

Key facts:

1. New product produced by a new factory
2. To minimize distribution costs, the factory is located near the target market
3. The product standardization is expected to create production efficiencies
4. Capital for new factory: 14 million
5. Annual maintenance: 5% of capital
6. Fuel and utility costs: \$500,000 per year
7. Wage rate: \$10 per hour
8. 1.5 labor hours to produce a unit
9. Fringe benefits paid to operating labor is 15% of direct labor costs
10. Supervisory, clerical, technical, managerial salaries: \$350,000 per year
11. Taxes and insurance: \$200,000 per year
12. Miscellaneous expenses: \$250,000 per year
13. Straight-line depreciation at 30 year life with \$4 million salvage value
14. Materials (metal, paint, etc.) to produce unit are \$19.80 per unit
15. Crating and shipping supplies are \$2.50 per unit
16. Price-demand chart (anticipate market share increase from current 15% to 25% as a result of cost advantage of standardization)

Average Sale Price per unit	Sales in units at each price point
\$90	40,000
\$103	38,000
\$115	31,000
\$135	22,000

Create a breakeven capacity analysis to determine:

1. Best price, production rate, and profit
2. Breakeven production rate with the price in Answer 1
3. Breakeven price with the production rate in Answer 1
4. Sensitivity of profits to variable cost, price and production rate