Name & SID: Date:

1. The following table gives production statistics in terms of output per worker per week for Argentina and China. *Inspired by Professor Train's Spring 1994 Final Exam*.

	Argentina	China
Guns	2	8
Wheat (tons)	8	12

   a. Which country has each of the following types of advantages? No explanations.
      i. Absolute advantage in the production of guns. Argentina/China
      ii. Absolute advantage in the production of wheat. Argentina/China
      iii. Comparative advantage in the production of guns. Argentina/China
      iv. Comparative advantage in the production of wheat. Argentina/China

   b. Suppose each country has 200 workers who can be used in the production of either guns or wheat. Suppose further that the consumers in each country want to consume the same number of guns as tons of wheat. How much will each country produce of guns and wheat? How much of each good will each country trade with the other country? How much will each country consume of each good? Write your answers in the blanks below.

      i. Argentina will produce ____ guns and ____ tons of wheat.
      China will produce ____ guns and ____ tons of wheat.

      ii. Argentina will send ____ guns/tons of wheat (circle one) to China.
      China will send ____ guns/tons of wheat (circle one) to Argentina.

      iii. Argentina will consume ____ guns and ____ tons of wheat.
      China will consume ____ guns and ____ tons of wheat.

   c. Show that Argentina could not produce, by itself without trade, the quantities that you found in part iii that it would consume with trade.

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2. *Inspired by Professor Train's Spring 1995 Final Exam*.
    a. William lives on an isolated island. He makes a living by picking coconuts or fishing. He works 10 hours a day. In an hour, he can either pick 10 coconuts or catch 20 fish. Graph the production possibilities frontier (PPF) for William in a given day. Be precise whenever possible. Assume constant opportunity costs. Plot fish on the vertical axis and coconuts on the horizontal axis.

    b. Each day, William consumes twice as many fish as coconuts. How many fish and coconuts does William consume a day? Explain your answer.

c. In the meantime, on another island, Brendan is also picking coconuts and fishing. However, his production possibility frontier is different from William's: in an hour, Brendan can either pick 16 coconuts or catch 12 fish. Brendan also works 10 hours a day. After Brendan learns about William, he proposes that they trade, with the following terms of trade: 3 coconuts for 4 fish. If he decides to trade, what should William specialize in? Why?

d. With the terms of trade above, how many coconuts and fish is William able to consume if he trades with Brendan? Explain your answer. Remember that William consumes twice as many fish as coconuts per day. Is William better off or worse off?

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3. The following table shows the production abilities of Turkey and Germany. The numbers given represent the amount of shoes and beer that can be produced by each country with a given amount of inputs. (*Inspired by Professor Train's Spring 1996 Final Exam*)

	Turkey	Germany
Pairs of shoes	200	180
Barrels of beer	240	120

   a. Does either country have an absolute advantage in the production of either good? Explain your answer.

   b. Does either country have a comparative advantage in the production of either good? Explain your answer.

   c. Show that trade benefits both countries.

   d. While both countries will gain from trade at the terms of trade of 1S:1B, this is not the only terms of trade that will benefit both countries. In fact, there is a range of terms of trade over which trade will be beneficial to both Turkey and Germany. Find the upper and lower limits of this range that permits both countries to gain from trade. Show your work.