

Exercise *E22-16
page 1043

(a) Cost of one unit -- VARIABLE:

Direct materials	\$1,000
Direct labor	1,500
Variable mfg overhead	300
Fixed mfg overhead	<u>-0-</u>
Total	<u><u>\$2,800</u></u>

Cost of one unit -- ABSORPTION:

	Variable costs per unit	\$ 2,800
x	Units produced	<u>1,500</u>
=	Total Variable Costs	\$4,200,000
+	Fixed Manufacturing Overhead	<u>1,400,000</u>
=	Total Costs	\$5,600,000
÷	Units produced	<u>1,500</u>
=	Cost per unit	<u><u>\$ 3,733</u></u>

Exercise E22-16 (continued)

(b) (1) Prepare an income statement using ABSORPTION costing.

Titus Equipment Company Income Statement - ABSORPTION Costing For the Year Ended December 31, 2012

Sales (1,300 x \$4,500)		\$5,850,000
Cost of Goods Sold:		
Goods Manufactured	\$5,600,000	
Less: Ending Inventory	<u>746,667</u>	
Cost of Goods Sold		<u>4,853,333</u>
Gross Profit		\$ 996,667
Selling and Administrative Expenses		
Variable	\$ 91,000	
Fixed	<u>100,000</u>	<u>191,000</u>
Income from Operations		<u><u>\$ 805,667</u></u>

**Exercise E22-16
(continued)**

(b) (2) Prepare an income statement using VARIABLE costing.

**Titus Equipment Company
Income Statement - VARIABLE Costing
For the Year Ended December 31, 2012**

Sales (1,300 x \$4,500)		\$5,850,000
Variable Cost of Goods Sold:		
Variable Goods Manufactured	\$4,200,000	
Less: Ending Inventory	<u>560,000</u>	
Cost of Goods Sold		<u>3,640,000</u>
Manufacturing Margin		\$2,210,000
Variable Selling and Administrative Expenses		<u>91,000</u>
Contribution Margin		\$2,119,000
Fixed Costs and Expenses:		
Manufacturing Costs	\$1,400,000	
Selling and Admn Expenses	<u>100,000</u>	<u>1,500,000</u>
Income from Operations		<u><u>\$ 619,000</u></u>

Exercise E22-16 (continued)

Calculate and explain the difference in the two net income amounts.

NI - A	\$805,667
NI - V	<u>619,000</u>
Difference	<u>\$186,667</u>

In total:

EI - A	\$746,667
EI - V	<u>560,000</u>
Difference	<u>\$186,667</u>

Per unit:

Unit cost - A	\$3,733.33
Unit cost - V	<u>2,800.00</u>
Difference	\$ 933.33
x Units in EI	<u>200</u>
Difference	<u>\$186,667</u>

Proof:

Fixed Manufacturing Costs	\$1,400,000
÷ Units Producted	<u>1,500</u>
= Fixed Costs per Unit	933.33
x Units in EI	<u>200</u>
Difference	<u>\$ 186,667</u>

Brief Exercise BE22-10 -- page 1039

Assume the product sells for \$20 per unit.

	Absorption	Variable
Sales (assumed)	\$940,000	\$940,000
Mfg Costs:		
Var	400,000	400,000
Fixed	<u>150,000</u>	<u>-0-</u>
Sub-total	550,000	400,000
Less: EI	<u>33,000</u>	<u>24,000</u>
Cost of Sales	<u>517,000</u>	<u>376,000</u>
Excess	\$423,000	\$564,000
Fixed Mfg Costs	<u>-0-</u>	<u>150,000</u>
Operating Income	<u><u>\$423,000</u></u>	<u><u>\$364,000</u></u>
 Fixed Costs = Fixed Costs in EI?	 higher product cost yes	 lower period cost no

Exercise E26-2 -- page 1220

Calculate the unit cost for VARIABLE costs and expenses.

COGS	2,400,000	x 70%	=	1,680,000	÷	400,000	=	4.20
Opr Exp	900,000	x 60%	=	<u>540,000</u>	÷	400,000	=	<u>1.35</u>
Total				<u>2,220,000</u>				<u>5.55</u>

	<u>Reject</u>	<u>Accept</u>	<u>Difference</u>
Revenue (40,000 x 6.00)	-0-	\$240,000	\$240,000
Costs & Expenses (40,000 x 5.55)	-0-	222,000	222,000
Fixed Costs and Expenses	1,080,000	1,080,000	-0-
Shipping Costs	-0-	<u>8,000</u>	<u>8,000</u>
Additional Net Income	<u>-0-</u>	<u>\$ 10,000</u>	<u>\$ 10,000</u>

Alternate approach:

Additional Revenue per unit	\$ 6.00
Additional Costs per unit	<u>5.55</u>
Contribution Margin per unit	\$.45
x Number of Units	<u>40,000</u>
Total	\$18,000
) Additional Shipping	<u>8,000</u>
Additional Net Income	<u>\$10,000</u>

Brief Exercise BE26-3
page 1218

Additional Revenue (per unit)		\$23
Additional Costs (per unit)		
Variable	\$20	
Fixed	??	
Shipping	<u>1</u>	<u>21</u>
Contribution Margin (per unit)		\$ 2
x Proposed Number of Units to Sell		<u>4,000</u>
Additional Net Income		<u>\$8,000</u>

Brief Exercise BE26-7
page 1219

	<u>Keep</u>	<u>Eliminate</u>
Sales	\$200,000	-0-
Variable Costs	<u>180,000</u>	<u>-0-</u>
Contribution Margin	\$ 20,000	-0-
Fixed Costs	<u>40,000</u>	<u>34,000</u>
Net Income (Loss)	<u>(\$20,000)</u>	<u>(\$34,000)</u>

Exercise E22-16

page 1043

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Variable mfg overhead	300
Fixed mfg overhead	<u>-0-</u>
Total	<u>\$2,800</u>

Cost of one unit -- ABSORPTION:

Variable costs per unit		=	\$2,800.00
Fixed	<u>\$1,400,000</u>		<u>933.33</u>
	1,500 units		<u>\$3,733.33</u>

OR

Cost of one unit -- ABSORPTION:

	Variable costs per unit	\$ 2,800.00
x	Units produced	<u>1,500.00</u>
=	Total Variable Costs	\$4,200,000
+	Fixed Manufacturing Overhead	<u>1,400,000</u>
=	Total Costs	\$5,600,000
÷	Units produced	<u>1,500</u>
=	Cost per unit	<u>\$ 3,733.33</u>

Exercise E22-16 (continued)

(b) (1) Prepare an income statement using ABSORPTION costing.

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For the Year Ended December 31, 2012

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Variable	\$ 91,000	
Fixed	<u>100,000</u>	<u>191,000</u>
Income from Operations		<u><u>\$ 805,667</u></u>

Exercise E23-16 (continued)

(b) (2) Prepare an income statement using VARIABLE costing.

Titus Equipment Company Income Statement - VARIABLE Costing For the Year Ended December 31, 2012

Sales (1,300 x \$4,500)		\$5,850,000
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x Units in EI	<u>200</u>
Difference	<u>\$ 186,666</u>

Proof:

Fixed Manufacturing Costs	\$1,400,000.00
÷ Units Produced	<u>1,500</u>
= Fixed Costs per Unit	933.33
x Units in EI	<u>200</u>
Difference	<u>\$ 186,666.67</u>