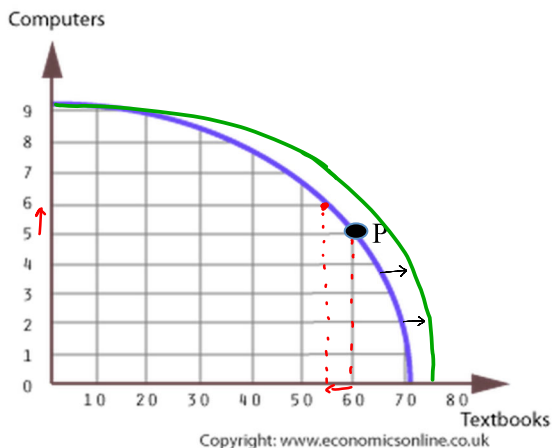


Q1. The Demand for food for poor households is Income (elastic / **inelastic**) and for rich households is Income (elastic / **inelastic**). Also, The Demand for food for a poor household is price (elastic / **inelastic**) and for a rich household is price (elastic / **inelastic**).

Q2. (3 pts) An 8 percent rise in the price of orange juice, decreases the quantity of orange juice demanded by 12 percent, and increases the quantity of apple juice demanded by 20 percent with no change in the quantity demanded of coffee.

The price elasticity of demand for orange juice is $\frac{-12}{8} = -1.5$ and the cross price elasticity of demand with respect to the price of orange juice is $\frac{20}{8} = 2.5$ for apple juice and 0 for coffee.



Q3. Refer to the above PPF graph. The country is producing at point 'P' on the PPF. At that production point, the opportunity cost of producing 6th computer is **4** textbooks (55, 10, 60, **4**, 50).

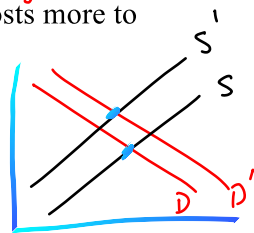
Q4. (3 points) Refer to the above PPF. On the same graph draw a new PPF that illustrates the effect of a technological change that brings new and better ways of printing paper.

Q5. A decrease in tuition fees will decrease UBC's total revenue if the demand for college education is price _____ (elastic/**inelastic**). $\downarrow TR = \downarrow P \times \uparrow Q \rightarrow$ demand is less responsive.

All shredded wheat producers have decided to add a costly new ingredient, the "crunch enhancer" to shredded wheat. Crunch enhancer keeps cereals crisp longer in milk and, as a result, consumers decide they like shredded wheat more than before. \uparrow in cost \rightarrow SS shifts up to the left
 \uparrow in Preference - DD shifts to the right

Q6. What happens to the supply and demand curves for shredded wheat now that it costs more to produce and consumers like it better?

- A. The supply curve shifts leftward and the demand curve remains unchanged.
- B. The supply curve shifts rightward and the demand curve remains unchanged.
- C. The supply curve shifts leftward and the demand curve shifts rightward.**
- D. The supply and demand curves both shift rightward.



Q7. (4 pts) The equilibrium price of shredded wheat _____ (increases, decreases, stays the same, ambiguous) and the equilibrium quantity _____ (increases, decreases, stays the same, ambiguous).

movement along $P_x \uparrow \Rightarrow Q_x \uparrow$ (SS), complements in production (Milk + Cream) $\Rightarrow Q_y \uparrow$ (Shift SS)

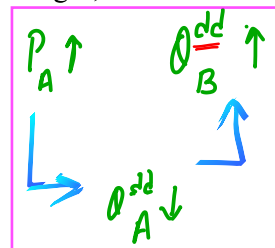
- Q8. If goods X and Y are complements in production, then a rise in price of good X
- A. Shifts the supply for both goods to the left
 - B. Shifts the supply of good X to the left and good Y to the right
 - C. Movement along the supply graph for good X and a right shift in the supply of good Y
 - D. Movement along both supply graphs
 - E. Shifts the supply of good X to the right and good Y to the left

Q9. (3 pts) Tick all those that would *shift* the production possibility frontier outside.

- Decision to fully utilize unemployed resources
- An increase in labor force
- Increase in the stock of Capital

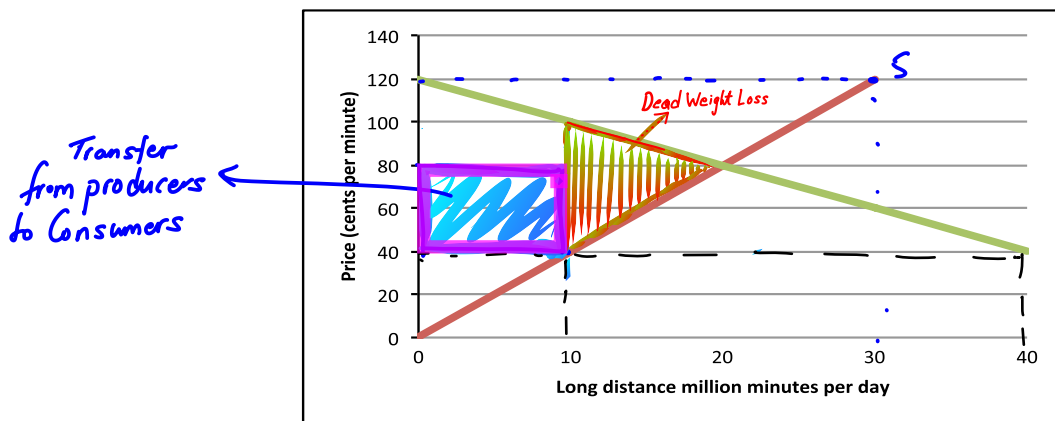
Q 10. As the price of good A rises, the demand for good B shifts right, then which of these statements are true?

- A is a factor used in the production of B
- A and B are complements in production.
- A and B are complements
- A and B are substitutes
- A and B are substitutes in production.



Short Answer Question:

The following graph gives the supply schedule of long—distance phone calls.



$$\frac{P_2 - P_1}{\text{Average } Q} = \frac{30 - 10}{40/2} = \frac{20}{20} = 1$$

$$\frac{P_2 - P_1}{\text{Average } P} = \frac{120 - 40}{160/2} = \frac{80}{80} = 1$$

$\Rightarrow \frac{1}{1} = 1$

- A. The equilibrium price is 80 and the equilibrium quantity is 20 (million minutes)
- B. What is the price elasticity of the supply function as price changes from 40 to 120? 1
- C. At the equilibrium price in this market of long distance call. Calculate the producer and consumer surplus.

Produce Surplus? $\frac{1}{2} \times 20 \times 80 = 800$ Cents; Consumer Surplus $\frac{1}{2} \times 20 \times 40 = 400$ cents

- D. Suppose the government imposes a price ceiling at 40 cents.
- E. Is there a shortage or surplus? Please calculate. 40 - 10 = 30 million min..
- F. You can see that the producer surplus shrinks once the price ceiling is imposed. A part of the producer surplus is lost as deadweight loss and the rest gets transferred to the consumers as consumer surplus.

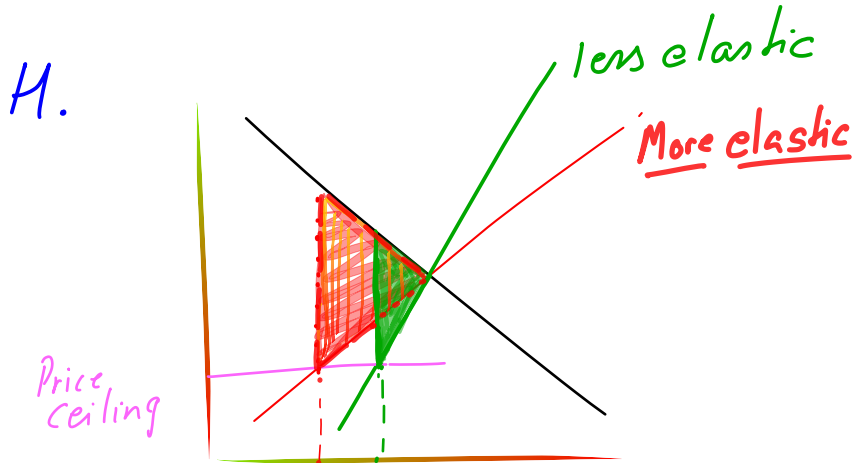
- a. (3 pts) Please show the area that represents a transfer of surplus from producers to consumers as a result of the price ceiling.
- b. (2 pts) Calculate the amount that is transferred from producers to consumers. 10 x 40 = 400 million..

Out of earlier producer surplus of 800
 - 400 is transferred to Consumers
 - 200 is lost at Dead Weight loss
 - Only 200 is left to the producers (New producer surplus)

G. Also, as a result of the price ceiling a portion of the consumer surplus is lost and a portion of the producer surplus is lost, which we refer to as a dead weight loss. Please show the area in the above graph that represents the dead weight loss. (2 pts) Calculate the deadweight loss _____ (1 pt)

H. (5 pts) How would a decrease in the price elasticity of the supply function effect the deadweight loss from the price ceiling? Hint: So, for the above market, imagine a supply function that is less price elastic with the same equilibrium price of 80 cents and equilibrium quantity of 20 million minutes.

$$DWL \Rightarrow \frac{1}{2} \times 10 \times (100 - 40) = \frac{1}{2} \times 10 \times (60) = 5 \times 60 = 300$$



The more elastic the supply function
 the more responsive is the supply function
 the greater the shortage and higher the Dead Weight loss.