MA 327/ECO 327
Homework #4
Due Friday, September 28

1. Chapter 4, #4.

2. Chapter 4, #5.

3. Chapter 4, #6.

4. Consider the following two pile game of Checker Stacks, in which the first pile has an *infinite number* of R checkers, but the second pile has only a *finite* number n of L checkers ($n \geq 0$).

$$\begin{array}{cc} \vdots & \\ R & L \\ \vdots & \vdots \\ R & L \\ R & L \\ L & R \end{array}$$

   (a) Show that the game consisting of the first pile alone is of type L (and thus positive).

   (b) Use the short-cut rule presented in class to determine the value of the game consisting of the second pile alone. (Your answer will involve "n".)

   (c) Show that the two pile game is of type R, regardless of the value of n, by direct description of the winning strategy for R. Use this to conclude that we can think of the value of first pile to be positive but smaller than any positive real number.