

Spring 2012
Econ 790 – Game Theory and Applications

Instructor: Tarun Sabarwal

List of Homework Assignments

Assignment	Due date
1. Problems 37.1b, 38.1, 38.2, 41.1, 42.1, 42.2 from textbook, and the problem listed on the next page	Feb. 2
2. Problems 47.1, 74.1 , 75.3, 79.2 , and 80.1 from textbook.	Feb. 16
3. Problems 84.1 , 85.1, 86.2, 87.1, and 88.1 from textbook.	Feb. 28
4. Problems 114.2, 114.3 , 117.2, 120.3, and 127.1 from textbook, and the problem listed on the next page .	Mar. 8
5. Problems 163.2, 173.3, 177.1 , 186.1, and 189.1 from textbook.	Apr. 5

Spring 2012
Econ 790 – Game Theory and Applications
 Instructor: Tarun Sabarwal

Additional Homework Assignments

1. (Due February 2) Consider the standard Cournot duopoly with linear demand and quadratic costs. That is, inverse market demand is given by $p = a - b(x_1 + x_2)$, where x_1 is output of firm 1, and x_2 of firm 2, and $a, b > 0$ are constants. For firm i , total cost of producing x_i is given by cx_i^2 , where $c > 0$ is a constant. Find Nash equilibrium.

2. (Due March 8) Find all PSNE and MSNE in the following 3-player, 2 action Dove-Hawk game.

		Player 2				Player 2	
		D	H			D	H
Player 1	D	10, 10, 10	0, 20, 10		D	10, 0, 20	10, 10, 0
	H	20, 10, 0	10, 0, 10		H	0, 10, 10	0, 0, 0
		D		<----- Player 3 ----->			H