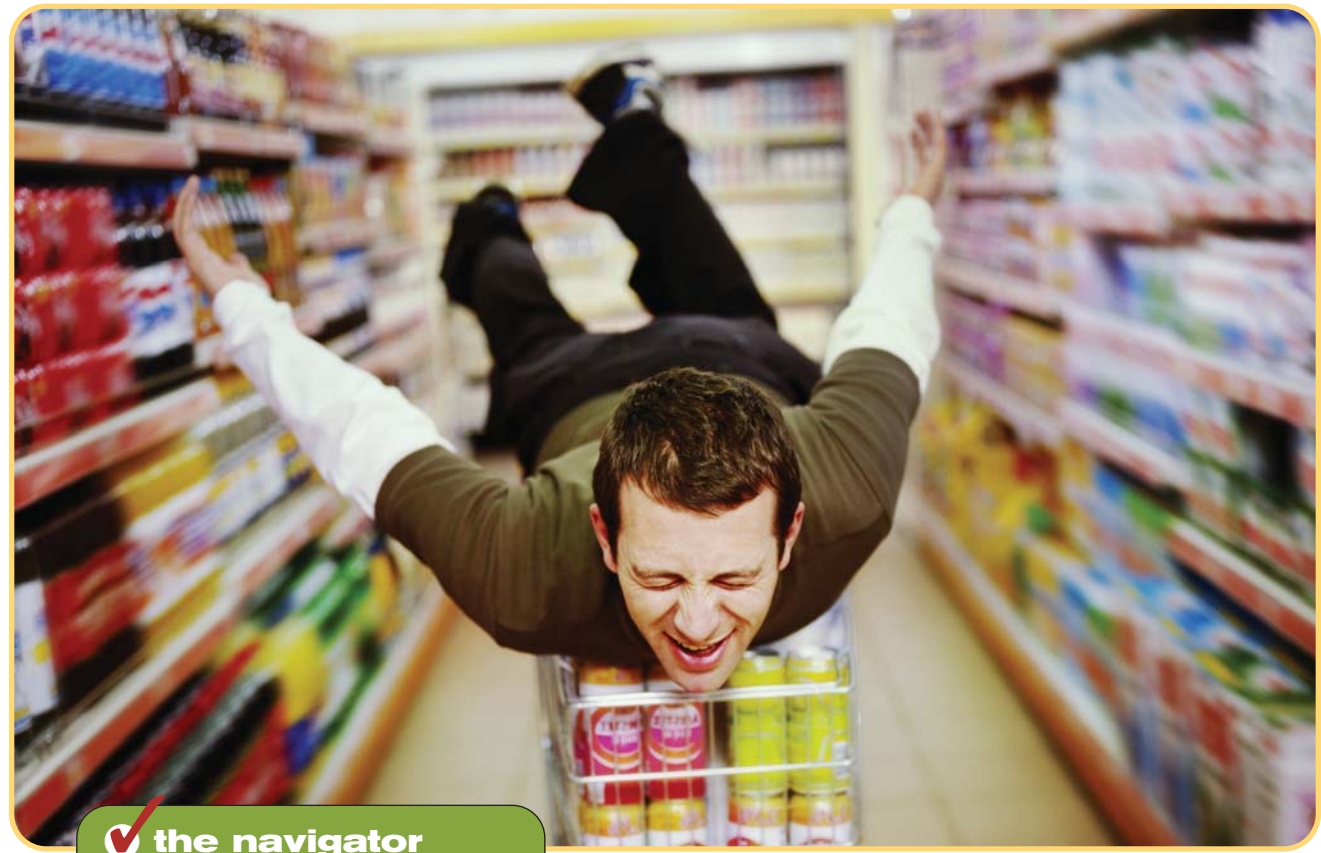


chapter **5**

MERCHANDISING OPERATIONS AND THE MULTIPLE-STEP INCOME STATEMENT



the navigator

- Scan Study Objectives
- Read Feature Story
- Scan Preview
- Read Text and Answer **Do it!**
p. 235 p. 239 p. 243 p. 245
- Work Using the Decision Toolkit
- Review Summary of Study Objectives
- Work Comprehensive **Do it!** p. 254
- Answer Self-Test Questions
- Complete Assignments
- Go to WileyPLUS for practice and tutorials
- Read A Look at IFRS p. 276

study objectives

After studying this chapter, you should be able to:

- 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.

the navigator

feature story



In his book *The End of Work*, Jeremy Rifkin notes that until the 20th century the word *consumption* evoked negative images; to be labeled a “consumer” was an insult. (In fact, one of the deadliest diseases in history, tuberculosis, was often referred to as “consumption.”) Twentieth-century merchants realized, however, that in order to prosper, they had to convince people of the need for things not previously needed. For example, **General Motors** made annual changes in its cars so that people would be discontented with the cars they already owned. Thus began consumerism.

Today, consumption describes the U.S. lifestyle in a nutshell. We consume twice as much today per person as we did at the end of World War II. The amount

of U.S. retail space per person is vastly greater than that of any other country. It appears that we live to shop.

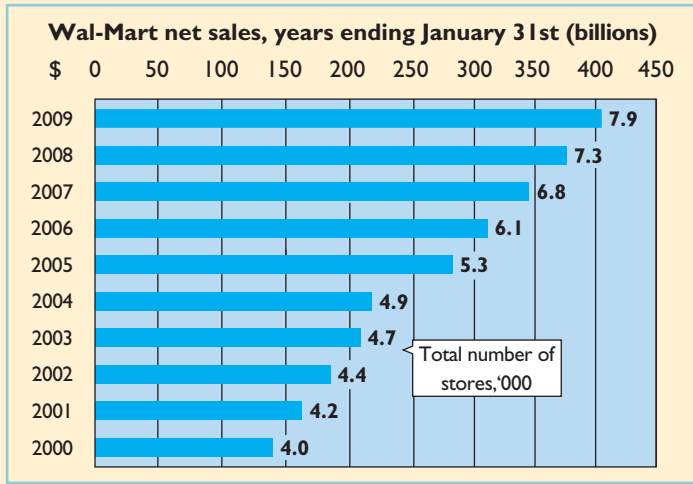
The first great retail giant was **Sears, Roebuck**. It started as a catalog company enabling people in rural areas to buy things by mail. For decades it was the uncontested merchandising leader.

Today, **Wal-Mart** is the undisputed champion provider of basic (and perhaps not-so-basic) human needs. Wal-Mart opened its first store in 1962, and it now has almost 8,000 stores, serving more than 100 million customers every week. A key cause of Wal-Mart’s incredible growth is its amazing system of inventory control and distribution. Wal-Mart has a management information system that employs six satellite channels, from which company computers receive 8.4 million updates every minute on what items customers buy and the relationship among items sold to each person.

Measured by sales revenues, Wal-Mart is the largest company in the world. In six years, it went from selling almost no groceries to being America’s largest grocery retailer.

It would appear that things have never looked better at Wal-Mart. On the other hand, a *Wall Street Journal* article, entitled “How to Sell More to Those Who Think It’s Cool to Be Frugal,” suggests that consumerism as a way of life might be dying. Don’t bet your high-definition 3D TV on it though.

WHO DOESN'T SHOP AT WAL-MART?



Source: “How Big Can It Grow?” *The Economist* (April 17, 2004), pp. 67–69, and www.walmart.com (accessed March 17, 2008).

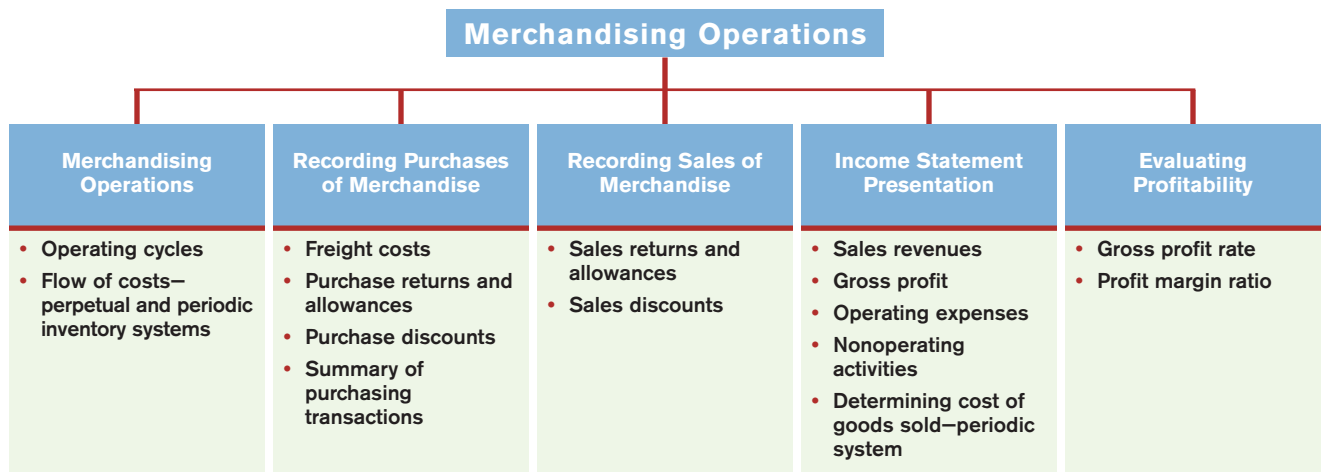


INSIDE CHAPTER 5 . . .

- **Morrow Snowboards Improves Its Stock Appeal** (p. 231)
- **Should Costco Change Its Return Policy?** (p. 238)
- **Disclosing More Details** (p. 242)
- **Strategic Errors Can Be Costly** (p. 248)

preview of chapter 5

Merchandising is one of the largest and most influential industries in the United States. It is likely that a number of you will work for a merchandiser. Therefore, understanding the financial statements of merchandising companies is important. In this chapter, you will learn the basics about reporting merchandising transactions. In addition, you will learn how to prepare and analyze a commonly used form of the income statement—the multiple-step income statement. The content and organization of the chapter are as follows.



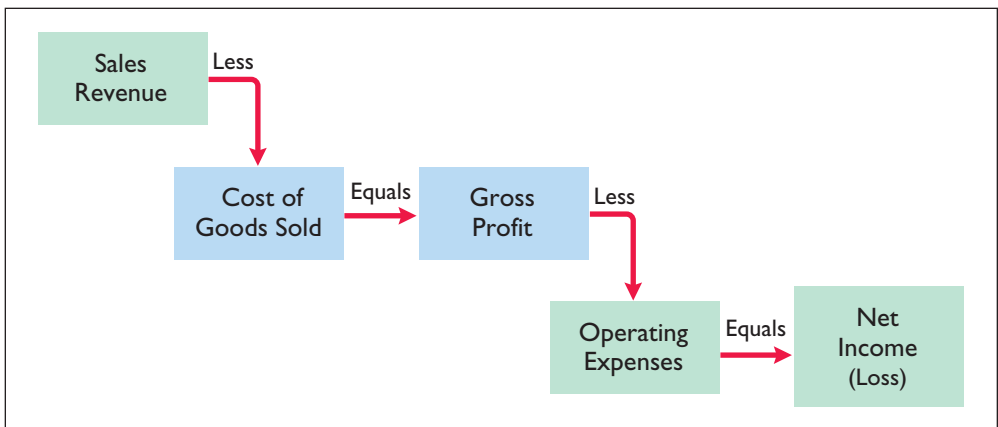
Merchandising Operations

study objective 1
 Identify the differences between a service company and a merchandising company.

Wal-Mart, Kmart, and Target are called merchandising companies because they buy and sell merchandise rather than perform services as their primary source of revenue. Merchandising companies that purchase and sell directly to consumers are called **retailers**. Merchandising companies that sell to retailers are known as **wholesalers**. For example, retailer **Walgreens** might buy goods from wholesaler **McKesson**; retailer **Office Depot** might buy office supplies from wholesaler **United Stationers**. The primary source of revenues for merchandising companies is the sale of merchandise, often referred to simply as **sales revenue** or **sales**. A merchandising company has two categories of expenses: the cost of goods sold and operating expenses.

The **cost of goods sold** is the total cost of merchandise sold during the period. This expense is directly related to the revenue recognized from the sale of goods. Illustration 5-1 shows the income measurement process for a merchandising company. The items in the two blue boxes are unique to a merchandising company; they are not used by a service company.

Illustration 5-1 Income measurement process for a merchandising company



OPERATING CYCLES

The operating cycle of a merchandising company ordinarily is longer than that of a service company. The purchase of merchandise inventory and its eventual sale lengthen the cycle. Illustration 5-2 contrasts the operating cycles of service and merchandising companies. Note that the added asset account for a merchandising company is the Inventory account.

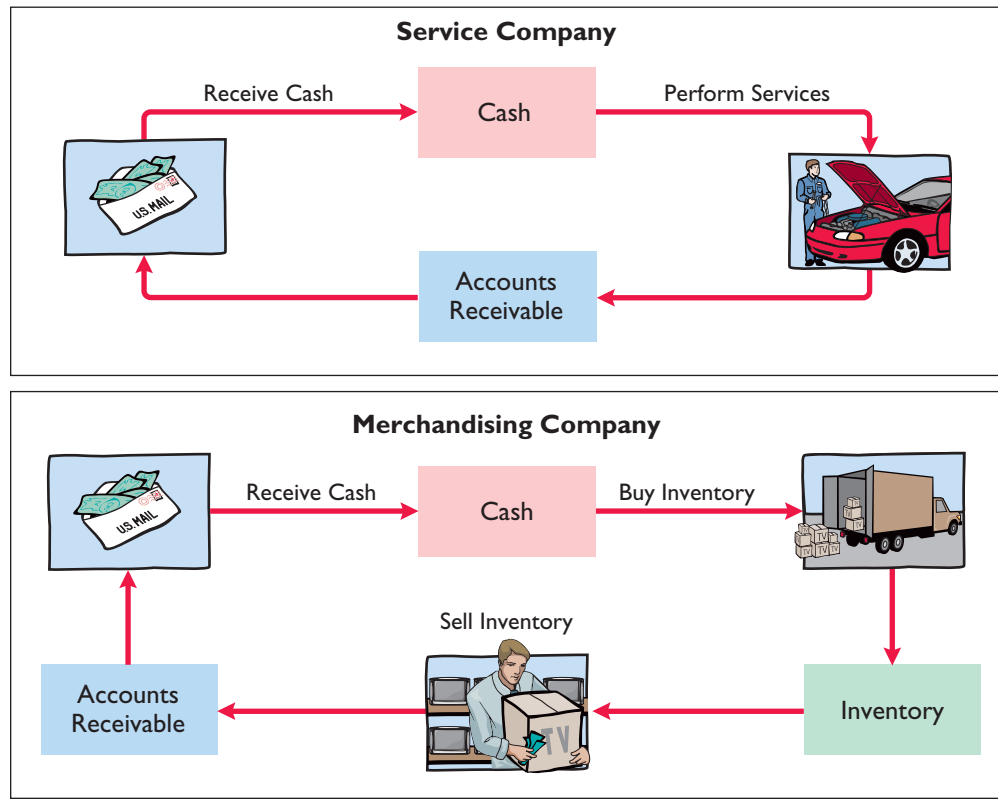


Illustration 5-2
Operating cycles for a service company and a merchandising company

FLOW OF COSTS

The flow of costs for a merchandising company is as follows: Beginning inventory plus the cost of goods purchased is the cost of goods available for sale. As goods are sold, they are assigned to cost of goods sold. Those goods that are not sold by the end of the accounting period represent ending inventory. Illustration 5-3 describes these relationships. Companies use one of two systems to account for inventory: a **perpetual inventory system** or a **periodic inventory system**.

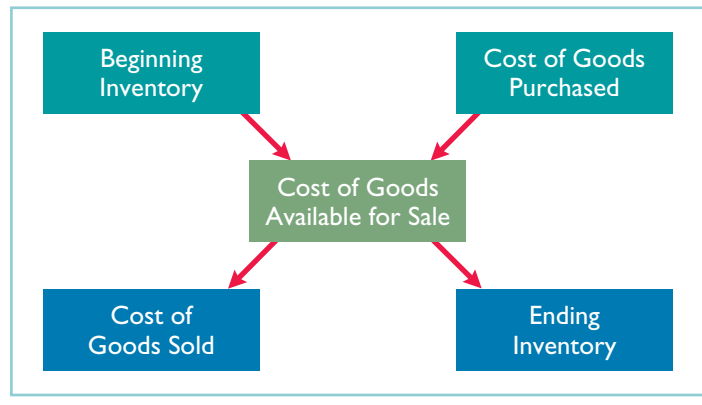


Illustration 5-3 Flow of costs

Helpful Hint Even under perpetual inventory systems, companies perform physical inventories. This is done as a control procedure to verify inventory levels, in order to detect theft or “shrinkage.”

Perpetual System

In a **perpetual inventory system**, companies maintain detailed records of the cost of each inventory purchase and sale. These records continuously—perpetually—show the inventory that should be on hand for every item. For example, a **Ford** dealership has separate inventory records for each automobile, truck, and van on its lot and showroom floor. Similarly, a grocery store uses bar codes and optical scanners to keep a daily running record of every box of cereal and every jar of jelly that it buys and sells. Under a perpetual inventory system, a company determines the cost of goods sold **each time a sale occurs**.

Periodic System

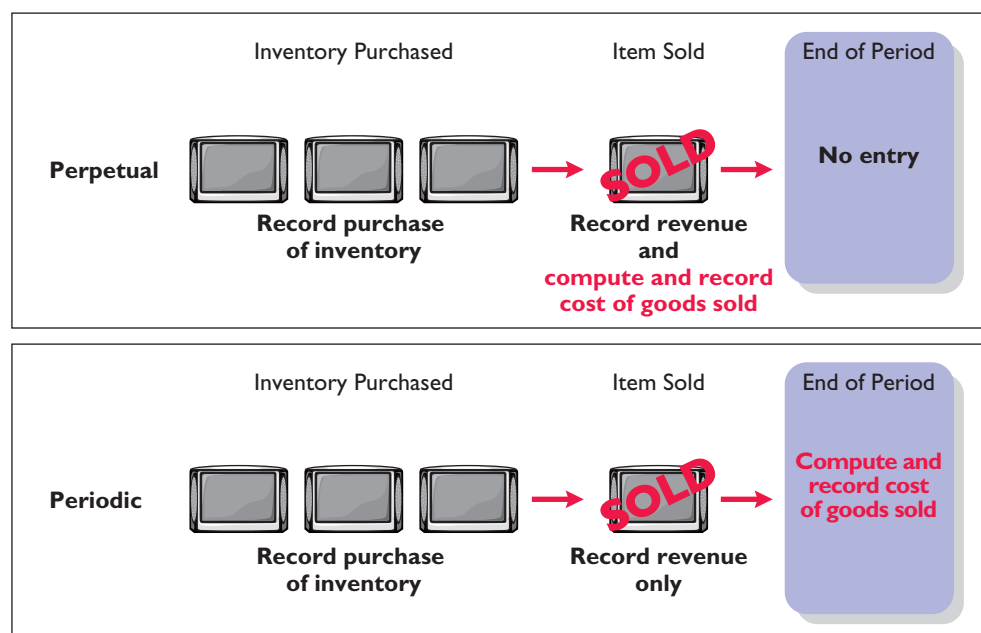
In a **periodic inventory system**, companies do not keep detailed inventory records of the goods on hand throughout the period. They determine the cost of goods sold **only at the end of the accounting period**—that is, periodically. At that point, the company takes a physical inventory count to determine the cost of goods on hand.

To determine the cost of goods sold under a periodic inventory system, the following steps are necessary:

1. Determine the cost of goods on hand at the beginning of the accounting period.
2. Add to it the cost of goods purchased.
3. Subtract the cost of goods on hand at the end of the accounting period.

Illustration 5-4 graphically compares the sequence of activities and the timing of the cost of goods sold computation under the two inventory systems.

Illustration 5-4
Comparing perpetual and periodic inventory systems




Additional Considerations

Companies that sell merchandise with high unit values, such as automobiles, furniture, and major home appliances, have traditionally used perpetual systems. The growing use of computers and electronic scanners has enabled many more companies to install perpetual inventory systems. The perpetual inventory system is so named because the accounting records continuously—perpetually—show the quantity and cost of the inventory that should be on hand at any time.

A perpetual inventory system provides better control over inventories than a periodic system. Since the inventory records show the quantities that should be on hand, the company can count the goods at any time to see whether the amount of goods actually on hand agrees with the inventory records. If shortages are uncovered, the company can investigate immediately. Although a perpetual inventory system requires additional clerical work and additional cost to maintain inventory records, a computerized system can minimize this cost. As noted in the Feature Story, much of **Wal-Mart's** success is attributed to its sophisticated inventory system.

Some businesses find it either unnecessary or uneconomical to invest in a sophisticated, computerized perpetual inventory system such as Wal-Mart's. However, many small merchandising businesses, in particular, find that basic computerized accounting packages provide some of the essential benefits of a perpetual inventory system. Yet, managers of some small businesses still find that they can control their merchandise and manage day-to-day operations using a periodic inventory system.

Because the perpetual inventory system is growing in popularity and use, we illustrate it in this chapter. An appendix to this chapter describes the journal entries for the periodic system.



Investor Insight

Morrow Snowboards Improves Its Stock Appeal

Investors are often eager to invest in a company that has a hot new product. However, when snowboard maker **Morrow Snowboards, Inc.**, issued shares of stock to the public for the first time, some investors expressed reluctance to invest in Morrow because of a number of accounting control problems. To reduce investor concerns, Morrow implemented a perpetual inventory system to improve its control over inventory. In addition, it stated that it would perform a physical inventory count every quarter until it felt that the perpetual inventory system was reliable.

? If a perpetual system keeps track of inventory on a daily basis, why do companies ever need to do a physical count? (See page 276.)



Recording Purchases of Merchandise

Companies may purchase inventory for cash or on account (credit). They normally record purchases when they receive the goods from the seller. Every purchase should be supported by business documents that provide written evidence of the transaction. Each cash purchase should be supported by a canceled check or a cash register receipt indicating the items purchased and amounts paid. Companies record cash purchases by an increase in Inventory and a decrease in Cash.

Each purchase should be supported by a **purchase invoice**, which indicates the total purchase price and other relevant information. However, the purchaser does not prepare a separate purchase invoice. Instead, the purchaser uses as a purchase invoice the copy of the sales invoice sent by the seller. In Illustration 5-5 (page 232), for example, Sauk Stereo (the buyer) uses as a purchase invoice the sales invoice prepared by PW Audio Supply, Inc. (the seller).

The associated entry for Sauk Stereo for the invoice from PW Audio Supply increases Inventory and increases Accounts Payable.

| | | | |
|-------|--|------------------------|--|
| May 4 | Inventory Accounts Payable (To record goods purchased on account from PW Audio Supply) | 3,800 3,800 | |
|-------|--|------------------------|--|

study objective 2

Explain the recording of purchases under a perpetual inventory system.


| | | | | |
|-------------------|---|---|---|--------|
| A | = | L | + | SE |
| +3,800 | | | | +3,800 |
| <hr/> | | | | |
| Cash Flows | | | | |
| no effect | | | | |

232 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Illustration 5-5 Sales invoice used as purchase invoice by Sauk Stereo

- Helpful Hint** To better understand the contents of this invoice, identify these items:
1. Seller
 2. Invoice date
 3. Purchaser
 4. Salesperson
 5. Credit terms
 6. Freight terms
 7. Goods sold: catalog number, description, quantity, price per unit
 8. Total invoice amount

INVOICE NO. 731



PW AUDIO SUPPLY, INC.
27 CIRCLE DRIVE
HARDING, MICHIGAN 48281

| | |
|----------|--|
| S | Firm Name <u>Sauk Stereo</u> |
| O | Attention of <u>James Hoover, Purchasing Agent</u> |
| L | Address <u>125 Main Street</u> |
| D | <u>Chelsea</u> <u>Illinois</u> <u>60915</u> |
| T | City State Zip |

| | | | |
|-------------|--------------------|------------------|--------------------|
| Date 5/4/12 | Salesperson Malone | Terms 2/10, n/30 | FOB Shipping Point |
|-------------|--------------------|------------------|--------------------|

| Catalog No. | Description | Quantity | Price | Amount |
|-------------|---------------------------------|----------|-------|---------|
| X572Y9820 | Printed Circuit Board-prototype | 1 | 2,300 | \$2,300 |
| A2547Z45 | Production Model Circuits | 5 | 300 | 1,500 |

IMPORTANT: ALL RETURNS MUST BE MADE WITHIN 10 DAYS

TOTAL \$3,800

Under the perpetual inventory system, companies record purchases of merchandise for sale in the Inventory account. Thus, **Wal-Mart** would increase (debit) Inventory for clothing, sporting goods, and anything else purchased for resale to customers. Not all purchases are debited to Inventory, however. Companies record purchases of assets acquired for use and not for resale, such as supplies, equipment, and similar items, as increases to specific asset accounts rather than to Inventory. For example, to record the purchase of materials used to make shelf signs or for cash register receipt paper, Wal-Mart would increase (debit) Supplies.

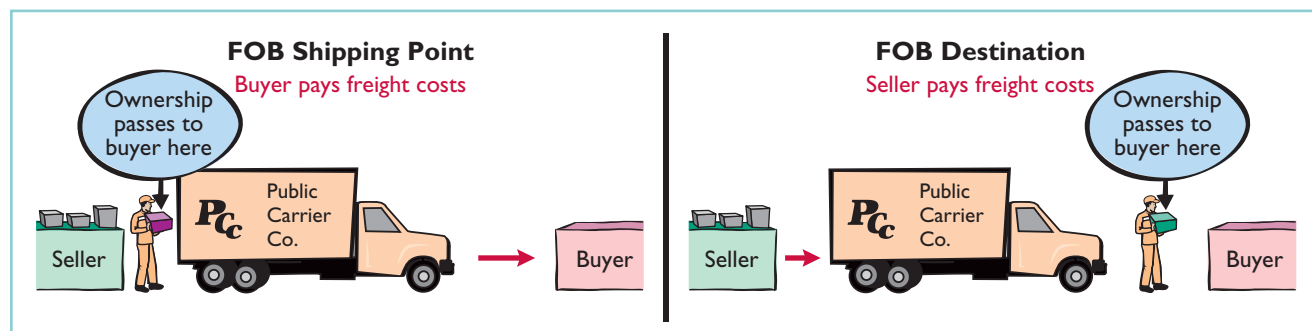
FREIGHT COSTS

The sales agreement should indicate who—the seller or the buyer—is to pay for transporting the goods to the buyer’s place of business. When a common carrier such as a railroad, trucking company, or airline transports the goods, the carrier prepares a freight bill in accord with the sales agreement.

Freight terms are expressed as either FOB shipping point or FOB destination. The letters FOB mean **free on board**. Thus, **FOB shipping point** means that the seller places the goods free on board the carrier, and the buyer pays the freight costs. Conversely, **FOB destination** means that the seller places the goods free on board to the buyer’s place of business, and the seller pays the freight. For example, the sales invoice in Illustration 5-5 indicates FOB shipping point.

Thus, the buyer (Sauk Stereo) pays the freight charges. Illustration 5-6 illustrates these shipping terms.

Illustration 5-6 Shipping terms




Freight Costs Incurred by Buyer

When the buyer pays the transportation costs, these costs are considered part of the cost of purchasing inventory. As a result, the account **Inventory is increased**. For example, if Sauk Stereo (the buyer) pays Haul-It Freight Company \$150 for freight charges on May 6, the entry on Sauk Stereo's books is:

| | | | |
|-------|---|-----|-----|
| May 6 | Inventory | 150 | |
| | Cash | | 150 |
| | (To record payment of freight on goods purchased) | | |

| | | | | |
|------------|---|---|---|----|
| A | = | L | + | SE |
| +150 | | | | |
| -150 | | | | |
| Cash Flows | | | | |
| -150 | | | | |




Thus, any freight costs incurred by the buyer are part of the cost of merchandise purchased. The reason: Inventory cost should include any freight charges necessary to deliver the goods to the buyer.

Freight Costs Incurred by Seller

In contrast, **freight costs incurred by the seller on outgoing merchandise are an operating expense to the seller**. These costs increase an expense account titled Freight-out or Delivery Expense. For example, if the freight terms on the invoice in Illustration 5-5 had required that PW Audio Supply (the seller) pay the \$150 freight charges, the entry by PW Audio Supply would be:

| | | | |
|-------|--|-----|-----|
| May 4 | Freight-out | 150 | |
| | Cash | | 150 |
| | (To record payment of freight on goods sold) | | |

| | | | | |
|------------|---|---|---|----------|
| A | = | L | + | SE |
| | | | | -150 Exp |
| -150 | | | | |
| Cash Flows | | | | |
| -150 | | | | |



When the seller pays the freight charges, the seller will usually establish a higher invoice price for the goods, to cover the expense of shipping.

PURCHASE RETURNS AND ALLOWANCES

A purchaser may be dissatisfied with the merchandise received because the goods are damaged or defective, of inferior quality, or do not meet the purchaser's specifications. In such cases, the purchaser may return the goods to the seller for

234 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

credit if the sale was made on credit, or for a cash refund if the purchase was for cash. This transaction is known as a **purchase return**. Alternatively, the purchaser may choose to keep the merchandise if the seller is willing to grant a reduction of the purchase price. This transaction is known as a **purchase allowance**.

Assume that Sauk Stereo returned goods costing \$300 to PW Audio Supply on May 8. The following entry by Sauk Stereo for the returned merchandise decreases Accounts Payable and decreases Inventory.

| | | | | |
|-------------------|---|------|---|----|
| A | = | L | + | SE |
| | | -300 | | |
| -300 | | | | |
| Cash Flows | | | | |
| no effect | | | | |

| | | | | |
|-----|---|--|-----|-----|
| May | 8 | Accounts Payable | 300 | |
| | | Inventory | | 300 |
| | | (To record return of goods purchased from PW Audio Supply) | | |

Because Sauk Stereo increased Inventory when the goods were received, Inventory is decreased (credited) when Sauk Stereo returns the goods.

Suppose instead that Sauk Stereo chose to keep the goods after being granted a \$50 allowance (reduction in price). It would reduce (debit) Accounts Payable and reduce (credit) Inventory for \$50.

PURCHASE DISCOUNTS

The credit terms of a purchase on account may permit the buyer to claim a cash discount for prompt payment. The buyer calls this cash discount a **purchase discount**. This incentive offers advantages to both parties: The purchaser saves money, and the seller is able to shorten the operating cycle by converting the accounts receivable into cash earlier.

The **credit terms** specify the amount of the cash discount and time period during which it is offered. They also indicate the length of time in which the purchaser is expected to pay the full invoice price. In the sales invoice in Illustration 5-5 (page 232), credit terms are 2/10, n/30, which is read “two-ten, net thirty.” This means that a 2% cash discount may be taken on the invoice price less (“net of”) any returns or allowances, if payment is made within 10 days of the invoice date (the **discount period**). Otherwise, the invoice price, less any returns or allowances, is due 30 days from the invoice date. Alternatively, the discount period may extend to a specified number of days following the month in which the sale occurs. For example, 1/10 EOM (end of month) means that a 1% discount is available if the invoice is paid within the first 10 days of the next month.

When the seller elects not to offer a cash discount for prompt payment, credit terms will specify only the maximum time period for paying the balance due. For example, the credit terms may state the time period as n/30, n/60, or n/10 EOM. This means, respectively, that the buyer must pay the net amount in 30 days, 60 days, or within the first 10 days of the next month.

When an invoice is paid within the discount period, the amount of the discount decreases Inventory. Why? Because the merchandiser records inventory at its cost and, by paying within the discount period, it has reduced that cost. To illustrate, assume Sauk Stereo pays the balance due of \$3,500 (gross invoice price of \$3,800 less purchase returns and allowances of \$300) on May 14, the last day of the discount period. The cash discount is \$70 (\$3,500 × 2%), and the amount of cash Sauk Stereo paid is \$3,430 (\$3,500 – \$70). The entry Sauk Stereo makes to record its May 14 payment decreases (debits) Accounts Payable by the amount of the gross invoice price, reduces (credits) Inventory by the \$70 discount, and reduces (credits) Cash by the net amount owed.

Helpful Hint The term *net* in “net 30” means the remaining amount due after subtracting any returns and allowances and partial payments.

Recording Purchases of Merchandise 235

| | | | |
|--------|--|-------|-------|
| May 14 | Accounts Payable | 3,500 | |
| | Cash | | 3,430 |
| | Inventory | | 70 |
| | (To record payment within discount period) | | |


| | | | | |
|--------|---|--------|---|----|
| A | = | L | + | SE |
| | | -3,500 | | |
| -3,430 | | | | |
| -70 | | | | |

If Sauk Stereo failed to take the discount and instead made full payment of \$3,500 on June 3, Sauk Stereo would reduce (debit) Accounts Payable and reduce (credit) Cash for \$3,500 each.


| | | | |
|--------|--|-------|-------|
| June 3 | Accounts Payable | 3,500 | |
| | Cash | | 3,500 |
| | (To record payment with no discount taken) | | |

| | | | | |
|--------|---|--------|---|----|
| A | = | L | + | SE |
| | | -3,500 | | |
| -3,500 | | | | |

Cash Flows
-3,430



Cash Flows
-3,500



A merchandising company usually should take all available discounts. Passing up the discount may be viewed as **paying interest** for use of the money. For example, passing up the discount offered by PW Audio Supply would be like Sauk Stereo paying an interest rate of 2% for the use of \$3,500 for 20 days. This is the equivalent of an annual interest rate of approximately 36.5% (2% × 365/20). Obviously, it would be better for Sauk Stereo to borrow at prevailing bank interest rates of 6% to 10% than to lose the discount.

SUMMARY OF PURCHASING TRANSACTIONS

The following T account (with transaction descriptions in blue) provides a summary of the effect of the previous transactions on Inventory. Sauk Stereo originally purchased \$3,800 worth of inventory for resale. It then returned \$300 of goods. It paid \$150 in freight charges, and finally, it received a \$70 discount off the balance owed because it paid within the discount period. This results in a balance in Inventory of \$3,580.

| | Inventory | | | | |
|-------------------|-----------|-------|-------|-----|--------------------------|
| Purchase | May 4 | 3,800 | May 8 | 300 | Purchase return |
| Freight-in | 6 | 150 | 14 | 70 | Purchase discount |
| Balance | | 3,580 | | | |

before you go on...

Do it!

On September 5, De La Hoya Company buys merchandise on account from Junot Diaz Company. The selling price of the goods is \$1,500. On September 8, De La Hoya returns defective goods with a selling price of \$200. Record the transactions on the books of De La Hoya Company.

Solution

| | | | |
|---------|--|-------|-------|
| Sept. 5 | Inventory | 1,500 | |
| | Accounts Payable | | 1,500 |
| | (To record goods purchased on account) | | |
| 8 | Accounts Payable | 200 | |
| | Inventory | | 200 |
| | (To record return of defective goods) | | |

Related exercise material: BE5-4, **Do it!** 5-1, and E5-1.

PURCHASE TRANSACTIONS

Action Plan

- Purchaser records goods at cost.
- When goods are returned, purchaser reduces Inventory.



Recording Sales of Merchandise

study objective 3

Explain the recording of sales revenues under a perpetual inventory system.

Companies record sales revenues, like service revenues, when earned, in compliance with the revenue recognition principle. Typically, companies earn sales revenues when the goods are transferred from the seller to the buyer. At this point the sales transaction is completed and the sales price is established.

Sales may be made on credit or for cash. Every sales transaction should be supported by a **business document** that provides written evidence of the sale. **Cash register tapes** provide evidence of cash sales. A **sales invoice**, like the one that was shown in Illustration 5-5 (page 232), provides support for each sale. The original copy of the invoice goes to the customer, and the seller keeps a copy for use in recording the sale. The invoice shows the date of sale, customer name, total sales price, and other relevant information.

The seller makes two entries for each sale: (1) It increases (debits) Accounts Receivable or Cash, as well as increases (credits) Sales Revenue. (2) It increases (debits) Cost of Goods Sold and decreases (credits) Inventory. As a result, the Inventory account will show at all times the amount of inventory that should be on hand.

To illustrate a credit sales transaction, PW Audio Supply records the sale of \$3,800 on May 4 to Sauk Stereo (see Illustration 5-5) as follows (assume the merchandise cost PW Audio Supply \$2,400).

| | |
|--|------------|
| A = L + SE | |
| +3,800 | +3,800 Rev |
| Cash Flows | |
| no effect | |

| | | | | |
|-----|---|---|-------|-------|
| May | 4 | Accounts Receivable | 3,800 | |
| | | Sales Revenue | | 3,800 |
| | | (To record credit sale to Sauk Stereo per invoice #731) | | |

| | |
|--|------------|
| A = L + SE | |
| -2,400 | -2,400 Exp |
| Cash Flows | |
| no effect | |

| | | | | |
|---|--|---|-------|-------|
| 4 | | Cost of Goods Sold | 2,400 | |
| | | Inventory | | 2,400 |
| | | (To record cost of merchandise sold on invoice #731 to Sauk Stereo) | | |

Helpful Hint The merchandiser credits the Sales Revenue account only for sales of goods held for resale. Sales of assets not held for resale, such as equipment or land, are credited directly to the asset account.

For internal decision-making purposes, merchandising companies may use more than one sales account. For example, PW Audio Supply may decide to keep separate sales accounts for its sales of TV sets, DVD players, and microwave ovens. **Wal-Mart** might use separate accounts for sporting goods, children's clothing, and hardware—or it might have even more narrowly defined accounts. By using separate sales accounts for major product lines, rather than a single combined sales account, company management can monitor sales trends more closely and respond more strategically to changes in sales patterns. For example, if TV sales are increasing while microwave oven sales are decreasing, the company might reevaluate both its advertising and pricing policies on each of these items to ensure they are optimal.

Ethics Note Many companies are trying to improve the quality of their financial reporting. For example, **General Electric** now provides more detail on its revenues and operating profits.

On its income statement presented to outside investors a merchandising company would normally provide only a single sales figure—the sum of all of its individual sales accounts. This is done for two reasons. First, providing detail on all of its individual sales accounts would add considerable length to its income statement. Second, companies do not want their competitors to know the details of their operating results. However, at one time **Microsoft** expanded its disclosure of revenue from three to five types. The reason: The additional categories will better enable financial statement users to evaluate the growth of the company's consumer and Internet businesses.

ANATOMY OF A FRAUD¹

Holly Harmon was a cashier at a national superstore for only a short while when she began stealing merchandise using three methods. First, her husband or friends took UPC labels from cheaper items and put them on more expensive items. Holly then scanned the goods at the register. Second, Holly rang an item up but then voided the sale and left the merchandise in the shopping cart. A third approach was to put goods into large plastic containers. She rang up the plastic containers but not the goods within them. One day, Holly did not call in sick or show up for work. In such instances, the company reviews past surveillance tapes to look for suspicious activity by employees. This enabled the store to observe the thefts and to identify the participants.

Total take: \$12,000

THE MISSING CONTROLS

Human resource controls. A background check would have revealed Holly's previous criminal record. She would not have been hired as a cashier.
Physical controls. Software can flag high numbers of voided transactions or a high number of sales of low-priced goods. Random comparisons of video records with cash register records can ensure that the goods reported as sold on the register are the same goods that are shown being purchased on the video recording. Finally, employees should be aware that they are being monitored.

Source: Adapted from Wells, *Fraud Casebook* (2007), pp. 251–259.

At the end of “Anatomy of a Fraud” stories, which describe real-world frauds, we discuss the missing control activity that would likely have presented or uncovered the fraud.

SALES RETURNS AND ALLOWANCES

We now look at the “flipside” of purchase returns and allowances, which the seller records as **sales returns and allowances**. These are transactions where the seller either accepts goods back from a purchaser (a return) or grants a reduction in the purchase price (an allowance) so that the buyer will keep the goods. PW Audio Supply's entries to record credit for returned goods involve (1) an increase (debit) in Sales Returns and Allowances (a contra account to Sales Revenue) and a decrease (credit) in Accounts Receivable at the \$300 selling price, and (2) an increase (debit) in Inventory (assume a \$140 cost) and a decrease (credit) in Cost of Goods Sold, as shown below. (We have assumed that the goods were not defective. If they were defective, PW Audio Supply would make an adjustment to the Inventory account to reflect their decline in value.)

| | | | |
|-------|--|-----|-----|
| May 8 | Sales Returns and Allowances | 300 | |
| | Accounts Receivable | | 300 |
| | (To record credit granted to Sauk Stereo for returned goods) | | |
| 8 | Inventory | 140 | |
| | Cost of Goods Sold | | 140 |
| | (To record cost of goods returned) | | |

| | | | | |
|-------------------|---|---|---|----------|
| A | = | L | + | SE |
| | | | | –300 Rev |
| –300 | | | | |
| Cash Flows | | | | |
| no effect | | | | |

| | | | | |
|-------------------|---|---|---|----------|
| A | = | L | + | SE |
| | | | | +140 Exp |
| +140 | | | | |
| Cash Flows | | | | |
| no effect | | | | |

Suppose instead that the goods were not returned, but the seller granted the buyer an allowance by reducing the purchase price. In this case, the seller would debit Sales Returns and Allowances and credit Accounts Receivable for the amount of the allowance.

¹The “Anatomy of a Fraud” stories in this textbook are adapted from *Fraud Casebook: Lessons from the Bad Side of Business*, edited by Joseph T. Wells (Hoboken, NJ: John Wiley & Sons, Inc., 2007). Used by permission. The names of some of the people and organizations in the stories are fictitious, but the facts in the stories are true.

238 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

As mentioned previously, Sales Returns and Allowances is a **contra revenue account** to Sales Revenue. The normal balance of Sales Returns and Allowances is a debit. Companies use a contra account, instead of debiting Sales Revenue, to disclose in the accounts and in the income statement the amount of sales returns and allowances. Disclosure of this information is important to management. Excessive returns and allowances suggest problems—inferior merchandise, inefficiencies in filling orders, errors in billing customers, or mistakes in delivery or shipment of goods. Moreover, a decrease (debit) recorded directly to Sales Revenue would obscure the relative importance of sales returns and allowances as a percentage of sales. It also could distort comparisons between total sales in different accounting periods.



Accounting Across the Organization
Should Costco Change Its Return Policy?

In most industries, sales returns are relatively minor. But returns of consumer electronics can really take a bite out of profits. Recently, the marketing executives at **Costco Wholesale Corp.** faced a difficult decision. Costco has always prided itself on its generous return policy. Most goods have had an unlimited grace period for returns. A new policy will require that certain electronics must be returned within 90 days of their purchase. The reason? The cost of returned products such as high-definition TVs, computers, and iPods cut an estimated 8¢ per share off Costco's earnings per share, which was \$2.30.

Source: Kris Hudson, "Costco Tightens Policy on Returning Electronics," *Wall Street Journal* (February 27, 2007), p. B4.

? If a company expects significant returns, what are the implications for revenue recognition? (See page 276.)

SALES DISCOUNTS

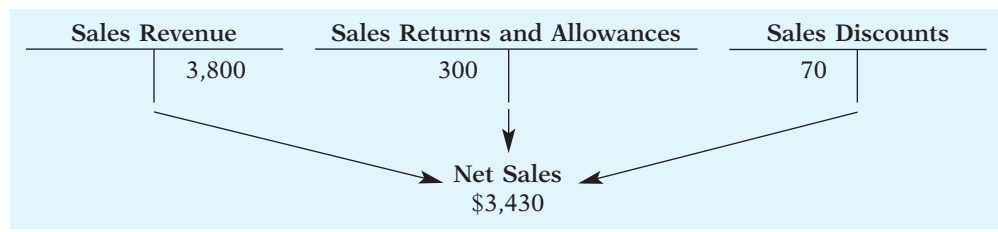
As mentioned in our discussion of purchase transactions, the seller may offer the customer a cash discount—called by the seller a **sales discount**—for the prompt payment of the balance due. Like a purchase discount, a sales discount is based on the invoice price less returns and allowances, if any. The seller increases (debits) the Sales Discounts account for discounts that are taken. The entry by PW Audio Supply to record the cash receipt on May 14 from Sauk Stereo within the discount period is:

| | | | | |
|-------------------|---|---|---|---------|
| A | = | L | + | SE |
| +3,430 | | | | -70 Rev |
| -3,500 | | | | |
| Cash Flows | | | | |
| +3,430 | | | | |

| | | | |
|--------|---|-------|-------|
| May 14 | Cash | 3,430 | |
| | Sales Discounts | 70 | |
| | Accounts Receivable | | 3,500 |
| | (To record collection within 2/10, n/30 discount period from Sauk Stereo) | | |

Like Sales Returns and Allowances, Sales Discounts is a **contra revenue account** to Sales Revenue. Its normal balance is a debit. Sellers use this account, instead of debiting sales, to disclose the amount of cash discounts taken by customers. If the customer does not take the discount, PW Audio Supply increases (debits) Cash for \$3,500 and decreases (credits) Accounts Receivable for the same amount at the date of collection.

The following T accounts summarize the three sales-related transactions and show their combined effect on net sales.



before you go on...

Do it!

On September 5, De La Hoya Company buys merchandise on account from Junot Diaz Company. The selling price of the goods is \$1,500, and the cost to Diaz Company was \$800. On September 8, De La Hoya returns goods with a selling price of \$200 and a cost of \$105. Record the transactions on the books of Junot Diaz Company.

Solution

| | | | |
|---------|--|-------|-------|
| Sept. 5 | Accounts Receivable | 1,500 | |
| | Sales Revenue | | 1,500 |
| | (To record credit sale) | | |
| 5 | Cost of Goods Sold | 800 | |
| | Inventory | | 800 |
| | (To record cost of goods sold on account) | | |
| Sept. 8 | Sales Returns and Allowances | 200 | |
| | Accounts Receivable | | 200 |
| | (To record credit granted for receipt of returned goods) | | |
| 8 | Inventory | 105 | |
| | Cost of Goods Sold | | 105 |
| | (To record cost of goods returned) | | |

SALES TRANSACTIONS

Action Plan

- Seller records both the sale and the cost of goods sold at the time of the sale.
- When goods are returned, the seller records the return in a contra account, Sales Returns and Allowances, and reduces Accounts Receivable.
- Any goods returned increase Inventory and reduce Cost of Goods Sold. The merchandise inventory should be recorded at its fair value (scrap value).



Related exercise material: BE5-2, BE5-3, **Do it!** 5-2, E5-2, E5-3, and E5-4.

Income Statement Presentation

Companies widely use two forms of the income statement. One is the **single-step income statement**. The statement is so named because only one step, subtracting total expenses from total revenues, is required in determining net income (or net loss).

In a single-step statement, all data are classified into two categories: (1) **revenues**, which include both operating revenues and nonoperating revenues and gains (for example, interest revenue and gain on sale of equipment); and (2) **expenses**, which include cost of goods sold, operating expenses, and nonoperating expenses and losses (for example, interest expense, loss on sale of equipment, or income tax expense). The single-step income statement is the form we have used thus far in the text. Illustration 5-7 (page 240) shows a single-step statement for **Wal-Mart**.

There are two primary reasons for using the single-step form: (1) A company does not realize any type of profit or income until total revenues exceed total expenses, so it makes sense to divide the statement into these two categories. (2) The form is simple and easy to read.

study objective 4

Distinguish between a single-step and a multiple-step income statement.

240 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Illustration 5-7 Single-step income statements

| | | For the years ended January 31 | |
|---|--|---------------------------------------|------------------|
| | | 2009 | 2008 |
| Revenues | | | |
| Net sales | | \$401,244 | \$374,307 |
| Other revenues | | 4,363 | 4,169 |
| | | <u>405,607</u> | <u>378,476</u> |
| Expenses | | | |
| Cost of goods sold | | 306,158 | 286,350 |
| Selling, general, and administrative expenses | | 76,651 | 70,174 |
| Interest expense | | 1,900 | 1,794 |
| Other expense | | 353 | 538 |
| Income taxes | | 7,145 | 6,889 |
| | | <u>392,207</u> | <u>365,745</u> |
| Net income | | <u>\$ 13,400</u> | <u>\$ 12,731</u> |

International Note The IASB and FASB are involved in a joint project to evaluate the format of financial statements. The first phase of that project involves a focus on how to best present revenues and expenses. One longer-term result of the project may well be an income statement format that better reflects how businesses are run.

A second form of the income statement is the **multiple-step income statement**. The multiple-step income statement is often considered more useful because it highlights the components of net income. The Wal-Mart income statement in Illustration 5-8 is an example.

The multiple-step income statement has three important line items: gross profit, income from operations, and net income. They are determined as follows.

1. Subtract cost of goods sold from net sales to determine **gross profit**.
2. Deduct operating expenses from gross profit to determine **income from operations**.
3. Add or subtract the results of activities not related to operations to determine **net income**.

Illustration 5-8 Multiple-step income statements

| | | For the years ended January 31 | |
|---|--|---------------------------------------|------------------|
| | | 2009 | 2008 |
| Net sales | | \$401,244 | \$374,307 |
| Cost of goods sold | | <u>306,158</u> | <u>286,350</u> |
| Gross profit | | 95,086 | 87,957 |
| Operating expenses | | | |
| Selling, general, and administrative expenses | | 76,651 | 70,174 |
| Income from operations | | <u>18,435</u> | <u>17,783</u> |
| Other revenues and gains | | | |
| Other revenues | | 4,363 | 4,169 |
| Other expenses and losses | | | |
| Interest expense | | 1,900 | 1,794 |
| Other expense | | 353 | 538 |
| Income before income taxes | | <u>20,545</u> | <u>19,620</u> |
| Income tax expense | | 7,145 | 6,889 |
| Net income | | <u>\$ 13,400</u> | <u>\$ 12,731</u> |

Note that companies report income tax expense in a separate section of the income statement before net income. The net incomes in Illustrations 5-7 and 5-8 are the same. The difference in the two income statements is the amount of detail displayed and the order presented. The following discussion provides additional information about the components of a multiple-step income statement.

SALES REVENUES

The income statement for a merchandising company typically presents gross sales revenues for the period. The company deducts sales returns and allowances and sales discounts (both contra accounts) from sales revenue in the income statement to arrive at **net sales**. Illustration 5-9 shows the sales revenues section of the income statement for PW Audio Supply.

| PW AUDIO SUPPLY, INC. Income Statement (partial) | | |
|---|----------|------------------|
| Sales revenues | | |
| Sales revenue | | \$ 480,000 |
| Less: Sales returns and allowances | \$12,000 | |
| Sales discounts | 8,000 | 20,000 |
| Net sales | | \$460,000 |

Illustration 5-9 Statement presentation of sales revenues section

GROSS PROFIT

Companies deduct **cost of goods sold** from sales revenue to determine **gross profit**. As shown in Illustration 5-8, for example, **Wal-Mart** had a gross profit of \$95.1 billion in fiscal year 2009. Sales revenue used for this computation is **net sales**, which takes into account sales returns and allowances and sales discounts.

Alternative Terminology Gross profit is sometimes referred to as *gross margin*.

On the basis of the PW Audio Supply sales data presented in Illustration 5-9 (net sales of \$460,000) and the cost of goods sold (assume a balance of \$316,000), PW Audio Supply's gross profit is \$144,000, computed as follows.

| | |
|---------------------|------------------|
| Net sales | \$ 460,000 |
| Cost of goods sold | 316,000 |
| Gross profit | \$144,000 |

It is important to understand what gross profit is—and what it is not. Gross profit represents the **merchandising profit** of a company. Because operating expenses have not been deducted, it is *not* a measure of the overall profit of a company. Nevertheless, management and other interested parties closely watch the amount and trend of gross profit. Comparisons of current gross profit with past amounts and rates and with those in the industry indicate the effectiveness of a company's purchasing and pricing policies.

OPERATING EXPENSES

Operating expenses are the next component in measuring net income for a merchandising company. At **Wal-Mart**, for example, operating expenses were \$76.7 billion in fiscal year 2009.

At PW Audio Supply, operating expenses were \$114,000. The firm determines its income from operations by subtracting operating expenses from gross profit. Thus, income from operations is \$30,000, as shown below.

| | |
|---------------------------|------------------|
| Gross profit | \$144,000 |
| Operating expenses | 114,000 |
| Income from operations | <u>\$ 30,000</u> |

NONOPERATING ACTIVITIES

Nonoperating activities consist of various revenues and expenses and gains and losses that are unrelated to the company's main line of operations. When nonoperating items are included, the label "**Income from operations**" (or "Operating income") precedes them. This label clearly identifies the results of the company's normal operations, an amount determined by subtracting cost of goods sold and operating expenses from net sales. The results of nonoperating activities are shown in the categories "**Other revenues and gains**" and "**Other expenses and losses.**" Illustration 5-10 lists examples of each.

Nonoperating income is sometimes very significant. For example, in a recent quarter **Sears Holdings** earned more than half of its net income from investments in derivative securities.

Illustration 5-10
Examples of nonoperating activities

| Other Revenues and Gains |
|--|
| Interest revenue from notes receivable and marketable securities. |
| Dividend revenue from investments in capital stock. |
| Rent revenue from subleasing a portion of the store. |
| Gain from the sale of property, plant, and equipment. |
| Other Expenses and Losses |
| Interest expense on notes and loans payable. |
| Casualty losses from recurring causes, such as vandalism and accidents. |
| Loss from the sale or abandonment of property, plant, and equipment. |
| Loss from strikes by employees and suppliers. |

Ethics Note Companies manage earnings in various ways. **ConAgra Foods** recorded a nonrecurring gain for \$186 million from the sale of **Pilgrim's Pride** stock to help meet an earnings projection for the quarter.

The distinction between operating and nonoperating activities is crucial to external users of financial data. These users view operating income as sustainable and many nonoperating activities as nonrecurring. When forecasting next year's income, analysts put the most weight on this year's operating income, and less weight on this year's nonoperating activities.



Ethics Insight

Disclosing More Details

After **Enron**, increased investor criticism and regulator scrutiny forced many companies to improve the clarity of their financial disclosures. For example, **IBM** announced that it would begin providing more detail regarding its "Other gains and losses." It had previously included these items in its selling, general, and administrative expenses, with little disclosure.

Disclosing other gains and losses in a separate line item on the income statement will not have any effect on bottom-line income. However, analysts complained that burying these details in the selling, general, and administrative expense line reduced their ability to fully understand how well IBM was performing. For example, previously if IBM sold off one of its buildings at a gain, it would include this gain in the selling, general, and administrative expense line item, thus reducing that expense. This made it appear that the company had done a better job of controlling operating expenses than it actually had.

Other companies that also recently announced changes to increase the informativeness of their income statements included **PepsiCo** and **General Electric**.

? Why have investors and analysts demanded more accuracy in isolating "Other gains and losses" from operating items? (See page 276.)

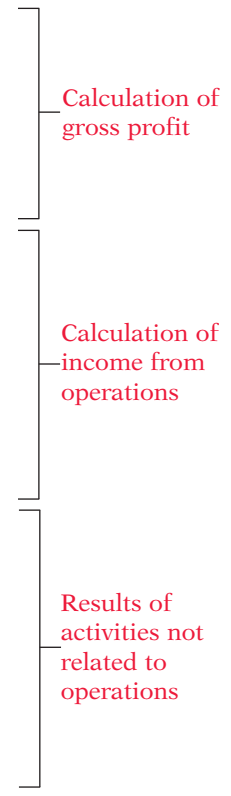
The nonoperating activities are reported in the income statement immediately after the operating activities. Included among these activities in Illustration 5-8

(page 240) for **Wal-Mart** is interest expense of \$1.9 billion for fiscal year 2009. The amount remaining, after adding the operating and nonoperating sections together, is Wal-Mart's net income of \$13.4 billion.

In Illustration 5-11 we have provided the multiple-step income statement of a hypothetical company. This statement provides more detail than that of Wal-Mart and thus is useful as a guide for homework. **(For WileyPLUS homework, individual revenues and expenses are listed in order of magnitude.)** For homework problems, use the multiple-step form of the income statement unless the requirements state otherwise.

| PW AUDIO SUPPLY, INC. Income Statement For the Year Ended December 31, 2012 | | |
|---|----------|------------------|
| Sales revenues | | |
| Sales revenue | | \$480,000 |
| Less: Sales returns and allowances | \$12,000 | |
| Sales discounts | 8,000 | 20,000 |
| Net sales | | 460,000 |
| Cost of goods sold | | 316,000 |
| Gross profit | | 144,000 |
| Operating expenses | | |
| Salaries and wages expense | 64,000 | |
| Utilities expense | 17,000 | |
| Advertising expense | 16,000 | |
| Depreciation expense | 8,000 | |
| Freight-out | 7,000 | |
| Insurance expense | 2,000 | |
| Total operating expenses | | 114,000 |
| Income from operations | | 30,000 |
| Other revenues and gains | | |
| Interest revenue | 3,000 | |
| Gain on disposal of plant assets | 600 | |
| | 3,600 | |
| Other expenses and losses | | |
| Interest expense | 1,800 | |
| Casualty loss from vandalism | 200 | |
| | 2,000 | |
| | | 1,600 |
| Income before income taxes | | 31,600 |
| Income tax expense | | 10,100 |
| Net income | | \$ 21,500 |

Illustration 5-11 Multiple-step income statement



before you go on...

Do it! The following information is available for Art Center Corp. for the year ended December 31, 2012.

| | | | |
|---------------------------|----------|--------------------|-----------|
| Other revenues and gains | \$ 8,000 | Net sales | \$442,000 |
| Other expenses and losses | 3,000 | Operating expenses | 187,000 |
| Cost of goods sold | 147,000 | | |

MULTIPLE-STEP INCOME STATEMENT

Prepare a multiple-step income statement for Art Center Corp. The company has a tax rate of 25%.

244 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Action Plan

- Subtract cost of goods sold from net sales to determine gross profit.
- Subtract operating expenses from gross profit to determine income from operations.
- Multiply the tax rate by income before tax to determine tax expense.



Solution

| ART CENTER CORP. | | |
|--------------------------------------|--------------|------------------|
| Income Statement | | |
| For the Year Ended December 31, 2012 | | |
| Net sales | | \$442,000 |
| Cost of goods sold | | <u>147,000</u> |
| Gross profit | | 295,000 |
| Operating expenses | | <u>187,000</u> |
| Income from operations | | 108,000 |
| Other revenues and gains | 8,000 | |
| Other expenses and losses | <u>3,000</u> | <u>5,000</u> |
| Income before income taxes | | 113,000 |
| Income tax expense | | <u>28,250</u> |
| Net income | | <u>\$ 84,750</u> |

Related exercise material: **BE5-5**, **BE5-6**, **Do it!** 5-3, and **E5-5**.

DETERMINING COST OF GOODS SOLD UNDER A PERIODIC SYSTEM

study objective 5

Determine cost of goods sold under a periodic system.

Determining cost of goods sold is different when a periodic inventory system is used rather than a perpetual system. As you have seen, a company using a **perpetual system** makes an entry to record cost of goods sold and to reduce inventory *each time a sale is made*. A company using a **periodic system** does not determine cost of goods sold *until the end of the period*. At the end of the period the company performs a count to determine the ending balance of inventory. It then **calculates cost of goods sold by subtracting ending inventory from the goods available for sale**. Goods available for sale is the sum of beginning inventory plus purchases, as shown in Illustration 5-12.

Illustration 5-12 Basic formula for cost of goods sold using the periodic system

| | |
|----------------------------------|-------------------|
| Beginning Inventory | |
| + Cost of Goods Purchased | <u> </u> |
| Cost of Goods Available for Sale | |
| – Ending Inventory | <u> </u> |
| Cost of Goods Sold | |

Another difference between the two approaches is that the perpetual system directly adjusts the Inventory account for any transaction that affects inventory (such as freight costs, returns, and discounts). The periodic system does not do this. Instead, it creates different accounts for purchases, freight costs, returns, and discounts. These various accounts are shown in Illustration 5-13 (page 245), which presents the calculation of cost of goods sold for PW Audio Supply using the periodic approach. Note that the basic elements from Illustration 5-12 are highlighted in Illustration 5-13. You will learn more in Chapter 6 about how to determine cost of goods sold using the periodic system.

The use of the periodic inventory system does not affect the form of presentation in the balance sheet. As under the perpetual system, a company reports inventory in the current assets section.

Appendix 5A provides further detail on the use of the periodic system.

| PW AUDIO SUPPLY, INC. Cost of Goods Sold For the Year Ended December 31, 2012 | | | |
|---|----------|-----------|------------------|
| Cost of goods sold | | | |
| Inventory, January 1 | | | \$ 36,000 |
| Purchases | | \$325,000 | |
| Less: Purchase returns and allowances | \$10,400 | | |
| Purchase discounts | 6,800 | 17,200 | |
| Net purchases | | 307,800 | |
| Add: Freight-in | | 12,200 | |
| Cost of goods purchased | | | 320,000 |
| Cost of goods available for sale | | | 356,000 |
| Inventory, December 31 | | | 40,000 |
| Cost of goods sold | | | \$316,000 |

Illustration 5-13 Cost of goods sold for a merchandiser using a periodic inventory system

Helpful Hint The far right column identifies the primary items that make up cost of goods sold of \$316,000. The middle column explains cost of goods purchased of \$320,000. The left column reports contra purchase items of \$17,200.

before you go on...

Do it!

Aerosmith Company's accounting records show the following at the year-end December 31, 2012.

| | |
|---------------------|----------|
| Purchase Discounts | \$ 3,400 |
| Freight-in | 6,100 |
| Purchases | 162,500 |
| Beginning Inventory | 18,000 |
| Ending Inventory | 20,000 |
| Purchase Returns | 5,200 |

Assuming that Aerosmith Company uses the periodic system, compute (a) cost of goods purchased and (b) cost of goods sold.

Solution

| | | | | | |
|--|---------------------------|----------------------|--------------|---|-----------|
| (a) Cost of goods purchased = \$160,000: | | | | | |
| Purchases | - Purchase returns | - Purchase discounts | + Freight-in | | |
| \$162,500 | - \$5,200 | - \$3,400 | + \$6,100 | = | \$160,000 |
| (b) Cost of goods sold = \$158,000: | | | | | |
| Beginning inventory | + Cost of goods purchased | - Ending inventory | | | |
| \$18,000 | + \$160,000 | - \$20,000 | = | | |

Related exercise material: **BE5-7, BE5-8, BE5-9, Do it! 5-4, E5-10, and E5-11.**

COST OF GOODS SOLD—PERIODIC SYSTEM

Action Plan

- To determine cost of goods purchased, adjust purchases for returns, discounts, and freight-in.
- To determine cost of goods sold, add cost of goods purchased to beginning inventory, and subtract ending inventory.



Evaluating Profitability

GROSS PROFIT RATE

A company's gross profit may be expressed as a **percentage** by dividing the amount of gross profit by net sales. This is referred to as the **gross profit rate**. For PW Audio Supply, the gross profit rate is 31.3% (\$144,000 ÷ \$460,000).

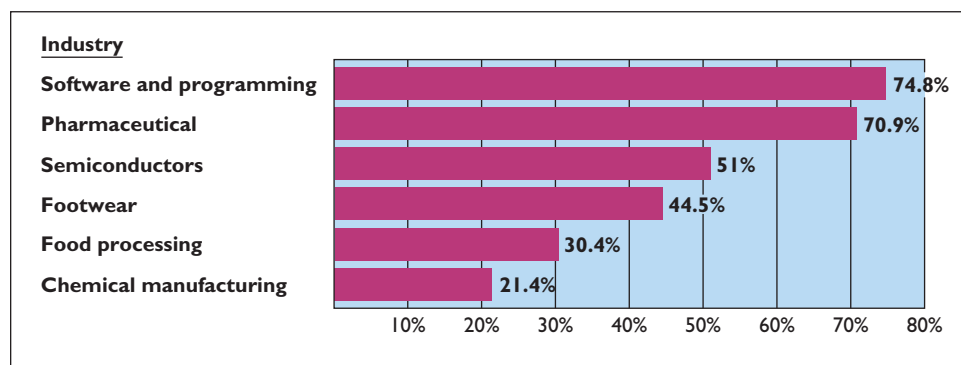
Analysts generally consider the gross profit *rate* to be more informative than the gross profit *amount* because it expresses a more meaningful (qualitative) relationship between gross profit and net sales. For example, a gross profit amount of \$1,000,000 may sound impressive. But if it was the result of sales of \$100,000,000, the company's gross profit rate was only 1%. A 1% gross profit rate is acceptable in very few industries. Illustration 5-14 (page 246) demonstrates that gross profit rates differ greatly across industries.

study objective 6

Explain the factors affecting profitability.

246 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Illustration 5-14 Gross profit rate by industry



A decline in a company's gross profit rate might have several causes. The company may have begun to sell products with a lower "markup"—for example, budget blue jeans versus designer blue jeans. Increased competition may have resulted in a lower selling price. Or, the company may be forced to pay higher prices to its suppliers without being able to pass these costs on to its customers. The gross profit rates for **Wal-Mart** and **Target**, and the industry average, are presented in Illustration 5-15.

Illustration 5-15 Gross profit rate

| Gross Profit Rate = $\frac{\text{Gross Profit}}{\text{Net Sales}}$ | | | |
|--|-------|--------|---------------------|
| Wal-Mart (\$ in millions) | | Target | Industry Average |
| 2009 | 2008 | 2009 | 2009 |
| $\frac{\$95,086}{\$401,244} = 23.7\%$ | 23.5% | 30.0% | 25.1% |

Wal-Mart's gross profit rate increased from 23.5% in 2008 to 23.7% in 2009. In its Management Discussion and Analysis (MD&A), Wal-Mart explained, "The gross profit margin increase in fiscal 2009 compared to fiscal 2008 was primarily due to lower inventory shrinkage and less markdown activity as a result of more effective merchandising in the Wal-Mart U.S. segment. Additionally, the increase in gross profit margin in fiscal 2008 included a \$97 million refund of excise taxes previously paid on past merchandise sales of prepaid phone cards."

At first glance, it might be surprising that Wal-Mart has a lower gross profit rate than Target and the industry average. It is likely, however, that this can be explained by the fact that grocery products are becoming an increasingly large component of Wal-Mart's sales. (In 2010, Wal-Mart announced that groceries now represent more than 50% of its sales.) In fact, in its MD&A, Wal-Mart once stated, "Because food items carry a lower gross margin than our other merchandise, increasing food sales tends to have an unfavorable impact on our total gross margin." Also, Wal-Mart has substantial warehouse-style sales in its Sam's Club stores, which are a low-margin, high-volume operation. In later chapters, we will provide further discussion of the trade-off between sales volume and gross profit.



DECISION TOOLKIT

| DECISION CHECKPOINTS | INFO NEEDED FOR DECISION | TOOL TO USE FOR DECISION | HOW TO EVALUATE RESULTS |
|---|----------------------------|--|--|
| Is the price of goods keeping pace with changes in the cost of inventory? | Gross profit and net sales | Gross profit rate = $\frac{\text{Gross profit}}{\text{Net sales}}$ | Higher ratio suggests the average margin between selling price and inventory cost is increasing. Too high a margin may result in lost sales. |

PROFIT MARGIN RATIO

The **profit margin ratio** measures the percentage of each dollar of sales that results in net income. We compute this ratio by dividing net income by net sales (revenue) for the period.

How do the gross profit rate and profit margin ratio differ? The gross profit rate measures the margin by which selling price exceeds cost of goods sold. **The profit margin ratio measures the extent by which selling price covers all expenses** (including cost of goods sold). A company can improve its profit margin ratio by either increasing its gross profit rate and/or by controlling its operating expenses and other costs. For example, at one time **Radio Shack** reported increased profit margins which it accomplished by closing stores and slashing costs. While its total sales have been declining, its profitability as measured by its profit margin has increased.

Profit margins vary across industries. Businesses with high turnover, such as grocery stores (**Safeway** and **Kroger**) and discount stores (**Target** and **Wal-Mart**), generally experience low profit margins. Low-turnover businesses, such as high-end jewelry stores (**Tiffany and Co.**) or major drug manufacturers (**Merck**), have high profit margins. Illustration 5-16 shows profit margin ratios from a variety of industries.

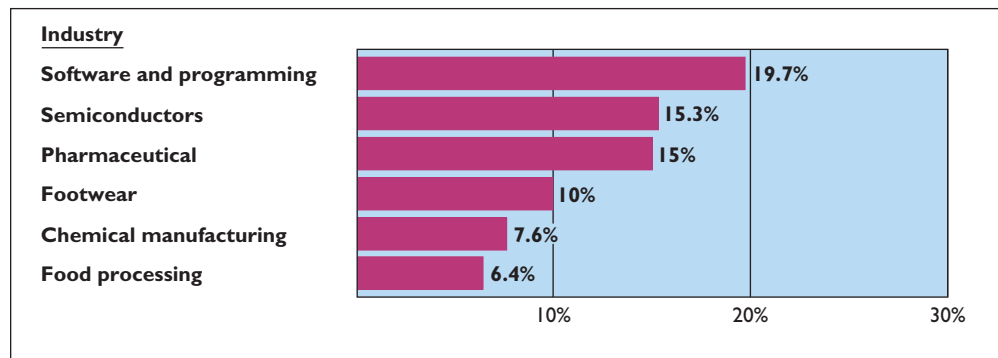


Illustration 5-16 Profit margin ratio by industry

Profit margins for Wal-Mart and Target and the industry average are presented in Illustration 5-17.

| Profit Margin Ratio = $\frac{\text{Net Income}}{\text{Net Sales}}$ | | | |
|--|------|--------|---------------------|
| Wal-Mart (\$ in millions) | | Target | Industry Average |
| 2009 | 2008 | 2009 | 2009 |
| $\frac{\$13,400}{\$401,244} = 3.3\%$ | 3.4% | 3.4% | 3.5% |

Illustration 5-17 Profit margin ratio

248 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Wal-Mart's profit margin declined from 3.4% to 3.3% between 2008 and 2009. This means that the company generated 3.3¢ of profit on each dollar of sales. This occurred even though the gross profit rate increased. The cause of the decline in the profit margin ratio was increased operating expenses. Wal-Mart's MD&A discussion states: "In fiscal 2009, operating expenses increased primarily due to higher utility costs, a pre-tax charge of approximately \$352 million resulting from the settlement of 63 wage and hour class action lawsuits, higher health benefit costs and increased corporate expenses compared to fiscal 2008. Corporate expenses have increased primarily due to our long-term transformation projects to enhance our information systems for merchandising, finance and human resources."

How does Wal-Mart compare to its competitors? Its profit margin ratio was lower than Target's in 2009 and was less than the industry average. Thus, its profit margin ratio does not suggest exceptional profitability. However, we must again keep in mind that an increasing percentage of Wal-Mart's sales is from low-margin groceries.

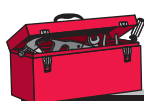


Accounting Across the Organization

Strategic Errors Can Be Costly

In its death spiral toward bankruptcy, Kmart appeared to make two very costly strategic errors. First, in an effort to attract customers, it decided to reduce selling prices on over 30,000 items. The problem was that this reduced its gross profit rate—and didn't even have the intended effect of increasing sales because Wal-Mart quickly matched these price cuts. Because Wal-Mart operated much more efficiently than Kmart, Wal-Mart could afford to absorb these price cuts and still operate at a profit. Kmart could not. Its second error was to try to reduce operating costs by cutting its advertising expenditures. This resulted in a reduction in customers—and sales revenue.

? Explain how Wal-Mart's profitability gave it a strategic advantage over Kmart. (See page 276.)



DECISION TOOLKIT

| DECISION CHECKPOINTS | INFO NEEDED FOR DECISION | TOOL TO USE FOR DECISION | HOW TO EVALUATE RESULTS |
|---|--------------------------|--|---|
| Is the company maintaining an adequate margin between sales and expenses? | Net income and net sales | Profit margin ratio = $\frac{\text{Net income}}{\text{Net sales}}$ | Higher value suggests favorable return on each dollar of sales. |

KEEPING AN EYE ON CASH

In Chapter 4, you learned that **earnings have high quality if they provide a full and transparent depiction of how a company performed.** In order to quickly assess earnings quality, analysts sometimes employ the **quality of earnings ratio.** It is calculated as net cash provided by operating activities divided by net income.

study objective 7

Identify a quality of earnings indicator.

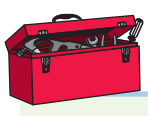
$$\text{Quality of Earnings Ratio} = \frac{\text{Net Cash Provided by Operating Activities}}{\text{Net Income}}$$

In general, a measure significantly less than 1 suggests that a company may be using more aggressive accounting techniques in order to accelerate income recognition (record income in earlier periods). A measure significantly greater than 1 suggests that a company is using conservative accounting techniques, which cause it to delay the recognition of income.

Measures that are significantly less than 1 do not provide definitive evidence of low-quality earnings. Low measures do, however, indicate that analysts should investigate the company's earnings quality by evaluating the causes of the difference between net income and net cash provided by operating activities. Examples of factors that would cause differences are presented in Chapter 4 (pp. 191–192).

Here are recent quality of earnings ratios for a number of well-known companies, all of which have measures in excess of 1.

| Company Name (\$ in millions) | Net Cash Provided by Operating Activities | ÷ | Net Income | = | Quality of Earnings Ratio |
|----------------------------------|--|---|------------|---|------------------------------|
| DuPont | \$4,741 | | \$1,769 | | 2.7 |
| Intel | \$11,170 | | \$4,369 | | 2.6 |
| Nike | \$1,736 | | \$1,487 | | 1.2 |
| Microsoft | \$19,037 | | \$14,569 | | 1.3 |
| Wal-Mart | \$26,249 | | \$14,335 | | 1.8 |



USING THE DECISION TOOLKIT

After having once been as dominant as **Wal-Mart**, in recent years **Sears** has struggled to survive. It has enacted many changes trying to turn itself around. In the 1990s, it shocked and disappointed many loyal customers by closing its catalog business. It also closed 113 stores and eliminated 50,000 jobs. None of these changes was enough to make Sears truly competitive, so in March 2005 Sears merged with **Kmart** to form the third largest U.S. retailer. Here is recent data for **Sears Holdings, Inc.**

| (\$ in millions) | Year ended | |
|--------------------|------------|----------|
| | 01/30/10 | 01/31/09 |
| Net income | \$ 235 | \$ 53 |
| Sales revenue | 44,043 | 46,770 |
| Cost of goods sold | 31,824 | 34,118 |

Instructions

Using the basic facts in the table, evaluate the following components of Sears's profitability for the years ended January 30, 2010, and January 31, 2009.

- Profit margin ratio
- Gross profit rate

How do Sears's profit margin ratio and gross profit rate compare to those of Wal-Mart and Target for 2009?

Solution

| (\$ in millions) | Year ended | |
|---------------------|--|---|
| | 01/30/10 | 01/31/09 |
| Profit margin ratio | $\frac{\$235}{\$44,043} = 0.5\%$ | $\frac{\$53}{\$46,770} = 0.1\%$ |
| Gross profit rate | $\frac{\$12,219^*}{\$44,043} = 27.7\%$ | $\frac{\$12,652^{**}}{\$46,770} = 27.1\%$ |

*\$44,043 - \$31,824 **\$46,770 - \$34,118

Sears's profit margin ratio (income per dollar of sales) increased from 0.1% to 0.5%. This is well below both Wal-Mart's (3.3%) and Target's (3.4%). Thus, Sears is not as effective at turning its sales into net income as these two competitors.

Sears's gross profit rate improved from 27.1% to 27.7%. This suggests that its ability to maintain its mark-up above its cost of goods sold improved during this period. Sears's gross profit rate of 27.7% is lower than Target's (30.0%) but higher than Wal-Mart's (23.7%). As discussed in the chapter, Wal-Mart's gross profit is depressed by the fact that it sells many grocery products, which are very low-margin. Target is superior to Sears both in its ability to maintain its mark-up above its costs of goods sold (its gross profit rate) and in its ability to control operating costs (its profit margin ratio).



Summary of Study Objectives

- 1 Identify the differences between a service company and a merchandising company.** Because of the presence of inventory, a merchandising company has sales revenue, cost of goods sold, and gross profit. To account for inventory, a merchandising company must choose between a perpetual inventory system and a periodic inventory system.
- 2 Explain the recording of purchases under a perpetual inventory system.** The Inventory account is debited for all purchases of merchandise and for freight costs, and it is credited for purchase discounts and purchase returns and allowances.
- 3 Explain the recording of sales revenues under a perpetual inventory system.** When inventory is sold, Accounts Receivable (or Cash) is debited and Sales Revenue is credited for the selling price of the merchandise. At the same time, Cost of Goods Sold is debited and Inventory is credited for the cost of inventory items sold. Subsequent entries are required for (a) sales returns and allowances and (b) sales discounts.
- 4 Distinguish between a single-step and a multiple-step income statement.** In a single-step income statement, companies classify all data under two categories, revenues or expenses, and net income is determined in one step. A multiple-step income statement shows numerous steps in determining net income, including results of nonoperating activities.
- 5 Determine cost of goods sold under a periodic system.** The periodic system uses multiple accounts to keep track of transactions that affect inventory. To determine cost of goods sold, first calculate cost of goods purchased by adjusting purchases for returns, allowances, discounts, and freight-in. Then calculate cost of goods sold by adding cost of goods purchased to beginning inventory and subtracting ending inventory.
- 6 Explain the factors affecting profitability.** Profitability is affected by gross profit, as measured by the gross profit rate, and by management's ability to control costs, as measured by the profit margin ratio.
- 7 Identify a quality of earnings indicator.** Earnings have high quality if they provide a full and transparent depiction of how a company performed. An indicator of the quality of earnings is the quality of earnings ratio, which is net cash provided by operating activities divided by net income. Measures above 1 suggest the company is employing conservative accounting practices. Measures significantly below 1 might suggest the company is using aggressive accounting to accelerate the recognition of income.



DECISION TOOLKIT A SUMMARY

| DECISION CHECKPOINTS | INFO NEEDED FOR DECISION | TOOL TO USE FOR DECISION | HOW TO EVALUATE RESULTS |
|---|----------------------------|--|--|
| Is the price of goods keeping pace with changes in the cost of inventory? | Gross profit and net sales | Gross profit rate = $\frac{\text{Gross profit}}{\text{Net sales}}$ | Higher ratio suggests the average margin between selling price and inventory cost is increasing. Too high a margin may result in lost sales. |
| Is the company maintaining an adequate margin between sales and expenses? | Net income and net sales | Profit margin ratio = $\frac{\text{Net income}}{\text{Net sales}}$ | Higher value suggests favorable return on each dollar of sales. |

appendix 5A

Periodic Inventory System

As described in this chapter, companies may use one of two basic systems of accounting for inventories: (1) the perpetual inventory system or (2) the periodic inventory system. In the chapter, we focused on the characteristics of the perpetual inventory system. In this appendix, we discuss and illustrate the **periodic inventory system**. One key difference between the two systems is the point at which the company computes cost of goods sold. For a visual reminder of this difference, you may want to refer back to Illustration 5-4 on page 230.

study objective 8

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

RECORDING MERCHANDISE TRANSACTIONS

In a **periodic inventory system**, companies record revenues from the sale of merchandise when sales are made, just as in a perpetual system. Unlike the perpetual system, however, companies **do not attempt on the date of sale to record the cost of the merchandise sold**. Instead, they take a physical inventory count at the **end of the period** to determine (1) the cost of the merchandise then on hand and (2) the cost of the goods sold during the period. And, **under a periodic system, companies record purchases of merchandise in the Purchases account rather than the Inventory account**. Also, in a periodic system, purchase returns and allowances, purchase discounts, and freight costs on purchases are recorded in separate accounts.

To illustrate the recording of merchandise transactions under a periodic inventory system, we will use purchase/sale transactions between PW Audio Supply, Inc. and Sauk Stereo, as illustrated for the perpetual inventory system in this chapter.

RECORDING PURCHASES OF MERCHANDISE

On the basis of the sales invoice (Illustration 5-5, shown on page 232) and receipt of the merchandise ordered from PW Audio Supply, Sauk Stereo records the \$3,800 purchase as follows.

| | | | |
|-------|---|-------|-------|
| May 4 | Purchases | 3,800 | |
| | Accounts Payable | | 3,800 |
| | (To record goods purchased on account from PW Audio Supply) | | |

Purchases is a temporary account whose normal balance is a debit.

FREIGHT COSTS

When the purchaser directly incurs the freight costs, it debits the account Freight-in (or Transportation-in). For example, if Sauk Stereo pays Haul-It Freight Company \$150 for freight charges on its purchase from PW Audio Supply on May 6, the entry on Sauk Stereo's books is:

| | | | |
|-------|---|-----|-----|
| May 6 | Freight-in (Transportation-in) | 150 | |
| | Cash | | 150 |
| | (To record payment of freight on goods purchased) | | |

Like Purchases, Freight-in is a temporary account whose normal balance is a debit. **Freight-in is part of cost of goods purchased**. The reason is that cost

252 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

of goods purchased should include any freight charges necessary to bring the goods to the purchaser. Freight costs are not subject to a purchase discount. Purchase discounts apply on the invoice cost of the merchandise.

Purchase Returns and Allowances

Because \$300 of merchandise received from PW Audio Supply is inoperable, Sauk Stereo returns the goods and prepares the following entry to recognize the return.

| | | | |
|-------|--|-----|-----|
| May 8 | Accounts Payable | 300 | |
| | Purchase Returns and Allowances | | 300 |
| | (To record return of goods purchased from PW Audio Supply) | | |

Purchase Returns and Allowances is a temporary account whose normal balance is a credit.

Purchase Discounts

On May 14, Sauk Stereo pays the balance due on account to PW Audio Supply, taking the 2% cash discount allowed by PW Audio Supply for payment within 10 days. Sauk Stereo records the payment and discount as follows.

| | | | |
|--------|--|-------|-------|
| May 14 | Accounts Payable (\$3,800 – \$300) | 3,500 | |
| | Purchase Discounts (\$3,500 × .02) | | 70 |
| | Cash | | 3,430 |
| | (To record payment within the discount period) | | |

Purchase Discounts is a temporary account whose normal balance is a credit.

RECORDING SALES OF MERCHANDISE

The seller, PW Audio Supply, records the sale of \$3,800 of merchandise to Sauk Stereo on May 4 (sales invoice No. 731, Illustration 5-5, page 232) as follows.

| | | | |
|-------|--|-------|-------|
| May 4 | Accounts Receivable | 3,800 | |
| | Sales Revenue | | 3,800 |
| | (To record credit sales to Sauk Stereo per invoice #731) | | |

Sales Returns and Allowances

To record the returned goods received from Sauk Stereo on May 8, PW Audio Supply records the \$300 sales return as follows.

| | | | |
|-------|--|-----|-----|
| May 8 | Sales Returns and Allowances | 300 | |
| | Accounts Receivable | | 300 |
| | (To record credit granted to Sauk Stereo for returned goods) | | |

Sales Discounts

On May 14, PW Audio Supply receives payment of \$3,430 on account from Sauk Stereo. PW Audio Supply honors the 2% cash discount and records the payment of Sauk Stereo's account receivable in full as follows.

| | | | |
|--------|---|-------|-------|
| May 14 | Cash | 3,430 | |
| | Sales Discounts (\$3,500 × .02) | 70 | |
| | Accounts Receivable (\$3,800 – \$300) | | 3,500 |
| | (To record collection within 2/10, n/30 discount period from Sauk Stereo) | | |

COMPARISON OF ENTRIES—PERPETUAL vs. PERIODIC

| ENTRIES ON SAUK STEREO'S BOOKS | | | | | |
|--------------------------------|-------------------------------------|----------------------------|-------|---------------------------------|-------|
| Transaction | | Perpetual Inventory System | | Periodic Inventory System | |
| May 4 | Purchase of merchandise on credit. | Inventory | 3,800 | Purchases | 3,800 |
| | | Accounts Payable | 3,800 | Accounts Payable | 3,800 |
| May 6 | Freight costs on purchases. | Inventory | 150 | Freight-in | 150 |
| | | Cash | 150 | Cash | 150 |
| May 8 | Purchase returns and allowances. | Accounts Payable | 300 | Accounts Payable | 300 |
| | | Inventory | 300 | Purchase Returns and Allowances | 300 |
| May 14 | Payment on account with a discount. | Accounts Payable | 3,500 | Accounts Payable | 3,500 |
| | | Cash | 3,430 | Cash | 3,430 |
| | | Inventory | 70 | Purchase Discounts | 70 |

| ENTRIES ON PW AUDIO SUPPLY'S BOOKS | | | | | |
|------------------------------------|---|------------------------------|-------|---------------------------------|-------|
| Transaction | | Perpetual Inventory System | | Periodic Inventory System | |
| May 4 | Sale of merchandise on credit. | Accounts Receivable | 3,800 | Accounts Receivable | 3,800 |
| | | Sales Revenue | 3,800 | Sales Revenue | 3,800 |
| | | Cost of Goods Sold | 2,400 | No entry for cost of goods sold | |
| | | Inventory | 2,400 | | |
| May 8 | Return of merchandise sold. | Sales Returns and Allowances | 300 | Sales Returns and Allowances | 300 |
| | | Accounts Receivable | 300 | Accounts Receivable | 300 |
| | | Inventory | 140 | No entry | |
| | | Cost of Goods Sold | 140 | | |
| May 14 | Cash received on account with a discount. | Cash | 3,430 | Cash | 3,430 |
| | | Sales Discounts | 70 | Sales Discounts | 70 |
| | | Accounts Receivable | 3,500 | Accounts Receivable | 3,500 |

Summary of Study Objective for Appendix 5A

8 Explain the recording of purchases and sales of inventory under a periodic inventory system. To record purchases, entries are required for (a) cash and credit purchases, (b) purchase returns and allowances,

(c) purchase discounts, and (d) freight costs. To record sales, entries are required for (a) cash and credit sales, (b) sales returns and allowances, and (c) sales discounts.

Glossary

Contra revenue account (p. 238) An account that is offset against a revenue account on the income statement.

Cost of goods sold (p. 228) The total cost of merchandise sold during the period.

Gross profit (p. 241) The excess of net sales over the cost of goods sold.

Gross profit rate (p. 245) Gross profit expressed as a percentage by dividing the amount of gross profit by net sales.

254 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Net sales (p. 241) Sales less sales returns and allowances and sales discounts.

Periodic inventory system (p. 230) An inventory system in which a company does not maintain detailed records of goods on hand and determines the cost of goods sold only at the end of an accounting period.

Perpetual inventory system (p. 230) A detailed inventory system in which a company maintains the cost of each inventory item and the records continuously show the inventory that should be on hand.

Profit margin ratio (p. 247) Measures the percentage of each dollar of sales that results in net income, computed by dividing net income by net sales.

Purchase allowance (p. 234) A deduction made to the selling price of merchandise, granted by the seller so that the buyer will keep the merchandise.

Purchase discount (p. 234) A cash discount claimed by a buyer for prompt payment of a balance due.

Purchase invoice (p. 231) A document that supports each purchase.

Purchase return (p. 234) A return of goods from the buyer to the seller for cash or credit.

Quality of earnings ratio (p. 248) A measure used to indicate the extent to which a company's earnings provide a full and transparent depiction of its performance; computed as net cash provided by operating activities divided by net income.

Sales discount (p. 238) A reduction given by a seller for prompt payment of a credit sale.

Sales invoice (p. 236) A document that provides support for each sale.

Sales returns and allowances (p. 237) Transactions in which the seller either accepts goods back from the purchaser (a return) or grants a reduction in the purchase price (an allowance) so that the buyer will keep the goods.

Sales revenue (p. 228) Primary source of revenue in a merchandising company.

Comprehensive Do it!

The adjusted trial balance for the year ended December 31, 2012, for Dykstra Company is shown below.

DYKSTRA COMPANY
Adjusted Trial Balance
For the Year Ended December 31, 2012

| | Dr. | Cr. |
|------------------------------------|-----------|-----------|
| Cash | \$ 14,500 | |
| Accounts Receivable | 11,100 | |
| Inventory | 29,000 | |
| Prepaid Insurance | 2,500 | |
| Equipment | 95,000 | |
| Accumulated Depreciation—Equipment | | \$ 18,000 |
| Notes Payable | | 25,000 |
| Accounts Payable | | 10,600 |
| Common Stock | | 70,000 |
| Retained Earnings | | 11,000 |
| Dividends | 12,000 | |
| Sales Revenue | | 536,800 |
| Sales Returns and Allowances | 6,700 | |
| Sales Discounts | 5,000 | |
| Cost of Goods Sold | 363,400 | |
| Freight-out | 7,600 | |
| Advertising Expense | 12,000 | |
| Salaries and Wages Expense | 56,000 | |
| Utilities Expense | 18,000 | |
| Rent Expense | 24,000 | |
| Depreciation Expense | 9,000 | |
| Insurance Expense | 4,500 | |
| Interest Expense | 3,600 | |
| Interest Revenue | | 2,500 |
| | \$673,900 | \$673,900 |

Instructions

Prepare a multiple-step income statement for Dykstra Company. Assume a tax rate of 30 percent.

Solution to Comprehensive Do it!

DYKSTRA COMPANY
Income Statement
For the Year Ended December 31, 2012

| | | |
|------------------------------------|----------|-----------|
| Sales revenues | | |
| Sales revenue | | \$536,800 |
| Less: Sales returns and allowances | \$ 6,700 | |
| Sales discounts | 5,000 | 11,700 |
| Net sales | | 525,100 |
| Cost of goods sold | | 363,400 |
| Gross profit | | 161,700 |
| Operating expenses | | |
| Salaries and wages expense | 56,000 | |
| Rent expense | 24,000 | |
| Utilities expense | 18,000 | |
| Advertising expense | 12,000 | |
| Depreciation expense | 9,000 | |
| Freight-out | 7,600 | |
| Insurance expense | 4,500 | |
| Total operating expenses | | 131,100 |
| Income from operations | | 30,600 |
| Other revenues and gains | | |
| Interest revenue | 2,500 | |
| Other expenses and losses | | |
| Interest expense | 3,600 | 1,100 |
| Income before income taxes | | 29,500 |
| Income tax expense | | 8,850 |
| Net income | | \$ 20,650 |

Action Plan

- In preparing the income statement, remember that the key components are net sales, cost of goods sold, gross profit, total operating expenses, and net income (loss). These components are reported in the right-hand column of the income statement.
- Present nonoperating items after income from operations.



Self-Test, Brief Exercises, Exercises, Problem Set A, and many more resources are available for practice in WileyPLUS



Note: All Questions, Exercises, and Problems marked with an asterisk relate to material in the appendix to the chapter.

Self-Test Questions

Answers are on page 276.

- (S0 1) 1. Which of the following statements about a periodic inventory system is true?
- (a) Companies determine cost of goods sold only at the end of the accounting period.
 - (b) Companies continuously maintain detailed records of the cost of each inventory purchase and sale.
 - (c) The periodic system provides better control over inventories than a perpetual system.
 - (d) The increased use of computerized systems has increased the use of the periodic system.
2. Which of the following items does *not* result in an adjustment in the Inventory account under a perpetual system? (S0 2)
- (a) A purchase of merchandise.
 - (b) A return of merchandise inventory to the supplier.
 - (c) Payment of freight costs for goods shipped to a customer.
 - (d) Payment of freight costs for goods received from a supplier.
3. Which sales accounts normally have a debit balance? (S0 3)
- (a) Sales discounts.
 - (b) Sales returns and allowances.


256 chapter 5 Merchandising Operations and the Multiple-Step Income Statement










- (c) Both (a) and (b).
(d) Neither (a) nor (b).
- (S0 3) 4. A company makes a credit sale of \$750 on June 13, terms 2/10, n/30, on which it grants a return of \$50 on June 16. What amount is received as payment in full on June 23?
(a) \$700. (c) \$685.
(b) \$686. (d) \$650.
- (S0 3) 5. To record the sale of goods for cash in a perpetual inventory system:
(a) only one journal entry is necessary to record cost of goods sold and reduction of inventory.
(b) only one journal entry is necessary to record the receipt of cash and the sales revenue.
(c) two journal entries are necessary: one to record the receipt of cash and sales revenue, and one to record the cost of goods sold and reduction of inventory.
(d) two journal entries are necessary: one to record the receipt of cash and reduction of inventory, and one to record the cost of goods sold and sales revenue.
- (S0 4) 6. Gross profit will result if:
(a) operating expenses are less than net income.
(b) sales revenues are greater than operating expenses.
(c) sales revenues are greater than cost of goods sold.
(d) operating expenses are greater than cost of goods sold.
- (S0 4) 7. If sales revenues are \$400,000, cost of goods sold is \$310,000, and operating expenses are \$60,000, what is the gross profit?
(a) \$30,000. (c) \$340,000.
(b) \$90,000. (d) \$400,000.
- (S0 4) 8. The multiple-step income statement for a merchandising company shows each of these features *except*:
(a) gross profit.
(b) cost of goods sold.
(c) a sales revenue section.
(d) All of these are present.
- (S0 5) 9. If beginning inventory is \$60,000, cost of goods purchased is \$380,000, and ending inventory is \$50,000, what is cost of goods sold under a periodic system?
(a) \$390,000. (c) \$330,000.
(b) \$370,000. (d) \$420,000.
- (S0 5) 10. Bufford Corporation had reported the following amounts at December 31, 2012: Sales revenue \$184,000; ending inventory \$11,600; beginning inventory \$17,200; purchases \$60,400; purchase discounts \$3,000; purchase returns and allowances \$1,100; freight-in \$600; freight-out \$900. Calculate the cost of goods available for sale.
(a) \$69,400. (c) \$56,900.
(b) \$74,100. (d) \$197,700.
11.  Which of the following would affect the gross profit rate? (Assume sales remains constant.) (S0 6)
(a) An increase in advertising expense.
(b) A decrease in depreciation expense.
(c) An increase in cost of goods sold.
(d) A decrease in insurance expense.
12.  The gross profit *rate* is equal to: (S0 6)
(a) net income divided by sales.
(b) cost of goods sold divided by sales.
(c) net sales minus cost of goods sold, divided by net sales.
(d) sales minus cost of goods sold, divided by cost of goods sold.
13. During the year ended December 31, 2012, Bjornstad Corporation had the following results: Sales revenue \$267,000; cost of good sold \$107,000; net income \$92,400; operating expenses \$55,400; net cash provided by operating activities \$108,950. What was the company's profit margin ratio? (S0 6)
(a) 40%. (c) 20.5%.
(b) 60%. (d) 34.6%.
14. A quality of earnings ratio: (S0 7)
(a) is computed as net income divided by net cash provided by operating activities.
(b) that is less than 1 indicates that a company might be using aggressive accounting tactics.
(c) that is greater than 1 indicates that a company might be using aggressive accounting tactics.
(d) is computed as net cash provided by operating activities divided by total assets.
- *15. When goods are purchased for resale by a company using a periodic inventory system: (S0 8)
(a) purchases on account are debited to Inventory.
(b) purchases on account are debited to Purchases.
(c) purchase returns are debited to Purchase Returns and Allowances.
(d) freight costs are debited to Purchases.

Go to the book's companion website, www.wiley.com/college/kimmel, to access additional Self-Test Questions.



Questions

- (a) "The steps in the accounting cycle for a merchandising company differ from the steps in the accounting cycle for a service company." Do you agree or disagree?
(b) Is the measurement of net income in a merchandising company conceptually the same as in a service company? Explain.
- How do the components of revenues and expenses differ between a merchandising company and a service company?
-  Rachel Harpole, CEO of Bargain Den Stores, is considering a recommendation made by both the company's purchasing manager and director of

- finance that the company should invest in a sophisticated new perpetual inventory system to replace its periodic system. Explain the primary difference between the two systems, and discuss the potential benefits of a perpetual inventory system.
4. (a) Explain the income measurement process in a merchandising company.
(b) How does income measurement differ between a merchandising company and a service company?
 5. Markoff Co. has sales revenue of \$100,000, cost of goods sold of \$70,000, and operating expenses of \$18,000. What is its gross profit?
 6. Peggy Wilder believes revenues from credit sales may be earned before they are collected in cash. Do you agree? Explain.
 7. (a) What is the primary source document for recording (1) cash sales and (2) credit sales?
(b) Using XXs for amounts, give the journal entry for each of the transactions in part (a), assuming perpetual inventory.
 8. A credit sale is made on July 10 for \$900, terms 1/15, n/30. On July 12, the purchaser returns \$100 of goods for credit. Give the journal entry on July 19 to record the receipt of the balance due within the discount period.
 9.  As the end of Agnew Company's fiscal year-end approached, it became clear that the company had considerable excess inventory. Belden Glass, the head of marketing and sales, ordered salespeople to "add 20% more units to each order that you ship. The customers can always ship the extra back next period if they decide they don't want it. We've got to do it to meet this year's sales goal." Discuss the accounting implications of Belden's action.
 10.  To encourage bookstores to buy a broader range of book titles, and to discourage price discounting, the publishing industry allows bookstores to return unsold books to the publisher. This results in very significant returns each year. To ensure proper recognition of revenues, how should publishing companies account for these returns?
 11. Goods costing \$1,900 are purchased on account on July 15 with credit terms of 2/10, n/30. On July 18, the purchaser receives a \$300 credit from the supplier for damaged goods. Give the journal entry on July 24 to record payment of the balance due within the discount period.
 12.  Frattura Company reports net sales of \$800,000, gross profit of \$560,000, and net income of \$230,000. What are its operating expenses?
 13.  Rai Company has always provided its customers with payment terms of 1/10, n/30. Members of its sale force have commented that competitors are offering customers 2/10, n/45. Explain what these terms mean, and discuss the implications to Rai of switching its payment terms to those of its competitors.
 14.  In its year-end earnings announcement press release, Longwell Corp. announced that its earnings increased by \$15 million relative to the previous year. This represented a 20% increase. Inspection of its income statement reveals that the company reported a \$20 million gain under "Other revenues and gains" from the sale of one of its factories. Discuss the implications of this gain from the perspective of a potential investor.
 15. Identify the distinguishing features of an income statement for a merchandising company.
 16. Why is the normal operating cycle for a merchandising company likely to be longer than for a service company?
 17.  What title does **Tootsie Roll** use for gross profit? How did it present gross profit? By how much did its total gross profit change, and in what direction, in 2009?
 18. What merchandising account(s) will appear in the post-closing trial balance?
 19. What types of businesses are most likely to use a perpetual inventory system?
 20. Identify the accounts that are added to or deducted from purchases to determine the cost of goods purchased under a periodic system. For each account, indicate (a) whether it is added or deducted, and (b) its normal balance.
 21. In the following cases, use a periodic inventory system to identify the item(s) designated by the letters X and Y.
 - (a) Purchases $- X - Y =$ Net purchases.
 - (b) Cost of goods purchased $-$ Net purchases $= X$.
 - (c) Beginning inventory $+ X =$ Cost of goods available for sale.
 - (d) Cost of goods available for sale $-$ Cost of goods sold $= X$.
 22.  What two ratios measure factors that affect profitability?
 23.  What factors affect a company's gross profit rate—that is, what can cause the gross profit rate to increase and what can cause it to decrease?
 24.  Corliss Ford, director of marketing, wants to reduce the selling price of his company's products by 15% to increase market share. He says, "I know this will reduce our gross profit rate, but the increased number of units sold will make up for the lost margin." Before this action is taken, what other factors does the company need to consider?
 25. Howard Paulson is considering investing in Stevenson Pet Food Company. Stevenson's net income increased considerably during the most recent year, even though many other companies in the same industry reported disappointing earnings. Howard wants to know whether the company's earnings provide a reasonable depiction of its results. What initial step can Howard take to help determine whether he needs to investigate further?
 - *26. On July 15, a company purchases on account goods costing \$1,900, with credit terms of 2/10, n/30. On July 18, the company receives a \$400 credit memo from the supplier for damaged goods. Give the journal entry on July 24 to record payment of the balance due within the discount period assuming a periodic inventory system.

258 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Brief Exercises

Compute missing amounts in determining net income.

(SO 1, 4), AP

Journalize perpetual inventory entries.

(SO 2, 3), AP

Journalize sales transactions.

(SO 3), AP

Journalize purchase transactions.

(SO 2), AP

Prepare sales revenue section of income statement.

(SO 4), AP

Identify placement of items on a multiple-step income statement.

(SO 4), AP

Determine cost of goods sold using basic periodic formula.

(SO 5), AP

Compute net purchases and cost of goods purchased.

(SO 5), AP

Compute cost of goods sold and gross profit.

(SO 5), C

Calculate profitability ratios.

(SO 6), AP



Calculate profitability ratios.

(SO 6), AP



Evaluate quality of earnings.

(SO 7), C

Journalize purchase transactions.

(SO 8), AP

BE5-1 Presented here are the components in Korinek Company's income statement. Determine the missing amounts.

| <u>Sales Revenue</u> | <u>Cost of Goods Sold</u> | <u>Gross Profit</u> | <u>Operating Expenses</u> | <u>Net Income</u> |
|----------------------|---------------------------|---------------------|---------------------------|-------------------|
| \$ 71,200 | (b) | \$ 30,000 | (d) | \$12,100 |
| \$108,000 | \$70,000 | (c) | (e) | \$29,500 |
| (a) | \$71,900 | \$109,600 | \$46,200 | (f) |

BE5-2 Pocras Company buys merchandise on account from Wedell Company. The selling price of the goods is \$900 and the cost of the goods sold is \$590. Both companies use perpetual inventory systems. Journalize the transactions on the books of both companies.

BE5-3 Prepare the journal entries to record the following transactions on Graff Company's books using a perpetual inventory system.

- On March 2, Graff Company sold \$800,000 of merchandise to Rodriguez Company, terms 2/10, n/30. The cost of the merchandise sold was \$540,000.
- On March 6, Rodriguez Company returned \$140,000 of the merchandise purchased on March 2. The cost of the merchandise returned was \$94,000.
- On March 12, Graff Company received the balance due from Rodriguez Company.

BE5-4 From the information in BE5-3, prepare the journal entries to record these transactions on Rodriguez Company's books under a perpetual inventory system.

BE5-5 Bangura Company provides this information for the month ended October 31, 2012: sales on credit \$300,000; cash sales \$150,000; sales discounts \$5,000; and sales returns and allowances \$19,000. Prepare the sales revenues section of the income statement based on this information.

BE5-6 Explain where each of these items would appear on a multiple-step income statement: gain on disposal of plant assets; cost of goods sold; depreciation expense; and sales returns and allowances.

BE5-7 Berry Company sold goods with a total selling price of \$800,000 during the year. It purchased goods for \$380,000 and had beginning inventory of \$67,000. A count of its ending inventory determined that goods on hand was \$50,000. What was its cost of goods sold?

BE5-8 Assume that Logan Company uses a periodic inventory system and has these account balances: Purchases \$404,000; Purchase Returns and Allowances \$13,000; Purchase Discounts \$9,000; and Freight-in \$16,000. Determine net purchases and cost of goods purchased.

BE5-9 Assume the same information as in BE5-8 and also that Logan Company has beginning inventory of \$60,000, ending inventory of \$90,000, and net sales of \$612,000. Determine the amounts to be reported for cost of goods sold and gross profit.

BE5-10 Modder Corporation reported net sales of \$250,000, cost of goods sold of \$150,000, operating expenses of \$50,000, net income of \$32,500, beginning total assets of \$520,000, and ending total assets of \$600,000. Calculate each of the following values and explain what they mean: (a) profit margin ratio and (b) gross profit rate.

BE5-11 Delzer Corporation reported net sales \$800,000; cost of goods sold \$520,000; operating expenses \$210,000; and net income \$68,000. Calculate the following values and explain what they mean: (a) profit margin ratio and (b) gross profit rate.

BE5-12 Wasley Corporation reported net income of \$346,000, cash of \$67,800, and net cash provided by operating activities of \$221,200. What does this suggest about the quality of the company's earnings? What further steps should be taken?

***BE5-13** Prepare the journal entries to record these transactions on Koeller Company's books using a periodic inventory system.

- On March 2, Koeller Company purchased \$800,000 of merchandise from Reeves Company, terms 2/10, n/30.
- On March 6, Koeller Company returned \$95,000 of the merchandise purchased on March 2.
- On March 12, Koeller Company paid the balance due to Reeves Company.

Do it! Review

Do it! 5-1 On October 5, Longhini Company buys merchandise on account from Okern Company. The selling price of the goods is \$5,000, and the cost to Okern Company is \$3,000. On October 8, Longhini returns defective goods with a selling price of \$640 and a scrap value of \$240. Record the transactions of Longhini Company, assuming a perpetual approach.

Record transactions of purchasing company.
(SO 2), AP

Do it! 5-2 Assume information similar to that in **Do it!** 5-1. That is: On October 5, Longhini Company buys merchandise on account from Okern Company. The selling price of the goods is \$5,000, and the cost to Okern Company is \$3,000. On October 8, Longhini returns defective goods with a selling price of \$640 and a scrap value of \$240. Record the transactions on the books of Okern Company, assuming a perpetual approach.

Record transactions of selling company.
(SO 3), AP

Do it! 5-3 The following information is available for Jain Corp. for the year ended December 31, 2012:

| | | | |
|---------------------------|-----------|--------------------|-----------|
| Other revenues and gains | \$ 12,700 | Net sales | \$552,000 |
| Other expenses and losses | 13,300 | Operating expenses | 186,000 |
| Cost of goods sold | 156,000 | | |

Prepare multiple-step income statement.
(SO 4), AP

Prepare a multiple-step income statement for Jain Corp. The company has a tax rate of 30%.

Do it! 5-4 Crystal Lake Corporation's accounting records show the following at year-end December 31, 2012:

| | | | |
|--------------------|----------|---------------------|----------|
| Purchase Discounts | \$ 5,900 | Beginning Inventory | \$31,720 |
| Freight-in | 8,400 | Ending Inventory | 27,950 |
| Freight-out | 11,100 | Purchase Returns | 3,600 |
| Purchases | 162,500 | | |

Determine cost of goods sold using periodic system.
(SO 5), AP

Assuming that Crystal Lake Corporation uses the periodic system, compute (a) cost of goods purchased and (b) cost of goods sold.

Exercises

E5-1 This information relates to Percy Co.

- On April 5, purchased merchandise from Lyman Company for \$28,000, terms 2/10, n/30.
- On April 6, paid freight costs of \$700 on merchandise purchased from Lyman.
- On April 7, purchased equipment on account for \$30,000.
- On April 8, returned some of April 5 merchandise to Lyman Company, which cost \$3,600.
- On April 15, paid the amount due to Lyman Company in full.

Journalize purchase transactions.
(SO 2), AP

Instructions

- Prepare the journal entries to record the transactions listed above on the books of Percy Co. Percy Co. uses a perpetual inventory system.
- Assume that Percy Co. paid the balance due to Lyman Company on May 4 instead of April 15. Prepare the journal entry to record this payment.

E5-2 Assume that on September 1, **Office Depot** had an inventory that included a variety of calculators. The company uses a perpetual inventory system. During September, these transactions occurred.

Journalize perpetual inventory entries.
(SO 2, 3), AP

- | | | |
|-------|----|---|
| Sept. | 6 | Purchased calculators from Abacus Co. at a total cost of \$1,650, terms n/30. |
| | 9 | Paid freight of \$50 on calculators purchased from Abacus Co. |
| | 10 | Returned calculators to Abacus Co. for \$66 credit because they did not meet specifications. |
| | 12 | Sold calculators costing \$520 for \$690 to Union Book Store, terms n/30. |
| | 14 | Granted credit of \$45 to Union Book Store for the return of one calculator that was not ordered. The calculator cost \$34. |
| | 20 | Sold calculators costing \$570 for \$760 to Commons Card Shop, terms n/30. |

260 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Instructions

Journalize the September transactions.

Journalize sales transactions.
(SO 3), AP

- E5-3** The following transactions are for Masland Company.
1. On December 3, Masland Company sold \$500,000 of merchandise to Parker Co., terms 1/10, n/30. The cost of the merchandise sold was \$330,000.
 2. On December 8, Parker Co. was granted an allowance of \$25,000 for merchandise purchased on December 3.
 3. On December 13, Masland Company received the balance due from Parker Co.

Instructions

- (a) Prepare the journal entries to record these transactions on the books of Masland Company. Masland uses a perpetual inventory system.
- (b) Assume that Masland Company received the balance due from Parker Co. on January 2 of the following year instead of December 13. Prepare the journal entry to record the receipt of payment on January 2.

Journalize perpetual inventory entries.
(SO 2, 3), AP

- E5-4** On June 10, Harris Company purchased \$9,000 of merchandise from Goetz Company, terms 3/10, n/30. Harris pays the freight costs of \$400 on June 11. Goods totaling \$600 are returned to Goetz for credit on June 12. On June 19, Harris Company pays Goetz Company in full, less the purchase discount. Both companies use a perpetual inventory system.

Instructions

- (a) Prepare separate entries for each transaction on the books of Harris Company.
- (b) Prepare separate entries for each transaction for Goetz Company. The merchandise purchased by Harris on June 10 cost Goetz \$5,000, and the goods returned cost Goetz \$310.

Prepare sales revenues section of income statement.
(SO 4), AP

- E5-5** The adjusted trial balance of Dredge Company shows these data pertaining to sales at the end of its fiscal year, October 31, 2012: Sales Revenue \$900,000; Freight-out \$14,000; Sales Returns and Allowances \$22,000; and Sales Discounts \$13,500.

Instructions

Prepare the sales revenues section of the income statement.

Prepare an income statement and calculate profitability ratios.
(SO 4, 6), AP

- E5-6** Presented below is information for Yu Co. for the month of January 2012.

| | | | |
|----------------------------|-----------|------------------------------|----------|
| Cost of goods sold | \$212,000 | Rent expense | \$32,000 |
| Freight-out | 7,000 | Sales discounts | 8,000 |
| Insurance expense | 12,000 | Sales returns and allowances | 20,000 |
| Salaries and wages expense | 60,000 | Sales revenue | 370,000 |

Instructions

- (a) Prepare an income statement using the format presented on page 243. Assume a 25% tax rate.
- (b) Calculate the profit margin ratio and the gross profit rate.

Compute missing amounts and calculate profitability ratios.
(SO 4, 6), AP

- E5-7** Financial information is presented here for two companies.

| | Indig Company | Perez Company |
|--------------------|--------------------------|--------------------------|
| Sales revenue | \$90,000 | ? |
| Sales returns | ? | \$ 5,000 |
| Net sales | 84,000 | 100,000 |
| Cost of goods sold | 58,000 | ? |
| Gross profit | ? | 40,000 |
| Operating expenses | 14,380 | ? |
| Net income | ? | 17,000 |

Instructions

- (a) Fill in the missing amounts. Show all computations.
- (b) Calculate the profit margin ratio and the gross profit rate for each company.
- (c) Discuss your findings in part (b).

Prepare multiple-step income statement and calculate profitability ratios.
(SO 4, 6), AP

- E5-8** In its income statement for the year ended December 31, 2012, Misra Company reported the following condensed data.



Exercises 261

| | | | |
|-------------------------|-----------|---------------------|-----------|
| Administrative expenses | \$465,000 | Loss on disposal of | |
| Cost of goods sold | 987,000 | plant assets | \$ 83,500 |
| Interest expense | 71,000 | Net sales | 2,050,000 |
| Interest revenue | 65,000 | Income tax expense | 25,000 |
| Selling expenses | 420,000 | | |

Instructions

- (a) Prepare a multiple-step income statement.
- (b) Calculate the profit margin ratio and gross profit rate.
- (c) In 2011, Misra had a profit margin ratio of 5%. Is the decline in 2012 a cause for concern? (Ignore income tax effects.)

E5-9 In its income statement for the year ended June 30, 2009, **The Clorox Company** reported the following condensed data (dollars in millions).

| | | | |
|-------------------------------------|--------|----------------------------------|--------|
| Selling and administrative expenses | \$ 715 | Research and development expense | \$ 114 |
| Net sales | 5,450 | Income tax expense | 274 |
| Interest expense | 161 | Other expense | 46 |
| Advertising expense | 499 | Cost of goods sold | 3,104 |

Prepare multiple-step income statement and calculate profitability ratios.
(SO 4, 6), C



Instructions

- (a) Prepare a multiple-step income statement.
- (b) Calculate the gross profit rate and the profit margin ratio and explain what each means.
- (c) Assume the marketing department has presented a plan to increase advertising expenses by \$340 million. It expects this plan to result in an increase in both net sales and cost of goods sold of 25%. Redo parts (a) and (b) and discuss whether this plan has merit. (Assume a tax rate of 34%, and round all amounts to whole dollars.)

E5-10 The trial balance of Pollard Company at the end of its fiscal year, August 31, 2012, includes these accounts: Beginning Inventory \$18,700; Purchases \$154,000; Sales Revenue \$190,000; Freight-in \$8,000; Sales Returns and Allowances \$3,000; Freight-out \$1,000; and Purchase Returns and Allowances \$5,000. The ending merchandise inventory is \$21,000.

Prepare cost of goods sold section using periodic system.
(SO 5), AP

Instructions

Prepare a cost of goods sold section (periodic system) for the year ending August 31.

E5-11 Below is a series of cost of goods sold sections for companies A, F, L, and V.

| | A | F | L | V |
|----------------------------------|--------|--------|--------|--------|
| Beginning inventory | \$ 250 | \$ 120 | \$ 700 | \$ (j) |
| Purchases | 1,500 | 1,080 | (g) | 43,590 |
| Purchase returns and allowances | 80 | (d) | 290 | (k) |
| Net purchases | (a) | 1,040 | 7,410 | 42,290 |
| Freight-in | 130 | (e) | (h) | 2,240 |
| Cost of goods purchased | (b) | 1,230 | 8,050 | (l) |
| Cost of goods available for sale | 1,800 | 1,350 | (i) | 49,530 |
| Ending inventory | 310 | (f) | 1,150 | 6,230 |
| Cost of goods sold | (c) | 1,230 | 7,600 | 43,300 |

Prepare cost of goods sold section using periodic system.
(SO 5), AP

Instructions

Fill in the lettered blanks to complete the cost of goods sold sections.

E5-12 Pardow Corporation reported sales revenue of \$257,000, net income of \$45,300, cash of \$9,300, and net cash provided by operating activities of \$23,200. Accounts receivable have increased at three times the rate of sales during the last 3 years.

Evaluate quality of earnings.
(SO 7), C

Instructions

- (a) Explain what is meant by high quality of earnings.
- (b) Evaluate the quality of the company's earnings. Discuss your findings.
- (c) What factors might have contributed to the company's quality of earnings?

***E5-13** This information relates to Edyburn Co.

1. On April 5, purchased merchandise from Hansen Company for \$27,000, terms 2/10, n/30.
2. On April 6, paid freight costs of \$1,200 on merchandise purchased from Hansen Company.

Journalize purchase transactions.
(SO 8), AP

262 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

3. On April 7, purchased equipment on account for \$30,000.
4. On April 8, returned some of the April 5 merchandise to Hansen Company, which cost \$3,600.
5. On April 15, paid the amount due to Hansen Company in full.

Instructions

- (a) Prepare the journal entries to record these transactions on the books of Edyburn Co. using a periodic inventory system.
- (b) Assume that Edyburn Co. paid the balance due to Hansen Company on May 4 instead of April 15. Prepare the journal entry to record this payment.

Exercises: Set B and Challenge Exercises

Visit the book's companion website, at www.wiley.com/college/kimmel, and choose the Student Companion site to access Exercise Set B and Challenge Exercises.

Problems: Set A

P5-1A Janssen Hardware Store completed the following merchandising transactions in the month of May. At the beginning of May, Janssen's ledger showed Cash of \$8,000 and Common Stock of \$8,000.

- | | |
|-----|---|
| May | <ol style="list-style-type: none"> 1 Purchased merchandise on account from Vanco Wholesale Supply for \$8,000, terms 1/10, n/30. 2 Sold merchandise on account for \$4,400, terms 2/10, n/30. The cost of the merchandise sold was \$3,300. 5 Received credit from Vanco Wholesale Supply for merchandise returned \$200. 9 Received collections in full, less discounts, from customers billed on May 2. 10 Paid Vanco Wholesale Supply in full, less discount. 11 Purchased supplies for cash \$900. 12 Purchased merchandise for cash \$3,100. 15 Received \$230 refund for return of poor-quality merchandise from supplier on cash purchase. 17 Purchased merchandise from Strickler Distributors for \$2,500, terms 2/10, n/30. 19 Paid freight on May 17 purchase \$250. 24 Sold merchandise for cash \$5,500. The cost of the merchandise sold was \$4,100. 25 Purchased merchandise from Fasteners Inc. for \$800, terms 3/10, n/30. 27 Paid Strickler Distributors in full, less discount. 29 Made refunds to cash customers for returned merchandise \$124. The returned merchandise had cost \$90. 31 Sold merchandise on account for \$1,280, terms n/30. The cost of the merchandise sold was \$830. |
|-----|---|

Janssen Hardware's chart of accounts includes Cash, Accounts Receivable, Inventory, Supplies, Accounts Payable, Common Stock, Sales Revenue, Sales Returns and Allowances, Sales Discounts, and Cost of Goods Sold.

Instructions

- (a) Journalize the transactions using a perpetual inventory system.
- (b) Post the transactions to T accounts. Be sure to enter the beginning cash and common stock balances.
- (c) Prepare an income statement through gross profit for the month of May 2012.
- (d) Calculate the profit margin ratio and the gross profit rate. (Assume operating expenses were \$1,400.)

P5-2A Hayes Warehouse distributes hardback books to retail stores and extends credit terms of 2/10, n/30 to all of its customers. During the month of June, the following merchandising transactions occurred.

Journalize, post, prepare partial income statement, and calculate ratios.

(SO 2, 3, 4, 6), AP



(c) Gross profit \$2,828

Journalize purchase and sale transactions under a perpetual system.

(SO 2, 3), AP

- June 1 Purchased books on account for \$1,040 (including freight) from Brooks Publishers, terms 2/10, n/30.
- 3 Sold books on account to the Mission Viejo bookstore for \$1,200. The cost of the merchandise sold was \$720.
- 6 Received \$40 credit for books returned to Brooks Publishers.
- 9 Paid Brooks Publishers in full.
- 15 Received payment in full from the Mission Viejo bookstore.
- 17 Sold books on account to Book Nook for \$1,200. The cost of the merchandise sold was \$730.
- 20 Purchased books on account for \$720 from Cook Book Publishers, terms 1/15, n/30.
- 24 Received payment in full from Book Nook.
- 26 Paid Cook Book Publishers in full.
- 28 Sold books on account to NewTown Bookstore for \$1,300. The cost of the merchandise sold was \$780.
- 30 Granted NewTown Bookstore \$130 credit for books returned costing \$80.

Instructions

Journalize the transactions for the month of June for Hayes Warehouse, using a perpetual inventory system.

P5-3A At the beginning of the current season on April 1, the ledger of Thousand Oaks Pro Shop showed Cash \$2,500; Inventory \$3,500; and Common Stock \$6,000. The following transactions were completed during April 2012.

- Apr. 5 Purchased golf bags, clubs, and balls on account from Ryder Co. \$1,500, terms 3/10, n/60.
- 7 Paid freight on Ryder purchase \$80.
- 9 Received credit from Ryder Co. for merchandise returned \$200.
- 10 Sold merchandise on account to members \$1,340, terms n/30. The merchandise sold had a cost of \$820.
- 12 Purchased golf shoes, sweaters, and other accessories on account from Birdie Sportswear \$830, terms 1/10, n/30.
- 14 Paid Ryder Co. in full.
- 17 Received credit from Birdie Sportswear for merchandise returned \$30.
- 20 Made sales on account to members \$810, terms n/30. The cost of the merchandise sold was \$550.
- 21 Paid Birdie Sportswear in full.
- 27 Granted an allowance to members for clothing that did not fit properly \$80.
- 30 Received payments on account from members \$1,220.

The chart of accounts for the pro shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Common Stock, Sales Revenue, Sales Returns and Allowances, and Cost of Goods Sold.

Instructions

- (a) Journalize the April transactions using a perpetual inventory system.
- (b) Using T accounts, enter the beginning balances in the ledger accounts and post the April transactions.
- (c) Prepare a trial balance on April 30, 2012.
- (d) Prepare an income statement through gross profit.

P5-4A Chapman Department Store is located in midtown Metropolis. During the past several years, net income has been declining because suburban shopping centers have been attracting business away from city areas. At the end of the company's fiscal year on November 30, 2012, these accounts appeared in its adjusted trial balance.

| | |
|------------------------------------|-----------|
| Accounts Payable | \$ 26,800 |
| Accounts Receivable | 17,200 |
| Accumulated Depreciation—Equipment | 68,000 |
| Cash | 8,000 |
| Common Stock | 35,000 |
| Cost of Goods Sold | 614,300 |
| Freight-out | 6,200 |

Journalize, post, and prepare trial balance and partial income statement.

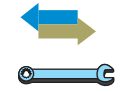
(SO 2, 3, 4), AP



(c) Tot. trial balance \$8,150
(d) Gross profit \$ 700

Prepare financial statements and calculate profitability ratios.

(SO 4, 6), AP



264 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

| | |
|----------------------------------|-----------|
| Equipment | \$157,000 |
| Depreciation Expense | 13,500 |
| Dividends | 12,000 |
| Gain on Disposal of Plant Assets | 2,000 |
| Income Tax Expense | 10,000 |
| Insurance Expense | 9,000 |
| Interest Expense | 5,000 |
| Inventory | 26,200 |
| Notes Payable | 43,500 |
| Prepaid Insurance | 6,000 |
| Advertising Expense | 33,500 |
| Rent Expense | 34,000 |
| Retained Earnings | 14,200 |
| Salaries and Wages Expense | 117,000 |
| Sales Revenue | 904,000 |
| Salaries and Wages Payable | 6,000 |
| Sales Returns and Allowances | 20,000 |
| Utilities Expense | 10,600 |

Additional data: Notes payable are due in 2016.

Instructions

(a) Net income \$ 32,900
Tot. assets \$146,400

- (a) Prepare a multiple-step income statement, a retained earnings statement, and a classified balance sheet.
- (b) Calculate the profit margin ratio and the gross profit rate.
- (c) The vice president of marketing and the director of human resources have developed a proposal whereby the company would compensate the sales force on a strictly commission basis. Given the increased incentive, they expect net sales to increase by 15%. As a result, they estimate that gross profit will increase by \$40,443 and expenses by \$58,600. Compute the expected new net income. (*Hint:* You do not need to prepare an income statement.) Then, compute the revised profit margin ratio and gross profit rate. Comment on the effect that this plan would have on net income and on the ratios, and evaluate the merit of this proposal. (Ignore income tax effects.)

Prepare a correct multiple-step income statement.

(SO 4), AP

P5-5A An inexperienced accountant prepared this condensed income statement for McDowell Company, a retail firm that has been in business for a number of years.

MCDOWELL COMPANY
Income Statement
For the Year Ended December 31, 2012

| | |
|-------------------------|-----------|
| Revenues | |
| Net sales | \$850,000 |
| Other revenues | 22,000 |
| | 872,000 |
| Cost of goods sold | 555,000 |
| Gross profit | 317,000 |
| Operating expenses | |
| Selling expenses | 109,000 |
| Administrative expenses | 103,000 |
| | 212,000 |
| Net earnings | \$105,000 |

As an experienced, knowledgeable accountant, you review the statement and determine the following facts.

1. Net sales consist of sales \$911,000, less freight-out expense on merchandise sold \$33,000, and sales returns and allowances \$28,000.
2. Other revenues consist of sales discounts \$18,000 and rent revenue \$8,000.
3. Selling expenses consist of salespersons' salaries \$80,000; depreciation on equipment \$10,000; advertising \$15,000; and sales commissions \$6,000. The commissions represent commissions paid. At December 31, \$3,000 of commissions have been earned by salespersons but have not been paid. All compensation should be recorded as Salaries and Wages Expense.

4. Administrative expenses consist of office salaries \$47,000; dividends \$18,000; utilities \$12,000; interest expense \$2,000; and rent expense \$24,000, which includes prepayments totaling \$6,000 for the first quarter of 2013.

Instructions

Prepare a correct detailed multiple-step income statement. Assume a 25% tax rate.

Net income \$69,500

P5-6A The trial balance of Dealer's Choice Wholesale Company contained the accounts shown at December 31, the end of the company's fiscal year.

Journalize, post, and prepare adjusted trial balance and financial statements.

(SO 4), AP



DEALER'S CHOICE WHOLESALE COMPANY
Trial Balance
December 31, 2012

| | Debit | Credit |
|------------------------------------|-------------|-------------|
| Cash | \$ 31,400 | |
| Accounts Receivable | 37,600 | |
| Inventory | 70,000 | |
| Land | 92,000 | |
| Buildings | 200,000 | |
| Accumulated Depreciation—Buildings | | \$ 60,000 |
| Equipment | 83,500 | |
| Accumulated Depreciation—Equipment | | 40,500 |
| Notes Payable | | 54,700 |
| Accounts Payable | | 17,500 |
| 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 | |
| | \$1,322,000 | \$1,322,000 |

Adjustment data:

1. Depreciation is \$8,000 on buildings and \$7,000 on equipment. (Both are operating expenses.)
 2. Interest of \$4,500 is due and unpaid on notes payable at December 31.
 3. Income tax due and unpaid at December 31 is \$24,000.
- Other data: \$15,000 of the notes payable are payable next year.

Instructions

- (a) Journalize the adjusting entries.
- (b) Create T accounts for all accounts used in part (a). Enter the trial balance amounts into the T accounts and post the adjusting entries.
- (c) Prepare an adjusted trial balance.
- (d) Prepare a multiple-step income statement and a retained earnings statement for the year, and a classified balance sheet at December 31, 2012.

(c) Tot. trial balance \$1,365,500
(d) Net income \$81,100
Tot. assets \$399,000

P5-7A At the end of Snyder Department Store's fiscal year on November 30, 2012, these accounts appeared in its adjusted trial balance.

Determine cost of goods sold and gross profit under a periodic system.

(SO 4, 5), AP



| | |
|---------------------------------|----------|
| Freight-in | \$ 5,060 |
| Inventory (beginning) | 41,300 |
| Purchases | 613,000 |
| Purchase Discounts | 7,000 |
| Purchase Returns and Allowances | 6,760 |
| Sales Revenue | 902,000 |
| Sales Returns and Allowances | 20,000 |

266 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Gross profit \$272,600

Calculate missing amounts and assess profitability. (SO 4, 5, 6), AN



Additional facts:

1. Merchandise inventory on November 30, 2012, is \$36,200.
2. Note that Snyder Department Store uses a periodic system.

Instructions

Prepare an income statement through gross profit for the year ended November 30, 2012.

P5-8A Reza Inc. operates a retail operation that purchases and sells snowmobiles, amongst other outdoor products. The company purchases all merchandise inventory on credit and uses a periodic inventory system. The Accounts Payable account is used for recording inventory purchases only; all other current liabilities are accrued in separate accounts. You are provided with the following selected information for the fiscal years 2010 through 2013, inclusive.

| | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> |
|---|-------------|-------------|-------------|-------------|
| Income Statement Data | | | | |
| Sales revenue | | \$96,890 | \$ (e) | \$82,220 |
| Cost of goods sold | | (a) | 28,060 | 26,490 |
| Gross profit | | 67,800 | 59,620 | (i) |
| Operating expenses | | 63,640 | (f) | 52,870 |
| Net income | | \$ (b) | \$ 3,510 | \$ (j) |
| Balance Sheet Data | | | | |
| Inventory | \$13,000 | \$ (c) | \$14,700 | \$ (k) |
| Accounts payable | 5,800 | 6,500 | 4,600 | (l) |
| Additional Information | | | | |
| Purchases of merchandise inventory on account | | \$25,890 | \$ (g) | \$24,050 |
| Cash payments to suppliers | | (d) | (h) | 24,650 |

Instructions

- (a) Calculate the missing amounts.
- (b) The vice presidents of sales, marketing, production, and finance are discussing the company's results with the CEO. They note that sales declined over the 3-year fiscal period, 2011–2013. Does that mean that profitability necessarily also declined? Explain, computing the gross profit rate and the profit margin ratio for each fiscal year to help support your answer.

***P5-9A** At the beginning of the current season on April 1, the ledger of Thousand Oaks Pro Shop showed Cash \$2,500; Inventory \$3,500; and Common Stock \$6,000. These transactions occurred during April 2012.

- Apr. 5 Purchased golf bags, clubs, and balls on account from Ryder Co. \$1,500, terms 3/10, n/60.
- 7 Paid freight on Ryder Co. purchases \$80.
- 9 Received credit from Ryder Co. for merchandise returned \$200.
- 10 Sold merchandise on account to members \$1,340, terms n/30.
- 12 Purchased golf shoes, sweaters, and other accessories on account from Birdie Sportswear \$830, terms 1/10, n/30.
- 14 Paid Ryder Co. in full.
- 17 Received credit from Birdie Sportswear for merchandise returned \$30.
- 20 Made sales on account to members \$810, terms n/30.
- 21 Paid Birdie Sportswear in full.
- 27 Granted credit to members for clothing that did not fit properly \$80.
- 30 Received payments on account from members \$1,220.

The chart of accounts for the pro shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Common Stock, Sales Revenue, Sales Returns and Allowances, Purchases, Purchase Returns and Allowances, Purchase Discounts, and Freight-in.

Instructions

- (a) Journalize the April transactions using a periodic inventory system.
- (b) Using T accounts, enter the beginning balances in the ledger accounts and post the April transactions.
- (c) Prepare a trial balance on April 30, 2012.

Journalize, post, and prepare trial balance and partial income statement under a periodic system. (SO 5, 8), AP



(c) Tot. trial balance \$8,427
Gross profit \$700

- (d) Prepare an income statement through gross profit, assuming merchandise inventory on hand at April 30 is \$4,263.

Problems: Set B

P5-1B Curtain Distributing Company completed these merchandising transactions in the month of April. At the beginning of April, the ledger of Curtain showed Cash of \$9,000 and Common Stock of \$9,000.

- Apr. 2 Purchased merchandise on account from Luebke Supply Co. \$8,700, terms 2/10, n/30.
 4 Sold merchandise on account \$6,000, terms 2/10, n/30. The cost of the merchandise sold was \$3,700.
 5 Paid \$200 freight on April 4 sale.
 6 Received credit from Luebke Supply Co. for merchandise returned \$400.
 11 Paid Luebke Supply Co. in full, less discount.
 13 Received collections in full, less discounts, from customers billed on April 4.
 14 Purchased merchandise for cash \$4,700.
 16 Received refund from supplier for returned merchandise on cash purchase of April 14, \$500.
 18 Purchased merchandise from Cascade Distributors \$5,500, terms 2/10, n/30.
 20 Paid freight on April 18 purchase \$180.
 23 Sold merchandise for cash \$8,300. The cost of the merchandise sold was \$5,580.
 26 Purchased merchandise for cash \$2,300.
 27 Paid Cascade Distributors in full, less discount.
 29 Made refunds to cash customers for returned merchandise \$180. The returned merchandise had a cost of \$120.
 30 Sold merchandise on account \$3,980, terms n/30. The cost of the merchandise sold was \$2,500.

Curtain Distributing Company's chart of accounts includes Cash, Accounts Receivable, Inventory, Accounts Payable, Common Stock, Sales Revenue, Sales Returns and Allowances, Sales Discounts, Cost of Goods Sold, and Freight-out.

Instructions

- (a) Journalize the transactions.
 (b) Post the transactions to T accounts. Be sure to enter the beginning cash and common stock balances.
 (c) Prepare the income statement through gross profit for the month of April 2012.
 (d) Calculate the profit margin ratio and the gross profit rate. (Assume operating expenses were \$2,050.)

Journalize, post, prepare partial income statement, and calculate ratios.

(SO 2, 3, 4, 6), AP



P5-2B Holiday Warehouse distributes suitcases to retail stores and extends credit terms of 1/10, n/30 to all of its customers. During the month of July, the following merchandising transactions occurred.

- July 1 Purchased suitcases on account for \$2,700 from Satchel Manufacturers, terms 2/15, n/30.
 3 Sold suitcases on account to Triptik for \$2,900. The cost of the merchandise sold was \$1,800.
 9 Paid Satchel Manufacturers in full.
 12 Received payment in full from Triptik.
 17 Sold suitcases on account to PassPort for \$2,000. The cost of the merchandise sold was \$1,200.
 18 Purchased suitcases on account for \$2,200 (including freight) from Steamer Manufacturers, terms 1/10, n/30.
 20 Received \$300 credit for suitcases returned to Steamer Manufacturers.
 21 Received payment in full from PassPort.
 22 Sold suitcases on account to Carry On for \$3,120. The cost of the merchandise sold was \$1,800.
 30 Paid Steamer Manufacturers in full.
 31 Granted Carry On \$310 credit for suitcases returned costing \$170.

Journalize purchase and sale transactions under a perpetual system.

(SO 2, 3), AP

268 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Instructions

Journalize the transactions for the month of July for Holiday Warehouse, using a perpetual inventory system.

Journalize, post, and prepare trial balance and partial income statement.

(SO 2, 3, 4), AP



P5-3B At the beginning of the current season, the ledger of Highland Tennis Shop showed Cash \$2,500; Inventory \$1,700; and Common Stock \$4,200. The following transactions were completed during April.

- Apr. 4 Purchased racquets and balls from Harris Co. \$980, terms 2/10, n/30.
- 6 Paid freight on Harris Co. purchase \$60.
- 8 Sold merchandise to members \$750, terms n/30. The merchandise sold cost \$480.
- 10 Received credit of \$130 from Harris Co. for damaged racquets that were returned.
- 11 Purchased tennis shoes from Happy Feet for cash \$300.
- 13 Paid Harris Co. in full.
- 14 Purchased tennis shirts and shorts from Rivera Sportswear \$1,300, terms 3/10, n/60.
- 15 Received cash refund of \$50 from Happy Feet for damaged merchandise that was returned.
- 17 Paid freight on Rivera Sportswear purchase \$60.
- 18 Sold merchandise to members \$660, terms n/30. The cost of the merchandise sold was \$440.
- 20 Received \$500 in cash from members in settlement of their accounts.
- 21 Paid Rivera Sportswear in full.
- 27 Granted an allowance of \$30 to members for tennis clothing that did not fit properly.
- 30 Received cash payments on account from members \$550.

The chart of accounts for the tennis shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Common Stock, Sales Revenue, Sales Returns and Allowances, and Cost of Goods Sold.

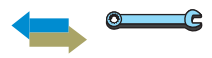
Instructions

- (a) Journalize the April transactions using a perpetual inventory system.
- (b) Using T accounts, enter the beginning balances in the ledger accounts and post the April transactions.
- (c) Prepare a trial balance on April 30, 2012.
- (d) Prepare an income statement through gross profit.

(c) Tot. trial balance \$5,610
(d) Gross profit \$460

Prepare financial statements and calculate profitability ratios.

(SO 4, 6), AP



P5-4B Parkland Department Store is located near the Lyndale Shopping Mall. At the end of the company's fiscal year on December 31, 2012, the following accounts appeared in its adjusted trial balance.

| | |
|------------------------------------|-----------|
| Accounts Payable | \$ 73,300 |
| Accounts Receivable | 45,500 |
| Accumulated Depreciation—Buildings | 52,500 |
| Accumulated Depreciation—Equipment | 42,600 |
| Buildings | 190,000 |
| Cash | 28,000 |
| Common Stock | 140,000 |
| Cost of Goods Sold | 412,000 |
| Depreciation Expense | 23,400 |
| Dividends | 15,000 |
| Equipment | 100,000 |
| Gain on Disposal of Plant Assets | 4,300 |
| Income Tax Expense | 15,000 |
| Insurance Expense | 8,400 |
| Interest Expense | 7,000 |
| Interest Payable | 2,000 |
| Inventory | 43,000 |
| Mortgage Payable | 62,500 |
| Prepaid Insurance | 2,400 |

| | |
|---------------------------------|----------|
| Maintenance and Repairs Expense | \$ 6,200 |
| Retained Earnings | 19,200 |
| Salaries and Wages Expense | 111,000 |
| Sales Revenue | 626,000 |
| Salaries and Wages Payable | 3,500 |
| Sales Returns and Allowances | 8,000 |
| Utilities Expense | 11,000 |

Additional data: \$20,000 of the mortgage payable is due for payment next year.

Instructions

- (a) Prepare a multiple-step income statement, a retained earnings statement, and a classified balance sheet.
- (b) Calculate the profit margin ratio and the gross profit rate.
- (c) The vice president of marketing and the director of human resources have developed a proposal whereby the company would compensate the sales force on a strictly commission basis. Given the increased incentive, they expect net sales to increase by 25%. As a result, they estimate that gross profit will increase by \$50,500 and expenses by \$27,800. Compute the expected new net income. (*Hint:* You do not need to prepare an income statement.) Then, compute the revised profit margin ratio and gross profit rate. Comment on the effect that this plan would have on net income and the ratios, and evaluate the merit of this proposal.

| | |
|----------------|-----------|
| (a) Net income | \$28,300 |
| Tot. assets | \$313,800 |

P5-5B A part-time bookkeeper prepared this income statement for Kritek Company for the year ending December 31, 2012.

Prepare a correct multiple-step income statement.
(SO 4), AP

KRITEK COMPANY
Income Statement
December 31, 2012

| | | |
|-------------------------|----------|-----------|
| Revenues | | |
| Sales revenue | | \$720,000 |
| Less: Freight-out | \$14,000 | |
| Sales discounts | 11,300 | 25,300 |
| Net sales | | 694,700 |
| Other revenues (net) | | 1,300 |
| Total revenues | | 696,000 |
| Expenses | | |
| Cost of goods sold | | 460,000 |
| Selling expenses | | 103,000 |
| Administrative expenses | | 54,000 |
| Dividends | | 12,000 |
| Total expenses | | 629,000 |
| Net income | | \$ 67,000 |

As an experienced, knowledgeable accountant, you review the statement and determine the following facts.

- 1. Sales include \$12,000 of deposits from customers for future sales orders.
- 2. Other revenues contain two items: interest expense \$4,000 and interest revenue \$5,300.
- 3. Selling expenses consist of sales salaries and wages \$82,500, advertising \$13,000, and depreciation on store equipment \$7,500.
- 4. Administrative expenses consist of office salaries \$23,000; utilities expense \$9,500; rent expense \$14,500; and insurance expense \$7,000. Insurance expense includes \$1,200 of insurance applicable to 2013.

| | |
|--------------------|-----------|
| Operating expenses | \$169,800 |
| Net income | \$51,150 |

Instructions

Prepare a correct detailed multiple-step income statement. Assume a tax rate of 25%.

Journalize, post, and prepare adjusted trial balance and financial statements.
(SO 4), AP

P5-6B The trial balance of Runway Fashion Center contained the accounts on the next page at November 30, the end of the company's fiscal year.



270 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

RUNWAY FASHION CENTER
Trial Balance
November 30, 2012

| | Debit | Credit |
|------------------------------------|-----------|-----------|
| Cash | \$ 37,700 | |
| Accounts Receivable | 33,700 | |
| Inventory | 43,000 | |
| Supplies | 8,800 | |
| Equipment | 143,000 | |
| Accumulated Depreciation—Equipment | | \$ 41,000 |
| Notes Payable | | 62,000 |
| Accounts Payable | | 17,800 |
| 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 | |
| | \$988,000 | \$988,000 |

Adjustment data:

1. Store supplies on hand total \$3,100.
2. Depreciation is \$14,000 on the store equipment and \$6,000 on the delivery equipment.
3. Interest of \$4,400 is accrued on notes payable at November 30.
4. Income tax due and unpaid at November 30 is \$3,000.

Other data: \$24,000 of notes payable are due for payment next year.

Instructions

- (a) Journalize the adjusting entries.
- (b) Prepare T accounts for all accounts used in part (a). Enter the trial balance amounts into the T accounts and post the adjusting entries.
- (c) Prepare an adjusted trial balance.
- (d) Prepare a multiple-step income statement and a retained earnings statement for the year, and a classified balance sheet at November 30, 2012.

(c) Tot. trial balance \$1,015,400
 (d) Net income \$14,300
 Tot. assets \$199,500

Determine cost of goods sold and gross profit under a periodic system.
 (SO 4, 5), AP

P5-7B At the end of Ehlinger Department Store’s fiscal year on December 31, 2012, these accounts appeared in its adjusted trial balance.

| | | |
|---------------------------------|----------|--|
| Freight-in | \$ 7,200 | |
| Inventory (beginning) | 40,500 | |
| Purchases | 456,000 | |
| Purchase Discounts | 12,000 | |
| Purchase Returns and Allowances | 6,400 | |
| Sales Revenue | 702,000 | |
| Sales Returns and Allowances | 8,000 | |

Additional facts:

1. Merchandise inventory on December 31, 2012, is \$58,300.
2. Note that Ehlinger Department Store uses a periodic system.

Instructions

Prepare an income statement through gross profit for the year ended December 31, 2012.

P5-8B Sandra McLellan operates a clothing retail operation. She purchases all merchandise inventory on credit and uses a periodic inventory system. The Accounts Payable account is used for recording inventory purchases only; all other current liabilities are accrued in separate accounts. You are provided with the following selected information for the fiscal years 2010, 2011, 2012, and 2013.

Gross profit \$267,000

Calculate missing amounts and assess profitability.
 (SO 4, 5, 6), AN

| | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> |
|---|-------------|-------------|-------------|-------------|
| Inventory (ending) | \$16,000 | \$ 11,300 | \$ 16,400 | \$ 12,200 |
| Accounts payable (ending) | 17,000 | | | |
| Sales revenue | | 229,700 | 227,600 | 222,000 |
| Purchases of merchandise inventory on account | | 146,900 | 155,700 | 139,200 |
| Cash payments to suppliers | | 135,900 | 159,000 | 127,000 |

Instructions

- (a) Calculate cost of goods sold for each of the 2011, 2012, and 2013 fiscal years.
- (b) Calculate the gross profit for each of the 2011, 2012, and 2013 fiscal years.
- (c) Calculate the ending balance of accounts payable for each of the 2011, 2012, and 2013 fiscal years. (a) 2012 \$150,600
- (d) The vice presidents of sales, marketing, production, and finance are discussing the company's results with the CEO. They note that sales declined in fiscal 2013. They wonder whether that means that profitability, as measured by the gross profit rate, necessarily also declined. Explain, calculating the gross profit rate for each fiscal year to help support your answer. (c) 2012 \$24,700

***P5-9B** At the beginning of the current season, the ledger of Highland Tennis Shop showed Cash \$2,500; Inventory \$1,700; and Common Stock \$4,200. The following transactions were completed during April.

- Apr. 4 Purchased racquets and balls from Harris Co. \$980, terms 2/10, n/30.
- 6 Paid freight on Harris Co. purchase \$60.
- 8 Sold merchandise to members \$750, terms n/30.
- 10 Received credit of \$130 from Harris Co. for damaged racquets that were returned.
- 11 Purchased tennis shoes from Happy Feet for cash \$300.
- 13 Paid Harris Co. in full.
- 14 Purchased tennis shirts and shorts from Rivera Sportswear \$1,300, terms 3/10, n/60.
- 15 Received cash refund of \$50 from Happy Feet for damaged merchandise that was returned.
- 17 Paid freight on Rivera Sportswear purchase \$60.
- 18 Sold merchandise to members \$660, terms n/30.
- 20 Received \$500 in cash from members in settlement of their accounts.
- 21 Paid Rivera Sportswear in full.
- 27 Granted an allowance of \$30 to members for tennis clothing that did not fit properly.
- 30 Received cash payments on account from members \$550.

Journalize, post, and prepare trial balance and partial income statement under a periodic system.

(SO 5, 8), AP



The chart of accounts for the tennis shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Common Stock, Sales Revenue, Sales Returns and Allowances, Purchases, Purchase Returns and Allowances, Purchase Discounts, and Freight-in.

Instructions

- (a) Journalize the April transactions using a periodic inventory system.
- (b) Using T accounts, enter the beginning balances in the ledger accounts and post the April transactions.
- (c) Prepare a trial balance on April 30, 2012. (c) Tot. trial balance \$5,846
- (d) Prepare an income statement through Gross Profit, assuming merchandise inventory on hand at April 30 is \$3,244. (d) Gross profit \$460

Problems: Set C

Visit the book's companion website, at www.wiley.com/college/kimmel, and choose the Student Companion site to access Problem Set C.

272 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Comprehensive Problem

CP5 On December 1, 2012, Shiras Distributing Company had the following account balances.

| | <u>Debits</u> | | <u>Credits</u> |
|---------------------|-----------------|----------------------------|-----------------|
| Cash | \$ 7,200 | Accumulated Depreciation— | |
| Accounts Receivable | 4,600 | Equipment | \$ 2,200 |
| Inventory | 12,000 | Accounts Payable | 4,500 |
| Supplies | 1,200 | Salaries and Wages Payable | 1,000 |
| Equipment | 22,000 | Common Stock | 15,000 |
| | <u>\$47,000</u> | Retained Earnings | 24,300 |
| | | | <u>\$47,000</u> |

During December, the company completed the following summary transactions.

- Dec. 6 Paid \$1,600 for salaries due employees, of which \$600 is for December and \$1,000 is for November salaries payable.
- 8 Received \$1,900 cash from customers in payment of account (no discount allowed).
- 10 Sold merchandise for cash \$6,300. The cost of the merchandise sold was \$4,100.
- 13 Purchased merchandise on account from Gong Co. \$9,000, terms 2/10, n/30.
- 15 Purchased supplies for cash \$2,000.
- 18 Sold merchandise on account \$12,000, terms 3/10, n/30. The cost of the merchandise sold was \$8,000.
- 20 Paid salaries \$1,800.
- 23 Paid Gong Co. in full, less discount.
- 27 Received collections in full, less discounts, from customers billed on December 18.

Adjustment data:

- Accrued salaries payable \$800.
- Depreciation \$200 per month.
- Supplies on hand \$1,500.
- Income tax due and unpaid at December 31 is \$200.

Instructions

- Journalize the December transactions using a perpetual inventory system.
- Enter the December 1 balances in the ledger T accounts and post the December transactions. Use Cost of Goods Sold, Depreciation Expense, Salaries and Wages Expense, Sales Revenue, Sales Discounts, Supplies Expense, Income Tax Expense, and Income Taxes Payable.
- Journalize and post adjusting entries.
- Prepare an adjusted trial balance.
- Prepare an income statement and a retained earnings statement for December and a classified balance sheet at December 31.

(d) Totals \$65,500
(e) Net income \$540

**Continuing Cookie Chronicle**

(Note: This is a continuation of the Cookie Chronicle from Chapters 1 through 4.)

CCC5 Because Natalie has had such a successful first few months, she is considering other opportunities to develop her business. One opportunity is to become the exclusive distributor of a line of fine European mixers. Natalie comes to you for advice on how to account for these mixers.

Go to the book's companion website, at www.wiley.com/college/kimmel, to see the completion of this problem.

broadening your perspective

Financial Reporting and Analysis

FINANCIAL REPORTING PROBLEM: *Tootsie Roll Industries Inc.*

BYP5-1 The financial statements for **Tootsie Roll Industries** appear in Appendix A at the end of this book.



Instructions

Answer these questions using the Consolidated Income Statement.

- (a) What was the percentage change in total revenue and in net income from 2008 to 2009?
- (b) What was the profit margin ratio in each of the 3 years? (Use “Total Revenue.”) Comment on the trend.
- (c) What was Tootsie Roll’s gross profit rate in each of the 3 years? (Use “Product” amounts.) Comment on the trend.

COMPARATIVE ANALYSIS PROBLEM: *Tootsie Roll vs. Hershey*

BYP5-2 The financial statements of **The Hershey Company** appear in Appendix B, following the financial statements for **Tootsie Roll** in Appendix A.



Instructions

- (a) Based on the information contained in these financial statements, determine the following values for each company.
 - (1) Profit margin ratio for 2009. (For Tootsie Roll, use “Total Revenue.”)
 - (2) Gross profit for 2009. (For Tootsie Roll, use “Product” amounts.)
 - (3) Gross profit rate for 2009. (For Tootsie Roll, use “Product” amounts.)
 - (4) Operating income for 2009.
 - (5) Percentage change in operating income from 2009 to 2008.
- (b) What conclusions concerning the relative profitability of the two companies can be drawn from these data?

RESEARCH CASE

BYP5-3 The April 23, 2008, issue of the *Wall Street Journal* includes an article by Vanessa O’Connell entitled “Coach Profit Is Up but Margins Are Tightening.”

Instructions

Read the article and answer the following questions.

- (a) Referring to the ratios that were presented in this chapter, interpret the first paragraph of the article.
- (b) Explain why investors would be angry that the company has stopped reporting the amount of its sales from outlet malls separately from its sales at full-priced stores.
- (c) The article says that the gross margin (gross profit rate) fell from 77.8% to 75%. According to the article, what were the two causes of this decline?

INTERPRETING FINANCIAL STATEMENTS

BYP5-4 Recently, it was announced that two giant French retailers, **Carrefour SA** and **Promodes SA**, would merge. A headline in the *Wall Street Journal* blared, “French Retailers Create New Wal-Mart Rival.” While **Wal-Mart’s** total sales would still exceed those of the combined company, Wal-Mart’s international sales are far less than those of the combined company. This is a serious concern for Wal-Mart, since its primary opportunity for future growth lies outside of the United States.

Below are basic financial data for the combined corporation (in euros) and Wal-Mart (in U.S. dollars). Even though their results are presented in different currencies, by employing ratios we can make some basic comparisons.

| | Carrefour (in millions) | Wal-Mart (in millions) |
|---------------------|------------------------------------|-----------------------------------|
| Sales | €70,486 | \$256,329 |
| Cost of goods sold | 54,630 | 198,747 |
| Net income | 1,738 | 9,054 |
| Total assets | 39,063 | 104,912 |
| Current assets | 14,521 | 34,421 |
| Current liabilities | 13,660 | 37,418 |
| Total liabilities | 29,434 | 61,289 |

274 **chapter 5** Merchandising Operations and the Multiple-Step Income Statement

Instructions

Compare the two companies by answering the following.

- (a) Calculate the gross profit rate for each of the companies, and discuss their relative abilities to control cost of goods sold.
- (b) Calculate the profit margin ratio, and discuss the companies' relative profitability.
- (c) Calculate the current ratio and debt to total assets ratios for the two companies, and discuss their relative liquidity and solvency.
- (d) What concerns might you have in relying on this comparison?

FINANCIAL ANALYSIS ON THE WEB

BYP5-5 Purpose: No financial decision maker should ever rely solely on the financial information reported in the annual report to make decisions. It is important to keep abreast of financial news. This activity demonstrates how to search for financial news on the Web.

Address: <http://biz.yahoo.com/i>, or go to www.wiley.com/college/kimmel

Steps

- 1. Type in either Wal-Mart, Target Corp., or Kmart.
- 2. Choose **News**.
- 3. Select an article that sounds interesting to you and that would be relevant to an investor in these companies.

Instructions

- (a) What was the source of the article (e.g., Reuters, Businesswire, Prnewswire)?
- (b) Assume that you are a personal financial planner and that one of your clients owns stock in the company. Write a brief memo to your client summarizing the article and explaining the implications of the article for their investment.

Critical Thinking



DECISION MAKING ACROSS THE ORGANIZATION

BYP5-6 Three years ago, Amy Blodgett and her brother-in-law Dennis Torres opened Megamart Department Store. For the first 2 years, business was good, but the following condensed income statement results for 2012 were disappointing.

| MEGAMART DEPARTMENT STORE | | |
|---|---------------|------------------|
| Income Statement | | |
| For the Year Ended December 31, 2012 | | |
| Net sales | | \$700,000 |
| Cost of goods sold | | <u>560,000</u> |
| Gross profit | | 140,000 |
| Operating expenses | | |
| Selling expenses | \$100,000 | |
| Administrative expenses | <u>20,000</u> | |
| | | <u>120,000</u> |
| Net income | | <u>\$ 20,000</u> |

Amy believes the problem lies in the relatively low gross profit rate of 20%. Dennis believes the problem is that operating expenses are too high. Amy thinks the gross profit rate can be improved by making two changes: (1) Increase average selling prices by 15%; this increase is expected to lower sales volume so that total sales dollars will increase only 4%. (2) Buy merchandise in larger quantities and take all purchase discounts; these changes are expected to increase the gross profit rate from 20% to 25%. Amy does not anticipate that these changes will have any effect on operating expenses.

Dennis thinks expenses can be cut by making these two changes: (1) Cut 2012 sales salaries of \$60,000 in half and give sales personnel a commission of 2% of net sales. (2) Reduce store deliveries to one day per week rather than twice a week; this change will reduce 2012 delivery expenses of \$40,000 by 40%. Dennis feels that these changes will not have any effect on net sales.

Amy and Dennis come to you for help in deciding the best way to improve net income.

Instructions

With the class divided into groups, answer the following.

- Prepare a condensed income statement for 2013 assuming (1) Amy's changes are implemented and (2) Dennis's ideas are adopted.
- What is your recommendation to Amy and Dennis?
- Prepare a condensed income statement for 2013 assuming both sets of proposed changes are made.
- Discuss the impact that other factors might have. For example, would increasing the quantity of inventory increase costs? Would a salary cut affect employee morale? Would decreased morale affect sales? Would decreased store deliveries decrease customer satisfaction? What other suggestions might be considered?

COMMUNICATION ACTIVITY

BYP5-7 The following situation is presented in chronological order.

- Finley decides to buy a surfboard.
- He calls Surfing USA Co. to inquire about their surfboards.
- Two days later he requests Surfing USA Co. to make him a surfboard.
- Three days later Surfing USA Co. sends him a purchase order to fill out.
- He sends back the purchase order.
- Surfing USA Co. receives the completed purchase order.
- Surfing USA Co. completes the surfboard.
- Finley picks up the surfboard.
- Surfing USA Co. bills Finley.
- Surfing USA Co. receives payment from Finley.

Instructions

In a memo to the president of Surfing USA Co., answer the following questions.

- When should Surfing USA Co. record the sale?
- Suppose that with his purchase order, Finley is required to make a down payment. Would that change your answer to part (a)?

ETHICS CASE

BYP5-8 Margie Anunson was just hired as the assistant treasurer of Northshore Stores, a specialty chain store company that has nine retail stores concentrated in one metropolitan area. Among other things, the payment of all invoices is centralized in one of the departments Margie will manage. Her primary responsibility is to maintain the company's high credit rating by paying all bills when due and to take advantage of all cash discounts.

Michael Hauer, the former assistant treasurer, who has been promoted to treasurer, is training Margie in her new duties. He instructs Margie that she is to continue the practice of preparing all checks "net of discount" and dating the checks the last day of the discount period. "But," Michael continues, "we always hold the checks at least 4 days beyond the discount period before mailing them. That way we get another 4 days of interest on our money. Most of our creditors need our business and don't complain. And, if they scream about our missing the discount period, we blame it on the mail room or the post office. We've only lost one discount out of every hundred we take that way. I think everybody does it. By the way, welcome to our team!"

**Instructions**

- What are the ethical considerations in this case?
- What stakeholders are harmed or benefited?
- Should Margie continue the practice started by Michael? Does she have any choice?

"ALL ABOUT YOU" ACTIVITY

BYP5-9 There are many situations in business where it is difficult to determine the proper period in which to record revenue. Suppose that after graduation with a degree in finance, you take a job as a manager at a consumer electronics store called Pacifica Electronics. The company has expanded rapidly in order to compete with **Best Buy**.

Pacifica has also begun selling gift cards. The cards are available in any dollar amount and allow the holder of the card to purchase an item for up to 2 years from the time the card is purchased. If the card is not used during that 2 years, it expires.

276 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

Instructions

Answer the following questions.

At what point should the revenue from the gift cards be recognized? Should the revenue be recognized at the time the card is sold, or should it be recorded when the card is redeemed? Explain the reasoning to support your answers.

FASB CODIFICATION ACTIVITY

BYP5-10 Access the FASB Codification at <http://asc.fasb.org> to prepare responses to the following

- (a) Access the glossary (“Master Glossary”) to answer the following.
- (1) What is the definition provided for inventory?
 - (2) What is a customer?
- (b) What guidance does the Codification provide concerning reporting inventories above cost?

Answers to Insight and Accounting Across the Organization Questions

p. 231 Morrow Snowboards Improves Its Stock Appeal **Q:** If a perpetual system keeps track of inventory on a daily basis, why do companies ever need to do a physical count? **A:** A perpetual system keeps track of all sales and purchases on a continuous basis. This provides a constant record of the number of units in the inventory. However, if employees make errors in recording sales or purchases, or if there is theft, the inventory value will not be correct. As a consequence, all companies do a physical count of inventory at least once a year.

p. 238 Should Costco Change Its Return Policy? **Q:** If a company expects significant returns, what are the implications for revenue recognition? **A:** If a company expects significant returns, it should make an adjusting entry at the end of the year reducing sales by the estimated amount of sales returns. This is necessary so as not to overstate the amount of revenue recognized in the period.

p. 242 Disclosing More Details **Q:** Why have investors and analysts demanded more accuracy in isolating “Other gains and losses” from operating items? **A:** Greater accuracy in the classification of operating versus nonoperating (“Other gains and losses”) items permits investors and analysts to judge the real operating margin, the results of continuing operations, and management’s ability to control operating expenses.

p. 248 Strategic Errors Can Be Costly **Q:** Explain how Wal-Mart’s profitability gave it a strategic advantage over Kmart. **A:** If two competitors get into a “price war,” the company with the lower costs can reduce prices further (thus eroding its gross profit rate), but still operate at a profit. Thus, Wal-Mart’s success at minimizing its operating costs has enabled it to drive many competitors out of business.

Answers to Self-Test Questions

1. a 2. c 3. c 4. b $((\$750 - \$50) \times .98)$ 5. c 6. c 7. b $(\$400,000 - \$310,000)$ 8. d 9. a $(\$60,000 + \$380,000 - \$50,000)$ 10. b $(\$17,200 + (\$60,400 - \$3,000 - \$1,100 + \$600))$ 11. c 12. c 13. d $(\$92,400 \div \$267,000)$ 14. b *15. b

**IFRS** A Look at IFRS

The basic accounting entries for merchandising are the same under both GAAP and IFRS. The income statement is a required statement under both sets of standards. The basic format is similar although some differences do exist.

KEY POINTS

- Under both GAAP and IFRS, a company can choose to use either a perpetual or a periodic system.
- Inventories are defined by IFRS as held-for-sale in the ordinary course of business, in the process of production for such sale, or in the form of materials or supplies to be consumed in the production process or in the providing of services.

- Under GAAP, companies generally classify income statement items by function. Classification by function leads to descriptions like administration, distribution, and manufacturing. Under IFRS, companies must classify expenses by either nature or function. Classification by nature leads to descriptions such as the following: salaries, depreciation expense, and utilities expense. If a company uses the functional-expense method on the income statement, disclosure by nature is required in the notes to the financial statements.
- Presentation of the income statement under GAAP follows either a single-step or multiple-step format. IFRS does not mention a single-step or multiple-step approach.
- Under IFRS, revaluation of land, buildings, and intangible assets is permitted. The initial gains and losses resulting from this revaluation are reported as adjustments to equity, often referred to as *other comprehensive income*. The effect of this difference is that the use of IFRS results in more transactions affecting equity (other comprehensive income) but not net income.
- *IAS 1*, "Presentation of Financial Statements," provides general guidelines for the reporting of income statement information. Subsequently, a number of international standards have been issued that provide additional guidance to issues related to income statement presentation.
- Similar to GAAP, comprehensive income under IFRS includes unrealized gains and losses (such as those on so-called "available-for-sale securities") that are not included in the calculation of net income.
- IFRS requires that two years of income statement information be presented, whereas GAAP requires three years.

LOOKING TO THE FUTURE

The IASB and FASB are working on a project that would rework the structure of financial statements. Specifically, this project will address the issue of how to classify various items in the income statement. A main goal of this new approach is to provide information that better represents how businesses are run. In addition, this approach draws attention away from just one number—net income. It will adopt major groupings similar to those currently used by the statement of cash flows (operating, investing, and financing), so that numbers can be more readily traced across statements. For example, the amount of income that is generated by operations would be traceable to the assets and liabilities used to generate the income. Finally, this approach would also provide detail, beyond that currently seen in most statements (either GAAP or IFRS), by requiring that line items be presented both by function and by nature. The new financial statement format was heavily influenced by suggestions from financial statement analysts.

IFRS Self-Test Questions

1. Which of the following would *not* be included in the definition of inventory under IFRS?
 - (a) Photocopy paper held for sale by an office-supply store.
 - (b) Stereo equipment held for sale by an electronics store.
 - (c) Used office equipment held for sale by the human relations department of a plastics company.
 - (d) All of the above would meet the definition.
2. Which of the following would *not* be a line item of a company reporting costs by nature?
 - (a) Depreciation expense.
 - (b) Salaries expense.
 - (c) Interest expense.
 - (d) Manufacturing expense.
3. Which of the following would *not* be a line item of a company reporting costs by function?
 - (a) Administration.
 - (b) Manufacturing.
 - (c) Utilities expense.
 - (d) Distribution.
4. Which of the following statements is *false*?
 - (a) IFRS specifically requires use of a multiple-step income statement.
 - (b) Under IFRS, companies can use either a perpetual or periodic system.
 - (c) The proposed new format for financial statements was heavily influenced by the suggestions of financial statement analysts.
 - (d) The new income statement format will try to de-emphasize the focus on the "net income" line item.

278 chapter 5 Merchandising Operations and the Multiple-Step Income Statement

5. Under the new format for financial statements being proposed under a joint IASB/FASB project:
- all financial statements would adopt headings similar to the current format of the balance sheet.
 - financial statements would be presented consistent with the way management usually run companies.
 - companies would be required to report income statement line items by function only.
 - the amount of detail shown in the income statement would decrease compared to current presentations.

IFRS Concepts and Application

IFRS5-1 Explain the difference between the “nature-of-expense” and “function-of-expense” classifications.

IFRS5-2 For each of the following income statement line items, state whether the item is a “by nature” expense item or a “by function” expense item.

- _____ Cost of goods sold
- _____ Depreciation expense
- _____ Wages and salaries expense
- _____ Selling expenses
- _____ Utilities expense
- _____ Delivery expense
- _____ General and administrative expenses

IFRS5-3 Gribble Company reported the following amounts in 2012: Net income, €150,000; Unrealized gain related to revaluation of buildings, €10,000; and Unrealized loss on available-for-sale securities, €(35,000). Determine Gribble’s total comprehensive income for 2012.

INTERNATIONAL FINANCIAL REPORTING PROBLEM: Zetar plc

IFRS5-4 The financial statements of **Zetar plc** are presented in Appendix C. The company’s complete annual report, including the notes to its financial statements, is available at www.zetarplc.com.

Instructions

- Is Zetar using a multiple-step or a single-step income statement format? Explain how you made your determination.
- Instead of “interest expense,” what label does Zetar use for interest costs that it incurs?
- What is the approximate tax rate of Zetar’s “Tax on profit from continuing activities”?
- Using the notes to the company’s financial statements, explain what each of the following are:
 - Adjusted results.
 - One-off items.

Answers to IFRS Self-Test Questions

1. c 2. d 3. c 4. a 5. b



Remember to go back to the navigator box on the chapter opening page and check off your completed work.