Stat/Econ 473 Game Theory
Problem Set 9

Due: Tuesday April 5

From the Text: 20.5–20.8, 20.9–20.13
Notes:

• For Problems 20.5)–20.8) assume that Player 2 is tough with probability ρ and accommodating with probability $1-\rho$. Also assume that Player 2 knows his type but Player 1 does not.

• In 20.8 find all possible Bayes–Nash equilibria for all possible values of ρ.

• For Problems 20.9–20.13 use the following version of diagram 20.3 a) in the case of substitutes

	H	M	L
H	5,5	0,8	0,6
M	8,0	4,4	0,6
L	6,0	6,0	3,3

• For 20.9–20.13 assume that the chance the goods are substitutes is ρ and that Firm 2 knows if they are substitutes, but Firm 1 does not.

• For 20.11–20.12 find all pure strategies where if Firm 2 knows the goods are substitutes they price M. What conditions on ρ are necessary?

• For 20.13 find all pure strategies where if Firm 2 knows the goods are substitutes they price L. What conditions on ρ are necessary?