

Intermediate Algebra

Name: _____

Study Guide 7

Class: _____

Due Date: _____

Score: _____

No Work \Leftrightarrow No Points

Use Pencil Only \Leftrightarrow Be Neat & Organized

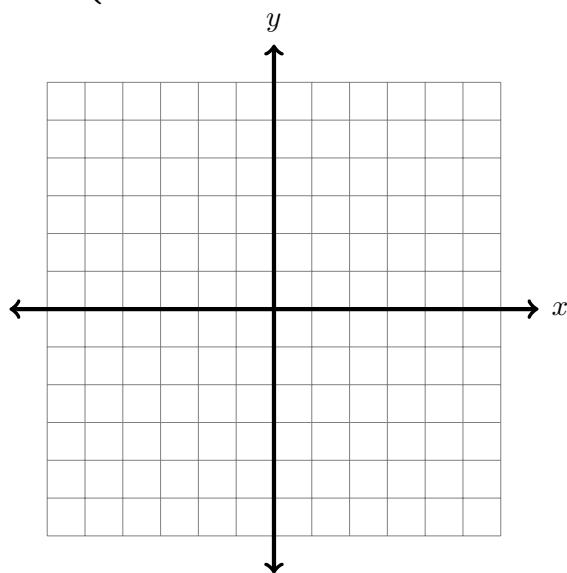
1. (2 points) Is $(3, -2)$ a solution to the system of equations given below?

$$\begin{cases} 3x - y = 11 \\ 4x + 3y = -6 \end{cases}$$

1. _____

2. (4 points) Solve by graphing method.

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



2. _____

3. (4 points) Solve by substitution method.

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

3. _____

4. (4 points) Solve by elimination method.

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

4. _____

5. Consider the system of linear equations that is displayed below.

(a) (2 points) Find the solution to the system.

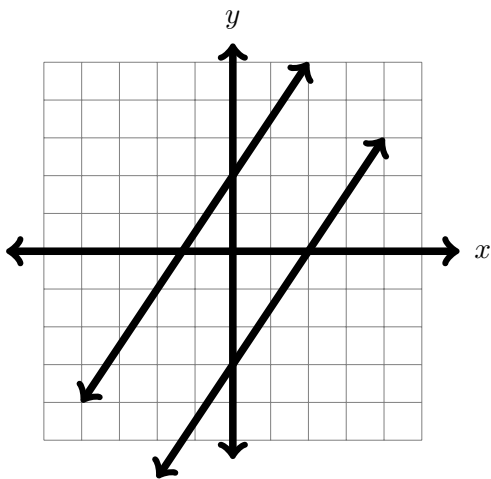
(a) _____

(b) (1 point) Are equations in this system dependent or independent?

(b) _____

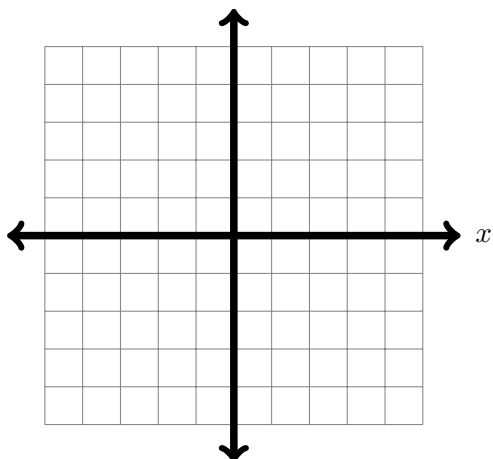
(c) (1 point) Is this system consistent or inconsistent?

(c) _____



6. (4 points) Use graphing and any other method to solve:

$$\begin{cases} 4x - 3y = 12 \\ y = -\frac{3}{4}x + 2 \end{cases}$$



6. _____

7. (4 points) Solve:

$$\begin{cases} 3x - 4y = 2 \\ 4x - 5y = 3 \end{cases}$$

7. _____

8. (4 points) Solve:

$$\begin{cases} 2x - 3y = 2 \\ y = \frac{2}{3}x + 1 \end{cases}$$

8. _____

9. (5 points) Two angles are supplementary. One of them is 40° more than the other one. Use system of linear equations to find the measure of both angles.

9. _____

10. (5 points) Two angles are complementary. Four times the measure of one of them is equal to five times the measure of the other one. Use system of linear equations to find the measure of both angles.

10. _____

11. (5 points) A candy store need to mix two types of candies, one at \$1.20 and the other one at \$1.50, to obtain 75 pounds at \$1.40 per pound. Use system of linear equations to find how many pounds of each they must mix to obtain what they need.

11. _____

12. (5 points) Lisa needs 50 liters of 18% alcohol solution. She has unlimited supply of two alcohol solutions, one at 15% alcohol, and another one at 20% alcohol. Use system of linear equations to find how many liters of each solution must she mix to obtain what she needs.

12. _____