

Principles of Microeconomics

Assignment 2 (Chapters 5, 6, 7, 8, and 9)

I. (4 Points) For each of the following pairs of goods, which good is expected to have the more price elastic demand? Explain briefly.

a. Milk [all brands, grades] or President's Choice Cola [a generic brand of cola]

b. Cell phone usage or matches

c. Restaurant meals or food [generally defined]

d. Auto gas during the next 3 months or during the next 3 years

2. (3 Points) In the United States in 1916, the Ford Motor Company sold 500,000 Model T fords at a price of \$440. Henry Ford, the founder of the Ford Motor Company, believed he could increase sales of the Model T by 40,000 cars if he cut the price to \$400.

a. Use the provided information to calculate the anticipated price elasticity of demand [PED] for the Model T Ford. Interpret your answer.

b. Based on your calculation in [a], did Henry Ford believe demand for the Model T was elastic or inelastic?

c. Based on your calculation in [a], if Henry Ford wished to increase total revenue from Model T sales, should he have increased or decreased price? Explain briefly.

3. (3 Points) Determine the amount of consumer surplus [CS] generated in each of the following situations: (show your work).

a. Sienna is willing to pay up to \$30 for a new T-shirt. He picks out one he likes with a price tag of exactly \$18.

b. Ali goes to a store hoping to find a used copy of a favorite vinyl record album for up to a maximum of \$20. The store has one copy selling for \$20, which he buys.

c. After soccer practice, Cassidy is willing to pay \$2.5 for a bottle of water. The 7-Eleven sells water for \$2.75 per bottle, so she declines to purchase it.

4. (3 Points) Determine the amount of producer surplus [PS] generated in each of the following situations:

a. Jack lists his old electric train set on eBay. He sets a minimum acceptable price, known as the reserve price, of \$95. After five days of bidding, the final high bid is exactly \$95. He accepts the bid.

b. Angelina advertises her car for sale in the used-car section of the student newspaper for \$2,000, but she is willing to sell the car for any price higher than \$1,500. The best offer she gets is \$1,800, which she accepts.

c. Sanjay likes his social work job so much he would be willing to do it for free. However, his annual salary is \$50,000.

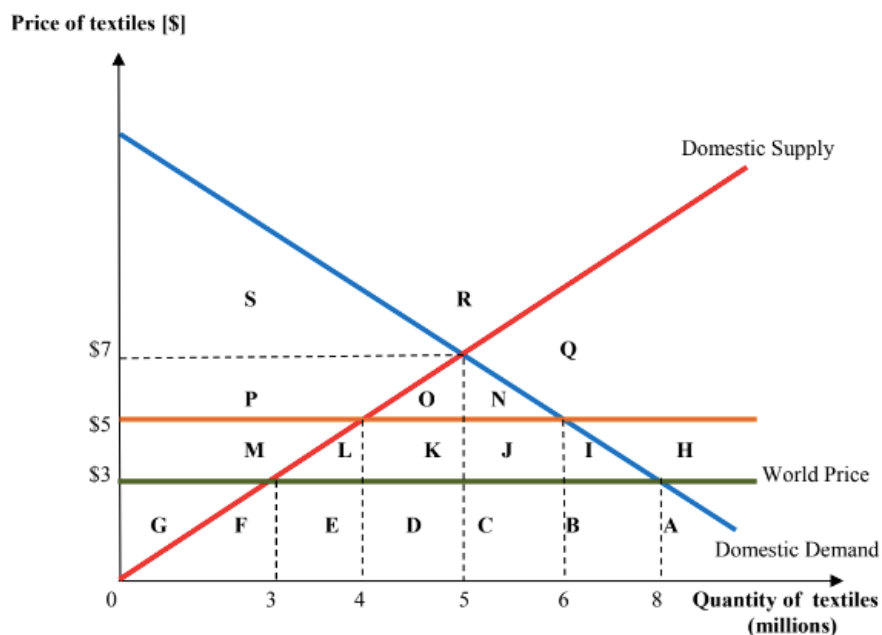
5. (3 Point) A province needs to raise money, and the finance minister has a choice of imposing a lump sum sales tax of the same amount on one of two previously untaxed goods, good A and good B. Good A and B currently trade at the same price and quantity in their respective markets.

a. Assume both the demand and supply of good A are more price elastic than demand and supply for good B. If the finance minister wants to maximize tax revenue, which good should she tax? If the finance minister wants to minimize deadweight loss, which good should she tax? Explain briefly, you can use a graph to explain.

b. Assume demand for good A and good B is identical in terms of price elasticity, but supply for good A is more price inelastic than for good B. If the finance minister wishes to minimize tax burden on producers, which good should she tax? If the finance minister wants to maximize tax revenue, which good should she tax? Explain briefly, you can use a graph to explain.

c. Assume supply for good A and good B is identical in terms of price elasticity, but demand for good A is more price inelastic than for good B. If the finance minister wishes to minimize tax burden on consumers, which good should she tax? If the finance minister wants to minimize deadweight loss, which good should she tax? Explain briefly, you can use a graph to explain.

6. (4 Points) Assume the diagram below illustrates the domestic market for textiles in the United States. Use the diagram to answer the following questions.



a. As compared to the situation where the US does not trade textiles with the rest of the world, what letter[s] in the diagram [if any] represent[s] the gain in US consumer surplus [CS]?

b. As compared to the situation where the US does not trade textiles with the rest of the world, what letter[s] in the diagram [if any] represent[s] the change in US producer surplus [PS]?

c. As compared to the situation where the US does not trade textiles with the rest of the world, what letter[s] in the diagram [if any] represent[s] the transfer of surplus from US producers to US consumers?

d. As compared to the situation where the US does not trade textiles with the rest of the world, what letter[s] in the diagram [if any] represent[s] the US total surplus gain from textile trade?

Assume the US government allows textile trade with the rest of the world, but imposes a \$2 tariff on each unit of imported textile.

e. What letter[s] in the diagram [if any] represent[s] the loss in CS?

f. What letter[s] in the diagram [if any] represent[s] the gain in PS?

g. What letter[s] in the diagram [if any] represent[s] the gain in government tariff revenue?

h. What letter[s] in the diagram [if any] represent[s] the deadweight loss caused by the tariff?