Problem Set 1: The Ricardian Model

1. Using the Ricardian model, and focusing on the auto industry, explain why American workers receive higher wages than Chinese workers in the production of cars?

2. Why is the production possibility frontier a straight line in the Ricardian model?

3. Consider the following table and assume that the total labor supply in Taiwan is 4 and the total labor supply in Vietnam is 8

	Taiwan	Vietnam
Number of telephones produced per hour	10	5
Number of radios produced per hour	50	10

a) What is the opportunity cost of 1 unit of telephones in terms of radios in Taiwan? In Vietnam?

b) Determine whether each of the following statements is true or false. Provide a brief explanation of why it is true or false.

   i) Taiwan has an absolute advantage in the production of both telephones and radios
   ii) Vietnam has a comparative advantage in the production of telephones
   iii) One possible production combination for Vietnam is 40 units of telephone and 80 units of radio per hour

c) If the two countries engage in international trade, what will Taiwan produce and how many?

d) What is the real wage in Taiwan in terms of radio? What is the real wage in Vietnam in terms of telephone?

e) Will Taiwan and Vietnam trade if the international relative price of telephone is 3? Briefly explain why and why not.

4. Refer to the following table in answering the questions that follow. Assume each country has 100 workers.

	Australia	United States
Pounds of beef produced per hour	17	35
Bushels of wheat produced per hour	51	105

a) Which country has a absolute advantage in the production of wheat?
b) Using the Ricardian model, would trade between Australia and the United States be mutually beneficial? Briefly explain why or why not.
c) Would your answers be different if a worker in the United States became more productive and could produce 70 pounds of beef or 140 bushels of wheat per hour?

5. Refer to the following table. Assume there are two workers in Mexico and three workers in the United States.

	Mexico	United States
Bottles of tequila produced per hour	7	5
Pounds of rice produced per hour	5	10

a) Determine the pretrade relative price of tequila in Mexico and the United States
b) Given your answer in part (a), which country has a comparative advantage in the production of rice?
c) What is the lowest international relative price of tequila Mexico is willing to accept in order to engage in trade with the United States. Briefly explain why.