Game Theory Day 3 Homework Set

Please complete on a separate piece of paper

- 1. Consider the game of Battle of the Sexes. How would you modify the payoffs to (F, O) and (O, F) to reflect the following: the husband is unhappiest when he is at the opera by himself, he is a little happier if he is at the football game by himself, he is happier still if he is with his wife at the opera, and he is the happiest if they are both at the football game? (Likewise, the wife is unhappiest when she is at the football game by herself, she is a little happier if she is alone at the opera, happier still if she is with her husband at the football game, and the happiest if they are both at the opera).
- 2. Describe a game where a dominance strategy exists.
- 3. Give an example of a three-player game in which two of the players have dominant strategies but not the third.
- 4. Research the term "Zero-Sum Game" and write a definition in your own words.