



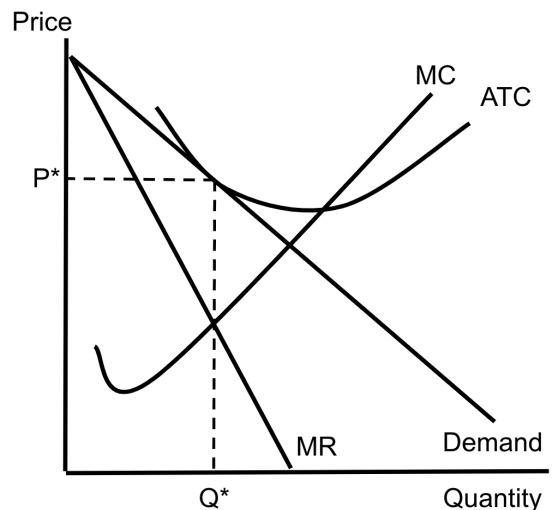
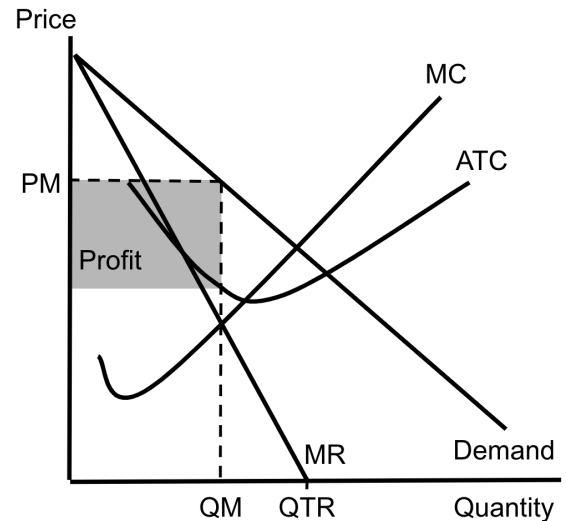
Microeconomics Unit 4

Free Response Questions

FRQ #1- Assume that Zyggie's Ice Cream Parlor currently has a local monopoly for ice cream sundaes and is earning positive economic profit.

See video in [Ultimate Review Packet](#) for detailed explanations.

- Draw a correctly labeled graph for Zyggie's Ice Cream Parlor and show each of the following.
 - The profit-maximizing price and quantity, labeled PM and QM. **See graph.**
 - The area representing the firm's total profit. **See graph.**
 - The quantity where total revenue is maximized, labeled QTR. **See graph.**
- Is the profit maximizing quantity greater than, less than, or equal to the socially optimal quantity? **Less than**
- Assume that the city council places a per unit excise tax on ice cream sundaes. Will the following increase, decrease, or stay the same when Zyggie's Ice Cream Parlor produces the profit maximizing quantity?
 - Total revenue. Explain. **Total revenue will decrease because the demand is in the elastic range.**
 - Deadweight loss. **Increase**
- If Zyggie's Ice Cream Parlor were able to perfectly price discriminate, would the following increase, decrease, or stay the same?
 - Consumer surplus. Explain. **Consumer surplus will decrease. The firm will charge each customer what they are willing to pay, causing the consumer surplus to disappear and become profit for the firm.**
 - Deadweight loss. **Deadweight loss will decrease. A price discriminating monopoly produces the socially optimal quantity where the price for the last unit equals the marginal cost.**
- Now assume that other firms start selling ice cream sundaes resulting in a monopolistically competitive market. Draw a new graph for ice cream sundaes in the long run. Label the profit-maximizing price and quantity P^* and Q^* . **See graph.**



FRQ #2- The payoff matrix below shows the daily profits for the only two hotels in town.

See video in [Ultimate Review Packet](#) for detailed explanations.

- In which market structure do these hotels operate? Explain. **Oligopoly. There are only two hotels and they are using game theory.**
- What is the best response for Hotel B if Hotel A decides not to offer breakfast. **Offer breakfast**
- Does Hotel A have a dominant strategy? Explain. **No. Hotel A does not have a dominant strategy because their decision depends on what Hotel B decides to do. Hotel A can't decide to offer breakfast or not offer breakfast independently from Hotel B.**
- Identify the Nash equilibrium. **At Nash equilibrium, both hotels will offer breakfast.**
- Assume that a new breakfast restaurant opens near Hotel B which causes the daily profit for Hotel B to decrease by \$100 when they offer breakfast at the hotel. Complete the following:
 - Identify Hotel B's dominant strategy. **Not offer breakfast**
 - Identify Hotel A's daily profit at the Nash equilibrium. **\$150**

		Hotel B	
		Offer Breakfast	Do Not Offer Breakfast
Hotel A	Offer Breakfast	\$200, \$250	\$120, \$170
	Do Not Offer Breakfast	\$50, \$200	\$150, \$150