

3.0

$$Ly = Pb$$

$$\begin{bmatrix} 1 & 0 & 0 \\ -\frac{3}{5} & 1 & 0 \\ -\frac{1}{5} & \frac{2}{11} & 1 \end{bmatrix} \begin{bmatrix} y_1 \\ y_2 \\ y_3 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 0 & 1 \\ 0 & 1 & 0 \end{bmatrix} \begin{bmatrix} 0 \\ 5 \\ 1 \end{bmatrix} = \begin{bmatrix} 0 \\ 5 \\ 1 \end{bmatrix}$$

$$y_1 = 0$$

$$-\frac{3}{5}y_1 + y_2 = 5$$

$$y_2 = 5$$

$$-\frac{1}{5}y_1 + \frac{2}{11}y_2 + y_3 = 1$$

$$y_3 = 1 - \frac{2}{11} \cdot 5 = \frac{11}{11} - \frac{10}{11} = \frac{1}{11}$$