PSC 272 Midterm
2/29/00

Write all answers in your blue book.

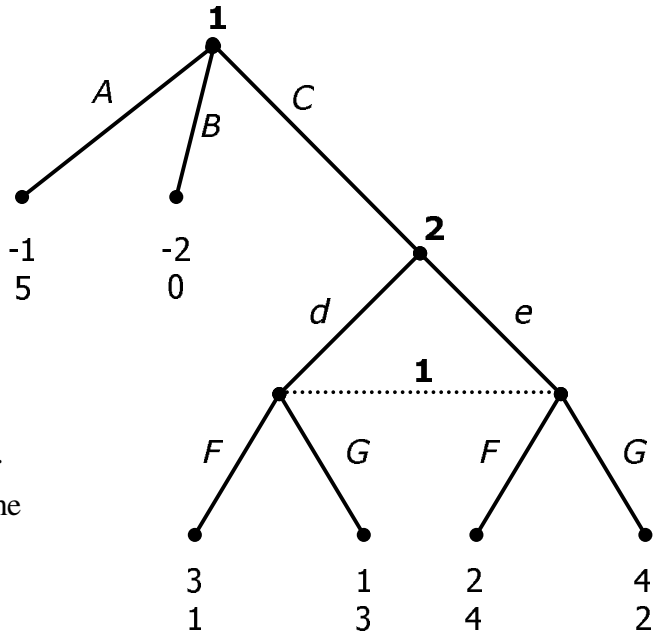
The exam consists of two parts: A. Short Answer and B. Game Theory. Note the points associated with each question and *budget your time accordingly*. If you cannot complete a game-theory problem, show as much work as possible in order to maximize your chance of obtaining partial credit.

A. Short Answer (10pts each)

Provide short descriptions (a few paragraphs) for any **five** of the following six items. If the item is a theoretical concept, also cite applicable historical examples given in lecture or the readings. If the item is historical, explain its relationship to the theoretical concept with which it is associated. If you attempt all six items, only the first five will be graded.

1. Third Image
2. Immanuel Kant
3. Thomas Hobbes
4. Melian Dialogue
5. Collective Action Problem
6. Security Dilemma

B. Game Theory



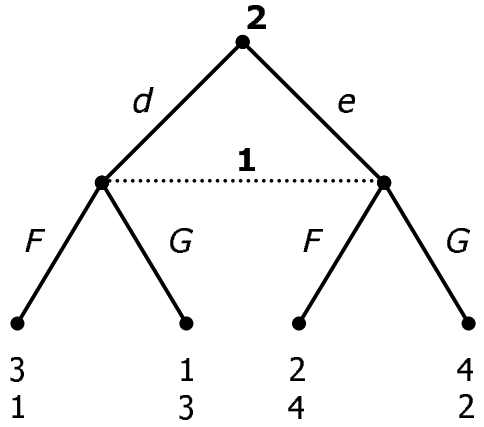
1. Consider the game to the right:

   a. (5pts) Enumerate each player's strategies.

   b. (5pts) Write down the strategic form of the game (but do not solve yet).

   c. (5pts) Which of player 1's strategies are strictly dominated? Which of player 2's strategies are strictly dominated?

   d. (10pts) What are the *pure strategy* Nash equilibria of the game?



2. Now consider the subgame starting at 2's information set:

   a. (15pts) Find all Nash equilibria of the subgame.

   b. (10pts) For the mixed strategy Nash equilibrium, what is player 1's expected utility?

Extra Credit (5pts): What is the subgame perfect equilibrium for the *entire* game in problem 1?