

Matrices

Name: _____

Date: _____

Cramer's Rules

1

$$-7x + 2y - z = -3$$

$$5x + 6y - 2z = 4$$

$$-3x - 4y + z = 2$$

2

$$-5x + 2y + z = -10$$

$$-8x - y + 4z = -8$$

$$3x - 6y + 4z = 4$$

3

$$-2x - 7y + 2z = 14$$

$$-6x + 2y - z = -12$$

$$9x + y - 5z = -9$$

4

$$-3x + 2y - 7z = -14$$

$$4x + 5y - 9z = 10$$

$$2x - 10y + 5z = -10$$

5

$$x - 2y - 7z = -14$$

$$-4x + 2y - 2z = -8$$

$$2x - y - 5z = -10$$

6

$$-9x + 4y + 6z = -1$$

$$2x - 8y - z = 4$$

$$-8x + 4y - 2z = -6$$

7

$$-2x - 12y + 7z = -3$$

$$-9x + 8y - 2z = -4$$

$$-3x - 8y + 5z = -2$$

8

$$-5x + 12y + 17z = -18$$

$$5x - 2y - 11z = -22$$

$$-6x - 8y - 10z = 15$$

9

$$x + y + z = 6$$

$$2x - y - z = 3$$

$$3y - 2z = 0$$

10

$$x + y - z = -2$$

$$2x - y + z = 0$$

$$x - 2y + 3z = 1$$

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Cramer's Rules

1

$$\begin{aligned}-7x + 2y - z &= -3 \\ 5x + 6y - 2z &= 4 \\ -3x - 4y + z &= 2\end{aligned}\quad \underline{\left(1, \frac{-9}{2}, -13\right)}$$

2

$$\begin{aligned}-5x + 2y + z &= -10 \\ -8x - y + 4z &= -8 \\ 3x - 6y + 4z &= 4\end{aligned}\quad \underline{\left(\frac{-4}{3}, \frac{-16}{3}, -6\right)}$$

3

$$\begin{aligned}-2x - 7y + 2z &= 14 \\ -6x + 2y - z &= -12 \\ 9x + y - 5z &= -9\end{aligned}\quad \underline{\left(1, \frac{-4}{3}, \frac{10}{3}\right)}$$

4

$$\begin{aligned}-3x + 2y - 7z &= -14 \\ 4x + 5y - 9z &= 10 \\ 2x - 10y + 5z &= -10\end{aligned}\quad \underline{\left(\frac{20}{7}, \frac{16}{7}, \frac{10}{7}\right)}$$

5

$$\begin{aligned}x - 2y - 7z &= -14 \\ -4x + 2y - 2z &= -8 \\ 2x - y - 5z &= -10\end{aligned}\quad \underline{\left(\frac{1}{3}, -1, \frac{7}{3}\right)}$$

6

$$\begin{aligned}-9x + 4y + 6z &= -1 \\ 2x - 8y - z &= 4 \\ -8x + 4y - 2z &= -6\end{aligned}\quad \underline{\left(\frac{1}{3}, \frac{-1}{2}, \frac{2}{3}\right)}$$

7

$$\begin{aligned}-2x - 12y + 7z &= -3 \\ -9x + 8y - 2z &= -4 \\ -3x - 8y + 5z &= -2\end{aligned}\quad \underline{\left(-2, \frac{-21}{4}, -10\right)}$$

8

$$\begin{aligned}-5x + 12y + 17z &= -18 \\ 5x - 2y - 11z &= -22 \\ -6x - 8y - 10z &= 15\end{aligned}\quad \underline{\left(\frac{1}{8}, \frac{-47}{8}, \frac{25}{8}\right)}$$

9

$$\begin{aligned}x + y + z &= 6 \\ 2x - y - z &= 3 \\ 3y - 2z &= 0\end{aligned}\quad \underline{\left(3, \frac{6}{5}, \frac{9}{5}\right)}$$

10

$$\begin{aligned}x + y - z &= -2 \\ 2x - y + z &= 0 \\ x - 2y + 3z &= 1\end{aligned}\quad \underline{\left(\frac{-2}{3}, \frac{-7}{3}, -1\right)}$$