

Break-even problem

The owner of a small manufacturing business has patented a new device for washing dishes and cleaning dirty kitchen sinks. Before trying to commercialize the device and add it to her existing product line, she wants reasonable assurance of success. Variable costs are estimated at \$7 per unit produced and sold. Fixed costs are about \$56,000 per year.

- a.** If the selling price is set at \$25, how many units must be produced and sold to break even? Use both algebraic and graphic approaches.
- b.** Forecasted sales for the first year are 10,000 units if the price is reduced to \$15. With this pricing strategy, what would be the product's total contribution to profits in the first year?