

FINANCIAL STATEMENTS

Key Topics to Know

- Cost of good sold statement is prepared from the finished goods inventory account.
- Cost of goods sold statement has the same format as in financial accounting.
- Cost of goods manufactured schedule is prepared from both the raw materials inventory and work in process inventory accounts.
- Cost of goods manufactured schedule has a similar format to two cost of goods sold schedules stacked one on top of the other. In other words, the cost of goods manufactured schedule first analyses the raw materials inventory account and second the work in process inventory account.
- For all three inventory accounts being analyzed, the amount being determined is the outflow or deduction being credited to the inventory account.

Problems

Problem #1

<u>Cost of Goods Manufactured</u>	<u>Case 1</u>	<u>Case 2</u>
Direct materials	8,000	6,000
Direct labor	3,000	5,000
Manufacturing overhead	_____	7,000
Total manufacturing costs	32,000	_____
Beginning work in process inventory	_____	2,000
Ending work in process inventory	2,000	_____
Cost of goods manufactured	_____	_____

Income Statement

Sales	50,000	30,000
Beginning finished goods inventory	9,000	7,000
Cost of goods manufactured	31,500	_____
Goods available for sale	_____	23,000
Ending finished goods inventory	7,000	5,000
Cost of goods sold	_____	_____
Gross margin	_____	12,000
Operating expenses	10,000	_____
Net income	6,500	3,000

Required: Fill in the missing information given above.

Problem #2

The following data were taken from the cost records:

Depreciation, factory	70,000
Indirect labor	110,000
Utilities, factory	50,000
Insurance factory	15,000
Lubricants for machines	10,000
Direct Labor	210,000
Purchases of raw materials	160,000
Depreciation, sales furniture	7,000

Inventories at the beginning and end of the year were as follows:

	<u>January 1</u>	<u>December 31</u>
Raw materials	15,000	25,000
Work in process	30,000	10,000
Finished goods	40,000	60,000

- Required:
- a) Prepare a Schedule of Cost of Goods Manufactured for the year.
 - b) Prepare a Schedule of Cost of Goods Sold for the year.

Problem #3

Bakerston Company is a manufacturing firm that uses job-order costing. The company's inventory balances were as follows at the beginning and end of the year:

	<u>Beginning balance</u>	<u>Ending balance</u>
Raw materials	\$14,000	\$22,000
Work in process	\$27,000	\$9,000
Finished goods	\$62,000	\$77,000

The company applies overhead to jobs using a predetermined overhead rate based on machine-hours. At the beginning of the year, the company estimated that it would work 33,000 machine-hours and incur \$231,000 in manufacturing overhead cost. The following transactions were recorded for the year:

- Raw materials were purchased, \$315,000.
- Raw materials were requisitioned for use in production, \$307,000 (\$281,000 direct and \$26,000 indirect).
- The following employee costs were incurred: direct labor, \$377,000; indirect labor, \$96,000; and administrative salaries, \$172,000.
- Selling costs, \$147,000.
- Factory utility costs, \$10,000.
- Depreciation for the year was \$127,000 of which \$120,000 is related to factory operations and \$7,000 is related to selling, general, and administrative activities.
- Manufacturing overhead was applied to jobs. The actual level of activity for the year was 34,000 machine-hours.
- Sales for the year totaled \$1,253,000.

- Required:
- a) Prepare a schedule of cost of goods manufactured.
 - b) Was the overhead underapplied or overapplied? By how much?
 - c) Prepare an income statement for the year. The company closes any underapplied or overapplied overhead to Cost of Goods Sold.

Problem #4

Hacken Company has a job-order costing system. The company applies manufacturing overhead to jobs using a predetermined overhead rate based on direct labor cost. The information below has been taken from the cost records of Hacken Company for the past year:

Direct materials used	\$1,250
Total manufacturing costs	6,050
Overhead applied	2,800
Selling expenses	1,000
Direct materials inventory, January 1	130
Direct materials inventory, December 31	80
Work in process, January 1	250
Work in process, December 31	400
Finished goods, January 1	300
Finished goods, December 31	200

Required:

- a. Compute the cost of direct materials purchased during the year.
- b. Compute the predetermined overhead rate that was used during the past year.
- c. Compute the Cost of Goods Manufactured for the past year.
- d. Compute the unadjusted Cost of Goods Sold for the past year.

Multiple Choice Questions

1. When units are sold, the cost associated with the units is credited to which account?
 - a) Raw Materials Inventory
 - b) Work in Process Inventory
 - c) Finished Goods Inventory
 - d) Cost of Goods Sold

2. When units are manufactured, the cost associated with the units is credited to which account?
 - a) Raw Materials Inventory
 - b) Work in Process Inventory
 - c) Finished Goods Inventory
 - d) Cost of Goods Sold

3. Alcatraz Corp has the following information:

	<u>Beginning</u> <u>balance</u>	<u>Ending</u> <u>balance</u>
Raw materials	20,000	30,000
Work in process	15,000	18,000
Finished goods	30,000	20,000

The following additional information is available for the year:

Raw materials purchases	100,000
Direct labor	75,000
Manufacturing overhead applied	80,000
Indirect materials	0

Compute the direct materials used in production.

- a) \$20,000
- b) \$30,000
- c) \$110,000
- d) \$90,000

4. Mathews Woodworking manufactures baseball bats and wooden tops. Currently, Mathews makes 5,000 baseball bats each month. Each bat uses \$1.00 in direct materials and \$0.50 in direct labor. There are two activities in manufacturing the baseball bats: Cutting and Finishing. The cost associated with Cutting is \$7,500 a month, allocated on the basis of direct labor hours. The cost associated with Finishing is \$12,000 a month, allocated on the basis of batches. Usage of the activity drivers are as follows:

	<u>Bats</u>	<u>Tops</u>
Direct labor hours	100	200
Batches	4	6

What is the total manufacturing cost for one baseball bat?

- a) \$1.46
 - b) \$1.50
 - c) \$2.96
 - d) \$19,501.50
5. Nieman Inc., a local retailer, has provided the following data for March:

Merchandise inventory, beginning balance	\$30,000
Merchandise inventory, ending balance	\$34,000
Sales	\$280,000
Purchases of merchandise inventory	\$146,000
Selling expense	\$27,000
Administrative expense	\$64,000

The cost of goods sold for March was:

- a) \$146,000
 - b) \$150,000
 - c) \$1422,000
 - d) \$237,000
6. On the Schedule of Cost of Goods Manufactured, the final Cost of Goods Manufactured figure represents:
- a) the amount of cost charged to Work in Process during the period.
 - b) the amount of cost transferred from Finished Goods to Cost of Goods Sold during the period.
 - c) the amount of cost placed into production during the period
 - d) the amount of cost of goods completed during the current year whether they were started before or during the current year.

7. Nieman Inc., a local retailer, has provided the following data for March:

Merchandise inventory, beginning balance	\$30,000
Merchandise inventory, ending balance	\$34,000
Sales	\$280,000
Purchases of merchandise inventory	\$146,000
Selling expense	\$27,000
Administrative expense	\$64,000

The net operating income for March was:

- a) \$130,000
 - b) \$134,000
 - c) \$43,000
 - d) \$47,000
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. The two amounts that are the same on both the traditional and contribution margin income statements are:
- a) Revenue and cost of goods sold
 - b) Revenue and Operating income
 - c) Cost of goods sold and variable expenses
 - d) Selling and administrative expenses and fixed expenses
11. 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

	<u>Case 1</u>	<u>Case 2</u>
Direct materials	8,000	6,000
Direct labor	3,000	5,000
Manufacturing overhead	<u>21,000</u>	<u>7,000</u>
Total manufacturing costs	32,000	18,000
Add: Beginning work in process inventory	1,500	2,000
Deduct: Ending work in process inventory	<u>2,000</u>	<u>4,000</u>
Cost of goods manufactured	31,500	16,000
Sales	50,000	30,000
Beginning finished goods inventory	9,000	7,000
Add: Cost of goods manufactured	<u>31,500</u>	<u>16,000</u>
Goods available for sale	40,500	23,000
Deduct: Ending finished goods inventory	<u>7,000</u>	<u>5,000</u>
Cost of goods sold	<u>33,500</u>	<u>18,000</u>
Gross margin	16,500	12,000
Operating expenses	<u>10,000</u>	<u>9,000</u>
Net income	6,500	3,000

Problem #2

a)

Schedule of Cost of Goods Manufactured

Direct materials:		
Raw materials inventory, January 1	15,000	
Add: Purchases of raw materials	<u>160,000</u>	
Raw materials available for use	175,000	
Deduct: raw materials inventory, Dec. 31	<u>25,000</u>	
Raw materials used in production		150,000
Direct Labor		210,000
Manufacturing overhead:		
Depreciation, factory	70,000	
Indirect labor	110,000	
Utilities, factory	50,000	
Insurance, factory	15,000	
Lubricants for machines	<u>10,000</u>	
Total overhead costs		<u>255,000</u>
Total manufacturing costs		615,000
Add: Work in process inventory, January 1		<u>30,000</u>
		645,000
Deduct: Work in process inventory, Dec. 31		<u>10,000</u>
Cost of Goods Manufactured		635,000

b)

Schedule of Cost of Goods Sold

Finished goods inventory, January 1	40,000
Add: Cost of Goods Manufactured	<u>635,000</u>
Goods available for sale	675,000
Deduct: Finished goods inventory, Dec 1	<u>60,000</u>
Cost of Goods Sold	615,000

Problem #3

a)

<u>Estimated overhead</u>	<u>\$231,000</u>		
Estimated machine hours	33,000	= \$7.00	

Overhead applied:

Actual machine hours x overhead rate	34,000 x \$7.00	= \$238,000
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Schedule of Cost of Goods Manufactured

Direct materials:		
Raw materials inventory, January 1	\$14,000	
Add: Purchases of raw materials	<u>315,000</u>	
Raw materials available for use	329,000	
Deduct: raw materials inventory, Dec. 31	<u>22,000</u>	
Raw materials used in production		\$307,000
Less: Indirect materials used		<u>26,000</u>
Direct materials used		281,000
Direct Labor		377,000
Manufacturing overhead applied		<u>238,000</u>
Total manufacturing costs		896,000
Add: Work in process inventory, January 1		<u>27,000</u>
		923,000
Deduct: Work in process inventory, Dec. 31		<u>9,000</u>
Cost of Goods Manufactured		\$914,000

b)

Actual overhead costs incurred:	\$26,000
Indirect materials	\$26,000
Indirect labor	96,000
Factory utilities	10,000
Factory depreciation	<u>120,000</u>
	252,000
Overhead applied	<u>238,000</u>
Under applied overhead	\$14,000

c)

Income Statement

Sales		\$1,253,000
Cost of goods sold:		
Beginning finished goods inventory	\$62,000	
Cost of goods manufactured	<u>914,000</u>	
Goods available for sale	976,000	
Ending finished goods inventory	<u>77,000</u>	
	899,000	
add: under applied overhead	<u>14,000</u>	
Cost of goods sold		<u>913,000</u>
Gross margin		340,000
Selling and administrative expense		<u>326,000</u>
		\$14,000

Problem #4

a)

Direct materials inventory, December 31	80
Direct materials used	1,250
Less: Direct materials inventory, January 1	\$130
Direct materials purchased	\$1,200

b)

Total manufacturing costs	\$6,050
less: Direct materials used	1,250
Overhead applied	<u>2,800</u>
Direct labor	\$2,000

Overhead rate =	$\frac{\text{Applied overhead}}{\text{Direct labor}}$	$\frac{\$2,800}{2,000}$	\$1.40 per dl\$
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c)

Work in process, January 1	\$250
Total manufacturing costs	<u>6,050</u>
	6,300
Work in process, December 31	<u>400</u>
Cost of goods manufactured	\$5,900

d)

Finished goods, January 1	\$300
Cost of goods manufactured	<u>5,900</u>
Goods available for sale	6,200
Finished goods, December 31	200
Unadjusted cost of goods sold	\$6,000

Solutions to Multiple Choice Questions

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