

## 2 Transaction Analysis



### SPOTLIGHT

#### **APPLE COMPUTER, INC.**

How do you manage your music library? You may use **Apple Computer's iTunes®**, which along with the company's iPods® generates lots of income for the company.

How does Apple determine the amount of its revenues, expenses, and net income? Like all other companies, Apple Computer has a comprehensive accounting system. Apple's income statement (statement of operations) is given at the start of this chapter. The income statement shows that during fiscal year 2006, Apple made over \$19 billion of sales and earned net income of \$2 billion. Where did those figures come from? In this chapter, we'll show you.

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Apple Computer, Inc. Statement of Operations (Adapted) Fiscal Year Ended September 30, 2006	
(In billions)	2006
Net sales.....	\$19.3
Cost of goods sold.....	<u>13.7</u>
Gross profit.....	5.6
Operating expenses:	
Research and development expense .....	0.7
Selling, general, and administrative expense .....	<u>2.4</u>
Total operating expenses.....	<u>3.1</u>
Operating income (loss) .....	2.5
Other income .....	<u>0.3</u>
Income before income taxes .....	2.8
Income tax expense.....	<u>0.8</u>
Net income.....	<u>\$ 2.0</u>

Chapter 1 introduced the financial statements. Chapter 2 will show you how companies actually record the transactions that eventually become part of the financial statements.

## LEARNING OBJECTIVES

- 1 Analyze** transactions
- 2 Understand** how accounting works
- 3 Record** transactions in the journal
- 4 Use** a trial balance
- 5 Analyze** transactions using only T-accounts



For more practice and review of accounting cycle concepts, use ACT, the Accounting Cycle Tutorial, online at [www.prenhall.com/harrison](http://www.prenhall.com/harrison). Margin logos like this one, directing you to the appropriate ACT section and material, appear throughout Chapters 1, 2, and 3. When you enter the tutorial, you'll find three buttons on the opening page of each chapter module. Here's what the buttons mean: **Tutorial** gives you a review of the major concepts, **Application** gives you practice exercises, and **Glossary** reviews important terms.

## TRANSACTIONS

Business activity is all about transactions. A **transaction** is any event that has a financial impact on the business and can be measured reliably. For example, Apple Computer pays programmers to create iTunes® software. Apple sells computers, borrows money, and repays the loan—three separate transactions.

But not all events qualify as transactions. iTunes® may be featured in *Showtime Magazine* and motivate you to buy an Apple iPod. The magazine article may create

lots of new business for Apple. But no transaction occurs until someone actually buys an Apple product. A transaction must occur before Apple records anything.

Transactions provide objective information about the financial impact on a company. Every transaction has two sides:

- You give something, and
- You receive something

In accounting we always record both sides of a transaction. And we must be able to measure the financial impact of the event on the business before recording it as a transaction.

## THE ACCOUNT

As we saw in Chapter 1, the accounting equation expresses the basic relationships of accounting:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' (Owners') Equity}$$

For each asset, each liability, and each element of stockholders' equity, we use a record called the account. An **account** is the record of all the changes in a particular asset, liability, or stockholders' equity during a period. The account is the basic summary device of accounting. Before launching into transaction analysis, let's review the accounts that a company such as Apple Computer uses.

### Assets

Assets are economic resources that provide a future benefit for a business. Most firms use the following asset accounts:

**Cash.** **Cash** means money and any medium of exchange including bank account balances, paper currency, coins, certificates of deposit, and checks.

**Accounts Receivable.** Apple Computer, like most other companies, sells its goods and services and receives a promise for future collection of cash. The Accounts Receivable account holds these amounts.

**Notes Receivable.** Apple may receive a note receivable from a customer, who signed the note promising to pay Apple Computer. A note receivable is similar to an account receivable, but a note receivable is more binding because the customer signed the note. Notes receivable usually specify an interest rate.

**Inventory.** Apple Computer's most important asset is its inventory—the hardware and software Apple sells to customers. Other titles for this account include *Merchandise* and *Merchandise Inventory*.

**Prepaid Expenses.** Apple Computer pays certain expenses in advance, such as insurance and rent. A **prepaid expense** is an asset because the payment provides a *future* benefit for the business. Prepaid Rent, Prepaid Insurance, and Supplies are prepaid expenses.

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**Land.** The Land account shows the cost of the land Apple uses in its operations.

**Buildings.** The costs of Apple's office building, manufacturing plant, and the like appear in the Buildings account.

**Equipment, Furniture, and Fixtures.** Apple has a separate asset account for each type of equipment, for example, Manufacturing Equipment and Office Equipment. The Furniture and Fixtures account shows the cost of these assets, which are similar to equipment.

### Liabilities

Recall that a *liability* is a debt. A payable is always a liability. The most common types of liabilities include:

**Accounts Payable.** The Accounts Payable account is the direct opposite of Accounts Receivable. Apple's promise to pay a debt arising from a credit purchase of inventory or from a utility bill appears in the Accounts Payable account.

**Notes Payable.** A note payable is the opposite of a note receivable. The Notes Payable account includes the amounts Apple must *pay* because Apple signed notes promising to pay a future amount. Notes payable, like notes receivable, also carry interest.

**Accrued Liabilities.** An **accrued liability** is a liability for an expense you have not yet paid. Interest Payable and Salary Payable are accrued liability accounts for most companies. Income Tax Payable is another accrued liability.

### Stockholders' (Owners') Equity

The owners' claims to the assets of a corporation are called *stockholders' equity*, *shareholders' equity*, or simply *owners' equity*. A corporation such as Apple Computer uses Common Stock, Retained Earnings, and Dividends accounts to record changes in the company's stockholders' equity. In a proprietorship, there is a single capital account. For a partnership, each partner has a separate owner equity account.

**Common Stock.** The Common Stock account shows the owners' investment in the corporation. Apple Computer receives cash and issues common stock to its stockholders. A company's common stock is its most basic element of equity. All corporations have common stock.

## STOP & think. . .

Name two things that (1) increase Apple Computer's stockholders' equity and (2) decrease Apple's stockholders' equity.

**Answer:**

- (1) Increases in equity: Sale of stock and net income (revenue greater than expenses).
- (2) Decreases in equity: Dividends and net loss (expenses greater than revenue).

**Retained Earnings.** The Retained Earnings account shows the cumulative net income earned by Apple Computer over the company’s lifetime, minus its cumulative net losses and dividends.

**Dividends.** After profitable operations, the board of directors of Apple Computer may (or may not) declare and pay a cash dividend. Dividends are optional; they are decided by the board of directors. The corporation may keep a separate account titled *Dividends*, which indicates a decrease in Retained Earnings.

**Revenues.** The increase in stockholders’ equity from delivering goods or services to customers is called *revenue*. The company uses as many revenue accounts as needed. Apple Computer uses a Sales Revenue account for revenue earned by selling its products. Apple has a Service Revenue account for the revenue it earns by providing services to customers. A lawyer provides legal services for clients and also uses a Service Revenue account. A business that loans money to an outsider needs an Interest Revenue account. If the business rents a building to a tenant, the business needs a Rent Revenue account.

**Expenses.** The cost of operating a business is called *expense*. Expenses *decrease* stockholders’ equity, the opposite effect of revenues. A business needs a separate account for each type of expense, such as Cost of Goods Sold, Salary Expense, Rent Expense, Advertising Expense, Insurance Expense, Utilities Expense, and Income Tax Expense. Businesses strive to minimize expenses and thereby maximize net income.

## ACCOUNTING FOR BUSINESS TRANSACTIONS

### Example: Genie Car Wash, Inc.

To illustrate the accounting for transactions, let’s return to Genie Car Wash, Inc. In Chapter 1’s End-of-Chapter Problem, Van Gray opened Genie Car Wash, Inc., in April 20X9.

We consider 11 events and analyze each in terms of its effect on Genie Car Wash. We begin by using the accounting equation. In the second half of the chapter, we record transactions using the journal and ledger of accounting.

**Transaction 1.** Gray and a few friends invest \$50,000 to begin Genie Car Wash and the business issues common stock to the stockholders. The effect of this transaction on the accounting equation of Genie Car Wash, Inc., is a receipt of cash and issuance of common stock, as follows:

Assets	}	=	{	Liabilities	+	Stockholders’ Equity	Type of Stockholders’ Equity Transaction
Cash				Common Stock	+ 50,000	Issued stock	
(1) + 50,000							

Every transaction’s net amount on the left side of the equation must equal the net amount on the right side. The first transaction increases both the cash and the common stock of the business. To the right of the transaction we write “Issued stock” to show the reason for the increase in stockholders’ equity.

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### OBJECTIVE

**1** Analyze transactions

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Every transaction affects the financial statements of the business, and we can prepare financial statements after 1, 2, or any number of transactions. For example, Genie Car Wash could report the company's balance sheet after its first transaction, shown here.

Genie Car Wash, INC Balance Sheet April 1, 20X9			
Assets		Liabilities	
Cash.....	\$50,000	None	
		<b>Stockholders' Equity</b>	
		Common stock.....	\$50,000
		Total stockholders' equity.....	50,000
Total assets.....	<u>\$50,000</u>	Total liabilities and stockholders' equity.....	<u>\$50,000</u>

This balance sheet shows that the business holds cash of \$50,000 and owes no liabilities. The company's equity (ownership) is denoted as *Common Stock* on the balance sheet. A bank would look favorably on this balance sheet because the business has \$50,000 cash and no debt—a strong financial position.

As a practical matter, most entities report their financial statements at the end of the accounting period—not after each transaction. But an accounting system can produce statements whenever managers need to know where the business stands.

**Transaction 2.** Genie purchases land for a new location and pays cash of \$40,000. The effect of this transaction on the accounting equation is:

Assets		=	Liabilities + Stockholders' Equity		Type of Stockholders' Equity Transaction
Cash	Land			Common Stock	
(1) 50,000		}		50,000	Issued stock
(2) -40,000	+40,000				
Bal. 10,000	40,000			50,000	
50,000				50,000	

The purchase increases one asset (Land) and decreases another asset (Cash) by the same amount. After the transaction is completed, Genie has cash of \$10,000, land of \$40,000 and no liabilities. Stockholders' equity is unchanged at \$50,000. Note that total assets must always equal total liabilities plus equity.

**Transaction 3.** The business buys supplies on account, agreeing to pay \$3,700 within 30 days. This transaction increases both the assets and the liabilities of the business. Its effect on the accounting equation follows.

Assets				=	Liabilities + Stockholders' Equity		
Cash	+	Supplies	+		Land	Accounts Payable	+
Bal.	10,000						50,000
(3)		+ 3,700			+ 3,700		
Bal.	10,000	3,700		40,000	3,700		50,000
		53,700			53,700		

The new asset is Supplies, and the liability is an Account Payable. Genie signs no formal promissory note, so the liability is an account payable, not a note payable.

**Transaction 4.** Genie earns \$7,000 of service revenue by providing services for customers. The business collects the cash. The effect on the accounting equation is an increase in the asset Cash and an increase in Retained Earnings, as follows:

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Assets				=	Liabilities + Stockholders' Equity			Type of Stockholders' Equity Transaction		
Cash	+	Supplies	+		Land	Accounts Payable	+		Common Stock	+
Bal.	10,000	3,700		40,000	3,700		50,000			
(4)	+ 7,000								+ 7,000	
Bal.	17,000	3,700		40,000	3,700		50,000		7,000	
		60,700			60,700					Service revenue

To the right we record "Service revenue" to show where the \$7,000 of increase in Retained Earnings came from.

**Transaction 5.** Genie performs service on account, which means that Genie lets some customers pay later. Genie earns revenue but doesn't receive the cash immediately. In transaction 5, Genie cleans a fleet of UPS delivery trucks, and UPS promises to pay Genie \$3,000 within 1 month. This promise is an account receivable—an asset—of Genie Car Wash. The transaction record follows.

Assets					=	Liabilities + Stockholders' Equity			Type of Stockholders' Equity Transaction		
Cash	+	Accounts Receivable	+	Supplies		+	Land	Accounts Payable		+	Common Stock
Bal.	17,000	3,000		3,700		40,000	3,700		50,000		7,000
(5)		+ 3,000									+ 3,000
Bal.	17,000	3,000		3,700		40,000	3,700		50,000		10,000
		63,700			63,700						Service revenue

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It's performing the service that earns the revenue—not collecting the cash. Therefore, Genie records revenue when it performs the service—regardless of whether Genie receives cash now or later.

**Transaction 6.** During the month, Genie Car Wash pays \$2,700 for the following expenses: equipment rent, \$1,100; employee salaries, \$1,200; and utilities, \$400. The effect on the accounting equation is:

Assets					Liabilities + Stockholders' Equity			Type of Stockholders' Equity Transaction
	Cash	Accounts Receivable	Supplies	Land	Accounts Payable	Common Stock	Retained Earnings	
Bal.	17,000	3,000	3,700	40,000	3,700	50,000	10,000	
(6)	- 1,100						- 1,100	Rent expense
	- 1,200						- 1,200	Salary expense
	- 400						- 400	Utilities expense
Bal.	14,300	3,000	3,700	40,000	3,700	50,000	7,300	
	61,000				61,000			

The expenses decrease Genie's Cash and Retained Earnings. List each expense separately to keep track of its amount.

**Transaction 7.** Genie pays \$1,900 on account, which means to pay off an account payable. In this transaction Genie pays the store from which it purchased supplies in transaction 3. The transaction decreases Cash and also decreases Accounts Payable as follows:

Assets					Liabilities + Stockholders' Equity			Type of Stockholders' Equity Transaction
	Cash	Accounts Receivable	Supplies	Land	Accounts Payable	Common Stock	Retained Earnings	
Bal.	14,300	3,000	3,700	40,000	3,700	50,000	7,300	
(7)	- 1,900				- 1,900			
Bal.	12,400	3,000	3,700	40,000	1,800	50,000	7,300	
	59,100				59,100			

**Transaction 8.** Van Gray, the major stockholder of Genie Car Wash, paid \$30,000 to remodel his home. This event is a personal transaction of the Gray family. It is not recorded by the Genie Car Wash business. We focus solely on the business entity, not on its owners. This transaction illustrates the entity concept from Chapter 1.

**Transaction 9.** In transaction 5, Genie performed services for UPS on account. The business now collects \$1,000 from UPS. We say that Genie *collects the cash on*

account, which means that Genie will record an increase in Cash and a decrease in Accounts Receivable. This is not service revenue because Genie already recorded the revenue in transaction 5. The effect of collecting cash on account is:

Assets					=	Liabilities + Stockholders' Equity								
Cash	+	Accounts Receivable	+	Supplies		+	Land	Accounts Payable	+	Common Stock	+	Retained Earnings		
Bal.	12,400		3,000			3,700			40,000	1,800		50,000		7,300
(9)	+ 1,000		- 1,000											
Bal.	13,400		2,000			3,700			40,000	1,800		50,000		7,300
	59,100											59,100		

**Transaction 10.** Genie sells some land for \$22,000, which is the same amount that Genie paid for the land. Genie receives \$22,000 cash, and the effect on the accounting equation is:

Assets					=	Liabilities + Stockholders' Equity								
Cash	+	Accounts Receivable	+	Supplies		+	Land	Accounts Payable	+	Common Stock	+	Retained Earnings		
Bal.	13,400		2,000			3,700			40,000	1,800		50,000		7,300
(10)	+ 22,000								- 22,000					
Bal.	35,400		2,000			3,700			18,000	1,800		50,000		7,300
	59,100											59,100		

Note that the company did not sell all its land; Genie still owns \$18,000 worth of land.

**Transaction 11.** Genie Car Wash declares a dividend and pays the stockholders \$2,100 cash. The effect on the accounting equation is:

Assets					=	Liabilities + Stockholders' Equity			Type of Stockholders' Equity Transaction						
Cash	+	Accounts Receivable	+	Supplies		+	Land	Accounts Payable		+	Common Stock	+	Retained Earnings		
Bal.	35,400		2,000			3,700			18,000	1,800		50,000		7,300	
(11)	- 2,100											- 2,100			Dividends
Bal.	33,300		2,000			3,700			18,000	1,800		50,000		5,200	
	57,000											57,000			

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The dividend decreases both the Cash and the Retained Earnings of the business. *But dividends are not an expense.*

**Transactions and Financial Statements**

Exhibit 2-1 summarizes the 11 preceding transactions. Panel A gives the details of the transactions, and Panel B shows the transaction analysis. As you study the exhibit, note that every transaction maintains the equality:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$$

Exhibit 2-1 provides the data for Genie Car Wash's **financial statements**:

**EXHIBIT 2-1**

**Transaction Analysis: Genie Car Wash, Inc.**

**PANEL A—Transaction Details**

- |   |   |
|---|---|
| (1) Received \$50,000 cash and issued stock to the owners                         | (7) Paid \$1,900 on the account payable created in transaction 3                                    |
| (2) Paid \$40,000 cash for land   | (8) Major stockholder paid personal funds to remodel home, <i>not</i> a transaction of the business |
| (3) Bought \$3,700 of supplies on account   | (9) Received \$1,000 on account   |
| (4) Received \$7,000 cash from customers for service revenue earned               | (10) Sold land for cash at the land's cost of \$22,000  |
| (5) Performed services for a customer on account, \$3,000                         | (11) Declared and paid a dividend of \$2,100 to the stockholders                                    |
| (6) Paid cash expenses: rent, \$1,100; employee salary, \$1,200; utilities, \$400 |   |

**PANEL B—Transaction Analysis**

Assets					=	Liabilities + Stockholders' Equity			Type of Stockholders' Equity Transaction
						Accounts Payable	Common Stock	Retained Earnings	
Statement of Cash Flows Data	Cash	Accounts Receivable	Supplies	Land					
	(1) 50,000						50,000		Issued stock
	(2) -40,000			+40,000					
	(3)		+3,700			+3,700			
	(4) +7,000							+7,000	Service revenue
	(5)	+3,000						+3,000	Service revenue
	(6) -1,100							-1,100	Rent expense
	-1,200							-1,200	Salary expense
	-400							-400	Utilities expense
	(7) -1,900					-1,900			
	(9) +1,000	-1,000							
(10) +22,000			-22,000						
(11) -2,100							-2,100	Dividends	
Bal.	33,300	2,000	3,700	18,000		1,800	50,000	5,200	
57,000						57,000			
<b>Balance Sheet Data</b>									

- *Income statement* data appear as revenues and expenses under Retained Earnings. The revenues increase retained earnings; the expenses decrease retained earnings.
- The *balance sheet* data are composed of the ending balances of the assets, liabilities, and stockholders' equities shown at the bottom of the exhibit. The accounting equation shows that total assets (\$57,000) equal total liabilities plus stockholders' equity (\$57,000).
- The *statement of retained earnings* repeats net income (or net loss) from the income statement. Dividends are subtracted. Ending retained earnings is the final result.
- Data for the *statement of cash flows* are aligned under the Cash account. Cash receipts increase cash, and cash payments decrease cash.

Exhibit 2-2 shows the Genie Car Wash financial statements at the end of April, the company's first month of operations. Follow the flow of data to observe the following:

1. The income statement reports revenues, expenses, and either a net income or a net loss for the period. During April, Genie earned net income of \$7,300. Compare Genie's income statement with that of Apple Computer at the beginning of the chapter. The income statement includes only 2 types of accounts: revenues and expenses.
2. The statement of retained earnings starts with the beginning balance of retained earnings, (zero for a new business). Add net income for the period (arrow ①), subtract dividends, and compute the ending balance of retained earnings (\$5,200).
3. The balance sheet lists the assets, liabilities, and stockholders' equity of the business at the end of the period. Included in stockholders' equity is retained earnings, which comes from the statement of retained earnings (arrow ②).

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Let's put into practice what you have learned thus far.

**EXHIBIT 2-2**

**Financial Statements of Genie Car Wash, Inc.**

Genie Car Wash, Inc. Income Statement Month Ended April 30, 20X9			
<b>Revenues</b>			
	Service revenue (\$7,000 + \$3,000) .....		\$10,000
<b>Expenses</b>			
	Salary expense .....	\$1,200	
	Rent expense .....	1,100	
	Utilities expense .....	<u>400</u>	
	Total expenses .....		<u>2,700</u>
	Net income.....		<u>\$ 7,300</u>

Genie Car Wash, Inc. Statement of Retained Earnings Month Ended April 30, 20X9	
Retained earnings, April 1, 20X9 .....	\$ 0
Add: Net income for the month .....	<u>7,300</u>
	7,300
Less: Dividends .....	<u>(2,100)</u>
Retained earnings, April 30, 20X9 .....	<u>\$5,200</u>

Genie Car Wash, Inc. Balance Sheet April 30, 20X9			
<b>Assets</b>		<b>Liabilities</b>	
Cash.....	\$33,300	Accounts payable .....	\$ 1,800
Accounts receivable.....	2,000	<b>Stockholders' Equity</b>	
Supplies.....	3,700	Common stock.....	50,000
Land.....	18,000	Retained earnings.....	<u>5,200</u>
		Total stockholders' equity.....	<u>55,200</u>
Total assets.....	<u>\$57,000</u>	Total liabilities and stockholders' equity.....	<u>\$57,000</u>

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## MID-CHAPTER SUMMARY PROBLEM

Shelly Herzog opens a research service near a college campus. She names the corporation Herzog Researchers, Inc. During the first month of operations, July 20X3, the business engages in the following transactions:

- Herzog Researchers, Inc., issues its common stock to Shelly Herzog, who invests \$25,000 to open the business.
- The company purchases on account office supplies costing \$350.
- Herzog Researchers pays cash of \$20,000 to acquire a lot next to the campus. The company intends to use the land as a building site for a business office.
- Herzog Researchers performs research for clients and receives cash of \$1,900.
- Herzog Researchers pays \$100 on the account payable it created in transaction b.
- Herzog pays \$2,000 of personal funds for a vacation.
- Herzog Researchers pays cash expenses for office rent (\$400) and utilities (\$100).
- The business sells a small parcel of the land for its cost of \$5,000.
- The business declares and pays a cash dividend of \$1,200.

### Required

- Analyze the preceding transactions in terms of their effects on the accounting equation of Herzog Researchers, Inc. Use Exhibit 2-1, Panel B as a guide.
- Prepare the income statement, statement of retained earnings, and balance sheet of Herzog Researchers, Inc., after recording the transactions. Draw arrows linking the statements.

### Solutions

#### Requirement 1

PANEL B—Analysis of Transactions

Assets				=	Liabilities	+	Stockholders' Equity		Type of Stockholders' Equity Transaction	
Cash	+	Office Supplies	+	Land	Accounts Payable	+	Common Stock	+	Retained Earnings	
(a) + 25,000							+ 25,000			Issued stock
(b)		+ 350			+ 350					
(c) - 20,000				+ 20,000					+ 1,900	Service revenue
(d) + 1,900										
(e) - 100					- 100					
(f) Not a transaction of the business										
(g) - 400									- 400	Rent expense
- 100									- 100	Utilities expense
(h) + 5,000				- 5,000						
(i) - 1,200									- 1,200	Dividends
Bal. <u>10,100</u>		<u>350</u>		<u>15,000</u>	<u>250</u>		<u>25,000</u>		<u>200</u>	
		25,450					25,450			

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Herzog Researchers, Inc. Income Statement Month Ended July 31, 20X3		
<b>Revenues</b>		
Service revenue.....		\$1,900
<b>Expenses</b>		
Rent expense.....	\$400	
Utilities expense .....	<u>100</u>	
Total expenses.....		<u>500</u>
Net income.....		<u>\$1,400</u>

Herzog Researchers, Inc. Statement of Retained Earnings Month Ended July 31, 20X3	
Retained earnings, July 1, 20X3.....	\$ 0
Add: Net income for the month .....	<u>1,400</u>
	1,400
Less: Dividends .....	<u>(1,200)</u>
Retained earnings, July 31, 20X3.....	<u>\$ 200</u>

Herzog Researchers, Inc. Balance Sheet July 31, 20X3			
<b>Assets</b>		<b>Liabilities</b>	
Cash.....	\$10,100	Accounts payable .....	\$ 250
Office supplies.....	350	<b>Stockholders' Equity</b>	
Land.....	15,000	Common stock.....	25,000
		Retained earnings.....	<u>200</u>
		Total stockholders' equity.....	<u>25,200</u>
		Total liabilities and	
Total assets.....	<u>\$25,450</u>	stockholders' equity.....	<u>\$25,450</u>

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The analysis in the first half of this chapter can be used, but it is cumbersome. Apple Computer has hundreds of accounts and millions of transactions. The spreadsheet to account for Apple's transactions would be huge! In the second half of this chapter we discuss double-entry accounting as it is actually used in business.

## DOUBLE-ENTRY ACCOUNTING

All business transactions include 2 parts:

- You give something
- You receive something

Accounting is, therefore, based on a double-entry system, which records the *dual effects* on the entity. *Each transaction affects at least two accounts.* For example, Genie Car Wash's receipt of \$50,000 cash and issuance of stock increased both Cash and Common Stock. It would be incomplete to record only the increase in Cash or only the increase in Common Stock.

### The T-Account

An account can be represented by the letter T. We call them *T-accounts*. The vertical line in the letter divides the account into its two sides: left and right. The account title appears at the top of the T. For example, the Cash account can appear as follows:

Cash	
(Left side)	(Right side)
<i>Debit</i>	<i>Credit</i>

The left side of each account is called the **debit** side, and the right side is called the **credit** side. Often, students are confused by the words *debit* and *credit*. To become comfortable using these terms, remember that for every account

Debit = Left side	Credit = Right side
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*Every business transaction involves both a debit and a credit. The debit side of an account shows what you received. The credit side shows what you gave.*

### Increases and Decreases in the Accounts: The Rules of Debit and Credit

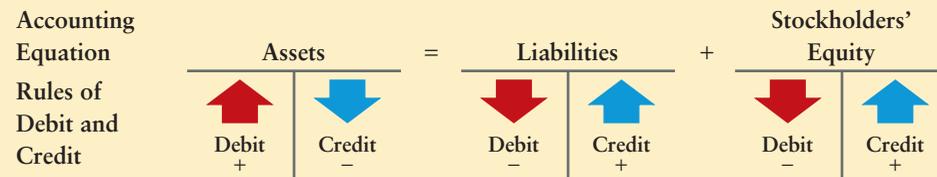
The type of account determines how we record increases and decreases. *The rules of debit and credit follow* in Exhibit 2-3.

- Increases in *assets* are recorded on the left (debit) side of the account. Decreases in *assets* are recorded on the right (credit) side. You receive cash and debit the Cash account. You pay cash and credit the Cash account.
- Conversely, increases in *liabilities* and *stockholders' equity* are recorded by credits. Decreases in *liabilities* and *stockholders' equity* are recorded by debits.

#### OBJECTIVE

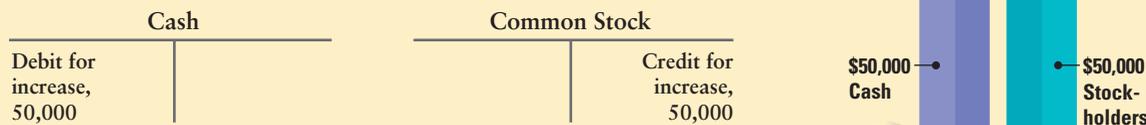
**2** Understand how accounting works

**EXHIBIT 2-3** Accounting Equation and the Rules of Debit and Credit



To illustrate the ideas diagrammed in Exhibit 2-3, let's review the first transaction. Genie Car Wash received \$50,000 and issued (gave) stock. Which accounts are affected? The Cash account and the Common Stock account will hold these amounts:

**EXHIBIT 2-4** The Accounting Equation after Genie Car Wash's First Transaction



The amount remaining in an account is called its *balance*. This first transaction gives Cash a \$50,000 debit balance and Common Stock a \$50,000 credit balance. Exhibit 2-4 shows this relationship.

Genie's second transaction is a \$40,000 cash purchase of land. This transaction decreases Cash with a credit and increases Land with a debit, as shown in the following T-accounts (focus on Cash and Land):

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Cash</th></tr> <tr><td style="width: 50%;">Bal. 50,000</td><td style="width: 50%;">Credit for decrease, 40,000</td></tr> <tr><td style="border-top: 1px solid black;">Bal. 10,000</td><td></td></tr> </table>	Cash		Bal. 50,000	Credit for decrease, 40,000	Bal. 10,000		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Common Stock</th></tr> <tr><td style="width: 50%;"></td><td style="width: 50%;">Bal. 50,000</td></tr> </table>	Common Stock			Bal. 50,000
Cash											
Bal. 50,000	Credit for decrease, 40,000										
Bal. 10,000											
Common Stock											
	Bal. 50,000										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Land</th></tr> <tr><td style="width: 50%;">Debit for increase, 40,000</td><td style="width: 50%;"></td></tr> <tr><td style="border-top: 1px solid black;">Bal. 40,000</td><td></td></tr> </table>		Land		Debit for increase, 40,000		Bal. 40,000					
Land											
Debit for increase, 40,000											
Bal. 40,000											

After this transaction, Cash has a \$10,000 debit balance, Land has a debit balance of \$40,000, and Common Stock has a \$50,000 credit balance, as shown in Exhibit 2-5.

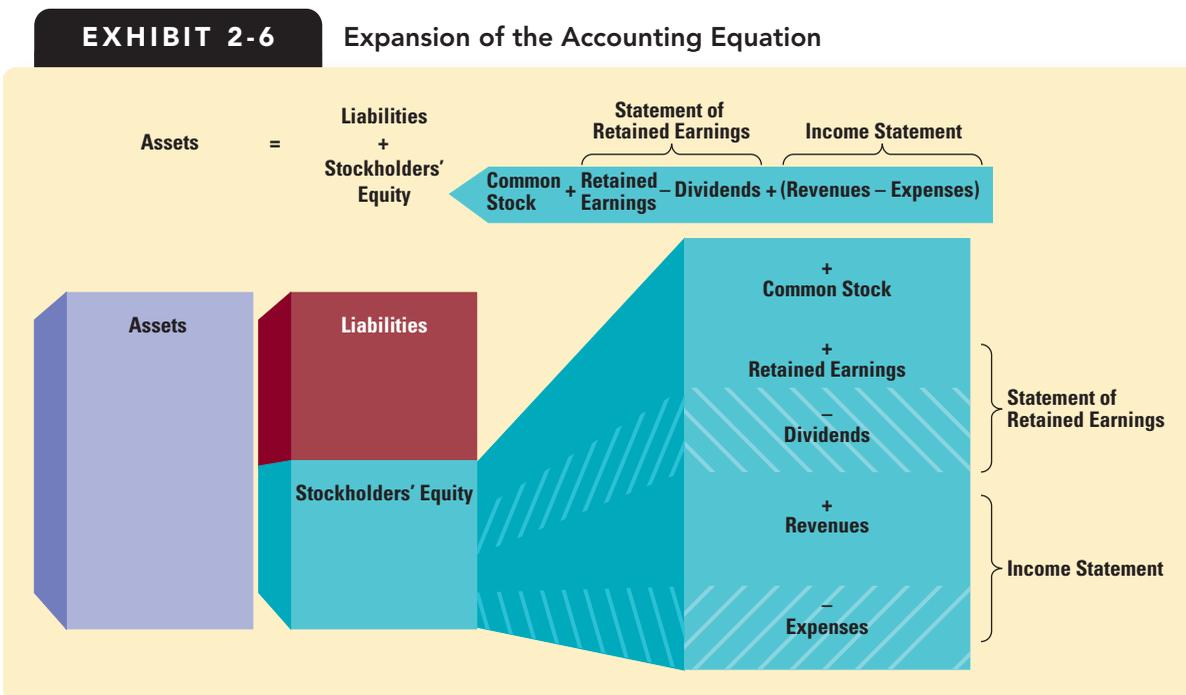


### Additional Stockholders' Equity Accounts: Revenues and Expenses

Stockholders' equity also includes the two categories of income statement accounts, Revenues and Expenses:

- *Revenues* are increases in stockholders' equity that result from delivering goods or services to customers.
- *Expenses* are decreases in stockholders' equity due to the cost of operating the business.

Therefore, the accounting equation may be expanded as shown in Exhibit 2-6. Revenues and expenses appear in parentheses because their net effect—revenues minus expenses—equals net income, which increases stockholders' equity. If expenses exceed revenues, there is a net loss, which decreases stockholders' equity.



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We can now express the final form of the rules of debit and credit, as shown in Exhibit 2-7. *You should not proceed until you have learned these rules.* For example, you must remember that

- A debit increases an asset account.
- A credit decreases an asset.

Liabilities and stockholders' equity are the opposite.

- A credit increases a liability account.
- A debit decreases a liability.

Dividends and Expense accounts are exceptions to the rule. Dividends and Expenses are equity accounts that are increased by a debit. Dividends and Expense accounts are negative (or *contra*) equity accounts.

Revenues and Expenses are often treated as separate account categories because they appear on the income statement. Exhibit 2-7 shows Revenues and Expenses below the other equity accounts.

EXHIBIT 2-7		Final Form of the Rules of Debit and Credit									
ASSETS		=	LIABILITIES		+	STOCKHOLDERS' EQUITY					
Assets		Liabilities		Common Stock		Retained Earnings		Dividends			
Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit		
+	-	-	+	-	+	-	+	+	-		
						Revenues		Expenses			
						Debit	Credit	Debit	Credit		
						-	+	+	-		

## RECORDING TRANSACTIONS

### OBJECTIVE

**3** Record transactions in the journal

Accountants use a chronological record of transactions called a **journal**. The journalizing process follows three steps:

1. Specify each account affected by the transaction and classify each account by type (asset, liability, stockholders' equity, revenue, or expense).
2. Determine whether each account is increased or decreased by the transaction. Use the rules of debit and credit to increase or decrease each account.
3. Record the transaction in the journal, including a brief explanation. The debit side is entered on the left margin, and the credit side is indented to the right.

Step 3 is also called “making the journal entry” or “journalizing the transaction.” Let's apply the steps to journalize the first transaction of Genie Car Wash.

**Step 1** The business receives cash and issues stock. Cash and Common Stock are affected. Cash is an asset, and Common Stock is equity.

**Step 2** Both Cash and Common Stock increase. Debit Cash to record an increase in this asset. Credit Common Stock to record an increase in this equity account.

**Step 3** Journalize the transaction as follows:

JOURNAL

Date	Accounts and Explanation	Debit	Credit
Apr. 2	Cash	50,000	
	Common Stock		50,000
	<i>Issued common stock.</i>		

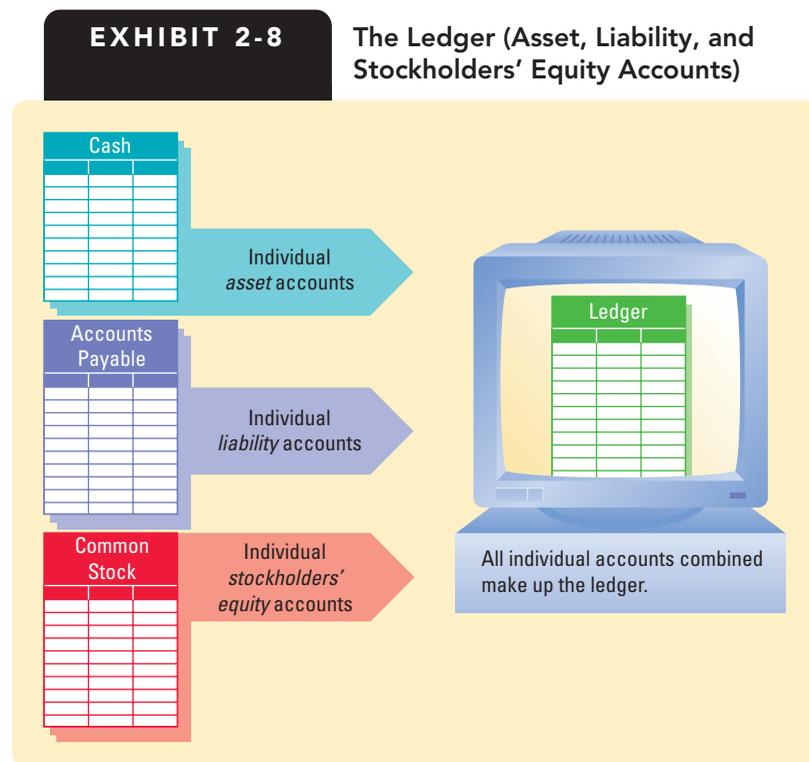
When analyzing a transaction, first pinpoint the effects (if any) on cash. Did cash increase or decrease? Typically, it is easiest to identify cash effects. Then identify the effects on the other accounts.

### Copying Information (Posting) from the Journal to the Ledger

The journal is a chronological record of all company transactions listed by date. But the journal does not indicate how much cash or accounts receivable the business has.

The **ledger** is a grouping of all the T-accounts, with their balances. For example, the balance of the Cash T-account shows how much cash the business has. The balance of Accounts Receivable shows the amount due from customers. Accounts Payable shows how much the business owes suppliers on open account, and so on.

In the phrase “keeping the books,” *books* refers to the accounts in the ledger. In most accounting systems, the ledger is computerized. Exhibit 2-8 shows how the asset, liability, and stockholders’ equity accounts are grouped in the ledger.



Entering a transaction in the journal does not get the data into the ledger. Data must be copied to the ledger—a process called **posting**. Debits in the journal are

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always posted as debits in the accounts, and likewise for credits. Exhibit 2-9 shows how Genie Car Wash’s stock issuance transaction is posted to the accounts.

**EXHIBIT 2-9** Journal Entry and Posting to the Accounts

PANEL A—Journal Entry:

Accounts and Explanation	Debit	Credit
Cash	50,000	
Common Stock		50,000
<i>Issued common stock.</i>		

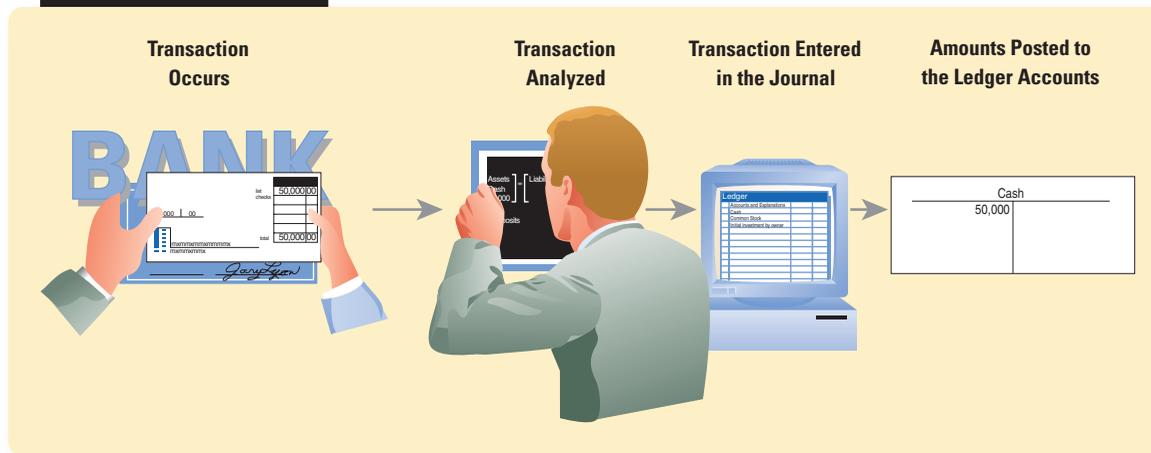
PANEL B—Posting to the Accounts:



**The Flow of Accounting Data**

Exhibit 2-10 summarizes the flow of accounting data from the business transaction to the ledger.

**EXHIBIT 2-10** Flow of Accounting Data



Let’s continue the example of Genie Car Wash, Inc., and account for the same 11 transactions we illustrated earlier. Here we use the journal and the accounts. Each journal entry posted to the accounts is keyed by date or by transaction number. This linking allows you to locate any information you may need.

**Transaction 1 Analysis.** Genie Car Wash, Inc., received \$50,000 cash from the stockholders and in turn issued common stock to them. The journal entry, accounting equation, and ledger accounts follow.

*Journal entry*

Cash	50,000	
Common Stock		50,000
<i>Issued common stock.</i>		

*Accounting equation*

Assets	=	Liabilities	+	Stockholders' Equity
50,000	=	0	+	50,000

*The ledger accounts*

Cash		Common Stock	
(1)	50,000	(1)	50,000

**Transaction 2 Analysis.** The business paid \$40,000 cash for land. The purchase decreased cash; therefore, credit Cash. The purchase increased the asset land; to record this increase, debit Land.

*Journal entry*

Land	40,000	
Cash		40,000
<i>Paid cash for land.</i>		

*Accounting equation*

Assets	=	Liabilities	+	Stockholders' Equity
+ 50,000	=	0	+	0
- 40,000				

*The ledger accounts*

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

**Transaction 3 Analysis.** The business purchased supplies for \$3,700 on account payable. The purchase increased supplies, an asset, and Accounts Payable, a liability.

*Journal entry*

Supplies	3,700	
Accounts Payable		3,700
<i>Purchased office supplies on account.</i>		

*Accounting equation*

Assets	=	Liabilities	+	Stockholders' Equity
+ 3,700	=	+ 3,700	+	0

*The ledger accounts*

Supplies		Accounts Payable	
(3)	3,700	(3)	3,700

**Transaction 4 Analysis.** The business performed services for clients and received cash of \$7,000. The transaction increased cash and service revenue. To record the revenue, credit Service Revenue.

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*Journal entry*

Cash	7,000	
Service Revenue		7,000
<i>Performed services for cash.</i>		

*Accounting equation*

<u>Assets</u>	=	<u>Liabilities</u>	+	<u>Stockholders' Equity</u>	+	<u>Revenues</u>
+ 7,000	=	0			+	7,000

*The ledger accounts*

Cash		Service Revenue	
(1) 50,000	(2) 40,000	(4) 7,000	
(4) 7,000			

**Transaction 5 Analysis.** Genie performed services for UPS on account. UPS did not pay immediately, so Genie billed UPS for \$3,000. The transaction increased accounts receivable; therefore, debit Accounts Receivable. Service revenue also increased, so credit the Service Revenue account.

*Journal entry*

Accounts Receivable	3,000	
Service Revenue		3,000
<i>Performed services on account.</i>		

*Accounting equation*

<u>Assets</u>	=	<u>Liabilities</u>	+	<u>Stockholders' Equity</u>	+	<u>Revenues</u>
+ 3,000	=	0			+	3,000

*The ledger accounts*

Accounts Receivable		Service Revenue	
(5) 3,000		(4) 7,000	
		(5) 3,000	

**Transaction 6 Analysis.** The business paid \$2,700 for the following expenses: equipment rent, \$1,100; employee salary, \$1,200; and utilities, \$400. Credit Cash for the sum of the expense amounts. The expenses increased, so debit each expense account separately.

*Journal entry*

Rent Expense	1,100	
Salary Expense	1,200	
Utilities Expense	400	
Cash		2,700
<i>Paid expenses.</i>		

	<u>Assets = Liabilities + Stockholders' Equity - Expenses</u>			
Accounting equation	- 2,700	=	0	- 2,700

The ledger accounts	<u>Cash</u>		<u>Rent Expense</u>	
	(1) 50,000	(2) 40,000	(6) 1,100	
	(4) 7,000	(6) 2,700		
	<u>Salary Expense</u>		<u>Utilities Expense</u>	
	(6) 1,200		(6) 400	

**Transaction 7 Analysis.** The business paid \$1,900 on the account payable created in transaction 3. Credit Cash for the payment. The payment decreased a liability, so debit Accounts Payable.

Journal entry	Accounts Payable	1,900	
	Cash		1,900
	<i>Paid cash on account.</i>		

	<u>Assets = Liabilities + Stockholders' Equity</u>			
Accounting equation	- 1,900	=	- 1,900	+ 0

The ledger accounts	<u>Cash</u>		<u>Accounts Payable</u>	
	(1) 50,000	(2) 40,000	(7) 1,900	(3) 3,700
	(4) 7,000	(6) 2,700		
		(7) 1,900		

**Transaction 8 Analysis.** Van Gray, the major stockholder of Genie Car Wash, remodeled his personal residence. This is not a transaction of the car-wash business, so the business does not record the transaction.

**Transaction 9 Analysis.** The business collected \$1,000 cash on account from the clients in transaction 5. Cash increased so debit Cash. The asset accounts receivable decreased; therefore, credit Accounts Receivable.

Journal entry	Cash	1,000	
	Accounts Receivable		1,000
	<i>Collected cash on account.</i>		

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Assets		=	Liabilities		+	Stockholders' Equity	
+ 1,000		=	0		+	0	
- 1,000							

*Accounting equation*

Cash				Accounts Receivable			
(1) 50,000	(2) 40,000	(5) 3,000	(9) 1,000	(4) 7,000	(6) 2,700		
(9) 1,000	(7) 1,900						

*The ledger accounts*

**Transaction 10 Analysis.** The business sold land for its cost of \$22,000, receiving cash. The asset cash increased; debit Cash. The asset land decreased; credit Land.

Cash	22,000	
Land		22,000
<i>Sold land.</i>		

*Journal entry*

Assets		=	Liabilities		+	Stockholders' Equity	
+ 22,000		=	0		+	0	
- 22,000							

*Accounting equation*

Cash				Land			
(1) 50,000	(2) 40,000	(2) 40,000	(10) 22,000	(4) 7,000	(6) 2,700		
(9) 1,000	(7) 1,900			(10) 22,000			

*The ledger accounts*

**Transaction 11 Analysis.** Genie Car Wash paid its stockholders cash dividends of \$2,100. Credit Cash for the payment. The transaction also decreased stockholders' equity and requires a debit to an equity account. Therefore, debit Dividends.

Dividends	2,100	
Cash		2,100
<i>Declared and paid dividends.</i>		

*Journal entry*

Assets		=	Liabilities		+	Stockholders' Equity		-	Dividends	
- 2,100		=	0		+		-	2,100		

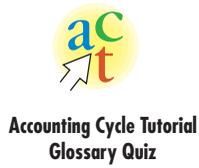
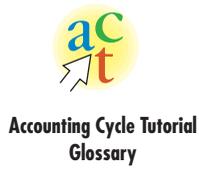
*Accounting equation*

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may be taken at any time, but the most common time is at the end of the period. Exhibit 2-12 is the trial balance of Genie Car Wash, Inc., after all transactions have been journalized and posted at the end of April.



**EXHIBIT 2-12** Trial Balance

Genie Car Wash, Inc. Trial Balance April 30, 20X9		
Account Title	Balance	
	Debit	Credit
Cash.....	\$33,300	
Accounts receivable.....	2,000	
Supplies.....	3,700	
Land.....	18,000	
Accounts payable .....		\$ 1,800
Common stock.....		50,000
Dividends.....	2,100	
Service revenue.....		10,000
Rent expense.....	1,100	
Salary expense.....	1,200	
Utilities expense .....	400	
<b>Total .....</b>	<b>\$61,800</b>	<b>\$61,800</b>

**Analyzing Accounts**

You can often tell what a company did by analyzing its accounts. This is a powerful tool for a manager who knows accounting. For example, if you know the beginning and ending balance of Cash, and if you know total cash receipts, you can compute your total cash payments during the period.

In our chapter example, suppose Genie Car Wash began May with cash of \$1,000. During May Genie received cash of \$8,000 and ended the month with a cash balance of \$3,000. You can compute total **cash payments** by analyzing Genie's Cash account as follows:

Cash			
Beginning balance	1,000		
Cash receipts	8,000	Cash payments	<i>x = 6,000</i>
Ending balance	3,000		

Or, if you know Cash's beginning and ending balances and total payments, you can compute cash receipts during the period—for any company!

You can compute either sales on account or cash collections on account by analyzing the Accounts Receivable account as follows (using assumed amounts):

Accounts Receivable			
Beginning balance	6,000		
Sales on account	10,000	Collections on account	11,000
Ending balance	5,000		

Also, you can determine how much you paid on account by analyzing Accounts Payable as follows (using assumed amounts):

Accounts Payable			
		Beginning balance	9,000
Payments on account	4,000	Purchases on account	6,000
		Ending balance	11,000

Please master this powerful technique. It works for any company and for your own personal finances! You will find this tool very helpful when you become a manager.

## Correcting Accounting Errors

Accounting errors can occur even in computerized systems. Input data may be wrong, or they may be entered twice or not at all. A debit may be entered as a credit, and vice versa. You can detect the reason or reasons behind many out-of-balance conditions by computing the difference between total debits and total credits. Then perform one or more of the following actions:

1. Search the records for a missing account. Trace each account back and forth from the journal to the ledger. A \$200 transaction may have been recorded incorrectly in the journal or posted incorrectly to the ledger. Search the journal for a \$200 transaction.
2. Divide the out-of-balance amount by 2. A debit treated as a credit, or vice versa, doubles the amount of error. Suppose Genie Car Wash added \$300 to Cash instead of subtracting \$300. The out-of-balance amount is \$600, and dividing by 2 identifies \$300 as the amount of the transaction. Search the journal for the \$300 transaction and trace to the account affected.
3. Divide the out-of-balance amount by 9. If the result is an integer (no decimals), the error may be a
  - **slide** (writing \$400 as \$40). The accounts would be out of balance by \$360 ( $\$400 - \$40 = \$360$ ). Dividing \$360 by 9 yields \$40. Scan the trial balance in Exhibit 2-12 for an amount similar to \$40. Utilities Expense (balance of \$400) is the misstated account.

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- **transposition** (writing \$2,100 as \$1,200). The accounts would be out of balance by \$900 ( $\$2,100 - \$1,200 = \$900$ ). Dividing \$900 by 9 yields \$100. Trace all amounts on the trial balance back to the T-accounts. Dividends (balance of \$2,100) is the misstated account.

## Chart of Accounts

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

1. **Balance sheet accounts: Assets, Liabilities, and Stockholders' Equity**
2. **Income statement accounts: Revenues and Expenses**

Organizations use a **chart of accounts** to list all their accounts and account numbers. Account numbers usually have 2 or more digits. Asset account numbers may begin with 1, liabilities with 2, stockholders' 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 may be account number 101, which is the first asset account. Accounts Payable may be number 201, the first liability. All accounts are numbered by using this system.

Organizations with many accounts use lengthy account numbers. For example, the chart of accounts of Apple Computer may use 5-digit account numbers. The chart of accounts for Genie Car Wash appears in Exhibit 2-13. The gap between account numbers 111 and 141 leaves room to add another category of receivables, for example, Notes Receivable, which may be numbered 121.

### EXHIBIT 2-13

### Chart of Accounts—Genie Car Wash, Inc.

Balance Sheet Accounts					
Assets		Liabilities		Stockholders' Equity	
101	Cash	201	Accounts Payable	301	Common Stock
111	Accounts Receivable	231	Notes Payable	311	Dividends
141	Office Supplies			312	Retained Earnings
151	Office Furniture				
191	Land				

Income Statement Accounts (Part of Stockholders' Equity)			
Revenues		Expenses	
401	Service Revenue	501	Rent Expense
		502	Salary Expense
		503	Utilities Expense

Appendix D to this book gives two expanded charts of accounts that you will find helpful as you work through this course. The first chart lists the typical accounts that a *service* corporation, such as Genie Car Wash, would have after a period of growth. The second chart is for a *merchandising* corporation, one that sells a product instead of a service.

### The Normal Balance of an Account

An account's *normal balance* falls on the side of the account—debit or credit—where increases are recorded. The normal balance of assets is on the debit side, so assets are *debit-balance accounts*. Conversely, liabilities and stockholders' equity usually have a credit balance, so these are *credit-balance accounts*. Exhibit 2-14 illustrates the normal balances of all the assets, liabilities, and stockholders' equities, including revenues and expenses.

**EXHIBIT 2-14** Normal Balances of the Accounts

Assets	Debit	
Liabilities .....		Credit
Stockholders' Equity—overall .....		Credit
Common stock .....		Credit
Retained earnings .....		Credit
Dividends .....	Debit	
Revenues .....		Credit
Expenses .....	Debit	

As explained earlier, stockholders' equity usually contains several accounts. Dividends and expenses carry debit balances because they represent decreases in stockholders' equity. In total, the equity accounts show a normal credit balance.

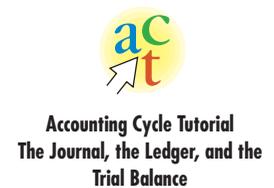
### Account Formats

So far we have illustrated accounts in a 2-column T-account format, with the debit column on the left and the credit column on the right. Another format has 4 *amount* columns, as illustrated for the Cash account in Exhibit 2-15. The first pair of amount columns are for the debit and credit amounts of individual transactions. The last two columns are for the account balance. This 4-column format keeps a running balance in the 2 right columns.

**EXHIBIT 2-15** Account in Four-Column Format

Account: Cash			Account No. 101		
Date	Item	Debit	Credit	Balance	
				Debit	Credit
20X9					
Apr. 2		50,000		50,000	
3			40,000	10,000	

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### Analyzing Transactions Using Only T-Accounts

**OBJECTIVE**

**5** Analyze transactions using only T-accounts

Businesspeople must often make decisions without the benefit of a complete accounting system. For example, the managers of Apple Computer may consider borrowing \$100,000 to buy equipment. To see how the two transactions [(a) borrowing cash and (b) buying equipment] affect Apple, the manager can go directly to T-accounts, as follows:

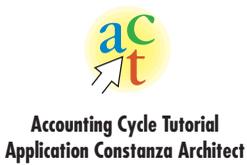
T-accounts:	Cash		Note Payable		
	(a) 100,000			(a) 100,000	
T-accounts:	Cash		Equipment		Note Payable
	(a) 100,000		(b) 100,000		(a) 100,000

This informal analysis shows immediately that Apple will add \$100,000 of equipment and a \$100,000 note payable. Assuming that Apple began with zero balances, the equipment and note payable transactions would result in the following balance sheet (date assumed for illustration only):

Apple Computer, Inc. Balance Sheet September 12, 20X8			
Assets		Liabilities	
Cash.....	\$ 0	Note payable.....	\$100,000
Equipment.....	100,000		
		<b>Stockholders' Equity</b>	<b>0</b>
Total assets.....	<u>\$100,000</u>	Total liabilities and stockholders' equity.....	<u>\$100,000</u>

Companies don't actually keep records in this shortcut fashion. But a decision maker who needs information quickly may not have time to journalize, post to the accounts, take a trial balance, and prepare the financial statements. A manager who knows accounting can analyze the transaction and make the decision quickly.

Now apply what you've learned. Study the Decision Guidelines, which summarize the chapter.



# DECISION GUIDELINES

## HOW TO MEASURE RESULTS OF OPERATIONS AND FINANCIAL POSITION

Any entrepreneur must determine whether the venture is profitable. To do this, he or she needs to know its results of operations and financial position. If Steve Jobs, who founded Apple Computer, Inc., wants to know whether the business is making money, the Guidelines that follow will help him.

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 <i>journal</i> , the chronological record of transactions																		
How to record an increase or decrease in the following accounts?	Rules of <i>debit</i> and <i>credit</i> : <table border="1" style="margin: 10px auto; background-color: #fff9c4;"> <thead> <tr> <th></th> <th>Increase</th> <th>Decrease</th> </tr> </thead> <tbody> <tr> <td>Assets .....</td> <td>Debit</td> <td>Credit</td> </tr> <tr> <td>Liabilities .....</td> <td>Credit</td> <td>Debit</td> </tr> <tr> <td>Stockholders' equity.....</td> <td>Credit</td> <td>Debit</td> </tr> <tr> <td>Revenues .....</td> <td>Credit</td> <td>Debit</td> </tr> <tr> <td>Expenses .....</td> <td>Debit</td> <td>Credit</td> </tr> </tbody> </table>		Increase	Decrease	Assets .....	Debit	Credit	Liabilities .....	Credit	Debit	Stockholders' equity.....	Credit	Debit	Revenues .....	Credit	Debit	Expenses .....	Debit	Credit
	Increase	Decrease																	
Assets .....	Debit	Credit																	
Liabilities .....	Credit	Debit																	
Stockholders' equity.....	Credit	Debit																	
Revenues .....	Credit	Debit																	
Expenses .....	Debit	Credit																	
Where to store all the information for each account?	In the <i>ledger</i> , the book of accounts																		
Where to list all the accounts and their balances?	In the <i>trial balance</i>																		
Where to report the:																			
Results of operations?	In the <i>income statement</i> (Revenues – Expenses = Net income or net loss)																		
Financial position?	In the <i>balance sheet</i> (Assets = Liabilities + Stockholders' equity)																		

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## END-OF-CHAPTER SUMMARY PROBLEM

The trial balance of Calderon Service Center, Inc., on March 1, 20X3, lists the entity's assets, liabilities, and stockholders' equity on that date.

Account Title	<i>Balance</i>	
	Debit	Credit
Cash.....	\$26,000	
Accounts receivable.....	4,500	
Accounts payable .....		\$ 2,000
Common stock.....		10,000
Retained earnings.....		18,500
Total .....	\$30,500	\$30,500

During March, the business completed the following transactions:

- a. Borrowed \$45,000 from the bank, with Calderon signing 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 credit, \$300.
- e. Performed customer service and earned revenue on account, \$2,600.
- f. Paid \$1,200 on account.
- g. Paid the following cash expenses: salaries, \$3,000; rent, \$1,500; and interest, \$400.
- h. Received \$3,100 on account.
- i. Received a \$200 utility bill that will be paid next week.
- j. Declared and paid dividend of \$1,800.

### Required

1. Open the following accounts, with the balances indicated, in the ledger of Calderon Service Center, Inc. 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
  - Stockholders' Equity—Common Stock, \$10,000; Retained Earnings, \$18,500; Dividends, no balance
  - Revenues—Service Revenue, no balance
  - Expenses—(none have balances) Salary Expense, Rent Expense, Interest Expense, Utilities Expense
2. Journalize the preceding transactions. Key journal entries by transaction letter.
3. Post to the ledger and show the balance in each account after all the transactions have been posted.
4. Prepare the trial balance of Calderon Service Center, Inc., at March 31, 20X3.
5. To determine the net income or net loss of the entity during the month of March, prepare the income statement for the month ended March 31, 20X3. List expenses in order from the largest to the smallest.

**Answers**

**Requirement 1**

Assets		=	Liabilities		+	Stockholders' Equity			
<u>Cash</u>			<u>Accounts Payable</u>			<u>Common Stock</u>		<u>Expenses</u>	
Bal.	26,000			Bal.	2,000		Bal.	10,000	<u>Salary Expense</u>
<u>Accounts Receivable</u>			<u>Note Payable</u>			<u>Retained Earnings</u>			
Bal.	4,500					Bal.	18,500	<u>Rent Expense</u>	
<u>Supplies</u>						<u>Dividends</u>			
								<u>Interest Expense</u>	
<u>Land</u>						<u>Revenue</u>			
						<u>Service Revenue</u>		<u>Utilities Expense</u>	

**Requirement 2**

Accounts and Explanation	Debit	Credit	Accounts and Explanation	Debit	Credit
a. Cash.....	45,000		g. Salary Expense .....	3,000	
Note Payable .....		45,000	Rent Expense .....	1,500	
Borrowed cash on note payable.			Interest Expense .....	400	
b. Land.....	40,000		Cash .....		4,900
Cash .....		40,000	Paid cash expenses.		
Purchased land for cash.			h. Cash.....	3,100	
c. Cash.....	5,000		Accounts Receivable .....		3,100
Service Revenue .....		5,000	Received on account.		
Performed service and received cash.			i. Utilities Expense.....	200	
d. Supplies.....	300		Accounts Payable.....		200
Accounts Payable.....		300	Received utility bill.		
Purchased supplies on account.			j. Dividends.....	1,800	
e. Accounts Receivable.....	2,600		Cash .....		1,800
Service Revenue .....		2,600	Declared and paid dividends.		
Performed service on account.					
f. Accounts Payable .....	1,200				
Cash .....		1,200			
Paid on account.					

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Requirement 3

Assets		=	Liabilities		+	Stockholders' Equity	
<b>Cash</b>			<b>Accounts Payable</b>			<b>Common Stock</b>	
Bal. 26,000	(b) 40,000		(f) 1,200	Bal. 2,000		Bal. 10,000	
(a) 45,000	(f) 1,200			(d) 300			
(c) 5,000	(g) 4,900			(i) 200			
(h) 3,100	(j) 1,800			Bal. 1,300		<b>Retained Earnings</b>	
Bal. 31,200						Bal. 18,500	
<b>Accounts Receivable</b>			<b>Note Payable</b>			<b>Dividends</b>	
Bal. 4,500	(h) 3,100			(a) 45,000		(j) 1,800	
(e) 2,600				Bal. 45,000		Bal. 1,800	
Bal. 4,000							
<b>Supplies</b>						<b>Revenue</b>	
(d) 300						<b>Service Revenue</b>	
Bal. 300						(c) 5,000	
						(e) 2,600	
						Bal. 7,600	
<b>Land</b>							
(b) 40,000							
Bal. 40,000							
						<b>Expenses</b>	
						<b>Salary Expense</b>	
						(g) 3,000	
						Bal. 3,000	
						<b>Rent Expense</b>	
						(g) 1,500	
						Bal. 1,500	
						<b>Interest Expense</b>	
						(g) 400	
						Bal. 400	
						<b>Utilities Expense</b>	
						(i) 200	
						Bal. 200	

Requirement 4

Calderon Service Center, Inc.		
Trial Balance		
March 31, 20X3		
Account Title	Balance	
	Debit	Credit
Cash.....	\$31,200	
Accounts receivable.....	4,000	
Supplies.....	300	
Land.....	40,000	
Accounts payable .....		\$ 1,300
Note payable.....		45,000
Common stock.....		10,000
Retained earnings.....		18,500
Dividends.....	1,800	
Service revenue.....		7,600
Salary expense.....	3,000	
Rent expense .....	1,500	
Interest expense.....	400	
Utilities expense .....	200	
Total .....	<u>\$82,400</u>	<u>\$82,400</u>

**Requirement 5**

Calderon Service Center, Inc. Income Statement Month Ended March 31, 20X3	
<b>Revenue</b>	
Service revenue.....	\$7,600
<b>Expenses</b>	
Salary expense.....	\$3,000
Rent expense.....	1,500
Interest expense.....	400
Utilities expense.....	200
Total expenses.....	<u>5,100</u>
Net income.....	<u>\$2,500</u>

**REVIEW TRANSACTION ANALYSIS****Quick Check** (answers are given on page 110)

1. A debit entry to an account:
  - a. increases liabilities
  - b. increases stockholders' equity
  - c. increases assets
  - d. both a and c
2. Which account types normally have a credit balance?
  - a. liabilities
  - b. revenues
  - c. expenses
  - d. both a and b
3. An attorney performs services of \$800 for a client and receives \$200 cash with the remainder on account. The journal entry for this transaction would:
  - a. debit Cash, credit Accounts Receivable, credit Service Revenue
  - b. debit Cash, debit Accounts Receivable, credit Service Revenue
  - c. debit Cash, credit Service Revenue
  - d. debit Cash, debit Service Revenue, credit Accounts Receivable
4. Accounts Payable had a normal beginning balance of \$1,000. During the period, there were debit postings of \$400 and credit postings of \$600. What was the ending balance?
  - a. \$800 debit
  - b. \$800 credit
  - c. \$1,200 debit
  - d. \$1,200 credit
5. The list of all accounts with their balances is the:
  - a. trial balance
  - b. chart of accounts
  - c. journal
  - d. balance sheet
6. The basic summary device of accounting is the:
  - a. ledger
  - b. account
  - c. journal
  - d. trial balance

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7. The beginning Cash balance was \$5,000. At the end of the period, the balance was \$6,000. If total cash paid out during the period was \$24,000, the amount of cash receipts was:
- \$23,000
  - \$13,000
  - \$25,000
  - \$35,000
8. In a double-entry accounting system
- a debit entry is recorded on the left side of a T-account.
  - half of all the accounts have a normal credit balance.
  - liabilities, owners' equity, and revenue accounts all have normal debit balances.
  - both a and c are correct.
9. Which accounts appear on which financial statement?
- | <i>Balance sheet</i>           | <i>Income statement</i>     |
|--------------------------------|-----------------------------|
| a. Cash, revenues, land        | Expenses, payables          |
| b. Receivables, land, payables | Revenues, supplies          |
| c. Expenses, payables, cash    | Revenues, receivables, land |
| d. Cash, receivables, payables | Revenues, expenses          |
10. A doctor purchases medical supplies of \$670 and pays \$200 cash with the remainder on account. The journal entry for this transaction would be:
- Supplies  
Accounts Payable  
Cash
  - Supplies  
Cash  
Accounts Payable
  - Supplies  
Accounts Receivable  
Cash
  - Supplies  
Accounts Payable  
Cash
11. Which is the correct sequence for recording transactions and preparing financial statements?
- Journal, ledger, trial balance, financial statements
  - Ledger, trial balance, journal, financial statements
  - Financial statements, trial balance, ledger, journal
  - Ledger, journal, trial balance, financial statements
12. The error of posting \$100 as \$10 can be detected by
- Dividing the out-of-balance amount by 2.
  - Totalling each account's balance in the ledger.
  - Dividing the out-of-balance amount by 9.
  - Examining the chart of accounts.

## Accounting Vocabulary

**account** (p. 55) The record of the changes that have occurred in a particular asset, liability, or stockholders' equity during a period. The basic summary device of accounting.

**accrued liability** (p. 56) A liability for an expense that has not yet been paid by the company.

**cash** (p. 55) Money and any medium of exchange that a bank accepts at face value.

**chart of accounts** (p. 80) List of a company's accounts and their account numbers.

**credit** (p. 67) The right side of an account.

**debit** (p. 67) The left side of an account.

**journal** (p. 70) The chronological accounting record of an entity's transactions.

**ledger** (p. 71) The book of accounts and their balances.

**posting** (p. 71) Copying amounts from the journal to the ledger.

**prepaid expense** (p. 55) A category of miscellaneous assets that typically expire or get used up in the near future. Examples include Prepaid Rent, Prepaid Insurance, and Supplies.

**transaction** (p. 54) Any event that has a financial impact on the business and can be measured reliably.

**trial balance** (p. 77) A list of all the ledger accounts with their balances.

## ASSESS YOUR PROGRESS

### Short Exercises

**S2-1 (Learning Objective 1: Explaining an asset versus an expense)** Lou Ann Staas opened a software consulting firm that immediately paid \$9,000 for a computer. Was Staas's payment an expense of the business? Explain your answer. (p. 55–56)

**S2-2 (Learning Objective 1: Analyzing the effects of transactions)** Hourglass Software began with cash of \$10,000. Hourglass then bought supplies for \$2,000 on account. Separately, Hourglass paid \$5,000 for a computer. Answer these questions.

- How much in total assets does Hourglass have? (p. 58–59)
- How much in liabilities does Hourglass owe? (p. 58–59)

**S2-3 (Learning Objective 1: Analyzing transactions)** Sandy Lyle, MD, opened a medical practice. The business completed the following transactions:

June 1	Lyle invested \$25,000 cash to start her medical practice. The business issued common stock to Lyle.
1	Purchased medical supplies on account totaling \$9,000.
2	Paid monthly office rent of \$4,000.
3	Recorded \$8,000 revenue for service rendered to patients, received cash of \$2,000, and sent bills to patients for the remainder.

After these transactions, how much cash does the business have to work with? Use a T-account to show your answer. (pp. 57–60)

**S2-4 (Learning Objective 1: Analyzing transactions)** Refer to Short Exercise S2-3. Which of the transactions of Sandy Lyle, MD, increased the total assets of the business? For each transaction, identify the asset that was increased.

**S2-5 (Learning Objective 2, 3: Recording transactions)** After operating for several months, architect Paul Marciano completed the following transactions during the latter part of October:

October 15	Borrowed \$25,000 from the bank, signing a note payable.
22	Performed service for clients on account totaling \$9,000.
28	Received \$6,000 cash on account from clients.
29	Received a utility bill of \$600, an account payable that will be paid during May.
31	Paid monthly salary of \$3,000 to employee.

Journalize the transactions of Paul Marciano, Architect. Include an explanation with each journal entry. (pp. 72–76)

**S2-6 (Learning Objective 2, 3: Journalizing transactions; posting)** Adam Lowry, Inc., purchased supplies on account for \$5,000. Later Lowry paid \$3,000 on account.

- Journalize the two transactions on the books of Adam Lowry, Inc. Include an explanation for each transaction. (pp. 73–76)
- Open a T-account for Accounts Payable and post to Accounts Payable. Compute the balance and denote it as Bal. (pp. 73–76)
- How much does the Lowry business owe after both transactions? In which account does this amount appear? (pp. 73–76)

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**S2-7 (Learning Objective 2, 3: Journalizing transactions; posting)** Motion Unlimited performed service for a client who could not pay immediately. Motion expected to collect the \$4,000 the following month. A month later, Motion received \$2,500 cash from the client.

1. Record the two transactions on the books of Motion Unlimited. Include an explanation for each transaction. (pp. 73–76)
2. Open these T-accounts: Cash, Accounts Receivable, and Service Revenue. Post to all three accounts. Compute each account balance and denote as Bal. (pp. 73–76)

**S2-8 (Learning Objective 4: Preparing and using a trial balance)** Assume that **Old Navy**, reported the following summarized data at December 31, 20X8. Accounts appear in no particular order; dollar amounts are in millions.

Other liabilities .....	\$ 2	Revenues .....	\$36
Cash.....	8	Other assets.....	9
Expenses .....	24	Accounts payable .....	1
Stockholders' equity .....	2		

Prepare the trial balance of Old Navy at December 31, 20X8. List the accounts in their proper order, as on page 71. How much was Old Navy's net income or net loss? (p. 77–78)

**S2-9 (Learning Objective 4: Using a trial balance)** Blackberry's trial balance follows.

Blackberry, Inc. Trial Balance June 30, 20X6		
	Debit	Credit
Cash.....	\$ 6,000	
Accounts receivable.....	13,000	
Supplies.....	4,000	
Equipment.....	22,000	
Land.....	50,000	
Accounts payable .....		\$ 19,000
Note payable.....		20,000
Common stock.....		10,000
Retained earnings.....		8,000
Service revenue.....		70,000
Salary expense.....	21,000	
Rent expense .....	10,000	
Utilities expense .....	1,000	
Total .....	<u>\$127,000</u>	<u>\$127,000</u>

Compute these amounts for Blackberry: (p. 77–78)

1. Total assets
2. Total liabilities
3. Net income or net loss during June

**S2-10 (Learning Objective 4: Using a trial balance)** Refer to Blackberry's trial balance in Short Exercise S2-9. The purpose of this exercise is to help you learn how to correct three common accounting errors. (p. 79–80)

*Error 1. Slide.* Suppose the trial balance lists Land as \$5,000 instead of \$50,000. Recompute column totals, take the difference, and divide by 9. The result is an integer (no decimals), which suggests that the error is either a transposition or a slide.

*Error 2. Transposition.* Assume the trial balance lists Accounts Receivable as \$31,000 instead of \$13,000. Recompute column totals, take the difference, and divide by 9. The result is an integer (no decimals), which suggests that the error is either a transposition or a slide.

*Error 3. Mislabelling an item.* Assume that Blackberry accidentally listed Accounts Receivable as a credit balance instead of a debit. Recompute the trial balance totals for debits and credits. Then take the difference between total debits and total credits, and divide the difference by 2. You get back to the original amount of Accounts Receivable.

**S2-11 (Learning Objective 2: Using key accounting terms)** Accounting has its own vocabulary and basic relationships. Match the accounting terms at left with the corresponding definition or meaning at right. (pp. 55–80)

- |                        |  |
|------------------------|--|
| ___ 1. Debit           | A. The cost of operating a business; a decrease in |
| ___ 2. Expense         | stockholders' equity                               |
| ___ 3. Net income      | B. Always a liability                              |
| ___ 4. Ledger          | C. Revenues – Expenses                             |
| ___ 5. Posting         | D. Grouping of accounts                            |
| ___ 6. Normal balance  | E. Assets – Liabilities                            |
| ___ 7. Payable         | F. Record of transactions                          |
| ___ 8. Journal         | G. Always an asset                                 |
| ___ 9. Receivable      | H. Left side of an account                         |
| ___ 10. Owners' equity | I. Side of an account where increases are recorded |
|                        | J. Copying data from the journal to the ledger     |

**S2-12 (Learning Objective 5: Analyzing transactions without a journal)** Singapore Investments, Inc., began by issuing common stock for cash of \$100,000. The company immediately purchased computer equipment on account for \$60,000.

- Set up the following T-accounts of Singapore Investments, Inc.: Cash, Computer Equipment, Accounts Payable, Common Stock. (p. 81–82)
- Record the first two transactions of the business directly in the T-accounts without using a journal. (p. 81–82)
- Show that total debits equal total credits.

## Exercises

**E2-13 (Learning Objective 1: Reporting on business activities)** Assume **J. Crew** opened a store in St. Louis, starting with cash and common stock of \$100,000. Monique Farris, the store manager, then signed a note payable to purchase land for \$90,000 and a building for \$120,000. Farris also paid \$60,000 for equipment and \$10,000 for supplies to use in the business.

Suppose the home office of J. Crew requires a weekly report from store managers. Write Farris's memo to the home office to report on her purchases. Include the store's balance sheet as the final part of your memo. Prepare a T-account to compute the balance for Cash. (pp. 58–59, 63–64)

**E2-14 (Learning Objective 1: Business transactions and the accounting equation)** **Advanced Design** specializes in imported clothing. During April, Advanced completed a series of transactions. For each of the following items, give an example of a transaction that has the described effect on the accounting equation of Advanced Design. (pp. 57–62)

- Increase one asset and decrease another asset.
- Decrease an asset and decrease owners' equity.
- Decrease an asset and decrease a liability.
- Increase an asset and increase owners' equity.
- Increase an asset and increase a liability.

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**E2-15 (Learning Objective 1: Transaction analysis)** The following selected events were experienced by either Problem Solvers, Inc., a corporation, or Peter Fleming, the major stockholder. State whether each event (1) increased, (2) decreased, or (3) had no effect on the total assets of the business. Identify any specific asset affected. (pp. 57–62)

- a. Received \$9,000 cash from customers on account.
- b. Fleming used personal funds to purchase a swimming pool for his home.
- c. Sold land and received cash of \$60,000 (the land was carried on the company's books at \$60,000).
- d. Borrowed \$50,000 from the bank.
- e. Made cash purchase of land for a building site, \$85,000.
- f. Received \$20,000 cash and issued stock to a stockholder.
- g. Paid \$60,000 cash on accounts payable.
- h. Purchased equipment and signed a \$100,000 promissory note in payment.
- i. Purchased merchandise inventory on account for \$15,000.
- j. The business paid Fleming a cash dividend of \$4,000.

**E2-16 (Learning Objective 1: Transaction analysis; accounting equation)** Randolph Noble opened a medical practice specializing in surgery. During the first month of operation (August), the business, titled Randolph Noble, Professional Corporation (P.C.), experienced the following events:

August	6	Noble invested \$50,000 in the business, which in turn issued its common stock to him.
	9	The business paid cash for land costing \$30,000. Noble plans to build an office building on the land.
	12	The business purchased medical supplies for \$2,000 on account.
	15	Randolph Noble, P.C., officially opened for business.
	15–31	During the rest of the month, Noble treated patients and earned service revenue of \$8,000, receiving cash for half the revenue earned.
	15–31	The business paid cash expenses: employee salaries, \$1,400; office rent, \$1,000; utilities, \$300.
	31	The business sold supplies to another physician for the supplies' cost of \$500.
	31	The business borrowed \$10,000, signing a note payable to the bank.
	31	The business paid \$1,000 on account.

### Required

1. Analyze the effects of these events on the accounting equation of the medical practice of Randolph Noble, P.C. Use a format similar to that of Exhibit 2-1, Panel B, with headings for Cash, Accounts Receivable, Medical Supplies, Land, Accounts Payable, Note Payable, Common Stock, and Retained Earnings. (pp. 57–62)
2. After completing the analysis, answer these questions about the business.
  - a. How much are total assets? (p. 61–62)
  - b. How much does the business expect to collect from patients? (p. 61–62)
  - c. How much does the business owe in total? (p. 61–62)
  - d. How much of the business's assets does Noble really own?
  - e. How much net income or net loss did the business experience during its first month of operations? (p. 63–64)

**E2-17 (Learning Objective 2, 3: Journalizing transactions)** Refer to Exercise 2-16. Record the transactions in the journal of Randolph Noble, P.C. List the transactions by date and give an explanation for each transaction. (pp. 72–77)

**E2-18** (*Learning Objective 2, 3: Journalizing transactions*) Double Tree Cellular, Inc., completed the following transactions during April 20X6, its first month of operations:

■ **general ledger**

Apr. 1	Received \$25,000 and issued common stock.
2	Purchased \$800 of office supplies on account.
4	Paid \$20,000 cash for land to use as a building site.
6	Performed service for customers and received cash of \$2,000.
9	Paid \$100 on accounts payable.
17	Performed service for <b>FedEx</b> on account totaling \$1,200.
23	Collected \$900 from <b>FedEx</b> on account.
30	Paid the following expenses: salary, \$1,000; rent, \$500.

■ **Required**

Record the transactions in the journal of Double Tree Cellular, Inc. Key transactions by date and include an explanation for each entry, as illustrated in the chapter. (pp. 72–77)

**E2-19** (*Learning Objective 3, 4: Posting to the ledger and preparing and using a trial balance*) Refer to Exercise 2-18.

■ **general ledger**

■ **Required**

1. After journalizing the transactions of Exercise 2-18, post the entries to the ledger, using T-accounts. Key transactions by date. Date the ending balance of each account April 30. (pp. 72–77)
2. Prepare the trial balance of Double Tree Cellular, Inc., at April 30, 20X6. (p. 77–78)
3. How much are total assets, total liabilities, and total stockholders' equity on April 30? Use the accounting equation. (pp. 62–63)

**E2-20** (*Learning Objective 2, 3: Journalizing transactions*) The first 7 transactions of Yellow Pages Advertising, Inc., have been posted to the company's accounts as follows:

<b>Cash</b>		<b>Supplies</b>		<b>Equipment</b>		<b>Land</b>	
(1) 20,000	(3) 8,000	(4) 1,000	(5) 100	(6) 8,000		(3) 31,000	
(2) 7,000	(6) 8,000						
(5) 100	(7) 400						
<b>Accounts Payable</b>		<b>Note Payable</b>		<b>Common Stock</b>			
(7) 400	(4) 1,000		(2) 7,000		(1) 20,000		
			(3) 23,000				

■ **Required**

Prepare the journal entries that served as the sources for the 7 transactions. Include an explanation for each entry. (pp. 72–77) As Yellow Pages moves into the next period, how much cash does the business have? (p. 77–78) How much does Yellow Pages owe in total liabilities? (p. 77–78)

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■ spreadsheet

**E2-21 (Learning Objective 4: Preparing and using a trial balance)** The accounts of Custom Pool Service, Inc., follow with their normal balances at June 30, 20X6. The accounts are listed in no particular order.

Account	Balance	Account	Balance
Dividends .....	\$ 6,000	Common stock.....	\$ 8,500
Utilities expense .....	1,400	Accounts payable .....	4,300
Accounts receivable.....	15,500	Service revenue.....	22,000
Delivery expense .....	300	Land.....	29,000
Retained earnings.....	21,400	Note payable.....	13,000
Salary expense.....	8,000	Cash.....	9,000

■ Required

1. Prepare the company's trial balance at June 30, 20X6, listing accounts in proper sequence, as illustrated in the chapter. For example, Supplies comes before Land. List the expense with the largest balance first, the expense with the next largest balance second, and so on. (p. 77–78)
2. Prepare the financial statement for the month ended June 30, 20X6, that will tell the company the results of operations for the month. (p. 63–64)

**E2-22 (Learning Objective 4: Correcting errors in a trial balance)** The trial balance of Haigood, Inc., at September 30, 20X3, does not balance:

Cash.....	\$ 4,200	
Accounts receivable.....	13,000	
Inventory.....	17,000	
Supplies.....	600	
Land.....	55,000	
Accounts payable .....		\$12,000
Common stock.....		47,900
Service revenue.....		32,100
Salary expense.....	1,700	
Rent expense .....	800	
Utilities expense .....	700	
Total .....	<u>\$93,000</u>	<u>\$92,000</u>

The accounting records hold the following errors:

- a. Recorded a \$1,000 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 Common Stock by \$1,100.
- e. Omitted Insurance Expense of \$1,000, from the trial balance.

■ Required

Prepare the correct trial balance at September 30, 20X3, complete with a heading. Journal entries are not required. (p. 77–78)

**E2-23 (Learning Objective 5: Recording transactions without a journal)** Set up the following T-accounts: Cash, Accounts Receivable, Office Supplies, Office Furniture, Accounts Payable, Common Stock, Dividends, Service Revenue, Salary Expense, and Rent Expense.

Record the following transactions directly in the T-accounts without using a journal. Use the letters to identify the transactions. (p. 81–82)

- a. Linda English opened a law firm by investing \$10,000 cash and office furniture valued at \$5,000. Organized as a professional corporation, the business issued common stock to English.
- b. Paid monthly rent of \$1,500.
- c. Purchased office supplies on account, \$800.
- d. Paid employees' salaries of \$1,800.
- e. Paid \$400 of the account payable created in transaction c.
- f. Performed legal service on account, \$8,300.
- g. Declared and paid dividends of \$2,000.

**E2-24** (*Learning Objective 4: Preparing and using a trial balance*) Refer to Exercise 2-23.

1. After recording the transactions in Exercise 2-23, prepare the trial balance of Linda English, Attorney, at May 31, 20X9. (p. 77–78)
2. How well did the business perform during its first month? Compute net income (or net loss) for the month. (p. 63–64)

### writing assignment ■

## Serial Exercise

Exercise 2-25 begins an accounting cycle that is completed in Chapter 3.

**E2-25** (*Learning Objective 2, 3, 4: Recording transactions and preparing a trial balance*) Lance Sedberry, Certified Public Accountant, operates as a professional corporation (P.C.). The business completed these transactions during the first part of January:

### ■ general ledger

Jan.	2	Received \$5,000 cash from Sedberry, and issued common stock to him.
	2	Paid monthly office rent, \$500.
	3	Paid cash for a Dell computer, \$3,000, with the computer expected to remain in service for 5 years.
	4	Purchased office furniture on account, \$6,000, with the furniture projected to last for 5 years.
	5	Purchased supplies on account, \$900.
	9	Performed tax service for a client and received cash for the full amount of \$800.
	12	Paid utility expenses, \$200.
	18	Performed consulting service for a client on account, \$1,700.

### Required

1. Set up T-accounts for Cash, Accounts Receivable, Supplies, Equipment, Furniture, Accounts Payable, Common Stock, Dividends, Service Revenue, Rent Expense, Utilities Expense, and Salary Expense. (pp. 67–77)
2. Journalize the transactions. Explanations are not required. (pp. 72–77)
3. Post to the T-accounts. Key all items by date and denote an account balance on January 18 as Bal. (pp. 72–77)
4. Prepare a trial balance at January 18. In the Serial Exercise of Chapter 3, we add transactions for the remainder of January and will require a trial balance at January 31. (p. 77–78)

## Challenge Exercises

**E2-26** (*Learning Objective 5: Computing financial statement amounts*) The manager of Dubois Furniture needs to compute the following amounts.

- a. Total cash paid during March. (p. 77–78)
- b. Cash collections from customers during March. Analyze Accounts Receivable. (p. 77–78)
- c. Cash paid on a note payable during March. Analyze Notes Payable. (p. 77–78)

(continued)

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Here are the additional data you need to analyze the accounts:

Account	Balance		Additional Information for the Month of March
	Feb. 28	Mar. 31	
1. Cash.....	\$10,000	\$ 5,000	Cash receipts, \$80,000
2. Accounts Receivable.....	26,000	24,000	Sales on account, \$50,000
3. Notes Payable .....	13,000	21,000	New borrowing, \$25,000

Prepare a T-account to compute each amount *a* through *c*.

**E2-27 (Learning Objective 1, 4: Analyzing transactions; using a trial balance)** The trial balance of Loop 340, Inc., at December 31, 20X5, does not balance.

Cash.....	\$ 3,900	Common stock.....	\$20,000
Accounts receivable.....	7,200	Retained earnings.....	7,300
Land.....	34,000	Service revenue.....	9,100
Accounts payable .....	5,800	Salary expense.....	3,400
Note payable.....	5,000	Advertising expense.....	900

**Required**

- How much out of balance is the trial balance? Determine the out-of-balance amount. The error lies in the Accounts Receivable account. Add the out-of-balance amount to, or subtract it from, Accounts Receivable to determine the correct balance of Accounts Receivable.
- After correcting Accounts Receivable, advise the top management of Loop 340, Inc., on the company's
  - Total assets
  - Total liabilities
  - Net income or net loss for December. (p. 63–64)

**E2-28 (Learning Objective 1: Analyzing transactions)** This question concerns the items and the amounts that 2 entities, Rogers Co., and Providence Hospital, should report in their financial statements.

During June, Providence provided Rogers with medical exams for Rogers employees and sent a bill for \$20,000. On July 7 Rogers sent a check to Providence for \$15,000. Rogers began June with a cash balance of \$25,000; Providence began with cash of \$0.

**Required**

For this situation, show everything that both Rogers and Providence will report on their June and July income statements and on their balance sheets at June 30 and July 31. Use the following format for your answer: (pp. 72–74, 63–64)

Rogers:		
Income statement	June	July
Balance sheet	June 30	July 31
Providence:		
Income statement	June	July
Balance sheet	June 30	July 31

After showing what each company should report, briefly explain how Rogers and the Providence data relate to each other. Be specific. (Challenge)

## Quiz

Test your understanding of transaction analysis by answering the following questions. Select the best choice from among the possible answers.

**Q2-29** An investment of cash into the business will (p. 57–58)

- a. Decrease total assets.
- b. Decrease total liabilities.
- c. Increase stockholders' equity.
- d. Have no effect on total assets.

**Q2-30** Purchasing a computer on account will (p. 58–59)

- a. Increase total assets.
- b. Increase total liabilities.
- c. Have no effect on stockholders' equity.
- d. All of the above.

**Q2-31** Performing a service on account will (p. 59–60)

- a. Increase total assets.
- b. Increase stockholders' equity.
- c. Both a and b.
- d. Increase total liabilities.

**Q2-32** Receiving cash from a customer on account will (p. 60–61)

- a. Have no effect on total assets.
- b. Increase total assets.
- c. Decrease liabilities.
- d. Increase stockholders equity.

**Q2-33** Purchasing computer equipment for cash will (p. 58–59)

- a. Increase both total assets and total liabilities.
- b. Decrease both total assets and stockholders' equity.
- c. Decrease both total liabilities and stockholders' equity.
- d. Have no effect on total assets, total liabilities, or stockholders' equity.

**Q2-34** Purchasing a building for \$100,000 by paying cash of \$20,000 and signing a note payable for \$80,000 will (p. 58–59)

- a. Increase both total assets and total liabilities by \$100,000.
- b. Increase both total assets and total liabilities by \$80,000.
- c. Decrease total assets and increase total liabilities by \$20,000.
- d. Decrease both total assets and total liabilities by \$20,000.

**Q2-35** What is the effect on total assets and stockholders' equity of paying the electric bill as soon as it is received each month? (p. 59–60)

<u>Total assets</u>	<u>Stockholders' equity</u>
a. Decrease	No effect
b. No effect	No effect
c. Decrease	Decrease
d. No effect	Decrease



**Q2-36** Which of the following transactions will increase an asset and increase a liability? (p. 58–59)

- a. Buying equipment on account.
- b. Purchasing office equipment for cash.
- c. Issuing stock.
- d. Payment of an account payable.

**Q2-37** Which of the following transactions will increase an asset and increase stockholders' equity? (p. 59–60)

- a. Collecting cash from a customer on an account receivable.
- b. Performing a service on account for a customer.
- c. Borrowing money from a bank.
- d. Purchasing supplies on account.

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**Q2-38** Where do we first record a transaction? (p. 70–71)

- a. Ledger
- b. Trial balance
- c. Account
- d. Journal

**Q2-39** Which of the following is not an asset account? (pp. 55–56, 63–64)

- a. Common Stock
- b. Salary Expense
- c. Service Revenue
- d. None of the above accounts is an asset.

**Q2-40** Which statement is false? (p. 70–71)

- a. Revenues are increased by credits.
- b. Assets are increased by debits.
- c. Dividends are increased by credits.
- d. Liabilities are decreased by debits.

**Q2-41** The journal entry to record the receipt of land and a building and issuance of common stock (p. 72–73)

- a. Debits Land and Building and credits Common Stock.
- b. Debits Land and credits Common Stock.
- c. Debits Common Stock and credits Land and Building.
- d. Debits Land, Building, and Common Stock.

**Q2-42** The journal entry to record the purchase of supplies on account (p. 73–74)

- a. Credits Supplies and debits Cash.
- b. Debits Supplies and credits Accounts Payable.
- c. Debits Supplies Expense and credits Supplies.
- d. Credits Supplies and debits Accounts Payable.

**Q2-43** If the credit to record the purchase of supplies on account is not posted, (p. 73–74)

- a. Liabilities will be understated.
- b. Expenses will be overstated.
- c. Assets will be understated.
- d. Stockholders' equity will be understated.

**Q2-44** The journal entry to record a payment on account will (p. 74–76)

- a. Debit Accounts Payable and credit Retained Earnings.
- b. Debit Cash and credit Expenses.
- c. Debit Expenses and credit Cash.
- d. Debit Accounts Payable and credit Cash.

**Q2-45** If the credit to record the payment of an account payable is not posted, (p. 74–76)

- a. Liabilities will be understated.
- b. Expenses will be understated.
- c. Cash will be overstated.
- d. Cash will be understated.

**Q2-46** Which statement is false? (p. 77–78)

- a. A trial balance lists all the accounts with their current balances.
- b. A trial balance is the same as a balance sheet.
- c. A trial balance can verify the equality of debits and credits.
- d. A trial balance can be taken at any time.

**Q2-47** A business's purchase of a \$100,000 building with an \$85,000 mortgage payable and issuance of \$15,000 of common stock will (p. 62–63)

- a. Increase stockholders' equity by \$15,000.
- b. Increase assets by \$15,000.
- c. Increase assets by \$85,000.
- d. Increase stockholders' equity by \$100,000.

**Q2-48** Martex, Inc., a new company, completed these transactions. What will Martex's total assets equal? (p. 62–63)

- (1) Stockholders invested \$50,000 cash and inventory worth \$25,000.
- (2) Sales on account, \$12,000.

- |             |             |
|-------------|-------------|
| a. \$75,000 | c. \$63,000 |
| b. \$87,000 | d. \$62,000 |

## Problems

### (Group A)



Most of these A problems can be found online at [www.prenhall.com/harrison](http://www.prenhall.com/harrison). These problems are algorithmically generated, allowing you endless practice. You'll receive immediate assessment and feedback as you complete each problem.

**P2-49A** (*Learning Objective 1: Analyzing a trial balance*) The trial balance of Amusement Specialties, Inc., follows.

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Amusement Specialties, Inc.			
Trial Balance			
December 31, 20X6			
Cash.....	\$ 14,000		
Accounts receivable.....	11,000		
Prepaid expenses .....	4,000		
Equipment.....	171,000		
Building.....	100,000		
Accounts payable .....	\$ 30,000		
Note payable.....	120,000		
Common stock.....	102,000		
Retained earnings.....	40,000		
Dividends.....	22,000		
Service revenue.....	86,000		
Rent expense.....	14,000		
Advertising expense.....	3,000		
Wage expense.....	32,000		
Supplies expense.....	7,000		
Total .....	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-top: 1px solid black; border-bottom: 3px double black;">\$378,000</td> <td style="width: 50%; border-top: 1px solid black; border-bottom: 3px double black;">\$378,000</td> </tr> </table>	\$378,000	\$378,000
\$378,000	\$378,000		

Rhonda Ray, your best friend, is considering investing in Amusement Specialties. Rhonda seeks your advice in interpreting this information. Specifically, she asks how to use this trial balance to compute the company's total assets, total liabilities, and net income or net loss for the year.

### Required

Write a short note to answer Rhonda's questions. In your note, state the amounts of Amusement Specialties' total assets, total liabilities, and net income or net loss for the year. Also show how you computed each amount. (pp. 77–78, 63–64)

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**P2-50A** (*Learning Objective 1: Analyzing transactions with the accounting equation and preparing the financial statements*) The following amounts summarize the financial position of Ready Resources, Inc., on May 31, 20X8:

Assets					=	Liabilities	+	Stockholders' Equity					
	Cash	+	Accounts Receivable	+	Supplies	+	Land	=	Accounts Payable	+	Common Stock	+	Retained Earnings
Bal.	1,200		1,500				12,000	=	8,000		4,000		2,700

During June 20X8, Ready Resources completed these transactions:

- The business received cash of \$5,000 and issued common stock.
- Performed services for a customer and received cash of \$6,700.
- Paid \$5,000 on accounts payable.
- Purchased supplies on account, \$1,000.
- Collected cash from a customer on account, \$500.
- Consulted on the design of a computer system and billed the customer for services rendered, \$2,400.
- Recorded the following business expenses for the month: (1) paid office rent—\$900; (2) paid advertising—\$300.
- Declared and paid a cash dividend of \$1,800.

**Required**

- Analyze the effects of the preceding transactions on the accounting equation of Ready Resources, Inc. Adapt the format of Exhibit 2-1, Panel B. (p. 62, 63)
- Prepare the income statement of Ready Resources, Inc., for the month ended June 30, 20X8. List expenses in decreasing order by amount. (p. 63–64).
- Prepare the entity's statement of retained earnings for the month ended June 30, 20X8. (p. 63–64)
- Prepare the balance sheet of Ready Resources, Inc., at June 30, 20X8. (p. 63–64)

**general ledger**

**P2-51A** (*Learning Objective 2, 3: Recording transactions, posting*) This problem can be used in conjunction with Problem 2-50A. Refer to Problem 2-50A.

**Required**

- Journalize the transactions of Ready Resources, Inc. Explanations are not required. (pp. 72–77)
- Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Land, Accounts Payable, Common Stock, Retained Earnings, Dividends, Service Revenue, Rent Expense, and Advertising Expense. Insert in each account its balance as given (example: Cash \$1,200). Post the transactions to the accounts. (pp. 72–77)
- Compute the balance in each account. For each asset account, each liability account, and for Common Stock, compare its balance to the ending balance you obtained in Problem 2-50A. Are the amounts the same or different? (In Chapter 3, we complete the accounting process. There you will learn how the Retained Earnings, Dividends, Revenue, and Expense accounts work together in the processing of accounting information.) (pp. 72–77)

**P2-52A** (*Learning Objective 1, 2: Analyzing transactions with the accounting equation*) Perry Real Estate Co. experienced the following events during the organizing phase and its first month of operations. Some of the events were personal for the stockholders and did not affect the business. Others were transactions of the business.

- |        |   |
|--------|---|
| Nov. 4 | Gaylord Perry, the major stockholder of real estate company, received \$50,000 cash from an inheritance.  |
| 5      | Perry deposited \$50,000 cash in a new business bank account titled Perry Real Estate Co. The business issued common stock to Perry.                          |
| 6      | The business paid \$300 cash for letterhead stationery for the new office.  |
| 7      | The business purchased office equipment. The company paid cash of \$30,000 and agreed to pay the account payable for the remainder, \$7,000, within 3 months. |
| 10     | Perry sold Dell stock, which he had owned for several years, receiving \$75,000 cash from his personal stockbroker.   |
| 11     | Perry deposited the \$75,000 cash from sale of the Dell stock in his personal bank account.   |
| 12     | A representative of a large company telephoned Perry and told him of the company's intention to transfer \$10,000 of business to Perry.                       |
| 18     | Perry finished a real estate deal for a client and submitted his bill for services, \$10,000. Perry expects to collect from this client within 2 weeks.       |
| 21     | The business paid half its account payable for the equipment purchased on November 7.   |
| 25     | The business paid office rent of \$4,000.   |
| 30     | The business declared and paid a cash dividend of \$2,000.  |

**Required**

- Classify each of the preceding events as one of the following: (pp. 57–63)
  - A business-related event but not a transaction to be recorded by Perry Real Estate Co.
  - A personal transaction for a stockholder, not to be recorded by Perry Real Estate Co.
  - A business transaction to be recorded by Perry Real Estate Co.
- Analyze the effects of the preceding events on the accounting equation of Perry Real Estate Co. Use a format similar to that in Exhibit 2-1, Panel B. (p. 62–63)
- Record the transactions of the business in its journal. Include an explanation for each entry. (pp. 72–77)

**P2-53A (Learning Objective 2, 3: Analyzing and recording transactions)** During December, Barnett Auction Co. completed the following transactions:

**general ledger**

- |        |  |
|--------|--|
| Dec. 1 | Barnett received \$10,000 cash and issued common stock to the stockholders.  |
| 5      | Paid monthly rent, \$1,000.  |
| 9      | Paid \$5,000 cash and signed a \$25,000 note payable to purchase land for an office site.                                |
| 10     | Purchased supplies on account, \$1,200.  |
| 19     | Paid \$600 on account.   |
| 22     | Borrowed \$15,000 from the bank for business use. Barnett signed a note payable to the bank in the name of the business. |
| 31     | Service revenues earned during the month included \$6,000 cash and \$5,000 on account.                                   |
| 31     | Paid employees' salaries (\$2,000), advertising expense (\$1,500), and utilities expense (\$1,100).                      |
| 31     | Declared and paid a cash dividend of \$4,000.  |

(continued)

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Barnett's business uses the following accounts: Cash, Accounts Receivable, Supplies, Land, Accounts Payable, Notes Payable, Common Stock, Dividends, Service Revenue, Salary Expense, Advertising Expense, and Utilities Expense.

**Required**

1. Journalize each transaction of Barnett Auction Co. Explanations are not required. (pp. 72–77)
2. Prepare T-accounts for Cash, Accounts Payable, and Notes Payable. Post to these three accounts. (p. 76)
3. After these transactions, how much cash does the business have? How much in total liabilities does it owe? (pp. 62–64)

**general ledger**

**P2-54A** (*Learning Objective 2, 3, 4: Journalizing transactions, posting, and preparing and using a trial balance*) During the first month of operations, Double R Heating and Air Conditioning, Inc., completed the following transactions:

Jan.	2	Double R received \$30,000 cash and issued common stock to the stockholders.
	3	Purchased supplies, \$1,000, and equipment, \$2,600, on account.
	4	Performed service for a customer and received cash, \$1,500.
	7	Paid cash to acquire land, \$22,000.
	11	Performed service for a customer and billed the customer, \$800. We expect to collect within 1 month.
	16	Paid for the equipment purchased January 3 on account.
	17	Paid the telephone bill, \$100.
	18	Received partial payment from customer on account, \$500.
	22	Paid the water and electricity bills, \$400.
	29	Received \$1,800 cash for servicing the heating unit of a customer.
	31	Paid employee salary, \$1,300.
	31	Declared and paid dividends of \$2,200.

**Required**

Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Equipment, Land, Accounts Payable, Common Stock, Dividends, Service Revenue, Salary Expense, and Utilities Expense.

1. Record each transaction in the journal, using the account titles given. Key each transaction by date. Explanations are not required. (pp. 72–77)
2. Post the transactions to the T-accounts, using transaction dates as posting references. Label the ending balance of each account *Bal.*, as shown in the chapter. (pp. 72–77)
3. Prepare the trial balance of Double R Heating and Air Conditioning, Inc., at January 31 of the current year.
4. The manager asks you how much in total resources the business has to work with, how much it owes, and whether January was profitable (and by how much). (p. 63–64)

**general ledger**

**P2-55A** (*Learning Objective 3, 4: Recording transactions directly in T-accounts; preparing and using a trial balance*) During the first month of operations (April 20X1), Music Services Corporation completed the following selected transactions:

- a. The business received cash of \$25,000 and a building valued at \$50,000. The corporation issued common stock to the stockholders.
- b. Borrowed \$50,000 from the bank; signed a note payable.
- c. Paid \$60,000 for music equipment.
- d. Purchased supplies on account, \$1,000.
- e. Paid employees' salaries, \$1,300.
- f. Received \$500 for service performed for customers.
- g. Performed service for customers on account, \$1,800.
- h. Paid \$600 of the account payable created in Transaction d.

- i. Received a \$500 bill for utility 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) advertising, \$800.

**Required**

1. Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Music Equipment, Building, Accounts Payable, Note Payable, Common Stock, Service Revenue, Salary Expense, Rent Expense, Advertising Expense, and Utilities Expense. (p. 81–82)
2. Record the foregoing transactions directly in the T-accounts without using a journal. Use the letters to identify the transactions. (p. 81–82)
3. Prepare the trial balance of Music Services Corporation at April 30, 20X1. (p. 73)

**(Group B)**

**P2-56B** (*Learning Objective 1: Analyzing a trial balance*) Your best friend is considering making an investment in Photometric Tailoring Co. She seeks your advice in interpreting the company’s information. Specifically, she asks whether this trial balance provides the data to prepare a balance sheet and an income statement.

**writing assignment ■**

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Photometric Tailoring Co. Trial Balance December 31, 20X9		
Cash.....	\$ 12,000	
Accounts receivable.....	47,000	
Prepaid expenses .....	4,000	
Equipment.....	236,000	
Accounts payable .....		\$105,000
Note payable.....		92,000
Common stock.....		30,000
Retained earnings.....		32,000
Service revenue.....		139,000
Salary expense.....	63,000	
Rent expense.....	26,000	
Supplies expense.....	7,000	
Advertising expense.....	3,000	
Total .....	\$398,000	\$398,000

**Required**

Write a memo to answer your friend’s questions. State which accounts go on the balance sheet and which accounts go on the income statement. In your memo, state the amount of net income that Photometric Tailoring earned in 20X9, and explain your computation. (pp. 77–78, 63–64)

**P2-57B** (*Learning Objective 1: Analyzing transactions with the accounting equation and preparing the financial statements*) Donald Healey operates and is the major stockholder of an interior design studio called DH Designers, Inc. The following amounts summarize the business on April 30, 20X1:

Assets					=	Liabilities		+	Stockholders’ Equity			
Cash	+	Accounts Receivable	+	Supplies	+	Land	=	Accounts Payable	+	Common Stock	+	Retained Earnings
Bal.		1,700		2,200		24,100	=	5,400		10,000		12,600

(continued)

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During May 20X1, the business completed these transactions:

- a. Healey received \$30,000 as a gift and deposited the cash in the business bank account. The business issued common stock to Healey.
- b. Paid \$1,400 on accounts payable.
- c. Performed services for a client and received cash of \$4,100.
- d. Collected cash from a customer on account, \$700.
- e. Purchased supplies on account, \$800.
- f. Consulted on the interior design of a major office building and billed the client for services rendered, \$5,000.
- g. Received cash of \$1,700 and issued common stock to a stockholder.
- h. Recorded the following expenses for the month: (1) paid office rent—\$1,200; (2) paid advertising—\$600.
- i. Declared and paid a cash dividend of \$2,000.

**Required**

1. Analyze the effects of the preceding transactions on the accounting equation of DH Designers, Inc. Adapt the format of Exhibit 2-1, Panel B. (p. 62–63)
2. Prepare the income statement of DH Designers, Inc., for the month ended May 31, 20X1. List expenses in decreasing order by amount. (p. 63–64)
3. Prepare the statement of retained earnings of DH Designers, Inc., for the month ended May 31, 20X1. (p. 63–64)
4. Prepare the balance sheet of DH Designers, Inc., at May 31, 20X1. (p. 63–64)

**general ledger**

**P2-58B (Learning Objective 2, 3: Recording transactions, posting)** This problem can be used in conjunction with Problem 2-57B. Refer to Problem 2-57B.

**Required**

1. Journalize the transactions of DH Designers, Inc. Explanations are not required. (pp. 72–77)
2. Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Land, Accounts Payable, Common Stock, Retained Earnings, Dividends, Service Revenue, Rent Expense, and Advertising Expense. Insert in each account its balance as given (example: Cash \$1,700). Post to the accounts. (p. 72–77)
3. Compute the balance in each account. For each asset account, each liability account, and for Common Stock, compare its balance to the ending balance you obtained in Problem 2-57B. Are the amounts the same or different? (In Chapter 3, we complete the accounting process. There you will learn how the Retained Earnings, Dividends, Revenue, and Expense accounts work together in the processing of accounting information.) (p. 72–77)

**P2-59B (Learning Objective 1, 2: Analyzing transactions with the accounting equation)**

Lane Kohler opened a law office, which he operates as a professional corporation. The name of the new entity is Lane Kohler, Attorney and Counselor, Professional Corporation (P.C.). Kohler experienced the following events during the organizing phase of his new business and its first month of operations. Some of the events were personal transactions of the stockholders and did not affect the law practice. Others were transactions that should be accounted for by the business.

March	1	Kohler sold 1,000 shares of <b>YouTube</b> stock and received \$75,000 cash from his stockbroker.
	2	Kohler deposited in his personal bank account the \$75,000 cash from sale of the YouTube stock.
	3	Kohler received \$100,000 cash from his former partners in the law firm from which he resigned.
	5	Kohler deposited \$50,000 cash in a new business bank account titled Lane Kohler, Attorney and Counselor, P.C. The business issued common stock to Kohler.
	6	A representative of a large company telephoned Kohler and told him of the company's intention to transfer \$15,000 of legal business to Kohler.
	7	The business paid \$500 cash for letterhead stationery for the law office.
	9	The business purchased office furniture. Kohler paid cash of \$10,000 and agreed to pay the account payable for the remainder, \$9,500, within 3 months.
	23	Kohler finished court hearings on behalf of a client and submitted his bill for legal services, \$3,000. He expected to collect from this client within 1 month.
	29	The business paid \$5,000 of its account payable on the furniture purchased on March 9.
	30	The business paid office rent of \$1,900.
	31	The business declared and paid a cash dividend of \$1,000.

**Required**

- Classify each of the preceding events as one of the following: (pp. 57–63)
  - A personal transaction of a stockholder, not to be recorded by the business of Lane Kohler, Attorney and Counselor, P.C.
  - A business transaction to be recorded by the business of Lane Kohler, Attorney and Counselor, P.C.
  - A business-related event but not a transaction to be recorded by the business of Lane Kohler, Attorney and Counselor, P.C.
- Analyze the effects of the preceding events on the accounting equation of the business of Lane Kohler, Attorney and Counselor, P.C. Use a format similar to Exhibit 2-1, Panel B. (p. 62–63)
- Record the transactions of the business in its journal. Include an explanation for each entry. (pp. 72–77)

**P2-60B** (*Learning Objective 2, 3: Analyzing and recording transactions*) Blanton Glass Etching, Inc., owns shops in outlet malls. The business completed the following transactions during June:

June	1	Received cash of \$25,000 and issued common stock to the stockholders.
	2	Paid \$10,000 cash and signed a \$30,000 note payable to purchase land.
	7	Received \$15,000 cash from service revenue and deposited that amount in the bank.
	10	Purchased supplies on account, \$1,700.
	15	Paid employees' salaries, \$2,800, and rent on a shop, \$1,800.
	15	Paid advertising expense, \$1,200.
	16	Paid \$800 on account.
	17	Declared and paid a cash dividend of \$3,000.

(continued)

**general ledger**

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Blanton uses the following accounts: Cash, Supplies, Land, Accounts Payable, Notes Payable, Common Stock, Dividends, Service Revenue, Salary Expense, Rent Expense, and Advertising Expense.

**Required**

1. Journalize each transaction. Explanations are not required. (pp. 72–77)
2. Prepare T-accounts for Cash, Accounts Payable, and Notes Payable. Post to these 3 accounts.
3. After these transactions, how much cash does the business have? How much does it owe in total liabilities? (pp. 62–64)

**general ledger**

**P2-61B** (*Learning Objective 2, 3, 4: Journalizing transactions, posting, and preparing and using a trial balance*) During the first month of operations, Barron Environmental Services, Inc., completed the following transactions:

Sept.	3	Received \$20,000 cash and issued common stock.
	4	Purchased supplies, \$800, and furniture, \$1,800, on account.
	6	Performed services for a client and received \$5,000 cash.
	7	Paid \$15,000 cash to acquire land for an office site.
	10	Worked for a client, billed the client, and received her promise to pay the \$600 within 1 week.
	14	Paid for the furniture purchased September 4 on account.
	16	Paid the telephone bill, \$200.
	17	Received partial payment from client on account, \$500.
	24	Paid the water and electricity bills, \$400.
	28	Received \$1,500 cash for helping a client meet environmental standards.
	30	Paid secretary's salary, \$1,200.
	30	Declared and paid dividends of \$2,000.

**Required**

Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Furniture, Land, Accounts Payable, Common Stock, Dividends, Service Revenue, Salary Expense, and Utilities Expense.

1. Record each transaction in the journal, using the account titles given. Key each transaction by date. Explanations are not required. (pp. 72–77)
2. Post the transactions to the T-accounts, using transaction dates as posting references. Label the ending balance of each account Bal., as shown in the chapter (pp. 72–77)
3. Prepare the trial balance of Barron Environmental Services, Inc., at September 30 of the current year. (p. 63–64)
4. Barron asks you how much in total resources the business has to work with, how much it owes, and whether September was profitable (and by how much). (p. 63–64)

**P2-62B** (*Learning Objective 3, 4: Recording transactions directly in T-accounts; preparing and using a trial balance*) During the first month of operations (June 20X3), Walker Consulting Company completed the following selected transactions:

- a. Began the business with an investment of \$20,000 cash and a building valued at \$60,000. The corporation issued common stock to the stockholders.
- b. Borrowed \$90,000 from the bank; signed a note payable.
- c. Purchased supplies on account for \$1,300.
- d. Paid \$35,000 for computer equipment.
- e. Paid employees' salaries totaling \$2,200.
- f. Performed consulting service on account for a client, \$2,100.

- g. Paid \$800 of the account payable created in transaction c.
- h. Received a \$600 bill for advertising expense that will be paid in the near future.
- i. Performed service for clients and received \$1,100 in cash.
- j. Received \$1,200 cash on account.
- k. Paid the following cash expenses: (1) rent, \$700; (2) utilities, \$400.

### Required

1. Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Computer Equipment, Building, Accounts Payable, Note Payable, Common Stock, Service Revenue, Salary Expense, Advertising Expense, Rent Expense, and Utilities Expense. (p. 81–82)
2. Record each transaction directly in the T-accounts without using a journal. Use the letters to identify the transactions. (p. 81–82)
3. Prepare the trial balance of Walker Consulting Company, at June 30, 20X3. (p. 71)

## APPLY YOUR KNOWLEDGE

### Decision Cases

**Case 1.** (*Learning Objective 4, 5: Recording transactions directly in T-accounts, preparing a trial balance, and measuring net income or loss*) A friend named Jay Barlow has asked what effect certain transactions will have on his company. Time is short, so you cannot apply the detailed procedures of journalizing and posting. Instead, you must analyze the transactions without the use of a journal. Barlow will continue the business only if he can expect to earn monthly net income of \$10,000. The following transactions occurred this month:

- a. Barlow deposited \$10,000 cash in a business bank account, and the corporation issued common stock to him.
- b. Borrowed \$5,000 cash from the bank and signed a note payable due within 1 year.
- c. Paid \$300 cash for supplies.
- d. Purchased advertising in the local newspaper for cash, \$800.
- e. Purchased office furniture on account, \$4,400.
- f. Paid the following cash expenses for 1 month: employee salary, \$1,700; office rent, \$600.
- g. Earned revenue on account, \$7,000.
- h. Earned revenue and received \$2,500 cash.
- i. Collected cash from customers on account, \$1,200.
- j. Paid on account, \$1,000.

### Required

1. Set up the following T-accounts: Cash, Accounts Receivable, Supplies, Furniture, Accounts Payable, Notes Payable, Common Stock, Service Revenue, Salary Expense, Advertising Expense, and Rent Expense. (p. 81–82)
2. Record the transactions directly in the accounts without using a journal. Key each transaction by letter. (p. 81–82)
3. Prepare a trial balance for Barlow Networks, Inc., at the current date. List expenses with the largest amount first, the next largest amount second, and so on. (p. 77–78)
4. Compute the amount of net income or net loss for this first month of operations. Why or why not would you recommend that Barlow continue in business? (p. 63–64)

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**Case 2.** (*Learning Objective 2: Correcting financial statements; deciding whether to expand a business*) Sophia Loren opened an Italian restaurant. Business has been good, and Loren is considering expanding the restaurant. Loren, who knows little accounting, produced the following financial statements for Little Italy, Inc., at December 31, 20X1, end of the first month of operations:

Little Italy, Inc. Income Statement Month Ended December 31, 20X1		Little Italy, Inc. Balance Sheet December 31, 20X1	
Sales revenue .....	\$36,000	Assets	
Common stock .....	<u>10,000</u>	Cash .....	\$ 6,000
Total revenue .....	46,000	Cost of goods sold (expense) .....	22,000
Accounts payable .....	\$ 8,000	Food inventory .....	5,000
Advertising expense .....	5,000	Furniture .....	<u>10,000</u>
Rent expense .....	<u>6,000</u>	Total Assets .....	<u>43,000</u>
Total expenses .....	<u>19,000</u>	Liabilities	
Net income .....	<u>\$27,000</u>	None	
		Owners' Equity .....	<u>\$43,000</u>

In these financial statements all *amounts* are correct, except for Owners' Equity. Loren heard that total assets should equal total liabilities plus owners' equity, so she plugged in the amount of owners' equity at \$43,000 to make the balance sheet come out even.

### Required

Sophia Loren has asked whether she should expand the restaurant. Her banker says Loren may be wise to expand if (a) net income for the first month reached \$5,000 and (b) total assets are at least \$25,000. It appears that the business has reached these milestones, but Loren doubts whether her financial statements tell the true story. She needs your help in making this decision. Prepare a corrected income statement and balance sheet. (Remember that Retained Earnings, which was omitted from the balance sheet, should equal net income for the first month; there were no dividends.) After preparing the statements, give Sophia Loren your recommendation as to whether she should expand the restaurant. (p. 63–64)

### Ethical Issues

**Issue 1.** Scruffy Murphy is the president and principal stockholder of Scruffy's Bar & Grill, Inc. To expand, the business is applying for a \$250,000 bank loan. To get the loan, Murphy is considering two options for beefing up the owners' equity of the business:

*Option 1.* Issue \$100,000 of common stock for cash. A friend has been wanting to invest in the company. This may be the right time to extend the offer.

*Option 2.* Transfer \$100,000 of Murphy's personal land to the business, and issue common stock to Murphy. Then, after obtaining the loan, Murphy can transfer the land back to himself and zero out the common stock.

Journalize the transactions required by each option. Which plan is ethical? Which is unethical and why? (pp.72–74)

**Issue 2.** Community Charities has a standing agreement with Empire State Bank. The agreement allows Community Charities to overdraw its cash balance at the bank when donations are running low. In the past, Community Charities managed funds wisely and rarely used this privilege. Recently, however, Douglas Byrd has been named president of Community Charities. To expand operations, Byrd is acquiring equipment and spending a

lot for fund-raising. During Byrd's presidency, Community Charities has maintained a negative bank balance of about \$3,000.

### Required

What is the ethical issue in this situation? Do you approve or disapprove of Byrd's management of Community Charities' and Empire State Bank's funds? Why? (Challenge)

### Focus on Financials: ■ YUM! Brands

(*Learning Objective 3, 4: Recording transactions and computing net income*) Refer to YUM! Brands' financial statements in Appendix A at the end of the book. Assume that YUM completed the following selected transactions during 2006.

- Made company sales (revenue) and collected cash of \$8,365 million.
- Earned franchise and license fee revenue on account, \$1,196 million.
- Purchased inventories, paying cash of \$2,557 million.
- Incurred food and paper expense of \$2,549 million. Credit the Inventories account.
- Paid operating and other expenses of \$6,188 million.
- Collected cash on accounts and notes receivable, \$1,212 million.
- Paid cash for other assets, \$671 million.

### Required

- Set up T-accounts for: Cash (debit balance of \$158 million); Accounts and Notes Receivable (debit balance of \$236 million); Inventories (debit balance of \$85 million); Other Assets (\$0 balance); Company Sales (Revenue: \$0 balance); Franchise and License Fee Revenue (\$0 balance); Food and Paper Expense (\$0 balance); Operating and Other Expenses (\$0 balance). (pp. 72–77)
- Journalize YUM's transactions a–g. Explanations are not required. (pp. 72–77)
- Post to the T-accounts, and compute the balance for each account. Key postings by transaction letters a–g. (pp. 72–77)
- For each of the following accounts, compare your computed balance to YUM's actual balance as shown on YUM's 2006 income statement or balance sheet in Appendix A. Your amounts should agree to the actual figures. (pp. 77–78)
 

a. Cash	d. Company Sales (Revenue)
b. Accounts and Notes Receivable	e. Franchise and License Fee Revenue
c. Inventories	f. Food and Paper Expense
- Use the relevant accounts from requirement 4 to prepare a summary income statement for YUM! Brands, Inc., for 2006. Compare the net income you computed to YUM's actual net income. The 2 amounts should be equal. (p. 23)

### Focus on Analysis: ■ Pier 1 Imports

(*Learning Objective 1, 2: Analyzing a leading company's financial statements*) Refer to the **Pier 1 Imports** financial statements in Appendix B at the end of the book. Suppose you are an investor considering buying Pier 1 stock. The following questions are important: **Show amounts in millions and round to the nearest \$1 million.**

- Explain whether Pier 1 had more sales revenue, or collected more cash from customers, during 2006. Combine Pier 1's 2 receivable accounts, and then analyze total receivables to answer this question. (pp. 77–78, Challenge)
- A major concern of lenders, such as banks, is the amount of "long-term debt" a company owes. How much long-term debt does Pier 1 owe at the end of 2006? at the end of 2005? What must have happened to Pier 1's long-term debt during 2006? (Challenge)
- Investors are vitally interested in a company's sales and profits, and its trends of sales and profits over time. Consider Pier 1's net sales and net income (net loss) during the period from 2004 through 2006. Compute the percentage increase or decrease in net sales and also in net income (net loss) from 2004 to 2006. Which item grew faster during this 2-year period, net sales or net income (net loss)? (Challenge)

## Group Projects

**Project 1.** You are promoting a rock concert in your area. Your purpose is to earn a profit, so you need to establish the formal structure of a business entity. Assume you organize as a corporation.

### Required

1. Make a detailed list of 10 factors you must consider as you establish the business.
2. Describe 10 of the items your business must arrange to promote and stage the rock concert.
3. Identify the transactions that your business can undertake to organize, promote, and stage the concert. Journalize the transactions, and post to the relevant T-accounts. Set up the accounts you need for your business ledger. Refer to the appendix at the end of book if needed.
4. Prepare the income statement, statement of retained earnings, and balance sheet immediately after the rock concert, that is, before you have had time to pay all the business bills and to collect all receivables.
5. Assume that you will continue to promote rock concerts if the venture is successful. If it is unsuccessful, you will terminate the business within 3 months after the concert. Discuss how to evaluate the success of your venture and how to decide whether to continue in business.

**Project 2.** Contact a local business and arrange with the owner to learn what accounts the business uses.

### Required

1. Obtain a copy of the business's chart of accounts.
2. Prepare the company's financial statements for the most recent month, quarter, or year. You may use either made-up account balances or balances supplied by the owner.

If the business has a large number of accounts within a category, combine related accounts and report a single amount on the financial statements. For example, the company may have several cash accounts. Combine all cash amounts and report a single Cash amount on the balance sheet.

You will probably encounter numerous accounts that you have not yet learned. Deal with these as best you can. The charts of accounts given in the appendix at the end of the book can be helpful.

For Internet Exercises go to the Web site [www.prenhall.com/harrison](http://www.prenhall.com/harrison).



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## Quick Check Answers

1. *c* 2. *d* 3. *b* 4. *d* 5. *a* 6. *b* 7. *c* 8. *a* 9. *d* 10. *d* 11. *a* 12. *c*