Problems

9e

1. The Willow Furniture Company produces tables. The fixed monthly cost of production is $8,000, and the variable cost per table is $65. The tables sell for $180 apiece.
   a. For a monthly volume of 300 tables, determine the total cost, total revenue, and profit.
   b. Determine the monthly break-even volume for the Willow Furniture Company.

2. The Retread Tire Company recaps tires. The fixed annual cost of the recapping operation is $60,000. The variable cost of recapping a tire is $9. The company charges $25 to recap a tire.
   a. For an annual volume of 12,000 tires, determine the total cost, total revenue, and profit.
   b. Determine the annual break-even volume for the Retread Tire Company operation.

3. The Rolling Creek Textile Mill produces denim. The fixed monthly cost is $21,000, and the variable cost per yard of denim is $0.45. The mill sells a yard of denim for $1.30.
   a. For a monthly volume of 18,000 yards of denim, determine the total cost, total revenue, and profit.
   b. Determine the annual break-even volume for the Rolling Creek Textile Mill.

4. The Evergreen Fertilizer Company produces fertilizer. The company's fixed monthly cost is $25,000, and its variable cost per pound of fertilizer is $0.15. Evergreen sells the fertilizer for $0.40 per pound. Determine the monthly break-even volume for the company.

9e

9. If the maximum operating capacity of the Rolling Creek Textile Mill described in problem 3 is 25,000 yards of denim per month, determine the break-even volume as a percentage of capacity.

10. If the maximum operating capacity of the Evergreen Fertilizer Company described in problem 4 is 120,000 pounds of fertilizer per month, determine the break-even volume as a percentage of capacity.

11. If the Retread Tire Company in problem 2 changes its pricing for recapping a tire from $25 to $31, what effect will the change have on the break-even volume?

12. If the Evergreen Fertilizer Company in problem 4 changes the price of its fertilizer from $0.40 per pound to $0.60 per pound, what effect will the change have on the break-even volume?

13. If the Evergreen Fertilizer Company changes its production process to add a weed killer to the fertilizer in order to increase sales, the variable cost per pound will increase from $0.15 to $0.22. What effect will this change have on the break-even volume computed in problem 12?

14. If the Evergreen Fertilizer Company increases its advertising expenditures by $14,000 per year, what effect will the increase have on the break-even volume computed in problem 13?