Foundations of Constraint Programming
Tutorial 7 (on January 29th)

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Exercise 6.1:
Consider the following CSP C together with the ordering $x \prec y \prec z$:

$$\langle x \neq y, y > z, x < z; x \in \{1, 2, 3\}, y \in \{2, 3, 4\}, z \in \{1, 2, 3, 4\} \rangle$$

Give a *prop* labeling tree associated with C (cf. Slide VII/13-14) for each of the two constraint propagation methods Forward Checking and MAC (Full Look Ahead).

Exercise 6.2:
Given a CSP with the variables $x_1, \ldots x_n$ linearly ordered by $\prec$ and the corresponding variable domains $D_1, \ldots D_n$ non-empty, show that the number of nodes in the complete labeling tree associated with $\prec$ is

$$1 + \Sigma_{i=1}^{n} (\Pi_{j=1}^{i} |D_j|).$$