Day F07 (Principles of Accounting):
Chapter # 19

1. (LO 2) Benji Company accumulates the following data concerning a mixed cost, using miles as the activity level.

	Miles Driven	Total Cost		Miles Driven	Total Cost
January	7,500	$20,000	March	8,500	$22,000
February	8,200	21,100	April	8,300	21,750

Compute the variable- and fixed-cost elements using the high-low method.

	High	Low	Difference
Total Cost	$22,000	$20,000	$2,000
Miles Driven	8,500	7,500	1,000
Variable cost per mile= $\frac{\$2,000}{1,000} = \$2.00$			

	High	Low
Total Cost	$22,000	$20,000
Less: Variable Cost	8,500*2.00=$17,000	7,500*2.00=15,000
Fixed Cost	$5,000	$5,000
Mixed cost = $5,000 + $2.00 per mile.		

2. (LO 3) Determine the missing amounts.

Unit Selling Price	Unit Variable Costs	Unit Contribution Margin	Contribution Margin Ratio
$800	$520	(a)	(b)
500	(c)	$200	(d)
(e)	(f)	450	45%

a. Unit Contribution Margin = Unit Selling Price – Unit Variable Cost = $280
b. Contribution Margin Ratio = Unit Contribution Margin/Unit Selling Price = 35%
c. Unit Variable Cost = Unit Selling Price – Unit Contribution Margin = $300
d. Contribution Margin Ratio = Unit Contribution Margin/Unit Selling Price = 40%
e. Unit Selling Price = Unit Contribution Margin + Unit Variable Cost = $450+$550 = $1,000
f. Unit Variable Cost = Unit Selling Price – Unit Contribution Margin=$1,000 – 450 =$550

Contribution Margin Ratio = Unit Contribution Margin/Unit Selling Price = 450/ Unit Selling Price=45%
Unit Selling Price = $1,000

3. (LO 4) Jacob Company has a unit selling price of $600, variable costs per unit of $216, and fixed costs of $2,438,400. Compute the break-even point in units using (a) the mathematical equation and (b) unit contribution margin.

$$Y = MX + C$$
$$\text{Selling Price} = \text{Variable Cost} + \text{Fixed Cost}$$
$$600Q = 216Q + 2{,}438{,}400$$
$$600Q - 216Q = 2{,}438{,}400$$
$$384Q = 2{,}438{,}400$$
$$Q = \frac{2{,}438{,}400}{384} = 6{,}350\ units$$

b. Contribution Margin per unit = Unit Selling Price – Unit Variable Cost = $600 – $216 =$384
Unit Contribution Margin (For Break-even point) = Fixed Cost/ Contribution Margin Per unit =2,438,400/384 =6,350 unit

4. (LO 5) For Posh Company, actual sales are $1,500,000, and break-even sales are $1,300,000. Compute (a) the margin of safety in dollars and (b) the margin of safety ratio.

a. Margin of Safety = Actual sales – break-even sales = $1,500,000 – 1,300,000 = $200,000
b. Margin of Safety ratio = Margin Safety/ Actual Sales =13.30%

1. (LO 1, 2) The controller of Teton Industries has collected the following monthly expense data for use in analyzing the cost behavior of maintenance costs.

Month	Total Maintenance Costs	Total Machine Hours
January	$2,900	300
February	3,000	400
March	3,600	600
April	4,300	790
May	3,200	500
June	4,500	800

Instructions

a. Determine the fixed-cost and variable-cost components using the high-low method.

Variable Cost Per Hour = $3.20
Fixed Cost = $1,940
Mixed Cost = $1,940 + $3.20 per Hour