

Homework 2

Ross Summer Connection 2022

Due: Monday August 1st @ 11:59pm

Question 1: Suppose you must buy course notes, and the only place that sells them is the campus bookstore. Which of the assumptions of a competitive market fails?

- a) Many buyers and sellers.
- b) All individuals are price takers.
- c) Homogenous good or service.
- d) Both a and b.

Question 2: Now suppose that the market for course notes is competitive, but that an electronic version is posted on canvas free of charge. How does the market for course notes change?

- a) Demand increases.
- b) Demand decreases.
- c) Supply increases.
- d) Supply decreases.

Question 3: Now suppose instead that the suppliers of course notes have a new printer that is twice as fast. How does the market for course notes change?

- a) Demand increases.
- b) Demand decreases.
- c) Supply increases.
- d) Supply decreases.

Question 4: Suppose that the marginal product of the first unit of labor is 5. Then the marginal product of the fifth unit of labor must be _____ for diminishing returns to hold.

- a) = 5.
- b) > 5.
- c) < 5.
- d) 0.

Question 5: The following is the market demand schedule in our class for a Diet Cola.

- a) Using the demand schedule below, draw the demand curve for a Diet Cola.
- b) The price of a bottle of Diet Cola has increased from \$1.00 to \$1.75. How do we represent this change graphically on the demand curve from part a?
- c) Over the course of the semester a number of the students in class find out they are diabetic. How will this affect the (entire) demand curve?

Price	Quantity
2	0
1.75	10
1.50	20
1.25	30
1	40
0.75	60

Question 6: Consider the market for minivans. For each of the events listed here, identify which of the determinants of demand and supply are affected, and how each curve shifts and what the final effect on market price and quantity is.

- People decide to have more children.
- A strike by steelworkers raises steel prices.
- Engineers develop new automated machinery for the production of minivans.
- The price of sports utility vehicles rises.
- A stock-market crash lowers people's wealth.

Question 7: Four students walk downtown on a sunny summer day. To get some relief from the heat, they stop at an ice cream parlor. Consider the willingness to pay for ice cream of each of the students in the table below. If the price per scoop is \$5, what is the total consumer surplus in this market? Show all of your steps and explain with words as well as math!

Quantity	April	Dyanne	Thomas	Luis
1	10	11	5	18
2	9	0	4	14
3	8	0	3	11
4	7	0	2	6
5	6	0	1	3
6	5	0	0	1
7	4	0	0	0
8	3	0	0	0

Question 8: Using a simple supply and demand model of a competitive high skilled labor market, illustrate the main empirical result from Cortes & Pan (2017). That is, using graphs and definitions of consumer and producer surplus, illustrate what happens to female labor supply when low skilled migrants enter the location of a particular high skilled labor market. How does welfare change?

Question 9 (EXTRA CREDIT): Continuing from question 8, note that Cortes & Pan (2017) also find that the increased hours they are able to work (given the increased availability of childcare from low skilled immigrants) enables women to also switch into higher paying jobs and occupations. Illustrate, using words or math or whatever seems comfortable, how this “occupational migration” of women is similar to the results from Question 5 on Homework 1!