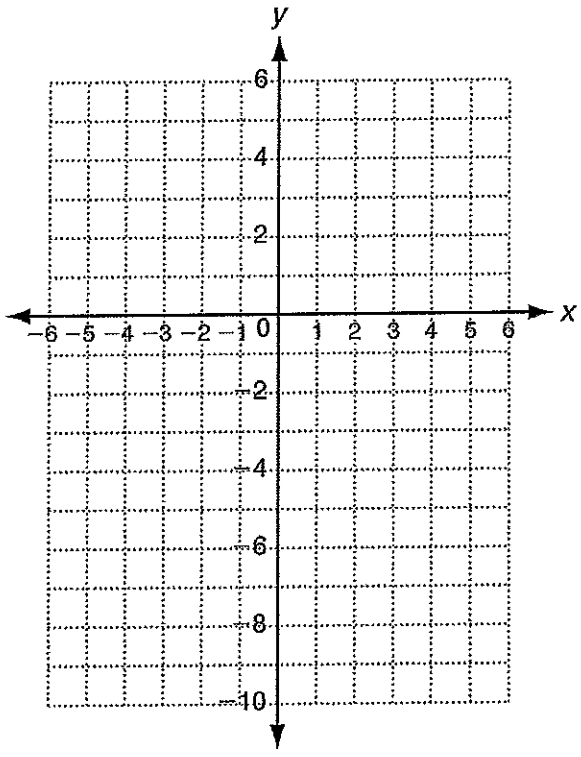
4. Solve by substitution $\begin{cases} 3x-2=y \\ y-2x=-5 \end{cases}$.

5. Solve $\begin{cases} y = \frac{1}{2}x + 5 \\ 2y = x - 24 \end{cases}$.

6. Solve by substitution $\begin{cases} -2x - y = 3 \\ y - 12 = x \end{cases}$.

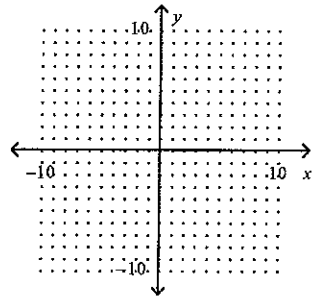
7. Solve by elimination $\begin{cases} x - 2y = -7 \\ 4x + 2y = 22 \end{cases}$.

8. Solve by any method: $\begin{cases} y - 3x = 2 \\ y = -2x - 8 \end{cases}$.



9. Graph.

$3x - 2y > -14$



10. Graph.

$x - 6y \geq -18$