Manaerial accounting chapter 7 solutions flashcard

Chapter 7 Homework Solutions Q7-1 Absorption and variable costing differ in how they handle fixed manufacturing overhead. Under absorption costing, fixed manufacturing overhead is treated as a product cost and hence is an asset until products are sold.

Under variable costing, fixed manufacturing overhead is treated as a period cost and is expensed on the current period's income statement. Q7-2 Selling and administrative expenses are treated as period costs under both variable costing and absorption costing. Q7-3Under absorption costing, fixed manufacturing overhead costs are included in product costs, along with direct materials, direct labor, and variable manufacturing overhead. If some of the units are not sold by the end of the period, then they are carried into the next period as inventory. The fixed manufacturing overhead cost attached to the units in ending inventory follow the units into the next period.

When the units are finally sold, the fixed manufacturing overhead cost that has been carried over with the units is included as part of that period's cost of goods sold. Q7-6If production and sales are equal, net operating income should be the same under absorption and variable costing. When production equals sales, inventories do not increase or decrease and therefore under absorption costing fixed manufacturing overhead cost cannot be deferred in inventory or released from inventory. Q7-7 If production exceeds sales, absorption costing will usually show higher net operating income than variable costing. When production exceeds sales, inventories increase and under absorption costing part of the fixed manufacturing overhead cost of the current period is deferred in inventory to the next period. In contrast, all

of the fixed manufacturing overhead cost of the current period is immediately expensed under variable costing.

Q7-11 Generally speaking, variable costing cannot be used externally for financial reporting purposes nor can it be used for tax purposes. It can, however, be used in internal reports. E7-5 1. Under variable costing, only the variable manufacturing costs are included in product costs. Direct materials$? 60 Direct labor30 Variable manufacturing overhead 10 Unit product cost$100Note that selling and administrative expenses are not treated as product costs; that is, they are not included in the costs that are inventoried. These expenses are always treated as period costs and are charged against the current period's revenue.

2. The variable costing income statement appears below: Sales$1, 800, 000 Variable expenses: Variable cost of goods sold: Beginning inventory$ 0 Add variable manufacturing costs (10, 000 units ? $100 per unit) 1, 000, 000 Goods available for sale1, 000, 000 Less ending inventory (1, 000 units ? 100 per unit) 100, 000 Variable cost of goods sold*900, 000 Variable selling and administrative (9, 000 units ? $20 per unit) 180, 000 1, 080, 000 Contribution margin720, 000 Fixed expenses: Fixed manufacturing overhead300, 000 Fixed selling and administrative 450, 000 750, 000 Net operating loss$ (30, 000) *The variable cost of goods sold could be computed more simply as: 9, 000 units sold ? $100 per unit = $900, 000. 3. The break-even point in units sold can be computed using the contribution margin per unit as follows: Selling price per unit$200 Variable cost per unit 120 Contribution margin per unit$? 80 E7-6 1. Under absorption costing, all manufacturing costs (variable and fixed) are included in product costs.

Direct materials$? 60 Direct labor30 Variable manufacturing overhead10 Fixed manufacturing overhead ($300, 000 ? 10, 000 units) 30 Unit product cost$130 2. The absorption costing income statement appears below: Sales (9, 000 units ? $200 per unit)$1, 800, 000 Cost of goods sold: Beginning inventory$ 0 Add cost of goods manufactured 10, 000 units ? $130 per unit) 1, 300, 000 Goods available for sale1, 300, 000 Less ending inventory (1, 000 units ? $130 per unit) 130, 000 1, 170, 000 Gross margin630, 000 Selling and administrative expenses: Variable selling and administrative (9, 000 units ? $20 per unit)180, 000 Fixed selling and administrative 450, 000 630, 000 Net operating income$ 0 Note: The company apparently has exactly zero net operating income even though its sales are below the break-even point computed in Exercise 7-5. This occurs because $30, 000 of fixed manufacturing overhead has been deferred in inventory and does not appear on the income statement prepared using absorption costing. E7-7 1.

a. The unit product cost under absorption costing would be: Direct materials$18 Direct labor7 Variable manufacturing overhead 2 Total variable manufacturing costs27 Fixed manufacturing overhead ($160, 000 ? 20, 000 units) 8 Unit product cost$35 b. The absorption costing income statement: Sales (16, 000 units ? $50 per unit)$800, 000 Cost of goods sold: Beginning inventory$ 0 Add cost of goods manufactured 20, 000 units ? $35 per unit) 700, 000 Goods available for sale700, 000 Less ending inventory (4, 000 units ? $35 per unit) 140, 000 560, 000 Gross margin240, 000 Selling and administrative expenses 190, 000* Net operating income$ 50, 000 *(16, 000 units ? $5 per unit) + $110, 000 = $190, 000. 2.

a. The unit product cost under variable costing would be: Direct materials$18 Direct labor7 Variable manufacturing overhead 2 Unit product cost$27 b. The variable costing income statement: Sales (16, 000 units ? $50 per unit)$800, 000 Less variable expenses: Variable cost of goods sold: Beginning inventory$ 0 Add variable manufacturing costs (20, 000 units ? $27 per unit) 540, 000 Goods available for sale540, 000 Less ending inventory (4, 000 units ? $27 per unit) 108, 000 Variable cost of goods sold432, 000* Variable selling expense (16, 000 units ? $5 per unit) 80, 000 512, 000 Contribution margin288, 000 Less fixed expenses: Fixed manufacturing overhead160, 000 Fixed selling and administrative 110, 000 270, 000 Net operating income$ 18, 000 *The variable cost of goods sold could be computed more simply as: 16, 000 units ? $27 per unit = $432, 000.