

# Cost Accounting- Third Year

## Chapter 2

### Cost Analysis

Homework exercises with some solutions

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# EXAMPLE

§ The following costs derived from the report of the bank of Kurdistan at the following level points:

Month	Machinery worked hours	The additional cost
March	50000	174000
April	40000	150200
May	60000	197800
June	70000	221600

§ Required//

- 1) As it's known the costs for the month June were \$221600, so how much of these costs represent the costs of maintenance?
- 2) Using the high-low level point method to find the equation of maintenance costs  $y=a+bx$ ?
- 3) Calculate the additional costs when the activity levels become 45000 worked hours ?

**Note: This exercise has been solved during the class**

# HOMEWORKS

## Exercise 1 : YOU RECEIVE THE FOLLOWING INFORMATION REGARDING FIXED OVERHEAD COST:

Month	Units	FOH
1	1,520	\$36,375
2	1,250	38,000
3	1,750	41,750
4	1,600	42,360
5	2,350	55,080
6	2,100	48,100
7	3,000	59,000
8	2,750	56,800

**Required//** Use the high-low method to split its factory overhead (FOH) costs into fixed and variable components and create a cost volume

## § **Solution: Exercise 1**

§

Step 1) at highest activity:  $x_2 = 3,000$ ;  $y_2 = \$59,000$   
at lowest activity:  $x_1 = 1,250$ ;  $y_1 = \$38,000$

### § **Step 2)**

§ Variable Cost per Unit =  $(\$59,000 - \$38,000) \div (3,000 - 1,250) =$   
**\$12 per unit**

§

Step 3) Total Fixed Cost =  $\$59,000 - (\$12 \times 3,000)$

§ 
$$\text{TMC} = \$38,000 - (\$12 \times 1,250) = \mathbf{\$23,000}$$

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Step 4) Cost Volume Formula:  $y =$  **\$23,000 + 12X**

## Exercise 2:

A company needs to know the expected amount of factory overheads cost it will incur in the following month.

Factory overheads cost in the previous three months was as follows:

Company expects to produce 7000 units in April.

	Cost	Units
Jan	\$30,000	6,000
Feb	\$20,000	5,000
Mar	\$25,000	4,000

**Required// Calculate the expected factory overhead cost in April using the High-Low method.**

## **Solution: Exercise 2:**

**Step 1: Identify the highest and lowest activities**

**Highest activity level is 6000 units in Jan.**

**Lowest activity level is 4000 units in March.**

**Step 2: Calculate variable cost per unit**

**Variable Cost Per Unit =  $30,000 - 25,000 / 6000 - 4000 = \$2.5$  Per Unit**

**Step 3: Calculate fixed cost**

**Fixed cost =  $30,000 - (2.5 \times 6000) = \$15,000$**

**Step 4: Calculate total variable cost for new activity**

**Total variable cost =  $\$2.5 \times 7000 = \$17,500$**

**Step 5: Calculate total cost**

**Total cost =  $\$15,000 + \$17,500 = \$32,500$**

### Exercise 3 : High-Low Method with Inflation

Carla is a management accountant in an organization. She has been assigned the task of budgeting payroll costs for the next quarter.

Payroll information of the last 4 quarters is as follows:

Quarter	Work hours	Cost \$
1	15,000	400,0000
2	20,000	480,0000
3	18,000	440,0000
4	21,000	500,0000

The organization increments salaries and wages by 10% at the start of the 3rd quarter each year.

23,000 hours are expected to be worked in the first quarter of the next year.

**Required// Calculate the budgeted payroll costs for the next quarter.**

**Note: This exercise has been solved during the class**