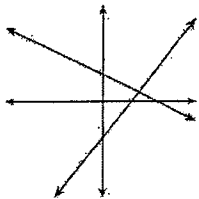


LESSON
11-1

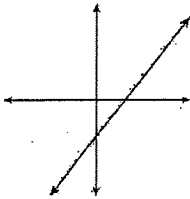
Solving Linear Systems by Graphing

Tell the number of solutions for each system of two linear equations.

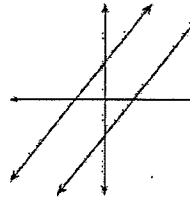
1.



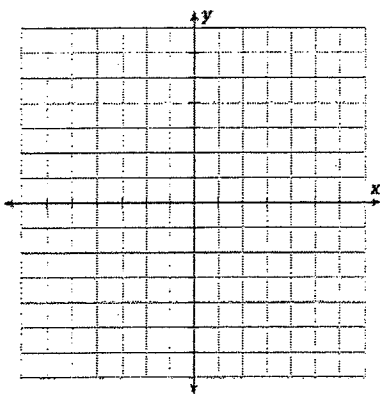
2.



3.

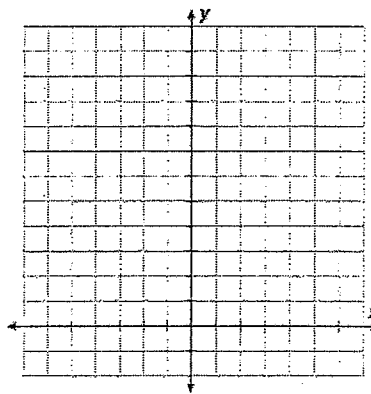


4.
$$\begin{cases} x + y = 3 \\ -x + y = 1 \end{cases}$$



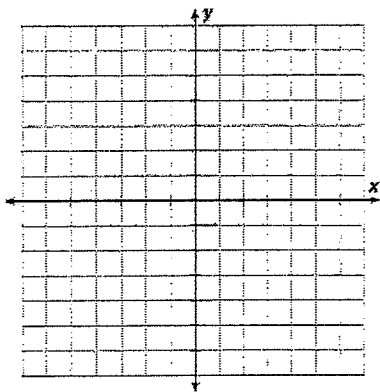
solution: _____

5.
$$\begin{cases} 6x + 3y = 12 \\ 8x + 4y = 24 \end{cases}$$



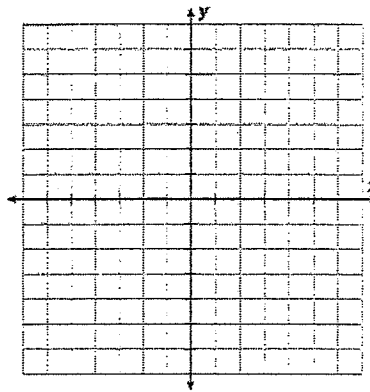
solution: _____

6.
$$\begin{cases} y = -2x - 2 \\ y = -\frac{1}{2}x + 1 \end{cases}$$



solution: _____

7.
$$\begin{cases} y = 2x + 8 \\ y = x + 6 \end{cases}$$



solution: _____

LESSON

11-2

Solving Linear Systems by Substitution*Practice and Problem Solving: A/B*

Solve each system by substitution. Check your answer.

1.
$$\begin{cases} y = x - 2 \\ y = 4x + 1 \end{cases}$$

2.
$$\begin{cases} y = x - 4 \\ y = -x + 2 \end{cases}$$

3.
$$\begin{cases} y = 3x + 1 \\ y = 5x - 3 \end{cases}$$

4.
$$\begin{cases} 2x - y = 6 \\ x + y = -3 \end{cases}$$

5.
$$\begin{cases} 2x + y = 8 \\ y = x - 7 \end{cases}$$

6.
$$\begin{cases} 2x + 3y = 0 \\ x + 2y = -1 \end{cases}$$

7.
$$\begin{cases} 3x - 2y = 7 \\ x + 3y = -5 \end{cases}$$

8.
$$\begin{cases} -2x + y = 0 \\ 5x + 3y = -11 \end{cases}$$

9.
$$\begin{cases} \frac{1}{2}x + \frac{1}{3}y = 5 \\ \frac{1}{4}x + y = 10 \end{cases}$$

LESSON

11-3

Solving Linear Systems by Adding or Subtracting

Solve each system of linear equations by adding or subtracting. Check your answer.

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

2. $x + y = -10$
 $5x + y = -2$

3. $4x + 10y = 2$
 $-4x + 8y = 16$

4. $-3x - 7y = 8$
 $3x - 2y = -44$

5. $-x + 4y = 15$
 $3x + 4y = 3$

6. $-4x + 11y = 5$
 $4x - 11y = -5$

7. $-x - y = 1$
 $-x + y = -1$

8. $3x - 5y = 60$
 $4x + 5y = -4$

LESSON
11-4

Solving Linear Systems by Multiplying First

Solve each system of equations. Check your answer.

1.
$$\begin{cases} -3x - 4y = -2 \\ 6x + 4y = 3 \end{cases}$$

2.
$$\begin{cases} 2x - 2y = 14 \\ x + 4y = -13 \end{cases}$$

3.
$$\begin{cases} y - x = 17 \\ 2y + 3x = -11 \end{cases}$$

4.
$$\begin{cases} x + 6y = 1 \\ 2x - 3y = 32 \end{cases}$$

5.
$$\begin{cases} 3x + y = -15 \\ 2x - 3y = 23 \end{cases}$$

6.
$$\begin{cases} 5x - 2y = -48 \\ 2x + 3y = -23 \end{cases}$$

7.
$$\begin{cases} 4x - 3y = -9 \\ 5x - y = 8 \end{cases}$$

8.
$$\begin{cases} 3x - 3y = -1 \\ 12x - 2y = 16 \end{cases}$$

Solve.

9. Ten bagels and four muffins cost \$13, $10b + 4m = 13$. Five bagels and eight muffins cost \$14, $5b + 8m = 14$. What are the prices of a bagel and a muffin?
-

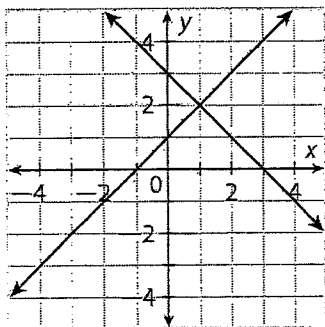
10. John can service a television and a cable box in one hour, $T + C = 1$. It took him four hours yesterday to service two televisions and ten cable boxes, $2T + 10C = 4$. How many minutes does John need to service a cable box?
-

UNIT 5: Linear Systems

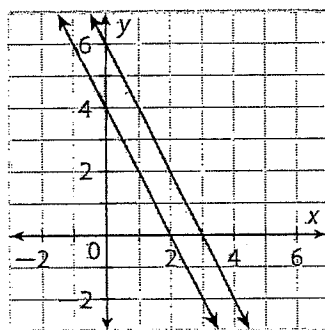
MODULE 11 Solving Systems of Linear Equations

LESSON 11-1

1. one
2. infinite number
3. none
4. (1, 2)



5. same slope, different y-intercept, no solution



6. (-2, 2)
7. (-2, 4)

LESSON 11-2

- | | |
|-------------|-------------|
| 1. (-1, -3) | 2. (3, -1) |
| 3. (2, 7) | 4. (1, -4) |
| 5. (5, -2) | 6. (3, -2) |
| 7. (1, -2) | 8. (-1, -2) |
| 9. (4, 9) | |

LESSON 11-3

1. (5, -1)
2. (2, -12)
3. (-2, 1)
4. (-12, 4)
5. (-3, 3)
6. infinitely many solutions
7. (0, -1)
8. (8, -7.2)

LESSON 11-4

1. $\left(\frac{1}{3}, \frac{1}{4}\right)$
2. (3, -4)
3. (-9, 8)
4. (13, -2)
5. (-2, -9)
6. (-10, -1)
7. (3, 7)
8. $\left(\frac{5}{3}, 2\right)$
9. Bagel: \$0.80; muffin: \$1.25
10. 15 minutes