

# ECON 7050

## HW#2

Due Oct 1

### 1 Part 1. First welfare theorem: A group project

**Problem 1** Refer to the link on our webpage (right below) for an incomplete "easy" proof of the First Welfare Theorem for the 'two individuals, two outputs, two inputs' economy. Impose necessary assumptions to validate the proof and re-write it formally. Hint: see section 16.F in MWG.

### 2 Part 2. An Individual-based part of the assignment, a solo work.

**Problem 2** 15.C.2

**Problem 3** 15.B.6. Also, show that each equilibrium you find is locally unique. Calculate the index of each equilibrium and verify the index theorem for this case. Graph the excess demand.

**Problem 4** 15.B.10

**Problem 5** 16.D.3