CHAPTER 5

Mark Douet/Getty Images

Accounting for Merchandise Operations

Chapter Preview

Merchandising is one of the largest and most influential industries in the world. 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.

Feature Story

Who Doesn't Shop?

Carrefour, headquartered in France, is the largest retailer in Europe and the second largest retailer in the world. While 40% of its sales are in France, it operates stores under a variety of names in 32 countries in Europe, Asia, and Latin America, such as Carrefour Express, Dity, Ed, Minipreco, and Promocash. Its nearly 10,000 stores employ 471,000 people and generate sales of €112 billion.

Becoming an international titan hasn't always been easy. Carrefour has enjoyed some successful mergers and acquisitions. But, it has also experienced setbacks, including a failed effort to acquire a giant Brazilian retailer. It has had some success in increasing market share in emerging markets. But, by far the largest share of its sales are in Europe, which has experienced low consumer confidence in recent years

GAAP4.2 What term is commonly used under GAAP in reference to the statement of financial position?

GAAP4.3 The balance sheet for Diaz Company includes the following accounts: Accounts Receivable $12,500; Prepaid Insurance $3,600; Cash $15,400; Supplies $5,200; and Short-Term Investments $6,700. Prepare the current assets section of the balance sheet, listing the accounts in proper sequence using GAAP.

GAAP4.4 Zurich Company recently received the following information related to the company's December 31, 2020, balance sheet.

Inventories	$ 2,700	Short-term investments	$ 120
Cash	13,100	Accumulated depreciation— equipment	5,700
Equipment	21,700	Accounts receivable	4,300
Investments in stocks (long-term)	6,500		

Prepare the assets section of the company's classified balance sheet using GAAP.

GAAP4.5 The following information is available for Rego Bowling Alley at December 31, 2020, its first year of operation.

Buildings	$128,000	Interest Expense	$ 2,600
Accounts Receivable	7,540	Common Stock	112,000
Prepaid Insurance	4,680	Accumulated Depreciation—Buildings	42,600
Cash	18,040	Accounts Payable	12,300
Equipment	62,400	Notes Payable	95,000
Land	67,000	Accumulated Depreciation—Equipment	18,720
Insurance Expense	780	Interest Payable	2,600
Depreciation Expense	7,360	Service Revenue	15,180

Prepare a classified balance sheet using GAAP; assume that $13,900 of the notes payable will be paid in 2021.

GAAP4.6 Brian Hopkins is interested in comparing the liquidity and solvency of a U.S. software company with a Chinese competitor. Is this possible if the two companies report using different currencies?

GAAP Financial Reporting Problem: Apple Inc.

GAAP4.7 The financial statements of **Apple** are presented in Appendix D. The complete annual report, including the notes to its financial statements, is available at the company's website.

a. What were Apple's total current assets at September 24, 2016, and September 26, 2015?

b. Are the assets included in current assets listed in the proper order? Explain.

c. How are Apple's assets classified?

d. What were Apple's current liabilities at September 24, 2016, and September 26, 2015?

Answers to GAAP Self-Test Questions

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

Merchandising Operations and Inventory Systems

LEARNING OBJECTIVE 1

Describe merchandising operations and inventory systems.

Metro (DEU), **Carrefour** (FRA), and **Tesco** (GBR) 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** (USA) might buy goods from wholesaler **Grupo Casa SA de CV** (MEX). Retailer **Office Depot** (USA) might buy office supplies from wholesaler **Corporate Express** (NLD). The primary source of revenue 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: cost of goods sold and operating expenses.

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.

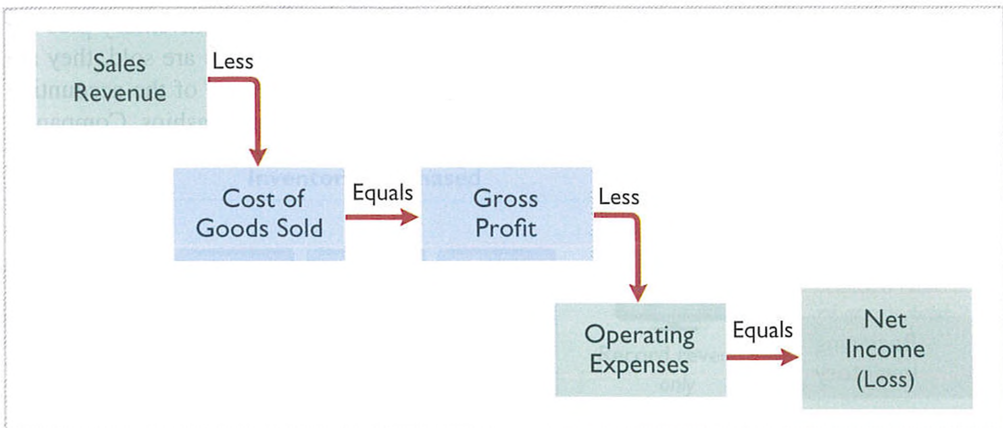


ILLUSTRATION 5.1

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** shows the operating cycle of a service company.

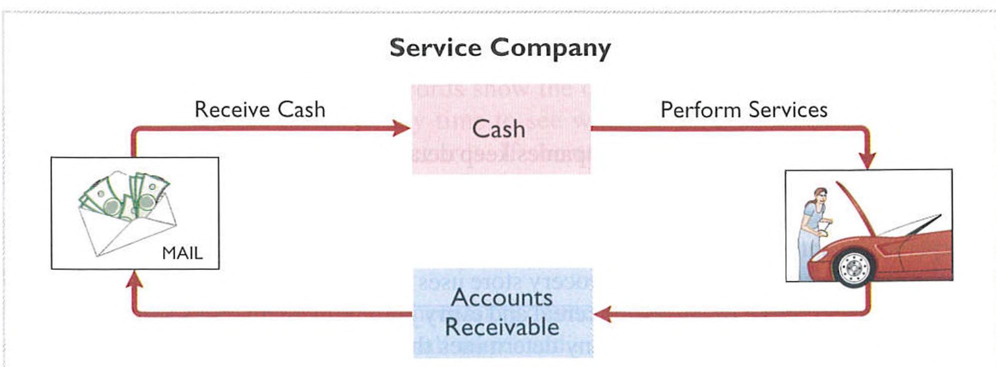


ILLUSTRATION 5.2

Operating cycle for a service company

due to the recession and debt crisis. As a result, Carrefour's increases in emerging markets have only served to offset declines in Europe.

Management has experienced upheaval, with three new chief executive officers during a seven-year period. Investors in recent years have withdrawn support for the company, resulting in a drop in Carrefour's share price of two-thirds in less than five years. At times, the company has struggled strategically. Recently, it decided to quit using temporary price cuts to promote products. Instead, Carrefour sets prices low on certain key items. It also decided to not set its prices as low as those of bargain stores, such as **E.Leclerc** (FRA). Carrefour's management felt that the additional services the company provides would enable it to charge slightly higher prices than bargain stores without losing customers. However, poor economic conditions made consumers extremely price-conscious. As a result, the company has seen a significant drop in customer traffic.

Nobody said retailing is easy, but at number two in the world, Carrefour has no intention of throwing in the towel. The company recently launched a makeover of 500 superstores in Europe, and it continues to look for expansion opportunities in countries that have good growth opportunities. Recently, the company opened its first store in India. Lars Olofsson, CEO of Carrefour, declared: "The opening of this first store marks Carrefour's entry into the Indian market and will be followed shortly by the opening of other Cash & Carry stores. This first step is essential to allow the Carrefour teams to fully understand the specificities of the Indian market and then build our presence in other formats."

Chapter Outline

LEARNING OBJECTIVES

LO 1 Describe merchandising operations and inventory systems.	• Operating cycles • Flow of costs	**DO IT! 1** Merchandising Operations and Inventory Systems
LO 2 Record purchases under a perpetual inventory system.	• Freight costs • Purchase returns and allowances • Purchase discounts • Summary of purchasing transactions	**DO IT! 2** Purchase Transactions
LO 3 Record sales under a perpetual inventory system.	• Sales returns and allowances • Sales discounts	**DO IT! 3** Sales Transactions
LO 4 Apply the steps in the accounting cycle to a merchandising company.	• Adjusting entries • Closing entries • Summary of merchandising entries	**DO IT! 4** Closing Entries
LO 5 Prepare financial statements for a merchandising company.	• Income statement • Classified statement of financial position	**DO IT! 5** Financial Statement Classifications

Go to the Review and Practice section at the end of the chapter for a review of key concepts and practice applications with solutions.

Periodic System

In a **periodic inventory system**, companies do not keep detailed inventory records of the goods on hand throughout the period. Instead, 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 as determined by the physical inventory count at the end of the accounting period.

Illustration 5.5 graphically compares the sequence of activities and the timing of the cost of goods sold computation under the two inventory systems.

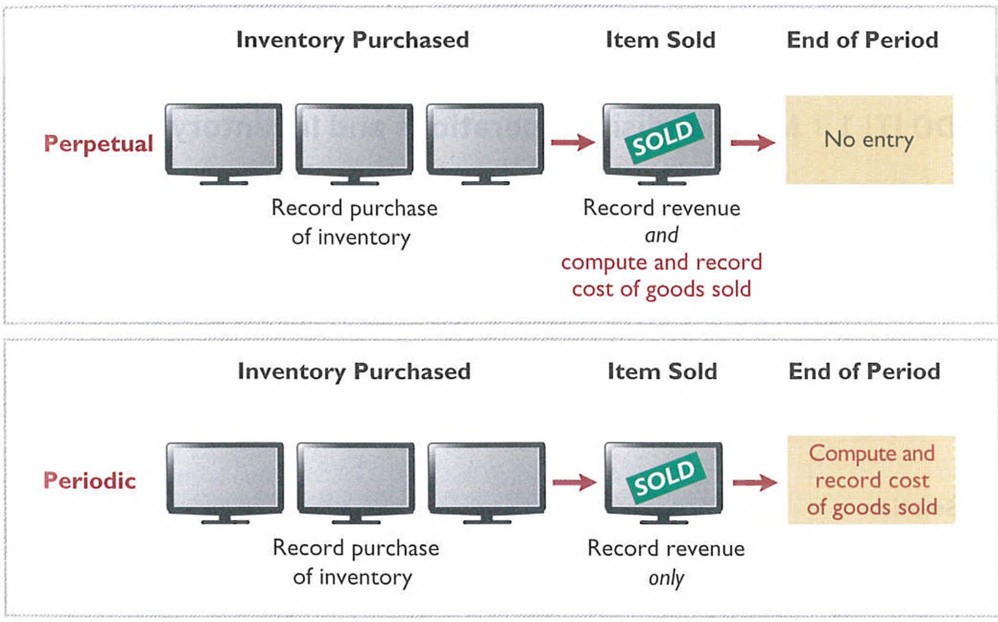


ILLUSTRATION 5.5
Comparing perpetual and periodic inventory systems

Advantages of the Perpetual System

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.

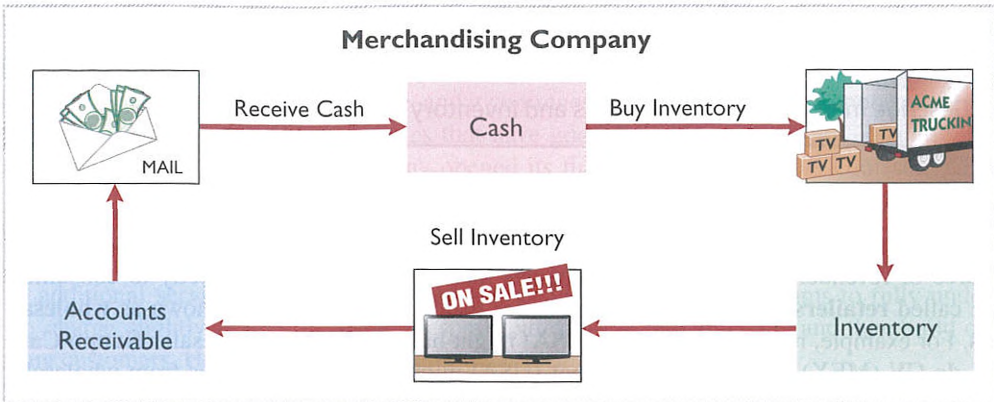
A perpetual inventory system provides better control over inventories than a periodic system. Since the inventory records show the quantities that should be on hand, the company can count the goods at any time to see whether the amount of goods actually on hand agrees with the inventory records. If shortages are uncovered, the company can investigate immediately. Although a perpetual inventory system requires both additional clerical work and expense to maintain the subsidiary records, a computerized system can minimize this cost. Much of **Amazon.com**'s (USA) success is attributed to its sophisticated inventory system.

Some businesses find it either unnecessary or uneconomical to invest in a computerized perpetual inventory system. Many small merchandising businesses now use basic accounting software, which provides some of the essential benefits of a perpetual inventory system.

Illustration 5.3 shows the operating cycle of a merchandising company.

ILLUSTRATION 5.3

Operating cycle for a merchandising company



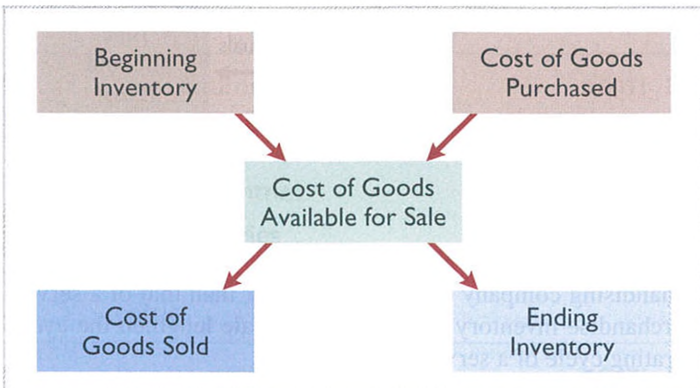
Note that the added asset account for a merchandising company is the Inventory account. Companies report inventory as a current asset on the statement of financial position.

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 5.4** describes these relationships. Companies use one of two systems to account for inventory: a **perpetual inventory system** or a **periodic inventory system**.

ILLUSTRATION 5.4

Flow of costs



Perpetual System

HELPFUL HINT

Even under perpetual inventory systems, companies take a physical inventory count. This is done as a control procedure to verify inventory levels, in order to detect theft or "shrinkage."

In a **perpetual inventory system**, companies keep detailed records of the cost of each inventory purchase and sale (see **Helpful Hint**). These records continuously—perpetually—show the inventory that should be on hand for every item. For example, a **Toyota** (JPN) dealership has separate inventory records for each automobile, truck, and van on its lot and showroom floor. Similarly, a **Morrisons** (GBR) 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**.

A **purchase invoice** should support each credit purchase. This invoice 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 a copy of the sales invoice sent by the seller. In **Illustration 5.6**, for example, Sauk Stereo (the buyer) uses as a purchase invoice the sales invoice prepared by PW Audio Supply (the seller) (see **Helpful Hint**).

ILLUSTRATION 5.6

Sales invoice used as purchase invoice by Sauk Stereo

INVOICE NO. 731

PW AUDIO SUPPLY
27 CIRCLE DRIVE
AMSTERDAM, THE NETHERLANDS 1081

SOLD TO
Firm Name Sauk Stereo
Attention of James Hoover, Purchasing Agent
Address 125 Main Street
Oslo Norway 283

Date 5/4/20	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

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**

Sauk Stereo makes the following journal entry to record its purchase from PW Audio Supply an account. The entry increases (debits) Inventory and increases (credits) Accounts Payable.

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

A	=	L	+	E
+3,800				
		+3,800		

Cash Flows
no effect

Under the perpetual inventory system, companies record purchases of merchandise for sale in the Inventory account. Thus, **Carrefour** 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, Carrefour would increase (debit) Supplies.

Also, 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 of the widespread use of the perpetual inventory system, we illustrate it in this chapter. We discuss and illustrate the periodic system in Appendix 5B.

Investor Insight

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Improving Its Share Appeal

Investors are often eager to invest in a company that has a hot new product. However, when a fast-growing snowboard-maker issued ordinary shares to the public for the first time, some investors expressed reluctance to invest in it because of a number of accounting control problems. To reduce investor concerns, the company implemented a perpetual inventory system to improve its control over inventory. In addition, the company stated that it would perform a physical inventory count every quarter until it felt that its 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? (Go to the book's companion website for this answer and additional questions.)

ACTION PLAN

- **Review merchandising concepts.**
- **Understand the flow of costs in a merchandising company.**

DO IT! 1 | Merchandising Operations and Inventory Systems

Indicate whether the following statements are true or false. If false, indicate how to correct the statement.

1. The primary source of revenue for a merchandising company results from performing services for customers.
2. The operating cycle of a service company is usually shorter than that of a merchandising company.
3. Sales revenue less cost of goods sold equals gross profit.
4. Ending inventory plus the cost of goods purchased equals cost of goods available for sale.

Solution

1. False. The primary source of revenue for a service company results from performing services for customers. **2.** True. **3.** True. **4.** False. Beginning inventory plus the cost of goods purchased equals cost of goods available for sale.

Related exercise material: **BE5.1, DO IT! 5.1, and E5.1.**

Recording Purchases Under a Perpetual System

LEARNING OBJECTIVE 2

Record purchases under a perpetual inventory system.

Companies purchase inventory using cash or credit (on account). 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.

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

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 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 an allowance (deduction) from 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 (debits) Accounts Payable and decreases (credits) Inventory.

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

A	=	L	+	E
		−300		
−300				

Cash Flows
no effect

Because Sauk Stereo increased Inventory when the goods were received, Inventory is decreased when Sauk Stereo returns the goods (or when it is granted an allowance).

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.

Credit terms specify the amount of the cash discount and time period in which it is offered. They also indicate the time period in which the purchaser is expected to pay the full invoice price. In the sales invoice in Illustration 5.6 credit terms are 2/10, n/30, which is read "two-ten, net thirty" (see **Helpful Hint**). This means that the buyer may take a 2% cash discount 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.

HELPFUL HINT

The term *net* in "net 30" means the remaining amount due after subtracting any sales returns and allowances and partial payments.

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 invoice 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.

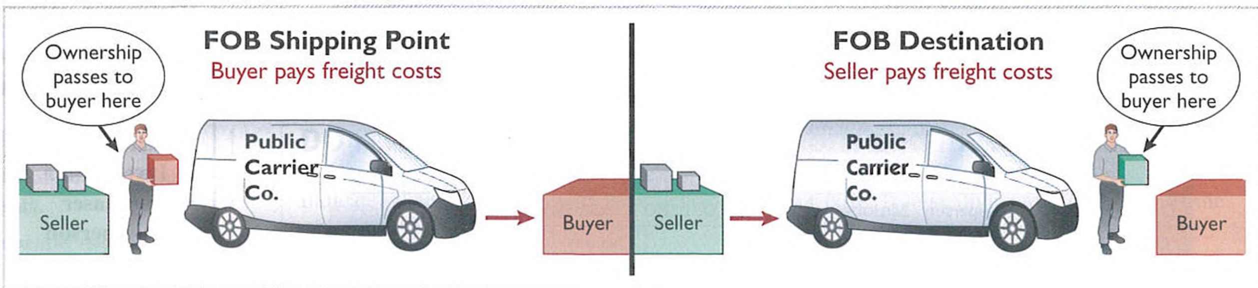
When the buyer pays an invoice within the discount period, the amount of the discount decreases Inventory. Why? Because companies record inventory at cost, and by paying within the discount period, the buyer has reduced its cost. To illustrate, assume Sauk Stereo pays the balance due of €3,500 (gross invoice price of €3,800 less purchase returns and allowances of €300) on May 14, the last day of the discount period. Since the terms are 2/10, n/30, the cash discount is €70 (€3,500 × 2%), and Sauk Stereo pays €3,430 (€3,500 − €70). The entry Sauk Stereo makes to record its May 14 payment decreases (debits) Accounts Payable by

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 5.6 indicates FOB shipping point. Thus, the buyer (Sauk Stereo) pays the freight charges. **Illustration 5.7** illustrates these shipping terms.

ILLUSTRATION 5.7 Shipping terms



Freight Costs Incurred by the Buyer

When the buyer incurs the transportation costs, these costs are considered part of the cost of purchasing inventory. Therefore, the buyer debits (increases) the Inventory account. For example, if Sauk Stereo (the buyer) pays Acme Freight €150 for freight charges on May 6, the entry on Sauk Stereo's books is:

A = L + E
+150
−150
Cash Flows
−150

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

Thus, any freight costs incurred by the buyer are part of the cost of merchandise purchased. The reason: Inventory cost should include all costs to acquire the inventory, including freight necessary to deliver the goods to the buyer. Companies recognize these costs as cost of goods sold when the inventory is sold.

Freight Costs Incurred by the 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 (sometimes called Delivery Expense). For example, if the freight terms on the invoice in Illustration 5.6 had required PW Audio Supply (the seller) to pay the freight charges, the entry by PW Audio Supply would be:

A = L + E
−150 Exp
−150
Cash Flows
−150

May 4	Freight-Out (or Delivery Expense)	150	
	Cash		150
	(To record payment of freight on goods sold)		

Recording Sales Under a Perpetual System

LEARNING OBJECTIVE 3

Record sales under a perpetual inventory system.

In accordance with the revenue recognition principle, companies record sales revenue when the performance obligation is satisfied. Typically, the performance obligation is satisfied when the goods transfer from the seller to the buyer. At this point, the sales transaction is complete and the sales price established.

Sales may be made on credit or for cash. A **business document** should support every sales transaction, to provide written evidence of the sale. **Cash register documents** provide evidence of cash sales. A **sales invoice**, like the one shown in Illustration 5.6, provides support for a credit 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. **The first entry records the sale**: The seller increases (debits) Cash (or Accounts Receivable, if a credit sale), and also increases (credits) Sales Revenue. **The second entry records the cost of the merchandise sold**: The seller increases (debits) Cost of Goods Sold, and also decreases (credits) Inventory for the cost of those goods. 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 its May 4 sale of €3,800 to Sauk Stereo (see Illustration 5.6) as follows (assume the merchandise cost PW Audio Supply €2,400).

May 4	Accounts Receivable	3,800	
	Sales Revenue		3,800
	(To record credit sale to Sauk Stereo per invoice #731)		
4	Cost of Goods Sold	2,400	
	Inventory		2,400
	(To record cost of merchandise sold on invoice #731 to Sauk Stereo)		

A = L + E
+3,800
+3,800 Rev
Cash Flows
no effect

A = L + E
−2,400 Exp
−2,400
Cash Flows
no effect

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 TVs, Blu-ray players, and headsets. **Carrefour** 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 more closely monitor sales trends and respond to changes in sales patterns more strategically. For example, if TV sales are increasing while Blu-ray player sales are decreasing, PW Audio Supply might reevaluate both its advertising and pricing policies on these items to ensure they are optimal.

On its income statement presented to outside investors, a merchandising company normally would 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, most companies do not want their competitors to know the details of their operating results. However, **Microsoft** (USA) at one point 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.

A	=	L	+	E
		−3,500		
−3,430				
−70				

Cash Flows
−3,430

the amount of the gross invoice price, reduces (credits) Inventory by the €70 discount, and reduces (credits) Cash by the net amount owed.

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

A	=	L	+	E
		−3,500		
−3,500				

Cash Flows
−3,500

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

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

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 comparable to 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 red) provides a summary of the effect of the previous transactions on Inventory. Sauk Stereo originally purchased €3,800 worth of inventory on account 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			

ACTION PLAN

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

DO IT! 2 | Purchase Transactions

On September 5, Zhū Company buys merchandise on account from Gāo Company. The purchase price of the goods paid by Zhū is ¥15,000, and the cost to Gāo Company is ¥8,000. On September 8, Zhū returns defective goods with a selling price of ¥2,000. Record the transactions on the books of Zhū Company.

Solution

Sept. 5	Inventory	15,000	
	Accounts Payable		15,000
	(To record goods purchased on account)		
8	Accounts Payable	2,000	
	Inventory		2,000
	(To record return of defective goods)		

Related exercise material: **BE5.2, BE5.4, DO IT! 5.2, E5.2, E5.3, E5.4, and E5.11.**

Sales Returns and Allowances is a **contra revenue account** to Sales Revenue. This means that it is offset against a revenue account on the income statement. 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 may suggest problems—inferior merchandise, inefficiencies in filling orders, errors in billing customers, or delivery or shipment mistakes. 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.

At the end of the accounting period, if the company anticipates that sales returns and allowances will be material, the company should make an adjusting entry to estimate the amount of returns. In some industries, such as those relating to the sale of books and periodicals, returns are often material. The accounting for situations where returns must be estimated is addressed in advanced accounting courses.

Accounting Across the Organization Tesco

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Merchandiser's Accounting Causes Alarm

Accounting for merchandising transactions is not always as easy as it might first appear. Recently, **Tesco** (GBR) announced that it had overstated profits by £263 million over a three-year period. The error related to how Tesco accounted for amounts received from suppliers for promotional activities of those companies' products. When a retailer runs advertisements promoting a particular product, the producer of that product shares part of the advertising cost. Typically, the producer pays the merchandiser its share of the advertising cost as much as a year before the advertisement is run. The questions become, how should these amounts be reported by the merchandiser at the time it receives the funds, and when should these amounts affect income? The scandal surrounding this accounting treatment was serious enough that it caused the company's chairman to resign, and an outside auditing firm was brought in to investigate. One analyst commentated that "we can never recall a period so damaging to the reputation of the company."

Source: Jenny Anderson, "Tesco Chairman to Step Down as Overstatement of Profit Grows," *The New York Times Online* (October 23, 2014).

Why would an error of this type be of concern to investors, and what steps did the company take to address these concerns? (Go to the book's companion website for this answer and additional questions.)

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. For example, PW Audio Supply makes the following entry to record the cash receipt on May 14 from Sauk Stereo within the discount period.

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)		

A	=	L	+	E
+3,430				
				−70 Rev
−3,500				

Cash Flows
+3,430

Like Sales Returns and Allowances, Sales Discounts is a **contra revenue account** to Sales Revenue. Its normal balance is a debit. PW Audio Supply uses this account, instead of debiting Sales Revenue, to disclose the amount of cash discounts taken by customers. If Sauk Stereo 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.

Anatomy of a Fraud[1]

Holly Harmon was a cashier at a national superstore for only a short while when she began stealing merchandise using three methods. Under the first method, 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. Using the second method, Holly scanned an item at the register 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 scanned the plastic containers but not the goods within them. After Holly quit, a review of past surveillance tapes 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 some recent real-world frauds, we discuss the missing control activities that would likely have prevented or uncovered the fraud.

Sales Returns and Allowances

We now look at the "flip side" 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 the buyer (a return) or grants a reduction in the purchase price (an allowance) so 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 (assuming that the goods were not defective).

A	=	L	+	E
				−300 Rev
−300				

Cash Flows
no effect

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

A	=	L	+	E
+140				
				+140 Exp

Cash Flows
no effect

8	Inventory	140	
	Cost of Goods Sold		140
	(To record cost of goods returned)		

If Sauk Stereo returns goods because they are damaged or defective, then PW Audio Supply's entry to Inventory and Cost of Goods Sold should be for the fair value of the returned goods, rather than their cost. For example, if the returned goods were defective and had a fair value of €50, PW Audio Supply would debit Inventory for €50, and would credit Cost of Goods Sold for €50.

What happens if the goods are not returned but the seller grants the buyer an allowance by reducing the purchase price? In this case, the seller debits Sales Returns and Allowances and credits Accounts Receivable for the amount of the allowance. An allowance has no impact on Inventory or Cost of Goods Sold.

[1]The "Anatomy of a Fraud" stories in this text 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.

service companies apply to merchandising companies. Appendix 5A to this chapter shows the use of a worksheet by a merchandiser (an optional step).

Adjusting Entries

A merchandising company generally has the same types of adjusting entries as a service company. However, a merchandiser using a perpetual system will require one additional adjustment to make the records agree with the actual inventory on hand. Here's why: At the end of each period, for control purposes, a merchandising company that uses a perpetual system will take a physical count of its goods on hand. The company's unadjusted balance in Inventory usually does not agree with the actual amount of inventory on hand. The perpetual inventory records may be incorrect due to recording errors, theft, or waste. Thus, the company needs to adjust the perpetual records to make the recorded inventory amount agree with the inventory on hand. **This involves adjusting Inventory and Cost of Goods Sold.**

For example, suppose that PW Audio Supply has an unadjusted balance of €40,500 in Inventory. Through a physical count, PW Audio Supply determines that its actual merchandise inventory at December 31 is €40,000. The company would make an adjusting entry as follows.

Dec. 31	Cost of Goods Sold	500	
	Inventory (€40,500 – €40,000)		500
	(To adjust inventory to physical count)		

A	=	L	+	E
−500				
				−500 Exp

Cash Flows
no effect

Closing Entries

A merchandising company, like a service company, closes to Income Summary all accounts that affect net income. In journalizing, the company credits all temporary accounts with debit balances, and debits all temporary accounts with credit balances, as the following shows for PW Audio Supply (see **Helpful Hint**). Note that PW Audio Supply closes Cost of Goods Sold to Income Summary.

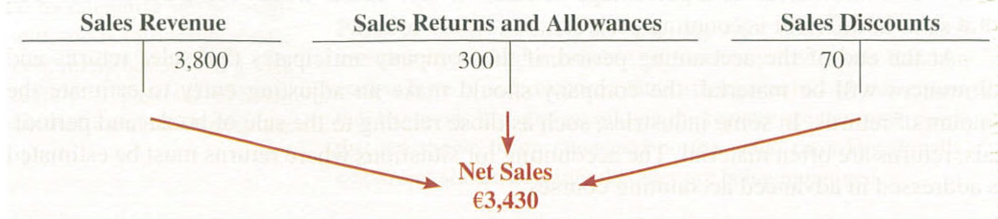
Dec. 31	Sales Revenue	480,000	
	Income Summary		480,000
	(To close income statement accounts with credit balances)		
31	Income Summary	450,000	
	Cost of Goods Sold		316,000
	Salaries and Wages Expense		64,000
	Utilities Expense		17,000
	Advertising Expense		16,000
	Sales Returns and Allowances		12,000
	Sales Discounts		8,000
	Depreciation Expense		8,000
	Freight-Out		7,000
	Insurance Expense		2,000
	(To close income statement accounts with debit balances)		
31	Income Summary	30,000	
	Retained Earnings		30,000
	(To close net income to retained earnings)		
31	Retained Earnings	15,000	
	Dividends		15,000
	(To close dividends to retained earnings)		

HELPFUL HINT

The easiest way to prepare the first two closing entries is to identify the temporary accounts by their balances and then prepare one entry for the credits and one for the debits.

At the end of the accounting period, if the amount of potential discounts is material, the company should make an adjusting entry to estimate the discounts. This would not usually be the case for sales discounts but might be necessary for other types of discounts such as volume discounts, which are addressed in more advanced accounting courses.

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



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. Defective or damaged inventory is recorded at fair value (scrap value).

DO IT! 3 | Sales Transactions

On September 5, Zhū Company buys merchandise on account from Gāo Company. The selling price of the goods is ¥15,000, and the cost to Gāo Company was ¥8,000. On September 8, Zhū returns defective goods with a selling price of ¥2,000 and a fair value of ¥300. Record the transactions on the books of Gāo Company.

Solution

Sept. 5	Accounts Receivable	15,000	
	Sales Revenue		15,000
	(To record credit sale)		
5	Cost of Goods Sold	8,000	
	Inventory		8,000
	(To record cost of goods sold on account)		
8	Sales Returns and Allowances	2,000	
	Accounts Receivable		2,000
	(To record credit granted for receipt of returned goods)		
8	Inventory	300	
	Cost of Goods Sold		300
	(To record fair value of goods returned)		

Related exercise material: **BE5.2, BE5.3, DO IT! 5.3, E5.3, E5.4, E5.5, and E5.11.**

The Accounting Cycle for a Merchandising Company

LEARNING OBJECTIVE 4

Apply the steps in the accounting cycle to a merchandising company.

Up to this point, we have illustrated the basic entries for transactions relating to purchases and sales in a perpetual inventory system. Now we consider the remaining steps in the accounting cycle for a merchandising company. Each of the required steps described in Chapter 4 for

DO IT! 4 | Closing Entries

The trial balance of Celine's Sports Wear Shop at December 31 shows Inventory €25,000, Sales Revenue €162,400, Sales Returns and Allowances €4,800, Sales Discounts €3,600, Cost of Goods Sold €110,000, Rent Revenue €6,000, Freight-Out €1,800, Rent Expense €8,800, and Salaries and Wages Expense €22,000. Prepare the closing entries for the above accounts.

ACTION PLAN

- **Close all temporary accounts with credit balances to Income Summary by debiting these accounts.**
- **Close all temporary accounts with debit balances, except Dividends, to Income Summary by crediting these accounts.**

Solution

The two closing entries are:

Dec. 31	Sales Revenue	162,400	
	Rent Revenue	6,000	
	Income Summary		168,400
	(To close accounts with credit balances)		
31	Income Summary	151,000	
	Cost of Goods Sold		110,000
	Sales Returns and Allowances		4,800
	Sales Discounts		3,600
	Freight-Out		1,800
	Rent Expense		8,800
	Salaries and Wages Expense		22,000
	(To close accounts with debit balances)		

Related exercise material: **BE5.5, BE5.6, DO IT! 5.4, E5.6, E5.7, and E5.8.**

Financial Statements for a Merchandiser

LEARNING OBJECTIVE 5

Prepare financial statements for a merchandising company.

Merchandising companies widely use the classified statement of financial position introduced in Chapter 4. This section explains an income statement used by merchandisers and provides additional information related to the statement of financial position.

Income Statement

The income statement is a primary source of information for evaluating a company's performance. The format is designed to differentiate between the various sources of income and expense.

Income Statement Presentation of Sales

The income statement begins by presenting **sales revenue**. It then deducts contra revenue accounts—sales returns and allowances and sales discounts—from sales revenue to arrive at **net sales. Illustration 5.9** presents the sales section for PW Audio Supply, using assumed data.

ILLUSTRATION 5.9
Computation of net sales

PW Audio Supply
Income Statement (partial)

Sales		
Sales revenue		€480,000
Less: Sales returns and allowances	€12,000	
Sales discounts	8,000	20,000
Net sales		**€460,000**

After PW Audio Supply has posted the closing entries, all temporary accounts have zero balances. Also, Retained Earnings has a balance that is carried over to the next period.

Summary of Merchandising Entries

Illustration 5.8 summarizes the entries for the merchandising accounts using a perpetual inventory system.

ILLUSTRATION 5.8 **Daily recurring and adjusting and closing entries**

	Transactions	Daily Recurring Entries	Dr.	Cr.
Sales Transactions	Selling merchandise to customers.	Cash or Accounts Receivable	XX	
		Sales Revenue		XX
		Cost of Goods Sold	XX	
		Inventory		XX
	Granting sales returns or allowances to customers.	Sales Returns and Allowances	XX	
		Cash or Accounts Receivable		XX
		Inventory	XX	
		Cost of Goods Sold		XX
	Paying freight costs on sales; FOB destination.	Freight-Out	XX	
		Cash		XX
	Receiving payment from customers within discount period	Cash	XX	
		Sales Discounts	XX	
		Accounts Receivable		XX
Purchase Transactions	Purchasing merchandise for resale.	Inventory	XX	
		Cash or Accounts Payable		XX
	Paying freight costs on merchandise purchased; FOB shipping point.	Inventory	XX	
		Cash		XX
	Receiving purchase returns or allowances from suppliers.	Cash or Accounts Payable	XX	
		Inventory		XX
	Paying suppliers within discount period.	Accounts Payable	XX	
		Inventory		XX
		Cash		XX
	Events	**Adjusting and Closing Entries**	**Dr.**	**Cr.**
	Adjust because book amount is higher than the inventory amount determined to be on hand.	Cost of Goods Sold	XX	
		Inventory		XX
	Closing temporary accounts with credit balances.	Sales Revenue	XX	
		Income Summary		XX
	Closing temporary accounts with debit balances.	Income Summary	XX	
		Sales Returns and Allowances		XX
		Sales Discounts		XX
		Cost of Goods Sold		XX
		Freight-Out		XX
		Expenses		XX

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

ILLUSTRATION 5.12

Operating expenses

Illustration 5.12 provides an opportunity to discuss two different presentation formats allowed by IFRS: **presentation by nature** and **presentation by function**. Presentation by nature provides very detailed information, with numerous line items, that reveal the nature of costs incurred by the company. In Illustration 5.12, the detailed information regarding costs incurred for salaries and wages, utilities, advertising, depreciation, freight-out, and insurance demonstrates presentation by nature.

Presentation by function aggregates costs into groupings based on the primary functional activities in which the company engages. For example, at PW Audio Supply, operating expenses are those costs incurred to perform the operating functions of a merchandising business. If PW Audio Supply chose to present strictly by function, it would present its operating expenses as a single line item of €114,000. However, if a presentation by function is used, IFRS requires disclosure of additional details regarding the nature of certain expenses that were included in the functional grouping. For example, depreciation and salary and wage costs are items specifically required to be disclosed.

Illustration 5.12 combines both a presentation by function and by nature to present operating expenses. It uses a functional grouping of operating expenses but also presents in detail the nature of the costs included in that functional grouping. *In your homework, you should use this approach.*

Other Income and Expense

Other income and expense consists of various revenues and gains and expenses and losses that are unrelated to the company's main line of operations. **Illustration 5.13** lists examples of each.

Other Income
Interest revenue from notes receivable and marketable securities.
Dividend revenue from investments in ordinary shares.
Rent revenue from subleasing a portion of the store.
Gain from the sale of property, plant, and equipment.
Other Expense
Casualty losses from such causes as vandalism and accidents.
Loss from the sale or abandonment of property, plant, and equipment.
Loss from strikes by employees and suppliers.

ILLUSTRATION 5.13

Examples of other income and expense

Merchandising companies report other income and expense in the income statement immediately after the company's primary operating activities. **Illustration 5.14** shows this presentation for PW Audio Supply.

Interest Expense

Financing activities, which result in interest expense, represent distinctly different types of cost to a business. In evaluating the performance of a business, it is important to monitor its interest expense. As a consequence, interest expense, if material, must be disclosed on the face of the income statement. PW Audio Supply incurred interest expense of €1,800. Illustration 5.14 presents a complete income statement for PW Audio Supply. *Use this format when preparing your homework.*

This presentation discloses the key data about the company's principal revenue-producing activities.

Gross Profit

ALTERNATIVE TERMINOLOGY

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

From Illustration 5.1, you learned that companies deduct cost of goods sold from sales revenue in order to determine **gross profit** (see **Alternative Terminology**). For this computation, companies use **net sales** (which takes into consideration Sales Returns and Allowances and Sales Discounts) as the amount of sales revenue. On the basis of the sales data in Illustration 5.9 (net sales of €460,000) and cost of goods sold under the perpetual inventory system (assume €316,000), PW Audio Supply's gross profit is €144,000, computed as shown in **Illustration 5.10**.

ILLUSTRATION 5.10

Computation of gross profit

Net sales	€460,000
Cost of goods sold	316,000
Gross profit	**€144,000**

We also can express a company's gross profit as a percentage, called the **gross profit rate**. To do so, we divide the amount of gross profit by net sales. For PW Audio Supply, the **gross profit rate** is 31.3%, computed as shown in **Illustration 5.11**.

ILLUSTRATION 5.11

Gross profit rate formula and computation

Gross Profit	÷	Net Sales	=	Gross Profit Rate
€144,000	÷	€460,000	=	31.3%

Analysts generally consider the gross profit **rate** to be more useful than the gross profit **amount**. The rate expresses a more meaningful (qualitative) relationship between net sales and gross profit. For example, a gross profit of €1,000,000 may sound impressive. But if it is the result of a gross profit rate of only 7% when others in the industry get 20%, it is not so impressive. The gross profit rate tells how much of each euro of sales go to gross profit.

Gross profit represents the **merchandising profit** of a company. It is not a measure of the overall profitability, because operating expenses are not yet deducted. But managers and other interested parties closely watch the amount and trend of gross profit. They compare current gross profit with amounts reported in past periods. They also compare the company's gross profit rate with rates of competitors and with industry averages. Such comparisons provide information about the effectiveness of a company's purchasing function and the soundness of its pricing policies.

Operating Expenses

Operating expenses are the next component in the income statement of a merchandising company. They are the expenses incurred in the process of earning sales revenue. Many of these expenses are similar in merchandising and service companies. At PW Audio Supply, operating expenses were €114,000. This €114,000 includes costs that were incurred for salaries, utilities, advertising, depreciation, freight-out, and insurance. The presentation of operating expenses is shown in **Illustration 5.12**.

Accounting Across the Organization Flipkart

© pheonix3d/ iStockphoto

Online Sales Stall in India

India is well known for its large pool of excellent software engineers. Therefore, it may come as a surprise that online merchandise sales were slow to take hold in this country. The reason for the delay compared to many other countries was that, until recently, consistent Internet access was limited to a small portion of the Indian population. However, current estimates are that 460 million Indians will have Internet access soon. To take advantage of this, two software engineers started the online merchandising company **Flipkart** (IND). Their goal is to be the "Amazon.com of India." Sales have increased dramatically in the last few years although the company faced many barriers to both growth and profitability in its earlier years. First, few Indians had credit cards, so many transactions had to be done in cash. And while the company had a book catalog of over 100 million titles, it was very difficult to deliver these books (or anything else) over India's poorly maintained roads. As Internet access improved, online merchandisers in India saw their sales take off, despite the need for the banking and transportation systems to improve.

Source: Amol Sharma, "Dot-Coms Begin to Blossom in India," *Wall Street Journal* (April 12, 2011).

What implications do the lack of customer credit cards and the limited transportation system have for Flipkart's profitability? (Go to the book's companion website for this answer and additional questions.)

Classified Statement of Financial Position

In the statement of financial position, merchandising companies report inventory as a current asset immediately above accounts receivable. Recall from Chapter 4 that companies generally list current asset items in the reverse order of their closeness to cash (liquidity). Inventory is less close to cash than accounts receivable because the goods must first be sold and then collection made from the customer. **Illustration 5.16** presents the assets section of a classified statement of financial position for PW Audio Supply (see **Helpful Hint**).

ILLUSTRATION 5.16

Assets section of a classified statement of financial position

PW Audio Supply
Statement of Financial Position (Partial)
December 31, 2020

Assets		
Property, plant, and equipment		
Equipment	€80,000	
Less: Accumulated depreciation—equipment	24,000	€ 56,000
Current assets		
Prepaid insurance	1,800	
Inventory	40,000	
Accounts receivable	16,100	
Cash	9,500	67,400
Total assets		€123,400

HELPFUL HINT

The €40,000 is the cost of the inventory on hand, not its expected selling price.

ILLUSTRATION 5.14

Income statement

PW Audio Supply
Income Statement
For the Year Ended December 31, 2020

Sales		
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 income and expense		
Interest revenue	3,000	
Gain on sale of equipment	600	
Casualty loss from vandalism	(200)	3,400
Interest expense		1,800
Net income		€ 31,600

Comprehensive Income

Chapter 1 discussed the fair value principle. IFRS requires companies to adjust the recorded values of certain types of assets and liabilities to their fair values at the end of each reporting period. In some instances, the unrealized gains or losses that result from adjusting recorded amounts to fair value are included in net income. However, in other cases, these unrealized gains and losses are not included in net income. Instead, these excluded items are reported as part of a more inclusive earnings measure, called **comprehensive income**. Examples of such items include certain adjustments to pension plan assets, gains and losses on foreign currency translation, and unrealized gains and losses on certain types of investments. Items that are excluded from net income but included in comprehensive income are either reported in a combined statement of net income and comprehensive income, or in a separate schedule that reports only comprehensive income. **Illustration 5.15** shows how comprehensive income is presented in a separate **comprehensive income statement**, assuming that PW Audio Supply had other comprehensive income of €2,300. *Use this format when preparing your homework.*

ILLUSTRATION 5.15

Separate statement of net income and comprehensive income

PW Audio Supply
Comprehensive Income Statement
For the Year Ended December 31, 2020

Net income	€31,600
Other comprehensive income	
Unrealized holding gain on investment securities	2,300
Comprehensive income	€33,900

Appendix 5A Worksheet for a Merchandising Company

LEARNING OBJECTIVE *6

Prepare a worksheet for a merchandising company.

Using a Worksheet

As indicated in Chapter 4, a worksheet enables companies to prepare financial statements before they journalize and post adjusting entries. The steps in preparing a worksheet for a merchandising company are the same as for a service company. **Illustration 5A.1** shows the worksheet for PW Audio Supply (excluding non-operating items). The unique accounts for a

ILLUSTRATION 5A.1 Worksheet for merchandising company

PW Audio Supply

Home Insert Page Layout Formulas Data Review View

P18 fx

PW Audio Supply
Worksheet
For the Year Ended December 31, 2020

	A	B	C	D	E	F	G	H	I	J	K
5–6		Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
7	Accounts	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
8	Cash	9,500				9,500				9,500	
9	Accounts Receivable	16,100				16,100				16,100	
10	INVENTORY	40,500			(a) 500	40,000				40,000	
11	Prepaid Insurance	3,800			(b) 2,000	1,800				1,800	
12	Equipment	80,000				80,000				80,000	
13	Accumulated Depreciation—Equipment		16,000		(c) 8,000		24,000				24,000
14	Accounts Payable		20,400				20,400				20,400
15	Share Capital—Ordinary		50,000				50,000				50,000
16	Retained Earnings		33,000				33,000				33,000
17	Dividends	15,000				15,000				15,000	
18	SALES REVENUE		480,000				480,000		480,000		
19	SALES RETURNS AND ALLOWANCES	12,000				12,000		12,000			
20	SALES DISCOUNTS	8,000				8,000		8,000			
21	COST OF GOODS SOLD	315,500		(a) 500		316,000		316,000			
22	Freight-Out	7,000				7,000		7,000			
23	Advertising Expense	16,000				16,000		16,000			
24	Salaries and Wages Expense	59,000		(d) 5,000		64,000		64,000			
25	Utilities Expense	17,000				17,000		17,000			
26	Totals	599,400	599,400								
27	Insurance Expense			(b) 2,000		2,000		2,000			
28	Depreciation Expense			(c) 8,000		8,000		8,000			
29	Salaries and Wages Payable				(d) 5,000		5,000				5,000
30	Totals			15,500	15,500	612,400	612,400	450,000	480,000	162,400	132,400
31	Net Income							30,000			30,000
32	Totals							480,000	480,000	162,400	162,400
33											

Key: (a) Adjustment to inventory on hand. (b) Insurance expired. (c) Depreciation expense. (d) Salaries and wages accrued.

ACTION PLAN

- **Review the major sections of the income statement: sales, cost of goods sold, operating expenses, other income and expense, and interest expense.**
- **Add net income to beginning retained earnings and deduct dividends to arrive at ending retained earnings in the retained earnings statement.**
- **Review the major sections of the statement of financial position, income statement, and retained earnings statement.**

DO IT! 5 | Financial Statement Classifications

You are presented with the following list of accounts from the adjusted trial balance for merchandiser Gorman Company. Indicate in which financial statement (income statement, IS; statement of financial position, SFP; or retained earnings statement, RES) and under what classification each of the following would be reported.

Accounts Payable	Interest Expense
Accounts Receivable	Interest Payable
Accumulated Depreciation—Buildings	Inventory
Accumulated Depreciation—Equipment	Land
Advertising Expense	Notes Payable (due in 3 years)
Buildings	Property Taxes Payable
Cash	Salaries and Wages Expense
Depreciation Expense	Salaries and Wages Payable
Dividends	Sales Returns and Allowances
Equipment	Sales Revenue
Freight-Out	Share Capital—Ordinary
Gain on Disposal of Plant Assets	Utilities Expense
Insurance Expense	

Solution

Account	Financial Statement	Classification
Accounts Payable	SFP	Current liabilities
Accounts Receivable	SFP	Current assets
Accumulated Depreciation—Buildings	SFP	Property, plant, and equipment
Accumulated Depreciation—Equipment	SFP	Property, plant, and equipment
Advertising Expense	IS	Operating expenses
Buildings	SFP	Property, plant, and equipment
Cash	SFP	Current assets
Depreciation Expense	IS	Operating expenses
Dividends	RES	Deduction section
Equipment	SFP	Property, plant, and equipment
Freight-Out	IS	Operating expenses
Gain on Disposal of Plant Assets	IS	Other income and expense
Insurance Expense	IS	Operating expenses
Interest Expense	IS	Interest expense
Interest Payable	SFP	Current liabilities
Inventory	SFP	Current assets
Land	SFP	Property, plant, and equipment
Notes Payable	SFP	Non-current liabilities
Property Taxes Payable	SFP	Current liabilities
Salaries and Wages Expense	IS	Operating expenses
Salaries and Wages Payable	SFP	Current liabilities
Sales Returns and Allowances	IS	Sales
Sales Revenue	IS	Sales
Share Capital—Ordinary	SFP	Equity
Utilities Expense	IS	Operating expenses

Related exercise material: **BE5.7, BE5.8, BE5.9, DO IT! 5.5, E5.9, E5.10, E5.12, E5.13, and E5.14.**

Determining 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 cost of goods available for sale**. Cost of goods available for sale is the sum of beginning inventory plus cost of goods purchased, as shown in **Illustration 5B.1**.

ILLUSTRATION 5B.1

Basic formula for cost of goods sold using the periodic system

	Beginning Inventory
+	Cost of Goods Purchased
	Cost of Goods Available for Sale
−	Ending Inventory
	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 5B.2**, which presents the calculation of cost of goods sold for PW Audio Supply using the periodic approach (see **Helpful Hint**).

ILLUSTRATION 5B.2

Cost of goods sold for a merchandiser using a periodic inventory system

PW Audio Supply
Cost of Goods Sold
For the Year Ended December 31, 2020

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**
Less: Inventory, December 31			**40,000**
Cost of goods sold			**€316,000**

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.

Note that the basic elements from Illustration 5B.1 are highlighted in Illustration 5B.2. 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 statement of financial position. As under the perpetual system, a company reports inventory in the current assets section.

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 merchandiser using a perpetual inventory system are shown in capital red letters. This worksheet assumes that the company did not have comprehensive income.

Trial Balance Columns

Data for the trial balance come from the ledger balances of PW Audio Supply at December 31. The amount shown for Inventory, €40,500, is the year-end inventory amount from the perpetual inventory system.

Adjustments Columns

A merchandising company generally has the same types of adjustments as a service company. As you see in the worksheet, adjustments (b), (c), and (d) are for insurance, depreciation, and salaries and wages. Yazici Advertising, as illustrated in Chapters 3 and 4, also had these adjustments. Adjustment (a) was required to adjust the perpetual inventory carrying amount to the actual count.

After PW Audio Supply enters all adjustments data on the worksheet, it establishes the equality of the adjustments column totals. It then extends the balances in all accounts to the adjusted trial balance columns.

Adjusted Trial Balance

The adjusted trial balance shows the balance of all accounts after adjustment at the end of the accounting period.

Income Statement Columns

Next, the merchandising company transfers the accounts and balances that affect the income statement from the adjusted trial balance columns to the income statement columns. PW Audio Supply shows sales of €480,000 in the credit column. It shows the contra revenue accounts Sales Returns and Allowances €12,000 and Sales Discounts €8,000 in the debit column. The difference of €460,000 is the net sales shown on the income statement (Illustration 5.14).

Finally, the company totals all the credits in the income statement column and compares those totals to the total of the debits in the income statement column. If the credits exceed the debits, the company has net income. PW Audio Supply has net income of €30,000. If the debits exceed the credits, the company would report a net loss.

Statement of Financial Position Columns

The major difference between the statements of financial position of a service company and a merchandiser is inventory. PW Audio Supply shows the ending inventory amount of €40,000 in the statement of financial position debit column. The information to prepare the retained earnings statement is also found in these columns. That is, the retained earnings beginning balance is €33,000. Dividends are €15,000. Net income results when the total of the debit column exceeds the total of the credit column in the statement of financial position columns. A net loss results when the total of the credits exceeds the total of the debit balances.

Appendix 5B Periodic Inventory System

LEARNING OBJECTIVE *7

Record purchases and sales under a 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, refer back to Illustration 5.5.

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 5.6) as follows.

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

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

Illustration 5B.3 summarizes the periodic inventory entries shown in this appendix and compares them to the perpetual-system entries from the chapter. Entries that differ in the two systems are shown in color.

Journalizing and Posting Closing Entries

For a merchandising company, like a service company, all accounts that affect the determination of net income are closed to Income Summary. Data for the preparation of closing entries may be obtained from the income statement columns of the worksheet. In journalizing, all debit column amounts are credited, and all credit columns amounts are debited. To close the merchandise inventory in a periodic inventory system:

1. The beginning inventory balance is debited to Income Summary and credited to Inventory.
2. The ending inventory balance is debited to Inventory and credited to Income Summary.

The two entries for PW Audio Supply are as follows.

	(1)		
Dec. 31	Income Summary	36,000	
	Inventory		36,000
	(To close beginning inventory)		
	(2)		
31	Inventory	40,000	
	Income Summary		40,000
	(To record ending inventory)		

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**. 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/sales transactions between PW Audio Supply and Sauk Stereo, as illustrated for the perpetual inventory system in this chapter.

Recording Purchases of Merchandise

HELPFUL HINT

Be careful not to debit purchases of equipment or supplies to a Purchases account.

On the basis of the sales invoice (Illustration 5.6) and receipt of the merchandise ordered from PW Audio Supply, Sauk Stereo records the €3,800 purchase as follows (see **Helpful Hint**).

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 Acme Freight Company €150 for freight charges on its purchase from PW Audio Supply on May 6, the entry on Sauk Stereo's books is as follows.

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 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 only to the invoice cost of the merchandise.

Purchase Returns and Allowances

Sauk Stereo returns goods costing €300 to PW Audio Supply 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.

31	Income Summary	507,200	
	Inventory (Jan. 1)		**36,000**
	Sales Returns and Allowances		12,000
	Sales Discounts		8,000
	Purchases		325,000
	Freight-In		12,200
	Salaries and Wages Expense		64,000
	Freight-Out		7,000
	Advertising Expense		16,000
	Utilities Expense		17,000
	Depreciation Expense		8,000
	Insurance Expense		2,000
	(To close beginning inventory and other income statement accounts with debit balances)		
31	Income Summary	30,000	
	Retained Earnings		30,000
	(To transfer net income to retained earnings)		
31	Retained Earnings	15,000	
	Dividends		15,000
	(To close dividends to retained earnings)		

After the closing entries are posted, all temporary accounts have zero balances. In addition, Retained Earnings has a credit balance of €48,000: Beginning balance + Net income − Dividends (€33,000 + €30,000 − €15,000).

Using a Worksheet

As indicated in Chapter 4, a worksheet enables companies to prepare financial statements before journalizing and posting adjusting entries. The steps in preparing a worksheet for a merchandising company are the same as they are for a service company.

Trial Balance Columns

Data for the trial balance come from the ledger balances of PW Audio Supply at December 31. The amount shown for Inventory, €36,000, is the beginning inventory amount from the periodic inventory system.

Adjustments Columns

A merchandising company generally has the same types of adjustments as a service company. As you see in the worksheet in **Illustration 5B.5**, adjustments (a), (b), and (c) are for insurance, depreciation, and salaries and wages. These adjustments were also required for Yazici Advertising A.Ş., as illustrated in Chapters 3 and 4. The unique accounts for a merchandiser using a **periodic inventory system** are shown in capital red letters. Note, however, that the worksheet excludes non-operating items.

After all adjustment data are entered on the worksheet, the equality of the adjustment column totals is established. The balances in all accounts are then extended to the adjusted trial balance columns.

Income Statement Columns

Next, PW Audio Supply transfers the accounts and balances that affect the income statement from the adjusted trial balance columns to the income statement columns. The company shows Sales Revenue of €480,000 in the credit column. It shows the contra revenue accounts, Sales Returns and Allowances of €12,000 and Sales Discounts of €8,000, in the debit column. The difference of €460,000 is the net sales shown on the income statement (Illustration 5.9). Similarly, Purchases of €325,000 and Freight-In of €12,200 are extended to the debit column. The contra purchase accounts, Purchase Returns and Allowances of €10,400 and Purchase Discounts of €6,800, are extended to the credit columns.

ILLUSTRATION 5B.3 Comparison of entries for perpetual and periodic inventory systems

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
6	Freight costs on purchases.	Inventory	150		Freight-In	150	
		Cash		150	Cash		150
8	Purchase returns and allowances.	Accounts Payable	300		Accounts Payable	300	
		Inventory		300	Purchase Returns and Allowances		300
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			
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			
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

Illustration 5B.4 shows the Inventory and Income Summary accounts after posting.

ILLUSTRATION 5B.4

Posting closing entries for merchandise inventory

Inventory						Income Summary					
1/1	Bal.	36,000	12/31	Close	36,000	12/31	Close	36,000	12/31	Close	40,000
12/31	Close	40,000									
12/31	Bal.	40,000									

HELPFUL HINT

Except for merchandise inventory, the easiest way to prepare the first two closing entries is to identify the temporary accounts by their balances and then prepare one entry for the credits and one for the debits.

Often, the closing of Inventory is included with other closing entries, as shown for PW Audio Supply (see **Helpful Hint**). (*Close Inventory with other accounts in homework problems unless stated otherwise.*)

Dec. 31	**Inventory (Dec. 31)**	**40,000**	
	Sales Revenue	480,000	
	Purchase Returns and Allowances	10,400	
	Purchase Discounts	6,800	
	Income Summary		537,200
	(To record ending inventory and close accounts with credit balances)		

Illustration 5B.6 shows these two procedures.

ILLUSTRATION 5B.6

Worksheet procedures for inventories

		Income Statement			Statement of Financial Position	
		Dr.	Cr.		Dr.	Cr.
Inventory	(1)	**36,000**	**40,000** ←	(2) →	**40,000**	

The computation for cost of goods sold, taken from the income statement column in Illustration 5B.5, is as shown in **Illustration 5B.7** (see **Helpful Hint**).

ILLUSTRATION 5B.7

Computation of cost of goods sold from worksheet columns

Debit Column		Credit Column	
Beginning inventory	€ 36,000	Ending inventory	€40,000
Purchases	325,000	Purchase returns and allowances	10,400
Freight-in	12,200	Purchase discounts	6,800
Total debits	373,200	Total credits	€57,200
Less: Total credits	57,200		
Cost of goods sold	**€316,000**		

HELPFUL HINT

In a periodic system, cost of goods sold is a computation—it is not a separate account with a balance.

Finally, PW Audio Supply totals all the credits in the income statement column and compares these totals to the total of the debits in the income statement column. If the credits exceed the debits, the company has net income. PW Audio Supply has net income of €30,000. If the debits exceed the credits, the company would report a net loss.

Statement of Financial Position Columns

The major difference between the statements of financial position of a service company and a merchandising company is inventory. PW Audio Supply shows ending inventory of €40,000 in the statement of financial position debit column. The information to prepare the retained earnings statement is also found in these columns. That is, the retained earnings beginning balance is €33,000. Dividends are €15,000. Net income results when the total of the debit column exceeds the total of the credit column in the statement of financial position columns. A net loss results when the total of the credits exceeds the total of the debit balances.

Review and Practice

Learning Objectives Review

1 Describe merchandising operations and inventory systems.

Because 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 and a periodic inventory system.

2 Record purchases under a perpetual inventory system.

The company debits the Inventory account for all purchases of merchandise and freight-in, and credits it for purchase discounts and purchase returns and allowances.

ILLUSTRATION 5B.5 Worksheet for merchandising company—periodic inventory system

PW Audio Supply

Home Insert Page Layout Formulas Data Review View

P18 fx

	A	B	C	D	E	F	G	H	I	J	K
1											
2					**PW Audio Supply**						
3					**Worksheet**						
4					**For the Year Ended December 31, 2020**						
5		Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
6											
7	Accounts	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
8	Cash	9,500				9,500				9,500	
9	Accounts Receivable	16,100				16,100				16,100	
10	INVENTORY	36,000				36,000		36,000	40,000	40,000	
11	Prepaid Insurance	3,800			(a) 2,000	1,800				1,800	
12	Equipment	80,000				80,000				80,000	
13	Accumulated Depreciation—Equipment		16,000		(b) 8,000		24,000				24,000
14	Accounts Payable		20,400				20,400				20,400
15	Share Capital—Ordinary		50,000				50,000				50,000
16	Retained Earnings		33,000				33,000				33,000
17	Dividends	15,000				15,000				15,000	
18	SALES REVENUE		480,000				480,000		480,000		
19	SALES RETURNS AND ALLOWANCES	12,000				12,000		12,000			
20	SALES DISCOUNTS	8,000				8,000		8,000			
21	PURCHASES	325,000				325,000		325,000			
22	PURCHASE RETURNS AND ALLOWANCES		10,400				10,400		10,400		
23	PURCHASE DISCOUNTS		6,800				6,800		6,800		
24	FREIGHT-IN	12,200				12,200		12,200			
25	Freight-Out	7,000				7,000		7,000			
26	Advertising Expense	16,000				16,000		16,000			
27	Salaries and Wages Expense	59,000		(c) 5,000		64,000		64,000			
28	Utilities Expense	17,000				17,000		17,000			
29	Totals	616,600	616,600								
30	Insurance Expense			(a) 2,000		2,000		2,000			
31	Depreciation Expense			(b) 8,000		8,000		8,000			
32	Salaries and Wages Payable				(c) 5,000		5,000				5,000
33	Totals			15,000	15,000	629,600	629,600	507,200	537,200	162,400	132,400
34	Net Income							30,000			30,000
35	Totals							537,200	537,200	162,400	162,400
36											
37											

Key: (a) Insurance expired. (b) Depreciation expense. (c) Salaries and wages accrued.

The worksheet procedures for the Inventory account merit specific comment:

1. The beginning balance, €36,000, is extended from the adjusted trial balance column to the **income statement debit column**. From there, it can be added in reporting cost of goods available for sale in the income statement.
2. The ending inventory, €40,000, is added to the worksheet by an **income statement credit and a statement of financial position debit**. The credit makes it possible to deduct ending inventory from the cost of goods available for sale in the income statement to determine cost of goods sold. The debit means the ending inventory can be reported as an asset on the statement of financial position.

Practice Multiple-Choice Questions

1. **(LO 1)** Gross profit will result if:
   - **a.** operating expenses are less than net income.
   - **b.** net sales are greater than operating expenses.
   - **c.** net sales are greater than cost of goods sold.
   - **d.** operating expenses are greater than cost of goods sold.

2. **(LO 2)** Under a perpetual inventory system, when goods are purchased for resale by a company:
   - **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 Freight-Out.

3. **(LO 3)** The sales accounts that normally have a debit balance are:
   - **a.** Sales Discounts.
   - **b.** Sales Returns and Allowances.
   - **c.** Both (a) and (b).
   - **d.** Neither (a) nor (b).

4. **(LO 3)** A credit sale of NT$7,500 is made on June 13, terms 2/10, net/30. A return of NT$500 is granted on June 16. The amount received as payment in full on June 23 is:
   - **a.** NT$7,000.
   - **b.** NT$6,860.
   - **c.** NT$6,850.
   - **d.** NT$6,500.

5. **(LO 2)** Which of the following accounts will normally appear in the ledger of a merchandising company that uses a perpetual inventory system?
   - **a.** Purchases.
   - **b.** Freight-In.
   - **c.** Cost of Goods Sold.
   - **d.** Purchase Discounts.

6. **(LO 3)** 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.

7. **(LO 4)** The steps in the accounting cycle for a merchandising company are the same as those in a service company **except**:
   - **a.** an additional adjusting journal entry for inventory may be needed in a merchandising company.
   - **b.** closing journal entries are not required for a merchandising company.
   - **c.** a post-closing trial balance is not required for a merchandising company.
   - **d.** an income statement is required for a merchandising company.

8. **(LO 5)** The income statement for a merchandising company shows each of the following features **except**:
   - **a.** gross profit.
   - **b.** cost of goods sold.
   - **c.** a sales section.
   - **d.** investing activities section.

9. **(LO 5)** If net sales are €400,000, cost of goods sold is €310,000, and operating expenses are €60,000, the gross profit is:
   - **a.** €30,000.
   - **b.** €90,000.
   - **c.** €340,000.
   - **d.** €400,000.

*10. **(LO 6)** In a worksheet using a perpetual inventory system, Inventory is shown in the following columns:
   - **a.** adjusted trial balance debit and statement of financial position debit.
   - **b.** income statement debit and statement of financial position debit.
   - **c** income statement credit and statement of financial position debit.
   - **d.** income statement credit and adjusted trial balance debit.

*11. **(LO 7)** In determining cost of goods sold in a periodic system:
   - **a.** purchase discounts are deducted from net purchases.
   - **b.** freight-out is added to net purchases.
   - **c.** purchase returns and allowances are deducted from net purchases.
   - **d.** freight-in is added to net purchases.

*12. **(LO 7)** If beginning inventory is HK$600,000, cost of goods purchased is HK$3,800,000, and ending inventory is HK$500,000, cost of goods sold is:
   - **a.** HK$3,900,000.
   - **b.** HK$3,700,000.
   - **c.** HK$3,300,000.
   - **d.** HK$4,200,000.

*13. **(LO 7)** When goods are purchased for resale by a company using a periodic inventory system:
   - **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.

3 Record sales under a perpetual inventory system.

When a merchandising company sells inventory, it debits Accounts Receivable (or Cash) and credits Sales Revenue for the selling price of the merchandise. At the same time, it debits Cost of Goods Sold and credits Inventory for the cost of the inventory items sold. Sales Returns and Allowances and Sales Discounts are debited and are contra revenue accounts.

4 Apply the steps in the accounting cycle to a merchandising company.

Each of the required steps in the accounting cycle for a service company applies to a merchandising company. A worksheet is again an optional step. Under a perpetual inventory system, the company must adjust the Inventory account to agree with the physical count.

5 Prepare financial statements for a merchandising company.

The income statement has the following components: sales, cost of goods sold, gross profit, operating expenses, other income and expense, and interest expense. A comprehensive income statement adds or subtracts any items of other comprehensive income to net income to arrive at other comprehensive income.

***6 Prepare a worksheet for a merchandising company.**

The steps in preparing a worksheet for a merchandising company are the same as for a service company. The unique accounts for a merchandiser are Inventory, Sales Revenue, Sales Returns and Allowances, Sales Discounts, and Cost of Goods Sold.

***7 Record purchases and sales under a periodic inventory system.**

In recording purchases under a periodic system, companies must make entries for (a) cash and credit purchases, (b) purchase returns and allowances, (c) purchase discounts, and (d) freight costs. In recording sales, companies must make entries for (a) cash and credit sales, (b) sales returns and allowances, and (c) sales discounts.

Glossary Review

Comprehensive income An income measure that includes gains and losses that are excluded from the determination of net income. (p. 5-20).

Comprehensive income statement A statement that presents items that are not included in the determination of net income, referred to as other comprehensive income. (p. 5-20).

Contra revenue account An account that is offset against a revenue account on the income statement. (p. 5-13).

Cost of goods sold The total cost of merchandise sold during the period. (p. 5-3).

FOB destination Freight terms indicating that the seller places the goods free on board to the buyer's place of business, and the seller pays the freight. (p. 5-8).

FOB shipping point Freight terms indicating that the seller places goods free on board the carrier, and the buyer pays the freight costs. (p. 5-8).

Gross profit The excess of net sales over the cost of goods sold. (p. 5-18).

Gross profit rate Gross profit expressed as a percentage, by dividing the amount of gross profit by net sales. (p. 5-18).

Net sales Sales revenue less sales returns and allowances and less sales discounts. (p. 5-17).

Operating expenses Expenses incurred in the process of earning sales revenue. (p. 5-18).

Periodic inventory system An inventory system under which the company does not keep detailed inventory records throughout the accounting period but determines the cost of goods sold only at the end of an accounting period. (p. 5-5).

Perpetual inventory system An inventory system under which the company keeps detailed records of the cost of each inventory purchase and sale, and the records continuously show the inventory that should be on hand. (p. 5-4).

Purchase allowance A deduction made to the selling price of merchandise, granted by the seller so that the buyer will keep the merchandise. (p. 5-9).

Purchase discount A cash discount claimed by a buyer for prompt payment of a balance due. (p. 5-9).

Purchase invoice A document that supports each credit purchase. (p. 5-7).

Purchase return A return of goods from the buyer to the seller for a cash or credit refund. (p. 5-9).

Sales discount A reduction given by a seller for prompt payment of a credit sale. (p. 5-13).

Sales invoice A document that supports each credit sale. (p. 5-11).

Sales returns and allowances Purchase returns and allowances from the seller's perspective. See *Purchase return* and *Purchase allowance*. (p. 5-12).

Sales revenue (Sales) The primary source of revenue in a merchandising company. (p. 5-3).

2. **(LO 2)** Prepare the journal entries to record the following transactions on Kowloon Group's books using a perpetual inventory system (amounts in thousands).

Journalize purchase transactions.

a. On March 2, Totoro Equipment sold ₩800,000 of merchandise to Kowloon, terms 2/10, n/30.

b. On March 6, Kowloon returned ₩100,000 of the merchandise purchased on March 2.

c. On March 12, Kowloon paid the balance due to Totoro.

Solution

2. a. Inventory	800,000	
Accounts Payable		800,000
b. Accounts Payable	100,000	
Inventory		100,000
c. Accounts Payable (₩800,000 – ₩100,000)	700,000	
Inventory (₩700,000 × 2%)		14,000
Cash (₩700,000 – ₩14,000)		686,000

3. **(LO 4)** Cabrera Enterprise has the following account balances: Sales Revenue €300,000, Sales Returns and Allowances €10,000, Cost of Goods Sold €174,000, and Inventory €50,000. Prepare the entries to record the closing of these items to Income Summary.

Prepare closing entries.

Solution

3. Sales Revenue	300,000	
Income Summary		300,000
Income Summary	184,000	
Cost of Goods Sold		174,000
Sales Returns and Allowances		10,000

4. **(LO 5)** Assume Yoan Company has the following reported amounts: Sales revenue $400,000, Sales discounts $10,000, Cost of goods sold $234,000, and Operating expenses $60,000. Compute the following: (a) net sales, (b) gross profit, (c) income from operations, and (d) gross profit rate. (Round to one decimal place.)

Compute net sales, gross profit, income from operations, and gross profit rate.

Solution

4. a. Net sales = $400,000 – $10,000 = $390,000

b. Gross profit = $390,000 – $234,000 = $156,000

c. Income from operations = $156,000 – $60,000 = $96,000

d. Gross profit rate = $156,000 ÷ $390,000 = 40%

Practice Exercises

1. **(LO 2, 3)** On June 10, Vareen Electronics purchased £8,000 of merchandise on account from Harrah Circuits, FOB shipping point, terms 3/10, n/30. Vareen pays the freight costs of £400 on June 11. Damaged goods totaling £300 are returned to Harrah for credit on June 12. The fair value of these goods is £70. On June 19, Vareen pays Harrah in full, less the purchase discount. Both companies use a perpetual inventory system.

Prepare purchase and sales entries.

Solutions

1. **c.** Gross profit will result if net sales are greater than cost of goods sold. The other choices are incorrect because (a) operating expenses and net income are not used in the computation of gross profit; (b) gross profit results when net sales are greater than cost of goods sold, not operating expenses; and (d) gross profit results when net sales, not operating expenses, are greater than cost of goods sold.

2. **a.** Under a perpetual inventory system, when a company purchases goods for resale, purchases on account are debited to the Inventory account, not (b) Purchases or (c) Purchase Returns and Allowances. Choice (d) is incorrect because freight costs are also debited to the Inventory account, not the Freight-Out account.

3. **c.** Both Sales Discounts and Sales Returns and Allowances normally have a debit balance. Choices (a) and (b) are both correct, but (c) is the better answer. Choice (d) is incorrect as both (a) and (b) are correct.

4. **b.** The full amount of NT$6,860 is paid within 10 days of the purchase (NT$7,500 – NT$500) – [(NT$7,500 – NT$500) × 2%]. The other choices are incorrect because (a) does not consider the discount of NT$140; (c) the amount of the discount is based upon the amount after the return is granted (NT$7,000 × 2%), not the amount before the return of merchandise (NT$7,500 × 2%); and (d) does not constitute payment in full on June 23.

5. **c.** The Cost of Goods Sold account normally appears in the ledger of a merchandising company using a perpetual inventory system. The other choices are incorrect because (a) the Purchases account, (b) the Freight-In account, and (d) the Purchase Discounts account all appear in the ledger of a merchandising company that uses a periodic inventory system.

6. **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. The other choices are incorrect because (a) only considers the recognition of the expense and ignores the revenue, (b) only considers the recognition of revenue and leaves out the expense or cost of merchandise sold, and (d) the receipt of cash and sales revenue, not reduction of inventory, are paired together, and the cost of goods sold and reduction of inventory, not sales revenue, are paired together.

7. **a.** An additional adjusting journal entry for inventory may be needed in a merchandising company to adjust for a physical inventory count, but it is not needed for a service company. The other choices are incorrect because (b) closing journal entries and (c) a post-closing trial balance are required for both types of companies. Choice (d) is incorrect because an income statement is required for both a merchandising company and a service company.

8. **d.** An investing activities section appears on the statement of cash flows, not on an income statement. Choices (a) gross profit, (b) cost of goods sold, and (c) a sales section are all features of an income statement.

9. **b.** Gross profit = Net sales (€400,000) – Cost of goods sold (€310,000) = €90,000, not (a) €30,000, (c) €340,000, or (d) €400,000.

*10. **a.** In a worksheet using a perpetual inventory system, Inventory is shown in the adjusted trial balance debit column and in the statement of financial position debit column. The other choices are incorrect because the Inventory account is not shown in the income statement columns.

*11. **d.** In determining cost of goods sold in a periodic system, freight-in is added to net purchases. The other choices are incorrect because (a) purchase discounts are deducted from purchases, not net purchases; (b) freight-out is a cost of sales, not a cost of purchases; and (c) purchase returns and allowances are deducted from purchases, not net purchases.

*12. **a.** Beginning inventory (HK$600,000) + Cost of goods purchased (HK$3,800,000) – Ending inventory (HK$500,000) = Cost of goods sold (HK$3,900,000), not (b) HK$3,700,000, (c) HK$3,300,000, or (d) HK$4,200,000.

*13. **b.** Purchases for resale are debited to the Purchases account. The other choices are incorrect because (a) purchases on account are debited to Purchases, not Inventory; (c) Purchase Returns and Allowances are always credited; and (d) freight costs are debited to Freight-In, not Purchases.

Practice Brief Exercises

Compute the missing amounts in determining cost of goods sold.

1. **(LO 1)** Presented below are the components in determining cost of goods sold for (a) Frazier Hardware, (b) Todd Supplies, and (c) Abreu Beverages. Determine the missing amounts.

	Beginning Inventory	Purchases	Cost of Goods Available for Sale	Ending Inventory	Cost of Goods Sold
a.	£120,000	£150,000	?	?	£160,000
b.	£ 50,000	?	£125,000	£45,000	?
c.	?	£220,000	£330,000	£61,000	?

Solution

1. **a.** Cost of goods available for sale = £120,000 + £150,000 = £270,000
   Ending inventory = £270,000 – £160,000 = £110,000

   b. Purchases = £125,000 – £50,000 = £75,000
   Cost of goods sold = £125,000 – £45,000 = £80,000

   c. Beginning inventory = £330,000 – £220,000 = £110,000
   Cost of goods sold = £330,000 – £61,000 = £269,000

Practice Problem

(LO 5) The adjusted trial balance columns of Falcetto SpA's worksheet for the year ended December 31, 2020, are as follows. (All amounts are in euros.)

Prepare an income statement.

	Debit		Credit
Cash	14,500	Accumulated Depreciation—Equipment	18,000
Accounts Receivable	11,100	Notes Payable	25,000
Inventory	29,000	Accounts Payable	10,600
Prepaid Insurance	2,500	Share Capital—Ordinary	70,000
Equipment	95,000	Retained Earnings	11,000
Dividends	12,000	Sales Revenue	536,800
Sales Returns and Allowances	6,700	Interest Revenue	2,500
Sales Discounts	5,000		673,900
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		
	673,900		

Instructions

Prepare an income statement for Falcetto SpA.

Solution

Falcetto SpA
Income Statement
For the Year Ended December 31, 2020

Sales		
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 income and expense		
Interest revenue		2,500
Interest expense		3,600
Net income		€ 29,500

Instructions

a. Prepare separate entries for each transaction on the books of Vareen Electronics.

b. Prepare separate entries for each transaction for Harrah Circuits. The merchandise purchased by Vareen on June 10 had cost Harrah £4,800.

Solution

1. a.

June 10	Inventory	8,000	
	Accounts Payable		8,000
11	Inventory	400	
	Cash		400
12	Accounts Payable	300	
	Inventory		300
19	Accounts Payable (£8,000 – £300)	7,700	
	Inventory (£7,700 × 3%)		231
	Cash (£7,700 – £231)		7,469

b.

June 10	Accounts Receivable	8,000	
	Sales Revenue		8,000
10	Cost of Goods Sold	4,800	
	Inventory		4,800
12	Sales Returns and Allowances	300	
	Accounts Receivable		300
12	Inventory	70	
	Cost of Goods Sold		70
19	Cash (£7,700 – £231)	7,469	
	Sales Discounts (£7,700 × 3%)	231	
	Accounts Receivable (£8,000 – £300)		7,700

Prepare an income statement.

2. (LO 5) In its income statement for the year ended December 31, 2020, Sun Ltd. reported the following condensed data.

Interest expense	NT$ 70,000	Net sales	NT$2,200,000
Operating expenses	725,000	Interest revenue	25,000
Cost of goods sold	1,300,000	Loss on disposal of plant assets	17,000

Instructions

Prepare an income statement.

Solution

2.

Sun Ltd.
Income Statement
For the Year Ended December 31, 2020

Net sales		NT$2,200,000
Cost of goods sold		1,300,000
Gross profit		900,000
Operating expenses		725,000
Income from operations		175,000
Other income and expense		
Interest revenue	NT$25,000	
Loss on disposal of plant assets	17,000	8,000
Interest expense		70,000
Net income		NT$ 113,000

b. On March 6, Edgebrook returned £120,000 of the merchandise purchased on March 2. The cost of the returned merchandise was £90,000.

c. On March 12, Benson received the balance due from Edgebrook.

BE5.4 (LO 2) From the information in BE5.3, prepare the journal entries to record these transactions on Edgebrook Company's books under a perpetual inventory system.

Journalize purchase transactions.

BE5.5 (LO 4) At year-end, the perpetual inventory records of Federer Sports showed merchandise inventory of CHF98,000. The company determined, however, that its actual inventory on hand was CHF96,100. Record the necessary adjusting entry.

Prepare adjusting entry for merchandise inventory.

BE5.6 (LO 4) Orlaida Bath Salts has the following account balances: Sales Revenue €192,000, Sales Discounts €2,000, Cost of Goods Sold €105,000, and Inventory €40,000. Prepare the entries to record the closing of these items to Income Summary.

Prepare closing entries for accounts.

BE5.7 (LO 5) Yangtze Canoes provides the following information for the month ended October 31, 2020 (amounts in Chinese yuan): sales on credit ¥280,000, cash sales ¥100,000, sales discounts ¥5,000, sales returns and allowances ¥22,000. Prepare the sales section of the income statement based on this information.

Prepare sales section of income statement.

BE5.8 (LO 5) Writing Explain where each of the following items would appear on an income statement: (a) gain on sale of equipment, (b) interest expense, (c) casualty loss from vandalism, (d) cost of goods sold, and (e) depreciation expense.

Explain presentation in an income statement.

BE5.9 (LO 5) Assume Jose Foods has the following reported amounts: Sales revenue €506,000, Sales returns and allowances €13,000, Cost of goods sold €342,000, Operating expenses €110,000. Compute the following: (a) net sales, (b) gross profit, (c) income from operations, and (d) gross profit rate. (Round to one decimal place.)

Compute net sales, gross profit, income from operations, and gross profit rate.

***BE5.10 (LO 6)** Presented below is the format of the worksheet presented in Appendix 5A.

Identify worksheet columns for selected accounts.

Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.

Indicate where the following items will appear on the worksheet: (a) Cash, (b) Inventory, (c) Sales revenue, and (d) Cost of goods sold.

Example:

Cash: Trial balance debit column; Adjusted trial balance debit column; and Statement of financial position debit column.

***BE5.11 (LO 7)** Assume that Kowloon Electronics uses a periodic inventory system and has these account balances (in thousands): Purchases ₩430,000; Purchase Returns and Allowances ₩13,000; Purchase Discounts ₩8,000; and Freight-In ₩16,000. Determine net purchases and cost of goods purchased.

Compute net purchases and cost of goods purchased.

***BE5.12 (LO 7)** Assume the same information as in BE5.11 and also that Kowloon Electronics has beginning inventory (in thousands) of ₩60,000, ending inventory of ₩86,000, and net sales of ₩ 680,000. Determine the amounts to be reported for cost of goods sold and gross profit.

Compute cost of goods sold and gross profit.

***BE5.13 (LO 7)** Prepare the journal entries to record these transactions on Huntington Kitchen's books using a periodic inventory system.

Journalize purchase transactions.

a. On March 2, Huntington purchased £900,000 of merchandise on account from Saunder Cabinets, terms 2/10, n/30.

b. On March 6, Huntington returned £184,000 of the merchandise purchased on March 2.

c. On March 12, Huntington paid the balance due to Saunder.

***BE5.14 (LO 7)** Hall Music has the following merchandise account balances: Sales Revenue $180,000, Sales Discounts $2,000, Purchases $120,000, and Purchases Returns and Allowances $30,000. In addition, it has a beginning inventory of $40,000 and an ending inventory of $30,000. Prepare the entries to record the closing of these items to Income Summary using the periodic inventory system.

Prepare closing entries for merchandise accounts.

Note: Asterisked Questions, Exercises, and Problems relate to material in the appendices to the chapter.

Questions

1. (a) "The steps in the accounting cycle for a merchandising company are different from the accounting cycle for a service company." Do you agree or disagree? (b) Is the measurement of net income for a merchandising company conceptually the same as for a service company? Explain.

2. Why is the normal operating cycle for a merchandising company likely to be longer than for a service company?

3. (a) How do the components of revenues and expenses differ between merchandising and service companies? (b) Explain the income measurement process in a merchandising company.

4. How does income measurement differ between a merchandising and a service company?

5. When is cost of goods sold determined in a perpetual inventory system?

6. Distinguish between FOB shipping point and FOB destination. Identify the freight terms that will result in a debit to Inventory by the buyer and a debit to Freight-Out by the seller.

7. Explain the meaning of the credit terms 2/10, n/30.

8. Goods costing £2,500 are purchased on account on July 15 with credit terms of 2/10, n/30. On July 18, a £200 credit memo is received from the supplier for damaged goods. Give the journal entry on July 24 to record payment of the balance due within the discount period using a perpetual inventory system.

9. Karen Lloyd believes revenues from credit sales may be recorded before they are collected in cash. Do you agree? Explain.

10. (a) What is the primary source document for recording (1) cash sales, (2) credit sales. (b) Using XXs for amounts, give the journal entry for each of the transactions in part (a).

11. A credit sale is made on July 10 for €700, terms 2/10, n/30. On July 12, €100 of goods are returned for credit. Give the journal entry on July 19 to record the receipt of the balance due within the discount period.

12. Explain why the Inventory account will usually require adjustment at year-end.

13. Prepare the closing entries for the Sales Revenue account, assuming a balance of €180,000 and the Cost of Goods Sold account with a €125,000 balance.

14. What merchandising account(s) will appear in the post-closing trial balance?

15. Regis Co. has net sales of HK$1,090,000, cost of goods sold of HK$700,000, and operating expenses of HK$230,000. What is its gross profit and its gross profit rate?

16. Kim Ho Company reports net sales of ¥800,000, gross profit of ¥570,000, and net income of ¥240,000. What are its operating expenses?

17. Identify the distinguishing features of an income statement for a merchandising company.

18. Identify the sections of an income statement that relate to (a) operating activities, and (b) non-operating activities.

***19.** Indicate the columns of the worksheet in which (a) inventory and (b) cost of goods sold will be shown using a perpetual inventory system.

***20.** Identify the accounts that are added to or deducted from Purchases to determine the cost of goods purchased using a periodic inventory system. For each account, indicate whether it is added or deducted.

***21.** Goods costing NT$60,000 are purchased on account on July 15 with credit terms of 2/10, n/30. On July 18, a NT$6,000 credit was received 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.

Brief Exercises

Compute missing amounts in determining net income.

BE5.1 (LO 1) Presented below are the components in Clearwater Pools' income statement. Determine the missing amounts.

	Sales Revenue	Cost of Goods Sold	Gross Profit	Operating Expenses	Net Income
a.	£78,000	?	£30,000	?	£10,800
b.	£108,000	£55,000	?	?	£29,500
c.	?	£83,900	£79,600	£39,500	?

Journalize perpetual inventory entries.

BE5.2 (LO 2, 3) Giovanni Leather Goods buys merchandise on account from Gordon Tannery. The selling price of the goods is €780, and the cost of the goods is €560. Both companies use perpetual inventory systems. Journalize the transaction on the books of both companies.

Journalize sales transactions.

BE5.3 (LO 3) Prepare the journal entries to record the following transactions on Benson Ltd.'s books using a perpetual inventory system.

a. On March 2, Benson sold £800,000 of merchandise on account to Edgebrook Company, terms 2/10, n/30. The cost of the merchandise sold was £620,000.

Account	Financial Statement	Classification
Freight-Out		
Insurance Expense		
Interest Payable		
Inventory		
Land		
Notes Payable (due in 5 years)		
Share Capital—Ordinary		
Retained Earnings		
Dividends		
Property Taxes Payable		
Salaries and Wages Expense		
Salaries and Wages Payable		
Sales Returns and Allowances		
Sales Revenue		
Unearned Rent Revenue		
Utilities Expense		

Exercises

E5.1 (LO 1) Mr. Soukup has prepared the following list of statements about service companies and merchandisers.

Answer general questions about merchandisers.

1. Measuring net income for a merchandiser is conceptually the same as for a service company.
2. For a merchandiser, sales less operating expenses is called gross profit.
3. For a merchandiser, the primary source of revenues is the sale of inventory.
4. Sales salaries and wages is an example of an operating expense.
5. The operating cycle of a merchandiser is the same as that of a service company.
6. In a perpetual inventory system, no detailed inventory records of goods on hand are maintained.
7. In a periodic inventory system, the cost of goods sold is determined only at the end of the accounting period.
8. A periodic inventory system provides better control over inventories than a perpetual system.

Instructions

Identify each statement as true or false. If false, indicate how to correct the statement.

E5.2 (LO 2) Information related to Duffy Yachts is presented below.

Journalize purchase transactions.

1. On April 5, purchased merchandise on account from Thomas Nautical Supply for £25,000, terms 2/10, net/30, FOB shipping point.
2. On April 6, paid freight costs of £900 on merchandise purchased from Thomas.
3. On April 7, purchased equipment on account for £26,000.
4. On April 8, returned damaged merchandise to Thomas and was granted a £2,600 credit for returned merchandise.
5. On April 15, paid the amount due to Thomas in full.

Instructions

a. Prepare the journal entries to record these transactions on the books of Duffy under a perpetual inventory system.
b. Assume that Duffy paid the balance due to Thomas on May 4 instead of April 15. Prepare the journal entry to record this payment.

Identify worksheet columns for selected accounts.

***BE5.15 (LO 7)** Presented below is the format of the worksheet using the periodic inventory system presented in Appendix 5B.

Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Statement of Financial Position	
Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.

Indicate where the following items will appear on the worksheet: (a) Cash, (b) Beginning inventory, (c) Accounts payable, and (d) Ending inventory.

Example:

Cash: Trial balance debit column; Adjustment trial balance debit column; and Statement of financial position debit column.

DO IT! Exercises

Answer general questions about merchandisers.

DO IT! 5.1 (LO 1) Indicate whether the following statements are true or false. If false, indicate how to correct the statement.

1. A merchandising company reports gross profit but a service company does not.
2. Under a periodic inventory system, a company determines the cost of goods sold each time a sale occurs.
3. A service company is likely to use accounts receivable but a merchandising company is not likely to do so.
4. Under a periodic inventory system, the cost of goods on hand at the beginning of the accounting period plus the cost of goods purchased less the cost of goods on hand at the end of the accounting period equals cost of goods sold.

Record transactions of purchasing company.

DO IT! 5.2 (LO 2) On October 5, Lepik Flowers buys merchandise on account from Tamm Gardens. The selling price of the goods is €4,700, and the cost to Tamm is €3,100. On October 8, Lepik returns defective goods with a selling price of €650 and a fair value of €160. Record the transactions on the books of Lepik.

Record transactions of selling company.

DO IT! 5.3 (LO 3) Assume information similar to that in **DO IT! 5.2**. That is: On October 5, Lepik Flowers buys merchandise on account from Tamm Gardens. The selling price of the goods is €4,700, and the cost to Tamm is €3,100. On October 8, Lepik returns defective goods with a selling price of €650 and a fair value of €160. Record the transactions on the books of Tamm.

Prepare closing entries for a merchandising company.

DO IT! 5.4 (LO 4) The trial balance of Alagoas's Boutique at December 31 shows Inventory R$21,000, Sales Revenue R$156,000, Sales Returns and Allowances R$4,100, Sales Discounts R$3,000, Cost of Goods Sold R$92,400, Interest Revenue R$3,000, Freight-Out R$2,200, Utilities Expense R$7,400, and Salaries and Wages Expense R$19,500. Prepare the closing entries for Alagoas for these accounts.

Classify financial statement accounts.

DO IT! 5.5 (LO 5) Dorothea Publications is preparing its income statement, retained earnings statement, and classified statement of financial position. Using the column headings *Account*, *Financial Statement*, and *Classification*, indicate in which financial statement and under what classification each of the following would be reported.

Account	Financial Statement	Classification
Accounts Payable		
Accounts Receivable		
Accumulated Depreciation—Buildings		
Cash		
Casualty Loss from Vandalism		
Cost of Goods Sold		
Depreciation Expense		
Equipment		

E5.8 (LO 4) Presented below is information related to Poulsen Industries for the month of January 2020.

Prepare adjusting and closing entries.

Ending inventory per perpetual records	€ 21,600	Insurance expense	€ 12,000
Ending inventory actually on hand	21,000	Rent expense	20,000
Cost of goods sold	208,000	Salaries and wages expense	59,000
Freight-out	7,000	Sales discounts	8,000
		Sales returns and allowances	13,000
		Sales revenue	378,000

Instructions

a. Prepare the necessary adjusting entry for inventory.

b. Prepare the necessary closing entries.

E5.9 (LO 5) Presented below is information for Bach Chocolatiers for the month of March 2020.

Prepare an income statement.

Cost of goods sold	£212,000	Rent expense	£ 32,000
Freight-out	9,000	Sales discounts	7,400
Insurance expense	7,000	Sales returns and allowances	13,000
Salaries and wages expense	58,000	Sales revenue	380,000
		Other comprehensive income	2,200

Instructions

a. Prepare an income statement.

b. Prepare a comprehensive income statement.

c. Compute the gross profit rate.

E5.10 (LO 5) In its income statement for the year ended December 31, 2020, Mancini Films reported the following condensed data.

Prepare an income statement.

Operating expenses	€ 725,000	Interest revenue	€ 33,000
Cost of goods sold	1,256,000	Loss on disposal of plant assets	17,000
Interest expense	70,000	Net sales	2,200,000
		Other comprehensive income	8,300

Instructions

a. Prepare an income statement.

b. Prepare a comprehensive income statement.

E5.11 (LO 2, 3) An inexperienced accountant for Zoeng Ceramics made the following errors in recording merchandising transactions.

Prepare correcting entries for sales and purchases.

1. A HK$1,750 refund to a customer for faulty merchandise was debited to Sales Revenue HK$1,750 and credited to Cash HK$1,750.
2. A HK$1,400 credit purchase of supplies was debited to Inventory HK$1,400 and credited to Cash HK$1,400.
3. A HK$2,150 sales discount was debited to Sales Revenue.
4. A cash payment of HK$200 for freight on merchandise purchases was debited to Freight-Out HK$2,000 and credited to Cash HK$2,000.

Instructions

Prepare separate correcting entries for each error, assuming that the incorrect entry is not reversed. (Omit explanations.)

E5.12 (LO 5) In 2020, Endeaver Cameras had net sales of £860,000 and cost of goods sold of £533,200. Operating expenses were £221,000, and interest expense was £7,000.

Compute various income measures.

Instructions

a. Compute Endeaver's gross profit.

b. Compute the gross profit rate. Why is this rate computed by financial statement users?

Journalize perpetual inventory entries.

E5.3 (LO 2, 3) On September 1, Moreau Office Supply had an inventory of 30 calculators at a cost of €22 each. The company uses a perpetual inventory system. During September, the following transactions occurred.

Sept.	6	Purchased with cash 90 calculators at €20 each from Roux Electronics.
	9	Paid freight of €180 on calculators purchased from Roux.
	10	Returned 3 calculators to Roux for €66 cash (including freight) because they did not meet specifications.
	12	Sold 28 calculators costing €22 (including freight) for €33 each on account to Village Book Store, terms n/30.
	14	Granted credit of €33 to Village Book Store for the return of one calculator that was not ordered.
	20	Sold 40 calculators costing €22 for €35 each on account to Holiday Card Shop, terms n/30.

Instructions

Journalize the September transactions.

Prepare purchase and sales entries.

E5.4 (LO 2, 3) On June 10, York Gifts purchased £7,600 of merchandise from Bianchi Designs, FOB shipping point, terms 2/10, n/30. York pays the freight costs of £400 on June 11. Damaged goods totaling £300 are returned to Bianchi for credit on June 12. The fair value of these goods is £70. On June 19, York pays Bianchi 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 York.

b. Prepare separate entries for each transaction for Bianchi. The merchandise purchased by York on June 10 had cost Bianchi £4,300.

Journalize sales transactions.

E5.5 (LO 3) Presented below are transactions related to Li Gourmet.

1. On December 3, Li sold HK$580,000 of merchandise on account to South China Ltd. terms 1/10, n/30, FOB shipping point. The cost of the merchandise sold was HK$364,800.
2. On December 8, South China was granted an allowance of HK$28,000 for merchandise purchased on December 3.
3. On December 13, Li received the balance due from South China.

Instructions

a. Prepare the journal entries to record these transactions on the books of Li, using a perpetual inventory system.

b. Assume that Li received the balance due from South China on January 2 of the following year instead of December 13. Prepare the journal entry to record the receipt of payment on January 2.

Prepare sales section and closing entries.

E5.6 (LO 4, 5) The adjusted trial balance of Mendoza Auto Supply shows the following data pertaining to sales at the end of its fiscal year October 31, 2020: Sales Revenue €820,000, Freight-Out €16,000, Sales Returns and Allowances €28,000, and Sales Discounts €13,000.

Instructions

a. Prepare the sales section of the income statement.

b. Prepare separate closing entries for (1) sales, and (2) the contra accounts to sales.

Prepare adjusting and closing entries.

E5.7 (LO 4) Hezir Creations had the following account balances at year-end: Cost of Goods Sold ₺60,000, Inventory ₺15,000, Operating Expenses ₺29,000, Sales Revenue ₺117,000, Sales Discounts ₺1,300, and Sales Returns and Allowances ₺1,700. A physical count of inventory determines that merchandise inventory on hand is ₺14,200.

Instructions

a. Prepare the adjusting entry necessary as a result of the physical count.

b. Prepare closing entries.

*E5.16 (LO 6) The trial balance columns of the worksheet for Barbosa Apparel at June 30, 2020, are as follows.

Prepare a worksheet.

Barbosa Apparel
Worksheet
For the Month Ended June 30, 2020

	Trial Balance	
Account Titles	**Debit**	**Credit**
Cash	2,120	
Accounts Receivable	2,740	
Inventory	11,640	
Accounts Payable		1,120
Share Capital—Ordinary		4,000
Sales Revenue		42,800
Cost of Goods Sold	20,560	
Operating Expenses	10,860	
	47,920	47,920

Other data:

Operating expenses incurred on account, but not yet recorded, total R$1,640.

Instructions

Enter the trial balance on a worksheet and complete the worksheet.

*E5.17 (LO 7) The trial balance of Biju Medical Supplies at the end of its fiscal year, August 31, 2020, includes these accounts (amounts in thousands): Inventory Rp17,200; Purchases Rp149,000; Sales Revenue Rp190,000; Freight-In Rp5,000; Sales Returns and Allowances Rp3,000; Freight-Out Rp1,000; and Purchase Returns and Allowances Rp6,200. The ending inventory is Rp16,000.

Prepare cost of goods sold section.

Instructions

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

*E5.18 (LO 7) On January 1, 2020, Scott Enterprises inventory of £50,000. At December 31, 2020, Scott had the following account balances.

Compute various income statement items.

Freight-in	£ 4,000
Purchases	509,000
Purchase discounts	6,000
Purchase returns and allowances	8,000
Sales revenue	840,000
Sales discounts	7,000
Sales returns and allowances	11,000

At December 31, 2020, Scott determines that its ending inventory is £60,000.

Instructions

a. Compute Scott's 2020 gross profit.

b. Compute Scott's 2020 operating expenses if net income is £130,000 and there are no non-operating activities.

*E5.19 (LO 7) Below is a series of cost of goods sold sections for companies Alpha, Beta, Chi, and Decca.

Compute missing amounts for cost of goods sold section.

	Alpha	**Beta**	**Chi**	**Decca**
Beginning inventory	€ 165	€ 70	€1,000	€ (j)
Purchases	1,620	1,060	(g)	43,810
Purchase returns and allowances	40	(d)	290	(k)
Net purchases	(a)	1,030	6,210	41,090
Freight-in	95	(e)	(h)	2,240
Cost of goods purchased	(b)	1,280	7,940	(l)
Cost of goods available for sale	1,840	1,350	(i)	49,530
Ending inventory	310	(f)	1,450	6,230
Cost of goods sold	(c)	1,260	7,490	43,300

c. What is Endeaver's income from operations and net income?

d. In what section of its classified statement of financial position should Endeaver report merchandis inventory?

Compute missing amounts and compute gross profit rate.

E5.13 (LO 5) Presented below is financial information for two different companies (amounts i thousands).

	Natasha Shoes	Boris Footwear
Sales revenue	руб694,000	(d)
Sales returns	(a)	руб 5,000
Net sales	80,000	98,000
Cost of goods sold	56,000	(e)
Gross profit	(b)	37,500
Operating expenses	12,000	(f)
Net income	(c)	15,000

Instructions

a. Determine the missing amounts.

b. Determine the gross profit rates. (Round to one decimal place.)

Compute missing amounts.

E5.14 (LO 5) Financial information is presented below for three different companies.

	Athena Cosmetics	Harry Grocery	Panama Wholesalers
Sales revenue	€90,000	€ (e)	€122,000
Sales returns and allowances	(a)	5,000	12,000
Net sales	86,000	95,000	(i)
Cost of goods sold	56,000	(f)	(j)
Gross profit	(b)	22,000	24,000
Operating expenses	15,000	(g)	18,000
Income from operations	(c)	(h)	(k)
Other income and expense	(4,000)	(3,000)	(l)
Net income	(d)	11,000	5,000

Instructions

Determine the missing amounts.

Complete worksheet for selected accounts.

***E5.15 (LO 6)** The following are selected accounts for Feisal Pet Supply as reported in the worksheet at the end of May 2020.

Accounts	Adjusted Trial Balance		Income Statement		Statement of Financial Position	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	9,000					
Inventory	76,000					
Sales Revenue		460,000				
Sales Returns and Allowances	10,000					
Sales Discounts	9,000					
Cost of Goods Sold	288,000					

Instructions

Complete the worksheet by extending amounts reported in the adjusted trial balance to the appropriate columns in the worksheet. Do not total individual columns.

July 1 Purchased suitcases on account for £1,620 from Trunk Manufacturers, FOB destination, terms 2/10, n/30. The appropriate party also made a cash payment of £100 for freight on this date.

3 Sold suitcases on account to Satchel World for £2,200. The cost of suitcases sold was £1,400.

9 Paid Trunk Manufacturers in full.

12 Received payment in full from Satchel World.

17 Sold suitcases on account to Lady GoGo for £1,400. The cost of the suitcases sold was £1,030.

18 Purchased suitcases on account for £1,900 from Holiday Manufacturers, FOB shipping point, terms 1/10, n/30. The appropriate party also made a cash payment of £125 for freight on this date.

20 Received £300 credit (including freight) for suitcases returned to Holiday Manufacturers.

21 Received payment in full from Lady GoGo.

22 Sold suitcases on account to Vagabond for £2,400. The cost of suitcases sold was £1,350.

30 Paid Holiday Manufacturers in full.

31 Granted Vagabond £200 credit for suitcases returned costing £120.

Ready-Set-Go's chart of accounts includes the following: No. 101 Cash, No. 112 Accounts Receivable, No. 120 Inventory, No. 201 Accounts Payable, No. 401 Sales Revenue, No. 412 Sales Returns and Allowances, No. 414 Sales Discounts, and No. 505 Cost of Goods Sold.

Instructions

Journalize the transactions for the month of July for Ready-Set-Go using a perpetual inventory system.

P5.2 (LO 2, 3, 5) Vree Distributors completed the following merchandising transactions in the month of April. At the beginning of April, the ledger of Vree showed Cash of €8,000 and Share Capital—Ordinary of €8,000.

Journalize, post, and prepare a partial income statement.

Apr. 2 Purchased merchandise on account from Walker Supply €6,200, terms 1/10, n/30.

4 Sold merchandise on account €5,500, FOB destination, terms 1/10, n/30. The cost of the merchandise sold was €3,400.

5 Paid €240 freight on April 4 sale.

6 Received credit from Walker Supply for merchandise returned €500.

11 Paid Walker Supply in full, less discount.

13 Received collections in full, less discounts, from customers billed on April 4.

14 Purchased merchandise for cash €3,800.

16 Received refund from supplier for returned goods on cash purchase of April 14, €500.

18 Purchased merchandise from Benjamin Glassware €4,500, FOB shipping point, terms 2/10, n/30.

20 Paid freight on April 18 purchase €160.

23 Sold merchandise for cash €7,400. The merchandise sold had a cost of €4,120.

26 Purchased merchandise for cash €2,300.

27 Paid Benjamin Glassware in full, less discount.

29 Made refunds to cash customers for defective merchandise €90. The returned merchandise had a fair value of €30.

30 Sold merchandise on account €3,400, terms n/30. The cost of the merchandise sold was €1,900.

Vree's chart of accounts includes the following: No. 101 Cash, No. 112 Accounts Receivable, No. 120 Inventory, No. 201 Accounts Payable, No. 311 Share Capital—Ordinary, No. 401 Sales Revenue, No. 412 Sales Returns and Allowances, No. 414 Sales Discounts, No. 505 Cost of Goods Sold, and No. 644 Freight-Out.

Instructions

a. Journalize the transactions using a perpetual inventory system.

b. Enter the beginning cash and share capital—ordinary balances, and post the transactions. (Use J1 for the journal reference.)

c. Prepare the income statement through gross profit for the month of April 2020.

c. Gross profit €6,765

Instructions

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

Journalize purchase transactions.

***E5.20 (LO 7)** This information relates to Olaf Decor.

1. On April 5, purchased merchandise on account from DeVito Group for €18,000, terms 2/10, net/30, FOB shipping point.
2. On April 6, paid freight costs of €820 on merchandise purchased from DeVito.
3. On April 7, purchased equipment on account for €30,000.
4. On April 8, returned some of April 5 merchandise, which cost €2,800, to DeVito.
5. On April 15, paid the amount due to DeVito in full.

Instructions

a. Prepare the journal entries to record these transactions on the books of Olaf using a periodic inventory system.

b. Assume that Olaf paid the balance due to DeVito on May 4 instead of April 15. Prepare the journal entry to record this payment.

Journalize purchase transactions.

***E5.21 (LO 7)** Presented below is information related to Chilean Industries.

1. On April 5, purchased merchandise on account from Graham Ltd. for £17,400, terms 2/10, net/30, FOB shipping point.
2. On April 6, paid freight costs of £800 on merchandise purchased from Graham.
3. On April 7, purchased equipment on account from Reed Manufacturing for £27,000.
4. On April 8, returned merchandise, which cost £4,000, to Graham.
5. On April 15, paid the amount due to Graham in full.

Instructions

a. Prepare the journal entries to record these transactions on the books of Chilean Industries using a periodic inventory system.

b. Assume that Chilean Industries paid the balance due to Graham on May 4 instead of April 15. Prepare the journal entry to record this payment.

Complete worksheet.

***E5.22 (LO 7)** Presented below are selected accounts for Midler Stores as reported in the worksheet at the end of May 2020. Ending inventory is $75,000.

Accounts	Adjusted Trial Balance		Income Statement		Statement of Financial Position	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	9,000					
Inventory	80,000					
Purchases	240,000					
Purchase Returns and Allowances		30,000				
Sales Revenue		450,000				
Sales Returns and Allowances	10,000					
Sales Discounts	5,000					
Rent Expense	42,000					

Instructions

Complete the worksheet by extending amounts reported in the adjusted trial balance to the appropriate columns in the worksheet. The company uses the periodic inventory system.

Problems

Journalize purchase and sales transactions under a perpetual inventory system.

P5.1 (LO 2, 3) Ready-Set-Go distributes suitcases to retail stores and extends credit terms of 1/10, n/30 to all of its customers. At the end of June, Ready-Set-Go's inventory consisted of suitcases costing £1,200. During the month of July, the following merchandising transactions occurred.

Rosiak Fashion Center
Trial Balance
November 30, 2020

	Debit	Credit
Cash	£ 8,700	
Accounts Receivable	27,700	
Inventory	44,700	
Supplies	6,200	
Equipment	133,000	
Accumulated Depreciation—Equipment		£ 23,000
Notes Payable		51,000
Accounts Payable		48,500
Share Capital—Ordinary		50,000
Retained Earnings		38,000
Dividends	8,000	
Sales Revenue		755,200
Sales Returns and Allowances	12,800	
Cost of Goods Sold	497,400	
Salaries and Wages Expense	136,000	
Advertising Expense	24,400	
Utilities Expense	14,000	
Maintenance and Repairs Expense	12,100	
Freight-Out	16,700	
Rent Expense	24,000	
Totals	£965,700	£965,700

Adjustment data:

1. Supplies on hand totaled £2,100.
2. Depreciation is £11,500 on the equipment.
3. Interest of £4,000 is accrued on notes payable at November 30.
4. Inventory actually on hand is £44,520.

Instructions

a. Enter the trial balance on a worksheet, and complete the worksheet.

b. Journalize the adjusting entries.

c. Prepare an income statement and a retained earnings statement for the year, and a classified statement of financial position as of November 30, 2020. Notes payable of £6,000 are due in January 2021.

d. Journalize the closing entries.

e. Prepare a post-closing trial balance.

a. Adj. trial balance £981,200
Net loss £1,980

c. Gross profit £244,820
Total assets £181,520

***P5.6 (LO 7)** At the end of Hotai Department Store's fiscal year on December 31, 2020, these accounts appeared in its adjusted trial balance.

Determine cost of goods sold and gross profit under periodic approach.

Freight-In	NT$ 165,000
Inventory	1,215,000
Purchases	13,200,000
Purchase Discounts	360,000
Purchase Returns and Allowances	192,000
Sales Revenue	21,540,000
Sales Returns and Allowances	510,000

Additional facts:

1. Merchandise inventory on December 31, 2020, is NT$1,950,000.
2. Hotai Department Store uses a periodic system.

Instructions

Prepare an income statement through gross profit for the year ended December 31, 2020.

Gross profit NT$8,952,000

Prepare financial statements and adjusting and closing entries.

P5.3 **(LO 4, 5)** Starz Department Store is located near the Towne Shopping Mall. At the end of the company's calendar year on December 31, 2020, the following accounts appeared in two of its trial balances.

	Unadjusted	Adjusted		Unadjusted	Adjusted
Accounts Payable	£ 76,300	£ 77,300	Inventory	£ 75,000	£ 75,000
Accounts Receivable	50,300	50,300	Mortgage Payable	80,000	80,000
Accumulated Depr.—Buildings	42,100	52,500	Prepaid Insurance	9,600	2,400
Accumulated Depr.—Equipment	29,600	42,700	Property Tax Expense		4,800
Buildings	290,000	290,000	Property Taxes Payable		4,800
Cash	23,800	23,800	Retained Earnings	64,600	64,600
Cost of Goods Sold	412,700	412,700	Salaries and Wages Expense	105,000	105,000
Depreciation Expense		23,500	Sales Commissions Expense	10,200	14,500
Dividends	24,000	24,000	Sales Commissions Payable		4,300
Equipment	110,000	110,000	Sales Returns and Allowances	8,000	8,000
Insurance Expense		7,200	Sales Revenue	724,000	724,000
Interest Expense	3,000	8,100	Share Capital—Ordinary	112,000	112,000
Interest Payable		5,100	Utilities Expense	11,000	12,000
Interest Revenue	4,000	4,000			

Instructions

a. Prepare an income statement, a retained earnings statement, and a classified statement of financial position. £16,000 of the mortgage payable is due for payment next year.

b. Journalize the adjusting entries that were made.

c. Journalize the closing entries that are necessary.

a. Net income £132,200
Retained earnings £172,800
Total assets £456,300

Journalize, post, and prepare a trial balance.

P5.4 **(LO 2, 3, 4)** J. Zheng, a former professional tennis star, operates Zheng's Tennis Shop at the Yalong River Resort. At the beginning of the current season, the ledger of Zheng's Tennis Shop showed Cash ¥2,200, Inventory ¥1,800, and Share Capital—Ordinary ¥4,000. The following transactions were completed during April.

Apr.	4	Purchased racquets and balls from Jay-Mac Ltd. ¥760, FOB shipping point, terms 2/10, n/30.
	6	Paid freight on purchase from Jay-Mac ¥40.
	8	Sold merchandise to members ¥1,150, terms n/30. The merchandise sold had a cost of ¥790.
	10	Received credit of ¥60 from Jay-Mac for a racquet that was returned.
	11	Purchased tennis shoes from Li Sports for cash, ¥420.
	13	Paid Jay-Mac in full.
	14	Purchased tennis shirts and shorts from Everett Sportswear ¥800, FOB shipping point, terms 3/10, n/60.
	15	Received cash refund of ¥50 from Li Sports for damaged merchandise that was returned.
	17	Paid freight on Everett Sportswear purchase ¥30.
	18	Sold merchandise to members ¥980, terms n/30. The cost of the merchandise sold was ¥520.
	20	Received ¥600 in cash from members in settlement of their accounts.
	21	Paid Everett Sportswear in full.
	27	Granted an allowance of ¥40 to members for tennis clothing that did not fit properly.
	30	Received cash payments on account from members, ¥820.

The chart of accounts for the tennis shop includes the following: No. 101 Cash, No. 112 Accounts Receivable, No. 120 Inventory, No. 201 Accounts Payable, No. 311 Share Capital—Ordinary, No. 401 Sales Revenue, No. 412 Sales Returns and Allowances, and No. 505 Cost of Goods Sold.

Instructions

a. Journalize the April transactions using a perpetual inventory system.

b. Enter the beginning balances in the ledger accounts and post the April transactions. (Use J1 for the journal reference.)

c. Prepare a trial balance on April 30, 2020.

c. Total debits ¥6,130

Complete accounting cycle beginning with a worksheet.

***P5.5** **(LO 4, 5, 6)** The trial balance of Rosiak Fashion Center contained the following accounts at November 30, the end of the company's fiscal year.

Comprehensive Accounting Cycle Review

ACR5 On December 1, 2020, Jurczyk Distributing had the following account balances.

	Debit		Credit
Cash	€ 7,200	Accumulated Depreciation—Equipment	€ 2,200
Accounts Receivable	4,600	Accounts Payable	4,500
Inventory	12,000	Salaries and Wages Payable	1,000
Supplies	1,200	Share Capital—Ordinary	30,000
Equipment	22,000	Retained Earnings	9,300
	€47,000		€47,000

During December, the company completed the following summary transactions.

Dec.	6	Paid €1,600 for salaries and wages due employees, of which €600 is for December and €1,000 is for November salaries and wages payable.
	8	Received €2,100 cash from customers in payment of account (no discount allowed).
	10	Sold merchandise for cash €6,600. 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 €8,400.
	20	Paid salaries and wages €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:

1. Accrued salaries and wages payable €800.
2. Depreciation €200 per month.
3. Supplies on hand €1,700.

Instructions

a. Journalize the December transactions using a perpetual inventory system.

b. 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, and Supplies Expense.

c. Journalize and post adjusting entries.

d. Prepare an adjusted trial balance.

e. Prepare an income statement and a retained earnings statement for December and a classified statement of financial position at December 31.

d. Totals €65,600
e. Net income €840

Expand Your Critical Thinking

Financial Reporting Problem: TSMC, Ltd. (TWN)

CT5.1 The financial statements of **TSMC** are presented in Appendix A. The complete annual report, including the notes to the financial statements, is available at the company's website.

Instructions

Answer the following questions using TSMC's consolidated income statement.

a. What was the percentage change in (1) sales (net revenue) and in (2) net income from 2015 to 2016?

Calculate missing amounts and assess profitability.

***P5.7 (LO 7)** **Writing** Fons Apparel, a retail clothing operation, 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 2017 through 2020, inclusive.

	2017	**2018**	**2019**	**2020**
Inventory (ending)	€13,000	€ 11,300	€ 14,700	€ 12,200
Accounts payable (ending)	20,000			
Sales revenue		225,700	240,300	235,000
Purchases of merchandise inventory on account		141,000	150,000	132,000
Cash payments to suppliers		135,000	161,000	127,000

Instructions

a. 2019 €146,600

c. 2019 Ending accts. payable €15,000

a. Calculate cost of goods sold for each of the 2018, 2019, and 2020 fiscal years.

b. Calculate the gross profit for each of the 2018, 2019, and 2020 fiscal years.

c. Calculate the ending balance of accounts payable for each of the 2018, 2019, and 2020 fiscal years.

d. Sales declined in fiscal 2020. Does that mean 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. (Round to one decimal place.)

Journalize, post, and prepare trial balance and partial income statement using periodic approach.

***P5.8 (LO 7)** At the beginning of the current season, the ledger of Village Tennis Shop showed Cash CHF2,500, Inventory CHF1,700, and Share Capital—Ordinary CHF4,200. The following transactions were completed during April.

Apr.	4	Purchased racquets and balls from Hingis AG CHF860, terms 3/10, n/30.
	6	Paid freight on Hingis purchase CHF74.
	8	Sold merchandise to members CHF900, terms n/30.
	10	Received credit of CHF60 from Hingis for a racquet that was returned.
	11	Purchased tennis shoes from Volker Sports for cash CHF300.
	13	Paid Hingis in full.
	14	Purchased tennis shirts and shorts from Linzey Sportswear CHF700, terms 2/10, n/60.
	15	Received cash refund of CHF90 from Volker Sports for damaged merchandise that was returned.
	17	Paid freight on Linzey Sportswear purchase CHF25.
	18	Sold merchandise to members CHF1,200, terms n/30.
	20	Received CHF500 in cash from members in settlement of their accounts.
	21	Paid Linzey Sportswear in full.
	27	Granted an allowance of CHF25 to members for tennis clothing that did not fit properly.
	30	Received cash payments on account from members CHF630.

The chart of accounts for the tennis shop includes Cash, Accounts Receivable, Inventory, Accounts Payable, Share Capital—Ordinary, 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. Tot. trial balance CHF6,488

d. Gross profit CHF744

c. Prepare a trial balance on April 30, 2020.

d. Prepare an income statement through gross profit, assuming inventory on hand at April 30 is CHF2,140.

Mike thinks expenses can be cut by making both of the following changes. He feels that these changes will not have any effect on net sales.

1. Cut 2020 sales salaries (selling expenses) 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 2020 delivery expenses (selling expenses) of £30,000 by 40%.

Debbie and Mike come to you for help in deciding the best way to improve net income.

Instructions

With the class divided into groups, answer the following.

a. Prepare a condensed income statement for 2020, assuming (1) Debbie's changes are implemented and (2) Mike's ideas are adopted.

b. What is your recommendation to Debbie and Mike?

c. Prepare a condensed income statement for 2020, assuming both sets of proposed changes are made.

Communication Activity

CT5.5 The following situation is in chronological order.

1. Dexter decides to buy a surfboard.
2. He calls Boardin Co. to inquire about its surfboards.
3. Two days later, he requests Boardin Co. to make a surfboard.
4. Three days later, Boardin Co. sends Dexter a purchase order to fill out.
5. He sends back the purchase order.
6. Boardin Co. receives the completed purchase order.
7. Boardin Co. completes the surfboard.
8. Dexter picks up the surfboard.
9. Boardin Co. bills Dexter.
10. Boardin Co. receives payment from Dexter.

Instructions

In a memo to the president of Boardin Co., answer the following.

a. When should Boardin Co. record the sale?

b. Suppose that with his purchase order, Dexter is required to make a down payment. Would that change your answer?

Ethics Case

CT5.6 Anita Zurbrugg was just hired as the assistant treasurer of Yorktown Stores. The company is a specialty chain store with nine retail stores concentrated in one metropolitan area. Among other things, the payment of all invoices is centralized in one of the departments Anita 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.

Chris Dadian, the former assistant treasurer who has been promoted to treasurer, is training Anita in her new duties. He instructs Anita 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," Chris 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 mailroom 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

a. What are the ethical considerations in this case?

b. Who are the stakeholders that are harmed or benefitted in this situation?

c. Should Anita continue the practice started by Chris? Does she have any choice?

b. What was the company's gross profit rate in 2015 and 2016?

c. What was the company's percentage of net income to net sales in 2015 and 2016? Comment on any trend in this percentage.

Comparative Analysis Problem: Nestlé SA (CHE) vs. Delfi Limited (SGP)

CT5.2 **Nestlé**'s financial statements are presented in Appendix B. Financial statements of **Delfi Limited** are presented in Appendix C.

Instructions

a. Based on the information contained in these financial statements, determine each of the following for each company.

1. Gross profit for the most recent fiscal year reported in the appendices.
2. Gross profit rate for the most recent fiscal year reported in the appendices.
3. Operating income for the most recent fiscal year reported in the appendices. (*Note:* Operating income may be described with alternative labels.)
4. Percentage change in operating income for the most recent fiscal year reported in the appendices.

b. What conclusions concerning the relative profitability of the two companies can you draw from these data?

Real-World Focus

CT5.3 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 Internet.

Instructions

Search the Internet for a financial-news article about **Nestlé** (CHE) or **Delfi Limited** (SGP) that sounds interesting to you and then answer the following questions.

a. What was the source of the article (e.g., Reuters, Businesswire, PR Newswire)?

b. Assume that you are a personal financial planner and that one of your clients owns shares in the company. Write a brief memo to your client, summarizing the article and explaining the implications of the article for his or her investment.

Decision-Making Across the Organization

CT5.4 Three years ago, Debbie Sells and her brother-in-law Mike Mooney opened Family Department Store. For the first two years, business was good, but the following condensed income results for 2019 were disappointing.

Family Department Store
Income Statement
For the Year Ended December 31, 2019

Net sales		£700,000
Cost of goods sold		553,000
Gross profit		147,000
Operating expenses		
Selling expenses	£100,000	
Administrative expenses	20,000	120,000
Net income		£ 27,000

Debbie believes the problem lies in the relatively low gross profit rate (gross profit divided by net sales) of 21%. Mike believes the problem is that operating expenses are too high.

Debbie thinks the gross profit rate can be improved by making both of the following changes. She does not anticipate that these changes will have any effect on operating expenses.

1. Increase average selling prices by 20%. This increase is expected to lower sales volume so that total sales will increase only 5%.
2. Buy merchandise in larger quantities and take all purchase discounts. These changes to selling and purchasing practices are expected to increase the gross profit rate from 21% to 24%.

A Look at U.S. GAAP

LEARNING OBJECTIVE 8

Compare the accounting for merchandising under IFRS and U.S. GAAP.

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

- *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. The following is a recent income statement for **Wal-Mart Stores, Inc**. (USA). The income statement is presented in conformity with GAAP.

Real World

Wal-Mart Stores, Inc.
Income Statement

(Amounts in millions except per share data)	
Revenues:	
Net sales	$473,076
Membership and other income	3,218
	476,294
Costs and expenses:	
Cost of sales	358,069
Operating, selling, general and administrative expenses	91,353
Operating income	26,872
Interest:	
Debt	2,072
Capital leases	263
Interest income	(119)
Interest, net	2,216
Income from continuing operations before income taxes	24,656
Provision for income taxes:	
Current	8,619
Deferred	(514)
	8,105
Income from continuing operations	16,551
Income (loss) from discontinued operations, net of tax	144
Consolidated net income	16,695
Less consolidated net income attributable to noncontrolling interest	(673)
Consolidated net income attributable to Wal-Mart	$ 16,022

Similarities

- 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 performing of services. The definition under GAAP is essentially the same.

- Similar to GAAP, comprehensive income under IFRS includes unrealized gains and losses (such as those on non-trading securities) that are not included in the calculation of net income.

Differences

- Under GAAP, companies generally classify income statement items by function. Classification by function leads to descriptions like administration, distribution (selling), and manufacturing. Under IFRS, companies must classify expenses by either nature or by 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 instead of GAAP results in more transactions affecting equity (other comprehensive income) but not 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 projects that would rework the structure of financial statements. Specifically, these projects will address the issue of how to classify various items in the income statement. A main goal 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, 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 analysts.

GAAP Practice

GAAP Self-Test Questions

1. Which of the following would **not** be included in the definition of inventory under GAAP?
   - **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 and wages 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.** GAAP specifically requires use of a multiple-step income statement.
   - **b.** Under GAAP, 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.
5. Under the new format for financial statements being proposed:
   - **a.** all financial statements would adopt headings similar to the current format of the statement of financial position (balance sheet).
   - **b.** financial statements would be presented consistent with the way management usually run companies.
   - **c.** companies would be required to report income statement line items by function only.
   - **d.** the amount of detail shown in the income statement would decrease compared to current presentations.