Econ Assignment 1

October 2, 2023 3:02 PM

**Economics 201 Principles of Microeconomics Assignment**
**#1**
**Fall 2023**
**Due October 5, 23:59 (Submit your assignment to the D2L Quizzes Section)**

**Directions:**

- You are encouraged to work with your classmates. However, you need to **write in your own words**. If we find nearly identical submissions, both students will receive 0, regardless of who helped who.
- It is recommended that you submit a draft at least one day before the due date. If you want to make a change, you can upload the whole file as a new submission in the same folder---**your grade will be based on the most recent submission.**
- Submit your assignments to the D2L Quizzes section before the due date. **Late assignments or assignments sent by e-mail will not be accepted.**
  -For fill-in blank or multiple choice questions, choose the best answer.
  -For fill-in blank questions, **do not include dollar signs, decimals or cents.**
  -For written questions and graphing questions, submit your assignments by following the instruction below.
  - Compressed folders (e.g. .zip or .pages) do not count **as single files**. If you are uploading photos of your work, please transform them into a format recognized by Windows (e.g. JPEG, PNG or PDF format). ***Please do not submit files with .heic extension.***
  - Include your family name and the assignment number in the name of the file you upload to the Quizzes section in the following form: LASTNAME_hw# where you will substitute the assignment number for the # in the filename.
  - You can scan your written homework with a scanner or your device's camera to create scanned pdf files. Before you submit your scanned homework, be sure to verify that the scan is easily readable.
  - Make sure that the pages are in the correct order; that is, the first page of the document should be the first page of your work and so on. Make sure that the pages are aligned properly; that is, pages are not in a landscape position.

**Question 1. Production Possibility Frontier and Opportunity Cost [Ch.2,3] (2.5 marks)**
Cowcowland is a community that produces two goods, cheese and milk. The following table describes the production possibility frontier (PPF) for Cowcowland during 2018. Assume the PPF is linear between the points listed in the table.

| Points on PPF | Milk (Gallons) | Cheese (Pounds) |
|---|---|---|
| A | 0 | 100 |
| B | 30 | 95 |
| C | 40 | 85 |
| D | 75 | 6 |
| E | 77 | 0 |

a. **[graphing question]** Draw a graph of Cowcowland's PPF for 2018 based on the information contained in the table. In your graph, measure cheese (C) on the vertical axis and milk (M) on the horizontal axis.
b. Suppose Cowcowland is currently producing at point C on their PPF. What is the opportunity cost of producing one additional pound of cheese?
c. If Cowcowland is currently producing at combination A, what is the opportunity cost of producing 40 more gallons of milk?
d. What is happening to the opportunity cost of producing more milk if we move from point A to point C?

**Question 2. Comparative Advantage [Ch.3] (2.5 marks)**
120/20 = 6 TV's 120/10 = 12 Laptops
In country A, 20 workers can/are able to produce a flat screen TV and 10 workers can produce a laptop computer in one day. In country B, 15 workers can produce a flat screen TV and 10 workers are able to produce a laptop computer. Each country has 120 workers available each day.
120/10 = 12 Laptops 120/15 = 8 TV's

a. **[graphing question]** Sketch the PPF of each country for one day's worth of production/manufacture. Prepare a separate graph for each country. In your graphs measure flat screen TVs on the horizontal axis and laptop computers on the vertical axis. Carefully label each graph with the respective country's name. Label the horizontal and vertical axis as well.
b. Which country has an absolute advantage in flat screen TV manufacture?
c. Which country has a comparative advantage in flat screen TV manufacture?
d. Imagine the countries trade with each other. What is the range of possible flat screen TV prices (in terms of laptop computers)?
e. **[graphing question]** Sketch the combined PPF (joint PPF) of these two countries in a graph with laptop computers measured on the vertical axis and flat screen TVs measured on the horizontal axis.

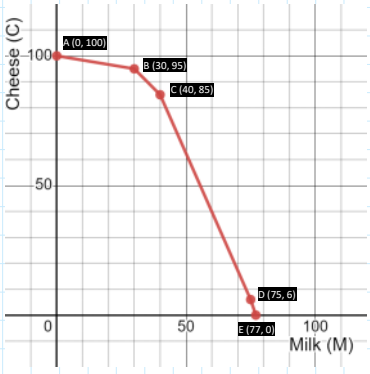
**Question 3. Market Demand Curve [Ch.4] (2 marks)**
Imagine Sue's demand curve for shoes is Q=8-2P and Jackie's demand curve is Q=12-2P. The market supply curve for shoes is given by Q=4P-8. (Hint: Don't worry if your equilibrium quantity and equilibrium price calculations do not amount to a whole number.)

a. **[graphing question]** Graph Sue's demand curve and Jackie's demand curve on separate graphs. Graph the market supply curve on each of the separate graphs.
b. **[graphing question]** Now on a new graph, graph the market demand curve for shoes by horizontally combining Sue and Jackie's demand curves.
c. What is the market demand function for shoes if Jackie and Sue are the only consumers of shoes in this market?

**Question 4. Price Intervention [Ch.6, 7. Also see lecture notes Ch6] (2 marks)**

# Colby Campbell
# UCID: 38208300

**1. a) Cowcowland's PPF for 2018 of Milk vs Cheese**

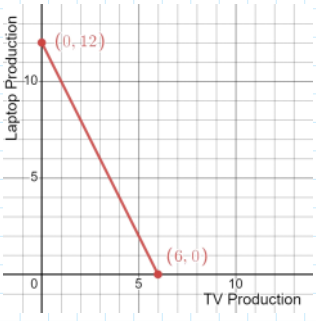



1. b) First we want to find the slope of the graph between the points of B and C. To do this, I used the equation for a slope: $\frac{C_2-C_1}{M_2-M_1}$ and I input the points B and C. Using this equation, we find that the slope is -1. Therefore, the opportunity cost of producing one additional pound of cheese is one gallon of milk.

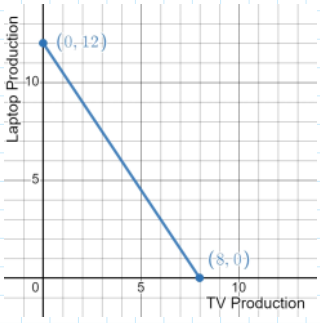
1. c) The opportunity cost for producing 40 more gallons of milk from point A is 15 pounds of cheese. This is because point C shows us the loss of 15 pounds of cheese when producing 40 more gallons of milk.

1. d) Moving from point A to C, your opportunity cost of producing more milk will increase. From point A to B, the opportunity cost is very low. From B to C, the opportunity cost increases to 1 pound of cheese for 1 gallon of milk (we learned this in part a). If you were to continue past C, your opportunity cost would increase even further.

**2. a) Country A PPF for Laptop vs TV Production**




**Country B PPF for Laptop vs TV Production**

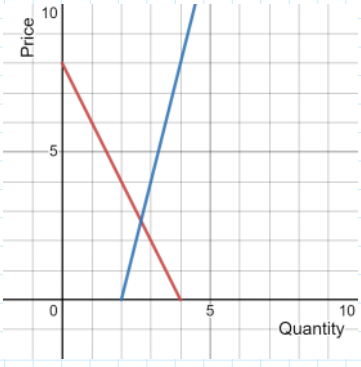



2. b) Country B has an absolute advantage in flat screen TV manufacture.

2. c) Country B has a comparative advantage in flat screen TV manufacture.

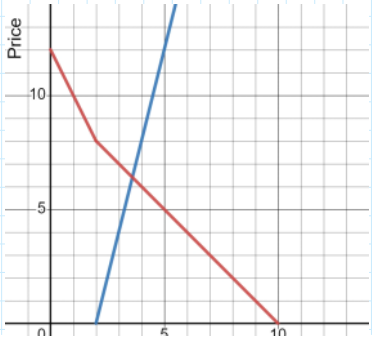
2. d) If the countries were to trade with each other, the range of possible flat screen TV prices would be 1.5 laptops to 2 laptops.

**3. a) Sue's Demand Curve vs Market Supply Curve**




**Jackie's Demand Curve vs Market Supply Curve**


**3. b) Market Demand Curve vs Market Supply Curve**




3. c) The market demand function if Jackie and Sue are the only consumers of the market is Q = 10 - P if the price is between $0 and $10 and Q = 12 - 2P if the price is above $8.

separate graphs. Graph the market supply curve on each of the separate graphs.

b. **[graphing question]** Now on a new graph, graph the market demand curve for shoes by horizontally combining Sue and Jackie's demand curves.
c. What is the market demand function for shoes if Jackie and Sue are the only consumers of shoes in this market?

**Question 4. Price Intervention [Ch.6, 7. Also see lecture notes Ch6] (2 marks)**

A price support program for farmers producing wheat is put into effect by the government. In order to increase farms' income, the government creates a price floor in the market for wheat and buy any surplus wheat and store it in Alberta at $4/lb. The government sets the price floor at Pfloor = $12/lb. of wheat. The supply and demand schedules for wheat are as follows:

$Q_{Supply} = (P - 8)/2$

$Q_{Demand} = (14 - P)/2$

a. **[graphing question]** Imagine the government currently implements a price floor of $12/lb of wheat.-Plot the demand and supply curves in a graph. Record the initial equilibrium price and quantity in your graph. On your graph identify the y-intercept and x- intercept for the demand curve and the y-intercept for the supply curve. In your graph shade the area that denotes/signifies the cost to the government net of storage costs.
b. **[graphing question]** Shade the area of the cost to consumers on the graph.
c. **[graphing question]** With the same demand and supply schedules, create a new graph where the government institutes a price subsidy instead of a price floor. There is no longer a cost for storage, and the guarantee(d) price equals the floor price, $P_{guarantee} = $12. Shade the area that indicates the total cost to the government for the subsidy program on your new graph.
d. **[graphing question]** Shade the area of the cost to consumers with the price subsidy program on the graph.

**Question 5. Reading [**Economics of Everyday Life: **written questions] (1 mark)**

Read Modules 1-7 "Economics of Everyday Life" by Dr. Chris Bruce (can be found on D2L) and answer the following questions in 2-3 lines using your own word.

*Note: If there are five consecutive words identical to other's writing (including Dr. Bruce's notes), you will receive zero mark.*

a. According to Dr. Bruce, what is incremental benefit?
b. According to Dr. Bruce, how can we explain that a house in the suburbs is less expensive than a comparable house in the areas near the center of the cities?
c. According to Dr. Bruce, what are the characteristics of a market?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P=12-8
P=14-2Q

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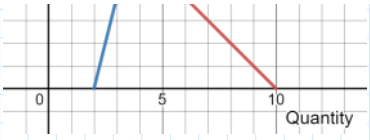
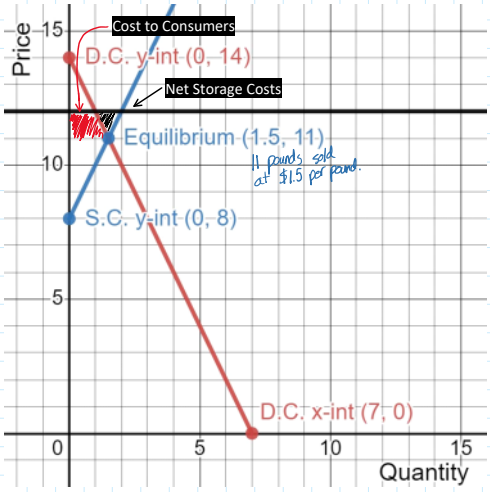
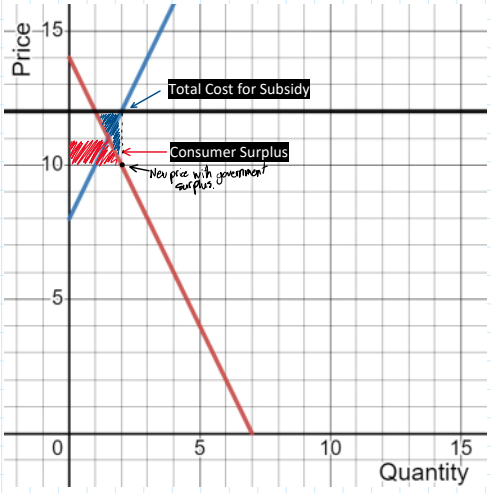



**4. a) Government Price Floor on Wheat**




4. b) Let the area of the cost to consumers be shaded in red.

**4. c) Government Subsidy on Wheat**




4. d) Let the area of the cost to consumers for the subsidy be shaded in red.

5. a) According to Dr. Bruce, incremental benefit is the same thing as marginal benefit, he just uses the word "incremental" as he believes that it is easier to understand. Incremental benefit is the additional benefits that you gain from a certain activity compared to another one. For example, if mowing your neighbours lawn for 1 hour earns you $10, while cleaning your neighbours gutter earns you $20, the incremental / marginal benefit of cleaning your neighbours gutter is $10.

b) According to Dr. Bruce, one possible reason for why a house on the edge of a city is cheaper than a house in the middle of a city is that the true cost of the house must also include the cost for transportation as well as the perceived cost of your time for that transportation. He argues that if you live on the edge of the city, but have a job in the city, the cost of transportation and the opportunity cost of your time adds up, meaning the opportunity cost for living further away from your job is higher than living closer to it in the city. Therefore, people will pay more for houses that are closer to where they work. This creates a difference in house prices based on location.

c) According to Dr. Bruce, the two characteristics of a market are prices and profits. Profits are signals that give information about the relative scarcity and value of goods or services. On the other hand, profits act as motivators that encourage producers to supply more of the services or goods that consumers want and less of the ones they do not want. Using these two characteristics, Dr. Bruce was able to answer the three fundamental questions of microeconomics: what, how, and for whom.