

## Homework 1 (DFA and NFA)

*Due Friday, Feb 16, 07, at 3:00 PM in Class*

- (1) Construct (give STD) DFA that accepts

$$L = \{x \in \{0, 1\}^* \mid |x| \text{ is a multiple of } 3\}.$$

- (2) Construct (give STD) DFA that accepts

$$L = \{x \in \{0, 1\}^* \mid |x| \leq 3\}.$$

- (3) Construct (give STD) NFA that accepts

$$L = \{x \in \{0, 1\}^* \mid x \text{ contains an even number of zeros or exactly two 1's}\}.$$

**Note:** Next homework is on NFA, equivalence of NFA and DFA, and regular languages.