

COS 487, September 24, 2003

Due: October 1, 2003

## Homework Set 2

When you submit your solutions, please write down your e-mail address on the first page.

*Problem 1:* 1.12 (b)

*Problem 2:* 1.14 (b)

*Problem 3:* 1.15 (b)(d)(f)(h)

*Problem 4:* 1.16 (b); you may use the algorithm given in class, or the one given in the textbook, or some other method (but including a justification for the method in that case).

*Problem 5:* 1.39

*Problem 6:* 1.42

*Problem 7:* Prove that the language  $L = \{1^p \mid p : \text{prime}\}$  is not regular.