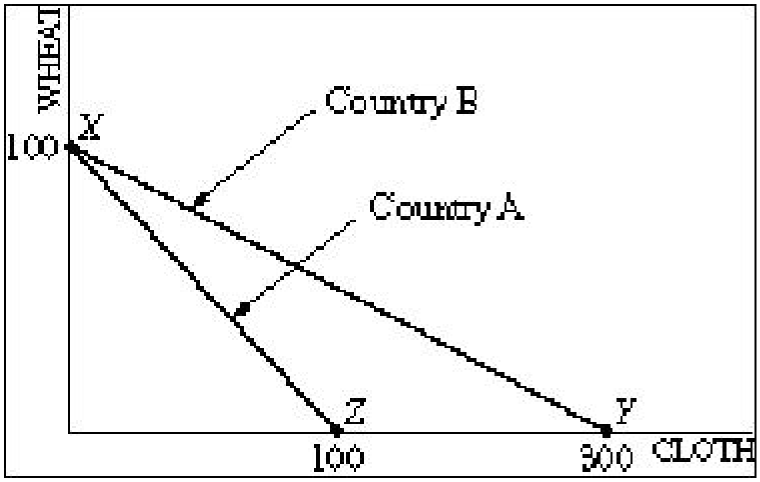
Question 2



Assume that Countries A and B have equal amounts of resources and identical technologies. Country A can produce 100 bushels of wheat or 100 yards of cloth or any combination, as shown by the line XZ in the figure above. Country B can produce 100 bushels of wheat or 300 yards of cloth or any combination, as shown by the line XY in the figure above.

a. Which country has an absolute advantage in the production of wheat and which has an absolute advantage in the production of cloth? Explain how you determined your answer.

b. Which country has a comparative advantage in the production of wheat and which has a comparative advantage in the production of cloth? Explain how you determined your answer.

c. With specialization and trade, which country will import wheat? Explain why.

d. Assume that the two countries trade, and that one bushel of wheat is exchanged for two yards of cloth. Explain why the country that imports wheat will gain from trade.

Question 3

a. Using one graph for a monopoly firm and one for a perfectly competitive firm, draw and label the demand curve and the marginal revenue curve for each of these firms.

b. For the perfectly competitive (a price taker) firm, explain why the relationship between demand and marginal revenue exists.

c. For the monopoly firm, explain why the relationship between demand and marginal revenue exists.

Question 3

Correct Answer

Part (a) The competitive firm is a price taker and faces a horizontal demand curve at the market price. The marginal revenue curve is also horizontal at the market price, coinciding with the demand curve. The monopoly firm faces the downward sloping market (or industry) demand curve. The marginal revenue curve is below the demand curve. [For a linear demand curve, the slope of the marginal revenue curve is twice that of the demand curve.]

Part (b) For the competitive firm, marginal revenue equals demand. The competitive firm sells each unit of output at a constant price. Thus, the additional revenue associated with an additional unit of output (or marginal revenue) is equal to the market price.

Part (c) For the monopoly firm, marginal revenue is less than price. Unlike the perfectly competitive firm, the monopolist is a price setter. For the monopoly firm to sell an additional unit of output, the firm must lower price on all units of output. Thus, the extra revenue received from selling an additional unit of output is offset by the selling of other units at a lower price.

Scoring Rubric

Part (a) = 2 points, Part (b) = 1 point, Part (c) = 2 points; 5 Points in Total

Part (a)

> Correct graph showing the relationship between demand and marginal revenue for the competitive firm. (1 point)
>
> Correct graph showing the relationship between demand and marginal revenue for the monopoly firm. (1 point)

Part (b)

> D=MR:the firm is a price taker and can sell all output at the market price (1 point)

Question 3 (cont.)

Part (c)

D (or P) > MR

Explaining that the monopoly has control over price (1 Point)

Indicating that to sell additional units, price must be lowered on all units (1 Point)

Note: Besides counting points, the answer may be looked at as a whole and ultimately judged by its overall quality. The final total should mean something in terms of the overall quality of the answer. A 5 should reflect an excellent answer, but not necessarily a perfect one; a 4, an excellent answer with a flaw; a 3, a good answer; a 2, an adequate answer; a 1, a seriously deficient answer, but still an answer. A 0 has no relevant economic answer to the question. A dash (-) is given for an unresponsive or blank answer.

Purpose of the Question and Commentary on Students' Responses

Using both a competitive firm and a monopoly firm, this question tests students' understanding of demand and marginal revenue. Many students failed to see that the competitive firm is a price taker and has a perfectly elastic (horizontal) demand for its output. As a result, the firm's marginal revenue is also perfectly elastic, is equal to price, and coincides with the firm's demand curve. All AP Microeconomics courses should clearly explain the differences between a firm that is a price taker (competitive firm) and a price setter (monopolist).