

Economics 11; Weekly Assignment Sheet for Week 14 -- Game Theory

A. Text and workbook

1. Text: Chapter 16; omit nothing.

2. Study guide: Chapter 16 ; omit nothing.

a. NOTE: The answers given in the back of the Study Guide to the following questions are wrong either in whole or in part (thus it is left to you, at least for now, to find the right answers!): p. 156, #2, answer should reference Fig. 16.4 in text; p. 159, #s11,12.

B. Reading(s)

None this week.

C. Puzzles

1. Consider the following game, known as the "Centipede game." The game consists of a sequence of alternating choices: first you choose whether to continue the game (or to terminate it at that point), then your opponent chooses whether to continue it; then you again choose, your opponent again chooses; and so on until each of you has chosen 99 times. Both of you receive payoffs that depend on the chosen termination of the game. If you terminate the game on your n 'th choice, you and your opponent both receive $\$n$. If your opponent terminates the game on her n 'th choice, you receive $\$(n-1)$ and your opponent receives $\$(n+2)$. If each of you always chooses to continue the game, then both of you receive $\$100$ at its conclusion.

a. Assume that you are playing a rational opponent. What is your optimal strategy?

b. Are you happy with this answer? Consider: In reality, people who play this game rarely follow the correct answer to a.