

Unit 6- Day 5: Solving System of Equations using Elimination Worksheet

Solve each system of equations using elimination/linear combination.

1.
$$\begin{aligned} x + y &= 19 \\ x - y &= 7 \end{aligned} \quad (13, 6)$$

2.
$$\begin{aligned} -5x + 2y &= -17 \\ 5x + 3y &= -13 \end{aligned} \quad (1, -6)$$

3.
$$\begin{aligned} 8x + 6y &= 2 \\ 2x - y &= 23 \end{aligned} \quad (7, -9)$$

4.
$$\begin{aligned} x + 5y &= 19 \\ x + 2y &= 10 \end{aligned} \quad (4, 3)$$

5.
$$\begin{aligned} 7x + 3y &= 8 \\ 5x - 4y &= -25 \end{aligned} \quad (-1, 5)$$

6.
$$\begin{aligned} 6x + 14y &= 0 \\ y &= 2x - 17 \end{aligned} \quad (7, -3)$$

7. $6x + 10y = 4$
 $5y = -3x = 12$ No Solution: \emptyset

8. $11x + 2y = 27$
 $21x + 3y = -9$ $(-11, 74)$

9. $-x - y = 6$
 $7x - 3y = 18$ $(0, -6)$

10. $2x + 8y = 6$
 $-5x - 20y = -15$ Infinite
Solutions: \mathbb{R}