## CSE 6321 - Problem Set 7 Due beginning of lecture on April 21th

Problem numbers are from the third edition of Sipser's book. If unsure about which problem to solve, ask. Collaboration is permitted; looking for solutions from external sources (books, the web, material from previous years, etc.) is prohibited. Printed version is preferred, otherwise please make sure your handwriting is readable.

- 1. Prove that  $NTIME(n) \subsetneq PSPACE$ .
- 2. 9.14 (where NEXPTIME =  $\cup_{k\geq 0}$ NTIME $(2^{n^k})$ )
- 3. 9.9