

NAME

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**Midterm Exam
Economics 181**

**PLEASE SHOW YOUR WORK! PUT YOUR NAME AND TA's NAME ON ALL PAGES
100 Points Total**

PART I. Short-Answer. (40 points). Please explain your work whenever possible. Each of the following 8 questions is worth 5 points each.

1. True or False? George Soros recently pointed out in the San Francisco Chronicle that although international trade leads to overall gains for the whole population, there are some individuals who lose from international trade. An excellent illustration of this idea is represented by the Ricardian model.

2. True or false? Evidence suggests that in the United States an increase in the supply of skilled labor relative to unskilled labor has contributed to an increase in inequality. Other factors, such as such as globalization and skill-biased technical change, have also contributed to rising inequality.

3. True or false? Larry Summers once proposed that developing countries should dispose of pollution because they have a comparative advantage in this area.

4. You are given the following unit labor requirements:

	TVs	Whiskey
Britain	40	1
Japan	20	$\frac{1}{2}$

Are there gains from trade? Show your work.

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5. True or false? While the Ricardian model predicts that there will be wage differences in the world as a result of differences in technology, the specific sector model suggests that wages should equalize as a consequence of international trade.

6. True or false? While most economists generally agree that countries that grow faster see a reduction in poverty (ie the number of individuals living below the poverty line), the evidence regarding the linkages between poverty and international trade is mixed.

7. What does Adrian Wood claim that this picture indicates? What critique could you make regarding his claim?
8. What would have to be true for the observed increase in inequality in Mexico to conform with standard predictions of the Heckscher –Ohlin model? Do you think this is the case? If cannot explain the increase in inequality in Mexico, can you propose other explanations? Give one policy prescription that could address rising inequality in the US and Mexico.

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PART II. Problems.

- I. Ricardo. (30 points) Home has 1200 units of labor available. It can produce two goods, apples and bananas. The unit labor requirement in apple production is 4, while in banana production it is 2.
- (a) Graph Home's production possibility frontier, with apples on the vertical axis and bananas on the horizontal axis. (5 points)
 - (b) What is the relative price of apples in terms of bananas in the absence of trade? (5 Points)
 - (c) Now introduce Foreign, with a labor force of 900. Foreign's unit labor requirement in apple production is 3, while in banana production it is 1. Graph Foreign's production possibility frontier (5 points)
 - (d) Construct the world relative supply curve, labeling all points carefully. (10 points)
 - (e) If the post-trade price of apples in terms of bananas settles at 2 and $\frac{1}{2}$, show that there are gains from trade by identifying consumption in both countries pre and post trade (5 points)

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II. Endowment Changes, Trade, and Incomes (20 points)

Home and Foreign produce two goods each, cars and apparel, and use three factors. Cars are produced using skilled labor SK and capital Kc , but no unskilled labor. Apparel is produced from unskilled labor $UNSK$ and capital Ka , but without skilled labor. Capital is completely mobile between sectors ($Kc + Ka = K$). Consider the home country:

- Draw a diagram that shows demand for capital, the return to capital, and the allocation of capital between sectors for Home. You may assume a relative world price Pc/Pa . (10 points)
- A new agreement between Mexico and the USA allows unskilled labor to migrate into the US. How does this affect the allocation of capital between cars and apparel? (5 points)
- How does immigration affect the returns to skilled labor in the US? (5 points)

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III. The Heckscher-Ohlin Model (5 points)

You are given the following information:

	United States	Canada
Capital	40 Machines	10 Machines
Labor	200 Workers	60 Workers

Suppose that the US and Canada have the factor endowments in the above table. Suppose further that the production requirements for a unit of steel is two machines and eight workers, and the requirement for a unit of bread is one machine and eight workers

Which good, bread or steel, is relatively capital intensive? Labor intensive? Explain how you know.

Which country would export bread? Why?

IV. The Standard Trade Model (5 points)

Define terms of trade. Show whether an increase in terms of trade improves or worsens a country's welfare using a standard trade model