Economics 101   Professor Wallace

Midterm #1, **Version #2**   October 12th, 2005.

**DO NOT BEGIN WORKING UNTIL YOU ARE
TOLD TO DO SO. READ THESE INSTRUCTIONS FIRST.**

You have 75 minutes to complete the exam, which consists of 35 multiple-choice questions. Each question is worth the same number of points, so manage your time wisely. Please answer the questions on your scantron sheet with a #2 pencil. Be sure to fill in the scantron sheet carefully and accurately.

How to fill in the scantron sheet:
1. Fill in the bubbles on your sheet with your last name, first name, and middle initial.
2. Fill in the bubbles so we know your student identification number.
3. Fill in the bubbles under "Special Codes" spaces **ABC** so we know the discussion section number for which you are *officially registered*. Discussion sections are listed below:
4. Finally, after filling in your section code, please put the exam version in the "Special Codes" spaces. You will end up with a 4-digit "Special Codes" number – a three digit section number followed by a one digit exam version number.

Jonathan Hore   **John Morrow**   **Dan Wei**

371	R 8:50	357	F 11:00	358	F 12:05
372	R 12:05	359	F 12:05	363	F 2:25
		361	W 9:55	365	F 3:30
		362	F 2:25	366	M 8:50

Greg Whitten   **Jason Wu**

356	F 11:00	360	W 9:55
364	F 3:30	369	M 11:00
367	M 8:50	370	M 12:05
368	M 11:00	373	W 8:50

If you have a question during the exam, stay seated and please raise your hand. All scantron sheets must be turned in as you leave the exam. If you finish early and want to leave, please bring your scantron to the front of the room as quietly as possible.

We will post results on the website according to the last 4 digits of your ID. If there are duplicates in these last four digits, e-mail your TA who will have your score. The exam will be discussed in section next week.

Relax. Stop, take a deep breath, and think carefully before you answer any questions. Good luck!

Answer these multiple choice questions on the scantron sheet, selecting the *best* answer.

Consider the following information on the Production Possibilities for Cars and Airplanes when there are 2400 hours available:

	Hours needed to make one unit of:	
	Cars	Airplanes
U.S	60	160
Japan	80	240

1. According to the table shown, Japan has a comparative advantage in:
   A) Airplanes and the United States has an absolute advantage in cars.
   B) Cars and the United States has an absolute advantage in airplanes only.
   C) Cars and the United States has an absolute advantage in both goods.
   D) Airplanes and the United States has an absolute in neither good.
   E) Airplanes and the United States has an absolute advantage in both goods.

Suppose that the demand curve for using a toll road is given by $P = 12 - 2Q$. Answer the following 2 questions:

2. If the government decides not to charge any toll, then the number of crossings will be:
   A) 12
   B) 6
   C) 2
   D) 10
   E) 24

3. If a toll of $6 is introduced (and enforced rigidly), what is the loss in consumer surplus?
   A) $6
   B) $9
   C) $18
   D) $27
   E) $36

4. The greater that Ipods and Headphones complement each other, the _____ is the cross elasticity of demand between the two goods. If the number of substitutes for Ipods falls, the price elasticity of demand for Ipods will _____.
   A) more negative; decrease
   B) more negative; increase
   C) less negative; decrease
   D) less positive; increase
   E) Insufficient information for any of the above

Country A		Country B	
Good X (units of X)	Good Y (units of Y)	Good X (units of X)	Good Y (units of Y)
0	16	0	12
2	12	2	9
4	8	4	6
6	4	6	3
8	0	8	0

5. In the table above, country A is producing 2 units of X and 12 units of Y and country B is producing 6 units of X and 3 units of Y. The opportunity cost of producing more of:
   A) Good X is the same for both countries.
   B) Good Y is the same for both countries.
   C) Good X is lower in country A.
   D) Good Y is lower in country A.
   E) Either good cannot be determined from the information above.

6. In the table above, country A is producing 4 units of X and 8 units of Y and country B is producing 4 units of X and 6 units of Y. Regarding the production of good X
   A) Country A has an absolute advantage.
   B) Country B has an absolute advantage.
   C) Country A has a comparative advantage.
   D) Country B has a comparative advantage.
   E) Neither country has a comparative advantage.

7. Suppose there are two types of people, young and old. Everyone likes vacations and they are a normal good for both Old people and Young people. Old people vacation in Hawaii and Young people in Florida. The government enacts a tax that takes money from Young people and gives it to Old people. The demand curve for vacations to Hawaii _____ and the demand curve for vacations to Florida _____.
   A) shifts in; shifts out
   B) shifts in; shifts in
   C) shifts out; shifts in
   D) shifts out; shifts out
   E) None of the above.

Use the figure below to answer the next two problems:
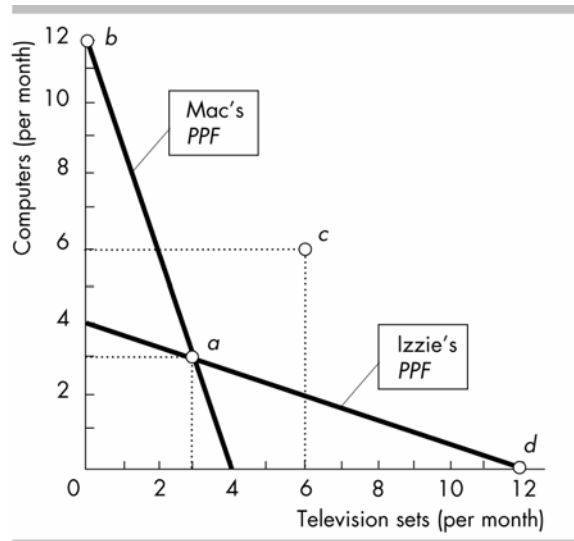
8. Suppose that Mac and Izzie specialize and trade to reach point c. Then:
    A) Mac and Izzie should both produce at point a.
    B) Mac should produce at point b and Izzie should produce at point d.
    C) Mac should produce at point d and Izzie should produce at point b.
    D) Mac and Izzie should both produce at point c.
    E) Mac should produce only Television Sets, Izzie should produce only Computers.

9. Suppose that Mac and Izzie specialize and trade to reach point c. Mac sends Izzie
    A) 12 computers in exchange for 12 TVs.
    B) 12 computers in exchange for 6 TVs.
    C) 6 computers in exchange for 12 TVs.
    D) 6 computers in exchange for 6 TVs.
    E) 3 computers in exchange for 3 TVs.

10. The University of Wisconsin-Madison (UW) has recently hiked tuition fees by 8% in a bid to increase total revenue. So, UW is:
    A) Ignoring the law of demand.
    B) Assuming that the demand for university education is inelastic.
    C) Assuming that the demand for university education is elastic.
    D) Assuming that the supply for university education is inelastic.
    E) Assuming that the supply for university education is elastic.
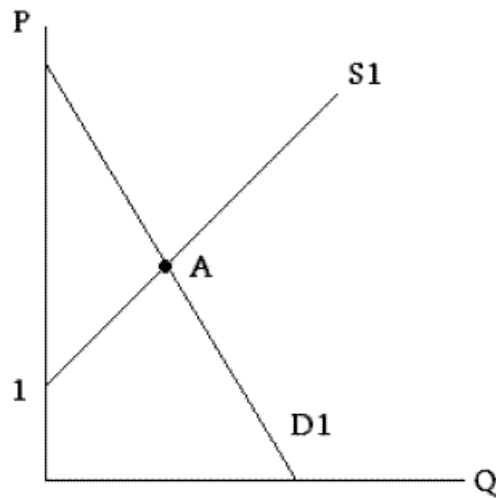
11. In the graph above, D1 represents a linear demand curve and S1 is a linear supply curve. Suppose the equation of D1 is P=10-2Q. What must the slope of S1 have to be for point A to be at a price of $4?

    A) 1
    B) 2
    C) 5/2
    D) 3
    E) There is not enough information.

12. Consider the market for Southern Fried Chicken. What happens to the equilibrium price and quantity when: 1) The price of breadcrumbs (an input) falls AND 2) Incomes double (Southern Fried Chicken is a normal good)?

    A) Price falls, Quantity increases
    B) Price increases, the change in Quantity is ambiguous
    C) The change in both Price and Quantity is ambiguous.
    D) The change in Price is ambiguous, Quantity falls.
    E) The change in Price is ambiguous, Quantity increases.

13. Tickets to a rock concert sell for $20. At that price, however, the quantity demanded is substantially greater than is the number of tickets available. Therefore:

    A) For the last ticket sold, the marginal benefit is greater than $20.
    B) For the last ticket sold, the marginal benefit is less than $20.
    C) The concert's organizers have instituted a price floor to create a shortage.
    D) Demand is perfectly inelastic.
    E) Demand is perfectly elastic.

Use the following information to answer the next two questions:
Say the market for widgets is given by: Qd = 12 – 3P
                                              Qs = 4 + P

14. What is the price elasticity of demand in equilibrium (in absolute value)?
   A) 9
   B) 1/9
   C) 2
   D) 1/2
   E) 1

15. If the government imposes a price floor of $3 in this market, there will be a _____ of
_____ units.
   A) surplus, 7
   B) surplus, 4
   C) surplus, 1
   D) shortage, 4
   E) shortage, 7

16. The production possibilities frontier is the boundary between:
   A) Those combinations of goods and services that can be produced and those that can be
   consumed.
   B) Those resources that are limited and those that are unlimited.
   **C) Those combinations of goods and services that can be produced and those that
   cannot.**
   D) Those wants that are limited and those that are unlimited.
   E) All of the above

17. A major drawback of a price ceiling is:
   A) it causes a surplus.
   B) it forces the supply curve to shift leftwards.
   C) it causes a shortage.
   D) it forces the demand curve to shift leftwards.
   E) There is no drawback.

18. When the price of Sushi is measured in Japanese Yen instead of U.S. Dollars, the demand for
Sushi becomes:
   A) neither more nor less elastic.
   B) less elastic.
   C) infinity.
   D) undefined.
   E) more elastic.

19. Say the market for Tomatoes is in equilibrium. What will happen to the equilibrium price and quantity of tomatoes if a rare disease kills half of the crop?

  A) Price Increases, Quantity Increases.
  B) Price Increases, Quantity Decreases.
  C) Price Decreases, Quantity Increases.
  D) Price Decreases, Quantity Decreases.
  E) Price Decreases, Quantity could Increase or Decrease.

The table below gives the demand schedule for Yummy Co. Brand Coffee. Use it to answer the next two questions.

Price (dollars per cup)	Quantity demanded (hundreds of cups)
$3.40	1
$3.00	3
$2.60	5
$2.20	7
$1.80	10
$1.40	14

20. The price elasticity of demand between $2.60 and $2.20 per cup is

  A) 0.5
  B) 2.0
  C) 2.5
  D) 3.0
  E) 0.33

21. The price elasticity of demand between $3.00 and $2.60 is _____, so demand becomes _____ elastic as the price increases over this range.

  A) 7.0, more.
  B) 3.5, more.
  C) 3.5, less.
  D) 7.0, less.
  E) None of the above.

22. If a shift in the supply curve that raises the price of cheese from $2 to $4 a pound decreases the quantity of cheese demanded from 2 million wedges to 1 million wedges then the

  A) supply of cheese is elastic.
  B) demand for cheese is elastic.
  C) supply of cheese is inelastic.
  D) demand for cheese is inelastic.
  E) None of the above.

Point	Production of X	Production of Y
a	0	40
b	4	36
c	8	28
d	12	16
e	16	0

23. Refer to the table above, which gives five points on a nation's PPF. The production of 11 units of X and 11 units of Y is:

A) Impossible given the available resources.
B) On the production possibilities frontier between points d and e.
C) On the production possibilities frontier between points c and d.
D) On the production possibilities frontier between points b and c.
E) Possible but leaves some resources less than fully used or misallocated.

24. Heather's marginal benefit from renting DVDs is always the same. The slope of her demand curve:

A) equals infinity.
B) equals -1.
C) equals 0.
D) equals minus infinity.
E) equals the inverse of her elasticity of demand.

25. Each point on the supply curve reflects:

A) the total cost to a firm of producing a good.
B) the profit a seller receives at each quantity.
C) the highest price sellers will accept for the number units they are producing.
D) the lowest price required for sellers to produce the very last unit.
E) choices B and D.

26. If the cross elasticity of demand for Pepsi and Coke is 1.3 then a 30% increase in the price of Pepsi will _____ the demand for Coke by _____.

A) increase; 13%
B) increase; 39%
C) reduce; 39%
D) reduce; 13%
E) None of the above.
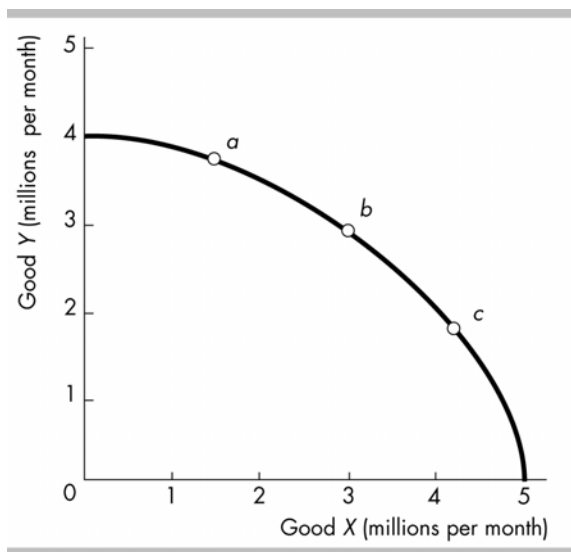
27. As output moves from point c to point b to point a along the PPF above, the opportunity cost of an extra million of Good Y:

    A) Rises. The opportunity cost of another million of Good X falls.
    B) Falls. The opportunity cost of another million of Good X also falls.
    C) Falls. The opportunity cost of another million of Good X rises.
    D) Rises. The opportunity cost of another million of Good X also rises.
    E) Remains constant, as does the opportunity cost of another million of Good X.

28. A reduction in the equilibrium price of a good caused by an increase in supply:

    A) shifts the good's demand curve leftward.
    B) shifts the good's demand curve leftward and also decreases the quantity demanded.
    C) shifts the good's demand curve rightward.
    D) does not shift the good's demand curve but does increase the quantity demanded.
    E) does not shift the good's demand curve but does decrease the quantity demanded.

29. The slope of a production possibilities frontier that displays increasing opportunity cost is:

    A) Zero.
    B) Positive and constant.
    C) Negative and constant.
    D) Steeper near the vertical intercept than near the horizontal intercept.
    E) Steeper near the horizontal intercept than near the vertical intercept.

30. If an increase in the price of good 1 increases the price of good 2 then:

    A) good 1 is an inferior good.
    B) good 1 and good 2 must be substitutes.
    C) the cross elasticity of demand is negative.
    D) the cross elasticity of demand is positive.
    E) none of the above are true.

Use the following demand and supply curves for widgets and answer the following 5 questions:

$$Qd = 28 - 2P$$
$$Qs = 4 + 4P$$

31. The equilibrium quantity and price is:
    A) $16 and 8 widgets.
    B) $12 and 4 widgets.
    C) $4 and 20 widgets.
    D) $8 and 12 widgets.
    E) $6 and 16 widgets.

32. What is consumer surplus in equilibrium?
    A) $200
    B) $150
    C) $100
    D) $50
    E) $0

33. Suppose that the government requires that all widget sellers pay a tax of $1.50 per widget.
How much revenue will the government collect?
    A) $30
    B) $27
    C) $20
    D) $18
    E) None of the above.

34. What is the deadweight loss?
    A) $4
    B) $3
    C) $2.50
    D) $2
    E) $1.50

35. Suppose that, instead of taxing widgets, the government subsidizes their consumption. This
means that the government pays consumers $1.50 for each widget they purchase. Using the
original supply curve, what will be the change in consumer surplus from that of Question 32?
    A) It increases by $21.
    B) It increases by $42.
    C) It increases by $55.
    D) It increases by $71.
    E) It increases by $121.