1. Consider the following normal-form game.

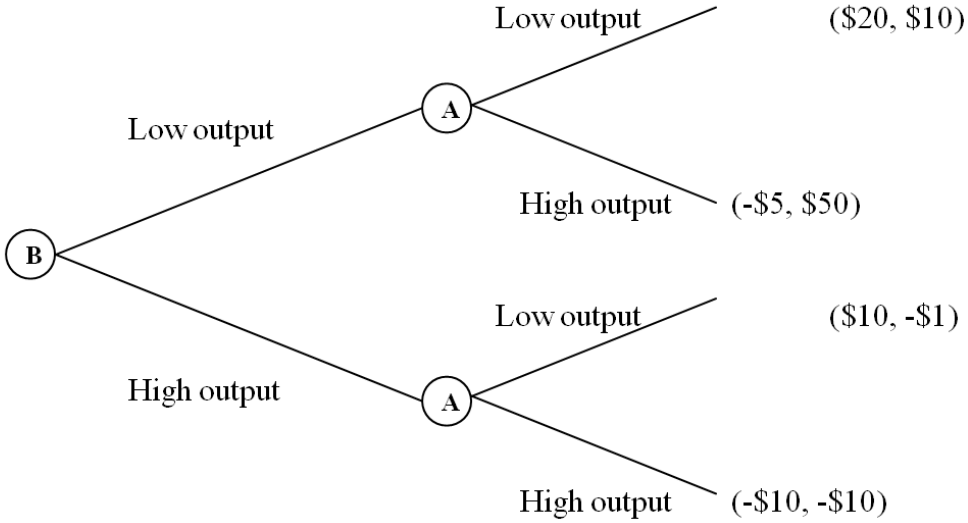
		Player B	
Player A	**Strategy**	Left	Right
	Top	\$100, \$200	-\$10, \$100
	Bottom	\$500, -\$50	-\$100, -\$100

a. What is player B's best strategy in a simultaneous-move play of this game?
b. What is player A's best strategy in a simultaneous-move play of this game?
c. What are player A and B's equilibrium payoff in a simultaneous-move play of this game?
d. Use an extensive form representation to show that player B can earn higher payoffs by exercising a first-mover advantage. (Note: Player B's payoffs will appear first in this extensive-form game since it is the first mover.)
e. List two things player B must do in order to be able to achieve these higher payoffs.

2. Sanford Inc. currently competes in a duopoly. The market price is \$10 and Sanford's annual profit is \$10 million. If Sanford were the only firm in the market, it could charge the monopoly price of \$25 per unit and earn \$35 million annually for an indefinite period of time. By charging \$5 per unit for one year, Sanford could drive its rival out of the market and maintain a monopoly position indefinitely. However, this strategy will result in a \$20 million loss since its marginal cost is \$8 per unit.
a. What pricing strategy is the manager considering?
b. Ignoring legal considerations, is this pricing strategy profitable? Assume the interest rate is 5 percent and, for simplicity, that any current period profits or losses occur immediately (at the beginning of the year).

3. You are the owner of a new network that is superior to an existing two-way network. The network you aim to replace currently has 50 users, each of whom is willing to pay an average of \$75,000 for each connection service within the network. You are confident that each user values connection services within your two-way network at an average of \$100,000 per connection service.
a. What is the maximum price the existing network can charge each user for its services?
b. Devise a pricing strategy that will permit your firm to overcome the first-mover advantage enjoyed by the existing network.

4. Using the following sequential-move production game, determine whether player B has a first-mover advantage and identify the strategy that leads to that advantage:



5. You are the CEO of a firm with an industry HHI equal to 1,000. Your firm presently controls 20 percent of the market. The board of trustees wants you to consider merging with a firm that controls 10 percent of the market. Should you be concerned about antitrust proceedings? Explain.

6. SunCenter is the only firm in its industry. Currently, SunCenter charges $75 per unit, a price well in excess of its marginal cost of $5 per unit, and earns $70 million per year in profit. According to a trusted source, the manager of SunCenter learned that a new firm is contemplating entering the market. This would reduce its profit to $40 million per year. By expanding its output and lowering its price to $50, the entrant would find it unprofitable to enter the market and SunCenter would earn profits of $50 million per year for the indefinite future.

a. What pricing strategy is the manager of SunCenter considering?

b. If SunCenter was able to credibly commit to maintain a price of $50, would it be a profitable strategy? Explain.

7. Acme Water is a privately owned company that is the sole supplier of water to a rural town in Pennsylvania. The owner of the firm has provided the manager of the company an incentive to maximize the firm's profits, and the manager is currently selling 100,000 gallons of water per week at a price of $.05 per gallon. The marginal cost of water is zero, but the firm's average cost of this level of output is $.01 per gallon.
a. Determine Acme Water's profits.
b. Now suppose that local government imposes a price ceiling on water at a price of $.01 per gallon. Will the firm earn economic profits of zero as a result of this price ceiling? Explain.
c. Does the price ceiling of $.01 per gallon result in a shortage of water in Acme's service area?