

Solutions Manual for Financial Accounting Information for Decisions 9th Wild

CHAPTER 2

FINANCIAL STATEMENTS AND THE ACCOUNTING SYSTEM

<u>Related Assignment Materials</u>					
<i>Student Learning Objectives</i>	<i>Questions</i>	<i>Quick Studies*</i>	<i>Exercises*</i>	<i>Problems*</i>	<i>FSA and BTN</i>
Conceptual objectives:					
C1. Explain the steps in processing transactions and the role of source documents.	3, 6, 9	2-1	2-1	2-6	BTN 2-1, BTN 2-2, BTN 2-4, BTN 2-7
C2. Describe an account and its use in recording transactions.	1, 2, 14	2-2	2-2	2-5	BTN 2-2, BTN 2-4
C3. Describe a ledger and a chart of accounts.		2-3	2-3, 2-16	2-1, 2-2, 2-3, 2-4, 2-6, GL 2-4, GL 2-5, GL 2-6, GL 2-7	
C4. Define <i>debits</i> and <i>credits</i> and explain double-entry accounting.	7	2-4, 2-5, 2-10, 2-11	2-4	2-1, 2-2, 2-3, GL 2-4, GL 2-5, GL 2-6	BTN 2-4
Analytical objectives:					
A1. Analyze the impact of transactions on accounts and financial statements.		2-7	2-5, 2-6, 2-9, 2-13, 2-15, 2-20	2-1, 2-2, 2-3, 2-4, 2-5, 2-6, SP GL 2-2, GL 2-4, GL 2-5, GL 2-6, GL 2-7, GL 2-8	FSA 2-1, FAS 2-2, BTN 2-2, BTN 2-3, BTN 2-4, BTN 2-5, BTN 2-6
A2. Compute the debt ratio and describe its use in analyzing financial condition.		2-12	2-22	2-5	FSA 2-1, FSA 2-2, FSA 2-3, BTN 2-5, BTN 2-6
Procedural objectives:					
P1. Record transactions in a journal and post entries to a ledger.	4, 5	2-6, 2-13	2-7, 2-11, 2-12, 2-14 2-19, 2-21, 2-24	2-1, 2-2, 2-3, 2-4, SP, GL 2-1, GL 2-3, GL 2-4, GL 2-5, GL 2-6, GL 2-7, GL 2-8	
P2. Prepare and explain the use of a	8	2-8	2-8, 2-10,	2-1, 2-2, 2-3, 2-4,	BTN 2-2

trial balance.			2-20, 2-21	2-6, SP, GL 2-4, GL 2-5, GL 2-6, GL 2-7, GL 2-8	
P3. Prepare financial statements from business transactions.	10, 11, 12, 13, 15, 16, 17, 18	2-9	2-16, 2-17, 2-18, 2-19, 2-23	2-5, ES-1, ES-2	BTN 2-5, BTN 2-6

****See additional information on next page that pertains to these quick studies, exercises, and problems.***

FSA refers to Financial Statement Analysis

BTN refers to Beyond the Numbers

SP refers to the Serial Problem

GL refers to the General Ledger Problems

ES refers to Excel Simulations

Additional Information on Related Assignment Material

Connect

Available on the instructor's course-specific website, Connect repeats all numerical Quick Studies, all Exercises and Problems Set A. Connect also provides algorithmic versions for Quick Study, Exercises, and Problems. It allows instructors to monitor, promote, and assess student learning. It can be used in practice, homework, or exam mode.

Connect Insight

The first and only analytics tool of its kind, Connect Insight is a series of visual data displays that are each framed by an intuitive question and provide at-a-glance information regarding how an instructor's class is performing. Connect Insight is available through Connect titles.

General Ledger

Assignable within Connect, General Ledger (GL) problems offer students the ability to see how transactions post from the general journal all the way through the financial statements. Critical thinking and analysis components are added to each GL problem to ensure understanding of the entire process. GL problems are auto-graded and provide instant feedback to the student.

Excel Simulations

Assignable within Connect, Excel Simulations allow students to practice their Excel skills—such as basic formulas and formatting—within the context of accounting. These questions feature animated, narrated Help and Show Me tutorials (when enabled). Excel Simulations are auto-graded and provide instant feedback to the student.

Synopsis of Chapter Revisions

- NEW opener – **Fitbit** and entrepreneurial assignment.
- Updated **Apple**'s analysis to launch chapter.
- New layout for the four types of accounts that determine equity.
- Enhanced Exhibit 2.4 to categorize individual accounts using accounting equation.
- Improved presentation of the "Double-Entry System" section.
- Added computation explanations to Exhibit 2.8.
- New presentation for "Summarizing Transactions in a Ledger" section.
- Enhanced section on financial statement preparation.
- Updated **Apple** data for NTK 2-4.
- New Sustainability discussion on the **FitForGood** organization.
- Updated debt ratio analysis using **Costco**.
- Added two new Quick Studies and one new Exercise.
- Updated **Piaggio**'s (IFRS) balance sheet in Global View.

Chapter Outline

Notes

I. Using Financial Statements

1. Analyzing Financial Statements—financial statement analysis is used by internal and external users.
2. Assessing Company Results—we use standards (benchmarks) for comparisons that include: intracompany – comparing results across two or more periods; intercompany – comparing results across competitors; industry – comparing results to industry norms; and guidelines – comparing results to standards based on experience.

A. Using Ratios to Analyze Financial Statements

1. Building Blocks of Analysis—financial statement analysis focuses on four *building blocks* of analysis:
 - A. Liquidity (and Efficiency)—liquidity is the availability to meet short-term cash needs and efficiency is how productive a company is in using its assets. An example is the current ratio, computed as current assets divided by current liabilities.
 - B. Solvency—a company’s long-run financial viability and ability to meet long-term obligations. One example is the debt ratio, computed as total liabilities divided by total assets.
 - C. Profitability—a company’s ability to use its assets to make profits. An example is the profit margin, computed as net income divided by net sales.
 - D. Market Prospects—market measures for companies with publicly traded stock. An example is the price-to-earnings ratio, computed as the price per share divided by earnings per share.

II. Basis of Financial Statements—process to get from transactions and events to financial statements includes the following:

1. Identify each transaction and event from source documents, which identify and describe transactions and events entering the accounting process.
 2. Analyze each transaction and event using the accounting equation.
 3. Record relevant transactions and events in a journal.
 4. Post journal information to ledger accounts.
 5. Prepare and analyze the trial balance and financial statements.
- A. Source Documents—identify and describe transactions and events entering the accounting system.
 - B. The “Account” Underlying Financial Statements
An *account* is a record of increases and decreases in a specific asset, liability, equity, revenue, or expense. Account categories include:

Chapter Outline**Notes**

1. *Assets*—resources owned or controlled by a company that have future economic benefit. Examples include Cash, Accounts Receivable, Note Receivable, Prepaid Expenses, Prepaid Insurance, Supplies, Store Supplies, Equipment, Buildings, and Land.
2. *Liabilities*—claims (by creditors) against assets, which means they are obligations to transfer assets or provide products or services to others. Examples include Accounts Payable, Note Payable, Unearned Revenues, and Accrued Liabilities.
 - a. Accounts Payable—verbal or implied promise to pay later usually arising from purchase of inventory or other assets.
 - b. Notes Payable—written promissory note to pay a future amount.
 - c. Unearned revenue—revenue collected before it is earned/ before services or goods are provided.
 - d. Accrued liabilities—amounts owed that are not yet paid.
3. *Equity*—an owner's claim on a company's assets is called *stockholders' equity* or *shareholders' equity*. Examples include Common stock, Dividends (decreases in equity), Revenues (result from providing goods or services; i.e., Sales, Fees Earned), which increase equity, and Expenses (result from assets or services used in operation; i.e., Supplies Expense), which decrease equity.

C. Ledger and Chart of Accounts

1. The *general ledger* or *ledger* (referred to as the *books*) is a collection of all accounts and their balances for an accounting system.
2. The *chart of accounts* is a list of all accounts in the ledger with their identification numbers.

III. Double-Entry Accounting

Double-entry accounting demands the accounting equation remain in balance. This means that for each transaction (1) at least two accounts are involved with at least one debit and one credit and (2) the total amount debited must equal the total amount credited.

A. Debits and Credit

1. A *T-account* represents a ledger account and is used to understand the effects of one or more transactions. It is shaped like the letter T with the account title on top.
2. The *left* side of an account is called the *debit* side. A debit is an entry on the left side of an account.
3. The *right* side of an account is called the *credit* side. A credit is an entry on the right side of an account.
4. Accounts are *assigned balance sides* based on their classification or type.
5. To *increase* an account, an amount is placed on the *balance side*, and to *decrease* an account, the amount is placed on the *side opposite its assigned balance side*.

Chapter Outline**Notes**

6. The *account balance* is the difference between the total debits and the total credits recorded in that account. When total debits exceed total credits, the account has a *debit balance*. When total credits exceed total debits the account has a *credit balance*. When total debits equal total credits the account has a *zero balance*.
 - B. Double-Entry System**—requires that each transaction affect, and be recorded in, at least two accounts. The total debits must equal the total credits for each transaction.
 1. The assignment of balance sides (debit or credit) follows the accounting equation.
 - a. *Assets* are on the *left side* of the equation; therefore, the left, or *debit*, side is the normal balance for assets.
 - b. *Liabilities and equities* are on the *right side*; therefore, the right, or *credit*, side is the normal balance for liabilities and equity.
 - c. *Dividends, revenues, and expenses* really are changes in equity, but it is necessary to set up temporary accounts for each of these items to accumulate data for statements. Dividends and expense accounts really represent decreases in equity; therefore, they are assigned debit balances. *Revenue* accounts really represent increases in equity; therefore, they are assigned credit balances.
- IV. Analyzing and Processing Transactions**
- A. Journalizing and Posting Transactions**
- Four steps in processing transactions are as follows:
1. Identify transactions and source documents.
 2. Analyze transactions using the accounting equation. Apply double-entry accounting to determine account to be debited and credited.
 3. Record journal entry—recorded chronologically. (A journal gives us a complete record of each transaction in one place.)
 - a. A *General Journal* is the most flexible type of journal because it can be used to record any type of transaction.
 - b. When a transaction is recorded in the General Journal, it is called a *journal entry*. A journal entry that affects more than two accounts is called a compound journal entry.
 - c. Each journal entry must contain equal debits and credits.
 4. Post entry to ledger—process of transferring entries from the journal to the ledger.

Chapter Outline

- a. Debits are posted as debit, and credits as credits to the accounts identified in the journal entry.
- b. Actual accounting systems use *balance column accounts* rather than T-accounts in the ledger.
- c. A *balance column account* has debit and credit columns for recording entries and a third column for showing the balance of the account after each entry is posted.

Note: To see an illustration of analyzing, journalizing, and posting of 16 basic transactions, refer to the textbook.

V. Trial Balance

- A. A *trial balance* is a list of all ledger accounts and their balances (either debit or credit) at a point in time. Account balances are reported in their appropriate debit or credit columns of the trial balance.
- B. The trial balance tests for the equality of the debit and credit account balances as required by double-entry accounting.
- C. Preparing a Trial Balance: three steps to prepare a trial balance are as follows:
 1. List each account and its amount (from the ledger).
 2. Compute the total of debit balances and the total of credit balances.
 3. Verify (prove) total debit balances equal total credit balances.
- D. Searching for Errors: when a trial balance does not balance, an error has occurred and must be corrected. Follow these steps:
 1. Verify that the trial balance columns are correctly added.
 2. Verify that account balances are accurately entered from the ledger.
 3. See whether a debit (or credit) balance is mistakenly listed in the trial balance as a credit (or debit).
 4. Recompute each account balance in the ledger.
 5. Verify that each journal entry is properly posted.
 6. Verify that the original journal entry has equal debits and credits.

Note: Any errors must be located and corrected before preparing the financial statements. Financial statements prepared from the trial balance are actually *unadjusted statements*. The purpose, content and format for each statement was presented in Chapter 1. The next chapter will address adjustments).

Notes

Chapter Outline

Notes

E. Presentation Issues

1. Dollar signs are not used in journals and ledgers, but do appear in financial statements and other reports such as trial balances.
2. Usual practice on statements is to put dollar signs before only the first and last numbers in each column.
3. Commas are optional except for financial reports, where they are always used.
4. Companies commonly round amounts in reports to the nearest dollar, or even to a higher level.
5. Double rule the final total(s) on the financial statements.

VI. Decision Analysis—Debt Ratio

- A. Companies finance their assets with either liabilities or equity.
- B. A company that finances a relatively large portion of its assets with liabilities has a high degree of financial leverage (greater risk).
- C. The debt ratio describes the relationship between a company's liabilities and assets. It is calculated as total liabilities divided by total assets.
- D. The debt ratio tells us how much (what percentage) of the assets are financed by creditors (nonowners), or liability financing. The higher this ratio, the more risk a company faces, because liabilities must be repaid and often require regular interest payments.

VISUAL #2-1

THREE PARTS OF AN ACCOUNT

(1) ACCOUNT TITLE	
Left Side called (2) DEBIT	Right Side called (3) CREDIT

Rules for using accounts

Accounts are assigned balance sides (Debit or Credit).

To increase any account, use the balance side.

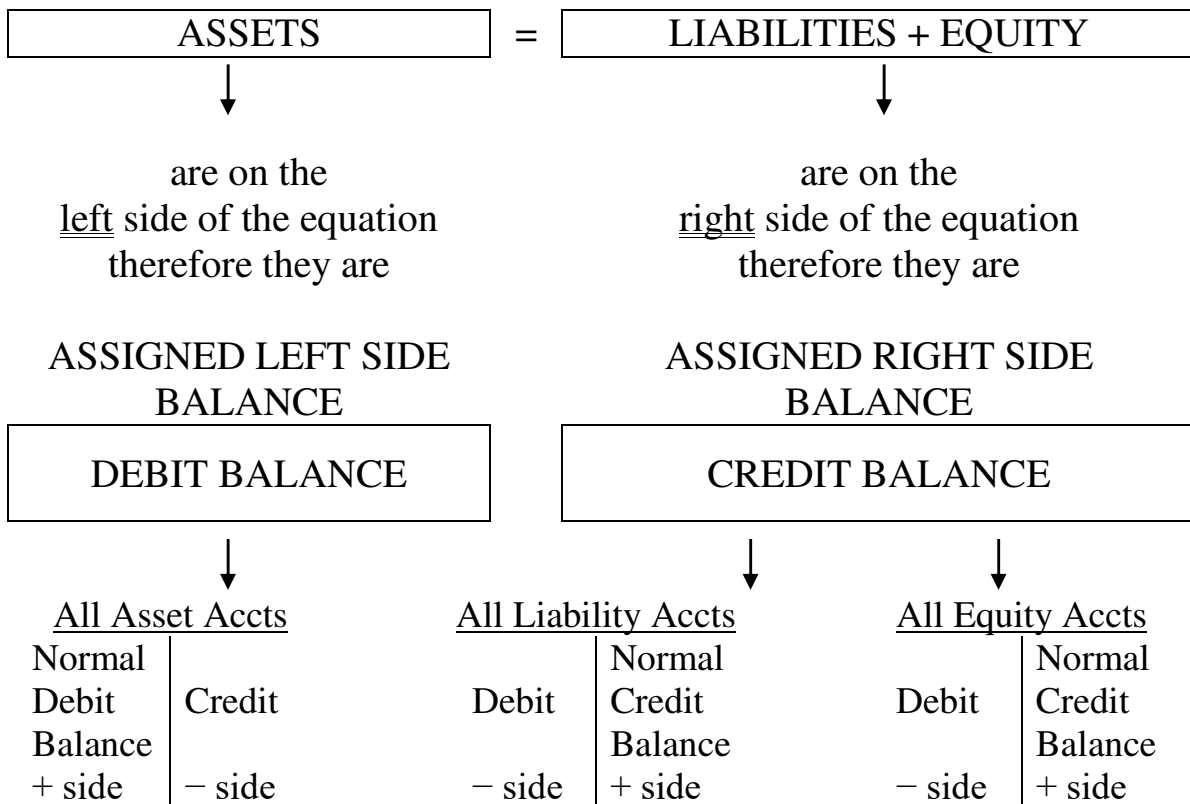
To decrease any account, use the side opposite the balance.

Finding account balances

If total debits = total credits, the account balance is zero.

If total debits are greater than total credits, the account has a debit balance equal to the difference of the two totals.

If total credits are greater than total debits, the account has a credit balance equal to the difference of the two totals.

VISUAL #2-2**REAL ACCOUNTS**ALL ACCOUNTS ARE ASSIGNED BALANCE SIDESBALANCE SIDES FOR ASSETS, LIABILITIES, AND
EQUITY ACCOUNTS ARE ASSIGNED BASED ON
SIDE OF EQUATION THEY ARE ON.

*In a sole proprietorship, there is only one equity account, which is called capital. With corporations, equity accounts are called Common Stock and Retained Earnings.

VISUAL #2-3**TEMPORARY ACCOUNTS**

Temporary accounts are established to facilitate efficient accumulation of data for statements. Temporary accounts are established for withdrawals, each revenue, and each expense. *Temporary accounts are assigned balances based on how they affect equity.*

(Equity Account)

Common Stock and Retained Earnings

Debit
– side

Credit Balance
+ side

Temporary Accounts

Dividends*

Revenues

Expenses

Effect on equity? ↑E or ↓E

↓ E = Dr

↑ E = Cr

↓ E = Dr

Dividends Acct

Normal	
Debit	Credit
Balance	
+ side	– side

All Revenue Accts

Normal	
Debit	Credit
Balance	
+ side	– side

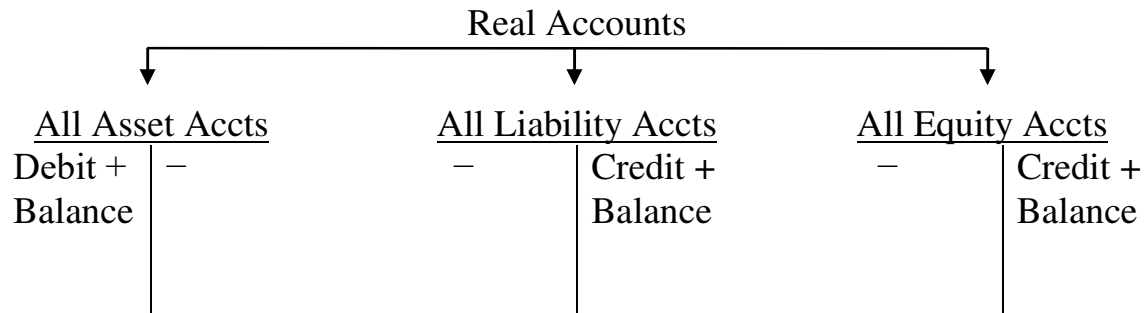
All Expense Accts

Normal	
Debit	Credit
Balance	
+ side	– side

Note:

Transactions during the period always increase the balances of these temporary accounts since the transactions represent additional dividends, revenues, and expenses. We will later learn how to move these amounts back to the real account they affect → RETAINED EARNINGS. At the end of the accounting period, transferring withdrawals, revenues, and expenses back to capital is the main use for the decrease side of the temporary accounts.

*The “Dividends” is the account title and the classification of account is a contra equity.

VISUAL #2-4**USING ACCOUNTS - SUMMARY****RULE REVIEW**Transaction analysis rules

- Each transaction affects at least 2 accounts.
- Each transaction must have equal debits and credits.

General account use rules

- To increase any account, use balance side.
- To decrease any account, use side opposite the balance

Temporary Accounts

Dividend Account

Debit + Balance	—
--------------------	---

All Revenue Accounts

—	Credit + Balance
---	---------------------

All Expense Accounts

Debit + Balance	—
--------------------	---

Chapter 2 Alternate Demonstration Problem

Record the following transactions of Speedy Computer Service, owned by Bill Smith, for the month of March 2019.

Mar 1. Bill Smith invested \$3,000 cash in exchange for common stock.

15. Bill provided services and received cash amounting to \$5,400 from customers.

16. Purchased supplies on account, \$100.

17. Paid for gas and oil, \$800.

18. Paid salaries, \$5,000.

21. Provided service on credit, \$600.

28. Bill provided services and received cash amounting to \$6,000.

29. Paid for truck and equipment rental, \$2,500.

30. Speedy Computer Service paid dividends of \$2,000.

Required:

- 1. Record the above transactions in general journal form.**
- 2. Prepare a trial balance after posting the entries to T-accounts (you can make your own T-accounts).**
- 3. Prepare an income statement from trial balance.**
- 4. Prepare a statement of retained earnings from the trial balance and income statement.**
- 5. Prepare a balance sheet using the trial balance totals and the statement of retained earnings.**

Explain why the company's cash balance does not agree with net income.

Chapter 2 Solution: Alternate Demonstration Problem

GENERAL JOURNAL

DATE	ACCOUNT TITLES AND EXPLANATION	P.R.	DEBIT			CREDIT		
March 1	Cash		3	0	00			
	Common Stock					3	0	00
15	Cash		5	4	00			
	Service Fees Earned					5	4	00
16	Supplies		1	0	00			
	Accounts Payable						1	00
17	Gas and Oil Expense		8	0	00			
	Cash						8	00
18	Salaries Expense		5	0	00			
	Cash					5	0	00
21	Accounts Receivable		6	0	00			
	Service Fees Earned						6	00
28	Cash		6	0	00			
	Service Fees Earned					6	0	00
29	Equipment Rental Expense		2	5	00			
	Cash					2	5	00
30	Dividends		2	0	00			
	Cash					2	0	00

Speedy Computer Service**Trial Balance****March 31, 2019**

Cash	4	1	0	0	00			
Accounts Receivable		6	0	0	00			
Supplies		1	0	0	00			
Accounts Payable						1	0	0 00
Common Stock						3	0	0 00
Dividends	2	0	0	0	00			
Service Fees Earned						1	2	0 0 0 00
Gas & Oil Expense		8	0	0	00			
Equipment Rental Expense	2	5	0	0	00			
Salaries Expense	5	0	0	0	00			
Totals	1	5	1	0	00	1	5	1 0 0 00

3. Speedy Computer Service
Income Statement
For the month ended March 31, 2019

Fees Earned	\$12,000
Expenses:	
Equipment Rental Expense	\$2,500
Gas & Oil Expense	800
Salary Expense	<u>5,000</u>
Total expenses	<u>8,300</u>
Net income	<u>\$ 3,700</u>

4. **Speedy Computer Service**
Statement of Retained Earnings
For the month ended March 31, 2019

Beginning Retained Earnings	\$0
Add: Net Income	<u>3,700</u>
Total	3,700
Less: Dividends	<u>2,000</u>
Ending Retained Earnings	<u>\$1,700</u>

5. **Speedy Computer Service**
Balance Sheet
March 31, 2019

Assets		Liabilities and Owner's Equity	
Cash.....	\$4,100	Accounts payable	\$ 100
Accts Receivable.....	600	Common stock	3,000
Supplies	<u>100</u>	Retained earnings.....	<u>1,700</u>
		Total liabilities and	
Total Assets	<u>\$4,800</u>	equity	<u>\$4,800</u>

6. First, note that the common stock (\$2,000) and cash dividend (\$2,000) affect the cash balance but do not affect the amount of net income earned during the period. Also, revenues in the amount of \$600 (March 21) are reflected in the net income figure, but have not yet been collected. As such, these revenues did not impact the cash balance.

Financial Statements and the Accounting System

Chapter 2

John J. Wild

**Financial Accounting: Information for
Decisions**

9th Edition

Chapter 2 Learning Objectives

CONCEPTUAL

- C1** Explain the steps in processing transactions and the role of source documents.
- C2** Describe an account and its use in recording transactions.
- C3** Describe a ledger and a chart of accounts.
- C4** Define *debits* and *credits* and explain double-entry accounting.

ANALYTICAL

- A1** Analyze the impact of transactions on accounts and financial statements.
- A2** Compute the debt ratio and describe its use in analyzing financial condition.

PROCEDURAL

- P1** Record transactions in a journal and post entries to a ledger.
- P2** Prepare and explain the use of a trial balance.
- P3** Prepare financial statements from business transactions.

Learning Objective C1

Explain the steps in processing transactions and the role of source documents.

Basics of Financial Statements

Business transactions and events are the starting points of financial statements. Process from transactions to financial statements is as follows:

- Identify each transaction and event from source documents.
- Analyze each transaction and event using the accounting equation.
- Record relevant transactions and events in a journal.
- Post journal information to ledger accounts.
- Prepare and analyze the trial balance and financial statements.

Source Documents

Source documents identify and describe transactions entering the accounting system.

Examples:

- Bills from Suppliers
- Sales tickets
- Checks
- Purchase Orders
- Employee Earnings Records
- Bank Statements

Learning Objective C2

Describe an account and its use in recording transactions.

The Account Underlying Financial Statements

An **account** is a record of increases and decreases in a specific asset, liability, equity, revenue, or expense.

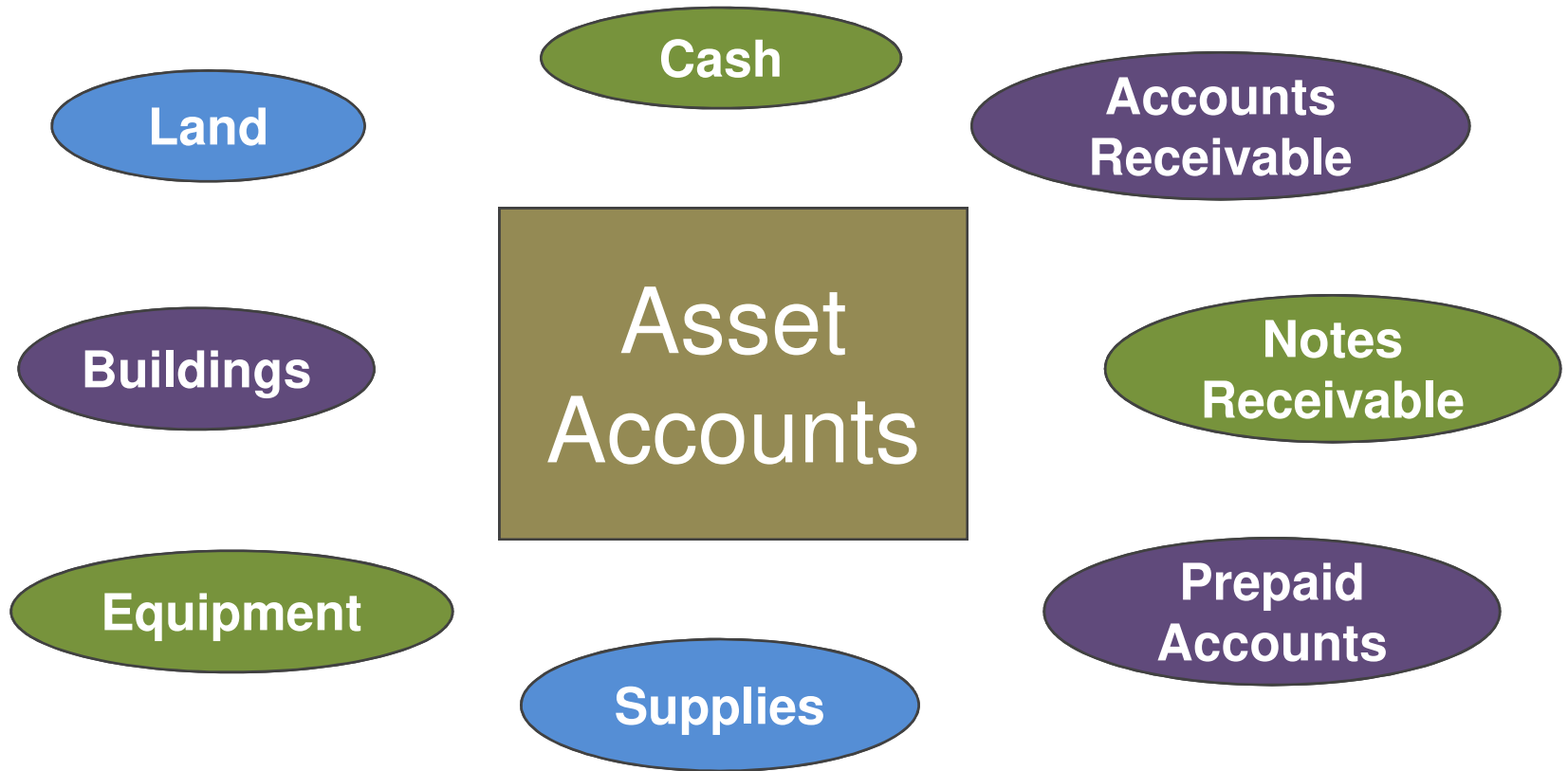
The **general ledger** is a record of all accounts used by the company.

The Account and Its Analysis

Exhibit
2.1



Asset Accounts



Liability Accounts

**Accounts
Payable**

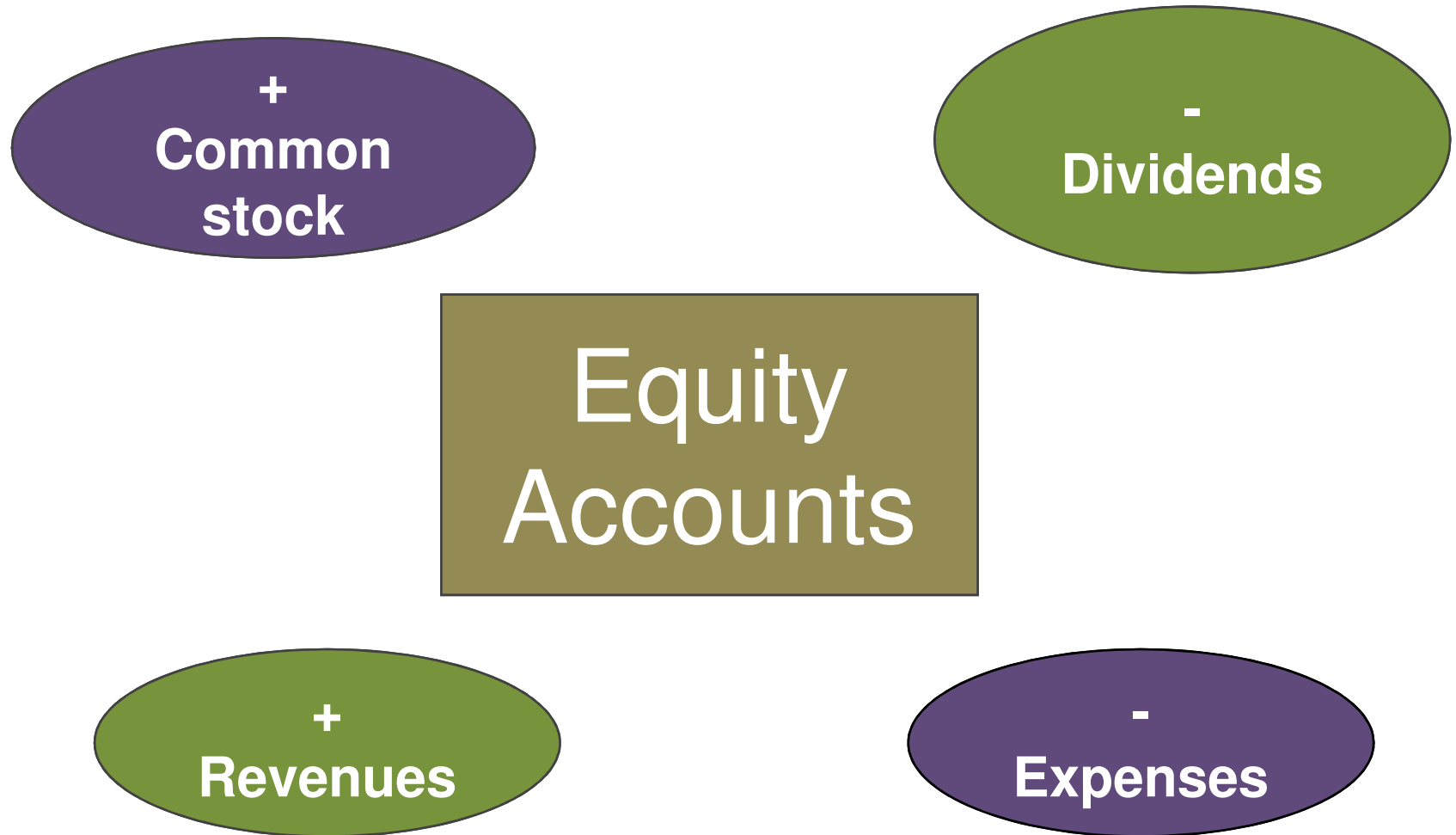
**Notes
Payable**

**Liability
Accounts**

**Accrued
Liabilities**

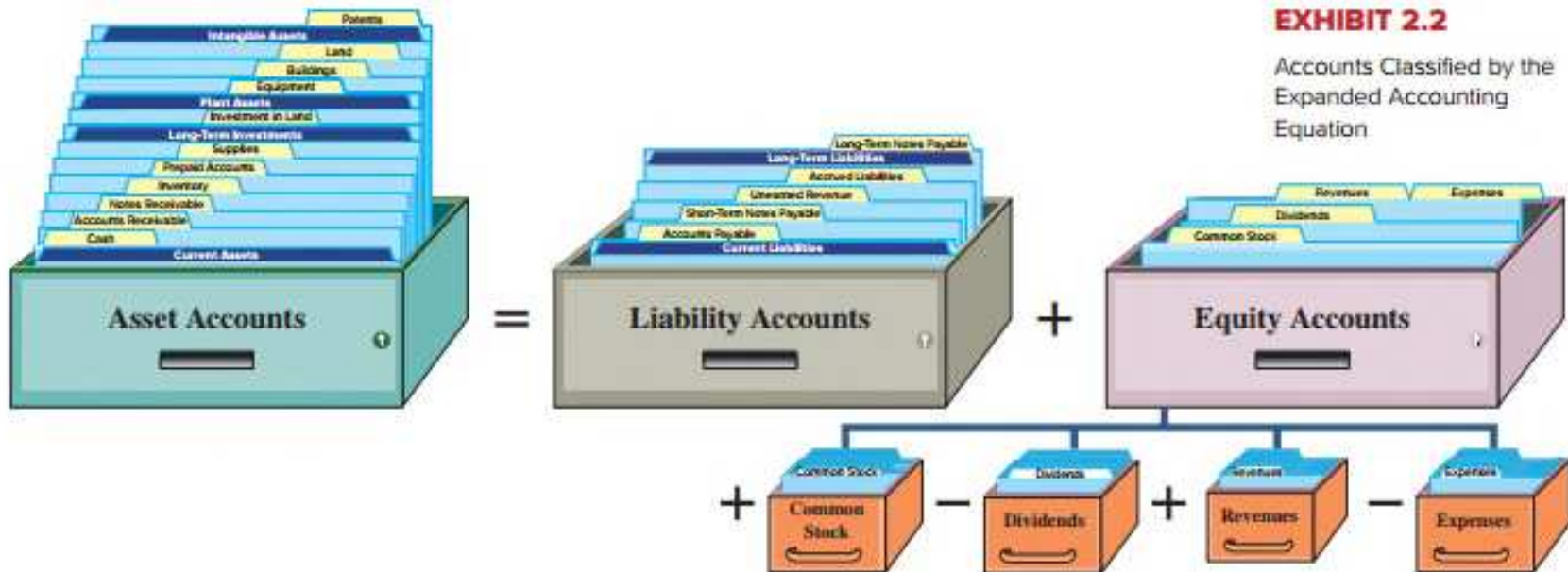
**Unearned
Revenue**

Equity Accounts



Expanded Accounting Equation

Revenues and common stock increases equity.
Expenses and dividends decrease equity.



Learning Objective C3

Describe a ledger and chart of accounts.

Ledger and Chart of Accounts

The ledger is a collection of all accounts and their balances for an accounting system. A company's size and diversity of operations affect the number of accounts needed.

The chart of accounts is a list of all accounts and includes an identifying number for each account.

[illegible]

Exhibit 2.4

NEED-TO-KNOW 2-1

Classify each of the following as assets (A), liabilities (L), or equity (EQ).

- | | |
|------------------------------|---------------------|
| 1) <u> (A) Asset </u> | Prepaid Rent |
| 2) <u> (EQ) Equity </u> | Common Stock |
| 3) <u> (A) Asset </u> | Note Receivable |
| 4) <u> (L) Liability </u> | Accounts Payable |
| 5) <u> (A) Asset </u> | Accounts Receivable |
| 6) <u> (A) Asset </u> | Equipment |
| 7) <u> (L) Liability </u> | Interest Payable |
| 8) <u> (L) Liability </u> | Unearned Revenue |
| 9) <u> (A) Asset </u> | Land |
| 10) <u> (A) Asset </u> | Prepaid Insurance |
| 11) <u> (L) Liability </u> | Wages Payable |
| 12) <u> (L) Liability </u> | Rent Payable |

Assets – Things of value owned by the company.

Liabilities – Amounts owed to creditors.

Equity – The residual interest (Assets – Liabilities)

Key words to look for in account titles:

Prepaid	Always an asset
Receivable	Always an asset
Payable	Always a liability
Unearned	Always a liability

Learning Objective C1: Explain the steps in processing transactions and the role of source documents.

Learning Objective C2: Describe an account and its use in recording transactions.

Learning Objective C3: Describe a ledger and chart of accounts.

Learning Objective C4

Define debits and credits and
explain double-entry
accounting.

Debits and Credits

A T-account represents a ledger account and is used to show the effects of one or more transactions.

Account Title	
(Left side) Debit	(Right side) Credit

Exhibit
2.5

Double-Entry Accounting

$$\boxed{\text{Assets}} = \boxed{\text{Liabilities}} + \boxed{\text{Equity}}$$

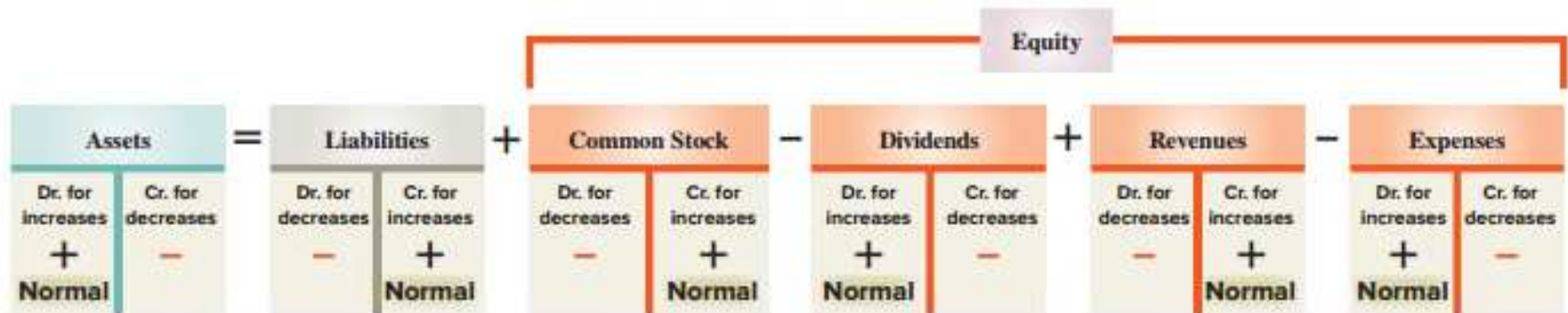
Exhibit
2.6

Assets		=	Liabilities		+	Equity	
Debit for increases	Credit for decreases		Debit for decreases	Credit for increases		Debit for decreases	Credit for increases
+	—		—	+		—	+
Normal				Normal			Normal

Double-Entry Accounting: Expanded Accounting Equation

Here is the expanded accounting equation showing the equity section.

Exhibit
2.7



Double-Entry Accounting: Account Balance

An account balance is the difference between the increases and decreases in an account. Notice the T-Account.



Cash			
36,100	{	Receive investment by owner for stock	30,000
		Consulting services revenue earned	4,200
		Collection of account receivable	1,900
		Purchase of supplies	2,500
		Purchase of equipment	26,000
		Payment of rent	1,000
		Payment of salary	700
		Payment of account payable	900
		Payment of cash dividend	200
			31,300
		Balance	4,800
36,100 – 31,300			

**Exhibit
2.8**

NEED-TO-KNOW 2-2

Identify the normal balance (debit [Dr] or credit [Cr]) for each of the following accounts.

- | | |
|----------------------|---------------------|
| 1) <u>Dr. Debit</u> | Prepaid Rent |
| 2) <u>Cr. Credit</u> | Common Stock |
| 3) <u>Dr. Debit</u> | Note Receivable |
| 4) <u>Cr. Credit</u> | Accounts Payable |
| 5) <u>Dr. Debit</u> | Accounts Receivable |
| 6) <u>Dr. Debit</u> | Equipment |
| 7) <u>Cr. Credit</u> | Interest Payable |
| 8) <u>Cr. Credit</u> | Unearned Revenue |
| 9) <u>Dr. Debit</u> | Land |
| 10) <u>Dr. Debit</u> | Prepaid Insurance |
| 11) <u>Dr. Debit</u> | Dividends |
| 12) <u>Dr. Debit</u> | Utilities Expense |

Assets		=	Liabilities		+	Equity	
Increase Debits	Decrease Credits		Decrease Debits	Increase Credits		Decrease Debits	Increase Credits
Normal			Normal			Dividends Expenses	Common Stock Revenues

Dividends	Common Stock
↓ Equity Dividends	↑ Equity Common Stock
Normal	Normal

Expenses	Revenues
↓ Equity Expenses	↑ Equity Revenues
Normal	Normal

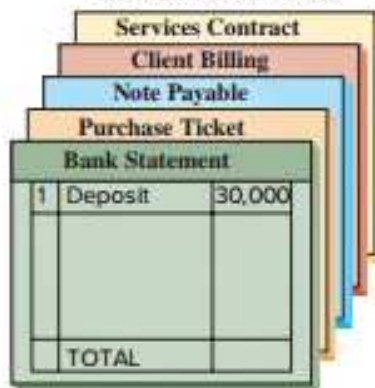
Learning Objective P1

Record transactions in a journal and post entries to a ledger.

Journalizing and Posting Transactions

Exhibit
2.9

Step 1: Identify transactions and source documents.



Bank Statement		
1	Deposit	30,000
TOTAL		

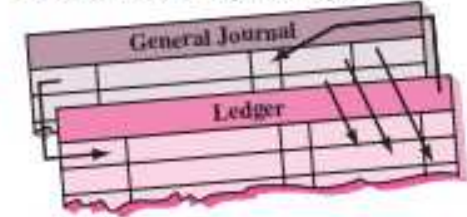
Step 2: Analyze transactions using the accounting equation.



Step 3: Record journal entry.

General Journal			
Dec. 1	Cash	30,000	
	Common Stock		30,000
Dec. 2	Supplies	2,500	
	Cash		2,500

Step 4: Post entry to ledger.



Journalizing Transactions

Exhibit
2.10

a. Transaction
Date

b. Titles of Affected
Accounts

General Journal

Date: Dec 1, 2018 Reference: Register Transaction

Date	Account Titles and Explanation	PR	Debit	Credit
2018 (a) Dec. 1	(b) Cash Common Stock		30,000	(c) 30,000
	<i>Receive investment by owner.</i> (d)			
Dec. 2	Supplies Cash		2,500	2,500
	<i>Purchase supplies for cash.</i>			

d. Transaction
explanation

c. Dollar amount of debits
and credits

Balance Account Column

Exhibit
2.11

T-accounts are useful illustrations, but **balance column ledger accounts** are used in practice.

General Ledger					
Cash			Account No. 101		
Date	Explanation	PR	Debit	Credit	Balance
2018 Dec. 1		G1	30,000		30,000
Dec. 2		G1		2,500	27,500
Dec. 3		G1		26,000	1,500
Dec. 10		G1	4,200		5,700

Posting Journal Entries

Exhibit
2.12

General Ledger Accounting Software: FastForward

File Edit Lists Maintain Tasks Analysis Options Reports & Forms Services Window Help

Company

Business Status
Customers & Sales
Vendors & Purchases
Inventory & Services
Employees & Payroll
Banking
Company

Microstate Customers
Sales Invoice
Receive Money from Customer
Info - Pay Bill
Customer Valt
Vendor List
Find Transactions
General Journal Entry

General Journal Entry

Date: Dec 1, 2018 Page: 1 Record Transaction

Date	Account Titles and Explanation	PR	Debit	Credit
2018 Dec. 1	Cash	101	30,000	
	Common Stock	307		30,000
	Receive investment by owner.			

2

General Ledger

Cash Account no. 101

Date	Explanation	PR	Debit	Credit	Balance
2018 Dec. 1		G1	30,000		30,000

3

Common Stock Account no. 307

Date	Explanation	PR	Debit	Credit	Balance
2018 Dec. 1		G1		30,000	30,000

4

- Key:
- ① Identify debit account in ledger: enter date, journal page, amount, and balance (in red).
 - ② Enter the debit account number from the ledger in the PR column of the journal (in blue).
 - ③ Identify credit account in ledger: enter date, journal page, amount, and balance (in green).
 - ④ Enter the credit account number from the ledger in the PR column of the journal (in green).

Learning Objective A1

Analyze the impact of transactions on accounts and financial statements.

Processing Transactions

Double-entry accounting is useful in analyzing and processing transactions. Analysis of each transaction follows these four steps.

- Step 1** Identify the transaction and any source documents.
- Step 2** Analyze the transaction using the accounting equation.
- Step 3** Record the transaction in journal entry form applying double-entry accounting.
- Step 4** Post the entry (for simplicity, we use T-accounts to represent ledger accounts).

Processing Transactions #1

1. Receive Investment by Owner

1 IDENTIFY FastForward receives \$30,000 cash from Chas Taylor in exchange for common stock.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash				Common Stock
+30,000	=	0		+30,000

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(1)	Cash	101	30,000	
	Common Stock	307		30,000

4 Post

Cash		101
(1)	30,000	

Common Stock		307
	(1)	30,000

Processing Transactions #2

2. Purchase Supplies for Cash

1 IDENTIFY FastForward pays \$2,500 cash for supplies.

2 ANALYZE

Assets		=	Liabilities	+	Equity
Cash	Supplies				
-2,500	+2,500	=	0	+	0

Changes the composition of assets but not the total.

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(2)	Supplies	126	2,500	
	Cash	101		2,500

4 POST

Supplies		126
(2)	2,500	

Cash		101
(1)	30,000	(2) 2,500

Processing Transactions #3

3. Purchase Equipment for Cash

1 IDENTIFY FastForward pays \$26,000 cash for equipment.

2 ANALYZE

Assets		=	Liabilities	+	Equity
Cash	Equipment				
-26,000	+26,000	=	0	+	0

Changes the composition of assets but not the total.

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(3)	Equipment	167	26,000	
	Cash	101		26,000

4 POST

Equipment		167
(3)	26,000	

Cash		101
(1)	30,000	(2) 2,500
		(3) 26,000

Processing Transactions #4

4. Purchase Supplies on Credit

1 IDENTIFY FastForward purchases \$7,100 of supplies on credit from a supplier.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Supplies		Accounts Payable		
+7,100	=	+7,100	+	0

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(4)	Supplies	126	7,100	
	Accounts Payable	201		7,100

4 POST

Supplies		126
(2)	2,500	
(4)	7,100	

Accounts Payable		201
	(4)	7,100

Processing Transactions #5

5. Provide Services for Cash

1 IDENTIFY FastForward provides consulting services and immediately collects \$4,200 cash.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash				Consulting Revenue
+4,200	=	0		+4,200

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(5)	Cash	101	4,200	
	Consulting Revenue	403		4,200

4 POST

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000

Consulting Revenue		403
	(5)	4,200

Processing Transactions #6

6. Payment of Expense in Cash

1 IDENTIFY FastForward pays \$1,000 cash for December rent.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash				Rent Expense
-1,000	=	0		-1,000

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(6)	Rent Expense	640	1,000	
	Cash	101		1,000

4 POST

Rent Expense		640
(6)	1,000	

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000
		(6) 1,000

Processing Transactions #7

7. Payment of Expense in Cash

1 IDENTIFY FastForward pays \$700 cash for employee salary.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash				Salaries Expense
-700	=	0		-700

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(7)	Salaries Expense	622	700	
	Cash	101		700

4 POST

Salaries Expense		622
(7)	700	

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000
		(6) 1,000
		(7) 700

Processing Transactions #8

8. Provide Consulting and Rental Services on Credit

1 IDENTIFY FastForward provides consulting services of \$1,600 and rents its test facilities for \$300. The customer is billed \$1,900 for these services.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Accounts Receivable				Consulting Revenue Rental Revenue
+1,900	=	0		+1,600 +300

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(8)	Accounts Receivable	106	1,900	
	Consulting Revenue	403		1,600
	Rental Revenue	406		300

4 POST

Accounts Receivable 106	
(8)	1,900

Consulting Revenue 403	
	(5) 4,200
	(8) 1,600

Rental Revenue 406	
	(8) 300

Processing Transactions #9

9. Receipt of Cash on Account

1 IDENTIFY FastForward receives \$1,900 cash from the client billed in transaction 8.

2 ANALYZE

Assets		=	Liabilities	+	Equity
Cash	Accounts Receivable				
+1,900	-1,900	=	0	+	0

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(9)	Cash	101	1,900	
	Accounts Receivable	106		1,900

4 POST

Cash		101	
(1)	30,000	(2)	2,500
(5)	4,200	(3)	26,000
→ (9)	1,900	(6)	1,000
		(7)	700

Accounts Receivable		106
(8)	1,900	(9) 1,900

Processing Transactions #10

10. Partial Payment of Accounts Payable

1 IDENTIFY FastForward pays CalTech Supply \$900 cash toward the payable of transaction 4.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash		Accounts Payable		
-900	=	-900	+	0

3 RECORD

Date	Account Titles and Explanation	PR.	Debit	Credit
(10)	Accounts Payable	201	900	
	Cash	101		900

4 POST

Accounts Payable		201
(10)	900	(4) 7,100

Cash		101
(1) 30,000	(2) 2,500	
(5) 4,200	(3) 26,000	
(9) 1,900	(6) 1,000	
	(7) 700	
	(10) 900	

Processing Transactions #11

11. Payment of Cash Dividend

1 IDENTIFY FastForward pays \$200 cash for dividends.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash	=			Dividends
-200	=	0		-200

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(11)	Dividends	319	200	
	Cash	101		200

4 POST

Dividends		319
(11)	200	

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000
(9)	1,900	(6) 1,000
		(7) 700
		(10) 900
		(11) 200

Processing Transactions #12

12. Receipt of Cash for Future Services

1 IDENTIFY FastForward receives \$3,000 cash in advance of providing consulting services to a customer.

2 ANALYZE

Assets	=	Liabilities	+	Equity
		Unearned Consulting Revenue		
Cash				
+3,000	=	+3,000	+	0

Accepting \$3,000 cash obligates FastForward to perform future services and is a liability. No revenue is earned until services are provided.

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(12)	Cash	101	3,000	
	Unearned Consulting Revenue	236		3,000

4 POST

Cash		101	
(1)	30,000	(2)	2,500
(5)	4,200	(3)	26,000
(9)	1,900	(6)	1,000
→ (12)	3,000	(7)	700
		(10)	900
		(11)	200

Unearned Consulting Revenue		236
	(12)	3,000

Processing Transactions #13

13. Pay Cash for Future Insurance Coverage

1 IDENTIFY FastForward pays \$2,400 cash (insurance premium) for a 24-month insurance policy. Coverage begins on December 1.

2 ANALYZE

Assets		=	Liabilities	+	Equity
Cash	Prepaid Insurance				
-2,400	+2,400	=	0	+	0

Changes the composition of assets from cash to prepaid insurance. Expense is incurred as insurance coverage expires.

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(13)	Prepaid Insurance	128	2,400	
	Cash	101		2,400

4 POST

Prepaid Insurance		128
(13)	2,400	

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000
(9)	1,900	(6) 1,000
(12)	3,000	(7) 700
		(10) 900
		(11) 200
		(13) 2,400

Processing Transactions #14

14. Purchase Supplies for Cash

1 IDENTIFY FastForward pays \$120 cash for supplies.

2 ANALYZE

Assets		=	Liabilities	+	Equity
Cash	Supplies				
-120	+120	=	0	+	0

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(14)	Supplies	126	120	
	Cash	101		120

4 POST

Supplies		126
(2)	2,500	
(4)	7,100	
(14)	120	

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000
(9)	1,900	(6) 1,000
(12)	3,000	(7) 700
		(10) 900
		(11) 200
		(13) 2,400
		(14) 120

Processing Transactions #15

15. Payment of Expense in Cash

1 IDENTIFY FastForward pays \$305 cash for December utilities expense.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash				Utilities Expense
-305	=	0		-305

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(15)	Utilities Expense	690	305	
	Cash	101		305

4 POST

Utilities Expense		690
(15)	305	

Cash		101	
(1)	30,000	(2)	2,500
(5)	4,200	(3)	26,000
(9)	1,900	(6)	1,000
(12)	3,000	(7)	700
		(10)	900
		(11)	200
		(13)	2,400
		(14)	120
		(15)	305

Processing Transactions #16

16. Payment of Expense in Cash

1 IDENTIFY FastForward pays \$700 cash in employee salary for work performed in the latter part of December.

2 ANALYZE

Assets	=	Liabilities	+	Equity
Cash				Salaries Expense
-700	=	0		-700

3 RECORD

Date	Account Titles and Explanation	PR	Debit	Credit
(16)	Salaries Expense	622	700	
	Cash	101		700

4 POST

Salaries Expense		622
(7)	700	
(16)	700	

Cash		101
(1)	30,000	(2) 2,500
(5)	4,200	(3) 26,000
(9)	1,900	(6) 1,000
(12)	3,000	(7) 700
		(10) 900
		(11) 200
		(13) 2,400
		(14) 120
		(15) 305
		(16) 700

Exhibit 2.13

Accounts in this white area are reported on the income statement.

NEED-TO-KNOW 2-3

Assume Tata began operations on January 1 and completed the following transactions during its first month of operations.

- Jan. 1 Jamsetji invested \$4,000 cash in the Tata company in exchange for its common stock.
- Jan. 5 The company purchased \$2,000 of equipment on credit.
- Jan. 14 The company provided \$540 of services for a client on credit.

For each transaction, (a) analyze the transaction using the accounting equation, (b) record the transaction in journal entry form, and c) post the entry using T-accounts to represent the general ledger accounts.

NEED-TO-KNOW 2-3 – Answers January 1

Jan. 1 Jamsetji invested \$4,000 cash in the Tata company in exchange for its common stock.

a) Analyze

Assets = Liabilities + Equity	
+ \$4,000	+ \$4,000

b) Record

Date	General Journal	Debit	Credit
Jan. 1	Cash	4,000	
	Common Stock		4,000

c) Post

Cash	
Jan. 1	4,000

Common Stock	
	Jan. 1 4,000

Assets		=	Liabilities		+	Equity	
Increase Debits	Decrease Credits		Decrease Debits	Increase Credits		Decrease Debits	Increase Credits
Normal				Normal		Dividends Expenses	Common Stock Revenues

NEED-TO-KNOW 2-3 - Answers January 5

Jan. 5 The company purchased \$2,000 of equipment on credit.

a) Analyze

Assets = Liabilities + Equity

+ \$2,000 + \$2,000

b) Record

Date	General Journal	Debit	Credit
Jan. 5	Equipment	2,000	
	Accounts Payable		2,000

c) Post

Equipment	
Jan. 5	2,000

Accounts Payable	
	Jan. 5 2,000

Assets		=	Liabilities		+	Equity	
Increase Debits	Decrease Credits		Decrease Debits	Increase Credits		Decrease Debits	Increase Credits
Normal				Normal		Dividends Expenses	Common Stock Revenues

NEED-TO-KNOW 2-3 - Answers January 14

Jan. 14 The company provided \$540 of services for a client on credit.

a) Analyze

Assets = Liabilities + Equity

+ \$540

+ \$540

b) Record

Date	General Journal	Debit	Credit
Jan. 14	Accounts Receivable	540	
	Services Revenue		540

c) Post

Accounts Receivable	
Jan. 14	540

Services Revenue	
	Jan. 14 540

Assets		=	Liabilities		+	Equity	
Increase Debits	Decrease Credits		Decrease Debits	Increase Credits		Decrease Debits	Increase Credits
Normal				Normal		Dividends Expenses	Common Stock Revenues

Learning Objective P2

Prepare and explain the use of a trial balance.

Preparing a Trial Balance

Preparing a trial balance has three steps:

1. List each account title and its amount (from ledger) in the trial balance. If an account has a zero balance, list it with a zero in the normal balance column (or omit it entirely).
2. Compute the total of debit balances and the total of credit balances.
3. Verify (prove) total debit balances equal total credit balances.

FastForward's Trial Balance

FASTFORWARD Trial Balance December 31, 2018			
	Debit		Credit
Cash	\$	4,275	
Accounts receivable		0	
Supplies		9,720	
Prepaid insurance		2,400	
Equipment		26,000	
Accounts payable			\$ 6,200
Unearned consulting revenue			3,000
Common stock			30,000
Dividends		200	
Consulting revenue			5,800
Rental revenue			300
Salaries expense		1,400	
Rent expense		1,000	
Utilities expense		305	
Totals	\$	45,300	\$ 45,300

The trial balance lists all ledger accounts and their balances at a point in time. If the books are in balance, the total debits will equal the total credits.

Searching for Errors

If the trial balance does not balance, the error(s) must be found and corrected.

① Make sure the trial balance columns are correctly added.

② Make sure account balances are correctly entered from the ledger.

③ See if debit or credit accounts are mistakenly placed on the trial balance.

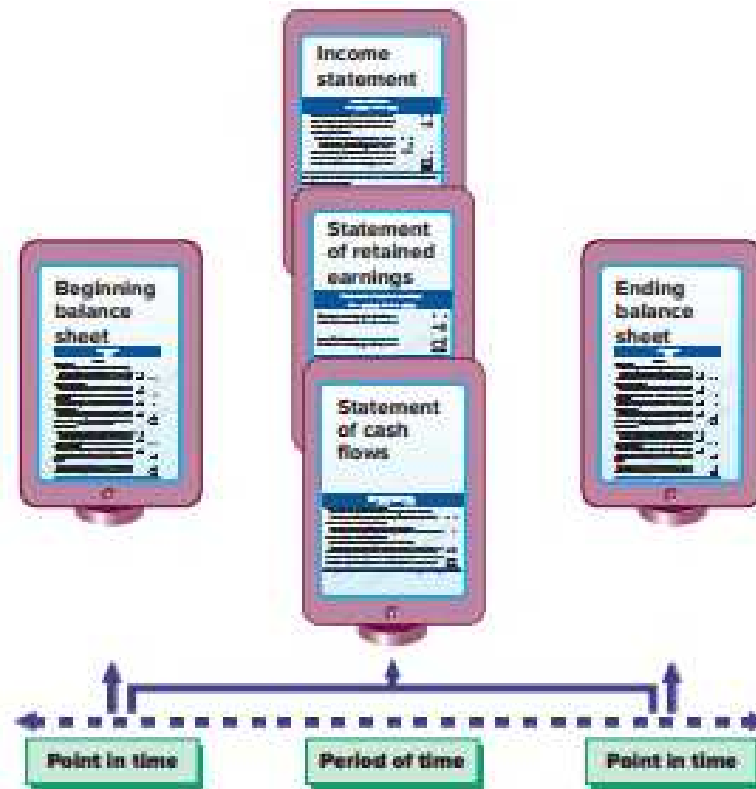
④ Recompute each account balance in the ledger.

⑤ Verify that each journal entry is posted correctly.

⑥ Verify that each original journal entry has equal debits and credits.

Financial Statements Prepared from Trial Balance

Exhibit
2.15



Learning Objective P3

Prepare financial statements
from business transactions.

Financial Statements

The four financial statements and their purposes are:

- 1. Income statement** — reports revenues less expenses incurred by a business over a period of time.
- 2. Statement of retained earnings**— reports how equity changes over the reporting period from net income (or loss) and from any owner investments and withdrawals over a period of time.
- 3. Balance sheet** — reports the financial position (types and amounts of assets, liabilities, and equity) at a point in time.
- 4. Statement of Cash Flows** — The statement of cash flows lists the cash inflows and cash outflows for the period.

For simplicity, we do not show the statement of cash flows for FastForward in this chapter, but we do return to this statement in the next chapter.

Income Statement

Exhibit
2.16

FASTFORWARD Income Statement For Month Ended December 31, 2018		
Revenues		
Consulting revenue (\$4,200 + \$1,600)	\$5,800	
Rental revenue	<u>300</u>	
Total revenues		\$ 6,100
Expenses		
Salaries expense	1,400	
Rent expense	1,000	
Utilities expense	<u>305</u>	
Total expenses		<u>2,705</u>
Net income		<u><u>\$3,395</u></u>

Statement of Retained Earnings

Exhibit
2.16

FASTFORWARD Income Statement For Month Ended December 31, 2018		
Revenues		
Consulting revenue (\$4,200 + \$1,600)	\$5,800	
Rental revenue	300	
Total revenues		\$ 6,100
Expenses		
Salaries expense	1,400	
Rent expense	1,000	
Utilities expense	305	
Total expenses		2,705
Net income		<u><u>\$3,395</u></u>

FASTFORWARD Statement of Retained Earnings For Month Ended December 31, 2018	
Retained earnings, December 1, 2018	\$ 0
Plus: Net income	<u>3,395</u>
	3,395
Less: Cash dividends	<u>200</u>
Retained earnings, December 31, 2018	<u><u>\$3,195</u></u>

Balance Sheet

Exhibit
2.16

FASTFORWARD Statement of Retained Earnings For Month Ended December 31, 2018	
Retained earnings, December 1, 2018	\$ 0
Plus: Net income	<u>3,395</u>
	3,395
Less: Cash dividends	<u>200</u>
Retained earnings, December 31, 2018	<u><u>\$3,195</u></u>

FASTFORWARD Balance Sheet December 31, 2018			
Assets		Liabilities	
Cash	\$ 4,275	Accounts payable	\$ 6,200
Supplies	9,720	Unearned consult. revenue	<u>3,000</u>
Prepaid insurance ...	2,400	Total liabilities	9,200
Equipment	26,000	Equity	
		Common stock	30,000
		Retained earnings	<u>3,195</u>
		Total equity	<u>33,195</u>
Total assets	<u><u>\$42,395</u></u>	Total liabilities and equity	<u><u>\$42,395</u></u>

Presentation Issues

1. Dollar signs are not used in journals and ledgers.
2. Dollar signs appear in financial statements and other reports such as trial balances. Put dollar signs beside only the first and last numbers in a column.
3. When amounts are entered in the journal, ledger, or trial balance, commas are optional to indicate thousands, millions, and so forth.
4. Commas are always used in financial statements.
5. Companies commonly round amounts in reports to the nearest dollar, or even to a higher level.

NEED-TO-KNOW 2-4

Prepare a trial balance for Apple using the following condensed data from its fiscal year-ended September 24, 2016.

Common stock	\$27,071	Investments and other assets	\$258,438
Accounts payable	37,294	Land and equipment (net)	27,010
Other liabilities	156,143	Selling and other expense	38,576
Cost of sales (expense)	131,376	Accounts receivable	15,754
Cash	20,484	Retained earnings, beg. of year	91,939
Revenues	215,639		
Dividends	40,628		

APPLE	
Trial Balance	
September 24, 2016	
	Debit Credit
Assets	Normal
Liabilities	Normal
Common Stock	Normal
Retained Earnings	Normal
Dividends	Normal
Revenues	Normal
Expenses	Normal
Totals	Debits = Credits

Assets	
Increase	Decrease
Debits	Credits
Normal	

Liabilities	
Decrease	Increase
Debits	Credits
	Normal

Equity	
Decrease	Increase
Debits	Credits
Dividends	Common Stock
Expenses	Revenues

NEED-TO-KNOW 2-4 - Answers

Prepare a trial balance for Apple using the following condensed data from its fiscal year-ended September 24, 2016.

Common stock	\$27,071	Investments and other assets	\$258,438
Accounts payable	37,294	Land and equipment (net)	27,010
Other liabilities	156,143	Selling and other expense	38,576
Cost of sales (expense)	131,376	Accounts receivable	15,754
Cash	20,484	Retained earnings, beg. of year	91,939
Revenues	215,639		
Dividends	40,628		

Assets	
Increase Debits	Decrease Credits
Normal	
Liabilities	
Decrease Debits	Increase Credits
	Normal
Equity	
Decrease Debits	Increase Credits
Dividends Expenses	Common Stock Revenues

APPLE			
Trial Balance			
September 24, 2016			
	Debit	Credit	
Cash	\$20,484		
Accounts receivable	15,754		
Land and equipment (net)	27,010		
Investments and other assets	258,438		
Accounts payable		\$37,294	
Other liabilities		156,143	
Common stock		27,071	
Retained earnings, beg. of year		91,939	
Dividends	40,628		
Revenues		215,639	
Cost of sales (expense)	131,376		
Selling and other expense	38,576		
Totals	<u>\$532,266</u>	<u>\$532,266</u>	

Learning Objective A2

Compute the debt ratio and describe its use in analyzing financial condition.

Debt Ratio - Equation

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Evaluates the level of debt risk.

A higher ratio indicates that there is a greater probability that a company will not be able to pay its debt in the future.

Debt Ratio - Computation

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

\$ millions	2016	2015	2014	2013	2012
Total liabilities.....	\$20,831	\$22,174	\$20,509	\$19,271	\$14,622
Total assets.....	\$33,163	\$33,017	\$33,024	\$30,283	\$27,140
Debt ratio.....	0.63	0.67	0.62	0.64	0.54
Industry debt ratio.....	0.51	0.53	0.49	0.51	0.52

**Exhibit
2.18**

End of Chapter 2