

Business Transactions and the Accounting Equation

BEFORE
You

READ

What You'll Learn

1. Describe the relationship between property and financial claims.
2. Explain the meaning of the term *equities* as it is used in accounting.
3. List and define each part of the accounting equation.
4. Demonstrate the effects of transactions on the accounting equation.
5. Check the balance of the accounting equation after a business transaction has been analyzed and recorded.
6. Define the accounting terms introduced in this chapter.

Why It's Important

► To understand the financial condition of any business, you must first understand the accounting equation.



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

INVESTING CAPITAL

HARPO Productions, Inc.

Time magazine called her one of the “100 Most Influential People of the 20th Century,” but millions of daytime television viewers know her as Oprah. Breaking records at every turn, Oprah Winfrey was the youngest person to anchor the news at Nashville’s WTVF-TV. She was the first woman to own and produce her own talk show and the first African-American woman to become a billionaire.

In 1986, investing her own money, Winfrey created **HARPO Productions, Inc.**, the company that produces *The Oprah Winfrey Show*. Guests have included celebrities such as Gwyneth Paltrow and Denzel Washington. The talk show generates a tidy \$104 million each year. HARPO also produces movies, videos, books, and *O: The Oprah Magazine*.

What Do You Think?

What kinds of assets do you think might have been purchased with the capital that Oprah Winfrey invested in **HARPO Productions, Inc.**?



Working in the *Real World*

APPLYING YOUR ACCOUNTING KNOWLEDGE

Every business has assets, liabilities, and owner's equity—the elements in the basic accounting equation that you will study in this chapter. A television studio's assets include cameras and computers. Its liabilities may include unpaid bills to videotape suppliers. The owner's equity of a business is what the business is worth.

Personal Connection

1. In your workplace what types of assets does the business have?
2. What types of debts or liabilities would you imagine the business to have?

Online Connection

Go to glencoeaccounting.glencoe.com and click on **Student Center**. Click on **Working in the Real World** and select **Chapter 3**.





SECTION 1

BEFORE
You

READ

Main Idea

Any item of property has at least one financial claim against it.

Read to Learn...

- what it means to own property. (p. 50)
- the two types of financial claims to property. (p. 51)

Key Terms

property
financial claim
credit
creditor
assets
equities
owner's equity
liabilities
accounting equation

Property and Financial Claims

In Chapter 2 you learned that accounting is the language of business. In this chapter you will learn how to apply basic accounting concepts and terminology. You will also learn how the accounting equation expresses the relationship between property and the rights, or claims, to the property.

United Parcel Service (UPS), a corporation that provides global delivery services, uses accounting reports to communicate with its managers, employees, and investors. The UPS financial reports identify the property used in the business, such as airplanes, trucks, and computers. The reports also show how the company obtained the property, either from loans or from funds provided by investors.

Property

What Is Property?

The right to own property is basic to a free enterprise system. **Property** is anything of value that a person or business owns and therefore controls. When you own an item of property, you have a legal right to that item. For example, suppose you paid \$600 for a mountain bike. As a result of the payment, you own the bike. If you had rented the bike for the weekend instead of buying it, you would pay a much smaller amount of money, but you would have the bike for only a limited time. You would have the right to use the bike for the weekend, but you would not own it.

Businesses also own property. One of the purposes of accounting is to provide financial information about property and financial claims to that property. A **financial claim** is a legal right to an item. In accounting, property and financial claims are measured in dollar amounts. Dollar amounts measure both the cost of the property and the financial claims to the property. In our mountain bike example, since you paid \$600 cash to buy the bike, you have ownership and a financial claim of \$600 to the bike. This relationship between property and financial claims is shown in the following equation.

Property (Cost)	=	Financial Claims
Bike	=	Your Claim to the Bike
\$600	=	\$600

When you buy property with cash, you acquire all of the financial claims to that property at the time of purchase. What happens to the

financial claim, however, when you don't pay for the property right away?

When you buy something and agree to pay for it later, you are buying on **credit**. The business or person selling you the item on credit is called a **creditor**. A creditor can be any person or business to which you owe money. When you buy property on credit, you do not have the only financial claim to the property. You share the financial claim to that property with your creditor. For example, suppose you want to buy a \$100 lock for the mountain bike, but you have only \$60. You pay the store \$60 and sign an agreement to pay the remaining \$40 over the next two months.

Since you owe the store (the creditor) \$40, you share the financial claim to the lock with the creditor. The creditor's financial claim to the lock is \$40 and your claim is \$60. The combined claims equal the cost of the property. Your purchase of the lock can be expressed as an equation:

$$\text{PROPERTY} = \text{FINANCIAL CLAIMS}$$

Property	=	Financial Claims	
Bike Lock	=	Creditor's Financial Claim	+ Owner's Financial Claim
\$100	=	\$40	+ \$60

As you can see, two (or more) people can have financial claims to the same property.

Only the property owner has control of the property. For example, suppose that you buy a used vehicle for \$8,000. You pay \$1,200 in cash and take out a loan from the credit union for the remaining \$6,800.

Property	=	Financial Claims	
Vehicle	=	Creditor's Financial Claim	+ Owner's Financial Claim
\$8,000	=	\$6,800	+ \$1,200

As the owner, you have control of the vehicle. However, if you don't make the payments to the credit union, the credit union can exercise its legal claim to the vehicle and you will lose ownership.

Financial Claims in Accounting

What Are the Two Types of Equities?

Property or items of value owned by a business are referred to as **assets**. Businesses can have various types of assets, such as:

- cash
- office equipment
- manufacturing equipment
- buildings
- land



The accounting term for the financial claims to these assets is **equities**. Let's explore the meaning of the term *equities* by introducing Maria Sanchez and her new business, Roadrunner Delivery Service, organized as a sole proprietorship.

Suppose Roadrunner Delivery Service purchases a delivery truck for \$10,000. Roadrunner makes a cash down payment of \$3,000 to the seller. A local bank loans Roadrunner the remaining \$7,000. Both Roadrunner and the bank now have financial claims to the truck.

<u>Property</u>	<u>Creditor's Financial Claim</u>	<u>Owner's Financial Claim</u>
Truck		
\$10,000	\$7,000	\$3,000

Over the years as Roadrunner repays the loan, its financial claim will increase. As less money is owed, the financial claim of the creditor (the bank) will decrease.

For example, after Roadrunner pays one-half of the loan ($\$7,000 \times \frac{1}{2} = \$3,500$), the financial claims to the property will change as follows:

<u>Property</u>	<u>Creditor's Financial Claim</u>	<u>Owner's Financial Claim</u>
Truck		
\$10,000	\$3,500	\$6,500

As You READ

Compare and Contrast

Assets and Liabilities

How are assets and liabilities similar? How are they different?

When the loan is completely repaid, the creditor's financial claim will be canceled. In other words the owner's financial claim will then equal the cost of the truck.

In accounting there are separate terms for owner's claims and creditor's claims. The owner's claims to the assets of the business are called **owner's equity**. Owner's equity is measured by the dollar amount of the owner's claims to the total assets of the business.

The creditor's claims to the assets of the business are called **liabilities**. Liabilities are the debts of a business. They are measured by the amount of money owed by a business to its creditors. The relationship between assets and the two types of equities (liabilities and owner's equity) is shown in the **accounting equation**:

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

Property	=	Creditor's Financial Claim	+	Owner's Financial Claim
↓		↓		↓
Assets	=	Liabilities	+	Owner's Equity



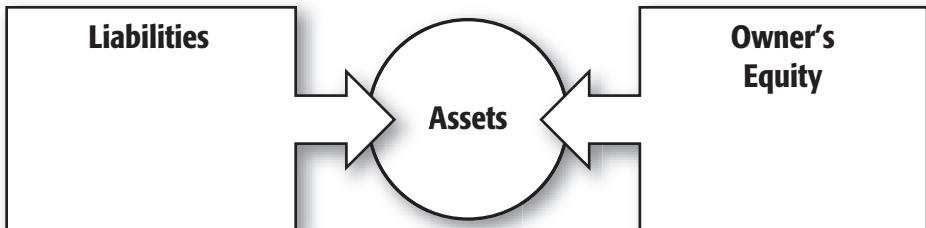
MATH HINTS

Using Algebra The basic accounting equation is in the form $a = b + c$.

- To find b , rewrite the equation as $b = a - c$.
- To find c , rewrite the equation as $c = a - b$.

Reinforce the Main Idea

Use a diagram like this one to describe the financial claims of creditors and owners.

**Do the Math**

Owner's equity can be expressed as a fraction of the total equities. It can also be expressed as a decimal. Consider the following example:

$$\begin{array}{rcl} \text{Assets} & = & \text{Liabilities} + \text{Owner's Equity} \\ \$10,000 & = & \$9,000 + \$1,000 \end{array}$$

Owner's equity is equal to $1/10$, or 10 percent, of the total equities:

$$\begin{array}{rcl} \text{Owner's Equity} & \div & \text{Total Equities} \\ = \$1,000 & \div & \$10,000 \\ = 1/10 & & \\ = 0.10 & & \end{array}$$

Convert the following fractions into decimals.

$$1. \frac{1}{2} \quad 2. \frac{1}{5} \quad 3. \frac{1}{3} \quad 4. \frac{4}{5} \quad 5. \frac{7}{8} \quad 6. \frac{7}{10}$$

Convert the following decimals into fractions.

$$7. 0.889 \quad 8. 0.60 \quad 9. 0.375 \quad 10. 0.25 \quad 11. 0.667 \quad 12. 0.75$$

**Problem 3-1 Balancing the Accounting Equation**

Instructions Determine the missing dollar amount indicated by the question mark in each equation. Write each missing amount in your working papers.

ASSETS	=	LIABILITIES	+	OWNER'S EQUITY
1. \$17,000	=	\$ 7,000	+	?
2. ?	=	\$ 6,000	+	\$20,000
3. \$10,000	=	?	+	\$ 7,000
4. ?	=	\$ 9,000	+	\$17,000
5. \$ 8,000	=	\$ 2,000	+	?
6. \$20,000	=	\$ 7,000	+	?
7. ?	=	\$12,000	+	\$ 4,000
8. \$30,000	=	?	+	\$22,000
9. \$22,000	=	\$ 1,000	+	?
10. \$25,000	=	\$ 5,000	+	?
11. ?	=	\$10,000	+	\$25,000
12. \$ 7,500	=	?	+	\$ 3,000



SECTION 2

BEFORE
YOU

READ

Main Idea

Accounts are used to analyze business transactions.

Read to Learn...

- how businesses use accounts. (p. 54)
- the steps used to analyze a business transaction. (p. 55)

Key Terms

business transaction
account
accounts receivable
accounts payable
investment
on account

As
You

READ

It's Not What It Seems

Accounts The word *accounts* might bring to mind checking accounts or credit card accounts. In an accounting system, *accounts* are subdivisions of the accounting equation.

Transactions That Affect Owner's Investment, Cash, and Credit

When you purchased a new sweater, bought popcorn at the movies, or put cash in your savings account, you were participating in business transactions. Business transactions involve the purchase, sale, or exchange of goods and services.

Business Transactions

How Are Accounts Used?

A **business transaction** is an economic event that causes a change—either an increase or a decrease—in assets, liabilities, or owner's equity. The change is reflected in the accounting system of the business.

When a business buys a computer with cash, its cash decreases, but its computer equipment increases. It records increases and decreases caused by business transactions in specific accounts. An **account** is a subdivision under assets, liabilities, or owner's equity. It shows the balance for a specific item and is a record of the increases or decreases for that item. Accounts represent things in the real world, such as money invested in a business or owed to a creditor. An account for office furniture represents the dollar cost of all office furniture the business owns.

Every business sets up its accounts and its accounting system to meet its needs. The number of accounts needed varies. Some businesses use only a few accounts, but others use hundreds. No matter how many accounts a business has, all of its accounts may be classified as either assets, liabilities, or owner's equity. Roadrunner Delivery Service uses these accounts:

Assets	=	Liabilities	+	Owner's Equity
Cash in Bank		Accounts Payable		Maria Sanchez, Capital
Accounts Receivable				
Computer Equipment				
Office Equipment				
Delivery Equipment				

The second asset account listed is **Accounts Receivable**. **Accounts receivable** is the total amount of money owed to a business—money to be received later because of the sale of goods or services on credit. The **Accounts Receivable** account is an asset because it represents a claim to the assets of other people or businesses. It represents a future value that eventually will bring cash into the business. When the business receives payment, it cancels the claim.

The liability account is **Accounts Payable**. **Accounts payable** is the amount owed, or payable, to the creditors of a business. The owner's equity account title is the owner's name, a comma, and then the word *Capital*.

As You READ

Key Point

Business Transactions

Every business transaction affects at least two accounts.

Effects of Transactions on the Accounting Equation

What Happens to the Accounting Equation?

When a business transaction occurs, an accounting clerk analyzes the transaction to see how it affects each part of the accounting equation. Analyzing business transactions is simple. Use the following steps.

Business Transaction

ANALYSIS

Identify
Classify
+/-

Balance

1. Identify the accounts affected.
2. Classify the accounts affected.
3. Determine the amount of increase or decrease for each account affected.
4. Make sure the accounting equation remains in balance.

Most businesses have the following types of transactions: investments by the owner, cash transactions, credit transactions, revenue and expense transactions, and withdrawals by the owner.



Investments by the Owner

An **investment** is money or other property paid out in order to produce profit. Owner Maria Sanchez made two investments in her business, Roadrunner Delivery Service. The first was a cash investment; the second was a transfer of property.

Business Transaction 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

+/-

Balance

1. Cash transactions are recorded in the account **Cash in Bank**. Maria Sanchez is investing personal funds in the business. Her investment in the business is recorded in the account called **Maria Sanchez, Capital**.
2. **Cash in Bank** is an asset account. **Maria Sanchez, Capital** is an owner's equity account.
3. **Cash in Bank** is increased by \$25,000. **Maria Sanchez, Capital** is increased by \$25,000.
4. The accounting equation remains in balance.

$$\begin{array}{rcl} \text{Assets} & = & \text{Liabilities} + \text{Owner's Equity} \\ \hline \text{Cash in Bank} & & \text{Maria Sanchez, Capital} \\ \text{Trans. 1} & +\$25,000 & = 0 + +\$25,000 \end{array}$$

Business Transaction 2

Maria Sanchez transferred two telephones valued at \$200 each from her home to the business.

ANALYSIS *Identify*

Classify

+/-

Balance

1. Maria Sanchez gave two telephones to the business. This affects the account **Office Equipment**. The investment of these assets affects the account **Maria Sanchez, Capital**.
2. **Office Equipment** is an asset account. **Maria Sanchez, Capital** is an owner's equity account.
3. **Office Equipment** is increased by \$400. **Maria Sanchez, Capital** is increased by \$400.
4. The accounting equation remains in balance.

As You READ

Instant Recall

Business Entity Assumption The financial activities and records of the owner are kept separate from those of the business.

	Assets		=	Liabilities	+	Owner's Equity
	Cash in Bank	Office Equipment				Maria Sanchez, Capital
Prev. Bal.	\$25,000	0		0		\$25,000
Trans. 2		+\$400				+400
Balance	\$25,000	+\$400	=	0	+	\$25,400

Cash Payment Transactions

Transaction 3 is the cash purchase of an asset. Any asset purchased for cash is recorded this way, but the account name of the asset purchased may vary. Transaction 3 affects only the assets side of the equation. Roadrunner exchanged one asset (cash) for another asset (computer equipment).

Business Transaction 3

Roadrunner issued a \$3,000 check to purchase a computer system.

ANALYSIS *Identify*

Classify

+/-

Balance

1. Transactions involving any type of computer equipment are recorded in the **Computer Equipment** account. The business paid cash for the computer system, so the account **Cash in Bank** is affected. Check payments are treated as cash payments and are recorded in **Cash in Bank**.
2. **Computer Equipment** and **Cash in Bank** are both asset accounts.
3. **Computer Equipment** is increased by \$3,000. **Cash in Bank** is decreased by \$3,000.
4. The accounting equation remains in balance.

	Assets			=	Liabilities	+	Owner's Equity
	Cash in Bank	Computer Equipment	Office Equipment				Maria Sanchez, Capital
Prev. Bal.	\$25,000	0	\$400		0		\$25,400
Trans. 3	-\$3,000	+\$3,000					
Balance	\$22,000	+\$3,000	+\$400	=	0	+	\$25,400

In Your Experience

On Account Individuals as well as businesses buy things on account. What are some items that individuals buy on account?

Credit Transactions

Now that you have learned about cash transactions, let's look at how the use of credit affects the accounting equation. When a business buys an item on credit, it is buying **on account**. In the next four transactions, you will learn about a purchase on account, a sale on account, a payment made on account, and a payment received on account.

Business Transaction 4

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

ANALYSIS *Identify*

Classify

+/-

Balance

- Roadrunner purchased a truck to be used as a delivery vehicle, so the account **Delivery Equipment** is affected. The business promised to pay for the truck at a later time. The promise to pay is a liability; therefore, the **Accounts Payable** account is affected.
- Delivery Equipment** is an asset account. **Accounts Payable** is a liability account.
- Delivery Equipment** is increased by \$12,000. **Accounts Payable** is also increased by \$12,000.
- The accounting equation remains in balance.

Assets				=	Liabilities	+ Owner's Equity
Cash in Bank	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable	Maria Sanchez, Capital
Prev. Bal. \$22,000	\$3,000	\$400	0		0	\$25,400
Trans. 4			+\$12,000		+\$12,000	
Balance	\$22,000 + \$3,000 + \$400 + \$12,000 =			\$12,000	+\$12,000 +	\$25,400

Business Transaction 5

Roadrunner sold one telephone to Green Company for \$200 on account.

ANALYSIS *Identify*

Classify

+/-

Balance

- Since Roadrunner has agreed to receive payment for the telephone at a later time, the **Accounts Receivable** account is affected. The business sold the telephone, so the account **Office Equipment** is also affected.
- Both **Accounts Receivable** and **Office Equipment** are asset accounts.
- Accounts Receivable** is increased by \$200. **Office Equipment** is decreased by \$200.
- The accounting equation remains in balance.

Assets					=	Liabilities	+ Owner's Equity
Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable	Maria Sanchez, Capital
Prev. Bal. \$22,000	0	\$3,000	\$400	\$12,000		\$12,000	\$25,400
Trans. 5	+\$200		-200				
Balance	\$22,000 + \$200 + \$3,000 + \$200 + \$12,000 =				\$12,000 +		\$25,400

Business Transaction 6

Roadrunner issued a check for \$350 in partial payment of the amount owed to its creditor, North Shore Auto.

ANALYSIS *Identify*

Classify

+/-

Balance

1. The payment decreased the total amount owed to the creditor, so **Accounts Payable** is affected. Payment was made by check, so the account **Cash in Bank** is affected.
2. **Accounts Payable** is a liability account. **Cash in Bank** is an asset account.
3. **Accounts Payable** is decreased by \$350. **Cash in Bank** is also decreased by \$350.
4. The accounting equation remains in balance.



Assets					=	Liabilities	+ Owner's Equity
Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable	Maria Sanchez, Capital
Prev. Bal. \$22,000	\$200	\$3,000	\$200	\$12,000		\$12,000	\$25,400
Trans. 6 $\frac{-350}{}$						$\frac{-350}{}$	
Balance \$21,650	\$200	\$3,000	\$200	\$12,000	=	\$11,650	\$25,400

Business Transaction 7

Roadrunner received and deposited a check for \$200 from Green Co. The check received is full payment for the telephone sold on account in Transaction 5.

ANALYSIS *Identify*

Classify

+/-

Balance

1. The check decreases the amount owed to Roadrunner, so **Accounts Receivable** is affected. A check is given in payment, so **Cash in Bank** is affected.
2. **Accounts Receivable** and **Cash in Bank** are asset accounts.
3. **Accounts Receivable** is decreased by \$200. **Cash in Bank** is increased by \$200.
4. The accounting equation remains in balance.



Assets					=	Liabilities	+ Owner's Equity
Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable	Maria Sanchez, Capital
Prev. Bal. \$21,650	\$200	\$3,000	\$200	\$12,000		\$11,650	\$25,400
Trans. 7 $\frac{+200}{-200}$							
Balance \$21,850	\$0	\$3,000	\$200	\$12,000	=	\$11,650	\$25,400

As you can see, each business transaction causes a change in assets, liabilities, or owner's equity. Analyzing each transaction to see how it affects the accounting equation keeps everything in balance.

Reinforce the Main Idea

Create a diagram like the one shown here. For the boxes marked "?", fill in the correct labels and give one example of a related account for each category.



Leo Jones, Capital

**Do the Math**

The basic accounting equation is in the form of $A = L + OE$

1. What is the algebra equation to find L ?
2. What is the algebra equation to find OE ?

Using the rules of algebra, determine the missing dollar amount in each equation.

Assets	=	Liabilities	+	Owner's Equity
?		\$9,000		\$21,000
\$25,000		?		\$11,000
\$10,000		\$2,000		?

**Problem 3–2 Determining the Effects of Transactions on the Accounting Equation**

Instructions Use these accounts to analyze the business transactions of WordService.

Assets	=	Liabilities	+	Owner's Equity
Cash in Bank		Accounts Payable		Jan Swift, Capital
Accounts Receivable				
Computer Equipment				
Office Furniture				

On the form provided in your working papers, identify the accounts affected by each transaction and the amount of increase or decrease in each account. Make sure the accounting equation is in balance after each transaction.

1. Jan Swift, owner, deposited \$30,000 in the business checking account.
2. The owner transferred to the business a desk and chair valued at \$700.
3. WordService issued a check for \$4,000 for the purchase of a computer.
4. The business bought office furniture on account for \$5,000 from Eastern Furniture.
5. The desk and chair previously transferred to the business by the owner were sold on account for \$700.
6. WordService wrote a check for \$2,000 in partial payment of the amount owed to Eastern Furniture Company.



SECTION 3

BEFORE
YOU

READ

Main Idea

Owner's equity is changed by revenue, expenses, investments, and withdrawals.

Read to Learn...

- how revenue and expenses affect owner's equity. (p. 60)
- how withdrawals affect owner's equity. (p. 61)

Key Terms

revenue
expense
withdrawal

Transactions That Affect Revenue, Expense, and Withdrawals by the Owner

United Parcel Service (UPS) has thousands of shareholders who expect a return on their investment in the business. The most common way for a business to provide a return is by selling goods or providing services. UPS earns revenue by providing a global delivery service. To provide the delivery service, UPS incurs expenses like salaries, transportation, and insurance. In this section you will learn about revenue and expense transactions as well as owner's withdrawals.

Revenue and Expense Transactions

What Are Revenue and Expenses?

Income earned from the sale of goods or services is called **revenue**. Examples of revenue are fees earned for services performed and cash received from the sale of merchandise. Revenue increases owner's equity because it increases the assets of the business.

Both revenues and investments by the owner increase owner's equity, but these represent very different transactions:

- Revenue is income from the sale of goods and services.
- Investment by the owner is the dollar amount contributed to the business by the owner.

To generate revenue most businesses must also incur expenses to buy goods, materials, and services. An **expense** is the cost of products or services used to operate a business. Examples of business expenses are

- rent,
- utilities, and
- advertising.

Expenses decrease owner's equity because they decrease the assets of the business or increase liabilities.

The effects of revenue and expenses are summarized as follows:

- Revenue increases assets and increases owner's equity.
- Expenses decrease assets and decrease owner's equity *or* increase liabilities and decrease owner's equity.



Business Transaction 8

Roadrunner received a check for \$1,200 from a customer, Sims Corporation, for delivery services.

ANALYSIS	Identify	1. Roadrunner received cash, so Cash in Bank is affected. The payment received is revenue. Revenue increases owner's equity, so Maria Sanchez, Capital is also affected.
	Classify	2. Cash in Bank is an asset account. Maria Sanchez, Capital is an owner's equity account.
	+/-	3. Cash in Bank is increased by \$1,200. Maria Sanchez, Capital is also increased by \$1,200.
	Balance	4. The accounting equation remains in balance.



	Assets					=	Liabilities	+	Owner's Equity
	Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable		Maria Sanchez, Capital
Prev. Bal.	\$21,850	\$0	\$3,000	\$200	\$12,000		\$11,650		\$25,400
Trans. 8	+ 1,200								+ 1,200
Balance	\$23,050	\$0	\$3,000	\$200	\$12,000	=	\$11,650		\$26,600

Business Transaction 9

Roadrunner wrote a check for \$700 to pay the rent for the month.

ANALYSIS	Identify	1. Roadrunner pays rent for use of building space. Rent is an expense. Expenses decrease owner's equity, so the account Maria Sanchez, Capital is affected. The business is paying cash for the use of the building, so Cash in Bank is affected.
	Classify	2. Maria Sanchez, Capital is an owner's equity account. Cash in Bank is an asset account.
	+/-	3. Maria Sanchez, Capital is decreased by \$700. Cash in Bank is decreased by \$700.
	Balance	4. The accounting equation remains in balance.



	Assets					=	Liabilities	+	Owner's Equity
	Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable		Maria Sanchez, Capital
Prev. Bal.	\$23,050	\$0	\$3,000	\$200	\$12,000		\$11,650		\$26,600
Trans. 9	- 700								- 700
Balance	\$22,350	\$0	\$3,000	\$200	\$12,000	=	\$11,650		\$25,900

Withdrawals by the Owner

What Is a Withdrawal?

If a business earns revenue, the owner will take cash or other assets from the business for personal use. This transaction is called a

In Your Own Words

Withdrawal Explain how a withdrawal decreases owner's equity.

withdrawal. Withdrawals and investments have opposite effects. A withdrawal decreases both assets and owner's equity.

A withdrawal is not the same as an expense. Both decrease owner's equity, but each represents a different transaction. An expense is the price paid for goods and services used to operate a business. For example, a gardening service purchases fertilizer and lawncare supplies to conduct daily operations. Withdrawals by the owner are cash or other assets taken from the business for the owner's personal use. Transaction 10 illustrates the impact of a withdrawal on the accounting equation.

Business Transaction 10

Maria Sanchez withdrew \$500 from the business for her personal use.

ANALYSIS Identify

Classify

+/-

Balance

1. A withdrawal decreases the owner's claim to the assets of the business, so **Maria Sanchez, Capital** is affected. Cash is paid out, so the **Cash in Bank** account is affected.
2. **Maria Sanchez, Capital** is an owner's equity account. **Cash in Bank** is an asset account.
3. **Maria Sanchez, Capital** is decreased by \$500. **Cash in Bank** is decreased by \$500.
4. The accounting equation remains in balance.

	Assets					=	Liabilities	+ Owner's Equity
	Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment		Accounts Payable	Maria Sanchez, Capital
Prev. Bal.	\$22,350	\$0	\$3,000	\$200	\$12,000		\$11,650	\$25,900
Trans. 10	-500							-500
Balance	\$21,850	\$0	\$3,000	\$200	\$12,000	=	\$11,650	\$25,400

The following summarizes the transactions of this chapter. Can you describe what is happening in each line?

	Cash in Bank	Accounts Receivable	Computer Equipment	Office Equipment	Delivery Equipment	=	Accounts Payable	Owner's Equity
Prev. Bal.	0	0	0	0	0		0	0
Trans. 1	+25,000							+25,000
Trans. 2				+400				+400
Trans. 3	-3,000		+3,000					
Trans. 4					+12,000	=	+12,000	
Trans. 5		+200		-200				
Trans. 6	-350						-350	
Trans. 7	+200	-200						
Trans. 8	+1,200							+1,200
Trans. 9	-700							-700
Trans. 10	-500							-500
Balance	\$21,850	\$0	\$3,000	\$200	\$12,000	=	\$11,650	\$25,400

Reinforce the Main Idea

Use a table like the one shown here to describe four transactions of a home decorating business. Indicate how each transaction affects owner's equity.

Type of Transaction	Transaction Description	Does Owner's Equity Increase or Decrease?
Revenue		
Expense		
Investment		
Withdrawal		

**Do the Math**

Determine the **Cash in Bank** balance for Wiemack Landscape Designs after the third transaction that follows. All three transactions occurred on the same day. The **Cash in Bank** balance before the first transaction was \$10,000.

1. John Wiemack, the owner, withdrew \$1,000 from personal savings and deposited that amount in the business checking account.
2. Purchased computer equipment for \$5,000; issued a check for 20 percent of the price and agreed to pay the balance at a later date.
3. Issued a check for \$100 to buy tools.

**Problem 3–3 Determining the Effect of Transactions on the Accounting Equation**

Instructions Use the accounts of WordService to analyze these business transactions. The beginning balance for each account is shown following the account name.

Assets	=	Liabilities	+	Owner's Equity
Cash in Bank, \$24,000		Accounts Payable		Jan Swift, Capital
Accounts Receivable, \$700		\$3,000		\$30,700
Computer Equipment, \$4,000				
Office Equipment, \$5,000				

On the form provided in your working papers, identify the accounts affected by each transaction and the amount of the increase or decrease for each account. Make sure the accounting equation is in balance after each transaction.

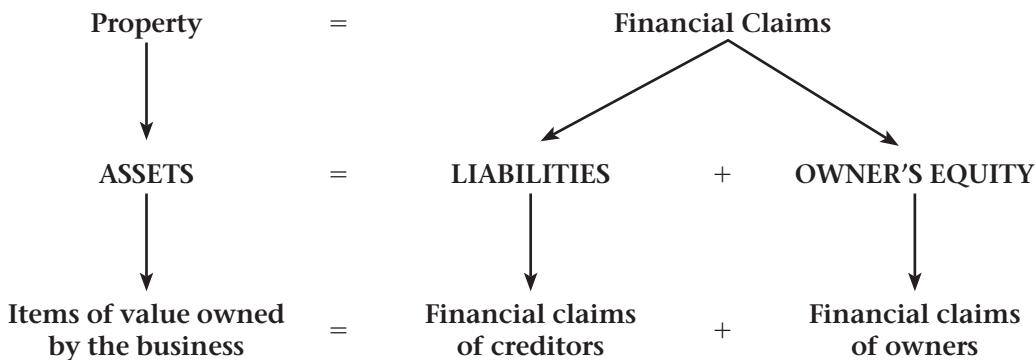
1. Paid \$50 for advertising in the local newspaper.
2. Received \$1,000 as payment for preparing a report.
3. Wrote a \$600 check for the month's rent.
4. Jan Swift withdrew \$800 for her personal use.
5. Received \$200 on account from the person who had purchased the old office furniture.

Key Concepts

1. *Property* is anything of value that a person or business owns and therefore controls. Property is measured in dollars. In accounting, property appears in the records at the amount it cost the owner. Financial claims are the legal rights to property and are also measured in dollars. The relationship between property and financial claims is shown in the following equation:

$$\text{PROPERTY} = \text{FINANCIAL CLAIMS}$$

2. As it is used in accounting, the term *equities* refers to the financial claims on assets (property). The two types of equities in a business are
 - creditors' financial claims, called *liabilities*, and
 - the owner's financial claims, called *owner's equity*.
3. The accounting equation is ASSETS = LIABILITIES + OWNER'S EQUITY



4. A *business transaction* is an economic event that causes a change—either an increase or a decrease—in assets, liabilities, or owner's equity. The accounting equation remains in balance after each transaction:

	Assets			=	Liabilities	+	Owner's Equity
	Cash in Bank	Computer Equipment	Office Equipment				Serge Toblek, Capital
Trans. 1	\$15,000	0	0		0		\$15,000
Trans. 2					+\$600		+\$600
Balance	\$15,000	+ 0	+ \$600	=	0	+ \$15,600	
Trans. 3					+\$3,000		
Balance	\$15,000	+ \$3,000	+ \$600	=	\$3,000	+ \$15,600	
	\$18,600				\$18,600		

The following table shows the effects of typical business transactions on the parts of the accounting equation.

Transaction	Effects On:		
	Assets	Liabilities	Owner's Equity
Investment of cash by owner	+		+
Investment of property	+		+
Cash payment for office equipment	-,+ -,-		
Purchase of an asset on account	+	+	
Sale of office equipment on account	-,+ -,-		
Make a payment on account	-	-	
Record revenue from a cash sale	+		+
Record a cash payment for an expense	-		-
Record a cash withdrawal by the owner	-		-

5. Use the following steps to analyze a business transaction:

ANALYSIS
Identify
Classify
+/-

Balance

1. Identify the accounts affected.
2. Classify the accounts affected.
3. Determine the amount of increase or decrease for each account affected.
4. Make sure the accounting equation remains in balance.

Key Terms

account	(p. 54)	expense	(p. 60)
accounting equation	(p. 52)	financial claim	(p. 50)
accounts payable	(p. 55)	investment	(p. 55)
accounts receivable	(p. 54)	liabilities	(p. 52)
assets	(p. 51)	on account	(p. 57)
business transaction	(p. 54)	owner's equity	(p. 52)
credit	(p. 51)	property	(p. 50)
creditor	(p. 51)	revenue	(p. 60)
equities	(p. 52)	withdrawal	(p. 62)

AFTER
YOU

READ

Check Your Understanding

1. **Property and Financial Claims**
 - a. Define the terms *property* and *financial claim*.
 - b. What is the relationship between property and financial claims?
2. **Equities**
 - a. Describe the relationship between assets and equities.
 - b. Name the two types of equities in a business, and give an example of an account that is used for each type.
3. **The Accounting Equation**
 - a. What is the accounting equation?
 - b. Give an example of an account for each part of the accounting equation.
4. **Effects of Transactions**
 - a. What is a business transaction?
 - b. How does each of the following transactions affect the three parts of the accounting equation?
Trans. 1: Owner transferred cash from personal savings account to the business.
Trans. 2: Owner withdrew cash from the business for personal use.
Trans. 3: Purchased equipment for cash.
Trans. 4: Purchased equipment on credit.
Trans. 5: Issued a check for the first monthly payment for equipment purchased in Transaction 4.
Trans. 6: Received payment on the date of service for design consulting.
Trans. 7: Issued a check to pay the telephone bill.
5. **Accounting Equation in Balance**
 - a. At least how many accounts must be affected by each business transaction? Why?
 - b. Describe the four-step process described in this chapter used to analyze business transactions.

Apply Key Terms

Which of the following terms can be considered assets? Which terms relate to liabilities? Which terms do not fall easily into either category?

accounts payable
accounts receivable
credit
creditor
expense

investment
on account
property
revenue
withdrawal



Exploring Electronic Spreadsheets

Computer spreadsheets are important tools for organizing and analyzing data. A spreadsheet is made up of rows and columns. The columns are identified by letters and the rows are identified by numbers. As you create a spreadsheet, you will enter numbers, labels, and formulas into cells. Microsoft® Excel® is the most commonly used spreadsheet application in the business world. The following is an example of a basic electronic spreadsheet:

	A	B	C	D	E	F	G	H
1		Jan	Feb	March	April	May	June	July
2	Sales	2,500	5,000	1,650	10,000	3,100	8,200	12,500
3	Expenses	700	1,200	225	3,550	1,800	2,300	5,600
4	Net income	1,800	3,800	1,425	6,450	1,300	5,900	6,900
5								
6								

Before you create a computer spreadsheet, review the following spreadsheet terms.

	Spreadsheet Terms	Description
①	Row	Identified by numbers down the left side of the spreadsheet.
②	Column	Identified by letters along the top of the spreadsheet.
③	Cell address	Identified by a column letter and row number. For example, the cell address B4 indicates the cell where the number 1,800 is found.
④	Active cell	Indicated by a dark border.
⑤	Scroll arrows	Allows you to view other parts of the spreadsheet.
⑥	Labels	Text that identifies columns or rows of information; cannot be used for calculations.
⑦	Values	Numbers inserted in cells that can be used for calculations.
⑧	Formulas	Mathematical functions entered in a particular cell that tells the software to add, subtract, divide, or multiply values. For example, E2 – E3 represents 10,000 – 3,550, or 6,450

Complete problems using:

Manual Glencoe
Working Papers OR Spreadsheet
Templates**Problem 3–4 Classifying Accounts**

All accounts belong in one of the following classifications: Asset, Liability, Owner's Equity.

Instructions In your working papers, indicate the classification for each of the following accounts.

1. John Jones, Capital	6. Delivery Equipment
2. Cash in Bank	7. Camping Equipment
3. Accounts Receivable	8. Building
4. Accounts Payable	9. Land
5. Office Equipment	10. Computer Equipment

Analyze Identify the accounts that represent financial claims to property.

Problem 3–5 Completing the Accounting Equation

A business owned and operated by Mike Murray uses these accounts.

Instructions Look at the following list of accounts, and determine the missing amount for each of the question marks.

Assets	=	Liabilities	+ Owner's Equity
Cash in Bank	\$4,500	Accounts Payable	Mike Murray, Capital \$9,250
Accounts Receivable	1,350	?	
Office Equipment	5,000		
	?		

Analyze Predict what would happen to owner's equity if this business paid all of its bills today.

Problem 3–6 Classifying Accounts Within the Accounting Equation

Listed here are the account names and balances for Wilderness Rentals.

Accounts Payable	\$ 7,000	Cash in Bank	\$ 5,000
Accounts Receivable	2,000	Office Equipment	3,000
Camping Equipment	12,000	Ronald Hicks, Capital	15,000

Instructions Using these account names and balances:

1. List and total the assets of the business.
2. Determine the amount owed by the business.
3. Give the amount of the owner's equity in the business.

Analyze Design a diagram that shows the accounting equation for Wilderness Rentals.

Problem 3-7 Determining Increases and Decreases in Accounts

Hot Suds Car Wash uses the following accounts:

Assets	=	Liabilities	+	Owner's Equity
Cash in Bank		Accounts Payable		Regina Delgado, Capital
Accounts Receivable				
Office Equipment				
Office Furniture				
Car Wash Equipment				

Instructions Use a form similar to the one that follows. For each transaction:

1. Identify the accounts affected.
2. Classify the accounts.
3. Determine the amount of the increase (+) or decrease (−) for each account affected.

The first transaction is completed as an example.

Trans.	Accounts Affected	Classification	Amount of Increase (+) or Decrease (−)
1.	Cash in Bank Regina Delgado, Capital	Asset Owner's Equity	+\$25,000 +\$25,000

Date	Transactions
Jan. 1	1. Regina Delgado, the owner, invested \$25,000 cash in the business.
4	2. Bought car wash equipment with cash for \$12,000.
5	3. Purchased, on account, \$2,500 of office equipment.
10	4. Wrote a check for the monthly rent, \$800.
12	5. Received cash for services performed, \$1,000.
15	6. The owner withdrew \$600 cash from the business for personal use.
20	7. Purchased a desk for \$1,000, paying \$200 cash and agreeing to pay the balance of \$800 in 30 days.
25	8. Provided services worth \$600 on account.

Analyze Identify the transaction that affects the most accounts.

Problem 3-8 Determining the Effects of Transactions on the Accounting Equation

After graduating from college, Abe Shultz decided to start a pet grooming service called Kits & Pups Grooming.

Instructions Use a form similar to the one that follows. For each of the following transactions:

1. Identify the accounts affected, using the account names on the form.
2. Determine the amount of the increase or decrease for each account.
3. Write the amount of the increase (+) or decrease (−) in the space under each account affected.
4. On the following line, write the new balance for each account.
5. Transaction 1 is completed as an example.

	Assets					=	Liabilities	+	Owner's Equity
Trans.	Cash in Bank	Accts. Rec.	Office Equip.	Grooming Equip.	=	Accounts Payable	+	Abe Shultz, Capital	
1	+\$10,000								+\$10,000

Date	Transactions
Jan. 2	1. Abe Shultz began the business by depositing \$10,000 in a checking account at the Shoreline National Bank in the name of the business, Kits & Pups Grooming.
3	2. Bought grooming equipment for cash, \$1,000.
8	3. Issued a check for \$900 for the monthly rent.
9	4. Bought \$6,000 worth of new office equipment on account for use in the business.
15	5. Received \$700 cash for services performed for customers during the first week of business.
21	6. Issued a \$2,000 check to the creditor as partial payment for the office equipment purchased on account.
29	7. Performed grooming services and agreed to be paid for them later, \$500.

Analyze

Explain the difference between Transaction 5 and Transaction 7.

Problem 3-9 Determining the Effects of Transactions on the Accounting Equation

Juanita Ortega is the owner of a professional guide service called Outback Guide Service.

Problems

CHAPTER 3

Instructions Use a form similar to the one below. Complete these steps for each of the following transactions:

1. Identify the accounts affected.
2. Write the amount of the increase (+) or decrease (−) in the space provided on the form in your working papers.
3. Determine the new balance for each account.

	Assets						=	Liabilities	+	Owner's Equity
Trans.	Cash in Bank	Accts. Rec.	Hiking Equip.	Rafting Equip.	Office Equip.	=	Accounts Payable	+	Juanita Ortega, Capital	
						=				

Date	Transactions
Jan. 3	1. Ms. Ortega, the owner, opened a checking account for the business by depositing \$60,000 of her personal funds.
6	2. Paid by check the monthly rent of \$3,000.
8	3. Bought hiking equipment for the business by writing a check for \$3,000.
9	4. Purchased \$24,000 of rafting equipment by writing a check.
11	5. Purchased office equipment on account for \$4,000.
15	6. Received payment for guide services, \$2,500.
18	7. Ms. Ortega contributed a desk valued at \$450 to the business.
21	8. Withdrew \$3,000 cash from the business for personal use.
26	9. Wrote a check to a creditor as partial payment on account, \$1,500.
30	10. Took a group on a tour and agreed to accept payment later, \$1,200.

Analyze

Calculate the amount owed to creditors after Transaction 10.

SPREADSHEET SMART GUIDE

Step-by-Step Instructions: Problem 3-9

1. Select the spreadsheet template for Problem 3-9.
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 3-10 Describing Business Transactions

Showbiz Video is a business owned by Greg Failla. The transactions that follow are shown as they would appear in the accounting equation.

Instructions In your working papers, describe what has happened in each transaction. Transaction 1 is completed as an example.

Example:

1. The owner invested \$30,000 in the business.

CONTINUE 

	Assets				=	Liabilities	+	Owner's Equity
Trans.	Cash in Bank	Accts. Rec.	Office Equip.	Video Equip.	=	Accounts Payable	+	Greg Failla, Capital
1	+\$30,000							+\$30,000
2	-\$ 2,000		+\$ 2,000					
3				+\$ 8,000		+\$ 8,000		
4	+\$ 700							+\$ 700
5		+\$ 500						+\$ 500
6			+\$ 200					+\$ 200
7	-\$ 3,000					-\$ 3,000		
8		+\$ 200	-\$ 200					
9	+\$ 500	-\$ 500						
10	-\$ 1,000							-\$ 1,000

Analyze Calculate the balance of the account, Greg Failla, Capital.



Problem 3-11 Completing the Accounting Equation

The account names and balances for Job Connect are listed below.

Instructions Determine the missing amount for each of the question marks. Use the form in your working papers and write in the missing amounts.

	Assets			=	Liabilities	+	Owner's Equity
Trans.	Cash in Bank	Accounts Receivable	Business Equipment	=	Accounts Payable	+	Richard Tang, Capital
1	?	\$ 2,000	\$ 1,000		\$ 500		\$ 7,500
2	\$ 3,000	\$ 9,000	?		\$2,000		\$16,000
3	\$ 8,000	\$ 1,000	\$10,000		?		\$15,000
4	\$ 4,000	?	\$ 4,000		\$1,000		\$17,000
5	\$ 9,000	\$ 7,000	\$ 6,000		\$5,000		?
6	\$10,000	\$14,000	?		\$6,000		\$32,000
7	\$ 6,000	\$ 4,000	\$10,000		?		\$15,000
8	?	\$ 5,000	\$ 9,000		\$1,000		?

Hint: In line 8, total assets are \$18,000.

Analyze Explain the mathematical operations used to solve for the accounting equation.

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

1. Things of value a business uses to generate income are known as

- a. assets.
- b. capital.
- c. expenses.
- d. revenue.

Business Professionals of America

MULTIPLE CHOICE

2. If a customer sends in a payment on his account owed, which of the following statements is true?

- a. One asset increases and another asset decreases.
- b. One asset increases and one liability decreases.
- c. One liability decreases and owner's equity increases.
- d. One liability increases and owner's equity increases.

3. Use these account balances to complete the next two questions:

Cash in Bank	\$3,200.00	Amy Smith, Capital	\$6,200.00
Accounts Receivable	?	Amy Smith, Drawing	1,000.00
Office Supplies	300.00	Boarding Revenue	1,400.00
Office Furniture	1,200.00	Grooming Revenue	?
Office Equipment	1,800.00	Salaries Expense	300.00
Accounts Payable	?	Miscellaneous Expense	200.00

If the balance in Accounts Payable is \$2,000.00 and Grooming Revenue is \$400.00, what is the correct balance for the Accounts Receivable account?

- a. \$800.00
- b. \$1,500.00
- c. \$2,000.00
- d. \$2,500.00

4. Use the above table in #3 to answer this question.

If the Accounts Receivable balance is \$800.00 and Grooming Revenue is \$600.00, what is the balance in the Accounts Payable account?

- a. \$600.00
- b. \$800.00
- c. \$1,200.00
- d. \$2,000.00

5. If owner's equity is \$25,500, and assets are \$37,600, liabilities are

- a. \$25,500.
- b. \$37,600.
- c. \$63,100.
- d. \$12,100.

Need More Help?

Go to glencoeaccounting.glencoe.com and click on Student Center. Click on Winning Competitive Events and select Chapter 3.

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



CRITICAL Thinking**CASE STUDY****Matter of ETHICS****The Accounting Equation**

1. What term identifies the owner's claims to assets of the business?
2. Does owner's equity increase every time a business acquires a new asset? Explain your answer.
3. You are analyzing transactions when you have to answer the telephone. After you finish the conversation, how can you tell whether you completed the transaction you were working on when the phone rang?
4. How is an expense similar to a withdrawal? How is it different?
5. Describe a series of transactions that could result in negative owner's equity.
6. Assess the value of the four-step procedure for analyzing transactions.

Service Business: Health and Fitness

The Fitness Center, owned by Gail Chan, has been in business for two years. The business is successful with its expanded hours of operation.

You are a local business consultant and have worked with several other small businesses in the area. Ms. Chan has asked you about possible ways to obtain money for new equipment. She has already borrowed money from family members and cannot use them as a source of more funds.

INSTRUCTIONS

1. Evaluate possible sources of money for your client. Use the Internet and other sources to research alternatives with the Small Business Administration, the Chamber of Commerce, and local banks.
2. Make a list of alternatives. Include costs, interest rates, and advantages or disadvantages.
3. Make a recommendation to your client based on your list of alternatives.
4. Explain how the additional money will affect the accounting equation.

Company Property

Many companies provide office supplies for their employees' use while on the job. Imagine that you work for a large department store like JC Penney. Several of your co-workers take company supplies home for their personal use, such as pens, bags, hangers, and boxes. You need boxes to store some items at home, so you consider taking them from the supply room.

ETHICAL DECISION MAKING

<ol style="list-style-type: none"> 1. What are the ethical issues? 2. What are the alternatives? 3. Who are the affected parties? 	<ol style="list-style-type: none"> 4. How do the alternatives affect the parties? 5. What would you do?
--	---

Writing a Tip Sheet

Using the four-step approach to transaction analysis, write a "tip sheet" to help a new employee remember the steps. Write a brief explanation and give an example of each step in the analysis. Create a business transaction to use in your explanation.



Applying Technology

Whether you work in a small or large business, technology is critical to efficiency in the workplace.

ON THE JOB

After graduating from college and working for a year as a junior accountant in a CPA firm, you decide to open an accounting business from your home. You'll need a computer, software, and office furniture to get started. Complete the activities below to help you select the right software for your needs.

INSTRUCTIONS

1. List the kinds of financial services you would like to provide.
2. Research three accounting software packages that would help you deliver the services you listed. List the name, price, system requirements, and features of each software package. Use the Internet and other sources.
3. Select the software package that best meets your anticipated needs. Write a paragraph explaining why you selected this product.



Money Around the World

If you were on vacation in Mexico, you would pay for your lunch in pesos. Just as different countries use different languages, they also use their own type of money or *currency*. Many countries in Europe use the euro. India uses the rupee, and China uses the yuan. If you were an accountant recording business transactions in Switzerland, you would use Swiss francs.

INSTRUCTIONS Find a Web site on the Internet that lists world currencies. What currency is used in Japan? In the United Kingdom?



Your Earning Power

Your future income will depend on various things including your career choice, your education, and the region where you live.

PERSONAL FINANCE ACTIVITY List three jobs that are in different fields and different regions of the United States. Use the Internet or your library to research their education requirements and their salary ranges. Create a table to organize the results of your research.

PERSONAL FINANCE ONLINE Log on to glencoeaccounting.glencoe.com and click on Student Center. Click on Making It Personal and select Chapter 3.



Sports Property

Like many industries, a professional sport can have assets that are unique to its type of business. Visit glencoeaccounting.glencoe.com and click on Student Center. Click on WebQuest and select Unit 2 to continue your Internet project.

