

$$\left[\begin{array}{cccc|c} 1 & 2 & 3 & 4 & 1 \\ 0 & 1 & -3 & -1 & 5 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \end{array} \right]$$

g' entydig lösning.

Låt:

$$z = t$$

$$w = k$$

$$\left[\begin{array}{cccc|c} 1 & 2 & 3 & 4 & 1 \\ 0 & 1 & -3 & -1 & 5 \\ 0 & 0 & 1 & 0 & t \\ 0 & 0 & 0 & 1 & k \end{array} \right] \xrightarrow{-4} \left[\begin{array}{cccc|c} 1 & 2 & 3 & 0 & 4k+1 \\ 0 & 1 & -3 & 0 & k+5 \\ 0 & 0 & 1 & 0 & t \\ 0 & 0 & 0 & 1 & k \end{array} \right]$$

$$\left[\begin{array}{cccc|c} 1 & 2 & 3 & 0 & 4k+1 \\ 0 & 1 & -3 & 0 & k+5 \\ 0 & 0 & 1 & 0 & t \\ 0 & 0 & 0 & 1 & k \end{array} \right] \xrightarrow{-3} \left[\begin{array}{cccc|c} 1 & 2 & 0 & 0 & 4k-3t+1 \\ 0 & 1 & 0 & 0 & k+3t+5 \\ 0 & 0 & 1 & 0 & t \\ 0 & 0 & 0 & 1 & k \end{array} \right]$$

$$\begin{aligned} 4k - 3t + 1 - 2(k + 3t + 5) &= \\ = 4k - 3t + 1 - 2k - 6t - 10 &= \\ = 2k - 9t - 9 \end{aligned}$$

$$\left[\begin{array}{cccc|c} 1 & 0 & 0 & 0 & 2k-9t-9 \\ 0 & 1 & 0 & 0 & k+3t+5 \\ 0 & 0 & 1 & 0 & t \\ 0 & 0 & 0 & 1 & k \end{array} \right] \Leftrightarrow \left\{ \begin{array}{l} x = 2k - 9t - 9 \\ y = k + 3t + 5 \\ z = t \\ w = k \end{array}, t, k \in \mathbb{R} \right.$$