Stat/Econ 473 Game Theory
Problem Set 12

Due: Thursday December 7

From the Text: Do problems: Chapter 16: 3, 5, 7

1) 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) Describe strategies for Players 1 and 2 that lead to a subgame perfect Nash equilibrium where in odd rounds Player 1 plays T and Player 2 plays C and in even rounds Player 1 plays B and Player 2 plays R. What conditions on δ are needed for this equilibrium?

b) Graph the feasible set for this game.

c) 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)