CHAPTER

2

Recording Business Transactions

CHAPTER OBJECTIVES

After studying this chapter, you should be able to

1 Define and use key accounting terms: *account*, *ledger*, *debit*, and *credit*

2 Apply the rules of debit and credit

3 Record transactions in the journal

4 Post from the journal to the ledger

5 Prepare and use a trial balance

6 Set up a chart of accounts for a business

7 Analyze transactions without a journal

"Because we are diversified across numerous locations in North America, we needed to put the right information systems in place. We've done that. We can now review on a moment's notice the status of any one of the dozens of real estate projects we are developing across the continent. Similar systems are now in place in our ski operations and this year we will have daily financial operating results for each resort available in Vancouver by 10 o'clock the following morning. This information intelligence has made our path of growth both clear and predictable." (Joe S. Houssian, Chairman, President and Chief Executive Officer of Intrawest Corporation.)

The 2000 Intrawest Annual Report describes Intrawest, headquartered in Vancouver, British Columbia, as "the leading developer and operator of mountain resorts across North America." The company owns year-round resorts at Whistler/Blackcomb and Panorama in British Columbia, Tremblant and Mont Ste. Marie in Quebec, Blue Mountain in Ontario, Copper in Colorado, Stratten in Vermont, Snowshoe in West Virginia, Mammoth in California, and Mountain Creek in New Jersey. The company also has an investment in Compagnie des Alpes, France, the largest ski company in the world, and a golf resort, Sandestin, in Florida.

Like all other companies, Intrawest represents itself to outsiders through its financial statements. But the accounting information is also used internally. Intrawest managers at all levels use financial statement data for decision making. They keep track of the revenue and expenses at the company's many resort properties by using accounting records like those we illustrate in this chapter. Accounting helps to measure profits and losses for each resort and for the company as a whole.

Intrawest Corporation
www.intrawest.com

Vancouver Grizzlies
www.nba.com/grizzlies/index.html

Hudson's Bay Company
www.hbc.com/english.asp

Zellers
www.hbc.com/zellers/default.htm

CHAPTER 1 introduced transaction analysis and the financial statements. But that chapter did not show how the financial statements are prepared. Chapters 2, 3, and 4 cover the accounting process that results in the financial statements.

Chapter 2 discusses the processing of accounting information as it is actually done in practice. Throughout this chapter and the next two, we continue to illustrate accounting procedure with service businesses, such as Air & Sea Travel, a systems design engineering company, or a sports franchise like the Vancouver Grizzlies. In Chapter 5 we move into merchandising businesses such as The Bay and Zellers. All these businesses use the basic accounting system that we illustrate in this book.

By learning how accounting information is processed, you will understand where the facts and figures reported in the financial statements come from. This knowledge will increase your confidence as you make decisions. It will also speed your progress in your business career.

OBJECTIVE 1
Define and use key accounting terms: *account*, *ledger*, *debit*, and *credit*

The Account

The basic summary device of accounting is the **account**, the detailed record of the changes that have occurred in a particular asset, liability, or item of owner's equity during a period of time. For convenient access to the information, accounts are grouped together in a record called the **ledger**. In the phrases "keeping the books" and "auditing the books," *books* refers to the ledger. Today the ledger usually takes the form of a computer listing.

Accounts are grouped in three broad categories, according to the accounting equation:

ASSETS = LIABILITIES + OWNER'S EQUITY

Recall that in Chapter 1, page 11, we learned that the accounting equation is the most basic tool of the accountant. It measures the assets of the business and the claims to those assets.

Assets

Assets are the economic resources that benefit the business and will continue to do so in the future. Most firms use the following asset accounts.

Cash The Cash account shows the cash effects of a business's transactions. Cash means money and any medium of exchange that a bank accepts at face value, such as bank account balances, paper currency, coins, certificates of deposit, and cheques. Successful companies such as Intrawest usually have plenty of cash. Most business failures result from a shortage of cash.

Accounts Receivable A business may sell its goods or services in exchange for an oral or implied promise of future cash receipts. Such sales are made on credit ("on account"). The Accounts Receivable account contains these amounts. Most sales in Canada and in other developed countries are made on account.

KEY POINT

A receivable is always an asset. A payable is always a liability.

Notes Receivable A business may sell its goods or services in exchange for a *promissory note*, which is a written pledge that the customer will pay the business a fixed amount of money by a certain date. The Notes Receivable account is a record of the promissory notes that the business expects to collect in cash. A note receivable offers more security for collection than a mere account receivable does.

Prepaid Expenses A business often pays certain expenses in advance. A *prepaid expense* is an asset because it provides future benefits to the business. The business avoids having to pay cash in the future for the specified expense. The ledger holds a separate asset account for each prepaid expense. Prepaid Rent, Prepaid Insurance, and Office Supplies are accounted for as prepaid expenses.

Land The Land account is a record of the cost of land a business owns and uses in its operations. Land held for sale is accounted for separately—in an investment account.

Building The cost of a business's buildings—office, warehouse, garage, and the like—appear in the Building account. Intrawest owns buildings at Whistler, Tremblant, and its other resorts. Buildings held for sale are separate assets accounted for as investments. Intrawest builds condominiums at its resorts and sells them. These condominiums would, therefore, *not* be included in the Building account; they would be a part of inventory, discussed in Chapter 5.

Equipment, Furniture, and Fixtures A business has a separate asset account for each type of equipment—Computer Equipment, Office Equipment, and Store Equipment, for example. The Furniture and Fixtures account shows the cost of these assets.

We will discuss other asset categories and accounts as needed. For example, many businesses have an Investments account for their investments in the stocks and bonds of other companies.

Liabilities

Recall that a *liability* is a debt. A business generally has fewer liability accounts than asset accounts because a business's liabilities can be summarized under relatively few categories.

Accounts Payable This account is the opposite of the Accounts Receivable account. The oral or implied promise to pay off debts arising from credit purchases appears in the Accounts Payable account. Such purchases are said to be made on account. All companies, including Intrawest, have accounts payable.

Notes Payable The Notes Payable account is the opposite of the Notes Receivable account. Notes Payable represents the amounts that the business must pay because it signed a promissory note to borrow money to purchase goods or services.

Accrued Liabilities Liability categories and accounts are added as needed. Utilities Payable, Interest Payable, and Salary Payable are liability accounts used by most companies.

Owner's Equity

THINKING IT OVER

Name two things that (1) increase owner's equity;
(2) decrease owner's equity.

A: (1) Investments by owner and net income (revenue greater than expenses).
(2) Withdrawals and net loss (expenses greater than revenue).

The owner's claims to the assets of a business are called *owner's equity*. In a proprietorship, like that of Briana Weill or Gary Lyon, described in Chapter 1, or a partnership, owner's equity is often split into separate accounts for the owner's capital balance and for the owner's withdrawals. In a partnership, each partner would have a capital balance and a withdrawal account.

Capital The Capital account shows the owner's claim to the assets of the business, whether it is Briana Weill or Gary Lyon of Air & Sea Travel. After total liabilities are subtracted from total assets, the remainder is the owner's capital. Amounts received from the owner's investment in the business are recorded directly in the Capital account. The Capital balance equals the owner's investments in the business plus net income minus net losses and owner withdrawals over the life of the business. (See the statement of owner's equity in Chapter 1.)

THINKING IT OVER

Suppose you bought a Pontiac Grand Am for $24,000 and had to borrow $18,000 to pay for the car. Write your personal accounting equation for this transaction.

A:
Assets = Liabilities + Owner's Equity
$24,000 = $18,000 + $6,000

Withdrawals When Gary Lyon withdraws cash or other assets from Air & Sea Travel for personal use, the business's assets and owner's equity decrease. The amounts taken out of the business appear in a separate account entitled Gary Lyon, Withdrawals, or Gary Lyon, Drawings. If withdrawals were recorded directly in the Capital account, the amount of owner withdrawals would not be highlighted and decision making would be more difficult. The Withdrawals account shows a *decrease* in owner's equity.

Revenues The increase in owner's equity created by delivering goods or services to customers or clients is called *revenue*. Revenue increases shareholders' equity. The ledger contains as many revenue accounts as needed. Air & Sea Travel would have a Service Revenue account for amounts earned by providing services for clients. If a business loans money to an outsider, it will need an Interest Revenue account for the interest earned on the loan. If the business rents a building to a tenant, it will need a Rent Revenue account.

Expenses Expenses use up assets or create liabilities in the course of operating a business. Expenses have the opposite effect of revenues; they decrease owner's equity. A business needs a separate account for each type of expense, such as Salary Expense, Rent Expense, Advertising Expense, and Utilities Expense. Businesses strive to minimize their expenses in order to maximize net income whether they are Briana Weill, Air & Sea Travel, or Intrawest.

Exhibit 2-1 shows how asset, liability, and owner's equity accounts can be grouped into the ledger.

Double-Entry Accounting

Accounting is based on a *double-entry system*, which means that we record the *dual effects* of a business transaction. *Each transaction affects at least two accounts*. For example, in Chapter 1, Gary Lyon's $50,000 cash investment in his travel agency increased both the Cash account and the Capital account of the business. It would be incomplete to record only the increase in the entity's cash without recording the increase in its owner's equity.

Consider a cash purchase of supplies. What are the dual effects of this transaction?

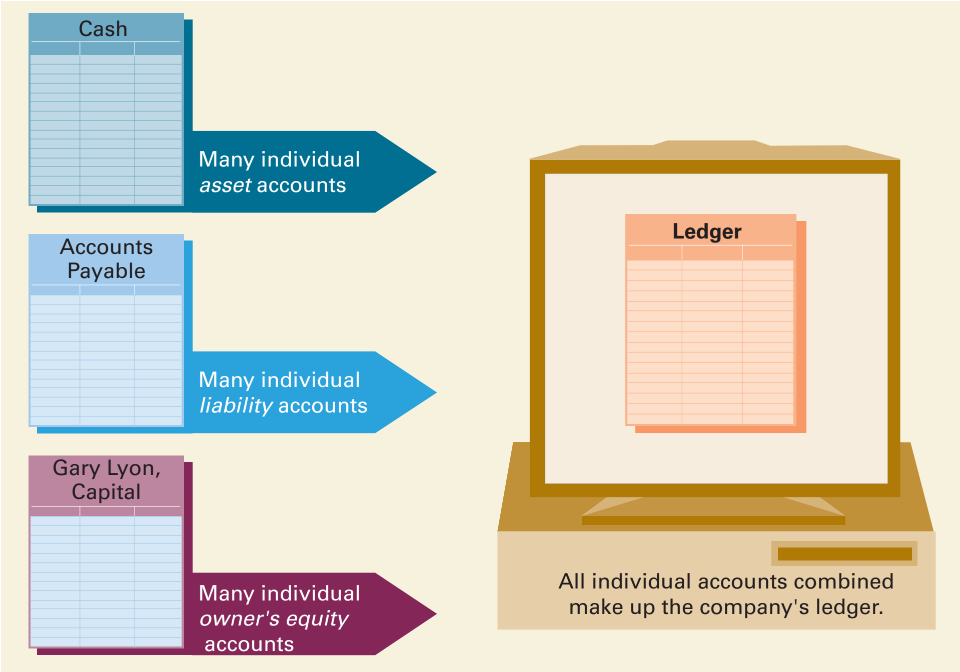


Exhibit 2-1

The Ledger (Asset, Liability, and Owner's Equity Accounts)

The purchase (1) decreases cash and (2) increases supplies. A purchase of supplies on credit (1) increases supplies and (2) increases accounts payable. A cash payment on account (1) decreases cash and (2) decreases accounts payable. All transactions have at least two effects on the accounts of the entity.

The T-Account

How do we record transactions? The account format used for most illustrations in this book is called the *T-account* because it takes the form of the capital letter "T." The vertical line in the letter divides the account into its left and right sides. The account title rests on the horizontal line. For example, the Cash account of a business appears in the following T-account format:

KEY POINT

A T-account is a quick way to show the effect of transactions on a particular account—a useful shortcut in accounting.

Cash	
(Left side) *Debit*	**(Right side)** *Credit*

The left side of the account is called the **debit** side, and the right side is called the **credit** side. The words *debit* and *credit* can be confusing because they are new. To become comfortable using them, simply remember this:

KEY POINT

The accounting equation must balance after every transaction. But verifying that total assets = total liabilities + owner's equity is no longer necessary after every transaction. The equation will balance as long as the debits in each transaction equal the credits in the transaction.

debit = left side
credit = right side

Even though *left side* and *right side* may be more convenient, *debit* and *credit* are deeply entrenched in business.[1] Debit and credit are abbreviated as follows:

- Dr = Debit
- Cr = Credit

[1] The words *debit* and *credit* have a Latin origin (*debitum* and *creditum*). Pacioli, the Italian monk who wrote about accounting in the fifteenth century, used these terms.

OBJECTIVE 2
Apply the rules of debit and credit

Increases and Decreases in the Accounts

The type of an account determines how increases and decreases in it are recorded. For any given account, all increases are recorded on one side, and all decreases are recorded on the other side. Increases in *assets* are recorded in the left (debit) side of the account. Decreases in assets are recorded in the right (credit) side of the account. Conversely, increases in *liabilities* and *owner's equity* are recorded by *credits*. Decreases in liabilities and owner's equity are recorded by *debits*. These are the *rules of debit and credit*.

Student to Student

I can never remember which accounts are increased and decreased by debits and which accounts are increased and decreased by credits. The easiest way for me to remember is to memorize Exhibit 2-2. I picture Exhibit 2-2 in my mind when I look at a new transaction.

Sandy H., Edmonton

In everyday conversation, we may praise someone by saying, "She deserves credit for her good work." In your study of accounting forget this general usage. Remember that *debit means left side* and *credit means right side*. Whether an account is increased or decreased by a debit or credit depends on the type of account (see Exhibit 2-2).

In a computerized accounting system, the computer interprets debits and credits as increases or decreases by account type. For example, a computer reads a debit to Cash as an increase to that account and a credit to Accounts Payable as an increase to that account.

This pattern of recording debits and credits is based on the accounting equation:

ASSETS = LIABILITIES + OWNER'S EQUITY

Assets are on the opposite side from liabilities and owner's equity. Therefore, increases and decreases in assets are recorded in the opposite manner from liabilities and owner's equity. And liabilities and owner's equity, which are on the same side of the equal sign, are treated in the same way. Exhibit 2-2 shows the relationship between the accounting equation and the rules of debit and credit.

To illustrate the ideas diagrammed in Exhibit 2-2, reconsider the first transaction from Chapter 1. Gary Lyon invested $50,000 in cash to begin the travel agency. The company received $50,000 cash from Lyon and gave him the owner's equity. We are accounting for the business entity, Air & Sea Travel. What accounts of Air & Sea Travel are affected? By what amounts? On what side (debit or credit)? The answer is that Assets and Capital would increase by $50,000, as the following T-accounts show:

ASSETS		=	LIABILITIES	+	OWNER'S EQUITY	
Cash					**Gary Lyon, Capital**	
Debit for Increase, 50,000						**Credit for Increase, 50,000**

LEARNING TIP
In all transactions, total debits must equal total credits.

Notice that Assets = Liabilities + Owner's Equity *and* that total debit amounts = total credit amounts. Exhibit 2-3 on page 58 illustrates the accounting equation and Air & Sea Travel's first three transactions.

EXHIBIT 2-2

The Accounting Equation and the Rules of Debit and Credit (The Effects of Debits and Credits on Assets, Liabilities, and Owner's Equity)

Accounting Equation:	Assets		=	Liabilities		+	Owner's Equity	
Rule of Debit and Credit:	Debit +	Credit −		Debit −	Credit +		Debit −	Credit +

The amount remaining in an account is called its *balance*. This initial transaction gives Cash a $50,000 debit balance, and Gary Lyon, Capital a $50,000 credit balance.

The second transaction is a $40,000 cash purchase of land. This transaction affects two assets: Cash and Land. It decreases (credits) Cash and increases (debits) Land, as shown in the T-accounts:

ASSETS = LIABILITIES + OWNER'S EQUITY

Cash

Balance 50,000	**Credit for Decrease, 40,000**
Balance 10,000	

Gary Lyon, Capital

	Balance 50,000

Land

Debit for Increase, 40,000	
Balance 40,000	

After this transaction, Cash has a $10,000 debit balance ($50,000 debit balance reduced by the $40,000 credit amount), Land has a debit balance of $40,000, and Gary Lyon, Capital has a $50,000 credit balance as shown in the middle section of Exhibit 2-3 (labelled Transaction 2).

Transaction 3 is a $500 purchase of office supplies on account. This transaction increases the asset Office Supplies and the liability Accounts Payable, as shown in the following accounts and in the right side of Exhibit 2-3 (labelled Transaction 3):

ASSETS = LIABILITIES + OWNER'S EQUITY

ASSETS — Cash

Balance 10,000	

LIABILITIES — Accounts Payable

	Credit for Increase, 500
	Balance 500

OWNER'S EQUITY — Gary Lyon, Capital

	Balance 50,000

Office Supplies

Debit for Increase, 500	
Balance 500	

Land

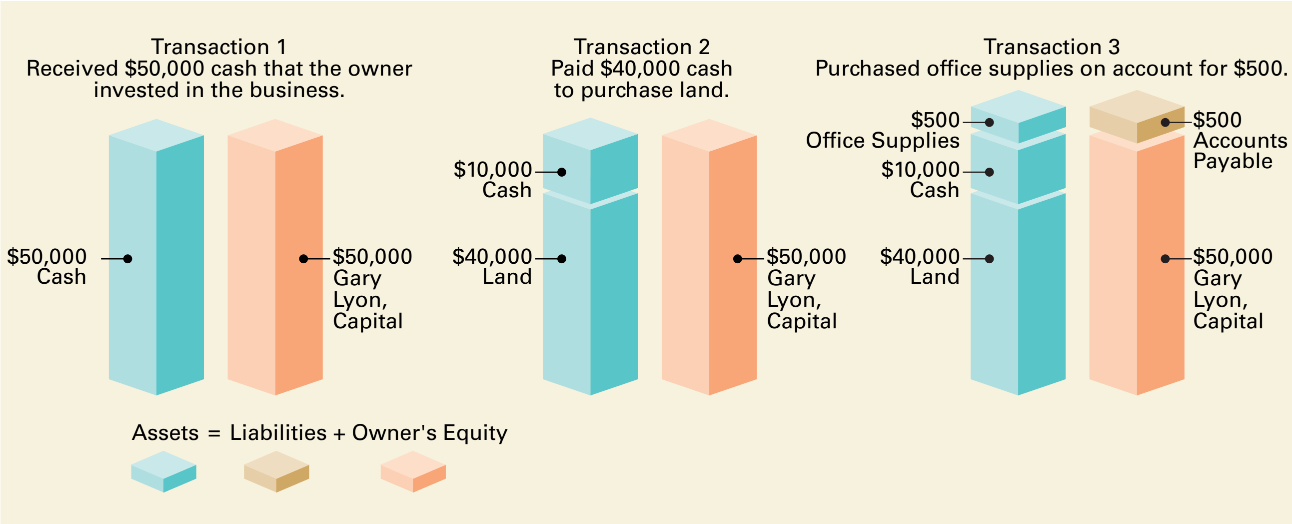
Balance 40,000	

We can create accounts as they are needed. The process of creating a new T-account in preparation for recording a transaction is called *opening the account*. For Transaction 1, we opened the Cash account and the Gary Lyon, Capital account. For Transaction 2, we opened the Land account, and for Transaction 3, Office Supplies and Accounts Payable.

We could record all transactions directly in the accounts as we have shown for the first three transactions. However, that way of accounting does not leave a clear record of each transaction. You may have to search through all the accounts to find both sides of a particular transaction. To save time, accountants keep a record of each transaction in a *journal* and then transfer this information from the journal into the accounts.

EXHIBIT 2-3

The Accounting Equation and the First Three Transactions of Air & Sea Travel



STOP & THINK

Can you prepare a balance sheet for Air & Sea Travel after the first transaction on April 2, 2002? Can you prepare an income statement?

Answer:

AIR & SEA TRAVEL
Balance Sheet
April 2, 2002

Assets		Liabilities	
Cash	$50,000		$ 0
		Owner's Equity	
		Gary Lyon, Capital	$50,000
		Total liabilities and	
Total assets	$50,000	owner's equity	$50,000

You could not yet prepare an income statement because the business has experienced no revenues or expenses.

OBJECTIVE 3
Record transactions in the journal

Recording Transactions in Journals

In practice, accountants record transactions first in a **journal**, which is a chronological record of the entity's transactions. The journalizing process follows four steps:

1. Identify the transactions from source documents, such as bank deposit slips, sales invoices, or cheque stubs.
2. Specify each account affected by the transaction and classify it by type (asset, liability, or owner's equity).
3. Determine whether each account is increased or decreased by the transaction.

Using the rules of debit and credit, determine whether to debit or credit the account to record its increase or decrease.

4. Enter the transaction in the journal, including a brief explanation for the journal entry. The debit side of the entry is entered first and the credit side last.

Step 4, "Enter the transaction in the journal," means to record the transaction in the journal. This step is also called "making the journal entry" or "journalizing the transaction."

These four steps are completed in a computerized accounting system as well as in a manual system. In step 4, however, the journal entry is generally entered into the computer by account number, and the account name is then listed automatically. Most computer programs replace the explanation in the journal entry with some other means of tracing the entry back to its source documents.

Let's apply the four steps to journalize the first transaction of Air & Sea Travel—the business's receipt of Lyon's $50,000 cash investment in the business.

Step 1. The source documents are Air & Sea Travel's bank deposit slip and the $50,000 cheque, which is deposited in the business bank account.

Step 2. The accounts affected by the transaction are *Cash* and *Gary Lyon, Capital*. Cash is an asset account, and Gary Lyon, Capital is an owner's equity account.

Step 3. Both accounts increase by $50,000. Therefore, Cash, the asset account, is increased (debited), and Gary Lyon, Capital, the owner's equity account, is increased (credited).

Step 4. The journal entry is

Date	Accounts and Explanation	Debit	Credit
Apr. 2[a]	Cash[b]	50,000[d]	
	Gary Lyon, Capital[c]		50,000[e]
	Received initial investment from owner.[f]		

KEY POINT

In a journal entry, such as Exhibit 2-4, the account debited is always written first (not indented). The account credited is indented on the line below, and the explanation is not indented on the next line. Journal entries should always be recorded in this format.

LEARNING TIP

When analyzing a transaction, first pinpoint the obvious effects on the accounts. For example, cash effects are easy to identify. Did cash increase or decrease? Then find its effect on other accounts.

The journal entry includes (a) the date of the transaction, (b) the title of the account debited (placed flush left), (c) the title of the account credited (indented slightly), the dollar amounts of (d) the debit (left) and (e) the credit (right)—dollar signs are omitted in the money columns—and (f) a short explanation of the transaction.

The journal offers information that the ledger accounts do not provide. Each journal entry shows the complete effect of a business transaction. Consider Gary Lyon's initial investment. The Cash account shows a single figure, the $50,000 debit. We know that every transaction has a credit, so in what account will we find the corresponding $50,000 credit? In this illustration, we know that the Capital account holds this figure. But imagine the difficulties you would face trying to link debits and credits for hundreds of daily transactions—without a separate record of each transaction. The journal solves this problem and presents the full story for each transaction. Exhibit 2-4 shows how Journal page 1 looks after the first transaction is recorded.

EXHIBIT 2-4

The Journal

Journal — **Page 1**

Date	Accounts and Explanation	Ref.	Debit	Credit
Apr. 2	Cash		50,000	
	Gary Lyon, Capital			50,000
	Received initial investment from owner.			

MasterCard
www.mastercard.com

Regardless of the accounting system in use, an accountant must analyze every business transaction in the manner we are presenting in these opening chapters. Once the transaction has been analyzed, a computerized accounting package performs the same actions as accountants do in a manual system. For example, when a sales clerk runs your MasterCard through the credit card reader, the underlying accounting system records the store's sales revenue and receivable from MasterCard. The computer automatically records the transaction as a journal entry, but an accountant had to program the computer to do so. A computer's ability to perform routine tasks and mathematical operations quickly and without error frees accountants for decision making.

OBJECTIVE 4
Post from the journal to the ledger

Transferring Information (Posting) from the Journal to the Ledger

Posting means transferring the amounts from the journal to the accounts in the ledger. Debits in the journal are posted as debits in the ledger, and credits in the journal as credits in the ledger. The initial investment transaction of Air & Sea Travel is posted to the ledger as shown in Exhibit 2-5. Computers perform this tedious task quickly and without error. In these introductory discussions we temporarily ignore the date of each transaction in order to focus on the accounts and their dollar amounts.

The Flow of Accounting Data

Exhibit 2-6 summarizes the flow of accounting data from the business transaction all the way through the accounting system to the ledger. In the pages that follow, we continue the example of Air & Sea Travel and account for six of the business's early transactions. Keep in mind that we are accounting for the business entity, Air & Sea Travel. We are *not* accounting for Gary Lyon's *personal* transactions.

Transaction Analysis, Journalizing, and Posting to the Accounts

1. ***Transaction:*** **Gary Lyons invested $50,000 cash to begin his travel business, Air & Sea Travel.**

Analysis: Lyon's investment in Air & Sea Travel increased its asset cash; to record this increase, debit Cash. The investment also increased its owner's equity; to record this increase, credit Gary Lyon, Capital.

Journal Entry:

Cash	50,000	
Gary Lyon, Capital		50,000
Received initial investment from owner.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Cash				Gary Lyon, Capital
+50,000	=	0	+	50,000

The journal entry records the same information that you learned by using the accounting equation in Chapter 1. Both accounts—Cash and Gary Lyon, Capital—increased because the business received $50,000 cash and gave Lyon $50,000 of capital (owner's equity) in the business.

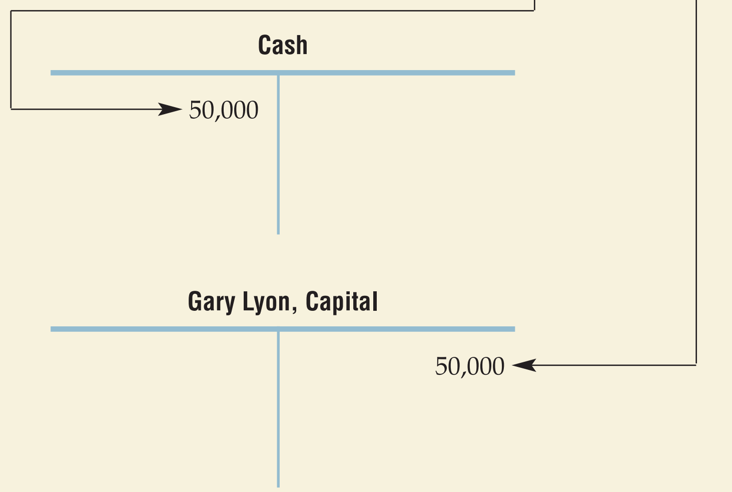
EXHIBIT 2-5

Journal Entry and Posting to the Ledger

Panel A — Journal Entry

Date	Accounts and Explanation	Debit	Credit
April 2	Cash	50,000	
	Gary Lyon, Capital		50,000
	Received initial investment from owner.		

Panel B — Posting to Ledger



Ledger Accounts:

Cash		Gary Lyon, Capital	
(1) 50,000			(1) 50,000

2. *Transaction:* Air & Sea Travel paid $40,000 cash for land as a future office location.

Analysis: The purchase decreased cash; therefore, credit Cash. The purchase increased the entity's asset land; to record this increase, debit Land.

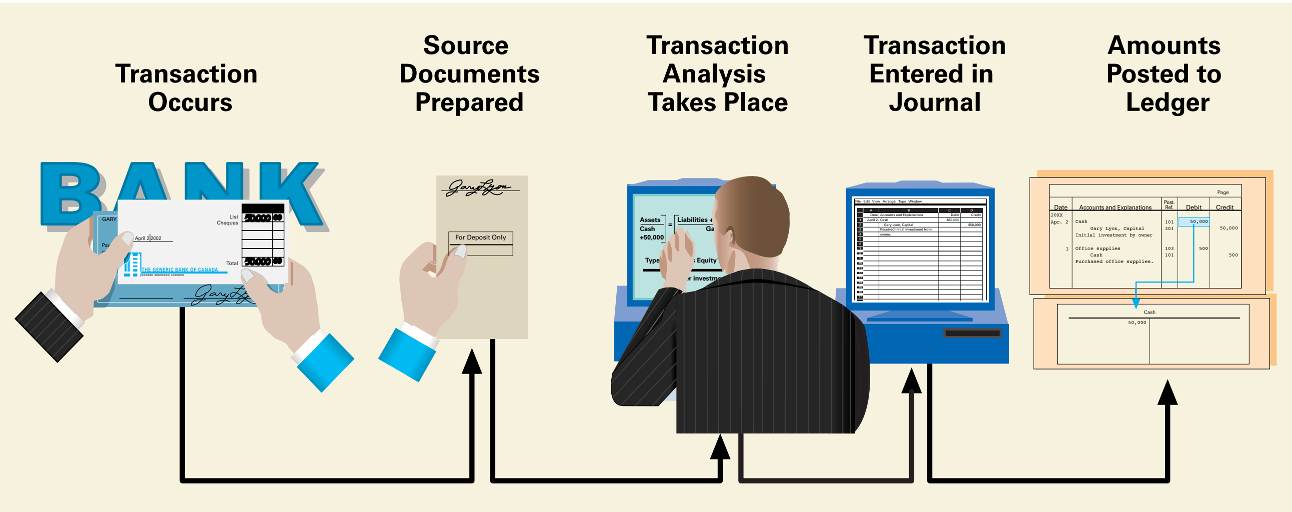
WORKING IT OUT

Prepare the journal entry to record a $1,600 payment on account.
(1) Identify the accounts.
(2) Are these accounts increased or decreased? Should they be debited or credited?
(3) Make the journal entry, with an explanation.

A: (1) The company paid $1,600 on account. The accounts affected are Cash and Accounts Payable.
(2) Cash (an asset) decreases by $1,600. Accounts Payable (a liability) decreases by the same amount. To record a decrease in an asset, we use a credit. To record a decrease in a liability, we use a debit. Review Exhibit 2-2.
(3) Accounts Payable...... 1,600
Cash 1,600
Made payment on account.

Exhibit 2-6

Flow of Accounting Data



Stop & Think

Suppose you are a lender and Gary Lyon asks you to make a $10,000 business loan to Air & Sea Travel. After the initial investment of $50,000, how would you evaluate Air & Sea Travel as a credit risk? Would your evaluation differ if Lyon had invested only $5,000 of his money and Air & Sea Travel owed $25,000 to another bank?

Answer: You would probably view the loan request favourably. Gary Lyon has invested $50,000 of his own money in the business. The travel agency has no debts, so it should be able to repay you. However, if the owner had invested only $5,000 in the business and it had liabilities of $25,000, Air & Sea Travel would be a less attractive credit risk.

Journal Entry:

Land	40,000	
Cash		40,000
Paid cash for land.		

Accounting Equation:

ASSETS		=	LIABILITIES	+	OWNER'S EQUITY
Cash	Land				
−40,000	+40,000	=	0	+	0

This transaction increased one asset, land, and decreased another asset, cash. The net effect on the business's total assets was zero, and there was no effect on liabilities or owner's equity. We use the term *net* in business to mean an amount after a subtraction.

Ledger Accounts:

Cash			
(1)	50,000	**(2)**	**40,000**

Land			
(2)	**40,000**		

3. *Transaction:* The business purchased office supplies for $500 on account payable.

Analysis: The credit purchase of office supplies increased this asset, so we debit Office Supplies. The purchase also increased the liability accounts payable; to record this increase, credit Accounts Payable.

Journal Entry:

Office Supplies	500	
Accounts Payable		500
Purchased office supplies on account.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Office Supplies		Accounts Payable		
+500	=	+500	+	0

Ledger Accounts:

Office Supplies			
(3)	**500**		

Accounts Payable			
		(3)	**500**

4.	***Transaction:***	**The business paid $400 on the account payable created in Transaction 3.**

Analysis: The payment decreased the asset cash; therefore, credit Cash. The payment also decreased the liability accounts payable, so we debit Accounts Payable.

Journal Entry:

Accounts Payable	400	
Cash		400
Paid cash on account.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Cash		Accounts Payable		
–400	=	–400	+	0

Ledger Accounts:

Cash

(1)	50,000	(2)	40,000
		(4)	**400**

Accounts Payable

(4)	**400**	(3)	500

5.	***Transaction:***	**Gary Lyon remodelled his personal residence with personal funds and a loan from their bank. This is not a business transaction of the travel business, so no journal entry is made.**

6.	***Transaction:***	**Gary Lyon withdrew $2,100 cash for personal living expenses.**

Analysis: The withdrawal decreased the entity's cash; therefore, credit Cash. The transaction also decreased the owner's equity of the entity. Decreases in the owner's equity of a proprietorship that result from owner withdrawals are debited to a separate owner's equity account entitled Withdrawals. Therefore, debit Gary Lyon, Withdrawals.

Journal Entry:

Gary Lyon, Withdrawals	2,100	
Cash		2,100
Withdrawal of cash by owner.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Cash				Gary Lyon, Withdrawals
–2,100	=	0		–2,100

Ledger Accounts:

Cash

(1)	50,000	(2)	40,000
		(4)	400
		(6)	**2,100**

Gary Lyon, Withdrawals

(6)	**2,100**		

Each journal entry posted to the ledger is keyed by date or by transaction number. In this way any transaction can be traced from the journal to the ledger, and, if need be, back to the journal. This linking allows you to locate efficiently any information needed.

Accounts after Posting

We next illustrate how the accounts look when the amounts of the preceding transactions have been posted. The accounts are grouped under the accounting equation's headings.

Each account has a balance, denoted as *Bal.* This amount is the difference between the account's total debits and its total credits. For example, the balance in the Cash account is the difference between the debits, $50,000 and the credits, $42,500 (i.e., $40,000 + $400 + $2,100). Thus the cash balance is $7,500. The balances are residual amounts left over after the journal entries have been posted to the accounts. We set an account balance apart by horizontal lines. The final figure in an account below the horizontal line is the balance of the account after the transactions have been posted.

If the sum of an account's debits is greater than the sum of its credits, that account has a debit balance, as the Cash account does here. If the sum of its credits is greater, that account has a credit balance, as Accounts Payable does.

ASSETS = **LIABILITIES** + **OWNER'S EQUITY**

Cash

(1)	50,000	(2)	40,000
		(4)	400
		(6)	2,100
Bal.	7,500		

Accounts Payable

(4)	400	(3)	500
		Bal.	100

Gary Lyon, Capital

		(1)	50,000
		Bal.	50,000

Office Supplies

(3)	500		
Bal.	500		

Gary Lyon, Withdrawals

(6)	2,100		
Bal.	2,100		

Land

(2)	40,000		
Bal.	40,000		

OBJECTIVE 5
Prepare and use a trial balance

The Trial Balance

A **trial balance** is a list of all accounts with their balances—assets first, followed by liabilities and then owner's equity—taken from the ledger. Before computers, the trial balance provided a check on accuracy by showing whether the total debits equalled the total credits. The trial balance is still useful as a summary of all the accounts and their balances. A trial balance may be taken at any time the postings are up to date. The most common time is at the end of the accounting period. Exhibit 2-7 is the trial balance of the ledger of Air & Sea Travel after the six transactions have been journalized and posted.

WORKING IT OUT

Assume that Gary Lyon, Withdrawals, $2,100, is erroneously listed as a credit amount on the trial balance in Exhibit 2-7.
(1) Recompute the trial balance totals.
(2) To find the mistake, calculate the difference between the column totals.
(3) Then divide the difference by two.
A: (1) Debit = $48,000;
Credit = $52,200.
(2) $52,200 – $48,000 = $4,200.
(3) $4,200 ÷ 2 = $2,100.

If you find that amount somewhere on the trial balance, you may have entered it in the wrong column. This is one easy way to find an error if your trial balance does not balance.

Correcting Trial Balance Errors

In a trial balance, the total debits and total credits should be equal. If they are not equal, then accounting errors exist. Computerized accounting systems eliminate most recording errors by often prohibiting unbalanced journal entries from being recorded. Computerized accounting systems also post journal amounts precisely as they have been journalized. But computers cannot *eliminate* all errors because humans sometimes input the wrong data.

Many out-of-balance conditions can be detected by computing the difference between total debits and total credits on the trial balance. Then perform one or more of the following actions:

EXHIBIT 2-7

Trial Balance

AIR & SEA TRAVEL
Trial Balance
April 30, 2002

	Balance	
Account Titles	**Debit**	**Credit**
Cash	$ 7,500	
Office supplies	500	
Land	40,000	
Accounts payable		$ 100
Gary Lyon, Capital		50,000
Gary Lyon, Withdrawals	2,100	
Total	$50,100	$50,100

1. Search the trial balance for a missing account. For example, suppose the accountant omitted Gary Lyon, Withdrawals from the trial balance in Exhibit 2-7. The total amount of the debts would be $48,000 ($50,100 – $2,100). Trace each account and its balance from the ledger to the trial balance, and you will locate the missing account.
2. Search the journal for the amount of difference. For example, suppose the total credits on Air & Sea Travel's trial balance equal $50,100 and total debits equal $49,700. A $400 transaction may have been recorded incorrectly in the journal or posted incorrectly to the ledger. Search the journal for a $400 transaction.
3. Divide the difference between total debits and total credits by 2. A debit treated as a credit, or vice versa, doubles the amount of error. Suppose Air & Sea Travel debited $500 to Cash instead of crediting the Cash account, or assume the accountant posted a $500 credit as a debit. Total debits contain the $500, and total credits omit the $500. The out-of-balance amount is $1,000, and dividing by 2 identifies the $500 of the transaction. Then search the journal for a $500 transaction and trace to the account affected.
4. Divide the out-of-balance amount by 9. If the result is evenly divisible by 9, the error may be a *slide*, which is adding or deleting one or several zeroes in a figure (example: writing $61 as $610), or a *transposition* (example: treating $61 as $16). Suppose Air & Sea Travel listed the $2,100 Gary Lyon, Withdrawals balance as $21,000 on the trial balance—a slide-type error. Total debits would differ from total credits by $18,900 (i.e., $21,000 – $2,100 = $18,900). Dividing $18,900 by 9 yields $2,100, the correct amount of the withdrawals. Trace this amount through the ledger until you reach the Gary Lyon, Withdrawals account with a balance of $2,100. Computer-based systems avoid such errors.

A warning: Do not confuse the trial balance with the balance sheet. A trial balance is an internal document seen only by the company's owners, managers, and accountants. The company reports its financial position—both inside the business and to the public—on the balance sheet, a formal financial statement. And remember that the financial statements are the focal point of the accounting process. The trial balance is merely a step in the preparation of the financial statements.

Mid-Chapter Summary Problem for Your Review

On August 1, 2003, Mary Woo opens Woo Computer Consulting. During the business's first ten days of operations, it completes the following transactions:

a. To begin operations, Mary Woo deposits $40,000 of personal funds in a bank account entitled Woo Computer Consulting. The business receives the cash and gives Woo capital (owner's equity).
b. Woo Computer Consulting pays $20,000 cash for a small house to be used as an office and $10,000 for the land on which the house is located.
c. The business purchases office supplies for $500 on account.
d. The business pays $6,000 cash for office furniture.
e. The business pays $150 on the account payable created in Transaction (c).
f. Woo withdraws $1,000 cash for personal use.

Required

1. Prepare the journal entries to record these transactions. Key the journal entries by letter.
2. Post the entries to T-accounts and calculate the ending balance.
3. Prepare the trial balance of Woo Computer Consulting at August 10, 2003.

Solution to Review Problem

Requirement 1

Accounts and Explanation	Ref.	Debit	Credit
a. Cash		40,000	
Mary Woo, Capital			40,000
Record initial investment from owner.			
b. Building		20,000	
Land		10,000	
Cash			30,000
Purchased building for an office and land.			
c. Office Supplies		500	
Accounts Payable			500
Purchased office supplies on account.			
d. Office Furniture		6,000	
Cash			6,000
Purchased office furniture.			
e. Accounts Payable		150	
Cash			150
Paid cash on account.			
f. Mary Woo, Withdrawals		1,000	
Cash			1,000
Withdrew cash for personal use.			

Requirement 2

ASSETS

Cash

(a)	40,000	(b)	30,000
		(d)	6,000
		(e)	150
		(f)	1,000
Bal.	2,850		

Office Supplies

(c)	500		
Bal.	500		

Land

(b)	10,000		
Bal.	10,000		

Office Furniture

(d)	6,000		
Bal.	6,000		

Building

(b)	20,000		
Bal.	20,000		

LIABILITIES

Accounts Payable

(e)	150	(c)	500
		Bal.	350

OWNER'S EQUITY

Mary Woo, Capital

		(a)	40,000
		Bal.	40,000

Mary Woo, Withdrawals

(f)	1,000		
Bal.	1,000		

Requirement 3

WOO COMPUTER CONSULTING
Trial Balance
August 10, 2003

	Balance	
Account Titles	**Debit**	**Credit**
Cash	$ 2,850	
Office supplies	500	
Office furniture	6,000	
Building	20,000	
Land	10,000	
Accounts payable		$ 350
Mary Woo, Capital		40,000
Mary Woo, Withdrawals	1,000	
Total	$40,350	$40,350

Cyber Coach

Visit the Student Resources area of the *Accounting* Companion Website for extra practice with the new material in Chapter 2.

www.pearsoned.ca/horngren

Details of Journals and Ledgers

To focus on the main points of journalizing and posting, we purposely omitted certain essential data. In practice, the journal and the ledger provide additional details that create a "trail" through the accounting records for future reference. For example, a supplier may bill us twice for the same item we purchased on account. To prove we paid the bill, we would search the accounts payable records and work backward to the journal entry that recorded our payment. To see how this works, let's take a closer look at the journal and the ledger.

Details in the Journal Exhibit 2-8, Panel B presents a widely used journal format. The journal page number appears in the upper-right corner. As the column headings indicate, the *journal* displays the following information:

1. The *date*, which indicates when the transaction occurred. The year appears only when the journal is started or when the year has changed. The date of the transaction is recorded for every transaction.
2. The *account title* and explanation of the transaction, as in Exhibit 2-4.
3. The *posting reference*, abbreviated Post. Ref. How this column helps the accountant becomes clear when we discuss the details of posting.
4. The *debit* column, which shows the amount debited.
5. The *credit* column, which shows the amount credited.

Details in the Ledger Exhibit 2-8, Panel C presents the *ledger* in three-column format. The first two amount columns are for the debit and credit amounts posted from the journal. The third amount column is for the account's balance. This three-column format keeps a running balance in the account. The balance is usually indicated by the letters Dr or Cr (indicating a debit or credit respectively) appearing in the third amount column. Each account has its own record in the illustrative ledger. Our example shows Air & Sea Travel's Cash account, Office Supplies account, and Gary Lyon, Capital account. Each account in the ledger has its own identification number.

The column headings identify the ledger account's features:

1. The date.
2. The item column. This space is used for any special notation.
3. The journal reference column, abbreviated Jrnl. Ref. The importance of this column becomes clear when we discuss the mechanics of posting.
4. The debit column, with the amount debited.
5. The credit column, with the amount credited.
6. The balance column, with the debit or credit running balance.

Posting from the Journal to the Ledger

We know that posting means transferring information from the journal to the ledger accounts. But how do we handle the additional details that appear in the journal and the ledger formats that we have just seen? Exhibit 2-8 illustrates the steps in full detail. Panel A lists the first two transactions of the business entity Air & Sea Travel; Panel B presents the journal; and Panel C shows the ledger. The posting process includes four steps:

After recording the transaction in the journal:

Arrow ①—Copy (post) the transaction date from the journal to the ledger.

Arrow ②—Copy (post) the journal page number from the journal to the ledger. We use several abbreviations:
Jrnl. Ref. means Journal Reference. J. 1 refers to Journal page 1.

Exhibit 2-8

Details of Journalizing and Posting

Panel A: Two of Air & Sea's Transactions

Date	Transaction
Apr. 2, 2002	Gary Lyon invested $50,000 in travel
	agency. The business received cash and gave
	Lyon owner's equity in the business.
Apr. 3, 2002	Paid $500 cash for office supplies.

Panel B: The Journal

Page 1

Date	Accounts and Explanation	Post. Ref.	Debit	Credit
2002				
Apr. 2	Cash	1100	50,000	
	Gary Lyon, Capital	3000		50,000
	Received initial investment from			
	owner.			
3	Office Supplies	1400	500	
	Cash	1100		500
	Purchased office supplies.			

Panel C: The Ledger

Account: Cash **Account No.** 1100

Date	Item	Jrnl. Ref.	Debit	Credit	Balance
2002					
Apr. 2		J.1	50,000		50,000 Dr
Apr. 3		J.1		500	49,500 Dr

1 Transfer the date of the transaction from the journal to the ledger.

2 Transfer the page number from the journal to the journal reference column of the ledger.

3 Post the debit figure from the journal as a debit figure in the ledger account.

4 Enter the account number in the posting reference column of the journal once the figure has been posted to the ledger.

Account: Office Supplies **Account No.** 1400

Date	Item	Jrnl. Ref.	Debit	Credit	Balance
2002					
Apr. 3		J.1	500		500 Dr

Account: Gary Lyon, Capital **Account No.** 3000

Date	Item	Jrnl. Ref.	Debit	Credit	Balance
2002					
Apr. 2		J.1		50,000	50,000 Cr

This step indicates where the information in the ledger came from: Journal page 1.

Arrow ③—Copy (post) the dollar amount of the debit ($50,000) from the journal as a debit to the same account (Cash) in the ledger. Likewise, post the dollar amount of the credit (also $50,000) from the journal to the appropriate account in the ledger. Now the ledger accounts have their correct amounts.

Arrow ④—Copy (post) the account number (1100) from the ledger back to the journal. This step indicates that the $50,000 debit to Cash has been posted to the Cash account in the ledger. Also, copy the account number (3000) for Gary Lyon, Capital back to the journal to show that the $50,000 amount of the credit has been posted to the ledger.
Post. Ref. is the abbreviation for Posting Reference.

After posting, you can prepare the trial balance, as we discussed earlier.

OBJECTIVE 6
Set up a chart of accounts for a business

Chart of Accounts in the Ledger

As you know, the ledger contains the business's accounts grouped under these headings:

1. Balance Sheet Accounts: Assets, Liabilities, and Owner's Equity
2. Income Statement Accounts: Revenues and Expenses.

To keep track of their accounts, organizations have a **chart of accounts**, which lists all the accounts in the ledger and their account numbers. These account numbers are used as posting references, as illustrated by Arrow 4 in Exhibit 2-8. This numbering system makes it easy to locate individual accounts in the ledger.

Accounts are identified by account numbers with two or more digits. Assets are often numbered beginning with 1, liabilities with 2, owner's equity with 3, revenues with 4, and expenses with 5. The second, third, and higher digits in an account number indicate the position of the individual account within the category. For example, Cash might be account number 1001, which is the first asset account. Accounts receivable may be account number 1101, the second asset account. Accounts payable may be number 2001, the first liability account. All accounts are numbered by this system.

Organizations with many accounts use lengthy account numbers; some may have more than 25 digits. The account number can provide much useful information. For example, the account number might indicate the type of account (for example, Petty Cash) and the location of the account within the organization (for example, the Yorkton branch). The chart of accounts of Brown and Hansell, a law partnership, (in Exhibit 2-9) uses a four-digit account number. The assignment material reflects the variety found in practice.

The chart of accounts for Air & Sea Travel appears in Exhibit 2-10. Notice the gap in account numbers between 1200 and 1400. Gary Lyon realizes that at some later date the business may need to add another category of receivables—for example, Notes Receivable, to be numbered 1210.

Appendix C at the end of Volume I and Volume II gives three expanded charts of accounts that you will find helpful as you work through this course. The first chart lists the typical accounts of a large *service* proprietorship. The second chart is for a *merchandising* corporation, one that sells a product rather than a service. The third chart lists some accounts a *manufacturing* company uses. These accounts will be used in connection with Chapters 19–26. Study the service proprietorship chart of accounts now, and refer to the other charts of accounts as needed later.

The expense accounts are listed in alphabetical order throughout this chapter.

EXHIBIT 2-9

Partial Chart of Accounts—Law Practice of Brown and Hansell

Account Number	Account Name
1101	Petty Cash
1110	Cash in Bank
1201	Accounts Receivable
1300	Office Supplies
1601	Office Furniture
1701	Computers
2201	Accounts Payable
2250	Notes Payable
2300	Employee Withholdings Payable
3000	H. Brown, Capital
3001	B. Hansell, Capital
3100	H. Brown, Withdrawals
3101	B. Hansell, Withdrawals
4000	Fee Revenue
5001	Rent Expense
5101	Supplies Expense
5401	Wages Expense

EXHIBIT 2-10

Chart of Accounts—Air & Sea Travel

Balance Sheet Accounts:

Assets		Liabilities		Owner's Equity	
1100	Cash	2100	Accounts Payable	3000	Gary Lyon, Capital
1200	Accounts Receivable	2300	Notes Payable	3100	Gary Lyon, Withdrawals
1400	Office Supplies				
1500	Office Furniture				
1900	Land				

Income Statement Accounts (part of Owner's Equity)

Revenues		Expenses	
4000	Service Revenue	5100	Rent Exp.
		5200	Salary Exp.
		5300	Utilities Exp.

Many businesses follow such a scheme for their records and financial statements since computer programs often list accounts alphabetically. The other ordering is by balance or size, with the accounts with the largest balances listed first; the service, merchandising, and manufacturing accounts shown in Appendix C are taken from the financial statements of real companies and are listed in the order used by those companies.

Normal Balance of an Account

KEY POINT

The normal balance of an account is the side on which increases are recorded.

An account's *normal balance* appears on the side of the account—debit or credit—where *increases* are recorded. That is, the normal balance is on the side that is positive. For example, Cash and other assets usually have a debit balance (the debit side is positive and the credit side negative), so the normal balance of assets is on the debit side, and assets are called *debit-balance accounts*. Conversely, liabilities and owner's equity usually have a credit balance, so their normal balances are on the

Accounting and the e-World

Using Computers and the Internet to Be Successful

Computers and the internet are two reasons that companies have been able to grow to sizes unimaginable a decade ago and to spread throughout the world. Computers process vast amounts of data quickly and the internet allows companies to maintain constant contact with far-flung operations.

Bombardier Inc. **(http://www.bombardier.com)** has operations in twelve countries on three continents covering four major lines of business. Imagine the difficulty that Bombardier would have in gathering together all the company's financial data to prepare its 2000 financial statements if it did not have computers and world-wide data linkage through the internet.

Magna International **(http://www.magna.com)** employs 59,000 people at 174 manufacturing divisions and 33 product development and engineering centres in 19 countries—and Magna is able to produce its annual financial statements within five weeks of its December 31 year end. Magna can do this because of its extensive use of computers and because all its world-wide operations are connected by means of an electronic network.

Both of these companies are successful because they produce excellent products and are world leaders at what they do. Their success is based on their ability to make good decisions, and they are able to do this because they have excellent information technology working for them. Their accounting systems around the world are compatible with each other. Management is confident that the information they receive daily is both accurate and current. Computers and the internet provide this accurate information for decision making in real time.

credit side, and they are called *credit-balance accounts*. Exhibit 2-11 illustrates the normal balances of assets, liabilities, and owner's equity.

An account that normally has a debit balance may occasionally have a credit balance, which indicates a negative amount of the item. For example, Cash will have a temporary credit balance if the entity overdraws its bank account. Similarly, the liability Accounts Payable—normally a credit balance account—will have a debit balance if the entity overpays its accounts payable. In other instances, the shift of a balance amount away from its normal column may indicate an accounting error. For example, a credit balance in Office Furniture or Buildings indicates an error because negative amounts of these assets cannot exist.

EXHIBIT 2-11

Normal Balances of Balance Sheet Accounts

Assets		=	Liabilities		+	Owner's Equity	
Normal Bal. Debit				Normal Bal. Credit			Normal Bal. Credit

As we saw earlier in the chapter, owner's equity usually contains several accounts. In total, these accounts show a normal credit balance. An individual owner's equity account with a normal credit balance represents an *increase* in owner's equity. An owner's equity account that has a normal debit balance represents a *decrease* in owner's equity.

Expanding the Accounting Equation to Account for Owner's Equity Accounts: Revenues and Expenses

KEY POINT

Because withdrawals reduce owner's equity, the Withdrawals account is sometimes referred to as a *contra equity* account, meaning that it has the opposite balance of owner's equity.

Owner's equity includes Revenues and Expenses because revenues and expenses make up net income or net loss, which flows into owner's equity. As we have discussed, *revenues* are increases in owner's equity that result from delivering goods and services to customers in the course of operating the business. *Expenses* are decreases in owner's equity that occur from using assets or increasing liabilities in the course of operating the business. Therefore, the accounting equation may be expanded as shown in Exhibit 2-12. Revenues and expenses appear in parentheses to highlight the fact that their net effect—revenues minus expenses—equals net income, which increases owner's equity. If expenses are greater than revenues, the net effect of operations is a net loss, which decreases owner's equity.

We can now express the rules of debit and credit in final form as shown in Panel A of Exhibit 2-13. Panel B shows the *normal* balances of the five types of accounts: *Assets*; *Liabilities;* and *Owner's Equity* and its subparts, *Revenue* and *Expenses*. All of accounting is based on these five types of accounts. **You should not proceed until you have learned the rules of debit and credit and the normal balances of the five types of accounts.**

Expanded Problem Including Revenues and Expenses

Let's account for the revenues and expenses of Sarah Gunz's law practice for the month of July 2003. We follow the same steps illustrated earlier in this chapter: Analyze the transaction, journalize, post to the ledger, and prepare the trial balance.

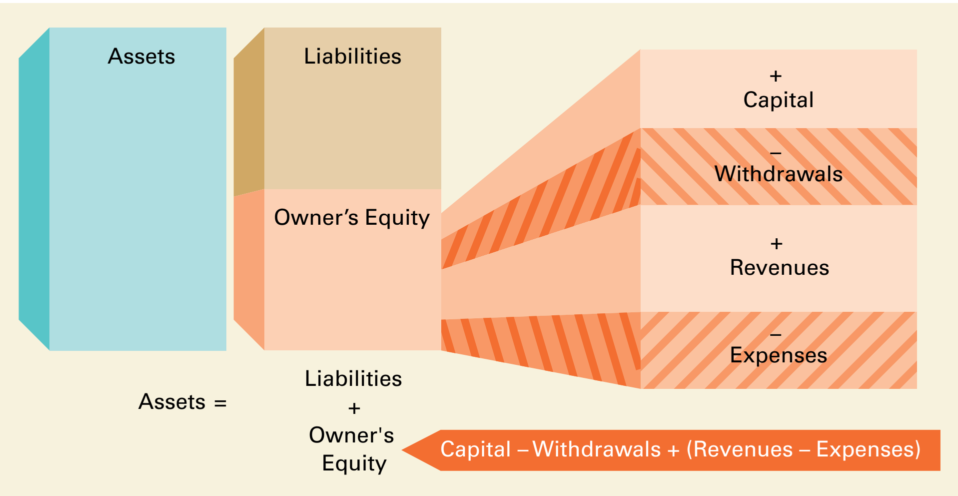


EXHIBIT 2-12

Expansion of the Accounting Equation

EXHIBIT 2-13

Rules of Debit and Credit, and Normal Balances of Accounts

Panel A: Rules of Debit and Credit

Assets		=	Liabilities		+	Capital	
Debit for Increase	Credit for Decrease		Debit for Decrease	Credit for Increase		Debit for Decrease	Credit for Increase

Withdrawals	
Debit for Increase	Credit for Decrease

Revenues	
Debit for Decrease	Credit for Increase

Expenses	
Debit for Increase	Credit for Decrease

Panel B: Normal Balances

Assets	Debit	
Liabilities		Credit
Owner's equity—overall		Credit
Capital		Credit
Withdrawals	Debit	
Revenue		Credit
Expenses	Debit	

Transaction Analysis, Journalizing, and Posting

1. ***Transaction:*** **Sarah Gunz invested $10,000 cash in a business bank account to open her law practice. The business received the cash and gave Gunz owner's equity.**

Analysis: The business asset cash is increased; therefore, debit Cash. The owner's equity of the business is increased, so credit Sarah Gunz, Capital.

Journal Entry:

Cash	10,000	
Sarah Gunz, Capital		10,000
Received investment from owner.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Cash				Sarah Gunz, Capital
+10,000	=	0	+	10,000

Ledger Accounts:

Cash	
(1) 10,000	

Sarah Gunz, Capital	
	(1) 10,000

2.	***Transaction:***	**Gun\provided legal services for a client and received $3,000 cash.**

Analysis: The asset cash is increased; therefore, debit Cash. The revenue account service revenue is increased; credit Service Revenue.

Journal Entry:

Cash	3,000	
Service Revenue		3,000
Performed service and received cash.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY	+	REVENUES
Cash						Service Revenue
+3,000	=	0			+	3,000

Ledger Accounts:

Cash	
(1) 10,000	
(2) 3,000	

Service Revenue	
	(2) 3,000

3.	***Transaction:***	**Gunz provided legal services to JM Co. and billed the client for $500 on account. This means JM Co. owes the business $500 and Gunz expects to collect the $500 later.**

Analysis: The asset accounts receivable is increased; therefore, debit Accounts Receivable. Service revenue is increased; credit Service Revenue.

Journal Entry:

Accounts Receivable	500	
Service Revenue		500
Performed service on account.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY	+	REVENUES
Accounts Receivable						Service Revenue
+500	=	0			+	500

Ledger Accounts:

Accounts Receivable	
(3) 500	

Service Revenue	
	(2) 3,000
	(3) 500

4.	***Transaction:***	**Gunz provided and billed legal services of $700 to a doctor, who paid $300 cash immediately. Gunz billed the remaining $400 to the doctor on accounts receivable.**

Analysis: The assets cash and accounts receivable are increased; therefore, debit both of these asset accounts. Service revenue is increased; credit Service Revenue for the sum of the two debit amounts.

WORKING IT OUT

Compute the missing amounts:

(1) Cash

Cash	
Bal. 10,000	
20,000	13,000
Bal. X	

(2) Accounts Payable

Accounts Payable	
X	Bal. 12,800
	45,600
	Bal. 23,500

(3) S. Scully, Capital

S. Scully, Capital	
	Bal. X
22,000	56,000
	15,000
	Bal. 73,000

A: (1) The ending balance (X) for Cash is
X = $10,000 + 20,000 − $13,000
X = $17,000
(2) We are given the beginning and ending balances. We can compute the debit entry as follows:
$12,800 + $45,600 − X = $23,500
$12,800 + $45,600 − $23,500 = X
X = $34,900
(3) The Capital account has an ending credit balance of $73,000. We can calculate the beginning credit balance as follows:
X + $56,000 + $15,000 − $22,000 = $73,000
X = $73,000 − $56,000 − $15,000 + $22,000
X = $24,000

Journal Entry:	Cash	300	
	Accounts Receivable	400	
	Service Revenue		700
	Performed service for cash and on account.		

Accounting Equation:

ASSETS		=	LIABILITIES	+	OWNER'S EQUITY	+	REVENUES
Cash	Accounts Receivable						Service Revenue
+300	+400	=	0			+	700

Note: Because this transaction affects more than two accounts at the same time, the entry is called a *compound entry*. **No matter how many accounts a compound entry affects—there may be any number—total debits must equal total credits.**

Ledger Accounts:

Cash

(1)	10,000		
(2)	3,000		
(4)	**300**		

Accounts Receivable

(3)	500		
(4)	**400**		

Service Revenue

		(2)	3,000
		(3)	500
		(4)	**700**

5. ***Transaction:*** **Gunz paid the following cash expenses: office rent, $900; employee salary, $1,500; and utilities, $500.**

Analysis: The asset cash is decreased; therefore, credit Cash for each of the three expense amounts. The following expenses are increased: Rent Expense, Salary Expense, and Utilities Expense. Each should be debited for the appropriate amount.

Journal Entry:	Rent Expense	900	
	Salary Expense	1,500	
	Utilities Expense	500	
	Cash		2,900
	Issued three cheques to pay cash expenses.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY	−	EXPENSES		
Cash						Rent Expense	Salary Expense	Utilities Expense
−2,900	=	0				−900	−1,500	−500

Note: In practice, the business would record these three transactions separately. To save space, we can record them together in a compound journal entry.

Ledger Accounts:

Cash

(1)	10,000	**(5)**	**2,900**
(2)	3,000		
(4)	300		

Rent Expense

(5)	**900**		

Salary Expense

(5)	**1,500**		

Utilities Expense

(5)	**500**		

6. *Transaction:* Gunz received a telephone bill for $120 and will pay this expense next week.

Analysis: Utilities expense is increased; therefore, debit this expense. The liability accounts payable is increased, so credit Accounts Payable.

Journal Entry:

Utilities Expense	120	
Accounts Payable		120
Received utility bill.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY	–	EXPENSES
		Accounts Payable				Utilities Expense
0	=	+120			–	120

Ledger Accounts:

Accounts Payable

		(6)	**120**

Utilities Expense

(5)	500		
(6)	**120**		

7. *Transaction:* Gunz received $200 cash from JM Co., the client discussed in Transaction 3.

Analysis: The asset cash is increased; therefore, debit Cash. The asset accounts receivable is decreased; therefore, credit Accounts Receivable.

Journal Entry:

Cash	200	
Accounts Receivable		200
Received cash on account.		

Accounting Equation:

ASSETS		=	LIABILITIES	+	OWNER'S EQUITY
Cash	Accounts Receivable				
+200	–200	=	0	+	0

Note: This transaction has no effect on revenue; the related revenue is accounted for in Transaction 3.

Ledger Accounts:

Cash

(1)	10,000	(5)	2,900
(2)	3,000		
(4)	300		
(7)	**200**		

Accounts Receivable

(3)	500	**(7)**	**200**
(4)	400		

LEARNING TIP

Recording an expense does not necessarily involve a credit to cash. In Transaction 6 the expense is recorded now, but the cash will be paid later. Likewise, a debit to cash does not always reflect revenue. Transaction 7 records cash collected on a receivable (the revenue was recorded in Transaction 3).

8.	***Transaction:***	**Gunz paid the telephone bill that was received and recorded in Transaction 6.**

Analysis: The asset cash is decreased; credit Cash. The liability accounts payable is decreased; therefore, debit Accounts Payable.

Journal Entry:

Accounts Payable	120	
Cash		120
Paid cash on account.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Cash		Accounts Payable		
–120	=	–120	+	0

Note: This transaction has no effect on expense because the related expense was recorded in Transaction 6.

Ledger Accounts:

Cash

(1)	10,000	(5)	2,900
(2)	3,000	**(8)**	**120**
(4)	300		
(7)	200		

Accounts Payable

(8)	**120**	(6)	120

9.	***Transaction:***	**Gunz withdrew $1,100 cash for personal use.**

Analysis: The asset cash decreased; credit Cash. The withdrawal decreased owner's equity; therefore, debit Sarah Gunz, Withdrawals.

Journal Entry:

Sarah Gunz, Withdrawals	1,100	
Cash		1,100
Withdrew cash for personal use.		

Accounting Equation:

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
Cash				Sarah Gunz, Withdrawals
–1,100	=	0		–1,100

Ledger Accounts:

Cash

(1)	10,000	(5)	2,900
(2)	3,000	(8)	120
(4)	300	**(9)**	**1,100**
(7)	200		

Sarah Gunz, Withdrawals

(9)	**1,100**		

Stop & Think

Review the chapter-opening story and concentrate on Intrawest's need for financial statement information. How will the procedures you have applied in this chapter help Intrawest convince potential investors that the business is financially stable?

Answer: The end product of the accounting process is a set of financial statements. Intrawest's accounting records will generate the income statement, cash flow statement, and balance sheet that potential investors require of companies before investing.

Ledger Accounts after Posting

ASSETS

Cash

(1) 10,000	(5) 2,900
(2) 3,000	(8) 120
(4) 300	(9) 1,100
(7) 200	
Bal. 9,380	

Accounts Receivable

(3) 500	(7) 200
(4) 400	
Bal. 700	

LIABILITIES

Accounts Payable

(8) 120	(6) 120
	Bal. 0

OWNER'S EQUITY

Sarah Gunz, Capital

	(1) 10,000
	Bal.10,000

Sarah Gunz, Withdrawals

(9) 1,100	
Bal. 1,100	

REVENUE

Service Revenue

	(2) 3,000
	(3) 500
	(4) 700
	Bal. 4,200

EXPENSES

Rent Expense

(5) 900	
Bal. 900	

Salary Expense

(5) 1,500	
Bal. 1,500	

Utilities Expense

(5) 500	
(6) 120	
Bal. 620	

Trial Balance

To prepare the trial balance, we list and summarize the balances from the ledger accounts.

SARAH GUNZ, LAWYER
Trial Balance
July 31, 2003

	Balance	
Account Title	**Debit**	**Credit**
Cash	$ 9,380	
Accounts receivable	700	
Accounts payable		$ 0
Sarah Gunz, Capital		10,000
Sarah Gunz, Withdrawals	1,100	
Service revenue		4,200
Rent expense	900	
Salary expense	1,500	
Utilities expense	620	
Total	$14,200	$14,200

THINKING IT OVER

Which side of the trial balance is affected by a debit to accounts payable?

A: The credit side. (Students may want to say debit.) Illustration:

Accounts Payable

	Bal. 6,000

A debit to accounts payable reduces the *credit* balance of Accounts Payable.

Accounts Payable

	Bal. 6,000
1,000	
	Bal. 5,000

You have now seen how to record business transactions, post to the ledger accounts, and prepare a trial balance. Solidify your understanding of the accounting process by reviewing the Decision Guidelines feature, described on page 80.

Use of Accounting Information for Quick Decision Making

OBJECTIVE 7
Analyze transactions without a journal

Often businesspeople make decisions without taking the time to follow all the steps in an accounting system. For example, suppose Intrawest, which owns a number of ski resorts, needs an additional ski lift at Blackcomb to meet skiers' demand. The company can either build an additional lift and increase revenues or not build the lift. The decision to build the lift will depend upon the different effects on the company.

DECISION GUIDELINES Analyzing and Recording Transactions

Decision	Guidelines
Has a transaction occurred?	If the event affects the entity's financial position and can be reliably recorded—*Yes* If either condition is absent—*No*
Where to record the transaction?	In the *journal*, the chronological record of transactions
What to record for each transaction?	Increases and/or decreases in all the accounts affected by the transaction (at cost)
How to record an increase/decrease in a(an)	Rules of debit and credit:

	Increase	**Decrease**
Asset	Debit	Credit
Liability	Credit	Debit
Owner's equity	Credit	Debit
Revenue	Credit	Debit
Expense	Debit	Credit

Decision	Guidelines
Where to store all the information for each account?	In the *ledger*, the book of accounts and their balances
Where to list all the accounts and their balances?	In the *trial balance*
Where to report the Results of operations?	In the income statement (revenues – expenses = net income or net loss)
Financial position?	In the balance sheet (assets = liabilities + owner's equity)

Intrawest management does not need to record in the journal all the transactions that would be affected by its decision. After all, the company has not completed a transaction yet. But management does need to know how Intrawest will be affected by the decision. If the decision makers know accounting, they can skip the journal and go directly to the ledger accounts that would be affected. The following accounts summarize the immediate effects of building the lift and not building the lift.

BUILD THE LIFT

Cash	
	1,000,000

Revenue	
	300,000 per year for ten years

Expenses	
100,000 per year for ten years	

DO NOT BUILD THE LIFT

Cash	
	No effect

Revenue	
	No effect

Immediately Intrawest's management can see that building the additional lift will require more cash. But management can also see that Intrawest will generate more revenues if the lift is built. This may motivate Intrawest's management to use cash to build the lift.

Companies do not actually keep their records in this short-cut fashion. But a decision maker who needs information immediately can quickly analyze the effect of a set of transactions on the company's financial statements.

Summary Problem for Your Review

The trial balance of Tomassini Computer Service Centre on March 1, 2003, lists the company's assets, liabilities, and owner's equity on that date.

	Balance	
Account Titles	**Debit**	**Credit**
Cash	$26,000	
Accounts receivable	4,500	
Accounts payable		$ 2,000
John Tomassini, Capital		28,500
Total	$30,500	$30,500

During March the business engaged in the following transactions:

a. Borrowed $45,000 from the bank and signed a note payable in the name of the business.

b. Paid cash of $40,000 to a real estate company to acquire land.

c. Performed service for a customer and received cash of $5,000.

d. Purchased supplies on account, $300.

e. Performed customer service and earned revenue on account, $2,600.

f. Paid $1,200 of the Accounts Payable at March 1, 2003.

g. Paid the following cash expenses: salaries, $3,000; rent, $1,500; and interest, $400.

h. Received $3,100 of the Accounts Receivable at March 1, 2003.

i. Received a $200 utility bill that will be paid next week.

j. Tomassini withdrew $1,800 for personal use.

Required

1. Open the following accounts, with the balances indicated, in the ledger of Tomassini Computer Service Centre. Use the T-account format.
   Assets: Cash, $26,000; Accounts Receivable, $4,500; Supplies, no balance; Land, no balance
   Liabilities: Accounts Payable, $2,000; Note Payable, no balance
   Owner's Equity: JohnTomassini, Capital, $28,500; JohnTomassini, Withdrawals, no balance
   Revenues: Service Revenue, no balance
   Expenses: (none have balances) Salary Expense, Rent Expense, Utilities Expense, Interest Expense
2. Journalize the preceding transactions. Key journal entries by transaction letter.
3. Post to the ledger.
4. Prepare the trial balance of Tomassini Computer Service Centre at March 31, 2003.
5. Compute the net income or net loss of the entity during the month of March by producing an income statement. List expenses in alphabetical order.

Solution to Review Problem

Requirement 1

ASSETS

Cash	
Bal. 26,000	

Accounts Receivable	
Bal. 4,500	

Supplies	

Land	

LIABILITIES

Accounts Payable	
	Bal. 2,000

Note Payable	

OWNER'S EQUITY

John Tomassini, Capital	
	Bal. 28,500

John Tomassini, Withdrawals	

REVENUE

Service Revenue	

EXPENSES

Interest Expense	

Rent Expense	

Salary Expense	

Utilities Expense	

Requirement 2

	Accounts and Explanation	Debit	Credit
a.	Cash	45,000	
	Note Payable		45,000
	Borrowed cash on note payable.		
b.	Land	40,000	
	Cash		40,000
	Purchased land for cash.		
c.	Cash	5,000	
	Service Revenue		5,000
	Performed service and received cash.		
d.	Supplies	300	
	Accounts Payable		300
	Purchased supplies on account.		
e.	Accounts Receivable	2,600	
	Service Revenue		2,600
	Performed service on account.		
f.	Accounts Payable	1,200	
	Cash		1,200
	Paid cash to reduce accounts payable.		
g.	Salary Expense	3,000	
	Rent Expense	1,500	
	Interest Expense	400	
	Cash		4,900
	Issued three cheques to pay cash expenses.		
h.	Cash	3,100	
	Accounts Receivable		3,100
	Received cash on account.		
i.	Utilities Expense	200	
	Accounts Payable		200
	Received utility bill.		
j.	John Tomassini, Withdrawals	1,800	
	Cash		1,800
	Withdrew cash for personal use.		

Requirement 3

ASSETS

Cash

Bal.	26,000	(b)	40,000
(a)	45,000	(f)	1,200
(c)	5,000	(g)	4,900
(h)	3,100	(j)	1,800
Bal.	31,200		

Accounts Receivable

Bal.	4,500	(h)	3,100
(e)	2,600		
Bal.	4,000		

Supplies

(d)	300		
Bal.	300		

Land

(b)	40,000		
Bal.	40,000		

LIABILITIES

Accounts Payable

(f)	1,200	Bal.	2,000
		(d)	300
		(i)	200
		Bal.	1,300

Note Payable

		(a)	45,000
		Bal.	45,000

OWNER'S EQUITY

John Tomassini, Capital

		Bal.	28,500

John Tomassini, Withdrawals

(j)	1,800		
Bal.	1,800		

REVENUE

Service Revenue

		(c)	5,000
		(e)	2,600
		Bal.	7,600

EXPENSES

Interest Expense

(g)	400		
Bal.	400		

Rent Expense

(g)	1,500		
Bal.	1,500		

Salary Expense

(g)	3,000		
Bal.	3,000		

Utilities Expense

(i)	200		
Bal.	200		

Requirement 4

TOMASSINI COMPUTER SERVICE CENTRE
Trial Balance
March 31, 2003

	Balance	
Account Title	Debit	Credit
Cash	$31,200	
Accounts receivable	4,000	
Supplies	300	
Land	40,000	
Accounts payable		$ 1,300
Note payable		45,000
John Tomassini, capital		28,500
John Tomassini, withdrawals	1,800	
Service revenue		7,600
Interest expense	400	
Rent expense	1,500	
Salary expense	3,000	
Utilities expense	200	
Total	$82,400	$82,400

Requirement 5

TOMASSINI COMPUTER SERVICE CENTRE
Income Statement
For the Month Ended March 31, 2003

Revenues		
Service revenue		$7,600
Expenses:		
Interest expense	$ 400	
Rent expense	1,500	
Salary expense	3,000	
Utilities expense	200	
Total expenses		5,100
Net income		$2,500

Cyber Coach

Visit the Student Resource area of the *Accounting* Companion Website for extra practice with tne new material in Chapter 2.

www.pearsoned.ca/horngren

Summary

1. **Define and use key accounting terms: *account*, *ledger*, *debit*, and *credit*.** *Accounts* can be viewed in the form of the letter "T." The left side of each T-account is its *debit* side. The right side is its *credit* side. The *ledger*, which contains a record for each account groups and numbers accounts by category in the following order: assets, liabilities, and owner's equity (and its subparts, revenues and expenses).

2. **Apply the rules of debit and credit.** *Assets* and *expenses* are increased by debits and decreased by credits. *Liabilities*, *owner's equity*, and *revenues* are increased by credits and decreased by debits. An account's *normal balance* is the side of the account—debit or credit—in which increases are recorded. Thus the normal balance of assets and expenses is a debit, and the normal balance of liabilities, owner's equity, and revenues is a credit. The Withdrawals account, which decreases owner's equity, normally has a debit balance. *Revenues*, which are increases in owner's equity, have a normal credit balance. *Expenses*, which are decreases in owner's equity, have a normal debit balance.

3. **Record transactions in the journal.** The accountant begins the recording process by entering the transaction's information in the *journal*, a chronological list of all the entity's transactions.

4. **Post from the journal to the ledger.** Posting means transferring to the *ledger* accounts. Posting references are used to trace amounts back and forth between the journal and the ledger.

5. **Prepare and use a trial balance.** The *trial balance* is a summary of all the account balances in the ledger. When *double-entry accounting* has been done correctly, the total debits and the total credits in the trial balance are equal.

6. **Set up a chart of accounts for a business.** A *chart of accounts* lists all the accounts in the ledger and their account numbers.

7. **Analyze transactions without a journal.** Decision makers must often make decisions without a complete accounting system. They can analyze the transactions without a journal.

We can now trace the flow of accounting information through these steps:

Business Transaction → **Source Documents** → **Journal Entry** → **Posting to Ledger** → **Trial Balance**

Self-Study Questions

Test your understanding of the chapter by marking the correct answer for each of the following questions:

1. An account has two sides called the *(p. 55)*
   a. Debit and credit
   b. Asset and liability
   c. Revenue and expense
   d. Journal and ledger
2. Increases in liabilities are recorded by *(p. 56)*
   a. Debits
   b. Credits
3. Why do accountants record transactions in the journal? *(p. 58)*
   a. To ensure that all transactions are posted to the ledger
   b. To ensure that total debits equal total credits
   c. To have a chronological record of all transactions
   d. To help prepare the financial statements
4. Posting is the process of transferring information from the *(p. 60)*
   a. Journal to the trial balance
   b. Ledger to the trial balance
   c. Ledger to the financial statements
   d. Journal to the ledger
5. The purchase of land for cash is recorded by a *(p. 61)*
   a. Debit to Cash and a credit to Land
   b. Debit to Cash and a debit to Land
   c. Debit to Land and a credit to Cash
   d. Credit to Cash and a credit to Land
6. The purpose of the trial balance is to *(p. 64)*
   a. List all accounts with their balances
   b. Ensure that all transactions have been recorded
   c. Speed the collection of cash receipts from customers
   d. Increase assets and owner's equity
7. What is the normal balance of the Accounts Receivable, Office Supplies, and Rent Expense accounts? *(p. 71)*
   a. Debit
   b. Credit
8. A business has Cash of $3,000, Notes Payable of $2,500, Accounts Payable of $4,300, Service Revenue of $7,000 and Rent Expense of $1,800. Based on these data, how much are its total liabilities? *(p. 74)*
   a. $5,500
   b. $6,800
   c. $9,800
   d. $13,800
9. Smale Transport earned revenue on account. The earning of revenue on account is recorded by a *(pp. 74–78)*
   a. Debit to Cash and a credit to Revenue
   b. Debit to Accounts Receivable and a credit to Revenue
   c. Debit to Accounts Payable and a credit to Revenue
   d. Debit to Revenue and a credit to Accounts Receivable
10. The account credited for a receipt of cash on account is *(p. 77)*
    a. Cash
    b. Accounts Payable
    c. Service Revenue
    d. Accounts Receivable

Answers to the Self-Study Questions follow the Similar Accounting Terms.

Accounting Vocabulary

Account *(p. 52)*
Chart of accounts *(p. 70)*
Credit *(p. 55)*
Debit *(p. 55)*
Journal *(p. 58)*
Ledger *(p. 52)*
Posting *(p. 60)*
Trial balance *(p. 64)*

Similar Accounting Terms

Cr	Credit; right
Dr	Debit; left
The Ledger	The Books; the General Ledger
Entering the transaction in a journal	Making the journal entry; journalizing the transaction
Withdrawals by owner(s)	In a *proprietorship* or *partnership*, distributions from a company to its owner(s).

Answers to Self-Study Questions

1. a	3. c	5. c	7. a	9. b
2. b	4. d	6. a	8. b ($6,800 = $2,500 + $4,300)	10. d

Assignment Material

Questions

1. Name the basic summary device of accounting. What letter of the alphabet does it resemble? Name its two sides.
2. Is the following statement true or false? Debit means decrease and credit means increase. Explain your answer.
3. Write two sentences that use the term *debit* differently.
4. What are the three *basic* types of accounts? Name two additional types of accounts. To which one of the three basic types are these two additional types of accounts most closely related?
5. Suppose you are the accountant for Smith Courier Service. Keeping in mind double-entry bookkeeping, identify the *dual effects* of Mary Smith's investment of $10,000 cash in her business.
6. Briefly describe the flow of accounting information.
7. To what does the *normal balance* of an account refer?
8. Indicate the normal balance of the five types of accounts.

Account Type	**Normal Balance**
Assets	____________
Liabilities	____________
Owner's equity	____________
Revenues	____________
Expenses	____________

9. What does posting accomplish? Why is it important? Does it come before or after journalizing?
10. Label each of the following transactions as increasing owner's equity (+), decreasing owner's equity (–), or as having no effect on owner's equity (0). Write the appropriate symbol in the space provided.

___ Investment by owner
___ Bill customer for services
___ Purchase of supplies on credit
___ Pay expenses
___ Cash payment on account
___ Withdrawal by owner
___ Borrowing money on a note payable
___ Sale of services on account

11. What four steps does posting include? Which step is the fundamental purpose of posting?
12. Rearrange the following accounts in their logical sequence in the chart of accounts:

Notes Payable	Cash
Accounts Receivable	Jane East, Capital
Sales Revenue	Salary Expense

13. What is the meaning of the statement, Accounts Payable has a credit balance of $1,700?
14. Jack Brown Campus Cleaners launders the shirts of customer Bobby Baylor, who has a charge account at the cleaners. When Bobby picks up his clothes and is short of cash, he charges it. Later, when he receives his monthly statement from the cleaners, Bobby writes a cheque on his bank account and mails the cheque to the cleaners. Identify the two business transactions described here. Which transaction increases the business's owner's equity? Which transaction increases Jack Brown Campus Cleaners' cash?
15. Explain the difference between the ledger and the chart of accounts.
16. Why do accountants prepare a trial balance?
17. What is a compound journal entry?
18. The accountant for Bower Construction mistakenly recorded a $500 purchase of supplies on account as $5,000. He debited Supplies and credited Accounts Payable for $5,000. Does this error cause the trial balance to be out of balance? Explain your answer.
19. What is the effect on total assets of collecting cash on account from customers?
20. What is the advantage of analyzing and recording transactions without the use of a journal? Describe how this "journal-less" analysis works.
21. Briefly summarize the similarities and differences between manual and computer-based accounting systems in terms of journalizing, posting, and preparing a trial balance.

Exercises

Exercise 2-1 *Using accounting vocabulary* ***(Obj. 1)***

Your employer, OceanTours, has just hired an office manager who does not understand accounting. The Ocean Tours' trial balance lists Cash of $43,900. Write a short memo to the office manager, explaining the accounting process that produced this listing on the trial balance. Mention *debits, credits, journal, ledger, posting*, and *trial balance*.

Exercise 2-2 *Using debits and credits with the accounting equation* ***(Obj. 1, 2)***

Link Back to Chapter 1 (Accounting Equation). Canadian National Railway Company (CN) is one of North America's leading railroads. At the end of 1999, CN had total assets of $16.4 billion and total liabilities of $10.3 billion.

Required

1. Write the company's accounting equation, and label each element as a debit amount or a credit amount.
2. CN's total revenues for 1999 were $5.2 billion, and total expenses for the year were $4.4 billion. How much was CN's net income (or net loss) for 1999? Write the equation to compute CN's net income, and indicate which element is a debit amount and which element is a credit amount. Does net income represent a net debit or a net credit? Does net loss represent a net debit or a net credit? Review Exhibit 1-8, page 22, if needed.
3. During 1999, the owners of CN were paid $118 million in the form of dividends (this is the same as owner's withdrawals). Did the dividends represent a debit amount or a credit amount?
4. Considering both CN's net income (or net loss) and dividends for 1999, by how much did the company's owner's equity increase or decrease during 1999? Was the increase in owner's equity a debit amount or a credit amount?

Exercise 2-3 *Analyzing and journalizing transactions* ***(Obj. 2, 3)***

Analyze the following transactions in the manner shown for the December 1 transaction of Rotman Strategic Consulting. Also, record each transaction in the journal.

Dec.	1	Paid monthly utilities expense of $700. (Analysis: The expense, utilities expense, is increased; therefore, debit Utilities Expense. The asset, cash, is decreased; therefore, credit Cash.)		
	1	Utilities Expense	700	
		Cash		700
	4	Borrowed $8,000 cash, signing a note payable.		
	8	Performed service on account for a customer, $1,600.		
	12	Purchased office furniture on account, $1,000.		
	19	Sold for $74,000 land that had cost this same amount.		
	24	Purchased building for $140,000; signed a note payable.		
	27	Paid the liability created on December 12.		

Exercise 2-4 *Applying the rules of debit and credit* ***(Obj. 2)***

Refer to Exercise 2-3 for the transactions of Rotman Strategic Consulting.

Required

1. Open the following T-accounts with their December 1 balances: Cash, debit balance $6,000; Land, debit balance $74,000; S. Rotman, Capital, credit balance $80,000.

2. Record the transactions of Exercise 2-3 directly in the T-accounts affected. Use dates as posting references in the T-accounts. Journal entries are not required.
3. Compute the December 31 balance for each account, and prove that total debits equal total credits.

Exercise 2-5 *Journalizing transactions* ***(Obj. 3)***

Wellness Health Club engaged in the following transactions during March 2002, its first month of operations:

Mar.	1	Louise Chen invested $45,000 cash to start the business.
	2	Purchased supplies for $500 on account.
	4	Paid $40,000 cash for building to use as an office.
	6	Presented a wellness seminar for a corporate customer and received cash, $2,500.
	9	Paid $100 on accounts payable.
	17	Performed wellness assessments for customers on account, $1,000.
	23	Received $800 cash from a customer on account.
	31	Paid the following expenses: salary, $1,200; rent, $500.

Required

Record the preceding transactions in the journal of Wellness Health Club. Key transactions by date and include an explanation for each entry, as illustrated in the chapter and Exhibit 2-4. Use the following accounts: Cash; Accounts Receivable; Office Supplies; Building; Accounts Payable; L. Chen, Capital; Service Revenue; Salary Expense; Rent Expense.

Exercise 2-6 *Posting to the ledger and preparing a trial balance* ***(Obj. 4, 5)***

Refer to Exercise 2-5 for the transactions of Wellness Health Club.

Required

1. After journalizing the transactions of Exercise 2-5, post the entries to the ledger, using T-account format. Key transactions by date. Date the ending balance of each account Mar. 31.
2. Prepare the trial balance of Wellness Health Club at March 31, 2002.

Exercise 2-7 *Describing transactions and posting* ***(Obj. 3, 4)***

The journal of Mountain Snowboards for August 2003 is on page 89.

Required

1. Describe each transaction.
2. Post the transactions to the ledger using the following account numbers: Cash, 1000; Accounts Receivable, 1200; Supplies, 1400; Accounts Payable, 2000; Note Payable, 2100; Karli Rees, Capital, 3000; Sales Revenue, 4000; Advertising Expense, 5100; Rent Expense, 5600; Utilities Expense, 5800. Use dates, journal references, and posting references as illustrated in Exhibit 2-8. You may write the account numbers as posting references directly in your book unless directed otherwise by your instructor.
3. Compute the balance in each account after posting. Prepare Mountain Snowboard's trial balance at August 31, 2003.

Journal **Page 5**

Date		Accounts and Explanation	Post Ref.	Debit	Credit
Aug.	2	Cash		18,000	
		Karli Rees, Capital			18,000
	5	Cash		15,000	
		Note Payable			15,000
	9	Supplies		270	
		Accounts Payable			270
	11	Accounts Receivable		8,100	
		Sales Revenue			8,100
	14	Rent Expense		2,000	
		Cash			2,000
	22	Cash		1,400	
		Accounts Receivable			1,400
	25	Advertising Expense		350	
		Cash			350
	27	Accounts Payable		270	
		Cash			270
	31	Utilities Expense		320	
		Accounts Payable			320

Exercise 2-8 *Journalizing transactions* ***(Obj. 3)***

The first five transactions of Dale Hoch Archery School have been posted to the company's accounts as shown below:

Cash

(1) 60,000	(3) 42,000
(4) 11,000	(5) 6,000

Supplies

(2) 600	

Archery Equipment

(5) 6,000	

Land

(3) 42,000	

Accounts Payable

	(2) 600

Note Payable

	(4) 11,000

D. Hoch, Capital

	(1) 60,000

Required

Prepare the journal entries that served as the sources for the five transactions. Date each entry April 30, 2002, and include an explanation for each entry as illustrated in the chapter.

Exercise 2-9 *Preparing a trial balance* ***(Obj. 5)***

Prepare the trial balance of Dale Hoch Archery School at April 30, 2002, using the account data from Exercise 2-8.

Exercise 2-10 *Preparing a trial balance* ***(Obj. 5)***

The accounts of Klassen Consulting are listed on page 90 with their normal balances at October 31, 2002. The accounts are listed in no particular order.

Required

Prepare the company's trial balance at October 31, 2002, listing accounts in the sequence illustrated in the chapter. Supplies comes before Building and Land. List the expenses alphabetically.

Account	Balance
L. Klassen, Capital	$48,800
Advertising expense	1,650
Accounts payable	5,300
Services revenue	27,000
Land	29,000
Note payable	45,000
Cash	5,000
Salary expense	6,000
Building	65,000
Computer rental expense	7,000
L. Klassen, withdrawals	6,000
Utilities expense	400
Accounts receivable	5,500
Supplies expense	300
Supplies	250

Exercise 2-11 *Correcting errors in a trial balance* ***(Obj. 5)***

The trial balance of Archway Travel at February 28, 2003, does not balance.

Cash	$ 4,200	
Accounts receivable	2,900	
Supplies	600	
Land	66,000	
Accounts payable		$23,000
B. Reynolds, capital		41,600
Service revenue		10,700
Rent expense	800	
Salary expense	1,800	
Utilities expense	300	
Total	$76,600	$75,300

Investigation of the accounting records reveals that the bookkeeper

a. Recorded a $400 cash revenue transaction by debiting Accounts Receivable. The credit entry was correct.

b. Posted a $1,000 credit to Accounts Payable as $100.

c. Did not record utilities expense or the related account payable in the amount of $200.

d. Understated B. Reynolds, Capital by $400.

Required

Prepare the correct trial balance at February 28, 2003 complete with a heading. Journal entries are not required.

Exercise 2-12 *Recording transactions without a journal* ***(Obj. 7)***

Open the following T-accounts for Picard Pension Consulting at May 1, 2002: Cash; Accounts Receivable; Office Supplies; Office Furniture; Accounts Payable; Paule Picard, Capital; Paule Picard, Withdrawals; Service Revenue; Rent Expense; Salary Expense.

Record the following May transactions directly in the T-accounts of the business without using a journal. Use the letters to identify the transactions.

a. Paule Picard opened a pension consulting firm by investing $12,400 cash and office furniture valued at $5,400.

b. Paid monthly rent of $1,500.
c. Purchased office supplies on account, $600.
d. Paid employee salary, $1,000.
e. Paid $400 of the account payable credited in c.
f. Performed consulting service on account, $2,300.
g. Withdrew $2,000 for personal use.

Exercise 2-13 *Preparing a trial balance* ***(Obj. 5)***

After recording the transactions in Exercise 2-12, prepare the trial balance of Picard Pension Consulting at May 31, 2002.

Exercise 2-14 *Analyzing transactions without a journal* ***(Obj. 7)***

AltaVista Nursing Services began when Elaine Peugeot deposited $45,000 cash in the business bank account. During the first week, the business purchased supplies on credit for $5,000 and paid $8,000 cash for equipment. AltaVista later paid $3,000 on account.

Required

1. Open the following T-accounts: Cash; Supplies; Equipment; Accounts Payable; E. Peugot, Capital.
2. Record the transactions described above directly in the T-accounts without using a journal.
3. Compute the balance in each account. Show that total debits equal total credits after you have recorded all the transactions.

Serial Exercise

Exercise 2-15 begins an accounting cycle that is completed in Chapter 5.

Exercise 2-15 *Recording transactions and preparing a trial balance* ***(Obj. 2, 3, 4, 5)***

Anya Perreault Architects completed these transactions during early December 2002:

Dec.	2	Received $14,000 cash from Anya Perreault. The business gave owner's equity in the business to Perreault.
	2	Paid monthly office rent, $500.
	3	Paid cash for a Dell computer, $3,000. The computer is expected to remain in service for five years.
	4	Purchased office furniture on account, $5,600. The furniture should last for five years.
	5	Purchased supplies on account, $300.
	9	Performed design services for a client and received cash for the full amount of $1,000.
	12	Paid utility expenses, $200.
	18	Performed design services for a client on account, $1,700.

Required

1. Open T-accounts in the ledger: Cash; Accounts Receivable; Supplies; Equipment; Furniture; Accounts Payable; Anya Perreault, Capital; Anya Perreault, Withdrawals; Service Revenue; Rent Expense; Salaries Expense; and Utilities Expense. (Some of these T-accounts will be used in later chapters.)
2. Journalize the transactions. Explanations are not required.
3. Post to the T-accounts. Key all items by date, and denote an account balance as *Bal*. Formal posting references are not required.
4. Prepare a trial balance at December 18, 2002. In the Serial Exercise of Chapter 3,

we will add transactions for the remainder of December and will require a trial balance at December 31, 2002.

Challenge Exercises

Exercise 2-16 *Computing financial statement amounts without a journal* ***(Obj. 7)***

The owner of Auch Technical Services is an engineer with little understanding of accounting. She needs to compute the following summary information from the accounting records:

a. Net income for the month of March.

b. Total cash paid during March.

c. Cash collections from customers during March.

d. Cash paid on a note payable during March.

The quickest way to compute these amounts is to analyze the following accounts:

Account	Balance Feb. 28	Balance Mar. 31	Additional Information for the Month of March
a. S. Auch, Capital	$ 9,000	$15,000	Withdrawals, $4,000
b. Cash	5,000	4,000	Cash receipts, $67,000
c. Accounts Receivable	24,000	26,000	Sales on account, $63,500
d. Notes Payable	13,000	16,000	New note borrowing, $6,300

The net income for March can be computed as follows:

S. Auch, Capital

March Withdrawals	4,000	Feb. 28 Bal.	9,000	
		March Net Income	x	= $10,000
		March 31 Bal.	15,000	

Use a similar approach to compute the other three items of summary information the shareholder needs.

Exercise 2-17 *Analyzing accounting errors* ***(Obj. 2, 3, 4, 5)***

Stan has trouble keeping his debits and credits equal. During a recent month he made the following errors:

a. In journalizing a cash receipt, Stan debited Cash for $1,000 instead of the correct amount of $1,900. He credited Service Revenue for $1,000, the incorrect amount.

b. Stan posted a $700 utility expense as $70. The credit posting to Cash was the correct amount of $700.

c. In preparing the trial balance, Stan omitted an $8,000 note payable.

d. Stan recorded a $120 purchase of supplies on account by debiting Supplies and crediting Accounts Payable for $210.

e. In recording a $700 payment on account, Stan debited Supplies and credited Accounts Payable.

Required

1. For each of these errors, state whether the total debits equal total credits on the trial balance.
2. Identify any accounts with misstated balances, and indicate the amount and direction of the error (account balance too high or too low).

Beyond the Numbers

Beyond the Numbers 2-1

Joan McMullen asks your advice in setting up the accounting records for her new business, Joan's Photo Shoppe. The business will be a photography studio and will operate in a rented building. Joan's Photo Shoppe will need office equipment and cameras. The business will borrow money on notes payable to buy the needed equipment. Joan's Photo Shoppe will purchase on account photographic supplies and office supplies. Each asset has a related expense account, some of which have not yet been discussed. For example, equipment wears out (amortizes) and thus needs an amortization account. As supplies are used up, the business must record a supplies expense.

The business will need an office manager. This person will be paid a weekly salary of $900. Other expenses will include advertising and insurance. Since Joan's Photo Shoppe will want to know which aspects of the business generate the most and the least revenue, it will use a separate service revenue account for portraits, school pictures, and weddings. Joan's Photo Shoppe's better customers will be allowed to open accounts receivable with the business.

Required

List all the accounts Joan's Photo Shoppe will need, starting with the assets and ending with the expenses. Indicate which accounts will be reported on the balance sheet and which accounts will appear on the income statement.

Ethical Issue

Associated Charities Inc., a charitable organization in Brandon, Manitoba, has a standing agreement with Prairie Trust. The agreement allows Associated Charities Inc. to overdraw its cash balance at the bank when donations are running low. In the past, Associated Charities Inc. managed funds wisely and rarely used this privilege. Greg Osadchuk has recently become the president of Associated Charities Inc. To expand operations, Osadchuk is acquiring office equipment and spending large amounts for fund-raising. During his presidency, Associated Charities Inc. has maintained a negative bank balance (a credit Cash balance) of approximately $14,000.

Required

What is the ethical issue in this situation? State why you approve or disapprove of Osadchuk's management of Associated Charities Inc.'s funds.

Problems (Group A)

Problem 2-1A *Analyzing a trial balance* ***(Obj. 1)***

The owner of Drolet Logistics, Sean Drolet, is selling the business. He offers the trial balance shown on page 94 to prospective buyers.

Your best friend is considering buying Drolet Logistics. He seeks your advice in interpreting this information. Specifically, he asks whether this trial balance is the same as a balance sheet and an income statement. He also wonders whether Drolet Logistics is a sound company because all the accounts are in balance.

Required

Write a short note to answer your friend's questions. To aid his decision, state how he can use the information on the trial balance to compute the Drolet Logistics net income or net loss for the current period. State the amount of net income or net loss in your note.

DROLET LOGISTICS
Trial Balance
December 31, 2003

Cash	$ 12,000	
Accounts receivable	27,000	
Prepaid expenses	4,000	
Land for future expansion	76,000	
Accounts payable		$ 35,000
Note payable		32,000
Sean Drolet, Capital		30,000
Sean Drolet, Withdrawals	48,000	
Sales revenue		134,000
Advertising expense	3,000	
Rent expense	26,000	
Supplies expense	7,000	
Wage expense	28,000	
Totals	$231,000	$231,000

Problem 2-2A *Analyzing and journalizing transactions* ***(Obj. 2, 3)***

Valleyfield Theatre Co. owns movie theatres in the shopping centres of a major metropolitan area. The business engaged in the following transactions in 2002:

Feb.	1	Received cash of $100,000 from the owner Mary Clark.
	1	Paid February rent on a theatre building, $2,000.
	2	Paid $50,000 cash to purchase land for a theatre site.
	5	Borrowed $220,000 from the bank to finance the first phase of construction of the new theatre. The business signed a note payable to the bank.
	7	Received $20,000 cash from ticket sales and deposited this amount in the bank. (Label the revenue as Sales Revenue.)
	10	Purchased theatre supplies on account, $1,700.
	15	Paid theatre employee salaries, $2,800.
	15	Paid property tax expense on a theatre building, $1,600.
	16	Paid $800 on account.
	17	The owner withdrew $6,500 for personal expenses.

Valleyfield Theatre Co. uses the following accounts: Cash; Supplies; Land; Accounts Payable; Notes Payable; Mary Clark, Capital; Mary Clark, Withdrawals; Sales Revenue; Property Tax Expense; Rent Expense; Salary Expense.

Required

1. Prepare an analysis of each business transaction of Valleyfield Theatre Co. as shown for the February 1 transaction:

   Feb. 1 The asset Cash is increased. Increases in assets are recorded by debits; therefore, debit Cash. The owner's equity of the entity is increased. Increases in owner's equity are recorded by credits; therefore, credit Mary Clark, Capital.

2. Record each transaction in the journal, using the account titles given. Key each transaction by date. Explanations are not required.

Problem 2-3A *Journalizing transactions, posting to T-accounts, and preparing a trial balance* ***(Obj. 2, 3, 4, 5)***

L. da Vinci opened a renovation business called Renaissance Renovations on September 3, 2003. During the first month of operations, the business completed the following transactions:

Sept.	3	L. da Vinci deposited his cheque for $35,000 into the business bank account. The business gave da Vinci owner's equity in the business.
	4	Purchased supplies, $200, and furniture, $1,800, on account.
	5	Paid September rent expense, $500.
	6	Performed design services for a client and received $4,000 cash.
	7	Paid $15,000 cash to acquire land for a future office site.
	10	Designed a bathroom for a client, billed the client, and received her promise to pay the $1,000 within one week.
	14	Paid for the furniture purchased September 4 on account.
	15	Paid assistant's salary, $600.
	17	Received partial payment from client on account, $500.
	20	Prepared a recreation room design for a client on account, $1,800.
	28	Received $1,500 cash from a client for renovation of a cottage.
	30	Paid assistant's salary, $600.
	30	L. da Vinci withdrew $2,400 for personal use.

Required

Open the following T-accounts: Cash; Accounts Receivable; Supplies; Furniture; Land; Accounts Payable; L. da Vinci, Capital; L. da Vinci, Withdrawals; Service Revenue; Rent Expense; Salary Expense.

1. Record each transaction in the journal, using the account titles given. Key each transaction by date. Explanations are not required.
2. Post the transactions to the T-accounts, using transaction dates as posting references in the T-accounts. Label the balance of each account *Bal.*, as shown in the chapter.
3. Prepare the trial balance of Renaissance Renovations at September 30, 2003.

Problem 2-4A *Journalizing transactions, posting to ledger accounts, and preparing a trial balance* ***(Obj. 2, 3, 4, 5)***

The trial balance of Sutherland Designs is dated February 14, 2003.

SUTHERLAND DESIGNS
Trial Balance
February 14, 2003

Account Number	Account	Debit	Credit
1100	Cash	$ 2,000	
1200	Accounts receivable	8,000	
1300	Supplies	800	
1600	Automobile	18,600	
2000	Accounts payable		$ 3,000
3000	H. Sutherland, Capital		25,000
3100	H. Sutherland, Withdrawals	1,200	
5000	Service revenue		7,200
6100	Rent expense	1,000	
6200	Salary expense	3,600	
	Total	$35,200	$35,200

During the remainder of February, Sutherland Designs completed the following transactions:

Feb.	15	Collected $3,000 cash from a client on account.
	16	Designed a system for a client on account, $2,900.
	20	Paid on account, $1,600.
	21	Purchased supplies on account, $100.
	21	H. Sutherland withdrew $1,000 for personal use.

Feb.	21	Received a verbal promise of a $10,000 contract.
	22	Received cash of $3,100 for consulting work just completed.
	28	Paid employees' salaries, $1,600.

Required

1. Record the transactions that occurred during February 15 through 28 in *Page 3* of the journal. Include an explanation for each entry.
2. Open the ledger accounts listed in the trial balance, together with their balances at February 14. Use the three-column account format illustrated in the chapter. Enter *Bal.* (for previous balance) in the Item column, and place a check mark (✓) in the journal reference column for the February 14 balance in each account.

   Post the transactions to the ledger, using dates, account numbers, journal references, and posting references.
3. Prepare the trial balance of Sutherland Designs at February 28, 2003.

Problem 2-5A *Correcting errors in a trial balance* ***(Obj. 2, 5)***

Link Back to Chapter 1 (Income Statement). The following trial balance does not balance:

HAMMOND LANDSCAPE CONSULTING
Trial Balance
June 30, 2002

Cash	$ 2,000	
Accounts receivable	10,000	
Supplies	900	
Office furniture	3,600	
Land for future expansion	47,000	
Accounts payable		$ 4,000
Note payable		23,000
K. Hammond, Capital		31,600
K. Hammond, Withdrawals	2,000	
Consulting service revenue		6,500
Advertising expense	500	
Rent expense	1,000	
Salary expense	2,100	
Utilities expense	400	
Total	$69,500	$65,100

The following errors were detected:

a. The cash balance is understated by $900.
b. The cost of the land was $44,600, not $47,000.
c. A $400 purchase of supplies on account was neither journalized nor posted.
d. A $3,800 credit to Consulting Service Revenue was not posted.
e. Rent Expense of $200 was posted as a credit rather than a debit.
f. The balance of Advertising Expense is $600, but it was listed as $500 on the trial balance.
g. A $300 debit to Accounts Receivable was posted as $30. The credit to Consulting Service Revenue was correct.
h. The balance of Utilities Expense is overstated by $70.
i. A $900 debit to the K. Hammond, Withdrawals account was posted as a debit to K. Hammond, Capital.

Required

1. Prepare the correct trial balance at June 30, 2002. Journal entries are not required.

2. Prepare the company's income statement for the month ended June 30, 2002. Use it to determine the Hammond Landscape Consulting net income or net loss for the month.

Problem 2-6A *Recording transactions directly in the ledger; preparing a trial balance* ***(Obj. 2, 5, 7)***

Sharon Yee started an investment counselling business, Coast Partners, in Prince George, British Columbia on June 1, 2003. During the first month of operations, the business completed the following selected transactions:

a. Yee began the business with an investment of $20,000 cash, land valued at $20,000, and a building valued at $40,000. The business gave Yee owner's equity in the business for the value of the cash, land, and building.
b. Coast Partners borrowed $30,000 from the bank; signed a note payable.
c. Purchased office supplies on account, $1,300.
d. Paid $18,000 for office furniture.
e. Paid employee salary, $2,200.
f. Performed consulting service on account for client, $5,100.
g. Paid $800 of the account payable created in transaction c.
h. Received a $2,000 bill for advertising expense that will be paid in the near future.
i. Performed consulting service for customers and received cash, $1,600.
j. Received cash on account, $1,200.
k. Paid the following cash expenses:
   (1) Rent of photocopier, $700.
   (2) Utilities, $400.
l. Sharon Yee withdrew $2,500 for personal use.

Required

1. Open the following T-accounts: Cash; Accounts Receivable; Office Supplies; Office Furniture; Land; Building; Accounts Payable; Note Payable; Sharon Yee, Capital; Sharon Yee, Withdrawals; Service Revenue; Advertising Expense; Equipment Rental Expense; Salary Expense; Utilities Expense.
2. Record each transaction directly in the T-accounts without using a journal. Use the letters to identify the transactions.
3. Prepare the trial balance of Coast Partners at June 30, 2003.

Problem 2-7A *Preparing the financial statements* ***(Obj. 5)***

Link Back to Chapter 1 (Income Statement, Statement of Owner's Equity, Balance Sheet). Refer to Problem 2-6A. After completing the trial balance in Problem 2-6A, prepare the following final statements for Coast Partners:

1. Income statement for the month ended June 30, 2003.
2. Statement of owner's equity for the month ended June 30, 2003.
3. Balance sheet at June 30, 2003.

Draw arrows linking the financial statements. If needed, use Exhibit 1-8, page 22, as a guide for preparing the financial statements.

Problem 2-8A *Applying the rules of debit and credit, and recording transactions in the journal* ***(Obj. 2, 3)***

Bobby Reynolds operated a fishing charter business, Atlantic Charters. The business had the following transactions in September, 2002:

Sept. 1 Reynolds invested $20,000 cash and his 10-metre power boat in the charter business. The business gave Reynolds owner's equity in the business. The boat had originally cost him $40,000, but had a fair market value of $25,000 on September 1, 2002.
3 Purchased a new boat by paying $7,000 cash and promising to pay another $14,000 in one week. Reynolds felt that this was an excellent bargain as the boat had a catalogue price of $30,000 and he knew it was worth at least $25,000.
4 Paid moorage fees of $1,400 for the month of September. These fees covered two moorage slips—one for each charter boat.
5 Hired a deckhand at a rate of $400 per week.
9 Took clients out on a charter for $1,300. They paid $600 and promised to pay the balance in 30 days.
10 Paid $1,000 of the amount owing on the boat purchased on September 3. Signed a promissory note for the balance as the company was unable to pay the full amount that day.
15 Purchased $5,000 of equipment from a supplier. To pay for the equipment, Atlantic Charters took the supplier and her employees out on a day charter and also paid the supplier $3,000 cash.
20 Received $300 from the clients of September 9 as payment on the charter.
26 Paid the deckhand for three weeks' work.
29 A client chartered the two boats for two days for $4,000. In payment, the client, the owner of a service station, provided Atlantic Charters with $600 of gas for the boats, $1,400 of repair parts that can be used on the boats, and cash.
30 Used $400 of repair parts on each of the two boats.

Required

Record each transaction in the journal. Key each transaction by date. Explanations are not required.

Problem 2-9A *Applying the rules of debit and credit, and recording transactions* ***(Obj. 2, 3, 4, 5)***

Reliable Movers had the following account balances, in random order, on December 15, 2002 (all accounts have their "normal" balances):

Moving fees earned	$ 87,200	Cash	$ 2,400
Accounts receivable	5,800	Storage fees earned	19,300
Rent expense	15,700	Notes receivable	15,000
R. Sprott, Capital	50,000	Utilities expense	800
Office supplies expense	700	Office supplies	3,200
Mortgage payable	13,000	Accounts payable	11,000
Salaries expense	53,700	Office equipment	4,100
Insurance expense	2,100	Moving equipment	77,400

The following events took place during the final days of the year:

Dec. 16 The accountant discovered that an error had been made in posting an entry to the Moving Fees Earned account. The entry was correctly journalized but $1,200 was accidentally posted as $2,100 in the account.
17 Moved a customer's goods to Reliable's rented warehouse for storage. The moving fees were $1,000. Storage fees are $200 per month and are due from the customer in 30 days.
18 Collected a $5,000 note owed to Reliable Movers and collected interest of $600.
21 Purchased storage racks for $4,000. Paid $1,200, provided moving services for $500, and promised to pay the balance in 60 days.
23 Collected $1,000; $750 of this was for moving goods on December 15 (recorded as an accounts receivable at that time) and the balance was for storage fees for the period of December 16 to 23.
24 Reliable Movers paid $6,000 owing on the mortgage.
27 Réal Sprott withdrew $2,000 for personal use.
29 Provided moving services to a lawyer for $800. The lawyer paid Reliable Movers $500 and provided legal work for the balance.

Dec. 31 Réal Sprott, the owner of Reliable Movers, sold 1,000 shares he held in Whitehorse Haulage Inc. for $4,000.

Required

Where appropriate, record each transaction from December 16 to 31 in the journal. Explanations are not required.

Problems (Group B)

Problem 2-1B *Analyzing a trial balance* ***(Obj. 1)***

Link Back to Chapter 1 (Balance Sheet, Income Statement). Sylvie Fortin, the owner of Fortin Designs, is selling the business. She offers the following trial balance to prospective buyers:

FORTIN DESIGNS
Trial Balance
December 31, 2003

Cash	$ 7,000	
Accounts receivable	15,000	
Prepaid expenses	2,000	
Land for future expansion	34,000	
Accounts payable		$ 31,000
Note payable		22,000
Sylvie Fortin, Capital		33,000
Sylvie Fortin, Withdrawals	21,000	
Service revenue		70,000
Advertising expense	8,000	
Rent expense	12,000	
Supplies expense	9,000	
Wage expense	48,000	
Total	$156,000	$156,000

Your best friend is considering buying Fortin Designs. She seeks your advice in interpreting this information. Specifically, she asks whether this trial balance is the same as a balance sheet and an income statement. She also wonders whether Fortin Designs is a sound company. She thinks it must be because the accounts are in balance.

Required

Write a short note to answer your friend's questions. To aid her decision, state how she can use the information on the trial balance to compute the Fortin Designs net income or net loss for the current period. State the amount of net income or net loss in your note.

Problem 2-2B *Analyzing and journalizing transactions* ***(Obj. 2, 3)***

Ray Tam practises civil engineering under the business title Ray Tam Consulting. During April 2003 the company engaged in the following transactions:

Apr. 1 Tam deposited $35,000 cash in the business bank account. The business gave Tam owner's equity in the business.

5 Paid monthly rent on drafting equipment, $700.

9 Paid $22,000 cash to purchase land for an office site.

10 Purchased supplies on account, $1,500.

19 Paid $1,000 on account for supplies purchased on April 10.

22 Borrowed $20,000 from the bank for business use. Tam signed a note payable to the bank in the name of the business.

Apr. 30	Revenues earned during the month included $6,000 cash and $7,000 on account.
30	Paid employee salaries of $2,400, office rent of $1,600, and utilities of $400.
30	Ray Tam withdrew $4,000 from the business for personal use.

Ray Tam Consulting uses the following accounts: Cash; Accounts Receivable; Supplies; Land; Accounts Payable; Notes Payable; R. Tam, Capital; R. Tam, Withdrawals; Service Revenue; Rent Expense; Salary Expense; Utilities Expense.

Required

1. Prepare an analysis of each business transaction of Ray Tam Consulting, as shown for the April 1 transaction:

   Apr. 1 The asset Cash is increased. Increases in assets are recorded by debits; therefore, debit Cash. The owner's equity is increased. Increases in owner's equity are recorded by credits; therefore, credit R. Tam, Capital.

2. Record each transaction in the journal, using the account titles given. Key each transaction by date. Explanations are not required.

Problem 2-3B *Journalizing transactions, posting to T-accounts, and preparing a trial balance* ***(Obj. 2, 3, 4, 5)***

Marie Goyette opened a translation business on January 2, 2002. During the first month of operations the business completed the following transactions:

Jan. 2	Goyette deposited $40,000 cash in a business bank account entitled Marie Goyette Translation Service.
3	Purchased supplies, $500, and furniture, $4,200, on account.
3	Paid January rent expense, $900.
4	Performed translation services for a client and received cash, $1,500.
7	Paid $22,000 cash to acquire land for a future office site.
11	Translated a brochure for a client and billed the client $800.
15	Paid secretary salary, $650.
16	Paid for the furniture purchased January 3 on account.
18	Received partial payment from client on account, $400.
19	Translated legal documents for a client on account, $900.
22	Paid the water and electricity bills, $230.
29	Received $1,800 cash for translation for a client in an overseas business transaction.
31	Paid secretary salary, $650.
31	Marie Goyette withdrew $2,500 for personal use.

Required

Open the following T-accounts: Cash; Accounts Receivable; Supplies; Furniture; Land; Accounts Payable; Marie Goyette, Capital; Marie Goyette, Withdrawals; Translation Revenue; Rent Expense; Salary Expense; Utilities Expense.

1. Record each transaction in the journal, using the account titles given. Key each transaction by date. Explanations are not required.
2. Post the transactions to the ledger, using transaction dates in the ledger. Label the balance of each account *Bal.* as shown in the chapter.
3. Prepare the trial balance of Marie Goyette Translation Service at January 31, 2002.
4. How will what you have learned in this problem help you manage a business?

Problem 2-4B *Journalizing transactions, posting to ledger accounts, and preparing a trial balance* ***(Obj. 2, 3, 4, 5)***

The trial balance of the desktop publishing business of Steven Chang at November 15, 2003, is shown on page 101.

STEVEN CHANG PUBLISHING
Trial Balance
November 15, 2003

Account Number	Account	Debit	Credit
1100	Cash	$ 3,000	
1200	Accounts receivable	8,000	
1300	Supplies	600	
1900	Land	35,000	
2100	Accounts payable		$ 4,600
4000	S. Chang, Capital		40,000
4100	S. Chang, Withdrawals	2,300	
5000	Service revenue		7,100
6000	Rent expense	1,000	
6100	Salary expense	1,800	
	Total	$51,700	$51,700

During the remainder of November, the business completed the following transactions:

Nov.	16	Collected $4,000 cash from a client on account.
	17	Performed publishing services for a client on account, $2,100.
	21	Paid on account, $2,600.
	22	Purchased supplies on account, $600.
	23	Steven Chang withdrew $2,100 for personal use.
	24	Was advised that Desk Top Inc. was prepared to buy all of Steven Chang Publishing for $60,000.
	26	Received $1,900 cash for design work just completed.
	30	Paid employees' salaries, $2,400.

Required

1. Record the transactions that occurred during November 16 through 30 in *Page 6* of the journal. Include an explanation for each entry.
2. Post the transactions to the ledger, using dates, account numbers, journal references and posting references. Open the ledger accounts listed in the trial balance together with their balances at November 15. Use the three-column account format illustrated in the chapter. Enter *Bal.* (for previous balance) in the Item column, and place a check mark (✓) in the journal reference column for the November 15 balance of each account.
3. Prepare the trial balance of Steven Chang Publishing at November 30, 2003.

Problem 2-5B *Correcting errors in a trial balance* ***(Obj. 2, 5)***

Link Back to Chapter 1 (Income Statement). The trial balance for Lethbridge Copy Centre shown below, does not balance. The following errors were detected:

a. The cash balance is overstated by $400.
b. Rent expense of $200 was posted as a credit rather than a debit.
c. The balance of Advertising Expense is $300, but it is listed as $400 on the trial balance.
d. A $600 debit to Accounts Receivable was posted as $60.
e. The balance of Utilities Expense is understated by $60.
f. A $1,300 debit to the S. Scotty, Withdrawals account was posted as a debit to S. Scotty, Capital.
g. A $100 purchase of supplies on account was neither journalized nor posted.

h. A $5,800 credit to Service Revenue was not posted.
i. Office furniture should be listed in the amount of $1,300.

LETHBRIDGE COPY CENTRE
Trial Balance
October 31, 2002

Cash	$ 3,800	
Accounts receivable	2,000	
Supplies	500	
Office furniture	2,300	
Land	46,000	
Accounts payable		$ 2,000
Note payable		18,300
S. Scotty, Capital		29,500
S. Scotty, Withdrawals	3,700	
Service revenue		4,900
Salary expense	1,500	
Rent expense	600	
Advertising expense	400	
Utilities expense	200	
Total	$61,000	$54,700

Required

1. Prepare the correct trial balance at October 31, 2002. Journal entries are not required.
2. Prepare Lethbridge Copy Centre's income statement for the month ended October 31, 2002. Determine the company's net income or net loss for the month. Refer to Exhibit 1-8, page 22 if necessary.

Problem 2-6B *Recording transactions directly in the ledger; preparing a trial balance* ***(Obj. 2, 5, 7)***

George Tatulis started a catering service called Tatulis Catering in the province of New Brunswick. During the first month of operations, January, 2002, the business completed the following selected transactions:

a. Tatulis began the company with an investment of $15,000 cash and a van (automobile) valued at $13,000. The business gave Tatulis owner's equity in the business.
b. Borrowed $25,000 from the bank; signed a note payable.
c. Paid $3,000 for food service equipment.
d. Purchased supplies on account, $2,400.
e. Paid employee salary, $1,300.
f. Received $2,000 for a catering job.
g. Performed services at a wedding on account, $3,300.
h. Paid $1,000 of the account payable created in transaction d.
i. Received an $800 bill for advertising expense that will be paid in the near future.
j. Received cash on account, $1,100.
k. Paid the following cash expenses:
   (1) Rent, $1,000.
   (2) Insurance, $800.
l. George Tatulis withdrew $3,000 for personal use.

Required

1. Open the following T-accounts: Cash; Accounts Receivable; Supplies; Food Service Equipment; Automobile; Accounts Payable; Note Payable; G. Tatulis, Capital; G. Tatulis, Withdrawals; Service Revenue; Advertising Expense; Insurance Expense; Rent Expense; Salary Expense.
2. Record the transactions directly in the T-accounts without using a journal. Use the letters to identify the transactions.
3. Prepare the trial balance of Tatulis Catering at January 31, 2002.

Problem 2-7B *Preparing the financial statements* ***(Obj. 5)***

Link Back to Chapter 1 (Income Statement, Statement of Owner's Equity, Balance Sheet). Refer to Problem 2-6B. After completing the trial balance in Problem 2-6B, prepare the following financial statements for Tatulis Catering.

1. Income statement for the month ended January 31, 2002.
2. Statement of owner's equity for the month ended January 31, 2002.
3. Balance sheet at January 31, 2002.

Draw arrows linking the financial statements. If needed, use Exhibit 1-8, page 22, as a guide for preparing the financial statements.

Problem 2-8B *Applying the rules of debit and credit, recording transactions in the journal* ***(Obj. 2, 3)***

Arnold Ziffle operates a heavy equipment transport company, Red Deer Transport. The company had the following transactions for the month of August, 2002:

Aug.	1	Red Deer Transport received $15,000 cash and a truck and trailer from Ziffle. The truck and trailer had originally cost Ziffle $150,000, but had a fair market value of $130,000 on August 1.
	3	Purchased a new trailer by paying $8,000 cash and promising to pay another $30,000 in one week. The trailer had a list price of $47,000 and Ziffle knew it was worth at least $43,000.
	4	Paid parking space rental fees of $900 for the month of August. These fees covered three spaces—two for the trailers and one for the truck.
	5	Hired an assistant at a rate of $500 per week.
	9	Transported equipment for clients for $1,600. They paid $800 and promised to pay the balance in 30 days.
	10	Paid $6,000 of the amount owing on the trailer purchase on August 3. Signed a promissory note for the balance as the company was unable to pay the full amount that day.
	20	Received $800 from the clients of August 9 as payment on the haulage.
	26	Paid the assistant for three weeks' work.
	29	Billed a client $2,500 for hauling equipment from Red Deer to Edmonton. The client, who was the owner of a service station, paid the bill by providing the company with $500 of gas for the truck as well as $2,000 of repair parts that can be used on the truck.
	30	Used $300 of repair parts on the truck.

Required

Record each transaction in the journal. Key each transaction by date. Explanations are not required.

Problem 2-9B *Applying the rules of debit and credit, recording transactions, posting to the ledger, preparing a trial balance* ***(Obj. 2, 3, 4, 5)***

Ocean Rest, owned by Larry LaRue, had the following account balances, in random order, on December 15, 2002 (all accounts have their "normal" balances):

Guest revenue	$104,500	Furniture	$28,900
Accounts receivable	4,400	Cash	1,900
Equipment rental expense	5,900	Notes receivable	13,000
L. LaRue, Capital	46,900	Utilities expense	500
Supplies expense	1,400	Supplies inventory	2,900
Mortgage payable	15,000	Accounts payable	6,000
Salaries expense	40,500	Office equipment	5,100
Insurance expense	3,400	Boating equipment	48,400

The following events also took place during the final days of the year:

Dec. 16 The accountant discovered that an error had been made in posting an entry to the Guest Revenue account. The entry was correctly journalized but $2,100 was accidentally posted as $1,200 in the account.

17 Agreed to let a retired professor move in in the off season for a long stay, beginning today. The monthly rate will be $1,600.

18 Collected a $6,000 note owed to Ocean Rest and collected interest of $600.

21 Purchased boating equipment for $7,000 from Boats Unlimited. Ocean Rest paid $1,500, provided room rentals for $800 to Boats Unlimited and promised to pay the balance in 60 days.

23 Collected $1,200 for rooms for a conference held from December 16 to 23.

24 Ocean Rest paid $2,000 owing on the mortgage.

27 Larry LaRue withdrew $3,500 for personal use.

29 Provided meeting rooms to a lawyer for $1,000. The lawyer paid Ocean Rest $600 and provided legal work for the balance.

Required

Where appropriate, record each transaction from December 16 to 31 in the journal. Explanations are not required.

Challenge Problems

Problem 2-1C *Understanding the rules of debit and credit* ***(Obj. 2)***

Some individuals, for whatever reason, do not pay income tax or pay less than they should. Often their business transactions are cash transactions so there is no paper trail to prove how much or how little they actually earned. Canada Customs and Revenue Agency, however, has a way of dealing with these individuals; they use a model (based on the accounting equation), to calculate how much the individual must have earned.

Canada Customs and Revenue Agency is about to audit Cathy Mackenzie for the period January 1, 2001, to December 31, 2001. Cathy buys and sells used cars for cash; the purchaser is responsible for having the car certified so it can be licensed and insured. Cathy had $2,000 cash, and no other assets or liabilities at January 1, 2001.

Required

1. Use the accounting equation to explain how the Canada Customs and Revenue Agency model will be used to audit Cathy.
2. What do you think are the accounting concepts underlying the model?

Problem 2-2C *Using a formal accounting system.* ***(Obj. 3, 4, 6)***

Over the years you have become friendly with a farmer, Kay Hudson, who raises crops, which she sells, and has small herds of beef cattle and sheep. Kay maintains her basic herds and markets the calves and lambs each fall. Her accounting system is quite simple; all her transactions are in cash. Kay pays tax each year on her income, which she estimates. She indicated to you once that she must be doing it right because Canada Customs and Revenue Agency audited her recently and assessed no additional tax.

You are taking your first accounting course and are quite impressed with the information one can gain from a formal accounting system.

Required

Explain to Kay Hudson why it would be to her advantage to have a more formal accounting system with accounts, ledgers, and journals.

Extending Your Knowledge

Decision Problems

1. Recording transactions directly in the ledger, preparing a trial balance, and measuring net income or loss (Obj. 2, 5, 7)

Your friend, Charles Lee, has asked your advice about the effects that certain business transactions will have on his business. His business, Car Finders, finds the best deals on automobiles for clients. Time is short, so you cannot journalize transactions. Instead, you must analyze the transactions without the use of a journal. Lee will continue in the business only if he can expect to earn monthly net income of $4,000. The business had the following transactions during March 2002:

a. Lee deposited $10,000 cash in a business bank account.

b. The business borrowed $4,000 cash from the bank and issued a note payable due within one year.

c. Paid $300 cash for supplies.

d. Paid cash for advertising in the local newspaper, $600.

e. Paid the following cash expenses for one month: secretary (part-time) salary, $1,200; office rent, $400; utilities, $300; interest, $100.

f. Earned revenue on account, $5,300.

g. Earned $2,500 revenue and received cash.

h. Collected cash from customers on account, $1,200.

Required

1. Open the following T-accounts: Cash; Accounts Receivable; Supplies; Notes Payable; Charles Lee, Capital; Service Revenue; Advertising Expense; Interest Expense; Rent Expense; Salary Expense; Utilities Expense.
2. Record the transactions directly in the T- accounts without using a journal. Key each transaction by letter.
3. Prepare a trial balance at March 31, 2002. List expenses alphabetically.
4. Compute the amount of net income or net loss for this first month of operations. Would you recommend Lee continue in business?

2. Using the accounting equation (Obj. 2)

Although all the following questions deal with the accounting equation, they are not related:

1. Explain the advantages of double-entry bookkeeping over single-entry bookkeeping to a friend who is opening a used-book store.
2. When you deposit money in your bank account, the bank credits your account. Is the bank misusing the word *credit* in this context? Why does the bank use the term *credit* to refer to your deposit, and not *debit*?
3. Your friend asks, “When revenues increase assets and expenses decrease assets, why are revenues credits and expenses debits and not the other way around?” Explain to your friend why revenues are credits and expenses are debits.

Financial Statement Problems

Journalizing transactions (Obj. 2, 3)

This problem helps to develop journalizing skill by using an actual company's account titles. Refer to the Intrawest Corporation financial statements (reported in U.S. dollars) in Appendix A. Assume Intrawest completed the following selected transactions during November 2000:

Nov.	5	Earned ski and resort operations revenues on account, $6,000,000.
	9	Borrowed $8,000,000 by signing a note payable (long-term other indebtedness).
	12	Purchased ski and resort operations equipment on account, $9,000,000.
	17	Paid $1,200,000, which represents payment of $1,000,000 on long-term debt plus interest expense of $200,000.
	19	Earned resort revenues and immediately received cash of $500,000.
	22	Collected the cash on account that was earned on November 5.
	29	Received an electricity bill for $10,000 for Whistler and Blackcomb resorts, which will be paid in December. (This is a ski and resort operations expense.)
	29	Paid half the account payable created on November 12.

Required

Journalize these transactions using the following account titles taken from the financial statements of Intrawest Corporation: Cash; Amounts Receivable; Ski and Resort Operations Assets; Amounts Payable; Long-Term Bank and Other Indebtedness; Ski and Resort Operations Revenue; Ski and Resort Operations Expenses; Interest. Explanations are not required.