CHAPTER 5

Merchandising Operations and the Multiple-Step Income Statement

Learning Objectives

1. Identify the differences between a service company and a merchandising company.
2. Explain the recording of purchases under a perpetual inventory system.
3. Explain the recording of sales revenues under a perpetual inventory system.
4. Distinguish between a single-step and a multiple-step income statement.
5. Determine cost of goods sold under a periodic system.
6. Explain the factors affecting profitability.
7. Identify a quality of earnings indicator.

*8. Explain the recording of purchases and sales of inventory under a periodic inventory system.

Summary of Questions by Learning Objectives and Bloom's Taxonomy

Item	LO	BT	Item	LO	BT	Item	LO	BT	Item	LO	BT	Item	LO	BT
Questions														
1.	1	C	7.	3	K	12.	4	AP	17.	4	K	22.	6	K
2.	1	C	8.	3	AP	13.	3	C	18.	2	K	23.	6	C
3.	1	C	9.	3	C	14.	4	C	19.	2	K	24.	6	AN
4.	1	C	10.	3	C	15.	4	K	20.	5	K	25.	7	C
5.	1	AP	11.	2	AP	16.	1	K	21.	5	K	26.	8*	AP
6.	3	C												
Brief Exercises														
1.	1, 4	AP	4.	2	AP	7.	5	AP	10.	6	AP	12.	7	C
2.	2, 3	AP	5.	4	AP	8.	5	AP	11.	6	AP	13.	8*	AP
3.	3	AP	6.	4	AP	9.	5	C						
Do It! Review Exercises														
1.	2	AP	2.	3	AP	3.	4	AP	4.	5	AP			
Exercises														
1.	3	AP	4.	2, 3	AP	7.	4, 6	AP	10.	5	AP	12.	7	C
2.	2, 3	AP	5.	4	AP	8.	4, 6	AP	11.	5	AP	13.	8*	AP
3.	2	AP	6.	4, 6	AP	9.	4, 6	C						
Problems: Set A														
1.	2, 3, 4, 6	AP	3.	2, 3, 4	AP	5.	4	AP	7.	4, 5	AP	9.	5, 8*	AP
2.	2, 3	AP	4.	4, 6	AP	6.	4	AP	8.	4, 5, 6	AN			
Problems: Set B														
1.	2, 3, 4, 6	AP	3.	2, 3, 4	AP	5.	4	AP	7.	4, 5	AP	9.	5, 8*	AP
2.	2, 3	AP	4.	4, 6	AP	6.	4	AP	8.	4, 5, 6	AN			

*Continuing Cookie Solutions for this chapter are available online.

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Journalize, post, prepare partial income statement, and calculate ratios.	Simple	30–40
2A	Journalize purchase and sale transactions under a perpetual system.	Moderate	20–30
3A	Journalize, post, and prepare trial balance and partial income statement.	Simple	30–40
4A	Prepare financial statements and calculate profitability ratios.	Moderate	40–50
5A	Prepare a correct multiple-step income statement.	Complex	20–30
6A	Journalize, post, and prepare adjusted trial balance and financial statements.	Moderate	40–50
7A	Determine cost of goods sold and gross profit under a periodic system.	Moderate	40–50
8A	Calculate missing amounts and assess profitability.	Moderate	20–30
*9A	Journalize, post, and prepare trial balance and partial income statement under a periodic system.	Simple	30–40
1B	Journalize, post, prepare partial income statement, and calculate ratios.	Simple	30–40
2B	Journalize purchase and sale transactions under a perpetual inventory system.	Moderate	20–30
3B	Journalize, post, and prepare trial balance and partial income statement.	Simple	30–40
4B	Prepare financial statements and calculate profitability ratios.	Moderate	40–50
5B	Prepare a correct multiple-step income statement.	Complex	20–30
6B	Journalize, post, and prepare adjusted trial balance and financial statements.	Moderate	40–50
7B	Determine cost of goods sold and gross profit under a periodic approach.	Moderate	40–50
8B	Calculate missing amounts and assess profitability.	Moderate	20–30
*9B	Journalize, post, and prepare trial balance and partial income statement under a periodic system.	Simple	30–40

ANSWERS TO QUESTIONS

1. (a) Disagree. The steps in the accounting cycle are the same for both a merchandising company and a service company.

(b) The measurement of income is conceptually the same. In both types of companies, net income (or loss) results from the matching of expenses with revenues.

2. The components of revenues and expenses differ as follows:

	Merchandising	Service
Revenues	Sales revenue	Fees, Rents, etc.
Expenses	Cost of Goods Sold and Operating	Operating (only)

3. Under a periodic inventory system the company does not keep track of how many units are on hand. Instead it takes a physical count at the end of the period to determine ending inventory and cost of goods sold. Under a perpetual system the company adjusts its inventory account each time it purchases or sells inventory. Thus it always has a record of its available inventory. Having knowledge of inventory balances helps a company avoid lost sales due to "stock-outs" as well as carrying too much inventory on hand (which results in additional storage and handling costs). The purchasing department can make better decisions with the aid of perpetual inventory records.

4. (a) The income measurement process is as follows:

Sales Revenue	Less	Cost of Goods Sold	Equals	Gross Profit	Less	Operating Expenses	Equals	Net Income (Loss)

(b) Income measurement in a merchandising company differs from a service company as follows: (a) sales are the primary source of revenue and (b) expenses are divided into two main categories: cost of goods sold and operating expenses.

5.

Sales revenue	$100,000
Cost of goods sold	70,000
Gross profit	$ 30,000

6. Agree. In accordance with the revenue recognition principle, sales revenues are generally considered to be recognized when the goods are transferred from the seller to the buyer; that is, when the exchange transaction occurs. The recognition of revenue is not dependent on the collection of credit sales.

7. (a) The primary source documents are (1) cash sales—cash register tapes and (2) credit sales—sales invoice.

(b) The entries are:

		Debit	Credit
Cash sales—	Cash	XX	
	Sales Revenue		XX
	Cost of Goods Sold	XX	
	Inventory		XX

Credit sales—	Accounts Receivable	XX	
	Sales Revenue		XX
	Cost of Goods Sold	XX	
	Inventory		XX

8. July 19

Cash ($800 – $8)	792	
Sales Discounts ($800 X 1%)	8	
Accounts Receivable ($900 – $100)		800

9. Shipping unwanted goods to customers is generally considered unethical behavior. In addition, if proper accounting is applied, in most cases it won't achieve the desired result of increasing sales. If it is expected that the unwanted goods will be shipped back to the seller, then they should not be treated as sales in the first place. (Note: The practice of shipping more goods than were ordered in order to meet sales goals and get rid of extra inventory is referred to as channel stuffing.)

10. In most industries returns are not significant, and they are therefore accounted for as they occur. When returns are expected to be significant, the company should make an adjusting entry at the end of the period to estimate the amount of returns that will result from the period's sales, so that revenues will not be overstated during the period.

11. July 24

Accounts Payable ($1,900 – $300)	1,600	
Cash ($1,600 – $32)		1,568
Inventory ($1,600 X 2%)		32

12.

Gross profit	$560,000
Less: Net income	230,000
Operating expenses	$330,000

13. Its current terms of 1/10, n/30 means that customers get a 1% discount if they pay within 10 days, otherwise they have to pay the full amount within 30 days. If they switch to 2/10, n/45 customers would get a 2% discount for paying within 10 days, otherwise they have to pay the full amount in 45 days. By offering 2%, more of Lou's customers would likely pay within the 10 day period. Management would have to determine whether it is worth the additional cost to be paid quicker. Also, by extending the full payment period from 30 to 45 days, Lou would end up receiving its money even later from its slow payers.

14. The gain on the sale of the plant represents a one-time gain. That is, it won't be recurring next year. If you eliminate the effect of this one-time gain, then the company's income actually declined by $5 million relative to the prior year. When predicting future earnings investors frequently place little weight on non-recurring events such as this.

15. There are three distinguishing features in the income statement of a merchandising company: (1) a sales revenues section, (2) a cost of goods sold section, and (3) gross profit.

16. The normal operating cycle for a merchandising company is likely to be longer than for a service company because inventory must first be purchased and sold, and then the receivables must be collected.

17. Tootsie Roll uses the term gross margin. It breaks down gross margin into two components, product gross margin and rental and royalty gross margin. Total gross profit decreased by $4,784,000.

18. Of the merchandising accounts, only Inventory will appear in the post-closing trial balance.

19. Businesses most likely to use a perpetual inventory system would include automobile dealerships, equipment supply companies, and other companies selling products having a high unit-value. With automation, perpetual systems are becoming increasingly cost-effective.

20.

Accounts	(a) Added/Deducted	(b) Normal Balance
Purchase Returns and Allowances	Deducted	Credit
Purchase Discounts	Deducted	Credit
Freight-In	Added	Debit

21. (a) X = Purchase returns and allowances and Y = Purchase discounts, or vice versa.
(b) X = Freight-in.
(c) X = Cost of goods purchased.
(d) X = Ending inventory.

22. Profitability is affected by gross profit ‘as measured by the gross profit rate’ and by management’s ability to control operating expenses, as measured by the profit margin.

23. Factors affecting a company’s gross profit rate include selling products with a higher (or lower) “markup,” increased competition that results in lower selling prices, and price increases or decreases from suppliers.

24. Gross profit represents the amount by which sales exceeds cost of goods sold. In order for the company to be profitable, gross profit must exceed the company’s operating expenses. Before the selling price is cut, the company should do a careful analysis estimating what its gross profit and operating expenses would be if more units were sold at a lower selling price. In addition, a big concern is what the likely reaction of competitors will be. If competitors also cut their price, then volume will not increase, and the company’s net income will be lower.

25. George Mallein should calculate the company’s quality of earnings ratio. This is calculated by dividing net cash provided by operating activities by net income. A measure significantly below 1 would suggest that the company might be using aggressive accounting techniques to recognize income early.

***26.**

Date	Account	Debit	Credit
July 24	Accounts Payable ($1,900 – $400)	1,500	
	Cash ($1,500 – $30)		1,470
	Purchase Discounts ($1,500 X 2%)		30

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 5-1

(a) Sales = $181,500 ($71,900 + $109,600).
(b) Cost of goods sold = $41,200 ($71,200 – $30,000).
(c) Gross profit = $38,000 ($108,000 – $70,000).
(d) Operating expenses = $17,900 ($30,000 – $12,100).
(e) Operating expenses = $8,500 ($38,000 (from c) – $29,500).
(f) Net income = $63,400 ($109,600 – $46,200).

BRIEF EXERCISE 5-2

<u>Gerish Company</u>

Inventory	900	
Accounts Payable		900

<u>Mangus Company</u>

Accounts Receivable	900	
Sales Revenue		900
Cost of Goods Sold	590	
Inventory		590

BRIEF EXERCISE 5-3

(a)	March 2	Accounts Receivable	800,000	
		Sales Revenue		800,000
	2	Cost of Goods Sold	540,000	
		Inventory		540,000
(b)	6	Sales Returns and Allowances	140,000	
		Accounts Receivable		140,000
	6	Inventory	94,000	
		Cost of Goods Sold		94,000
(c)	12	Cash ($660,000 – $13,200)	646,800	
		Sales Discounts ($660,000 X 2%)	13,200	
		Accounts Receivable ($800,000 – $140,000)		660,000

BRIEF EXERCISE 5-4

(a)	March 2	Inventory	800,000	
		Accounts Payable		800,000
(b)	6	Accounts Payable	140,000	
		Inventory		140,000
(c)	12	Accounts Payable ($800,000 – $140,000)	660,000	
		Cash ($660,000 – $13,200)		646,800
		Inventory ($660,000 X 2%)		13,200

BRIEF EXERCISE 5-5

ALVARADO COMPANY
Income Statement (Partial)
For the Month Ended October 31, 2014

Sales		
Sales revenue ($300,000 + $150,000)		$450,000
Less: Sales returns and allowances	$19,000	
Sales discounts	5,000	24,000
Net sales		$426,000

BRIEF EXERCISE 5-6

As the name suggests, numerous steps are required in determining net income in a multiple-step statement.

Item	Section
Gain on disposal of plant assets	Other revenues and gains
Cost of goods sold	Cost of goods sold
Depreciation expense	Operating expenses
Sales returns and allowances	Sales revenues

BRIEF EXERCISE 5-7

Beginning inventory	$ 67,000
Add: Purchases	380,000
Cost of goods available for sale	447,000
Less: Ending inventory	50,000
Cost of goods sold	$397,000

BRIEF EXERCISE 5-8

Purchases		$404,000
Less: Purchase returns and allowances	$13,000	
Purchase discounts	9,000	22,000
Net purchases		$382,000
Net purchases		$382,000
Add: Freight-in		16,000
Cost of goods purchased		$398,000

BRIEF EXERCISE 5-9

Net sales		$612,000
Beginning inventory	$ 60,000	
Add: Cost of goods purchased*	398,000	
Cost of goods available for sale	458,000	
Less: Ending inventory	90,000	
Cost of goods sold		368,000
Gross profit		$244,000

*Information taken from Brief Exercise 5-8.

BRIEF EXERCISE 5-10

(a) Profit margin = $32,500 ÷ $250,000 = 13.0%

The profit margin measures the extent by which selling price covers all expenses. In this case 87% of sales revenues cover all expenses (cost of goods sold, operating expenses, and other expenses) leaving 13% of revenues as net income. Or, for every dollar of net sales, the company earns $0.13 in net income.

(b) Gross profit rate = ($250,000 – $150,000) ÷ $250,000 = 40.0%

The gross profit rate measures the margin by which selling price exceeds cost of goods sold. In this case, 40% of sales revenues remain (after deducting cost of goods sold) to cover all other expenses and produce net income. Or, for every dollar of net sales, the company generates $0.40 in gross profit.

BRIEF EXERCISE 5-11

(a) Profit margin = $68,000 ÷ $800,000 = 8.5%

The profit margin measures the extent by which selling price covers all expenses. In this case, 91.5% of sales revenues cover all expenses (cost of goods sold and operating expenses) leaving 8.5% of revenues as net income. Or, for every dollar of net sales, the company earns $0.085 in net income.

(b) Gross profit rate = ($800,000 – $520,000) ÷ $800,000 = 35.0%

The gross profit rate measures the margin by which selling price exceeds cost of goods sold. In this case, 35% of sales revenues remain (after deducting cost of goods sold) to cover operating expenses and produce net income. Or, for every dollar of net sales, the company generates $0.35 in gross profit.

BRIEF EXERCISE 5-12

The quality of earnings ratio is calculated by dividing net cash provided by operating activities by net income. For Moritz Corporation this would be $221,200 ÷ $346,000 = .64. This is significantly less than 1, which suggests that the company may be using aggressive accounting techniques in order to recognize income early. The factors that are causing net income to differ from net cash provided by operating activities should be examined.

*BRIEF EXERCISE 5-13

(a)	March 2	Purchases	800,000	
		Accounts Payable		800,000
(b)	6	Accounts Payable	95,000	
		Purchase Returns and Allowances		95,000
(c)	12	Accounts Payable ($800,000 – $95,000)	705,000	
		Cash ($705,000 – $14,100)		690,900
		Purchase Discounts ($705,000 X 2%)		14,100

SOLUTIONS TO DO IT! REVIEW EXERCISES

DO IT! 5-1

Oct. 5	Inventory	5,000	
	Accounts Payable		5,000
	(To record goods purchased on account)		
Oct. 8	Accounts Payable	640	
	Inventory		640
	(To record return of defective goods)		

DO IT! 5-2

		Debit	Credit
Oct. 5	Accounts Receivable	5,000	
	Sales Revenue		5,000
	(To record credit sales)		
	Cost of Goods Sold	3,000	
	Inventory		3,000
	(To record cost of goods sold on account)		
Oct. 8	Sales Returns and Allowances	640	
	Accounts Receivable		640
	(To record credit granted for receipt of returned goods)		
	Inventory	240	
	Cost of Goods Sold		240
	(To record scrap value of goods returned)		

DO IT! 5-3

VOGT CORP.
Income Statement
For the Year Ended December 31, 2014

Sales		
Sales revenue	$592,000	
Less: Sales returns and allowances	40,000	
Net sales		$552,000
Cost of goods sold		156,000
Gross profit		396,000
Operating expenses		186,000
Income from operations		210,000
Other revenues and gains	12,700	
Other expenses and losses	(13,300)	(600)
Income before income taxes		209,400
Income tax expense		62,820
Net income		$146,580

DO IT! 5-4

(a) **Cost of goods purchased $161,400:**

Purchases – Purchase returns and allowances – Purchase discounts + Freight-in

$162,500 – $3,600 – $5,900 + $8,400

(b) **Cost of goods sold $165,170:**

Beginning inventory + Cost of goods purchased – Ending inventory

$31,720 + $161,400 – $27,950

SOLUTIONS TO EXERCISES

EXERCISE 5-1

(a)	(1)	April 5	Inventory	28,000	
			Accounts Payable		28,000
	(2)	April 6	Inventory	700	
			Cash		700
	(3)	April 7	Equipment	30,000	
			Accounts Payable		30,000
	(4)	April 8	Accounts Payable	3,600	
			Inventory		3,600
	(5)	April 15	Accounts Payable ($28,000 – $3,600)	24,400	
			Cash ($24,400 – $488)		23,912
			Inventory [($28,000 – $3,600) X 2%]		488
(b)		May 4	Accounts Payable ($28,000 – $3,600)	24,400	
			Cash		24,400

EXERCISE 5-2

Sept. 6	Inventory	1,650	
	Accounts Payable		1,650
9	Inventory	50	
	Cash		50
10	Accounts Payable	66	
	Inventory		66
12	Accounts Receivable	690	
	Sales Revenue		690
	Cost of Goods Sold	520	
	Inventory		520

EXERCISE 5-2 (Continued)

Sept. 14	Sales Returns and Allowances	45	
	Accounts Receivable		45
14	Inventory	34	
	Cost of Goods Sold		34
20	Accounts Receivable	760	
	Sales Revenue		760
	Cost of Goods Sold	570	
	Inventory		570

EXERCISE 5-3

(a) (1)	Dec. 3	Accounts Receivable	500,000	
		Sales Revenue		500,000
		Cost of Goods Sold	330,000	
		Inventory		330,000
(2)	Dec. 8	Sales Returns and Allowances	25,000	
		Accounts Receivable		25,000
(3)	Dec. 13	Cash ($475,000 – $4,750)	470,250	
		Sales Discounts [($500,000 – $25,000) X 1%]	4,750	
		Accounts Receivable ($500,000 – $25,000)		475,000
(b)	Jan. 2	Cash	475,000	
		Accounts Receivable ($500,000 – $25,000)		475,000

EXERCISE 5-4

(a)	June 10	Inventory	9,000	
		Accounts Payable		9,000
	11	Inventory	400	
		Cash		400

EXERCISE 5-4 (Continued)

	June 12	Accounts Payable	600	
		Inventory		600
	19	Accounts Payable ($9,000 – $600)	8,400	
		Cash ($8,400 – $252)		8,148
		Inventory ($8,400 X 3%)		252
(b)	June 10	Accounts Receivable	9,000	
		Sales Revenue		9,000
		Cost of Goods Sold	5,000	
		Inventory		5,000
	11	No entry		
	12	Sales Returns and Allowances	600	
		Accounts Receivable		600
		Inventory	310	
		Cost of Goods Sold		310
	19	Cash ($8,400 – $252)	8,148	
		Sales Discounts ($8,400 X 3%)	252	
		Accounts Receivable ($9,000 – $600)		8,400

EXERCISE 5-5

HODGES COMPANY
Income Statement (Partial)
For the Year Ended October 31, 2014

Sales		
Sales revenue		$900,000
Less: Sales returns and allowances	$22,000	
Sales discounts	13,500	35,500
Net sales		$864,500

Note: Freight-out is a selling expense.

EXERCISE 5-6

(a)

ZHOU Co.
Income Statement
For the Month Ended January 31, 2014

Sales		
Sales revenue		$370,000
Less: Sales returns and allowances	$20,000	
Sales discounts	8,000	28,000
Net sales		342,000
Cost of goods sold		212,000
Gross profit		130,000
Operating expenses		
Salaries and wages expense	60,000	
Rent expense	32,000	
Insurance expense	12,000	
Freight-out	7,000	
Total operating expenses		111,000
Income before income taxes		19,000
Income tax expense		4,750
Net income		$ 14,250

(b) Profit margin = $\frac{\$14,250}{\$342,000} = 4.2\%$

Gross profit rate = $\frac{\$130,000}{\$342,000} = 38.0\%$

EXERCISE 5-7

(a) <u>Yanik Company</u>

Sales	$ 90,000
*Sales returns and allowances ($90,000 – $84,000)	(6,000)
Net sales	$ 84,000

Net sales	$ 84,000
Cost of goods sold	(58,000)
*Gross profit	$ 26,000

EXERCISE 5-7 (Continued)

Gross profit	$ 26,000
Operating expenses	(14,380)
*Net income	$ 11,620

Nunez Company

*Sales ($100,000 + $5,000)	$105,000
Sales returns and allowances	(5,000)
Net sales	$100,000
Net sales	$100,000
*Cost of goods sold ($100,000 – $40,000)	(60,000)
Gross profit	$ 40,000
Gross profit	$ 40,000
*Operating expenses ($40,000 – $17,000)	(23,000)
Net income	$ 17,000

*Indicates missing amount

(b)

	Yanik	Nunez
Profit margin	$11,620 ÷ $84,000 = 14%	$17,000 ÷ $100,000 = 17%
Gross profit rate	$26,000 ÷ $84,000 = 31%	$40,000 ÷ $100,000 = 40%

(c) Nunez has a higher profit margin than Yanik. Each dollar of net sales by Nunez results in 17 cents of net income compared to only 14 cents for Yanik. Nunez also has a higher gross profit rate. For each dollar of Nunez's net sales, 60 cents is required to cover cost of goods sold leaving 40 cents to cover other expenses and produce net income. Yanik's gross profit of .31 indicates that only 31 cents of each dollar of net sales is available to cover other expenses and produce net income.

EXERCISE 5-8

(a)

GAVIN COMPANY
Income Statement
For the Year Ended December 31, 2014

Sales		
Sales revenue	$2,210,000	
Less: Sales discounts................	160,000	
Net sales		$2,050,000
Cost of goods sold............................		987,000
Gross profit.......................................		1,063,000
Operating expenses		
Salaries and wages expense......	465,000	
Depreciation expense	310,000	
Utilities expense	110,000	
Total operating expenses..................		885,000
Income from operations		178,000
Other revenues and gains		
Interest revenue..........................		65,000
Other expenses and losses		
Loss on disposal of plant assets..............................	83,500	
Interest expense	71,000	154,500
Income before income taxes.............		88,500
Income tax expense		25,000
Net income..		$ 63,500

(b) Profit margin: $63,500 ÷ $2,050,000 = 3%
Gross profit rate: $1,063,000 ÷ $2,050,000 = 52%

(c) During the current year Gavin had a loss on the sale of property, plant, and equipment of $83,500. This loss is not part of operating income, and it is most likely a non-recurring event, meaning that we wouldn't expect it to happen again next year. If we ignore this loss, then Gavin Company's net income would have been $147,000 ($63,500 + $83,500) and its profit margin would have been 7.2% ($147,000 ÷ $2,050,000). Therefore, while the loss is not good news, it is less of a concern than a similar drop in income from operations.

EXERCISE 5-9

(a)

THE CLOROX COMPANY
Income Statement
For the Year Ended June 30, 2014
(amounts in millions)

Sales		
Sales revenue	$5,730	
Less: Sales returns and allowances	280	
Net sales		$5,450
Cost of goods sold		3,104
Gross profit		2,346
Operating expenses		
Advertising expense	499	
Salaries and wages expense	460	
Research and development expense	114	
Rent expense	105	
Depreciation expense	90	
Utilities expense	60	
Total operating expenses		1,328
Income from operations		1,018
Other expenses and losses		
Interest expense	161	
Loss on disposal of plant assets	46	207
Income before income taxes		811
Income tax expense		276
Net income		$ 535

(b) Gross profit rate: $2,346 ÷ $5,450 = 43.0%

Profit margin: $535 ÷ $5,450 = 9.8%

The gross profit rate indicates that about 57 cents of each dollar of net sales is required to cover the cost of goods sold, leaving about 43 cents to cover all remaining expenses and produce net income.

The profit margin indicates that each dollar of net sales results in about 10 cents of net income.

EXERCISE 5-9 (Continued)

(c)

THE CLOROX COMPANY
Income Statement
For the Year Ended June 30, 2014
(amounts in millions)

Sales		
Net sales*		$6,813
Cost of goods sold**		3,880
Gross profit		2,933
Operating expenses		
Advertising expense***	$839	
Salaries and wages expense	460	
Research and development expense	114	
Rent expense	105	
Depreciation expense	90	
Utilities expense	60	
Total operating expenses		1,668
Income from operations		1,265
Other expenses and losses		
Interest expense	161	
Loss on disposal of plant assets	46	207
Income before income taxes		1,058
Income tax expense		360
Net income		$ 698

*$5,450 + (.25 X $5,450)
**$3,104 + (.25 X $3,104)
***$499 + $340

Gross profit rate: $2,933 ÷ $6,813 = 43.1%

Profit margin: $698 ÷ $6,813 = 10.2%

The gross profit rate remained nearly unchanged at 43.1%. This result would be expected since advertising expenses are not part of cost of goods sold.

The profit margin increased from 9.9% to 10.2% because net income increased nearly 30% ($161 ÷ $537) while net sales rose only 25%.

It appears that the marketing department's plan has merit. If the expected increases in sales materialize, net income will increase $161 million ($698 – $537).

EXERCISE 5-10

Inventory, September 1, 2013		$ 18,700
Purchases	$154,000	
Less: Purchase returns and allowances	5,000	
Net purchases	149,000	
Add: Freight-in	8,000	
Cost of goods purchased		157,000
Cost of goods available for sale		175,700
Inventory, August 31, 2014		(21,000)
Cost of goods sold		$154,700

EXERCISE 5-11

(a)	$1,420	($1,500 – $80)	(g)	$7,700	($290 + $7,410)
(b)	$1,550	(1,420 + $130)	(h)	$640	($8,050 – $7,410)
(c)	$1,490	($1,800 – $310)	(i)	$8,750	($700 + $8,050)
(d)	$40	($1,080 – $1,040)	(j)	$5,000	($49,530 – $44,530 from (l))
(e)	$190	($1,230 – $1,040)	(k)	$1,300	($43,590 – $42,290)
(f)	$120	($1,350 – $1,230)	(l)	$44,530	($42,290 + $2,240)

EXERCISE 5-12

(a) Earnings have high quality if they provide a full and transparent depiction of how a company performed.

(b) One indicator of earnings quality is the quality of earnings ratio which is net cash provided by operating activities divided by net income. For Dorcas Corporation this is $23,200 ÷ $45,300 = .51. This is significantly lower than 1, which indicates that the company might be using aggressive accounting techniques in order to accelerate the recognition of net income.

EXERCISE 5-12 (Continued)

(c) **In order to identify potential aggressive accounting techniques one should examine the factors that are causing net income to differ from net cash provided by operating activities. Many of these differences would be due to adjusting entries used for accrual accounting. The fact that the company's Accounts Receivable balance is increasing so rapidly is a possible concern because it might suggest that the company is recording credit sales that really aren't sales. For example, it might be shipping goods to customers that the company didn't order. This would cause sales to increase, but since the customers probably won't ever pay, it would cause the balance in accounts receivable to build up.**

***EXERCISE 5-13**

(a)	**(1)**	**April 5**	**Purchases**	**27,000**	
			Accounts Payable		**27,000**
	(2)	**April 6**	**Freight-In**	**1,200**	
			Cash		**1,200**
	(3)	**April 7**	**Equipment**	**30,000**	
			Accounts Payable		**30,000**
	(4)	**April 8**	**Accounts Payable**	**3,600**	
			Purchase Returns and Allowances		**3,600**
	(5)	**April 15**	**Accounts Payable ($27,000 – $3,600)**	**23,400**	
			Cash ($23,400 – $468)		**22,932**
			Purchase Discounts [($27,000 – $3,600) X 2%]		**468**
(b)		**May 4**	**Accounts Payable ($27,000 – $3,600)**	**23,400**	
			Cash		**23,400**

SOLUTIONS TO PROBLEMS

PROBLEM 5-1A

(a)

General Journal

Date		Account Titles	Debit	Credit
May	1	Inventory	8,000	
		Accounts Payable		8,000
	2	Accounts Receivable	4,400	
		Sales Revenue		4,400
		Cost of Goods Sold	3,300	
		Inventory		3,300
	5	Accounts Payable	200	
		Inventory		200
	9	Cash ($4,400 – $88)	4,312	
		Sales Discounts ($4,400 X 2%)	88	
		Accounts Receivable		4,400
	10	Accounts Payable ($8,000 – $200)	7,800	
		Cash		7,722
		Inventory ($7,800 X 1%)		78
	11	Supplies	900	
		Cash		900
	12	Inventory	3,100	
		Cash		3,100
	15	Cash	230	
		Inventory		230
	17	Inventory	2,500	
		Accounts Payable		2,500

PROBLEM 5-1A (Continued)

General Journal

Date	Account Titles	Debit	Credit
May 19	Inventory	250	
	Cash		250
24	Cash	5,500	
	Sales Revenue		5,500
	Cost of Goods Sold	4,100	
	Inventory		4,100
25	Inventory	800	
	Accounts Payable		800
27	Accounts Payable	2,500	
	Cash		2,450
	Inventory ($2,500 X 2%)		50
29	Sales Returns and Allowances	124	
	Cash		124
	Inventory	90	
	Cost of Goods Sold		90
31	Accounts Receivable	1,280	
	Sales Revenue		1,280
	Cost of Goods Sold	830	
	Inventory		830

PROBLEM 5-1A (Continued)

(b)

Cash

5/1 Bal.	8,000	5/10	7,722
5/9	4,312	5/11	900
5/15	230	5/12	3,100
5/24	5,500	5/19	250
		5/27	2,450
		5/29	124
5/31 Bal.	3,496		

Accounts Receivable

5/2	4,400	5/9	4,400
5/31	1,280		
5/31 Bal.	1,280		

Inventory

5/1	8,000	5/2	3,300
5/12	3,100	5/5	200
5/17	2,500	5/10	78
5/19	250	5/15	230
5/25	800	5/24	4,100
5/29	90	5/27	50
		5/31	830
5/31 Bal.	5,952		

Supplies

5/11	900		
5/31 Bal.	900		

Accounts Payable

5/5	200	5/1	8,000
5/10	7,800	5/17	2,500
5/27	2,500	5/25	800
		5/31 Bal.	800

Common Stock

		5/1 Bal.	8,000
		5/31 Bal.	8,000

Sales Revenue

		5/2	4,400
		5/24	5,500
		5/31	1,280
		5/31 Bal.	11,180

Sales Returns and Allowances

5/29	124		
5/31 Bal.	124		

Sales Discounts

5/9	88		
5/31 Bal.	88		

Cost of Goods Sold

5/2	3,300	5/29	90
5/24	4,100		
5/31	830		
5/31 Bal.	8,140		

PROBLEM 5-1A (Continued)

(c)

WATERS HARDWARE STORE
Income Statement (Partial)
For the Month Ended May 31, 2014

Sales		
Sales revenue		$11,180
Less: Sales returns and allowances	$124	
Sales discounts	88	212
Net sales		10,968
Cost of goods sold		8,140
Gross profit		$ 2,828

(d) Profit margin: ($2,828 – $1,400) ÷ $10,968 = 13.0%

Gross profit rate: $2,828 ÷ $10,968 = 25.8%

PROBLEM 5-2A

June	1	Inventory	1,040	
		Accounts Payable		1,040
	3	Accounts Receivable	1,200	
		Sales Revenue		1,200
		Cost of Goods Sold	720	
		Inventory		720
	6	Accounts Payable	40	
		Inventory		40
	9	Accounts Payable ($1,040 – $40)	1,000	
		Cash		980
		Inventory ($1,000 X .02)		20
	15	Cash	1,200	
		Accounts Receivable		1,200
	17	Accounts Receivable	1,200	
		Sales Revenue		1,200
		Cost of Goods Sold	730	
		Inventory		730
	20	Inventory	720	
		Accounts Payable		720
	24	Cash	1,176	
		Sales Discounts ($1,200 X .02)	24	
		Accounts Receivable		1,200

PROBLEM 5-2A (Continued)

June 26	Accounts Payable...	720	
	Cash		713
	Inventory (720 X .01)....................................		7
28	Accounts Receivable	1,300	
	Sales Revenue		1,300
	Cost of Goods Sold..	780	
	Inventory..		780
30	Sales Returns and Allowances	130	
	Accounts Receivable....................................		130
	Inventory	80	
	Cost of Goods Sold		80

PROBLEM 5-3A

(a)

General Journal

Date	Account Titles	Debit	Credit
Apr. 5	Inventory	1,500	
	Accounts Payable		1,500
7	Inventory	80	
	Cash		80
9	Accounts Payable	200	
	Inventory		200
10	Accounts Receivable	1,340	
	Sales Revenue		1,340
	Cost of Goods Sold	820	
	Inventory		820
12	Inventory	830	
	Accounts Payable		830
14	Accounts Payable ($1,500 – $200)	1,300	
	Cash		1,261
	Inventory ($1,300 X 3%)		39
17	Accounts Payable	30	
	Inventory		30
20	Accounts Receivable	810	
	Sales Revenue		810
	Cost of Goods Sold	550	
	Inventory		550
21	Accounts Payable ($830 – $30)	800	
	Cash		792
	Inventory ($800 X 1%)		8

PROBLEM 5-3A (Continued)

Date	Account Titles	Debit	Credit
Apr. 27	Sales Returns and Allowances	80	
	Accounts Receivable		80
30	Cash	1,220	
	Accounts Receivable		1,220

(b)

Cash

4/1 Bal.	2,500	4/7	80
4/30	1,220	4/14	1,261
		4/21	792
4/30 Bal.	1,587		

Common Stock

		4/1 Bal.	6,000
		4/30 Bal.	6,000

Sales Revenue

		4/10	1,340
		4/20	810
		4/30 Bal.	2,150

Accounts Receivable

4/10	1,340	4/27	80
4/20	810	4/30	1,220
4/30 Bal.	850		

Sales Returns and Allowances

4/27	80		
4/30 Bal.	80		

Inventory

4/1 Bal.	3,500	4/9	200
4/5	1,500	4/10	820
4/7	80	4/14	39
4/12	830	4/17	30
		4/20	550
		4/21	8
4/30 Bal.	4,263		

Cost of Goods Sold

4/10	820		
4/20	550		
4/30 Bal.	1,370		

Accounts Payable

4/9	200	4/5	1,500
4/14	1,300	4/12	830
4/17	30		
4/21	800		
		4/30 Bal.	0

(c)

FLINT HILLS PRO SHOP
Trial Balance
April 30, 2014

	Debit	Credit
Cash	$1,587	
Accounts Receivable	850	
Inventory	4,263	
Common Stock		6,000
Sales Revenue		2,150
Sales Returns and Allowances	80	
Cost of Goods Sold	1,370	
	$8,150	$8,150

(d)

FLINT HILLS PRO SHOP
Income Statement (Partial)
For the Month Ended April 30, 2014

Sales	
Sales revenue	$2,150
Less: Sales returns and allowances	80
Net sales	2,070
Cost of goods sold	1,370
Gross profit	$ 700

PROBLEM 5-4A

(a)

LAMBERT DEPARTMENT STORE
Income Statement
For the Year Ended November 30, 2014

Sales		
Sales revenue		$904,000
Less: Sales returns and allowances		20,000
Net sales		884,000
Cost of goods sold		614,300
Gross profit		269,700
Operating expenses		
Salaries and wages expense	$117,000	
Rent expense	34,000	
Advertising expense	33,500	
Depreciation expense	13,500	
Utilities expense	10,600	
Insurance expense	9,000	
Freight-out	6,200	
Total operating expenses		223,800
Income from operations		45,900
Other revenues and gains		
Gain on disposal of plant assets		2,000
Other expenses and losses		
Interest expense		5,000
Income before income taxes		42,900
Income tax expense		10,000
Net income		$ 32,900

PROBLEM 5-4A (Continued)

LAMBERT DEPARTMENT STORE
Retained Earnings Statement
For the Year Ended November 30, 2014

Retained earnings, December 1, 2013	$14,200
Add: Net income	32,900
	47,100
Less: Dividends	12,000
Retained earnings, November 30, 2014	$35,100

LAMBERT DEPARTMENT STORE
Balance Sheet
November 30, 2014

Assets			
Current assets			
Cash		$ 8,000	
Accounts receivable		17,200	
Inventory		26,200	
Prepaid insurance		6,000	
Total current assets			$ 57,400
Property, plant, and equipment			
Equipment	$157,000		
Less: Accumulated depreciation—equipment	68,000		89,000
Total assets			$146,400

PROBLEM 5-4A (Continued)

LAMBERT DEPARTMENT STORE
Balance Sheet (Continued)
November 30, 2014

Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$26,800	
Salaries and wages payable	6,000	
Total current liabilities		$ 32,800
Long-term liabilities		
Note payable due 2018		43,500
Total liabilities		76,300
Stockholders' equity		
Common stock	35,000	
Retained earnings	35,100	
Total stockholders' equity		70,100
Total liabilities and stockholders' equity		$146,400

(b) Profit margin: $32,900 ÷ $884,000 = 3.7%

Gross profit rate: $269,700 ÷ $884,000 = 30.5%

(c) Revised net income = Current net income + increase in gross profit – increase in operating expenses
$14,743 = $32,900 + $40,443 – $58,600

Revised net sales = Current net sales + .15 (current net sales)
$1,016,600 = $884,000 + $132,600

Revised gross profit = Current gross profit + $40,443
$310,143 = $269,700 + $40,443

Revised profit margin: $14,743 ÷ $1,016,600 = 1.5%

Revised gross profit rate: $310,143 ÷ $1,016,600 = 30.5%

PROBLEM 5-4A (Continued)

This plan increased net sales and gross profit but did not change the gross profit rate. This is not surprising since the proposed change affects selling expenses rather than cost of goods sold. An increase in sales would increase the dollar amount of cost of goods sold but not cost of goods sold as a percentage of sales dollars.

The plan decreased net income by $18,157 ($32,900 – $14,743) or 55%. Since net sales increased 15% and net income decreased 55%, the profit margin decreased from 3.7% to 1.5%. A 55% decrease in net income combined with the smaller profit margin indicates that the proposal should not be adopted.

PROBLEM 5-5A

SUNDBERG COMPANY
Income Statement
For the Year Ended December 31, 2014

Sales		
Sales revenue		$911,000
Less: Sales returns and allowances	$28,000	
Sales discounts	18,000	46,000
Net sales		865,000
Cost of goods sold		555,000
Gross profit		310,000
Operating expenses		
Salaries and wages expense*	136,000	
Freight-out	33,000	
Rent expense ($24,000 – $6,000)	18,000	
Advertising expense	13,000	
Utilities expense	12,000	
Depreciation expense	10,000	
Total operating expenses		222,000
Income from operations		88,000
Other revenues and gains		
Rent revenue		4,000
Other expenses and losses		
Interest expense		2,000
Income before income taxes		90,000
Income tax expense		22,500
Net income		$ 67,500

*($80,000 + $6,000 + $3,000 + $47,000)

PROBLEM 5-6A

(a)

Dec. 31	Depreciation Expense		15,000	
	Accumulated Depreciation— Buildings			8,000
	Accumulated Depreciation— Equipment			7,000
31	Interest Expense		4,500	
	Interest Payable			4,500
31	Income Tax Expense		24,000	
	Income Taxes Payable			24,000

(b)

Accumulated Depreciation—Buildings

	12/31 Bal. 60,000
	12/31 8,000
	12/31 Bal. 68,000

Accumulated Depreciation—Equipment

	12/31 Bal. 40,500
	12/31 7,000
	12/31 Bal. 47,500

Depreciation Expense

12/31 15,000	
12/31 Bal. 15,000	

Interest Expense

12/31 4,500	
12/31 Bal. 4,500	

Interest Payable

	12/31 4,500
	12/31 Bal. 4,500

Income Tax Expense

12/31 24,000	
12/31 Bal. 24,000	

Income Taxes Payable

	12/31 24,000
	12/31 Bal. 24,000

(c)

CUSTOMER CHOICE WHOLESALE COMPANY
Adjusted Trial Balance
December 31, 2014

	Debit	Credit
Cash	$ 31,400	
Accounts Receivable	37,600	
Inventory	70,000	
Land	92,000	
Buildings	200,000	
Accumulated Depreciation—Buildings		$ 68,000
Equipment	83,500	
Accumulated Depreciation—Equipment		47,500
Notes Payable		54,700
Accounts Payable		17,500
Interest Payable		4,500
Income Taxes Payable		24,000
Common Stock		160,000
Retained Earnings		67,200
Dividends	10,000	
Sales Revenue		922,100
Sales Discounts	6,000	
Cost of Goods Sold	709,900	
Salaries and Wages Expense	51,300	
Utilities Expense	11,400	
Maintenance and Repairs Expense	8,900	
Advertising Expense	5,200	
Insurance Expense	4,800	
Depreciation Expense	15,000	
Income Tax Expense	24,000	
Interest Expense	4,500	
Totals	$1,365,500	$1,365,500

PROBLEM 5-6A (Continued)

(d)

CUSTOMER CHOICE WHOLESALE COMPANY
Income Statement
For the Year Ended December 31, 2014

Sales		
Sales revenue		$922,100
Less: Sales discounts		6,000
Net sales		916,100
Cost of goods sold		709,900
Gross profit		206,200
Operating expenses		
Salaries and wages expense	$51,300	
Depreciation expense	15,000	
Utilities expense	11,400	
Maintenance and repairs expense	8,900	
Advertising expense	5,200	
Insurance expense	4,800	
Total operating expenses		96,600
Income from operations		109,600
Other expenses and losses		
Interest expense		4,500
Income before income taxes		105,100
Income tax expense		24,000
Net income		$ 81,100

CUSTOMER CHOICE WHOLESALE COMPANY
Retained Earnings Statement
For the Year Ended December 31, 2014

Retained earnings, January 1	$ 67,200
Add: Net income	81,100
	148,300
Less: Dividends	10,000
Retained earnings, December 31	$138,300

PROBLEM 5-6A (Continued)

CUSTOMER CHOICE WHOLESALE COMPANY
Balance Sheet
December 31, 2014

Assets

Current assets			
Cash		$ 31,400	
Accounts receivable		37,600	
Inventory		70,000	
Total current assets			$139,000
Property, plant, and equipment			
Land		92,000	
Buildings	$200,000		
Less: Accum. depreciation—buildings	68,000	132,000	
Equipment	83,500		
Less: Accum. depreciation—equipment	47,500	36,000	260,000
Total assets			$399,000

Liabilities and Stockholders' Equity

Current liabilities		
Notes payable	$ 15,000	
Accounts payable	17,500	
Income taxes payable	24,000	
Interest payable	4,500	
Total current liabilities		$ 61,000
Long-term liabilities		
Notes payable ($54,700 – $15,000)		39,700
Total liabilities		100,700
Stockholders' equity		
Common stock	160,000	
Retained earnings	138,300	
Total stockholders' equity		298,300
Total liabilities and stockholders' equity		$399,000

PROBLEM 5-7A

ERMLER DEPARTMENT STORE
Income Statement (Partial)
For the Year Ended November 30, 2014

Sales				
Sales revenue				$902,000
Less: Sales returns and allowances....................				20,000
Net sales...				882,000
Cost of goods sold				
Inventory, Dec. 1, 2013............			$ 41,300	
Purchases		$613,000		
Less: Purchase discounts.....	$7,000			
Purchase returns and allowances	6,760	13,760		
Net purchases..........................		599,240		
Add: Freight-in		5,060		
Cost of goods purchased			604,300	
Cost of goods available for sale.......................................			645,600	
Less: Inventory, Nov. 30, 2014...............			36,200	
Cost of goods sold				609,400
Gross profit....................................				$272,600

PROBLEM 5-8A

(a)

(a) Cost of goods sold = Sales revenue – Gross profit
= $96,890 – $67,800 = $29,090

(b) Net income = Gross profit – Operating expenses
= $67,800 – $63,640 = $4,160

(c) Merchandise inventory = 2012 Inventory + Purchases – CGS
= $13,000 + $25,890 – $29,090 = $9,800

(d) Cash payments to suppliers = 2012 Accounts payable + Purchases
– 2013 Accounts payable
= $5,800 + $25,890 – $6,500 = $25,190

(e) Sales revenue = Cost of goods sold + Gross profit
= $28,060 + $59,620 = $87,680

(f) Operating expenses = Gross profit – Net income
= $59,620 – $3,510 = $56,110

(g) 2013 Inventory + Purchases – 2014 Inventory = CGS
Purchases = CGS – 2013 Inventory + 2014 Inventory
= $28,060 – $9,800 [from (c)] + $14,700
= $32,960

(h) Cash payments to suppliers = 2013 Accounts payable + Purchases –
2014 Accounts Payable
= $6,500 + $32,960 [from (g)] – $4,600
= $34,860

(i) Gross profit = Sales revenue – CGS
= $82,220 – $26,490 = $55,730

(j) Net income = Gross profit – Operating expenses
= $55,730 – $52,870 = $2,860

PROBLEM 5-8A (Continued)

(k) 2014 Inventory + Purchases – 2015 Inventory = CGS
Inventory = 2014 Inventory + Purchases – CGS
= $14,700 + $24,050 – $26,490 = $12,260

(l) Accounts payable = 2014 Accounts payable + Purchases
– Cash payments
= $4,600 + $24,050 – $24,650 = $4,000

(b) **No. A decline in sales does not necessarily mean that profitability declined. Profitability is affected by sales, cost of goods sold and operating expenses. If cost of goods sold or operating expenses decline more than sales, profitability can increase even when sales decline. However, in this particular case, sales declined with insufficient off-setting cost savings to improve profitability. Therefore, profitability declined for Yang Inc.**

	2013	2014	2015
Gross profit rate	$67,800 ÷ $96,890 = 70.0%	$59,620 ÷ $87,680 = 68.0%	$55,730 ÷ $82,220 = 67.8%
Profit margin	$4,160 ÷ $96,890 = 4.3%	$3,510 ÷ $87,680 = 4.0%	$2,860 ÷ $82,220 = 3.5%

*PROBLEM 5-9A

(a)

General Journal

Date		Account Titles and Explanation	Debit	Credit
Apr.	5	Purchases	1,500	
		Accounts Payable		1,500
	7	Freight-In	80	
		Cash		80
	9	Accounts Payable	200	
		Purchase Returns and Allowances		200
	10	Accounts Receivable	1,340	
		Sales Revenue		1,340
	12	Purchases	830	
		Accounts Payable		830
	14	Accounts Payable ($1,500 – $200)	1,300	
		Cash ($1,300 – $39)		1,261
		Purchase Discounts (1,300 X 3%)		39
	17	Accounts Payable	30	
		Purchase Returns and Allowances		30
	20	Accounts Receivable	810	
		Sales Revenue		810
	21	Accounts Payable ($830 – $30)	800	
		Cash ($800 – $8)		792
		Purchase Discounts ($800 X 1%)		8

***PROBLEM 5-9A (Continued)**

Date		Account Titles and Explanation	Debit	Credit
Apr.	27	Sales Returns and Allowances....................	80	
		Accounts Receivable		80
	30	Cash..	1,220	
		Accounts Receivable		1,220

(b)

Cash

4/1 Bal.	2,500	4/7	80
4/30	1,220	4/14	1,261
		4/21	792
4/30 Bal.	1,587		

Accounts Receivable

4/10	1,340	4/27	80
4/20	810	4/30	1,220
4/30 Bal.	850		

Inventory

4/1 Bal.	3,500		
4/30 Bal.	3,500		

Accounts Payable

4/9	200	4/5	1,500
4/14	1,300	4/12	830
4/17	30		
4/21	800		
		4/30 Bal.	0

Common Stock

		4/1 Bal.	6,000
		4/30 Bal.	6,000

Sales Revenue

		4/10	1,340
		4/20	810
		4/30 Bal.	2,150

Sales Returns and Allowances

4/27	80		
4/30 Bal.	80		

Purchases

4/5	1,500		
4/12	830		
4/30 Bal.	2,330		

***PROBLEM 5-9A (Continued)**

Purchase Returns and Allowances

	4/9	200
	4/17	30
	4/30 Bal.	230

Purchase Discounts

	4/14	39
	4/21	8
	4/30 Bal.	47

Freight-In

4/7	80	
4/30 Bal.	80	

(c)

FLINT HILLS PRO SHOP
Trial Balance
April 30, 2014

	Debit	Credit
Cash	$1,587	
Accounts Receivable	850	
Inventory	3,500	
Common Stock		$6,000
Sales Revenue		2,150
Sales Returns and Allowances	80	
Purchases	2,330	
Purchase Returns and Allowances		230
Purchase Discounts		47
Freight-In	80	
	$8,427	$8,427

***PROBLEM 5-9A (Continued)**

(d)

FLINT HILLS PRO SHOP
Income Statement (Partial)
For the Month Ended April 30, 2014

Sales				
Sales revenue				$2,150
Less: Sales returns and allowances....................				80
Net sales..................................				2,070
Cost of goods sold				
Inventory, April 1			$3,500	
Purchases		$2,330		
Less: Purchase returns and allowances	$230			
Purchase discounts.....	47	277		
Net purchases..........................		2,053		
Add: Freight-in		80		
Cost of goods purchased.......			2,133	
Cost of goods available for sale			5,633	
Less: Inventory, April 30			4,263	
Cost of goods sold				1,370
Gross profit............................				$ 700

PROBLEM 5-1B

(a)

General Journal

Date		Account Titles	Debit	Credit
Apr.	2	Inventory	8,700	
		Accounts Payable		8,700
	4	Accounts Receivable	6,000	
		Sales Revenue		6,000
		Cost of Goods Sold	3,700	
		Inventory		3,700
	5	Freight-Out	200	
		Cash		200
	6	Accounts Payable	400	
		Inventory		400
	11	Accounts Payable ($8,700 – $400)	8,300	
		Cash		8,134
		Inventory ($8,300 X 2%)		166
	13	Cash	5,880	
		Sales Discounts ($6,000 X 2%)	120	
		Accounts Receivable		6,000
	14	Inventory	4,700	
		Cash		4,700
	16	Cash	500	
		Inventory		500
	18	Inventory	5,500	
		Accounts Payable		5,500
	20	Inventory	180	
		Cash		180

PROBLEM 5-1B (Continued)

General Journal

Date	Account Titles	Debit	Credit
Apr. 23	Cash	8,300	
	Sales Revenue		8,300
	Cost of Goods Sold	5,580	
	Inventory		5,580
26	Inventory	2,300	
	Cash		2,300
27	Accounts Payable	5,500	
	Cash		5,390
	Inventory ($5,500 X 2%)		110
29	Sales Returns and Allowances	180	
	Cash		180
	Inventory	120	
	Cost of Goods Sold		120
30	Accounts Receivable	3,980	
	Sales Revenue		3,980
	Cost of Goods Sold	2,500	
	Inventory		2,500

PROBLEM 5-1B (Continued)

(b)

Cash

4/1 Bal.	10,000	4/5	200
4/13	5,880	4/11	8,134
4/16	500	4/14	4,700
4/23	8,300	4/20	180
		4/26	2,300
		4/27	5,390
		4/29	180
4/30 Bal.	3,596		

Accounts Receivable

4/4	6,000	4/13	6,000
4/30	3,980		
4/30 Bal.	3,980		

Inventory

4/2	8,700	4/4	3,700
4/14	4,700	4/6	400
4/18	5,500	4/11	166
4/20	180	4/16	500
4/26	2,300	4/23	5,580
4/29	120	4/27	110
		4/30	2,500
4/30 Bal.	8,544		

Accounts Payable

4/6	400	4/2	8,700
4/11	8,300	4/18	5,500
4/27	5,500		
		4/30 Bal.	0

Common Stock

		4/1 Bal.	10,000
		4/30 Bal.	10,000

Sales Revenue

		4/4	6,000
		4/23	8,300
		4/30	3,980
		4/30 Bal.	18,280

Sales Returns and Allowances

4/29	180		
4/30 Bal.	180		

Sales Discounts

4/13	120		
4/30 Bal.	120		

Cost of Goods Sold

4/4	3,700	4/29	120
4/23	5,580		
4/30	2,500		
4/30 Bal.	11,660		

Freight-Out

4/5	200		
4/30 Bal.	200		

PROBLEM 5-1B (Continued)

(c)

KREY DISTRIBUTING COMPANY
Income Statement (Partial)
For the Month Ended April 30, 2014

Sales		
Sales revenue		$18,280
Less: Sales returns and allowances	$180	
Sales discounts	120	300
Net sales		17,980
Cost of goods sold		11,660
Gross profit		$ 6,320

(d) **Profit margin: ($6,320 – $3,000) ÷ $17,980 = 18.5%**

Gross profit rate: $6,320 ÷ $17,980 = 35.2%

PROBLEM 5-2B

April	1	Inventory (190 X $6)	1,140	
		Accounts Payable		1,140
	3	Accounts Receivable (40 X $10)	400	
		Sales Revenue		400
		Cost of Goods Sold (40 X $6)	240	
		Inventory		240
	6	Accounts Payable	90	
		Inventory		90
	9	Accounts Payable ($1,140 – $90)	1,050	
		Inventory ($1,050 X .02)		21
		Cash		1,029
	12	Cash	388	
		Sales Discounts ($400 X .03)	12	
		Accounts Receivable		400
	13	Accounts Receivable (25 X $12)	300	
		Sales Revenue		300
		Cost of Goods Sold (25 X $6)	150	
		Inventory		150
	20	Inventory (200 X $6)	1,200	
		Accounts Payable		1,200
	24	Cash	300	
		Accounts Receivable		300
	26	Accounts Payable	1,200	
		Inventory		12
		Cash		1,188
	28	Accounts Receivable (160 X $10)	1,600	
		Sales Revenue		1,600
		Cost of Goods Sold (160 X $6)	960	
		Inventory		960
	30	Sales Returns and Allowances	120	
		Accounts Receivable		120
		Inventory	72	
		Cost of Goods Sold		72

PROBLEM 5-3B

(a)

General Journal

Date	Account Titles	Debit	Credit
Apr. 4	Inventory	980	
	Accounts Payable		980
6	Inventory	60	
	Cash		60
8	Accounts Receivable	750	
	Sales Revenue		750
	Cost of Goods Sold	480	
	Inventory		480
10	Accounts Payable	130	
	Inventory		130
11	Inventory	300	
	Cash		300
13	Accounts Payable ($980 – $130)	850	
	Cash		833
	Inventory ($850 X 2%)		17
14	Inventory	1,300	
	Accounts Payable		1,300
15	Cash	50	
	Inventory		50
17	Inventory	60	
	Cash		60
18	Accounts Receivable	660	
	Sales Revenue		660
	Cost of Goods Sold	440	
	Inventory		440

PROBLEM 5-3B (Continued)

Date	Account Titles	Debit	Credit
Apr. 20	Cash	500	
	Accounts Receivable		500
21	Accounts Payable	1,300	
	Cash		1,261
	Inventory ($1,300 X 3%)		39
27	Sales Returns and Allowances	30	
	Accounts Receivable		30
30	Cash	550	
	Accounts Receivable		550

(b)

Cash

4/1 Bal.	3,500	4/6	60
4/15	50	4/11	300
4/20	500	4/13	833
4/30	550	4/17	60
		4/21	1,261
4/30 Bal.	2,086		

Accounts Payable

4/10	130	4/4	980
4/13	850	4/14	1,300
4/21	1,300		
		4/30 Bal.	0

Common Stock

		4/1 Bal.	5,200
		4/30 Bal.	5,200

Accounts Receivable

4/8	750	4/20	500
4/18	660	4/27	30
		4/30	550
4/30 Bal.	330		

Sales Revenue

		4/8	750
		4/18	660
		4/30 Bal.	1,410

Inventory

4/1 Bal.	1,700	4/8	480
4/4	980	4/10	130
4/6	60	4/13	17
4/11	300	4/15	50
4/14	1,300	4/18	440
4/17	60	4/21	39
4/30 Bal.	3,244		

Sales Returns and Allowances

4/27	30		
4/30 Bal.	30		

PROBLEM 5-3B (Continued)

Cost of Goods Sold		
4/8	480	
4/18	440	
4/30 Bal.	920	

(c)

CONNORS' TENNIS SHOP
Trial Balance
April 30, 2014

	Debit	Credit
Cash	$2,086	
Accounts Receivable	330	
Inventory	3,244	
Common Stock		$5,200
Sales Revenue		1,410
Sales Returns and Allowances	30	
Cost of Goods Sold	920	
	$6,610	$6,610

(d)

CONNORS' TENNIS SHOP
Income Statement (Partial)
For the Month Ended April 30, 2014

Sales	
Sales revenues	$1,410
Less: Sales returns and allowances	30
Net sales	1,380
Cost of goods sold	920
Gross profit	$ 460

PROBLEM 5-4B

(a)

PARKER DEPARTMENT STORE
Income Statement
For the Year Ended December 31, 2014

Sales		
Sales revenue		$626,000
Less: Sales returns and allowances		8,000
Net sales		618,000
Cost of goods sold		412,000
Gross profit		206,000
Operating expenses		
Salaries and wages expense	$111,000	
Depreciation expense	23,400	
Utilities expense	11,000	
Insurance expense	8,400	
Maintenance and repairs expense	6,200	
Total operating expenses		160,000
Income from operations		46,000
Other revenues and gains		
Gain on disposal of plant assets		4,300
Other expenses and losses		
Interest expense		7,000
Income before income taxes		43,300
Income tax expense		15,000
Net income		$ 28,300

PARKER DEPARTMENT STORE
Retained Earnings Statement
For the Year Ended December 31, 2014

Retained earnings, January 1	$19,200
Add: Net income	28,300
	47,500
Less: Dividends	15,000
Retained earnings, December 31	$32,500

PROBLEM 5-4B (Continued)

PARKER DEPARTMENT STORE
Balance Sheet
December 31, 2014

Assets			
Current assets			
Cash		$ 30,000	
Accounts receivable		43,500	
Inventory		43,000	
Prepaid insurance		2,400	
Total current assets			$118,900
Property, plant, and equipment			
Land		50,000	
Buildings	$140,000		
Less: Accumulated depreciation—buildings	52,500	87,500	
Equipment	100,000		
Less: Accumulated depreciation—equipment	42,600	57,400	194,900
Total assets			$313,800

Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 73,300	
Mortgage payable	20,000	
Salaries and wages payable	3,500	
Interest payable	2,000	
Total current liabilities		$98,800
Long-term liabilities		
Mortgage payable ($62,500 – $20,000)		42,500
Total liabilities		141,300
Stockholders' equity		
Common stock	140,000	
Retained earnings	32,500	
Total stockholders' equity		172,500
Total liabilities and stockholders' equity		$313,800

PROBLEM 5-4B (Continued)

(b) Profit margin: $28,300 ÷ $618,000 = 4.6%

Gross profit rate: $206,000 ÷ $618,000 = 33.3%

(c) Revised net income = Current net income + increase in gross profit – increase in operating expenses
$51,000 = $28,300 + $50,500 – $27,800

Revised net sales = Current net sales + .25 (current net sales)
$772,500 = $618,000 + $154,500

Revised gross profit = Current gross profit + $50,500
$256,500 = $206,000 + $50,500

Revised profit margin: $51,000 ÷ $772,500 = 6.6%

Revised gross profit rate: $256,500 ÷ $772,500 = 33.2%

This plan increases net sales and gross profit but barely changes the gross profit rate. This is not surprising since the proposed change affects selling expenses rather than cost of goods sold. An increase in sales would increase the dollar amount of cost of goods sold but not cost of goods sold as a percentage of sales dollars.

The plan increases net income by $22,700 ($51,000 – $28,300) or 80%. Since net sales increases only 25% and net income increases 80%, the profit margin rises from 4.6% to 6.6%. An 80% increase in net income indicates that the proposal has considerable merit and should be adopted.

PROBLEM 5-5B

WRIGHT COMPANY
Income Statement
For the Year Ended December 31, 2014

Sales		
Sales revenue		$972,000
Less: Sales returns and allowances	$ 46,000	
Sales discounts	12,000	58,000
Net sales		914,000
Cost of goods sold		548,000
Gross profit		366,000
Operating expenses		
Salaries and wages expense	152,000	
Freight-out	20,000	
Rent expense ($20,000 – $2,000)	18,000	
Utilities expense	16,000*	
Advertising expense	12,000	
Depreciation expense	4,000	
Total operating expenses		222,000
Income from operations		144,000
Other revenues and gains		
Interest revenue		4,000
Other expenses and losses		
Interest expense		3,000
Net income		$145,000

*($13,000 + $3,000)

PROBLEM 5-6B

(a)

Nov. 30	Supplies Expense	4,800	
	Supplies ($8,800 – $4,000)		4,800
30	Depreciation Expense	20,000	
	Accumulated Depreciation—Equipment		20,000
30	Interest Expense	4,400	
	Interest Payable		4,400
30	Income Tax Expense	3,000	
	Income Taxes Payable		3,000

(b)

Supplies

11/30 Bal.	8,800	11/30	4,800
11/30 Bal.	4,000		

Supplies Expense

11/30	4,800		
11/30 Bal.	4,800		

Accumulated Depreciation—Equipment

		11/30 Bal.	41,000
		11/30	20,000
		11/30 Bal.	61,000

Depreciation Expense

11/30	20,000		
11/30 Bal.	20,000		

Interest Expense

11/30	4,400		
11/30 Bal.	4,400		

Interest Payable

		11/30	4,400
		11/30 Bal.	4,400

Income Tax Expense

11/30	3,000		
11/30 Bal.	3,000		

Income Taxes Payable

		11/30	3,000
		11/30 Bal.	3,000

PROBLEM 5-6B (Continued)

(c)

BUSE'S FASHION CENTER
Adjusted Trial Balance
November 30, 2014

	Debit	Credit
Cash	$ 37,700	
Accounts Receivable	33,700	
Inventory	43,000	
Supplies	4,000	
Equipment	143,000	
Accumulated Depreciation—Equipment		$ 61,000
Notes Payable		62,000
Accounts Payable		17,800
Interest Payable		4,400
Income Taxes Payable		3,000
Common Stock		80,000
Retained Earnings		30,000
Dividends	12,000	
Sales Revenue		757,200
Sales Returns and Allowances	6,200	
Cost of Goods Sold	505,400	
Salaries and Wages Expense	110,000	
Advertising Expense	26,400	
Utilities Expense	14,000	
Maintenance and Repairs Expense	12,100	
Freight-Out	11,700	
Rent Expense	24,000	
Supplies Expense	4,800	
Depreciation Expense	20,000	
Interest Expense	4,400	
Income Tax Expense	3,000	
Totals	$1,015,400	$1,015,400

(d)

BUSE'S FASHION CENTER
Income Statement
For the Year Ended November 30, 2014

Sales		
Sales revenue		$757,200
Less: Sales returns and allowances		6,200
Net sales		751,000
Cost of goods sold		505,400
Gross profit		245,600
Operating expenses		
Salaries and wages expense	$110,000	
Advertising expense	26,400	
Rent expense	24,000	
Depreciation expense	20,000	
Utilities expense	14,000	
Maintenance and repairs expense	12,100	
Freight-out	11,700	
Supplies expense	4,800	
Total operating expenses		223,000
Income from operations		22,600
Other expenses and losses		
Interest expense		4,400
Income before income taxes		18,200
Income tax expense		3,000
Net income		$ 15,200

BUSE'S FASHION CENTER
Retained Earnings Statement
For the Year Ended November 30, 2014

Retained earnings, December 1, 2013	$30,000
Plus: Net income	15,200
	45,200
Less: Dividends	12,000
Retained earnings, November 30, 2014	$33,200

PROBLEM 5-6B (Continued)

BUSE'S FASHION CENTER
Balance Sheet
November 30, 2014

Assets		
Current assets		
Cash	$37,700	
Accounts receivable	33,700	
Inventory	43,000	
Supplies	4,000	
Total current assets		$118,400
Property, plant, and equipment		
Equipment	$143,000	
Less: Accumulated depreciation—equipment	61,000	82,000
Total assets		$200,400
Liabilities and Stockholders' Equity		
Current liabilities		
Notes payable	$24,000	
Accounts payable	17,800	
Interest payable	4,400	
Income taxes payable	3,000	
Total current liabilities		$ 49,200
Long-term liabilities		
Notes payable ($62,000 – $24,000)		38,000
Total liabilities		87,200
Stockholders' equity		
Common stock	80,000	
Retained earnings	33,200	
Total stockholders' equity		113,200
Total liabilities and stockholders' equity		$200,400

PROBLEM 5-7B

ALMA'S DEPARTMENT STORE
Income Statement (Partial)
For the Year Ended December 31, 2014

Sales				
Sales revenue				$702,000
Less: Sales returns and allowances				8,000
Net sales				694,000
Cost of goods sold				
Inventory, January 1			$ 40,500	
Purchases		$456,000		
Less: Purchase discounts	$12,000			
Purchase returns and allowances	6,400	18,400		
Net purchases		437,600		
Add: Freight-in		7,200		
Cost of goods purchased			444,800	
Cost of goods available for sale			485,300	
Less: Inventory, December 31			48,300	
Cost of goods sold				437,000
Gross profit				$257,000

PROBLEM 5-8B

(a)

	2013	2014	2015
Cost of goods sold:			
Beginning inventory	$ 16,000	$ 11,300	$ 16,400
Plus: Purchases	146,900	155,700	139,200
Equals: CGAS	162,900	167,000	155,600
Less: Ending inventory	11,300	16,400	14,200
Equals: CGS	$ 151,600	$150,600	$141,400

(b)

	2013	2014	2015
Sales revenue	$229,700	$227,600	$220,000
Less: CGS	151,600	150,600	141,400
Gross profit	$ 78,100	$ 77,000	$ 78,600

(c)

	2013	2014	2015
Beginning accounts payable	$ 17,000	$ 28,000	$ 24,700
Plus: Purchases	146,900	155,700	139,200
Less: Payments to suppliers	135,900	159,000	127,000
Ending accounts payable	$ 28,000	$ 24,700	$ 36,900

		2013	2014	2015
(d)	Gross profit rate	34.0%	33.8%	35.7%

No. Even though sales declined in 2015 from each of the two prior years, the gross profit rate increased. This means that cost of goods sold declined more than sales did, reflecting better purchasing power or control of costs. Therefore, in spite of declining sales, profitability, as measured by the gross profit rate, actually improved.

*PROBLEM 5-9B

(a) General Journal

Date		Account Titles	Debit	Credit
Nov.	5	Purchases	1,600	
		Accounts Payable		1,600
	7	Freight-In	90	
		Cash		90
	9	Accounts Payable	350	
		Purchase Returns and Allowances		350
	10	Accounts Receivable	1,000	
		Sales Revenue		1,000
	12	Purchases	945	
		Accounts Payable		945
	14	Accounts Payable ($1,600 – $350)	1,250	
		Purchase Discounts ($1,250 X 2%)		25
		Cash ($1,250 – $25)		1,225
	17	Accounts Payable	45	
		Purchase Returns and Allowances		45
	20	Accounts Receivable	1,330	
		Sales Revenue		1,330
	21	Accounts Payable ($945 – $45)	900	
		Purchase Discounts ($900 X 1%)		9
		Cash ($900 – $9)		891

*PROBLEM 5-9B (Continued)

Date		Account Titles	Debit	Credit
Nov.	27	Sales Returns and Allowances....................	150	
		Accounts Receivable		150
	30	Cash...	1,900	
		Accounts Receivable		1,900

(b)

Cash

11/1 Bal.	3,300	11/7	90
11/30	1,900	11/14	1,225
		11/21	891
11/30 Bal.	2,994		

Accounts Receivable

11/10	1,000	11/27	150
11/20	1,330	11/30	1,900
11/30 Bal.	280		

Inventory

11/1 Bal.	4,700		
11/30 Bal.	4,700		

Accounts Payable

11/9	350	11/5	1,600
11/14	1,250	11/12	945
11/17	45		
11/21	900		
		11/30 Bal.	0

Common Stock

		11/1 Bal.	8,000
		11/30 Bal.	8,000

Sales Revenue

		11/10	1,000
		11/20	1,330
		11/30 Bal.	2,330

Sales Returns and Allowances

11/27	150		
11/30 Bal.	150		

Purchases

11/5	1,600		
11/12	945		
11/30 Bal.	2,545		

***PROBLEM 5-9B (Continued)**

Purchase Returns and Allowances

	11/9	350
	11/17	45
	11/30 Bal.	395

Freight-In

11/7	90	
11/30 Bal.	90	

Purchase Discounts

	11/14	25
	11/21	9
	11/30 Bal.	34

(c)

WINONA SPORTS
Trial Balance
November 30, 2014

	Debit	Credit
Cash	$ 2,994	
Accounts Receivable	280	
Inventory	4,700	
Accounts Payable		$ –0–
Common Stock		8,000
Sales Revenue		2,330
Sales Returns and Allowances	150	
Purchases	2,545	
Purchase Returns and Allowances		395
Purchase Discounts		34
Freight-In	90	
	$10,759	$10,759

(d)

WINONA SPORTS
Income Statement (Partial)
For the Month Ended November 30, 2014

Sales				
Sales revenue				$2,330
Less: Sales returns and allowances......................				150
Net sales....................................				2,180
Cost of goods sold				
Inventory, November 1..............			$4,700	
Purchases		$2,545		
Less: Purchase returns and allowances	$395			
Purchase discounts......	34	429		
Net purchases............................		2,116		
Add: Freight-in.........................		90		
Cost of goods purchased			2,206	
Cost of goods available for sale...			6,906	
Inventory, November 30............			5,196	
Cost of goods sold				1,710
Gross profit................................				$ 470

COMPREHENSIVE PROBLEM SOLUTION

(a)	Dec. 6	Salaries and Wages Payable	1,000	
		Salaries and Wages Expense	600	
		Cash		1,600
	8	Cash	1,900	
		Accounts Receivable		1,900
	10	Cash	6,300	
		Sales Revenue		6,300
		Cost of Goods Sold	4,100	
		Inventory		4,100
	13	Inventory	9,000	
		Accounts Payable		9,000
	15	Supplies	2,000	
		Cash		2,000
	18	Accounts Receivable	12,000	
		Sales Revenue		12,000
		Cost of Goods Sold	8,000	
		Inventory		8,000
	20	Salaries and Wages Expense	1,800	
		Cash		1,800
	23	Accounts Payable	9,000	
		Cash		8,820
		Inventory ($9,000 X .02)		180
	27	Cash	11,640	
		Sales Discounts ($12,000 X .03)	360	
		Accounts Receivable		12,000

COMPREHENSIVE PROBLEM SOLUTION (Continued)

(c)	Dec. 31	Salaries and Wages Expense	800	
		Salaries and Wages Payable		800
		Depreciation Expense	200	
		Accumulated Depreciation—Equipment		200
		Supplies Expense	1,700	
		Supplies ($3,200 – $1,500)		1,700
		Income Tax Expense	200	
		Income Taxes Payable		200

(b) & (c)

General Ledger

Cash

12/1 Bal.	7,200	12/6	1,600
12/8	1,900	12/15	2,000
12/10	6,300	12/20	1,800
12/27	11,640	12/23	8,820
12/31 Bal.	12,820		

Accounts Receivable

12/1 Bal.	4,600	12/8	1,900
12/18	12,000	12/27	12,000
12/31 Bal.	2,700		

Inventory

12/1 Bal.	12,000	12/10	4,100
12/13	9,000	12/18	8,000
		12/23	180
12/31 Bal.	8,720		

Supplies

12/1 Bal.	1,200	12/31	1,700
12/15	2,000		
12/31 Bal.	1,500		

Equipment

12/1 Bal.	22,000		
12/31 Bal.	22,000		

Accumulated Depr.—Equipment

		12/1 Bal.	2,200
		12/31	200
		12/31 Bal.	2,400

Accounts Payable

12/23	9,000	12/1 Bal.	4,500
		12/13	9,000
		12/31 Bal.	4,500

Salaries and Wages Payable

12/6	1,000	12/1 Bal.	1,000
		12/31	800
		12/31 Bal.	800

Income Taxes Payable

		12/31	200
		12/31 Bal.	200

Common Stock

		12/1 Bal.	15,000
		12/31 Bal.	15,000

Retained Earnings

		12/1 Bal.	24,300
		12/31 Bal.	24,300

Sales Revenue

		12/10	6,300
		12/18	12,000
		12/31 Bal.	18,300

Sales Discounts

12/27	360		
12/31 Bal.	360		

Cost of Goods Sold

12/10	4,100		
12/18	8,000		
12/31 Bal.	12,100		

Depreciation Exp.

12/31	200		
12/31 Bal.	200		

Salaries and Wages Expense

12/6	600		
12/20	1,800		
12/31	800		
12/31 Bal.	3,200		

Supplies Expense

12/31	1,700		
12/31 Bal.	1,700		

Income Tax Expense

12/31	200		
12/31 Bal.	200		

(d)

BOLINE DISTRIBUTING COMPANY
Adjusted Trial Balance
December 31, 2014

	DR.	CR.
Cash	$12,820	
Accounts Receivable	2,700	
Inventory	8,720	
Supplies	1,500	
Equipment	22,000	
Accumulated Depreciation—Equipment		$ 2,400
Accounts Payable		4,500
Salaries and Wages Payable		800
Income Taxes Payable		200
Common Stock		15,000
Retained Earnings		24,300
Sales Revenue		18,300
Sales Discounts	360	
Cost of Goods Sold	12,100	
Depreciation Expense	200	
Salaries and Wages Expense	3,200	
Supplies Expense	1,700	
Income Tax Expense	200	
	$65,500	$65,500

(e)

BOLINE DISTRIBUTING COMPANY
Income Statement
For the Month Ending December 31, 2014

Sales revenue		$18,300
Less: Sales discounts		360
Net sales		17,940
Cost of goods sold		12,100
Gross profit		5,840
Operating expenses		
Salaries and wages expense	$3,200	
Supplies expense	1,700	
Depreciation expense	200	5,100
Income before income taxes		740
Income tax expense		200
Net income		$ 540

BOLINE DISTRIBUTING COMPANY
Retained Earnings Statement
For the Month Ended December 31, 2014

Retained earnings, Dec. 1	$24,300
Add: Net income	540
Retained Earnings, Dec. 31	$24,840

BOLINE DISTRIBUTING COMPANY
Balance Sheet
December 31, 2014

Assets		
Current assets		
Cash	$12,820	
Accounts receivable	2,700	
Inventory	8,720	
Supplies	1,500	
Total current assets		$25,740
Property, plant, and equipment		
Equipment	22,000	
Less: Accumulated depreciation	2,400	19,600
Total assets		$45,340
Liability and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 4,500	
Salaries and wages payable	800	
Income taxes payable	200	
Total current liabilities		$ 5,500
Stockholders' equity		
Common stock	15,000	
Retained earnings	24,840	
Total stockholders' equity		39,840
Total liabilities and stockholders' equity		$45,340

BYP 5-1 FINANCIAL REPORTING PROBLEM

(a) Percentage change in total revenue:

2010 to 2011 ($532,505 – $521,448) ÷ $521,448 = + 2.1%

Percentage change in net income:

2010 to 2011 ($43,938 – $53,063) ÷ $53,063 = (17.2)%

(b) Profit margin:

2009	**$53,157 ÷ $499,331 = 10.6%**
2010	**$53,063 ÷ $521,448 = 10.2%**
2011	**$43,938 ÷ $532,505 = 8.3%**

The profit margin decreased slightly in 2010 but declined by 19% in 2011.

(c) Gross profit rates:

2009	**$175,817* ÷ $495,592 = 35.5%**
2010	**$167,815** ÷ $517,149 = 32.5%**
2011	**$163,144*** ÷ $528,369 = 30.9%**

The gross profit rate decreased in both 2010 and 2011 due to an increasing cost of goods sold.

*($495,592 – $319,775)
**($517,149 – $349,334)
***($528,369 – $365,225)

BYP 5-2 COMPARATIVE ANALYSIS PROBLEM

(a)

	Tootsie Roll	Hershey Company
(1) Profit margin	$\frac{\$43,938}{\$532,505}$ = 8.3%	$\frac{\$628,962}{\$6,080,788}$ = 10.3%
(2) Gross profit (000's)	\$163,144 = (\$528,369 – \$365,225)	\$2,531,892 = (\$6,080,788 – \$3,548,896)
(3) Gross profit rate	$\frac{\$163,144}{\$528,369}$ = 30.9%	$\frac{\$2,531,892}{\$6,080,788}$ = 41.6%
(4) Operating income (000's)	\$57,966	\$1,055,028
(5) Percent change in operating income	$\frac{\$57,966 - \$64,710}{\$64,710}$ = –10.4%	$\frac{\$1,055,028 - \$905,298}{\$905,298}$ = +16.5%

(b) Hershey's higher profit margin suggests that it was better at turning sales dollars into net income. Its gross profit rate suggests that Hershey can command a higher markup on its goods or that it is better at controlling its cost of goods sold. Tootsie Roll's operating income decreased 10.4% while Hershey's increased by 16.5%. A major reason for Tootsie Roll's decline in operating income was due to cost of goods sold increasing more than net sales.

BYP 5-3 RESEARCH CASE

(a) Wal-Mart experienced an increase in sales during the year. However, to get this increase in sales the company had to aggressively reduce its price. Such deep discounting reduced the amount of gross profit, the amount by which the selling price exceeded cost. This resulted in a lower gross profit rate.

(b) Saks Fifth Avenue sells high-end goods to wealthier customers. It said that its increased gross profit rate is explained by the fact that it was able to reduce “promotional activity” during the period. That is another way of saying that it didn’t have to discount goods as much in order to sell them. It said that the amount of “full-price” sales increased throughout the year.

(c) Macy’s attributed the decline in its gross profit rate to a free-shipping promotion and markdowns on cold-weather gear. In this chapter the cost of shipping goods to customers is treated as a selling expense called freight-out which is included in operating expenses. That is, freight-out is subtracted out in the section of the income statement below gross profit (see Illustration 5-11 on p. 245). Therefore, an increase in shipping costs would reduce the profit margin ratio, but it would not affect the gross profit rate. So, while markdowns on cold-weather gear would reduce the gross profit rate, increased shipping costs to customers would not.

(d) An increase in same store sales means that the stores that were in existence in the previous period experienced an increase in sales. Sometimes a company experiences an increase in sales revenue because it increased the number of stores it has. Other times the number of stores stays the same, but the amount of sales at each existing store increases. In the first case, because the company’s operating costs would increase due to having more stores, the increase in sales might not result in an increase in the profit margin ratio. However, if same store sales increase, it is less likely to be accompanied by a big increase in operating costs, thus it is more likely that the profit margin ratio will increase.

BYP 5-4 INTERPRETING FINANCIAL STATEMENTS

(a)

	Carrefour (Euros)	Wal-Mart (Dollars)
Gross profit rate	$\frac{(€70,486 - €54,630)}{€70,486}$ = 22.5%	$\frac{(\$256,329 - \$198,747)}{\$256,329}$ = 22.5%

The ratio is the same for each company, indicating that they have similar markups on the cost of their products.

(b)	**Profit margin ratio**	**€1,738 ÷ €70,486 = 2.5%**	**$9,054 ÷ $256,329 = 3.5%**

Wal-Mart is renowned for its efficiency—this is what has caused it to dominate its U.S. competitors. It would appear from this data that it is also more efficient in its ability to generate net income from each dollar of sales than Carrefour.

(c)	**Current ratio**	**€14,521 ÷ €13,660 = 1.06:1**	**$34,421 ÷ $37,418 = .92:1**
	Debt to assets ratio	**€29,434 ÷ €39,063 = .75**	**$61,289 ÷ $104,912 = .58**

Both companies report low current ratios. This is not surprising since in recent years most large companies have tried to reduce costs and increase profitability by limiting the amount of current assets that they hold. However, Wal-Mart's current ratio is less than 1:1 and might be cause for further investigation. The debt to assets ratio reveals that Carrefour relies more heavily on debt financing. This reduces Carrefour's solvency and makes Carrefour more susceptible to swings in the economy. This could reduce its ability to compete head-to-head with Wal-Mart.

BYP 5-4 (Continued)

(d) Ratios improve our ability to compare these two companies that report financial information using different currencies. However, other factors can still reduce our ability to compare them. Different accounting standards in the two countries might result in dramatically different results under the same circumstances. Also, differences in laws, such as bankruptcy laws, can affect the results. For example, if French bankruptcy laws favor shareholders more than U.S. bankruptcy laws, then it would be prudent for a French company to rely more on debt financing than a U.S. company.

BYP 5-5 REAL-WORLD FOCUS

Answers will vary depending on the company and article chosen by the student.

BYP 5-6 DECISION MAKING ACROSS THE ORGANIZATION

(a) (1)

MEGA MART DEPARTMENT STORE
Projected Income Statement
For the Year Ended December 31, 2015

Net sales [$700,000 + ($700,000 X 4%)]		$728,000
Cost of goods sold ($728,000 X 75%)*		546,000
Gross profit ($728,000 X 25%)**		182,000
Operating expenses		
Selling expenses	$100,000	
Administrative expenses	20,000	
Total operating expenses		120,000
Net income..		$ 62,000

*Alternatively: Net sales, $728,000 – gross profit, $182,000.
**25% = ($140,000 ÷ $700,000) + 5%.

(2)

MEGA MART DEPARTMENT STORE
Projected Income Statement
For the Year Ended December 31, 2015

Net sales		$700,000
Cost of goods sold....................................		560,000
Gross profit..		140,000
Operating expenses		
Selling expenses	$68,000*	
Administrative expenses	20,000	88,000
Net income..		$ 52,000

*$100,000 – $30,000 – ($40,000 X 40%) + ($700,000 X 2%) = $68,000.

(b) Sue's proposed changes will increase net income by $42,000. Jeremy's proposed changes will reduce operating expenses by $32,000 and result in a corresponding increase in net income. Thus, if the choice is between Sue's plan and Jeremy's plan, Sue's plan should be adopted. While Jeremy's plan will increase net income, it may also have an adverse effect on sales personnel. Under Jeremy's plan, sales personnel will be taking a cut of $16,000 in compensation [$60,000 – ($30,000 + $14,000)].

BYP 5-6 (Continued)

(c)

MEGA MART DEPARTMENT STORE
Projected Income Statement
For the Year Ended December 31, 2015

Net sales		$728,000
Cost of goods sold		546,000
Gross profit		182,000
Operating expenses		
Selling expenses	$68,560*	
Administrative expenses	20,000	
Total operating expenses		88,560
Net income		$ 93,440

*$68,000 + [2% X ($728,000 – $700,000)] = $68,560.

If both plans are implemented, net income will be $73,440 ($93,440 – $20,000) higher than the 2014 results. This is an increase of over 360%. Given the size of the increase, Jeremy's plan to compensate sales personnel might be modified so that they would not have to take a pay cut. For example, if sales commissions were 3%, the compensation cut would be reduced to $8,160 [$60,000 – ($30,000 + ($728,000 X 3%))].

(d) A variety of factors might be presented by the student. For example, increasing the quantity of inventory purchased will increase warehousing and other costs of inventory. It will also increase the risk of holding obsolete or out-of-fashion inventory. Cutting salespersons' salaries and making them more dependent on commissions might actually be viewed favorably by the sales staff if they have the potential to increase their total compensation. Reduced store deliveries may anger customers, especially if competitors provide more frequent service.

BYP 5-7 COMMUNICATION ACTIVITY

(a), (b)

President
Surfing USA Co.

Dear Sir:

As you know, the financial statements for Surfing USA Co. are prepared in accordance with generally accepted accounting principles. One of these principles is the revenue recognition principle, which provides that revenues should be recognized when the performance obligation is satisfied.

Typically, sales revenues are recognized when the goods are transferred from the buyer to the seller. At this point, the sales transaction is completed and the sales price is established. Thus, in the typical situation, revenue on the surfboard ordered by Shafer is recognized at event No. 8, when Shafer picks up the surfboard.

The circumstances pertaining to this sale may seem to you to be atypical because Shafer has ordered a specific kind of surfboard. From an accounting standpoint, this would be true only if you could not reasonably expect to sell this surfboard to another customer. In such case, it would be proper under generally accepted accounting principles to recognize sales revenue when you have completed the surfboard for Shafer.

Whether Shafer makes a down payment with the purchase order is irrelevant in recognizing sales revenue because at this time, you have not done anything to earn the revenue. A down payment may be an indication of Shafer's "good faith." However, its effect on your financial statements is limited entirely to recognizing the down payment as unearned revenue.

If you have further questions about the accounting for this sale, please let me know.

Sincerely,

BYP 5-8 ETHICS CASE

(a) Andrea Tabares, as a new employee, is placed in a position of responsibility and is pressured by her supervisor to continue an unethical practice previously performed by him. The unethical practice is taking undeserved cash discounts. Her dilemma is either follow her boss's unethical instructions or offend her boss and maybe lose the job she just assumed.

(b) The stakeholders (affected parties) are:
Andrea Tabares, the assistant treasurer.
William Parks, the treasurer.
Northshore Stores, the company.
Creditors of Northshore Stores (suppliers).
Mail room employees (those assigned the blame).

(c) Andrea's alternatives:

1. Tell the treasurer (her boss) that she will attempt to take every allowable cash discount by preparing and mailing checks within the discount period—the ethical thing to do. This will offend her boss and may jeopardize her continued employment.

2. Join the team and continue the unethical practice of taking undeserved cash discounts.

3. Go over her boss's head and take the chance of receiving just and reasonable treatment from an officer superior to William. The company may not condone this practice. Andrea definitely has a choice, but probably not without consequence. To continue the practice is definitely unethical. If Andrea submits to this request, she may be asked to perform other unethical tasks. If Andrea stands her ground and refuses to participate in this unethical practice, she probably won't be asked to do other unethical things—if she isn't fired. Maybe nobody has ever challenged William's unethical behavior and his reaction may be one of respect rather than anger and retribution. Being ethically compromised is no way to start a new job.

BYP 5-9 ALL ABOUT YOU ACTIVITY

In order for revenue to be recognized the performance obligation must be satisfied. In this case Midwest has an obligation to provide goods with a value equal to the gift card. That obligation is not fulfilled until one of two things happens: Either the customer redeems the card for goods, or the card expires. Until either of those events occurs Midwest cannot record revenue.

BYP 5-10 FASB CODIFICATION ACTIVITY

(a) 1. Inventory is the aggregate of those items of tangible personal property that have any of the following characteristics:

a. Held for sale in the ordinary course of business
b. In process of production for such sale
c. To be currently consumed in the production of goods or services to be available for sale.

The term inventory embraces goods awaiting sale (the merchandise of a trading concern and the finished goods of a manufacturer), goods in the course of production (work in process), and goods to be consumed directly or indirectly in production (raw materials and supplies). This definition of inventories excludes long-term assets subject to depreciation accounting, or goods which, when put into use, will be so classified. The fact that a depreciable asset is retired from regular use and held for sale does not indicate that the item should be classified as part of the inventory. Raw materials and supplies purchased for production may be used or consumed for the construction of long-term assets or other purposes not related to production, but the fact that inventory items representing a small portion of the total may not be absorbed ultimately in the production process does not require separate classification. By trade practice, operating materials and supplies of certain types of entities such as oil producers are usually treated as inventory.

2. A customer is a reseller or a consumer, either an individual or a business that purchases a vendor's products or services for end use rather than for resale. This definition is consistent with paragraph 280-10-50-42, which states that a group of entities known to a reporting entity to be under common control shall be considered as a single customer, and the federal government, a state government, a local government (for example, a county or municipality), or a foreign government each shall be considered as a single customer. Customer includes any purchaser of the vendor's products at any point along the distribution chain, regardless of whether the purchaser acquires the vendor's products directly or indirectly (for example, from a distributor) from the vendor. For example, a vendor may sell its products to a distributor who in turn resells the products to a retailer. The retailer in that example is a customer of the vendor.

BYP 5-10 (Continued)

(b) 330-10-35-15 Only in exceptional cases may inventories properly be stated above cost. For example, precious metals having a fixed monetary value with no substantial cost of marketing may be stated at such monetary value; any other exceptions must be justifiable by inability to determine appropriate costs, immediate marketability at quoted market price, and the characteristic of unit interchangeability.

IFRS CONCEPTS AND APPLICATION

IFRS5-1

Expenses may be classified by "nature" or by "function". The "nature-of-expense" classification organizes expenses by type of expense, such as salaries, depreciation, rent, or supplies. The "function-of-expense" classification presents expenses by type of business activity. Examples would include cost of goods sold, selling, administrative, operating, and non-operating.

IFRS5-2

By function	Cost of goods sold
By nature	Depreciation expense
By nature	Salaries and wages expense
By function	Selling expenses
By nature	Utilities expense
By nature	Delivery expense
By function	General and administrative expenses

IFRS5-3

REINSCH COMPANY
Comprehensive Income Statement
For the Year Ended 2014

(in thousands of euros)		
Net income		€150
Unrealized gain related to revaluation of buildings	€ 10	
Unrealized loss non-trading securities	(35)	
Items not recognized on the income statement		(25)
Total comprehensive income		€125

IFRS5-4 INTERNATIONAL FINANCIAL REPORTING PROBLEM

(a) Zetar uses a multiple step format. The income statement isolates gross profit, operating profit, and profit from continuing operations before taxation rather than simply showing total revenues less total expenses to arrive at net income.

(b) Zetar uses Finance Costs rather than Interest Expense on its income statement.

(c) Zetar's tax rate is approximately 29% (£1,656/£5,635).

(d) Zetar's income statement shows Adjusted results, Adjusting items, and Total amounts for revenue and expense items. Note 3.23 indicates that Zetar considers the adjusted results and adjusted EPS to provide additional useful information on its performance. It goes on to list a number of unusual items that it has adjusted for on its income statement.

One-off items are listed as part of the adjustments group. One-off items are non-recurring material costs or revenues of an unusual nature that have been excluded from the Adjusted results on the income statement in order to provide a more consistent measure of underlying performance.