CSE 322
Introduction to Formal Models in Computer Science
Pre-midterm preparation

Winter 1999

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Reading Assignment: Read sections 2.6 and 2.5 of Lewis & Papadimitriou. This will be covered in class but you are not responsible for it on the midterm.

Remember that the midterm is Friday, February 12.

The midterm will cover material up to the end of Section 2.4:

1. Strings and languages and operations on them.
2. Regular expressions and regular languages.
3. Deterministic finite automata: Formal definition, $\vdash_M$, $\vdash_M^*$, $L(M)$, as well as state diagrams.
4. Nondeterministic finite automata: Formal definition, $\vdash_M$, $\vdash_M^*$ and $L(M)$ for NFA's as well as state diagrams.
5. Converting NFA's to DFA's: The subset construction.
6. Construction of an NFA to accept any regular language.
7. Construction of a regular expression representing the language accepted by any NFA.
8. Closure properties of regular languages, e.g. closure under complement, intersection.
9. Proofs that languages are not regular using the pumping lemma.