

§1.3 3f, g Show all your work.

4h

5i, j, k

6d, e, f

Use Gauss-Jordan in order to solve:

$$\begin{array}{rclcl} 2x_1 - x_2 + x_3 - 3x_4 & = & 1 \\ 5x_1 + 2x_2 - x_3 + x_4 & = & 1 \\ 3x_1 - 3x_2 - x_3 + 2x_4 & = & 3 \\ 10x_1 - 2x_2 - x_3 & = & 5 \end{array}$$

Solution:

$$x_1 = \frac{4}{11} + \frac{3t}{11}$$

$$x_2 = \frac{-6}{11} + \frac{t}{11}$$

$$x_3 = \frac{-3}{11} + \frac{28t}{11}$$

$$x_4 = t$$