Exercise 3.1:
Apply the Domain Reduction Rules from Slide III/5 to the following CSPs until you reach a successful, failed or stabilising CSP. At each step give the rule you have used.

a) \( x = y, y = z, x \neq w, w \neq z; x \in \{a, b, c\}, y \in \{a, c, d\}, z \in \{c, d, e\}, w = c \)

b) \( x \neq w, w < y, w < z, y < z; x \in [4..8], y \in [2..6], z \in [3..6], w \in [4..9] \)

Exercise 3.2:
Take the following set of linear equations:

\[
\begin{align*}
    a + b + c &= 0 \\
    4a + 2b + c &= 1 \\
    9a + 3b + c &= 3
\end{align*}
\]

a) Apply Gauss-Jordan Elimination to compute a most general unifier (mgu) for this set of equations.

b) Apply Gaussian Elimination to compute an mgu for this set of equations.