Homework – General Equilibrium

1. Consider 2 individuals who consume two goods: and . The utility function of individual 1 is

and the utility function of individual 2 is

The initial endowments of individual 1 is which means she has 4 units of x and 6 unit of y. The initial endowments of individual 2 is which means she has 3 units of x and 3 unit of y.

1. Draw an empty Edgewoth box, and then indicate the initial endowments on your graph.
2. Draw the indifference curve of each individual passing through her initial endowments.
3. Show that no-trade is inefficient using your Edgeworth box.
4. Compute the demand for by individual 1 and 2.
5. Compute the perfectly competitive equilibrium price.
6. Indicate the equilibrium on the same Edgeworthbox.
7. Draw the indifference curves passing through the competitive equilibrium.
8. Show that the equilibrium is efficient.
9. Consider the essay entitled “The decline of the safe real interest rate” by Robert Hall. The paper analyzes a theoretical model with uncertainty.

* Explain why Eq (1) involves no term representing uncertainty.
* Explain the relation between probabilities and beliefs .