Midterm Test #1

EC120: Introduction to Microeconomics
Friday October 9, 2015
7:30pm - 9:00pm

Version A

General Instructions

- You have **90 minutes**.
- The exam is 20 pages in total (including cover page and instructions).
- There are 55 multiple choice questions worth one mark each (for a total of 55 marks).
- **No student may leave before 8:00pm**.
- Use a dark lead pencil to complete the Student Enrolment Sheet (aka. Scantron Card)
- Answer all questions by filling in the circle corresponding to the best answer. If you change your answer then completely erase your previous answer.
- Course materials (e.g. textbook, course notes, etc.) are not permitted during the exam.
- Non-programmable calculators are permitted. Dictionaries are not permitted.
- **Hand in the Student Enrolment Sheet (scantron card) only**.
- Instructions on how to fill out the Student Enrolment Sheet (scantron card) can be found on the next page (page 2).
- You are welcome to keep the question paper and are advised to record your answers on it.

Instructions by Section

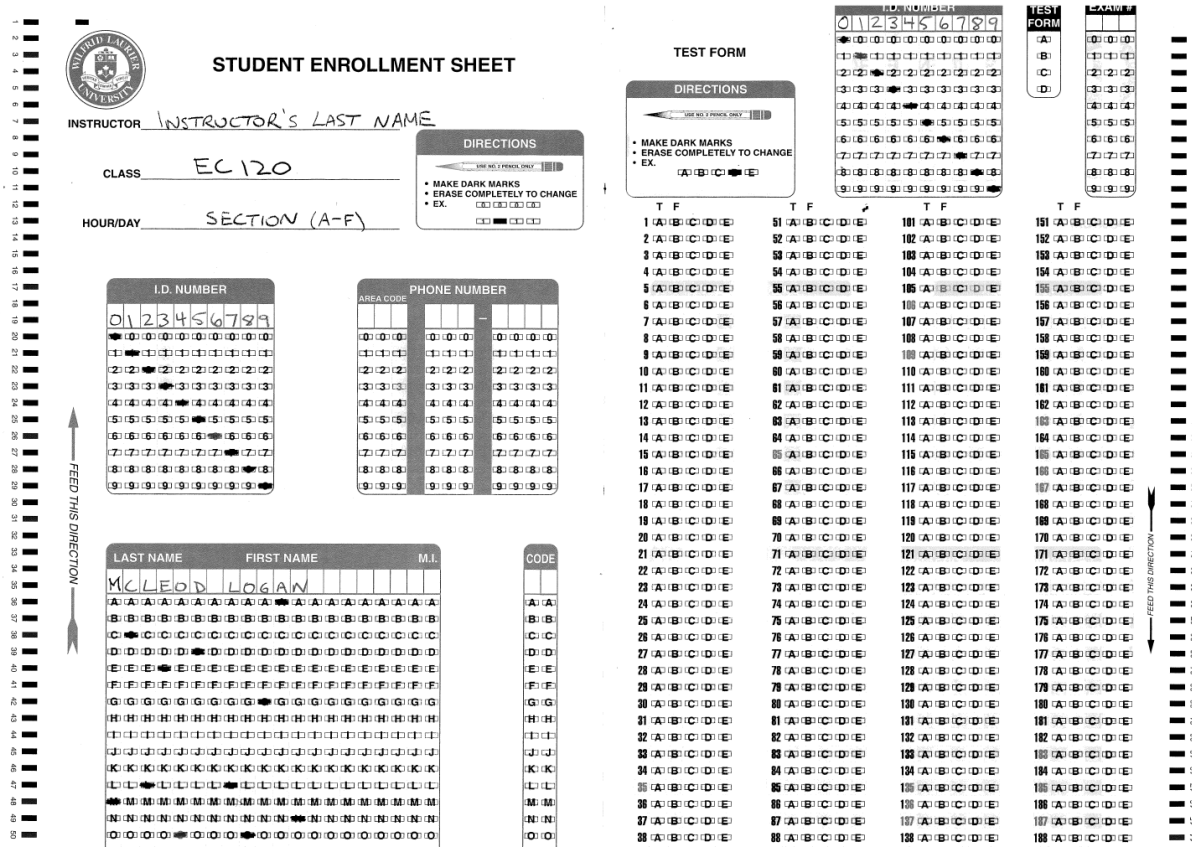
Section	Day	Time	Instructor's Last Name
A	Monday/Wednesday	11:30am	McLeod
B	Tuesday/Thursday	8:30am	Jackson
C	Tuesday/Thursday	1:00pm	Jackson
D	Tuesday/Thursday	2:30pm	Rabi
E	Monday/Wednesday	1:00pm	McLeod
F	Monday/Wednesday	5:30pm	Ariizumi
G	Wednesday	7:00pm	Dean

Good Luck!

Instructions for completing the Student Enrolment Sheet (aka. Scantron Card)

On the **FRONT** of your computer card, use a dark lead pencil to complete the following:

Element	Content
Instructor	*Your Instructor's Last Name*
Class	EC120
Hour/Day	*Section (A-F)*
I.D. Number	(one digit per rectangle, starting at far left column) your student ID UW Students: add a '0' to the end of your student #
Phone Number	leave blank
Last Name/First Name	your last name (one letter per rectangle) starting at far left column, then leave one space empty, then your first name (one letter per rectangle)
Code	*leave blank*



On the **BACK** of your scantron card use a dark lead pencil to complete the following:

Element	Content
I.D. Number	(one digit per rectangle, starting at far left column) your student ID UW Students: add a '0' to the end of your student #
Test Form	*leave blank*
Exam #	*leave blank*

1 Multiple Choice [55 marks total, 1 mark per question]

1. Refer to Figure 1. Which of the following would most likely have caused the production possibilities frontier to shift outward from A to B?

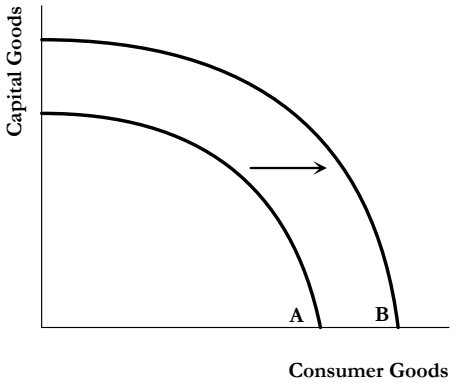
   (a) an increase in resources necessary to produce capital goods

   (b) an improvement in the technology of producing consumer goods

   (c) an increase in the overall level of technology in the economy

   (d) an increase in unemployment

Figure 1:



2. Refer to Figure 2. What would be an efficient combination of bathtubs and barrels?

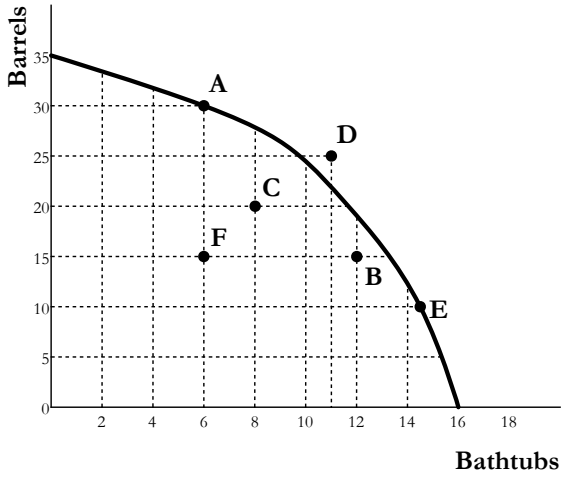
   (a) 30 barrels and 6 bathtubs

   (b) 15 barrels and 12 bathtubs

   (c) 20 barrels and 8 bathtubs

   (d) 25 barrels and 10 bathtubs

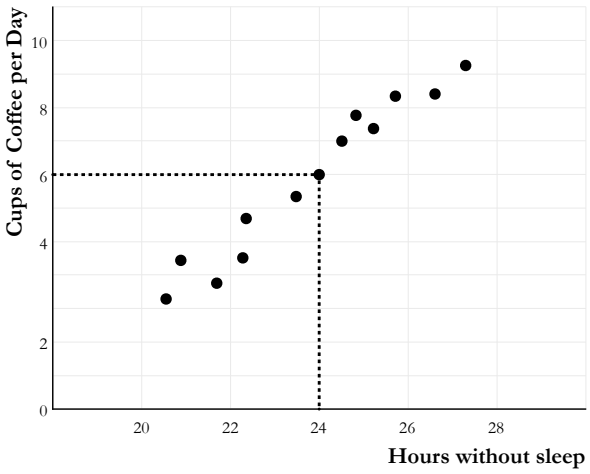
Figure 2:



3. Which of the following is an example of a normative statement?
   (a) If the price of a product decreases, quantity demanded increases.
   (b) Reducing tax rates on the wealthy would be good for the country.
   (c) If the national saving rate was to increase, so would the rate of economic growth.
   (d) An increase in minimum wages will increase unemployment.

4. Refer to Figure 3. What do cups of coffee per day and the hours that someone can go without sleep have?
   (a) a positive correlation
   (b) a negative correlation
   (c) a random correlation
   (d) no correlation

Figure 3:



5. A rancher can produce only hamburgers, while a farmer can produce only French fries. If the rancher and the farmer like both foods, which of the following is most likely?
   (a) They cannot gain from trade.
   (b) They could gain from trade under certain circumstances, but not always.
   (c) They could gain from trade because each would enjoy a greater variety of food.
   (d) They could gain from trade only if each were indifferent between hamburgers and French fries.

6. What economic concept is the most relevant when defining comparative advantage?
   (a) opportunity cost
   (b) sunk cost
   (c) scarcity
   (d) efficiency

7. Refer to Table 1. What is the opportunity cost of 1 kg of meat for the farmer?

   (a) $\frac{1}{4}$ hour of labour
   (b) 4 hours of labour
   (c) 4 kg of potatoes
   (d) $\frac{1}{4}$ kg of potatoes

Table 1:

	Labour hours needed to make 1 kilogram		Kilograms produced in 40 hours	
	Meat	Potatoes	Meat	Potatoes
Farmer	8	2	5	20
Rancher	4	5	10	8

8. Refer to Table 1. What does each producer have an absolute or comparative advantage in?

   (a) The rancher has an absolute advantage in both goods, and the farmer has a comparative advantage in meat.
   (b) The rancher has an absolute advantage in meat, and the farmer has a comparative advantage in potatoes.
   (c) The rancher has an absolute advantage in meat, and the farmer has a comparative advantage in neither good.
   (d) The rancher has an absolute advantage in both goods, and the farmer has a comparative advantage in potatoes.

9. Both Canada and the U.S. can produce equally tasty strawberries. What determines which country will export strawberries?

   (a) how the opportunity cost in Canada compares to the opportunity cost in the U.S.
   (b) how the costs of production in Canada compare to the costs of production in the U.S.
   (c) how the costs of labour in Canada compare to the costs of labour in the U.S.
   (d) how the costs of strawberries in Canada compares to the cost of strawberries in the U.S.

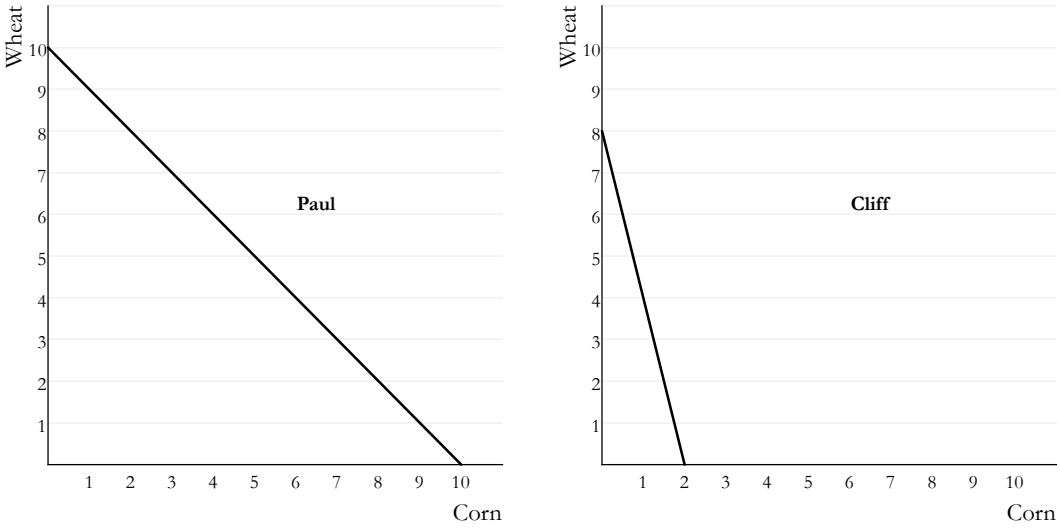
10. Suppose that the country of theophobia chose to isolate itself from the rest of the world. Its ruler proclaimed that Xenophobia should become self-sufficient and so would not engage in foreign trade. From an economic perspective, when would this idea make sense?

    (a) if Xenophobia had an absolute advantage in all goods
    (b) if Xenophobia had no absolute advantages in any good.
    (c) never, as long as Xenophobia had a comparative advantage in any good
    (d) never, as long as Xenophobia had an absolute advantage in at least half the goods traded

11. Refer to Figure 4. Assume time is the only resource. If Paul divides his time equally between corn and wheat, what will he be able to produce?

    (a) 4 bushels of wheat and 1 bushel of corn
    (b) 4 bushels of wheat and 5 bushels of corn
    (c) 5 bushels of wheat and 4 bushels of corn
    (d) 5 bushels of wheat and 5 bushels of corn

Figure 4:



12. Refer to Figure 4. What is the opportunity cost of 1 bushel of wheat for Cliff?

    (a) $\frac{1}{4}$ bushel of corn
    (b) $\frac{1}{2}$ bushel of corn
    (c) 1 bushel of corn
    (d) 4 bushels of corn

13. Refer to Figure 4. What do the two producers have an absolute or comparative advantage in?

    (a) Paul has a comparative advantage in both wheat and corn.
    (b) Paul has an absolute advantage in wheat, and Cliff has a comparative advantage in corn.
    (c) Cliff has a comparative advantage in wheat, and Paul has a comparative advantage in corn.
    (d) Cliff has a comparative advantage in both wheat and corn.

14. When evaluating differences or similarities between an increase in supply and an increase in quantity supplied, what do we know?

    (a) The former is a shift of the curve and the latter is a movement along the curve.

    (b) The former is a movement along the curve and the latter is a shift of the curve.

    (c) Both are shifts of the supply curve.

    (d) Both are movements along the curve.

15. Workers at a bicycle assembly plant currently make minimum wage. If the provincial government increases the minimum wage by $1.00 an hour, what will likely happen?

    (a) Demand for bicycle assembly workers will increase.

    (b) Supply of bicycles will shift to the right.

    (c) Supply of bicycles will shift to the left.

    (d) The firm must increase output to maintain profit levels.

16. Refer to Figure 5. What is the movement from S_1 to S called?

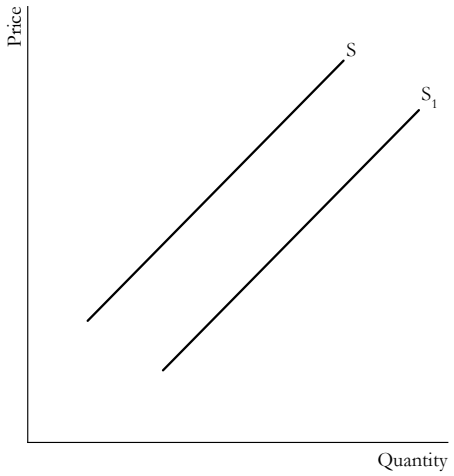
    (a) a decrease in supply

    (b) a decrease in quantity supplied

    (c) an increase in supply

    (d) an increase in quantity supplied

Figure 5:



17. Refer to Figure 5. What could cause the movement from S_1 to S?

    (a) a decrease in the price of the good

    (b) an improvement in technology

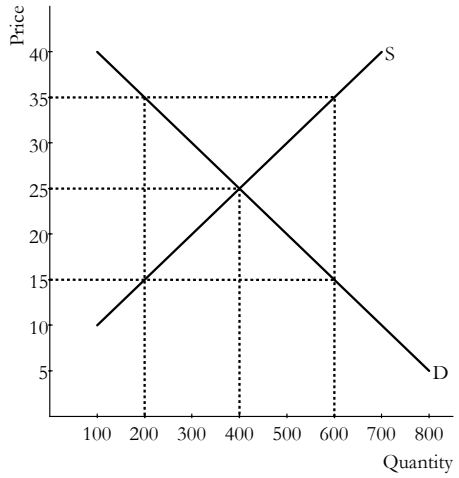
    (c) an increase in income

    (d) an increase in input prices

18. Refer to Figure 6. What are the equilibrium price and quantity?

    (a) $35 and 200
    (b) $35 and 600
    (c) $25 and 400
    (d) $15 and 200

Figure 6:



19. Refer to the Table 2. If the price were $8, what would happen?

    (a) A surplus of 50 units would exist and the price would tend to fall.
    (b) A surplus of 10 units would exist and the price would tend to fall.
    (c) A surplus of 25 units would exist and the price would tend to fall.
    (d) A shortage of 25 units would exist and the price would tend to rise.

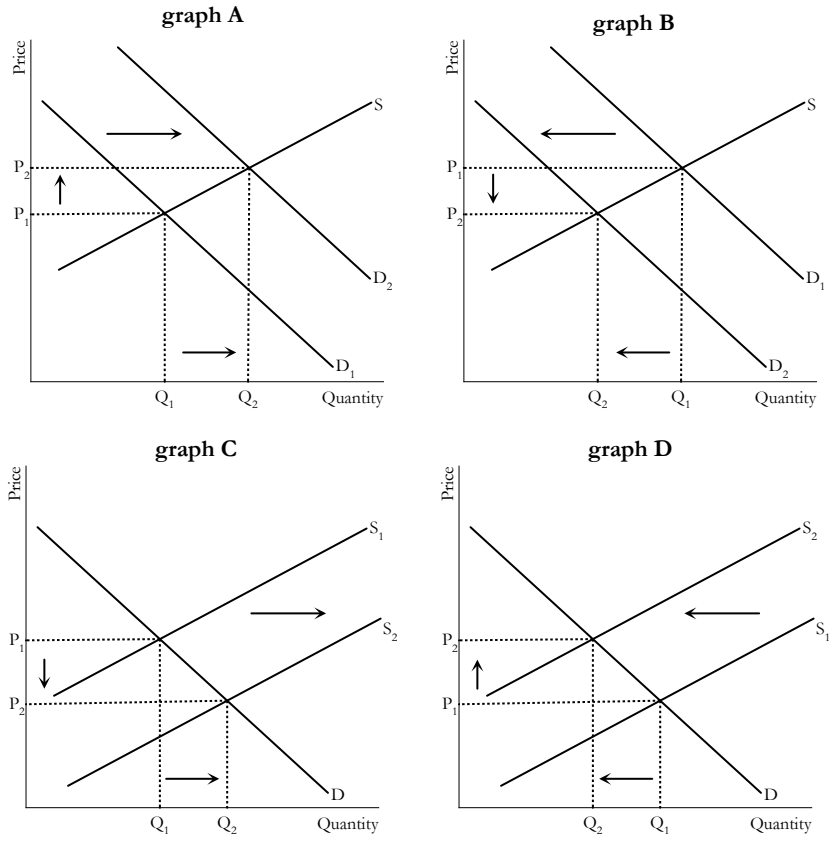
Table 2:

Price	Quantity Demanded	Quantity Supplied
$10	10	60
$8	20	45
$6	30	30
$4	40	15
$2	50	0

20. Refer to Figure 7. Which of the four graphs represents the market for pizza delivery in a university town in September?

    (a) graph A
    (b) graph B
    (c) graph C
    (d) graph D

Figure 7:



21. Assume older people require more prescription drugs to stay health. What will a country with an aging population generally experience?

    (a) no change in either market demand or individual demand for prescription drugs
    (b) a decrease in the market demand for prescription drugs
    (c) an increase in individual demand for prescription drugs, but no change in market demand
    (d) an increase in the market demand for prescription drugs.

22. Refer to Figure 8. What would cause the movement from point A to point B on the graph?

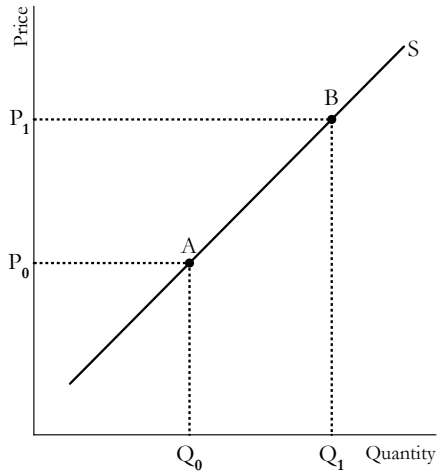
    (a) a decrease in the price of the good

    (b) an increase in the price of the good

    (c) an increase in technology

    (d) a decrease in input prices

Figure 8:



23. Refer to Figure 8. What is the movement from point A to point B on the graph called?

    (a) a decrease in supply

    (b) an increase in supply

    (c) an increase in the quantity supplied

    (d) a decrease in the quantity supplied

24. Suppose the number of buyers in a market increases and a technological advancement occurs. What would we expect to happen in the market?

    (a) Equilibrium price would increase, but the impact on the amount sold in the market would be ambiguous.

    (b) Equilibrium price would decrease, but the impact on the amount sold in the market would be ambiguous.

    (c) The equilibrium quantity would increase, but the impact on equilibrium price would be ambiguous.

    (d) The equilibrium quantity would decrease, but the impact on equilibrium price would be ambiguous.

25. Suppose the incomes of buyers in a particular market for a normal good decrease and there is also an increase in input prices. What would we expect to occur in this market?

    (a) The equilibrium price would increase, but the impact on the amount sold in the market would be ambiguous.

    (b) The equilibrium price would decrease, but the impact on the amount sold in the market would be ambiguous.

    (c) The equilibrium quantity would increase, but the impact on equilibrium price would be ambiguous.

    (d) The equilibrium quantity would decrease, but the impact on equilibrium price would be ambiguous.

26. Refer to the Table 3. What is the space that would represent an increase in equilibrium quantity and an indeterminate change in equilibrium price?

    (a) space A

    (b) space B

    (c) space C

    (d) space D

Table 3:

	An Increase in Supply	A Decrease in Supply
An increase in Demand	A	B
A decrease in Demand	C	D

27. What would happen to the equilibrium price and quantity of coffee if the wages of coffee-bean pickers rose and the price of tea rose?

    (a) price will fall and the effect on quantity is ambiguous

    (b) price will rise and the effect on quantity is ambiguous

    (c) quantity will fall and the effect on price is ambiguous

    (d) quantity will rise and the effect on price is ambiguous

28. Pens are normal goods. What will happen to the equilibrium price of pens if the prices of pencils rises, consumers experience an increase in income, writing in ink becomes fashionable, fewer firms manufacture pens, and the wages of pen-makers increase?

    (a) price will rise
    (b) price will fall
    (c) price will stay exactly the same
    (d) price change will be ambiguous

29. Market demand is given as $Q^d = 200 - 3P$. Market supply is given as $Q^s = 2P + 100$. In a perfectly competitive equilibrium, what will be price and quantity?

    (a) Price will be \$20 and quantity will be 140.
    (b) Price will be \$50 and quantity will be 260.
    (c) Price will be \$100 and quantity will be 300.
    (d) Price will be \$140 and quantity will be 380.

30. Market demand is given as $Q^d = 200 - 3P$. Market supply is given as $Q^s = 2P + 100$. What would result if the market price were \$15?

    (a) a shortage of 25
    (b) a surplus of 25
    (c) a surplus of 130
    (d) a shortage of 130

31. Suppose a decrease in the price of X results in less of good Y sold. What are X and Y called?

    (a) complementary goods
    (b) normal goods
    (c) inferior goods
    (d) substitute goods

32. When studying how some event or policy affects a market, on what does elasticity provide information?

    (a) the direction and the efficiency of the effect on the market
    (b) the direction and the magnitude of the effect on the market
    (c) the magnitude and the efficiency of the effect on the market
    (d) the efficiency and the equity of the effect on the market

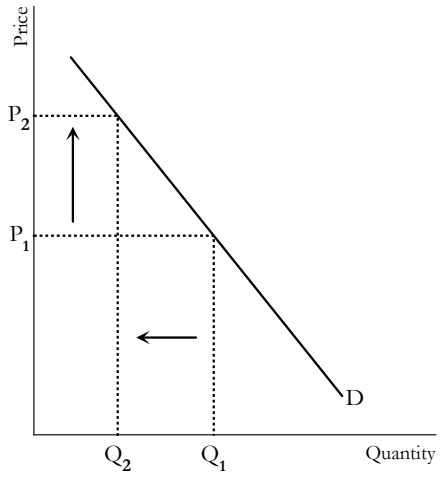
33. What type of demand does a person who has high cholesterol and must exercise for an hour every day have for exercise equipment?

    (a) elastic
    (b) unit elastic
    (c) inelastic
    (d) perfectly elastic

34. Refer to the Figure 9. The graph shows the demand for cigarettes. Which most likely happened?

    (a) The price of marijuana rose.
    (b) Mandatory health warnings were placed on cigarette packages.
    (c) Several foreign countries banned Canadian cigarettes in their countries.
    (d) A tax was placed on cigarettes.

Figure 9:



35. What happens when the price elasticity of demand increases?

    (a) The price of the product increases.
    (b) The responsiveness of quantity demanded to price decreases.
    (c) The percentage change in price over the percentage change in quantity demanded increases.
    (d) The responsiveness of quantity demanded to price increases.

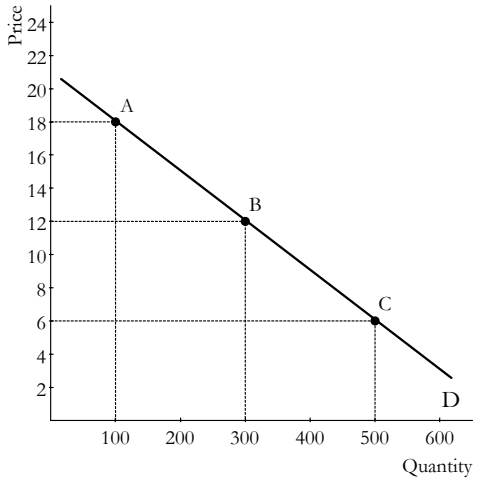
36. How do economists compute the price elasticity of demand?

    (a) the percentage change in the price divided by the percentage change in quantity demanded.
    (b) the percentage change in income divided by the percentage change in the quantity demanded.
    (c) the percentage change in the quantity demanded divided by the percentage change in price.
    (d) the percentage change in the quantity demanded divided by the percentage change in income.

37. Refer to Figure 10. What is the price elasticity of demand from point B to point C?

    (a) 0.50
    (b) 0.75
    (c) 1.00
    (d) 1.30

Figure 10:



38. Suppose the government increases the tax on gasoline in order to raise revenue. Since raising the gasoline tax would increase the price of gasoline, what must the government be assuming?

    (a) The demand for gasoline is price elastic.
    (b) The demand for gasoline is price inelastic.
    (c) The demand for gasoline is price unit elastic.
    (d) The demand for gasoline is price perfect elastic.

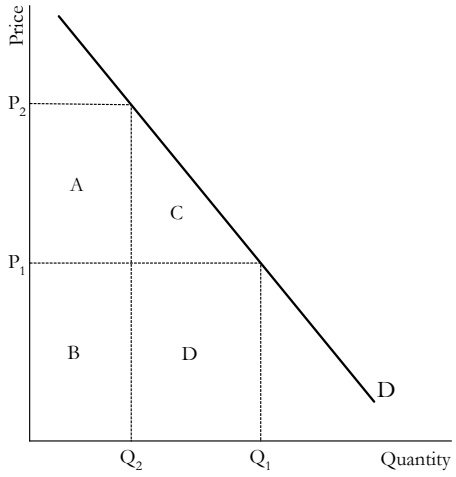
39. You and your college roommate eat three packages of ramen noodles each week. After graduation last month, both of you were hired at several times your college income. You still enjoy ramen noodles very much and buy even more, but your roommate plans to buy other foods she prefers over ramen noodles. What are you and your roommates income elasticities of demand for ramen noodles?

    (a) Your income elasticity of demand is negative and your roommate's is positive.
    (b) Your income elasticity of demand is positive and your roommate's is negative.
    (c) Your income elasticity of demand is zero and your roommate's approaches infinity.
    (d) Your income elasticity of demand approaches infinity and your roommate's is zero.

40. Refer to Figure 11. What areas represent the total revenue at P_1 ?

    (a) A + B
    (b) B + C
    (c) B + D
    (d) C + D

Figure 11:



41. If a 15 percent increase in price causes a 30 percent decrease in quantity demanded, which of the following is most likely true about this product?

    (a) It has no close substitute.
    (b) It might be a luxury.
    (c) It might be part of a broadly defined market.
    (d) It might be in a short time horizon.

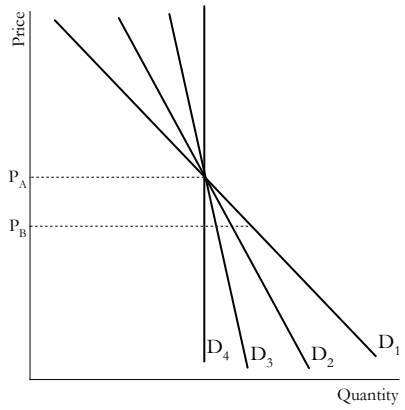
42. When demand is elastic, what is the price elasticity, and how will price and total revenue behave?

    (a) greater than 1, and price and total revenue will move in opposite directions.
    (b) less than 1, and price and total revenue will move in the same direction.
    (c) less than 1, and price and total revenue will move in opposite directions.
    (d) greater than 1, and price and total revenue will move in the same direction.

43. Refer to Figure 12. As price falls from P_A to P_B, which demand curve is least elastic?

    (a) D_1
    (b) D_2
    (c) D_3
    (d) D_4

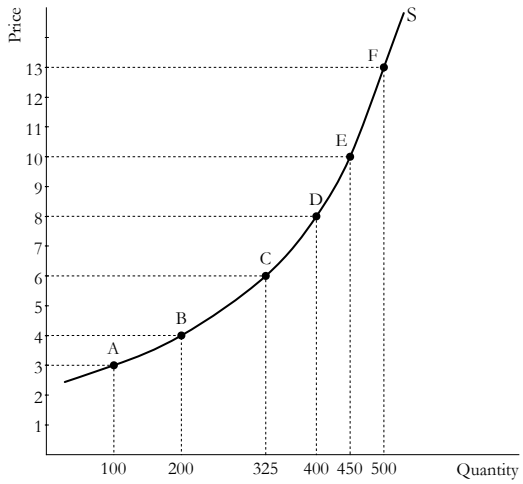
Figure 12:



44. Refer to Figure 13. What is the elasticity of supply between points D and E?

    (a) 0.34
    (b) 0.53
    (c) 1.26
    (d) 1.89

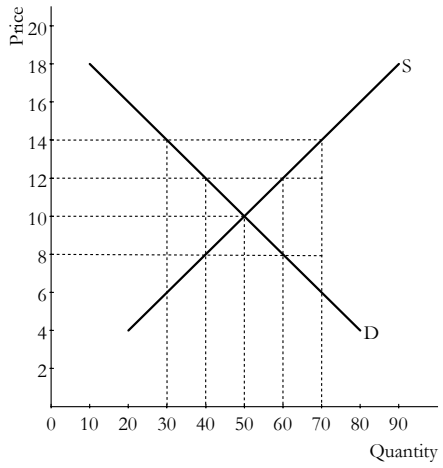
Figure 13:



45. Refer to Figure 14. At what price would there be a binding price floor?

    (a) a price of \$10.00
    (b) a price of \$8.00
    (c) any price above \$10.00
    (d) any price below \$10.00

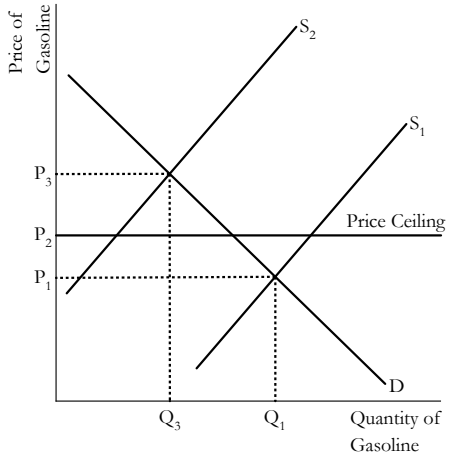
Figure 14:



46. Refer to Figure 15. With a price ceiling present in this market, what will happen when the supply curve for gasoline shifts from S_1 to S_2?

    (a) The price will increase to P_3.
    (b) A surplus will occur at the new market price of P_2.
    (c) The market price will stay at P_1 due to the price ceiling.
    (d) A shortage will occur at the price ceiling of P_2.

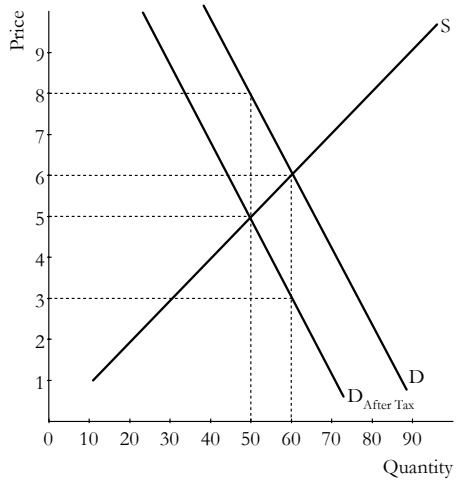
Figure 15:



47. Refer to Figure 16. What is the price buyers will pay after the tax is imposed?

    (a) \$5.00
    (b) \$6.00
    (c) \$7.00
    (d) \$8.00

Figure 16:



48. Refer to Figure 16. What is the share of the tax burden that sellers would pay?

    (a) \$1.00 per unit
    (b) \$1.50 per unit
    (c) \$2.00 per unit
    (d) \$3.00 per unit

49. Market demand is given as $Q^d = 200 - 3P$. Market supply is given as $Q^s = 2P + 100$. Which legally imposed price would constitute a binding price ceiling?

    (a) \$26
    (b) \$23
    (c) \$20
    (d) \$10

50. The Ministry of Health announces that eating chocolate increases tooth decay. As a result, what happens to the equilibrium market price of chocolate and producer surplus?

    (a) They both increase.
    (b) The equilibrium market price increases, and producer surplus decreases.
    (c) They both decrease.
    (d) The equilibrium market price decreases, and producer surplus increases.

51. Refer to Figure 17. When the price rises from P1 to P2, what happens to consumer surplus?

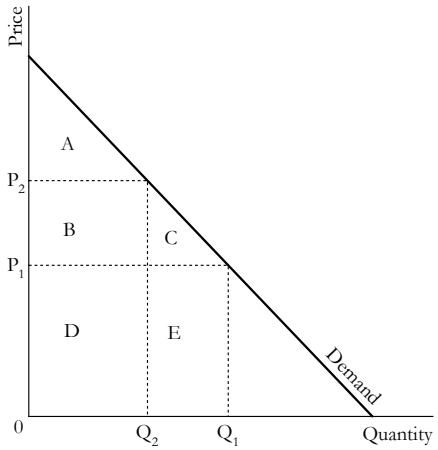
    (a) It increases by an amount equal to A.

    (b) It decreases by an amount equal to B + C.

    (c) It increases by an amount equal to B + C.

    (d) It decreases by an amount equal to C.

Figure 17:



52. Refer to Figure 17. What does area C represent?

    (a) the decrease in consumer surplus to new consumers who enter the market when the price falls from P_2 to P_1

    (b) the increase in consumer surplus to new consumers who enter the market when the price falls from P_2 to P_1

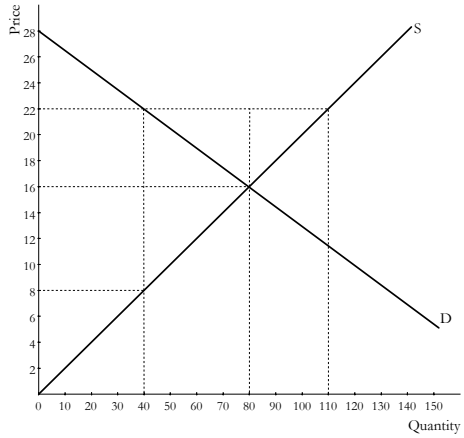
    (c) an increase in producer surplus when quantity sold increases from Q_2 to Q_1

    (d) a decrease in consumer surplus to each consumer in the market when the price falls from P_2 to P_1

53. Refer to Figure 18. At the equilibrium price, what would consumer surplus be?

    (a) \$480
    (b) \$640
    (c) \$1120
    (d) \$1280

Figure 18:



54. Refer to Figure 18. If this market were currently at a quantity of 110, what would we know?

    (a) The producers' willingness to sell is less than the consumers' willingness to pay.
    (b) The value to buyers is greater than the cost to sellers.
    (c) The cost to sellers is greater than the value to buyers.
    (d) Consumer surplus would be greater than producer surplus.

55. Market demand is given as $Q^d = 200 - 3P$. Market supply is given as $Q^s = 2P + 100$. In a perfectly competitive equilibrium, what will be the value of consumer surplus?

    (a) \$1,400
    (b) \$2,800
    (c) \$3,267
    (d) \$6,538