

**Midterm 2—Lecture 1 (9:05-9:55)**  
**50 minutes**  
**Econ 1101: Principles of Microeconomics**  
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**November 16, 2009**

**Exam Form A**

On your answer sheet, please write:

- **name,**
- **student ID number,**
- **recitation number**
- **Form A** (see the bottom part of the answer sheet for this bubble.)

**Fill in the corresponding bubbles.**

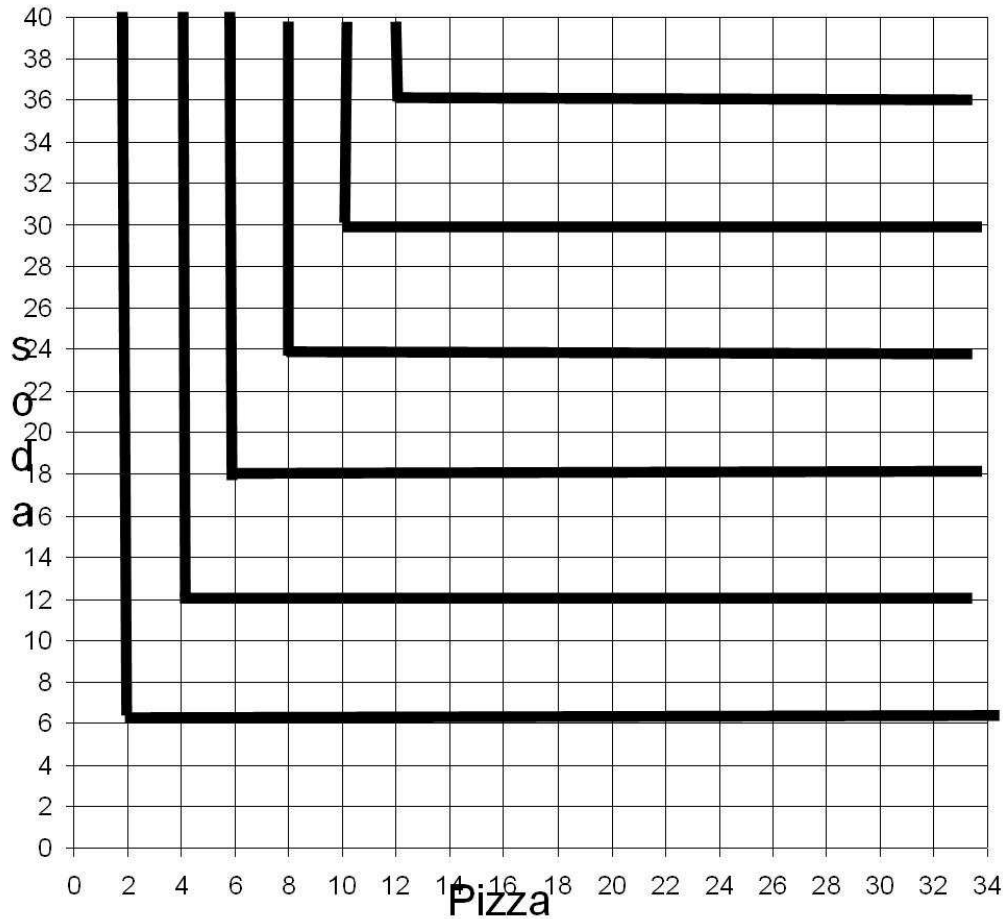
There are 27 questions. All questions are multiple choice. Each question has a single answer. Select the **best** answer for each question and fill in the corresponding bubble on the answer sheet.

Use a **Number 2** pencil to fill in your answer.

You are not permitted to use calculators.

If you finish the exam early you will not be permitted to leave early. Nor will you be permitted to open books or notes.

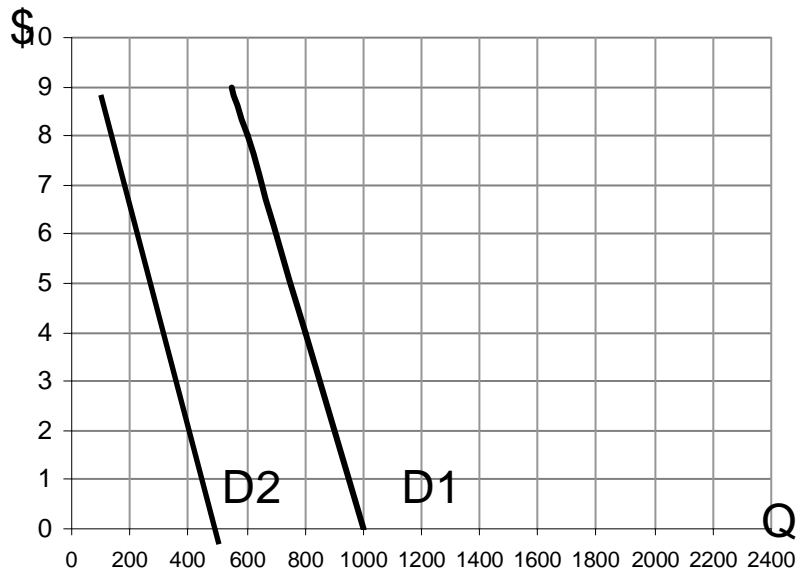
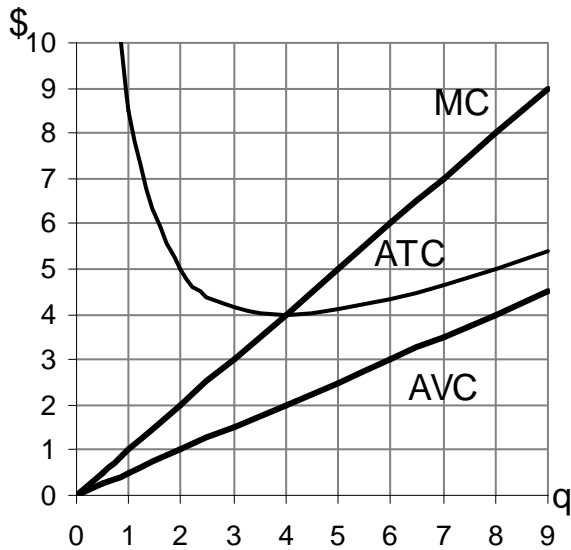
Questions 1-5 refer to the graph below. Bucky consumes soda and pizza and the graph illustrates his indifference curves.



1. From Bucky's indifference curves, we can determine that Bucky is indifferent between having (10 pizza, 12 sodas) and
  - a) (4 pizza, 30 sodas)
  - b) (12 pizza, 10 sodas)
  - c) (12 pizza, 18 sodas)
  - d) (20 pizza, 6 sodas)
  
2. Suppose Bucky has an income of \$24, that  $P^{Pizza} = \$3$ , and that  $P^{Soda} = \$1$ . Draw Bucky's budget constraint in the above figure. From this we can see that the opportunity cost of one more slice of pizza equals
  - a) 2 sodas
  - b) 1/3 soda
  - c) 3 sodas
  - d) 1 soda
  - e) 1.5 sodas

3. At this income and prices, the optimal consumption bundle for Bucky is
- (12 pizza, 36 sodas)
  - (4 pizza, 12 sodas)
  - (8 pizza, 12 sodas)
  - (8 pizza, 0 sodas)
  - (0 pizza, 24 sodas)
4. Suppose the price of pizza falls to  $P^{\text{Pizza}}=\$1$ . Draw the new budget constraint. The **change** in the quantity demanded of pizza from the lower price of pizza is
- 4
  - 5
  - 1
  - 2
  - 3
5. The substitution effect of the price change increases demand for pizza by \_\_\_\_\_ units and the income effect increases demand by \_\_\_\_\_ units (fill in the blanks).
- 2, 2
  - 0, 4
  - 1, 1
  - 0, 2
  - 3, 0
6. Which of the following statements regarding “cap and trade” policies is **not** true?
- It is a kind of “command and control” policy where government regulators make the decision of how a given cutback in carbon production will be achieved.
  - The policy is more political feasible than a carbon tax because industry groups that might block a tax can be potentially bought off by being given allowances.
  - The European Union has already adopted such a policy to limit carbon.
  - The policy has been used in the United States to address the problem of sulphur dioxide pollution.

Suppose all firms have the same technology, that there are no barriers to entry, and that input prices do not change as an industry expands. Suppose each widget firm has the cost structure illustrated in the left graph. The right graph illustrates two different possible demand curves, D1 and D2.

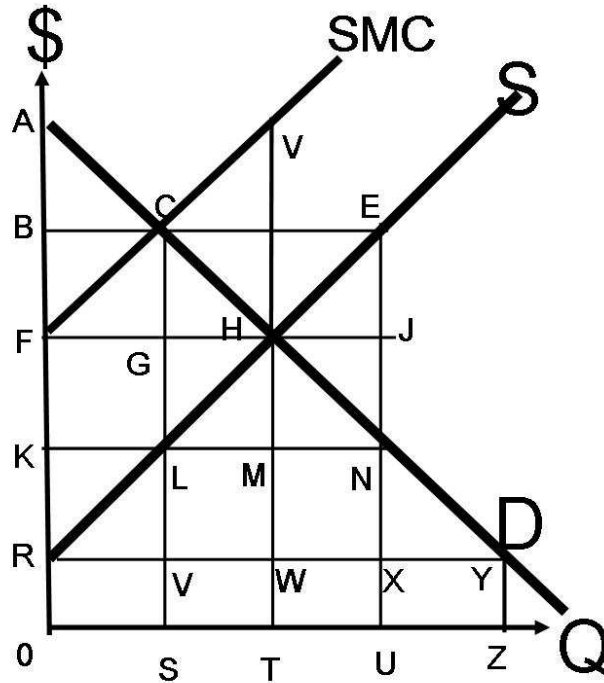


7. Fixed cost equals
- a) 2
  - b) 6
  - c) 4
  - d) Not enough information to tell.
  - e) 8

For the next four questions, assume demand is **D1** and the industry is in **long-run** equilibrium. (Be sure to use D1 for this problem and not D2.)

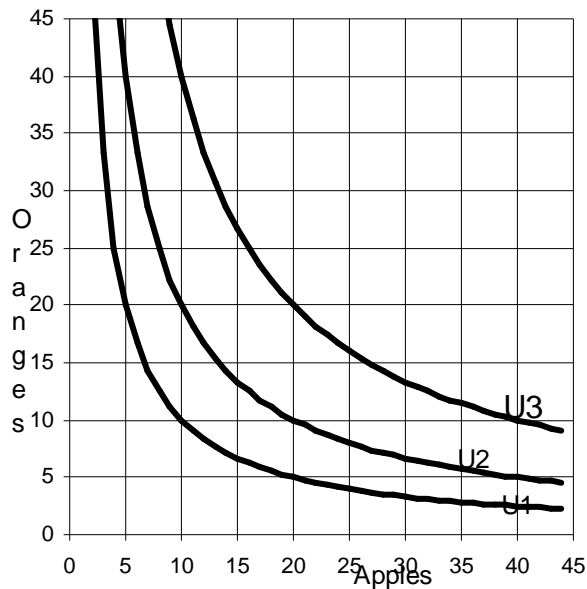
8. The equilibrium long-run price  $P^{LR}$  is
- a) 4
  - b) 10
  - c) 8
  - d) 6
  - e) 2

9. Long-run output per firm  $q^{LR}$  equals
- a) 5
  - b) 3
  - c) 2
  - d) 6
  - e) 4
10. Long-run industry quantity  $Q^{LR}$  equals
- a) 1200
  - b) 800
  - c) 1000
  - d) 1400
11. Long-run number of firms  $N^{LR}$  equals
- a) 200
  - b) 250
  - c) 150
  - d) 300
  - e) 100
12. Suppose the industry is initially in long-run equilibrium at demand  $D1$  with the number of firms equal to the number found in the previous question. Then demand falls, shifting to  $D2$ . In the **short-run**, the equilibrium price will be
- a) 2
  - b) 1
  - c) 4
  - d) 5
  - e) 3
13. When demand falls and shifts to  $D2$ , in the **short-run** each firm earns a profit (or loss) equal to
- a) -6
  - b) 0
  - c) -8
  - d) -2
  - e) -4

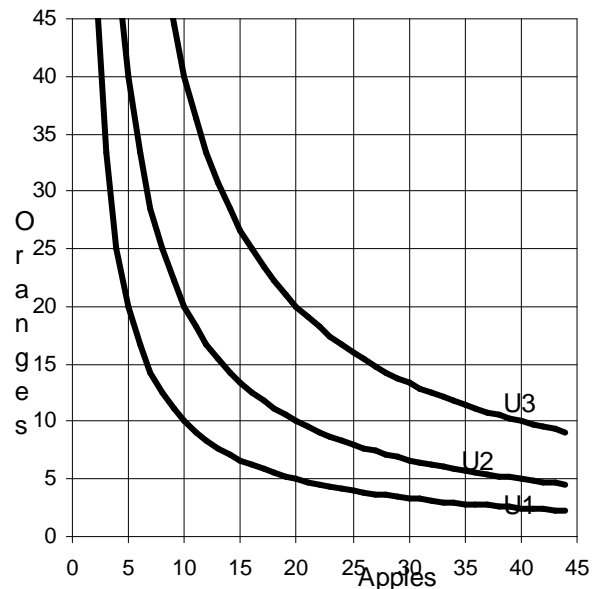


14. In the above figure, there is a negative externality, so the social marginal cost (SMC in the figure) exceeds private marginal cost (S in the figure). The market equilibrium quantity equals \_\_\_\_\_ and the socially efficient quantity equals \_\_\_\_\_ (fill in the blanks)
- None are correct.
  - T, U
  - T, S
  - T, T
  - S, S
15. The optimal Pigouvian tax (that raises equilibrium price to social marginal cost) equals
- HT
  - CS
  - VT
  - CG
  - CL
16. If the optimal Pigouvian tax is imposed, total surplus in Econland changes by the area
- +FVHR
  - ENH
  - +CVH
  - +CVHL
  - CHL

Robinson works 5 hours a day. He can make 4 apples an hour or 8 oranges an hour. Friday works 20 hours a day. He can make 2 apples an hour and 1 orange an hour. The figures below show the indifference curves for Robinson and Friday.



Robinson



Friday

Illustrate Robinson's and Friday's production possibility frontiers (ppf) in the graphs above and then answer the following questions.

17. \_\_\_\_\_ has an **absolute** advantage in making apples and \_\_\_\_\_ has a comparative advantage in making apples. (Fill in the blanks)
  - a) Friday, Friday
  - b) Robinson, Robinson
  - c) Friday, Robinson
  - d) Robinson, Friday
  
18. Suppose trade is **impossible**, so each is in autarky. For each, production equals consumption. At the utility maximizing choice, Robinson produces and consumes
  - a) (20 apples, 10 oranges)
  - b) (10 apples, 10 oranges)
  - c) (0 apples, 40 oranges)
  - d) (20 apples, 20 oranges)
  - e) (10 apples, 20 oranges)

For the next two questions, suppose trade is **possible** and that the price of **one apple** in terms of oranges equals **one orange**.

19. With trade, Robinson **produces**

- a) (20 apples, 0 oranges)
- b) (10 apples, 20 oranges)
- c) (0 apples, 40 oranges)
- d) (10 apples, 10 oranges)
- e) (20 apples, 20 oranges)

20. With trade, Robinson **consumes**

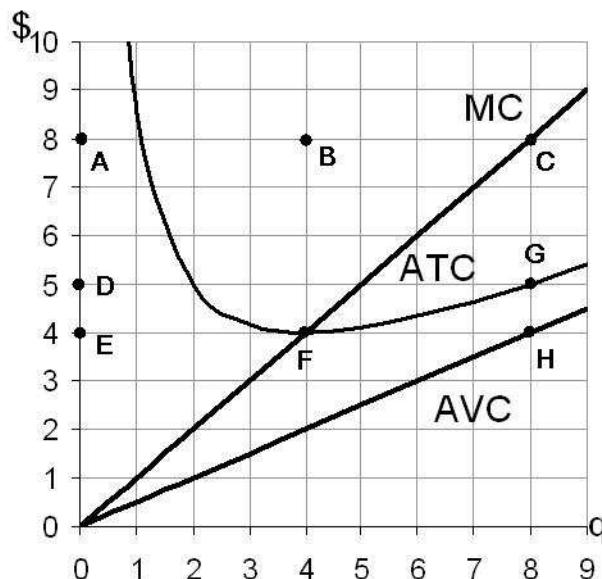
- a) (10 apples, 20 oranges)
- b) (20 apples, 0 oranges)
- c) (0 apples, 40 oranges)
- d) (20 apples, 20 oranges)
- e) (10 apples, 10 oranges)

21. Which of the following statements is true about this example?

- a) There are gains from trade based on exploiting increasing returns.
- b) There are gains from trade based on differences in comparative advantage.
- c) There are no gains from trade in this example.

22. For this question, refer to the figure below. Suppose in the short run a competitive firm faces a price equal to \$8. The firm's profit in the short run equals the area

- a) ACHE
- b) BCF
- c) ABFE
- d) ACGD
- e) DGHE



23. Each of the following is likely to be a successful way for the government to solve the problem of overuse of a common resource **except**
- a) selling the common resource to a private entity.
  - b) taxing the use or consumption of the common resource.
  - c) regulating the use or consumption of the common resource.
  - d) asking individuals to voluntarily reduce their use of the resource.
24. A public good is
- a) nonrivalrous in consumption and nonexcludable.
  - b) rivalrous in consumption and excludable.
  - c) rivalrous in consumption and nonexcludable.
  - d) nonrivalrous in consumption and excludable.
25. An example of a public good is
- a) A pair of tickets to a Vikings game.
  - b) Cable television
  - c) A tornado siren
  - d) A common resource pool like fish
26. When a country allows trade and becomes an **importer** of a good
- a) both domestic producers and domestic consumers become better off.
  - b) both domestic producers and domestic consumers become worse off.
  - c) domestic producers become worse off, and domestic consumers become better off.
  - d) domestic producers become better off, and domestic consumers become worse off.
27. In recent years, there has been a dramatic increase in imports from China into the United States in consumer goods products like furniture and clothing. The segments of these industries in the United States that have been **hit the hardest** include all of the following **except**,
- a) custom goods and fashion goods.
  - b) labor-intensive goods.
  - c) standardized goods meant for a mass market.
  - d) the market segments that earlier moved to southern U.S. states to take advantage of low wages there.