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

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

$$(-2)+(-7)x = 0$$
$$-7x = 2$$
$$x = -2/7$$

$$(-6)+(-7)x = 0$$
$$-7x = 6$$
$$x = -6/7$$

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

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

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

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

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

$$\left[\begin{array}{ccc|c} 1 & 2 & -1 & 1 \\ 0 & 1 & -1/7 & -6/7 \\ 0 & 0 & 1 & -1 \\ 0 & 0 & 1 & -1 \end{array}\right]$$ $1/7$, 1, 0 overens

$$-1/7 + 1\cdot x = 0$$
$$x = 1/7$$

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

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

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

$\Rightarrow$ entydig løsning.

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