

$$\textcircled{5} a) \left(\begin{array}{cc|c} 6 & 8 & 14s \\ 5 & 8 & 2s \end{array} \right) \begin{array}{l} | \cdot (-5) \\ | \cdot 6 \end{array} \leftarrow +$$

$$\left(\begin{array}{cc|c} 6 & 8 & 14s \\ 0 & 8 & -58s \end{array} \right) \quad \begin{array}{l} 8x_2 = -58s \\ x_2 = -7,25s \end{array}$$

$$\begin{array}{rcl} 6x_1 + 8 \cdot (-7,25s) & = & 14s \\ 6x_1 - 58s & = & 14s \\ 6x_1 & = & 72s \\ x_1 & = & 12s \end{array}$$

$$\mathbb{L} = \left\{ (12s \mid -7,25s) \mid s \in \mathbb{R} \right\}$$

$$b) \left(\begin{array}{ccc|c} 6 & 6 & -10 & 6s \\ 1 & 6 & -10 & s \\ & 30 & 50 & 0 \end{array} \right) \begin{array}{l} | \cdot (-6) \\ | \cdot (-6) \end{array} \leftarrow +$$

$$\left(\begin{array}{ccc|c} 6 & 6 & -10 & 6s \\ 0 & -30 & 50 & 0 \\ 0 & 30 & 50 & 0 \end{array} \right) \leftarrow +$$

$$\left(\begin{array}{ccc|c} 6 & 6 & -10 & 6s \\ 0 & -30 & 50 & 0 \\ 0 & 0 & 100 & 0 \end{array} \right)$$

$$100x_3 = 0 \Leftrightarrow x_3 = 0$$

$$-30x_2 + 50 \cdot 0 = 0 \Leftrightarrow x_2 = 0$$

$$6x_1 + 6 \cdot 0 - 10 \cdot 0 = 6s \\ x_1 = s$$

$$\mathbb{L} = \left\{ (s \mid 0 \mid 0) \mid s \in \mathbb{R} \right\}$$

$$c) \left(\begin{array}{ccc|c} 2 & 2 & 2 & s+2 \\ 2 & 2 & 6 & 4s+6 \\ 2 & -15 & 1 & 0 \end{array} \right) \begin{array}{l} | \cdot (-1) \\ | \cdot (-1) \\ | \cdot (-1) \end{array} \leftarrow -$$

$$\left(\begin{array}{ccc|c} 2 & 2 & 2 & s+2 \\ 0 & 0 & -4 & -3s-4 \\ 0 & 3,5 & 1 & s+2 \end{array} \right) \leftarrow -$$

$$\left(\begin{array}{ccc|c} 2 & 2 & 2 & s+2 \\ 0 & 3,5 & 1 & s+2 \\ 0 & 0 & -4 & -3s-4 \end{array} \right)$$

$$-4x_3 = -3s-4 \Leftrightarrow x_3 = \frac{3}{4}s+1$$

$$\begin{array}{rcl} 3,5x_2 + \frac{3}{4}s+1 & = & s+2 \\ 3,5x_2 & = & \frac{1}{4}s+1 \quad | : 3,5 \\ x_2 & = & \frac{1}{14}s + \frac{2}{7} \end{array}$$

$$\begin{array}{rcl} 2x_1 + \frac{1}{7}s + \frac{4}{7} + \frac{3}{2}s+2 & = & s+2 \\ 2x_1 & = & -\frac{9}{14}s - \frac{4}{7} \\ x_1 & = & -\frac{9}{28}s - \frac{2}{7} \end{array}$$

$$\mathbb{L} = \left\{ \left(-\frac{9}{28}s - \frac{2}{7} \mid \frac{1}{14}s + \frac{2}{7} \mid \frac{3}{4}s + 1 \right) \mid s \in \mathbb{R} \right\}$$