

**Question 1** - CIA 1193 IV-10 - Variable and Absorption Costing

The management of a company computes net income using both the absorption and variable costing approaches to product costing. This year, the net income under the variable costing approach was greater than the net income under the absorption costing approach. This difference is most likely the result of

- A. A decrease in the variable marketing expenses.
  - B. An increase in the finished goods inventory.
  - C. Sales volume exceeding production volume.
  - D. Inflationary effects on overhead costs.
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- A. The treatment of variable marketing expenses is the same under both the variable and absorption methods.
  - B. An increase in ending inventory would have the opposite effect on income.
- C. When sales exceed production, this means that inventory decreased. When inventory decreases the income under the variable method is greater than under the absorption method. This is because under the absorption method, some of the prior period's fixed costs are being expensed as part of cost of goods sold this period.**
- D. Inflation will effect both variable and absorption costing in the same manner.

**Question 2** - IMA 08-P2-111 - Variable and Absorption Costing

Consider the following situation for Weisman Corporation for the prior year.

- The company produced 1,000 units and sold 900 units, both as budgeted.
- There were no beginning or ending work-in-process inventories and no beginning finished goods inventory.
- Budgeted and actual fixed costs were equal, all variable manufacturing costs are affected by volume of production only, and all variable selling costs are affected by sales volume only.
- Budgeted per unit revenues and costs were as follows.

	<u>Per Unit</u>
Sales price	\$100
Direct materials	30
Direct labor	20
Variable manufacturing costs	10
Fixed manufacturing costs	5
Variable selling costs	12
Fixed selling costs (\$3,600 total)	4
Fixed administrative costs (\$1,800 total)	2

The operating income for Weisman for the prior year using absorption costing was

- A. \$13,600.
  - B. \$14,200.
  - C. \$15,300.
  - D. \$15,840
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- A. This answer results from correctly using the 900 units sold to calculate total revenue, total direct materials, direct labor and variable overhead expense but using the 1,000 units manufactured to calculate total fixed manufacturing cost as well as total variable selling cost. Total fixed manufacturing cost and total variable selling cost should be calculated using the 900 units sold, not the 1,000 units manufactured. The fixed manufacturing cost attached to the 100 units that were not sold remained in inventory.
  - B. This answer results from incorrectly multiplying the three fixed costs (fixed manufacturing, fixed selling and fixed administrative) by the 1,000 units produced rather than the 900 units sold. See correct answer for full details.
- C.**

The unit contribution margin is \$28: \$100 sales price minus \$30 direct materials minus \$20 direct labor minus \$10 variable manufacturing costs minus \$12 variable selling costs. The operating income can be calculated as:

Contribution margin:  $\$28 \times 900 \text{ units} = \$25,200$   
Fixed manufacturing overhead:  $\$5 \times 900 \text{ units} = \$4,500$   
Fixed selling expense: given as \$3,600  
Fixed administrative expense: given as \$1,800

The operating income using absorption costing is \$25,200 minus \$4,500 minus \$3,600 minus \$1,800 = \$15,300.

The fixed manufacturing overhead costs attached to the 100 units that were produced but not sold remained in inventory.

D. This answer results from expensing 90% of the fixed selling costs and fixed administrative costs, which are given as \$3,600 and \$1,800 in total respectively. Selling and administrative costs are period costs and thus are expensed as incurred, and the actual amount incurred is given in the problem. The amount expensed for those costs should not be adjusted because of the fact that 1,000 units were manufactured and only 900 units were sold.

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**Question 3** - CMA 697 3-3 - Variable and Absorption Costing

Which method of inventory costing treats direct manufacturing costs and manufacturing overhead costs, both variable and fixed, as inventoriable costs?

- A. Conversion costing.
- B. Absorption costing.
- C. Direct costing.
- D. Variable costing.

A. Under conversion costing, direct materials are not inventoried because they are not a conversion cost.

**B. Under absorption costing, all manufacturing costs are treated as inventoriable, or product, costs.**

C. Fixed factory overhead is not inventoried under direct costing, which is the same method as variable costing.

D. Fixed factory overhead is not inventoried under variable costing, which is the same method as direct costing.

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**Question 4** - CIA 591 IV-13 - Variable and Absorption Costing

Product sales:	1,000 units at \$10 each
Variable manufacturing costs:	\$5.50 per unit
Fixed manufacturing overhead:	\$1,200
Variable selling and administrative costs:	\$.50 per unit sold
Fixed selling and administrative costs:	\$1,000
No beginning inventory	
Units produced:	1,200

Operating income under variable (direct) costing is

- A. \$700
- B. \$1,800
- C. \$2,300

D. \$600

A. This answer results from multiplying the variable manufacturing cost per unit by the number of units produced instead of by the number of units sold.

**B. Under variable costing, all of the fixed factory overheads will be expensed during the period. The manufacturing contribution per unit is calculated as the sales price (\$10) minus the variable costs of production (\$5.50) and is \$4.50. Since they sold 1,000 units, this gave them \$4,500 of contribution margin before the fixed costs and non product costs. Fixed manufacturing (\$1,200) and fixed selling costs (\$1,000) are subtracted as is the variable selling and administrative costs of \$.50 per unit, or \$500. Subtracting these costs from the contribution margin gives an operating income of \$1,800.**

C. This answer results from not deducting the variable selling and administrative costs.

D. This answer results from multiplying the variable manufacturing cost per unit and the variable selling and administrative cost per unit by the number of units produced instead of by the number of units sold.

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**Question 5** - CIA 594 III-46 - Variable and Absorption Costing

When comparing absorption costing with variable costing, which of the following statements is **not** true?

- A. When sales volume is more than production volume, variable costing will result in higher operating profit.
- B. Under absorption costing, operating profit is a function of both sales volume and production volume.
- C. A manager who is evaluated based on variable costing operating profit would be tempted to increase production at the end of a period in order to get a more favorable review.
- D. Absorption costing enables managers to increase operating profits in the short run by increasing inventories.

A.

This is a true statement. When sales volume is greater than production volume, units are sold from inventory which causes the fixed cost attached to those units to reach the income statement as cost of sales under absorption costing. As a result, total fixed cost expensed would consist of all of the current year's fixed cost plus a portion of previous years' fixed costs.

Under variable costing, all fixed costs would be expensed in the year incurred, so the fixed cost expensed for the current year would be only the current year's fixed cost.

B. This is a true statement. Under absorption costing, an increase in inventory will keep more of the fixed factory overhead on the balance sheet and off the income statement resulting in decreased expenses and higher operating profit. A decrease in inventory will cause some of the fixed factory overhead that is on the balance sheet to be expensed, resulting in an increase in expenses and lower operating profit.

**C. Under variable costing, the fixed factory overheads are expensed in the period incurred, so an increase in production would not impact the income from the period, nor the manager's review.**

D. This is a true statement because an increase in inventory will keep more of the fixed factory overhead on the balance sheet and off the income statement.

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**Question 6** - CIA 1194 III-42 - Variable and Absorption Costing

Using absorption costing, fixed manufacturing overhead costs are best described as

- A. Indirect period costs.
- B. Indirect product costs.
- C. Direct period costs.
- D. Direct product costs.

A. Fixed manufacturing overhead is not a period cost under absorption costing because it is allocated to the units produced and not expensed.

**B. Under absorption costing fixed manufacturing overhead is allocated to the units produced and it is best classified as an indirect product cost. It is indirect because it is not directly traceable to a specific unit and a product cost because it allocated to the product.**

C. Fixed manufacturing overhead is not a direct cost because it cannot be traced to a specific unit. It is also not a period cost under absorption costing because it is allocated to the units produced and not expensed.

D. Fixed manufacturing overhead is not a direct cost because it cannot be traced to a specific unit.

**Question 7 - CMA Sample Q3-2 - Variable and Absorption Costing**

Consider the following information for Richardson Company for the prior year.

- The company produced 1,000 units and sold 900 units, both as budgeted.
- There were no beginning or ending work-in-process inventories and no beginning finished goods inventory.
- Budgeted and actual fixed costs were equal, all variable manufacturing costs were affected by production volume only, and all variable selling costs were affected by sales volume only.

Budgeted per unit revenues and costs were as follows:

	Per unit
Sales price	\$100
Direct materials	30
Direct labor	20
Other variable manufacturing costs	10
Fixed selling costs	5
Variable selling costs	12
Fixed selling costs (\$3,600 total)	4
Fixed administrative costs (\$1,800 total)	2

The contribution margin earned by Richardson for the prior year was

- A. \$31,500
- B. \$35,000
- C. \$25,200
- D. \$28,000

A.

This answer results from two errors: (1) subtracting all manufacturing costs, including fixed manufacturing costs, from sales. Fixed manufacturing cost is not subtracted from sales to calculate the contribution margin; and (2) not subtracting variable costs other than variable manufacturing costs from sales to calculate the contribution margin. Variable costs other than variable manufacturing costs are included in the items subtracted from sales to calculate the contribution margin.

B.

This answer results from three errors: (1) using the number of units produced instead of the number of units sold; (2) subtracting all manufacturing costs, including fixed manufacturing costs, from sales. Fixed manufacturing cost is not subtracted from sales to calculate the contribution margin; and (3) not subtracting variable costs other than variable manufacturing costs from sales to calculate the contribution margin. Variable costs other than variable manufacturing costs are included in the items subtracted from sales to calculate the contribution margin.

**C. Contribution margin is calculated as revenues minus variable costs. Unit contribution margin is sales price minus unit variable costs, or \$28 per unit (\$100 – \$30 – \$20 – \$10 – \$12). There were 900 units sold, so the total contribution margin is \$25,200 (\$28 × 900).**

D. This answer incorrectly uses the number of units produced instead of the number of units sold. See the correct answer for a complete explanation.

**Question 8 - CMA 1290 H4 - Variable and Absorption Costing**

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are presented below.

	Planned Activity	Actual Activity	
Beginning finished goods inventory	35,000	35,000	
Sales	140,000	125,000	
Production	140,000	130,000	

  

	Planned Cost Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000
Direct labor	9.00	1,260,000	1,170,000
Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000
Total	\$50.00	\$7,000,000	\$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

The total variable cost currently expensed currently by Valyn Corporation on the variable costing basis was

- A. \$4,375,000
- B. \$4,325,000
- C. \$4,550,000
- D. \$4,500,000

**A. Under variable costing, all variable production costs are put into inventory and are expensed only when the unit is sold. The variable production costs per unit were \$25 (direct labor, direct materials and variable overhead). The number of units sold was 125,000, so the total variable production costs expensed were \$3,125,000. Additionally, the variable selling and administrative costs need to be included in our answer. The**

variable selling costs were \$1,000,000. The variable administrative costs were \$250,000. Adding these three numbers together, we get \$4,375,000.

- B. This answer is incorrect. Please see the correct answer for an explanation.
- C. This answer results from multiplying the total variable costs per unit by the number of units produced. The number of units sold should be used.
- D. This answer is incorrect. Please see the correct answer for an explanation.

**Question 9** - CIA 1187 IV-9 - Variable and Absorption Costing

Which of the following is an argument against the use of direct (variable) costing?

- A. Fixed factory overhead is necessary for the production of a product.
  - B. Fixed factory overhead is difficult to allocate properly.
  - C. Variable factory overhead is a period cost.
  - D. Absorption costing overstates the balance sheet value of inventories.
- A. Because fixed manufacturing costs are a necessary part of production, one can argue that they should be included in the cost of a unit produced.**
- B. Fixed factory overhead is expensed under direct (or variable) costing and is not allocated.
  - C. Variable factory overhead is a product cost, not a period cost, under direct (or variable) costing.
  - D. The fact that absorption costing overstates inventory is an argument in favor of direct (or variable) costing.

**Question 10** - IMA 08-P2-106 - Variable and Absorption Costing

Dremmon Corporation uses a standard cost accounting system. Data for the last fiscal year are as follows.

	<u>Units</u>	
Beginning inventory of finished goods	100	
Production during the year	700	
Sales	750	
Ending inventory of finished goods	50	
	<u>Per Unit</u>	
Product selling price	\$200	
Standard variable manufacturing cost	90	
Standard fixed manufacturing cost	20 *	
Budgeted selling and administrative costs (all fixed)		\$45,000
* Denominator level of activity is 750 units for the year.		

There were no price, efficiency, or spending variances for the year, and actual selling and administrative expenses equaled the budget amount. Any volume variance is written off to cost of goods sold in the year incurred. There are no work-in-process inventories.

Assuming that Dremmon used absorption costing, the amount of operating income earned in the last fiscal year was

- A. \$28,000
- B. 21,500

- C. \$27,000
- D. \$30,000

A. This answer is incorrect. See the correct answer for an explanation.

**B.**

The problem tells us that the volume variance is written off to cost of goods sold in the year incurred. The fixed overhead production-volume variance is budgeted fixed overhead minus the amount of applied fixed overhead. The total budgeted fixed overhead was \$15,000 (\$20 per unit × 750 units, the denominator level of activity that was used to calculate the per unit amount).

The amount applied to production was \$20 per unit × 700 units produced, or \$14,000. The amount produced (700 units) was lower than the expected amount of 750 units. Therefore, there is a production-volume variance of \$1,000 (\$20 × 50 units). Since we are told there were no spending variances, we know that actual fixed overhead was the same as budgeted fixed overhead. Therefore, the production-volume variance and the total fixed overhead variance were the same, and the fixed overhead was underapplied by \$1,000. Since this variance is written off to cost of goods sold, \$1,000 will be debited to cost of goods sold.

There were no price, efficiency or spending variances, so we know that actual variable manufacturing cost was the same as the standard variable manufacturing cost: \$90 per unit. The standard fixed cost per unit was \$20, so the total standard cost per unit was \$110. We also assume that the cost of the 100 units in beginning finished goods inventory was \$110 per unit, since we are not told otherwise.

Therefore, net operating income was:

Sales: 750 units at \$200/unit	\$150,000
Cost of Goods Sold: 750 units at \$110/unit	82,500
Adjustment: Fixed Overhead Volume Variance	1,000
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<b>Gross Profit</b>	<b>\$ 66,500</b>
 Selling and Administrative Expense	 45,000
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<b>Net Operating Income</b>	<b>\$ 21,500</b>

C. This answer is incorrect. See the correct answer for an explanation.

D. This answer is incorrect. See the correct answer for an explanation.

**Question 11 - CMA 1285 4-14 H2 - Variable and Absorption Costing**

Osawa, Inc. planned and actually manufactured 200,000 units of its single product in its first year of operations. Variable manufacturing costs were \$30 per unit of product. Planned and actual fixed manufacturing costs were \$600,000, and selling and administrative costs totaled \$400,000. Osawa sold 120,000 units of product at a selling price of \$40 per unit.

Osawa's operating income for the year using variable costing is

- A. \$600,000
- B. \$800,000
- C. \$440,000
- D. \$200,000

A. This answer results from not deducting the selling and administrative costs.

B. This is the contribution margin minus the selling and administrative costs, but nothing is deducted for fixed manufacturing costs.

C. This is the income under the absorption method.

**D. Under variable costing, the fixed manufacturing costs are expensed. With a variable cost per unit of \$30, there is \$10 of contribution per unit. This is in total \$1,200,000. Subtracting from this the fixed costs and the selling and administration costs, we get an operating profit of \$200,000.**

**Question 12 - CIA 1187 IV-51 - Variable and Absorption Costing**

Assuming absorption costing, which of the following columns includes only product costs?

	I.	II.	III.	IV.
Direct labor	X		X	X
Direct materials	X	X		X
Sales materials		X		
Advertising costs			X	
Indirect factory materials	X	X		X
Indirect labor		X	X	X
Sales commissions	X			
Factory utilities	X		X	X
Administrative supplies expense		X		
Administrative labor			X	
Depreciation on administration building	X			
Cost of research on customer demographics		X		

- A. II.
- B. I.
- C. III.
- D. IV.

A. Direct labor and factory utilities are product costs, but sales and administrative supplies are not.

B. Indirect labor is a product cost and sales commissions and depreciation on the administrative building are not.

C. Direct materials and indirect factory materials are product costs, but advertising, administration and demographic research are not.

**D. Under absorption costing, direct labor, direct materials and factory overheads — fixed and variable — are treated as product costs.**

**Question 13 - CIA 591 IV-14 - Variable and Absorption Costing**

Product sales:	1,000 units at \$10 each
Variable manufacturing costs:	\$5.50 per unit
Fixed manufacturing overhead:	\$1,200
Variable selling and administrative costs:	\$.50 per unit sold
Fixed selling and administrative costs:	\$1,000

No beginning inventory  
 Units produced: 1,200

Assuming operating income under variable costing is \$1,800, operating income under absorption costing is

- A. \$1,800
- B. \$2,000
- C. \$2,167
- D. \$1,967

A. This is the operating income under variable costing.

**B. There are two ways that we can solve this problem. The first is to calculate a full absorption costing income statement. The second is to use the differences between variable and absorption costing to calculate the difference between the two methods. Since we are given the variable costing income, we can then back into the absorption costing income. The difference between the two methods is the treatment of fixed manufacturing overhead. Under variable costing it is expensed, but under absorption costing it is treated as a product cost. Since the fixed factory overheads were \$1,200 and they produced 1,200 units, the fixed factory overhead per unit was \$1. Since production was 1,200 units and sales were only 1,000 units, inventory increased by 200 units. This means that the fixed factory overhead related to those 200 units is not on the income statement, but on the balance sheet. Therefore, the absorption method income will be \$200 higher than the variable method income, or \$2,000.**

C. This answer results from treating the fixed selling and administrative costs as product costs. Fixed selling and administrative costs are period costs and are expensed as incurred.

D. This answer results from two errors: (1) Treating the fixed selling and administrative costs as product costs. Fixed selling and administrative costs are period costs and are expensed as incurred. And (2) treating the fixed manufacturing cost as a period cost. Under absorption costing, fixed manufacturing overhead is applied to units of production, and the cost for unsold units remains in inventory and is not expensed.

**Question 14 - CMA 1290 H7 - Variable and Absorption Costing**

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are presented below.

	Planned Activity	Actual Activity	
Beginning finished goods inventory	35,000	35,000	
Sales	140,000	125,000	
Production	140,000	130,000	

  

	Planned Cost Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000
Direct labor	9.00	1,260,000	1,170,000
Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000

Total \$50.00 \$7,000,000 \$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

Valyn Corporation's actual manufacturing contribution margin calculated on the variable costing basis was

- A. \$4,910,000
- B. \$4,375,000
- C. \$5,625,000
- D. \$4,935,000

A. This answer is incorrect. Please see the correct answer for an explanation.

B. The question asks for the **manufacturing** contribution margin calculated on the variable costing basis. This answer is incorrect because it includes the variable costs of selling and administration in the calculation of manufacturing contribution when only variable manufacturing costs should be included.

**C. Manufacturing contribution margin is calculated as the selling price minus the variable costs of production. Given that the costs for the previous and current year were the same, we can simply determine the contribution per unit. The per unit sales price is \$70 and the per unit variable production costs were \$25 (direct labor, direct materials and variable overhead). There was a contribution per unit of \$45 and with 125,000 units sold, this gives a total contribution of \$5,625,000.**

D. This answer is incorrect. Please see the correct answer for an explanation.

**Question 15 - CMA Sample Q3-3 - Variable and Absorption Costing**

The change in period-to-period operating income when using variable costing can be explained by the change in the

- A. Finished goods inventory level multiplied by the unit sales price.
- B. Unit sales level multiplied by the unit sales price.
- C. Finished goods inventory level multiplied by a constant unit contribution margin.
- D. Unit sales level multiplied by a constant unit contribution margin.

A. A change in the level of inventory will not explain or measure the change in profit.

B. This simply calculates the level of revenue, which does not necessarily equal the change in income from one period to the next.

C. A change in the level of inventory will not explain or measure the change in profit.

**D. Under variable costing all fixed costs are expensed in the period in which they are incurred. Therefore, if the unit contribution margin is stable and the fixed costs are stable, the difference in income between two periods can be explained by change in the level of sales multiplied by the contribution margin per unit.**

**Question 16 - CMA 1286 4-18 H1 - Variable and Absorption Costing**

A manufacturer at the end of its fiscal year recorded the data below:

Prime cost	\$800,000
Variable manufacturing overhead	100,000
Fixed manufacturing overhead	160,000
Variable selling and other expenses	80,000
Fixed selling and other expenses	40,000

Using absorption (full) costing, inventoriable costs are

- A. \$1,080,000
- B. \$900,000
- C. \$1,060,000
- D. \$800,000

A. This answer includes the variable and fixed selling and other expenses (which should not be included) and does not include variable manufacturing overhead (which should be included).

B. This answer does not include the fixed manufacturing overhead, which is inventoried under absorption costing.

**C. Under absorption costing, all manufacturing costs are inventoried. This includes the prime costs (which include direct labor and direct materials), variable manufacturing overhead and fixed manufacturing overhead. In total, this is \$1,060,000.**

D. This answer does not include the manufacturing overheads, which are inventoried under absorption costing.

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**Question 17** - CIA 577 IV-18 - Variable and Absorption Costing

In the application of direct costing as a cost-allocation process in manufacturing,

- A. Nonvariable direct costs are treated as product costs.
- B. Nonvariable indirect costs are treated as product costs.
- C. Variable indirect costs are treated as product costs.
- D. Variable direct costs are treated as period costs.

A. Fixed direct costs are not treated as product costs under direct (or variable) costing.

B. Fixed indirect costs are not treated as product costs under direct (or variable) costing.

**C. Under direct (or variable) costing all variable production costs (direct or indirect) are treated as product costs.**

D. Variable direct costs are not treated as period costs under direct (or variable) costing.

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**Question 18** - CMA 1290 H1 - Variable and Absorption Costing

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are presented below.

	Planned Activity	Actual Activity
Beginning finished goods inventory	35,000	35,000

Sales	140,000	125,000
Production	140,000	130,000

	Planned Costs Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000
Direct labor	9.00	1,260,000	1,170,000
Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000
Total	\$50.00	\$7,000,000	\$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

The value of Valyn Corporation's actual ending finished goods inventory on the absorption costing basis was

- A. \$1,350,000
- B. \$900,000
- C. \$1,220,000
- D. \$1,200,000

A. This answer could result from including selling expenses as inventoriable costs and using an ending inventory of 30,000 units to calculate the value of the ending inventory. However, there is more than one way to arrive at this incorrect answer. Please see the correct answer for an explanation.

B. This answer results from multiplying the per unit cost by 30,000 units. Ending inventory was equal to the beginning inventory plus production minus units sold, which is 40,000 units.

C. This answer results from including fixed manufacturing cost at the actual incurred cost of \$715,000 divided by the 130,000 units produced, which was \$5.50. Since Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product, and since over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year, the cost of the units in ending inventory will be only the standard, or planned, costs. This included fixed manufacturing cost of \$5.00 per unit, not \$5.50 per unit.

**D. Under absorption costing, the per unit cost of inventory includes all production costs, both fixed and variable. As such, the per unit cost for Valyn is \$30 (this is made up of direct materials, direct labor, variable overhead and fixed overhead per unit). At the end of the period there were 40,000 units in ending inventory, since there were 35,000 at the start of the period and they produced 5,000 more units than were sold during the period. This gives an ending finished goods inventory of 40,000 units × \$30 per unit, or \$1,200,000.**

Which one of the following statements is correct regarding absorption costing and variable costing?

- A. Variable manufacturing costs are lower under variable costing.
- B. Overhead costs are treated in the same manner under both costing methods.
- C. If finished goods inventory increases, absorption costing results in higher income.
- D. Gross margins are the same under both costing methods.

A. Variable costs are the same under both methods.

B. Fixed factory overhead costs are not treated the same way under both methods.

**C. When inventory levels increase, absorption costing will give a higher net income because some of the fixed factory overheads are in inventory on the balance sheet and were not expensed this period on the income statement.**

D. Because of the different treatment of fixed factory overheads, the sales minus the product cost results in the gross margin for absorption costing and sales minus product costs (variable manufacturing costs) results in manufacturing contribution margin under variable costing. These two results will be different under these two methods.

**Question 20 - CMA 1273 4-1 - Variable and Absorption Costing**

Which of the following statements is true for a firm that uses variable costing?

- A. Profits fluctuate with sales.
- B. An idle facility variation is calculated.
- C. The cost of a unit of product changes because of changes in number of units manufactured.
- D. Product costs include variable administrative costs.

**A. Under variable costing, the profits that the company has will fluctuate with the level of sales.**

B. This is not done under variable costing.

C. Because only variable costs are included in the cost of the product under variable costing, the cost of a unit will not change as production levels change.

D. Variable administrative costs are not included as a product cost under either the variable or absorption methods.

**Question 21 - CMA 1290 H6 - Variable and Absorption Costing**

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are presented below.

	Planned Activity	Actual Activity
Beginning finished goods inventory	35,000	35,000
Sales	140,000	125,000
Production	140,000	130,000

	Planned Cost Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000
Direct labor	9.00	1,260,000	1,170,000

Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000
Total	\$50.00	\$7,000,000	\$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

Valyn Corporation's total fixed costs expensed this year on the absorption costing basis were

- A. \$2,055,000
- B. \$2,120,000
- C. \$2,095,000
- D. \$2,030,000

A. This answer is incorrect. Please see the correct answer for an explanation.

B. This answer assumes that the fixed overhead applied was applied only to the units that were sold, and not to the number of units that were produced.

**C. For each unit that is sold, \$5 of fixed overhead is expensed as cost of goods sold. There were 125,000 units sold, so this is \$625,000 in cost of goods sold related to the units sold. We are also told that under- or overapplied overhead is allocated to cost of goods sold. Therefore, we need to calculate the under- or overapplied overhead. There was a total of \$650,000 of fixed overhead applied during the period (130,000 units produced and \$5 per unit). The actual fixed overhead was \$715,000, so fixed overhead was underapplied by \$65,000. This \$65,000 of underapplied overhead will be added to cost of goods sold. Also, all of the fixed selling and fixed administrative costs were expensed during the period because these are period costs. These costs total \$1,405,000. The total fixed costs expensed equals \$625,000 + \$65,000 + \$1,405,000, or \$2,095,000.**

D. This answer is incorrect. Please see the correct answer for an explanation.

#### Question 22 - CIA 585 IV-5 - Variable and Absorption Costing

The Blue Company has failed to reach its planned activity level during its first 2 years of operation. The following table shows the relationship among units produced, sales, and normal activity for these years and the projected relationship for Year 3. All prices and costs have remained the same for the last 2 years and are expected to do so in Year 3. Income has been positive in both Year 1 and Year 2.

	Units Produced	Sales	Planned Activity
Year 1	90,000	90,000	100,000
Year 2	95,000	95,000	100,000
Year 3	90,000	90,000	100,000

Because Blue Company uses an absorption-costing system, one would predict gross margin for Year 3 to be

- A. Greater than Year 1.
- B. Greater than Year 2.
- C. Equal to Year 2.
- D. Equal to Year 1.

A. Gross margin is calculated as sales minus cost of goods sold. All prices and costs have remained the same for the last 2 years and are expected to do so in Year 3. Sales in Year 3 are expected to be the same as sales in Year 1. Since prices and costs have remained the same and sales have equaled production each year, gross margin for Year 3 cannot be greater than the gross margin for Year 1.

B. Gross margin is calculated as sales minus cost of goods sold. All prices and costs have remained the same for the last 2 years and are expected to do so in Year 3. Sales in Year 3 are lower than sales in Year 2. Since prices and costs have remained the same and sales have equaled production each year, the gross margin for Year 3 cannot be greater than the gross margin for Year 2.

C.

Gross margin is calculated as sales minus cost of goods sold. All prices and costs have remained the same for the last 2 years and are expected to do so in Year 3. Sales in Year 3 are lower than in Year 2. Since prices and costs have remained the same and sales have equaled production each year, the gross margin for Year 3 cannot be equal to the gross margin for Year 2.

D.

**Gross margin is calculated as sales minus cost of goods sold. Since all of the costs have remained the same over the period and there has been no change in inventory for any period (since sales have been equal to production each year), the gross margin for Year 3 will be equal to the gross margin from the year in which sales were the same level, and this is Year 1.**

**Because this is a new company and for every year since its beginning, sales have been equal to production, inventory at year end for each year has been zero. Because of this, we do not need to know whether the company closes out under- and over-applied overhead to cost of goods sold only, or whether the company prorates it between cost of goods sold and inventory. Since inventory is zero, all under- or over-applied overhead will have been closed to cost of goods sold only. And for each year since its beginning, the company has had under-applied fixed overhead, because actual production has been lower than planned production. Unless fixed overhead has been very different in Year 3 than it was in Year 1, the gross margin for the two years should be substantially the same.**

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**Question 23** - CMA 1286 H1 - Variable and Absorption Costing

Presented are Valenz Company's records for the current fiscal year ended November 30:

Direct materials used	\$300,000
Direct labor	100,000
Variable factory overhead	50,000
Fixed factory overhead	80,000
Selling and admin. costs-variable	40,000
Selling and admin. costs-fixed	20,000

Using absorption (full) costing, inventoriable costs are

- A. \$400,000
- B. \$530,000
- C. \$450,000
- D. \$590,000

A. This answer does not include any of the factory overhead. Under absorption costing all factory overheads are allocated to the units and inventoried.

**B. Under the absorption costing method, all costs of production — variable and fixed — are included in inventory. Therefore, the inventoriable costs are: direct materials (\$300,000), direct labor (\$100,000), variable factory overhead (\$50,000) and fixed factory overhead (\$80,000). This is a total of \$530,000.**

C. This answer does not include the fixed factory overhead. Under absorption costing, all factory overheads are allocated to the units and inventoried.

D. This answer includes all of the selling and administrative costs. Selling and administrative costs are not inventoried under either absorption costing or variable costing.

**Question 24 - CMA 1292 3-26 - Variable and Absorption Costing**

Jansen, Inc. pays bonuses to its managers based on operating income. The company uses absorption costing, and overhead is applied on the basis of direct labor hours. To increase bonuses, Jansen's managers may do all of the following except

- A. Increase production schedules independent of customer demands.
- B. Defer expenses such as maintenance to a future period.
- C. Decrease production of those items requiring the most direct labor.
- D. Produce those products requiring the most direct labor.

A. By increasing production schedules independent of customer demand, more units will be in inventory at the end of the year, meaning that more fixed costs will be on the balance sheet and not on the income statement. This will increase income.

B. By deferring expenses, the income in the current period will be higher, giving a bigger bonus.

**C. By producing fewer units that require a lot of direct labor, less of the overhead will be allocated to units that are in inventory at the end of the period because there will be fewer units in inventory. This will mean that less of the overhead is on the balance sheet and more is on the income statement, reducing net income.**

D. By producing more products that use a lot of direct labor, there will be more overhead included in inventory at the end of the year. Since these costs are on the balance sheet instead of the income statement, income will be higher as a result of doing this.

**Question 25 - CMA 1290 H5 - Variable and Absorption Costing**

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are presented below.

	Planned Activity	Actual Activity	
Beginning finished goods inventory	35,000	35,000	
Sales	140,000	125,000	
Production	140,000	130,000	
	Planned Cost Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000

Direct labor	9.00	1,260,000	1,170,000
Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000
Total	\$50.00	\$7,000,000	\$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

The difference between Valyn Corporation's operating income calculated on the absorption costing basis and calculated on the variable costing basis was

- A. \$90,000
- B. \$25,000
- C. \$40,000
- D. \$65,000

A. This answer is incorrect. Please see the correct answer for an explanation.

**B. The difference between the two methods is the treatment of fixed factory overheads. Under the absorption method these costs are applied to the units produced, whereas under the variable method, they are expensed. The fixed factory overhead cost per unit is \$5 and we can determine the difference between these two methods by multiplying this \$5 per unit difference by the number of units that were added to inventory during the period. Inventory increased by 5,000 units and  $5,000 \times \$5$  gives us a \$25,000 difference in income between the two methods. The difference in operating income can be calculated in this way because the beginning finished goods inventory is valued at the same per unit manufacturing cost as the current year's planned per unit manufacturing cost and there is no beginning work-in-process inventory.**

C. This answer is incorrect. Please see the correct answer for an explanation.

D. This answer is incorrect. Please see the correct answer for an explanation.

#### Question 26 - CMA 694 3-6 - Variable and Absorption Costing

The term "gross margin" for a manufacturing firm refers to excess of sales over

- A. Manufacturing costs, excluding fixed manufacturing costs.
- B. Cost of goods sold, including fixed indirect manufacturing costs.
- C. Cost of goods sold, excluding fixed indirect manufacturing costs.
- D. All variable costs, including variable selling and administrative expenses.

A. This answer is incorrect because fixed manufacturing costs are included in the gross margin calculation.

**B. By definition, gross margin is sales price minus cost of goods sold.**

- C. This answer is incorrect because fixed indirect manufacturing costs are included in the gross margin calculation.
- D. This answer is incorrect because fixed costs are included in gross margin, and selling and administrative costs are not.
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**Question 27** - CIA 1190 IV-12 - Variable and Absorption Costing

During its first year of operations, a company produced 275,000 units and sold 250,000 units. The following costs were incurred during the year:

**Variable costs per unit:**

Direct materials	\$15.00
Direct labor	10.00
Manufacturing overhead	12.50
Selling and administrative	2.50

**Total fixed costs:**

Manufacturing overhead	\$2,200,000
Selling and administrative	1,375,000

What is the difference between operating income calculated on the absorption-costing basis and on the variable-costing basis?

- A. Absorption-costing operating income is greater than variable-costing operating income by \$220,000.
- B. Absorption-costing operating income is greater than variable-costing operating income by \$200,000.
- C. Absorption-costing operating income is greater than variable-costing operating income by \$325,000.
- D. Variable-costing operating income is greater than absorption-costing operating income by \$62,500.

A. Though the absorption costing income will be higher, it is not higher by this amount. This answer allocates the fixed costs based on the number of units sold.

**B. We know that the number of units in inventory increased during the period, so we know that absorption costing income will be greater than variable costing income. The question we have left is by how much. The only difference between the two methods is in the treatment of fixed factory overheads. Under absorption costing the fixed factory overheads are allocated to the units produced and under variable costing they are expensed. Because this is the first year of operations we can simply multiply the fixed factory overhead per unit by the increase in inventory to determine the difference between the two methods. There was \$2,200,000 of fixed factory overhead that was applied to the 275,000 units produced. This is \$8 per unit. Inventory increased by 25,000 units, so the difference between the two methods would be \$200,000 (25,000 units × \$8 per unit). Because these \$200,000 in fixed costs are on the balance sheet under absorption costing but expensed under variable costing, operating income will be higher under absorption costing.**

C. Though the absorption costing income will be higher, it is not higher by this amount. This answer includes the fixed selling and administrative costs as a product cost.

D. Absorption costing will give a higher income and the difference will be a different amount from this answer.

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**Question 28** - CMA 1290 H3 - Variable and Absorption Costing

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are presented below.

	Planned Activity	Actual Activity
Beginning finished goods inventory	35,000	35,000
Sales	140,000	125,000
Production	140,000	130,000

	Planned Cost Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000
Direct labor	9.00	1,260,000	1,170,000
Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000
Total	\$50.00	\$7,000,000	\$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

Valyn Corporation's absorption costing operating income was

- A. Lower than variable costing operating income because actual production exceeded actual sales.
- B. Lower than variable costing operating income because actual production was less than planned production.
- C. Higher than variable costing operating income because actual production exceeded actual sales.
- D. Lower than variable costing operating income because actual sales were less than planned sales.

A. When the level of inventory increases during the period, the absorption method gives a higher income than the variable method.

B. Whether or not production is more or less than planned does not impact the comparison of income between the two methods.

**C. When the level of inventory increases during the period, the income of the company will be higher under absorption costing than under variable costing. This is because under absorption costing some of that period's fixed overheads are included on the balance sheet in ending inventory rather than on the income statement.**

D. Whether or not sales were higher or lower than planned does not impact the comparison of income between the two methods.

**Question 29** - CMA 1290 H2 - Variable and Absorption Costing

Valyn Corporation employs an absorption costing system for internal reporting purposes; however, the company is considering using variable costing. Data regarding Valyn's planned and actual operations for the calendar year are

presented below.

	Planned Activity	Actual Activity
Beginning finished goods inventory	35,000	35,000
Sales	140,000	125,000
Production	140,000	130,000

	Planned Cost Per Unit	Planned Costs Total	Actual Incurred Costs
Direct materials	\$12.00	\$1,680,000	\$1,560,000
Direct labor	9.00	1,260,000	1,170,000
Variable manufacturing overhead	4.00	560,000	520,000
Fixed manufacturing overhead	5.00	700,000	715,000
Variable selling expenses	8.00	1,120,000	1,000,000
Fixed selling expenses	7.00	980,000	980,000
Variable administrative expenses	2.00	280,000	250,000
Fixed administrative expenses	3.00	420,000	425,000
Total	\$50.00	\$7,000,000	\$6,620,000

The planned per unit cost figures shown in the above schedule were based on Valyn producing and selling 140,000 units. Valyn uses a predetermined manufacturing overhead rate for applying manufacturing overhead to its product; thus, a combined manufacturing overhead rate of \$9.00 per unit was employed for absorption costing purposes. Any over- or underapplied manufacturing overhead is closed to the Cost of Goods Sold account at the end of the reporting year.

The beginning finished goods inventory for absorption costing purposes was valued at the previous year's planned unit manufacturing cost, which was the same as the current year's planned unit manufacturing cost. There are no work-in-process inventories at either the beginning or the end of the year. The planned and actual unit selling price for the current year was \$70.00 per unit.

The value of Valyn Corporation's actual ending finished goods inventory on the variable costing basis was

- A. \$1,125,000
- B. \$1,000,000
- C. \$750,000
- D. \$1,400,000

A. This answer is incorrect. Please see correct answer for an explanation.

**B. Under variable costing, the per unit cost of inventory includes all variable production costs. As such, the per unit cost for Valyn is \$25 (this is made up of direct materials, direct labor and variable overhead). At the end of the period there were 40,000 units in ending inventory, since there were 35,000 at the start of the period and they produced 5,000 more units than were sold during the period. This gives an ending finished goods inventory of  $\$25 \times 40,000$  units, or \$1,000,000.**

C. This answer results from incorrectly calculating ending inventory as 30,000 units. Ending inventory is beginning inventory plus production minus sold units, which is 40,000 units.

D. This answer results from including variable selling and variable administrative expenses as inventoriable costs. Only variable **product** costs are inventoriable costs on the variable costing basis, and selling and administrative expenses are not product costs.

**Question 30** - CMA 689 4-9 - Variable and Absorption Costing

Hitchcock Industries has developed two new products but has only enough plant capacity to introduce one of these products this year. The company controller has gathered the following data to assist management in deciding which product should be selected for production.

Hitchcock's fixed overhead includes proportional rent and utilities, machinery depreciation, and supervisory salaries. Selling and administrative expenses are not allocated to products.

<b>Cost per unit:</b>	<b>Power Drill</b>	<b>Power Saw</b>
Raw materials	\$ 22.00	\$ 18.00
Machining at \$12/hr.	9.00	7.50
Assembly at \$10/hr.	15.00	5.00
Variable O/H at \$8/hr.	18.00	9.00
Fixed O/H at \$4/hr.	<u>9.00</u>	<u>4.50</u>
<b>Total unit cost:</b>	<b>\$73.00</b>	<b>\$44.00</b>
Suggested selling price	\$ 88.98	\$ 49.95
Actual research and development costs	\$180,000	\$95,000
Proposed advertising and promotion costs	\$300,000	\$250,000

The difference between the \$49.95 selling price of Hitchcock's power saw and its total unit cost of \$44.00 represents the unit

- A. Gross profit.
- B. Contribution margin ratio.
- C. Contribution margin.
- D. Gross profit margin ratio.

**A. Gross profit is sales price minus total unit cost.**

- B. Contribution margin ratio is the unit contribution margin (sales price minus variable costs) divided by sales price.
- C. Contribution margin is the sales price minus the variable costs.
- D. Gross profit margin is the gross profit divided by the sales price.

**Question 31** - CMA 1290 3-12 - Variable and Absorption Costing

Which one of the following considers the impact of fixed overhead costs?

- A. Direct costing.
- B. Full absorption costing.
- C. Marginal costing.
- D. Variable costing.

A. Direct (variable) costing treats only variable costs as product costs. Fixed overhead costs are expensed.

**B. Full absorption costing includes the fixed manufacturing overheads in the calculation of the per unit cost.**

C. Marginal costing considers only the cost of producing one more unit. Since fixed costs are fixed, they are not considered in marginal costing.

D. Variable (direct) costing treats only variable costs as product costs. Fixed overhead costs are expensed.

**Question 32** - CMA 1286 4-18 H2 - Variable and Absorption Costing

A manufacturer at the end of its fiscal year recorded the data below:

Prime cost	\$800,000
Variable manufacturing overhead	100,000
Fixed manufacturing overhead	160,000
Variable selling and other expenses	80,000
Fixed selling and other expenses	40,000

If the manufacturer uses variable costing, the inventoriable costs for the fiscal year are

- A. \$900,000
- B. \$980,000
- C. \$1,060,000
- D. \$800,000

**A. Under variable costing, the variable costs of production are inventoried while the fixed manufacturing costs are expensed as incurred. The variable costs of production include the prime costs (direct labor and direct materials) and variable manufacturing overhead. In total, this is \$900,000.**

B. This answer includes variable selling and other expenses which are not included in inventoriable costs under the variable method because they are not production costs.

C. This answer includes fixed manufacturing overhead, which is not inventoried under variable costing.

D. This answer does not include variable manufacturing overhead, which is inventoried under variable costing.

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**Question 33** - CMA 1285 4-14 H1 - Variable and Absorption Costing

Osawa, Inc. planned and actually manufactured 200,000 units of its single product in its first year of operations. Variable manufacturing costs were \$30 per unit of product. Planned and actual fixed manufacturing costs were \$600,000, and selling and administrative costs totaled \$400,000. Osawa sold 120,000 units of product at a selling price of \$40 per unit.

Osawa's operating income using absorption (full) costing is

- A. \$440,000
- B. \$200,000
- C. \$840,000
- D. \$600,000

**A. Under absorption costing the fixed manufacturing costs are allocated to the products produced. The variable costs of production are \$30 per unit and the fixed costs per unit are \$3 ( $\$600,000 \div 200,000$  units produced). In total, the cost per unit is \$33. Since the sales price was \$40 per unit, this is a gross profit of \$7 per unit. With 120,000 units sold, that is \$840,000. Subtracting from this the selling and administration costs of \$400,000, we get an operating income of \$440,000.**

B. This is the operating income as calculated under variable costing.

C. This answer results from not deducting the selling and administrative costs that are expensed as period costs.

D. This answer results from expensing all of the fixed manufacturing cost as would be done under variable costing and also not deducting the selling and administrative costs.

**Question 34** - CMA 1286 H2 - Variable and Absorption Costing

Presented are Valenz Company's records for the current fiscal year ended November 30:

Direct materials used	\$300,000
Direct labor	100,000
Variable factory overhead	50,000
Fixed factory overhead	80,000
Selling and admin. costs-variable	40,000
Selling and admin. costs-fixed	20,000

If Valenz Company uses variable costing, the inventoriable costs for the fiscal year are

- A. \$400,000
- B. \$450,000
- C. \$490,000
- D. \$530,000

A. This answer does not include the variable factory overhead as an inventoriable cost.

**B. Under the variable costing method, only the variable costs of production are inventoriable costs. Therefore, the costs that are inventoriable are: direct materials (\$300,000), direct labor (\$100,000) and variable factory overhead (\$50,000). This is a total of \$450,000.**

C. This answer includes the variable selling costs as an inventoried cost. Selling costs, whether variable or fixed, are not inventoried under either variable costing or absorption costing, because they are not production costs.

D. This answer includes fixed factory overhead. Though it is a production cost, the variable costing method includes only variable costs of production in inventory.

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**Question 35** - CIA 1186 IV-8 - Variable and Absorption Costing

Under variable (direct) costing, fixed manufacturing overhead costs are classified as

- A. Selling costs.
- B. Inventoriable costs.
- C. Period costs.
- D. Administrative costs.

A. Fixed manufacturing overhead is not classified as a selling cost under variable (or direct) costing.

B. Under variable (or direct) costing, fixed manufacturing overhead is not treated as an inventoriable cost.

**C. Fixed manufacturing overhead is treated as a period cost under variable (or direct) costing.**

D. Fixed manufacturing overhead is not classified as an administrative cost under variable (or direct) costing.

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