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$$\begin{bmatrix} 4 & 1 & 2 \\ 2 & 4 & -1 \\ 1 & 1 & -3 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 9 \\ -5 \\ -9 \end{bmatrix}$$

$$\Rightarrow \begin{bmatrix} 1.0 & 0.25 & 0.50 \\ 2.0 & 4.0 & -1.0 \\ 1.0 & 1.0 & -3.0 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 2.2 \\ -5 \\ -9 \end{bmatrix}$$

$$\Rightarrow \begin{bmatrix} 1.0 & 0.25 & 0.50 \\ 0 & 3.5 & -2.0 \\ 0 & 0.80 & -3.5 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 2.2 \\ -9.4 \\ -11.2 \end{bmatrix}$$

$$\Rightarrow \begin{bmatrix} 1.0 & 0.25 & 0.50 \\ 0 & 1 & -0.57 \\ 0 & 0.80 & -3.5 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 2.2 \\ -2.7 \\ -11.2 \end{bmatrix}$$

$$\Rightarrow \begin{bmatrix} 1.0 & 0.25 & 0.50 \\ 0 & 1 & -0.57 \\ 0 & 0 & -3.0 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 2.2 \\ -2.7 \\ -9.0 \end{bmatrix}$$

$$\text{So, } x_3 = \frac{-9.0}{-3.0} = +3.0$$

$$x_2 = -2.7 + 0.57 \times 3.0 = -1.0$$

$$x_1 = 2.2 + 0.25 \times 1.0 + 0.5 \times 3.0$$

$$= 2.2 + 0.25 + 1.5 = 0.9$$

$$= \cancel{0.9} \quad \cancel{0.9}$$

So,

The solution is

$$x_1 = 0.9$$

$$x_2 = -1.0$$

$$x_3 = 3.0$$