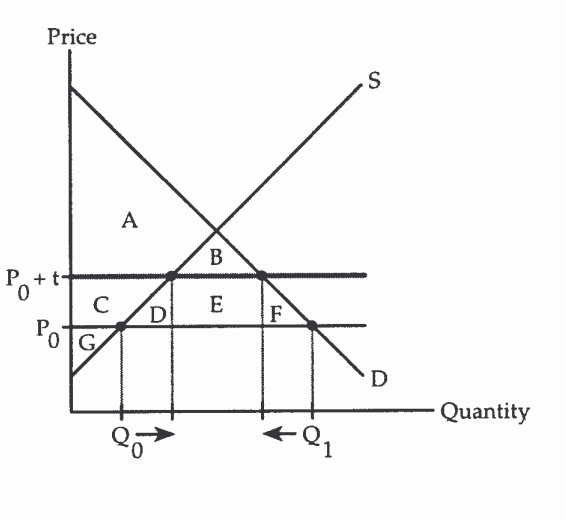
ECON 310
Assignment #4
Homework Quiz: Friday, April 4

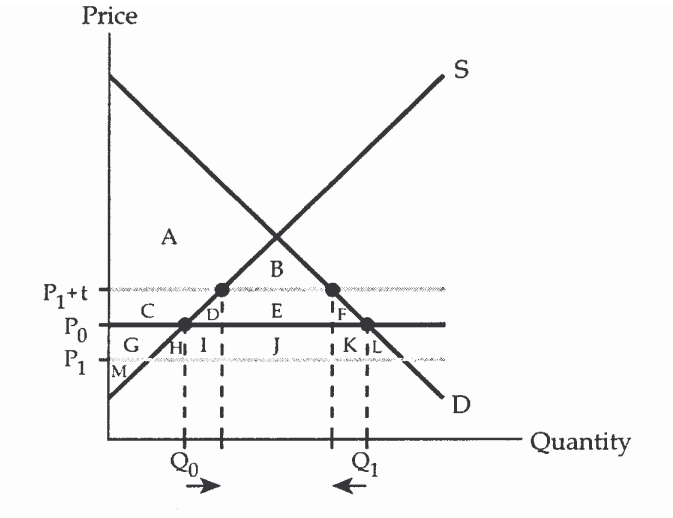
1. Consider the following:

(i) The accompanying diagram shows the effects of a tariff. Initially, the price is P_0, domestic firms produce Q_0 units, and Q_1 - Q_0 units are imported from foreign firms. When the tariff is imposed, the price increases to $P_0 + t$.



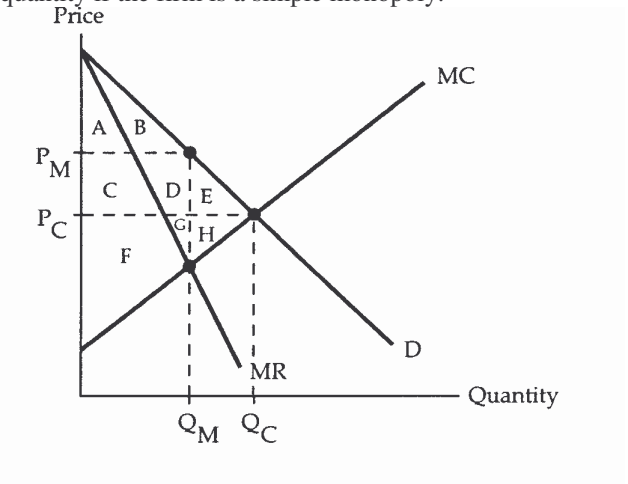
How does the tariff affect consumers' surplus and producers' surplus? How much tariff revenue is collected by the government? Does imposing the tariff cause the country's social gain to rise or fall?

(ii) The situation in part i is known as the "small country" case-the country has no market power, so its tariff does not affect the world price P_0. Now consider the "large country" case shown in the accompanying diagram-in this case, the country has market power, and the tariff (by reducing the demand for imports) causes the world price to fall from P_0 to P_1. So after the tariff is imposed, the domestic price is $P_1 + t$.



How does the tariff affect consumers' surplus and producers' surplus in this situation? How much tariff revenue is collected by the government? When a "large country" imposes a tariff, will its social gain rise or fall?

2. P_C and Q_C are the equilibrium price and quantity if the firm behaves competitively, and P_M and Q_M are the equilibrium price and quantity if the firm is a simple monopoly.



i. What area represents the producer's surplus earned in the monopoly equilibrium? _____

ii. Suppose this firm initially acted competitively. If the firm switched to the simple monopoly equilibrium, how much deadweight loss would be created? _____

iii. The difference between producer's surplus as a simple monopolist and producer's surplus if the price was set at the competitive equilibrium is: _____

iv. Suppose the firm could perfectly price discriminate. The difference between consumer surplus under a simple monopoly scenario and consumer's surplus under the perfect price discriminating monopoly scenario is: _____

iv. Suppose the firm could sell some of its product in a different city for the competitive market price. Should the firm sell more or less that Qm in its local market? Label the new quantity Qn on the graph above.

3. Chapter 12, Problem Set #s 1-5.

4. Multiple Choice

i. A simple monopoly will maximize its profit by producing the quantity where
a. price and marginal cost are equal.
b. the demand curve crosses the average cost curve.
c. marginal cost reaches its minimum.
d. marginal revenue equals marginal cost.

ii. A natural monopoly exists when a firm
a. owns all of the world's known reserves of a natural resource.
b. has an average cost curve that is decreasing at the point where it crosses demand.
c. has obtained a patent on a new genetically modified organism.
d. is able to practice price discrimination in the sale of a natural resource.

iii. When first-degree price discrimination is perfectly implemented
a. social gain is maximized, with all gains going to the monopoly.
b. consumers' surplus and producer's surplus are both larger than in the case of simple monopoly.
c. the resulting deadweight loss is larger than if the monopoly did not price discriminate.
d. the consumers' and producer's gains from trade are identical to those in a competitive market.

iv. In order to practice *any form* of price discrimination, a monopoly must be able to
a. identify the maximum price that each customer is willing to pay.
b. separate its customers into distinct groups.
c. prevent resale of its product.
d. establish a legal barrier to entry.

v. Second-degree price discrimination generally takes the form of
a. special prices for students and seniors.
b. membership clubs.
c. quantity discounts.
d. “extras” like free delivery and free customer service.

vi. The initial holdings of an individual in an Edgeworth box is referred to as
a. the contract point.
b. the endowment point.
c. the Pareto preferred point.
d. the competitive equilibrium point.

vii. In an Edgeworth box, a point where two indifference curves are tangent represents
a. the initial endowment point.
b. an allocation that both consumers prefer to the initial endowment.
c. a competitive equilibrium.
d. a Pareto-optimal allocation of goods.

viii. Analysis of an Edgeworth box economy shows that a competitive equilibrium
a. must be Pareto optimal.
b. can be located anywhere along the contract curve.
c. may lie anywhere within the region of mutual advantage.
d. must lie to the southeast of the endowment point.