

CSci 3501 Assignment 10
Due Friday, November 12th in class

Problem 1 (4 points). Sipser, exercise 2.12 p. 129.

Problem 2 (6 points). Construct PDAs for the languages in Sipser, exercise 2.5 (parts b,c only!) p. 129.

Problem 3 (9 points). Sipser, exercise 2.16 p. 129. In other words, given two context-free grammars G_1, G_2 that derive languages L_1, L_2 , respectively, show how to construct context-free grammars for the languages $L_1 \cup L_2$, $L_1 \circ L_2$, and L_1^* . Alternatively you can start with two PDAs and construct PDAs for the required languages.

Problem 4 (6 points). Sipser, exercises 2.30a, 2.31 p. 131.