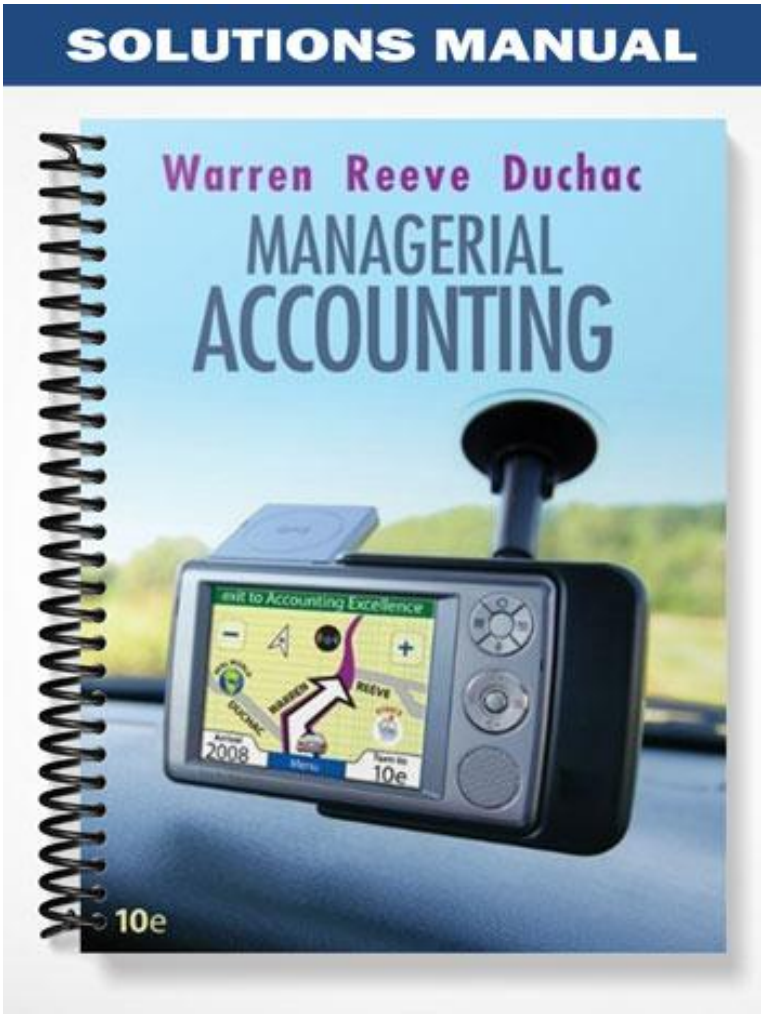
SOLUTIONS MANUAL



CHAPTER 16 (FIN MAN); CHAPTER 1 (MAN) MANAGERIAL ACCOUNTING CONCEPTS AND PRINCIPLES

EYE OPENERS

1. Financial accounting and managerial accounting are different in several ways. Financial accounting information is reported in statements that are useful to persons or groups outside of a company. These statements objectively report the results of past operations at fixed periods and the financial condition of the business under generally accepted accounting principles. Managerial accounting information uses both subjective and objective information to meet the specific needs of management. The information can be reported periodically or as needed by management and can be reported for the entire entity or for segments of the organization.

2. **a.** A line department is directly involved in the basic objectives of the organization, while a staff department provides service, assistance, or advice to line departments or other staff departments.

b. (1) Sales Department

(2) Personnel Department

3. **a.** The role of the controller is to provide financial and accounting advice and assistance to management.

b. The controller has a staff responsibility.

4. The five basic phases of the management process are planning, directing, controlling, improving, and decision making. Planning is the process of establishing financial expectations for the future through the use of planning documents. Directing is the process of assigning responsibility and using data to guide the operations of the firm. Controlling is using information as feedback to correct operations. Improving is using data to monitor and guide process improvement. Decision making is involved with all of the previous four processes of management.

5. The strategic plan is used to guide the use of business resources over long-range horizons.

6. The process of running day-to-day operations, given assigned responsibilities, is directing.

7. Controlling

8. Management by exception involves monitoring results of implemented plans and comparing the expected results with actual results. The feedback allows management to isolate significant variances for further investigation and possible remedial action.

9. Cost

10. Memory chips would be considered a direct materials cost and, hence, would be a direct cost associated with each microcomputer.

11. Direct materials cost, direct labor cost, and factory overhead cost

12. Direct materials cost

13. If the cost of wages paid to employees is not a significant portion of the total product cost, the wages cost would be classified as part of factory overhead cost.

14. Prime costs are the combination of direct materials and direct labor costs, while conversion costs are the combination of direct labor costs and factory overhead costs.

15. Product costs are composed of three elements of manufacturing costs: direct materials cost, direct labor cost, and factory overhead cost. These costs are treated as assets until the product is sold. Product costs are sometimes referred to as inventoriable costs. Period costs are costs that are used in generating revenue during the current period. They are recognized as expenses on the current period's income statement.

16. The three inventory accounts for a manufacturing business are as follows:

a. Finished goods, representing goods in the state in which they are to be sold.

b. Work in process, representing goods in the process of manufacture.

c. Materials, representing goods in the state in which they were acquired.

17. Finished goods, work in process, and materials

18. The cost of finished goods and the cost of work in process included the following:

a. Direct materials—the costs of materials that enter directly into the finished product.

b. Direct labor—the wages of factory workers who convert materials into a finished product.

c. Factory overhead—the remaining costs, other than direct materials and direct labor, of operating a factory.

19. Cost of goods sold

20. The cost of direct materials used in production is $270,000. $50,000 (beginning materials inventory) + $280,000 (materials purchases) – $60,000 (ending materials inventory).

21. A merchandising business purchases merchandise (products) in a finished state for resale to customers. The cost of product sold is called *cost of merchandise sold*. A manufacturer makes the product it sells using direct materials, direct labor, and factory overhead. The cost of the product sold is generally called *cost of goods sold*.

22. **a.** An automobile manufacturer might use managerial reports to evaluate how efficiently raw materials, such as steel, and direct labor, such as assembly line employee wages, are used in the manufacturing process.

b. Other reports might help management determine the appropriate cost of the final product or help determine if a new automated paint robot is a good investment.

PRACTICE EXERCISES

PE 16–1A (FIN MAN); PE 1–1A (MAN)

Planning (c)
Decision making (b)
Controlling (a)

PE 16–1B (FIN MAN); PE 1–1B (MAN)

Directing (a)
Controlling (b)
Planning (c)

PE 16–2A (FIN MAN); PE 1–2A (MAN)

a. FO
b. FO
c. DL
d. DM

PE 16–2B (FIN MAN); PE 1–2B (MAN)

a. DL
b. FO
c. DM
d. FO

PE 16–3A (FIN MAN); PE 1–3A (MAN)

a. C
b. B
c. P
d. C

PE 16–3B (FIN MAN); PE 1–3B (MAN)

a. C
b. C
c. P
d. B

PE 16–4A (FIN MAN); PE 1–4A (MAN)

a. Period cost
b. Period cost
c. Product cost
d. Product cost

PE 16–4B (FIN MAN); PE 1–4B (MAN)

a. Product cost
b. Period cost
c. Period cost
d. Product cost

PE 16–5A (FIN MAN); PE 1–5A (MAN)

a.

Work in process inventory, February 1		$25,000
Cost of direct materials used in production	$ 9,000	
Direct labor	27,000	
Factory overhead	18,000	
Total manufacturing costs incurred during February		54,000
Total manufacturing costs		$79,000
Less work in process inventory, February 28		26,000
Cost of goods manufactured		$53,000

b.

Finished goods inventory, February 1	$11,000
Cost of goods manufactured	53,000
Cost of finished goods available for sale	$64,000
Less finished goods inventory, February 28	13,000
Cost of goods sold	$51,000

PE 16–5B (FIN MAN); PE 1–5B (MAN)

a.

Work in process inventory, August 1		$ 20,000
Cost of direct materials used in production	$60,000	
Direct labor	90,000	
Factory overhead	44,000	
Total manufacturing costs incurred during August		194,000
Total manufacturing costs		$214,000
Less work in process inventory, August 31		16,000
Cost of goods manufactured		$198,000

b.

Finished goods inventory, August 1	$ 36,000
Cost of goods manufactured	198,000
Cost of finished goods available for sale	$234,000
Less finished goods inventory, August 31	20,000
Cost of goods sold	$214,000

EXERCISES

Ex. 16–1 (FIN MAN); Ex. 1–1 (MAN)

a. Direct materials cost
b. Direct materials cost
c. Factory overhead cost
d. Factory overhead cost
e. Factory overhead cost
f. Direct materials cost
g. Direct labor cost
h. Direct materials cost

Ex. 16–2 (FIN MAN); Ex. 1–2 (MAN)

a. Direct labor cost
b. Factory overhead cost
c. Factory overhead cost
d. Direct materials cost
e. Factory overhead cost
f. Factory overhead cost
g. Factory overhead cost
h. Direct materials cost
i. Direct materials cost
j. Direct labor cost

Ex. 16–3 (FIN MAN); Ex. 1–3 (MAN)

a, b, h, i, j

Ex. 16–4 (FIN MAN); Ex. 1–4 (MAN)

a. Period cost
b. Product cost
c. Period cost
d. Product cost
e. Product cost
f. Period cost
g. Period cost
h. Period cost
i. Period cost
j. Product cost
k. Product cost
l. Period cost
m. Period cost
n. Product cost
o. Product cost
p. Product cost
q. Product cost

Ex. 16–5 (FIN MAN); Ex. 1–5 (MAN)

a. costs
b. decreases
c. improve
d. cost object
e. work in process inventory
f. conversion
g. period

Ex. 16–6 (FIN MAN); Ex. 1–6 (MAN)

a. operational
b. indirect
c. improving
d. product
e. materials inventory
f. prime
g. plant depreciation

Ex. 16–7 (FIN MAN); Ex. 1–7 (MAN)

a. indirect
b. direct
c. indirect
d. indirect
e. indirect
f. indirect
g. direct
h. direct
i. indirect
j. indirect
k. direct
l. indirect

Ex. 16–8 (FIN MAN); Ex. 1–8 (MAN)

1. The maintenance salaries and indirect materials should be included as factory overhead.
2. The factory overhead incorrectly includes the following items: sales salaries, promotional expenses, corporate office insurance, and corporate office depreciation. These items should not be included as factory overhead. The corrected report is as follows:

SECOND HAND INC.
Manufacturing Costs
For the Quarter Ended March 31, 2010

Cost of direct materials used in production		$ 490,000
Direct labor		425,000
Factory overhead:		
Maintenance salaries	$ 75,000	
Indirect materials	50,000	
Supervisor salaries	460,000	
Heat, light, and power	125,000	
Insurance and property taxes—plant	135,000	
Depreciation—plant and equipment	110,000	955,000
Total		$ 1,870,000

Ex. 16–9 (FIN MAN); Ex. 1–9 (MAN)

a.

LAE MANUFACTURING COMPANY
Income Statement
For the Month Ended March 31, 20—

Revenues		$250,000
Cost of goods sold		110,000
Gross profit		$140,000
Operating expenses:		
Selling expenses	$64,000	
Administrative expenses	28,000	
Total operating expenses		92,000
Net income		$ 48,000

b. Inventory balances on March 31, 20—:

Materials ($52,000 – $40,000)	$12,000
Work in Process ($40,000 + $60,000 + $84,000 – $140,000)	$44,000
Finished Goods ($140,000 – $110,000)	$30,000

Ex. 16–10 (FIN MAN); Ex. 1–10 (MAN)

LAWSON COMPANY
Balance Sheet
December 31, 2010

Current assets:		
Cash		$ 28,000
Accounts receivable		26,000
Inventories:		
Finished goods	$10,000	
Work in process	40,000	
Materials	22,000	72,000
Supplies		18,000
Prepaid insurance		10,000
Total current assets		$154,000

Ex. 16–11 (FIN MAN); Ex. 1–11 (MAN)

Materials inventory, October 1, 2010	$ 50,000
Add materials purchased during October	160,000
Cost of materials available for use	$210,000
Less materials inventory, October 31, 2010	42,000
Cost of direct materials used in production	$168,000

Ex. 16–12 (FIN MAN); Ex. 1–12 (MAN)

a. $16,000 ($2,000 + $14,000)
b. $13,000 ($16,000 – $3,000)
c. $128,000 ($140,000 – $12,000)
d. $110,000 ($140,000 – $30,000)
e. $6,000 ($76,000 – $70,000)
f. $14,000 ($76,000 – $62,000)

Ex. 16–13 (FIN MAN); Ex. 1–13 (MAN)

Work in process inventory, January 1, 2010		$ 60,000
Add manufacturing costs incurred during January:		
Cost of direct materials used in production	$132,000	
Direct labor	158,000	
Factory overhead	72,000	
Total manufacturing costs incurred		362,000
Total manufacturing costs		$422,000
Less work in process inventory, January 31, 2010		80,000
Cost of goods manufactured		$342,000

Ex. 16–14 (FIN MAN); Ex. 1–14 (MAN)

a. $360,000 ($300,000 + $60,000)
b. $290,000 ($360,000 – $70,000)
c. $170,000 ($190,000 – $20,000)
d. $160,000 ($190,000 – $30,000)
e. $40,000 ($300,000 – $260,000)
f. $25,000 ($300,000 – $275,000)

Ex. 16–15 (FIN MAN); Ex. 1–15 (MAN)

a.

F. MILLS MANUFACTURING COMPANY
Statement of Cost of Goods Manufactured
For the Month Ended April 30, 2010

Work in process inventory, April 1, 2010			$119,000
Direct materials:			
Materials inventory, April 1, 2010	$175,000		
Purchases	336,000		
Cost of materials available for use	$511,000		
Less materials inventory, April 30, 2010	154,000		
Cost of direct materials used in production		$357,000	
Direct labor		315,000	
Factory overhead:			
Indirect labor	$ 33,600		
Machinery depreciation	20,000		
Heat, light, and power	7,000		
Supplies	5,600		
Property taxes	4,900		
Miscellaneous cost	9,100		
Total factory overhead		80,200	
Total manufacturing costs incurred during April			752,200
Total manufacturing costs			$871,200
Less work in process inventory, April 30, 2010			133,000
Cost of goods manufactured			$738,200

b.

Finished goods inventory, April 1, 2010	$ 91,000
Cost of goods manufactured	738,200
Cost of finished goods available for sale	$829,200
Less finished goods inventory, April 30, 2010	105,000
Cost of goods sold	$724,200

Ex. 16–16 (FIN MAN); Ex. 1–16 (MAN)

a.	**Finished goods inventory, March 1, 2010**		**$ 54,000**
	Cost of goods manufactured		**240,000**
	Cost of finished goods available for sale		**$294,000**
	Less finished goods inventory, March 31, 2010		**50,000**
	Cost of goods sold		**$244,000**
b.	**Sales**		**$486,000**
	Cost of goods sold		**244,000**
	Gross profit		**$242,000**
c.	**Gross profit**		**$242,000**
	Operating expenses:		
	Selling expenses	**$76,500**	
	Administrative expenses	**40,500**	
	Total operating expenses		**117,000**
	Net income		**$125,000**

Ex. 16–17 (FIN MAN); Ex. 1–17 (MAN)

a.	**Sales**		**$360,000**
	Less gross profit		**210,000**
	Cost of goods sold		**$150,000**
b.	**Cost of goods manufactured**		**$180,000**
	Less cost of goods sold		**150,000**
	Finished goods inventory		**$ 30,000**
c.	**Purchased materials**		**$111,000**
	Less materials inventory		**15,000**
	Direct materials cost		**$ 96,000**
d.	**Total manufacturing costs**		**$207,000**
	Less: Direct materials	**$96,000**	
	Factory overhead costs (indirect labor and factory depreciation)	**90,000**	**186,000**
	Direct labor cost		**$ 21,000**
e.	**Total manufacturing costs**		**$207,000**
	Less cost of goods manufactured		**180,000**
	Work in process inventory		**$ 27,000**

PROBLEMS

Prob. 16–1A (FIN MAN); Prob. 1–1A (MAN)

	Product Costs			Period Costs	
Cost	Direct Materials Cost	Direct Labor Cost	Factory Overhead Cost	Selling Expense	Administrative Expense
a.					X
b.				X	
c.			X		
d.		X			
e.				X	
f.	X				
g.			X		
h.			X		
i.			X		
j.			X		
k.			X		
l.	X				
m.					X
n.			X		
o.			X		
p.	X				
q.	X				
r.			X		
s.				X	
t.			X		
u.	X				
v.	X				
w.			X		
x.	X				
y.			X		
z.		X			

Prob. 16–2A (FIN MAN); Prob. 1–2A (MAN)

	Product Costs			Period Costs	
Cost	Direct Materials Cost	Direct Labor Cost	Factory Overhead Cost	Selling Expense	Administrative Expense
a.				X	
b.	X				
c.				X	
d.			X		
e.			X		
f.				X	
g.				X	
h.		X			
i.	X				
j.	X				
k.					X
l.					X
m.			X		
n.					X
o.			X		
p.			X		
q.			X		
r.			X		
s.				X	
t.	X				
u.	X				
v.			X		
w.	X				
x.			X		

Prob. 16–3A (FIN MAN); Prob. 1–3A (MAN)

1. The most logical definition for the final cost object would be a guest. Guests consume services such as a meal, a night's stay in a hotel room, room service, a telephone call, etc.

2.

Cost	Direct	Indirect
a.	X	
b.	X	
c.		X
d.		X
e.	X	
f.	X	
g.		X
h.		X
i.		X
j.	X	
k.		X
l.	X	
m.	X	
n.		X
o.	X	
p.		X
q.		X
r.		X
s.		X
t.		X
u.		X
v.		X
w.	X	

Prob. 16–4A (FIN MAN); Prob. 1–4A (MAN)

1. Grant Company

a. $67,000 ($78,000 + $198,000 – $209,000)
b. $594,000 ($209,000 + $294,000 + $91,000)
c. $618,000 ($594,000 + $150,000 – $126,000)
d. $612,000 ($132,000 + $618,000 – $138,000)
e. $538,000 ($1,150,000 – $612,000)
f. $388,000 ($538,000 – $150,000)

McClellan Company

a. $217,000 ($102,000 + $230,000 – $115,000)
b. $329,000 ($660,000 – $217,000 – $114,000)
c. $252,000 ($906,000 – $654,000)
d. $108,000 ($654,000 + $114,000 – $660,000)
e. $360,000 ($1,020,000 – $660,000)
f. $134,000 ($360,000 – $226,000)

2.

McCLELLAN COMPANY
Statement of Cost of Goods Manufactured
For the Month Ended December 31, 2010

Work in process inventory, December 1, 2010			$246,000
Direct materials:			
Materials inventory, December 1, 2010	$102,000		
Purchases	230,000		
Cost of materials available for use	$332,000		
Less materials inventory, December 31, 2010	115,000		
Cost of direct materials used in production		$217,000	
Direct labor		329,000	
Factory overhead		114,000	
Total manufacturing costs incurred during December			660,000
Total manufacturing costs			$906,000
Less work in process inventory, December 31, 2010			252,000
Cost of goods manufactured			$654,000

Prob. 16–4A (FIN MAN); Prob. 1–4A (MAN) Concluded

3.

McCLELLAN COMPANY
Income Statement
For the Month Ended December 31, 2010

Sales		$1,020,000
Cost of goods sold:		
Finished goods inventory, December 1, 2010	$114,000	
Cost of goods manufactured	654,000	
Cost of finished goods available for sale	$768,000	
Less finished goods inventory, December 31, 2010	108,000	
Cost of goods sold		660,000
Gross profit		$ 360,000
Operating expenses		134,000
Net income		$ 226,000

Prob. 16–5A (FIN MAN); Prob. 1–5A (MAN)

1.

DEUTSCH CORPORATION
Statement of Cost of Goods Manufactured
For the Year Ended December 31, 2010

Work in process inventory, January 1, 2010			$ 405,000
Direct materials:			
Materials inventory, January 1, 2010	$225,000		
Purchases	423,000		
Cost of materials available for use	$648,000		
Less materials inventory, December 31, 2010	280,000		
Cost of direct materials used in production		$368,000	
Direct labor		430,000	
Factory overhead:			
Indirect labor	$ 50,400		
Depreciation expense—factory equipment	36,000		
Heat, light, and power—factory	14,400		
Property taxes—factory	11,700		
Rent expense—factory	19,800		
Supplies—factory	9,900		
Miscellaneous cost—factory	6,120		
Total factory overhead		148,320	
Total manufacturing costs incurred during the year			946,320
Total manufacturing costs			$1,351,320
Less work in process inventory, December 31, 2010			380,000
Cost of goods manufactured			$ 971,320

Prob. 16–5A (FIN MAN); Prob. 1–5A (MAN) Concluded

2.

DEUTSCH CORPORATION
Income Statement
For the Year Ended December 31, 2010

Sales			$1,980,000
Cost of good sold:			
Finished goods inventory, January 1, 2010		$ 390,000	
Cost of goods manufactured		971,320	
Cost of finished goods available for sale		$1,361,320	
Less finished goods inventory, December 31, 2010		380,000	
Cost of goods sold			981,320
Gross profit			$ 998,680
Operating expenses:			
Administrative expenses:			
Office salaries expense	$147,500		
Depreciation expense—office equipment	27,000		
Property taxes—office building	24,300	$198,800	
Selling expenses:			
Advertising expense	$190,000		
Sales salaries expense	243,000	433,000	
Total operating expenses			631,800
Net income			$ 366,880

Prob. 16–1B (FIN MAN); Prob. 1–1B (MAN)

	Product Costs			Period Costs	
Cost	Direct Materials Cost	Direct Labor Cost	Factory Overhead Cost	Selling Expense	Administrative Expense
a.	X				
b.				X	
c.			X		
d.					X
e.				X	
f.			X		
g.		X			
h.	X				
i.					X
j.				X	
k.			X		
l.	X				
m.			X		
n.				X	
o.			X		
p.					X
q.			X		
r.				X	
s.	X				
t.			X		
u.			X		
v.					X
w.	X				
x.	X				
y.					X
z.	X				

Prob. 16–2B (FIN MAN); Prob. 1–2B (MAN)

	Product Costs			Period Costs	
Cost	Direct Materials Cost	Direct Labor Cost	Factory Overhead Cost	Selling Expense	Administrative Expense
a.					X
b.					X
c.			X		
d.	X				
e.			X		
f.			X		
g.		X			
h.			X		
i.				X	
j.			X		
k.			X		
l.			X		
m.			X		
n.			X		
o.				X	
p.					X
q.			X		
r.			X		
s.			X		
t.	X				
u.					X
v.					X
w.		X			
x.				X	

Prob. 16–3B (FIN MAN); Prob. 1–3B (MAN)

1. The most logical definition for the final cost object would be the patient. The reason is that the cost can be accumulated at the patient level for billing and insurance reimbursement purposes.

2.

Cost	Direct	Indirect
a.	X	
b.		X
c.		X
d.		X
e.	X	
f.	X	
g.		X
h.		X
i.		X
j.	X	
k.		X
l.		X
m.		X
n.	X	
o.	X	
p.		X
q.		X
r.		X
s.	X	
t.		X
u.		X

Prob. 16–4B (FIN MAN); Prob. 1–4B (MAN)

1. McCain Company

a. $17,000 ($150,000 + $35,000 – $168,000)
b. $451,000 ($168,000 + $205,000 + $78,000)
c. $423,000 ($451,000 + $63,000 – $91,000)
d. $437,000 ($118,000 + $423,000 – $104,000)
e. $158,000 ($595,000 – $437,000)
f. $96,000 ($158,000 – $62,000)

Buffet Company

a. $134,000 ($158,000 + $21,000 – $45,000)
b. $158,000 ($350,000 – $59,000 – $133,000)
c. $43,000 ($396,000 – $353,000)
d. $59,000 ($353,000 + $62,000 – $356,000)
e. $92,000 ($448,000 – $356,000)
f. $54,000 ($92,000 – $38,000)

2.

McCAIN COMPANY
Statement of Cost of Goods Manufactured
For the Month Ended December 31, 2010

Work in process inventory, December 1, 2010			$ 63,000
Direct materials:			
Materials inventory, December 1, 2010	$ 35,000		
Purchases	150,000		
Cost of materials available for use	$185,000		
Less materials inventory, December 31, 2010	17,000		
Cost of direct materials used in production		$168,000	
Direct labor		205,000	
Factory overhead		78,000	
Total manufacturing costs incurred during December			451,000
Total manufacturing costs			$514,000
Less work in process inventory, December 31, 2010			91,000
Cost of goods manufactured			$423,000

Prob. 16–4B (FIN MAN); Prob. 1–4B (MAN) Concluded

3.

McCAIN COMPANY
Income Statement
For the Month Ended December 31, 2010

Sales		$595,000
Cost of goods sold:		
Finished goods inventory, December 1, 2010	$118,000	
Cost of goods manufactured	423,000	
Cost of finished goods available for sale	$541,000	
Less finished goods inventory, December 31, 2010	104,000	
Cost of goods sold		437,000
Gross profit		$158,000
Operating expenses		62,000
Net income		$ 96,000

Prob. 16–5B (FIN MAN); Prob. 1–5B (MAN)

1.

ROSETTA COMPANY
Statement of Cost of Goods Manufactured
For the Year Ended December 31, 2010

Work in process inventory, January 1, 2010			$ 84,000
Direct materials:			
Materials inventory, January 1, 2010	$ 59,500		
Purchases	95,000		
Cost of materials available for use	$154,500		
Less materials inventory, December 31, 2010	73,500		
Cost of direct materials used in production		$ 81,000	
Direct labor		143,500	
Factory overhead:			
Indirect labor	$ 18,200		
Depreciation expense—factory equipment	11,200		
Heat, light, and power—factory	4,500		
Property taxes—factory	3,150		
Rent expense—factory	5,250		
Supplies—factory	2,500		
Miscellaneous cost—factory	3,400		
Total factory overhead		48,200	
Total manufacturing costs incurred during the year			272,700
Total manufacturing costs			$356,700
Less work in process inventory, December 31, 2010			73,500
Cost of goods manufactured			$283,200

Prob. 16–5B (FIN MAN); Prob. 1–5B (MAN) Concluded

2.

ROSETTA COMPANY
Income Statement
For the Year Ended December 31, 2010

Sales			$665,000
Cost of good sold:			
Finished goods inventory, January 1, 2010		$ 87,500	
Cost of goods manufactured		283,200	
Cost of finished goods available for sale		$370,700	
Less finished goods inventory, December 31, 2010		77,000	
Cost of goods sold			293,700
Gross profit			$371,300
Operating expenses:			
Administrative expenses:			
Office salaries expense	$ 59,500		
Depreciation expense—office equipment	17,500		
Property taxes—headquarters building	10,500	$ 87,500	
Selling expenses:			
Advertising expense	$ 52,500		
Sales salaries expense	105,000	157,500	
Total operating expenses			245,000
Net income			$126,300

SPECIAL ACTIVITIES

Activity 16–1 (FIN MAN); Activity 1–1 (MAN)

Although Gretchen may appear to have technically complied with company policy, her computation of the cost of the lumber is unethical. The *Statement of Ethical Conduct for Practitioners of Management Accounting and Financial Management* requires that Gretchen avoid all actual or apparent conflict-of-interest situations. Thus, although it is appropriate for Gretchen to take advantage of Earnhart's policy of allowing employees to purchase materials at cost, she should have had someone else (such as her supervisor) determine the amount that she owed for the lumber. Clearly, selecting the lowest price has opened the door for criticism.

Activity 16–2 (FIN MAN); Activity 1–2 (MAN)

The objectives of managerial accounting and financial accounting are different; therefore, the vice president's statement is very incomplete. In one sense, the statement may be true at only very high levels in the organization. For example, the division manager may be evaluated on the basis of financial accounting profit. Thus, the divisional manager would be evaluated by central management in nearly the same way that central management is evaluated by shareholders.

Lower in the organization, the financial concerns of the stockholder begin to diverge significantly from the day-to-day operating decision needs of the manager. As such, the statement becomes very inaccurate the closer one gets to the actual operations. Operational performance measures will focus on cost, quality, delivery time, equipment availability, inventory levels, scrap, waste, and efficiency. This list is much broader and more detailed than the financial statement numbers provided to the stockholders.

The stockholders' interest in profit is related to increasing shareholder value. Managers must increase long-term shareholder value by engaging in strategies that enhance people, product, and processes in the delivery of value to customers. These strategies can be measured by both financial and nonfinancial means. Therefore, it is not surprising to see a much broader set of objective and subjective measures used internally in the organization to guide strategy and operations.

Activity 16–3 (FIN MAN); Activity 1–3 (MAN)

1. **The vice president of the Information Systems Division can use managerial accounting information in a number of different ways. For example, the vice president might use these data to determine resources that will be required based on a projection of amount and type of work required for the next period. Managerial accounting information would also be used to determine whether the bank should lease additional processing capacity or purchase a new central processing unit. Additionally, managerial accounting information could also be used to achieve better control over information systems activities by evaluating the costs of ongoing operations, based on the demand for information services.**

2. **The hospital administrator can use managerial accounting information in a number of different ways. One way is for cost planning and control. The administrator could use managerial information to keep costs commensurate with services provided and to plan for staffing and nursing levels. This information can be used to determine the cost of various services, and thereby in making decisions with respect to the amount of service that is appropriate in each particular case. The administrator can also use managerial accounting information to determine if their costs are being covered by these fixed payments. If not, the administrator needs to know the source of the cost overruns. Does the hospital allow too many procedures? Require longer bed days? Have resources that are underutilized (e.g., a cancer wing with three patients)?**

Activity 16–3 (FIN MAN); Activity 1–3 (MAN) Concluded

3. **The CEO of the food company will use managerial accounting information to support the control of the three divisions. Each of the three divisions will be subject to a number of financial goals. The CEO also needs to support strategic decision making. In this regard, the CEO needs managerial accounting information on the profitability of various product families, profitability of different regions, and profitability of various customer segments. This information can guide the CEO in allocating future effort and resources.**

4. **The copy shop manager needs fairly simple managerial accounting information. At the most basic level, the copy shop manager needs to know the costs of performing various copy tasks, such as one-sided copy, two-sided copy, collating, binding, etc. These activities will have some direct costs, such as paper, and some indirect costs, such as copy machine time. The manager will need to estimate the impact of both of these costs in order to price the various copy jobs to the public. Managerial accounting information will include the cost details necessary to price the various copy shop services at a level to cover equipment costs, lease expenses, and profit.**

Activity 16–4 (FIN MAN); Activity 1–4 (MAN)

1. **Jane's bill has a number of points that should be considered. Some of the points, with the appropriate argument, are identified below.**

   a. **The trip back to the shop resulted in a $65 labor charge. Jane should argue that the whole hour should not be billed. The hour is the result of stocking out of a circuit board on the truck. The circuit board should have been with the repair person. There was a board for the previous customer. However, since only one was stocked, the repair person had to go back to the shop. The trip back to the shop was nonproductive time that should not have been directly charged to Jane but should be part of The Nerd Squad's overhead cost to all customers. In other words, Jane should not be responsible for this mistake.**

   b. **The overtime premium should not have been charged to Jane. What if Jane was the first appointment in the morning? If so, then there would be no overtime premium. It's only random misfortune that Jane was the last client of the day and therefore received the overtime premium. Add to this the fact that the overtime would not have been necessary without the trip back to the shop, and the conclusion is that Jane should not be directly charged for overtime. The overtime premium should be part of The Nerd Squad's overhead charged to all clients equally. Jane should be charged the overtime only if the decision for overtime was caused by or required by Jane.**

   Thus, the labor portion of the bill should only be $55 + $45 + $45 = $145.

   There are other parts of the bill that should not be in dispute.

   - **The materials storage and handling charge is a normal charge of maintaining a parts inventory for the benefit of clients that need parts.**
   - **The fringe benefits and overhead added to the hourly rate are both reasonable. The fringe benefit attaches directly to the direct labor. Fringe benefits are just another form of compensation. The overhead must be covered by all customers. Therefore, including overhead in the hourly rate is the most logical method of covering these costs.**
   - **The additional charge for the first hour is also reasonable. The first hour charge covers the costs of transit, which are directly attributable to making a home visit. Jane requires a home visit, so Jane should be responsible for the costs of making the visit. If Jane brought the computer to the shop, this cost would not be incurred.**

Activity 16–4 (FIN MAN); Activity 1–4 (MAN) Concluded

2.

Cost	Direct Materials	Direct Labor	Overhead
Circuit board	X		
Storage and handling			X
Straight-time labor		X	
Fringe benefits*		X	
Overhead			X
Vehicle depreciation and fuel			X
Overtime premium			X

*Could be considered overhead.

Activity 16–5 (FIN MAN); Activity 1–5 (MAN)

1. The Burger Barn manager will use managerial accounting information to accumulate the costs associated with different menu items. The costs, direct and indirect, will help in determining the pricing strategy.
2. The plant manager is going to use cost information on scrap and rework to identify the amount of waste occurring in the plant. This measure of waste is fairly common in fabrication-type facilities. The measures can guide the plant manager to locations or products where significant waste is occurring. The plant manager can use the scrap and rework measures to guide operational improvement toward the location that is experiencing the greatest level of scrap or rework. The measures can also monitor improvement in rework and control the number of network hours charged by floor personnel.
3. The cost of ending inventory is required at least when financial statements are prepared. The division controller will likely require inventory valuation at the close of every month, in order to have a good understanding of the month-by-month earnings of the division. The division controller will provide the ending inventory information by using managerial accounting information in determining the cost of products. To determine the appropriate cost, the product cost is multiplied by the units left in inventory.
4. The Maintenance Department manager needs to be able to plan the resources to be used by the department. The planning process involves identifying the required resources to fulfill the department's objective. For example, the Maintenance Department manager may know the repair histories of various machines. These histories can be used to forecast the repairs anticipated during the next year. The manager may also know that a new process will be brought online during the next year. New processes are frequently troublesome, so the manager will need to budget additional resources to accommodate introduction of the new technology.

Activity 16–6 (FIN MAN); Activity 1–6 (MAN)

Note to Instructors: **Consider having the teams compete for the most examples. Have half the class do the pizza restaurant and the other the copy shop, and compare results.**

Some examples that may be offered by the students are the following:

Copy and Graphics Shop

Cost	Direct Materials	Direct Labor	Overhead	Selling Expenses
Paper	X			
Graphic designer wages		X		
Manager salary			X	
Lease cost of copy machine			X	
Coupon costs				X
Advertising				X
Packaging (bags and boxes)	X			
Ink			X	
Repair costs			X	
Property taxes			X	
Store depreciation			X	
Cashier salary			X	
Building heat and A/C			X	
Copy machine operator wages		X		
Covers	X			
Computer depreciation			X	
Brochures				X

Activity 16–6 (FIN MAN); Activity 1–6 (MAN) Concluded

Pizza Restaurant

Cost	Direct Materials	Direct Labor	Overhead	Selling Expenses
Ingredients	X			
Cook wages		X		
Manager salary			X	
Depreciation on equipment and fixtures			X	
Coupon costs				X
Advertising				X
To-go boxes	X			
Disposable plates, utensils, cups	X			
Nondisposable plates, utensils, cups			X	
Repair costs			X	
Property taxes			X	
Store depreciation			X	
Cashier salary			X	
Beverage	X			
Building heat and A/C			X	
Salad ingredients	X			
Handbills				X
Delivery person wages		X		
Power costs for ovens			X	

In service businesses, such as those above, the distinction between direct labor and overhead will not always be clear.