

CHAPTER 19

Managerial Accounting

ASSIGNMENT CLASSIFICATION TABLE

<u>Study Objectives</u>	<u>Questions</u>	<u>Brief Exercises</u>	<u>Exercises</u>	<u>A Problems</u>	<u>B Problems</u>
1. Explain the distinguishing features of managerial accounting.	1, 2, 3	1	1		
2. Identify the three broad functions of management.	4, 5, 6, 7	2, 3			
3. Define the three classes of manufacturing costs.	10, 11	4, 5, 7	2, 3, 4, 5, 6	1A, 2A	1B, 2B
4. Distinguish between product and period costs.	12	6	3, 4, 5, 7, 13	1A, 2A	1B, 2B
5. Explain the difference between a merchandising and a manufacturing income statement.	8, 13		8, 12, 13, 14, 15, 17	3A, 4A, 5A	3B, 4B, 5B
6. Indicate how cost of goods manufactured is determined.	14, 15, 16, 17	8, 10, 11	8, 9, 10, 11, 12, 13, 14, 15, 16, 17	3A, 4A, 5A	3B, 4B, 5B
7. Explain the difference between a merchandising and a manufacturing balance sheet.	9, 18	9	14, 15, 16, 17	3A, 4A	3B, 4B
8. Identify trends in managerial accounting.	19, 20, 21, 22		18		

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Classify manufacturing costs into different categories and compute the unit cost.	Simple	20–30
2A	Classify manufacturing costs into different categories and compute the unit cost.	Simple	20–30
3A	Indicate the missing amount of different cost items, and prepare a condensed cost of goods manufactured schedule, an income statement, and a partial balance sheet.	Moderate	30–40
4A	Prepare a cost of goods manufactured schedule, a partial income statement, and a partial balance sheet.	Moderate	30–40
5A	Prepare a cost of goods manufactured schedule and a correct income statement.	Moderate	30–40
1B	Classify manufacturing costs into different categories and compute the unit cost.	Simple	20–30
2B	Classify manufacturing costs into different categories and compute the unit cost.	Simple	20–30
3B	Indicate the missing amount of different cost items, and prepare a condensed cost of goods manufactured schedule, an income statement, and a partial balance sheet.	Moderate	30–40
4B	Prepare a cost of goods manufactured schedule, a partial income statement, and a partial balance sheet.	Moderate	30–40
5B	Prepare a cost of goods manufactured schedule and a correct income statement.	Moderate	30–40

BLOOM'S TAXONOMY TABLE

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Explain the distinguishing features of managerial accounting.		Q19-1 BE19-1 E19-1 Q19-3				
2. Identify the three broad functions of management.		Q19-4 Q19-5 BE19-2 BE19-3				
3. Define the three classes of manufacturing costs.	Q19-10	Q19-11 BE19-7 E19-2 E19-3	E19-4 P19-1A P19-2B E19-5 P19-2A E19-6 P19-1B			
4. Distinguish between product and period costs.		Q19-12 BE19-6 E19-3	E19-4 E19-13 P19-1B E19-5 P19-1A P19-2B E19-7 P19-2A			
5. Explain the difference between a merchandising and a manufacturing income statement.		Q19-8 Q19-13 E19-15	E19-8 E19-14 P19-4B E19-12 E19-17 E19-13 P19-4A	P19-3A P19-5B P19-5A P19-3B		
6. Indicate how cost of goods manufactured is determined.	Q19-14	E19-15	Q19-15 E19-8 E19-14 E19-16 E19-9 E19-10 E19-17 E19-11 P19-8 E19-11 P19-4A P19-3A BE19-10 E19-12 P19-4B P19-5A BE19-11 E19-13	E19-8 P19-5B E19-14 E19-8 E19-16 E19-10 E19-17 E19-11 P19-4A P19-3A P19-4B P19-5A P19-3B		
7. Explain the difference between a merchandising and a manufacturing balance sheet.	Q19-18	Q19-9 E19-15	BE19-9 E19-14 E19-16	E19-17 P19-3A P19-4A P19-3B P19-4B		
8. Identify trends in managerial accounting.		Q19-19 Q19-20 Q19-21	Q19-19 Q19-22 E19-18			
Broadening Your Perspective		Real-World Focus		Decision Making Across the Organization Communication Managerial Analysis Exploring the Web		Ethics Case All About You

ANSWERS TO QUESTIONS

1. (a) Disagree. Managerial accounting is a field of accounting that provides economic and financial information for managers and other internal users.
 (b) Mary is incorrect. Managerial accounting applies to all types of businesses—service, merchandising, and manufacturing.
2. (a) Financial accounting is concerned primarily with external users such as stockholders, creditors, and regulators. In contrast, managerial accounting is concerned primarily with internal users such as officers and managers.
 (b) Classified financial statements are the end product of financial accounting. The statements are prepared quarterly and annually. In managerial accounting, internal reports may be prepared daily, weekly, monthly, quarterly, annually, or as needed.
 (c) The purpose of financial accounting is to provide general-purpose information for all users. The purpose of managerial accounting is to provide special-purpose information for a particular user for a specific decision.

3. Differences in the content of the reports are as follows:

Financial	Managerial
<ul style="list-style-type: none"> • Pertains to business as a whole and is highly aggregated. • Limited to double-entry accounting and cost data. • Generally accepted accounting principles. 	<ul style="list-style-type: none"> • Pertains to subunits of the business and may be very detailed. • May extend beyond double-entry accounting system to any relevant data. • Standard is relevance to decisions.

In financial accounting, financial statements are verified annually through an independent audit by certified public accountants. There are no independent audits of internal reports issued by managerial accountants.

4. Budgets are prepared by companies to provide future direction. Because the budget is also used as an evaluation tool, some managers try to game the budgeting process by underestimating their division's predicted performance so that it will be easier to meet their performance targets. On the other hand, if the budget is set at unattainable levels, managers sometimes take unethical actions to meet targets to receive higher compensation or in some cases to keep their jobs.
5. Karen should know that the management of an organization performs three broad functions:
 - (1) **Planning** requires management to look ahead and to establish objectives.
 - (2) **Directing** involves coordinating the diverse activities and human resources of a company to produce a smooth-running operation.
 - (3) **Controlling** is the process of keeping the company's activities on track.
6. Disagree. Decision making is not a separate management function. Rather, decision making involves the exercise of good judgment in performing the three management functions explained in the answer to question five above.
7. CEOs and CFOs must now certify that financial statements give a fair presentation of the company's operating results and its financial condition and that the company maintains an adequate system of internal controls. In addition, the composition of the board of directors and audit committees receives more scrutiny, and penalties for misconduct have increased.

Questions Chapter 19 (Continued)

8. The differences between income statements are in the computation of the cost of goods sold as follows:

Manufacturing company: Beginning finished goods inventory plus cost of goods manufactured minus ending finished goods inventory = cost of goods sold.

Merchandising company: Beginning merchandise inventory plus cost of goods purchased minus ending merchandise inventory = cost of goods sold.

9. The difference in balance sheets pertains to the presentation of inventories in the current asset section. In a merchandising company, only merchandise inventory is shown. In a manufacturing company, three inventory accounts are shown: finished goods, work in process, and raw materials.
10. Manufacturing costs are classified as either direct materials, direct labor, or manufacturing overhead.
11. No, Matt is not correct. The distinction between direct and indirect materials is based on two criteria: (1) physical association and (2) the convenience of making the physical association. Materials which can not be easily associated with the finished product are considered indirect materials.
12. Product costs, or inventoriable costs, are costs that are a necessary and integral part of producing the finished product. Period costs are costs that are identified with a specific time period rather than with a salable product. These costs relate to nonmanufacturing costs and therefore are not inventoriable costs.
13. A merchandising company has beginning merchandise inventory, cost of goods purchased, and ending merchandise inventory. A manufacturing company has beginning finished goods inventory, cost of goods manufactured, and ending finished goods inventory.
14. (a) x = total cost of work in process.
(b) x = cost of goods manufactured.

15.	Raw materials inventory, beginning	\$ 12,000
	Raw materials purchases	<u>170,000</u>
	Total raw materials available for use	182,000
	Raw materials inventory, ending.....	<u>15,000</u>
	Direct materials used	<u>\$167,000</u>
16.	Direct materials used.....	\$240,000
	Direct labor used.....	200,000
	Total manufacturing overhead.....	<u>180,000</u>
	Total manufacturing costs	<u>\$620,000</u>
17.	(a) Total cost of work in process (\$26,000 + \$620,000)	\$646,000
	(b) Cost of goods manufactured (\$646,000 – \$32,000)	\$614,000

18. The order of listing is finished goods inventory, work in process inventory, and raw materials inventory.
19. The value chain refers to all activities associated with providing a product or service. For a manufacturer, this includes research and development, product design, acquisition of raw materials, production, sales and marketing, delivery, customer relations, and subsequent service.

Questions Chapter 19 (Continued)

- 20.** In a just-in-time inventory system the company has no extra inventory stored. Consequently, if some units that are produced are defective, the company will not have enough units to deliver to customers.
- 21.** The balanced scorecard is called “balanced” because it strives to not over emphasize any one performance measure, but rather uses both financial and non-financial measures to evaluate all aspects of a company’s operations in an integrated fashion.
- 22.** Activity-based costing is an approach used to allocate overhead based on each product’s relative use of activities in making the product. Activity-based costing is beneficial because it results in more accurate product costing and in more careful scrutiny of all activities in the value chain.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 19-1

	<u>Financial Accounting</u>	<u>Managerial Accounting</u>
Primary users	External users	Internal users
Types of reports	Financial statements	Internal reports
Frequency of reports	Quarterly and annually	As frequently as needed
Purpose of reports	General-purpose	Special-purpose information for a particular user for a specific decision
Content of reports	Generally accepted accounting principles	Relevance to decisions
Verification	Annual audit by certified public accountant	No independent audits

BRIEF EXERCISE 19-2

One implication of SOX was to clarify top management's responsibility for the company's financial statements. CEOs and CFOs must now certify that financial statements give a fair presentation of the company's operating results and its financial condition. In addition, top management must certify that the company maintains an adequate system of internal controls to safeguard the company's assets and ensure accurate financial reports. Also, more attention is now paid to the composition of the company's board of directors. In particular, the audit committee of the board of directors must be comprised entirely of independent members (that is, non-employees) and must contain at least one financial expert. Finally, to increase the likelihood of compliance with these and other new rules, the penalties for misconduct were substantially increased.

BRIEF EXERCISE 19-3

- (a) (1) Planning.**
- (b) (2) Directing.**
- (c) (3) Controlling.**

BRIEF EXERCISE 19-4

- (a) DM Frames and tires used in manufacturing bicycles.**
- (b) DL Wages paid to production workers.**
- (c) MO Insurance on factory equipment and machinery.**
- (d) MO Depreciation on factory equipment.**

BRIEF EXERCISE 19-5

- (a) Direct materials.**
- (b) Direct materials.**
- (c) Direct labor.**
- (d) Manufacturing overhead.**
- (e) Manufacturing overhead.**
- (f) Direct materials.**
- (g) Direct materials.**
- (h) Manufacturing overhead.**

BRIEF EXERCISE 19-6

- (a) Product.**
- (b) Period.**
- (c) Period.**
- (d) Period.**
- (e) Product.**
- (f) Product.**

BRIEF EXERCISE 19-7

Product Costs			
	<u>Direct Materials</u>	<u>Direct Labor</u>	<u>Factory Overhead</u>
(a)			X
(b)	X		
(c)			X
(d)		X	

BRIEF EXERCISE 19-8

(a)	Direct materials used.....	\$180,000
	Direct labor	229,000
	Total manufacturing overhead	<u>208,000</u>
	Total manufacturing costs.....	<u>\$617,000</u>
(b)	Beginning work in process	\$ 25,000
	Total manufacturing costs.....	<u>617,000</u>
	Total cost of work in process	<u>\$642,000</u>

BRIEF EXERCISE 19-9

**DIEKER COMPANY
Balance Sheet
December 31, 2008**

Current assets		
	Cash	\$ 62,000
	Accounts receivable	200,000
	Inventories	
	Finished goods.....	\$71,000
	Work in process	87,000
	Raw materials.....	<u>73,000</u>
	Prepaid expenses	<u>38,000</u>
	Total current assets	<u>\$531,000</u>

BRIEF EXERCISE 19-10

	<u>Direct Materials Used</u>	<u>Direct Labor Used</u>	<u>Factory Overhead</u>	<u>Total Manufacturing Costs</u>
(1)				\$136,000
(2)	\$81,000			
(3)		\$144,000		

BRIEF EXERCISE 19-11

	<u>Total Manufacturing Costs</u>	<u>Work in Process (January 1)</u>	<u>Work in Process (December 31)</u>	<u>Cost of Goods Manufactured</u>
(1)	\$136,000			\$174,000
(2)		\$123,000		
(3)			\$58,000	

SOLUTIONS TO EXERCISES

EXERCISE 19-1

1. **False.** Financial accounting focuses on providing information to *external* users.
2. **True.**
3. **False.** Preparation of budgets is part of *managerial* accounting.
4. **False.** Managerial accounting applies to *service*, merchandising and manufacturing companies.
5. **True.**
6. **False.** Managerial accounting reports are prepared as *frequently as needed*.
7. **True.**
8. **True.**
9. **False.** *Financial* accounting reports must comply with Generally Accepted Accounting Principles.
10. **False.** Managerial accountants are expected to behave ethically, *and* there is a code of ethical standards for managerial accountants.

EXERCISE 19-2

1. **(b) Direct labor.***
2. **(c) Manufacturing overhead.**
3. **(c) Manufacturing overhead.**
4. **(c) Manufacturing overhead.**
5. **(a) Direct materials.**
6. **(b) Direct labor.**
7. **(c) Manufacturing overhead.**
8. **(c) Manufacturing overhead.**
9. **(c) Manufacturing overhead.**
10. **(a) Direct materials.**

***or sometimes (c), depending on the circumstances**

EXERCISE 19-3

- (a) Materials used in product..... DM Advertising expense Period
 Depreciation on plant..... MOH Property taxes on plant..... MOH
 Property taxes on store..... Period Delivery expense Period
 Labor costs of assembly Sales commissions..... Period
 line workers DL Salaries paid to sales clerks.....Period
 Factory supplies used MOH
- (b) Product costs are recorded as a part of the cost of inventory, because they are an integral part of the cost of producing the product. Product costs are not expensed until the goods are sold. Period costs are recognized as an expense when incurred.

EXERCISE 19-4

(a) Factory utilities	\$ 11,500
Depreciation on factory equipment	12,650
Indirect factory labor	48,900
Indirect materials	80,800
Factory manager's salary.....	8,000
Property taxes on factory building	2,500
Factory repairs.....	2,000
Manufacturing overhead.....	<u>\$166,350</u>
(b) Direct materials.....	\$137,600
Direct labor.....	69,100
Manufacturing overhead.....	<u>166,350</u>
Product costs	<u>\$373,050</u>
(c) Depreciation on delivery trucks	\$ 3,800
Sales salaries	46,400
Repairs to office equipment	1,300
Advertising.....	18,000
Office supplies used	<u>2,640</u>
Period costs	<u>\$ 72,140</u>

EXERCISE 19-5

- | | | | | |
|--------|--------|---------|--------|---------|
| 1. (c) | 3. (a) | 5. (b)* | 7. (a) | 9. (c) |
| 2. (c) | 4. (c) | 6. (d) | 8. (b) | 10. (c) |

*or sometimes (c), depending on the circumstances.

EXERCISE 19-6

1. (b)
2. (c)
3. (a)
4. (c)
5. (c)
6. (c)
7. (c)
8. (c)
9. (c)
10. (c)

EXERCISE 19-7

(a) Delivery service (product) costs:

Indirect materials	\$ 5,400
Depreciation on delivery equipment	11,200
Dispatcher's salary	5,000
Gas and oil for delivery trucks	2,200
Drivers' salaries	11,000
Delivery equipment repairs	300
Total	<u>\$35,100</u>

(b) Period costs:

Property taxes on office building	\$ 870
CEO's salary	12,000
Advertising	1,600
Office supplies	650
Office utilities	990
Repairs on office equipment	180
Total	<u>\$16,290</u>

EXERCISE 19-8

(a) Work-in-process, 1/1		\$ 12,000
Direct materials used.....	\$100,000	
Direct labor.....	110,000	
Manufacturing overhead		
Depreciation on plant	\$60,000	
Factory supplies used.....	23,000	
Property taxes on plant	<u>14,000</u>	
Total manufacturing overhead	<u>97,000</u>	
Total manufacturing costs		<u>307,000</u>
Total cost of work-in-process		319,000
Less: ending work-in-process		<u>15,500</u>
Cost of goods manufactured		<u>\$303,500</u>
(b) Finished goods, 1/1		\$ 60,000
Cost of goods manufactured		<u>303,500</u>
Cost of goods available for sale		363,500
Finished goods, 12/31		<u>55,600</u>
Cost of goods sold		<u>\$307,900</u>

EXERCISE 19-9**Total raw materials available for use:**

Direct materials used.....	\$190,000
Add: Raw materials inventory (12/31).....	<u>12,500</u>
Total raw materials available for use.....	<u>\$202,500</u>

Raw materials inventory (1/1):

Direct materials used.....	\$190,000
Add: Raw materials inventory (12/31)	12,500
Less: Raw materials purchases	<u>(158,000)</u>
Raw materials inventory (1/1).....	<u>\$ 44,500</u>

Total cost of work in process:

Cost of goods manufactured	\$510,000
Add: Work in process (12/31)	<u>81,000</u>
Total cost of work in process.....	<u>\$591,000</u>

EXERCISE 19-9 (Continued)

Total manufacturing costs:

Total cost of work in process	\$591,000
Less: Work in process (1/1).....	<u>(210,000)</u>
Total manufacturing costs.....	<u>\$381,000</u>

Direct labor:

Total manufacturing costs.....	\$381,000
Less: Total overhead	(122,000)
Direct materials used	<u>(190,000)</u>
Direct labor	<u>\$ 69,000</u>

EXERCISE 19-10

$$A + \$57,000 + \$46,500 = \$185,650$$

$$A = \$82,150$$

$$\$242,500 - \$11,000 = F$$

$$F = \$231,500$$

$$\$185,650 + B = \$221,500$$

$$B = \$35,850$$

$$\$130,000 + G + \$102,000 = \$253,700$$

$$G = \$21,700$$

$$\$221,500 - C = \$185,275$$

$$C = \$36,225$$

$$\$253,700 + H = \$337,000$$

$$H = \$83,300$$

$$\$58,400 + \$86,000 + \$81,600 = D$$

$$D = \$226,000$$

$$\$337,000 - \$70,000 = I$$

$$I = \$267,000$$

$$\$226,000 + \$16,500 = E$$

$$E = \$242,500$$

Additional explanation to EXERCISE 19-10 solution:

Case A

(a) Total manufacturing costs.....	\$185,650
Less: Manufacturing overhead	(46,500)
Direct labor	<u>(57,000)</u>
Direct materials used.....	<u>\$ 82,150</u>

EXERCISE 19-10 (Continued)

(b) Total cost of work in process.....	\$221,500
Less: Total manufacturing costs	<u>185,650</u>
Work in process (1/1/08)	<u>\$ 35,850</u>
(c) Total cost of work in process.....	\$221,500
Less: Cost of goods manufactured	<u>185,275</u>
Work in process (12/31/08).....	<u>\$ 36,225</u>

Case B

(d) Direct materials used	\$ 58,400
Direct labor	86,000
Manufacturing overhead.....	<u>81,600</u>
Total manufacturing costs	<u>\$226,000</u>
(e) Total manufacturing costs	\$226,000
Work in process (1/1/08)	<u>16,500</u>
Total cost of work in process.....	<u>\$242,500</u>
(f) Total cost of work in process.....	\$242,500
Less: Work in process (12/31/08).....	<u>11,000</u>
Cost of goods manufactured	<u>\$231,500</u>

Case C

(g) Total manufacturing costs	\$253,700
Less: Manufacturing overhead.....	(102,000)
Direct materials used.....	<u>(130,000)</u>
Direct labor.....	<u>\$ 21,700</u>
(h) Total cost of work in process.....	\$337,000
Less: Total manufacturing costs	<u>253,700</u>
Work in process (1/1/08)	<u>\$ 83,300</u>
(i) Total cost of work in process.....	\$337,000
Less: Work in process (12/31/08).....	<u>70,000</u>
Cost of goods manufactured	<u>\$267,000</u>

EXERCISE 19-11

- (a) (a) $\$127,000 + \$140,000 + \$77,000 = \$344,000$
- (b) $\$344,000 + \$33,000 - \$360,000 = \$17,000$
- (c) $\$450,000 - (\$200,000 + \$132,000) = \$118,000$
- (d) $\$40,000 + \$470,000 - \$450,000 = \$60,000$
- (e) $\$245,000 - (\$80,000 + \$100,000) = \$65,000$
- (f) $\$245,000 + \$60,000 - \$80,000 = \$225,000$
- (g) $\$288,000 - (\$70,000 + \$75,000) = \$143,000$
- (h) $\$288,000 + \$45,000 - \$270,000 = \$63,000$

(b)

IKERD COMPANY
Cost of Goods Manufactured Schedule
For the Year Ended December 31, 2008

Work in process, January 1		\$ 33,000
Direct materials	\$127,000	
Direct labor	140,000	
Manufacturing overhead	<u>77,000</u>	
Total manufacturing costs		<u>344,000</u>
Total cost of work in process		377,000
Less: Work in process inventory,		
December 31		<u>17,000</u>
Cost of goods manufactured		<u><u>\$360,000</u></u>

EXERCISE 19-12

(a) **AIKMAN CORPORATION**
Cost of Goods Manufactured Schedule
For the Month Ended June 30, 2008

Work in process, June 1		\$ 3,000
Direct materials used	\$20,000	
Direct labor	30,000	
Manufacturing overhead		
Indirect labor	\$4,500	
Factory manager's salary	3,000	
Indirect materials	2,200	
Maintenance, factory equipment	1,800	
Depreciation, factory equipment	1,400	
Factory utilities	400	
Total manufacturing overhead	<u>13,300</u>	
Total manufacturing costs		<u>63,300</u>
Total cost of work in process		66,300
Less: Work in process, June 30		<u>3,800</u>
Cost of goods manufactured		<u>\$62,500</u>

(b) **AIKMAN CORPORATION**
Income Statement (Partial)
For the Month Ended June 30, 2008

Net sales		\$87,100
Cost of goods sold		
Finished goods inventory, June 1	\$ 5,000	
Cost of goods manufactured [from (a)]	<u>62,500</u>	
Cost of goods available for sale	67,500	
Finished goods inventory, June 30	<u>7,500</u>	
Cost of goods sold		<u>60,000</u>
Gross profit		<u>\$27,100</u>

EXERCISE 19-13

(a)

DANNER, CHENEY, AND HOWE
Schedule of Cost of Contract Services Provided
For the Month Ended August 31,2008

Supplies used (direct materials)		\$ 1,200
Salaries of professionals (direct labor)		12,600
Service overhead:		
Utilities for contract operations	\$1,400	
Contract equipment depreciation	900	
Insurance on contract operations	800	
Janitorial services for professional offices.....	<u>400</u>	
Total overhead		<u>3,500</u>
Cost of contract services provided.....		<u>\$17,300</u>

(b) The costs not included in the cost of contract services provided would all be classified as period costs. As such, they would be reported on the income statement under administrative expenses.

EXERCISE 19-14

(a) Work-in-process, 1/1.....		\$ 13,500
Direct materials		
Materials inventory, 1/1	\$ 21,000	
Materials purchased	<u>150,000</u>	
Materials available for use	171,000	
Less: Materials inventory, 12/31	<u>30,000</u>	
Direct materials used		\$141,000
Direct labor		200,000
Manufacturing overhead		<u>180,000</u>
Total manufacturing costs		<u>521,000</u>
Total cost of work-in-process.....		534,500
Less: Work-in-process, 12/31		<u>17,200</u>
Cost of goods manufactured.....		<u>\$517,300</u>
(b) Sales		\$900,000
Cost of goods sold		
Finished goods, 1/1	\$ 27,000	
Cost of goods manufactured	<u>517,300</u>	
Cost of goods available for sale	544,300	
Finished goods, 12/31	<u>21,000</u>	
Cost of goods sold		<u>523,300</u>
Gross profit.....		<u>\$376,700</u>

EXERCISE 19-14 (Continued)

(c) Current assets

Inventories

Finished goods.....	\$21,000	
Work in process	17,200	
Raw materials	<u>30,000</u>	\$68,200

- (d) In a merchandising company's income statement, the only difference would be in the computation of cost of goods sold. Beginning and ending finished goods would be replaced by beginning and ending merchandise inventory, and cost of goods manufactured would be replaced by purchases. In a merchandising company's balance sheet, there would be one inventory account (merchandise inventory) instead of three.

EXERCISE 19-15

- | | |
|-------------|--------------|
| 1. (a) | 9. (a) |
| 2. (a) | 10. (a), (b) |
| 3. (a), (c) | 11. (b) |
| 4. (b) | 12. (b) |
| 5. (a) | 13. (a) |
| 6. (a) | 14. (a) |
| 7. (a) | 15. (a) |
| 8. (b), (c) | 16. (a) |

EXERCISE 19-16

(a)

CHAMBERLIN MANUFACTURING
Cost of Goods Manufactured Schedule
For the Month Ended June 30, 2008

Work in process inventory, June 1		\$ 5,000
Direct materials		
Raw materials inventory, June 1	\$ 9,000	
Raw materials purchases	54,000	
Total raw materials available for use	63,000	
Less: Raw materials inventory, June 30	13,100	
Direct materials used	49,900	
Direct labor	57,000	
Manufacturing overhead		
Indirect labor	\$5,500	
Factory insurance	4,000	
Machinery depreciation	4,000	
Factory utilities	3,100	
Machinery repairs	1,800	
Miscellaneous factory costs	1,500	
Total manufacturing overhead	19,900	
Total manufacturing costs		126,800
Total cost of work in process		131,800
Less: Work in process inventory, June 30		7,000
Cost of goods manufactured		<u>\$124,800</u>

(b)

CHAMBERLIN MANUFACTURING
(Partial) Balance Sheet
June 30, 2008

Current assets		
Inventories		
Finished goods	\$ 6,000	
Work in process	7,000	
Raw materials	13,100	
		\$ 26,100

EXERCISE 19-17

- (a) Raw Materials account: $(5,000 - 4,650) \times \$9 = \$3,150$
Work in Process account: $(4,600 \times 10\%) \times \$9 = \$4,140$
Finished Goods account: $(4,600 \times 90\% \times 25\%) \times \$9 = \$9,315$
Cost of Goods Sold account: $(4,600 \times 90\% \times 75\%) \times \$9 = \$27,945$
Selling Expenses account: $50 \times \$9 = \450
Proof of cost of head lamps allocated $(5,000 \times \$9 = \$45,000)$

Raw materials	\$ 3,150
Work in process	4,140
Finished goods	9,315
Cost of goods sold	27,945
Selling expenses	450
Total	<u>\$45,000</u>

- (b) To: Chief Accountant
From: Student
Subject: Statement Presentation of Accounts

Two accounts will appear in the income statement. Cost of Goods Sold will be deducted from net sales in determining gross profit. Selling expenses will be shown under operating expenses and will be deducted from gross profit in determining net income. Sometimes, the calculation for Cost of Good Sold is shown on the income statement. In these cases, the balance in Finished Goods inventory would also be shown on the income statement.

The other accounts associated with the head lamps are inventory accounts which contain end-of-period balances. Thus, they will be reported under inventories in the current assets section of the balance sheet in the following order: finished goods, work in process, and raw materials.

EXERCISE 19-18

1. (d) Activity-based costing
2. (c) Just-in-time inventory
3. (a) Balanced scorecard
4. (b) Value chain

SOLUTIONS TO PROBLEMS

PROBLEM 19-1A

(a)	Cost Item	Product Costs			Period Costs
		Direct Materials	Direct Labor	Manufacturing Overhead	
	Rent on factory equipment			\$ 7,000	
	Insurance on factory building			1,500	
	Raw materials	\$75,000			
	Utility costs for factory			900	
	Supplies for general office				\$ 300
	Wages for assembly line workers		\$43,000		
	Depreciation on office equipment				800
	Miscellaneous materials			1,100	
	Factory manager's salary			5,700	
	Property taxes on factory building			400	
	Advertising for helmets				14,000
	Sales commissions				7,000
	Depreciation on factory building	<u>\$75,000</u>	<u>\$43,000</u>	<u>1,500</u>	<u>\$22,100</u>

(b) Total production costs	
Direct materials	\$ 75,000
Direct labor	43,000
Manufacturing overhead	<u>18,100</u>
Total production cost	<u>\$136,100</u>
Production cost per helmet = \$136,100/10,000 = <u>\$13.61.</u>	

PROBLEM 19-2A

	Product Costs			Period Costs
	Direct Materials	Direct Labor	Manufacturing Overhead	
(a)				
Raw materials (1)	\$96,200			
Wages for workers (2)		\$78,000		
Rent on equipment			\$ 4,900	
Indirect materials (3)			6,500	
Factory supervisor's salary			3,000	
Janitorial costs			1,300	
Advertising				\$8,500
Depreciation on factory building (4)			600	
Property taxes on factory building (5)			750	
	<u>\$96,200</u>	<u>\$78,000</u>	<u>\$17,050</u>	<u>\$8,500</u>

- (1) $\$74 \times 1,300 = \$96,200.$
- (2) $\$12 \times 5 \times 1,300 = \$78,000.$
- (3) $\$5 \times 1,300 = \$6,500.$
- (4) $\$7,200/12 = \$600.$
- (5) $\$9,000/12 = \$750.$

(b)	
Total production costs	
Direct materials	\$ 96,200
Direct labor	78,000
Manufacturing overhead	17,050
Total production cost	<u>\$191,250</u>

Production cost per system = $\$191,250/1,300 = \underline{\$147.12.}$ (rounded)

PROBLEM 19-3A

(a) Case 1

$$A = \$7,600 + \$5,000 + \$8,000 = \$20,600$$

$$\$20,600 + \$1,000 - B = \$17,000$$

$$B = \$20,600 + \$1,000 - \$17,000 = \$4,600$$

$$\$17,000 + C = \$18,000$$

$$C = \$18,000 - \$17,000 = \$1,000$$

$$D = \$18,000 - \$3,400 = \$14,600$$

$$E = (\$24,500 - \$2,500) - \$14,600 = \$7,400$$

$$F = \$7,400 - \$2,500 = \$4,900$$

Case 2

$$G + \$8,000 + \$4,000 = \$18,000$$

$$G = \$18,000 - \$8,000 - \$4,000 = \$6,000$$

$$\$18,000 + H - \$3,000 = \$22,000$$

$$H = \$22,000 + \$3,000 - \$18,000 = \$7,000$$

$$(I - \$1,400) - K = \$7,000$$

$$(I - \$1,400) - \$22,800 = \$7,000$$

$$I = \$1,400 + \$22,800 + \$7,000 = \$31,200$$

(Note: Item I can only be solved after item K is solved.)

$$J = \$22,000 + \$3,300 = \$25,300$$

$$K = \$25,300 - \$2,500 = \$22,800$$

$$\$7,000 - L = \$5,000$$

$$L = \$2,000$$

PROBLEM 19-3A (Continued)

**(b) CASE 1
Cost of Goods Manufactured Schedule**

Work in process, beginning.....		\$ 1,000
Direct materials.....	\$7,600	
Direct labor.....	5,000	
Manufacturing overhead.....	<u>8,000</u>	
Total manufacturing costs		<u>20,600</u>
Total cost of work in process.....		21,600
Less: Work in process, ending.....		<u>4,600</u>
Cost of goods manufactured		<u>\$17,000</u>

**(c) CASE 1
Income Statement**

Sales	\$24,500	
Less: Sales discounts	<u>2,500</u>	
Net sales.....		\$22,000
Cost of goods sold		
Finished goods inventory, beginning	1,000	
Cost of goods manufactured.....	<u>17,000</u>	
Cost of goods available for sale.....	18,000	
Less: Finished goods inventory, ending.....	<u>3,400</u>	
Cost of goods sold		<u>14,600</u>
Gross profit		7,400
Operating expenses		<u>2,500</u>
Net income.....		<u>\$ 4,900</u>

**CASE 1
(Partial) Balance Sheet**

Current assets		
Cash.....		\$ 4,000
Receivables (net).....		15,000
Inventories		
Finished goods	\$3,400	
Work in process.....	4,600	
Raw materials	<u>600</u>	8,600
Prepaid expenses.....		<u>400</u>
Total current assets.....		<u>\$28,000</u>

PROBLEM 19-4A

(a)

STELLAR MANUFACTURING COMPANY
Cost of Goods Manufactured Schedule
For the Year Ended June 30, 2008

Work in process, July 1, 2007		\$ 19,800
Direct materials		
Raw materials inventory,		
July 1, 2007	\$ 48,000	
Raw materials purchases	96,400	
Total raw materials available		
for use	144,400	
Less: Raw materials inventory,		
June 30, 2008	39,600	
Direct materials used.....		\$104,800
Direct labor		149,250
Manufacturing overhead		
Plant manager's salary	29,000	
Factory utilities	27,600	
Indirect labor	24,460	
Factory machinery depreciation.....	16,000	
Factory property taxes.....	9,600	
Factory insurance.....	4,600	
Factory repairs.....	1,400	
Total manufacturing		
overhead.....		112,660
Total manufacturing costs.....		366,710
Total cost of work in process		386,510
Less: Work in process, June 30.....		18,600
Cost of goods manufactured		\$367,910

PROBLEM 19-4A (Continued)

**(b) STELLAR MANUFACTURING COMPANY
(Partial) Income Statement
For the Year Ended June 30, 2008**

Sales revenues		
Sales	\$554,000	
Less: Sales discounts	<u>4,200</u>	
Net sales.....		\$549,800
Cost of goods sold		
Finished goods inventory, July 1, 2007	96,000	
Cost of goods manufactured.....	<u>367,910</u>	
Cost of goods available for sale.....	463,910	
Less: Finished goods inventory, June 30, 2008	<u>95,900</u>	
Cost of goods sold		<u>368,010</u>
Gross profit		<u>\$181,790</u>

**(c) STELLAR MANUFACTURING COMPANY
(Partial) Balance Sheet
June 30, 2008**

Assets		
Current assets		
Cash.....		\$ 32,000
Accounts receivable.....		27,000
Inventories		
Finished goods	\$95,900	
Work in process.....	18,600	
Raw materials	<u>39,600</u>	<u>154,100</u>
Total current assets.....		<u>\$213,100</u>

PROBLEM 19-5A

(a)

TOMBERT COMPANY
Cost of Goods Manufactured Schedule
For the Month Ended October 31, 2008

Work in process, October 1.....		\$ 16,000
Direct materials		
Raw materials inventory,		
October 1.....	\$ 18,000	
Raw materials		
purchases	<u>264,000</u>	
Total raw materials available		
for use	282,000	
Less: Raw materials inventory,		
October 31	<u>34,000</u>	
Direct materials used.....		\$248,000
Direct labor		190,000
Manufacturing overhead		
Factory facility rent	60,000	
Depreciation on factory		
equipment	31,000	
Indirect labor	28,000	
Factory utilities*	8,400	
Factory insurance**	<u>4,800</u>	
Total manufacturing		
overhead.....		<u>132,200</u>
Total manufacturing costs.....		<u>570,200</u>
Total cost of work in process		586,200
Less: Work in process, October 31.....		<u>14,000</u>
Cost of goods manufactured		<u>\$572,200</u>

*\$12,000 X 70% = \$8,400

**\$8,000 X 60% = \$4,800

PROBLEM 19-5A (Continued)

**(b) TOMBERT COMPANY
Income Statement
For the Month Ended October 31, 2008**

Sales (net).....		\$780,000
Cost of goods sold		
Finished goods inventory, October 1	\$ 30,000	
Cost of goods manufactured.....	<u>572,200</u>	
Cost of goods available for sale.....	602,200	
Less: Finished goods inventory, October 31.....	<u>48,000</u>	
Cost of goods sold		<u>554,200</u>
Gross profit		225,800
Operating expenses		
Advertising expense	90,000	
Selling and administrative salaries	75,000	
Depreciation expense—sales equipment	45,000	
Utilities expense*	3,600	
Insurance expense**	<u>3,200</u>	
Total operating expenses		<u>216,800</u>
Net income.....		<u>\$ 9,000</u>

*\$12,000 X 30%

**\$8,000 X 40%

PROBLEM 19-1B

	Product Costs				Period Costs
	Direct Materials	Direct Labor	Manufacturing Overhead		
(a)					
Maintenance costs on factory building			\$ 600		
Factory manager's salary			4,000		8,000
Advertising for helmets					3,000
Sales commissions					
Depreciation on factory building			700		
Rent on factory equipment			6,000		
Insurance on factory building			3,000		
Raw materials	\$20,000				
Utility costs for factory			800		
Supplies for general office					200
Wages for assembly line workers		\$44,000			
Depreciation on office equipment					500
Miscellaneous materials	<u>\$20,000</u>	<u>\$44,000</u>	<u>2,000</u>	<u>\$17,100</u>	<u>\$11,700</u>
(b)					
Total production costs					
Direct materials	\$20,000				
Direct labor	44,000				
Manufacturing overhead	17,100				
Total production cost	<u>\$81,100</u>				

Production cost per motorcycle helmet = $\$81,100/1,000 = \underline{\underline{\$81.10}}$.

PROBLEM 19-2B

(a)	Cost Item	Product Costs			Period Costs
		Direct Materials	Direct Labor	Manufacturing Overhead	
	Raw materials (1)	\$46,000			
	Wages for workers (2)		\$52,000		
	Rent on equipment			\$ 1,300	
	Indirect materials (3)			6,000	
	Factory supervisor's salary			3,500	
	Janitorial costs			1,400	
	Advertising				\$6,000
	Depreciation on factory building (4)			700	
	Property taxes on factory building (5)			450	
		\$46,000	\$52,000	\$13,350	\$6,000

- (1) $\$23 \times 2,000 = 46,000.$
- (2) $\$13 \times 2 \times 2,000 = \$52,000.$
- (3) $\$3 \times 2,000 = \$6,000.$
- (4) $\$8,400/12 = \$700.$
- (5) $\$5,400/12 = \$450.$

(b) Total production costs	
Direct materials	\$ 46,000
Direct labor	52,000
Manufacturing overhead	13,350
Total production cost	\$111,350

Production cost per racket = $\$111,350/2,000 = \underline{\underline{\$55.68}}$. (rounded)

PROBLEM 19-3B

(a) Case 1

$$A = \$8,300 + \$3,000 + \$6,000 = \$17,300$$

$$\$17,300 + \$1,000 - B = \$15,800$$

$$B = \$17,300 + \$1,000 - \$15,800 = \$2,500$$

$$\$15,800 + C = \$17,300$$

$$C = \$17,300 - \$15,800 = \$1,500$$

$$D = \$17,300 - \$1,200 = \$16,100$$

$$E = (\$22,500 - \$1,500) - \$16,100 = \$4,900$$

$$F = \$4,900 - \$2,700 = \$2,200$$

Case 2

$$G + \$4,000 + \$5,000 = \$18,000$$

$$G = \$18,000 - \$4,000 - \$5,000 = \$9,000$$

$$\$18,000 + H - \$2,000 = \$20,000$$

$$H = \$20,000 + \$2,000 - \$18,000 = \$4,000$$

$$(I - \$1,200) - K = \$6,000$$

$$(I - \$1,200) - \$21,500 = \$6,000$$

$$I = \$1,200 + \$21,500 + \$6,000 = \$28,700$$

(Note: Item I can only be solved after item K is solved.)

$$J = \$20,000 + \$4,000 = \$24,000$$

$$K = \$24,000 - \$2,500 = \$21,500$$

$$\$6,000 - L = \$3,200$$

$$L = \$2,800$$

PROBLEM 19-3B (Continued)

**(b) CASE 1
Cost of Goods Manufactured Schedule**

Work in process, beginning.....		\$ 1,000
Direct materials.....	\$8,300	
Direct labor.....	3,000	
Manufacturing overhead.....	<u>6,000</u>	
Total manufacturing costs		<u>17,300</u>
Total cost of work in process.....		18,300
Less: Work in process, ending.....		<u>2,500</u>
Cost of goods manufactured		<u>\$15,800</u>

**(c) CASE 1
Income Statement**

Sales	\$22,500	
Less: Sales discounts	<u>1,500</u>	
Net sales.....		\$21,000
Cost of goods sold		
Finished goods inventory, beginning	\$ 1,500	
Cost of goods manufactured.....	<u>15,800</u>	
Cost of goods available for sale.....	17,300	
Finished goods inventory, ending.....	<u>1,200</u>	
Cost of goods sold		<u>16,100</u>
Gross profit		4,900
Operating expenses		<u>2,700</u>
Net income.....		<u>\$ 2,200</u>

**CASE 1
(Partial) Balance Sheet**

Current assets		
Cash.....		\$ 3,000
Receivables (net).....		10,000
Inventories		
Finished goods	\$1,200	
Work in process.....	2,500	
Raw materials	<u>700</u>	4,400
Prepaid expenses.....		<u>200</u>
Total current assets.....		<u>\$17,600</u>

PROBLEM 19-4B

(a)

RUIZ MANUFACTURING COMPANY
Cost of Goods Manufactured Schedule
For the Year Ended December 31, 2008

Work in process inventory,		
January 1		\$ 9,500
Direct materials		
Raw materials inventory,		
January 1.....	\$ 47,000	
Raw materials		
purchases	<u>67,500</u>	
Total raw materials		
available for use	114,500	
Less: Raw materials		
inventory,		
December 31	<u>44,200</u>	
Direct materials used.....		\$ 70,300
Direct labor		145,100
Manufacturing overhead		
Plant manager's salary	30,000	
Indirect labor	18,100	
Factory utilities	12,900	
Factory machinery		
depreciation	7,700	
Factory insurance	7,400	
Factory property taxes	6,100	
Factory repairs.....	<u>800</u>	
Total manufacturing		
overhead.....		<u>83,000</u>
Total manufacturing costs.....		<u>298,400</u>
Total cost of work in process		307,900
Less: Work in process,		
December 31		<u>8,000</u>
Cost of goods manufactured		<u>\$299,900</u>

PROBLEM 19-4B (Continued)

**(b) RUIZ MANUFACTURING COMPANY
(Partial) Income Statement
For the Year Ended December 31, 2008**

Sales revenues		
Sales	\$475,000	
Less: Sales discounts	<u>2,500</u>	
Net sales.....		\$472,500
Cost of goods sold		
Finished goods inventory, January 1	85,000	
Cost of goods manufactured (see schedule).....	<u>299,900</u>	
Cost of goods available for sale.....	384,900	
Finished goods inventory, December 31.....	<u>77,800</u>	
Cost of goods sold		<u>307,100</u>
Gross profit		<u>\$165,400</u>

**(c) RUIZ MANUFACTURING COMPANY
(Partial) Balance Sheet
December 31, 2008**

Assets		
Current assets		
Cash.....		\$ 28,000
Accounts receivable.....		27,000
Inventories		
Finished goods	\$77,800	
Work in process.....	8,000	
Raw materials	<u>44,200</u>	<u>130,000</u>
Total current assets.....		<u>\$185,000</u>

PROBLEM 19-5B

(a)

AGLER COMPANY
Cost of Goods Manufactured Schedule
For the Month Ended August 31, 2008

Work in process, August 1		\$ 25,000
Direct materials		
Raw materials inventory,		
August 1	\$ 19,500	
Raw materials purchases.....	<u>200,000</u>	
Total raw materials		
available for use	219,500	
Less: Raw materials inventory,		
August 31	<u>30,000</u>	
Direct materials used.....		\$189,500
Direct labor		160,000
Manufacturing overhead		
Factory facility rent	\$ 60,000	
Depreciation on factory		
equipment.....	35,000	
Indirect labor	20,000	
Factory utilities*	6,000	
Factory insurance**	<u>3,500</u>	
Total manufacturing		
overhead.....		<u>124,500</u>
Total manufacturing costs.....		<u>474,000</u>
Total cost of work in process		499,000
Less: Work in process,		
August 31		<u>21,000</u>
Cost of goods manufactured		<u>\$478,000</u>

*\$10,000 X 60%

**\$5,000 X 70%

PROBLEM 19-5B (Continued)

**(b) AGLER COMPANY
Income Statement
For the Month Ended August 31, 2008**

Sales (net)		\$675,000
Cost of goods sold		
Finished goods inventory, August 1	\$ 40,000	
Cost of goods manufactured	<u>478,000</u>	
Cost of goods available for sale	518,000	
Less: Finished goods inventory,		
August 31	<u>64,000</u>	
Cost of goods sold		<u>454,000</u>
Gross profit		221,000
Operating expenses		
Advertising expense	75,000	
Selling and administrative salaries	70,000	
Depreciation expense—sales		
equipment	50,000	
Utilities expense*	4,000	
Insurance expense**	<u>1,500</u>	
Total operating expenses		<u>200,500</u>
Net income		<u>\$ 20,500</u>

*\$10,000 X 40%

**\$5,000 X 30%

Ending Raw Materials Inventory**Beginning raw materials + Raw materials purchased****= Raw materials available for use****= \$19,000 + \$345,000 = \$364,000****Raw materials available for use – Ending raw materials inventory****= Direct materials used****\$364,000 – Ending raw materials inventory = \$350,000****Ending raw materials inventory = \$364,000 – \$350,000 = \$14,000****Ending Work in Process Inventory****Direct materials + Direct labor + Manufacturing overhead****= Total manufacturing costs****= \$350,000 + \$240,000 + (\$240,000 X 60%) = \$734,000****Beginning work in process inventory + Total manufacturing costs****= Total cost of work in process****= \$25,000 + \$734,000 = \$759,000****Cost of goods manufactured + Beginning finished goods inventory****= Cost of goods available for sale****Cost of goods manufactured + \$38,000 = \$770,000****Cost of goods manufactured = \$770,000 – \$38,000 = \$732,000****Total cost of work in process – Ending work in process inventory****= Cost of goods manufactured****\$759,000 – Ending work in process inventory = \$732,000****Ending work in process inventory = \$759,000 – \$732,000 = \$27,000****Ending Finished Goods Inventory****Sales – Cost of goods sold = Gross profit****\$1,260,000 – Cost of goods sold = \$1,260,000 X 40%****Cost of goods sold = \$1,260,000 – \$504,000 = \$756,000****Cost of goods available for sale – Ending finished goods inventory****= Cost of goods sold****\$770,000 – Ending finished goods inventory = \$756,000****Ending finished goods inventory = \$770,000 – \$756,000 = \$14,000**

Since the questions were fairly open-ended, the following are only suggested results. The class may be able to think of others, or of more items for each one.

- (a) *Andre Agassi* Needs information on sales, perhaps by salesperson and by territory.
- Serena Williams* Needs cost information for her department.
- Pete Sampras* Needs all accounting information.
- Andy Roddick* Needs product cost information.
- Venus Williams* Needs information on component costs and costs for her department.
- (b) *Andre Agassi* Income statement.
- Serena Williams* None.
- Pete Sampras* All.
- Andy Roddick* Income statement and cost of goods manufactured schedule.
- Venus Williams* None.
- (c) *Andre Agassi* Sales by Territory—Detailed information, possibly by product line, issued daily or weekly.
- Serena Williams* Cost of Computer Programs—Accumulated cost incurred for each major program used including maintenance and updates of program, issued monthly.
- Pete Sampras* Cost of Preparing Reports—Detailed analysis of all reports provided, their frequency, time, and estimated cost to prepare, issued monthly.
- Andy Roddick* Cost of Product—Detailed cost by product line, including a comparison with estimated costs for that product. Issued as each batch of production is completed.
- Venus Williams* Cost of Product Design—Accumulated total costs of each new product, issued at end of each project.

The factors that affect the cost of products are direct materials, direct labor, and manufacturing overhead. The percentage increase of total cost of products sold to net sales of 1.7% during the year appears to be entirely due to net increases in costs.

The current year events and their possible impact on the three manufacturing cost elements are as follows:

Operational problems at a major furnace. The principal effect is on manufacturing overhead due to higher maintenance costs. The problems may also have resulted in higher direct labor costs and higher direct materials because of the malfunctioning of the furnace.

Higher downtime and costs and expenses associated with capital improvement projects. Higher downtime causes higher indirect labor. Costs associated with capital improvement projects impact product costs through depreciation which is part of manufacturing overhead.

Increases in labor and other manufacturing costs. The increases in labor resulted in higher direct labor costs. The increases in indirect labor costs and in other manufacturing costs resulted in higher manufacturing overhead.

Reduced fixed costs. Fixed costs such as insurance and rent are classified as manufacturing overhead. Thus, this factor reduced overhead costs during the year.

Productivity and efficiency gains. This factor could have resulted in reductions of both direct material and direct labor costs.

- (a) The IMA has nearly 65,000 members. These members include business leaders, managers, and decision makers in accounting and finance.
- (b) Student and Associate members receive all the benefits of Regular membership at a significant savings.
- Unique access to professional designations, the Certified Management Accountant (CMA) and Certified Financial Manager (CFM)
 - Specialized learning opportunities
 - Educational assistance, grants, educational competitions
 - Around-the-Clock Networking
 - Career management resources
- (c) The answer to this question will vary by school.

Ms. Sue Tombert
 President
 Agler Company

Dear Sue:

As you requested, I corrected the income statement for October from the information you gave me. The corrected statement is enclosed and it shows that you actually earned net income of \$9,000 for October. I also noticed that you did not have a cost of goods manufactured schedule, so I prepared one for you.

The income statement your assistant accountant prepared was not correct for two primary reasons. First, product costs were not separated from selling and administrative expenses. Second, and more importantly, the reported net loss did not reflect changes in inventories. This had the effect of treating these costs as expenses rather than assets. A reconciliation of the reported net loss of \$23,000 to net income of \$9,000 is as follows:

Net loss as reported.....		\$(23,000)
Increase (decrease) in inventories		
Raw materials (\$34,000 – \$18,000)	\$16,000	
Work in process (\$14,000 – \$16,000).....	(2,000)	
Finished goods (\$48,000 – \$30,000)	<u>18,000</u>	
Total increase.....		<u>32,000</u>
Net income as corrected		<u>\$ 9,000</u>

The changes in raw materials and work in process inventories are reported in the cost of goods manufactured schedule. You will see, for example, that the cost of direct materials used was \$248,000, not \$264,000 as reported by your accountant in the income statement. The difference is the change in raw materials inventories. Similarly, you will see that the \$2,000 decrease in work in process inventories increases total manufacturing costs of \$570,200 to produce cost of goods manufactured of \$572,200.

The change in finished goods inventories is reported in the income statement. Notice that the change of \$18,000 is subtracted from cost of goods manufactured of \$572,200 to produce cost of goods sold of \$554,200.

BYP 19-5 (Continued)

I have also modified the form of the income statement to recognize the distinction between product costs (cost of goods sold) and period costs (operating expenses) as required by generally accepted accounting principles.

Thanks for letting me help. If I can be of further assistance, don't hesitate to call. I hope you find a replacement for your controller soon.

Sincerely,

- (a) The stakeholders in this situation are:
- The users of Robbin Industries' financial statements.
 - Wayne Terrago, controller.
 - The vice-president of finance.
 - The president of Robbin Industries.
- (b) The ethical issues in this situation pertain to the adherence to sound and acceptable accounting principles. Intentional violation of generally accepted accounting principles in order to satisfy a practical short-term personal or company need and thus create misleading financial statements would be unethical. Selecting one acceptable method of accounting and reporting among other acceptable methods is not necessarily unethical.
- (c) Ethically, the management of Robbin Industries should be trying to report the financial condition and results of operations as fairly as possible; that is, in accordance with GAAP. Wayne should inform management what is acceptable accounting and what is not. The basic concept to be supported in this advertising cost transaction is matching costs and revenues. Normally, advertising costs are expensed in the period in which they are incurred because it is very difficult to associate them with specific revenues.

Student responses will vary. We have provided some basic examples that may represent common responses.

- (a) Individuals must often make purchase decisions which involve choosing between an item that has a more expensive initial purchase price, but is expected to either last longer, or provides some form of cost savings. The question that the individual faces is whether the cost savings or additional benefit justifies the additional initial cost. For example, more expensive dishwashers and refrigerators also tend to be more energy efficient. The labels on these appliances provide information regarding the energy savings which can be used to make a break-even evaluation.
- (b) In order to increase control over their financial situation and reduce the probability of financial hardship all people should prepare personal budgets. Preparation of a personal budget requires the individual to plan for the future and to prioritize expenditures.
- (c) Companies employ the balanced scorecard as a mechanism to ensure that their financial goals are consistent with their efforts. Use of the balanced scorecard requires clear articulation of goals, priorities and strategies. By employing these same techniques in their everyday life individuals can be better assured that they will expend effort on those things that really matter to them, rather than wasting efforts on less important distractions.
- (d) Capital budgeting involves financial evaluation of long-term assets. Companies routinely make capital budgeting decisions, but so do individuals. The purchase of a home or car is a decision that has implications for your finances for many subsequent years. Buying a house or car is a very personal decision, influenced by many personal, nonfinancial, preferences. However, these decisions should also be subjected to a financial evaluation using capital budgeting techniques to ensure that the choice makes good economic sense.