

Algebra: Solving Linear Systems — Elimination Method

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DIRECTIONS

Solve each system of equations using the Elimination Method.

1 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 3x+3y=0 \\ 4x+2y=-6 \end{array}\right. \text{right.}$$

Answer: _____

2 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 1x+3y=-6 \\ 3x+4y=-3 \end{array}\right. \text{right.}$$

Answer: _____

3 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 4x+2y=2 \\ 2x+2y=4 \end{array}\right. \text{right.}$$

Answer: _____

4 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 2x+1y=7 \\ 1x+1y=5 \end{array}\right. \text{right.}$$

Answer: _____

5 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 1x+4y=3 \\ 2x+2y=0 \end{array}\right. \text{right.}$$

Answer: _____

6 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 4x+4y=20 \\ 1x+4y=11 \end{array}\right. \text{right.}$$

Answer: _____

7 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 3x+4y=1 \\ 1x+1y=0 \end{array}\right. \text{right.}$$

Answer: _____

8 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 2x+3y=-1 \\ 1x+3y=-2 \end{array}\right. \text{right.}$$

Answer: _____

9 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 3x+4y=-14 \\ 1x+1y=-4 \end{array}\right. \text{right.}$$

Answer: _____

10 Solve using the Elimination Method:

$$\left\{\begin{array}{l} 1x+3y=0 \\ 3x+2y=-7 \end{array}\right. \text{right.}$$

Answer: _____

Answer Key & Solutions

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TEACHER NOTES Multiply one or both equations to create opposite coefficients, then add to eliminate a variable.

1 Solve using the Elimination Method:

$$= x = -3, y = 3$$

$$\left\{ \begin{array}{l} 3x + 3y = 0 \\ 4x + 2y = -6 \end{array} \right. \text{right.}$$

2 Solve using the Elimination Method:

$$= x = 3, y = -3$$

$$\left\{ \begin{array}{l} 1x + 3y = -6 \\ 3x + 4y = -3 \end{array} \right. \text{right.}$$

3 Solve using the Elimination Method:

$$= x = -1, y = 3$$

$$\left\{ \begin{array}{l} 4x + 2y = 2 \\ 2x + 2y = 4 \end{array} \right. \text{right.}$$

4 Solve using the Elimination Method:

$$= x = 2, y = 3$$

$$\left\{ \begin{array}{l} 2x + 1y = 7 \\ 1x + 1y = 5 \end{array} \right. \text{right.}$$

5 Solve using the Elimination Method:

$$= x = -1, y = 1$$

$$\left\{ \begin{array}{l} 1x + 4y = 3 \\ 2x + 2y = 0 \end{array} \right. \text{right.}$$

6 Solve using the Elimination Method:

$$= x = 3, y = 2$$

$$\left\{ \begin{array}{l} 4x + 4y = 20 \\ 1x + 4y = 11 \end{array} \right. \text{right.}$$

7 Solve using the Elimination Method:

$$= x = -1, y = 1$$

$$\left\{ \begin{array}{l} 3x + 4y = 1 \\ 1x + 1y = 0 \end{array} \right. \text{right.}$$

8 Solve using the Elimination Method:

$$= x = 1, y = -1$$

$$\left\{ \begin{array}{l} 2x + 3y = -1 \\ 1x + 3y = -2 \end{array} \right. \text{right.}$$

9 Solve using the Elimination Method:

$$= x = -2, y = -2$$

$$\left\{ \begin{array}{l} 3x + 4y = -14 \\ 1x + 1y = -4 \end{array} \right. \text{right.}$$

10 Solve using the Elimination Method:

$$= x = -3, y = 1$$

$$\left\{ \begin{array}{l} 1x + 3y = 0 \\ 3x + 2y = -7 \end{array} \right. \text{right.}$$