

**CSci 3501 Assignment 11**  
**Due Monday, December 5th in class**

**Problem 1 (10 points).** Sipser, exercises 4.3, 4.4, 4.12 p. 183. These problems require methods similar to those used in the decidability proofs in the book. You may use any results proven in the book. Note that regular languages have different properties than context free languages - double check your approaches. Pair work is encouraged.

**Problem 2 (4 points).** Sipser, exercise 4.7 p. 183.

**Problem 3 (2 points).** Sipser, exercise 7.5 p. 294.

**Problem 4 (9 points).** Sipser, exercise 7.6 p. 294.

**Problem 5 (6 points).** Sipser, exercise 7.7 p. 295.