

Eco1104 Introduction to Microeconomics
Section E
Second Midterm Exam
November 12, 2013

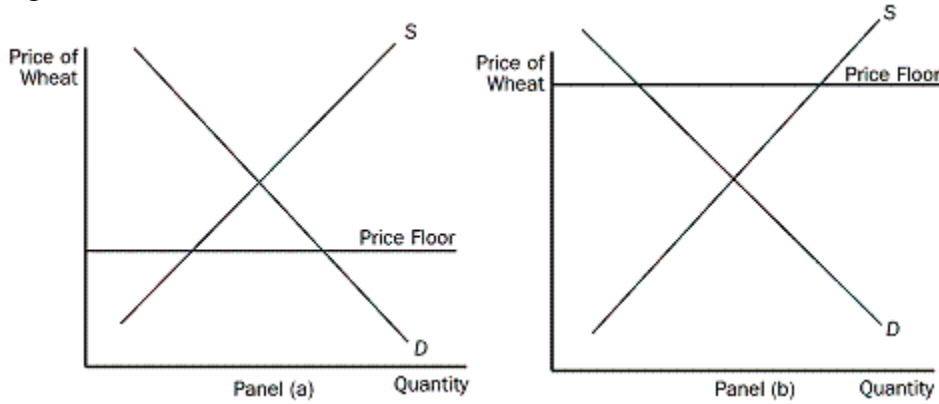
1. You have 70 minutes to finish this exam, please use your time wisely.
2. Please put your answers for multiple choices questions to the scantron sheet, and write down your answers for T/F questions on the corresponding space given on the last page of the exam paper.
3. Only the scantron sheet and the last page of the exam paper will be collected from you, **please don't forget to fill in your name and student number.**
4. Please turn off your cell phone during the exam. Good luck!

Part I Multiple Choice (subtotal 40 points, one point for each question)

Identify the choice that best completes the statement or answers the question.

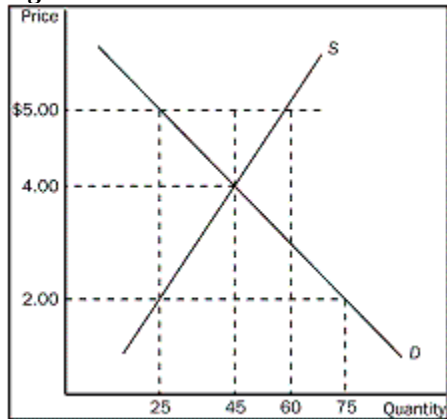
- ___ 1. What do we know about price ceilings and price floors?
- They are desirable because they make markets more efficient as well as equitable.
 - They cause surpluses and shortages to persist since price cannot adjust to the market equilibrium price.
 - They can be enacted to restore a market to equilibrium.
 - They are imposed because they can make the poor in the economy better off without causing adverse effects.
- ___ 2. Under rent control, what can tenants expect?
- lower rent and higher quality housing
 - lower rent and lower quality housing
 - higher rent and higher quality housing
 - higher rent and lower quality housing

Figure 6-3



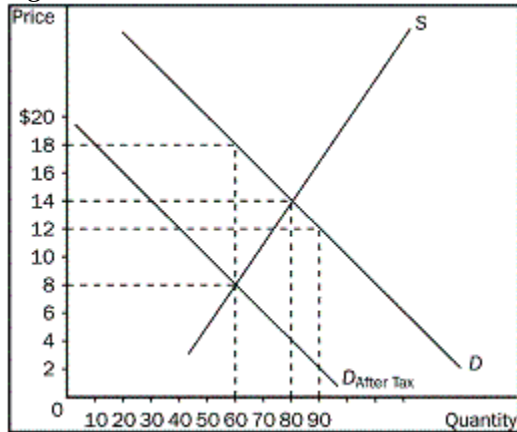
- ___ 3. Refer to Figure 6-3. In panel (b), what will happen at the actual price?
- There will be a shortage of wheat.
 - There will be equilibrium in the market.
 - There will be a surplus of wheat.
 - There will be an excess demand for wheat.

Figure 6-5



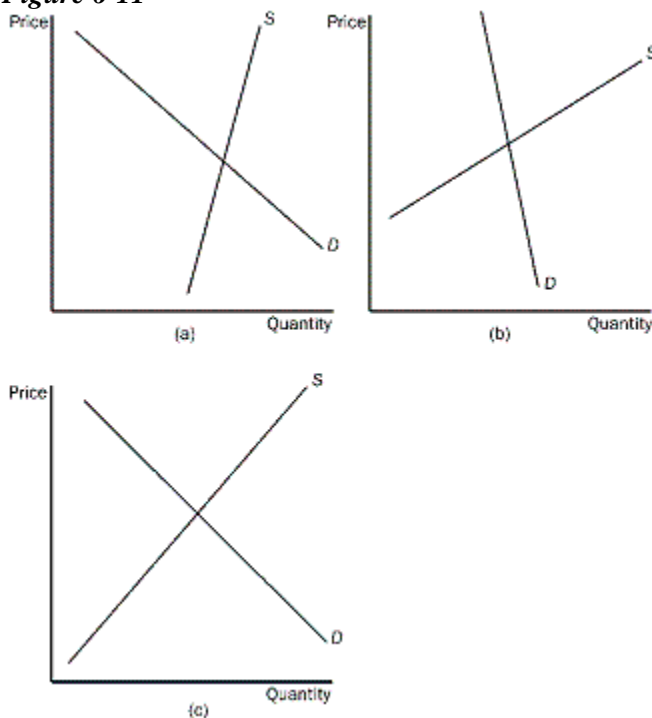
- ___ 4. Refer to Figure 6-5. If the government imposes a binding price floor of \$5.00 in this market, what is the result?
- a surplus of 15 units
 - a surplus of 20 units
 - a surplus of 35 units
 - a shortage of 20 units
- ___ 5. Refer to Figure 6-9. What is the price sellers receive after the tax is imposed?
- \$8.00
 - \$12.00
 - \$14.00
 - \$18.00

Figure 6-9



- ___ 6. Refer to Figure 6-9. What is the share of the tax burden per unit that buyers would pay?
- \$4.00
 - \$6.00
 - \$8.00
 - \$10.00
- ___ 7. What effect does a tax on buyers of popcorn have on the popcorn market?
- It increases the size of the popcorn market.
 - It reduces the size of the popcorn market.
 - It has no effect on the size of the popcorn market.
 - It may increase, decrease, or have no effect on the size of the popcorn market.
- ___ 8. Any time a tax is placed on the buyers of a product, what will it do to the equilibrium price (to buyers) and quantity?
- It will reduce the equilibrium price and increase the equilibrium quantity of that product.
 - It will reduce the equilibrium price and equilibrium quantity of that product.
 - It will increase the equilibrium price and equilibrium quantity of that product.
 - It will increase the equilibrium price and reduce the equilibrium quantity of that product.
- ___ 9. How will a \$2.00 per unit tax placed on the sellers of mailboxes shift the supply curve?
- left (upward) by exactly \$2.00
 - left (upward) by less than \$2.00
 - right (downward) by exactly \$2.00
 - right (downward) by less than \$2.00

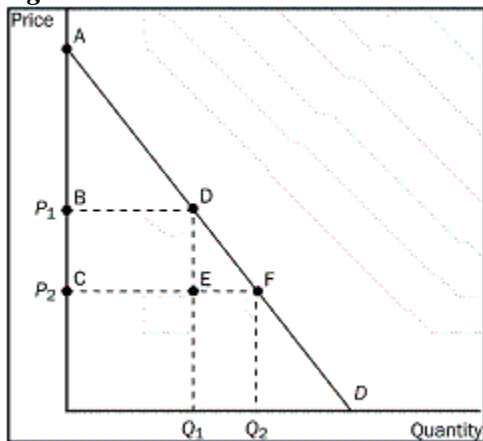
Figure 6-11



- ___ 10. Refer to Figure 6-11. In which market will the majority of a tax be paid by the seller?
- market (a)
 - market (b)
 - market (c)
 - impossible to determine

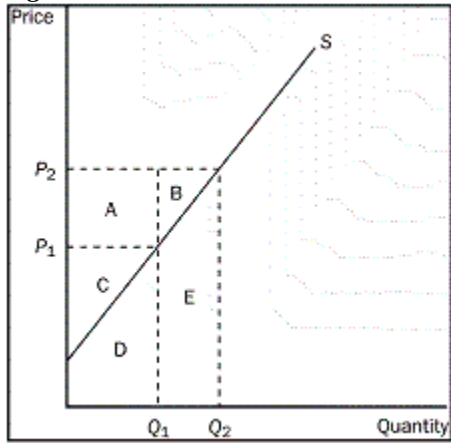
- ___ 11. Suppose that a tax is placed on books. If the buyer pays the majority of the tax, what do we know?
- The supply curve is more inelastic than the demand curve.
 - The demand curve is more inelastic than the supply curve.
 - The government has placed the tax on the seller.
 - The government has placed the tax on the buyer.
- ___ 12. Suppose Lauren, Leslie, and Lydia all purchase bulletin boards for their rooms for \$15 each. Lauren's willingness to pay was \$35, Leslie's willingness to pay was \$25, and Lydia's willingness to pay was \$30. What is the total consumer surplus for these three?
- \$15
 - \$25
 - \$35
 - \$45
- ___ 13. Suppose there is an early freeze in California that ruins the lemon crop. What happens to consumer surplus in the market for lemons?
- It increases.
 - It decreases.
 - It is not affected by this change in market forces.
 - It increases very briefly, then decreases.
- ___ 14. Which of the following will NOT occur when the price of a good or service falls?
- Buyers who were already buying the good or service are better off.
 - Some new buyers, who are now willing to buy, enter the market.
 - The total consumer surplus in the market increases.
 - The total value of what is purchased remains unchanged.

Figure 7-2



- ___ 15. **Refer to Figure 7-2.** When the price falls from P_1 to P_2 , which area represents the increase in consumer surplus to new buyers entering the market?
- ABD
 - ACF
 - BCDE
 - DEF
- ___ 16. When would a seller be willing to sell a product?
- only if the price received is less than the cost of production
 - only if the price received is at least as great as the cost of production
 - only if the price received is equal to the cost of production
 - only if the price received is at least double the cost of production
- ___ 17. **Refer to Figure 7-5.** When the price falls from P_2 to P_1 , which of the following would NOT be the case?
- The sellers who still sell the good are worse off because they now receive less.
 - Some sellers leave the market because they are not willing to sell the good at the lower price.
 - The total cost of what is now sold by sellers is actually higher.
 - Producer surplus would fall by area A + B.

Figure 7-5



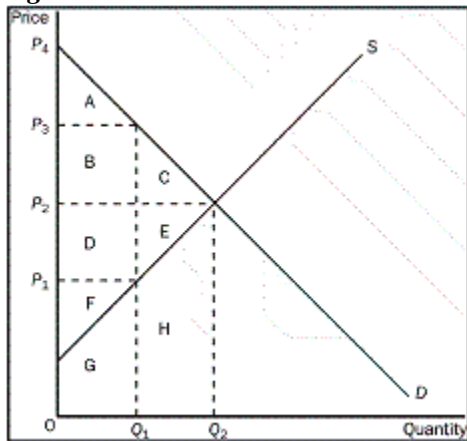
18. Suppose the demand for nachos increases. What will happen to producer surplus in the market for nachos?
- It increases.
 - It decreases.
 - It is unaffected by this change in market forces.
 - It decreases briefly, then increases.

Table 7-4

Price	Quantity Demanded	Quantity Supplied
\$12	0	12
\$10	4	10
\$8	8	8
\$6	12	6
\$4	16	4
\$2	20	2

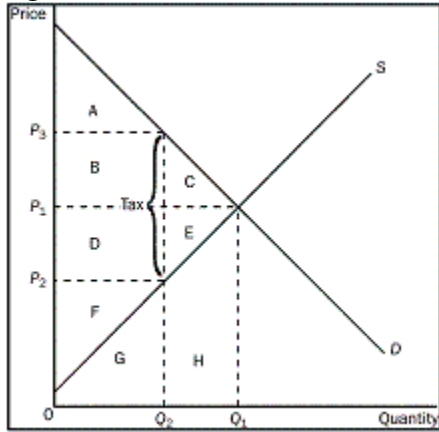
19. Refer to Table 7-4. At the equilibrium price, what would consumer surplus be?
- \$4
 - \$8
 - \$12
 - \$16

Figure 7-8



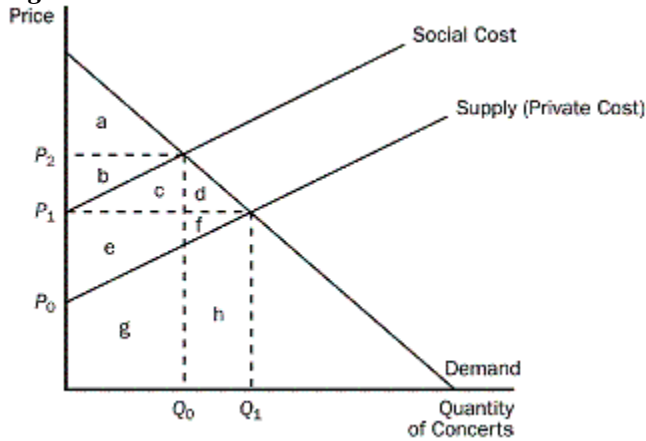
20. Refer to Figure 7-8. At the market-clearing equilibrium, which area represents total producer surplus?
- F
 - F + G
 - D + E + F
 - D + E + F + G + H
21. What is the impact of a technological advance in the production of computers?
- increase consumer surplus in the market for computers but decrease producer surplus in the market for computer software
 - increase consumer surplus in the market for computers and increase producer surplus in the market for computer software
 - decrease consumer surplus in the market for computers but increase producer surplus in the market for computer software
 - decrease consumer surplus in the market for computers and decrease producer surplus in the market for computer software

Figure 8-4



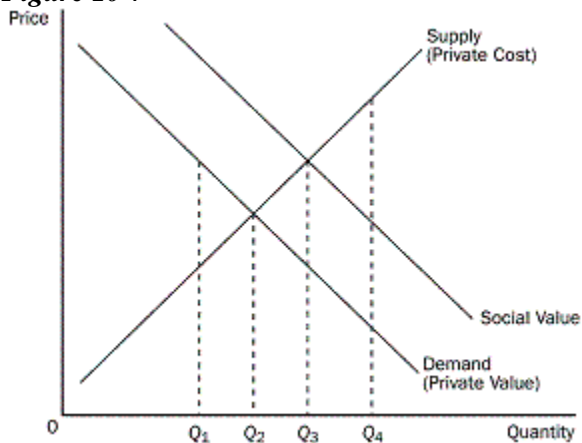
- ___ 22. Refer to Figure 8-4. Which area represents consumer surplus after the tax is levied on the producer?
- A
 - A + B + C
 - D + E
 - D + E + F
- ___ 23. Suppose that the equilibrium quantity in the market for widgets has been 200 per month. Then a tax of \$5 per widget is imposed. The price paid by buyers increases by \$2 and the after-tax price received by sellers falls by \$3. The government is able to raise \$750 per month in revenue from the tax. What is the deadweight loss from the tax?
- \$50
 - \$75
 - \$125
 - \$250
- ___ 24. When the size of a tax is doubled, what happens to the deadweight loss from the tax?
- It increases by the size of the tax.
 - It doubles.
 - It remains constant.
 - It increases by a factor of four.
- ___ 25. What does the term market failure refer to?
- a situation in which the market, on its own, fails to allocate resources efficiently
 - an unsuccessful advertising campaign which reduces demand
 - a situation in which competition among firms becomes ruthless
 - a firm which is forced out of business because of losses
- ___ 26. Which of the following quantities will a negative externality cause a private market to produce?
- less than is socially desirable
 - more than is socially desirable
 - more than market equilibrium
 - less than market equilibrium
- ___ 27. What will arise when negative externalities are present in a market?
- Private costs will be greater than social costs.
 - Social costs will be greater than private costs.
 - Government regulation to resolve the problem is always necessary.
 - The market will not be able to reach any equilibrium situation.
- ___ 28. Refer to Figure 10-2. Why is the social cost curve above the supply curve?
- It takes into account the external costs imposed on society by the concert organizers.
 - Municipalities always impose noise restrictions on concerts in parks surrounded by residential neighbourhoods.
 - Concert tickets are likely to cost more than the concert actually costs the organizers.
 - Residents in the surrounding neighbourhoods get to listen to the concert for free.
- ___ 29. Refer to Figure 10-2. What does the difference between the social cost curve and the supply curve reflect?
- the profit margin of each concert
 - the cost of spillover effects from the concert (e.g., noise and traffic)
 - the value of concerts to society as a whole
 - the amount by which the city should subsidize the concert organizers
- This figure reflects the market for outdoor concerts in a public park surrounded by residential neighbourhoods.

Figure 10-2



- ___ 30. **Refer to Figure 10-2.** What price and quantity combination best represents the optimum price and number of concerts that should be organized?
- P_1, Q_1
 - P_2, Q_0
 - P_3, Q_1
 - The optimum quantity is zero concerts as long as residents in surrounding neighbourhoods are adversely affected by noise and congestion.
- ___ 31. What would be an optimal tax on pollution (a negative externality)?
- one for which producers choose not to produce any pollution
 - one for which producers internalize the cost of the pollution
 - one for which a benevolent social planner is able to maximize production
 - one for which the value to consumers at market equilibrium exceeds the cost of production (including tax)
- ___ 32. Which of the following statements about internalizing a negative externality is most accurate?
- Internalizing a negative externality will cause an industry to decrease the quantity it supplies to the market and decrease the price of the good produced.
 - Internalizing a negative externality will cause an industry to decrease the quantity it supplies to the market and increase the price of the good produced.
 - Internalizing a negative externality will cause an industry to increase the quantity it supplies to the market and decrease the price of the good produced.
 - Internalizing a negative externality will cause an industry to increase the quantity it supplies to the market and increase the price of the good produced.

Figure 10-7



- ___ 33. **Refer to Figure 10-7.** Which quantity represents the social optimum for this market?
- Q_1
 - Q_2
 - Q_3
 - Q_4

- _____ 34. If the government wanted to ensure that the market reaches the social optimum in the presence of a technology spillover, what should it do?
- It should impose a Pigovian tax on any firm producing a technology spillover.
 - It should offer tax credits to consumers who are adversely affected by the new technology.
 - It should subsidize producers by an amount equal to the value of the technology spillover.
 - It should provide research grants to those firms not currently engaging in research to increase competition in the industry.
- _____ 35. Which of the following statements is most correct?
- Pigovian taxes are often preferred over direct regulation because they typically reduce externalities at a lower cost.
 - Pigovian taxes are less preferred than direct regulation because they typically reduce externalities at a higher cost.
 - Pigovian taxes are often preferred over direct regulation because they typically reduce externalities at a faster rate.
 - Pigovian taxes are less preferred than direct regulation because they typically reduce externalities at a slower rate.
- _____ 36. In some cases, why may pollution permits be better than a Pigovian tax?
- Pollution permits allow for a market solution while a Pigovian tax does not.
 - Pollution permits generate more revenue for the government than a Pigovian tax.
 - Pollution permits are never preferred over a Pigovian tax.
 - The government can set a maximum level of pollution using permits
- _____ 37. Two firms, A and B, each currently dump 50 tonnes of chemicals into the local river. The government has decided to reduce the pollution and from now on will require a pollution permit for each tonne of pollution dumped into the river. The government gives each firm 20 tonnes' worth of pollution permits, which it can either use or sell to the other firm. It costs Firm A \$100 for each tonne of pollution that it eliminates before it reaches the river and it costs Firm B \$50 for each tonne of pollution that it eliminates before it reaches the river. What is likely to happen?
- Firm A will buy all of Firm B's pollution permits. Each one will cost less than \$50.
 - Firm A will buy all of Firm B's pollution permits. Each one will cost between \$50 and \$100.
 - Firm B will buy all of Firm A's pollution permits. Each one will cost between \$50 and \$100.
 - Both firms will use their own pollution permits.
- _____ 38. According to the Coase theorem, under which conditions can private parties solve the problem of externalities?
- if the cost of bargaining is little
 - if the initial distribution of rights favours the person being adversely affected by the externality
 - if the number of parties involved is sufficiently large
 - if the number of parties involved is sufficiently small
- _____ 39. Dick owns a dog whose barking annoys Dick's neighbour Jane. Suppose that the benefit of owning the dog is worth \$500 to Dick and that Jane bears a cost of \$700 from the barking. Assuming Dick has the legal right to keep the dog, what is a possible private solution to this problem?
- Jane pays Dick \$499 to get rid of the dog
 - Dick pays Jane \$650 for her inconvenience
 - Jane pays Dick \$650 to get rid of the dog
 - There is no private solution that would improve this situation.
- _____ 40. When does the Coase theorem suggest that private markets may not be able to solve the problem of externalities?
- when the number of interested parties is large and bargaining costs are high
 - when government does not actively become involved in the process
 - when the firm in the market is a monopoly
 - when some people benefit from the externality

Name _____

Student Number _____

Part II True/False (subtotal 10 points, 2 points for each question)

Indicate whether the statement is true or false. If false, please provide your explanation.

_____ 1. If a price ceiling of \$2 per litre is imposed on gasoline, but the market equilibrium price is \$1.50, the price ceiling is a binding constraint on the market.

_____ 2. The area above the demand curve and below the price measures the consumer surplus in a market.

_____ 3. The demand for bread is less elastic than the demand for donuts; hence, a tax on bread will create a larger deadweight loss than will the same tax on donuts, all else equal.

_____ 4. It is true that the tax revenue rises more rapidly than the size of the tax.

_____ 5. Negative externalities lead markets to produce a smaller quantity of a good than is socially desirable, while positive externalities lead markets to produce a larger quantity of a good than is socially desirable.

- BLM: Higher Order NOT: Macro TB_8-70
23. ANS: C PTS: 1 DIF: Challenging REF: p.168-169
BLM: Higher Order NOT: Macro TB_8-137
24. ANS: D PTS: 1 DIF: Average REF: p.174-176
BLM: Remember NOT: Macro TB_8-177
25. ANS: A PTS: 1 DIF: Easy REF: p.205
BLM: Remember NOT: Micro TB_10-6
26. ANS: B PTS: 1 DIF: Average REF: p.208
BLM: Remember NOT: Micro TB_10-42
27. ANS: B PTS: 1 DIF: Average REF: p.208
BLM: Remember NOT: Micro TB_10-44
28. ANS: A PTS: 1 DIF: Average REF: p.208
BLM: Higher Order NOT: Micro TB_10-50
29. ANS: B PTS: 1 DIF: Average REF: p.208
BLM: Higher Order NOT: Micro TB_10-51
30. ANS: B PTS: 1 DIF: Average REF: p.208
BLM: Higher Order NOT: Micro TB_10-52
31. ANS: B PTS: 1 DIF: Average REF: p.208 | p.211
BLM: Remember NOT: Micro TB_10-69
32. ANS: B PTS: 1 DIF: Challenging REF: p.211
BLM: Remember NOT: Micro TB_10-77
33. ANS: C PTS: 1 DIF: Average REF: p.212
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34. ANS: C PTS: 1 DIF: Average REF: p.213
BLM: Remember NOT: Micro TB_10-99
35. ANS: A PTS: 1 DIF: Challenging REF: p.215
BLM: Higher Order NOT: Micro TB_10-117
36. ANS: D PTS: 1 DIF: Average REF: p.217-221
BLM: Remember NOT: Micro TB_10-130
37. ANS: B PTS: 1 DIF: Challenging REF: p.219-221
BLM: Higher Order NOT: Micro TB_10-138
38. ANS: A PTS: 1 DIF: Average REF: p.222
BLM: Remember NOT: Micro TB_10-150
39. ANS: C PTS: 1 DIF: Challenging REF: p.223
BLM: Higher Order NOT: Micro TB_10-152
40. ANS: A PTS: 1 DIF: Average REF: p.223
BLM: Remember NOT: Micro TB_10-158

TRUE/FALSE

1. ANS: F PTS: 1 DIF: Average REF: p.120-121
NOT: Macro TB_6-179
2. ANS: F PTS: 1 DIF: Average REF: p.147-148
NOT: Macro TB_7-175
3. ANS: F PTS: 1 DIF: Average REF: p.171
NOT: Macro TB_8-204
4. ANS: F PTS: 1 DIF: Average REF: p.175
NOT: Macro TB_8-214

5. ANS: F PTS: 1 DIF: Average REF: p.206
NOT: Micro TB_10-176

___ 1. If a price ceiling of \$2 per litre is imposed on gasoline, but the market equilibrium price is \$1.50, the price ceiling is a binding constraint on the market.

F If a price ceiling of \$2 per litre is imposed on gasoline, but the market equilibrium price is \$1.50, the price ceiling **is NOT** a binding constraint on the market. (when a price ceiling is above the market equilibrium price, it is not binding.)

___ 2. The area above the demand curve and below the price measures the consumer surplus in a market.

F The area **below** the demand curve and **above** the market price measures the consumer surplus in a market.

___ 3. The demand for bread is less elastic than the demand for donuts; hence, a tax on bread will create a larger deadweight loss than will the same tax on donuts, all else equal.

F a tax on bread will create a **smaller** deadweight loss than will the same tax on donuts, all else equal. (DWL is smaller when the price elasticity of demand is smaller, i.e. more inelastic demand.)

___ 4. It is true that the tax revenue rises more rapidly than the size of the tax.

F tax revenue increases with tax size when the tax level is low, but after a critical tax level, the tax revenue will decrease when tax size keeps increasing.

___ 5. Negative externalities lead markets to produce a smaller quantity of a good than is socially desirable, while positive externalities lead markets to produce a larger quantity of a good than is socially desirable.

F Negative externalities lead markets to produce a **larger** quantity of a good than is socially desirable, while positive externalities lead markets to produce a **smaller** quantity of a good than is socially desirable.