

Name: _____ Date: _____

Solving Systems of Equations by Elimination Homework

Solve each of the following using the method of elimination:

1.
$$\begin{aligned}x - y &= 7 \\2x + y &= -10\end{aligned}$$

2.
$$\begin{aligned}2x + y &= 11 \\x + y &= 9\end{aligned}$$

3.
$$\begin{aligned}3x + y &= 1 \\2x + 3y &= -11\end{aligned}$$

4.
$$\begin{aligned}x + y &= 1 \\3x - y &= 11\end{aligned}$$

5.
$$\begin{aligned}9x + 2y &= 2 \\4x + y &= 1\end{aligned}$$

6.
$$\begin{aligned}2x + 3y &= 8 \\5x - y &= 3\end{aligned}$$

7.
$$\begin{aligned}5x - 3y &= -14 \\3x + 2y &= 3\end{aligned}$$

8.
$$\begin{aligned}9x + 6y &= 12 \\8x + 3y &= 13\end{aligned}$$

9.
$$\begin{aligned}3x + 2y &= 6 \\2x - 3y &= 17\end{aligned}$$

Find and describe the error:

10.

$$\begin{array}{r} 5x+8y=1 \\ 2x-8y=6 \\ \hline 7x=7 \\ \frac{7x}{7}=\frac{7}{7} \\ x=1 \end{array}$$

$$\begin{array}{r} -2(1)+8y=-6 \\ 2+8y=-6 \\ -2 \quad -2 \\ \hline 8y=-8 \\ \frac{8y}{8}=\frac{-8}{8} \\ y=-1 \\ (1,-1) \end{array}$$

11.

$$\begin{array}{r} 3x-4y=-5 \\ -3x-6y=-5 \\ \hline -2y=-10 \\ \frac{-2y}{-2}=\frac{-10}{-2} \\ x=5 \end{array}$$

$$\begin{array}{r} 3x-4(5)=-5 \\ 3x-20=-5 \\ +20 \quad +20 \\ \hline 3x=15 \\ \frac{3x}{3}=\frac{15}{3} \\ x=5 \\ (5, 5) \end{array}$$

ReviewDetermine if **(-1, 3)** is a solution to the following system of equations. Answer **yes** or **no**.

$$\begin{array}{l} 12. \ 2x + 2y = 4 \\ \quad 3x - y = -6 \end{array}$$

Determine whether the following systems have no solution, one solution, or infinitely many solutions. You may use the graph provided if needed.

$$\begin{array}{l} 13. \ y = 5x - 4 \\ \quad y = 5x - 5 \\ \text{A. No solution} \\ \text{B. One solution} \\ \text{C. Infinitely many solutions} \end{array}$$

$$\begin{array}{l} 14. \ y = 2x - 3 \\ \quad y = -x + 3 \\ \text{A. No solution} \\ \text{B. One solution} \\ \text{C. Infinitely many solutions} \end{array}$$

