# Assignment 1

Total marks: 95.

*Out:* September 29
*Due:* October 14 at noon

Note: Your report for this assignment should be the result of your own individual work. Take care to avoid plagiarism ("copying"). You may discuss the problems with other students, but do not take written notes during these discussions, and do not share your written solutions.

1. Exercise 1 of Chapter 3 in the (Brachman and Levesque) textbook. For this question, your proofs should be semantic, i.e., refer to interpretations of the sets of sentences involved. Give a clear list the sentences of first-order logic that you use to represent the knowledge in the example and state what the predicate and function symbols that you use mean in English. [30 points]

2. Exercise 2 of Chapter 4 in the textbook. [20 points]

3. Exercise 7, parts (a) to (d) of Chapter 4 in the textbook. [20 points]

4. Exercise 4 of Chapter 5 in the textbook. [25 points]