Homework 4 Logical Agents I and OpenNERO

Due: Thursday, Sept. 26th, at beginning of class (11:10AM). (Either bring hard copy to class or submit to Blackboard by due date/time.)

[Only answer the questions for your type of credit – undergraduate or graduate.]

- 1. **[Everyone]** Work problem 7.1 on pages 279-280. ("Suppose the agent has progressed..."). [It is fine to present your answer in a tabular form.]
- 2. [Everyone] Work problem 7.4, page 280. ("Which of the following are correct?")
- 3U. [Undergrads only] Work problem 7.2, page 280. ("(Adapted from Barwise...)")
- 3G. **[Graduate students only]** Work problem 7.6, page 281. ("Prove, or find a counterexample to, …")
- [Everyone] OpenNERO is an open source software platform for research and education in AI, developed at U. of Texas at Austin. Read about this software here: http://code.google.com/p/opennero/. The point of this exercise is simply to get the software running and gain some minimal familiarity with it. We will use it more in later homework(s).
 - a. Using the instructions and software available at the above link, install OpenNERO on the platform of your choice. Explore the use of the software. [Nothing to turn in for this step]
 - b. Run OpenNERO using the Maze mod, and try various settings. Turn in a screen shot of one of the "canned" algorithms running in the Maze environment.
 - c. Run OpenNERO using the Roomba mod, and try various settings. Turn in a screen shot of one of the "canned" algorithms running in the Roomba environment.
 - d. Run OpenNERO using the BlocksTower mod, and try various settings. Turn in a screen shot of one of the "canned" algorithms running in the BlocksTower environment.