CONTRIBUTION MARGIN INCOME STATEMENT

Key Terms and Concepts to Know

Contribution Margin Income Statement

- The contribution margin income statement is used for analysis and decision-making.
- The contribution margin income statement separates expenses by behavior, emphasizing the distinction between expenses that change when the level of activity changes and those that are unaffected by it.
- The traditional income statement separates expenses by function emphasizing the distinction between production and administrative and selling expenses. Gross margin is the first key measure of profitability.
- The type of income statement does not affect revenue and net income.
- Contribution margin is the first key measure of profitability.

Key Topics to Know

Contribution Margin Income Statement

- The contribution margin income statement separates expenses into fixed and variable categories.
- As explained in other modules, mixed costs must be separated into their variable and fixed elements before a contribution margin income statement can be prepard.
- Contribution margin income statement takes the following form:

Sales	Sales
	Variable Expenses:
	Production
Cost of Goods Sold	Selling
	Administrative
Gross Margin	Contribution Margin
Operating Expenses:	Fixed Expenses:
Selling	Production
Administrative	Selling
	Administrative
Operating Income	Operating Income

Stays the same
Variable cost
Fixed cost

Example #1

S Company manufactures and sells guitars for beginning students. Their income statement for April was as follows:

Sales		$600,000
Cost of Goods Sold		400,000
Gross Margin		200,000
Selling and Administrative Expenses:		
Selling expense	60,000	
Administrative expense	90,000	150,000

Operating Income	$50,000

The product sells for $300 each. Variable selling expenses are $20 per unit sold with the remaining selling expenses being fixed. The administrative expenses are 40% fixed. The company's manufacturing costs are 25% fixed, with total variable manufacturing costs of $150 per unit.

Required: Prepare an income statement using the contribution margin approach.

Solution #1

Units sold	$600,000/$300		2,000
Sales			$600,000
Variable Expenses:			
Cost of goods sold	$400,000*75%	300,000	
Selling expenses	$20*2,000	40,000	
Administrative expenses	$90,000*60%	54,000	394,000
Contribution Margin			$206,000
Fixed Expenses:			
Cost of goods sold	$400,000-300,000	100,000	
Selling expenses	$60,000-40,000	20,000	
Administrative expenses	$90,000*40%	36,000	156,000
Operating Income			$50,000

Practice Problems

Practice Problem #1

The L Company is a retailer that sells lawn mowers. The income statement for the month of June showed a gross margin of $60,000 and operating income of $20,000. Selling and administrative expenses were 50% fixed. Two hundred mowers were sold at an average price of $750 per unit. All mowers are purchased from Toro and John Deere.

Required:
a) Prepare an income statement for the month using the contribution approach.
b) What is the contribution margin per unit?

Practice Problem #2

I Company established the following standard price and cost information:

Sales price per unit	$50
Variable manufacturing cost per unit	$32
Fixed manufacturing cost	$100,000
Fixed selling expenses	$40,000

I Company expected to produce and sell 20,000 units. Actual production and sales amounted to 21,500 units.

Required:
a) Prepare a budgeted income statement using the contribution approach.
b) Prepare an actual income statement using the contribution approach.
c) Prepare a budgeted income statement using the traditional approach.
d) Prepare an actual income statement using the traditional approach.

True / False Questions

1. Variable costs per unit remain constant.
   True False

2. Fixed costs vary in total.
   True False

3. The relevant range is the range in which costs remain variable.
   True False

4. Contribution margin is defined as sales revenue less variable costs.
   True False

5. The unit contribution margin tells how much each additional unit sold will contribute to covering variable costs.
   True False

6. If volume increases, all costs will increase
   True False

7. The contribution margin is the same as the gross margin.
   True False

8. Profit is the unit contribution margin multiplied by the number of units sold minus fixed costs.
   True False

9. The contribution income statement is used for external reporting.
   True False

10. Revenue minus cost of goods sold equals contribution margin.
    True False

Multiple Choice Questions

1. If sales revenue doubles, variable costs will
   a) decrease in total
   b) increase in total
   c) decrease on a per unit basis
   d) increase on a per unit basis

2. Costs that remain the same in total, regardless of changes in activity level are:
   a) variable costs
   b) fixed costs
   c) mixed costs
   d) step-variable costs

3. Increasing the fixed portion of cost of goods sold
   a) Increases contribution margin
   b) Decreases contribution margin
   c) Increases gross profit
   d) Decreases gross profit

4. When S Company sells 40,000 units, its total variable cost is $96,000. What is its total variable cost when it sells 45,000 units?
   a) $84,000
   b) $96,000
   c) $108,000
   d) It cannot be determined from the information given.

5. If sales revenue doubles, fixed costs will
   a) decrease in total
   b) increase in total
   c) decrease on a per unit basis
   d) increase on a per unit basis

6. If units sold doubles at the same selling price per unit
   a) Variable expenses will double
   b) Fixed expenses will double
   c) Contribution margin ratio will double
   d) None of the above

7. Arnold Corp has a selling price of $20, variable costs of $15 per unit, and fixed costs of $25,000. Profit is expected to be $300,000 at its anticipated level of production. What is the unit contribution margin?
   a) $5.00
   b) $10.00
   c) $27.50
   d) $20.00.

The next 3 questions refer to the following information.
Anton Company produces and sells bicycles for $500. The variable costs per unit are $300 plus a sales commission of 15% of the selling price. Total fixed costs consist of $16,000 in fixed overhead and $9,000 in fixed selling and administrative costs. Sales volume was 200 units.

8. The gross margin for the year is:
   a) $16,000
   b) $31,000
   c) $24,000
   d) $25,000

9. The contribution margin for the year is:
   a) $16,000
   b) $31,000
   c) $24,000
   d) $25,000

10. The contribution margin ratio is:
   a) 60%
   b) 40%
   c) 25%
   d) 75%

Solutions to Practice Problems

Practice Problem #1

a)

		Total
Units sold		200
Sales	*750 units x 200 units*	$150,000
Variable expenses:		
Cost of goods sold	*$150,000 – 60,000* *(Sales - Gross Margin)*	90,000
S & A expenses	*($60,000-20,000) x 50%* *(Gross Margin-Op.Income)x50%*	20,000
Contribution margin		$40,000
Fixed expenses:		
Cost of goods sold	*All variable for a retailer*	0
S & A expenses	*($60,000-20,000) x 50%*	20,000
Operating income		$20,000

b) $200.00

Practice Problem #2

a)

	Budgeted Volume	Actual Volume
Sales	$1,000,000	$1,075,000
Variable manufacturing cost	640,000	688,000
Contribution margin	360,000	387,000
Fixed manufacturing cost	100,000	100,000
Fixed selling expenses	40,000	40,000
Net Income	$220,000	$237,000

b)

	Budgeted Volume	Actual Volume
Sales	$1,000,000	$1,075,000
Variable manufacturing cost	640,000	688,000
Fixed manufacturing cost	100,000	100,000
Gross margin	260,000	287,000
Fixed selling expenses	40,000	40,000

Net Income	$220,000	$237,000

Solutions to True / False Problems

1. True
2. False - fixed costs are constant in total.
3. False – the relevant range is the range of activity for which fixed costs remain constant in total.
4. True
5. False - contribution margin contributes to covering fixed costs and then profit.
6. False – total fixed costs do not change when volume changes,
7. False - direct costs have a direct and easily traceable relationship to cost objects.
8. True
9. False – the contribution income statement is used for internal decision-making.
10. False - Revenue minus variable costs equals contribution margin.

Solutions to Multiple Choice Questions

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