1. The government of an island nation grants SkyRunner Airlines exclusive monopoly rights to serve the island. SkyRunner is earning positive economic profits.

   (a) Draw a correctly labeled graph for SkyRunner, and show each of the following.

   (i) The profit-maximizing quantity of tickets, labeled Q_M
   (ii) The profit-maximizing price of a ticket, labeled P_M
   (iii) The area representing profits, shaded completely

   Now the island's tourist bureau asks the government to consider the following two proposals.

   - Proposal I: Set a price ceiling on tickets that eliminates all deadweight loss.
   - Proposal II: Eliminate SkyRunner's monopoly rights, which will remove all barriers to entry.

   (b) Suppose the government adopts proposal I. On your graph in part (a), indicate the quantity of tickets sold in the short run, labeled Q_C.

   (c) Suppose instead the government adopts proposal II. How will each of the following be affected in the long run compared to the market conditions in part (a) ?

   (i) The quantity of tickets sold by SkyRunner. Explain.
   (ii) The price elasticity of demand for SkyRunner's airline service. Explain.
   (iii) SkyRunner's profits
   (iv) The deadweight loss in the market. Explain.

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

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Number of Workers	Number of Parked Cars
0	0
1	8
2	20
3	34
4	45
5	54
6	60
7	63

2. Assume that Schmitt Inc. provides car parking services in a perfectly competitive output market and hires labor in a perfectly competitive input market. The market price per car parked is $10, the daily market wage per worker is $100, and fixed costs are $50 per day. The table above shows the number of workers required to park different quantities of cars per day.

   (a) Calculate the marginal revenue product of the second worker. Show your work.

   (b) How many workers will Schmitt Inc. hire to maximize profit? Relative to this number of hired workers, explain why Schmitt Inc. will not hire one additional worker. Your answer must use marginal analysis and numbers from the table.

   (c) Calculate the daily profit for Schmitt Inc. at the profit-maximizing quantity identified in part (b). Show your work.

   (d) Suppose new legislation requires each worker in the parking industry to purchase an individual insurance policy at the worker's expense in order to legally park cars.

   (i) Will the market wage paid by a typical firm in this industry increase, decrease, or stay the same in the long run?

   (ii) For a typical firm in the industry, will the number of workers hired in the short run increase, decrease, or stay the same? Explain.

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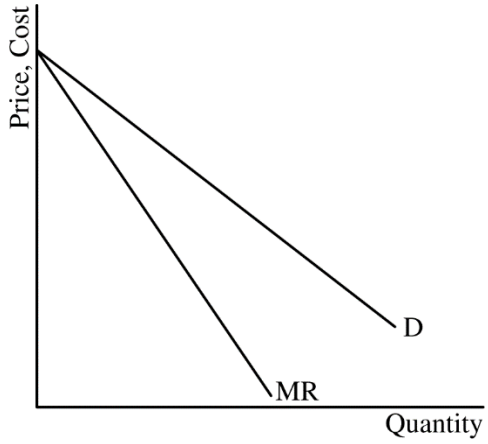
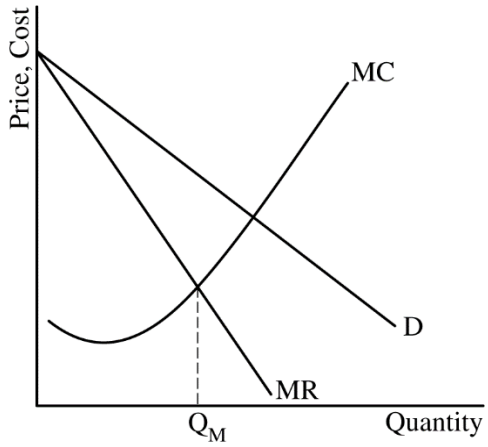
Question 1: Long — 10 points

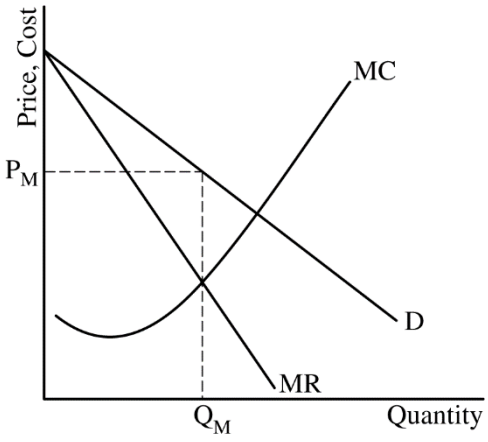
(a) Draw a correctly labeled graph for SkyRunner Airlines showing downward sloping demand (D) and marginal revenue (MR) curves with the MR curve below the demand curve. **1 point**



For the second point, the graph must show the marginal cost (MC) curve and the profit-maximizing quantity, labeled Q_M, where MR=MC. **1 point**



For the third point, the graph must show the profit-maximizing price, labeled P_M, from the demand curve at Q_M. **1 point**



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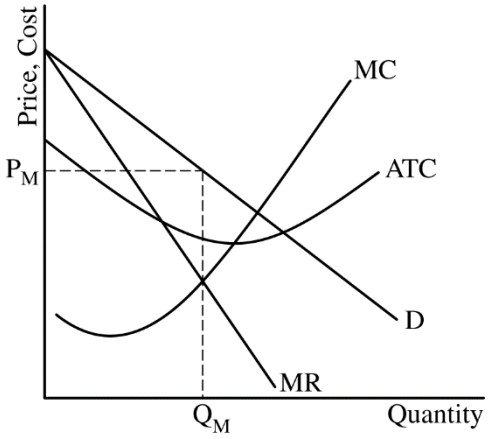
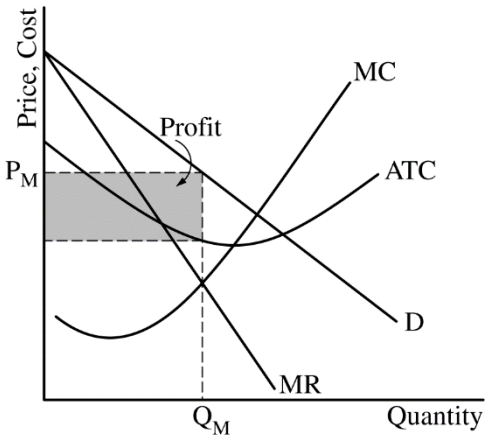
For the fourth point, the graph must show the ATC curve below the demand curve at Q_M with the MC curve rising and intersecting the ATC at its minimum point. **1 point**



For the fifth point, the graph must show a completely shaded area of profit representing $(P_M$ – ATC at $Q_M) \times Q_M$. **1 point**



Total for part (a) 5 points

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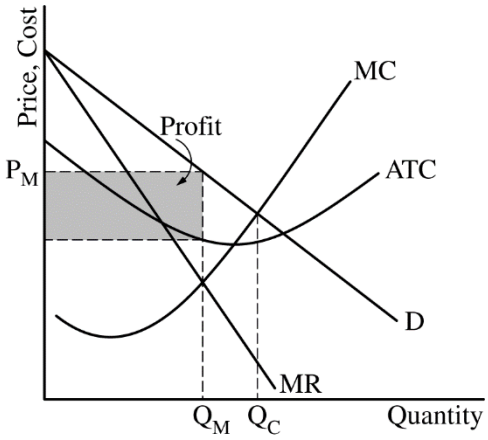
(b)	On your graph from part (a), show the quantity that is consistent with the goal of eliminating all deadweight loss as Q_C.  	**1 point**
(c) (i)	State that the number of tickets SkyRunner sells will decrease and explain that the entry of new firms will reduce the demand for SkyRunner's service.	**1 point**
(ii)	State that the price elasticity of demand for SkyRunner Airlines' service will increase and explain that the entry of new firms will increase the number of substitutes available to consumers.	**1 point**
(iii)	State that SkyRunner Airlines' profit will be zero or decrease toward zero.	**1 point**
(iv)	State that the deadweight loss will decrease and explain that the entry of new firms increases the total market output (services provided) and moves the output closer to the socially optimal output.	**1 point**
	Total for part (c)	**4 points**
	Total for question 1	**10 points**

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