MIDOCEAN UNIVERSITY

Principles of Accounting

Lecture 9

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Subject code: MGM 227

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MGM 227

Principles of Accounting

Chapter 5:

Merchandising Operations

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Learning objectives:

1) Describe merchandising operations and the two types of merchandise inventory systems

2) Account for the purchase of merchandise inventory using a perpetual inventory system

3) Account for the sale of merchandise inventory using a perpetual inventory system

1

Describe merchandising operations and the two types of merchandise inventory systems

WHAT ARE MERCHANDISING OPERATIONS?

A **merchandiser** is a business that sells merchandise, or goods, to customers. The merchandise that this type of business sells is called **merchandise inventory.** Merchandisers are often identified as either wholesalers or retailers. A **wholesaler** is a merchandiser who buys goods from a manufacturer and then sells them to retailers. A **retailer** buys merchandise either from a manufacturer or a wholesaler and then sells those goods to consumers.

Merchandiser
A business that sells merchandise, or goods, to customers.

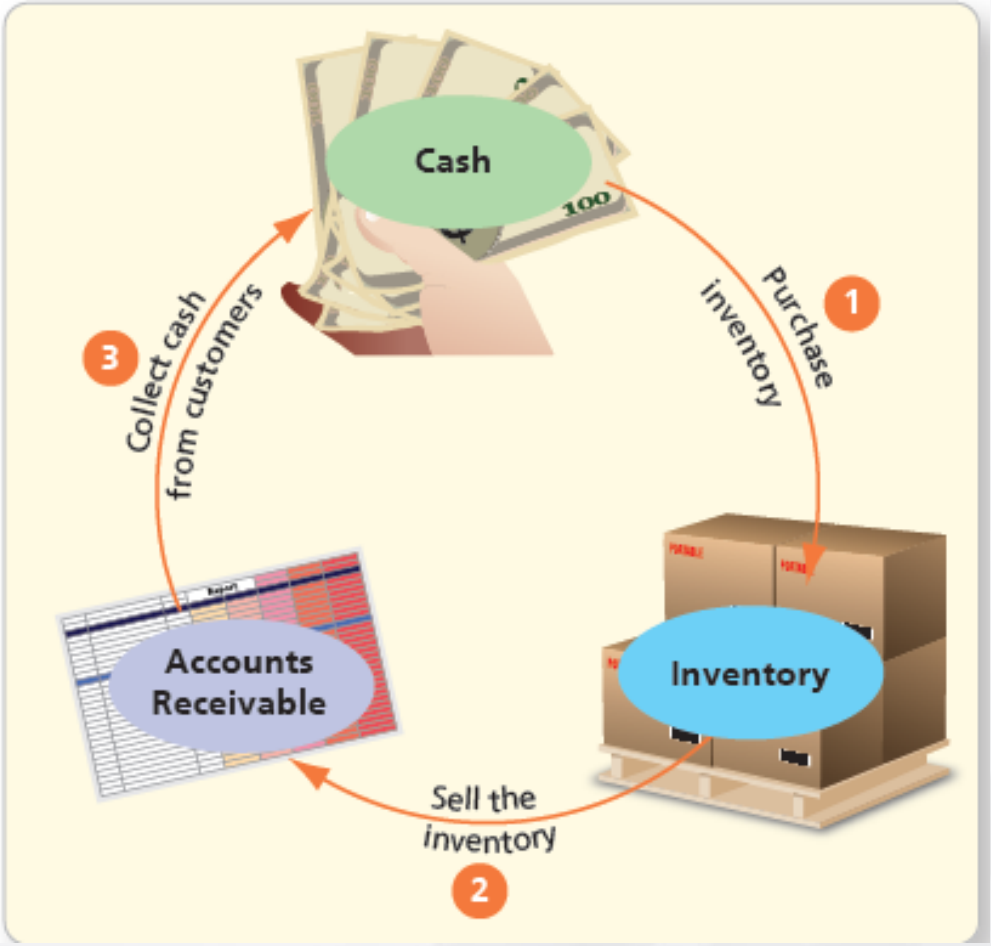
Merchandise Inventory
The merchandise that a business sells to customers.

Wholesaler
A type of merchandiser who buys goods from manufacturers and then sells them to retailers.

Retailer
A type of merchandiser who buys merchandise either from a manufacturer or a wholesaler and then sells those goods to consumers.

The Operating Cycle of a Merchandising Business

The operating cycle of a merchandiser is as follows (see Exhibit 5-1):



Vendor
The individual or business from whom a company purchases goods.

1. It begins when the company purchases inventory from an individual or business, called a **vendor.**
2. The company then sells the inventory to a customer.
3. Finally, the company collects cash from customers.

Because the operating cycle of a merchandiser is different than that of a service company, the financial statements differ. Exhibit 5-2 shows how a service company's financial statements (on the left) differ from a merchandiser's financial statements (on the right). As you can see, merchandisers have some new balance sheet and income statement items.

On the income statement, a merchandising company reports revenues using an account called *Sales Revenue* rather than the account *Service Revenue* used by service companies.

A merchandiser also reports the cost of merchandise inventory that has been sold to customers, or **Cost of Goods Sold (COGS).** Cost of Goods Sold is also called *Cost of Sales.* Because COGS is usually a merchandiser's main expense, an intermediary calculation, gross profit, is determined before calculating net income. **Gross profit** (also called *gross margin*) is calculated as Net Sales Revenue minus Cost of Goods Sold and represents the markup on the merchandise inventory. Gross profit is the extra amount the company receives from the customer (for the merchandise sold) over what the company paid to the vendor. After calculating gross profit, operating expenses are then deducted to determine net income. **Operating expenses** are expenses, other than Cost of Goods Sold, that occur in the entity's major ongoing operations.

On the balance sheet, a merchandiser includes Merchandise Inventory in the current assets section representing the value of inventory that the business has on hand to sell to customers. Remember that the assets in the current asset section are listed in the order of liquidity; therefore, Merchandise Inventory is usually listed below Accounts Receivable but before the prepaid assets.

Cost of Goods Sold (COGS)
The cost of the merchandise inventory that the business has sold to customers.

Exhibit 5-2 | Financial Statements of a Service Company and a Merchandising Company

SERVICE COMPANY
Income Statement
Year Ended December 31, 2018

Service Revenue		$ 230,000
Operating Expenses:		
Salaries Expense	$ 80,000	
Rent Expense	24,000	
Depreciation Expense—Furniture	9,000	
Utilities Expense	3,000	
Total Operating Expenses		116,000
Net Income		$ 114,000

MERCHANDISING COMPANY
Income Statement
Year Ended December 31, 2018

Sales Revenue		$ 230,000
Cost of Goods Sold		100,000
Gross Profit		130,000
Operating Expenses:		
Salaries Expense	$ 80,000	
Rent Expense	24,000	
Depreciation Expense—Furniture	9,000	
Utilities Expense	3,000	
Total Operating Expenses		116,000
Net Income		$ 14,000

Sales Revenue – Cost of Goods Sold = Gross Profit

A merchandising company reports revenue using Sales Revenue instead of Service Revenue.

Service Revenue – Operating Expenses = Net Income

Gross Profit – Operating Expenses = Net Income

SERVICE COMPANY Balance Sheet (Partial) December 31, 2018		
Assets		
Current Assets:		
Cash	$ 34,000	
Accounts Receivable	10,800	
Office Supplies	800	
Prepaid Rent	2,100	
Total Current Assets		$ 47,700

MERCHANDISING COMPANY Balance Sheet (Partial) December 31, 2018		
Assets		
Current Assets:		
Cash	$ 34,000	
Accounts Receivable	10,800	
Merchandise Inventory	60,000	
Office Supplies	800	
Prepaid Rent	2,100	
Total Current Assets		$ 107,700

Merchandise Inventory is included in a merchandising company's current assets.

Merchandise Inventory Systems: Perpetual and Periodic Inventory Systems

Businesses must have a way to determine the value of merchandise inventory on hand and also the value of the merchandise inventory sold. There are two main types of inventory accounting systems that are used:

- Periodic inventory system
- Perpetual inventory system

The **periodic inventory system** requires businesses to obtain a physical count of inventory to determine the quantities on hand. The system is normally used for relatively inexpensive goods, such as in a small, local store without optical-scanning cash registers that does not keep a running record of every loaf of bread and every key chain that it sells. Restaurants and small retail stores often use the periodic inventory system.

-the periodic inventory system is becoming less and less popular because most accounting is done using computerized methods.

Periodic Inventory System

An inventory system that requires businesses to obtain a physical count of inventory to determine quantities on hand.

The **perpetual inventory system** keeps a running computerized record of merchandise inventory—that is, the number of inventory units and the dollar amounts associated with the inventory are perpetually (constantly) updated. This system achieves better control over the inventory. A modern perpetual inventory system records the following:

- Units purchased and cost amounts.
- Units sold and sales and cost amounts.
- The quantity of merchandise inventory on hand and its cost.

In a perpetual inventory system, merchandise inventory and purchasing systems are integrated with the records for Accounts Receivable and Sales Revenue. For example, major department stores' computers use bar codes to keep up-to-the-minute records and show the current inventory at any time.

In a perpetual inventory system, the "cash register" at the store is a computer terminal that records sales and updates inventory records. **Bar codes are scanned by a laser. The bar coding is linked to merchandise inventory and cost data that are used to keep track of each unique inventory item.** However, note that even in a perpetual inventory system, the business must count inventory at least once a year. The physical count captures inventory transactions that are not recorded by the electronic system (such as misplaced, stolen, or damaged inventory). The count establishes the correct amount of ending inventory for the financial statements and also serves as a check on the perpetual records.

Perpetual Inventory System

An inventory system that keeps a running computerized record of merchandise inventory.

Match the accounting terminology to the definitions

1. Cost of Goods Sold……

2. Perpetual inventory system…….

3. Vendor……

4. Periodic inventory system……..

5. Operating expenses…….

6. Gross profit…….

a. An inventory system that requires businesses to obtain a physical count of inventory to determine quantities on hand.

b. Expenses, other than Cost of Goods Sold, that are incurred in the entity's major ongoing operations.

c. Excess of Net Sales Revenue over Cost of Goods Sold.

d. The cost of merchandise inventory that the business has sold to customers.

e. The individual or business from whom a company purchases goods.

f. An inventory system that keeps a running computerized record of merchandise inventory.

For each statement below, identify whether the statement applies to the periodic inventory system, the perpetual inventory system, or both.

a. Normally used for relatively inexpensive goods.

b. Keeps a running computerized record of merchandise inventory.

c. Achieves better control over merchandise inventory.

d. Requires a physical count of inventory to determine the quantities on hand.

e. Uses bar codes to keep up-to-the-minute records of inventory.

a. Periodic
b. Perpetual
c. Perpetual
d. Both
e. Perpetual

2

Account for the purchase of merchandise inventory using a perpetual inventory system

HOW ARE PURCHASES OF MERCHANDISE INVENTORY RECORDED IN A PERPETUAL INVENTORY SYSTEM?

As noted previously, the cycle of a merchandising entity begins with the purchase of merchandise inventory. We will continue to use our fictitious company, Smart Touch Learning, which has now decided to discontinue its service business and instead plans to sell touch screen tablet computers that are preloaded with its e-learning software programs. Smart Touch Learning will purchase these tablets from a vendor. We assume Smart Touch Learning uses a perpetual inventory system.

The vendor (Southwest Electronics Direct) ships the tablet computers to Smart Touch Learning and sends an invoice the same day. The **invoice** is the seller's (Southwest Electronics Direct) request for payment from the buyer (Smart Touch Learning). An invoice is also called a *bill*. Exhibit 5-3 is the bill that Smart Touch Learning receives from Southwest Electronics Direct. After the merchandise inventory is received, Smart Touch Learning pays the vendor.

Invoice

A seller's request for payment from the purchaser.

For Southwest Electronics Direct, the seller, the invoice is called a sales invoice. For Smart Touch Learning, the purchaser, the invoice is called a purchase invoice.

Exhibit 5-3

1

Southwest Electronics Direct
P.O. BOX 101010
HOUSTON, TX 77212

3

Invoice	
Date	Number
6/1/19	410

2

Shipped To: SMART TOUCH LEARNING
227 LAKE STREET
POMPTON PLAINS, IL 07444

6 Pd. 6/15/19

4

Credit Terms
3/15, NET 30 DAYS

	Description		Quantity Shipped	Unit Price	Total
	Touch Screen Tablet Computers		100	$ 350	$35,000
			Sub Total		$35,000
			Ship. or Handl. Chg.		–
			Tax (3%)		–
			Total(s)		$35,000

Due Date & Due Amount			
06/16/19		07/01/2019	
$33,950		$35,000	

7 5

Explanations:

1 The seller is Southwest Electronics Direct.

2 The purchaser is Smart Touch Learning.

3 The invoice date is needed to determine whether the purchaser gets a discount for prompt payment (see 4).

4 Credit terms: If Smart Touch Learning pays within 15 days of the invoice date, it can deduct a 3% discount. Otherwise, the full amount—NET—is due in 30 days.

5 Total invoice amount is $35,000.

6 Smart Touch Learning's payment date. How much did Smart Touch Learning pay? (see 7).

7 Payment occurred 14 days after the invoice date—within the discount period—so Smart Touch Learning paid $33,950 ($35,000–3% discount).

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Purchase of Merchandise Inventory

Here we use the actual invoice in Exhibit 5-3 to illustrate the purchasing process. Suppose Smart Touch Learning receives the goods on June 3, 2019, and makes payment on that date (ignore the credit terms on the invoice at this point). Smart Touch Learning records this purchase as follows:

A↑↓	=	L	+	E
Merchandise Inventory↑ Cash↓	=			

Date	Accounts and Explanation	Debit	Credit
Jun. 3	Merchandise Inventory	35,000	
	Cash		35,000
	Purchased inventory for cash.		

The Merchandise Inventory account, an asset, is used only for goods purchased that the business owns and intends to resell to customers. Office Supplies, Equipment, and other assets are recorded in their own accounts.

Assume that on June 3, instead of paying cash, Smart Touch Learning receives the merchandise inventory on account. The purchase of inventory on account is recorded as follows:

Date	Accounts and Explanation	Debit	Credit
Jun. 3	Merchandise Inventory	35,000	
	Accounts Payable		35,000
	Purchased inventory on account.		

A↑	=	L↑	+	E
Merchandise Inventory↑		Accounts Payable↑		

Purchase Discounts

Many businesses offer purchasers a discount for early payment. This is called a **purchase discount** from the purchaser's perspective. Southwest Electronics Direct's **credit terms** of "3/15, NET 30 DAYS" mean that Smart Touch Learning can deduct 3% from the total bill (excluding freight charges, if any) if the company pays within 15 days of the invoice date. Otherwise, the full amount—NET—is due in 30 days. These credit terms can also be expressed as "3/15, n/30."

Terms of "n/30" mean that no discount is offered and payment is due 30 days after the invoice date. Most credit terms express the discount, the discount time period, and the final due date. Occasionally, the credit terms are expressed as EOM, which means payment is due at the end of the current month. If Smart Touch Learning pays on June 15, 2019, which is within the discount period, the cash payment entry would be as follows:

Purchase Discount
A discount that businesses offer to purchasers as an incentive for early payment.

Credit Terms
The payment terms of purchase or sale as stated on the invoice.

Date	Accounts and Explanation	Debit	Credit
Jun. 15	Accounts Payable	35,000	
	Cash ($35,000 − $1,050)		33,950
	Merchandise Inventory ($35,000 × 0.03)		1,050
	Paid within discount period.		

A↓	=	L↓	+	E
Cash↓ Merchandise Inventory↓	=	Accounts Payable↓		

When making payment within a discount period, always debit Accounts Payable for the full amount of the invoice; otherwise there will be a balance remaining in the payable account even though the invoice has been paid in full.

The purchase discount is credited to the Merchandise Inventory account because the discount for early payment decreases the actual cost paid for Merchandise Inventory, as shown in the T-account:

Merchandise Inventory			
June 3	35,000	1,050	June 15
Bal.	**33,950**		

Accounts Payable			
June 15	35,000	35,000	June 3
Bal.	**0**		

Notice that the balance in the Merchandise Inventory account, $33,950, is exactly what was paid for the Merchandise Inventory on June 15, 2019. Also notice that the Accounts Payable account shows that the invoice was paid in full with no remaining balance.

What if Smart Touch Learning pays this invoice on June 24, 2019, after the discount period ends? Smart Touch Learning must pay the full $35,000.

In that case, the payment entry is as follows:

A↓	=	L↓	+	E
Cash↓		Accounts Payable↓		

Date	Accounts and Explanation	Debit	Credit
Jun. 24	Accounts Payable	35,000	
	Cash		35,000
	Paid after discount period.		

Purchase Returns and Allowances

Sellers allow purchasers to return merchandise that is defective, damaged, or otherwise unsuitable. This is called a **purchase return** from the purchaser's perspective. Alternatively, the seller may deduct an allowance from the amount the buyer owes. **Purchase allowances** are granted to the purchaser as an incentive to keep goods that are not "as ordered."

Together, purchase returns and allowances decrease the buyer's cost of the merchandise inventory.

Assume that Smart Touch Learning has not yet paid the original bill of June 1. Suppose 20 of the tablets purchased on that invoice (Exhibit 5-3) were damaged in shipment. On June 4, Smart Touch Learning returns the goods (tablets, in this case) valued at $7,000 to the vendor (Southwest Electronics Direct) and records the purchase return as follows:

A↓	=	L↓	+	E
Merchandise Inventory↓	=	Accounts Payable↓		

Date	Accounts and Explanation	Debit	Credit
Jun. 4	Accounts Payable	7,000	
	Merchandise Inventory (20 tablets × $350 per tablet)		7,000
	Returned inventory to seller (vendor).		

Purchase Allowance
An amount granted to the purchaser as an incentive to keep goods that are not "as ordered."

Purchase Return
A situation in which sellers allow purchasers to return merchandise that is defective, damaged, or otherwise unsuitable.

The exact same entry is made for a purchase allowance granted to the buyer from the seller (vendor). The only difference between a purchase return and a purchase allowance is that, in the case of the allowance, Smart Touch Learning keeps the inventory. Occasionally, a business will return merchandise inventory or receive an allowance before payment has been made. In this scenario, if the payment of the invoice is made within the discount period, the discount should be calculated net of the return or allowance. Let's look at another example. Suppose that on June 10, Smart Touch Learning purchased
15 tablets from Southwest Electronics Direct on account with credit terms of 3/15, n/30 at a cost of $5,250. Five days later, Smart Touch Learning returned five tablets to the vendor because of damages and received a purchase return of $1,750. When Smart Touch Learning makes payment on June 20 (within the discount period), it will calculate the discount on the amount due less the return or $3,500 ($5,250 - $1,750). Smart Touch Learning's discount will be $105 ($3,500 * 0.03). The entries that Smart Touch Learning would record for these transactions follow:

Date	Accounts and Explanation	Debit	Credit
Jun. 10	Merchandise Inventory	5,250	
	Accounts Payable		5,250
	Purchased inventory on account.		
15	Accounts Payable	1,750	
	Merchandise Inventory		1,750
	Returned inventory to the seller (vendor).		
20	Accounts Payable ($5,250 – $1,750)	3,500	
	Cash ($3,500 – $105)		3,395
	Merchandise Inventory ($3,500 × 0.03)		105
	Paid within discount period net of return.		

A↑	=	L↑	+	E
Merchandise Inventory↑		Accounts Payable↑		

A↓	=	L↓	+	E
Merchandise Inventory↓		Accounts Payable↓		

A↓	=	L↓	+	E
Cash↓ Merchandise Inventory↓		Accounts Payable↓		

Transportation Costs

Either the seller or the buyer must pay the transportation cost of shipping merchandise inventory. The purchase agreement specifies FOB (free on board) terms to determine when title to the goods transfers to the purchaser and who pays the freight. Exhibit 5-4 shows that:

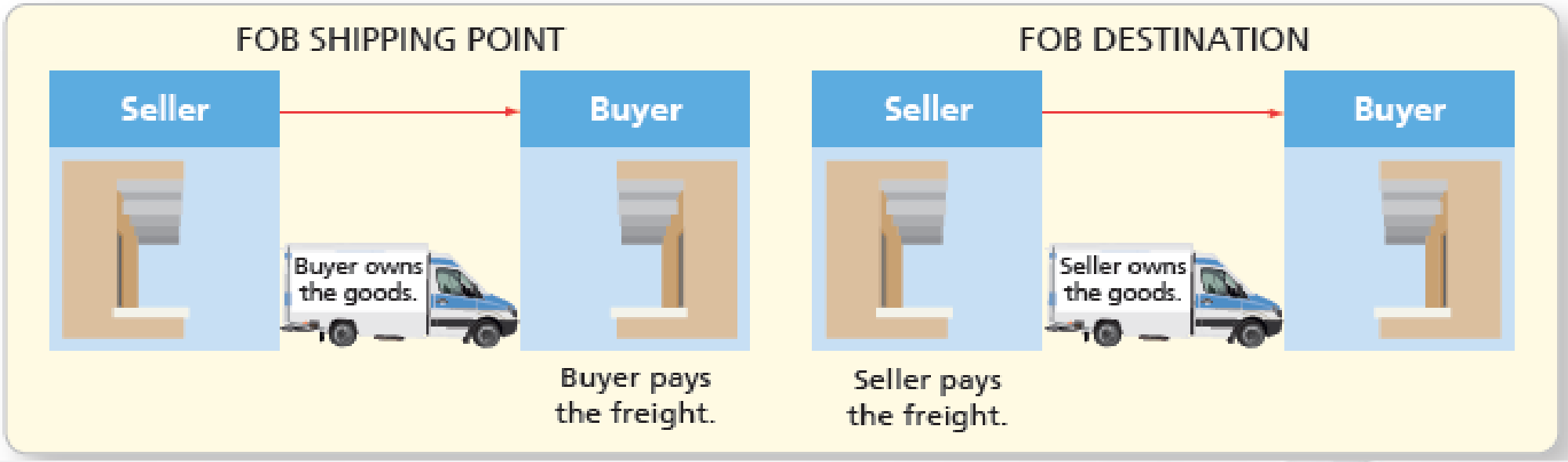
- **FOB shipping point** means the buyer takes ownership (title) to the goods after the goods leave the seller's place of business (shipping point). In most cases, the buyer (owner of the goods while in transit) also pays the freight.
- **FOB destination** means the buyer takes ownership (title) to the goods at the delivery destination point. In most cases, the seller (owner of the goods while in transit) also pays the freight.

When merchandisers are required to pay for shipping costs, those costs are classified as either freight in or freight out as follows:

- **Freight in** is the transportation cost to ship goods into the purchaser's warehouse; thus, it is freight on purchased goods.
- **Freight out** is the transportation cost to ship goods out of the seller's warehouse and to the customer; thus, it is freight on goods sold to a customer.

FOB Shipping Point	FOB Destination	Freight In	Freight Out
Situation in which the buyer takes ownership (title) to the goods after the goods leave the seller's place of business (shipping point) and the buyer typically pays the freight.	Situation in which the buyer takes ownership (title) to the goods at the delivery destination point and the seller typically pays the freight.	The transportation cost to ship goods into the purchaser's warehouse; therefore, it is freight on purchased goods.	The transportation cost to ship goods out of the seller's warehouse; therefore, it is freight on goods sold to a customer.

Exhibit 5-4 | FOB Terms Determine Who Pays the Freight



Freight In

With the terms FOB shipping point, the buyer owns the goods while they are in transit, so the buyer pays the freight. Because the freight is a cost that must be paid to acquire the inventory, freight in becomes part of the cost of merchandise inventory. As a result, freight in costs are debited to the Merchandise Inventory account. Suppose Smart Touch Learning pays a $60 freight charge on June 3 for a purchase with FOB shipping point, and makes the following entry:

A↑↓	=	L	+	E
Merchandise Inventory↑ Cash↓				

Date	Accounts and Explanation	Debit	Credit
Jun. 3	Merchandise Inventory	60	
	Cash		60
	Paid a freight bill.		

Freight In Within Discount Period

Discounts are computed only on the merchandise purchased from the seller. Discounts are not computed on the transportation costs because there is no discount on freight. Under FOB shipping point, the seller sometimes prepays the transportation cost as a convenience and lists this cost on the invoice. Assume, for example, Smart Touch Learning makes a $5,000 purchase of goods, coupled with a related freight charge of $400, on June 20 on account with terms of 3/5, n/30. The terms of shipment are FOB shipping point. The seller prepays the freight charge. The purchase would be recorded as follows:

Date	Accounts and Explanation	Debit	Credit
Jun. 20	Merchandise Inventory ($5,000 + $400)	5,400	
	Accounts Payable		5,400
	Purchased inventory on account, including freight.		

A↑ (Merchandise Inventory↑) = L↑ (Accounts Payable↑) + E

If Smart Touch Learning pays within the discount period, the discount will be computed only on the $5,000 merchandise cost, not on the total invoice of $5,400. The $400 freight is not eligible for the discount. So, the 3% discount would be $150 ($5,000 * 0.03). The entry to record the early payment on June 25 follows:

Date	Accounts and Explanation	Debit	Credit
Jun. 25	Accounts Payable	5,400	
	Cash ($5,400 – $150)		5,250
	Merchandise Inventory ($5,000 × 0.03)		150
	Paid within discount period, including freight.		

A↓ (Cash↓, Merchandise Inventory↓) = L↓ (Accounts Payable↓) + E

Cost of Inventory Purchased

The net cost of merchandise inventory purchased includes the purchase cost of inventory, less purchase returns and allowances, less purchase discounts, plus freight in. Knowing the net cost of inventory allows a business to determine the actual cost of the merchandise purchased and is calculated as follows:

$$\text{Net Cost of Inventory Purchased} = \text{Purchase cost of inventory} - \text{Purchase returns and allowances} - \text{Purchase discounts} + \text{Freight in}$$

Suppose that during the year, Smart Touch Learning buys $281,750 of inventory, returns $61,250 of the goods, and takes a $4,410 early payment discount. The company also pays $14,700 of freight in. The following summary shows Smart Touch Learning's net cost of this merchandise inventory purchased.

Purchases	$ 281,750
Less: Purchase Returns and Allowances	61,250
Purchase Discounts	4,410
Plus: Freight In	14,700
Net Cost of Inventory Purchased	$ 230,790

Consider the following transactions for Toys and More:

May 8	Toys and More buys $113,300 worth of MegoBlock toys on account with credit terms of 2/10, n/60.
12	Toys and More returns $11,250 of the merchandise to MegoBlock due to damage during shipment.
15	Toys and More paid the amount due, less the return and discount.

Requirements

1. Journalize the purchase transactions. Explanations are not required.
2. In the final analysis, how much did the inventory cost Toys and More?

Requirement 1

Date	Accounts and Explanation	Debit	Credit
May 8	Merchandise Inventory	113,300	
	Accounts Payable		113,300
12	Accounts Payable	11,250	
	Merchandise Inventory		11,250
15	Accounts Payable ($113,300 − $11,250)	102,050	
	Cash ($102,050 − $2,041)		100,009
	Merchandise Inventory ($102,050 × 0.02)		2,041

Requirement 2

The inventory cost for Toys and More is $100,009 ($113,300 − $11,250 − $2,041).

Consider the following transactions for Burlington Drug Store:

Feb. 2	Burlington buys $23,800 worth of inventory on account with credit terms of 2/15, n/30, FOB shipping point.
4	Burlington pays a $50 freight charge.
9	Burlington returns $5,200 of the merchandise due to damage during shipment.
14	Burlington paid the amount due, less return and discount.

Requirements

1. Journalize the purchase transactions. Explanations are not required.
2. In the final analysis, how much did the inventory cost Burlington Drug Store?

Date	Accounts and Explanation	Debit	Credit
Feb. 2	Merchandise Inventory	23,800	
	Accounts Payable		23,800
4	Merchandise Inventory	50	
	Cash		50
9	Accounts Payable	5,200	
	Merchandise Inventory		5,200
14	Accounts Payable ($23,800 − $5,200)	18,600	
	Cash ($18,600 – $372)		18,228
	Merchandise Inventory ($18,600 × 0.02)		372

Requirement 2

The inventory cost for Burlington is $18,278 ($23,800 + $50 – $5,200 – $372)

3

Account for the sale of merchandise inventory using a perpetual Inventory system

HOW ARE SALES OF MERCHANDISE INVENTORY RECORDED IN A PERPETUAL INVENTORY SYSTEM?

After a company buys merchandise inventory, the next step is to sell the goods. We shift now to the selling side and follow Smart Touch Learning through a sequence of selling transactions using the perpetual inventory system.

Cash and Credit Card Sales

Sales of retailers, such as Smart Touch Learning, are often made for cash or credit card. Credit card sales are recorded as cash sales and the fees associated with credit card sales will be discussed in Chapter 7. Suppose Smart Touch Learning sold two tablets for cash on June 19, 2019, to a customer and issued the sales invoice in Exhibit 5-5. To the seller, a sales invoice is a bill showing what amount the customer must pay.

Date: June 19, 2019 Invoice #582

STL SMART TOUCH LEARNING

227 LAKE STREET
POMPTON PLAINS, IL 07444

Quantity	Item	Unit Price	Total
2	Touch Screen Tablet Computers	$500	$1,000
Total			$1,000

The amount a business earns from selling merchandise inventory is called **Sales Revenue** (also called *Sales*). At the time of the sale, two entries must be recorded in the perpetual inventory system. One entry records the Sales Revenue and the Cash (or Accounts Receivable) at the time of the sale. The second entry records Cost of Goods Sold (debit the expense) and reduces the Merchandise Inventory (credit the asset).

Remember, Cost of Goods Sold is an expense account and represents the cost of inventory that has been sold to customers. To record the sale by Smart Touch Learning, two journal entries must be recorded.

The first journal entry records the cash sale of $1,000 by debiting Cash and crediting Sales Revenue. A second journal entry must also be made to record the expense and decrease the Merchandise Inventory balance. Suppose these goods sold by Smart Touch Learning cost $700. The second journal entry would transfer the $700 from the Merchandise Inventory account to the Cost of Goods Sold account, as follows:

This entry records the Sales Revenue.

This entry records the expense and the reduction of Merchandise Inventory.

Date	Accounts and Explanation	Debit	Credit
Jun. 19	Cash	1,000	
	Sales Revenue		1,000
	Cash sale.		
19	Cost of Goods Sold	700	
	Merchandise Inventory		700
	Recorded the cost of goods sold.		

A↑	=	L	+	E↑
Cash↑				Sales Revenue↑

A↓	=	L	+	E↓
Merchandise Inventory↓				Cost of Goods Sold↑

Sales Revenue

The amount that a merchandiser earns from selling its inventory.

The Cost of Goods Sold account keeps a current balance throughout the period in a perpetual inventory system of the cost of merchandise inventory sold. In this example, Cost of Goods Sold is $700 (the cost to Smart Touch Learning) rather than $1,000, the sales price (retail price) of the goods. Cost of Goods Sold is always based on the company's cost, not the retail price.

Merchandise Inventory				Cost of Goods Sold		
Bal.	xx,xxx	700	June 19 →	June 19	700	

Sales on Account

Many sales are made on account (on credit) instead of with cash or a credit card. Now let's assume that Smart Touch Learning sold 5 tablets for $500 each, making a $2,500 (5 tablets * $500 per tablet) sale on account on June 15. The goods cost $1,750. Smart Touch Learning would record the sale on account as follows:

Date	Accounts and Explanation	Debit	Credit
Jun. 15	Accounts Receivable	2,500	
	Sales Revenue		2,500
	Sale on account.		
15	Cost of Goods Sold	1,750	
	Merchandise Inventory		1,750
	Recorded the cost of goods sold.		

A↑	=	L	+	E↑
Accounts Receivable↑				Sales Revenue↑

A↓	=	L	+	E↓
Merchandise Inventory↓				Cost of Goods Sold↑

Sales Discounts

Many sellers offer customers a discount for early payment. We saw that purchase discounts decrease the cost of inventory purchases. In the same way, **sales discounts** decrease the net amount of revenue earned on sales. Under the new revenue recognition standards (introduced in Chapter 3), sales are recorded at the net amount or the amount of the sale less any sales discounts.[1] For example, assume on June 21, Smart Touch Learning sold 10 tablets for $500 each on account with terms of 2/10, n/30. The goods cost $3,500. In this case, Smart Touch Learning will record the sale at the net amount of $4,900—the $5,000 less the 2% discount, $100 ($5,000 * 0.02). The entries to record the sale and cost of goods sold follow:

A↑	=	L	+	E↑
Accounts Receivable↑				Sales Revenue↑

A↓	=	L	+	E↓
Merchandise Inventory↓				Cost of Goods Sold↑

Date	Accounts and Explanation	Debit	Credit
Jun. 21	Accounts Receivable	4,900	
	Sales Revenue ($5,000 − ($5,000 × 0.02))		4,900
	Sale on account less discount.		
21	Cost of Goods Sold	3,500	
	Merchandise Inventory		3,500
	Recorded the cost of goods sold.		

Sales Discounts
Reduction in the amount of revenue earned on sales for early payment.

When the customer makes payment within the discount period, Smart Touch Learning will record the receipt of cash and decrease the Accounts Receivable for $4,900 as follows:

A↑↓	=	L	+	E
Cash↑ Accounts Receivable↓				

Date	Accounts and Explanation	Debit	Credit
Jun. 30	Cash	4,900	
	Accounts Receivable		4,900
	Cash collection within the discount period.		

If for some reason the customer does not pay within the discount period, the customer will no longer receive the $100 discount and the customer must pay the full $5,000 amount. Smart Touch Learning would record the discount lost using the account Sales Discounts Forfeited. The account, Sales Discounts Forfeited, increases Other Income and Expenses on the income statement.

A↑↓	=	L	+	E↑
Cash↑ Accounts Receivable↓				Sales Discounts Forfeited↑

Date	Accounts and Explanation	Debit	Credit
Jul. 10	Cash	5,000	
	Accounts Receivable		4,900
	Sales Discounts Forfeited		100
	Cash collection outside the discount period.		

Notice that in either scenario, if the customer paid within the discount period or outside of the discount period, Smart Touch Learning credited the Accounts Receivable for the net amount of the invoice. As shown in the following T-account, by doing this, Smart Touch Learning has shown that the invoice was paid in full with no remaining balance.

Accounts Receivable			
June 21	4,900	4,900	Payment
Bal.	0		

Sales Returns and Allowances

After making a sale, Smart Touch Learning may have customers that return goods, asking for a refund or credit to the customer's account. Or the company may instead grant a sales allowance to encourage the customer to accept the nonstandard goods. Such an allowance reduces the future cash collected from the customer or requires a refund. The return of goods or granting of an allowance on sales is called **Sales Returns and Allowances.**

Estimating Sales Returns

Under the new revenue recognition standard, companies should only record sales revenue in the amount they expect to eventually realize. Therefore, companies must decrease sales revenue by an estimated amount of sales returns. Using historical data, companies will estimate the amount of sales returns related to the sales for that period. For example, assume that Smart Touch Learning had sales of $1,000,000 for the period ending December 31, 2019. The cost of goods sold related to those sales was $600,000. Smart Touch Learning estimates that approximately 4% of the merchandise sold will be returned, or $40,000 ($1,000,000 * 4%) of sales revenue and $24,000 ($600,000 * 4%) of merchandise inventory. Smart Touch Learning will need to record two adjusting entries on December 31 to account for the estimated returns as follows:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Sales Revenue	40,000	
	Refunds Payable		40,000
	To record estimated refunds for the year.		
31	Estimated Returns Inventory	24,000	
	Cost of Goods Sold		24,000
	To record cost of estimated returns for the year.		

A	=	L↑	+	E↓
		Refunds Payable↑		Sales Revenue↓

A↑	=	L	+	E↑
Estimated Returns Inventory↑				Cost of Goods Sold↓

The first adjusting entry involves a debit to Sales Revenue that reduces sales for the year by the expected amount of the returns, thereby recording sales revenue at the net amount the company expects to eventually collect. The Refunds Payable account is a liability account and is reported on the balance sheet. In the second adjusting entry, Smart Touch Learning debits an asset account, Estimated Returns Inventory, that represents the cost of the inventory the company believes it will receive in returns. The corresponding credit to Cost of Goods Sold decreases the expense.

Sales Returns and Allowances

Customer's return of merchandise or an allowance granted to the customer.

Actual Return of Inventory

When a customer actually returns the inventory, the company will need to record the refund of cash to the customer (or credit of Accounts Receivable), and also the return of merchandise inventory. For example, assume that on January 20, 2020, a customer returned merchandise purchased with cash with a sales price of $2,000. The cost of the goods was $800. Smart Touch Learning refunded the cash to the customer and would record the following entries:

A↓	=	L↓ + E
Cash↓		Refunds Payable↓

A↑↓	=	L + E
Merchandise Inventory↑ Estimated Returns Inventory↓		

Date	Accounts and Explanation	Debit	Credit
Jan. 20	Refunds Payable	2,000	
	Cash		2,000
	To record refund.		
20	Merchandise Inventory	800	
	Estimated Returns Inventory		800
	To record cost of inventory returned.		

In recording the previous entries, Smart Touch Learning decreases the payable associated with the amount of estimated refunds. In addition, the Merchandise Inventory account has increased because the company received the returned inventory. To offset this, the Estimated Returns Inventory account decreases.

Sales Allowance

In situations of a sales allowance, a customer requests a refund of some portion owed but the customer does not return the inventory. When a seller grants a sales allowance, the company issues a credit memo indicating that the company will reduce the customer's Accounts Receivable or issue a cash refund. The company also reduces the estimated refunds payable. Because there is no return of goods, the company does not need to record a second entry to adjust the Merchandise Inventory account. Suppose that on January 28, 2020, Smart Touch Learning grants a $100 sales allowance for goods damaged in transit. The goods were sold on account and remain unpaid. A sales allowance is recorded as follows:

A↓	=	L↓	+	E
Accounts Receivable↓		Refunds Payable↓		

Date	Accounts and Explanation	Debit	Credit
Jan. 28	Refunds Payable	100	
	Accounts Receivable		100
	Granted a sales allowance for damaged goods.		

Transportation Costs—Freight Out

Remember that a freight out expense is one in which the seller pays freight charges to ship goods to customers. Freight out is a delivery expense to the seller. Delivery expense is an operating expense and is debited to the Delivery Expense account. For example, assume Smart Touch Learning paid $30 to ship goods to a customer on June 21, 2019. The entry to record that payment is as follows:

Date	Accounts and Explanation	Debit	Credit
Jun. 21	Delivery Expense	30	
	Cash		30
	Paid a freight bill.		

A↓	=	L	+	E↓
Cash↓				Delivery Expense↑

Suppose Heat Miser Air Conditioner Company engaged in the following transactions during June of the current year:

Jun. 3	Purchased inventory on account with credit terms of 1/10, n/EOM, $1,600.
9	Returned 40% of the inventory purchased on June 3. It was defective.
12	Sold goods for cash, $920 (cost, $550).
15	Purchased goods for $5,000 on account. Credit terms were 3/15, n/30.
16	Paid a $260 freight bill on goods purchased.
17	Sold inventory for $4,000 cash (cost, $2,360).
18	Sold inventory for $2,000 on account with credit terms of 2/10, n/30 (cost, $1,180).
22	Received returned goods from the customer of the June 17 sale, $800 (cost, $480).
24	Paid supplier for goods purchased on June 15.
28	Received cash in full settlement of the account from the customer who purchased inventory on June 18.
29	Paid the amount owed on account from the purchase of June 3.
30	The company estimated that $400 of merchandise sold will be returned with a cost of $240.

Requirement

Journalize the preceding transactions. Assume Heat Miser uses a perpetual inventory system. The company estimates sales returns at the end of each month. (See Learning Objectives 2 and 3.)

Date	Accounts and Explanation	Debit	Credit
Jun. 3	Merchandise Inventory	1,600	
	Accounts Payable		1,600
	Purchased inventory on account.		
9	Accounts Payable ($1,600 × 0.40)	640	
	Merchandise Inventory		640
	Returned inventory to seller (vendor).		
12	Cash	920	
	Sales Revenue		920
	Cash sale.		
12	Cost of Goods Sold	550	
	Merchandise Inventory		550
	Recorded the cost of goods sold.		
15	Merchandise Inventory	5,000	
	Accounts Payable		5,000
	Purchased inventory on account.		
16	Merchandise Inventory	260	
	Cash		260
	Paid a freight bill.		
17	Cash	4,000	
	Sales Revenue		4,000
	Cash sale.		
17	Cost of Goods Sold	2,360	
	Merchandise Inventory		2,360
	Recorded the cost of goods sold.		
Jun. 18	Accounts Receivable	1,960	
	Sales Revenue ($2,000 – ($2,000 × 0.02))		1,960
	Sale on account less discount.		

18	Cost of Goods Sold	1,180	
	Merchandise Inventory		1,180
	Recorded the cost of goods sold.		
22	Refunds Payable	800	
	Cash		800
	To record refund.		
22	Merchandise Inventory	480	
	Estimated Returns Inventory		480
	To record cost of inventory returned.		
24	Accounts Payable	5,000	
	Cash ($5,000 − $150)		4,850
	Merchandise Inventory ($5,000 × 0.03)		150
	Paid within discount period.		
28	Cash	1,960	
	Accounts Receivable		1,960
	Cash collection within discount period.		
29	Accounts Payable ($1,600 − $640)	960	
	Cash		960
	Paid after discount period net of return.		
30	Sales Revenue	400	
	Refunds Payable		400
	To record estimated refunds.		

30	Estimated Returns Inventory	240	
	Cost of Goods Sold		240
	To record cost of estimated returns.		

1. Which account does a merchandiser use that a service company does not use?

a. Cost of Goods Sold
b. Merchandise Inventory
c. Sales Revenue
d. All of the above

2. The two main inventory accounting systems are the

a. perpetual and periodic.
b. purchase and sale.
c. returns and allowances.
d. cash and accrual.

3. The journal entry for the purchase of inventory on account using the perpetual inventory system is

Date	Accounts and Explanation	Debit	Credit
a.	Merchandise Inventory	XXX	
	Accounts Receivable		XXX
b.	Accounts Payable	XXX	
	Merchandise Inventory		XXX
c.	Merchandise Inventory	XXX	
	Accounts Payable		XXX
d.	Merchandise Inventory	XXX	
	Cash		XXX

4. JC Manufacturing purchased inventory for $5,300 and also paid a $260 freight bill. JC Manufacturing returned 45% of the goods to the seller and later took a 2% purchase discount. Assume JC Manufacturing uses a perpetual inventory system. What is JC Manufacturing's final cost of the inventory that it kept? (Round your answer to the nearest whole number.)

a. $2,997
b. $2,337
c. $3,117
d. $2,857

5. Austin Sound sold inventory for $300,000, terms 2/10, n/30. Cost of goods sold was $152,000. How much sales revenue will Austin Sound report from the sale?

a. $152,000
b. $294,000
c. $148,960
d. $300,000

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

Journalize the following sales transactions for Salem Sportswear. Explanations are not required. The company estimates sales returns at the end of each month.

Jul. 1	Salem sold $20,000 of men's sportswear for cash. Cost of goods sold is $10,000.
3	Salem sold $62,000 of women's sportswear on account, credit terms are 3/10, n/30. Cost of goods is $31,000.
5	Salem received a $4,500 sales return on damaged goods from the customer on July 1. Cost of goods damaged is $2,250.
10	Salem receives payment from the customer on the amount due, less discount.

Date	Accounts and Explanation	Debit	Credit
Jul. 1	Cash	20,000	
	Sales Revenue		20,000
	Cost of Goods Sold	10,000	
	Merchandise Inventory		10,000
3	Accounts Receivable	60,140	
	Sales Revenue ($62,000 – ($62,000 × 0.03))		60,140
	Cost of Goods Sold	31,000	
	Merchandise Inventory		31,000
5	Refunds Payable	4,500	
	Cash		4,500
	Merchandise Inventory	2,250	
	Estimated Returns Inventory		2,250
10	Cash	60,140	
	Accounts Receivable		60,140

On December 31, Jack Photography Supplies estimated that approximately 2% of merchandise sold will be returned. Sales Revenue for the year was $80,000 with a cost of $48,000. Journalize the adjusting entries needed to account for the estimated returns.

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Sales Revenue	1,600	
	Refunds Payable ($80,000 × 0.02)		1,600
31	Estimated Returns Inventory	960	
	Cost of Goods Sold ($48,000 × 0.02)		960

Suppose Piranha.com sells 3,500 books on account for $17 each (cost of these books is $35,700) on October 10, 2018 to The Textbook Store. One hundred of these books (cost $1,020) were damaged in shipment, so Piranha.com later received the damaged goods from The Textbook Store as sales returns on October 13, 2018.

Requirements

1. Journalize The Textbook Store's October 2018 transactions.
2. Journalize Piranha.com's October 2018 transactions. The company estimates sales returns at the end of each month.

Date	Accounts and Explanation	Debit	Credit
Oct. 10	Merchandise Inventory (3,500 × $17)	59,500	
	Accounts Payable		59,500
13	Accounts Payable (100 × $17)	1,700	
	Merchandise Inventory		1,700

Date	Accounts and Explanation	Debit	Credit
Oct. 10	Accounts Receivable	59,500	
	Sales Revenue (3,500 × $17)		59,500
	Cost of Goods Sold	35,700	
	Merchandise Inventory		35,700
13	Refunds Payable	1,700	
	Accounts Receivable		1,700
	Merchandise Inventory	1,020	
	Estimated Returns Inventory		1,020

On November 4, 2018, Cain Company sold merchandise inventory on account to Tarin Wholesalers, $12,000, that cost $4,800. Terms 3/10, n/30. On November 5, 2018, Tarin Wholesalers paid shipping of $30. Tarin Wholesalers paid the balance to Cain Company on November 13, 2018.

Requirements

1. Journalize Tarin Wholesaler's November transactions.
2. Journalize Cain Company's November transactions.

Date	Accounts and Explanation	Debit	Credit
Nov. 4	Merchandise Inventory	12,000	
	Accounts Payable		12,000
5	Merchandise Inventory	30	
	Cash		30
13	Accounts Payable	12,000	
	Merchandise Inventory ($12,000 × 0.03)		360
	Cash ($12,000 – $360)		11,640

Date	Accounts and Explanation	Debit	Credit
Nov. 4	Accounts Receivable	11,640	
	Sales Revenue ($12,000 – ($12,000 × 0.03))		11,640
	Cost of Goods Sold	4,800	
	Merchandise Inventory		4,800
13	Cash	11,640	
	Accounts Receivable		11,640

For all exercises, assume the perpetual inventory system is used unless stated otherwise. Round all numbers to the nearest whole dollar unless stated otherwise.

E5-18 Using accounting vocabulary

Match the accounting terms with the corresponding definitions.

1. Credit Terms
2. FOB Destination
3. Invoice
4. Cost of Goods Sold
5. Purchase Allowance
6. FOB Shipping Point
7. Wholesaler
8. Purchase Discount
9. Retailer

a. The cost of the merchandise inventory that the business has sold to customers.

b. An amount granted to the purchaser as an incentive to keep goods that are not "as ordered."

c. A type of merchandiser that buys merchandise either from a manufacturer or a wholesaler and then sells those goods to consumers.

d. A situation in which the buyer takes ownership (title) at the delivery destination point.

e. A type of merchandiser that buys goods from manufacturers and then sells them to retailers.

f. A discount that businesses offer to purchasers as an incentive for early payment.

g. A situation in which the buyer takes title to the goods after the goods leave the seller's place of business.

h. The terms of purchase or sale as stated on the invoice.

i. A seller's request for cash from the purchaser.

1.	h
2.	d
3.	i
4.	a
5.	b
6.	g
7.	e
8.	f
9.	c

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Thank You