Southern New Hampshire University

The Learning Center

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Applications of Linear Functions- Cost, Revenue, Profit

P(x) = Profit from sales of x units
R(x) = Total revenue from sales of x units
C(x) = Total cost of producing x units
Profit = Revenue - Cost

1. A company manufactures DVD players and sells them for $80 each. The fixed costs of producing the DVD players are $30,000 plus a variable cost of $20 for each DVD player produced.
   a) Find the cost and revenue functions.
   b) Find the profit function. What is the profit if 10,000 DVD players are sold?
   c) Find the break even point.

2. A manufacturer sells a product for $8 per unit. The fixed costs are $900 per month and the variable costs are $3.50 per unit.

   a) How many units must be sold to break even?

   b) Would a profit or loss occur if 1000 units are sold?

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