Analyzing Business Transactions Using T Accounts

When Alexander Graham Bell invented the telephone in 1876, and gave birth to the company that would become AT&T, he had no idea that a century and a half later, millions of people worldwide would be relying on his “namesake” to call, text, and e-mail the people in their lives. Since being formed in 1877, AT&T has broadened its offerings through new-product development and diversification. Recognized as one of the leading worldwide providers of IP-based communications services to business, AT&T also offers the greatest number of phones that work in most countries; the largest Wi-Fi network in the United States; and the largest number of high-speed Internet access subscribers in the United States.

Keeping track of the multitude of transactions initiated by these services has been the job of the accountant. However, because the accounting equation-table is just too clumsy to be used in a company that has thousands upon thousands of transactions every month, accountants use a more streamlined recordkeeping approach. Accountants, throughout the world, rely instead, on a double-entry system of debits and credits.

thinking critically
How might accountants in 1877 have recorded The Bell Telephone Company’s first telephone service revenue transaction? How did this transaction affect the fundamental accounting equation?

LEARNING OBJECTIVES

3-1. Set up T accounts for assets, liabilities, and owner’s equity.
3-2. Analyze business transactions and enter them in the accounts.
3-3. Determine the balance of an account.
3-4. Set up T accounts for revenue and expenses.
3-5. Prepare a trial balance from T accounts.
3-6. Prepare an income statement, a statement of owner’s equity, and a balance sheet.
3-7. Develop a chart of accounts.
3-8. Define the accounting terms new to this chapter.

NEW TERMS

account balance
accounts
chart of accounts
classification
credit
debit
double-entry system
drawing account
footing
normal balance
permanent account
slide
T account
temporary account
transposition
trial balance
Transactions That Affect Assets, Liabilities, and Owner’s Equity

In this chapter, you will learn how to record the changes caused by business transactions. This recordkeeping is a basic part of accounting systems.

Asset, Liability, and Owner’s Equity Accounts

The accounting equation is one tool for analyzing the effects of business transactions. However, businesses do not record transactions in equation form. Instead, businesses establish separate records, called accounts, for assets, liabilities, and owner’s equity. Use of accounts helps owners and staff analyze, record, classify, summarize, and report financial information. Accounts are recognized by their classification as assets, liabilities, or owner’s equity. Asset accounts show the property a business owns. Liability accounts show the debts of the business. Owner’s equity accounts show the owner’s financial interest in the business. Each account has a name that describes the type of property, the debt, or the financial interest.

Accountants use T accounts to analyze transactions. A T account consists of a vertical line and a horizontal line that resemble the letter T. The name of the account is written on the horizontal (top) line. Increases and decreases in the account are entered on either side of the vertical line.

The following are T accounts for assets, liabilities, and owner’s equity:
RECORDING A CASH INVESTMENT

Asset accounts show items of value owned by a business. Carolyn Wells invested $100,000 in the business. Carlos Valdez, the office manager for Wells’ Consulting Services, set up a Cash account. Cash is an asset. Assets appear on the left side of the accounting equation. Cash increases appear on the left side of the Cash T account. Decreases are shown on the right side. Valdez entered the cash investment of $100,000 (a) on the left side of the Cash account.

T accounts normally do not have plus and minus signs. We show them to help you identify increases (+) and decreases (−) in accounts.

Carlos Valdez set up an account for owner’s equity called Carolyn Wells, Capital. Owner’s equity appears on the right side of the accounting equation (Assets = Liabilities + Owner’s Equity). Increases in owner’s equity appear on the right side of the T account. Decreases in owner’s equity appear on the left side. Valdez entered the investment of $100,000 (a) on the right side of the Carolyn Wells, Capital account.

Use these steps to analyze the effects of the business transactions:

1. Analyze the financial event.
   • Identify the accounts affected.
   • Classify the accounts affected.
   • Determine the amount of increase or decrease for each account.
2. Apply the left-right rules for each account affected.
3. Make the entry in T-account form.

BUSINESS TRANSACTION

Carolyn Wells withdrew $100,000 from personal savings and deposited it in the new business checking account for Wells’ Consulting Services.

ANALYSIS

a. The asset account, Cash, is increased by $100,000.

a. The owner’s equity account, Carolyn Wells, Capital, is increased by $100,000.

LEFT-RIGHT RULES

LEFT

Increases to asset accounts are recorded on the left side of the T account. Record $100,000 on the left side of the Cash T account.

RIGHT

Increases to owner’s equity accounts are recorded on the right side of the T account. Record $100,000 on the right side of the Carolyn Wells, Capital T account.
RECORDING A CASH PURCHASE OF EQUIPMENT

Carlos Valdez set up an asset account, *Equipment*, to record the purchase of a computer and other equipment.

**BUSINESS TRANSACTION**

Wells’ Consulting Services issued a $5,000 check to purchase a computer and other equipment.

**ANALYSIS**

b. The asset account, *Equipment*, is increased by $5,000.

b. The asset account, *Cash*, is decreased by $5,000.

**LEFT-RIGHT RULES**

**LEFT**

Increases to asset accounts are recorded on the left side of the T account. Record $5,000 on the left side of the *Equipment* T account.

**RIGHT**

Decreases to asset accounts are recorded on the right side of the T account. Record $5,000 on the right side of the *Cash* T account.

**T-ACCOUNT PRESENTATION**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (b) 5,000</td>
<td>-</td>
</tr>
</tbody>
</table>

Let’s look at the T accounts to review the effects of the transactions. Valdez entered $5,000 (b) on the left (increase) side of the *Equipment* account. He entered $5,000 (b) on the right (decrease) side of the *Cash* account. Notice that the *Cash* account shows the effects of two transactions.

**RECORDING A CREDIT PURCHASE OF EQUIPMENT**

Liabilities are amounts a business owes its creditors. Liabilities appear on the right side of the accounting equation (Assets = Liabilities + Owner’s Equity). Increases in liabilities are on the right side of liability T accounts. Decreases in liabilities are on the left side of liability T accounts.
**BUSINESS TRANSACTION**

The firm bought office equipment for $6,000 on account from Office Plus.

**ANALYSIS**

- c. The asset account, *Equipment*, is increased by $6,000.
- c. The liability account, *Accounts Payable*, is increased by $6,000.

**LEFT-RIGHT RULES**

- **LEFT**
  - Increases to asset accounts are recorded on the left side of the T account. Record $6,000 on the left side of the *Equipment* T account.
- **RIGHT**
  - Increases to liability accounts are recorded on the right side of the T account. Record $6,000 on the right side of the *Accounts Payable* T account.

**T-ACCOUNT PRESENTATION**

```
<table>
<thead>
<tr>
<th></th>
<th>Equipment</th>
<th>Accounts Payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(c) 6,000</td>
<td></td>
<td>(c) 6,000</td>
</tr>
</tbody>
</table>
```

Let’s look at the T accounts to review the effects of the transactions. Valdez entered $6,000 (c) on the left (increase) side of the *Equipment* account. It now shows two transactions. He entered $6,000 (c) on the right (increase) side of the *Accounts Payable* account.

```
<table>
<thead>
<tr>
<th></th>
<th>Equipment</th>
<th>Accounts Payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) 5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) 6,000</td>
<td></td>
<td>(c) 6,000</td>
</tr>
</tbody>
</table>
```

The balance sheet of Avery Dennison Corporation at January 1, 2012, showed net property, plant, and equipment of $1.015 billion.

**RECORDING A CASH PURCHASE OF SUPPLIES**

Carlos Valdez set up an asset account called *Supplies*.

**BUSINESS TRANSACTION**

Wells’ Consulting Services issued a check for $1,500 to Office Delux Inc. to purchase office supplies.

**ANALYSIS**

- d. The asset account, *Supplies*, is increased by $1,500.
- d. The asset account, *Cash*, is decreased by $1,500.
Valdez entered $1,500 (d) on the left (increase) side of the Supplies account and $1,500 (d) on the right (decrease) side of the Cash account.

Notice that the Cash account now shows three transactions: the initial investment by the owner (a), the cash purchase of equipment (b), and the cash purchase of supplies (d).

### RECORING A PAYMENT TO A CREDITOR

On November 30, the business paid $2,500 to Office Plus to apply against the debt of $6,000 shown in Accounts Payable.

Wells' Consulting Services issued a check in the amount of $2,500 to Office Plus.

#### ANALYSIS

- The asset account, Cash, is decreased by $2,500.
- The liability account, Accounts Payable, is decreased by $2,500.

#### LEFT-RIGHT RULES

- **LEFT**: Decreases to liability accounts are recorded on the left side of the T account. Record $2,500 on the left side of the Accounts Payable T account.
- **RIGHT**: Decreases to asset accounts are recorded on the right side of the T account. Record $2,500 on the right side of the Cash T account.

#### T-ACCOUNT PRESENTATION

<table>
<thead>
<tr>
<th>Accounts Payable</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>(e) 2,500</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| (e) 2,500        |      | (e) 2,500
Let’s look at the T accounts to review the effects of the transactions. Valdez entered $2,500 (e) on the right (decrease) side of the Cash account. He entered $2,500 (e) on the left (decrease) side of the Accounts Payable account. Notice that both accounts show the effects of several transactions.

<table>
<thead>
<tr>
<th>Accounts Payable</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>- (e) 2,500</td>
<td>+ (a) 100,000</td>
</tr>
<tr>
<td>(c) 6,000</td>
<td>- (b) 5,000</td>
</tr>
<tr>
<td></td>
<td>(d) 1,500</td>
</tr>
<tr>
<td></td>
<td>(e) 2,500</td>
</tr>
</tbody>
</table>

**RECORDING PREPAID RENT**

In November, Wells’ Consulting Services was required to pay the December and January rent in advance. Valdez set up an asset account called Prepaid Rent.

**BUSINESS TRANSACTION**

Wells’ Consulting Services issued a check for $8,000 to pay rent for the months of December and January.

<table>
<thead>
<tr>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>f. The asset account, Prepaid Rent, is increased by $8,000.</td>
</tr>
<tr>
<td>f. The asset account, Cash, is decreased by $8,000.</td>
</tr>
</tbody>
</table>

**LEFT-RIGHT RULES**

**LEFT**

Increases to asset accounts are recorded on the left side of the T account. Record $8,000 on the left side of the Prepaid Rent T account.

**RIGHT**

Decreases to asset accounts are recorded on the right side of the T account. Record $8,000 on the right side of the Cash T account.

**T-ACCOUNT PRESENTATION**

<table>
<thead>
<tr>
<th>Prepaid Rent</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (f) 8,000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>+ (f) 8,000</td>
</tr>
</tbody>
</table>

Let’s review the T accounts to see the effects of the transactions. Valdez entered $8,000 (f) on the left (increase) side of the Prepaid Rent account. He entered $8,000 (f) on the right (decrease) side of the Cash account.

Notice that the Cash account shows the effects of numerous transactions. It shows initial investment (a), equipment purchase (b), supplies purchase (d), payment on account (e), and advance rent payment (f).
Account Balances

An account balance is the difference between the amounts on the two sides of the account. First add the figures on each side of the account. If the column has more than one figure, enter the total in small pencil figures called a footing. Then subtract the smaller total from the larger total. The result is the account balance.

- If the total on the right side is larger than the total on the left side, the balance is recorded on the right side.
- If the total on the left side is larger, the balance is recorded on the left side.
- If an account shows only one amount, that amount is the balance.
- If an account contains entries on only one side, the total of those entries is the account balance.

Let’s look at the Cash account for Wells’ Consulting Services. The left side shows $100,000. The total of the right side is $17,000. Subtract the footing of $17,000 from $100,000. The result is the account balance of $83,000. The account balance is shown on the left side of the account.

![Cash Account Balance](image)

Usually account balances appear on the increase side of the account. The increase side of the account is the normal balance of the account.

The following is a summary of the procedures to increase or decrease accounts and shows the normal balance of accounts.

![Account Balance Summary](image)

Figure 3.1 shows a summary of the account balances for Wells’ Consulting Services. Figure 3.2 shows a balance sheet prepared for November 30, 2016.

In equation form, the firm’s position after these transactions is:

<table>
<thead>
<tr>
<th>Assets</th>
<th>=</th>
<th>Liabilities</th>
<th>+</th>
<th>Owner’s Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$83,000</td>
<td>+</td>
<td>$3,500</td>
<td>+</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

ABOUT ACCOUNTING

Law Enforcement

The FBI and other law enforcement agencies recruit accountants to investigate criminal conduct. Perhaps the most famous use of accounting by law enforcers is the conviction of Al Capone for tax evasion after he could not be jailed for his ties to organized crime.
Notice how the balance sheet reflects the fundamental accounting equation.
Section 1 Self Review

Questions
1. What is a footing?
2. What is meant by the “normal balance” of an account? What is the normal balance side for asset, liability, and owner’s equity accounts?
3. Increases are recorded on which side of asset, liability, and owner’s equity accounts?

Exercises
4. The Wilson Company purchased new computers for $20,200 from Office Supplies, Inc., to be paid in 30 days. Which of the following is correct?
   a. Equipment is increased by $20,200. Accounts Payable is increased by $20,200.
   b. Equipment is decreased by $20,200. Accounts Payable is increased by $20,200.

5. From the following accounts, show that the fundamental accounting equation is in balance. All accounts have normal balances.
   Cash — $30,800
   Accounts Payable — $40,000
   David Jenkins, Capital — $60,000
   Equipment — $20,000
   Supplies — $9,200

   a. 58,000
   b. 32,000
   c. 33,450
   d. 24,100

Answers to Section 1 Self Review are on pages 86–87.

Analysis
6. Foot and find the balance of the Cash account.

<table>
<thead>
<tr>
<th></th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>36,000</td>
</tr>
<tr>
<td></td>
<td>22,000</td>
</tr>
<tr>
<td>—</td>
<td>12,000</td>
</tr>
<tr>
<td></td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>5,200</td>
</tr>
<tr>
<td></td>
<td>2,350</td>
</tr>
</tbody>
</table>

(Answers to Section 1 Self Review are on pages 86–87.)
Transactions That Affect Revenue, Expenses, and Withdrawals

Let’s examine the revenue and expense transactions of Wells’ Consulting Services for December to see how they are recorded.

Revenue and Expense Accounts

Some owner’s equity accounts are classified as revenue or expense accounts. Separate accounts are used to record revenue and expense transactions.

RECORDING REVENUE FROM SERVICES SOLD FOR CASH

During December, the business earned $36,000 in revenue from clients who paid cash for bookkeeping, accounting, and consulting services. This involved several transactions. Carlos Valdez entered $36,000 (g) on the left (increase) side of the asset account Cash.

<table>
<thead>
<tr>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
</tr>
<tr>
<td>Bal.</td>
</tr>
<tr>
<td>(g) 36,000</td>
</tr>
</tbody>
</table>
How is the increase in owner’s equity recorded? One way would be to record the $36,000 on the right side of the Carolyn Wells, Capital account. However, the preferred way is to keep revenue separate from the owner’s investment until the end of the accounting period. Therefore, Valdez opened a revenue account for Fees Income.

Valdez entered $36,000 (g) on the right side of the Fees Income account. Revenues increase owner’s equity. Increases in owner’s equity appear on the right side of the T account. Therefore, increases in revenue appear on the right side of revenue T accounts.

<table>
<thead>
<tr>
<th>Fees Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
</tr>
<tr>
<td>(g) 36,000</td>
</tr>
</tbody>
</table>

The right side of the revenue account shows increases and the left side shows decreases. Decreases in revenue accounts are rare but might occur because of corrections or transfers.

Let’s review the effects of the transactions. Valdez entered $36,000 (g) on the left (increase) side of the Cash account and $36,000 (g) on the right (increase) side of the Fees Income account.

<table>
<thead>
<tr>
<th>Cash</th>
<th>Fees Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Bal. 83,000</td>
<td>-</td>
</tr>
<tr>
<td>(g) 36,000</td>
<td>(g) 36,000</td>
</tr>
</tbody>
</table>

At this point, the firm needs just one revenue account. Most businesses have separate accounts for different types of revenue. For example, sales of goods such as clothes are recorded in the revenue account Sales.

**RECORDING REVENUE FROM SERVICES SOLD ON CREDIT**

In December, Wells’ Consulting Services earned $11,000 from various charge account clients. Valdez set up an asset account, Accounts Receivable.

<table>
<thead>
<tr>
<th>Accounts Receivable</th>
<th>Fees Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (h) 11,000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(h) 11,000</td>
</tr>
</tbody>
</table>
Let’s review the effects of the transactions. Valdez entered $11,000 (h) on the left (increase) side of the Accounts Receivable account and $11,000 (h) on the right (increase) side of the Fees Income account.


table

<table>
<thead>
<tr>
<th>Accounts Receivable</th>
<th>Fees Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 11,000 (h)</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>+ 36,000 (g)</td>
</tr>
<tr>
<td>(h) 11,000</td>
<td>(h) 11,000</td>
</tr>
</tbody>
</table>

RECORDING COLLECTIONS FROM ACCOUNTS RECEIVABLE

Charge account clients paid $6,000, reducing the amount owed to Wells’ Consulting Services.

**ANALYSIS**

1. The asset account, Cash, is increased by $6,000.
2. The asset account, Accounts Receivable, is decreased by $6,000.

**LEFT-RIGHT RULES**

**LEFT**
Increases to asset accounts are recorded on the left side of the T account. Record $6,000 on the left side of the Cash T account.

**RIGHT**
Decreases to asset accounts are recorded on the right side of the T account. Record $6,000 on the right side of the Accounts Receivable T account.

**T-ACCOUNT PRESENTATION**

<table>
<thead>
<tr>
<th>Cash</th>
<th>Accounts Receivable</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 6,000 (i)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>+ 6,000 (i)</td>
</tr>
</tbody>
</table>

Let’s review the effects of the transactions. Valdez entered $6,000 (i) on the left (increase) side of the Cash account and $6,000 (i) on the right (decrease) side of the Accounts Receivable account. Notice that revenue is not recorded when cash is collected from charge account clients. The revenue was recorded when the sales on credit were recorded (h).

<table>
<thead>
<tr>
<th>Cash</th>
<th>Accounts Receivable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bal. 83,000</td>
<td>-</td>
</tr>
<tr>
<td>(g) 36,000</td>
<td>(h) 11,000</td>
</tr>
<tr>
<td>(i) 6,000</td>
<td>(i) 6,000</td>
</tr>
</tbody>
</table>

RECORDING AN EXPENSE FOR SALARIES

Expenses decrease owner’s equity. Decreases in owner’s equity appear on the left side of the T account. Therefore, increases in expenses (which are decreases in owner’s equity) are recorded on the left side of expense T accounts. Decreases in expenses are recorded on the right side of the T accounts. Decreases in expenses are rare but may result from corrections or transfers.
In December, Wells’ Consulting Services paid $8,000 in salaries.

**ANALYSIS**

- The asset account, *Cash*, is decreased by $8,000.
- The expense account, *Salaries Expense*, is increased by $8,000.

**LEFT-RIGHT RULES**

- **LEFT** Increases in expenses appear on the left side of the T account. Record $8,000 on the left side of the *Salaries Expense* T account.
- **RIGHT** Decreases in asset accounts are recorded on the right side of the T account. Record $8,000 on the right side of the *Cash* T account.

**T-ACCOUNT PRESENTATION**

<table>
<thead>
<tr>
<th>Salaries Expense</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 8,000</td>
<td>-</td>
</tr>
</tbody>
</table>

How is the decrease in owner’s equity recorded? One way would be to record the $8,000 on the left side of the *Carolyn Wells, Capital* account. However, the preferred way is to keep expenses separate from owner’s investment. Therefore, Valdez set up a *Salaries Expense* account.

To record the salary expense, Valdez entered $8,000 (j) on the left (increase) side of the *Salaries Expense* account. Notice that the plus and minus signs in the *Salaries Expense* account show the effect on the expense account, not on owner’s equity.

<table>
<thead>
<tr>
<th>Salaries Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 8,000</td>
</tr>
</tbody>
</table>

Valdez entered $8,000 (j) on the right (decrease) side of the *Cash* T account.

<table>
<thead>
<tr>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
</tr>
<tr>
<td>Bal. 83,000</td>
</tr>
<tr>
<td>(g) 36,000</td>
</tr>
<tr>
<td>(i) 6,000</td>
</tr>
<tr>
<td>(j) 8,000</td>
</tr>
</tbody>
</table>

Most companies have numerous expense accounts. The various expense accounts appear in the Expenses section of the income statement.

**RECORDING AN EXPENSE FOR UTILITIES**

At the end of December, Wells’ Consulting Services received a $650 bill for utilities. Valdez set up an account for *Utilities Expense.*
Let’s review the effects of the transactions.

Let’s review the effects of the transactions.

The Drawing Account

In sole proprietorships and partnerships, the owners generally do not pay themselves salaries. To obtain funds for personal living expenses, owners make withdrawals of cash. The withdrawals are against previously earned profits that have become part of capital or against profits that are expected in the future.

Since withdrawals decrease owner’s equity, withdrawals could be recorded on the left side of the capital account. However, the preferred way is to keep withdrawals separate from the owner’s capital account until the end of the accounting period. An owner’s equity account called a drawing account is set up to record withdrawals. Increases in the drawing account (which are decreases in owner’s equity) are recorded on the left side of the drawing T accounts.

BUSINESS TRANSACTION

Carolyn Wells wrote a check to withdraw $5,000 cash for personal use.

ANALYSIS

1. The asset account, Cash, is decreased by $5,000.
2. The owner’s equity account, Carolyn Wells, Drawing, is increased by $5,000.
Normal Balances

Debit: Credit:
Asset: Liability
Expense: Revenue
Drawing: Capital

**FIGURE 3.3**
The Relationship between Owner’s Equity and Revenue, Expenses, and Withdrawals

<table>
<thead>
<tr>
<th>T-Account Presentation</th>
<th>Carolyn Wells, Drawing</th>
<th>+</th>
<th>(l) 5,000</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cash</td>
<td>+</td>
<td>(l) 5,000</td>
<td></td>
</tr>
</tbody>
</table>

Let’s review the transactions. Valdez entered $5,000 (l) on the right (decrease) side of the asset account, *Cash*, and $5,000 (l) on the left (increase) side of *Carolyn Wells, Drawing*. Note that the plus and minus signs show the effect on the drawing account, not on owner’s equity.

<table>
<thead>
<tr>
<th>Carolyn Wells, Drawing</th>
<th>+</th>
<th>(l) 5,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>+</td>
<td>(l) 5,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carolyn Wells, Drawing</th>
<th>+</th>
<th>(l) 5,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>+</td>
<td>(l) 5,000</td>
</tr>
</tbody>
</table>

Let’s review the transactions. Valdez entered $5,000 (l) on the right (decrease) side of the asset account, *Cash*, and $5,000 (l) on the left (increase) side of *Carolyn Wells, Drawing*. Note that the plus and minus signs show the effect on the drawing account, not on owner’s equity.

**FIGURE 3.4**
Summary of the Rules for Debits and Credits

**Important!**

**The Rules of Debit and Credit**

Accountants do not use the terms left side and right side when they talk about making entries in accounts. Instead, they use the term debit for an entry on the left side and credit for an entry on the right side. Figure 3.4 summarizes the rules for debits and credits. The accounting system is called the double-entry system. This is because each transaction has at least two entries—a debit and a credit.
FIGURE 3.4 Rules for Debits and Credits

The Trial Balance

Once the account balances are computed, a trial balance is prepared. The **trial balance** is a statement that tests the accuracy of total debits and credits after transactions have been recorded.
Financial Statement Headings
The financial statement headings answer three questions:
Who — the company name
What — the report title
When — the date of, or the period covered by, the report

recorded. If total debits do not equal total credits, there is an error. Figure 3.6 above shows the trial balance for Wells’ Consulting Services. To prepare a trial balance, perform the following steps:

1. Enter the trial balance heading showing the company name, report title, and closing date for the accounting period.

2. List the account names in the same order as they appear on the financial statements.
   • Assets
   • Liabilities
   • Owner’s Equity
   • Revenue
   • Expenses

3. Enter the ending balance of each account in the appropriate Debit or Credit column.

4. Total the Debit column.

5. Total the Credit column.

6. Compare the total debits with the total credits.

Wells’ Consulting Services
Trial Balance
December 31, 2016

<table>
<thead>
<tr>
<th>ACCOUNT NAME</th>
<th>DEBIT</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>111,350.00</td>
<td></td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>5,000.00</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Supplies</td>
<td>1,500.00</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Prepaid Rent</td>
<td>8,000.00</td>
<td>8,000.00</td>
</tr>
<tr>
<td>Equipment</td>
<td>11,000.00</td>
<td>11,000.00</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>35,000.00</td>
<td></td>
</tr>
<tr>
<td>Carolyn Wells, Capital</td>
<td>100,000.00</td>
<td>100,000.00</td>
</tr>
<tr>
<td>Carolyn Wells, Drawing</td>
<td>5,000.00</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Fees Income</td>
<td>47,000.00</td>
<td>47,000.00</td>
</tr>
<tr>
<td>Salaries Expense</td>
<td>8,000.00</td>
<td>8,000.00</td>
</tr>
<tr>
<td>Utilities Expense</td>
<td>6,500.00</td>
<td>6,500.00</td>
</tr>
<tr>
<td>Totals</td>
<td>150,500.00</td>
<td>150,500.00</td>
</tr>
</tbody>
</table>

MANAGERIAL IMPLICATIONS

FINANCIAL STATEMENTS
- Recording entries into accounts provides an efficient method of gathering data about the financial affairs of a business.
- A chart of accounts is usually similar from company to company; balance sheet accounts are first, followed by income statement accounts.
- A trial balance proves the financial records are in balance.
- The income statement reports the revenue and expenses for the period and shows the net income or loss.
- The statement of owner’s equity shows the change in owner’s equity during the period.

WHAT are some possible consequences of not recording financial data correctly?

The balance sheet summarizes the assets, liabilities, and owner’s equity of the business on a given date.

Owners, managers, creditors, banks, and many others use financial statements to make decisions about the business.
UNDERSTANDING TRIAL BALANCE ERRORS

If the totals of the Debit and Credit columns are equal, the financial records are in balance. If the totals of the Debit and Credit columns are not equal, there is an error. The error may be in the trial balance, or it may be in the financial records. Some common errors are:

- adding trial balance columns incorrectly;
- recording only half a transaction—for example, recording a debit but not recording a credit, or vice versa;
- recording both halves of a transaction as debits or credits rather than recording one debit and one credit;
- recording an amount incorrectly from a transaction;
- recording a debit for one amount and a credit for a different amount;
- making an error when calculating the account balances.

FINDING TRIAL BALANCE ERRORS

If the trial balance does not balance, try the following procedures:

1. Check the arithmetic. If the columns were originally added from top to bottom, verify the total by adding from bottom to top.
2. Check that the correct account balances were transferred to the correct trial balance columns.
3. Check the arithmetic used to compute the account balances.
4. Check that each transaction was recorded correctly in the accounts by tracing the amounts to the analysis of the transaction.

Sometimes you can determine the type of the error by the amount of the difference. Compute the difference between the debit total and the credit total. If the difference is divisible by 2, a debit might be recorded as a credit, or a credit recorded as a debit.

If the difference is divisible by 9, there might be a transposition. A transposition occurs when the digits of a number are switched (357 for 375). The test for a transposition is:

\[
\begin{array}{c}
375 \\
357 \\
\frac{18}{9} = 2 \\
18
\end{array}
\]

Also check for slides. A slide occurs when the decimal point is misplaced (375 for 37.50). We can test for a slide in the following manner:

\[
\begin{array}{c}
375.00 \\
37.50 \\
337.50 \\
337.50 = 37.50
\end{array}
\]

Financial Statements

After the trial balance is prepared, the financial statements are prepared. Figure 3.7 shows the financial statements for Wells’ Consulting Services. The amounts are taken from the trial balance. As you study the financial statements, note that net income from the income statement is used on the statement of owner’s equity. Also note that the ending balance of the Carolyn Wells, Capital account, computed on the statement of owner’s equity, is used on the balance sheet.

Chart of Accounts

A chart of accounts is a list of all the accounts used by a business. Figure 3.8 shows the chart of accounts for Wells’ Consulting Services. Each account has a number and a name. The balance sheet accounts are listed first, followed by the income statement accounts. The account number is assigned based on the type of account.
FIGURE 3.7
Financial Statements for Wells’ Consulting Services

Wells’ Consulting Services
Income Statement
Month Ended December 31, 2016

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Expenses</th>
<th>Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fees Income</td>
<td>47 0 0 0 00</td>
<td></td>
</tr>
<tr>
<td>Salaries Expense</td>
<td>8 0 0 0 00</td>
<td></td>
</tr>
<tr>
<td>Utilities Expense</td>
<td>6 5 0 00</td>
<td></td>
</tr>
<tr>
<td>Total Expenses</td>
<td>8 6 5 0 00</td>
<td></td>
</tr>
<tr>
<td>Net Income</td>
<td>3 8 3 5 0 00</td>
<td></td>
</tr>
</tbody>
</table>

Wells’ Consulting Services
Statement of Owner’s Equity
Month Ended December 31, 2016

<table>
<thead>
<tr>
<th>Carolyn Wells, Capital, December 1, 2016</th>
<th>100 0 0 0 00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Income for December</td>
<td>3 8 3 5 0 00</td>
</tr>
<tr>
<td>Less Withdrawals for December</td>
<td>5 0 0 0 00</td>
</tr>
<tr>
<td>Increase in Capital</td>
<td>3 3 3 5 0 00</td>
</tr>
<tr>
<td>Carolyn Wells, Capital, December 31, 2016</td>
<td>133 3 5 0 00</td>
</tr>
</tbody>
</table>

Wells’ Consulting Services
Balance Sheet
December 31, 2016

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>11 1 3 5 0 00</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>5 0 0 0 00</td>
</tr>
<tr>
<td>Supplies</td>
<td>5 0 0 0 00</td>
</tr>
<tr>
<td>Prepaid Rent</td>
<td>0 0 0 0 00</td>
</tr>
<tr>
<td>Equipment</td>
<td>1 1 0 0 0 00</td>
</tr>
<tr>
<td>Total Assets</td>
<td>136 8 5 0 00</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>3 5 0 0 0</td>
</tr>
<tr>
<td>Owner’s Equity</td>
<td>133 3 5 0 00</td>
</tr>
<tr>
<td>Total Liabilities and Owner’s Equity</td>
<td>136 8 5 0 00</td>
</tr>
</tbody>
</table>

Notice that the accounts are not numbered consecutively. For example, asset account numbers jump from 101 to 111 and then to 121, 137, and 141. In each block of numbers, gaps are left so that additional accounts can be added when needed.

Permanent and Temporary Accounts

The asset, liability, and owner’s equity accounts appear on the balance sheet at the end of an accounting period. The balances of these accounts are then carried forward to start the next period. Because they continue from one accounting period to the next, these accounts are called permanent accounts or real accounts.

Revenue and expense accounts appear on the income statement. The drawing account appears on the statement of owner’s equity. These accounts classify and summarize changes in owner’s equity during the period. They are called temporary accounts or nominal accounts because the balances in these accounts are transferred to the capital account at the end of the accounting period. In the next period, these accounts start with zero balances.
### Important!

**Balance Sheet Accounts**

The amounts on the balance sheet are carried forward to the next accounting period.

**Income Statement Accounts**

The amounts on the income statement are transferred to the capital account at the end of the accounting period.

---

### Section 2 Self Review

#### Questions

1. What is a trial balance and what is its purpose?
2. What is a transposition? A slide?
3. What is the increase side for Cash; Accounts Payable; and Carolyn Wells, Capital?

#### Exercises

4. Which account has a normal debit balance?
   a. Accounts Payable
   b. J. P., Capital
   c. J. P., Drawing
   d. Fees Income

5. The company owner took $4,000 cash for personal use. What is the entry for this transaction?
   a. Debit **Cash** and credit **Caleb Parker, Drawing**.
   b. Debit **Caleb Parker, Drawing** and credit **Cash**.
   c. Debit **Caleb Parker, Capital** and credit **Cash**.
   d. Debit **Cash** and credit **Caleb Parker, Capital**.

#### Analysis

6. Describe the errors in the Parker Interiors trial balance.

---

(Answers to Section 2 Self Review are on page 87.)
In this chapter, you have learned how to use T accounts to help analyze and record business transactions. A chart of accounts can be developed to easily identify all the accounts used by a business. After determining the balance for all accounts, the trial balance is prepared to test the accuracy of total debits and credits after transactions have been recorded.

**Learning Objectives**

3-1 Set up T accounts for assets, liabilities, and owner’s equity.

T accounts consist of two lines, one vertical and one horizontal, that resemble the letter T. The account name is written on the top line. Increases and decreases to the account are entered on either the left side or the right side of the vertical line.

3-2 Analyze business transactions and enter them in the accounts.

Each business transaction is analyzed for its effects on the fundamental accounting equation, Assets = Liabilities + Owner’s Equity. Then these effects are recorded in the proper accounts. Accounts are classified as assets, liabilities, or owner’s equity.

- Increases in an asset account appear on the debit, or left, side because assets are on the left side of the accounting equation. The credit, or right, side records decreases.
- An increase in a liability account is recorded on the credit, or right, side. The left, or debit, side of a liability account is used for recording decreases.
- Increases in owner’s equity are shown on the credit (right) side of an account. Decreases appear on the debit (left) side.
- The drawing account is used to record the withdrawal of cash from the business by the owner. The drawing account decreases owner’s equity.

3-3 Determine the balance of an account.

The difference between the amounts recorded on the two sides of an account is known as the balance of the account.

3-4 Set up T accounts for revenue and expenses.

- Revenue accounts increase owner’s equity; therefore, increases are recorded on the credit side of revenue accounts.
- Expenses are recorded on the debit side of the expense accounts because expenses decrease owner’s equity.

3-5 Prepare a trial balance from T accounts.

The trial balance is a statement to test the accuracy of the financial records. Total debits should equal total credits.

3-6 Prepare an income statement, a statement of owner’s equity, and a balance sheet.

The income statement is prepared to report the revenue and expenses for the period. The statement of owner’s equity is prepared to analyze the change in owner’s equity during the period. Then the balance sheet is prepared to summarize the assets, liabilities, and owner’s equity of the business at the end of the period.

3-7 Develop a chart of accounts.

A firm’s list of accounts is called its chart of accounts. Accounts are arranged in a predetermined order and are numbered for handy reference and quick identification. Typically, accounts are numbered in the order in which they appear on the financial statements. Balance sheet accounts come first, followed by income statement accounts.

3-8 Define the accounting terms new to this chapter.
Debit (p. 68) An entry on the left side of an account

Double-entry system (p. 68) An accounting system that involves recording the effects of each transaction as debits and credits

Drawing account (p. 67) A special type of owner’s equity account set up to record the owner’s withdrawal of cash from the business

Footing (p. 60) A small pencil figure written at the base of an amount column showing the sum of the entries in the column

Normal balance (p. 60) The increase side of an account

Permanent account (p. 72) An account that is kept open from one accounting period to the next

Slide (p. 71) An accounting error involving a misplaced decimal point

T account (p. 54) A type of account, resembling a T, used to analyze the effects of a business transaction

Temporary account (p. 72) An account whose balance is transferred to another account at the end of an accounting period

Transposition (p. 71) An accounting error involving misplaced digits in a number

Trial balance (p. 69) A statement to test the accuracy of total debits and credits after transactions have been recorded

Comprehensive Self Review

1. What is a chart of accounts?
2. What are withdrawals and how are they recorded?
3. What type of accounts are found on the balance sheet?
4. On which side of asset, liability, and owner’s equity accounts are decreases recorded?
5. Your friend has prepared financial statements for her business. She has asked you to review the statements for accuracy. The trial balance debit column totals $91,000 and the credit column totals $104,000. What steps would you take to find the error?

(Answers to Comprehensive Self Review are on page 87.)

Discussion Questions

1. What are accounts?
2. How is the balance of an account determined?
3. Indicate whether each of the following types of accounts would normally have a debit balance or a credit balance:
   a. An asset account
   b. A liability account
   c. The owner’s capital account
   d. A revenue account
   e. An expense account
4. What is the purpose of a chart of accounts?
5. In what order do accounts appear in the chart of accounts?
6. When a chart of accounts is created, number gaps are left within groups of accounts. Why are these number gaps necessary?
7. Accounts are classified as permanent or temporary accounts. What do these classifications mean?
8. Are the following accounts permanent or temporary accounts?
   a. Fees Income
   b. Johnny Jones, Drawing
   c. Accounts Payable
   d. Accounts Receivable
   e. Johnny Jones, Capital
   f. Prepaid Rent
   g. Cash
   h. Advertising Expense
   i. Utilities Expense
   j. Equipment
   k. Salaries Expense
   l. Prepaid Insurance

9. The terms *debit* and *credit* are often used in describing the effects of transactions on different accounts. What do these terms mean?

10. Why is *Prepaid Rent* considered an asset account?

11. Why is the modern system of accounting usually called the double-entry system?

### APPLICATIONS

#### Exercises

**Exercise 3.1**  
**Objective 3-1**

**Setting up T accounts.**

Wilson Cleaning Service has the following account balances on December 31, 2016. Set up a T account for each account and enter the balance on the proper side of the account.

- Cash $19,000
- Equipment $46,000
- Accounts Payable $24,200
- James Wilson, Capital $40,800

**Exercise 3.2**  
**Objective 3-2**

**Using T accounts to analyze transactions.**

Denise Carswell decided to start a dental practice. The first five transactions for the business follow. For each transaction, (1) determine which two accounts are affected, (2) set up T accounts for the affected accounts, and (3) enter the debit and credit amounts in the T accounts.

1. Denise invested $90,000 cash in the business.
2. Paid $30,000 in cash for equipment.
3. Performed services for cash amounting to $9,000.
4. Paid $3,800 in cash for advertising expense.
5. Paid $3,000 in cash for supplies.

**Exercise 3.3**  
**Objective 3-3**

**Determining debit and credit balances.**

Indicate whether each of the following accounts normally has a debit balance or a credit balance:

1. Ned Cruz, Capital
2. Cash
3. Fees Income
4. Accounts Payable
5. Supplies
6. Salaries Expense
7. Accounts Receivable
8. Equipment

**Identifying debits and credits.**

In each of the following sentences, fill in the blanks with the word **debit** or **credit**:

1. The owner’s capital account normally has a **?** balance. This account increases on the **?** side and decreases on the **?** side.
2. Expense accounts normally have **?** balances. These accounts increase on the **?** side and decrease on the **?** side.
3. Asset accounts normally have **?** balances. These accounts increase on the **?** side and decrease on the **?** side.
4. Liability accounts normally have **?** balances. These accounts increase on the **?** side and decrease on the **?** side.
5. Revenue accounts normally have **?** balances. These accounts increase on the **?** side and decrease on the **?** side.

**Determining account balances.**

The following T accounts show transactions that were recorded by Housing Locators, a firm that specializes in local housing renting. The entries for the first transaction are labeled with the letter (a), the entries for the second transaction with the letter (b), and so on. Determine the balance of each account.

<table>
<thead>
<tr>
<th>Cash</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) 190,000</td>
<td>(c) 80,000</td>
</tr>
<tr>
<td>(d) 30,000</td>
<td></td>
</tr>
<tr>
<td>(g) 3,000</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accounts Receivable</th>
<th>Accounts Payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(f) 10,000</td>
<td>(c) 80,000</td>
</tr>
<tr>
<td>(g) 3,000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supplies</th>
<th>Wade Wilson, Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) 46,000</td>
<td>(a) 190,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fees Income</th>
<th>Telephone Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>(d) 30,000</td>
<td>(e) 700</td>
</tr>
<tr>
<td>(f) 10,000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wade Wilson, Drawing</th>
<th>Salaries Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) 5,000</td>
<td>(h) 11,000</td>
</tr>
</tbody>
</table>

**Preparing a trial balance and an income statement.**

Using the account balances from Exercise 3.5, prepare a trial balance and an income statement for Housing Locators. The trial balance is for December 31, 2016, and the income statement is for the month ended December 31, 2016.
Preparing a statement of owner’s equity and a balance sheet.

From the trial balance and the net income or net loss determined in Exercise 3.6, prepare a statement of owner’s equity and a balance sheet for Housing Locators as of December 31, 2016.

Preparing a chart of accounts.

The accounts that will be used by Three Brothers Moving Company follow. Prepare a chart of accounts for the firm. Classify the accounts by type, arrange them in an appropriate order, and assign suitable account numbers.

<table>
<thead>
<tr>
<th>Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trey Calhoun, Capital</td>
</tr>
<tr>
<td>Office Supplies</td>
</tr>
<tr>
<td>Accounts Payable</td>
</tr>
<tr>
<td>Cash</td>
</tr>
<tr>
<td>Utilities Expense</td>
</tr>
<tr>
<td>Office Equipment</td>
</tr>
<tr>
<td>Salaries Expense</td>
</tr>
<tr>
<td>Prepaid Rent</td>
</tr>
<tr>
<td>Fees Income</td>
</tr>
<tr>
<td>Accounts Receivable</td>
</tr>
<tr>
<td>Telephone Expense</td>
</tr>
<tr>
<td>Trey Calhoun, Drawing</td>
</tr>
</tbody>
</table>

PROBLEMS

Problem Set A

Using T accounts to record transactions involving assets, liabilities, and owner’s equity.

The following transactions occurred at several different businesses and are not related.

INSTRUCTIONS

Analyze each of the transactions. For each, decide what accounts are affected and set up T accounts. Record the effects of the transaction in the T accounts. Use plus and minus signs before the amounts to show the increases and decreases.

TRANSACTIONS

1. Hunter Thompson, an owner, made an additional investment of $21,000 in cash.
2. A firm purchased equipment for $10,000 in cash.
3. A firm sold some surplus office furniture for $1,700 in cash.
4. A firm purchased a computer for $3,700, to be paid in 60 days.
5. A firm purchased office equipment for $11,200 on credit. The amount is due in 60 days.
6. Nancy Fowler, owner of Fowler Travel Agency, withdrew $6,000 of her original cash investment.
7. A firm bought a delivery truck for $37,000 on credit; payment is due in 90 days.
8. A firm issued a check for $3,500 to a supplier in partial payment of an open account balance.

Analyze: List the transactions that directly affected an owner’s equity account.
Using T accounts to record transactions involving assets, liabilities, and owner’s equity.

The following transactions took place at Confidential Counseling Services, a business established by Gloria Williams.

INSTRUCTIONS

For each transaction, set up T accounts from this list: Cash; Office Furniture; Office Equipment; Automobile; Accounts Payable; Gloria Williams, Capital; and Gloria Williams, Drawing. Analyze each transaction. Record the amounts in the T accounts affected by that transaction. Use plus and minus signs to show increases and decreases in each account.

TRANSACTIONS

1. Gloria Williams invested $70,000 cash in the business.
2. Purchased office furniture for $17,000 in cash.
3. Bought a fax machine for $1,050; payment is due in 30 days.
4. Purchased a used car for the firm for $17,000 in cash.
5. Williams invested an additional $11,000 cash in the business.
6. Bought a new computer for $4,000; payment is due in 60 days.
7. Paid $1,050 to settle the amount owed on the fax machine.
8. Williams withdrew $5,000 in cash for personal expenses.

Analyze: Which transactions affected asset accounts?

Using T accounts to record transactions involving revenues and expenses.

The following occurred during June at Young’s Professional Counseling.

INSTRUCTIONS

Analyze each transaction. Use T accounts to record these transactions and be sure to put the name of the account on the top of each account. Record the effects of the transaction in the T accounts. Use plus and minus signs before the amounts to show the increases and decreases.

TRANSACTIONS

1. Purchased office supplies for $3,000 in cash.
2. Delivered monthly statements, collected fee income of $26,000.
3. Paid the current month’s office rent of $5,000.
4. Completed professional counseling, billed client for $4,000.
5. Client paid fee of $2,000 for weekly counseling, previously billed.
8. Billed client for $3,000 fee for preparing a counseling memorandum.
9. Purchased office supplies of $1,100 on account.
11. Collected $3,000 from client who was billed.
12. Clients paid a total of $9,100 cash in fees.

Analyze: How much cash did the business spend during the month?

Problem 3.4A
Objectives 3-1, 3-2, 3-4

Using T accounts to record all business transactions.
The following accounts and transactions are for Horace Brock, Landscape Consultant.

INSTRUCTIONS
Analyze the transactions. Record each in the appropriate T accounts. Use plus and minus signs in front of the amounts to show the increases and decreases. Identify each entry in the T accounts by writing the letter of the transaction next to the entry.

ASSETS
Cash
Accounts Receivable
Office Furniture
Office Equipment
LIABILITIES
Accounts Payable
OWNER'S EQUITY
Horace Brock, Capital
Horace Brock, Drawing
REVENUE
Fees Income
EXPENSES
Rent Expense
Utilities Expense
Salaries Expense
Telephone Expense
Miscellaneous Expense

TRANSACTIONS
a. Brock invested $160,000 in cash to start the business.
b. Paid $6,000 for the current month’s rent.
c. Bought office furniture for $16,720 in cash.
d. Performed services for $8,200 in cash.
e. Paid $1,250 for the monthly telephone bill.
f. Performed services for $14,000 on credit.
g. Purchased a computer and copier for $38,000, paid $13,000 in cash immediately with the balance due in 30 days.
h. Received $7,000 from credit clients.
i. Paid $4,000 in cash for office cleaning services for the month.
j. Purchased additional office chairs for $5,800; received credit terms of 30 days.
k. Purchased office equipment for $40,000 and paid half of this amount in cash immediately; the balance is due in 30 days.
l. Issued a check for $9,400 to pay salaries.
m. Performed services for $14,500 in cash.
n. Performed services for $16,000 on credit.
Analyzing Business Transactions Using T Accounts

CHAPTER 3

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o. Collected $8,000 on accounts receivable from charge customers.
p. Issued a check for $2,900 in partial payment of the amount owed for office chairs.
q. Paid $700 to a duplicating company for photocopy work performed during the month.
r. Paid $1,220 for the monthly electric bill.
s. Brock withdrew $9,000 in cash for personal expenses.

Analyze: What liabilities does the business have after all transactions have been recorded?

Preparing financial statements from T accounts.
The accountant for the firm owned by Horace Brock prepares financial statements at the end of each month.

INSTRUCTIONS
Use the figures in the T accounts for Problem 3.4A to prepare a trial balance, an income statement, a statement of owner’s equity, and a balance sheet. (The first line of the statement headings should read “Horace Brock, Landscape Consultant.”) Assume that the transactions took place during the month ended June 30, 2016. Determine the account balances before you start work on the financial statements.

Analyze: What is the change in owner’s equity for the month of June?

Problem Set B

Using T accounts to record transactions involving assets, liabilities, and owner’s equity.
The following transactions occurred at several different businesses and are not related.

INSTRUCTIONS
Analyze each of the transactions. For each transaction, set up T accounts. Record the effects of the transaction in the T accounts. Use plus and minus signs to show the increases and decreases.

TRANSACTIONS
1. A firm purchased equipment for $32,000 in cash.
2. The owner, Gloria Bahamon, withdrew $8,000 cash.
3. A firm sold a piece of surplus equipment for $6,000 in cash.
4. A firm purchased a used delivery truck for $24,000 in cash.
5. A firm paid $7,200 in cash to apply against an account owed.
6. A firm purchased office equipment for $10,000. The amount is to be paid in 60 days.
7. Kevin Fralicks, owner of the company, made an additional investment of $40,000 in cash.
8. A firm paid $3,000 by check for office equipment that it had previously purchased on credit.

Analyze: Which transactions affect liability accounts?
Using T accounts to record transactions involving assets, liabilities, and owner’s equity.

The following transactions took place at Windmill Equipment Service.

**INSTRUCTIONS**

For each transaction, set up T accounts from the following list: Cash; Shop Equipment; Store Equipment; Truck; Accounts Payable; Royce West, Capital; and Royce West, Drawing. Analyze each transaction. Record the effects of the transactions in the T accounts. Use plus and minus signs before the amounts to show the increases and decreases.

**TRANSACTIONS**

1. Royce West invested $40,000 cash in the business.
2. Purchased shop equipment for $3,600 in cash.
3. Bought store fixtures for $2,400; payment is due in 30 days.
4. Purchased a used truck for $20,000 in cash.
5. West gave the firm his personal tools that have a fair market value of $6,000.
6. Bought a used cash register for $5,000; payment is due in 30 days.
7. Paid $800 in cash to apply to the amount owed for store fixtures.
8. West withdrew $3,200 in cash for personal expenses.

**Analyze:** Which transactions affect the Cash account?

Using T accounts to record transactions involving revenue and expenses.

The following transactions took place at Quick Perfection Laundry and Cleaners.

**INSTRUCTIONS**

Analyze each of the transactions. For each transaction, decide what accounts are affected and set up T accounts. Record the effects of the transaction in the T accounts. Use plus and minus signs before the amounts to show the increases and decreases.

**TRANSACTIONS**

1. Paid $7,500 for the current month’s rent.
2. Performed services for $9,000 in cash.
3. Paid salaries of $6,800.
4. Performed additional services for $12,200 on credit.
5. Paid $1,580 for the monthly telephone bill.
6. Collected $8,000 from accounts receivable.
7. Received a $380 refund for an overcharge on the telephone bill.
8. Performed services for $8,560 on credit.
10. Paid $1,590 in cash for gasoline purchased for the firm’s van during the month.
11. Received $6,250 from charge account customers.
12. Performed services for $9,400 in cash.

Analyze: What total cash was collected for Accounts Receivable during the month?

Using T accounts to record all business transactions.
The accounts and transactions of Conner McAllister, Counselor and Attorney at Law, follow.

INSTRUCTIONS
Analyze the transactions. Record each in the appropriate T accounts. Use plus and minus signs in front of the amounts to show the increases and decreases. Identify each entry in the T accounts by writing the letter of the transaction next to the entry.

ASSETS
Cash
Accounts Receivable
Office Furniture
Office Equipment
Automobile

LIABILITIES
Accounts Payable

OWNER’S EQUITY
Conner McAllister, Capital
Conner McAllister, Drawing

REVENUE
Fees Income

EXPENSES
Automobile Expense
Rent Expense
Utilities Expense
Salaries Expense
Telephone Expense

TRANSACTIONS
a. Conner McAllister invested $140,000 in cash to start the business.
b. Paid $7,800 for the current month’s rent.
c. Bought a used automobile for the firm for $38,500 in cash.
d. Performed services for $10,500 in cash.
e. Paid $1,850 for automobile repairs.
f. Performed services for $11,280 on credit.
g. Purchased office chairs for $6,500 on credit.
h. Received $5,400 from credit clients.
i. Paid $3,800 to reduce the amount owed for the office chairs.
j. Issued a check for $1,590 to pay the monthly utility bill.
k. Purchased office equipment for $22,800 and paid half of this amount in cash immediately; the balance is due in 30 days.
l. Issued a check for $18,900 to pay salaries.
Analyzing Business Transactions Using T Accounts

m. Performed services for $7,450 in cash.
n. Performed services for $6,500 on credit.
o. Paid $967 for the monthly telephone bill.
p. Collected $4,200 on accounts receivable from charge customers.
q. Purchased additional office equipment and received a bill for $6,880 due in 30 days.
r. Paid $900 in cash for gasoline purchased for the automobile during the month.
s. Conner McAllister withdrew $8,000 in cash for personal expenses.

Analyze: What outstanding amount is owed to the company from its credit customers?

Preparing financial statements from T accounts.
The accountant for the firm owned by Conner McAllister prepares financial statements at the end of each month.

INSTRUCTIONS
Use the figures in the T accounts for Problem 3.4B to prepare a trial balance, an income statement, a statement of owner’s equity, and a balance sheet. (The first line of the statement headings should read “Conner McAllister, Counselor and Attorney at Law.”) Assume that the transactions took place during the month ended April 30, 2016. Determine the account balances before you start work on the financial statements.

Analyze: What net change in owner’s equity occurred during the month of April?

Critical Thinking Problem 3.1
Financial Condition
At the beginning of the summer, Jack Wells was looking for a way to earn money to pay for his college tuition in the fall. He decided to start a lawn service business in his neighborhood. To get the business started, Jack used $6,000 from his savings account to open a checking account for his new business, Elegant Lawn Care. He purchased two used power mowers and various lawn care tools for $2,000, and paid $3,600 for a second-hand truck to transport the mowers.

Several of his neighbors hired him to cut their grass on a weekly basis. He sent these customers monthly bills. By the end of the summer, they had paid him $1,200 in cash and owed him another $2,300. Jack also cut grass on an as-needed basis for other neighbors who paid him $1,000.

During the summer, Jack spent $400 for gasoline for the truck and mowers. He paid $1,000 to a friend who helped him on several occasions. An advertisement in the local paper cost $200. Now, at the end of the summer, Jack is concerned because he has only $1,000 left in his checking account. He says, “I worked hard all summer and have only $1,000 to show for it. It would have been better to leave the money in the bank.”

Prepare an income statement, a statement of owner’s equity, and a balance sheet for Elegant Lawn Care. Explain to Jack whether or not he is “better off” than he was at the beginning of the summer. (Hint: T accounts might be helpful in organizing the data.)

Critical Thinking Problem 3.2
Sole Proprietorship
John Arrow is an architect who operates his own business. The accounts and transactions for the business follow.

INSTRUCTIONS
(1) Analyze the transactions for January 2016. Record each in the appropriate T accounts. Use plus and minus signs in front of the amounts to show the increases and decreases. Identify each entry in the T account by writing the letter of the transaction next to the entry.
(2) Determine the account balances. Prepare a trial balance, an income statement, a statement of owner’s equity, and a balance sheet.
Analyzing Business Transactions Using T Accounts

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ASSETS
Cash
Accounts Receivable
Office Furniture
Office Equipment
LIABILITIES
Accounts Payable
OWNER’S EQUITY
John Arrow, Capital
John Arrow, Drawing
REVENUE
Fees Income
EXPENSES
Advertising Expense
Utilities Expense
Salaries Expense
Telephone Expense
Miscellaneous Expense

TRANSACTIONS
a. John Arrow invested $40,000 in cash to start the business.
b. Paid $4,000 for advertisements in a design magazine.
c. Purchased office furniture for $4,600 in cash.
d. Performed services for $9,100 in cash.
e. Paid $420 for the monthly telephone bill.
f. Performed services for $3,120 on credit.
g. Purchased a fax machine for $650; paid $150 in cash with the balance due in 30 days.
h. Paid a bill for $1,100 from the office cleaning service.
i. Received $4,260 from clients on account.
j. Purchased additional office chairs for $1,090; received credit terms of 30 days.
k. Paid $8,000 for salaries.
l. Issued a check for $550 in partial payment of the amount owed for office chairs.
m. Received $4,600 in cash for services performed.
n. Issued a check for $920 for utilities expense.
o. Performed services for $4,300 on credit.
p. Collected $1,800 from clients on account.
q. John Arrow withdrew $5,000 in cash for personal expenses.
r. Paid $1,200 to Quick Copy Service for photocopy work performed during the month.

Analyze: Using the basic accounting equation, what is the financial condition of John Arrow’s business at month-end?

BUSINESS CONNECTIONS

Informed Decisions

1. In discussing a firm’s latest financial statements, a manager says that it is the “results on the bottom line” that really count. What does the manager mean?
2. If a firm’s expenses equal or exceed its revenue, what actions might management take?
Chapter 3: Analyzing Business Transactions Using T Accounts

3. How can management find out, at any time, whether a firm can pay its bills as they become due?
4. How do the income statement and the balance sheet help management make sound decisions?

To Open or Not to Open
As the bookkeeper of a new start-up company, you are responsible for keeping the chart of accounts up to date. At the end of each year, you analyze the accounts to verify that each account should be active for accumulation of costs, revenues, and expenses. In July, the accounts payable clerk has asked you to open an account named New Expenses. You know that an account name should be specific and well defined. You feel that the A/P clerk might want to charge some expenses to that account that would not be appropriate. Why do you think the A/P clerk needs this New Expenses account? Who needs to know this information and what action should you consider?

Management Letter and Annual Report
Annual reports released by publicly held companies include a letter to the stockholders written by the chief executive officer, chairman of the board, or president.

Analyze Online: Locate the Adobe Systems Incorporated website (www.adobe.com). Within Investor Relations in the About Adobe link, find the annual report for the current year. Read the letter to the stockholders within the annual report.

Analyze:
1. What types of information can a company’s management deliver using the letter to stockholders?
2. What annual revenue did Adobe Systems Incorporated report for fiscal 2012?
3. What amount of cash, cash equivalents, and short term investments did Adobe have on hand at the end of 2012?
4. Are the financial results presented in the current year more or less favorable than those presented for fiscal 2011?
5. What is Adobe’s targeted revenue for the first quarter of 2013?

Specific Chart of Accounts
A chart of accounts varies with each type of business as well as each company. In a group, compare and contrast the accounts that would appear in Cole’s Real Estate Office, Sarah’s Clothing Emporium, Neal’s Grocery Store, and Tanner Plumbing Service. What accounts would appear in all companies? What accounts would be specific to each business?

10K Reports
Financial statements can reveal a great deal about a company. Corporations are required to produce a 10K report that includes the income statement and balance sheet. Go to the companies’ websites listed below, select investor relations, annual report, and 10K report. From the income statement, decide the most profitable company. From the balance sheet, decide the company with the largest amount of cash available and the one with the most assets. (www.jcpenny.com) (www.honeywell.com)

Answers to Self Reviews

Answers to Section 1 Self Review
1. The sum of several entries on either side of an account that is entered in small pencil figures.
2. The increase side of an account. The normal balance of an asset account is on the left side. The normal balance of liability and owner’s equity accounts is on the right side.
3. Increases in asset accounts are recorded on the left side. Increases in liability and owner’s equity accounts are recorded on the right side.
4. a. **Equipment** is increased by $20,200. **Accounts Payable** is increased by $20,200.

5. David Jenkins,

\[
\begin{align*}
\text{Cash} & + \text{Equipment} + \text{Supplies} = \text{Accounts Payable} + \text{Capital} \\
$30,800 & + \$40,000 + \$9,200 = \$20,000 + \$60,000 \\
\$80,000 & = \$80,000
\end{align*}
\]

6. c. 33,450

**Answers to Section 2 Self Review**

1. The trial balance is a list of all the accounts and their balances. Its purpose is to prove the equality of the total debits and credits.

2. A transposition is an error in which the digits of a number are switched, for example, when 517 is recorded as 571. A slide is an error in which the decimal point is misplaced, for example, when 317 is written as 3.17.

3. The increase side of **Cash** is the left, or debit, side. The increase side of **Accounts Payable** is the right, or credit, side. The increase side of **Carolyn Wells, Capital** is the right, or credit, side.

4. c. **J. P., Drawing**

5. b. **Caleb Parker, Drawing** would be debited and **Cash** would be credited.

6. c. **C. Parker, Drawing**—10,000 should be in the Debit column.

   **Fees Income**—14,000 should be in the Credit column.

   The new column totals will be 51,000.

**Answers to Comprehensive Self Review**

1. A list of the numbers and names of the accounts of a business. It provides a system by which the accounts of the business can be easily identified and located.

2. Cash taken from the business by the owner to obtain funds for personal living expenses. Withdrawals are recorded in a special type of owner’s equity account called a drawing account.

3. The asset, liability, and owner’s equity accounts.

4. Decreases in asset accounts are recorded on the credit side. Decreases in liability and owner’s equity accounts are recorded on the debit side.

5. ■ Check the math by adding the columns again.
   ■ Determine whether the account balances are in the correct columns.
   ■ Check the accounts to see whether the balances in the accounts were computed correctly.
   ■ Check the accuracy of transactions recorded during the period.