University of California, Davis
Department of Economics
ECONOMICS 1A

Spring 2010 L. Jay Helms

Answers to the First Midterm Exam

Multiple Choice Questions

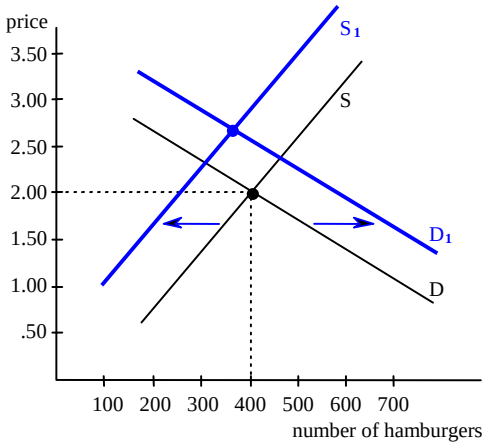
Question	Version A	Version B
1.	B	C
2.	C	B
3.	C	D
4.	D	C
5.	C	B
6.	B	D
7.	D	C
8.	C	D
9.	D	C
10.	B	A
11.	A	B
12.	A	A
13.	D	E
14.	C	D
15.	E	C
16.	C	E
17.	E	C
18.	C	B
19.	B	C
20.	B	B

Short Answer Questions

1. Shifts in Demand and Supply

Version A

Initially the equilibrium price is $2.00 and the equilibrium quantity is 400 hamburgers.

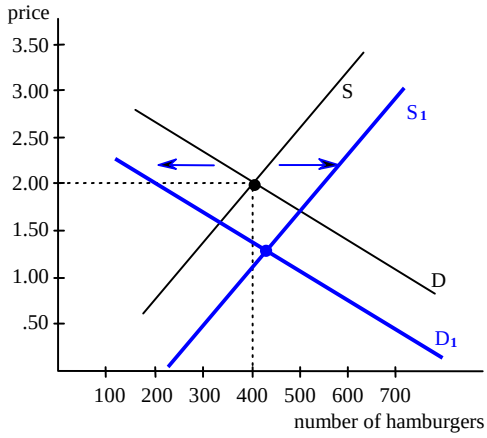


a. An example would be chicken sandwiches. These types of goods are called *substitutes*. When the price of this other good increases, hamburgers become more attractive in comparison, so the demand curve shifts to the right as shown.

b. An increase in the price of beef (or any other input); or an unfavorable technological change or cost increase (from, say, more stringent health standards). This reduces the profitability of hamburgers and shifts the supply curve to the left as shown.

Version B

Initially the equilibrium price is $2.00 and the equilibrium quantity is 400 hamburgers.



a. An example would be French fries. These types of goods are called *complements*. When the price of this other good increases, hamburgers become less attractive (assuming people like to eat burgers and fries together), so the demand curve shifts to the left as shown.

b. An decrease in the price of beef (or any other input); or a favorable technological change or cost decrease (from, say, less stringent health standards). This increases the profitability of hamburgers and shifts the supply curve to the right as shown.

c.	Price goes up, because the new intersection (of D_1 and S_1) is above the old one.	Price goes down, because the new intersection (of D_1 and S_1) is below the old one.
d.	There are two possible outcomes, depending on the relative size of the demand and supply shifts. If the demand curve shifted substantially to the right while the supply curve shifted only a little to the left, then quantity would increase. But in the reverse case quantity would decrease. Or the two effects could just offset one another, leaving quantity unchanged. So the impact on the quantity of hamburgers is ambiguous (that is, it could go either way).	There are two possible outcomes, depending on the relative size of the demand and supply shifts. If the demand curve shifted substantially to the left while the supply curve shifted only a little to the right, then quantity would decrease. But in the reverse case quantity would increase. Or the two effects could just offset one another, leaving quantity unchanged. So the impact on the quantity of hamburgers is ambiguous (that is, it could go either way).

2. The Production Possibilities Frontier

	Version A	**Version B**
a.	In the U.S. the opportunity cost of a computer (which takes 10 hours of labor to produce) is the 10/2 = 5 tons of wool that could be produced with those 10 hours of labor. In Australia, where a computer also takes 10 hours to produce, the opportunity cost is the 10/5 = 2 tons of wool that could be produced with those same 10 hours of labor.	In the U.S. the opportunity cost of a computer (which takes 12 hours of labor to produce) is the 12/2 = 6 tons of wool that could be produced with those 12 hours of labor. In Australia, where a computer also takes 12 hours to produce, the opportunity cost is the 12/4 = 3 tons of wool that could be produced with those same 12 hours of labor.

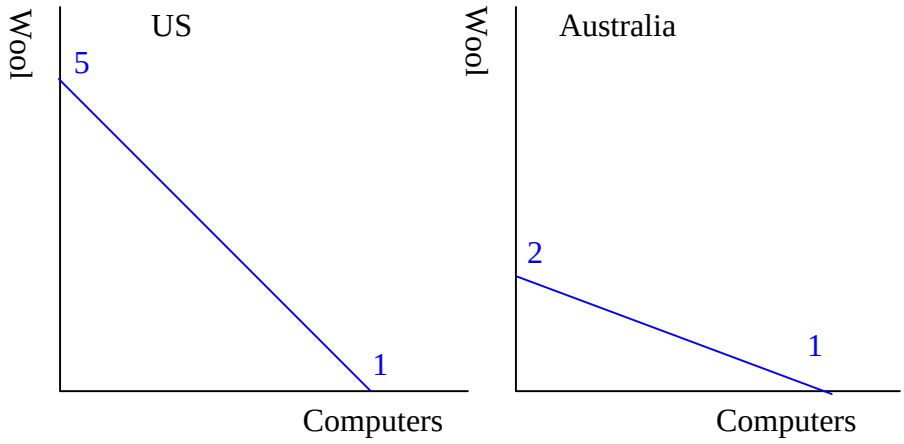
	Version A	**Version B**
b.	The United States has an absolute advantage in producing wool because it takes fewer resources per ton of wool produced in the U.S. (2 labor hours) than in Australia (5 labor hours).	The United States has an absolute advantage in producing wool because it takes fewer resources per ton of wool produced in the U.S. (2 labor hours) than in Australia (4 labor hours).

c. Australia has a comparative advantage in computers because it has the lower opportunity cost of producing computers. Since the opportunity cost of wool (measured in terms of computers) is the inverse of the opportunity cost of computers, the U.S. has the lower opportunity cost of producing wool and so has the comparative advantage in wool production. It would be mutually advantageous for the U.S. to export wool in exchange for imported Australian computers. (Right...)

	Version A	**Version B**
d.	The U.S. will buy computers so long as the price is lower than the opportunity cost of producing them (5 tons of wool). Australia will sell computers as long as the price is higher than the opportunity cost of producing them (2). So trade will take place between prices of 2 and 5. At prices higher than 5, both countries would want to sell computers, so there could be no trade.	The U.S. will buy computers so long as the price is lower than the opportunity cost of producing them (6 tons of wool). Australia will sell computers as long as the price is higher than the opportunity cost of producing them (3). So trade will take place between prices of 3 and 6. At prices lower than 3, both countries would want to buy computers, so there could be no trade.

e. **Version A**

The vertical intercept of the PPF for the U.S. is given by the amount of wool that would be produced if all 10 hours of labor were devoted to wool production: 10/2 = 5. The other intercepts are similarly determined.



Version B

The vertical intercept of the PPF for the U.S. is given by the amount of wool that would be produced if all 12 hours of labor were devoted to wool production: 12/2 = 6. The other intercepts are similarly determined.

