Stat/Econ 473 Game Theory
Problem Set 11

Due: Tuesday April 30

From the Text: Do problems: Chapter 13: 1, 2a, 4 [Note: In 4 look for strategies which would lead to (a,z) being played in each round.]

1) Consider the following game G.

	a	b	c
a	10,10	4,8	1,12
b	8,4	5,5	0,3
c	12,1	3,0	2,2

Suppose two players play the game three times, knowing the results of previous rounds before playing the next round and their final payoff is the sum of the payoffs in the three rounds. Find a strategies for a subgame perfect equilibrium where both players play a in each of the first two rounds.

2) Consider the following game G.

	L	C	R
T	-1,3	3,0	4,2
B	1,1	0,-1	3,0

Suppose we play G infinitely many times with discount factor $0 < \delta < 1$.

a) Graph the feasible set for this game.

b) Use the Folk Theorem to decide for each of the following possible payoffs (a, b), if for sufficiently large δ, there is a subgame perfect Nash equilibrium where the average payoff is close to (a, b). Justify your answers.

i) (2,2)

ii) (0,2)

iii) (2,3)