

ECON 305
INTERNATIONAL ECONOMICS I
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15 October 2007

Exercise 4
A General Equilibrium Model of Classical Model

1. The following table shows the *labor requirements* in each country:

	Computers	Textiles
Home	1	1
Foreign	3	2

Suppose that labor endowments of Home and Foreign countries are 20 and 80, respectively. Suppose also that preferences are $U(x_C, x_T) = (0.4)\log(x_C) + (0.6)\log(x_T)$ and $U(x_C^*, x_T^*) = (0.4)\log(x_C^*) + (0.6)\log(x_T^*)$, where x_C is consumption of computers and x_T is consumption of textiles.

- (i) Find the demand for computer and textile industries for Home and Foreign.
- (ii) Find the equilibrium relative price and relative quantity under autarky for Home and Foreign.
- (iii) Find the equilibrium output and labor demand for computer and textile industries under autarky for Home and Foreign.
- (iv) Find the relative supply of the World.
- (v) Find the relative demand for the World.
- (vi) Find the equilibrium relative world price and relative world output.
- (vii) Show that both countries gain from trade.
- (viii) Show that world gains from trade.