ECON 103 Name Sam

Chapter 4 Assignment

1. In many parts of Canada when Wal-Mart opens a new store, some smaller retailers go out of business. One of the reasons for this development could be that:
   A) consumers in those areas receive a larger consumer surplus from shopping at Wal-Mart than from the smaller stores.
   B) consumers in those areas receive no consumer surplus from Wal-Mart.
   C) Wal-Mart practices unfair pricing methods that reduce consumer surplus over time.
   D) both a and c are true.

Use the following to answer questions 2-3.

Table: Consumer Surplus and *Phantom* Tickets
Student Willingness to pay:
Jessica $150
Jacquelyn $125
Brad $105
Robert $60
Gwen $25

2. (Table: Consumer Surplus and *Phantom* Tickets) If the price of a ticket to see *Phantom of the Opera* is $50, then Robert's consumer surplus is:
   A) $60.
   B) $50.
   C) $10.
   D) $240.

3. (Table: Consumer Surplus and *Phantom* Tickets) If the box-office price of a ticket to see *Phantom of the Opera* is $50, and there is no other market for tickets, then total consumer surplus for the five students is:
   A) $100.
   B) $175.
   C) $230.
   D) $240.

4. Suppose Canada removes the current sugar quotas and the market price of sugar drops. In the candy bar market, we would expect:
   A) the consumer surplus to increase.
   B) the consumer surplus to decrease.
   C) the consumer surplus to be unchanged.
   D) the deadweight loss to increase.

5. Anna is willing to sell her 20-year-old boat—but not for less than $2,300. For Anna, the cost of selling this boat is _____ $2,300.
   A) more than
   B) less than
   C) equal to
   D) There is not enough information to answer the question.

6. Along a given supply curve, an increase in the price of a good will:
   A) increase producer surplus.
   B) decrease producer surplus.
   C) increase consumer surplus.
   D) both b and c

7. Consumer surplus is the amount buyers actually pay for a good minus the maximum amount they are willing to pay for it.
   A) True
   B) False

8. Suppose Ontario removes the current dairy quotas and the market price of milk drops. In the cheese market, we would then expect consumer surplus to increase.
   A) True
   B) False

9. In the former Soviet Union, people often resorted to black market transactions preferring them over waiting in long lines for goods and services. This fact seems to suggest that saving time is part of the consumer surplus derived from buying goods.
   A) True
   B) False

10. If the price of pizza changes for any reason, a deadweight loss will occur.
   A) True
   B) False

11. The following table shows Beth's marginal willingness to pay and Steve's marginal cost for sweaters.

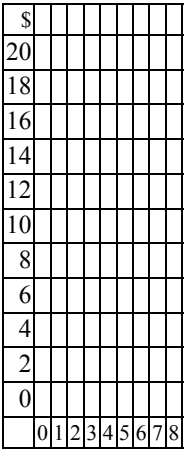
Quantity	Beth's MWTP	Steve's MC	Steve's MC + tax
1	20	5	11
2	18	6	12

3	16	7	13
4	14	8	14
5	12	9	15
6	10	10	16
7	8	11	17
8	6	12	18

A) What is the equilibrium price and quantity of sweaters?

P* = 20 Q* = 6

B) Graph the MWTP and MC (in a bar chart form)



C) At the equilibrium what will Beth's consumer surplus be? CS = 30

D) At the equilibrium what will Steve's producer surplus be? PS = 15

E) At the equilibrium what will the total surplus be?

TS = 45

F) Suppose the government imposes a tax of $6 per sweater. Fill in the right column on the table and show the effect on your graph. What will be the new quantity, Q^T, the new demand price, P^C, and the new supply price, P^P?

Q^T = 4 P^C = 14 P^P = 8

G) What will be the new consumer surplus? CS = 12

H) What will be the new producer surplus? PS = 6

I) What will be the total tax revenue for the government? TR = 24

J) What will be the new total surplus? TS = 42

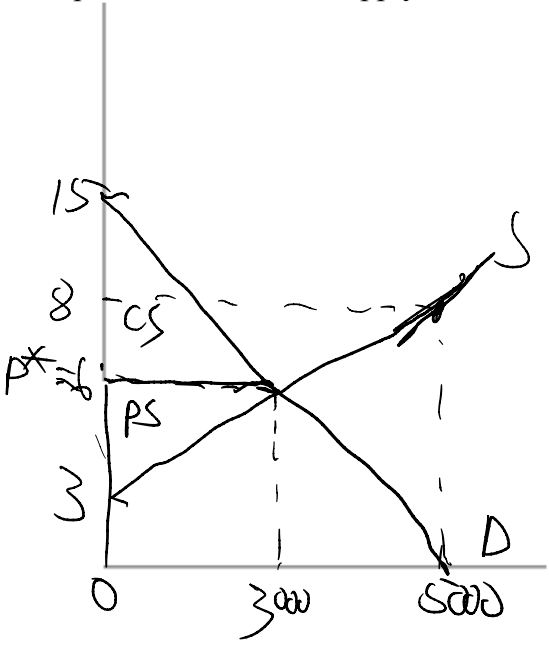
K) What will be the deadweight loss? DWL = 3

L) What will be the total consumer incidence from the tax? CI = 16

M) What will be the total producer incidence from the tax? PI = 8

12. In the market for litres of ice cream, the demand function is P = 15 – 0.003Q and the supply function is P = 3 + 0.001Q.

A) Graph the demand and supply functions.



B) Calculate the equilibrium price and quantity.

Q* = 3000

P* = 6

C) Calculate consumer surplus, producer surplus,

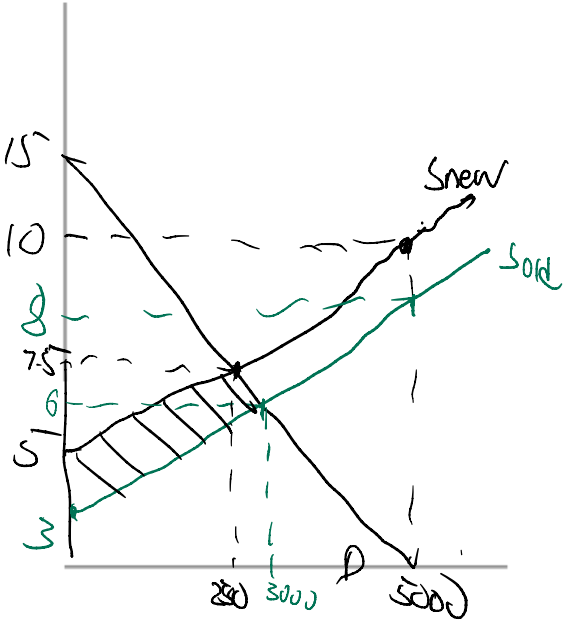
and total surplus. Label the areas on the graph above.

CS = 13500

PS = 4500

TS = 18000

D) Suppose supply decreases to P = 5 + 0.001Q. Show on the graph below.



i. Calculate the new equilibrium price and quantity.

Q* = 2500

P* = 7.5

ii. Calculate the change in CS for the consumers who remain in the market but are now paying a higher price.

DCS = 3750

iii. Calculate the change in CS for the consumers who have exited the market because of the higher price.

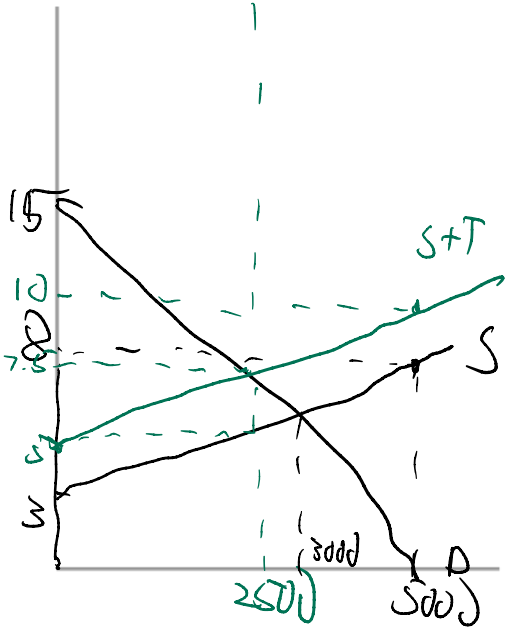
DCS = 375

iv. By how much has producer surplus changed?

DPS = −1375

i. Use stripes to show the area that would be the change in total surplus.

E) If the government imposes a tax of $2 per litre calculate consumer surplus, producer surplus, total tax revenue, total surplus, and deadweight loss *using the original supply curve*. Show on the graph below.



CS = 9375

PS = 3125

Total tax revenue = 5000

TS = 17500

DWL = 500

Total consumer tax incidence = 3750

Total produce tax incidence = 1250