ECON 180 - Regulation & Antitrust Policy
Drake University, Spring 2013
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Signature: _____

Printed name: _____

QUIZ 1 VERSION A
"Demand and Supply"

INSTRUCTIONS: This exam is closed-book, closed-notes. Simple calculators are permitted, but graphing calculators or calculators with alphabetical keyboards are NOT permitted. Mobile phones or other wireless devices are NOT permitted. Points will be subtracted for illegible writing or incorrect rounding. Point values for each question are noted in brackets.

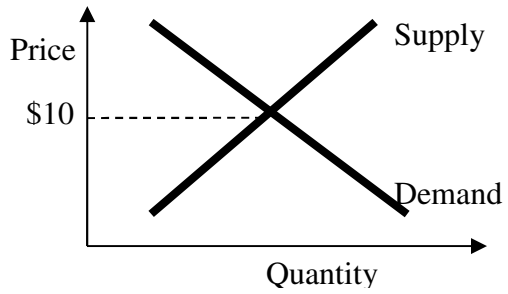
I. Multiple choice: Circle the one best answer to each question. [3 pts each: 33 pts total]

(1) If the price of milk falls, and nothing else affecting the demand for milk changes, then this will cause
a. the demand curve for milk will to rotate clockwise until it becomes upward-sloping.
b. a movement along the demand curve for milk.
c. the demand curve for milk to shift left.
d. the demand curve for milk to shift right.

(2) Supply curves tend to slope upward because
a. sellers try to increase the price over time.
b. price necessarily equals quantity.
c. the first few units are relatively cheap to produce but additional units often cost more.
d. you have to pay more to buy more.

(3) Spaghetti sauce is made from tomatoes, so if the price of tomatoes rises, then the
a. demand for spaghetti sauce will shift left.
b. demand for spaghetti sauce will shift right.
c. supply of spaghetti sauce will shift left.
d. supply of spaghetti sauce will shift right.

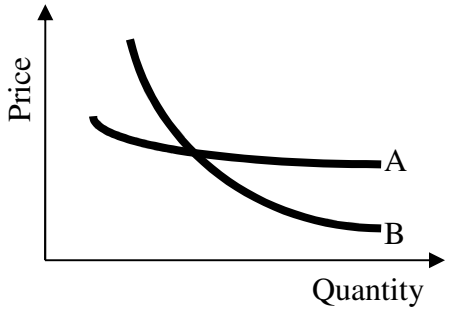
(4) Consider the supply-and-demand diagram below. If for some reason the price were $15, then there would be
a. excess demand.
b. excess supply.
c. neither excess demand nor excess supply.
d. Cannot be determined from information given.



(5) Excess demand in the market for cars would occur if the actual price of cars were
a. greater than the equilibrium price.
b. less than the equilibrium price.
c. too close to the equilibrium price.
d. cannot be determined from the information given.

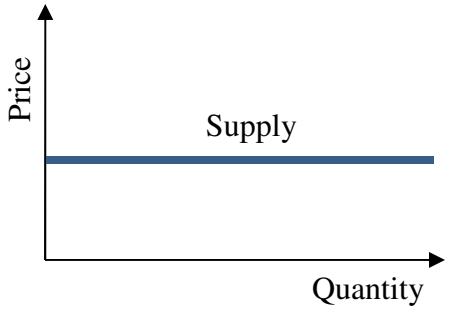
(6) Efficient well-functioning markets
a. force every potential buyer and seller to make a trade.
b. guarantee that buyers' total gains from trade (or earnings) will equal sellers' total gains.
c. obey the law of one price.
d. ensure that every trade takes place at a price halfway between the buyer's value and the seller's cost.
e. all of the above.

(7) Which demand curve below is *more* elastic?



a. Curve A is more elastic.
b. Curve B is more elastic.
c. The curves are equally elastic because they pass through the same point.
d. Cannot be determined from information given.

(8) Consider the supply curve in the graph below.



This supply curve is
a. perfectly elastic.
b. elastic.
c. unitary elastic.
d. inelastic.
e. perfectly inelastic.

(9) Suppose initially that in some town, the only way to watch movies is to visit the local movie theatre. Then suppose the local supermarket begins renting DVD movies. This change will make the demand for movie theatre tickets
a. perfectly inelastic with respect to price.
b. less elastic with respect to price.
c. more elastic with respect to price.
d. The elasticity is unchanged because the product is unchanged.

(10) Compare the price elasticity of demand for cable TV service when consumers are given just one *week* to adjust to a new price, with the elasticity of demand when given one *year* to adjust to the new price. Which is surely *larger* (in absolute value)?
a. The elasticity given one week to adjust.
b. The elasticity given one year to adjust.
c. The elasticities must be equal because they refer to the same product.
d. Cannot be determined from information given.

(11) Suppose the price elasticity of demand for ice cream is about – 3. If the price of ice cream rises, then the amount of money consumers spend on ice cream will
a. increase.
b. decrease.
c. remain constant.
d. cannot be determined from information given.

II. Problems: Insert your answer to each question below in the box provided. Feel free to use the margins for scratch work—only the answers in the boxes will be graded. Work carefully—partial credit is not normally given for questions in this section.

(1) [Intro to antitrust: 6 pts] Fill in the blanks: Antitrust policy is enforced by two U.S. federal agencies: the

_____ Division of the _____ Department, and the

_____ Commission.

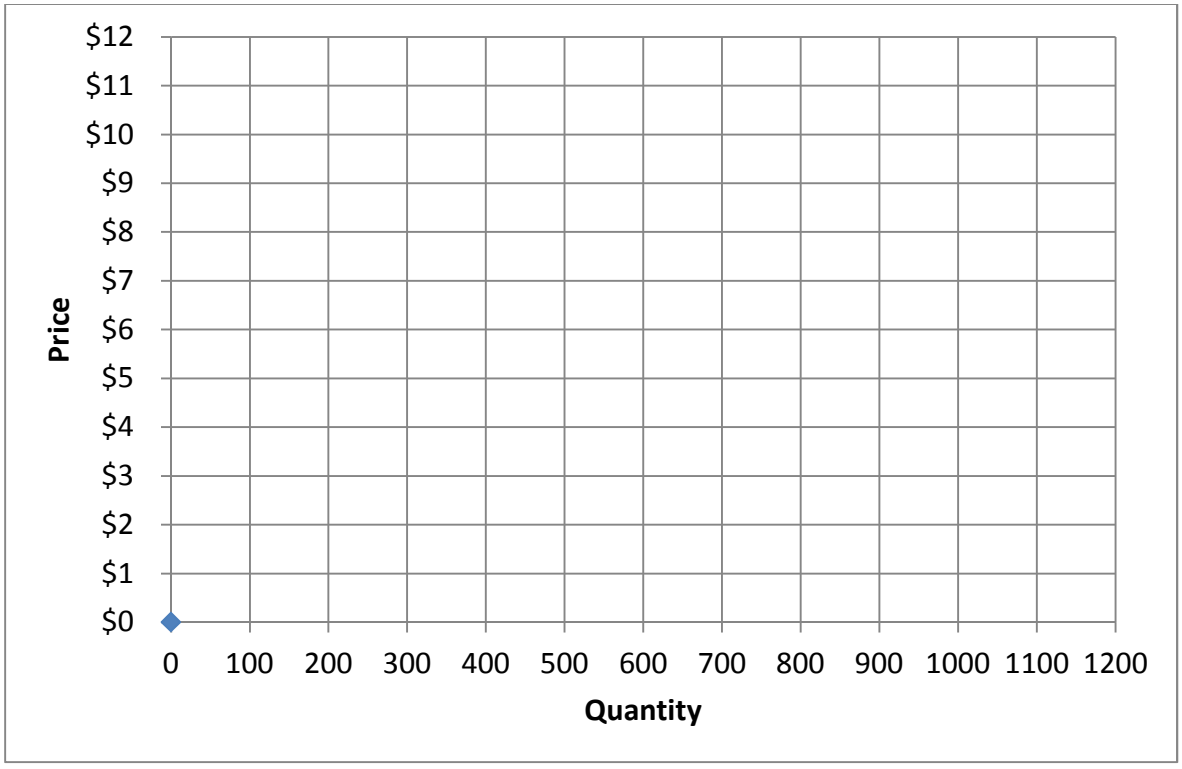
(2) [Demand and supply, simultaneous equations: 22 pts] Suppose demand and supply for flashlights are given by the following equations.

Demand: $P = 10 - (Q/100)$ Supply: $P = 2 + (Q/300)$

a. [10 pts] Solve for the market equilibrium price (P*) and quantity (Q*) for flashlights. Show your work and circle your final answers.

b. [2 pts] Compute total revenue for sellers (which equals total spending for buyers). $

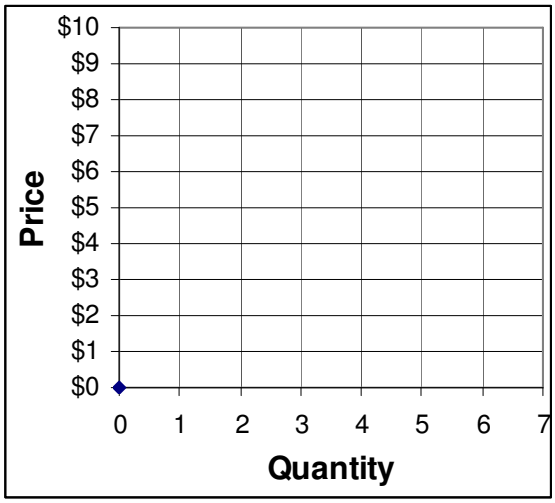
c. [10 pts] Graph and label the demand and supply curves below, using a straightedge.



(3) [Equilibrium: 8 pts] Suppose three buyers and three sellers engage in a market similar to the activity we did in class. Each buyer may buy at most two units and each seller may sell at most two units, but no one is forced to trade. Assume that buyers and sellers are each trying to maximize their personal surplus (or "gains from trade"). Surplus for each buyer equals the buyer's value of the good minus the price paid. Surplus for each seller equals the price received minus the seller's cost of the good. Surplus of persons who do not trade is zero. Prices must be whole dollars. Buyers' values and sellers' costs are given in the following table. Please use the graph at right for scratch work.

	Buyers' values		
	A	B	C
1st unit	$10	$9	$8
2nd unit	$2	$3	$6

	Sellers' costs		
	#1	#2	#3
1st unit	$1	$4	$6
2nd unit	$10	$9	$8



a. Suppose the price were **$5**. Would there be *excess demand or excess supply*?

b. What is the equilibrium price likely to be, in whole dollars?

c. How many units of the good will be sold in this market?

d. Compute the total revenue received by sellers (which equals total spending by buyers).

$
units
$

(4) [Price elasticity of demand: 8 pts] Suppose that when the price of gasoline increases by 5 percent, the quantity of gasoline purchased decreases by 2 percent. Assume nothing else related to the demand for gasoline changes.

a. Compute the price elasticity of demand for gasoline.

b. Is demand *elastic, inelastic,* or *unitary-elastic* ?

c. Will spending on gasoline *increase,* or *decrease*?

d. ... by about how much?

%

(5) [Price elasticity of demand: 10 pts] Suppose the water company lowers its rates by 9%. Assume the elasticity of demand for water is –1/3. Assume everything else affecting demand for water remains constant.

a. Will water consumption *increase or decrease?*	
b. ... by about how much?	%
c. Will revenue received by the water company *increase* or *decrease?*	
d. ... by about how much?	%
e. Is the demand for water *elastic, inelastic,* or *unitary elastic?*	

(6) [Price elasticity of supply: 8 pts] Suppose the government wants to increase the number of public school teachers by 6% (without lowering quality standards). Also suppose the elasticity of supply of public school teachers is known to be 3.0 .

a. To increase the number of teachers by this much, must pay levels for teachers *increase or decrease*?	
b. ... by about how much?	%
c. Will the total payroll (the amount in dollars budgeted to pay teachers) *increase or decrease?*	
d. ... by about how much?	%

III. Critical thinking: Write a one-paragraph essay answering the question below. [5 pts]

Consider the following statement. "They are building too many hotels in this city. All the hotels will be half full, so they will raise their prices just to stay profitable. In the end, the consumer will suffer from higher prices." Does this argument make sense? Justify your answer using a supply-and-demand graph.

[end of quiz]