

$$\text{ex } 2x_2 + 3x_3 = 8$$

$$2x_1 + 3x_2 + x_3 = 5$$

$$x_1 - x_2 - 2x_3 = -5$$

$$\left[\begin{array}{ccc|c} 0 & 2 & 3 & 8 \\ 2 & 3 & 1 & 5 \\ 1 & -1 & -2 & -5 \end{array} \right]$$

$$\rightarrow \begin{array}{cccc} 1 & -1 & -2 & -5 \\ 2 & 3 & 1 & 5 \\ 0 & 2 & 3 & 8 \end{array}$$

$$\rightarrow \begin{array}{cccc} 1 & -1 & -2 & -5 \\ 0 & 5 & 5 & 15 \\ 0 & 2 & 3 & 8 \end{array}$$

$$\rightarrow \begin{array}{cccc} 1 & -1 & -2 & -5 \\ 0 & 1 & 1 & 3 \\ 0 & 2 & 3 & 8 \end{array}$$