

PROBLEM SET #2 (2 % of grade; 10 points possible)

DUE:- via Gradescope, no later than 8 pm on Thursday Sept 26

Problem sets must be uploaded and submitted by 8 pm. No problem sets accepted after gradescope window closes. Your submitted work must be your own: Problem sets that are identical (in whole or in part) to another student's problem set will receive a zero. Essay must be submitted twice: as the last page(s) of your pdf of this problem set and electronically via bCourses.

IMPORTANT: Your answers must be on this sheet, with this formatting. You can hand write or type, but you can't reformat the questions.

1. (3 points total; 1 point each) Supply and Demand

For each of the events described below, **sketch a supply and demand graph** that illustrates the event. Be sure to properly label all curves and relevant points in your graph. In the area to the left of your graph, **explain why you think your graph is correct**. In that area, **also answer the questions asked**.

a. E-cigarettes. Multiple credible reports are published detailing the adverse health effects of e-cigarettes (vaping). This is new information: the e-cig industry had been basing its advertising around alleged health benefits of e-cigarettes over tobacco products. What is the effect on the price of e-cigarettes? On the quantity of e-cigarettes sold per month?

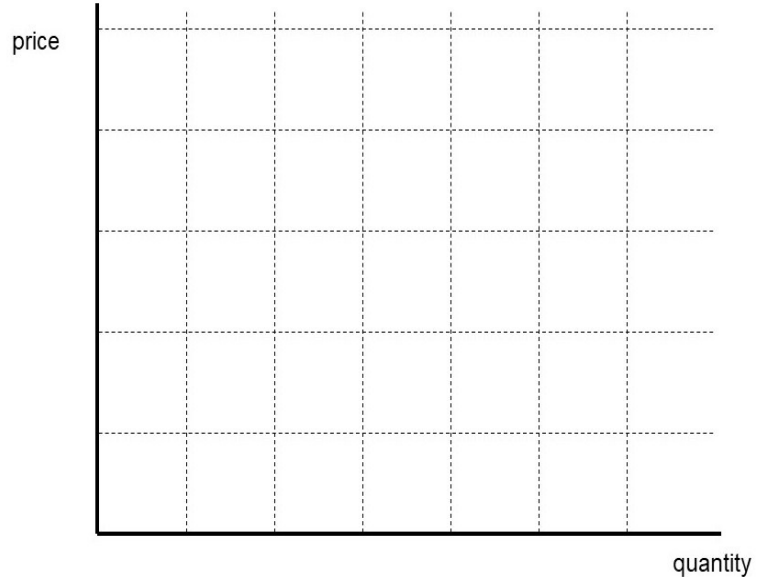
b. Take out espresso drinks in Berkeley. Rather than having a person make your espresso drink, coffee shops in Berkeley switch to robotic baristas. The people were paid \$15.59 an hour. The robots cost just \$3 an hour to operate. What is the effect on the price of espresso drinks? On the quantity of espresso drinks purchased in Berkeley per month?

c. Boba tea. Getting a cup of boba tea before class becomes the popular thing to do in Berkeley. Even people who had never heard of boba tea before moving to Berkeley are now drinking it. At the same time, more boba tea shops open in Berkeley. What is the effect on the price of a cup of boba tea? On the number of cups of boba tea sold purchased in Berkeley per month?

2. (2 points total). Effect of a tax

Consider the market for women's sweaters manufactured in China and sold in the United States. The market is initially in equilibrium at a price of \$75 per sweater and 1,000 sweaters sold per month. Then a tax (a tariff) is imposed on each sweater imported from China. The tax is paid to the U.S. government by the importer, which is the U.S. seller of the sweater. Although in reality the tax is expressed as a percentage of the sweater's price, to make this question easier to answer we will assume the tax is a flat dollar amount of \$25.

A. Using the axes at the right, show the effect of the tax on the equilibrium price and quantity sold. Assume the tick marks for the vertical axis are at \$25 intervals, and the tick marks for the horizontal axis are at intervals of 250 sweaters per month. No need to write anything in response to part A.



B. Based on your graph, who bears the greater burden of the tax: the U.S. buyer or the U.S. seller? In general, under what conditions would the buyer bear a larger burden of the tax than the seller?

C. On the axes at the right, using colored pencils or pens if you would please, sketch again the effect of the tax and this time show the pre-tax amounts of consumer and producer surplus, the post-tax amounts of consumer and producer surplus, the tax collected by the government, and the amount of deadweight loss. In the area below, provide the legend (what color or striping or other indicates which concept).



D. Some people who supported the imposition of tariffs on imports from China argued that the tariffs would make Chinese imports more expensive and thereby increase demand for U.S. manufacturing. In fact, the tariffs on Chinese imports seem to be benefitting manufacturing in Thailand, India, Cambodia and other Asian and south Asian economies. Identify one condition under which the tariff on Chinese imports would benefit US manufacturing, but which in fact is not true (not satisfied).

3. (1 point) Price Elasticity of Demand

You are an analyst for Southern California Edison, a public utility in SoCal that provides electrical service to homes (residences) and businesses. Your task is to design a change in electrical rates that will increase total revenue received by SoCal. For each cell below, indicate whether you would increase or decrease rates, and give a brief explanation as to why.

	residential customers	business customers
electricity purchased between 7 am and 7 pm		
electricity purchased between 7 pm and 7 am		

4. (1 point) Price Ceilings and Floors

The state of California is poised to enact rent control for the entire state, limiting annual rent increases to inflation-plus-5 percent and tightening the restrictions on eviction of tenants for the purpose of finding new tenants who will pay a much higher rent. A recent article on the bill is at <https://www.nytimes.com/2019/09/11/business/economy/california-rent-control.html>. Poll 100 economists and well over 90 of them will tell you “rent control is bad.” (Search “economists rent control” and you’ll find a bevy of articles about how and why economists hold this opinion.)

- A. At the right, draw a graph that depicts the effect of rent control on the market for rental housing. Assume the supply of housing is upward sloping but not vertical. Be sure to label everything clearly. If your labelings are clear, there’s no further explanation or words needed for part A.

- B. In the absence of rent control, who is able to rent an apartment? Is your answer different in the presence of rent control? Answering that second question requires you to think about (and make explicit in your answer) the mechanism by which available apartments are allocated.

5. Essay: The Price Mechanism (3 points total)

"The price mechanism" refers to how a market economy allocates goods and services to buyers and inputs to production. If goods and services are allocated (sold) to those who are willing and able to pay the market equilibrium price, we say there is "price rationing" or that "the price mechanism" determines what is produced, how much, and for whom. If instead there is intervention in the market so that the price mechanism is not the way that goods and services are allocated, there is some "non-price rationing" mechanism that determines how much is produced and for whom.

Write a one-page essay in which you address these points:

- Give an example of a good or service that is allocated to buyers using the price mechanism. A good paper will not use an example that was discussed in lecture but will instead come up with a new example. Do you think society should use the price mechanism to determine for whom this good is produced? Why or why not?
- Now give an example of a good or service that is currently not allocated to buyers using the price mechanism. A good paper will not use an example that was discussed in lecture but will instead come up with a new example. What is the non-price rationing mechanism that determines for whom this product is produced? Do you think society should not use the price mechanism to determine for whom this product is produced? Why or why not?

Remember that in economics (as in life), the conclusions you come to will depend in part on the assumptions you make. So be sure you make the relevant assumptions explicit. Don't invoke wildly unrealistic assumptions; the assumptions you make should be reasonable.

Your essay must be your own work. To present anyone else's work as your own is theft of intellectual property: plagiarism. That means you must use quote marks " " around any words you quote exactly from any source (and then provide the source for the quote). It also means that if you get ideas from anyone else, or if you paraphrase someone else, you must again give them credit for their ideas. To do otherwise is plagiarism: the theft of intellectual property, a violation of the Code of Student Conduct and one of the worst offenses in academe. If you have questions about whether or not you've properly cited your sources, please talk with your GSI, the Head GSI, or Prof. Olney.

"Your own work" also means that essays crafted jointly on piazza or otherwise are not acceptable. That too is plagiarism.

Specifications: 400 words maximum, one page maximum. ("Works Cited" list can be on a second page and does not count against the 400 word maximum. End notes can be on the second page and don't count against the 400 word max.) Double space. 10-11-12 pt font. 1" margins on all sides. Your name, date, and the word count in the top right corner. For submission on gradescope, your essay should be the last page(s) of your pdf file.

Submission: Essay must be submitted twice. [1] To gradescope, as the final page(s) of your problem set sheets. [2] To bCourses, assignments tab, just the essay. Acceptable formats: doc, docx, pdf. bCourses will check your paper using TurnItIn to ensure you have not plagiarized from published sources or previously submitted papers. GSIs will likely grade in gradescope.

Grading: 0 - 1 - 2 - 3 points, taking into account content, following specifications, and writing quality. No submission on bCourses results in a 0 on the essay.