

## Problem set due in class Tuesday, April 12

**Homework is graded check/check plus/check minus. You may work on these problems together, but you should write up your answers on your own.** Note that problems marked *optional* are just that—optional—and that the author’s website (linked from our class homepage) has answers to exercises with a dark circle around the question mark. **Please circle your answers and otherwise make it easy for me to follow your work.**

1. Exercises 163.1 (only Figure 160.1, but find all SPNE in addition to all NE), 163.2 (again, find all SPNE in addition to all NE), 173.4, 179.1, 179.2, 183.2, 183.3, and 186.1 (do this by drawing a game tree and identifying the SPNE).
2. Find all the SPNE in the three-period disappearing money game (a.k.a. melting ice cream pie game). Recall how this game works: in period 1 player 1 proposes a division of \$8 to player 2. If 2 accepts, the game ends. If 2 rejects, we go to period 2, where player 2 makes a counter-offer, proposing a division of \$4 to player 1. If 1 accepts, the game ends. If 1 rejects, we go to period 3, where player 1 makes a counter-counter-offer, proposing a division of \$2 to player 2. If 2 accepts, the game ends. If 2 rejects, both players get nothing. (Note that we solved the one- and two-period versions of this game in class.)
3. Read the sidebars on ticktacktoe (pp. 178–79) and the ultimatum game (pp. 183–85) and the notes on pages 179–80 and write a one-sentence comment on each.