SOLVE SIMULTANEOUS LINEAR EQUATION USING GAUSSIAN ELIMINATION METHOD

Solve $\begin{matrix} x+y-z=1 \\ 2x-y+2z=0 \\ x+2y-2z=2 \end{matrix}$ by using Gaussian Elimination Method.

$$\begin{pmatrix} & & \\ & & \\ & & \end{pmatrix}\begin{pmatrix} \\ \\ \end{pmatrix}=\begin{pmatrix} \\ \\ \end{pmatrix}$$

$$\begin{matrix} 2R_1-R_2 \longrightarrow \\ R_3-R_1 \longrightarrow \end{matrix} \left(\begin{array}{ccc|c} & & & \\ & & & \\ & & & \end{array}\right)$$

$$\xrightarrow{R_2+3R_3} \left(\begin{array}{ccc|c} & & & \\ & & & \\ & & & \end{array}\right)$$

$$\begin{matrix} x+y-z \\ 3y-4z \\ -z \end{matrix} \quad =$$

$z=$ $y=$ $x=$