

Economics 101-008
 Professor Michael Salemi
 September 29, 2009
 Midterm Exam One

Last Name _____
 First Name _____
 PID Number _____
 TA Name and Section Number _____

During this examination, students may **not** use notes, books, computers, programmable calculators, cell phones or any electronic device other than a simple calculator. Students may **not** talk with other students or look at the exam papers of other students. Once the exam begins, students may not leave the room until they finish and turn in their exams.

Honor Pledge: I have neither given nor received unauthorized aid on this examination. I know and have abided by the examination rules and instructions.

Signed: _____

Instructions

1. On the blue Scantron sheet:
 - a. Bubble in your last name, first name and PID.
 - b. Bubble in the section number of your recitation in the “sequence number area” as 1018xx where xx is determined by your section number. For example, someone in section 812 would bubble in 101812. See below for a list of section numbers.
 - c. **Students who incorrectly bubble their name, PID, or section number are penalized 2 points.**
 - d. Write the form color of the examination on the upper left corner of the bubble sheet. The form is “white”, “green”, “blue” or “yellow”.
2. The examination includes 32 equally weighted questions. Answer all questions by marking the bubble sheet and by circling the correct answer on the examination itself. In the case of conflict, the scantron answer is the official answer.
3. If you believe there is no right answer or more than one right answer to any question, explain your reasoning on the back of the exam question sheet (not the scantron sheet). We will not consider an appeal unless you have recorded your argument on the back of the exam sheet during the exam period.
4. When you have finished the examination, sign the honor pledge. We will not consider an examination valid unless you sign the pledge.
5. When you are finished, turn in the answer sheet and the examination by putting them on the correct piles at the podium.

Econ 101-008 Recitation Sections					
Recitation	Day	Time	Building	Room	Teaching Assistant
801	W	12:00 PM -12:50 PM	GARDNER	103	Serkan Yuksel
802	W	01:00 PM -01:50 PM	GARDNER	210	Serkan Yuksel
803	W	02:00 PM -02:50 PM	GARDNER	210	Umut Tuysuzoglu
804	W	03:00 PM -03:50 PM	GARDNER	9	Umut Tuysuzoglu
805	W	04:00 PM -04:50 PM	GARDNER	9	Ezequiel Cabezón
806	R	08:00 AM -08:50 AM	GARDNER	103	Dimitris Katsoridas
807	R	09:30 AM -10:20 AM	GARDNER	1	Dimitris Katsoridas
809	R	11:00 AM -11:50 AM	GARDNER	103	Dimitris Katsoridas
810	R	03:30 PM -04:20 PM	GARDNER	103	Matthew Harris
812	W	04:00 PM -04:50 PM	GARDNER	1	Umut Tuysuzoglu
813	R	03:30 PM -04:20 PM	GARDNER	9	Ezequiel Cabezón
814	W	08:00 AM -08:50 AM	GARDNER	1	Matthew Harris
815	W	08:00 AM -08:50 AM	GARDNER	9	Ezequiel Cabezón
817	W	11:00 AM -11:50 AM	GARDNER	9	Serkan Yuksel

If you think a question has no right answer or more than one right answer, please explain your reasoning in this space.

For every question assume the normal shapes to demand and supply schedules unless instructed otherwise.

1. Which of the following scenarios shows a student action that is **not** rational from an economic point of view?
 - a. After eating a slice of pizza, Jane buys and eats a second slice even though the marginal benefit of the second slice is lower than the marginal benefit of the first.
 - b. Harry buys a replacement ticket to the baseball game when he realizes that he forgot his first ticket at home.
 - c. Elizabeth decides to go to a party on Thursday even though she has an important quiz on Friday.
 - d. None of the above.

2. In August, John spent \$500 purchasing and repairing an old fishing boat which he plans to sell for \$800 once the repairs are complete. In September, John discovers that he must make an additional repair costing \$400 in order to make the boat worth \$800 to potential buyers. He believes he can sell the boat without the additional repair for \$300. John should _____.
 - a. Keep the boat but not make the repair since the original \$500 is a sunk cost.
 - b. Keep the boat after making the repair since it is not rational to spend \$900 on repairs and then sell the boat for \$800.
 - c. Sell the boat without making the additional repair.
 - d. Complete the repairs and sell the boat for \$800.

3. Corn farmers do not sell all of their corn when it is harvested. Instead, some farmers keep some of their corn in storage in the hope that they can sell it later at a greater profit. In recent years, the market for corn has been greatly affected by the fact that the U.S. government pays a subsidy to manufacturers who use corn and other crops to make ethanol. Currently, ethanol is mixed with gasoline to make an alternative fuel for automobiles. Which of the following correctly predicts what will happen to the price of corn this year if the U.S. government announces that it will end the subsidy for ethanol production next year? The price of corn this year will ____ because ____.
 - a. Fall, because farmers will sell grain from storage.
 - b. Fall, because demand for grain this year will fall.
 - c. Rise, because farmers will sell grain from storage.
 - d. Rise, because demand for grain next year will fall.

4. You won a free ticket to an Eric Clapton concert (which has no resale value). A Bob Dylan concert on the same night is your next-best alternative activity. Tickets to see Dylan cost \$50. You would be willing to pay up to \$50 to see Dylan. There are no other costs. What is your opportunity cost of the Clapton Concert?
 - a. \$0
 - b. \$10
 - c. \$40
 - d. \$50

5. In New York, there is an active market in dog walking services. The standard product traded in this market is an hour of service in which the provider picks up the customer's dog, takes the dog on a leash to a park, walks the dog for an hour, and returns it to the owner. Which of the following best explains why the quantity supplied of an hour of dog walking increases as the price of the service increases? The quantity supplied is directly related to price because as price rises _____.
 - a. The marginal benefit to providers of the service increases.
 - b. The marginal cost to purchasers of the service increases.
 - c. The price of the service rises above the reservation price of some potential buyers.
 - d. The opportunity cost of providing the service increases.

6. The following table shows how many laptops or desktop computers can be produced from a fixed amount of labor and capital in China and the U.S. The table implies that China has a(n) _____ advantage in _____.

Output per Unit of Resources

	laptops	desktops
China	20	6
U.S.	6	3

- a. Comparative, desktops.
 b. Absolute, both laptops and desktops.
 c. Comparative, both laptops and desktops.
 d. Both an absolute and comparative, desktops.
7. An increase in the price of oil leads directly to an increase in the price of fertilizer because oil is an input to the fertilizer production process. It follows that an increase in the price of oil will _____ the _____ schedule for wheat.
- a. Increase (shift toward higher quantities), demand
 b. Decrease (shift toward lower quantities), demand
 c. Decrease (shift toward lower quantities), supply
 d. Increase (shift toward higher quantities), supply
8. An increase in the price of driver liability insurance will _____ the _____ schedule for new automobiles.
- a. Increase (shift toward higher quantities), Demand
 b. Decrease (shift toward lower quantities), Demand
 c. Increase (shift toward higher quantities), Supply
 d. Decrease (shift toward lower quantities), Supply
9. Ted is a student at UNC. In the bookstore, he finds a T-shirt with the slogan “Beat Duke” printed across the front, which he values at \$25. The shirt sells for \$15. Ted also discovers a hat with the same slogan, which he values at \$10. While the hat sells separately for \$12, the bookstore is offering the two as a bundle for \$24. What is Ted’s surplus?
- a. \$8.00
 b. \$10.00
 c. \$11.00
 d. \$25.00
10. Great Lakes Pizza is a restaurant that offers what many consider to be the best pizza in the city of Chicago. The Great Lakes owner hand makes every pizza one at a time, taking great care with the dough and the ingredients. He charges \$20.00 per pizza which is more than a pizza with the same ingredients at other restaurants. Customer reviews of Great Lakes are divided. Many customers praise the pizza calling it the best they have ever tasted. Others complain about the long wait times and the bad service. An economist would say to the owner of Great Lakes Pizza that raising the price of his pizza was a _____ idea because _____.
- a. Good, it is more efficient to allocate pizza by price than by waiting time.
 b. Bad, the price of the pizza is already above its equilibrium value.
 c. Good, the higher price will allow the owner to hire better employees.
 d. Bad, some customers will prefer to get pizza at other restaurants.

11. **As Gas Costs Soar, Buyers Flock to Small Cars**

By BILL VLASIC, May 2, 2008

DETROIT — Soaring gas prices have turned the steady migration by Americans to smaller cars into a stampede. In what industry analysts are calling a first, about one in five vehicles sold in the United States was a compact or subcompact car during April, based on monthly sales data released Thursday. Almost a decade ago, when sport utility vehicles were at their peak of popularity, only one in every eight vehicles sold was a small car. The switch to smaller, more fuel-efficient vehicles has been building in recent years, but has accelerated recently with the advent of \$3.50-a-gallon gas. At the same time, sales of pickup trucks and large sport utility vehicles have dropped sharply. In another first, fuel-sipping four-cylinder engines surpassed six-cylinder models in popularity in April.

Which of the following statements uses demand and supply correctly to accurately describe the content of the news article? The article describes _____

- a. An increase in the price of gasoline that has caused a decrease in demand for all sorts of gas driven vehicles.
 - b. An increase in the price of gasoline that has caused an increase in demand for fuel efficient vehicles.
 - c. A change in fuel efficiency technology that has caused an increase in demand for fuel efficient vehicles.
 - d. A change in fuel efficiency technology that has increased supply of more fuel efficient vehicles and decreased supply of less fuel efficient vehicles.
12. Suppose chickens and beef cattle are produced by different companies on different sites. If bad weather causes an increase in the price of hay, a food eaten by beef cattle and not by chickens, the equilibrium price of beef will _____ and the equilibrium price of chicken will _____.
- a. Decrease, Decrease
 - b. Decrease, Increase
 - c. Increase, Increase
 - d. Increase, Decrease
13. A tariff is a tax on an imported good. The U.S. government has just placed a tariff on tires produced in China and imported into the U. S. Which of the following most accurately describes who gains and loses from the tariff?
- a. U.S. consumers will benefit because the price of tires sold in the U.S. will fall.
 - b. U.S. consumers will benefit because Chinese tires will be barred from the U.S. market.
 - c. Chinese tire producers will benefit because the price of tires sold in the U.S. will rise.
 - d. U.S. tire producers will benefit because the price of tires sold in the U.S. will rise.
14. During 2007, the Triangle area suffered one of the worst droughts on record. In response, the water authority in Durham considered changing the formula used to charge customers for water. Before the drought, Durham charged a flat rate of \$1.56 per hundred cubic feet of water no matter how much water a customer used. Which of the following new rate schedules would create the strongest incentive for Durham customers to find substitutes for low benefit uses of water?

Alternative Rate Schedules			
Answer Option	One hundred cubic feet of water per month		
	1.00-2.99	3.00-5.99	6.00 and above
A	\$1.56	\$1.56	\$1.56
B	\$2.56	\$2.56	\$2.56
C	\$1.56	\$2.75	\$3.75
D	\$4.00	\$3.00	\$2.00

15. Carl is considering attending a concert with a ticket price of \$35. He estimates that the cost of driving to the concert and parking there will add an additional \$20. In order to attend the concert, Carl will have to take time off from his part-time job. He estimates that he will lose 5 hours at work, at a wage of \$6 per hour. Carl's opportunity cost of attending the concert equals
- \$35
 - \$55
 - \$65
 - \$85

16. The following table gives Harry's reservation prices for various levels of can-recycling services that he can supply. If the market price for recycling a can is \$0.06, then Harry's producer surplus is:

Hours	Cans Recycled	Reservation Price
1	600	\$0.01
2	1000	\$0.015
3	1300	\$0.02
4	1500	\$0.03
5	1600	\$0.06

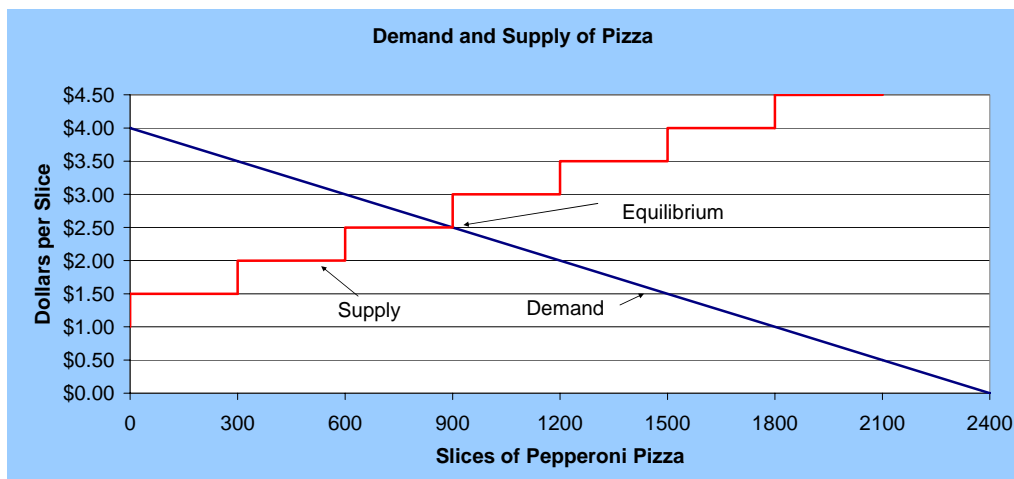
- \$ 8.00
 - \$21.00
 - \$45.00
 - \$66.00
17. Apex mining company is deciding how much coal to mine in the coming year. The company hired an expert who produced the following table of cost data:

Total Coal Mined (tons)	Marginal Cost (per ton)
100	\$30
200	\$40
300	\$50
400	\$60

- If the data are correct and if the company can sell all the coal it mines at \$50 per ton, it should produce _____ because _____ at that production level.
- 100 tons, the difference between marginal benefit and marginal cost is greatest.
 - 300 tons, marginal benefit equals marginal cost.
 - 100 tons, marginal benefit equals marginal cost.
 - 300 tons, the difference between marginal benefit and marginal cost is greatest
18. Green grapes and purple grapes are different crops that are typically grown in different vineyards. Suppose there is an outbreak of a fungus that attacks green grapes and not purple grapes. As a result, the demand schedule for purple grapes will _____ because _____.
- Decrease, the price of purple grapes rises.
 - Increase, there is a decrease in demand for a substitute good.
 - Decrease, there is a reduction in the size of the grape market.
 - Increase, the price of a substitute good has increased.

19. “Nowhere” is a small town that until recently was connected to “Somewhere,” a big city, only by a dirt road. The government recently paved the road between “Nowhere” and “Somewhere” cutting the travel time between the two by half. Which of the following predictions would Adam Smith make? Smith would predict that consumption in “Nowhere” will _____.
- Fall because inflation will increase due to high city prices.
 - Fall due to a decrease in productivity.
 - Increase due to an increase in productivity.
 - Increase because inflation will decrease due to deeper markets.
20. Assume that oil is not used to produce coal. During the 1970s, the price of oil rose dramatically which led to an increase in the price of coal. This can best be explained by observing that oil and coal are _____ goods so that the higher price of oil _____.
- Complements, increased the demand for coal.
 - Substitutes, increased the demand for coal.
 - Complements, decreased the supply of coal.
 - Substitutes, decreased the supply of coal.

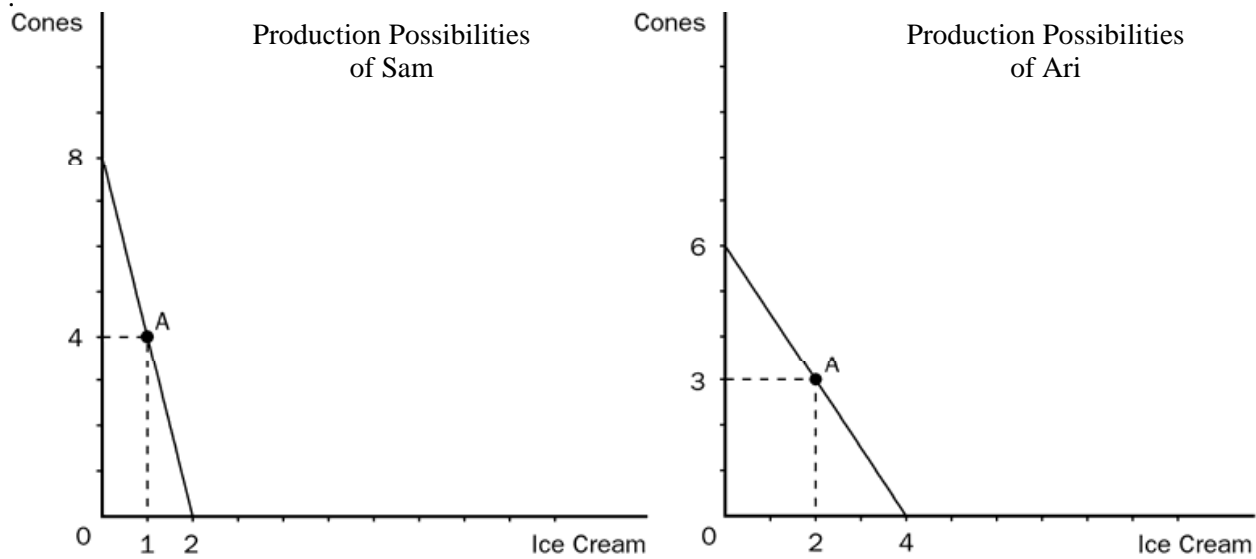
The following diagram describes the pizza market in Chapel Hill on a weekend Saturday when there is a home football game. Use the diagram to answer the next two questions.



21. Given the above diagram, which of the following correctly describes the response of a market participant to a change in the price of a slice of pizza from \$2.50 to \$3.25? The price increase _____.
- Causes a shortage of pizza.
 - Raises the marginal benefit to consumers of consuming an additional slice of pizza.
 - Leads consumers to substitute pizza for alternative lunch time foods.
 - Raises the market price above the reservation price of another supplier of pizza.
22. Return to the scenario given by the diagram. According to the diagram, how many slices of pizza will be denied to consumers who have a positive reservation price for those slices?
- 0
 - 900
 - 1500
 - 2400

23. Peas and carrots are complementary goods. If the New England Journal of medicine suddenly finds that carrots have health benefits that were previously unknown, then the demand schedule for peas will _____ and the supply schedule of peas will _____.
- Increase, decrease
 - Decrease, remain the same
 - Increase, remain the same
 - Remain the same, increase

24. Sam and Ari can each produce ice cream and ice cream cones in quantities indicated by their production schedules below. Suppose that Sam and Ari were originally planning to produce at point A on their respective production schedules and to consume what they produce. After meeting with their economics instructor, Sam and Ari decide to specialize in the product for which each person has a comparative advantage and then to trade at the rate of 4 pounds of cones for 2 pounds of ice cream. Which of the following is true?



- The total output after specialization is 2 pounds of ice cream and 6 pounds of cones.
 - Trade will benefit Sam but not Ari.
 - The benefit of trade to Sam is one pound of ice cream.
 - The benefit of trade to Ari is one pound of ice cream and one pound of cones.
25. Sammy's Salami Supply Company produces lunch meat for catering at Carolina tailgates. The following is a table of their cost structure

Pounds of Salami	0-100 pounds	101-200 pounds	201-300 pounds	301-400 pounds	401-500 pounds
Marginal Cost of production per pound	\$1	\$2	\$3	\$4	\$5
Total Cost of production	\$100	\$300	\$600	\$1000	\$1500

If the market equilibrium price is \$4.00 per pound, what is the producer surplus that Sammy gets from supplying salami?

- \$0
- \$600
- \$1000
- \$1500

26. At UNC, parking supply and parking permit fees are regulated by the University rather than by a market. In 2004, UNC and Chapel Hill worked together to provide free town bus service. Which of the following correctly describes how introducing free bus service affected the parking situation in 2004? Introducing free bus service...
- Lowered the excess demand for parking.
 - Lowered the price of a parking permit.
 - Raised the excess demand for parking.
 - Increased the price of a parking permit.
27. Which of the following best explains why the quantity demanded of tickets to see Phantom of the Opera at the Durham Performing Arts Center rises as the price of a ticket falls? The quantity demanded is inversely related to price because as price falls _____.
- It falls below the reservation price of some potential customers.
 - The effective income of potential customers increases.
 - The marginal benefit of seeing the performance is higher.
 - The opportunity cost of seeing the performance is higher.
28. In late August of 2009, the U.S. government operated a “cash for clunkers” program. Owners of old vehicles with low fuel economy were able to trade those “clunkers” into new car dealers in exchange for new vehicles with high fuel economy and receive a \$4500 trade-in allowance for the old vehicle. Automobile dealers were required by the program to destroy the clunkers that they acquired. Which of the following best describes the impact of the “cash for clunkers” program on the price of vehicles (not including the trade in allowance)? The cash for clunkers program caused the price of old vehicles with low fuel economy to _____ and the price of new vehicles with high fuel economy to _____.
- Decrease, decrease
 - Increase, increase
 - Decrease, increase
 - Increase, decrease
29. The Econ 101 teaching assistants are considering whether or not to open pizza restaurants. They provide identical slices of pizza but have different opportunity costs for their time and money. The following table gives the supply schedule of each teaching assistant. If the market price is \$4.00 which of the teaching assistants will willingly sell pizza?

Price	Dimitris	Ezequiel	Matthew	Serkan	Umut
\$0.00	0	0	0	0	0
\$1.00	0	1	0	2	0
\$2.00	0	2	0	4	0
\$3.00	0	3	0	6	0
\$4.00	1	4	0	8	0
\$5.00	2	5	0	10	10
\$6.00	3	6	2	12	20

- Dimitris, Ezequiel, Matthew, Serkan, Umut
- Dimitris, Ezequiel, Matthew, Serkan
- Dimitris, Ezequiel, Serkan, Umut
- Dimitris, Ezequiel, Serkan

30. At Kenan Stadium during football games, one vendor offers Carolina style barbeque sandwiches for \$8.00. Which of the following is an accurate description of those individuals who attend the game but choose not to purchase a barbeque sandwich?
- All the options below are accurate descriptions of individuals who do not buy a sandwich.
 - All who do not buy have reservation prices for the sandwich that are less than \$8.00.
 - All who choose not to buy believe that they cannot make a surplus by buying a sandwich.
 - All who do not buy have better uses for \$8.00 than consuming a barbeque sandwich.
31. Which of the following best explains why it is more accurate to describe consumers as “wanting” goods and services and less accurate to describe them as “needing” goods and services?
- Goods and services are scarce.
 - Consumers always pay an opportunity cost for their choices.
 - Consumers use the benefit-cost principle when they make choices.
 - The market provides substitutes for the great majority of available goods.
32. On the first day of a vacation in Las Vegas, you bet \$1.00 at a casino and win \$1000.00. Which of the following best describes the impact of your good fortune on your economic opportunities?
- The opportunity cost of each good and service available to you in Las Vegas remains about the same.
 - You now have the opportunity to gamble for the rest of your vacation on the casino’s money.
 - Until you spend \$1000.00, your vacation is free.
 - To behave in an economically rational way you must stop gambling for the remainder of the vacation.