Assignment #1:
Due September 7

1. Show that a strictly dominant equilibrium is unique for an $n$-player game when it exists.

2. Show that a weakly dominant equilibrium is also a Nash equilibrium.

3. Show that when a strictly dominant equilibrium exists, then the Nash equilibrium is unique.

4. Is it possible to have a strictly dominating equilibrium that consists of mixed strategies? If yes provide an example; if not show why.

5. What happens to the set of Nash equilibria when strictly (weakly) dominated strategies are eliminated?

6. If there is a strategy profile $(s_1, s_2, ..., s_n)$ for an $n$-player game such that the payoff for each player for this profile is strictly larger than the corresponding payoff for any other profile, is this profile a strictly dominant equilibrium? Is it a Nash equilibrium?