

## Homework 1

due: Thursday, September 11, in class

**Problem 1:** Consider two towns: C and U (any similarity with real towns is purely coincidental). You are given the following information about their labor endowments and their unit labor requirements for the production of food and haircuts:

	C-town	U-town
labor	$L^C = 60$	$L^U = 40$
food	$a_f^C = 3$	$a_f^U = 10$
haircuts	$a_h^C = 6$	$a_h^U = 5$

Both the representative inhabitant of C as well as the representative inhabitant of U have the same utility function, namely  $U(Q_f, Q_h) = Q_f \times Q_h$ .

- a) Depict the PPF for both towns and label the intercepts as well as the slopes (include their exact values, pls). Which town has the comparative advantage in producing food/haircuts?
- b) Suppose animosity between the two towns runs at a level that makes trade unthinkable. What will be the quantities produced/consumed and the utility levels reached under autarky?
- c) Sensible citizens on both sides prevail and free trade becomes reality. Depict the twin towns' relative supply function (again, pls label and provide numbers). What is the free trade equilibrium relative price? What quantities does each town produce, how much do they import/export? Who gains from trade?

**Problem 2:**

- a) List the four main results of the Heckscher-Ohlin model and briefly state — using your own words — what each says.
- b) Derive the four results graphically (or mathematically, if you prefer), explicitly labelling the axes of your diagrams and defining/describing the curves you use.
- c) Concerning factor price equalization, do you expect to receive the same wage irrespective of whether you take up a job in the US or in Mexico? If not, offer possible explanations why this result fails to hold.