

$$\boxed{\text{Ex 6}} \quad \begin{array}{l} 2(3x + 9y + 6z = 3) \rightarrow \cancel{6x} + 18y + 12z = 6 \\ -3(2x + y - z = 2) \rightarrow \cancel{-6x} - 3y + 3z = -6 \\ \hline x + y + z = 2 \end{array} \quad \boxed{15y + 15z = 0}$$

$$\begin{array}{l} 2x + y - z = 2 \rightarrow \cancel{2x} + y - z = 2 \\ -2(x + y + z = 2) \rightarrow \cancel{-2x} - 2y - 2z = -4 \\ \hline -y - 3z = -2 \end{array}$$

$$\begin{array}{l} 15y + 15z = 0 \rightarrow \cancel{15y} + 15z = 0 \\ 15(-y - 3z = -2) \rightarrow \cancel{-15y} - 45z = -30 \\ \hline -30z = -30 \\ \hline -30 \quad -30 \end{array}$$

$$\boxed{z = 1}$$

$$\begin{array}{l} -y - 3(1) = -2 \\ -y - 3 = -2 \\ \quad + 3 \quad + 3 \\ \hline -y = 1 \\ \hline -1 \quad -1 \end{array}$$

$$\boxed{y = -1}$$

$$\begin{array}{l} x + y + z = 2 \\ x - 1 + 1 = 2 \\ x + 0 = 2 \end{array}$$

$$\boxed{x = 2}$$

$$\boxed{(2, -1, 1)}$$