

Transactions That Affect Assets, Liabilities, and Owner's Capital

What You'll Learn

1. Prepare a chart of accounts.
2. Explain the purpose of double-entry accounting.
3. Identify the normal balance of accounts.
4. Use T accounts to illustrate the rules of debit and credit for asset accounts, liability accounts, and the owner's capital account and to express the accounting equation.
5. Use T accounts to analyze transactions that affect assets, liabilities, and the owner's capital account.
6. Calculate the account balances after recording business transactions.
7. Define the accounting terms introduced in this chapter.

Why It's Important

- ▶ In accounting you need to analyze transactions into debit and credit parts.



BEFORE YOU READ

Predict

1. What does the chapter title tell you?
2. What do you already know about this subject from personal experience?
3. What have you learned about this in the earlier chapters?
4. What gaps exist in your knowledge of this subject?

Exploring the *Real World* of Business

ANALYZING BUSINESS TRANSACTIONS

Panda Restaurant Group

When you think of a quick meal, do you think of Orange Flavored Chicken and Beef with Broccoli? These are two of the Chinese food entrées that Panda Express serves quickly and conveniently. Panda Express is part of the **Panda Restaurant Group**, owner of Panda Inn and Hibachi-San restaurants.

Andrew and Peggy Cherng opened their first Panda Inn in Pasadena, California, using recipes from Andrew's father, Master Chef Ming-Tsai Cherng. **Panda Restaurant Group** now has more than 700 stores in 36 states, Puerto Rico, and Japan.

The Cherngs are on a mission to reach a goal of 10,000 Panda Express restaurants. This means finding new locations and buying a lot of kitchen equipment and dining room furniture.

What Do You Think?

When **Panda Restaurant Group** opens a new store, how do you think its assets and liabilities are affected?



Working in the *Real World*

APPLYING YOUR ACCOUNTING KNOWLEDGE

Business transactions occur around us every day. A music store sells thousands of CDs. You may stop by for a meal at a local restaurant. A cruise ship line may buy new furniture for its dining cabins. Successful businesses have hundreds, even thousands, of transactions each day. Analyzing and recording these transactions are key duties of the accounting staff.

Personal Connection

1. What types of business transactions occur in your workplace or the workplace of your family or friends?
2. Who records these transactions into the accounting records?

Online Connection

Go to glencoeaccounting.glencoe.com and click on **Student Center**. Click on **Working in the Real World** and select **Chapter 4**.



BEFORE
YOU READ**Main Idea**

The double-entry accounting system uses debits and credits. *Debit* means “left side” and *credit* means “right side.”

Read to Learn...

- about the chart of accounts. (p. 78)
- about the double-entry accounting system. (p. 78)

Key Terms

chart of accounts
 ledger
 double-entry accounting
 debit
 credit
 T account
 normal balance

Accounts and the Double-Entry Accounting System

In Chapter 3 you learned about the accounting equation. In this chapter you will learn how to keep it in balance using the double-entry accounting system. When The Coca-Cola Company records the dollar amount of a transaction in one account, it records an equal amount in another account. The same is true of a small barbershop. In this and following chapters, we discuss accounting for a sole proprietorship.

The Chart of Accounts

How Is the Chart of Accounts Organized?

A **chart of accounts** is a list of all accounts used by a business. A small business may require only 20 or 30 accounts, but a large one may have several thousand.

Recall that an account is a record of changes and balances of a specific asset, liability, or component of owner’s equity. Accounts may have different physical forms, depending on the system. In a manual system, each account may be a separate page in a book or a separate card in a tray. In an electronic system, accounts are stored on disks or hard drives.

Whether a system is manual or electronic, accounts are grouped together in a **ledger**. The ledger is often referred to as the *general ledger*. “Keeping the books” refers to maintaining accounts in the ledger. Grouping accounts in a ledger makes information easy to find. Information is taken from the ledger and organized into financial statements.

A system for numbering accounts makes it easy to locate individual accounts in the ledger. Account numbers have two or more digits used for sorting information based on the kinds of reports the business needs. A small company may use a three-digit system. A very large corporation may use 35 or more digits. A typical numbering system used to prepare a chart of accounts is as follows:

- Asset accounts begin with 1.
- Liability accounts begin with 2.
- Owner’s equity accounts begin with 3.
- Revenue accounts begin with 4.
- Expense accounts begin with 5.

Double-Entry Accounting

How Does Double-Entry Accounting Work?

In Chapter 3 you used the accounting equation for analyzing and recording changes in account balances. This approach works well if a

Roadrunner Delivery Service

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Sacramento, CA 94230



CHART OF ACCOUNTS

ASSETS	101	Cash in Bank
	105	Accounts Receivable—City News
	110	Accounts Receivable—Green Company
	115	Computer Equipment
	120	Office Equipment
	125	Delivery Equipment
LIABILITIES	201	Accounts Payable—Beacon Advertising
	205	Accounts Payable—North Shore Auto
OWNER'S EQUITY	301	Maria Sanchez, Capital
	302	Maria Sanchez, Withdrawals
	303	Income Summary
REVENUE	401	Delivery Revenue
EXPENSES	501	Advertising Expense
	505	Maintenance Expense
	510	Rent Expense
	515	Utilities Expense

business has only a few accounts. It becomes awkward, however, if a business has many accounts and many transactions to analyze.

Accountants use the **double-entry accounting** system to analyze and record a transaction. Double-entry accounting recognizes the different sides of business transactions as *debits* and *credits*. A **debit** is an entry on the left side of an account. A **credit** is an entry on the right side of an account. This system is more efficient than updating the accounting equation for each transaction.

T Accounts

An efficient tool for using double-entry accounting is a *T account*. The **T account**, so called because of its T shape, shows the dollar increase or decrease in an account that is caused by a transaction. T accounts help the accountant analyze the parts of a business transaction.

As in the illustration here, a T account has an account name, a left side, and a right side. The account name is at the top of the T. The left side of T accounts is *always* used for debit amounts. The right side of T accounts is *always* used for credit amounts. The words *debit* and *credit* are simply the accountant's terms for *left* and *right*. Accountants sometimes use **DR** for debit and **CR** for credit.

Account Name	
Left Side	Right Side
Debit Side	Credit Side
Debit	Credit

The Rules of Debit and Credit

Debits and credits are used to record the increase or decrease in each account affected by a business transaction. Under double-entry accounting, for each debit entry made in one account, a credit of an equal amount must be made in another account. Debit and credit rules vary according to whether an account is classified as an asset, a liability, or the owner's capital

As You READ

In Your Experience

Chart of Accounts

A chart of accounts is organized as a table. What other tables have you worked with?

As You READ

It's Not What It Seems

Debit and Credit The terms *debit* and *credit* might remind you of debit cards and credit cards. In accounting *debit* simply means the left side of an account and *credit* means the right side.

account. Regardless of the type of account, however, the left side of an account is always the debit side and the right side is always the credit side.

Each account classification has a specific side that is its normal balance side. An account's **normal balance** is always on the side used to record increases to the account. The word *normal* used here means *usual*. Throughout this book, note that the normal balance side of each account is shaded.

Rules for Asset Accounts. Asset accounts follow three rules of debit and credit:

1. An asset account is *increased* (+) on the *debit* side (left side).
2. An asset account is *decreased* (–) on the *credit* side (right side).
3. The *normal balance* for an asset account is the *increase*, or the *debit* side. The normal balance side is shaded in the following T account.

Notice that assets appear on the left side of the accounting equation.

$$\text{ASSETS} = \text{LIABILITIES} + \text{OWNER'S EQUITY}$$

Asset Accounts

Debit +	Credit –
(1) Increase Side	(2) Decrease Side
(3) Normal Balance	

For asset accounts the *increase* side is the debit (left) side of the T account. The *decrease* side is the credit (right) side of the T account. Notice the (+) and (–) signs that are used to indicate the increase and decrease sides of the account. They do not mean the same thing as *debit* and *credit*.

Since the increase side of an asset account is always the debit side, asset accounts have a normal debit balance. For example, in the normal course of business, total increases to assets are larger than or exceed total decreases.

You would expect an asset account, then, to have a normal debit balance.

Cash in Bank

Debit +	Credit –
200	70
<u>150</u>	<u>40</u>
350	110
Bal. 240	

Let's apply these rules to an actual asset account. Look at the entries in the T account for **Cash in Bank** shown here. The increases in the account are recorded on the left, or debit, side. The decreases in the account are recorded on the right, or credit, side.

Total debits equal \$350 (\$200 + \$150). Total credits equal \$110 (\$70 + \$40). To find the balance, subtract total credits from total debits (\$350 – \$110). The debit balance is \$240.

Rules for Liability and Owner's Capital Accounts. The rules of debit and credit for liability and the owner's capital account are:

1. Liability and owner's capital accounts are *increased* on the *credit* (right) side.
2. Liability and owner's capital accounts are *decreased* on the *debit* (left) side.
3. The *normal balance* for liability and owner's capital accounts is the *increase*, or the *credit* side.

CULTURAL

Diversity

Business Practices

Giving business gifts internationally can be tricky. Some cultures attach meaning to certain gifts and colors. For example, in Japan, white chrysanthemums are used only for funerals.



To illustrate these rules, let's look again at the accounting equation and the T accounts. Remember, the normal balance side is shaded.

Assets		=	Liabilities		+	Owner's Equity	
Debit + Increase Side	Credit – Decrease Side		Debit – (2) Decrease Side	Credit + (1) Increase Side		Debit – (2) Decrease Side	Credit + (1) Increase Side
Normal Balance				(3) Normal Balance			(3) Normal Balance

For all three types of accounts, the debit side is always the left side of the T account, and the credit side is always the right side. Notice, however, that the increase (+) and decrease (–) sides of the liability and owner's capital accounts are the opposite of those for assets. This difference exists because accounts classified as liabilities and owner's capital are on the opposite side of the accounting equation from accounts classified as assets. As a result, debit and credit rules on one side of the accounting equation—and the T accounts within it—are mirror images of those on the other side.

Let's apply these rules to actual accounts. First, look at the entries in the T account below for the liability account **Accounts Payable**. Increases are recorded on the right, or credit, side. The decreases are recorded on the left, or debit, side. Total credits equal \$375 (\$200 + \$175); total debits equal \$175 (\$100 + \$75). To find the balance, subtract the total debits from the total credits (\$375 – \$175). The credit balance is \$200.

Accounts Payable	
Debit	Credit
–	+
100	200
<u>75</u>	<u>175</u>
175	375
	Bal. 200

Now look at the entries in the T account for the owner's equity account **Maria Sanchez, Capital**. Remember that the rules of debit and credit for the capital account are the same as those for a liability account.

Increases to owner's capital are recorded on the right, or credit, side of the account. Decreases are recorded on the left, or debit, side. The capital account has a normal credit balance. If you subtract the total debits from the total credits (\$4,000 – \$550), you have a credit balance of \$3,450.

Maria Sanchez, Capital	
Debit	Credit
–	+
350	1,500
<u>200</u>	<u>2,500</u>
550	4,000
	Bal. 3,450

As You READ

Key Point

Debit and Credit *Debit* and *credit* are neutral terms that have no relation to "good" and "bad." *Debit* means "left side" and *credit* means "right side."



AFTER
You READ

Reinforce the Main Idea

Create a chart like this one to summarize the rules of debit and credit. Fill in each blank box with the word *debit* or the word *credit*.

	Asset Accounts	Liability Accounts	Owner's Capital Account
Normal Balance			
Increase Side			
Decrease Side			



Do the Math

During the month of December, Poremba Pizza wrote checks totaling \$4,800. Two-thirds of this amount was used to purchase a computer for cash. The remaining amount was used to pay an outstanding invoice for kitchen equipment purchased from Restaurant City.

1. List the account(s) debited and the debit amount(s).
2. List the account(s) credited and the credit amount(s).



Problem 4-1 Applying the Rules of Debit and Credit

Speedy Appliance Repair, owned by R. Lewis, uses the following accounts:

General Ledger

Cash in Bank
Accounts Receivable
Office Equipment
Accounts Payable
R. Lewis, Capital



Instructions In the form provided in your working papers:

1. Classify each account as an asset, liability, or owner's capital account.
2. Indicate whether the increase side is a debit or a credit.
3. Indicate whether the decrease side is a debit or credit.
4. Indicate whether the normal balance for the account is a debit or credit balance.

The **Cash in Bank** account is completed as an example.

Account Name	Account Classification	Increase Side	Decrease Side	Normal Balance
Cash in Bank	Asset	Debit	Credit	Debit



SECTION 2

Applying the Rules of Debit and Credit

Now that you are familiar with the rules of debit and credit for asset, liability, and owner's capital accounts, you can use those rules to analyze business transactions.

Business Transaction Analysis

How Do You Analyze Transactions?

Whether a business is buying a new computer system, paying its utility bills, or receiving money for sales, the accountant must analyze how the transaction should be recorded. When analyzing business transactions, you should use the following step-by-step method:

BEFORE YOU READ

Main Idea

Use T accounts to analyze transactions.

Read to Learn...

- ▶ a step-by-step method for analyzing transactions. (p. 83)
- ▶ how to apply the method to asset, liability, and owner's capital transactions. (p. 83)

Business Transaction	
<i>BUSINESS TRANSACTION ANALYSIS: Steps to Success</i>	
ANALYSIS <i>Identify</i> <i>Classify</i> +/-	<ol style="list-style-type: none"> 1. Identify the accounts affected. 2. Classify the accounts affected. 3. Determine the amount of increase or decrease for each account affected.
DEBIT-CREDIT RULE	<ol style="list-style-type: none"> 4. Which account is debited? For what amount? 5. Which account is credited? For what amount?
T ACCOUNTS	<ol style="list-style-type: none"> 6. What is the complete entry in T-account form? <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Account Name</p> <hr style="width: 100%;"/> </div> <div style="text-align: center;"> <p>Account Name</p> <hr style="width: 100%;"/> </div> </div>

Asset and Equities Transactions

How Do You Use T Accounts for Assets and Equities?

The business transactions that follow are for Roadrunner Delivery Service. Throughout the next several pages, you will learn how to analyze each



As You READ

Instant Recall

Property and Financial Claims

assets = property
 equities = creditors' claims
 + owner's claim

Roadrunner transaction, apply the rules of debit and credit, and complete the entry in T-account form. The T accounts demonstrate the effects of transactions on the accounting equation. A debit in one account is offset by a credit in another account. Refer to the Roadrunner chart of accounts on page 79. These accounts will be used to analyze several business transactions.

Assets and Owner's Capital

Business Transactions 1 and 2 use T accounts to illustrate owner's investments in the business.

Business Transaction 1

On October 1 Maria Sanchez took \$25,000 from personal savings and deposited that amount to open a business checking account in the name of Roadrunner Delivery Service.

- ANALYSIS** *Identify*
 Classify
- +/-
1. The accounts **Cash in Bank** and **Maria Sanchez, Capital** are affected.
 2. **Cash in Bank** is an asset account. **Maria Sanchez, Capital** is an owner's capital account.
 3. **Cash in Bank** is increased by \$25,000. **Maria Sanchez, Capital** is increased by \$25,000.

- DEBIT-CREDIT RULE**
4. Increases in asset accounts are recorded as debits. Debit **Cash in Bank** for \$25,000.
 5. Increases in the owner's capital account are recorded as credits. Credit **Maria Sanchez, Capital** for \$25,000.

T ACCOUNTS

	Cash in Bank	Maria Sanchez, Capital
	Debit + 25,000	Credit + 25,000

Business Transaction 2

On October 2 Maria Sanchez took two telephones valued at \$200 each from her home and transferred them to the business as office equipment.

- ANALYSIS** *Identify*
 Classify
- +/-
1. The accounts **Office Equipment** and **Maria Sanchez, Capital** are affected.
 2. **Office Equipment** is an asset account. **Maria Sanchez, Capital** is an owner's capital account.
 3. **Office Equipment** is increased by \$400. **Maria Sanchez, Capital** is increased by \$400.



DEBIT-CREDIT RULE

- Increases in asset accounts are recorded as debits. Debit **Office Equipment** for \$400.
- Increases in owner's capital accounts are recorded as credits. Credit **Maria Sanchez, Capital** for \$400.

T ACCOUNTS

6.

Office Equipment		Maria Sanchez, Capital	
Debit + 400			Credit + 400

Assets and Liabilities

The following examples show changes to assets and liabilities in T-account form:

- Business Transaction 3: increases an asset and decreases another asset
- Business Transaction 4: increases an asset and increases a liability
- Business Transaction 5: increases an asset and decreases another asset
- Business Transaction 6: decreases a liability and decreases an asset
- Business Transaction 7: increases an asset and decreases a liability

As You READ

Compare and Contrast

Transactions How are Business Transactions 2 and 3 similar? How are they different?

Business Transaction 3

On October 4 Roadrunner issued Check 101 for \$3,000 to buy a computer system.

ANALYSIS Identify
Classify
+/-

- The accounts **Computer Equipment** and **Cash in Bank** are affected.
- Computer Equipment** and **Cash in Bank** are asset accounts.
- Computer Equipment** is increased by \$3,000. **Cash in Bank** is decreased by \$3,000.

DEBIT-CREDIT RULE

- Increases in asset accounts are recorded as debits. Debit **Computer Equipment** for \$3,000.
- Decreases in asset accounts are recorded as credits. Credit **Cash in Bank** for \$3,000.

T ACCOUNTS

6.

Computer Equipment		Cash in Bank	
Debit + 3,000			Credit - 3,000



Business Transaction 4

On October 9 Roadrunner bought a used truck on account from North Shore Auto for \$12,000.

ANALYSIS *Identify*

Classify

+/-

1. The accounts **Delivery Equipment** and **Accounts Payable—North Shore Auto** are affected.
2. **Delivery Equipment** is an asset account. **Accounts Payable—North Shore Auto** is a liability account.
3. **Delivery Equipment** is increased by \$12,000. **Accounts Payable—North Shore Auto** is increased by \$12,000.

DEBIT-CREDIT RULE

4. Increases in asset accounts are recorded as debits. Debit **Delivery Equipment** for \$12,000.
5. Increases in liability accounts are recorded as credits. Credit **Accounts Payable—North Shore Auto** for \$12,000.

T ACCOUNTS

6.

Delivery Equipment		Accounts Payable— North Shore Auto	
Debit + 12,000			Credit + 12,000

Business Transaction 5

On October 11 Roadrunner sold one phone on account to Green Company for \$200.

ANALYSIS *Identify*

Classify

+/-

1. The accounts **Accounts Receivable—Green Company** and **Office Equipment** are affected.
2. **Accounts Receivable—Green Company** is an asset account. **Office Equipment** is also an asset account.
3. **Accounts Receivable—Green Company** is increased by \$200. **Office Equipment** is decreased by \$200.

DEBIT-CREDIT RULE

4. Increases in asset accounts are recorded as debits. Debit **Accounts Receivable—Green Company** for \$200.
5. Decreases in asset accounts are recorded as credits. Credit **Office Equipment** for \$200.

T ACCOUNTS

6.

Accounts Receivable— Green Company		Office Equipment	
Debit + 200			Credit - 200

Business Transaction 6

On October 12 Roadrunner mailed Check 102 for \$350 as the first installment payment on the truck purchased from North Shore Auto on October 9.

ANALYSIS *Identify*

Classify

+/-

1. The accounts **Accounts Payable—North Shore Auto** and **Cash in Bank** are affected.
2. **Accounts Payable—North Shore Auto** is a liability account. **Cash in Bank** is an asset account.
3. **Accounts Payable—North Shore Auto** is decreased by \$350. **Cash in Bank** is decreased by \$350.

DEBIT-CREDIT RULE

4. Decreases in liability accounts are recorded as debits. Debit **Accounts Payable—North Shore Auto** for \$350.
5. Decreases in asset accounts are recorded as credits. Credit **Cash in Bank** for \$350.

T ACCOUNTS

6.

Accounts Payable— North Shore Auto		Cash in Bank	
Debit			Credit
–			–
350			350

Business Transaction 7

On October 14 Roadrunner received and deposited a check for \$200 from Green Company. The check is full payment for the telephone sold on account to Green Company on October 11.

ANALYSIS *Identify*

Classify

+/-

1. The accounts **Cash in Bank** and **Accounts Receivable—Green Company** are affected.
2. **Cash in Bank** is an asset account. **Accounts Receivable—Green Company** is an asset account.
3. **Cash in Bank** is increased by \$200. **Accounts Receivable—Green Company** is decreased by \$200.

DEBIT-CREDIT RULE

4. Increases in asset accounts are recorded as debits. Debit **Cash in Bank** for \$200.
5. Decreases in asset accounts are recorded as credits. Credit **Accounts Receivable—Green Company** for \$200.

T ACCOUNTS

6.

Cash in Bank		Accounts Receivable— Green Company	
Debit			Credit
+			–
200			200

AFTER
You READ**Reinforce the Main Idea**

Imagine that you have your own business. Write a description of a typical transaction your business would have. On a sheet of paper, express the same transaction in T-account form.

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**Do the Math**

Diane Hendricks always dreamed of owning a recording studio. On February 1 Diane withdrew \$10,000 from personal savings and deposited it in a new business checking account for Hendricks Sound. On February 2 Hendricks Sound made a \$2,000 down payment on equipment that cost \$8,000. The remaining balance will be paid at a later date. What is the accounting equation for Hendricks Sound after these transactions?

**Problem 4-2 Identifying Increases and Decreases in Accounts**

Alice Roberts uses the following accounts in her business:

General Ledger

Cash in Bank
Accounts Receivable
Office Furniture

Office Equipment
Accounts Payable
Alice Roberts, Capital

Instructions Analyze each of the following transactions. In your working papers, explain the debit and the credit. Use the format shown in the example.

Example:

On June 2 Alice Roberts invested \$5,000 of her own money in a business called Roberts Employment Agency.

- The asset account **Cash in Bank** is increased. Increases in asset accounts are recorded as debits.
- The owner's capital account **Alice Roberts, Capital** is increased. Increases in the owner's capital account are recorded as credits.

Date	Transactions
June 3	1. Purchased a computer on account from Computer Inc. for \$2,500.
9	2. Transferred a desk (Office Furniture) to the business. The desk is worth \$750.
15	3. Made a partial payment on account of \$1,000 to Computer Inc.

Accounting Careers in Focus

ACCOUNTING PROFESSOR

Francis Marion University, Florence, South Carolina

Tim Lowder

Q: Do you have other professional commitments besides teaching at the university?

A: Yes, I also work with Winthrop University Small Business Development Center and Florence-Darlington Technical College. I am also a management consultant.

Q: What factors have been key to your success?

A: I've realized that you can't put all your faith in the short term. To succeed, you must have a long-term vision and identify what steps you must take to achieve your goals.

Q: What do you like most about your job?

A: I like knowing that I've left a positive impact on students. As a consultant, I enjoy helping my clients improve their companies. Teaching and consulting are the most rewarding pursuits I've ever undertaken.

Q: What advice do you have for accounting students just beginning their careers?

A: Get as broad a background as possible. Accounting is integrated with all the other aspects of business, so you need to gain experience in things such as information systems, marketing, and financial management.

Q: What advice do you have for accounting students who are interested in pursuing your career path?

A: No matter what career you choose, you must do something because you love it. Start thinking early about the education and certifications you'll need.

Tips from . . .

 Robert Half International Inc.

If you'd like to learn more about a potential career path, arrange an informational interview with someone already working in that field. You can gain real-world insight and, if you make a good impression, you may even be considered for an entry-level position when one becomes available.

CAREER FACTS

- ▶ **Nature of the Work:** Create lesson plans and exams, teach classes, advise and motivate students.
- ▶ **Training or Education Needed:** A master's or doctoral degree in accounting or a related field. Relevant work experience and certifications can sometimes be substituted for an advanced degree. A CPA license is an example of a certification.
- ▶ **Aptitudes, Abilities, and Skills:** Time management skills, communication skills, and interpersonal skills.
- ▶ **Salary Range:** \$35,000 to \$90,000 depending on experience, size of educational institution, and location.
- ▶ **Career Path:** Pursue an advanced degree in accounting or a related field, or gain relevant work experience. Then become a graduate teaching assistant or part-time professor.

Thinking Critically

What do you think are the greatest challenges of teaching accounting?

Key Concepts

1. A chart of accounts is a list of all accounts that a business uses. Each account is assigned a number, and the accounts are listed in numerical order.
2. Double-entry accounting is a system that recognizes the different sides of business transactions as debits and credits:

- **debit:** an entry on the left side of an account
- **credit:** an entry on the right side of an account

This system is more efficient than updating the accounting equation after each transaction, as we did in Chapter 3.

3. An account's usual balance is called its *normal balance*.

An asset has a normal debit balance:

- The *increase* side is the *debit* (left) side.
- The *decrease* side is the *credit* (right) side.

Asset Rule:

Asset Accounts	
Debit Increase Side + Normal Balance	Credit Decrease Side –

Both a liability account and the owner's capital account each have a normal credit balance:

- The *increase* side is the *credit* (right) side.
- The *decrease* side is the *debit* (left) side.

Liability and Owner's Capital Rule:

Liability and Owner's Capital Accounts	
Debit Decrease Side –	Credit Increase Side + Normal Balance

4. Use debit and credit rules to record increases and decreases in accounts.

Assets		=	Liabilities		+	Owner's Equity	
Debit + Increase Side Normal Balance	Credit – Decrease Side		Debit – (2) Decrease Side	Credit + (1) Increase Side (3) Normal Balance		Debit – (2) Decrease Side	Credit + (1) Increase Side (3) Normal Balance

5. Use a six-step method to analyze a transaction:

Business Transaction							
<i>BUSINESS TRANSACTION ANALYSIS: Steps to Success</i>							
ANALYSIS <i>Identify</i> <i>Classify</i> +/-	<ol style="list-style-type: none"> 1. Identify the accounts affected. 2. Classify the accounts affected. 3. Determine the amount of increase or decrease for each account affected. 						
DEBIT-CREDIT RULE	<ol style="list-style-type: none"> 4. Which account is debited? For what amount? 5. Which account is credited? For what amount? 						
T ACCOUNTS	<ol style="list-style-type: none"> 6. What is the complete entry in T-account form? <div style="text-align: center; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black; width: 50%; text-align: center;">Account Name</td> <td style="width: 10%;"></td> <td style="border-bottom: 1px solid black; width: 50%; text-align: center;">Account Name</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 100px;"></td> <td></td> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 100px;"></td> </tr> </table> </div>	Account Name		Account Name			
Account Name		Account Name					

6. Account balances are calculated by following the rules of debit and credit:

Accounts Payable	
Debit	Credit
-	+
100	200
<u>75</u>	<u>175</u>
175	375
	Bal. 200

Key Terms

chart of accounts	(p. 78)	ledger	(p. 78)
credit	(p. 79)	normal balance	(p. 80)
debit	(p. 79)	T account	(p. 79)
double-entry accounting	(p. 79)		

AFTER
YOU READ

Check Your Understanding

1. Chart of Accounts

- What is a chart of accounts?
- Why are the accounts numbered?

2. Double-Entry Accounting

- What is double-entry accounting?
- Define the terms *debit* and *credit*.

3. Normal Balances

- What is meant by the term *normal balance*?
- What is the normal balance for asset accounts? For liability accounts? For the owner's capital account?

4. T Accounts

- What is the purpose of a T account?
- Name the three basic parts of a T account.

5. Transaction Analysis

- What are the six steps used to analyze a business transaction?
- Explain briefly what is meant by the following phrase:
A debit of \$100 to **Cash in Bank**

6. Account Balances

- How do you determine the balance of an account?
- The following information is for the **Cash in Bank** account on a single day.
What is the balance of **Cash in Bank** at the end of the day?

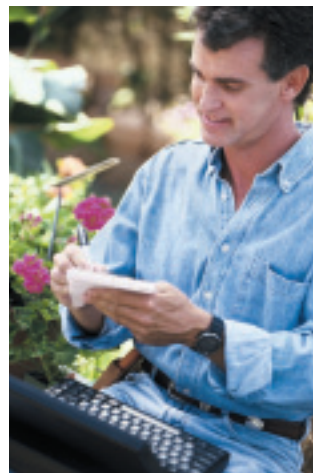
Beginning balance: \$3,000 debit
 Transactions: \$450 credit
 \$1,275 credit
 \$1,800 debit

Apply Key Terms

Your boss at Hillside Nurseries needs help understanding the double-entry accounting system. Using the key terms listed below, draft a list of definitions and illustrations that would help in your explanation.

chart of accounts
 credit
 debit
 double-entry accounting

ledger
 normal balance
 T account



Introduction to Computerized Accounting Systems Making the Transition from a Manual to a Computerized System

Manual Methods	Computerized Methods
<ul style="list-style-type: none"> • Transactions are recorded into journals by hand. • The details of each transaction are then posted in the general ledger. • The accountant computes account balances and prepares a trial balance to verify that the accounting equation is still in balance. • Account names and balances are then transferred to the proper financial report and the report is summarized (totaled). 	<ul style="list-style-type: none"> • Transactions are keyed to the appropriate screen in the accounting system. • Posting to the general ledger accounts occurs automatically. • The accounting system generates the trial balance. • Financial reports pull the appropriate accounts and their current balances from the general ledger computer files. The reports automatically summarize and can be printed when the user chooses.



Peachtree[®] Q & A

Peachtree Question	Answer
What types of transactions can be entered in Peachtree Complete [®] Accounting?	<ul style="list-style-type: none"> • General journal entries • Sales and cash receipts • Purchases and cash payments • Inventory adjustments • Payroll entries
What else will Peachtree do for the accountant?	<ul style="list-style-type: none"> • Reconciles bank statements • Prepares financial reports automatically • Prints checks and invoices • Closes the accounting period • Creates cash, collections, and payment management charts and graphs



QuickBooks[®] Q & A

QuickBooks Question	Answer
What types of transactions can be entered in QuickBooks [®] Pro?	<ul style="list-style-type: none"> • General journal entries • Sales and cash receipts • Purchases and cash payments • Inventory adjustments • Payroll entries
What else will QuickBooks [®] do for the accountant?	<ul style="list-style-type: none"> • Reconciles bank statements • Prepares financial reports automatically • Prints checks and invoices • Closes the accounting period • Creates sales, collections, and payables charts and graphs

For detailed instructions, see your Glencoe Accounting Chapter Study Guides and Working Papers.

Complete problems using:

Manual Glencoe
Working Papers

OR

Spreadsheet
Templates

Problem 4–3 Identifying Accounts Affected by Transactions

Ronald Hicks owns Wilderness Rentals and uses the following accounts in his business:

General Ledger

101 Cash in Bank		201 Accounts Payable— Adventure Equipment Inc.
105 Accounts Receivable— Helen Katz		301 Ronald Hicks, Capital
120 Office Equipment		
125 Camping Equipment		

Instructions For each of the following transactions:

1. Indicate the two accounts affected.
2. Indicate whether each account is debited or credited.

Date	Transactions
May 11	1. Sold on account to Helen Katz an unneeded office typewriter.
19	2. Purchased camping equipment on credit from Adventure Equipment Inc. Payment is due within 30 days.
22	3. Ronald Hicks brought a filing cabinet from home and transferred it to the business (Office Equipment).
23	4. Purchased tents and sleeping bags for cash.



Analyze

Identify the transactions that affect the **Cash in Bank** account.

Problem 4-4 Using T Accounts to Analyze Transactions

Regina Delgado owns a business called Hot Suds Car Wash. She uses the following accounts:

General Ledger

101 Cash in Bank	201 Accounts Payable— Allen Vacuum Systems
110 Accounts Receivable— Valley Auto	301 Regina Delgado, Capital
125 Office Equipment	
130 Office Furniture	
135 Car Wash Equipment	

Instructions For each transaction:

1. Determine which accounts are affected.
2. Prepare T accounts for the accounts affected.
3. Enter the debit and credit amounts in the T accounts.

Date	Transactions
May 5	1. Regina Delgado invested an additional \$40,000 cash in her business.
12	2. Bought another car wash system on account for \$27,000 from Allen Vacuum Systems.
17	3. Regina Delgado transferred some of her personal office furniture, valued at \$3,750, to her business.
24	4. Hot Suds Car Wash purchased additional office equipment for \$7,500. Payment was made by check.
29	5. Hot Suds Car Wash sold some surplus car washing equipment on account to Valley Auto for \$1,200.

Analyze

Calculate the ending balance for the liability account **Accounts Payable—Allen Vacuum Systems**.

Problem 4–5 Analyzing Transactions into Debit and Credit Parts

Abe Shultz owns Kits & Pups Grooming and uses the following accounts:

General Ledger

101 Cash in Bank	205 Accounts Payable— Dogs & Cats Inc.
115 Accounts Receivable— Martha Giles	301 Abe Shultz, Capital
125 Office Equipment	
130 Office Furniture	
140 Grooming Equipment	

Instructions For each transaction:

1. In your working papers, prepare a T account for each account listed.
2. Using the appropriate T accounts, analyze and record each of the following business transactions. Identify each transaction by number.
3. After recording all transactions, write the word *Balance* on the normal balance side of each T account. Then compute and record the balance for each account.

Date	Transactions
May 1	1. Abe Shultz invested an additional \$45,000 cash in his business.
5	2. Bought grooming equipment on account from Dogs & Cats Inc. for \$8,500.
10	3. Purchased an office lamp for \$85, Check 150.
14	4. Abe Shultz transferred his personal typewriter, worth \$200, to the business.
19	5. Made a \$3,000 payment on the grooming equipment bought on account, Check 151.
22	6. Sold the typewriter on account to Martha Giles for \$200.
29	7. Bought a photocopier for \$1,500, Check 152.
31	8. Received a \$100 payment for the typewriter sold on account.

Analyze

Calculate the total cash spent in the month of May.

Problem 4–6 Analyzing Transactions into Debit and Credit Parts

Juanita Ortega runs Outback Guide Service. The accounts she uses to record and report business transactions are listed below.

General Ledger

101 Cash in Bank	205 Accounts Payable— Peak Equipment Inc.
105 Accounts Receivable— Mary Johnson	207 Accounts Payable— Premier Processors
130 Office Equipment	301 Juanita Ortega, Capital
140 Computer Equipment	
145 Hiking Equipment	
150 Rafting Equipment	

Instructions For each transaction:

1. In your working papers, prepare a T account for each account.
2. Analyze and record each of the following business transactions in the appropriate T accounts. Identify each transaction by number.
3. After recording all transactions, compute and record the account balance on the normal balance side of each T account.
4. Add the balances of those accounts with normal debit balances.
5. Add the balances of those accounts with normal credit balances.
6. Compare the two totals. Are they the same?

Date	Transactions
May 2	1. Juanita Ortega transferred an additional \$53,250 from her personal savings account into the business checking account.
6	2. Bought hiking equipment for \$550, Check 367.
7	3. Bought rafting equipment on account from Peak Equipment Inc. for \$2,675.
11	4. Juanita Ortega transferred her own computer, valued at \$850, to the business.
16	5. Bought a cash register for the office on account from Premier Processors for \$1,250.
19	6. Sold the computer on credit for \$850 to Mary Johnson.
22	7. Paid \$500 on account to Peak Equipment Inc., Check 368.
24	8. Purchased shelves for the office for \$650, Check 369.
28	9. Paid \$1,250 on account to Premier Processors, Check 370.
31	10. Bought rafting oars for \$175, Check 371.

Analyze

Calculate the ending balance in the **Computer Equipment** account.

SPREADSHEET SMART GUIDE

Step-by-Step Instructions: Problem 4–6

1. Select the spreadsheet template for Problem 4–6.
2. Enter your name and the date in the spaces provided on the template.
3. Complete the spreadsheet using the instructions in your working papers.
4. Print the spreadsheet and proof your work.
5. Complete the Analyze activity.
6. Save your work and exit the spreadsheet program.



Problem 4-7 Analyzing Transactions Recorded in T Accounts

Richard Tang owns and operates a job placement service, Job Connect. The T accounts below summarize several business transactions for May.

Instructions Use a form similar to the one presented below. For each of the 10 transactions:

1. Identify the account debited, and record the account name in the appropriate column.
2. Indicate whether the account debited is being increased or decreased.
3. Identify the account credited, and write the account name in the appropriate column.
4. Indicate whether the account credited is being increased or decreased.
5. Write a short description of the transaction.

	(1)	(2)	(3)	(4)	(5)
Trans No.	Account Debited	Increase (I) or Decrease (D)	Account Credited	Increase (I) or Decrease (D)	Description
1	Cash in Bank	I	Richard Tang, Capital	I	Richard Tang invested \$15,000 in the business.

Debit	Credit
+	-
(1) 15,000	(4) 1,225
(9) 225	(6) 900
	(7) 995
	(8) 2,000

Debit	Credit
+	-
(5) 225	(9) 225

Debit	Credit
+	-
(2) 225	(5) 225
(3) 8,000	
(4) 1,225	

Debit	Credit
+	-
(6) 900	
(10) 145	

Debit	Credit
+	-
(7) 995	

Debit	Credit
-	+
(8) 2,000	(3) 8,000
	(10) 145

Debit	Credit
-	+
	(1) 15,000
	(2) 225

Analyze

Design a diagram that shows the accounting equation for Job Connect after all transactions have been completed.

Practice your test-taking skills! The questions on this page are reprinted with permission from national organizations:

- Future Business Leaders of America
- Business Professionals of America

Use a separate sheet of paper to record your answers.



Future Business Leaders of America

MULTIPLE CHOICE

- If a business purchases a calculator on account, the accounts affected by this transaction are
 - Cash in Bank and Accounts Payable.
 - Office Equipment and Accounts Receivable.
 - Office Equipment and Cash in Bank.
 - Office Equipment and Accounts Payable.
- A skeleton form of an account showing only the debit and credit columns is called a(n)
 - accounting equation.
 - T account.
 - account balance.
 - work sheet.
 - none of these answers.



Business Professionals of America

ACCOUNT IDENTIFICATION

For each account name below, indicate its classification (A = Asset, L = Liability, OE = Owner's Equity, R = Revenue, E = Expense) by writing the correct capital letter(s) on the blank.

Then indicate its normal balance side (DR = Debit, CR = Credit, N = Neither).

Account Name	Classification	Normal Balance
3. Cash	_____	_____
4. Accounts Payable	_____	_____
5. Owner's Capital Account	_____	_____

Need More Help?

Go to glencoeaccounting.glencoe.com and click on **Student Center**. Click on **Winning Competitive Events** and select **Chapter 4**.

- Practice Questions and Test-Taking Tips
- Concept Capsules and Terminology

CRITICAL Thinking

Double-Entry Accounting

1. Which side of an account is the debit side? Which is the credit side?
2. How is the term *credit* in Chapter 3 different from *credit* in Chapter 4?
3. For each of the following transactions, state whether **Cash in Bank** is debited, credited, or not changed: (a) the business paid cash for a desk; (b) the business bought a computer on account; (c) a customer paid an outstanding invoice.
4. What is the relationship of a T account to a ledger account?
5. Think of a business you would like to open. Create a chart of accounts for the business. Include at least 10 different accounts.
6. Evaluate the usefulness of double-entry accounting.

CASE STUDY

Service Business: Landscaping

While in school Martin Hamilton gained experience working for a large landscaping company. Martin plans to start a business called Landscapes and Beyond. He has made a list of everything he owns, with the estimated value for each category.

Lawn mowers	\$1,500
Shovels and lawn-care tools	180
Truck	8,700
Stereo equipment	1,000
50 books on landscaping	400
Desk, chair, and file cabinet	700

Martin also borrowed \$5,000 from his family and will repay the debt in one year.

INSTRUCTIONS Write the accounting equation for Martin's new business, listing each item in the appropriate part of the equation.

a matter of ETHICS

Software Piracy

Imagine that you are a bookkeeper for an attorney who likes to use state-of-the-art technology. The business just received the latest update on its Web site design software. You would like to use the software at home, so your assistant offers to make you a copy. Although you know that copyright laws protect software from unauthorized use, you figure that one little copy can't hurt a multimillion dollar software company; and besides, you are not doing the actual copying.

ETHICAL DECISION MAKING

1. What are the ethical issues?
2. What are the alternatives?
3. Who are the affected parties?
4. How do the alternatives affect the parties?
5. What would you do?

COMMUNICATING ACCOUNTING

Demonstrating the Double-Entry System

Your supervisor asks you to teach some basic accounting to the other managers. Create a visual presentation to explain the double-entry accounting system. Use the purchase of a computer to show how transactions affect different accounts.



Teaching Others

Keeping up with technology and learning new skills are important in today's workplace. Learning from co-workers and supervisors is often the best way to increase your skills.

ON THE JOB

Assume that you work as the accountant for Westside Aquatics, a swim club in Florida. The club has 250 members. While some individuals pay cash on each visit, others are billed monthly for club use. A concession area featuring health foods and juices is a popular gathering place for members after swim lessons.

INSTRUCTIONS

List account names that would be used in a business like this. Describe to a classmate what kinds of transactions might affect each account. What is the normal balance side for each account?



Exchange Rates

Businesses use exchange rates to convert from one currency to another. Exchange rates change all the time and are found in newspapers, at banks, and on the Internet. Suppose that you want to convert U.S. dollars to Canadian dollars, and \$1.00 (U.S.) is currently worth \$1.25182 (Canadian). You would multiply the U.S. dollars by the exchange rate as follows:

$$\begin{array}{rclcl} \text{U.S. dollars} & \times & \text{exchange rate} & = & \text{Canadian dollars} \\ \$5.00 & \times & 1.25182 & = & \$6.26 \end{array}$$

INSTRUCTIONS Using this exchange rate, analyze which company has the higher value of total assets:

Company A	\$150,000 (U.S.)
Company B	\$176,000 (Canadian)



Your Spending Plan

Cash is an asset. If you spend it, the asset decreases. A good way to safeguard your cash is to create a spending and savings plan, and then follow it.

PERSONAL FINANCE ACTIVITY Suppose you want to save \$20.00 per month. You have kept track of your personal finances for several months and you see the following pattern:

Money coming in each month: allowance, \$20.00; part-time job, \$112.00

Money going out each month: lunches, \$25.00; snacks, \$8.50; bus fare, \$8.00; CDs, \$28.00; contributions to charity, \$10.00; movie theatres, \$22.00; pizza, \$18.00; school supplies, \$14.50

Using the above information, create a spending plan that allows you to save \$20.00 per month.

PERSONAL FINANCE ONLINE Log on to glencoeaccounting.glencoe.com and click on **Student Center**. Click on **Making It Personal** and select **Chapter 4**.

