

Quiz – Chapter 7 - Solution

1. In an income statement prepared as an internal report using the variable costing method, variable selling and administrative expenses would:
 - A) not be used.
 - B) be treated the same as fixed selling and administrative expenses.
 - C) be used in the computation of net operating income but not in the computation of the contribution margin.
 - D) be used in the computation of the contribution margin.

The answer is d. All variable costs and expenses are subtracted from Sales Revenue to produce the contribution margin.

2. If the number of units produced exceeds the number of units sold, then net operating income under absorption costing will:
 - A) be equal to the net operating income under variable costing.
 - B) be greater than net operating income under variable costing.
 - C) be equal to the net operating income under variable costing plus total fixed manufacturing costs.
 - D) be equal to the net operating income under variable costing less total fixed manufacturing costs.

The answer is b. The amount by which the operating income reported under absorption costing exceeds the operating income reported under variable costing is given by the following formula.

$$\text{Fixed Factory Overhead Per Unit} \times \text{Unsold Units}$$

Use the following to answer questions 3-6:

Janos Company, which has only one product, has provided the following data concerning its most recent month of operations:

Selling price	\$111
Units in beginning inventory	300
Units produced.....	2,000
Units sold	2,200
Units in ending inventory	100

Variable costs per unit:

Direct materials.....	\$29
Direct labor	30
Variable manufacturing overhead	4
Variable selling and administrative	9

Fixed costs:

Fixed manufacturing overhead	\$34,000
Fixed selling and administrative.....	39,600

The company produces the same number of units every month, although the sales in units vary from month to month. The company's variable costs per unit and total fixed costs have been constant from month to month.

3. What is the unit product cost for the month under variable costing?
- A) \$63
 - B) \$80
 - C) \$72
 - D) \$89

The answer is a. Variable costing only includes variable manufacturing costs in the cost of a product. ($\$29 + \$30 + 4 = \$63$).

4. What is the unit product cost for the month under absorption costing?
- A) \$80
 - B) \$72
 - C) \$63
 - D) \$89

The answer is a. Absorption costing includes all manufacturing costs in the cost of a product. This would include all of the variable manufacturing costs (\$63) plus the fixed manufacturing cost per unit of \$17. ($\$34,000/2,000$ units produced). That is \$80.

5. What is the net operating income for the month under variable costing?
 A) \$8,800
 B) \$12,200
 C) \$1,700
 D) \$24,800

The answer is b.

Sales Revenue:		\$244,200	(\$111 x 2,200)
Less Variable Costs:			
Variable COGS:	\$138,600		(\$63 x 2,200)
Var. S,G&Adm:	<u>19,800</u>		(\$9 x 2,200)
		<u>-158,400</u>	
Contribution Margin:		\$85,800	
Less Fixed Costs:			
Fixed Manf. Costs:	\$34,000		
Fixed S,G&Adm:	<u>39,600</u>		
		<u>-73,600</u>	
Operating Profit		<u>\$12,200</u>	

6. What is the net operating income for the month under absorption costing?
 A) \$8,800
 B) \$24,800
 C) \$1,700
 D) \$12,200

The answer is a.

You could do an absorption costing income statement or you could use the formula that I showed you in class:

Fixed Manufacturing Overhead Per Unit x Unsold Units:

$$\$17 \times -200 = -\$3,400$$

The fact that you dipped into inventory (sold more than you produced) means that variable costing operating is higher than absorption costing operating profit. That is why it is shown as negative numbers.

$$\$12,200 - \$3,400 = \$8,800$$