

ACC Pre-Calculus
Solving Systems of Equations Review

Name: KEY
Date: _____ Block: _____

Solve the system of equations using elimination.

1.) $\begin{aligned} 7x + 2y &= 24 \\ 8x + 2y &= 30 \end{aligned}$

(6, -9)

2.) $\begin{aligned} 5x + y &= 9 \\ 10x - 7y &= -18 \end{aligned}$

(1, 4)

3.) $\begin{aligned} -4x + 9y &= 9 \\ x - 3y &= -6 \end{aligned}$

(9, 5)

4.) $\begin{aligned} -7x + y &= -19 \\ -2x + 3y &= -19 \end{aligned}$

(2, -5)

Solve the system of equations using substitution.

5.) $\begin{aligned} y &= 5x - 7 \\ -3x - 2y &= -12 \end{aligned}$

(2, 3)

6.) $\begin{aligned} -5x + y &= -3 \\ 3x - 8y &= 24 \end{aligned}$

(0, -3)

Solve the system of equations using substitution.

$$\begin{aligned}x + 3y &= 1 \\ -3x - 3y &= -15\end{aligned}$$

7.)

$$(1, -2)$$

$$\begin{aligned}-2x + 6y &= 6 \\ -7x + 8y &= -5\end{aligned}$$

8.)

$$(3, 2)$$

Solve the system using the method of your choice.

$$\begin{aligned}2x + 8y &= 6 \\ -5x - 20y &= -15\end{aligned}$$

9.)

Infinitely many solutions.

$$\frac{2x + 8y}{2} = \frac{6}{2}$$

$$x + 4y = 3$$

$$\frac{-5x - 20y}{-5} = \frac{-15}{-5}$$

$$x + 4y = 3$$

They are essential the same equations; they have the same set of solutions.

$$\begin{aligned}-2x - y &= -9 \\ 5x - 2y &= 18\end{aligned}$$

10.)

$$(4, 1)$$