CS 720 Spring 2003
Homework 3

Due Date: March 26

1. Carry out the model checking of the LTL formula $A[(\neg Heat) U Close]$ in the microwave oven example by constructing the full graph G and applying Corollary 1 on page 45. (The construction of G is begun on pages 45 and 46 of CGP. I have not done this myself and I hope it is not too messy.)

2. Huth and Ryan, Exercises 6.5 (page 333), Problem 1.

3. Prove that if T and T' are two rooted reduced OBDDs with the same ordering of variables and the truth functions computed at the roots of T and T' are the same, then $\{f_v^T | v \in T\} = \{f_{v'}^{T'} | v' \in T'\}$. (You should use the first two theorems about reduced OBDDs that were given in class. We outlined in class the argument you should give, but your proof should use induction.)