Fall 2015

Principles of Economics (II)
10410ECON100103

Quiz 1

Instructor: Eric Chou
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Name: __________________________ Student ID#:_____________________

Instructions: Time: 9:00am~9:50am (50 minutes)

PART I. [60%]

1. (_b_) When a tax is placed on a product, the price paid by buyers
   a. rises, and the price received by sellers rises.
   b. rises, and the price received by sellers falls.
   c. falls, and the price received by sellers rises.
   d. falls, and the price received by sellers falls.

2. (_a_) Ms. Spring currently earns $100,000 a year, while her junior partner, Mr. Fall, earns $55,000 a year. From the perspective of a utilitarian, if both of their incomes are subject to diminishing marginal utility, taking a dollar from Ms. Spring and giving it to Mr. Fall will
   a. increase society's total utility.
   b. lower Ms. Spring's marginal utility of income.
   c. increase Mr. Fall's marginal utility of income.
   d. lower society's total utility.

3. (_c_) Henry is willing to pay 45 cents, and Janine is willing to pay 55 cents, for 1 pound of bananas. When the price of bananas falls from 50 cents a pound to 40 cents a pound,
   a. Henry experiences an increase in consumer surplus, but Janine does not.
   b. Janine experiences an increase in consumer surplus, but Henry does not.
   c. both Janine and Henry experience an increase in consumer surplus.
   d. neither Janine nor Henry experiences an increase in consumer surplus.

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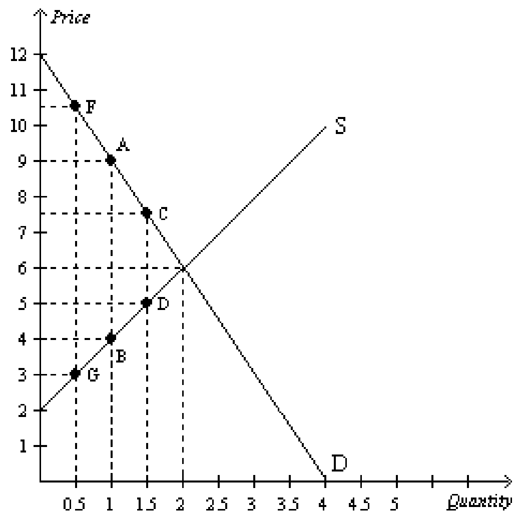

4. (_d_) The vertical distance between points A and B in the figure above represents the original tax. If the government changed the per-unit tax from $5.00 to $2.50, then the price paid by buyers would be $7.50, the price received by sellers would be $5, and the quantity sold in the market would be 1.5 units. Compared to the original tax rate, this lower tax rate would
   a. increase government revenue and increase the deadweight loss from the tax.
   b. increase government revenue and decrease the deadweight loss from the tax.
   c. decrease government revenue and increase the deadweight loss from the tax.
   d. decrease government revenue and decrease the deadweight loss from the tax.

5. (_a_) The imposition of a binding price ceiling on a market causes
   a. quantity demanded to be greater than quantity supplied.
   b. quantity demanded to be less than quantity supplied.
   c. quantity demanded to be equal to quantity supplied.
   d. the price of the good to be greater than its equilibrium price.

6. (_a_) Goods with many close substitutes tend to have
   a. more elastic demands.
   b. less elastic demands.
   c. price elasticities of demand that are unit elastic.
   d. income elasticities of demand that are negative.

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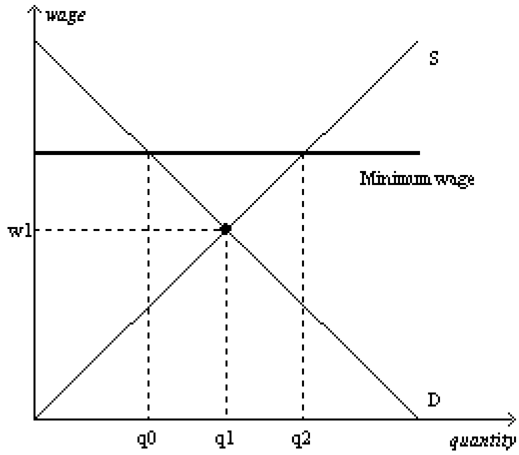
PART II. Short-Answer Question:

1. [10%] Using a supply and demand diagram, show a labor market with a binding minimum wage. Use the diagram to show those who are helped by the minimum wage and those who are hurt by the minimum wage.

   ANSWER:



Those who are helped by the minimum wage are the workers who are still employed and now receive the higher wage. In the diagram, those would be measured by the quantity of labor demanded at the minimum wage, q0. The minimum wage creates unemployment equal to the difference between the quantity of labor supplied and the quantity demanded at the minimum wage, q2-q0. The perceptive student might note that the unemployed group can be divided into those who lose their jobs as a result of the minimum wage (the competitive equilibrium quantity of labor minus the quantity demanded at the minimum wage, q1-q0), and those who enter the market as a result of the higher wage but cannot find employment (quantity of labor supplied at the minimum wage minus the competitive equilibrium quantity, q2-q1). The buyers of the labor (employers) are also worse off because they have to pay a higher wage for labor and, hence, hire a smaller quantity.

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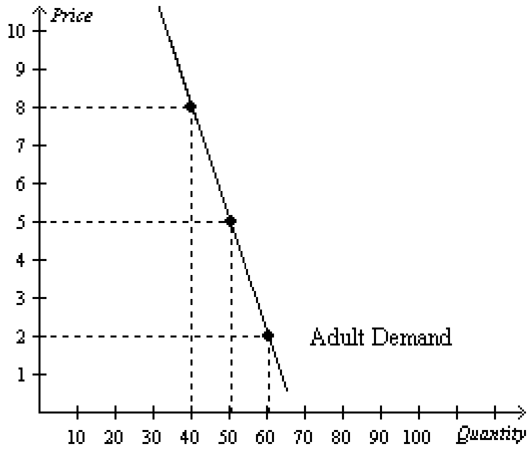

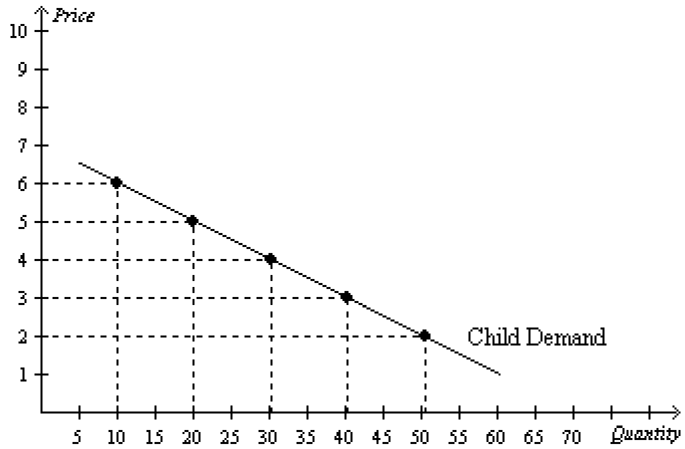

2. [10%] You own a small town movie theatre. You currently charge $5 per ticket for everyone who comes to your movies. Your friend who took an economics course in college tells you that there may be a way to increase your total revenue. Given the demand curves shown, answer the following questions.

   a. What is your current total revenue for both groups?

   b. The elasticity of demand is more elastic in which market?

   c. Which market has the more inelastic demand?

   d. What is the elasticity of demand between the prices of $5 and $2 in the adult market? Is this elastic or inelastic?

   e. What is the elasticity of demand between $5 and $2 in the children's market? Is this elastic or inelastic?

   f. Given the graphs and what your friend knows about economics, he recommends you increase the price of adult tickets to $8 each and lower the price of a child's ticket to $3. How much could you increase total revenue if you take his advice?

ANSWER:

a. Total revenue from children's tickets is $100 and from adult tickets is $250. Total revenue from all sales would be $350.

b. The demand for children's tickets is more elastic.

c. The adult ticket market has the more inelastic demand.

d. The elasticity of demand between $5 and $2 is 0.21, which is inelastic.

e. The elasticity of demand between $5 and $2 is 1.0, which is unit elastic. Total revenue in the adult market would be $320. Total revenue in the children’s market would be $120, so total revenue for both groups would be $440. $440 - $350 is an increase in total revenue of $90.

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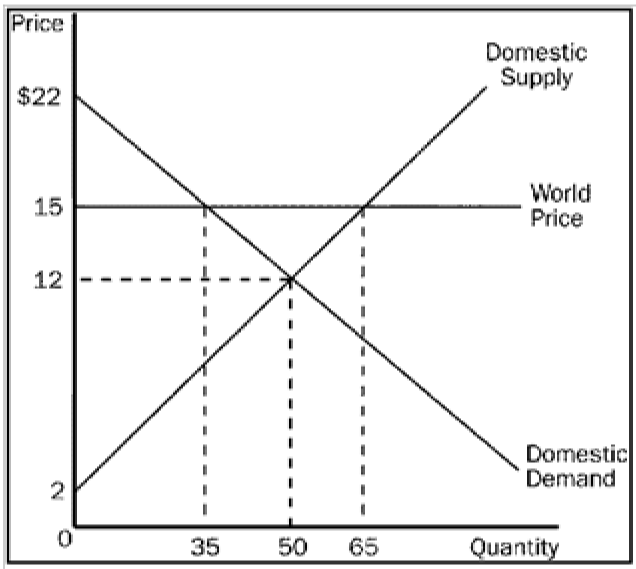
3. Use the graph to answer the following questions about CDs.



a. What is the equilibrium price of CDs before trade?
b. What is the equilibrium quantity of CDs before trade?
c. What is the price of CDs after trade is allowed?
d. What is the quantity of CDs exported after trade is allowed?
e. What is the amount of consumer surplus before trade?
f. What is the amount of consumer surplus after trade?
g. What is the amount of producer surplus before trade?
h. What is the amount of producer surplus after trade?
i. What is the amount of total surplus before trade?
j. What is the amount of total surplus after trade?
k. What is the change in total surplus because of trade?

ANSWER: a. $12
b. $50
c. $15
d. $30
e. $250
f. $122.50
g. $250
h. $422.50
i. $500

j.	\$545
k.	\$45

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[Extra paper]