

4.3 Practice - Addition/Elimination

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 4x + 2y = 0 \\ & -4x - 9y = -28 \end{aligned}$$

$$\begin{aligned} 3) \quad & -9x + 5y = -22 \\ & 9x - 5y = 13 \end{aligned}$$

$$\begin{aligned} 5) \quad & -6x + 9y = 3 \\ & 6x - 9y = -9 \end{aligned}$$

$$\begin{aligned} 7) \quad & 4x - 6y = -10 \\ & 4x - 6y = -14 \end{aligned}$$

$$\begin{aligned} 9) \quad & -x - 5y = 28 \\ & -x + 4y = -17 \end{aligned}$$

$$\begin{aligned} 11) \quad & 2x - y = 5 \\ & 5x + 2y = -28 \end{aligned}$$

$$\begin{aligned} 13) \quad & 10x + 6y = 24 \\ & -6x + y = 4 \end{aligned}$$

$$\begin{aligned} 15) \quad & 2x + 4y = 24 \\ & 4x - 12y = 8 \end{aligned}$$

$$\begin{aligned} 17) \quad & -7x + 4y = -4 \\ & 10x - 8y = -8 \end{aligned}$$

$$\begin{aligned} 19) \quad & 5x + 10y = 20 \\ & -6x - 5y = -3 \end{aligned}$$

$$\begin{aligned} 21) \quad & -7x - 3y = 12 \\ & -6x - 5y = 20 \end{aligned}$$

$$\begin{aligned} 23) \quad & 9x - 2y = -18 \\ & 5x - 7y = -10 \end{aligned}$$

$$\begin{aligned} 25) \quad & 9x + 6y = -21 \\ & -10x - 9y = 28 \end{aligned}$$

$$\begin{aligned} 27) \quad & -7x + 5y = -8 \\ & -3x - 3y = 12 \end{aligned}$$

$$\begin{aligned} 29) \quad & -8x - 8y = -8 \\ & 10x + 9y = 1 \end{aligned}$$

$$\begin{aligned} 31) \quad & 9y = 7 - x \\ & -18y + 4x = -26 \end{aligned}$$

$$\begin{aligned} 33) \quad & 0 = 9x + 5y \\ & y = \frac{2}{7}x \end{aligned}$$

$$\begin{aligned} 2) \quad & -7x + y = -10 \\ & -9x - y = -22 \end{aligned}$$

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

$$\begin{aligned} 6) \quad & 5x - 5y = -15 \\ & 5x - 5y = -15 \end{aligned}$$

$$\begin{aligned} 8) \quad & -3x + 3y = -12 \\ & -3x + 9y = -24 \end{aligned}$$

$$\begin{aligned} 10) \quad & -10x - 5y = 0 \\ & -10x - 10y = -30 \end{aligned}$$

$$\begin{aligned} 12) \quad & -5x + 6y = -17 \\ & x - 2y = 5 \end{aligned}$$

$$\begin{aligned} 14) \quad & x + 3y = -1 \\ & 10x + 6y = -10 \end{aligned}$$

$$\begin{aligned} 16) \quad & -6x + 4y = 12 \\ & 12x + 6y = 18 \end{aligned}$$

$$\begin{aligned} 18) \quad & -6x + 4y = 4 \\ & -3x - y = 26 \end{aligned}$$

$$\begin{aligned} 20) \quad & -9x - 5y = -19 \\ & 3x - 7y = -11 \end{aligned}$$

$$\begin{aligned} 22) \quad & -5x + 4y = 4 \\ & -7x - 10y = -10 \end{aligned}$$

$$\begin{aligned} 24) \quad & 3x + 7y = -8 \\ & 4x + 6y = -4 \end{aligned}$$

$$\begin{aligned} 26) \quad & -4x - 5y = 12 \\ & -10x + 6y = 30 \end{aligned}$$

$$\begin{aligned} 28) \quad & 8x + 7y = -24 \\ & 6x + 3y = -18 \end{aligned}$$

$$\begin{aligned} 30) \quad & -7x + 10y = 13 \\ & 4x + 9y = 22 \end{aligned}$$

$$32) \quad 0 = -9x - 21 + 12y$$

$$1 + \frac{4}{3}y + \frac{7}{3}x = 0$$

$$\begin{aligned} 34) \quad & -6 - 42y = -12x \\ & x - \frac{1}{2} - \frac{7}{2}y = 0 \end{aligned}$$



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Answers - Addition/Elimination

- | | | |
|---------------------------------|----------------|----------------------------------|
| 1) $(-2, 4)$ | 12) $(1, -2)$ | 25) $(-1, -2)$ |
| 2) $(2, 4)$ | 13) $(0, 4)$ | 26) $(-3, 0)$ |
| 3) No solution | 14) $(-1, 0)$ | 27) $(-1, -3)$ |
| 4) Infinite number of solutions | 15) $(8, 2)$ | 28) $(-3, 0)$ |
| 5) No solution | 16) $(0, 3)$ | 29) $(-8, 9)$ |
| 6) Infinite number of solutions | 17) $(4, 6)$ | 30) $(1, 2)$ |
| 7) No solution | 18) $(-6, -8)$ | 31) $(-2, 1)$ |
| 8) $(2, -2)$ | 19) $(-2, 3)$ | 32) $(-1, 1)$ |
| 9) $(-3, -5)$ | 20) $(1, 2)$ | 33) $(0, 0)$ |
| 10) $(-3, 6)$ | 21) $(0, -4)$ | 34) Infinite number of solutions |
| 11) $(-2, -9)$ | 22) $(0, 1)$ | |
| | 23) $(-2, 0)$ | |
| | 24) $(2, -2)$ | |



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