Thammasat University
Faculty of Economics
Bachelor of Economics (International Program)

AC 201

Fundamental Accounting

Semester 2/2015

Course Materials

Topics:

Chapter 7 Reporting and Interpreting Cost of Goods Sold and Inventory

Session:

Session #7

Instructor:

Ajarn Santana Singhasaneh

Introduction to Financial Statements

FINANCIAL STATEMENTS	ASSETS	LIABILITIES	EQUITY
✓ • Statement of Financial Position	✓ • Cash	✓ • Accounts payable	• Common stock
✓ • Statement of Comprehensive Income	• Investments in debt and equity securities	✓ • Accrued liabilities	• Preferred share
✓ • Statement of Changes in Equity	✓ • Accounts receivable	✓ • Unearned revenues	• Ordinary share
✓ • Statement of Cash Flows	✓ • Notes receivable	• Notes payable	• Retained earnings
	• Inventory		• Appropriated R/E
	✓ • Prepaid expenses		• Unappropriated R/E
	• Property, plant, and equipment		• Treasury share
	• Intangible assets		
	• Natural resources		

We are here

✓ Accounting Cycle

Financial Statement Items

FINANCIAL STATEMENT ANALYSIS

AC201 Fundamental Accounting

CHAPTER 7: REPORTING AND INTERPRETING COST OF GOODS SOLD AND INVENTORY

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Understanding the Business

Primary Goals of Inventory Management

- Provide sufficient quantities of high-quality inventory.
- Minimize the costs of carrying inventory.

Value at lower of cost or net realizable value (NRV)

Statement of Financial Position

Assets:

Current assets:

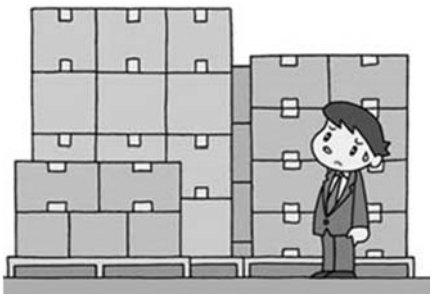
Inventory - net xxx

Statement of Income

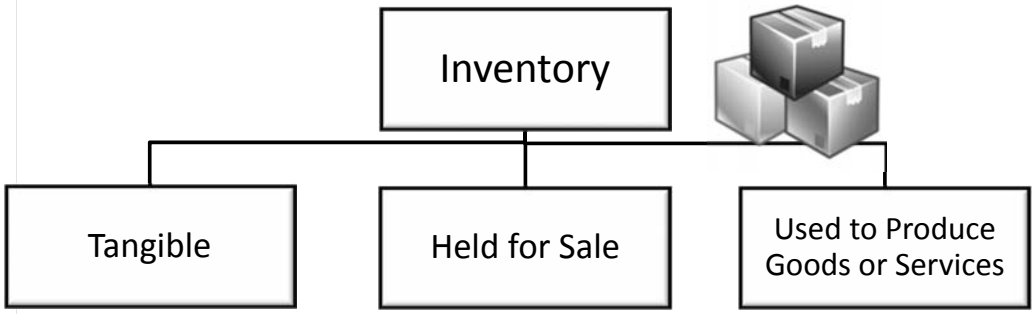
Net sales	xxx
Less: Cost of goods sold	xxx
Gross profit	xx

When inventories are sold and revenue is recognized, the carrying amount of those inventories is recognized as an expense (often called cost-of-goods-sold).

Nature of Inventory and Cost of Good Sold



Items Included in Inventory



Inventory is tangible property that is
(a) held for sale in the ordinary course of business;
(b) in the process of production for such sale; or
(c) in the form of material or supplies to be consumed in the production process or in the rendering of services.

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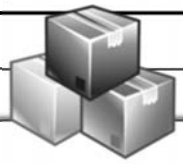
Items Included in Inventory



Merchandisers (Wholesale or Retail Businesses)

- ***Merchandise Inventory:***
  Goods (or merchandise) held for resale in the normal course of business.
  - The goods usually are acquired in a finished condition and are ready for sale without further processing.

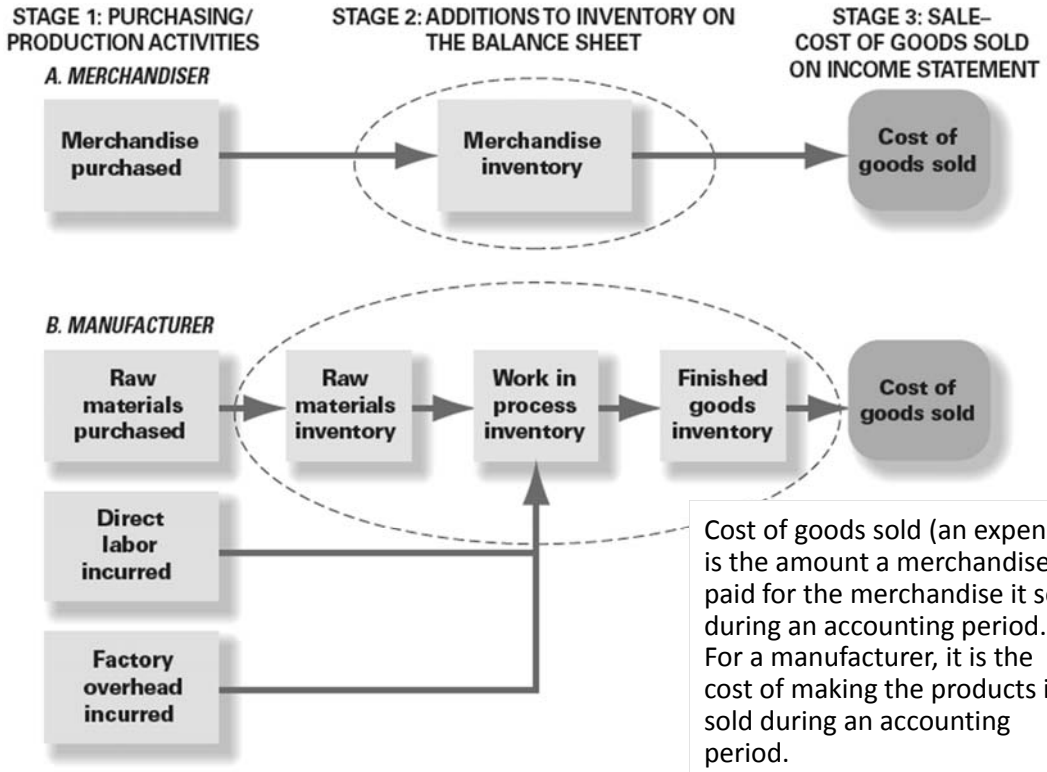
Manufacturers

- ***Raw Materials Inventory:***
  Items acquired for processing into finished goods.
  - These items are included in raw materials inventory until they are used, at which point they become part of work in process inventory.
- ***Work in Process Inventory:***
  Goods in the process of being manufactured but not yet complete.
  - When completed, work in process inventory becomes fished goods inventory.
- ***Finished Goods Inventory:***
  Manufactured goods that are complete and ready for sale.

Inventory Cost

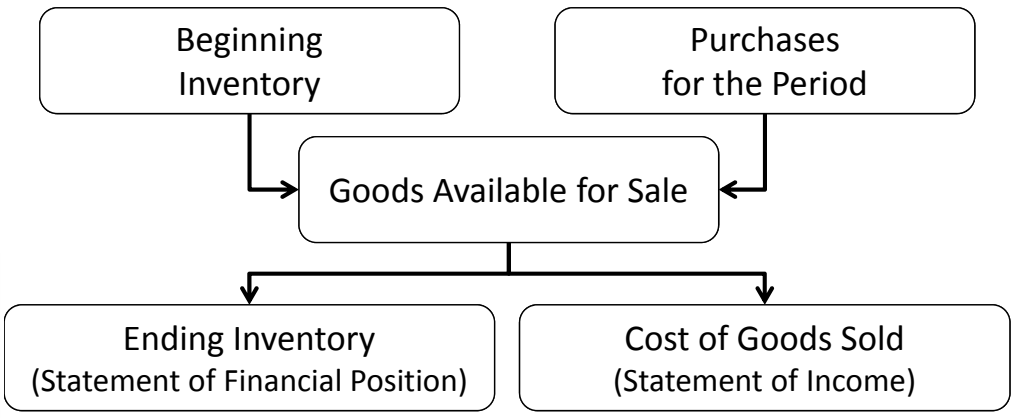
Cost includes	Cost does NOT include
• costs of purchase (including invoice price, taxes, freight/transport, and handling) net of trade discounts received • costs of conversion (including fixed and variable manufacturing overheads) • other costs incurred in bringing the inventories to their present location and condition (inspection costs, preparation costs)	• abnormal waste • storage costs • administrative overheads unrelated to production • selling costs • foreign exchange differences arising directly on the recent acquisition of inventories invoiced in a foreign currency • interest cost when inventories are purchased with deferred settlement terms.

Flow of Inventory Costs



Cost of goods sold (an expense) is the amount a merchandiser paid for the merchandise it sold during an accounting period. For a manufacturer, it is the cost of making the products it sold during an accounting period.

Cost of Goods Sold Equation



Cost of Goods Sold Equation:

	Beginning inventory
+	Purchases of goods during the period
	Goods Available for Sale
-	Ending inventory
	Cost of goods sold

If three of these four values are known, the cost of goods sold equation can be used to solve for the fourth value.

Perpetual & Periodic Inventory Systems (1)

The amount of cost of goods sold and ending inventory can be determined by using one of two different inventory systems: perpetual or periodic.

Perpetual Inventory System

- One keeping ***continual*** track of additions or deletions in materials, work-in-process, and cost of goods sold on a day-to-day basis.
- Physical inventory counts are usually taken at least once a year in order to check on the validity of the book records.
- Cost of goods sold is kept on a day-to-day basis rather than being determined periodically.

Periodic Inventory System

- One that does **NOT** require a day-to-day record of inventory changes.
- Cost of materials used and costs of goods sold ***cannot*** be calculated until ending inventories, determined by physical count, are subtracted from the sum of beginning inventories and purchases (or cost of goods available for sales)

Perpetual & Periodic Inventory Systems (2)

Perpetual Inventory System

- Provides up-to-date inventory records.
  - All movements in inventory are recorded in ***"Inventory"*** account.
- Provides up-to-date cost of goods sold records.

In a **Periodic Inventory System**, ending inventory and cost of goods sold are determined at the end of the accounting period based on **a physical count**.

All movements in inventory are recorded in ***"Purchases"*** account.

At year end, inventory balance is adjusted to a ***physical inventory count***

Perpetual & Periodic Inventory Systems (3)

Perpetual Inventory System

- ***Perpetual inventory system record cost of goods sold when inventory is sold and keep inventory at its current balance throughout the year.***
  - Therefore, there is NO need to record a year-end inventory adjustment unless the perpetual records disagree with the physical inventory count.
  - A separate cost of goods sold calculation is unnecessary since cost of goods sold is recorded whenever inventory is sold.

Periodic Inventory System

- ***In periodic inventory system, the inventory account keeps its beginning balance until the end of period adjustment to the physical inventory count.***
  - Therefore, a separate cost of goods sold calculation is necessary.

	Beginning inventory	xx
+	Purchases	xx
=	Cost of goods available for sale	xx
-	Ending inventory	xx
=	**Cost of goods sold**	**xx**

Perpetual & Periodic Inventory Systems (4)

- Beginning inventory 200 units @ $10 = $2,000
- Purchased 700 units @ $10 = $7,000
- Sold 400 units @ $25 = $10,000
- Ending inventory 500 units @ $10 = $5,000

Perpetual Inventory System	Periodic Inventory System
1. Beginning inventory 200 units @ $10	
Inventory account shows $2,000	Inventory account shows $2,000
2. Purchased 700 units @ $10	**Differences**
Dr. Inventory 7,000 Cr. Accounts payable 7,000	Dr. Purchases 7,000 Cr. Accounts payable 7,000
3. Sold 400 units @ $25	
Dr. Accounts receivable 10,000 Cr. Sales revenue 10,000	Dr. Accounts receivable 10,000 Cr. Sales revenue 10,000
Dr. Cost of goods sold 4,000 Cr. Inventory 4,000	---- No entry ----
4. Physically count number of units on hand at end of period	
---- No entry ---- Inventory account shows $5,000 Cost of goods sold account shows $4,000	Dr. Cost of goods sold 4,000 Ending inventory 5,000 Cr. Beginning inventory 2,000 Purchases 7,000

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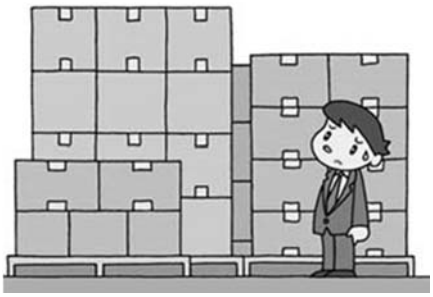
Perpetual & Periodic Inventory Systems (5)

	Perpetual Inventory System	Periodic Inventory System
Beginning inventory	Carried over from prior period	Carried over from prior period
Add: Purchases	Accumulated in the ***Inventory account***	Accumulated in the ***Purchases account***
Less: Ending inventory	Perpetual record updated at every sale	Measured at end of period by ***physical inventory count***
Cost of goods sold	Measured at every sale based on perpetual record	***Computed*** as a residual amount at end of period

Inventory Costing Methods



Physical Flows v/s Cost Flows

Physical Flows

- Refers to the actual physical movement of goods in the operations of a company.

Cost Flows

- Refers to the association of costs with their assumed flow in the operations of a company.

Inventory Costing Methods (1)

Specific Identification	Cost Flow Assumptions The choice of an inventory costing method is **NOT** based on the physical flow of goods.		
	First-in, First-out (FIFO)	**Last-in, First-out (LIFO)**	**Average Cost**
The cost of each item sold is ***individually identified*** and recorded as cost of goods sold. This method requires keeping track of the purchase cost of each item.	Assumes that the earliest goods purchased (the ***first*** ones in) are the first goods sold.	Assumes that the most recently purchased goods purchased (the ***last*** ones in) are the first goods sold.	Uses the average unit cost of the goods available for sale for both cost of goods sold and ending inventory.

Not used in Thailand

Inventory Costing Methods (2)

Goods Available for Sale

Inventory Costing Methods
I. Specific Identification
II. First-in, First-out
III. Last-in, First-out
IV. Average Cost

To determine how much is to be recorded as "cost" of goods sold.

Ending Inventory
(Statement of Financial Position)

Cost of Goods Sold
(Statement of Income)

Specific Identification Method

Inventory method that considers the sale and cost of each item specifically.

When units are sold, the **specific cost** of the unit sold is added to cost of goods sold.

Example – Inventory Costing

We will use this data throughout our inventory examples.

Computers, Inc.
Mouse Pad Inventory
As of December 31, 2014

Date	Units	$ per Unit	Total $
Beginning Inventory	1,000	5.25	5,250.00
Purchases:			
Jan 3	500	5.30	2,650.00
Jun 20	300	5.60	1,680.00
Sep 15	250	5.80	1,450.00
Nov 29	200	5.90	1,180.00
Goods Available for Sale	2,250		12,210.00
Ending Inventory	1,200		?
Cost of Goods Sold	1,050		?

FIFO: First-In, First-Out Method (1)

Inventory method in which the oldest remaining items are assumed to have been the first sold.

Oldest Unit Costs → Cost of Goods Sold

Recent Unit Costs → Ending Inventory

FIFO: First-In, First-Out Method (2)

The costs of the **oldest purchases** are allocated to **cost of goods sold**.
Start with 1,000 units from beginning inventory
and add units purchased until you reach 1,050 units sold.

Given Information				Ending Inventory	Cost of Goods Sold		
Beg. Inv.	1,000	@	5.25		1,000	@	5.25
Jan 3	500	@	5.30		50	@	5.30
Jun 20	300	@	5.60				
Sep 15	250	@	5.80				
Nov 29	200	@	5.90				
	2,250	Units		1,200	Units	1,050	Units
						$ 5,515	Cost

We have allocated the cost to all 1,050 units sold.

FIFO: First-In, First-Out Method (3)

The costs of the **most recent purchases** are in **ending inventory**. Start with 200 units from Nov 29 and add units purchased until you reach 1,200 units in ending inventory.

Given Information				Ending Inventory				Cost of Goods Sold			
Beg. Inv.	1,000	@	5.25					1,000	@	5.25	
Jan 3	500	@	5.30	450	@	5.30		50	@	5.30	
Jun 20	300	@	5.60	300	@	5.60					
Sep 15	250	@	5.80	250	@	5.80					
Nov 29	200	@	5.90	200	@	5.90					
	2,250	Units		1,200	Units			1,050	Units		
				$ 6,695	Cost			$ 5,515	Cost		

Now we have allocated the cost to all 1,200 units in ending inventory.

FIFO: First-In, First-Out Method (4)

Here is the cost of ending inventory and cost of goods sold using FIFO.

Computers, Inc.
Mouse Pad Inventory
As of December 31, 2014

Date	Units	$ per Unit	Total $
Beginning Inventory	1,000	5.25	5,250.00
Purchases:			
Jan 3	500	5.30	2,650.00
Jun 20	300	5.60	1,680.00
Sep 15	250	5.80	1,450.00
Nov 29	200	5.90	1,180.00
Goods Available for Sale	2,250		12,210.00
Ending Inventory	1,200		6,695.00
Cost of Goods Sold	1,050		5,515.00

LIFO: Last-In, First-Out Method (1)

Inventory method in which the most recently acquired items are assumed to have been the first sold.

Oldest Unit Costs → Ending Inventory

Recent Unit Costs → Cost of Goods Sold

LIFO: Last-In, First-Out Method (2)

The costs of the **most recent purchases** are allocated to **cost of goods sold**. Start with 200 units from Nov 29 and add units purchased until you reach 1,050 units sold.

Given Information				Ending Inventory	Cost of Goods Sold		
Beg. Inv.	1,000	@	5.25				
Jan 3	500	@	5.30		300	@	5.30
Jun 20	300	@	5.60		300	@	5.60
Sep 15	250	@	5.80		250	@	5.80
Nov 29	200	@	5.90		200	@	5.90
	2,250	Units		1,200 Units	1,050	Units	
					$ 5,900	Cost	

We have allocated the cost to all 1,050 units sold.

LIFO: Last-In, First-Out Method (3)

The costs of the **oldest purchases** are in **ending inventory**.
Start with 1,000 units in beginning inventory and add units purchased until you reach 1,200 units in ending inventory.

Given Information		Ending Inventory	Cost of Goods Sold
Beg. Inv.	1,000 @ 5.25	1,000 @ 5.25	
Jan 3	500 @ 5.30	200 @ 5.30	300 @ 5.30
Jun 20	300 @ 5.60		300 @ 5.60
Sep 15	250 @ 5.80		250 @ 5.80
Nov 29	200 @ 5.90		200 @ 5.90
	2,250 Units	1,200 Units	1,050 Units
		$ 6,310 Cost	$ 5,900 Cost

Now we have allocated the cost to all 1,200 units in ending inventory.

LIFO: Last-In, First-Out Method (4)

Here is the cost of ending inventory and cost of goods sold using LIFO.

Computers, Inc.
Mouse Pad Inventory
As of December 31, 2014

Date	Units	$ per Unit	Total $
Beginning Inventory	1,000	5.25	5,250.00
Purchases:			
Jan 3	500	5.30	2,650.00
Jun 20	300	5.60	1,680.00
Sep 15	250	5.80	1,450.00
Nov 29	200	5.90	1,180.00
Goods Available for Sale	2,250		12,210.00
Ending Inventory	1,200		6,310.00
Cost of Goods Sold	1,050		5,900.00

Average Cost Method (1)

Inventory method that takes cost of goods available for sale and divide it by the number of units available for sale to determine an average cost per unit.

$$\text{Average Cost per Unit} = \frac{\text{Cost of Goods Available for Sale}}{\text{Number of Units Available for Sale}}$$

The **average cost** is used for **both cost of goods sold** and **ending inventory**.

Average Cost Method (2)

Computers, Inc.
Mouse Pad Inventory
As of December 31, 2014

Date	Units	$ per Unit	Total $
Beginning Inventory	1,000	5.25	5,250.00
Purchases:			
Jan 3	500	5.30	2,650.00
Jun 20	300	5.60	1,680.00
Sep 15	250	5.80	1,450.00
Nov 29	200	5.90	1,180.00
Goods Available for Sale	2,250		12,210.00
Ending Inventory	1,200		6,512.00
Cost of Goods Sold	1,050		5,698.00

Average Cost = 12,210 / 2,250 = 5.4267

<---- 1,200 x 5.4267

<---- 1,050 x 5.4267

Comparison of Methods

Computers, Inc.
Income Statement
For Year Ended December 31, 2014

	FIFO	LIFO	Weighted Average
Net sales	$ 25,000	$ 25,000	$ 25,000
Cost of goods sold:			
Merchandise inventory, beginning	5,250	5,250	5,250
Net purchases	6,960	6,960	6,960
Goods available for sale	12,210	12,210	12,210
Merchandise inventory, ending	(6,695)	(6,310)	(6,512)
Cost of goods sold	5,515	5,900	5,698
Gross profit	19,485	19,100	19,302
Operating expenses	(750)	(750)	(750)
Income before taxes	18,735	18,350	18,552
Income taxes expense (30%)*	(5,621)	(5,505)	(5,566)
Net income	$ 13,114	$ 12,845	$ 12,986

* Tax expense amounts were rounded.

Financial Statement Effects of Costing Method

Advantages of Methods

First-In, First-Out	Last-In, First-Out	Average Cost
Ending inventory approximates current replacement cost.	Better matches current costs in cost of goods sold with revenues.	Smoothes out price changes.

International Perspective
LIFO and International Comparisons

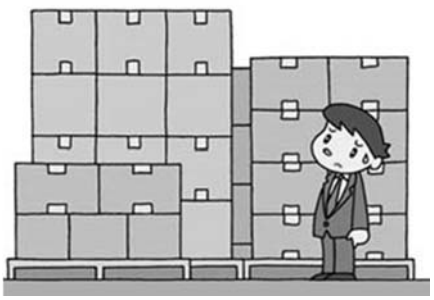
While U.S. GAAP allows companies to choose between FIFO, LIFO, and weighted average inventory methods, International Financial Reporting Standards (**IFRS**) currently **prohibit the use of LIFO**.

GAAP allows different inventory accounting methods to be used for different types of inventory items.

IFRS requires that the same method be used for all inventory items that have a similar nature and use.

These differences can create comparability problems when one attempts to compare companies across international borders.

Valuation at Lower of Cost or Net Realizable Value



Valuation at Lower of Cost or Net Realizable Value (1)

Ending inventory is reported at the **lower of cost or net realizable value**.

Net realizable value (NRV) is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

The company will recognize a "holding" loss in the current period rather than the period in which the item is sold. This practice is **Conservative**.

Valuation at Lower of Cost or Net Realizable Value (2)

Items	FIFO Inventory at Cost	Inventory at NRV	Lower of Cost or NRV Applied on the Basis of		
			Total Inventory	Inventory Category	Individual Items
			[A]	[B]	[C]
Computer equipment:					
Intel chips	160,000	180,000			160,000
Hard Disk drives	40,000	30,000			30,000
Total equipment	200,000	210,000		200,000	
Computer accessories:	24,000	15,000			15,000
Optical mouse	66,000	60,000			60,000
Key board	90,000	75,000		75,000	
Total accessories	290,000	285,000	285,000	275,000	265,000

Inventory valuation that should be used

Difference
= 290,000 – 285,000
= 5,000
Need the following adjustment to record the write down

Basis 1: LCNRV rule is applied on the basis of **TOTAL INVENTORY**

Date	Account Title & Explanation	Debit	Credit
Dec 31	Cost of goods sold (EXP+, SE-)	5,000	
	Inventory (A-)		5,000
	To write down the inventory to NRV		

Valuation at Lower of Cost or Net Realizable Value (3)

Items	FIFO Inventory at Cost	Inventory at NRV	Lower of Cost or NRV Applied on the Basis of		
			Total Inventory	Inventory Category	Individual Items
			[A]	[B]	[C]
Computer equipment:					
Intel chips	160,000	180,000			160,000
Hard Disk drives	40,000	30,000			30,000
Total equipment	200,000	210,000		200,000	
Computer accessories:	24,000	15,000			15,000
Optical mouse	66,000	60,000			60,000
Key board	90,000	75,000		75,000	
Total accessories	290,000	285,000	285,000	275,000	265,000

Inventory valuation that should be used

Difference
= 290,000 – 275,000
= 15,000
Need the following adjustment to record the write down

Basis 2: LCNRV rule is applied on the basis of **INVENTORY CATEGORY**

Date	Account Title & Explanation	Debit	Credit
Dec 31	Cost of goods sold (EXP+, SE-)	15,000	
	Inventory (A-)		15,000
	To write down the inventory to NRV		

Valuation at Lower of Cost or Net Realizable Value (4)

Items	FIFO Inventory at Cost	Inventory at NRV	Lower of Cost or NRV Applied on the Basis of		
			Total Inventory	Inventory Category	Individual Items
			[A]	[B]	[C]
Computer equipment:					
Intel chips	160,000	180,000			160,000
Hard Disk drives	40,000	30,000			30,000
Total equipment	200,000	210,000		200,000	
Computer accessories:	24,000	15,000			15,000
Optical mouse	66,000	60,000			60,000
Key board	90,000	75,000		75,000	
Total accessories	290,000	285,000	285,000	275,000	265,000

Inventory valuation that should be used

Difference
= 290,000 – 265,000
= 25,000
Need the following adjustment to record the write down

Basis 3: LCNRV rule is applied on the basis of **INDIVIDUAL ITEMS**

Date	Account Title & Explanation	Debit	Credit
Dec 31	Cost of goods sold (EXP+, SE-)	25,000	
	Inventory (A-)		25,000
	To write down the inventory to NRV		

Inventory Turnover Ratio

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Average Inventory is
(Beginning Inventory + Ending Inventory) ÷ 2

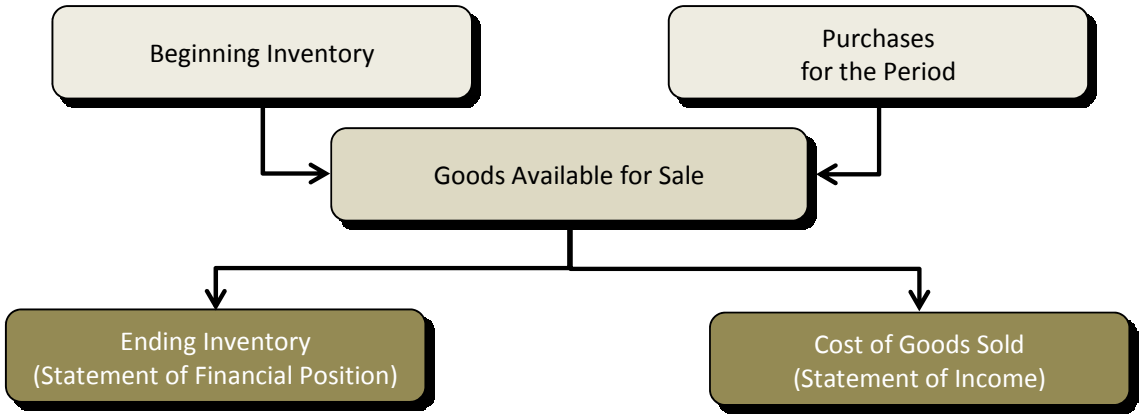
This ratio reflects how many times
average inventory
was produced and sold during the period.
A higher ratio indicates that
inventory moves more quickly
thus reducing
storage and obsolescence costs.

End of Chapter 6

CHAPTER 7: REPORTING AN INTERPRETING COST OF GOODS SOLD AND INVENTORY

Exercise 1: The Cost of Goods Sold Equation

	Beginning inventory	xx
+	Purchases	xx
	Cost of goods available for sale	xx
-	Ending inventory	(xx)
	Cost of goods sold	**xx**



For each set of information, fill in the missing amounts.

	Set A	Set B	Set C	Set D	Set E
Beginning inventory	76,000	72,000	207,000	261,000	156,000
Purchases	104,000	272,000		450,000	393,000
Ending inventory	35,200		166,500	135,000	
Cost of goods sold		264,000	441,000		396,000

Exercise 2: Accounting for Inventory - Perpetual Inventory System

Following is the information of Hamm Manufacturing Corp. during March 2015:

March 1, Hamm had beginning inventory of 100 units at a unit cost of $80.
March 2, Hamm purchased 400 units at a unit cost of $80, on credit terms 3/10 n/30.
March 14, Hamm sold 200 units at a selling price of $190 per unit on account.
March 31, Hamm had ending inventory of 300 units at a unit cost of $80.

Prepare the required journal entries under perpetual inventory system.

GENERAL JOURNAL				
Date		**Account Titles and Explanation**	**Debit**	**Credit**

HAMM MANUFACTURING CORP.
Statement of Income (partial)
For the year ended March 31, 2015

Sales revenue	$
Less Cost of goods sold	
Gross profit	$

HAMM MANUFACTURING CORP.
Statement of Financial Position (Partial)
As of March 31, 2015

Assets:

Liabilities:

Stockholders' Equity:

Exercise 3: Accounting for Inventory - Periodic Inventory System

Following is the information of Hamm Manufacturing Corp. during March 2015:

March 1, Hamm had beginning inventory of 100 units at a unit cost of $80.
March 2, Hamm purchased 400 units at a unit cost of $80, on credit terms 3/10 n/30.
March 14, Hamm sold 200 units at a selling price of $190 per unit on account.
March 31, Hamm had ending inventory of 300 units at a unit cost of $80.

Prepare the required journal entries under periodic inventory system.

GENERAL JOURNAL				
Date		**Account Titles and Explanation**	**Debit**	**Credit**

HAMM MANUFACTURING CORP.
Statement of Income (partial)
For the year ended March 31, 2015

Sales revenue	$
Less Cost of goods sold	
Gross profit	$

HAMM MANUFACTURING CORP.
Statement of Financial Position (Partial)
As of March 31, 2015

Assets:

Liabilities:

Stockholders' Equity:

Exercise 4: Determining Ending Inventory and Cost of Goods Sold - Perpetual Systems

Accounting records for Sunshine products indicate the following data for PH4 oil filters during 2015:

Jan 1	Beginning inventory	9	units	@ $3.00	$27.00
Feb 23	Purchase	12	units	@ $3.50	42.00
Apr 20	Purchase	20	units	@ $3.80	76.00
Oct 11	Purchase	17	units	@ $5.00	85.00
	Total	58	units		$230.00
Mar 16	Sold	13	units	@$12.00	156.00
Nov 28	Sold	32	units	@$13.00	416.00
	Total	45	units		$572.00

A physical count indicates 13 units in inventory at year-end.

Assume the company uses ***a perpetual inventory system***, determine the cost of goods sold and the cost of the ending inventor, based on each of the following methods of inventory valuation.

a) FIFO

Cost of goods sold = $☐☐☐.☐☐

Cost of the ending inventory = $☐☐☐.☐☐

Date	Purchases			Cost of Goods Sold			Inventory		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Jan 1							9	3.00	27.00
Feb 23	12	3.50	42.00				9	3.00	27.00
							12	3.50	42.00
Mar 16				9	3.00	27.00			
				4	3.50	14.00			
Apr 20	20	3.80	76.00				8	3.50	28.00
							20	3.80	114.00
Oct 11	17	5.00	85.00				8	3.50	28.00
							20	3.80	114.00
							17	5.00	95.00
Nov 28				8	3.50	28.00	13	5.00	65.00
				20	3.80	76.00			
				4	5.00	20.00			
					Total	165.00			

Jan 1	Beginning inventory	9	units	@ $3.00	$27.00
Feb 23	Purchase	12	units	@ $3.50	42.00
Apr 20	Purchase	20	units	@ $3.80	76.00
Oct 11	Purchase	17	units	@ $5.00	85.00
	Total	58	units		$230.00
Mar 16	Sold	13	units	@$12.00	156.00
Nov 28	Sold	32	units	@$13.00	416.00
	Total	45	units		$572.00

b) Weighted Average Cost

Cost of goods sold = $□□□.□□

Cost of the ending inventory = $□□□.□□

Date	Purchases			Cost of Goods Sold			Inventory		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Jan 1							9	3.00	27.00
Feb 23	12	3.50	42.00				21	3.29	69.00
Mar 16				13	3.29	42.77	8	3.29	26.23
Apr 20	20	3.80	76.00				28	3.65	102.23
Oct 11	17	5.00	85.00				45	4.16	187.23
Nov 28				32	4.16	133.12	13	4.16	54.11
					Total	175.89			

c) Specific Identification

Assume that the company sold the followings:

13 units sold on Mar 16:
- 4 units were selected from the beginning inventory
- 9 units were selected from the purchase of Feb 23

32 units sold on Nov 28:
- 5 units were selected from the beginning inventory
- 17 units were selected from the purchase of Apr 20
- 10 units were selected from the purchase of Oct 11

Cost of goods sold = $□□□.□□

Cost of the ending inventory = $□□□.□□

Exercise 5: Determining Ending Inventory and Cost of Goods Sold - Periodic Systems

Accounting records for Sunshine products indicate the following data for PH4 oil filters during 2015:

Jan 1	Beginning inventory	9	units	@ $3.00	$27.00
Feb 23	Purchase	12	units	@ $3.50	42.00
Apr 20	Purchase	20	units	@ $3.80	76.00
Oct 11	Purchase	17	units	@ $5.00	85.00
	Total	58	units		$230.00
Mar 16	Sold	13	units	@$12.00	156.00
Nov 28	Sold	32	units	@$13.00	416.00
	Total	45	units		$572.00

A physical count indicates 13 units in inventory at year-end.

Assume the company uses ***a periodic inventory system***, determine the cost of the ending inventory and the cost of goods sold, based on each of the following methods of inventory valuation.

a) FIFO

Cost of goods sold = $☐☐☐.☐☐

Cost of the ending inventory = $☐☐☐.☐☐

b) Weighted Average Cost

Cost of goods sold = $☐☐☐.☐☐

Cost of the ending inventory = $☐☐☐.☐☐

Jan 1	Beginning inventory	9	units	@ $3.00	$27.00
Feb 23	Purchase	12	units	@ $3.50	42.00
Apr 20	Purchase	20	units	@ $3.80	76.00
Oct 11	Purchase	17	units	@ $5.00	85.00
	Total	58	units		$230.00
Mar 16	Sold	13	units	@$12.00	156.00
Nov 28	Sold	32	units	@$13.00	416.00
	Total	45	units		$572.00

Exercise 6: Valuation of Inventory: Lower of Cost or Net Realizable Value (NRV)

Amanda Corporation is preparing its financial statements for the year ending December 31, 2015. Ending inventory information about the three major items stocked for regular sale follows:

Item	Quantity on Hand	Cost Per Unit of Inventory When Acquired (FIFO)	Net Realizable Value (NRV) Per Unit at Year-End
AA	100	$ 30	$ 32
BB	150	80	80
CC	200	100	96

Compute the valuation that should be used for the ending inventory using the Lower of Cost or NRV rule applied on an item-by-item basis.

Item	Quantity	Cost Per Unit	Inventory at Cost	NRV Per Unit	Inventory at NRV	LCNRV Using Individual-Item Basis
	[A]	[B]	[A] x [B]	[C]	[A] x [C]	
AA	100	$30		$32		
BB	150	80		80		
CC	200	100		96		
Total						

a) Assume the LCNRV rule is applied on an **ITEM-BY-ITEM BASIS**, prepare an adjusting journal entry to record the write-down of inventory valuation.

GENERAL JOURNAL				
Date		Account Titles and Explanation	Debit	Credit

AMANDA CORPORATION
Statement of Financial Position (Partial)
As of December 31, 2015

Assets:

Liabilities:

Stockholders' Equity:

b) Assume the LCNRV rule is applied on the basis of **TOTAL INVENTORY**, prepare an adjusting journal entry to record the write-down of inventory valuation.

GENERAL JOURNAL				
Date		**Account Titles and Explanation**	**Debit**	**Credit**

AMANDA CORPORATION
Statement of Financial Position (Partial)
As of December 31, 2015

Assets:

Liabilities:

Stockholders' Equity: