CS 311: Computational Structures
Problem Set 4

James Hook

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Due: As per syllabus

1. Sipser 2.4 (b,e). Give grammars for langauges as described.

2. Sipser 2.9. Build a grammar; discuss ambiguity.

3. Sipser 2.10. Build a PDA. Note: it is sufficient to describe the PDA with a transition diagram.

4. Sipser 2.14. Convert a grammar to Chomsky Normal Form.

5. Sipser 2.18 (a,b). CFLs closed under intersection with a regular language. Note there is a sample solution in Sipser, but the collaboration policy still applies. Please write up your solution in your own words. For part (b) you may assume results obtained in the text in Example 2.36, 2.37, or 2.38 even though we have not yet covered Section 2.3.