

Version A

I have commented on some of the questions, mostly the ones that people had the most trouble with, but a few just for the hell of it.

1. I am a firm that needs to dump my toxic waste in a stream, only one stream. I know that after I do it, I will be sued by the Federal Government and forced to pay damages in the sum of total lost consumer's surplus to everyone who fished at the site before I dumped. Ignoring the varying cost of transporting the toxic waste to different streams, which of the following stream options would be my best choice if my intent is to minimize the damages I pay.
 - A) a polluted stream with few fish located near a good number of pristine trout streams.
 - B) a pristine stream with a lot of good substitutes because many anglers will get almost as much utility by fishing at one of those close substitutes.
 - C) a polluted stream with few fish, located near a good number equally polluted streams.
 - D) a pristine stream with few good substitutes because many anglers will then no longer care about fishing.

A difficult question (more got it wrong than got it right): *Ceteris paribus*¹, the more good substitutes for an injured fishing site the less anglers will be damaged by the injury (the toxic dumping). So the answer is not C. In addition if a site is already trashed (“polluted stream with few fish”) the less anglers will be injured—even before the dump, few went there. What do they say, “You can’t kill a dead horse.”

As promised, there was a question from the travel-cost lecture.

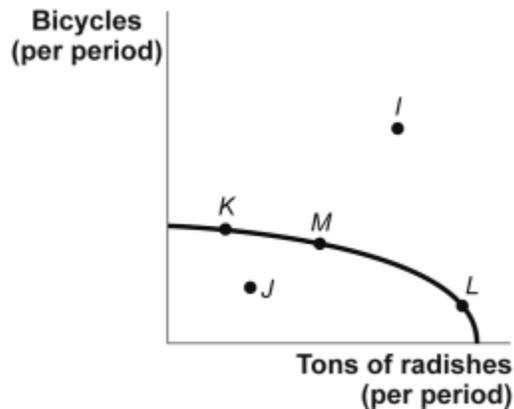
2. For which of the following decisions would marginal analysis be most relevant?
 - A) Should Vevik immigrate to the United States or stay in India?
 - B) Should Hong work an additional hour or take a short nap?
 - C) Should Mary go to graduate school after graduating from college?
 - D) Should George accept a job with Delta Airlines or with Greenpeace?

¹ Goggle it if you don't know what it means. Economists, use the expression a lot.

3. An increase in the price of wheat (an important ingredient in the production of bread) combined with an increase in the number of people consuming bread, will result in which of the following changes in the bread market?
- A) Equilibrium price will increase, but equilibrium quantity may decrease, increase, or stay the same.
 - B) Both the equilibrium price and quantity will decrease.
 - C) Both the equilibrium price and quantity will increase.
 - D) Equilibrium quantity will decrease, but equilibrium price may decrease, increase, or stay the same.

Use the following to answer question 4:

Figure: Bicycles and Radishes II



4. (Figure: Bicycles and Radishes II) Look at the figure Bicycles and Radishes II. The country depicted in this figure is operating at point *M*. It can achieve production at point *I* if it increases efficiency
- A) It depends
 - B) True
 - C) False.

Whether an allocation is efficient or not is assessed given the resource base and the state of technical knowledge (society's constraints). Technical progress might make point *I* feasible in the future, but technical progress is not an efficiency increase, at least not in the way an economist defines efficiency. What makes "economic efficiency" a difficult concept to master is that the word efficiency is thrown around a lot in a lot of different and inconsistent ways.

5. Rapidly increasing health costs have been a major political concern since at least 1992. Suppose the government sets the maximum price to see a doctor at \$20 to control rising health costs. Before this imposition, the price was \$40, the market equilibrium price. What will happen? (choose an answer that is correct and most informative)
- A) Fewer people will see a doctor, but this will increase efficiency
 - B) More people will see a doctor, since the price is lower.
 - C) More people will see a doctor and efficiency will increase
 - D) Fewer people will see a doctor and efficiency will likely decrease.

The government is setting a price ceiling (price cannot rise above an amount that is less than the equilibrium market-clearing price). So, at this fixed price, demand will be greater than supply. And, demand for visits will be greater than it would be at the market-clearing price, and the supply of doctor-time will be less than it would be at the market-clearing price.

So, fewer people will get to see a doctor. Unless one assumes substantial external effects associated with doctor visits, the price floor will increase inefficiency.

Use the following to answer question 6:

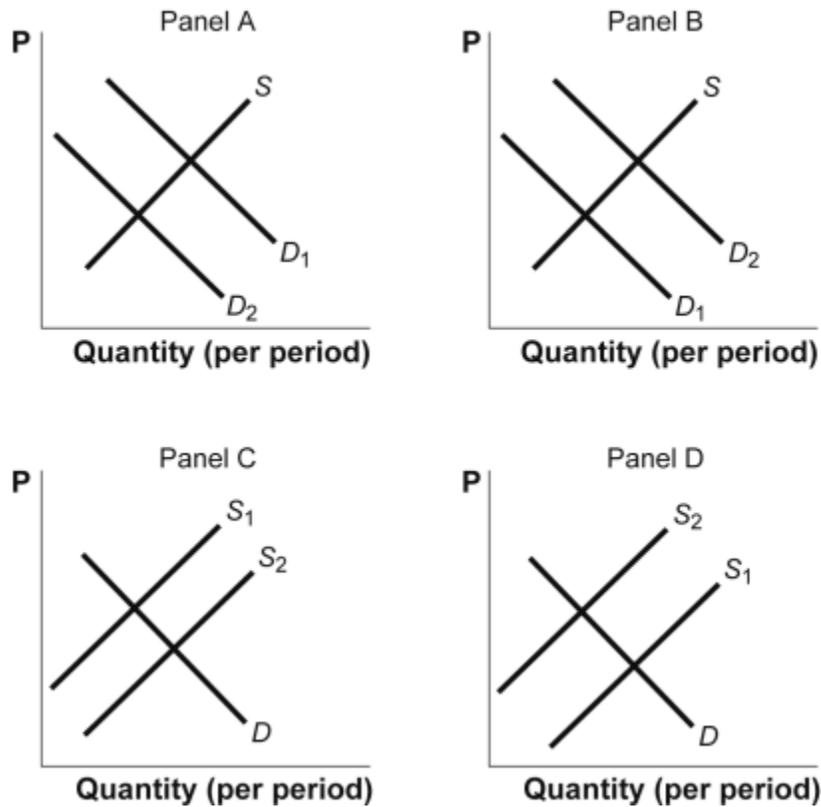
Table: Willingness to Pay for Peanuts

Consumer	Willingness to Pay in Dollars
Alvin	\$5
Theodore	3
Simon	6
Dave	2
George	10

6. (Table: Willingness to Pay for Peanuts) Look at the table Willingness to Pay for Peanuts. If the price of a bag of peanuts is \$3, the total consumers' surplus (the sum across the five individuals) is:
- A) \$10.
 - B) \$21.
 - C) \$26.
 - D) \$12.
7. Suppose the market demand for TV remotes is given by the equation $Q_d = 100 - 2P$, where P is the price and Q_d represents the number of TV remotes demanded. (The corresponding inverse demand function is $P=50-.5Q_d$) If the market price of TV remotes is \$40, then the quantity demanded would equal _____ and total consumer's surplus will be _____.
- A) 20; \$100
 - B) 20; \$600
 - C) 10; \$400
 - D) 40; \$1200

Use the following to answer question 8:

Figure: Shifts in Demand and Supply IV



8. (Figure: Shifts in Demand and Supply IV) Look at the figure Shifts in Demand and Supply IV. The figure shows how supply and demand might shift in response to specific events. Suppose half of the people in San Diego move to Colorado Springs. Which panel best describes how this will affect the market for houses in Colorado Springs?
- A) panel C
 - B) panel A
 - C) panel D
 - D) panel B
9. High-fructose corn syrup, which is derived from corn, is an important ingredient in the production of many soft drinks. If the price of corn decreases, one would expect:
- A) the supply curve for soft drinks shifts right, causing the quantity demanded of soft drinks to increase
 - B) the supply curve (\$ on the vertical axis) for soft drinks shifts left and the demand for soft drinks to decrease
 - C) the quantity supplied of soft drinks to increase because the demand curve for soft drinks shifts right

Use the following to answer question 10:

Table: Wages and Hours Worked

Point	Wage	Hours Worked
A	6	0
B	8	5
C	12	20
D	20	40
E	30	45

10. (Table: Wages and Hours Worked) Look at the table Wages and Hours Worked. Graphing the relation with wages on the vertical axis and hours worked on the horizontal axis, the slope between point *D* and point *E* is:
- A) 45.
 - B) 0.5.
 - C) 2.
 - D) 5.
11. Consider a situation where purchases do not occur because the potential seller's WTA (willingness-to-accept) the loss of the good is greater than the potential buyer's WTP (willingness-to-pay) for the good. This situation can occur at the market equilibrium price.
- A) True
 - B) False

True: at the market-equilibrium price there will be people who would have sold at a higher price and people who would have bought at a lower price. WTA is what the potential seller would have to be paid to sell, and WTP is what the potential buyer would have paid to get by it. In every market equilibrium there are many people who neither sell nor buy the product, and it is because $WTA > WTP$. For example, why didn't you buy a new Cadillac this morning? Because the potential seller's WTA was greater than your, the potential buyer's, WTP.

12. Suppose we invent and produce 10 million robots and each of those robots has an absolute advantage over us (humans) in the production of everything. Further assume they are maintenance free but need electricity to operate. Further assume that these 10 million robots can produce, without any help from us, current output levels, plus the electricity they need to run. What they produce, above and beyond the electricity they need to run, is given to us humans, for free. In this world, all, or most, of us humans will end up unemployed?
- A) True
 - B) False

False: a lot of people will want to consume even more, and will be willing to work and trade to get more. I would suspect that, while there might be more leisure (less work) by people, many people will choose to work some, producing what they have a comparative advantage in, and trade with other. Efficiency will likely dictate that the robots will produce what they have a comparative advantage in producing.

Imagine a society with no robots that is a tropical paradise with all sorts of food growing wild with a climate that allows one to sleep outside without ever getting too hot or too cold. In this society no one would have to work to survive, but, I bet, a lot of people would produce additional things.

The answer to the above question could be true if the robots could produce as much as everyone ever wanted. But that was not assumed.

13. Marco, an unethical sort, is offered a free ticket to the opera. His opportunity cost of going to the opera is (choose the answer that is both correct and most informative):
- A) Whatever he would have done had he not gone to the opera, including what he would have purchased with the money he got from scalping the ticket.
 - B) Whatever he would have done had he not gone to the opera.
 - C) The amount of money he could have scalped the ticket for.
 - D) Possibly more than the price on the ticket, because there is a lot of demand for this particular opera.

So, one student pointed out to me that maybe Marco was not able to scalp the ticket. Fair point. To make you assume that Marco would likely scalp, I added the term “unethical sort.” If I were to ask this question again, I would slightly change the wording to something like, “including, if he scalped the ticket, what he would have purchased with the money.”

Notice in C) I used the term “could have” rather than the term “would have,” which covers the case of not being able to scalp.

You should be getting the idea that when one makes up multiple-choice questions, one has to choose one’s words very carefully, and when one answers a multiple-choice question, one has to read the words very carefully. As an aside, multiple-choice is not my favorite question format, but given our class size and the university budget, it is the only option: a **constraint**.

14. According to the article "Fuel Taxes and Consumption", which will not happen if the Federal tax on gasoline is increased:
- A) The demand curve for fuel-efficient cars will shift to the right
 - B) In total, people will drive less.
 - C) Gas prices will go up.
 - D) The supply curve for gas will shift to the right.
 - E) Quantity demanded of gas will decrease.

This is a tricky question because I did not think about the fact that an increase in the Federal Tax on gasoline will shift the supply curve for gas. Why this happens is beyond the scope of this course, but, to put it simply, the tax drives a wedge between the price paid by the consumer and the price received by the supplier, so when the tax increases, the supply curve, denoted in terms of the price the consumer pays, shifts.

D) is the correct answer for two reasons: a shifting supply curve was not mentioned in the article, and, if dollars are on the vertical axis, the supply curve will shift left not right (at every pump price, the supply will supply less because they get less of the pump price).

15. A price ceiling will have *no* effect if:
- A) the equilibrium price is above the price ceiling.
 - B) it is set below the equilibrium price.
 - C) it creates a shortage.
 - D) it is set above the equilibrium price.
16. The government of a small town has decided to ban smoking in all restaurants, stores, and government offices. This is an example of which principle?
- A) There are gains from trade.
 - B) One person's spending is another person's income.
 - C) When markets fail to achieve efficiency, government intervention can sometimes improve societal efficiency.
17. A society's production-possibilities frontier indicates how much of the different goods society wants.
- A) True
 - B) False
18. If the demand curve shifts left (\$ on the vertical axis) and the supply curve shifts right, price will decrease, but, without additional information on the relative magnitudes of the shifts, one cannot predict whether quantity will increase or decrease.
- A) True
 - B) False
19. Is the following statement true or false? "General Electric (GE) is a large centrally planned economy."
- A) True
 - B) False
20. When the government removes a binding price floor:
- A) quantity demanded will increase and quantity supplied will decrease.
 - B) excess demand will develop.
 - C) excess supply will develop.
 - D) quantity demanded will decrease and quantity supplied will increase.

21. Opportunity cost means that in the rebuilding of Iraq, if the United States spends \$87 billion, we have to forgo the opportunity to spend that \$87 billion on some other program.

- A) True
- B) False

This is the question most correctly answered, 90% got it right. Note that nothing in the question implies that spending the more on “some other program” is the next best alternative.

Use the following to answer question 22:

Table: Market for Apartments

Rent (per apartment per month)	Quantity Demanded (millions of apartments)	Quantity Supplied (millions of apartments)
\$1,400	1.6	2.4
1,300	1.7	2.3
1,200	1.8	2.2
1,100	1.9	2.1
1,000	2.0	2.0
900	2.1	1.9
800	2.2	1.8
700	2.3	1.7
600	2.4	1.6

22. (Table: Market for Apartments) Look at the table Market for Apartments. If a government price ceiling of \$700 is imposed on this market, an *inefficiency* will result in the form of a:

- A) shortage of 0.6 million apartments.
- B) surplus of 0.2 million apartments.
- C) shortage of 0.2 million apartments.
- D) surplus of 0.6 million apartments.

23. Which of the following is the best definition of an economic system?

- A) The process a society uses to determine what will be produced and how it will be distributed
- B) Supply and demand
- C) The market which determines what will be produced and how it will be distributed
- D) The family

24. For an economist, the cost of something is:
- A) always equal to its market value.
 - B) the quantity of resources used to produce it.
 - C) what you gave up to get it.
 - D) the amount of money you paid for it.
25. Market failure occurs when:
- A) individual actions have side effects that are not properly taken into account.
 - B) a business declares bankruptcy.
 - C) prices of essential goods such as gas become very high.
 - D) mutually beneficial trades take place.
26. The phrase “gains from trade” refers to the:
- A) gains that one obtains by taking advantage of a temporary discount or “sale” price.
 - B) gains that one obtains by taking advantage of an uninformed buyer and selling at a higher than average price.
 - C) profits obtained from sales of a good or service.
 - D) increase in total output that is realized when individuals specialize in particular tasks and trade with each other.
27. Is the following statement true or false? "George's demand function for Diet Cokes and George's marginal willingness-to-pay function for Diet Coke contain the same information, neither contains more nor less.
- A) True
 - B) False
28. If the price of gasoline falls and stays low for an extended period, we expect people to:
- A) use more public transportation.
 - B) reduce their reliance on gasoline-powered cars.
 - C) ride bicycles.
 - D) buy larger and less fuel-efficient cars.
29. An economy is necessarily efficient if one member of society can be made better off by making another member worse off.
- A) True
 - B) False

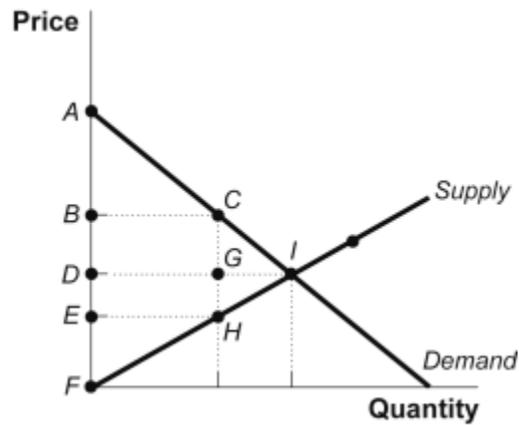
30. A friend comes up to you and offers to give you a free ticket to the local professional team's baseball game that night. You decide to attend the game. The game takes five hours and costs you \$15 for transportation. If you had not attended the game, you would have worked at your part-time job for \$8 an hour. What is the cost to you of attending the game?
- A) five hours at your part-time job
 - B) The cost is zero—the ticket is free.
 - C) five hours at your part-time job, and what you would have bought with the \$55 you don't have because you went to the game
 - D) what you would have bought with the \$55 you don't have because you went to the game.

You did not only lose the money you would have made at work, you also lost the experience of being at work. Maybe that would have been the time Wanda Sue would have smoked dope with you in the alley, under the stars.

31. While buying refreshments for an upcoming party, you notice that a six-pack of Americana Beer costs \$2 and a six-pack of Bavarian Beer costs \$4. You buy the six-pack of Bavarian Beer, although you wonder if maybe two six-packs of Americana Beer would have been a better choice. The opportunity cost of the Bavarian Beer is:
- A) two six-packs of Americana Beer.
 - B) the \$4.
 - C) the \$4 and the six-pack of Americana Beer.
 - D) a six-pack of Americana Beer.
32. According to economists, equilibrium exists when:
- A) scarcity is eliminated.
 - B) an individual would be better off taking a different action.
 - C) no individual has an incentive to change his or her behavior.
 - D) output is distributed equitably.

Use the following to answer question 33:

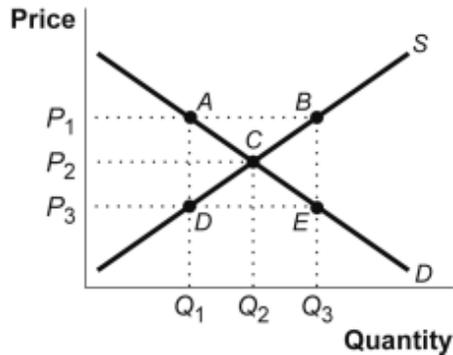
Figure: A Market in Equilibrium



33. (Figure: A Market in Equilibrium) Look at the figure A Market in Equilibrium. At the equilibrium price, this market's consumer surplus is equal to the area:
- A) *EHF*.
 - B) *DIF*.
 - C) *ABC*.
 - D) *ADI*.
34. Microeconomics deals with (choose the correct answer that is most informative):
- A) how individual economic agents make decisions.
 - B) how individuals make decisions.
 - C) the question of how a business unit should operate profitably.
 - D) bits and pieces of the economy.

Use the following to answer question 35:

Figure: Supply and Demand



35. (Figure: Supply and Demand) Look at the figure Supply and Demand. In the market shown in the figure, a binding price floor is represented by:
- A) P_3 .
 - B) P_1 .
 - C) point C.
 - D) P_2 .
36. If in the country of Equitania, 20% of the population receives 80% of the income, and the remaining 80% of the population receives 20% of the income, then:
- A) this situation cannot be economically efficient, since efficiency requires a more equal distribution of income.
 - B) such a situation could never be either efficient or equitable.
 - C) this situation is definitely efficient.
 - D) this situation may be efficient.

37. Imagine a demand curve for husbands with the "price"/cost of acquiring a husband on the vertical axis. Also imagine a supply curve of males willing to get married, such that the more males are paid to get married (the higher the price), the more that will offer themselves up at the altar. The article you read, "Supply, Demand and Marriage," suggests that the increase in premarital sex in the 1960's (the "Sexual Revolution") was driven by shifts in the demand and supply curve for husbands. Specifically that the husband supply curve (how many guys will get married at each "price") shifted to the right.
- A) True
 - B) False

Read the readings: The article hypothesized that the supply curve shifted to the left, not to the right. That is, the supply of marriage-age males dropped, for reasons explained in the article; causing marriage-age women to pay a higher price for finding a mate (the higher price for the female was having premarital sex.) You might argue that having premarital sex makes both males and females happier, and there is no cost, now, to females for having premarital sex. You are correct, at least for females over a certain age, but this was not the case before the sexual revolution.

38. Gasoline, a derivative of oil, is a large part of transportation costs for many producers. If the price of oil increases at the same time that incomes fall for many consumers, one would expect the equilibrium price of many normal goods to _____, while their equilibrium quantities would _____.
- A) fall, rise, or stay the same; decrease
 - B) fall; fall
 - C) fall; rise
 - D) decrease; fall, rise, or stay the same

Gasoline is an input in the production many goods, consider transport costs. So, if the price of gasoline goes up, goods that are transport intensive will cost more to produce. That is, their supply curves (\$ of the vertical axis) will shift left.

A fall in income, e.g. because of a recession, will cause the demand curves for such products to also shift left (consumers' have less money to buy goods)

These opposing effects on price (the supply shift pushing it up and the demand shift pushing it down) means that without more information we don't know what will happen to the equilibrium price.

But, both shifts push the equilibrium quantity down (less demand and less supply at every price).

So, the answer is A.

39. For a market for a good to function efficiently, property rights for that good need to be well defined.
- A) True
 - B) False
40. Kimberly likes to gamble and party. And, lucky her, she has won an all-expense-paid trip to Vegas over Spring break. She loves Vegas but decides instead to spend \$5000 of her own money to go to Africa to dig latrines in a small remote village. The free trip to Vegas would have been her second choice. What do we know about the opportunity cost of Kimberly going to Africa? What do we know about the consumer's surplus she will get from the Africa trip? (Choose the alternative that is correct and most informative.)
- A) opportunity cost is \$5000; consumer's surplus from the Africa trip is at least \$5000
 - B) opportunity cost is the trip to Vegas; consumer's surplus from the Africa trip is at least \$5000.
 - C) opportunity cost is the trip to Vegas, plus the \$5000; consumer's surplus from the Africa trip is zero or positive.
 - D) None of the other three options is correct.

If she had not taken the trip to Africa, she would have \$5K more to spend on other stuff, so what she would have bought, instead, with the \$5K is part of the opportunity. So is experiencing the Vegas trip: she does not get the experience.

We don't know much about the consumer's surplus from the Africa trip. We know that she would not have gone to Africa if it made her worse off, so we know her CS from the African trip is not negative. We do not know it is \$5K – don't confuse cost with CS.

41. If an economy's resources are used efficiently, then it is guaranteed that the economy will also achieve equity.
- A) True
 - B) False

42. Which answer correctly and best describes the link between a theory's definitions and assumptions, and its predictions?
- A) Logic
 - B) the process of logical deduction
 - C) the process of logical induction
 - D) Mathematics

Both A) and B) are correct, but C) is more informative: it explains what type of logic (deduction). While "Mathematics" is often the language used when deducing predictions from assumptions, it is not always used. My example, about George Bush crying used no mathematics

43. Recent research suggests that certain plastic containers may have cancer-causing elements in them. As a result of this research, one would expect that:
- A) the demand for such containers would decrease, and this decrease is a movement along the demand curve
 - B) the price of such containers would decrease due to a movement along the demand curve.
 - C) the quantity demanded of such containers would decrease because the demand curve for them (\$ on the vertical axis) shifts left.

Use the following to answer question 44:

Table: The Market for Soda

Price (\$/unit)	Market for a Can of Soda	
	Quantity Demanded (cans)	Quantity Supplied (cans)
0.50	10	7
0.75	8	8
1.00	6	9
1.25	4	10
1.50	2	11

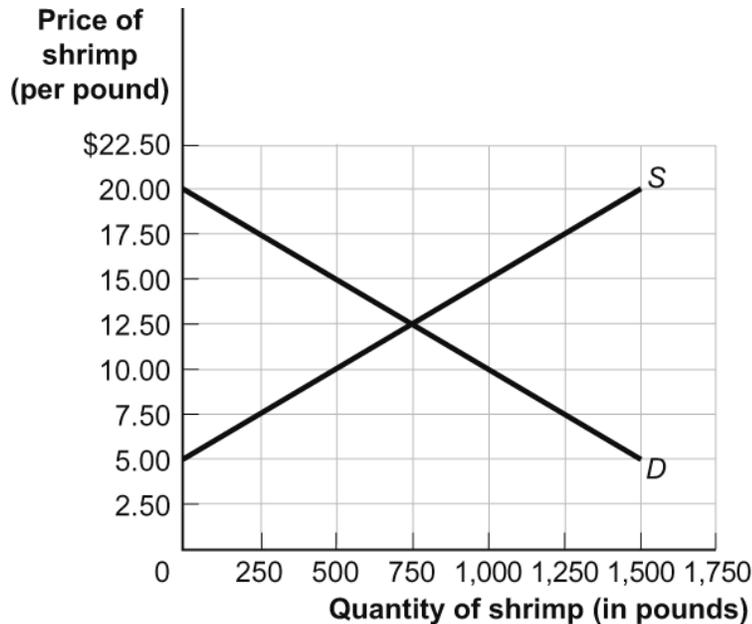
44. (Table: The Market for Soda) Look at the table "The Market for Soda." If the government imposes a price ceiling of \$1.00 per can of soda, the equilibrium quantity of soda supplied will be:
- A) 10 cans.
 - B) 7 cans.
 - C) 8 cans.
 - D) 9 cans.

The equilibrium price and quantity is 8 cans at 75 cents a can. The price ceiling (the highest mandated price) is \$1, so above the equilibrium price, so it has no effect: the equilibrium quantity supplied (and demanded) is 8 cans.

45. When individuals act in their own self-interest:
- A) society may be worse off in some cases.
 - B) all opportunities have been taken to make some people better off without making other people worse off.
 - C) equity is always achieved.
 - D) efficiency is always achieved.
46. "In 2008, air travel decreased substantially despite significant reductions in ticket prices." If this information is correct, it indicates that the demand curve for airline tickets in 2008 (\$ on the vertical axis) sloped upward.
- A) True
 - B) False

Use the following to answer question 47:

Figure: The Shrimp Market



47. (Figure: The Shrimp Market) Look at the figure The Shrimp Market. If the government wants to limit shrimp sales to 500 pounds, it:
- A) can impose a price floor of \$15 or a price ceiling of \$10.
 - B) must impose a price floor of \$15.
 - C) must impose a price ceiling of \$10.
 - D) cannot impose a price ceiling of \$10.

If the government imposes a price floor of \$15 (price can't be below \$15), only 500 pounds of shrimp will be sold (the amount sold will be limited by the demand curve).

If the government imposes a price ceiling of \$10 (price can't be above \$10), and 500 pounds of shrimp will be sold (the amount sold will be limited by the supply curve.)

48. What would an economist say about the relationship between dating and travel costs. (Choose the alternative that is correct and most informative as to how economists think.)
- A) When you go off to college, the probability of breaking up with your high school sweetheart goes up.
 - B) Dating has nothing to do with economics
 - C) Distance makes the heart grow fonder."
 - D) The cost of going out with someone is an increasing function of how far away they live, unless you are only into texts, chat, and Skyping.

49. According to the textbook chapters assigned up to now, markets usually lead to efficiency.
- A) True
 - B) False
50. A binding price ceiling is designed to:
- A) increase the quality of the good.
 - B) keep the price high.
 - C) keep the price low.
 - D) prevent shortages.
51. You are born a twin. Both you and your twin are child prodigies. Your parents are poor and only have a small house so will have to send one of you to the orphanage. The issue is which one of you hits the road. Your father does not care. Your mother likes to read new math theorems, but could care less about opera. In a month, you can produce 5 new math theorems if you spend all of your time on math, or write 20 operas if you spend all of your time singing opera. Your twin, on the other hand would be able to produce 4 theorems or write 10 operas. Neither parent cares for opera. Your mom likes to read math theorems. Who should hit the road to the orphanage?
- A) Your twin -- because you have an absolute advantage in the production of theorems.
 - B) Your twin -- because your twin has a comparative advantage in the production of theorems
 - C) You -- because your twin has a comparative advantage in the production of operas
 - D) You -- because your twin has a comparative advantage in the production of theorems

I was pleased that most of you got this right. Comparative advantage is not the decider.

52. If all of the opportunities to make someone better off (without making someone else worse off) have been exploited, an economy is
- A) marginally optimal.
 - B) efficient.
 - C) inefficient.
 - D) equitable.

Answer Key

1. A
2. B
3. A
4. C
5. D
6. D
7. A
8. D
9. A
10. C
11. A
12. B
13. A
14. D
15. D
16. C
17. B
18. A
19. A
20. A
21. A
22. A
23. A
24. C
25. A
26. D
27. A
28. D
29. B
30. C
31. A
32. C
33. D
34. A
35. B
36. D
37. B
38. A
39. A
40. C
41. B
42. B
43. C
44. C

- 45. A
- 46. B
- 47. A
- 48. D
- 49. A
- 50. C
- 51. A
- 52. B