39a Systems of Linear Equations in 2 Variables

Due:
12/15/2015 at 06:00am EST.

Students will be able to:

- Solve systems of linear equations in 2 variables
- Identify systems with unique solution, no solutions, or infinitely many solutions

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt)
Solve the system using substitution.

$$\begin{cases} -2x-5y=10 \\ 5x+8y=2 \end{cases}$$

Answer: _____

If there is more than one point, type the points separated by a comma (i.e.: (1,2),(3,4)). If the system has no solution, type *none* in the answer blank.

2. (1 pt)
Use the substitution method to solve the system.

$$\begin{cases} -x+y=-8 \\ 4x-3y=28 \end{cases}$$

Answer: _____

If there is more than one point, type the points separated by a comma (i.e.: (1,2),(3,4)). If the system has no solution, type *none* in the answer blank.

3. (1 pt)
Solve the system using elimination method.

$$\begin{cases} 6x-5y=74 \\ -3x-5y=-7 \end{cases}$$

Answer: _____

If there is more than one point, type the points separated by a comma (i.e.: (1,2),(3,4)). If the system has no solution, type *none* in the answer blank.

4. (1 pt) Solve the system using the substitution or elimination method.

$$\begin{cases} 2x-6y=-8, \\ -3x+9y=12 \end{cases}$$

How many solutions are there to this system?

- A. None
- B. Exactly 1
- C. Exactly 2
- D. Exactly 3
- E. Infinitely many
- F. None of the above

If there is one solution, give its coordinates in the answer spaces below.

If there are infinitely many solutions, enter x in the answer blank for x and enter a formula for y in terms of x in the answer blank for y.

If there are no solutions, leave the answer blanks for x and y empty.

$x =$ _____

$y =$ _____

5. (1 pt) Solve the system using the substitution or elimination method.

$$\begin{cases} 2x-6y=-21 \\ -3x+9y=30 \end{cases}$$

How many solutions are there to this system?

- A. None
- B. Exactly 1
- C. Exactly 2
- D. Exactly 3
- E. Infinitely many
- F. None of the above

If there is one solution, give its coordinates in the answer spaces below.

If there are infinitely many solutions, enter x in the answer blank for x and enter a formula for y in terms of x in the answer blank for y.

If there are no solutions, leave the answer blanks for x and y empty.

$x =$ _____

$y =$ _____

6. (1 pt) Solve the system.

$$\begin{cases} x+4y &= 7 \\ -x+3y &= 7 \end{cases}$$

How many solutions are there to this system?

- A. None
- B. Exactly 1
- C. Exactly 2
- D. Exactly 3
- E. Infinitely many
- F. None of the above

If there is one solution, give its coordinates in the answer spaces below.

If there are infinitely many solutions, enter x in the answer blank for x and enter a formula for y in terms of x in the answer blank for y.

If there are no solutions, leave the answer blanks for x and y empty.

$x =$ _____

$y =$ _____