

# Accounting Principles

**Thirteenth Edition**

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## Chapter 5

### Accounting for Merchandising Operations



# 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** Apply the steps in the accounting cycle to a merchandising company.
- LO 5** Prepare a multiple-step income statement and a ~~comprehensive income statement~~.  
Single-step income statement

## LEARNING OBJECTIVE 1

Describe merchandising operations and inventory systems.

- Merchandising Companies **Buy and Sell** Goods
- Need to maintain **inventory**.
- The primary source of revenues is referred to as **sales revenue or sales**.
- Two categories of expense: **Cost of goods sold** and **operating expenses**.



WAL★MART



babyshop

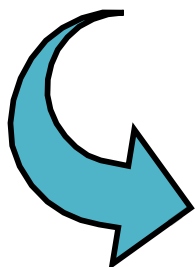
## WHOLESALER



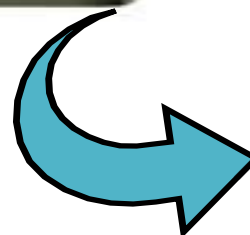
## RETAILER



Purchase goods



Sell goods



## CUSTOMERS



# Service Company

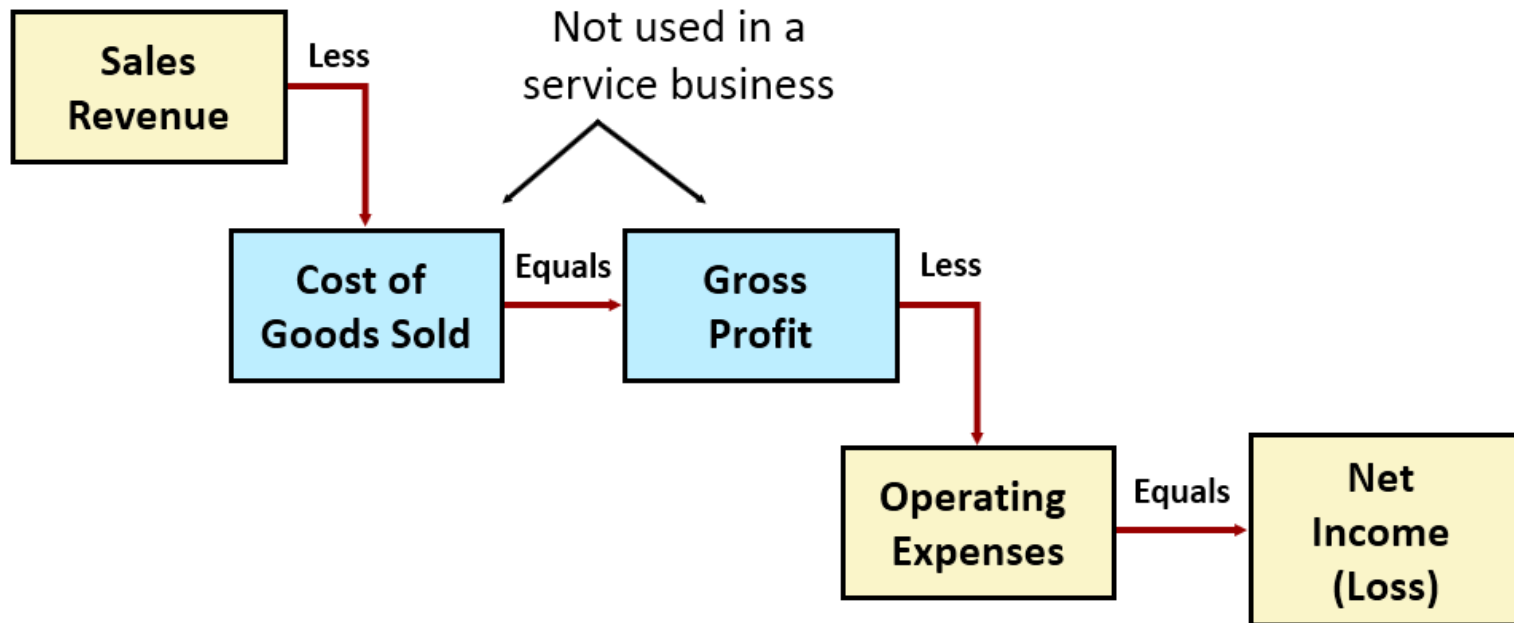


# Merchandising Company



# Merchandising Operations

## Income Measurement

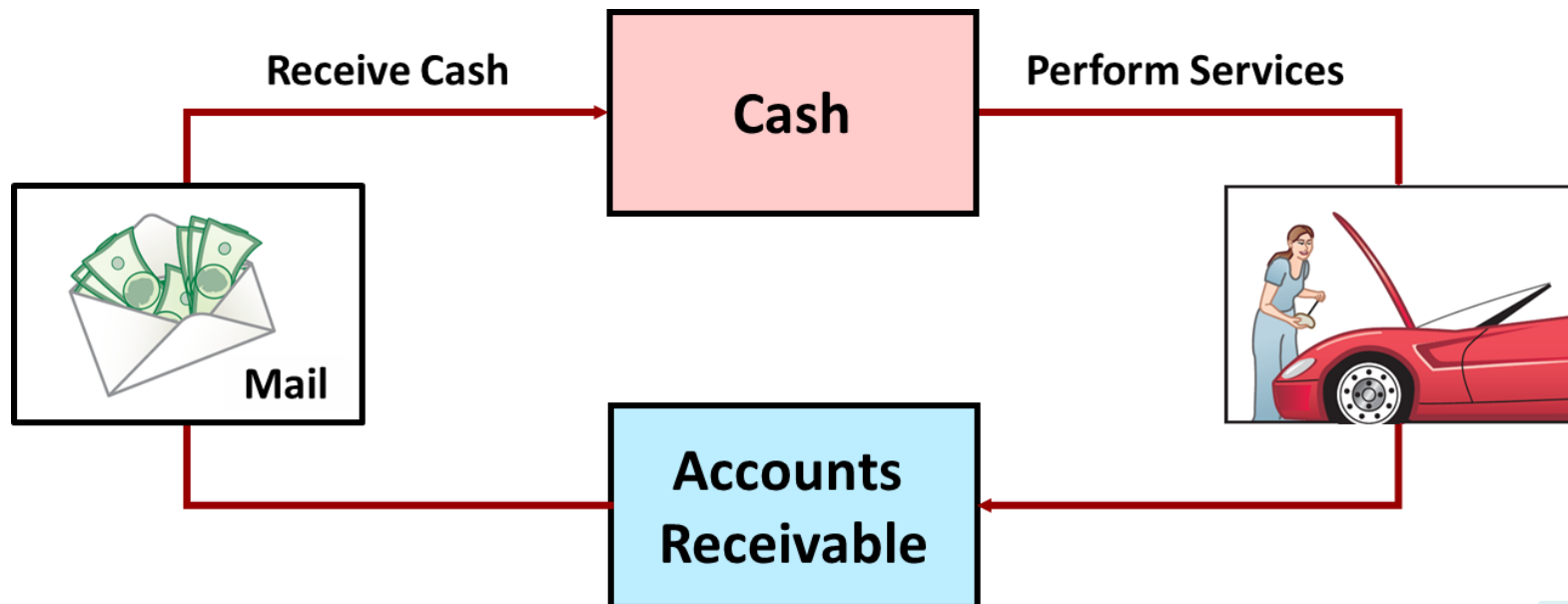


**Cost of goods sold** is the total cost of merchandise sold during the period.

# Operating Cycles

## Service Company

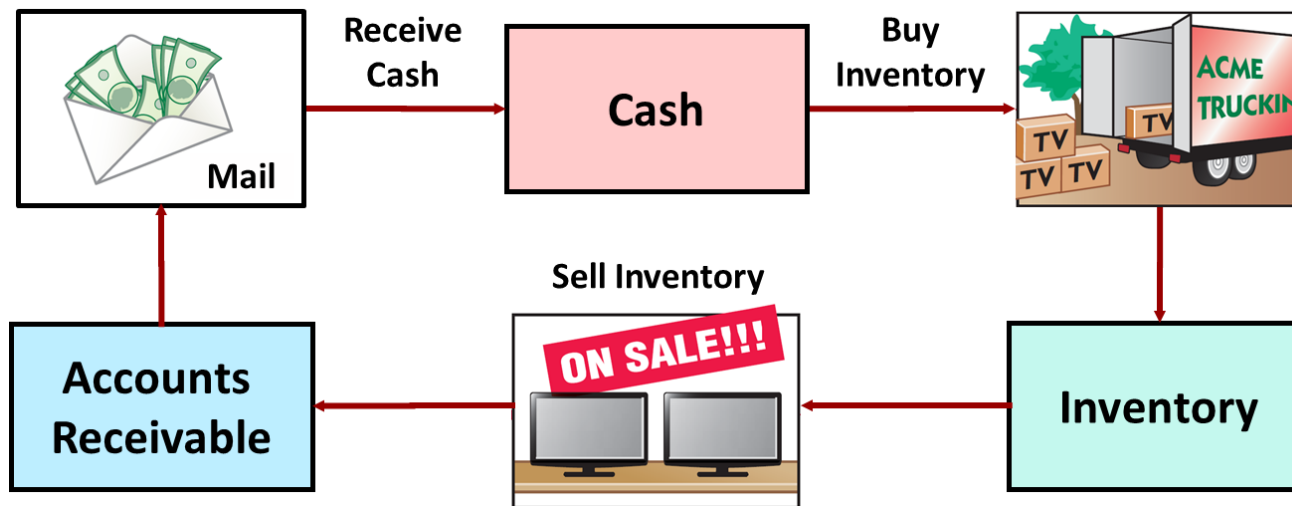
- Performed service June 1, 2020
- Service completed June 7, 2020
- Payment received July 1, 2020
- Total operating cycle 30 days



# Operating Cycles

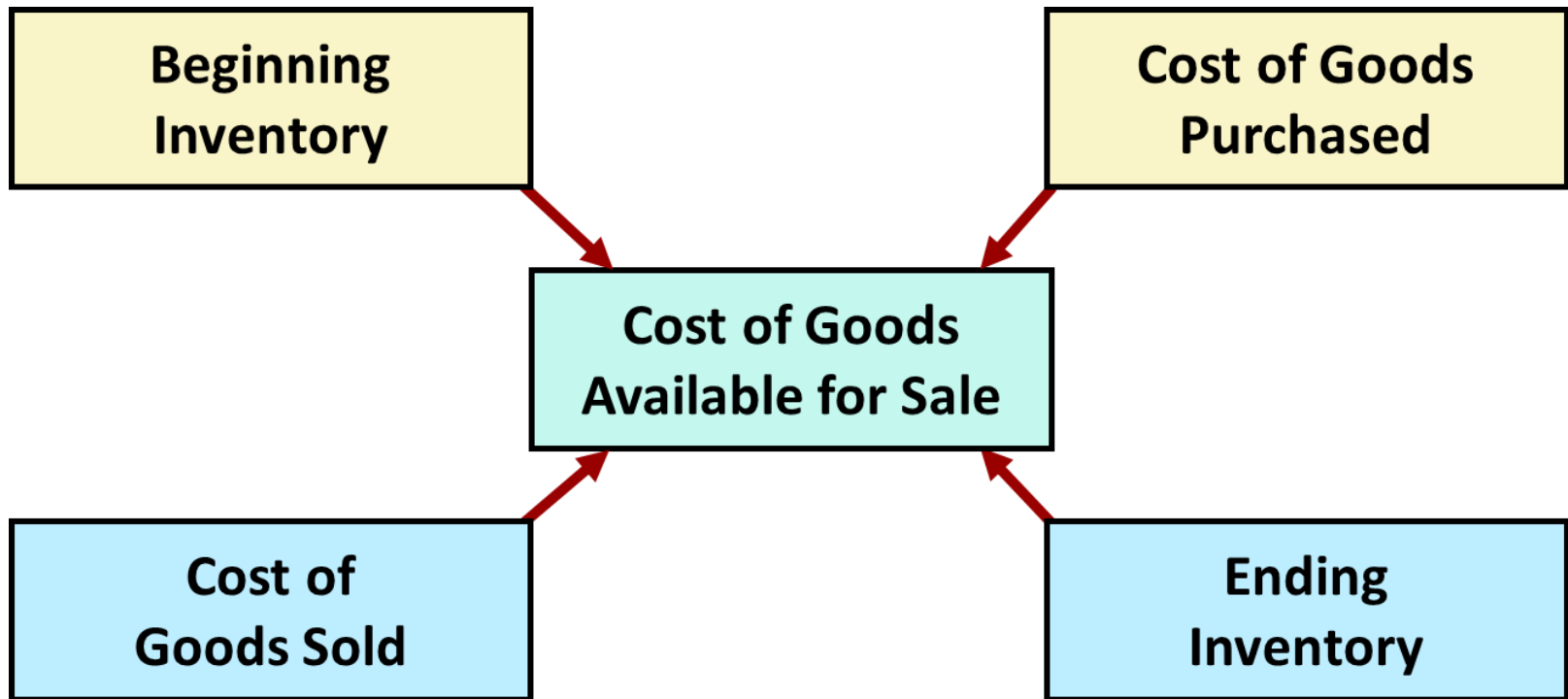
## Merchandising Company

- Purchase inventory June 1, 2020
- Make goods available for sale June 15, 2020
- **Sell goods on credit June 30, 2020**
- **Receive cash for sale of goods August 1, 2020**
- Total operating cycle 60 days



Ordinarily is longer than that of a **service company**.

# Flow of Costs



Companies use a **perpetual** or a **periodic** inventory system.

# Flow of Costs

## *Perpetual System*

- *Maintain detailed records of cost of each inventory purchase and sale*
- *Records continuously show inventory that should be on hand for every item*
- *Company determines cost of goods sold each time a sale occurs*

# Flow of Costs

## *Periodic System*

*Do not keep detailed records of the goods on hand.*

*Cost of goods sold determined by count at the end of the accounting period.*

*Calculation of Cost of Goods Sold:*

Beginning inventory	\$ 100,000
Add: Purchases, net	800,000
	<hr/>
Goods available for sale	900,000
Less: Ending inventory	125,000
	<hr/>
Cost of goods sold	<u><u>\$ 775,000</u></u>

# Flow of Costs

## *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*

## LEARNING OBJECTIVE 2

**Record purchases under a perpetual inventory system.**

*Made using **cash or credit** (on account)*

*Normally **record when** goods are received from seller*


***Purchase invoice** should support each credit purchase*



# Recording Purchases Under Perpetual System

**Purchase invoice** should support each credit purchase.

**INVOICE NO. 731**

  
**PW AUDIO SUPPLY**  
27 CIRCLE DRIVE  
HARDING, MICHIGAN 48281

**S  
O  
L  
D  
T  
O**

Firm Name Sauk Stereo

Attention of James Hoover, Purchasing Agent

Address 125 Main Street

Chelsea Illinois 60915  
City State Zip

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	
<b>IMPORTANT: ALL RETURNS MUST BE MADE WITHIN 10 DAYS</b>			<b>TOTAL</b>	<b>\$3,800</b>	

# Recording Purchases Under Perpetual System

**Illustration:** Sauk Stereo (the buyer) uses as a purchase invoice the sales invoice prepared by PW Audio Supply (the seller).  
Prepare the journal entry for Sauk Stereo for the invoice from PW Audio Supply.

Sauk Stereo purchased \$3,800 of goods from PW Audio Supply on account.

INVOICE NO. 731

**PW AUDIO SUPPLY**  
27 CIRCLE DRIVE  
HARDING, MICHIGAN 48281

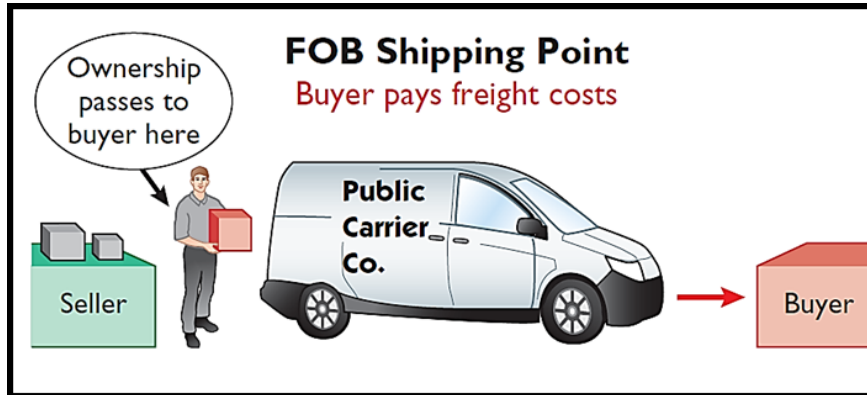
**SOLD TO**

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

Date	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			
<b>IMPORTANT: ALL RETURNS MUST BE MADE WITHIN 10 DAYS</b>					<b>TOTAL</b>	<b>\$3,800</b>		

May 4	Inventory	3,800
	Accounts Payable	3,800

# Freight Costs



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



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

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

# Freight Costs

**Illustration:** If **Sauk Stereo (the buyer)** pays Public Carrier Co. \$150 for **freight charges** on May 6, the entry on Sauk Stereo's books is:

May 6	Inventory	150	
	Cash		150

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:

May 4	Freight-Out (Delivery Expense)	150	
	Cash		150

# Purchase Returns and Allowances

**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 purchase was made on credit, or for a cash refund if purchase was for cash.

## Purchase Allowance

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

# Purchase Returns and Allowances

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

May 8	Accounts Payable	300	
	Inventory		300

**Illustration:** Assume that Sauk Stereo was granted a purchase allowance of \$50 and decided to keep the goods on May 8.

May 8	Accounts Payable	50	
	Inventory		50

# Purchase Discounts

*Credit terms* may permit buyer to claim a cash discount for prompt payment. Example: **Credit terms 2/10, n/30.**

## **Advantages:**

*Purchaser saves money*

*Seller shortens operating cycle by converting accounts receivable into cash earlier*

# 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.

$$\begin{aligned}
 2\% \text{ discount} &= \frac{2}{100} = 0.02 \\
 \text{Purchase Discount} &= \text{Net Invoice Price} \times \text{Rate of Discount} \\
 &= \$3,500 \times 0.02 \\
 &= \$70
 \end{aligned}$$

# Calculation of Purchase Discount

Discount must be calculated on net invoice price

2/10, n/30

Purchaser gets a 2% discount on the net invoice price if paid within 10 days.

Let's consider that the net invoice price was \$ 3,500

$$2\% \text{ discount} = \frac{2}{100} = 0.02$$

$$\begin{aligned}
 \text{Purchase Discount} &= \text{Net Invoice Price} \times \text{Rate of Discount} \\
 &= \$ 3,500 \times 0.02 \\
 &= \$ 70
 \end{aligned}$$

# Purchase 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. The credit term was 2/10, n/30.

May 14	Accounts Payable	3,500	
	Cash		3,430
	Inventory		70
	(Discount = $\$3,500 \times 2\% = \$70$ )		

# Purchase Discounts

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

June 3	Accounts Payable	3,500	
	Cash		3,500

# Summary of Purchase Transactions

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

# Summary of Purchase Transactions

Transactions	Daily Recurring Entries	Dr.	Cr.
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

## LEARNING OBJECTIVE 3

### Record sales under a perpetual inventory system.

Made using cash or credit (on account)

Sales revenue, like service revenue, is recorded when performance obligation is satisfied

Performance obligation is satisfied when goods are transferred from seller to buyer

Sales invoice should support each credit sales



# Recording Sales Perpetual System

## Journal Entries to Record a Sale

<b>#1</b>	Cash <b>or</b> Accounts receivable	XXX	}	<b>Selling Price</b>
	Sales revenue	XXX		

<b>#2</b>	Cost of goods sold	XXX	}	<b>Cost</b>
	Inventory	XXX		

# Recording Sales Perpetual System

**Illustration:** PW Audio Supply records its May 4 sale of \$3,800 to Sauk Stereo (Illustration 5.6) as follows (assume merchandise cost PW Audio Supply \$2,400).

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

# Sales Returns and Allowances

*“Flip side” of purchase returns and allowances*

***Contra-revenue account** to Sales Revenue (debit)*

***Sales not reduced (debited) because:***

- Would obscure importance of sales returns and allowances as a percentage of sales
- Could distort comparisons

# Sales Returns and Allowances

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

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

# Sales Returns and Allowances

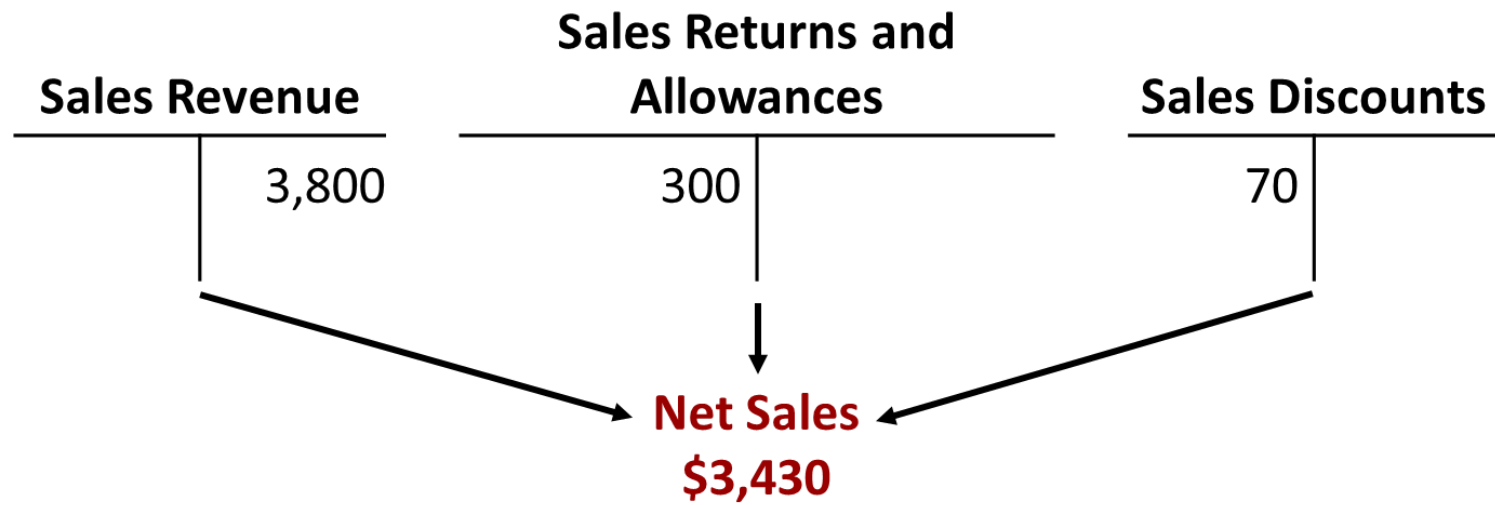
**Illustration:** Assume the returned goods **were defective** and had a scrap value of \$50, PW Audio would make the following entries.

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

# Sales Discounts

*Offered to customers to **promote prompt payment** of balance due*

*Contra-revenue account (debit) to Sales Revenue*



# 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.

Cash	3,430	
Sales Discounts	70	
Accounts Receivable		3,500
[( \$3,800 – \$300 ) × 2%]		

# Summary of Sales Transactions

Transactions	Daily Recurring Entries	Dr.	Cr.
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

## LEARNING OBJECTIVE 4

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

### ***Adjusting Entries***

*Generally same as a service company*

*One additional adjustment to make records agree with actual inventory on hand*

*Involves adjusting Inventory and Cost of Goods Sold*

# Adjusting Entries

**Illustration:** 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.

Cost of Goods Sold	500	
Inventory (\$40,500 – \$40,000)		500

# Closing Entries

Dec. 31	Sales Revenue	480,000	
	Income Summary		480,000
	<b>(Close credit balance accounts)</b>		
31	Income Summary	450,000	
	Sales Returns and Allowances		12,000
	Sales Discounts		8,000
	Cost of Goods Sold		316,000
	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
	<b>(Close debit balance accounts)</b>		

# Closing Entries

Dec. 31	Income Summary	30,000	
	Owner's Capital		30,000
	<b>(To close net income to capital)</b>		
31	Owner's Capital	15,000	
	Owner's Drawings		15,000
	<b>(To close drawings to capital)</b>		

# Multiple-Step and ~~Comprehensive Income Statements~~

Single-step income statement

## LEARNING OBJECTIVE 5

**Prepare a multiple-step income statement and a ~~comprehensive income statement~~.**

Single-step income statement



Inspiring Excellence

Shows several steps in determining net income

Two steps relate to principal operating activities

Distinguishes between operating and non-operating activities

# Multiple-Step

- Determine the net Sales.
- Deduct Sales return and allowances and sales discount from the sales revenue.

PW Audio Supply Income Statement (Partial)			
<b>Sales</b>			
	Sales Revenue		\$480,000
	Less: Sales return and allowances	\$12,000	
	Sales Discount	\$8,000	20,000
	<b>Net Sales</b>		<b>\$460,000</b>

# Multiple-Step

- Determine gross profit.
- Deduct cost of goods sold from the net sales.

PW Audio Supply Income Statement (Partial)	
Net Sales	\$460,000
Less: Cost of goods sold	316,000
<b>Gross Profit</b>	<b>\$144,000</b>

# Multiple-Step

- Determine the income from operations.
- Deduct the operating expense from the gross profit

PW Audio Supply Income Statement (Partial)	
Gross Profit	\$144,000
Less: Operating Expenses	114,000
<b>Income from Operations</b>	<b>\$30,000</b>

# Multiple-Step

~~Determine the non-operating expense~~ 

~~Deduct it from operating Income.~~

## Other Revenues and Gains

**Interest revenue** from notes receivable and marketable securities.

**Dividend revenue** from investments in common stock.

**Rent revenue** from subleasing a portion of the store.

**Gain** from the sale of property, plant, and equipment.

## Other Expenses and Losses

**Interest expense** on notes and loans payable.

**Casualty losses** from recurring causes, such as vandalism and accidents.

**Loss** from the sale or abandonment of property, plant, and equipment.

**Loss** from strikes by employees and suppliers.

# Multiple-Step

## Key Items:

- Net sales
- Gross profit
- Operating expenses
- Nonoperating activities
- Net income

PW Audio Supply Income Statement For the Year Ended December 31, 2020			
<b>Sales</b>			
Sales revenue			\$480,000
Less: Sales returns and allowances	\$12,000		
Sales discounts	8,000	20,000	
Net sales			460,000
<b>Cost of goods sold</b>			316,000
<b>Gross profit</b>			144,000
<b>Operating expenses</b>			
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	
<b>Income from operations</b>			30,000
<b>Other revenues and gains</b>			
Interest revenue	3,000		
Gain on disposal of plant assets	600	3,600	
<b>Other expenses and losses</b>			
Interest expense	1,800		
Casualty loss from vandalism	200	2,000	
<b>Net income</b>			\$ 31,600

# Single-Step Income Statement

*Subtract total expenses from total revenues*

*Two reasons for using single-step format:*

- Company does not realize any profit until total revenues exceed total expenses
- Format is simpler and easier to read

# Single-Step



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

### Revenues

Net sales		\$460,000
Interest revenue		3,000
Gain on disposal of plant assets		<u>600</u>
Total revenues		463,600

### Expenses

Cost of goods sold	\$316,000	
Operating expenses	114,000	
Interest expense	1,800	
Casualty loss from vandalism	<u>200</u>	
Total expenses		<u>432,000</u>

### Net income

\$ 31,600

# Classified Balance Sheet

## PW Audio Supply Balance Sheet (Partial) December 31, 2020

### Assets

#### Current assets

Cash		\$ 9,500
Accounts receivable		2,300
<b>Inventory</b>		40,000
Prepaid insurance		<u>1,800</u>
Total current assets		67,400

#### Property, plant, and equipment

Equipment	\$80,000	
Less: Accumulated depreciation	<u>24,000</u>	<u>56,000</u>
Total assets		<u><u>\$123,400</u></u>