A, B, C, E, F. Do Problems A, B, C, E, and F from the Recursion tutorial on the course web site. (Four of these five problems are quite short.) Hand in your solutions electronically, according to the instructions in the Conclusions section of the tutorial. You do not need to hand in Problem D or Problem G from the tutorial, although they might also benefit your computer science education.

G. Prove that the intersection of a context-free language and a regular language is a context-free language. Hint: What other proofs about intersection have we done in this course?

H. Show that if A is context-free and B is regular, then A/B is context-free. Hint: Let P be a PDA for A and M a DFA for B. Build a new PDA N that is able to run P and M simultaneously. Then, use P and N in the construction of a PDA for A/B. Various tweaks are required. My solution uses many ϵ-transitions.