MA 310 — Homework #5
Due Monday, February 9, in class

Read Sections 2.4 of the text.

1. Determine a simple closed formula for the minimum number of steps it takes to solve the "Towers of Hanoi" puzzle with n disks (see Problems on the course website). Prove your answer. In particular, how does your proof show it cannot be solved in fewer steps?

2. Solve the problem "Thinking about Thinking—Hats" (see Problems on the course website).

3. Solve problem 2.3.14 in the book.

4. Solve problem 2.3.37(d) in the book.

5. Solve problem 2.4.7 in the book. Suggestion: Draw graphs of distances from home as a function of time of day.

6. Study for Exam #1, to be given in class on Friday, February 13.