Chapter 2

Efficiency, Markets,
and Government

Answers to Text Problems

 **1.** The marginal social benefit of the first concert is $10,000, and its marginal social cost is $5,000. The marginal social benefit of a second concert is $5,000, which falls short of its marginal social cost of $6,000. The efficient number of concerts is one. After the first concert, the marginal social cost exceeds the marginal social benefit.

 **2.** a. The efficient output is the one for which P = MC. If sold in a competitive market, the price of a television would be $100 and the quantity sold would be 200,000 – 500(100) = 150,000.

b. If sales were limited to 100,000 per year, the marginal social benefit of TVs would exceed the marginal social cost. Students should draw a graph showing the resulting loss of net benefits as a triangle *above* the marginal cost line and *under* the demand curve between the outputs of 100,000 and 150,000. If there is a complete ban on TV sales, the loss in net benefits will be the entire area under the demand curve and above the marginal cost curve corresponding to the consumer surplus from TV sales.

 **3.** The senator’s logic is false. Equating the marginal social benefit of a service with its marginal social cost maximizes net gains. If output is increased to the point at which TSB = TSC, there will be more than the efficient amount of resources devoted to space exploration.

 **4.** The price support for rice will increase annual production beyond the efficient level. At the price support, the marginal social cost of rice will exceed its marginal social benefit.

 **5.** At the current market equilibrium under perfect competition, MSB = MSC = $100, implying effi­ciency. The $10 per night tax results in an increase in the market equilibrium price of hotel rooms. At the higher prices, MSB exceeds MSC. The graph used to answer this question should be similar to Figure 2.3 in the text. The loss in net benefits would be an area like E'EB in Figure 2.3.