

Geometry 10/5

Warm Up IXL

8th Grade

AA.2

I can solve a system of linear equations using elimination

Ex. 1 Solve the system using elimination

$$\begin{array}{r} -4x - 4y = 64 \\ + 3x + 4y = -58 \\ \hline \end{array}$$

$$\frac{-1x}{-1} = \frac{6}{-1}$$

$$x = -6$$

$$(-6, -10)$$

$$\begin{array}{r} 3(-6) + 4y = -58 \\ -18 + 4y = -58 \\ +18 \qquad \qquad +18 \\ \hline \end{array}$$

$$\frac{4y}{4} = \frac{-40}{4}$$

$$y = -10$$

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Ex. 2 Solve the system using elimination.

$$\begin{array}{r} -5x - 3y = 42 \\ \cancel{+ (4x - 3y = -39)} \\ + -4x + 3y = 39 \\ \hline -9x = 81 \\ \frac{-9x}{-9} = \frac{81}{-9} \\ x = -9 \end{array}$$

$(-9, 1)$

$$\begin{array}{r} 4(-9) - 3y = -39 \\ -36 - 3y = -39 \\ +36 \qquad \qquad +36 \\ \hline -3y = -3 \\ \frac{-3y}{-3} = \frac{-3}{-3} \\ y = 1 \end{array}$$

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Ex. 3 Solve the system using elimination.

$$\begin{array}{r} -4x - 2y = -20 \\ (-16x + y = -8) \end{array} \quad \begin{array}{r} -4x - 2y = -20 \\ -32x + 2y = -16 \\ \hline \end{array}$$

$$\begin{array}{r} -36x = -36 \\ \hline -36 \quad -36 \end{array}$$

$$x = 1$$

$$-16(1) + y = -8$$

$$\begin{array}{r} -16 + y = -8 \\ +16 \quad +16 \\ \hline \end{array}$$

$$y = 8$$

$$(1, 8)$$

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Ex. 4 Solve the system using elimination

$$\begin{array}{r} 2(4x - y = 20) \\ -5x - 2y = -25 \\ \hline -8x + 2y = -40 \\ \hline -13x = -65 \\ \hline -13 \quad \quad -13 \end{array}$$

$$x = 5$$

$$(5, 0)$$

$$\begin{array}{r} 4(5) - y = 20 \\ 20 - y = 20 \\ \hline -20 \quad \quad -20 \\ \hline -y = 0 \\ \hline -1 \quad \quad -1 \\ \hline y = 0 \end{array}$$

I can solve a system of linear equations using elimination

Hmwk Wkst

odds or evens

+ IXL 8th Grade

AA.10