

CONTRIBUTION FORMAT INCOME STATEMENT

Key Topics to Know

- The contribution format income statement is an alternative format to the absorption income statement. It is useful for internal decision-making and analysis.
- However, since it is not GAAP, it cannot be used for external reporting.
- Based on behavior of revenues and costs, not their function.
- Key intermediate subtotal is Contribution Margin, which is not the same as gross margin.
- $\text{Sales} - \text{variable costs and expenses} = \text{contribution margin}$
- $\text{Gross margin} + \text{fixed overhead costs} - \text{variable selling and administrative costs} = \text{contribution margin}$
- It is always helpful to know the units sold for a contribution format income statement.

Problems

Problem #1

University Store, Inc.'s first quarter income statement is presented below:

Sales		\$800,000
Cost of Goods Sold		<u>560,000</u>
Gross Margin		240,000
Less: Operating Expenses:		
Selling Expenses	\$100,000	
Administrative Expenses	<u>110,000</u>	<u>210,000</u>
Net Income		\$ 30,000

Since the University store is a retailer, cost of goods sold is a variable expense. Selling expenses are 40% fixed and variable administrative expenses are 5% of sales.

- Required:
- a) Calculate the contribution margin and contribution margin ratio for the first quarter.
 - b) Prepare a contribution format income statement for the first quarter.

Problem #2

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

Selling price		\$108
Units;		
Beginning inventory		0
Produced	1,100	
Sold	900	
Ending inventory	200	
Variable costs per unit		
Direct materials		\$28
Direct labor		\$30
Manufacturing overhead		\$7
Selling and administrative expenses		\$11

Fixed costs	
Manufacturing overhead	\$14,300
Selling and administrative expenses	1,800

- Required:
- Prepare a contribution format income statement.
 - Prepare an income statement for the month using absorption costing.

Problem #3

Cannon Company operates a clothing store that reported the following operating results for 2013:

<u>Income Statement</u>	
Sales	\$2,000,000
Cost of goods sold	1,200,000
Gross margin	<u>800,000</u>
Commissions @ 5% of sales	100,000
Depreciation expense	150,000
Salaries expense	260,000
Shipping expense @ 2% of sales	40,000
Advertising expense	<u>80,000</u>
Operating income	\$170,000

- Required: Prepare an income statement for Cannon Company using the contribution margin format.

Problem #4

Pen Corporation manufactures a single product. Last year, the company's variable costing net operating income was \$55,700 and ending inventory increased by 800 units. Fixed manufacturing overhead cost per unit was \$3 in both beginning and ending inventory.

- Required: Determine the absorption costing net operating income for last year.

Multiple Choice Questions

1. S Company produces cat condos that sell for \$90 each. Direct materials cost \$15 per unit, and direct labor costs \$10 per unit. Manufacturing overhead is applied at a rate of 200% of direct labor cost. Nonmanufacturing costs are \$27 per unit. What is the gross profit margin for the cat condos?
 - a) 20.0%
 - b) 50.0%
 - c) 62.5%
 - d) 80.0%

2. L Company manufactures chainsaws that sell for \$60. Each chainsaw uses \$10 in direct materials and \$3 in direct labor per unit. L Company has two activities: Machining, which is applied at the rate of \$2 per machine hour, and Finishing, which is applied at the rate of \$20 per batch. This month, Logan made 200 chainsaws, using 1,000 machine hours in 40 batches. What is the gross profit for 200 chainsaw?
 - a) \$2,600
 - b) \$5,400
 - c) \$6,600
 - d) \$9,400

3. The amount remaining from sales revenue after all variable expenses have been deducted is:
 - a) Gross margin
 - b) Gross profit
 - c) Contribution margin
 - d) Fixed costs

4. Comparing the contribution income statement to the absorption income statement, the only two items that must be the same are:
 - a) net sales and cost of goods sold
 - b) cost of goods sold and fixed expenses
 - c) variable expenses and cost of goods sold
 - d) net sales and net income

5. B Company is a honey wholesaler. An income statement and other data for the second quarter of the year are given below:

B Company
Income Statement
For the Quarter Ended June 30

Sales	\$960,000
Cost of goods sold	<u>420,000</u>
Gross margin	540,000
Selling and administrative expenses:	
Selling	200,000
Administrative	<u>75,000</u>
Net operating income	\$265,000

Other data:

Average selling price	\$60 per unit
Selling expenses	Fixed selling expenses plus 8% of sales
Administrative expense	Fixed administrative expenses plus \$2 per unit

Net operating income for the second quarter using the contribution approach is:

- a) \$156,200
b) \$685,000
c) \$431,200
d) \$265,000
6. G Company produces and sells a single product. The company has provided its contribution format income statement for February.

Sales (5,600 units)	\$358,400
Variable expenses	<u>229,600</u>
Contribution margin	128,800
Fixed expenses	<u>108,400</u>
Net operating income	<u>\$20,400</u>

If the company sells 5,700 units, its net operating income should be closest to:

- a) \$20,400
b) \$22,700
c) \$20,764
d) \$26,800

7. Data concerning M Company's single product appear below:

	<u>Per Unit</u>	<u>Percent of Sales</u>
Selling price	\$120	100%
Variable expenses	<u>72</u>	<u>60%</u>
Contribution margin	<u>\$48</u>	<u>40%</u>

The company is currently selling 4,000 units per month. Fixed expenses are \$166,000 per month. Management is considering using a new component that would increase the unit variable cost by \$2. Since the new component would increase the features of the company's product, the marketing manager predicts that monthly sales would increase by 200 units. What should be the overall effect on the company's monthly net operating income of this change?

- a) Decrease of \$9,200
 b) Increase of \$1,200
 c) Decrease of \$1,200
 d) Increase of \$9,200
8. On the contribution margin income statement, variable selling costs are included in:
- a) Selling and administrative expenses
 b) Cost of goods sold
 c) Total variable expenses
 d) Total fixed expenses
9. Gross margin is synonymous with:
- a) Contribution margin
 b) Segment margin
 c) Operating income
 d) Gross profit
10. Contribution margin contributes toward:
- a) Covering fixed expenses and perhaps operating income
 b) Covering fixed expenses
 c) Covering variable expenses
 d) The Red Cross

Solutions to Problems

Problem #1

Units sold	20,000
Sales	\$800,000
Variable expenses:	
Cost of goods sold	560,000
Selling	60,000
Administrative	<u>40,000</u>
Contribution margin (17.5%)	140,000
Fixed expenses:	
Selling	40,000
Administrative	<u>70,000</u>
Operating income	\$30,000

Problem #2

a. Unit product cost under variable costing:

Direct materials	\$28
Direct labor	30
Variable manufacturing overhead	<u>7</u>
Variable cost per unit	\$65

Variable costing income statement

Sales	\$97,200
Variable expenses:	
Cost of goods sold	58,500
Selling and administrative	<u>9,900</u>
Contribution margin	28,800
Fixed expenses:	
Manufacturing overhead	14,300
Selling and administrative	<u>1,800</u>
Operating income	\$12,700

b. Unit product cost under absorption costing:

Direct materials	\$28
Direct labor	30
Variable manufacturing overhead	7
Fixed manufacturing overhead	<u>13</u>
Absorption cost per unit	\$78

Absorption costing income statement

Sales	\$97,200
Cost of goods sold	<u>70,200</u>
Gross margin	27,000
Selling and administrative	<u>11,700</u>
Operating income	\$15,300

Problem #3Income Statement

Sales	\$2,000,000
Variable expenses:	
Cost of goods sold	1,200,000
Commissions	100,000
Shipping expenses	<u>40,000</u>
Contribution margin	\$660,000
Fixed expenses:	
Depreciation expense	150,000
Salaries expense	260,000
Advertising expense	<u>80,000</u>
Operating income	\$170,000

Problem #4

Increase in inventory	800
Fixed overhead per unit	<u>\$3</u>
Fixed overhead deferred	\$2,400
Variable costing operating income	\$55,700
Fixed overhead per unit	<u>2,400</u>
Absorption costing operating income	\$58,100

Solutions to Multiple Choice Questions

- | | |
|-----|---|
| 1. | B |
| 2. | C |
| 3. | C |
| 4. | D |
| 5. | D |
| 6. | B |
| 7. | B |
| 8. | C |
| 9. | D |
| 10. | B |
| 11. | A |