Problem Set 6 — Due Tuesday, May 11, 1999

Due at 7 pm at the place of the midterm: 166 Chem

Problem 1 Prove that $L = \{a^i b^j c^k : j = \max\{i,k\}\}$ is not context free.

Problem 2 Are the following languages context free? Prove your answers either way.

a. $L = \{b_i \# b_{i+1} : b_i \text{ is } i \text{ in binary}, i \geq 1\}$

b. $L = \{ww^R : w \in \{a,b\}^*\}$