

Oef 3 p A.29

$$\begin{cases} 2x + 2y - z = 2 \\ x + y + z = -2 \\ 2x - 4y + 3z = 0 \end{cases}$$

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

$$\begin{array}{l} R_1 \leftrightarrow R_2 \\ \sim \end{array} \left(\begin{array}{ccc|c} 1 & 1 & 1 & -2 \\ 2 & 2 & -1 & 2 \\ 2 & -4 & 3 & 0 \end{array} \right)$$

$$\begin{array}{l} R_2 - 2R_1 \\ \sim \end{array} \left(\begin{array}{ccc|c} 1 & 1 & 1 & -2 \\ 0 & 0 & -3 & 6 \\ 2 & -4 & 3 & 0 \end{array} \right)$$

$$R_3 - 2R_1 \left(\begin{array}{ccc|c} 1 & 1 & 1 & -2 \\ 0 & 0 & -3 & 6 \\ 0 & -6 & 1 & 4 \end{array} \right)$$

$$\begin{array}{l} R_2 \leftrightarrow R_3 \\ \sim \end{array} \left(\begin{array}{ccc|c} 1 & 1 & 1 & -2 \\ 0 & -6 & 1 & 4 \\ 0 & 0 & -3 & 6 \end{array} \right)$$

gauss geblied vorm

$$\begin{cases} x + y + z = -2 \\ -6y + z = 4 \\ -3z = 6 \end{cases} \Leftrightarrow \begin{cases} x = -2 - y - z = 1 \\ y = \frac{4 - z}{-6} = \frac{6}{-6} = -1 \\ z = -2 \end{cases}$$