

NAME \_\_\_\_\_

Peking University  
Principles of Economics  
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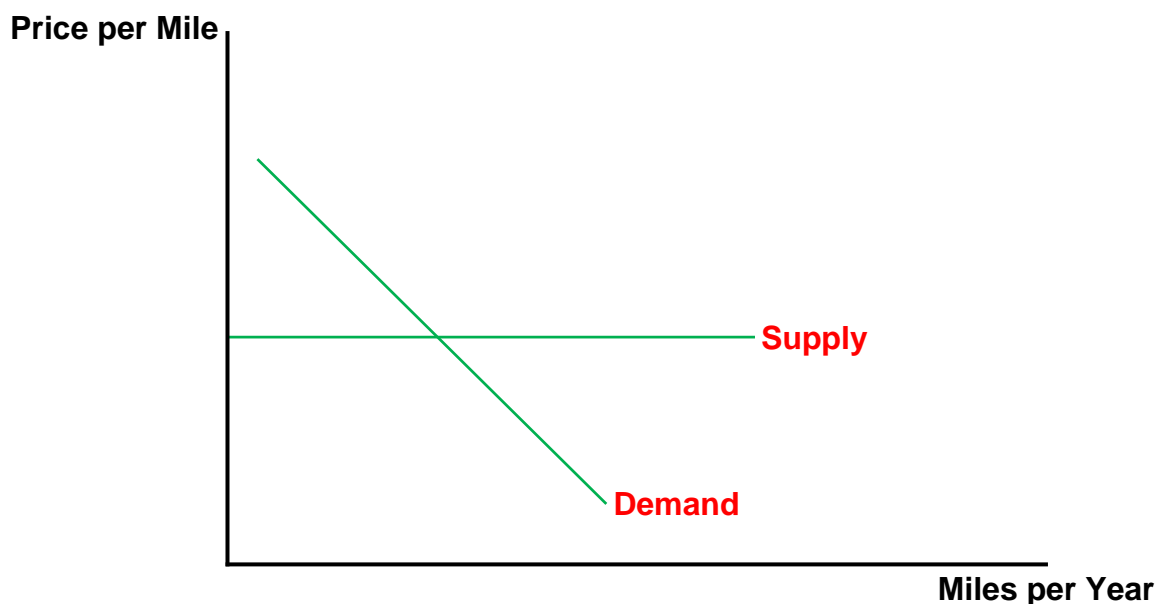
Homework 3  
Due: Wednesday, May 29

**Instructions:**

1. Print your name on the answer sheet.
2. This homework assignment consists of 20 multiple-choice questions with each one worth 3 points and 2 short-answer questions for 40 points, 100 points total. Make sure you have a complete question set.
3. Please write down all your answers on the answer sheet. Answers written on the question sheet will NOT be graded.
4. The space provided on the answer sheet should be sufficient for your answer. If you need additional space, attach a blank paper.
5. Please write neatly. If I cannot read an answer, you will receive no credit for it.
6. Show enough of your work so that I can tell how you arrived at the answer. You will receive credit for sound reasoning. Partial credit will be awarded wherever I deem there is sufficient justification.
7. When drawing graphs, make sure to label everything, including the axes. It is not particularly important to draw your graphs with perfect precision.
8. Turn in the answer sheet ONLY.

1. In general, if the government levies a \$700 tax per motorcycle on sellers of motorcycles, then the price paid by buyers of motorcycles would
  - A. increase by more than \$700.
  - B. increase by exactly \$700.
  - C. increase by less than \$700.
  - D. decrease by an indeterminate amount.
2. In general, the more \_\_\_\_\_ the demand curve, the larger the percentage of a tax that will be shifted to consumers in the form of higher prices.
  - A. elastic
  - B. inelastic
  - C. unit-elastic
  - D. perfectly elastic

3. Refer to the figure.



The graph above shows the demand and supply for air travel. A 10 cent per mile tax on air travel will therefore increase the price per mile by

- A. exactly 10 cents.
- B. less than 10 cents.
- C. more than 10 cents.
- D. zero.

4. If a policymaker wants to raise revenue by taxing goods while minimizing the deadweight losses, he should look for goods with \_\_\_\_\_ elasticities of demand and \_\_\_\_\_ elasticities of supply.
- A. small; small
  - B. small; large
  - C. large; small
  - D. large; large
5. In the economy of Agricola, tenant farmers rent the land they use from landowners. If the supply of land is perfectly inelastic, then a tax on land would have \_\_\_\_\_ deadweight losses, and the burden of the tax would fall entirely on the \_\_\_\_\_.
- A. sizable; farmers
  - B. sizable; landowners
  - C. no; farmers
  - D. no; landowners
6. Which of the following statements about a well-maintained yard best conveys the general nature of the externality?
- A. A well-maintained yard conveys a positive externality because it increases the home's market value.
  - B. A well-maintained yard conveys a negative externality because it increases the property tax liability of the owner.
  - C. A well-maintained yard conveys a positive externality because it increases the value of adjacent properties in the neighborhood.
  - D. A well-maintained yard cannot provide any type of externality.
7. When an externality is present, the market equilibrium is
- A. efficient, and the equilibrium maximizes the total benefit to society as a whole.
  - B. efficient, but the equilibrium does not maximize the total benefit to society as a whole.
  - C. inefficient, but the equilibrium maximizes the total benefit to society as a whole.
  - D. inefficient, and the equilibrium does not maximize the total benefit to society as a whole.

**8. Which of the following statements about corrective taxes is generally NOT true?**

- A. They increase what consumers pay for the good.**
- B. They raise government revenue.**
- C. They reduce the quantity sold in a market.**
- D. They cause deadweight losses.**

**9. The government auctions off 500 units of pollution rights. The rights sell for \$50 per unit, raising \$25,000 of revenue for the government. This policy is equivalent to a corrective tax of \_\_\_\_\_ per unit of pollution.**

- A. \$10**
- B. \$50**
- C. \$450**
- D. \$500**

**10. Command-and-control regulation may be better than a corrective tax if**

- A. a corrective tax would have differential effects on different industries.**
- B. some polluters can reduce emissions more cheaply than others.**
- C. the negative externality is so large that the optimal quantity is zero.**
- D. knowledge about the cost of pollution abatement is dispersed and hard to obtain.**

**11. According to the Coase theorem**

- A. private actors can reach agreement to solve the problem of externalities without the government.**
- B. corrective subsidies are the best policy to solve the problem of positive externalities.**
- C. negative externalities are a problem for society but positive externalities are not.**
- D. when two private actors amicably solve the problem of externalities, they shift the problem to a third party.**

**12. The Coase theorem does NOT apply if**

- A. there is a significant externality between two parties.**
- B. the court system vigorously enforces all contracts.**
- C. transaction costs make negotiation difficult.**
- D. both parties understand the externality fully.**

**13. A state-owned bridge is**

- A. always a public good, whether or not it is congested.**
- B. a public good when it is congested, but it is a common resource when it is not congested.**
- C. a common resource when it is congested, but it is a public good when it is not congested.**
- D. always a common resource, whether or not it is congested.**

**14. Private decisions about consumption of common resources and production of public goods usually lead to an**

- A. efficient allocation of resources and external effects.**
- B. efficient allocation of resources and no external effects.**
- C. inefficient allocation of resources and external effects.**
- D. inefficient allocation of resources and no external effects.**

**15. Public goods are**

- A. efficiently provided by market forces.**
- B. underprovided in the absence of government.**
- C. overused in the absence of government.**
- D. None of the above.**

**16. A regular radio broadcast is**

- A. private.**
- B. not rival in consumption.**
- C. social.**
- D. excludable.**

**17. Governments can improve market outcomes for**

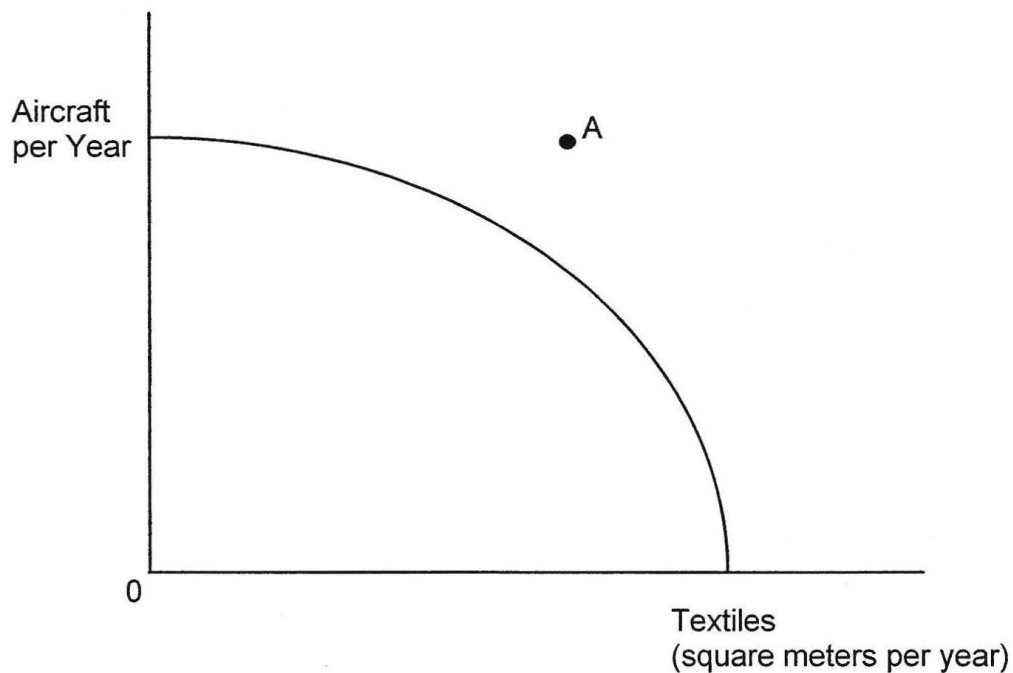
- A. public goods but not common resources.**
- B. common resources but not public goods.**
- C. both public goods and common resources.**
- D. neither public goods nor common resources.**

**18. Because of the free-rider problem**

- A. private markets tend to undersupply public goods.**
- B. the federal government spends too many resources on national defense and not enough resources on medical research.**
- C. firework displays provided by private markets have become increasingly popular.**
- D. poverty can easily be eliminated through private charity.**

**19. The United States has a comparative advantage in the production of computer software, while China has a comparative advantage in the production of shoes. Which of the following is true?**

- A. If the U.S. exports computer software to China and imports shoes from China, then Chinese citizens will gain while U.S. citizens will lose.**
- B. If the U.S. exports computer software to China while importing shoes from China, then there will be mutual net gains to the citizens of both countries.**
- C. If the U.S. exports shoes to China while importing computer software from China, then there will be mutual net gains to the citizens of both countries.**
- D. Neither China nor the U.S. can improve living standards of their citizens through international trade for these items.**

**20. Refer to the figure.**

The graph above shows the production possibilities frontier for textiles and aircraft for China, which has a comparative advantage in the production of textiles. The Chinese government would like its people to be able to consume the combination of textiles and aircraft that corresponds to Point A. Which of the following could allow the nation to consume the combination of products represented by Point A?

- A. Elimination of waste and mismanagement in production under current technology.
- B. A reallocation of productive resources from textile production to aircraft production.
- C. Specialization in the production of textiles and exporting textiles to pay for imports of aircraft.
- D. Specialization in the production of aircraft and exporting aircraft in exchange for textiles.

**21. Fiori and Myran both own an acre of pond and an acre of grassland, while each of them makes a living by fishing and grazing. Additionally, Fiori is a more-skilled shepherd while Myran is a better-trained fisherman. Now they make an agreement that Myran is allowed to fish in Fiori's water, while Fiori is allowed to graze on Myran's land. If they trade their yields fairly, will this deal benefit both of them?**



**22. Suppose Thompson monopolizes the brownie industry, producing all brownies in a factory near the WM Lake. For each ton of brownie produced, one ton of pollutant glop is dumped into the lake. To reduce pollution, the government plans to implement the following policies: a tax of \$T per ton of glop dumped, and a maximum pollution permit of  $Q_0$  tons of glop. Before the policies come into effect, Thompson maximized his profit by producing  $Q_1 > Q_0$  tons of brownies; after the policies are put into practice, Thompson will produce  $Q_2 < Q_0$  tons of brownies.**

- 1) What type of good is the WM Lake? Introduce all the important features of this type of good and explain the major problem occurs during the consumption of this type of good.**
- 2) Graph a figure to show the market for brownies, including the demand curve, the supply curves before and after the policies become effective. Point out the corresponding prices and quantities produced in both situations. Label everything clearly and mark the critical points.**
- 3) Graph a separate figure to show the demand and supply for the pollution permit. Label everything clearly and mark the critical points.**