EXERCISES

1. The data in the table on page 307 give information about the price (in dollars) for which a firm can sell a unit of output and the total cost of production.

   a. Fill in the blanks in the table.
   b. Show what happens to the firm's output choice and profit if the price of the product falls from \$60 to \$50.

		R		π	MC	MR	R	MR	π
q	P	P = 60	C	P = 60	P = 60	P = 60	P = 50	P = 50	P = 50
0	60		100						
1	60		150						
2	60		178						
3	60		198						
4	60		212						
5	60		230						
6	60		250						
7	60		272						
8	60		310						
9	60		355						
10	60		410						
11	60		475						

2. Using the data in the table, show what happens to the firm's output choice and profit if the fixed cost of production increases from \$100 to \$150 and then to \$200. Assume that the price of the output remains at \$60 per unit. What general conclusion can you reach about the effects of fixed costs on the firm's output choice?
3. Use the same information as in Exercise 1.
   a. Derive the firm's short-run supply curve. (*Hint:* You may want to plot the appropriate cost curves.)
   b. If 100 identical firms are in the market, what is the industry supply curve?

EXERCISES

1. In 1996, Congress raised the minimum wage from \$4.25 per hour to \$5.15 per hour, and then raised it again in 2007. (See Example 1.3 [page 13].) Some people suggested that a government subsidy could help employers finance the higher wage. This exercise examines the economics of a minimum wage and wage subsidies. Suppose the supply of low-skilled labor is given by

$$L^S = 10w$$

where L^S is the quantity of low-skilled labor (in millions of persons employed each year), and w is the wage rate (in dollars per hour). The demand for labor is given by

$$L^D = 80 - 10w$$

   a. What will be the free-market wage rate and employment level? Suppose the government sets a minimum wage of \$5 per hour. How many people would then be employed?
   b. Suppose that instead of a minimum wage, the government pays a subsidy of \$1 per hour for each employee. What will the total level of employment be now? What will the equilibrium wage rate be?