

Written answers are acceptable so long as they are legible. Remember, you can work with others but you must write the answers on your own. IF YOU WORK WITH OTHERS YOU MUST NOTE WITH WHOM YOU WORKED IN YOUR ANSWER.

Problem 1

Find all the pure strategy Nash equilibria for the following game:

	l	c	r
T	4 4	3 2	6 4
M	1 3	5 3	1 1
B	8 1	8 3	1 2

Problem 2

Suppose there are three people who live together and can take one of two routes to work. These are the only three people who might use the route. They cannot coordinate on routes, they must choose independently of each other. Each person prefers to drive on a route with no one else on it. The next best outcome is to drive on a route with only one other person on it. The worst outcome is to choose the route with everyone else on it.

What are the pure strategy Nash equilibria of this game?

Problem 3

(Exercise 58.1) Consider the duopoly game we described in class, where $P(d) = a - d$, but where the two firms (firm 1 and firm 2) have different costs, c_1 and c_2 respectively. Suppose that $c_1 > c_2$ and that $a > c_1$.

First, write down the best response functions for both firms. Second, find the Nash equilibrium of this version of the game.