Assignment #2

We begin our exploration of competitive decision making with a greatly simplified version of stud poker. This repeated play zero-sum game introduces you to key concepts underlying a rational, prescriptive approach to strategic analysis of what is best to do in a simple two-party competitive situation, concepts such as "pure strategy," "mixed strategy" and "equilibrium point" highlight the important role of interactive thinking. The absence of a rich texture of strategic possibilities and the lack of players’ ability to influence behavior by verbal communication in such a highly stylized setting allow us to do a “classical” and complete prescriptive analysis of choice of action.

In addition, our version of stud poker serves as a "warm-up" for how we will undertake more complex and realistic negotiations.

READ:

Chapter 5, "Rational Behavior: A Prescriptive Approach," Thompson, pp.68-73 on individual preference structure and utility functions. Study the five pages of overheads beginning on the next page. They distill major features of zero-sum games and set the stage for analysis of Stud Poker. Read the next three pages to get the flavor of how non-zero sum games differ from zero-sum. Study how decision trees can be used to arrive at an "optimal" strategy for our simple version of Stud Poker by reading the four pages following the second Stud Poker scoring sheet.

DO:

Play 40 rounds of the attached highly simplified Stud Poker Game with the counterpart assigned to you. Instructions follow overheads on properties of 2-person games.

NOTE: Do not worry if you feel that the luck of the draw is against you and that you are starting with a disadvantage compared to your opponent. Remember that your scores will be compared with the scores obtained by others in a similar position. Flip a coin to see who is the Drawer throughout play.

Hand in your results immediately upon completion.

Questions to think about:

1. Knowing that each of you know your equilibrium strategy and that of your counterpart, did you employ your equilibrium strategy?
2. Did your appraisal of your counterpart’s strategy change as play progressed?
3. Is it easy to appraise the probability of a “Bluff”? How do you go about it?