

$$\left[\begin{array}{ccc|c} 1 & 2 & -1 & 1 \\ 3 & -1 & -2 & 9 \\ 3 & 4 & 7 & -5 \\ 2 & -2 & -1 & 7 \end{array} \right] \begin{array}{l} \left[\begin{array}{c} \leftarrow -3 \\ \leftarrow -3 \end{array} \right] -2 \\ \leftarrow \end{array}$$

$$\left[\begin{array}{ccc|c} 1 & 2 & -1 & 1 \\ 0 & -7 & 1 & 6 \\ 0 & -2 & 10 & -8 \\ 0 & -6 & 1 & 5 \end{array} \right] \begin{array}{l} \left[\begin{array}{c} \leftarrow (-1/7) \\ \leftarrow -2/7 \end{array} \right] -6/7 \\ \leftarrow \end{array}$$

$$\begin{aligned} (-2) + (-7)x &= 0 \\ -7x &= 2 \\ x &= -2/7 \end{aligned}$$

$$\begin{aligned} (-6) + (-7)x &= 0 \\ -7x &= 6 \\ x &= -6/7 \end{aligned}$$

$$\left[\begin{array}{ccc|c} 1 & 2 & -1 & 1 \\ 0 & 1 & -1/7 & -6/7 \\ 0 & 0 & 68/7 & -68/7 \\ 0 & 0 & 1/7 & -1/7 \end{array} \right] \begin{array}{l} \cdot \frac{7}{68} \\ \cdot 7 \end{array}$$

$$10 + 1 \cdot \frac{-2}{7} = 10 - \frac{2}{7} = \frac{70}{7} - \frac{2}{7} = \frac{68}{7}$$

$$\left[\begin{array}{ccc|c} 1 & 2 & -1 & 1 \\ 0 & 1 & -1/7 & -6/7 \\ 0 & 0 & 1 & -1 \\ 0 & 0 & 1 & -1 \end{array} \right] \begin{array}{l} \left[\begin{array}{c} \leftarrow 1/7 \\ \leftarrow \text{rowens} \end{array} \right] 1 \\ \leftarrow \end{array}$$

$$1 + 1\left(\frac{-6}{7}\right) = 1 - \frac{6}{7} = \frac{1}{7}$$

$$-8 + 6\left(\frac{-2}{7}\right) = -8 - \frac{12}{7} = \frac{-56}{7} - \frac{12}{7} = \frac{-68}{7}$$

$$5 + 6\left(\frac{-6}{7}\right) = 5 - \frac{36}{7} = \frac{35}{7} - \frac{36}{7} = \frac{-1}{7}$$

$$\left[\begin{array}{ccc|c} 1 & 2 & 0 & 0 \\ 0 & 1 & 0 & -1 \\ 0 & 0 & 1 & -1 \\ 0 & 0 & 1 & -1 \end{array} \right] \begin{array}{l} \left[\begin{array}{c} \leftarrow -2 \\ \leftarrow -1 \end{array} \right] -2 \\ \leftarrow \end{array}$$

$$\begin{aligned} -1/7 + 1 \cdot x &= 0 \\ x &= 1/7 \end{aligned}$$

$$-6/7 + (-1)(1/7) = -6/7 - 1/7 = -1$$

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

\Rightarrow entydlig lösning.

$$\begin{cases} x = 2 \\ y = -1 \\ z = -1 \end{cases}$$