

S 214 Nr. 2c

$$\begin{array}{r|l} 4x_1 - 2x_2 + 2x_3 = 3 & \cdot 1 \\ 3x_2 + 3x_3 = -3 & \\ \hline 4x_1 + x_2 + 4x_3 = 5 & \cdot (-1) \end{array}$$

$$\begin{array}{r|l} 4x_1 - 2x_2 + 2x_3 = 3 & \\ 3x_2 + 3x_3 = -3 & \cdot 1 \\ \hline -3x_2 - 2x_3 = -2 & \cdot 1 \end{array}$$

$$\begin{array}{r} 4x_1 - 2x_2 + 2x_3 = 3 \\ 3x_2 + 3x_3 = -3 \\ x_3 = -5 \end{array}$$

$$\underline{\underline{x_3 = -5}}$$

$$3x_2 + 3 \cdot (-5) = -3 \Rightarrow 3x_2 = -3 + 15 \Rightarrow x_2 = +4$$

$$4x_1 - 2 \cdot (+4) + 2 \cdot (-5) = 3 \Rightarrow 4x_1 = 3 + 8 + 10 \Rightarrow x_1 = \underline{\underline{\frac{21}{4}}}$$

$$\underline{\underline{L = \left\{ \left( \frac{21}{4}; 4; -5 \right) \right\}}}$$