

Chapter 02 - Cost Concepts and Behavior

Chapter 02
Cost Concepts and Behavior

Essay Questions

87. The following information is available for the Netland Consulting Company for the fiscal year ended December 31.

| | |
|------------------|-----------|
| Gross margin | \$170,000 |
| Operating profit | \$ 65,500 |
| Revenues | \$809,000 |
| Income tax rate | 34% |

Required:

- Compute the cost of services sold. \approx CGS
- Compute the total marketing and administrative costs.
- Compute net income.

- $\$809,000 - x = \$170,000; x = \$639,000$
- $\$170,000 - x = \$65,500; x = \$104,500$
- $\$65,500 - [(.34)(\$65,500)] = x; x = \$43,230$

| | |
|------------------|-------------|
| S | 809,000 |
| CGS | 639,000 (a) |
| GM | 170,000 |
| - S&A | 104,500 (b) |
| NI _{BT} | 65,500 |
| Tax | 22,270 34% |
| NI _{AT} | 43,230 (c) |

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 2
Topic Area: Service Organizations

88. The following information is available for the Ridgedale Manufacturing Company for the fiscal year ended December 31.

| | |
|------------------|-----------|
| Revenues | \$900,000 |
| Gross margin | \$315,000 |
| Operating profit | 85,000 |
| Income tax rate | 32% |

Required:

- (a) Compute the cost of goods sold.
- (b) Compute the total marketing and administrative costs.
- (c) Compute net income.

(a) $\$900,000 - x = \$315,000$; $x = \underline{\$585,000}$

(b) $\$315,000 - x = \$85,000$; $x = \underline{\$230,000}$

(c) $\$85,000 - (.32 \times \$85,000) = \underline{\$57,800}$

AACSB: Analytic

AICPA: FN-Measurement

Bloom's: Application

Difficulty: Easy

Learning Objective: 2

Topic Area: Manufacturing Companies

89. The following information is available for the Roberts Retail Store for the fiscal year ended December 31.

| | |
|---------------------------------|-----------|
| Ending inventory | \$100,100 |
| Transportation-in costs | \$ 8,900 |
| Purchase discounts | \$ 15,000 |
| Beginning inventory | \$ 79,000 |
| Merchandise cost | \$450,000 |
| Purchase returns and allowances | \$ 6,200 |
| Sales revenue | \$800,000 |
| Sales discounts | \$ 12,500 |

Required:

- (a) Prepare a cost of goods sold statement for Roberts Retail Store.
 (b) Compute the gross margin for the fiscal year ended December 31.

| | | |
|----------------------------------|-----------------|------------------|
| (a) | | |
| Beginning inventory | | \$ 79,000 |
| Cost of goods purchased: | | |
| Merchandise (cost) | \$450,000 | |
| Purchase returns | (6,200) | |
| Purchase discounts | (15,000) | |
| Transportation-in costs | <u>8,900</u> | |
| Total cost of goods purchased | | <u>437,700</u> |
| Cost of goods available for sale | | 516,700 |
| Ending inventory | | <u>(100,100)</u> |
| Cost of goods sold | | <u>\$416,600</u> |
| (b) | | |
| Sales revenue (gross) | \$800,000 | |
| Less sales discounts | <u>(12,500)</u> | |
| Sales revenues (net) | | <u>\$787,500</u> |
| Cost of goods sold | | <u>416,600</u> |
| Gross margin | | <u>\$370,900</u> |

AACSB: Analytic
 AICPA: FN-Measurement
 Bloom's: Application
 Difficulty: Easy
 Learning Objective: 2
 Topic Area: Presentation of Costs in Financial Statements

| + Inventory - | | | |
|---------------|-----|---------|--------|
| 79. | | S gross | 800 |
| 8.9 | 15 | | (12.5) |
| 450 | 6.2 | S net | 787.5 |
| | | CGS | 416.6 |
| | | GM | 370.9 |
| 100.1 | | | |

(a) (b)

89. The following information is available for the Roberts Retail Store for the fiscal year ended December 31.

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- Prepare a cost of goods sold statement for Roberts Retail Store.
- Compute the gross margin for the fiscal year ended December 31.

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AACSB: Analytic

AICPA: FN-Measurement

Bloom's: Application

Difficulty: Easy

Learning Objective: 2

Topic Area: Presentation of Costs in Financial Statements

90. Required:

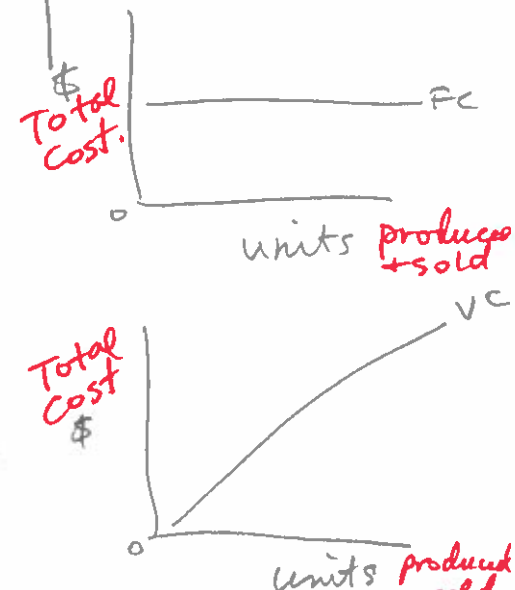
For each of the following costs incurred in a manufacturing company, indicate whether the costs are (a) fixed or variable and (b) product costs or period costs.

| | Cost Item | Fixed | Variable | Product | Period |
|----|--|-------|----------|---------|--------|
| 0 | Annual audit and tax return fees | X | | | X |
| 1 | Costs (other than food) of running the cafeteria for factory personnel | | | | |
| 2 | Direct materials used | | | | |
| 3 | Clerical staff in administrative offices | | | | |
| 4 | Depreciation of factory machinery* | | | | |
| 5 | Property taxes on the factory | | | | |
| 6 | Insurance premiums on delivery vans | | | | |
| 7 | Factory custodian pay | | | | |
| 8 | Sales commissions | | | | |
| 9 | Rent paid for corporate jet | | | | |
| 10 | Transportation-in costs for indirect material | | | | |

* Straight-line depreciation method used.

| | Cost Item | Fixed | Variable | Product | Period |
|----|--|-------|----------|---------|--------|
| 1 | Costs (other than food) of running the cafeteria for factory personnel | X | | X | |
| 2 | Direct materials used | | X | X | |
| 3 | Clerical staff in administrative offices | X | | | X |
| 4 | Depreciation of factory machinery* | X | | X | |
| 5 | Property taxes on the factory | X | | X | |
| 6 | Insurance premiums on delivery vans | X | | | X |
| 7 | Factory custodian pay | X | | X | |
| 8 | Sales commissions | | X | | X |
| 9 | Rent paid for corporate jet | X | | | X |
| 10 | Transportation-in costs for indirect material | | X | X | |

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application
Difficulty: Easy
Learning Objective: 4
Learning Objective: 5
Topic Area: Cost Behavior



92. The following cost and inventory data were taken from the records of the Beca Company for the year:

Costs incurred:

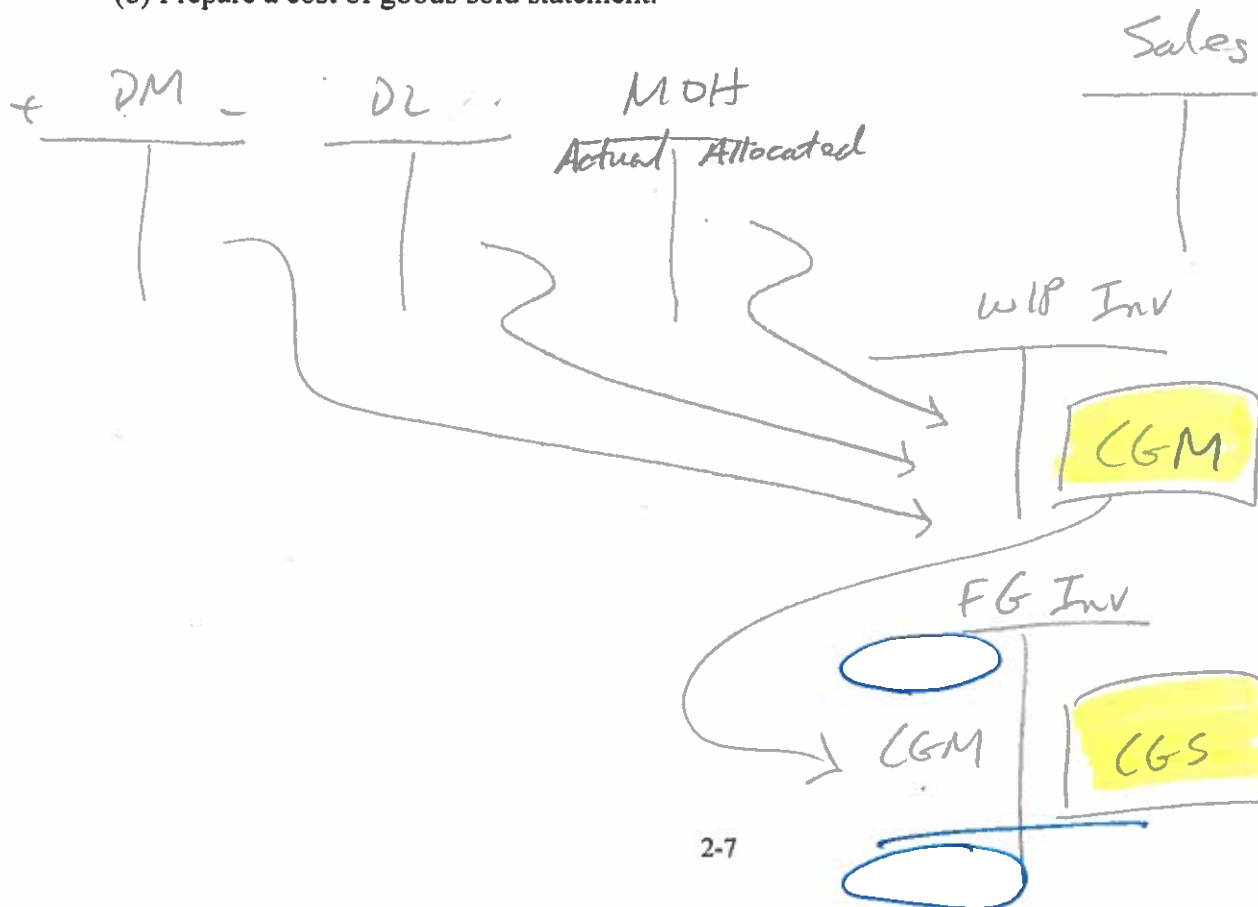
| | |
|-------------------------------------|----------|
| Depreciation, factory equipment | \$30,000 |
| Depreciation, office equipment | 7,000 |
| Supplies, factory | 1,500 |
| Maintenance, factory equipment | 20,000 |
| Utilities, factory | 8,000 |
| Sales commissions | 30,000 |
| Indirect labor | 54,500 |
| Rent, factory building | 70,000 |
| Purchases of direct materials (net) | 124,000 |
| Direct labor | 80,000 |
| Advertising expense | 90,000 |

Inventories:

| | <u>January 1</u> | <u>December 31</u> |
|------------------|------------------|--------------------|
| Direct materials | \$9,000 | \$11,000 |
| Work in process | 6,000 | 21,000 |
| Finished goods | 69,000 | 24,000 |

Required:

- Compute the cost of goods manufactured.
- Prepare a cost of goods sold statement.



Chapter 02 - Cost Concepts and Behavior

(a)

Beginning work in process inventory \$ 6,000

Manufacturing costs during the year:

Direct materials

Beginning inventory \$ 9,000

Purchases (net) 124,000

Direct materials available 133,000

Ending inventory - 11,000

Direct materials put into production 122,000

Direct labor 80,000

Manufacturing overhead

Depreciation \$ 30,000

Supplies 1,500

Maintenance 20,000

Utilities 8,000

Indirect labor 54,500

Rent 70,000

Total manufacturing overhead 184,000

Total manufacturing costs incurred 386,000

Ending work in process inventory - 21,000

Cost of goods manufactured \$371,000 ✓ CGM

(b)

Beginning finished goods inventory \$ 69,000

Cost of goods manufactured 371,000

Cost of goods available for sale 440,000

Ending finished goods inventory - 24,000

Cost of goods sold \$416,000

AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 3
Topic Area: Cost Allocation

92

(000)

| + DM, Inv - | |
|-------------|------|
| 9 | |
| 124 | 122 |
| purchased | used |
| 11 | |

| DL | |
|----|----|
| | 80 |

| MOH | |
|--------|-----------|
| Actual | Allocated |
| 30 | |
| 1.5 | |
| 20 | 184 |
| 8 | |
| 54.5 | |
| 70 | |

| + WIP, Inv - | |
|--------------|-----|
| 6 | |
| 122 | |
| 80 | |
| 184 | |
| | 371 |
| | CGM |
| 21 | |

(a)

| + FG, Inv - | |
|-------------|-----|
| 69 | |
| 371 | |
| | 416 |
| | CGS |
| 24 | |

(b)

93. The Matter Manufacturing Company provided you with the following information for the fiscal year ended December 31.

| | |
|-----------------------------------|-----------|
| Work-in-process inventory, 12/31 | \$ 57,900 |
| Finished goods inventory, 1/1 | 307,400 |
| Direct labor costs incurred | 1,004,300 |
| Manufacturing overhead costs | 2,693,400 |
| Direct materials inventory, 1/1 | 250,800 |
| Finished goods inventory, 12/31 | 511,000 |
| Direct materials purchased | 1,750,200 |
| Work-in-process inventory, 1/1 | 101,000 |
| Direct materials inventory, 12/31 | 169,400 |

Required:

- Compute the total manufacturing costs incurred during the year.
- Compute the total work-in-process during the year.
- Compute the cost of goods manufactured during the year.
- Compute the cost of goods sold during the year.
- Compute the total prime costs for the year.
- Compute the total conversion costs for the year.

(a) $(\$250,800 + 1,750,200 - 169,400) + 1,004,300 + 2,693,400 = x$; $x = \underline{\$5,529,300}$

(b) $\$101,000 + 5,529,300 = x$; $x = \underline{\$5,630,300}$

(c) $\$101,000 + 5,529,300 - 57,900 = x$; $x = \underline{\$5,572,400}$

(d) $\$307,400 + 5,572,400 - 511,000 = x$; $x = \underline{\$5,368,800}$

(e) $(\$250,800 + 1,750,200 - 169,400) + 1,004,300 = x$; $x = \underline{\$2,835,900}$

(f) $\$1,004,300 + 2,693,400 = x$; $x = \underline{\$3,697,700}$

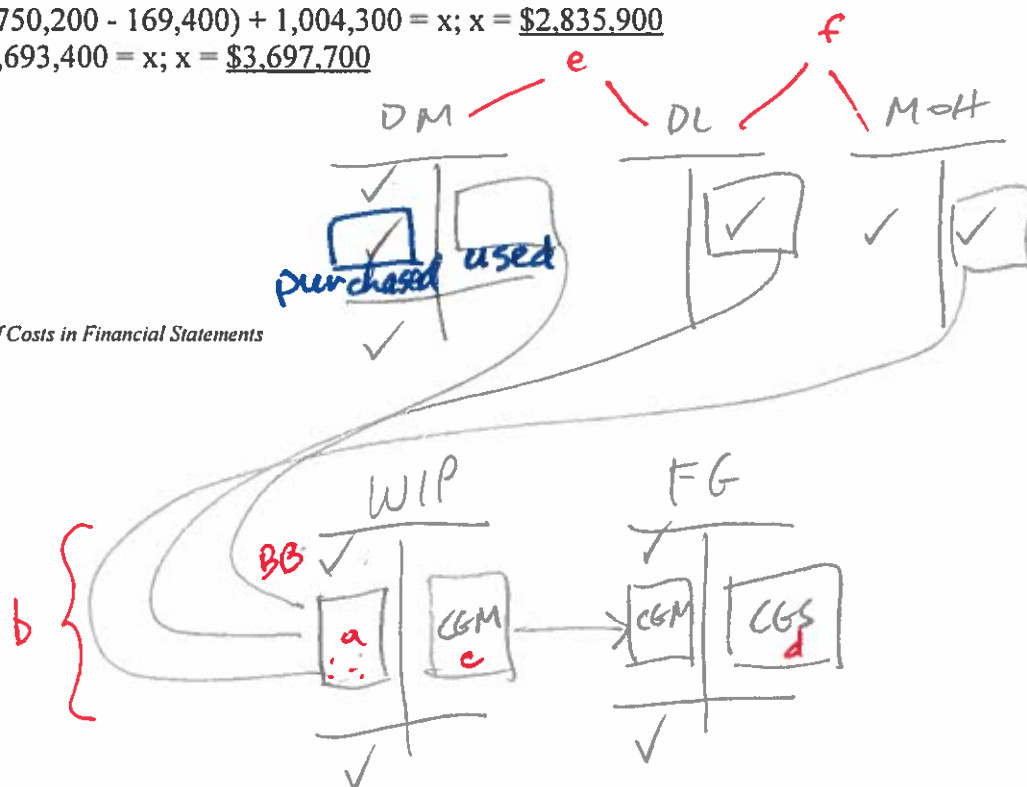
AACSB: Analytic
AICPA: FN-Measurement
Bloom's: Application

Difficulty: Medium

Learning Objective: 4

Learning Objective: 5

Topic Area: Presentation of Costs in Financial Statements



93

(000)

Prime
2,835.9 (e)

Conversion
3,697.7 (f)

| DM | |
|----------------------|-----------------|
| 250.8 | 1,831.6 Used |
| 1,750.2 purchased | |
| 169.4 | |

| DL |
|---------|
| 1,004.3 |

| MOH | |
|--------|-----------|
| Actual | Allocated |
| | 2,693.4 |

WIP (b) = 5,630.3

FG

| | |
|---------|--------------------|
| 101 | 5,572.4 CGM (c) |
| 1,831.6 | |
| 1,004.3 | |
| 2,693.4 | |
| 57.9 | |

| | |
|---------|--------------------|
| 307.4 | 5,368.8 CGS (d) |
| 5,572.4 | |
| 511 | |

5,529.3 (a)