100 points. Allocate your time efficiently.

1. Consider the information in the table below. Assume that Tennessee can produce either 20 songs or 40 cases of whisky (or a linear combination of the two) in one week. Assume that Kentucky can produce 10 songs or 50 cases of whisky (or a linear combination of the two) in one week.

<table>
<thead>
<tr>
<th>State</th>
<th>Songs</th>
<th>Whisky</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Kentucky</td>
<td>10</td>
<td>50</td>
</tr>
</tbody>
</table>

a. Which state has a comparative advantage in the production of songs?
b. Which state has a comparative advantage in the production of whisky?
c. If each state produces songs for one week and then whisky for one week, show the total production of both goods.
d. Now assume each state specializes for two weeks. Indicate the total production of both goods. Show that trade between the two states after this two week period can allow both states to consume both more whisky and songs.

2. Each of the events below has an impact on the market for orange juice. For each event, indicate which curve is affected (supply or demand for orange juice), the direction it is shifted, and the resulting impact on the market clearing price and quantity for orange juice.

a. A decrease in the price of apple juice.
b. An increase in income of orange juice drinkers.
c. A freeze in Florida that damages a significant number of oranges.
d. An advertising campaign by Florida orange growers touting the health benefits of orange juice.
e. A technological advance in the mechanical picking of oranges that reduces the number of people hired to pick oranges.

3. You are an economist for the City Subway Commission. Presently the price of a subway ride is $0.80, and 100,000 seats are filled weekly. The price elasticity of demand for subway rides is -0.50.

The Commission has just approved a subway price increase of $0.20 per ride. The Commission wants to know if it can use the opportunity to retire two aging subway cars that each provides 10,000 seats weekly. When the price hike goes into effect, can neither, one, or both cars be retired?

4. In *Free Enterprise: The Economics of Cooperation* (Federal Reserve Bank of Dallas), Author Dwight Lee notes that
we have all heard arguments like this one: Something is wrong with the economy when wrestling
stars are paid a lot more than nurses, since nurses are obviously more valuable than wrestlers. As
we will see such arguments are flawed…[p. 7]

Explain in what way this argument is flawed. After all, is it not true that people get paid what
they are worth?

5. A meal plan at University A lets students eat as much as they like for a fixed fee of $500 per
semester. The average student there eats 250 lbs. of food per semester. University B charges
students $500 for a book of meal tickets that entitles the student to eat 250 lbs. of food per
semester. If the student eats more than 250 lbs., he or she pays extra; if the student eats less, he
or she gets a refund. If students are rational, at which university will average food consumption
be higher? Explain why?