Econ_101_Spring 2007_IVY Tech College
Homework_06_Chapter_06: Solutions

1. Consider a restaurant that charges $10 for all you can eat and had 30 customers at this price. The slope of the demand curve is .10, and the marginal cost of providing a meal is $3. What price will satisfy the marginal principle and maximize the restaurant's profit?

   At this point, MR = $7; the restaurant should produce more. Moving down the demand curve, you will find that MR = $3 when quantity is 50; price is then $8 (the easiest way to figure this out is just to calculate MR for each $1 drop in price).

2. The National Park Service grants a single firm the right to sell food and other goods in Yosemite National Park. Discuss the tradeoffs associated with this policy.

   The government has created a monopoly. This means that the lack of competition is likely to cause higher prices and reduced quantity; the market will not be operating at the socially efficient point. One reason to do this is to use the profits for support of the national parks. (Note that this is a public good, which is likely to be underprovided anyway.)

3. Since 1963, many state governments that outlaw commercial lotteries have introduced state lotteries to raise revenues for state and local governments. In 1994, the net revenue from these lotteries was about $10 billion. Would you expect the state lotteries to have higher or lower paybacks (total prize money divided by the total amount of money collected) than commercial games like horse racing and slot machines? Explain.

   The payback is lower. The government is a monopolist in selling lotteries in these states and thus has a higher "price"— that is, a lower expected return.

9. In the board game "Monopoly," when a player gets the 3rd deed for a group of properties (for example, the three orange properties: St. James, New York Avenue, and Tennessee Avenue), he or she doubles the rent charged on each property in the group. Similarly, a player who has a single railroad charges a rent of $25, while a player who has all 4 railroads charges a rent of $200 for each railroad. Are these rules consistent with the analysis of monopoly in this chapter?

   Yes. Sole ownership of the properties allows the owner to raise the price (although output is random in the game).

10. Adam Smith predicted that a monopolist would charge "the highest price which can be got." Do you agree?

    The "highest price which can be got" might me the highest price at which anyone would purchase the product. This is unlikely to be the profit-maximizing price. In general, the monopolist's choice of price is limited by demand (and the elasticity of demand).