Economics 104: Game Theory, Spring 2011 Problem Set 4

(O) Questions:

(1) Exercise 391.1 (Example of Dominance-Solvable Game)

(2) Exercise 156.2 (Examples of Extensive Game with Perfect Information)

(3) Exercise 163.2 (Voting and Alternating Veto)

(4) Exercise 164.2 (Subgames)

(5) Exercise 173.4 (Burning a Bridge)

(6) Exercise 174.2 (An Entry Game with a Financially Constrained Firm)

(7) Exercise 177.2 (The "Rotten Kid Theorem")

(8) Exercise 177.3 (Comparing Simultaneuos and Sequential Games)

(OR) Questions:

(9) Exercise 94.2

Let G be a two-player strategic game $(\{1,2\}, (A_i), (\succeq_i))$ in which each player has two actions: $A_i = \{a_i', a_i''\}$ for $i = 1, 2$. Show that G is the strategic form of an extensive game with perfect information if and only if either for some $a_1 \in A_1$ we have $(a_1, a_2') \sim_i (a_1, a_2'')$ for $i = 1, 2$ or for some $a_2 \in A_2$ we have $(a_1', a_2) \sim_i (a_1'', a_2)$ for $i = 1, 2$.