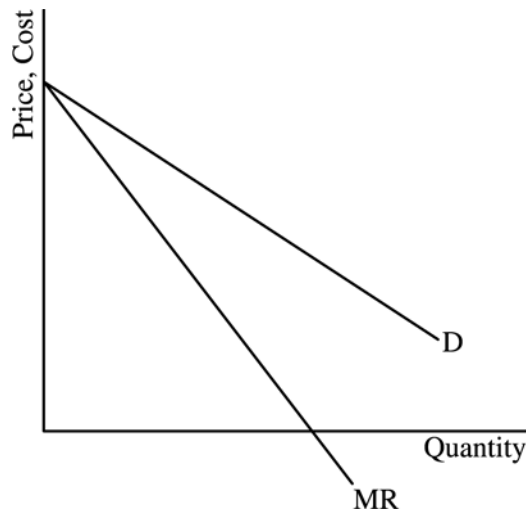# AP® Microeconomics
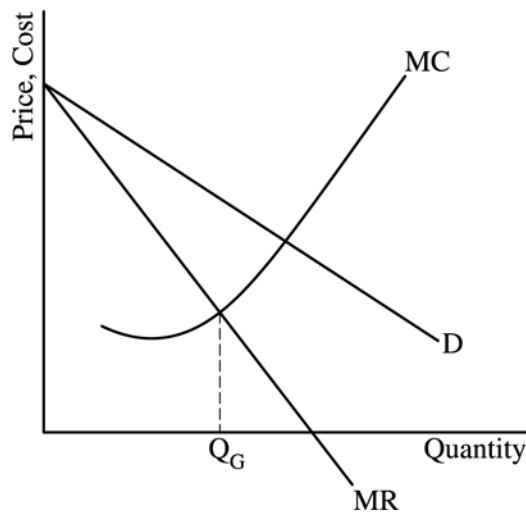## Scoring Guidelines
Set 2

Question 1

9 points (5 + 2 + 2)

(a) 5 points

- One point is earned for drawing a correctly labeled graph of the monopoly showing downward-sloping demand (D) and marginal revenue (MR) curves with the MR curve below the demand curve.
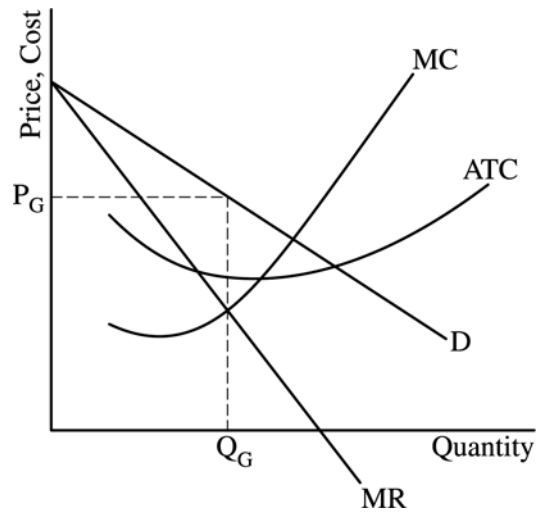

- One point is earned for showing the profit-maximizing quantity, labeled Q_G, where MR=MC.

- One point is earned for <u>both</u> showing the profit-maximizing price, labeled P_G, from the demand curve at Q_G, and above the average total cost (ATC) curve.

- One point is earned for showing the marginal cost (MC) curve rising and passing through the minimum point of the ATC curve.

- One point is earned for completely shading the area of the consumer surplus.
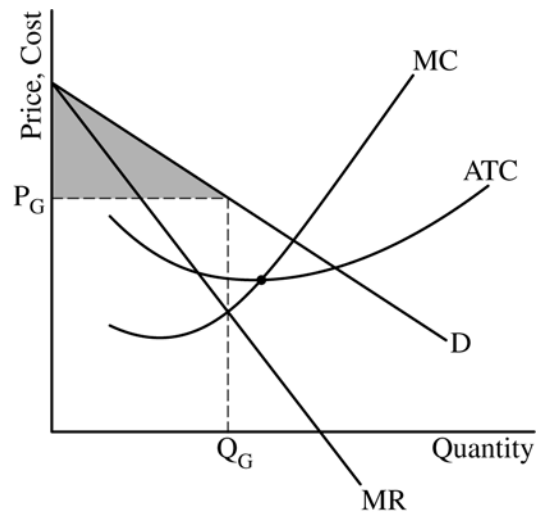
(b) 2 points

- One point is earned for stating that Gigantic Pharmaceutical Corporation's demand for warehouse workers will increase and for explaining that the marginal revenue product of labor increases because of the increase in the product price.

- One point is earned for stating that the wage rate Gigantic pays to its warehouse workers will not change and the number of workers hired will increase.

(c) 2 points

- One point is earned for stating that Gigantic's producer surplus will decrease.

- One point is earned for stating that the consumer surplus will increase and for explaining that because of the increased competition the price will decrease and the quantity will increase.

Question 2

5 points (2 + 2 + 1)

(a) 2 points

- One point is earned for identifying the after-tax price paid by consumers as P_3 and the after-tax quantity as Q_2.

- One point is earned for identifying the area representing the total tax revenue as:
  P_1P_3SZ, or
  $(P_3 \times Q_2) - (P_1 \times Q_2)$, or
  $(P_3 - P_1) \times Q_2$

(b) 2 points

- One point is earned for stating that the price paid by consumers will be higher.

- One point is earned for stating that the tax revenue received by the government will be higher because the tax does not reduce the quantity purchased when the demand is perfectly inelastic, while the quantity does fall when demand is downward sloping (i.e., $Q_3 > Q_2$).

(c) 1 point

- One point is earned for stating that the producer surplus will stay the same, and for explaining that this is because both the price received by sellers (P_2) and the quantity sold (Q_3) do not change. It is also acceptable to explain that producer surplus stays the same because the consumer bears the full burden of the tax.

Question 3

6 points (1 + 1 + 1 + 1 + 2)

(a) 1 point

- One point earned for stating that Jackpot Florist's dominant strategy is to close at 6 p.m.

(b) 1 point

- One point is earned for stating that this is not the profit-maximizing action by Boulevard Gardens and for explaining that Boulevard will earn $30 by choosing Delivery instead of $20 choosing No Delivery.

(c) 1 point

- One point is earned for identifying the profit for Boulevard Gardens in the Nash equilibrium as $30.

(d) 1 point

- One point is earned for stating that they would choose to close at 9 p.m. and offer No Delivery.

(e) 2 points

- One point is earned for redrawing the payoff matrix showing the effect of the agreement.

		Boulevard	
		Delivery	**No Delivery**
Jackpot	6 p.m.	$35,$30	$43,$32
	9 p.m.	$37,$38	$45,$40

- One point is earned for stating that Boulevard will agree to Jackpot's proposal and for explaining that Boulevard will be better off because this will increase the payoff from $30 to $40.