

# TAKE HOME QUIZ

Econ 1: Principles of Economics  
Spring 2017

Due: Midnight on Tuesday, May 30th, 2017

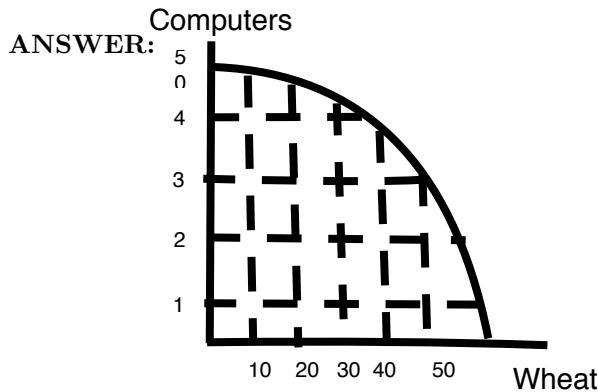
Read the instructions carefully. Write your student ID number and name clearly in the space provided. You may choose to work together on this quiz, but each student must submit their own solutions. **To submit the quiz, please email a pdf copy of this question sheet, with your answers written in the spaces provided, to your TA by the deadline.** This quiz is worth a total of **36 points**. Good luck!

STUDENT ID:

NAME:

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1. Suppose that a country produces two goods: computers and wheat. In the space provided below, draw an example of a production possibilities frontier that captures the idea that the opportunity cost of producing wheat (in terms of computers) increases as wheat production increases. [2 points]



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For each of the following statements, indicate whether they are positive or normative:

2. The government's role is to enforce laws and maintain institutions that are key to a market economy. [1 point]

**ANSWER:** Positive

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3. The government's role is to improve the welfare of the least well off in society. [1 point]

**ANSWER:** Normative

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4. Reducing the top marginal tax rate from 39.6% to 30% will stimulate growth by generating new economic activity. [1 point]

**ANSWER:** Positive

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5. The California state government should increase income taxes and use the revenue to fund public schools. [1 point]

**ANSWER:** Normative

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Suppose that two countries, the US and Germany, produce only two goods: computers and cars. Let's assume that both goods only require labor hours to produce, of which the US has a total of 320 million and Germany has a total of 80 million. German workers take 10 hours to produce each car and 8 hours to produce a computer. US workers, on the other hand, take 4 hours to produce a computer and 6 hours to produce a car.

6. Which country has a comparative advantage in car manufacturing? [1 point]

**ANSWER:** Germany

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7. Which country has an absolute advantage in car manufacturing? [1 point]

**ANSWER:** US

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8. Starting from a situation in which each country uses exactly one quarter of its labor hours to manufacture computers and the rest on car manufacturing, is it possible to find a trading arrangement between the two countries that makes their consumption of each good at least as large as before? If so, give one possible trading arrangement that achieves this. [2 points]

**ANSWER:**

. For each good in which it has comparative advantage, the country should produce more goods than it consumes and trade the rest to the other country. The total consumption will be higher in both US and Germany as a result. In this case, America should trade Computers for Cars. Both countries will indeed benefit, because they can focus on what their good at and trade for the other goods to receive them at a lower cost.

For each of the following markets, (i) indicate whether or not the supply and demand framework we studied in class would be an appropriate model. (ii) If not, briefly explain why not.

9. The market for rides within a ride sharing platform (such as Lyft or Uber), where the supply side of the market includes all drivers and the demand side includes all riders. [2 points]

**ANSWER:** The studied framework would be appropriate

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10. The market for medical services in a city, where the supply side of the market includes all hospitals in the city, and the demand side includes all patients. [2 points]

**ANSWER:** The studied framework would be appropriate

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11. The market for high school education in a city, where the supply side of the market includes all high schools in the city, and the demand side includes all high school students. [2 points]

**ANSWER:** The studied framework would be appropriate

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12. The market for groceries in a city, where the supply side of the market includes all grocery stores and the demand side includes all consumers. [2 points]

**ANSWER:** The studied framework would be appropriate

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The government of a small country is considering whether to participate in the international coffee market. In the domestic coffee market, the price for a pound of coffee is \$ 20, while the international price is \$ 10. Use the diagram in figure 1 to help you answer the following questions. Both the demand and supply curves in this market are straight lines.

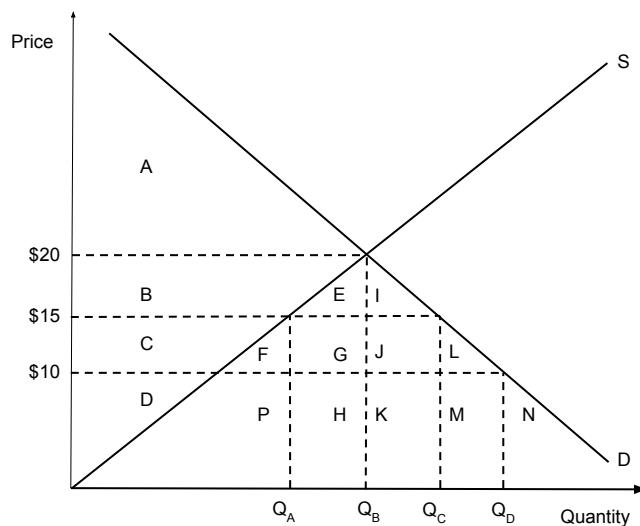


Figure 1: The domestic coffee market.

13. If the government decides to participate in the international coffee market without imposing a tariff, At what price will a pound of coffee be traded in the domestic market? [1 point]

**ANSWER:** \$10

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14. Suppose that the government decides to participate in the international market but chooses to impose a tariff of \$ 5 on every pound of coffee imported. Which area(s) in figure 1 indicate(s) the loss in consumer surplus compared to the free trade case? [1 point]

**ANSWER:** C

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15. Compared to the case in which the domestic market remains insulated from the world, which area(s) in figure 1 indicate(s) the loss in producer surplus when the government decides to enter the world market with the \$ 5 tariff? [1 point]

**ANSWER:** C

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16. Which area(s) in figure 1 indicate(s) the revenue generated by the tariff? [1 point]

**ANSWER:** G,J

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17. Which area(s) in figure 1 indicate(s) consumer surplus under free trade? [1 point]

**ANSWER:** A,B,C

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18. Which area(s) in figure 1 indicate(s) producer surplus when there is no trade with the international market at all? [1 point]

**ANSWER:** B,C,D

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19. Suppose that the government generates \$ 52.5 million in revenue from the tariff policy. How many pounds of coffee were imported? [1 point]

**ANSWER:** 3.5 Million Pounds

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20. Which area(s) in figure 1 indicate(s) the dead weight loss generated by the tariff? [1 point]

**ANSWER:** F,L

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21. Describe what this area represents [1 point]

**ANSWER:** The area represents the loss of economic efficiency that can occur when equilibrium for a good or service is not achieved or is not achievable

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22. With the information we have so far, is it possible to calculate exactly how much dead weight loss was generated by the tariff? If so, how much? [2 points]

**ANSWER:**

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23. With the information we have so far, is it possible to calculate exactly how much producer surplus would be under free trade? If so, how much? [2 points]

**ANSWER:**

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24. The dead weight loss from the tariff can be eliminated under free trade. With reference to the welfare of consumers as well as producers, discuss whether this means that the government should lift the tariff. [2 points]

**ANSWER:**

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Consider the following excerpt from the abstract of a recently published paper in Science (Chetty et al. (2017)):

“We estimated rates of “absolute income mobility” — the fraction of children who earn more than their parents. We found that rates of absolute mobility have fallen from approximately 90% for children born in 1940 to 50% for children born in the 1980s. Distributing current GDP growth more equally across income groups as in the 1940 birth cohort would reverse more than 70% of the decline in mobility.”

25. What are two positive statements we can make based on the information contained in the above paragraph? [1 point]

**ANSWER:**

Rates of Absolute Income Mobility have fallen from 90% to 50% over a 40 year span.

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Absolute Income Mobility is the fraction of children who earn more than their parents.

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26. The authors contend that distributing current GDP more equally would reverse some of the decline in mobility. Explain how this claim may be challenged in light of the trade-offs we learned about in Chapter 1. [2 points]

**ANSWER:**

Due to trade-offs and unforeseen consequences, this economic action may not be as helpful in increasing

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mobility as thought. When a government takes action, it also has to decide what actions NOT to take. By going

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through with one action, they could possibly be choosing not to do another action that would be more effective.

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