## Problem 1

This problem ( $1 \mathrm{a}, \mathbf{1 b}, 1 \mathrm{c}$ ) is weighted $25 \%$ of your grade.

Read this text and take a look at figure 1 and 2 before you answer the questions (1a, 1b, 1c).

Consider two countries, Home and Foreign. Each country produces two goods, cloth and food. Labor is the only production input and each country has 120 hours of labour available for production. The production technologies are such that there is a constant relationship between hours worked and production.

In Home, $a_{C}=1$ is the required hourly input per unit of cloth and $a_{F}=4$ is the required hourly input per unit of food.
In Foreign, $a_{C}^{*}=2$ is the required hourly input per unit of cloth and $a_{F}^{*}=3$ is the required hourly input per unit of food.
Figure 1 illustrates the world relative supply curve (RS) and the world relative demand curve (RD) for cloth in terms of food. $Q_{C}$ and $Q_{F}$ denote the quantity of cloth and food in Home. $Q_{C}^{*}$ and $Q_{F}^{*}$ denote the quantity of cloth and food in Foreign. $P_{C}$ denotes the price of cloth, and $P_{F}$ denotes the price of food.

Figure 2 illustrates the production possibilities for each country.

Figure 1


Figure 2

(a) Which country has a comparative advantage in the production of cloth? Which country has a comparative advantage in the production of food?

Fill in your answer here
(b) How much cloth and food is produced in each country when the two countries engage in free trade? Use Figure 1 as a reference for your discussion.

## Fill in your answer here

(c) Explain how both countries can gain from trade. Use Figure 2 as a reference for your discussion.

Fill in your answer here

## Problem 2

This problem (2a, 2b, 2c, 2d) is weighted $\mathbf{3 0 \%}$ of your grade.
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Read this text and take a look at figure 3 before you answer the questions (2a, 2b, 2c, 2d).

## Consider two countries, North and South.

North has a population of $\mathbf{2 5}$ million people and its capital stock is US $\mathbf{\$ 5 0}$ million.

South has a population of $\mathbf{2 0}$ million people and its capital stock is US $\$ \mathbf{3 0}$ million.

Assume that each country produces two goods, $X$ and $Y$, using capital and labor. Assume also that the production of $X$ is capital intensive. Apply the Heckscher-Ohlin model to answer the following questions, based on the information above.

Figure 3

(a) Which country would export $X$ and which country would export $Y$, if the two countries started to engage in trade?

Fill in your answer here
(b) Figure 3 illustrates the production possibility frontier in North.

Explain how resources are allocated in this economy under autarky and in equilibrium with trade. Compare welfare in the two equilibria.

Fill in your answer here
(c) Discuss who gains and who loses from trade in each country, and what characterizes these groups respectively. Is it possible to ensure that everyone gains from trade?

Fill in your answer here
(d) Explain the mechanisms behind the Stolper-Samuelson effect applied to this example.

Fill in your answer here

## Problem 3

This problem (3a, 3b, 3c) is weighted $15 \%$ of your grade.
(a) Explain what we mean by internal economies of scale.

Fill in your answer here
(b) Explain what we mean by monopolistic competition.

Fill in your answer here
(c) Explain what we mean by intra-industry trade.

Fill in your answer here

## Problem 4

This problem (4a, 4b) is weighted $30 \%$ of your grade.
(a) Discuss possible justifications for engaging in protectionist trade policy.

Fill in your answer here
(b) Discuss the disadvantages of engaging in protectionist trade policy.

Fill in your answer here

