	Units	Unit Cost
Purchase, June 19	13,000	12
Purchase, Nov. 8	5,000	13

If 9,000 units are on hand at December 31, what is the cost of the ending inventory under FIFO?

- (a) $99,000.
- (b) $108,000.
- (c) $113,000.
- (d) $117,000.

5.

From the data in Question 4, what is the cost of the ending inventory under LIFO?

(LO 2)

- (a) $113,000.
- (b) $108,000.
- (c) $99,000.
- (d) $100,000.

6.

Davidson Electronics has the following:

(LO 2)

	Units	Unit Cost
Inventory, Jan. 1	5,000	$ 8
Purchase, April 2	15,000	10
Purchase, Aug. 28	20,000	12
	Units	**Unit Cost**

If Davidson has 7,000 units on hand at December 31, the cost of ending inventory under the average-cost method is:

- (a) $84,000.
- (b) $70,000.
- (c) $56,000.
- (d) $75,250.

7.

In periods of rising prices, LIFO will produce:

(LO 3)

- (a) higher net income than FIFO.
- (b) the same net income as FIFO.
- (c) lower net income than FIFO.
- (d) higher net income than average-cost.

8.

Considerations that affect the selection of an inventory costing method do **not** include:

(LO 3)

- (a) tax effects.
- (b) balance sheet effects.
- (c) income statement effects.
- (d) perpetual versus periodic inventory system.

9.

The lower-of-cost-or-market rule for inventory is an example of the application of:

(LO 4)

- (a) the conservatism convention.
- (b) the historical cost principle.
- (c) the materiality concept.
- (d) the economic entity assumption.

10.

Which of these would cause inventory turnover to increase the most?

(LO 5)

- (a) Increasing the amount of inventory on hand.
- (b) Keeping the amount of inventory on hand constant but increasing sales.
- (c) Keeping the amount of inventory on hand constant but decreasing sales.
- (d) Decreasing the amount of inventory on hand and increasing sales.

11.

Carlos Company had beginning inventory of $80,000, ending inventory of $110,000, cost of goods sold of $285,000, and sales of $475,000. Carlos's days in inventory is:

(LO 5)

- (a) 73 days.
- (b) 121.7 days.
- (c) 102.5 days.
- (d) 84.5 days.

12.

The LIFO reserve is:

(LO 6)

- (a) the difference between the value of the inventory under LIFO and the value under FIFO.
- (b) an amount used to adjust inventory to the lower-of-cost-or-market.
- (c) the difference between the value of the inventory under LIFO and the value under average-cost.
- (d) an amount used to adjust inventory to historical cost.

***13.**

In a perpetual inventory system,

(LO 7)

- (a) LIFO cost of goods sold will be the same as in a periodic inventory system.
- (b) average costs are based entirely on unit-cost simple averages.
- (c) a new average is computed under the average-cost method after each sale.
- (d) FIFO cost of goods sold will be the same as in a periodic inventory system.

***14.**

Fran Company's ending inventory is understated by $4,000. The effects of this error on the current year's cost of goods sold and net income, respectively, are:

(LO 8)

- (a) understated and overstated.
- (b) overstated and understated.
- (c) overstated and overstated.
- (d) understated and understated.

***15.**

Harold Company overstated its inventory by $15,000 at December 31, 2014. It did not correct the error in 2014 or 2015. As a result, Harold's stockholders' equity was:

(LO 4)

- (a) overstated at December 31, 2014, and understated at December 31, 2015.
- (b) overstated at December 31, 2014, and properly stated at December 31, 2015.
- (c) understated at December 31, 2014, and understated at December 31, 2015.
- (d) overstated at December 31, 2014, and overstated at December 31, 2015.

Go to the book's companion website, www.wiley.com/college/kimmel, to access additional Self-Test Questions.

The Navigator

Questions

1.

"The key to successful business operations is effective inventory management." Do you agree? Explain.

2.

An item must possess two characteristics to be classified as inventory. What are these two characteristics?

3.

What is just-in-time inventory management? What are its potential advantages?

4.

Your friend Jill Wurtz has been hired to help take the physical inventory in Proehl's Hardware Store. Explain to Jill what this job will entail.

5.

- (a) Millar Company ships merchandise to Branyan Corporation on December 30. The merchandise reaches the buyer on January 5. Indicate the terms of sale that will result in the goods being included in (1) Millar's December 31 inventory and (2) Branyan's December 31 inventory.
- (b) Under what circumstances should Millar Company include consigned goods in its inventory?

6.

Nida Hat Shop received a shipment of hats for which it paid the wholesaler $2,940. The price of the hats was $3,000, but Nida was given a $60 cash discount and required to pay freight charges of $75. What amount should Nida include in inventory? Why?

7.

What is the primary basis of accounting for inventories? What is the major objective in accounting for inventories?

8.

Stan Koevner believes that the allocation of cost of goods available for sale should be based on the actual physical flow of the goods. Explain to Stan why this may be both impractical and inappropriate.

9.

What is the major advantage and major disadvantage of the specific identification method of inventory costing?

10.

"The selection of an inventory cost flow method is a decision made by accountants." Do you agree? Explain. Once a method has been selected, what accounting requirement applies?

11.

Which assumed inventory cost flow method:

- (a) usually parallels the actual physical flow of merchandise?
- (b) divides cost of goods available for sale by total units available for sale to determine a unit cost?
- (c) assumes that the latest units purchased are the first to be sold?

12.

In a period of rising prices, the inventory reported in Long Company's balance sheet is close to the current cost of the inventory, whereas Windsor Company's inventory is considerably below its current cost. Identify the inventory cost flow method used by each company. Which company probably has been reporting the higher gross profit?

13.

Espinosa Corporation has been using the FIFO cost flow method during a prolonged period of inflation. During the same time period, Espinosa has been paying out all of its net income as dividends. What adverse effects may result from this policy?

14.

George Orear, a mid-level product manager for Theresa's Shoes, thinks his company should switch from LIFO to FIFO. He says, "My bonus is based on net income. If we switch it will increase net income and increase my bonus. The company would be better off and so would I." Is he correct? Explain.

15.

Discuss the impact the use of LIFO has on taxes paid, cash flows, and the quality of earnings ratio relative to the impact of FIFO when prices are increasing.

16.

 What inventory cost flow method does Tootsie Roll Industries use for U.S. inventories? What method does it use for foreign inventories? (*Hint:* You will need to examine the notes for Tootsie Roll's financial statements.) Why does it use a different method for foreign inventories?

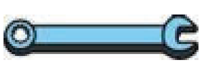
17.

Alison Hinck is studying for the next accounting midterm examination. What should Alison know about (a) departing from the cost basis of accounting for inventories and (b) the meaning of "market" in the lower-of-cost-or-market method?

18.

Rondeli Music Center has five TVs on hand at the balance sheet date that cost $400 each. The current replacement cost is $350 per unit. Under the lower-of-cost-or-market basis of accounting for inventories, what value should Rondeli report for the TVs on the balance sheet? Why?

19.

 What cost flow assumption may be used under the lower-of-cost-or-market basis of accounting for inventories?

20.

Why is it inappropriate for a company to include freight-out expense in the Cost of Goods Sold account?

21.

Dipoto Company's balance sheet shows Inventory $162,800. What additional disclosures should be made?

22.

Under what circumstances might inventory turnover be too high—that is, what possible negative consequences might occur?

23.

What is the LIFO reserve? What are the consequences of ignoring a large LIFO reserve when analyzing a company?

***24.**

"When perpetual inventory records are kept, the results under the FIFO and LIFO methods are the same as they would be in a periodic inventory system." Do you agree? Explain.

***25.**

How does the average-cost method of inventory costing differ between a perpetual inventory system and a periodic inventory system?

***26.**

Marshall Company discovers in 2014 that its ending inventory at December 31, 2013, was $5,000 understated. What effect will this error have on (a) 2013 net income, (b) 2014 net income, and (c) the combined net income for the 2 years?

Brief Exercises

BE6-1

Tiffee Company identifies the following items for possible inclusion in the physical inventory. Indicate whether each item should be included or excluded from the inventory taking.

Identify items to be included in taking a physical inventory.

(LO 1), **C**

- (a) 900 units of inventory shipped on consignment by Tiffee to another company.
- (b) 3,000 units of inventory in transit from a supplier shipped FOB destination.
- (c) 1,200 units of inventory sold but being held for customer pickup.
- (d) 500 units of inventory held on consignment from another company.

BE6-2

In its first month of operations, Giffin Company made three purchases of merchandise in the following sequence: (1) 300 units at $6, (2) 400 units at $8, and (3) 500 units at $9. Assuming there are 200 units on hand at the end of the period, compute the cost of the ending inventory under (a) the FIFO method and (b) the LIFO method. Giffin uses a periodic inventory system.

Compute ending inventory using FIFO and LIFO.

(LO 2), **AP**

BE6-3

Data for Giffin Company are presented in BE6-2. Compute the cost of the ending inventory under the average-cost method. (Round the cost per unit to three decimal places.)

Compute the ending inventory using average-cost.

(LO 2), **AP**

BE6-4

The management of Rosenquist Corp. is considering the effects of various inventory-costing methods on its financial statements and its income tax expense. Assuming that the price the company pays for inventory is increasing, which method will:

Explain the financial statement effect of inventory cost flow assumptions.

(LO 3), **C**

- (a) provide the highest net income?
- (b) provide the highest ending inventory?
- (c) result in the lowest income tax expense?
- (d) result in the most stable earnings over a number of years?

BE6-5

In its first month of operation, Kuhlman Company purchased 100 units of inventory for $6, then 200 units for $7, and finally 140 units for $8. At the end of the month, 180 units remained. Compute the amount of phantom profit that would result if the company used FIFO rather than LIFO. Explain why this amount is referred to as phantom profit. The company uses the periodic method.

Explain the financial statement effect of inventory cost flow assumptions.

(LO 3), **AP**

BE6-6

For each of the following cases, state whether the statement is true for LIFO or for FIFO. Assume that prices are rising.

Identify the impact of LIFO versus FIFO.

(LO 3), **C**

- (a) Results in a higher quality of earnings ratio.
- (b) Results in higher phantom profits.
- (c) Results in higher net income.
- (d) Results in lower taxes.
- (e) Results in lower net cash provided by operating activities.

BE6-7

Sadowski Video Center accumulates the following cost and market data at December 31.

Determine the LCM valuation.

(LO 4), AP

Inventory Categories	Cost Data	Market Data
Cameras	$12,500	$13,400
Camcorders	9,000	9,500
DVDs	13,000	12,200

Compute the lower-of-cost-or-market valuation for Sadowski inventory.

BE6-8

Suppose at December 31 of a recent year, the following information (in thousands) was available for sunglasses manufacturer Oakley, Inc.: ending inventory $155,377; beginning inventory $119,035; cost of goods sold $349,114; and sales revenue $761,865. Calculate the inventory turnover and days in inventory for Oakley, Inc.

Compute inventory turnover and days in inventory.

(LO 5), **AP**

BE6-9

Winnebago Industries, Inc. is a leading manufacturer of motor homes. Suppose Winnebago reported ending inventory at August 29, 2014, of $46,850,000 under the LIFO inventory method. In the notes to its financial statements, assume Winnebago reported a LIFO reserve of $30,346,000 at August 29, 2014. What would Winnebago Industries' ending inventory have been if it had used FIFO?

Determine ending inventory and cost of goods sold using LIFO reserve.

(LO 6), **C**

***BE6-10**

Hogan's Department Store uses a perpetual inventory system. Data for product E2-D2 include the purchases shown on page 315.

Apply cost flow methods to perpetual inventory records.

(LO 7), **AP**

Date	Number of Units	Unit Price
May 7	50	$10

Date	Number of Units	Unit Price
July 28	30	15

On June 1, Hogan sold 25 units, and on August 27, 30 more units. Compute the cost of goods sold using (a) FIFO, (b) LIFO, and (c) average-cost. (Round the cost per unit to three decimal places.)

***BE6-11**

Nickels Company reports net income of $92,000 in 2014. However, ending inventory was understated by $7,000. What is the correct net income for 2014? What effect, if any, will this error have on total assets as reported in the balance sheet at December 31, 2014?

Determine correct financial statement amount.

(LO 8), **AN**

Do it! Review

Do it! 6-1

Dobler Company just took its physical inventory on December 31. The count of inventory items on hand at the company's business locations resulted in a total inventory cost of $300,000. In reviewing the details of the count and related inventory transactions, you have discovered the following items that had not been considered.

Apply rules of ownership to determine inventory cost.

(LO 1), **AN**

- 1. Dobler has sent inventory costing $28,000 on consignment to Phillips Company. All of this inventory was at Phillips's showrooms on December 31.
- 2. The company did not include in the count inventory (cost, $20,000) that was sold on December 28, terms FOB shipping point. The goods were in transit on December 31.
- 3. The company did not include in the count inventory (cost, $13,000) that was purchased with terms of FOB shipping point. The goods were in transit on December 31.

Compute the correct December 31 inventory.

Do it! 6-2

The accounting records of Tuel Electronics show the following data.

Compute cost of goods sold under different cost flow methods.

(LO 2), **AP**

Beginning inventory	3,000 units at $5

Purchases	8,000 units at $7
Sales	9,400 units at $10

Determine cost of goods sold during the period under a periodic inventory system using (a) the FIFO method, (b) the LIFO method, and (c) the average-cost method. (Round unit cost to three decimal places.)

Do it! **6-3**

Farwell Company sells three different categories of tools (small, medium and large). The cost and market value of its inventory of tools are as follows.

Compute inventory value under LCM.

(LO 4), **AP**

	Cost	Market
Small	$ 64,000	$ 61,000
Medium	290,000	260,000
Large	152,000	167,000

Determine the value of the company's inventory under the lower-of-cost-or-market approach.

Do it! **6-4**

Early in 2014, Defoor Company switched to a just-in-time inventory system. Its sales and inventory amounts for 2013 and 2014 are shown below.

Compute inventory turnover and assess inventory level.

(LO 5), **AN**

	2013	2014
Sales revenue	$3,120,000	$3,713,000
Cost of goods sold	1,200,000	1,425,000

	2013	2014
Beginning inventory	170,000	210,000
Ending inventory	210,000	90,000

Determine the inventory turnover and days in inventory for 2013 and 2014. Discuss the changes in the amount of inventory, the inventory turnover and days in inventory, and the amount of sales across the two years.

Exercises

E6-1

Columbia Bank and Trust is considering giving Gallup Company a loan. Before doing so, it decides that further discussions with Gallup's accountant may be desirable. One area of particular concern is the Inventory account, which has a year-end balance of $275,000. Discussions with the accountant reveal the following.

Determine the correct inventory amount.

(LO 1), **AN**

- 1. Gallup sold goods costing $55,000 to Bazil Company FOB shipping point on December 28. The goods are not expected to reach Bazil until January 12. The goods were not included in the physical inventory because they were not in the warehouse.
- 2. The physical count of the inventory did not include goods costing $95,000 that were shipped to Gallup FOB destination on December 27 and were still in transit at year-end.
- 3. Gallup received goods costing $25,000 on January 2. The goods were shipped FOB shipping point on December 26 by Lynch Co. The goods were not included in the physical count.
- 4. Gallup sold goods costing $51,000 to Lamey of Canada FOB destination on December 30. The goods were received in Canada on January 8. They were not included in Gallup's physical inventory.
- 5. Gallup received goods costing $42,000 on January 2 that were shipped FOB destination on December 29. The shipment was a rush order that was supposed to arrive December 31. This purchase was included in the ending inventory of $275,000.

Instructions

Determine the correct inventory amount on December 31.

E6-2

Kevin Farley, an auditor with Koews CPAs, is performing a review of Knight Company's Inventory account. Knight did not have a good year, and top management is under pressure to boost reported income. According to its records, the inventory balance at year-end was $740,000. However, the following information was not considered when determining that amount.

Determine the correct inventory amount.

(LO 1), **AN**

- 1. Included in the company's count were goods with a cost of $228,000 that the company is holding on consignment. The goods belong to Mather Corporation.
- 2. The physical count did not include goods purchased by Knight with a cost of $40,000 that were shipped FOB shipping point on December 28 and did not arrive at Knight's warehouse until January 3.
- 3. Included in the Inventory account was $17,000 of office supplies that were stored in the warehouse and were to be used by the company's supervisors and managers during the coming year.
- 4. The company received an order on December 29 that was boxed and was sitting on the loading dock awaiting pick-up on December 31. The shipper picked up the goods on January 1 and delivered them on January 6. The shipping terms were FOB shipping point. The goods had a selling price of $40,000 and a cost of $29,000. The goods were not included in the count because they were sitting on the dock.
- 5. On December 29, Knight shipped goods with a selling price of $80,000 and a cost of $50,000 to Houchins Sales Corporation FOB shipping point. The goods arrived on January 3. Houchins Sales had only ordered goods with a selling price of $10,000 and a cost of $6,000. However, a sales manager at Knight had authorized the shipment and said that if Houchins wanted to ship the goods back next week, it could.
- 6. Included in the count was $50,000 of goods that were parts for a machine that the company no longer made. Given the high-tech nature of Knight's products, it was unlikely that these obsolete parts had any other use. However, management would prefer to keep them on the books at cost, "since that is what we paid for them, after all."

Instructions

Prepare a schedule to determine the correct inventory amount. Provide explanations for each item above, stating why you did or did not make an adjustment for each item.

E6-3

Mateo Inc. had the following inventory situations to consider at January 31, its year-end.

Identify items in inventory.

(LO 1), **K**

- (a) Goods held on consignment for Schrader Corp. since December 12.
- (b) Goods shipped on consignment to Lyman Holdings Inc. on January 5.
- (c) Goods shipped to a customer, FOB destination, on January 29 that are still in transit.
- (d) Goods shipped to a customer, FOB shipping point, on January 29 that are still in transit.
- (e) Goods purchased FOB destination from a supplier on January 25, that are still in transit.
- (f) Goods purchased FOB shipping point from a supplier on January 25, that are still in transit.
- (g) Office supplies on hand at January 31.

Instructions

Identify which of the preceding items should be included in inventory. If the item should not be included in inventory, state in what account, if any, it should have been recorded.

E6-4

Delmott sells a snowboard, Xpert, that is popular with snowboard enthusiasts. Below is information relating to Delmott's purchases of Xpert snowboards during September. During the same month, 102 Xpert snowboards were sold. Delmott uses a periodic inventory system.

Compute inventory and cost of goods sold using periodic FIFO and LIFO.

(LO 2), **AP**

Date	**Explanation**	**Units**	**Unit Cost**	**Total Cost**

Date	Explanation	Units	Unit Cost	Total Cost
Sept. 1	Inventory	12	$100	$ 1,200
Sept. 12	Purchases	45	103	4,635
Sept. 19	Purchases	50	104	5,200
Sept. 26	Purchases	20	105	2,100
	Totals	127		$13,135

Instructions

Compute the ending inventory at September 30 and the cost of goods sold using the FIFO, LIFO, and average-cost methods. (For average-cost, round the average unit cost to three decimal places.) Prove the amount allocated to cost of goods sold under each method.

E6-5

Horne Inc. uses a periodic inventory system. Its records show the following for the month of May, in which 74 units were sold.

Calculate inventory and cost of goods sold using FIFO, average-cost, and LIFO in a periodic inventory system.

(LO 2), **AP**

Date	Explanation	Units	Unit Cost	Total Cost
May 1	Inventory	30	$ 9	$270
15	Purchase	25	10	250
24	Purchase	38	11	418
	Total	93		$938

Instructions

Calculate the ending inventory at May 31 using the (a) FIFO, (b) LIFO, and (c) average-cost methods. (For average-cost, round the average unit cost to three decimal places.) Prove the amount allocated to cost of goods sold under each method.

E6-6

On December 1, Quality Electronics has three DVD players left in stock. All are identical, all are priced to sell at $85. One of the three DVD players left in stock, with serial #1012, was purchased on June 1 at a cost of $52. Another, with serial #1045, was purchased on November 1 for $48. The last player, serial #1056, was purchased on November 30 for $40.

Calculate cost of goods sold using specific identification and FIFO periodic.

(LO 2, 3), **AN**

Instructions

- (a) Calculate the cost of goods sold using the FIFO periodic inventory method, assuming that two of the three players were sold by the end of December, Quality Electronics' year-end.
- (b) If Quality Electronics used the specific identification method instead of the FIFO method, how might it alter its earnings by "selectively choosing" which particular players to sell to the two customers? What would Quality's cost of goods sold be if the company wished to minimize earnings? Maximize earnings?
- (c) Which inventory method, FIFO or specific identification, do you recommend that Quality use? Explain why.

E6-7

Eggers Company reports the following for the month of June.

Compute inventory and cost of goods sold using periodic FIFO, LIFO, and average-cost.

(LO 2, 3), **AP**

Date	Explanation	Units	Unit Cost	Total Cost
June 1	Inventory	120	$5	$ 600
12	Purchase	370	6	2,220
23	Purchase	200	7	1,400
30	Inventory	230		

Instructions

- (a) Compute the cost of the ending inventory and the cost of goods sold under (1) FIFO, (2) LIFO, and (3) average-cost. (Round average unit cost to three decimal places).
- (b) Which costing method gives the highest ending inventory? The highest cost of goods sold? Why?
- (c) How do the average-cost values for ending inventory and cost of goods sold relate to ending inventory and cost of goods sold for FIFO and LIFO?
- (d) Explain why the average cost is not $6.

E6-8

The following comparative information is available for Keysor Company for 2014.

Evaluate impact of LIFO and FIFO on cash flows and earnings quality.

(LO 3), **AP**

	LIFO	**FIFO**
Sales revenue	$86,000	$86,000
Cost of goods sold	38,000	29,000
Operating expenses (including depreciation)	27,000	27,000
Depreciation	10,000	10,000
Cash paid for inventory purchases	32,000	32,000

Instructions

- (a) Determine net income under each approach. Assume a 30% tax rate.
- (b) Determine net cash provided by operating activities under each approach. Assume that all sales were on a cash basis and that income taxes and operating expenses, other than depreciation, were on a cash basis.
- (c) Calculate the quality of earnings ratio under each approach and explain your findings.

E6-9

Birk Camera Shop Inc. uses the lower-of-cost-or-market basis for its inventory. The following data are available at December 31.

Determine LCM valuation.

(LO 4), **AP**

	Units	**Cost/Unit**	**Market Value/Unit**
Cameras			
Minolta	5	$170	$158
Canon	7	145	152
Light Meters			

	Units	Cost/Unit	Market Value/Unit
Vivitar	12	125	114
Kodak	10	120	135

Instructions

What amount should be reported on Birk Camera Shop's financial statements, assuming the lower-of-cost-or-market rule is applied?

E6-10

Suppose this information is available for PepsiCo, Inc. for 2012, 2013, and 2014.

Compute inventory turnover, days in inventory, and gross profit rate.

(LO 5), **AP**

(in millions)	2012	2013	2014
Beginning inventory	$ 1,926	$ 2,290	$ 2,522
Ending inventory	2,290	2,522	2,618
Cost of goods sold	18,038	20,351	20,099
Sales revenue	39,474	43,251	43,232

Instructions

Calculate the inventory turnover, days in inventory, and gross profit rate for PepsiCo., Inc. for 2012, 2013, and 2014. Comment on any trends.

E6-11

Deere & Company is a global manufacturer and distributor of agricultural, construction, and forestry equipment. Suppose it reported the following information in its 2014 annual report.

Compute inventory turnover and determine the effect of the LIFO reserve on current ratio.

(LO 5, 6), **AP**

(in millions)	2014	2013
Inventories (LIFO)	$ 2,397	$3,042
Current assets	30,857	
Current liabilities	12,753	
LIFO reserve	1,367	
Cost of goods sold	16,255	

Instructions

- (a) Compute Deere's inventory turnover and days in inventory for 2014.
- (b) Compute Deere's current ratio using the 2014 data as presented, and then again after adjusting for the LIFO reserve.
- (c) Comment on how ignoring the LIFO reserve might affect your evaluation of Deere's liquidity.

***E6-12**

Inventory data for Eggers Company are presented in E6-7.

Calculate inventory and cost of goods sold using three cost flow methods in a perpetual inventory system.

(LO 7), **AP**

Instructions

- (a) Calculate the cost of the ending inventory and the cost of goods sold for each cost flow assumption, using a perpetual inventory system. Assume a sale of 410 units occurred on June 15 for a selling price of $8 and a sale of 50 units on June 27 for $9. (*Note:* For the moving-average method, round unit cost to three decimal places.)
- (b) How do the results differ from E6-7?
- (c) Why is the average unit cost not $\$6[(\$5+\$6+\$7)\div 3=\$6]$?

***E6-13**

Information about Delmott is presented in E6-4. Additional data regarding the company's sales of Xpert snowboards are provided below. Assume that Delmott uses a perpetual inventory system.

Apply cost flow methods to perpetual records.

(LO 7), **AP**

Date		Units
Sept. 5	Sale	8

Date		**Units**
Sept. 16	Sale	48
Sept. 29	Sale	46
Totals		102

Instructions

Compute ending inventory at September 30 using FIFO, LIFO, and moving-average. (*Note:* For moving-average, round unit cost to three decimal places.)

***E6-14**

Foyle Hardware reported cost of goods sold as follows.

Determine effects of inventory errors.

(LO 8), **AN**

	2014	**2013**
Beginning inventory	$ 30,000	$ 20,000
Cost of goods purchased	175,000	164,000
Cost of goods available for sale	205,000	184,000
Less: Ending inventory	37,000	30,000
Cost of goods sold	$168,000	$154,000

Foyle made two errors:

- 1. 2013 ending inventory was overstated by $2,000.
- 2. 2014 ending inventory was understated by $5,000.

Instructions

Compute the correct cost of goods sold for each year.

***E6-15**

Holcomb Company reported these income statement data for a 2-year period.

Prepare correct income statements.

(LO 8), **AN**

	2014	**2013**
Sales revenue	$250,000	$210,000
Beginning inventory	40,000	32,000
Cost of goods purchased	202,000	173,000
Cost of goods available for sale	242,000	205,000
Less: Ending inventory	55,000	40,000
Cost of goods sold	187,000	165,000
Gross profit	$ 63,000	$ 45,000

Holcomb Company uses a periodic inventory system. The inventories at January 1, 2013, and December 31, 2014, are correct. However, the ending inventory at December 31, 2013, is overstated by $8,000.

Instructions

- (a) Prepare correct income statement data for the 2 years.
- (b) What is the cumulative effect of the inventory error on total gross profit for the 2 years?
- (c) Explain in a letter to the president of Holcomb Company what has happened—that is, the nature of the error and its effect on the financial statements.

Exercises: Set B and Challenge Exercises

Visit the book's companion website, at www.wiley.com/college/kimmel, and choose the Student Companion site to access Exercise Set B and Challenge Exercises.

Problems: Set A

P6-1A

Aber Limited is trying to determine the value of its ending inventory as of February 28, 2014, the company's year-end. The accountant counted everything that was in the warehouse, as of February 28, which resulted in an ending inventory valuation of $48,000. However, she didn't know how to treat the following transactions so she didn't record them.

Determine items and amounts to be recorded in inventory.

(LO 1), **AN**

- (a) On February 26, Aber shipped to a customer goods costing $800. The goods were shipped FOB shipping point, and the receiving report indicates that the customer received the goods on March 2.
- (b) On February 26, Landis Inc. shipped goods to Aber FOB destination. The invoice price was $350 plus $25 for freight. The receiving report indicates that the goods were received by Aber on March 2.
- (c) Aber had $500 of inventory at a customer's warehouse "on approval." The customer was going to let Aber know whether it wanted the merchandise by the end of the week, March 4.
- (d) Aber also had $400 of inventory at a Newten craft shop, on consignment from Aber.
- (e) On February 26, Aber ordered goods costing $750. The goods were shipped FOB shipping point on February 27. Aber received the goods on March 1.
- (f) On February 28, Aber packaged goods and had them ready for shipping to a customer FOB destination. The invoice price was $350 plus $25 for freight; the cost of the items was $280. The receiving report indicates that the goods were received by the customer on March 2.
- (g) Aber had damaged goods set aside in the warehouse because they are no longer saleable. These goods originally cost $400 and, originally, Aber expected to sell these items for $600.

Instructions

For each of the above transactions, specify whether the item in question should be included in ending inventory, and if so, at what amount. For each item that is not included in ending inventory, indicate who owns it and what account, if any, it should have been recorded in.

P6-2A

Dunbar Distribution markets CDs of numerous performing artists. At the beginning of March, Dunbar had in beginning inventory 2,500 CDs with a unit cost of $7. During March, Dunbar made the following purchases of CDs.

Determine cost of goods sold and ending inventory using FIFO, LIFO, and average-cost, with analysis.

(LO 2, 3), **AP**

March 5	2,000 @ $8	March 21	5,000 @ $10
March 13	3,500 @ $9	March 26	2,000 @ $11

During March 12,000 units were sold. Dunbar uses a periodic inventory system.

Instructions

- (a) Determine the cost of goods available for sale.
- (b) Determine (1) the ending inventory and (2) the cost of goods sold under each of the assumed cost flow methods (FIFO, LIFO, and average-cost). Prove the accuracy of the cost of goods sold under the FIFO and

LIFO methods. (*Note:* For average-cost, round cost per unit to three decimal places.)

(b) Cost of goods sold:

FIFO	$105,000
LIFO	$115,500
Average	$109,601

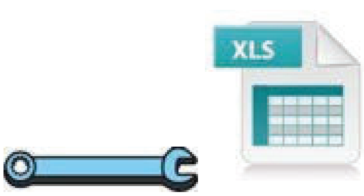
- (c) Which cost flow method results in (1) the highest inventory amount for the balance sheet and (2) the highest cost of goods sold for the income statement?

P6-3A

Groves Company Inc. had a beginning inventory of 100 units of Product MLN at a cost of $8 per unit. During the year, purchases were:

Determine cost of goods sold and ending inventory using FIFO, LIFO, and average-cost in a periodic inventory system and assess financial statement effects.

(LO 2, 3), **AP**



Feb. 20	600 units at $ 9	Aug. 12	400 units at $11
May 5	500 units at $10	Dec. 8	100 units at $12

Groves Company uses a periodic inventory system. Sales totaled 1,500 units.

Instructions

- (a) Determine the cost of goods available for sale.
- (b) Determine the ending inventory and the cost of goods sold under each of the assumed cost flow methods (FIFO, LIFO, and average-cost). Prove the accuracy of the cost of goods sold under the FIFO and LIFO methods. (Round average unit cost to three decimal places.)

  (b) Cost of goods sold:

FIFO	$14,500
LIFO	$15,100

Average $14,824

- (c) Which cost flow method results in the lowest inventory amount for the balance sheet? The lowest cost of goods sold for the income statement?

P6-4A

The management of Tinker Inc. asks your help in determining the comparative effects of the FIFO and LIFO inventory cost flow methods. For 2014, the accounting records show these data.

Compute ending inventory, prepare income statements, and answer questions using FIFO and LIFO.

(LO 2, 3), **AN**

Inventory, January 1 (10,000 units)	$ 35,000
Cost of 120,000 units purchased	468,500
Selling price of 98,000 units sold	750,000
Operating expenses	124,000

Units purchased consisted of 35,000 units at $3.70 on May 10; 60,000 units at $3.90 on August 15; and 25,000 units at $4.20 on November 20. Income taxes are 28%.

Instructions

- (a) Prepare comparative condensed income statements for 2014 under FIFO and LIFO. (Show computations of ending inventory.)

  (a) Gross Profit:

FIFO	$378,800
LIFO	$362,900

- (b) Answer the following questions for management in the form of a business letter.
  - (1) Which inventory cost flow method produces the inventory amount that most closely approximates the amount that would have to be paid to replace the inventory? Why?
  - (2) Which inventory cost flow method produces the net income amount that is a more likely indicator of next period’s net income? Why?
  - (3) Which inventory cost flow method is most likely to approximate the actual physical flow of the goods? Why?
  - (4) How much more cash will be available under LIFO than under FIFO? Why?
  - (5) How much of the gross profit under FIFO is illusionary in comparison with the gross profit under LIFO?

P6-5A

You have the following information for Vincent Inc. for the month ended October 31, 2014. Vincent uses a periodic method for inventory.

Calculate ending inventory, cost of goods sold, gross profit, and gross profit rate under periodic method; compare results.

(LO 2, 3), **AP**

Date	Description	Units	Unit Cost or Selling Price
Oct. 1	Beginning inventory	60	$24
Oct. 9	Purchase	120	26
Oct. 11	Sale	100	35
Oct. 17	Purchase	100	27
Oct. 22	Sale	60	40
Oct. 25	Purchase	70	29
Oct. 29	Sale	110	40

Instructions

- (a) Calculate (i) ending inventory, (ii) cost of goods sold, (iii) gross profit, and (iv) gross profit rate under each of the following methods.
    - (1) LIFO.
    - (2) FIFO.
    - (3) Average-cost. (Round cost per unit to three decimal places.)

  (a) Gross profit:

LIFO	$2,970
FIFO	$3,310
Average	$3,133

- (b) Compare results for the three cost flow assumptions.

P6-6A

You have the following information for Wooderson Gems. Wooderson uses the periodic method of accounting for its inventory transactions. Wooderson only carries one brand and size of diamonds—all are identical. Each batch of diamonds purchased is carefully coded and marked with its purchase cost.

Compare specific identification, FIFO, and LIFO under periodic method; use cost flow assumption to influence earnings.

(LO 2, 3), **AP**

March 1	Beginning inventory 150 diamonds at a cost of $310 per diamond.
March 3	Purchased 200 diamonds at a cost of $350 each.
March 5	Sold 180 diamonds for $600 each.
March 10	Purchased 330 diamonds at a cost of $375 each.
March 25	Sold 390 diamonds for $650 each.

Instructions

- (a) Assume that Wooderson Gems uses the specific identification cost flow method.
  - (1) Demonstrate how Wooderson could maximize its gross profit for the month by specifically selecting which diamonds to sell on March 5 and March 25.
  - (2) Demonstrate how Wooderson could minimize its gross profit for the month by selecting which diamonds to sell on March 5 and March 25.

  (a) Gross profit:

Maximum	$162,500
Minimum	$155,350

- (b) Assume that Wooderson uses the FIFO cost flow assumption. Calculate cost of goods sold. How much gross profit would Wooderson report under this cost flow assumption?
- (c) Assume that Wooderson uses the LIFO cost flow assumption. Calculate cost of goods sold. How much gross profit would the company report under this cost flow assumption?
- (d) Which cost flow method should Wooderson Gems select? Explain.

P6-7A

Suppose this information (in millions) is available for the Automotive and Other Operations Divisions of General Motors Corporation for a recent year. General Motors uses the LIFO inventory method.

Compute inventory turnover and days in inventory; compute current ratio based on LIFO and after adjusting for LIFO reserve.

(LO 5, 6), AP

Beginning inventory	$ 13,921
Ending inventory	14,939
LIFO reserve	1,423
Current assets	60,135
Current liabilities	70,308
Cost of goods sold	166,259
Sales revenue	178,199

Instructions

- (a) Calculate the inventory turnover and days in inventory.
- (b) Calculate the current ratio based on inventory as reported using LIFO.
- (c) Calculate the current ratio after adjusting for the LIFO reserve.
- (d) Comment on any difference between parts (b) and (c).

***P6-8A**

Pember Inc. is a retailer operating in Edmonton, Alberta. Pember uses the perpetual inventory method. Assume that there are no credit transactions; all amounts are settled in cash. You are provided with the following information for Pember Inc. for the month of January 2014.

Calculate cost of goods sold, ending inventory, and gross profit for LIFO, FIFO, and moving-average under the perpetual system; compare results.

(LO 3, 7), **AP**

Date	Description	Quantity	Unit Cost or Selling Price
Dec. 31	Ending inventory	160	$20
Jan. 2	Purchase	100	22

Date	Description	Quantity	Unit Cost or Selling Price
Jan. 6	Sale	180	40
Jan. 9	Purchase	75	24
Jan. 10	Sale	50	45
Jan. 23	Purchase	100	25
Jan. 30	Sale	130	48

Instructions

- (a) For each of the following cost flow assumptions, calculate (i) cost of goods sold, (ii) ending inventory, and (iii) gross profit.
  - (1) LIFO.
  - (2) FIFO.
  - (3) Moving-average. (Round cost per unit to three decimal places.)

  (a) Gross profit:

LIFO	$7,490
FIFO	$7,865
Average	$7,763

- (b) Compare results for the three cost flow assumptions.

***P6-9A**

Lambert Center began operations on July 1. It uses a perpetual inventory system. During July, the company had the following purchases and sales.

Determine ending inventory under a perpetual inventory system.

(LO 3, 7), **AP**

Purchases

Date	Units	Purchases Unit Cost	Sales Units
July 1	7	$62	
July 6			5
July 11	3	$66	
July 14			3
July 21	4	$71	
July 27			3

Instructions

- (a) Determine the ending inventory under a perpetual inventory system using (1) FIFO, (2) moving-average (round unit cost to three decimal places), and (3) LIFO.

  (a) FIFO $213

  Average $207

  LIFO $195

- (b) Which costing method produces the highest ending inventory valuation?

Problems: Set B

P6-1B

Sun Company is trying to determine the value of its ending inventory as of March 31, 2014, the company's year-end. The following transactions occurred, and the accountant asked your help in determining whether they should be recorded or not.

Determine items and amounts to be recorded in inventory.

(LO 1), **AN**

- (a) On March 30, Sun shipped to a customer goods costing $1,000. The goods were shipped FOB destination, and the receiving report indicates that the customer received the goods on April 1.
- (b) On March 28, Wholesale Inc. shipped goods to Sun FOB shipping point. The invoice price was $600 plus $20 for freight. The receiving report indicates that the goods were received by Sun on April 2.

- (c) Sun had $750 of consigned goods from Frederick Inc.
- (d) Sun had $380 of inventory at Stephen's Variety on consignment from Sun.
- (e) On March 29, Sun ordered goods costing $640. The goods were shipped FOB destination on March 31. Sun received the goods on April 3.
- (f) A customer returned goods to Sun on March 31. Upon inspection, the goods were found to be undamaged and were accepted as returned goods. These goods originally cost $400 and Sun sold them for $640.

Instructions

For each of the above transactions, specify whether the item in question should be included in ending inventory, and if so, at what amount. For each item that is not included in ending inventory, indicate who owns it and what account, if any, it should have been recorded in.

P6-2B

Lifetime Distribution markets classic children's books. At the beginning of June, Lifetime had in beginning inventory 1,200 books with a unit cost of $3. During June, Lifetime made the following purchases of books.

Determine cost of goods sold and ending inventory using FIFO, LIFO, and average-cost with analysis.

(LO 2, 3), **AP**

June 3	4,000 @ $3	June 29	4,000 @ $6
June 18	7,500 @ $5		

During June, 10,500 books were sold. Lifetime uses a periodic inventory system.

Instructions

- (a) Determine the cost of goods available for sale.

  (a) Cost of goods sold:

FIFO	$42,100
LIFO	$56,500
Average	$48,475

- (b) Determine (1) the ending inventory and (2) the cost of goods sold under each of the assumed cost flow methods (FIFO, LIFO, and average-cost). Prove the accuracy of the cost of goods sold under the FIFO and LIFO methods. (*Note:* For average-cost, round cost per unit to three decimal places.)
- (c) Which cost flow method results in (1) the highest inventory amount for the balance sheet and (2) the highest cost of goods sold for the income statement?

P6-3B

Smythe Company Inc. had a beginning inventory of 200 units of Product ERV at a cost of $6 per unit. During the year, purchases were:

Determine cost of goods sold and ending inventory using FIFO, LIFO, and average-cost in a periodic inventory system and assess financial statement effects.

(LO 2, 3), **AP**

Jan. 24	800 units at $7	Aug. 19	600 units at $ 9
Apr. 12	400 units at $8	Nov. 30	350 units at $10

Smythe Company uses a periodic inventory system. Sales totaled 1,900 units.

Instructions

- (a) Determine the cost of goods available for sale.
- (b) Determine the ending inventory and the cost of goods sold under each of the assumed cost flow methods (FIFO, LIFO, and average-cost). Prove the accuracy of the cost of goods sold under the FIFO and LIFO methods. (Round average unit cost to three decimal places.)

  (b) Cost of goods sold:

FIFO	$14,500
LIFO	$15,950
Average	$15,281

- (c) Which cost flow method results in the lowest inventory amount for the balance sheet? The lowest cost of goods sold for the income statement?

P6-4B

The management of Weigel Inc. asks your help in determining the comparative effects of the FIFO and LIFO inventory cost flow methods. For 2014 the accounting records show these data.

Compute ending inventory, prepare income statements, and answer questions using FIFO and LIFO.

(LO 2, 3), **AN**

Inventory, January 1 (4,000 units)	$ 16,000

Cost of 105,000 units purchased	470,500
Selling price of 100,000 units sold	900,000
Operating expenses	185,000

Units purchased consisted of 35,000 units at $4.21 on March 20; 65,000 units at $4.60 on July 24; and 5,000 units at $4.83 on December 12. Income taxes are 30%.

Instructions

- (a) Prepare comparative condensed income statements for 2014 under FIFO and LIFO. (Show computations of ending inventory.)

  (a) Gross Profit:

FIFO	$456,050
LIFO	$450,550

- (b)  Answer the following questions for management in the form of a business letter.
  - (1) Which inventory cost flow method produces the most meaningful inventory amount for the balance sheet? Why?
  - (2) Which inventory cost flow method produces the most meaningful net income? Why?
  - (3) Which inventory cost flow method is most likely to approximate the actual physical flow of the goods? Why?
  - (4) How much more cash will be available under LIFO than under FIFO? Why?
  - (5) How much of the gross profit under FIFO is illusionary in comparison with the gross profit under LIFO?

P6-5B

You have the following information for Crystal Inc. for the month ended May 31, 2014. Crystal uses a periodic method for inventory.

Calculate ending inventory, cost of goods sold, gross profit, and gross profit rate under periodic method; compare results.

(LO 2, 3), **AP**

Date	Description	Units	Unit Cost or Selling Price
May 1	Beginning inventory	40	$20
May 6	Purchase	110	23

Date	Description	Units	Unit Cost or Selling Price
May 7	Sale	90	32
May 15	Purchase	70	25
May 18	Sale	40	37
May 24	Purchase	60	26
May 30	Sale	80	38

Instructions

- (a) Calculate (i) ending inventory, (ii) cost of goods sold, (iii) gross profit, and (iv) gross profit rate under each of the following methods.
  - (1) LIFO.
  - (2) FIFO.
  - (3) Average-cost. (Round cost per unit to three decimal places.)

  (a) Gross Profit:

LIFO	$2,250
FIFO	$2,570
Average	$2,420

- (b) Compare results for the three cost flow assumptions.

P6-6B

You have the following information for Limex Watches. Limex uses the periodic method of accounting for its inventory transactions. Limex carries only one brand of hand-crafted jeweled watches—all are identical. Each batch of watches purchased is carefully coded and marked with its purchase cost.

Compare specific identification, FIFO, and LIFO under periodic method; use cost flow assumption to influence earnings.

(LO 2, 3), **AP**

July 1	Beginning inventory 220 watches at a cost of $420 per watch.
July 2	Purchased 200 watches at a cost of $450 each.
July 5	Sold 180 watches for $700 each.
July 14	Purchased 350 watches at a cost of $480 each.
July 28	Sold 480 watches for $720 each.

Instructions

- (a) Assume that Limex uses the specific identification cost flow method.
  - (1) Demonstrate how Limex could maximize its gross profit for the month by specifically selecting which watches to sell on July 5 and July 28.
  - (2) Demonstrate how Limex could minimize its gross profit for the month by selecting which watches to sell on July 5 and July 28.

  (a) Gross profit:

Maximum	$174,000
Minimum	$167,400

- (b) Assume that Limex uses the FIFO cost flow assumption. Calculate cost of goods sold. How much gross profit would Limex report under this cost flow assumption?
- (c) Assume that Limex uses the LIFO cost flow assumption. Calculate cost of goods sold. How much gross profit would the company report under this cost flow assumption?
- (d) Which cost flow method should Limex Watches select? Explain.

P6-7B

Suppose this information is available for the Automotive Sector of NoGo Motor Company for 2014. NoGo uses the LIFO inventory method.

Compute inventory turnover and days in inventory; compute current ratio based on LIFO and after adjusting for LIFO reserve.

(LO 5, 6), **AP**

(in millions)	
Beginning inventory	$ 10,017

Ending inventory	10,121
LIFO reserve	1,100
Current assets	54,243
Current liabilities	50,218
Cost of goods sold	130,460
Sales	154,379

Instructions

- (a) Calculate the inventory turnover and days in inventory.
- (b) Calculate the current ratio based on inventory as reported using LIFO.
- (c) Calculate the current ratio after adjusting for the LIFO reserve.
- (d) Comment on any difference between parts (b) and (c).

***P6-8B**

Liberty Inc. is a retailer operating in Centralia. Liberty uses the perpetual inventory method. All sales returns from customers result in the goods being returned to inventory. (Assume that the inventory is not damaged.) Assume that there are no credit transactions; all amounts are settled in cash. You are provided with the following information for Liberty Inc. for the month of January 2014.

Calculate cost of goods sold, ending inventory, and gross profit for LIFO, FIFO, and moving-average under the perpetual system; compare results.

(LO 3, 7), **AP**

Date	Description	Quantity	Unit Cost or Selling Price
Dec. 31	Ending inventory	140	$14
Jan. 2	Purchase	120	15
Jan. 6	Sale	150	30
Jan. 9	Purchase	85	17

Date	Description	Quantity	Unit Cost or Selling Price
Jan. 10	Sale	70	35
Jan. 23	Purchase	100	20
Jan. 30	Sale	110	42

Instructions

- (a) For each of the following cost flow assumptions, calculate (i) cost of goods sold, (ii) ending inventory, and (iii) gross profit.
  - (1) LIFO.
  - (2) FIFO.
  - (3) Moving-average. (Round cost per unit to three decimal places.)

  (a) Gross profit:

LIFO	$5,990
FIFO	$6,620
Average	$6,382

- (b) Compare results for the three cost flow assumptions.

***P6-9B**

Shiraz Rugs began operations on February 1. It uses a perpetual inventory system. During February, the company had the following purchases and sales.

Determine ending inventory under a perpetual inventory system.

(LO 3, 7), **AP**

	Purchases		
Date	**Units**	**Unit Cost**	**Sales Units**
Feb. 1	12	$150	

	Purchases		
Date	**Units**	**Unit Cost**	**Sales Units**
Feb. 6			9
Feb. 11	8	$168	
Feb. 14			5
Feb. 21	6	$182	
Feb. 27			4

Instructions

- (a) Determine the ending inventory under a perpetual inventory system using (1) FIFO, (2) moving-average (round unit cost to three decimal places), and (3) LIFO.

(a) FIFO	$1,428
Average	$1,381
LIFO	$1,318

- (b) Which costing method produces the highest ending inventory valuation?

Problems: Set C

Visit the book's companion website, at www.wiley.com/college/kimmel, and choose the Student Companion site to access Problem Set C.

Comprehensive Problem

CP6

On December 1, 2014, Harrisen Company had the account balances shown below.

	Debit		**Credit**

Cash	$ 4,800	Accumulated Depreciation—Equipment	$ 1,500
Accounts Receivable	3,900	Accounts Payable	3,000
Inventory	1,800*	Common Stock	10,000
Equipment	21,000	Retained Earnings	17,000
	$31,500		$31,500

*

(3,000 × $ 0.60)

The following transactions occurred during December.

Dec.	3	Purchased 4,000 units of inventory on account at a cost of $0.72 per unit.
	5	Sold 4,400 units of inventory on account for $0.90 per unit. (It sold 3,000 of the $0.60 units and 1,400 of the $0.72.)
	7	Granted the December 5 customer $180 credit for 200 units of inventory returned costing $150. These units were returned to inventory.
	17	Purchased 2,200 units of inventory for cash at $0.80 each.
	22	Sold 2,000 units of inventory on account for $0.95 per unit. (It sold 2,000 of the $0.72 units.)

Adjustment data:

- 1. Accrued salaries and wages payable $400.
- 2. Depreciation on equipment $200 per month.
- 3. Income tax expense was $215, to be paid next year.

Instructions

- (a) Journalize the December transactions and adjusting entries, assuming Harrisen uses the perpetual inventory method.
- (b) Enter the December 1 balances in the ledger T-accounts and post the December transactions. In addition to the accounts mentioned above, use the following additional accounts: Income Taxes Payable, Salaries and Wages Payable, Sales Revenue, Sales Returns and Allowances, Cost of Goods Sold, Depreciation Expense, Salaries and Wages Expense, and Income Tax Expense.

- (c) Prepare an adjusted trial balance as of December 31, 2014.
- (d) Prepare an income statement for December 2014 and a classified balance sheet at December 31, 2014.
- (e) Compute ending inventory and cost of goods sold under FIFO, assuming Harrisen Company uses the periodic inventory system.
- (f) Compute ending inventory and cost of goods sold under LIFO, assuming Harrisen Company uses the periodic inventory system.

Continuing Cookie Chronicle

(*Note:* This is a continuation of the Cookie Chronicle from Chapters 1 through 5.)

CCC6

Natalie is busy establishing both divisions of her business (cookie classes and mixer sales) and completing her business degree. Her goals for the next 11 months are to sell one mixer per month and to give two to three classes per week. Natalie has decided to use a periodic inventory system and now must choose a cost flow assumption for her mixer inventory.

Go to the book's companion website, at **www.wiley.com/college/kimmel**, to see the completion of this problem.

Broadening Your Perspective

Financial Reporting and Analysis

FINANCIAL REPORTING PROBLEM: *Tootsie Roll Industries, Inc.*

BYP6-1

The notes that accompany a company's financial statements provide informative details that would clutter the amounts and descriptions presented in the statements. Refer to the financial statements of Tootsie Roll and the accompanying Notes to Consolidated Financial Statements in Appendix A.

Instructions

Answer the following questions. (Give the amounts in thousands of dollars, as shown in Tootsie Roll's annual report.)

- (a) What did Tootsie Roll report for the amount of inventories in its Consolidated Balance Sheet at December 31, 2011? At December 31, 2010?
- (b) Compute the dollar amount of change and the percentage change in inventories between 2010 and 2011. Compute inventory as a percentage of current assets for 2011.
- (c) What are the (product) cost of goods sold reported by Tootsie Roll for 2011, 2010, and 2009? Compute the ratio of (product) cost of goods sold to net (product) sales in 2011.

COMPARATIVE ANALYSIS PROBLEM: *Tootsie Roll vs. Hershey*

BYP6-2

The financial statements of The Hershey Company appear in Appendix B, following the financial statements for Tootsie Roll in Appendix A.

Instructions

- (a) Based on the information in the financial statements, compute these 2011 values for each company. (Do not adjust for the LIFO reserve.)
  - (1) Inventory turnover. (Use product cost of goods sold and total inventory.)
  - (2) Days in inventory.
- (b) What conclusions concerning the management of the inventory can you draw from these data?

RESEARCH CASE

BYP6-3

The July 15, 2010, edition of *CFO.com* contains an article by Marie Leone entitled "Sucking the LIFO out of Inventory."

Instructions

Read the article, which can be found at **www.cfo.com/printable/article.cfm/14508745**, and answer the following questions.

- (a) What type of company benefits most from the use of LIFO?
- (b) What is the estimated boost in federal tax receipts over 10 years if the use of LIFO for taxes was not allowed?
- (c) If the United States decides to adopt International Financial Reporting Standards (IFRS), what would be the implications for IFRS?
- (d) What conceptual justification for LIFO do its proponents provide?
- (e) What types of companies prefer to use FIFO?

INTERPRETING FINANCIAL STATEMENTS

BYP6-4

Suppose the following information is from the 2014 annual report of American Greetings Corporation (all dollars in thousands).

	Feb. 28, 2014	**Feb. 28, 2013**
Inventories		
Finished goods	$232,893	$244,379
Work in process	7,068	10,516
Raw materials and supplies	49,937	43,861
	289,898	298,756
Less: LIFO reserve	86,025	82,085
Total (as reported)	$203,873	$216,671
Cost of goods sold	$809,956	$780,771
Current assets (as reported)	$561,395	$669,340
Current liabilities	$343,405	$432,321

The notes to the company's financial statements also include the following information.

Finished products, work in process, and raw material inventories are carried at the lower-of-cost-or-market. The last-in, first-out (LIFO) cost method is used for approximately 75% of the domestic inventories in 2014 and approximately 70% in 2013. The foreign subsidiaries principally use the first-in, first-out (FIFO) method. Display material and factory supplies are carried at average-cost.

Instructions

- (a) Define each of the following: finished goods, work in process, and raw materials.
- (b) What might be a possible explanation for why the company uses FIFO for its nondomestic inventories?
- (c) Calculate the company's inventory turnover and days in inventory for 2013 and 2014. (2012 inventory was $182,618.) Discuss the implications of any change in the ratios.
- (d) What percentage of total inventory does the 2014 LIFO reserve represent? If the company used FIFO in 2014, what would be the value of its inventory? Do you consider this difference a "material" amount from the perspective of an analyst? Which value accurately represents the value of the company's inventory?
- (e) Calculate the company's 2014 current ratio with the numbers as reported, then recalculate after adjusting for the LIFO reserve.

REAL-WORLD FOCUS

BYP6-5

Purpose: Use SEC filings to learn about a company's inventory accounting practices.

Address: **http://biz.yahoo.com/p/_capgds-bldmch.html**,

or go to www.wiley.com/college/kimmel

Steps

- 1. Go to this site and click on the name of an equipment manufacturer other than those discussed in the chapter.
- 2. Click on **SEC filings**.
- 3. Under "Recent filings" choose **Form 10K** (annual report) and click on **Full Filing at Edgar Online**.
- 4. Choose option "3," **Online HTML Version**.

If the 10K is not listed among the recent filings, then click on **View All Filings on EDGAR Online**.

Instructions

Review the 10K to answer the following questions.

- (a) What is the name of the company?
- (b) How has its inventory changed from the previous year?
- (c) What is the amount of raw materials, work in process, and finished goods inventory?
- (d) What inventory method does the company use?
- (e) Calculate the inventory turnover and days in inventory for the current year.
- (f) If the company uses LIFO, what was the amount of its LIFO reserve?

Critical Thinking

DECISION-MAKING ACROSS THE ORGANIZATION

BYP6-6

Heineken Electronics has enjoyed tremendous sales growth during the last 10 years. However, even though sales have steadily increased, the company's CEO, Beth Dains, is concerned about certain aspects of its performance. She has called a meeting with the corporate controller and the vice presidents of finance, operations, sales, and marketing to discuss the company's performance. Beth begins the meeting by making the following observations:

We have been forced to take significant write-downs on inventory during each of the last three years because of obsolescence. In addition, inventory storage costs have soared. We rent four additional warehouses to store our increasingly diverse inventory. Five years ago inventory represented only 20% of the value of our total assets. It now exceeds 35%. Yet, even with all of this inventory, "stockouts" (measured by complaints by customers that the desired product is not available) have increased by 40% during the last three years. And worse yet, it seems that we constantly must discount merchandise that we have too much of.

Beth asks the group to review the following data and make suggestions as to how the company's performance might be improved.

(in millions)	2014	2013	2012	2011
Inventory				
Raw materials	$242	$198	$155	$128
Work in process	116	77	49	33
Finished goods	567	482	398	257
Total inventory	$925	$757	$602	$418
Current assets	$1,800	$1,423	$1,183	$841
Total assets	$2,643	$2,523	$2,408	$2,090
Current liabilities	$ 600	$ 590	$ 525	$ 420
Sales revenue	$9,428	$8,674	$7,536	$6,840
Cost of goods sold	$6,328	$5,474	$4,445	$3,557
Net income	$ 754	$ 987	$ 979	$ 958

Instructions

Using the information provided, answer the following questions.

- (a) Compute the current ratio, gross profit rate, profit margin, inventory turnover, and days in inventory for 2012, 2013, and 2014.
- (b) Discuss the trends and potential causes of the changes in the ratios in part (a).
- (c) Discuss potential remedies to any problems discussed in part (b).
- (d) What concerns might be raised by some members of management with regard to your suggestions in part (c)?

COMMUNICATION ACTIVITIES

BYP6-7

In a discussion of dramatic increases in coffee-bean prices, a *Wall Street Journal* article noted the following fact about Starbucks.

Before this year's bean-price hike, Starbucks added several defenses that analysts say could help it maintain earnings and revenue. The company last year began accounting for its coffee-bean purchases by taking the average price of all beans in inventory.

Prior to this change, the company was using FIFO.

Instructions

Your client, the CEO of Supreme Coffee, Inc., read this article and sent you an e-mail message requesting that you explain why Starbucks might have taken this action. Your response should explain what impact this change in accounting method has on earnings, why the company might want to do this, and any possible disadvantages of such a change.

BYP6-8

You are the controller of Fagan Inc. K. L. Howard, the president, recently mentioned to you that she found an error in the 2013 financial statements which she believes has corrected itself. She determined, in discussions with the purchasing department, that 2013 ending inventory was overstated by $1 million. K. L. says that the 2014 ending inventory is correct, and she assumes that 2014 income is correct. K. L. says to you, "What happened has happened—there's no point in worrying about it anymore."

Instructions

You conclude that K. L. is incorrect. Write a brief, tactful memo to her, clarifying the situation.

ETHICS CASE

BYP6-9

Reagen Wholesale Corp. uses the LIFO cost flow method. In the current year, profit at Reagen is running unusually high. The corporate tax rate is also high this year, but it is scheduled to decline significantly next year. In an effort to lower the current year's net income and to take advantage of the changing income tax rate, the president of Reagen Wholesale instructs the plant accountant to recommend to the purchasing department a large purchase of inventory for delivery 3 days before the end of the year. The price of the inventory to be purchased has doubled during the year, and the purchase will represent a major portion of the ending inventory value.

Instructions

- (a) What is the effect of this transaction on this year's and next year's income statement and income tax expense? Why?
- (b) If Reagen Wholesale had been using the FIFO method of inventory costing, would the president give the same directive?
- (c) Should the plant accountant order the inventory purchase to lower income? What are the ethical implications of this order?

ALL ABOUT YOU

BYP6-10

Some of the largest business frauds ever perpetrated have involved the misstatement of inventory. Two classics were at Leslie Fay and McKesson Corporation.

Instructions

There is considerable information regarding inventory frauds available on the Internet. Search for information about one of the two cases mentioned above, or inventory fraud at any other company, and prepare a short explanation of the nature of the inventory fraud.

FASB CODIFICATION ACTIVITY

BYP6-11

If your school has a subscription to the FASB Codification, go to **http://aaahq.org/ascLogin.cfm** to log in and prepare responses to the following.

- (a) The primary basis for accounting for inventories is cost. How is cost defined in the Codification?
- (b) What does the Codification state regarding the use of consistency in the selection or employment of a basis for inventory?
- (c) What does the Codification indicate is a justification for the use of the lower-of-cost-or-market for inventory valuation?

CONSIDERING PEOPLE, PLANET, AND PROFIT

BYP6-12

Caterpillar publishes an annual Sustainability Report to explain its position on sustainability, describe its goals, and report on its achievements. The report can be found at **http://www.caterpillar.com/sustainability/sustainability-report**.

Instructions

Access the report and answer the following questions.

- (a) Page 24 of the report describes Caterpillar's efforts in the area of coke oven gas. Read this section and discuss how the company's efforts address both sustainability and profitability.
- (b) Page 43 describes the company's goals for the year 2020. What are these goals?
- (c) Page 44 describes the company's results relative to 2003 with regard to worker safety. Summarize the company's progress in this area.
- (d) Page 48 describes the company's results regarding energy use. Explain how the company measures its progress, and comment on its results thus far.

Answers to Insight and Accounting Across the Organization Questions

p. 285 A Big Hiccup **Q:** What steps might the companies take to avoid such a serious disruption in the future? **A:** The manufacturer of the piston rings should spread its manufacturing facilities across a few locations that are far enough apart that they would not all be at risk at once. In addition, the automakers might consider becoming less dependent on a single supplier as well as having weather contingency plans.

p. 286 Falsifying Inventory to Boost Income **Q:** What effect does an overstatement of inventory have on a company's financial statements? **A:** The balance sheet looks stronger because inventory and retained earnings are overstated. The income statement looks better because cost of goods sold is understated and income is overstated.

p. 296 Is LIFO Fair? **Q:** What are the arguments for and against the use of LIFO? **A:** Proponents of LIFO argue that it is conceptually superior because it matches the most recent cost with the most recent selling price. Critics contend that it artificially understates the company's net income and consequently reduces tax payments. Also, because most foreign companies are not allowed to use LIFO, its use by U.S. companies reduces the ability of investors to compare U.S. companies with foreign companies.

p. 300 Too Many TVs or Too Few? **Q:** For Sony, what are the advantages and disadvantages of having a low days in inventory measure? **A:** If Sony has a low days in inventory, it reduces the amount of cash it has tied up in inventory. It also minimizes the risk that it will be stuck with excess inventory that could force it to provide big discounts, resulting in punishing losses. Sony also faces the risk that the TVs will become obsolete before they are sold. However, Sony increases the risk that it will encounter "stockouts," that is, it will not have adequate inventory to meet customer demand.

Answers to Self-Test Questions

1. d **2.** a **3.** b ($180,000 + $35,000) **4.** c((5,000 × $13) + (4,000 × $12)) **5.** d ((8,000 × $11) + (1,000 × $12)) **6.** d ((5,000 × $8) + (15,000 × $10) + (20,000 × $12)) ÷ 40,000 = $10.75; $10.75 × 7,000 **7.** c **8.** d **9.** a **10.** d **11.** b ($285,000 ÷ (($80,000 + $110,000) ÷ 2) = 3; 365 ÷ 3) **12.** a ***13.** d ***14.** b ***15.** b

A Look at IFRS

The major IFRS requirements related to accounting and reporting for inventories are the same as GAAP. The major differences are that IFRS prohibits the use of the LIFO cost flow assumption and determines market in the lower-of-cost-or-market inventory valuation differently.

LEARNING OBJECTIVE 9

Compare the accounting procedures for inventories under GAAP and IFRS.

KEY POINTS

- • The requirements for accounting for and reporting inventories are more principles-based under IFRS. That is, GAAP provides more detailed guidelines in inventory accounting.

- • The definitions for inventory are essentially similar under IFRS and GAAP. Both define inventory as assets held-for-sale in the ordinary course of business, in the process of production for sale (work in process), or to be consumed in the production of goods or services (e.g., raw materials).
- • Who owns the goods—goods in transit or consigned goods—as well as the costs to include in inventory, are accounted for the same under IFRS and GAAP.
- • Both GAAP and IFRS permit specific identification where appropriate. IFRS actually requires that the specific identification method be used where the inventory items are not interchangeable (i.e., can be specifically identified). If the inventory items are not specifically identifiable, a cost flow assumption is used. GAAP does not specify situations in which specific identification must be used.
- • A major difference between IFRS and GAAP relates to the LIFO cost flow assumption. GAAP permits the use of LIFO for inventory valuation. IFRS prohibits its use. FIFO and average-cost are the only two acceptable cost flow assumptions permitted under IFRS.
- • IFRS requires companies to use the same cost flow assumption for all goods of a similar nature. GAAP has no specific requirement in this area.
- • In the lower-of-cost-or-market test for inventory valuation, IFRS defines market as net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and estimated selling expenses. In other words, net realizable value is the best estimate of the net amounts that inventories are expected to realize. GAAP, on the other hand, defines market as essentially replacement cost.
- • Under GAAP, if inventory is written down under the lower-of-cost-or-market valuation, the new value becomes its cost basis. As a result, the inventory may not be written back up to its original cost in a subsequent period. Under IFRS, the write-down may be reversed in a subsequent period up to the amount of the previous write-down. Both the write-down and any subsequent reversal should be reported on the income statement as an expense. An item-by-item approach is generally followed under IFRS.
- • An example of the use of lower-of-cost-or-net realizable value under IFRS follows.

  Mendel Company has the following four items in its ending inventory as of December 31, 2014. The company uses the lower-of-cost-or-net realizable value approach for inventory valuation following IFRS.

Item No.	Cost	Net Realizable Value
1320	$3,600	$ 3,400
1333	4,000	4,100
1428	2,800	2,100
1510	5,000	4,700

  The computation of the ending inventory value to be reported in the financial statements at December 31, 2014, is as follows:

  Item No. Cost Net Realizable Value

Item No.	Cost	Net Realizable Value	Lower-of-Cost-or-NRV
1320	$ 3,600	$ 3,400	$ 3,400

Item No.	Cost	Net Realizable Value	Lower-of-Cost-or-NRV
1333	4,000	4,100	4,000
1428	2,800	2,100	2,100
1510	5,000	4,700	4,700
Total	$15,400	$14,300	$14,200

- • Unlike property, plant, and equipment, IFRS does not permit the option of valuing inventories at fair value. As indicated above, IFRS requires inventory to be written down, but inventory cannot be written up above its original cost.
- • Similar to GAAP, certain agricultural products and mineral products can be reported at net realizable value using IFRS.
- • IFRS allows companies to report inventory at standard cost if it does not differ significantly from actual cost. Standard cost is addressed in managerial accounting courses.

LOOKING TO THE FUTURE

One convergence issue that will be difficult to resolve relates to the use of the LIFO cost flow assumption. As indicated, IFRS specifically prohibits its use. Conversely, the LIFO cost flow assumption is widely used in the United States because of its favorable tax advantages. In addition, many argue that LIFO from a financial reporting point of view provides a better matching of current costs against revenue and, therefore, enables companies to compute a more realistic income.

With a new conceptual framework being developed, it is highly probable that the use of the concept of conservatism will be eliminated. Similarly, the concept of “prudence” in the IASB literature will also be eliminated. This may ultimately have implications for the application of the lower-of-cost-or-net realizable value.

IFRS PRACTICE

IFRS SELF-TEST QUESTIONS

1.

Which of the following should **not** be included in the inventory of a company using IFRS?

- (a) Goods held on consignment from another company.
- (b) Goods shipped on consignment to another company.
- (c) Goods in transit from another company shipped FOB shipping point.
- (d) None of the above.

2.

Which method of inventory costing is prohibited under IFRS?

- (a) Specific identification.
- (b) LIFO.
- (c) FIFO.
- (d) Average-cost.

3.

Yang Company purchased 2,000 phones and has 400 phones in its ending inventory at a cost of $90 each and a current replacement cost of $80 each. The net realizable value of each phone in the ending inventory is $70. The ending inventory under lower-of-cost-or-net realizable value is:

- (a) $36,000.
- (b) $32,000.
- (c) $28,000.
- (d) None of the above.

4.

Specific identification:

- (a) must be used under IFRS if the inventory items are not interchangeable.
- (b) cannot be used under IFRS.
- (c) cannot be used under GAAP.
- (d) must be used under IFRS if it would result in the most conservative net income.

5.

IFRS requires the following:

- (a) Ending inventory is written up and down to net realizable value each reporting period.
- (b) Ending inventory is written down to net realizable value but cannot be written up.
- (c) Ending inventory is written down to net realizable value and may be written up in future periods to its net realizable value but not above its original cost.
- (d) Ending inventory is written down to net realizable value and may be written up in future periods to its net realizable value.

IFRS CONCEPTS AND APPLICATION

IFRS6-1

Briefly describe some of the similarities and differences between GAAP and IFRS with respect to the accounting for inventories.

IFRS6-2

LaTour Inc. is based in France and prepares its financial statements in accordance with IFRS. In 2014, it reported cost of goods sold (in euros) of €578 million and average inventory of €154 million. Briefly discuss how analysis of LaTour’s inventory turnover (and comparisons to a company using GAAP) might be affected by differences in inventory accounting between IFRS and GAAP.

IFRS6-3

Franklin Company has the following four items in its ending inventory as of December 31, 2014. The company uses the lower-of-cost-or-net realizable value approach for inventory valuation following IFRS.

Item No.	Cost	Net Realizable Value
AB	$1,700	$1,400
TRX	2,200	2,300
NWA	7,800	7,100
SGH	3,000	3,700

Compute the lower-of-cost-or-net realizable value.

INTERNATIONAL FINANCIAL REPORTING PROBLEM: *Zetar plc*

IFRS6-4

The financial statements of Zetar plc are presented in Appendix C. The company's complete annual report, including the notes to its financial statements, is available in the Investors section at **www.zetarplc.com**.

Instructions

Using the notes to the company's financial statements, answer the following questions.

- (a) What cost flow assumption does the company use to value inventory?
- (b) What was the amount of expense that the company reported for inventory write-downs during 2011?
- (c) What amount of raw materials, work in process, and finished goods inventory did the company report at April 30, 2011?

Answers to IFRS Self-Test Questions

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

The Navigator

Remember

Remember to go back to The Navigator box on the chapter opening page and check off your completed work.

1

Also, some companies use a perpetual system to keep track of units, but they do not make an entry for perpetual cost of goods sold. In addition, firms that employ LIFO tend to use **dollar-value LIFO**, a method discussed in upper-level courses. FIFO periodic and FIFO perpetual give the same result. Therefore, firms should not incur the additional cost to use FIFO perpetual. Few firms use perpetual average-cost because of the added cost of record-keeping. Finally, for instructional purposes, we believe it is easier to demonstrate the cost flow assumptions under the periodic system, which makes it more pedagogically appropriate.

2

The LIFO reserve also affects cost of goods sold although typically by a much less material amount. The cost of goods sold adjustment is discussed in more advanced financial statement analysis texts.