# Problem Set 12 (for pre-exam practice only)

CSC 280, 2006

## Try these by Monday May 1, 2006

### Problem 1

Show that the general geography game remains PSPACE-complete even if we allow at most 2 edges to emerge from any node. *Hint*: Modify the proof of Theorem 8.14.

### Problem 2

Show that  $A_{DFA} \in L$ 

### Problem 3

Show that  $A_{NFA}$  is NL-complete.

### Problem 4

Sipser Problem 8.27 (p. 332).