Exercise 3.1:
Apply the Domain Reduction Rules from Slide 5 (Lecture 3) to the following CSPs until you reach a successful, failed or stabilising CSP. At each step give the rule you have used.

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

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

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.