Chapter Outline:

Learning Objectives

LO 1 Describe merchandising operations and inventory systems.

LO 2 Record purchases under a perpetual inventory system.

LO 3 Record sales under a perpetual inventory system.

LO 4 Prepare a multiple-step income statement and a comprehensive income statement.

LO 5 Determine cost of goods sold under a periodic inventory system.

LO 6 Compute and analyze gross profit rate and profit margin.

Learning Objective 1

Describe Merchandising Operations and Inventory Systems

Merchandising Operations and Inventory Systems

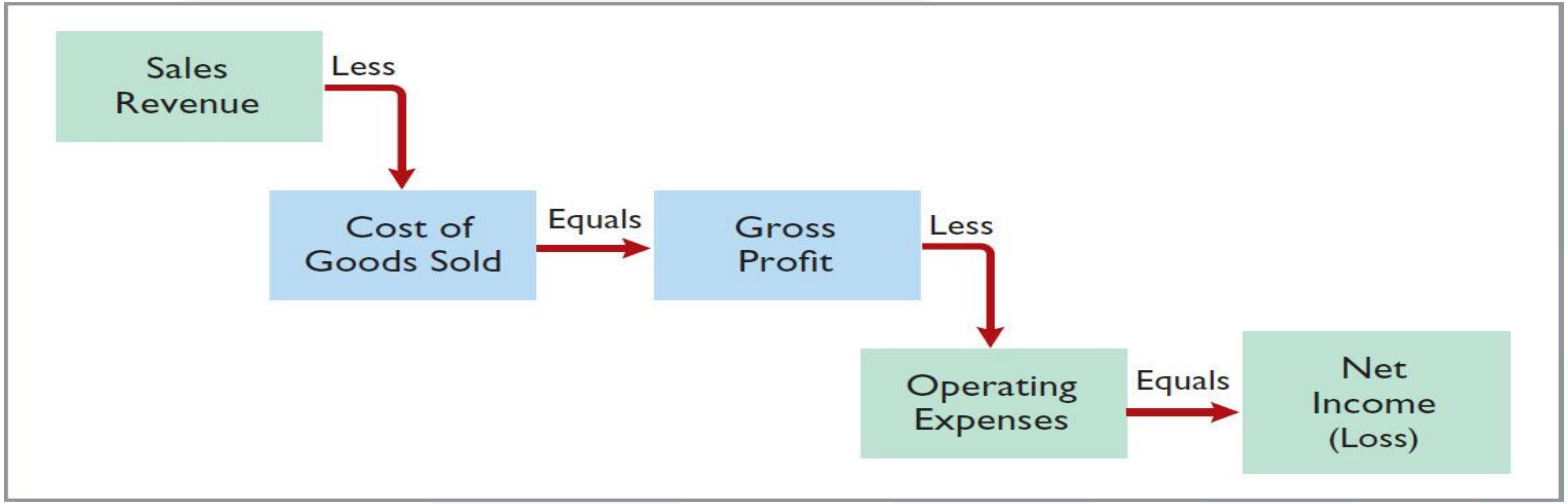
Merchandising Companies

Buy and Sell Goods

Retailer

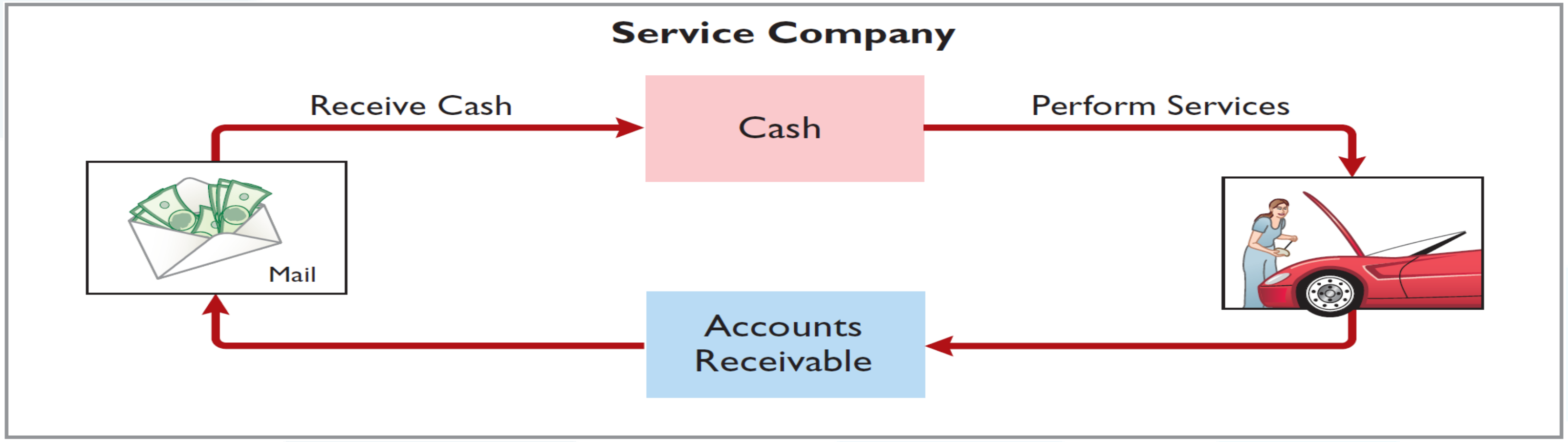
The primary source of revenues is referred to as **sales revenue** or **sales**.

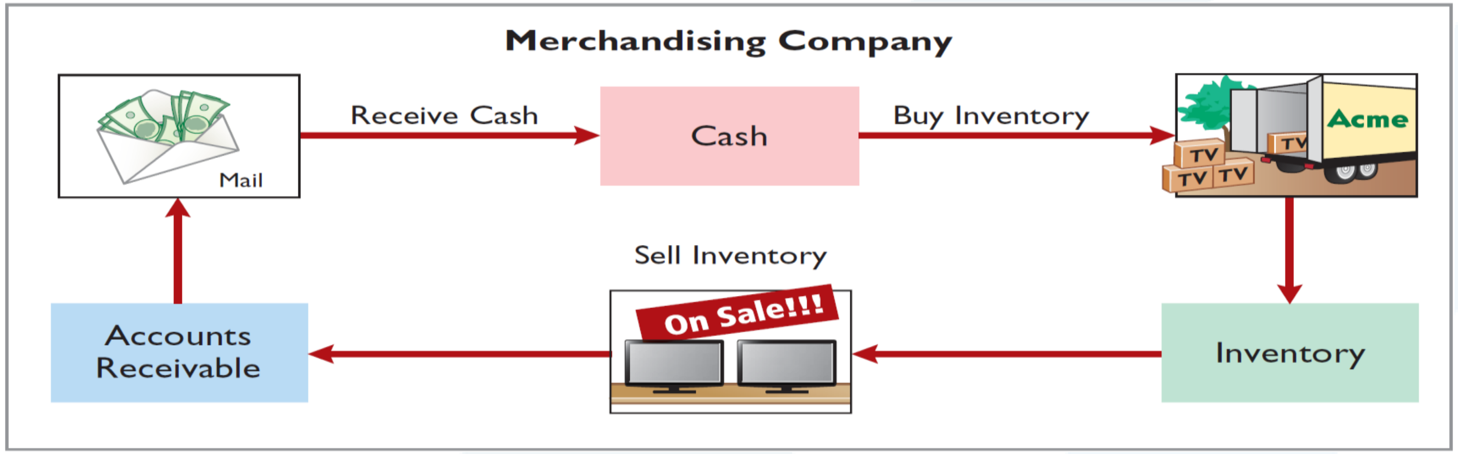
Measuring Income for a Merchandising Company



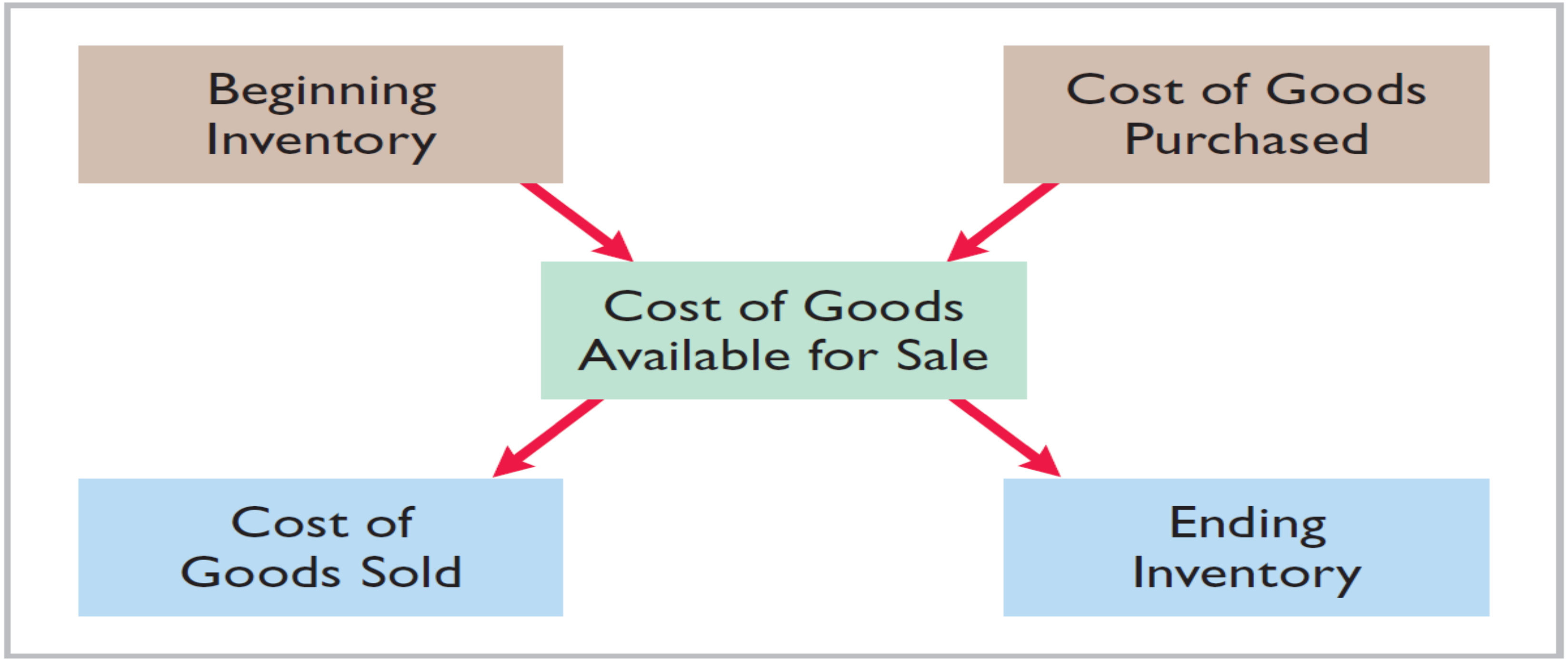
Cost of goods sold is the total cost of merchandise sold during the period.

Operating Cycles





Flow of Costs and Systems



Companies use either a **perpetual inventory system** or a **periodic inventory system** to account for inventory.

Perpetual Inventory System

A company

- Maintains detailed records of the cost of each inventory purchase and sale
- Maintains inventory records such that inventory that should be on hand is continuously updated
- Determines cost of goods sold each time a sale occurs

Periodic Inventory System (1 of 2)

A company

- Does not keep detailed records of goods on hand
- Determines cost of goods sold determined by a count
- Calculates its cost of goods sold as

Beginning inventory	$100,000
Add: Purchases, net	800,000
Goods available for sale	900,000
Less: Ending inventory	125,000
Cost of goods sold	**$775,000**

Advantages of the Perpetual System

- Traditionally used for merchandise with high unit values
- Shows quantity and cost of inventory that should be on hand at any time
- Provides better control over inventories than a periodic system

Do It! 1: Merchandising Operations and Inventory Systems

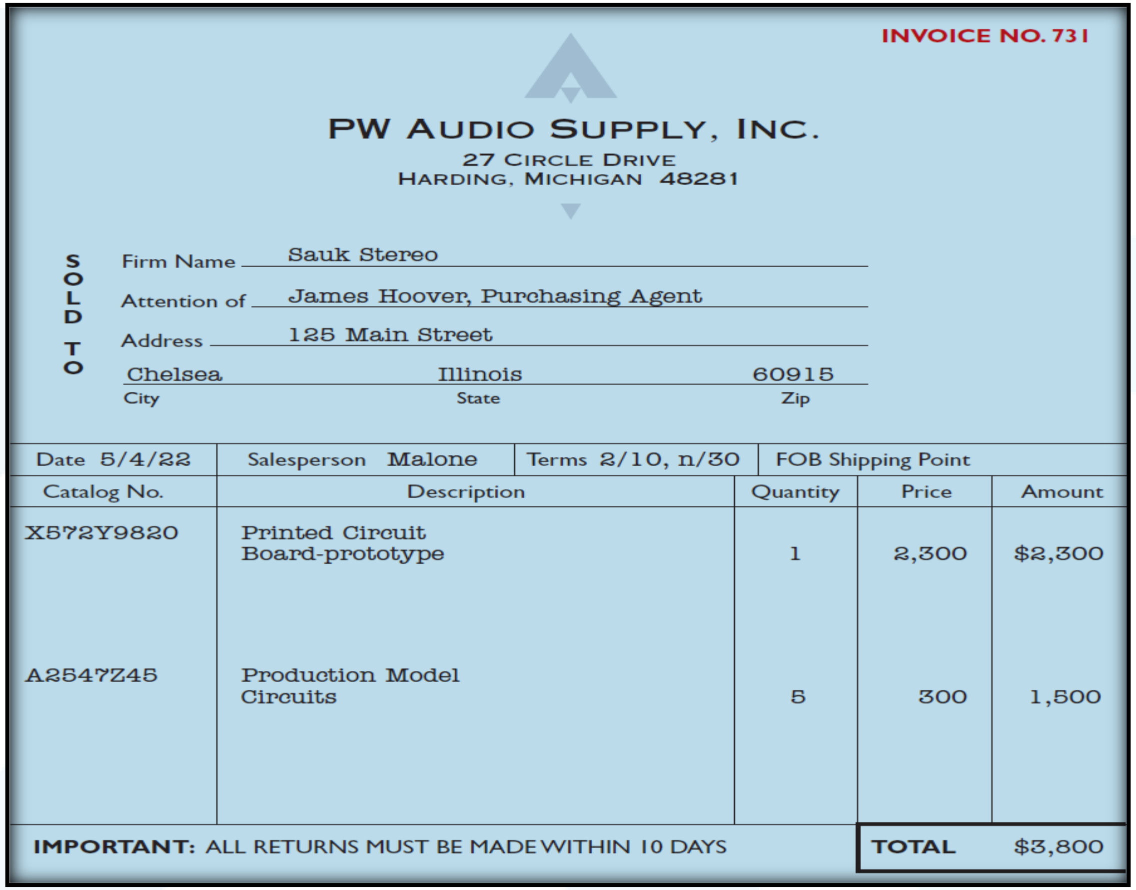
Indicate whether the following statements are **true or false**. If false, indicate how to correct the statement.

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

Learning Objective 2
Record Purchases Under a Perpetual Inventory System

Recording Purchases Under a Perpetual Inventory System

- Made using **cash or credit** (on account)
- Normally **record when** goods are received from the seller
- **Purchase invoice** should support each credit purchase



INVOICE NO. 731

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

SOLD TO

Firm Name: Sauk Stereo
Attention of: James Hoover, Purchasing Agent
Address: 125 Main Street
Chelsea (City) Illinois (State) 60915 (Zip)

Date 5/4/22 | 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

Record Purchases of Merchandise

Illustration: Sauk Stereo (the buyer) uses as a purchase invoice the sales invoice prepared by PW Audio Supply, Inc. (the seller).

Prepare the journal entry for Sauk Stereo for the invoice from PW Audio Supply.

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

SOLD TO
Firm Name: Sauk Stereo
Attention of: James Hoover, Purchasing Agent
Address: 125 Main Street
City: Chelsea State: Illinois Zip: 60915

Date 5/4/22 | 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

May 4	Inventory	3,800	
	Accounts Payable		3,800

Freight Costs (1 of 2)

Ownership of the goods passes to the buyer when the public carrier accepts the goods from the seller.

Ownership of the goods remains with the seller until the goods reach the buyer.

Freight costs incurred by the seller are an **operating expense**.

Freight Costs (2 of 2)

Illustration: Assume upon delivery of the goods on May 6, **Sauk Stereo pays** Public Freight Company $150 for **freight charges**, the entry on Sauk Stereo's books is:

May 6	Inventory	150	
	Cash		150

If the freight terms had required **PW Audio Supply to pay** the freight charges, the entry by PW Audio Supply would be:

May 4	Freight-Out (or Delivery Exp)	150	
	Cash		150

Purchase Returns and Allowances (1 of 2)

Purchaser may be dissatisfied because goods are damaged or defective, of inferior quality, or do not meet specifications.

Purchase Return

Return goods for credit if the sale was made on credit, or for a cash refund if the purchase was for cash.

Purchase Allowance

May choose to keep the merchandise if the seller will grant a reduction of the purchase price.

Recording Purchase Returns and Allowances

Illustration: Assume Sauk Stereo returned goods costing $300 to PW Audio Supply on May 8.

May 8	Accounts Payable	300	
	Inventory		300

Purchase Returns and Allowances

Review Question

In a perpetual inventory system, a return of defective merchandise by a purchaser is recorded by crediting:

a. Purchases

b. Purchase Returns

c. Purchase Allowance

d. Inventory

Purchase Returns and Allowances

Review Question Answer

In a perpetual inventory system, a return of defective merchandise by a purchaser is recorded by crediting:

a. Purchases

b. Purchase Returns

c. Purchase Allowance

d. Answer: Inventory

Nature of Purchase Discounts

- **Credit terms** may permit buyer to claim a cash discount for prompt payment.
- Advantages:
  - Purchaser saves money
  - Seller shortens the operating cycle by converting the accounts receivable into cash earlier

Example: Credit terms may read **2/10, n/30**.

Common Purchase Discounts

2/10, n/30

2% discount if paid within 10 days, otherwise net amount due within 30 days

1/10 EOM

1% discount if paid within first 10 days of next month

n/10 EOM

Net amount due within the first 10 days of the next month

Accounting for Purchase Discounts (1 of 2)

Illustration: 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. Prepare the journal entry Sauk Stereo makes on May 14 to record the payment.

Discount = $3,500 × 2% = **$70**

May 14	Accounts Payable	3,500	
	Inventory		70
	Cash		3,430

Accounting for Purchase Discounts (2 of 2)

Illustration: If Sauk Stereo failed to take the discount, and instead made full payment of $3,500 on June 3, what would the journal entry be?

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

Cost of Not Taking a Purchase Discount

Should discounts be taken when offered?

Discount of 2% on \$3,500	\$ 70.00
\$3,500 borrowed at 10% for 20 days	19.18
Savings by taking the discount	**\$ 50.82**

Example: 2% for 20 days = Annual rate of **36.5%**

(2% × 365/20)

Summary of Purchasing Transactions

Inventory

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

Do It! 2: Purchase Transactions

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

Sept. 5	Inventory	1,500	
	Accounts Payable		1,500
Sept. 8	Accounts Payable	200	
	Inventory		200

Learning Objective 3

Record Sales Under a Perpetual Inventory System

Recording Sales Under a Perpetual Inventory System

- Sales may be made on **credit or** for **cash**
- Sales revenue, like service revenue, is recorded when the performance obligation is satisfied
- Performance obligation is satisfied when goods are transferred from seller to buyer
- A **Sales invoice** should support each credit sale

Sales Invoice

A sales invoice should support each credit sale.

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Firm Name: Sauk Stereo

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Date 5/4/22 | 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
			TOTAL	$3,800

IMPORTANT: ALL RETURNS MUST BE MADE WITHIN 10 DAYS

Entries to Record Sales

Record the Revenue

Accounts Receivable	XXX		**Selling Price**
Sales Revenue		XXX	

Record the Expense

Cost of Goods Sold	XXX		**Cost**
Inventory		XXX	

Recording Sales on Account

Illustration: PW Audio Supply records the sale of $3,800 on May 4 to Sauk Stereo on account as follows. The merchandise cost PW Audio Supply $2,400.

May 4	Accounts Receivable	3,800	
	Sales Revenue		3,800
	Cost of Goods Sold	2,400	
	Inventory		2,400

Sales Returns and Allowances (1 of 2)

- **“Flip side”** of purchase returns and allowances
- **Contra revenue account** to Sales Revenue with a normal debit balance
- Sales revenue is not reduced (debited) because
  - Would obscure importance of sales returns and allowances as a percentage of sales
  - Could distort comparisons

Recording Sales Returns and Allowances (1 of 2)

Illustration: Prepare the entry PW Audio Supply would make to record the credit for returned goods that had a $300 selling price with a $140 cost. The goods were **not defective.**

May 8	Sales Returns and Allowances	300	
	Accounts Receivable		300
	Inventory	140	
	Cost of Goods Sold		140

Recording Sales Returns and Allowances (2 of 2)

Illustration: Assume the returned goods were **defective** and had a scrap value of $50, PW Audio would make the following entries:

May 8	Sales Returns and Allowances	300	
	Accounts Receivable		300
	Inventory	50	
	Cost of Goods Sold		50

Sales Returns and Allowances

Review Question

The cost of goods sold is determined and recorded each time a sale occurs in:

a. periodic inventory system only.

b. a perpetual inventory system only.

c. both a periodic and perpetual inventory system.

d. neither a periodic nor perpetual inventory system.

Sales Returns and Allowances

Review Question Answer

The cost of goods sold is determined and recorded each time a sale occurs in:

a. periodic inventory system only.

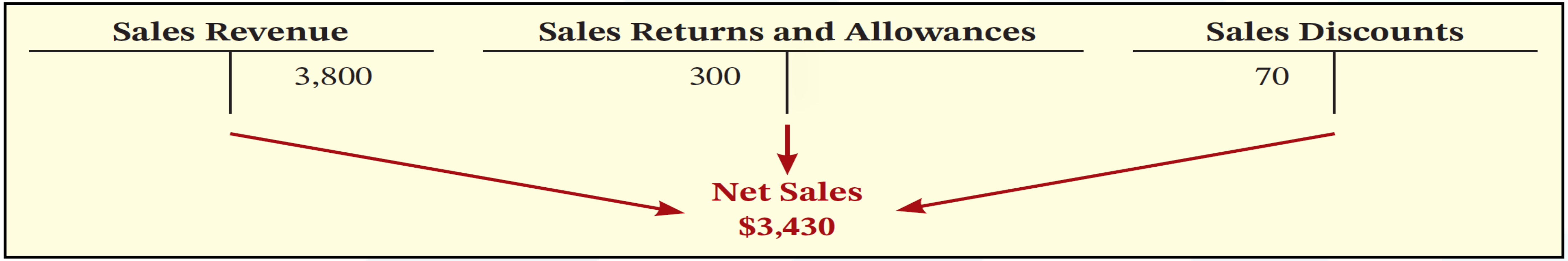
b. Answer: a perpetual inventory system only.

c. both a periodic and perpetual inventory system.

d. neither a periodic nor perpetual inventory system.

Sales Discounts (1 of 2)

- Offered to customers to promote prompt payment of the balance due
- **Contra revenue account** to Sales Revenue with a normal debit balance



Recording Sales Discounts

Illustration: 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. Prepare the journal entry PW Audio Supply makes to record the receipt on May 14.

[($3,800 − $300) × 2%]

May 14	Cash	3,430	
	Sales Discounts	70	
	Accounts Receivable		3,500

Do It! 3: Sales Transactions (1 of 2)

On September 5, De La Hoya Company buys merchandise on account from Junot Diaz Company. The selling price of the goods is $1,500, and the cost to Diaz Company was $800. On September 8, De La Hoya returns defective goods with a selling price of $200 and a fair value of $30. Record the **sale** on the books of Junot Diaz Company.

Sept. 5	Accounts Receivable	1,500	
	Sales Revenue		1,500
	Cost of Goods Sold	800	
	Inventory		800

Do It! 3: Sales Transactions (2 of 2)

On September 5, De La Hoya Company buys merchandise on account from Junot Diaz Company. The selling price of the goods is $1,500, and the cost to Diaz Company was $800. On September 8, De La Hoya returns defective goods with a selling price of $200 and a fair value of $30. Record the **return** on the books of Junot Diaz Company.

Sept. 8	Sales Returns and Allowances	200	
	Accounts Receivable		200
	Inventory	30	
	Cost of Goods Sold		30

Learning Objective 4

Prepare a Multiple-Step Income Statement and a Comprehensive Income Statement

Single-Step Income Statement (1 of 2)

- **Subtract** total expenses from total revenues
- All data classified into two categories
  - Revenues
  - Expenses
- **Two reasons** for using the single-step format:

1. Company does not realize any profit or income until total revenues exceed total expenses
2. Form is simple and easy to read

Single-Step Income Statement (2 of 2)

Recreational Equipment, Inc.
Income Statement
(in thousands)

	For the year ended	
	December 31, 2016	January 2, 2016
Revenues		
Net sales	$2,557,543	$2,423,221
Expenses		
Cost of goods sold	1,460,433	1,388,125
Payroll-related expenses	494,820	478,474
Occupancy, general and administrative	420,898	381,147
Patronage refunds and other	121,401	121,853
Income taxes	21,716	18,250
	2,519,268	2,387,849
Net income	$ 38,275	$ 35,372

Nature of the Multiple-Step Income Statement

- Highlights the components of net income
- Three important line items

1. gross profit
2. income from operations
3. net income

Components of the Multiple-Step Income Statement

Recreational Equipment, Inc.
Income Statement
(in thousands)

	For the year ended	
	December 31, 2016	**January 2, 2016**
Net sales	$2,557,543	$2,423,221
Cost of goods sold	1,460,433	1,388,125
Gross profit	1,097,110	1,035,096
Operating expenses		
Payroll-related expenses	494,820	478,474
Occupancy, general and administrative	420,898	381,147
Total operating expenses	915,718	859,621
Income from operations	181,392	175,475
Other revenues and gains		
Other revenues	-0-	-0-
Other expenses and losses		
Patronage refunds and other	121,401	121,853
Income before income taxes	59,991	53,622
Income taxes	21,716	18,250
Net income	**$ 38,275**	**$ 35,372**

Multiple-Step Income Statement (1 of 5)

PW Audio Supply, Inc.
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**

Multiple-Step Income Statement (2 of 5)

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

Multiple-Step Income Statement (3 of 5)

Gross profit	$144,000
Operating expenses	**114,000**
Income from operations	**$ 30,000**

Multiple-Step Income Statement (4 of 5)

Other Revenues and Gains
Interest revenue from notes receivable and marketable securities.
Dividend revenue from investments in capital stock.
Rent revenue from subleasing a portion of the store.
Gain from the sale of property, plant, and equipment.

Other Expenses and Losses
Interest expense on notes and loans payable.
Casualty losses from such causes as vandalism and accidents.
Loss from the sale or abandonment of property, plant, and equipment.
Loss from strikes by employees and suppliers.

Multiple-Step Income Statement (5 of 5)

PW Audio Supply, Inc.
Income Statement
For the Year Ended December 31, 2022

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	Calculation of gross profit
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	Calculation of income from operations
Other revenues and gains			
Interest revenue	3,000		
Gain on disposal of plant assets	600	3,600	
Other expenses and losses			
Interest expense	1,800		
Casualty loss from vandalism	200	2,000	Results of activities not related to operations
Income before income taxes		31,600	
Income tax expense		10,100	
Net income		$ 21,500	

Multiple-Step Income Statement

Review Question

The multiple-step income statement for a merchandiser shows each of the following features except:

a. gross profit.

b. cost of goods sold.

c. a sales revenue section.

d. investing activities section.

Multiple-Step Income Statement

Review Question Answer

The multiple-step income statement for a merchandiser shows each of the following features except:

a. gross profit.

b. cost of goods sold.

c. a sales revenue section.

d. Answer: investing activities section.

Do It! 4: Multiple-Step Income Statement (1 of 3)

The following information is available for Art Center Corp. for the year ended December 31, 2022.

Other revenues and gains	$ 8,000	Sales revenue	$462,000
Other expenses and losses	3,000	Operating expenses	187,000
Cost of goods sold	147,000	Sales discounts	20,000
		Other comprehensive income	10,000

Prepare a multiple-step income statement and comprehensive income statement for Art Center Corp. The company has a tax rate of 25%. This rate also applies to other comprehensive income.

Do It! 4: Multiple-Step Income Statement (2 of 3)

Prepare a **multiple-step** income statement. Tax rate is 25%.

Art Center Corp.
Income Statement
For the Year Ended December 31, 2022

Sales		
Service revenue		$462,000
Sales discounts		20,000
Net sales		442,000
Cost of goods sold		147,000
Gross profit		295,000
Operating expenses		187,000
Income from operations		108,000
Other revenues and gains	$8,000	
Other expenses and losses	3,000	5,000
Income before income taxes		113,000
Income tax expense		28,250
Net income		$ 84,750

Do It! 4: Multiple-Step Income Statement (3 of 3)

Prepare a **comprehensive** income statement.
Tax rate is 25%.

Art Center Corp.
Comprehensive Income Statement
For the Year Ended December 31, 2022

Net income	$84,750
Other comprehensive income (net of $2,500 tax)	7,500
Comprehensive income	**$92,250**

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Learning Objective 5

Determine Cost of Goods Sold Under a Periodic Inventory System

Periodic Inventory System (2 of 2)

- No running account of changes in inventory is maintained
- Ending inventory determined by physical count
- Cost of goods sold not determined until the end of the period

	Beginning Inventory
+	Cost of Goods Purchased
	Cost of Goods Available for Sale
−	Ending Inventory
	Cost of Goods Sold

Cost of Goods Sold under a Periodic System

PW Audio Supply, Inc.
Cost of Goods Sold
For the Year Ended December 31, 2022

Cost of goods sold			
Inventory, January 1			**$ 36,000**
Purchases		$325,000	
Less: Purchase returns and allowances	$10,400		
Purchase discounts	6,800	17,200	
Net purchases		307,800	
Add: Freight-in		12,200	
Cost of goods purchased			**320,000**
Cost of goods available for sale			356,000
Inventory, December 31			**40,000**
Cost of goods sold			**$316,000**

Do It! 5: COGS—Periodic System (1 of 2)

Aerosmith Company's accounting records show the following at the year-end December 31, 2022.

Purchase Discounts	$ 3,400	Freight-In	$ 6,100
Purchases	162,500	Beginning Inventory	18,000
Ending Inventory	20,000	Purchase Returns and Allowances	5,200

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

Do It! 5: COGS—Periodic System (2 of 2)

Solution

Beginning Inventory		$ 18,000	
Purchases	$ 162,500		
Purchase Returns and Allowances	– 5,200		
Purchase Discounts	– 3,400		
Freight-In	+ 6,100	160,000	(a)
Goods Available for Sale		178,000	
Ending Inventory		– 20,000	
Cost of Goods Sold		$158,000	(b)

Learning Objective 7

Record Purchases and Sales of Inventory Under a Periodic Inventory System

Appendix 5A Periodic Inventory System

Recording Merchandise Transactions

- Record revenues when sales are made
- Do not record cost of merchandise sold on the date of sale
- Physical inventory count determines cost of merchandise **on hand** and **sold** during the period
- Record purchases in Purchases account
- Purchase returns and allowances, purchase discounts, and freight costs are recorded in separate accounts

Recording Purchases of Merchandise

Illustration: PW Audio Supply records the sale of $3,800 on May 4 to Sauk Stereo on account as follows. The merchandise cost PW Audio Supply $2,400. Sauk Stereo records the $3,800 purchase as:

May 4	Purchases	3,800	
	Accounts Payable		3,800

Freight Costs Paid by the Purchaser

Illustration: If Sauk pays Public Freight Company $150 for freight charges on its purchase from PW Audio Supply on May 6, the entry on Sauk's books is:

May 6	Freight-In (Transportation-In)	150	
	Cash		150

Purchase Returns and Allowances (2 of 2)

Illustration: Sauk Stereo returns $300 of goods to PW Audio Supply and prepares the following entry to recognize the return.

May 8	Accounts Payable	300	
	Purchase Returns and Allowances		300

Purchase Discounts

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

May 14	Accounts Payable	3,500	
	Purchase Discounts		70
	Cash		3,430

Recording Sales of Merchandise

Illustration: PW Audio Supply, records the sale of $3,800 of merchandise to Sauk Stereo on May 4 for sales invoice No. 731 as follows.

May 4	Accounts Receivable	3,800	
	Sales Revenue		3,800

No entry is recorded for **cost of goods sold** at the time of the sale under a periodic system.

Sales Returns and Allowances (2 of 2)

Illustration: 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

Sales Discounts (2 of 2)

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

May 14	Cash	3,430	
	Sales Discounts	70	
	Accounts Receivable		3,500

Comparison of Entries—Perpetual versus Periodic (1 of 2)

Entries on Sauk Stereo's Books

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

Comparison of Entries—Perpetual versus Periodic (2 of 2)

Entries on PW Audio Supply's Books

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

Learning Objective 8

Appendix 5B

Prepare Adjusting Entries for Credit Sales with Returns and Allowances

Adjusting Entries for Credit Sales with Returns and Allowances (1 of 5)

Illustration: On January 1, Rainbow Company sells 100 pairs of shoes for $100 each on account to Tanner Inc. Rainbow allows Tanner to return any unused shoes within 45 days of purchase. The cost of each product is $60. Rainbow records the sale as follows.

Jan. 1	Accounts Receivable	10,000	
	Sales Revenue		10,000
	Cost of Goods Sold	6,000	
	Inventory		6,000

Adjusting Entries for Credit Sales with Returns and Allowances (2 of 5)

Illustration: On January 24, Tanner returns two pairs of shoes with a selling price of $100 each and a cost of $60 each because they were the wrong color. Rainbow records the return as follows.

Jan. 24	Sales Returns and Allowances	200	
	Accounts Receivable		200
	Inventory	120	
	Cost of Goods Sold		120

Adjusting Entries for Credit Sales with Returns and Allowances (3 of 5)

Illustration: On January 31, Rainbow prepares monthly financial statements and estimates that it is likely that one more pair of shoes will be returned. The selling price is $100 per pair with a unit cost of $60. Rainbow records two adjusting entries to account for this estimate.

Jan. 31	Sales Returns and Allowances	100	
	Allowance for Sales Returns and Allowances		100
	Estimated Inventory Returns	60	
	Cost of Goods Sold		60

Adjusting Entries for Credit Sales with Returns and Allowances (4 of 5)

Illustration: On February 18, Tanner returns another pair of shoes to Rainbow. The selling price is $100 per pair with a unit cost of $60. If Tanner has not already paid Rainbow for the shoes, Rainbow records the entry as follows.

Feb. 18	Allowance for Sales Returns and Allowances	100	
	Accounts Receivable		100
	Inventory	60	
	Estimated Inventory Returns		60

Adjusting Entries for Credit Sales with Returns and Allowances (5 of 5)

Illustration: If Tanner had initially paid for the shoes in cash or paid its balance due on a credit purchase prior to returning the shoes on February 18, Rainbow would credit Accounts Payable rather than Accounts Receivable as shown in the following entry.

Feb. 18	Allowance for Sales Returns and Allowances	100	
	Accounts Payable		100
	Inventory	60	
	Estimated Inventory Returns		60

Classifying and Determining Inventory

Merchandising Company	Manufacturing Company
One Classification:	**Three Classifications:**
• Merchandise Inventory	• Raw Materials • Work in Process • Finished Goods

Helpful Hint

Regardless of the classification, companies report all inventories under Current Assets on the balance sheet.

Determining Inventory Quantities

Physical inventory is taken for two reasons under each system:

Perpetual System

1. Check accuracy of inventory records
2. Determine amount of inventory lost due to wasted raw materials, shoplifting, or employee theft

Periodic System

1. Determine the inventory on hand
2. Determine cost of goods sold for the period

Taking a Physical Inventory

- Involves counting, weighing, or measuring each kind of inventory on hand
- Is performed
  - when the business is closed or business is slow
  - at the end of the accounting period

Determining Ownership of Goods

- **Goods in transit**
  - Purchased goods that are not yet received
  - Sold goods that are not yet delivered
- Goods in transit should be included in the inventory of the company that has **legal title** to the goods
  - Legal title is determined by the **terms of sale**

Freight Costs

Ownership of the goods passes to the buyer when the public carrier accepts the goods from the seller.

Ownership of the goods remains with the seller until the goods reach the buyer.

Freight costs incurred by the seller are an **operating expense**.

Determining Ownership of Goods

Review Question

Goods in transit should be included in the inventory of the buyer when the:

a. public carrier accepts the goods from the seller.

b. goods reach the buyer.

c. terms of sale are FOB destination.

d. terms of sale are FOB shipping point.

Determining Ownership of Goods

Review Question Answer

Goods in transit should be included in the inventory of the buyer when the:

a. public carrier accepts the goods from the seller.

b. goods reach the buyer.

c. terms of sale are FOB destination.

d. Answer: terms of sale are FOB shipping point.

Consigned Goods

- Goods held that are owned by other parties
- Consignee tries to sell the goods for the consignor (owner) for a fee, without taking ownership of the goods
- Many car, boat, and antique dealers sell goods on consignment. Why?

Do It! 1: Rules of Ownership (1 of 2)

Hasbeen Company completed its inventory count. It arrived at a total inventory value of $200,000. You have been given the information listed below. Discuss how this information affects the reported cost of inventory.

1. Hasbeen included in the inventory goods held on consignment for Falls Co., costing $15,000.
2. The company did not include in the count purchased goods of $10,000, which were in transit (terms FOB shipping point).
3. The company did not include in the count inventory that had been sold with a cost of $12,000, which was in transit (terms FOB shipping point).

Do It! 1: Rules of Ownership (2 of 2)

Solution

1. Goods of $15,000 held on consignment should be deducted from the inventory count.
2. The goods of $10,000 purchased FOB shipping point should be added to the inventory count.
3. Item 3 was treated correctly

Inventory = $200,000 – $15,000 + $10,000 = **$195,000**

Inventory Methods and Financial Effects

Inventory is accounted for at cost.

- Cost includes all expenditures necessary to acquire goods and place them in a condition ready for sale
- Unit costs are applied to quantities to determine the total cost of inventory and cost of goods sold using the following costing methods:

Cost flow assumptions

- Specific identification
- First-in, first-out (FIFO)
- Last-in, first-out (LIFO)
- Average-cost

Nature of Specific Identification

- An actual **physical flow** costing method in which items still in inventory are specifically costed to arrive at the total cost of the ending inventory
  - Practice is relatively rare
  - Most companies make **cost flow assumptions** about which units were sold

Specific Identification (1 of 2)

Illustration: Crivitz TV Company purchases three identical 50-inch TVs on different dates at costs of $700, $750, and $800. During the year, Crivitz sold two TVs at $1,200 each.

Data summary:

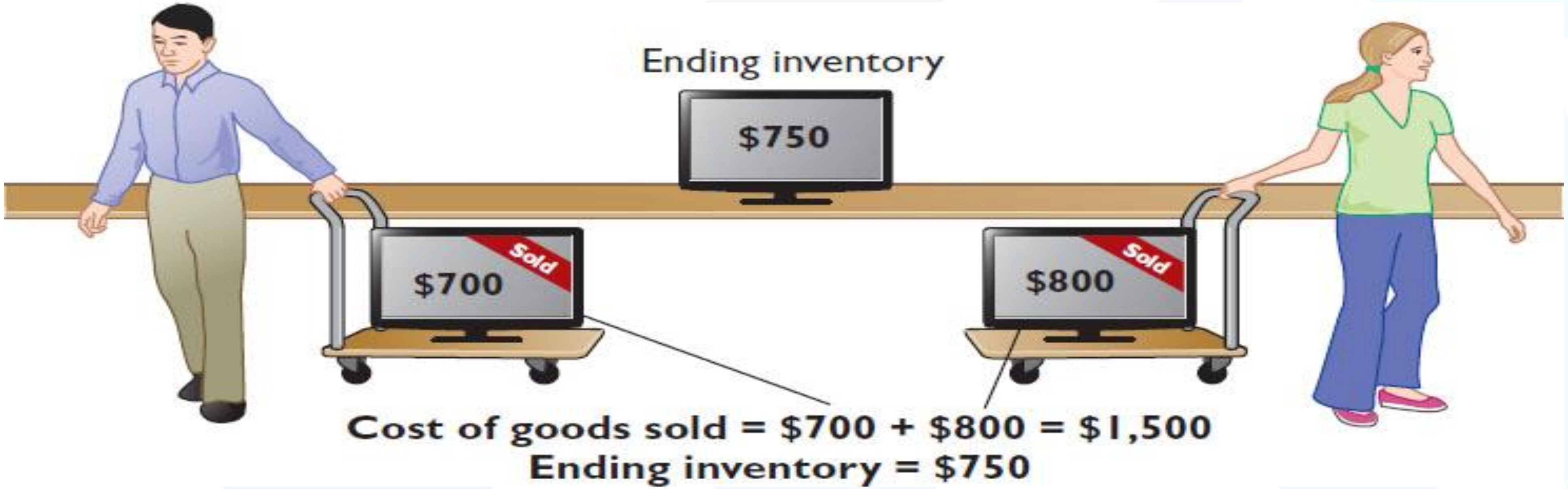
Purchases	
February 3	1 TV at $700
March 5	1 TV at $750
May 22	1 TV at $800
Sales	
June 1	2 TVs for $2,400 ($1,200 × 2)

Specific Identification (2 of 2)

Crivitz sold the TVs it purchased on February 3 and May 22.

Cost of goods sold = $700 + $800 = $1,500

Ending inventory = $750



Data for Cost Flow Assumptions

Illustration: Data for Houston Electronics' Astro condensers.

Houston Electronics
Astro Condensers

Date	Explanation	Units	Unit Cost	Total Cost
Jan. 1	Beginning inventory	100	$10	$1,000
Apr. 15	Purchase	200	11	2,200
Aug. 24	Purchase	300	12	3,600
Nov. 27	Purchase	400	13	5,200
	Total units available for sale	1,000		**$12,000**
	Units in ending inventory	(450)		
	Units sold	**550**		

Beginning Inventory + Cost of Goods Purchased − Ending Inventory = **Cost of Goods Sold**

Nature of First-In, First-Out (FIFO)

- **Costs of the earliest goods purchased** are the first to be recognized in determining cost of goods sold
  - Often parallels actual physical flow of merchandise
- Companies determine units and costs of ending inventory starting with the unit cost of the most recent purchase and working backward until all units of inventory have been costed

First-In, First-Out (FIFO) (1 of 2)

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
Jan. 1	Beginning inventory	100	$10	$ 1,000
Apr. 15	Purchase	200	11	2,200
Aug. 24	Purchase	300	12	3,600
Nov. 27	Purchase	400	13	5,200
	Total	**1,000**		**$12,000**

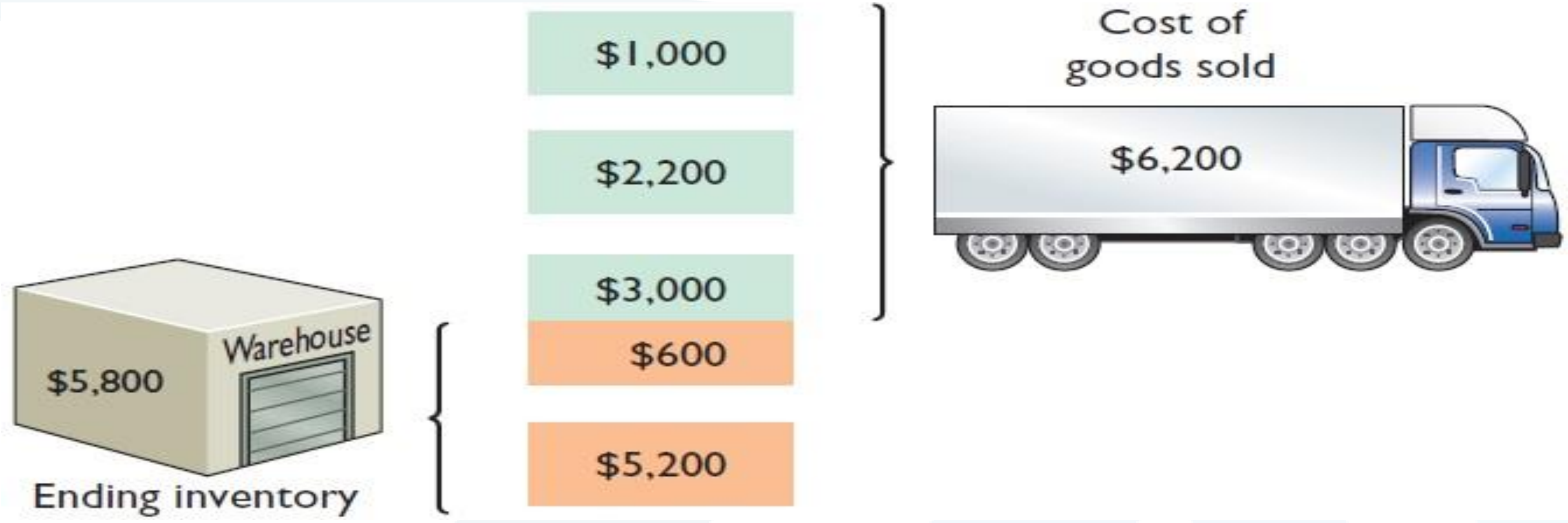
Step 1: Ending Inventory

Date	Units	Unit Cost	Total Cost
Nov. 27	400	$13	$5,200
Aug. 24	50	12	600
Total	**450**		**$5,800**

Step 2: Cost of Goods Sold

Cost of goods available for sale	$12,000
Less: Ending inventory	5,800
Cost of goods sold	**$ 6,200**

First-In, First-Out (FIFO) (2 of 2)



Helpful Hint

Another way of thinking about the calculation of FIFO **ending inventory** is the LISH assumption—last-in still- here.

Nature of Last-In, First-Out (LIFO)

- **Costs of the latest goods purchased** are the first to be recognized in determining cost of goods sold
- Seldom coincides with actual physical flow of merchandise
- Exceptions include goods stored in piles, such as coal or hay

Last-In, First-Out (LIFO) (1 of 2)

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
Jan. 1	Beginning inventory	100	$10	$ 1,000
Apr. 15	Purchase	200	11	2,200
Aug. 24	Purchase	300	12	3,600
Nov. 27	Purchase	400	13	5,200
	Total	1,000		$12,000

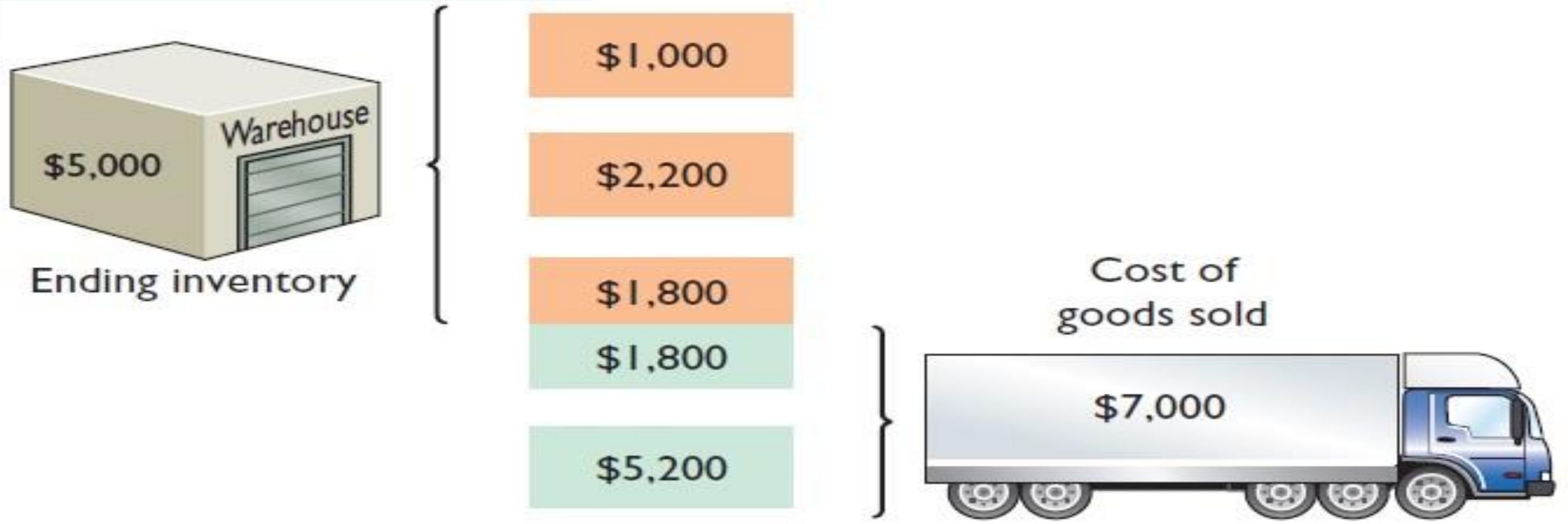
Step 1: Ending Inventory

Date	Units	Unit Cost	Total Cost
Jan. 1	100	$10	$1,000
Apr. 15	200	11	2,200
Aug. 24	150	12	1,800
Total	450		$5,000

Step 2: Cost of Goods Sold

Cost of goods available for sale	$12,000
Less: Ending inventory	5,000
Cost of goods sold	$ 7,000

Last-In, First-Out (LIFO) (2 of 2)



Helpful Hint

Another way of thinking about the calculation of LIFO ending inventory is the FIS H assumption—first-in still-here.

Nature of Average-Cost

- Allocates cost of goods available for sale on basis of **weighted-average unit cost** incurred
- Applies weighted-average unit cost to **units on hand** to determine cost of ending inventory

Average-Cost (1 of 2)

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
Jan. 1	Beginning inventory	100	$10	$ 1,000
Apr. 15	Purchase	200	11	2,200
Aug. 24	Purchase	300	12	3,600
Nov. 27	Purchase	400	13	5,200
	Total	1,000		$12,000

Step 1: Ending Inventory

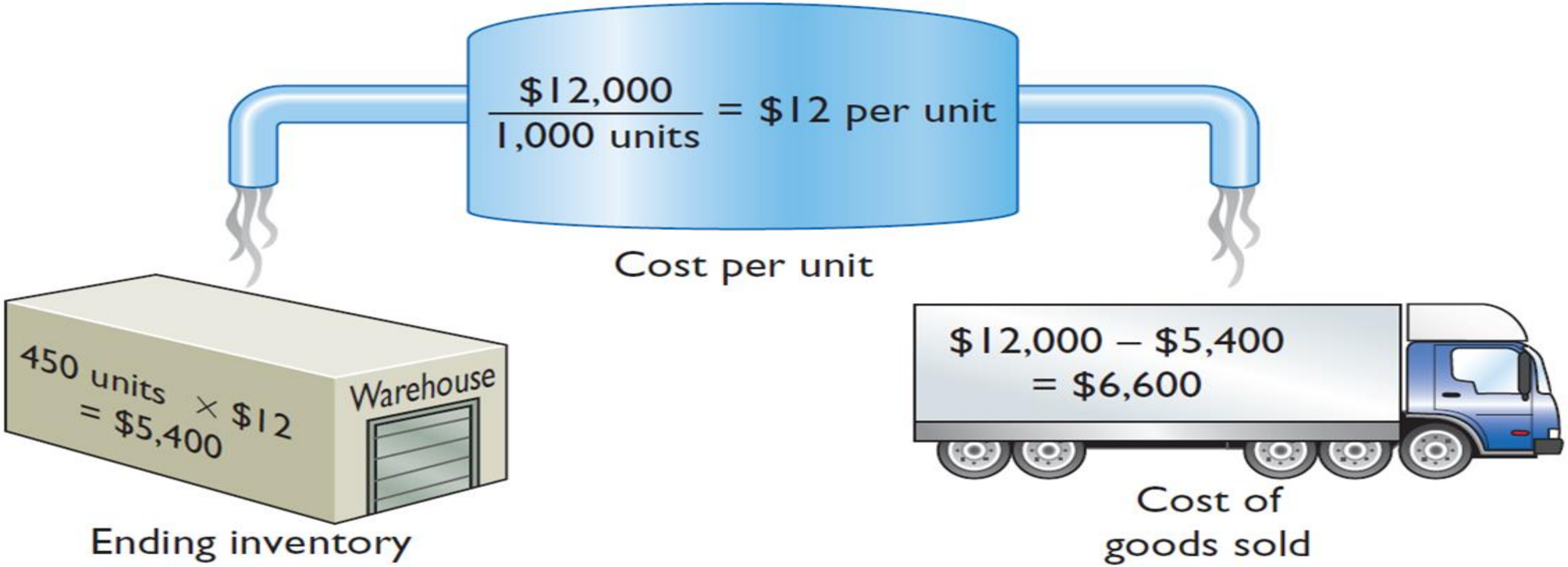
$ 12,000 ÷ 1,000 = $12

Units	Unit Cost	Total Cost
450	$12	$ 5,400

Step 2: Cost of Goods Sold

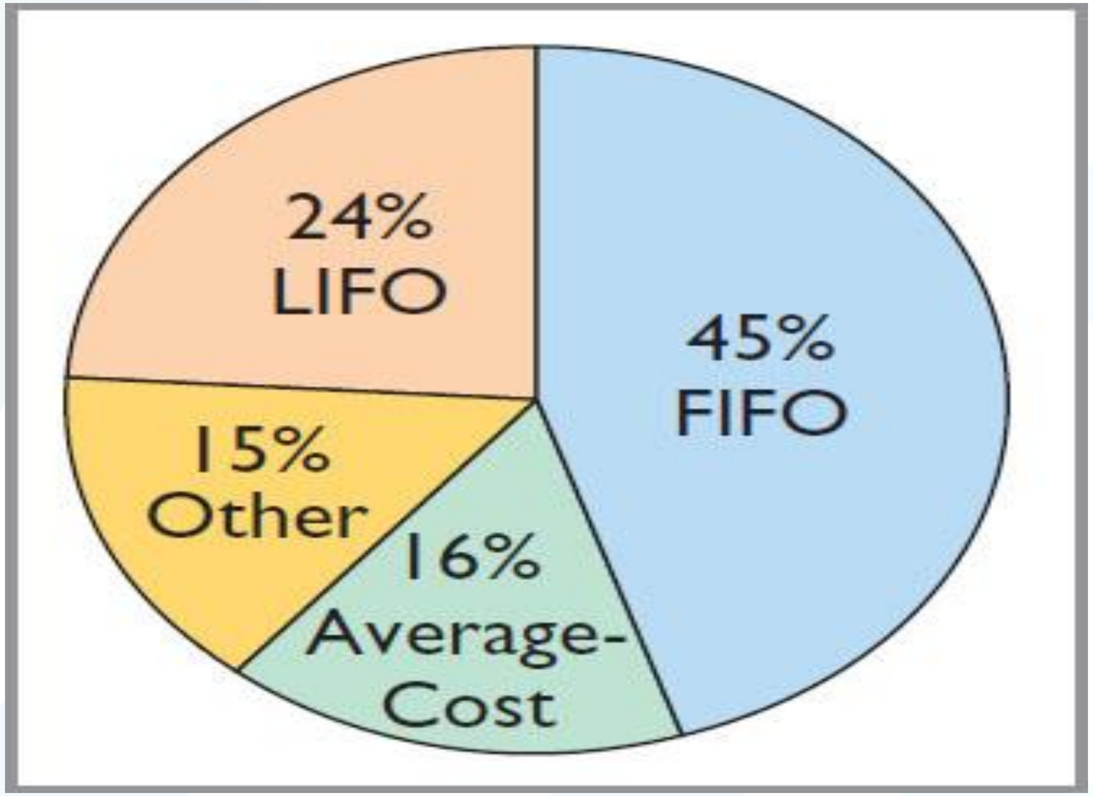
Cost of goods available for sale	$12,000
Less: Ending inventory	5,400
Cost of goods sold	$ 6,600

Average-Cost (2 of 2)



Cost Flow Assumptions Used by U.S. Companies

The cost flow assumption used does not need to be consistent with the physical movement of goods.



Adjusting Entry for Inventory Shrinkage

(slide 1 of 2)

- Under the perpetual inventory system, the merchandise inventory account is continually updated for purchase and sales transactions.
- As a result, the balance of the merchandise inventory account is the amount of merchandise available for sale at that point in time.
- However, retailers normally experience some loss of inventory due to shoplifting, employee theft, or errors.
- Thus, the physical inventory on hand at the end of the accounting period is usually less than the balance of Merchandise Inventory.
  - This difference is called **inventory shrinkage** or **inventory shortage**.

Adjusting Entry for Inventory Shrinkage

(slide 2 of 2)

- After the entry is recorded, the balance of Merchandise Inventory agrees with the physical inventory on hand at the end of the period.
- Since inventory shrinkage cannot be totally eliminated, it is considered a normal cost of operations.
  - If the amount of the shrinkage is unusually large, it may be disclosed separately on the income statement. In such cases, the shrinkage may be recorded in a separate account, such as Loss from Inventory Shrinkage.

Adjusting Entry for Customer Refunds, Allowances, and Returns (slide 1 of 2)

- Sellers are required to estimate returns and allowances at the end of an accounting period and prepare two adjusting entries:
  1. The first adjusting entry reduces the sales account and creates a customer refund liability account for the estimated refunds and allowances that will be granted to customers in the future.
  2. The second adjusting entry creates an estimated returns inventory account for the cost of merchandise that is expected to be returned and reduces cost of merchandise sold.

Financial Statements for a Merchandising Business

- Although merchandising transactions affect the balance sheet in reporting inventory, they primarily affect the income statement.
- An income statement for a merchandising business is normally prepared using either a multiple-step or single-step format.