

Generally speaking, goodwill is not amortized. However, based on recommendations by the PCC and approved by the FASB, private companies are allowed the option for an alternative accounting treatment. This alternative accounting treatment for private companies is included in the Codification.

- In what year was the PCC formed? *Hint:* Visit the FASB website at <https://www.fasb.org> to review the history of the PCC's formation.
- What is the number of the Accounting Standards Update (ASU) which amended the Codification by adding the accounting alternative for private companies? *Hint:* Visit the FASB website at <https://www.fasb.org> to review the history of the PCC projects.
- What is the maximum number of years that a private company can amortize goodwill under this accounting alternative specified in the ASU?
- What is the amortization method that is specified in the ASU?
- What is the Codification reference that specifies the answers to both parts *c* and *d* above?

Codification Skills In the Codification, click on **Tools** in the left menu, **Help & Support**, and click on **ASC User Guide** and open up the guide. Refer to this guide and functionality of the site to answer the following questions.

- If you choose to perform a **general** search using a key word(s) within the Codification, what **four tabs** will appear on your search results page?
- If you click on the **link for one of the results of your search under the Section tab**, how are the key words identified (if at all) within the Codification?
- If instead you choose to **brows by topic (for example, a topic under Assets)**, what is the hierarchical structure of your search?
- In performing **a general search in your search box**, how do you search for an exact phrase?
~~allowed when using the Text/Keyword option:~~
 - ~~The exact phrase option that requires the exact phrase be included in a content source.~~
 - ~~The all option which requires that every word be included in a content source.~~
 - ~~The multiple option which requires that every word be included a specified number of times within the content source.~~
 - ~~The any word option which requires that at least one of the words must be included in a content source.~~
- In performing **a general search**, what options can appear in the set of filters to the right of your search?
- What are the two cross referencing options when using the Cross-reference and Sourcing tool?
- After searching for a specific term in the Master Glossary, what do you click on to view a list of where that term is used in the Codification?
- If you would like to enter a specific Codification citation, where do you enter the citation?

AD&J 1-70

Codification Skills
Explaining Research Techniques for Conducting Accounting Research in the Codification **LO2**



Codification Skills The Codification has a Master Glossary that provides definitions of important accounting terms. Define the following accounting terms.

- Fair value (used in the topic of Receivables).
- Public business entity.
- Securities and Exchange Commission registrant.

AD&J 1-71

Codification Skills
Defining Terms in ASC Glossary **LO2**

Codification Skills Refer to the Codification to answer the following questions.

- What is the topic number of debt?
- What are the titles of sections 5, 25, and 50 in topic 505, subtopic 10?
- What are the titles of sections 5, 25, and 50 in topic 505, subtopic 20?
- What is the ASC reference for the content of the presentation of receivables from officers, employees, or affiliates?
- What is the ASC reference for the five steps in the revenue recognition process?

FASB ASC - - -

FASB ASC - - -

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Codification Skills
Researching Using the Codification **LO2**



Adjusted Trial Balance December 31		
Accounts	Debit	Credit
Cash	\$ 6,600	
Accounts receivable	3,000	
Prepaid insurance	1,200	
Other assets	5,200	
Equipment, net	20,000	
Accounts payable		\$ 4,000
Note payable		8,000
Common stock		8,000
Service revenue		40,000
Selling expenses	8,000	
General and administrative expenses	15,000	
Interest expense	1,000	
Totals	<u>\$60,000</u>	<u>\$60,000</u>

Lakeside Inc. reports normal account balances in the following ~~temporary~~ accounts on December 31. Prepare closing entries as of December 31. Assume that the company uses the Income Summary account as a temporary clearing account for revenues, expenses, gains, and losses. Dividends are closed directly to retained earnings.

Service revenue	\$100,000	Income tax expense	\$ 11,850
Operating expenses	60,000	Dividends	5,000
Interest revenue	2,500	Retained earnings	188,000
Interest expense	3,000	Common stock	100,000

Brief Exercise 2-30
Recording Closing Entries **LO7**
Hint: See Demo 2-7



Exercises

Dynamic Corporation completed the following transactions during the month of March.

1. Issued 20,000 shares of its own common stock for \$200,000 cash.
2. Borrowed \$100,000 cash in return for a 9%, one-year note payable.
3. Purchased equipment at a net cost of \$100,000 cash.
4. Purchased inventory on account for \$80,000. Assume that the company uses the perpetual inventory system.
5. Sold merchandise for \$100,000 (that had cost \$60,000); collected \$70,000 cash, and the \$30,000 balance is due in one month. *Hint: Make entries for both sides of the transaction—one for sales and one for cost of goods sold.*
6. Paid \$25,000 cash for operating expenses.
7. Paid for half of the merchandise previously purchased on account in transaction 4.
8. Collected 40% of the balance due on the sales in transaction 5.
9. Paid \$1,200 cash for an insurance premium for one year of coverage (debit prepaid insurance).
10. Paid \$10,000 cash in legal fees for the month of March.

Required

Indicate the effects on the accounting equation for each of the 10 transactions. Provide your answer in the format illustrated in **Demo 2-1**.

Refer to the information in Exercise 2-31 to complete the following requirement.

Required

Prepare a journal entries to record the 10 transactions from Exercise 2-31.

Exercise 2-31
Analyzing Transactions Using the Accounting Equation **LO1**
Hint: See Demo 2-1



Exercise 2-32
Recording Journal Entries **LO2**
Hint: See Demo 2-2B



- e. Post adjusting journal entries from *d* to the ledger.
- f. Prepare an adjusted trial balance.
- g. Prepare the income statement and balance sheet.
- h. Prepare the closing entries **using the Income Summary Account**
- i. Post the closing entries to the ledger.
- j. Prepare a post-closing trial balance.

Milwaukee Corp. prepared its unadjusted trial balance dated December 31 as follows.

Unadjusted Trial Balance December 31		
Account	Debit	Credit
Cash	\$ 40,000	
Accounts receivable	60,000	
Allowance for doubtful accounts		\$ 6,000
Inventory	70,000	
Land	150,000	
Equipment	780,000	
Accumulated depreciation—Equipment		100,000
Accounts payable		22,000
Note payable		200,000
Common stock		400,000
Retained earnings		50,000
Sales revenue		900,000
Subscription revenue		24,000
Cost of goods sold	270,000	
Lease expense (short-term)	45,000	
Interest expense	12,000	
Selling expense	40,000	
Insurance expense	30,000	
Internet expense	15,000	
Salaries expense	110,000	
General and administrative expense	80,000	
Totals	<u>\$1,702,000</u>	<u>\$1,702,000</u>

Problem 2-55

Preparing Adjusting Entries, Trial Balances, Financial Statements, Closing, and Post-Closing Trial Balance **LO4, 5, 6, 7**

Additional information for accounting adjustments

1. Equipment has a total estimated useful life of 14 years and an estimated residual value of \$80,000. Milwaukee Corp. uses straight-line depreciation and accounts for depreciation expense as a general and administrative expense.
2. The company estimates an increase in Allowance for Doubtful Accounts of \$9,000 is required to recognize accounts receivable of \$60,000 at the net amount expected to be collected.
3. The note payable requires 8% interest to be paid semiannually, every October 1 and April 1.
4. \$5,000 of salaries were earned in December but not recorded or paid.
5. Internet expense represents a payment made on January 2 for two years of internet services (this year and next year).
6. Insurance expense represents payment made for a one-year policy, paid June 30. Coverage begins on that date.
7. Subscription revenue represents cash received for a one-and-one-half-year subscription to a journal published by Milwaukee Corp. The subscription period begins July 1.

Required

- a. Record the required adjusting journal entries. The company adjusts its accounts at year-end only.
- b. Prepare the adjusted trial balance.
- c. Prepare the income statement for the year and the balance sheet at year-end.
- d. Prepare closing entries.

continued from previous page

Part One—Discontinued Business Component Sold During Reporting Period

Compute the following subtotals that are shown in a *multiple-step income statement*. Assume an income tax rate of 25%.

- Gross profit
- Operating income
- Income from continuing operations before income taxes
- Income tax expense
- Income from continuing operations
- Loss from discontinued component, net of tax
- Net income (loss)

Part Two—Discontinued Business Component Sold After Reporting Period

Assume the same information in Part One except that the sale of the discontinued component was not complete as of December 31. On December 31, the fair value of the business component was \$50,000, estimated costs to sell were \$7,000, and the carrying value was \$60,000. Compute the following subtotals that are shown in a *multiple-step income statement* for the year ended December 31. Assume an income tax rate of 25%.

- Gross profit
- Operating income
- Income from continuing operations before income taxes
- Income tax expense
- Income from continuing operations
- Loss from discontinued component, net of tax
- Net income (loss)

More Practice:
3-22, 3-23, 3-41, 3-43
Solution on p. 3-51.

Disclose earnings per share on the income statement

LO 3-4

Companies must report earnings per share information on the face of the income statement. **Earnings per share (EPS)** relates the income of a company to a single share of stock.

260-10-45-2 Entities with simple capital structures, that is, those with only common stock outstanding, shall present basic per-share amounts for income from continuing operations and for net income on the face of the income statement.

Computing Earning per Share Earnings per share is computed by dividing reported net income available to the holders of common stock by the weighted average number of common shares outstanding during the period. For the computation of EPS on common stock, net income must be reduced by any preferred stock dividend claims because such dividends are not available to common stock owners and have not been subtracted in computing income. **Demo 3-4A** illustrates the computation of earnings per share with no discontinued business component.

Reporting Earning per Share If the income statement includes discontinued operations, per-share amounts are reported for (1) income from continuing operations, (2) income (loss) from discontinued operations, (3) gain or loss recognized on the business component, and (4) net income. The per-share amounts for the discontinued items can be reported on the face of the income statement or in the notes accompanying the financial statements. **Demo 3-4B** illustrates the computation of earnings per share with a discontinued business component.

260-10-45-3 An entity that reports a discontinued operation in a period shall present basic and diluted per-share amounts for that line item either on the face of the income statement or in the notes to the financial statements.

Earnings per Share

$$\frac{\text{Net income} - \text{Preferred dividends}}{\text{Weighted average common shares outstanding}}$$

- Report (or disclose) separately per share information for discontinued operations

LO 3-4 Overview

Exercise 3-34

Preparing a Multiple-Step Income Statement

LO1, 4

Refer to the information in Exercise 3-33 to complete the following requirement.

Required

Prepare a multiple-step income statement for the 12 months ended December 31, including the earnings per share disclosure. Assume that rent revenue is a nonoperating revenue.

Exercise 3-35

Preparing a Single-Step and a Multiple-Step Income Statement

LO1, 4

The following selected items are taken from the accounting records of Amick Corp. at December 31.

Sales revenue	\$950,000
Cost of goods sold	575,000
Dividends received on investment in stocks	6,500
Interest expense	4,200
Loss on sale of investments	48,000
Promotion expense	15,000
Shipping expense	25,000
Depreciation (50% selling, 50% general and administrative)	20,000
Salaries (general and administrative)	80,000
Other general and administrative expenses	23,000
Salaries (selling)	85,300
Interest revenue	2,500
Income tax rate	25%
Common stock	20,000 shares

Required

- Prepare a single-step income statement (including earnings per share). Include income taxes in its own section.
- Prepare a multiple-step income statement (including earnings per share).

Exercise 3-36

Preparing a Single-Step and a Multiple-Step Income Statement

LO1, 4

Lewis Company's records show the following information at December 31, its annual year-end.

Sales revenue	\$95,000	Interest expense	\$ 4,000
Service revenue*	35,000	Earthquake loss on building	15,000
Gain on sale of short-term investments	11,000	Loss on sale of warehouse*	3,000
Selling expense	18,000	Cost of goods sold	45,000
General and administrative expenses	12,000	Common stock shares outstanding	10,000 shares
Depreciation expense (administrative)	6,000	Income tax rate	25%

* Loss on sale of warehouse and the **Service revenue** are nonoperating.**Required**

- Prepare a single-step income statement (including earnings per share).
- Prepare a multiple-step income statement (including earnings per share).

Exercise 3-37

Preparing a Multiple-Step Income Statement and a Retained Earnings Statement

LO1, 6

The following pretax amounts are taken from the accounts of J&J Inc. at December 31, its current annual year-end. Assume an average 25% tax rate on all items.

Sales revenue	\$340,000
Cost of goods sold	170,000
Selling and administrative expenses	90,000
Gain on sale of land held for speculation	30,000
Prior period adjustment, correction of error from prior year, pretax (a debit)	16,000
Interest expense	2,000
Cash dividends declared and paid	5,000
Retained earnings, December 31, prior year	103,000
Common stock, outstanding	10,000 shares

Required

- Prepare a multiple-step income statement, including intraperiod income tax allocation and EPS disclosure.
- Determine the December 31 balance in retained earnings.

Exercise 3-38

Computing Financial Statement Measures

LO1, 4, 5

The following pretax amounts are taken from the accounting records of Mastery Inc. on December 31, its annual year-end. Assume that the income tax rate for all items is 25%. The average number of common shares outstanding during the year was 20,000.

Brief Exercise 5-31Computing Activity Ratios **LO4**

Hint: See Demo 5-4C



The following amounts are summarized from information included in a **Publix Super Markets Inc.** recent annual Form 10-K (\$ millions).

Sales	\$44,864	Accounts receivable, average balance	\$ 827
Cost of goods sold	32,355	Inventory, average balance	1,974
		Accounts payable, average balance	2,200

Compute the following ratios.

- | | |
|--|-------------------------------------|
| a. Accounts receivable turnover | e. Accounts payable turnover |
| b. Average days to collect receivables | f. Average days payable outstanding |
| c. Inventory turnover | g. Cash conversion cycle |
| d. Average days in inventory | |

Brief Exercise 5-32Solving for Unknown Financial Statement Amounts **LO4**

Financial information is summarized from a recent Form 10-K of **Target Corporation** for the fiscal year ended January 30 (\$ millions).

Sales	\$73,785	Asset turnover	1.812
Profit margin	4.558%	Financial leverage	3.021

Compute the following amounts.

- | | |
|-------------------------|---------------------------------|
| a. Net income | c. Average stockholders' equity |
| b. Average total assets | d. Return on equity |

Brief Exercise 5-33Computing Cash Flow Based Measures **LO5**

Hint: See Demo 5-5B



The following amounts are summarized from information included in a recent Form 10-K of **Target Corporation** (\$ millions).

Average current liabilities	\$12,179	Cash provided by operating activities	\$5,140
Average total liabilities	27,240	Cash paid for capital expenditures	1,438
		Cash paid for dividends	1,362

Compute the following ratios.

- | | | |
|-------------------------------|-----------------------|-------------------|
| a. Current cash debt coverage | b. Cash debt coverage | c. Free cash flow |
|-------------------------------|-----------------------|-------------------|

Brief Exercise 5-34Performing a Vertical and Horizontal Analysis **LO6**

Hint: See Demo 5-6A, Demo 5-6B



Complete a vertical and horizontal analysis of the following income statement from Gomez Corporation.

Income Statement for Year Ended December 31	Current Year	Prior Year
Revenues	\$50,000	\$55,000
Cost of goods sold	32,000	36,000
Gross margin	18,000	19,000
Operating expenses	11,000	12,500
Net income	\$ 7,000	\$ 6,500

Brief Exercise 5-35Identifying Non-GAAP and GAAP Measures **LO7**

Hint: See Demo 5-7



3M Company reported the following reconciliation in the MD&A section of a recent on Form 10-K (\$ millions).

Free cash flow (non-GAAP measure)	
Net cash provided by operating activities	\$ 8,113
Purchases of property, plant, and equipment	(1,501)
Free cash flow	\$ 6,612

- What is the GAAP measure included in this reconciliation?
- What is the non-GAAP measure included in this reconciliation?

Brief Exercise 5-36Identifying GAAP and Non-GAAP Measures **LO7**

Identify each of the following items *a* through *h* as a (1) GAAP measure or (2) non-GAAP measure.

- | | |
|--|----------------------------------|
| ___ a. EBITA | ___ e. Current assets |
| ___ b. Gross profit | ___ f. Working capital |
| ___ c. Income from continuing operations | ___ g. Free cash flow |
| ___ d. Pro forma income statement | ___ h. Adjusted operating income |

Required

- How should the transaction price be allocated among the performance obligation(s) for sales made in the first week of June for one vehicle?
- Prepare Forde's journal entry to record the sale of vehicles for cash, assuming that dealers purchased 20 vehicles during the first week of June. Ignore the cost of sales entry.

Maximum Inc. (retailer) has a loyalty program that rewards its customers one point per \$1 spent. Points are redeemable for \$0.20 off future purchases. A customer purchases products (cost of \$140) for cash at the usual selling price of \$200 and earns 200 points redeemable for \$40 off future purchases of goods or services. The retailer expects redemption of 180 points or 90% of points earned.

Required

- How should the transaction price be allocated among the performance obligation(s)?
- Prepare Maximum's journal entry to record the \$200 sale to the customer and the cost of that sale where the customer earned 200 loyalty points.

Value Dealership Inc. markets and sells vehicles to retail customers. Along with a new vehicle purchase, a customer will receive a free annual maintenance contract for one year from the date of purchase. The standalone selling price of a vehicle is \$30,000 and the standalone selling price for the annual maintenance contract is \$612. During October, Value Dealership Inc. sold 30 vehicles for \$30,250 per vehicle, each with a free annual maintenance contract.

Required

- Determine how the transaction price should be allocated among the performance obligation(s) and record the journal entry in October for Value Dealership's sale of vehicles with the associated maintenance contracts to customers. Ignore the cost entry.
- Assume the same information above except that the standalone selling price of the annual maintenance contract is not known because this was the first time Value Dealership offered the service. Value Dealership is uncertain as to what services, on average, a customer will take advantage of during the year of the contract. The Dealership researched competitor prices and determined that the average selling price for a maintenance service contract is \$640. Determine how the transaction price should be allocated among the performance obligation(s) and record the journal entry in October for Value Dealership's sale of vehicles to its customers. Ignore the cost entry.
- Assume the same information (original scenario) above except that the standalone selling price of the annual maintenance contract is not known because this was the first time Value Dealership offered the service. Value Dealership determined that the cost of the annual contract is \$445 for the year and the expected profit margin on the service contract is 35%. Determine how the transaction price should be allocated among the performance obligation(s) and record the journal entry in October for Value Dealership's sale of vehicles to its customers. Ignore the cost entry.

Pet Lodge Inc., which offers day and overnight kennel services for pets, is offering a promotion for new customers signing a contract: purchase 3 overnight stays, a 10-visit day pass punch card, and a new leash for \$260. The total transaction price of \$260 is stated to the customer as \$90 for the overnight stay, \$150 for the punch card, and \$20 for the leash. Allocate the \$260 transaction price under the following *separate* scenarios.

- The three items (overnight stays, day pass punch card, and leash) are sold separately by Pet Lodge Inc. The standalone selling prices of the overnight stays, day pass punch card, and a new leash are \$90, \$150, and \$20, respectively.
- The three items (overnight stays, day pass punch card, and leash) are sold separately by Pet Lodge Inc. The standalone selling prices of the overnight stays, day pass punch card, and leash are \$105, \$180, and \$25, respectively.
- Two of the three items (overnight stay and day pass punch card) are sold separately by Pet Lodge Inc. The standalone selling prices of the overnight stays and day pass punch card are \$90, \$150, respectively. Because Pet Lodge Inc. has never sold leashes prior to this promotion, Pet Lodge Inc. determined the average selling price of similar leashes in the market place to be \$25.
- Two of the three items (overnight stays and day pass punch card) are sold separately by Pet Lodge Inc. The standalone selling prices of the overnight stays and day pass punch card are \$90, \$150, respectively. Pet Lodge Inc. purchased the leashes for \$15 each and expects the selling price to be 150% of cost.
- Two of the three items (overnight stays and day pass punch card) are sold separately by Pet Lodge Inc. The standalone selling prices of the overnight stays and day pass punch card are \$90, \$150, respectively. Pet

Exercise 7-64

Allocating Transaction Price to Performance Obligations and Recording Sales **LO5, 6**

**Exercise 7-65**

Allocating Transaction Price to Performance Obligations and Recording Sales **LO5, 6**

**Exercise 7-66**

Allocating Transaction Price to Performance Obligations **LO5**



Exercise 9-51

Recording Entries under the Periodic and Perpetual Inventory Systems

LO2, 4

The records for Upland Inc. at December 31 show the following. Total expenses (excluding cost of goods sold) are \$60,000.

	Units	Unit Price
Sales during period (for cash)	10,000	\$20 (sales price)
Inventory at beginning of period	2,000	12 (cost)
Merchandise purchased during period (for cash)	16,000	12 (cost)
Purchase returns during period (cash refund)	100	12 (cost)
Inventory at end of period (physically counted)	7,900	12 (cost)

Required

- Prepare entries for the following transactions assuming a periodic inventory system.
 - Merchandise sales.
 - Merchandise purchases.
 - Merchandise returns.
 - Total expenses.
 - Cost of sales and ending inventory balance.
- Prepare entries for the following transactions assuming a perpetual inventory system.
 - Merchandise sales and cost of sales.
 - Merchandise purchases.
 - Merchandise returns.
 - Total expenses.
 - Any adjusting entry.

Exercise 9-52

Periodic System—Calculating Ending Inventory and Cost of Sales Using Average Cost, FIFO, and LIFO **LO3**



Leven Company uses a periodic inventory system. The following information for the first quarter is available for the company's merchandise inventory. A physical inventory taken on March 31 of the current year showed 1,500 units available.

Date	Units	Unit Cost
January 1 (beginning inventory)	800	\$ 9.00
Purchases: January 5	1,500	10.00
January 25	1,200	10.50
February 16	600	12.00
March 26	900	13.00

Required

- Compute ending inventory and cost of goods sold for the quarter ended March 31 using:
 - Average cost method.
 - FIFO method.
 - LIFO method.
- Which method from part *a* results in the:
 - Highest gross profit?
 - Lowest gross profit?
 - Highest ending inventory balance?
 - Lowest ending inventory balance?

Exercise 9-53

Perpetual System—Calculating Ending Inventory and Cost of Sales Using Moving Average, FIFO, and LIFO **LO5**



April Inc. maintains a perpetual inventory system and recorded the following information for the month of January.

Date	Units	Unit Cost
Inventory, January 1 (beginning)	475	\$10.50
Purchase, January 10	200	12.00
Purchase, January 20	100	13.25
Purchase, January 28	300	14.00
Sale, January 5	250	
Sale, January 13	100	
Sale, January 30	160	
Inventory, January 31 (ending)	565	

Required

Compute ending inventory and cost of goods sold for the month ended January 31 using:

- Moving average method.
- FIFO method.
- LIFO method.

Problem 9-71

Periodic System—
Computing Inventory,
Cost of Sales, and Gross
Profit under Specific
Identification, Average
Cost, FIFO, and LIFO

LO3

Beats Inc. has the following data for its major inventory item. A physical inventory count on June 30 showed 9,000 units available, which are specifically identified as: 2,000 units from June 1 inventory; 1,000 units from June 7 purchase; and 6,000 units from June 20 purchase.

Date	Units	Unit Cost
June 1, beginning inventory	8,000	\$8.00
Purchases		
June 7	6,000	8.40
June 20	8,000	9.00
Sales		
June 15 (at \$24)	9,000	
June 30 (at \$26)	4,000	

Required

- Compute ending inventory, cost of goods sold, and gross profit using:
 - Specific Identification (periodic inventory system).
 - Average Cost (periodic inventory system).
 - FIFO (periodic inventory system).
 - LIFO (periodic inventory system).
- Which method(s) in part *a* is based on actual physical flow of inventory?
- Which method(s) in part *a* is based on an assumed physical flow of inventory?

Problem 9-72

Perpetual System—
Computing Inventory and
Costs of Goods
Transferred Out Using
Moving Average, FIFO, and
LIFO

LO5

Jonson Inc. shows the following data for its raw material inventory used in a manufacturing process.

Date	Units	Unit Cost
Oct. 1 Inventory (beginning)	4,000	\$14.00
Oct. 4 Purchase	3,000	15.40
Oct. 5 Transfer out.	5,000	
Oct. 20 Purchase	8,000	16.00
Oct. 24 Transfer out.	7,000	
Oct. 31 Purchase	3,000	16.80

Required

Compute cost of materials transferred out (to work in process) and the cost of its raw materials ending inventory assuming use of:

- Moving Average —Perpetual system.
- FIFO—Perpetual system.
- LIFO—Perpetual system.

Problem 9-73

Periodic and Perpetual
Systems—Compute
Inventory, Cost of Sales,
and Gross Profit Using
Average Cost, Moving
Average, FIFO, and LIFO

LO3, 5

Clayton Company shows the following transactions for its major inventory item.

Date	Units	Unit Cost
Nov. 1 Inventory (beginning)	3,000	\$6.90
Nov. 3 Purchase	6,000	7.20
Nov. 5 Sales (at \$15)	4,000	
Nov. 13 Purchase	5,000	7.50
Nov. 20 Sales (at \$15)	9,000	
Nov. 22 Purchase	11,000	7.66
Nov. 28 Sales (at \$18)	9,000	
Nov. 29 Purchase	6,000	7.80

Required

Compute ending inventory, cost of goods sold, and gross profit using:

- Average Cost (periodic inventory system).
- FIFO (periodic inventory system).
- LIFO (periodic inventory system).
- Moving Average (perpetual inventory system).
- FIFO (perpetual inventory system).
- LIFO (perpetual inventory system).

Problem 9-74

Periodic System—
Preparing an Income
Statement Using FIFO

LO3

The following data for Adele Inc. are for its main inventory item (in order of occurrence). Total expenses for the year (excluding cost of goods sold and income taxes) is \$40,000, and its income tax rate is 25%. Assume 10,000 shares of its common stock are outstanding. The company uses the FIFO inventory method and a periodic inventory system.

Answers to Review Exercises

Review 9-1

$$\$800,000 - \$1,500 + \$25,000 + \$40,000 + \$30,000 = \$893,500$$

Review 9-2

a. Gross Method

March 5—Purchase of inventory

Purchases (\$14,000 × 0.80)	11,200	
Accounts Payable		11,200

Assets	=	Liabilities	+	Equity
		+11,200		-11,200
Accounts Payable				Purchases
11,200				11,200

March 8—Inventory return

Accounts Payable	1,000	
Purchase Returns and Allowances		1,000

Assets	=	Liabilities	+	Equity
		-1,000		+1,000
Accounts Payable				Purchase R&A
1,000		11,200		1,000

March 14—Payment within discount period

Accounts Payable	5,000	
Purchase Discount		100
Cash		4,900

Assets	=	Liabilities	+	Equity
		-4,900		-5,000
				+100
Cash		Accounts Payable		
4,900		1,000	11,200	5,000
				Purch Discount
				100

March 31—Payment after discount period

Accounts Payable (\$11,200 – \$1,000 – \$5,000)	5,200	
Cash		5,200

Assets	=	Liabilities	+	Equity
		-5,200		-5,200
Cash		Accounts Payable		
4,900		1,000	11,200	5,000
5,200		5,000	5,200	5,200
				0

b. Net Method

March 5—Purchase of inventory

Purchases (\$14,000 × 0.80 × 0.98)	10,976	
Accounts Payable		10,976

Assets	=	Liabilities	+	Equity
		+10,976		-10,976
Accounts Payable				Purchases
10,976		10,976		10,976

March 8—Inventory return

Accounts Payable (\$1,000 × 0.98)	980	
Purchase Returns and Allowances		980

Assets	=	Liabilities	+	Equity
		-980		+980
Accounts Payable				Purchases
980		10,976	980	10,976

March 14—Payment within discount period

Accounts Payable	4,900	
Cash		4,900

Assets	=	Liabilities	+	Equity
		-4,900		-4,900
Cash		Accounts Payable		
4,900		980	10,976	4,900
				4,900

March 31—Payment after discount period

Accounts Payable (\$10,976 – \$980 – \$4,900)	5,096	
Interest Expense (\$5,200 – \$5,096)	104	
Cash (\$5,096/0.98)		5,200

Assets	=	Liabilities	+	Equity
		-5,200		-5,096
				-104
Cash		Accounts Payable		
4,900		980	10,976	4,900
5,200		4,900	5,096	5,096
				0
				Interest Exp
				104

Review 9-3

1. \$181,140 (computed as \$10,250 + \$37,440 + \$84,000 + \$49,450)
2. \$180,191 (computed as (\$463,050/22,100) × 8,600)
3. \$182,100 (computed as (3,000 × \$21.50) + (5,600 × \$21.00))
4. \$178,550 (computed as (1,100 × \$20.50) + (7,500 × \$20.80))

- Edgers: 600 units in inventory; cost is \$22 each; replacement cost is \$16 each; estimated sale price is \$30 each; estimated distribution cost is \$3 each; and normal profit is 10% of sale price.
- Clippers: 400 units in inventory; cost is \$50 each; replacement cost is \$36 each; estimated sale price is \$90 each; estimated distribution cost is \$28 each; and normal profit is 20% of sale price.

Required

- a. Determine the inventory cost to report on the balance sheet assuming that the company applies the lower of cost or **market** rule to each inventory item.
- b. Prepare the journal entry to apply the lower of cost or **market** rule to inventory assuming that the company adjusts inventory directly and adjusts equity through cost of goods sold.

AVC Inc. purchased 1,200 bags of pecans that cost \$4,200. The company also incurred \$300 for transportation and grading. The relative sales value method is used to allocate the lump sum cost. The pecans graded out as follows.

Grade	Quantity (bags)	Current Market Price per Bag
A	400	\$6.75
B	600	6.00
C	100	4.50
Waste	100	—

Required

- a. Prepare the purchase entry assuming a perpetual inventory system.
- b. Determine the value of ending inventory assuming the following quantities are in inventory at year-end: grade A, 100 bags; grade B, 80 bags; and grade C, 40 bags.
- c. Prepare the entry for sale of 20 bags of grade A pecans at a market price of \$6.75 cash per bag.

Arizona Developers purchased and subdivided a tract of land that cost \$900,000 cash into garden lots. The garden lots were divided on the following basis.

- 10% used for public walkways and parking
- 30% divided into 200 lots selling at \$3,000 each
- 50% divided into 75 lots selling at \$4,000 each
- 10% divided into 50 lots selling at \$2,000 each

Required

- a. Prepare the entry for the purchase of the lots. Use the relative sales value method to allocate the total cost of \$900,000 to the three inventory categories of lots. Assume a perpetual inventory system.
- b. During the final month of the year, the walkways and parking were completed (included in the \$900,000 cost) and several sales occurred. Inventory remaining at year-end was: 20 of the \$4,000 lots; 50 of the \$3,000 lots; and 10 of the \$2,000 lots. (1) Compute the valuation of inventory at year-end. (2) Prepare the entry for sales and cost of goods sold for each category of lots separately. Assume cash sales.

The following data are available from a company for the current year.

Sales revenue	\$120,000
Beginning inventory	16,000
Purchases	80,000

Required

For each separate case *a* through *e*, estimate ending inventory.

- a. Markup is 33.3% on cost.
- c. Markup is 25% on cost.
- e. Markup is 37% on cost.
- b. Markup is 60% on sales.
- d. Markup is 40% on sales.

Assume that we are auditing the records of Forde Corporation. A physical inventory has been taken by the company under our observation. The records of the company show the following account data. The gross profit last year was 25% of net sales; we anticipate that it will be 25% for the current year under audit.

Sales, gross	\$630,000	Beginning inventory	\$200,000
Sales returns (returned to inventory)	10,000	Freight-in	14,000
Purchases, gross	310,000	Purchase returns and allowances	4,000

Required

Estimate the cost of ending inventory using the gross profit method.

Exercise 10-48

Valuing Inventory and Recording Entries Using Relative Sales Value Method **LO3**

Hint: See Demo 10-3



Exercise 10-49

Valuing Inventory and Recording Entries Using Relative Sales Value Method **LO3**



Exercise 10-50

Estimating Inventory Using Gross Profit Method **LO4**



Exercise 10-51

Estimating Inventory Using Gross Profit Method **LO4**



Required

- a. Determine the valuation of inventory at cost and at the lower of cost or net realizable value assuming application by (a) individual items, (b) classifications, and (c) total inventory. for each of the applications above,
- b. Prepare the journal entry to apply the lower of cost or net realizable value rule to inventory assuming that the company adjusts inventory indirectly through an allowance account and adjusts equity through a separate loss account.

York Inc.'s income statements for the prior and current year follow. The inventory amounts are valued at cost.

	Prior Year	Current Year
Sales	\$107,000	\$97,000
Cost of goods sold		
Beginning inventory	25,000	20,000
Purchases	75,000	73,000
Total goods available	100,000	93,000
Ending inventory	20,000	15,000
Cost of goods sold	80,000	78,000
Gross margin	27,000	19,000
Operating expenses	14,000	12,000
Pretax income	\$ 13,000	\$ 7,000

Problem 10-72
Preparing Income Statement Using Lower of Cost or Net Realizable Value Method **LO1**

Inventory valued at lower of cost or net realizable value would have been:

- \$25,000 at the beginning of the prior year (the same as cost)
- \$18,000 at the end of the prior year, and \$12,000 at the end of the current year

Required

Restate the comparative income statements and balance sheets (inventory presentation only) applying the lower of cost or net realizable value rule using each of the following approaches. Disregard income taxes. Assume that all inventory reported on December 31 of the prior year was sold before December 31 of the current year.

- a. Adjust an allowance account to reduce inventory and adjust cost of goods sold to decrease equity.
- b. Adjust an allowance account to reduce inventory and adjust a separate loss account to decrease equity.

Cool Aire Inc. discloses the following data relating to inventories for the year. The company values inventories on the basis of lower of cost or market.

Inventory Date	LIFO Cost	Lower of Cost or Market
January 1	\$40,000	\$40,000
December 31	50,000	46,000

Problem 10-73
Recording and Reporting Using Lower of Cost or Market Method **LO2**



The company also reports the following annual data.

For Year Ended December 31	
Sales	\$240,000
Purchases	135,000
Administrative and selling expenses	49,000

Required

- a. Prepare the entry to apply the lower of cost or market rule at December 31. Use an allowance account to reduce inventory and a separate loss account to decrease equity. Ignore income taxes.
- b. Prepare an income statement for the year. Ignore income taxes.
- c. Report the inventory amount for the balance sheet at the lower of cost or market at December 31.

Farm Fresh discloses the following data. The company's cost of goods sold is based on inventories valued at cost.

For Year Ended December 31	Year 1	Year 2
Sales revenue	\$160,000	\$240,000
Cost of goods sold	80,000	120,000
Remaining expenses	40,000	70,000

Problem 10-74
Recording Entries Using Lower of Cost or Market Rule **LO2**

Babel Inc. began operations last year. At that time, the company elected the LIFO retail inventory method to estimate ending inventory. The following data are available for Babel.

For Current Year Ended December 31	At Cost	At Retail
Beginning inventory	\$ 25,000	\$ 36,000
Purchases	120,000	156,000
Net markups		16,000
Net markdowns		10,000
Sales		160,000

APP—Problem 10-105
 Estimating Ending Inventory Using Retail Inventory Method—LIFO
LO9

Required

With no price level changes in the current year, estimate ending inventory on December 31 using the LIFO retail inventory method.

Answers to Review Exercises

Review 10-1

- a. \$14,860; computed as (\$2,500 + \$5,840 + \$900 + \$1,200 + \$1,720 + \$2,700).
- b. **June 30—To adjust inventory to lower of cost or net realizable value**

Cost of Goods Sold (\$15,300 – \$14,860)	440	
Allowance to Reduce Inventory to Net Realizable Value . . .		440

Assets	=	Liabilities	+	Equity
-440				-440
Allow to Reduce Inv				COGS
440				440

Review 10-2

- a. #110: \$800, #115: \$1,120, #125: \$560, #210: \$1,740, #220: \$400, #225: \$1,620.
- b. **June 30—To adjust inventory to lower of cost or market**

Cost of Goods Sold	780	
Allowance to Reduce Inventory to Market		780

Assets	=	Liabilities	+	Equity
-780				-780
Inventory Allow				COGS
780				780

Review 10-3

- a. **June 1—To record purchase of lots**

Inventory—Premier Lots	266,667	
Inventory—Premium Lots	280,000	
Inventory—Standard Lots	53,333	
Cash		600,000

Assets	=	Liabilities	+	Equity
+600,000				
-600,000				
Inventory				Cash
600,000				600,000

- b. **June 30—Computation of remaining inventory**

Inventory—Premier Lots (\$266,667 × 4/10)	\$106,667	
Inventory—Premium Lots (\$280,000 × 5/15)	93,333	
Inventory—Standard Lots (\$53,333 × 1/5)	10,667	
Total	<u>\$210,667</u>	

Review 10-4

\$190,000; computed as (\$1,750,000 – [\$2,000,000 × 0.77] – \$20,000)

Review 10-5

- a. **May 1, Year 1—No entry required.**
- b. **December 31, Year 1—To record loss on purchase commitment**

Estimated Loss on Purchase Commitment	160,000	
Estimated Liability on Purchase Commitment		160,000

- c. **March 25, Year 2—To record purchase of inventory**

Inventory	1,360,000	
Estimated Liability on Purchase Commitment	160,000	
Loss on Purchase Contract	80,000	
Cash		1,600,000

Assets	=	Liabilities	+	Equity
		+160,000		-160,000
Liab on Purch Comm				Loss on Purch Comm
160,000				160,000

Assets	=	Liabilities	+	Equity
+1,360,000		-160,000		-80,000
-1,600,000				
Inventory				Liab on Purch Comm
1,360,000				160,000 160,000
Cash				Loss on Purch Cont
1,600,000				80,000

3. A company's offer to purchase land for \$8,000 cash two years ago was rejected. Instead, the company acquires the land by issuing 1,000 shares of \$1 par common stock (fair value of the stock is \$7.80 per share based on several recent large transactions under normal and active stock trading volume).
4. A company issues 1,000 shares of \$40 par common stock for land. The fair value was \$60 per share at the time of the land purchase (the stock sells regularly with an average daily volume of 5,000 shares). The seller had earlier offered to sell the land for \$59,000 cash. Independent appraisers value the land at \$61,000.

Required

- a. Determine the cost used for recording the land acquired in each case.
- b. Record the journal entry for each case on the date of the land's acquisition.

Exercise 11-44
 Analyzing Acquisition
 Costs **LO1, 5**


During the current year, Castle Corp. completed construction of its new corporate headquarters. Castle purchased land with an old building for \$375,000. The land was valued at \$350,000 and the building at \$25,000. Castle demolished the old building. Additional expenditures on the project follow.

1. Interest of \$73,500 on construction financing incurred after completion of construction of the headquarters building.
2. Cost of \$1,800,000 for construction of the new building.
3. Interest of \$93,000 (lesser of actual and avoidable interest) on construction financing paid during construction of the headquarters building.
4. Payment of \$9,250 for delinquent real estate taxes assumed by Castle upon purchase of the land and building.
5. Liability insurance premium of \$6,000 covering the construction period.
6. Cost of \$32,500 for razing the old building.
7. Costs of \$68,000 to move into the new headquarters.
8. Purchase of equipment for \$50,000, terms 2/10, n/30. Payment was made within 10 days and the company records purchases net of discount.

Required

Assuming no previous acquisitions of plant assets, determine Castle's ending balance for each of the plant asset accounts of (a) Land, (b) Building, and (c) Equipment. Compute (d) total expense for the current year, if any, to be recognized from these expenditures.

AICPA adapted

Exercise 11-45
 Classifying Acquisition
 Costs **LO1**
 Hint: See Demo 11-1A


Evonne Company incurred the following expenditures during the year.

- | | |
|--|---|
| a. Land purchase on January 1. | i. Paving parking lot and driveway. |
| b. Legal fees associated with the purchase of land. | j. Survey costs for new building. |
| c. Title and recording fees. | k. Architecture fees for plans on the new building. |
| d. Costs to demolish existing building on new property. | l. Landscaping costs—indefinite life. |
| e. Costs of clearing and draining of land. | m. Net invoice cost of equipment. |
| f. Excavation fees for foundation of new building. | n. Maintenance on the first month of using a new machine. |
| g. Installation of watering system for lawn. | o. Sales and federal excise taxes on equipment. |
| h. Property taxes paid on June 30 for the 12 months ended June 30. | p. Installation costs of equipment. |

Required

Indicate how each cost is classified in the financial statements (as either land, land improvement, equipment, building, construction in process, expense, or some combination). Assume construction was not yet completed on the new building at the end of the year.

Exercise 11-46
 Determining Ending
 Balances in Land and
 Building Accounts **LO1**


NOTE to Instructor:
 Student copies and
 the eBook reflect
 the correct line item.

Maldive Company completes the construction of a building. The following *separate items* are the costs relevant to the purchase of the lot and construction of the building.

Cash payments to contractor	\$100,000
Costs of constructing foundation	3,000
Cost of land (building site)	50,000
Gross cost to raze old building on land	20,000
Proceeds from old building salvage	5,000
Utility charges for electricity used in construction	2,000
Capitalized interest on construction	3,000

Required

Determine the ending balance for (1) the Land account and for (2) the Building account.

Ameth Company constructed a building and incurred the following costs directly associated with construction. The building is valued at \$77,500 (fair value) upon completion.

Materials	\$25,000
Labor	40,000
Incremental overhead	15,000
Interest on construction loan incurred before completion	2,500
Interest on construction loan incurred after completion	1,000
Total	<u>\$83,500</u>

Required

Prepare summary journal entries to record costs of (1) construction and (2) completion of the building. Assume that all qualifying interest during the current year is capitalized to the building.

Following are three *separate* cases.

- Equipment with a list price of \$30,000 is purchased on account; terms are 2/10, n/30. Payment is made within the discount period.
- Equipment with a list price of \$20,000 is purchased on account; terms are 2/10, n/30. Payment is made after the discount period. Any purchase discounts lost are recorded as interest expense.
- Equipment listed at \$9,000 (less a 2% discount for cash purchases) is purchased for cash. To take advantage of this discount, the company simultaneously borrowed \$8,000 from a bank by issuing a 60-day, 15% note, which is paid in full with interest at its maturity date.

Required

For Case 1 and Case 2, prepare journal entries for (a) equipment acquisition, and (b) cash payment.

For Case 3, record the entry for the purchase of equipment for cash *and* for the payment of the note at maturity.

Note: Do not record the entry for issuance of the note.

Freeman Company purchased a tract of land on which is located a warehouse and a building. The cash purchase price was \$140,000 plus \$10,000 in fees connected with the purchase. The following information relates to the property.

	Tax Assessment	Seller's Book Value	Original Cost
Land	\$20,000	\$10,000	\$10,000
Warehouse	40,000	20,000	60,000
Building	60,000	50,000	80,000

Required

Prepare the journal entry to record this purchase.

Eaton Inc. purchases the following used items at an auction for \$40,000 cash: a drill press, a lathe, and an air compressor. The equipment is in excellent condition except for the motor on the lathe, which will cost \$900 to replace with a new motor. The company determines that selling prices for the used items are as follows: drill press, \$8,400; lathe with the new motor, \$24,000; and air compressor, \$10,500.

Required

Prepare the entry to record (a) acquisition of the equipment and (b) replacement of the motor.

Relay Company purchases equipment by making a down payment of \$10,000 cash. In addition, Relay signs a note requiring monthly payments of \$2,000, starting one month after purchase and continuing for a total of 20 months. The contract calls for no interest, yet the prevailing interest rate is 12% on similar transactions.

Required

- Record the entry required for the purchase of this equipment.
- Record the entry to recognize interest expense, one month after this purchase. Ignore the cash payment part of the transaction.

On January 1, Vale Inc. acquires equipment with a 10-year useful life by issuing a two-year, zero-interest bearing installment note payable. The market rate is 14% for similar transactions. Terms are \$7,000 cash payment immediately plus payments of \$5,000 cash at the end of each of the next two years. The company uses the effective interest method to amortize any discount on note payable and the straight-line method to record depreciation expense.

Exercise 11-47
Recording Costs for Self-Constructed Asset **LO1**



Exercise 11-48
Recording Acquisition Costs **LO1**



Exercise 11-49
Recording a Lump-Sum Acquisition **LO2**



Exercise 11-50
Recording a Lump-Sum Acquisition **LO2, 7**



Exercise 11-51
Recording Purchase of Equipment through Debt **LO3**
Hint: See Demo 11-3A



Exercise 11-52
Recording Purchase of Equipment through Debt and Equity **LO3**



Assets	=	Liabilities	+	Equity
+34,000				-12,250
+33,750				
-80,000				
<u>Cash</u>				<u>Equipment</u>
34,000		Bal.	80,000	80,000

Accum Deprec		30,000 Bal.		Loss on Sale of Equip
33,750				12,250
		3,750		

Assets	=	Liabilities	+	Equity
-3,750				-3,750
Accum Deprec		30,000 Bal.		Deprec Exp
		3,750		3,750

Assets	=	Liabilities	+	Equity
+54,000				+7,750
+33,750				
-80,000				
<u>Cash</u>				<u>Equipment</u>
54,000		Bal.	80,000	80,000

Accum Deprec		30,000 Bal.		Gain on Sale of Equip
33,750				7,750
		3,750		

Assets	=	Liabilities	+	Equity
-3,750				-3,750
Accum Deprec		30,000 Bal.		Deprec Exp
		3,750		3,750

Assets	=	Liabilities	+	Equity
+33,750				-46,250
-80,000				
<u>Equipment</u>				<u>Loss on Disposal of Equip</u>
Bal. 80,000				46,250

Accum Deprec		30,000 Bal.
33,750		3,750

Assets	=	Liabilities	+	Equity
+125,000				+15,000
+140,000				
-250,000				
<u>Equipment</u>		<u>Accum Deprec</u>		
Bal. 250,000		140,000		140,000 Bal.
125,000				

Gain on Exchng		15,000
----------------	--	--------

Assets	=	Liabilities	+	Equity
+125,000				-10,000
+140,000				
-25,000				
-250,000				
<u>Cash</u>				<u>Equipment</u>
25,000		Bal. 250,000		250,000
		125,000		

Accum Deprec		140,000 Bal.		Loss on Exchng
140,000				10,000

Assets	=	Liabilities	+	Equity
+110,000				
+140,000				
-250,000				
<u>Equipment</u>		<u>Accum Deprec</u>		
Bal. 250,000		140,000		140,000 Bal.
110,000				

July 1—To record disposal of equipment

Cash	34,000	
Accumulated Depreciation	33,750	
Loss on Sale of Equipment	12,250	
Equipment		80,000

b. July 1—To update depreciation expense

Depreciation Expense	3,750	
Accumulated Depreciation—Equipment		3,750

July 1—To record disposal of equipment

Cash	54,000	
Accumulated Depreciation	33,750	
Gain on Sale of Equipment		7,750
Equipment		80,000

c. July 1—To update depreciation expense

Depreciation Expense	3,750	
Accumulated Depreciation—Equipment		3,750

July 1—To record disposal of equipment

Accumulated Depreciation	33,750	
Loss on Disposal of Equipment	46,250	
Equipment		80,000

Review 11-9

a. To record exchange with commercial substance; no cash involved

Equipment (fair value of asset received)	125,000	
Accumulated Depreciation	140,000	
Gain on Asset Exchange		15,000
Equipment		250,000

b. To record exchange with commercial substance; cash is paid

Equipment (fair value of asset received)	125,000	
Accumulated Depreciation	140,000	
Loss on Asset Exchange	10,000	
Cash		25,000
Equipment		250,000

c. To record exchange without commercial substance; no cash involved

Equipment (\$250,000 – \$140,000)	110,000	
Accumulated Depreciation	140,000	
Equipment		250,000

- 14-9. How would an investor typically report a dividend declared by a company in which it holds a 40% voting interest? A 10% voting interest?
- 14-10. Indicate reasons why a 30% ownership interest in another company may not be considered significant.
- 14-11. When are unrealized holding gains and losses on debt securities included in the determination of net income? When are unrealized holding gains and losses on equity securities included in the determination of net income?
- 14-12. Describe the balance sheet categorization and valuation within the asset section when an investment in securities is classified as
- Trading debt securities.
 - Available-for-sale debt securities.
 - Held-to-maturity debt securities.
 - Equity securities measured at FV-NI.
 - Equity method securities.
- 14-13. What is the financial statement impact when an investment is reclassified from a trading debt security to an available-for-sale debt security? When an available-for-sale debt security is reclassified as a trading debt security?
- 14-14. Explain when the fair value option of accounting for equity investments is applicable. What is the financial statement impact of accounting for investments under the fair value option?
- 14-15. What approach(es) are used to analyze impairment on available-for-sale and held-to-maturity debt securities?

Data Analytics

Data Analytics DA14-1
Using Excel Visualizations to Analyze Changes in Other Comprehensive Income **LO3**



The Excel file associated with this exercise includes data for **Amazon.com Inc.** and **Apple Inc.** as reported in Form 10-Q and 10-K reports over a 2-year period (\$ millions). In this exercise, we analyze the change in unrealized gains and losses reported in other comprehensive income by quarter over a 2-year period for Amazon and Apple.

Required

- Download Excel file DA14-1 found in myBusinessCourse.
- Prepare Waterfall charts in Excel for each year for Amazon and Apple, showing the quarterly change in unrealized gains (losses) on securities. *Hint:* Add totals for each year, highlight data, select Insert, Chart, Waterfall.
- Label ~~both the first bar and~~ the last bar as “total” per the legend. *Hint:* Double-click on bar (~~first or~~ last) to open the Format Data Point sidebar. Single-click on the same bar. Check Set as total under Series Options on the bar column icon tab.
- Indicate how many columns are shown in each chart.
- Indicate how many orange bars are displayed in each chart. What do the orange bars represent?
- Indicate how many blue bars are displayed in each chart. What do the blue bars represent?
- Indicate what type of securities are the source for the gains and losses displayed in the charts.
- Indicate which chart showed the most volatility over the course of the year. What total amount of gain or loss would be shown on the Form 10-K for that particular year?
- Indicate whether the trends shown in the charts are similar across companies for each year.
- Compute the percentage change in the net gain (loss) from Year 1 to Year 2 for Amazon and for Apple.
- Indicate why GAAP requires the gains and losses analyzed above to be reported in other comprehensive income rather than net income.

Data Visualization



Data Visualization Activities are available in **myBusinessCourse**. These assignments use Tableau Dashboards to expose students to visual depictions of data and introduce students to data analytics through data visualizations. These exercises are assignable and auto graded by MBC.

Brief Exercises

Brief Exercise 14-16
Recording Entries for Debt HTM Investments **LO1**
Hint: See Demo 14-1C



On January 1, Sharp Company purchased \$50,000 of Sox Company 6% bonds, at a time when the market rate was 5%. The bonds mature on December 31 in five years and pay interest annually on December 31. Sharp plans to, and has the ability to, hold the bonds until maturity. Sharp uses the effective interest method to amortize any premium or discount on investments in bonds. At December 31 of this first year, the bonds are quoted at 98.

Urban Fit Corporation paid salaries and wages of \$143,800 to its employees for the month. Of this amount, \$3,800 was paid to employees who had already exceeded cumulative wages of \$142,800. Also, \$43,800 was paid to employees who had already been paid the SUTA maximum. FICA employee withholdings consist of a social security tax of 6.20% on the first \$142,800 earned, plus a Medicare tax of 1.45% on all wages. Urban Fit pays employer taxes as follows: its required FICA contribution, plus a FUTA tax of 6.0% on wages up to the SUTA maximum. Of this amount, 5.4% is payable to the state and 0.6% is payable to the U.S. Treasury. Employee income tax withholding was \$35,000. Deductions included: union dues (in conformity with the union agreement) of \$3,000, and insurance premiums of \$12,000.

Required

- a. Prepare the journal entry to record salaries expense and the liabilities for payroll deductions.
- b. Prepare the journal entry to record payroll tax expenses.
- c. Prepare the journal entries to record remittance of the payroll obligations. *Hint:* Record a separate entry to record cash payment to employees.

Bloy Company pays all salaried employees on a biweekly basis. Overtime pay, however, is paid in the following biweekly period. Bloy accrues salaries expense only at its December 31 year-end. Data relating to salaries earned in December follow:

- Last payroll was paid on December 26 for the two-week period ended on that day.
- Overtime pay earned in the two-week period ended December 26 was \$8,400.
- Remaining work days during the year were December 29, 30, and 31, on which days there was no overtime.
- The recurring biweekly salaries total \$150,000.

Required

Assuming a 5-day workweek, what should Bloy record as a liability at December 31 for accrued salaries?

Hewlett Inc. sponsors a defined contribution retirement plan for its employees. In the current year, salaries eligible for a 3% payment toward defined contribution retirement plans of employees are \$880,000. Hewlett made the required 3% contribution at the end of the year. Hewlett Inc. will also match contributions made by employees by the end of the year, up to 5% of salaries. Hewlett estimates the obligation to match up to 5% of salaries to be \$15,000 on December 31. The amount will be paid to the trustee of the defined contribution retirement plan in January of the following year. Record Hewlett Inc.'s journal entries to fund the retirement plan with (1) the 3% payment and (2) the 5% match contribution.

Anne Taylor Company borrowed cash on August 1 of Year 1, by signing a \$33,300 (face amount), one-year note payable, due on July 31 of Year 2. The accounting period of Anne Taylor ends December 31. Assume an effective interest rate of 11%.

Required

- a. How much cash should Anne Taylor Company receive from the note on August 1 of Year 1, assuming the note is an interest-bearing note?
- b. Prepare the journal entries for the following transactions.
 1. August 1 of Year 1, date of the loan.
 2. December 31 of Year 1, adjusting entry.
 3. July 31 of Year 2, payment of the note.
- c. What liability amounts should be shown on the December 31 of Year 1 balance sheet?
- d. Answer (a) and (c) assuming that the note is noninterest-bearing. Use the straight-line method to amortize any discount on note payable.

Consider the following three separate scenarios for a one-year, \$100,000 note payable issued on September 1 of Year 1. Use the straight-line method to amortize any discount on note payable.

	\$100,000 Note payable	\$100,000 Note payable	\$100,000 Note payable
	12% Interest due at maturity	10% interest due at maturity	Noninterest-bearing
	12% market rate	10% market rate	12% market rate
	Borrower's FYE*: Dec. 31	Borrower's FYE: Nov. 30	Borrower's FYE: Dec. 31
Cash received upon note issuance			
Cash paid at maturity date			
Total interest paid (cash)			

Exercise 15-55
Recording Payroll and Related Deductions **LO3**



Exercise 15-56
Determining Accrued Salaries **LO3**



Exercise 15-57
Recording Entries for Defined Contribution Retirement Plan **LO3**



Exercise 15-58
Recording Entries for Interest-Bearing and Noninterest-Bearing Notes **LO4**



Exercise 15-59
Analyzing Interest-Bearing and Noninterest-Bearing Notes **LO4**



Bond Feature	Description	Randolph Bonds
Face value (also called maturity value, principal amount, par or stated value)	Amount due at bonds' maturity date.	\$10,000
Maturity date	End of the bond term and the due date for the repayment of the face value.	December 31, Year 5
Stated rate (also called coupon, nominal, or contractual rate)	Interest rate used to determine the cash interest payments, which can be 0% if no cash payments are required. Stated as an annual rate.	5% annual rate or 2.5% semiannual interest rate (5% ÷ 2)
Interest payment dates	Dates the cash interest payments are due, typically on an annual or semiannual basis.	June 30 and December 31
Bond authorization date	Earliest date the bonds can be issued and represents the planned date of the issuance.	January 1, Year 1

The Randolph Company bonds are issued on January 1 of Year 1 for \$9,573 when the market rate is 6%. Some features of this bond issue as outlined below depend on market factors, and thus are *not* specified in the bond indenture and are *subject to change*. In **Demo 16-1B**, we focus on identifying key features of two different bond issues.

Bond Feature	Definition	Randolph Bonds
Market rate (also called effective rate, or yield)	Interest rate on a similar investment in the market involving similar risk and where the issuer has a similar credit rating. Stated as an annual rate.	6% annual rate or 3% semiannual interest rate (6% ÷ 2)
Bond selling price	Price of the bonds paid by the investors on the bond issue date, which is not necessarily the same as the face value. Bond selling price equals the present value of the periodic cash interest payments and the maturity value, calculated using the market rate in effect at bond issuance as the discount rate.	\$9,573
Bond issue date	Date the bonds are sold to investors. Bonds can be issued after the bond authorization date to allow for additional time for processing or anticipated changes in market interest rates.	January 1, Year 1

DEMO 16-1B**LO16-1****Bond Features**

Two separate bond scenarios are described below. Specify the key features of the bonds in the table that follows.

- Annual interest-bearing bonds payable:** Goal Inc. authorizes and issues 5-year, \$5,000 bonds on January 1 of Year 1, at 97 (or 97% of face value), bearing interest at 5%, payable annually on January 1. The bonds mature in five years on January 1.
- Semiannual interest-bearing bonds payable:** Goal Inc. authorizes and issues 5-year, \$5,000 bonds on January 1 of Year 1, at 105 (or 105% of face value), bearing interest at 5%, payable semiannually on July 1 and January 1. The bonds mature in five years on January 1.

Solution

Bond Features	Annual Interest-Bearing Bonds	Semiannual Interest-Bearing Bonds
Face value	\$5,000	\$5,000
Maturity date	January 1, Year 6	January 1, Year 6
Stated rate per payment period . . .	5% (annual)	2.5% (semiannual)
Interest payment date(s)	January 1	July 1, January 1
Bond authorization date	January 1, Year 1	January 1, Year 1
Bond selling price*	\$4,850 (0.97 × \$5,000)	\$5,250 (1.05 × \$5,000)
Bond issue date	January 1, Year 1	January 1, Year 1

* The market rate implied for each bond sale is an annual rate of 5.71% [RATE(5, -250,4850, -5000)] for the annual interest-bearing bonds and a semiannual rate of 1.95% [RATE(10, -125,5250, -5000)] for the semiannual interest-bearing bonds.

Required

- Provide the entry for issuance of the 6% bonds on January 1 of Year 1.
- Provide the entry for issuance of the 5% bonds on January 1 of Year 6.
- Provide the entry for redemption of one-half of the 6% bonds on January 1 of Year 6.

Exercise 16-74
Recording Entries for
Convertible Bonds **LO8**
Hint: See Demo 16-8



Stonewall Corporation authorized \$20,000 of 5%, 10-year convertible bonds. Each \$1,000 bond is convertible to 10 shares of common stock (par \$50) of Stonewall Corporation. The bonds sold at 105 on January 1 of Year 1.

Required

- Provide the entry on January 1 of Year 1 for the bond issuance.
- Provide the entry assuming that the conversion privilege is exercised on December 31 of Year 3. At the date of conversion, 30% of any premium or discount has been amortized and the common stock was selling at \$125 per share. Use the book value method.

Exercise 16-75
Recording Entries for
Convertible Bonds **LO8**
Hint: See Demo 16-8



On January 1 of Year 1, Sierra Corp. issued 500 of its \$1,000, 6% convertible bonds at face value. Each bond is convertible into 15 shares of \$1 par value common stock. In June of Year 3, the company induced the conversion of bonds into common stock by offering \$35,000 cash to bondholders, payable upon conversion. All of the bondholders converted to common stock in June of Year 3.

Required

- Provide the entry for issuance of bonds on January 1 of Year 1.
- Provide the entry for conversion of the bonds in June of Year 3 using the book value method.

Exercise 16-76
Recording Entries
for Bonds with
Warrants **LO9**



Harley Corporation authorized \$75,000 of 6%, 10-year, nonconvertible bonds with detachable stock purchase warrants. Each \$1,000 bond carried 20 detachable warrants, each of which was for one share of Harley common stock, par \$20, at a specified exercise price of \$60. The bonds sold with the warrants at 102 (no bond price without warrants was available). Immediately after the date of issuance, the detachable stock purchase warrants were selling at \$4 each. All transactions occurred in the same fiscal year.

Required

- Provide the entry for the issuer at the date of issuance of the bonds.
- Provide the entry assuming exercise of all of the warrants by the investors at the specified exercise price. At this date, the stock was selling at \$75 per share.

Exercise 16-77
Recording Entries
for Bonds with
Warrants **LO9**



On July 1 of Year 1, Salem Corporation authorized \$2,000,000 of 7% bonds due in 10 years. The bonds pay cash interest semiannually each June 30 and December 31. Each \$1,000 bond includes a detachable stock purchase warrant. Each warrant gives the bondholder the right to purchase, for \$30, one share of \$1 par value common stock at any time during the next 10 years. The bonds were sold at 101 on July 1 of Year 1. The value of the stock purchase warrants at the time of issuance was \$100,000. The bonds would sell without warrants for \$1,940,000.

Required

- Record the entry for issuance of bonds on July 1 of Year 1 using the proportional method.
- Record the entry for issuance of bonds on July 1 of Year 1 assuming instead that the warrants are not detachable.

Exercise 16-78
Reporting Bonds
Using the Fair Value
Option **LO10**



Mitchell Inc. issued 40 of its 6%, \$1,000 bonds on January 1 of Year 1 for \$38,934. The bonds pay cash interest semiannually each June 30 and December 31 and were issued to yield 7%. The bonds mature in three years on December 31, and the company uses the effective interest method to amortize bond discounts or premiums. On January 1 of Year 1, Mitchell Inc. elects to account for the bonds using the fair value option.

Required

- Record the issuance of bonds on January 1 of Year 1.
- Record the interest payment on June 30 of Year 1.
- Record the interest payment on December 31 of Year 1. **increases**
- At December 31 of Year 1, the market rate on the bonds **drops** to 7.5% due to a general increase in market risk. Record the adjustment of bonds payable to fair value.

Exercise 16-79
Reporting Bonds
Using the Fair Value
Option **LO10**



Royal Inc. issued 10-year, \$100,000, 10% annual interest-bearing bonds on June 30 of Year 1 at a discount. At the time the bonds were issued, Royal Inc. elected to account for the bonds using the fair value option. On December 31 of Year 1, the bonds have a carrying value of \$88,800.

debt by (a) reducing the remaining annual interest payments to \$2,240 each and (b) reducing the principal amount (maturity amount) to \$48,000.

Required

- a. Compute the new market rate for Brown.
- b. Provide all entries required on date of restructure (January 2 of Year 3) for each company. If no entry is required, explain the reason.
- c. Provide all entries required at December 31 of Year 3 and Year 4 for each company. Assume that City Bank uses the effective interest method.

Appendix—Problems

Slow Company owed Quick Finance Company a three-year, 10%, \$100,000 note dated January 1 of Year 1, with cash interest payable annually each December 31. At December 31 of Year 3, Slow was experiencing serious financial problems and could not pay the principal and interest for Year 3 that had been accrued. Quick agreed to settle the debt and interest in full for \$12,000 cash plus a tract of land (Slow’s acquisition cost was \$7,000) plus 1,000 shares of Slow common stock, par \$10, that had a fair value of \$35 per share. The fair value of the land on January 1 of Year 4 was \$20,000. The agreement was accepted by both entities, and settlement was effected on January 1 of Year 4.

App—Problem 16-130
Recording Entries
for a Troubled Debt
Settlement **LO12**

Required

Provide all entries required to record the debt restructure on January 1 of Year 4 for (a) Slow Company and (b) Quick Finance Company.

Baker Company owed Cook Company a \$20,000, 10% four-year note, dated January 1 of Year 1, with cash interest payable annually each December 31. Baker Company faced extreme financial difficulties. Both companies had accrued interest for the Year 2, but no interest was paid for Year 2. On January 2 of Year 3, the entities agreed that the principal would be paid in full on maturity date and that the interest for Year 2, Year 3, and Year 4 would be settled by payment of \$3,340 cash on December 31 of Year 5 (maturity date).

App—Problem 16-131
Recording Entries
for a Troubled Debt
Restructure **LO12**

Required

- a. Compute the new market rate for Baker.
- b. Provide all entries required on the date of restructure (January 2 of Year 3) for each company.
- c. Provide all entries required on December 31 of Year 3 and Year 4 for each company. Cook uses the effective interest method.

Answers to Review Exercises

Review 16-1

- a. Corporate, convertible
- d. 2.5%
- g. 3%
- b. \$150,000
- e. July 1, January 1
- h. \$138,842
- c. January 1, Year 11
- f. January 1, Year1
- i. January 1, Year 1

Review 16-2

- a. \$128,681.40
 $(PV(0.035, 20, -150000 * 0.025, -150000))$
- b. \$53,897.29
 $(PV(0.025, 20, -50000 * 0.03, -50000))$
- c. \$49,500.00
 $((\$50,000 \times 0.97) + (\$50,000 \times 4/12 \times 0.06))$

Review 16-3

January 1, Year 1—To record bond issuance

Cash	150,000	
Bonds Payable		150,000

Assets	=	Liabilities + Equity
+150,000		+150,000
Cash		Bonds Payable
150,000		150,000

December 31, Year 1—To record payment of interest

Interest Expense	7,500	
Cash (\$150,000 × 5%)		7,500

Assets	=	Liabilities + Equity
-7,500		-7,500
Cash		Interest Exp
150,000	7,500	7,500

December 31, Year 10—To record principal payment

Bonds Payable	150,000	
Cash		150,000

Assets	=	Liabilities + Equity
-150,000		-150,000
Cash		Bonds Payable
150,000	7,500	150,000
	150,000	

Action Plan

LO	Topic/Subtopic	Page	Demos	Reviews	Assignments	CPA*
LO 17-1	Identify a lease, determine lease types for lessee, and classify leases using lease criteria Identified Asset :: Control Use :: Lease Classification Criteria :: Finance Lease :: Operating Lease	17-3	D17-1	R17-1	21, 22, 23, 24, 25, 53, 54, 88, 89, 90, 94, 98, 101, 102, 103, 113, 114, 115, 116, DA17-2	CORE Mod 3: Topic 3: LO1 Mod 8 Topic 7: LO7 Mod 8 Topic 7: LO8 BAR Mod 1: Topic 1: LO3 Mod 4: Topic 4: LO4
LO 17-2	Account for a basic finance lease for a lessee Right-of-Use Asset :: Straight-Line Method :: Lease Liability :: Effective Interest Method	17-9	D17-2	R17-2	26, 27, 28, 55, 56, 57, 58, 83, 88	CORE Mod 3: Topic 3: LO2
LO 17-3	Account for a basic operating lease for a lessee Right-of-Use Asset :: Lease Liability :: Straight-Line Lease Expense :: Unguaranteed Residual Value	17-13	D17-3	R17-3	29, 30, 31, 59, 60, 61, 88, DA17-1	CORE Mod 3: Topic 3: LO2 Mod 8: Topic 4: LO3 BAR Mod 10: Topic 6: LO2
LO 17-4	Account for complex finance leases for a lessee Initial Direct Cost :: Lease Incentive :: Guaranteed Residual Value :: Purchase Option	17-17	D17-4A D17-4B D17-4C	R17-4	25, 32, 33, 34, 35, 36, 37, 53, 54, 62, 63, 64, 65, 66, 67, 81, 84, 88, 89, 90, 91, 92, 93, 101, 102, 103, 105, 106, 107, 109, 110, 116	BAR Mod 2 Topic 1: LO2 Mod 4: Topic 4: LO1 Mod 4: Topic 4: LO4 Mod 4: Topic 4: LO5
LO 17-5	Account for complex operating leases for a lessee Prepayment :: Initial Direct Cost :: Lease Incentive	17-29	D17-5	R17-5	38, 68, 69, 88, 94, 95, 97, 98, 108, 110	CORE Mod 4: Topic 1: LO3 BAR Mod 4: Topic 4: LO1 Mod 4: Topic 4: LO4 Mod 4: Topic 4: LO5
LO 17-6	Determine lease types and account for a basic sales-type lease for a lessor Lease Receivable :: Interest Revenue :: Effective Interest Method	17-34	D17-6	R17-6	23, 25, 39, 40, 41, 46, 48, 70, 71, 83, 88	BAR Mod 4: Topic 4: LO2 Mod 4: Topic 4: LO3
LO 17-7	Account for an operating lease for a lessor Operating Lease :: Depreciation Expense :: Lease Revenue :: Initial Direct Cost	17-39	D17-7	R17-7	42, 43, 72, 73, 74, 88, 96, 97	BAR Mod 4: Topic 4: LO2 Mod 4: Topic 4: LO3
LO 17-8	Account for complex sales-type leases for a lessor Guaranteed Residual Value :: Initial Direct Cost :: Purchase Option	17-42	D17-8 ^A D17-8B	R17-8	44, 45, 47, 49, 50, 51, 75, 76, 77, 78, 79, 80, 81, 82, 84, 85, 86, 88, 99, 100, 101, 102, 103, 109	BAR Mod 4: Topic 4: LO2 Mod 4: Topic 4: LO3
LO 17-9	Explain the accounting policy election for short-term leases and other lease disclosures Qualitative Disclosures :: Quantitative Disclosures :: Short-Term Lease Election	17-47	D17-9	R17-9	52, 87, 88, 104, 112	BAR Mod 2: Topic 1: LO2 Mod 4: Topic 4: LO1
LO 17-10	APPENDIX 17A—Account for direct financing leases by the lessor Third-Party Residual Guarantee:: Deferred Gross Profit :: Lease Receivable :: Interest Revenue :: Effective Interest Method	17-51	D17-10	R17-10	118, 119, 123	BAR Mod 4: Topic 4: LO2 Mod 4: Topic 4: LO3
LO 17-11	APPENDIX 17B—Explain lease modifications and lease remeasurements Lease Modification :: Standalone Price :: Remeasurement :: Reassessment of Lease Classification	17-54	D17-11	R17-11	120, 124, 125, 128, 117	BAR Mod 1: Topic 1: LO3 Mod 4: Topic 4: LO1
LO 17-12	APPENDIX 17C—Describe the difference in accounting for a sale-leaseback versus a failed sale Sale-Leaseback :: Sale and Lease :: Failed Sale :: Finance Liability	17-57	D17-12	R17-12	121, 122, 126, 127	

*Black (Gray) font in CPA column indicates that the LO ties directly (indirectly) to the Evolution Model curriculum LO.

lessee or the lessee is reasonably certain to exercise an option to purchase the underlying asset, in which case the lessee shall amortize the leasehold improvements to the end of their useful life.

DEMO 17-4A

LO17-4 Lessee—Finance Lease with Initial Direct Cost, Lease Incentive



On January 1 of Year 1, the lease commencement date, Lessor Inc. and Lessee Inc. sign a 3-year non-cancelable lease for equipment that is routinely leased to other companies. Details of the lease agreement follow.

1. The equipment has an estimated economic life of three years.
2. The three lease payments are \$34,972.24, payable January 1 of Year 1, Year 2, and Year 3.
3. The fair value of the asset at the lease commencement is \$100,000.
4. The lease does not contain a renewal or purchase option, and the asset reverts to the lessor at the end of the 3-year period.
5. The asset's residual value is estimated to be \$0 and there is no guaranteed residual value.
6. The lessor's implicit interest rate is 5% and is known by the lessee. The lessee's incremental borrowing rate is 5%.
7. Initial direct costs of \$800 (legal fees incurred related to the execution of the lease) were paid by the lessee prior to the lease commencement date.

Answer the following questions from the perspective of Lessee Inc.

- a. Prepare the journal entry to record the initial direct costs paid prior to lease commencement.
- b. Determine the proper lease classification on January 1 of Year 1.
- c. Calculate the lease liability.
- d. Calculate the right-of-use asset.
- e. Prepare a lease liability schedule.
- f. Prepare the lessee's journal entries for Year 1.
- g. Show the impact on the lessee's balance sheet and income statement for Year 1.
- h. Prepare the lessee's journal entries for Year 2.
- i. Show the impact on the lessee's balance sheet and income statement for Year 2.
- j. Prepare the lessee's journal entries for Year 3.
- k. Assume no other changes to the lease arrangement except that the lessor had paid the lessee \$1,200 prior to the lease commencement as an incentive for the lessee to sign the lease. The lessee recorded the receipt of the lease incentive as a debit to Cash and a credit to Lease Incentive Liability for \$1,200. Prepare the revised entry at the lease commencement on January 1 of Year 1.

Solution

a. Lessee's Journal Entry—Prior to Lease Commencement

To record initial direct cost paid prior to lease commencement

Assets	=	Liabilities	+	Equity
+800				
-800				
Init Dir Cost		Cash		
800		800		

Initial Direct Cost	800	
Cash		800

b. Lease Classification

At lease commencement, the lease is classified as a finance lease to the lessee because *at least one* of the lease classification criteria is met as shown in the following analysis. *Note:* The initial direct cost does not impact the lease classification analysis.

Classification Criteria	Analysis	Met																					
1. Ownership transfer	Asset reverts to the lessor at the end of the three-year period.																						
2. Purchase option	Lease does not contain a purchase option.																						
3. Lease term length	Three-year lease term is 100% of the equipment's three-year useful life.	✓																					
4. PV of lease payments	\$100,000 (PV of lease payments of \$100,000) > \$90,000 (90% of fair value of \$100,000).	✓																					
<table border="1"> <thead> <tr> <th></th> <th>RATE</th> <th>NPER</th> <th>PMT</th> <th>PV</th> <th>TYPE</th> <th>Excel Formula</th> </tr> </thead> <tbody> <tr> <td>Given</td> <td>5%</td> <td>3</td> <td>(34,972.24)</td> <td>?</td> <td>1</td> <td>=PV(0.05,3,-,34,972.24,0,1)</td> </tr> <tr> <td>Solution</td> <td></td> <td></td> <td></td> <td>\$100,000</td> <td></td> <td></td> </tr> </tbody> </table>				RATE	NPER	PMT	PV	TYPE	Excel Formula	Given	5%	3	(34,972.24)	?	1	=PV(0.05,3,-,34,972.24,0,1)	Solution				\$100,000		
	RATE	NPER	PMT	PV	TYPE	Excel Formula																	
Given	5%	3	(34,972.24)	?	1	=PV(0.05,3,-,34,972.24,0,1)																	
Solution				\$100,000																			
5. No alternative use	There are alternative uses for the equipment as the lessor often leases this equipment to other companies.																						

LO 17-5

Account for Complex Operating Leases for a Lessee

LO 17-5 Overview

Lessee Accounting—Complex Operating Lease

Lease liability

- Consider only probable amount owed on residual
- Reduce liability for any lease prepayments

Right-of-use asset

- Subtract lease incentives received
- Add initial direct costs incurred

Recognize straight-line lease expense as a single amount in the income statement

Recall from the basic operating lease example that the lessee records a right-of-use asset and a lease liability on the balance sheet at commencement of the lease, calculated the same way as in a finance lease. This means that adjustments to the right-of-use asset required in more complex finance leases described in LO 17-4 (such as for lease incentives and initial direct costs) apply to operating leases as well. However, after the initial recognition of the lease liability and right-of-use asset, an equal amount of expense is recorded in the income statement using the straight-line method as discussed in LO 17-3 for a basic operating lease.

Straight-Line Lease Amortization Expense	minus	Current Period 'Interest'	=	Change in Right-of-Use Asset
Recognized on Income Statement				Reduces ROU Asset to Carrying Value

DEMO 17-5

LO17-5 Lessee—Operating Lease with Initial Direct Cost, Incentive, Prepayment

Demo



MBC

On January 1 of Year 1, the lease commencement date, Lessor Inc. and Lessee Inc. sign a 3-year noncancelable lease for equipment that is routinely leased to other companies. Details of the lease agreement follow.

1. The equipment has an estimated economic life of six years.
2. The three lease payments are \$34,972.24, payable January 1 of Year 1, Year 2, and Year 3.
3. Fair value of the asset at the commencement of the lease is \$150,000.
4. The lease does not contain a renewal or purchase option, and the asset reverts to the lessor at the end of the three-year period.
5. The asset's unguaranteed residual value is estimated to be \$57,882.
6. The lessor's implicit interest rate is 5% and is known by the lessee. The lessee's incremental borrowing rate is also 5%.
7. The lessee received \$5,000 cash as a partial payment for the lessee's preexisting lease, prior to the lease commencement.
8. The lessee incurred legal fees to execute the lease of \$620 in cash, prior to the lease commencement.

Answer the following questions from the perspective of Lessee Inc.

- a. Record the entries for the lease incentive received and legal fees paid, prior to the lease commencement.
- b. Determine the proper lease classification.
- c. Calculate the lease liability and the right-of-use asset.
- d. Prepare a lease liability schedule and a right-of-use asset schedule.
- e. Prepare the lessee's journal entries for Year 1.
- f. Show the impact on the lessee's balance sheet and income statement for Year 1.
- g. Prepare the lessee's journal entries for Year 2.
- h. Show the impact on the lessee's balance sheet and income statement for Year 2.
- i. Prepare the lessee's journal entries for Year 3.
- j. Now assume no other changes to the lease arrangement except that the lessee prepaid the first lease payment prior to the commencement of the lease. At that time, the lessee recorded the lease prepayment as a debit to Prepaid Lease Payment and a credit to Cash for \$34,972. Prepare the revised entry at the lease commencement on January 1 of Year 1.

continued

LO 17-7

Account for an operating lease for a lessor

LO 17-7 Overview

Operating Lease—Lessor

- Meets *none* of the lease classification criteria
- Continue to recognize asset on the balance sheet
- Record depreciation expense over asset's useful life
- Record lease revenue each period

Lessor: Operating Lease From the perspective of the lessor, an *operating lease* is any lease other than a sales-type lease or a direct financing lease. In accounting for an operating lease, a lessor continues to maintain the leased asset on its balance sheet as shown in **Demo 17-7**. The asset is depreciated over its economic useful life (unless the lessor classifies the asset as inventory) and lease revenue is recognized over the term of the lease. Revenue is generally recognized on a straight-line basis. This means that if lease payments are \$1,000 for the first two years and \$1,600 for the third year of a

three-year lease, lease revenue would be recognized as \$1,200 per year ($\$3,600 \div 3$). With an operating lease, the lessor will capitalize and amortize initial direct costs over the lease term rather than expense them at lease commencement as they do for sales-type leases.

842-30-25-11 After the commencement date, a lessor shall recognize all of the following:

- a. The lease payments as income in profit or loss over the lease term on a straight-line basis unless another systematic and rational basis is more representative of the pattern in which benefit is expected to be derived from the use of the underlying asset, subject to paragraph 842-30-25-12
- b. Variable lease payments as income in profit or loss in the period in which the changes in facts and circumstances on which the variable lease payments are based occur
- c. Initial direct costs as an expense over the lease term on the same basis as lease income (as described in (a)).

A summary of the accounting for the lessor for an operating lease follows.

Balance Sheet	Income Statement
Underlying asset remains on the balance sheet.	Depreciate asset over its useful life. Recognize lease revenue, depreciation expense, and initial direct cost amortization expense in the income statement.

DEMO 17-7

LO17-7

Lessor—Operating Lease with Initial Direct Cost



On January 1 of Year 1 (lease commencement date), Lessor Inc. and Lessee Inc. sign a 3-year noncancelable lease for equipment that is routinely leased to other companies. This is the same lease contract as discussed in Demo 17-3 from the perspective of the lessee. Details of the lease agreement follow.

1. The equipment has an estimated economic life of six years.
2. The three lease payments are $\$34,972.24$, payable January 1, of Year 1 Year 2, and Year 3.
3. Fair value of the asset at the commencement of the lease is \$150,000, which is also the carrying value (cost) on the lessor's books, carried in its Equipment account.
4. The lease does not contain a renewal or purchase option, and the asset reverts to the lessor at the end of the three-year period.
5. The asset's unguaranteed residual value is estimated to be \$57,882 at the end of the lease term.
6. The lessor's implicit interest rate is 5%.

Answer the following questions from the perspective of Lessor Inc.

- a. Determine the proper lease classification.
- b. Prepare the lessor's journal entries for Year 1, Year 2, and Year 3. Assume that the lessor depreciates fixed assets using the straight-line method.
- c. Show the impact on the lessor's balance sheet and income statement for Year 1.
- d. How would your answers change to parts *a*, *b*, and *c* if initial direct costs of the lessor were \$900 (legal fees related to the execution of the lease), paid in cash on January 1 of Year 1?

Solution**a. Lease Classification**

The lease is classified as an operating lease because none of the lease classification criteria are met.

continued

continued from previous page

January 1, Year 1—To record initial direct cost

Initial Direct Cost	900	
Cash		900

Assets	=	Liabilities	+	Equity
+900				
-900				
Init Dir Cost				Cash
900				900

The initial direct cost would be amortized on a straight-line basis over the lease term.

December 31, Year 1, Year 2, and Year 3—To amortize deferred cost (initial direct cost)

Amortization Expense	300	
Initial Direct Cost (\$900/3)		300

Assets	=	Liabilities	+	Equity
-300				-300
Amort Exp				Init Dir Cost
300				900 300

The lessor would recognize on the year-end balance sheet of Year 1 a current asset of \$300 and a noncurrent asset of \$300 for the initial direct cost (\$900 original balance – \$300 Year 1 amortization = \$600 ending balance). On the Year 1 income statement, the lessor would recognize amortization expense of \$300.

Comparing Lessee and Lessor Transactions

The basic operating lease was described in LO 17-3 from the lessee perspective and in LO 17-7 from the lessor perspective. For simplicity, we assume that the facts and circumstances known to the lessor and the lessee are exactly the same and both have applied management judgment similarly. The journal entries in chronological order are listed side-by-side as follows.

Lessee—Basic Operating Lease (LO 17-3)				Lessor—Basic Operating Lease (LO 17-7)			
Jan. 1, Year 1	Right-of-Use Asset	100,000					
	Lease Liability		100,000				
	<i>To record right-of-use asset and lease liability</i>						
Jan. 1, Year 1	Lease Liability	34,972		Cash	34,972		
	Cash		34,972	Deferred Lease Revenue		34,972	
	<i>To record lease payment</i>			<i>To record receipt of lease payment</i>			
Dec. 31, Year 1	Lease Expense	34,972		Deferred Lease Revenue	34,972		
	Lease Liability		3,251	Lease Revenue		34,972	
	Right-of-Use Asset		31,721	<i>To record lease revenue</i>			
	<i>To record lease expense</i>						
Dec. 31, Year 1				Depreciation Expense	25,000		
				Accumulated Depreciation		25,000	
				<i>To record depreciation expense</i>			
Jan. 1, Year 2	Lease Liability	34,972		Cash	34,972		
	Cash		34,972	Deferred Lease Revenue		34,972	
	<i>To record lease payment</i>			<i>To record receipt of lease payment</i>			
Dec. 31, Year 2	Lease Expense	34,972		Deferred Lease Revenue	34,972		
	Lease Liability		1,665	Lease Revenue		34,972	
	Right-of-Use Asset		33,307	<i>To record lease revenue</i>			
	<i>To record lease expense</i>						
Dec. 31, Year 2				Depreciation Expense	25,000		
				Accumulated Depreciation		25,000	
				<i>To record depreciation expense</i>			
Jan. 1, Year 3	Lease Liability	34,972		Cash	34,972		
	Cash		34,972	Deferred Lease Revenue		34,972	
	<i>To record lease payment</i>			<i>To record receipt of lease payment</i>			
Dec. 31, Year 3	Lease Expense	34,972		Deferred Lease Revenue	34,972		
	Right-of-Use Asset		34,972	Lease Revenue		34,972	
	<i>To record lease expense</i>			<i>To record lease revenue</i>			
Dec. 31, Year 3				Depreciation Expense	25,000		
				Accumulated Depreciation		25,000	
				<i>To record depreciation expense</i>			

Lessor Co. enters into an operating lease of property with Lessee Co. on January 1 for a five-year term at an annual fixed lease payment of \$10,000 (with beginning of year payments). Prepare the journal entries for the lessee assuming that the lessee is aware of the rate implicit in the lease of 5%.

- January 1—Record the right-of-use asset.
- January 1—Record the first lease payment.
- December 31—Record the year-end adjusting entry.

For each of the following **five** *separate* finance lease scenarios, determine the lease payment used to assess lease classification criterion number four, the present value of lease payments.

- Lease payments are \$3,000 per month plus 5% of lessee net sales. Lessee sales for the first year are estimated to be \$100,000.
- Lease payments are computed as the *greater of* (a) 5% of lessee net sales or (b) \$3,000. Lessee sales for the first year are estimated to be \$100,000.
- Annual lease payments are 10% of lessee annual sales, with no fixed portion. Lessee sales for the first year are estimated to be \$100,000.
- Lease payments total \$5,000 in Year 1 and increase each year based on the annual increase in the CPI at the end of the preceding year. The increase in CPI at the end of the current year is expected to be 2%.
- In the lease contract, rent is specified as \$60,000 for the first year and will increase each subsequent year by 2% over the prior year. Determine the lease payment for the second year.

For each of the following three *separate* finance lease scenarios, determine the lease payment used to assess lease classification criterion number four, the present value of lease payments.

- An annual lease payment for equipment was \$50,000 and included a fee of \$5,000 for maintenance of the equipment.
- An annual lease payment for equipment was \$55,000 and included a fee of \$4,000 for maintenance and a fee of \$5,000 for insurance on the equipment.
- An annual lease for a building was \$120,000 and included \$10,000 for property taxes and \$6,000 for parking lot maintenance.

Referring to the information in Brief Exercise 17-28, assume the same information except that the lessee guaranteed the residual value for \$5,000 at the end of the lease term. Compute the value of the lease liability for the lessee on January 1 under the following separate scenarios.

- The lessee estimates that the underlying asset will have a fair value of \$5,000 at the end of the lease.
- The lessee estimates that the underlying asset will have a fair value of \$2,000 at the end of the lease.

Lessee Company enters into a six-year finance lease of nonspecialized equipment with Lessor Company on January 1. Lessee has agreed to pay \$28,000 annually beginning immediately on January 1. The lease includes an option for the lessee to purchase the equipment at \$3,000, which is \$2,000 below the estimated fair value at lease end. Lessee Company is reasonably certain that it will exercise the purchase option. The economic life of the asset is seven years. The lessee's incremental borrowing rate is 7% and the lessor's implicit rate is not readily determinable by the lessee. Record Lessee Company's journal entries on (a) January 1 and (b) December 31 of the first year assuming that the lease is properly classified as a finance lease.

Smith, the lessee, signs an eight-year lease agreement on December 31 for the floor of a building that requires annual payments of \$70,000, beginning immediately. The residual value of \$50,000 is guaranteed to the lessor at the end of the lease term. Smith estimates a residual value of \$30,000 at the end of the lease term. Smith is aware of the lessor's implicit rate of interest of 7%. Prepare Smith's journal entries on December 31 to record the (1) lease asset and liability, and (2) first lease payment, assuming that the lease is properly classified as a finance lease.

Frontier Inc. enters into an eight-year lease contract to lease equipment with a useful life of eight years. Annual lease payments are due with the first payment made immediately on January 1, the commencement of the lease. No residual value is expected or guaranteed for the underlying equipment. Lease payments consist of (a) fixed lease payment of \$33,000, (b) insurance on the equipment of \$1,000, and (c) maintenance on the equipment of \$1,200. Frontier Inc. also paid legal fees of \$850 related to the execution of the lease on January 1. Prepare Frontier's three journal entries at the commencement of the finance lease to record (1) lease asset and liability, (2) lease payment, and (3) maintenance cost, assuming an implicit interest rate of 6%, known by Frontier.

Brief Exercise 17-31
Recording Operating Lease
Journal Entries—Lessee
LO3
Hint: See Demo 17-3



Brief Exercise 17-32
Identifying Lease
Payments **LO4**



Brief Exercise 17-33
Identifying Lease
Payments **LO4**



Brief Exercise 17-34
Computing Lease Liability
LO4



Brief Exercise 17-35
Recording Finance Lease
Journal Entries—Purchase
Option **LO4**
Hint: See Demo 17-4C



Brief Exercise 17-36
Recording Finance
Lease Journal Entries—
Guaranteed Residual Value
LO4
Hint: See Demo 17-4B



Brief Exercise 17-37
Recording Finance Lease
Journal Entries—Nonlease
and Initial Direct Costs
LO4



Lessor Corporation, a manufacturer of equipment, enters into a lease of specialized equipment with Lessee Corp. on January 1 of Year 1. Title to the asset remains with Lessor Corp. at the end of the lease. Lessee Corp. does not guarantee the residual value of the specialized equipment at the end of the lease term, and the lease contains no renewal or purchase options. The following information pertains to the lease.

Lease term	5 years
Economic life of the leased equipment	6 years
Annual lease payments	\$1,098
Payment date (first payment due at lease commencement)	Annually on January 1
Fair value of the leased equipment	\$5,200
Lessor Corp.'s carrying value of the leased equipment	\$4,500
Rate implicit in the lease (known by lessee)	6.02%
Estimated fair value of the equipment at end of the lease term	\$400

Required

- Determine the classification of the lease for Lessee Corporation.
- Prepare a schedule of the lease liability for the first two years of the lease term.
- Provide journal entries relating to the lease for Lessee Corporation on January 1 and December 31 of Year 1 and Year 2.

On January 1 of Year 1, Yogart Inc. signed a 10-year lease for its retail outlet. The lease payments, paid semiannually each January 1 and July 1, are based upon semiannual sales and equal 5% of sales with a semiannual sales minimum of \$500,000. Based on the previous three years, average sales per semiannual period are \$600,000. Yogart's incremental borrowing rate is 6% and it is unaware of the rate implicit in the lease. The lease is classified as an operating lease by Yogart. The first semiannual payment of \$25,000, calculated as 5% of \$500,000, is due immediately on January 1 of Year 1. Yogart's accounting year ends June 30.

Required

- Calculate the lease liability recorded by Yogart Inc. on January 1 of Year 1.
- Calculate the right-of-use asset recorded by Yogart Inc. on January 1 of Year 1.
- Prepare a schedule of the lease liability for the first year of the lease term.
- Prepare a schedule of the right-of-use asset for the first year of the lease term.
- Prepare the entries for Yogart Inc. on January 1, June 30, and July 1 of Year 1.
- On July 21 of Year 1, Yogart reported to the lessor its sales of \$575,000 for the semiannual period ended June 30 of Year 1. Any rent adjustments are due to the lessor at the end of the following month after the sales. Record the adjusting entry required on July 31 of Year 1.

On January 1 of Year 1, Wayne Inc. signed an eight-year lease for office space for \$24,000 annually due each January 1, with the first payment due immediately. Wayne has the option to renew the lease for an additional four-year period on or before January 1 of Year 9, at market lease rates at the time of renewal. The remaining economic life of the office is 30 years. Wayne Inc. is not aware of the implicit rate of the lease but has an incremental borrowing rate of 7%. Wayne Inc. paid \$1,000 on January 1 of Year 1 for initial direct costs.

Required

- How would **the lessee** classify the lease?
- Prepare a schedule of the lease liability for the first two years of the lease term.
- Prepare a schedule of the right-of-use asset for the first two years of the lease term.
- Prepare the entries for Wayne Inc. on January 1 and December 31 of Year 1 and Year 2, assuming Wayne Inc.'s accounting year ends December 31.

On January 1 of Year 1, the first day of its accounting year, Lessor Inc. leased equipment at an annual payment of \$10,254.19, receivable at the beginning of each year for 10 years. The first payment is received immediately. The equipment has an estimated useful life of 12 years and no residual value. Lessor's implicit rate is 6%. Lessor had no other costs associated with this lease and properly classified the lease as a sales-type lease. The leased equipment was carried on Lessor Inc.'s books at \$65,000.

Required

- Calculate the value of the lease receivable at the commencement of the lease.
- What amounts would be presented in the lessor's balance sheet as of December 31 of the first year related to this lease?
- What amounts would be presented in the lessor's income statement for the first year ended December 31 related to this lease?

Exercise 17-67
Recording Entries for Finance Lease with Unguaranteed Residual Value—Lessee **LO4**
Hint: See Demo 17-4A



Exercise 17-68
Recording Entries for Operating Lease—Lessee **LO5**
Hint: See Demo 17-5



Exercise 17-69
Recording Entries for Operating Lease—Lessee **LO5**



Exercise 17-70
Reporting a Sales-Type Lease—Lessor **LO6**
Hint: See Demo 17-6



Exercise 17-71

Recording Entries for
Sales-Type Lease—No
Residual **LO6**

Hint: See Demo 17-6



Referring to the information in Exercise 17-55, answer the following questions from the lessor's perspective, assuming that leased equipment was carried in the lessor's financial records at \$36,000.

Required

- Calculate the value of the lease receivable at the commencement of the lease.
- Prepare a schedule of the lease receivable for the lessor for the lease term.
- Prepare journal entries on January 1 and December 31 of Year 1 and Year 2 for the lessor.
- What amounts would be presented related to this lease in the lessor's balance sheet as of December 31 of Year 1?
- What amounts would be presented related to this lease in the lessor's income statement for the year ended December 31 of Year 1?

Exercise 17-72

Reporting Operating
Lease—Lessor **LO7**

Hint: See Demo 17-7



Using the information from Exercise 17-60, answer the following question from the perspective of the lessor. ~~Assume that the present value of the lease payments is equal to the fair value of the equipment.~~

Required

- How would Renew Co. classify the lease?
- What balances (account titles and amounts) appear on Renew's balance sheet at the end of the first year related to the lease?
- What balances (account titles and amounts) appear on Renew's income statement for the first year related to the lease?

Exercise 17-73

Recording Operating Lease
Entries—Lessor **LO7**

Hint: See Demo 17-7



Using the information from Exercise 17-59, answer the following question from the perspective of the lessor.

Required

- Recalculate the annual lease payment calculated by the lessor.
- Prepare the entries for the lessor on January 1 and December 31 of Year 1, assuming that the lessor uses the straight-line method to depreciate fixed assets.
- If the lessor incurred a commission to secure the acceptance of the lease agreement for \$1,000 on January 1 of Year 1, what entry would the lessor record on (1) January 1 of Year 1 and (2) December 31 of Year 1?
- Would the lessor's lease classification change if instead the lessee guaranteed a residual value of \$80,000?

Exercise 17-74

Recording Operating Lease
Entries—Lessor **LO7**

Hint: See Demo 17-7



Using the information from Exercise 17-61, answer the following question from the perspective of the lessor.

Required

- How would Merick Inc. classify the lease?
- Prepare the entries for Merick Inc. on January 1 and December 31 of Year 1.
- Record legal fees of \$1,000 incurred by Merick on January 1 of Year 1 for the execution of the lease and the related adjusting entry on December 31 of Year 1.

Exercise 17-75

Recording Sales-Type
Lease, Unguaranteed
Residual Value—Lessor
LO8

Hint: See Demo 17-8A



Flint Company leased equipment to Land Company for a five-year period. Flint paid \$46,965 for the equipment, which equals its current carrying value (with estimated useful life of five years). The lease commenced on January 1 of Year 1. Flint uses a target rate of return of 8% in all lease contracts. The first payment was received on January 1 of Year 1, and Flint's accounting periods end on December 31. The equipment reverts to Flint at the end of the lease term, at which time Flint estimates that the equipment will have an unguaranteed residual value of \$2,000. *Hint:* Underlying asset's carrying value equals its fair value at lease commencement.

Required

- Compute the annual payment calculated by the lessor.
- Prepare a schedule of the lease receivable for the lessor for the full lease term.
- Provide journal entries for Year 1 and Year 2 for the lessor assuming that the equipment is held in the lessor's Inventory account.
- Record the entry on December 31 of Year 5 for the return of the equipment assuming the equipment had a fair value of \$2,000.

Exercise 17-76

Recording Sales-Type
Lease, Purchase Option—
Lessor **LO8**

Use the same information from Exercise 17-75 but assume instead that the lease contract contains a purchase option stating that Land Company can purchase the equipment for \$4,000 on January 1 of Year 6, at which time its residual value is estimated to be \$6,500. It is reasonably certain that Land Company will exercise the purchase option at the end of the lease term.

Required

- Compute the annual payment calculated by the lessor.

b. Lease Liability Schedule

Date	Lease Payment	Interest on Liability	Lease Liability Change	Lease Liability
Jan. 1, Year 1				\$113,649*
Jan. 1, Year 1	\$ 25,000	\$ 0	\$ 25,000	88,649
Jan. 1, Year 2	25,000	4,432	20,568	68,081
Jan. 1, Year 3	25,000	3,404	21,596	46,485
Jan. 1, Year 4	25,000	2,324	22,676	23,809
Jan. 1, Year 5	25,000	1,191	23,809	0
	<u>\$125,000</u>	<u>\$11,351</u>	<u>\$113,649</u>	

Note: Amounts in schedule are rounded. * PV(0.05,5,-25000,0,1)

c. Right-of-Use Asset Schedule

Date	Lease Expense	Interest on Liability	Right-of-Use Asset Change	Right-of-Use Asset
Jan. 1, Year 1				\$113,649
Dec. 31, Year 1	\$ 25,000	\$ 4,432	\$ 20,568	93,081
Dec. 31, Year 2	25,000	3,404	21,596	71,485
Dec. 31, Year 3	25,000	2,324	22,676	48,809
Dec. 31, Year 4	25,000	1,191	23,809	25,000
Dec. 31, Year 5	25,000	0	25,000	0
	<u>\$125,000</u>	<u>\$11,351</u>	<u>\$113,649</u>	

d.

January 1, Year 1

Right-of-Use Asset	113,649	113,649
Lease Liability		

Assets = Liabilities + Equity			
+113,649	+113,649		
ROU Asset	Lease Liab		
113,649		113,649	

January 1, Year 1

Lease Liability	25,000	25,000
Cash		

Assets = Liabilities + Equity			
-25,000	-25,000		
Cash	Lease Liab		
	25,000	25,000	113,649

December 31, Year 1

Lease Expense	25,000	
Lease Liability		4,432
Right-of-Use Asset		20,568

Assets = Liabilities + Equity			
-20,568	+4,432	-25,000	
ROU Asset	Lease Liab		
113,649	20,568	25,000	113,649
			4,432
			Lease Exp
			25,000

January 1, Year 2

Lease Liability	25,000	25,000
Cash		

Assets = Liabilities + Equity			
-25,000	-25,000		
Cash	Lease Liab		
	25,000	25,000	113,649
			4,432

December 31, Year 2

Lease Expense	25,000	
Lease Liability		3,404
Right-of-Use Asset		21,596

Assets = Liabilities + Equity			
-21,596	+3,404	-25,000	
ROU Asset	Lease Liab		
113,649	20,568	25,000	113,649
	21,596	25,000	4,432
			3,404
			Lease Exp
			25,000
			25,000

Review 17-4

Lease Classification Criteria	Analysis	Criterion Met?
1. Ownership transfer	Title does not transfer	No
2. Purchase option	No purchase option	No
3. Lease term length	4 < 4.5 (75% of life of 6)	No
4. Present value of lease payments	PV of lease payments of \$65,000* = 100% of fair value of \$65,000	Yes
5. No alternative use	No information indicating customization	No
Lease Classification: Finance lease as one criterion is met		

*PV(0.09,4,-15999.49,-12000,1)

Date	Lease Payment	Interest on Liability	Lease Liability Change	Lease Liability
Jan. 1, Year 1				\$56,499 ¹
Jan. 1, Year 1	\$15,999	\$ 0	\$15,999	40,500
Jan. 1, Year 2	15,999	3,645	12,354	28,146
Jan. 1, Year 3	15,999	2,533	13,466	14,680
Jan. 1, Year 4	15,999	1,319 ²	14,680	0
	<u>\$63,996</u>	<u>\$7,497</u>	<u>\$56,499</u>	

¹ PV(0.09,4,-15999.49,0,1) ² Rounded

C. January 1, Year 1—To record right-of-use asset and lease liability

Assets = Liabilities + Equity		
+56,499	+56,499	
ROU Asset	Lease Liab	
56,499	56,499	

January 1, Year 1—To record lease payment

Assets = Liabilities + Equity		
-15,999	-15,999	
Cash	Lease Liab	
15,999	15,999	56,499

December 31, Year 1—To record interest expense

Assets = Liabilities + Equity		
	+3,645	-3,645
Interest Exp	Lease Liab	
3,645	15,999	56,499
		3,645
		44,145

December 31, Year 1—To record amortization of right-of-use asset

Assets = Liabilities + Equity		
-14,125	-14,125	
ROU Asset	Amort Exp	
56,499	14,125	14,125
42,374		

d. The result of the lease classification test does not change because the total guaranteed residual value is used in the present value of lease payment test. Therefore, the lease is still classified as a finance lease.

Date	Lease Payment	Interest on Liability	Lease Liability Change	Lease Liability
Jan. 1, Year 1				\$62,521 ¹
Jan. 1, Year 1	\$15,999	\$ 0	\$15,999	46,522
Jan. 1, Year 2	15,999	4,187	11,812	34,710
Jan. 1, Year 3	15,999	3,124	12,875	21,835
Jan. 1, Year 4	15,999	1,965	14,034	7,801
Jan. 1, Year 5	8,500	699 ²	7,801	0
	<u>\$72,496</u>	<u>\$9,975</u>	<u>\$62,521</u>	

¹ =PV(0.09,4,-15999.49,-8500,1) ² Rounded.

continued from previous page

- d. Show the income statement presentation of the loss carryback and carryforward in Year 4.
- e. Assume instead that on December 31 of Year 4 there is evidence that it is *more likely than not* that the deferred tax asset would not be realized, record the required adjusting entry and show the income statement presentation. Also assume a beginning balance of zero in the Deferred Tax Asset valuation account.

Solution

a. Measurement of Tax Refund Receivable

Wick can request a tax refund by first carrying back \$30,000 of the loss to Year 2 (the earlier year) and then \$5,000 of the loss to Year 3. The total tax refund is equal to \$8,750 calculated as $(\$30,000 \times 25\%) + (\$5,000 \times 25\%)$. Wick cannot carry back to Year 1, as this year is outside the two-year carryback window. The tax refund will be recorded as a tax receivable.

b. Measurement of Deferred Tax Asset

Wick will have \$30,000 of NOL (\$65,000 total NOL, less \$35,000 carried back to Year 2 and Year 3) to carry forward to future years (subject to the 80% limit), starting with Year 5. Wick records a deferred tax asset for the estimated future tax benefit from the carryforward because the NOL creates future deductible amounts, calculated as follows.

December 31, Year 4—Calculation of deferred tax asset

	Future Earnings	80% Limit	Enacted Tax Rate	Estimated Tax Benefit
Year 5	\$12,500	\$10,000	25%	\$ 2,500
Year 6	6,250	5,000	40%	2,000
Year 7	18,750	15,000	40%	6,000
	<u>\$37,500</u>	<u>\$30,000</u>		<u>\$10,500</u>

c. Effect of Net Operating Loss Carryback and Carryforward

Wick records a receivable for the tax refund requested of \$8,750 and Wick records a deferred tax asset for the \$10,500 of estimated future tax savings from the carryforward. No deferred tax asset valuation allowance is required. The entry to be made by Wick in Year 4 to record the effects of the NOL follows.

December 31, Year 4—To record income tax benefit

Income Tax Refund Receivable	8,750	
Deferred Tax Asset	10,500	
Income Tax Expense		19,250

Assets = Liabilities + Equity		
+8,750		+19,250
+10,500		
<u>Inc Tax Rec</u>	<u>Inc Tax Exp</u>	
8,750	19,250	
<u>Def Tax Asset</u>		
10,500		

d. Income Statement Presentation

Partial Income Statement	Year 4
Operating loss before income taxes	\$(65,000)
Income tax benefit	19,250
Net loss	<u>\$(45,750)</u>

e. Deferred Tax Asset Valuation Allowance

If there is evidence that it is *more likely than not* that all or part of the deferred tax asset will not be realized, the company must record a valuation allowance. The company records the following entry to establish the deferred tax asset valuation allowance.

December 31, Year 4—To adjust deferred tax valuation allowance

Income Tax Expense	10,500	
Valuation Allowance for Deferred Tax Asset		10,500

Assets = Liabilities + Equity		
-10,500		-10,500
<u>DTA Val Allow</u>	<u>Inc Tax Exp</u>	
10,500	10,500	19,250

Partial Income Statement	Year 4
Operating loss before income taxes	\$(65,000)
Income tax benefit	8,750
Net loss	<u>\$(56,250)</u>

The following annual information is available for Rapper Inc.

- Taxable income: \$115,000
- Accounts receivable on installment sales
 - GAAP basis: \$150,000
 - Tax basis: \$0
- Tax rate: 25%
- Deferred revenue on services
 - GAAP basis: \$35,000
 - Tax basis: \$0
- No deferred tax balances at beginning of the year

Required

- a. Prepare schedules to compute the deferred tax balances on December 31.
- b. Record the income tax journal entry on December 31.
- c. Compute pretax GAAP income.

For the current year, Raleigh Corporation had taxable income of \$100,000 and an income tax rate of 25%. Raleigh had a \$75,000 credit balance in its Deferred Tax Liability account. This credit balance was due to the following two temporary differences.

- Carrying value of equipment for GAAP purposes, \$300,000, tax basis of equipment, \$200,000. The equipment has a five-year remaining life.
- Installment sale receivable for GAAP purposes, \$200,000, and for income tax purposes, \$0. The collection period for the \$200,000 receivable is the following four years with equal amounts each year.

Required

Indicate how the deferred tax amounts would be reported on the current year-end balance sheet.

Cruse Corporation started operations on January 1 of Year 1. Taxable income from the tax return is \$2,850,000. Income tax rate is 25%. There were no beginning balances in deferred tax accounts.

Additional information

- On December 31 of Year 1, GAAP basis of installment sale receivables, \$330,000; tax basis, \$0. Receivables will be collected equally over Year 2, Year 3, and Year 4.
- On December 31 of Year 1, GAAP basis of litigation accrual, \$270,000; tax basis, \$0. Management expects the litigation loss to be recorded in the tax return in Year 4

Required

- a. Prepare schedules to compute the deferred tax balances on December 31 of Year 1.
- b. Record the income tax journal entry on December 31 of Year 1.
- c. Record the income tax journal entry on December 31 of Year 1 for each of the following *separate* situations.
 1. Taxable income is \$1,650,000 for Year 1.
 2. Deferred tax liability had a January 1 of Year 1 balance of \$50,000 instead of \$0.
 3. Deferred tax asset had a January 1 of Year 1 balance of \$28,000 instead of \$0.
 4. Litigation loss was estimated at \$170,000 instead of \$270,000.
 5. GAAP basis of installment sales receivables was \$440,000 instead of \$330,000.

ACE Company had pretax GAAP income of \$50,000 for the current tax year ended December 31.

Required

- a. Determine taxable income for each of the following *separate* situations.
 1. Excess accelerated depreciation for tax purposes, \$5,000
 2. Unrealized holding gain on securities accounted for under FV-NI, \$2,000
 3. Unrealized holding loss on securities accounted for under FV-NI, \$2,000
 4. Rental receipts received in advance, \$30,000
 5. Litigation contingency accrual, \$10,000
 6. Six-month prepaid rent deposit, \$12,000
- b. Classify each of the items in part *a* as one of the following:
 1. GAAP revenue before taxable revenue
 2. Taxable revenue before GAAP revenue
 3. GAAP expense before taxable expense
 4. Taxable expense before GAAP expense

Exercise 18-56
Recording Multiple
Temporary Differences
LO1, 2



Exercise 18-57
Reporting Multiple
Temporary Differences
LO1, 8



Exercise 18-58
Recording Multiple
Temporary Differences
LO1, 2



Exercise 18-59
Computing Taxable Income
LO1, 2



Required

- Provide the income tax entry for Year 2.
- Provide the income tax entry for Year 3, assuming that the actual taxable income was \$6,000 (tax rate, 25%).
- Provide the income tax entry for Year 4, assuming that Year 3 results were as described in part *b*, and that the actual Year 4 taxable income was \$13,000.
- Provide the entry for Year 5, assuming results for Year 3 and Year 4 were as described in parts *b* and *c*, and assuming that the actual Year 5 taxable income was \$45,000.
- Assume instead that the company qualifies for a two-year loss carryback for tax purposes, using the earlier year first and with no income restrictions. Assume also that any excess loss can then be carried forward indefinitely, with **no income restrictions**. Prepare the income tax journal entry for Year 2.

Exercise 18-75

Recording NOL
Carryforward, Valuation
Allowance **LO6**



DNSE Inc. began operations in Year 1. In its first year the company had a net operating loss of \$(10,000), which was carried forward and used to reduce income tax payable in Year 2. In Year 2, DNSE had taxable income of \$40,000 before the use of the NOL carryforward. At December 31 of Year 2, DNSE Inc. determines that it should have a deferred tax asset ending balance of \$25,000 related to Year 2 deferred revenue. The income tax rate is 25%. No valuation allowance has been established.

Required

- Provide the journal entry to record income taxes in Year 2, assuming that no valuation allowance is required.
- Now assume DNSE has encountered stiff competition and is uncertain whether it will have any taxable income in the foreseeable future. DNSE determined that it was *more likely than not* that none of the deferred tax asset would be realized. Assume also that the temporary differences that give rise to the deferred tax asset are expected to reverse in Year 3 and Year 4. (1) Determine what amount, if any, should be recorded as a deferred tax asset valuation allowance at December 31 of Year 2, and (2) make the appropriate entry. Assume DNSE has already recorded the entry in part *a*.
- Show how the December 31 of Year 2 balance sheet and income statement would present the information provided, assuming that a deferred tax asset valuation allowance is recorded.

Exercise 18-76

Recording and Reporting
NOL Carryforward,
Valuation Allowance **LO6**



The financial statements of Gibson Corporation for the first two years of operations show the following.

	Year 1	Year 2
Revenues	\$295,000	\$330,000
Expenses	320,000	315,000
Pretax income (loss)	<u>\$ (25,000)</u>	<u>\$ 15,000</u>

Assume a tax rate of 25% for Year 1 and Year 2. Estimates of future earnings after Year 2 are zero. There are no temporary differences. **Note: At the end of Year 1 and at the end of Year 2, management believes that any tax loss carryforward benefit will not be realized.**

Required

- Provide entries to record the NOL income tax effects for Year 1 and Year 2.
- Show (1) income tax expense (benefit) on the Year 1 and Year 2 income statements and (2) net deferred tax asset (liability) and income tax payable on the Year 1 and Year 2, year-end balance sheets.

Exercise 18-77

Recording NOL
Carryback/Carryforward
LO6



ABC Inc. reported taxable income for Year 1 through Year 6 as follows.

Year 1	\$175,000	Year 3	\$(100,000)	Year 5	\$ 80,000
Year 2	65,000	Year 4	(250,000)	Year 6	100,000

The enacted tax rate is 25% for Year 1 and 2, and 40% for years thereafter. There are no differences between taxable income/loss and pretax GAAP income/loss. Management believes that the full amount of any tax loss carryforward benefit is *more likely than not* to be realized.

Required

Prepare the journal entries to record income tax expense and/or the net operating loss carryback/carryforward for Year 2 through Year 6, assuming that the company qualifies for the NOL carryback method for two years (using the earlier year first) and carryforward indefinitely without an income limitation.

Action Plan

LO	Topic/Subtopic	Page	Demos	Reviews	Assignments	CPA*
LO 19-1	Describe defined benefit plans and the measurement of related pension obligations Defined Benefit :: Pension Benefit Formula :: Projected Benefit Obligation :: Accumulated Benefit Obligation :: Vested Benefit Obligation	19-4	D19-1	R19-1	21, 22, 38, 39, 59, 60, 61, 62, 80, 83, 87, 89	
LO 19-2	Determine the five components of change in projected benefit obligation Service Cost :: Interest Cost :: Prior Service Cost Adjustment :: Actuarial Gain/Loss on PBO :: Benefit Payments	19-7	D19-2	R19-2	23, 24, 25, 40, 41, 43, 59, 60, 64, 81, 82, DA19-1	CORE Mod 8: Topic 4: LO3 BAR Mod 10: Topic 6: LO2
LO 19-3	Reconcile pension plan assets and determine funded status Plan Asset Reconciliation :: Plan Funded Status :: Underfunded :: Overfunded	19-10	D19-3A D19-3B	R19-3	26, 27, 28, 41, 42, 43, 45, 47, 59, 60, 64, 66, 69, 73, 74, 75, 76, 77, 81, DA19-1	CORE Mod 8: Topic 4: LO3 BAR Mod 10: Topic 6: LO2
LO 19-4	Determine the five components of pension expense Service Cost :: Interest Cost :: Expected Return on Plan Assets :: Prior Service Cost Amortization :: Pension Gain or Loss Amortization	19-13	D19-4	R19-4	29, 30, 31, 41, 44, 46, 47, 48, 49, 50, 59, 60, 63, 64, 65, 66, 69, 74, 75, 76, 78, 81, 88	
LO 19-5	Record prior service cost amendment, pension expense, gains and losses, funding, and benefits paid Prior Service Cost Amendment :: Pension Expense :: Gain/Loss Deferral :: Funding Payment :: Benefit Payment	19-18	D19-5	R19-5	32, 33, 47, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 63, 66, 67, 71, 72, 73, 79, 81, 84, 86, 88	
LO 19-6	Describe the reporting of pensions in financial statements Financial Statement Presentation :: Disclosure Requirements	19-21	D19-6	R19-6	34, 35, 36, 45, 52, 54, 58, 59, 60, 76, 77, 78, 84, 85, 88	
LO 19-7	Use a pension worksheet to record pension journal entries Pension Worksheet :: Organizational Tool :: Presentation of Funded Status :: Journal Entries	19-25	D19-7	R19-7	37, 47, 51, 52, 53, 54, 55, 56, 57, 67, 68, 70, 71, 72, 84	
LO 19-8	APPENDIX 19A—Explain postretirement benefit plans and differences from pension plans Expected Postretirement Benefit Obligation :: Accumulated Postretirement Benefit Obligation :: Attribution Period	19-27	D19-8	R19-8	77, 88, 90, 91, 96, 101, 105, 106	
LO 19-9	APPENDIX 19B—Record postretirement benefit expense, gains and losses, funding, and benefits paid Prior Service Cost Amendment :: Postretirement Benefit Expense :: Gain/Loss Deferral :: Funding Payment :: Benefit Payment	19-30	D19-9	R19-9	77, 92, 93, 94, 95, 98, 99, 100, 103	
LO 19-10	APPENDIX 19C—Allocate prior service cost using the service method Prior Service Cost Amortization :: Service Method :: Service Years :: Straight-Line Method :: Average Service Period	19-33	D19-10	R19-10	97, 102, 104	

* Gray font in CPA column indicates that the LO ties indirectly to the Evolution Model curriculum LO. There is limited coverage of defined benefit pension plans in the Evolution Model curriculum.

continued from previous page

2. Enter service cost, \$12,000 (given) and interest cost, \$8,550 ($0.09 \times \$95,000$) as a credit to Projected Benefit Obligation and a debit to Pension Expense.
3. Enter expected return on plan assets, \$7,000 ($0.07 \times \$100,000$) as debit to Plan Assets and a credit to Pension Expense.
4. Enter unexpected loss on return, \$1,000 ($\$6,000 - \$7,000$) as a debit to Pension Gain/Loss in both the OCI column and the Accumulated OCI column and a credit to Plan Assets. This loss would be shown in OCI in the statement of comprehensive income. The OCI for the year would be closed out to AOCI, and the ending balance of AOCI would be shown on the balance sheet. While not illustrated in this worksheet, the amount of pension expense would be included in the end of year retained earnings balance on the balance sheet through the process of closing net income to retained earnings at year-end.
5. Enter actuarial loss on the PBO, \$4,000 as a debit to Pension Gain/Loss in both the OCI column and the Accumulated OCI column and a credit to Projected Benefit Obligation.
6. Enter prior service cost amortization, \$1,250 as a debit to Pension Expense and a credit to Prior Service Cost in both the OCI column and the Accumulated OCI column.
7. Enter amortization of pension loss, \$1,500, as a debit to Pension Expense and a credit to Pension Gain/Loss in both the OCI column and the Accumulated OCI column. (Amortization equals beginning of year AOCI—Pension Gain/Loss of \$25,000 less the corridor of \$10,000, divided by service years of 10. Corridor is 10% of the greater of beginning of year PBO or Plan Assets [$\$100,000 \times 10\%$].)
8. Enter contributions of \$15,000 as a debit to Plan Assets and a credit to Cash.
9. Enter benefits of \$1,000 as a debit to Projected Benefit Obligation and a credit to Plan Assets.
10. Total all columns (except the cash column) to arrive at ending balances. Funded status (net pension asset) is \$1,450, which is pension assets of \$120,000 less the PBO of \$118,550.

REVIEW 19-7
LO 19-7
Record Pension Entries Using a Pension Worksheet


Fox Company has a noncontributory, defined benefit pension plan. The following information pertains to the pension plan.

Account Balances		Jan. 1	Activity for the Year	
Projected Benefit Obligation (before amendment)		\$223,000 Cr.	Service cost	\$80,000
Plan Assets	200,000 Dr.		Pension benefits paid	30,000
Accumulated OCI—Prior Service Cost (before amendment)		0 Dr.	Contributions to pension fund	70,000
Accumulated OCI—Pension Gain/Loss	30,000 Dr.		Actual return on plan assets	10,000
			Loss on PBO due to changes in actuarial assumptions*	8,000

*Determined December 31

Other

Prior service benefits granted through plan amendment on Jan. 1 (present value)	\$15,000
Average remaining service period	10 years
Discount rate	8%
Expected rate of return on plan assets	7%

Required

- a. Record amounts above directly into a pension worksheet. Assume that the company follows the corridor approach for amortization.
- b. Record journal entries using the pension worksheet.

More Practice:
19-37, 19-53, 19-55, 19-57
Solution on p. 19-62.

Management Judgment

Nearly every aspect of accounting for defined benefit plans requires judgment. The assumptions used directly impact the derived pension amounts. In the Taser Inc. example, let's consider how just three changes in assumptions would change the accounting results.

1. A change in the service cost estimate from \$12,000 to \$18,000 would increase pension expense and the PBO. Service cost is not an objective value as it is based on many assumptions such as the assumption of the final salary of an employee (before retirement).
2. The discount rate could change from 9% to 10%. This may increase or decrease pension expense and the PBO. For example, a higher rate is applied to the PBO which will be lower because the present value of the pension obligations will be discounted at a lower rate.
3. The expected rate of return could change from 7% to 6.5%. This would increase pension expense without affecting the PBO.

Changes in assumptions not only impact the amounts recognized on financial statements (pension expense and net pension asset/liability), but changes in assumptions impact the amount of funding contributions to the pension fund required by the company.

FORD

Real World—EXPECTED FUTURE BENEFIT PAYMENTS

Ford Motor Company reported the following expected future benefit payments for five years in a recent Form 10-K.

Note 17: Retirement Benefits—The expected future benefit payments at December 31, 2020 were as follows (in millions).

Benefit Payments	Pension		
	U.S. Plans	Non-U.S. Plans	Worldwide OPEB
2021	\$ 3,430	\$1,480	\$ 340
2022	2,750	1,360	340
2023	2,760	1,370	330
2024	2,790	1,380	330
2025	2,780	1,400	330
2026–2030	13,730	7,210	1,640

Reporting a Defined Benefit Pension Plan

LO 19-6

REVIEW 19-6

The following data relate to a pension plan for Vilas Inc.

Account Balances	Year-End	Activity for the Year
Projected Benefit Obligation	\$310,000 Cr.	Pension expense, including service cost of \$50,000
Plan Assets	350,000 Dr.	\$75,000
Accumulated OCI—Prior Service Cost	40,000 Dr.	Unexpected gain on plan assets
Accumulated OCI—Pension Gain/Loss	12,000 Dr.	8,500
		Amortization of prior service costs
		2,500



Use the information to present the effect on the following financial statements.

- a. Income statement b. Statement of comprehensive income c. Balance sheet at year-end

More Practice:
19-35, 19-36

Solution on p. 19-61.

Mac Company has a noncontributory defined benefit pension plan, with the following data for the year.

Account Balances		Jan. 1	Activity for the Year	
PBO balance, before PSC adjustment . . .		\$45,000 Cr.	Prior service cost (due to plan amendment on Jan. 1)	5,000
Prior service cost (due to plan amendment on Jan. 1)		5,000 Dr.	Service cost	\$32,500
Plan Asset balance		52,500 Dr.	Pension benefits paid	0
			Actual and expected return on plan assets	2,500
			Cash funding (contributions)	25,000
			Pension benefits paid to retirees	0

Required

- Calculate interest cost assuming a discount rate of 8%.
- Compute net pension expense. Assume that prior service cost will be amortized over a 10-year average remaining service period.
- Prepare entries, as needed, to record (1) prior service cost deferral, (2) pension expense, (3) gain or loss deferral, (4) contributions, and (5) benefits for the year.
- Provide the same entries in part *c* assuming cash funding from the employer of \$35,500 and no other changes.
- Determine the plan's funded status assuming all entries in part *c* are made.
- Determine the plan's funded status assuming all entries in part *d* are made.
- Create a worksheet to summarize the pension data at the end of the year based on part *c* entries.

The following data relate to a pension plan for ISPN Inc. for the year.

Account Balances		Jan. 1	Activity for the Year	
Projected Benefit Obligation		\$30,000 Cr.	Service cost	\$7,000
Plan Assets		30,000 Dr.	Contributions	9,000
Accumulated OCI—Pension Gain/Loss . . .		5,000 Cr.	Prior service cost amortization . . .	1,000
Accumulated OCI—Prior Service Cost . . .		8,000 Dr.	Expected return on plan assets . . .	2,000
			Actual return on plan assets	3,000

Required

- Prepare entries to record (1) pension expense, (2) gain or loss deferral (if any), and (3) contributions for the year. Assume a discount rate of 8% and that no benefits were paid to retirees during the year. Include in pension expense, amortization of Accumulated OCI—Pension Gain/Loss using the straight-line method over 15 years.
- Assuming pension expenses are not capitalized as part of inventory or other assets, indicate the effect on the income statement for the year ended December 31.
- Indicate the changes in the following balance sheet accounts between January 1 and December 31: Net pension asset/liability, Cash, Retained earnings, and Accumulated other comprehensive income.
- Create a worksheet to summarize the pension data at the end of the year.

Rollo Company has a defined benefit pension plan. At the end of the current reporting period, December 31, the following information was available.

Projected benefit obligation		Plan assets	
Balance, Jan. 1	\$150,000	Balance, Jan. 1	\$160,000
Service cost	40,000	Actual return on plan assets (same as expected)	16,000
Interest cost (\$150,000 × 10% discount rate) . . .	15,000	Funding of plan by Rollo	30,000
Change in actuarial assumptions on Dec. 31 . . .	(400)	Pension benefits paid to retirees	(42,000)
Pension benefits paid	(42,000)	Balance, Dec. 31	\$164,000
Balance, Dec. 31	\$162,600		
Accumulated benefit obligation	\$120,000	Accumulated other comprehensive income Jan. 1	
Vested benefit obligation	\$ 40,000	Accumulated OCI—Prior Service Cost . . .	\$20,000 Dr.
		Accumulated OCI—Pension Gain/Loss . . .	2,000 Cr.

Required

- Create a worksheet to summarize the pension data at the end of the year. The company uses the corridor approach in amortizing the pension gain/loss. Assume an average remaining service period of 10 years.
- Prepare entries to record (1) pension expense, (2) gain or loss deferral (if any), (3) contributions, and (4) benefits for the year.

Exercise 19-53
 Preparing Pension Journal Entries and Pension Worksheet
LO5, 7
 Hint: See Demo 19-7



Exercise 19-54
 Preparing and Recording Pension Entries and Preparing Pension Worksheet
LO5, 6, 7



Exercise 19-55
 Preparing Pension Entries and Pension Worksheet
LO5, 7
 Hint: See Demo 19-7



Exercise 19-56

Preparing Pension
Entries and Pension
Worksheet **LO5, 7**



Information for the Jenkins Company defined benefit pension plan follows. The company uses the straight-line method to amortize prior service cost, and uses the corridor approach in amortizing pension gains and losses.

Account Balances	Jan. 1	Activity for the Current Year
Projected Benefit Obligation	\$700,000 Cr.	Service cost \$ 60,000
Plan Assets	500,000 Dr.	Actuarial loss determined Dec. 31 40,000
Accumulated OCI—		Actual return on plan assets 55,000
Pension Gain/Loss	160,000 Cr.	Funding 88,000
Accumulated OCI—PSC	120,000 Dr.	Benefits paid 0

Other	
Discount rate	8%
Expected rate of return on plan assets	10%
Average remaining service period of active plan participants	10 years

Required

- Prepare the presentation of funded status as of December 31 of the prior year.
- Prepare entries to record (1) pension expense, (2) gain or loss deferrals, (3) contributions, and (4) benefits for the current year.
- Prepare the presentation of funded status as of December 31 of the current year.
- Determine the amount of amortization of net unrecognized gain or loss required for next year, if any.
- Prepare a pension worksheet for the current year.

Exercise 19-57

Preparing Pension
Entries and Pension
Worksheet **LO5, 7**
Hint: See Demo 19-7



Laker Company has a noncontributory defined benefit pension plan. The company must record its pension expense for the year ended December 31. The following data are available for the year (\$ thousands).

Activity for the Year	Account Balances	Jan 1
Service cost	\$ 60	Accumulated OCI—Prior Service Cost . . . \$ 72 Dr.
Interest cost (at 8%)	48	Accumulated OCI—Pension Gain/Loss . . . 8 Dr.
Loss on PBO due to actuarial changes determined Dec. 31	20	Projected Benefit Obligation 600 Cr.
Pension benefit paid to retirees	200	Plan Assets 400 Dr.
Actual return on plan assets	36	
Employer contributions	120	
Pension benefits paid	200	

Other	
Average remaining service period	10 years
Expected return on plan assets	10%

Required

- Create a pension worksheet to summarize the pension data at the end of the year. The company uses the corridor approach in amortizing any pension gain/loss.
- Prepare entries to (1) pension expense, (2) gain or loss deferrals, (3) contributions, and (4) benefits for the current year. record

The following information relates to the contributory defined pension plan of Klarbrun Inc. for the year.

Account Balances	Jan. 1	Activity for the Year
Projected Benefit Obligation	\$75,000 Cr.	Service cost \$ 49,000
Plan Assets	78,750 Dr.	Interest cost 6,000
Accumulated OCI—Prior Service Cost	49,500 Dr.	Prior service cost amortization 500
		Actual return on plan assets (same as expected return) 4,725
		Cash funding by company 37,500
		Cash funding by plan participants 10,000
		Pension benefits paid to retirees 5,000
		Net income 500,000

Required

- Prepare the portion of the pension disclosure showing the components of pension expense.
- Prepare the portion of the pension disclosure showing the (1) reconciliation of the projected benefit obligation, (2) reconciliation of plan assets, and (3) funded status.

Exercise 19-58

Determining Reporting
Amounts and Preparing
Disclosures **LO5, 6**



Review 19-5

Assets = Liabilities + Equity	
	+30,000 -30,000
PBO	OCI—PSC
300,000 Bal.	30,000
30,000	

Assets = Liabilities + Equity	
+15,000	+49,500 -38,000
	+500 +3,000
Plan Assets	Pension Exp
Bal. 350,000	38,000
15,000	
	OCI—PSC
PBO	30,000 3,000
300,000 Bal.	OCI—Pension G/L
30,000	500
49,500	

Assets = Liabilities + Equity	
+1,000	+1,000
Plan Assets	OCI—Pension G/L
Bal. 350,000	500
15,000	1,000
1,000	

Assets = Liabilities + Equity	
+40,000	
-40,000	
Plan Assets	Cash
Bal. 350,000	40,000
15,000	
1,000	
40,000	

Assets = Liabilities + Equity	
-22,000	-22,000
Plan Assets	PBO
Bal. 350,000	22,000
15,000	300,000 Bal.
1,000	30,000
40,000	49,500
	357,500
384,000	

January 1—To record deferral of prior service cost

OCI—Prior Service Cost	30,000	
Projected Benefit Obligation		30,000

December 31—To record pension expense

Pension Expense	38,000	
Plan Assets (expected gain)	15,000	
OCI—Pension Gain/Loss (\$5,000/10)		500
Projected Benefit Obligation (\$33,000 + (0.05 × \$330,000))		49,500
OCI—Prior Service Cost (\$30,000/10)		3,000

December 31—To record deferral of unexpected gain on plan assets

Plan Assets (\$16,000 – \$15,000)	1,000	
OCI—Pension Gain/Loss		1,000

December 31—To record funding of plan assets

Plan Assets	40,000	
Cash		40,000

December 31—To record benefits paid to retirees

Projected Benefit Obligation	22,000	
Plan Assets		22,000

Review 19-6

Income Statement

Operating expenses	
Periodic pension cost, net.	\$50,000
Nonoperating expenses	
Other components of periodic pension cost, net.	25,000

Statement of Comprehensive Income

Other comprehensive income (loss)	
Unexpected gain on plan assets	\$ 8,500
Amortization of prior service cost	(2,500)

Balance Sheet at Year-End

Noncurrent assets	
Net pension asset (\$350,000 – \$310,000)	\$ 40,000
Liabilities	
Stockholders' equity	
Accumulated other comprehensive income	
Net pension loss	(12,000)
Prior service cost	(40,000)

Review 19-7

	Reported Net in Financial Statements		Reported on Balance Sheet				Reported in Comprehensive Income		
	Plan Assets	PBO	Net Pension Asset/Liability	Accumulated OCI		Cash Outflow	OCI		
				Prior Service Cost	Pension Gain/Loss		Pension Expense	Prior Service Cost	Pension Gain/Loss
Balance, Jan. 1	\$200,000	\$(223,000)	\$(23,000)	\$ 0	\$30,000				
Prior service cost amendment		(15,000)	(15,000)	15,000				\$15,000	
Service cost		(80,000)	(80,000)				\$80,000		
Interest cost [0.08 × (\$223,000 + \$15,000)]		(19,040)	(19,040)				19,040		
Expected return on plan assets (0.07 × \$200,000)	14,000		14,000				(14,000)		
Unexpected loss on assets (\$10,000 - \$14,000)	(4,000)		(4,000)		4,000				\$ 4,000
Actuarial loss on PBO		(8,000)	(8,000)		8,000				8,000
Prior service cost amortization				(1,500)			1,500	(1,500)	
Pension gain/loss amortization					(620)		620		(620)
Contributions to fund	70,000		70,000			\$(70,000)			
Retiree benefits paid	(30,000)	30,000							
Balance, Dec. 31	<u>\$250,000</u>	<u>\$(315,040)</u>	<u>\$(65,040)</u>	<u>\$13,500</u>	<u>\$41,380</u>		<u>\$87,160</u>	<u>\$13,500</u>	<u>\$11,380</u>

1. Beginning balances for Plan Assets, PBO, Net Pension Asset/Liability and AOCI—Pension Gain/Loss.
2. Prior service cost amendment, \$15,000 debit to Prior Service Cost in both the AOCI and OCI columns and credit to Projected Benefit Obligation.
3. Service cost, \$80,000 (given) and interest cost, \$19,040 (0.08 × \$238,000 (\$223,000 + \$15,000)) credit to Projected Benefit Obligation and a debit to Pension Expense. *Interest cost is calculated based upon the adjusted PBO balance as of January 1.*
4. Expected return on plan assets, \$14,000 (0.07 × \$200,000) debit to Plan Assets and credit to Pension Expense.
5. Unexpected loss, \$4,000 (\$10,000 – \$14,000) debit to Pension Gain/Loss in both the AOCI and OCI columns and credit to Plan Assets.
6. Actuarial loss on the PBO, \$8,000 debit to Pension Gain/Loss in both the AOCI and OCI columns and credit to Projected Benefit Obligation.
7. Prior service cost amortization, \$1,500 (\$15,000/10 years) debit to Pension Expense and credit to Prior Service Cost in both the AOCI and OCI columns.
8. Amortization of pension loss, \$620, debit to Pension Expense and credit to Pension Gain/Loss in both the AOCI and OCI columns. (Amortization equals beginning of year AOCI—Pension Gain/Loss of \$30,000 less the corridor of \$23,800, divided by service years of 10. Corridor is 10% of the greater of *the adjusted beginning of year PBO* or Plan Assets [\$238,000 × 10%].)
9. Contributions, \$70,000 debit to Plan Assets and credit to Cash.
10. Benefits, \$30,000 debit to Projected Benefit Obligation and credit to Plan Assets.

January 1—To record prior service cost amendment

OCI—Prior Service Cost	15,000	
Projected Benefit Obligation		15,000

Assets	=	Liabilities	+	Equity
		+15,000		-15,000
PBO				OCI—PSC
223,000 Bal.				15,000
15,000				

December 31—To record pension expense

Pension Expense	87,160	
Plan Assets	14,000	
Projected Benefit Obligation		99,040
OCI—Pension Gain/Loss		620
OCI—Prior Service Cost		1,500

Assets	=	Liabilities	+	Equity
+14,000		+99,040		-87,160
				+620
				+1,500
Plan Assets				Pension Exp
Bal. 200,000				87,160
14,000				
				OCI—PSC
				15,000
				OCI—Pension G/L
				620

December 31—To record deferral of unexpected loss on plan assets

OCI—Pension Gain/Loss	4,000	
Plan Assets		4,000

Assets	=	Liabilities	+	Equity
-4,000				-4,000
Plan Assets				OCI—Pension G/L
Bal. 200,000				4,000
14,000		4,000		620

December 31—To record deferral of actuarial loss on PBO

OCI—Pension Gain/Loss	8,000	
Projected Benefit Obligation		8,000

Assets	=	Liabilities	+	Equity
		+8,000		-8,000
PBO				OCI—Pension G/L
223,000 Bal.				4,000
15,000				8,000
99,040				
8,000				620

continued from previous page

- **Restricted stock units with option to settle in cash** Restricted stock awards structured with a cash settlement election by employees are recorded as a *liability* (restricted stock—liability), adjusted at reporting periods for the change in the value of the common stock.
- **Stock option reward with stock sell-back option** Other times, a reward may allow the employee to sell back newly acquired shares for cash. For example, a stock option reward may be structured to allow the employee to sell back shares to the company, up to 6 months after the exercise date. The authoritative literature provides guidance on recording shares with repurchase agreements as liabilities.

718-10-25-9 A puttable (or callable) share awarded to a grantee as compensation shall be classified as a liability if either of the following conditions is met:

- The repurchase feature permits the grantee to avoid bearing the risks and rewards normally associated with equity share ownership for a reasonable period of time from the date the good is delivered or the service is rendered and the share is issued.
- It is probable that the grantor would prevent the grantee from bearing those risks and rewards for a reasonable period of time from the date the share is issued. For this purpose, a period of six months or more is a reasonable period of time.

DEMO 21-10

LO21-10

Stock Appreciation Rights

Example One—Stock Appreciation Rights: Recorded as Equity

On January 1 of Year 1, Serenity Corporation began a stock appreciation rights plan. For each stock appreciation right, the grantee receives cash for the difference between the fair value per share of the company’s common stock on the date the SARs are exercised and the market price per share on the grant date. The rights require continuing employment and may be exercised at any time between the end of the fourth year after the grant date and the expiration date. The rights expire at the end of the sixth year after the grant date or when employment is terminated, whichever is earlier. The requisite service period is from the grant date to the earliest exercise date (the vesting date), or in this case, four years.

On January 1 of Year 1, the company’s common stock has a market price of \$10 per share, and Ann Killian, CEO of Serenity, is granted 5,000 SARs under the incentive plan. The fair value of the SARs is estimated to be \$25,000 as of January 1 of Year 1.

The fair value of the SARs is estimated to be \$1.00, \$3.50, \$2.00, and \$14.00 per unit on December 31 of Year 1, Year 2, Year 3, and Year 4, respectively.

The SARs may be settled by the employer, Serenity, through the issuance of stock. Record the journal entry required for the SARs on December 31 of Year 1, Year 2, Year 3, and Year 4. Assume that Killian exercises the SARs on December 31 of Year 4, when the market price of the stock is \$24 per share and Serenity settles the SARs in cash for \$70,000 ($[\$24 - \$10] \times 5,000$), (the difference between the fair value of common stock on the exercise date and date of grant).

Solution

Total compensation cost is expensed over a requisite service period that is from the date of grant to the vesting date.

December 31, Year 1—To record compensation expense

Compensation Expense	6,250	
Paid-in Capital—SARs Plan (\$25,000/4 years).		6,250

Serenity records compensation expense of \$6,250 for Year 2, Year 3, and Year 4.

December 31, Year 4—To record the exercise of SARs

Paid-in Capital—SARs Plan	25,000	
Compensation Expense	45,000	
Cash ($[\$24 - \$10] \times 5,000$)		70,000

Example Two—Stock Appreciation Rights: Recorded as Liability

Refer to the information in Example One *except* now assume that the *employee* has the right to settle the SARs agreement in cash and that the fair value of the stock is \$14 at the end of year 4. Record the journal entry required for the SARs on December 31 of Year 1, Year 2, Year 3, and Year 4. Assume that the employee settled the SARs contract in cash on December 31 of Year 4 for \$20,000 ($[\$14 - \$10] \times 5,000$), the difference between the fair value of common stock on the exercise date and date of grant.

Year 4 and that the fair value of the SARs on December 31, of Year 4.

continued

Assets = Liabilities + Equity	
	-6,250
	+6,250
Comp Exp	Pd-in Cap—SARs
6,250	6,250

Assets = Liabilities + Equity	
-70,000	-25,000
	-45,000
Cash	Comp Exp
170,000	6,250
	6,250
	6,250
	6,250
	45,000
	Pd-in Cap—SARs
	25,000
	6,250
	6,250
	6,250
	0

Denton Corporation’s balance sheet accounts as of December 31 of the current and prior year, and information relating to current year activities, are presented below.

Balance Sheets, December 31	Current Year	Prior Year
Assets		
Cash	\$ 230,000	\$ 100,000
Short-term investments	300,000	—
Accounts receivable (net)	510,000	510,000
Inventory	680,000	600,000
Long-term investments	200,000	300,000
Plant assets	1,700,000	1,000,000
Accumulated depreciation	(450,000)	(450,000)
Patent	90,000	100,000
Total assets	<u>\$3,260,000</u>	<u>\$2,160,000</u>
Liabilities and Stockholders' Equity		
Accounts payable and accrued liabilities	\$ 825,000	\$ 720,000
Short-term debt to financial institutions	325,000	—
Common stock, \$10 par	800,000	700,000
Additional paid-in capital	370,000	250,000
Retained earnings	940,000	490,000
Total liabilities and stockholders' equity	<u>\$3,260,000</u>	<u>\$2,160,000</u>

Exercise 22-55
Preparing a Statement of Cash Flows—Indirect Method **LO2, 3, 4**



Information relating to current year activities

- Net income for the current year was \$690,000.
- Cash dividends of \$240,000 were declared and paid during the year.
- Plant assets** costing \$400,000 and having a carrying amount of \$150,000 was sold this year for \$150,000.
- A long-term investment was sold for \$135,000 cash. There were no other transactions affecting long-term investments during the year.
- 10,000 shares of common stock were issued for \$22 per share.
- Short-term investments consist of Treasury bills maturing on June 30 of the next year and are reported at fair value. Assume no change in fair value from the date of purchase has occurred.

Required

Prepare the statement of cash flows for the current year ended December 31, assuming the indirect method is used in presenting cash flows from operating activities.

Exon Corporation’s recent comparative balance sheets and income statement follow.

Balance Sheets, Dec. 31	Current Year	Prior Year	Income Statement For Year Ended Dec. 31	Current Year
Assets			Sales revenue	\$155,000
Cash	\$ 49,000	\$ 53,000	Cost of goods sold	(107,000)
Cash equivalents	10,000	7,000	Gross margin	48,000
Accounts receivable (net)	34,000	24,000	Depreciation expense	(33,000)
Plant assets	277,000	247,000	Gain on sale of equipment	13,000
Accumulated depreciation	(178,000)	(167,000)	Net income	<u>\$ 28,000</u>
Total assets	<u>\$192,000</u>	<u>\$164,000</u>		
Liabilities and Stockholders' Equity			Additional information	
Bonds payable	\$ 49,000	\$ 46,000	1. During the current year, equipment costing \$40,000 was sold for cash.	
Dividends payable	8,000	5,000	2. During the current year, \$20,000 of bonds payable was issued in exchange for property, plant, and equipment. There was no amortization of bond discount or premium.	
Common stock, \$1 par	22,000	19,000		
Additional paid-in capital	9,000	3,000		
Retained earnings	104,000	91,000		
Total liabilities and stockholders' equity	<u>\$192,000</u>	<u>\$164,000</u>		

Exercise 22-56
Preparing a Statement of Cash Flows—Indirect Method **LO2, 3, 4, 5**



Required

Prepare the statement of cash flows for the current year ended December 31, assuming the indirect method is used in reporting cash flows from operating activities.