CHAPTER 2 APPENDIX: Technical Language of Accounting–The Debit and Credit Paradigm

The spreadsheet approach used in Chapter 2 to analyze the effects of various accounting events on the balance sheet equation is intuitive and closely resembles how modern electronic accounting systems process accounting information. Yet financial professionals often use the technical accounting language of "debit" and "credit" when referring to accounting transactions. To help you understand this technical language, we revisit the accounting events of the Russian River Valley Winery and process them using the debit/credit mechanism and double-entry bookkeeping. But first a little history!

Luca Pacioli, an Italian monk, is credited with being the first to describe double-entry bookkeeping in his book, ***Summa de Arithmetica, Geometria, Proportioni et Proportionalita,*** published in Latin in 1494. Some claim that Luca didn't really invent double-entry bookkeeping; he just took the time to observe what Italian merchants were doing and then documented his observations. Instead of using pluses and minuses, Luca invented the T-account having two sides. The left side was referred to as the **debit** side—often represented as Dr—and the right side he called the **credit** side—or Cr for short. The T-account Luca invented looked like this:

T-Account

Debit (Dr)	Credit (Cr)

Of course, Luca had to decide which side would be a positive and which would be negative. So, he concluded that an increase in assets would be a debit (the left side) and a decrease in assets would be a credit (the right side). Similarly, an increase in a liability must be a credit and a decrease in a liability a debit. And, since shareholders' equity is on the same side of the balance sheet equation as the liabilities, an increase (decrease) in shareholders' equity would be a credit (debit). The reasons why Luca selected this particular convention have been lost with time. Be careful to note that the words debit and credit are not synonymous with increase and decrease. Instead, they merely identify the left or right side of the T-account. The following diagram summarizes the debit/credit convention described by Luca:

Asset		=	Liability		+	Shareholders' Equity	
Debit (+)	Credit (−)		Debit (−)	Credit (+)		Debit (−)	Credit (+)

The Accounting Cycle

The process of analyzing and recording accounting data for a business is often referred to as the **accounting cycle**. The cycle begins when an accounting event involving a business occurs. The event is analyzed and a determination made as to which of the business's accounts are affected. This analysis is then entered into the firm's accounting system by means of a **journal entry**, which will be illustrated shortly. Immediately after the data is entered into the firm's accounting system, it is transferred, or **posted**, to the appropriate T-accounts. The preparation of journal entries and posting of data to the T-accounts are daily activities at a business.

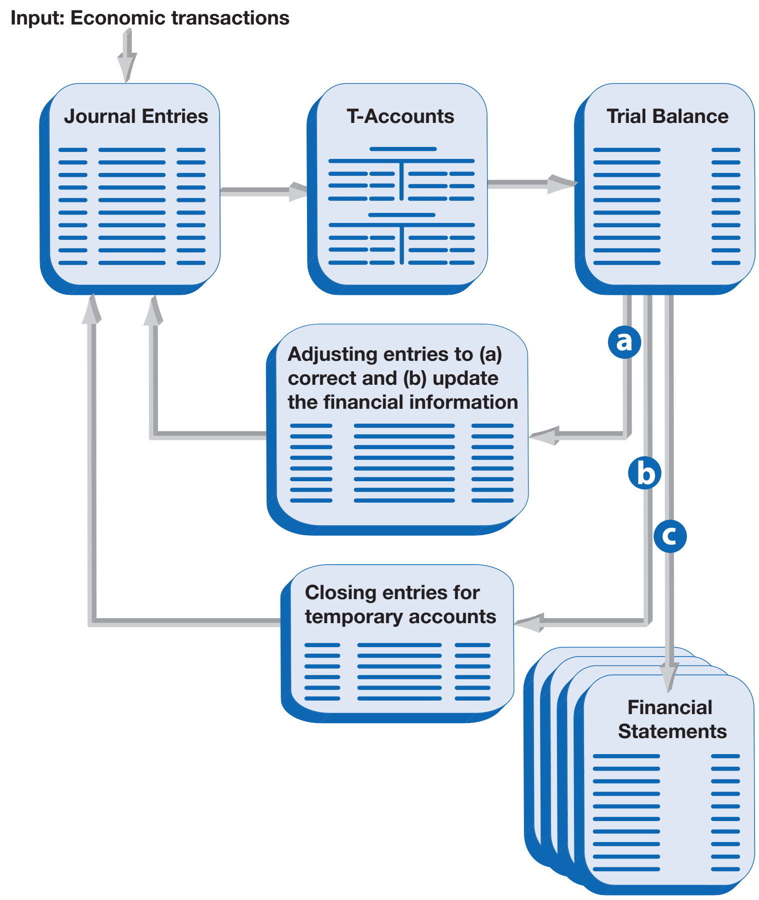
At the end of each fiscal period, prior to the preparation of any financial statements, a number of data verification checks are undertaken. First, **adjusting entries** are prepared to update various accounts for any new or previously unreported financial information and to correct any observed data errors. Second, a **trial balance** is prepared to insure that the amount of recorded debits equals the amount of recorded credits. Finally, the financial statements are prepared, typically in the following sequence: income statement, statement of shareholders' equity, balance sheet, and statement of cash flow. The preparation sequence reflects the fact that the basic financial statements are interdependent—that is, they articulate with one another.

Prior to the preparation of the statement of shareholders' equity, **closing entries** are prepared. Closing entries transfer the results of a business's operating activities—that is, its revenues, expenses, and dividends—to retained earnings on the statement of shareholders' equity (and hence, the balance sheet). The accounts appearing on the income statement, along with the dividend account, are referred to as temporary accounts because they are closed, or zeroed out, at the end of each accounting period. Each of these accounts will therefore start the next accounting period with a zero balance. This makes intuitive sense since we wish to measure performance over a period of time and thus need to start each period with a blank slate. The accounts appearing on the balance sheet, in contrast, are referred to as permanent accounts because they are not closed out at the end of each accounting period. In fact, the temporary accounts are closed to a permanent account, retained earnings. Again, this makes intuitive sense since it is the purpose of the balance sheet to report a business's financial condition at a point in time, rather than for a period of time. Considered a different way, the various accounts such as cash or accounts payable that exist at the end of the period should still exist at the start of the next period unless all cash is paid out and all accounts payable are paid in full. After the closing entries are executed, the remaining financial statements—the statement of shareholders' equity, the balance sheet, and the statement of cash flow—can be prepared.

To summarize, the various steps in the accounting cycle are:

1. Record the daily accounting events using journal entries.
2. Post the journal entry data to the appropriate T-accounts.
3. At the end of the fiscal period, record any needed adjusting entries.
4. Prepare a trial balance.
5. Record the closing entries for the revenue, expense, and dividend accounts.
6. Prepare the financial statements.

The Accounting System



There are three arrows originating from the Trial Balance. Each of these loops represents a different version of the trial balance—(a) pre-adjustment, (b) post-adjustment, and (c) post-closing trial balances. It is the final post-closing trial balance that is used to create the company's financial statements.

To illustrate the accounting cycle, we return to the pre-opening balance sheet for the Russian River Valley Winery presented in Exhibit 2A.1.

EXHIBIT 2A.1

Russian River Valley Winery, Inc.
Balance Sheet

($ thousands)	**Pre-Opening**
Assets	
Cash	$ 4,700
Buildings	2,000
Land	4,000
Intangible assets	100
Total assets	$10,800
Liabilities and Shareholders' equity	
Loan payable	$ 4,800
Shareholders' equity	
Common stock	6,000
Liabilities and shareholders' equity	$10,800

Step 1—Record the accounting events using journal entries.

The 14 events for the Russian River Valley Winery are recorded below using journal entries and the debit/credit paradigm. The convention is to record the debit portion of a journal entry on top and then to record the credit part of the entry below. Care must be exercised that the total of the debit portion of each entry exactly equals the credit portion.

Event	Accounts	Debit	Credit
1(a)	Inventory Accounts Payable	380	 380
1(b)	Accounts Payable Cash	360	 360
2	Equipment Cash	1,500	 1,500
3	Equipment Cash	2,000	 2,000
4(a)	Cash Accounts Receivable Sales Revenue	380 1,520	 1,900
4(b)	Cash Accounts Receivable	720	 720
5(a)	Wage Expense Cash	100	 100
5(b)	Selling & Administrative Expense Cash	300	 300
6(a)	Loan Payable Cash	480	 480
6(b)	Interest Expense Cash	288	 288
7	Cost of Goods Sold Inventory	380	 380
8(a)	Depreciation Expense—Equipment Accumulated Depreciation	175	 175
8(b)	Depreciation Expense—Buildings Accumulated Depreciation	50	 50
9	Amortization Expense Intangible asset	50	 50
10	Cash Common Stock	400	 400
11	(No event is recorded.)		
12	Income Tax Expense Income Taxes Payable Cash	240	 96 144
13	Inventory Accounts Payable	60	 60
14	Retained Earnings (dividend declared) Cash	260	 260

Step 2—Post the journal entry data to the appropriate T-accounts.

If you examine the T-accounts below, you will see that each of the debits and credits from the journal entries above have been entered into the appropriate T-accounts. Notice that the ending balance for each of the T-accounts exactly corresponds to the ending balances obtained using the spreadsheet approach followed in the chapter.

Cash

Bal	4,700		
4(a)	380	360	1(b)
4(b)	720	1,500	2
		2,000	3
		100	5(a)
		300	5(b)
		480	6(a)
		288	6(b)
10	400	144	12
		260	14
Bal	768		

Accounts Receivable

Bal	0		
4(a)	1,520		
		720	4(b)
Bal	800		

Inventory

Bal	0		
1(a)	380		
		380	7
13	60		
Bal	60		

Equipment

Bal	0		
2	1,500		
3	2,000		
Bal	3,500		

Buildings

Bal	2,000		

Accumulated Depreciation

		0	Bal
		175	8(a)
		50	8(b)
		225	Bal

Land

Bal	4,000		

Intangible Assets

Bal	100	50	9
Bal	50		

Accounts Payable

		0	Bal
		380	1(a)
1(b)	360		
		60	13
		80	Bal

Income Taxes Payable

		0	Bal
		96	12
		96	Bal

Loan Payable

		4,800	Bal
6(a)	480		
		4,320	Bal

Common Stock

		6,000	Bal
		400	10
		6,400	Bal

Retained Earnings

		0	Bal
14	260		
Bal	260	**317**	**17**
		57	Bal

Income Summary

		1,900	**15**
16	**1,583**		
17	**317**		
		0	Bal

Sales Revenue

		1,900	4(a)
15	**1,900**		
		0	Bal

Cost of Goods Sold

7	380		
		380	**16**
Bal	0		

Wage Expense

5(a)	100		
		100	**16**
Bal	0		

Depreciation Expense

8(a)	175		
8(b)	50		
Bal	225		
		225	**16**
Bal	0		

Selling & Admin Expense

5(b)	300		
		300	**16**
Bal	0		

Interest Expense

6(b)	288		
		288	**16**
Bal	0		

Amortization Expense

9	50		
		50	**16**
Bal	0		

Income Tax Expense

12	240		
		240	**16**
Bal	0		

* Entries 15, 16, and 17 in blue font are closing entries from Step 5.

Step 3—At the end of the fiscal period, make any needed adjusting entries.

Accounting events such as the recording of depreciation expense (8(a)) and amortization expense (8(b)) are considered to be adjusting entries. They are often recorded at the end of each fiscal period when a company's accounting staff reviews the business's financial data for completeness. Other examples of adjusting entries include correcting any amounts that were previously incorrectly recorded and estimating and recording the estimated losses associated with any uncollected accounts receivable.

Step 4—Prepare a trial balance.

The trial balance is a listing of the account balances from the company's various T-accounts. Russian River Valley's post-adjustment trial balance is presented in Exhibit 2A.2. Notice in the winery's post-adjustment trial balance that the total debit balance ($13,021) for the winery's T-accounts equals the total credit balance ($13,021). If the balances were not equal, it would indicate that an error had been made in recording some piece of accounting information.

EXHIBIT 2A.2

Russian River Valley Winery, Inc.
Post-Adjustment Trial Balance

Account	Debit	Credit
Cash	$ 768	
Accounts receivable	800	
Inventory	60	
Equipment	3,500	
Buildings	2,000	
Accumulated depreciation		$ 225
Land	4,000	
Intangible assets	50	
Accounts payable		80
Taxes payable		96
Loan payable		4,320
Common stock		6,400
Retained earnings	260	
Sales revenue		1,900
Cost of goods sold	380	
Wages expense	100	
Depreciation expense	225	
Selling & administrative expense	300	
Interest expense	288	
Amortization expense	50	
Tax expense	240	
Totals	$13,021	$13,021

Step 5—Record closing entries for the temporary accounts.

Closing entries (events 15, 16, and 17) transfer the ending balances from the revenue and expense T-accounts to an income summary account, and then ultimately to the retained earnings account on the statement of shareholders' equity, and thus, the balance sheet. Closing entries also serve another function—they set the revenue and expense T-accounts equal to zero at the end of each fiscal period (see the closing balances for the T-accounts from Step 2). By doing so, the revenue and expense T-accounts only contain information from the current period, thus facilitating comparisons of net income from one fiscal period to the next.

Event	Account	Debit	Credit
15	Sales revenue	1,900	
	Income summary		1,900
16	Income summary	1,583	
	Cost of goods sold		380
	Wage expense		100
	Depreciation expense		225
	Selling & administrative expense		300
	Interest expense		288
	Amortization expense		50
	Tax expense		240
17	Income summary	317	
	Retained earnings		317

Exhibit 2A.3 presents Russian River Valley's post-closing trial balance, reflecting the closing of the company's temporary accounts—that is, the revenue, expense, and dividend accounts.

EXHIBIT 2A.3

Russian River Valley Winery, Inc.
Post-Closing Trial Balance

Account	Debit	Credit
Cash	$ 768	
Accounts receivable	800	
Inventory	60	
Equipment	3,500	
Buildings	2,000	
Accumulated depreciation		$ 225
Land	4,000	
Intangible assets	50	
Accounts payable		80
Taxes payable		96
Loan payable		4,320
Common stock		6,400
Retained earnings		57
Totals	$11,178	$11,178

Step 6—Prepare the financial statements.
The financial statements prepared from data organized using the debit/credit paradigm will be identical to those derived using the spreadsheet approach, as presented in Exhibits 2.2 through 2.5 in the text and reproduced below.

EXHIBIT 2.2 An Illustrative Balance Sheet

Russian River Valley Winery, Inc.
Balance Sheet

($ thousands)	Pre-Opening	End of Year 1
Assets		
Current assets		
Cash	$ 4,700	$ 768
Accounts receivable	0	800
Inventory	0	60
Total current assets	4,700	1,628
Noncurrent assets		
Property, plant & equipment		
Equipment	0	3,500
Buildings	2,000	2,000
Land	4,000	4,000
	6,000	9,500
Accumulated depreciation	0	(225)
Property, plant & equipment (net)	6,000	9,275
Intangible assets	100	50
Total noncurrent assets	6,100	9,325
Total assets	$10,800	$10,953

	Pre-Opening	End of Year 1
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$ 0	$ 80
Taxes payable	0	96
Loan payable-current	0	480
Total current liabilities	0	656
Noncurrent liabilities		
Loan payable-noncurrent	4,800	3,840
Total liabilities	4,800	4,496
Shareholders' equity		
Common stock	6,000	6,400
Retained earnings	0	57
Total shareholders' equity	6,000	6,457
Total liabilities & shareholders' equity	$10,800	$10,953

EXHIBIT 2.3 An Illustrative Income Statement

Russian River Valley Winery, Inc.
Income Statement

($ thousands)	Year 1
Revenues	**$1,900**
Cost of goods sold	380
Gross profit	**1,520**
Operating expenses	
Wages and salaries	100
Selling & administrative	300
Depreciation	225
Amortization	50
Total operating expenses	675
Operating income	**845**
Interest expense	288
Income before income taxes	557
Income taxes	240
Net income	**$ 317**

EXHIBIT 2.4 An Illustrative Statement of Shareholders' Equity

Russian River Valley Winery, Inc.
Statement of Shareholders' Equity

($ thousands)	Common Stock	Retained Earnings	Total
Balance at beginning of Year 1	$6,000	$ 0	$6,000
Net income		317	317
Dividends paid		(260)	(260)
Sale of common stock	400		400
Balance at end of Year 1	$6,400	$ 57	$6,457

EXHIBIT 2.5	**An Illustrative Statement of Cash Flow**

Russian River Valley Winery, Inc.
Statement of Cash Flow

($ thousands)	**Year 1**
Operating activities	
Cash receipts	
Cash sales	$ 380
Cash collections on account	720
Total cash receipts	1,100
Cash disbursements	
Cash payments for inventory	360
Cash payments for interest	288
Cash payments for wages & salaries	100
Cash payments for selling & administrative	300
Cash payments for taxes	144
Total cash disbursements	1,192
Cash flow from operations	**(92)**
Investing activities	
Purchases of property, plant & equipment	(3,500)
Cash flow from investing	**(3,500)**
Financing activities	
Sale of common stock	400
Repayment of loan	(480)
Payment of common stock dividends	(260)
Cash flow from financing	**(340)**
Net cash flow	(3,932)
Cash balance, beginning of year	4,700
Cash balance, end of year	$ 768
Change in cash	**$(3,932)**

P2A.1 Recording Transactions Using the Debit/Credit Paradigm. Miller & Co. experienced the following six events in its first year of operations:

1. Shareholders contributed $60,000 cash.
2. Purchased land for $40,000 cash.
3. Borrowed $18,000 in cash from a bank.
4. Provided services for $16,000, which will be paid to Miller & Co. next year.
5. Paid $11,000 cash for miscellaneous operating expenses.
6. Paid a $1,000 cash dividend to shareholders.

Required
Prepare journal entries using the debit/credit paradigm to record the above transactions.

P2A.2 Recording Transactions Using the Debit/Credit Paradigm. The following events occurred for The KMF Corporation during 2009:

1. Sales of products totaled $219,000, of which $15,000 remained uncollected at year-end.
2. The cost of goods sold during the year was $56,000.
3. A cash disbursement of $50,000 was made on July 1, 2009, to pay for a 12-month office equipment lease that expires on June 30, 2010.
4. Depreciation expense for the year on the company's warehouse amounted to $7,500.
5. Employee wages for the year totaled $40,000, of which $2,000 was unpaid at year-end.
6. Selling, general, and administrative expenses amounted to $10,000 for the year and were paid in full.
7. A cash payment of $25,000 was made to reduce the balance of accounts payable.
8. Interest expense on long-term debt was $18,000 for the year, of which $4,500 was unpaid at year-end.
9. The company paid income taxes of $25,000 on its earnings.

Required
Prepare journal entries using the debit/credit paradigm to record the above transactions.

CHAPTER 5 APPENDIX: Recording Operating Revenue and Receivables Using the Debit and Credit Paradigm

In this appendix, the traditional approach to recording accounting transactions—that is, the debit and credit paradigm—is followed to illustrate how the journal entries for the operating revenue and receivables for ProFlight Inc. and for Pan American Enterprises, Inc. would be recorded by these enterprises. The information used in this appendix is taken directly from the content of Chapter 5. To facilitate your understanding of the transactions, asset accounts are labeled with an (A), liability accounts with an (L), shareholders' equity accounts with an (SE), and revenue or expense accounts with an (R) or an (E), respectively.

Revenue Recognition Transactions: ProFlight Inc.

ProFlight Inc., a manufacturer of private corporate jets, signed a contract to build five jets over a two-year period for TransGlobal Airlines. Under the terms of the contract, ProFlight will receive total revenue of $10 million and anticipates that its cost to build the planes will total $8 million. During 2007, ProFlight completed 20 percent of the work, sent an invoice for $1 million to TransGlobal, and received a cash payment of $500,000. During 2008, ProFlight completed the remaining 80 percent of the work on budget, delivered the five planes, sent an invoice for the remaining $9 million to TransGlobal and received a $4.5 million cash payment. In 2009, after completing flight testing of the aircraft, TransGlobal remitted the final $5 million in cash to ProFlight. Journal entries are presented to reflect ProFlight's accounting transactions under the percentage-of-completion method and the completed contract method of revenue recognition.

Percentage-of-Completion Method. Under the percentage-of-completion approach to revenue recognition, ProFlight will recognize its operating revenue and expenses on the basis of the amount of work actually completed each fiscal period (20 percent in 2007 and 80 percent in 2008). Consequently, the journal entries for ProFlight for the period 2007 through 2009 would appear as follows:

Date	Accounts	Debit	Credit
2007	No entry is required at contact signing		
	Production-in-progress (A)	2,000,000	
	Accounts payable (L)		2,000,000
	To record the acquisition of production material on credit.		
	Accounts receivable (A)	1,000,000	
	Unbilled accounts receivable (A)	1,000,000	
	Revenue (R)		2,000,000
	To recognize revenue based on a 20 percent work completion: 20% × $10,000,000.		
	Cash (A)	500,000	
	Accounts receivable (A)		500,000
	To record the collection of cash on the billed account receivable.		
	Cost of goods sold (E)	1,600,000	
	Production-in-progress (A)		1,600,000
	To record the consumption of production material—that is, cost of goods sold—related to the revenue recognized, 20 percent of $8 million.		
	Accounts payable (L)	2,000,000	
	Cash (A)		2,000,000
	To record the payment of accounts payable for production materials.		
2008	Production-in-progress (A)	6,000,000	
	Accounts payable (L)		6,000,000
	To record the acquisition of production material on credit to complete the contract.		
	Accounts receivable (A)	9,000,000	
	Unbilled accounts receivable (A)		1,000,000
	Revenue (R)		8,000,000
	To record the completion of the contract, the remaining revenue and final customer billing.		
	Cash (A)	4,500,000	
	Accounts receivable (A)		4,500,000
	To record the collection of cash on billed accounts receivable.		

continued

Date	Accounts	Debit	Credit
	Cost of goods sold (E)	6,400,000	
	Production-in-progress (A)		6,400,000
	To record the consumption of production material—that is, the cost of goods sold—related to the revenue recognized in 2008, 80 percent of $8 million.		
	Accounts payable (L)	6,000,000	
	Cash (A)		6,000,000
	To record the payment of accounts payable.		
2009	Cash (A)	5,000,000	
	Accounts receivable (A)		5,000,000
	To record the collection of cash on billed accounts receivable.		

Completed Contract Method. Under the Completed Contract approach, ProFlight will defer the recognition of any operating revenue or expenses until the contract is fully satisfied at the end of 2008. Consequently, the journal entries for ProFlight for the period 2007 through 2009 would appear as follows:

Date	Accounts	Debit	Credit
2007	No entry is required at contact signing		
	Production-in-progress (A)	2,000,000	
	Accounts payable (L)		2,000,000
	To record the acquisition of production materials on credit.		
	Accounts receivable (A)	1,000,000	
	Deferred revenue (L)		1,000,000
	To record progress billing sent to customer.		
	Cash (A)	500,000	
	Accounts receivable (A)		500,000
	To record cash collected on billed account receivable.		
	Accounts payable (L)	2,000,000	
	Cash (A)		2,000,000
	To record payment of accounts payable related to production material.		
2008	Production-in-progress (A)	6,000,000	
	Accounts payable (L)		6,000,000
	To record the acquisition of production material on credit.		
	Accounts receivable (A)	9,000,000	
	Deferred revenue (L)		9,000,000
	To record progress billing sent to customer.		
	Cash (A)	4,500,000	
	Accounts receivable (A)		4,500,000
	To record cash collection on billed account receivable.		
	Accounts payable (L)	6,000,000	
	Cash (A)		6,000,000
	To record payment of accounts payable related to production material.		
	Deferred revenue (L)	10,000,000	
	Revenue (R)		10,000,000
	To recognize revenue associated with contract completion.		
	Cost of goods sold (E)	8,000,000	
	Production-in-progress (A)		8,000,000
	To recognize the cost of goods sold associated with contract completion.		

Accounting for Receivables: Pan American Enterprises, Inc.

Pan American Enterprises, Inc. sells its internationally recognized wine on account to bars and restaurants throughout the United States. The company's credit terms require customers to pay their bills within 30 days of a transaction. During 2007 and 2008, Pan American Enterprises experienced the following accounting events:

Year	Credit Sales	Cash Collections	Estimated Bad Debt	Bad Debt Write-Off
2007	$3,200,000	$2,850,000	$10,925	$ —
2008	5,300,000	4,838,500	22,500	11,500

Using the debit/credit paradigm, Pan American Enterprises would record the following journal entries to reflect this accounting information:

Date	Accounts	Debit	Credit
2007	Accounts receivable (A)	3,200,000	
	Sales (R)		3,200,000
	To record credit sales for 2007.		
	Cash (A)	2,850,000	
	Accounts receivable (A)		2,850,000
	To record collections on credit sales.		
	Bad debt expense (E)	10,925	
	Allowance for uncollectible accounts (CA)		10,925
	To record the estimated bad debt expense and establish the allowance for future account write-offs.		
2008	Allowance for uncollectible accounts (CA)	11,500	
	Accounts receivable (A)		11,500
	To write off uncollected accounts receivable that have proven to be worthless.		
	Accounts receivable (A)	5,300,000	
	Sales (R)		5,300,000
	To record credit sales for 2008.		
	Cash (A)	4,838,500	
	Accounts receivable (A)		4,838,500
	To record cash collections on credit sales.		
	Bad debt expense (E)	23,075	
	Allowance for uncollectible accounts (CA))		23,075
	To record the estimated bad debt expense of $22,500 for 2008 and to record the underestimated expense of $575 for 2007.		

To validate your understanding of the above journal entries, create T-accounts for each of the accounts, post the journal entry amounts to the appropriate T-accounts, and create account totals. Your T-account balances should reconcile with the balances reported in the chapter.

P5A.1 Recording the Bad Debt Expense Using the Debit/Credit Paradigm. Holcombe Inc. uses the aging method to estimate the company's bad debt expense. Travis Holcombe, president of the company, collected information about the company's outstanding accounts receivable and their probability of collection:

Account Age	Amount	Probability of Non-Collection
0–30 days	$725,000	0.5%
31–60 days	275,000	1.5
61–90 days	170,000	2.5
91–120 days	100,000	4.0
Over 120 days	40,000	20.0

Required

Calculate the expected bad debt expense for Holcombe Inc., and prepare the journal entry to record the estimate using the debit/credit paradigm. Assume that one-half of the estimated bad debts prove to be uncollectible. Prepare the journal entry to write off the uncollectible accounts receivable. If $1,000 of the previously written off uncollectible receivables is found to be collectible, what entry would be needed to reinstate the accounts receivable on the books of Holcombe Inc.?

P5A.2 Recording Revenue and Expenses Using the Debit/Credit Paradigm. RJ Miller Company won a contract to build a shopping center at a price of $240 million. The following schedule details the estimated and actual costs of construction and the actual cash collections under the contract:

	Estimated (Actual) Costs of Construction	Cash Collections From Customer
2007	$ 40,000,000	$ 48,000,000
2008	60,000,000	60,000,000
2009	70,000,000	60,000,000
2010	30,000,000	72,000,000
	$200,000,000	$240,000,000

Required

1. Prepare the journal entries to record the revenue and expenses for RJ Miller Company for 2007 through 2010 assuming that the company recognizes revenue under the completed contract method.
2. Prepare the journal entries to record the revenue and expenses for RJ Miller Company for 2007 through 2010 assuming that the company recognizes revenue under the percentage-of-completion method.

CHAPTER 6 APPENDIX: Recording Cost of Goods Sold and Inventory Using the Debit and Credit Paradigm

In this appendix, the traditional approach to recording accounting transactions—that is, the debit and credit paradigm—is used to illustrate how the journal entries for the cost of goods sold and inventory for the Arizona Ice Cream Company, Inc., would be recorded. Since the journal entries are similar under FIFO, LIFO, and the weighted-average cost method (only the recorded amounts differ), we assume that the company adopts the FIFO method to value its cost of goods sold and ending inventory (see Exhibit 6.3).

Arizona Ice Cream Company, Inc: Recording Inventory Transactions

During the year, Arizona Ice Cream Company, Inc. (AICC), made the following cash purchases of ice cream:

Date	Amount	Cost per Bucket	Total Cost
September 5	1,000	$10	$ 10,000
October 22	2,500	12	30,000
November 15	4,500	13	58,500
December 30	2,000	15	30,000
	10,000		$128,500

AICC also sold 8,000 buckets of ice cream at a retail price of $20 per bucket for total operating revenue of $160,000. All sales were in cash and the sales occurred on the following dates:

Date	Number of Buckets Sold
September 20	800
November 4	2,600
December 22	3,400
December 31	1,200
	8,000

At year-end, the AICC's CEO determined that the replacement cost of the company's inventory of 2,000 buckets of ice cream was $28,000 ($14 per bucket x 2,000 buckets).

The above financial data would be recorded as follows:

Date	Accounts	Debit	Credit
Sep 5	Inventory (A)	10,000	
	Cash (A)		10,000
	To record the cash purchase of 1,000 buckets.		
Sep 20	Cash (A)	16,000	
	Revenue (R)		16,000
	To record the cash sale of 800 buckets.		
	Cost of Goods Sold (E)	8,000	
	Inventory (A)		8,000
	To record the cost of goods sold on 800 buckets.		
Oct 22	Inventory (A)	30,000	
	Cash (A)		30,000
	To record the cash purchase of 2,500 buckets.		
Nov 4	Cash (A)	52,000	
	Revenue (R)		52,000
	To record the cash sale of 2,600 buckets.		
	Cost of Goods Sold (E)	30,800	
	Inventory (A)		30,800
	To record the cost of goods sold on 2,600 buckets.		
Nov 15	Inventory (A)	58,500	
	Cash (A)		58,500
	To record the cash purchase of 4,500 buckets.		

continued

Date	Accounts	Debit	Credit
Dec 22	Cash (A)	68,000	
	Revenue (R)		68,000
	To record the cash sale of 3,400 buckets.		
	Cost of Goods Sold (E)	44,100	
	Inventory (A)		44,100
	To record the cost of goods sold on 3,400 buckets.		
Dec 30	Inventory (A)	30,000	
	Cash (A)		30,000
	To record the cash purchase of 2,000 buckets.		
Dec 31	Cash (A)	24,000	
	Revenue (R)		24,000
	To record the cash sale of 1,200 buckets.		
	Cost of Goods Sold (E)	15,600	
	Inventory (A)		15,600
	To record the cost of goods sold on 1,200 buckets.		
Dec 31	Cost of Goods Sold (E)	2,000	
	Inventory (A)		2,000
	To record the lower-of-cost-or-market write-down of inventory.		

P6A.1 Recording Inventory and the Cost of Goods Sold Using the Debit/Credit Paradigm. The following information was disclosed in the 2010 annual report of The Claremont Company.

	2010	2009
Beginning inventory	$20,970	$11,560
Purchase of inventory	83,300	42,640
Ending inventories	19,310	20,970
Cost of goods sold	84,960	33,230

Required

Prepare the journal entries to record (1) the purchase of inventory and (2) the cost of goods sold for The Claremont Company for 2009 and 2010.

CHAPTER 7 APPENDIX: Recording Investments in, and Sales of, Long-Lived Assets Using the Debit and Credit Paradigm

In this appendix, the traditional approach to recording accounting transactions—that is, the debit and credit paradigm—is used to illustrate the journal entries for the acquisition, depreciation, and retirement of long-lived assets. Data for the current illustration follows the example in the chapter and assumes the use of straight-line depreciation:

A truck having an expected useful life of five years and a resale value of $4,000 upon retirement is purchased for $30,000 cash at the beginning of the year (BOY). At the end of the five-year period, the truck is sold for $4,500. Note: End of the year is represented by (EOY).

Illustrative Journal Entries

Date	Accounts	Debit	Credit
Year 1 (BOY)	Truck (A)	30,000	
	Cash (A)		30,000
	To record the cash purchase of an asset.		
Year 1 (EOY)	Depreciation Expense (E)	5,200	
	Accumulated Depreciation (CA)		5,200
	To record the annual depreciation expense on the truck.		
Year 2 (EOY)	Depreciation Expense (E)	5,200	
	Accumulated Depreciation (CA)		5,200
	To record the annual depreciation expense on the truck.		
Year 3 (EOY)	Depreciation Expense (E)	5,200	
	Accumulated Depreciation (CA)		5,200
	To record the annual depreciation expense on the truck.		
Year 4 (EOY)	Depreciation Expense (E)	5,200	
	Accumulated Depreciation (CA)		5,200
	To record the annual depreciation expense on the truck.		
Year 5 (EOY)	Depreciation Expense (E)	5,200	
	Accumulated Depreciation (CA)		5,200
	To record the annual depreciation expense on the truck.		
Year 5 (EOY)	Cash (A)	4,500	
	Accumulated Depreciation (CA)	26,000	
	Gain on Sale of Asset		500
	Truck (A)		30,000
	To record the sale of the truck for $4,500, the gain (G) on sale of $500, and the removal of the truck and related accumulated depreciation from the financial records.		

P7A.1 **Recording Investments in, and Sales of, Long-lived Assets Using the Debit/Credit Paradigm.** At the beginning of 2009, The Beall Corporation purchased a warehouse for $10 million and immediately made certain necessary renovations to the facility which cost $2 million. The chief financial officer of the company decided to depreciate the new warehouse using the straight- line method over a 20 year expected useful life, assuming no salvage value at the end of the 20 year period. After two years of use, Beall received an offer to sell the warehouse for $17 million and accepted the offer.

Required

Prepare the journal entries to record (1) the purchase and renovation of the warehouse, (2) the depreciation expense on the warehouse for the first two years, and (3) the sale of the warehouse.

CHAPTER 8 APPENDIX: Recording Investments in Other Corporate Entities using the Debit and Credit Paradigm

In this appendix, the traditional approach to recording accounting transactions—that is, the debit and credit paradigm—is used to illustrate the journal entries associated with the various investments made by The New South Wales Trading Company, Inc. and by Savanna, Inc. Please refer to the content of Chapter 8 for additional information regarding these transactions (see Exhibits 8.2 through 8.12).

Accounting for Marketable Debt and Equity Securities: The New South Wales Company Inc.

In August, The New South Wales Trading Company, Inc. raised $50 million from an initial public offering (IPO) of its common shares. The company decided to temporarily invest some of its IPO cash in various debt and equity securities having a high degree of liquidity. These events are recorded below:

Date	Accounts	Debit	Credit
August	Cash (A)	50,000,000	
	Common Stock (SE)		50,000,000
	To record the sale of common stock for $50 million.		
September	Investment in Qantas Inc. 10% Notes (A)	10,000,000	
	Cash (A)		10,000,000
	To record the purchase of held-to-maturity debt securities.		
November	Investment in BHP, Inc. Common Stock (A)	6,100,000	
	Cash (A)		6,100,000
	To record the investment in trading equity securities.		
December	Investment in Coles Inc. Common Stock (A)	8,400,000	
	Cash (A)		8,400,000
	To record the investment in available-for-sale equity securities.		

At the end of the year, the CFO of The New South Wales Trading Company, Inc. determined that the Qantas notes were worth $9.8 million, the BHP common shares worth $6.8 million, and the Coles Inc. common shares worth $8.2 million. In addition, the CFO observed that Qantas Inc. had made an interest payment of $1 million on its notes on December 31. This information would be recorded as follows:

Date	Accounts	Debit	Credit
December 31	Cash (A)	1,000,000	
	Interest Income (I)		1,000,000
	To record interest income I on the Qantas notes.		
	Investment in BHP Inc. common stock (A)	700,000	
	Unrealized Gain on Trading Securities (G)		700,000
	To record the gain of $700,000 on trading equity securities.		
	Unrealized Loss on Available-For-Sale Securities (SE)	200,000	
	Investment in Coles Inc. Common Stocks (A)		200,000
	To record the decline in market value on available-for-sale securities.		

To verify your understanding of these transactions, create a series of T-accounts for the affected accounts, post the amounts to the T-accounts, and calculate a year-end balance. Your results should reveal the following balances:

Assets		**Shareholders' Equity**	
Cash	$26,500,000	Common stock	$50,000,000
Investments		Retained earnings	1,700,000
Qantas notes	10,000,000	Other Comprehensive Income	
BHP common stock	6,800,000	Unrealized loss on available-	
Coles common stock	8,200,000	for-sale securities	(200,000)
Total	$51,500,000	Total	$51,500,000

Equity Method and Consolidated Accounting: Savanna, Inc.

Case 1. Savanna Inc. acquires 40 percent of the common shares of Waterloo Inc. for $8 million at the beginning of the year. At year-end, Savanna reports cash earnings of $30 million; Waterloo reports cash earnings of $10 million; and, Waterloo pays its shareholders a cash dividend of $5 million. These transactions would be recorded as follows on Savanna's books:

Date	Accounts	Debit	Credit
January	Investment in Waterloo Inc. (A). . . . . Cash (A) . . . . *To record the initial investment in Waterloo Inc.*	8,000,000	 8,000,000
December	Cash (A) . . . . Retained Earnings (SE) . . . . *To record Savanna's cash earnings of $30 million.*	30,000,000	 30,000,000
	Investment in Waterloo Inc. (A). . . . . Income From Equity Affiliate (I) . . . . *To record Savanna's 40 percent share of Waterloo's $10 million in earnings.*	4,000,000	 4,000,000
	Cash (A) . . . . Investment in Waterloo Inc. (A) . . . . *To record Savanna's 40 percent share of Waterloo's $5 million dividend payment.*	2,000,000	 2,000,000

Case 2. Savanna Inc. acquires 80 percent of Waterloo's common shares for $16 million in January; the fair market value of Waterloo's net assets equals their book value of $20 million (no goodwill is implicit in the investment). At year-end, Savanna reports cash earnings of $30 million; Waterloo reports cash earnings of $10 million; and, Waterloo pays its shareholders a cash dividend of $5 million. Because of its majority shareholding, Savanna prepares consolidated financial statements at year-end. These transactions would be recorded as follows on Savanna's books:

Date	Accounts	Debit	Credit
January	Investment in Waterloo Inc. (A). . . . . Cash (A) . . . . *To record Savanna's acquisition of a 80 percent shareholding in Waterloo Inc.*	16,000,000	 16,000,000
December	Cash (A) . . . . Retained Earnings (SE) . . . . *To record Savanna's cash earnings of $30 million.*	30,000,000	 30,000,000
	Investment in Waterloo Inc. (A). . . . . Income From Equity Affiliate (I) . . . . *To record Savanna's 80 percent ownership interest in Waterloo earnings of $10 million.*	8,000,000	 8,000,000
	Cash (A) . . . . Investment in Waterloo (A). . . . . *To record Savanna's 80 percent ownership interest in Waterloo's dividend payment of $5 million.*	4,000,000	 4,000,000
	Cash (A) . . . . Inventory (A) . . . . Investment in Waterloo (A). . . . . Minority Interest (L/SE). . . . . Long-Term debt (L) . . . . *To consolidate Waterloo's net assets with those of Savanna and to establish the minority interest account.*	25,000,000 80,000,000	 20,000,000 5,000,000 80,000,000

(The journal entries for Case 3 are not presented here. You may wish to create these entries using the contents of Exhibits 8.9 and 8.10)

P8A.1 Recording Marketable Equity Securities Transactions Using the Debit/Credit Paradigm. **Microsoft Inc.** maintains a large investment in marketable securities (principally fixed income securities) valued at approximately $42 billion as of the beginning of the year. During the year, the securities produced investment income (dividends and interest income) totaling $2 billion. At year-end, the portfolio of marketable securities had appreciated to $43.5 billion.

Required

Using journal entries, record (1) Microsoft's purchase of the securities at the beginning of the year, (2) the receipt of $2 billion in investment income during the year, and (3) the appreciation of the portfolio by $1.5 billion at the end of the year. Assume that the entire portfolio is classified as "trading securities."

P8A.2 Recording Equity Method Transactions Using the Debit/Credit Paradigm. On January 1, 2009, The Miller Corporation purchased 300,000 shares of The Mayfair Corporation for $5.7 million. The investment represented 25 percent of The Mayfair Corporation's outstanding common shares. During 2009, Mayfair reported net earnings of $2.25 million and paid a cash dividend of $0.15 per share. During 2010, Mayfair reported a net loss of $180,000 and again paid a dividend of $0.15 per share.

Required

Using journal entries, record (1) The Miller Corporation's initial investment in The Mayfair Corporation and (2) the appropriate entries for 2009 and 2010 assuming that The Miller Corporation uses the equity method to account for its investment in Mayfair.

CHAPTER 9 APPENDIX: Recording Debt Financing Transactions Using the Debit and Credit Paradigm

In this appendix, the traditional approach to recording accounting transactions—that is, the debit and credit paradigm—is used to illustrate how the journal entries associated with the issuance of various debt instruments by Midwestern Airlines, Inc. would be recorded. Specifically, the accounting for interest-bearing notes, zero-coupon notes, and operating and capital leases is illustrated.

Accounting for Notes

On January 1, 2008, Midwestern Airlines, Inc., issued $100 million face value (maturity value) of mortgage notes with an annual coupon rate of eight percent and a maturity of ten years. The notes pay interest on June 30 and December 31 of each year. At the time the notes were issued, the market yield rate on equivalent risk-rated instruments was ten percent. Five years later, on December 31, 2012, the market yield rate on equivalent risk-rated securities had increased to twelve percent. No longer needing the debt financing, Midwestern Airlines decided to retire all of its outstanding debt on December 31, 2012. (Please refer to the chapter for the calculation of the following values.)

Date	Accounts	Debit	Credit
Jan 1, 2008	Cash (A)	87,548,000	
	Note discount (CL)	12,452,000	
	Notes payable (L)		100,000,000
	To record the issuance of $100 million in notes at a discount.		
Jun 30, 2008	Interest expense (E)	4,377,400	
	Cash (A)		4,000,000
	Note discount (CL)		377,400
	To record the payment of interest on the notes.		
Dec 31, 2008	Interest expense (E)	4,396,300	
	Cash (A)		4,000,000
	Note discount (CL)		396,300
	To record the payment of interest on the notes.		

(Interest payment entries similar to those presented above would be recorded for 2009, 2010, 2011, and 2012. Appropriate values for the entries can be obtained from the Note Amortization Table in Exhibit 9.2)

Dec 31, 2012	Notes payable (L)	100,000,000	
	Cash (A)		85,240,000
	Note discount (CL)		7,720,000
	Gain on early retirement (G)		7,040,000
	To record the early retirement of the notes at a gain.		

Assume now that on January 1, 2008, Midwestern Airlines, Inc., issued $100 million face value of zero-coupon mortgage notes, having a maturity of ten years with semiannual compounding. At the time of issuance, the yield rate on equivalent risk-rated debt securities was twelve percent. (Please refer to the chapter for the calculation of the following values.)

Jan 1, 2008	Cash (A)	31,200,000	
	Note discount (CL)	68,800,000	
	Notes payable (L)		100,000,000
	To record the issuance of $100 million in zero-coupon notes.		
Jun 30, 2008	Interest expense (E)	1,872,000	
	Note discount (CL)		1,872,000
	To record the interest expense implicit in the zero-coupon notes.		
Dec 31, 2008	Interest expense (E)	1,984,000	
	Note discount (CL)		1,984,000
	To record the interest expense implicit in the zero-coupon notes.		

Accounting for Leases

Midwestern Airlines entered into a ten-year lease agreement for flight equipment having a fair market value of $100 million and an implicit interest rate of ten percent per year. Annual lease payments of $16.27 million are paid at the end of each year. The leased equipment had an expected remaining useful life of 13 years.

If the lease is accounted for as an operating lease, the following transactions would be recorded:

Date	Accounts	Debit	Credit
Year 1 (BOY)	No entry is recorded at the time of lease signing.		
Year 1 (EOY)	Lease expense (E)	16,270,000	
	Cash (A)		16,270,000
	To record the annual lease payment and lease expense.		
Year 2 (EOY)	Lease expense (E)	16,270,000	
	Cash (A)		16,270,000
	To record the annual lease payment and lease expense.		

(Equivalent journal entries would be recorded each year until the lease agreement expires at the end of ten years.)

If the lease is accounted for as a capital lease, the following transactions would be recorded:

Year 1 (BOY)	Leased equipment (A)	100,000,000	
	Lease liability (L).		100,000,000
	To record the signing of a capital lease agreement.		
Year 1 (EOY)	Interest expense (E)	10,000,000	
	Lease liability (L)	6,270,000	
	Cash (A)		16,270,000
	To record annual lease payment, debt reduction, and interest expense.		
	Depreciation expense (E)	10,000,000	
	Accumulated depreciation (CA)		10,000,000
	To record the depreciation expense on the leased equipment.		
Year 2 (EOY)	Interest expense (E)	9,370,000	
	Lease liability (L)	6,900,000	
	Cash (A)		16,270,000
	To record annual lease payment, debt reduction, and interest expense.		
	Depreciation expense (E)	10,000,000	
	Accumulated depreciation (CA)		10,000,000
	To record annual depreciation expense on the leased equipment.		

P9A.1 Recording Debt Financing Transactions Using the Debit/Credit Paradigm. During 2009, the Mayfield Corporation issued $100 million of zero-coupon debentures, due in 2019. The proceeds of the bond sale totaled approximately $45.64 million, assuming the bonds were sold to yield 4 percent per period.

Required

Using journal entries, record (1) the proceeds from the sale of the Mayfield bonds in 2009 and (2) the interest expense to be recognized on the bonds at the end of the first six-month period.

P9A.2 Recording Lease Financing Transactions Using the Debit/Credit Paradigm. Maximum Electronics Inc. is a retail chain of discount electronic stores throughout the southwest United States. Maximum leases a fleet of 200 trucks to deliver purchases to its customers. The annual lease payment per truck totals $5,000 and the interest rate implicit in the lease is eight percent. On January 1, 2009, Maximum renewed its truck fleet lease under the same terms for a five-year period.

Required

1. Assume that the fleet lease should be accounted for as a capital lease. Using journal entries, record the leased assets and lease liability on January 1, 2009.
2. Assume that the trucks will be depreciated on a straight-line basis with no salvage value. Using journal entries, record the depreciation expense on the leased assets and the interest expense and debt payment on the lease liability on December 31, 2009.

CHAPTER 11 APPENDIX: Recording Equity Financing Transactions Using the Debit and Credit Paradigm

In this appendix, the traditional approach to recording accounting transactions—that is, the debit and credit paradigm—is used to illustrate the journal entries for various equity financing transactions. For purposes of this appendix, the following illustrative transactions are assumed to have occurred during the year.

- Claremont Company incorporated on January 1, and authorized the issuance of 100,000 shares of $1 par value common stock and 50,000 shares of no-par value preferred stock. The preferred stock had a stated dividend of $5 per share.
- On January 10, Claremont Company sold 25,000 shares of common stock for $500,000 cash and 10,000 shares of preferred stock for $100,000 cash.
- On June 30, the Board of Directors of Claremont Company declared and paid a cash dividend of $0.10 per share on each outstanding common share and $2.50 per share on each outstanding preferred share, or a total of $27,500 in cash dividends ($2,500 + $25,000).
- On September 1, Claremont Company repurchased 5,000 shares of common stock at a cost of $15 per share, or a total outlay of $75,000,
- On December 31, the Board of Directors of Claremont Company declared a 2:1 forward stock split on the issued and outstanding common shares.
- On December 31, the Board of Directors of Claremont Company issued 1,000 treasury shares to company executives who exercised stock options at an exercise price of $10 per share.

The following journal entries would be recorded to reflect the above equity transactions.

Date	Accounts	Debit	Credit
Jan 1	No entry is recorded to reflect the authorization to sell equity shares		
Jan 10	Cash (A)	500,000	
	Common stock, $1 par (SE)		25,000
	Additional paid-in-capital (SE)		475,000
	To record the sale of 25,000 shares of $1 par value common stock.		
	Cash (A)	100,000	
	Preferred stock (SE)		100,000
	To record the sale of 10,000 shares of no-par value preferred stock.		
Jun 30	Dividends (D)	27,500	
	Cash (A)		27,500
	To record the declaration and payment of a cash dividend on the outstanding common and preferred shares.		
Sep 1	Treasury Stock (SE)	75,000	
	Cash (A)		75,000
	To record the repurchase of 5,000 common shares at $15 per share.		
Dec 31	Common Stock, $1 par value	25,000	
	Common Stock, $0.50 par value		25,000
	To record a reduction in the par value on the common shares from $1.00 to $0.50 per share, and to increase the shares issued and outstanding from 25,000 to 50,000 shares.		
	Retained Earnings (SE)	5,000	
	Cash (A)	10,000	
	Treasury Shares (SE)		15,000
	To record the exercise of stock options on 1,000 shares of common stock previously purchased at $15 per share		

To validate your understanding of the above journal entries, create a set of T-accounts and calculate the value of shareholders' equity for Claremont Company at year-end. Your answer should appear as follows:

Shareholders' Equity	
Common stock, $0.50 par value	$ 25,000
Additional paid-in-capital	475,000
Preferred stock, no par value	100,000
Retained earnings	(32,500)
Treasury stock	(60,000)
	$507,500

P11A.1 Recording Shareholders' Equity Transactions Using the Debit/Credit Paradigm. The following transactions occurred during 2010 for The Niagara Company:

1. Sold 10,000 shares of common stock having a par value of $0.01 for $22 per share.
2. Paid a cash dividend of $2 per share to its preferred shareholders when 5,000 shares were outstanding.
3. Issued a ten percent stock dividend on its outstanding common stock when the price was $22 per share.
4. Repurchased 10,000 shares of common stock at $18 per share.
5. Declared a 2-for-1 forward stock split on its common stock.

Required

Using journal entries, record the shareholders' equity transactions for 2010 for The Niagara Company.

P11A.2 Recording Shareholders' Equity Transactions Using the Debit/Credit Paradigm. During 2010, The Mann Corporation, a private entity, decided to go public. A charter of incorporation was constructed which authorized the sale of ten million shares of $1 par value common stock, 100,000 shares of $100 par value eight percent preferred stock, and 200,000 shares of $5 no-par value convertible preferred stock. The following shares were sold as part of the firm's initial public offering:

- 1,000,000 shares of common stock at $10 per share.
- 100,000 shares of $100 par value, eight percent preferred stock at $105 per share.
- 100,000 shares of $5 convertible, no-par preferred stock at $55 per share.

At the end of 2010, the full dividend was declared and paid on both preferred stock offerings.

Required

Using journal entries, record the financial effects of the shareholders' equity transactions for The Mann Corporation for 2010.