

EC101 DD/EE. Problem Set 6

*Multiple Choice [MC] questions have only one correct answer. Other kinds of questions may have more than one correct answer. You should understand **why** your answers are correct. If you don't understand the meaning of a question, you may write to your own TF, but do not expect him/her to give you answers. The problem set will not be graded, but the way you discuss the problems in your discussion section will affect your discussion-section score.*

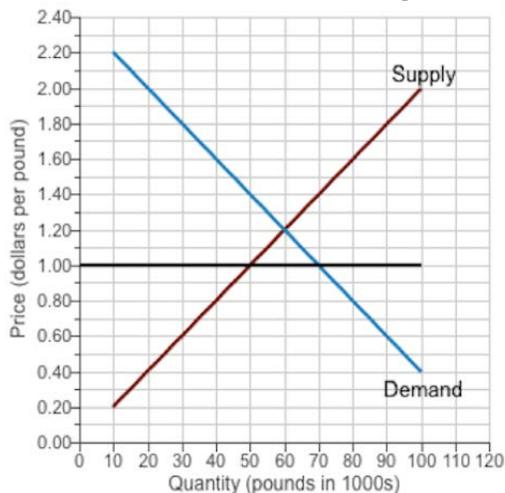
1. [MC] A price floor will change equilibrium price and quantity when _____, whereas a price ceiling will change equilibrium price and quantity when _____:
 - a. It's above the equilibrium price; it's above the equilibrium price.
 - b. It's below the equilibrium price, it's above the equilibrium price.
 - c. It's above the equilibrium price, it's below the equilibrium price.
 - d. NONE OF THE ABOVE.

2. The market for beer in the free city of Karalis is perfectly competitive. Worried about alcoholism among young people, the government studies ways of decreasing beer consumption.
 - i. Name two different economic or fiscal policies the government could implement to achieve their goal.
 - ii. Which of those two policies would you prefer and why?

3. Draw the graphs suggested below to show the effects of rent control
 - i. Draw a demand curve for apartments and a perfectly inelastic supply of apartments. Label the areas corresponding to renters' surplus (consumer surplus) "CS" and the landlord surplus (producer surplus) "PS".
 - ii. The government establishes a binding rent control. Draw this on the graph. Label the area corresponding to the additional surplus for renters as "CS+".
 - iii. What happens to landlord surplus? Does it increase/decrease? Draw the area that shows the increase/decrease in landlord surplus.
 - iv. Is rent control likely to reduce the quality of apartment maintenance? Explain.
 - v. Suppose a fire burns down several apartments because of poor maintenance and the government decides to eliminate the rent control. In a new graph, draw the supply shift and label the new renter surplus "CS2". What happens to consumer surplus?

4. In a labor market the employers pay an hourly wage for labor. The number of hours that workers are willing to work depends on the wage. Suppose the government taxes employers \$3 per hour of hired labor.
 - i. Who are the suppliers in this market?
 - ii. Who are demanders?
 - iii. Draw supply and demand in this market. Label your axes.
 - iv. Draw the effect of the tax. Identify the wage received by the workers, the wage paid by the employer, and the deadweight loss.
 - v. Is the equilibrium wage received by workers higher or lower with the tax compared to the equilibrium without the tax? By more or less than \$3.00?
 - vi. Is the equilibrium quantity of hours worked higher or lower with the tax compared to the equilibrium without the tax?
 - vii. Suppose employers can move production to other states/countries. If this is the case, who do you think will pay most of the tax? Explain.

5. Suppose the figure below represents a local market for meat. What would be the effect of a government price ceiling of \$1.00 per pound?
- The market would have a _____ of _____ thousand pounds.
 - What would the deadweight loss from the price ceiling be? Explain.



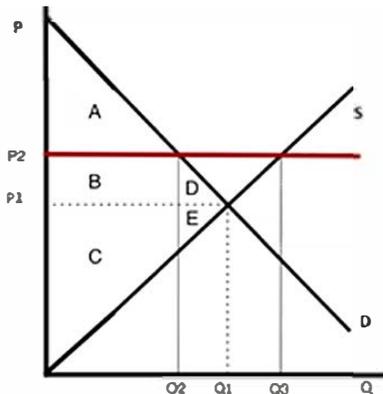
6. [MC] Suppose the price elasticity of demand for yachts is -4, while the price elasticity of supply for yachts is 0.2. If Congress places a luxury tax on yachts, who will pay most of the tax?
- It's impossible to tell without additional information.
 - Yacht builders and buyers will pay equally.
 - Yacht builders will pay more.
 - Yacht buyers will pay more.
7. Examine the following table and use it to answer the questions:

Table: Market for Sandwiches

| Price(unit) | Quantity Demanded (units) | Quantity Supplied (units) |
|-------------|---------------------------|---------------------------|
| \$1.10 | 9,000 | 3,000 |
| \$1.20 | 8,000 | 5,000 |
| \$1.30 | 7,000 | 7,000 |
| \$1.40 | 6,000 | 9,000 |
| \$1.50 | 5,000 | 11,000 |

- [MC] The government decides to tax sandwiches at a rate of \$0.30 per sandwich and collect that tax from the sandwich shops. Once the tax is introduced, consumers will pay ___ per sandwich and _____ sandwiches will be sold.
 - \$1.30; 7,000
 - \$1.40; 6,000
 - \$1.50; 5,000
 - \$1.20; 8,000
- [MC] How much of the tax is paid by consumers? How much by the sandwich shops?
 - \$0.20; \$0.10
 - \$0.00; \$0.30
 - \$0.15; \$0.15
 - \$0.30; \$0.00

8. True or False? Explain.
- In general, a tax raises the price the buyers pay, lowers the price the sellers receive, and reduces the quantity sold.
 - The deadweight loss from a tax is the decrease in consumer surplus from such tax.
 - When a tax is placed on a good, the revenue the government collects is equal to the loss of consumer and producer surplus from the tax.
 - A larger tax always generates more tax revenue.
9. Suppose beer and milk have the same supply curve. They also have the same equilibrium price and quantity. However, the demand for beer is more elastic than the demand for milk. Suppose the government is considering taxing both goods.
- Which tax would have a larger deadweight loss? Explain.
 - Which one would collect more tax revenue? Explain.
 - Which one would impact equilibrium quantity exchanged the most?
10. [MC] Which of the following is NOT an effect of a binding minimum wage (price floor in the labor market)?
- People with the lowest opportunity cost of working will get jobs.
 - Some people won't be able to find jobs.
 - Employers may discriminate against female job candidates.
 - Some economic surplus will be lost.
 - The workers who remain employed will be better off.
11. [MC] Anna sells tomatoes to Beta. Suppose the government passes a regulation that requires Anna to spray each tomato with disinfectant before selling it. Spraying each tomato costs \$0.50. Then which of the following is likely to happen?
- Anna will increase the price of each tomato by \$0.50.
 - Beta will pay \$0.50 less for each tomato.
 - Anna and Beta will each lose some surplus.
 - More tomatoes will be bought and sold.
12. The following graph shows the market for opera tickets. Suppose the National Opera Association says that opera tickets are too cheap, so they force opera theatres to increase ticket prices to P_2 .



- How many empty seats will there be at the opera theatres?
- How many opera tickets will be sold?
- What is the consumer surplus before and after the price change?
- What is the producer surplus before and after the price change?
- What was the change in economic surplus?

13. [MC] Under which of the following circumstances would the incidence of an excise tax fall entirely on consumers?
- Demand is perfectly elastic.
 - Supply is perfectly elastic.
 - Both demand and supply are unit elastic.
 - ALL OF THE ABOVE.
14. Suppose the supply curve of floor lamps is very inelastic. The government plans to introduce a \$3 subsidy on floor lamps (because every home needs one).
- Will the quantity sold increase or decrease? By a lot or by a little?
 - Will the revenue of the producers increase or decrease? By a lot or by a little?
15. [MC] Which of the following statements are true about rent controls?
- Producer surplus increases.
 - People who value an apartment more are guaranteed to get it.
 - Consumer surplus will increase for some consumers.
 - Landlords rent more apartments.
16. Which of the following are true or false, and why?
- Deadweight loss is equal to the increase in consumer surplus.
 - Taxes create excess demand or excess supply.
 - Binding price controls create excess demand or excess supply.
 - People with the lowest WTP will get the good when there is a binding price floor.