## ASSIGNMENT 7

ACC 2233

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## QUESTION ONE

Leander Office Products Inc. produces and sells storage and organizational products for office use. During the first month of operations, the products sold well. Andrea Leander, the owner of the company, was surprised to see a loss for the month on her income statement. This statement was prepared by a local bookkeeping service recommended to her by her bank manager. The statement follows:

## LEANDER OFFICE PRODUCTS

INCOME STATEMENT

| Sales (40,000 units) |  | $\$ 200,000$ |
| :--- | :--- | :---: |
| Variable expenses: | $\$ 80,000$ |  |
| Variable cost of goods sold* | $\underline{30,000}$ | $\underline{110,000}$ |
| Variable selling and administrative expenses |  | 90,000 |
| Contribution Margin | 75,000 |  |
| Fixed expenses: | $\underline{20,000}$ | $\underline{95,000}$ |
| Fixed manufacturing overhead |  | $\underline{\underline{\$(5,000)}}$ |
| Fixed selling and administrative expenses |  |  |
| Operating loss |  |  |

Andrea is discouraged over the loss shown for the month, particularly since she had planned to use the statement to encourage investors to purchase stock in the new company. A friend, who is an accountant, insists that the company should be using absorption costing rather than variable costing. He argues that if absorption costing had been used, the company would probably have reported a profit for the month.
$\qquad$

Selected cost data relating to the product and to the first month of operations follows:
Units produced 50,000
Units sold

Variable cost per unit:
Direct materials \$1.00
Direct Labour
\$0.80

Variable manufacturing overhead
\$0.20
Variable selling and administrative expenses $\$ 0.75$

## Required:

A. Complete the following:
i. Compute the unit product cost under absorption costing.
ii. Redo the company's income statement for the month using absorption costing.
iii. Reconcile the variable and absorption costing operating income (loss) figures.
B. Was the accountant correct in suggesting that the company really earned a "profit" for the month? Explain.
C. During the second month of operations, the company again produced 50,000 units but sold 60,000 units. (Assume no change in fixed costs.)
i. Prepare a contribution-format income statement for the month using variable costing.
ii. Prepare an income statement for the month using absorption costing.
iii. Reconcile the variable costing and absorption costing operating income (loss) figures.

## SOLUTION 1 A:

Fixed Manufacturing overhead $=\$ 75,000 / 50,000$ units

Absorption costing unit product cost is:

| Direct Materials | $\$ 1.00$ |  |
| :--- | ---: | :--- |
| Direct Labour | $\$ 0.80$ |  |
| Variable Manufacturing overhead | $\$ 0.20$ |  |
| Fixed Manufacturing overhead | $\$ 1.50$ |  |
|  |  |  |
| Unit Product Cost (absorption costing) | $\$ 3.50$ |  |

## SOLUTION 1 A: ii

Cost of Goods Sold (40,000 units * \$ 3.50 per unit) = \$ 140,000
Selling and Administrative Expenses (\$20,000 + 40,000 units * \$ 0.75 per unit) $=\$ 50,000$

| Leander Office Products Inc <br> Absorption Costing Income Statement |  |
| :--- | :--- |
|  | $\$ 200,000.00$ |
| Sales | $\$ 140,000.00$ |
| Cost of Goods Sold | $\$ 60,000.00$ |
| Gross Margin | $\$ 50,000.00$ |
| Selling and Administrative Expenses | $\$ 10,000.00$ |
| Net Operating Income |  |

## SOLUTION 1 A: iii

Fixed Manufacturing Overhead Cost deferred in inventory under absorption costing: (10,000 units * \$ 1.50 per unit) $=\$ 15,000$

Variable Costing Net Operating Income
Add: Fixed Manufacturing Overhead Cost deferred in inventory Net Operating Income (absorption costing)
$\$(5,000.00)$
$\$ 15,000.00$
$\$ 10,000.00$

## SOLUTION 1 B

The accountant was correct in suggesting the company would report a profit if they were to use absorption costing. Implementing this costing method altered the presented net operating income by \$15,000 (from \$-5,000 to \$10,000).

## SOLUTION 1 C: i

Sales (60,000 units * \$ 5 per unit) $=\$ 300,000$
Variable Cost of Goods Sold (60,000 units * \$ 2 per unit) $=\$ 120,000$
Variable Selling and Administrative Expenses (60,000 units * $\$ 0.75$ per unit) $=\$ 45,000$

| Leander Office Products Inc Variable Costing Income Statement |  |  |
| :---: | :---: | :---: |
| Sales |  | \$ 300,000.00 |
| Variable Expenses: |  |  |
| Variable Cost of Goods Sold | \$ 120,000.00 |  |
| Variable Selling and Administrative Expenses | \$ 45,000.00 | \$ 165,000.00 |
| Contribution Margin |  | \$ 135,000.00 |
| Fixed Expenses: |  |  |
| Fixed Manufacturing Overhead | \$ 75,000.00 |  |
| Fixed Selling and Administrative Expenses | \$ 20,000.00 | \$ 95,000.00 |
| Net Operating Income |  | \$ 40,000.00 |

## SOLUTION C: ii

The absorption costing unit product cost will be the same as determined in part 1 (\$3.50)

Sales (60,000 units * \$ 5 per unit) $=\$ 300,000$
Cost of Goods Sold (60,000 units * \$ 3.50 per unit) = \$ 210,000
Selling and Administrative Expenses (60,000 units * $\$ 0.75$ per unit $+\$ 20,000$ ) $=\$ 65,000$

| Leander Office Products Inc <br> Absorption Costing Income Statement |  |
| :--- | :--- |
|  |  |
| Sales | $\$ 300,000.00$ |
| Cost of Goods Sold | $\$ 210,000.00$ |
| Gross Margin | $\$ 90,000.00$ |
| Selling and Administrative Expenses | $\$ 65,000.00$ |
| Net Operating Income | $\$ 25,000.00$ |

## SOLUTION 1 C: iii

Fixed manufacturing overhead cost released from inventory (under absorption costing) is:
(10,000 units * \$ 1.50 per unit) $=\$ 15,000$
Reconciliation of Variable Costing and Absorption Costing Net Operating Incomes

Variable Costing Net Operating Income \$ 40,000.00
Deduct: Fixed Manufacturing Overhead Cost released from inventory Absorption Costing Net Operating Income

| $\$(15,000.00)$ |
| :--- |

## SOURCES:

Garrison, R., Noreen, E., Brewer, P., Chesley, R., Carroll, R., Webb, A., \& Libby, T. (2012). Cost
Terms, Concepts, and Classifications in Managerial Accounting (9 ${ }^{\text {th }}$ ed., p. 36). Canada: McGrawHill Ryerson.

