Review questions for chapter 13.
Monopolistic competition and oligopoly.

1. In competitive markets, firms face horizontal demand curves. In monopolistic competition, firms face downward sloping demand curves. What accounts for this difference between the demand curves?

2. Compared to a monopoly, a monopolistically competitive firm is likely to face a more elastic demand curve. Why?

To answer the next 8 questions, suppose that a monopolistically competitive firm in the shoe industry is faced with the following demand and cost curves. Assume there are no externalities in the production or purchase of shoes, and notice that quantity is measure in 1000s.

3. Assuming this firm maximizes profits, what price will the firm charge? what output will it produce?

4. To maximize social well-being and eliminate any possible deadweight loss, what price should this firm charge? what level of output should this firm produce?

5. At the profit maximizing output, what is the deadweight loss?

6. At the profit maximizing output, what is the benefit to society of the last shoe produced? what is the cost to society of the last shoe?

7. In the long run, why will firms enter this industry?

8. In the long run, why will the price settle between above $40 but below $60

9. In the long run, we know there will be excess capacity in the shoe industry. What does this mean?

10. In the long run, this firm will produce less than 3500 shoes per month. How do we know this?
To answer the next 5 questions, consider the diagrams below representing the market for milk and the typical firm's cost curves.

11. If the milk industry is at a competitive long run equilibrium, what is the current price of milk? How much is the typical firm producing? What is the industry producing?

12. If a cartel agreement is formed among milk producers and their objective is to maximize profits in the milk industry, what level of production should the industry choose? What will the typical farmer produce?

13. At the cartel agreement, why does each farmer have an incentive to "cheat" on their quota?

14. At the cartel agreement, what is the deadweight loss to society?

15. Compared to the competitive outcome, how much worse off are consumers by the formation of the cartel?

16. Explain why the ability to monitor others’ output or price makes it more likely that a cartel agreement will be followed.
Answers:
1. In monopolistic competition, firms produce differentiated products. In perfect competition, firms produce homogeneous products.

2. A monopolistically competitive firm will have a more elastic demand curve than a monopoly because there are more substitutes available for its product.

3. P=$60; q=3,000
4. P=$50, q=4,000
5. $15,000
6. MB=$60; MC=$30
7. Firms will enter because profits are currently positive.
8. As firms enter, demand will shift left and price will fall below its current value of $60. Also, in the long run, price settles above the minimum of ATC ($40).
9. The excess capacity refers to the fact that each firm is producing less than the amount that minimizes ATC. As a consequence, it would be possible to produce the same output at a lower cost if there were fewer firms, each producing more shoes.
10. Output of 3500 is what minimizes ATC. As in (9), we know that each firm produces less than the amount that minimizes ATC in the long run.
11. P=$.70; the industry produces 4 million; the firm produces 8,000.
12. The cartel as a group would produce 3 million. The typical firm would produce 6,000.
13. Each farmer has an incentive to cheat because the price ($.80) is above its marginal cost of production. Thus, by increasing production beyond its quota of 6,000, the firm would increase its profits.
14. $100,000
15. $350,000

16. If firms can monitor each others’ output, it is easier to determine when they are cheating. If cheating is easily detected, it is easier to penalize firms that do cheat and makes it more likely that cheating will not occur.