Version 222

THE UNIVERSITY OF WESTERN ONTARIO
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MIDTERM 1

INSTRUCTIONS:

1. The examination begins at **4:00 p.m.** and ends at **6:00 p.m.**
2. Check that your examination paper contains 19 pages.
3. Use a **BLACK PENCIL** to complete your Scantron Form.

   Print your **NAME** and complete your SIGNATURE.

   Enter your **STUDENT NUMBER.**

   Enter your **SECTION NUMBER**, which is either 002 or 004.
4. Calculators may be used.
5. Please hand in Scantron forms only.

NOTE: QUESTIONS ARE PRINTED AT THE BACK OF EACH PAGE

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Choices are in the social interest if they bring the greatest possible benefit to
A) third-world countries.
B) children and the elderly.
C) all living things.
D) the government.
E) society as a whole.

2) During the next hour John can choose one of the following three activities: playing basketball, watching television, or reading a book. The opportunity cost of reading a book
A) is playing basketball *and* watching television.
B) is watching television if John prefers playing basketball to watching television.
C) depends on how much the book cost when it was purchased.
D) depends on how much John enjoys the book.
E) is playing basketball if John prefers that to watching television.

3) The big tradeoff is between
A) guns and butter.
B) output and inflation.
C) equality and efficiency.
D) taxes and transfers.
E) current consumption and a higher future standard of living.

4) Model *A* is superior to model *B* if
A) it is scientifically "elegant."
B) its predictions correspond more closely to the facts than the predictions of model *B*.
C) it is preferred by a majority of researchers in a public opinion poll.
D) it contains more real world detail than model *B*.
E) it contains fewer unrealistic assumptions than model *B*.

5) Which one of the following concepts is *not* illustrated by a production possibilities frontier?
A) the tradeoff between producing one good versus another
B) opportunity cost
C) attainable and unattainable points
D) monetary exchange
E) scarcity

Use the figure below to answer the following question.

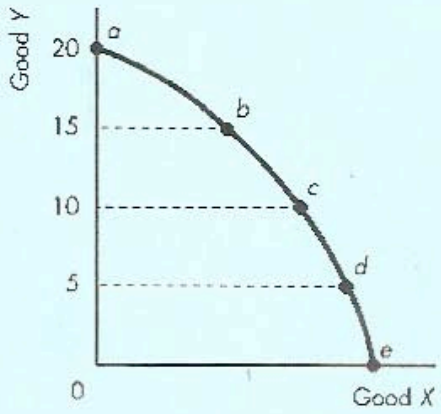


Figure 1

6) Refer to the production possibilities frontier in Figure 1. For which of the following movements is the opportunity cost of *Y* the greatest?
   A) *c* to *b*
   B) *b* to *a*
   C) *d* to *c*
   D) *e* to *d*
   E) The opportunity cost is the same in each case.

7) A graph with the quantity of shoes on the *X* axis and the quantity of shirts on the *Y* axis shows the *PPF* for shoes and shirts. As you move up toward the left along the production possibilities frontier, the marginal cost of producing a
   A) a shoe increases.
   B) a shirt decreases.
   C) a shirt increases.
   D) a shoe is negative.
   E) shoe or a shirt is equal at the midpoint between the vertical and horizontal axis.

8) If allocative efficiency is achieved, then for each good produced marginal
   A) cost is at its minimum and marginal benefit can have any value.
   B) benefit is at its maximum and marginal cost can have any value.
   C) benefit exceeds marginal cost by as much as possible.
   D) benefit equals marginal cost.
   E) benefit is at its maximum and marginal cost is at its minimum.

9) If country *A* is accumulating capital at a faster rate than country *B*, then country *A*
A) will soon have a comparative advantage in the production of most goods.
B) will have more unemployment than country *B*.
C) will have a production possibilities frontier that is shifting out faster than country *B*'s.
D) is using a larger proportion of resources to produce consumption goods.
E) will have a higher rate of inflation than country *B*.

10) The opportunity cost of pushing the production possibilities frontier outward is
A) technological change.
B) the gain in future consumption.
C) reduced current consumption.
D) capital accumulation.
E) a decrease in government services.

Use the information below to answer the following question.

Fact 1

Agnes can produce either 1 unit of *X* or 1 unit of *Y* in an hour, while Brenda can produce either 2 units of *X* or 4 units of *Y* in an hour.

11) Complete the following sentence. Given Fact 1,
A) there will be no gains from exchange because Agnes has an absolute advantage.
B) there will be gains from exchange, no matter what Brenda and Agnes specialize in, as long as they specialize.
C) there will be gains from exchange only if Agnes specializes in the production of *Y* and Brenda in *X*.
D) there will be gains from exchange only if Agnes becomes faster at producing *X*.
E) there will be gains from exchange if Agnes specializes in the production of *X* and Brenda in *Y*.

12) If individuals *A* and *B* can both produce only goods *X* and *Y* and *A* does *not* have a comparative advantage in the production of either *X* or *Y*, then we know
A) *A* and *B* have the same opportunity cost of producing *X*, and *A* and *B* have the same opportunity cost of producing *Y*.
B) *A* must have lower opportunity costs of production in both goods.
C) *B* has a comparative advantage in the production of both *X* and *Y*.
D) *B* has an absolute advantage in the production of *X* and *Y*.
E) the gains from trade will be large but only in one direction.

Albert = x and y. No comp adv.
Bob = x and y

13) Learning-by-doing is the basis of
A) economic coordination.
B) increasing opportunity costs.
C) dynamic comparative advantage.
D) research and development.
E) absolute advantage.

Use the table below to answer the following question.

Table 1

Year	Coffee Price	Tea Price	Cola Price
2005	$1.25	$1.10	$0.80
2006	$1.50	$1.00	$1.00
2007	$1.25	$1.20	$1.00

14) Consider Table 1. In 2007, the opportunity cost of coffee in terms of cola is
A) 1.25.
B) 1.00.
C) 0.67.
D) 1.56.
E) not determinable without more information.

15) If an increase in the price of good *A* causes the demand curve for good *B* to shift to the left, then
A) *B* is a normal good.
B) *A* and *B* are substitutes.
C) *A* and *B* are complements in production.
D) *B* is an inferior good.
E) *A* and *B* are complements.

16) A decrease in quantity demanded is represented by a
A) rightward shift of the demand curve.
B) rightward shift of the supply curve.
C) leftward shift of the demand curve.
D) movement downward and to the right along the demand curve.
E) movement upward and to the left along the demand curve.

17) If the number of suppliers of good *Y* increases, then
A) the supply curve of good *Y* will shift to the right.
B) the supply curve of good *Y* will shift to the left.
C) a movement upward along the supply curve of good *Y* will occur.
D) the supply curve of good *Y* will remain unchanged.
E) a movement downward along the supply curve of good *Y* will occur.

18) A rise in the price of a good will cause
A) the demand for the good to decrease.
B) the supply of the good to increase.
C) the demand for a complement in production to increase.
D) a movement to the right along the supply curve.
E) a movement to the right along the demand curve.

Use the figure below to answer the following questions.

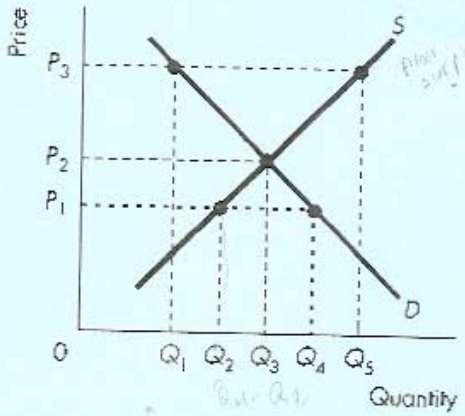


Figure 2

19) At price $P3$ in Figure 2,
A) there is a tendency for the price to rise.
B) there is a surplus equal to $Q5$ - $Q1$.
C) there is a shortage equal to $Q5$ - $Q1$.
D) this market is in equilibrium.
E) the equilibrium quantity is $Q5$.

20) At price $P1$ in Figure 2,
A) producers can sell all they plan to sell.
B) producers are unwilling to sell any goods.
C) a surplus exists.
D) consumers can buy all they want.
E) both sides of the market are able to carry out their desired transactions.

21) Suppose we observe both a decrease in the price of good A and an increase in the quantity of good A bought and sold. Which one of the following is a likely explanation?

A) The demand for A has increased.
B) The supply of A has increased.
C) The supply of A has decreased.
D) The demand for A has decreased.
E) The law of supply is violated.

22) Good X is an inferior good. A leftward shift of the supply curve of good X could be the result of

A) a rise in the wage rate of the workers who produce good X.
B) a rise in the price of good X.
C) a change of preferences that decrease the demand for good X.
D) a decrease in income.
E) a technological advance in the production of good X.

23) If A and B are substitutes in production and the price of A falls, the supply of B will

A) shift depending on whether A and B are substitutes.
B) decrease, and the price of B will rise.
C) decrease, and the price of B will fall.
D) increase, and the price of B will rise.
E) increase, and the price of B will fall.

24) If we observe an increase in the equilibrium quantity, we know that

A) either the demand for A has increased or the supply of A has decreased or both.
B) either the demand for A has increased or the supply of A has increased or both.
C) either the demand for A has decreased or the supply of A has increased or both.
D) either the demand for A has decreased or the supply of A has decreased or both.
E) any of the above could have occurred; it depends on the relative size of the effects.

Use the table below to answer the following question.

Table 2
The Market for Car-Seat Heaters

Price ($)	Quantity Demanded	Quantity Supplied
40	500	300
50	450	350
60	400	400
70	350	450
80	300	500
90	250	550
100	200	600

25) Consider Table 2. Suppose a problem develops with car-seat heaters—they malfunction and occasionally cause serious burns. As a result, demand decreases by 100 units at each price. Simultaneously, the cost of production rises, causing supply to decrease by 200 units at each price. The new equilibrium price is $ _____ and equilibrium quantity is _____ units.

A) 50; 450
B) 70; 350
C) 70; 250
D) 70; 450
E) 60; 300

Use the table below to answer the following question.

Table 3
Quantities demanded and supplied in equilibrium before and after a drought strikes potato farmers.

	Potatoes		Hamburgers		Rice	
	before	after	before	after	before	after
Region 1	100	30	50	20	3	50
Region 2	10	5	4	50	50	60

26) Consider Table 3. In Region 1, potatoes and hamburgers are

A) inferior goods.
B) substitutes.
C) normal goods.
D) complements.
E) unrelated goods.

27) The data in the table below show the demand schedule for bottled water by the combined 002 and 004 sections of your economics class. The demand for bottled water is elastic at prices above _____, is unit elastic at a price of _____, and is inelastic at prices below _____.

Price (cents per bottle)	Quantity Demanded (bottles of water)
1000	1
600	17
500	34
400	75
300	122
200	203
175	232
150	270
125	320
100	382
75	412
50	455
25	496

A) $5.00; $5.00; $5.00
B) $10.00; $5.00; $0.25
C) $1.75; $2.00; $3.00
D) $2.00; $2.00; $1.75
E) $0.25; $2.50; $0.25

Use the figure below to answer the following question.

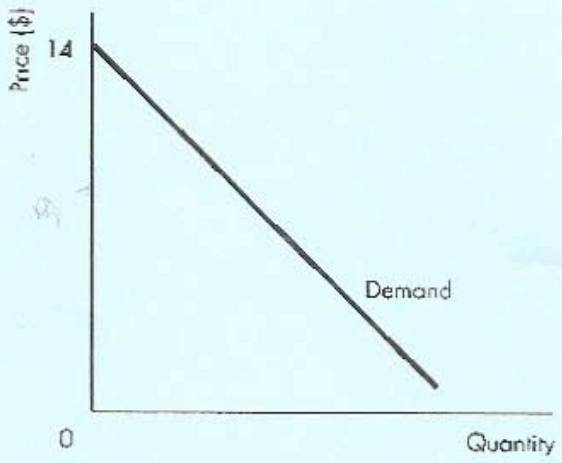


Figure 3

28) Figure 3 illustrates a linear demand curve. If the price falls from $4 to $3, we know
A) the effect on total revenue can be determined only with information on the quantities.
B) total revenue will decrease.
C) total revenue will increase.
D) total revenue will remain unchanged.
E) the effect on total revenue cannot be determined.

Use the table below to answer the following question.

Table 4

	Price of Jolt	Price of Coke	Income Level	Coke Sales
2000	$1.00/can	$1.00/can	$25,000	15,000 cases
2001	$1.00/can	$1.40/can	$25,000	25,000 cases
2002	$1.00/can	$1.40/can	$35,000	15,000 cases
2003	$1.40/can	$1.40/can	$35,000	5,000 cases

29) Consider Table 4. The cross elasticity of demand for Coke with respect to the price of Jolt is
A) 0.75.
B) 1.5.
C) 0.40.
D) 10.
E) -3.

Use the table below to answer the following question.

Table 5

Year	Quantity Demanded	Price ($)	Income ($)
2004	25,000	1	4,000
2005	15,000	3	4,000
2006	5,000	3	6,000

30) Consider the information in Table 5. The income elasticity of demand is
A) 3.33.
B) -3.33.
C) 2.5.
D) 1.25.
E) -2.5.

Use the figure below to answer the following question.

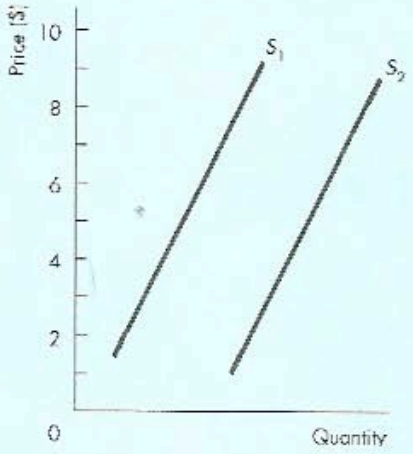


Figure 4

31) The two supply curves in Figure 4 are parallel. In the $3 to $4 price range,
A) $S1$ is more inelastic than $S2$.
B) $S1$ and $S2$ have the same elasticity.
C) $S1$ is flatter than $S2$.
D) $S1$ is steeper than $S2$.
E) $S1$ is more elastic than $S2$.

32) Market price is one method of resource allocation. In this case,
A) only those who show interest would get the resources.
B) willingness-to-pay is not an issue.
C) only those who are willing and able to pay would get the resources.
D) everyone in the economy gets the resources.
E) affordability to pay for the resources is less important than willingness-to-pay.

33) Currently Jerry and Julia are consuming the same amount of strawberries, but Jerry's demand curve is much more elastic than Julia's. Which statement is true?
A) Jerry's consumer surplus exceeds Julia's.
B) Julia's consumer surplus exceeds Jerry's.
C) Julia's producer surplus is greater than Jerry's producer surplus.
D) Jerry's producer surplus is greater than Julia's producer surplus.
E) Julia's consumer surplus equals Jerry's.

Use the figure below to answer the following question.

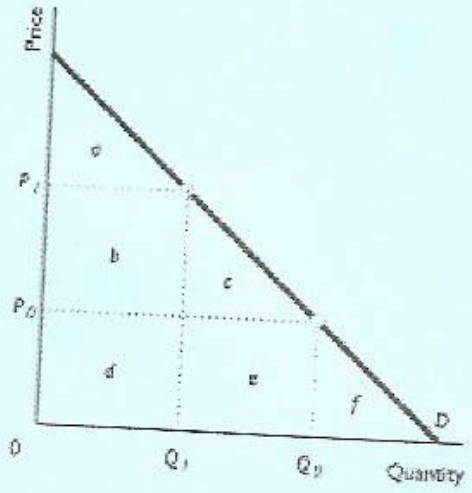


Figure 5

34) Refer to Figure 5. If the price is $P0$, consumer surplus is
A) a.
B) b plus c.
C) a plus b plus c plus d plus e.
D) a plus b plus c.
E) d plus e.

Use the table below to answer the following question.

Table 6

Quantity	Marginal Cost ($)
1	2
2	3
3	4
4	5

35) Table 6 gives information on the marginal cost for the XYZ firm. If XYZ sells the first unit at a price of $6, what is its total producer surplus on that unit?

A) $4
B) $7
C) $6
D) $9
E) $12

Use the figure below to answer the following question.

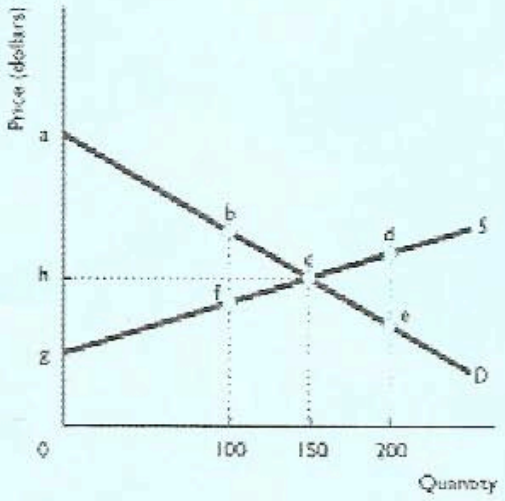


Figure 6

36) Refer to Figure 6. If the level of output is 100, the deadweight loss is area

A) *acg*.
B) *bcf*.
C) *hcg*.
D) *ach*.
E) *dce*.

37) If the government imposes a maximum rent for housing that is above the equilibrium price, then you predict that

A) the law will create a shortage of housing.
B) the law will generate an excess demand for housing.
C) the law will have no effect in the housing market.
D) the supply curve for housing shifts leftward.
E) house-seekers will observe that landlords start to decrease the standard of maintenance.

38) The short-run supply curve for rental housing is positively sloped because

A) the supply of housing is fixed in the short run.
B) the cost of constructing a new building is about the same regardless of the number of buildings already in existence.
C) new buildings will be constructed as rents rise.
D) the current stock of buildings will be used more intensively as rents rise.
E) the cost of constructing new buildings increases as the number of buildings in existence rise.

Use the figure below to answer the following question.

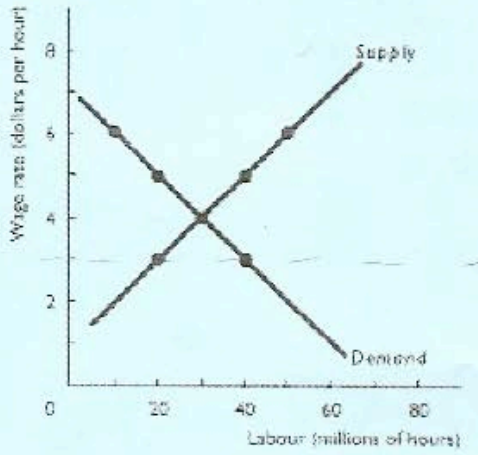


Figure 7

39) If the minimum wage is set at $3 per hour in Figure 7, what is the level of unemployment in millions of hours?

A) 20
B) 50
C) 0
D) 10
E) 40

Use the table below to answer the following question.

Table 7

Wage ($ per hour)	Labour Supplied (hours per week)	Labour Demanded (hours per week)
7	1,000	600
6	800	800
5	600	1,000
4	400	1,200

40) Table 7 gives the supply and demand for teenage labour in Lexington. There is a minimum wage set at $6 per hour. Suppose a fast food restaurant closes and the demand for teenage labour decreases by 400 hours per week at each wage level. The result will be

A) elimination of teenage unemployment and a wage of $5 an hour.
B) no change in teenage unemployment since the wage must remain at $6 an hour.
C) elimination of teenage unemployment and a wage rate of $6 an hour.
D) elimination of teenage unemployment and a wage of $4 an hour.
E) a wage rate of $6 an hour and unemployment of 400 hours a week.

41) The tax burden on consumers will be greater the more

(1) elastic is demand
(2) inelastic is demand
(3) elastic is supply
(4) inelastic is supply

A) (1) and (4)
B) (2)
C) (2) and (3)
D) (1) and (3)
E) (2) and (4)

Use the figure below to answer the following question.

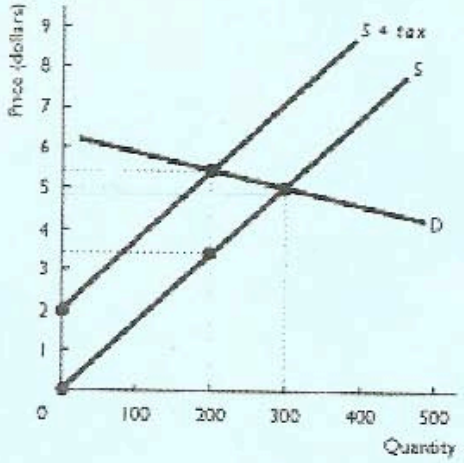


Figure 8

42) Consider Figure 8. Government revenue from the sales tax is
A) $100.
B) $400.
C) $600.
D) $0.
E) $300.

43) When farmers face a poor harvest,
A) supply decreases, price falls, and total farm revenue increases.
B) supply increases, price falls, and total farm revenue increases.
C) supply remains unchanged, price falls, and total farm revenue remains unchanged.
D) supply decreases, price rises, and total farm revenue decreases.
E) supply decreases, price rises, and total farm revenue increases.

Use the table below to answer the following questions.

Table 8
The Market for a Prohibited Good.

Price ($)	Quantity Demanded	Quantity Supplied
5	700	100
6	600	200
7	500	300
8	400	400
9	300	500
10	200	600
11	100	700

44) Refer to Table 8. If a $2-per-unit cost of breaking the law is imposed on buyers, the new price is $_____ and the new equilibrium quantity is _____ units.
A) 8; 300
B) 9; 300
C) 8; 200
D) 8; 400
E) 7; 300

45) Refer to Table 8. If a $2-per-unit cost of breaking the law is imposed on sellers, the new price is $_____ and the new equilibrium quantity is _____ units.
A) 8; 300
B) 8; 400
C) 7; 300
D) 9; 300
E) 8; 200

46) The *PPF* for good *X* and good *Y* is a straight line. If a tax is added to good *Y*, everything else remaining the same, then
A) the buyer and the seller split the tax, but the seller pays more of the tax.
B) the buyer and the seller split the tax, but the buyer pays more of the tax.
C) the seller pays the entire tax.
D) the buyer and the seller split the tax evenly.
E) the buyer pays the entire tax.

47) If a tax is applied to a good, which has a price elasticity of demand equal to zero, then the quantity bought and sold _____, the _____, the total revenue received by the supplier _____, and _____ arises.

A) decreases; seller pays the entire tax; decreases; a deadweight loss
B) decreases; buyer and the seller split the tax; decreases; no deadweight loss
C) does not change; buyer pays the entire tax; does not change; no deadweight loss
D) does not change; seller pays the entire tax; does not change; no deadweight loss
E) decreases; buyer pays the entire tax; decreases; a deadweight loss

Use the table below to answer the following question.

Table 9
Demand and Supply Schedules for Cups of Coffee each day at CoolU.

Price	Quantity Demanded	Quantity Supplied
$0.70	1,200	0
$0.80	1,100	200
$0.90	1,000	400
$1.00	900	600
$1.10	800	800
$1.20	700	1,000
$1.30	600	1,200
$1.40	500	1,400
$1.50	400	1,600

48) Table 9 gives the demand and supply schedules for coffee at CoolU. The price of a donut decreases and the demand for coffee changes by 200 cups at each price. At the same time, a drought in coffee-growing regions changes the supply of coffee by 200 cups at each price.

The university decides to place a price ceiling on a coffee at $1.20 a cup.

As a result, a _____ cups of coffee a day occurs, and _____. The demand for coffee is _____ at the new price.

A) shortage of 100; the highest price someone is willing to pay for a cup of coffee in the black market is $1.30; elastic
B) new equilibrium quantity of 900; the price ceiling is effective; unit elastic
C) new equilibrium quantity of 800; a deadweight loss arises; inelastic
D) shortage of 100; the highest price someone is willing to pay for a cup of coffee in the black market is $1.05; elastic
E) new equilibrium quantity of 800; the price ceiling is ineffective; inelastic

49) Daphne and Miranda both produce bears stuffed with jeally beans. If we draw their *PPF*s with bears on the *y*-axis and bags of jelly beans (for stuffing the bears) on the *x*-axis, Daphne's *PPF* is steeper than Miranda's *PPF* at all quantities of jelly beans and the two *PPF*s intersect where they each produce 100 bears and 100 bags of jelly beans. If Daphne and Miranda exploit their comparative advantage and trade

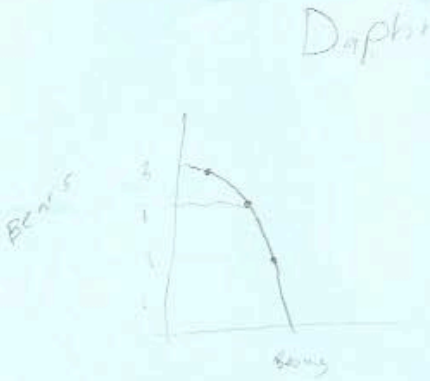
A) Miranda produces more bears and Daphne produces more jelly beans.

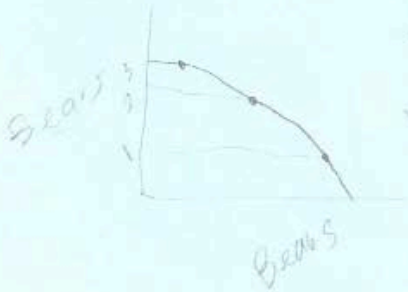
B) Miranda gets jelly beans at a lower cost than before but Daphne pays more for bears.

C) Daphne produces more bears and Miranda produces more jelly beans.

D) Miranda gets jelly beans at a lower cost than before and Daphne gets bears at a lower cost too.

E) Both A and D are correct.





50) With rising health care costs from smoking, the government decides to make cigarettes illegal and to punish sellers with penalties that are equivalent to $3 a pack.

The table below shows the demand and supply schedules for cigarettes when they are traded legally. With the new penalties the equilibrium quantity of cigarettes bought falls by _____ packs a week. Not happy with this outcome, the government decides to keep the penalty on sellers but also to impose and enforce a price ceiling of $4.00 a pack. The quantity now falls by a further _____ packs a week but there is a consumer surplus on the marginal pack bought of _____.

Price (dollars)	Quantity demanded (packs per week)	Quantity supplied (packs per week)
1.00	1,000	100
1.50	950	200
2.00	900	300
2.50	850	400
3.00	800	500
3.50	750	600
4.00	700	700
4.50	650	800
5.00	600	900
5.50	550	1,000
6.00	500	1,100
6.50	450	1,200
7.00	400	1,300
7.50	350	1,400
8.00	300	1,500
8.50	250	1,600
9.00	200	1,700
9.50	150	1,800
10.00	100	1,900

A) 200; 400; $4
B) 500; 100; $4
C) 500; 100; $6
D) 200; 400; $6
E) 300; 300; $4

ESA

The University of Western Ontario
1151 Richmond Street
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