Assignment | Week3

1. A manufacturer has been selling 50,000 units per year of a certain product. The price of this product is $20 and the variable costs associated with the product are $12 per unit. The manufacturer is considering decreasing the price of his product to $17 so as to increase sales. If he goes ahead with this price change, the manager will purchase new production machinery, at a cost of $75,000, to accommodate the increased sales.

   (a) The manager intends to evaluate the prospective price change by computing a breakeven sales level using the traditional formula, BE = ΔFC/CM. Explain what is wrong with the logic of doing this.

   (b) Suggest a more appropriate formula for calculating a breakeven sales level. Justify your suggestion.

   (c) Use this more appropriate formula to calculate the breakeven sales level for this prospective price change. How can the manager use this breakeven in his decision about whether or not to go ahead with the price change?

   (d) Use breakeven analysis to help the manager decide whether or not to purchase the new production machinery while keeping the product's price at $20.

2. Eastern Semiconductor is currently selling its most popular microchip for $220. It has been selling 4,000 of these chips per month. The company has learned, however, that next month an overseas competitor will enter the market and start selling a copy of this chip for $200. If Eastern maintains its price of $220 per chip, it expects its sales to decrease to 3,000 units per month.

   (a) Given that Eastern's variable costs for this product are $40 per chip, what is the breakeven sales level for Eastern decreasing its price by $20 price per chip?

   (b) Do you think it is likely that Eastern will achieve this breakeven sales level?

3. Minky, Inc., sells a medical product. The company is currently selling the product for $18/unit and is considering whether it could increase profits by increasing the product's price to $20/unit.

   Minky currently sells 50,000 units per week. Its current weekly operating data are as follows:

Sales revenue	$900,000
Variable costs	$400,000
Fixed costs	$250,000
Pretax profit	$250,000

   You can assume that per-unit variable costs do not vary with the level of production.

   (a) What is the breakeven sales level for the price increase that Minky is considering? Explain what this breakeven sales level means.

   (b) If the sales level for this product decreased by 5,000 units per week after the price increase, what would be the change in Minky's weekly pretax profits caused by the price increase?

   (c) What would be Minky's profit change if, after the price increase, sales remained at 50,000 units per week?