

Homework 3

due 2/29/2012

Problem 1 MWG problem 9.C.2

Problem 2 MWG problem 9.C.7

Problem 3 Ace-King-Queen poker is a two-card game that is played using a deck consisting of three cards: an ace (the high card), a king (the middle card), and a queen (the low card). Play proceeds as follows:

- Each player puts \$1 in a pot in the center of the table.
 - The deck is shuffled, and each player is dealt one card. Each player sees only the card he is dealt.
 - Player 1 chooses to raise (R) or fold (F). A choice of R means that player 1 puts an additional \$1 in the pot. Choosing F means that player 1 ends the game, allowing player 2 to have the money already in the pot.
 - If player 1 raises, then player 2 chooses to call (c) or fold (f). A choice of c means that player 2 also puts an additional \$1 in the pot; in this case, the players reveal their cards and the player with the higher card wins the money in the pot.
- a. Draw the extensive form of this game.
- b. Find all (weak) perfect Bayesian equilibria of this game.
- c. If you could choose to be either player 1 or player 2 in this game, which player would you choose to be?

Problem 4 Solve for all (weak) perfect Bayesian equilibria in the game depicted in figure 1.

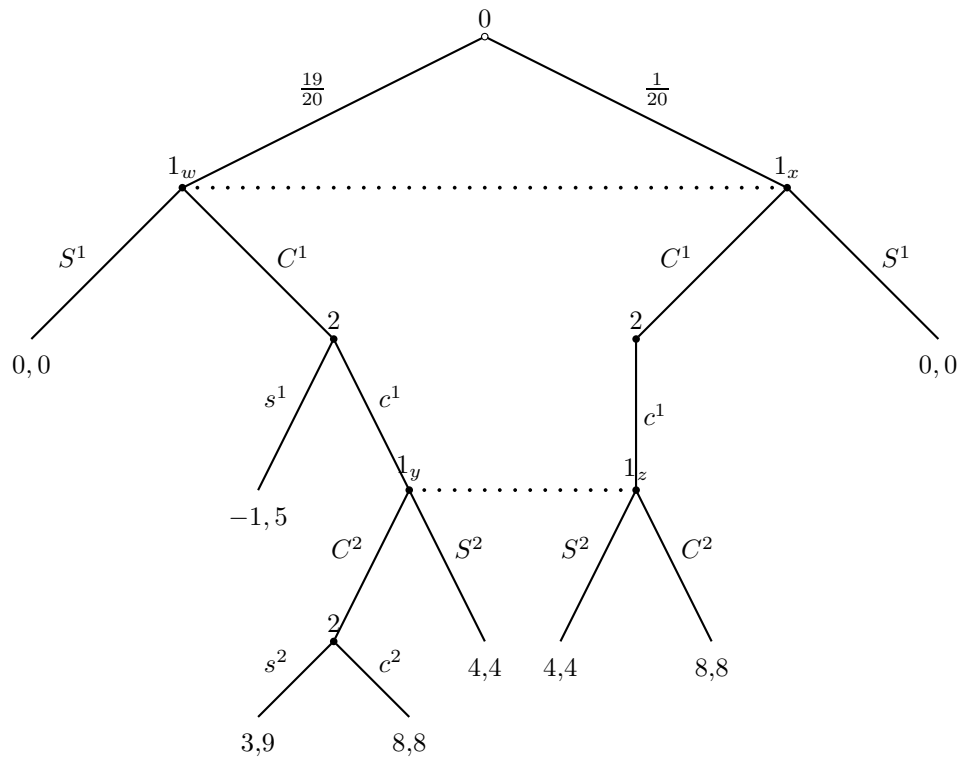


Figure 1: Modified centipede game