CHAPTER 1
ACCOUNTING: INFORMATION FOR DECISION MAKING

OVERVIEW OF BRIEF EXERCISES, EXERCISES AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 1.1	Users of accounting information	1, 3, 5	Analysis
B. Ex. 1.2	Components of internal control	2,5	Analysis
B. Ex. 1.3	Inexact or approximate measures	3,4	Analysis, judgment
B. Ex. 1.4	Standards for the preparation of accounting information	5,6	Analysis
B. Ex. 1.5	FASB conceptual framework	1, 3, 5, 6	Analysis
B. Ex. 1.6	PCAOB	5, 6	Analysis, research
B. Ex. 1.7	COSO	2, 5, 6	Analysis, ethics
B. Ex. 1.8	Professional certifications in accounting	7, 8	Analysis
B. Ex. 1.9	AICPA code of professional conduct	5, 7	Analysis, ethics
B. Ex. 1.10	Personal benefits of accounting skills	1	Analysis

Exercises	Topic	Learning Objectives	Skills
1.1	You as a user of accounting information	1	Analysis, judgment
1.2	**Real World: Boeing Company, California Public Employees Retirement System, China Airlines** Users of financial information	3, 4	Analysis, research
1.3	What is financial reporting?	3	Analysis, judgment
1.4	Generally accepted accounting principles	6	Analysis
1.5	Accounting organizations	6	Analysis, communication
1.6	Investment return	3	Analysis
1.7	Accounting terminology	3-5, 7	Analysis
1.8	Accounting organizations	6	Analysis
1.9	Financial and management accounting	3, 4	Judgment
1.10	Management accounting information	4	Communication, judgment
1.11	Accounting organizations	6	Analysis, judgment
1.12	Purpose of an audit	5	Analysis, judgment
1.13	Audits of financial statements	5	Analysis
1.14	Ethics and professional judgment	7	Analysis, communication, judgment
1.15	Careers in accounting	8	Judgment, communication
1.16	Home Depot, Inc. general information	1, 3, 5	Analysis, judgment, research

Due to the introductory nature of this chapter and the conceptual nature of its contents, no items labeled **Problems** are included. In all future chapters you will find a series of Problems that generally include computations, are more complex, and generally require more time to complete than Exercises.

Critical Thinking Cases

1.1	**Real World: Chrysler Corp.** Reliability of financial statements	5	Analysis, ethics, judgment
1.2	Objectives of financial accounting	3	Analysis, communication, group, judgment
1.3	Accounting systems	2	Analysis, communication
1.4	Codes of ethics (Ethics, fraud & corporate governance)	7	Analysis, communication, judgment
1.5	Accounting reports lack candor *(Business Week)*	1, 3, 7	Analysis, ethics, judgment
1.6	Accessing information on the Internet (Internet)	6, 7	Research, technology

DESCRIPTIONS OF CRITICAL THINKING CASES

Below are brief descriptions of each case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating.

Critical Thinking Cases

1.1 Chrysler Corp. — **15 Easy**
Reliability of Financial Statements
This case explores the general subject of integrity in financial statements—what causes potential investors to be able to rely on information and what precludes management from portraying a company in more positive terms than it should.

1.2 Objectives of Financial Accounting — **15 Medium**
Characteristics of accounting and accounting information (e.g., useful for decision making, language of business) are used to explain the importance of accounting information.

1.3 Accounting Systems — **15 Easy**
The purpose and functions of accounting systems are covered, as well as the definition of what an accounting system is and who is responsible for designing and implementing accounting systems.

1.4 Codes of Ethics — **30 Medium**
Ethics, Fraud and Corporate Governance
Students are placed in the position of a new employee who is faced with the challenge of becoming familiar with an appropriate code of ethics and must think through how that code might influence his/her behavior on the job.

1.5 Accounting Reports Lack Candor — **20 Medium**
Business Week
Students are asked to identify the objectives of financial reporting and apply the AICPA Code of Professional Conduct to a case.

1.6 Accessing Information on the Internet — **30 Medium**
Internet
Students are introduced to learning on the Internet by accessing the Rutgers University web page on accounting information. Once there they learn about accounting firms, accounting textbook publishers, and professional accounting organizations.

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

Note to instructor: We regularly include discussion questions as part of the assigned homework. One objective of these questions is to help students develop communications skills; however, we find that they also increase students' conceptual understanding of accounting.

1. Accounting is a means to an end because it supports and facilitates decisions by providing important information. The real end product is a more informed business decision because of the availability of accounting information.
2. Accounting is a way of communicating the results of business activity and, therefore, is sometimes described as the language of business. Among the important accounting measurements that communicate business activity and justify describing accounting as the language of business are costs, prices, sales volume, profits, and return on investment.
3. All organizations have a need to use accounting information, even if that information is as simple as the cash flowing into and out of the organization. This includes government organizations, not-for-profit organizations (e.g., charities, churches), and even individuals.
4. The primary distinction between financial and other types of accounting information is based on the users of the information. Financial accounting information is provided primarily to external users, such as investors and creditors. Internal accounting information, on the other hand, is prepared primarily for use by management. While there is some overlap between the information needs of these two groups, external users have different objectives than management and need different information.
5. These four concepts may be described as an endless cycle in which economic activities occur, are measured by an accounting process which produces accounting information which, in turn, facilitates decision making which restarts the process as economic activities result from those decisions.
6. An accounting system consists of the personnel, procedures, and records used by an organization to develop accounting information and communicate that information to decision makers. The primary purpose or objective of an accounting system is to meet the organization's needs for accounting information as efficiently as possible.
7. To be cost-effective, the benefit of doing something must exceed the cost of doing it. In the case of an accounting system, the information provided by the system must be at least as valuable as the cost of the system to be cost-effective. We might be able to produce more sophisticated, better information, for example, but if the cost of doing that exceeds the benefit, to still produce the information would not be cost-effective.
8. The three basic functions of an accounting system are to:
   - Interpret and record business transactions.
   - Classify the effects of similar transactions in a manner that permits determination of key elements of information useful to management and used in accounting reports.
   - Summarize and communicate the information contained in the system to decision makers.

9. Designing and installing accounting systems is a specialized field for individuals with expertise in management information systems, as well as related fields. The design and installation of information systems can be very complex and may require the cooperation of a large group of individuals with different areas of specialization and expertise. Today most accounting systems include significant elements of technology, so persons who design accounting systems need a strong technology background.

10. The primary external users of financial accounting information are investors and creditors, although external users also include labor unions, governmental agencies, suppliers, customers, trade associations, and the general public.

11. The two primary groups of users toward which financial accounting information is directed are investors (owners) and creditors (lenders or sellers on credit).

12. Investors and creditors are ultimately interested in receiving back the amount they have invested or loaned, along with a return on their investment for another party having benefited from using their money. Thus, investors and creditors have a keen interest in a company's future ability to provide future cash flows back to them.

13. The return <u>of</u> your investment is the repayment to you of the amount you invested earlier. The return <u>on</u> your investment is what the company pays you for having the use of your money while it was invested as opposed to your having use of the money while it was invested.

14. The three primary objectives of financial reporting, from general to specific, are to provide:
    - Information that is useful in making investment and credit decisions.
    - Information useful in assessing the amount, timing, and uncertainty of future cash flows.
    - Information about economic resources, claims to resources, and changes in resources and claims on them.

15. The three primary financial statements that are means of communicating financial accounting information are:

    - Statement of financial position (balance sheet)—A statement that shows where the company stands at a point in time.

    - Income statement—A statement that details the results of the company's profit-seeking activities during a period of time.

    - Statement of cash flows—A statement that presents details of the company's cash balance—how it increased, how it decreased, and how the ending balance compares with the beginning balance—for a period of time.

16. The terms financial reporting and financial statements do <u>not</u> mean the same thing, although they are closely related. Financial reporting is a broad term that refers to all information that is available to investors, creditors, and other external users. Financial statements, on the other hand, is a more narrow term that refers to specific reports that are a part of financial reporting. Financial statements are, thus, a subset of financial reporting information.

17. While financial information has an appearance of precision, it often requires judgment and estimation and, thus, is less precise than one might think. For example, to determine certain information about a company for a certain year, or at a certain point in time, it may be necessary to make estimates about the future. Those estimates may or may not turn out, in the long term, to be precisely correct. This causes information about the current year to be less precise and accurate than would otherwise be the case.

18. To say that financial accounting information is general-purpose simply means that we generally do not prepare different information for different user groups, with some exceptions. We provide essentially the same information for both investors and creditors, for example, although their information needs may be somewhat different.

19. Much accounting information requires interpretation for it to be meaningful. Nobody is in a more informed position to interpret the information than the company's management. Thus, management presents its view on information in an effort to make the information more informative.

20. Examples of management accounting information that would ordinarily not be communicated externally are:

    - Details of production plans.
    - Long-range plans.
    - Research and development results.
    - Budgets.
    - Competitive strategies.

21. Internal users of accounting information include the board of directors, chief executive officer, chief financial officer, vice presidents (information systems, human resources, treasurer), business unit managers, plant managers, store managers, and line managers.

22. Internal accounting information is used in the following three primary ways:

    - To help the enterprise achieve its goals, objectives, and mission.
    - To assess both past performance and future directions of the enterprise and the information needed to accomplish these objectives.
    - To make decisions about rewarding decision-making performance.

23. For information to be timely, it must be available when it is needed and when it will facilitate decision making. The competitive environment faced by enterprises demands that information be timely. Otherwise, management will be making decisions on outdated information and may make an incorrect decision. Computerized information systems have been very helpful in assisting management in having timely information available.

24. Internal accounting information is primarily oriented toward the future. While some management accounting information is historical, the purpose of management accounting information is to facilitate current and future decision making that is in the best interests of the company and that is consistent with the company's mission. Financial accounting information, while also used for current and future decision making, is generally more historical in nature than is management accounting. Financial accounting information deals primarily with the financial activities of the enterprise during recent past periods.

25. Accounting information is very important in measuring management efficiency and effectiveness. By comparing the enterprise's resource inputs and outputs with information from competitors, an assessment of management effectiveness and efficiency in achieving the mission of the enterprise is possible.

26. Users of accounting information need to be able to rely on that information to make important investment, credit, management, and other decisions. They must have confidence in the information and not fear that it is unreliable or lacks integrity or they will be less inclined to use the information and may make inferior decisions compared to those that they could have made.

27. Generally accepted accounting principles are agreed-upon ways that economic activity will be captured and reported in monetary terms. They are important in insuring the integrity of financial accounting information and being able to compare the information of one enterprise with that of another enterprise.

28. *Internal control* is a process designed to provide reasonable assurance that the organization produces reliable financial reports, complies with applicable laws and regulations, and conducts operations in an efficient and effective manner. The five components of internal control per the COSO framework are the control environment, risk assessment, control activities, information and communication, and monitoring.

29. An audit is an examination of a company's financial information, including financial statements, by an independent expert (e.g., a Certified Public Accountant) who, in turn, renders an opinion that indicates the findings of that examination. It adds assurance for investors, creditors, and other users that the information provided by the company is accurate and reliable, and that the information is in accordance with generally accepted accounting principles.

30. CPA means Certified Public Accountant. CMA means Certified Management Accountant. CIA means Certified Internal Auditor. All of these are professional designations that provide assurance of the competence of the individual. In addition, the CPA is a legal license to issue opinions on the fairness of financial statements.

31. The Sarbanes-Oxley Act was passed largely in response to several major financial catastrophes that occurred in 2001 and 2002. It is generally viewed as the most important legislation affecting the accounting profession since the securities acts were passed in the 1930s. It places increased responsibilities on auditors, boards of directors, audit committees, chief executive officers, and chief financial officers of public corporations to take specific steps to insure the integrity of the company's financial reports.

32. A code of ethics is a set of guidelines to influence one's behavior in the direction of taking actions that are in the best interests of the public, even if one's personal well-being might encourage other actions. Professions generally have codes of ethics that have been agreed upon by the members of that profession and that are important parts of the framework in which professionals function.

33. The FASB is the primary standard-setting body in the United States that is responsible for establishing generally accepted accounting principles to guide the preparation of financial statements by companies. It works closely with the Securities and Exchange Commission, which is a government body, to develop standards that promote integrity, improve the quality of information reported to external users, and result in financial information that is comparable from one time period to another and from one reporting entity to another.

34. The SEC is a government body that has the legal authority to establish generally accepted accounting principles for publicly held companies. Generally, however, the SEC has permitted the process of establishing GAAP to be carried out in the private sector and has accepted the work of the FASB rather than being directly involved in the process of determining GAAP.

35. The primary role of the PCAOB in auditing financial statements is its involvement in establishing auditing standards that are used by the Certified Public Accountants who do the auditing work. The PCAOB also has a number of different roles, including providing oversight of the public accounting profession.

36. The IMA's primary mission is to provide its members personal and professional development opportunities through education, association with business professionals, and certification (CMA).

37. The mission of the AICPA is to be the primary U.S. based professional association dedicated to the promotion and development of the practice of public accounting. As this description implies, the AICPA is solely a U.S. organization that works with state CPA organizations and licensing boards.

38. The majority of the members of the American Accounting Association are professors and others on the faculties of the colleges and universities. While many of them are also CPAs, CMAs, and CIAs, their primary impact on accounting practice is their role in preparing college students who major in accounting for their careers.

39. The IASB is the organization that creates and promotes International Financial Reporting Standards (IFRS). Its goals are to create a single set of global accounting standards and bring about convergence to those standards.

SOLUTIONS TO BRIEF EXERCISES

B. Ex. 1.1 **External users of accounting information include investors, creditors, customers, and regulators.**

B. Ex. 1.2
d **Control environment**

a **Risk assessment**

e **Control activities**

c **Information and communication**

b **Monitoring**

B. Ex. 1.3 **Accounting relies on inexact or approximate measures because many accounts in financial statements are dependent on judgment about future events and on an assessment of management intent. For example, a business that sells its goods or services on credit must make an estimate of the dollar amount of customer receivables that will ultimately prove uncollectible. The estimation of uncollectible customer receivables involves significant management judgment.**

B. Ex. 1.4 **The Securities and Exchange Commission (SEC) has the statutory authority to establish accounting standards for public companies in the United States. The SEC has largely delegated its authority for establishing accounting standards to the Financial Accounting Standards Board (FASB).**

B. Ex. 1.5 **The FASB's Conceptual Framework sets forth the Board's views on the: (1) objectives of financial reporting, (2) desired characteristics of accounting information, (3) elements of financial statements, (4) criteria for deciding what information to include in financial statements, and (5) valuation concepts relating to financial statement amounts.**

B. Ex. 1.6 **The four primary activities of the PCAOB are: (1) registration, (2) inspections, (3) standard setting, and (4) enforcement.**

B. Ex. 1.7 **The sponsoring organizations of COSO are the American Accounting Association (AAA), the American Institute of Certified Public Accountants (AICPA), Financial Executives International (FEI), Institute of Internal Auditors (IIA), and the Institute of Management Accountants (IMA). COSO is best known for developing framework used in the U.S. for evaluating the effectiveness of an organization's system of internal control.**

B. Ex. 1.8 **Although there are more than three professional certifications offered in accounting, the three professional certifications that we discuss in this chapter are:**

- **Certified Public Accountants (CPA) -- each state separately licenses CPAs, although the CPA exam is a uniform national exam that is prepared and graded by the AICPA**
- **Certified Management Accountant (CMA) -- this certification is offered by the Institute of Management Accountants**
- **Certified Internal Auditor (CIA) -- this certification is offered by the Institute of Internal Auditors**

B. Ex. 1.9 **b** **Responsibilities**

e **The Public interest**

f **Integrity**

c **Objectivity and independence**

a **Due care**

d **Scope and nature of services**

B. Ex. 1.10 **Although there are many potential answers to this question, examples of accounting-related skills useful to many people in their personal lives are: (1) personal budgeting, (2) retirement and college planning, (3) lease vs. buy decisions, (4) evaluating loan terms, and (5) evaluating investment opportunities.**

SOLUTIONS TO EXERCISES

Ex. 1.1 The following are just a few of the ways in which you might use accounting information as a student:

- **Deciding which school to go to, and what living accommodations you can afford.**
- **Selecting a major (this involves cost/benefit analysis).**
- **Estimating your monthly living expenses and planning how to pay them.**
- **Planning in advance for major expenditures, such as the deposit on an apartment, buying textbooks, paying tuition, or taking a vacation.**
- **Balancing your checkbook.**
- **Evaluating employment opportunities—both while you are in school and upon graduation.**
- **Evaluating how marriage or having a child at this stage of your life might have a financial effect on your goals.**

As a student, you may be required to supply financial information about yourself when doing such things as:

- **Applying for a credit card.**
- **Applying for a loan for a car.**
- **Applying for a scholarship or financial aid.**
- **Renting an apartment.**
- **Preparing your personal income tax return.**

Ex. 1.2

a. As one of the world's largest pension funds, California Public Employees Retirement System (Cal PERS) also is one of the world's largest stockholders. Cal PERS uses Boeing's financial statements and other financial information to decide whether to include the capital stock of Boeing Company in its investment portfolio.

b. As a rapidly growing airline, China Airlines may be a major customer of Boeing for the foreseeable future. Before ordering aircraft (which are ordered years in advance of the delivery dates), China Airlines will want to determine that the manufacturer has the financial capacity to fulfill the contract and also to stand behind its aircraft in years to come. (Aircraft manufacturers, like automakers, sometimes must recall planes to correct defects discovered after years of use.)

c. Boeing's financial health and future prospects affect the demand for housing (and apartments) in much of the Seattle area. (*Note to instructor:* Boeing's impact upon Seattle's economy is legendary. However, Seattle's economy has become much more diversified in recent years (for instance, Microsoft, Nordstrom, Starbucks Coffee Company, and CostCo/Price are headquartered there), and Boeing has less impact than in the past. Nonetheless, whether Boeing is hiring or laying off workers still is significant—especially in those areas within comfortable commuting distance of Boeing's facilities.)

d. Management is responsible for planning future operations, using the company's resources efficiently, and generally running the business. These responsibilities require constant use of detailed accounting information about past, current, and expected future operations.

e. The financial health and future prospects of Boeing affect the contracts that labor unions will be able to negotiate. Boeing's backlog of unfilled orders basically determines who is in the "catbird seat" in labor negotiations—the company or the union.

Ex. 1.3

a. Financial reporting is the process of supplying financial information about an organization to persons outside the organization.

b. Financial statements are the principal accounting reports involved in the financial reporting process. The purpose of these statements is to supply persons outside the organization with information about the financial position, profitability, and cash flows of the reporting entity.

c. Publicly owned companies are required by law to make their annual and quarterly financial statements public—that is, available to anyone. For other businesses, the decision to distribute financial statements to persons outside the organization may be optional. However, creditors and outside investors generally expect to receive financial statements periodically as a condition of making loans or investments.

d. Financial reporting helps decision makers in utilizing scarce economic resources efficiently. These decisions about allocation of resources determine what goods and services become available. Also affected are such aspects of the economy as price levels, employment, research and development, and the standard of living.

Every society—whether its economy is based upon free markets or central planning—benefits when its scarce resources are being utilized efficiently. The efficient use of economic resources means that society gets the maximum benefit out of the resources at its disposal.

Ex. 1.4

a. Generally accepted accounting principles, established by the authoritative standard-setting bodies, are the policies and detailed rules used in determining the content and format of financial statements.

b. Accounting principles have evolved from a variety of sources. Today, the primary official source is the Financial Accounting Standards Board (FASB). However, the American Institute of CPAs (AICPA) and the Securities and Exchange Commission (SEC) also participate in the development of these principles. In addition, accounting principles may gain general acceptance from unofficial sources, such as widespread use.

c. While there are many generally accepted accounting principles, there is no single source that includes all of them. Much of the work of the FASB and other standard-setting bodies is included in written descriptions of standard accounting practices. Some generally accepted accounting principles, however, exist because of widespread use in practice and, thus, are outside the scope of any single comprehensive list.

d. Financial statements are the accounting reports that should be prepared in accordance with generally accepted accounting principles. However, the standards of presentation used in income tax returns, reports to regulatory agencies, and various reports to management often make some use of these principles.

Ex. 1.5 a. The FASB (Financial Accounting Standards Board) is the principal authoritative source of new accounting principles and changes in existing accounting principles in the U.S.

b. Prior to the creation of the FASB, the AICPA (American Institute of Certified Public Accountants) had responsibility for developing accounting principles. Many of the principles developed by the AICPA remain in effect. The AICPA continues to conduct research into accounting issues and to make its findings known to the FASB.

c. The SEC (Securities and Exchange Commission) has the *legal authority* to specify generally accepted accounting principles. However, the SEC generally has chosen not to develop its own principles, but rather to support those of the FASB. Thus, the SEC gives the force of law to generally accepted accounting principles. The SEC also reviews the financial statements of all publicly owned companies, and investigates possible violations of federal securities laws.

Information about publicly-held companies is most easily obtained from the SEC. Publicly owned corporations must file their quarterly and annual financial statements for review by this agency. The SEC then places this information on EDGAR, a database accessible to the public on the Internet. In contrast, the FASB primarily is a standard-setting organization, and does not accumulate or review financial information about all publicly owned companies. When external users need this type of information, they use EDGAR.

Ex. 1.6 You expect two cash flows from your investment:

Return of investment (at maturity) ……………………………………….	**$12,000**
Return on investment (periodically, as stated in your investment agreement ($12,000 × 7% × 2 years) ……………………………………	**$1,680**
Total expected cash flow ………………………………………………..	**$13,680**

The return of your investment will come at one time—two years later at the maturity date. The return on the investment can come in different patterns. For example, if it is semi-annually, you would receive $420 ($12,000 × 7% × 1/2 year) four times. If it is annually, you would receive $840 ($12,000 × 7%) two times. If it is monthly, you would receive $70 ($12,000 × 7% × 1/12) 24 times.

Ex. 1.7

- **i** **Financial accounting**
- **h** **Management accounting**
- **b** **Financial reporting**
- **f** **Financial statements**
- **g** **General purpose assumption**
- **c** **Integrity**
- **e** **Internal control**
- **d** **Public accounting**
- **a** **Bookkeeping**

Ex. 1.8

- **b** **Institute of Internal Auditors**
- **a** **Securities and Exchange Commission**
- **g** **American Institute of CPAs**
- **c** **Institute of Management Accountants**
- **h** **Financial Accounting Standards Board**
- **e** **American Accounting Association**
- **d** **Public Company Accounting Oversight Board**
- **f** **International Accounting Standards Board**

Ex. 1.9

a. **As an investor in a company, your primary objective would be the return of your investment in the future, as well as a return for the use of your funds used by the company during the period of investment. You would need information that allowed you to assess the probability of those events occurring in the future. You might also have certain nonfinancial objectives.**

b. **As a manager of the company, your primary objective would be to have information that allows you to better manage the company—to make the best decisions possible to enhance the value of the company.**

c. **While there is some information that would be equally important for investors and managers, much of the information needed by the two groups is different. That is why we study both financial accounting (information for external users) and managerial accounting (information for internal users).**

Ex. 1.10

a. **The primary purposes of management accounting, in hierarchical order (i.e., from general to specific) are as follows:**

1. **Information useful to help the enterprise achieve its goals, objectives, and mission.**
2. **Information that is useful in assessing both the past performance and future directions of the enterprise and information from external and internal sources.**
3. **Information about decision-making authority, for decision-making support, and for evaluating and rewarding decision-making performance.**

b. **The first is the most general and deals with management's responsibility in the broadest sense—to achieve the enterprise's goals, objectives, and mission. The second is more specific and talks about past performance and future directions. The third is most specific and deals with information for a specific purpose—evaluating and rewarding decision-making performance.**

c. Examples of the kinds of decisions that are supported by management accounting information are:

- **How to more efficiently manage the enterprise's resources.**
- **How to reduce the costs of producing a product in order to be more competitive.**
- **What supplier can best meet the enterprise's production scheduling.**
- **How to better allocate resources internally to achieve the enterprise's objectives.**
- **Whether to manufacture a new product.**
- **Whether to move into a new geographic area.**

Ex. 1.11 a. As an accounting educator, the organization that would be most directly involved in activities relevant to your work would be the American Accounting Association. This organization provides members services to permit them to become better at teaching, research, and other activities that are typically associated with an academic career. In addition, many academic accountants are active members of other organizations that are more practice-oriented.

b. As a management accountant, the Institute of Management Accountants would be the most directly beneficial to you. That organization provides many services directed toward members in industry, including the Certificate in Management Accounting program.

c. As a certified public accountant, the American Institute of Certified Public Accountants would be particularly valuable to you in terms of services that would support your work.

Ex. 1.12 a. An audit is an examination of a company's financial statements by an independent third party who has no direct financial interest in the enterprise being audited. The public accountant's role in an audit is to examine the extent to which the financial statements follow generally accepted accounting principles and are presented fairly in accordance with those principles.

b. As a user of external financial information, the favorable opinion of an external auditor provides you with reasonable assurance that you can rely on those financial statements. This permits you to compare the information of the enterprise with information from previous years or information about other enterprises (assuming they, too, have a favorable audit opinion) in making your investment decisions.

c. An audit conclusion stating that financial statements are <u>not</u> fairly presented in accordance with generally accepted accounting principles should raise questions about the reliability of the financial information and the desirability of the enterprise as an investment. While there may not be anything wrong with the enterprise, there is certainly a question as to <u>why</u> the statements are not fairly presented. Once the information to explain this is obtained, a conclusion may then be reached as to whether the lack of conformity with generally accepted accounting principles is an important factor in making an investment in the enterprise.

Ex. 1.13 **a.** **An audit is a thorough independent investigation of each item and disclosure contained in a set of financial statements. The purpose of this investigation is to determine that the financial statements provide a fair presentation of the facts in conformity with generally accepted accounting principles.**

b. **An audit is performed by a firm of Certified Public Accountants that is independent of both the company that prepared the financial statements and its management.**

c. **The purpose of an audit is to provide users of financial statements with independent, expert assurance that the financial statements present fairly the financial position of the company, and the results of its operations, in conformity with generally accepted accounting principles. In short, the audit is intended to bridge the credibility gap that might otherwise exist between the reporting entity and the users of the financial statements.**

Auditors do not *guarantee* the accuracy of the statements; rather, they offer their expert "opinion" as to the fairness of the statements. The auditor's opinion is based upon a careful investigation (the *audit*), but there is always the possibility of error. Over many years, however, audited financial statements have accumulated an excellent track record of reliability.

Ex. 1.14 **a.** **People use accounting information to make economic decisions. If the economy is to function efficiently, these decision makers must have *confidence* in the information they are provided, and not think that perhaps the information is being used to deceive them. In large part, decision makers' confidence in accounting stems from their confidence and trust in the people who *prepare* this information.**

b. **Accountants must rely upon their professional judgment in such matters as determining (1) how to record an unusual transaction that is not discussed in accounting literature, (2) whether or not a specific situation requires disclosure, (3) what information will be most useful to specific decision makers, (4) how an accounting system should be designed to operate most efficiently, (5) the audit procedures necessary in a given situation, (6) what constitutes a "fair" presentation, (7) whether specific actions are ethical and are in keeping with accountants' responsibilities to serve the public's interests.**

Ex. 1.15 **Acosta, who entered public accounting, is likely to find herself specializing in auditing financial statements, in doing income tax work, or in providing management advisory services. With any of these specialties, she will be providing services to a number of different clients. Of course, Acosta may also have followed a path chosen by many other public accountants: she may have left public accounting to pursue a management career in industry. Her background in public accounting will have given her experience that can be useful in many managerial positions.**

Nakao, having chosen a managerial career, works for a single company. After gaining some experience, he probably has chosen an area of specialization, such as financial reporting, systems design, cost accounting, financial forecasting, income taxes or internal auditing. He also may have moved into a management career, such as controller, treasurer, chief financial officer, or chief executive officer.

Martin, who joined a governmental agency, may find herself specializing in management accounting functions similar to those available to Nakao. Or, she may specialize in auditing activities. The government conducts audits to determine the efficiency of governmental operations and those of governmental contractors, and also to determine the fairness of financial information reported to the government. Like Acosta and Nakao, Martin also may have used her accounting background as a stepping-stone to an administrative position.

Mandella, who became an accounting faculty member, probably will specialize in teaching and research. He may direct his efforts toward those topics which he finds of greatest personal interest. Like many other faculty members, Mandella also may engage in management consulting, write textbooks, or spend some time serving within such organizations as the AICPA, the IMA, the IIA, or the AAA.

Ex. 1.16

a.
- **Consolidated Balance Sheets**
- **Consolidated Statements of Earnings**
- **Consolidated Statements of Stockholders' Equity and Comprehensive Income**
- **Consolidated Statements of Cash Flows**

b.
- **Management's Responsibility for Financial Statements**
- **Management's Report on Internal Control over Financial Reporting**
- **Report of Independent Registered Public Accounting Firm**
- **Notes to Consolidated Financial Statements**
- **10-Year Summary of Financial and Operating Results**

SOLUTIONS TO CRITICAL THINKING CASES

15 Minutes, Easy

CASE 1.1
CHRYSLER CORPORATION
RELIABILITY OF FINANCIAL STATEMENTS

Several factors prevent a large publicly owned corporation such as Chrysler from issuing misleading financial statements, no matter how desperately the company needs investors' capital. To begin with, there is the *basic honesty* and *integrity* of the company's management and its accounting personnel. Many people participate in the preparation of the financial statements of a large corporation. For these statements to be prepared in a grossly misleading manner, all of these people would have to *knowingly participate in an act of criminal fraud.*

Next, there is the audit of Chrysler's financial statements by a firm of independent CPAs. These CPAs, too, would have to participate in a criminal conspiracy if the company were to supply creditors and investors with grossly misleading financial statements.

If personal integrity is not sufficient to deter such an act of fraud, the federal securities laws provide for criminal penalties as well as financial liability for all persons engaged in the preparation and distribution of fraudulent financial statements. All that would be necessary for the SEC to launch an investigation would be a "tip" from but one individual within the company's organization or its auditing firm. An investigation also would be launched automatically if the company declared bankruptcy or became insolvent shortly after issuing financial statements that did not indicate a shaky financial position.

15 Minutes, Medium

CASE 1.2
OBJECTIVES OF FINANCIAL ACCOUNTING

a. **Describing financial accounting as being useful for decision making by investors or creditors and as the language of business are very consistent. For information to be used by decision makers—whether internal or external—that information must be communicated. The process of communicating the information is why accounting is sometimes referred to as the language of business.**

Communication involves a sender and a receiver. The message between the two is communicated in some manner, which could be words, numbers, or in some other way. While communicating accounting information usually involves numbers that are stated in terms of a monetary unit (e.g., dollars), such information also requires words for the monetary information to be meaningful.

b. **As an external investor or creditor, your primary concern is the security of your investment and the return you are making on permitting another to use your money rather than your having use of it yourself. As an internal manager, on the other hand, you are primarily interested in operating the business and you need information that helps you make the kinds of decisions that are required by the particular business you are in. Some information is equally useful for external investors and internal managers; other information is unique to each group of users of accounting information.**

15 Minutes, Easy

CASE 1.3
ACCOUNTING SYSTEMS

a. **An accounting system is everything that it takes to produce reliable and accurate accounting information—people, equipment, computers, software, technical knowledge, etc.**

b. **The purpose of an accounting system is to provide information needed by the organization, and to do this in an efficient manner. The basic functions of an accounting system are to:**
   - **Interpret and record business transactions.**
   - **Classify information in a way that is useful for investors, creditors, management, and other information users.**
   - **Summarize and communicate information to decision makers.**

c. **The design and implementation of an accounting system varies from situation to situation, but it always involves people with specialized knowledge of financial and managerial accounting and increasingly incorporates computer technology.**

30 Minutes, Medium

CASE 1.4
CODES OF ETHICS
ETHICS, FRAUD & CORPORATE GOVERNANCE

Among the things you would learn in studying the Code of Ethics of the IMA is that the code includes requirements in the following areas: competence, confidentiality, integrity, and credibility. While these may sound like "lofty" terms, they will have direct relevance to you in your job, starting on the very first day.

Competence refers to the quality of having the skills, knowledge, and background to be able to do a quality job on the work you are assigned. Your new employer has undoubtedly already made a judgment about your competence, and you passed the test, or you would not have been hired.

Confidentiality refers to the fact that some of the information you will deal with may be sensitive in terms of who should have access to it. Your responsibility includes taking care to not misuse information in any way.

Integrity refers to your need to avoid conflicts of interest by doing something that would subvert your organization's objectives, communicate biased information, or engage in activities that would discredit your company or the accounting profession.

Credibility means that you should communicate information in a fair and unbiased manner, and that you should include all information that is required for understanding that information.

20 Minutes, Medium

CASE 1.5
ACCOUNTING REPORTS LACK CANDOR
BUSINESS WEEK

a. The most general objective of financial reporting is to provide information useful in making investment and credit decisions. The second objective is to provide information useful in assessing the amount, timing, and uncertainty of future cash flows. In particular, the uncertainty of future cash flow information would be very useful to the potential investors. The third and most specific objective is to provide information about the resources and claims to those resources and how those resources and claims change over time. Financial statements should provide information that is useful to investors and creditors in assessing future cash flows from a company to them. This information focuses on the company's financial position, results of operations, and cash flows.

b. Several features of the accounting profession are in place with the intent of enhancing integrity in financial reporting. These include, but are not limited to, the following:

- **Well-defined standards of financial reporting.**
- **Highly qualified boards and commissions whose expertise contributes to the quality of financial reporting through the Financial Accounting Standards Board, the Securities and Exchange Commission, the PCAOB and other organizations.**
- **Internal control structures within companies that are designed to mitigate the risk of internal misappropriation of funds.**
- **Audits of financial statements by independent Certified Public Accountants.**
- **Legislation that provides oversight for business in the United States and places heavy responsibility on management and auditors to perform their responsibilities in a manner that is consistent with the public interest.**

30 Minutes, Medium

CASE 1.6
ACCESSING INFORMATION ON THE INTERNET
INTERNET

a. **Rutgers University has a comprehensive Internet site for information on accounting. When students explore this site, they will find information in the following categories (as of December 2005):**

Big-Five
Professional Associations
Journals & Publications
Education
Finance
Professors
Taxation
Audit & Law
Government
EDGAR
FASB
International
Publishers Software
Other Sites
Entertainment

b. **When exploring the Big-Five category, students will find the following names of the Big-Five firms:**

Arthur Andersen (although this firm is no longer active)
Deloitte & Touche
Ernst & Young
PricewaterhouseCoopers
KPMG

c. **Students may go to McGraw-Hill.com to see the McGraw-Hill companies.**

d. **These professional organizations may be located at the**

American Accounting Association
http://aaahq.org

Financial Accounting Standards Board
www.fasb.org

Institute of Internal Auditors
www.theiia.org

Institute of Management Accountants
www.imanet.org

Once the organization is found, there is a variety of information available, including information about the mission of the organization, its publications, how to become a member, etc.

CHAPTER 2
BASIC FINANCIAL STATEMENTS

OVERVIEW OF BRIEF EXERCISES, EXERCISES AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 2.1	Recording transactions	3	Analysis, communication
B. Ex. 2.2	Recording transactions	3	Analysis, communication
B. Ex. 2.3	Computing retained earnings	4	Analysis
B. Ex. 2.4	Computing total liabilities	4	Analysis
B. Ex. 2.5	Computing net income	5	Analysis
B. Ex. 2.6	Computing net income	5	Analysis
B. Ex. 2.7	Computing change in cash	6	Analysis
B. Ex. 2.8	Alternative forms of equity	8	Analysis
B. Ex. 2.9	Alternative forms of equity	8	Analysis
B. Ex. 2.10	Articulation of financial statements	7	Analysis

Exercises	Topic	Learning Objectives	Skills
2.1	**Real World: American Airlines, Boston Celtics** Nature of assets and liabilities	3	Communication
2.2	Preparing a balance sheet	4	Analysis
2.3	Preparing a balance sheet	4	Analysis
2.4	Accounting principles and asset valuation	2	Communication, judgment
2.5	Accounting equation	3	Analysis
2.6	Accounting equation	3	Analysis
2.7	Effects of transactions	3	Analysis
2.8	Forms of business organizations	8	Analysis
2.9	Evaluating solvency	4	Analysis, judgment
2.10	Professional judgment	2	Communication
2.11	Statement of cash flows	6	Analysis
2.12	Income statement	5	Analysis
2.13	Income statement	5	Analysis
2.14	Statement of cash flows	6	Analysis
2.15	Window dressing financial statement	9	Analysis
2.16	**Real World: Home Depot** Home Depot financial statements	4–6	Analysis, communication
2.17	**Real World: Intel** Assessing financial results	5	Analysis, communication

Problems Sets A, B	Topic	Learning Objectives	Skills
2.1 A,B	Preparing and evaluating a balance sheet	4	Analysis, communication
2.2 A,B	Effects of transactions	3	Analysis
2.3 A,B	Effects of transactions	3	Analysis
2.4 A,B	Effects of transactions	3	Analysis
2.5 A,B	Preparing a balance sheet, effects of transactions	4	Communication, judgment
2.6 A,B	Preparing a balance sheet, effects of transactions	4	Analysis, communication
2.7 A,B	Preparing a balance sheet and statement of cash flows, effects of transactions	3–6	Analysis, communication
2.8 A,B	Preparing financial statements, effects of of transactions, evaluating solvency	4–6	Analysis, communication
2.9 A,B	Preparing a balance sheet, discussion of GAAP	4, 8	Analysis, communication, judgment
2.10 A,B	Preparing a balance sheet, discussion of GAAP	2, 4	Analysis, communication, judgment

Critical Thinking Cases

2.1	Prepare a realistic balance sheet for a hypothetical entity	4	Judgment
2.2	**Real World: Company of student choice** Locate and evaluate the financial statements of a publicly owned company	4–6	Analysis, communication, research
2.3	Using a balance sheet	4	Analysis, communication judgment
2.4	Using a statement of cash flows	6	Analysis, communication, judgment
2.5	Window dressing	9	Analysis, communication, judgment
2.6	**Real World: Public Company Accounting Oversight Board** (Ethics, fraud & corporate governance)	9	Communication, research, technology
2.7	Evaluating Company Efficiency *(Business Week)*	1, 7	Analysis, communication
2.8	**Real World: Cisco Systems** Introduction to EDGAR (Internet)	4, 5, 1	Technology

Note: Additional Internet assignments for this chapter are available both in Appendix B and on our home page: www.magpie.org/cyberlab

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Shown below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

2.1 A,B Smokey Mountain Lodge/Deep River Lodge **15 Easy**
Prepare a balance sheet from a list of balance sheet items in random order. Determine the amount of one item as a plug figure. Also evaluate the company's solvency.

2.2 A,B Ajax Moving Company/Brigal Company **15 Easy**
Effects of transactions upon the accounting equation are illustrated in tabular form. Students are asked to write a sentence or two explaining the nature of each transaction.

2.3 A,B Goldstar Communications/Delta Corporation **15 Medium**
Show in tabular form the effects of various business transactions upon the accounting equation. (Problem 2–4 is an alternate.)

2.4 A,B Rankin Truck Rental/Smith Trucking **15 Medium**
Show in tabular form the effects of various business transactions upon the accounting equation. (Alternate to Problem 2–3.)

Problems (cont'd)

2.5 A,B	**Here Come the Clowns/Circus World** Preparation of a balance sheet for a circus—an entity with an unusual variety of asset accounts. Also requires students to explain the effects upon this balance sheet of a fire that destroys one of the assets. (Problem 2–6 is an alternate.)	**20 Medium**
2.6 A,B	**Wilson Farms, Inc./Apple Valley Farms** Prepare a balance sheet for a farm—an entity with a wide variety of assets. Also, explain the effects upon this balance sheet of the destruction of one of the assets. (Alternate to Problem 2–5.)	**20 Medium**
2.7 A,B	**The Oven Bakery/The City Butcher** Prepare a balance sheet from an alphabetical listing of accounts, and prepare a second balance sheet and a statement of cash flows after some additional transactions. Evaluate the company's relative solvency at each date.	**35 Medium**
2.8 A,B	**The Sweet Soda Shop/The Candy Shop** The student is asked to prepare a balance sheet from an alphabetical list of accounts and then to prepare a second balance sheet as well as an income statement and a statement of cash flows, after several transactions. Evaluate the company's relative solvency at each date.	**40 Strong**
2.9 A,B	**Berkeley Playhouse/Old Town Playhouse** Given an improperly prepared balance sheet, student is asked to prepare a corrected balance sheet and to explain the proper valuation of assets, liabilities, and owners' equity. Stresses generally accepted accounting principles.	**35 Strong**
2.10 A,B	**Big Screen Scripts/Hit Scripts** Given a balance sheet and supplementary information concerning the assets and liabilities, the student is asked to prepare a corrected balance sheet and to explain the violations that exist as to asset valuation and the entity concept. Stresses GAAP.	**30 Strong**

Critical Thinking Cases

2.1	**Content of a Balance Sheet** Students are to prepare a realistic balance sheet for a hypothetical business—the nature of which is specified by the instructor. Challenges the student to think about the types of assets and liabilities arising in an actual business. Suitable assignment either for groups or individuals.	**30 Medium**
2.2	**Using Financial Statements** Students are to obtain an annual report from the library and answer questions about the company's balance sheet, income statement, and statement of cash flows. Suitable assignment for groups or individuals. *Omits time required to obtain an annual report.	**30 Strong***

2.3	**Using a Balance Sheet** A tried-and-true case in which students are to evaluate the financial position of two similar companies first from the viewpoint of a short-term creditor and then from the viewpoint of a buyer of the business. We *always* use this one.	**30 Medium**
2.4	**Using Statements of Cash Flow** Students are presented with abbreviated cash flow information and asked to decide which is in a stronger position. An excellent way to show that how a company generates its cash is equally important to how much cash it has on hand.	**30 Medium**
2.5	**Ethics and Window Dressing** Students are to distinguish between legitimate window dressing and fraudulent misrepresentation. Allows introduction of ethics, securities laws, and the role of independent audits.	**35 Medium**
2.6	**Public Company Accounting Oversight Board** **Ethics, Fraud & Corporate Governance** Students locate the PCAOB and state the mission, identify the members, and describe the authority and responsibility of the PCAOB.	**30 Easy**
2.7	**Evaluating Company Efficiency** ***Business Week*** Students are asked to explain the importance of operating efficiently to a company's success.	**20 Medium**
2.8	**Gathering Financial Information** **Internet** Visit EDGAR, the SEC's database, and gather financial information about Cisco Systems. A user-friendly "meet EDGAR" type of problem.	**25 Easy**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

Many of these questions are well suited to classroom discussions. These discussions can stimulate students' interest, help develop verbal skills, and provide instructors with an opportunity to introduce ideas and situations not discussed in the text. If class size permits, we also encourage instructors to review and evaluate selected written assignments throughout the course.

1. The basic *purpose of accounting* is to provide decision makers with information useful in making economic decisions.

2. A knowledge of accounting terms and concepts is useful to persons other than professional accountants because nearly everyone working in business, government, or the professions will encounter these terms and concepts. Supervisors and managers at every level will use financial statements, budgets, or other forms of accounting reports. Investment in securities or real estate also calls for the use of accounting information. In every election, propositions on the ballot and in the platforms of candidates can be much better understood by voters who are familiar with accounting. Accounting information is also useful to individuals in handling their personal financial affairs. In short, all economic activity is supported by accounting information.

3. A financial statement is a means for communicating information about an enterprise in financial (i.e., dollar) terms. It represents information that the accountant believes is a true and fair representation of the financial activity of the enterprise.

4. Every financial statement relates to time in one way or another. A statement of financial position, or balance sheet, represents a "picture" of the enterprise at a point in time (e.g., the end of a month or year). The income statement and statement of cash flows, on the other hand, cover activity that took place over a period of time (e.g., a month or year).

5. Annual financial statements, as the name implies, cover a one-year period of time. Many companies use the year January 1 through December 31 as their annual period for financial reporting purposes. Interim financial statements cover a period of time less than one year, such as a month or quarter (three months).

6. A business transaction is an event that changes the financial position of an enterprise.
   - Purchase of assets (e.g., land, buildings, equipment) for cash or on credit.
   - Payment of employee wages.
   - Collection of a receivable from a customer.
   - Borrowing from a bank on a note payable.
   - Contribution to the enterprise by the owner.

   Financial statements reflect those events that have been recorded in the accounting records—namely, transactions. Therefore, there may be important events affecting the financial strength and prospects of a business that *do not appear* in the company's financial statements, such as hiring a new employee, preparing a budget, and preparing a long-run strategic plan.

7. a. Creditors are interested in financial statements to assist them in evaluating the ability of a business to repay its debts. No creditor wants to extend credit to a company that is unable to meet its obligations as they come due.

   b. Potential investors use financial statements in selecting among alternative investment opportunities. They are interested in investing in companies in which the value of their investment will increase as a result of future profitable operations. They may also be interested in the flow of cash to them as the company pays dividends to its stockholders.

   c. Labor unions are interested in financial statements because the financial position of a company and its profits and cash flows are important factors in the company's ability to pay higher wages and to employ more people.

8. A sole proprietorship is an unincorporated business organization with a single owner. The owner is personally liable for the debts of the business.

9. Revenues result from transactions in which goods or services are transferred (i.e., sold) to customers. Expenses are costs associated with earning revenues. Revenues already have resulted in or will result in positive cash flows, while expenses have resulted in or will result in negative cash flows. An enterprise's net income is determined as the excess of revenues over expenses for a period of time. If expenses exceed revenues, however, the difference is called a net loss.

10. Business transactions affect a company's financial position, and as a result, they change the statement of financial position or balance sheet. The other financial statements—the income statement and the statement of cash flows—are detailed expansions of certain aspects of the statement of financial position and help explain in greater detail how the company's position changed over time.

11. The basic accounting equation indicates that assets = liabilities + owners' equity. Assets are resources owned by the company that are used in carrying out its business activities. Liabilities are debts owed by the enterprise, and owners' equity is the interest of the owners in the enterprise's assets.

12. The cost principle indicates that many assets are included in the financial records, and therefore in the statement of financial position, at their original cost to the reporting enterprise. This principle affects accounting for assets in several ways, one of which is that the amount of many assets is not adjusted periodically for changes in the market value of the assets. Instead, cost is retained as the basic method of accounting, regardless of changes in the market value of those assets.

13. The going concern assumption states that in the absence of evidence to the contrary (i.e., bankruptcy proceedings), an enterprise is expected to continue to operate in the foreseeable future. This means, for example, that it will continue to use the assets it has in its financial statements for the purpose for which they were acquired.

14. Inflation is a term used to describe increasing prices, which result in a declining value in the monetary unit (e.g., dollar). Deflation is the opposite—declining prices, which result in an increasing value of the monetary unit. The stable monetary unit assumption means that in the preparation of financial statements we assume that the monetary unit is not changing in value, or that changes are sufficiently small that they do not significantly distort the accounting information included in financial statements.

15. No, a business transaction could not affect only a single asset. There must be an offsetting change elsewhere in the accounting equation. If the transaction increases an asset, for example, it must reduce another asset, increase a liability, or increase owners' equity (or a combination of these). On the other hand, if the transaction decreases an asset, it must increase another asset, decrease a liability, or decrease owners' equity (or a combination of these).

16. a. An example of a transaction that would cause one asset to increase and another asset to decrease without any effect on the liabilities or owners' equity is the receipt of cash in collection of an account receivable. Another common example is the payment of cash to buy land, a building, office equipment, or other assets.

    b. An example of a transaction that would cause both total assets and total liabilities to increase without any effect on the owners' equity is the purchase of an asset on credit. The acquisition of the asset could be entirely on credit or could involve a partial cash payment with the balance on credit. Another example is an increase in cash by borrowing from a bank.

17. Positive cash flows means that cash increases. Negative cash flows means that cash decreases. Generally, revenues result in positive cash flows—either at the time of the revenue transaction, earlier, or later. Expenses result in negative cash flows—either at the time the expense is incurred, earlier, or later.

18. The three categories and the information included in each are:
    Operating activities—Cash provided by and used in revenue and expense transactions.
    Investing activities—Cash provided by and used as a result of investments in assets, such as machinery, equipment, land, and buildings.
    Financing activities—Cash provided by and used in debt and equity financing, such as borrowing and repaying loans, and new capital received from and dividends paid to the enterprise's owners.

19. Financial statements—the balance sheet, income statement, statement of cash flows—are all based on the same underlying transactions. They reflect different aspects of the enterprise's activities. Their relationship is referred to as "articulation." For example, the revenues and expenses in the income statement result from changes in the assets and liabilities in the balance sheet and their cash effects are presented in the operating activities section of the statement of cash flows.

20. The owner's equity of a sole proprietorship is the simplest in that it is a single line that shows the dollar balance of the owner's financial interest in the enterprise's assets. The owners' equity of a partnership is more complicated because it includes more than one owner, and the total owners' equity is the total of the individual equity of all partners. The owners' equity of a corporation, which may have many owners, is divided into two parts—contributed equity and retained earnings. The contributed equity, usually referred to as capital stock, represents the amount paid to the company originally by the owners, and the retained earnings represents the accumulated income of the enterprise that has not been returned to stockholders.

21. Adequate disclosure refers to the requirement that financial statements, including accompanying notes, must include information necessary for reasonably informed users of financial statements to understand the company's financial activities. This requirement is met, in part, by the addition of notes to the financial statements. Financial statement notes include both quantitative and qualitative information that is not included in the body of the financial statements.

22. The term "window dressing" refers to enhancing the appearance of the enterprise's financial statements by taking certain steps near the end of the financial reporting period. While some steps that may be taken, or delayed, are appropriate, care must be taken that steps taken are not unethical or illegal.

23. A strong income statement is one that has significantly more dollars of revenue than expenses, resulting in net income that is a relatively high percentage of the revenue figure. A trend of relatively high income numbers over time signals a particularly strong income situation.

24. A strong statement of cash flows is one that shows significant amounts of cash generated from operating activities. This means that the enterprise is generating cash from its ongoing activities and is not required to rely heavily on debt and equity financing, or the sale of its major assets to finance its daily operations.

SOLUTIONS TO BRIEF EXERCISES

B. Ex. 2.1
Green Company's assets (machinery) will increase by $10,000. The company's liabilities will also increase by $10,000 to include the new obligation the company has assumed.

B. Ex. 2.2
Foster Inc.'s assets will increase by a net amount of $25,000. Cash will decrease by $5,000 and the truck account will increase by $30,000, a net increase of $25,000. The company's liabilities will also increase by $25,000 to reflect the new obligation that has been assumed.

B. Ex. 2.3
$150,000 (assets) - $85,000 (liabilities) = $65,000 (total equity)

$65,000 (total equity) - $50,000 (capital stock) = $15,000 (retained earnings)

B. Ex. 2.4
$780,000 (assets - [$500,000 + 150,000](equity) = $130,000 (liabilities)

B. Ex. 2.5
$300,000 (revenues) - $205,000 (expenses) = $95,000 (net income)

Note: The purchase of land for $45,000 does not affect net income.

B. Ex. 2.6
$125,000 (revenues) - $50,000 (expenses) = $75,000 net income

Note: The year-end cash balance of $35,000 does not affect the amount of net income.

B. Ex. 2.7

Increases in cash:			
	Revenues	**$100,000**	
	Sale of land	**10,000**	
	Borrowing from bank	**15,000**	**$125,000**
Decreases in cash:			
	Expenses	**56,000**	
	Purchase of truck	**20,000**	**(76,000)**
Net increase in cash			**$49,000**

B. Ex. 2.8

Joe Solway, Capital	**$25,000**	
Tom Solway, Capital	**25,000**	**$50,000**

B. Ex. 2.9

Capital stock	**$40,000**	
Retained earnings	**10,000**	**$50,000**

B. Ex. 2.10

John Franklin, owner's equity:

Balance, January 1, 2007		$	50,000
Add:	**Investment during 2007**		10,000
	Net income for 2007		25,000
Balance, December 31, 2007		$	85,000

The end-of-year balance of owner's equity in the balance sheet is $85,000. This amount articulates with the amount of net income in the income statement because net income is added to the amount of beginning owner's equity, plus additional investment, to determine the ending balance that appears in the December 31, balance sheet. The accounting equation stays in balance because the amount of net income is reflected in changes in the balances of various assets and liabilities that are also presented in the balance sheet.

SOLUTIONS TO EXERCISES

Ex. 2.1 **a. Assets are economic resources owned by the business entity.**

1. **Among the assets of American Airlines we might expect to find investments, accounts receivable (say, from travel agents), fuel (in storage), maintenance supplies, aircraft, and various types of equipment. The company also owns land and buildings—as, for example, its corporate headquarters.**

2. **Among the assets of a professional sports team are investments (in stocks and bonds), notes receivable (often from players), training equipment, supplies, and office furniture. (The balance sheet of a professional sports team usually does not include land or buildings, as they generally do not own the stadiums in which they play.)**

Note to instructor: **You may wish to expand this solution to include intangible assets, such as the team's league franchise, and player contracts, the right to receive the future services of a given player. (Player contracts only appear as an asset if they have a cost—that is, if they were purchased from other teams. Advance payments to players usually are shown as prepaid expenses.) We address intangible assets in Chapter 9, but the concept is consistent with the discussion of assets in Chapter 2.**

b. Liabilities are existing debts and other obligations of the entity.

1. **Among the liabilities of American Airlines, we might expect to find accounts payable, notes payable (or mortgages or bonds payable) stemming from purchases of aircraft, salaries payable, interest payable, rent payable (for space in airports), and income taxes payable.**

2. **The balance sheet of a professional sports team might include accounts payable, rent payable (for the stadium), salaries payable, interest payable, and income taxes payable.**

Note to instructor: **In a classroom discussion, you might want to point out that both an airline and a professional sports team may have liabilities for unearned revenue. The airline sells many tickets in advance, thus incurring an obligation to render services (flights) or to refund the customers' money. A sports team has a similar obligation with respect to advance sales of season tickets. We discuss unearned revenue in Chapter 4, but the concept can be introduced earlier at the instructor's discretion.**

Ex. 2.2

DIXIE TRANSPORTATION SERVICE
Balance Sheet
February 28, 2007

Assets		Liabilities & Owners' Equity	
		Liabilities:	
Cash	$69,000	Notes payable	$288,000
Accounts receivable	70,000	Accounts payable	26,000
Supplies	14,000	Total liabilities	$314,000
Land	70,000	Owners' equity:	
Building	80,000	Capital stock	92,000
Automobiles	165,000	Retained earnings	62,000
Total	$468,000	Total	$468,000

Ex. 2.3

MERCER COMPANY
Balance Sheet
December 31, 2007

Assets		Liabilities & Owners' Equity	
Cash …………………………	$36,300	Liabilities:	
Accounts receivable ……….	56,700	Notes payable ……………………………	$207,000
Land …………………………	90,000	Accounts payable ………………………	43,800
Building ……………………..	210,000	Total liabilities…………………………	$250,800
Office equipment……………	12,400	Owners' equity:	
		Capital stock ……………………………	75,000
		Retained earnings ………………………	79,600
Total …………………………	$405,400	Total…………………………………………	$405,400

The amount of retained earnings is calculated as the difference between total assets and liabilities plus capital stock: $405,400 – ($250,800 + $75,000) = $79,600

Ex. 2.4

a. **The supplies should be presented at $1,700 in World-Wide's balance sheet. Presenting the supplies at their estimated *liquidation value* violates the assumption that World-Wide is a *going concern,* and will use these supplies in business operations, rather than sell them on the open market. The $500 amount also violates the *objectivity principle,* as it is largely a matter of personal opinion, and also the *cost principle.***

b. **The presentation of the two land parcels at a combined value of $320,000 conforms to generally accepted accounting principles. This treatment illustrates both the *cost principle* and the *stable-dollar assumption.***

c. **The presentation of the computer system at $14,000 in the December 31 balance sheet conforms to generally accepted accounting principles, as this is the cost of the system, and at the balance sheet date, it was an *asset* owned by the company. The retail value of $20,000 is *not presented in the balance sheet,* as this amount is not the cost incurred by the entity, nor is it an objective measurement.**

However, the company's failure to disclose the loss of the equipment subsequent to the balance sheet date may violate the principle of *adequate disclosure.* To properly interpret the company's balance sheet, users may need to be aware that this asset no longer exists. Several issues must be considered in deciding whether or not disclosure of the burglary loss is necessary. For example, was the asset insured? And is a $14,000 asset significant (material) in relation to the assets and operations of this business? Is this amount large enough that it might impact investors' and creditors' decisions regarding the company?

Ex. 2.5

a. **$236,000: Assets $578,000 - liabilities $342,000 = owners' equity $236,000**

b. **$1,132,500: Liabilities $562,500 + owners' equity $570,000 = assets $1,132,500**

c. **$120,300: Assets $307,500 - owners' equity $187,200 = liabilities $120,300**

Ex. 2.6

Transaction	Assets	=	Liabilities	+	Owners'
a	I		I		NE
b	NE*		NE		NE
c	D		D		NE
d	D		D		NE
e	I		NE		I
f	I		I		NE
g	I		NE		I
h	NE*		NE		NE
i	NE*		NE		NE

*Could be I/D offsetting

Ex. 2.7 *Note to instructor:* These are examples, but many others exist.

a. The purchase of office equipment (or any other asset) on credit will cause an increase in the asset (office equipment) and an increase in a liability.

b. The cash payment of an account payable or note payable will cause a decrease in the asset cash and a decrease in the liability paid.

c. The collection of an account receivable will cause an increase in one asset (cash) and a decrease in another asset (accounts receivable). Other examples include the purchase of land for cash, and the sale of land for cash or on credit.

d. The investment of cash in the business by the owners will cause an increase in an asset (cash) and an increase in the owners' equity.

e. The purchase of an automobile (or other asset) paying part of the cost in cash and promising to pay the remainder at a later time would cause an increase in one asset (automobile), a decrease in another asset (cash), and an increase in a liability by the amount of the unpaid portion.

Ex. 2.8 a. (1) Owners' equity

Johanna Small, capital	$	390,000

*$850,000 in assets –$460,000 in liabilities

(2) Partners' equity:

Johanna Small, capital	$	240,000
Mikki Yato, capital		150,000
Total	$	390,000

*Yato's capital = $390,000 –Small's capital, $240,000

(3) Stockholders' equity:

Capital Stock	$	250,000
Retained earnings		140,000
Total stockholders' equity	$	390,000

*Capital stock = 25 × $10,000. Retained earnings = $390,000 –capital stock.

b. Yes; the form of Fellingham's organization is relevant to a lender. If the company is not incorporated, the owner or owners are *personally liable* for the debts of the business organization. Thus, if the business is organized as a sole proprietorship, it is actually Small's personal debt-paying ability that determines the collectibility of loans to the business. If the business is a partnership, all of the partners are personally liable for the company's debts.

If Fellingham is organized as a corporation, however, a lender may look only to the corporate entity for payment.

Note to instructor: **You may wish to point out that some lenders would not make sizable loans to a small corporation unless one or more of the stockholders *personally guaranteed* the loan. This is accomplished by having the stockholder(s) cosign the note.**

Ex. 2.9

a. Cash is the most liquid of all assets. In fact, companies *must* use cash in paying most bills. Therefore, cash contributes more to a company's liquidity than any other asset does.

b. Accounts payable is a liability that requires payment, usually in the near future. Thus, existing accounts payable *detract* from liquidity.

c. Accounts receivable are assets that will shortly convert into cash. Therefore, they contribute toward the company's liquidity.

d. The capital stock account is the owners' equity of the business. It represents amounts originally invested in the business by the owner, but says nothing about the form in which the company now holds these resources—nor even whether the resources are still on hand. Thus, the capital stock account has *no direct effect* upon liquidity. On the other hand, the amount of the owners' equity, related to the amount of the liabilities is an important factor in evaluating liquidity.

Ex. 2.10

a. The situations encountered in the practice of accounting and auditing are too complex and too varied for all specific answers to be set forth in a body of official rules. Therefore, individual accountants must resolve many situations, based upon their general knowledge of accounting, their experience, and their ethical standards—in short, their *professional judgment.*

b. Accountants must rely upon their professional judgment in such matters as determining (three required) (1) how to record an unusual transaction that is not discussed in accounting literature, (2) whether or not a specific situation requires disclosure, (3) what information will be most useful to specific decision makers, (4) how an accounting system should be designed to operate most efficiently, (5) the audit procedures necessary in a given situation, (6) what constitutes a fair presentation, (7) whether specific actions are ethical and are in keeping with the accountants' responsibilities to serve the public's interests.

Ex. 2.11

GARDIAL COMPANY
Statement of Cash Flows
For the Month Ended October 31, 2007

Cash flows from operating activities:		
Cash received from revenues ………………………………	$ 10,000	
Cash paid for expenses ……………………………………	(7,200)	
Net cash provided by operating activities …………………		2,800
Cash flows from investing activities:		
Cash paid for equipment ………………………………………………		(2,500)
Cash flows from financing activities:		
Cash received from sale of capital stock ……………………	$ 6,000	
Cash used to repay bank loans ……………………………	(2,000)	
Net cash provided by financing activities …………………		4,000
Increase in cash …………………………………………………		$ 4,300
Cash balance, October 1, 2007 …………………………………		7,450
Cash balance, October 31, 2007 ………………………………		$ 11,750

Ex. 2.12

HERNANDEZ, INC.
Income Statement
For the Month Ended March 31, 2007

Revenues ………………………………………………………………	$ 9,500
Expenses ………………………………………………………………	5,465
Net income ……………………………………………………………	$ 4,035

The cash received from bank loans is a positive cash flow—financing activity—in the statement of cash flows, but is not included in the income statement. Dividends paid to stockholders are a negative cash flow—financing activity—in the statement of cash flows, but are not included in the income statement.

Ex. 2.13

YARNELL COMPANY
Income Statement
For the Month Ended August 31, 2007

Service revenues ……………………………………………………	$ 15,000
Expenses ………………………………………………………………	7,500
Net income ……………………………………………………………	$ 7,500

The following four items represent cash flows, but are not revenues or expenses that should be included in the income statement:

- **Investment by stockholders**
- **Loan from bank**
- **Payments to long-term creditors**
- **Purchase of land**

Ex. 2.14

YARNELL COMPANY
Statement of Cash Flows
For the Month Ended August 31, 2007

Cash flows from operating activities:		
Cash received from revenues ……………………………	$ 15,000	
Cash paid for expenses ………………………………………	(7,500)	
Net cash provided by operating activities ……………………		7,500
Cash flows from investing activities:		
Cash paid for purchase of land ………………………………		(16,000)
Cash flows from financing activities:		
Cash received from bank loan ……………………………	$ 15,000	
Cash received from investment by stockholders …………	5,000	
Cash paid to long-term creditors ……………………………	(12,000)	
-		8,000
Decrease in cash		$ (500)
Cash balance, August 1, 2007 …………………………………		7,200
Cash balance, August 31, 2007 ………………………………		6,700

Ex. 2.15 ***Note to instructor:*** **Many examples of steps to improve the financial statements could be cited. The ones listed below are those that the authors believe are most likely to be identified by students.**

Steps to Window Dress	Impact on Financial Statements*
Delay cash payment of expenses at year-end (assume expense already incurred)	**BS—Higher cash balance** **IS—No impact** **SCF—Higher cash from operating activities**
Accelerate payment of liabilities at year-end	**BS—Reduced cash and liability balances** **IS—No impact** **SCF—Lower cash balance**
Delay purchase of equipment (or other noncurrent asset)	**BS—Higher cash balance** **IS—No impact** **SCF—Lower cash used in investing activities**
Year-end investment by owner	**BS—Higher cash and owners' equity balances** **IS—No impact** **SCF—Higher cash flow from financing activities**
Year-end borrowing	**BS—Higher cash and liability balances** **IS—No impact** **SCF—Higher cash flow from financing activities**
Acceleration of credit sales at year-end	**BS—Higher receivables and owners' equity balances** **IS—Higher sales and net income** **SCF—No impact (assuming receivables not collected**

***BS = Balance sheet; IS = Income statement; SCF = Statement of cash flows**

Ex. 2.16 a. The company has a net income (earnings) of $5,838 million for the year ended January 29, 2006.

b. Cash balances at the beginning and end of the year were:

End	**$793 million**
Beginning	**<u>$506 million</u>**
Increase	**$287 million**

The major cause of the increase in the amount of cash is $6,484 million cash provided by operating activities. Other sources of cash are sales of property and equipment, proceeds from short-term and long-term borrowing, and the sale of common stock.

c. The largest asset is buildings ($10,920 million) followed by merchandise inventory ($11,401). The largest liability is accounts payable ($6,032 million).

Ex. 2.17 Net income as a percentage of revenue for each year is as follows:

2003: $5,641/$30,141 = 18.7%

2004: $7,516/$34,209 = 22.0%

2005: $8,664/$38,826 = 22.3%

The trend is positive, both in terms of absolute numbers and the relationship of net income to sales. The lowest percentage is 2003. In 2004, the company experienced dramatic increases in both net income and sales, with net income increasing more rapidly for a net income-to-sales percentage of 22.0. This represents a 3.3% increase (22.0% - 18.7%) from 2003 to 2004. The increases between 2004 and 2005 are smaller, but nevertheless positive. Again, both net income and sales increased, resulting in a 22.3% net income-to-sales percentage which awas .3% greater than the previous year (22.3% - 22.0%).

SOLUTIONS TO PROBLEMS SET A

15 Minutes, Easy

PROBLEM 2.1A
SMOKEY MOUNTAIN LODGE

a.

SMOKEY MOUNTAIN LODGE			
Balance Sheet			
December 31, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 31,400	Liabilities:	
Accounts receivable	10,600	Accounts payable	$ 54,800
Land	425,000	Salaries payable	33,500
Buildings	450,000	Interest payable	12,000
Furnishings	58,700	Notes payable	620,000
Equipment	39,200		$ 720,300
Snowmobiles	15,400	Owners' equity:	
		Capital stock	135,000
		Retained earnings (1)	175,000
Total	$ 1,030,300	Total	$ 1,030,300
(1) Computed as total assets, $1,030,300, less total liabilities, $720,300, less capital stock,			
$ 135,000.			

b. **The balance sheet indicates that Smokey Mountain Lodge is in a weak financial position. The highly liquid assets—cash and receivables—total only $42,000, but the company has $100,300 of debts due in the near future (accounts payable, salaries payable, and interest payable).**

Note to instructor: **Students were asked to base their answers to part *b* on the balance sheet alone. Students may correctly point out that a balance sheet does not indicate the rate at which cash flows into a business. Perhaps the company can generate enough cash from daily operations to pay its debts. A recent statement of cash flows would be useful in making a more complete analysis of the company's financial position.**

15 Minutes, Easy

PROBLEM 2.2A
AJAX MOVING COMPANY

Description of transactions:

a. **Purchased equipment for cash at a cost of $3,200.**

b. **Received $900 cash from collection of accounts receivable.**

c. **Purchased equipment at a cost of $13,500; paid $3,500 cash as down payment and incurred a liability (account payable) for the remaining $10,000.**

d. **Paid $14,500 of accounts payable.**

e. **$15,000 cash was received from the sale of capital stock.**

f. **Purchased equipment on account for $7,500.**

15 Minutes, Medium

PROBLEM 2.3A
GOLDSTAR COMMUNICATIONS

							Owners'
			Assets	=		Liabilities +	Equity
				Office	Notes	Accounts	Capital
	Cash +	Land +	Building +	Equipment =	Payable +	Payable +	Stock
December 31 balances	$ 37,000	$ 95,000	$ 125,000	$ 51,250	$ 80,000	$ 28,250	$ 200,000
(1)	35,000						35,000
Balances	$ 72,000	$ 95,000	$ 125,000	$ 51,250	$ 80,000	$ 28,250	$ 235,000
(2)	(22,500)	35,000	55,000		67,500		
Balances	$ 49,500	$ 130,000	$ 180,000	$ 51,250	$ 147,500	$ 28,250	$ 235,000
(3)				9,500		9,500	
Balances	$ 49,500	$ 130,000	$ 180,000	$ 60,750	$ 147,500	$ 37,750	$ 235,000
(4)	20,000				20,000		
Balances	$ 69,500	$ 130,000	$ 180,000	$ 60,750	$ 167,500	$ 37,750	$ 235,000
(5)	(28,250)					$ (28,250)	
Balances	$ 41,250	$ 130,000	$ 180,000	$ 60,750	$ 167,500	$ 9,500	$ 235,000

15 Minutes, Medium

PROBLEM 2.4A
RANKIN TRUCK RENTAL

	Assets				= Liabilities	+	Owners' Equity
	Cash +	Accounts Receivable +	Trucks +	Office Equipment =	Notes Payable +	Accounts Payable +	Capital Stock
December 31 balances	$ 9,500	$ 13,900	$ 68,000	$ 3,800	$ 20,000	$ 10,200	$ 65,000
(1)	(2,700)			2,700			
Balances	$ 6,800	$ 13,900	$ 68,000	$ 6,500	$ 20,000	$ 10,200	$ 65,000
(2)	4,000	(4,000)					
Balances	$ 10,800	$ 9,900	$ 68,000	$ 6,500	$ 20,000	$ 10,200	$ 65,000
(3)	(3,200)					(3,200)	
Balances	$ 7,600	$ 9,900	$ 68,000	$ 6,500	$ 20,000	$ 7,000	$ 65,000
(4)	10,000				10,000		
Balances	$ 17,600	$ 9,900	$ 68,000	$ 6,500	$ 30,000	$ 7,000	$ 65,000
(5)	(15,000)		30,500		15,500		
Balances	$ 2,600	$ 9,900	$ 98,500	$ 6,500	$ 45,500	$ 7,000	$ 65,000
(6)	75,000						75,000
Balances	$ 77,600	$ 9,900	$ 98,500	$ 6,500	$ 45,500	$ 7,000	$ 140,000

20 Minutes, Medium

PROBLEM 2.5A
HERE COME THE CLOWNS!

a.

HERE COME THE CLOWNS!			
Balance Sheet			
June 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash *	$ 32,520	Liabilities:	
Notes receivable	9,500	Notes payable	$ 180,000
Accounts receivable	7,450	Accounts payable	26,100
Animals	189,060	Salaries payable	9,750
Cages	24,630	Total liabilities	$ 215,850
Costumes	31,500	Owners' equity:	
Props and equipment	89,580	Capital stock	310,000
Tents	63,000	Retained earnings	27,230
Trucks & wagons	105,840		
Total	$ 553,080	Total	$ 553,080

* Total liabilities and owners' equity, $553,080, minus total of all other assets, $520,560 ($9,500 + $7,450 + $189,060 + $24,630 + $31,500 +$89,580 + $63,000 + $105,840).

b. The loss of an asset, Tents, from a fire would require a revised balance sheet that reflects a decrease in total assets. When total assets are decreased, the other balance sheet total (that is, the total of liabilities and owners' equity) must also decrease. Since there is no change in liabilities as a result of the destruction of an asset, the decrease on the right-hand side of the balance sheet must be in owners' equity---specifically, the retained earnings account. The amount of the decrease in the assets Tents, in Retained earnings, and in both balance sheet totals, is $14,300.

20 Minutes, Medium

PROBLEM 2.6A
WILSON FARMS, INC.

a.

WILSON FARMS INC.			
Balance Sheet			
September 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 16,710	Liabilities:	
Accounts receivable	22,365	Notes payable	$ 330,000
Land	490,000	Accounts payable	77,095
Barns and sheds	78,300	Property taxes payable	9,135
Citrus trees	76,650	Wages payable	5,820
Livestock	120,780	Total liabilities	$ 422,050
Irrigation system	20,125	Owners' equity:	
Farm machinery	42,970	Capital stock	290,000
Fences & gates	33,570	Retained earnings *	189,420
Total	$ 901,470	Total	$ 901,470

*Total assets, $901,470, minus total liabilities, $422,050, less capital stock, $290,000.

b. The loss of an asset, Barns and Sheds, from a tornado would cause a decrease in total assets. When total assets are decreased, the balance sheet total of liabilities and owners' equity must also decrease. Since there is no change in liabilities as a result of the destruction of an asset, the decrease on the right-hand side of the balance sheet must be in the retained earnings account. The amount of the decrease in Barns and Sheds, in the owners' equity, and in both balance sheet totals, is $13,700.

35 Minutes, Medium

PROBLEM 2.7A
THE OVEN BAKERY

a.

THE OVEN BAKERY			
Balance Sheet			
August 1, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 6,940	Liabilities:	
Accounts receivable	11,260	Notes payable	$ 74,900
Supplies	7,000	Accounts payable	16,200
Land	67,000	Salaries payable	8,900
Building	84,000	Total liabilities	$ 100,000
Equipment & fixtures	44,500	Owners' equity:	
		Capital stock	80,000
		Retained earnings	40,700
Total	$ 220,700	Total	$ 220,700

***Retained earnings ($40,700) = Total assets ($220,700), less total liabilities ($100,000) and capital stock ($80,000).**

b.

THE OVEN BAKERY			
Balance Sheet			
August 3, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 14,490	Liabilities:	
Accounts receivable	11,260	Notes payable	$ 74,900
Supplies	8,250	Accounts payable	7,200
Land	67,000	Property taxes payable	8,900
Building	84,000	Total liabilities	$ 91,000
Equipment & fixtures	51,700	Owners' equity:	
		Capital stock	105,000
		Retained earnings	40,700
Total	$ 236,700	Total	$ 236,700

PROBLEM 2.7A
THE OVEN BAKERY (concluded)

THE OVEN BAKERY		
Statement of Cash Flows		
For the Period August 1-3, 2007		
Cash flows from operating activities:		
Cash payment of accounts payable	**$ (16,200)**	
Cash purchase of supplies	**(1,250)**	
Cash used in operating activities:		**$ (17,450)**
Cash flows from investing activities:		
None		
Cash flows from financing activities:		
Sale of capital stock		**$ 25,000**
Increase in cash		**$ 7,550**
Cash balance, August 1, 2005		**6,940**
Cash balance, August 3, 2005		**$ 14,490**

c. The Oven Bakery is in a stronger financial position on August 3 than it was on August 1.

On August 1, the highly liquid assets (cash and accounts receivable) total only $18,200, but the company has $25,100 in debts due in the near future (accounts payable plus salaries payable).

On August 3, after additional infusion of cash from the sale of stock, the liquid assets total $25,750, and debts due in the near future amount to $16,100.

Note to instructor: The analysis of financial position strength in part *c* is based solely upon the balance sheets at August 1 and August 3. Hopefully, students will raise the issue regarding necessity of information about operations, and the rate at which cash flows into the business, etc. In this problem, the improvement in financial position results solely from the sale of capital stock.

40 Minutes, Strong

PROBLEM 2.8A
THE SWEET SODA SHOP

a.

THE SWEET SODA SHOP			
Balance Sheet			
September 30, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 7,400	Liabilities:	
Accounts receivable	1,250	Notes payable *	$ 70,000
Supplies	3,440	Accounts payable	8,500
Land	55,000	Total liabilities	$ 78,500
Building	45,500	Owners' equity:	
Furniture and fixtures	20,000	Capital stock	50,000
		Retained earnings	4,090
Total	$ 132,590	Total	$ 132,590

***Total assets, $132,590 less owners' equity, $54,090 less accounts payable, $8,500, equals notes payable.**

b.

THE SWEET SODA SHOP			
Balance Sheet			
October 6, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 29,400	Liabilities:	
Accounts receivable	1,250	Notes payable	$ 70,000
Supplies	4,440	Accounts payable	18,000
Land	55,000	Total liabilities	$ 88,000
Building	45,500	Owners' equity:	
Furniture and fixtures	38,000	Capital stock	80,000
		Retained earnings	5,590
Total	$ 173,590	Total	$ 173,590

THE SWEET SODA SHOP	
Income Statement	
For the Period October 1-6, 2007	
Revenues	$ 5,500
Expenses	(4,000)
Net income	$ 1,500

PROBLEM 2.8A
THE SWEET SODA SHOP (concluded)

THE SWEET SODA SHOP		
Statement of Cash Flows		
For the Period October 1-6, 2007		
Cash flows from operating activities:		
Cash received from revenues	$ 5,500	
Cash paid for expenses	(4,000)	
Cash paid for accounts payable	(8,500)	
Cash paid for supplies	(1,000)	
Cash used in operating activities		$ (8,000)
Cash flows from investing activities:		
None		
Cash flows from financing activities:		
Cash received from sale of capital stock		$ 30,000
Increase in cash		$ 22,000
Cash balance, October 1, 2007		7,400
Cash balance, October 6, 2007		$ 29,400

c. The Sweet Soda Shop is in a *stronger* financial position on October 6 than on September 30. On September 30, the company had highly liquid assets (cash and accounts receivable) of $8,650, which barely exceeded the $8,500 in liabilities (accounts payable) due in the near future. On October 6, after the additional investment of cash by stockholders, the company's cash alone exceeded its short-term obligations.

35 Minutes, Strong

PROBLEM 2.9A
BERKELEY PLAYHOUSE

a.

BERKELEY PLAYHOUSE			
Balance Sheet			
September 30, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 16,900	Liabilities:	
Accounts receivable	7,200	Notes payable	$ 15,000
Props and costumes	18,000	Accounts payable	3,900
Lighting equipment	9,400	Salaries payable	$ 4,200
		Total liabilities	$ 23,100
		Owners' equity:	
		Helen Berkeley, capital	28,400
Total	$ 51,500	Total	$ 51,500

b. **(1)** The cash in Berkeley's personal savings account is not an asset of the business entity Berkeley Playhouse. Therefore, it should not appear in the balance sheet of the business. The money on deposit in the business bank account ($15,000) and in the company safe ($1,900) constitute cash owned by the business. It is not necessary to state separately in the balance sheet amounts of cash at different locations; thus, the cash owned by the business at September 30 totals *$16,900.*

(2) Only the amount receivable from Dell, Inc. *($7,200)* should be included in the company's accounts receivable as of September 30. The amounts expected from future tickets sales do not relate to completed transactions and are not yet assets of the business.

(3) The props and costumes should be shown in the balance sheet at their cost, *$18,000* , not at just the portion of the cost that was paid in cash. The $15,000 note payable is a debt of the business arising from a completed purchase transaction. Therefore, it should be included among the company's liabilities. The date at which this liability must be paid is not relevant.

(4) The theater building is not owned by Berkeley Playhouse. Therefore, it is not an asset of this business entity and should not appear in the balance sheet.

(5) The lighting equipment is an asset of the business and should be valued in the balance sheet at its cost, *$9,400.*

(6) As the automobile is not used in the business, it appears to be Berkeley's personal asset rather than an asset of the business entity. Therefore, it should not be included in the balance sheet of the business. (Note: The advertised sales price of a similar automobile would not be an appropriate valuation figure even if the automobile were to be included.)

(7) The accounts payable should be limited to the debts of the business, *$3,900,* and should not include Berkeley's personal liabilities.

(8) The amount owed to stagehands for work done through September 30 is the result of completed transactions and should be included among the liabilities of the business. Even if agreement has been reached with Mario Dane for her to perform in a future play, he has not yet performed and therefore, is not yet owed any money. Thus, this $25,000 is not yet a liability of the business.

(9) Owner’s equity is not valued at either the original amount invested or at the estimated market value of the business. In fact, owner’s equity cannot be valued independently of the values assigned to assets and liabilities. Rather, it is a residual figure—the excess of total assets over total liabilities. (If liabilities exceed assets, owners' equity would be a negative amount.) Thus the amount of Berkeley's capital should be determined by subtracting the corrected figure for total liabilities ($23,100) from the corrected amount of total assets ($51,500). This indicates owners' equity of $28,400.

30 Minutes, Strong

PROBLEM 2.10A
BIG SCREEN SCRIPTS

a.

BIG SCREEN SCRIPTS			
Balance Sheet			
November 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 3,940	Liabilities:	
Notes receivable	2,200	Notes payable	$ 73,500
Accounts receivable	2,450	Accounts payable	32,700
Land	39,000	Total liabilities	$ 106,200
Building	54,320	Owners' equity:	
Office furniture*	12,825	Capital stock	5,000
		Retained earnings *	3,535
Total	$ 114,735	Total	$ 114,735
* $8,850 + $6,500 - $2,525.			

*** Total assets ($114,735), Less (Total Liabilities, $106,200, + Capital Stock, $5,000)**

b. (1) The cash in Pippin's personal savings account is not an asset of the business entity Big Screen Scripts and should not appear in the balance sheet of the business. The money on deposit in the business bank account ($3,400) and in the company safe ($540) constitute cash owned by the business. Thus, the cash owned by the business at November 30 is $3,940.

(2) The years-old IOU does not qualify as a business asset for two reasons. First, it does not belong to the business entity. Second, it appears to be uncollectible. A receivable that cannot be collected is not viewed as an asset, as it represents no future economic benefit.

(3) The total amount to be included in "Office furniture" for the rug is $9,400, the total cost, regardless of whether this amount was paid in cash. Consequently, "Office furniture" should be increased by $6,500. The $6,500 liability arising from the purchase of the rug came into existence prior to the balance sheet date and must be added to the "Notes payable" amount.

(4) The computer is no longer owned by Big Screen Scripts and therefore cannot be included in the assets. To do so would cause an overstatement of both assets and owners' equity. The "Office furniture" amount must be reduced by $2,525.

(5) The $22,400 described as "Other assets" is not an asset, because there is no valid legal claim or any reasonable expectation of recovering the income taxes paid. Also, the payment of federal income taxes by Pippin was not a business transaction by Big Screen Scripts. If a refund were obtained from the government, it would come to Pippin personally, not to the business entity.

(6) The proper valuation for the land is its historical cost of $39,000, the amount established by the transaction in which the land was purchased. Although the land may have a current fair value in excess of its cost, the offer by the friend to buy the land if Pippin would move the building appears to be mere conversation rather than solid, verifiable evidence of the fair value of the land. The "cost principle," although less than perfect, produces far more reliable financial statements than would result if the owners could "pull figures out of the air" in recording asset values.

(7) The accounts payable should be limited to the debts of the business, $32,700, and should not include Pippin's personal liabilities.

SOLUTIONS TO PROBLEMS SET B

15 Minutes, Easy

PROBLEM 2.1B
DEEP RIVER LODGE

a.

DEEP RIVER LODGE			
Balance Sheet			
December 31, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 9,100	Liabilities:	
Accounts receivable	3,300	Accounts payable	$ 27,400
Land	140,000	Salaries payable	13,200
Buildings	430,000	Interest payable	4,000
Furnishings	22,600	Notes payable	217,000
Equipment	9,000		$ 261,600
		Owners' equity:	
		Capital stock (1)	150,000
		Retained earnings	202,400
Total	$ 614,000	Total	$ 614,000
(1) Computed as total assets, $614,000, less total liabilities, $261,600, less retained earnings, $202,400			

b. The balance sheet indicates that Deep River Lodge is in a weak financial position. The highly liquid assets—cash and receivables—total only $12,400, but the company has $44,600 of debts due in the near future (accounts payable, salaries payable, and interest payable). Based upon this balance sheet, the company appears to be insolvent.

Note to instructor: **Students were asked to base their answers to part *b* on the balance sheet alone. Students may correctly point out that a balance sheet does not indicate the rate at which cash flows into a business. Perhaps the company can generate enough cash from daily operations to pay its debts. A recent statement of cash flows would be useful in making a more complete analysis of the company's financial position.**

15 Minutes, Easy

PROBLEM 2.2B
BRIGAL COMPANY

Description of transactions:

a. **Purchased furniture for cash at a cost of $800.**

b. **Received $500 cash from collection of accounts receivable.**

c. **Purchased furniture at a cost of $5,000; paid $3,000 cash as down payment and incurred a liability (account payable) for the remaining $2,000.**

d. **Paid $2,000 of accounts payable.**

e. **$10,000 cash was received from the sale of capital stock.**

f. **Purchased furniture on account for $3,000.**

15 Minutes, Medium

PROBLEM 2.3B
DELTA CORPORATION

							Owners'
			Assets		=	Liabilities +	Equity
				Office	Notes	Accounts	Capital
	Cash +	Land +	Building +	Equipment =	Payable +	Payable +	Stock
December 31 balances	$ 12,000	$ 80,000	$ 66,000	$ 41,300	$ 42,000	$ 7,300	$ 150,000
(1)	40,000						40,000
Balances	$ 52,000	$ 80,000	$ 66,000	$ 41,300	$ 42,000	$ 7,300	$ 190,000
(2)	(10,000)	30,000	50,000		70,000		
Balances	$ 42,000	$ 110,000	$ 116,000	$ 41,300	$ 112,000	$ 7,300	$ 190,000
(3)				8,000		8,000	
Balances	$ 42,000	$ 110,000	$ 116,000	$ 49,300	$ 112,000	$ 15,300	$ 190,000
(4)	12,000				12,000		
Balances	$ 54,000	$ 110,000	$ 116,000	$ 49,300	$ 124,000	$ 15,300	$ 190,000
(5)	(4,000)					(4,000)	
Balances	$ 50,000	$ 110,000	$ 116,000	$ 49,300	$ 124,000	$ 11,300	$ 190,000

15 Minutes, Medium

PROBLEM 2.4B
SMITH TRUCKING

	Cash +	Accounts Receivable +	Trucks +	Office Equipment =	Notes Payable +	Accounts Payable +	Owners' Equity Capital Stock
	Assets				= Liabilities	+	
December 31 balances	$ 4,700	$ 8,300	$ 72,000	$ 3,000	$ 10,000	$ 8,000	$ 70,000
(1)	(2,600)			2,600			-
Balances	$ 2,100	$ 8,300	$ 72,000	$ 5,600	$ 10,000	$ 8,000	$ 70,000
(2)	2,500	(2,500)					
Balances	$ 4,600	$ 5,800	$ 72,000	$ 5,600	$ 10,000	$ 8,000	$ 70,000
(3)	(2,000)					(2,000)	
Balances	$ 2,600	$ 5,800	$ 72,000	$ 5,600	$ 10,000	$ 6,000	$ 70,000
(4)	5,000				5,000		
Balances	$ 7,600	$ 5,800	$ 72,000	$ 5,600	$ 15,000	$ 6,000	$ 70,000
(5)	(5,000)		60,000		55,000		
Balances	$ 2,600	$ 5,800	$ 132,000	$ 5,600	$ 70,000	$ 6,000	$ 70,000
(6)	25,000						25,000
Balances	$ 27,600	$ 5,800	$ 132,000	$ 5,600	$ 70,000	$ 6,000	$ 95,000

20 Minutes, Medium

PROBLEM 2.5B
CIRCUS WORLD

a.

CIRCUS WORLD			
Balance Sheet			
June 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash *	$ 9,150	Liabilities:	
Notes receivable	1,200	Notes payable	$ 115,000
Accounts receivable	5,600	Accounts payable	25,000
Animals	310,000	Salaries payable	1,250
Cages	15,000	Total liabilities	$ 141,250
Costumes	16,000	Owners' equity:	
Props and equipment	108,000	Capital stock	400,000
Tents	40,000	Retained earnings	89,000
Trucks & wagons	125,300		
Total	$ 630,250	Total	$ 630,250

* Total liabilities and owners' equity, $630,250, minus total of all other assets, $621,100.

b. The loss of an asset, Tents, from a fire would require a revised balance sheet that reflects a decrease in total assets. When total assets are decreased, the other balance sheet total (that is, the total of liabilities and owners' equity) must also decrease. Since there is no change in liabilities as a result of the destruction of an asset, the decrease on the right-hand side of the balance sheet must be in owners' equity—specifically, the retained earnings account. The amount of the decrease in the assets Tents, in Retained earnings, and in both balance sheet totals, is $10,000.

20 Minutes, Medium

PROBLEM 2.6B
APPLE VALLEY FARMS

a.

APPLE VALLEY FARMS			
Balance Sheet			
September 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 9,300	Liabilities:	
Accounts receivable	15,000	Notes payable	$ 65,000
Land	50,000	Accounts payable	8,100
Barns and sheds	19,100	Property taxes payable	4,700
Apple trees	84,000	Wages payable	1,200
Livestock	5,000	Total liabilities	$ 79,000
Irrigation system	10,200	Owners' equity:	
Farm machinery	20,000	Capital stock	100,000
Fences & gates	14,100	Retained earnings*	47,700
Total	$ 226,700	Total	$ 226,700

*Total assets, $226,700, minus total liabilities, $79,000, less capital stock, $100,000.

b. The loss of an asset, Barns and Sheds, from a tornado would cause a decrease in total assets. When total assets are decreased, the balance sheet total of liabilities and owners' equity must also decrease. Since there is no change in liabilities as a result of the destruction of an asset, the decrease on the right-hand side of the balance sheet must be in the retained earnings account. The amount of the decrease in Barns and sheds, in the owners' equity, and in both balance sheet totals, is $4,500.

35 Minutes, Medium

PROBLEM 2.7B
THE CITY BUTCHER

a.

THE CITY BUTCHER			
Balance Sheet			
July 1, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 4,100	Liabilities:	
Accounts receivable	8,200	Notes payable	$ 40,000
Supplies	7,000	Accounts payable	7,000
Land	50,000	Salaries payable	3,700
Building	90,000	Total liabilities	$ 50,700
Equipment & fixtures	25,000	Owners' equity:	
		Capital stock	100,000
		Retained earnings *	33,600
Total	$ 184,300	Total	$ 184,300

*Retained earnings ($33,600) = Total assets ($184,300), less total liabilities ($50,700) + capital stock ($100,000).

b.

THE CITY BUTCHER			
Balance Sheet			
July 5, 2007			
Assets		Liabilities & Owners' Equity	
Cash	$ 26,100	Liabilities:	
Accounts receivable	8,200	Notes payable	$ 40,000
Supplies	8,000	Accounts payable	6,000
Land	50,000	Salaries payable	3,700
Building	90,000	Total liabilities	$ 49,700
Equipment & fixtures	31,000	Owners' equity:	
		Capital stock	130,000
		Retained earnings	33,600
Total	$ 213,300	Total	$ 213,300

PROBLEM 2.7B
THE CITY BUTCHER (concluded)

THE CITY BUTCHER		
Statement of Cash Flows		
For the Period July 1-5, 2007		
Cash flows from operating activities:		
Cash payment of accounts payable	$ (7,000)	
Cash purchase of supplies	(1,000)	
Cash used in operating activities		$ (8,000)
Cash flows from investing activities:		
None		
Cash flows from financing activities:		
Sale of capital stock		$ 30,000
Increase in cash		$ 22,000
Cash balance, July 1, 2005		4,100
Cash balance, July 5, 2005		$ 26,100

c. The City Butcher is in a stronger financial position on July 5 than it was on July 1.

On July 1, the highly liquid assets (cash and accounts receivable) total only $12,300, but the company has $10,700 in debts due in the near future (accounts payable plus salaries payable).

On July 5, after additional infusion of cash from the sale of stock, the liquid assets total $34,300, and debts due in the near future amount to $9,700.

Note to instructor: The analysis of financial position strength in part *c* is based solely upon the balance sheets at July 1 and July 5. Hopefully, students will raise the issue regarding necessity of information about operations, and the rate at which cash flows into the business, etc. In this problem, the improvement in financial position results solely from the sale of capital stock.

40 Minutes, Strong

PROBLEM 2.8B
THE CANDY SHOP

a.

THE CANDY SHOP Balance Sheet September 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 6,900	Liabilities:	
Accounts receivable	5,000	Notes payable *	$ 50,000
Supplies	3,000	Accounts payable	6,800
Land	72,000	Total liabilities	$ 56,800
Building	80,000	Owners' equity:	
Furniture and fixtures	9,000	Capital stock	100,000
		Retained earnings	19,100
Total	$ 175,900	Total	$ 175,900

*Total assets, $175,900 less owners' equity, $119,100 less accounts payable, $6,800, equals notes payable.

b.

THE CANDY SHOP Balance Sheet October 6, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 34,000	Liabilities:	
Accounts receivable	5,000	Notes payable	$ 50,000
Supplies	3,900	Accounts payable	8,000
Land	72,000	Total liabilities	$ 58,000
Building	80,000	Owners' equity:	
Furniture and fixtures	17,000	Capital stock	130,000
		Retained earnings	23,900
Total	$ 211,900	Total	$ 211,900

THE CANDY SHOP Income Statement For the Period October 1-6, 2007	
Revenues	$ 8,000
Expenses	(3,200)
Net income	$ 4,800

PROBLEM 2.8B
THE CANDY SHOP (concluded)

THE CANDY SHOP		
Statement of Cash Flows		
For the Period October 1-6, 2007		
Cash flows from operating activities:		
Cash received from revenues	$ 8,000	
Cash paid for expenses	(3,200)	
Cash paid for accounts payable	(6,800)	
Cash paid for supplies	(900)	
Cash used in operating activities		$ (2,900)
Cash flows from investing activities:		
None		
Cash flows from financing activities:		
Cash received from sale of capital stock		$ 30,000
Increase in cash		$ 27,100
Cash balance, October 1, 2007		6,900
Cash balance, October 6, 2007		$ 34,000

c. The Candy Shop is in a *stronger* financial position on October 6 than on September 30. On September 30, the company had highly liquid assets (cash and accounts receivable) of $11,900, compared to $6,800 in liabilities (accounts payable) due in the near future. On October 6, after the additional investment of cash by stockholders, the company's cash alone exceeded its short-term obligations by a substantial amount.

35 Minutes, Strong

PROBLEM 2.9B
OLD TOWN PLAYHOUSE

a.

OLD TOWN PLAYHOUSE			
Balance Sheet			
September 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 18,400	Liabilities:	
Accounts receivable	10,000	Notes payable	$ 15,000
Props and costumes	18,000	Accounts payable	6,000
Lighting equipment	10,000	Salaries payable	$ 2,000
		Total liabilities	$ 23,000
		Owners' equity:	
		Howard Jaffe, capital	33,400
Total	$ 56,400	Total	$ 56,400

b. (1) The cash in Jaffe's personal savings account is not an asset of the business entity Old Town Playhouse. Therefore, it should not appear in the balance sheet of the business. The money on deposit in the business bank account ($16,000) and in the company safe ($2,400) constitute cash owned by the business. It is not necessary to state separately in the balance sheet amounts of cash at different locations; thus, the cash owned by the business at September 30 totals *$18,400.*

(2) Only the amount receivable from Dell, Inc. *($10,000)* should be included in the company's accounts receivable as of September 30. The amounts expected from future tickets sales do not relate to completed transactions and are not yet assets of the business.

(3) The props and costumes should be shown in the balance sheet at their cost, *$18,000*, not at just the portion of the cost that was paid in cash. The $15,000 note payable is a debt of the business arising from a completed purchase transaction. Therefore, it should be included among the company's liabilities. The date at which this liability must be paid is not relevant.

(4) The theater building is not owned by Old Town Playhouse. Therefore, it is not an asset of this business entity and should not appear in the balance sheet.

(5) The lighting equipment is an asset of the business and should be valued in the balance sheet at its cost, *$10,000.*

(6) As the automobile is not used in the business, it appears to be Jaffe's personal asset rather than an asset of the business entity. Therefore, it should not be included in the balance sheet of the business. (Note: The advertised sales price of a similar automobile would not be an appropriate valuation figure even if the automobile were to be included.)

(7) The accounts payable should be limited to the debts of the business, *$6,000,* and should not include Jaffe's personal liabilities.

PROBLEM 2.9B
OLD TOWN PLAYHOUSE (concluded)

(8) The amount owed to stagehands for work done through September 30 is the result of completed transactions and should be included among the liabilities of the business. Even if agreement has been reached with Robin Needelman for her to perform in a future play, she has not yet performed and, therefore, is not yet owed any money. Thus, this $30,000 is not yet a liability of the business.

(9) Owner's equity is not valued at either the original amount invested or at the estimated market value of the business. In fact, owner's equity cannot be valued independently of the values assigned to assets and liabilities. Rather, it is a residual figure—the excess of total assets over total liabilities. (If liabilities exceed assets, owner's equity would be a negative amount.) Thus, the amount of Jaffe's capital should be determined by subtracting the corrected figure for total liabilities ($23,000) from the corrected amount of total assets ($56,400). This indicates owner's equity of $33,400.

30 Minutes, Strong

PROBLEM 2.10B
HIT SCRIPTS

a.

HIT SCRIPTS			
Balance Sheet			
November 30, 2007			
Assets		**Liabilities & Owners' Equity**	
Cash	$ 3,200	Liabilities:	
Notes receivable	3,400	Notes payable	$ 72,500
Accounts receivable	3,000	Accounts payable	30,000
Land	15,000	Total liabilities	$ 102,500
Building	75,000	Owners' equity:	
Office furniture*	16,300	Capital stock	10,000
		Retained earnings	3,400
Total	$ 115,900	Total	$ 115,900
* $9,600 + $7,500 - $800.			

b. (1) The cash in Joe's personal savings account is not an asset of the business entity Hit Scripts and should not appear in the balance sheet of the business. The money on deposit in the business bank account ($2,000) and in the company safe ($1,200) constitute cash owned by the business. Thus, the cash owned by the business at November 30 totals $3,200.

(2) The years-old IOU does not qualify as a business asset for two reasons. First, it does not belong to the business entity. Second, it appears to be uncollectible. A receivable that cannot be collected is not viewed as an asset, as it represents no future economic benefit.

(3) The total amount to be included in "Office furniture" for the rug is $10,000, the total cost, regardless of whether this amount was paid in cash. Consequently, "Office furniture" should be increased by $7,500. The $7,500 liability arising from the purchase of the rug came into existence prior to the balance sheet date and must be added to the "Notes payable" amount.

(4) The computer is no longer owned by Hit Scripts and therefore cannot be included in the assets. To do so would cause an overstatement of both assets and owners' equity. The "Office furniture" amount must be reduced by $800.

(5) The $25,000 described as "Other assets" is not an asset, because there is no valid legal claim or any reasonable expectation of recovering the income taxes paid. Also, the payment of federal income taxes by Debit was not a business transaction by Hit Scripts. If a refund were obtained from the government, it would come to Joe personally, not to the business entity.

(6) The proper valuation for the land is its historical cost of $15,000, the amount established by the transaction in which the land was purchased. Although the land may have a current fair value in excess of its cost, the offer by the friend to buy the land if Joe would move the building appears to be mere conversation rather than solid, verifiable evidence of the fair value of the land. The "cost principle," although less than perfect, produces far more reliable financial statements than would result if owners could "pull figures out of the air" in recording asset values.

(7) The accounts payable should be limited to the debts of the business, $30,000, and should not include Joe's personal liabilities.

SOLUTIONS TO CRITICAL THINKING CASES

30 Minutes, Medium

CASE 2.1
CONTENT OF A BALANCE SHEET

This case requires students to prepare a hypothetical balance sheet for an entity to be specified by the instructor. Therefore, we cannot provide a "solution."

The purpose of the case is to challenge students to think about the types of assets *necessary* to the operation of a specific type of business entity and also about the liabilities that are likely to exist. We find this case is very useful, but it requires reasonably sophisticated students. The case also lends itself well to classroom discussion.

We recommend assigning an entity that is either unusual in nature (such as a circus, a zoo, or a riverboat cruise company), or one that is prominent in the local economy. Service-type companies are most appropriate, as students have not yet been introduced to inventories.

It is helpful if the instructor has an annual report for the type of entity selected. However, students are *not* to locate an actual annual report prior to preparing their solutions; they are to develop their *own thoughts* as to a realistic asset mix and capital structure.

30 Minutes, Strong

CASE 2.2
USING FINANCIAL STATEMENTS

This case is intended to acquaint students with the financial statements and annual report of a publicly held company of their (or your) choice. As students will select various reports, we cannot provide a solution. Although this case is unstructured, most students find it very interesting. It makes the introduction to the financial reporting process real.

Note to instructor: From a practical point of view, the usefulness of this case is dependent upon the ready availability to students of annual reports. Most large libraries have a substantial file of annual reports. Also, many companies' financial statements are readily available on the Internet. In our classes, we hand out annual reports from our own collection. (The reports need not be current—most any will do.) After students have completed the case, we discuss in class various features of the reports and the financial reporting process. (If you use your own reports, remember to retrieve them quickly.)

Our 30-minute time estimate is adequate for answering the questions raised in the case, but it does not provide for time that a student may spend in locating an annual report.

30 Minutes, Medium

CASE 2.3
USING A BALANCE SHEET

a. Bankers considering a loan application are particularly interested in the ability of the company to pay its debts. They want to make loans that will be repaid promptly and in full at the agreed maturity date. Therefore, they give close attention to the amount of cash and other assets (such as accounts receivable) that will soon become cash. They compare these assets with the amount of existing liabilities of the company that become due in the near future. On this criterion, Moon Corporation appears far superior to Star Corporation; its cash and receivables total $44,000, which is two times the $22,000 of notes payable and accounts payable combined. Star Corporation, on the other hand, has only $14,400 of cash and accounts receivable compared with notes and accounts payable of $65,600. Star Corporation may be insolvent or close to it. Certainly Moon Corporation would appear to have greater debt-paying ability in the near future.

A banker is also interested in the amount of owners' equity, since this ownership capital serves as a protecting buffer between the banker and any losses that may befall the business. Although Star Corporation has slightly greater owners' equity than Moon Corporation, the difference is relatively small. Relating the owners' equity of the businesses to their total liabilities shows that Moon Corporation has owners' equity over four times the $22,000 owed to creditors of the business. Star Corporation shows $116,800 of owners' equity compared to $65,600 of liabilities, or almost two times the creditors' claims. Since the two companies were recently organized, the balances in the retained earnings accounts indicate that both companies are off to a profitable start. On balance, a banker would probably consider Moon Corporation to be the better prospect for a loan.

b. As an investor, you would probably be willing to pay a higher price to buy the capital stock of Star Corporation. Since both companies are newly organized and the cost of assets shown on the balance sheet approximates fair market value, we can assume in this case that total stockholders' equity is a reasonable indication of the fair market value of the capital stock. The total stockholders' equity you would acquire by buying the capital stock of Star Corporation is $18,400 greater than the equity you would acquire by buying the capital stock of Moon Corporation ($116,800 – $98,400 = $18,400).

An important consideration for an investor interested in Star Corporation is that it may be necessary to invest a *significant additional amount of cash in the business in the near future* to enable the company to pay the large note payable due in 60 days. Unless the investor has the resources to make any necessary additional investments in the business, he or she should not buy the capital stock of Star Corporation.

An investor would of course be interested in the earnings prospects of the companies, but no income statements or other information on income potential are provided in the problem. Profitability of the two companies cannot really be compared by the balances in the retained earnings accounts, because either company may have earned profits that were distributed to the stockholders as dividends rather than being retained in the business.

30 Minutes, Medium

CASE 2.4
USING STATEMENTS OF CASH FLOW

a. John's preliminary evaluation is focusing too much on the "bottom line" and not looking at the details of the cash flow information. The most important difference between the cash flows of the two companies is the fact that Morris, Inc. has strong operating cash flows while Walker Company has declining operating cash flows that are even negative in 2007. This indicates considerable weakness for Walker Company in terms of being able to generate cash flows on an ongoing basis in the future.

Another important difference is that Morris, Inc. is building its investment in assets each year, which probably bodes well for that company's future. Walker Company, on the other hand, invested in assets in 2005 and 2006, but in 2007 sold assets in order to maintain its current level of cash.

b. One possibility is that Walker Company ran out of financing in 2007. We do not know the source of its positive cash flows from financing activities in 2005 and 2006, but most likely it was from loans or investments by owner(s). One reasonable interpretation is that these sources were no longer available in 2007, requiring the company to sell assets.

c. General recommendations to John should include the following:

- Look at the underlying details of financial statements, not just the final figures or bottom line.
- There are important differences in the various sources of cash. Generally, strong cash from operations is important to sustain business activity in the future.
- Negative cash flows from investing and financing activities are not necessarily bad. In the case of investing activities, this means that the company is building a strong asset base for the future. In the case of financing activities, this means the company is reducing its debt (possibly but less likely its equity) and thereby relieving future cash flows from those payments.

35 Minutes, Medium

CASE 2.5
ETHICS AND WINDOW DRESSING

1. Postponing the cash purchase of WordMaster would indeed leave Omega Software with an additional $8 million in cash at year-end, which would make the company appear more liquid. There is nothing illegal or unethical about postponing this transaction. However, the fact that Omega makes a major cash expenditure of this nature shortly after the balance sheet date would have to be *disclosed* in notes accompanying the financial statements. Users of the statements would need to be aware both of Omega's cash outlay and of its acquisition of WordMaster in order to interpret the year-end statements properly.

2. The deliberate omission of liabilities from the balance sheet would be unethical and illegal. This action would be in direct violation of the federal securities laws, and the responsible officers would probably face criminal charges. Further, the idea that no one would know is incorrect. The company's independent auditors would definitely discover a misrepresentation of this magnitude and would insist upon the statements being corrected. Otherwise, the auditor's report would alert the SEC as well as users of the financial statements to the misrepresentation.

3. There is nothing unethical or illegal about renegotiating the due date of a liability. In fact, as Omega needs to borrow money anyway, extending this obligation to Delta at a 12% interest rate may be a good idea. The due date of this liability may require disclosure in notes to the financial statements, but creditors will consider Omega more solvent if this liability is due in one year rather than due within 90 days.

4. The intentional violation of generally accepted accounting principles with the intent to mislead financial statement users is both unethical and illegal. According to generally accepted accounting principles, corporations prepare their financial statements in conformity with those principles which do not permit the valuation of assets such as land at market values above cost.* Also, the auditors would take exception to this valuation.

**Note to instructor:* Investments in some *marketable securities*, however, are presented in the balance sheet at market value. We discuss this valuation (called "mark-to-market") in Chapter 7. But at present, the cost principle still applies to land and other plant assets.

30 Minutes, Easy

CASE 2.6
PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. The mission of the PCAOB is stated as follows: "The PCAOB is a private-sector non-profit corporation created by the Sarbanes-Oxley Act of 2002, to oversee the auditors of public companies in order to protect the interests of investors and further the public interest in the preparation of informative, fair, and independent audit reports."

b. The members of the PCAOB are:

Kayla J. Gillan
Danile L. Goelzer
Bill Gradison
Charles D. Niemeier

c. The enforcement authority of the PCAOB is a broad investigative and disciplinary authority over registered public accounting firms and persons associated with such firms. THE PCAOB is directed to implement this authority by establishing by rule fair procedures for the investigation and discipline of registered public accounting firms and persons associated with these firms. THE PCAOB may conduct investigations concerning any acts or practices, or omissions, that may violate any provision of the Sarbanes-Oxley Act of 2002 related to the preparation and issuance of audit reports and the obligations and liabilities of accountants with respect to those reports.

d. Sarbanes-Oxley directs the PCAOB to establish auditing and related attestation standards, quality control standards, and ethics standards to be used by registered public accounting firms in the preparation and issuance of audit reports required by Sarbanes-Oxley, the rules of the PCAOB, or for the protection of investors. The development of standards should be an open, public process in which investors, the accounting profession, preparers of financial statements, and others have the opportunity to be actively involved in the standard-setting process.

20 Minutes, Medium

CASE 2.7
EVALUATING COMPANY EFFICIENCY
BUSINESS WEEK

a. Collecting receivables quickly rather than slowly can benefit a company in several ways. First, receiving cash from customers means that the company needs less cash from other sources. This may permit the company, for example, to borrow less and pay less interest than it would otherwise pay. Second, the cash received sooner rather than later from customers can be used to accomplish objectives that might otherwise be unmet because of the unavailability of cash. Third, some customers may have cash shortages and ultimately be unable to pay amounts owed. Receiving cash from these customers earlier may protect the company receiving the cash from being one of those companies that ultimately do not get paid. The rate of receiving cash on receivables is called "receivables turnover," and is explained in greater depth later in this text.

b. Similar to receiving cash on receivables, selling inventories quickly has numerous benefits to the company. First, storing inventories is expensive, and the shorter the time inventories are stored, the less costs are incurred prior to the sale. Costs of inventory include not only the price paid for the inventories themselves, but also space, heating and air conditioning, security, and insurance. Second, when inventories are sold quickly, cash should be received sooner than when inventories are sold slowly. Even if the sale of inventories is a credit sale, a short holding period for inventories before they are sold means that amounts move from inventories into receivables quicker and, ultimately, into cash quicker. Finally, dollars invested in inventory are costly to the company. The sooner those dollars are converted into receivables and ultimately back into cash, the sooner that cash can be used for other purposes.

25 Minutes, Easy

CASE 2.8
GATHERING FINANCIAL INFORMATION INTERNET

a. The business address of Cisco Systems is:

170 West Tasman Drive
San Jose, CA 95134-1706

Note: We cannot supply quantitative answers to parts *b* through *e*, because they vary from quarter to quarter. Our answers indicate only where the data are found in Cisco System's latest financial statements.

b. Cash and Cash Equivalents is the first item in the balance sheet. The end-of-quarter balance appears in the left column, and the end of the preceding year on the right. It may increase or decrease between any two dates.

c. The most recent figure is in the far left column. The next column to the right shows income for the same quarter of the prior year.

d. Cash provided by operations for the year to date appears in the left column of the Condensed Consolidated Statement of Cash Flows.

e. There is no "answer" to part *e*. It merely encourages students to explore. You might ask them to explain in class what they found.

CHAPTER 3
THE ACCOUNTING CYCLE:
CAPTURING ECONOMIC EVENTS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 3.1	The accounting cycle	1, 2, 5, 9, 10	Analysis
B. Ex. 3.2	Recording transactions	3–5	Analysis
B. Ex. 3.3	Recording transactions	7, 8	Analysis
B. Ex. 3.4	Debit and credit rules	3, 8	Analysis
B. Ex. 3.5	Changes in retained earnings	3, 6	Analysis
B. Ex. 3.6	Realization and matching principles	6, 7	Analysis
B. Ex. 3.7	Revenue realization	6, 7	Analysis, judgment
B. Ex. 3.8	Expense recognition	6, 7	Analysis, judgment
B. Ex. 3.9	Revenue realization	6, 7	Analysis
B. Ex. 3.10	Matching principle	6, 7	Analysis

Exercises	Topic	Learning Objectives	Skills
3.1	Accounting terminology	1–10	Analysis
3.2	The matching principle	6, 7	Communication, analysis
3.3	Journal and ledger relationships	2–5	Analysis
3.4	Preparing a trial balance	9	Analysis
3.5	**Real World: Apple Computer** Net income and owners' equity	6, 8	Analysis
3.6	Accounting equation relationships	2–6	Analysis
3.7	Accounting equation relationships	2, 3, 4, 5, 6	Analysis, communication
3.8	Revenue, expenses, and dividends	4, 6–8	Analysis
3.9	Financial statement effects	3, 6, 7	Analysis
3.10	Preparing a trial balance	3, 5, 8, 9	Analysis
3.11	Preparing a trial balance	3, 5, 8, 9	Analysis
3.12	Preparing a trial balance	3, 5, 8, 9	Analysis
3.13	Analyzing transactions	3, 6, 8	Analysis
3.14	Analyzing transactions	3, 6, 8	Analysis
3.15	**Real World: Home Depot, Inc.** Using an annual report	1–3, 7, 10	Communication, analysis

Problems Sets A, B	Topic	Learning Objectives	Skills
3.1 A,B	Recording journal entries and identifying their effects on the accounting equation	3–5	Communication, judgment
3.2 A,B	Recording journal entries and identifying their effects on the accounting equation	3–8	Analysis, judgment, communication
3.3 A,B	Recording journal entries and identifying their effects on the accounting equation	3–8	Communication, judgment, analysis
3.4 A,B	The accounting cycle	1–10	Analysis, communication
3.5 A,B	The accounting cycle	1–10	Analysis, communication
3.6 A,B	Short comprehensive problem	1–10	Analysis, communication
3.7 A,B	Short comprehensive problem	1–10	Analysis, communication
3.8 A,B	Analyzing the effects of errors	3, 8	Analysis

Critical Thinking Cases			
3.1	Revenue recognition	7, 10	Analysis, communication, judgment
3.2	Income measurement	6, 7, 10	Communication, judgment, analysis
3.3	Whistle-Blowing (Ethics, fraud & corporate governance)	6, 7, 10	Analysis, judgment, communication
3.4	**Real World: PepsiCo., Inc.** *(Business Week)*	10	Analysis, technology, judgment, communication, research
3.5	**Real World: PC Connection and Apple Computer** Revenue from various sources (Internet)	6	Communication, technology, judgment,

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

3.1 A,B **Heartland Construction/North Enterprises** **30 Medium**
A company engages in numerous transactions during its first month of operations. Students are required to journalize each transaction and analyze the effect of each transaction on the accounting equation.

3.2 A,B **Environmental Services, Inc./Lyons, Inc.** **30 Medium**
Calls for a detailed analysis of numerous transactions, journalizing, and the application of the realization and matching principles.

3.3 A,B **Weida Surveying, Inc./Dana, Inc.** **35 Medium**
Requires students to journalize transactions and to understand the relationship between the income statement and the balance sheet.

3.4 A,B **Aerial Views/Tone Deliveries** **50 Strong**
Requires students to journalize and post transactions, prepare a trial balance, and understand the relationships between the income statement and balance sheet.

3.5 A,B **Dr. Schekter, DVM/Dr. Cravati, DMD** **60 Strong**
Requires students to journalize and post transactions, prepare a trial balance, and understand the relationships between the income statement and balance sheet.

3.6 A,B **Donegan's Lawn Care Service/Clown Around, Inc.** **50 Strong**
Requires students to journalize and post transactions, prepare a trial balance, and understand various relationships among financial statement elements.

3.7 A,B **Sanlucas, Inc./Ahuna, Inc.** **50 Strong**
Requires students to journalize and post transactions, prepare a trial balance, and understand various relationships among financial statement elements.

3.8 A,B **Home Team Corporation/Blind River, Inc.** **50 Strong**
Requires students to analyze the effects of errors on financial statement elements.

Critical Thinking Cases

3.1	**Revenue Recognition** Requires students to draw conclusions concerning the point at which various companies should recognize revenue.	**15 Medium**
3.2	**Measuring Income** Students are to determine whether a company's methods of measuring income are fair and reasonable. Also requires students to distinguish between net income and cash flow.	**30 Strong**
3.3	**Whistle-Blowing** **Ethics, Fraud & Corporate Governance** Students are asked to consider the legal and ethical implications of engaging in fraudulent reporting activities.	**5 Easy**
3.4	**PepsiCo, Inc.** ***Business Week*** Students are asked to consider types of information PepsiCo would track for its soft drink operations.	**15 Easy**
3.5	**PC Connection and Apple Computer** **Revenue from Various Sources** **Internet** Using 10-K reports, students are asked to identify revenue from various sources.	**10 Easy**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. Although it has no obligation to issue financial statements to creditors or investors, Baker Construction still should maintain an accounting system. For a start, the company probably has numerous reporting obligations *other than* financial statements. These include income tax returns, payroll tax returns, (including workers' compensation insurance) and payroll data, which must be reported to individual employees.

   Even though the company is not required by law to issue financial statements, Tom Baker should find such statements useful in managing the business and also in arranging financing should the business ever need additional capital.

   In addition, an accounting system provides managers and employees with a wealth of information vital to daily business operations. For example, the system keeps track of the amounts due from customers and amounts payable to employees, tax authorities, and suppliers. It also provides information about the company's cash position and the performance of different departments within the organization. Another important use of an accounting system is establishing the accountability of specific employees for the assets and operations under their direct control.

2. The three basic parts of an account are (1) its *title*, (2) a left side called the *debit* side, and (3) a right side called the *credit* side.

3. Assets are located on the *left* side of the balance sheet equation; an increase in an asset account is recorded by an entry on the *left* (or debit) side of the account. Liabilities and owners' equity are located on the *right* side of the balance sheet equation; an increase in a liability account or an owners' equity account is recorded by an entry on the *right* (or credit) side of the account.

4. Asset accounts:
   a. Increases are recorded by debits
   b. Decreases are recorded by credits

   Liability and owners' equity accounts:
   a. Increases are recorded by credits
   b. Decreases are recorded by debits

5. No, the term *debit* means an entry on the left-hand side of an account; the term *credit* simply means an entry on the right-hand side of an account. Consequently, the term *debit* means increase when applied to an asset account, but it signifies a decrease when applied to a liability or owners' equity account. The term *credit* means decrease when applied to an asset account, but it signifies an increase when applied to a liability or owners' equity account.

6. The double-entry system requires that equal dollar amounts of debit and credit entries be made for every business transaction recorded.

7. a. Credit Cash. Cash is an asset account and was decreased by this transaction. Decreases in assets are recorded by credits.

   b. Credit Office Equipment. Office Equipment is an asset account and was decreased by this transaction. Decreases in assets are recorded by credits.

   c. Debit Cash. Cash is an asset account and was increased by this transaction. Increases in assets are recorded by debits.

   d. Credit Accounts Payable. Accounts Payable is a liability account and was increased by this transaction. Increases in liabilities are recorded by credits.

   e. Credit Capital Stock. Capital Stock is an owners' equity account and was increased by this transaction. Increases in owners' equity are recorded by credits.

8. Operating profitably causes an increase in owners' equity. Usually, this increase in equity is accompanied by an increase in total assets. However, the increase in equity might be offset in part or in whole by a decrease in total liabilities.

9. No, net income does not represent an amount of cash. The entire amount of cash owned by a business appears on the asset side of the balance sheet and is entitled Cash. Net income is an increase in owners' equity and implies nothing about the *form* in which the company's assets are held.

10. *Revenue* represents the price of goods sold and of services rendered to customers during the period. It is an increase in owners' equity accompanied either by an increase in assets or a reduction in liabilities.

    Not every receipt of cash represents the earning of revenue. The borrowing of money from a bank causes cash to be received but does not increase the owners' equity and does not represent revenue. Collection of an account receivable is merely the exchange of one asset (the receivable) for another asset (cash) and does not constitute revenue.

11. The term *expenses* means the cost of the goods and services used up or consumed in the process of obtaining revenue. Expenses cause a decrease in owners' equity. To determine the net income for a given accounting period, it is necessary that all expenses of that period be deducted from the revenue earned in that period. In deciding whether a given transaction represents an expense of the current period, two questions are pertinent: (1) Was the alleged expense incurred primarily to generate revenue during the current period? (2) Does the item in question reduce the owners' equity?

    Not all cash payments represent expenses. Examples of cash payments that are not expenses include purchase of an asset such as a building or supplies, payment of an existing liability, and dividends.

12. The revenue is recognized in May. The journal entry in May consists of a $500 debit to Accounts Receivable and a $500 credit to a revenue account such as Commissions Earned or Fees Earned. The entry in June consists of a $500 debit to Cash and a $500 credit to Accounts Receivable.

13. Revenue is considered realized at the time that services are rendered to customers or goods sold are delivered to customers. The realization principle answers the question of *when* revenue should be recognized in accounting records.

14. Classic Auto Painters should recognize the paint as expense in the month of April—the month in which the paint was *used* in the effort to generate revenue. This answer demonstrates the *matching principle* —the idea that revenue should be offset by all the expenses incurred in the effort of producing that revenue.

15. The *matching principle* indicates that expenses should be recognized in the period (or periods) that the expenditure helps to produce revenue.

16. Revenue increases owners' equity; therefore revenue is recorded by a *credit.* Expenses decrease owners' equity; therefore expenses are recorded by *debits* .

17. The trial balance provides proof that the ledger is in balance. A trial balance does not, however, prove that transactions have been analyzed and recorded in the proper accounts and/or for the proper amounts. Furthermore, if a transaction were completely omitted from the ledger, the error would not be disclosed by the trial balance.

18. A dividend is a distribution of assets (usually cash) by a corporation to its stockholders. Dividends reduce both assets and owners' equity (specifically, the Retained Earnings account). Dividends are not an expense deducted from revenue in the computation of net income. Rather than being reported in the income statement as a component of net income, dividends are reported in the statement of retained earnings as a component of the Retained Earnings balance reported in the balance sheet.

19. The accrual basis of accounting calls for recording revenue in the period in which it is earned and recording expenses in the period in which they are incurred. The cash basis of accounting calls for recording revenue when it is received in cash and for recording expenses when they are paid. The accrual basis of accounting gives a more accurate picture of the profitability of a business because it matches revenue with the related expenses incurred in producing that revenue. Net income can be determined accurately only if we recognize all the revenue earned and all the related expenses incurred in a given time period.

20. Some of the more analytical functions performed by accountants include determining the information needs of decision makers, designing information systems, evaluating organizational efficiency, interpreting financial information, auditing financial records, forecasting future operations, and tax planning.

SOLUTIONS TO BRIEF EXERCISES

B. Ex. 3.1 **a.**

1. Journalize transactions.
2. Post transaction data to the ledger.
3. Prepare a trial balance.
4. Make end-of-period adjustments.
5. Prepare an adjusted trial balance.
6. Prepare financial statements.
7. Journalize and post closing entries.
8. Prepare an after-closing trial balance.

b.

1. Evaluate the efficiency of operations.
2. Establish accountability for assets and transactions.
3. Maintain a documentary record of business activities.
4. Help make business decisions.

B. Ex. 3.2

Oct. 1	Cash …………………………………………	200,000	
	Capital Stock ……………………………		200,000
	Issued capital stock at $50 per share.		
4	Diagnostic Equipment …………………………	75,000	
	Cash ……………………………………		25,000
	Notes Payable ………………………….		50,000
	Purchased equipment, paying part in cash and signing a note payable for the balance.		
12	Accounts Payable ……………………………	9,000	
	Cash …………………………………..		9,000
	Paid account payable to Zeller Laboratories.		
19	Surgical Supplies …………………………….	2,600	
	Accounts Payable ……………………..		2,600
	Purchased surgical supplies on account.		
25	Cash ………………………………………	24,000	
	Accounts Receivable …………………..		24,000
	Collected amount owed from Health One Insurance.		
30	Dividends …………………………………	300,000	
	Cash …………………………………..		300,000
	Paid cash dividend.		

B. Ex. 3.3 **a.**

Jan. 18	Cash …………	30,000	
	Capital Stock …………		30,000
	Issued capital stock for $30,000.		
22	Cash …………	20,000	
	Notes Payable …………		20,000
	Borrowed $20,000 by issuing a note payable.		
23	Advertising Expense …………	100	
	Cash …………		100
	Paid for radio ad to be aired on January 24.		
25	Cash…………….. …………	1,000	
	Service Revenue …………		1,000
	Provided services to clients.		
26	Accounts Receivable …………	2,000	
	Service Revenue….. …………		2,000
	Provided services to clients on account.		
31	Cash…….. …………	800	
	Accounts Receivable …………		800
	Collected $800 from clients for services performed on January 26.		

b. Jan. 31 Cash balance: $30,000 + $20,000 **-** $100 + $1,000 +$800 = $51,700 (debit)

B. Ex. 3.4

	Revenue	Expenses	Assets	Liabilities	Owners' Equity
Increases	**Credits**	**Debits**	**Debits**	**Credits**	**Credits**
Decreases	**Debits**	**Credits**	**Credits**	**Debits**	**Debits**

B. Ex. 3.5

Beginning Retained Earnings (1/1) ………	$ 75,000
Add: Income ($100,000 - $60,000) ………..	40,000
Less: Dividends………………….………..	(5,000)
Ending Retained Earnings (1/31)………….	$110,000

The purchase of land for $20,000 does not affect the balance of Retained Earnings.

B. Ex. 3.6 **a.** Revenue is recognized when it is earned. Thus, KPRM Radio will recognize revenue from Breeze Camp Ground in the months that the ads are aired (at $50 per ad):

	May	June	July
Revenue	$ 100	$ 350	$ 50

b. Expenses are matched to the periods in which they contribute to generating revenue. Thus, Breeze Camp Ground will recognize advertising expense in the months that the ads are aired (at $50 per ad):

	May	June	July
Expense	$ 100	$ 350	$ 50

B. Ex. 3.7 **a.** An investment by stockholders does not constitute revenue. Although this investment causes an increase in owners' equity, this increase was not earned. It did not result from the rendering of services or sale of merchandise to outsiders.

b. The collection of an account receivable does not increase owners' equity and does not represent revenue.

c. The borrowing of money from a bank creates a liability; it does not increase the owners' equity and does not represent revenue.

d. The interest was earned in May and represents revenue of that month, despite the fact that no withdrawals were made from the bank.

e. This fee was earned in May and represents revenue of that month, despite the fact that collection will not be made until June.

B. Ex. 3.8 **a.** The purchase of a copying machine does not represent an expense. The asset Cash is exchanged for the asset Office Equipment, without any change in owners' equity. The purpose of the transaction was to obtain the use of the copier over a number of years, rather than to generate revenue only during the current period. (Evergreen will recognize depreciation expense on this asset throughout its useful life, but the *purchase* does not represent an expense in March. Depreciation issues are introduced in Chapter 4.)

b. Gasoline purchased is an expense because it is ordinarily used up in the current period. These purchases decrease the owners' equity and are for the purpose of generating revenue.

c. Payment to an employee for services rendered in March is a March expense. Such a payment is made to generate revenue and decreases owners' equity.

d. The payment to the attorney for services rendered in a prior period reduced an existing liability but did not affect the owners' equity. The payment was not an expense.

e. The dividend does not constitute an expense. Unlike payments for advertising, rent, and supplies, dividends do not generate revenue. Dividends constitute a return to stockholders of a portion of their equity in the business.

B. Ex. 3.9 Revenue is recognized when it is earned, not necessarily when cash is received. Thus, the airline will recognize revenue of $800,000 in its October income statement (of which $500,000 was collected in September and $300,000 was collected in October).

B. Ex. 3.10 Expenses are recognized when they are incurred, not necessarily when cash is paid. Thus, the company will report salary expense of $24,000 in its May income statement (of which $15,000 was paid in May and $9,000 was paid in June).

SOLUTIONS TO EXERCISES

Ex. 3.1

a. Accounting period

b. Accounting cycle

c. None (This statement describes the accounting convention of conservatism.)

d. Net income

e. Realization principle

f. Credit

g. Matching principle

h. Expenses

Ex. 3.2

a. Costs of owning and operating an automobile (estimates will vary; the following list is only an example):

Insurance ……	$	1,000
Gasoline (15,000 miles at 30 mpg. = $3.20/gal.) ……		1,600
Registration and license ……		100
Repairs and maintenance ……		200
Depreciation ……		1,200
Interest on car loan* ……		500
Annual total……	$	4,600
Average cost per mile ($4,600 / 15,000 miles)……		**$0.31**

**Note to instructor:* It is worth noting that including both depreciation and the "principal" portion of the car loan would be "double-counting" the purchase price of the car. Depreciation issues are introduced in Chapter 4.

b. Although you spent no money *during* this trip, you incurred significant costs. For example, you have used much of the gasoline in your tank. Also, the more miles you drive, the higher your repair and maintenance costs, depreciation, and insurance. Assuming that it cost you about 31 cents per mile to own and operate your vehicle, about $31 would be a reasonable estimate of your "driving expenses."

Note to instructor: Most employers do base their reimbursement of driving expenses on an average cost per mile. You may want to point out that the *incremental costs* of this trip are much less than the average cost. Thus, employees usually benefit somewhat in the short-term when they are reimbursed for using their own cars.

Ex. 3.3	**Nov.**	**1**	Cash	120,000	
			Capital Stock		120,000
			Issued stock in exchange for cash.		
		8	Land	70,000	
			Building	58,600	
			Cash		33,600
			Notes Payable		95,000
			Purchased land and building, by paying $33,600 cash and issuing a note payable for the remaining balance.		
		15	Office Equipment	3,200	
			Accounts Payable		3,200
			Purchased office equipment on account.		
		21	Accounts Payable	480	
			Office Equipment		480
			Returned some of the office equipment purchased on November 15.		
		25	Notes Payable	12,000	
			Cash		12,000
			Paid note payable.		
		30	Vehicles	9,400	
			Cash		1,400
			Notes Payable		8,000
			Purchased vehicles by paying $1,400 cash and issuing a note payable for the remaining balance.		

Ex. 3.4

AVENSON INSURANCE COMPANY
Trial Balance
November 30, 20__

Cash	$ 73,000	
Land	70,000	
Building	58,600	
Office equipment	2,720	
Vehicles	9,400	
Notes payable		$ 91,000
Accounts payable		2,720
Capital stock		120,000
	$ 213,720	$213,720

Ex. 3.5 **a.** Liabilities at the beginning of the year: $6.0 billion – $3.9 billion = $2.1 billion

b. Owners' equity at the end of the year: $6.3 billion – $2.2 billion = $4.1 billion

c.

Ending owners' equity (from part **b**) ………	$ 4,100,000,000
Less: Beginning owners' equity …………..	(3,900,000,000)
Increase in owners' equity ………………..	$ 200,000,000
Less: Increase in capital stock ……………	(135,000,000)
Net income ……………………………….	$ 65,000,000

Ex. 3.6

	Income Statement			Balance Sheet		
Trans-action	**Revenue -**	**Expenses =**	**Net Income**	**Assets -**	**Liabilities =**	**Owners' Equity**
1.	I	NE	I	I	NE	I
2.	NE	NE	NE	D	D	NE
3.	NE	NE	NE	NE	NE	NE
4.	NE	I	D	NE	I	D
5.	NE	NE	NE	I	I	NE
6.	NE	NE	NE	D	NE	D

Ex. 3.7

a.

	Income Statement			Balance Sheet		
Trans-action	**Revenue -**	**Expenses =**	**Net Income**	**Assets -**	**Liabilities =**	**Owners' Equity**
1.	NE	I	D	NE	I	D
2.	I	NE	I	I	NE	I
3.	NE	NE	NE	D	NE	D
4.	NE	NE	NE	I	I	NE
5.	NE	I	D	D	NE	D
6.	NE	NE	NE	NE	NE	NE
7.	NE	NE	NE	I	I	NE
8.	NE	NE	NE	D	D	NE

b.

1. Incurred wages expense to be paid at a later date.
2. Earned revenue to be collected at a later date.
3. Declared and paid a cash dividend.
4. Purchased office supplies on account.
5. Incurred and paid repairs expense.
6. Collected cash from a customer for revenue earned previously on account.
7. Purchased tools and equipment by paying part in cash and issuing a note payable for the remaining balance.
8. Paid an outstanding account payable.

Ex. 3.8 **a.**

Date		Account	Debit	Credit
Apr.	**5**	Accounts Receivable	900	
		Drafting Fees Earned		900
		Prepared plans for Spangler Construction; payment due in 30 days.		
May	**17**	Dividends	5,000	
		Dividends Payable		5,000
		Declared cash dividend; payment due June 25.		
May	**29**	Professional Expenses	2,000	
		Accounts Payable		2,000
		Received accounting bill from Bob Needham due on June 10.		
June	**4**	Cash	900	
		Accounts Receivable		900
		Received full payment from Spangler Construction for bill sent April 5.		
June	**10**	Accounts Payable	2,000	
		Cash		2,000
		Paid amount owed to Bob Needham, CPA.		
June	**25**	Dividends Payable	5,000	
		Cash		5,000
		Paid cash dividend declared May 17.		

b. The following transactions will not cause a change in net income.

May 17: Declaration of a cash dividend.
June 4: Collection of an account receivable.
June 10: Payment of an account payable.
June 25: Payment of a dividend payable.

Ex. 3.9

Transaction	Net Income	Assets	Liabilities	Equity
a.	NE	I	NE	I
b.	NE	I	I	NE
c.	D	NE	I	D
d.	NE	NE	NE	NE
e.	NE	D	D	NE
f.	NE	NE	I	D
g.	NE	NE	NE	NE
h.	NE	NE	NE	NE

Ex. 3.10 a.

May 3	Cash…………………………………………	800,000	
	Capital Stock…………………………….		800,000
	Issued capital stock for $800,000		
4	Office Rent Expense……………………………..	1,000	
	Cash……………………………………….		1,000
	Paid May office rent expense.		
5	Office Supplies……………………………………	400	
	Cash………………………………….		400
	Purchased office supplies.		
15	Office Equipment…………………………………	8,000	
	Accounts Payable………………………		8,000
	Purchased office equipment on account. Amount due June 15.		
18	Vehicles…………………………………………	27,000	
	Cash …………………………………….		7,000
	Notes Payable……………………………		20,000
	Purchased a company car. Paid $7,000 cash and issued a $20,000 note payable for the balance.		
20	Accounts Receivable…………………………	32,000	
	Client Revenue………………………..		32,000
	Billed clients for services on account.		
26	Dividends……………………………………….	5,000	
	Dividends Payable………………………		5,000
	Declared dividend to be distributed in June.		
29	Utilities Expense………………………………..	200	
	Cash…………………….……………………		200
	Paid May utilities.		
30	Cash……………………………………………	30,000	
	Accounts Receivable……………………		30,000
	Collected cash on account from clients billed on May 20.		
31	Salary Expense…………………………………	14,000	
	Cash……………………………………		14,000
	Paid salary expense incurred in May.		

b.

Cash

May 3	800,000	May 4	1,000
May 30	30,000	May 5	400
		May 18	7,000
		May 29	200
		May 31	14,000
May 31 bal.	807,400		

Accounts Receivable

May 20	32,000	May 30	30,000
May 31 bal.	2,000		

Office Supplies

May 5	400		
May 31 bal.	400		

Office Equipment

May 15	8,000		
May 31 bal.	8,000		

Vehicles

May 18	27,000		
May 31 bal.	27,000		

Notes Payable

		May 18	20,000
		May 31 bal.	20,000

Accounts Payable

		May 15	8,000
		May 31 bal.	8,000

Dividends Payable

		May 26	5,000
		May 31 bal.	5,000

Capital Stock

		May 3	800,000
		May 31 bal.	800,000

Client Revenue

		May 20	32,000
		May 31 bal.	32,000

Office Rent Expense

May 4	1,000		
May 31 bal.	1,000		

Salary Expense

May 31	14,000		
May 31 bal.	14,000		

Utilities Expense

May 29	200		
May 31 bal.	200		

Dividends

May 26	5,000		
May 31 bal.	5,000		

c.

Trafflet Enterprises
Trial Balance
May 31, 2007

	Debit	Credit
Cash……………………………………….	$807,400	
Accounts receivable………………………	2,000	
Office supplies…………………………	400	
Office equipment………………………	8,000	
Vehicles………………………………..	27,000	
Notes payable………………………….		$20,000
Accounts payable……………………….		8,000
Dividends payable……………………..		5,000
Dividends………………………………..	5,000	
Capital stock…………………………..		800,000
Client revenue………………………….		32,000
Office rent expense………………………	1,000	
Salary expense………………………..	14,000	
Utilities expense………………………..	200	
Total…………………………………….	$865,000	$865,000

Ex. 3.11	**a.**	**Sep.**	**2**	Cash…………………………………………	900,000	
				Capital Stock…………………………….		900,000
				Issued capital stock for $900,000.		
			4	Land……………………………………………	50,000	
				Building………………………………………..	300,000	
				Cash …………………………………….		200,000
				Notes Payable……………………………		150,000
				Purchased land and building for $350,000. Paid $200,000 cash and issued a note payable for the balance.		
			12	Office Supplies…………………………………	600	
				Accounts Payable…………………………		600
				Purchased office supplies on account.		
			19	Accounts Receivable………………………….	75,000	
				Client Revenue………………………….		75,000
				Billed clients on account for services.		
			29	Salary Expense…………………………………	24,000	
				Cash……………….……………………		24,000
				Recorded and paid salary expense.		
			30	Cash…………………………………………	30,000	
				Accounts Receivable……………………		30,000
				Collected cash on account from clients billed on September 19.		

b.

Cash

Sep. 2	900,000	Sep. 4	200,000
Sep. 30	30,000	Sep. 29	24,000
Sep. 30 bal.	706,000		

Accounts Receivable

Sep. 19	75,000	Sep. 30	30,000
Sep. 30 bal.	45,000		

Office Supplies

Sep. 12	600		
Sep. 30 bal.	600		

Land

Sep. 4	50,000		
Sep. 30 bal.	50,000		

Building

Sep. 4	300,000		
Sep. 30 bal.	300,000		

Notes Payable

		Sep. 4	150,000
		Sep. 30 bal.	150,000

Accounts Payable

		Sep. 12	600
		Sep. 30 bal.	600

Capital Stock

		Sep. 2	900,000
		Sep. 30 bal.	900,000

Client Revenue

		Sep. 19	75,000
		Sep. 30 bal.	75,000

Salary Expense

Sep. 29	24,000		
Sep. 30 bal.	24,000		

c.

McMillan Corporation
Trial Balance
September 30, 2007

	Debit	**Credit**
Cash……………………………………	$706,000	
Accounts receivable……………………	45,000	
Office supplies…………………………	600	
Land……………………………………	50,000	
Building…………………………………	300,000	
Notes payable………………………….		$150,000
Accounts payable……………………….		600
Capital stock…………………………..		900,000
Client revenue………………………….		75,000
Salary expense………………………….	24,000	
Total…………………………………….	$1,125,600	$1,125,600

Ex. 3.12 a. Feb.

Date	Account / Explanation	Debit	Credit
1	Cash…………………………………………	750,000	
	Capital Stock……………………………		750,000
	Issued capital stock for $750,000		
5	Cash…………………………………………	50,000	
	Notes Payable……………………………		50,000
	Borrowed cash from bank by issuing a note payable.		
8	Land………………………………………..	100,000	
	Buildings…………………………………….	450,000	
	Office Equipment…………………………………	50,000	
	Cash…………………………………..		300,000
	Notes Payable……………………………		300,000
	Purchased land, building, and equipment building for $600,000. Paid $300,000 and issued a note payable for the balance.		
11	Office Supplies………………………………….	600	
	Accounts Payable………………………..		600
	Purchased offices supplies on account.		
14	Advertising Expense…………………………….	400	
	Cash …………………………………….		400
	Paid the newspaper $400 for an advertisement to be printed on February 18.		
20	Accounts Payable………………………………	100	
	Office Supplies…………………………..		100
	Returned defective office supplies purchased on February 11. Received a $100 credit.		
22	Cash…………………………………………..	6,000	
	Client Service Revenue…………………		6,000
	Collected cash from clients for services rendered.		
24	Accounts Receivable…………………………	9,000	
	Client Service Revenue…………………		9,000
	Billed clients for services on account.		
25	Salary Expense…………………………………	5,000	
	Cash……………………………………		5,000
	Paid salary expense incurred in February.		
28	Accounts Payable………………………………	500	
	Cash……………………………………		500
	Paid for office supplies purchased on February 11.		

b.

Cash

Feb. 1	750,000	Feb. 8	300,000
Feb. 5	50,000	Feb. 14	400
Feb. 22	6,000	Feb. 25	5,000
		Feb. 28	500
Feb. 28 bal.	500,100		

Accounts Receivable

Feb. 24	9,000		
Feb. 28 bal.	9,000		

Office Supplies

Feb. 11	600	Feb. 20	100
Feb. 28 bal.	500		

Land

Feb. 8	100,000		
Feb. 28 bal.	100,000		

Buildings

Feb. 8	450,000		
Feb. 28 bal.	450,000		

Office Equipment

Feb. 8	50,000		
Feb. 28 bal.	50,000		

Notes Payable

		Feb. 5	50,000
		Feb. 8	300,000
		Feb. 28 bal.	350,000

Accounts Payable

Feb. 20	100	Feb. 11	600
Feb. 28	500		
		Feb. 28 bal.	0

Capital Stock

		Feb. 1	750,000
		Feb. 28 bal.	750,000

Client Service Revenue

		Feb. 22	6,000
		Feb. 24	9,000
		Feb. 28 bal.	15,000

Advertising Expense

Feb. 14	400		
Feb. 28 bal.	400		

Salary Expense

Feb. 25	5,000		
Feb. 28 bal.	5,000		

c.

Herrold Consulting Incorporated
Trial Balance
February 28, 2007

	Debit	Credit
Cash…………………………………….	$500,100	
Accounts receivable………………………	9,000	
Office supplies…………………………	500	
Land…………………………………….	100,000	
Building………………………………….	450,000	
Office equipment……………………….	50,000	
Notes payable………………………….		$350,000
Capital stock…………………………..		750,000
Client service revenue…………………		15,000
Advertising expense…………………….	400	
Salary expense………………………….	5,000	
Total…………………………………….	$1,115,000	$1,115,000

Ex. 3.13

	Transaction
1.	e.
2.	f.
3.	b.
4.	a.
5.	d.
6.	c.

Ex. 3.14

	Transaction
1.	d.
2.	e.
3.	a.
4.	f.
5.	c.
6.	b.

Ex. 3.15

a. The company's balance sheet is dated January 29, 2006. Thus, it is apparent that its financial year does not coincide with the calendar year. The notes accompanying the financial statements confirm that the company's fiscal year does not end on December 31.

b. 2005: $39,020 = $14,862 + $24,158
2006: $44,482 = $17,573 + $26,909

c. The company's cash (and cash equivalents) increased from $506 at the beginning of the year, to $793 at the end of the year. Thus, it had to have posted more debits than credits to cash (and cash equivalents). Note that these figures are in millions of millions of dollars.

SOLUTIONS TO PROBLEMS SET A

30 Minutes, Medium

PROBLEM 3.1A
HEARTLAND CONSTRUCTION

a.

General Journal

20__				
Feb.	1	Cash	500,000	
		Capital Stock		500,000
		Issued 25,000 shares of Capital Stock.		
	10	Land	100,000	
		Office Building	200,000	
		Cash		60,000
		Notes Payable		240,000
		Purchased land and office building.		
	16	Computer Systems	12,000	
		Cash		12,000
		Purchased computer system.		
	18	Office Furnishings	9,000	
		Cash		1,000
		Accounts Payable		8,000
		Purchased office furnishings.		
	22	Office Supplies	300	
		Cash		300
		Purchased office supplies.		
	23	Accounts Receivable	36	
		Computer Systems		36
		Refund due from PC World.		
	27	Accounts Payable	4,000	
		Cash		4,000
		Made payment on an account payable.		
	28	Cash	36	
		Accounts Receivable		36
		Collected cash refunded by PC World.		

b.

Transaction	**Assets**	**=**	**Liabilities**	**+**	**Owners' Equity**
Feb. 1	+ $500,000 (Cash)		$0		+ $500,000 (Capital Stock)
Feb. 10	+ $100,000 (Land) + $200,000 (Office Building) – $60,000 (Cash)		+ $240,000 (Notes Payable)		$0
Feb. 16	+ $12,000 (Computer Systems) – $12,000 (Cash)		$0		$0
Feb. 18	+ $9,000 (Office Furnishings) – $1,000 (Cash)		+ $8,000 (Accounts Payable)		$0
Feb. 22	+ $300 (Office Supplies) – $300 (Cash)		$0		$0
Feb. 23	+ $36 (Accounts Receivable) – $36 (Computer Systems)		$0		$0
Feb. 27	– $4,000 (Cash)		- $4,000 (Accounts Payable)		$0
Feb. 28	+ $36 (Cash) – $36 (Accounts Receivable)		$0		$0

30 Minutes, Medium

PROBLEM 3.2A
ENVIRONMENTAL SERVICES, INC.

a. **(1)** **(a)** The asset Accounts Receivable was increased. Increases in assets are recorded by debits. Debit Accounts Receivable, $2,500.

(b) Revenue has been earned. Revenue increases owners' equity. Increases in owners' equity are recorded by credits. Credit Testing Service Revenue, $2,500.

(2) **(a)** The asset Testing Supplies was increased. Increases in assets are recorded by debits. Debit Testing Supplies, $3,800.

(b) The asset Cash was decreased. Decreases in assets are recorded by credits. Credit Cash, $800.

(c) The liability Accounts Payable was increased. Increases in liabilities are recorded by credits. Credit Accounts Payable, $3,000.

(3) **(a)** The liability Accounts Payable was decreased. Decreases in liabilities are recorded by debits. Debit Accounts Payable, $100.

(b) The asset Testing Supplies was decreased. Decreases in assets are recorded by credits. Credit Testing Supplies, $100.

(4) **(a)** The asset Cash was increased. Increases in assets are recorded by debits. Debit Cash, $20,000.

(b) The owners' equity account Capital Stock was increased. Increases in owners' equity are recorded by credits. Credit Capital Stock, $20,000.

(5) **(a)** The asset Cash was increased. Increases in assets are recorded by debits. Debit Cash, $600.

(b) The asset Accounts Receivable was decreased. Decreases in assets are recorded by credits. Credit Accounts Receivable, $600.

(6) **(a)** The liability Accounts Payable was decreased. Decreases in liabilities are recorded by debits. Debit Accounts Payable, $2,900 ($3,800 - $800 - $100).

(b) The asset Cash was decreased. Decreases in assets are recorded by credits. Credit Cash, $2,900.

(7) **(a)** The Dividends account was increased. Dividends decrease the owners' equity account Retained Earnings. Decreases in owners' equity are recorded by debits. Debit Dividends, $6,800.

(b) The asset Cash was decreased. Decreases in assets are recorded by credits. Credit Cash, $6,800.

PROBLEM 3.2A
ENVIRONMENTAL SERVICES, INC. (continued)

b.

General Journal

20__				
		(1)		
Aug.	1	Accounts Receivable	2,500	
		Testing Service Revenue		2,500
		Billed customers for services rendered.		
		(2)		
	3	Testing Supplies	3,800	
		Cash		800
		Accounts Payable		3,000
		Purchased testing supplies.		
		(3)		
	5	Accounts Payable	100	
		Testing Supplies		100
		Returned portion of testing supplies purchased on		
		Aug. 3.		
		(4)		
	17	Cash	20,000	
		Capital Stock		20,000
		Issued 2,500 shares of capital stock at $8 per share.		
		(5)		
	22	Cash	600	
		Accounts Receivable		600
		Received partial payment for services billed on		
		Aug. 1.		
		(6)		
	29	Accounts Payable	2,900	
		Cash		2,900
		Paid outstanding balance owed for testing supplies		
		purchased on Aug. 3.		
		(7)		
	30	Dividends	6,800	
		Cash		6,800
		Declared and paid a cash dividend.		

PROBLEM 3.2A
ENVIRONMENTAL SERVICES, INC. (concluded)

c. The realization principle requires that revenue be recorded when it is *earned*, even if cash for the goods or services provided has not been received.

d. The matching principle requires that revenue earned during an accounting period be matched (offset) with expenses incurred in generating this revenue. Testing supplies are recorded as an asset when they are first purchased. As these supplies are used in a particular accounting period, their cost will be matched against the revenue earned in that period.

35 Minutes, Medium

PROBLEM 3.3A
WEIDA SURVEYING, INC.

a.

	Income Statement			Balance Sheet		
Transaction	Revenue -	Expenses =	Net Income	Assets -	Liabilities =	Owners' Equity
Sept. 1	NE	I	D	D	NE	D
Sept. 3	I	NE	I	I	NE	I
Sept. 9	I	NE	I	I	NE	I
Sept. 14	NE	I	D	NE	I	D
Sept. 25	NE	NE	NE	NE	NE	NE
Sept. 26	I	NE	I	I	NE	I
Sept. 29	NE	NE	NE	D	D	NE
Sept. 30	NE	NE	NE	D	NE	D

PROBLEM 3.3A
WEIDA SURVEYING, INC. (concluded)

b.

General Journal

Sept.	1	Rent Expense	4,400	
		Cash		4,400
		Paid September rent.		
	3	Accounts Receivable	5,620	
		Surveying Revenue		5,620
		Billed Fine Line Homes for surveying services.		
	9	Cash	2,830	
		Surveying Revenue		2,830
		Collected cash from Sunset Ridge Development for		
		services provided.		
	14	Advertising Expense	165	
		Accounts Payable		165
		Placed ad in the newspaper to be published on		
		Sept. 20. Total amount due in 30 days.		
	25	Cash	5,620	
		Accounts Receivable		5,620
		Received payment from Fine Line Homes for		
		service billed on Sept. 3.		
	26	Cash	400	
		Accounts Receivable	1,490	
		Surveying Revenue		1,890
		Collected partial payment from Thompson Co. and		
		billed remainder.		
	29	Accounts Payable	165	
		Cash		165
		Paid newspaper for advertisement published on		
		Sept. 20.		
	30	Dividends	7,600	
		Cash		7,600
		Declared and paid a cash dividend.		

c. Three situations in which a cash payment does not involve an expense include: (1) the payment of a cash dividend, (2) the payment of a liability for a previously recorded expense, and (3) the purchase of an asset, including expenses paid in advance such as insurance, rent, and advertising.

50 Minutes,Strong

PROBLEM 3.4A
AERIAL VIEWS

a.

	Income Statement			Balance Sheet		
Transaction	Revenue -	Expenses =	Net Income	Assets -	Liabilities =	Owners' Equity
June 1	NE	NE	NE	I	NE	I
June 2	NE	NE	NE	I	I	NE
June 4	NE	I	D	D	NE	D
June 15	I	NE	I	I	NE	I
June 15	NE	I	D	D	NE	D
June 18	NE	I	D	D	NE	D
June 25	NE	NE	NE	NE	NE	NE
June 30	I	NE	I	I	NE	I
June 30	NE	I	D	D	NE	D
June 30	NE	I	D	NE	I	D
June 30	NE	NE	NE	NE	I	D

PROBLEM 3.4A
AERIAL VIEWS (continued)

b.

General Journal

2007				
June	1	Cash	60,000	
		Capital Stock		60,000
		Issued stock to Wendy Winger.		
	2	Aircraft	220,000	
		Cash		40,000
		Notes Payable		180,000
		Purchased plane from Utility Aircraft.		
	4	Rent Expense	2,500	
		Cash		2,500
		Paid office rent for June.		
	15	Accounts Receivable	8,320	
		Aerial Photography Revenue		8,320
		Billed customers for first half of June.		
	15	Salaries Expense	5,880	
		Cash		5,880
		Paid salaries for first half of June.		
	18	Maintenance Expense	1,890	
		Cash		1,890
		Paid Hannigan's Hangar for repair services.		
	25	Cash	4,910	
		Accounts Receivable		4,910
		Collected portion of amount billed to customers.		
	30	Accounts Receivable	16,450	
		Aerial Photography Revenue		16,450
		Billed customers for services rendered through		
		month-end.		
	30	Salaries Expense	6,000	
		Cash		6,000
		Paid salaries through month-end.		
	30	Fuel Expense	2,510	
		Accounts Payable		2,510
		Received bill for fuel used during June.		
	30	Dividends	2,000	
		Dividends Payable		2,000
		Declared dividend payable June 15.		

PROBLEM 3.4A
AERIAL VIEWS (continued)

c.

Cash					
Date		Explanation	Debit	Credit	Balance
2007					
June	1		60,000		60,000
	2			40,000	20,000
	4			2,500	17,500
	15			5,880	11,620
	18			1,890	9,730
	25		4,910		14,640
	30			6,000	8,640

Accounts Receivable					
Date		Explanation	Debit	Credit	Balance
2007					
June	15		8,320		8,320
	25			4,910	3,410
	30		16,450		19,860

Aircraft					
Date		Explanation	Debit	Credit	Balance
2007					
June	2		220,000		220,000

Notes Payable					
Date		Explanation	Debit	Credit	Balance
2007					
June	2			180,000	180,000

Accounts Payable					
Date		Explanation	Debit	Credit	Balance
2007					
June	30			2,510	2,510

PROBLEM 3.4A
AERIAL VIEWS (continued)

Dividends Payable

Date		Explanation	Debit	Credit	Balance
2007					
June	30			2,000	2,000

Capital Stock

Date		Explanation	Debit	Credit	Balance
2007					
June	1			60,000	60,000

Dividends

Date		Explanation	Debit	Credit	Balance
2007					
June	30		2,000		2,000

Aerial Photography Revenue

Date		Explanation	Debit	Credit	Balance
2007					
June	15			8,320	8,320
	30			16,450	24,770

Maintenance Expense

Date		Explanation	Debit	Credit	Balance
2007					
June	18		1,890		1,890

PROBLEM 3.4A
AERIAL VIEWS (continued)

Fuel Expense					
Date		Explanation	Debit	Credit	Balance
2007					
June	30		2,510		2,510

Salaries Expense					
Date		Explanation	Debit	Credit	Balance
2007					
June	15		5,880		5,880
	30		6,000		11,880

Rent Expense					
Date		Explanation	Debit	Credit	Balance
2007					
June	4		2,500		2,500

PROBLEM 3.4A
AERIAL VIEWS (continued)

d.

AERIAL VIEWS Trial Balance June 30, 2007		
Cash	$ 8,640	
Accounts Receivable	19,860	
Aircraft	220,000	
Notes payable		$ 180,000
Accounts payable		2,510
Dividends payable		2,000
Capital stock		60,000
Retained earnings		0
Dividends	2,000	
Aerial photography revenue		24,770
Maintenance expense	1,890	
Fuel expense	2,510	
Salaries expense	11,880	
Rent expense	2,500	
	$ 269,280	$ 269,280

PROBLEM 3.4A
AERIAL VIEWS (concluded)

e.

Total Assets:		
Cash	$ 8,640	
Accounts Receivable	19,860	
Aircraft	220,000	
Total assets		$ 248,500
Total liabilities:		
Notes payable	$ 180,000	
Accounts payable	2,510	
Dividends payable	2,000	
Total liabilities		$ 184,510
Total stockholders' equity:		
Total assets - total liabilities ($248,500 - $184,510)		$ 63,990

The above figures are most likely not the amounts to be reported in the balance sheet dated June 30. The accounting cycle includes adjustments that must be made to the trial balance figures before financial statements are prepared. The adjusting process is covered in Chapter 4.

60 Minutes, Strong

PROBLEM 3.5A
DR. SCHEKTER, DVM

a.

	Income Statement				Balance Sheet			
Transaction	Revenue	-	Expenses =	Net Income	Assets	-	Liabilities =	Owners' Equity
May 1	NE		NE	NE	I		NE	I
May 4	NE		NE	NE	I		I	NE
May 9	NE		NE	NE	NE		NE	NE
May 16	NE		NE	NE	I		I	NE
May 21	NE		NE	NE	NE		NE	NE
May 24	I		NE	I	I		NE	I
May 27	NE		I	D	NE		I	D
May 28	NE		NE	NE	NE		NE	NE
May 31	NE		I	D	D		NE	D

PROBLEM 3.5A
DR. SCHEKTER, DVM (continued)

b.

General Journal

2007				
May	1	Cash	400,000	
		Capital Stock		400,000
		Issued 5,000 shares of capital stock.		
	4	Land	70,000	
		Building	180,000	
		Cash		100,000
		Notes Payable		150,000
		Purchased land and building.		
	9	Medical Instruments	130,000	
		Cash		130,000
		Purchased medical instruments.		
	16	Office Fixtures & Equipment	50,000	
		Cash		20,000
		Accounts Payable		30,000
		Purchased fixtures and equipment.		
	21	Office Supplies	5,000	
		Cash		5,000
		Purchased office supplies.		
	24	Cash	1,900	
		Accounts Receivable	300	
		Veterinary Service Revenue		2,200
		Recorded veterinary service revenue earned.		
	27	Advertising Expense	400	
		Accounts Payable		400
		Recorded advertising expense incurred in May.		
	28	Cash	100	
		Accounts Receivable		100
		Collected cash for May 24 services.		
	31	Salary Expense	2,800	
		Cash		2,800
		Paid May salary expense.		

PROBLEM 3.5A
DR. SCHEKTER, DVM (continued)

c.

Cash

Debit		Credit	
May 1	400,000	May 4	100,000
May 24	1,900	May 9	130,000
May 28	100	May16	20,000
		May 21	5,000
		May 31	2,800
May 31 Bal.	144,200		

Notes Payable

Debit		Credit	
		May 4	150,000
		May 31 Bal.	150,000

Accounts Receivable

Debit		Credit	
May 24	300	May 28	100
May 31 Bal.	200		

Accounts Payable

Debit		Credit	
		May 16	30,000
		May 27	400
		May 31 Bal.	30,400

Office Supplies

Debit		Credit	
May 21	5,000		
May 31 Bal.	5,000		

Capital Stock

Debit		Credit	
		May 1	400,000
		May 31 Bal.	400,000

Medical Instruments

Debit		Credit	
May 9	130,000		
May 31 Bal.	130,000		

Veterinary Service Revenue

Debit		Credit	
		May 24	2,200
		May 31 Bal.	2,200

Office, Fixtures & Equipment

Debit		Credit	
May 16	50,000		
May 31 Bal.	50,000		

Advertising Expense

Debit		Credit	
May 27	400		
May 31 Bal.	400		

Land

Debit		Credit	
May 4	70,000		
May 31 Bal.	70,000		

Salary Expense

Debit		Credit	
May 31	2,800		
May 31 Bal.	2,800		

Building

Debit		Credit	
May 4	180,000		
May 31 Bal.	180,000		

PROBLEM 3.5A

d.

DR. SCHEKTER, DVM (continued)

DR. SCHEKTER, DVM		
Trial Balance		
May 31, 2007		
Cash	$ 144,200	
Accounts receivable	200	
Office supplies	5,000	
Medical instruments	130,000	
Office fixtures & equipment	50,000	
Land	70,000	
Building	180,000	
Notes payable		$ 150,000
Accounts payable		30,400
Capital stock		400,000
Retained earnings		0
Veterinary service revenue		2,200
Advertising expense	400	
Salary expense	2,800	
	$ 582,600	$ 582,600

PROBLEM 3.5A
DR. SCHEKTER, DVM (concluded)

e.

Total Assets:		
Cash	$ 144,200	
Accounts receivable	200	
Office supplies	5,000	
Medical instruments	130,000	
Office fixtures & equipment	50,000	
Land	70,000	
Building	180,000	
Total assets		$ 579,400
Total liabilities:		
Notes payable	$ 150,000	
Accounts payable	30,400	
Total liabilities		$ 180,400
Total owners' (stockholders') equity:		
Total assets - total liabilities ($579,400 -$180,400)		$ 399,000
As shown below, the business was not profitable in its first month of operations:		
Veterinary service revenue		$ 2,200
Less: Advertising expense	$ 400	
Salary expense	2,800	$ 3,200
Net loss		$ (1,000)

Note to instructor: It is not uncommon for new small businesses to initially report a net loss from operations. In this particular situation, there were so few revenue and expense transactions in May that it is difficult, if not impossible, to draw any conclusions about the expected performance of the veterinary clinic in the future.

50 Minutes, Strong

PROBLEM 3.6A
DONEGAN'S LAWN CARE SERVICE

a.

General Journal

2007				
July	18	Cash	1,500	
		Capital Stock		1,500
		Issued 500 shares of capital stock.		
	22	Office Supplies	100	
		Accounts Payable		100
		Purchased office supplies on account.		
	23	Mowing Equipment	2,000	
		Cash		400
		Notes payable		1,600
		Purchased mowing equipment paying $400 cash		
		and issuing a $1,600 note payable for the balance.		
	24	Fuel Expense	25	
		Cash		25
		Paid for gasoline to be used in July.		
	25	Accounts Receivable	150	
		Mowing Revenue		150
		Billed Lost Creek Cemetery for mowing services.		
		Payment is due July 30.		
	26	Accounts Receivable	200	
		Mowing Revenue		200
		Billed Golf View Condominium for mowing		
		services. Payment is due August 1.		
	30	Cash	150	
		Accounts Receivable		150
		Collected amount due from Lost Creek Cemetery		
		for mowing services provided July 25.		
	31	Salaries Expense	80	
		Cash		80
		Paid salary to Teddy Grimm for work performed		
		in July.		

PROBLEM 3.6A
DONEGAN'S LAWN CARE SERVICE (continued)

b.

Cash

Jul 18	1,500	July 23	400
Jul 30	150	July 24	25
		July 31	80
July 31 Bal.	1,145		

Accounts Receivable

July 25	150	July 30	150
July 26	200		
July 31 Bal.	200		

Office Supplies

July 22	100		
July 31 Bal.	100		

Mowing Equipment

July 23	2,000		
July 31 Bal.	2,000		

Accounts Payable

		July 22	100
		July 31 Bal.	100

Notes Payable

		July 23	1,600
		July 31 Bal.	1,600

Capital Stock

		July 18	1,500
		July 31 Bal.	1,500

Retained Earnings

		July 31 Bal.	0

Mowing Revenue

		July 25	150
		July 26	200
		July 31 Bal.	350

Salaries Expense

July 31	80		
July 31 Bal.	80		

Fuel Expense

July 24	25		
July 31 Bal.	25		

PROBLEM 3.6A
DONEGAN'S LAWN CARE SERVICE
(concluded)

c.

DONEGAN'S LAWN CARE SERVICE		
Trial Balance		
July 31, 2007		
Cash	$ 1,145	
Accounts receivable	200	
Office supplies	100	
Mowing Equipment	2,000	
Accounts payable		$ 100
Notes payable		1,600
Capital stock		1,500
Retained earnings		0
Mowing revenue		350
Salaries expense	80	
Fuel expense	25	
	$ 3,550	$ 3,550

d.

Donegan's Retained Earnings balance is zero because the company has been in business for only two weeks and has not yet updated the Retained Earnings account for any revenue or expense activities. The procedure to update the Retained Earnings account is discussed in Chapter 5.

50 Minutes, Strong

PROBLEM 3.7A
SANLUCAS, INC.

a.

General Journal

2007				
June	4	Cash	1,500	
		Notes Payable		1,500
		Borrowed cash from bank by issuing a note payable.		
	9	Cash	1,600	
		Accounts Receivable		1,600
		Collected $1,600 from Nina Lesher on account.		
	10	Inspection Supplies	150	
		Accounts Payable		150
		Purchased inspection supplies on account.		
	17	Accounts Receivable	1,650	
		Inspection Revenue		1,650
		Billed homeowners $1,650 on account.		
	25	Advertising Expense	200	
		Cash		200
		Paid WLIR Radio for ads to be aired June 27.		
	28	Testing Expense	1,300	
		Cash		1,300
		Paid for June testing expenses.		
	30	Salaries Expense	1,100	
		Cash		1,100
		Paid June salaries.		

PROBLEM 3.7A
SANLUCAS, INC. (continued)

b.

Cash

June 1 bal.	5,100	June 25	200
June 4	1,500	June 28	1,300
June 9	1,600	June 30	1,100
June 30 bal.	5,600		

Accounts Receivable

June 1 bal.	2,600	June 9	1,600
June 17	1,650		
June 30 bal.	2,650		

Inspection Supplies

June 1 bal.	800		
June 10	150		
June 30 bal.	950		

Accounts Payable

		June 1 bal.	850
		June 10	150
		June 30 bal.	1,000

Notes Payable

		June 1 bal.	2,000
		June 4	1,500
		June 30 bal.	3,500

Dividends

June 1 bal.	600		
June 30 bal.	600		

Capital Stock

		June 1 bal.	3,000
		June 30 bal.	3,000

Retained Earnings

		June 1 bal.	1,800
		June 30 bal.	1,800

Inspection Revenue

		June 1 bal.	8,350
		June 17	1,650
		June 30 bal.	10,000

Salaries Expense

June 1 bal.	4,900		
June 30	1,100		
June 30 bal.	6,000		

Advertising Expense

June 1 bal.	300		
June 25	200		
June 30 bal.	500		

Testing Expense

June 1 bal.	1,700		
June 28	1,300		
June 30 bal.	3,000		

PROBLEM 3.7A
SANLUCAS, INC. (concluded)

c.

SANLUCAS, INC.		
Trial Balance		
June 30, 2007		
Cash	$ 5,600	
Accounts receivable	2,650	
Inspection supplies	950	
Accounts payable		$ 1,000
Notes payable		3,500
Dividends	600	
Capital stock		3,000
Retained earnings		1,800
Inspection revenue		10,000
Salaries expense	6,000	
Advertising expense	500	
Testing expense	3,000	
	$ 19,300	$ 19,300

d.

The company must have paid all of the dividends it has declared. Otherwise, its trial balance would have reported dividends payable.

10 Minutes, Difficult

PROBLEM 3.8A
HOME TEAM CORPORATION

Error	Net Income	Total Assets	Total Liabilities	Owners' Equity
Recorded the issuance of capital stock by debiting Capital Stock and crediting Service Revenue.	O	U	NE	U
Recorded the declaration and payment of a dividend by debiting Capital Stock and crediting Cash.	NE	NE	NE	NE
Recorded the payment of an account payable by debiting Cash and crediting Rent Expense.	O	O	O	O
Recorded the collection of an outstanding account receivable by debiting Cash and crediting Service Revenue.	O	O	NE	O
Recorded client billings on account by debiting Accounts Receivable and crediting Advertising Expense.	NE	NE	NE	NE
Recorded the cash purchase of land by debiting Supplies Expense and crediting Notes Payable.	U	NE	O	U
Recorded the purchase of a building on account by debiting Cash and crediting Dividends Payable.	NE	NE	NE	NE

SOLUTIONS TO PROBLEMS SET B

30 Minutes, Medium

PROBLEM 3.1B
NORTH ENTERPRISES

a.

General Journal

20__				
Apr.	1	Cash	650,000	
		Capital Stock		650,000
		Issued 10,000 shares of capital stock.		
	6	Land	60,000	
		Office Building	240,000	
		Cash		100,000
		Notes Payable		200,000
		Purchased land and office building.		
	10	Computer Systems	6,000	
		Cash		6,000
		Purchased computer system.		
	12	Office Furnishings	12,000	
		Cash		1,000
		Accounts Payable		11,000
		Purchased office furnishings.		
	20	Office Supplies	750	
		Cash		750
		Purchased office supplies.		
	25	Accounts Receivable	200	
		Computer Systems		200
		Refund due from Comp Central.		
	28	Accounts Payable	5,500	
		Cash		5,500
		Made payment on account payable.		
	29	Cash	200	
		Accounts Receivable		200
		Collected refund from Comp Central.		

PROBLEM 3.1B
NORTH ENTERPRISES (concluded)

b.

Transaction	**Assets**	**=**	**Liabilities**	**+**	**Owners' Equity**
Apr. 1	+ $650,000 (Cash)		$0		+ $650,000 (Capital Stock)
Apr. 6	+ $60,000 (Land) + $240,000 (Office Building) – $100,000 (Cash)		+ $200,000 (Notes Payable)		$0
Apr. 10	+ $6,000 (Computer Systems) – $6,000 (Cash)		$0		$0
Apr. 12	+ $12,000 (Office Furnishings) – $1,000 (Cash)		+ $11,000 (Accounts Payable)		$0
Apr. 20	+ $750 (Office Supplies) – $750 (Cash)		$0		$0
Apr. 25	+ $200 (Accounts Receivable) – $200 (Computer Systems)		$0		$0
Apr. 28	– $5,500 (Cash)		- $5,500 (Accounts Payable)		$0
Apr. 29	+ $200 (Cash) – $200 (Accounts Receivable)		$0		$0

30 Minutes, Medium

PROBLEM 3.2B
LYONS, INC.

a. **(1)** **(a)** The asset Accounts Receivable was increased. Increases in assets are recorded by debits. Debit Accounts Receivable, $5,000.

(b) Revenue has been earned. Revenue increases owners' equity. Increases in owners' equity are recorded by credits. Credit Consulting Revenue, $5,000.

(2) **(a)** The asset Office Supplies was increased. Increases in assets are recorded by debits. Debit Office Supplies, $3,200.

(b) The asset Cash was decreased. Decreases in assets are recorded by credits. Credit Cash, $800.

(c) The liability Accounts Payable was increased. Increases in liabilities are recorded by credits. Credit Accounts Payable, $2,400.

(3) **(a)** The liability Accounts Payable was decreased. Decreases in liabilities are recorded by debits. Debit Accounts Payable, $100.

(b) The asset Office Supplies was decreased. Decreases in assets are recorded by credits. Credit Office Supplies, $100.

(4) **(a)** The asset Cash was increased. Increases in assets are recorded by debits. Debit Cash, $5,000.

(b) The owners' equity account Capital Stock was increased. Increases in owners' equity are recorded by credits. Credit Capital Stock, $5,000.

(5) **(a)** The asset Cash was increased. Increases in assets are recorded by debits. Debit Cash, $1,200.

(b) The asset Accounts Receivable was decreased. Decreases in assets are recorded by credits. Credit Accounts Receivable, $1,200.

(6) **(a)** The liability Accounts Payable was decreased. Decreases in liabilities are recorded by debits. Debit Accounts Payable, $2,300 ($2,400 - $100).

(b) The asset Cash was decreased. Decreases in assets are recorded by credits. Credit Cash, $2,300.

(7) **(a)** The Dividends account was increased. Dividends decrease the owners' equity account Retained Earnings. Decreases in owners' equity are recorded by debits. Debit Dividends, $1,800.

(b) The asset Cash was decreased. Decreases in assets are recorded by credits. Credit Cash, $1,800.

PROBLEM 3.2B
LYONS, INC. (continued)

a.

General Journal

20__		(1)		
June	1	Accounts Receivable	5,000	
		Consulting Revenue		5,000
		Billed customers for services rendered.		
		(2)		
	3	Office Supplies	3,200	
		Cash		800
		Accounts Payable		2,400
		Purchased Offfice Supplies.		
		(3)		
	5	Accounts Payable	100	
		Office Supplies		100
		Returned portion of supplies purchased on June 3.		
		(4)		
	17	Cash	5,000	
		Capital Stock		5,000
		Issued 1,000 shares of capital stock at $5 per share.		
		(5)		
	22	Cash	1,200	
		Accounts Receivable		1,200
		Received partial payment for services billed on		
		June 1.		
		(6)		
	29	Accounts Payable	2,300	
		Cash		2,300
		Paid outstanding balance owed for office supplies		
		purchased on June 3.		
		(7)		
	30	Dividends	1,800	
		Cash		1,800
		Declared and paid a cash dividend.		

PROBLEM 3.2B
LYONS, INC. (concluded)

c. The realization principle requires that revenue be recorded when it is *earned*, even if cash for the goods or services provided has not been received.

d. The matching principle requires that revenue earned during an accounting period be matched (offset) with expenses incurred in generating this revenue. Office supplies are recorded as an asset when they are first purchased. As these supplies are used in a particular accounting period, their cost will be matched against the revenue earned in that period.

35 Minutes, Medium

PROBLEM 3.3B
DANA, INC.

a.

	Income Statement			Balance Sheet		
Transaction	**Revenue -**	**Expenses =**	**Net Income**	**Assets -**	**Liabilities =**	**Owners' Equity**
Oct. 1	NE	I	D	D	NE	D
Oct. 4	I	NE	I	I	NE	I
Oct. 8	I	NE	I	I	NE	I
Oct. 12	NE	I	D	NE	I	D
Oct. 20	NE	NE	NE	NE	NE	NE
Oct. 24	I	NE	I	I	NE	I
Oct. 25	NE	NE	NE	D	D	NE
Oct. 29	NE	NE	NE	D	NE	D

PROBLEM 3.3B
DANA, INC. (concluded)

b.

General Journal

Oct.	1	Rent Expense	4,000	
		Cash		4,000
		Paid October rent.		
	4	Accounts Receivable	8,500	
		Service Revenue		8,500
		Billed Milton Hotels for services.		
	8	Cash	4,700	
		Service Revenue		4,700
		Collected cash from Dirt Valley Development for		
		services provided.		
	12	Advertising Expense	320	
		Accounts Payable		320
		Placed ad in the newspaper to be published on		
		October 25. Total amount due in 30 days.		
	20	Cash	8,500	
		Accounts Receivable		8,500
		Received payment from Milton Hotels for services		
		billed on Oct. 4.		
	24	Cash	300	
		Accounts Receivable	3,300	
		Service Revenue		3,600
		Collected partial payment from Dudley Co. and		
		billed remainder.		
	25	Accounts Payable	320	
		Cash		320
		Paid newspaper for advertisement.		
	29	Dividends	2,600	
		Cash		2,600
		Declared and paid a cash dividend.		

c. Three situations in which a cash payment does not involve an expense include: (1) the payment of a cash dividend, (2) the payment of a liability for a previously recorded expense, and (3) the purchase of an asset, including expenses paid in advance such as insurance, rent, and advertising.

50 Minutes, Strong

PROBLEM 3.4B
TONE DELIVERIES

a.

	Income Statement				Balance Sheet			
Transaction	**Revenue**	**-**	**Expenses**	**= Net Income**	**Assets**	**-**	**Liabilities =**	**Owners' Equity**
Mar. 2	NE		NE	NE	I		NE	I
Mar. 4	NE		NE	NE	I		I	NE
Mar. 5	NE		I	D	D		NE	D
Mar. 9	I		NE	I	I		NE	I
Mar. 15	NE		I	D	D		NE	D
Mar. 19	NE		I	D	D		NE	D
Mar. 20	NE		NE	NE	NE		NE	NE
Mar. 28	I		NE	I	I		NE	I
Mar. 30	NE		I	D	D		NE	D
Mar. 30	NE		I	D	NE		I	D
Mar. 30	NE		NE	NE	NE		I	D

PROBLEM 3.4B
TONE DELIVERIES (continued)

b.

General Journal

2007				
Mar.	2	Cash	80,000	
		Capital Stock		80,000
		Issued stock to Mary Tone.		
	4	Truck	45,000	
		Cash		15,000
		Notes Payable		30,000
		Purchased truck.		
	5	Rent Expense	2,500	
		Cash		2,500
		Paid office rent for March.		
	9	Accounts Receivable	11,300	
		Service Revenue		11,300
		Billed customers.		
	15	Salaries Expense	7,100	
		Cash		7,100
		Paid salaries for first half of March.		
	19	Maintenance Expense	900	
		Cash		900
		Paid Bill's Auto for repair services.		
	20	Cash	3,800	
		Accounts Receivable		3,800
		Collected portion of amount billed to customers.		
	28	Accounts Receivable	14,400	
		Service Revenue		14,400
		Billed customers for services rendered through		
		month-end.		
	30	Salaries Expense	7,500	
		Cash		7,500
		Paid salaries through month-end.		
	30	Fuel Expense	830	
		Accounts Payable		830
		Received bill for fuel used during March.		
	30	Dividends	1,200	
		Dividends Payable		1,200
		Declared dividend payable April 30.		

PROBLEM 3.4B
TONE DELIVERIES (continued)

c.

Cash					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	2		80,000		80,000
	4			15,000	65,000
	5			2,500	62,500
	15			7,100	55,400
	19			900	54,500
	20		3,800		58,300
	30			7,500	50,800

Accounts Receivable					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	9		11,300		11,300
	20			3,800	7,500
	28		14,400		21,900

Truck					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	4		45,000		45,000

Notes Payable					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	4			30,000	30,000

Accounts Payable					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	30			830	830

PROBLEM 3.4B
TONE DELIVERIES (continued)

Dividend Payable

Date		Explanation	Debit	Credit	Balance
2007					
Mar.	30			1,200	1,200

Capital Stock

Date		Explanation	Debit	Credit	Balance
2007					
Mar.	2			80,000	80,000

Dividends

Date		Explanation	Debit	Credit	Balance
2007					
Mar.	30		1,200		1,200

Service Revenue

Date		Explanation	Debit	Credit	Balance
2007					
Mar.	9			11,300	11,300
	28			14,400	25,700

Maintenance Expense

Date		Explanation	Debit	Credit	Balance
2007					
Mar.	19		900		900

PROBLEM 3.4B
TONE DELIVERIES (continued)

Fuel Expense					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	30		830		830

Salaries Expense					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	15		7,100		7,100
	30		7,500		14,600

Rent Expense					
Date		Explanation	Debit	Credit	Balance
2007					
Mar.	5		2,500		2,500

PROBLEM 3.4B
TONE DELIVERIES (continued)

d.

TONE DELIVERIES		
Trial Balance		
March 31, 2007		
Cash	$ 50,800	
Accounts receivable	21,900	
Truck	45,000	
Notes payable		$ 30,000
Accounts payable		830
Dividends payable		1,200
Capital stock		80,000
Retained earnings		0
Dividends	1,200	
Service revenue		25,700
Maintenance expense	900	
Fuel expense	830	
Salaries expense	14,600	
Rent expense	2,500	
	$ 137,730	$ 137,730

PROBLEM 3.4B
TONE DELIVERIES (concluded)

e.

Total Assets:		
Cash	$ 50,800	
Accounts Receivable	21,900	
Trucks	45,000	
Total assets		$ 117,700
Total liabilities:		
Notes payable	$ 30,000	
Accounts payable	830	
Dividends payable	1,200	
Total liabilities		$ 32,030
Total stockholders' equity:		
Total assets - total liabilities ($117,700 - $32,030)		$ 85,670

The above figures are most likely not the amounts to be reported in the balance sheet dated March 31.The accounting cycle includes adjustments that must be made to the trial balance figures before financial statements are prepared. The adjusting process is covered in Chapter 4.

60 Minutes, Strong

PROBLEM 3.5B
DR. CRAVATI, DMD

a.

	Income Statement			Balance Sheet		
Transaction	Revenue -	Expenses =	Net Income	Assets -	Liabilities =	Owners' Equity
Aug. 1	NE	NE	NE	I	NE	I
Aug. 4	NE	NE	NE	I	I	NE
Aug. 9	NE	NE	NE	NE	NE	NE
Aug. 16	NE	NE	NE	I	I	NE
Aug. 21	NE	NE	NE	NE	NE	NE
Aug. 24	I	NE	I	I	NE	I
Aug. 27	NE	I	D	NE	I	D
Aug. 28	NE	NE	NE	NE	NE	NE
Aug. 31	NE	I	D	D	NE	D

PROBLEM 3.5B
DR. CRAVATI, DMD (continued)

b.

General Journal

2007				
Aug.	1	Cash	280,000	
		Capital Stock		280,000
		Issued 1,000 shares of capital stock.		
	4	Land	60,000	
		Building	340,000	
		Cash		80,000
		Notes Payable		320,000
		Purchased land and building.		
	9	Medical Instruments	75,000	
		Cash		75,000
		Purchased medical instruments.		
	16	Office Fixtures & Equipment	25,000	
		Cash		10,000
		Accounts Payable		15,000
		Purchased fixtures and equipment.		
	21	Office Supplies	4,200	
		Cash		4,200
		Purchased office supplies.		
	24	Cash	1,000	
		Accounts Receivable	12,000	
		Service Revenue		13,000
		Recorded dental service revenue earned.		
	27	Advertising Expense	450	
		Accounts Payable		450
		Recorded advertising expense incurred in Aug.		
	28	Cash	500	
		Accounts Receivable		500
		Collected cash for Aug. 24 services.		
	31	Salary Expense	2,200	
		Cash		2,200
		Paid Aug. salary expense.		

PROBLEM 3.5B
DR. CRAVATI, DMD (continued)

c.

Cash

Aug. 1	280,000	Aug. 4	80,000
Aug. 24	1,000	Aug. 9	75,000
Aug. 28	500	Aug. 16	10,000
		Aug. 21	4,200
		Aug. 31	2,200
Aug.31 Bal.	110,100		

Notes Payable

		Aug. 4	320,000
		Aug. 31 Bal.	320,000

Accounts Receivable

Aug. 24	12,000	Aug. 28	500
Aug. 31 Bal.	11,500		

Accounts Payable

		Aug. 16	15,000
		Aug. 27	450
		Aug. 31 Bal.	15,450

Office Supplies

Aug. 21	4,200		
Aug. 31 Bal.	4,200		

Capital Stock

		Aug. 1	280,000
		Aug. 31 Bal.	280,000

Medical Instruments

Aug. 9	75,000		
Aug. 31 Bal.	75,000		

Service Revenue

		Aug. 24	13,000
		Aug. 31 Bal.	13,000

Office, Fixtures & Equipment

Aug. 16	25,000		
Aug. 31 Bal.	25,000		

Advertising Expense

Aug. 27	450		
Aug. 31 Bal.	450		

Land

Aug. 4	60,000		
Aug. 31 Bal.	60,000		

Salary Expense

Aug. 31	2,200		
Aug. 31 Bal.	2,200		

Building

Aug. 4	340,000		
Aug. 31 Bal.	340,000		

PROBLEM 3.5B
DR. CRAVATI, DMD (continued)

d.

DR. CRAVATI, DMD		
Trial Balance		
August 31, 2007		
Cash	$ 110,100	
Accounts Receivable	11,500	
Office Supplies	4,200	
Medical instruments	75,000	
Office fixtures & equipment	25,000	
Land	60,000	
Building	340,000	
Notes payable		$ 320,000
Accounts Payable		15,450
Capital stock		280,000
Retained earnings		0
Service revenue		13,000
Advertising expense	450	
Salary expense	2,200	
	$ 628,450	$ 628,450

PROBLEM 3.5B
DR. CRAVATI, DMD (concluded)

e.

Total Assets:		
Cash	$ 110,100	
Accounts receivable	11,500	
Office supplies	4,200	
Medical instruments	75,000	
Office fixtures & equipment	25,000	
Land	60,000	
Building	340,000	
Total assets		$ 625,800
Total liabilities:		
Notes payable	$ 320,000	
Accounts payable	15,450	
Total liabilities		$ 335,450
Total owners (stockholders') equity:		
Total assets - total liabilities ($625,800 - $335,450)		$ 290,350
As shown below, the business was profitable in its first month of operations:		
Service revenue		$ 13,000
Less: Advertising expense	$ 450	
Salary expense	2,200	2,650
Net income (profit)		$ 10,350

50 Minutes, Strong

PROBLEM 3.6B
CLOWN AROUND, INC.

a.

General Journal

2007				
Feb.	2	Accounts Payable	750	
		Cash		750
		Paid $750 in partial settlement of outstanding accounts payable.		
	6	Cash	900	
		Accounts Receivable		900
		Collected $900 in full settlement of outstanding accounts receivable.		
	18	Accounts Receivable	175	
		Party Revenue		175
		Billed Sunflower Child Care for clown services. The entire amount is due March 15.		
	26	Cash	480	
		Party Revenue		480
		Billed and collected cash for performing at several birthday parties.		
	28	Salaries Expense	260	
		Cash		260
		Paid clown salaries for work performed in February.		
	28	Travel Expense	40	
		Cash		40
		Paid travel expenses incurred in February.		
	28	Dividends	100	
		Cash		100
		Declared and distributed dividend to Ralph Jaschob.		

PROBLEM 3.6B
CLOWN AROUND, INC. (continued)

b.

Cash

Feb. 1 Bal.	2,850	Feb. 2	750
Feb. 6	900	Feb. 28	260
Feb. 26	480	Feb. 28	40
		Feb. 28	100
Feb. 28 Bal.	3,080		

Accounts Receivable

Feb. 1 Bal.	900	Feb. 6	900
Feb. 18	175		
Feb. 28 Bal.	175		

Accounts Payable

Feb. 2	750	Feb. 1 Bal.	800
		Feb. 28 Bal.	50

Capital Stock

		Feb. 1 Bal.	2,000
		Feb. 28 Bal.	2,000

Retained Earnings

		Feb. 1 Bal.	750
		Feb. 28 Bal.	750

Dividends

Feb. 1 Bal.	0		
Feb. 28	100		
Feb. 28 Bal.	100		

Party Revenue

		Feb. 1 Bal.	1,350
		Feb. 18	175
		Feb. 26	480
		Feb. 28 Bal.	2,005

Salaries Expense

Feb. 1 Bal.	830		
Feb. 28	260		
Feb. 28 Bal.	1,090		

Party Food Expense

Feb. 1 Bal.	240		
Feb. 28 Bal.	240		

Travel Expense

Feb. 1 Bal.	80		
Feb. 28	40		
Feb. 28 Bal.	120		

PROBLEM 3.6B
CLOWN AROUND, INC.
(concluded)

c.

CLOWN AROUND, INC.		
Trial Balance		
February 28, 2007		
Cash	$ 3,080	
Accounts receivable	175	
Accounts payable		$ 50
Capital stock		2,000
Retained earnings		750
Dividends	100	
Party revenue		2,005
Salaries expense	1,090	
Party food expense	240	
Travel expense	120	
	$ 4,805	$ 4,805

d. Dividends are not an expense. Thus, they are not deducted from revenue in the determination of net income reported in the income statement. The reason dividends are not viewed as expenses is that these payments do not serve to generate revenue. Rather, they are a distribution of profits to the owners of the business.

50 Minutes, Strong

PROBLEM 3.7B
AHUNA, INC.

a.

General Journal

2007				
Mar.	3	Cash	1,200	
		Accounts Receivable		1,200
		Collected $1,200 from Kim Mitchell on account.		
	11	Cooking Supplies	700	
		Cash		700
		Purchased cooking supplies with cash.		
	15	Accounts Payable	200	
		Cash		200
		Paid $200 of outstanding account payable.		
	20	Cash	4,000	
		Capital Stock		4,000
		Issued additional shares of capital stock.		
	24	Accounts Receivable	6,200	
		Client Revenue		6,200
		Recorded revenue on account.		
	27	Salaries Expense	900	
		Cash		900
		Recorded March salaries expense.		
	30	Travel Expense	400	
		Cash		400
		Recorded March travel expense.		
	31	Printing Expense	300	
		Accounts Payable		300
		Recorded printing expense on account.		

PROBLEM 3.7B
AHUNA, INC. (continued)

b.

Cash

Mar. 1 bal.	5,700	Mar. 11	700
Mar. 3	1,200	Mar. 15	200
Mar. 20	4,000	Mar. 27	900
		Mar. 30	400
Mar. 31 bal.	8,700		

Accounts Receivable

Mar. 1 bal.	1,800	Mar. 3	1,200
Mar. 24	6,200		
Mar. 31 bal.	6,800		

Cooking Supplies

Mar. 1 bal.	800		
Mar. 11	700		
Mar. 31 bal.	1,500		

Accounts Payable

Mar. 15	200	Mar. 1 bal.	300
		Mar. 31	300
		Mar. 31 bal.	400

Dividends Payable

		Mar. 1 bal.	500
		Mar. 31 bal.	500

Dividends

Mar. 1 bal.	500		
Mar. 31 bal.	500		

Capital Stock

		Mar. 1 bal.	6,000
		Mar. 20	4,000
		Mar. 31 bal.	10,000

Retained Earnings

		Mar. 1 bal.	1,400
		Mar. 31 bal.	1,400

Client Revenue

		Mar. 1 bal.	5,800
		Mar. 24	6,200
		Mar. 31 bal.	12,000

Salaries Expense

Mar. 1 bal.	3,100		
Mar. 27	900		
Mar. 31 bal.	4,000		

Travel Expense

Mar. 1. bal.	1,500		
Mar. 30	400		
Mar. 31 bal.	1,900		

Printing Expense

Mar. 1 bal.	600		
Mar. 31	300		
Mar. 31 bal.	900		

PROBLEM 3.7B
AHUNA, INC. (concluded)

c.

AHUNA, INC.		
Trial Balance		
March 31, 2007		
Cash	$ 8,700	
Accounts receivable	6,800	
Cooking supplies	1,500	
Accounts payable		$ 400
Dividends payable		500
Dividends	500	
Capital stock		10,000
Retained earnings		1,400
Client revenue		12,000
Salaries expense	4,000	
Travel expense	1,900	
Printing expense	900	
	$ 24,300	$ 24,300

d.

The company has not paid the dividends it previously declared as evidenced by the $500 dividends payable liability in the trial balance.

10 Minutes, Difficult

PROBLEM 3.8B
BLIND RIVER, INC.

Error	Net Income	Total Assets	Total Liabilities	Owners' Equity
Recorded the issuance of capital stock by debiting Dividends and crediting Cash.	NE	U	NE	U
Recorded the payment of an account payable by debiting Cash and crediting Accounts Receivable.	NE	O	O	NE
Recorded the collection of an outstanding account receivable by debiting Service Revenue and crediting Cash.	U	U	NE	U
Recorded client billings on account by debiting Accounts Payable and crediting Cash.	U	U	U	U
Recorded the payment of an outstanding dividend payable by debiting Dividends and crediting Cash.	NE	NE	O	U
Recorded the payment of salaries payable by debiting Salaries Expense and crediting Salaries Payable.	U	O	O	U
Recorded the purchase of office supplies on account by debiting Rent Expense and crediting Office Supplies.	U	U	U	U

SOLUTIONS TO CRITICAL THINKING CASES

15 Minutes, Medium

CASE 3.1
REVENUE RECOGNITION

Revenue is realized in the period that services are rendered to customers or goods are delivered to customers. Using this principle as a guide, the three independent situations are analyzed below:

a. *Period of flight.* Airlines earn revenue by rendering a service—transportation—to their customers. Therefore, revenue should be recognized in the accounting period in which this service is rendered. (Selling a ticket does not qualify as “delivering goods” to the customer. The ticket is not a “product”-it is merely a receipt showing that the customer has already made payment for services to be rendered in the future.)

b. *Period furniture sold.* In this case the furniture store delivers goods to its customers and acquires an account receivable at the date of sale. This is the period in which revenue should be recognized, even though the account receivable may not be collected for many months. Collection of an account receivable does not produce revenue; this action merely converts one asset (receivable) into another (cash).

c. *Periods that magazines are mailed to customers.* The “goods” that a magazine publisher delivers to its customers are magazines. Thus, the publisher does not earn its revenue until the magazines are delivered to the customers. (For practical purposes, the act of mailing the magazine may be viewed as “delivery.”)

30 Minutes, Strong

CASE 3.2
MEASURING INCOME

a. Discussion of "fairness and reasonableness" of income measurement policies:

(1) Given that most revenue is received in cash and that credit terms are constant, recognizing revenue on a cash basis will cause little distortion in annual results. Thus, it appears "fair and reasonable"—at least for the first two years. But we should consider that in the last (third) year of the agreement, this policy will exclude from net income credit sales in December. Stanley may expect some adjustment for this.

(2) Charging weekly expenditures for business supplies directly to expense is reasonable, but considering the Morris family's grocery and dry cleaning bills as expenses of the business is neither fair nor reasonable (nor legal).

(3) Morris's salary of $60,000 is "fair and reasonable" because it has been agreed upon by both parties. But to make additional salary payments of $90,000 per year to Morris family members who worked only on a part-time basis does *not* seem to meet the "fair and reasonable" criteria.

(4) Income taxes on the Morris family's salaries are *personal* expenses, not expenses of the business. It is neither fair nor reasonable to deduct these taxes in computing the income of the corporation.

(5) It is not reasonable to report the entire $150,000 value of the equipment as an expense in the first-year income statement. This equipment will be used by the company for many years to generate revenue. By assigning the entire cost of the equipment to the first year of operations, Morris has violated the matching principle. In Chapter 4, we will see how the process of depreciation should be used to spread the cost of the printing equipment over its estimated useful life.

b. The state-of-the-art printing equipment valued at $150,000 is an *asset*, not an expense. By reporting the equipment's entire $150,000 value as an expense in the company's first-year income statement, the net income computed by Morris was probably significantly lower than the net cash flow generated by the business.

5 Minutes, Easy

CASE 3.3
WHISTLE-BLOWING
ETHICS, FRAUD & CORPORATE GOVERNANCE

It is certainly unethical, and probably illegal, for Ed Grimm's boss to demand that Ed knowingly engage in fraudulent reporting activities in order to retain his job. Ed may have been told that he would be insulated from any responsibility or legal liability, but in reality, this may not be an acceptable defense. In fact, Ed's involvement could result in serious consequences, including criminal prosecution and incarceration. Ed should "blow the whistle" on his boss, even if doing so puts his job in jeopardy. Should the resort's executive management be uncooperative, Ed would be wise to seek legal advice immediately.

15 Minutes, Easy

CASE 3.4
PEPSICO., INC.
BUSINESS WEEK

Financial information of interest would include, but not be limited to:

- The value of Groupe Danone's assets.
- Groupe Danone's current amount of outstanding debt that PepsiCo would acquire.
- Groupe Danone's current and expected profitability.
- Groupe Danone's current and expected cash flow.
- The means by which PepsiCo would finance the acquisition (debt versus equity).
- The acquisition's impact on stock price.

Non financial information of interest would include, but not be limited to:

- Groupe Danone's current channels of distribution in domestic and international markets.
- The viability of combining a "junk food" company with a "health food" company.
- The inherent risks associated with PepsiCo becoming overly diversified.
- Consumer trends and the future outlook for yogurt and bottled water products.
- Potential layoffs (especially of Groupe Danone's current management) that result from the acquisition.

10 Minutes, Easy

CASE 3.5
REVENUE FROM VARIOUS SOURCES
INTERNET

A recent 10-K report shows that sales of products to public sector clients has been declining steadily over the past three years (from 25 percent of total sales to just 19 percent of total sales). During this period, revenue attributed to the company's large account segment has grown, whereas revenue attributed to its small business segment has remained virtually unchanged.

CHAPTER 4
THE ACCOUNTING CYCLE: ACCRUALS AND DEFERRALS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 4.1	Deferred expenses and revenue	3, 4	Analysis
B. Ex. 4.2	Deferred expenses and revenue	3, 4	Analysis
B. Ex. 4.3	Accounting for supplies	3	Analysis
B. Ex. 4.4	Accounting for depreciation	3	Analysis
B. Ex. 4.5	Accrued revenue	6	Analysis
B. Ex. 4.6	Unearned revenue	4	Analysis
B. Ex. 4.7	Accrued salaries	5	Analysis
B. Ex. 4.8	Accrued interest	5	Analysis
B. Ex. 4.9	Accrued taxes	5	Analysis
B. Ex. 4.10	Concept of materiality	8	Judgment, communication, analysis

Exercises	Topic	Learning Objectives	Skills
4.1	Accounting terminology	1–9	Analysis
4.2	Effects of adjusting entries	1–6, 9	Analysis
4.3	Deferred expenses and revenue	1-7	Analysis
4.4	Deferred expenses and revenue	1-7	Analysis
4.5	Accrued revenue	1-7	Analysis
4.6	**Real World: American Airlines** Deferred revenue	1, 2, 4	Analysis
4.7	Accruals and deferrals	1-6, 9	Analysis
4.8	Notes payable and interest	1, 2, 5	Analysis
4.9	Interpreting business transactions	1–7, 9	Analysis, judgment
4.10	Adjustments and the balance sheet	1, 3–5, 7	Communication, analysis
4.11	**Real World: Various firms** Deferred revenue	1, 4, 7	Analysis, judgment
4.12	Analyzing the adjusted trial balance	1–7, 9	Analysis
4.13	Effects of adjusting entries	1–6	Analysis
4.14	Accounting principles	1–8	Communication, analysis, judgment
4.15	**Real World: Home Depot** Using an annual report	1, 2	Communication, analysis

Problems Sets A, B	Topic	Learning Objectives	Skills
4.1 A,B	Preparing and analyzing adjusting entries	1-7	Analysis, communication
4.2 A,B	Preparing and analyzing adjusting entries	1–6, 9	Analysis, communication
4.3 A,B	Analysis of adjusted data	1–7, 9	Analysis
4.4 A,B	Preparing and analyzing adjusting entries	1–7, 9	Analysis, communication
4.5 A,B	Preparing and analyzing adjusting entries	1–7, 9	Analysis, communication
4.6 A,B	Preparing and analyzing adjusting entries	1–7, 9	Analysis, communication
4.7 A,B	Preparing and analyzing adjusting entries	1–7, 9	Analysis, communication
4.8 A,B	Analyzing the effects of errors	1–7, 9	Analysis

Critical Thinking Cases

4.1	Determining whether adjusting entries are required	1–7	Analysis, judgment, communication
4.2	**Real World: Avis** The concept of materiality	8	Communication, judgment, analysis
4.3	Deferring expenses (Ethics, fraud & corporate governance)	3, 7, 8	Analysis, judgment, communication
4.4	**Real World: Jet Blue and Others** *(Business Week)*	1, 4, 7	Analysis, judgment, communication, research
4.5	**Real World: Hershey** Identifying accounts involved in adjusting process (Internet)	1–6	Communication, technology, judgment, research

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

4.1 A,B **Florida Palms Country Club/Georgia Gun Club** **20 Easy**
Requires students to prepare adjusting entries, classify them as accruals or deferrals, and discuss the difference between the book value of an asset and its fair market value.

4.2 A,B **Enchanted Forest/Big Oaks** **40 Medium**
Requires students to prepare adjusting entries, classify them as accruals or deferrals, analyze their effects on the financial statements, and report assets at book value in the balance sheet.

4.3 A,B **Gunflint Adventures/River Rat** **25 Strong**
Requires students to prepare adjusting entries and interpret financial information.

4.4 A,B **Campus Theater/Off-Campus Playhouse** **30 Medium**
Requires students to prepare adjusting entries, analyze financial information, and interpret differences between income taxes expense and income taxes payable.

4.5 A,B **Terrific Temps/Marvelous Music** **30 Medium**
Requires students to prepare adjusting entries and determine amounts reported in the financial statements.

4.6 A,B **Alpine Expeditions/Mate Ease** **30 Medium**
Requires students to prepare adjusting entries, determine amounts reported in the financial statements, and interpret certain deferrals.

Problems (continued)

4.7 A,B **Ken Hensley Enterprises, Inc./Stillmore Investigations** **60 Strong**
Requires students to journalize adjusting entries, prepare an adjusted trial balance, and understand various relationships among financial statement elements.

4.8 A,B **Coyne Corporation/Stephen Corporation** **20 Strong**
Requires students to analyze the effects of errors on financial statement elements.

Critical Thinking Cases

4.1 **Judgments and Year-End Adjustments** **30 Medium**
Requires students to exercise judgment regarding the need for adjusting entries.

4.2 **The Concept of Materiality** **25 Medium**
Discusses the concept of materiality. The purchase of automobiles by Avis for its rental fleet is used to illustrate how the cumulative effect of many immaterial transactions can become material.

4.3 **Expense Manipulation** **10 Easy**
Ethics, Fraud & Corporate Governance
Students must determine whether the capitalization of advertising expenditures was in compliance with generally accepted accounting principles, and whether the decision to do so was ethical.

4.4 **Deferred Revenue** **15 Medium**
Business Week
Students are required to perform an adjusting entry for JetBlue Corporation and determine from financial data the estimated number of days that passengers purchase their tickets in advance.

4.5 **Identifying Accounts** **10 Easy**
Internet
Students are asked to identify accounts in Hershey's balance sheet that were most likely to have been involved in the company's year-end adjusting entry process.

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. The purpose of making adjusting entries is to recognize certain revenue and expenses that are not properly measured in the course of recording daily business transactions. These entries help achieve the goals of accrual accounting by recognizing revenue when it is earned and recognizing expenses when the related goods or services are used.

2. The only transactions that require end-of-period adjusting entries are those that affect the revenue or expenses of *more than one accounting period.* Adjusting entries then are needed to apportion the revenue or expense among the affected accounting periods.

3. All adjusting entries affect *both* an income statement account and a balance sheet account. Every adjusting entry involves the recognition of either revenue or expense. Revenue and expenses represent changes in owners' equity, which appears in the balance sheet. However, owners' equity cannot change by itself; there must also be a corresponding change in either assets or liabilities.

4. Making adjusting entries requires a better understanding of accrual accounting than does the recording of routine business transactions because there is no "external evidence" (such as bills or invoices) indicating the need for adjusting entries. Adjusting entries are necessary to reflect recorded costs that have expired and recorded revenue that has been earned or to recognize previously unrecorded business activities. Thus, the need for adjusting entries is determined by the accountant's understanding of the concepts of accrual accounting, not by external source documents.

5. Under accrual accounting, an expense is defined as the cost of goods and services used in the effort to generate revenue. Thus, an expense is incurred when the related goods and services are *used,* not when the expense is paid. A 12-month insurance policy represents insurance coverage that is used up over a 12-month period. The cost of such a policy should be debited to an asset account and gradually recognized as an expense over the 12 months that the policy is in force.

6. Accrual accounting requires that revenue be recognized in the accounting records when it is earned. If revenue has been earned, but not yet recorded in the accounts, an adjusting entry should be made to include this revenue in the income of the current period. This entry will credit a revenue account; as the revenue has not yet been collected, the debit will be to an account receivable.

7. The term, *unearned revenue,* describes amounts that have been collected from customers in advance and that have not yet been earned. As the company has an obligation to render services to these customers or to refund their advance payments, unearned revenue appears in the liability section of the balance sheet. As services are performed for these customers, the liability is reduced. Therefore, an adjusting entry is made transferring the balance of the unearned revenue account into a revenue account.

8. Salaries Expense 16,000
Salaries Payable 16,000

8.	Salaries Expense	16,000	
	Salaries Payable		16,000

To record salaries expense and related liability to employees for the last four days of the year ($4/5 \times \$20{,}000 = \$16{,}000$).

9. In the income statement, the Insurance Expense account will be understated; hence total expenses will be understated, and net income will be overstated. In the balance sheet, the asset account, Unexpired Insurance, will be overstated, as will the amount for total assets. Offsetting this overstatement of assets will be an overstatement of retained earnings; hence owners' equity will be overstated.

10. *Materiality* refers to the relative importance of an item or an event to the users of financial statements. An item is "material" if knowledge of it might reasonably influence the decisions of financial statement users.

If an item is *not material,* by definition it is *not relevant* to decision makers. Therefore, the item may be treated in the most convenient and economical manner by the preparer of the financial statements. Thus, the concept of materiality permits departures from other generally accepted accounting principles in accounting for items that are not material.

11. The concept of *materiality* permits accountants to handle items that are unlikely to influence the decisions of users of the accounting information in the most convenient and economical manner. Charging the costs of low-priced and short-lived assets immediately to an expense is not likely to affect the decisions of users of the financial statements. On the other hand, accounting for these items as assets and recording periodic depreciation would require time, effort, and cost. Thus, low-priced and short-lived assets are routinely charged to an expense, because charging them to asset accounts simply is "not worth the bother."

12. The realization principle governs the timing of revenue recognition. The principle states that revenue should be recognized (reported in the income statement) in the period in which it is *earned*. This does not necessarily coincide with cash flow, however. Cash can be received from customers in a period *before* revenue is earned or in a period *after* revenue is earned.

13. The matching principle governs the manner in which revenue is offset by the expenses incurred in producing that revenue. Generally, expenses are matched to revenue in the periods that resources are consumed in generating revenue earned. Expense recognition does *not* necessarily coincide with the payment of cash.

14. A $1,000 expenditure is not considered material to all businesses. Most large enterprises round the dollar amounts shown in their financial statements to the nearest $1 thousand or nearest $1 million dollars.

15. Unprofitable companies recognize a "negative amount" of income tax expense. The adjusting entry to record income tax expense for a period in which a net loss is incurred requires a *debit* to Income Taxes Payable and a *credit* to Income Taxes Expense.

16. Deferred expenses are those assets reported in the balance sheet that will later become expenses reported in the income statement. They include, but are not limited to, office supplies, prepared rent, prepaid insurance, buildings, equipment, etc.

17. Deferred revenue (also referred to as unearned revenue or customer deposits) is reported in the balance sheet as a liability.

18. Accrued but uncollected expenses are reported in the balance sheet as liabilities. They include items such as salaries payable, interest payable, and taxes payable.

19. Accrued but uncollected revenue is reported in the balance sheet as accounts receivable.

20. Carnival Corporation accounts for customer deposits as deferred, or unearned, revenue. As travelers pay for their cruises in advance, Carnival debits Cash and credits Customer Deposits (a liability account). As cruises take place, Carnival debits Customer Deposits and credits Cruise Revenue Earned.

B. Ex. 4.1	**a. Nov. 30**	**Insurance Expense ……………………………………**	**500**	
		Unexpired Insurance …………………….		**500**
		To record expired portion of insurance premium ($3,000 ÷ 6 months = $500)		
	b. Nov. 30	**Unearned Insurance Premiums……………………**	**500**	
		Premium Revenue Earned…………………		**500**
		To convert previously unearned premiums to premium revenue earned ($3,000 ÷ 6 months = $500).		
B. Ex. 4.2	**a. Feb. 1**	**Rent Expense …………………………………………**	**175**	
		Prepaid Rent ………………………………		**175**
		To record February rent of $175.		
	b. Feb. 28	**Unearned Rent Revenue……………………………**	**175**	
		Rent Revenue Earned ……………………		**175**
		To convert previously unearned rent revenue to earned revenue.		
B. Ex. 4.3	**Mar. 31**	**Office Supplies Expense ……………………………**	**1,100**	
		Office Supplies…………….………………….		**1,100**
		To record March office supplies expense ($900 + $600 - $400 = $1,100).		
B. Ex. 4.4	**a. Dec. 31**	**Depreciation Expense: Equipment…………………**	**750**	
		Accumulated Depreciation: Equipment ….		**750**
		To record December depreciation expense $72,000 ÷ 8 years x 1/12 = $750).		

b. The equipment's accumulated depreciation reported in the balance sheet on December 31, 2007, is $54,000 ($72,000 ÷ 8-year life x 6 years of depreciation = $54,000).

B. Ex. 4.5	**Accounts Receivable …………………………………**	**3,340**	
	Client Service Revenue ……………………		**3,340**
	To record earned but unbilled and unrecorded client service revenue:		

Account	**Hours**	**Rate**	**Billable Amount**
#4067	**10**	**$85**	**$ 850**
#3940	**14**	**$75**	**1,050**
#1852	**16**	**$90**	**1,440**
			$ 3,340

B. Ex. 4.6	**a.**		**Unearned Client Revenue ……………………………**	**2,800**	
			Client Revenue Earned …………………		**2,800**
			To convert previously unearned client revenue to client revenue earned.		
	b.		**Client Revenue earned will be reported in the company's income statement at $31,800 ($29,000 + $2,800 = $31,800).**		
B. Ex. 4.7	**a.**	**Dec. 31**	**Salaries Expense ………………………………………**	**175,000**	
			Salaries Payable ……………………………		**175,000**
			To record accrued but unpaid salaries.		
	b.	**Jan. 15**	**Salaries Expense………………………………………**	**180,000**	
			Salaries Payable………………………………………	**175,000**	
			Cash…………………………………………		**355,000**
			To record payment of salaries.		
B. Ex. 4.8	**a.**	**Dec. 31**	**Interest Expense ………………………………………**	**160**	
			Interest Payable…………….……………………		**160**
			To record December interest expense ($24,000 x 8% x 1/12 = $160).		
	b.	**Feb. 1**	**Interest Expense……...…………………………….**	**160**	
			Interest Payable…………………………………….	**160**	
			Notes Payable……………………………………….	**24,000**	
			Cash…...…………………………………….		**24,320**
			To record February interest expense and repay the bank the entire amount owed.		
B. Ex. 4.9	**a.**	**Dec. 31**	**Income Taxes Expense ………………………………**	**5,600**	
			Income Taxes Payable……………………		**5,600**
			To accrue December income taxes expense ($62,800 - $57,200 = $5,600).		
	b.		**Income taxes payable reported in the company's balance sheet dated December 31, 2007, total $19,900 ($14,300 + $5,600 = $19,900).**		

B. Ex. 4.10 a. Materiality refers to the *relative importance* of an item. An item is *material* if knowledge of it might reasonably influence the decisions of users of financial statements. If an item is *immaterial,* by definition it is *not relevant* to decision makers.

Accountants must account for material items in the manner required by generally accepted accounting principles. However, immaterial items may be accounted for in the most convenient and economical manner.

b. Whether a specific dollar amount is "material" depends upon the (1) size of the amount and (2) *nature* of the item. In evaluating the size of a dollar amount, accountants consider the amount in relation to the size of the organization.

Based solely upon dollar amount, $2,500 is *not material* in relation to the financial statements of a large, publicly owned corporation. For a small business however, this amount could be material.

In addition to considering the size of a dollar amount, accountants must also consider the *nature* of the item. The nature of an item may make the item "material" to users of the financial statements *regardless* of its dollar amount. Examples might include bribes paid to government officials, or theft of company assets or other illegal acts committed by management.

In summary, one cannot say whether $2,500 is a material amount. The answer depends upon the related circumstances.

c. Two ways in which the concept of materiality may save time and effort for accountants are:

1. **Adjusting entries may be based upon estimated amounts if there is little or no possibility that the use of an estimate will result in material error. For example, an adjusting entry to reflect the amount of supplies used may be based on an estimate of the cost of supplies remaining on hand.**
2. **Adjusting entries need not be made to accrue immaterial amounts of unrecorded expenses or unrecorded revenue. For example, no adjusting entries normally are made to record utility expense payable at year-end.**

SOLUTIONS TO EXERCISES

Ex 4.1

a. **Book value**
b. **Materiality**
c. **Matching principle**
d. **Unrecorded revenue**
e. **Adjusting entries**
f. **Unearned revenue**
g. **Prepaid expenses**
h. **None (This is an example of "depreciation expense.")**

Ex. 4.2

	Income Statement			Balance Sheet		
Adjusting Entry	Revenue -	Expenses =	Net Income	Assets -	Liabilities =	Owners' Equity
a.	NE	I	D	D	NE	D
b.	NE	I	D	NE	I	D
c.	I	NE	I	I	NE	I
d.	NE	I	D	NE	I	D
e.	NE	I	D	D	NE	D
f.	I	NE	I	NE	D	I

Ex. 4.3

1. Rent Expense	240,000	
Prepaid Rent		240,000
To record rent expense for May ($1,200,000 ÷ 5 months = $240,000 per month).		
2. Unearned Ticket Revenue	148,800	
Ticket Revenue Earned		148,800
To record earned portion of season ticket revenue relating to May home games.		

Ex. 4.4 **a.** Prepaid Advertising is reported in the balance sheet as an asset. Customer Deposits are reported in the balance sheet as liabilities.

b.

Advertising Expense …………………………………………	18,000,000	
Prepaid Advertising ………………………………………		18,000,000
To record the mailing of brochures costing $18 million to print.		

c.

Customer Deposits ……………………………………………	90,000,000	
Cruise Revenue …………………………………………		90,000,000
To record revenue earned for voyages completed.		

d. The adjusting entry that results in the most significant expense in the company's income statement is the recording of depreciation expense on its cruise ships.

Note to the instructor: In a recent income statement the company reported depreciation expense of nearly $300,000,000.

Ex. 4.5 **a.**

(1)	Interest Expense …………………………………………	375	
	Interest Payable …………………………………		375
	$50,000 x 9% annual rate x 1/12 = $375.		
(2)	Accounts Receivable ……………………………………	10,000	
	Consulting Fees Earned …………………………		10,000
	To record ten days of unbilled consulting fees at $1,000 per day.		

b. $2,250 ($50,000 x 9% x 6/12 = $2,250)

c. $15,000 ($25,000 - $10,000 earned in December)

Ex. 4.6 **a.** At the time cash is collected by American Airlines for advance ticket sales, the entire amount is accounted for as *unearned* revenue. The liability created represents the *deferral* (or the postponement) of earned revenue until flight services are actually provided to passengers.

b. Airlines normally reduce the balance of this liability account by converting it to passenger revenue as flight services are provided. On some occasions, however, the liability may be reduced as a result of making cash refunds to customers due to cancellations.

c.

Air Traffic Liability …………………………………………	200,000	
Passenger Revenue Earned ……………………………		200,000
To record passenger revenue earned from advance ticket sales for flights completed.		

Ex. 4.7	**a. 1.**	**Interest Expense ……………………**	**1,200**	
		Interest Payable ……………………		**1,200**
		To record interest accrued on bank loan during December.		
	2.	**Depreciation Expense: Office Building ……………**	**1,100**	
		Accumulated Depreciation: Office Building ………		**1,100**
		To record depreciation on office building ($330,000 ÷ 25 years × 1⁄ 12 = $1,100).		
	3.	**Accounts Receivable ……………………**	**64,000**	
		Marketing Revenue Earned ……………		**64,000**
		To record accrued marketing revenue earned in December.		
	4.	**Insurance Expense ……………………**	**150**	
		Prepaid Insurance ……………………		**150**
		To record insurance expense ($1,800 ÷ 12 months = $150).		
	5.	**Unearned Revenue ……………………**	**3,500**	
		Marketing Revenue Earned ……………		**3,500**
		To record portion of unearned revenue that had become earned in December.		
	6.	**Salaries Expense ……………………**	**2,400**	
		Salaries Payable ……………………		**2,400**
		To record accrued salaries in December.		

b. **$62,650 ($64,000 + $3,500 - $1,200 - $1,100 - $150 - $2,400).**

Ex. 4.8 **a. The total interest expense over the life of the note is $5,400 ($120,000 × .09 × 6⁄ 12 = $5,400).**

The monthly interest expense is $900 ($5,400 ÷ 6 = $900).

b. The liability to the bank at December 31, 2007, is $121,800 (Principal, $120,000 + $1,800 accrued interest).

c.	**2007**				
	Oct.	**31**	**Cash ……………………**	**120,000**	
			Notes Payable ……………		**120,000**
			Obtain from bank six-month loan with interest at 9% a year.		
d.	**Dec.**	**31**	**Interest Expense ……………**	**900**	
			Interest Payable ……………		**900**
			To accrue interest expense for December on note payable ($120,000 × 9% × 1⁄ 12).		

e. The liability to the bank at March 31, 2008, is $124,500, consisting of $120,000 principal plus $4,500 accrued interest for five months.

Ex. 4.9	**a.**	**May**	**1**	**Cash ....**	**300,000**	
				Notes Payable		**300,000**
				Obtained a three-month loan from National Bank at 12% interest per year.		
		May	**31**	**Interest Expense ....**	**3,000**	
				Interest Payable		**3,000**
				To record interest expense for May on note payable to National Bank ($300,000 × 12% × 1⁄ 12 = $3,000).		
	b.	**May**	**1**	**Prepaid Rent ....**	**180,000**	
				Cash		**180,000**
				Paid rent for six months at $30,000 per month.		
		May	**31**	**Rent Expense ....**	**30,000**	
				Prepaid Rent		**30,000**
				To record rent expense for the month of May.		
	c.	**May**	**2**	**Cash ....**	**910,000**	
				Unearned Admissions Revenue		**910,000**
				Sold season tickets to the 70-day racing season.		
		May	**31**	**Unearned Admissions Revenue ....**	**260,000**	
				Admissions Revenue		**260,000**
				To record admissions revenue from the 20 racing days in May ($910,000 × 20⁄ 70 = $260,000).		
	d.	**May**	**4**	**No entry required.**		

Ex. 4.10 a. $6.355 billion ($2.326 book value + $4.029 accumulated depreciation)

b. Type III (Accrued compensation is a liability arising from the accrual of unpaid salaries and wages expense)

c. When the company receives cash from its customer prior to earning any revenue it *debits* Cash and *credits* either Short-Term Unearned Revenue or Long-Term Unearned Revenue. As goods are delivered to customers, the company *debits* the appropriate unearned revenue account and *credits* Sales (revenue earned).

Ex. 4.11 a. America West Corporation: Air Traffic Liability
The New York Times Company: Unexpired Subscriptions
Carnival Corporation: Customer Deposits
Devry, Inc.: Deferred Tuition Revenue
Clear Channel Communications, Inc.: Deferred Advertising Revenue
AFLAC Incorporated: Unearned Premiums
Bally Total Fitness Corporation: Deferred Member Dues

b. America West Corporation: As passengers complete their flights.
The New York Times Company: As newspapers are delivered.
Carnival Corporation: As passengers complete their cruises.
Devry, Inc.: As students complete their courses.
Clear Channel Communications, Inc.: As advertisements are aired.
AFLAC Incorporated: As policies expire.
Bally Total Fitness Corporation: As members use the facilities.

Ex. 4.12	**Accounts Receivable……………………………………**	**5,000**	
	Fees Earned………………………………		**5,000**
	To record accrued but uncollected revenue.		
	Insurance Expense…………………………………	**600**	
	Unexpired Insurance……………………..		**600**
	To record expired portion of insurance policies.		
	Rent Expense …………………………………………	**1,800**	
	Prepaid Rent ………………………………		**1,800**
	To record rent expense for December.		
	Office Supplies Expense……………………………	**300**	
	Office Supplies……………………………..		**300**
	To record December office supplies expense.		
	Depreciation Expense: Equip……………………..	**1,000**	
	Accumulated Depreciation: Equip………..		**1,000**
	To record depreciation of equipment.		
	Salaries Expense…………………………………….	**2,100**	
	Salaries Payable…………………………..		**2,100**
	To record accrued but unpaid salaries.		
	Interest Expense……………………………………	**50**	
	Interest Payable…………………………..		**50**
	To record accrued but unpaid interest expense.		
	Income Taxes Expense…………………………….	**600**	
	Income Taxes Payable…………………….		**600**
	To record accrued but unpaid income taxes.		
	Unearned Revenue…………………………………	**3,000**	
	Fees Earned………..…………………….		**3,000**
	To convert previously unearned revenue to earned revenue.		

Ex. 4.13

Adjustment Type	Revenue	Expenses	Net Income	Assets	Liabilities	Owners' Equity
Type I	NE	I	D	D	NE	D
Type II	I	NE	I	NE	D	I
Type III	NE	I	D	NE	I	D
Type IV	I	NE	I	I	NE	I

Ex. 4.14 a. None (or Materiality). Accounting for immaterial items is not "wrong" or a "violation" of generally accepted accounting principles; it is merely a waste of time. The bookkeeper is failing to take advantage of the concept of materiality, which permits charging immaterial costs directly to expense, thus eliminating the need to record depreciation in the later periods.

b. Matching.

c. Realization.

Ex. 4.15 Accounts requiring adjusting entries may include:

- Short-term investments
- Receivables
- Merchandise inventories
- Other current assets
- Buildings
- Furniture, fixtures and equipment
- Leasehold improvements
- Construction in progress
- Capital leases
- Accrued salaries and related expenses
- Sales taxes payable
- Deferred revenue
- Income taxes payable
- Current installments of long-term debt
- Other accrued expenses
- Deferred income taxes

Note to the instructor: The adjustments required for many of the accounts listed above are discussed in subsequent chapters. Some are beyond the scope of an introductory text.

SOLUTIONS TO PROBLEMS SET A

20 Minutes, Easy

PROBLEM 4.1A
FLORIDA PALMS COUNTRY CLUB

a.

FLORIDA PALMS COUNTRY CLUB				
General Journal				
(Adjusting Entries)				
20__		(1)		
Dec.	31	Salaries Expense	9,600	
		Salaries Payable		9,600
		To record accrued salaries at December 31.		
		(2)		
	31	Accounts Receivable	1,800	
		Green Fee Revenue		1,800
		To record green fees owed by the Tampa Univ. golf		
		golf team.		
		(3)		
	31	Unearned Membership Dues	106,000	
		Membership Dues Earned		106,000
		To record the portion of annual membership dues		
		earned in December.		
		(4)		
	31	Depreciation Expense: Carts	1,000	
		Accumulated Depreciation: Carts		1,000
		To record December depreciation expense		
		($180,000 ÷ 15 years x 1/12).		
		(5)		
	31	Interest Expense	300	
		Interest Payable		300
		To record accrued interest expense in December		
		($45,000 x 8% x 1/12).		
		(6)		
	31	Insurance Expense	650	
		Unexpired Insurance		650
		To record December insurance expense		
		($7,800 x 1/12).		
		(7)		
	31	No adjusting entry required. Revenue is recognized		
		when it is earned. Entering into a contract does not		
		constitute the earning of revenue.		
		(8)		
	31	Income Taxes Expense	19,000	
		Income Taxes Payable		19,000
		To record income taxes accrued in December.		

PROBLEM 4.1A
FLORIDA PALMS COUNTRY CLUB (concluded)

b.

1. **Accruing unpaid expenses.**
2. **Accruing uncollected revenue.**
3. **Converting liabilities to revenue.**
4. **Converting assets to expenses.**
5. **Accruing unpaid expenses.**
6. **Converting assets to expenses.**
7. **No adjusting entry required.**
8. **Accruing unpaid expenses.**

c. The clubhouse was built in 1925 and has been fully depreciated for financial accounting purposes. The net book value of an asset reported in the balance sheet does *not* reflect the asset's fair market value. Likewise, depreciation expense reported in the income statement does not reflect a decline in fair market value, physical obsolescence, or wear-and-tear.

40 Minutes, Medium

PROBLEM 4.2A
ENCHANTED FOREST

a.

		General Journal		
		(Adjusting Entries)		
		(1)		
Dec.	31	Interest Receivable	400	
		Interest Revenue		400
		To record accrued interest revenue on CDs at		
		December 31.		
		(2)		
	31	Interest Expense	85	
		Interest Payable		85
		To record accrued interest expense in December		
		($12,000 x 8.5% x 1/12)		
		(3)		
	31	Depreciation Expense: Buildings	2,000	
		Accumulated Depreciation: Buildings		2,000
		To record December depreciation expense		
		($600,000 ÷ 25 years x 1/12).		
		(4)		
	31	No adjusting entry required. Revenue is recognized		
		when it is earned. Entering into a contract does not		
		constitute the earning of revenue.		
		(5)		
	31	Salaries Expense	1,250	
		Salaries Payable		1,250
		To record accrued salary expense in December.		
		(6)		
	31	Camper Revenue Receivable	2,400	
		Camper Revenue		2,400
		To record camper revenue earned in December.		
		(7)		
	31	Unearned Camper Revenue	900	
		Camper Revenue		900
		To record revenue earned from campers that paid in		
		advance ($5,400 ÷ 6 months).		
		(8)		
	31	Bus Rental Expense	1,000	
		Accounts Payable		1,000
		To record accrued bus rental expense in December		
		($40 per day x 25 days).		
		(9)		
	31	Income Taxes Expense	8,400	
		Income Taxes Payable		8,400
		To record income taxes accrued in December.		

PROBLEM 4.2A
ENCHANTED FOREST (concluded)

b.

1. **Accruing uncollected revenue.**
2. **Accruing unpaid expenses.**
3. **Converting assets to expenses.**
4. **No adjusting entry required.**
5. **Accruing unpaid expenses.**
6. **Accruing uncollected revenue.**
7. **Converting liabilities to revenue.**
8. **Accruing unpaid expenses.**
9. **Accruing unpaid expenses.**

c.

	Income Statement				Balance Sheet				
Adjustment	Revenue	-	Expenses	=	Net Income	Assets	=	Liabilities +	Owners' Equity
1.	I		NE		I	I		NE	I
2.	NE		I		D	NE		I	D
3.	NE		I		D	D		NE	D
4.	NE		NE		NE	NE		NE	NE
5.	NE		I		D	NE		I	D
6.	I		NE		I	I		NE	I
7.	I		NE		I	NE		D	I
8.	NE		I		D	NE		I	D
9.	NE		I		D	NE		I	D

d. **$340 ($12,000 x 8.5% x 4/12)**

e.

Original cost of buildings …………………………………………		$ 600,000
Accumulated depreciation: buildings (prior to adjusting entry 3 in part a)……………………………………………………	$ 310,000	
December depreciation expense from part a ……………………	2,000	
Accumulated depreciation, buildings, 12/31 ………………………		(312,000)
Net book value at December 31 ……………………………………		$ 288,000

25 Minutes, Strong

PROBLEM 4.3A
GUNFLINT ADVENTURES

a. (1) Age of airplane in months = accumulated depreciation ÷ monthly depreciation.
Useful life is given as 20 years, or 240 months.
Cost $240,000 ÷ 240 months = $1,000 monthly depreciation expense
Accumulated depreciation $36,000 ÷ $1,000 monthly depreciation = 36 months.

(2) At June 30, two months of prepaid airport rent have been converted to expense (May and June). Thus, four months of prepaid airport rent remain at June 30. Remaining prepaid amount $7,200 ÷ 4 months remaining = $1,800 per month.

(3) At June 30, five months of the original insurance policy have expired (February through June). Thus, seven months of coverage remains unexpired at June 30. Remaining unexpired amount $3,500 ÷ 7 months remaining = $500 per month. $500 monthly cost x 12 months coverage = $6,000 paid on February 1.

b.

General Journal (Adjusting Entries)				
20___		(1)		
June	30	Depreciation Expense	1,000	
		Accumulated Depreciation: Airplane		1,000
		To record June depreciation expense on airplane.		
		(2)		
	30	Airport Rent Expense	1,800	
		Prepaid Airport Rent		1,800
		Recognizing rent expense for June.		
		(3)		
	30	Insurance Expense	500	
		Unexpired Insurance		500
		Recognizing insurance expense for June.		
		(4)		
	30	Unearned Passenger Revenue	75,000	
		Passenger Revenue Earned		75,000
		Recording portion of unearned revenue earned in		
		June.		

30 Minutes, Medium

PROBLEM 4.4A
CAMPUS THEATER

a.

		General Journal (Adjusting Entries)		
2007		(1)		
Aug.	31	Film Rental Expense	15,200	
		Prepaid Film Rental		15,200
		Film rental expense incurred in August.		
		(2)		
	31	Depreciation Expense: Buildings	700	
		Accumulated Depreciation: Buildings		700
		To record August depreciation expense ($168,000 ÷		
		240 months).		
		(3)		
	31	Depreciation Expense: Fixtures and Equipment	600	
		Accumulated Depreciation: Fixtures and Equip.		600
		To record August depreciation ($36,000 ÷ 60 months).		
		(4)		
	31	Interest Expense	1,500	
		Interest Payable		1,500
		Interest expense accrued in August.		
		(5)		
	31	Unearned Admissions Revenue (YMCA)	500	
		Admissions Revenue		500
		To record advance payment from YMCA earned in		
		August ($1,500 x 1/3).		
		(6)		
	31	Concessions Revenue Receivable	2,250	
		Concessions Revenue		2,250
		To record accrued concessions revenue in August.		
		(7)		
	31	Salaries Expense	1,700	
		Salaries Payable		1,700
		To record accrued salary expense in August.		
		(8)		
	31	Income Taxes Expense	4,200	
		Income Taxes Payable		4,200
		To record income taxes accrued in August.		
		(9)		
	31	No adjusting entry required.		

PROBLEM 4.4A
CAMPUS THEATER (concluded)

b. (1) Eight months (bills received January through August). Utilities bills are recorded as monthly bills are received. As of August 31, eight monthly bills should have been received.

(2) Seven months (January through July). Depreciation expense is recorded only in month-end adjusting entries. Thus, depreciation for August is not included in the August *unadjusted* trial balance.

(3) Twenty months ($14,000 ÷ $700 per month).

c. Corporations must pay income taxes in several *installments* throughout the year. The balance in the Income Taxes Expense account represents the total amount of income taxes expense recognized since the beginning of the year. But Income Taxes *Payable* represents only the portion of this expense that has not yet been paid. In the example at hand, the $4,740 in income taxes payable probably represents only the income taxes expense accrued in July, as Campus Theater should have paid taxes accrued in the first two quarters by June 15.

30 Minutes, Medium

PROBLEM 4.5A
TERRIFIC TEMPS

a.

General Journal
(Adjusting Entries)

2007		(1)		
Dec.	31	Accounts Receivable	1,500	
		Fees Earned		1,500
		To record accrued but uncollected fees earned.		
		(2)		
	31	Unearned Revenue	2,500	
		Fees Earned		2,500
		To convert previously unearned revenue to		
		earned revenue.		
		(3)		
	31	Insurance Expense	300	
		Unexpired Insurance		300
		To record Dec. insurance expense ($1,800 ÷ 6 mo.).		
		(4)		
	31	Rent Expense	1,000	
		Prepaid Rent		1,000
		To record Dec. rent expense ($3,000 ÷ 3 mo.).		
		(5)		
	31	Office Supplies Expense	200	
		Office Supplies		200
		To record offices supplies used in December		
		($600 - $400).		
		(6)		
	31	Depreciation Expense: Equipment	500	
		Accumulated Depreciation: Equipment		500
		To record December depreciation expense		
		($60,000 ÷ 120 mo.).		
		(7)		
	31	Interest Expense	80	
		Interest Payable		80
		To record interest accrued in December		
		($12,000 x 8% x 1/12).		
		(8)		
	31	Salaries Expense	2,700	
		Salaries Payable		2,700
		To record income taxes accrued in December.		
		(9)		
	31	Income Taxes Expense	3,000	
		Income Taxes Payable		3,000
		To record income taxes accrued in December.		

PROBLEM 4.5A
TERRIFIC TEMPS (concluded)

b.

1.	Fees earned (unadjusted)	$ 75,000
	Add: Adjusting entry #1	1,500
	Adjusting entry #2	2,500
	Fees Earned in 2007	$ 79,000
2.	Travel expense (no adjustment required)	$ 5,000
3.	Insurance expense (unadjusted)	$ 2,980
	Add: Adjusting entry #3	300
	Insurance expense incurred in 2007	$ 3,280
4.	Rent expense (unadjusted)	$ 9,900
	Add: Adjusting entry #4	1,000
	Rent expense incurred in 2007	$ 10,900
5.	Office supplies expense (unadjusted)	$ 780
	Add: Adjusting entry #5	200
	Office supplies expense incurred in 2007	$ 980
6.	Utilities expense (no adjustment required)	$ 4,800
7.	Depreciation expense: equipment (unadjusted)	$ 5,500
	Add: Adjusting entry #6	500
	Equipment depreciation expense in 2007	$ 6,000
8.	Interest expense (unadjusted)	$ 320
	Add: Adjusting entry #7	80
	Interest expense incurred in 2007	$ 400
9.	Salaries expense (unadjusted)	$ 30,000
	Add: Adjusting entry #8	2,700
	Salaries expense incurred in 2007	$ 32,700
10	Income taxes expense (unadjusted)	$ 12,000
	Add: Adjusting entry #9	3,000
	Income taxes expense incurred in 2007	$15,000

c. The unadjusted trial balance reports no dividends payable. Thus, the entire $3,000 dividend has been paid

30 Minutes, Medium

PROBLEM 4.6A
ALPINE EXPEDITIONS

a.

		General Journal (Adjusting Entries)		
2007		(1)		
Dec.	31	Accounts Receivable	6,400	
		Client Revenue Earned		6,400
		To record accrued but uncollected revenue.		
		(2)		
	31	Unearned Client Revenue	6,600	
		Client Revenue Earned		6,600
		To convert previously unearned revenue to		
		earned revenue.		
		(3)		
	31	Insurance Expense	3,000	
		Unexpired Insurance		3,000
		To record Dec. insurance expense ($36,000 ÷ 12 mo.).		
		(4)		
	31	Advertising Expense	1,100	
		Prepaid Advertising		1,100
		To record Dec. advertising expense.		
		(5)		
	31	Climbing Supplies Expense	2,900	
		Climbing Supplies		2,900
		To record climbing supplies used in December		
		($4,900 - $2,000).		
		(6)		
	31	Depreciation Expense: Climbing Equip.	1,200	
		Accumulated Dep.: Climbing Equipment		1,200
		To recorded December depreciation expense		
		($57,600 ÷ 48 mo.)		
		(7)		
	31	Interest Expense	75	
		Interest Payable		75
		To record interest accrued in December.		
		($10,000 x 9% x 1/12).		
		(8)		
	31	Salaries Expense	3,100	
		Salaries Payable		3,100
		To record salaries accrued in December.		
		(9)		
	31	Income Taxes Expense	1,250	
		Income Taxes Payable		1,250
		To record income taxes accrued in December.		

PROBLEM 4.6A
ALPINE EXPEDITIONS (continued)

b.

1.	Cash (no adjustment required)	$	13,900
2.	Accounts receivable (unadjusted)		78,000
	Add: Adjusting entry #1		6,400
	Accounts receivable at December 31, 2007	$	84,400
3.	Unexpired insurance (unadjusted)	$	18,000
	Less: Adjusting entry #3		(3,000)
	Unexpired insurance at December 31, 2007.	$	15,000
4.	Prepaid advertising (unadjusted)	$	2,200
	Less: Adjusting entry #4		(1,100)
	Prepaid advertising at December 31, 2007.	$	1,100
5.	Climbing supplies (unadjusted)	$	4,900
	Less: Adjusting entry #5		(2,900)
	Climbing supplies at December 31, 2007.	$	2,000
6.	Climbing equipment (no adjustment necessary)	$	57,600
7.	Acc. Depreciation: climbing equip. (unadjusted)	$	38,400
	Add: Adjusting entry #6		1,200
	Salaries payable at December 31, 2007.	$	39,600
8.	Salaries payable (unadjusted)	$	-
	Add: Adjusting entry #8		3,100
	Salaries payable at December 31, 2007.	$	3,100
9.	Notes payable (no adjustment required)	$	10,000
10.	Interest payable (unadjusted)	$	150
	Add: Adjusting entry #7		75
	Income taxes payable at December 31, 2007.	$	225
11.	Income taxes payable (unadjusted)	$	1,200
	Add: Adjusting entry #9		1,250
	Income taxes payable at December 31, 2007.	$	2,450
12.	Unearned client revenue (unadjusted)	$	9,600
	Less: Adjusting entry #2		(6,600)
	Unearned client revenue at December 31, 2007.	$	3,000

PROBLEM 4.6A
ALPINE EXPEDITIONS (concluded)

c. **Deferred expenses are assets that eventually convert into expenses. For Alpine Expeditions, these accounts include Unexpired Insurance, Prepaid Advertising, Climbing Supplies, and Climbing Equipment.**

60 Minutes, Strong

PROBLEM 4.7A
KEN HENSLEY ENTERPRISES, INC.

a.

General Journal				
(Adjusting Entries)				
2007		(1)		
Dec.	31	Accounts Receivable	4,400	
		Studio Revenue Earned		4,400
		To record accrued studio revenue earned in		
		December.		
		(2)		
	31	Supplies Expense	700	
		Studio Supplies		700
		To record studio supplies used in December		
		($7,600 - $6,900).		
		(3)		
	31	Insurance Expense	250	
		Unexpired Insurance		250
		To record December insurance expense ($1,500 x1/6)		
		(4)		
	31	Studio Rent Expense	2,000	
		Prepaid Studio Rent		2,000
		To record studio rent in December ($6,000 x 1/3).		
		(5)		
	31	Depreciation Expense: Recording Equipment	1,500	
		Accumulated Depreciation: Recording Equip.		1,500
		To record depreciation expense in December		
		($90,000 x 1/60).		
		(6)		
	31	Interest Expense	120	
		Interest Payable		120
		To record accrued interest expense in		
		December. ($16,000 x 9% x 1/12).		
		(7)		
	31	Unearned Studio Revenue	3,600	
		Studio Revenue Earned		3,600
		To record advance collections earned in December.		
		(8)		
	31	Salaries Expense	540	
		Salaries Payable		540
		To record salaries accrued in December.		
		(9)		
	31	Income Taxes Expense	1,700	
		Income Taxes Payable		1,700
		To record income taxes accrued in December.		
		($19,600 - $17,900).		

PROBLEM 4.7A
KEN HENSLEY ENTERPRISES, INC. (continued)

b.

Ken Hensley Enterprises, Inc.				
Income Statement				
For the Year Ended December 31, 2007				
		Studio Revenue Earned		$ 115,000
		Salaries Expense	$ 18,540	
		Supplies Expense	1,900	
		Insurance Expense	2,930	
		Depreciation Expense: Recording Equipment	18,000	
		Studio Rent Expense	23,000	
		Utilities Expense	2,350	
		Interest Expense	960	
		Income Tax Expense	19,600	
		Total Expenses		87,280
		Net Income		$ 27,720

c. **Monthly rent expense for the last two months of 2007 was $2,000 ($6,000 ÷ 3 months). The $21,000 rent expense shown in the trial balance includes a $2,000 rent expense for November, which means that total rent expense for January through October was $19,000 ($21,000 - $2,000). The monthly rent expense in these months must have been $1,900 ($19,000 ÷ 10 months). Thus, it appears that monthly rent increased by $100 (from $1,900 to $2,000) in November and December.**

PROBLEM 4.7A
KEN HENSLEY ENTERPRISES, INC. (concluded)

d. **Insurance expense of $250 per month in the last 5 months of the year was $10 per month more than the average monthly cost in the first 7 months of the year ($250 - $240).**

		Insurance expense for 12 months ended		
		December 31, 2007	$ 2,930	
		Less: Insurance expense for August through December		
		@ $250/month	1,250	
		Insurance expense for January through July	$ 1,680	
			÷ 7	months
		Average monthly insurance expense for Jan.-July	$ 240	

e.

		Accumulated depreciation per trial balance	$ 52,500	
		Add: December depreciation expense (adj. entry 5)	1,500	
		Accumulated depreciation at December 31, 2007	$ 54,000	
			÷ 1,500	per month
		Age of equipment at December 31, 2007	36	months

f.

	Income Statement			Balance Sheet		
Adjustment	Revenue	- Expenses	= Net Income	Assets	= Liabilities	+ Owners' Equity
1.	I	NE	I	I	NE	I
2.	NE	I	D	D	NE	D
3.	NE	I	D	D	NE	D
4.	NE	I	D	D	NE	D
5.	NE	I	D	D	NE	D
6.	NE	I	D	NE	I	D
7.	I	NE	I	NE	D	I
8.	NE	I	D	NE	I	D
9.	NE	I	D	NE	I	D

20 Minutes, Strong

PROBLEM 4.8A
COYNE CORPORATION

	Error	Total Revenue	Total Expenses	Net Income	Total Assets	Total Liabilities	Owners' Equity
a.	Recorded a dividend as an expense reported in the income statement.	NE	O	U	NE	NE	NE
b.	Recorded the payment of an account payable as a debit to accounts payable and a credit to an expense account.	NE	U	O	O	NE	O
c.	Failed to record depreciation expense.	NE	U	O	O	NE	O
d.	Recorded the issue of capital stock as a debit to cash and a credit to retained earnings.	NE	NE	NE	NE	NE	NE
e.	Recorded the receipt of a customer deposit as a debit to cash and a credit to fees earned.	O	NE	O	NE	U	O
f.	Failed to record expired portion of an insurance policy.	NE	U	O	O	NE	O
g.	Failed to record accrued interest earned on an outstanding note receivable.	U	NE	U	U	NE	U

SOLUTIONS TO PROBLEMS SET B

20 Minutes, Easy

PROBLEM 4.1B
GEORGIA GUN CLUB

a.

(Adjusting Entries)

20__		(1)		
Dec.	31	Salaries Expense	13,600	
		Salaries Payable		13,600
		To record accrued salaries at December 31.		
		(2)		
	31	Accounts Receivable	3,200	
		Guest Fee Revenue		3,200
		To record guest fees owed by the Georgia State		
		Police.		
		(3)		
	31	Unearned Membership Dues	140,000	
		Membership Dues Earned		140,000
		To record the portion of annual membership dues		
		earned in December.		
		(4)		
	31	Depreciation Expense: Furniture and Fixtures	1,250	
		Accumulated Depreciation: Furn. & fixtures		1,250
		To record December depreciation expense		
		($120,000 ÷ 8 years x 1/12).		
		(5)		
	31	Interest Expense	400	
		Interest Payable		400
		To record accrued interest expense in December		
		($60,000 x 8% x 1/12).		
		(6)		
	31	Insurance Expense	900	
		Unexpired Insurance		900
		To record December insurance expense		
		($10,800 x 1/12).		
		(7)		
	31	No adjusting entry required. Revenue is recognized		
		when it is earned. Entering into a contract does not		
		constitute the earning of revenue.		
		(8)		
	31	Income Taxes Expense	12,600	
		Income Taxes Payable		12,600
		To record income taxes accrued in December.		

PROBLEM 4.1B
GEORGIA GUN CLUB (concluded)

b.

1. **Accruing unpaid expenses.**
2. **Accruing uncollected revenue.**
3. **Converting liabilities to revenue.**
4. **Converting assets to expenses.**
5. **Accruing unpaid expenses.**
6. **Converting assets to expenses.**
7. **No adjusting entry required.**
8. **Accruing unpaid expenses.**

c. **The clubhouse was built in 1776 and has been fully depreciated for financial accounting purposes. The net book value of an asset reported in the balance sheet does *not* reflect the asset's fair market value. Likewise, depreciation expense reported in the income statement does not reflect a decline in fair market value, physical obsolescence, or wear-and-tear.**

40 Minutes, Medium

PROBLEM 4.2B
BIG OAKS

a.

		General Journal (Adjusting Entries)		
		(1)		
Dec.	31	Interest Receivable	425	
		Interest Revenue		425
		To record accrued interest revenue.		
		(2)		
	31	Interest Expense	80	
		Interest Payable		80
		To record accrued interest expense in December		
		($12,000 x 8% x 1/12).		
		(3)		
	31	Depreciation Expense: Buildings	3,000	
		Accumulated Depreciation: Buildings		3,000
		To record December depreciation expense		
		($720,000 ÷ 20 years x 1/12).		
		(4)		
	31	No adjusting entry required. Revenue is recognized		
		when it is earned. Entering into a contract does not		
		constitute the earning of revenue.		
		(5)		
	31	Salaries Expense	1,515	
		Salaries Payable		1,515
		To record accrued salary expense in December.		
		(6)		
	31	Camper Revenue Receivable	2,700	
		Camper Revenue		2,700
		To record accrued camper revenue earned in		
		December.		
		(7)		
	31	Unearned Camper Revenue	1,500	
		Camper Revenue		1,500
		To record revenue earned from campers that paid in		
		advance ($7,500 ÷ 5 months).		
		(8)		
	31	Bus Rental Expense	810	
		Accounts Payable		810
		To record accrued bus rental expense in December		
		($45 per day x 18 days).		
		(9)		
	31	Income Taxes Expense	6,600	
		Income Taxes Payable		6,600
		To record income taxes accrued in December.		

PROBLEM 4.2B
BIG OAKS (concluded)

b.

1. **Accruing uncollected revenue.**
2. **Accruing unpaid expenses.**
3. **Converting assets to expenses.**
4. **No adjusting entry required.**
5. **Accruing unpaid expenses.**
6. **Accruing uncollected revenue.**
7. **Converting liabilities to revenue.**
8. **Accruing unpaid expenses.**
9. **Accruing unpaid expenses.**

c.

	Income Statement			Balance Sheet		
Adjustment	Revenue -	Expenses =	Net Income	Assets =	Liabilities +	Owners' Equity
1.	I	NE	I	I	NE	I
2.	NE	I	D	NE	I	D
3.	NE	I	D	D	NE	D
4.	NE	NE	NE	NE	NE	NE
5.	NE	I	D	NE	I	D
6.	I	NE	I	I	NE	I
7.	I	NE	I	NE	D	I
8.	NE	I	D	NE	I	D
9.	NE	I	D	NE	I	D

d. **$240 ($12,000 x 8% x 3/12)**

e.

Original cost of buildings ……………………………………………		$ 720,000
Accumulated depreciation: buildings (prior to adjusting entry 3 in part a) ……………………………………………………	$ 160,000	
December depreciation expense from part a ……………………	3,000	
Accumulated depreciation, buildings, 12/31 ………………………		(163,000)
Net book value at December 31 ……………………………………		$ 557,000

25 Minutes, Strong

PROBLEM 4.3B
RIVER RAT

a. **(1)** **Age of the ferry in months = accumulated depreciation ÷ monthly depreciation. Useful life is given as 8 years, or 96 months.**

Cost $96,000 ÷ 96 months = $1,000 monthly depreciation expense.
Accumulated depreciation $20,000 ÷ $1,000 monthly depreciation = 20 months.

(2)

Tickets used in April……………………………….	**160**
Tickets outstanding on April 30 ($1,040 ÷ $2)…….	**520**
Tickets sold to resort hotel on April 1……………..	**680**

(3) **Prepaid rent of $12,000 ÷ 4 months remaining = $3,000 monthly rental expense.**

(4) **Since 2 months of the 12-month life of the policy have expired, the $2,400 of unexpired insurance applies to the remaining 10 months. This indicates a monthly cost of $240, computed as $2,400 ÷ 10. Therefore, the 12-month policy originally cost $2,880, or 12 x $240.**

b.

General Journal
(Adjusting Entries)

20___				
		(1)		
Apr.	30	Depreciation Expense: Ferry	1,000	
		Accumulated Depreciation: Ferry		1,000
		To record April depreciation expense on ferry.		
		(2)		
	30	Unearned Passenger Revenue	320	
		Passenger Revenue Earned		320
		To record earning of revenue from 160 future ride		
		tickets used in April (160 tickets x $2 = $320).		
		(3)		
	30	Rent Expense	3,000	
		Prepaid Rent		3,000
		To recognize rent expense for April.		
		(4)		
	30	Insurance Expense	240	
		Unexpired Insurance		240
		To record expiration of insurance in April.		

30 Minutes, Medium

PROBLEM 4.4B
OFF-CAMPUS PLAYHOUSE

a.

General Journal
(Adjusting Entries)

2007		(1)		
Sept.	30	Costume Rental Expense	600	
		Prepaid Costume Rental		600
		Costume rental expense incurred in September.		
		(2)		
	30	Depreciation Expense: Buildings	500	
		Accumulated Depreciation: Buildings		500
		To record September depreciation expense		
		($150,000 ÷ 300 months).		
		(3)		
	30	Depreciation Expense: Fixtures and Equipment	300	
		Accumulated Depreciation: Fixtures and Equip.		300
		To record September depreciation ($18,000 ÷ 60		
		months).		
		(4)		
	30	Interest Expense	1,062	
		Interest Payable		1,062
		Interest expense accrued in September.		
		(5)		
	30	Unearned Admissions Revenue	500	
		Admissions Revenue		500
		To record earned revenue from nursing homes.		
		(6)		
	30	Concessions Revenue Receivable	4,600	
		Concessions Revenue		4,600
		To record accrued concessions revenue in		
		September.		
		(7)		
	30	Salaries Expense	2,200	
		Salaries Payable		2,200
		To record accrued salary expense in September.		
		(8)		
	30	Income Taxes Expense	3,600	
		Income Taxes Payable		3,600
		To record income taxes accrued in September.		
		(9)		
	30	No adjusting entry required.		

PROBLEM 4.4B
OFF-CAMPUS PLAYHOUSE (concluded)

b. **(1) Nine months (bills received January through September). Utility bills are recorded as monthly bills are received. As of September 30, nine monthly bills should have been received.**

(2) Eight months (January through August). Depreciation expense is recorded only in month-end adjusting entries. Thus, depreciation for September is not included in the September unadjusted trial balance.

(3) Thirty-seven months ($18,500 ÷ $500 per month).

c. **Corporations must pay income taxes in several *installments* throughout the year. The balance in the Income Taxes Expense account represents the total amount of income taxes expense recognized since the beginning of the year. But Income Taxes Payable represents only the portion of this expense that has not yet been paid.**

30 Minutes, Medium

PROBLEM 4.5B
MARVELOUS MUSIC

a.

General Journal
(Adjusting Entries)

2007		(1)		
Dec.	31	Accounts Receivable	3,200	
		Lesson Revenue Earned		3,200
		To record accrued but uncollected revenue.		
		(2)		
	31	Unearned Lesson Revenue	800	
		Lesson Revenue Earned		800
		To convert previously unearned revenue to		
		earned revenue.		
		(3)		
	31	Insurance Expense	400	
		Unexpired Insurance		400
		To record Dec. insur. expense ($4,800 ÷ 12 mo.).		
		(4)		
	31	Rent Expense	1,500	
		Prepaid Rent		1,500
		To record Dec. rent expense ($9,000 ÷ 6 mo.).		
		(5)		
	31	Sheet Music Supplies Expense	250	
		Sheet Music Supplies		250
		To record offices supplies used in December		
		($450 - $200).		
		(6)		
	31	Depreciation Expense: Music Equipment	3,000	
		Accum. Depreciation: Music Equipment		3,000
		To record December depreciation expense		
		($180,000 ÷ 60 mo.).		
		(7)		
	31	Interest Expense	25	
		Interest Payable		25
		To record interest accrued in December		
		($5,000 x 6% x 1/12).		
		(8)		
	31	Salaries Expense	3,500	
		Salaries Payable		3,500
		To record income taxes accrued in December.		
		(9)		
	31	Income Taxes Expense	8,155	
		Income Taxes Payable		8,155
		To record income taxes accrued in December.		

PROBLEM 4.5B
MARVELOUS MUSIC (concluded)

b.

1.	Lesson revenue earned (unadjusted)	$ 154,375
	Add: Adjusting entry #1	3,200
	Adjusting entry #2	800
	Fees Earned in 2007	$ 158,375
2.	Advertising expense (no adjustment required)	$ 7,400
3.	Insurance expense (unadjusted)	$ 4,400
	Add: Adjusting entry #3	400
	Insurance expense incurred in 2007	$ 4,800
4.	Rent expense (unadjusted)	$ 16,500
	Add: Adjusting entry #4	1,500
	Rent expense incurred in 2007	$ 18,000
5.	Sheet music supplies expense (unadjusted)	$ 780
	Add: Adjusting entry #5	250
	Sheet music expense incurred in 2007	$ 1,030
6.	Utilities expense (no adjustment required)	$ 5,000
7.	Depreciation expense: music equipment	$ 33,000
	Add: Adjusting entry #6	3,000
	Equipment depreciation expense in 2007	$ 36,000
8.	Interest expense (unadjusted)	$ 25
	Add: Adjusting entry #7	25
	Interest expense incurred in 2007	$ 50
9.	Salaries expense (unadjusted)	$ 27,500
	Add: Adjusting entry #8	3,500
	Salaries expense incurred in 2007	$ 31,000
10	Income taxes expense (unadjusted)	$ 13,845
	Add: Adjusting entry #9	8,155
	Income taxes expense incurred in 2007	$22,000

c. The unadjusted trial balance reports dividends payable of $1,000. Thus, none of the $1,000 dividend has been paid.

30 Minutes, Medium

PROBLEM 4.6B
MATE EASE

a.

General Journal (Adjusting Entries)				
2007		(1)		
Dec.	31	Unearned Member Dues	21,000	
		Client Fees Earned		21,000
		To convert previously unearned revenue to		
		earned revenue.		
		(2)		
	31	Insurance Expense	3,200	
		Unexpired Insurance		3,200
		To record Dec. insur. Exp. ($19,200 ÷ 6 mo.).		
		(3)		
	31	Rent Expense	7,300	
		Prepaid Rent		7,300
		To record Dec. rent expense ($21,900 ÷ 3 mo.).		
		(4)		
	31	Office Supplies Expense	1,720	
		Office Supplies		1,720
		To record office supplies used in December		
		($2,160 - 440).		
		(5)		
	31	Depreciation Expense: Computer Equip.	3,000	
		Accumulated Dep.: Computer Equip.		3,000
		To record December depreciation expense		
		($108,000 ÷ 36 mo.).		
		(6)		
	31	Interest Expense	750	
		Interest Payable		750
		To record interest accrued in December		
		($90,000 x 10% x 1/12).		
		(7)		
	31	Salaries Expense	10,500	
		Salaries Payable		10,500
		To record salaries accrued in December.		
		(8)		
	31	Income Taxes Expense	2,000	
		Income Taxes Payable		2,000
		To record incomes taxes accrued in December.		

PROBLEM 4.6B
MATE EASE (continued)

b.

1.	Cash (no adjustment required)	$	169,500
2.	Unexpired insurance (unadjusted)		12,800
	Less: Adjusting entry #2		(3,200)
	Unexpired insurance at December 31, 2007.	$	9,600
3.	Prepaid rent (unadjusted rent)	$	14,600
	Less: Adjusting entry #3		(7,300)
	Prepaid rent at December 31, 2007.	$	7,300
4.	Office supplies (unadjusted)	$	2,160
	Less: Adjusting entry #4		(1,720)
	Office supplies at December 31, 2007.	$	440
5.	Computer equip. (no adjustment necessary)	$	108,000
6.	Acc. Deprec.: computer equip. (unadjusted)	$	54,000
	Add: Adjusting entry #5		3,000
	Accum. Depreciation at December 31, 2007.	$	57,000
7.	Accounts payable (no adjustment necessary)	$	4,300
8.	Notes payable (no adjustment necessary)	$	90,000
9.	Salaries payable (unadjusted)	$	-
	Add: Adjusting entry #7		10,500
	Salaries payable at December 31, 2007.	$	10,500
10	Interest payable (unadjusted)	$	6,750
	Add: Adjusting entry #6		750
	Interest payable at December 31, 2007.	$	7,500
11	Income taxes payable (unadjusted)	$	7,500
	Add: Adjusting entry #8		2,000
	Income taxes payable at December 31, 2007.	$	9,500
12	Unearned member dues (unadjusted)	$	36,000
	Less: Adjusting entry #1		(21,000)
	Unearned client revenue at December 31, 2007.	$	15,000

PROBLEM 4.6A
MATE EASE (concluded)

c. **The company is following the realization principle requiring that revenue not be recognized until it is earned. Clients pay the company in advance for services to be provided in the future. As members are provided services, the company converts the unearned member dues into client fees earned.**

60 Minutes, Strong

PROBLEM 4.7B
STILLMORE INVESTIGATIONS

a.

General Journal

(Adjusting Entries)

2007		(1)		
Dec.	31	Accounts Receivable	1,500	
		Client Fees Earned		1,500
		To record accrued revenue in December.		
		(2)		
	31	Unearned Retainer Fees	2,500	
		Client Fees Earned		2,500
		To record advance collections earned in December.		
		(3)		
	31	Office Supplies Expense	95	
		Office Supplies		95
		To record supplies used in December ($205 - $110).		
		(4)		
	31	Depreciation Expense: Office Equipment	750	
		Accumulated Depreciation: Office Equipment		750
		To record depreciation expense in December		
		($54,000 x 1/72).		
		(5)		
	31	Rent Expense	300	
		Prepaid Rent		300
		To record office rent in December ($1,800 x 1/6).		
		(6)		
	31	Insurance Expense	90	
		Unexpired Insurance		90
		To record December insurance expense ($1,080 x		
		1/12).		
		(7)		
	31	Salaries Expense	1,900	
		Salaries Payable		1,900
		To record salaries expense accrued in December.		
		(8)		
	31	Interest Expense	60	
		Interest Payable		60
		To record accrued interest expense in December.		
		($9,000 x 8% x 1/12).		
		(9)		
	31	Income Taxes Expense	600	
		Income Taxes Payable		600
		To record income taxes accrued in December		
		($7,500 - $6,900).		

PROBLEM 4.7B
STILLMORE INVESTIGATIONS (continued)

b.

		STILLMORE INVESTIGATIONS		
		Adjusted Trial Balance		
		December 31, 2007		
		Cash	$ 40,585	
		Accounts receivable	3,500	
		Office supplies	110	
		Prepaid rent	900	
		Unexpired insurance	180	
		Office Equipment	54,000	
		Accumulated depreciation: Office equipment		$ 36,000
		Accounts payable		1,400
		Interest payable		420
		Income taxes payable		2,350
		Note payable		9,000
		Unearned retainer fees		1,000
		Salaries payable		1,900
		Capital stock		30,000
		Retained earnings		8,000
		Dividends	1,000	
		Client fees earned		64,000
		Office supplies expense	700	
		Depreciation expense: Office equipment	9,000	
		Rent expense	6,075	
		Insurance expense	1,100	
		Salaries expense	29,000	
		Interest expense	420	
		Income tax expense	7,500	
		Totals	$ 154,070	$ 154,070

PROBLEM 4.7B
STILLMORE INVESTIGATIONS (continued)

c.

STILLMORE INVESTIGATIONS				
Income Statement				
For the Year Ended December 31, 2007				
		Client fees earned		$ 64,000
		Office supplies expense	$ 700	
		Depreciation expense: office equipment	9,000	
		Rent expense	6,075	
		Insurance expense	1,100	
		Salaries expense	29,000	
		Interest expense	420	
		Income taxes expense	7,500	
		Total Expenses		53,795
		Net Income		$ 10,205

d. **Rent expense of $300 per month in the last 3 months of the year was $275 per month less than the average monthly cost in the first 9 months of the year ($575 - $300).**

		Rent expense for 12 months ended December 31, 2007	$ 6,075	
		Less: Rent expense in October through December		
		@ $300 per month	900	
		Rent expense for January through September	$ 5,175	
			÷ 9	months
		Average monthly rent expense for Jan. - Sept.	$ 575	

e. **Insurance expense of $90 per month in the last 10 months of the year was $10 per month less than the average monthly cost in the first 2 months of the year ($100 - $90).**

		Insurance expense for 12 months ended Dec. 31, 2007	$ 1,100	
		Less: Insurance expense from March through		
		December @ $90/month	900	
		Insurance expense for January through February	200	
			÷ 2	months
		Average insurance expense for Jan. and Feb.	$ 100	

PROBLEM 4.7B
STILLMORE INVESTIGATIONS (concluded)

f.

		Accumulated depreciation per unadjusted trial balance	$ 35,250	
		Add: December depreciation expense (adjusting entry 4)	750	
		Accumulated depreciation at December 31, 2007	$ 36,000	
			÷ 750	per month
		Age of equipment at December 31, 2007	48	months

g.

	Income Statement				Balance Sheet				
Adjustment	Revenue	- Expenses	=	Net Income	Assets	=	Liabilities	+	Owners' Equity
1.	I	NE		I	I		NE		I
2.	I	NE		I	NE		D		I
3.	NE	I		D	D		NE		D
4.	NE	I		D	D		NE		D
5.	NE	I		D	D		NE		D
6.	NE	I		D	D		NE		D
7.	NE	I		D	NE		I		D
8.	NE	I		D	NE		I		D
9.	NE	I		D	NE		I		D

20 Minutes, Strong

PROBLEM 4.8B
STEPHEN CORPORATION

	Error	Total Revenue	Total Expenses	Net Income	Total Assets	Total Liabilities	Owners' Equity
a.	Recorded a declared but unpaid dividend by debiting dividends and crediting Cash.	NE	NE	NE	U	U	NE
b.	Recorded a receipt of an account receivable as a debit to cash and a credit to fees earned.	O	NE	O	O	NE	O
c.	Recorded depreciation expense twice.	NE	O	U	U	NE	U
d.	Recorded the sale of capital stock as a debit to cash and a credit to revenue.	O	NE	O	NE	NE	NE
e.	Purchased equipment and debited supplies expense and credited cash.	NE	O	U	U	NE	U
f.	Failed to record expired portion of prepaid advertising.	NE	U	O	O	NE	O
g.	Failed to record accrued and unpaid interest expense.	NE	U	O	NE	U	O

SOLUTIONS TO CRITICAL THINKING CASES

30 Minutes, Medium

CASE 4.1
YEAR-END ADJUSTMENTS

a. **No adjusting entry is needed, because although the revenue was collected in advance on September 1, it has all been earned prior to year-end. Thus, inclusion of the entire amount in revenue of the period is correct.**

b. **Three months' revenue was collected in advance on December 1 and was credited to an unearned revenue account. At December 31, an adjusting entry is needed to recognize that one-third of this advance payment has now been earned. The effects of this adjusting entry will be to reduce a liability (unearned revenue) and increase revenue recognized as earned in the period. Of course, recognizing revenue also increases owners' equity.**

c. **Management services rendered in December, but which are not billed to customers until the following month, represent *unrecorded revenue* at year-end. An adjusting entry should be made to record this revenue, debiting Accounts Receivable and crediting appropriate revenue accounts. This entry will increase assets, revenue, and owners' equity.**

d. **No adjusting entry is required, as none of the cost of this insurance policy expires in the current year.**

e. **An adjusting entry should be made to record *depreciation expense* on all equipment owned. The entry to record depreciation expense reduces assets, increases expenses, and reduces owners' equity.**

f. **Not recording salaries and wages expense until payroll dates is a common practice. However, salaries and wages actually represent expenses of the period in which employees render services, not the period in which they are paid. Thus, if the payroll date falls in another accounting period, an adjusting entry is needed to recognize an expense the cost of employees' services during the current period. The effects of this entry are to recognize an expense, which in turn decreases owners' equity, and also to recognize a liability for salaries (or wages) payable.**

25 Minutes, Medium

CASE 4.2
THE CONCEPT OF MATERIALITY: AVIS RENT-A-CAR

a. (1) An event or transaction is "material" when knowledge of the item reasonably may be expected to influence the decisions of users of financial statements. One consideration is simply the size of the dollar amounts involved: what is "material" in relation to the operations of a small business may *not be material* in relation to the operations of a large corporation. In addition, the *nature* of the event plays a key role in determining whether or not knowledge of the event would influence decision makers.

There are no official rules determining what is—or is not—material. Thus, the "materiality" of specific events is a matter of professional judgment, left to the accountants preparing financial statements and also to the company's auditors.

(2) In evaluating the "materiality" of an event or transaction, accountants should consider: (1) the dollar amounts involved, relative to the size of the business entity, and (2) the nature of the transaction or event. The nature of an event, such as fraud by management, may be of interest to investors even though the dollar amounts are relatively small in relation to the company's overall earnings and resources.

(3) The concept of materiality *does* mean that financial statements are *not precise "down to the last dollar."* Such precision would be impossible to achieve in most large business organizations; further, such precision is not necessary. A "material" event is one that may influence the decisions of informed users of financial statements. Thus, by definition, *immaterial* events do not influence decisions and, therefore, are irrelevant to the decision makers. The treatment accorded to immaterial events should not make financial statements less useful.

b. The concept of materiality would *not* permit Avis to charge the purchase of new automobiles for its rental fleet directly to expense. Although the cost of each *individual car* is immaterial to Avis, the *cumulative* cost of all cars purchased during the year is quite material.

***Note to instructor:* It is interesting to note that the effect of charging annual purchases of new rental cars directly to expense might not have a material effect upon Avis's income statement, as the cost of new cars purchased might be reasonably close to the depreciation expense that would be recognized annually had the cars been charged to an asset account. Thus, the overall effect on income might not be "material."**

However, charging the purchases of new cars directly to expense would definitely cause a material distortion in the company's balance sheet. One of its largest assets—its rental fleet—would simply not appear. Thus, both assets and owners' equity would be understated by a material amount (the cost of the entire rental fleet).

10 Minutes, Easy

CASE 4.3
EXPENSE MANIPULATION
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. **The decision by management to wait three years before converting the $40,000 capitalized advertising expenditure to advertising expense clearly violates generally accepted accounting principles. The matching principle requires that revenue earned during a particular period be offset with the expenses incurred in generating that revenue. Thus, the $40,000 preseason advertising expenditure should have been converted to advertising expense as the brochures were distributed, as the broadcast media ads were aired, and as the magazine and newspaper ads appeared. Advertising prepayments such as these are normally deferred in the balance sheet for only a few months and are classified as current assets prior to being converted to expenses. Management's decision to capitalize these expenditures for three years would require that they be reported in the balance sheet as long-term assets.**

b. **The decision to capitalize the $40,000 advertising expenditure for three years certainly has ethical implications if management's intent was to purposely inflate profitability, and thereby improve Slippery Slope's chances of receiving a loan from the bank to expand snowmaking capabilities. Whether the $40,000 amount is material or immaterial does not make management's decision any more or any less of an ethical breach if the underlying intent was to inflate the income figures given to the bank.**

Note to instructor: **It is likely that the bank would insist upon receiving a set of audited financial statements prior to approving this loan. As such, the auditors would not provide an unqualified audit opinion unless Slippery Slope reported the $40,000 advertising expenditure as advertising expense.**

15 Minutes, Medium

CASE 4.4
ACCOUNTING FOR DEFERRED REVENUE
BUSINESS WEEK

a.

Air Traffic Liability……………………………………………	**180,000,000**	
Passenger Revenue………………………….		**180,000,000**
To record conversion of unearned revenue to earned revenue as transportation services were provided or tickets expired.		

b. **Passenger revenue divided by the average air traffic liability provides an estimate of the "turnover" of the unearned revenue account.**

Liability turnover rate: $1,440,000,000 ÷ $240,000,000 = <u>6 times</u>

Dividing the number of days in a year by the liability turnover rate computed above provides an estimate of the number of days in advance, on average, that passengers purchase their tickets.

365 days + 6 times turnover = <u>61 days</u>

10 Minutes, Easy

CASE 4.5
IDENTIFYING ACCOUNTS
INTERNET

Accounts from Hershey's balance sheet likely to have required an adjusting entry are:

1. **Accounts Receivable–Trade**
2. **Inventories**
3. **Deferred Income Taxes**
4. **Prepaid Expenses**
5. **Accounts Payable**
6. **Accrued Liabilities**
7. **Accrued Income Taxes**
8. **Current portion of Long-Term Debt**
9. **Property, Plant, and Equipment**
10. **Other Intangibles**

Note to the instructor: **The adjustments required for several of the accounts listed above are discussed in subsequent chapters. Some are beyond the scope of an introductory course.**

CHAPTER 5
THE ACCOUNTING CYCLE:
REPORTING FINANCIAL RESULTS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 5.1	Balancing the accounting equation	1, 2	Analysis
B. Ex. 5.2	Financial statement relationships	1, 2	Analysis
B. Ex. 5.3	Classifying balance sheet accounts	1, 2	Analysis
B. Ex. 5.4	Closing temporary accounts	4	Analysis
B. Ex. 5.5	Closing entries of profitable firms	4	Analysis
B. Ex. 5.6	Closing entries of unprofitable firms	4	Analysis
B. Ex. 5.7	After-closing trial balance	5	Analysis
B. Ex. 5.8	Profitability and liquidity	6	Analysis
B. Ex. 5.9	Measuring interim revenue	7	Analysis
B. Ex. *5.10	The worksheet	8	Judgment, communication, analysis

Exercises	Topic	Learning Objectives	Skills
5.1	Accounting terminology	1-7	Analysis
5.2	Financial statement preparation	1, 2, 6	Analysis
5.3	Financial statement preparation	1, 2, 6	Analysis
5.4	Closing and after-closing trial balance	2–5	Analysis, communication
5.5	Closing and after-closing trial balance	2–5	Analysis, communication
5.6	**Real World: Circuit City** Adequate Disclosure	3	Analysis, communication
5.7	Closing entries of profitable firms	2, 4	Analysis
5.8	Closing entries of unprofitable firms	2, 4	Analysis
5.9	Adjusting versus closing entries	2, 4	Analysis, communication
5.10	Profitability and liquidity measures	6	Analysis
5.11	Profitability and liquidity measures	6	Analysis
5.12	Interim results	1, 2, 7	Analysis
5.13	Interim results	1, 2, 7	Analysis
5.14	Effects of accounting errors	2, 3	Analysis
5.15	**Real World: Home Depot, Inc.** Using an annual report	3, 6	Communication, analysis

Problems Sets A, B	Topic	Learning Objectives	Skills
5.1 A,B	Correcting classification errors	1, 2, 4, 6	Analysis, communication
5.2 A,B	Statement preparation and closing process of a profitable firm	1, 2, 4, 6	Analysis, communication
5.3 A,B	Statement preparation and closing process of an unprofitable firm	1-7, 9	Analysis, communication
5.4 A,B	Interim financial statements	1, 2, 7	Analysis, communication
5.5 A,B	Comprehensive problem combining Chapter 4 and Chapter 5	1–4, 6	Analysis, communication
5.6 A,B	Comprehensive problem combining Chapter 4 and Chapter 5	1–4, 6	Analysis, communication
*5.7 A,B	Comprehensive problem combining Chapter 4 and Chapter 5	1–4, 6	Analysis, communication
5.8 A,B	**Real World: Circuit City/The Gap** Evaluating profitability and liquidity	6	Analysis, communication

Critical Thinking Cases			
5.1	Adequate disclosure	3	Analysis, communication
5.2	Conflicts of interest (Ethics, fraud & corporate governance)	1	Communication, judgment, analysis, research
5.3	Sarbanes-Oxley Act: CEO and CFO personal certifications	3	Analysis, judgment, communication
5.4	Sarbanes-Oxley Act: CEO and CFO *(Business Week)*	3	Analysis, judgment, communication, research
5.5	**Real World: Ford Motor Company** Annual report disclosures (Internet)	3	Communication, technology, research

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

5.1 A,B **Party Wagon, Inc./Strong Knot, Inc.** **20 Easy**
Students are required to correct errors in a set of financial statements. Upon completion of the corrected financial statements, closing entries and a brief financial analysis are required.

5.2 A,B **Lawn Pride, Inc./Garden Wizards** **30 Medium**
Students are required to prepare a set of financial statements for a profitable company from an adjusted trial balance. Closing entries, an after-closing trial balance, and a brief financial analysis are also required.

5.3 A,B **Mystic Masters, Inc./Debit Doctors, Inc.** **45 Strong**
Students are required to prepare a set of financial statements for an unprofitable company from an adjusted trial balance. Closing entries, an after-closing trial balance, and a brief financial analysis are also required.

5.4 A,B **Guardian Insurance Agency/Silver Real Estate** **25 Easy**
Interim financial statements are required for a company that adjusts monthly, but closes at year-end. This problem generates good class discussion.

5.5 A,B **Silver Lining, Inc./Next Job, Inc.** **70 Strong**
This is a comprehensive problem that requires students to combine Chapter 4 material with that of Chapter 5. An unadjusted trial balance is presented. Students are required to prepare adjusting entries and an adjusted trial balance. From their adjusted trial balance they are asked to prepare a set of financial statements, closing entries, an after-closing trial balance, and a brief financial analysis.

5.6 A,B **Brushstroke Art Studio/Touchtone Talent Agency** **70 Strong**
This is a comprehensive problem combining elements of Chapter 4 and Chapter 5. It is similar in format to Problem 5.5 A,B.

***5.7 A,B** **Internet Consulting Service, Inc./Campus Theater** **50 Strong**
This is a comprehensive problem that requires students to combine Chapter 4 material with that of Chapter 5. From an unadjusted trial balance, students are asked to complete a 10-column worksheet.

5.8 A,B **Circuit City/The Gap, Inc.** **15 Medium**
Information from an actual annual report is used to evaluate profitability and solvency.

****Supplemental Topic, "*****The Worksheet*****."***

Critical Thinking Cases

5.1	**Adequate Disclosure** Students are asked to analyze five items that may (or may not) require disclosure in the notes accompanying the financial statements. Students must defend their position.	**25 Strong**
5.2	**Working for the Competition** **Ethics, Fraud & Corporate Governance** This is a group assignment focusing on the following issues: "Is it ethical for a CPA to provide accounting services to companies that compete with each other?" Interviews are required.	**No time estimate**
5.3	**Sarbanes-Oxley Act and CEO/CFO Certifications** Working in groups, students are required to discuss the meaning, purpose, and impact of CEO/CFO personal certifications required under the Sarbanes-Oxley Act.	**5 Easy**
5.4	**Sarbanes-Oxley Act** ***Business Week*** Students are asked to discuss whether it is ethical for a CFO to transfer personal assets out of his or her name due to being held personally liable for financial irregularities reported by the company for which he or she works.	**10 Medium**
5.5	**Annual Report Disclosures** **Internet** Students must identify and discuss topics disclosed in the company's financial statements. This is a good problem to assign in conjunction with Case 5.1.	**15 Easy**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. An annual report generally includes comparative financial statements, supporting information about the company's financial position, its business operations, and a discussion by management concerning the company's future prospects. Before the annual report is issued, the financial statements must be audited by a firm of Certified Public Accountants (CPAs). Publicly owned companies must file their financial statements and detailed supporting schedules with the Securities and Exchange Commission (SEC).

2. The income statement's measurement of net income is not absolutely accurate or precise due to various assumptions and estimates involved in the accounting process. For instance, the amounts shown for depreciation expense are based upon estimates of the useful lives of the company's depreciable assets. Also, the income statement includes only those events that have been evidenced by actual business transactions. For instance, a strong customer base is an important step toward profitable operations; however the development of a customer base is not reflected in the income statement because its value cannot be measured *objectively* until actual sales transactions take place.

3. Retained earnings is that portion of stockholders' equity created by earning income and retaining all or part of the resources created in the business. Income is a function of revenue less expenses. We have learned that cash is not always *received* at the exact time that revenue is earned, nor is cash necessarily *disbursed* at the exact time that an expense is incurred. Thus, the income retained by a company is not in the form of *cash.* Even if a company's income *did* equal its net cash inflow, the amount retained would not be kept in the form of cash. As the company grew, the cash would be converted into property, plant, equipment, and other assets.

4. Dividends are not *part* of income. As such, the dividends paid to stockholders are never reported in the income statement as an expense. Dividends represent a policy decision by a corporation's directors to distribute a portion of income to stockholders.

5. The income statement, statement of retained earnings, and balance sheet are prepared directly from the amounts shown in the adjusted trial balance. The income statement reports revenue earned during the period less expenses incurred in generating that revenue. When revenue exceeds expenses, net income is reported, and an increase in stockholders' equity results. When expenses exceed revenue, a net loss is reported, and a decrease in stockholders' equity results. The net income (or net loss) from the income statement is *added* to the beginning Retained Earnings balance in the statement of retained earnings. Any dividends declared during the period are subtracted in arriving at the ending Retained Earnings balance to be reported in the balance sheet at the end of the period.

6. Items that may require disclosure include, but are not limited to: pending lawsuits, scheduled plant closings, certain governmental investigations, significant events occurring after the balance sheet date but before the statements are issued, specific customers that account for a large portion of the company's business, names of stockholders that own large amounts of the company's stock, any changes in accounting principles having a significant impact on the company's financial position, and any unusual conflicts between the company and its officers.

7. Temporary (or nominal) accounts include revenue, expenses, and dividend accounts. These are the accounts involved in the closing process at the end of the year. Generally speaking, all *income statement* accounts (and dividends reported in the statement of retained earnings) are considered temporary.

8. Permanent (or real) accounts include assets, liability, and stockholders' equity accounts. These accounts are *not* involved in the closing process at the end of the year. Generally speaking, all accounts reported in the *balance sheet* (and in the after-closing trial balance) are considered permanent.

9. Dividends paid to stockholders are *not* considered an expense of the business and, therefore, are not taken into account in determining net income for the period. Since dividends are not an expense, the Dividends account is not closed to the Income Summary account. Instead, it is closed directly to the Retained Earnings account.

10. After all revenue, expense, and dividend accounts have been closed, the only accounts that remain are the permanent (or real) accounts appearing in the balance sheet. In comparison to the adjusted trial balance, the after-closing trial balance contains *only* balance sheet accounts. Also, the Retained Earnings account is no longer reported at its *beginning* balance.

11. A company *can* be both profitable and insolvent. For instance, the company's sales might be made only on account. If customers delay in paying what they owe, the average number of days that accounts receivable remain outstanding could be very high (say, 120 days). At the same time, the company's creditors may require payment at a much faster rate, say, 30 days. Thus even though this business might be *profitable* (i.e., its revenue exceed its expenses), it may not be able to remain *solvent* if its accounts receivable fail to convert to cash in time to settle its accounts payable.

12. A company may close its accounts annually, but prepare financial reports monthly or quarterly. These monthly (or quarterly) statements are referred to as *interim* financial statements. General ledger accounts to be reported in the interim *income statement* require certain computations in order to determine their correct monthly or quarterly amounts. Computations are *not* required to ascertain interim balance sheet amounts because the balance is always based on the account balances *at the balance sheet date.*

13. *Adequate disclosure* means that financial statements should include whatever supplemental information is necessary for an intelligent user to interpret the statements properly.

14. The *notes* accompanying financial statements include whatever disclosures are necessary for users to interpret the statements properly. Among the facts disclosed in notes are the accounting methods in use, due dates of major liabilities, significant events occurring after the balance sheet date, and litigation pending against the company. The notes *do not* include disclosure of items that are *immaterial,* or which do not directly affect the financial position of the business.

15. Unlike most other operating expenses, depreciation does not require regular periodic outlays of cash. Depreciation is merely an estimate of that portion of a depreciable asset's cost which is to be matched against revenue earned during the current accounting period.

16. Revenue, expense, and dividend accounts are called temporary accounts, or nominal accounts, because they accumulate the transactions of only one accounting period. At the end of the period, the changes in owners' equity accumulated in these temporary accounts need to be transferred to the Retained Earnings account, and the temporary accounts need to have *zero balances* in order to be ready to measure the revenue, expenses, and dividends of the next accounting period. The closing process serves these purposes. Revenue and expense accounts are first closed to the Income Summary account which, in turn, is closed to the Retained Earnings account. Any dividends declared during the period are then closed directly to the Retained Earnings account.

17. Virtually every accounting software package performs the year-end closing process automatically without having to perform manually the series of journal entries illustrated in the text. When a business first purchases a software package accountants prepare a chart of accounts specifically tailored for the reporting needs of the company. During this process, revenue and expense accounts are identified as candidates for closing at year-end. The software is written such that those accounts identified as revenues are closed with debits, and those identified as expenses are closed with credits.

18. Income statements report business activity for a *period* of time (e.g., a month, quarter, year, etc.). Balance sheets report financial position at a specific *point* in time. Thus, the balance sheet always is based on account balances at the balance sheet date. A March 31 balance sheet, for example, looks exactly the same regardless of the time period covered by the other financial statements (i.e., the income statement, statement of retained earnings, and statement of cash flows).

19. Return on equity is a measure of net income relative to a company's average stockholders' equity throughout the year. Thus, it conveys the amount of income generated for every dollar of equity capital. A high return on equity indicates that management efficiently used resources provided through owners' equity to generate income. A low return on equity indicates that management was not efficient in using resources provided through owners' equity to generate income.

***20.** A worksheet (or spreadsheet software):

- Provides a "scratch pad" for working out adjusting entries prior to actually entering these items in the accounts.
- Enables accountants to prepare interim financial statements without formally adjusting and closing the accounts.
- Without affecting the account balances, provides both accountants and management with a "preview" of the effects of proposed entries upon the financial statements.

Supplemental Topic, "**The Worksheet*****."***

SOLUTIONS TO BRIEF EXERCISES

B. Ex. 5.1

Decrease in assets during the year…………………..	**$**	**(60,000)**
Decrease in liabilities during the year……………….		**(300,000)**
Increase in stockholders' equity during the year……	**$**	**240,000**
Less: New stock issued during the year……………		**(100,000)**
Income for the year……………………………..		**(250,000)**
Decrease to equity attributed to dividends…………	**$**	**(110,000)**

B. Ex. 5.2

Capital stock (January 1, 2007)…………………….	**$**	**200,000**
Capital stock issued during the year………………		**60,000**
Capital stock (December 31, 2007)………………..	**$**	**260,000**
Add: Retained earnings (December 31, 2007)……		**90,000**
Total stockholders' equity (December 31, 2007)….	**$**	**350,000**

Note: The depreciation of the truck is included in the net income which is included in the ending retained earnings given. Likewise, the dividend is also included in the ending retained earnings figure given.

B. Ex. 5.3
- **a. CA**
- **b. CL**
- **c. CL**
- **d. NCA***
- **e. SHE**
- **f. LTL**
- **g. CL**
- **h. CA**
- **i. NCA**
- **j. CA**

*** Accumulated depreciation is a *contra asset* classified in the non current asset section of the balance sheet.**

B. Ex. 5.4
- **a. C**
- **b. N**
- **c. D**
- **d. C**
- **e. C**
- **f. N**
- **g. D**
- **h. N**
- **i. C**
- **j. N**
- **k. D**

l. **C**

B. Ex. 5.5	**Service Revenue ……………………………………………**	**19,800**	
	Income Summary …………………………		**19,800**
	To close revenue to income summary.		
	Income Summary…………………….…………………..	**18,700**	
	Supplies Expense……………………………		**525**
	Rent Expense………………………………		**3,660**
	Depreciation Expense: Equipment………		**1,200**
	Salaries Expense…………………………..		**12,700**
	Income Taxes Expense…………………..		**615**
	To close expense accounts to income summary.		
	Income Summary……………………………………….	**1,100**	
	Retained Earnings…………………………		**1,100**
	To transfer net income to retained earnings.		
	Retained Earnings……………………………………….	**600**	
	Dividends…………………………………..		**600**
	To close dividends to retained earnings.		
B. Ex. 5.6	**Consulting Fees Earned…………………………………….**	**26,000**	
	Interest Revenue……………………………………………	**300**	
	Income Summary…………………………..		**26,300**
	To close revenue to income summary.		
	Income Summary……………………………………………..	**34,700**	
	Insurance Expense………………………..		**1,900**
	Rent Expense……………………………..		**10,800**
	Depreciation Expense: Office Equip. …..		**5,600**
	Salaries Expense…………………………..		**16,400**
	To close expense accounts to income summary.		
	Retained Earnings…………………………………………….	**8,400**	
	Income Summary…………………………..		**8,400**
	To transfer net loss to income summary.		
	Retained Earnings…………………………………………..	**400**	
	Dividends…………………………………..		**400**
	To close dividends to retained earnings.		

B. Ex. 5.7

a.	C
b.	C
c.	D
d.	N
e.	C
f.	N
g.	N
h.	C
i.	D
j.	N
k.	C
l.	C

B. Ex. 5.8

a.	Net Income ($15,000) ÷ Total Revenue ($60,000)….		25%
b.	Net Income ($15,000) ÷ Average Equity ($37,500)….		40%
c.	Current Assets ($16,000) ÷ Current Liab. ($4,000)		4-to-1
	Computations:		
	Total revenue…………………………………		60,000
	Total expenses……………………………….	$	(45,000)
	Net income……………………………………		15,000
	Stockholders' equity (January 1, 2007)……………	$	37,000
	Stockholders' equity (December 31, 2007)……….		38,000
			75,000
			÷ 2
	Average stockholders' equity in 2007		37,500

B. Ex. 5.9

a.	April through September ($450,000 - $140,000)….	$	310,000
b.	October through December ($680,000 - $450,000)..	$	230,000
c.	April through December ($680,000 - $140,000)……	$	540,000

***B. Ex.5.10**

a.	Net income ($540,000 - $410,000)…………………	$	130,000 [1]
b.	Income statement debits ($380,000 - $130,000)….	$	250,000 [2]

[1] The amount needed to make the columns of the balance sheet equal is net income for the period.

[2] The credit column of the income statement represents total revenue whereas the debit column amount represents total expenses. Thus, total revenue ($380,000 credit column amount) minus net income ($130,000 computed in part a.), equals total expenses (i.e., the income statement debit column total).

**Supplemental Topic, "*The Worksheet*."*

SOLUTIONS TO EXERCISES

Ex 5.1
- **a.** **Adequate disclosure**
- **b.** **Liquidity**
- **c.** **Nominal accounts**
- **d.** **Real accounts**
- **e.** **After-closing trial balance**
- **f.** **Dividends**
- **g.** **Closing entries**
- **h.** **None (This is an example of a "correcting entry.")**

Ex. 5.2
a.

TUTORS FOR RENT, INC.		
Income Statement		
For the Year Ended December 31, 2007		
Revenues:		
Tutoring revenue earned		$ 96,000
Expenses:		
Salary expense	$ 52,000	
Supply expense	1,200	
Advertising expense	300	
Depreciation expense: equipment	1,000	54,500
Income before taxes		$ 41,500
Income taxes expense		11,600
Net income		$ 29,900

TUTORS FOR RENT, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings (1/1/07)		$ 45,000
Add: Net Income		29,900
Less: Dividends		2,000
Retained earnings (12/31/07)		$ 72,900

Ex. 5.2 (continued)

		TUTORS FOR RENT, INC.		
		Balance Sheet		
		December 31, 2007		
		Assets		
		Cash		**$ 91,100**
		Accounts receivable		**4,500**
		Supplies		**300**
		Equipment	**$ 12,000**	
		Less: Accumulated depreciation: equipment	**5,000**	**7,000**
		TOTAL ASSETS		**$ 102,900**
		Liabilities		
		Accounts payable		**$ 1,500**
		Income taxes payable		**3,500**
		TOTAL LIABILITIES		**$ 5,000**
		Stockholders' Equity		
		Capital stock		**$ 25,000**
		Retained earnings		**72,900**
		TOTAL STOCKHOLDERS' EQUITY		**$ 97,900**
		TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		**$ 102,900**

b. **The company appears to be extremely liquid. Cash and accounts receivable comprise 93% of total assets. Together, these highly liquid assets total $95,600, compared to only $5,000 in liabilities coming due. In other words, the combined total of cash and accounts receivable are 19 times the obligations coming due in the near future.**

c. **The $45,000 credit Retained Earnings balance reported in the company's adjusted trial balance is its *beginning* balance. In order to have retained $45,000 in earnings, the company must have been profitable in the past.**

Ex. 5.3

a.

		WILDERNESS GUIDE SERVICES, INC.		
		Income Statement		
		For the Year Ended December 31, 2007		
		Revenues:		
		Guide revenue earned		**$ 102,000**
		Expenses:		
		Salary expense	**$ 87,500**	
		Camping supply expense	**1,200**	
		Insurance expense	**9,600**	
		Depreciation expense: equipment	**5,000**	
		Interest expense	**1,700**	**105,000**
		Net Loss		**$ (3,000)**

		WILDERNESS GUIDE SERVICES, INC.		
		Statement of Retained Earnings		
		For the Year Ended December 31, 2007		
		Retained earnings (1/1/07)		**$ 15,000**
		Less: Net loss		**3,000**
		Less: Dividends		**1,000**
		Retained earnings (12/31/07)		**$ 11,000**

Ex. 5.3 (Continued)

WILDERNESS GUIDE SERVICES, INC.		
Balance Sheet		
December 31, 2007		
Assets		
Cash		**$ 12,200**
Accounts receivable		**31,000**
Camping supplies		**7,900**
Unexpired insurance policies		**2,400**
Equipment	**$ 70,000**	
Less: Accumulated depreciation: equipment	**60,000**	**10,000**
TOTAL ASSETS		**$ 63,500**
Liabilities		
Notes payable (due 4/1/08)		**$ 18,000**
Accounts payable		**9,500**
TOTAL LIABILITIES		**$ 27,500**
Stockholders' Equity		
Capital stock		**$ 25,000**
Retained earnings		**11,000**
TOTAL STOCKHOLDERS' EQUITY		**$ 36,000**
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		**$ 63,500**

b. **The company appears to be liquid. Cash and accounts receivable comprise 68% of the company's total assets. These highly liquid assets total $43,200, in comparison to $27,500 in liabilities coming due in the near future. However, given that its equipment is nearly *fully depreciated*, it *may* have to invest in new equipment shortly.**

c. **The company was *not* profitable in the current period as evidenced by the $3,000 *net loss* reported in the income statement. However, the $15,000 credit Retained Earnings balance reported in the company's adjusted trial balance is the balance *carried forward* from prior years. In order to have retained $15,000 in earnings, the company must have been profitable in the past.**

Ex. 5.4

a.

TUTORS FOR RENT				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Tutoring Revenue earned	96,000	
		Income Summary		96,000
		To close Tutoring Revenue Earned		
		(2)		
	31	Income Summary	66,100	
		Salary Expense		52,000
		Supply Expense		1,200
		Advertising Expense		300
		Depreciation Expense: Equipment		1,000
		Income Taxes Expense		11,600
		To close all expense accounts.		
		(3)		
	31	Income Summary	29,900	
		Retained Earnings		29,900
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($96,000-$66,100 =		
		$29,900).		
		(4)		
	31	Retained Earnings	2,000	
		Dividends		2,000
		To transfer dividends declared in 2007 to the		
		Retained Earnings account.		

Ex. 5.4 (Continued)
b.

TUTORS FOR RENT, INC.		
After-Closing Trial Balance		
December 31, 2007		
Cash	**$ 91,100**	
Accounts receivable	**4,500**	
Supplies	**300**	
Equipment	**12,000**	
Less: Accumulated depreciation: equipment		**$ 5,000**
Accounts payable		**1,500**
Income taxes payable		**3,500**
Capital stock		**25,000**
Retained earnings		**$ 72,900**
Totals	**$ 107,900**	**$ 107,900**

c. **The $72,900 Retained Earnings balance reported in the after-closing trial balance is $27,900 *more* than the $45,000 balance reported in the unadjusted trial balance. By *adding* net income to the Retained Earnings balance in the unadjusted trial balance, and *subtracting* dividends, one arrives at the $72,900 reported in the after-closing trial balance ($45,000 + $29,900 - $2,000 = $72,900).**

Ex. 5.5

a.

WILDERNESS GUIDE SERVICES, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Guide Revenue Earned	102,000	
		Income Summary		102,000
		To close Guide Revenue Earned.		
		(2)		
	31	Income Summary	105,000	
		Salary Expense		87,500
		Camping Supply Expense		1,200
		Insurance Expense		9,600
		Depreciation Expense: Equipment		5,000
		Interest Expense		1,700
		To close all expense accounts.		
		(3)		
	31	Retained Earnings	3,000	
		Income Summary		3,000
		To transfer net loss incurred in 2007 to the		
		Retained Earnings account ($102,000 - $105,000 =		
		$3,000 loss).		
		(4)		
	31	Retained Earnings	1,000	
		Dividends		1,000
		To transfer dividends declared in 2007 to the		
		Retained Earnings account.		

Ex. 5.5 (Continued)

b.

		WILDERNESS GUIDE SERVICES, INC.		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 12,200	
		Accounts receivable	31,000	
		Camping supplies	7,900	
		Unexpired insurance policies	2,400	
		Equipment	70,000	
		Accumulated depreciation: equipment		$ 60,000
		Notes payable (due 4/1/08)		18,000
		Accounts payable		9,500
		Capital stock		25,000
		Retained earnings		11,000
		Totals	$ 123,500	$ 123,500

c. **The $11,000 Retained Earnings balance reported in the after-closing trial balance is $4,000 *less* than the $15,000 balance reported in the unadjusted trial balance. By *subtracting* both the net loss and dividends from the Retained Earnings balance in the unadjusted trial balance, one arrives at the $11,000 reported in the after-closing trial balance ($15,000 - $3,000 - $1,000 = $11,000).**

Ex. 5.6 a.

1. **Circuit City recognizes revenue when the earnings process is complete. This means that revenue is recorded at the time customers receive their products.**
2. **The earnings process is not complete when the company first receives cash for gift cards. This is because no products have been delivered. Thus, as gift cards are sold, the company debits Cash and credits Unearned Revenue. As gift card recipients use their cards to purchase products, the company debits Unearned Revenue and credits Revenue Earned (Sales).**
3. **The company records advertising expense in the period that it purchases advertisements in various media (e.g., radio, newspaper, etc.). Thus, when it pays for advertising it debits Advertising Expense and credits Cash.**
4. **The company matches the cost of property and equipment to the periods in which it contributes to generating revenue. It does so by dividing the cost of property and equipment by its estimated life and charging the result to depreciation expense each period.**

b.

1.	**Cash……………………………………………**	**500**	
	Unearned Revenue……………………		**500**
	To record the sale of a $500 gift card.		
2.	**Unearned Revenue…………………………**	**500**	
	Sales (Revenue)………………………		**500**
	To record the redemption of a $500 gift card.		

Ex. 5.7	a.	Counseling Revenue…………	225,000	
		Income Summary…………		225,000
		To close counseling revenue earned.		
		Close all expenses to the Income summary account:		
		Income Summary…………	170,400	
		Advertising Expense…………		1,800
		Salaries Expense…………		94,000
		Office Supplies Expense…………		1,200
		Utilities Expense…………		850
		Malpractice Insurance Expense…………		6,000
		Office Rent Expense…………		24,000
		Continuing Education Expense…………		2,650
		Depreciation Expense: Fixtures…………		4,500
		Miscellaneous Expense…………		6,000
		Income Taxes Expense…………		29,400
		To close all expense accounts.		
		Income Summary…………	54,600	
		Retained Earnings…………		54,600
		To transfer net income earned in 2007 ($225,000 - $170,400) to Retained Earnings.		
		Retained Earnings…………	6,000	
		Dividends…………		6,000
		To close dividends declared in 2007 to Retained Earnings.		
	b.	Retained Earnings, January 1, 2007		$ 92,000
		Plus: Net Income		54,600
				$ 146,600
		Less: Dividends Declared in 2007		(6,000)
		Retained Earnings, December 31, 2007		$ 140,600

Ex. 5.8	**a.**	**Consulting Revenue - Individual Clients……………..**	**40,000**	
		Consulting Revenue - Corporate Clients……………..	**160,000**	
		Income Summary…………………………………		**200,000**
		To close revenue accounts to income summary.		
		Income Summary……………………………………………	**275,000**	
		Advertising Expense………………………………		**16,000**
		Depreciation Expense: Computers...…………..		**24,000**
		Rent Expense………………………………….		**9,600**
		Office Supplies Expense…………………………		**4,400**
		Travel Expense………………………………..		**57,800**
		Utilities Expense………………………………		**3,300**
		Telephone and Internet Expense………………		**1,900**
		Salaries Expense………………………………..		**155,500**
		Interest Expense………………………………..		**2,500**
		To close expense accounts to income summary.		
		Retained Earnings…………………………………….	**75,000**	
		Income Summary…………………………………		**75,000**
		To transfer a net loss for the period to retained earnings.		
		Retained Earnings……………………………………………	**25,000**	
		Dividends……………………………………………		**25,000**
		To close dividends to retained earnings.		
	b.	**Retained Earnings, (January 1, 2007)…………………**		**$ 300,000**
		Less: Net loss in 2007……………………………….		**(75,000)**
		Dividends in 2007……………………………….		**(25,000)**
		Retained Earnings, December 31, 2007		**$ 200,000**
Ex. 5.9	**a.**	**Insurance Expense……………………………………………**	**600**	
		Unexpired Insurance……………………………………		**600**
		To record insurance expense for December.		
	b.	**Income Summary……………………………………………**	**3,000**	
		Insurance Expense……………………………………		**3,000**
		To close Insurance Expense (5 months) to Income Summary.		

c. **No, the dollar amounts are not the same in the adjusting and closing entries. The accounts are adjusted *monthly;* therefore the adjusting entry reflects insurance expense for one month ($600). The books are closed *annually.* By December 31, five months' insurance expense ($3,000) has been recognized for the period August through December.**

Ex. 5.10	**a.**	**Net Income ($5,100) ÷ Total Revenue ($25,500)**	**20%**

Significance: **All companies must consume resources (incur costs) in order to generate revenue. The net income percentage is a measure of management's ability to control these costs and use resources efficiently to generate revenue.**

b.	**Net Income ($5,100) ÷ Average Equity ($17,000)**	**30%**

Significance: **Return on equity is a measure of net income relative to a company's stockholders' equity throughout the year. Thus, it reports how much income is generated for every dollar of equity capital.**

c.	**Current Assets ($16,000) - Current Liabilities ($4,000)**	**$ 12,000**

Significance: **Current assets often convert to cash in the near future, whereas current liabilities often consume cash in the near future. Thus, working capital is a measure of a company's short-term liquidity.**

d.	**Current Assets ($16,000) ÷ Current Liabilities ($4,000)**	**4-to-1**

Significance: **The current ratio is simply working capital expressed as a proportion. Thus, it is also a measure of short-term liquidity.**

Based on the above measures, this company appears to be profitable and potentially liquid.

Computations:

Total revenue……………………………………	**$**	**25,500**
Total expenses……………………………….		**(20,400)**
Net income……………………………………	**$**	**5,100**
Stockholders' equity (January 1, 2007)……	**$**	**14,800**
Stockholders' equity (December 31, 2007)..		**19,200**
	$	**34,000**
		÷ 2
Average stockholders' equity in 2007	**$**	**17,000**
Total assets……………………………..…	**$**	**23,200**
Less: Equipment (net of depreciation)……		**(7,200)**
Current assets………………………………	**$**	**16,000**

Ex. 5.11 **a.** **Net Income ($3,040) ÷ Total Revenue ($152,000)** **2%**

Significance: **All companies must consume resources (incur costs) in order to generate revenue. The net income percentage is a measure of management's ability to control these costs and use resources efficiently to generate revenue.**

b. **Net Income ($3,040) ÷ Average Equity ($80,000)** **3.8%**

Significance: **Return on equity is a measure of net income relative to a company's stockholders' equity throughout the year. Thus, it reports how much income is generated for every dollar of equity capital.**

c. **Current Assets ($94,000) - Current Liabilities ($235,000)** **$ (141,000)**

Significance: **Current assets often convert to cash in the near future, whereas current liabilities often consume cash in the near future. Thus, working capital is a measure of a company's short-term liquidity.**

d. **Current Assets ($94,000) ÷ Current Liabilities ($235,000)** **0.4-to-1**

Significance: **The current ratio is simply working capital expressed as a proportion. Thus, it is also a measure of short-term liquidity.**

Based on the above measures, this company appears to be marginally profitable but heading for liquidity problems.

Computations:

Total revenue……………………………………	$	152,000
Total expenses………………………………		(148,960)
Net income…………………………………..	$	3,040
Stockholders' equity (January 1, 2007)……	$	79,000
Stockholders' equity (December 31, 2007)…		81,000
		160,000
		÷ 2
Average stockholders' equity in 2007	$	80,000
Total assets……………………………….…	$	154,000
Less: Equipment (net of depreciation)……		(60,000)
Current assets………………………………..	$	94,000

Ex. 5.12 **a.** **(1)** **Lift Ticket Revenue, $210,000 ($850,000 –$640,000)**

(2) **Cash, $116,000**

b. **(1)** **Lift Ticket Revenue, $960,000 ($990,000 –$30,000)**

(2) **Cash, $138,000**

c. **January was the best month with respect to lift ticket revenue ($640,000 – $200,000 = $440,000). December, however, was the best month with respect to net cash flow ($59,000 - $9,000 = $50,000).**

Ex. 5.13 **a.** **Ranking of profitability by quarter (revenue minus expenses):**

4th quarter ($90,000 - $45,000)……………………………….	$	45,000
1st quarter (69,000 - $48,000)…………………………………		21,000
2nd quarter ($60,000 - $42,000)……………………………….		18,000
3rd quarter ($30,000 - $40,000)……………………………….		(10,000)
Profit for the year ending December 31 ($249,000 - $175,000)	$	74,000

Computations:

Revenue by Quarter		
January - March	$	69,000
April - June ($129,000 - $69,000)		60,000
July - Sept. ($159,000 - $129,000)		30,000
Oct. - Dec. ($249,000 - $159,000)		90,000
Total revenue for the year	$	249,000

Expenses by Quarter		
January - March	$	48,000
April - June ($90,000 - $48,000)		42,000
July - Sept. ($130,000 - 90,000)		40,000
Oct. - Dec. ($175,000 - $130,000)		45,000
Total expenses for the year	$	175,000

b.

September revenue ($159,000 - $134,000)	$	25,000
September expenses ($130,000 - $115,000)		(15,000)
September income	$	10,000

c.

Third quarter loss (part a.)	$	(10,000)
Less: September income (part b.)		(10,000)
Loss in July and August	$	(20,000)

Given that this business provides janitorial services to schools, the poor performance in July and August is probably attributable to schools not being in session.

Ex. 5.14

	Error	Net Income	Total Assets	Total Liabilities	Retained Earnings
a.	Recorded a dividend as an *expense* in the income statement	U	NE	NE	NE
b.	Recorded unearned revenue as earned revenue in the income statement.	O	NE	U	O
c.	Failed to record accrued wages payable at the end of the period.	O	NE	U	O
d.	Recorded a declared but unpaid dividend by debiting Dividends and crediting Cash.	NE	U	U	NE
e.	Failed to disclose a pending lawsuit in the notes accompanying the financial statements.	NE	NE	NE	NE

Ex. 5.15 a. **The company uses straight-line depreciation as discussed in the Summary of Significant Accounting Policies section of the notes accompanying the financial statements.**

b. **Revenue is recognized at the time customers take possession of merchandise or receive services. Cash received prior to this point is reported as Deferred Revenue in the liability section of the balance sheet.**

c. **Profitability:**

Net income for the year ended January 29, 2006, was $5.838 billion, which was $0.837 billion more than the year ended January 30, 2005, and $1.534 billion more than the year ended February 1, 2004. Gross profit as a percentage of sales for the year ended January 29, 2006 was 34%, up slightly from the previous two years reported. Net income as a percentage of stockholder investment for the year ended January 29, 2006, was an impressive 22%.

Liquidity:

The current ratio at January 29, 2006, is approximately 1.19-to-1, down slightly from 1.36-to-1 reported at the end of the previous year. The quick ratio at January 29, 2006, is approximately 0.25-to-1, down from 0.35-to-1 reported at the end of the previous year. Cash flows from operating activities for the year ended January 29, 2006, are an impressive $6.484 billion, down slightly from $6.904 billion reported in the previous year.

SOLUTIONS TO PROBLEMS SET A

20 Minutes, Easy

PROBLEM 5.1A
PARTY WAGON, INC.

a.

		PARTY WAGON, INC.		
		Income Statement		
		For the Year Ended December 31, 2007		
		Revenues:		
		Party revenue earned		$ 130,000
		Expenses:		
		Insurance expense	$ 1,800	
		Office rent expense	12,000	
		Supplies expense	1,200	
		Salary expense	75,000	
		Depreciation expense: van	8,000	
		Depreciation expense: equipment & music	7,000	
		Repair & maintenance expense	2,000	
		Travel expense	6,000	
		Miscellaneous expense	3,600	
		Interest expense	4,400	121,000
		Income before taxes		$ 9,000
		Income taxes expense		2,000
		Net income		$ 7,000

		PARTY WAGON, INC.		
		Statement of Retained Earnings		
		For the Year Ended December 31, 2007		
		Retained earnings (1/1/07)		$ 15,000
		Add: Net Income		7,000
		Less: Dividends		1,000
		Retained earnings (12/31/07)		$ 21,000

PROBLEM 5.1A
PARTY WAGON, INC. (continued)

a. (cont'd)

		PARTY WAGON, INC.		
		Balance Sheet		
		December 31, 2007		
		Assets		
		Cash		$ 15,000
		Accounts receivable		9,000
		Unexpired insurance		4,500
		Prepaid rent		2,000
		Supplies		500
		Van	$ 40,000	
		Less: Accumulated depreciation: van	16,000	24,000
		Equipment & music	35,000	
		Less: Accumulated depreciation: equipment & music	14,000	21,000
		TOTAL ASSETS		$ 76,000
		Liabilities		
		Accounts payable		$ 7,000
		Notes payable		39,000
		Salaries payable		1,600
		Interest payable		200
		Income taxes payable		400
		Unearned party revenue		1,800
		TOTAL LIABILITIES		$ 50,000
		Stockholders' Equity		
		Capital stock		$ 5,000
		Retained earnings		21,000
		TOTAL STOCKHOLDERS' EQUITY		$ 26,000
		TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 76,000

PROBLEM 5.1A
PARTY WAGON (concluded)

b.

PARTY WAGON, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Party Revenue Earned	130,000	
		Income Summary		130,000
		To close Party Revenue Earned.		
		(2)		
	31	Income Summary	123,000	
		Insurance Expense		1,800
		Office Rent Expense		12,000
		Supplies Expense		1,200
		Salaries Expense		75,000
		Depreciation Expense: Van		8,000
		Depreciation Expense: Equip. & Music		7,000
		Repair & Maintenance Expense		2,000
		Travel Expense		6,000
		Miscellaneous Expense		3,600
		Interest Expense		4,400
		Income Taxes Expense		2,000
		To close all expense accounts.		
		(3)		
	31	Income Summary	7,000	
		Retained Earnings		7,000
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($130,000 - $123,000 =		
		$7,000).		
		(4)		
	31	Retained Earnings	1,000	
		Dividends		1,000
		To transfer dividends declared in 2007 to the		
		Retained Earnings account.		

c. **For the year ended December 31, 2007, the company generated net income of $7,000 on $130,000 sales. Thus, net income as a percentage of sales was approximately 5.4%. Moreover, the $7,000 profit represented a 27% return on stockholders' equity, which is a fairly strong return on investment. The company's balance sheet at December 31, 2007, reports cash and accounts receivable totaling $24,000. It also reports various payables (liabilities) totaling $48,200. Thus, the company may or *may not* currently be liquid depending on when the $39,000 note payable reported in the balance sheet is due. If this obligation is *not* due in the near future, then the company appears to be solvent. If, however, this note is due shortly, the company may experience some cash flow difficulty.**

30 Minutes, Medium

PROBLEM 5.2A
LAWN PRIDE, INC.

a.

		LAWN PRIDE, INC.		
		Income Statement		
		For the Year Ended December 31, 2007		
		Revenues:		
		Mowing revenue earned		$ 170,000
		Expenses:		
		Insurance expense	$ 2,400	
		Office rent expense	36,000	
		Supplies expense	5,200	
		Salary expense	60,000	
		Depreciation expense: trucks	30,000	
		Depreciation expense: mowing equipment	4,000	
		Repair & maintenance expense	3,000	
		Fuel expense	1,500	
		Miscellaneous expense	5,000	
		Interest expense	3,000	150,100
		Income before taxes		$ 19,900
		Income taxes expense		6,000
		Net income		$ 13,900

		LAWN PRIDE, INC.		
		Statement of Retained Earnings		
		For the Year Ended December 31, 2007		
		Retained earnings (1/1/07)		$ 30,000
		Add: Net Income		13,900
		Less: Dividends		5,000
		Retained earnings (12/31/07)		$ 38,900

PROBLEM 5.2A
LAWN PRIDE, INC. (continued)

a. (cont'd)

LAWN PRIDE, INC.	
Balance Sheet	
December 31, 2007	
Assets		
Cash		$ 58,525
Accounts receivable		4,800
Unexpired insurance		8,000
Prepaid rent		3,000
Supplies		1,075
Trucks	$ 150,000	
Less: Accumulated depreciation: trucks	120,000	30,000
Mowing equipment	20,000	
Less: Accumulated depreciation: mowing equipment	12,000	8,000
TOTAL ASSETS		$ 113,400
Liabilities		
Accounts payable		$ 1,500
Notes payable		50,000
Salaries payable		900
Interest payable		150
Income taxes payable		1,050
Unearned mowing revenue		900
TOTAL LIABILITIES		$ 54,500
Stockholders' Equity		
Capital stock		$ 20,000
Retained earnings		38,900
TOTAL STOCKHOLDERS' EQUITY		$ 58,900
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 113,400

PROBLEM 5.2A
LAWN PRIDE, INC. (continued)

b.

		LAWN PRIDE, INC.		
		General Journal		
		December 31, 2007		
		(1)		
Dec.	31	Mowing Revenue Earned	170,000	
		Income Summary		170,000
		To close Mowing Revenue Earned.		
		(2)		
	31	Income Summary	156,100	
		Insurance Expense		2,400
		Office Rent Expense		36,000
		Supplies Expense		5,200
		Salary Expense		60,000
		Depreciation Expense: Trucks		30,000
		Depreciation Expense: Mowing Equip.		4,000
		Repair & Maintenance Expense		3,000
		Fuel Expense		1,500
		Miscellaneous Expense		5,000
		Interest Expense		3,000
		Income Taxes Expense		6,000
		To close all expense accounts.		
		(3)		
	31	Income Summary	13,900	
		Retained Earnings		13,900
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($170,000 - $156,100 =		
		$13,900).		
		(4)		
	31	Retained Earnings	5,000	
		Dividends		5,000
		To transfer dividends declared in 2007 to the		
		Retained Earnings account.		

PROBLEM 5.2A
LAWN PRIDE, INC. (concluded)

c.

		LAWN PRIDE, INC.		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 58,525	
		Accounts receivable	4,800	
		Unexpired insurance	8,000	
		Prepaid rent	3,000	
		Supplies	1,075	
		Trucks	150,000	
		Accumulated depreciation: trucks		$ 120,000
		Mowing equipment	20,000	
		Accumulated depreciation: mowing equipment		12,000
		Accounts payable		1,500
		Notes payable		50,000
		Salaries payable		900
		Interest payable		150
		Income taxes payable		1,050
		Unearned mowing revenue		900
		Capital stock		20,000
		Retained earnings		38,900
		Totals	$ 245,400	$ 245,400

d. **For the year ended December 31, 2007, the company generated net income of $13,900 on $170,000 sales. Thus, net income as a percentage of sales was approximately 8.2%. Moreover, the $13,900 profit represented a return on stockholders' equity of approximately 24%, which is a fairly strong return on investment. The company's balance sheet at December 31, 2007, reports cash and accounts receivable totaling $63,325. It also reports various payables (liabilities) totaling $53,600. Depending on when the $50,000 note payable reported in the balance sheet is due, the company may be *extremely liquid* . If this obligation is *not* due in the near future, the company has $63,325 in cash and accounts receivable to cover obligations of only $3,600. Even if this note *is* due shortly, the company still appears to be liquid.**

45 Minutes, Strong

PROBLEM 5.3A
MYSTIC MASTERS, INC.

a.

MYSTIC MASTERS, INC.		
Income Statement		
For the Year Ended December 31, 2007		
Revenues:		
Client revenue earned		$ 52,000
Expenses:		
Insurance expense	$ 6,000	
Office rent expense	9,000	
Supplies expense	440	
Salary expense	48,000	
Depreciation expense: furniture & fixtures	1,400	
Office and telephone expense	3,000	
Internet service expense	4,900	
Legal expense	1,500	
Interest expense	4,000	
Miscellaneous expense	5,000	83,240
Net loss		$ (31,240)

MYSTIC MASTERS, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings (1/1/07)		$ 2,600
Less: Net loss		31,240
Retained earnings (12/31/07)		$ (28,640)

PROBLEM 5.3A
MYSTIC MASTERS, INC. (continued)

a. (cont'd)

MYSTIC MASTERS, INC.		
Balance Sheet		
December 31, 2007		
Assets		
Cash		$ 960
Accounts receivable		300
Unexpired insurance		2,000
Prepaid rent		1,500
Supplies		200
Furniture & fixtures	$ 8,400	
Less: Accumulated depreciation: furniture & fixtures	5,200	3,200
TOTAL ASSETS		$ 8,160
Liabilities		
Accounts payable		$ 6,540
Notes payable		24,000
Salaries payable		1,700
Interest payable		360
Unearned client revenue		200
TOTAL LIABILITIES		$ 32,800
Stockholders' Equity		
Capital stock		$ 4,000
Retained earnings (deficit)		(28,640)
TOTAL STOCKHOLDERS' EQUITY (DEFICIT)		$ (24,640)
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 8,160

PROBLEM 5.3A
MYSTIC MASTERS, INC. (continued)

b.

MYSTIC MASTERS, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Client Revenue Earned	52,000	
		Income Summary		52,000
		To close Client Revenue Earned.		
		(2)		
	31	Income Summary	83,240	
		Insurance Expense		6,000
		Office Rent Expense		9,000
		Supplies Expense		440
		Salary Expense		48,000
		Depreciation Expense: Furn. & Fixt.		1,400
		Office & Telephone Expense		3,000
		Internet Service Expense		4,900
		Legal Expense		1,500
		Interest Expense		4,000
		Miscellaneous Expense		5,000
		To close all expense accounts.		
		(3)		
	31	Retained Earnings	31,240	
		Income Summary		31,240
		To transfer net loss in 2007 to the Retained		
		Earnings account ($52,000 - $83,240 = $31,240 loss)		
		Note: No dividends were declared in 2007.		

PROBLEM 5.3A
MYSTIC MASTERS, INC. (concluded)

c.

		MYSTIC MASTERS, INC.		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 960	
		Accounts receivable	300	
		Unexpired insurance	2,000	
		Prepaid rent	1,500	
		Supplies	200	
		Furniture & fixtures	8,400	
		Accumulated depreciation: furniture & fixtures		$ 5,200
		Accounts payable		6,540
		Notes payable		24,000
		Salaries payable		1,700
		Interest payable		360
		Unearned client revenue		200
		Capital stock		4,000
		Retained earnings	28,640	
		Totals	$ 42,000	$ 42,000

d. **For the year ended December 31, 2007, the company suffered a *net loss* of $31,240 on $52,000 sales. Thus, the net *loss* as a percentage of sales was approximately 60%. The net loss, in combination with the *deficit balance* in stockholders' equity, makes meaningful interpretations of return on equity impossible. It will suffice to say that the company is extremely *unprofitable.* The company's balance sheet at December 31, 2007, reports cash and accounts receivable totaling only $1,260. It reports various payables (liabilities) totaling $32,600, for a shortfall of $31,340. Thus, in addition to being unprofitable, the company also is not liquid. Even if the note payable reported in the balance sheet is *not* due in the near future, the company still faces a significant shortfall with respect to its ability to make good on its current obligations.**

e. **The primary issue to be addressed in the notes to the financial statements is the company's ability, or lack thereof, to remain a *going concern.* In other words, just how much longer can this business stay afloat given its desperate financial condition? Information about the $24,000 note payable should also be disclosed. Who is the maker of this note? When is it due? Is it secured with company assets? Etc. The company may also have to disclose information concerning any legal problems it faces. The legal expenses reported in the income statement may suggest that one or more lawsuits are currently pending.**

25 Minutes, Easy

PROBLEM 5.4A
GUARDIAN INSURANCE AGENCY

a.

GUARDIAN INSURANCE AGENCY			
Income Statement			
For the Following Time Periods in 2007			
	Month Ended	Quarter Ended	9 Months Ended
	Sept. 30	Sept. 30	Sept. 30
Revenue:			
Commissions earned	$ 16,000	$ 54,000	$ 144,000
Expenses:			
Advertising	$ 5,000	$ 13,000	$ 28,000
Salaries expense	4,000	12,000	36,000
Rent expense	2,500	7,500	22,500
Depreciation expense	300	900	2,700
Total expenses	$ 11,800	$ 33,400	$ 89,200
Net Income	$ 4,200	$ 20,600	$ 54,800
Supporting computations			
September Commissions:			
$144,000 - $128,000 = $16,000			
	`		
Third Quarter Commissions:			
$144,000 - $90,000 = $54,000			

b. The balances in the revenue and expense accounts at September 30 represent the year to date. To determine revenue or expense for the *month* of September, the balance as of August 31 is *subtracted* from the September 30 balance. To determine the revenue or expense for the *quarter* ended September 30, the *June 30* balance is subtracted from the September 30 balance.

Revenue and expenses for the *nine-month* period ended September 30 are represented by the current balances in the accounts.

No such computations are required for balance sheet accounts, because their balances describe financial position at a *point* in time, rather than for a *period* of time.

c. If Guardian closed its accounts *monthly,* the current adjusted balances could be used in preparing financial statements for the *month* ended September 30. However, to prepare an income statement for the *quarter* ended September 30, it would be necessary to combine for each revenue and expense account the balances as of July 31, August 31, and September 30. To determine revenue and expenses for the *nine months* ended September 30, it would be necessary to combine the monthly amounts for each of the nine months.

70 Minutes, Strong

PROBLEM 5.5A
SILVER LINING, INC.

a.

		SILVER LINING, INC.		
		General Journal		
		December 31, 2007		
		(1)		
Dec.	31	Accounts Receivable	1,500	
		Consulting Services Revenue		1,500
		To record revenue accrued at the end of Dec.		
		(2)		
	31	Unearned Consulting Services Revenue	2,500	
		Consulting Services Revenue		2,500
		To convert unearned revenue to earned revenue in Dec.		
		(3)		
	31	Office Supplies Expense	95	
		Office Supplies		95
		To record offices supplies used in December.		
		(4)		
	31	Depreciation Expense: Office Equipment	750	
		Accumulated Depreciation: Office Equip.		750
		To record depreciation expense in December.		
		(5)		
	31	Rent Expense	300	
		Prepaid Rent		300
		To record December rent expense.		
		(6)		
	31	Insurance Expense	90	
		Unexpired Insurance		90
		To record portion of insurance policies expired		
		in December.		
		(7)		
	31	Salaries Expense	1,900	
		Salaries Payable		1,900
		To record accrued but unpaid salaries in Dec.		
		(8)		
	31	Interest Expense	60	
		Interest Payable		60
		To record interest expense accrued in December.		
		(9)		
		Income Taxes Expense	600	
		Income Taxes Payable		600
		To record income taxes expense accrued in Dec.		

a. (continued)

Computations for each of the adjusting journal entries:

1. Accounts receivable increased by the $1,500 of accrued revenue in December.

2. Unearned revenue is reduced by the $2,500 amount earned in December.

3. $205 (supplies per trial balance) - $110 at 12/31 = $95 used in December.

4. $54,000 (office equipment per trial balance) ÷ 72 months = $750 per month.

5. $1,200 (prepaid rent per trial balance) ÷ 4 mo. Remaining at 11/30 = $300 per month.

6. $270 (unexpired insurance per trial balance) ÷ 3 mo. Remaining at 11/30 = $90 per month.

7. Salaries payable increased by the $1,900 of accrued salaries in December.

8. $9,000 (note payable per trial balance) x 8% x 1/12 = $60 interest expense per month.

9. $7,500 total income taxes expense - $6,900 (per trial balance) = $600 accrued in December.

PROBLEM 5.5A
SILVER LINING, INC. (continued)

a. (cont'd.)

SILVER LINING, INC.				
Adjusted Trial Balance				
December 31, 2007				
		Cash	$ 42,835	
		Accounts receivable	3,500	
		Office supplies	110	
		Prepaid rent	900	
		Unexpired insurance	180	
		Office equipment	54,000	
		Accumulated depreciation: office equipment		$ 36,000
		Accounts payable		1,400
		Notes payable (Due 3/1/08)		9,000
		Income taxes payable		2,350
		Unearned consulting services revenue		1,000
		Salaries payable		1,900
		Interest payable		420
		Capital stock		30,000
		Retaining earnings		8,000
		Dividends	1,000	
		Consulting services revenue		64,000
		Office supplies expense	700	
		Depreciation expense: office equipment	9,000	
		Rent expense	3,825	
		Insurance expense	1,100	
		Salaries expense	29,000	
		Interest expense	420	
		Income taxes expense	7,500	
		Totals	$ 154,070	$ 154,070

PROBLEM 5.5A
SILVER LINING, INC. (continued)

b.

SILVER LINING, INC.		
Income Statement		
For the Year Ended December 31, 2007		
Revenues:		
Consulting services revenue		$ 64,000
Expenses:		
Office supplies expense	$ 700	
Depreciation expense: office equipment	9,000	
Rent expense	3,825	
Insurance expense	1,100	
Salaries expense	29,000	
Interest expense	420	44,045
Income before taxes		$ 19,955
Income taxes expense		7,500
Net Income		$ 12,455

SILVER LINING, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings (1/1/07)		$ 8,000
Add: Net income		12,455
Less: Dividends		(1,000)
Retained earnings (12/31/07)		$ 19,455

PROBLEM 5.5A
SILVER LINING, INC. (continued)

b. (cont'd)

SILVER LINING, INC.		
Balance Sheet		
December 31, 2007		
Assets		
Cash		$ 42,835
Accounts receivable		3,500
Office supplies		110
Prepaid rent		900
Unexpired insurance		180
Office equipment	$ 54,000	
Less: Accumulated Depreciation: Office equipment	36,000	18,000
TOTAL ASSETS		$ 65,525
Liabilities		
Accounts payable		$ 1,400
Note payable (Due 3/1/08)		9,000
Income taxes payable		2,350
Unearned consulting services revenue		1,000
Salaries payable		1,900
Interest payable		420
TOTAL LIABILITIES		$ 16,070
Stockholders' Equity		
Capital stock		$ 30,000
Retained earnings		19,455
TOTAL STOCKHOLDERS' EQUITY		$ 49,455
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 65,525

PROBLEM 5.5A
SILVER LINING, INC. (continued)

c.

SILVER LINING, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Consulting Services Revenue	64,000	
		Income Summary		64,000
		To close revenue earned.		
		(2)		
	31	Income Summary	51,545	
		Office Supply Expense		700
		Depreciation Expense: Office Equipment		9,000
		Rent Expense		3,825
		Insurance Expense		1,100
		Salaries Expense		29,000
		Interest Expense		420
		Income Taxes Expense		7,500
		To close all expense accounts.		
		(3)		
	31	Income Summary	12,455	
		Retained Earnings		12,455
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($64,000 - $51,545 =		
		$12,455).		
		(4)		
	31	Retained Earnings	1,000	
		Dividends		1,000
		To close dividends declared in 2007 to Retained		
		Earnings.		

PROBLEM 5.5A
SILVER LINING, INC. (continued)

d.

		SILVER LINING, INC.		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 42,835	
		Accounts receivable	3,500	
		Office supplies	110	
		Prepaid rent	900	
		Unexpired insurance	180	
		Office equipment	54,000	
		Accumulated depreciation: office equipment		$ 36,000
		Accounts payable		1,400
		Notes payable (Due 3/1/08)		9,000
		Income taxes payable		2,350
		Unearned consulting services revenue		1,000
		Salaries payable		1,900
		Interest payable		420
		Capital stock		30,000
		Retained earnings		19,455
		Totals	$ 101,525	$ 101,525

e.

		Insurance expense incurred in 2007	$ 1,100	
		Less: Total insurance expense for March		
		through December (at $90 per month)	900	
		Total expense incurred in January and February	$ 200	
			÷ 2	months
		Monthly insurance expense January and February	$ 100	monthly
		Monthly decrease starting in March ($100 - $90)	$ 10	monthly

PROBLEM 5.5A
SILVER LINING, INC. (concluded)

f.

		Rent expense incurred in 2007	$ 3,825	
		Less: Total rent expense October through		
		December (at $300 per month)	900	
		Total rent expense for January through September	$ 2,925	
			÷ 9	months
		Monthly rent expense January through September	$ 325	monthly
		Monthly decrease starting in October ($325-$300)	$ 25	monthly

g.

		Accum. depreciation: office equipment (12/31/07)	$ 36,000	
		Divided by monthly depreciation expense	750	monthly
		Total months company has been in operation	48	months

70 Minutes, Strong

PROBLEM 5.6A
BRUSHSTROKE ART STUDIO

a.

BRUSHSTROKE ART STUDIO				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Supply Expense	5,000	
		Supplies		5,000
		To record supplies used in December.		
		(2)		
	31	Studio Rent Expense	1,250	
		Prepaid Studio Rent		1,250
		To record portion of prepaid rent expired in December.		
		(3)		
	31	Depreciation Expense: Equipment	800	
		Accumulated Depreciation: Equipment		800
		To record depreciation of equipment in December.		
		(4)		
	31	Interest Expense	240	
		Interest Payable		240
		To record interest expense accrued in December.		
		(5)		
	31	Unearned Client Fees	3,000	
		Client Fees Earned		3,000
		To convert unearned revenue to earned revenue		
		in December.		
		(6)		
	31	Client Fees Receivable	690	
		Client Fees Earned		690
		To record additional revenues accrued in December.		
		(7)		
	31	Salary Expense	750	
		Salaries Payable		750
		To record salary expense accrued at the end of		
		December.		
		(8)		
	31	Income Taxes Expense	2,000	
		Income Taxes Payable		2,000
		To record income taxes expense accrued in		
		December.		

a. (continued)

Computations for each of the adjusting journal entries:

1. **\$6,000 (supplies per trial balance) - \$1,000 (at 12/31) = \$5,000 used in December.**
2. **\$2,500 (prepaid rent per trial balance) ÷ 2 months remaining at 11/30/07 = \$1,250 per month.**
3. **\$96,000 (studio equipment per trial balance) ÷ 120 months = \$800 per month.**
4. **\$24,000 (note payable per trial balance) x 12% x 1/12 = \$240 interest expense per month.**
5. **Unearned client fees need to be reduced by the \$3,000 amount earned in December.**
6. **Accounts receivable needs to be increased by the \$690 of accrued revenue in December.**
7. **Salaries payable of \$750 needs to be reported for salaries accrued at the end of December.**
8. **\$7,000 total income taxes expense -\$5,000 (per trial balance) = \$2,000 accrued in December.**

Based upon the adjusting entries made above, the company's *adjusted trial balance* at December 31, 2007, appears at the top of the following page:

PROBLEM 5.6A
BRUSHSTROKE ART STUDIO (continued)

a. (cont'd.)

		BRUSHSTROKE ART STUDIO		
		Adjusted Trial Balance		
		December 31, 2007		
		Cash	$ 22,380	
		Client fees receivable	71,940	
		Supplies	1,000	
		Prepaid studio rent	1,250	
		Studio equipment	96,000	
		Accumulated depreciation: studio equipment		$ 52,800
		Accounts payable		6,420
		Salaries payable		750
		Notes payable		24,000
		Interest payable		720
		Unearned client fees		5,000
		Income taxes payable		7,000
		Capital stock		50,000
		Retained earnings		20,000
		Client fees earned		86,000
		Supply expense	9,000	
		Salary expense	18,000	
		Interest expense	720	
		Studio rent expense	12,500	
		Utilities expense	3,300	
		Depreciation expense: studio equipment	9,600	
		Income taxes expense	7,000	
		Totals	$ 252,690	$ 252,690

PROBLEM 5.6A
BRUSHSTROKE ART STUDIO (continued)

b.

BRUSHSTROKE ART STUDIO, INC.			
Income Statement			
For the Year Ended December 31, 2007			
Revenues:			
Client fees earned		$	86,000
Expenses:			
Supply expense	$ 9,000		
Salary expense	18,000		
Studio rent expense	12,500		
Utilities expense	3,300		
Depreciation expense: studio equipment	9,600		
Interest expense	720		53,120
Income before taxes		$	32,880
Income taxes expense			7,000
Net Income		$	25,880

BRUSHSTROKE ART STUDIO, INC.			
Statement of Retained Earnings			
For the Year Ended December 31, 2007			
Retained earnings (1/1/07)		$	20,000
Add: Net income			25,880
Retained earnings (12/31/07)		$	45,880

b. (cont'd)

BRUSHSTROKE ART STUDIO, INC.		
Balance Sheet		
December 31, 2007		
Assets		
Cash		$ 22,380
Client fees receivable		71,940
Supplies		1,000
Prepaid studio rent		1,250
Studio equipment	$ 96,000	
Less: Accumulated Depreciation: Studio equipment	52,800	43,200
TOTAL ASSETS		$ 139,770
Liabilities		
Accounts payable		$ 6,420
Salaries payable		750
Notes payable		24,000
Interest payable		720
Unearned client fees		5,000
Income taxes payable		7,000
TOTAL LIABILITIES		$ 43,890
Stockholders' Equity		
Capital stock		$ 50,000
Retained earnings		45,880
TOTAL STOCKHOLDERS' EQUITY		$ 95,880
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 139,770

PROBLEM 5.6A
BRUSHSTROKE ART STUDIO (continued)

c.

BRUSHSTROKE ART STUDIO				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Client Fees Earned	86,000	
		Income Summary		86,000
		To close Client Fees Earned.		
		(2)		
	31	Income Summary	60,120	
		Supply Expense		9,000
		Salary Expense		18,000
		Interest Expense		720
		Studio Rent Expense		12,500
		Utilities Expense		3,300
		Depreciation Expense: Studio Equipment		9,600
		Income Taxes Expense		7,000
		To close all expense accounts.		
		(3)		
	31	Income Summary	25,880	
		Retained Earnings		25,880
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($86,000 - $60,120 =		
		$25,880).		
		Note: No dividends were declared in 2007.		

PROBLEM 5.6A
BRUSHSTROKE ART STUDIO (concluded)

d.

		BRUSHSTROKE ART STUDIO		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 22,380	
		Client fees receivable	71,940	
		Supplies	1,000	
		Prepaid studio rent	1,250	
		Studio equipment	96,000	
		Less: Accumulated depreciation: studio equipment		$ 52,800
		Accounts payable		6,420
		Salaries payable		750
		Notes payable		24,000
		Interest payable		720
		Unearned client fees		5,000
		Income taxes payable		7,000
		Capital stock		50,000
		Retained earnings		45,880
		Totals	$ 192,570	$ 192,570

e. **The studio's rent expense has increased by $250 per month as shown below:**

Total rent expense through November 30, 2007 (per unadjusted trial balance……	**$**	**11,250**
Less: Rent expense in November (see computation 2., part a.) ……………		**1,250**
Total rent expense through October 31, 2007 …………………………………	**$**	**10,000**
Rent expense per month through October 31, 2007 ($10,000 ÷ 10 months……		**$1,000/mo.**
Increase in monthly rent expense ($1,250 - $1,000) …………………………		**$250/mo.**

INTERNET CONSULTING SERVICE, INC.
Worksheet
For the Month Ended December 31, 2007

	Trial Balance		Adjustments *		Adjusted Trial Balance		Income Statement		Balance Sheet	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Balance sheet accounts:										
Cash	49,100				49,100				49,100	
Consulting fees receivable	23,400		(7) 11,000		34,400				34,400	
Prepaid office rent	6,300			(1) 2,100	4,200				4,200	
Prepaid dues and subscriptions	300			(2) 50	250				250	
Supplies	600			(3) 150	450				450	
Equipment	36,000				36,000				36,000	
Accumulated Depr.: Equipment		10,200		(4) 600		10,800				10,800
Notes payable		5,000				5,000				5,000
Income taxes payable		12,000		(9) 5,000		17,000				17,000
Unearned consulting fees		5,950	(6) 2,850			3,100				3,100
Capital stock		30,000				30,000				30,000
Retained earnings		32,700				32,700				32,700
Dividends	60,000				60,000				60,000	
Salaries payable				(8) 1,700		1,700				1,700
Interest payable				(5) 100		100				100
Income statement accounts:										
Consulting fees earned		257,180		(6) 2,850		271,030		271,030		
				(7) 11,000						
Salaries expense	88,820		(8) 1,700		90,520		90,520			
Telephone expense	2,550				2,550		2,550			
Rent expense	22,000		(1) 2,100		24,100		24,100			
Income taxes expense	51,000		(9) 5,000		56,000		56,000			
Dues and subscriptions expense	560		(2) 50		610		610			
Supplies expense	1,600		(3) 150		1,750		1,750			
Depreciation expense: equip.	6,600		(4) 600		7,200		7,200			
Miscellaneous expense	4,200				4,200		4,200			
	353,030	353,030								
Interest expense			(5) 100		100		100			
			23,550	23,550	371,430	371,430	187,030	271,030	184,400	100,400
Net income							84,000			84,000
Totals							271,030	271,030	184,400	184,400

Adjustments:

(1) Rent expense for December.
(2) Dues and subscriptions expense for December.
(3) Supplies used in December ($600-$450).
(4) Depreciation expense ($36,000 ÷ 60 mos.).
(5) Accrued interest on notes payable.
(6) Consulting services performed for clients who paid in advance.
(7) Services rendered but not billed.
(8) Salaries earned but not paid.
(9) Estimated income taxes expense.

15 Minutes, Medium

PROBLEM 5.8A
CIRCUIT CITY

a. **Net income percentage: Net Income ÷ Total Revenue**

$191,000,000 ÷ $13,400,000,000 =	**1.4%**

Return on equity: Net Income ÷ Average Stockholders' Equity

$191,000,000 ÷ $2,460,000,000*	**7.8%**

***Average Stockholders' Equity = ($2.56 billion + $2.36 billion) ÷ 2**

b. **Working capital: Current Assets – Current Liabilities**

Beginning of year: $2,850,000,000 – $1,290,000,000	**$1,560,000,000**
End of year: $3,080,000,000 – $1,420,000,000	**$1,660,000,000**

Current ratio: Current Assets ÷ Current Liabilities

Beginning of year: $2,850,000,000 ÷ $1,290,000,000	**2.21:1**
End of year: $3,080,000,000 ÷ $1,420,000,000	**2.17:1**

c. **The company was profitable, given its reported net income of $191 million. However, its net income percentage reveals that management was able to earn income of only 1.4 cents for every dollar of revenue generated. Thus, expenses, in comparison to revenue, seem relatively high. The company also appears liquid, based upon its working capital and its current ratios. However, if it is not able to convert a sufficient portion of its current assets into cash in a timely manner, it may have difficulty paying its current liabilities as they come due.**

SOLUTIONS TO PROBLEMS SET B

20 Minutes, Easy

PROBLEM 5.1B
STRONG KNOT, INC.

a.

		STRONG KNOT, INC.		
		Income Statement		
		For the Year Ended December 31, 2007		
		Revenues:		
		Service revenue earned		$ 160,000
		Expenses:		
		Insurance expense	$ 1,800	
		Office rent expense	18,000	
		Supplies expense	1,200	
		Salary expense	96,000	
		Depreciation expense: automobile	4,000	
		Depreciation expense: equipment	3,000	
		Repair and maintenance expense	1,700	
		Travel expense	6,600	
		Miscellaneous expense	2,100	
		Interest expense	2,800	137,200
		Income before taxes		$ 22,800
		Income taxes expense		4,000
		Net income		$ 18,800

		STRONG KNOT, INC.		
		Statement of Retained Earnings		
		For the Year Ended December 31, 2007		
		Retained earnings (1/1/07)		$ 17,500
		Add: Net Income		18,800
		Less: Dividends		3,000
		Retained earnings (12/31/07)		$ 33,300

PROBLEM 5.1B
STRONG KNOT, INC. (continued)

a. (cont'd)

		STRONG KNOT, INC.		
		Balance Sheet		
		December 31, 2007		
		Assets		
		Cash		$ 15,400
		Accounts receivable		8,200
		Unexpired insurance		3,000
		Prepaid rent		800
		Supplies		900
		Automobile	$ 37,000	
		Less: Accumulated depreciation: automobile	12,000	25,000
		Equipment	39,000	
		Less: Accumulated depreciation: equipment	13,000	26,000
		TOTAL ASSETS		$ 79,300
		Liabilities		
		Accounts payable		$ 5,200
		Notes payable*		33,000
		Salaries payable		900
		Income taxes payable		400
		Unearned revenue		3,500
		TOTAL LIABILITIES		$ 43,000
		Stockholders' Equity		
		Capital stock		$ 3,000
		Retained earnings		33,300
		TOTAL STOCKHOLDERS' EQUITY		$ 36,300
		TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 79,300

*** Notes payable of $33,000 is the plug figure required to make the balance sheet balance.**

PROBLEM 5.1B
STRONG KNOT, INC. (concluded)

b.

STRONG KNOT, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Service Revenue Earned	160,000	
		Income Summary		160,000
		To close revenue account.		
		(2)		
	31	Income Summary	141,200	
		Insurance Expense		1,800
		Office Rent Expense		18,000
		Supplies Expense		1,200
		Salaries Expense		96,000
		Depreciation Expense: Automobile		4,000
		Depreciation Expense: Equipment		3,000
		Repair and Maintenance Expense		1,700
		Travel Expense		6,600
		Miscellaneous Expense		2,100
		Interest Expense		2,800
		Income Taxes Expense		4,000
		To close all expense accounts.		
		(3)		
	31	Income Summary	18,800	
		Retained Earnings		18,800
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($160,000 - $141,200 =		
		$18,800).		
		(4)		
	31	Retained Earnings	3,000	
		Dividends		3,000
		To transfer dividends declared in 2007 to the		
		Retained Earnings account.		

c. **For the year ended December 31, 2007, the company generated net income of $18,800 on $160,000 sales. Thus, net income as a percentage of sales was 11.75%. Moreover, the $18,800 profit represented a 66% return on average stockholders' equity, which is a very impressive performance. The company's balance sheet at December 31, 2007 reports cash and accounts receivable totaling $23,600. It also reports various payables (liabilities) totaling $43,000. Thus, the company may or *may not* currently be liquid depending on when the $33,000 note payable reported in the balance sheet is due. If this obligation is *not* due in the near future, then the company appears to be liquid. If however, this note is due shortly, the company may experience some cash flow difficulty.**

PROBLEM 5.2B
GARDEN WIZARDS

a.

GARDEN WIZARDS		
Income Statement		
For the Year Ended December 31, 2007		
Revenues:		
Service revenue earned		$ 194,000
Expenses:		
Insurance expense	$ 1,800	
Office rent expense	28,000	
Supplies expense	5,600	
Salary expense	72,000	
Depreciation expense: trucks	16,000	
Depreciation expense: equipment	4,000	
Repair & maintenance expense	5,300	
Fuel expense	2,200	
Miscellaneous expense	2,700	
Interest expense	3,800	141,400
Income before taxes		$ 52,600
Income taxes expense		9,000
Net income		$ 43,600

GARDEN WIZARDS		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings (1/1/07)		$ 21,000
Add: Net income		43,600
Less: Dividends		3,300
Retained earnings (12/31/07)		$ 61,300

PROBLEM 5.2B
GARDEN WIZARDS (continued)

a. (cont'd)

GARDEN WIZARDS
Balance Sheet
December 31, 2007

Assets		
Cash		$ 27,800
Accounts receivable		4,300
Unexpired insurance		8,700
Prepaid rent		3,200
Supplies		1,400
Trucks	$ 140,000	
Less: Accumulated depreciation: trucks	75,000	65,000
Equipment	28,000	
Less: Accumulated depreciation: equipment	14,000	14,000
TOTAL ASSETS		$ 124,400
Liabilities		
Accounts payable		$ 2,200
Notes payable		38,000
Salaries payable		900
Interest payable		300
Income taxes payable		1,700
Unearned service revenue		2,000
TOTAL LIABILITIES		$ 45,100
Stockholders' Equity		
Capital stock		$ 18,000
Retained earnings		61,300
TOTAL STOCKHOLDERS' EQUITY		$ 79,300
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 124,400

PROBLEM 5.2B
GARDEN WIZARDS (continued)

b.

GARDEN WIZARDS				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Service Revenue Earned	194,000	
		Income Summary		194,000
		To close revenue account.		
		(2)		
	31	Income Summary	150,400	
		Insurance Expense		1,800
		Office Rent Expense		28,000
		Supplies Expense		5,600
		Salary Expense		72,000
		Depreciation Expense: Trucks		16,000
		Depreciation Expense: Equipment		4,000
		Repair & Maintenance Expense		5,300
		Fuel Expense		2,200
		Miscellaneous Expense		2,700
		Interest Expense		3,800
		Income Taxes Expense		9,000
		To close all expense accounts.		
		(3)		
	31	Income Summary	43,600	
		Retained Earnings		43,600
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($194,000 -$150,400 =		
		$43,600).		
		(4)		
	31	Retained Earnings	3,300	
		Dividends		3,300
		To transfer dividends declared in 2007 to the		
		Retained Earnings account.		

PROBLEM 5.2B
GARDEN WIZARDS (concluded)

c.

		GARDEN WIZARDS		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 27,800	
		Accounts receivable	4,300	
		Unexpired insurance	8,700	
		Prepaid rent	3,200	
		Supplies	1,400	
		Trucks	140,000	
		Accumulated depreciation: trucks		$ 75,000
		Equipment	28,000	
		Accumulated depreciation: equipment		14,000
		Accounts payable		2,200
		Notes payable		38,000
		Salaries payable		900
		Interest payable		300
		Income taxes payable		1,700
		Unearned service revenue		2,000
		Capital stock		18,000
		Retained earnings		61,300
		Totals	$ 213,400	$ 213,400

d. **For the year ended December 31, 2007, the company generated net income of $43,600 on $194,000 sales. Thus, net income as a percentage of sales was approximately 22.5 %. Moreover, the $43,600 profit represented a return on average stockholders' equity of approximately 74%, which is impressive. The company's balance sheet at December 31, 2007, reports cash and accounts receivable totaling $32,100. It also reports liabilities totaling $45,100. Depending on when the $38,000 note payable reported in the balance sheet is due, the company may be *extremely liquid*. If this obligation is not *due* in the near future, the company has $32,100 in cash and accounts receivable to cover obligations of only $7,100.**

PROBLEM 5.3B
DEBIT DOCTORS, INC.

a.

DEBIT DOCTORS, INC.		
Income Statement		
For the Year Ended December 31, 2007		
Revenues:		
Client revenue earned		$ 56,700
Expenses:		
Insurance expense	$ 6,200	
Office rent expense	12,000	
Supplies expense	300	
Salary expense	48,000	
Depreciation expense: furniture & fixtures	1,200	
Office and telephone expense	4,600	
Internet service expense	7,200	
Legal expense	1,800	
Interest expense	2,700	
Miscellaneous expense	4,300	88,300
Net loss		$ (31,600)

DEBIT DOCTORS, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings (1/1/07)		$ 2,000
Less: Net loss		(31,600)
Retained earnings (12/31/07)		$ (29,600)

PROBLEM 5.3B
DEBIT DOCTORS, INC. (continued)

a. (cont'd)

		DEBIT DOCTORS, INC.		
		Balance Sheet		
		December 31, 2007		
		Assets		
		Cash		$ 450
		Accounts receivable		220
		Unexpired insurance		1,600
		Prepaid rent		1,800
		Supplies		900
		Furniture & fixtures	$ 10,000	
		Accumulated depreciation: furniture & fixtures	6,600	3,400
		TOTAL ASSETS		$ 8,370
		Liabilities		
		Accounts payable		$ 7,100
		Notes payable		24,000
		Salaries payable		2,100
		Interest payable		170
		Unearned client revenue		600
		TOTAL LIABILITIES		$ 33,970
		Stockholders' Equity		
		Capital Stock		$ 4,000
		Retained earnings (deficit)		(29,600)
		TOTAL STOCKHOLDERS' EQUITY (DEFICIT)		$ (25,600)
		TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 8,370

PROBLEM 5.3B
DEBIT DOCTORS, INC. (continued)

b.

DEBIT DOCTORS, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Client revenue earned	56,700	
		Income Summary		56,700
		To close revenue account.		
		(2)		
	31	Income Summary	88,300	
		Insurance Expense		6,200
		Office Rent Expense		12,000
		Supplies Expense		300
		Salary Expense		48,000
		Depreciation Expense: Furniture & fixtures		1,200
		Office & Telephone Expense		4,600
		Internet Service Expense		7,200
		Legal Expense		1,800
		Interest Expense		2,700
		Miscellaneous Expense		4,300
		To close all expense accounts.		
		(3)		
	31	Retained Earnings	31,600	
		Income Summary		31,600
		To transfer net loss to the Retained Earnings		
		account ($56,700 - $88,300 = $31,600 loss.)		
		Note: No dividends were declared in 2007.		

PROBLEM 5.3B
DEBIT DOCTORS, INC. (concluded)

c.

		DEBIT DOCTORS, INC.		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 450	
		Accounts receivable	220	
		Unexpired insurance	1,600	
		Prepaid rent	1,800	
		Supplies	900	
		Furniture & fixtures	10,000	
		Accumulated depreciation: furniture & fixtures		$ 6,600
		Accounts payable		7,100
		Notes payable		24,000
		Salaries payable		2,100
		Interest payable		170
		Unearned client revenue		600
		Capital stock		4,000
		Retained earnings	29,600	
		Totals	$ 44,570	$ 44,570

d. **For the year ended December 31, 2007, the company suffered a net loss of $31,600 on $56,700 sales. Thus, net loss as a percentage of sales was approximately 56%. The net loss in combination with the deficit balance in stockholders' equity, makes meaningful interpretations of return on equity impossible. It will suffice to say that the company is extremely unprofitable. The company's balance sheet at December 31, 2007, reports cash and accounts receivable totaling only $670. It reports various payables (liabilities) totaling $33,970, for a shortfall of $33,300. Thus, in addition to being unprofitable, the company also is not liquid. Even if the note payable reported in the balance sheet is not due in the near future, the company still faces a significant shortfall with respect to its ability to make good on its current obligations.**

e. **The primary issue to be addressed in the notes to the financial statements is the company's ability, or lack thereof, to remain a going concern. In other words, just how much longer can this business stay afloat given its desperate financial condition. Information about the $24,000 note payable should also be disclosed. Who is the maker? When is it due? Is it secured with company assets? Etc. The company may also have to disclose information concerning any legal problems it faces. The legal expenses reported in the income statement may suggest that one or more lawsuits are currently pending.**

PROBLEM 5.4B
SILVER REAL ESTATE

a.

SILVER REAL ESTATE			
Income Statement			
For the Following Time Periods in 2007			
	Month Ended	Quarter Ended	9 Months Ended
	Sept. 30	Sept. 30	Sept. 30
Revenue:			
Commissions earned	$ 15,000	$ 60,000	$ 160,000
Expenses:			
Advertising expense	5,000	15,000	33,000
Salaries expense	3,000	10,000	38,000
Rent expense	2,000	6,000	20,000
Depreciation expense	100	700	2,200
Total expenses	$ 10,100	$ 31,700	$ 93,200
Net Income	$ 4,900	$ 28,300	$ 66,800
Supporting computations			
September Commissions:			
$160,000 - $145,000 = $15,000			
Third Quarter Commissions:			
$160,000 - $100,000 = $60,000			

b. **The balances in the revenue and expense accounts at September 30 represent the year to date. To determine revenue or expense for the *month* of September, the balance as of August 31 is *subtracted* from the September 30 balance. To determine the revenue or expense for the *quarter* ended September 30, the *June 30* balance is subtracted from the September 30 balance.**

Revenue and expenses for the *nine-month* period ended September 30 are represented by the current balances in the accounts.

No such computations are required for the balance sheet accounts, because their balances describe financial position at a *point* in time, rather than a *period* of time.

c. **If Silver closed its accounts *monthly*, the current adjusted balances could be used in preparing financial statements for the *month* ended September 30. However, to prepare an income statement for the *quarter* ended September 30, it would be necessary to combine for each revenue and expense account the balances as of July 31, August 31, and September 30. To determine revenue and expenses for the *nine* months ended September 30, it would be necessary to combine the monthly amounts for each of the nine months.**

70 Minutes, Strong

PROBLEM 5.5B
NEXT JOB, INC.

a.

NEXT JOB, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Accounts Receivable	25,000	
		Consulting Services Revenue		25,000
		To record revenue accrued at the end of Dec.		
		(2)		
	31	Unearned Consulting Services Revenue	15,000	
		Consulting Services Revenue		15,000
		To convert unearned revenue to earned revenue in Dec.		
		(3)		
	31	Office Supplies Expense	500	
		Office Supplies		500
		To record offices supplies used in December.		
		(4)		
	31	Depreciation Expense: Office Equipment	1,000	
		Accumulated Depreciation: Office Equip.		1,000
		To record depreciation expense in December.		
		(5)		
	31	Rent Expense	1,200	
		Prepaid Rent		1,200
		To record December rent expense.		
		(6)		
	31	Insurance Expense	250	
		Unexpired Insurance		250
		To record portion of insurance policies expired		
		in December.		
		(7)		
	31	Salaries Expense	12,000	
		Salaries Payable		12,000
		To record accrued but unpaid salaries in Dec.		
		(8)		
	31	Interest Expense	200	
		Interest Payable		200
		To record interest expense accrued in December.		
		(9)		
		Income Taxes Expense	5,000	
		Income Taxes Payable		5,000
		To record income taxes expense accrued in Dec.		

PROBLEM 5.5B
NEXT JOB, INC. (continued)

a. (continued)

Computations for each of the adjusting journal entries:

1. Accounts receivable increased by the $25,000 of accrued revenue in December.

2. Unearned revenue is reduced by the $15,000 amount earned in December.

3. $800 (supplies per trial balance) - $300 at 12/31 = $500 used in December.

4. $72,000 (office equipment per trial balance ÷ 72 months = $1,000 per month.

5. $3,600 (prepaid rent per trial balance) ÷ 3 mo. remaining at 11/30 = $1,200 per month.

6. $1,500 (unexpired insurance per trial balance) ÷ 6 mo. remaining at 12/1 = $250 per month.

7. Salaries payable increased by the $12,000 of accrued salaries in December.

8. $60,000 (note payable per trial balance) x 4% x 1/12 = $200 interest expense per month.

9. $50,000 total income taxes expense - $45,000 (per trial balance) = $5,000 accrued in December.

PROBLEM 5.5B
NEXT JOB, INC. (continued)

a. (cont'd.)

		NEXT JOB, INC.		
		Adjusted Trial Balance		
		December 31, 2007		
		Cash	$ 276,500	
		Accounts receivable	115,000	
		Office supplies	300	
		Prepaid rent	2,400	
		Unexpired insurance	1,250	
		Office equipment	72,000	
		Accumulated depreciation: office equipment		$ 25,000
		Accounts payable		4,000
		Notes payable (8-month)		60,000
		Interest payable		800
		Income taxes payable		14,000
		Dividends payable		3,000
		Salaries payable		12,000
		Unearned consulting fees		7,000
		Capital stock		200,000
		Retaining earnings		40,000
		Dividends	3,000	
		Consulting fees earned		540,000
		Rent expense	15,900	
		Insurance expense	2,450	
		Office supplies expense	5,000	
		Depreciation expense: office equipment	12,000	
		Salaries expense	342,000	
		Utilities expense	4,800	
		Interest expense	3,200	
		Income taxes expense	50,000	
		Totals	$ 905,800	$ 905,800

PROBLEM 5.5B
NEXT JOB, INC. (continued)

b.

NEXT JOB, INC.	
Income Statement	
For the Year Ended December 31, 2007	
Revenues:		
Consulting fees earned		$ 540,000
Expenses:		
Rent expense	$ 15,900	
Insurance expense	2,450	
Office supplies expense	5,000	
Depreciation expense: office equipment	12,000	
Salaries expense	342,000	
Utilities expense	4,800	
Interest expense	3,200	385,350
Income before taxes		$ 154,650
Income taxes expense		50,000
Net Income		$ 104,650

NEXT JOB, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings (1/1/07)		$ 40,000
Add: Net income		104,650
Less: Dividends		(3,000)
Retained earnings (12/31/07)		$ 141,650

PROBLEM 5.5B
NEXT JOB, INC. (continued)

b. (cont'd)

NEXT JOB, INC. Balance Sheet December 31, 2007		
Assets		
Cash		$ 276,500
Accounts receivable		115,000
Office supplies		300
Prepaid rent		2,400
Unexpired insurance		1,250
Office equipment	$ 72,000	
Less: Accumulated Depreciation: office equipment	25,000	47,000
TOTAL ASSETS		$ 442,450
Liabilities		
Accounts payable		$ 4,000
Note payable (Due 3/1/08)		60,000
Income taxes payable		800
Income taxes payable		14,000
Dividends payable		3,000
Salaries payable		12,000
Unearned consulting fees		7,000
TOTAL LIABILITIES		$ 100,800
Stockholders' Equity		
Capital stock		$ 200,000
Retained earnings		141,650
TOTAL STOCKHOLDERS' EQUITY		$ 341,650
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 442,450

PROBLEM 5.5B
NEXT JOB, INC. (continued)

c.

NEXT JOB, INC.				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Consulting Services Revenue	540,000	
		Income Summary		540,000
		To close Agency Fees Earned.		
		(2)		
	31	Income Summary	435,350	
		Rent expense		15,900
		Insurance expense		2,450
		Office supplies expense		5,000
		Depreciation expense: office equipment		12,000
		Salaries expense		342,000
		Utilities expense		4,800
		Interest expense		3,200
		Income Taxes Expense		50,000
		To close all expense accounts.		
		(3)		
	31	Income Summary	104,650	
		Retained Earnings		104,650
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($540,000 - $435,350 =		
		$104,650).		
		(4)		
	31	Retained Earnings	3,000	
		Dividends		3,000
		To close dividends declared in 2007 to Retained		
		Earnings.		

PROBLEM 5.5B
NEXT JOB, INC. (continued)

d.

		NEXT JOB, INC.		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 276,500	
		Accounts receivable	115,000	
		Office supplies	300	
		Prepaid rent	2,400	
		Unexpired insurance	1,250	
		Office equipment	72,000	
		Accumulated depreciation: office equipment		$ 25,000
		Accounts payable		4,000
		Notes payable (Due 3/1/08)		60,000
		Interest payable		800
		Income taxes payable		14,000
		Dividends payable		3,000
		Salaries payable		12,000
		Unearned consulting fees		7,000
		Capital stock		200,000
		Retained earnings		141,650
		Totals	$ 467,450	$ 467,450

e.

		Insurance expense incurred in 2007	$ 2,450	
		Less: Total insurance expense for December.	250	
		Total expense incurred in Jan. through Nov.	$ 2,200	
			÷ 11	months
		Monthly insurance expense Jan. and Nov.	$ 200	monthly
		Monthly decrease starting in Dec. ($250 - $200)	$ 50	monthly

PROBLEM 5.5B
NEXT JOB, INC. (concluded)

f.

		Rent expense incurred in 2007	$ 15,900	
		Less: Total rent expense June through December	8,400	(at $1,200/mo.)
		Total rent expense incurred in Jan. through May	$ 7,500	
			÷ 5	months
		Monthly rent expense in January through May	$ 1,500	monthly
		Monthly decrease starting in June ($1,500 - $1,200)	$ 300	monthly

g.

		Accumulated depreciation: office equip. (12/31/07)	$ 25,000	
		Divided by monthly depreciation expense	1,000	monthly
		Total months company has been in operation	25	months

h.

		Interest expense incurred in 2007	$ 3,200	
		Less: Total interest expense in Sept. through Dec.	800	
		Total interest on prior note in Jan. through Mar.	$ 2,400	
			÷ 3	months
		Monthly interest expense in January through March	$ 800	monthly

70 Minutes, Strong

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY

TOUCHTONE TALENT AGENCY				
General Journal				
December 31, 2007				
		(1)		
Dec.	31	Depreciation Expense: Office Equipment	250	
		Accumulated Depreciation: Office Equip.		250
		To record depreciation of office equipment in December.		
		(2)		
	31	Unearned Agency Fees	2,500	
		Agency Fees Earned		2,500
		To convert unearned revenue to earned revenue		
		in December.		
		(3)		
	31	Salaries Expense	1,360	
		Salaries Payable		1,360
		To record salary expense accrued at the end of		
		December.		
		(4)		
	31	Rent Expense	600	
		Prepaid Rent		600
		To record prepaid rent expired in December.		
		(5)		
	31	Fees Receivable	3,000	
		Agency Fees Earned		3,000
		To record revenue accrued at the end of		
		December.		
		(6)		
	31	Office Supply Expense	370	
		Office Supplies		370
		To record office supplies used in December.		
		(7)		
	31	Insurance Expense	125	
		Unexpired Insurance Policies		125
		To record portion of insurance policies expired in		
		December.		
		(8)		
	31	Interest Expense	45	
		Interest Payable		45
		To record interest expense accrued in December.		
		(9)		
	31	Income Taxes Expense	700	
		Income Taxes Payable		700
		To record income taxes expense accrued in December.		

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (continued)

a. (continued)

Computations for each of the adjusting journal entries:

1. **$15,000 (office equipment per trial balance) ÷ 60 months = $250 per month.**

2. **Unearned agency fees to be reduced by the $2,500 amount earned in December.**

3. **Salaries payable of $1,360 needs to be reported for salaries accrued at the end of December.**

4. **$1,800 initial prepayment ÷ 3 months = $600 of rent expense incurred in December.**

5. **Fees receivable to be increased by the $3,000 of accrued revenue in December.**

6. **$900 (supplies per trial balance) - $530 (at 12/31) = $370 used in December.**

7. **$750 initial prepayment ÷ 6 months = $125 of insurance expense incurred in December.**

8. **$6,000 (note payable per trial balance) x 9% x 1/12 = $45 interest expense per month.**

9. **$3,900 total income taxes expense - $3,200 (per trial balance) = $700 accrued in December.**

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (continued)

a. (cont'd.)

		TOUCHTONE TALENT AGENCY		
		Adjusted Trial Balance		
		December 31, 2007		
		Cash	$ 14,950	
		Fees receivable	38,300	
		Prepaid rent	600	
		Unexpired insurance policies	250	
		Office supplies	530	
		Office equipment	15,000	
		Accumulated depreciation: office equipment		$ 12,250
		Accounts payable		1,500
		Notes payable (Due 3/1/08)		6,000
		Income taxes payable		3,900
		Unearned agency fees		5,500
		Salaries payable		1,360
		Interest payable		45
		Capital stock		20,000
		Retained earnings		10,800
		Dividends	800	
		Agency fees earned		52,000
		Telephone expense	480	
		Office supply expense	1,500	
		Depreciation expense: office equipment	3,000	
		Rent expense	6,700	
		Insurance expense	1,300	
		Salaries expense	26,000	
		Income taxes expense	3,900	
		Interest expense	45	
		Totals	$ 113,355	$ 113,355

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (continued)

b.

		TOUCHTONE TALENT AGENCY		
		Income Statement		
		For the Year Ended December 31, 2007		
		Revenues:		
		Agency fees earned		$ 52,000
		Expenses:		
		Telephone expense	$ 480	
		Office supply expense	1,500	
		Depreciation expense: office equipment	3,000	
		Rent expense	6,700	
		Insurance expense	1,300	
		Salaries expense	26,000	
		Interest expense	45	39,025
		Income before taxes		12,975
		Income taxes expense		3,900
		Net income		$ 9,075

		TOUCHTONE TALENT AGENCY		
		Statement of Retained Earnings		
		For the Year Ended December 31, 2007		
		Retained earnings (1/1/07)		$ 10,800
		Add: Net income		9,075
		Less: Dividends		(800)
		Retained earnings (12/31/07)		$ 19,075

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (continued)

b. (cont'd.)

TOUCHTONE TALENT AGENCY		
Balance Sheet		
December 31, 2007		
Assets		
Cash		$ 14,950
Fees receivable		38,300
Prepaid rent		600
Unexpired insurance policies		250
Office supplies		530
Office equipment	$ 15,000	
Less: Accumulated depreciation: office equipment	12,250	2,750
TOTAL ASSETS		$ 57,380
Liabilities		
Accounts payable		$ 1,500
Note payable (Due 3/1/08)		6,000
Income taxes payable		3,900
Unearned agency fees		5,500
Salaries payable		1,360
Interest payable		45
TOTAL LIABILITIES		$ 18,305
Stockholders' Equity		
Capital stock		$ 20,000
Retained earnings		19,075
TOTAL STOCKHOLDERS' EQUITY		$ 39,075
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		$ 57,380

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (continued)

c.

TOUCHTONE TALENT AGENCY General Journal December 31, 2007				
		(1)		
Dec.	31	Agency Fees Earned	52,000	
		Income Summary		52,000
		To close Agency Fees Earned.		
		(2)		
	31	Income Summary	42,925	
		Telephone Expense		480
		Office Supply Expense		1,500
		Depreciation Expense: Office Equipment		3,000
		Rent Expense		6,700
		Insurance Expense		1,300
		Salaries Expense		26,000
		Interest Expense		45
		Income Taxes Expense		3,900
		To close all expense accounts.		
		(3)		
	31	Income Summary	9,075	
		Retained Earnings		9,075
		To transfer net income earned in 2007 to the		
		Retained Earnings account ($52,000 -$42,925 =		
		$9,075).		
		(4)		
	31	Retained Earnings	800	
		Dividends		800
		To close dividends declared in 2007 to Retained Earnings.		

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (continued)

d.

		TOUCHTONE TALENT AGENCY		
		After-Closing Trial Balance		
		December 31, 2007		
		Cash	$ 14,950	
		Fees receivable	38,300	
		Prepaid rent	600	
		Unexpired insurance policies	250	
		Office supplies	530	
		Office equipment	15,000	
		Accumulated depreciation: office equipment		$ 12,250
		Accounts payable		1,500
		Note payable (Due 3/1/08)		6,000
		Income taxes payable		3,900
		Unearned agency payable		5,500
		Salaries payable		1,360
		Interest payable		45
		Capital stock		20,000
		Retained earnings		19,075
		Totals	$ 69,630	$ 69,630

e.

		Accumulated depreciation: office equipment (12/31/07)	$ 12,250	
		Divided by monthly depreciation expense	÷ 250	monthly
		Total months agency has been in operation	49	months

PROBLEM 5.6B
TOUCHTONE TALENT AGENCY (concluded)

f.

		Rent expense incurred in 2007	$ 6,700	
		Less: Total rent expense for November and December	1,200	(at $600/mo.)
		Total rent expense incurred in January through October	$ 5,500	
			÷ 10	months
		Monthly rent expense in January through October	$ 550	monthly
		Monthly increase starting in November ($600-$550)	$ 50	monthly

g.

		Insurance expense incurred in 2007	$ 1,300	
		Less: Total insurance expense for September		
		through December (at $125 per month)	500	
		Total expense incurred in January through August	$ 800	
			÷ 8	months
		Monthly insurance expense January through August	$ 100	monthly
		Monthly increase starting in September ($125-$100)	$ 25	monthly

50 Minutes, Strong

PROBLEM 5.7B
CAMPUS THEATER

CAMPUS THEATER
WORKSHEET
For the Month Ended August 31, 2007

	Trial Balance Dr.	Trial Balance Cr.	Adjustments * Dr.	Adjustments * Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Income Statement Dr.	Income Statement Cr.	Balance Sheet Dr.	Balance Sheet Cr.
Balance sheet accounts:										
Cash	20,000				20,000				20,000	
Prepaid film rental	31,200			(1) 15,200	16,000				16,000	
Land	120,000				120,000				120,000	
Building	168,000				168,000				168,000	
Accum. Depreciation: building		14,000		(2) 700		14,700				14,700
Fixtures and equipment	36,000				36,000				36,000	
Accumulated depreciation:										
fixtures & equipment		12,000		(3) 600		12,600				12,600
Notes payable		180,000				180,000				180,000
Accounts payable		4,400				4,400				4,400
Unearned admission revenue										
(YMCA)		1,000	(5) 500			500				500
Income taxes payable		4,740		(8) 4,200		8,940				8,940
Capital stock		40,000				40,000				40,000
Retained earnings		46,610				46,610				46,610
Dividends	15,000				15,000				15,000	
Interest payable				(4) 1,500		1,500				1,500
Concessions revenue receivable			(6) 2,250		2,250				2,250	
Salaries payable				(7) 1,700		1,700				1,700
Income statement accounts:										
Admissions revenue		305,200		(5) 500		305,700		305,700		
Concessions revenue		14,350		(6) 2,250		16,600		16,600		
Salaries expense	68,500		(7) 1,700		70,200		70,200			
Film rental expense	94,500		(1) 15,200		109,700		109,700			
Utilities expense	9,500				9,500		9,500			
Depreciation expense: building	4,900		(2) 700		5,600		5,600			
Depreciation expense: fixtures										
and equipment	4,200		(3) 600		4,800		4,800			
Interest expense	10,500		(4) 1,500		12,000		12,000			
Income taxes expense	40,000		(8) 4,200		44,200		44,200			
	622,300	622,300	26,650	26,650	633,250	633,250	256,000	322,300	377,250	310,950
Net income							66,300			66,300
Totals							322,300	322,300	377,250	377,250

***Adjustments:**

(1) Film rental expense for August.
(2) Depreciation expense for August ($168,000 ÷ 240 =$700).
(3) Depreciation expense for August ($36,000 ÷ 60 =$600).
(4) Accrued interest on notes payable.
(5) Advance payment from YMCA earned during August ($1,500 x 1/3 = $500 per month).
(6) Revenue from concessions for August.
(7) Salaries owed to employees but not yet paid.
(8) Accrued income taxes on August income.

15 Minutes, Medium

PROBLEM 5.8B
THE GAP, INC.

a.	**Net income percentage: Net Income ÷ Total Revenue**	
	\$1.03 billion ÷ \$15.85 billion =	**6.5%**
	Return on equity: Net Income ÷ Average Stockholders' Equity	
	\$1.03 billion ÷ \$4.22 billion*	**24.4%**
	***Average Stockholders' Equity = (\$4.78 billion + \$3.66 billion) ÷ 2**	
b.	**Working capital: Current Assets – Current Liabilities**	
	Beginning of year: \$5.74 billion - \$2.73 billion	**\$3.01 billion**
	End of year: \$6.69 billion - \$2.5 billion	**\$4.19 billion**
	Current ratio: Current Assets ÷ Current Liabilities	
	Beginning of year: \$5.74 billion ÷ \$2.73 billion	**2.1:1**
	End of year: \$6.69 billion ÷ \$2.5 billion	**2.7:1**

c. **The company was profitable, given its net income of \$1.03 billion. Its net income percentage and its return on equity are both fairly strong, indicating that the company is profitable. The company also appears to be extremely liquid, given its strong working capital position and its healthy current ratio. However, it must be able to convert a sufficient portion of its current assets to cash in a timely manner in order to pay its current liabilities as they come due.**

SOLUTIONS TO CRITICAL THINKING CASES

25 Minutes, Strong

CASE 5.1
ADEQUATE DISCLOSURE

a. **Mandella Construction Co. should disclose the accounting method that it is using in the notes accompanying its financial statements. When different accounting methods are acceptable, users of financial statements need to know the methods in use if they are to properly interpret the statements.**

b. **Generally accepted accounting principles *do not* require disclosure of changes in personnel. Personnel changes normally do not have a direct (or at least measurable) effect upon financial position. Thus, disclosure of personnel changes would be more likely to confuse the users of financial statements than to provide them with useful information.**

c. **The fact that one of the company's two processing plants will be out of service for at least three months *is relevant* to the interpretation of the financial statements. Obviously, the company's ability to generate revenue in the coming year has been impaired. Thus, the damage to the plant and the estimated period of its closure should be disclosed in notes accompanying the financial statements.**

d. **No disclosure is required under generally accepted accounting principles, because any statements about the financial impact of this new product would amount to sheer speculation. Management may voluntarily disclose that it has developed new products, but it should avoid speculations as to financial impact.**

e. **Normally, pending litigation should be disclosed in notes to the financial statements. But a $500 dispute over a security deposit is clearly a routine and immaterial matter to any property management company large enough to have financial reporting obligations. Therefore, disclosure can be omitted on the basis of *immateriality.***

Group assignment:
No time estimate

CASE 5.2
WORKING FOR THE COMPETITION
ETHICS, FRAUD & CORPORATE GOVERNANCE

We do not provide comprehensive solutions for group problems. It is the nature of these problems that solutions should reflect the collective experiences of the group. But the following observations may be useful in stimulating class discussion:

a. The principal argument against an accountant serving clients who are direct competitors is:

- **An accountant has access to much information about a company's business strategies. Thus, an accountant who also worked for a company's competitors might inadvertently reveal the company's strategies, secrets, and areas of vulnerability. This would, of course, violate the accounting profession's code of ethics regarding confidentiality. At the very least, knowledge of competitive information could affect a CPA's objectivity.**

b. Arguments for an accountant serving clients who are direct competitors include:

- **Accountants, like doctors, develop greater proficiency through specialization. By serving numerous clients in the same industry, accountants develop greater expertise in industry problems and accounting practices.**
- **In many cases, it is impractical to define "direct competitors." Is a video rental business a direct competitor of a movie theater? A television station? A miniature golf course?**
- **It would be impractical for accountants not to serve competing businesses. If accounting firms were limited to one client per industry, they could not develop a viable "client base." If each company in an industry had to hire a different accountant, there often would not be enough accountants to "go around."**

c. During the interview (part b), the accountant probably described the ethical concept of confidentiality. In general, accountants are ethically prohibited from divulging information about clients without the client's permission. The concept of confidentiality is, in large part, the accounting profession's response to the primary objection that might be raised about working with competing clients.

5 Minutes, Easy

CASE 5.3
CERTIFICATIONS BY CEOs AND CFOs

The purpose of the personal certification process is to make CEOs and CFOs more accountable and personally responsible for the contents in the annual reports issued by their companies.

One would hope that the process will help to improve investor confidence in much the same way as unqualified audit opinions contribute to investor confidence. In fact, the language used in the personal certifications is very similar to the language used by independent auditors in the attestation process. CEOs and CFOs must acknowledge that they have reviewed the annual reports and attest to the fact that they believe the information is both factual and fairly presented. Moreover, the CEO and CFO must hold themselves personally responsible for establishing controls, pointing out deficiencies in control systems, and for disclosing fraudulent activities.

10 Minutes, Medium

CASE 5.4
SARBANES-OXLEY ACT
BUSINESS WEEK

If a CFO (or other high-ranking corporate officer) knowingly misrepresents financial disclosures about their companies prior to transferring personal assets to spouses or other family members, these actions would clearly be unethical.

If, however, a CFO transfers personal assets to a spouse or other family members as a precautionary measure, this is an entirely different situation. Taking steps to protect one's wealth against frivolous lawsuits and/or inadvertent mistakes is no more unethical than purchasing an insurance policy for malpractice.

Regardless of its ethical implications, this practice might certainly be viewed with an element of scrutiny by investors and creditors. The transfer of personal assets to others may convey a signal that the CFO has something to hide.

15 Minutes, Easy

CASE 5.5
ANNUAL REPORT DISCLOSURES
INTERNET

Listed below are the headings of the major disclosure items presented in Ford's most recent financial statement footnotes. Students are to discuss the general nature and content of the various topics. The advanced nature of some of these topics goes beyond the scope of an introductory course.

Accounting Policies
Income Taxes
Discontinued Operations
Marketable and Other Securities
Inventories
Net Property
Goodwill and Other Intangibles
Finance Receivables
Net Investment in Operating Leases
Allowance for Credit Losses
Liabilities
Debt and Commitments
Capital Stock
Stock Options
Derivative Financial Instruments
Operating Cash Flows
Acquisitions, Dispositions, and Restructuring
Retirement Benefits
Segment Information
Geographic Information
Summary of Quarterly Financial Data
Commitments and Contingencies

CHAPTER 6
MERCHANDISING ACTIVITIES

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 6.1	Computation of gross profit	2, 8	Analysis
B. Ex. 6.2	Accounts receivable subsidiary ledger	7	Analysis
B. Ex. 6.3	Perpetual inventory system - computation of income	2, 3, 8	Analysis
B. Ex. 6.4	Periodic inventory system - inventory balance during year	2, 4, 8	Analysis
B. Ex. 6.5	Periodic inventory system - determine cost of goods sold	2, 4, 8	Analysis
B. Ex. 6.6	Periodic inventory system - working backwards through the COGS section	2, 4, 8	Analysis
B. Ex. 6.7	Periodic inventory system - closing process	2, 4	Analysis
B. Ex. 6.8	Benefit of taking a purchase discount	6	Analysis
B. Ex. 6.9	Sales returns and allowances	6	Analysis
B. Ex. 6.10	Special journals	7	Analysis
B. Ex. 6.11	Ethics, fraud, and corporate governance	8	Communication, judgment

Exercises	Topic	Learning Objectives	Skills
6.1	You as a student	1, 6	Analysis, communication, judgment
6.2	Effects of basic merchandising transactions	1	Analysis
6.3	Understanding inventory cost flows	2, 5, 8	Analysis, communication
6.4	Perpetual inventory systems	3, 8	Analysis, communication
6.5	Evaluating performance	6, 8	Analysis, communication, judgment
6.6	Taking a physical inventory	3	Analysis, communication
6.7	Periodic inventory systems	4	Analysis, communication
6.8	Relationships within periodic inventory systems	4	Analysis
6.9	Selecting an inventory system	5, 8	Communication, judgment
6.10	Cash discounts	6	Analysis
6.11	Evaluating performance	8	Analysis, communication, judgment
6.12	Comparison of inventory systems	3–5	Analysis, communication
6.13	Periodic inventory system	4, 5	Analysis, communication, judgment

Exercises	Topic	Learning Objectives	Skills
6.14	Difference between income and cash flows	8	Analysis, communication
6.15	Using an annual report	8	Analysis, communication, judgment

Problems Sets A, B	Topic	Learning Objectives	Skills
6.1 A,B	Evaluating profitability	1, 3, 8	Analysis, communication
6.2 A,B	Income statement preparation and interpretation	1–6, 8	Analysis, communication
6.3 A,B	Trend analysis	8	Analysis, communication
6.4 A,B	Recording purchase discounts	3, 6	Analysis, communication
6.5 A,B	Merchandising transactions	3, 6	Analysis, communication, judgment
6.6 A,B	Correcting Errors - Recording of Merchandising Transactions	2, 3, 6	Analysis, communication
6.7 A,B	Accrual Accounting, Cash Flow, and Fair Value	1, 3, 6	Analysis, communication, judgment
6.8 A,B	A comprehensive problem	1–8	Analysis, communication, judgment

Critical Thinking Cases			
6.1	Selecting an inventory system	5	Communication, judgment
6.2	A cost-benefit analysis	4, 8	Analysis, communication, judgment
6.3	Evaluating inventory systems	3–5, 7	Communication, judgment
6.4	Manipulating income (Ethics, fraud & corporate governance)	8	Communication, judgment
6.5	**Real World: CVS Corporation** Analysts' evaluation of company *(Business Week)*	8	Analysis, communication
6.6	**Real World: GAP** Exploring an annual report (Internet)	8	Communication, research, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

6.1 A,B **Claypool Hardware/Big Oak Lumber** **35 Medium**

Introduction to both perpetual inventory systems and financial statement analysis. After making journal entries for merchandising transactions, students are asked to compare the company's gross profit rate with the industry average and draw conclusions.

6.2 A,B **Hendry's Boutique/Harry's Haberdashery** **15 Easy**

Students prepare an income statement for a small retail store using information from an adjusted trial balance. Using this income statement, they are asked to compute the company's gross profit margin, evaluate customer satisfaction, interpret the meaning of several accounts, and identify the accounts in the store's operating cycle.

6.3 A,B **Knauss Supermarkets/Jill's Department Store** **20 Medium**

Illustrates performance evaluation of a merchandising company using changes in net sales, sales per square foot of selling space, and comparable store sales.

6.4 A,B **Lamprino Appliance/Mary's TV** **30 Medium**

A straightforward comparison of the net cost and gross invoice price methods of recording purchases of merchandise.

6.5 A,B **Siogo Shoes and Sole Mates/Hip Pants and Sleek** **30 Strong**

A comprehensive problem on merchandising transactions. Also asks students to evaluate whether it is worthwhile to take advantage of a 1/10, n/30 cash discount.

6.6 A,B **King Enterprises/Queen Enterprises** **45 Strong**

A problem that requires students to evaluate the effects of accounting errors on various balance sheet and income statement accounts and to prepare journal entries to correct the errors. The problem requires the errors to be corrected both assuming that the books remain open and assuming that the books have already been closed.

Problems (continued)

6.7 A,B **Genuine Accessories/Computer Resources** **30 Strong**

A problem that requires students to calculate gross profit under an accrual-based system and under a cash-based system, and to explain the difference between the two computations. Also, students are introduced to fair value accounting, and are required to prepare a journal entry to revalue inventory (for loan evaluation purposes) to fair value.

6.8 A,B **CPI/SUI** **40 Strong**

A comprehensive problem addressing every learning objective in the chapter. Closely parallels the *Demonstration Problem* .

Critical Thinking Cases

6.1	**Selecting an Inventory System** Students are asked the type of inventory system they would *expect* to find in various types of business operations. Leads to an open-ended discussion of why different types of businesses maintain different types of inventory systems. A very practical assignment.	**35**	**Medium**
6.2	**A Cost-Benefit Analysis** Using the company's markup policy, students are asked to determine the amount of shrinkage loss included in the cost of goods sold in a business using a *periodic* inventory system. Having determined the amount of loss, they then are asked to evaluate the economic benefit of hiring a security guard.	**25**	**Medium**
6.3	**Group Assignment with Business Community Involvement** Students are to visit two local businesses to gain an understanding of the inventory systems in use. They are then asked to evaluate those systems in terms of the information needs and resources of the businesses.	**No time estimate**	
6.4	**Manipulating Income** **Ethics, Fraud & Corporate Governance** Students must react to a supervisor's request to alter financial records in order to improve the appearance of the company's financial performance.	**20**	**Medium**
6.5	**CVS Is Riding High for Now** ***Business Week*** Students are asked to discuss why prescription drug plans may reduce the gross margin of CVS, a giant drug store chain.	**15**	**Medium**
6.6	**Exploring the Annual Report of GAP, Inc.** **Internet** Visit the home page of Gap, Inc., and gather financial information to evaluate sales performance.	**25**	**Easy**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. The operating cycle of a business is the sequence of transactions by which the company normally generates its revenue and its cash receipts from customers. In a merchandising company, this cycle includes: (1) purchasing merchandise; (2) selling merchandise, often on account; and (3) collecting accounts receivable from customers.

2. Both wholesalers and retailers are merchandising companies and, therefore, buy their inventory in a ready-to-sell condition. Wholesalers, however, buy large quantities of merchandise directly from manufacturers and then sell this merchandise in smaller quantities to many different retailers. Wholesalers usually operate from a central location and do not sell directly to the final consumer. Retailers, in contrast, buy from wholesalers and then resell the merchandise to the final consumer.

   In summary, wholesalers emphasize distribution of the product to the places (retailers) where it is needed. Retailers specialize in meeting the needs of their local customers.

3. The *cost of goods sold* appears in the income statement of any business that sells merchandise, but not in the income statement of a business that sells only services. The cost of goods sold represents the original cost *to the seller* of the merchandise it sells.

4. Green Bay Company is *not necessarily* more profitable than New England Company. Profitability is measured by *net income,* not by gross profit. For a merchandising company (or manufacturer) to earn a *net income,* its gross profit must *exceed its expenses* (including nonoperating items). Green Bay's gross profit exceeds that of New England by $70,000. However, if Green Bay's operating expenses (and nonoperating items) exceed those of New England by more than $70,000, New England is the more profitable company.

5. Revenue from sales amounts to *$1,070,000* (gross profit, $432,000, plus cost of goods sold, $638,000). Net income is equal to *$42,000* (gross profit, $432,000, minus expenses, $390,000).

6. *General ledger* accounts show the *total* amounts of various assets, liabilities, revenue, and expenses. While these total amounts are used in financial statements, company personnel need more detailed information about the items *comprising* these totals. This detail is provided in *subsidiary ledgers.* Subsidiary ledgers are needed to show the amounts receivable from individual customers, the amounts owed to individual creditors, and the quantities and costs of the specific products in inventory.

7. *Inventory shrinkage* refers to the decrease (shrinkage) in inventory resulting from such factors as theft, breakage, and spoilage. In a company using a perpetual inventory system, shrinkage is measured and accounted for by taking a *physical inventory* and adjusting the accounting records to reflect the actual quantities on hand.

8. In a *perpetual inventory* system, ledger accounts for inventory and the cost of goods sold are kept perpetually up-to-date. The Inventory account is debited whenever goods are purchased. When sales occur, Cost of Goods Sold is debited and Inventory is credited for the cost of the merchandise sold. An inventory subsidiary ledger is maintained showing the cost and quantity of every type of product in the inventory.

8.cont In a *periodic inventory* system, up-to-date records are *not* maintained either for inventory or for the cost of goods sold. The beginning and ending inventory are determined by a physical count. Purchases are recorded in a Purchases account, and no entries are made to record the cost of individual sales transactions. Rather, the cost of goods sold is determined by a computation made at the end of the year (beginning inventory, plus purchases, minus ending inventory).

9. (a) $51,500; (b) $65,000; (c) $49,800; (d) $61,600.

10. The statement is correct. A perpetual inventory system requires an entry updating the inventory records *as each item of merchandise is sold.* In the days of manual accounting systems, only businesses that sold a small number of high-cost items could use a perpetual system. For example, perpetual inventory systems were used in auto dealerships and jewelry stores, but not in supermarkets.

    Today, point-of-sale terminals have made perpetual inventory systems available to almost every type of business. These terminals "read" identification codes attached to each item of merchandise; the computer then looks up both the sales price and the cost of the merchandise in computer-based files and records the sale instantly.

11. a. A *general journal* is capable of recording *any type* of business transaction. However, recording transactions in this type of journal is a relatively slow and cumbersome process. In addition, the person maintaining the journal must have sufficient background in accounting to correctly interpret all types of accounting transactions. Also, because the journal is used to record all types of transactions, it must remain in the accounting department, rather than being located "in the field" where a specific type of transaction occurs.

    b. A special journal is an accounting record or device that is designed for recording one specific type of transaction in a highly efficient manner. As the journal is used only in recording one type of transaction, the person maintaining the journal usually does *not* require an extensive background in accounting. Also, the journal may be located in the field where the transactions occur.

    Special journals are used to record transactions that occur frequently. A general journal is still used for recording unusual transactions that do not fit the format of any special journal.

12. A balance arises in the Purchase Discounts Lost account when the company *fails* to take advantage of an available cash discount and, therefore, pays *more* than the net cost of the merchandise.

    In most well-managed companies, management has a policy of taking all available cash discounts. Therefore, the balance in the Purchase Discounts Lost account represents a cost arising from failure to adhere to this policy. If this balance becomes significant, management will take corrective action to assure that the company does take advantage of future discount opportunities.

13. The freight charges should *not* be charged to delivery expense. Delivery expense is a selling expense, matched with (offset against) the sales revenue of the current period. Freight charges on inbound shipments are part of the cost of acquiring the inventory, not an expense of the current period. Transportation charges on inbound shipments should be added to the cost of the purchased merchandise or, as a matter of practical convenience, included in the cost of goods sold during the period.

14. Yes; Outback should take advantage of 4/10, n/60 cash discounts even if it must borrow the money to do so at an annual rate of 13%. Paying 50 days earlier and taking the discount saves 4%.

    This is equivalent to an investment with a rate of return of approximately 29% (4% × 365⁄ 50 = 29.2%).

15. The financial statements would not include sales tax expense because sales taxes are not an expense of the business entity. Rather, these taxes are collected from the customer and forwarded by the business to the state government. Until the taxes have been sent to the governmental authorities, a liability for sales taxes payable does appear in the balance sheet of the business. (The entry to record the collection of sales taxes consists of a debit to Cash or Accounts Receivable and a credit to Sales Taxes Payable.)

16. To sellers, the “cost” of offering cash discounts is the resulting reduction in revenue. This cost is measured by initially recording the account receivable from the customer at the *full invoice price* and then recording any discounts taken by customers in a separate account (Sales Discounts).

    Buyers, however, incur a cost when discounts are *lost,* not when they are taken. Therefore, buyers design their accounting systems to measure any discounts lost. This is accomplished by initially recording the account payable to the supplier at net cost—that is, net of any allowable cash discounts. This practice means that any discounts lost must be recorded in a separate expense account.

17. The increase in net sales is a good sign, but it does not necessarily mean the company’s marketing strategies have been successful. This increase might have stemmed entirely from the opening of new stores, or from inflation. Also, an increase in net sales does not mean that gross profit has increased. Perhaps this increase in sales stemmed from selling more low-margin merchandise, in which case, gross profit might even have declined. In that case this would have been an *unsuccessful* marketing strategy.

    An increase in net sales normally is viewed as a positive change. But to evaluate a specific company’s performance, it is necessary to determine the *reasons* for this change, and the overall financial impact.

18. *Gross profit margin,* also called *gross profit rate,* is gross profit expressed as a percentage of net sales revenue. It may be computed for the company as a whole (the overall gross profit margin), for specific sales departments, and for individual products. Management often may improve the company’s overall profit margin by raising sales prices or by concentrating sales efforts on products with higher margins. In a manufacturing company, management often is able to increase margins by reducing the cost of manufacturing the merchandise that the company sells.

19. Even companies that use a perpetual inventory system will generally complete a physical count of their merchandise inventory at least once a year to compare their actual physical inventory with what the perpetual inventory records indicate should be on hand. There are typically differences between the physical count of inventory and what the perpetual records indicate due to breakage, spoilage, and employee and customer theft. This difference is referred to as "shrink(age)" in the retail industry - one of the truly great euphemisms of all time -and is a closely watched performance metric by management in the retail industry.

20. An inventory subsidiary ledger is maintained under a perpetual inventory system but not under a periodic inventory system. Under a perpetual inventory system, each purchase and sale of individual inventory items is tracked. Under a periodic inventory system, the actual physical quantity of inventory items on hand is only determined at the time that a physical inventory count is taken, typically once a year.

SOLUTIONS TO BRIEF EXERCISES

B. Ex 6.1 **Office Today's gross profit is $160 million ($800 million - $640 million). Its gross profit percentage is 20% ($160 million/$800 million). Office Today's gross profit should provide the company with the ability to cover other expenses and to provide a return to its shareholders.**

B. Ex. 6.2 **The accounts receivable balance in the general ledger should be $850, the total of the customer accounts with debit balances. The two customer accounts with credit balances would be reclassified as accounts payable.**

B. Ex. 6.3 **Alberto & Sons' gross profit for October is $1,500, the $30 gross profit on each item ($80 selling price - $50 cost) multiplied by the 50 units sold during October.**

B. Ex. 6.4 **The balance in Neel & Neal's inventory account at February 1st would be $300,000, the same balance as of the beginning of the year. Under a periodic inventory system, the inventory account balance on the balance sheet is only updated when a physical inventory count is taken, which generally only occurs on a year basis. Please note that the inventory balance cannot be computed by adding the $250,000 of inventory purchases to the beginning inventory balance, and then subtracting the $400,000 in sales. The inventory account balance is generally stated at the cost of the inventory items purchased, whereas the $400,000 of sales is recorded at the retail price at which the goods are sold.**

B. Ex. 6.5 **The cost of goods sold for Murphy Co. is $650,000. Add the purchases of $600,000 to the beginning inventory of $300,000, and then subtract the $250,000 of ending inventory.**

B. Ex 6.6 **Yang & Min Inc. purchased $600,000 of goods during the year. Since Yang & Min had an ending inventory of $200,000 and cost of goods sold of $500,000, we then know that Yang & Min had goods available for sale of $700,000 (all goods available for sale are either sold - cost of goods sold - or are still held at the end of the year - inventory). Goods available for sale either existed at the beginning of the year - beginning inventory - or were purchased during the year - purchases. Since Yang & Min's goods available for sale are $700,000 and its beginning inventory is $100,000 Yang & Min must have purchased $600,000 of goods during the year.**

B. Ex 6.7

		Debit	Credit
	Cost of Goods Sold…………………………………	330,000	
	Inventory (beginning balance)……………		80,000
	Purchases………………………………….		250,000
	To close the accounts contributing to the cost of goods sold for the year.		
	Inventory (ending balance)………………………..	30,000	
	Cost of Goods Sold………………………..		30,000
	To reduce the balance of the Cost of Goods Sold account by the cost of merchandise still on hand at year-end.		
	Income Summary…………………………………..	300,000	
	Cost of Goods Sold………………………..		300,000
	To close the Cost of Goods Sold account to Income Summary.		

B. Ex. 6.8 Pag Inc.'s equivalent annual rate of return by always paying its bills within the discount period, and thereby receiving a 1% cash discount on the amount of its purchases, is 18.25% (1% x 365/20).

B. Ex. 6.9

Sales Returns and Allowances	2,000	
Accounts Receivable (or Cash)…………..		2,000
Allowance granted for defective merchandise.		

B. Ex 6.10 Examples of special journals include: sales journal, cash receipts journal, cash payments journal, purchases journal, and payroll journal.

B. Ex 6.11 The customer return was received before year end and as such needs to be recorded in the period in which it occurred. Your cooperation with the controller's scheme to overstate income will expose you to severe civil and criminal penalties, notwithstanding the potential damage to your reputation and the unethical course of action that the controller is asking you to pursue. You should try to convince the controller of these facts. Failing this, you might avail yourself of the "hotline" that all public companies are required to maintain to provide an anonymous mechanism for employees to report concerns about improper accounting practices. If all else fails, you are better off leaving the company than exposing yourself to the harsh sanctions associated with securities fraud.

SOLUTIONS TO EXERCISES

Ex 6.1 a. Option #2 enables the band to have the least possible amount of cash invested in inventory at any given time throughout the basketball season. Option #3 enables the band to convert sales into cash immediately as shirts are sold. Thus, a combination of options #2 and #3 will result in the shortest operating cycle.

b. Option #1 results in the band having an excessive amount invested in inventory early in the season. Option #4 requires that the band wait until the end of the season to collect its account receivable from the bookstore. Thus, a combination of options #1 and #4 will result in the longest operating cycle.

c. Option #1
***Advantages*: A 5% purchase discount applies to the purchase.**
***Disadvantages*: A large amount of cash is invested in inventory early in the season. The band must pay in advance for an entire season of inventory. Ordering inventory for an entire season exposes the band to a high risk of purchasing too many or too few T-shirts.**

Option #2
***Advantages*: T-shirts are ordered only when inventory levels become depleted. Smaller amounts of cash are invested in inventory throughout the season. Ordering shirts as needed reduces the risk of purchasing too many or too few.**
***Disadvantages*: A 5% purchase discount does not apply.**

Option #3
***Advantages*: Cash is collected immediately. Members of the band become an entire "sales force" promoting interest in the product. The band receives 100% of all sales proceeds.**
***Disadvantages*: Maintaining control over cash receipts and inventory is potentially more complex.**

Option #4
***Advantages*: Control over cash receipts and inventory is maintained by the bookstore. The bookstore is a high traffic area that caters to students, alumni, and visitors.**

***Disadvantages*: The bookstore earns a 6% sales commission, meaning the band receives only 94% of the total proceeds. The band must wait the entire year before the bookstore settles its account. Thus, the band may experience difficulty in paying for the inventory it purchases.**

Ex 6.2

Trans-action	Net Sales	-	Cost of Goods Sold	-	All Other Expenses	=	Net Income	Assets	=	Liabilities	+	Owners' Equity
	Income Statement							**Balance Sheet**				
a.	NE		NE		NE		NE	I		I		NE
b.	I		NE		NE		I	I		NE		I
c.	NE		I		NE		D	D		NE		D
d.	NE		NE		NE		NE	NE		NE		NE
e.	NE		I		NE		D	D		NE		D

Ex 6.3

a.

Step 1		
Net sales	$	1,200,000,000
Multiplied by the gross profit margin	x	11%
Equals gross profit	$	132,000,000
Step 2		
Net sales	$	1,200,000,000
Less: cost of goods sold		?
Equals gross profit (see Step 1)	$	132,000,000
Step 3		
Cost of goods sold ($1.2 billion - $132 million)	$	1,068,000,000

b.

Step 1		
Merchandise inventory (beginning of the year)	$	69,000,000
Add: Purchases		?
Less: Merchandise inventory (end of the year)		57,000,000
Equals cost of goods sold (see part a)	$	1,068,000,000
Step 2		
Purchases ($1,068 billion + $57 million - $69 million)	$	1,056,000,000

c. The company’s low gross profit margin of 11% reflects the intense levels of price competition in the personal computing industry. In order to stay competitive, computer retailers like PC Connection have significantly reduced selling prices to their customers. With gross profit being only eleven cents of every sales dollar, it is essential that these retailers control other expenses (such advertising expense, wages expense, and insurance expense) in order to remain profitable.

d. PC Connection uses a perpetual inventory system for several reasons. (1) Its inventory has a relatively high unit cost. (2) Its sales volume is extremely high, as evidenced by its $1.2 billion in net sales. (3) Immediate information about the availability of specific products is required when customers contact the company to place orders. (4) The benefits derived from using a perpetual system outweigh the cost of implementing and maintaining it.

Ex. 6.4

a.

Net sales	-	Cost of goods sold	=	Gross profit
$ 26,000,000		?		$ 15,000,000

Cost of goods sold = $11,000,000

b.

Beginning inventory	+	Purchases	-	Cost of goods sold	=	Ending Inventory
$ 6,450,000		$ 9,500,000		$11,000,000 (from part a)		$ 4,950,000

c. **The entry to record inventory shrinkage at the end of the year increased the Cost of Goods Sold account and reduced its Merchandise Inventory account by $10,000. Thus, immediately prior to recording inventory shrinkage, the Cost of Goods Sold account had a debit balance of $10,990,000 ($11,000,000 computed in part *a* minus $10,000), whereas the Merchandise Inventory account had a debit balance of $4,960,000 ($4,950,000 computed in part *b* plus $10,000).**

Ex. 6.5 a. The change in net sales provides an overall measure of the effectiveness of the company in generating revenue. A major limitation of this measure is that sales may have changed largely because of the opening of new stores or the closing of unprofitable ones. Thus, an increase in net sales is not always "good," and a decrease is not always "bad."

Users of financial statements often compute changes in gross profit rates from one period to the next. Increasing margins often mean that a company's net sales growth is outpacing its growth in the cost of goods sold. This often is the result of successful marketing strategies. A declining gross profit rate, on the other hand, may indicate weakening customer demand or intensified price competition.

Percentage changes in comparable store sales represent the increase or decrease in net sales of the same stores from one period to the next. By factoring out the effects of opening new stores (and/or closing existing stores), this statistic provides a better measure of marketing strategy effectiveness and revenue growth.

b. Wal-Mart reported a significant increase in its overall sales growth of 14%, but only a 3% increase in comparable store sales. The disparity between these two statistics may suggest that Wal-Mart's revenue growth was in large part attributed to new stores. The stability of Wal-Mart's gross profit rate implies that the company did not face weakening demand or intensified price competition. Kmart's performance was far less impressive. The statistics reported in the text were released subsequent to the company declaring bankruptcy. Kmart's total sales grew by only 3%, and its comparable store sales decreased by 0.1%. The 10% decline in the company's gross profit rate suggests that it faced weakening demand and increased price competition.

Ex. 6.6 **a.** **The reason why an actual physical count is likely to indicate a smaller inventory than does the perpetual inventory records is *inventory shrinkage* —the normal loss of inventory through theft, breakage, and spoilage.**

b.

Cost of Goods Sold ……………………………………………	**4,000**	
Inventory …………………………………………		**4,000**
To reduce inventory to the quantities reflected in the year-end physical count.		

c. **Both portions of the preceding entry should be posted to the general ledger. In addition, the reduction in inventory should be posted to the inventory subsidiary ledger accounts in which the shortages were determined to exist.**

Ex. 6.7 **a.** **The amounts of beginning and ending inventory were determined by taking complete physical inventories at (or near) the ends of year 1 and year 2. "Taking a complete physical inventory" means physically counting the number of units of each product on hand and then determining the cost of this inventory by reference to per-unit purchase costs. (The inventory at the end of year 1 serves as the "beginning inventory" for year 2.)**

b. **Computation of the cost of goods sold during year 2:**

Inventory (December 31, year 1) ……………………………………………	**$ 2,800**
Add: Purchases ……………………………………………………………	**30,200**
Cost of goods available for sale during year 2 ………………………………	**33,000**
Less: Inventory (December 31, year 2) ………………………………………	**3,000**
Cost of goods sold …………………………………………………………	**$ 30,000**

c. **Year 2**

Dec.	**31**	**Cost of Goods Sold ……………………………**	**33,000**	
		Inventory (Dec. 31, year 1) ……………		**2,800**
		Purchases ………………………………		**30,200**
		To close those temporary accounts that contribute to the cost of goods sold for the year.		
	31	**Inventory (Dec. 31, year 2) ……………………**	**3,000**	
		Cost of Goods Sold ……………………		**3,000**
		To remove from the Cost of Goods Sold account the cost of merchandise still on hand at year-end.		

d.

BOSTON BAIT SHOP
Partial Income Statement
For the Year Ended December 31, Year 2

Net sales ……………………………………………………………………	**$ 79,600**
Less: Cost of goods sold …………………………………………………	**30,000**
Gross profit …………………………………………………………………	**$ 49,600**

e. **Because the business is small, management probably has decided that the benefits of maintaining a perpetual inventory system are not worth the cost. Furthermore, determining a cost of goods sold figure at the point of sale for live bait (e.g., a dozen minnows) may be difficult, if not impossible.**

Ex. 6.8

	Net Sales	Beginning Inventory	Net Purchases	Ending Inventory	Cost of Goods Sold	Gross Profit	Expenses	Net Income or (Loss)
a.	240,000	76,000	104,000	35,200	144,800	95,200	72,000	23,200
b.	480,000	72,000	272,000	80,000	264,000	216,000	196,000	20,000
c.	630,000	207,000	400,500	166,500	441,000	189,000	148,500	40,500
d.	810,000	261,000	450,000	135,000	576,000	234,000	270,000	(36,000)
e.	531,000	156,000	393,000	153,000	396,000	135,000	150,000	(15,000)

Ex. 6.9 a. It is not uncommon for companies in the same industry to report similar gross profit percentages. This is especially true of large supermarket retailers. This particular industry is extremely competitive with respect to pricing strategies. Furthermore, each retailer sells identical items of inventory acquired from the same manufacturers at competitive purchase prices (e.g., Green Giant Foods, General Mills, Procter & Gamble, etc.).

b. Supermarket chains account for millions of fast selling items, valued in billions of dollars, that are stocked at thousands of geographically disbursed locations. Advances in technology have made it possible for even these retailers to account for their inventories using perpetual inventory systems. Specific examples of these technologies include point-of-sale terminals (scanners), computerized distribution centers, and integrated computer networking with major suppliers.

Ex. 6.10 a. Entries in the accounts of Golf World:

Accounts Receivable (Mulligans) ……	**10,000**	
Sales ……		**10,000**
Sold merchandise on account to Mulligans.		
Cost of Goods Sold ……	**6,500**	
Inventory ……		**6,500**
To recognize cost of goods sold relating to sale to Mulligans.		
Cash ……	**9,900**	
Sales Discounts ……	**100**	
Accounts Receivable (Mulligans) ……		**10,000**
To record collection of account receivable from Mulligans, less 1% cash discount.		

b. Entries in the accounts of Mulligans:

Inventory ……	**9,900**	
Accounts Payable (Golf World) ……		**9,900**
Purchased merchandise from Golf World (net cost, $10,000 × 99% = $9,900).		
Accounts Payable (Golf World) ……	**9,900**	
Cash ……		**9,900**
Paid account payable to Golf World within the discount period.		

c. Entry by Mulligans if discount not taken:

Accounts Payable (Golf World) ……	**9,900**	
Purchase Discounts Lost ……	**100**	
Cash ……		**10,000**
To record payment of account payable to Golf World and loss of purchase discount due to failure to pay within discount period.		

Ex. 6.11 a. Dollar figures are stated in billions except for sales per square foot of selling space:

	CVS Corporation	**Walgreen Company**	**Rite Aid Corporation**
Net sales	**\$30.6[a]**	**\$42.2**	**\$16.8**
Cost of goods sold	**22.6**	**30.4[e]**	**12.6**
Gross profit	**8**	**11.8[d]**	**4.2[g]**
Gross profit margin (rate)	**26.1%[b]**	**28.0%**	**25%[h]**
Sales per square foot of selling space	**\$703.4[c]**	**\$761.7[f]**	**\$451.6[i]**

Computations:

[a]\$22.6 + \$8.0 = \$30.6
[b]\$8.0 ÷ \$30.6 (from a) = 26.1%
[c]\$30.6 billion (from a) ÷ 43.5 million square feet = \$703.4
[d]28.0% × \$42.2 = \$11.8
[e]\$42.2 – \$11.8 (from d) = \$30.4
[f]\$42.2 billion ÷ 55.4 million square feet = \$761.7
[g]\$16.8 – \$12.6 = \$4.2
[h]\$4.2 (from g) ÷ \$16.8 = 25%
[i]\$16.8 billion ÷ 37.2 million square feet = \$451.6

b. Rite Aid Corporation is by far the smallest of the three retail pharmacies based on net sales. In fact CVS generates 56% more sales per square foot of selling space, and Walgreen generates 69% more sales per square foot of selling space, than Rite Aid. Rite Aid's gross profit margin (rate) of 25% is also less than the rates reported by its two major competitors. Rite Aid's percentage of total prescription drug revenue from third-party sales has risen to over 90%, a statistic much higher than that of the other two chains. The discounts negotiated by the large insurance companies are certainly responsible, in part, for the erosion of Rite Aid's sales and gross profit figures.

Ex. 6.12 a.

Cash	**117,000**	
Sales		**117,000**
To record sale of telescope to Central State University for cash.		
Cost of Goods Sold	**90,000**	
Inventory		**90,000**
To record cost of telescope sold to Central State University.		
Inventory	**50,000**	
Accounts Payable (Lunar Optics)		**50,000**
To record purchase of merchandise on account from Lunar Optics, net 30 days.		

b. Computation of inventory at January 7:

Inventory at Dec. 31	**250,000**
Deduct: Cost of goods sold	**(90,000)**
Add: Cost of merchandise purchased	**50,000**
Inventory at Jan. 7	**210,000**

c.

Cash	**117,000**	
Sales		**117,000**
To record sale of telescope to Central State University for cash.		
Purchases	**50,000**	
Accounts Payable (Lunar Optics)		**50,000**
To record purchase of merchandise on account from Lunar Optics. Terms, net 30 days.		

d. Cost of goods sold:

Inventory, Jan. 1	**$ 250,000**
Purchases	**50,000**
Cost of goods available for sale	**$ 300,000**
Less: Inventory, Jan. 7 (per part *b*)	**210,000**
Cost of goods sold	**$ 90,000**

e. The company would probably use a perpetual inventory system because it sells merchandise with a high unit cost and has a relatively small number of sales transactions.

Ex. 6.13

a. **Computation of the cost of goods sold:**

Beginning inventory	**$6,240**
Add: Purchases	**74,400**
Cost of goods available for sale	**$80,640**
Less: Ending inventory	**4,560**
Cost of goods sold	**$76,080**

b.

Mountain Mabel's appears to be a very small business that probably has no external reporting obligations (other than in the owners' annual income tax return). Also, "management" seems to consist of the owners, who may be in the store every day and therefore do not need an inventory ledger to know what merchandise is in inventory. In a situation such as this, the additional recordkeeping required to maintain a perpetual inventory system simply may not be worthwhile.

c. **A larger business, such as a Sears store, needs to have up-to-date information as to the cost and quantity of merchandise in inventory and also the cost of goods sold. This information is used in quarterly reports to stockholders, reports to corporate management, and monthly reports measuring the profitability of the individual sales departments. In addition, information about the quantities of specific products sold and the quantities currently on hand is needed for such daily decisions as: (1) when to reorder specific products, (2) how much merchandise to order, and (3) which products to advertise in special sales.**

Also, a store such as Sears uses *point-of-sale* terminals to simplify the processing of sales transactions. These terminals permit the maintenance of perpetual inventory records at very little cost and with no special effort required of accounting personnel.

Ex. 6.14

Revenues (4 x $1,200)	**$4,800**
Cost of goods sold (4 x $800)	**3,200**
Other expenses	**1,000**
Net income (accrual basis)	**$600**
Cash revenues (4 x $1,200)	**$4,800**
Cash expenses (20 x $800)	**16,000**
Other cash expenses	**1,000**
Net loss (cash basis)	**($12,200)**

The difference between the accrual-basis net income of $600 and the cash-basis net loss of $12,200 is explained by the $12,800 (16 units x $800) of unsold inventory still held by SCTS. Under a cash-basis system, the purchase of merchandise is charged to expense at the time the merchandise is purchased. Conversely, under accrual accounting, the purchase of goods to be held for sale is recorded as an asset, inventory, at the time of purchase and is not charged to expense, cost of goods sold, until the inventory is sold. If a business is building its inventory balance, net income is often higher than cash flow from operations (similar to computing income under a cash-basis system).

Ex. 6.15

a. **All of the following figures are shown in million's (except percentages):**

	Year Ended		
	Jan. 29, 2006	**Jan. 30, 2005**	**Feb. 1, 2004**
(1) Net sales	**$81,511**	**$73,094**	**$64,816**
(2) Gross profit (margin)	**27,320**	**24,430**	**20,580**
Gross profit percentage (2) ÷ (1)	**33.5%**	**33.4%**	**31.8%**

b. **The trend in gross profit percentage is positive, moving from 31.8% to 33.4% to 33.5% during the three-year period. This represents an improvement of over five percent [(33.5 - 31.8)/31.8] over the three-year period. Given Home Depot's large and increasing sales figures the improvement in the gross profit percentage is impressive.**

SOLUTIONS TO PROBLEMS SET A

35 Minutes, Medium

PROBLEM 6.1A
CLAYPOOL HARDWARE

a.

General Journal

		(1)		
Nov.	5	Accounts receivable (Bemidji Construction)	13,390	
		Sales		13,390
		Sold merchandise on account.		
	5	Cost of Good Sold	9,105	
		Inventory		9,105
		To record the cost of goods sold relating to the		
		sales of merchandise to Bemidji Construction.		
	9	Inventory	3,800	
		Accounts Payable (Owatonna Tool Co.)		3,800
		Purchased merchandise on credit.		
Dec.	5	Cash	13,390	
		Accounts Receivable (Bemidji Construction)		13,390
		Collected accounts receivable.		
	9	Accounts Payable (Owatonna Tool. Co.)	3,800	
		Cash		3,800
		Paid account payable to supplier.		
	31	Cost of Goods Sold	1,710	
		Inventory		1,710
		To adjust inventory records to reflect the results		
		of the year-end physical count.		
		Inventory per accounting records	$ 183,790	
		Inventory per physical count	182,080	
		Adjustment for inventory shrinkage	$ 1,710	

b.

CLAYPOOL HARDWARE
Partial Income Statement
For the Year Ended December 31, 20__

		Net sales		$ 1,024,900
		Cost of goods sold (1)		696,932
		Gross profit		$ 327,968
		(1) Cost of goods sold prior to adjustment at Dec. 31		$ 695,222
		Add: Shrinkage adjustment at Dec. 31		1,710
		Cost of goods sold (adjusted balance)		$ 696,932

c. **Claypool seems quite able to pass its extra transportation costs on to its customers and, in fact, enjoys a significant financial benefit from its remote location. The following data support these conclusions:**

	Claypool Hardware	Industry Average	Difference
Annual sales ……………………………..	**$1,024,900**	**$1,000,000**	**$24,900**
Gross profit ………………………………	**327,968**	**250,000 (1)**	**77,968**
Gross profit rate …………………………	**32% (2)**	**25%**	**7%**

(1) $1,000,000 sales × 25% = $250,000
(2) $327,968 gross profit ÷ $1,024,900 net sales = 32%

Claypool earned a gross profit rate of 32%, which is significantly higher than the industry average. Claypool's sales were above the industry average, and it earned $77,968 more gross profit than the "average" store of its size. This higher gross profit was earned even though its cost of goods sold was $18,000 to $20,000 higher than the industry average because of the additional transportation charges.

To have a higher-than-average cost of goods sold and still earn a much larger-than-average amount of gross profit, Claypool must be able to charge substantially higher sales prices than most hardware stores. Presumably, the company could not charge such prices in a highly competitive environment. Thus, the remote location appears to insulate it from competition and allow it to operate more profitably than hardware stores with nearby competitors.

15 Minutes, Easy

PROBLEM 6.2A
HENDRY'S BOUTIQUE

a.

HENDRY'S BOUTIQUE		
Income Statement		
For the Year Ended December 31, 2007		
Sales		$ 226,000
Less: Sales returns and allowances		2,500
Net sales		223,500
Cost of goods sold		100,575
Gross profit		122,925
Other expenses:		
Purchase discounts lost	$ 250	
Utilities expense	4,120	
Office supply expense	520	
Depreciation expense: office equipment	2,750	
Rent expense	6,100	
Insurance expense	900	
Salaries expense	88,095	102,735
Income before income taxes expense		20,190
Income tax expense		8,190
Net income		$ 12,000

b. **Gross profit ÷ Net sales = gross profit margin**

Using the figures from the income statement prepared in part a, the store's gross profit margin is computed as follows: $122,925 ÷ $223,500 = 55%

c. **Sales returns and allowances amount to only 1.1% of the store's total sales. Thus, it appears that customers are relatively satisfied with their purchases.**

d. **The use of the Purchase Discounts Lost account indicates that the store records purchases *net* of any purchase discounts. Had the store recorded purchases at their *gross* invoice amounts, this account would not be used, and Purchase Discounts Taken would have appeared in the adjusted trial balance instead.**

e. **The $3,200 of sales taxes payable appearing in the adjusted trial balance represents sales taxes *collected* by the store for the sales taxes imposed on its *customers.* When the store submits this amount to the proper tax authorities, the liability will be removed. Sales taxes are applicable only when merchandise is sold to the *final customer;* thus, retail stores normally incur no sales taxes expense.**

f. **Cash, Accounts Receivable, and Merchandise Inventory are the accounts that comprise the store's operating cycle.**

20 Minutes, Medium

PROBLEM 6.3A
KNAUSS SUPERMARKETS

			2006-2007	2005-2006
a.	**1.**	**Change in net sales ……………………….**	**6% (1)**	**8% (2)**
	2.	**Change in net sales per square foot ….**	**(1.1%) (3)**	**(2.7%) (4)**
	3.	**Change in comparable store sales ……**	**(1.8%) (5)**	**(3.5%) (6)**

(1) **($5,495 - $5,184) ÷ $5,184 = 6%**
(2) **($5,184 - $4,800) ÷ $4,800 = 8%**
(3) **[($5,495 ÷ 11.9) - ($5,184 ÷ 11.1)] ÷ ($5,184 ÷ 11.1) = (1.1%)**
(4) **[($5,184 ÷ 11.1) - ($4,800 ÷ 10.0)] ÷ ($4,800 ÷ 10.0) = (2.7%)**
(5) **($10.8 - $11.0) ÷ $11.0 = (1.8%)**
(6) **($11.0 - $11.4) ÷ $11.4 = (3.5%)**

b. **While Knauss has increased its overall revenue from sales, several of the statistics indicate problems. Both sales per square foot of selling space and comparable store sales have declined for the last two years. This indicates a downward trend in sales at existing stores. It is apparent that the increase in overall net sales must have resulted from adding new stores. As a result, management should reevaluate its marketing strategies.**

30 Minutes Medium

PROBLEM 6.4A
LAMPRINO APPLIANCE

a.

General Journal

Date				
(1)				
June	10	Inventory	2,940	
		Accounts Payable (Mitsu Industries)		2,940
		To record purchase of 10 TVs at net cost of $294		
		per unit ($300, less 2%).		
	15	Cash	450	
		Sales		450
		Sold 1 Mitsu TV for cash.		
	15	Cost of Goods Sold	294	
		Inventory		294
		To record cost of TV sold.		
	20	Accounts Payable (Mitsu Industries)	2,940	
		Cash		2,940
		Paid account within discount period.		
(2)				
June	10	Inventory	3,000	
		Accounts Payable (Mitsu Industries)		3,000
		To record purchase of 10 TVs at gross invoice		
		price ($300 per unit).		
	15	Cash	450	
		Sales		450
		Sold 1 Mitsu TV for cash.		
	15	Cost of Goods Sold	300	
		Inventory		300
		To record cost of TV sold.		
	20	Accounts Payable (Mitsu Industries)	3,000	
		Cash		2,940
		Purchase Discounts Taken		60
		Paid account payable, less 2%		
b.				
(1)				
July	10	Accounts Payable (Mitsu Industries)	2,940	
		Purchase Discounts Lost	60	
		Cash		3,000
		Made payment after discount period had expired.		
(2)				
July	10	Accounts Payable (Mitsu Industries)	3,000	
		Cash		3,000
		Made payment after discount period had expired.		

c. **The *net cost* method provides more useful information for evaluating the company's efficiency in paying its bills. This method clearly indicates the lowest price that the company may pay, and separately records any additional costs incurred as *purchase discounts lost*.**

Under the gross method, the liability is *not* recorded at the lowest price at which it can be settled. Hence, management is *not made aware* of available discounts that were not taken.

30 Minutes, Strong

PROBLEM 6.5A
SIOGO SHOES AND SOLE MATES

		General Journal		
a.		Journal entries by Siogo Shoes:		
Feb .	9	Accounts Receivable (Sole Mates)	10,000	
		Sales		10,000
		Sold merchandise on account; terms, 1/10, n/30.		
	9	Cost of Goods Sold	6,000	
		Inventory		6,000
		To record cost of merchandise sold (100 pr. X $60/pr.)		
	12	Delivery Expense	40	
		Cash		40
		Paid delivery charges on outbound shipment.		
	13	Sales Returns & Allowances	1,000	
		Accounts Receivable (Sole Mates)		1,000
		Customer returned merchandise (10 pr. X $100/pr.).		
	13	Inventory	600	
		Cost of Goods sold		600
		Reduce cost of goods sold for cost of merchandise		
		returned (10 pr. X $60/pr.).		
	19	Cash	8,910	
		Sales Discount	90	
		Accounts Receivable (Sole Mates)		9,000
		Collected amount due, less $1,000 return and less		
		1% cash discount on remaining $9,000 balance.		
b.		Journal entries by Sole Mates:		
Feb.	9	Inventory	9,900	
		Accounts Payable (Siogo Shoes)		9,900
		Purchased 100 pairs of boots; terms. 1/10, n/30. Net		
		cost, $99 per pair ($100, less 1%)		
	12	Transportation-in	40	
		Cash		40
		Paid transportation charge on inbound shipment.		
	13	Accounts Payable (Siogo Shoes)	990	
		Inventory		990
		Returned 10 pairs of boots to supplier. (Net cost,		
		$99 per pair x 10 pairs = $990.		

PROBLEM 6.5A
SIOGO SHOES AND SOLE MATES (concluded)

General Journal				
Feb .	19	Accounts Payable (Siogo Shoes)	8,910	
		Sales		8,910
		Paid within discount period balance owed to		
		Siogo Shoes ($9,900 - $990 = $8,910).		

c. **Yes. Sole Mates *should* take advantage of 1/10, n/30 purchase discounts, even if it must borrow money for a short period of time at an annual rate of 11%. By taking advantage of the discount, the company saves 1% by making payment 20 days early. At an interest rate of 11% per year, the bank charges only *0.6%* interest over a 20-day period (11% × 20⁄ 365 = 0.6%). Thus, the cost of passing up the discount is greater than the cost of short-term borrowing.**

PROBLEM 6.6A
KING ENTERPRISES

a. **The easiest way for a student to solve this problem is to record the journal entries that the accounting clerk made and to compare them with the journal entries that should have been made.**

Entries Recorded by the Accounting Clerk

Jan. 10	**Inventory**	**9,800**	
	Cash		**9,800**
	Payment for books received on December 15th of prior year.		
Dec. 27	**No entry since no cash receipt or payment was involved.**		
Dec. 30	**No entry since no cash receipt or payment was involved.**		

Entries that Should Have Been Recorded by the Accounting Clerk

Jan. 10	**Accounts payable**	**9,800**	
	Cash		**9,800**
	Payment for books received on December 15th of prior year.		
Dec. 27	**Inventory**	**19,600**	
	Accounts payable		**19,600**
	Purchase of $20,000 of books net of the purchase discount.		
Dec. 30	**Accounts receivable**	**30,000**	
	Sales		**30,000**
	Record sale on account.		
Dec. 30	**Cost of goods sold**	**24,500**	
	Inventory		**24,500**
	Record cost of books sold.		

a.1. **Based on a comparison of the above entries, accounts receivable is understated by $30,000.**

a.2. **Inventory is overstated by $14,700 ($19,600 - $24,500 - $9,800).**

a.3. **Accounts payable is understated by $9,800 ($19,600 - $9,800).**

a.4. **Sales is understated by $30,000.**

a.5. **Cost of goods sold is understated by $24,500.**

b. **Net income is understated by $5,500 ($30,000 - $24,500).**

PROBLEM 6.6A
KING ENTERPRISES (concluded)

c. **The journal entry to correct the accounting clerk's errors is (assuming that King's books have yet to be closed for the year).**

Accounts receivable	**30,000**	
Cost of goods sold	**24,500**	
Sales		**30,000**
Inventory		**14,700**
Accounts payable		**9,800**

d. **The journal entry to correct the accounting clerk's errors is (assuming that King's books have been closed for the year).**

Accounts receivable	**30,000**	
Inventory		**14,700**
Accounts payable		**9,800**
Retained earnings		**5,500**

e. **The journal entry to correct the accounting clerk's errors assuming that the ending inventory balance has been adjusted based on a physical inventory (and assuming that King's books have been closed for the year) is:**

Accounts receivable	**30,000**	
Accounts payable		**9,800**
Retained earnings		**20,200**

PROBLEM 6.7A
GENUINE ACCESSORIES

a.

Sales ($300,000 + $750,000)	**$**	**1,050,000**
Cost of goods sold ($200,000 + $500,000)		**(700,000)**
Gross profit	**$**	**350,000**

b.

Cash collections	**$**	**-**
Cash disbursements		**(400,000)**
Gross profit	**$**	**(400,000)**

c. **The difference between the $350,000 of gross profit under accrual accounting and the negative $400,000 gross profit under a cash-basis system reflects the balances in the accounts receivable, inventory, and accounts payable accounts for Genuine Accessories. The accounts receivable balance is $1,050,000 ($300,000 + $750,000). The inventory balance is $1,200,000 ($400,000 - $200,000 + $600,000 - $500,000 + $900,000). The accounts payable balance is $1,500,000 ($400,000 + $600,000 - $400,000 + $900,000).**

Increases in operating current asset accounts (e.g., accounts receivable and inventory) result in cash-based metrics of income being below accrual income, whereas increases in operating current liability accounts (e.g., account payable) result in cash-based metrics of income being above accrual income. Therefore, Genuine Accessories moves from an accrual gross profit of $350,000 to a cash-based negative gross profit of ($400,000) as follows:

$350,000 (accrual-based gross profit) - $1,050,000 (increase in AR) - $1,200,000 (increase in inventory) + $1,500,000 (increase in accounts payable) = ($400,000)(cash-based gross profit).

d.

Inventory	**300,000**	
Revaluation of Inventory to Market Value		**300,000**

A wholesaler might determine the fair value of its ending inventory by reference to recent sales prices of inventory items, assuming that these sales took place reasonably close to year-end.

40 Minutes, Strong

PROBLEM 6.8A
CPI

Parts a, f, and g follow; parts b, c, d, and e are on the next page.

a. **The operating cycle of a merchandising company consists of purchasing merchandise, selling that merchandise to customers (often on account), and collecting the sales proceeds from these customers. The assets and liabilities involved in this cycle include cash, accounts receivable, and inventory.**

f. **CPI probably would use a *perpetual* inventory system. The items in its inventory have a high per-unit cost. Therefore, management will want to know the costs of the individual products included in specific sales transactions, and also will want to keep track of the items in stock. The company also has a computer-based accounting system, a full-time accountant, and a low volume of transactions. This combination of factors eliminates the potential difficulties of maintaining a perpetual system.**

g. **Computation of profit margin on January 6 sales transaction:**

Gross profit	=	**Sales price - Cost of goods sold**
	=	**\$10,000 - \$6,100**
	=	**\$3,900**
Gross profit margin	=	**Dollar gross profit ÷ Sales revenue**
	=	**\$3,900 ÷ \$10,000**
	=	**39%**

PROBLEM 6.8A
CPI (concluded)

b.

General Journal

2008				
Jan	2	Inventory	24,250	
		Accounts Payable (Sharp)		24,250
		Purchased merchandise on account; terms, 3/10,		
		n/60. Net cost, $25,000, less 3%.		
	6	Accounts Receivable (Pace Corporation)	10,000	
		Sales		10,000
		Sale on account; terms, 5/10, n/90.		
	6	Cost of Goods Sold	6,100	
		Inventory		6,100
		To record the cost of merchandise sold to Pace		
		Corporation.		
c.		Computation of inventory at January 6:		
		Inventory at Dec. 31. 2007		$ 500,000
		Add: Merchandise purchased on Jan. 2		24,250
		Less: Cost of goods sold on Jan. 6		(6,100)
		Inventory at close of business on Jan. 6		$ 518,150
d.		Journal entries assuming use of periodic system:		
2008				
Jan	2	Purchases	24,250	
		Accounts Payable (Sharp)		24,250
		Purchased merchandise on account; terms, 3/10,		
		n/60. Net cost, $25,000, less 3%.		
	6	Accounts Receivable (Pace Corporation)	10,000	
		Sales		10,000
		Sale on account; terms, 5/10, n/90.		
e.		Computation of cost of goods sold:		
		Inventory (Dec. 31, 2007)		$ 500,000
		Add: Purchases		24,250
		Cost of goods available for sale		$ 524,250
		Less: Inventory (Jan. 6-per part c)		518,150
		Cost of goods sold		$ 6,100

SOLUTIONS TO PROBLEMS SET B

35 Minutes, Medium

PROBLEM 6.1B
BIG OAK LUMBER

a.

General Journal

Apr	15	Accounts Receivable	19,700	
		Sales		19,700
		Sold merchandise on account.		
	15	Cost of Good Sold	10,300	
		Inventory		10,300
		To record the cost of goods sold relating to the		
		sales of merchandise to Hard Hat Construction.		
	19	Inventory	3,700	
		Accounts Payable		3,700
		Purchased merchandise on credit.		
May	10	Cash	19,700	
		Accounts Receivable		19,700
		Collected accounts receivable.		
	19	Accounts Payable	3,700	
		Cash		3,700
		Paid account payable to supplier.		
	31	Cost of Goods Sold	2,500	
		Inventory		2,500
		To adjust inventory records to reflect the results		
		of the year-end physical count.		
		Inventory per accounting records	$ 116,500	
		Inventory per physical count	114,000	
		Adjustment for inventory shrinkage	$ 2,500	

b.

BIG OAK LUMBER
Partial Income Statement
For the Year Ended December 31, 20__

		Net sales		$ 1,422,000
		Cost of goods sold (1)		723,500
		Gross profit		$ 698,500
		(1) Cost of goods sold prior to adjustment at Dec. 31		$ 721,000
		Add: Shrinkage adjustment at Dec. 31		2,500
		Cost of goods sold (adjusted balance)		$ 723,500

PROBLEM 6.1B
BIG OAK LUMBER (concluded)

c. **Big Oak seems quite able to pass its extra transportation costs on to its customers and, in fact, enjoys a significant financial benefit from its remote location. The following data support these conclusions:**

	Big Oak Lumber	Industry Average	Difference
Annual sales ……………………………..	**$1,422,000**	**$1,000,000**	**$422,000**
Gross profit ………………………………	**698,500**	**220,000 (1)**	**478,500**
Gross profit rate …………………………	**49.1% (2)**	**22%**	**27.1%**

(1) $1,000,000 sales × 22% = $220,000

(2) $698,500 gross profit ÷ $1,422,000 net sales = 49.1%

Big Oak earned a gross profit rate of 49.1%, which is significantly higher than the industry average. Big Oak's sales were a little greater than the industry average, but it earned $478,500 more gross profit than the "average" store of its size. This higher gross profit was earned even though its cost of goods sold was $8,000 to $18,000 higher than the industry average because of the additional transportation charges.

To have a higher-than-average cost of goods sold and still earn a much larger-than-average amount of gross profit, Big Oak must be able to charge substantially higher sales prices than most hardware stores. Presumably, the company could not charge such prices in a highly competitive environment. Thus, the remote location appears to insulate it from competition and allow it to operate more profitably than hardware stores with nearby competitors.

15 Minutes, Easy

PROBLEM 6.2B
HARRY'S HABERDASHERY

a.

		HARRY'S HABERDASHERY		
		Income Statement		
		For the Year Ended December 31, 2007		
		Sales		$ 384,000
		Less: Sales returns and allowances		4,000
		Net sales		380,000
		Cost of goods sold		157,630
		Gross profit		222,370
		Other expenses:		
		Purchase discounts lost	$ 400	
		Utilities expense	7,000	
		Office supply expense	900	
		Depreciation expense: office equipment	4,700	
		Rent expense	10,000	
		Insurance expense	1,500	
		Salaries expense	150,000	174,500
		Income before income taxes expense		$ 47,870
		Income tax expense		13,900
		Net income		$ 33,970

b. Gross profit ÷ Net sales = gross profit margin

Using the figures from the income statement prepared in part a, the store's gross profit margin is computed as follows: $222,370 ÷ $380,000 = 59%

c. Sales returns and allowances amount to only 1% of the store's total sales. Thus, it appears that customers are relatively satisfied with their purchases ($4,000 ÷ $384,000 = 1%).

d. The use of the Purchase Discounts Lost account indicates that the store records purchases net of any purchase discounts. Had the store recorded purchases at their gross invoice amounts, this account would not be used, and Purchase Discounts Taken would have appeared in the adjusted trial balance instead.

e. The $5,000 of sales taxes payable appearing in the adjusted trial balance represents sales taxes collected by the store for the sales taxes imposed on its *customers* . When the store submits this amount to the proper tax authorities, the liability will be removed. Sales taxes are applicable only when merchandise is sold to the *final customer* ; thus, retail stores normally incur no sales taxes expense.

f. The operating cycle is the time required to purchase inventory, sell the inventory, and convert the receivable from the sale, if any, into cash. Cash, Accounts Receivable, and Merchandise Inventory are the accounts that comprise the store's operating cycle.

PROBLEM 6.3B
JILL'S DEPARTMENT STORES

			2006-2007	2005-2006
a.	**1.**	**Change in net sales…………………………**	**4.9% (1)**	**8.2% (2)**
	2.	**Change in net sales per square foot……….**	**(.4%) (3)**	**(3.2%) (4)**
	3.	**Change in comparable store sales…………**	**(2.9%) (5)**	**(3.6%) (6)**

(1) (\$9,240 - \$8,810) ÷ \$8,810 = 4.9%
(2) (\$8,810 - \$8,140) ÷ \$8,140 = 8.2%
(3) [(\$9,240 ÷ 6.0) - (\$8,810 ÷ 5.7)] ÷ (\$8,810 ÷ 5.7) = (.4%)
(4) [(\$8,810 ÷ 5.7) -(\$8,140 ÷ 5.1)] ÷ (\$8,140 ÷ 5.1) = (3.2%)
(5) (\$70.2 - \$72.3) ÷ \$72.3 = (2.9%)
(6) (\$72.3 - \$75.0) ÷ \$75.0 = (3.6%)

b. **While Jill's has increased its overall revenue from sales, several of the statistics indicate problems. Both sales per square foot of selling space and comparable store sales have declined. This indicates a downward trend in sales at existing stores. It is apparent that the increase in overall net sales must have resulted from adding new stores. As a result, management should reevaluate its marketing strategies.**

30 Minutes Medium

PROBLEM 6.4B
MARY'S TV

a.

General Journal				
Date				
(1)				
Mar.	6	Inventory	2,744	
		Accounts Payable (Whosa Industries)		2,744
		To record purchase of 8 TVs at net cost of $343		
		per unit ($350, less 2%).		
	11	Cash	1,200	
		Sales		1,200
		Sold 2 Whosa TVs for cash.		
	11	Cost of Goods Sold	686	
		Inventory		686
		To record cost of TVs sold.		
	16	Accounts Payable (Whosa Industries)	2,744	
		Cash		2,744
		Paid account within discount period.		
(2)				
Mar.	6	Inventory	2,800	
		Accounts Payable (Whosa Industries)		2,800
		To record purchase of 8 TVs at gross invoice price		
		price ($350 per unit).		
	11	Cash	1,200	
		Sales		1,200
		Sold 2 Whosa TVs for cash.		
	11	Cost of Goods Sold	700	
		Inventory		700
		To record cost of TVs sold.		
	16	Accounts Payable (Whosa Industries)	2,800	
		Cash		2,744
		Purchase Discounts Taken		56
		Paid account payable, less 2%		
b.				
(1)				
Apr.	6	Accounts Payable (Whosa Industries)	2,744	
		Purchase Discounts Lost	56	
		Cash		2,800
		Made payment after discount period had expired.		
(2)				
Apr.	6	Accounts Payable (Whosa Industries)	2,800	
		Cash		2,800
		Made payment after discount period had expired.		

PROBLEM 6.4B
MARY'S TV (concluded)

c. **The *net cost* method provides more useful information for evaluating the company's efficiency in paying its bills. This method clearly indicates the lowest price that the company may pay, and separately records any additional costs incurred as *purchase discounts lost*.**

Under the gross price method, the liability *is not* recorded at the lowest price at which it can be settled. Hence, management *is not made aware of* available discounts that were not taken.

30 Minutes Medium

PROBLEM 6.5B
HIP PANTS AND SLEEK

		General Journal		
a.		Journal entries by Hip Pants:		
Oct.	12	Accounts Receivable (Sleek)	18,000	
		Sales		18,000
		Sold merchandise on account; terms, 1/10, n/30.		
	12	Cost of Goods Sold	6,000	
		Inventory		6,000
		To record cost of merchandise sold (300 pr. X $20/pr.).		
	15	Delivery Expense	25	
		Cash		25
		Paid delivery charges on outbound shipment.		
	16	Sales Returns & Allowances	240	
		Accounts Receivable (Sleek)		240
		Customer returned merchandise (4 pr. X $60/pr.).		
	16	Inventory	80	
		Cost of Goods Sold		80
		Reduce cost of goods sold for cost of merchandise		
		returned (4 pr. X $20/pr.).		
	22	Cash	17,582.40	
		Sales Discount	177.60	
		Accounts Receivable (Sleek)		17,760
		Collected amount due, less return and less 1%		
		cash discount on remaining $17,760 balance		
		($17,760 x 1% = $177.60).		
b.		Journal entries by Sleek:		
Oct.	12	Inventory	17,820	
		Accounts Payable (Hip Pants)		17,820
		Purchased 300 pairs of pants; terms, 1/10, n/30.		
		Net cost, $59.40 per pair ($60, less 1%).		
	15	Transportation-in	25	
		Cash		25
		Paid transportation charge on inbound shipment.		
	16	Accounts Payable (Hip Pants)	237.60	
		Inventory		237.60
		Returned 4 pairs of pants to supplier. (Net cost,		
		$59.40 per pair x 4 pairs = $237.60		

PROBLEM 6.5B
HIP PANTS AND SLEEK (concluded)

General Journal				
Oct	22	Accounts Payable (Hip Pants)	17,582.40	
		Cash		17,582.40
		Paid within discount period balance owed to Hip		
		Pants ($17,820 - $237.60 = $17,582.40).		

c. **Yes. Sleek *should* take advantage of 1/10, n/30 purchase discounts, even if it must borrow money for a short period of time at an annual rate of 12%. By taking advantage of the discount, the company saves 1% by making payment 20 days early. At an annual rate of 12% per year, the bank charges only .66% interest over a 20 day period (12% x 20/365 = 0.66%). Thus, the cost of passing up the discount is greater than the cost of short-term**

PROBLEM 6.6B
QUEEN ENTERPRISES

a. **The easiest way for a student to solve this problem is to record the journal entries that the accounting clerk made and to compare them with the journal entries that should have been made.**

Entries Record by the Accounting Clerk

Jan. 7	**Inventory**	**4,900**	
	Cash		**4,900**
	Payment for furniture received on December 20th of prior year.		
Dec. 23	**No entry since no cash receipt or payment was involved.**		
Dec. 26	**No entry since no cash receipt or payment was involved.**		

Entries that Should Have Been Recorded by the Accounting Clerk

Jan. 7	**Accounts payable**	**4,900**	
	Cash		**4,900**
	Payment for furniture received on December 20th of prior year.		
Dec. 23	**Inventory**	**9,800**	
	Accounts payable		**9,800**
	Purchase of $10,000 of furniture net of the purchase discount.		
Dec. 26	**Accounts receivable**	**15,000**	
	Sales		**15,000**
	Record sale on account.		
Dec. 26	**Cost of goods sold**	**12,250**	
	Inventory		**12,250**
	Record cost of books sold.		

a.1. **Based on a comparison of the above entries, accounts receivable is understated by $15,000.**

a.2. **Inventory is overstated by $7,350 ($9,800 - $12,250 - $4,900).**

a.3. **Accounts payable is understated by $4,900 ($9,800 - $4,900).**

a.4. **Sales is understated by $15,000.**

a.5. **Cost of goods sold is understated by $12,250.**

b. **Net income is understated by $2,750 ($15,000 - $12,250).**

PROBLEM 6.6B
QUEEN ENTERPRISES (concluded)

c. **The journal entry to correct the accounting clerk's errors is (assuming that Queen's books have yet to be closed for the year).**

Accounts receivable	**15,000**	
Cost of goods sold	**12,250**	
Sales		**15,000**
Inventory		**7,350**
Accounts payable		**4,900**

d. **The journal entry to correct the accounting clerk's errors is (assuming that Queen's books have been closed for the year).**

Accounts receivable	**15,000**	
Inventory		**7,350**
Accounts payable		**4,900**
Retained earnings		**2,750**

e. **The journal entry to correct the accounting clerk's errors assuming that the ending inventory balance has been adjusted based on a physical inventory (and assuming that Queen's books have been closed for the year) is:**

Accounts receivable	**15,000**	
Accounts payable		**4,900**
Retained earnings		**10,100**

PROBLEM 6.7B
COMPUTER RESOURCES

a.

Sales	$	100,000
Cost of goods sold		(50,000)
Gross profit	$	50,000

b.

Cash collections	$	-
Cash disbursements		-
Gross profit	$	-

c. The difference between the $50,000 of gross profit under accrual accounting and the breakeven gross profit under a cash-basis system reflects the balances in the accounts receivable, inventory, and accounts payable for Genuine Accessories. The accounts receivable balance is $100,000. The inventory balance is $250,000 ($100,000 - $50,000 + $200,000). The accounts payable balance is $300,000 ($100,000 + $200,000).

Increases in operating current asset accounts (e.g., accounts receivable and inventory) result in cash-based metrics of income being below accrual income, whereas increases in operating current liability accounts (e.g., account payable) result in cash-based metrics of income being above accrual income. Therefore, Computer Resources moves from an accrual gross profit of $50,000 to a cash-based breakeven amount as follows:

$50,000 (accrual-based gross profit) - $100,000 (increase in AR) - $250,000 (increase in inventory) + $300,000 (increase in accounts payable) = $0 (cash-based gross profit).

d.

Inventory	125,000	
Revaluation of Inventory to Market Value		125,000
To revalue the ending inventory at market value.		

A retailer might determine the fair value of its ending inventory by reference to recent sales prices of inventory items, assuming that these sales took place reasonably close to year-end.

40 Minutes, Strong

PROBLEM 6.8B
SUI

Parts a, c, g, and h follow; parts b, d, e, and f are on the next page.

a. **The operating cycle of a merchandising company consists of purchasing merchandise, selling that merchandise to customers (often on account), and collecting the sales proceeds from these customers. The assets and liabilities involved in this cycle include cash, accounts receivable, and inventory.**

c. **In the *January 5* entry, the $38,800 debit to the Inventory control account should be allocated among and posted to the appropriate product accounts in the inventory subsidiary ledger. The information posted should include the cost and quantities of each type of merchandise purchased. In addition, the credit portion of this entry should be posted to the Double, Inc. account in SUI's accounts payable subsidiary ledger.**

In the first entry on *January 10*, the debit to the Accounts Receivable control account should be posted to the Air Corporation account in SUI's accounts receivable ledger.

In the final entry, the credit to the Inventory control account should be allocated among the thirty products sold and posted to the appropriate accounts in the inventory ledger.

g. **SUI probably would use a *perpetual* inventory system. The items in its inventory have a high per-unit cost. Therefore, management will want to know the costs of the individual products included in specific sales transactions, and also will want to keep track of the items in stock. The company also has a computer-based accounting system, a full-time accountant, and a low volume of transactions. This combination of factors eliminates the potential difficulties of maintaining a perpetual system.**

h. **Computation of profit margin on January 10 sales transaction:**

Gross profit	**=**	**Sales price - Cost of goods sold**
	=	**$28,000 - $10,000**
	=	**$18,000**
Gross profit margin	**=**	**Dollar gross profit ÷ Sales revenue**
	=	**$18,000 ÷ $28,000**
	=	**64.3%**

b.

General Journal

2008				
Jan	5	Inventory	38,800	
		Accounts Payable (Double)		38,800
		Purchased merchandise on account; terms, 3/10,		
		n/60, net cost, $40,000, less 3%.		
	10	Accounts Receivable (Air Corporation)	28,000	
		Sales		28,000
		Sale on account; terms, 5/10, n/90.		
	10	Cost of Goods Sold	10,000	
		Inventory		10,000
		To record the cost of merchandise sold to Air		
		Corporation.		
d.		Computation of inventory at January 10.		
		Inventory at Dec. 31, 2007		$ 500,000
		Add: Merchandise purchased on Jan. 5		38,800
		Less: Cost of goods sold on Jan. 10		(10,000)
		Inventory at close of business on Jan. 10		$ 528,800
e.		Journal entries assuming use of a periodic system		
2008				
Jan	5	Purchases	38,800	
		Accounts payable (Double)		38,800
		Purchased merchandise on account; terms, 3/10,		
		n/60. Net cost, $40,000, less 3%.		
	10	Accounts Receivable (Air Corporation)	28,000	
		Sales		28,000
		Sale on account; terms, 5/10, n/90.		
f.		Computation of cost of goods sold:		
		Inventory (Dec. 31, 2007)		$ 500,000
		Add: Purchases		38,800
		Cost of goods available for sale		$ 538,800
		Less: Inventory (Jan. 10--per part *d*)		528,800
		Cost of goods sold		$ 10,000

SOLUTIONS TO CRITICAL THINKING CASES

35 Minutes, Medium

CASE 6.1
SELECTING AN INVENTORY SYSTEM

a. **The Frontier Shop would probably use a *periodic* inventory system. Several factors support this conclusion. First, this is a small business that does not have a computerized accounting system. An antique cash register is not an electronic device that can automatically determine the cost of items sold. Thus, the only dollar amount recorded at the time of sale is the sales revenue. Also, the fact that the accounting records are maintained by a bookkeeper who comes in at the end of the month suggests a periodic inventory system, rather than a continuous updating of the inventory account. Finally, this business does not appear to need an inventory subsidiary ledger, as the owner is likely to be very knowledgeable as to how quickly various items are selling and the quantity of each item currently in stock.**

In summary, The Frontier Shop has no need for a perpetual inventory system and does not have the resources to maintain one.

b. **Although Allister's Corner is a small business with a manual accounting system, it probably would maintain a *perpetual* inventory system. The primary reason for using a perpetual system is the high unit cost of the paintings comprising the company's inventory. For purposes of internal control, management would want the accounting records to indicate the quantity, cost, and identity of the paintings in stock. Also, the low volume of sales transactions—three or four sales each week—makes the record-keeping burden of maintaining a perpetual system of virtually no consequence.**

c. **The publicly owned publishing company probably would use a *perpetual* inventory system for several reasons. First, in order to service its customers, the company needs to have the necessary quantities of specific textbooks at the appropriate warehouses and at the proper time. The need to carefully control the quantity and location of inventory on hand suggests the need for an inventory subsidiary ledger. Next, as a publicly owned corporation, this company must issue quarterly financial statements. The perpetual inventory system is better suited to the issuance of quarterly (or monthly) financial statements than is a periodic system.**

d. **The facts suggest that Toys-4-You uses a *perpetual* inventory system. Point-of-sale terminals can maintain a perpetual inventory system at little or no incremental cost. In fact, this is the principal reason for using point-of-sale terminals. Also, the fact that headquarters is provided with information about the weekly profitability of each store suggests the use of an accounting system that is capable of measuring the cost of goods sold prior to year-end.**

Finally, the size of Toys-4-You—86 retail stores—suggests a publicly owned corporation with quarterly reporting obligations.

CASE 6.1
SELECTING AN INVENTORY SYSTEM
(concluded)

e. An ice cream truck would use a *periodic* inventory system. Several factors support this conclusion. First, it would be impractical for an ice cream truck to utilize a perpetual system, as this would involve separately recording the cost of each ice cream bar and popsicle sold. Next, inventory is not material in this type of business. In the course of a month, the quantity of ice cream products purchased will be very close to the quantity sold; very little inventory remains on hand. Finally, a person operating an independent ice cream truck probably has no external reporting responsibilities other than the preparation of annual income tax returns. It is unlikely that the operators of such businesses would maintain sophisticated accounting systems.

f. Several factors suggest that TransComm would use a *perpetual* inventory system. For one, management needs to know precisely how many units are on hand at any time in order to know whether the company can fill the large sales orders it receives from customers. Next, the fact that the company sells only one product makes the operation of a perpetual inventory system relatively simple; the accountants must only keep track of the number of units purchased and sold. Finally, TransComm's accounting records are maintained on commercial accounting software. Virtually all software programs used in accounting for inventories are based upon perpetual inventory systems.

25 Minutes, Medium

CASE 6.2
A COST-BENEFIT ANALYSIS

a.

VILLAGE HARDWARE		
Partial Income Statement		
For the Year Ended December 31, 20__		
Net sales		$ 580,000
Cost of goods sold:		
Inventory, January 1	$ 58,000	
Purchases	297,250	
Cost of goods available for sale	$ 355,250	
Less: Inventory, December 31	49,300	
Cost of goods sold		305,950
Gross profit		$ 274,050
b. Loss from inventory "shrinkage" at cost:		
Cost of goods sold, per part a		$ 305,950
Less: Cost of goods sold excluding any shrinkage losses		
(net sales, $580,000 x 50%)		290,000
Inventory shrinkage losses for the year, at cost		$ 15,950
Inventory shrinkage losses for the year, at retail		
prices (cost, $15,950 x 200%)		$ 31,900

c. **The loss sustained by Village Hardware as a result of inventory shrinkage is the cost of the lost merchandise, *not its resale value.* Thus, hiring the security guard would *not* be a profitable strategy. The annual cost of the guard amounts to $21,600, while the potential savings is only $15,950.**

Furthermore, not all of the "shrinkage" loss necessarily stems from shoplifting. Other elements of "shrinkage" are breakage, spoilage, and employee theft. If the security guard could not eliminate these other types of losses, shrinkage would not be reduced to zero even after the guard was hired.

Group assignment:

No time estimate

CASE 6.3
GROUP ASSIGNMENT WITH BUSINESS COMMUNITY INVOLVEMENT

No specific solution is provided for this group assignment.

In this assignment, students are likely to encounter many variations in perpetual inventory systems. For example, some businesses may maintain perpetual records only in units, others may enter dollar amounts on a monthly basis, and still others may maintain perpetual records for use by management, but may use estimating techniques such as the *gross profit method* or the *retail method* in interim financial statements.

The textbook will discuss some of these variations in Chapter 8. At this point, however, we consider it useful for students to learn first-hand that accounting systems are tailored to meet the specific needs of the organization.

20 Minutes, Medium

CASE 6.4
MANIPULATING INCOME
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. Your first thought should probably be whether you want to work for someone who asks you to do something that is wrong in order to benefit himself. You should probably start by reasoning with your supervisor about why you think what he proposes is not a good thing, or the right thing, to do. One factor that should be considered is the potential for a criminal judgment against you and the potential that might have on your life, reputation, career, family etc. Another implication is what will happen in future years should you start down the "slippery slope" proposed by your supervisor. (See answer to part b.) Once you start doing things like your supervisor proposes, will you have to continue doing them, perhaps in greater proportions over time?

Ultimately, you are going to have to decide whether to take the high ground or the low ground. Assuming you decide on the former, and you have reasoned with your supervisor to no avail, you may need to discuss this with another person in your company. If you have a mentor or some other person of authority with whom you can confide, you may want to go to that person with your concerns. You may determine that your only option is to go to your supervisor's superior. Even if this means losing your job, you cannot afford to compromise your own reputation, or put yourself at risk of criminal charges, to help another person who is trying to artificially improve his own financial wellbeing. The behavior your supervisor exhibits will, at best, result only in short-tem gains and will ultimately be his downfall. You cannot afford to go down with him. If Albers, Inc. is a public company, it will be required to have a "hotline" where employees can confidentially report concerns regarding the company's accounting practices. You might want to avail yourself of the hotline in this situation.

b. There are several implications, other than integrity, which come into play in a situation such as the one described in this case. For example, an intentional overstatement of <u>ending</u> inventory for purposes of reducing cost of goods sold and increasing gross profit and net income will flow into the next accounting period as an overstatement of <u>beginning</u> inventory. An overstatement of beginning inventory in Year 2 has the opposite effect of what your supervisor is trying to accomplish in Year 1. Specifically, the Year 2 overstatement of beginning inventory will result in a higher cost of goods sold, low gross profit, and lower net income in Year 2.

One thing you need to consider before going down this path with your supervisor is what he is likely to ask you to do a year from now when the above situation is in place. Will he expect you to engage in an even greater overstatement of ending inventory to offset the carryover effect of last year's restatement, plus improve Year 2 performance over Year 1 performance? Will he come up with other schemes to improve the appearance of the company's performance that will require your cooperation to implement? Once you begin intentionally distorting financial numbers, you almost always must keep doing so, and often at more extreme levels, in order to accomplish your objective of obscuring the facts.

15 Minutes, Medium

CASE 6.5
CVS IS RIDING HIGH FOR NOW
BUSINESS WEEK

A third-party sale occurs when an insurance company (or government agency) is responsible for reimbursing a retail pharmacy for a customer's prescription medication. These third-party payers rarely reimburse the pharmacy the full price for medications purchased by those covered by prescription drug plans.

If the sales mix of CVS Corporation becomes more heavily comprised of these kinds of third-party transactions, its revenue growth will be constrained by the restrictive reimbursement terms characteristic of so many prescription drug plans. While the company's revenue may be constrained by these plans, its cost of goods sold will remain the same (or possibly increase). Should this happen, the company's gross profit margin will likely experience downward pressure.

25 Minutes, Easy

CASE 6.6
EXPLORING THE ANNUAL REPORT OF GAP, INC.
INTERNET

Note: **We cannot supply quantitative answers to this assignment as they are time sensitive. Our answers provide only general information about the requirements.**

a. **Financial information available at the company's home page includes annual reports, proxy statements, SEC filings, sales and earnings summaries, web casts, news releases, stock charts, analyst coverage, and more.**

b. **Information pertaining to the company's performance is found throughout its annual report in the following sections: (1) 10-Year Selected Financial Data, (2) Management's Discussion and Analysis, and (3) Consolidated Financial Statements.**

CHAPTER 7
FINANCIAL ASSETS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 7.1	**Real World: Westinghouse Electric** Cash and cash equivalents	1, 2	Analysis
B. Ex. 7.2	Bank reconciliations	2, 3	Analysis
B. Ex. 7.3	**Real World: Weis Markets** Mark-to-market adjustments	1, 4	Analysis, communication
B. Ex. 7.4	Accounting for marketable securities	1, 4	Analysis
B. Ex. 7.5	Uncollectible accounts - balance sheet approach	1, 5	Analysis
B. Ex. 7.6	Uncollectible accounts - Income statement approach	1, 5	Analysis
B. Ex. 7.7	**Real World: Adolph Coors Company and Anheuser-Busch Companies, Inc.** Analyzing accounts receivable	1, 5, 7	Analysis, judgment, communication
B. Ex. 7.8	Notes receivable and interest	6	Analysis
B. Ex. 7.9	**Real World: Albertsons, Inc. and Sprint Corporation** Doubtful accounts by industry	5, 7	Analysis, judgment, communication
B. Ex. 7.10	Analyzing accounts receivable	7	Analysis

Exercises	Topic	Learning Objectives	Skills
7.1	You as a student	3	Analysis, communication
7.2	**Real World: Apple Computer** Reporting financial assets	1, 2	Analysis
7.3	**Real World: White Electric Supply** Embezzling cash	2	Analysis, judgment
7.4	Protecting liquid assets	2	Analysis, communication
7.5	Bank reconciliation	3	Analysis
7.6	**Real World: Nexity Bank, Bank of America, Indy Mac Bank, Commerce Bank** Evaluating cash	1, 2	Analysis, communication
7.7	**Real World: Microsoft Corporation** Marketable securities	1, 4	Analysis, communication
7.8	Estimating uncollectible accounts	1, 5	Analysis

Exercises	Topic	Learning Objective	Skills
7.9	**Real World: Huffy Corp. and Pennsylvania Power Co.** Collection performance by industry	7	Analysis, communication
7.10	Effects of transactions	1–5	Analysis
7.11	Reporting financial assets	1	Analysis
7.12	Effects of account errors	1, 5, 7	Analysis
7.13	Sale of marketable securities	1, 4	Analysis
7.14	Notes and interest	6	Analysis
7.15	**Real World: The Home Depot, Inc.** Examining an annual report	1, 4, 5, 7	Analysis, communication

Problems Sets A, B	Topic	Learning Objective	Skills
7.1 A,B	Bank reconciliation	1, 3	Analysis, communication
7.2 A,B	Protecting cash	2, 3	Analysis, communication
7.3 A,B	Aging accounts receivable	1, 5	Analysis, communication
7.4 A,B	Uncollectible accounts	1, 5	Analysis, communication
7.5 A,B	**Real World: Footlocker, Inc., and Gap, Inc.** Accounting for marketable securities	1, 4	Analysis, communication
7.6 A,B	Notes receivable and interest	6	Analysis, communication
7.7 A,B	Short Comprehensive Problem	1, 3–7	Analysis, communication, judgment
7.8 A,B	Short Comprehensive Problem	1, 3–7	Analysis, communication, judgment

Critical Thinking Cases			
7.1	Accounting principles	1, 5, 6	Analysis, communication
7.2	Understanding cash flows	2, 5, 7	Analysis, communication, judgment
7.3	Window dressing (Ethics, fraud & corporate governance)	1–5, 7	Analysis, communication, judgment
7.4	Cash management *(Business Week)*	2	Analysis, communication
7.5	**Real World: Bankrate.com** Cash management (Internet)	1, 2	Analysis, communication, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

7.1 A,B	**Banner, Inc./Dodge, Inc.** A comprehensive bank reconciliation.	**25 Medium**
7.2 A,B	**Osage Farm Supply/Jason Chain Saws, Inc.** Students are to analyze a fraudulently prepared bank reconciliation to determine the amount of concealed embezzlement. Also calls for recommendations for improving internal control. A very challenging problem well suited to use as a group assignment.	**45 Strong**
7.3 A,B	**Super Star/Starlight** Computation of the amount required in the allowance for doubtful accounts based on an aging schedule of accounts receivable. Also requires journal entries for adjustment of the allowance account and for write-off of a worthless receivable.	**15 Medium**
7.4 A,B	**Wilcox Mills/Walc Factory** A problem designed to *dispel the misconception* that the allowance is equal to annual bad debt expense. Students are to summarize (in general journal entry form) transactions during the year that affect the allowance for doubtful accounts. Then they are to comment on the relative size of the year-end allowance in comparison to write-offs during the subsequent year.	**30 Medium**
7.5 A,B	**Weston Manufacturing Co./Westport Manufacturing Co.** A comprehensive problem on marketable securities. Includes recording gains and losses, the mark-to-market adjustment, and balance sheet presentation.	**40 Strong**
7.6 A,B	**Eastern Supply/Southern Supply** Briefly covers accounting for notes receivable, including accrual of interest, maturity, and default.	**20 Medium**
7.7 A,B	**Scooter Warehouse/Data Management, Inc.** A short comprehensive problem that integrates the various components of financial assets. Includes a bank reconciliation, cash equivalents, short-term investments, doubtful accounts, notes receivable, and interest revenue.	**20 Medium**
7.8 A,B	**Hendry Corporation/Ciavarella Corporation** A short comprehensive problem that integrates the various components of financial assets. Includes a bank reconciliation, cash equivalents, short-term investments, doubtful accounts, notes receivable, and interest revenue.	**40 Strong**

Critical Thinking Cases

7.1	**Accounting Principles** Accounting practices are described in four separate situations. Students are asked to determine whether there has been a violation of generally accepted accounting principles, to identify the principles involved, and to explain the nature of the violations.	**20 Medium**
7.2	**Rock, Inc.** An unstructured problem involving the effects of a major change in credit policy upon sales, cash receipts, turnover of accounts receivable, and uncollectible accounts. Good problem for classroom discussion.	**40 Strong**
7.3	**"Window Dressing"** **Ethics, Fraud & Corporate Governance** Students are to evaluate several proposals being considered by management for "improving" the year-end balance sheet. One issue is whether the company must comply with GAAP as it is not publicly owned. Involves both ethical and accounting issues.	**40 Strong**
7.4	**Cash Management** ***Business Week*** Students are asked to discuss the pros and cons of using cell phones to make credit purchases.	**10 Easy**
7.5	**Bankrate.com** **Internet** An Internet research problem that requires students to compare interest rates of various U.S. Treasury securities, CDs, and money market accounts.	**No time estimate** **Estimate, Medium**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. Receivables are created as a result of sales and are converted into cash as they are collected. Cash receipts that will not be needed in the near term are invested in marketable securities. Then, should cash needs exceed the cash on hand, some of the marketable securities may quickly be converted back into cash.

2. All financial assets appear in the balance sheet at their *current value*—that is, the amount of cash that the assets represent. For cash, current value is simply the face amount. But for marketable securities, current value means current *market* value. For receivables, current value means the collectible amount, which is called *net realizable* value (i.e., the amount of cash to be received).

3. *Cash equivalents* are very short-term investments that convert quickly into cash. Examples include money market funds, U.S. Treasury bills, certificates of deposit, and high-grade commercial paper. These items are considered so similar to cash that they often are combined with cash in the balance sheet. The first asset in the balance sheet then is called *Cash and cash equivalents.*

4. Lines of credit are *preapproved loans,* which the borrower may access simply by writing a check. A line of credit increases solvency, because it gives the holder immediate access to cash. Unused lines of credit generally are disclosed in the notes accompanying financial statements.

5. Yes, efficient management of cash includes more than preventing losses from fraud or theft. Efficient management of cash also includes policies that will (a) provide accurate accounting for all cash receipts, cash payments, and cash balances; (b) maintain a sufficient amount of cash to make all payments promptly as required; and (c) prevent unnecessarily large amounts of cash from being held idle in bank checking accounts that produce little or no revenue.

6. Cash generates little or no revenue. In fact, federal laws prohibit banks from paying interest on corporate checking accounts. Therefore, cash not needed in the near future should be invested to earn some form of revenue. Short-term, liquid investments include cash equivalents and marketable securities. If cash is available on a long-term basis, it usually can be used to finance growth or repay long-term debt. If it cannot be used efficiently in the business, it should be distributed to the company's owners.

7. **a.** Separate the functions of handling cash receipts from maintenance of (or access to) the accounting records.
b. Prepare a cash budget so that departmental cash receipts can be compared with expected amounts.
c. Prepare an immediate record (or control listing) of all cash receipts.
d. Deposit cash receipts in the bank on a daily basis.
e. Reconcile bank statements to determine that recorded cash receipts reached the bank.

8. (a) Outstanding checks, and (b) items collected for the depositor by the bank.

9. A *cash budget* is a forecast of future cash receipts and cash payments. By comparing actual cash flows with the budgeted amounts, management has a basis for evaluating the reasonableness of the actual results. Cash budgets typically are prepared for each department or other area of managerial responsibility. In this way, the budgets provide a basis for evaluating the performance of individual managers.

10. Marketable securities are less liquid than cash equivalents, primarily due to management's intent with regard to converting them to cash. They are usually presented separate from cash and cash equivalents in the balance sheet.

11. For each type of security owned the marketable securities subsidiary ledger shows the total cost, number of units (shares or bonds) owned, and cost per unit. The record assists the investor in keeping track of the securities owned, of interest and dividends received, and in computing the gain or loss resulting from sales of specific securities.

12. Mark-to-market is the process of adjusting the balance sheet valuation of investments in marketable securities to *current market value* at each balance sheet date. This adjustment affects only the balance sheet. The offsetting entry is to an owners' equity account sometimes entitled Unrealized Holding Gains (or Losses) on Investments.

13. The account Unrealized Holding Gains (or Losses) on Investments represents the *difference* between the cost of marketable securities owned and their current market value. In essence, this is the amount of gain or loss that would be realized if the securities were sold today. The amount of unrealized gain or loss appears in the owners' equity section of the balance sheet. An unrealized gain increases total owners' equity, and an unrealized loss decreases owners' equity.

14. Uncollectible accounts expense is associated with the revenue resulting from making credit sales to customers who do not pay their bills. The matching principle states that revenue should be offset with all of the expenses incurred in producing that revenue. Therefore, the expense of an uncollectible account should be recognized in the *same accounting period as the credit sale.*

At the time of a credit sale, we do not know that the resulting account receivable will prove to be uncollectible. This determination usually is made only after months of unsuccessful collection effort. Therefore, if the expense of uncollectible accounts is to be recognized in the same period as the related sales revenue, this expense *must be estimated.*

15. The *balance sheet approach* to estimating uncollectible accounts means aging the accounts receivable on hand at year-end and estimating the uncollectible portion of these receivables. The Allowance for Doubtful Accounts is then adjusted by the amount necessary to make it equal to the estimated uncollectible amount contained in the receivables.

The *income statement approach* to estimating uncollectible accounts means determining the average percentage relationship of uncollectible accounts expense to the year's net sales on credit. Ordinarily, no consideration is given to the existing balance in the allowance account. If the percentage used is valid, the allowance account will be subject to fluctuations in the short run but will neither build up to unreasonable size nor become exhausted.

16. The *direct write-off method* does not require estimates of uncollectible accounts expense or use a valuation allowance. When individual accounts receivable are determined to be uncollectible, they are written off by debiting Uncollectible Accounts Expense. This method (in contrast to the *allowance method*) does not attempt to assign the expense from uncollectible accounts to the accounting period in which the uncollectible receivables originated, and therefore does not match related revenue and expenses.

17. No; companies are *not* required to use the same method of accounting for uncollectible accounts in their financial statements and in their income tax returns. In fact, tax regulations require use of the direct write-off method in income tax returns. In financial statements, however, an allowance method generally is considered preferable and is required for compliance with generally accepted accounting principles. Exceptions may be made due to the concept of materiality.

18. The advantages of making credit sales only to customers who use nationally recognized credit cards are that this policy: (1) eliminates all the work associated with maintaining records of accounts receivable from individual customers, billing customers, and collection procedures; (2) provides cash almost immediately from credit sales; (3) eliminates the risk of uncollectible accounts; (4) eliminates the need to investigate a customer's credit before making a credit sale; and (5) does not restrict sales by excluding the large number of shoppers who prefer to use these credit cards for purchases.

19. Alta Mine Company apparently has not benefited from the new policy of honoring nationally known credit cards. Since all previous sales were for cash, the restaurant has not had problems with accounts receivable or uncollectible accounts. The only possible benefit for Alta Mine Company from honoring credit cards would be an increase in sales, and this did not occur. Since former cash customers have begun using the credit cards, Alta Mine Company is actually having to wait longer to receive cash from sales and is having to pay a discount to the credit card company.

20. The accounts receivable turnover rate is computed by dividing annual net sales by the average amount of accounts receivable throughout the year. This ratio indicates the number of *times* during the year that the average amount of accounts receivable is collected. Thus, dividing 365 days by the accounts receivable turnover rate indicates the number of *days* required (on average) for the company to collect its average accounts receivable.

These computations are of interest to short-term creditors because they indicate the *liquidity* of the company's accounts receivable—that is, how quickly this asset is converted into cash.

21. The annual audit of a company by a CPA firm includes the confirmation of receivables by direct communication with the debtors. The debtors (customers) are asked to respond directly to the CPA firm, confirming the amount and due date of the accounts being confirmed. Thus, documentary evidence is gathered to prove that the customers actually exist and that they agree with the terms stated. The CPA firm will also study the client's internal controls relating to receivables, evaluate the credit ratings of major debtors, and consider the adequacy of the allowance for doubtful accounts.

22. **a.** In a multiple-step income statement, the loss from a sale of marketable securities reduces net income and is classified as a nonoperating item. In a statement of cash flows, the entire proceeds from the sale are shown as a cash receipt from investing activities.

b. The adjusting entry to create or increase the allowance for doubtful accounts involves the recognition of an expense. This expense (uncollectible accounts expense) appears as a selling expense in a multiple-step income statement. But this adjusting entry, like all adjusting entries, involves no cash receipts or cash payments. Therefore, it has no effect upon cash flows.

c. Writing off an account receivable against the allowance does not affect income or cash flows.

d. The adjusting entry to increase the balance sheet valuation of marketable securities affects only the balance sheet. No cash flows are involved, and the unrealized gain appears in the stockholders' equity section of the balance sheet, not in the income statement.

23. Changes in the market value of securities owned do not affect the investor's taxable income. For income tax purposes, gains on investments are recognized only when the investments are *sold* .

24. **a.** Maturity value = $10,900 (interest = $10,000 x .09 x 1 = $900.)
Maturity date = July 1, 2008 (365 days later, but the counting starts on July 2).

b. Maturity value = $20,400 (interest = $20,000 x .08 x 90/360 = $400.)
Maturity date = June 9, (20 days in March, 30 days in April, 31 days in May, leaves 9 days in June).

SOLUTIONS TO BRIEF EXERCISES

B.Ex.7.1 a. **Cash equivalents are usually short-term debt securities (e.g., U.S. Treasury bills, high-grade commercial paper, etc.). This appears to be true for Westinghouse Electric, as the footnote specifically mentions that all cash equivalents have a *maturity date* of three months or less (equity securities have no maturity date).**

b. **The statement referring to the company's limited credit exposure to any one financial institution means simply that Westinghouse has not put "all of its eggs in any one basket." In short, it has spread any risk associated with cash equivalents across numerous financial institutions that issue these short-term securities.**

c. **The $42 million designated as restricted cash and cash equivalents is not available to meet the normal operating needs of the company. The amount may be reserved for a specific purpose or may represent a *compensating balance* as a condition of a bank loan or some other credit agreement.**

B.Ex.7.2 a.

Cash balance per general ledger……………………………………	**$**	**21,749**
Less: Bank service charge…………………………………………..		**(200)**
NSF check from Susque Company………………………….		**(3,000)**
Error corrections, office supplies…………………………..		**(549)**
Adjusted cash balance, December 31……………………………….	**$**	**18,000**

Cash balance per bank statement…………………………………	**$**	**22,000**
Add: Deposits in transit…………………………………………….		**5,000**
Less: Outstanding checks………………………………………….		**(9,000)**
Adjusted cash balance, December 31……………………………..	**$**	**18,000**

b.

Adjusted cash balance, December 31 (from part a.)……………..	**$**	**18,000**
Cash equivalents: Money market account……………………….		**60,000**
Cash and cash equivalents, December 31………………………..	**$**	**78,000**

Note: **Stocks are never considered cash equivalents and commercial paper can be considered cash equivalents only when durations are 90 days or less.**

c.

Bank Service Charges…………………………………	**200**	
Accounts Receivable……………………………………	**3,000**	
Office Supplies…………………………………………	**549**	
Cash……………………………………………………………		**3,749**

To record bank service charges, to reclassify a NSF check as an account receivable, and to correct an error in the recording of office supplies.

B.Ex.7.3 **a.** **Weis's unrealized gain on investments is the difference between the cost of these investments and their current market values. In essence, it is the amount of gain that would be realized if the investments were sold today. But the term "unrealized" indicates that this gain has not been finalized through an actual sale of the investments. Therefore, its amount will change as market values fluctuate.**

b. **The $14 million unrealized gain increases the asset amount and also appears in an account in Weis's stockholders' equity section of its balance sheet. The recognition of this gain does <u>not</u> involve any cash flow.**

c. **Weis's unrealized gain is *not* included in the computation of taxable income. For income tax purposes, losses and gains on investments are reported in the period in which the investments are *sold.***

d. **Weis's short-term creditors are primarily interest in the company's current debt-paying ability. From this perspective, mark-to-market should enhance the usefulness of the balance sheet by showing the amount of liquid resources that would be available if the marketable securities were sold.**

B. Ex. 7.4

a.	**Dec. 4**	**Marketable Securities……………………….**	**30,000**	
		Cash………………………………….		**30,000**
		To record the purchase of marketable securities.		
b.	**Dec. 18**	**Cash……………………………………….**	**10,000**	
		Marketable Securities………………		**7,000**
		Gain on Sale of Investments………..		**3,000**
		To record the sale of marketable securities at a gain.		
c.	**Dec. 18**	**Cash………………………………………**	**5,000**	
		Loss on Sale of Investments………………	**1,000**	
		Marketable Securities………………		**6,000**
		To record the sale of marketable securities at a loss.		
d.	**Dec. 31**	**Marketable Securities……………………….**	**3,000**	
		Unrealized Holding Gain on Investments		**3,000**
		To adjust the balance sheet valuation of marketable securities from their cost ($30,000 - $7,000 - $6,000 = $17,000) to their current market value of $20,000.		

B.Ex.7.5 **a.**

Uncollectible Accounts Expense…………………	**12,000**	
Allowance for Doubtful Accounts		**12,000**

To record uncollectible accounts expense ($13,400 - $1,400 credit balance = $12,000).

b.

Uncollectible Accounts Expense…………………	**15,000**	
Allowance for Doubtful Accounts		**15,000**

To record uncollectible accounts expense ($13,400 + $1,600 debit balance = $15,000).

Computations:

Current	**$60,000 x 2% =**	**$ 1,200**
Past due 1-30 days	**40,000 x 4% =**	**1,600**
Past due 31-60 days	**25,000 x 16% =**	**4,000**
Past due 61-90 days	**12,000 x 40% =**	**4,800**
Past due over 90 days	**2,000 x 90% =**	**1,800**
Required allowance for doubtful accounts balance		**$13,400 credit**

B.Ex.7.6

Ending net realizable value of accounts receivable………………	**$ 6,000,000**

Computations:

Accounts Receivable (beginning balance)…………………………	**$ 5,000,000**
Add: Credit sales for the period……………………………………	**9,000,000**
Less: Accounts receivable written-off………………………………	**(100,000)**
Accounts receivable collected………………………………	**(7,835,000)**
Accounts Receivable (ending balance)……………………………..	**$ 6,065,000**

Allowance for Doubtful Accounts (beginning balance*)…………	**$ 75,000**
Add: Uncollectible accounts expense ($9 million x 1%)…………	**90,000**
Less: Accounts receivable written-off……………………………..	**(100,000)**
Allowance for Doubtful Accounts (ending balance)………………	**$ 65,000**

*** $5,000,000 - $4,925,000 = $75,000 beginning balance in the Allowance for Doubtful Accounts.**

Ending net realizable value ($6,065,000 - $65,000)……………	**$ 6,000,000**

B.Ex. 7.7 **a.** **Accounts receivable turnover rate (net sales ÷ average accounts receivable):**

***Adolph Coors*: $2,842 ÷ $114 = 25 times**

***Anheuser-Busch*: $12,262 ÷ $615 = 20 times**

b. **Accounts receivable days outstanding (365 days ÷ accounts receivable turnover rate):**

***Adolph Coors*: 365 days ÷ 25 times = 15 days**

***Anheuser-Busch*: 365 days ÷ 20 times = 18 days**

c. **Both of these companies have very liquid accounts receivable – that is, their receivables convert quickly into cash. However, the accounts receivable of Adolph Coors are even more liquid than those of Anheuser-Busch. Adolph Coors, on average, collects on its outstanding accounts 3 days faster than Anheuser-Busch (18 days - 15 days).**

B.Ex. 7.8

a.	**Sept.**	**1**	**Notes Receivable**	**22,000**	
			Accounts Receivable		**22,000**
			To record receipt of a 9-month, 12% note receivable in settlement of the account receivable of Herbal Innovations.		
b.	**Dec.**	**31**	**Interest Receivable**	**880**	
			Interest Revenue		**880**
			To recognize 4 months' interest on note from Herbal Innovations ($22,000 × 12% × 4⁄ 12 = $880).		
c.	**May**	**31**	**Cash**	**23,980**	
			Notes Receivable		**22,000**
			Interest Receivable		**880**
			Interest Revenue		**1,100**
			To record collection of principal and interest on 12% note from Herbal Innovations. Interest revenue is computed as $22,000 × 12% × 5⁄ 12.		

B.Ex. 7.9 **All sales by long distance carriers, such as Sprint Corporation, are made on account. In contrast, the majority of sales made by grocery chains, such as Albertsons, are *cash sales* . Thus, one would expect accounts receivable, expressed as a percentage of net sales, to be larger for Spring than it is for Albertsons (14.2% versus 1.4%).**

Sales made on account by grocery chains are often to institutional customers (e.g., restaurants, college cafeterias, Boy Scout Camps, etc.). Long distance carriers, on the other hand, generate a large volume of credit sales from individuals. Generally speaking, individuals pose a greater credit risk than institutional customers. Therefore, it is not surprising that the allowance for doubtful accounts, expressed as a percentage of net sales, is nearly 17 times greater for Spring than it is for Albertsons (1.5% versus 0.09%).

B.Ex. 7.10 **a.** **$1,500,000 ÷ $125,000 = 12 times**

b. **365 days ÷ 12 times turnover rate = 30.4 days**

SOLUTIONS TO EXERCISES

Ex. 7.1 a.

Balance per bank statement at September 30 ……………………….	**$**	**3,400**
Add: Deposit made by your parents on October 2 …………………..		**2,400**
	$	**5,800**
Deduct outstanding checks:		
#203 University tuition ……………………………………………..		**1,500**
#205 University bookstore …………………………………………		**350**
#208 Rocco's pizza ……………………………………………………		**25**
#210 Stereo purchase …………………………………………………		**425**
#211 October apartment rent …………………………………….		**500**
Adjusted cash balance …………………………………………………	**$**	**3,000**
Balance per your checkbook (including $2,400.00 deposit)	**$**	**3,001**
Add: Interest earned in September		**4**
	$	**3,005**
Deduct bank's service charge		**5**
Adjusted cash balance (as above)	**$**	**3,000**

b. **As shown above, your correct current checkbook balance is *$3,000.* Prior to adjusting your records, neither your checkbook nor your bank statement report this balance because neither contains complete information about your account activity during the month.**

Ex. 7.2 a. **Financial assets are cash and other assets that will convert directly into known amounts of cash.**

b. **Cash and cash equivalents are reported in the balance sheet at face value. Marketable securities are reported at market value, whereas accounts receivable are reported at net realizable value. The common goal is to report these assets at their *current value* —that is, the amount of cash that each asset represents.**

c. **Companies hold marketable securities because these assets, unlike corporate checking accounts, have the potential to generate income through interest and capital appreciation. The reason companies hold accounts receivable is different. Most companies must be willing to make sales on account (as opposed to only cash sales) in order to maximize their income potential. Thus, they must be willing to hold some of their resources in the form of accounts receivable.**

d. **Cash equivalents are safe and highly liquid investments that convert to cash within 90 days of acquisition. These investments often include certificates of deposits (CDs), U.S. Treasury bills, and money market accounts.**

e. **Apple Computer's accounts receivable, in total, amount to $1.017 billion. Of this amount, however, the company estimates that $64 million will not be collected. Thus, the company reports receivables at a net realizable value of $953 million in its balance sheet ($1.017 billion - $64 million).**

Ex. 7.3 a. There were several controls lacking at White Electric Supply which made it possible for the bookkeeper to embezzle nearly $416,000 in less than five years. First, not only did the bookkeeper prepare the company's bank reconciliation each month, but she also had complete control over all cash receipts and disbursements. These duties must be segregated for adequate protection against theft. Second, the company had no inventory control system in place. Thus, it went undetected by management when the check register consistently showed inventory purchase amounts in excess of actual inventory received. Finally, because White Electric Supply was not a publicly owned corporation, an independent audit was not required. As a result, management never considered conducting an independent review of the company's financial records and control systems.

b. Employee theft is *never* ethical, even if it is committed to pay for medical bills. It is also unethical for employees to "borrow" funds from their employers without formal permission (even if one has the "intent" of eventually paying back the full amount).

Note to instructor: **The White Electric Supply example is one of several "real world" cases documented in a video entitled, *Red Flags: What Every Manager Should Know About Crime.* The video is produced by The Institute for Financial Crime Prevention, 716 West Avenue, Austin, TX 78701.**

Ex. 7.4 a. The fraudulent actions by D. J. Fletcher would not cause the general ledger to be out of balance, nor would these actions prevent the subsidiary ledger for accounts receivable from agreeing with the control account. Equal debits and credits have been posted for each transaction recorded.

b. In the income statement, the Sales Returns and Allowances account would be overstated by $3,000; hence net sales would be understated by $3,000. Net income would also be understated by $3,000.

In the balance sheet, the assets would be understated because the company has an unrecorded (and unasserted) claim against Fletcher for $3,000. Thus, understatement of assets is offset by an understatement of owners' equity by $3,000.

If Bluestem Products bonds its employees, it may be able to collect the $3,000 from the bonding company if the loss is discovered and Fletcher is unable to make restitution.

c. (1) Cash receipts should be deposited daily in the bank. The $3,000 of currency stolen by Fletcher represented the larger part of three days' receipts from over-the- counter cash collections.

(2) The function of handling cash should be separate from the maintenance of accounting records. Fletcher apparently has access to the cash receipts, to incoming mail, to the general journal, and to the general and subsidiary ledgers.

(3) The employee who opens the mail should prepare a list of amounts received. One copy of the list should be sent to the accounting department to record the collections. Another copy should be sent with the checks to the cashier who should deposit each day's cash collections.

(4) The total of each day's cash receipts recorded by the accounting department should be compared with the amount of the daily bank deposit by the cashier.

Note to instructor: **The exercise calls for only three specific actions to strengthen internal control. The above list of four is not exhaustive; others could be cited.**

Ex 7.5

a.

Balance per bank statement		**$**	**15,200**
Add: Undeposited receipts of December 31			**10,000**
		$	**25,200**
Less: Outstanding checks			
No. 620	**$ 1,000**		
630	**3,000**		
641	**4,500**		**8,500**
Adjusted cash balance		**$**	**16,700**
Balance per depositor's records		**$**	**17,500**
Less: Service charges	**$ 25**		
Jane Jones check returned NSF	**775**		**800**
Adjusted cash balance, as above		**$**	**16,700**

b.

Bank Service Charges	**25**	
Accounts Receivable (Jane Jones)	**775**	
Cash		**800**

To record bank service charge for December and NSF check returned by bank.

c. **The $25 service charge most likely resulted from the $775 check drawn by Jane Jones and marked NSF. Banks normally charge between $5 and $25 for each NSF check processed. This fee is often added to the balance of the offending customer's account receivable.**

Ex. 7.6 **If the company is certain it will not need *any* of the $100,000 in the form of *cash* for *at least* 90 days, putting the entire amount in Commerce Bank's 90-day CD may be its best choice. After all, this investment's 2.3% interest rate is the highest among the four alternatives, and it's FDIC insured. If, however, the company is uncertain about its future cash needs, the risk of penalty associated with liquidating the CD may offset its slightly higher interest rate.**

Management may wish to consider investing a portion of the $100,000, say $50,000, in the 2.1% IndyMac Bank CD. The remaining $50,000 could be invested in the Bank of America money market account at 2.0%. This option would offer the company flexibility, should its cash needs change prior to the CD's maturity date. It would also give the company FDIC coverage on the portion invested in the CD. If it decides to put more than $50,000, but less than $100,000, in the IndyMac Bank CD, it would have to invest the remainder in the Nexity Bank money market account.

The company must also keep in mind that the interest rates on the CDs are guaranteed so long as they are held for 90 days. The rates on the two money market accounts may fluctuate slightly, either up or down.

Ex. 7.7

a. Marketable securities are either equity or debt instruments that are *readily marketable* at quoted market prices. They often consist of investments in the capital stock issued by large, publicly traded, corporations. Marketable securities are financial assets because they are convertible directly into known amounts of cash at quoted market prices.

b. Cash generates little or no revenue. Marketable securities, on the other hand, produce revenue in the form of dividends, interest, and perhaps increases in their market values over time. For a company like Microsoft, revenue from short-term investments represents billions of dollars each year. Of course, investments in marketable securities are of higher risk than investments in lower yielding cash equivalents.

c. Investments in marketable securities appear in the investor's balance sheet at their *current market value.*

d. (1) The valuation of marketable securities at market value *is* a departure from the cost principle. Cost is often disclosed in the footnotes to the financial statements, but it does not serve as the basis for valuation.

(2) Valuation at market value is *not* a departure from the principle of objectivity. The quotation of up-to-date market prices enables companies to measure market values with considerable objectivity.

e. Mark-to-market benefits users of financial statements by showing marketable securities at the amount of cash those securities represent under current market conditions. Current market values are far more relevant to the users of financial statements than what was paid for the securities when they were purchased.

Ex. 7.8

a.

Uncollectible Accounts Expense	**200,000**	
Allowance for Doubtful Accounts		**200,000**

To record estimated uncollectible accounts expense at 2.5% of net credit sales ($8,000,000 x 2.5% = $200,000).

b.

Uncollectible Accounts Expense	**155,000**	
Allowance for Doubtful Accounts		**155,000**

To increase balance in allowance account to required $84,000:

Credit balance at beginning of year	**$ 25,000**
Write-offs during year	**(96,000)**
Temporary debit balance	**$ 71,000**
Required year-end credit balance	**84,000**
Required adjustment for year	**$ 155,000**

c.

Uncollectible Accounts Expense	**96,000**	
Accounts Receivable		**96,000**

To record as uncollectible expense only those accounts determined during the year to be uncollectible.

d. **Adjusting the balance in the Allowance for Doubtful Accounts account based upon the aging schedule will provide to investors and creditors the most accurate assessment of the company's liquidity. This method is the *only* approach to take into consideration the underlying declining probability of collecting outstanding accounts as they become increasingly past due.**

Ex. 7.9

a. **Accounts receivable turnover rate (net sales ÷ average accounts receivable):**
***Huffy Corporation*: $372,896 ÷ $70,892 = 5.3 times**
***Pennsylvania Power Company*: $7,078,000 ÷ $296,548 = 23.9 times**

b. **Accounts receivable days outstanding (365 days ÷ accounts receivable turnover rate):**
***Huffy Corporation*: 365 days ÷ 5.3 times = 69 days**
***Pennsylvania Power Company*: 365 days ÷ 23.9 times = 15 days**

c. **The reason it takes Huffy 54 days longer than PPC to collect its receivables is due, in large part, to industry characteristics of each company. Customers of public utilities have a tendency to pay their bills quickly to avoid having bad credit ratings and to keep from having their electricity turned off. Huffy's customers, on the other hand, are primarily large retailers. These businesses are notorious for making delayed payments to their suppliers, and often do so *without* penalty. How do they get away with it? In Huffy's case, a relatively small number of retailing giants account for more than 90% of the company's total revenue.**

Ex. 7.10

Transaction	Total Assets	Net Income	Net Cash Flow from Operating Activities	Net Cash Flow (from Any Source)
a.	NE	NE	NE	D*
b.	NE	NE	I	I
c.	NE	D	NE	I*
d.	NE	NE	NE	NE
e.	I	I	I	I
f.	I	NE	NE	NE

***Cash payment or receipt is classified as an *investing* activity.**

Ex. 7.11

a. **Cash equivalents normally are *not* shown separately in financial statements. Rather, they are combined with other types of cash and reported under the caption, "Cash and Cash Equivalents." A note to the statements often shows the breakdown of this asset category.**

b. **Cash earmarked for a special purpose is not available to pay current liabilities and, therefore, should be separated from cash and cash equivalents. This fund should be listed under the caption "Investments and Restricted Funds" in the balance sheet.**

c. **Compensating balances are included in the amount of cash listed in the balance sheet, and the total amount of these balances should be disclosed in notes accompanying the statements.**

d. **The difference between the cost and current market value of securities owned is shown in the balance sheet as an element of stockholders' equity. The account is entitled, "Unrealized Holding Gain (or Loss) on Investments." Unrealized gains and losses are *not* shown in the income statement.**

e. **The allowance for doubtful accounts is a *contra-asset* account. It reduces the amount shown for accounts receivable in the balance sheet.**

f. **The accounts receivable turnover rate is equal to net sales divided by average accounts receivable. The rate itself does not appear in financial statements, but the information needed to compute it does.**

g. **Realized gains and losses on investments sold during the year are reported in the income statement. If the income statement is prepared in a multiple-step format, these gains and losses are classified as nonoperating activities, and appear after the determination of income from operations.**

h. **Transfers between cash and cash equivalents are not reported in financial statements. For financial statement purposes, cash and cash equivalents are regarded as a single type of financial asset.**

i. **Proceeds from sales of marketable securities are shown in the statement of cash flows as cash receipts from investing activities.**

Ex. 7.12

Transaction	Gross Profit	Quick Ratio	Receivables Turnover Rate	Net Income	Retained Earnings	Working Capital
a.	U	NE	U	NE	NE	NE
b.	NE	U	O	U	U	U
c.	O	O	U	O	O	O

Ex. 7.13 a. The amount of unrealized holding gain included in the securities' current market value will appear as an element of stockholders' equity. Also, the securities will appear in the balance sheet at current market value, with their cost disclosed as supplemental information.

b. As of December 31, 2007, McGoun Industries still owns the marketable securities. Therefore, it has not yet paid any income taxes on the increase in the securities' value. Unrealized gains on investments are not subject to income taxes. Taxes are owed only in the year in which the gains are *realized* through the sale of investments.

c. Jan.	**4**	**Cash ……………………………………………**	**260,000**	
		Marketable Securities …………………		**90,000**
		Gain on Sale of Investments …………		**170,000**
		To record sale of investments at a price above cost.		

Note to instructor: **If no other marketable securities were purchased during the month, an adjusting entry is needed at the end of January which includes a debit to Unrealized Holding Gain and a credit to Marketable Securities in the amount of $170,000.**

d. The sale of securities on January 4, 2008, will increase McGoun's taxable income for that year by $170,000, the amount of the gain. As the company pays income taxes at the rate of 30% on capital gains, 2008 income taxes will be increased by $51,000 ($170,000 capital gain × 30% tax rate).

Ex. 7.14

a.

2007			
Aug. 1			
	1. Notes Receivable	**36,000**	
	Accounts Receivable (Dusty Roads)		**36,000**
	Accepted a six-month, 9% note receivable in settlement of an account receivable on August 1, 2007.		
Dec. 31			
	2. Interest Receivable	**1,350**	
	Interest Revenue		**1,350**
	To record accrued interest earned from August through December: $36,000 × 9% × 5/12 = $1,350.		
2008			
Jan. 31			
	3. Cash	**37,620**	
	Notes Receivable		**36,000**
	Interest Receivable		**1,350**
	Interest Revenue		**270**
	To record collection of six-month note plus interest from Dusty Roads. Total interest amounts to $1,620 ($36,000 × 9% × ½), of which $270 was earned in 2008.		
2008			
Jan. 31			
	4. Accounts Receivable (Dusty Roads)	**37,620**	
	Notes Receivable		**36,000**
	Interest Receivable		**1,350**
	Interest Revenue		**270**
	To record default by Dusty Roads on six-month note receivable.		

b.

Transaction	Revenue	-	Expenses	=	Net Income	Assets	=	Liabilities	+	Equity
1.	NE		NE		NE	NE		NE		NE
2.	I		NE		I	I		NE		I
3.	I		NE		I	I		NE		I
4.	I		NE		I	I		NE		I

Ex. 7.15 **a.** **Financial assets = $3.203 billion**

b. **The company reports $14 million in short-term investments. Unrealized gains and losses are reported in the stockholders' equity section of its balance sheet as Accumulated Other Comprehensive Income (Loss).**

c. **The company's allowance for uncollectible accounts (referred to in the footnotes as its "valuation reserve") was not considered material and was therefore treated as zero.**

d.

Sales	**$81.511 billion**
÷ Average accounts receivable	**1.958 billion**
Accounts receivable turnover	**42 times**
Days in a year	**365 days**
÷ Accounts receivable turnover	**42 times**
Average days outstanding (rounded)	**9 days**

*** Computation of average accounts receivable:**

Accounts receivable 1/30/05	**$1.499 billion**
Accounts receivable 1/29/06	**$2.396 billion**
	$3.895 billion
	÷ 2
	$1.958 billion

SOLUTIONS TO PROBLEMS SET A

25 Minutes, Medium

PROBLEM 7.1A
BANNER, INC.

a.

BANNER, INC.			
Bank Reconciliation			
July 31			
Balance per bank statement, July 31			$ 114,828
Add: Deposit in transit			16,000
			$ 130,828
Deduct: Outstanding checks			
no. 811		$ 314	
no. 814		625	
no. 823		175	1,114
Adjusted cash balance			$ 129,714
Balance per accounting records, July 31			$ 125,568
Add: Note receivable collected by bank		$ 4,000	
Check no. 821 for office equipment:			
Recorded as	$ 915		
Actual amount	519	396	4,396
			$ 129,964
Deduct: Service charges		$ 50	
NSF check, Howard Williams		200	250
Adjusted cash balance (as above)			$ 129,714

b.

General Journal				
July	31	Cash	4,396	
		Notes Receivable		4,000
		Office Equipment		396
		To record collection by bank of note receivable from Rene Manes, and correct recorded cost of office equipment.		
July	31	Bank Service Charge	50	
		Accounts Receivable (Howard Williams)	200	
		Cash		250
		To adjust accounting records for bank service charges and the customer's check charged back as NSF.		

c. The amount of cash that should be included in the balance sheet at July 31 is the adjusted balance of $129,714.

d. The balance per the company's bank statement is often larger for two reasons: (1) There are checks outstanding which have been deducted in the company's records but which have not yet cleared the bank, and (2) the bank periodically makes collections and deposits them into the company's account.

45 Minutes, Strong

PROBLEM 7.2A
OSAGE FARM SUPPLY

OSAGE FARM SUPPLY		
BANK RECONCILIATION		
November 30		
a. Corrected bank reconciliation for November:		
Balance per bank statement, November 30		$ 20,600
Add: Deposit in transit		1,245
Subtotal		$ 21,845
Less: Outstanding checks:		
no. 8231	$ 400	
no. 8263	524	
no. 8288	176	
no. 8294	5,000	
Total outstanding checks		6,100
Adjusted cash balance per bank statement		$ 15,745
Balance per accounting records		$ 35,400
Add: Note receivable collected by bank		6,255
Subtotal		$ 41,655
Less: NSF check returned	$ 130	
Bank service charges	15	145
Adjusted cash balance per accounting records prior to		
recognition of cash shortage		$ 41,510
Less: Indicated cash shortage ($41,510 - $15,745)		25,765
Adjusted cash balance per accounting records		$ 15,745
b. Escola attempted to conceal the shortage by making		
the following intentional errors in her reconciliation:		
Errors leading to a $13,255 overstatement of the		
adjusted balance per the bank statement:		
Overstating the deposit in transit with a		
transposition error		$ 900
Improperly adding the amount of the note collected		
by the bank to the bank balance		6,255
Making an addition error in adding the adjustments		
to the balance per the bank statement		1,000
Omitting check no. 8294 from the outstanding check		
list.		5,000
Understanding the sum of the outstanding checks		
that were listed.		100
		$ 13,255
Error causing a $12,510 understatement of the		
adjusted balance per the accounting records:		
Subtracting the $6,255 amount of the credit		
memorandum even though the caption stated that		
this amount should be added		12,510
Total shortage concealed in Escola's bank		
reconciliation		$ 25,765

Problem 7.2A
OSAGE FARM SUPPLY (concluded)

c. **Two weaknesses in internal control are apparent. First, the bank account should be reconciled by someone with no other responsibilities for cash transactions, not by the company's cashier. The person performing a control function never should have a personal incentive to conceal the types of errors that the control procedure may bring to light.**

Second, cash receipts are not being deposited intact in the bank, and management is unaware of this internal control failure even after several months. Failure to deposit receipts intact can be detected by comparison of the daily deposits listed in the bank statement with the daily totals in the special journals used to record cash receipts.

15 Minutes, Medium

PROBLEM 7.3A
SUPER STAR

a.

Accounts Receivable by Age Group			
	Amount	Percentage Considered Uncollectible	Estimated Uncollectible Accounts
Not yet due	$ 500,000	1	$ 5,000
1-30 days past due	210,000	3	6,300
31-60 days past due	80,000	10	8,000
61-90 days past due	15,000	20	3,000
Over 90 days past due	30,000	50	15,000
Totals	$ 835,000		$ 37,300

b.

General Ledger				
Dec	31	Uncollectible Accounts Expense	25,500	
		Allowance for Doubtful Accounts		25,500
		To increase the valuation account to the estimated		
		required total of $37,300 computed as follows:		
		Required credit balance for valuation account:	$ 37,300	
		Present credit balance	11,800	
		Current provision ($37,300 - $11,800)	$ 25,500	
c.				
Jan	10	Allowance for Doubtful Accounts	8,250	
		Accounts Receivable (April Showers)		8,250
		To write-off as uncollectible the account		
		receivable from April Showers.		

d. **Such a policy would compensate the company for having to wait extended periods of time to collect its cash. It also provides the company with additional "leverage" in a court of law should it decide to press charges against customers with delinquent accounts.**

30 Minutes Medium

PROBLEM 7.4A
WILCOX MILLS

a.				
		General Journal		
2007				
Var.*		Allowance for Doubtful Accounts	165,000	
		Accounts Receivable		165,000
		Entry summarizing the write-off of receivables throughout the year.		
Var.*		Accounts Receivable	15,000	
		Allowance for Doubtful Accounts		15,000
		Entry summarizing the reinstatement of accounts proving to be collectible.		
Var.*		Cash	15,000	
		Accounts Receivable		15,000
		Entry summarizing the collection of accounts reinstated.		
Dec	31	Uncollectible Accounts Expense	160,000	
		Allowance for Doubtful Accounts		160,000
		To adjust allowance for doubtful accounts to $90,000 credit balance:		
		Balance at Dec. 31, 2006	$ 80,000	
		Less: Write-offs during 2007	(165,000)	
		Add: Accounts reinstated	15,000	
		Unadjusted balance (debit balance)	(70,000)	
		Desired balance (credit)	90,000	
		Required adjustment ($70,000 + $90,000)	$ 160,000	

***The first three entries summarize entries occurring at various dates throughout the year.**

b. **A case can probably be made that the allowance is unreasonably low. The amount of the allowance at the end of 2006 was $80,000, but $165,000 were written off during the following year which may imply that the allowance should have been higher. A counter argument, which may justify the $80,000 balance, is that the allowance at the end of a year is not necessarily intended to provide for all accounts that will be written off during the coming year. Rather, it represents only the portion of the receivables existing at year-end estimated to be uncollectible.**

As Wilcox Mills sells on 30-day terms, it should turn over its receivables about 12 times each year. Thus, the year-end receivables should equal only about 1⁄ 12 of a year's credit sales, and the balance in the allowance should provide for about 1⁄ 12 of the accounts written off during the year.

40 Minutes, Strong

PROBLEM 7.5A
WESTON MANUFACTURING CO.

a.		Current assets:		
		Marketable securities (cost, $153,000)		$ 160,000
		Stockholders' equity:		
		Unrealized holding gain on investments		$ 7,000
b.				
Apr.	10	Cash	20,950	
		Marketable securities		17,000
		Gain on Sale of Investments		3,950
		Sold 1,000 shares of Footlocker, Inc. at a price		
		above cost.		
Aug.	7	Cash	27,940	
		Loss on Sale of Investments	6,060	
		Marketable Securities		34,000
		Sold 2,000 shares of Gap, Inc. at a price below cost.		
c.		Marketable Securities account:		
		Balance at Dec. 31, 2006		$ 160,000
		Less: Sale of securities on Apr. 10	$ 17,000	
		Sale of securities on Aug. 7	34,000	51,000
		Balance at Dec. 31, 2007 (prior to adjustment)		$ 109,000
		Unrealized Holding Gain on Investments		
		(no change since Dec. 31, 2006)		$ 7,000
				Current
d.			Cost	Market Value
		Footlocker, Inc. (4,000 shares; cost $17 per share;		
		market value, $18)	$ 68,000	$ 72,000
		Gap, Inc. (2,000 shares; cost, $17 per share; market		
		value, $16)	34,000	32,000
		Totals	$ 102,000	$ 104,000
e.		Unrealized Holding Gain on Investments	5,000	
		Marketable Securities		5,000
		To reduce unadjusted balance in Marketable		
		Securities account to current market value		
		($109,000 - $104,000).		
f.		Current assets:		
		Marketable securities (cost, $102,000)		$ 104,000
		Stockholders' equity:		
		Unrealized holding gain on investments		$ 2,000

PROBLEM 7.5A
WESTON MANUFACTURING CO. (concluded)

g. Nonoperating items:		
Loss on sales of investments		$ 2,110
Computation:		
Realized gain	$ 3,950	
Less: realized loss	6,060	
Net realized loss	$ (2,110)	

h. **Unrealized gains and losses are not reported in a company's income tax return. The realized loss on the sale of marketable securities will reduce both taxable income and the company's income tax liability.**

20 Minutes, Medium

PROBLEM 7.6A
EASTERN SUPPLY

a.				
General Journal				
Sept	1	Notes Receivable	75,000	
		Accounts Receivable (Party Plus)		75,000
		Accepted a 9-month, 10% note in settlement of an account receivable due today.		
Dec	31	Interest Receivable	2,500	
		Interest Revenue		2,500
		To accrue interest for four months (September through December) on Party Plus note ($75,000 x 4/12 x 10% = $2,500).		
June	1	Cash	80,625	
		Notes Receivable		75,000
		Interest Receivable		2,500
		Interest Revenue		3,125
		Collected 9-month, 10% note from Party Plus ($75,000 x 9/12 x 10% = $5,625, of which $3,125 was earned in current year).		
b.		Assuming that note was defaulted.		
June	1	Accounts Receivable (Party Plus)	80,625	
		Notes Receivable		75,000
		Interest Receivable		2,500
		Interest Revenue		3,125
		To reclassify as an account receivable the defaulted 9-month, 10% note from Party Plus ($75,000 x 9/12 x 10% = $5,625 interest, of which, $3,125, was earned in current year).		

c. There are two reasons why the company adopts this policy: (1) The interest earned on the note compensates the company for delaying the collection of cash beyond the standard due date, and (2) should the company have to take a customer to court, written contracts always are preferred over verbal agreements.

20 Minutes, Medium

PROBLEM 7.7A
SCOOTER WAREHOUSE

		General Journal		
a.		Bank Reconciliation		
Dec	31	Bank Service Charges	25	
		Accounts Receivable	375	
		Office Supplies		234
		Cash		166
		To record bank service charges, to reclassify NSF		
		check as an account receivable, and to correct		
		an error in the recording of office supplies.		
b.		Marketable Securities		
	31	Marketable Securities	2,500	
		Unrealized Holding Gain on Investments		2,500
		To increase marketable securities to their		
		current market value ($28,500 - $26,000).		
c.		Notes and Interest Receivable		
	31	Interest Receivable	250	
		Interest Revenue		250
		To record accrued interest revenue on notes		
		receivable ($60,000 x 5% x 1/12).		
d.		Accounts Receivable at Net Realizable Value		
	31	Uncollectible Accounts Expense	11,000	
		Allowance for Doubtful Accounts		11,000
		To report accounts receivable at their net		
		realizable value. $15,000 allowance required		
		($450,000 - $435,000). $4,000 credit balance prior		
		to the adjustment. $11,000 adjustment required		
		($15,000 - $4,000).		

e. **The accounts receivable turnover rate is computed by dividing sales by average accounts receivable at their *net realizable value* . Recording uncollectible accounts expense results *decreases* the net realizable value of accounts receivable and therefore *increases* the accounts receivable turnover rate. The *write-off* of an accounts receivable has *no effect* on the net realizable value of accounts receivable. The net realizable value of accounts receivable remains exactly *the same* before and after an account is written-off.**

40 Minutes, Strong

PROBLEM 7.8A
HENDRY CORPORATION

		General Ledger Balance	Bank Statement Balance
a.			
	Preadjustment balance, 12/31/07	$ 96,990	$ 100,560
	Deposits in Transit		24,600
	Outstanding Checks		(31,700)
	Bank service charge	(200)	
	NSF check returned (Kent Company)	(3,600)	
	Error correction (check #244)	270	
	Adjusted cash balance, 12/31/07	$ 93,460	$ 93,460
	The necessary journal entry to update the		
	general ledger is as follows:		
	Bank Service Charge	200	
	Accounts Receivable (Kent Company)	3,600	
	Office Equipment		270
	Cash		3,530
	To update the general ledger following the		
	bank reconciliation.		
b.	Cash equivalents include:		
	Money market accounts	$ 75,000	
	High-grade, 90-day, commercial paper	3,000	
	Total cash equivalents	$ 78,000	
	Total cash (from part a)	93,460	
	Cash and cash equivalents at 12/31/07	$ 171,460	
c.	Interest Receivable	500	
	Interest Revenue		500
	To record interest revenue on the Moran		
	Industries note receivable ($100,000 x 6% x1/12).		

PROBLEM 7.8A
HENDRY CORPORATION
(continued)

d.			
	Accounts receivable balance January 1, 2007	$ 2,150,000	
	Accounts receivable written off during 2007	(140,000)	
	Collections on account during 2007	(21,213,600)	
	Credit sales made during 2007	20,000,000	
	Reinstating Kent Company's account		
	(paid with NSF check)	3,600	
	Accounts receivable balance December 31, 2007		$ 800,000
	Allowance for doubtful accounts balance		
	January 1, 2007	40,000	
	Accounts receivable written off during 2007	(140,000)	
	Uncollectible accounts expense in 2007 (2% of sales)	400,000	
	Allowance for doubtful accounts balance		
	December 31, 2007		300,000
	Net realizable value of accounts receivable		
	at December 31, 2007		$ 500,000
e.			
	Cash and cash equivalents (see b. above)	$ 171,460	
	Marketable securities (at FMV, not cost)	86,000	
	Notes Receivable (from Moran Industries)	100,000	
	Interest receivable (see c. above)	500	
	Accounts receivable (see net realizable value		
	computed in d. above)	500,000	
	Total financial assets at December 31, 2007	$ 857,960	

PROBLEM 7.8A
HENDRY CORPORATION
(concluded))

f.	December 31, 2007	January 1, 2007
Accounts receivable (see d. above)	$ 800,000	$ 2,150,000
Allowance for doubtful accounts (see d. above)	300,000	40,000
Net realizable value	$ 500,000	$ 2,110,000
Average accounts receivable		
($2,110,000 + $500,000) ÷ 2	1,305,000	
Sales	20,000,000	
Accounts receivable turnover		
(sales ÷ average accounts receivable)	15.33	
Accounts receivable days		
(365 ÷ accounts receivable turnover)	23.81	days
If the industry average is 45 days,		
Hendry Corporation is well below the average.		

SOLUTIONS TO PROBLEMS SET B

25 Minutes, Medium

PROBLEM 7.1B
DODGE, INC.

a.		
Balance per bank statement, November 30		$ 4,710
Add: Deposit in transit		3,850
		$ 8,560
Deduct: Outstanding checks		
no. 814	$ 115	
no. 816	170	
no. 830	530	815
Adjusted cash balance		$ 7,745
Balance per accounting records, November 30		$ 6,750
Add: Note receivable collected by bank		4,000
		$ 10,750
Deduct:		
Service charge	$ 15	
NSF check	2,900	
Check recording error (no. 810)	90	3,005
Adjusted cash balance (as above)		$ 7,745

b.				
Nov.	30	Cash	4,000	
		Notes Receivable		4,000
		To record collection by bank of note receivable		
		from Wright Sisters.		
	30	Computer Equipment	90	
		Bank Service Charges	15	
		Accounts Receivable	2,900	
		Cash		3,005
		To adjust accounting records for bank service		
		charges, customer's check charged back as		
		NSF, and correct the recorded cost of equipment.		

c. **The amount of cash that should be included in the balance sheet at November 30 is the adjusted balance of $7,745.**

45 Minutes, Strong

PROBLEM 7.2B
JASON CHAIN SAWS, INC.

a. Corrected bank reconciliation for April:		
Balance per bank statement, April 30		$ 14,300
Add: Deposit in transit		5,000
Subtotal		$ 19,300
Less: Outstanding checks:		
no. 836	$ 500	
no. 842	440	
no. 855	330	
no. 859	1,300	
Total outstanding checks		2,570
Adjusted cash balance per bank statement		$ 16,730
Balance per accounting records, April 30		$ 20,325
Add: Note receivable collected by bank		6,200
Subtotal		$ 26,525
Less: NSF check returned	$ 125	
Bank service charges	50	175
Adjusted cash balance per accounting records prior to recognition of cash shortage		$ 26,350
Less: Indicated cash shortage ($26,350 - $16,730)		9,620
Adjusted cash balance per accounting records (as above)		$ 16,730
b. Crook attempted to conceal the shortage by making the following intentional errors in his reconciliation:		
Errors leading to a $9,620 overstatement of the adjusted balance per the bank statement:		
Overstating the deposit in transit		$ 2,120
Improperly adding the amount of the note collected by the bank to the bank balance		6,200
Omitting check no. 859 from the outstanding checklist.		1,300
		$ 9,620

c. **Two weaknesses in internal control are apparent. First, the bank account should be reconciled by someone with no other responsibilities for cash transactions, not by the company's cashier. The person performing a control function never should have a personal incentive to conceal the types of errors that the control procedure may bring to light.**

Second, cash receipts are not being deposited intact in the bank, and management is unaware of this internal control failure even after several months. Failure to deposit receipts intact can be detected by comparison of the daily deposits listed in the bank statement with the daily totals in the special journals used to record cash receipts.

15 Minutes, Medium

PROBLEM 7.3B
STARLIGHT

a.

Accounts Receivable by Age Group			
	Amount	Percentage Considered Uncollectible	Estimated Uncollectible Accounts
Not yet due	$ 500,000	1	$ 5,000
1-30 days past due	110,000	3	3,300
31-60 days past due	50,000	10	5,000
61-90 days past due	30,000	20	6,000
Over 90 days past due	60,000	50	30,000
Totals	$ 750,000		$ 49,300

b.

General Ledger				
Dec	31	Uncollectible Accounts Expense	44,600	
		Allowance for Doubtful Accounts		44,600
		To increase the valuation account to the estimated		
		required total of $49,300 computed as follows:		
		Required allowance balance:	$ 49,300	
		Present credit balance	4,700	
		Required adjustment ($49,300 - $4,700)	$ 44,600	
c.				
Jan	18	Allowance for Doubtful Accounts	1,600	
		Accounts Receivable (May Flowers)		1,600
		To write-off as uncollectible the account		
		receivable from May Flowers.		

d. Such a policy would compensate the company for having to wait extended periods of time to collect its cash. It also provides the company with additional “leverage” in a court of law, should it decide to press charges against customers with delinquent accounts.

30 Minutes Medium

PROBLEM 7.4B
WALC FACTORY

a.

General Journal

2007				
Var.*		Allowance for Doubtful Accounts	115,000	
		Accounts Receivable		115,000
		Entry summarizing the write-off of receivables		
		throughout the year.		
Var.*		Accounts Receivable	9,000	
		Allowance for Doubtful Accounts		9,000
		Entry summarizing the reinstatement of accounts		
		proving to be collectible.		
Var.*		Cash	9,000	
		Accounts Receivable		9,000
		Entry summarizing the collection of accounts reinstated.		
Dec.	31	Uncollectible Accounts Expense	141,000	
		Allowance for Doubtful Accounts		141,000
		To adjust allowance for doubtful accounts to		
		$75,000 credit balance:		
		Balance at Dec. 31, 2006	$ 40,000	
		Less: Write-offs during 2007	(115,000)	
		Add: Accounts reinstated	9,000	
		Unadjusted balance (debit balance)	$ (66,000)	
		Desired balance (credit)	75,000	
		Required adjustment ($66,000 + $75,000)	$ 141,000	

***The first three entries summarize entries occurring at various dates throughout the year.**

b. **The $40,000 allowance for doubtful accounts established at the end of 2006 appears to be inadequate in view of the fact that $106,000 of accounts receivable were written off during 2007. However, one might view the $40,000 allowance established at the end of 2006 as being *reasonable*, given it represents only those accounts receivable *existing at year-end* estimated to be uncollectible.**

As Walc sells on 30-day terms, it should turn over its receivables about 12 times each year. Thus, the year-end receivables should equal only about 1/12 of a year's credit sales. Likewise, one could argue that the balance established in the allowance for doubtful accounts at year-end need only be large enough to provide for 1/12 of the accounts expected to be written off in the upcoming year.

40 Minutes, Strong

PROBLEM 7.5B
WESTPORT MANUFACTURING CO.

a.		Current assets:		
		Marketable securities (cost, $75,000)		$ 90,000
		Stockholders' equity:		
		Unrealized holding gain on investments		$ 15,000
b.				
April	6	Cash	5,480	
		Marketable Securities		3,000
		Gain on Sale of Investments		2,480
		Sold 100 shares of Lamb Computer at a price above		
		above cost.		
April	20	Cash	17,480	
		Loss on Sale of Investments	5,020	
		Marketable Securities		22,500
		Sold 2,500 shares of Dry Foods at a price below		
		cost.		
c.		Marketable Securities account:		
		Balance at Dec. 31, 2006		$ 90,000
		Less: Sale of securities on Apr. 6.	$ 3,000	
		Sale of securities on Apr. 20.	22,500	25,500
		Balance at Dec. 31, 2007 (prior to adjustment)		$ 64,500
		Unrealized Holding Gain on Investments		
		(no change since Dec. 31, 2006)		$ 15,000
				Current
d.			Cost	Market Value
		Lamb Computer, Inc. (900 shares; cost $30 per		
		share; market value, $40)	$ 27,000	$ 36,000
		Dry Foods (2,500 shares; cost, $9 per share; market		
		value, $7).	22,500	17,500
		Totals	$ 49,500	$ 53,500
e.		Unrealized Holding Gain on Investments	11,000	
		Marketable Securities		11,000
		To reduce unadjusted balance in Marketable		
		Securities account to current market value		
		($64,500 - $53,500 = $11,000).		
f.		Current assets:		
		Marketable securities (cost, $49,500)		$ 53,500
		Stockholders' equity:		
		Unrealized holding gain on investments		$ 4,000

PROBLEM 7.5B
WESTPORT MANUFACTURING CO. (concluded)

g. Nonoperating items:		
Loss on sale of investments		$ 2,540
Computation:		
Realized gains	$ 2,480	
Less: Realized losses	5,020	
Net realized loss	$ (2,540)	

h. **Unrealized gains and losses are not reported in a company's income tax return. The realized loss will reduce both taxable income and the company's income tax liability.**

20 Minutes, Medium

PROBLEM 7.6B
SOUTHERN SUPPLY

a.

General Journal

Nov	1	Notes Receivable	60,000	
		Accounts Receivable (LCC)		60,000
		Accepted a 9-month, 12% note in settlement of an		
		account receivable due today.		
Dec	31	Interest Receivable	1,200	
		Interest Revenue		1,200
		To accrue interest for two months (November		
		through December) on LCC note ($60,000 x		
		2/12 x 12% = $1,200).		
Aug.	1	Cash	65,400	
		Notes Receivable		60,000
		Interest Receivable		1,200
		Interest Revenue		4,200
		Collected 9-month, 12% note from LCC		
		($60,000 x 9/12 x 12% = $5,400, of which $4,200		
		was earned in current year).		
b.		Assuming that note was defaulted.		
Aug.	1	Accounts Receivable (LLC)	65,400	
		Notes Receivable		60,000
		Interest Receivable		1,200
		Interest Revenue		4,200
		To reclassify as an account receivable the		
		defaulted note.		

c. There are two reasons why the company adopts this policy: (1) The interest earned on the note compensates the company for delaying the collection of cash beyond the standard due date, and (2) should the company have to take a customer to court, written contracts always are preferred over verbal agreements.

20 Minutes, Medium

PROBLEM 7.7B
DATA MANAGEMENT, INC.

		General Journal		
a.		Bank Reconciliation		
Dec	31	Bank Service Charges	125	
		Accounts Receivable	2,350	
		Office Supplies	962	
		Cash		3,437
		To record bank service charges, to reclassify NSF		
		check as an account receivable, and to correct		
		an error in the recording of office supplies.		
b.		Marketable Securities		
	31	Unrealizable Holding Loss on Investments	7,000	
		Marketable Securities		7,000
		To decrease marketable securities to their		
		current market value ($75,000 - $68,000).		
c.		Notes and Interest Receivable		
	31	Interest Receivable	360	
		Interest Revenue		360
		To record accrued interest revenue on notes		
		receivable ($72,000 x 6% x 1/12).		
d.		Accounts Receivable at Net Realizable Value		
	31	Uncollectible Accounts Expense	49,000	
		Allowance for Doubtful Accounts		49,000
		To report accounts receivable at their net		
		realizable value. $40,000 allowance required		
		($900,000 - $860,000). $9,000 debit balance prior		
		to the adjustment. $49,000 adjustment required		
		($40,000 - $9,000).		

e. In the prior period the company had established what it thought to be a reasonable credit balance in the Allowance for Doubtful Accounts. Throughout the current period, as receivables were written-off, the Allowance for Doubtful Accounts was *debited* and Accounts Receivable was *credited*. Given that the allowance had a *debit* balance at the end of the period, it is apparent that *more* receivables were written-off than what had been anticipated. To avoid this shortfall in the future, the company should consider *increasing* the percentage it applies to each of its aging categories.

40 Minutes, Strong

PROBLEM 7.8B
CIAVARELLA CORPORATION

			General Ledger Balance	Bank Statement Balance
a.				
		Preadjustment balances, 12/31/07	$ 112,000	$ 104,100
		Deposits in Transit		16,800
		Outstanding Checks		(12,400)
		Bank service charge	(100)	
		NSF check returned (Needham Company)	(2,500)	
		Error correction check #550	(900)	
		Adjusted cash balance, 12/31/07	$ 108,500	$ 108,500
		The necessary entry to update the general		
		ledger is as follows:		
		Bank Service Charge	100	
		Accounts Receivable (Needham Company)	2,500	
		Computer Equipment	900	
		Cash		3,500
		To update the general ledger following the		
		bank reconciliation.		
b.				
		Cash equivalents include:		
		Money market accounts	$ 150,000	
		High-grade, 60-day, commercial paper	5,000	
		Total cash equivalents	$ 155,000	
		Total cash (from part a)	108,500	
		Cash and cash equivalents at 12/31/07	$ 263,500	
c.				
		Interest Receivable	135	
		Interest Revenue		135
		To record interest revenue on the Ritter Industries		
		note receivable ($18,000 x 9% x1/12).		

PROBLEM 7.8B
CIAVARELLA CORPORATION
(continued)

d.			
	Accounts receivable balance January 1, 2007	$ 540,000	
	Accounts receivable written off during 2007	(14,000)	
	Collections on account during 2007	(5,252,500)	
	Credit sales made during 2007	6,480,000	
	Reinstating Needham Company's account		
	(paid with NSF check)	2,500	
	Accounts receivable balance December 31, 2007		$ 1,756,000
	Allowance for doubtful accounts balance		
	January 1, 2007	12,000	
	Accounts receivable written off during 2007	(14,000)	
	Uncollectible accounts expense in 2007 (1% of sales)	64,800	
	Allowance for doubtful accounts balance		
	December 31, 2007		62,800
	Net realizable value of accounts receivable		
	at December 31, 2007		$ 1,693,200
e.			
	Cash and cash equivalents (see b. above)	$ 263,500	
	Marketable securities (at FMV, not cost)	245,000	
	Notes receivable (from Ritter Industries)	18,000	
	Interest receivable (see c. above)	135	
	Accounts receivable (see net realizable value		
	computed in d. above)	1,693,200	
	Total financial assets at December 31, 2007	$ 2,219,835	

PROBLEM 7.8B
CIAVARELLA CORPORATION
(concluded))

f.	December 31, 2007	January 1, 2007
Accounts receivable (see. d. above)	$ 1,756,000	$ 540,000
Allowance for doubtful accounts (see d. above)	62,800	12,000
Net realizable value	$ 1,693,200	$ 528,000
Average accounts receivable		
($528,000 + $1,693,2000) ÷ 2	$ 1,110,600	
Sales	$ 6,480,000	
Accounts receivable turnover		
(sales ÷ average accounts receivable)	5.83	
Accounts receivable days		
(365 ÷ accounts receivable turnover)	62.61	days
If the industry average is 60 days,		
Ciavarella Corporation is slightly above the		
average.		

20 Minutes, Medium

CASE 7.1
ACCOUNTING PRINCIPLES

a. **This practice violates the matching principle. The expense relating to uncollectible accounts is not recorded until long after the related sales revenue has been recognized. The distortion caused in the company's financial statements is magnified by the fact that sales (and the creation of uncollectible accounts receivable) fluctuate greatly from year to year.**

b. **In most cases, charging petty cash expenditures to Miscellaneous Expense would *not* violate generally accepted accounting principles. The only principle at issue is that of *adequate disclosure.* However, petty cash expenditures usually are not sufficiently *material* in dollar amount for users of the financial statements to be concerned with the specific purpose of these outlays.**

c. **This practice violates the *realization* principle. The company is recognizing all of the interest to be earned from its notes receivable as revenue *at the date of sale*. This revenue is actually earned over the life of the note, not at the date on which the customer borrows the money.**

d. **By combining restricted cash (the $1 million earmarked for construction) with unrestricted cash, the company is violating the accounting principle of *adequate disclosure.* This restricted cash is not available for paying current liabilities. Therefore, this amount should be classified as a long-term investment, not as a current asset.**

40 Minutes, Strong

CASE 7.2
ROCK, INC.

a. It is logical and predictable that the Double Zero policy—which calls for no down payment and allows customers 12 months to pay—will cause an increase in sales. It also is predictable that implementation of the Double Zero plan will cause cash receipts from customers to decline, at least temporarily. Cash sales and sales on 30-day accounts are now being made on terms that extend the collection period over one year. Thus, cash receipts that normally would occur in the immediate future have been postponed.

Whether the plan will cause profits to increase or decline is more difficult to predict. The basic question is whether the additional sales will exceed increases in the cost of goods sold and expenses. The bookkeeper's schedule indicates that they do, and that net income has more than doubled (from $10,000 per month to $25,000 per month). However, the company uses the direct write-off method of accounting for uncollectible accounts, which delays the recognition of uncollectible accounts expense to future periods. Therefore, the bookkeeper's measurement of net income in the latest month ignores entirely what may be a major expense associated with sales of Double Zero accounts.

b. The uncollectible accounts expense has dropped to zero only because the company uses the direct write-off method and the Double Zero plan has just begun. It is too early for specific Double Zero receivables to have been identified as uncollectible and written off. (Apparently all of the old 30-day accounts have now been collected, are considered collectible, or have been written off.)

In the future—certainly within a year—some of the Double Zero accounts will be determined uncollectible. At this time, the company will begin to incur significant amounts of uncollectible accounts expense under the direct write-off method. This expense should eventually become much larger than the uncollectible accounts expense in the past, due to the larger dollar amount of accounts receivable and the nature of these accounts.

c. The reduction in cash receipts should be temporary. Under the old 30-day account plan, the company was collecting approximately all of its sales within 30 days, and cash collections were approximately equal to monthly sales. With the Double Zero accounts, however, only about 1⁄ 12 of the sales price is collected in the month of sale. In the early months of the plan, cash receipts may be expected to fall dramatically. In later months, however, the company will be collecting installment receivables that originated during the 12 prior months, as well as 1⁄ 12 of the credit sales in the current month.

After the plan has been in effect for one year, monthly cash collections again should approximate a month's sales (less uncollectible accounts expense). As sales are rising, monthly cash receipts eventually may become significantly higher than before.

The above analysis ignores one crucial point. As of yet, we have no information as to the percentage of Double Zero accounts that will prove to be uncollectible. Uncollectible accounts will somewhat limit the increase in future monthly cash collections.

CASE 7.2
ROCK, INC. (concluded)

d. **The Double Zero receivables generate no revenue after the date of sale. Hence, they represent resources that are "tied up" for up to 12 months without earning any return. As the company uses the direct write-off method of accounting for uncollectible accounts, its receivables are actually a "shrinking" asset. Not only will they generate no future revenue, but some of these accounts will be written off as an expense.**

e. **Several means exist for a company to turn its accounts receivable into cash more quickly than the normal turnover period. One approach is to offer credit customers cash discounts to encourage earlier payment. Another is to sell the receivables to a factor, or to borrow money by pledging the accounts receivable as collateral to secure the loan.**

As Rock's monthly income has increased dramatically, and cash receipts should increase in future months (part *c*), the company may qualify for an unsecured line of credit from its bank. However, the bank probably would require the company to develop estimates of its uncollectible accounts receivable, and to recompute its monthly net income using an allowance method of recording uncollectible accounts expense.

f. ***Note to instructor:*** **This last question calls for students to express a personal opinion. Answers, therefore, should be expected to vary greatly.**

Net income has increased dramatically, and cash receipts should eventually increase well above former levels. At first glance, therefore, the Double Zero plan looks quite successful.

No information has been provided, however, enabling us to estimate the amount of Double Zero accounts that will prove uncollectible. In the bookkeeper's schedule, monthly net income appears to have increased by $15,000. This computation, however, ignores the fact that some of these credit sales will be uncollectible. Credit sales for the month on Double Zero terms amounted to $75,000. If $15,000 of these sales (or 20%) prove to be uncollectible, monthly net income may be *lower* under the Double Zero plan than before.

Credit losses of 20% or more are quite high. Thus, the Double Zero plan probably is increasing the company's profitability, though not by the $15,000 per month shown in the bookkeeper's schedule.

Several other factors also may enter into the decision. For example, will competitors respond with plans similar to Double Zero? If so, Rock's sales may decline toward former levels. Without a sustainable increase in sales, the Double Zero plan clearly is less advantageous than the 30-day credit policy.

Another factor to consider is whether Rock will, in fact, be able to survive the temporary decline in monthly cash receipts which accompanies the new, liberal credit terms.

40 Minutes, Strong

CASE 7.3
WINDOW DRESSING
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. 1. There is certainly nothing improper or unethical about offering customers a discount for prompt payment, but an interesting accounting issue arises. A 10% discount is quite substantial, and many customers would likely take advantage of it. This affects the net realizable value of accounts receivable—that is, the amount likely to be collected. It would probably be necessary to establish a contra-asset account called Allowance for Sales Discounts. This allowance would reduce the net realizable value of accounts receivable in the same manner as the allowance for doubtful accounts.

Note to instructor: **Few companies encounter bad debts of anywhere near 10% of receivables. Therefore, the allowance for sales discounts might well be the larger of the two allowances.**

2. The need for an allowance for doubtful accounts is not based upon whether these accounts are officially "overdue," but whether they are *collectible.* The grace period is unlikely to affect the collectibility of accounts receivable. Therefore, it does *not* eliminate the need for an allowance reducing these accounts to estimated net realizable value.

3. Combining all forms of cash, cash equivalents, and compensating balances under a single caption is quite acceptable. In fact, it is common practice. But unused lines of credit are not an asset; these represent only the *ability* to borrow money. They may be disclosed in notes to the financial statements, but they *should not appear* in the money columns of the balance sheet.

4. Having officers repay their loans at year-end only to renew them several days later is a sham transaction. Its only purpose is to deceive the users of the financial statements. It would be unethical (and perhaps illegal) to show the money collected from these officers as unrestricted cash available for the payment of current liabilities. If these transactions are executed as described, the cash "earmarked" for renewing loans should appear as a noncurrent asset.

5. It is appropriate to report marketable securities at their current market value. Thus, there are no problems with this proposal.

6. This situation poses two questions: (1) The valuation of inventory in conformity with generally accepted accounting principles, and (2) whether Affections can depart from generally accepted accounting principles in its reporting to creditors.

(1) Inventory is *not* a financial asset. Generally accepted accounting principles call for the valuation of inventory at *cost* (or the lower of cost or market value), not at market values in excess of cost.

(2) As Affections is not a publicly owned company, need its financial statements be prepared in conformity with GAAP? This is an interesting question. Affections is *not* required by federal securities laws to prepare and distribute financial statements in conformity with GAAP. But it does have a legal and ethical obligation *not to deceive* the users of its financial statements.

Unless they clearly are told otherwise, users of financial statements reasonably may assume that financial statements are based upon GAAP. If Affections departs from GAAP and shows its inventory at current sales value, it must take appropriate steps to make the users of the statements *fully aware* of this departure from GAAP.

7. **Although these funds might actually be included in both year-end bank statements, they are not really available to the company in both bank accounts. Thus, this check should be included as an outstanding check in the year-end bank reconciliation of the account upon which it was drawn. To double count these funds in financial statements would be more than unethical—it would be an act of criminal fraud.**

   Note to instructor: **This fraudulent practice is called "kiting." It more often is used to defraud banks, rather than users of financial statements. The depositor/crook creates the inflated bank balances, then withdraws the funds from both banks and runs.**

b. **There is nothing unethical about holding the meeting. Taking *legitimate* steps to "put the company's best foot forward" is both an ethical and widespread practice. In fact, any management that *failed* to plan how to maintain an adequate credit rating would be breaching its ethical obligations to the company's stockholders.**

10 Minutes, Easy

CASE 7.4
CASH MANAGEMENT
BUSINESS WEEK

Pros:

- **Convenience (people seem to always have their cells phones with them).**
- **Better reporting (consolidated and aggregated billing makes budgeting and personal financial management easier).**
- **More attractive to the "youth" market (many of whom have cell phones but no bank accounts).**
- **A banking relationship is not required.**

Cons:

- **Ignores the importance of establishing a banking relationship.**
- **Security issues.**
- **May cause cell phone rates to increase.**
- **May not always have available reception.**
- **Relies upon a charged battery.**

No time estimate, Medium

CASE 7.5
BANKRATE.COM
INTERNET

This assignment is based upon financial information that is continually updated. Thus, we are unable to provide the same responses as students.

Note to instructor: **It is important that students be guided to discover the wide range of cash equivalent investment vehicles available to businesses, and the variation in the interest rates they yield. It is also important that they consider the potential financial impact of selecting a cash equivalent with an interest rate below market. Thus, you may wish to have students compute and compare the interest that would be earned on an average excess cash balance of, say, $1 million dollars invested in: (1) market accounts, (2) CDs offered by banks, and (3) U.S. Treasury securities of varying maturities. Such comparisons will provide a springboard for discussing the concepts of risk, diversification, and liquidity.**

CHAPTER 8
INVENTORIES AND THE COST OF GOODS SOLD

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 8.1	FIFO inventory	1, 4	Analysis
B. Ex. 8.2	LIFO inventory	1, 4	Analysis
B. Ex. 8.3	Average inventory	4	Analysis
B. Ex. 8.4	FIFO and LIFO inventory	4	Analysis
B. Ex. 8.5	FIFO and Average inventory	4	Analysis
B. Ex. 8.6	Inventory shrinkage	3	Analysis
B. Ex. 8.7	Inventory error	5	Analysis
B. Ex. 8.8	Inventory error	5	Analysis
B. Ex. 8.9	Inventory turnover	7	Analysis
B. Ex. 8.10	Inventory turnover	7	Analysis

Exercises	Topic	Learning Objectives	Skills
8.1	Accounting terminology	1–8	Analysis
8.2	Cost flow assumptions	1	Analysis
8.3	Physical flows vs. cost flows	4	Analysis
8.4	**Real World: La-Z-Boy, Inc.** Effects of different cost flows	4	Analysis
8.5	Transfer of title	2	Analysis
8.6	Inventory write-downs	3	Analysis
8.7	Periodic inventory systems	4	Analysis
8.8	Inventory errors	5	Analysis
8.9	Gross profit method	6	Analysis
8.10	Retail method	6	Analysis
8.11	**Real World: General Motors Corporation** Evaluating cost flow assumptions	1, 7	Analysis, judgment
8.12	**Real World: Ford Motor Company** FIFO vs. LIFO analysis	1, 7	Analysis, communication, judgment
8.13	**Real World: Gateway, Inc.** Inventory turnover rates	7	Analysis
8.14	**Real World: Wal-Mart** LIFO reserves	7	Analysis, communication
8.15	**Real World: Home Depot, Inc.** Examining an annual report	7	Analysis, communication, judgment

Problems Sets A, B	Topic	Learning Objectives	Skills
8.1 A,B	Inventory cost flow assumptions	1	Analysis, judgment
8.2 A,B	Cost flow assumptions: Perpetual	1	Analysis, judgment
8.3 A,B	Cost flow assumptions:	4	Analysis, judgment
8.4 A,B	Inventory shrinkage	1–3	Analysis, communication, judgment
8.5 A,B	Periodic inventory systems	4	Analysis, judgment
8.6 A,B	Effects of inventory errors	5	Analysis, communication
8.7 A,B	Retail method	2, 3, 6	Analysis
8.8 A,B	**Real World: Wal-Mart/Toys "R" Us** FIFO vs. LIFO comparisons	1, 7	Analysis, communication, judgment

Critical Thinking Cases			
8.1	Inventory errors	5	Analysis, communication, judgment
8.2	LIFO Liquidation	4	Analysis, communication, judgment
8.3	Dealing with the bank (Ethics, fraud & corporate governance)	3	Analysis, communication, judgment
8.4	**Real World: EMC Corporation** Inventory turnover *(Business Week)*	7	Analysis, communication, judgment
8.5	**Real World: Safeway, Inc., and Staples, Inc.** Inventory turnover rates (Internet)	7	Analysis, communication, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

8.1 A,B **BassTrack/Dome, Inc. (Perpetual)** **35 Medium**

A comprehensive problem calling for measurement of the cost of goods sold and valuation of inventory by specific identification and three different flow assumptions. Requires both journal entries and maintenance of inventory subsidiary ledger records.

8.2 A,B **Speed World Cycles/Sea Travel (Perpetual)** **30 Strong**

Compute the cost of goods sold and ending inventory by three different flow assumptions, and answer questions regarding the characteristics of these assumptions.

8.3 A,B **Speed World Cycles/Sea Travel (Periodic)** **20 Medium**

Computations similar to those in Problem 8-2 except that periodic costing procedures are used in place of a perpetual inventory system.

8.4 A,B **Mario's Nursery/Sam's Lawn Mowers** **20 Medium**

Adjustments under various flow assumptions to reflect the taking of a physical inventory. Also requires a write-down of the remaining inventory to a market value below cost.

8.5 A,B **Mach IV Audio/Roman Sound** **25 Easy**

FIFO, LIFO, and average cost in a periodic inventory system. Students also are asked to answer questions about the characteristics of these flow assumptions.

8.6 A,B **Hexagon Health Foods/City Software** **20 Medium**

A series of income statements for a business being offered for sale indicates a rising trend in gross profit. The student is given information on errors in inventory and asked to prepare revised income statements and to evaluate the trend of gross profit.

8.7 A,B **Between the Ears/Sing Along** **25 Medium**

Illustration of the retail method and its use in estimating inventory shrinkage.

8.8 A,B **Wal-Mart/Toys R Us** **20 Strong**

Using data compiled from the company's financial statements under LIFO, students must make necessary adjustments such that resulting financial ratios will be comparable to those computed under FIFO. Requires a review of ratios introduced in previous chapters.

Critical Thinking Cases

8.1	**Inventory Errors** While interviewing for a position as controller, the job applicant learns that the employer has an inventory “problem.” Inventories have been understated consistently in past income tax returns.	**30 Strong**
8.2	**LIFO Liquidation** Dramatic illustration of the potential effect of a LIFO liquidation. Excellent case for illustrating why finance and marketing majors should understand accounting.	**20 Medium**
8.3	**Dealing with the Bank** **Ethics, Fraud & Corporate Governance** Students are required to evaluate ethical implications of manipulating financial statement information in order to be in compliance with bank covenants. Also requires analytical understanding of working capital relationships.	**15 Medium**
8.4	**EMC Corporation** ***Business Week*** Students are asked to consider trade-offs between inventory turnover and product quality.	**10 Easy**
8.5	**Safeway and Staples** **Internet** Requires an analytical interpretation of inventory performance measures reported by a grocery chain and an office supply chain.	**No time limit** **Strong**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. The cost of merchandise represents an asset—inventory—until the merchandise is sold. At the date of sale, the cost of the merchandise is reclassified as an expense—cost of goods sold—which is “matched” against the related sales revenue.

2. The use of a cost flow assumption eliminates the need for separately identifying each unit sold and looking up its cost. Thus, the time and effort involved in recording the cost of goods sold can be reduced significantly. In addition, the use of a flow assumption enables management to match sales revenue with relatively current merchandise costs and also to minimize the company's income taxes expense.

3. Generally accepted accounting principles permit the use of inventory cost flow assumptions whenever the items comprising the inventory are similar in terms of cost, function, and sales price.

   In measuring the results of operations, accountants consider the flow of costs to be more important than the physical flow of specific units of merchandise. Therefore, a cost flow assumption *need not* correspond to the physical movement of the company’s merchandise.

4. a. Under the average-cost method, all units in the inventory are valued at the same *average cost.* (The average cost is recomputed after every purchase transaction.) Therefore, the cost of goods sold is based upon this average cost per unit.

Exer

   b. The FIFO flow assumption means “first-in, first-out.” Therefore, each sale is assumed to consist of the oldest units in the inventory, and the unit costs in the oldest cost layers are transferred to the cost of goods sold.

   c. LIFO means “last-in, first-out.” Thus, the most recently acquired units are assumed to be the first sold, and the cost of goods sold is based upon the most recent cost layers.

5. The specific identification method should be used by the art gallery. Each item is unique and prices vary widely. Therefore, the gross profit on a sale can be determined logically only by a method that offsets the cost of a specific painting against its sales price. The ending inventory will be stated at the cost incurred for the individual paintings on hand at the end of the year.

6. During a period of rising purchase costs, FIFO results in the highest reported profits, as the cost of goods sold is measured using the oldest (and lowest) costs. LIFO results in the lowest taxable income, as the cost of goods sold consists of the most recent (and highest) purchase costs.

   As the FIFO method assigns the oldest costs to the cost of goods sold, the most recent purchase costs remain in the Inventory account. Therefore, FIFO results in a valuation of inventory that is closest to current replacement costs.

7. Under these unusual circumstances of unchanging purchase prices throughout the year, FIFO and LIFO would produce exactly the same results in the financial statements. The ending inventory under both methods would be equal to the number of units on hand at year-end multiplied by the same unit price.

8. No, Apex is not violating the accounting principle of consistency by using different accounting methods for different segments of its inventories. The varying nature of inventory items explains in part why several methods of valuation are generally acceptable. The principle of consistency is violated when a company changes inventory methods from one year to the next, because such changes cause net income to differ from what it would have been if the change in accounting method had not occurred. Consistency is an important aid in making financial statements comparable from one year to the next.

9. The phrase "just-in-time inventory system" relates primarily to the management of inventories within manufacturing companies. With respect to purchase of raw materials, just-in-time means that materials arrive just in time for use in the production process. With respect to finished goods, the just-in-time concept means that goods are shipped to customers (sold) immediately upon completion of production.

   An advantage of the just-in-time concept is that it reduces or eliminates the amounts of the manufacturer's inventories of materials and finished goods. This reduces the amount of capital that the business must invest in these inventories and also any related costs such as storage and insurance. The primary risk of the just-in-time approach for goods to be shipped to customers is that promised delivery dates may not be met due to unavoidable production delays.

10. The primary reason for taking a physical inventory is to adjust the perpetual inventory records
Exe for *shrinkage losses* such as theft, spoilage, or breakage. The physical inventory usually is taken near the end of the fiscal year, so that the balance sheet will reflect the correct amount of inventory on hand, and the income statement will reflect the shrinkage losses for the year.

11. A company might write down its inventory to a carrying value below cost if the inventory has become obsolete (or otherwise unsalable), or to reflect a current replacement cost below historical cost.

12. A *cutoff* of transactions means determining that transactions occurring near year-end are recorded in the proper accounting period.

    If merchandise is in transit at year-end, the ownership of this merchandise is determined by the terms of shipment. If the terms are *F.O.B. destination*, the goods belong to the seller until they reach their destination. If the terms of shipment are *F.O.B. shipping point,* the merchandise in transit belongs to the buyer.

13. In a periodic inventory system, the cost of merchandise purchased during the year is debited to a *Purchases* account, rather than to the Inventory account. When merchandise is sold, an entry is made recognizing the sales revenue, but no entry is made reducing the Inventory account or recognizing the cost of goods sold.

    The inventory on hand and the cost of goods sold are not determined until year-end. At the end of the year, a complete physical inventory is taken to determine the amount of inventory on hand. The cost of goods sold then is determined by a *computation,* as shown below:

Beginning Inventory
+ Purchases
Cost of Goods Available for Sale
- Ending Inventory
Cost of Goods Sold

14. a. The average-cost method begins with a determination of the average per-unit cost of all units available for sale during the year (cost of goods available for sale divided by the number of units available for sale). The units in the year-end inventory then are priced at this average per-unit cost.

    b. Under the FIFO flow assumption, the oldest goods (first-in) are assumed to be the first sold. Therefore, the ending inventory is assumed to consist of the *most recently* purchased units.

    c. Under the LIFO method, the most recently acquired merchandise is assumed to be the first sold. Therefore, the ending inventory is assumed to consist of the *oldest* units (including the beginning inventory).

15. Relative to a perpetual inventory system, periodic LIFO costing procedures usually result in more recent (higher) costs being assigned to the cost of goods sold. In fact, even goods purchased on the last day of the year are assumed to have been sold under periodic costing procedures. A higher cost of goods sold, in turn, means less taxable income. Thus, a company usually can maximize the income tax benefits of LIFO by restating its year-end inventory to the costs indicated by *periodic* LIFO costing procedures.

16. Errors in the valuation of ending inventory are said to be “counterbalancing” or “self-correcting” because these errors have *opposite effects* upon the gross profit (and net income) reported in each of two successive years. The *cumulative* amount of gross profit reported over the two-year period will be correct, and the balance sheet will be correct at the end of the second year.

Exe

    This “counterbalancing” effect stems from the fact that an error in the valuation of the *ending* inventory of one year represents an error in the *beginning* inventory of the following year. Ending and beginning inventory amounts have opposite effects on the calculation of cost of goods sold.

17. Under the gross profit method, the cost of goods sold is estimated by applying the historical *cost ratio* (100% minus the gross profit rate) to the net sales of the current period. Subtracting this estimated cost of goods sold from the cost of goods available for sale (beginning inventory plus purchases) provides an estimate of ending inventory.

    Companies that use a periodic inventory system find the gross profit method useful in preparing interim financial statements. These companies also may use this method in estimating the inventory on hand at the date of a fire, theft, or other casualty. The method also may be used to confirm the reasonableness of the amount determined by a year-end physical inventory.

18. Ending inventory *$56,000*, computed as follows: $40,000 + $100,000 – ($112,000 × .75) = $56,000.

19. No. The inventory must be presented in the balance sheet at cost. The inventory stated at retail price will be reduced to a cost basis by applying the cost percentage, which is the ratio prevailing between cost and selling price during the current period.

20. The inventory turnover rate is computed by dividing the cost of goods sold by the average amount of inventory maintained during the period. The higher the inventory turnover, the more efficient is management’s use of the asset to generate sales. This measurement is of interest to short-term creditors because it indicates how quickly the company is able to sell its merchandise. This is a major step in converting the inventory into cash, which, in turn, can be used to pay the short-term creditors’ claims.

21. a. Using LIFO during a period of rising costs should result in a *lower* net income than would be reported under the FIFO method. LIFO assigns the most recent purchase costs to the cost of goods sold. When costs are rising, the most recent costs also tend to be the highest costs.

b. LIFO assigns the more recent (higher) costs to the cost of goods sold, and the older (lower) costs to inventory. The inventory turnover rate is computed by dividing the cost of goods sold by the average inventory. Therefore, use of the LIFO method should indicate a *higher* inventory turnover rate than would the FIFO method.

c. By assigning the more recent (higher) purchase prices to the cost of goods sold, LIFO minimizes taxable income and income taxes expense. This is, perhaps, the primary reason for the popularity of the LIFO method.

22. a. In a period of *declining* prices, use of the FIFO method will *minimize* the reported rate of gross profit. This is because the *oldest* (and therefore highest) purchase costs will be assigned to the cost of goods sold.

b. The net cash flow from operating activities will be *higher* than if Computer Products had used LIFO. This is because the flow assumption in use has *no effect* upon the cash receipts from customers or cash payments to suppliers, but it *does* affect income taxes. By using FIFO in this period of declining prices, the older and higher costs will be assigned to the cost of goods sold, thereby minimizing taxable income. This, in turn, will minimize income tax payments—a cash outflow that enters into the determination of net cash flow from operating activities.

Exe

(*Note to instructor:* In the more common situation of *rising* replacement costs, it would be *LIFO* that would minimize the gross profit rate and increase net cash flow from operating activities.)

23. a. J.P. Stevens is using the more conservative method—LIFO—in pricing its inventory. The LIFO (last-in, first-out) method of pricing inventory assigns older costs to inventory and more recent costs to the cost of goods sold. The FIFO method (first-in, first-out), in contrast, assigns the more recent costs to inventory and the older costs to the cost of goods sold. Thus, during a period of rising prices, the LIFO method results in a lower valuation of inventory and a higher valuation of the cost of goods sold than does the FIFO method.

b. Again the answer is J.P. Stevens. As LIFO minimizes net income during a period of rising prices, it also minimizes the amount of income taxes that a company must pay. The Internal Revenue Service allows a company to use the LIFO method in its income tax returns only if the company also uses the LIFO method in its financial statements. Thus, only J.P. Stevens is eligible to receive the income tax benefits of the LIFO method. By using FIFO in its financial statements, Bobbie Brooks is precluded from using the LIFO method in its income tax returns.

c. No. An inventory flow assumption affects only the *allocation* of costs between ending inventory and the cost of goods sold. It has no *effect* upon the amounts of cash, either collected from customers or paid to merchandise suppliers.

SOLUTIONS TO BRIEF EXERCISES

B.Ex. 8.1 50 units @ $2.00 = $100 (the oldest costs)

B.Ex. 8.2 (12 units @ $21) + (3 units @ $20) = $312 (the most recent costs)\

B.Ex. 8.3

100 units @ $3.05 =	$ 305
150 units @ $3.10 =	465
120 units @ $3.15 =	378
370	$1,148

$1,148/370 units = $3.10 per unit

Ending inventory: (370 units - 125 units) x $3.10 = $760

B.Ex. 8.4 Units in ending inventory: 100 + 100 - 75 = 125 units

LIFO: (25 @ $5.05) + (100 @ $5.00) = $626.25
FIFO: (25 @ $5.00) + (100 @ ($5.05) = $630.00

Exercise

The difference is only $3.75 due to the relatively small difference in price of the two purchases ($.05).

B.Ex. 8.5 Units in ending inventory: 10 + 20 - 25 = 5 units

Average cost:	10 @ $10 =	$100
	20 @ $11 =	220
	30	$320

$320/30 = $10.67

LIFO inventory: 5 units @ $10 = $50 (oldest costs)

Average cost inventory: 5 units @ $10.67 = $53.35 (average cost)

B.Ex. 8.6

Inventory Shrinkage Loss	5,000	
Inventory		5,000
($100,000 x 5%)		

B.Ex. 8.7

Sales	$990,000
Cost of goods sold	(460,000)
Gross profit	$530,000

B.Ex. 8.8 Rather than ending inventory being $670,000, it is correctly restated at $620,000 ($670,000 - $50,000). Correction of this error will cause cost of goods sold to increase by $50,000.

B.Ex. 8.9 **Inventory turnover: $500,000 / $128,000 = 3.91**

Average number of days to sell inventory: 365 / 3.91 = 93.35

B.Ex. 8.10 **Inventory turnover for 2006: $85 / $27 = 3.15**
Inventory turnover for 2007: $90 / $35 = 2.57

The turnover rate is higher in 2006, indicating that management did a better job of managing its inventory in 2006 than in 2007. This same relationship can be seen by calculating the average number of days to sell inventory, which is lower in 2006, as indicated below:

Average days to sell inventory:
2006 365 / 3.15 = 115.9
2007 365 / 2.57 = 142.0

SOLUTIONS TO EXERCISES

Ex. 8.1
- **a.** **Flow assumption**
- **b.** **Average-cost method**
- **c.** **Specific identification**
- **d.** **LIFO method**
- **e.** **FIFO method**
- **f.** **Retail method**

Ex. 8.2

a.

Cost of Goods Sold	137,800	
Inventory		137,800

To record the cost of 90 Millenium computers sold to Apex Publishers. Cost determined by the specific identification method:

62 @ $1,500	$93,000
28 @ $1,600	44,800
Cost of goods sold	$137,800

b.

Cost of Goods Sold	137,700	
Inventory		137,700

Exercis

To record the cost of 90 Millenium computers sold to Apex Publishers. Cost determined by the average-cost method:

90 @ $1,530 ($153,000 ÷ 100 units)

c.

Cost of Goods Sold	137,000	
Inventory		137,000

To record the cost of 90 Millenium computers sold to Apex Publishers. Cost determined by the FIFO flow assumption:

70 @ $1,500	$105,000
20 @ $1,600	32,000
Cost of goods sold	$137,000

d.

Cost of Goods Sold	138,000	
Inventory		138,000

To record the cost of 90 Millenium computers sold to Apex Publishers. Cost determined by the LIFO flow assumption:

30 @ $1,600	$48,000
60 @ $1,500	90,000
Cost of goods sold	$138,000

e. Under FIFO, the cost of goods sold is based on the oldest costs. Thus, relative to using LIFO, the FIFO method will result in higher net income during periods of rising prices, which will increase a company's income tax liability. In the balance sheet, the FIFO method reports inventory at the most current costs. The LIFO method, on the other hand, reports the same inventory at older, more conservative, and perhaps out-of-date costs.

Ex. 8.3 a. 1. As heating oil is purchased and put into storage tanks, it mixes completely with the heating oil remaining in these tanks from prior purchases. As oil is pumped into the company's delivery trucks, it actually represents a blend of multiple purchase costs. Thus, the average-cost method appears to best describe the physical flow of the heating oil inventory.

2. The company's large coal storage bins are loaded and emptied from the top by giant machines, making the most recent coal acquired the most recent coal sold. Thus, the LIFO method best describes the physical flow of the coal inventory.

Exercis

3. The kerosene inventory is stored on shelves in 5-gallon containers. Management probably "rotates" this stock on a regular basis. Thus, the FIFO method best describes the physical flow of the kerosene inventory.

b. The LIFO method would probably result in the lowest income tax liability for the company (assuming that fuel prices are rising). The LIFO method allocates the most recent purchase prices to the cost of goods sold for the period. Thus, in periods of rising prices, LIFO usually results in a higher cost of goods sold and, consequently, a lower taxable income than other allocation methods.

c. In order for a company to account for its entire inventory as a single, combined, "pool," all items should be relatively homogeneous. Obviously, the physical properties of heating oil, coal, and kerosene differ significantly. Keeping separate inventory records for each fuel type makes the reported figures more meaningful and gives management more control over the operations of the business. If management determined, for example, that one of its product lines is unprofitable, it might decide to discontinue selling that product and focus attention on the profitable products.

Ex. 8.4 **a.** **LIFO results in a higher cost of goods sold than does FIFO when the replacement costs of merchandise are *rising.* Under LIFO, the most recent (higher) costs are assigned to the cost of goods sold, and the oldest (lower) costs to inventory. This situation reverses under FIFO.**

Because LIFO assigns the oldest (lowest) costs to inventory, it is reasonable to expect that the LIFO inventory would be *lower* than that resulting from FIFO valuation, not higher.

b. **Dollar amounts stated in thousands:**

1.	**Income before income taxes (as reported under FIFO) ....**	**$112,044**
	Less: Additional cost of goods sold had LIFO been in use	
	use ($1,763,384 - $1,753,000)..	**10,384**
	Income before income taxes (assuming LIFO)	**$101,660**
2.	**Income taxes expense under LIFO ($101,660 income before taxes × 40%)..**	**$40,664**
3.	**Income before income taxes (LIFO basis, part *1*) ....**	**$101,660**
	Less: Income taxes expense under LIFO (part *2*)	**40,664**
Exercise	**Net income (assuming LIFO) ....**	**$60,996**
4.	**Net cash provided by operating activities (as reported under FIFO)..**	**$116,009**
	Add: $4,154 income tax savings had LIFO been in use	
	($44,818 paid, minus $40,664 from part 2).......................	**4,154**
	Net cash provided by operating activities (assuming LIFO) ...	**$120,163**

Ex. 8.5 **The inventory at December 31 amounts to $725,000, computed by adding the $125,000 inbound shipment of merchandise to $600,000 of merchandise on hand. Terms of the $125,000 shipment were F.O.B. shipping point; therefore, title passed at the point of shipment on December 28 and the goods were the property of the buyer (Jensen) while in transit.**

The $95,000 outbound shipment was correctly handled. Title to these goods passed to the customer on December 30 when the goods were shipped, so they are not part of the Jensen inventory at December 31. This shipment was billed on December 30, so the account receivable is properly included in the balance sheet.

In addition to the $125,000 increase in inventory, accounts payable should be increased by $125,000. Jensen owns the merchandise at December 31 and has a liability to pay for it.

Ex. 8.6	a. 1.	Loss from Write-down of Inventory		2,400	
		Inventory			2,400
		To write down the inventory of 28 units of WordCrafter to the lower-of-cost-or-market:			
		Cost	$9,400		
		Replacement cost (28 units @ $250)	7,000		
		Reduction in carrying value	$2,400		
	2.	Cash		5,250	
		Sales			5,250
		To recognize the sales revenue from the sale of 15 WordCrafter programs @ $350, cash.			
		Cost of Goods Sold		3,750	
		Inventory			3,750
		To record cost of 15 WordCrafter programs sold on January 9 using the FIFO flow assumption. (All units are carried in inventory at $250 following the year-end reduction to the lower-of-cost-or-market.)			
Exercis	b. 1.	Cost of Goods Sold		1,200	
		Inventory			1,200
		To record shrinkage loss of 3 units of WordCrafter software using the FIFO flow assumption (3 units @ $400).			
	2.	Cost of Goods Sold		930	
		Inventory			930
		To record shrinkage loss of 3 units of WordCrafter software using the LIFO flow assumption (3 units @ $310).			

3. Using the FIFO method would result in a $270 lower net income figure than using the LIFO method ($1,200 –$930 = $270). This is due to the reduction in price paid for the second purchase. Although the company would report a lower net income figure using FIFO, it would not really be any less *efficient* in conducting operations. An inventory valuation method affects only the allocation of costs between ending inventory and cost of goods sold. It has no effect upon the total costs actually incurred in purchasing or manufacturing inventory.

Ex. 8.7 **a.** **Average cost *$79.60* (20 units @ $3.98). (Average cost = $438/110 units = $3.98)**

b. **FIFO, *$99.00* (19 units @ $5.00 + 1 unit @ $4.00).**

c. **LIFO, *$65.50* (9 units @ $3.00 + 11 units @ $3.50).**

d. **Only the FIFO method results in the same ending inventory valuation in both periodic and perpetual costing environments. Under the average cost and LIFO methods, periodic and perpetual systems usually result in different valuations due to the *timing* of inventory purchases and sales. Under FIFO, the value assigned to ending inventory is the same using periodic or perpetual procedures, regardless of when purchases or sales occur during the period.**

Ex. 8.8 **a.** **Compute corrected net income figures:**

	2007	2006
Net income as reported ……………………………………	**$ 350,000**	**$ 250,000**
Correction of understatement of inventory at end of 2006 ….	**(40,000)**	**40,000**
Net income as corrected ……………………………………	**$ 310,000**	**$ 290,000**

b. **Compute gross profit amounts and gross profit percentages for each year based on corrected data:**

For 2006:	**Adjusted gross profit ($600,000 + $40,000) …………………**	**$640,000**
	Gross profit percentage ($640,000 ÷ $1,500,000) ………….	**42.67%**
For 2007:	**Adjusted gross profit ($750,000 - $40,000) ………………….**	**$710,000**
	Gross profit percentage ($710,000 ÷ $2,000,000) ………….	**35.50%**

c. **Correction of owner's equity:**

Owner’s equity at the end of 2006 should be increased by $40,000 to $540,000. At the end of 2007 the owner’s equity of $580,000 requires no correction because the inventory error counterbalanced, as evidenced by the fact that the combined net income for the two years was $600,000, both before and after the correction of net income for the individual years.

Ex. 8.9 **a.** **Inventory at time of theft is $91,500, computed as follows:**

Beginning inventory, January 1		**$ 50,000**
Net purchases, January 1–29		**80,000**
Cost of goods available for sale		**$ 130,000**
Deduct: Estimated cost of goods sold:		
Net sales	**$ 70,000**	
Cost percentage (100% - 45%)	**55%**	
Estimated cost of goods sold		**38,500**
Estimated ending inventory (at cost):		**$ 91,500**

b. **Rapp must use the periodic inventory method. Had the perpetual method been used, Rapp would have had the *actual* inventory figure at January 29, making it unnecessary to compute an estimated figure using the gross profit method.**

Ex. 8.10 **a.**

Cost ratio during July ($522,000 ÷ $900,000)	**58%**
Estimated cost of goods sold ($600,000 × 58%)	**$348,000**
Estimated ending inventory (at cost):	
Cost of goods available for sale during July	**$522,000**
Less: Estimated cost of goods sold (above)	**348,000**
Estimated ending inventory	**$174,000**

Exercise

b. **It appears that the cost of Phillips' inventory as a percentage of retail sales in July is lower than it was in June. At June 30, the percentage was 60% ($300,000 ÷ $500,000). During July, however, the percentage was only 55.5%, based upon Phillips' purchases ($222,000 ÷ $400,000).**

Ex. 8.11 **a.** **A company may use different inventory methods for different types of inventory. With respect to inventories, the consistency principle means only that the method used to value a particular type of inventory should not be changed from one year to the next.**

b. **The notes accompanying the company's financial statements reveal that total inventories would have been $1.8 billion higher had the LIFO method not been used. Accordingly, the company's cost of goods sold would have been $1.8 billion lower, and gross profit would have been $1.8 billion *higher* had the LIFO method not been used.**

c. **By using LIFO, the company's inventories are reported in the balance sheet at an amount $1.8 billion *lower* than if LIFO had not been used. The LIFO method assigns the most recent inventory replacement costs to the cost of goods sold, and reports the older inventory cost layers in the balance sheet. Thus, if the LIFO method *decreases* the company's ending inventory reported in the balance sheet, replacement costs must be *increasing*.**

Ex. 8.12 a. 1. The gross profit rate would have been *higher* had the company been using FIFO because older (and therefore lower) costs would have been charged to the Cost of Goods Sold account. This would have resulted in a higher dollar amount of gross profit and a higher gross profit rate.

2. Net income would have been *higher* under FIFO for the same reason as explained above. However, net income would not have been increased as much as gross profit, because income tax expense would have been higher had FIFO been in use.

3. The current ratio also would have been *higher* under FIFO because inventory would have been valued at more current costs, which are higher than the older costs included in a LIFO inventory valuation.

4. The inventory turnover rate would have been *lower* had the company used FIFO. This rate is the cost of goods sold, divided by average inventory. Under FIFO, the cost of goods sold would have been lower, and the average inventory value would have been higher. Both factors result in a lower inventory turnover rate.

Exercise

5. The accounts receivable turnover rate (net sales divided by average accounts receivable) would be *unaffected* by the inventory flow assumption in use. A flow assumption allocates the cost of merchandise purchases between the Cost of Goods Sold account and the Inventory account. It has no effect upon sales revenue or accounts receivable.

6. Cash payments to suppliers are *unaffected* by the inventory flow assumption in use. These cash flows are affected by the terms of purchase, not the manner in which the purchaser chooses to account for the acquisition costs.

7. Net cash flow from operating activities would have been *lower* had the company used FIFO. The only cash flow affected by the inventory flow assumption in use is income taxes. By recording a lower cost of goods sold, the use of FIFO would have resulted in higher taxable income and, therefore, larger tax payments.

b. The only manner in which an inventory flow assumption affects solvency is through its effect upon cash flows. The higher or lower cost that might be assigned to inventory is *not relevant*, as it does not affect the amount for which that inventory can be sold.

As explained in item *7*, above, the only cash flow affected by inventory flow assumptions is income tax payments. As LIFO has resulted in lower tax payments, it has left the company *more solvent* than it would have been if it were using FIFO.

Although Ford has reported less net income as a result of using LIFO, it actually is *better off* than if it had used FIFO. There are only two differences in the company's financial position that result from the flow assumption in use. One is a difference in cash position. As explained above, Ford has made lower tax payments and therefore retained more cash as a result of using LIFO. This indeed makes the company "better off."

b. (continued)

The other difference in financial position is the carrying value of the asset inventory. But this is just a "book value"—it does not represent what the inventory will be sold for. Ford has the same physical inventory on hand, with the same sales value, regardless of the flow assumption it has been using.

Ex. 8.13 a. Inventory turnover rate (dollar amounts in millions):

$$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{\$7{,}542}{(\$193 + \$315) \div 2} = \frac{\$7{,}542}{\$254} = \underline{\underline{29.7\text{ times}}}$$

b. Number of days required to sell the average amount of inventory:

$$\frac{\text{Days in Year}}{\text{Inventory Turnover Rate}} = \frac{365}{29.7} = 12\text{ days}$$

c. Operating cycle:

Days Required to Sell Amount of Avg. Inventory		Days Required to Collect Amount of Avg. Receivable		
12 days	+	22 days	=	<u>34 days</u>

es

d. Gateway is a computer manufacturer, whereas Comp USA is a computer retailer. The concept of minimizing inventories applies more to manufacturing operations than to retailers. Manufacturers, such as Gateway, have buyers "lined up" for their merchandise even before goods are produced. As a result, their inventory turnover rates are relatively high. Retailers, in contrast, must offer their customers a wide selection of in-stock merchandise – which means carrying large inventories and accepting lower turnover rates.

*** Ex. 8.14 a. Inventory turnover:**

Year ended January 31, 2005:

Cost of goods sold ($219,793)/Inventory ($29,447) = 7.46

Year ended January 31, 2004:

Cost of goods sold ($198,747)/Inventory ($26,612) = 7.47

b. Average number of days required to sell inventory:

Year ended January 31, 2005:

365 days / 7.46 = 48.93

Year ended January 31, 2004:

365 days / 7.47 = 48.86

E **c. The company was more essentially the same in terms of efficiency in managing its inventory in the year ended January 31, 2005 and in the previous year. The inventory turnover in the most recent year was 7.47, compared to 7.46 in the previous year. This resulted in an average number of days required to sell inventory being only slightly different in the current year (48.86) compared to the most recent prior year (48.93).**

Ex. 8.15	a.	(1)	Cost of sales year ended 1/29/06	$54,191
			Inventories 1/30/05	10,076
			Inventories 1/29/06	11,401
				$21,477
				÷ 2
		(2)	Average inventories year ended 2/1/04	$10,739
		(3)	Inventory turnover rate (1) ÷ (2)	5.05 times
	b.	(1)	Days in a year	365 days
			Average days in inventory (365 ÷ 5.05)	72.3 days
	c.		Average days merchandise is in inventory (see b)	72.3 days
			Average days receivables remain outstanding	8.7 days *
			Days in operating cycle	81.0 days

Given an operating cycle of approximately 81 days, inventory accounts for almost 90% of the company's total operating cycle. Accounts receivable days account for only about 11% of the total time in the operating cycle. Thus, the accounts receivable turnover rate influences the company's operating cycle less significantly than its inventory turnover rate.

Exercises * The average days a receivable remains outstanding is computed as follows:

(1)	Net sales year ended 1/29/06	$81,511
	Accounts receivable 1/30/05	1,499
	Accounts receivable 1/29/06	2,396
		$3,895
		÷ 2
(2)	Average inventories year ended 2/1/04	$1,948
	Receivables turnover rate (1) ÷ (2)	41.8 times
	Average days outstanding 365 ÷ 41.8	8.7 days

SOLUTIONS TO PROBLEM SET A

35 Minutes, Medium

PROBLEM 8.1A
BASSTRACK

a.

General Journal

2007				
		(1) Specific identification method:		
Jan	15	Cost of Goods Sold	30,500	
		Inventory		30,500
		To record cost of 1,000 Ace-5 reels sold to Angler's		
		Warehouse: 500 units @ $29; 500 units @$32.		
		(2) Average-cost method:		
Jan	15	Cost of Goods Sold	30,800	
		Inventory		30,800
		To record cost of 1,000 Ace-5 reels sold to Angler's		
		Warehouse by the average-cost method: 1,000		
		units @$30.80 ($46,200 total cost, divided by 1,500		
		units).		
		(3) First-in, First-out (FIFO) method:		
Jan	15	Cost of Goods Sold	30,200	
		Inventory		30,200
		To record cost of 1,000 Ace-5 reels sold to Angler's		
		Warehouse. Cost determined by the FIFO flow		
		assumption: 600 units @$29, plus 400 units		
		@ $32 = $30,200.		
		(4) Last-in, First-out (LIFO) method:		
Jan	15	Cost of Goods Sold	31,700	
		Inventory		31,700
		To record cost of 1,000 Ace-5 reels sold to Angler's		
		Warehouse. Cost determined by the LIFO flow		
		assumption: 900 units @$32, plus 100 units		
		@ $29 = $31,700.		

PROBLEM 8.1A
BASSTRACK (continued)

b. Inventory subsidiary ledger records:

(1) Specific identification method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	600	$ 29	$ 17,400				600	$ 29	$ 17,400
Jan 09	900	32	$ 28,800				600	29	
							900	32	46,200
Jan 15				500	$ 29		100	29	
				500	32	$ 30,500	400	32	15,700

(2) Average-cost method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	600	$ 29	$ 17,400				600	$ 29.00	$ 17,400
Jan 09	900	32	28,800				1,500	30.80	46,200
Jan 15				1,000	$ 30.80	$ 30,800	500	30.80	15,400

* $46,200 total cost ÷ 1,500 units = $30.80 average unit cost.

(3) First-in, first-out (FIFO) method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	600	$ 29	$ 17,400				600	$ 29	$ 17,400
Jan 09	900	32	28,800				600	29	
							900	32	46,200
Jan 15				600	$ 29				
				400	32	$ 30,200	500	32	16,000

(4) Last-in, first-out (LIFO) method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	600	$ 29	$ 17,400				600	$ 29	$ 17,400
Jan 09	900	32	$ 28,800				600	29	
							900	32	46,200
Jan 15				900	$ 32				
				100	29	$ 31,700	500	29	14,500

c. **No. As shown in part *a*, the LIFO method resulted in the highest cost of goods sold figure, whereas the FIFO method resulted in the lowest. If the LIFO method is used for tax purposes, income tax regulations require that it also be used for financial reporting purposes.**

30 Minutes, Strong

PROBLEM 8.2A
SPEED WORLD CYCLES: PERPETUAL SYSTEM

a. Cost of goods sold and ending inventory		
(1) Average-cost method:		
(a) Cost of goods sold on July 28:		
Average cost (as of July 22; $24,900 ÷ 5 units)	$ 4,980	
Cost of goods sold (4 units @ $4,980)		$ 19,920
(b) Ending inventory (4 units) at September 30:		
Average unit cost following August 3 purchase:		
1 unit at July 22 average cost of $4,980	$ 4,980	
3 units purchased on August 3	15,300	
Total	$ 20,280	
Average unit cost as of August 3 ($20,280 ÷ 4 units)	$ 5,070	
Ending inventory, September 30 (4 units @ $5,070)		$ 20,280
(2) First-in, first-out (FIFO) method:		
(a) Cost of goods sold on July 28:		
Exercises		$ 9,900
2 units from July 22 purchase @ $5,000		10,000
Cost of goods sold (4 units)		$ 19,900
(b) Ending inventory (4 units) at September 30:		
1 unit from July 22 purchase @$5,000	$ 5,000	
3 units from August 3 purchase @ $5,100	15,300	
Ending inventory, September 30		$ 20,300
(3) Last-in, first-out (LIFO) method:		
(a) Cost of goods sold on July 28:		
3 units from purchase of July 22 @ $5,000	$ 15,000	
1 unit from purchase of July 1 @ $4,950	4,950	
Cost of goods sold (4 units)		$ 19,950
(b) Ending inventory (4 units) at September 30:		
1 unit from purchase on July 1 @ $4,950	$ 4,950	
3 units from purchase on August 3 @ $5,100	15,300	
Ending inventory, September 30		$ 20,250

b.

(1) The FIFO method will result in the highest net income, as it assigns the oldest (lowest) costs to the cost of goods sold. FIFO will result in the highest net income whenever the oldest purchase costs are also the lowest—that is, in the common situation of rising prices.

(2) In this situation, the LIFO method will minimize income taxes, as it assigns the most recent (and highest) costs to the cost of goods sold. The high cost of goods sold, in turn, minimizes taxable income. The LIFO method will minimize taxes whenever the most recent purchase costs are the highest, which, as mentioned above, is the normal situation in an inflationary environment.

(3) No. Speed World may *not* use FIFO in its financial statements and LIFO in its income tax returns. Normally a company *may* use different accounting methods in its financial statements and income tax returns. However, tax laws *require* a taxpayer using LIFO in its income tax return also to use the LIFO method in its financial statements.

20 Minutes, Medium

PROBLEM 8.3A
SPEED WORLD CYCLES: PERIODIC SYSTEM

a. Cost of goods sold and ending inventory		
(1) Average-cost method:		
Ending inventory at September 30:		
Average cost ($40,200 ÷ 8 units)	$ 5,025	
Ending inventory (4 units @ $5,025)		$ 20,100
Cost of goods sold through September 30:		
Cost of goods available for sale		$ 40,200
Less: Ending inventory at September 30 (above)		20,100
Cost of goods sold		$ 20,100
(2) First-in, first-out (FIFO) method:		
Ending inventory (4 units) at September 30:		
3 units from purchase on August 3 (@$5,100)		$ 15,300
1 unit from purchase on July 22 (@$5,000)		5,000
Exercises		$ 20,300
Cost of goods sold through September 30:		
Cost of goods available for sale		$ 40,200
Less: Ending inventory at September 30 (above)		20,300
Cost of goods sold		$ 19,900
(3) Last-in, first-out (LIFO) method:		
Ending inventory at September 30:		
2 units from purchase on July 1 (@$4,950)		$ 9,900
2 units from purchase on July 22 (@$5,000)		10,000
Ending inventory		$ 19,900
Cost of goods sold		
Cost of goods available for sale		$ 40,200
Less: Ending inventory at September 30 (above)		19,900
Cost of goods sold		$ 20,300

Note to instructor: **Students may point out that ending inventory computed under LIFO is the same figure as the cost of goods sold computed under FIFO. Likewise, the cost of goods sold figure computed under LIFO is the same as the ending inventory figure computed under FIFO. The fact that these numbers are the same is merely a coincidence.**

b. **Yes. Income tax regulations influence the inventory method used in financial reports *only* when the LIFO method is used for income tax purposes. If the company selects the FIFO method for income tax reporting, it is free to choose another method for financial reporting purposes.**

20 Minutes, Medium

PROBLEM 8.4A
MARIO'S NURSERY

a. Shrinkage loss-40 trees		
(1) Average-cost method:		
Cost of Goods Sold	1,208	
Inventory		1,208
To record shrinkage loss of 40 trees using average cost of		
$30.20 ($10,570 ÷ 350 trees = $30.20 per tree).		
(2) Last-in first-out (LIFO) method:		
Cost of Goods Sold	1,560	
Inventory		1,560
To record shrinkage loss of 40 trees using the LIFO flow		
assumption (40 trees @ $39).		
Exercises		
b. Shrinkage loss and LCM adjustment		
(1) Shrinkage loss, first-in, first-out (FIFO) method:		
Cost of Goods Sold	1,000	
Inventory		1,000
To record shrinkage loss of 40 trees using the FIFO flow		
assumption (40 trees @ $25).		
(2) Write-down of inventory to the lower-of-cost-or-market:		
Cost of Goods Sold	3,370	
Inventory		3,370
To write down inventory to a market value below cost:		
Cost (after shrinkage loss: $10,570 - $1,000)	$ 9,570	
Market (310 trees x $20 per tree)	6,200	
Loss from write-down to market value	$ 3,370	

c. The only unethical act in this situation was committed by the employee against his employer. There is nothing unethical about using a hidden security camera to protect one's assets. The camera was not used to *entice* (or entrap) the employee. In short, he made a conscious decision to steal trees from his employer and should be held completely responsible for doing so.

25 Minutes, Easy

PROBLEM 8.5A
MACH IV AUDIO

	Units	Unit Cost	Total Cost
a. Inventory and cost of goods sold:			
(1) FIFO:			
Inventory:			
Fourth purchase (Dec.18)	19	$ 320	$ 6,080
Third purchase (Oct. 4)	2	315	630
Ending inventory, FIFO	21		$ 6,710
Cost of goods sold:			
Cost of goods available for sale			$ 22,340
Less: Ending inventory, FIFO			6,710
Cost of goods sold, FIFO			$ 15,630
(2) LIFO:			
Inventory:			
Beginning inventory	10	$ 299	$ 2,990
First purchase (May 12)	11	306	3,366
Exe Ending inventory, LIFO	21		$ 6,356
Cost of goods sold:			
Cost of goods available for sale			$ 22,340
Less: Ending inventory, LIFO			6,356
Cost of goods sold, LIFO			$ 15,984
(3) Average cost:			
Inventory:			
Total goods available for sale	72		$ 22,340
Average unit cost ($22,340 ÷			
72 units)		$ 310.28	
Ending inventory, weighted			
average of $310.28 per unit	21	310.28	$ 6,516
Cost of goods sold, weighted			
average of $310.28 per unit	51	310.28	$ 15,824

b. **The FIFO method, by assigning the costs of the most recent purchases to inventory, provides the most realistic balance sheet amount for inventory in terms of replacement costs. A weakness in the FIFO method, however, is that the costs assigned to the cost of goods sold are relatively old costs. Because the replacement costs of the units has been rising throughout the year, the FIFO method tends to understate the cost of goods sold in terms of the costs actually being incurred by MACH IV to replenish its inventory. The LIFO inventory method assigns the more recent costs to the cost of goods sold and therefore provides a more realistic measure of income, in terms of current replacement costs, than does the FIFO method.**

20 Minutes, Medium

PROBLEM 8.6A
HEXAGON HEALTH FOODS

a.			
	2007	2006	2005
Net sales	$ 875,000	$ 840,000	$ 820,000
Cost of goods sold	563,000	527,200	$ 440,000
Gross profit on sales	$ 312,000	$ 312,800	$ 380,000
Gross profit percentage	36%	37%	46%
Cost of Goods Sold:			
2005: $480,000 - $40,000 = $440,000			
2006: $487,200 + $40,000 = $527,200			
2007: $481,250 + $81,750 = $563,000			

b. **The current owners of this business have no reason to be enthusiastic over the trend of gross profit or gross profit percentage. After correction of the inventory errors, it is apparent that both the dollar amount of gross profit and the gross profit percentage have declined, rather than increased, during the last three years.**

erc

25 Minutes, Medium

PROBLEM 8.7A
BETWEEN THE EARS

a.		
(1) Estimated cost of goods sold:		
Cost ratio for the current year:		
Cost of goods available for sale		$ 462,000
Retail prices of goods available for sale		840,000
Cost ratio ($462,000 ÷ $840,000)		55%
Estimated cost of goods sold (net sales, $744,000 x cost ratio, 55%)		$ 409,200
(2) Estimated ending inventory:		
Cost of goods available for sale (given)		$ 462,000
Less: Estimated cost of goods sold (above)		409,200
Estimated ending inventory		$ 52,800
b.		
(1) Restating physical inventory from retail prices to cost:		
Physical inventory stated in retail prices		$ 84,480
Cost ratio (per part a, above)		55%
Ending inventory at cost ($84,480 x 55%)		$ 46,464
(2) Estimated shrinkage losses at cost:		
Estimated ending inventory per part a		$ 52,800
Physical count of ending inventory, restated at cost (per part b)		46,464
Estimated shrinkage loss, stated at cost		$ 6,336
(3) Computation of gross profit:		
Net sales		$ 744,000
Cost of goods sold:		
Cost of goods available for sale	$ 462,000	
Less: Ending inventory per physical count, at cost	46,464	415,536
Gross profit		$ 328,464

c. Tapes and CDs can easily fit into someone's pocket and "walk out of the warehouse." Thus, it is important that effective controls be in place to reduce inventory shrinkage. Four common controls include: (1) security cameras, (2) security personnel, (3) shelves for safeguarding employee handbags while they work, and (4) magnetic sensor strips to sound an alarm if someone leaves the warehouse in possession of a tape or CD. The sensor strips would be deactivated when units of inventory are packed for shipment to customers.

20 Minutes, Strong

PROBLEM 8.8A
WAL-MART

a.	Computations based on LIFO valuation of inventory:				
	(1) Inventory turnover rate:				
	Cost of Goods Sold	=	$	150.255	7.29 times
	Average inventory		$	20.618	
	(2) Current ratio:				
	Current Assets	=	$	26.555	0.92 : 1
	Current Liabilities		$	28.949	
	(3) Gross profit rate:				
Exerc	Gross Profit	=	$	41.074	21.5%
	Net Sales		$	191.329	
b.	Computations assuming that the company had used the FIFO method of inventory valuation:				
	(1) Inventory turnover rate:				
	FIFO Cost of Goods Sold	=	$	150.053	7.18 times
	FIFO Average Inventory		$	20.908	
	(2) Current ratio:				
	Current Assets + Increase in Year-end Inventory				
	Current Liabilities				
	$26.555 + $0.202	=	$	26.757	0.92: 1
	$28.949	`	$	28.949	
	(3) Gross profit rate:				
	Gross profit + Decrease in Cost of Goods Sold				
	Net Sales				
	$41.074 + $0.202	=	$	41.276	21.6%
	$191.329		$	191.329	

c. **The company must have encountered increasing replacement costs for its merchandise during the year.**

d. **The average days required to collect outstanding receivables is computed by dividing 365 days by a company's accounts receivable turnover rate. The turnover rate is computed by dividing net sales by average accounts receivable. Thus, the *lower* a company's average accounts receivable, the *higher* its accounts receivable turnover rate will be, and the *lower* its average collection time will be.**

Wal-Mart turns over its accounts receivable at a rate of 122 times per year (365 days ÷ 122 times = 3 days average collection time). In short, the company's impressive collection performance results from its accounts receivable being *very low* relative to its total sales. This makes sense, given that most of Wal-Mart's revenue is in the form of *cash sales*.

SOLUTIONS TO PROBLEMS SET B

35 Minutes, Medium

PROBLEM 8.1B
DOME, INC.

a.				
General Journal				
2007				
		(1) Specific identification method:		
Jan	22	Cost of Goods Sold	14,800	
		Inventory		14,800
		To record cost of 700 cartridges sold to Maxine		
		Supplies: 300 units @ $20; 400 units @ $22.		
		(2) Average-cost method:		
Jan	22	Cost of Goods Sold	15,050	
		Inventory		15,050
		To record cost of 700 cartridges sold to Maxine		
		Supplies by the average-cost method: 700		
		units @$21.50 ($34,400 total cost, divided by 1,600		
		units).		
		(3) First-in, First-out (FIFO) method:		
Jan	22	Cost of Goods Sold	14,600	
		Inventory		14,600
		To record cost of 700 cartridges sold to Maxine		
		Supplies by the FIFO flow assumption:		
		400 units @$20, plus 300 units @ $22.		
		(4) Last-in, First-out (LIFO) method:		
Jan	22	Cost of Goods Sold	15,400	
		Inventory		15,400
		To record cost of 700 cartridges sold to Maxine		
		Supplies by the LIFO flow assumption		
		700 units @$22.		

b. Inventory subsidiary ledger records:

(1) Specific identification method:

PROBLEM 8.1B
DOME, INC. (continued)

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	400	$ 20	$ 8,000				400	$ 20	$ 8,000
Jan 16	1,200	22	26,400				400	20	
							1,200	22	34,400
Jan 22				300	$ 20		100	20	
				400	22	$ 14,800	800	22	19,600

(2) Average-cost method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	400	$ 20	$ 8,000				400	$ 20.00	$ 8,000
Jan 16	1,200	22	26,400				1,600	21.50	34,400
Jan 22				700	$ 21.50	$ 15,050	900	21.50	19,350

* $34,400 total cost ÷ 1,600 units = $21.50 average unit cost.

(3) First-in, first-out (FIFO) method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	400	$ 20	$ 8,000				400	$ 20	$ 8,000
Jan 16	1,200	22	26,400				400	20	
							1,200	22	34,400
Jan 22				400	$ 20				
				300	22	$ 14,600	900	22	19,800

(4) Last-in, first-out (LIFO) method:

	PURCHASED			SOLD			BALANCE		
Date	Units	Unit Cost	Total	Units	Unit Cost	Cost of Goods Sold	Units	Unit Cost	Balance
Dec 12	400	$ 20	$ 8,000				400	$ 20	$ 8,000
Jan 16	1,200	22	26,400				400	20	
							1,200	22	34,400
Jan 22				700	$ 22	$ 15,400	400	20	
							500	22	19,000

PROBLEM 8.1B
DOME, INC. (concluded)

c. **Yes. As shown in part *a*, the LIFO method resulted in the highest cost of goods sold figure, whereas the FIFO method resulted in the lowest. If the FIFO method is used for tax purposes, income tax regulations do not require that it also be used for financial reporting purposes.**

30 Minutes, Strong

PROBLEM 8.2B
SEA TRAVEL: PERPETUAL SYSTEM

a. Cost of goods sold and ending inventory		
(1) Average-cost method:		
(a) Cost of goods sold on April 28:		
Average cost (as of April 28; $73,000 ÷ 9 units)	**$ 8,111**	
Cost of goods sold (5 units @ $8,111)		**$ 40,555**
(b) Ending inventory (7 units) at June 30:		
Average unit cost following April 19 purchase:		
4 units at April 19 average cost of $8,111	**$ 32,444**	
3 units purchased on May 8 at $8,500 each	**25,500**	
Total	**$ 57,944**	
Average unit cost as of May 8 ($57,944 ÷ 7 units)	**$ 8,278**	
Ending inventory, June 30 (7 units @ $8,278)		**$ 57,946**
(2) First-in, first-out (FIFO) method:		
(a) Cost of goods sold on April 28:		
Exercises		**$ 32,000**
1 unit from April 19 purchase @ $8,200		**8,200**
Cost of goods sold (5 units)		**$ 40,200**
(b) Ending inventory (7 units) at June 30:		
4 units from April 19 purchase @ $8,200	**$ 32,800**	
3 units from May 8 purchase @ $8,500	**25,500**	
Ending inventory, June 30		**$ 58,300**
(3) Last-in, first-out (LIFO) method:		
(a) Cost of goods sold on April 28:		
5 units purchased on April 19 @ $8,200	**$ 41,000**	
Cost of goods sold (5 units)		**$ 41,000**
(b) Ending inventory (7 units) at June 30:		
4 units from purchase of April 1 @ $8,000	**$ 32,000**	
3 units from purchase on May 8 @ $8,500	**25,500**	
Ending inventory, June 30		**$ 57,500**

Problem 8.2B
SEA TRAVEL: PERPETUAL SYSTEM
(concluded)

b. **(1)** **The LIFO method will result in the lowest net income, as it assigns the most recent (highest) costs to the cost of goods sold. LIFO will result in the lowest net income whenever the most recent purchase costs are also the highest—that is, in the common situation of rising prices.**

(2) **In this situation, the FIFO method will maximize income taxes, as it assigns the oldest (and lowest) costs to the cost of goods sold. The low cost of goods sold, in turn, increases taxable income. The FIFO method will increase taxes whenever the oldest purchase costs are the lowest, which as mentioned above is the normal situation in an inflationary environment.**

(3) **Yes. Sea Travel may use LIFO in its financial statements and FIFO in its income tax returns. Normally a company *may* use different accounting methods in its financial statements and income tax returns. However, tax laws do *require* that taxpayers using LIFO for tax purposes must also use the LIFO method for financial reporting purposes.**

20 Minutes, Medium

PROBLEM 8.3B
SEA TRAVEL: PERIODIC SYSTEM

a. Cost of goods sold and ending inventory		
(1) Average-cost method:		
Ending inventory at June 30:		
Average cost ($98,500 ÷ 12 units)	$ 8,208	
Ending inventory (7 units @ $8,208)		$ 57,456
Cost of goods sold through June 30:		
Cost of goods available for sale		$ 98,500
Less: Ending inventory at June 30 (above)		57,456
Cost of goods sold		$ 41,044
(2) First-in, first-out (FIFO) method:		
Ending inventory at June 30:		
3 units from purchase on May 8 (@ $8,500)		$ 25,500
4 units from purchase on April 19 (@$8,200)		32,800
Exercises		$ 58,300
Cost of goods sold through June 30:		
Cost of goods available for sale		$ 98,500
Less: Ending inventory at June 30 (above)		58,300
Cost of goods sold		$ 40,200
(3) Last-in, first-out (LIFO) method:		
Ending inventory at June 30:		
4 units from purchase on April 1 (@ $8,000)		$ 32,000
3 units from purchase on April 19 (@ $8,200)		24,600
Ending inventory		$ 56,600
Cost of goods sold		
Cost of goods available for sale		$ 98,500
Less: Ending inventory at June 30 (above)		56,600
Cost of goods sold		$ 41,900

b. **No. Tax laws require that taxpayers using LIFO for tax purposes must also use the LIFO method for financial reporting purposes. If, however, the company selects the FIFO method for income tax reporting, it is free to choose another method for financial statement purposes.**

20 Minutes, Medium

PROBLEM 8.4B
SAM'S LAWN MOWERS

a. Shrinkage loss-one lawn mower		
(1) Average-cost method:		
Cost of Goods Sold	107	
Inventory		107
To record shrinkage loss of one lawn mower using average		
cost of $107 ($21,400 ÷ 200 mowers - $107 per mower).		
(2) Last-in first-out (LIFO) method:		
Cost of Goods Sold	120	
Inventory		120
To record shrinkage loss of one lawn mower using the LIFO		
flow assumption (one mower @ $120).		
Exercises		
b. Shrinkage loss and LCM adjustment		
(1) Shrinkage loss, first-in, first-out (FIFO) method:		
Cost of Goods Sold	100	
Inventory		100
To record shrinkage loss of one lawn mower using the FIFO		
flow assumption (one mower @ $100).		
(2) Write-down of inventory to the lower-of-cost-or-market:		
Cost of Goods Sold	3,390	
Inventory		3,390
To write down inventory to a market value below cost:		
Cost (after shrinkage loss: $21,400 - $100)	$ 21,300	
Market (199 mowers @ $90 per lawn mower)	17,910	
Loss from write-down to market value	$ 3,390	

c. **The only unethical act in this situation was committed by the employee against his employer. There is nothing unethical about using a hidden security camera to protect one's assets. The camera was not used to *entice* (or entrap) the employee. In short, he made a conscious decision to steal lawn mowers from his employer and should be held completely responsible for doing so.**

25 Minutes, Easy

PROBLEM 8.5B
ROMAN SOUND

	Units	Unit Cost	Total Cost
a. Inventory and cost of goods sold:			
(1) FIFO:			
Inventory:			
Fourth purchase	15	$ 110	$ 1,650
Third purchase	5	106	530
Ending inventory, FIFO	20		$ 2,180
Cost of goods sold:			
Cost of goods available for sale			$ 10,370
Less: Ending inventory, FIFO			2,180
Cost of goods sold, FIFO			$ 8,190
(2) LIFO:			
Inventory:			
Beginning inventory	10	$ 100	$ 1,000
First purchase	10	101	1,010
Ending inventory, LIFO	20		$ 2,010
Cost of goods sold:			
Cost of goods available for sale			$ 10,370
Less: Ending inventory, LIFO			2,010
Cost of goods sold, LIFO			$ 8,360
(3) Average cost:			
Inventory:			
Total goods available for sale	100		$ 10,370
Average unit cost ($10,370 ÷ 100 units)		$ 103.70	
Ending inventory, weighted average of $103.70 per unit	20	103.70	$ 2,074
Cost of goods sold, weighted $103.70 per unit	80	103.70	$ 8,296

b. **The FIFO method, by assigning the costs of the most recent purchases to inventory, provides the most realistic balance sheet amount for inventory in terms of replacement costs. A weakness of the FIFO method, however, is that the costs assigned to the cost of goods sold are relatively old costs. Because the replacement costs of the units has been rising throughout the year, the FIFO method tends to understate the cost of goods sold in terms of the costs actually being incurred by Roman Sound to replenish its inventory. The LIFO inventory method assigns the more recent costs to the cost of goods sold and therefore provides a more realistic measure of income, in terms of current replacement costs, than does the FIFO method.**

20 Minutes, Medium

PROBLEM 8.6B
CITY SOFTWARE

a.			
	2007	2006	2005
Net sales	$ 1,000,000	$ 920,000	$ 840,000
Cost of goods sold	680,000	590,400	$ 526,000
Gross profit on sales	$ 320,000	$ 329,600	$ 314,000
Gross profit percentage	32%	35.83%	37.38%
Cost of Goods Sold:			
2005: $546,000 - $20,000 = $526,000			
2006: $570,400 + $20,000 = $590,400			
2007: $600,000 + $80,000 = $680,000			

b. **The current owners of this business have no reason to be enthusiastic over the trend of gross profit or gross profit percentage. After correction of the inventory errors, it is apparent that both the dollar amount of gross profit and the gross profit percentage have declined, rather than increased, during the last three years.**

erc

25 Minutes, Medium

PROBLEM 8.7B
SING ALONG

a.		
(1) Estimated cost of goods sold:		
Cost ratio for the current year:		
Cost of goods available for sale		$ 330,000
Retail prices of goods available for sale		600,000
Cost ratio ($330,000 ÷ $600,000)		55%
Estimated cost of goods sold (net sales, $520,000 x		
cost ratio, 55%)		$ 286,000
(2) Estimated ending inventory:		
Cost of goods available for sale (given)		$ 330,000
Less: Estimated cost of goods sold (above)		286,000
Estimated ending inventory		$ 44,000
b.		
(1) Restating physical inventory from retail prices to cost:		
Physical inventory stated in retail prices		$ 75,000
Cost ratio (per part a, above)		55%
Ending inventory at cost ($75,000 x 55%)		$ 41,250
(2) Estimated shrinkage losses at cost:		
Estimated ending inventory (per part a)		$ 44,000
Physical count of ending inventory, restated		
at cost (per part b)		41,250
Estimated shrinkage loss, stated at cost		$ 2,750
(3) Computation of gross profit:		
Net sales		$ 520,000
Cost of goods sold:		
Cost of goods available for sale	$ 330,000	
Less: Ending inventory per physical count, at cost	41,250	288,750
Gross profit		$ 231,250

c. **Tapes and CDs can easily fit into someone's pocket and "walk out of the store." Thus, it is important that effective controls be in place to reduce inventory shrinkage. Four common controls include: (1) security cameras, (2) security personnel, (3) shelves for safeguarding employee handbags while they work, and (4) magnetic sensor strips to sound an alarm if someone leaves the store in possession of a tape or CD. The sensor strips would be deactivated when units of inventory are sold to customers.**

20 Minutes, Strong

PROBLEM 8.8B
TOYS "R" US

a.	Computations based on LIFO valuation of inventory:				
	(1) Inventory turnover rate:				
	Cost of Goods Sold	=	$	7.8	3.55 times
	Average inventory		$	2.2	
	(2) Current ratio:				
	Current Assets	=	$	4.7	1.68 : 1
	Current Liabilities		$	2.8	
	(3) Gross profit rate:				
Exerc	Gross Profit	=	$	3.7	32.2%
	Net Sales		$	11.5	
b.	Computations assuming that the company had used the FIFO method of inventory valuation:				
	(1) Inventory turnover rate:				
	FIFO Cost of Goods Sold	=	$	7.3	2.61 times
	FIFO Average Inventory		$	2.8	
	(2) Current ratio:				
	Current Assets + Increase in Year-end Inventory				
	Current Liabilities				
	$4.7 + $0.5	=	$	5.2	1.86 : 1
	2.8		$	2.8	
	(3) Gross profit rate:				
	Gross profit + Decrease in Cost of Goods Sold				
	Net Sales				
	$3.7 + $0.5	=	$	4.2	36.5%
	11.5		$	11.5	

c. **The company must have encountered increasing replacement costs for its merchandise during the year.**

d. **The average days required to collect outstanding receivables is computed by dividing 365 days by a company's accounts receivable turnover rate. The turnover rate is computed by dividing net sales by average accounts receivable. Thus, the *lower* a company's average accounts receivable, the *higher* its accounts receivable turnover rate will be, and the *lower* its average collection time will be.**

Toys "R" Us turns over its accounts receivable at a rate of 61 times per year (365 days ÷ 61 times = 6 days average collection time). In short, the company's impressive collection performance results from its accounts receivable being *very low* relative to its total sales. This makes sense, given that most of the company's revenue is in the form of *cash sales*.

SOLUTIONS TO CASES

30 Minutes, Strong

CASE 8.1
OUR LITTLE SECRET

a. Lee confronts three related ethical issues. The first is that Our Little Secret's past tax practices have been both unethical and illegal. Lee cannot be involved in such practices or, if she is in a position of responsibility, allow them to continue.

Second, Lee has good reason to question the basic integrity of her prospective employer. Is Frost's statement that "no one knows how this all got started, or who was responsible" really true? After all, Frost is suggesting that the fraud continue after Amy comes "on board."

Third, there is the issue of confidentiality. Both CPAs and CMAs are ethically bound to treat as confidential all information obtained in the course of their professional activities. This means that the accountant should not disclose confidential information without the employer's (or client's) permission.

Technically, Our Little Secret is neither Lee's employer nor client. Nonetheless, these authors would consider a job interview as part of an accountant's "professional
Ex **activities." Thus, we believe that Lee should treat what she has learned about the company's inventory "problem" as confidential information. Thus, she should *not* take it upon herself to notify the Internal Revenue Service or any other third party about the company's actions.**

b. The solution proposed by Frost is unacceptable. To knowingly understate inventory in an income tax return would be unethical and illegal. Lee may not be a party to such action.

c. Lee basically has two ethical courses of action to consider. First, she may decide that she does not wish to associate herself with the company. Therefore, she simply may decline the job. If she chooses this course, she should treat Frost's disclosures during this interview as confidential information.

A second course of action would be to accept the position *contingent* upon the company agreeing to take immediate steps to rectify the problem. This would include filing amended income tax returns for any years known to be in error, and taking steps to ensure that inventory is reported properly in future returns. A consideration in making this decision should be whether this is an isolated instance or symptomatic of a recurring pattern of unethical behavior.

A third course of action would be to be certain that inventory was correctly stated in the *next* year's tax return, but not amend any returns already filed. This would cause an overstatement of 2007 taxable income which would offset the understatement of taxable income in all past years. These authors can see the practical appeal of such a "simple solution," but we cannot support it. Our Little Secret owes not only income taxes on its understated taxable income, but also interest and penalties for failing to report this income in prior years. Saying nothing and allowing the error to "flow through" is, in essence, a scheme for evading these interest charges and penalties.

20 Minutes, Medium

CASE 8.2
JACKSON SPECIALTIES

a. **While LIFO assigns old acquisition costs to inventory, it *does not* purport to coincide with the physical movement of merchandise in and out of the business. Therefore, the units in inventory are *not* over 50 years old. In fact, they may have been purchased quite recently.**

b. **(1) Gross profit if the units on order *arrive before year-end:***

Sales (4,000 units × $47 per unit)	$188,000
Cost of goods sold—LIFO basis (4,000 units from year-end purchase @ $30 per unit)	120,000
Gross profit	$68,000

(2) Gross profit if the units on order *do not* arrive before year-end:

Sales (4,000 units × $47 per unit)	$188,000
Cost of goods sold—LIFO basis (2,000 units from April 12, 1955 purchase @ $8 per unit, plus 2,000 units from Nov. 14, 1954 purchase at $6 per unit)	28,000
Gross profit	$160,000

c. **If the units on order do not arrive before year-end, Jackson Specialties' gross profit on its year-end sale will be greatly increased. This increase would result from the liquidation of the company's old, low, and out-of-date costs.**

Exe

d. **By executing this sale on December 30, management runs a great risk of increasing the amount of income subject to income taxes by $92,000 (by reporting a $160,000 gross profit on this sale instead of only $68,000). Under periodic LIFO costing procedures, the cost of goods sold is based upon the most recent acquisition costs incurred *during the fiscal year.* If Jackson Specialties makes its 4,000-unit sale on December 30, the cost of goods sold will be $120,000 *only if the units on order arrive by year-end* (which is almost here). Otherwise, the cost of goods sold must be reported as only $28,000.**

If this sale can be delayed *just two days*, it will occur in 2008. Jackson Specialties then may use the current $30 per-unit cost in determining the cost of this sale, regardless of when during 2008 the 8,000 units on order actually arrive. (The only limitation is that the year-end inventory must exceed the 5,000 units carried at the old acquisition costs.)

Note to instructor: **Assuming a tax rate of 33%, this strategy could save the company more than $30,000 in income taxes applicable to this sale. ($92,000 reduction in taxable gross profit × 33% = $30,360 tax savings.)**

15 Minutes, Medium

CASE 8.3
DEALING WITH THE BANK
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. **The inventory has been lost. It would be unethical to delay recognition of this loss in the hope that it may someday be reduced by an insurance settlement. At present, recovery from the insurance company appears too uncertain to be considered a receivable.**

b. **It is impossible for the company to increase its current ratio from 0.8 to 1 to 1.2 to 1 by purchasing more inventory on account. Purchasing inventory on account will increase the current ratio *only* when it is below 1 to 1. If the current ratio exceeds 1 to 1, the purchase of additional inventory on account would decrease the ratio.**

c. **The company should be open and honest in dealing with the bank. Most banks work hard to foster ongoing relationships with their clients and, therefore, are willing to be flexible in situations such as these.**

10 Minutes, Medium

CASE 8.4
EMC CORPORATION
BUSINESS WEEK

Inventory can be a significant investment. As explained in Chapter 6, a company's operating cycle is the period of time required to convert cash into inventory, inventory into accounts receivable, and accounts receivable into cash. The more slowly a company's inventory turns over, the longer its operating cycle, and the more likely it is to encounter cash flow problems. Thus, in most situations, improvements in inventory turnover have a positive impact on a company's financial success.

In making its decision to shorten its product testing period, and thereby improve its inventory turnover, EMC's management had to consider the impact of its decision on product quality. Shorter testing periods could potentially compromise product quality, resulting in higher costs related to warranties, product returns, and customer dissatisfaction.

No time limit, Strong

CASE 8.5
INVENTORY TURNOVER RATES
INTERNET

The inventory turnover rate for Safeway often averages between 12 and 13 times per year, whereas that of Staples averages only about 5 or 6 times per year. The fact is, both companies manage their inventories very well, given the industries in which they operate. Safeway's rate is so much higher because grocery goods, on average, sell much more quickly than office supplies.

CHAPTER 9
PLANT AND INTANGIBLE ASSETS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 9.1	Cost of plant assets	1, 2	Analysis
B. Ex. 9.2	Straight-line depreciation	3	Analysis
B. Ex. 9.3	Straight-line and declining-balance depreciation	3	Analysis
B. Ex. 9.4	Declining-balance depreciation	3	Analysis
B. Ex. 9.5	Straight-line and units of output depreciation	3, 4	Analysis
B. Ex. 9.6	Disposal of plant asset	3, 5	Analysis
B. Ex. 9.7	Disposal of plant asset	3, 5	Analysis
B. Ex. 9.8	Goodwill	6	Analysis, communication
B. Ex. 9.9	Natural resources	7	Analysis
B. Ex. 9.10	Alternative depreciation methods	4	Analysis, communication

Exercises	Topic	Learning Objectives	Skills
9.1	You as a student	2, 3	Analysis, communication, judgment
9.2	Capital vs. revenue expenditure	1, 2	Analysis
9.3	Depreciation for partial years	3	Analysis
9.4	Accelerated vs. Straight-line	3	Analysis
9.5	**Real World: H.J. Heinz Company** Depreciation disclosures	3	Communication, judgment
9.6	Revision of depreciation estimates	3	Analysis
9.7	Accounting for trade-ins	5	Analysis
9.8	Estimating goodwill	6	Analysis
9.9	**Real World: Food Lion, Inc.** Impaired assets	5, 8	Communication, judgment
9.10	Fair market value and goodwill	1, 6	Communication, judgment
9.11	Natural resources	7	Analysis, communication,
9.12	Annual report presentations	6, 8	Communication, research
9.13	Alternative depreciation methods	4	Analysis
9.14	Units-of-output depreciation	4	Analysis
9.15	**Real World: Home Depot, Inc.** Examining an annual report	1, 3	Analysis, communication, research

Problems Sets A, B	Topic	Learning Objectives	Skills
9.1 A,B	Cost determination and depreciation	1–3	Analysis, communication
9.2 A,B	Straight-line vs. accelerated methods	3, 5	Analysis
9.3 A,B	Multiple depreciation issues	1–3, 5	Analysis, communication, judgment
9.4 A,B	Disposal of plant assets	5	Analysis, communication
9.5 A,B	Intangible assets under GAAP	6	Communication, judgment
9.6 A,B	Accounting for goodwill	6	Analysis, communication, judgment
9.7 A,B	Alternative Depreciation Methods	4	Analysis, communication
9.8 A,B	Disposal of Plant and Intangible assets	2, 3, 5	Analysis

Critical Thinking Cases

9.1	Issues involving useful lives	3	Communication, judgment
9.2	Departures from GAAP	1	Communication, judgment
9.3	**Real World: International Paper Company** Depreciation disclosures	3, 4	Communication, judgment
9.4	Capitalization vs. expense (Ethics, fraud & corporate governance)	2	Communication, judgment
9.5	Accounting for intangibles *(Business Week)*	2, 6	Communication, judgment
9.6	**Real World: Pharmaceutical companies of student's choice** Researching R&D expenditures (Internet)	2	Communication, research, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

9.1 A,B **Wilmet College/Walker Motel** **25 Easy**
Students are required to distinguish between capital and revenue expenditures and compute depreciation expense.

9.2 A,B **Swanson & Hiller, Inc./R & R, Inc.** **45 Medium**
Students must prepare depreciation schedules using both straight-line and accelerated methods. They must also evaluate income and cash flow issues as they relate to depreciation and the disposal of assets.

9.3 A,B **Smart Hardware/Davidson, DDS.** **50 Strong**
After determining the cost of a depreciable asset, students are required to prepare depreciation schedules under straight-line and accelerated methods. They must also (1) discuss the use of straight-line for financial purposes and accelerated depreciation for income taxes, (2) interpret the meaning of an asset's book value, and (3) compute the gain or loss resulting from the disposal of a depreciable asset.

9.4 A,B **Ramirez Developers/Blake Construction** **25 Medium**
Numerous asset disposal transactions are presented for which students must compute appropriate gains or losses. In addition, students are asked to discuss how gains and losses on the disposal of plant assets are reported in the income statement, and how the reporting of realized gains and losses differs from the reporting of unrealized gains and losses as illustrated in Chapter 7.

9.5 A,B **Black Corporation/Omega Products Corporation** **25 Medium**
Various transactions must be evaluated in order to determine which result in the recording of an intangible asset and which are treated as expenses of the current period.

9.6 A,B **Kivi Service Stations/Jell Stores** **20 Medium**
Students are asked to compute estimated goodwill using an earnings multiplier approach and a capitalization of excess earnings approach. In addition, they must distinguish between the accounting treatment of purchased goodwill versus the accounting treatment of internally generated goodwill.

9.7 A,B Millar, Inc./Wilson, Inc. **30 Medium**

Students must calculate depreciation for the first two years of an asset's life by three depreciation methods: straight-line, double declining-balance, and units of output. They are asked to prepare the balance sheet presentation of the asset by the DDB method and briefly discuss why the amount of depreciation expense for the units of output method cannot be calculated until the period has ended and the number of miles driven is known.

9.8 A,B Rothchild, Inc./Rodgers Company **30 Medium**

Students are asked to calculate depreciation on two long-lived assets by different depreciation/amortization methods and then to prepare the balance-sheet section for plant assets at the end of the first and second years the assets are owned. One of the assets is sold in the second year and the amount of the gain or loss on the same must be calculated.

Critical Thinking Cases

9.1	**Are Useful Lives "Flexible"?** A look into the responsibilities of management accountants. Do they do as they are told, or is there more to it?	**20 Strong**
9.2	**Departures from GAAP—Are They Ethical?** The owner of a closely held business asks the company's accountant to prepare financial statements that depart from GAAP, and these statements will be presented to lenders. Is there a problem?	**20 Strong**
9.3	**Depreciation Policies in Annual Reports** Students are asked to explain who determines a company's depreciation policies, comment upon the propriety of depreciating different assets by different methods, and explain why accelerated depreciation methods are used for income tax purposes. Based upon the financial disclosures of a well-known corporation.	**20 Easy**
9.4	**Capitalization vs. Expense** **Ethics, Fraud & Corporate Governance** Students are asked to explore the management's motivation for capitalizing vs. expensing costs and think about steps that could be taken to prevent employees from doing things that are inconsistent with company policy and code of professional ethics.	**30 Medium**
9.5	**Accounting for Intangibles** ***Business Week*** This case is based on an article in *Business Week* that claims that intangible assets are the key to shareholder value in a knowledge economy, but the accounting profession has done little to value and account for these assets. Students are asked to form a group and take a position either in favor of or against valuing brands and internally generated goodwill and classifying them as an asset on the balance sheet.	**30 Medium**
9.6	**R&D in the Pharmaceutical Industry** **Internet** An Internet research problem that requires students to research R&D expenditures in the pharmaceutical industry.	**No time estimate**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. Coca-Cola's trademark name was not purchased from another company, but rather was developed internally. Thus, the development costs probably were not material and were treated as revenue expenditures. Even if these costs had been capitalized, they would be amortized over a period of 40 years or less. Thus, any costs associated with this trademark now would be fully amortized, leaving a zero book value.

2. There are three basic "accountable events" in the life of a plant asset: (1) acquisition, (2) allocation of the acquisition cost to expense, and (3) disposal. The second event, allocation of the acquisition cost to expense, typically has the greatest effect upon net income. However, any gain or loss on disposal also affects net income. The allocation of acquisition cost to expense has *no* effect upon cash flows (other than income taxes). However, the acquisition of plant assets requires cash outlays, and disposals often result in cash receipts.

3. (*a*) Intangible, (*d*) held for sale in the regular course of business, and (*e*) not capable of rendering benefits to the business in the future.

4. (*a*) Freight charges, (*b*) sales taxes on the machine, and (*d*) wages of employees for time spent in installing and testing the machine before it was placed in service.

5. A *capital expenditure* is one that is material in amount and will benefit several accounting periods and is therefore charged to an asset account. A *revenue expenditure* is assumed to benefit only the current period (or is not material in amount) and is charged to an expense account so that it will be deducted from revenue of the current period in the determination of net income.

6. If a capital expenditure (acquisition of an asset) is erroneously treated as a revenue expenditure (an expense), expenses of the current year will be overstated and net income, therefore, will be *understated.* Since this error also results in the failure to record an asset, net income will be overstated in all future periods in which depreciation should have been recognized on the amount that should have been recorded as an asset.

7. The entire $245,000 cost should be charged to the land account. The existing structures are of no value to Shoppers' Market, and soon will be torn down. Thus, the only asset being acquired by Shoppers' is the building site, which is classified as land.

8. (*d*) Allocation of the cost of a plant asset to the periods in which benefits are received.

9. Yes, depreciation of the building should be continued regardless of rising market value. The building will render useful services for only a limited number of years and its cost should be recognized as expense of those years regardless of fluctuations in market value.

10. An accelerated depreciation method is one that recognizes greater amounts of depreciation expense in the early years of an asset's life, and less in the later years. These methods are most widely used in income tax returns because larger deductions for depreciation will reduce both taxable income and the income tax payments due in the immediate future.

11. Under the fixed-percentage-of-declining-balance depreciation method, a fixed depreciation rate is applied to the asset's undepreciated cost. The "fixed-percentage" is a percentage of the straight-line depreciation rate. This percentage is said to be "fixed" because it does not change over the life of the asset. The declining balance is the asset's undepreciated cost (or book value), which gets lower every year.

    The declining-balance method is most widely used in income tax returns.

12. Many companies use only the straight-line method of depreciation in their financial statements. However, these companies also may compute depreciation by several other methods for income tax purposes. For example, they may use MACRS depreciation in their federal income tax returns, and various forms of the declining-balance method in their state income tax returns.

13. The balance of the Accumulated Depreciation account does not consist of cash. It is an account with a credit balance showing how much of the original cost of a company's plant assets has been written off as depreciation expense. Cash is required to pay for new assets, and the cash owned by the company is shown by the asset account Cash.

14. Two widely used approaches to computing depreciation for a fraction of a year are (1) to round the computation to the nearest full month and (2) the half-year convention, which takes six months of depreciation on all assets (of a given type) acquired during the year. (The half-year convention also requires that six months' depreciation be recorded in the last year of the asset's life or year of disposal.)

15. a. No; a company may use different depreciation methods for different assets. The principle of consistency means only that once depreciation begins on a given asset, the same method should be applied throughout its useful life.

    b. Yes; a corporation may use different depreciation methods in its financial statements and its income tax returns. In fact, most corporations use straight-line depreciation in their financial statements and a variety of accelerated depreciation methods in their tax returns.

16. The usual method of revising depreciation rates to reflect a changed estimate of useful life is to spread the undepreciated cost over the years of remaining useful life. This results in raising or lowering the annual depreciation charge. In this case, the undepreciated cost is $9,000, that is, cost of $15,000 less accumulated depreciation of $6,000. The revised estimate calls for 8 more years of use, so the new depreciation charge will be $9,000 ÷ 8, or $1,125. It also has the theoretical merit of ensuring that depreciation expense as shown in the income statements over the life of the asset will equal the total depreciable cost of the asset.

17. *Intangible assets* are a subcategory of plant assets which are lacking in physical substance and are noncurrent. An account receivable of the type described is a *current* asset and excluded from qualifying as an intangible asset even though it is lacking in physical substance.

18. The cost of each type of intangible asset should be amortized over the period estimated to be *benefited.* The straight-line method is generally used for the amortization of intangible assets.

19. *Goodwill* is recorded in the accounts only when purchased. The most common example is that of an ongoing business being purchased as an entity by new owners. If the purchase price is in excess of a fair value of the net identifiable assets of the business, the transaction provides objective evidence that goodwill exists and also provides a basis for objective valuation of this asset.

20. Depletion in the amount of $10,000,000 should be deducted from revenue in the current year. The other $2,000,000 of costs applicable to the current year's operations will be included in the valuation of the ending inventory. Costs assigned to inventory represent current assets until the goods are sold, at which time the costs are transferred to the Cost of Goods Sold account.

21. An asset is "impaired" when the undepreciated cost cannot be recovered either through use or sale. In such situations, the carrying value of the asset should be reduced (written down) to fair value, which results in the recognition of a loss.

22. The owner of Walker Security is in error. When the company discontinued use of the trademark, the unamortized cost of this asset should have been written off immediately. A trademark or other intangible should not be carried as an asset after its usefulness has ended.

SOLUTIONS TO BRIEF EXERCISES

B.Ex. 9.1 **Equipment cost:**

Purchase price	**$25,000**
Delivery	**750**
Reconditioning	**2,230**
Total cost for purposes of determining annual depreciation	**$27,980**

Note: Maintenance for the first year of use is not included in the cost basis for purposes of calculating annual depreciation.

B.Ex. 9.2 **Depreciation expense for each of the first two years:**
($400,000 - $100,000)/25 years = 12,000

Book value at the end of Year 2:
$400,000 - ($12,000 x 2) = $376,000

B.Ex. 9.3 **Year 1**

Straight-line depreciation:	
($24,000 - $4,000)/10 years =	**$2,000**
150% declining-balance depreciation:	
$24,000 x .15 =	**$3,600**

Excess of declining-balance over Straight-line $1,600

Note: Straight-line rate = 100% /10 years = 10%
Declining-balance rate = 10% x 1.5 = 15%

Year 2

Straight-line depreciation:	
same as above	**$2,000**
150% declining-balance depreciation:	
($24,000 - $3,600) x .15 =	**$3,060**

Excess of declining-balance over Straight-line $1,060

B.Ex. 9.4 **Double-declining balance depreciation:**

$76,000 x 25% =		
	$19,000	
150% declining-balance depreciation:		
$76,000 x 18.75% =	**<u>$14,250</u>**	
Excess of double declining-balance over 150% declining-balance	**$4,750**	

Declining-balance rates are determined as follows:

Straight-line rate: 100%/8 years	**12.50%**
Double declining-balance rate: 12.5 x 2	**25.00%**
150% declining-balance rate: 12.5 x 1.5	**18.75%**

B.Ex. 9.5 **Straight-line depreciation:**

($35,000 - $5,000)/5 years =	**$ 6,000**

Units of Output depreciation;

16,000 miles x .40* =	**6,400**

***($35,000 - $5,000)/75,000 miles = $.40 per mile**

B.Ex. 9.6

Selling price of equipment		**$7,200**
Book value of equipment sold:		
Cost	**$12,000**	
Less: accumulated depreciation*	**<u>6,000</u>**	**<u>6,000</u>**
Gain on sale		**$1,200**

***[($12,000 - $2,000)/5 years] x 3 years = $6,000**

B.Ex. 9.7

Selling price of equipment		**$8,500**
Book value of equipment sold:		
Cost	**$27,500**	
Less: accumulated depreciation*	**17,600**	**9,900**
Loss on sale		**$1,400**

***Yr. 1: $27,500 x 40% = $11,000**
Yr. 2: ($27,500 - $11,000) x 40% = $6,600
Total Yrs. 1 and 2: $11,000 + $6,600 = $17,600
Double-declining balance rate:
Straight-line rate: (100%/5 years) x 2 = 40%

B.Ex. 9.8 **Goodwill should be recorded at $25,000, the actual amount by which the purchase price of $700,000 exceeds the fair value of the assets, less liabilities, to be assumed by Hunt. Higher estimates of the value of the excess that are not objectively supported**

B.Ex. 9.9 **Cost per ton of mineral to be extracted:**
($2,500,000)/10,000 tons = $250 per ton

Depletion expense for first year:
1,600 tons x $250 = $400,000

B.Ex. 9.10 **Cost basis for determining depreciation expense under both methods:**

$30,500 - $6,500 = $24,000

Yr. 1

Units of Output method of depreciation:	
10,000 miles x $.30* per mile =	**$3,000**
***$24,000/80,000 miles = $.30 per mile**	
Double-Declining Balance method of depreciation:	
$30,500 x 40%* =	**12,200**
Excess of Double-Declining Balance over Units of Output:	**$9,200**
***100%/5 years x 2 = 40%**	

The difference between depreciation by the two methods is so high for two reasons: First, Double-declining balance is an accelerated method and naturally results in higher depreciation in the early years of the asset's life. Second, the truck was actually only driven 10,000 miles in the first year, which makes the units of output calculation lower than it would have been had the truck been driven the expected level of 16,000 miles (80,000 miles/5 years). The Double-declining balance method is not affected by the lower number of miles driven.

SOLUTIONS TO EXERCISES

Ex. 9.1

a. Two factors have caused the truck to depreciate: (1) physical deterioration and (2) obsolescence. The miles driven during the past six years have caused wear and tear on all of the truck's major components, including its engine, transmission, brakes, and tires. As these components deteriorate, their fair values, in turn, depreciate. Furthermore, during the time that you have owned the truck, innovations have been developed leading to improved fuel economy, higher horsepower, better handling, and more corrosion-resistant materials. These innovations have made the truck obsolete in many respects. As the design and engineering technologies associated with the truck become more and more outdated, its fair market value will continue to depreciate.

b. No. It is not likely that the bank will lend you an additional $5,000, even if you agree to pledge your truck as collateral. Your truck will continue to depreciate in value each year. By the time you begin repayment of your loan, it will be worth less to the bank than its current fair market value.

c. Depreciation is a process of *cost allocation,* not a process of valuation. As such, accounting records do not attempt to show the current fair values of business assets. Only by coincidence would the balance sheet show $10,000 in accumulated depreciation on this truck.

Ex. 9.2

a. Capital expenditure
b. Revenue expenditure
c. Revenue expenditure
d. Capital expenditure
e. Revenue expenditure (too small in amount to capitalize regardless of length of useful life)
f. Capital expenditure

Ex. 9.3

Year	a. Straight-Line (Half-Year Convention)		b. 200% Declining-Balance (Half-Year Convention)	
1	$ 59,375	(1)	$ 125,000	(3)
2	118,750	(2)	218,750	(4)
3	118,750		164,063	
4	118,750		123,047	
5	118,750		92,285	
6	118,750		69,214	
7	118,750		52,547	(5)
8	118,750		52,547	
9	59,375	(1)	52,547	
Totals	$ 950,000		$ 950,000	

(1) $950,000 × 1⁄8 × 1⁄2 = $59,375
(2) $950,000 × 1⁄8 = $118,750
(3) $1,000,000 × 25% × 1⁄2 = $125,000
(4) ($1,000,000 – $125,000) × 25% = $218,750
(5) Switch to straight-line:
($207,641 – $50,000) ÷ 3 years = $52,547

c. During the first four years of the asset's life depreciation expense under the straight-line method is significantly less than it is under the accelerated method. Thus, the straight-line method results in higher net income for these years.

Ex. 9.4

a. (1) Straight-Line Schedule

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$35,000 × 1/5	$7,000	$7,000	$ 33,000
2008	35,000 × 1/5	7,000	14,000	26,000
2009	35,000 × 1/5	7,000	21,000	19,000
2010	35,000 × 1/5	7,000	28,000	12,000
2011	35,000 × 1⁄ 5	7,000	35,000	5,000

(2) 200% Declining-Balance Schedule

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$40,000 × 40%	$16,000	$16,000	$ 24,000
2008	24,000 × 40%	9,600	25,600	14,400
2009	14,400 × 40%	5,760	31,360	8,640
2010	8,640 × 40%	3,456	34,816	5,184
2011	$5,184 – $5,000	184	35,000	5,000

(3) 150% Declining-Balance Schedule

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$40,000 × 30%	$12,000	$12,000	$ 28,000
2008	28,000 × 30%	8,400	20,400	19,600
2009	19,600 × 30%	5,880	26,280	13,720
2010*	($13,720 – $5,000) ÷ 2 yrs.	4,360	30,640	9,360
2011*	($13,720 – $5,000) ÷ 2 yrs.	4,360	35,000	5,000

* Switch to straight-line

b. Both accelerated methods result in a higher depreciation expense than the straight-line method in the first two years of the asset's life. This pattern reverses in years 2009-2011. After four years, 99% of the asset's total depreciation expense has been recorded under the 200% declining-balance method, as compared to only 88% under the 150% declining-balance method.

Ex. 9.5 **a.** **No, the use of different depreciation methods in financial statements and in income tax returns does not violate the accounting principle of consistency. The principle of consistency means only that a company should not change from year to year the method used to depreciate a given asset. This principle does not prohibit using a different depreciation method for income tax purposes. Also, the principle does not prevent management from using different depreciation methods to depreciate different assets.**

b. **The company probably uses accelerated depreciation methods for income tax purposes because these methods postpone the payment of income taxes. Accelerated depreciation methods transfer the cost of plant assets to expense more quickly than does the straight-line method. The resulting larger charges to depreciation expense reduce "taxable income" in the current period and, therefore, reduce the amount of income taxes due currently.**

c. **Use of accelerated depreciation methods in the financial statements would be more "conservative" than the current practice of straight-line depreciation. Accelerated methods more quickly transfer the costs of plant assets to expense. Thus, in the immediate future, accelerated depreciation methods produce more conservative (lower) balance sheet valuations of plant assets and more conservative (lower) measurements of net income.**

Ex. 9.6 **a.**

2004				
Jan.	**11**	**Machinery …………**	**90,000**	
		Cash …………		**90,000**
		To record purchase of machinery.		
Dec.	**31**	**Depreciation Expense: Machinery …………**	**6,000**	
		Accumulated Depreciation: Machinery		**6,000**
		To record depreciation for first year: (\$90,000 - \$18,000) × 1⁄ 12.		
2005-2007				
Dec.	**31**	**Depreciation Expense: Machinery …………**	**6,000**	
		Accumulated Depreciation: Machinery		**6,000**
		To record depreciation for years 2005-2007		
2008				
Dec.	**31**	**Depreciation Expense: Machinery …………**	**3,000**	
		Accumulated Depreciation: Machinery		**3,000**
		To record depreciation for fifth year, based on revised estimate of useful life, determined as follows:		

Cost of machine …………	**\$ 90,000**
Less: Depreciation for 2004-2007 …………	**24,000**
Book value at end of 2007 …………	**\$ 66,000**
Less: Residual value …………	**18,000**
Amount to be depreciated over 16 remaining years of new estimated useful life…………	**\$ 48,000**
Depreciation per year (\$48,000 ÷ 16) …………	**\$ 3,000**

b. **Several factors may have caused the company to revise its estimate: (1) The equipment may be deteriorating physically more slowly than originally anticipated, (2) the company may not be using the equipment as much as it had previously expected, or (3) new technology that had been anticipated may not have developed as rapidly as expected.**

Ex. 9.7 **a.** ***\$55,000*** **(\$65,000 less \$10,000 trade-in allowance)**

b.

Trade-in allowance …………	**\$ 10,000**
Less: Book value (\$52,000 - \$34,000) …………	**18,000**
Loss on trade-in …………	**\$ (8,000)**

c. **The \$8,000 loss on trade-in will be reported in Mathews' income statement following the computation of income from operations.**

Ex. 9.8

Average earnings ……	**$**	**540,000**
Normal earnings, 15% of $3,000,000 ……		**450,000**
Excess earnings ……	**$**	**90,000**
Goodwill ($90,000 x 5) ……	**$**	**450,000**
Fair value of net identifiable assets ……		**3,000,000**
Price to be offered for Avery Company. ……	**$**	**3,450,000**

Ex. 9.9 **a. If the cost of an asset cannot be recovered through future use or sale, the asset should be written down to its fair value. Failure to do so may cause investors and creditors to draw erroneous conclusions concerning the company's profitability and future cash flow potential.**

b. The write-down of impaired plant assets reduces income and the asset's carrying value, but has no immediate impact on the company's cash flows. Thus, such charges against income are considered noncash transactions.

Ex. 9.10 **a. Goodwill is the present value of future earnings in excess of normal returns on identifiable assets. It is important to realize that the valuation of goodwill does not attempt to measure past earnings performance. For 30 years Gladstone's business generated returns in excess of what may be considered normal for a small service station. However, the competitive threat of a new station coming to town, combined with the potential environmental threat of a leaky storage tank, reduces expectations that future performance will equal or exceed past performance. Thus, these issues should reduce, or eliminate completely, Gladstone's $50,000 estimate of goodwill.**

b. We have all heard the expression, "let the buyer beware." To a certain extent, buyers have an obligation to exercise due diligence before making major business decisions. Thus, one could probably argue that Gladstone does not have an ethical "obligation" to disclose that a new service station will soon be built across the street. The situation involving his potentially leaky tank is a different story, however. If he is reasonably certain about the failing condition of the tank, he may have both an ethical and a legal obligation to disclose this information. Again, however, a potential buyer should exercise due diligence prior to buying Gladstone's business to determine whether an environmental threat exists.

Note to instructor: **Before making large loans to finance business acquisitions, banks normally require that borrowers engage in certain due diligence procedures which, in many situations, include an "environmental audit."**

Ex. 9.11 a.

Inventory ……………………………………………	**400,000**	
Accumulated Depletion: Northern Tier Mine		**400,000**

To record depletion on the Northern Tier Mine: 50,000 tons mined × $8 per ton [($21,000,000 – $1,000,000) ÷ 2,500,000 tons = $8 per ton].

b. Property, plant, & equipment:

Mining property: Northern Tier Mine ……..	**$21,000,000**	
Less: Accumulated depletion ……………….	**400,000**	**$20,600,000**

c. No; the $400,000 of depletion of the mine should not all be deducted from revenue during the first year of operations. Since only 40,000 of the 50,000 tons of ore mined were sold, only 80% of the depletion cost ($320,000) should be deducted from revenue as part of the cost of goods sold. The remaining 20% of this amount ($80,000) relates to the 10,000 tons of ore still on hand and remains in the inventory account.

d. The journal entry in part *a* increases the current ratio, because it reclassifies an amount of plant assets as inventory, which is a current asset. Thus, current assets are increased. Extracting ore from the ground *does* make the company more liquid. Mined ore is a more liquid asset than ore that is still in the ground.

Ex. 9.12 The purpose of this exercise is to: (1) show students that gains and losses on disposals can be very material in amount, (2) demonstrate that such gains and losses do *not* directly involve cash flows and, therefore, are typically shown as adjustments to income in the statement of cash flows, and (3) illustrate that the reasons for disposing of fixed assets may include restructuring activities, damage caused by natural disasters, the need to upgrade manufacturing processes, etc.

Ex. 9.13 a. $$\frac{\$14{,}000 - \$5{,}000}{50{,}000 \text{ miles}} = \frac{\$9{,}000}{50{,}000 \text{ miles}} = \underline{\underline{\$0.18 \text{ per mile}}}$$

b. 1,770,000 miles × $0.18 per mile = $\underline{\underline{\$318{,}600}}$

c. Yes. The units-of-output method recognizes more depreciation in periods in which the cars are driven more—which means that the cars are generating more revenue. The straight-line method would recognize the same amount of depreciation expense regardless of how much the automobiles were driven.

Ex. 9.14 a. The depreciation rate per mile is calculated as follows:

\$25,500 - \$4,500/(18,000 x 5 years) = \$.23 per mile

Depreciation for the first two years is calculated as follows:

Yr. 1 = 16,000 miles x \$.23 =	**\$3,680**
Yr. 2 = 18,200 miles x \$.23 =	**<u>4,186</u>**
Accumulated at Yr. 2	**\$7,866**

b. Depreciation by the straight-line method would have been:

\$25,500 - \$4,500/5 years = \$4,200 x 2 years = \$8,400

Straight-line depreciation would have exceeded units-of-output depreciation by \$534: \$8,400 - \$7,866 = \$534

Ex. 9.15 a. Note 1, Summary of Significant Accounting Policies, indicates that buildings, furniture, fixtures and equipment are depreciated by the straight-line method. Estimated useful lives are 10 to 45 years for buildings and 3 to 20 years for furniture, fixtures and equipment.

b. Note 1 also has a section titled Impairment of Long-Lived Assets. It indicates that the company evaluates the carrying amount of long-lived assets when management makes the decision to relocate or close a store, or when circumstances indicate that the carrying amount of an asset may not be recoverable. Losses from the impairment of plant assets are recognized when the carrying amount of an asset exceeds the future cash flow expected from the use of the asset. These losses are presented as a component of Selling, General, and Administrative Expenses in the income statement.

c. The January 29, 2006, balance sheet shows an investment in property and equipment of \$31,530 million before accumulated depreciation. Accumulated depreciation on these assets is \$6,629 million. This indicates that the assets are, on average, about 21% depreciated (\$6,629/\$31,530) and, accordingly, are closer to the beginning than the ending of their estimated useful lives.

SOLUTIONS TO PROBLEMS SET A

25 Minutes, Easy

PROBLEM 9.1A
WILMET COLLEGE

a. **The cost of plant and equipment includes all expenditures that are reasonable and necessary in acquiring the asset and placing it in a position and condition for use in the operation of the business.**

b. **(1)** **The purchase price of $250,000 is part of the cost of the equipment. The list price ($275,000) is not relevant, as this is not the actual price paid by Wilmet. The $4,500 in interest charges are a charge for borrowing money, not part of the cost of the equipment. These interest charges should be recognized as interest expense over the 90-day life of the note payable.**

(2) **Sales tax is a reasonable and necessary expenditure in the purchase of plant assets and should be included in the cost of the equipment.**

(3) **Freight charges are part of the cost of getting the equipment to a usable location and, therefore, are part of the cost of the equipment.**

(4) **To be used in college operations, the equipment must first be installed. Thus, normal installation charges should be included as part of the cost of the equipment. equipment.**

(5) **The accidental damage to one of the terminals was not a "reasonable and necessary" part of the installation process and, therefore, should not be included in the cost of the equipment. The repairs do not make the equipment any more useful than it was before the damage was done. Therefore, the $500 cost of repairing the damage should be offset against revenue of the current period. (Technically, this amount should be classified as a loss in the current period. For practical purposes, however, it probably would be charged to an expense account such as Repairs and Maintenance.)**

(6) **Advertising is viewed by accountants as a revenue expenditure—that is, charged to expense when the advertising occurs. There is not sufficient objective evidence of future benefit for accountants to regard advertising expenditures as creating an asset.**

PROBLEM 9.1A
WILMET COLLEGE (concluded)

c.		Expenditures that should be debited to the		
		Computing Equipment account:		
		Purchase price		$ 250,000
		Sales tax		15,000
		Freight charges		1,000
		Installation charges		5,000
				$ 271,000

d.

General Journal

Dec	31	Depreciation Expense: Computing Equipment	27,100	
		Accumulated Depreciation: Computer Equip.		27,100
		To record depreciation of computing equipment in		
		the year of acquisition ($271,000 cost ÷ 5 years) x 1/2.		

45 Minutes, Medium

PROBLEM 9.2A
SWANSON & HILLER, INC.

a. (1) Straight-Line Schedule:

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2006	$100,000 × 1⁄5 × 1⁄2	$ 10,000	$10,000	$98,000
2007	100,000 × 1⁄5	20,000	30,000	78,000
2008	100,000 × 1⁄5	20,000	50,000	58,000
2009	100,000 × 1⁄5	20,000	70,000	38,000
2010	100,000 × 1⁄5	20,000	90,000	18,000
2011	100,000 × 1⁄5 × 1⁄2	10,000	100,000	8,000

(2) 200% Declining-Balance Schedule:

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2006	$108,000 × 40% x 1⁄2	$21,600	$21,600	$86,400
2007	86,400 × 40%	34,560	56,160	51,840
2008	51,840 × 40%	20,736	76,896	31,104
2009	31,104 × 40%	12,442	89,338	18,662
2010	18,662 × 40%	7,465	96,803	11,197
2011	100,000 – 96,803	3,197	100,000	8,000

(3) 150% Declining-Balance Schedule:

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2006	$108,000 × 30% x 1⁄2	$16,200	$16,200	$91,800
2007	91,800 × 30%	27,540	43,740	64,260
2008	64,260 × 30%	19,278	63,018	44,982
2009	44,982 × 30%	13,495	76,513	31,487
2010*	($31,487 – $8,000) ÷ 2 yrs.	11,744	88,257	19,743
2011*	($31,487 – $8,000) ÷ 2 yrs.	11,743	100,000	8,000

*** Switch to straight-line**

PROBLEM 9.2A
SWANSON & HILLER, INC. (concluded)

b. **Swanson & Hiller will probably use the straight-line method for financial reporting purposes, as this method results in the least amount of depreciation expense in the early years of the asset's useful life.**

c. **Computation of gains or losses upon disposal:**

1. Straight-Line

Cash proceeds	**$ 28,000**
Book value on 12/31/09	**(38,000)**
Loss on disposal	**$ (10,000)**

2. 200% Declining-Balance:

Cash proceeds	**$ 28,000**
Book value on 12/31/09	**(18,662)**
Gain on disposal	**$ 9,338**

3. 150% Declining-Balance:

Cash proceeds	**$ 28,000**
Book value on 12/31/09	**(31,487)**
Loss on disposal	**$ (3,487)**

The reported gain or loss on the sale of an asset has no direct cash effects. The only direct cash effect associated with the sale of this machine is the $28,000 received by Swanson & Hiller, Inc. from the sale of the machine.

50 Minutes, Strong

PROBLEM 9.3A
SMART HARDWARE

a. Costs to be depreciated include:

Cost of shelving	$ 12,000
Freight charges	520
Sales taxes	780
Installation	2,700
Total cost to be depreciated	$ 16,000

(1) Straight-Line Schedule (nearest whole month):

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$16,000 × 1⁄20 × 9⁄12	$600	$600	$15,400
2008	16,000 × 1⁄20	800	1,400	14,600
2009	16,000 × 1⁄20	800	2,200	13,800
2010	16,000 × 1⁄20	800	3,000	13,000

(2) 200% Declining-Balance (half-year convention):

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$16,000 × 10% × 1⁄2	$800	$800	$15,200
2008	15,200 × 10%	1,520	2,320	13,680
2009	13,680 × 10%	1,368	3,688	12,312
2010	$12,312 × 10%	1,231	4,919	11,081

(3) 150% Declining-Balance (half-year convention):

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$16,000 × 7.5% × 1⁄2	$600	$600	$15,400
2008	15,400 × 7.5%	1,155	1,755	14,245
2009	14,245 × 7.5%	1,068	2,823	13,177
2010	13,177 × 7.5%	988	3,811	12,189

b. Smart may use the straight-line method in its financial statements to achieve the least amount of depreciation expense in the early years of the shelving's useful life. In its federal income tax return, Smart may use an accelerated method (called MACRS). The use of MACRS will reduce Smart's income as much as possible in the early year's of the shelving's useful life. Thus, management's goals are really not in conflict.

c. The 200% declining-balance method results in the lowest reported book value at the end of 2010 ($11,081). Depreciation, however, is not a process of valuation. Thus, the $11,081 book value is not an estimate of the shelving's fair value at the end of 2010.

d. A book value of $400 means that accumulated depreciation at the time of the disposal was $8,600.

1. Journal entry assuming that the shelving was sold for $1,200:

Cash	1,200	
Accumulated Depreciation: Shelving	8,600	
Shelving		9,000
Gain on Disposal of Assets		800

To record sale of shelving for $1,200 cash.

2. Journal entry assuming that the shelving was sold for $200:

Cash	200	
Accumulated Depreciation: Shelving	8,600	
Loss on Sale of Asset	200	
Shelving		9,000

To record sale of shelving for $200 cash.

25 Minutes, Medium

PROBLEM 9.4A
RAMIREZ DEVELOPERS

a.				
		General Journal		
Feb	10	Loss on Disposal of Plant Assets	200	
		Accumulated Depreciation: Office Equipment	25,800	
		Office Equipment		26,000
		Scrapped office equipment; received no salvage value.		
Apr	1	Cash	100,000	
		Notes Receivable	800,000	
		Accumulated Depreciation: Building	250,000	
		Land		50,000
		Building		550,000
		Gain on Sale of Plant Assets		550,000
		Sold land and building for a $100,000 cash down-		
		payment and a 5-year, 9% note for the balance.		
Aug	15	Vehicles (new truck)	39,000	
		Accumulated Depreciation: Vehicles (old truck)	18,000	
		Vehicles (old truck)		26,000
		Gain on Disposal of Plant Assets		2,000
		Cash		29,000
		To record trade-in of old truck on new; trade-in		
		allowance exceeded book value by $2,000.		
Oct	1	Office Equipment (new computer)	8,000	
		Loss on Trade-in of Plant Assets	3,500	
		Accumulated Depreciation: Office Equip. (old computer)	11,000	
		Office Equipment (old computer)		15,000
		Cash		1,500
		Notes Payable		6,000
		Acquired new computer system by trading in old		
		computer, paying part cash, and issuing a 1-year,		
		8% note payable. Recognized loss equal to book value of		
		old computer ($4,000) minus trade-in allowance ($500).		

b. Gains and losses on asset disposals do not affect gross profit because they are not part of the cost of goods sold. Such gains and losses do, however, affect net income reported in a firm's income statement.

c. Unlike realized gains and losses on asset disposals, unrealized gains and losses on marketable securities are not generally reported in a firm's income statement. Instead, they are reported in the balance sheet as a component of stockholders' equity.

25 Minutes, Medium

PROBLEM 9.5A
BLACK CORPORATION

a. ***Operating expense.*** **Although the training of employees probably has some benefit extending beyond the current period, the number of periods benefited is highly uncertain. Therefore, current accounting practice is to expense routine training costs.**

b. ***Intangible asset.*** **Goodwill represents the present value of future earnings in excess of what is considered normal. The goodwill associated with Black's purchase of the vinyl flooring company should not be amortized, but is subject to evaluation for impairment in value.**

c. ***Operating expense.*** **Because of the uncertainty surrounding the potential benefits of R&D programs, research and development costs are charged to expense in the period in which these costs are incurred. Although this accounting treatment is controversial, it has the benefit of reducing the number of alternative accounting practices previously in use, thereby increasing the comparability of financial statements. If a patent is actually acquired at some time in the future, the costs of acquisition (e.g., registration and legal costs) will be capitalized as an asset and amortized over the estimated useful life, limited to 20 years.**

d. ***Intangible asset.*** **A patent grants its owner the exclusive right to produce a particular product. If the patent has significant cost, this cost should be regarded as an intangible asset and expensed over the period of time that ownership of the patent will contribute to revenue. In this case, revenue is expected to be earned only over the** ***6-year period*** **during which the product will be produced and sold.**

e. ***Operating expense.*** **Advertising costs are regarded as operating expense because of the difficulty in objectively determining the existence or life of any future benefit.**

20 Minutes, Medium

PROBLEM 9.6A
KIVI SERVICE STATIONS

a. Estimated goodwill associated with the purchase of Joe's Garage:

Actual average net income per year	$ 220,000
Typical sales multiplier	9.25
Estimated fair value of Joe's Garage	$ 2,035,000
Fair value of identifiable assets of Joe's Garage	(950,000)
Estimated goodwill of Joe's Garage	$ 1,085,000

b. Estimated goodwill associated with the purchase of Gas N'Go:

Actual average net income per year	$ 275,000
Normal earnings for Gas N'Go ($980,000 x 20%)	196,000
Estimated excess earnings of Gas N' Go	$ 79,000
Management assumption of four years excess earnings	x 4
Estimated goodwill of Gas N' Go	$ 316,000

c. **Due to the difficulties in objectively estimating the value of goodwill, it is recorded only when it is purchased. Kivi may actually have generated internally a significant amount of goodwill associated with its existing service stations. However, because there is no way to objectively measure the excess return potential of these stations, any goodwill they have generated should not be recorded in Kivi's accounting records.**

30 Minutes, Medium

PROBLEM 9.7A
MILLAR, INC.

a. **Depreciation expense for the first two years under the three depreciation methods is determined as follows:**

Straight-line:
$20,000 - $4,000/5 years = $3,200 for each of the 1st and 2nd years

Double-declining balance (DDB):
$20,000 x 40%* = $8,000 for the 1st year
($20,000 - $8,000) x 40%* = $4,800 for the 2nd year
***Straight-line rate is 20% (100%/5 years) DDB rate is 20% x 2 = 40%**

Units-of-Output:
10,000 miles x $.20* per mile = $2,000
20,000 miles x $.20* per mile = $4,000
***Rate per mile = ($20,000 - $4,000)/80,000 miles = $.20**
Total miles expected = 10,000 + ($20,000 x 2) + (15,000 x 2) = 80,000

b.

Truck	**$20,000**	
Less: Accumulated depreciation	**(12,800)**	**$7,200**

Accumulated depreciation at the end of the second year is the total of depreciation expense for the first two years: $8,000 + $4,800 = $12,800

c. **The units of output method is tied to the miles driven rather than calendar time and, as a result, the exact amount of depreciation expense to be recognized each accounting period cannot be determined until the period ends. In the above calculations for the first two years in the truck's life, estimates of the number of miles driven were used.**

30 Minutes, Medium

PROBLEM 9.8A
ROTHCHILD, INC.

a. **Depreciation is calculated on the following amount:**

Purchase price	$275,000
Plus: Expenditures to prepare asset for use	75,000
	$350,000

The declining balance rate at 150% of the straight-line is:
100%/10 years = 10%; 10% x 1.5 = 15%

Depreciation expense for Year 1:
$350,000 x 15% = $52,500

Depreciation expense for Year 2:
($350,000 - $52,500) x 15% = $44,625

Depreciation expense for Year 3:
($350,000 - $52,500 - $44,625) x 15% = 37,931

b. **Amortization on the patent is calculated as follows (same for each year:)**
$75,000/5 years = $15,000

c. **Plant and intangible asset sections of the balance sheet:**

Year 1:

Equipment	$350,000	
Less: Accumulated depreciation	(52,500)	$297,500
Patent		60,000
Total plant and intangible assets		$357,500

***$75,000 - $15,000 = $60,000**

Year 2

Equipment	$350,000
Less: Accumulated depreciation	(97,125)
Total plant assets	$252,875

The loss on the sale of the patent, presented in Rothchild's Yr. 2 income statement, is calculated as follows:

Patent cost	$75,000
Accumulated amortization at time of sale ($15,000 x 2)	(30,000)
Book value	$45,000
Sales price	35,000
Loss on sale	$10,000

SOLUTIONS TO PROBLEMS SET B

25 Minutes, Easy

PROBLEM 9.1B
WALKER MOTEL

a. **The cost of plant and equipment includes all expenditures that are reasonable and necessary in acquiring the asset and placing it in a position and condition for use in the operation of the business.**

b. **(1)** **The purchase price of $35,000 ($40,000 - $5,000) is part of the cost of the equipment. The list price ($40,000) is not relevant, as this is not the actual price paid by Walker. The $750 in interest charges are a charge for borrowing money, not part of the cost of the equipment. These interest charges should be recognized as interest expense over the 90-day life of the note payable.**

(2) **Sales tax is a reasonable and necessary expenditure in the purchase of plant assets and should be included in the cost of the equipment.**

(3) **Freight charges are part of the cost of getting the equipment to a usable location and, therefore, are part of the cost of the equipment.**

(4) **To be used in motel operations, the equipment must first be installed. Thus, normal installation charges should be included as part of the cost of the equipment.**

(5) **The accidental damage to the equipment was not a "reasonable and necessary" part of the installation process and, therefore, should not be included in the cost of the equipment. The repairs do not make the equipment any more useful than it was before the damage was done. Therefore, the $400 cost of repairing the damage should be offset against revenue of the current period. (Technically, this amount should be classified as a loss in the current period. For practical purposes, however, it probably would be charged to an expense account such as Repairs and Maintenance.)**

(6) **Advertising is viewed by accountants as a revenue expenditure—that is, charged to expense when the advertising occurs. There is not sufficient objective evidence of future benefit for accountants to regard advertising expenditures as creating an asset.**

PROBLEM 9.1B
WALKER MOTEL (concluded)

c.		Expenditures that should be debited to the		
		Equipment account:		
		Purchase price		$ 35,000
		Sales tax		2,100
		Freight charges		600
		Installation charges		900
		Total cost of the equipment		$ 38,600

d.

Dec	31	Depreciation Expense: Equipment	3,860	
		Accumulated Depreciation: Equipment		3,860
		To record depreciation of equipment in		
		the year of acquisition ($38,600 cost ÷ 5 years) x 1/2.		

45 Minutes, Medium

PROBLEM 9.2B
R & R, INC.

a. (1) Straight-Line Schedule:

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$170,000 × 1⁄5 × 1⁄2	$17,000	$17,000	$163,000
2008	170,000 × 1⁄5	34,000	51,000	129,000
2009	170,000 × 1⁄5	34,000	85,000	95,000
2010	170,000 × 1⁄5	34,000	119,000	61,000
2011	170,000 × 1⁄5	34,000	153,000	27,000
2012	170,000 × 1⁄5 × 1⁄2	17,000	170,000	10,000

(2) 200% Declining-Balance Schedule:

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$180,000 × 40% × 1⁄2	$36,000	$36,000	$144,000
2008	144,000 × 40%	57,600	93,600	86,400
2009	86,400 × 40%	34,560	128,160	51,840
2010	51,840 × 40%	20,736	148,896	31,104
2011	31,104 × 40%	12,442	161,338	18,662
2012	18,662 – 10,000	8,662	170,000	10,000

(3) 150% Declining-Balance Schedule:

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$180,000 × 30% × 1⁄2	$27,000	$27,000	$153,000
2008	153,000 × 30%	45,900	72,900	107,100
2009	107,100 × 30%	32,130	105,030	74,970
2010	74,970 × 30%	22,491	127,521	52,479
2011	52,479 × 30%	15,744	143,265	36,735
2012	36,735 – 10,000	26,735	170,000	10,000

PROBLEM 9.2B
R & R, INC. (concluded)

b. **R & R, Inc. will probably use the straight-line method for financial reporting purposes, as this method results in the least amount of depreciation expense in the early years of the asset's useful life.**

c. **Computation of gains or losses upon disposal:**

1. Straight-Line

Cash proceeds	**$ 55,000**
Book value on 12/31/10	**61,000**
Loss on disposal	**$ (6,000)**

2. 200% Declining-Balance:

Cash proceeds	**$ 55,000**
Book value on 12/31/10	**31,104**
Gain on disposal	**$ 23,896**

3. 150% Declining-Balance:

Cash proceeds	**$ 55,000**
Book value on 12/31/10	**52,479**
Gain on disposal	**$ 2,521**

The reported gain or loss on the sale of an asset has no direct cash effects. The only direct cash effect associated with the sale of this machine is the $55,000 received by R & R, Inc. from the buyer.

50 Minutes, Strong

PROBLEM 9.3B
DAVIDSON, DDS

a. Costs to be depreciated include:

Cost of furniture	$ 11,000
Freight charges	375
Sales taxes	550
Installation	75
Total cost to be depreciated	$ 12,000

(1) Straight-Line (nearest whole month):

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$12,000 × 1/10 × 8/12	$800	$800	$11,200
2008	$12,000 × 1/10	1,200	2,000	10,000
2009	$12,000 × 1/10	1,200	3,200	8,800
2010	$12,000 × 1/10	1,200	4,400	7,600

(2) 200% Declining-Balance (half-year convention):

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$12,000 × 20% × 1⁄ 2	$1,200	$1,200	$10,800
2008	10,800 × 20%	2,160	3,360	8,640
2009	8,640 × 20%	1,728	5,088	6,912
2010	$6,912 × 20%	1,382	6,470	5,530

(3) 150% Declining-Balance (half-year convention):

Year	Computation	Depreciation Expense	Accumulated Depreciation	Book Value
2007	$12,000 × 15% × 1⁄ 2	$900	$900	$11,100
2008	11,100 × 15%	1,665	2,565	9,435
2009	9,435 × 15%	1,415	3,980	8,020
2010	8,020 × 15%	1,203	5,183	6,817

PROBLEM 9.3B
DAVIDSON, DDS (concluded)

b. Davidson's may use the straight-line method in its financial statements to achieve the least amount of depreciation expense in the early years of the furniture's useful life. In its federal income tax return, Davidson may use an accelerated method (called MACRS). The use of MACRS will reduce Davidson's taxable income as much as possible in the early year's of the furniture's useful life. Thus management's goals are really not in conflict.

c. The 200% declining-balance method results in the lowest reported book value at the end of 2010 ($5,530). Depreciation, however, is not a process of valuation. Thus, the $5,530 book value is not an estimate of the furniture's fair value at the end of 2010.

d. A book value of $400 means that accumulated depreciation at the time of the disposal was $2,600.

1. Journal entry assuming that the furniture was sold for $600:

Cash	600	
Accumulated Depreciation: Furniture	2,600	
Furniture		3,000
Gain on Disposal of Assets		200

To record sale of furniture for $600 cash.

2. Journal entry assuming that the furniture was sold for $300:

Cash	300	
Accumulated Depreciation: Furniture	2,600	
Loss on Sale of Asset	100	
Furniture		3,000

To record sale of furniture for $300 cash.

25 Minutes, Medium

PROBLEM 9.4B
BLAKE CONSTRUCTION

a.

General Journal

Jan	6	Loss on Disposal of Plant Assets	1,200	
		Accumulated Depreciation: Office Equipment	16,800	
		Office Equipment		18,000
		Scrapped equipment; received no salvage value.		
Mar	3	Cash	100,000	
		Notes Receivable	700,000	
		Accumulated Depreciation: Building	250,000	
		Land		50,000
		Building		680,000
		Gain on Sale of Plant Assets		320,000
		Sold land and building for a $100,000 cash down-		
		payment and a 5-year, 12% note for the balance.		
Jul	10	Vehicles (new truck)	37,000	
		Accumulated Depreciation: Vehicles (old truck)	22,000	
		Vehicles (old truck)		26,000
		Gain on Disposal of Plant Assets		8,000
		Cash		25,000
		To record trade-in of old truck on new; trade-in		
		allowance exceeded book value by $8,000.		
Sep	3	Office Equipment (new computer)	10,000	
		Loss on Trade-in of Plant Assets	2,600	
		Accumulated Depreciation: Office Equip. (old computer)	9,000	
		Office Equipment (old computer)		12,000
		Cash		1,000
		Notes Payable		8,600
		Acquired new computer system by trading in old		
		computer, paying part cash, and issuing a 1-year,		
		10% note payable. Recognized loss equal to book value of		
		old computer ($3,000) minus trade-in allowance ($400).		

b. Gains and losses on asset disposals do not affect gross profit because they are not part of the cost of goods sold. Such gains and losses do, however, affect net income reported in a firm’s income statement.

c. Unlike realized gains and losses on asset disposals, unrealized gains and losses on marketable securities are not generally reported in a firm’s income statement. Instead, they are reported in the balance sheet as a component of stockholders’ equity.

25 Minutes, Medium

PROBLEM 9.5B
OMEGA PRODUCTS CORPORATION

a. ***Operating expense.*** **Although the training of employees probably has some benefit extending beyond the current period, the number of periods benefited is highly uncertain. Therefore, current accounting practice is to expense routine training costs.**

b. ***Intangible asset.*** **Goodwill represents the present value of future earnings in excess of what is considered normal. As a result of recent changes in accounting for goodwill, goodwill will no longer be amortized. It is subject to assessment for impairment in value.**

c. ***Operating expense.*** **Because of the great uncertainty surrounding the potential benefits of R&D programs, the FASB has ruled that research and development costs should be charged to expense in the period in which these costs are incurred. Although the FASB's position is controversial, it at least has the benefit of reducing the number of alternative accounting practices previously in use, thereby increasing the comparability of financial statements. If a patent is acquired in the future, the acquisition costs (e.g., registration and legal costs) will be capitalized and amortized over the patent's useful life, limited to 20 years.**

d. ***Intangible asset.*** **A patent grants its owner the exclusive right to produce a particular product. If the patent has significant cost, this cost should be regarded as an intangible asset and expensed over the period of time that ownership of the patent will contribute to revenue. In this case, revenue is expected to be earned only over the 4-*year period* during which the product will be produced and sold.**

e. ***Operating expense.*** **Advertising costs are regarded as operating expense because of the difficulty in objectively determining the existence or life of any future benefit.**

20 Minutes, Medium

PROBLEM 9.6B
JELL STORES

a. Estimated goodwill associated with the purchase of Carnie's:

Actual average net income per year	$ 250,000
p/e ratio multiplier	10
Estimated fair value of Carnie's	$ 2,500,000
Fair value of identifiable assets of Carnie's	(900,000)
Estimated goodwill of Carnie's	$ 1,600,000

b. Estimated goodwill associated with the purchase of Mell's:

Actual average net income per year	$ 280,000
Normal earnings for Mell's ($980,000 x 20% = $196,000)	196,000
Estimated excess earnings of Mell's	$ 84,000
Divided by management's desired return on investments	÷ 35%
Estimated goodwill of Mell's	240,000

c. **Due to the difficulties in objectively estimating the value of goodwill, it is recorded only when it is purchased. Jell may actually have generated internally a significant amount of goodwill associated with its existing stores. However, because there is no way to objectively measure the excess return potential of these stores, any goodwill they have generated should not be recorded in Jell's accounting records.**

30 Minutes, Medium

PROBLEM 9.7B
WILSON, INC.

a. **Depreciation expense for the first two years under the three depreciation methods is determined as follows:**

Straight-line:
$24,000 - $6,000/6 years = $3,000 for each of the 1st and 2nd years

Double-declining balance (DDB):
$24,000 x 33%* = $7,920 for the 1st year
($24,000 - $7,920) x 33%* = $5,306 for the 2nd year
***Straight-line rate is 16.7% (100%/6 years) DDB rate is 16.7% x 2 = 33%**

Units-of-Output:
15,000 miles x $.20* per mile = $3,000
20,000 miles x $.20* per mile = $4,000
***Rate per mile = ($24,000 - $6,000)/91,000 miles = $.20**
Total miles expected = 15,000 + (20,000 x 2) + (12,000 x 3) = 91,000

b.

Truck	**$24,000**	
Less: Accumulated depreciation	**(7,000)**	**$17,000**

Accumulated depreciation at the end of the second year is the total of depreciation expense for the first two years: $3,000 + $4,000 = $7,000

c. **The units of output method is tied to the miles driven rather than calendar time and, as a result, the exact amount of depreciation expense to be recognized each accounting period cannot be determined until the period ends. In the above calculations for the first two years in the truck's life, estimates of the number of miles driven were used.**

30 Minutes, Medium

PROBLEM 9.8B
RODGERS COMPANY

a. **Depreciation is calculated on the following amount:**

Purchase price	$550,000
Plus: Expenditures to prepare asset for use	120,000
	$670,000

The declining balance rate at 200% of the straight-line is:
100%/10 years = 10%; 10% x 2 = 20%

Depreciation expense for Year 1:
$670,000 x 20% = $134,000

Depreciation expense for Year 2:
($670,000 - $134,000) x 20% = $107,200

Depreciation expense for Year 3:
($670,000 - $134,000 - $107,200) x 20% = $85,760

b. **Amortization on the patent is calculated as follows (same for each year:)**
$80,000/6 years = $13,333

c. **Plant and intangible asset sections of the balance sheet:**

Year 1:

Equipment	$670,000	
Less: Accumulated depreciation	(134,000)	$536,000
Patent		66,667
Total plant and intangible assets		$602,667

*$80,000 - $13,333 = $66,667

Year 2

Equipment	$670,000
Less: Accumulated depreciation	(241,200)
Total plant assets	$428,800

Gain on the sale of the patent, presented in Rodgers' Yr. 2 income statement, is calculated as follows:

Patent cost	$80,000
Accumulated amortization at time of sale ($13,333 x 2)	(26,666)
Book value	$53,334
Sales price	40,000
Gain on sale	$13,334

SOLUTIONS TO CRITICAL THINKING CASES

20 Minutes, Strong

CASE 9.1
ARE USEFUL LIVES "FLEXIBLE"? AN ETHICS CASE

a. **Lengthening the period over which assets are depreciated for financial statement purposes will reduce the annual charges to depreciation expense. This will reduce expenses in the income statement and increase net income. But depreciation is only a computation—it is not "paid" in cash on an annual basis. Therefore, changing the estimated useful lives of plant assets will have no effect upon cash flows, nor does it affect the time period over which the assets are actually used by the company.**

b. **Management is responsible for establishing the estimated useful lives of assets for purposes of calculating depreciation and preparing financial statements. Those lives must be consistent with the actual expected use of the assets. To arbitrarily lengthen the estimated lives of assets for purposes of improving the company's appearance in its financial statements is not appropriate. If the financial statements are subject to audit by a Certified Public Accountant (CPA), the useful lives over which assets are depreciated will be subject to evaluation as part of the audit process. Depreciating assets over longer lives than are supported by the underlying facts (i.e., the period over which the assets are actually being used) will be recognized by the CPA as an arbitrary step that is intended to make the company's financial situation look better, but which is not supported by the facts. In this instance, management will be faced with the dilemma of having to subsequently reverse its decision to depreciate over longer lives, or accept an unfavorable audit opinion on the fairness of the financial statements.**

c. **The ethical issue confronting Gillespie is whether the change in estimated useful lives is reasonable, or whether it will cause the company's financial statements to be misleading. On one hand, the fact that the company is experiencing financial difficulties may well indicate that it will not replace assets as quickly as it did in more prosperous times. On the other hand, if Gillespie knows that these assets *must* be replaced after only 5 years, the use of a 10-year depreciation life would be misleading to users of the financial statements.**

In summary, Gillespie must assess the reasonableness of Bedell's instructions. If the change to a 10-year life would not result in the financial statements being misleading, then there is no problem in revising the estimated useful lives. If he believes that this change will result in misleading financial statements, he must refuse to participate in presenting such information. Given that he is the controller of the company, he should resign if the CEO insists upon issuing financial statements that he believes to be misleading.

20 Minutes, Strong

CASE 9.2
DEPARTURES FROM GAAP—ARE THEY ETHICAL?

a. **Showing plant assets at current market values is *not* in conformity with generally accepted accounting principles (GAAP). GAAP requires these assets to be shown at *cost,* less any accumulated depreciation (amortization or depletion), and less any write-downs for impairment.**

b. **No. Myers is not a publicly owned company and has no external reporting obligations other than payroll and tax returns. Therefore, it has no obligation—legal or ethical—to issue financial statements conforming to generally accepted accounting principles. It does, however, have an obligation not to *mislead* anyone to whom it distributes financial information.**

c. **The question facing O'Shaughnessey is whether users of the company's balance sheet might *assume* that it was prepared in conformity with generally accepted accounting principles. In this case, they could be misled.**

In conclusion, there is no reason why Myers Constructions—and O'Shaughnessey—cannot prepare financial statements that reflect current market values. However, the basis of asset valuation should be prominently disclosed in the statements, along with an explanation that this valuation method does *not* conform with generally accepted accounting principles. (Disclosure of the departure from GAAP should be reflected in the *titles* of the financial statements, as, for example: Balance Sheet (Reflecting Current Market Values).

20 Minutes, Easy

CASE 9.3
DEPRECIATION POLICIES IN ANNUAL REPORTS

a. **The depreciation methods used in financial statements are determined by management, not by income tax laws.**

b. **No—different depreciation methods may be used for different assets. The principle of consistency only means that a company should not change from year to year the method used to compute depreciation expense on a particular asset. This principle does not prohibit using different methods for different assets, or using different depreciation methods in income tax returns.**

c. **(1) 20 years (a 5% straight-line depreciation rate is equivalent to writing off 1/20 of the asset's cost each year, indicating a useful life of 20 years).**

(2) 3 years (a 33% straight-line depreciation rate is equivalent to writing off 1/3 of the asset's cost each year, indicating a useful life of 3 years).

The useful lives over which assets are to be depreciated are determined by management. However, if the company is audited by a CPA firm, the auditors will review these estimates of useful lives to determine that they are reasonable.

d. **Accelerated depreciation methods transfer the costs of plant assets to expense more quickly than does the straight-line method. These larger charges to depreciation expense reduce the amount of "taxable income" and, therefore, reduce the amount of income taxes currently due.**

15 Minutes, Medium

CASE 9.4
CAPITALIZATION VS. EXPENSE
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. Employees, including yourself, may be applying the generally stated policies in a manner that improves the appearance of your division's performance. They (and you) may not even realize this is being done, or it may be intentional. A consistent pattern of capitalizing costs that should be expensed, or costs that are in a "gray area" between those that should be capitalized and those that should be expensed can have a significant positive impact when accumulated over weeks, months, or even an entire year. Everybody likes to be praised for their good work, and to take steps to put oneself in a position to receive such praise is natural. The current policies and code of conduct of Roxby Industries, while well-meaning, do not appear to be effective in requiring certain policies to be followed in making decisions, such as those related to capitalizing or expensing certain costs.

b. There a number of steps that you might take, including the following:

1. **Meet with employees periodically to remind them of company policy, including the code of professional conduct.**
2. **Work with your superiors to develop more specific policies, with examples, regarding the capitalization and expensing of certain costs. While you will probably not be able to anticipate every possible cost that may be incurred in the future, you should be able to develop more definite guidelines and, perhaps, provide examples that will give you and your employees a clearer indication of the intent of the accounting policy and how management intends that policy to be implemented.**
3. **Develop more specific materiality guidelines for applying capitalization and expense rules. For example, many companies establish a specific dollar amount and any cost below that amount is expensed, regardless of whether it benefits only a single accounting period or multiple periods. This amount will, of course, vary from company to company, or from division within a company, based on size, frequency of transactions, and other factors.**
4. **As a supervisor yourself, find ways to recognize individual and/or group performance among your employees that do not encourage them to take steps that may not be in their best long-term interests or those of the company.**

30 Minutes, Medium

CASE 9.5
ACCOUNTING FOR INTANGIBLES
BUSINESS WEEK

Arguments in favor:

Current GAAP standards seem inconsistent because they do not allow firms to recognize the "goodwill" they generate internally, but at the same time they must recognize the goodwill another firm generates when they purchase that firm. Developing good customer relations, superior management and other factors that result in above-average earnings should be recognized. Not including brand value in assets is misleading to investors and creditors. It is the principal reason that the balance sheet does not indicate a company's current market value.

Arguments opposed:

Assigning value to brands is too difficult and fraught with judgment. The possibility of violation of the accounting objectivity principle is high. Even the most rigorous methodology calls for subjective judgments that are open to management discretion leaving the door open for fraud. In addition, the fluctuation in stockholder equity that would be created when the brand fluctuates from year to year may mislead investors. A better solution may be to include valuation of brand assets in footnotes to the financial statements.

No time estimate

CASE 9.6
R & D EXPENDITURES
INTERNET

A keyword search of Pharmaceutical Companies will result in an extensive list of firms. The list will include extremely profitable industry giants whose R&D expenditures typically amount to 15% to 25% of total costs and expenses. In addition, many smaller companies whose *primary business activity* is researching and developing new drugs will be listed. The R&D expenditures of these firms can amount to as much as 75% to 90% of total costs and expenses. Many of these companies will report very little (if any) sales activity, as *all* of their products are still in the development stage. Once they have developed a promising new drug, these smaller companies are usually acquired by large pharmaceutical firms which have the financial resources to manufacture and distribute the new drug on a large-scale basis.

CHAPTER 10
LIABILITIES

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 10.1	Cash effects of borrowing	2	Analysis
B. Ex. 10.2	Effective interest rate	5	Analysis
B. Ex. 10.3	Bonds issued at a discount	6	Analysis
B. Ex. 10.4	Bonds issued a premium	6	Analysis
B. Ex. 10.5	Recording bonds issued at a discount	6	Analysis
B. Ex. 10.6	Recording bonds issued at a premium	6	Analysis
B. Ex. 10.7	Debt ratio	9	Analysis, communication
B. Ex. 10.8	Early retirement of bonds	6	Analysis
B. Ex. 10.9	Deferred income taxes	10	Analysis
B. Ex. 10.10	Pension and other postretirement benefits	10	Analysis

Exercises	Topic	Learning Objectives	Skills
10.1	You as a student	4	Analysis
10.2	Accounting equation	1-6	Analysis
10.3	Effects of transactions upon financial statements	1, 2, 4, 5, 6, 8	Analysis
10.4	Payroll-related costs	3	Analysis
10.5	Payroll-related costs	3	Analysis
10.6	Use of an amortization table	4	Analysis
10.7	**Real World: DuPont** Tax benefit of debt financing	5	Analysis, communication
10.8	Bonds payable and interest	5	Analysis, communication
10.9	Accounting for bond premiums	5, 6	Analysis, communication
10.10	Accounting for bond discounts	5, 6	Analysis, communication
10.11	**Real World: Tyco Toys and Hasbro** Analyzing solvency	9	Analysis, communication, judgment
10.12	Accounting for leases	10	Analysis, communication, judgment
10.13	Accounting for pensions	10	Analysis, communication, judgment
10.14	Deferred income taxes	10	Analysis, communication
10.15	**Real World: Home Depot, Inc.** Identifying debt	9	Analysis, communication, judgment

Problems Sets A, B	Topic	Learning Objectives	Skills
10.1 A,B	Effects of transactions upon accounting equation	1–6, 8	Analysis
10.2 A,B	Balance sheet presentation	1, 2, 4, 8	Analysis, communication, judgment
10.3 A,B	Notes payable	2	Analysis, communication
10.4 A,B	Preparation and use of an amortization table	4	Analysis, communication
10.5 A,B	Bonds issued at face value	5	Analysis, communication
10.6 A,B	Bond discount and premium	5, 6	Analysis, communication
10.7 A,B	Balance sheet presentation	1, 5, 6, 10	Analysis, communication, judgment
10.8 A,B	Balance sheet presentation	1, 5, 6, 8, 10	Analysis, communication, judgment

Critical Thinking Cases

10.1	**Real World: 8 Companies** Nature of liabilities	1, 10	Analysis, communication. Judgment
10.2	**Real World: Abbott Labs** Factors affecting bond prices	5–7	Analysis, communication, judgment
10.3	Loss contingencies	8	Analysis, communication, judgment
10.4	**Real World: Delta Airlines** Off-Balance-Sheet financing (Ethics, fraud & corporate governance)	1, 10	Analysis, communication, judgment
10.5	Bond Prices *(Business Week)*	5–7	Analysis, communication, judgment, research, technology
10.6	**Real World: Bonds-Online** Credit ratings for bonds (Internet)	5, 6, 9	Analysis, communication, judgment, research, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

10.1 A,B **Computer Specialists, Inc./Westmar, Inc.** **25 Easy**
Show the effects of various transactions upon the accounting equation. Also calls for distinction between current and long-term liabilities. Quick and easy, but quite comprehensive.

10.2 A,B **Seattle Chocolates/Atlanta Peach** **30 Medium**
From an unclassified listing of account balances and other information, prepare current and long-term liability sections of a balance sheet. Explain treatment of various items.

10.3 A,B **Swanson Corporation/Swanlee Corporation** **25 Medium**
Accounting for notes payable with interest stated separately.

10.4 A,B **Quick Lube/Walla** **25 Medium**
Involves conceptual discussion of an amortization table, use of the table, and extension of a partially completed table for two more payments.

10.5 A,B **Blue Mountain Power Company/Lake Company** **15 Easy**
Journal entries to record issuance of bonds between interest payment dates, payment of interest, and accrual of interest at year-end. Requires students to know that bonds are issued at par when the prevailing market rate of interest equals their contract rate.

10.6 A,B **Park Rapids Lumber Company/Bella Company** **35 Strong**
Year-end adjusting entries for bond interest when bonds are issued at a discount and when bonds are issued at a premium.

10.7 A,B **Minnesota Satellite Telephone Corporation/Delaware Utility** **45 Strong**
From an unclassified list of account balances and other information, students are asked to prepare and discuss the current and long-term liability sections of a balance sheet.

10.8 A,B **Chernin Corporation/Fernandez Company** **20 Strong**
From a list of items that include liabilities and include additional information about items that may be mistaken as liabilities, students are asked to prepare the current and long-term liability sections of a balance sheet and to explain why the three excluded items are not included.

Critical Thinking Cases

10.1	**Liabilities in Published Financial Statements** Discuss the nature of various liabilities appearing in the balance sheets of well-known companies.	**30 Medium**
10.2	**Abbott Labs** **Bond Prices** Requires students to understand the relationship between a bond's issue price and the effective rate of interest, and to differentiate between cash flow and interest expense. Also requires that students understand that the time remaining until a bond matures is a factor in determining the bond's current value.	**20 Strong**
10.3	**Loss Contingencies** Students are asked to evaluate four situations indicating whether each situation describes a loss contingency and explaining the proper financial statement treatment of the matter.	**25 Medium**
10.4	**Delta Airlines** **Ethics, Fraud & Corporate Governance** Students are asked to examine and evaluate off-balance-sheet financing arrangements of Delta Airlines.	**20 Medium**
10.5	**Bond Prices** ***Business Week*** Students are asked to explain the relationship between changing interest rates and bond values.	**15 Medium**
10.6	**Bonds-Online** **Internet** Students are introduced to bond ratings and how they correspond to bond yields.	**20 Strong**

**Supplemental Topic,* "Special Types of Liabilities."

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. Liabilities are debts or obligations arising from past transactions or events, and which require settlement at a future date. Liabilities and owners' equity are the two primary means by which a business finances ownership of its assets and its business operations.

   The feature which most distinguishes liabilities from equity is that liabilities *mature,* whereas owners' equity does not. In the event of liquidation of the business, the claims of creditors (liabilities) have priority over the claims of owners (equity). Also, interest paid to creditors is deductible in the determination of taxable income, whereas dividends paid to stockholders are not deductible.

2. In the event of liquidation of a business, the claims of creditors (liabilities) have priority over the claims of owners (equity). The relative priorities of individual creditors, however, vary greatly. Secured creditors have top priority with respect to proceeds stemming from the sale of the specific assets that have been pledged as collateral securing their loans. The priority of unsecured creditors is determined by legal statutes and indenture contracts.

3. Current liabilities are those maturing within one year or the company's operating cycle (whichever is longer) *and* expected to be paid from current assets. Liabilities classified as long-term include obligations maturing more than one year in the future, and also shorter term obligations that will be refinanced or paid from noncurrent assets.

   A 10-year bond issue would be classified as a current liability once it comes within 12 months of the maturity date, assuming that the issue will be paid from current assets.

   A note payable maturing in 30 days would be classified as a long-term liability if (a) management had both the intent and the ability to refinance this obligation on a long-term basis, or (b) the liability will be paid from noncurrent assets.

4. Journal entries:

Accounts Payable (Smith Supply Company) …………………………	8,000	
Notes Payable …………………………………………………		8,000
Issued a 12%, 90-day note payable to replace an account payable to Smith Supply Company.		
Notes Payable ………………………………………………………	8,000	
Interest Expense ……………………………………………………	240	
Cash …………………………………………………………		8,240
Paid 12%, 90-day note to Smith Supply Company.		

5. All employers are required by law to pay the following payroll taxes and insurance premiums: Social Security and Medicare taxes, unemployment taxes, and workers' compensation insurance premiums. In addition, many employers include the following as part of the "compensation package" provided to employees: group health insurance premiums, contributions to employee pension plans, and postretirement benefits (such as health insurance). Both mandated and discretionary costs are included as part of total payroll cost in addition to the wages and salaries earned by employees.

6. Workers' compensation premiums are a mandated payroll cost—the cost of providing insurance coverage to employees in case of job-related injury. The dollar amount of the premiums varies by state and by employees' occupation. The employer pays workers' compensation premiums. Social Security and Medicare taxes are paid half by the employer and half by the employee.

7. $62,537 [$63,210 balance at the beginning of the period, less $673 of the payment that applies to principal ($1,200 –$527 representing interest)].

8. The analysis is incorrect, because the principal amount of the mortgage note will not be paid off at a constant rate of $17.84 per month. The portion of each payment representing an interest charge is based upon the unpaid balance of the loan. Since the principal amount is being reduced each month, the portion of each successive payment representing interest will decrease, and the portion applied to reducing the unpaid balance will increase. For example, let us look into the future to the time when the loan has been paid down to $10,000. At this point, a $476.17 monthly payment would be allocated as follows: interest, $91.67 ($10,000 principal × 11% × 1⁄ 12), and reduction in principal, $384.50 ($476.17 –$91.67 interest). Thus, the unpaid balance of the loan will be paid off at an ever-increasing rate.

   Note to instructor: This mortgage will be paid in full in 30 years.

9. The income tax advantage of raising capital by issuing bonds rather than stock is that interest payments on bonds are deductible in determining income subject to income taxes. This reduces the "after-tax" cost of borrowing. Dividend payments to stockholders, on the other hand, are not deductible in the determination of taxable income.

10.

Annual interest payments ($5 million × 10%) …………………………………………	$500,000
Less: Annual tax savings ($500,000 × 30%) ……………………………………….	150,000
Annual after-tax cost of borrowing …………………………………………………	$350,000

   After-tax cost of borrowing as a percentage of amount borrowed:

   $350,000 ÷ $5,000,000 = 7%

11. The *present value* of a future amount is the amount that a knowledgeable investor would pay today for the right to receive the future amount. This present value always will be less than the future amount, because the investor will expect to earn some return while waiting to receive the future amount.

12. From an investor's perspective, a bond represents a series of future cash receipts that are *fixed in amount* by the contract rate of interest printed on the bonds and by the bonds' maturity value. As market interest rates rise, a series of future receipts that are fixed in dollar amount look *less attractive* in relation to other investment opportunities, and the price of the bond falls. As interest rates fall, any series of fixed cash receipts begins to look better in relation to other opportunities, and bond prices rise.

13. Bonds with contract rates of interest above current market interest rates should be trading at prices above their face values. Bond prices vary *inversely* with market interest rates.

14. The market value of $25,000 in bonds trading at 102 would be $25,500 ($25,000 par value × 102%). The market rate of interest for bonds of this quality must be *lower* than the 8% contract rate, thereby causing investors to be willing to pay a premium for these bonds.

15. A superior credit rating is one reason why one company's bonds might trade at a higher price than those of another company. However, the higher market price for the Interstate Power bonds does not, in itself, prove that Interstate has the better credit rating. As current market interest rates are well above the 6% level, it is logical that both bonds should be selling at a discount. The fact that the Interstate Power bonds are selling at a market price very close to their face value probably indicates that these bonds will mature in the very near future. Thus, the difference in the market price of the two bond issues may well be explained by a difference in maturity dates, rather than by a difference in the companies' credit ratings.

16. Issuing bonds at a discount *increases* the cost of borrowing. Not only does the issuing company have the use of less borrowed money in exchange for its regular interest payments, but it also must repay more than the original amount borrowed. Thus, an additional interest charge is built into the maturity value of the bonds.

17. Because the maturing bonds were paid from a sinking fund, the bonds were never classified as a current liability. As the sinking fund was never classified as a current asset, the maturity of the bonds had *no effect* upon the company's current ratio.

    The debt ratio is equal to total liabilities divided by total assets. NDP is a solvent business; therefore, the total liabilities are *less* than total assets, and the debt ratio is less than 100%. Under these circumstances, reducing the numerator and denominator of the ratio by an equal amount causes the debt ratio to *decrease*. One also should arrive at this conclusion through common sense—repaying debt *reduces* the percentage of total assets financed with capital provided by creditors.

18. Low-Cal's very low interest coverage ratio should be of greater concern to stockholders than to short-term creditors. The fact that operating income amounts to only 75% of annual interest implies that Low-Cal may have great difficulty in remaining solvent in the *long run.* It does not imply, however, that the company is not currently solvent. Short-term creditors, because of their shorter investment horizon, should be concerned about the current relationships between the company's liquid resources and its short-term obligations.

19. The return on assets represents the average return that a business earns from all capital. If this average rate is *higher* than the cost of borrowing, the business can benefit from using borrowed capital—that is, applying *leverage.* In essence, if you can borrow money at a relatively low rate and invest it at a significantly higher one, you will benefit from doing so.

    But some businesses have borrowed such large amounts—and at such high interest rates—that they have been *unable* to earn enough to pay the interest. In these cases, the owners must come up with additional money to cover the interest charges, or the business eventually will "go under."

20. Estimated liabilities have two basic characteristics: (1) the liability is known to exist at the balance sheet date and (2) the precise dollar amount cannot be determined until a later date. Examples include the liability to honor warranties on products sold, liabilities for income taxes payable, and an accrual of liability relating to a loss contingency.

21. A loss contingency is a possible loss (or expense) stemming from past events that will be resolved as to existence and amount by some future event. Examples include pending litigation, all estimated liabilities, the allowance for uncollectible accounts, and the risk that the political climate in foreign countries has impaired the value of assets in those locations.

    Loss contingencies are accrued (recorded) if it is both (1) *probable* that a loss has been incurred, and (2) the amount of loss can be estimated reasonably. Even if these conditions are not met, loss contingencies should be disclosed in financial statements if it is *reasonably possible* that a material loss has been incurred.

22. A *commitment* is a contractual obligation to conduct *future transactions* on agreed-upon terms. Examples include employment contracts, contracts with suppliers of services, and contracts to make future purchases or sales of inventory or of other assets.

    If they are material in dollar amount, the terms of commitments should be *disclosed* in financial statements. No liability normally is recorded, because the commitment relates to future transactions, rather than to past transactions.

23. The lessee accounts for an *operating lease* as a rental arrangement; the lease payments are recorded as rental expense and no asset or liability (other than a short-term liability for accrued rent payable) is recorded. A *capital lease,* on the other hand, should be viewed by the lessee as essentially a purchase of the related asset. The lessee accounts for a capital lease by debiting an asset account (such as Leased Equipment) and crediting a liability account (Lease Payment Obligation) for the present value of the future lease payments. Lease payments made by the lessee must be allocated between interest expense and a reduction in the liability, Lease Payment Obligation. The asset account is depreciated over the life of the leased asset.

    An operating lease is sometimes called *off-balance-sheet financing* because the obligation for future lease payments does not appear as a liability in the lessee's balance sheet.

24. As the pension plan is *fully funded,* Ortega Industries has paid its pension obligations to the pension fund trustee as these obligations have accrued. Therefore, no liability need appear in Ortega's balance sheet relating to the pension plans. Retired employees will collect their postretirement benefits directly from the trustee of the pension plan.

25. Most pension plans are *fully funded*—that is, the corporation deposits cash in the pension fund each period in an amount equal to the current-period liability. Thus, *no liability* for pension payments appears in the corporation's balance sheet.

    Most corporations, however, do *not* fully fund their obligations for nonpension postretirement benefits. The difference between the amount funded and the present value of promised future benefits—the unfunded amount—is reported as a liability. This liability gets larger each year as the funded portion lags further and further behind the present value of promised benefits.

26. Postretirement costs are recognized as expense *currently* as workers earn the right to receive these benefits. If these costs are fully funded, the company makes cash payments within the current period equal to the expense recognized. If the benefits are not funded, the cash payments are not made until after the employees retire.

27. Deferred income tax liabilities are the portion of this year's income taxes expense (as shown in the income statement) which will appear in the income tax returns of *future* years. Therefore, due to differences between income tax regulations and accounting principles, the taxpayer is able to postpone the payment of some income taxes. These items may be reported as either long-term or short-term liabilities, depending on how long the taxpayer is able to postpone the payment of income taxes.

Note to instructor: Situations in which certain expenses are deductible for financial reporting purposes but not for income tax purposes may cause deferred taxes to be classified as an *asset* instead of a liability.

**Supplemental Topic:* "Special Types of Liabilities."

B.Ex. 10.1	**Cash payments required in Yr. 1:**	
	Interest at the end of first three quarters ($10,000 x 8% x 9/12)	**600**
	Cash payments required in Yr. 2:	
	Interest at the end of the 4th quarter: ($10,000 x 8% x 3/12)	**200**
	Repayment of loan	**10,000**
		$10,200

B.Ex. 10.2	**Interest cost (before income tax):**	
	$500,000 x 8%	**$40,000**
	Tax savings via deduction of interest:	
	$40,000 x .40	**(16,000)**
	Interest cost, net of income tax	**$24,000**

Effective interest rate, net of income tax, is:
8% (1 - .40) = $4.8%

Applying that rate to the $500,000 loan supports the interest cost, net of income tax, calculated above:
$500,000 x .048 = $24,000

B.Ex. 10.3 Amount received from sale of bonds:
$1,000,000 x .98 = $980,000

Quarterly and annual cash interest required:
$1,000,000 x .06 = $60,000 annual
$60,000/4 = $15,000 quarterly

B.Ex. 10.4 Amount received from sale of bonds:
$1,000,000 x 1.01 = $1,010,000

Quarterly and annual cash interest required:
$1,000,000 x .05 = $50,000 annual
$50,000/4 = $12,500 quarterly

B.Ex. 10.5 Cash received from sale of bonds:
$500,000 x .97 = $485,000

Cash paid for interest in first year:
$500,000 x 5% = $25,000

Interest expense recognized in first year:	
Cash paid (above)	**$25,000**
Plus: Amortization of discount:	
($500,000 - $485,000)/10 years =	**1,500**
	$26,500

B.Ex. 10.6 **Cash received from sale of bonds:**
$700,000 x 1.02 = $714,000

Cash paid for interest in first year:
$700,000 x .065 = $45,500

Interest expense recognized in first year:

Cash paid (above)		**$45,500**
Less: amortization of premium:		
($714,000 - $700,000)/10 years =		**(1,400)**
		$44,100

B.Ex. 10.7 **Company One:**
$2,000,000/($2,000,000 + $4,000,000) = 33.3%
Company Two:
$3,000,000/($3,000,000 + $5,000,000) = 37.5%

The debt ratio is a measure of the extent to which the company's assets have been financed by debt financing in comparison with equity financing.

B.Ex. 10.8 **Original discount on sale of bonds:**
$1,000,000 - ($1,000,000 x .98) = $20,000

Balance of discount at date of retirement of bonds:
$20,000 x 1/2 = $10,000

Loss on sale of retirement of bonds:

Repurchase price ($500,000 x 1.01)		**$505,000**
Carrying amount of bonds purchased		
Face value		
($1,000,000 x .50)	**$500,000**	
Discount remaining		
($10,000 x .50)	**(5,000)**	**495,000**
Loss on repurchase		**$10,000**

B.Ex. 10.9

Income tax expense*	**159,000**	
Income tax payable**		**84,000**
Deferred income tax		**75,000**

***$459,000 - $300,000 = $159,000**
****$159,000 - $75,000 = $84,000**

B.Ex. 10.10 To record annual pension expense:

Pension expense	**250,000**	
Cash		**250,000**
To record annual expense for postretirement benefits other than pensions:		
Postretirement benefits expense	**140,000**	
Cash		**70,000**
Unfunded liability for postretirement benefits		**70,000**

SOLUTIONS TO EXERCISES

Ex. 10.1 **You would need to save $7,760, as shown in the following loan amortization table:**

Interest Period	Annual Payment	Annual Interest Expense @ 8%	Reduction in Unpaid Balance	Unpaid Balance
Date of Graduation				$ 10,000
Year 1	$1,490	$800	$690	9,310
Year 2	1,490	745	745	8,565
Year 3	1,490	685	805	7,760

Ex. 10.2

Trans-action	Income Statement: Revenue	- Expenses=	Net Income	Balance Sheet: Assets =	Current Liab. +	Long-Term Liab. +	Owners' Equity
a.	NE	I	D	NE	I	NE	D
b.	NE	I	D	D	D	NE	D
c.	NE	I	D	D	I	NE	D
d.	NE	NE	NE	NE	I	D	NE
e.	NE	NE	NE	D	D	NE	NE
f.	NE	NE	NE	I	NE	I	NE
g.	NE	I	D	D	NE	NE	D
h.	NE	I	D	NE	I	I	D

Ex. 10.3

Trans-action	Current Liabilities	Long-Term Liabilities	Net Income	Net Cash Flow from Operating Activities	Net Cash Flow from all Sources
a.	D	NE	NE	D	D
b.	D	NE	D	D	D
c.	NE	I	NE	NE	I
d.	NE	I	D	D	D
e.	NE	I	D	NE	NE
f.	I	NE	D	NE	NE

Ex. 10.4 a. Total payroll related costs:

Wages and salaries expense	**$ 7,200,000**
Payroll taxes	**580,000**
Workers' compensation premiums	**250,000**
Group health insurance premiums	**725,000**
Contributions to employees' pension plan	**450,000**
Total payroll related costs	**$9,205,000**

b. Employees' "take-home pay":

Wages and salaries earned	**$7,200,000**
Amounts withheld from employees' pay	**2,200,000**
"Take-home pay"	**$5,000,000**

c. (1) 128% ($9,205,000 ÷ $7,200,000)
(2) 184% ($9,205,000 ÷ $5,000,000)

Ex. 10.5	**a.**	**Wages Expense ……………………………………………**	**250,000**	
		State Income Tax Payable ……………………………		**5,875**
		Federal Income Tax Payable …………………………		**56,000**
		Social Security and Medicare Taxes Payable ……….		**19,125**
		Cash (or Wages Payable) ………………………………		**169,000**
		To record gross wages, employee withholdings, and take-home pay in February.		
	b.	**Payroll Tax Expense ……………………………………**	**43,125**	
		Social Security and Medicare Taxes Payable ……….		**19,125**
		Federal and State Unemployment Taxes Payable …….		**15,500**
		Prepaid Workers' Compensation Insurance ……….		**8,500**
		To record employer payroll tax expense in February, \$8,500 of which is the expiration of prepaid workers' compensation insurance premiums.		
	c.	**Employee Health and Life Insurance Expense ……………**	**10,000**	
		Pension Expense ……………………………………………	**22,875**	
		Prepaid Employee Health and Life Insurance ………		**10,000**
		Cash (or Pension Liability) ……………………………		**22,875**
		To record employee benefit expenses in February, \$10,000 of which is the expiration of prepaid employee health and life insurance premium.		

d. **The $56,000 amount withheld from the employees' gross wages does *not* represent a tax levied on the employer. The $56,000 is simply a portion of the gross wage expense that must be sent directly to the proper tax authorities, rather than paid to the employees. In the company's balance sheet, these withholdings represent current liabilities until the actual payment to various tax authorities is made.**

Ex. 10.6 **a.**

Amortization Table
(12% Note Payable for $150,000; Payable in Monthly Installments of $1,543)

Monthly Interest Period	(A) Monthly Payment	(B) Interest Expense (1% of the Last Unpaid Balance)	Reduction in Unpaid Balance (A) - (B)	Unpaid Balance
Original balance	—	—	—	$150,000
1	$1,543	$1,500	$43	149,957
2	1,543	1,500	43	149,914

b.

Interest Expense	1,500	
Mortgage Payable	43	
Cash		1,543
To record second monthly installment on mortgage payable.		

c. Decrease. Interest expense is based on the unpaid principal balance at the end of each month. As the unpaid principal balance decreases each period, interest expense will decrease also.

Ex. 10.7 **a.**

Annual interest expense ($340 million × 6.2%)	$21.080 million
Less: Income tax savings ($21.080 million × 40%)	8.432 million
Annual after-tax cost of borrowing	$12.648 million

b. 3.72% ($12.648 million ÷ 340 million)

c. The obvious advantage of debt financing is that interest expense is tax deductible, whereas dividends are not.

Ex. 10.8	**a.**	**Apr.**	**30**	**Cash ……………………………………………**	**50,375**	
				Bonds Payable ……………………………		**50,000**
				Bond Interest Payable ……………………		**375**
				Issued $50,000 face value of 9%, 30-year bonds at 100 plus accrued interest for one month.		
	b.	**Sept.**	**30**	**Bond Interest Payable ……………………………**	**375**	
				Bond Interest Expense ……………………………	**1,875**	
				Cash ………………………………………		**2,250**
				Paid semiannual interest on $50,000 face value of 9% bonds.		
	c.	**Dec.**	**31**	**Bond Interest Expense ……………………………**	**1,125**	
				Bond Interest Payable ……………………		**1,125**
				Adjusting entry to recognize three months' interest accrued on $50,000 face value 9% bonds since September 30.		

d. **This practice enables the corporation to pay a full six months' interest on all bonds outstanding at the semiannual interest payment date, regardless of when the bonds were purchased. The accrued interest collected from investors who purchase bonds between interest payment dates is, in effect, returned to them at the next interest payment date. In this exercise, Gardner collected one month's interest at issuance and then paid six months' interest on September 30 after the bonds were outstanding for only *five* months.**

Ex. 10.9

a.

2007				
Apr.	**1**	**Cash ……………………**	**8,160,000**	
		Premium on Bonds Payable ………		**160,000**
		Bond Payable ………………		**8,000,000**
		To record issuance of bonds at 102.		

b.

2007				
Sept.	**30**	**Bond Interest Expense ……………**	**316,000**	
		Premium on Bonds Payable ………	**4,000**	
		Cash ……………………		**320,000**
		To pay interest and amortize bond premium.		

Semiannual interest payment:

$8,000,000 x 8% x 1/2 ………	**$320,000**
Less premium amortized:	
[$160,000 ÷ 20 yrs.] x 1/2 …..	**(4,000)**
Interest expense	**$316,000**

c.

2027				
Mar.	**31**	**Bond Interest Payable ……………**	**160,000**	
		Bond Interest Expense ……………	**158,000**	
		Premium on Bonds Payable ………	**2,000**	
		Cash ……………………		**320,000**
		To record final interest payment and amortize bond premium:		

(1) Interest expense for 3 months in 2027 = $316,000 x 3/6 = $158,000

(2) Premium amortized in 2027 = $4,000 x 3/6 = $2,000

(3) Interest payable from 12/31/26 = $320,000 x 3/6 = $160,000

Mar.	**31**	**Bonds Payable ……………………**	**8,000,000**	
		Cash ……………………		**8,000,000**
		To retire bonds at maturity.		

d. **(1)** **Amortization of a bond premium decreases annual interest expense and, consequently, increases annual net income.**

(2) **Amortization of a bond premium is a noncash component of the annual interest expense computation. Thus, it has no effect upon annual net cash flow from operating activities.**

(Receipt of cash upon issuance of bonds and payment of cash to retire bonds at maturity are both classified as financing activities.)

Ex. 10.10

				Debit	Credit
a.	2007				
	July	1	Cash ……	4,900,000	
			Discount on Bonds Payable ……	100,000	
			Bonds Payable ……		5,000,000
			To record issuance of bonds at 98.		
b.	2007				
	Dec.	31	Bond Interest Expense ……	240,000	
			Discount on Bonds Payable ……		2,500
			Cash ……		237,500
			To pay interest and amortize bond discount:		

Semiannual interest payment:	
$5,000,000 x 9 1/2% x 1/2 ……..	$237,500
Add discount amortized:	
[$100,000 ÷ 20 yrs.] x 1/2 ……	2,500
Interest expense	$240,000

				Debit	Credit
c.	2027				
	June	30	Bond Interest Expense ……	240,000	
			Discount on Bonds Payable ……		2,500
			Cash ……		237,500
			To make final interest payment and amortize bond discount (same calculation as in part b. above).		
	June	30	Bond Payable ……	5,000,000	
			Cash ……		5,000,000
			To retire bonds at maturity.		

d. (1) Amortization of bond discount increases annual interest expense and, consequently, reduces annual net income.

(2) Amortization of bond discount is a noncash component of annual interest expense and has no effect upon annual net cash flow from operating activities. (Receipt of cash upon issuance of bonds and payment of cash to retire bonds at maturity are both classified as financing activities.)

Ex. 10.11 a. (1) Debt ratio:

Tyco:

$$\frac{\textbf{Total liabilities}}{\textbf{Total assets}} = \frac{\$349{,}792}{\$615{,}132} = \underline{57\%}$$

Hasbro:

$$\frac{\textbf{Total liabilities}}{\textbf{Total assets}} = \frac{\$1{,}090{,}776}{\$2{,}616{,}388} = \underline{42\%}$$

(2) Interest coverage ratio:

Tyco:

$$\frac{\textbf{Operating income}}{\textbf{Interest expense}} = \frac{\$13{,}028}{\$28{,}026} = \underline{0.46 \textbf{ times}}$$

Hasbro:

$$\frac{\textbf{Operating income}}{\textbf{Interest expense}} = \frac{\$304{,}672}{\$37{,}588} = \underline{8.11 \textbf{ times}}$$

b. Long-term creditors probably would regard *Hasbro* as the safer investment. Hasbro has a smaller percentage of its assets financed by creditors' capital, and thereby provides its creditors with a bigger "buffer" of equity capital. Also, Hasbro earns over 8 times the amount of its interest expense, whereas Tyco Toys earns only 46 cents for every dollar of interest expense it incurs. Thus, interest payments pose a great burden on Tyco Toys.

Note to instructor: **For the year in question, Tyco's interest expense actually resulted in reporting an overall net loss for the period.**

Ex. 10.12	**a.**	**Rent Expense**	**2,500**	
		Cash		**2,500**
		To record monthly rental expense on equipment under an operating lease agreement.		
	b.	**Leased Equipment**	**76,021**	
		Capital Lease Obligation		**73,521**
		Cash		**2,500**
		To record the acquisition of equipment through a capital lease agreement.		

c. Under an operating lease, no asset or liability (other than perhaps a short-term liability for accrued rent payable) relating to the lease appears in the lessee's balance sheet.

d. If the lease is unquestionably a capital lease, it would be *unacceptable, unethical* and possibly *illegal* for a publicly owned company to account for it as an operating lease. Such presentation would understate the company's total liabilities.

Ex. 10.13	**a.**	**Pension Expense**	**2,500,000**	
		Cash		**2,500,000**
		To summarize payments to a fully funded pension plan.		
	b.	**Postretirement Benefits Expense**	**750,000**	
		Cash		**50,000**
		Unfunded Liability for Postretirement Benefits		**700,000**
		To summarize partial funding of nonpension postretirement benefits expense for the year and an increase in the related unfunded liability.		

c. Because the pension plan is fully funded each year, and because the plan is an entity separate from Western Electric, this plan should contain assets approximately equal to the pension benefits earned by employees in prior years. Thus, even if Western Electric becomes insolvent, the plan will continue to invest these assets and should be able to pay these earned benefits in future years.

d. A company does *not* have an ethical (or legal) responsibility to fund its nonpension postretirement benefits as they accrue. It does, however, have an ethical responsibility to provide to employees all of the benefits they have earned during their working careers.

Ex. 10.14 **a.** **Deferred taxes are the income taxes that will become due *in future years* upon earnings that *already* have been reported in a company's income statement. Deferred taxes arise because of *timing differences* between the recognition of certain revenue and expenses in income tax returns and in financial statements.**

b. ***$1,300,000* ($960,000 already paid, plus $340,000 currently payable)**

c. **Current liabilities:**

Income taxes payable	**$**	**340,000**
Deferred taxes payable (current portion)		**30,000**
Total current tax liabilities	**$**	**370,000**
Long-term liabilities:		
Deferred taxes payable ($200,000, less current portion of $30,000)	**$**	**170,000**

Ex. 10.15

a. **Current Ratio:**

(1) Current assets 1/29/06	**$**	**15,346**
(2) Current liabilities 1/29/06		**12,901**
Current ratio (1) ÷ (2)		**1.19 : 1**

Quick Ratio:

(1) Financial assets 1/29/06	**$**	**3,203**
(2) Current liabilities 1/29/06		**12,901**
Quick ratio (1) ÷ (2)		**0.25 to 1**

These ratios do not appear to be very strong; however, because the business generates most of its sales in cash, it is not likely to encounter cash flow problems. This is evidenced by the fact that the company generated almost $6.5 billion in net operating cash flows for the year ended 1/29/06. This means that the company's sources of operating cash flow were significantly greater than its uses of operating cash flow.

b. **Debt Ratio:**

(1) Total liabilities 1/29/06	**$**	**17,573**
(2) Total assets 1/29/06		**44,482**
Debt ratio (1) ÷ (2)		**40%**

The company has a moderately high debt load given that 40% of each asset dollar is debt financed. Of this amount, most is short-term.

c.

The company reports current liabilities of almost $13 billion as of 1/29/06. Annual *net* cash flows provided by operating have been between $6 and $7 billion in each of the three years reported in its statement of cash flows. In addition, the balance in current assets at 1/29/06 was over $15 billion. It appears that the total of current assets and cash provided by operating activities keep Home Depot in a strong position to pay its obligations as they come due.

25 Minutes, Easy

SOLUTIONS TO PROBLEMS SET A
PROBLEM 10.1A
COMPUTER SPECIALISTS, INC.

	Income Statement			Balance Sheet			
					Current	Long-Term	Owners'
Transaction	Revenue -	Expenses =	Net Income	Assets =	Liabilities +	Liabilities +	Equity
a.	NE	I	D	NE	I	NE	D
b.	NE	NE	NE	NE	I	D	NE
c.	NE	I	D	D	I	NE	D
d.	I	NE	I	NE	D	NE	I
e.	NE	NE	NE	NE	D	I	NE
f.	NE	I	D	D	D	NE	D
g.	NE	I	D	D	NE	D	D
h.	NE	NE	NE	I	NE	I	NE
i.	NE	I	D	D	NE	I	D
j.	NE	I	D	NE	I	I	D
k.	NE	NE	NE	I	NE	I	NE
l.	NE	I	D	NE	I	D	D
m.	NE	I	D	NE	I	NE	D
n.	NE	NE	NE	NE	NE	NE	NE
o.	NE	NE	NE	NE	NE	NE	NE

30 Minutes, Medium

PROBLEM 10.2A
SEATTLE CHOCOLATES

a.

SEATTLE CHOCOLATES		
Partial Balance Sheet		
December 31, 2007		
Liabilities:		
Current liabilities:		
Income taxes payable		$ 40,000
Accrued expenses and payroll taxes		60,000
Mortgage note payable-current portion ($750,000 - $739,000)		11,000
Accrued interest on mortgage note payable		5,000
Trade accounts payable		250,000
Unearned revenue		15,000
Total current liabilities		$ 381,000
Long-term liabilities:		
Note payable to Northwest Bank		$ 500,000
Mortgage note payable ($750,000 - $11,000 current portion)		739,000
Total long-term liabilities		1,239,000
Total liabilities		$ 1,620,000

b. Comments on information in the numbered paragraphs:

(1) Although the note payable to Northwest Bank is due in 60 days, it is classified as a long-term liability because it is to be refinanced on a long-term basis.

(2) The $11,000 principal amount of the mortgage note payable scheduled for repayment in 2008 ($750,000 –$739,000) is classified as a current liability. Principal to be repaid after December 31, 2008, is classified as a long-term liability.

(3) As the accrued interest is payable within one month, it is a current liability.

(4) The pending lawsuit is a loss contingency. As no reasonable estimate can be made of the loss incurred (if any), this loss contingency does *not* meet the criteria for accrual. It will be disclosed in the notes accompanying the financial statements, but it should not be shown as a liability.

25 Minutes, Medium

PROBLEM 10.3A
SWANSON CORPORATION

a.

General Journal

20__				
Aug	6	Cash	12,000	
		Notes Payable		12,000
		Borrowed $12,000 @ 12% per annum from Maple		
		Grove Bank. Issued a 45-day promissory note.		
Sept	16	Office Equipment	18,000	
		Notes Payable		18,000
		Issued 3-month, 10% note to Seawald Equipment		
		as payment for office equipment.		
Sept	20	Notes Payable	12,000	
		Interest Expense	180	
		Cash		12,180
		Paid note and interest to Maple Grove Bank		
		($12,000 x 12% x 45/360 = $180).		
Nov	1	Cash	250,000	
		Notes Payable		250,000
		Obtained 90-day loan from Mike Swanson; interest		
		@ 15% per annum.		
Dec	1	Inventory	5,000	
		Notes Payable		5,000
		To record purchase of merchandise and issue		
		90-day, 14% note payable to Gathman Corporation.		
Dec	16	Notes Payable	18,000	
		Interest Expense	450	
		Cash		450
		Notes Payable		18,000
		Paid note and interest to Seawald Equipment		
		which matured today and issued a 30-day, 16%		
		renewal note. Interest: $18,000 x 10% x 3/12 = $450		
b.		Adjusting Entry		
Dec	31	Interest Expense	6,428	
		Interest Payable		6,428
		To record interest accrued on notes payable:		
		Mike Swanson ($250,000 x 15% x 2/12 = $6,250);		
		Gathman Corp. ($5,000 x 14% x 1/12 = $58); and		
		Seawald Equip. ($18,000 x 16% x 1/12 x 1/2 =$120).		

c. **The Seawald Equipment note dated September 16 was due in full on December 16. The higher rate of interest on the new note may be associated with the increased *risk* of collecting in 30 days the $18,000 principal plus accrued interest due.**

25 Minutes, Medium

PROBLEM 10.4A
QUICK LUBE

a. and d.

a. **The amount of the monthly payments exceeds the amount of the monthly interest expense. Therefore, a portion of each payment reduces the unpaid balance of the loan. The continuous reduction in the unpaid balance, in turn, causes the monthly interest expense to be less in each successive month, and the amount applied to the unpaid balance to increase. Thus, the loan principal is repaid at an ever-increasing rate.**

d. **At December 31, 2007, two amounts relating to this mortgage loan will appear as current liabilities in the borrower's balance sheet. First, as payments are due on the first day of each month, one month's interest has accrued since the December 1 payment. This accrued interest will be paid on January 1, 2008, and therefore, is a current liability.**

Next, the portion of the unpaid principal that will be repaid during 2008 represents a current liability.

Parts *b* and *c* appear on the following page.

PROBLEM 10.4A
QUICK LUBE (concluded)

b.

General Journal

2007				
Oct	1	Interest Expense	10,800	
		Mortgage Note Payable	310	
		Cash		11,110
		To record monthly payment on mortgage.		
Nov	1	Interest Expense	10,797	
		Mortgage Note Payable	313	
		Cash		11,110
		To record monthly mortgage payment.		

c.

Amortization Table
(12%, 30-Year Mortgage Note Payable for $1,080,000;
Payable in 360 Monthly Installments of $11,110)

Interest Period	Payment Date	Monthly Payment	Interest Expense	Reduction in Unpaid Balance	Unpaid Balance
Issue date	Sept. 1, 2007				$ 1,080,000
1	Oct. 1	$ 11,110	$ 10,800	$ 310	1,079,690
2	Nov. 1	11,110	10,797	313	1,079,377
3	Dec. 1	11,110	10,794	316	1,079,061
4	Jan. 1, 2008	11,110	10,791	319	1,078,742

15 Minutes, Easy

PROBLEM 10.5A
BLUE MOUNTAIN POWER COMPANY

General Journal				
a.				
2007				
Aug	1	Cash	10,250,000	
		Bonds Payable		10,000,000
		Bond Interest Payable		250,000
		Issued $10,000,000 face value of 10%, 20-year		
		bonds at 100 plus accrued interest for three		
		months ($10,000,000 x 10% x 3/12 = $250,000).		
b.				
Nov	1	Bond Interest Payable	250,000	
		Bond Interest Expense	250,000	
		Cash		500,000
		Paid semiannual interest ($10,000,000 x 10% x 1/2 =		
		$500,000).		
c.				
Dec	31	Bond Interest Expense	166,667	
		Bond Interest Payable		166,667
		To accrue two months' interest expense		
		($10,000,000 x 10% x 2/12 = $166, 667).		
d.				
2008				
May	1	Bond Interest Payable	166,667	
		Bond Interest Expense	333,333	
		Cash		500,000
		To record semiannual bond interest payment		
		and interest expense for four months since Dec. 31		
		($10,000,000 x 10% x 4/12 = $333,333).		

e. **The market rate of interest on the date of issuance was 10%. Because the bonds were issued at par (100), the market rate had to have equaled the contract interest rate printed on the bonds.**

35 Minutes, Strong

PROBLEM 10.6A
PARK RAPIDS LUMBER COMPANY

a.

General Journal

(1)		Bonds issued at 98:		
2007				
Dec	31	Bond Interest Expense	2,693,334	
		Discount on Bonds Payable		26,667
		Bond Interest Payable		2,666,667
		To record accrual of bond interest expense for		
		four months in 2007:		
		Contract interest ($80,000,000 x 10% x 4/12)	$ 2,666,667	
		Discount amortization ($1,600,000 ÷ 20 years) x 4/12	26,667	
		Bond interest expense for four months	$ 2,693,334	
2008				
Mar	1	Bond Interest Payable	2,666,667	
		Bond Interest Expense	1,346,667	
		Discount on Bonds Payable		13,334
		Cash		4,000,000
		To record semiannual bond interest payment and		
		interest expense for two months (1/2 of interest for		
		four months, as computed in preceding entry). *		
(2)		Bonds issued at 101:		
2007				
Dec	31	Bonds Interest Expense	2,653,334	
		Premium on Bonds Payable	13,333	
		Bond Interest Payable		2,666,667
		Accrual of interest on bonds for four months:		
		Contract interest ($80,000,000 x 10% x 4/12)	$ 2,666,667	
		Less: Premium amortization ($800,000 ÷ 20 yrs) x 4/12	(13,333)	
		Bond interest expense for four months	$ 2,653,334	
2008				
Mar	1	Bond Interest Payable	2,666,667	
		Bond Interest Expense	1,326,667	
		Premium on Bonds Payable	6,666	
		Cash		4,000,000
		Semiannual bond interest payment and interest		
		expense for two months (1/2 of interest for four		
		months, as computed in preceding entry).*		
		* Actual amount differs slightly due to rounding errors.		

PROBLEM 10.6A
PARK RAPIDS LUMBER COMPANY (concluded)

b.

Net bond liability at Dec. 31, 2008:	Bonds Issued at 98	Bonds Issued at 101
Bond payable	$ 80,000,000	$ 80,000,000
* Less: Discount on bonds payable ($1,600,000-$106,667)	(1,493,333)	
** Add: Premium on bonds payable ($800,000-$53,333)		746,667
Net bond liability at Dec. 31, 2008:	$ 78,506,667	$ 80,746,667

*** Discount amortized at Dec. 31, 2008:**		
Amount amortized in 2007	**$**	**26,667**
Amount amortized in 2008 ($1,600,000 ÷ 20 years)		**80,000**
Discount amortized at 12/31/08	**$**	**106,667**

**** Premium amortized at Dec. 31, 2008:**		
Amount amortized in 2007	**$**	**13,333**
Amount amortized in 2008 ($800,000 ÷ 20 years)		**40,000**
Premium amortized at 12/31/08	**$**	**53,333**

c. **The effective rate of interest would be higher under assumption 1. The less that investors pay for bonds with a given contract rate of interest, the higher the effective interest rate they will earn.**

45 Minutes, Strong

PROBLEM 10.7A
MINNESOTA SATELLITE TELEPHONE CORPORATION

a.

MINNESOTA SATELLITE TELEPHONE CORPORATION		
Partial Balance Sheet		
December 31, 2007		
Liabilities:		(in thousands)
Current liabilities:		
Accounts payable		$ 65,600
Accrued expenses payable (other than interest)		11,347
Accrued interest payable		7,333
Notes payable (short-term)		110,000
Capital lease obligation (current portion)		4,621
Unfunded obligation for postretirement benefits		
other than pensions (current portion)		18,000
Income taxes payable		17,300
Total current liabilities		$ 234,201
Long-term liabilities:		
6-3/4% Bonds payable, due February 1, 2008		$ 100,000
8-1/2% Bonds payable, due June 1, 2008	$ 250,000	
Less: Discount on bonds payable	260	249,740
11% Bonds payable, due June 1, 2017	$ 300,000	
Add: Premium on bonds payable	1,700	301,700
Capital lease obligation (less current portion)		18,979
Unfunded obligation for postretirement benefits		
other than pensions (less current portion)		54,000
Deferred income taxes		130,000
Total long-term liabilities		$ 854,419
Total liabilities		$ 1,088,620
Part b appears on the following page.		
c. (1) Computation of debt ratio:		
Total liabilities (above)		$ 1,088,620
Total assets (given)		$ 2,093,500
Debt ratio ($1,088,620 ÷ $2,093,500)		52%
(2) Computation of interest coverage ratio:		
Operating income (given)		$ 280,800
Annual interest expense ($61,000 + $17,000)		$ 78,000
Interest coverage ratio ($280,000 ÷ $78,000)		3.6 times
Part *d* appears on the following page.		

PROBLEM 10.7A
MINNESOTA SATELLITE
TELEPHONE CORPORATION
(concluded)

b. (1) As the 6 3/4% bond issue is being refinanced on a long-term basis (that is, paid from the proceeds of a long-term bond issue rather than from current assets), it is classified as a long-term liability rather than a current liability.

(2) The 8 1/2% bonds will be repaid from a bond sinking fund rather than from current assets. Therefore, this liability continues to be classified as long-term, despite its maturity date in less than one year.

(3) The portion of the capital lease obligation that will be repaid within one year ($4,621) is classified as a current liability, and the remainder of this obligation is classified as long-term. The payments applicable to operating leases will be recognized as rental expense in the periods in which these costs are incurred.

(4) As the pension plan is fully funded, the company has no pension liability.

(5) The $18,000 portion of the unfunded liability for postretirement benefits that will be funded within one year is a current liability, and the remaining $54,000 ($72,000 − $18,000) is classified as long-term.

(6) Income taxes payable relate to the current year's income tax return and, therefore, are a current liability. Although deferred income taxes can include a current portion, all of the deferred income taxes are stated to be a long-term liability.

d. Based solely upon its debt ratio and interest coverage ratio, Minnesota Satellite Telephone Corporation appears to be a good credit risk. One must consider, however, that Minnesota Satellite Telephone Corporation is a *telephone company,* not a business organization that battles hundreds of numerous competitors on a daily basis. Telephone companies enjoy somewhat of a "captive market" on a long-term basis. Also, their rates are often regulated to allow them to recover their costs and to earn a reasonable profit, except in unusual circumstances.

In summary, the fact that Minnesota Satellite Telephone Corporation is a profitable telephone company with a reasonable debt ratio and interest coverage ratio makes this business entity an *outstanding* long-term credit risk.

Note to instructor:* We do not expect students to have advance knowledge of telephone companies. However, we believe this situation enables us to make a most important point: *To properly interpret financial information about a business organization, one must understand the nature of the company's operations and its business environment.

20 Minutes, Strong

PROBLEM 10.8A
CHERNIN CORPORATION

a.

Liabilities:		(in thousands)
Current liabilities:		
Unearned revenues		$ 300,000
Income taxes payable		100,000
Notes payable (current portion)		10,000
Accrued bond interest payable		36,000
		$ 446,000
Long-term liabilities:		
Bonds payable		$ 900,000
Notes payable*		70,000
Note payable (expected to be refinanced at maturity)		75,000
Deferred income taxes**		85,000
		$ 1,130,000
Total Liabilities		
		$ 1,576,000

*$80,000 - $10,000 - $70,000
**$185,000 - $100,000 = $85,000

b. The following items listed by the company have been excluded from current and long-term liabilities for the reasons indicated:

- Interest expense that will arise in the future from existing obligations is not yet a liability.

- The lawsuit pending against the company is a loss contingency. It should be disclosed in the financial statements, probably in the form of a note to the statements, but no liability should be formally recognized until a reasonable estimate can be made and the probability of loss is established.

- The 3-year salary commitment relates to future events and, therefore, is not a liability at the present time.

25 Minutes, Easy

SOLUTIONS TO PROBLEMS SET B
PROBLEM 10.1B
WESTMAR, INC.

	Income Statement			Balance Sheet			
					Current	Long-Term	Owners'
Transaction	Revenue -	Expenses =	Net Income	Assets =	Liabilities +	Liabilities +	Equity
a.	NE	I	D	NE	I	NE	D
b.	NE	NE	NE	NE	I	D	NE
c.	NE	I	D	D	I	NE	D
d.	I	NE	I	NE	D	NE	I
e.	NE	NE	NE	NE	D	I	NE
f.	NE	I	D	D	D	NE	D
g.	I	NE	I	D	NE	D	I
h.	NE	NE	NE	I	NE	I	NE
i.	NE	I	D	D	NE	D	D
j.	NE	I	D	NE	I	D	D
k.	NE	NE	NE	I	NE	I	NE
l.	NE	I	D	NE	I	I	D
m.	NE	I	D	NE	I	NE	D
n.	NE	NE	NE	NE	NE	NE	NE
o.	NE	NE	NE	NE	NE	NE	NE

30 Minutes, Medium

PROBLEM 10.2B
ATLANTA PEACH

a.

ATLANTA PEACH		
Partial Balance Sheet		
December 31, 2007		
Liabilities:		
Current liabilities:		
Income taxes payable		$ 15,000
Accrued expenses and payroll taxes		26,000
Mortgage note payable-current ($750,000 - $ 733,000)		17,000
Accrued interest on mortgage note payable		15,000
Trade accounts payable		275,000
Unearned revenue		33,000
Total current liabilities		$ 381,000
Long-term liabilities:		
Note payable to Southern Bank		$ 250,000
Mortgage note payable ($750,000 - $17,000 current)		733,000
Total long-term liabilities		$ 983,000
Total liabilities		$ 1,364,000

b. Comments on information in the numbered paragraphs:

(1) Although the note payable to Southern Bank is due in 90 days, it is classified as a long-term liability because it is to be refinanced on a long-term basis.

(2) The $17,000 principal amount of the mortgage note payable scheduled for repayment in 2008 ($750,000 –$733,000) is classified as a current liability. Principal to be repaid after December 31, 2008, is classified as a long-term liability.

(3) As the accrued interest is payable within one month, it is a current liability.

(4) The pending lawsuit is a loss contingency. As no reasonable estimate can be made of the loss incurred (if any), this loss contingency does *not* meet the criteria for accrual. It will be disclosed in the notes accompanying the financial statements, but it should not be shown as a liability.

25 Minutes, Medium

PROBLEM 10.3B
SWANLEE CORPORATION

a.				
		General Journal		
20__				
Jul	1	Cash	20,000	
		Notes Payable		20,000
		Borrowed $20,000 @ 12% per annum from Weston		
		Bank. Issued a 90-day promissory note.		
Sept	16	Office Equipment	30,000	
		Notes Payable		30,000
		Issued 3-month, 10% note to Moontime Equipment		
		as payment for office equipment.		
Oct	1	Notes Payable	20,000	
		Interest Expense	600	
		Cash		20,600
		Paid note and interest to Weston Bank		
		($20,000 x 12% x 90/360 = $600).		
Dec	1	Cash	100,000	
		Notes Payable		100,000
		Obtained 120-day loan from Jean Will; interest		
		@ 9% per annum.		
Dec	1	Inventory	10,000	
		Notes Payable		10,000
		To record purchase of merchandise and issue		
		90-day, 12% note payable to Listen Corporation.		
Dec	16	Notes Payable	30,000	
		Interest Expense	750	
		Cash		750
		Notes Payable		30,000
		Paid note and interest to Moontime Equipment		
		which matured today and issued a 60-day, 16%		
		renewal note. Interest: $30,000 x 10% x 3/12 = $750.		
b.		**Adjusting Entry**		
Dec	31	Interest Expense	1,050	
		Interest Payable		1,050
		To record interest accrued on notes payable:		
		Jean Will ($100,000 x 9% x 1/12 = $750);		
		Listen Corp. ($10,000 x 12% x 1/12 = $100); and		
		Moontime Equipment ($30,000 x 16% x 1/12 x 1/2		
		= $200).		

c. **The Moontime Equipment note dated September 16 was due in full on December 16. The higher rate of interest on the new note may be associated with the increased *risk* of collecting in 60 days the $30,000 principal plus accrued interest due.**

25 Minutes, Medium

PROBLEM 10.4B
WALLA

a. and d.

a. **The amount of the monthly payments exceeds the amount of the monthly interest expense. Therefore, a portion of each payment reduces the unpaid balance of the loan. The continuous reduction in the unpaid balance, in turn, causes the monthly interest expense to be less in each successive month, and the amount applied to the unpaid balance to increase. Thus, the loan principal is repaid at an ever-increasing rate.**

d. **At December 31, 2007, two amounts relating to this mortgage loan will appear as current liabilities in the borrower's balance sheet. First, as payments are due on the first day of each month, one month's interest has accrued since the December 1 payment. This accrued interest will be paid on January 1, 2008, and therefore, is a current liability.**

Next, the portion of the unpaid principal that will be repaid during 2008 represents a current liability.

Parts *b* and *c* appear on the following page.

b.

General Journal

2007				
Nov	1	Interest Expense	1,000	
		Note Payable	1,633	
		Cash		2,633
		To record monthly payment on note payable to		
		Vicksburg National Bank.		
Dec	1	Interest Expense	984	
		Note Payable	1,649	
		Cash		2,633
		To record monthly payment on note payable to		
		Vicksburg National Bank.		

c.

Amortization Table
(12%, 4-Year Mortgage Note Payable for $100,000;
Payable in 48 Monthly Installments of $2,633)

Interest Period	Payment Date	Monthly Payment	Interest Expense	Reduction in Unpaid Balance	Unpaid Balance
Issue date	Oct. 1, 2007				$ 100,000
1	Nov. 1	$ 2,633	$ 1,000	$ 1,633	98,367
2	Dec. 1	2,633	984	1,649	96,718
3	Jan. 1, 2008	2,633	967	1,666	95,052
4	Feb. 1	2,633	951	1,682	93,370

15 Minutes, Easy

PROBLEM 10.5B
LAKE COMPANY

General Journal				
a.				
2007				
Sept	1	Cash	5,075,000	
		Bonds Payable		5,000,000
		Bond Interest Payable		75,000
		Issued $5,000,000 face value of 6%, 10-year		
		bonds at 100 plus accrued interest for three		
		months ($5,000,000 x 6% x 3/12 = $75,000).		
b.				
Dec	1	Bond Interest Payable	75,000	
		Bond Interest Expense	75,000	
		Cash		150,000
		Paid semiannual interest ($5,000,000 x 6% x 1/2 =		
		$150,000).		
c.				
Dec	31	Bond Interest Expense	25,000	
		Bond Interest Payable		25,000
		To accrue one months' interest expense		
		($5,000,000 x 6% x 1/12 = $25,000).		
d.				
2008				
June	1	Bond Interest Payable	25,000	
		Bond Interest Expense	125,000	
		Cash		150,000
		To record semiannual bond interest payment		
		and interest expense for 5 months since Dec. 31		
		($5,000,000 x 6% x 5/12 = $125,000).		

e. **The market rate of interest on the date of issuance was 6%. Because the bonds were issued at par (100), the market rate had to have equaled the contract interest rate printed on the bonds.**

35 Minutes, Strong

PROBLEM 10.6B
BELLA COMPANY

a.

General Journal

(1)		Bonds issued at 98:		
2007				
Dec	31	Bond Interest Expense	203,333	
		Discount on Bonds Payable		3,333
		Bond Interest Payable		200,000
		To record accrual of bond interest expense for		
		four months in 2005:		
		Contract interest ($5,000,000 x 12% x 4/12)	$ 200,000	
		Discount amortization ($100,000 x 4/120)	3,333	
		Bond interest expense for four months	$ 203,333	
2008				
Mar	1	Bond Interest Payable	200,000	
		Bond Interest Expense	101,667	
		Discount on Bonds Payable		1,667
		Cash		300,000
		To record semiannual bond interest payment and		
		interest expense for two months (1/2 of interest for		
		four months, as computed in preceding entry). *		
(2)		Bonds issued at 104:		
2007				
Dec	31	Bonds Interest Expense	193,333	
		Premium on Bonds Payable	6,667	
		Bond Interest Payable		200,000
		Accrual of interest on bonds for four months:		
		Contract interest ($5,000,000 x 12% x 4/12)	$ 200,000	
		Less: Premium amortization		
		($200,000 x 4/120)	(6,667)	
		Bond interest expense for four months	$ 193,333	
2008				
Mar	1	Bond Interest Payable	200,000	
		Bond Interest Expense	96,667	
		Premium on Bonds Payable	3,333	
		Cash		300,000
		Semiannual bond interest payment and interest		
		expense for two months (1/2 of interest for four		
		months, as computed in preceding entry).*		
		* Actual amount differs slightly due to rounding errors.		

PROBLEM 10.6B
BELLA (concluded)

b.

Net bond liability at Dec. 31, 2008:			Bonds Issued at 98	Bonds Issued at 104
		Bond payable	$ 5,000,000	$ 5,000,000
	*	Less:Discount on bonds payable ($100,000 - $13,333)	(86,667)	
	**	Add:Premium on bonds payable ($200,000-$26,667)		
		Net bond liability		173,333
			$ 4,913,333	$ 5,173,333

* Discount amortized at Dec. 31, 2008:		
Amount amortized in 2007 …………………………	$	3,333
Amount amortized in 2008 ($100,000 x 12/120) …………………		10,000
Discount amortized at 12/31/08 …………………	$	13,333

** Premium amortized at Dec. 31, 2008:		
Amount amortized in 2007 …………………………	$	6,667
Amount amortized in 2008 ($200,000 x 12/120) …………………		20,000
Premium amortized at 12/31/08 …………………	$	26,667

c. The effective rate of interest would be higher under assumption 1. The less that investors pay for bonds with a given contract rate of interest, the higher the effective interest rate they will earn.

45 Minutes, Strong

PROBLEM 10.7B
DELAWARE UTILITY COMPANY

a.

DELAWARE UTILITY COMPANY		
Partial Balance Sheet		
December 31, 2007		
Liabilities:		(in thousands)
Current liabilities:		
Accounts payable		$ 48,000
Accrued expenses payable (other than interest)		7,200
Accrued interest payable		3,650
Notes payable (short-term)		75,000
Capital lease obligation (current portion)		3,000
Unfunded obligation for postretirement benefits		
other than pensions (current portion)		16,000
Income taxes payable		8,000
Total current liabilities		$ 160,850
Long-term liabilities:		
10% Bonds payable, due April 1, 2008		$ 100,000
8% Bonds payable, due October 1, 2008	$ 150,000	
Less: Discount on bonds payable	270	149,730
12% Bonds payable, due April 1, 2018	$ 300,000	
Add: Premium on bonds payable	2,000	302,000
Capital lease obligation (less current portion)		15,000
Unfunded obligation for postretirement benefits		
other than pensions (less current portion)		44,000
Deferred income taxes		110,000
Total long-term liabilities		$ 720,730
Total Liabilities		$ 881,580
Part *b* appears on the following page.		
c. (1) Computation of debt ratio:		
Total liabilities (above)		$ 881,580
Total assets (given)		$ 2,203,950
Debt ratio ($881,580 ÷ $2,203,950)		40%
(2) Computation of interest coverage ratio:		
Operating income (given)		$ 341,250
Annual interest expense ($57,000 + $8,000)		$ 65,000
Interest coverage ratio ($341,250 ÷ $65,000)		5.25 times
Part *d* appears on the following page.		

PROBLEM 10.7B
DELAWARE UTILITY COMPANY
(concluded)

b. (1) As the 10% bond issue is being refinanced on a long-term basis (that is, paid from the proceeds of a long-term bond issue rather than from current assets), it is classified as a long-term liability rather than a current liability.

(2) The 8% bonds will be repaid from a bond sinking fund rather than from current assets. Therefore, this liability continues to be classified as long-term, despite its maturity date in less than one year.

(3) The portion of the capital lease obligation that will be repaid within one year ($3,000) is classified as a current liability, and the remainder of this obligation is classified as long-term. The payments applicable to operating leases will be recognized as rental expense in the periods in which these costs are incurred.

(4) As the pension plan is fully funded, the company has no pension liability.

(5) The $16,000 portion of the unfunded liability for postretirement benefits that will be funded within one year is a current liability, and the remaining $44,000 ($60,000 – $16,000) is classified as long-term.

(6) Income taxes payable relate to the current year's income tax return and, therefore, are a current liability. Although deferred income taxes can include a current portion, all of the deferred income taxes are stated to be a long-term liability.

d.

Based solely upon its debt ratio and interest coverage ratio, Delaware Utility appears to be a good credit risk. One must consider, however, that Delaware Utility is a utility company, not a business organization that battles numerous competitors on a daily basis. Utility companies enjoy a "captive market" on a long-term basis. Also, their rates are regulated to allow them to recover their costs and to earn a reasonable profit, except in unusual circumstances.

In summary, the fact that Delaware Utility is a profitable utility company with a reasonable debt ratio and interest coverage ratio makes this business entity a relatively low long-term credit risk.

Note to instructor: **We do not expect students to have advance knowledge of utility companies. However, we believe this situation enables us to make a most important point:** ***To properly interpret financial information about a business organization, one must understand the nature of the company's operations and its business environment.***

20 Minutes, Strong

PROBLEM 10.8B
FERNANDEZ COMPANY

a.

Liabilities:		(in thousands)
Current liabilities:		
Unearned revenues		$ 268,000
Income taxes payable		145,000
Notes payable (current portion)		20,000
Accrued bond interest payable		22,500
		$ 455,500
Long-term liabilities:		
Bonds payable		$ 750,000
Notes payable*		130,000
Note payable (expected to be refinanced at maturity)		90,000
Deferred income taxes**		115,000
		$ 1,085,000
Total Liabilities		$ 1,540,500

***$150,000 - $20,000 - $130,000**
****$260,000 - $145,000 = $115,000**

b. **The following items listed by the company have been excluded from current and long-term liabilities for the reasons indicated:**

- **Interest expense that will arise in the future from existing obligations is not yet a liability.**
- **The lawsuit pending against the company is a loss contingency. It should be disclosed in the financial statements, probably in the form of a note to the statements, but no liability should be formally recognized until a reasonable estimate can be made and the probability of loss is established.**
- **The 3-year salary commitment relates to future events and, therefore, is not a liability at the present time.**

SOLUTIONS TO CRITICAL THINKING CASES

30 Minutes, Medium

CASE 10.1
LIABILITIES IN PUBLISHED FINANCIAL STATEMENTS

a. Wells Fargo's liability for interest-bearing deposits represents the amounts on deposit in interest-bearing bank accounts. This liability arises from customers depositing money in these accounts and is discharged whenever customers make withdrawals.

b. *The New York Times'* liability for unexpired subscriptions is a form of unearned revenue arising from customers paying in advance to receive the newspaper over a designated subscription period. This liability is discharged through delivering newspapers to these customers throughout the subscription period.

c. Horse racing tracks issue mutuel tickets as evidence of the bets that customers have made on specific races. After the race, customers can present "winning" tickets and collect an amount greater than they had paid to purchase the ticket. The track does not redeem "losing" tickets. Therefore, Hollywood Park's liability for outstanding mutuel tickets is its obligation to make payments to holders of winning tickets that have not yet been redeemed. This liability comes into existence as horses win races, and it is discharged as the track redeems the winning tickets.

d. As American Greetings is a manufacturer, it probably sells primarily to wholesalers or retailers rather than directly to consumers. Apparently, the company allows its customers to return merchandise that they are unable to sell and to receive a refund of the purchase price. Given the seasonal nature of holiday greeting cards, wholesalers and retailers are quite likely to exercise this return privilege and return to the manufacturer any cards that remain unsold at the end of the holiday period.

The liability to pay refunds for sales returns comes into existence from *making sales* upon which returns are permitted. As the returns are likely to occur in a subsequent accounting period, the amount of this liability can only be estimated based upon the company's prior experiences. The liability is discharged by making cash refunds (or crediting the account receivable of a customer making a return).

e. Wausau Paper's liability for "current maturities" of long-term debt is common to most large organizations. This liability arises as debt instruments originally classified as long-term near their maturity dates. The principal amounts scheduled for repayment within the next year (or operating cycle) are classified as current liabilities. These liabilities normally are discharged by making payments to creditors as the liabilities mature.

f. Club Med's liability for future vacations is unearned revenue. This liability arises when customers pay in advance to use the company's resort facilities at a later date. Normally, this liability is discharged by rendering services to the customer—that is, allowing them to use the club's facilities. In some instances, however, the liability may be discharged by making cash refunds for canceled reservations.

Case 10.1
LIABILITIES IN PUBLISHED FINANCIAL STATEMENTS (concluded)

g. Apple's accrued marketing and distribution liability represents accrued marketing and distribution expenses that have not yet been paid. This liability arises as Apple incurs marketing and distribution costs on account; it is discharged when the company makes payment to the individuals or organizations rendering these services.

h. GM's liability for postretirement costs is an obligation to pay retirement benefits to workers—some of whom are already retired and some of whom are currently employed by GM. The liability arises as employees perform services for GM and thereby earn the right to future postretirement benefits. GM can discharge this obligation either by funding it with an independent trustee, or by making the future benefit payments to retired workers.

20 Minutes, Strong

CASE 10.2
ABBOTT LABS
BOND PRICES

a. **The effective rate of interest is higher on issue A bonds. The less that investors pay for bonds with a given contract rate of interest, the higher the effective interest rate they will earn.**

b. **The bonds of both issues pay the investors $60 over twelve months, computed as follows:**

$$\$1{,}000 \times 6\% = \underline{\underline{\$60}}$$

c. **Differences in the length of time remaining until the bond issues mature is the major factor influencing the current market prices. As bonds near their maturity dates, their market prices normally move closer and closer to their maturity value. The bonds of issue A will mature four years before those of issue B. This explains why their market price is closer to face value than those of issue B.**

25 Minutes, Medium

CASE 10.3
LOSS CONTINGENCIES

a. The estimated loss from uncollectible accounts is a loss stemming from past events (credit sales) and is uncertain in dollar amount until the accounts either are paid or become obviously uncollectible. Therefore, this item is a loss contingency. Typically, the loss contingency relating to uncollectible accounts receivable can be estimated with sufficient reasonableness that it is recorded in the accounts. The appropriate entry would involve a debit to Uncollectible Accounts Expense and a credit to the Allowance for Doubtful Accounts in the amount of the estimated loss.

b. The health, retirement, or even death of company executives are not loss contingencies and are not recorded or disclosed in financial statements. For one thing, the impact of these events is extremely subjective. For another, such events do not immediately and directly affect the recorded assets, liabilities, or owners' equity of the business.

Note to instructor: **An exception to this general rule could occur in the case of some professional athletes whose long-term contracts may appear as assets in the financial statements of a professional sports team. In this situation, injury to an athlete could be a loss contingency that impaired a recorded asset.**

c. The risk of a future airplane crash does not stem from past events. Therefore, it is not a loss contingency. A loss contingency would exist if an airplane had crashed, but the amount of the airline's liability (if any) had not yet been resolved.

The reason for not disclosing risks of future losses is that the list of risk conditions is virtually endless. For example, an airline faces risks of loss from such factors as hijacking or other terrorist activities, food poisoning of passengers, inadequate first aid, damages caused by parts falling off a plane, liability for discriminatory personnel practices, etc. At what point should the disclosure of risk stop?

d. This lawsuit is based upon past events (treatment of displaced passengers) and involves uncertainty as to the amount of loss, if any. Thus, it is a loss contingency. As there is insufficient information to allow for a reasonable estimate of the amount of loss, this item should be disclosed in notes to the financial statements rather than being recorded in the accounts.

20 Minutes, Medium

CASE 10.4
DELTA AIRLINES
ETHICS, FRAUD & CORPORATE GOVERNANCE

a. If Delta had structured all of its lease agreements as capital leases instead of operating leases, the discounted present value of its operating leases would be reported in the company's balance sheet as a long-term liability, and an equal amount would be reported as aircraft under fixed assets in the company's balance sheet. Its shareholders' equity would continue to reveal a deficit balance, meaning its total liabilities exceed its total assets. If Delta's future lease commitments were all reported in the balance sheet as long-term liabilities, the company's debt paying ability may appear even more perilous than it does currently. Even by structuring the majority of its aircraft contracts as operating leases, it will be virtually impossible for Delta to improve its credit rating in the foreseeable future.

b. GAAP associated with the financial reporting treatment of lease agreements has been criticized for its many loopholes. Nevertheless, if Delta remains in compliance with GAAP by its off-balance sheet treatment of approximately $9.6 billion ($10 billion - $90 million) in lease commitments, then its decision to structure these contracts as operating leases rather than capital leases is ethical. Furthermore, Delta fully discloses in the notes accompanying its financial statements that it has billions of operating lease commitments coming due. Only if the company had failed to disclose this fact, and/or had purposely distorted details concerning the structure of its lease agreements, would it have engaged in unethical activity.

c. In the case of Delta's lease agreements, it is extremely important that investors and creditors read and understand the footnotes to the company's financial statements. Even though the company does not report the $9.6 billion operating lease obligation as a liability, it does fully disclose this commitment in the notes. By reading and understanding these notes, users of Delta's financial statements gain a far more realistic understanding and expectation of the company's ability to generate enough cash flow to meet future obligations as they become due.

15 Minutes, Medium

CASE 10.5
BOND PRICES
BUSINESS WEEK

Bond prices vary *inversely* with changes in market interest rates. As interest rates rise, investors will be willing to pay less money to own a bond that pays a fixed contract rate of interest. Changes in market interest rates are not the only factors that influence bond prices. The length of time remaining until the bonds mature is another major force. As a bond nears its maturity date, its market price normally moves closer and closer to its par value. Thus, bonds maturing in 30 years or more are far more susceptible to interest rate risk (i.e., declining values caused by increases in market rates of interest) than bonds maturing in 3 years or less.

20 Minutes, Strong

CASE 10.6
BONDS-ONLINE
CREDIT RATINGS
INTERNET

a. **This requirement is for students to state in their own words several technical terms. It is not possible to state a solution that reflects exactly what students will say, but following are basic ideas that should be included in their definitions:**

Convertible bonds

- **Gives the investor the right to convert its bond into stock of the company.**
- **You will want to know how many shares of stock you can get for each bond.**
- **The number of shares you can receive, as well as their price, is preset at the bond's issue and remains fixed throughout the life of the bond.**
- **The number of shares you can receive is referred to as the bond's conversion rate.**
- **The number of shares you can exchange a bond for, multiplied by the stock's current market value, figures you the amount of the bond's conversion value.**

Junk bonds

- **Junk bonds are low-grade bonds issued by companies without long track records or within questionable ability to meet their debt obligations.**
- **Junk bonds typically pay very high interest rates and are sometimes referred to as high-yield bonds.**
- **Because junk bonds have a high default risk, they are speculative.**

Zero coupon bonds

- **With traditional bonds, the coupon rate is the rate of annual interest the issuer pays to the bondholder.**
- **In a zero coupon bond, the stated rate is zero, meaning that the bonds do not pay annual interest.**
- **Because the coupon rate is zero, these bonds typically sell at deep discounts.**
- **The investor gets his/her return when the bond matures or sells at a price in excess of the purchase price.**

b. **No definitive answer can be given because market conditions and the information reported vary from day to day. The purpose of this exercise is to encourage students to explore current events and trends and be aware of the wealth of information about current market conditions that exists on web sites.**

c. **Again, no definitive answer can be given because individual students will have different preferences of job types that are available. The purpose of the exercise is to encourage students to think about career opportunities that are available.**

CHAPTER 11
STOCKHOLDERS' EQUITY: PAID-IN CAPITAL

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 11.1	Stockholders' equity	4	Analysis
B. Ex. 11.2	Stockholders' equity	4	Analysis
B. Ex. 11.3	Dividends on preferred stock	5	Analysis, communication
B. Ex. 11.4	Dividends on common and preferred stock	5	Analysis
B. Ex. 11.5	Dividends on common and preferred stock	5	Analysis, communication
B. Ex. 11.6	Book value	7	Analysis, communication
B. Ex. 11.7	Book value	7	Analysis
B. Ex. 11.8	Stock split	8	Analysis, communication
B. Ex. 11.9	Treasury stock	4, 9	Analysis
B. Ex. 11.10	Treasury stock	4, 9	Analysis

Exercises	Topic	Learning Objectives	Skills
11.1	Form of organization	1–3	Analysis, communication
11.2	Accounting terminology	1–9	Analysis
11.3	Prepare equity section	4, 5	Analysis, communication
11.4	Dividends on preferred & common	4, 5	Analysis, communication
11.5	Analyzing equity	4–7	Analysis
11.6	Preferred stock alternatives	5, 6	Analysis
11.7	Reporting effects of transactions	4, 7	Analysis
11.8	Computing book value	4–7	Analysis, communication
11.9	Treasury stock transactions	9	Analysis, communication
11.10	Effects of stock splits	8	Communication, judgment
11.11	Treasury stock presentation	9	Communication, judgment
11.12	**Real World: Carnival Corp.** Authorized stock	4	Analysis, communication
11.13	Common stock and treasury stock	4, 9	Analysis, communication
11.14	Treasury stock and stock split	8, 9	Analysis
11.15	**Real World: Home Depot** Reading an annual report	4, 7	Analysis, communication, research

Problems Sets A, B	Topic	Learning Objectives	Skills
11.1 A,B	Reporting stockholders’ equity	4, 5, 6	Analysis, communication
11.2 A,B	Reporting stockholders’ equity	4, 5, 6	Analysis, communication
11.3 A,B	Reporting stockholders’ equity	4, 5, 6	Analysis, communication
11.4 A,B	Comprehensive equity problem	4, 5	Analysis
11.5 A,B	Analysis of equity	4, 5	Analysis
11.6 A,B	**Real World: Quanex Corp.** Comprehensive equity analysis	1–7	Analytical, communication, group
11.7 A,B	Par, book, and market values	4, 7	Communication, judgment
11.8 A,B	Comprehensive equity with treasury stock transactions	4, 5, 7, 9	Analysis, communication
11.9 A,B	Comprehensive equity with treasury stock transactions and stock splits	4, 5, 7, 8, 9	Analytical, communication, judgment

Critical Thinking Cases			
11.1	Factors affecting market prices of preferred and common stocks	5, 7	Communication, judgment
11.2	**Real World: McDonnell Douglas, Inc., Boeing, Citicorp, Ventitex, Inc.** Factors affecting market prices of common stocks	7	Communication
11.3	Selecting a form of business organization	1, 2, 3	Communication, judgment
11.4	Securities & Exchange Commission (Ethics, fraud & corporate governance)	1, 2, 3	Communication, judgment, technology
11.5	**Real World: Daewoo Motors, Co., General Motors Corp.** GM acquisition and preferred stock *(Business Week)*	5, 6	Communication, judgment
11.6	**Real World: Staples, Inc.** Stockholders' equity items (Internet)	4, 5, 7, 9	Communication, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

11.1 A,B **Robbinsville Press/Septa, Inc.** **20 Easy**
A short problem requiring the completion of the stockholders' equity section of a corporate balance sheet. Includes preferred stock dividends and conceptual issues pertaining to the market price of preferred stock.

11.2 A,B **Waller Publications/Banner Publications** **20 Easy**
A second short problem requiring the completion of the stockholders' equity section of a corporate balance sheet. Includes preferred stock dividends and conceptual issues pertaining to dividends in arrears.

11.3 A,B **Manhattan Transport Company/Ray Beam, Inc.** **25 Medium**
A more difficult problem requiring the completion of the stockholders' equity section of a corporate balance sheet. Includes preferred stock dividends and conceptual issues pertaining to equity versus debt financing.

11.4 A,B **Barnes Communications, Inc./Markup, Inc.** **35 Medium**
A short but comprehensive problem on corporations. Includes journal entries for issuance of common stock and preferred stock. Also includes dividends on preferred stock, closing entries, and the preparation of the stockholders' equity section of a corporate balance sheet.

11.5 A,B **Smithfield Products/Manor, Inc.** **35 Strong**
A more difficult problem involving distinction among par values, book values, and market values.

11.6 A,B **Quanex Corporation/Toasty Corporation** **35 Medium**
Analysis of the stockholders' equity of a publicly owned corporation. Includes a discussion of why a business may opt to become publicly owned and the reasons why the dividend yields on preferred stocks vary.

11.7 A,B **Techno Corporation/Brain Corporation** **15 Easy**
A straightforward discussion of the relationships (if any) among par value, book value, and market value per share. A company has a book value 6,500 times greater than its par value, and a market value 65,000 times as high. Fun problem that makes a point.

Problems (continued)

11.8 A,B **Feller Corporation/Tin Corporation** — **15 Medium**

A stockholders' equity problem involving paid-in capital from treasury stock transactions. Requires the computation of book value per share and reporting for the statement of cash flows.

11.9 A,B **Herndon Industries/Parker Industries** — **30 Strong**

A comprehensive equity problem involving treasury stock transactions in two different years, preferred and common stock transactions, book value calculations, and an understanding of stock splits.

Critical Thinking Cases

11.1 **Factors Affecting the Market Prices of Preferred and Common Stocks** — **15 Medium**

Students are asked to explain whether the prices of preferred stock, common stock, and convertible preferred stock are likely to rise or fall if profitability increases dramatically and interest rates rise slightly. A problem that stimulates lively classroom discussion.

11.2 **Factors Affecting the Market Prices of Common Stocks** — **25 Strong**

Students are to explain the reason for changes in the market prices of stocks of various real companies. A difficult problem that is very thought-provoking.

11.3 **Selecting a Form of Organization** — **Interview; No time estimate**

Students are to interview the owners of two small businesses with different forms of organization and find out why the particular form was selected—and if they have any misgivings.

11.4 **S.E.C. Enforcement Division** — **20 Easy**
Ethics, Fraud & Corporate Governance

Students do an internet search to locate the website of the Securities & Exchange Commission and respond to questions about the S.E.C.

11.5 **GM Acquisition and Preferred Stock** — **10 Easy**
Business Week

Students are asked to consider the advantages of using preferred stock in the purchase of another company.

11.6 **Examining Stockholders' Equity** — **30 Easy**
Internet

Students are asked to identify and discuss elements of stockholders' equity appearing in the balance sheet of Staples, Inc.

**Supplemental Topic,* "Special Types of Liabilities."

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. Large corporations are often said to be *publicly owned* because they are literally owned by the general public. The capital stock of many large corporations is actively traded on organized stock exchanges, such as the New York Stock Exchange. Anyone may purchase an ownership interest in such corporations, even if that interest is but a single share of capital stock. Many large corporations have hundreds of thousands, even millions, of individual stockholders.

2. a. *Owners' liability*. Sole proprietors are personally liable for the debts of the business. A corporation, however, is responsible for its own debts; the stockholders of a corporation are not personally liable for the debts of the business entity. Thus, the amount of money that a stockholder might lose by investing in a corporation is limited to the amount of his or her investment.

   b. *Transferability of ownership interest.* A sole proprietor generally must sell his or her entire interest in the business. This creates a new business owned by a new sole proprietor. Shares of stock in a corporation are freely transferable.

   c. *Continuity of existence.* A sole proprietorship is terminated upon sale or abandonment by the owner and upon that person's death or incapacitation. Corporations continue in existence regardless of changes in ownership.

   d. *Federal taxation on income.* A corporation is subject to federal income tax on its income, and stockholders are also subject to a personal income tax on any amounts they receive as dividends. A sole proprietorship is not a taxable entity, but the owner must pay personal taxes on the income earned by the business, whether or not it is actually withdrawn by the owner.

3. There are three basic rights: (1) the right to vote, (2) the right to share in dividends when declared, and (3) the right to share in assets upon liquidation.

   A share of preferred stock is typically entitled to cumulative preference to a limited amount of dividends and to a prior claim against assets in case of liquidation; in return, it usually has no voting power.

4. The term *double taxation* refers to the fact that the income of a corporation may be taxed on two separate occasions. First, the income of a corporation is subject to corporate income taxes, which must be paid by the corporation. Second, if the corporation distributes its earnings as dividends to stockholders, the stockholders must pay personal income taxes on the amounts they receive. This double taxation of income is one of the principal disadvantages of the corporate form of business organization.

5. *Paid-in capital* of a corporation represents the amount invested by stockholders and is generally not available for dividends. *Retained earnings* represents the cumulative amount of net income not distributed to shareholders as dividends. The distinction between paid-in capital and retained earnings is useful because it shows how much of the total stockholders' equity represents investments by the owners and how much has been accumulated through profitable operations since the company started in business.

6. Par value represents the *legal capital* per share, that is, the amount below which stockholders' equity cannot be reduced except by losses. The primary significance of par value is that a corporation cannot declare a dividend if this action would reduce total stockholders' equity below the par value of the outstanding stock.

   Par value is not an indication of a fair market price for a share of stock. The market price of stock is determined by such factors as the profitability and solvency of the issuing company, interest rates, the amount of dividends paid by the stock, and general market conditions. The market price of a share of stock may be above or below its par value.

7. a. *Cumulative* means that unpaid dividends on preferred stock are carried forward and must be fully paid before any dividends can be paid on common stock.

   b. *Convertible* means that each share of preferred stock may be returned to the corporation in exchange for a given number of shares of common stock under specified conditions.

8. Noncumulative preferred stock is entitled to dividends only if and when they are declared. If noncumulative preferred dividends had not been declared for several years, it would be possible to declare only the current year's dividends on preferred and then declare a dividend on common. Noncumulative preferred stock does not have the protection afforded by the cumulative requirements that any dividends in arrears must be paid before dividends can be paid on common. This means a weak form of dividend preference, and as a result the noncumulative feature is not attractive to most investors.

9. (a) Cash is classified as an asset; (b) Organization Costs typically are classified as an expense; (c) Preferred Stock, (d) Retained Earnings, and (e) Additional Paid-in Capital are all classified as stockholders' equity accounts; (f) Income Taxes Payable is classified as a liability.

10. a. *Stock transfer agent.* A bank or trust company retained by a corporation to maintain records of stock ownership and transfers.

    b. *Stockholders subsidiary ledger.* A record kept by a corporation showing the number of shares owned by each stockholder.

    c. *Underwriter.* An investment banking company that undertakes to sell new shares of corporate stock to investors. The underwriter usually guarantees the corporation a specified price, and plans to make a profit by selling to individual investors at a slightly higher price.

    d. *Stock registrar.* An independent fiscal agent, usually a large bank, retained by a corporation to control the issuance of stock certificates and provide assurance against overissuance.

11. *Book value per share* represents the amount of net assets (or stockholders' equity) associated with each share of common stock. It is determined by dividing the total stockholders' equity in the corporation, less the amount assigned to preferred stock (par value, or liquidation value if given, plus dividends in arrears) by the number of common shares outstanding. Book value does <u>not</u> represent the amount common stockholders would receive in the event of liquidation. If a corporation were liquidated, many assets would be sold at prices different from their carrying values in the accounting records. The resulting gains or losses would cause stockholders' equity to change accordingly.

12. To compute book value per share of common stock for a company with both preferred stock and common stock outstanding, the starting point is total stockholders' equity, including both preferred and common stock and all other elements of capital. Deduct from this total the preferred stock at its assigned amount (par value or liquidation value, if given) and any dividends in arrears. The remainder is the equity of the common stockholders. Divide this amount by the number of shares of common stock outstanding to arrive at book value (or net assets) per share of common stock.

13. a. When a corporation obtains a bank loan there is no effect upon book value per share of common stock. Assets and liabilities both increase by the amount of the loan. Net assets, therefore, are unchanged.

    b. Declaration of a dividend reduces book value per share. Total assets are not affected by the declaration of a dividend, but liabilities are increased. Net assets (stockholders' equity), therefore, are decreased.

14. A change in the market price of IBM's outstanding shares of capital stock has *no effect* upon IBM's balance sheet. These shares belong to IBM's stockholders, not to IBM. Therefore, a change in the market value of these shares has no effect upon the recorded amounts of IBM's assets, liabilities, or stockholders' equity. IBM's paid-in capital accounts will continue to show the amount received by IBM at the time the capital stock was issued. This historical amount is not affected by subsequent changes in market price.

15. When you ask a stockbroker to purchase shares of stock for you, the stock is purchased on a *secondary market*—in this case the New York Stock Exchange, because that is where Exxon stock is traded. On a secondary market, you are purchasing the stock from another investor. The transaction will have no effect on the financial statements of Exxon.

16. The purpose of a stock split is to reduce the per-share market price of the company's stock *down* to a more appropriate "trading range"—that is, a price that is appealing to a greater number of potential investors.

17. *Treasury stock* is corporate stock that has been issued and then reacquired by the issuing company.

    One reason for acquiring treasury stock is to have stock available to issue to officers and employees under profit-sharing agreements, stock options, or bonus plans. Purchases of treasury stock may also be intended to support the market price of the stock or to increase earnings per share.

    Treasury stock is not an asset; it represents a reduction in the amount of stockholders' investment in the corporation. For this reason the cost of the treasury shares is reported in the balance sheet as a reduction of the stockholders' equity.

18. The purpose of this rule is to protect corporate creditors, for whom stockholders' equity represents the margin of safety against loss from a shrinkage of asset values. The restriction of retained earnings for dividend purposes to the extent of the cost of treasury shares assures creditors that the stockholders' equity of a corporation will not, as a result of the purchase of treasury shares, be reduced below the amount of paid-in capital. If this restriction were not imposed, a corporation might distribute assets equal to the entire amount of its retained earnings as dividends, and then distribute additional assets in payment for shares of its own stock, thereby reducing the net assets of the corporation below the amount of the paid-in capital or even below the amount of stated (legal) capital.

19. The major types of transactions and activities that change the amount of paid-in capital and the direction of that change are as follows:

Transaction/activity	Direction of change
Sale of capital stock	Increase
Purchase of treasury stock	Decrease
Sale of treasury stock	Increase
Stock split	None*

*A stock split increases the number of shares of stock and lowers the market price of that stock, but does not affect the total amount of paid-in capital.

20. No definitive answer can be given to this question because a case can be made for having preferred stock and for not having preferred stock. Similarly, if preferred stock is included in the capital structure, a case can be made for different features, primarily whether the dividend is cumulative or not. Following are comments under different assumptions about the desirability of preferred stock.

Include preferred stock—Preferred stock offers investors an opportunity to invest on what may be a more predictable and secure basis than common stock. While dividends are not guaranteed, they are more predictable than on common stock, particularly for a new company. Some investors may be willing to invest in preferred stock while they would not be willing to accept the greater uncertainty and risk of common stock. This may be a factor in designing the company's capital structure in light of the capital requirements of the new company.

Do not include preferred stock—The presence of preferred stock may make common stock less attractive in light of the dividend preference of preferred stock. Once the company is up and running, preferred stock may be undesirable in terms of the long-term capital structure of the company.

Features of preferred stock—Assuming preferred stock is included in the capital structure, the most important decision is whether the dividend is cumulative. If the dividend is cumulative, the preferred stock is more attractive to investors, but it detracts from the attractiveness of the common stock. The lack of the cumulative feature may make preferred stock a relatively weak investment alternative and effectively defeat the purpose of including preferred stock in the capital structure.

B.Ex. 11.1	**Common stock (10,000 shares @ $10)**	**$100,000**
	Additional paid-in capital (10,000 shares @ $3)	**30,000**
	Retained earnings	**75,000**
	Total stockholders' equity	**$205,000**

B.Ex. 11.2	**Preferred stock (1,000 shares @ $100)**	**$100,000**
	Common stock (10,000 shares @ $25)	**250,000**
	Additional paid-in capital:	
	Preferred stock (1,000 shares @ $10)	**10,000**
	Common stock (10,000 shares @ $2)	**20,000**
	Retained earnings	**100,000**
	Total stockholders' equity	**$480,000**

B.Ex. 11.3 **Dividends on arrears on preferred stock for three years are calculated as follows:**

100,000 shares x $100 par value x 6% dividend rate x 3 years = $1,800,000

The amount of dividends in arrears must be disclosed in the financial statements, but they are not formally included as a liability in the balance sheet until declared by the Board of Directors of the company.

B.Ex. 11.4	**Total dividend declared**	**$200,000**
	Dividend requirements for preferred stock:	
	10,000 shares x $100 par x 6% x 2 years	**120,000**
	Dividends available for common stock	**$80,000**

B.Ex. 11.5	**Total dividend declared**	**$120,000**
	Dividend requirements for noncumulative preferred stock:	
	10,000 x $100 par x 8% x 1 year	**80,000**
	Dividends available for common stock	**$40,000**
	Dividends per share on common stock:	
	$40,000/100,000 shares	**$0.40**

If the preferred stock is cumulative, the entire dividend goes to preferred stock and the common stockholders will receive none of the $120,000 dividends declared. In fact, satisfaction of the full claim of the preferred stockholders in this case will require $320,000, determined as follows:

10,000 x $100 par x 8% x 4 years = $320,000

B.Ex. 11.6 The book value on common stock is calculated by adding all stockholders' equity accounts together and dividing by the number of shares of common stock outstanding:

($1,000,000 + $750,000 + $600,000)/100,000 shares =
$23.50

This amount does not reflect the current market value of the stock. Instead, it reflects a per-share amount of the assets, less liabilities, included in the company's balance sheet.

B.Ex. 11.7

Total stockholders' equity ($4,000,000 + $5,000,000 + $800,000 + $1,750,000)		$11,550,000
Less: Preferred stock at par value	$4,000,000	
Dividends in arrears (40,000 shares x $5)	200,000	4,200,000
Amount attributable to common stock		$7,350,000
Book value per share of common stock:		
$7,350,000/500,000 shares		$14.70

B.Ex. 11.8 The stock split will double the number of shares outstanding from 100,000 to 200,000. It will reduce the market price of the stock to approximately half of its current price: $50 x 1/2 = $25. The split will have no impact on the total stockholders' equity attributable to common stock. While the number of shares will double, the par value will be reduced to half, or $5 per share, leaving the total stockholders' equity attributable to common stock unchanged.

B.Ex. 11.9

Common stock (100,000 shares @ $10)	$1,000,000
Additional paid-in capital	
(100,000 shares @ $15)	1,500,000
	$2,500,000
Less: Treasury stock (10,000 shares x $55)	(550,000)
Total stockholders' equity	$1,950,000

B.Ex. 11.10

Common stock (1,000,000 shares @ $25)	$25,000,000
Additional paid-in capital on common stock	
(1,000,000 shares @ $5)	5,000,000
Additional paid-in capital on treasury stock	
[70,000 shares x ($55 - $50)]	350,000
	$30,350,000
Less: Treasury stock (30,000 shares x $50)	1,500,000
Total stockholders' equity	$28,850,000

SOLUTIONS TO EXERCISES

Ex. 11.1 a. (1) Organizing the scuba diving school as a sole proprietorship.

Advantages:
- **(a) Easy to form**
- **(b) No double taxation on distributed earnings**

Disadvantages:
- **(a) Personal liability of owner for debts of the business**
- **(b) Business ceases with death of owner**

(2) Organizing the scuba diving school as a corporation.

Advantages:
- **(a) No personal liability of owners for debts of the business**
- **(b) Readily transferable ownership shares**
- **(c) Continuous existence**

Disadvantages:
- **(a) Double taxation on distributed earnings**
- **(b) Greater regulation**

b. A corporation would probably be the better form of organization because of the characteristic of limited liability of the owners. Potentially, a scuba diving student could be seriously injured in the class. With the sole proprietorship form of organization, your personal assets would be at risk to pay for the person's injuries, after you exhausted any insurance coverage and assets that the business might have.

Ex. 11.2
- **a. Double taxation**
- **b. Market value**
- **c. None (Retained earnings is not an amount of cash; it is an element of owners' equity.)**
- **d. Common stock**
- **e. None (Dividends in arrears are prior years' dividends owed to holders of cumulative preferred stock.)**
- **f. Publicly owned corporation**
- **g. Paid-in capital**
- **h. Retained earnings**
- **i. None (Book value is *common stockholders' equity* divided by the number of common shares outstanding.)**
- **j. None (The price of preferred stock varies *inversely* with interest rates.)**

Ex. 11.3 a. Stockholders' equity:

8% cumulative preferred stock, $100 par value,		
5,000 shares authorized, 2,500 shares issued and outstanding	**$**	**250,000**
Common stock, $2 stated value, 100,000 shares authorized,		
70,000 shares issued and outstanding.......................................		**140,000**
Additional paid-in capital:		
Preferred stock		**7,500**
Common stock		**770,000**
Total paid-in capital	**$**	**1,167,500**
Retained earnings		**382,000**
Total stockholders' equity	**$**	**1,549,500**

b. No. The market value of a corporation's stock has no effect on the amount in the financial statements. Capital stock is recorded at the amount for which it was originally issued.

Ex. 11.4 a.

Total dividends paid in third year		**$736,000**
Dividends on 9% cumulative preferred stock:		
Dividends ($50 × .09 × 40,000 × 2 years)	**$360,000**	
Current year's dividend ($50 × .09 × 40,000)	**180,000**	
Total paid on 9% cumulative preferred stock	**$540,000**	
Dividends on 12% noncumulative preferred stock:		
Current year's dividend ($100 × .12 × 8,000)	**96,000**	**636,000**
Dividends on common stock in third year		**$100,000**

b. Dividends per share:

Preferred stock, 9% cum. ($540,000 ÷ 40,000 shares)	**$ 13.50 per share**
Preferred stock, 12% noncum. ($96,000 ÷ 8,000 shares)	**$ 12.00 per share**
Common stock ($100,000 ÷ 400,000 shares)	**$ 0.25 per share**

c. The stockholders' equity section of the balance sheet reports no additional paid-in capital. Thus, the preferred shares must have been issued at their respective par values ($50 per share for the 9% cumulative preferred stock, and $100 per share for the noncumulative preferred stock).

Ex. 11.5 a. 150,000 shares ($15,000,000 total par value, divided by $100 par value per share)

b. $1,050,000 ($15,000,000 total par value × 7% or 150,000 × $100 × 7%)

c. $16 [($20 million par value + $44 million additional paid-in capital) ÷ 4,000,000 shares issued]

d. $35,000,000 legal capital ($15,000,000 preferred, plus $20,000,000 common)
$79,000,000 total paid-in capital ($35,000,000 legal capital, plus $44,000,000 additional paid-in capital)

e.	Total stockholders' equity	$	143,450,000
	Less: Par value of preferred stock (150,000 shares × $100)		15,000,000
	Equity of common stockholders	$	128,450,000
	Common shares outstanding		4,000,000
	Book value per share ($128.45 million ÷ 4 million shares)		$32.11

f. No. Changes in the market value of capital stock do not directly affect a corporation's financial position and are not reflected in the equity section of the balance sheet.

Ex. 11.6 Annual dividends on the preferred stock are $14,000 (7,000 × $25 × 8%)

a.	Total dividend		$50,000
	Amount to preferred stock		(14,000)
	Amount to common stock		$36,000

b.	Total dividend		$50,000
	Amount to preferred stock:		
	Current year	$14,000	
	In arrears	14,000	(28,000)
	Amount to common stock		$22,000

Ex. 11.7

Event	Current Assets	Stockholders' Equity	Net Income	Net Cash Flow (from Any Source)
a.	I	I	NE	I
b.	NE	NE	NE	NE
c.	D	D	NE	D

Ex. 11.8 a. Net assets (stockholders' equity):

8% cumulative preferred stock	$	200,000
Common stock, $5 par, 60,000 shares issued		300,000
Additional paid-in capital		452,800
Total paid-in capital	$	952,800
Less: Deficit		146,800
Total net assets (stockholders' equity)	$	806,000

b. Book value per share of common stock:

Total stockholders' equity (from part *a*)	$	806,000
Less: Claims of preferred stockholders ($200,000 plus dividends in arrears, $16,000)		216,000
Equity of common stockholders	$	590,000
Number of shares of common stock outstanding		60,000
Book value per share ($590,000 ÷ 60,000 shares)	$	9.83

c. No. The book value per share represents the stockholders' share of the net book value of the corporation's assets, not the assets' liquidation values. The stockholders may receive more or less than the book value per share if the corporation is liquidated, depending primarily on the amounts at which the corporation's assets are sold.

Ex. 11.9 a.

Feb.	10	Treasury Stock	425,000	
		Cash		425,000
		Purchased 17,000 shares of treasury stock at $25 per share.		
June	4	Cash	198,000	
		Treasury Stock		150,000
		Additional Paid-in Capital: Treasury Stock		48,000
		Sold 6,000 shares of treasury stock, cost $150,000, for $33 per share.		
Dec.	22	Cash	88,000	
		Additional Paid-in Capital: Treasury Stock	12,000	
		Treasury Stock		100,000
		Sold 4,000 shares of treasury stock, cost $100,000, for $22 per share.		

b. Restriction of retained earnings for treasury stock owned at year-end: $175,000 (7,000 shares still owned × $25 per share cost)

c. No, a restriction on retained earnings does not affect the total amount of retained earnings reported in the balance sheet. A restriction of retained earnings is disclosed, but does not reduce the total amount of retained earnings of a company. The restriction on retained earnings simply limits the amount of dividends the corporation can pay as long as it holds treasury stock.

Ex. 11.10 **a.** **Had the stock been split 2-for-1, it would begin trading at approximately $40 per share immediately after the split ($80 ÷ 2 = $40).**

b. **Had the stock been split 4-for-1, it would begin trading at approximately $20 per share immediately after the split ($80 ÷ 4 = $20).**

c. **When the market price of a corporation's common stock appreciates in value significantly, as it had in the case of Fido Corporation, it may become too expensive for many investors. Thus, the decision to split the company's stock was probably made with the intent of making it more affordable to investors.**

Ex. 11.11 **a.** **Companies sometimes purchase shares of their own common stock to help boost the market price per share. This practice is not generally considered unethical, given that information pertaining to the purchase is fully disclosed in the company's financial statements. Furthermore, if the company acquires a significantly large amount of its outstanding stock, the event would be reported in the financial press.**

b. **For a company to classify its treasury stock as a short-term investment is not appropriate. When treasury stock is purchased, the corporation is actually reducing its assets (cash), and eliminating part of its stockholders' equity. For this reason, treasury stock should not appear in the balance sheet as a current asset.**

Ex. 11.12 **a.** **Carnival Corporation could sell approximately 1,320 million additional shares. This figure is determined by subtracting the number of issued shares from the number of authorized shares 1,960 million – 640 million = 1,320 million.**

b. **Authorized, but unissued, shares do not represent an asset of the company. At some time in the future they may result in an increase in assets if they are issued for cash or other assets, but until that time they simply represent the potential for future increases in assets. They are not included in the company's balance sheet, other than through disclosure of the numbers of authorized and issued shares. This permits the reader of the financial statements to calculate the number of authorized, but unissued shares, as was done above.**

Ex. 11.13 a.

Cash (550,000 x $12)………………………………	6,600,000	
Common Stock (550,000 x $10)……………		5,500,000
Additional Paid-in Capital on Common Stock……………………………………….		1,100,000
Cash (40,000 x $110)………………………………	4,400,000	
Preferred Stock (40,000 x $100)……………		4,000,000
Additional Paid-in Capital on Preferred Stock………………………………………..		400,000
Treasury Stock/Common (40,000 x $60)………….	2,400,000	
Cash……………………………………………		2,400,000

Note: No entry is required to record the authorization to issue preferred and common stock.

b. Stockholders' Equity:

Preferred stock, 6%, $100 par value, 50,000 shares authorized, 40,000 shares issued and outstanding	$4,000,000
Common stock, $10 par value, 1,000,000 shares authorized, 550,000 shares issued	$ 5,500,000
Additional paid-in capital:	
Preferred stock	400,000
Common stock	1,100,000
Total paid-in capital	$11,000,000
Less: Treasury (common) stock at cost, 40,000 shares	(2,400,000)
Total stockholders' equity	$8,600,000

Ex. 11.14 a.

Common Stock, $10 par value, 200,000 shares authorized, 100,000 shares issued	$1,000,000
Additional paid-in capital on common stock	800,000
Additional paid-in capital on treasury stock Transactions	30,000
Total paid-in capital	$1,830,000
Retained earnings	120,000
Total paid-in capital and retained earnings	$1,950,000
Less: Treasury stock	(300,000)
Total stockholders' equity	$1,650,000

Calculations:

Additional paid-in capital on common stock:

100,000 shares x ($18 - $10) = $800,000

Additional paid-in capital on treasury stock:

10,000 shares x ($23 - $20) = $30,000

Treasury stock:

15,000 shares x $20 = $300,000

b. **After a 2:1 stock split is distributed, the par value of the common stock will be reduced to half ($10 x 1/2 = $5) and all of the share numbers will double. The 2:1 split has no effect on the total figures for common stock, additional paid-in capital, retained earnings, treasury stock, or total stockholders' equity.**

Ex. 11.15 **a.** **The par value is $.05 per share. The common stock originally sold well above par value because the capital in excess of par value is large. In fact, it is over 60 times the par value of the shares that have been issued.**

b. **The number of authorized shares of common stock is 10,000 million. Authorized shares are the number of shares specified in the company's articles of incorporation. It represents the maximum number of shares that the company is authorized to issue by its state of incorporation.**

c. **$26,909 million. This amount is not how much the outstanding stock is actually worth. The total stockholders' equity figure represents the amount invested in the company by owners over time, plus the amount of earnings retained in the company. The amount reported is an historical concept that may or may not bear a close relationship to market value.**

SOLUTIONS TO PROBLEMS SET A

20 Minutes, Easy

PROBLEM 11.1A
ROBBINSVILLE PRESS

a.

ROBBINSVILLE PRESS		
Partial Balance Sheet		
December 31, 2007		
Stockholders' equity		
8% cumulative preferred stock, $100 par value,		
authorized 100,000 shares, issued and outstanding		$ 1,000,000
10,000 shares		
Common stock, $1 par value, authorized 500,000 shares		
issued and outstanding 170,000 shares		170,000
Additional paid-in capital: Common stock		2,380,000
Total paid-in capital		$ 3,550,000
Retained earnings*		255,000
Total stockholders' equity		$ 3,805,000
*Computation of retained earnings at December 31, 2007:		
Net income for the four-year period 2004-2007		$ 1,085,000
Less: Preferred dividends ($80,000 per year for four years)	$ 320,000	
Common dividends ($0.75 x 170,000 shares x 4 years)	510,000	830,000
Retained earnings, December 31, 2007		$ 255,000

b. **There are no dividends in arrears at December 31, 2007. We know this because common dividends were paid in each of the four years that the company was in existence. Common shareholders could not have received dividends in each year of the company's existence had any dividends been in arrears on the preferred stock.**

20 Minutes, Easy

PROBLEM 11.2A
WALLER PUBLICATIONS

a.

WALLER PUBLICATIONS Partial Balance Sheet December 31, 2007		
Stockholders' equity		
10% cumulative preferred stock, $100 par value,		
authorized, issued, and outstanding 20,000 shares		$ 2,000,000
Common stock, $1 par value, authorized 1 million shares,		
issued and outstanding 300,000 shares		300,000
Additional paid-in capital: common stock		5,700,000
Total paid-in capital		$ 8,000,000
Retained earnings*		210,000
Total stockholders' equity		$ 8,210,000
*Computation of retained earnings at December 31, 2007:		
Net income for the five-year period 2002-2006		$ 4,460,000
Less: Preferred dividends ($200,000 x 5 years)	$ 1,000,000	
Common dividends ($1 x 300,000 shares x 5 years)	1,500,000	2,500,000
Retained earnings, December 2006		$ 1,960,000
Less: Net loss of 2007		1,750,000
Retained earnings, December 31, 2007		$ 210,000

b. **Note to financial statements:**
As of December 31, 2007, dividends on the 10%, $100 par value, cumulative preferred stock were in arrears to the extent of $10 per share, amounting in total to $200,000.

c. No. Dividends do not represent a liability of the corporation until they are declared by the board of directors.

25 Minutes, Medium

PROBLEM 11.3A
MANHATTAN TRANSPORT COMPANY

a.

MANHATTAN TRANSPORT COMPANY		
Partial Balance Sheet		
December 31, 2007		
Stockholders' equity		
8% cumulative preferred stock, $100 par, 5,000		
shares authorized, issued, and outstanding		$ 500,000
$9 cumulative preferred stock, no-par value, 10,000 shares		
authorized, 5,000 shares issued and outstanding		512,000
Common stock, $2 par, 200,000 shares authorized, 100,000		
shares issued and outstanding		200,000
Additional paid-in capital: Common stock		600,000
Total paid-in capital		$ 1,812,000
Retained earnings*		640,000
Total stockholders' equity		$ 2,452,000
*Computation of retained earnings at December 31, 2007:		
Retained earnings at Dec. 31, 2005		$ 170,000
Add: Net income for 2006 and 2007		890,000
Net income for four-year period		$ 1,060,000
Less: Dividends paid on 8% preferred stock:		
2005 ($40,000 in arrears)	$ -	
2006 ($40,000 in arrears for 2 years)	80,000	
2007 (8% x $100 x 5,000 shares = $40,000)	40,000	(120,000)
Dividends on $9 preferred stock:		
2006 ($9 x 5,000 shares)	$ 45,000	
2007 ($9 x 5,000 shares)	45,000	(90,000)
Dividends on common stock:		
2006 ($0.50 x 100,000 shares)	$ 50,000	
2007 ($1.60 x 100,000 shares)	160,000	(210,000)
Retained earnings, December 31, 2007		$ 640,000

b. **A corporation might decide to use cumulative preferred stock rather than debt to finance operations for any of the following reasons (only 2 required):**

1. **Although cumulative dividends must eventually be paid if the corporation is profitable, they do not have to be paid each year and do not become a legal obligation of the corporation until they are declared. Interest on debt is a legal obligation of the corporation and must be paid each year.**
2. **Debt must be repaid at some future date. To be a permanent source of capital, debt must be periodically refinanced. Preferred stock generally does not mature.**
3. **Increasing the amount of debt on a balance sheet can adversely affect financial ratios.**

35 Minutes, Medium

PROBLEM 11.4A
BARNES COMMUNICATIONS, INC.

a.

General Journal

20__				
Jan	6	Cash	280,000	
		Common Stock		40,000
		Additional Paid-in Capital: Common Stock		240,000
		Issued 20,000 shares of $2 par value common stock		
		at $14 per share.		
	7	Organization Costs Expense	7,000	
		Common Stock		1,000
		Additional Paid-in Capital: Common Stock		6,000
		Issued 500 shares of common stock to Barnes in		
		exchange for services relating to formation of the		
		corporation. Implied issuance price ($7,000 ÷ 500		
		shares) = $14 per share.		
	12	Cash	250,000	
		10% Cumulative Preferred Stock		250,000
		Issued 2,500 shares of $100 par value, 10%,		
		cumulative preferred stock at par value.		
June	4	Land	225,000	
		Common Stock		30,000
		Additional Paid-in Capital: Common Stock		195,000
		Issued 15,000 shares of common stock in exchange		
		for land valued at $225,000 (15,000 shares x $15).		
Nov	15	Dividends (Preferred Stock)	25,000	
		Dividends Payable		25,000
		To record declaration of annual dividends of $10		
		per share on 2,500 preferred shares outstanding.		
		Payable Dec. 20.		
Dec	20	Dividends Payable	25,000	
		Cash		25,000
		To record payment of dividend declared Nov. 15.		
	31	Income Summary		
		Retained Earnings	147,200	
		To close the Income Summary account for the		147,200
		year.		
	31	Retained Earnings	25,000	
		Dividends		25,000
		To close the Dividends account.		

PROBLEM 11.4A
BARNES COMMUNICATIONS, INC. (concluded)

b.

BARNES COMMUNICATIONS, INC.		
Partial Balance Sheet		
December 31, 20___		
Stockholders' equity		
10% cumulative preferred stock, $100 par, authorized		
50,000 shares, issued and outstanding 2,500 shares		$ 250,000
Common stock, $2 par, authorized 400,000 shares,		
issued and outstanding 35,500 shares		71,000
Additional paid-in capital: Common stock		441,000
Total paid-in capital		$ 762,000
Retained earnings*		122,200
Total stockholders' equity		$ 884,200
*Computation of retained earnings at December 31, 20__:		
Retained earnings at January 1, 20__		$ -
Add: Net income in 20__		147,200
Less: Preferred dividends in 20__		(25,000)
Retained earnings at December 31, 20__.		$ 122,200

35 Minutes, Strong

PROBLEM 11.5A
SMITHFIELD PRODUCTS

a.	Par value of all preferred stock outstanding	$ 2,400,000
	Par value per share of preferred stock	$ 100
	Number of shares of preferred stock outstanding ($2,400,000 ÷ $100)	24,000
b.	Dividend requirement per share of preferred stock (7 1/2% x $100)	$ 7.50
	Number of shares of preferred stock outstanding (a)	24,000
	Annual preferred stock dividend requirement ($7.50 x 24,000 shares)	$ 180,000
c.	Par value of all common stock outstanding	$ 900,000
	Par value per share of common stock	$ 2
	Number of shares of common stock outstanding ($900,000 ÷ $2 per share)	450,000
d.	Par value of all common stock issued	$ 900,000
	Paid-in capital in excess of par: Common	8,325,000
	Total issuance price of all common stock	$ 9,225,000
	Number of shares of common stock issued (c)	450,000
	Average issuance price per share of common ($9,225,000 ÷ 450,000 shares)	$ 20.50
e.	Par value of preferred stock	$ 2,400,000
	Par value of common stock	900,000
	Total legal capital	$ 3,300,000
f.	Total legal capital (e)	$ 3,300,000
	Add: Additional paid-in capital: Common stock	8,325,000
	Total paid-in capital	$ 11,625,000
g.	Total stockholders' equity	$ 14,220,000
	Less: Par value of preferred stock [24,000 shares (*a*) x $100 per share]	2,400,000
	Equity of common stockholders	$ 11,820,000
	Number of shares of common stock outstanding (*c*)	450,000
	Book value per share ($11,820,000 450,000 shares)	$ 26.27
h.	Retained earnings, beginning of the year	$ 717,500
	Add: Net income for the year	3,970,000
	Subtotal	$ 4,687,500
	Less: Retained earnings, end of the year	2,595,000
	Total dividends paid during the year	$ 2,092,500
	Less: Dividends on preferred stock (part *b*)	180,000
	Total dividends on common stock	$ 1,912,500
	Number of common shares outstanding	450,000
	Dividends per share of common stock ($1,912,500 450,000)	$ 4.25

35 Minutes, Medium

PROBLEM 11.6A
QUANEX CORPORATION

		In Thousands (Except for Per Share Amounts)
a.	Par value of all common stock outstanding	$ 6,819
	Par value per share	0.50
	Number of shares outstanding ($6,819/$0.50)	13,638
b.	Dividend requirement per share of preferred stock	$ 17.20
	Numbers of shares of preferred stock outstanding	345
	Annual dividends paid to preferred stockholders ($17.20 x 345)	$ 5,934
c.	Par value of preferred stock	$ 86,250
	Par value of common stock	6,819
	Additional paid-in capital	87,260
	Total paid-in capital	$ 180,329
d.	Total stockholders’ equity	$ 237,592
	Less: Preferred stock par value = ($250 x 345 shares)	86,250
	Equity of common stockholders	$ 151,342
	Number of shares of common stock outstanding	13,638
	Book value per share ($151,342/13,638 shares)	$ 11.10

PROBLEM 11.6A
QUANEX CORPORATION (concluded)

e. **The basic advantage of being publicly owned is that the corporation has the opportunity to raise large amounts of equity capital from many investors. Some publicly owned corporations have millions of stockholders, including pension funds, mutual funds, and other corporations. Closely held corporations are usually unable to raise the large amounts of capital available to publicly owned corporations.**

A major advantage to the *stockholders* of a publicly owned corporation is that their equity investments are highly liquid assets, immediately salable at quoted market prices.

The primary *disadvantages* of being publicly owned are the increased governmental regulations and financial reporting requirements.

f. **The term *convertible* means that at the option of the preferred stockholder, each preferred share can be converted into a specified number of common shares. To evaluate the value of this conversion feature, the stockholder must know into *how many* shares of common each preferred share can be converted. This information is disclosed in the notes accompanying the corporation's financial statements.**

g. **At $248 per share, Quanex's preferred has a dividend yield of *6.9%* ($17.20 ÷ $248). In comparison, an 8%, $50 par preferred selling at $57 has a dividend yield of *7%* [(8% × $50 par) ÷ $57].**

The *dividend yield* on preferred stock indicates how much investors value certain features of the stock. The *lower* the yield, the *more* investors favor the stock. A higher yield means that investors demand a higher return to induce them to purchase the stock.

The two principal factors that cause one preferred to yield *less* than another are: (1) the appearance of greater ability to pay the preferred dividends each year, and (2) special features that appeal to investors, such as Quanex's conversion feature, cumulative dividends, or a high call price.

15 Minutes, Easy

PROBLEM 11.7A
TECHNO CORPORATION

a. ***Par value*** **is the legal capital per share—the amount by which stockholders' equity cannot be reduced except by losses. Thus, par value may be viewed as a minimum cushion of equity capital existing for the protection of creditors.**

Book value **per share is equal to the** ***net assets*** **represented by each share of common stock. Book value is a historical cost concept, representing the amounts invested by the stockholders, plus the amounts earned and retained by the corporation. By comparing book value with current market value, stockholders may gain insight into whether management has increased or diminished the value of the resources entrusted to their care.**

The ***market value*** **of a share of stock is established in the marketplace. It represents the per-share price at which willing sellers can and will sell shares of the stock to willing buyers. Market value is related primarily to investors' future expectations of the company's performance, rather than to historical amounts.**

b. **The company's par value—one-tenth of a cent per share—is quite low. However, the corporation can set par value at any level that it chooses; the amount of par value has no direct effect upon either book value or market value. It does mean, however, that the amount of the company's legal capital—serving as a cushion for creditors—is quite low. Another reason for the small par value is the possibility of stock splits in the past.**

The fact that book value per share ($6.50) is far above par value indicates either that (1) the stock initially was issued at a price far above par value, or (2) that the company has retained substantial amounts of earnings. Even if there had been stock splits in prior years, the total dollar amount of book value would not have been affected.

The market value of $65 is ***10 times*** **book value. This implies that investors believe that management and product lines make the company worth far more than the amounts of capital historically invested.**

The very low par value offers little protection to the company's creditors. On the other hand, a market value of many times book value implies that little cushion is required for creditors' claims to be secure. If the company performs as its market price implies that it will, its earnings and cash flows should make the creditors' positions quite secure. Earnings and cash flows are far more relevant to a company's debt-paying ability than is the cushion provided by par value.

15 Minutes, Medium

PROBLEM 11.8A
FELLER CORPORATION

a.		
Stockholders' equity:		
Common stock, $1 par, 50,000 shares authorized, issued, and outstanding		$ 50,000
Additional paid-in capital: Common stock		350,000
Additional paid-in capital: Treasury stock		5,000
Total paid-in capital		$ 405,000
Retained earnings*		185,000
Total stockholders' equity		$ 590,000
*Computation of retained earnings at Dec. 31, 2007:		
Net income in 2005		$ 82,000
Net income in 2006		25,000
Net income in 2007		78,000
Retained earnings, Dec. 31, 2007		$ 185,000

b. **The company's book value per share is <u>$11.80</u> ($590,000 total stockholders' equity ÷ 50,000 shares outstanding).**

c. **The treasury stock purchase of $35,000 in 2006 was reported as a financing cash outflow in the statement of cash flows for that year. The reissue of the treasury stock for $40,000 in the following year was reported as a financing cash inflow in the 2007 statement of cash flows.**

30 Minutes, Strong

PROBLEM 11.9A
HERNDON INDUSTRIES

a.		
Stockholders' equity:		
10% preferred stock, $100 par, cumulative, authorized,		
issued, and outstanding 30,000 shares		$ 3,000,000
Common stock, $10 par, 200,000 shares authorized,		
120,000 shares issued, of which 10,000 shares are held in		
treasury		1,200,000
Additional paid-in capital: Common stock		720,000
Additional paid-in capital: Treasury stock*		50,000
Total paid-in capital		$ 4,970,000
Retained earnings**		1,925,000
Subtotal		$ 6,895,000
Less: Treasury stock (10,000 shares x $20 cost per share)		200,000
Total stockholders' equity at Dec. 31, 2007		$ 6,695,000
*Computation of additional paid-in capital on treasury stock:		
Purchase price per share: $400,000 ÷ 20,000 shares = $20		
per share		
Reissue price per share: $250,000 ÷ 10,000 shares = $25		
per share		
Paid-in capital per share reissued: $5 per share ($25 - $20)		
Total paid-in capital on treasury stock: $50,000		
($5 per share x 10,000 shares reissued)		
**Computation of retained earnings at Dec. 31, 2007:		
Net income (for years 2003–2007)		$ 3,700,000
Less: Preferred dividend (for years 2003–2007)		
$100 x 10% x 30,000 shares x 5 years	$ 1,500,000	
Less: Common dividends		
2003–2004: 120,000 shares outstanding x $0.50 x 2 yrs	120,000	
2005–2006: 100,000 shares outstanding x $0.50 x 2 yrs	100,000	
2007: 110,000 shares outstanding x $0.50	55,000	1,775,000
Retained earnings, Dec. 31, 2007		$ 1,925,000

b. **The company's book value per share is approximately <u>$33.59</u> ($6,695,000 total stockholders' equity –$3,000,000 of preferred stock book value = $3,695,000; $3,695,000 ÷ 110,000 shares outstanding = $33.59).**

c. **Had the company decided to split its common stock 3-for-1 on December 31, 2007, the market value would have fallen to approximately $10 per share ($30 ÷ 3). The par value would have been reduced to $3.33 ($10 ÷ 3), and the number of shares outstanding would have increased to 330,000 shares (110,000 × 3).**

SOLUTIONS TO PROBLEMS SET B

20 Minutes, Easy

PROBLEM 11.1B
SEPTA, INC.

a.

SEPTA, INC. Partial Balance Sheet December 31, 2007		
Stockholders' equity		
10% cumulative preferred stock, $100 par value, callable		
at $110, authorized 1,000 shares, issued and out-		$ 50,000
standing 500 shares		
Common stock, $1 par value, authorized 200,000 shares		
Issued and outstanding 80,000 shares		80,000
Additional paid-in capital: Common stock		1,120,000
Total paid-in capital		$ 1,250,000
Retained earnings*		1,652,000
Total stockholders' equity		$ 2,902,000
*Computation of retained earnings at December 31, 2007:		
Net income for the four-year period 2004-2007		$ 1,800,000
Less: Preferred dividends ($5,000 per year for four years)	$ 20,000	
Common dividends ($0.40 x 80,000 shares x 4 years)	128,000	148,000
Retained earnings, December 31, 2007		$ 1,652,000

b. **There are no dividends in arrears at December 31, 2007. We know this because common dividends were paid in each of the four years that the company was in existence. Common shareholders could not have received dividends in each year of the company's existence had any dividends been in arrears on the preferred stock.**

c. **The market price of preferred stock usually decreases as interest rates increase. Thus, at December 31, 2007, the market price of Septa's preferred stock was probably lower than its call price of $110 (in fact, it may actually have fallen below its original price of $100 per share.**

20 Minutes, Easy

PROBLEM 11.2B
BANNER PUBLICATIONS

a.

BANNER PUBLICATIONS Partial Balance Sheet December 31, 2007		
Stockholders' equity		
10% cumulative preferred stock, $100 par value,		
authorized, issued, and outstanding 10,000 shares		$ 1,000,000
Common stock, $1 par value, authorized 1 million shares,		
issued and outstanding 400,000 shares		400,000
Additional paid-in capital: common stock		$ 5,600,000
Total paid-in capital		7,000,000
Retained earnings*		900,000
Total stockholders' equity		$ 7,900,000
*Computation of retained earnings at December 31, 2007:		
Net income for the five-year period 2002-2006		$ 4,100,000
Less: Preferred dividends ($100,000 x 5 years)	$ 500,000	
Common dividends ($.80 x 400,000 shares x 5 years)	1,600,000	2,100,000
Retained earnings, December 2006		$ 2,000,000
Less: Net loss of 2007		1,100,000
Retained earnings, December 31, 2007		$ 900,000

b. **Note to financial statements:**
As of December 31, 2007, dividends on the 10%, $100 par value, cumulative preferred stock were in arrears to the extent of $10 per share, amounting in total to $100,000.

c. **No. Dividends do not represent a liability of the corporation until they are declared by the board of directors.**

25 Minutes, Medium

PROBLEM 11.3B
RAY BEAM, INC.

a.

RAY BEAM, INC.		
Partial Balance Sheet		
December 31, 2007		
Stockholders' equity		
10% cumulative preferred stock, $100 par value, 10,000		
shares authorized, issued, and outstanding		$ 1,000,000
$6 cumulative preferred stock, no-par value, 8,000 shares		
authorized, 5,000 shares issued and outstanding		320,000
Common stock, $1 par, 260,000 shares authorized, 130,000		
shares issued and outstanding		130,000
Additional paid-in capital: Common stock		1,820,000
Total paid-in capital		$ 3,270,000
Retained earnings*		1,193,000
Total stockholders' equity		$ 4,463,000
*Computation of retained earnings at December 31, 2007:		
Retained earnings at Dec. 31, 2005		$ 530,000
Add: Net income for 2006 and 2007		1,400,000
Net income for four-year period		$ 1,930,000
Less: Dividends paid on 10% preferred stock:		
2005 ($100,000 in arrears)	$ -	
2006 ($100,000 in arrears for 2 years)	200,000	
2007 (10% x $100 x 10,000 shares = $100,000)	100,000	(300,000)
Dividends on $6 preferred stock:		
2006 ($6 x 5,000 shares)	$ 30,000	
2007 ($6 x 5,000 shares)	30,000	(60,000)
Dividends on common stock:		
2006 ($0.90 x 130,000 shares)	$ 117,000	
2007 ($2.00 x 130,000 shares)	260,000	(377,000)
Retained earnings, December 31, 2007		$ 1,193,000

b. **A corporation might decide to use cumulative preferred stock rather than debt to finance operations for any of the following reasons (only 2 required):**

1. **Although cumulative dividends must eventually be paid if the corporation is profitable, they do not have to be paid each year and do not become a legal obligation of the corporation until they are declared. Interest on debt is a legal obligation of the corporation and must be paid each year.**

2. **Debt must be repaid at some future date. To be a permanent source of capital, debt must be periodically refinanced. Preferred stock generally does not mature.**

3. **Increasing the amount of debt on a balance sheet can adversely affect financial ratios.**

35 Minutes, Medium

PROBLEM 11.4B
MARKUP, INC.

a.

General Journal

20__				
Jan	7	Cash	300,000	
		Common Stock		30,000
		Additional Paid-in Capital: Common Stock		270,000
		Issued 30,000 shares of $1 par value common stock		
		at $10 per share.		
	12	Organization Costs Expense	12,000	
		Common Stock		1,000
		Additional Paid-in Capital: Common Stock		11,000
		Issued 1,000 shares of common stock to Deal in		
		exchange for services relating to formation of the		
		corporation. Implied issuance price ($12,000 ÷ 1,000		
		shares) = $12 per share.		
	18	Cash	400,000	
		5% Cumulative Preferred Stock		400,000
		Issued 4,000 shares of $100 par value, 5%,		
		cumulative preferred stock at par value.		
July	5	Land	120,000	
		Common Stock		10,000
		Additional Paid-in Capital: Common Stock		110,000
		Issued 10,000 shares of common stock in exchange		
		for land valued at $120,000 (10,000 shares x $12).		
Nov	25	Dividends (Preferred Stock)	20,000	
		Dividends Payable		20,000
		To record declaration of annual dividends of $5		
		per share on 4,000 preferred shares outstanding.		
		Payable Dec. 11.		
Dec	11	Dividends Payable	20,000	
		Cash		20,000
		To record payment of dividend declared Nov. 25.		
	31	Income Summary		
		Retained Earnings	810,000	
		To close the Income Summary account for the		810,000
		year.		
	31	Retained Earnings	20,000	
		Dividends (Preferred Stock)		20,000
		To close the Dividends account.		

20 Minutes, Easy

PROBLEM 11.4B
MARKUP, INC. (concluded)

b.

MARKUP, INC.		
Partial Balance Sheet		
December 31, 20__		
Stockholders' equity		
5% cumulative preferred stock, $100 par, authorized		
100,000 shares, issued and outstanding 4,000 shares		$ 400,000
Common stock, $1 par, authorized 100,000 shares,		
issued and outstanding 41,000 shares		41,000
Additional paid-in capital: Common stock		391,000
Total paid-in capital		$ 832,000
Retained earnings*		790,000
Total stockholders' equity		$ 1,622,000
*Computation of retained earnings at December 31, 20__:		
Retained earnings at January 1, 20__		$ -
Add: Net income in 20__		810,000
Less: Preferred dividends in 20__		(20,000)
Retained earnings at December 31, 20__.		$ 790,000

35 Minutes, Strong

PROBLEM 11.5B
MANOR, INC.

a.	Par value of all preferred stock outstanding	$	4,400,000
	Par value per share of preferred stock	$	100
	Number of shares of preferred stock outstanding ($4,400,000 ÷ $100)		44,000
b.	Dividend requirement per share of preferred stock (10% x $100)	$	10
	Number of shares of preferred stock outstanding (a)		44,000
	Annual preferred stock dividend requirement ($10 x 44,000 shares)	$	440,000
c.	Par value of all common stock outstanding	$	3,400,000
	Par value per share of common stock	$	2
	Number of shares of common stock outstanding ($3,400,000 ÷ $2 per share)		1,700,000
d.	Par value of all common stock issued	$	3,400,000
	Paid-in capital in excess of par: Common		6,800,000
	Total issuance price of all common stock	$	10,200,000
	Number of shares of common stock issued (c)		1,700,000
	Average issuance price per share of common ($10,200,000 ÷ 1,700,000 shares)	$	6
e.	Par value of preferred stock	$	4,400,000
	Par value of common stock		3,400,000
	Total legal capital	$	7,800,000
f.	Total legal capital (e)	$	7,800,000
	Add: Additional paid-in capital: Common stock	$	6,800,000
	Donated capital		400,000
	Total paid-in capital	$	15,000,000
g.	Total stockholders' equity	$	18,160,000
	Less: Par value of preferred stock [44,000 shares (*a*) x $100 per share]		4,400,000
	Equity of common stockholders	$	13,760,000
	Number of shares of common stock outstanding (*c*)		1,700,000
	Book value per share ($13,760,000 1,700,000 shares)	$	8.09
h.	Retained earnings, beginning of the year	$	1,200,000
	Add: Net income for the year		4,800,000
	Subtotal	$	6,000,000
	Less: Retained earnings, end of the year		3,160,000
	Total dividends paid during the year	$	2,840,000
	Less: Dividends on preferred stock (part *b*)		440,000
	Total dividends on common stock	$	2,400,000
	Number of common shares outstanding		1,700,000
	Dividends per share of common stock ($2,400,000 1,700,000)	$	1.41

35 Minutes, Medium

PROBLEM 11.6B
TOASTY CORPORATION

		In Thousands (Except for Per Share Amounts)
a.	Par value of all common stock outstanding	$ 9,600
	Par value per share	$ 3
	Number of shares outstanding ($9,600/$3)	3,200
b.	Dividend requirement per share of preferred stock	$ 10
	Numbers of shares of preferred stock outstanding	250
	Annual dividends paid to preferred stockholders ($10 x 250)	$ 2,500
c.	Par value of preferred stock	$ 50,000
	Par value of common stock	$ 9,600
	Additional paid-in capital	76,800
	Total paid-in capital	$ 136,400
d.	Total stockholders' equity	$ 187,000
	Less: Preferred stock par value = ($200 x 250 shares)	50,000
	Equity of common stockholders	$ 137,000
	Number of shares of common stock outstanding	3,200
	Book value per share ($137,000 ÷ 3,200 shares)	$ 42.81

PROBLEM 11.6B
TOASTY CORPORATION (concluded)

e. **The basic advantage of being publicly owned is that the corporation has the opportunity to raise large amounts of equity capital from many investors. Some publicly owned corporations have millions of stockholders, including pension funds, mutual funds, and other corporations. Closely held corporations are usually unable to raise the large amounts of capital available to publicly owned corporations.**

A major advantage to the *stockholders* of a publicly owned corporation is that their equity investments are highly liquid assets, immediately salable at quoted market prices.

The primary *disadvantages* of being publicly owned are the increased governmental regulations and financial reporting requirements.

f. **The term *convertible* means that at the option of the preferred stockholder, each preferred share can be converted into a specified number of common shares. To evaluate the value of this conversion feature, the stockholder must know into *how many* shares of common each preferred share can be converted. This information is disclosed in the notes accompanying the corporation's financial statements.**

g. **At $190 per share, Toasty's preferred has a dividend yield of 5.26*%* ($10 ÷ $190). In comparison, a 6%, $50 par preferred selling at $52 has a dividend yield of 5.77*%* [(6% × $50 par) ÷ $52].**

The *dividend yield* on preferred stock indicates how much investors value certain features of the stock. The *lower* the yield, the *more* investors favor the stock. A higher yield means that investors demand a higher return to induce them to purchase the stock.

The two principal factors that cause one preferred to yield *less* than another are: (1) the appearance of greater ability to pay the preferred dividends each year, and (2) special features that appeal to investors, such as Toasty's conversion feature, cumulative dividends, or a high call price.

15 Minutes, Easy

PROBLEM 11.7B
BRAIN CORPORATION

a. ***Par value*** **is the legal capital per share—the amount by which stockholders' equity cannot be reduced except by losses. Thus, par value may be viewed as a minimum cushion of equity capital existing for the protection of creditors.**

Book value **per share is equal to the** ***net assets*** **represented by each share of common stock. Book value is a historical cost concept, representing the amounts invested by the stockholders, plus the amounts earned and retained by the corporation. By comparing book value with current market value, stockholders may gain insight into whether management has increased or diminished the value of the resources entrusted to their care.**

The ***market value*** **of a share of stock is established in the marketplace. It represents the per-share price at which willing sellers can and will sell shares of the stock to willing buyers. Market value is related primarily to investors' future expectations of the company's performance, rather than to historical amounts.**

b. **The company's par value—five cents per share—is quite low. However, the corporation can set par value at any level that it chooses; the amount of par value has no direct effect upon either book value or market value. It does mean, however, that the amount of the company's legal capital—serving as a cushion for creditors—is quite low. Another reason for the small par value is the possibility of stock splits in prior years.**

The fact that book value per share ($10.00) is far above par value indicates either that (1) the stock initially was issued at a price far above par value, or (2) that the company has retained substantial amounts of earnings. Even if there had been stock splits in prior years, the total dollar amount of book value would not have been affected.

The market value of $96 is 9.6 ***times*** **book value. This implies that investors believe that management and product lines make the company worth far more than the amounts of capital historically invested.**

The very low par value offers little "cushion" to the company's creditors. On the other hand, a market value of many times book value implies that little cushion is required for creditors' claims to be secure. If the company performs as its market price implies that it will, its earnings and cash flows should make the creditors' positions quite secure. Earnings and cash flows are far more relevant to a company's debt-paying ability than is the cushion provided by par value.

15 Minutes, Medium

PROBLEM 11.8B
TIN CORPORATION

a.		
Stockholders' equity:		
Common stock, $3 par, 50,000 shares authorized, issued, and		$ 150,000
outstanding		
Additional paid-in capital: Common stock		350,000
Additional paid-in capital: Treasury stock		10,000
Total paid-in capital		$ 510,000
Retained earnings*		330,000
Total stockholders' equity		$ 840,000
*Computation of retained earnings at Dec. 31, 2007:		
Net income in 2005		$ 150,000
Net income in 2006		80,000
Net income in 2007		100,000
Retained earnings, Dec. 31, 2007		$ 330,000

b. **The company's book value per share is <u>$16.80</u> ($840,000 total stockholders' equity ÷ 50,000 shares outstanding).**

c. **The treasury stock purchase of $30,000 in 2006 was reported as a financing cash outflow in the statement of cash flows for that year. The reissue of the treasury stock for $40,000 in the following year was reported as a financing cash inflow in the 2007 statement of cash flows.**

30 Minutes, Strong

PROBLEM 11.9B
PARKER INDUSTRIES

a.		
Stockholders' equity:		
6% preferred stock, $100 par, cumulative, authorized and		
issued and outstanding 10,000 shares		$ 1,000,000
Common stock, $20 par, 100,000 shares authorized,		
80,000 shares issued, of which 400 shares are held in		
treasury		1,600,000
Additional paid-in capital: Common stock		1,200,000
Additional paid-in capital: Treasury stock*		6,000
Total paid-in capital		$ 3,806,000
Retained earnings**		3,261,440
Subtotal		7,067,440
Less: Treasury stock (400 shares x $40 cost per share)		16,000
Total stockholders' equity at Dec. 31, 2007		$ 7,051,440
*Computation of additional paid-in capital on treasury stock:		
Purchase price per share: $40,000 ÷ 1,000 shares = $40		
per share		
Reissue price per share: $30,000 ÷ 600 shares = $50		
per share		
Paid-in capital per share reissued: $10 per share ($50 - $40)		
Total paid-in capital on treasury stock: $6,000		
($10 per share x 600 shares reissued)		
**Computation of retained earnings at Dec. 31, 2007:		
Net income (for years 2003–2007)		$ 3,800,000
Less: Preferred dividend (for years 2003–2007)		
$100 x 6% x 10,000 shares x 5 years		300,000
Less: Common dividends		
2003–2004: 80,000 shares outstanding x $0.60 x 2 yrs	$ 96,000	
2005–2006: 79,000 shares outstanding x $0.60 x 2 yrs	94,800	
2007: 79,600 shares outstanding x $0.60	47,760	238,560
Retained earnings, Dec. 31, 2007		$ 3,261,440

b. **The company's book value per share is approximately <u>$76.02</u> ($7,051,440 total stockholders' equity –$1,000,000 of preferred stock book value = $6,051,440; $6,051,440 ÷ 79,600 shares outstanding = $76.02).**

c. **Had the company decided to split its common stock 2-for-1 on December 31, 2007, the market value would have fallen to approximately $28 per share ($56 ÷ 2). The par value would have been reduced to $10.00 ($20 ÷ 2), and the number of shares outstanding would have increased to 159,200 shares (79,600 × 2).**

SOLUTIONS TO CRITICAL THINKING CASES

15 Minutes, Medium

CASE 11.1
FACTORS AFFECTING THE MARKET PRICES OF PREFERRED AND COMMON STOCKS

a. **The market price of the 10%, $100 par value preferred stock may be expected to decline gradually as long-term interest rates rise. The market price of preferred stock tends to vary inversely with the level of interest rates.**

b. **If ADM's profitability increases dramatically, the market price of its common stock probably will rise significantly. The improved profitability of the company may lead to larger increases in the dividends paid to common stockholders than the 5 and 10 cent increases of prior years. The market price of common stock is strongly affected by such factors as the company's expected future earnings and the probable rate of future common stock dividends.**

c. **The market price of the 7%, $100 par value convertible preferred stock should rise approximately in proportion to the increase in the market value of the common stock. This issue of preferred stock is already deriving much of its market value from its conversion feature, as indicated by the fact that its market price ($125) exceeds the market price of ADM's 10% preferred stock ($90), which pays a higher dividend.**

The current market price of the convertible preferred stock is too high to be explained by its $7 per year dividend, and it is approximately three times the current market price of the common stock. Therefore, each share of this preferred stock probably is convertible into about three shares of common stock. As the market price of the common stock increases, the market price of the convertible preferred should also increase to remain approximately equal in value to three shares of common stock.

25 Minutes, Strong

CASE 11.2
FACTORS AFFECTING THE MARKET PRICES OF COMMON STOCKS

a. **The value of a share of common stock is based on investors' expectations about future earnings and cash flows of the business. Thus, the increase in the price of the shares of *McDonnell Douglas* resulted from an increase in investors' expectations about future earnings of the company based on this large order by Saudia Airlines.**

b. **The fall in the price of *Citicorp's* common stock probably is based on two factors. The increase in the discount rate by the Federal Reserve Board signals a general increase in interest rates which will affect the required yield on all investments. Since investors will demand a higher yield on their investments, stock and bond prices may suffer an overall decline.**

As a financial institution, this increase in the discount rate has additional significance to Citicorp. The increase in the discount rate increases Citicorp's cost of funds, which will reduce its net income, at least in the short run. This reduction in expectations about future earnings will further reduce the bank's stock price.

c. **The visit by the Federal Drug Administration signaled to the market that *Ventitex* may be having problems with approval for one or more of its products. If approval is denied, the company will not be able to sell the products. Therefore, investors are reducing their expectations of the company's future earnings and increasing their assessments of the risk of the business. This caused the stock price to drop.**

Group assignment:

No time estimate

CASE 11.3
SELECTING A FORM OF ORGANIZATION

We do not provide comprehensive solutions for group problems that involve interviews. But the following items normally come to light in our classes.

- **Students may find that many people entered a business without giving much thought to the form of entity.**
- **Among the "unforeseen complications" that often come to light are the problems when partners do not see eye to eye, and the costs and complications resulting from the corporation being a taxable entity.**
- **The normal reason why a business may change its form of entity is to attract more capital.**
- **Some students may encounter *professional corporations,* which often are used by one or more members of a partnership. These professional corporations are intended to limit the individuals' personal liability—although they require the individual to carry "malpractice" insurance and do not exonerate them from liability for some types of professional misconduct. They may also encounter *S corporations,* which, for tax purposes, are treated as unincorporated organizations.**

20 Minutes, Medium

CASE 11.4
S.E.C. ENFORCEMENT DIVISION
ETHICS, FRAUD & CORPORATE GOVERNANCE

(a) The four divisions of the Securities and Exchange Commission are:

Corporate Finance
Enforcement
Investment Management
Market Regulation

(b) The Division of Enforcement investigates possible violations of securities laws, recommends Commission action when appropriate, either in a federal court or before an administrative law judge, and negotiates settlements.

(c) The publication is Pump & Dump.com: Tips for Avoiding Stock Scams on the Internet.

(d) A pump & dump scheme works as follows. A company's web site may feature a glowing press release about its financial performance or some other aspect of the company, such as a new product or innovation. Newsletters that purport to offer unbiased recommendations may tout the company as the latest "hot" stock. Messages in chat rooms and bulletin board posting urge people to buy stock quickly or to sell before the price goes down. Uninformed investors then purchase the stock in large numbers, pushing up the price of the stock. Then the fraudsters behind the scheme sell their shares at the peak price and stop hyping the stock, which results in a rapid drop in stock price. Investors lose some or all of their investment.

The S.E.C. suggests investors consider the following to avoid such schemes:

- **Consider the source**
- **Find out where the stock trades**
- **Independently verify the claims that are made about the stock**
- **Research the investment opportunity**
- **Watch out for high-pressure pitches to invest**
- **Always be skeptical**

10 Minutes, Easy

CASE 11.5
GM ACQUISITION AND PREFERRED STOCK
BUSINESS WEEK

a. **Preferred stock is a class of capital stock having preferences as to dividends and the distribution of assets in event of liquidation. Preferred stockholders are usually guaranteed payment of dividends before any dividends can be distributed to common shareholders. Most often the dividends are cumulative, meaning that if the company fails to pay dividends at the designated time, the dividends accumulate rather than being lost forever. Preferred shareholders also have priority in the event of the liquidation of the company. Frequently, as in the GM deal described in this case, the corporation has the option to call or buy back the preferred stock.**

b. **By using preferred stock instead of cash, General Motors is able to share the risk of liquidation with the preferred stockholders. The creditors want preferred rather than common stock to reduce risk of liquidation losses and provide more assurance of dividend payments.**

30 Minutes, Easy

CASE 11.6
EXAMINING STOCKHOLDERS' EQUITY
INTERNET

a. **The company's balance sheet dated January 28, 2006, reports that five million shares of $0.01 par preferred stock have been authorized. However, as of this date, none of these shares has been issued.**

b. **The company has one classification of common stock: Staples, Inc. Stock**

2,100,000 shares are authorized. At January 28, 2006, 829,695,100 shares had been issued and at January 29, 2005, 813,049,139 shares had been issued.

c. **The company's balance sheet dated January 28, 2006 reports 99,253,565 shares of stock held in treasury at a total cost of $1,735,974 thousand. This represents an increase from 68,547,587 shares, costing $1,072,829 thousand, one year earlier.**

CHAPTER 12
INCOME AND CHANGES IN RETAINED EARNINGS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 12.1	Extraordinary loss	1	Analysis
B. Ex. 12.2	Extraordinary gain	1	Analysis
B. Ex. 12.3	Discontinued operations	1	Analysis
B. Ex. 12.4	Cash and stock dividends	4	Analysis
B. Ex. 12.5	Statement of retained earnings	5	Analysis
B. Ex. 12.6	Statement of retained earnings	5, 6	Analysis
B. Ex. 12.7	Cash dividend journal entries	4	Analysis
B. Ex. 12.8	Stock dividend journal entries	4	Analysis
B. Ex. 12.9	Stockholders' equity section of balance sheet	4, 8	Analysis
B. Ex. 12.10	Comprehensive income	7	Analysis

Exercises	Topic	Learning Objectives	Skills
12.1	Stock dividends and stock splits	4	Analysis, communication
12.2	Terminology	1–4, 6, 7	Analysis
12.3	Discontinued operations	1, 2	Analysis
12.4	Extraordinary items	1, 2	Analysis
12.5	Earnings per share: effect of preferred stock	2	Analysis
12.6	Restating earnings per share for stock dividends	2, 4	Analysis
12.7	Stock dividends and splits	4	Analysis
12.8	Effect of stock dividends on stock price	4	Communication
12.9	Effects of transactions upon financial measurements	8	Analysis
12.10	Effects of transactions upon earnings per share	2, 4	Communication
12.11	Identifying source of desired financial information	1, 5, 8	Analysis
12.12	Comprehensive income	7	Analysis
12.13	Cash and stock dividends	4	Analysis, communication, judgment
12.14	**Real World: Home Depot** EPS and dividends	3, 5	Analysis, communication
12.15	**Real World: Home Depot** Analysis of stock information	1, 8	Analysis, communication

Sets A, B	Topic	Objectives	Skills
12.1 A,B	Reporting unusual events	1, 2	Analysis
12.2 A, B	Format of statements of income and retained earnings	1, 2, 5, 6	Analysis, communication
12.3 A, B	Reporting unusual events: a comprehensive problem	1, 2, 5, 6	Analysis, communication
12.4 A, B	Stock splits, stock dividends, treasury stock, and book value	4	Analysis, communication
12.5 A, B	Statement of stockholders' equity	4, 8	Analysis, communication
12.6 A, B	Dividends and treasury stock transactions	4	Analysis
12.7 A, B	Effects of transactions upon financial measurements	8	Analysis, communication
12.8 A, B	Stockholders' equity: comprehensive	4	Analysis
12.9 A, B	Format of an income statement	1, 2	Analysis

Critical Thinking Cases

12.1	**Real World: Atlantic Richfield Company, American Airlines, Union Carbide Corp., AT&T, Georgia Pacific Corporation** Reporting special events	1	Analysis, communication
12.2	Forecasting continuing operations	1	Analysis, communication
12.3	Interpreting earnings per share	1–3	Analysis, communication
12.4	Analyzing statement of stockholders' equity	8	Analysis, communication
12.5	Classifying unusual items	1, 2, 8	Analysis, communication
12.6	Managing profitability (Ethics, fraud & corporate governance)	9	Analysis, communication
12.7	Extraordinary items and judgment *(Business Week)*	1	Communication
12.8	**Real World: Company of student's choice** Price-earnings ratios (Internet)	2	Communication, research, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

12.1 A,B	**Atlantic Airlines/Pacific Airlines** Preparation of a condensed income statement and earnings per share figures for a company with a discontinued segment and an extraordinary loss. Emphasizes format of the income statement rather than computation of amounts. Students also are asked to forecast future operating results.	**30 Easy**
12.2 A,B	**Slick Software, Inc./Beach, Inc.** A comprehensive problem on reporting the results of operations. Stresses the format of an income statement and statement of retained earnings, with disclosure of “unusual items.” EPS computation involves common and preferred stock outstanding.	**30 Medium**
12.3 A,B	**Phoenix, Inc./Dexter, Inc.** Given an incorrectly prepared income statement, student is asked to draft a revised income statement and a statement of retained earnings. Includes discontinued operations, an extraordinary item, an accounting change, and a prior period adjustment.	**35 Strong**
12.4 A,B	**Albers, Inc./Jessel, Inc.** Demonstrates the effect of various transactions upon total stockholders’ equity, number of shares outstanding, and book value per share. Includes stock splits, stock dividends, and treasury stock transactions.	**20 Easy**
12.5 A,B	**Strait Corporation/ Dry Wall, Inc.** Preparation of a statement of stockholders’ equity. Stresses an understanding of the effects of various transactions upon the elements of stockholders’ equity.	**20 Medium**
12.6 A,B	**Thompson Service/Greene, Inc.** A comprehensive problem on cash dividends, stock dividends, and treasury stock transactions. Requires journal entries and preparation of stockholders’ equity section of the balance sheet. Student is asked to compute maximum amount available for dividends.	**40 Strong**
12.7 A,B	**Tech Process, Inc./Hot Water, Inc.** Explanation of the effects of equity transactions on various financial measures.	**30 Strong**

Problems (cont'd)

12.8 A,B	**Mandella Corporation/Adams Corporation** Preparation of the stockholders' equity section of a balance sheet in two successive years. Transactions affecting stockholders' equity include issuance of common stock, a stock dividend, purchase and sale of treasury stock, cash dividends, and a stock split.	**50 Strong**
12.9 A,B	**Esper Corporation/Blue Jay Manufacturing Corp.** Preparation of a partial income statement for Esper Corp., including discontinued operations, an extraordinary loss, and an accounting change. Emphasizes format of the income statement rather than computation of amounts. Students also are asked to compute earnings per share.	**25 Strong**

Critical Thinking Cases

12.1	**What's This?** Four "unusual events" taken from the published financial statements of well-known corporations. Students are asked to indicate whether each event qualifies as an extraordinary item, a discontinued operation, or an accounting change.	**20 Easy**
12.2	**Is There Life Without Baseball?** Student is presented with an income statement containing discontinued operations and an extraordinary item and is asked to forecast future earnings. Requires an understanding of recurring versus nonrecurring events. Good practice for interpreting annual reports.	**20 Medium**
12.3	**Using Earnings Per Share Statistics** Student is given six earnings per share figures, including earnings from continuing operations, earnings before extraordinary items, and net earnings, computed on both a basic and diluted basis. From this information, student is asked to determine the amount of the extraordinary loss, to use a p/e ratio to estimate stock price, and to forecast future performance.	**30 Strong**
12.4	**Interpreting a Statement of Stockholders' Equity** Student is asked to answer specific questions requiring analysis and understanding of items reported in the statement of stockholders' equity.	**35 Strong**
12.5	**Classification of Unusual Items - and the Potential Financial Impact** Students discuss the classification of unusual items from several perspectives—accounting principles, pressures on management, cash flows, and probable effects on stock price. Adapted from an actual case; illustrates the "real world" aspects of financial reporting. Good group assignment.	**60 Strong**

Critical Thinking Cases (cont'd).

12.6	**Managing Profitability** **Ethics, Fraud & Corporate Governance** Students must consider how certain financial statement items should move in relation to other numbers and whether the specific changes indicated in the case statement imply inappropriate actions by management.	**30 Medium**
12.7	**Extraordinary Items and Judgment** ***Business Week*** Students are asked to consider the difficulty of defining events in a way that results in consistent financial reporting.	**15 Medium**
12.8	**Comparing Price-Earnings Ratios** **Internet** Students are to obtain information on the Internet about a Fortune 500 company and an emerging company. They are to compare p/e ratios and speculate on the reasons for the differences.	**30 Easy**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. The purpose of presenting subtotals such as Income from Continuing Operations and Income before Extraordinary Items is to assist users of the income statement in making *forecasts of future earnings.* By excluding the operating results of discontinued operations and the effects of unusual and nonrecurring transactions, these subtotals indicate the amount of income derived from the company's ongoing, normal operations.

2. The discontinued operations classification is used in the income statement only when a business discontinues an *entire segment* of its activities. Frank's has two business segments—pizza parlors and the baseball team. Only if one of these segments is discontinued in its entirety will the company report discontinued operations. The sale or closure of a few parlors does *not* represent the disposal of the pizza parlor segment of the company's business activities.

3. *Extraordinary items* are gains and losses that are unusual in nature and not expected to recur in the foreseeable future.

   Separate line-item presentation should be made for items that are unusual in nature or infrequent in occurrence, but not both. While these items are disclosed separately via their separate presentation, a subtotal for income before and after them is not presented as is done for extraordinary items.

4. The restructuring charges should be combined and presented as a line item in the company's income statement in determining operating income.

   In predicting future earnings for the company, the charges generally should not be considered to be costs that will be incurred in the future. In fact, if the program of downsizing is successful, operating results in the future could be expected to improve as a result of having incurred the restructuring charges.

5. A prior period adjustment represents a correction of an error in the amount of income reported in a prior period. Prior period adjustments are shown in the statement of retained earnings (or statement of stockholders' equity) as an adjustment to the balance of retained earnings at the beginning of the period in which the error is identified.

6. Irregular income items, such as extraordinary items, discontinued operations, and prior period adjustments, are legitimate parts of the earnings history of a company. On the other hand, they are non-recurring and should not carry the same weight in evaluating future profitability as normal, recurring operating revenues and expenses.

7. a. The current-year preferred dividend is deducted from net income to determine the earnings allocable to the common stockholders. (If the preferred stock is noncumulative, the preferred dividend is deducted only if declared; the preferred dividend on cumulative preferred stock is always deducted.)

b. The par value of all preferred stock outstanding and the amount of all dividends in arrears on preferred stock are deducted from total stockholders' equity to determine the aggregate book value allocable to the common stockholders.

8. No, the number of common shares used in computing earnings per share may be different from that used to determine book value per share. In computing earnings per share, earnings allocable to the common shareholders is divided by the *weighted-average* number of common shares outstanding throughout the period. In computing book value per share at a specified date, stockholders' equity allocable to the common stockholders is divided by the number of common shares actually outstanding *on that date*. If the number of common shares outstanding has not changed during the period, the weighted-average number of common shares outstanding during the period will be equal to the number of common shares outstanding on a particular date.

9. a. The *price-earnings ratio* is computed by dividing the market price of a share of common stock by the annual earnings per share.

   b. The amount of *basic earnings per share* is computed by dividing the net income available for common stock by the weighted-average number of common shares outstanding during the year.

   c. The amount of *diluted earnings per share* is computed by dividing net income by the maximum potential number of shares outstanding after convertible securities are assumed to have been converted.

10. a. Shares used in computing basic earnings per share:

Common shares outstanding throughout the year	3,000,000

   b. Shares used in computing diluted earnings per share:

Common shares outstanding throughout the year	3,000,000
Additional common shares that would exist if preferred stock had been converted at the beginning of the year (150,000 × 2)	300,000
Total shares used in diluted earnings computation	3,300,000

11. The analyst should recognize the risk that the outstanding convertible securities may be converted into additional shares of common stock, thereby diluting (reducing) basic earnings per share in future years. If any of the convertible securities are converted, basic earnings per share probably will increase at a slower rate than net income. In fact, if enough dilution occurs, basic earnings per share could actually decline while net income continues to increase.

12. *Date of declaration* is the day the obligation to pay a dividend comes into existence by action of the board of directors. *Date of record* is the day on which the particular stockholders who are entitled to receive a dividend is determined. Persons listed in the corporate records as owning stock on this day will receive the dividend. *Date of payment* is the day the dividend is distributed by the corporation. *Ex-dividend date* (usually three business days prior to the date of record) is the day on which the right to receive a recently declared dividend no longer attaches to shares of stock. As a result, the market price of the shares usually falls by the amount of the dividend.

13. The purpose of a stock dividend is to make a distribution of value to stockholders as a representation of the profitability of the company while, at the same time, conserving cash.

14. A *stock split* occurs when there is a relatively large increase in the number of shares issued without any change in the total amount of stated capital (because the par value per share is reduced proportionately to the increase in the number of shares).

    A *stock dividend* occurs when there is a relatively small increase in the number of shares issued, with no change in the net assets of the company but a transfer from retained earnings to the paid-in capital section of the balance sheet. The par value of stock remains the same.

    The distinction in the accounting treatment of a stock dividend and a stock split stems directly from the difference in the effect on stated (legal) capital and retained earnings. There is no difference in the probable effect on per-share market price of a stock dividend and a stock split of equal size, although stock splits are usually much larger than stock dividends.

15. Restructuring charges result when the company incurs costs in the process of reorganization, often downsizing. The purpose of reorganization is to benefit future operations in terms of more efficient operations, but the cost is ordinarily charged to current operations. Restructuring charges are not extraordinary items, and unless they directly related to a discontinued part of the business, are not presented as discontinued operations. They are often presented as a single line item in the income statement, before income taxes.

16. Three items that may be shown in a statement of retained earnings as causing changes in the balance of retained earnings are:

    (1) Net income or net loss for the period

    (2) Dividends declared (both cash dividends and stock dividends)

    (3) Prior period adjustments

17. If the price of the stock declines in proportion to the distribution of shares in a stock dividend, at the time of that distribution the stockholder does not benefit. He/she holds exactly the same percentage of the outstanding shares, and the value per share has declined in proportion to the increased number of shares. Often, however, the value does not drop in proportion to the increased number of shares, meaning that the recipient of the shares has an immediate benefit. For example, if an investor who held 2,000 shares of stock that had a market value of $10 each received a 10% stock dividend, and the market price only declined 5%, the following would result:

Market value before stock dividend:	
2,000 shares @ $10	$20,000
Market value after stock dividend:	
(2,000 shares × 110%) × ($10 × 95%)	$20,900

    The investor has benefited by $900. He/she could sell about 95 shares [$900/($10 × 95%)] at $9.50 and still have a stock investment equal to the value before the stock dividend, although the investor would own a smaller percentage of the company after the sale.

18. A liquidating dividend is a *return of* the investment made in the company to the investor, in contrast to a non-liquidating dividend which is a *return on* the investment in the company. A liquidating dividend occurs when dividends are distributed in excess of a company's retained earnings.

19. The student is right in one sense—both stock splits and stock dividends are distributions of a company's shares to existing stockholders with the company receiving no payment in return. The student is incorrect, however, in stating that the two are exactly the same. The primary difference is one of magnitude and, thus, the impact on market value. A stock dividend is usually relatively small—5% to 20% of the outstanding shares. A stock split, on the other hand, is usually some multiple of the number of outstanding shares, like a 2:1 split (100% increase) or a 3:1 split (200% increase). The market price reacts strongly to a distribution as large as a stock split while stock dividends are often unnoticed in the stock price.

20. The *statement of retained earnings* shows for the Retained Earnings account the beginning balance, changes in the account balance during the period, and the ending balance. A *statement of stockholders' equity* provides the same information, but includes every category of stockholders' equity account (including retained earnings). Therefore, a statement of stockholders' equity may appropriately be described as an expanded statement of retained earnings.

SOLUTIONS TO BRIEF EXERCISES

B.Ex. 12.1

FELLUPS, INC.
Partial Income Statement
For year ended ________________

Income before extraordinary item	$75,000
Extra ordinary loss from tornado damage, net of $40,000 income taxes	(60,000)
Net income ……………………………………………………………….	$15,000

B.Ex. 12.2

WALKER COMPANY
Income Statement
For year ended ________________

Revenues	$1,500,000
Expenses	1,200,000
Income before extraordinary item	$300,000
Extraordinary gain from passage of new legislation, net of $80,500 income taxes	149,500
Net income	$449,500

B.Ex. 12.3

WABASH, INC.
Income Statement
For year ended ________________

Revenues		$480,000
Expenses		430,000
Income from continuing operations		$50,000
Discontinued operations:		
Operating income from discontinued operations, net of $10,000 income taxes	$15,000	
Loss on the sale of discontinued operations, net of $22,000	33,000	($18,000)
Net income		$32,000

B.Ex. 12.4 Number of shares outstanding after stock dividend:
100,000 shares x 110% = 110,000

Cash required to pay $.50 per share dividend:
110,000 shares x $.50 = $55,000

B.Ex. 12.5

MESSER COMPANY
Statement of Retained Earnings
For year ended _______________

Retained earnings, beginning of year	$590,000
Add: Net income	88,000
	$678,000
Deduct: Cash dividend on common stock*	60000
Retained earnings, end of year	$618,000

*$1.20 x 50,000 shares = $60,000

B.Ex. 12.6

SALT & PEPPER, INC.
Statement of Retained Earnings
For year ended _______________

Retained earnings, beginning of year		$460,000
Corrections of error in prior year's financial statements		(65,000)
Retained earnings, beginning of year, as restated		$395,000
Add: Net income		250,000
		$645,000
Deduct: Preferred dividends	$20,000*	
Common dividends	100,000**	120,000
Retained earnings, end of year		$525,000

*10,000 shares $1 x 2 years = $20,000
**200,000 shares x $.50 = $100,000

B.Ex. 12.7

Cash dividend on preferred stock:	
100,000 shares x $100 par x 6%	$600,000
Cash dividend on common stock:	
750,000 shares x $.75	562,500
Total dividends	$1,162,500

Journal entries to record declaration and payment of cash dividends:

Retained earnings…………………………………	1,162,500	
Dividends payable……………………………..		1,162,500
To record dividends declared on preferred and common stock.		
Dividends payable……………………………….	1,162,500	
Cash…………………………………………….		1,162,500
To record payment of dividends.		

B.Ex. 12.8

Retained earnings…………………………………	375,000*		
Stock dividend to be distributed….…………		250,000	**
Additional paid-in capital……………………		125,000	***
To record declaration of stock dividend.			

*500,000 shares x 5% x $15 = $375,000
**500,000 shares x 5% x $10 = $250,000
***500,000 shares x 5% x ($15 - $10) = $125,000

Stock dividend to be distributed…………………	250,000	
Common stock…………………………………		250,000
To record distribution of stock dividend.		

B.Ex. 12.9

ALEXANDER, INC.
Stockholders' Equity Section of Balance Sheet
(Date)

Common stock, 770,000 shares, $5 par value	$3,850,000	*
Additional paid-in capital on common stock	2,590,000	**
	$6,440,000	
Retained earnings	155,000	***
Total stockholders' equity	$6,595,000	

*700,000 shares x 1.10 x $5 = $3,850,000
**700,000 shares x ($8 - $5) + 70,000 shares x ($12 - 5) =
$2,100,000 + $490,000 = $2,590,000
***$995,000 - (70,000 shares x $12) = $155,000

B.Ex. 12.10

CRASHER COMPANY
Statement of Comprehensive Income
For year ended ________________

Net income	$500,000
Unrealized gain on available for sale investments	20,000
Comprehensive income	$520,000

SOLUTIONS TO EXERCISES

Ex. 12.1 **a.** **1,440 shares = [(200 × 2) × 120%] × 3**
$17,280 = 1,440 × $12.

b. **Since Smiley is a small and growing corporation, the board of directors probably decided that cash from operations was needed to finance the company's expanding operations.**

c. **You are probably better off because of the board's decision not to declare cash dividends. Smiley was obviously able to invest the funds to earn a high rate of return, as evidenced by the value of your investment, which has grown from $1,000 to $17,280.**

Ex. 12.2
a. **Extraordinary item**
b. **None (Treasury stock is not an asset; it represents shares that have been reacquired by the company, not shares that have not yet been issued.)**
c. **Stock dividend**
d. **Additional paid-in capital**
e. **Prior period adjustment**
f. **P/e ratio (Market price divided by earnings per share.)**
g. **Discontinued operations (Showing the discontinued operations in a separate section of the income statement permits presentation of the subtotal, Income from Continuing Operations.)**
h. **Diluted earnings per share**
i. **Comprehensive income**

Ex. 12.3 **a.**

SPORTS+, INC.
Income Statement
For the Year Ended December 31, 20__

Net sales ……………………………………………………………..		$12,500,000
Costs and expenses (including applicable income tax)		8,600,000
Income from continuing operations		$3,900,000
Discontinued operations:		
Operating loss from tennis shops (net of income tax benefit) ……………………………………………	$192,000	
Loss on sale of tennis shops (net of income tax benefit) ..	348,000	(540,000)
Net income …………………………………………………………….		$3,360,000
Earnings per share:		
Earnings from continuing operations ($3,900,000 ÷ 182,000 shares)		$21.43
Loss from discontinued operations ($540,000 ÷ 182,000) ….		(2.97)
Net earnings ($3,360,000 ÷ 182,000 shares) ………………..		$18.46

b. **The $21.43 earnings per share figure from continuing operations (part *a*) is probably the most useful one for predicting future operating results for Sports+, Inc. Earnings per share from continuing operations represents the results of continuing and ordinary business activity, which is expected to continue in the future. Discontinued operations and extraordinary items are not likely to recur in the future.**

Ex. 12.4 a.

GLOBAL EXPORTS
Income Statement
For the Year Ended December 31, 20__

Net sales	**$7,750,000**
Less: Costs and expenses (including income tax)	**6,200,000**
Income before extraordinary items	**1,550,000**
Extraordinary gain, net of income tax	**420,000**
Net income	**$1,970,000**
Earnings per share of common stock:	
Earnings before extraordinary items ($1,550,000 ÷ 910,000 shares)	**$1.70**
Extraordinary gain ($420,000 ÷ 910,000 shares)	**0.46**
Net earnings ($1,970,000 ÷ 910,000 shares)	**$2.16**

b. **The $1.70 earnings per share before extraordinary items is the figure used to compute the price-earnings ratio for Global Exports. If a company reports an extraordinary gain or loss, the price-earnings ratio is computed using the per-share earnings *before the extraordinary item.***

Ex. 12.5 a.

1.	**Net income (all applicable to common stock)**	**$1,920,000**
	Shares of common stock outstanding throughout the year	**400,000**
	Earnings per share ($1,920,000 ÷ 400,000 shares)	**$4.80**
2.	**Net income**	**$1,920,000**
	Less: Preferred stock dividend (100,000 × 8% × $100)	**800,000**
	Earnings available for common stock	**$1,120,000**
	Shares of common stock outstanding throughout the year	**300,000**
	Earnings per share ($1,120,000 ÷ 300,000 shares)	**$3.73**

b. **The earnings per share figure computed in part *a (2)* is a *basic* EPS figure. Although the company has outstanding both common and preferred stock, the preferred stock must be convertible into common stock in order to result in a diluted computation of earnings per share. The potential conversion of preferred stock into common stock is what necessitates disclosure of diluted EPS. Because the preferred stock in this exercise is <u>not</u> convertible, the EPS computation is basic.**

Ex. 12.6 a.

	2007	2006	2005
Earnings per share ……………………………	**$1.88**	**$1.575 (1)**	**$1.20 (2)**

(1) $3.15 originally reported, divided by 2 (twice as many shares)

(2) $2.40 originally reported, divided by 2

b. Following the stock dividend, the earnings per share of earlier periods should be retroactively restated to reflect the increased number of shares. In this situation, each "new" share (after the 100% stock dividend) is equal to only one-half of a 2006 or 2005 share. If the earnings of each 2006 or 2005 share are allocated between the two "new" shares, each new share is viewed as having earned one-half of the original amount ($3.15 ÷ 2 = $1.575; $2.40 ÷ 2 = $1.20).

Ex. 12.7 a.

Apr.	**30**	**Memorandum: Issued an additional 1,000,000 shares of capital stock in a 2-for-1 stock split. Par value reduced from $1 per share to $0.50 per share.**		
June	**1**	**Dividends ………………………………………**	**1,200,000**	
		Dividends Payable ……………………		**1,200,000**
		To record the declaration of a dividend of 60 cents per share on 2 million shares of stock outstanding.		
July	**1**	**Dividends Payable ………………………………**	**1,200,000**	
		Cash ……………………………………		**1,200,000**
		To record payment of the dividend declared on June 1.		
Aug.	**1**	**Retained Earnings ………………………………**	**1,900,000**	
		Stock Dividend to Be Distributed		**50,000**
		Additional Paid-in Capital: Stock Dividends		**1,850,000**
		To record declaration of a 5% stock dividend consisting of 100,000 shares (2,000,000 shares x 5%) of $0.50 par value common stock. Amount of retained earnings transferred to paid-in capital is based on market price of $19 a share.		
Sept.	**10**	**Stock Dividend to Be Distributed ………………**	**50,000**	
		Common Stock ………………………		**50,000**
		To record distribution of a stock dividend of 100,000 shares.		

b. ***2,100,000*** **shares**
1,000,000 + 1,000,000 + 100,000

c. ***$0.50 par value*** **per share ($1 par reduced to $0.50 par due to 2-for-1 stock split on April 30.)**

d. Stock split—No effect
Declaration/payment of cash dividend—Decrease retained earnings
Declaration/distribution of stock dividend—No effect

Ex. 12.8 **The market value of the total Express, Inc.'s shares outstanding is $5,280,000 (80,000 × $66) before the stock dividend. Because the issuance of new shares has no effect on the net assets of the company, there is no basis of predicting any change in total market value of the company's stock as a result of the stock dividend. The logical conclusion is, therefore, that the market price per share should fall to $60 ($5,280,000 ÷ 88,000 shares). The fact that this exact result does not always follow in practice must be attributed to a lack of understanding on the part of the investing public and to other factors affecting per-share market price at the time of a stock dividend.**

Ex. 12.9

Event	Current Assets	Stockholders' Equity	Net Income	Net Cash (from Any Source)
a	D	D	NE	D
b	NE	NE	NE	NE
c	NE	NE	NE	NE
d	D	D	NE	D
e	I	I	NE	I

Ex. 12.10

a. After a stock split, earnings per share are expressed in terms of the new shares. Therefore, a 3-for-1 stock split will cause earnings per share figures to be restated at one-third of their former amounts.

b. Realization of a gain from most sources, including discontinued operations, increases *net* earnings per share. (As this gain relates to discontinued operations, however, it would *not* increase the per-share earnings from *continuing operations.*)

c. Dividends declared or paid do not enter into the determination of net income. Therefore, the declaration and/or payment of a cash dividend on common stock has *no effect* upon earnings per share.

d. Earnings per share are restated to reflect the increased number of shares resulting from a stock dividend. Therefore, a stock dividend causes a proportionate reduction in the earnings per share reported in past periods, as well as in the current period. (This effect parallels that of a stock split, only smaller.)

e. Acquisition of treasury shares reduces the weighted average number of shares currently outstanding and, therefore, increases earnings per share.

Ex. 12.11 a. **Balance sheet.**

b. **Statement of retained earnings (or statement of stockholders' equity).**

c. **This information is not included in any formal financial statement—it is quoted daily in publications such as *The Wall Street Journal.***

d. **Statement of retained earnings (or statement of stockholders' equity).**

e. **Statement of stockholders' equity and/or notes to financial statements.**

f. **Income statement.**

g. **This information may be reported in the annual report, but it is not a required disclosure in any formal financial statement. It is also reported by investors' services.**

h. **This information may be included in the annual report, but it is not a required disclosure in financial statements. It is reported by investors' services and in the financial pages of most newspapers.**

i. **Statement of stockholders' equity, and statement of cash flows.**

Ex. 12.12 a.

Revenues ……………………………………………………………….	**$572,000**
Expenses ……………………………………………………………….	**282,000**
Income before income tax …………………………………………….	**$290,000**
Income tax* ………………………………………………………….	**101,500**
Net income ………………………………………………………..	**$188,500**

***$290,000 × 35%**

b.

Net income …………………………………………………………………	**$188,500**
Other comprehensive income:	
Change in value of available-for-sale investments* …………	**1,105**
Comprehensive income ……………………………………………….	**$189,605**

*** $19,200 - $17,500 = $1,700 gain**
$1,700 - ($1,700 × 35% income tax) = $1,105 net unrealized gains.

c. Net income is unchanged.

Net income ……………………………………………………………	**$ 188,500**
Other comprehensive income:	
Change in value of available-for-sale investments* ……………	**(2,145)**
Comprehensive income ………………………………………………	**$186,355**

*** $17,500 - $14,200 = $3,300 loss**
$3,300 - ($3,300 $\times$ 35% income tax benefit) = $2,145 net unrealized loss

Ex. 12.13 a. 10% stock dividend: 500,000 shares x 1.10 = 550,000 shares
2:1 stock split: 550,000 x 2 = 1,100,000 shares

Note: The cash dividends do not affect the number of outstanding shares.

b. $1 cash dividend: 550,000 shares x $1 = $550,000
$.60 cash dividend: 1,100,000 shares x $.60 = $660,000
Total cash paid: $550,000 + $660,000 = $1,210,000

Note: No cash is paid out with a stock dividend or a stock split.

c. 220 shares [(100 shares x 1.10) x 2]
Market value of portfolio before the four transactions: 100 shares x $65 = $6,500

Market value of portfolio after the four transactions:
220 shares x $40 = $8,800

Your portfolio after the four transactions is $8,800 compared to $6,500 before the four transactions. In addition, you would have received cash dividends, as follows:
(100 shares x 1.10 x $1) + (110 shares x 2 x $.60) = $110 + $132 = $242

Ex. 12.14 a. Home Depot is a very aggressive company. It is constantly opening new stores, requiring large amounts of capital. The company retains the majority of its earnings in order to have the capital available to take advantage of its growth opportunities and to constantly open new markets for its growing business.

b. Based on information in the Case-in-Point in this chapter, unless you have an extreme need for cash, you should probably be pleased that Home Depot retains its earnings rather than paying them to you in the form of higher dividends. The company is doing well investing its earnings, probably better than you could do as an individual investor with the additional dividends you would receive if the company paid higher dividends.

Ex. 12.15

a. **There are no nonrecurring items, such as extraordinary items or discontinued operations, that might affect comparability among the years presented.**

b. **Home Depot, Inc. has one class of common stock in its capital structure. 10,000 million shares are authorized, and at January 29, 2006, 2,401 million shares had been issued. Treasury stock on that date consisted of 227 million shares. This means that 2,174 million shares were outstanding (2,401 - 227).**

c. **During the three years presented, treasury stock was purchased in all three years. In the year ending January 29, 2006, the company purchased 77 million shares for over $3 billion.**

The balance sheet indicates that issued shares increased between January 30, 2005 and January 29, 2006 by 16 million shares (2,401 million - 2,385 million). The statement of stockholders' equity and comprehensive income describes these as "Shares Issued Under Employee Stock Plans."

SOLUTIONS TO PROBLEMS SET A

30 Minutes, Easy

PROBLEM 12.1A
ATLANTIC AIRLINES

a.

ATLANTIC AIRLINES		
Income Statement		
For the Year Ended December 31, 20__		
Net sales		$ 55,120,000
Costs and expenses (including income taxes on continuing		
operations)		43,320,000
Income from continuing operations		$ 11,800,000
Discontinued operations:		
Operating income from motels (net of income tax)	$ 864,000	
Gain on sale of motels (net of income tax)	4,956,000	5,820,000
Income before extraordinary items		$ 17,620,000
Extraordinary loss: destruction of airliner by earthquake		
(net of income tax benefit)		$ (3,360,000)
Net income		$ 14,260,000
Earnings per share of common stock:		
Earnings from continuing operations ($11,800,000 ÷		
1,000,000 shares)		$ 11.80
Income from discontinued operations ($5,820,000 ÷		
1,000,000 shares)		5.82
Earnings before extraordinary items ($17,620,000		
1,000,000 shares)		$ 17.62
Extraordinary loss ($3,360,000 ÷ 1,000,000 shares)		(3.36)
Net earnings ($14,260,000 ÷ 1,000,000 shares)		$ 14.26
b. Estimated net earnings per share next year:		
Earnings per share from continuing operations		$ 11.80
Estimated decrease ($11.80 x 5%)		(0.59)
Estimated net earnings per share next year		$ 11.21
The profitability of the motels is not relevant, as these		
motels are no longer are owned by Atlantic Airlines.		

30 Minutes, Medium

PROBLEM 12.2A
SLICK SOFTWARE, INC.

a.

SLICK SOFTWARE, INC.		
Condensed Income Statement		
For the Year Ended December 31, 2007		
Net sales		$ 19,850,000
Costs and expenses (including applicable income taxes)		16,900,000
Income from continuing operations		$ 2,950,000
Discontinued operations:		
Operating income (net of income tax)	$ 140,000	
Loss on disposal (net of income tax benefit)	(550,000)	(410,000)
Income before extraordinary item		$ 2,540,000
Extraordinary loss (net of income tax benefit)		(900,000)
Net income		$ 1,640,000
Earnings per share:		
Earnings from continuing operations		
[($2,950,000 - $500,000*) ÷ 200,000 shares]		$ 12.25
Loss from discontinued operations ($410,000 ÷ 200,000 shares)		(2.05)
Earnings before extraordinary items		
[($2,540,000 - $500,000 preferred dividends) ÷ 200,000 shares		$ 10.20
Extraordinary loss ($900,000 ÷ 200,000 shares)		(4.50)
Net earnings		
[($1,640,000 - $500,000 preferred dividends) ÷		$ 5.70
200,000 shares]		
*Preferred dividends: 80,000 shares x $6.25 = $500,000		

PROBLEM 12.2A
SLICK SOFTWARE, INC. (concluded)

b.

SLICK SOFTWARE, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings, December 31, 2006		
As originally reported		$ 7,285,000
Less: prior period adjustment		350,000
As restated		$ 6,935,000
Net income		1,640,000
Subtotal		$ 8,575,000
Cash dividends		(950,000)
Retained earnings, December 31, 2007		$ 7,625,000
c.		
Total cash dividends declared during 2007 (data given)		$ 950,000
Less: Preferred stock dividend (80,000 shares x $6.25 per share)		500,000
Cash dividends to common stockholders		$ 450,000
Number of common shares outstanding through 2007		200,000
Cash dividend per common share ($450,000 ÷ 200,000 shares)		$ 2.25

d. **The single 2008 $8.00 figure for EPS is *unfavorable* in comparison with 2007 performance. Since 2008 has only one EPS figure, it should be compared to the *earnings per share from continuing operations* in 2007, which amounted to $12.25 per share. Slick Software, Inc.'s earnings per share from continuing operations fell $4.25 per share (approximately 35%) from 2007 to 2008.**

35 Minutes, Strong

PROBLEM 12.3A
PHOENIX, INC.

a.

PHOENIX, INC. Income Statement For the Year Ended December 31, 2007		
Net sales		$ 10,800,000
Costs and expenses:		
Cost of goods sold	$ 6,000,000	
Selling expenses	1,104,000	
General and administrative expenses	1,896,000	
Loss from settlement of litigation	24,000	
Income tax on continuing operations	720,000	9,744,000
Income from continuing operations		$ 1,056,000
Discontinued operations:		
Operating loss on discontinued operations (net of income tax benefit)	$ (252,000)	
Loss on disposal of discontinued operations (net of income tax benefit)	(420,000)	(672,000)
Income before extraordinary item		$ 384,000
Extraordinary gain (net of income tax)		36,000
Net income		$ 420,000
Earnings per share on common stock:		
Earnings from continuing operations ($1,056,000 ÷ 180,000 shares)		$ 5.86
Loss from discontinued operations ($672,000 ÷ 180,000 shares)		(3.73)
Income before extraordinary item		$ 2.13
Extraordinary gain ($36,000 ÷ 180,000 shares)		0.20
Net earnings ($420,000 ÷ 180,000 shares)		$ 2.33
Note: Selected EPS numbers have been rounded $.01 in order for EPS schedule to foot.		

PROBLEM 12.3A
PHOENIX, INC. (concluded)

b.

PHOENIX, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings, December 31, 2006		
As originally reported		$ 2,175,000
Add: Prior period adjustment (net of income tax)		60,000
As restated		$ 2,235,000
Net income (from part a)		420,000
Subtotal		$ 2,655,000
Less: Dividends		350,000
Retained earnings, December 31, 2007		$ 2,305,000

c. **The "gain on sale of treasury stock" represents the excess of reissue price received over the cost Phoenix paid to acquire some of its own shares of stock. Although a corporation may reissue treasury stock at prices above or below its cost of acquiring its own stock, the difference between amounts received and the cost of treasury shares does *not* result in gains or losses recognized in the income statement. Rather, the amount described as "gain on sale of treasury stock" is included as part of additional paid-in capital in the stockholders' equity section of the balance sheet.**

20 Minutes, Easy

PROBLEM 12.4A
ALBERS, INC.

		Total Stockholders' Equity	Number of Shares Outstanding	Book Value per Share
Beginning balance		$ 840,000	40,000	$ 21.00
Jan. 10	Declared and distributed 5% stock div.		2,000	
	Balance	$ 840,000	42,000	$ 20.00
Mar. 15	Acquired 2,000 shares of treasury stock at cost of $21.00 per share	(42,000)	(2,000)	
	Balance	$ 798,000	40,000	$ 19.95
May 30	Reissued 2,000 shares of treasury stock at price of $31.50 per share	63,000	2,000	
	Balance	$ 861,000	42,000	$ 20.50
July 31	Capital stock split 2-for-1		42,000	
	Balance	$ 861,000	84,000	$ 10.25
Dec. 15	Declared $1.10 per share cash dividend	(92,400)		
	Balance	768,600	84,000	$ 9.15
Dec. 31	Net income	525,000		
	Balance	$ 1,293,600	84,000	$ 15.40

Note to instructor: **Net income actually increases book value *throughout the year,* not merely on the date upon which net income is closed into retained earnings.**

20 Minutes, Medium

PROBLEM 12.5A
STRAIT CORPORATION

STRAIT CORPORATION
Statement of Stockholders' Equity
For the Year Ended December 31, 20__

a.	Capital Stock ($10 par value)	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Total Stockholders' Equity
Balances, January 1, 20__	$ 1,100,000	$ 1,765,000	$ 950,000	$ -	$ 3,815,000
Prior period adjustment (net of income tax benefit)			(80,000)		(80,000)
Issuance of common stock; 10,000 shares @ $34	100,000	240,000			340,000
Declaration and distribution of 5% stock dividend					
(6,000 shares at market price of $36 per share)	60,000	156,000	(216,000)		0
Purchased 1,000 shares of treasury stock @$35				(35,000)	(35,000)
Sale of 500 treasury shares @ $36		500		17,500	18,000
Net income			845,000		845,000
Cash dividends			(142,700)		(142,700)
Balances, December 31, 20__	$ 1,260,000	$ 2,161,500	$ 1,356,300	$ (17,500)	$ 4,760,300

(part *b* is on following page)

PROBLEM 12.5A
STRAIT CORPORATION (concluded)

b. **Declaration/distribution of a 5% stock dividend has no effect on total stockholders' equity. Declaration of a cash dividend reduces total stockholders' equity by the amount of the dividend.**

The two types of dividends *do not* have the same impact upon stockholders' equity. A cash dividend is a distribution of a corporation's assets (cash) to stockholders and, as such, causes a decrease in stockholders' equity. A stock dividend is simply issuing more stock certificates to the existing group of shareholders with no accompanying increase or outflow of assets; a corporation's own stock is not an asset of the corporation. With both small and large stock dividends, stockholders' equity is adjusted to reflect the increased number of shares outstanding, but there is no additional equity created and no decrease in equity.

40 Minutes, Strong

PROBLEM 12.6A
THOMPSON SERVICE

a.

General Journal

2007				
Jan	3	Dividends	382,000	
		Dividends Payable		382,000
		To record declaration of $1 per share cash		
		dividend payable on Feb. 15 to stockholders of		
		record on Jan. 31		
Feb	15	Dividends Payable	382,000	
		Cash		382,000
		To record payment of dividend declared Jan. 3.		
Apr	12	Treasury Stock	240,000	
		Cash		240,000
		Purchased 6,000 shares of treasury stock at $40		
		per share.		
May	9	Cash	176,000	
		Treasury Stock		160,000
		Additional Paid-in Capital: Treasury Stock		16,000
		Sold 4,000 shares of treasury stock, which cost		
		$160,000, at a price of $44 per share.		
June	1	Retained Earnings	798,000	
		Stock Dividend to Be Distributed		19,000
		Additional Paid-in Capital: Stock Dividends		779,000
		Declared a 5% stock dividend (19,000 shares) on		
		380,000 outstanding shares. Market price $42, par		
		value $1. To be distributed on June 30 to		
		stockholders of record.		
	30	Stock Dividend to Be Distributed	19,000	
		Capital Stock		19,000
		Issued 19,000 shares of capital stock as 5% stock		
		dividend.		
Aug	4	Cash	22,200	
		Additional Paid-in Capital: Treasury Stock	1,800	
		Treasury Stock		24,000
		Sold 600 shares of treasury stock, which cost $24,000,		
		at a price of $37 per share.		
Dec	31	Income Summary	1,928,000	
		Retained Earnings		1,928,000
		To close Income Summary account for the year.		
Dec	31	Retained Earnings	382,000	
		Dividends		382,000
		To close Dividends account.		

PROBLEM 12.6A
THOMPSON SERVICE (concluded)

b.

THOMPSON SERVICE Partial Balance Sheet December 31, 2007		
Stockholders' equity:		
Capital stock, $1 par value, 500,000 shares authorized,		
401,000 shares issued, of which 1,400 are held in the treasury		$ 401,000
Additional paid-in capital:		
From issuance of capital stock	$ 4,202,000	
From stock dividend	779,000	
From treasury stock	14,200	4,995,200
Total paid-in capital		5,396,200
Retained earnings*		3,452,600
		$ 8,848,800
Less: Treasury stock, 1,400 shares at cost		56,000
Total stockholders' equity		$ 8,792,800
*Computation of retained earnings at Dec. 31, 2007:		
Retained earnings at beginning of year		$ 2,704,600
Add: Net income for year		1,928,000
Subtotal		$ 4,632,600
Less: Cash dividend declared Jan. 3	$ 382,000	
Stock dividend declared June 1	798,000	1,180,000
Retained earnings, Dec. 31, 2007		$ 3,452,600
c. Computation of maximum legal cash dividend		
per share at Dec. 31, 2007:		
Retained earnings at Dec. 31, 2007		$ 3,452,600
Less: Restriction of retained earnings for		
treasury stock owned		56,000
Unrestricted retained earnings		$ 3,396,600
Number of shares of capital stock outstanding		
(401,000 shares issued, minus 1,400 shares		
held in treasury)		399,600
Maximum legal cash dividend per share ($3,396,600		
divided by 399,600 shares)		$ 8.50

30 Minutes, Strong

PROBLEM 12.7A
TECH PROCESS, INC.

a.

Event	Current Assets	Stockholders' Equity	Net Income	Net Cash Flow (from Any Source)
1	NE	D	NE	NE
2	D	NE	NE	D
3	D	D	NE	D
4	I	I	NE	I
5	NE	NE	NE	NE

I = Increase
D = Decrease
NE = No effect

b.

1. **Declaration of a cash dividend has no immediate effect upon net income or cash flows. It increases current liabilities (dividends payable), but has no effect on current assets. Also, retained earnings is decreased, resulting in a decrease in stockholders' equity.**

2. **Payment of a cash dividend has no effect on revenue or expenses, but it reduces cash. Since it reduces cash, it also reduces current assets. The transaction has no effect on stockholders' equity, which has already been decreased when the dividend was declared.**

3. **The purchase of treasury stock has no effect on either revenue or expenses and, therefore, does not affect net income. But cash is used to purchase the treasury stock, and this decreases cash and current assets. Because treasury stock is deducted from stockholders' equity in the balance sheet, its purchase decreases stockholders' equity.**

4. **Reissuance of treasury stock at a price less than its original cost results in a loss, but these losses are not recorded in the income statement. Instead additional paid-in capital is decreased for the amount of the loss. Therefore, this transaction does not affect net income. Since the treasury stock account is deducted from stockholders' equity, reissuance of the stock increases the total amount of stockholders' equity. Also, both cash and current assets are increased as a result of the cash received from sale of the stock.**

5. **Declaration of a stock dividend results in a reclassification of amounts from Retained Earnings to the Capital Stock and Additional Paid-in Capital accounts. It has no effect on cash, current assets, stockholders' equity, or net income.**

50 Minutes, Strong

PROBLEM 12.8A
MANDELLA CORPORATION

a.

MANDELLA CORPORATION		
Partial Balance Sheet		
December 31, 2006		
Stockholders' equity:		
Capital stock:		
Common stock, $10 par, 500,000 shares authorized,		
150,000 shares issued, of which 10,000 are held		
in the treasury		$ 1,500,000
Stock dividend to be distributed (1)		140,000
Additional paid-in capital:		
From issuance of common stock	$ 3,000,000	
From stock dividend (2)	350,000	3,350,000
Total paid-in capital		$ 4,990,000
Retained earnings (3)		450,000
		$ 5,440,000
Less: Treasury stock, 10,000 shares at cost of $34 per share		340,000
Total stockholders' equity		$ 5,100,000
(1) (150,000 shares - 10,000 shares) x 10% = 140,000 shares		
@$10 par		
(2) Total stock dividend (14,000 shares x $35)	$ 490,000	
Par value (14,000 shares x $10)	(140,000)	
Additional paid-in capital: stock dividend	$ 350,000	
(3) Net income for 2006	$ 940,000	
Less: Stock dividend (14,000 shares x $35)	490,000	
Retained earnings at end of 2006	$ 450,000	

b.

MANDELLA CORPORATION		
Partial Balance Sheet		
December 31, 2007		
Stockholders' equity:		
Capital stock:		
Common stock, $5 par, 1,000,000 shares authorized,		
328,000 shares issued and outstanding (1)		$ 1,640,000
Additional paid-in capital:		
From issuance of common stock	$ 3,000,000	
From stock dividend	350,000	
From treasury stock (2)	50,000	3,400,000
Total paid-in capital		$ 5,040,000
Retained earnings (3)		874,000
Total stockholders' equity		$ 5,914,000
(1) (150,000 shares +14,000 shares) x 2 = 328,000 shares		
@ $5 par		
(2) 10,000 shares x ($39 reissuance price - $34 cost) = $50,000		
(3) Retained earnings at end of 2006	$ 450,000	
Net income for 2007	1,080,000	
Subtotal	$ 1,530,000	
Less: Cash dividend (328,000 shares x $2)	656,000	
Retained earnings at end of 2007	$ 874,000	

25 Minutes, Strong

PROBLEM 12.9A
ESPER CORP.

a.

ESPER CORP.		
Partial Income Statement		
For the Year Ended December 31, 20__		
		(Dollars in Thousands)
Loss from continuing operations		$ (16,026)
Income from discontinued operations		6,215
Loss before extraordinary loss		$ (9,811)
Extraordinary loss on extinguishment of debt		(8,490)
Net loss		$ (18,301)

b.

Net loss		$ (18,301)
Less: Preferred dividend requirements		(2,778)
Net loss applicable to common stockholders		(21,079)
Weighted-average number of shares of common stock		39,739
Loss per share ($21,079 ÷ 39,739)		$ (0.53)

SOLUTIONS TO PROBLEMS SET B

30 Minutes, Easy

PROBLEM 12.1B
PACIFIC AIRLINES

a.

PACIFIC AIRLINES		
Income Statement		
For the Year Ended December 31, 20__		
Net sales		$ 61,440,000
Costs and expenses (including income taxes on continuing operations)		53,980,000
Income from continuing operations		$ 7,460,000
Discontinued operations:		
Operating income from car rental (net of income tax)	$ 670,000	
Gain on sale of car rental business (net of income tax)	4,330,000	5,000,000
Income before extraordinary items		$ 12,460,000
Extraordinary loss: destruction of airliner by terrorists (net of income tax benefit)		$ (3,120,000)
Net income		$ 9,340,000
Earnings per share of common stock:		
Earnings from continuing operations ($7,460,000 ÷ 4,000,000 shares)		$ 1.87
Income from discontinued operations ($5,000,000 ÷ 4,000,000 shares)		1.25
Earnings before extraordinary items		$ 3.12
Extraordinary loss ($3,120,000 ÷ 4,000,000 shares)		(0.78)
Net earnings ($9,340,000 ÷ 4,000,000 shares)		$ 2.34

b. Estimated net earnings per share next year:

Earnings per share from continuing operations		$ 1.87
Estimated decrease ($1.87 x 10%)		0.19
Estimated net earnings per share next year		$ 1.68

The profitability of the rental car operations is not relevant, as these cars are no longer owned by Pacific Airlines.

30 Minutes, Medium

PROBLEM 12.2B
BEACH, INC.

a.

BEACH, INC.		
Condensed Income Statement		
For the Year Ended December 31, 2007		
Net sales		$ 37,400,000
Costs and expenses (including applicable income tax)		21,500,000
Income from continuing operations		$ 15,900,000
Discontinued operations:		
Operating income (net of income tax)	$ 205,000	
Loss on disposal (net of income tax benefit)	(510,000)	(305,000)
Income before extraordinary items		$ 15,595,000
Extraordinary loss (net of income tax benefit)		(930,000)
Net income		$ 14,665,000
Earnings per share:		
Earnings from continuing operations		
[($15,900,000 - $600,000*) ÷ 200,000 shares]		$ 76.500
Loss from discontinued operations ($305,000 ÷ 200,000 shares)		(1.525)
Earnings before extraordinary item		$ 74.975
Extraordinary loss ($930,000 ÷ 200,000 shares)		(4.650)
Net earnings		$ 70.325
[($14,665,000 - $600,000 preferred dividends) ÷		
200,000 shares]		
*Preferred dividends: 100,000 shares x $6 = $600,000		

PROBLEM 12.2B
BEACH, INC. (concluded)

b.

BEACH, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings, December 31, 2006		
As originally reported		$ 10,700,000
Less: Prior period adjustment (net of income tax)		310,000
As restated		$ 10,390,000
Net income		14,665,000
Subtotal		$ 25,055,000
Cash dividends		(2,000,000)
Retained earnings, December 31, 2007		$ 23,055,000
c.		
Total cash dividends declared during 2007 (data given)		$ 2,000,000
Less: Preferred stock dividend (100,000 shares x $6 per share)		600,000
Cash dividends to common stockholders		$ 1,400,000
Number of common shares outstanding through 2007		200,000
Cash dividend per common share ($1,400,000 ÷ 200,000 shares)		$ 7.00

d. **The single 2008 $75.00 figure for EPS is *unfavorable* in comparison with 2007 performance. Since 2008 has only one EPS figure, it should be compared to the *earnings per share from continuing operations* in 2007, which amounted to $76.50 per share. Beach, Inc.'s earnings per share from continuing operations fell $1.50 per share (2%) from 2007 to 2008.**

35 Minutes, Strong

PROBLEM 12.3B
DEXTER, INC.

a.

DEXTER, INC.		
Income Statement		
For the Year Ended December 31, 2007		
Net sales		$ 10,200,000
Costs and expenses:		
Cost of goods sold	$ 4,000,000	
Selling expenses	1,050,000	
General and administrative expenses	840,000	
Loss from settlement of litigation	10,000	
Income tax on continuing operations	612,000	$ 6,512,000
Income from continuing operations		$ 3,688,000
Discontinued operations:		
Operating loss on discontinued operations (net of income tax benefit)	$ (180,000)	
Loss on disposal of discontinued operations (net of income tax benefit)	(240,000)	(420,000)
Income before extraordinary item		$ 3,268,000
Extraordinary gain (net of income tax)		110,000
Net income		$ 3,378,000
Earnings per share on common stock:		
Earnings from continuing operations ($3,688,000 ÷ 500,000 shares)		7.38
Loss from discontinued operations ($420,000 ÷ 500,000 shares)		(0.84)
Income before extraordinary item		$ 6.54
Extraordinary gain ($110,000 ÷ 500,000 shares)		0.22
Net earnings ($3,378,000 ÷ 500,000 shares)		$ 6.76

PROBLEM 12.3B
DEXTER, INC. (concluded)

b.

DEXTER, INC.		
Statement of Retained Earnings		
For the Year Ended December 31, 2007		
Retained earnings, December 31, 2006		
As originally reported		$ 3,200,000
Add: Prior period adjustment (net of income tax)		80,000
As restated		$ 3,280,000
Net income (from part a)		3,378,000
Subtotal		$ 6,658,000
Less: Dividends		300,000
Retained earnings, December 31, 2007		$ 6,358,000

c. **The "gain on sale of treasury stock" represents the excess of reissue price received over the cost Dexter paid to acquire some of its own shares of stock. Although a corporation may reissue treasury stock at prices above or below its cost of acquiring its own stock, the difference between amounts received and the cost of treasury shares does *not* result in gains or losses recognized in the income statement. Rather, the amount described as "gain on sale of treasury stock" is included as part of additional paid-in capital in the stockholders' equity section of the balance sheet.**

20 Minutes, Easy

PROBLEM 12.4B
JESSEL, INC.

		Total Stockholders' Equity	Number of Shares Outstanding	Book Value per Share (rounded)
Beginning balance		$ 600,000	20,000	$ 30.00
Jan. 16	Declared and distributed 5% stock div.		1,000	
	Balance	$ 600,000	21,000	$ 28.57
Feb. 9	Acquired 300 shares of treasury stock			
	at cost of $55.00 per share	(16,500)	(300)	
	Balance	$ 583,500	20,700	$ 28.19
Mar. 3	Reissued 300 shares of treasury stock			
	at price of $65.00 per share	19,500	300	
	Balance	$ 603,000	21,000	$ 28.71
Jul. 5	Capital stock split 2-for-1		21,000	
	Balance	$ 603,000	42,000	$ 14.36
Nov. 22	Declared $6.00 per share cash dividend	(252,000)		
	Balance	351,000	42,000	$ 8.36
Dec. 31	Net income	87,000		
	Balance	$ 438,000	42,000	$ 10.43

Note to instructor: **Net income actually increases book value *throughout the year,* not merely on the date upon which net income is closed into retained earnings.**

20 Minutes, Medium

PROBLEM 12.5B
DRY WALL, INC.

DRY WALL, INC.
Statement of Stockholders' Equity
For the Year Ended December 31, 20__

a.	Capital Stock ($1 par value)	Additional Paid-in Capital	Retained Earnings	Treasury Stock	Total Stockholders' Equity
Balances, January 1, 20__	$ 130,000	$ 1,170,000	$ 1,400,000	$ -	$ 2,700,000
Prior period adjustment (net of income tax benefit)			(47,000)		(47,000)
Issuance of common stock; 20,000 shares @ $15	20,000	280,000			300,000
Declaration and distribution of 10% stock dividend					
(15,000 shares at market price of $17 per share)	15,000	240,000	(255,000)		0
Purchased 3,000 shares of treasury stock @$16				(48,000)	(48,000)
Sale of 1,000 treasury shares @ $18		2,000		16,000	18,000
Net income			1,200,000		1,200,000
Cash dividends ($1 per share)			(163,000)		(163,000)
Balances, December 31, 20__	$ 165,000	$ 1,692,000	$ 2,135,000	$ (32,000)	$ 3,960,000
(part *b* is on following page)					

PROBLEM 12.5B
DRY WALL, INC. (concluded)

b. **Declaration/distribution of a 10% stock dividend has no effect on total stockholders' equity. Declaration of a cash dividend reduces total stockholders' equity by the amount of the dividend.**

The two types of dividends *do not* have the same impact upon stockholders' equity. A cash dividend is a distribution of a corporation's assets (cash) to stockholders and, as such, causes a decrease in stockholders' equity. A stock dividend is simply issuing more stock certificates to the existing group of shareholders with no accompanying increase or outflow of assets; a corporation's own stock is not an asset of the corporation. With both small and large stock dividends, stockholders' equity is adjusted to reflect the increased number of shares outstanding, but there is no additional equity created and no decrease in equity as occurs when a cash dividend is declared.

40 Minutes, Strong

PROBLEM 12.6B
GREENE, INC.

a.

General Journal

2007				
Jan	5	Dividends	560,000	
		Dividends Payable		560,000
		To record declaration of $1 per share cash		
		dividend payable on Feb. 18 to stockholders of		
		record on Jan. 31.		
Feb	18	Dividends Payable	560,000	
		Cash		560,000
		To record payment of dividend declared Jan. 5		
Apr	20	Treasury Stock	10,000	
		Cash		10,000
		Purchased 1,000 shares of treasury stock at $10		
		per share.		
May	25	Cash	6,000	
		Treasury Stock		5,000
		Additional Paid-in Capital: Treasury Stock		1,000
		Sold 500 shares of treasury stock, which cost		
		$5,000, at a price of $12 per share.		
June	15	Retained Earnings	307,725	
		Stock Dividend to Be Distributed		27,975
		Additional Paid-in Capital: Stock Dividends		279,750
		Declared a 5% stock dividend (27,975 shares) on		
		559,500 outstanding shares. Market price $11, par		
		value $1. To be distributed on June 30 to		
		stockholders of record at June 22.		
	30	Stock Dividend to Be Distributed	27,975	
		Capital Stock		27,975
		Issued 27,975 shares of capital stock as 5% stock		
		dividend declared June 15.		
Aug	12	Cash	2,925	
		Additional Paid-in Capital: Treasury Stock	75	
		Treasury Stock		3,000
		Sold 300 shares of treasury stock, which cost $3,000,		
		at a price of $9.75 per share.		
Dec	31	Income Summary	1,750,000	
		Retained Earnings		1,750,000
		To close Income summary account for the year.		
Dec	31	Retained Earnings	560,000	
		Dividends		560,000
		To close Dividends account.		

PROBLEM 12.6B
GREENE, INC. (concluded)

b.

GREENE, INC. Partial Balance Sheet December 31, 2007		
Stockholders' equity:		
Capital stock, $1 par value, 1,000,000 shares authorized,		
587,975 shares issued, of which 200 are held in the treasury		$ 587,975
Additional paid-in capital:		
From issuance of capital stock	$ 4,480,000	
From stock dividend	279,750	
From treasury stock	925	4,760,675
Total paid-in capital		$ 5,348,650
Retained earnings*		3,882,275
		$ 9,230,925
Less: Treasury stock, 200 shares at cost		2,000
Total stockholders' equity		$ 9,228,925
*Computation of retained earnings at Dec. 31, 2007:		
Retained earnings at beginning of year		$ 3,000,000
Add: Net income for year		1,750,000
Subtotal		$ 4,750,000
Less: Cash dividend declared Jan. 3	$ 560,000	
Stock dividend declared June 1	307,725	867,725
Retained earnings, Dec. 31, 2007		$ 3,882,275
c. Computation of maximum legal cash dividend		
per share at Dec. 31, 2007:		
Retained earnings at Dec. 31, 2007		$ 3,882,275
Less: Restriction of retained earnings for		
treasury stock owned		2,000
Unrestricted retained earnings		$ 3,880,275
Number of shares of capital stock outstanding		
(587,975 shares issued, minus 200 shares		
held in treasury)		587,775
Maximum legal cash dividend per share ($3,880,275		
divided by 587,775 shares)		$ 6.60

30 Minutes, Strong

PROBLEM 12.7B
HOT WATER, INC.

a.

Event	Current Assets	Stockholders' Equity	Net Income	Net Cash Flow (from Any Source)
1	NE	D	NE	NE
2	D	NE	NE	D
3	D	D	NE	D
4	I	I	NE	I
5	NE	NE	NE	NE

I = Increase
D = Decrease
NE = No effect

b.

1. **Declaration of a cash dividend has no immediate effect upon net income or cash flows. It increases current liabilities (dividends payable), but has no effect on current assets. Also, retained earnings is decreased, resulting in a decrease in stockholders' equity.**

2. **Payment of a cash dividend has no effect on revenue or expenses, but it reduces cash. Since it reduces cash, it also reduces current assets. The transaction has no effect on stockholders' equity, which has already been decreased when the dividend was declared.**

3. **The purchase of treasury stock has no effect on either revenue or expenses and, therefore, does not affect net income. But cash is used to purchase the treasury stock, and this decreases cash and current assets. Because treasury stock is deducted from stockholders' equity in the balance sheet, its purchase decreases stockholders' equity.**

4. **Reissuance of treasury stock at a price less than its original cost results in a loss, but these losses are not recorded in the income statement. Instead additional paid-in capital is decreased for the amount of the loss. Therefore, this transaction does not affect net income. Since the treasury stock account is deducted from stockholders' equity, reissuance of the stock increases the total amount of stockholders' equity. Also, both cash and current assets are increased as a result of the cash received from sale of the stock.**

5. **Declaration of a stock dividend results in a reclassification of amounts from Retained Earnings to the Capital Stock and Additional Paid-in Capital accounts. It has no effect on cash, current assets, stockholders' equity, or net income.**

50 Minutes, Strong

PROBLEM 12.8B
ADAMS CORPORATION

a.

ADAMS CORPORATION Partial Balance Sheet December 31, 2006		
Stockholders' equity:		
Capital stock:		
Common stock, $1 par, 100,000 shares authorized,		
20,000 shares issued, 16,000 shares outstanding		
in the treasury		$ 20,000
Stock dividend to be distributed (1)		1,600
Additional paid-in capital:		
From issuance of common stock	$ 480,000	
From stock dividend (2)	48,000	528,000
Total paid-in capital		$ 549,600
Retained earnings (3)		800,400
		$ 1,350,000
Less: Treasury stock, 4,000 shares at cost of $30 per share		120,000
Total stockholders' equity		$ 1,230,000
(1) (20,000 shares - 4,000 shares) x 10% = 16,000 shares		
@$1 par		
(2) Total stock dividend (1,600 shares x $31)	$ 49,600	
Par value (1,600 shares x $1)	(1,600)	
Additional paid-in capital: stock dividend	$ 48,000	
(3) Net income for 2006	$ 850,000	
Less: Stock dividend (1,600 shares x $31)	49,600	
Retained earnings at end of 2006	$ 800,400	

b.

ADAMS CORPORATION Partial Balance Sheet December 31, 2007		
Stockholders' equity:		
Capital stock:		
Common stock, $.50 par, 200,000 shares authorized,		
43,200 shares issued and outstanding (1)		$ 21,600
Additional paid-in capital:		
From issuance of common stock	$ 480,000	
From stock dividend	48,000	
From treasury stock (2)	20,000	548,000
Total paid-in capital		$ 569,600
Retained earnings (3)		1,567,200
Total stockholders' equity		$ 2,136,800
(1) (20,000 shares + 1,600 shares) x 2 = 43,200 shares		
@ $.50 par		
(2) 4,000 shares x ($35 reissuance price - $30 cost) = $20,000		
(3) Retained earnings at end of 2006	$ 800,400	
Net income for 2007	810,000	
Subtotal	$ 1,610,400	
Less: Cash dividend (43,200 shares x $1)	43,200	
Retained earnings at end of 2007	$ 1,567,200	

25 Minutes, Strong

PROBLEM 12.9B
BLUE JAY MANUFACTURING CORP.

a.

BLUE JAY MANUFACTURING CORPORATION		
Partial Income Statement		
For the Year Ended December 31, 20__		
		(Dollars in Thousands)
Loss from continuing operations		$ (19,470)
Income from discontinued operations		12,000
Loss before extraordinary loss		$ (7,470)
Extraordinary loss on extinguishment of debt		(8,750)
Net loss		$ (16,220)

b.

Net loss		$ (16,220)
Less: Preferred dividend requirements		(3,100)
Net loss applicable to common stockholders		$ (19,320)
Weighted-average number of shares of common stock		10,000
Loss per share ($19,320 ÷ 10,000)		$ 1.932

SOLUTIONS TO CRITICAL THINKING CASES

20 Minutes, Easy

CASE 12.1
WHAT'S THIS?

a. **Both the operating loss from the noncoal minerals activities and the loss on disposal should be classified in ARCO's income statement as discontinued operations and should be shown separately from the results of ARCO's ongoing business operations. These losses qualify for this separate treatment because the discontinued activities represented an entire identifiable segment of ARCO's business operations.**

b. **A change in the estimated useful life of depreciable assets is a change in accounting estimate. Changes in estimate affect only the current year and future years, and are included in revenues and expenses from normal operations.**

c. **The explosion of a chemical plant of a company like Union Carbide appears to meet the criteria for classification as an extraordinary loss. These criteria are (1) material in amount, (2) unusual in nature, and (3) not expected to recur in the foreseeable future.**

d. **The criteria for classification as an extraordinary item are (1) material in amount, (2) unusual in nature and (3) not expected to recur in the foreseeable future. Condemnations of assets by governmental authorities generally are viewed as meeting these criteria. Therefore, the $10 million gain would be classified as an extraordinary item in Georgia Pacific's income statement.**

20 Minutes, Medium

CASE 12.2
IS THERE LIFE WITHOUT BASEBALL?

a. **If JPI had not sold the baseball team at the end of 2007, it still would have incurred the team's $1,300,000 operating loss for the year. However, the company would not have realized the $4,700,000 gain on the sale. Other items in the income statement would not have been affected. Thus, JPI's income for 2007 would have been $4,700,000 less than was actually reported, or $2,600,000 ($7,300,000 –$4,700,000 = $2,600,000).**

b. **In 2007, JPI's newspaper business earned $4,500,000, as shown by the subtotal, Income from Continuing Operations. If the profitability of these operations increased by 7% in 2008, they would earn approximately $4,815,000 ($4,500,000 × 1.07 = $4,815,000). If the baseball team were still owned and lost $2,000,000 in 2008, JPI could be expected to earn a net income of about $2,815,000 in that year.**

c. **Given that the baseball team was sold in 2007, JPI should earn a net income of approximately $4,815,000 in 2008, assuming that the profitability of the continuing newspaper operations increases by 7% ($4,500,000 × 1.07 = $4,815,000).**

d. **The operating loss incurred by the baseball team in 2007 indicates that the team's expenses (net of tax effects) exceeded its net revenue by $1,300,000. If the expenses were $32,200,000, the net revenue must have amounted to $1,300,000 less, or $30,900,000.**

30 Minutes, Strong

CASE 12.3
USING EARNINGS PER SHARE STATISTICS

a. **The company reports earnings per share computed on both a basic and a diluted basis because it has outstanding convertible preferred stock. The conversion of these securities into common stock would increase the number of common shares outstanding and thereby dilute (reduce) earnings per share of common stock. The primary purpose of a company's disclosing diluted earnings per share is to warn investors of the dilution in earnings that could occur if the convertible securities actually were converted.**

It is important to recognize that diluted earnings represent a hypothetical case. The convertible securities have not actually been converted into common shares as of the close of the current year.

b. **The total dollar amount of the company's extraordinary loss can be computed from the earnings per share information as follows:**

Extraordinary loss per share ($6.90 - $3.60) ……………………………………	**$3.30**
Total extraordinary loss ($3.30 per share × 3 million shares) ……………………	**$9,900,000**

c. **The approximate market price of the company's common stock is $69 per share. When a company's income statement includes an extraordinary item, the price-earnings ratio shown in newspapers is based upon basic earnings before extraordinary items ($6.90 × 10 = $69).**

d. **(1)** ***$9.02*** **($8.20 × 110%)**
Only the continuing operations will be earning revenue and incurring expenses next year, and the extraordinary item is not expected to recur. Therefore, the starting point for projecting future net earnings should be earnings from continuing operations. Since both revenue and expenses are expected to increase by 10%, earnings per share also should increase 10%.

(2) ***$7.48*** **($6.80 × 110%)**
The diluted earnings per share figures show the effect that conversion of all of the convertible preferred stock into common shares would have had upon this year's earnings. Earnings per share from continuing operations would have been only $6.80, rather than $8.20. Thus, $6.80 per share becomes the logical starting point for forecasting next year's net earnings. As in part *(1)*, next year's earnings are expected to rise by 10% over those of the current year.

35 Minutes, Strong

CASE 12.4
INTERPRETING A STATEMENT OF STOCKHOLDERS' EQUITY

a. **Beginning of year: *77,987,500* shares outstanding (82,550,000 issued –4,562,500 held in treasury)**
End of year: *77,353,100* shares outstanding (82,550,000 issued - 5,196,900 treasury shares)

b. ***$95,700,000* total dividend declared on common stock**
***77,804,878* approximate number of shares entitled to $1.20 per share dividend ($95,700,000 ÷ $1.30 per share)**

This answer appears reasonable, since the number of common shares outstanding ranged from 77,987,500 at the beginning of the year to 77,353,100 at year-end. The 77,804,878 approximate figure for the $1.23 annual dividend appears compatible with the beginning and ending actual figures because it falls between these numbers.

c. **The stock issued during the year for the stock option plans consisted of treasury shares, not newly issued shares. The Treasury Stock account is used to account for repurchases of a corporation's stock, as well as the reissuance of treasury shares. When stock is repurchased and subsequently reissued, the Common Stock account is not affected; these transactions do, however, affect the Treasury Stock account, a contra- stockholders' equity account.**

d. ***$29.79* average cost per share of treasury stock at the beginning of the year ($135,900,000 total cost ÷ 4,562,500 treasury shares)**

e. **The aggregate reissue price for the treasury shares must have been lower than the cost to acquire those treasury shares, because the Additional Paid-in Capital account was reduced by the reissuance of the treasury stock. The cost of the treasury shares reissued was $16,700,000; the reissue price for the treasury shares must have been $15,300,000 to cause a $1,400,000 reduction in Additional Paid-in Capital.**

f. ***$63.61* average cost per share for treasury stock acquired during the current year ($78,600,000 aggregate cost ÷ 1,235,700 shares repurchased)**

g. **Earnings per share: Divide by the *weighted-average* number of shares outstanding throughout the year**
Book value per share: Divide by the *actual* number of shares outstanding as of the specific date (usually a balance sheet date)

60 Minutes, Strong

CASE 12.5

CLASSIFICATION OF UNUSUAL ITEMS—AND THE POTENTIAL FINANCIAL IMPACT

a. **An asset represents something with *future economic benefit.* But if the amount at which the asset is presented in the balance sheet (i.e., its book value) cannot be recovered through future use or sale, any future economic benefit appears to be less than the asset's current book value. In such cases, the asset should be written down to the recoverable amount.**

b. **Although materiality in terms of size is important, size alone does not qualify a loss as an extraordinary item. Nor does the fact that the item is not routine.**

To qualify as extraordinary, an event should be unusual in nature, and *not be expected to recur* in the foreseeable future. Given that Elliot-Cole has operations in more than 90 countries, losses of this nature could recur. The fact that in a single year, such losses were incurred in several different countries suggests that this may be more than a one-time event. Thus, in light of Elliot-Cole's business environment, it appears that we would not classify these losses as extraordinary.

***Note to instructor:* We do not consider this answer cut and dried. If these assets had been expropriated, the losses *would* be classified as extraordinary. These assets have *not* been expropriated—nor is there any indication that they will be. Nonetheless, there are some parallels between this situation and an expropriation of assets by a foreign government. These similarities may be set forth as an argument for classifying the losses as extraordinary.**

c. **1.** **Net income will be reduced by the same amount *regardless* of whether these losses are classified as ordinary or extraordinary. In either case, they are deducted in the computation of net income.**

2. **Income before extraordinary items will be reduced only if the losses are classified as *ordinary.* If they are classified as *extraordinary,* they will be deducted *after* the computation of the subtotal, Income before Extraordinary Items.**

3. **Extraordinary items are deducted *after* the determination of Income from Continuing Operations. Therefore, this subtotal will be reduced only if the losses are classified as *ordinary.***

4. **Given that these losses do not affect income taxes, they have no cash effects. Therefore, net cash flow from operating activities will be *unaffected.***

d. **The p/e ratio is based upon income before extraordinary items (stated on a per-share basis). As stated in *c (2),* above, income before extraordinary items will be *unaffected* if the losses are classified as *extraordinary.* Therefore, the p/e ratio will be unaffected. But if the losses are classified as *ordinary,* income before extraordinary items will be reduced, and the p/e ratio, therefore, will be *higher.***

e. **Yes. Members of management have a self-interest in seeing stock prices increase, which would favorably affect the value of their stock options as well as stock they already own. In addition, a rising stock price makes it easier for the company to raise capital, benefits**

stockholders, and makes management look good.

The classification of these losses may well affect Elliot-Cole's stock price. Investors consider income from continuing operations a *predictive subtotal.* If the losses are classified as ordinary, this key subtotal will decline, probably below last year's level. (The losses amount to 18% of pre-loss earnings, which exceeds the company's normal earnings growth of 15%. Thus, these losses may be sufficient to cause a decline in earnings relative to the preceding year.) This could have an adverse effect on stock price.

On the other hand, if the losses are considered extraordinary, this subtotal will be unaffected and, presumably, continue to reflect the company's 15% annual growth rate.

Similarly, classifying the losses as ordinary will reduce income before extraordinary items, which is the income figure used in computing p/e ratios. Thus, the p/e ratio reported in the financial press will rise significantly above its normal level. This, too, may have a depressing effect upon stock price. But if the losses are classified as extraordinary, the per-share earnings used in the computation of the company's p/e ratio will *not be affected.*

In summary, the adverse effects of these losses on the company's stock price are likely to be *greater* if the losses are classified as ordinary, rather than extraordinary. Therefore, management has a self-interest in seeing these losses classified as *an extraordinary item.*

f. These write-offs are likely to *increase* the earnings reported in future periods, especially if the company continues to do business in any of the related countries. With the assets having no book value, future earnings from these operations will not be reduced by charges for depreciation (or, in some cases, for a cost of goods sold).

g. The ethical dilemma is the classification of these losses. Because of the probable effects upon stock price, classifying them as extraordinary may be to management's advantage. The case is arguable—though we think it's a bit of a reach. Bear in mind that a higher stock price also benefits the company's current stockholders. So who, if anybody, stands to lose?

In management's shoes, how would *you* classify these losses? (We find this question easier to ask than to answer.)

***Note to instructor:* This case is adapted from an incident involving an international pharmaceutical company. The details of the situation have been altered for the purpose of creating an introductory level textbook assignment, and the so-called quotations from corporate officers are entirely fictitious. Nonetheless, we believe that the outcome of the actual event provides insight into the financial reporting process and also to the importance that investors attach to the various computations of earnings per share.**

CASE 12.5
CLASSIFICATION (concluded)

Management originally classified the losses as *extraordinary,* and the auditors concurred. The SEC, however, did not agree. It insisted that the corporation revise and reissue its financial statement—with the controversial items classified as *ordinary operating losses.* When the company announced the reclassification of these losses, its stock price fell substantially—despite the fact that the reported amount of net income remained unchanged.

Who were the losers? Anyone who bought the stock between the release of the original earnings figures and the announcement that substantial losses would be reclassified.

30 Minutes, Medium

CASE 12.6
MANAGING PROFITABILITY
ETHICS, FRAUD & CORPORATE GOVERNANCE

This case is tended to encourage students to think about how certain financial statement numbers should ordinarily be expected to move in relation to other numbers (e.g., net income in comparison with sales) and steps that might be taken by management to manage, or manipulate profitability. While there may be logical reasons for the specific changes identified in three bulleted items in the case statement that do not imply improper actions by management, the fact that their evaluation is, at least in part, based on profit performances raised an important issue that should be kept in mind by auditors.

We do not attempt in this solution to write the report that is required in the instructions in the case, but rather to provide some ideas of how students might respond to each of the bulleted items.

Relationship of sales revenue and net income

The fact that sales are sluggish but net income is steadily increasing at least raises an issue that should be explored. All other things being equal, which they rarely are, one would not expect this occur. One might expect sluggish sales to result in similarly sluggish net income in the absence of some mitigating circumstances. Relationships of this type are things auditors should be conscious of and, when encountered, auditors should seek explanations to insure that no errors have been made and that nothing improper has taken place.

The case statement indicates that it is particularly important for Flexcom, Inc. to control its inventory because of the highly competitive market in which they operate and the sensitivity of inventory to changes in consumer demand and technology changes. This sounds as if competition and technological obsolescence are particularly important risks that Flexcom must control in order in order to be successful. Rapidly rising inventory levels could be explained several different ways. There may be perfectly logical and appropriate reasons for management to be increasing inventory at an above-normal rate, particularly if sales are sluggish. On the other hand, in light of sluggish sales, a logical question is whether the company has an inventory obsolescence problem and simply can't sell its inventory which is building up. If inventory obsolescence is an issue, the fact that the allowance for inventory obsolescence has significantly declined raises an interesting question that is worthy of further exploration.

A possible explanation that is at least worth exploring is whether management has taken conscious steps to overstate inventory. The motivation would be to increase reported net income to enhance the position of management. The relationship of inventory to net income is as follows: an overstatement of inventory is offset by an understatement of cost of goods sold which, in turn, overstates net income. By overstating inventory, either intentionally or in error, net income is improved and the company appears to be more profitable that it actually is.

CASE 12.6
MANAGING PROFITABILITY (concluded)

<u>Reduction in allowance for inventory obsolescence</u>

The allowance to reduce inventory for obsolescence functions much as an allowance for uncollectible accounts does to reduce accounts receivable to their net realizable value. If inventory includes some obsolescence, but the specific obsolete items are not known in advance, an allowance is established to reduce the total inventory to a lower recoverable amount with the specific items that include the obsolescence to be determined at some later time. From the description of the inventory situation of Flexcom, Inc., this sounds like the situation they face on a continuous basis. There may be some logical reason why the allowance has been reduced from 10% to 2% of inventory, but given the unique inventory situation, it is not intuitively obvious why there would be a justifiable reduction in the allowance of this magnitude. The understatement of the allowance for obsolescence is simply another way of overstating inventory since the net amount of the total inventory, less the allowance, is the inventory amount shown in the balance sheet as an asset and used in the determination of cost of goods sold in the income statement.

Understating the allowance overstates the net inventory amount, which results in an understatement of cost of goods sold, which inflates net income.

15 Minutes, Medium

CASE 12.7
EXTRAORDINARY ITEMS AND JUDGMENT
BUSINESS WEEK

Several reasons may be cited for why there is an increase in "special items" in U.S. corporations' income statements. Perhaps the most persuasive is that companies are constantly looking for ways to make their performance look better to investors and creditors. If a special item is a loss, separating that item out from normal, recurring operations, and presenting an income subtotal before and after that loss may encourage investors and creditors to discount that item in terms of it recurring in the future.

For all companies to report by the same rules is critical to being able to compare the performance of one company against others. For that reason, the FASB has spent a great deal of time, effort, and money to try to develop financial reporting standards to increasingly move companies toward more comparable financial reporting. Special items, however, have been a particularly difficult area, and achieving a balance between prescriptive standards that border on absolute rules and allowing judgment in the application of standards is a difficult task.

30 Minutes, Easy

CASE 12.8
COMPARING PRICE-EARNINGS RATIOS
INTERNET

Note: **We cannot supply quantitative answers to this assignment as they will vary depending upon which companies the student selects. In general, it would be expected that the NASDAQ company will have a higher price-earnings ratio than the Fortune 500 company.**

CHAPTER 13
STATEMENT OF CASH FLOWS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 13.1	Cash flows from operations (direct)	3	Analysis
B. Ex. 13.2	Cash flows from operations (indirect)	7	Analysis
B. Ex. 13.3	Cash flows from operations (direct)	3	Analysis
B. Ex. 13.4	Cash flows from operations (indirect)	7	Analysis
B. Ex. 13.5	Cash flows from investing activities	4	Analysis
B. Ex. 13.6	Cash flows from financing activities	4	Analysis
B. Ex. 13.7	Cash payment for merchandise	3	Analysis
B. Ex. 13.8	Determining beginning cash balance	2	Analysis
B. Ex. 13.9	Reconciling net income to cash from operations	6	Analysis
B. Ex. 13.10	Prepare statement of cash flows	2	Analysis

Exercises	Topic	Learning Objectives	Skills
13.1	Using a cash flow statement	1, 2	Analysis, communication
13.2	Using a cash flow statement	1, 2, 6	Analysis, communication
13.3	Using noncash accounts to compute cash flows	4	Analysis
13.4	Relationship between accrual and cash flows	3, 6	Analysis, communication
13.5	Accrual versus cash flows	3	Analysis
13.6	Investing activities and interest revenue	3, 4	Communication
13.7	Format of a cash flow statement	2	Analysis
13.8	Cash effects of business strategies	8	Analysis, communication, judgment
13.9	Indirect method	6, 7	Analysis, communication
13.10	Indirect method	7	Analysis
13.11	Classification of cash flows	2	Analysis
13.12	Classification of cash flows	2	Analysis
13.13	Cash flows from operating activities	4	Analysis, communication, judgment
13.14	Cash flows from financing activities	4	Analysis, communication, judgment
13.15	**Real World: Home Depot, Inc.**	1, 2, 4	Analysis, communication, judgment, research

Problems Sets A, B	Topic	Learning Objectives	Skills
13.1 A,B	Preparing a statement of cash flows—direct method (short)	2–4	Analysis
13.2 A,B	Investing activities	4	Analysis
13.3 A,B	Investing activities	4	Analysis, communication, judgment
13.4 A,B	Cash flow from operating activities—direct method	3, 8	Analysis, communication, judgment
13.5 A,B	Cash flow from operating activities—indirect method	6, 7	Analysis, communication, judgment
13.6 A,B	Preparing a statement of cash flows—direct method; comprehensive	2–4, 6, 8	Analysis, communication, judgment
13.7 A,B	Preparing a worksheet and statement of cash flows; evaluate the company's liquidity-indirect method.	1–9	Analysis, communication, judgment
13.8 A,B	Preparing a worksheet and statement of cash flows; evaluate the company's financial position—indirect method.	1–9	Analysis, communication, judgment

Critical Thinking Cases			
13.1	Using a statement of cash flows	1	Analytical, communication, judgment
13.2	Budgeting at a personal level	1, 8	Analytical, communication, judgment
13.3	Window dressing; effects on net income and net cash flow	1, 4, 8	Analytical, communication, judgment
13.4	Peak pricing	8	Analytical, communication, judgment
13.5	Improving the Statement of Cash Flows (Ethics, fraud & corporate governance)	3	Analytical, communication, judgment
13.6	**Real World: Texas Instruments** Cash Management (*Business Week*)	6, 8	Analytical, communication, judgment
13.7	**Real World: Coca-Cola, Amazon.com** Cash Flow Analysis (Internet)	2–4	Analytical, communication, judgment, research

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

13.1 A,B **Harris Company/Best Company** **30 Medium**
Prepare a statement of cash flows. Emphasis is upon format of the statement, with computations held to a minimum. However, sufficient computations are required to assure that students are able to distinguish between cash flows and accrual basis measurements. Uses the *direct method.*

13.2 A,B **Headrick, Inc./Schmatah Fashions** **25 Easy**
Prepare the investing activities section of a statement of cash flows by analyzing changes in balance sheet accounts and gains and losses reported in the income statement.

13.3 A,B **Hayes Export Co./RPZ Imports** **25 Easy**
Prepare the investing activities section of a statement of cash flows. Problem demonstrates how this section of the financial statement can be prepared by analyzing income statement amounts and changes in balance sheet accounts.

13.4 A,B **Treece, Inc./Royce Interiors, Inc.** **30 Medium**
Prepare the operating activities section of a statement of cash flows from accounting records maintained using the accrual basis of accounting. Students also are to explain how more efficient asset management could increase cash flow provided by operating activities. Uses the *direct method.* (Problem *13–5 uses the same data but requires use of the *indirect method.*)

13.5 A,B **Treece, Inc. (Indirect)/Royce Interiors, Inc. (Indirect)** **25 Medium**
Using the data provided in Problem 13.4 A,B, prepare the operating activities section of a statement of cash flows using the *indirect method* .

13.6 A,B **21st Century Technologies/Foxboro Technologies** **45 Strong**
A comprehensive problem covering conversion from the accrual basis to the cash basis and preparation of a statement of cash flows. Uses the *direct method.*

Problems (cont'd)

13.7 A,B	**Satellite 2010/LGIN** A comprehensive problem covering all learning objectives. P13.7A includes a *worksheet,* the *indirect method,* and *analysis* of the company's financial position. P13.7B does not include a worksheet and uses the *direct method.* We assign this to groups and let them deal with the worksheet mechanics on their own.	**60 Strong (P13.7A)** **40 Strong (P13.7B)**
13.8 A,B	**Miracle Tool, Inc./Extra-Ordinaire, Inc.** A comprehensive problem covering all learning objectives. Includes a *worksheet,* the *indirect method,* and *analysis* of the company's financial position. We assign this to groups and let them deal with the worksheet mechanics on their own.	**60 Strong**

Critical Thinking Cases

13.1	**Another Look at Allison Corporation** Students are asked to review the cash flow statement of Allison Corporation (the company used as an example throughout the chapter) and to evaluate the company's ability to maintain its present level of dividends.	**25 Strong**
13.2	**Cash Budgeting for You as a Student** A simple case that illustrates the usefulness of cash budgeting in the environment of a college student.	**15 Easy**
13.3	**Lookin' Good?** An automobile manufacturer is in serious financial difficulty, and management is considering several proposals to increase reported net income and net cash flow. Students are asked to evaluate the probable effects of each proposal. This case can lead into an open-ended discussion of "window dressing" in annual statements.	**45 Medium**
13.4	**Peak Pricing** Students are to discuss various aspects of peak pricing and discuss how it might be applied in specific situations. Also, they are to describe situations in which peak pricing might be considered unethical.	**15 Easy**
13.5	**Improving the Statement of Cash Flows** **Ethics, Fraud & Corporate Governance** Students explore the website of the Securities & Exchange Commission and locate a speech by an S.E.C. official in which suggestions for improving the statement of cash flows are discussed.	**20 Medium**
13.6	**Texas Instruments Inc.'s Cash Position** ***Business Week*** Students consider the impact on a company of an economic downturn.	**20 Medium**
13.7	**Comparing Cash Flow Information from Two Companies** **Internet** Visit a website that actually provides assistance in preparing cash budgets and statements of cash flows.	**30 Medium**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. The primary purpose of a statement of cash flows is to provide information about the cash receipts and cash payments of a business. A related purpose is to provide information about the investing and financing activities of the business.

2. The income statement provides the better measurement of profitability, especially when the business is financially sound and short-run survival is not the critical issue. The statement of cash flows is designed for measuring solvency, not profitability. An income statement, on the other hand, is specifically designed to measure profitability but gives little indication of solvency.

3. Two supplementary schedules usually accompany a statement of cash flows prepared by the direct method. One discloses the noncash aspects of financing and investing activities, such as the purchase of land in exchange for a note payable or the conversion of preferred stock into common shares. The other schedule itemizes the differences between net income and net cash flow from operations.

4. Examples of cash receipts and of cash payments in the three major classifications of a cash flow statement are shown below (two receipts and two payments required):

   a. *Operating activities:*

      Receipts:
      (1) Cash received from customers.
      (2) Dividends and interest received.

      Payments:
      (1) Cash paid to suppliers and employees.
      (2) Interest paid.
      (3) Income taxes paid.

   b. *Investing activities:*

      Receipts:
      (1) Sales of investments.
      (2) Collecting loans.
      (3) Sales of plant assets.

      Payments:
      (1) Purchases of investments.
      (2) Lending cash.
      (3) Purchases of plant assets.

   c. *Financing activities:*

      Receipts:
      (1) Short-term or long-term borrowing.
      (2) Issuance of capital stock.
      (3) Sales of treasury stock.

      Payments:
      (1) Repayment of debt.
      (2) Purchase of treasury stock or retirement of outstanding shares.
      (3) Payment of dividends.

5. Net cash flow from operating activities generally reflects the cash effects of transactions entering into the determination of net income. Because interest revenue and interest expense enter into the determination of net income, these items are classified as operating activities.

6. Cash equivalents are investments that are so short-term and so highly liquid that there is no significant distinction between them and cash held on hand or in bank accounts. Examples of cash equivalents include (1) money market funds, (2) commercial paper, and (3) Treasury bills.

7. A money market fund is viewed as a cash equivalent. For purposes of preparing a statement of cash flows, transfers of cash into or out of cash equivalents are *not* viewed as cash payments or receipts. Therefore, the transfer of cash into a money market fund will *not appear* in a statement of cash flows.

8. In the long run, it is most important for a business to have positive cash flows from *operating activities.* To a large extent, the ability of a business to generate positive cash flows from financing activities is dependent upon its ability to generate cash from operations. Investors are reluctant to invest money in a business that does not have an operating cash flow sufficient to assure interest and dividend payments.

   Also, a business cannot sustain a positive cash flow from investing activities over the long run. A company can only sell productive assets for a limited period of time. In fact, a successful and growing company will often show a negative cash flow from investing activities, as the company is increasing its investment in plant assets.

9. Among the classifications shown in the cash flow statement, a successful and growing company is *least* likely to report a positive cash flow from *investing activities.* A growing company is usually increasing its investment in plant assets, which generally leads to a negative cash flow from investing activities. If the company is successful and growing, however, the cash flows from operating activities and from financing activities usually are positive.

10. No; a statement of cash flows summarizes the effects of *cash transactions,* but ledger accounts are maintained by the *accrual basis* of accounting. Therefore, the balances of ledger accounts must be adjusted to the cash basis in order to determine the items and amounts appearing in a statement of cash flows.

11. Cash collected from customers may be computed as follows:

Net sales ……………………………………………………………………….	$ 925,000
Less: Increase in accounts receivable ($162,000 – $80,000) ………………………	82,000
Cash collected from customers ……………………………………………………….	$ 843,000

   The logic behind this computation is that sales resulting in an increase in accounts receivable have not been collected in cash and, therefore, do not represent cash receipts in the current period.

12. The caption "Cash paid to suppliers and employees" includes two basic elements: (1) cash paid (to suppliers) for purchases of merchandise, and (2) cash paid for operating expenses (expenses other than interest and taxes), including salaries to employees.

13. Net income may differ from the net cash flows from operating activities as a result of such factors as:
    (1) Depreciation and other noncash expenses that enter into the determination of net income.
    (2) Short-term timing differences between the cash basis and accrual basis of accounting. These include changes in the amounts of accounts receivable, inventories, prepaid expenses, accounts payable, and accrued liabilities.
    (3) Nonoperating gains and losses that, although included in the measurement of net income, are attributable to investing or financing activities rather than to operating activities.

14. The *direct method* identifies the major operating sources and uses of cash, using such captions as "Cash received from customers." The *indirect method,* on the other hand, reconciles net income to the net cash flows from operating activities by showing a series of adjustments to the net income figure.

    Both methods result in *exactly the same* net cash flows from operating activities.

15. Payments of accounts payable are viewed as *operating activities* and are included in the caption "Cash paid to suppliers and employees."

16. One purpose of a statement of cash flows is to provide information about all the *investing and financing activities* of a business. Although the acquisition of land by issuing capital stock does not involve a receipt or payment of cash, the transaction involves both investing and financing activities. Therefore, these activities are disclosed in a *supplementary schedule* that accompanies the statement of cash flows.

17. The credit to the Land account indicates a sale of land and, therefore, a cash receipt. However, the $220,000 credit represents only the *cost* (book value) of the land that was sold. This amount must be adjusted by any gain or loss recognized on the sale in order to reflect the amount of cash received.

18. Credits to paid-in capital accounts usually indicate the issuance of additional shares of capital stock. Assuming that these shares were issued for cash, the transaction would be presented in the financing activities section of a statement of cash flows as follows:

Proceeds from issuance of capital stock ($12,000,000 + $43,500,000) …………	$ 55,500,000

19. The amount of cash dividends paid during the current year may be determined as follows:

Dividends declared during the year ……………………………………………	$ 4,300,000
Add: Decrease during the year in the liability for dividends payable	
($1,500,000 - $900,000) ………………………………………………………	600,000
Dividends paid during the year …………………………………………………	$ 4,900,000

20. *Free cash flow* is that portion of the net cash flow from operating activities that is available for *discretionary purposes* after the basic obligations of the business have been met.

    From a short-term creditor's point of view, free cash flow is a "buffer," indicating that the business brings in more cash than it must have to meet recurring commitments. Long-term creditors view free cash flow as evidence of the company's ability to meet interest payments and to accumulate funds for the eventual retirement of long-term debt.

    From the stockholders' viewpoint, free cash flow indicates a likelihood of future dividend increases or, perhaps, expansion of the business, which will increase future profitability.

    Management views free cash flow positively because it is available for discretionary purposes rather than already committed to basic operations.

    In summary, everyone associated with the business views free cash flow favorably—and the more, the better.

21. A cash budget is a forecast of expected future cash flows. It usually shows the expected cash flows of each department within the organization, month by month, for the coming year.

    Budgets are useful to management in many ways. The very act of preparing a budget forces management to plan and coordinate the activities of all departments. During the year, it advises managers of the resources available to them and the results they are expected to achieve. It also serves as a basis for evaluating actual performance, and provides advance warning of impending cash shortages.

22. Peak pricing means charging higher prices in periods in which customer demand exceeds the company's capacity, and lower prices in "off-peak" periods. This serves the dual purposes of increasing revenue during peak periods, and allowing the business to serve more customers by shifting excess demand to off-peak periods.

    Common examples include restaurants, which charge higher prices at dinner time, and movie theaters, which offer low matinee prices during the daytime.

23. An effective product mix is one that generates more sales, both by attracting more customers and inspiring customers to purchase more products.

24. Speeding up the collection of accounts receivable does not increase the total amount collected. Rather, it merely shifts collections to an earlier time period. The only period(s) in which cash receipts actually *increase* are those in which collections under both the older and newer credit periods overlap.

SOLUTIONS TO BRIEF EXERCISES

B.Ex. 13.1

Cash flows from operating activities:

Cash received from customers	$240,000
Cash received for interest and dividends	50,000
Cash paid to suppliers and employees	(127,000)
Net cash provided by operating activities	$163,000

B.Ex. 13.2

Net income		$430,000
Adjustments to reconcile net income to net cash from operations:		
Depreciation expense	$67,000	
Increase in accounts receivable	(35,000)	
Increase in accounts payable	56,000	88,000
Net cash provided by operating activities		$518,000

B.Ex. 13.3

Cash flows from operating activities:

Cash received from customers	$750,000
Cash paid to purchase inventory	(335,000)
Cash paid to employees	(230,000)
Net cash provided by operating activities	$185,000

B.Ex. 13.4

Net income		$666,000
Adjustments to reconcile net income to net cash from operations:		
Increase in accounts receivable	($50,000)	
Decrease in inventory	23,000	
Decrease in accounts payable	(55,000)	
Increase in accrued expenses payable	14,000	(68,000)
Net cash provided by operating activities		$598,000

B.Ex. 13.5

Cash used for investing activities:

Cash paid for investments	$(45,000)
Cash paid for plant assets	(127,000)
Cash received for plant assets	66,000
Net cash used for investing activities	($106,000)

B.Ex. 13.6

Cash provided by financing activities:

Cash received from sale of common stock	$560,000
Cash received from sale of preferred stock	36,000
Cash paid to purchase treasury stock	(35,000)
Cash paid for dividends	(24,000)
Net cash provided by financing activities	$537,000

B.Ex. 13.7 **Cash payments for purchases:**

Cost of goods sold	$100,100
Add: Increase in merchandise inventory ($43,000 – $35,000)	8,000
Deduct: Increase in accounts payable ($30,000 – $23,000)	(7,000)
Net cash provided by financing activities	$101,100

B.Ex. 13.8

Cash balance at the beginning of the year:

Ending balance	$155,000
Add: Cash used in investing activities	67,000
Deduct: Cash provided by operating activities	$145,000
Cash provided by financing activities	10,000
	$67,000

B.Ex. 13.9

Net income	$56,000
Adjustments to reconcile net income to net cash from operations:	
Depreciation expense	$12,000
Increase in accounts receivable	(4,000)
Decrease in inventory	6,000
Increase in accounts payable	3,000
Decrease in accrued expenses payable	(2,000)
Net cash provided by operating activities	$71,000

B.Ex. 13.10

Watson, Inc.
Statement of Cash Flows
For year ended _____________

Cash flows provided by operating activities	$136,000
Cash flows used in investing activities	(56,000)
Cash flows used in financing activities	(34,000)
Change in cash	$46,000
Cash, beginning of year	89,000
Cash, end of year	$135,000

SOLUTIONS TO EXERCISES

Ex. 13.1 a. The operating activities section generally includes the cash provided by and used for those transactions that are included in the determination of net income. The investing activities section includes cash provided by and used for the purchase and disposal of assets that are not held for resale, primarily investments, and plant and intangible assets. Financing activities generally include cash provided by and used for debt and equity financing transactions.

b. Wallace Company's cash increased significantly in 2007, going from $75,000 to $243,000. Operations were strong, providing $200,000 of positive cash flow. Based on the limited information provided, interpreting the use of $120,000 for investing activities is difficult, but one possible positive interpretation is that the company is preparing for the future by acquiring additional plant and other assets that will be required. The increase in cash of $88,000 from financing activities indicates that the company is expanding its financing in some ways, probably some combination of selling bonds or other debt securities and selling common, preferred, or treasury stock. While the limited information presented makes substantive interpretation of the overall cash picture highly speculative, it is clear that the company has a much larger cash balance at the end than at the beginning of the year and that the increase is tied directly to its success in generating cash from its ongoing, normal operations.

Ex. 13.2 Note: All dollar figures in the following calculations are in thousands.

a.

Cash from operations	**$**	**280**
Expenditures for property and equipment		**(30)**
Dividends paid		**(140)**
Free cash flow	**$**	**110**

b. The major sources and uses of cash from financing activities during

Source:		**none**
Use: Dividend paid	**$**	**140**
Use: Retirement of Debt	**$**	**150**

Financing activities resulted in a decline in cash of $290 in 2007.

c. Cash and cash equivalents decreased by $5,000 during 2007, moving the cash balance from $50,000 to $45,000. The company paid dividends of $140,000 in 2007, and appears to be in a relatively strong cash position should it decide to pay dividends in the future.

d. (1) The gain on the sale of marketable securities represents a reclassification of this item from the operating activities section of the statement of cash flows to the investing activities section of the statement of cash flows. If a gain is present, as in 2007, it is deducted to effectively remove the item from net income; if a loss has been present, it would have been added to effectively remove it from net income.

(2) The increase in accounts receivable represents credit sales which were not collected in 2007. In the indirect method calculation, this item is a decrease in the amount of cash provided by net income because the sale was recognized in determining net income, but the cash was not received in 2007.

Ex. 13.3	**a.**	**Purchases of marketable securities ……………………………………**	**$125,000**
	b.	**Proceeds from sales of marketable securities ($140,000 book value less $35,000 loss) ………………………………………………**	**$105,000**

Ex. 13.4 a. (1) Net sales:

Cash sales ……………………………………………………	**$285,000**
Credit sales …………………………………………………	**460,000**
Net sales reported as revenue in the income statement	**$745,000**

(2) Cash received from collecting accounts receivable:

Credit sales …………………………………………………	**$460,000**
Add: Decrease in accounts receivable ………………………	**32,000**
Collections of accounts receivable ……………………………	**$492,000**

(3) Cash received from customers:

Net sales (includes cash sales and credit sales) ………………	**$745,000**
Add: Decrease in accounts receivable ………………………	**32,000**
Cash received from customers ………………………………	**$777,000**

b. Cash received from customers has two elements: (1) cash sales and (2) collections of accounts receivable. For cash sales, the amounts of sales and cash receipts are the same. However, collections on accounts receivable differ from the amount of credit sales. If accounts receivable increased, credit sales for the period exceeded cash collections on these accounts. If, however, accounts receivable decreased, cash collections of accounts receivable exceeded credit sales. Thus, cash received from customers may be greater or less than the amount of net sales.

Ex. 13.5 Cash payments to suppliers of merchandise:

Cost of goods sold …………………………………………		**$ 2,975,000**
Add: Increase in inventory ($820,000 - $780,000) ………	**$40,000**	
Decrease in accounts payable ($500,000 - $430,000)	**70,000**	**110,000**
Cash payments to suppliers of merchandise ……………		**$ 3,085,000**

Ex. 13.6 The new loans made ($15 million) will appear among the investing activities of the company as a cash outflow. The $36 million collected from borrowers will be split into two cash flows. The $30 million in interest revenue will be included among the cash inflows from operating activities, whereas the $6 million in principal amounts collected from borrowers ($36 million –$30 million) will appear as a cash inflow from investing activities.

Ex. 13.7

WYOMING OUTFITTERS, INC.
Statement of Cash Flows
For the Year Ended December 31, 2007

Cash flows from operating activities:		
Cash received from customers	$ 795,000	
Interest and dividends received	27,000	
Cash provided by operating activities		$ 822,000
Cash paid to suppliers and employees	(635,000)	
Interest paid	(19,000)	
Income taxes paid	(71,000)	
Cash disbursed for operating activities		(725,000)
Net cash flow from operating activities		$ 97,000
Cash flows from investing activities:		
Loans made to borrowers	$ (5,000)	
Collections on loans	4,000	
Cash paid to acquire plant assets	(21,000)	
Proceeds from sales of plant assets	9,000	
Net cash used for investing activities		(13,000)
Cash flows from financing activities:		
Proceeds from short-term borrowing	$ 10,000	
Dividends paid	(55,000)	
Net cash used for financing activities		(45,000)
Net increase in cash and cash equivalents		$ 39,000
Cash and cash equivalents, beginning of year		35,800
Cash and cash equivalents, end of year		$ 74,800

Ex. 13.8

a.

(1) Expenditures for R&D are an operating activity. In the short term, reducing these expenditures will increase the net cash flow from operating activities.

(2) In the long run, reducing expenditures for R&D may *reduce* cash flows from operations by reducing the number of new products the company brings to market.

b. Selling to customers using bank credit cards taps a new market of potential customers. This should increase sales and cash receipts in *both* the short and long term.

c.

(1) Reducing inventory will lessen expenditures for inventory purchases during the time that inventory levels decline. This will improve the net cash flow from operating activities in the near term.

(2) Once inventory has stabilized at the new and lower level, monthly expenditures will become approximately equal to the inventory used. Thus, this strategy will not affect cash flows once inventory has stabilized.

d.

(1) Deferring taxes can postpone taxes each year. For a growing business, this can reduce annual cash outlays year after year. Thus, it can increase net cash flows over both the short and long terms.

(2) At some point in the future, the early deferrals will require payment, causing the cash paid to stabilize, much like c. (2) above.

e. **Dividends are a financing activity, not an operating activity. Therefore, discontinuing dividends has no *direct* effect upon the net cash flow from operating activities. Over the long term, however, the business may increase its cash flows by investing the cash that it retains.**

Ex. 13.9

a. ***Added to net income.*** **In a statement of cash flows, the insurance proceeds from a tornado are classified as an investing activity, not an operating activity. However, this extraordinary loss reduced the amount of net income reported in the income statement. Therefore, this nonoperating loss is added back to net income as a step in determining the net cash flows from operating activities.**

b. ***Added to net income.*** **Depreciation is a noncash expense. Although it reduces the net income for the period, no cash outlay is required. Thus, to the extent of noncash expenses recorded during the period, net income is less than the amount of net cash flow.**

c. ***Omitted from the computation.*** **The transfer of cash from a bank account to a money market fund has no effect on net income. Also, as a money market fund is a cash equivalent, this transfer is not regarded as a cash transaction.**

d. ***Deducted from net income.*** **An increase over the year in the amount of accounts receivable indicates that revenue recognized in the income statement (credit sales) exceeds the collections of cash from credit customers. Therefore, net income is reduced by the increase in receivables which has not yet been collected.**

e. ***Omitted from the computation.*** **Cash received from customers is a cash inflow shown in the direct method of computing net cash flow from operating activities. However, this cash inflow does not appear separately when the indirect method is used.**

f. ***Added to net income.*** **A reduction in prepaid expenses indicates that the amounts expiring (and, therefore, being recognized as expense) exceed cash outlays for these items during the period. Thus, net income measured on the accrual basis is lower than net cash flow.**

g. ***Omitted from the computation.*** **Declarations and payments of dividends do not enter into the determination of either net income or net cash flows from operating activities. Therefore, these transactions do not cause a difference between these figures. Dividends paid are reported in the financing activities section as a disbursement.**

h. ***Added to net income.*** **An increase in accounts payable means that purchases of merchandise, measured on the accrual basis, exceed the payments during the period made to suppliers. Thus, costs and expenses measured on the accrual basis were greater than the actual cash payments during the period.**

i. ***Deducted from net income.*** **The $2 million reduction in accrued income taxes payable means that cash payments to tax authorities exceeded by $2 million the income tax expense of the current year. Therefore, cash outlays exceeded the expenses shown in the income statement, and net cash flow from operating activities is smaller than net income.**

Ex. 13.10

KEANER MACHINERY, INC.
Partial Statement of Cash Flows
For the Year Ended December 31, 2007

Cash flows from operating activities:		
Net income		$ 385,000
Add: Depreciation expense	$125,000	
Amortization of intangible assets	40,000	
Nonoperating loss on sale of investments	35,000	
Decrease in accounts receivable	45,000	
Decrease in inventory	72,000	
Increase in accrued expenses payable	25,000	342,000
Subtotal		$ 727,000
Less: Nonoperating gain on sale of plant assets	$90,000	
Increase in prepaid expenses	$12,000	
Decrease in accounts payable	31,000	133,000
Net cash flow from operating activities		$ 594,000

Ex. 13.11

- **a.** **Operating activity**
- **b.** **Financing activity**
- **c.** **Operating activity**
- **d.** **Financing activity**
- **e.** **Operating activity**
- **f.** **Operating activity**
- **g.** **Not included in the statement of cash flows. A money market fund is viewed as a cash equivalent. Therefore, transfers between bank accounts and money market funds are not viewed as cash receipts or cash payments.**
- **h.** **Investing activity**
- **i.** **Not included in a statement of cash flows prepared by the direct method. Amortization is a noncash expense; recording amortization does not require any cash outlay within the accounting period.**
- **j.** **Operating activity**
- **k.** **Financing activity**
- **l.** **Operating activity**
- **m.** **Operating activity**
- **n.** **Investing activity**
- **o.** **Not included in the statement of cash flows. Transfers between cash equivalents and other forms of cash are not regarded as cash receipts or cash payments.**

Ex. 13.12

1. **Operating activity**

2. **Financing activity**

3. **Operating activity**

4. **Financing activity**

5. **Operating activity**

6. **Operating activity**

7. **Not included in the statement of cash flows. A money market fund is viewed as a cash equivalent. Therefore, transfers between bank accounts and money market funds are not viewed as cash receipts or cash payments.**

8. **Investing activity**

9. **Not included in a statement of cash flows prepared by the direct method. Depreciation is a noncash expense; recording depreciation does not require any cash outlay within the accounting period.**

10. **Operating activity**

11. **Financing activity**

12. **Operating activity**

13. **Operating activity**

14. **Investing activity**

15. **Not included in the statement of cash flows. Transfers between cash equivalents and other forms of cash are not regarded as cash receipts or cash payments.**

Ex. 13.13 a. Cash provided by investing activities:

Cash provided by investing activities:	**$156,000**
Sale of equipment	**160,000**
Sale of land	**(178,000)**
Purchase of equipment	**$138,000**

b. The amount of gain or loss is reflected in the cash receipts figure. For example, equipment that was sold for $156,000 at a $34,000 loss had a book value (cost, less accumulated depreciation) at the time of sale of $190,000:

Cost, less accumulated depreciation	**$190,000**
Cash received from sale	**(156,000)**
Loss on sale	**$34,000**

Similarly, land that was sold for $160,000 and which resulted in a $50,000 gain had a cost of $110,000:

Cash received from sale	**$160,000**
Cost	**(100,000)**
Gain on sale	**$50,000**

Using the amount of cash received in the calculation of cash provided by investing activities automatically incorporates the gain or loss on the sale.

c. The following items were excluded because they are financing activities, not investing activities:

- **Cash receipts from sale of common stock**
- **Cash payments to purchase treasury stock, retire debt, and pay dividends on preferred and common stock**

Ex. 13.14 a. Cash

Sale of bonds	**$400,000**
Sale of treasury stock	**34,000**
Dividends on common stock	**(60,000)**
Purchase of treasury stock	**(20,000)**
Net cash provided by financing activities	**$354,000**

b. The following items were excluded from the above calculations because they are classified as indicated below in the statement of cash flows:

Classified as operating activities:

- **Cash received from customers**
- **Cash received from interest and dividends**
- **Cash paid to employees**
- **Cash paid to purchase inventory**
- **Cash paid for interest expense**

Classified as investing activities:

- **Cash received from sale of equipment**

c. While an argument could be made that interest expense should be classified as a financing activity in the statement of cash flows, the Financial Accounting Standards Board has ruled that interest expense should be in the operating activities category. The primary justification for this classification is that interest expense is an ordinary cost of doing business and is included in the determination of net income.

Ex. 13.15

a. **Net earnings for 2005 were $5,838 million, compared with $6,484 million cash provided by operations. The primary cause of the difference is depreciation and amortization, which accounts for $1,579 million of the difference. The majority of the remaining difference is attributed to changes in current assets and current liabilities, including receivables, merchandise inventory, accounts payable, accrued liabilities, deferred revenues, income taxes payable, and deferred income taxes.**

b. **The major uses of cash, other than operations, are as follows:**

From investing activities: capital expenditures (i.e., purchases of property, plant and equipment) acquiring other businesses, and purchases of investments.

From financing activities: repurchase of (common) treasury stock and payment of dividends to stockholders.

c. **Negative cash flows from investing and financing activities do not necessarily lead to a negative interpretation of a company's cash position. In Home Depot's case in 2004-2006, strong positive operating cash flows have been invested in heavy capital expenditures (which represent growth and future strength), as well as heavy reacquisition of outstanding common stock and the payment of dividends to stockholders. In fact, the company's cash position appears quite strong.**

d. **Free cash flow for the three years is determined as follows (in millions):**

	2005	2004	2003
Net cash from operations	$ 6,484	$ 6,904	$ 6,545
Cash invested in property, plant, and equipment	(3,881)	(3,948)	(3,508)
Cash paid for dividends	(857)	(719)	(595)
	$ 1,746	$ 2,237	$ 2,442

While the general trend is negative, the three primary elements in the free cash flow calculation are positive-steady cash provided by operations, strong (and growing) investment in new assets, and steady and increasing dividends to stockholders. In general, the company appears to be in a strong cash position.

30 Minutes, Medium

PROBLEM 13.1A
HARRIS COMPANY

a.

HARRIS COMPANY		
Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Cash received from customers (1)	$ 3,000,000	
Interest and dividends received	100,000	
Cash provided by operating activities		$ 3,100,000
Cash paid to suppliers and employees (2)	$ (2,550,000)	
Interest paid	(180,000)	
Income taxes paid	(95,000)	
Cash disbursed for operating activities		(2,825,000)
Net cash flow from operating activities		$ 275,000
Cash flows from investing activities:		
Loans made to borrowers	(500,000)	
Collections on loans	260,000	
Cash paid to acquire plant assets	(3,100,000)	
Proceeds from sales of plant assets (3)	580,000	
Net cash used in investing activities:		(2,760,000)
Cash flows from financing activities:		
Proceeds from issuing bonds payable	$ 2,500,000	
Dividends paid	(120,000)	
Net cash provided by financing activities		2,380,000
Net increase (decrease) in cash and cash equivalents		(105,000)
Cash and cash equivalents, beginning of year		489,000
Cash and cash equivalents, end of year		$ 384,000
Supporting computations:		
(1) Cash received from customers:		
Cash sales		$ 800,000
Collections on accounts receivable		2,200,000
Cash received from customers		$ 3,000,000
(2) Cash paid to suppliers and employees:		
Payments on accounts payable to merchandise suppliers		$ 1,500,000
Cash payments for operating expenses		1,050,000
Cash paid to suppliers and employees		$ 2,550,000
(3) Proceeds from sales of plant assets:		
Book value of plant assets sold		$ 660,000
Less: Loss on sales of plant assets		80,000
Proceeds from sales of plant assets		$ 580,000

Note to instructor: **The transfer from the money market fund to the general bank account is not considered a cash receipt because a money market fund is a cash equivalent.**

25 Minutes, Easy

PROBLEM 13.2A
HEADRICK, INC.

a.

HEADRICK, INC. Partial Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from investing activities:		
Purchases of marketable securities	$ (75,000)	
Proceeds from sales of marketable securities (1)	132,000	
Loans made to borrowers	(210,000)	
Collections on loans	162,000	
Cash paid to acquire plant assets (see part *b*)	(60,000)	
Proceeds from sales of plant assets (2)	12,000	
Net cash used for investing activities		$ (39,000)
Supporting computations:		
(1) Proceeds from sales of marketable securities:		
Cost of securities sold (credit entries to		
Marketable Securities account)		$ 90,000
Add: Gain on sales of marketable securities		42,000
Proceeds from sales of marketable securities		$ 132,000
(2) Proceeds from sales of plant assets:		
Cost of plant assets sold or retired		$ 120,000
Less: Accumulated depreciation on plant assets		
sold or retired		75,000
Book value of plant assets sold or retired		$ 45,000
Less: Loss on sales of plant assets		33,000
Proceeds from sales of plant assets		$ 12,000
b.		
Schedule of noncash investing and financing activities:		
Purchases of plant assets		$ 196,000
Less: Portion financed through issuance of long-term debt		136,000
Cash paid to acquire plant assets		60,000

c. Cash must be generated to cover the company’s investment needs through operating or financing activities. Ideally, cash to support investing activities should come from normal operations. If this places undue strain on the company’s operations, however, financing via borrowing and/or sale of capital stock are alternatives the company should consider.

25 Minutes, Easy

PROBLEM 13.3A
HAYES EXPORT CO.

a.

HAYES EXPORT CO. Partial Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from investing activities:		
Purchases of marketable securities	$ (78,000)	
Proceeds from sales of marketable securities (1)	46,000	
Loans made to borrowers	(55,000)	
Collections on loans	60,000	
Cash paid to acquire plant assets (see part *b*)	(50,000)	
Proceeds from sales of plant assets (2)	52,000	
Net cash used in investing activities		$ (25,000)
Supporting computations:		
(1) Proceeds from sales of marketable securities:		
Cost of securities sold (credit entries to		
Marketable Securities account)		$ 62,000
Less: Loss on sales of marketable securities		16,000
Proceeds from sales of marketable securities		$ 46,000
(2) Proceeds from sales of plant assets:		
Cost of plant assets sold or retired		$ 140,000
Less: Accumulated depreciation on plant assets		
sold or retired		100,000
Book value of plant assets sold or retired		$ 40,000
Add: Gain on sales of plant assets		12,000
Proceeds from sales of plant assets		$ 52,000
b.		
Schedule of noncash investing and financing activities:		
Purchases of plant assets		$ 150,000
Less: Portion financed through issuance of long-term debt		100,000
Cash paid to acquire plant assets		$ 50,000

c. Management has *more* control over the timing and amount of outlays for investing activities than for operating activities. Many of the outlays for operating activities are contractual, reflecting payroll agreements, purchase invoices, taxes, and monthly bills. Most investing activities, in contrast, are *discretionary*—both as to timing and dollar amount.

30 Minutes, Medium

PROBLEM 13.4A
TREECE, INC.

a.

TREECE, INC. Partial Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Cash received from customers (1)	$ 2,920,000	
Interest and dividends received (2)	171,000	
Cash provided by operating activities		$ 3,091,000
Cash paid to suppliers and employees (3)	$ (2,476,000)	
Interest paid (4)	(176,000)	
Income taxes paid (5)	(103,000)	
Cash disbursed for operating activities		(2,755,000)
Net cash flow from operating activities		$ 336,000
(1) Cash received from customers:		
Net sales		$ 2,850,000
Add: Decrease in accounts receivable		70,000
Cash received from customers		$ 2,920,000
(2) Interest and dividends received:		
Dividend income (cash basis)		$ 104,000
Interest income		70,000
Subtotal		$ 174,000
Less: Increase in accrued interest receivable		3,000
Interest and dividends received		$ 171,000
(3) Cash paid to suppliers and employees:		
Cash paid to suppliers of merchandise:		
Cost of goods sold		$ 1,550,000
Add: Increase in inventories		35,000
Net purchases		$ 1,585,000
Less: Increase in accounts payable to suppliers		8,000
Cash paid to suppliers of merchandise		$ 1,577,000
Cash paid for operating expenses:		
Operating expenses	$ 980,000	
Less: Depreciation expense	115,000	
Subtotal	$ 865,000	
Add: Increase in short-term prepayments	5,000	
Decrease in accrued operating expenses payable	29,000	
		899,000
Cash paid to suppliers and employees		$ 2,476,000
(4) Interest paid:		
Interest expense		$ 185,000
Less: Increase in accrued interest payable		9,000
Interest paid		$ 176,000
(5) Income taxes paid:		
Income tax expense		$ 90,000
Add: Decrease in accrued income taxes payable		13,000
Income taxes paid		$ 103,000

PROBLEM 13.4A
TREECE, INC. (concluded)

b. **In addition to more aggressive collection of accounts receivable, management could increase cash flows from operations by (only two required):**

- **Reducing the amount of inventories being held.**
- **Reducing the amount of short-term prepayments of expenses.**
- **Taking greater advantage of accounts payable as a short-term means of financing purchases of goods and services.**

25 Minutes, Medium

PROBLEM 13.5A
TREECE, INC. (INDIRECT)

TREECE, INC.		
Partial Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Net income		$ 223,000
Add: Depreciation expense	$ 115,000	
Decrease in accounts receivable	70,000	
Increase in accounts payable to suppliers	8,000	
Increase in accrued interest payable	9,000	202,000
Subtotal		$ 425,000
Less: Increase in accrued interest receivable	$ 3,000	
Increase in inventories	35,000	
Increase in short-term prepayments	5,000	
Decrease in accrued operating expenses payable	29,000	
Decrease in accrued income taxes payable	13,000	
Gain on sales of marketable securities	4,000	89,000
Net cash flow from operating activities		$ 336,000

Credit sales cause receivables to increase, while collections cause them to decline. If receivables decline over the year, *collections* during the year must have exceeded credit sales for the year. Thus, cash receipts *exceed* revenue measured on the accrual basis.

45 Minutes, Strong

PROBLEM 13.6A
21st CENTURY TECHNOLOGIES

a.

21st CENTURY TECHNOLOGIES Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Cash received from customers (1)	$ 3,140,000	
Interest received (2)	42,000	
Cash provided by operating activities		3,182,000
Cash paid to suppliers and employees (3)	$ (2,680,000)	
Interest paid (4)	(38,000)	
Income taxes paid (5)	(114,000)	
Cash disbursed for operating activities		(2,832,000)
Net cash flow from operating activities		$ 350,000
Cash flows from investing activities:		
Purchases of marketable securities	$ (60,000)	
Proceeds from sales of marketable securities (6)	72,000	
Loans made to borrowers	(44,000)	
Collections on loans	28,000	
Cash paid to acquire plant assets	(500,000)	
Proceeds from sales of plant assets (7)	24,000	
Net cash used in investing activities:		(480,000)
Cash flows from financing activities:		
Proceeds from short-term borrowing	$ 82,000	
Payments to settle short-term debts	(92,000)	
Proceeds from issuing common stock (8)	180,000	
Dividends paid	(120,000)	
Net cash provided for financing activities		50,000
Net increase (decrease) in cash and cash equivalents		$ (80,000)
Cash and cash equivalents, beginning of year		244,000
Cash and cash equivalents, end of year		$ 164,000
Supporting computations:		
(1) Cash received from customers:		
Net sales		$ 3,200,000
Less: increase in accounts receivable		60,000
Cash received from customers		$ 3,140,000
(2) Interest received:		
Interest revenue		$ 40,000
Add: Decrease in accrued interest receivable		2,000
Interest received		$ 42,000

PROBLEM 13.6A
21st CENTURY TECHNOLOGIES
(continued)

a.

(3) Cash paid to suppliers and employees:		
Cash paid for purchases of merchandise:		
Cost of goods sold		$ 1,620,000
Less: Decrease in inventory		60,000
Net purchases		1,560,000
Add: Decrease in accounts payable to suppliers		16,000
Cash paid for purchases of merchandise		$ 1,576,000
Cash paid for operating expenses:		
Operating expenses	$ 1,240,000	
Less: Depreciation (a noncash expense)	150,000	
Subtotal	1,090,000	
Add: Increase in prepayments	6,000	
Decrease in accrued liab. for operating expenses	8,000	
Cash paid for operating expenses		1,104,000
Cash paid to suppliers and employees		
($1,576,000 + $1,104,000)		$ 2,680,000
(4) Interest paid:		
Interest expense		$ 42,000
Less: Increase in accrued interest payable		4,000
Interest paid		$ 38,000
(5) Income taxes paid:		
Income tax expense		$ 100,000
Add: Decrease in income taxes payable		14,000
Income taxes paid		$ 114,000
(6) Proceeds from sales of marketable securities:		
Cost of marketable securities sold (credit entries		
to the Marketable Securities account)		$ 38,000
Add: Gain reported on sales of marketable securities		34,000
Proceeds from sales of marketable securities		$ 72,000
(7) Proceeds from sales of plant assets:		
Book value of plant assets sold (paragraph *8*)		$ 36,000
Less: Loss reported on sales of plant assets		12,000
Proceeds from sales of plant assets		$ 24,000
(8) Proceeds from issuing capital stock:		
Amounts credited to Capital Stock account		$ 20,000
Add: Amounts credited to Additional Paid-in		
Capital account		160,000
Proceeds from issuing capital stock		$ 180,000

PROBLEM 13.6A
21st CENTURY TECHNOLOGIES (concluded)

b. (1) The primary reason why cash provided by operating activities substantially exceeded net income was the company's $150,000 in *depreciation expense.* Depreciation reduces net income, but does not affect the cash flows from operating activities.

(2) The primary reason for the net decrease in cash was the large cash outlays for *investing activities* —specifically, the cash paid to acquire plant assets.

c. To the extent that receivables increase, the company has not yet collected cash from its customers. Thus, if the growth in receivables had been limited to $10,000, instead of $60,000, the company would have collected an additional $50,000 from its customers. Thus, the net decrease in cash (and cash equivalents) would have been $30,000, instead of $80,000.

60 Minutes, Strong

PROBLEM 13.7A
SATELLITE 2010

a.

SATELLITE 2010				
Worksheet for a Statement of Cash Flows				
For the Year Ended December 31, 2007				
Balance sheet effects:	Effect of Transactions			
	Beginning Balance	Debit Changes	Credit Changes	Ending Balance
Assets				
Cash and cash equivalents	80,000		(x) 43,000	37,000
Accounts receivable	100,000	(3) 750,000		850,000
Plant and equipment (net of accumulated depreciation)	600,000	(6) 2,200,000	(2) 147,000	2,653,000
Totals	780,000			3,540,000
Liabilities & Owners' Equity				
Notes payable (short-term)	0		(7) 1,450,000	1,450,000
Accounts payable	30,000		(4) 33,000	63,000
Accrued expenses payable	45,000	(5) 13,000		32,000
Notes payable (long-term)	390,000		(6) 350,000	740,000
Capital stock (no par)	200,000		(8) 500,000	700,000
Retained earnings	115,000		(1) 440,000	555,000
Totals	780,000	2,963,000	2,963,000	3,540,000
Cash effects:		Sources	Uses	
Operating activities:				
Net income		(1) 440,000		
Depreciation expense		(2) 147,000		
Increase in accounts receivable			(3) 750,000	
Increase in accounts payable		(4) 33,000		
Decrease in accrued expenses payable			(5) 13,000	
Investing activities:				
Cash paid for plant assets			(6) 1,850,000	
Financing activities:				
Short-term borrowing		(7) 1,450,000		
Issuance of capital stock		(8) 500,000		
Subtotals		2,570,000	2,613,000	
Net decrease in cash		(x) 43,000		
Totals		2,613,000	2,613,000	

PROBLEM 13.7A
SATELLITE 2010 (continued)

b.

SATELLITE 2010		
Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Net income		$ 440,000
Add: Depreciation expense		147,000
Increase in accounts payable		33,000
Subtotal		$ 620,000
Less: Increase in accounts receivable	$ 750,000	
Decrease in accrued expenses payable	13,000	763,000
Net cash provided by (used in) operating activities		$ (143,000)
Cash flows from investing activities:		
Cash paid to acquire plants assets (see schedule)	$ 1,850,000	
Net cash used for investing activities		(1,850,000)
Cash flows from financing activities:		
Short-term borrowing from bank	$ 1,450,000	
Issuance of capital stock	500,000	
Net cash provided by financing activities		1,950,000
Net increase (decrease) in cash		$ (43,000)
Cash and cash equivalents, Dec. 31, 2006		80,000
Cash and cash equivalents, Dec. 31, 2007		$ 37,000
Supplementary Schedule: Noncash Investing and Financing Activities		
Purchase of plant assets		$ 2,200,000
Less: Portion financed by issuing long-term notes payable		350,000
Cash paid to acquire plant assets		$ 1,850,000

c. **Satellite 2010's credit sales resulted in $750,000 in new receivables, which were uncollected as of year-end. These credit sales all were included in the computation of net income, but those that remained uncollected at year-end do *not* represent cash receipts. Therefore, the cash flow from operating activities was substantially below the amount of net income measured on the accrual basis.**

Note to instructor: **It is not uncommon for cash flows to lag behind a rising net income figure in a growing business. This is why many rapidly growing businesses find themselves "strapped for cash" to finance their growth.**

d. **Satellite 2010 does *not* appear headed for insolvency. First, the company has a $6 million line of credit, against which it has drawn only $1,450,000. This gives the company considerable debt-paying ability. Next, if Satellite 2010's rapid growth continues, the company should not have difficulty issuing additional capital stock to investors as a means of raising cash. If a company is obviously successful, it usually is able to raise the cash necessary to finance expanding operations.**

60 Minutes, Strong

PROBLEM 13.8A
MIRACLE TOOL, INC.

a.

MIRACLE TOOL, INC. Worksheet for a Statement of Cash Flows For the Year Ended December 31, 2007						
Balance sheet effects:	Beginning Balance	Debit Changes		Credit Changes		Ending Balance
Assets						
Cash and cash equivalents	10,000	(x)	50,000			60,000
Marketable securities	20,000			(8)	15,000	5,000
Accounts receivable	40,000			(4)	17,000	23,000
Inventories	120,000	(5)	2,000			122,000
Plant and equipment (net of accumulated depreciation)	300,000	(9)	20,000	(3)	35,000	285,000
Totals	490,000					495,000
Liabilities & Owners' Equity						
Accounts payable	50,000			(6)	23,000	73,000
Accrued expenses payable	17,000	(7)	3,000			14,000
Notes payable	245,000	(10)	10,000	(9)	18,000	253,000
Capital stock	120,000			(11)	15,000	135,000
Retained earnings	58,000	(1)	34,000			20,000
		(2)	4,000			
Totals	490,000		123,000		$ 123,000	495,000
Cash effects:		Sources		Uses		
Operating activities:						
Net loss				(1)	34,000	
Depreciation expense		(3)	35,000			
Decrease in accounts receivable		(4)	17,000			
Increase in inventory				(5)	2,000	
Increase in accounts payable		(6)	23,000			
Decrease in accrued expenses payable				(7)	3,000	
Loss on sale of marketable securities		(8)	1,000			
Investing activities:						
Proceeds from sale of marketable securities		(8)	14,000			
Cash paid for plant assets				(9)	2,000	
Financing activities						
Dividends paid				(2)	4,000	
Payment of note payable				(10)	10,000	
Issuance of capital stock		(11)	15,000			
Subtotals			105,000		55,000	
Net increase in cash				(x)	50,000	
Totals			105,000		105,000	

PROBLEM 13.8A
MIRACLE TOOL, INC. (continued)

b.

MIRACLE TOOL, INC.		
Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Net loss		$ (34,000)
Add: Depreciation expense		35,000
Decrease in accounts receivable		17,000
Increase in accounts payable		23,000
Loss on sale of marketable securities		1,000
Subtotal		$ 42,000
Less: Increase in inventory	$ 2,000	
Decrease in accrued expenses	3,000	5,000
Net cash provided by operating activities		$ 37,000
Cash flows from investing activities:		
Proceeds from sale of marketable securities	$ 14,000	
Cash paid to acquire plants assets (see supplementary schedule)	(2,000)	
Net cash used in investing activities		12,000
Cash flows from financing activities:		
Dividends paid	$ (4,000)	
Payment of note payable	(10,000)	
issuance of capital stock	15,000	
Net cash provided for financing activities		1,000
Net increase (decrease) in cash		$ 50,000
Cash and cash equivalents, Dec. 31, 2006		10,000
Cash and cash equivalents, Dec. 31, 2007		$ 60,000
Supplementary Schedule: Noncash Investing and Financing Activities		
Purchase of plant assets		$ 20,000
Less: Portion financed through issuance of long-term debt		18,000
Cash paid to acquire plant assets		$ 2,000

c. **Miracle Tool, Inc. achieved its positive cash flow from operating activities basically by liquidating assets and by not paying its bills. It has converted most of its accounts receivable into cash, which probably means that credit sales have declined substantially over the past several months. A decrease in sales shows up in the income statement immediately, but may take months before its effects appear in a statement of cash flows.**

Miracle Tool, Inc. is not replacing plant assets as quickly as these assets are being depreciated. In any given year, this may not be significant. But on the other hand, this relationship certainly indicates that the business is not expanding, and it may indicate that the company is deferring replacements of plant assets in an effort to conserve cash.

Miracle Tool, Inc. is allowing its accounts payable to rise much more quickly than it is increasing inventory. This indicates that the company is not paying its bills as quickly as it used to. While this conserves cash, the "savings" are temporary. Also, if the company's credit rating is damaged, this strategy may reduce both earnings and cash flows in the near future.

d. **Miracle Tool, Inc. has substantially more cash than it did a year ago. Nonetheless, the company's financial position appears to be deteriorating. Its marketable securities—a highly liquid asset—are almost gone. Its accounts payable are rising rapidly, and substantially exceed the amount of cash on hand. Most importantly, sales and accounts receivable both are falling, which impairs the company's ability to generate cash from operating activities in the future. Also, the liquidity of the company's inventory is questionable in light of the declining sales.**

e. **This company is contracting its operations. Its investment in marketable securities, receivables, and plant assets all are declining. Further, the income statement shows that operations are eroding the owners' equity in the business. The decline in sales—already apparent in the income statement—soon will reduce the cash collected from customers, which is the principal factor contributing to a positive cash flow from operating activities.**

In summary, this company appears to be in real trouble.

f. **The company's principal revenue source—sales of tools—appears to be collapsing. If nothing is done, it is likely that the annual net losses will increase, and that operating cash flows soon will turn negative. Thus, management's first decision is whether to attempt to revive the company, or liquidate it.**

If the company is to be liquidated, this should be done quickly to avoid future operating losses. Information should be gathered to determine whether it would be best to sell the company as a going concern or whether management should sell the assets individually. In either event, management should *stop purchasing tools.* Assuming that sales continue to decline, the company's current inventory appears to be approximately a one-year supply.

PROBLEM 13.8A
MIRACLE TOOL, INC. (concluded)

If management decides to continue business operations, it should take the following actions:

- ***Expand the company's product lines!*** **The combination tool alone can no longer support profitable operations. Also, dependency upon a single product—especially a faddish product with a limited market potential—is not a sound long-term strategy.**
- **Stop buying the combination tool—at least until the current inventory is sold. This will not improve profitability, but will help cash flows. (As explained above, the company's current inventory appears about equal to next year's potential sales.)**
- **Look for ways to reduce operating expenses. In 2007, sales declined by *30%*, but the company was able to reduce operating expenses by only about *6.5%* ($17,000 decline from a level of $260,000).**
- **Stop paying dividends. The company has no cash to spare. As sales continue to fall, the net cash flow from operating activities is likely to turn negative. Collecting existing receivables and letting payables go unpaid can only bolster net cash flow for a limited period of time.**
- **Develop forecasts of future operations and cash flows. If a turnaround does not appear realistic, management should reconsider the option of liquidating the company.**

30 Minutes, Medium

PROBLEM 13.1B
BEST COMPANY

a.

BEST COMPANY		
Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Cash received from customers (1)	$ 3,040,000	
Interest and dividends received	40,000	
Cash provided by operating activities		$ 3,080,000
Cash paid to suppliers and employees (2)	$ (2,150,000)	
Interest paid	(130,000)	
Income taxes paid	(65,000)	
Cash disbursed for operating activities		(2,345,000)
Net cash flow from operating activities		$ 735,000
Cash flows from investing activities:		
Loans made to borrowers	$ (690,000)	
Collections on loans	300,000	
Cash paid to acquire plant assets	(1,700,000)	
Proceeds from sales of plant assets (3)	490,000	
Net cash used for investing activities:		(1,600,000)
Cash flows from financing activities:		
Proceeds from issuing bonds payable	$ 2,000,000	
Dividends paid	(250,000)	
Net cash provided by financing activities		1,750,000
Net increase (decrease) in cash and cash equivalents		$ 885,000
Cash and cash equivalents, beginning of year		115,000
Cash and cash equivalents, end of year		$ 1,000,000
Supporting computations:		
(1) Cash received from customers:		
Cash sales		$ 230,000
Collections on accounts receivable		2,810,000
Cash received from customers		$ 3,040,000
(2) Cash paid to suppliers and employees:		
Payments on accounts payable to		
merchandise suppliers		$ 1,220,000
Cash payments for operating expenses		930,000
Cash paid to suppliers and employees		$ 2,150,000
(3) Proceeds from sales of plant assets:		
Book value of plant assets sold		$ 520,000
Less: Loss on sales of plant assets		30,000
Proceeds from sales of plant assets		$ 490,000

Note to instructor: **The transfer from the money market fund to the general bank account is not considered a cash receipt because a money market fund is a cash equivalent.**

25 Minutes, Easy

PROBLEM 13.2B
SCHMATAH FASHIONS

a.

SCHMATAH FASHIONS		
Partial Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from investing activities:		
Purchases of marketable securities	$ (65,000)	
Proceeds from sales of marketable securities (1)	89,000	
Loans made to borrowers	(175,000)	
Collections on loans	50,000	
Cash paid to acquire plant assets (see part *b*)	(70,000)	
Proceeds from sales of plant assets (2)	80,000	
Net cash used for investing activities		$ (91,000)
Supporting computations:		
(1) Proceeds from sales of marketable securities:		
Cost of securities sold (credit entries to		
Marketable Securities account)		$ 74,000
Add: Gain on sales of marketable securities		15,000
Proceeds from sales of marketable securities		$ 89,000
(2) Proceeds from sales of plant assets:		
Cost of plant assets sold or retired		$ 150,000
Less: Accumulated depreciation on plant assets		
sold or retired		$ 60,000
Book value of plant assets sold or retired		$ 90,000
Less: Loss on sales of plant assets		10,000
Proceeds from sales of plant assets		$ 80,000
b.		
Schedule of noncash investing and financing activities:		
Purchases of plant assets		$ 220,000
Less: Portion financed through issuance of long-term debt		150,000
Cash paid to acquire plant assets		$ 70,000

c. **Cash must be generated to cover the company’s investment needs through operating or financing activities. Ideally, cash to support investing activities should come from normal operations. If this places undue strain on the company’s operations, however, financing via borrowing and/or sale of capital stock are alternatives the company should consider.**

25 Minutes, Easy

PROBLEM 13.3B
RPZ IMPORTS

a.

RPZ IMPORTS		
Partial Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from investing activities:		
Purchases of marketable securities	$ (59,000)	
Proceeds from sales of marketable securities (1)	52,000	
Loans made to borrowers	(40,000)	
Collections on loans	31,000	
Cash paid to acquire plant assets (see part *b*)	(50,000)	
Proceeds from sales of plant assets (2)	31,000	
Net cash used for investing activities		$ (35,000)
Supporting computations:		
(1) Proceeds from sales of marketable securities:		
Cost of securities sold (credit entries to		
Marketable Securities account)		$ 60,000
Less: Loss on sales of marketable securities		8,000
Proceeds from sales of marketable securities		$ 52,000
(2) Proceeds from sales of plant assets:		
Cost of plant assets sold or retired		$ 100,000
Less: Accumulated depreciation on plant assets		
sold or retired		$ 75,000
Book value of plant assets sold or retired		$ 25,000
Plus: Gain on sales of plant assets		6,000
Proceeds from sales of plant assets		$ 31,000
b.		
Schedule of noncash investing and financing activities:		
Purchases of plant assets		$ 140,000
Less: Portion financed through issuance of long-term debt		90,000
Cash paid to acquire plant assets		$ 50,000

c. Management has *more* control over the timing and amount of outlays for investing activities than for operating activities. Many of the outlays for operating activities are contractual, reflecting payroll agreements, purchase invoices, taxes, and monthly bills. Most investing activities, in contrast, are *discretionary*—both as to timing and dollar amount.

30 Minutes, Medium

PROBLEM 13.4B
ROYCE INTERIORS, INC.

a.

ROYCE INTERIORS, INC. Partial Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Cash received from customers (1)	$ 2,590,000	
Interest and dividends received (2)	91,000	
Cash provided by operating activities		$ 2,681,000
Cash paid to suppliers and employees (3)	(1,576,000)	
Interest paid (4)	(58,000)	
Income taxes paid (5)	(112,000)	
Cash disbursed for operating activities		(1,746,000)
Net cash flow from operating activities		$ 935,000
(1) Cash received from customers:		
Net sales		$ 2,600,000
Less: Increase in accounts receivable		10,000
Cash received from customers		$ 2,590,000
(2) Interest and dividends received:		
Dividend income		$ 55,000
Interest income		40,000
Subtotal		$ 95,000
Less: Increase in accrued interest receivable		4,000
Interest and dividends received		$ 91,000
(3) Cash paid to suppliers and employees:		
Cash paid to suppliers of merchandise:		
Cost of goods sold		$ 1,300,000
Add: Increase in inventories		25,000
Net purchases		$ 1,325,000
Less: Increase in accounts payable to suppliers		5,000
Cash paid to suppliers of merchandise		$ 1,320,000
Cash paid for operating expenses:		
Operating expenses	$ 300,000	
Less: Depreciation expense	49,000	
Subtotal	$ 251,000	
Add: Increase in short-term prepayments	1,000	
Decrease in accrued operating expenses payable	4,000	
		256,000
Cash paid to suppliers and employees		$ 1,576,000
(4) Interest paid:		
Interest expense		$ 60,000
Less: Increase in accrued interest payable		2,000
Interest paid		$ 58,000
(5) Income taxes paid:		
Income tax expense		$ 110,000
Add: Decrease in accrued income taxes payable		2,000
Income taxes paid		$ 112,000

b. Management could increase cash flows from operations by (only two required):

- **Reducing the amount of inventories being held.**
- **Reducing the amount of short-term prepayments of expenses.**
- **Taking greater advantage of accounts payable as a short-term means of financing purchases of goods and services.**
- **More aggressive collection of accounts receivable.**

25 Minutes, Medium

PROBLEM 13.5B
ROYCE INTERIORS, INC.
(INDIRECT)

a.

ROYCE INTERIORS, INC. Partial Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Net income		$ 928,000
Add: Depreciation expense	$ 49,000	
Increase in accounts payable to suppliers	5,000	
Increase in accrued interest payable	2,000	56,000
Subtotal		$ 984,000
Less: Increase in accounts receivable	$ 10,000	
Increase in accrued interest receivable	4,000	
Increase in inventories	25,000	
Increase in short-term prepayments	1,000	
Decrease in accrued operating expenses payable	4,000	
Decrease in accrued income taxes payable	2,000	
Gain on sales of marketable securities	3,000	49,000
Net cash flow from operating activities		$ 935,000

Credit sales cause receivables to increase, while collections cause them to decline. If receivables increase over the year, *collections* during the year must have been less than credit sales for the year. Thus, cash receipts were less than revenue measured on the accrual basis.

45 Minutes, Strong

PROBLEM 13.6B
FOXBORO TECHNOLOGIES

a.

FOXBORO TECHNOLOGIES Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Cash received from customers (1)	$ 3,340,000	
Interest received (2)	65,000	
Cash provided by operating activities		3,405,000
Cash paid to suppliers and employees (3)	$ (2,334,000)	
Interest paid (4)	(23,000)	
Income taxes paid (5)	(125,000)	
Cash disbursed for operating activities		(2,482,000)
Net cash flow from operating activities		$ 923,000
Cash flows from investing activities:		
Purchases of marketable securities	$ (50,000)	
Proceeds from sales of marketable securities (6)	65,000	
Loans made to borrowers	(30,000)	
Collections on loans	27,000	
Cash paid to acquire plant assets	(350,000)	
Proceeds from sales of plant assets (7)	22,000	
Net cash used for investing activities:		(316,000)
Cash flows from financing activities:		
Proceeds from short-term borrowing	$ 56,000	
Payments to settle short-term debts	(70,000)	
Proceeds from issuing common stock (8)	160,000	
Dividends paid	(300,000)	
Net cash provided by financing activities		(154,000)
Net increase (decrease) in cash and cash equivalents		$ 453,000
Cash and cash equivalents, beginning of year		20,000
Cash and cash equivalents, end of year		$ 473,000
Supporting computations:		
(1) Cash received from customers:		
Net sales		$ 3,400,000
Less: increase in accounts receivable		60,000
Cash received from customers		$ 3,340,000
(2) Interest received:		
Interest income		$ 60,000
Add: Decrease in accrued interest receivable		5,000
Interest received		$ 65,000

PROBLEM 13.6B
FOXBORO TECHNOLOGIES
(continued)

(3) Cash paid to suppliers and employees:		
Cash paid for purchases of merchandise:		
Cost of goods sold		$ 1,500,000
Less: Decrease in inventory		30,000
Net purchases		$ 1,470,000
Add: Decrease in accounts payable to suppliers		22,000
Cash paid for purchases of merchandise		$ 1,492,000
Cash paid for operating expenses:		
Operating expenses	$ 900,000	
Less: Depreciation (a noncash expense)	75,000	
Subtotal	$ 825,000	
Add: Increase in prepayments	8,000	
Decrease in accrued liab. for operating expenses	9,000	
Cash paid for operating expenses		842,000
Cash paid to suppliers and employees		$ 2,334,000
(4) Interest paid:		
Interest expense		$ 27,000
Less: Increase in accrued interest payable		4,000
Interest paid		$ 23,000
(5) Income taxes paid:		
Income tax expense		$ 115,000
Add: Decrease in income taxes payable		10,000
Income taxes paid		$ 125,000
(6) Proceeds from sales of marketable securities:		
Cost of marketable securities sold (credit entries		
to the Marketable Securities account)		$ 40,000
Add: Gain reported on sales of marketable securities		25,000
Proceeds from sales of marketable securities		$ 65,000
(7) Proceeds from sales of plant assets:		
Book value of plant assets sold (paragraph *8*)		$ 30,000
Less: Loss reported on sales of plant assets		8,000
Proceeds from sales of plant assets		$ 22,000
(8) Proceeds from issuing capital stock:		
Amounts credited to Capital Stock account		$ 60,000
Add: Amounts credited to Additional Paid-in		
Capital account		100,000
Proceeds from issuing capital stock		$ 160,000

PROBLEM 13.6B
FOXBORO TECHNOLOGIES (concluded)

b. Cash paid to suppliers, presented in the operating activities section of the statement of cash flows, totaled $2,330,000. Cost of goods sold, presented in the income statement, was only $1,500,000. The primary reasons for the difference are as follows:

- In addition to cost of goods sold, operating expenses required the payment of a significant amount of cash which accounts for much of the difference.

- Adjustments to the amount of cost of goods sold plus the amount of operating expenses were required as a result of the following:
  --Decrease in inventory
  --Decrease in accounts payable
  --Depreciation expenses (which did not require cash payment)
  --Increase in prepaid operating expenses
  --Decrease in accrued liabilities for operating expenses

c. On the contrary, the fact that cash flows from investing and financing activities are negative attests to the strength of the cash position of the company. The amount of cash increased significantly during the year, going from a beginning balance of $20,000 to $473,000. Cash flows from operating activities were a significant positive amount, $923,000. In addition, the company was able to purchase marketable securities and plant assets and make loans to borrowers (all investing activities) and retire debt and pay dividends (financing activities).

40 Minutes, Strong

PROBLEM 13.7B
LGIN

a.

LGIN		
Statement of Cash Flows		
For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Net income		$ 562,000
Add: Depreciation expense		125,000
Increase in accounts payable		37,000
Subtotal		$ 724,000
Less: Increase in accounts receivable	$ 865,000	
Decrease in accrued expenses payable	17,000	882,000
Net cash provided by (used in) operating activities		$ (158,000)
Cash flows from investing activities:		
Cash paid to acquire plants assets (see schedule)	$ (2,000,000)	
Net cash used for investing activities		(2,000,000)
Cash flows from financing activities:		
Short-term borrowing from bank	$ 1,490,000	
Issuance of capital stock	665,000	
Net cash provided by financing activities		2,155,000
Net increase (decrease) in cash		$ (3,000)
Cash and cash equivalents, Dec. 31, 2006		45,000
Cash and cash equivalents, Dec. 31, 2007		$ 42,000
Supplementary Schedule: Noncash Investing and Financing Activities		
Purchase of plant assets		$ 2,585,000
Less: Portion financed by issuing long-term notes payable		585,000
Cash paid to acquire plant assets		$ 2,000,000

b. **LGIN's credit sales resulted in $865,000 in new receivables, which were uncollected as of year-end. These credit sales all were included in the computation of net income, but those that remained uncollected at year-end do *not* represent cash receipts. Therefore, the cash flow from operating activities was substantially below the amount of net income measured on the accrual basis.**

Note to instructor: **It is not uncommon for cash flows to lag behind a rising net income figure in a growing business. This is why many rapidly growing businesses find themselves "strapped for cash" to finance their growth.**

c. **LGIN does *not* appear headed for insolvency. First, the company has a $5 million line of credit, against which it has drawn only $1,490,000. This gives the company considerable debt-paying ability. Next, if LGIN's rapid growth continues, the company should not have difficulty issuing additional capital stock to investors as a means of raising cash. If a company is obviously successful, it usually is able to raise the cash necessary to finance expanding operations.**

60 Minutes, Strong

PROBLEM 13.8B
EXTRA-ORDINAIRE, INC.

a.

EXTRA-ORDINAIRE, INC.						
Worksheet for a Statement of Cash Flows						
For the Year Ended December 31, 2007						
Balance sheet effects:						
	Beginning Balance		Debit Changes		Credit Changes	Ending Balance
Assets						
Cash and cash equivalents	22,000	(x)	38,000			60,000
Marketable securities	27,000			(8)	15,000	12,000
Accounts receivable	40,000			(4)	5,000	35,000
Inventory	120,000	(5)	8,000			128,000
Plant and equipment (net of						
accumulated depreciation)	250,000	(9)	20,000	(3)	29,000	241,000
	459,000					476,000
Liabilities & Owners' Equity						
Accounts payable	50,000			(6)	20,000	70,000
Accrued expenses payable	16,000	(7)	2,000			14,000
Notes payable	235,000	(10)	10,000	(9)	12,000	237,000
Capital stock (no par value)	108,000			(11)	35,000	143,000
Retained Earnings	50,000	(1)	34,000			12,000
		(2)	4,000			
Totals	459,000		116,000		116,000	476,000
Cash effects:			Sources		Uses	
Operating activities:						
Net loss				(1)	34,000	
Depreciation expense		(3)	29,000			
Decrease in accounts rec.		(4)	5,000			
Increase in inventory				(5)	8,000	
Increase in accounts pay.		(6)	20,000			
Decrease in accrued						
expenses payable				(7)	2,000	
Loss on sale of marketable						
securities		(8)	4,000			
Investing activities:						
Proceeds from sale of						
marketable securities		(8)	11,000			
Cash paid for plant assets				(9)	8,000	
Financing activities						
Dividends paid				(2)	4,000	
Payment of notes payable				(10)	10,000	
Sale of capital stock		(11)	35,000			
Net increase in cash				(x)	38,000	
Totals			104,000		104,000	

PROBLEM 13.8B
EXTRA-ORDINAIRE, INC.
(continued)

b.

EXTRA-ORDINAIRE, INC. Statement of Cash Flows For the Year Ended December 31, 2007		
Cash flows from operating activities:		
Net loss		$ (34,000)
Add: Depreciation expense		29,000
Decrease in accounts receivable		5,000
Increase in accounts payable		20,000
Loss on sales of marketable securities		4,000
Subtotal		$ 24,000
Less: Increase in inventory	$ 8,000	
Decrease in accrued expenses	2,000	10,000
Net cash provided by operating activities		$ 14,000
Cash flows from investing activities:		
Proceeds from sales of marketable securities	$ 11,000	
Cash paid to acquire plants assets (see supplementary schedule)	(8,000)	
Net cash provided by investing activities		3,000
Cash flows from financing activities:		
Dividends paid	$ (4,000)	
Payment of note payable	(10,000)	
issuance of capital stock	35,000	
Net cash provided by financing activities		21,000
Net increase (decrease) in cash		$ 38,000
Cash and cash equivalents, Dec. 31, 2006		22,000
Cash and cash equivalents, Dec. 31, 2007		$ 60,000
Supplementary Schedule: Noncash Investing and Financing Activities		
Purchase of plant assets		$ 20,000
Less: Portion financed through issuance of long-term debt		12,000
Cash paid to acquire plant assets		$ 8,000

c. **Extra-Ordinaire, Inc. achieved its positive cash flow from operating activities basically by liquidating assets and by not paying its bills. It has converted most of its accounts receivable into cash, which probably means that credit sales have declined substantially over the past several months. A decrease in sales shows up in the income statement immediately, but may take months before its effects appear in a statement of cash flows.**

Extra-Ordinaire, Inc. is not replacing plant assets as quickly as these assets are being depreciated. In any given year, this may not be significant. But on the other hand, this relationship certainly indicates that the business is not expanding, and it may indicate that the company is deferring replacements of plant assets in an effort to conserve cash.

Extra-Ordinaire, Inc. is allowing its accounts payable to rise much more quickly than it is increasing inventory. This indicates that the company is not paying its bills as quickly as it used to. While this conserves cash, the "savings" are temporary. Also, if the company's credit rating is damaged, this strategy may reduce both earnings and cash flows in the near future.

d. **Extra-Ordinaire, Inc. has substantially more cash than it did a year ago. Nonetheless, the company's financial position appears to be deteriorating. Its marketable securities—a highly liquid asset—are almost gone. Its accounts payable are rising rapidly, and substantially exceed the amount of cash on hand. Most importantly, sales and accounts receivable both are falling, which impairs the company's ability to generate cash from operating activities in the future. Also, the liquidity of the company's inventory is questionable in light of the declining sales.**

e. **This company is contracting its operations (or collapsing). Its investment in marketable securities, receivables, and plant assets all are declining. Further, the income statement shows that operations are eroding the owners' equity in the business. The decline in sales—already apparent in the income statement—soon will reduce the cash collected from customers, which is the principal factor contributing to a positive cash flow from operating activities.**

In summary, this company appears to be in real trouble.

f. **The company's principal revenue source—sales of Pulsas—appears to be collapsing. If nothing is done, it is likely that the annual net losses will increase, and that operating cash flows soon will turn negative. Thus, management's first decision is whether to attempt to revive the company, or liquidate it.**

If the company is to be liquidated, this should be done quickly to avoid future operating losses. Information should be gathered to determine whether it would be best to sell the company as a going concern or whether management should sell the assets individually. In either event, management should *stop purchasing Pulsas.* Assuming that sales continue to decline, the company's current inventory appears to be approximately a one-year supply.

PROBLEM 13.8B
EXTRA-ORDINAIRE (concluded)

If management decides to continue business operations, it should take the following actions:

- ***Expand the company's product lines!*** **The Pulsas alone can no longer support profitable operations. Also, dependency upon a single product—especially a faddish product with a limited market potential—is not a sound long-term strategy.**
- **Stop buying Pulsas—at least until the current inventory is sold. This will not improve profitability, but will help cash flows. (As explained above, the company's current inventory appears about equal to next year's potential sales.)**
- **Look for ways to reduce operating expenses. In 2007, sales declined by *36%*, but the company was able to reduce operating expenses by only about 3.8*%* ($10,000 decline from a level of $260,000).**
- **Stop paying dividends. The company has no cash to spare. As sales continue to fall, the net cash flow from operating activities is likely to turn negative. Collecting existing receivables and letting payables go unpaid can only bolster net cash flow for a limited period of time.**
- **Develop forecasts of future operations and cash flows. If a turnaround does not appear realistic, management should reconsider the option of liquidating the company.**

SOLUTIONS TO CASES

25 Minutes, Strong

CASE 13.1
ANOTHER LOOK AT ALLISON CORPORATION

a. Based on past performance, it does not appear that Allison Corporation can continue to pay annual dividends of $40,000 without straining the cash position of the company. In a typical year, Allison generates a positive cash flow from operating activities of approximately $50,000. However, about $45,000 is required in a normal year to replace the plant assets retired. This leaves only about $5,000 per year of the net operating cash flow available for dividends and other purposes. If Allison is to continue paying cash dividends of $40,000 per year, the company must raise about $35,000 from investing and financing activities.

   Over the long run, it is quite difficult for a company to continually finance its cash dividends through increased borrowing (financing activity) or through sales of assets (investing activity). Therefore, Allison Corporation may have to reduce its cash dividends in future years.

b. Two of the unusual factors appearing in the current statement of cash flows should be considered in assessing the company's ability to pay future dividends. First, the company spent an unusually large amount ($160,000) to purchase plant assets during the year. This expenditure for plant assets may increase net operating cash flow above the levels of prior years. Second, the company issued $100,000 of bonds payable and an additional 1,000 shares of capital stock. The interest on the new bonds payable will reduce future cash flows from operations. Also, the additional shares of capital stock mean that total dividend payments must be increased if the company is to maintain the current level of dividends per share.

   In summary, the unusual investing and financing activities will improve the company's ability to continue its dividends only if the new plant assets generate more cash than is needed to meet the increased interest and dividend requirements.

15 Minutes, Easy

CASE 13.2
CASH BUDGETING FOR YOU AS A STUDENT

a. **Ending cash balances:**
Week 2: $20 [$(20) + $100 - $30 - $20 - $10]
Week 3: $60 ($20 + $100 - $30 - $20 - $10)
Week 4: $100 ($60 + $100 - $30 - $20 - $10)

b. **In Week 1 you have two problems. The first is that you do not have enough cash to pay your rent on Wednesday. But you will by Friday, so your payment may be a couple of days late. (But what's going to happen *next* month? Is there some "handwriting on the wall"?)**

Your second problem is that if you spend in your normal pattern, you will overdraw your bank account by $20 (which may trigger a service charge of another $10 or more). This problem can be solved by your foregoing any expenditures on entertainment this week—annoying, but hardly a cash crisis.

You have a bigger problem coming up in February. You will have more difficulty paying February's rent than you did January's. The sad fact is that you *cannot afford* rent of $200 per month. You are earning $400 per month and spending $240 on things *other than* rent. Thus, you can afford only about *$160* per month for rent unless you reduce other expenses.

To solve this problem, you might find a roommate to share the rent, move into less expensive housing, or somehow increase your monthly cash receipts. (It does not appear practical to trim $40 per month from your other expenses.)

45 Minutes, Medium

CASE 13.3
LOOKIN' GOOD?

a.

Proposals	Net Income	Net Cash Flows from Operating Activities	Cash
(1)	Increase	No effect	No effect
(2)	Increase	No effect	No effect
(3)	Increase	Increase	Increase
(4)	No effect (or decrease)*	Increase (or decrease)*	Increase (or decrease)*
(5)	Decrease	Increase	Increase
(6)	Increase	Increase	Increase
(7)	No effect	No effect	Increase

***Either "no effect" or "decrease" is an acceptable answer to the probable effect of this proposal upon net income; see discussion in paragraph *(4)*, part *b*.**

b. (1) If the costs of producing inventory are rising, use of the FIFO (first-in, first-out) method assigns older and lower costs to the cost of goods sold. Thus, it results in higher reported profits (but also in higher income taxes) than does the LIFO method. The inventory method used by a company does not affect the price that it pays to suppliers to purchase inventory. Thus, other than for possible tax consequences, the choice of inventory method *does not affect cash flows.* (The case stated that the additional taxes stemming from use of the FIFO method would not be paid until the following year.)

(2) Changing from an accelerated method to the straight-line method of depreciation will (generally) *reduce the amount of depreciation expense* included in the income statement, thus increasing reported net income. Lengthening estimates of useful lives has a similar effect. Depreciation is a noncash expense; therefore, *cash flows are not affected* by the choice of depreciation method or the estimate of useful lives, except to the extent that these choices may affect income tax payments. The problem stated, however, that no changes would be made in the depreciation claimed for tax purposes.

(3) Pressuring dealers (customers) to increase their inventories will increase General Wheels' sales for the year. This should increase net income and cash flows from operating activities (collections from customers).

(4) Requiring dealers to pay more quickly will speed up cash collections from customers, thus increasing operating cash flows and total cash. The timing of these collections has no *direct* effect upon net income. However, offering shorter credit terms may have the *indirect* effect of reducing net sales. Thus, one might argue that this proposal could *decrease* both net income and future collections from customers.

CASE 13.3
LOOKIN' GOOD? (concluded)

(5) Passing up cash discounts will delay many cash outlays by about 20 days. In the long run the amount paid will be about 2% greater, but in the short run the delay should more than offset these increased costs. (A 20-day delay in cash outlays usually amounts to over 5% of total cash outlays for the year: 20 days/365 days = 5.5%.) While operating cash flows will increase, net income will decline; the higher purchase costs will be reflected in the cost of goods sold.

(6) Incurring short-term interest charges of 10% to replace long-term interest charges of 13% will reduce interest expense and cash payments of interest. Therefore, net income, cash flows from operating activities, and total cash flow will improve. Management's only risks in pursuing this proposal are that short-term rates may rise or that the company may be unable to renew the short-term loans as they mature.

(7) Dividend payments do not enter into the determination of net income or net cash flow from operating activities. Therefore, these two amounts will not be affected by the proposal. Cash dividends are classified as financing activities and do affect total cash flows from operating activities. Therefore, replacing cash dividends with stock dividends (which require no cash payment) will increase net cash flow from all sources. However, management should be aware that discontinuing cash dividends may adversely affect the company's ability to raise capital through the issuance of additional shares of capital stock.

15 Minutes, Easy

CASE 13.4
PEAK PRICING

a. **The statement is not valid because it addresses only the peak-period aspect of a peak-pricing strategy. It is true that during the peak period, some customers will be priced out of the market (or at least encouraged to purchase in an off-peak period). But in off-peak periods, prices tend to be *lower* than they would under a single-price strategy. Thus, peak pricing may, in fact, allow some customers to purchase goods or services that they otherwise could not afford.**

b. **The alternative to peak pricing is a single all-the-time price. In this case, excess demand is handled on a first-come, first-served basis.**

c. (1) **Hotels in Palm Springs charge their highest daily rates during the sunny but comfortable winter months. The uncomfortably hot summers are their off-season, and they offer their rooms at greatly reduced rates.**

   (2) **Movie theaters charge peak prices in the evenings. Daytime is the off-peak period, and they normally offer substantially discounted matinee prices. Also, they often lower prices on Monday and/or Tuesday evenings, which are periods of little customer demand.**

d. **In the opinion of the authors, peak pricing normally *is* an ethical business practice. But there are exceptions, and management should think carefully about its responsibilities.**

Peak pricing may be unethical if the services are funded in whole or in part by taxpayers—but not in every case. For example, we would consider it unethical for public schools to provide a more convenient class schedule to students willing to pay an extra fee. But we would not object to a museum or national park varying admission prices between peak and off-peak periods.

Also, an ethical distinction may be drawn between peak pricing and a concept called "profiteering." Profiteering means exploiting customers in an emergency situation. For example, we would view raising the price of medical supplies during a local disaster, such as the September 11, 2001 terrorist attacks on the World Trade Center and the Pentagon, as profiteering. (To our knowledge, this did *not* occur. In fact, many health-care organizations provided goods and services *at no charge* during this emergency.) Other examples are increased prices of salt and shovels in preparation for a blizzard and increased prices of generators, pumps, bottled water, and batteries at the time of a hurricane.

But what represents an emergency situation? For example, we would *not* view it as unethical for hotels to raise their room rates because the Superbowl is being played in town.

20 Minutes, Medium

CASE 13.5
IMPROVING THE STATEMENT OF CASH FLOWS
ETHICS, FRAUD & CORPORATE GOVERNANCE

The first four parts of this case have no written requirements. Part (d) requires students to write a synopsis, based on their research in the Securities & Exchange Commission's web site, of a speech given by SEC staff member Scott Taub, in which he makes a specific reference to the statement of cash flows.

Following are several points that are appropriate for inclusion in the student's response to this case:

- **It is difficult for one person or a few people to make improvements in financial reporting.**
- **Improvement can come by looking at reporting as a communications exercise rather than a compliance exercise.**
- **Preparers of financial statements should make choices that provide more information rather than those that minimally comply with the rules.**
- **Regarding the statement of cash flows, any company can improve its reporting by voluntarily presenting cash flows by the direct rather than the indirect method.**
- **Users (of financial statements) indicate that they prefer the direct method information, and FASB Statement #95 provides a framework in which to provide this information.**

20 Minutes, Medium

CASE 13.6

TEXAS INSTRUMENTS, INC.'S CASH POSITION

BUSINESS WEEK

a. Cash increases (decreases) and net income (losses) are almost never equal. Net income is determined using accrual-based accounting procedures. As a result, the cash flow associated with revenues and expenses reported on the income statement can (and usually does) occur in different time periods from when these items appear on the statements. Many things such as depreciation expenses and non-operating gains and losses appear on the income statement, but do not affect cash flows.

b. In order to keep cash from going out the door, management at Texas Instruments can:

- **cut capital spending**
- **lay off employees**
- **trim inventories**
- **demand quicker payment from customers**
- **slow down payments to suppliers**
- **cut cash dividends**
- **slow or stop stock buybacks**
- **forego acquisitions by cash or**
- **defer income taxes.**

c. In order to bring in fresh cash, management can:

- **issue debt**
- **generate cash through operations**
- **issue securities**
- **practice peak pricing or**
- **create an effective product mix.**

30 Minutes, Medium

CASE 13.7
COMPARING CASH FLOW INFORMATION FROM TWO COMPANIES
INTERNET

a. **(no solution)**

b. **(no solution)**

c. **Both Coca-Cola and Amazon.com had positive cash flows from operating activities in each year, 2002–2005. However, Coca-Cola's cash flows from operating activities were much larger. In 2005, Coca-Cola's cash flows from operating activities was $6,423 million (i.e., almost $6.5 billion) while Amazon.com's cash flows provided by operating activities was a much smaller $733 million. Similarly, in 2002, Coca-Cola's figure was $5,968 (i.e., almost $6 billion) while Amazon.com's figure was $566 million; in 2003, the figures were $5,456 million for Coca-Cola (i.e., almost $5.5 billion) and Amazon.com's figure was $392 million. These are quite different companies in terms of size and stage of development, but both companies are providing significant amounts of cash from operating activities to support their other activities. Notice, for example, that investing and financing activities are net negative cash flow figures for all years presented except for investing activities for Amazon.com in 2003, which is a positive amount. This means that both companies are reinvesting cash from their successful operations in vari**

d. **Companies that may have negative cash flows from operations are companies that are in the early stage of development or companies competing in new industries. High start-up costs and marketing costs to develop the company's business have adverse effects on cash flows. Companies with net operating losses will often have negative cash flows from operations.**

e. **Companies with established products or services in established industries will often have large positive cash flows from operations, which result from positive operations that result in large net income amounts.**

CASE 13.7
COMPARING CASH FLOW INFORMATION FROM TWO COMPANIES (continued)

COCA-COLA Consolidated Statement of Cash Flows (in millions) For the Year Ended December 31			
	2005	2004	2003
OPERATING ACTIVITIES			
Net income	$ 4,872	$ 4,847	$ 4,347
Depreciation and amortization	932	893	850
Stock-based compensation expense	324	345	422
Deferred income taxes	(88)	162	(188)
Equity income or loss, net of dividends	(446)	(476)	(294)
Foreign currency adjustments	47	(59)	(79)
Gains on issuances of stock by equity investees	(23)	(24)	(8)
(Gains) losses, on sales of assets, including bottling interests	(9)	(20)	(5)
Other operating charges	85	480	330
Other items	299	437	249
Net change in operating assets and liabilities	430	(617)	(168)
Net cash provided by operating activities	6,423	5,968	5,456

AMAZON.COM, INC. Consolidated Statement of Cash Flows (in millions) For the Year Ended December 31			
	2005	2004	2003
OPERATING ACTIVITIES			
Net income (loss)	$ 359	588	35
Adjustments to reconcile net income (loss) to net cash from operating activities:			
Depreciation of fixed assets and other amort.	121	76	75
Stock-based compensation	87	58	88
Other operating expense (income)	7	(8)	3
Losses (gains) on sales of marketable securities, net	(1)	(1)	(9)
Remeasurements and other	(42)	1	130
Non-cash interest expense and other	5	5	13
Deferred income taxes	70	(257)	1
Cumulative effect of change in accounting principle	(26)	—	—
Changes in operating assets and liabilities:			
Inventories	(104)	(169)	(76)
Accounts receivable, net, and other current assets	(84)	(2)	2
Accounts payable	274	286	167
Accrued expenses and other current liabilities	60	(14)	(27)
Additions to unearned revenue	156	110	102
Amortization of previously unearned revenue	(149)	(107)	(112)
Net cash provided by (used in) operating activities	733	566	392

CHAPTER 14
FINANCIAL STATEMENT ANALYSIS

OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

Brief Exercises	Topic	Learning Objectives	Skills
B. Ex. 14.1	Dollar and percentage change	1	Analysis
B. Ex. 14.2	Trend percentages	1	Analysis
B. Ex. 14.3	Component percentages	1	Analysis
B. Ex. 14.4	Working capital and current ratio	4	Analysis
B. Ex. 14.5	Current and quick ratios	4	Analysis
B. Ex. 14.6	Debt ratio	4	Analysis
B. Ex. 14.7	Net income as percentage of sales	6	Analysis
B. Ex. 14.8	Earnings per share	6	Analysis
B. Ex. 14.9	Return on assets	7	Analysis, judgment
B. Ex. 14.10	Return on equity	7	Analysis, judgment

Exercises	Topic	Learning Objectives	Skills
14.1	Percentages changes	1	Analysis
14.2	Trend percentages	1	Analysis, communication, judgment
14.3	Common size statements	1	Analysis, communication, judgment
14.4	Measures of liquidity	3, 4	Analysis, communication, judgment
14.5	Multiple-step income statements	5	Analysis, communication
14.6	**Real World: Sprint Corp.** ROI	6	Analysis, communication, judgment
14.7	Computing and interpreting rates of change	1, 6	Analysis, communication, judgment
14.8	Research problem	6	Analysis, communication, judgment, research, technology
14.9	**Real World: Home Depot** Management analysis and discussion	3, 4, 6	Communication, judgment, research
14.10	Evaluating employment opportunities	4, 6	Analysis, communication, judgment
14.11	Ratios for a retail store	7	Analysis, communication, judgment
14.12	Computing ratios	7	Analysis
14.13	Current ratio, debt ratio, and earnings per share	6, 7	Analysis

Exercises	Topic	Learning Objectives	Skills
14.14	Ratio analysis for two similar companies	7	Analysis, communication, judgment
14.15	**Real World: Johnson & Johnson.** Ratio analysis	6, 7	Analysis, communication, judgment

Problems Sets A, B	Topic	Learning Objectives	Skills
14.1 A,B	Comparing operating results with average performance in the industry	1, 5	Analysis, communication, judgment
14.2 A,B	Analysis to identify favorable and unfavorable trends	3, 5	Analysis, communication, judgment
14.3 A,B	Measures of liquidity	3, 4	Analysis, communication, judgment
14.4 A,B	**Real World: Safeway & & Cheese, Inc.** Liquidity	3, 4, 7	Analysis, communication, judgment, research
14.5 A,B	Balance sheet measures of liquidity and credit risk	3, 4, 7	Analysis, communication, judgment
14.6 A,B	Financial statement analysis	4, 5, 7	Analysis, communication, judgment
14.7 A,B	**Real World: Blockbuster, Inc.** Basic ratio analysis	4, 5, 7	Analysis, communication, judgment
14.8 A,B	Ratios; consider advisability of incurring long-term debt	5, 7	Analysis, communication, judgment
14.9 A,B	Ratios; evaluation of two companies	5, 7, 8	Analysis, communication, judgment

Critical Thinking Cases			
14.1	Season's greetings	1	Analysis, communication, judgment
14.2	Evaluating debt-paying ability	3–5	Analysis, communication, judgment
14.3	Strategies to improve current ratio	4	Communication, judgment
14.4	**Real World: Calpers** Evaluating corporate governance quality (Ethics, fraud, and corporate governance)	8	Analysis, communication, judgment, research, technology
14.5	**Real World: Amazon.com** *Business Week* Case	1, 2	Communication, judgment
14.6	Evaluating liquidity and profitability (Internet)	7, 8	Analysis, communication, judgment, research, technology

DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

Problems (Sets A and B)

14.1 A,B	**Campers, Inc./Bathrooms, Inc.** Prepare a common size income statement and compare it with the average for the industry. Discuss the significance of results.	**20**	**Easy**
14.2 A,B	**Darwin, Inc./Slow Time, Inc.** Designed to develop student's awareness of percentage relationships on an income statement. Requires preparation of a comparative income statement, when given amounts of net income, gross profit, and some ratios. Also calls for identification of favorable and unfavorable trends.	**25**	**Medium**
14.3 A,B	**Roger Grocery, Inc./Gino, Inc.** Given a list of accounts in random order, students are to prepare the current assets and current liabilities sections of the balance sheet, compute the current ratio and amount of working capital, and comment upon the company's financial position.	**15**	**Easy**
14.4 A,B	**Safeway, Inc./Cheese, Inc.** From "live data," students are to evaluate the liquidity of Safeway (for 14.4A), the world's largest chain of supermarkets. They also are to discuss characteristics of a supermarket's operating cycle.	**25**	**Easy**
14.5 A,B	**Sweet Tooth, Inc./Sweet as Sugar** Compute various measures of liquidity, and discuss the liquidity of a company from the perspectives of different groups. Especially interesting because the business may be *excessively* liquid.	**35**	**Medium**
14.6 A,B	**Rentsch, Inc./Hamilton Stores** Compute various measures of liquidity and profitability, and comment upon the relationships. Includes data from the statement of cash flows.	**45**	**Strong**

14.7 A,B	**Blockbuster Video/Balsum Corporation** Compute the current ratio and working capital at both the beginning and end of the year and also the returns on assets and on stockholders' equity for the year. Evaluate whether debt-paying ability is increasing or deteriorating and whether management appears to be using resources efficiently.	**25**	**Medium**
14.8 A,B	**Zachery, Inc./Clips Systems, Inc.** Requires computation of the following: inventory turnover, accounts receivable turnover, total operating expenses, gross profit percentage, rate earned on average stockholders' equity, and rate earned on average assets. Also calls for a decision on advisability of the company incurring long-term debt.	**25**	**Medium**
14.9 A,B	**Another World and Imports, Inc./ THIS Star, and THAT Star, Inc.** Computation for two companies of various ratios and turnover rates relating to liquidity. Students are asked to evaluate the companies from the viewpoint of a short-term creditor.	**35**	**Medium**

Critical Thinking Cases

14.1	**Holiday Greeting Cards** A newscaster has developed percentage-change statistics in which fourth-quarter profits of a seasonal business are compared to those of the third quarter, and the second year's operations are compared to a partial first year. Students are asked to comment on whether the newscaster's statistics present a realistic picture of the company's rate of growth.	**25 Medium**
14.2	**Third Texas Bank** A true "critical thinking" problem. Students are asked to evaluate two small businesses that have applied for loans to finance expansion. Although current ratio and working capital computations are required, neither are important considerations. The real issue is the extent of the owner's personal liability.	**15 Easy**
14.3	**Nashville Do-It-Yourself** Students are asked to evaluate the effects of several transactions upon the current ratio and to suggest ethical means by which management may increase a company's current ratio.	**25 Strong**
14.4	**Evaluating Corporate Governance Quality** **Ethics, Fraud, and Corporate Governance** A research problem involving the evaluation of the quality of boards of directors.	**No time estimate Strong**
14.5	***Business Week* Case** Students are asked to identify measures a financial analyst might use to evaluate a company and how those measures might support the analyst's belief that the company's stock price may drop.	**20 Easy**
14.6	**Evaluating Liquidity and Profitability** **Internet** An Internet research problem involving a company selected by the student. Students are required to perform solvency and profitability measures.	**No time estimate Strong**

SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. Observation of trends is useful primarily in determining whether a situation is improving, worsening, or remaining constant. By comparing current data with similar data of prior periods we gain insight into the direction in which future results are likely to move.

   Some other standards of comparison include comparison with other similar companies, comparison with industry standards, and comparison with previous years' information. By comparing analytical data for one company with some independent yardstick, the analyst hopes to determine how the position of the company in question compares with some standard of performance.

2. A *ratio* is a mathematical expression of the relation of one figure to another. The purpose in computing a ratio is simply to draw attention to this relationship. The reader of a financial statement may observe, for example, that sales were $12 million and accounts receivable $1 million. If he or she states this relationship as a ratio—that is, that receivables turn over about 12 times per year—the information may become more useful.

3. *Trend percentages* are used to show the increase or decrease in a financial statement amount over a period of years by comparing the amount in each year with the base-year amount. A *component percentage* is the percentage relationship between some financial amount and a total of which it is a part.

   Measuring the change in sales over a period of several years would call for the use of trend percentages. The sales in the base year are assigned a weight of 100%. The percentage for each later year is computed by dividing that year's sales by the sales in the base year.

4. The comparison of financial data over several time periods (over many years, second quarter of the year with the first quarter, etc.) is called *horizontal* analysis; the study of financial relationships within a given accounting period is called *vertical* analysis.

5. In analyzing the financial statements of Fowler Corporation, analysts can better evaluate the significance of the various ratios and earnings rates computed for the latest year or for a period of years by comparing them to similar measurements for other companies in the chemical industry. In this way, the analyst is better able to judge whether Fowler Corporation is more or less successful than its competitors and if its financial position is in line with that of other companies in the same industry. In comparing financial results of Fowler Corporation with those of another chemical company, the analyst should be alert for any differences in accounting principles used by the two companies. Differences in accounting practices reduce the comparability of financial data for two companies and may produce artificial differences in ratios and other measurements typically used in analyzing financial statements.

6. The purpose of classifications in financial statements is to *develop useful subtotals,* which help users analyze the statements. The most commonly used classifications are:

   In a balance sheet: current assets, plant and equipment, other assets, current liabilities, long-term (or noncurrent) liabilities, and stockholders' equity.

   In a multiple-step income statement: revenue, cost of goods sold, operating expenses, and nonoperating items. The operating expense section often includes subclassifications for selling expenses and for general and administrative expenses.

   In a statement of cash flows: cash flows provided by or used in operating activities, investing activities, and financing activities.

7. In *classified* financial statements, *similar items are grouped together* to produce subtotals which may assist users in their analyses. *Comparative* financial statements show financial statements for *two or more time periods* in side-by-side columns. *Consolidated* statements include not only the financial statement amounts for a single company but also for any *subsidiary companies* that it owns. The financial statements of large corporations often possess *all three* of these characteristics.

8. Current assets are expected to be converted into cash (or substituted for cash), or used up, within one year or an operating cycle, *whichever is the longer period of time.* The receivables of a company that regularly sells merchandise on 24- or 36-month installment plans *are* current assets, because the collection of these receivables is part of the company's *operating cycle.*

9. The *quick ratio* is the most liquid, or quick assets (cash, marketable securities, and receivables), divided by current liabilities. Short-term creditors may consider the quick ratio more useful than the current ratio if inventories consist of slow-moving merchandise, or are unusually large in dollar amount.

10. In a multiple-step income statement, different categories of expenses are deducted from revenue in a series of steps, thus resulting in various subtotals, such as gross profit and operating income. In a single-step income statement, all expenses are combined and deducted from total revenue in a single step. Both formats result in *the same* amount of net income.

11. Ratios and other measures used in evaluating profitability include (four required):

    Percentage change in net income from the prior year (dollar amount of the change divided by the amount in the prior year).

    Gross profit rate (dollar gross profit divided by net sales).

    Operating income (revenue from primary business activities less the cost of goods sold and operating expenses).

    Net income as a percentage of net sales (net income divided by net sales).

    Earnings per share (in the simplest case, net income divided by the number of shares of capital stock outstanding).

    Return on assets (operating income divided by average total assets).

    Return on stockholders' equity (net income divided by average stockholders' equity).

12. Operating income is the difference between (1) revenue earned from customers, and (2) expenses closely related to the production of that revenue. Items such as income taxes, interest expense, and gains and losses from sales of investments are specifically excluded in the computation of operating income. Thus, operating income measures the profitability of the company's *basic* business activities. Net income, in contrast, is a broader measure of the profit or loss resulting from all business operations.

13. Expenses (including the cost of goods sold) have been increasing at an even faster rate than net sales. Thus, Oneida is apparently having difficulty in effectively controlling its expenses.

14. A large corporation may have thousands or even millions of individual stockholders. The extent of each stockholder's ownership of the business is determined by the number of shares that he or she owns. Thus, the earnings per share measurement helps stockholders relate the total earnings of the business to their ownership investments. In addition, stock prices are stated on a per-share basis. Earnings per share information may be useful in assessing how well the company is doing in terms of earning a profit in comparison with the price to buy a share of stock.

15. P/e ratios reflect investors' expectations concerning future profits. If Congress announced an intention to limit the prices and profits of pharmaceutical companies, these expectations would likely be abruptly lowered. [*Note to the instructor:* President Clinton made such an announcement in 1993. As a result, the p/e ratios and stock prices of major pharmaceutical companies fell significantly. In the months following the President's announcement, Merck's stock price dropped from the low $50s to the mid-$30s, and the stock of Bristol-Myers/Squibb dropped from the low $70s to the mid-$50s.]

16. If the company's earnings are *very low,* they may become almost insignificant in relation to stock price. While this means that the p/e ratio becomes very high, it does not necessarily mean that investors are optimistic. In fact, they may be valuing the company at its liquidation value rather than a value based upon expected future earnings.

17. From the viewpoint of Spencer's stockholders, this situation represents a favorable use of leverage. It is probable that little interest, if any, is paid for the use of funds supplied by current creditors, and only 11% interest is being paid to long-term bondholders. Together these two sources supply 40% of the total assets. Since the firm earns an average return of 16% on all assets, the amount by which the return on 40% of the assets exceeds the fixed-interest requirements on liabilities will accrue to the residual equity holders—the common stockholders—raising the return on stockholders' equity.

18. The length of the operating cycle of the two companies cannot be determined from the fact that one company's current ratio is higher. The operating cycle depends on how long it takes to sell its inventory and then to collect receivables from sales on account.

19. The investor is calculating the rate of return by dividing the dividend by the purchase price of the investment ($5 ÷ $50 = 10%). A more meaningful figure for rate of return on investment is determined by relating dividends to current market price, since the investor at the present time is faced with the alternative of selling the stock for $100 and investing the proceeds elsewhere or keeping the investment. A decision to retain the stock constitutes, in effect, a decision to continue to invest $100 in it, at a return of 5%. It is true that in a historical sense the investor is earning 10% on the original investment, but this is interesting history rather than useful decision-making information.

20. Felker's current ratio would probably be higher during July. At this time the amount of both current assets and current liabilities are likely to be at a minimum, and the ratio of current assets to current liabilities is thus likely to be larger. In general, it would be advisable for the company to end its fiscal year as of July 31. At this time inventories and receivables will be at a minimum; therefore, the chance of error in arriving at a valuation for these assets will be minimized, the work of taking inventories will be reduced, and a more accurate determination of net income is probable.

SOLUTIONS TO BRIEF EXERCISES

B.Ex. 14.1

\$187,500 – \$150,000 = \$37,500

\$37,500/\$150,000 = 25%

B.Ex. 14.2

2005	**100**	
2006	**108**	**(289/267)**
2007	**134**	**(357/267)**

B.Ex. 14.3

Sales	**100.00%**	
Cost of sales	**60.7**	**(340/560)**
Gross margin	**39.3**	**(220/560)**
Operating expenses	**26.8**	**(150/560)**
Net income	**12.5**	**(70/560)**

B.Ex. 14.4

Working capital: \$450,000 – \$267,000 = \$183,000

Current ratio: \$450,000/\$267,000 = 1.69

B.Ex. 14.5

Current ratio: $$\frac{\$50{,}000 + \$75{,}000 + \$125{,}000}{\$25{,}000 + \$110{,}000 + \$45{,}000} = \frac{\$250{,}000}{\$180{,}000} = 1.39$$

Quick ratio: $$\frac{\$50{,}000 + \$75{,}000}{\$25{,}000 + \$110{,}000 + \$45{,}000} = \frac{\$125{,}000}{\$180{,}000} = 0.69$$

B.Ex. 14.6

(\$50,000 + \$150,000)/\$424,000 = 47.2%

B.Ex. 14.7

Net income: \$560,000 – (\$240,000 + \$130,000) = \$190,000

Net income as a % of sales: \$190,000/\$560,000 = 33.9%

B.Ex. 14.8

Net income: \$890,000 – (\$450,000 + \$200,000) = \$240,000

EPS: \$240,000/10,000 shares = \$24

B.Ex. 14.9

\$450,000/\$3,500,000 = 12.9%

B.Ex. 14.10

\$36,700/\$450,000 = 8.2%

SOLUTIONS TO EXERCISES

Ex. 14.1

a. **Accounts receivable decreased 21% ($34,000 decrease ÷ $160,000 = 21% decrease).**

b. **Marketable securities decreased 100% ($250,000 decrease ÷ $250,000 = 100% decrease).**

c. **A percentage change cannot be calculated because retained earnings showed a negative amount (a deficit) in the base year and a positive amount in the following year.**

d. **A percentage change cannot be calculated because of the zero amount of notes receivable in 2006, the base year.**

e. **Notes payable increased 9% ($70,000 increase ÷ $800,000 = 9% increase).**

f. **Cash increased 5% ($4,000 increase ÷ $80,000 = 5% increase).**

g. **Sales increased 7% ($60,000 increase ÷ $910,000 = 7% increase).**

Ex. 14.2

	2007	2006	2005	2004	2003
Sales …………………….	163%	148%	123%	118%	100%
Cost of goods sold …….	195%	160%	135%	123%	100%

The trend of sales is favorable with an increase each year. However, the trend of cost of goods sold is unfavorable, because it is increasing faster than sales. This means that the gross profit margin is shrinking. Perhaps the increase in sales volume is being achieved through cutting sales prices. Another possibility is that the company's purchasing policies are becoming less efficient. Investigation of the cause of the trend in cost of goods sold is essential.

Ex. 14.3 **Common size income statements for 2006 and 2007.**

	2007	2006
Sales ……………………………………………………….	100%	100%
Cost of goods sold …………………………………………..	66	67
Gross profit …………………………………………………..	34%	33%
Operating expenses …………………………………………	26	29
Net income …………………………………………………..	8%	4%

The changes from 2006 to 2007 are all favorable. Sales increased and the gross profit per dollar of sales also increased. These two factors led to a substantial increase in gross profit. Although operating expenses increased in dollar amount, the operating expenses per dollar of sales decreased from 29 cents to 26 cents. The combination of these three favorable factors caused net income to rise from 4 cents to 8 cents out of each dollar of sales.

Ex. 14.4

				(Dollars in Millions)
a.	**(1)**	**Quick assets:**		
		Cash and short-term investments ……………………….	**$**	**47.3**
		Receivables ……………………………………………….		**159.7**
		Total quick assets …………………………………….	**$**	**207.0**
	(2)	**Current assets:**		
		Quick assets [part *a (1)*] …………………………………	**$**	**207.0**
		Inventories ………………………………………………….		**72.3**
		Prepaid expenses and other current assets ……………..		**32.0**
		Total current assets ………………………………….	**$**	**311.3**
b.	**(1)**	**Quick ratio:**		
		Total quick assets (part *a*) ………………………………..	**$**	**207.0**
		Current liabilities ………………………………………..		**130.1**
		Quick ratio ($207 ÷ $130.1) ………………………….		**1.6 to 1**
	(2)	**Current ratio:**		
		Total current assets (part *a*) …………………………….	**$**	**311.3**
		Current liabilities ……………………………………………..		**130.1**
		Current ratio ($311.3 ÷ $130.1) ……………………..		**2.4 to 1**
	(3)	**Working capital:**		
		Total current assets (part *a*) ……………………………..	**$**	**311.3**
		Less: Current liabilities ………………………………….		**130.1**
		Working capital ………………………………………	**$**	**181.2**

c. **By traditional standards, Roy's Toys seems to be quite liquid. Both its quick ratio and current ratio appear satisfactory, and its working capital balance is substantial. As a large and well-established company, it is quite possible that Roy's Toys might be able to meet its current obligations even if its liquidity measures became *lower* than they are at the present time.**

Ex. 14.5 (Dollars in thousands, except per share amounts)

a.

LINK, INC.
Statement of Earnings
For the Year Ended December 31, 2007

Net sales		$ 4,395,253
Less: Cost of goods sold		2,821,455
Gross profit		1,573,798
Less: Operating expenses		1,004,396
Operating income		$ 569,402
Nonoperating items:		
Interest revenue	$ 15,797	
Income tax expense	(204,820)	(189,023)
Net earnings		$ 380,379
Earnings per share		$ 1.70

b. (1) Gross profit rate:

Gross profit	$ 1,573,798
Net sales	$ 4,395,253
Gross profit rate ($1,573,798 ÷ $4,395,253)	35.8%

(2) Net income as a percentage of net sales:

Net income	$ 380,379
Net sales	$ 4,395,253
Net income as a percentage of net sales ($380,379 ÷ $4,395,253)	8.7%

(3) Return on assets:

Operating income	$ 569,402
Average total assets	$ 2,450,000
Return on assets ($569,402÷ $2,450,000)	23.2%

(4) Return on equity:

Net income	$ 380,379
Average equity	$ 1,825,000
Return on equity ($380,379 ÷ $1,825,000)	20.8%

c. **The net sales figure represents the company's primary source of revenue from operations. Thus, interest revenue is a *nonoperating* source of revenue. To include interest revenue in the gross profit computation would overstate both gross profit and operating income.**

Ex. 14.6 **a.** **Return on assets** $= \dfrac{\textbf{Operating income}}{\textbf{Average total assets}}$

$$= \frac{\$861}{[(\$45{,}293 + \$42{,}850) \div 2]} = \frac{\$\ 861}{\$\ 44{,}072} = 1.95\%$$

b. **Return on equity** $= \dfrac{\textbf{Net income}}{\textbf{Average total stockholders' equity}}$

$$\frac{\$1{,}215}{[(\$12{,}294 + \$13{,}224) \div 2]} = \frac{\$\ 1{,}215}{\$\ 12{,}759} = 9.52\%$$

c. Stockholders' equity figures shown in the balance sheet are reported at *book value,* not *market value.* Thus, the increase in Sprint's total stockholders' equity for the year did *not* result from an increase in the market value of the company's stock.

Ex. 14.7 **a. Computation of percentage changes:**

(1) Net sales increased 10% ($200,000 increase ÷ $2,000,000 = 10% increase).
(2) Total expenses increased 11% ($198,000 increase ÷ $1,800,000 = 11% increase).

b. (1) Total expenses grew *faster* than net sales. Net income cannot also have grown faster than net sales, or the sum of the parts would exceed the size of the whole.

(2) Net income must represent a smaller percentage of net sales in 2007 than it did in 2006. Again, the reason is that total expenses have grown at a faster rate than net sales. Thus, total expenses represent a larger percentage of total sales in 2007 than in 2006, and net income must represent a smaller percentage.

Ex. 14.8 **a. The financial measures computed by the students will vary depending upon the companies they select. Industry norm figures may also vary depending upon the investment services available in the library. It is important for students to realize that industry norms represent benchmark averages that should always be used with caution when evaluating the performance and financial condition of a business.**

b. Based on their findings, students should comment on the price volatility of their stocks during the past 52 weeks, and attempt to assess investor expectations as reflected by the p/e ratio of the companies they select.

c. Investment recommendations will vary depending upon the companies students select. Students should be cautioned that investment recommendations should *never* be based solely upon annual report data. The prudent investor must take into account industry characteristics, the potential effects of current economic trends, and the opportunities and threats facing the firm being analyzed.

Ex. 14.9

a. **Home Depot has significantly increased its size, as indicated by the number of stores, during the ten-year period from 1996 through 2005. The number of stores has increased from 512 to 2,042, almost a 400% increase. This represents an annual growth rate of 17.1%. The average square footage per store has remained relatively constant in 105,000 – 109,000 range.**

b. **The trend in the relationship of net earning to sales is consistently upward, although there are two years in which it either stayed the same (1997) or went down (2000). In 1996 this ratio was 4.8%, and it increased to 7.2% in 2005.**

c. **As measured by the current ratio, liquidity has declined. This ratio is lower in almost every year than in the previous year over the ten-year period. Exceptions are in 1999 and 2000 when the current ratio went up. It began at 2.01 (to 1) in 1996 and ended at 1.40, a significant decline over the ten-year period. Another factor from the ten-year summary which sheds light on liquidity is that the inventory turnover has declined during the ten-year period from 5.6 in 1996 to 4.8 in 2005. This indicates how often inventory "turns over" or sells and is converted into receivables or cash.**

Ex. 14.10 Accepting the job offer from Alpha Research might be justified in terms of the company's liquidity, profitability, and the growth potential of its common stock.

Liquidity: **At first glance, the high current and quick ratios of Omega Scientific make it appear to be more liquid than Alpha Research. However, these figures may also indicate that the company is having problems converting accounts receivable and inventories into cash. Alpha Research, on the other hand, reports liquidity ratios that are much more in line with industry norms. Further investigation regarding the ability of each firm to consistently generate adequate operating cash flow is certainly needed.**

Profitability: **Alpha Research appears to be more efficient than Omega Scientific at generating a return on its assets and its equity. Furthermore, Alpha's profitability by far exceeds industry norms, whereas Omega's ability to earn adequate returns falls somewhat short of industry standards. Judging from its high p/e ratio, it appears that market expectations that Alpha will continue its earnings growth are optimistic.**

Stock growth: **Stock prices of relatively new and aggressive companies often appreciate in value at a faster rate than the stocks of older, more conservative, firms. Thus, if Alpha Research continues to gain market share, generate adequate cash flows, and increase its profitability, the prospects for the company's common stock investors may be very bright. As a result, the appreciation of the stock sold to Alpha's employees at a reduced rate may more than offset its lower starting salaries.**

Note to instructor: **Students should be cautioned not to rely *completely* upon financial information in the decisions they make. In deciding which job offer to accept, for example, one should take into consideration the people, fringe benefits, career growth opportunities, geographic location, potential long-term stability of each firm, etc.**

Ex. 14.11 a. (1) Gross profit percentage:
2006: 33% [($610,000 - $408,000) ÷ $610,000]
2007: 34% [($750,000 - $495,000) ÷ $750,000]

(2) Inventory turnover:
2006: 4 times ($408,000 ÷ $102,000 average inventory)
2007: 4.5 times ($495,000 ÷ $110,000 average inventory)

(3) Accounts receivable turnover:
2006: 6.1 times ($610,000 ÷ $100,000 average accounts receivable)
2007: 5 times ($750,000 ÷ $150,000 average accounts receivable)

b. There are three favorable trends. First, the growth in net sales from $610,000 to $750,000. This represents an increase of *23%* ($140,000 increase, divided by $610,000 in the prior year). Next, the gross profit rate increased from 33% in 2006 to 34% in 2007. Not only is SellFast, Inc. selling more, but it is selling its merchandise at a higher profit margin. Finally, the inventory turnover has increased, indicating that the company has increased its sales *without* having to proportionately increase its investment in inventories.

There is only one negative trend. The accounts receivable turnover rate has declined. One question immediately should come to mind: Has SellFast liberalized its credit policies as part of its strategy to increase sales? If so, the "slowdown" in the receivables turnover may have been expected and be no cause for concern. On the other hand, if the company has *not* changed its credit policies, it apparently is encountering more difficulty in collecting its accounts receivable on a timely basis.

Ex. 14.12
a. Current ratio: *3.9 to 1* ($580,000 ÷ $150,000)
b. Quick ratio: *1.7 to 1* ($250,000 ÷ $150,000)
c. Working capital: *$430,000* ($580,000 - $150,000)
d. Debt ratio: *41%* ($510,000 ÷ $1,240,000)
e. Accounts receivable turnover: *19 times* ($2,950,000 ÷ $155,000)
f. Inventory turnover: *6.8 times* ($1,834,000 ÷ $270,000)
Note: Cost of goods sold (item f) is $2,950,000 – $1,116,000, or $1,834,000.
g. Book value per share of capital stock: *$12.17* ($730,000 ÷ 60,000 shares)
Note: Common stock outstanding is $300,000 ÷ $5 par, or 60,000 shares.

Ex. 14.13

	2007	2006
a. Current ratio:	***2.0 to 1* ($160,000 ÷ $80,000)**	***1.3 to 1* ($130,000 ÷ $100,000)**
b. Debt ratio:	***45%* ($180,000 ÷ $400,000)**	***46%* ($150,000 ÷ $325,000)**

c. Earnings per share: *$3.05*
[($45,000 increase in retained earnings x $16,000 dividends) ÷ 20,000 shares]
Note: Common stock outstanding is $100,000 ÷ $5 par, or 20,000 shares.

Ex. 14.14

		Italian Marble Co.	Brazil Stone Products
a.	**Net income ($1,800,000 x .03)……………………**	**$ 54,000**	
	($1,200,000 × .05) ………………		**$ 60,000**
b.	**Net income as a percentage of stockholders' equity**		
	($54,000 ÷ $600,000) ………………………..	**9%**	
	($60,000 ÷ $300,000) ………………………		**20%**
c.	**Accounts receivable turnover**		
	($1,800,000 ÷ $200,000) ……………………	**9 times**	
	($1,200,000 ÷ $100,000) …………………		**12 times**
d.	**Inventory turnover**		
	($1,800,000 × .60) ÷ $240,000 ………………	**4.5 times**	
	($1,200,000 × .70) ÷ $140,000 …………..		**6 times**

Brazil Stone Products is stronger on all four financial measures:

- **Net income is a higher percentage of sales**
- **Net income is a higher percentage of stockholders' equity**
- **Accounts receivable turnover is higher**
- **Inventory turnover is higher**

Combined, these measures indicate that Brazil Stone Products is in the stronger financial position.

Ex. 14.15

Gross profit rate

2005 $36,560 / $50,514 = 72%

2004 $33,926 / $47,348 = 72%

The trend in the gross profit rate, based on only two data points, is flat (i.e., virtually the same).

Net income as a percentage of sales

2005 $10,411 / $50,514 = 21%

2004 $8,509 / $47,348 = 18%

The trend in net income as a percentage of sales, based on only two data points, is positive.

Current ratio

2005 $31,394 / $12,635 = 2.48

2004 $27,320 / $13,927 = 1.96

The trend in the current ratio, based on only two data points, is significantly positive, increasing over 26% in one year.

SOLUTIONS TO PROBLEMS SET A

20 Minutes, Easy

PROBLEM 14.1A
CAMPERS, INC.

a. Common size income statement:	Campers Inc.	Industry Average
Sales (net)	100%	100%
Cost of goods sold	49	57
Gross profit on sales	51%	43%
Operating expenses:		
Selling	21%	16%
General and administrative	17	20
Total operating expenses	38%	36%
Operating income	13%	7%
Income tax expense	6	3
Net income	7%	4%

b. Campers, Inc.'s operating results are significantly better than the average performance within the industry. As a percentage of sales revenue, operating income and net income are nearly twice the average for the industry. As a percentage of total assets, profits amount to an impressive 23% as compared to 14% for the industry.

The key to success for Campers, Inc. seems to be its ability to earn a relatively high rate of gross profit. The company's exceptional gross profit rate (51%) probably results from a combination of factors, such as an ability to command a premium price for the company's products and production efficiencies which led to lower manufacturing costs.

As a percentage of sales, Campers, Inc.'s selling expenses are five points higher than the industry average (21% compared to 16%). However, these higher expenses may explain the company's ability to command a premium price for its products. Since the company's gross profit rate exceeds the industry average by 8 percentage points, the higher-than-average selling costs may be part of a successful marketing strategy. The company's general and administrative expenses are significantly lower than the industry average, which indicates that Campers, Inc.'s management is able to control expenses effectively.

25 Minutes, Medium

PROBLEM 14.2A
DARWIN, INC.

	2007	2006
a. Net sales: ($172,800 ÷ .06)	$ 2,880,000	
($189,000 ÷ .075)		$ 2,520,000
b. Cost of goods sold in dollars:		
($2,880,000 net sales - $1,008,000 gross profit)	$ 1,872,000	
($2,520,000 net sales - $1,134,000 gross profit)		$ 1,386,000
Cost of goods sold as a percentage of net sales:		
($1,872,000 ÷ $2,880,000)	65%	
($1,386,000 ÷ $2,520,000)		55%
c. Operating expenses in dollars:		
($1,008,000 gross profit - $230,400 income before tax)	$ 777,600	
($1,134,000 gross profit - $252,000 income before tax)		$ 882,000
Operating expenses as a percentage of net sales:		
($777,600 ÷ $2,880,000)	27%	
($882,000 ÷ $2,520,000)		35%

d.

DARWIN, INC.
Condensed Comparative Income Statement
For the Year Ended December 31, 2007 and December 31, 2006

	2007	2006
Net sales	$ 2,880,000	$ 2,520,000
Cost of goods sold	1,872,000	1,386,000
Gross profit	$ 1,008,000	$ 1,134,000
Operating expenses	777,600	$ 882,000
Income before income tax	$ 230,400	$ 252,000
Income tax expense	57,600	$ 63,000
Net income	$ 172,800	$ 189,000

PROBLEM 14.2A
DARWIN, INC. (concluded)

e. Favorable and unfavorable trends:

Favorable trends. **One favorable trend is the $360,000 rise in net sales, which represented an increase of about 14% over the prior year. A second favorable trend is the decrease in operating expenses, which dropped from 35% to 27% of sales. The fact that management was able to reduce operating expenses while achieving an increase in sales is particularly impressive.**

Unfavorable trends. **The primary unfavorable trend is the large increase in the cost of goods sold, which rose from 55% of sales to 65%. The $486,000 increase in the cost of goods sold more than offsets the increase in net sales and the reduction in operating expenses, thus the declines in income before income taxes and in net income. As it appears that the company's problems in 2007 all stem from the higher cost of merchandise being purchased from the new supplier, management should consider either raising its selling prices or looking for a less costly source of supply.**

The $5,400 decline in income tax does not represent either a favorable or an unfavorable trend. In both years, income tax amounted to 25% of income before income tax.

15 Minutes, Easy

PROBLEM 14.3A
ROGER GROCERY, INC.

a.	Current assets:	
	Cash	$ 67,600
	Marketable securities	175,040
	Accounts receivable	230,540
	Inventory	179,600
	Unexpired insurance	4,500
	Total current assets	$ 657,280
	Current liabilities:	
	Notes payable	$ 70,000
	Accounts payable	127,500
	Salaries payable	7,570
	Income tax payable	14,600
	Unearned revenue	10,000
	Total current liabilities	$ 229,670

b. The current ratio is 2.86 to 1. It is computed by dividing the current assets of $657,280 by the current liabilities of $229,670. The amount of working capital is $427,610, computed by subtracting the current liabilities of $229,670 from the current assets of $657,280.

The company appears to be in a strong position as to short-run debt-paying ability. It has almost three dollars of current assets for each dollar of current liabilities. Even if some losses should be sustained in the sale of the merchandise on hand or in the collection of the accounts receivable, it appears probable that the company would still be able to pay its debts as they fall due in the near future. Of course, additional information, such as the credit terms on the accounts receivable, would be helpful in a careful evaluation of the company's current position.

25 Minutes, Easy

PROBLEM 14.4A
SAFEWAY, INC.

		(Dollars in Millions)
a. Current assets:		
Cash		$ 174.8
Receivables		383.2
Merchandise inventories		2,642.2
Prepaid expenses		307.5
Total current assets		$ 3,507.7
Quick assets:		
Cash		$ 174.8
Receivables		383.2
Total quick assets		$ 558.0
b. (1) Current ratio:		
Current assets (part a)		$ 3,507.7
Current liabilities		3,464.3
Current ratio ($3,507.7 ÷ $3,464.3)		1.01 to 1
(2) Quick ratio:		
Quick assets (part a)		$ 558.0
Current liabilities		3,464.3
Quick ratio ($558.0 ÷ $3,464.3)		.16 to 1
(3) Working capital:		
Current assets (part a)		$ 3,507.70
Less: Current liabilities		3,464.30
Working capital		$ 43.40

c. No. It is difficult to draw conclusions from the above ratios. Although Safeway's current ratio is acceptable, its quick ratio is quite low. Safeway's liquidity is highly dependent on its ability to quickly sell its inventory at a profit. In addition, before reaching any conclusions, you should look at Safeway's cash flow from operations.

d. Due to characteristics of the industry, supermarkets tend to have smaller amounts of current assets and quick assets than other types of merchandising companies. An inventory of food has a short shelf life. Therefore, the inventory of a supermarket usually represents only a few weeks' sales. Other merchandising companies may stock inventories representing several months' sales. Also, supermarkets sell primarily for cash. Thus, they have relatively few receivables. Although supermarkets may generate large amounts of cash, it is not profitable for them to hold assets in this form. Therefore, they are likely to reinvest their cash flows in business operations as quickly as possible.

e. In evaluating Safeway's liquidity, it would be useful to review the company's financial position in prior years, statements of cash flows, and the financial ratios of other supermarket chains. One might also ascertain the company's credit rating from an agency such as Dun & Bradstreet.

35 Minutes, Medium

PROBLEM 14.5A
SWEET TOOTH, INC.

		(Dollars in Thousands)
a. (1) Quick assets:		
Cash		$ 49,625
Marketable securities (short-term)		55,926
Accounts receivable		23,553
Total quick assets		$ 129,104
(2) Current assets:		
Cash		$ 49,625
Marketable securities (short-term)		55,926
Accounts receivable		23,553
Inventories		32,210
Prepaid expenses		5,736
Total current assets		$ 167,050
(3) Current liabilities:		
Notes payable to banks (due within one year)		$ 20,000
Accounts payable		5,912
Dividends payable		1,424
Accrued liabilities (short-term)		21,532
Income taxes payable		6,438
Total current liabilities		$ 55,306
b. (1) Quick ratio:		
Quick assets (part a)		$ 129,104
Current liabilities		55,306
Quick ratio: ($129,104 ÷ $55,306)		2.3 to 1
(2) Current ratio:		
Current assets (part a)		$ 167,050
Current liabilities (part a)		$ 55,306
Current ratio ($167,050 ÷ $55,306)		3.0 to 1
(3) Working capital:		
Current assets (part a)		$ 167,050
Less: Current liabilities (part a)		$ 55,306
Working capital		$ 111,744
(4) Debt ratio:		
Total liabilities (given)		$ 81,630
Total assets (given)		$ 353,816
Debt ratio ($81,630 ÷ $353,816)		23.1 %

PROBLEM 14.5A
SWEET TOOTH, INC. (concluded)

c. (1) From the viewpoint of short-term creditors, Sweet Tooth appears *highly* liquid. Its quick and current ratios are well above normal rules of thumb, and the company's cash and marketable securities alone are almost twice its current liabilities.

(2) Long-term creditors also have little to worry about. Not only is the company highly liquid, but creditors' claims amount to only *23.1%* of total assets. If Sweet Tooth were to go out of business and liquidate its assets, it would have to raise only *23 cents* from every dollar of assets for creditors to emerge intact.

(3) From the viewpoint of stockholders, Sweet Tooth, Inc. appears *overly* liquid. Current assets generally do not generate high rates of return. Thus, the company's relatively large holdings of current assets dilutes its return on total assets. This should be of concern to stockholders. If Sweet Tooth is unable to invest its highly liquid assets more productively in its business, stockholders probably would like to see the money distributed as dividends.

45 Minutes, Strong

PROBLEM 14.6A
RENTSCH, INC.

Parts *a, c, e, and f* appear on the following page.

b. (1) Current ratio:		
Current assets:		
Cash		$ 30,000
Accounts receivable		150,000
Inventory		200,000
Total current assets		$ 380,000
Current liabilities		$ 150,000
Current ratio ($380,000 ÷ $150,000)		2.5 to 1
(2) Quick ratio:		
Quick assets:		
Cash		$ 30,000
Accounts receivable		150,000
Total quick assets		$ 180,000
Current liabilities		$ 150,000
Quick ratio ($180,000 ÷ $150,000)		1.2 to 1
(3) Working capital:		
Current assets [(part b (1)]		$ 380,000
Less: Current liabilities		150,000
Working capital		$ 230,000
(4) Debt ratio:		
Total liabilities		
Total assets		$ 1,000,000
Less: Total stockholders' equity		300,000
Total liabilities		$ 700,000
Total assets		$ 1,000,000
Debt ratio ($700,000 ÷ $1,000,000)		70%
d. (1) Return on assets:		
Operating income:		
Net sales		$ 1,500,000
Less: Cost of goods sold		(1,080,000)
Operating expenses		(315,000)
Operating income		$ 105,000
Total assets (at year-end)		$ 1,000,000
Return on assets ($105,000 ÷ $1,000,000)		10.5%
(2) Return on equity:		
Net income		$ 15,000
Total stockholders' equity (at year-end)		$ 300,000
Return on equity ($15,000 ÷ $300,000)		5%

a. **In the statement of cash flows, amounts are reported on a *cash basis,* whereas in the income statement, they are reported under the *accrual basis.* Apparently $5,000 of the interest expense incurred during the year had not been paid as of year-end. This amount should be included among the accrued expenses appearing as a current liability in the company's balance sheet.**

c. **By traditional measures, the company's current ratio (2.5 to 1) and quick ratio (1.2 to 1) appear quite adequate. The company also generates a positive cash flow from operating activities which is twice the amount of its dividend payments to stockholders. If this is a typical year, the company appears reasonably liquid.**

e. **The 10.5% return on assets is adequate by traditional standards. However, the 5% return on equity is very low. The problem arises because of Rentsch, Inc.'s relatively large interest expense, which is stated as $84,000 for the year.**

At year-end, Rentsch, Inc. has total liabilities of $700,000 ($1,000,000 total assets less $300,000 in stockholders' equity). But $150,000 of these are current liabilities, most of which do not bear interest. Thus, Rentsch has only about $550,000 in interest-bearing debt.

Interest expense of $84,000 on $550,000 of interest-bearing debt indicates an interest rate of approximately 15.27%. Obviously, it is not profitable to borrow money at 15.27%, and then reinvest these borrowed funds to earn a pretax return of only 10.5%. If Rentsch cannot earn a return on assets that is higher than the cost of borrowing, *it should not borrow money.*

f. **(1) Long-term creditors do *not* appear to have a high margin of safety. The debt ratio of 70% is high for American industry. Also, debt is continuing to rise. During the current year, the company borrowed an additional $50,000, while repaying only $14,000 of existing liabilities. In the current year, interest payments alone amounted to nearly twice the net cash flow from operating activities.**

(2) If the current year is typical, it is *doubtful* that Rentsch, Inc. can continue its $20,000 annual dividend. In the current year, investing activities consumed *more* than the net cash flow from operating activities. This company is not "earning" the money it pays out as dividends; it is borrowing it.

If it were not for the $50,000 in borrowing during the year, cash would have *decreased* by $40,000, rather than increasing by $10,000. As the year-end cash balance amounts to only $30,000, the company obviously cannot afford to let its cash balance fall by $40,000. Thus, if the company is not able to borrow the money to fund its dividend payments, these payments must be reduced.

25 Minutes, Medium

PROBLEM 14.7A
BLOCKBUSTER VIDEO

		(Dollars in Thousands)
a. Current ratio:		
(1) Beginning of year ($958,900 ÷ $1,477,600)		.65 to 1
(2) End of year ($960,300 ÷ $1,327,800)		.72 to 1
b. Working capital:		
(1) Beginning of year ($958,900 - $1,477,600)		$ (518,700)
(2) End of year ($960,300 - $1,327,800)		$ (367,500)
d. (1) Return on average total assets:		
Operating loss		$ (845,200)
Average total assets [($6,243,800 + $4,854,900)/2]		$ 5,549,350
Return on average total assets [($845,200) ÷ $5,549,350]		(15%)
(2) Return on average stockholders' equity:		
Net loss		$ (983,900)
Average stockholders' equity [($4,167,000 ÷ $3,249,300)/2]		$ 3,708,150
Return on average stockholders' equity:		(27%)
[($983,900) ÷ $3,708,150]		

c. **Blockbuster Video's short-term debt-paying ability has improved somewhat but Blockbuster's liquidity is still precarious. The current ratio and working capital have improved during the year, but working capital is still negative by well over $300 million at year-end.**

e. **Blockbuster's management is not utilizing the company's resources in an efficient manner. The company reports a significant *negative* return on assets and return on equity.**

25 Minutes, Medium

PROBLEM 14.8A
ZACHERY, INC.

a. (1) Inventory turnover:

$$\frac{\text{Cost of Goods Sold, \$1,755,000}}{\text{Average Inventory, \$375,000}} = \underline{4.68 \text{ times}}$$

(2) Accounts receivable turnover:

$$\frac{\text{Credit Sales, \$2,750,000}}{\text{Average Accounts Receivable, \$290,000}} = \underline{9.48 \text{ times}}$$

(3) Total operating expenses:		
Sales		$ 2,750,000
Less: Cost of goods sold		1,755,000
Gross profit		$ 995,000
Less: Interest expense (non-operating item)	$ 45,000	
Income tax expense (non-operating item)	84,000	
Net income	159,000	288,000
Operating expenses		$ 707,000

(4) Gross profit percentage: Sales, $2,750,000 – cost of goods sold, $1,755,000 = gross profit, $995,000. $995,000 ÷ $2,750,000 = 36%

(5) Return on average stockholders' equity, $159,000 ÷ $895,000 = 17.8%

(6) Return on average assets:		
Operating income:		
Sales		$ 2,750,000
Cost of goods sold		1,755,000
Gross profit		$ 995,000
Operating expenses		707,000
Operating income		$ 288,000
Average investment in assets		$ 1,800,000
Return on average assets ($288,000 ÷ $1,800,000)		16%

PROBLEM 14.8A
ZACHERY, INC. (concluded)

b. **Obtaining the loan will be desirable to stockholders because the return on average assets (16%) is greater than the prospective rate of payment to creditors (12%). In other words, the stockholders will gain from applying leverage, which is a form of financing using fixed-return securities as capital.**

Of course the assumption of long-term debt would increase the risk to the stockholders. In the event of a business downturn, the earnings of the company might fall far below the present levels and the company might be unable to meet the interest payments on the loan, which could entitle the creditor to take control of the company. Use of money borrowed at a rate of 12% will be beneficial to stockholders if we can assume that the company will continue to earn more than a 12% return on assets.

35 Minutes, Medium

PROBLEM 14.9A
ANOTHER WORLD AND IMPORTS, INC.

a.	Another World	Imports Inc.
(1) Working capital:		
($51,000 + $75,000 + $84,000 – $105,000)	$ 105,000	
($20,000 + $70,000 + $160,000 – $100,000)		$ 150,000
(2) Current ratio:		
($51,000 + $75,000 + $84,000) ÷ $105,000	2 to 1	
($20,000 + $70,000 + $160,000) ÷ $100,000		2.5 to 1
(3) Quick ratio:		
($51,000 + $75,000) ÷ $105,000	1.2 to 1	
($20,000 + $70,000) ÷ $100,000		.9 to 1
(4) Number of times inventory turned over during the year:		
($504,000 cost of goods sold ÷ $84,000 inventory)	6 times	
($480,000 cost of goods sold ÷ $160,000 inventory)		3 times
Average number of days required to turn over inventory:		
(365 ÷ 6 times)	61 days	
(365 ÷ 3 times)		122 days
(5) Number of times accounts receivable turned over:		
($675,000 credit sales ÷ $75,000 accounts receivable)	9 times	
($560,000 credit sales ÷ $70,000 accounts receivable)		8 times
Average number of days required to collect accounts rec.:		
(365 ÷ 9 times)	41 days	
(365 ÷ 8 times)		46 days
(6) Operating cycle:		
(61 days + 41 days)	102 days	
(122 days + 46 days)		168 days

b. Although Imports, Inc., has a larger dollar amount of working capital and a higher current ratio, Another World has the higher-quality working capital. The quality of working capital is determined by the nature of the current assets comprising the working capital and the length of time required to convert these assets into cash. Over half of Another World's current assets consist of cash and receivables. Most of Imports, Inc.'s working capital is inventory, which is a less liquid asset. The computation of each company's quick ratio shows that Another World has highly liquid assets (cash and receivables) in excess of its current liabilities, whereas Imports, Inc., does not.

Another World is also able to sell its inventory and to collect its receivables more quickly than Imports, Inc. Another World requires only 61 days to sell its average inventory, while Imports, Inc., requires 122 days. The overall operating cycle for Another World is over two months shorter than for Imports, Inc. Thus, Another World is able to convert its current assets into cash more quickly than Imports, Inc.

A supplier should prefer selling $20,000 in merchandise on a 30-day open account to Another World rather than to Imports, Inc. Another World clearly has a greater potential for paying off this account when it becomes due.

SOLUTIONS TO PROBLEM SET B

20 Minutes, Easy

PROBLEM 14.1B
BATHROOMS, INC.

a. Common size income statement:		
	Bathrooms Inc.	Industry Average
Sales (net)	100%	100%
Cost of goods sold	61	70
Gross profit on sales	39%	30%
Operating expenses:		
Selling	15%	10%
General and administrative	6	14
Total operating expenses	21%	24%
Operating income	18%	6%
Income tax expense	1	2
Net income	17%	4%

b. Bathrooms' operating results are significantly better than the average performance within the industry. As a percentage of sales revenue, operating income is three times the industry average and net income more than four times the average for the industry. As a percentage of total assets, profits amount to an impressive 20% as compared to 12% for the industry.

The key to success for Bathrooms, Inc. seems to be its ability to earn a relatively high rate of gross profit. The company's exceptional gross profit rate (39%) probably results from a combination of factors, such as an ability to command a premium price for the company's products and production efficiencies which led to lower manufacturing costs.

As a percentage of sales, Bathrooms, Inc.'s selling expenses are five points higher than the industry average (15% compared to 10%). However, these higher expenses may explain the company's ability to command a premium price for its products. Since the company's gross profit rate exceeds the industry average by 9 percentage points, the higher-than-average selling costs may be part of a successful marketing strategy. The company's general and administrative expenses are significantly lower than the industry average, which indicates that Bathrooms, Inc.'s management is able to control expenses effectively.

25 Minutes, Medium

PROBLEM 14.2B
SLOW TIME, INC.

	2007	2006
a. Net sales: ($150,000 ÷ .08)	$ 1,875,000	
($170,000 ÷ .10)		$ 1,700,000
b. Cost of goods sold in dollars:		
($1,875,000 net sales - $720,000 gross profit)	$ 1,155,000	
($1,700,000 net sales - $800,000 gross profit)		$ 900,000
Cost of goods sold as a percentage of net sales:		
($1,155,000 ÷ $1,875,000)	61.6%	
($900,000 ÷ $1,700,000)		52.9%
c. Operating expenses in dollars:		
($720,000 gross profit - $200,000 income before tax)	$ 520,000	
($800,000 gross profit - $220,000 income before tax)		$ 580,000
Operating expenses as a percentage of net sales:		
($520,000 ÷ $1,875,000)	27.7%	
($580,000 ÷ $1,700,000)		34.1%

d.

SLOW TIME, INC.
Condensed Comparative Income Statement
For the Year Ended December 31, 2007 and December 31, 2006

	2007	2006
Net sales	$ 1,875,000	$ 1,700,000
Cost of goods sold	1,155,000	900,000
Gross profit	$ 720,000	$ 800,000
Operating expenses	520,000	$ 580,000
Income before income tax	$ 200,000	$ 220,000
Income tax expense	50,000	$ 50,000
Net income	$ 150,000	$ 170,000

PROBLEM 14.2B
SLOW TIME, INC. (concluded)

e. Favorable and unfavorable trends:

Favorable trends. **One favorable trend is the $175,000 rise in net sales, which represented an increase of about 10% over the prior year. A second favorable trend is the decrease in operating expenses, which dropped from 34% to 28% of sales. The fact that management was able to reduce operating expenses while achieving an increase in sales volume is particularly impressive.**

Unfavorable trends. **The primary unfavorable trend is the large increase in the cost of goods sold, which rose from 52.9% of sales to 61.6%. The $255,000 increase in the cost of goods sold more than offsets the increase in net sales and the reduction in operating expenses, thus the declines in income before income tax and in net income. As it appears that the company's problems in 2007 all stem from the higher cost of merchandise being purchased from the new supplier, management should consider either raising its selling prices or looking for a less costly source of supply.**

15 Minutes, Easy

PROBLEM 14.3B
GINO, INC.

a. Current assets:	
Cash	$ 61,000
Marketable securities	160,000
Accounts receivable	217,000
Inventory	195,000
Unexpired insurance	8,000
Total current assets	$ 641,000
Current liabilities:	
Notes payable	$ 85,000
Accounts payable	105,000
Salaries payable	5,800
Income taxes payable	14,400
Unearned revenue	15,000
Total current liabilities	$ 225,200

b. **The current ratio is 2.85 to 1. It is computed by dividing the current assets of $641,000 by the current liabilities of $225,200. The amount of working capital is $415,800, computed by subtracting the current liabilities of $225,200 from the current assets of $641,000.**

The company appears to be in a strong position as to short-run debt-paying ability. It has almost three dollars of current assets for each dollar of current liabilities. Even if some losses should be sustained in the sale of the merchandise on hand or in the collection of the accounts receivable, it appears probable that the company would still be able to pay its debts as they fall due in the near future. Of course, additional information, such as the credit terms on the accounts receivable, would be helpful in a careful evaluation of the company's current position.

25 Minutes, Easy

PROBLEM 14.4B
CHEESE, INC.

		(Dollars in Millions)
a. Current assets:		
Cash		$ 72.4
Receivables		150.4
Merchandise inventories		1,400.0
Prepaid expenses		91.0
Total current assets		$ 1,713.8
Quick assets:		
Cash		$ 72.4
Receivables		150.4
Total quick assets		$ 222.8
b. Current ratio:		
Current assets (part a)		$ 1,713.8
Current liabilities		2,500.0
Current ratio ($1,713.8 ÷ $2,500.0)		.69 to 1
Quick ratio:		
Quick assets (part a)		$ 222.8
Current liabilities		2,500.0
Quick ratio ($222.8 ÷ $2,500.0)		.09 to 1
Working capital:		
Current assets (part a)		$ 1,713.8
Less: Current liabilities		$ 2,500.0
Working capital		$ (786.2)

PROBLEM 14.4B
CHEESE, INC. (concluded)

c. **No. It is difficult to draw conclusions from the above ratios. Cheese's current ratio and quick ratio are well below "safe" levels, according to traditional rules of thumb. On the other hand, some large companies with steady cash flows are able to operate successfully with current ratios lower than Cheese's.**

d. **Due to characteristics of the industry, cheese stores tend to have smaller amounts of current assets and quick assets than other types of merchandising companies. An inventory of food has a short shelf life. Therefore, the inventory of a cheese store usually represents only a few days' sales. Other merchandising companies may stock inventories representing several months' sales. Also, cheese stores sell primarily for cash. Thus, they have relatively few receivables. Although dairy stores may generate large amounts of cash, it is not profitable for them to hold assets in this form. Therefore, they are likely to reinvest their cash flows in business operations as quickly as possible.**

e. **In evaluating Cheese's liquidity, it would be useful to review the company's financial position in prior years, statements of cash flows, and the financial ratios of other cheese store chains. One might also ascertain the company's credit rating from an agency such as Dun & Bradstreet.**

35 Minutes, Medium

PROBLEM 14.5B
SWEET AS SUGAR, INC.

		(Dollars in Thousands)
a. (1) Quick assets:		
Cash		$ 49,630
Marketable securities (short-term)		65,910
Accounts receivable		25,330
Total quick assets		$ 140,870
(2) Current assets:		
Cash		$ 49,630
Marketable securities (short-term)		65,910
Accounts receivable		25,330
Inventories		44,000
Prepaid expenses		5,850
Total current assets		$ 190,720
(3) Current liabilities:		
Notes payable to banks (due within one year)		$ 28,000
Accounts payable		4,900
Dividends payable		1,800
Accrued liabilities (short-term)		21,500
Income tax payable		8,500
Total current liabilities		$ 64,700
b. (1) Quick ratio:		
Quick assets (part a)		$ 140,870
Current liabilities (part a)		64,700
Quick ratio: ($140,870 ÷ $64,700)		2.18 to 1
(2) Current ratio:		
Current assets (part a)		$ 190,720
Current liabilities (part a)		$ 64,700
Current ratio ($190,720 ÷ $64,700)		2.95 to 1
(3) Working capital:		
Current assets (part a)		$ 190,720
Less: Current liabilities (part a)		64,700
Working capital		$ 126,020
(4) Debt ratio:		
Total liabilities (given)		$ 90,000
Total assets (given)		$ 600,000
Debt ratio ($90,000 ÷ $600,000)		15%

PROBLEM 14.5B
SWEET AS SUGAR, INC. (concluded)

c. (1) From the viewpoint of short-term creditors, Sweet as Sugar appears *highly* liquid. Its quick and current ratios are well above normal rules of thumb, and the company's cash and marketable securities alone are almost twice its current liabilities.

(2) Long-term creditors also have little to worry about. Not only is the company highly liquid, but creditors' claims amount to only 15*%* of total assets. If Sweet as Sugar were to go out of business and liquidate its assets, it would have to raise only 15 *cents* from every dollar of assets for creditors to emerge intact.

(3) From the viewpoint of stockholders, Sweet as Sugar appears *overly* liquid. Current assets generally do not generate high rates of return. Thus, the company's relatively large holdings of current assets dilutes its return on total assets. This should be of concern to stockholders. If Sweet as Sugar is unable to invest its highly liquid assets more productively in its business, stockholders probably would like to see the money distributed as dividends.

45 Minutes, Strong

PROBLEM 14.6B
HAMILTON STORES

Parts a, c, e, and f appear on the following page.		
b. (1) Current ratio:		
Current assets:		
Cash		$ 35,000
Accounts receivable		175,000
Inventory		225,000
Total current assets		$ 435,000
Current liabilities		$ 190,000
Current ratio ($435,000 ÷ $190,000)		2.3 to 1
(2) Quick ratio:		
Quick assets:		
Cash		$ 35,000
Accounts receivable		175,000
Total quick assets		$ 210,000
Current liabilities		$ 190,000
Quick ratio ($210,000 ÷ $190,000)		1.1 to 1
(3) Working capital:		
Current assets [(part b (1)]		$ 435,000
Less: Current liabilities		190,000
Working capital		$ 245,000
(4) Debt ratio:		
Total liabilities		
Total assets		$ 1,300,000
Less: Total stockholders' equity		500,000
Total liabilities		$ 800,000
Total assets		$ 1,300,000
Debt ratio ($800,000 ÷ $1,300,000)		61.5%
d. (1) Return on assets:		
Operating income:		
Net sales		$ 2,400,000
Less: Cost of goods sold		(1,800,000)
Operating expenses		(495,000)
Operating income		$ 105,000
Total assets (at year-end)		$ 1,300,000
Return on assets ($105,000 ÷ $1,300,000)		8.1%
(2) Return on equity:		
Net income		$ 21,000
Total stockholders' equity (at year-end)		$ 500,000
Return on equity ($21,000 ÷ $500,000)		4.2%

PROBLEM 14.6B
HAMILTON STORES (concluded)

a. **In the statement of cash flows, amounts are reported on a *cash basis,* whereas in the income statement, they are reported under the *accrual basis.* Apparently $8,000 of the interest expense incurred during the year had not been paid as of year-end. This amount should be included among the current liabilities appearing in the company's balance sheet.**

c. **By traditional measures, the company's current ratio (2.3 to 1) and quick ratio (1.1 to 1) appear quite adequate. The company also generates a positive cash flow from operating activities which is twice the amount of its dividend payments to stockholders. If this is a typical year, the company appears reasonably liquid.**

e. **The 8.1% return on assets is adequate by traditional standards. However, the 4.2% return on equity is very low. The problem arises because of Hamilton Stores' relatively large interest expense, which is stated as $80,000 for the year.**

At year-end, Hamilton Stores has total liabilities of $800,000 ($1,300,000 total assets less $500,000 in stockholders' equity). But $190,000 of these are current liabilities, most of which do not bear interest. Thus, Hamilton Stores has only about $610,000 in interest-bearing debt.

Interest expense of $80,000 on $610,000 of interest-bearing debt indicates an interest rate of approximately 13.1%. Obviously, it is not profitable to borrow money at 13.1%, and then reinvest these borrowed funds to earn a pretax return of only 8.1%. If Hamilton Stores cannot earn a return on assets that is higher than the cost of borrowing, *it should not borrow money.*

f. **(1) Long-term creditors do *not* appear to have a high margin of safety. The debt ratio of 61.5% is high for American industry. Also, debt is continuing to rise. During the current year, the company borrowed an additional $56,000, while repaying only $25,000 of existing liabilities. In the current year, interest payments alone amounted to 1.44 times the net cash flow from operating activities.**

(2) If the current year is typical, Hamilton Stores can not continue its $24,000 annual dividend. In the current year, investing activities consumed *more* than the net cash flow from operating activities. This company is not "earning" the money it pays out as dividends; it is borrowing it.

If it were not for the $56,000 in borrowing during the year, cash would have *decreased* by $53,000, rather than increasing by $3,000. As the year-end cash balance amounts to only $35,000, the company obviously cannot afford to let its cash balance fall by $53,000. Thus, if the company is not able to borrow the money to fund its dividend payments, these payments must be reduced.

25 Minutes, Medium

PROBLEM 14.7B
BALSUM CORPORATION

		(Dollar Amounts in Thousands)
a. Current ratio:		
(1) Beginning of year ($43,000 ÷ $54,000)		.80 to 1
(2) End of year ($82,000 ÷ $75,000)		1.09 to 1
b. Working capital:		
(1) Beginning of year ($43,000 – $54,000)		$ (11,000)
(2) End of year ($82,000 – $75,000)		$ 7,000
d. (1) Return on average total assets:		
Operating income		$ 74,000
Average total assets [($230,000 + $390,000)/2]		$ 310,000
Return on average total assets ($74,000 ÷ $310,000)		24%
(2) Return on average stockholders' equity:		
Net income		$ 51,000
Average stockholders' equity [($120,000 + $205,000) ÷ 2]		$ 162,500
Return on average stockholders' equity: ($51,000 ÷ $162,500)		31%

c. and e.

c. **Balsum's short-term debt-paying ability appears to be improving. In the course of the year, the company's current ratio has improved, and its working capital has increased from a negative amount of $11 million to a positive amount of $7 million (an $18 million turnaround).**

e. **Balsum's management appears to be utilizing the company's resources in *more* than a "reasonably efficient" manner. The company's return on assets and return on equity both are *well above* the company's cost of borrowing money, the "norms" in many industries, and the rates of return that investors can safely achieve from, say, putting their money in a bank.**

25 Minutes, Medium

PROBLEM 14.8B
CLIPS SYSTEMS, INC.

a. (1) Inventory turnover:

$$\frac{\text{Cost of Goods Sold, \$3,000,000}}{\text{Average Inventory, \$420,000}} = \underline{7.14 \text{ times}}$$

(2) Accounts receivable turnover:

$$\frac{\text{Credit Sales, \$4,800,000}}{\text{Average Accounts Receivable, \$380,000}} = \underline{12.63 \text{ times}}$$

(3) Total operating expenses:		
Sales		$ 4,800,000
Less: Cost of goods sold		3,000,000
Gross profit		$ 1,800,000
Less: Interest expense (non-operating item)	$ 50,000	
Income tax (non-operating item)	80,000	
Net income	280,000	$ 410,000
Operating expenses		$ 1,390,000

(4) Gross profit percentage: Sales, $4,800,000 – cost of goods sold, $3,000,000 = gross profit, $1,800,000. $1,800,000 ÷ $4,800,000 = 37.5%

(5) Return on average stockholders' equity, $280,000 ÷ $1,000,000 = 28%

(6) Return on average assets:		
Operating income:		
Sales		$ 4,800,000
Cost of goods sold		3,000,000
Gross profit		$ 1,800,000
Operating expenses		1,390,000
Operating income		$ 410,000
Average investment in assets		$ 2,600,000
Return on average assets ($410,000 ÷ $2,600,000)		15.8%

PROBLEM 14.8B
CLIPS SYSTEMS, INC. (concluded)

b. Obtaining the loan will be desirable to stockholders because the return on average assets (15.8%) is greater than the prospective rate of payment to creditors (8%). In other words, the stockholders will gain from applying leverage, which is a form of financing using fixed-return securities as capital.

Of course the assumption of long-term debt would increase the risk to the stockholders. In the event of a business downturn, the earnings of the company might fall far below the present levels and the company might be unable to meet the interest payments on the loan, which could entitle the creditor to take control of the company. Use of money borrowed at a rate of 8% will be beneficial to stockholders if we can assume that the company will continue to earn more than an 8% return on assets.

35 Minutes, Medium

PROBLEM 14.9B
THIS STAR, INC. AND THAT STAR, INC.

a.	THIS STAR	THAT STAR
(1) Working capital:		
($90,000 + $100,000 + $50,000 – $120,000)	$ 120,000	
($40,000 + $90,000 + $160,000 – $110,000)		$ 180,000
(2) Current ratio:		
($90,000 + $100,000 + $50,000) ÷ $120,000	2 to 1	
($40,000 + $90,000 + $160,000) ÷ $110,000		2.64 to 1
(3) Quick ratio:		
($90,000 + $100,000) ÷ $120,000	1.58 to 1	
($40,000 + $90,000) ÷ $110,000		1.18 to 1
(4) Number of times inventory turned over during the year:		
($700,000 cost of goods sold ÷ $50,000 inventory)	14 times	
($640,000 cost of goods sold ÷ $160,000 inventory)		4 times
Average number of days required to turn over inventory:		
(365 ÷ 14 times)	26 days	
(365 ÷ 4 times)		91 days
(5) Number of times accounts receivable turned over:		
($900,000 credit sales ÷ $100,000 accounts receivable)	9 times	
($840,000 credit sales ÷ $90,000 accounts receivable)		9.33 times
Average number of days required to collect accounts rec.:		
(365 ÷ 9 times)	41 days	
(365 ÷ 9.33 times)		39 days
(6) Operating cycle:		
(26 days + 41 days)	67 days	
(91 days + 39 days)		130 days

PROBLEM 14.9B
THIS STAR, INC. AND THAT STAR, INC. (concluded)

b. **Although THAT Star, Inc., has a larger dollar amount of working capital and a higher current ratio, THIS Star, Inc. has the higher-quality working capital. The quality of working capital is determined by the nature of the current assets comprising the working capital and the length of time required to convert these assets into cash. Over half of THIS Star's current assets consist of cash and receivables. Most of THAT Star's, working capital is inventory, which is a less liquid asset. The computation of each company's quick ratio shows that THIS Star has highly liquid assets (cash and receivables) in excess of its current liabilities, whereas THAT Star does not have as high a ratio.**

THIS Star is also able to sell its inventory and to collect its receivables more quickly than THAT Star. THIS Star requires only 26 days to sell its average inventory, while THAT Star requires 91 days. The overall operating cycle for THIS Star is over two months shorter than for THAT Star. Thus, THIS Star is able to convert its current assets into cash more quickly than THAT Star.

A supplier should prefer selling $50,000 in merchandise on a 30-day open account to THIS Star rather than to THAT Star. THIS Star clearly has a greater potential for paying off this account when it becomes due.

SOLUTIONS TO CRITICAL THINKING CASES

25 Minutes, Medium

CASE 14.1
HOLIDAY GREETING CARDS

a. **Wallace computed the 350% increase in fourth-quarter profits by comparing the fourth-quarter profits of 2007 to those of the third quarter. The computation is:**

$$\frac{\$450 - \$100}{\$100} = \underline{\underline{350\%}}$$

Wallace's conclusion that profits for the "entire year" were up by "over 100%" came from comparing the total profits of calendar year 2007 to calendar year 2006. The resulting percentage increase is 102%, computed as follows:

$$\frac{\$1{,}111 - \$550}{\$550} = \underline{\underline{102\%}}$$

b. **The 350% increase in fourth-quarter profits, developed by comparing fourth-quarter profits to those of the third quarter, is misleading because of the cyclical nature of Holiday Greeting Cards' business. The third quarter (July through September) contains no major greeting-card holidays, whereas the fourth quarter contains the Christmas season. Therefore, fourth-quarter profits should exceed those of the third quarter whether the company was growing or not.**

The "over 100%" increase in profits for the year is also misleading, because it is based upon a comparison of calendar year 2007 with calendar year 2006. Since Holiday Greeting Cards was in operation for only part of 2006, this is not a valid comparison. Thus, neither of Wallace's percentage change statistics represents a realistic measure of Holiday's rate of growth.

c. **The appropriate computation of the percentage change in Holiday's fourth-quarter earnings for 2007 is a decrease of 10%, computed as follows:**

$$\frac{\text{Fourth quarter 2007, \$450 - Fourth quarter 2006, \$500}}{\text{Fourth quarter 2006, \$500}} = \underline{-10\%}$$

By using the fourth quarter of the prior year as a base (rather than the third quarter of the current year), we are able to eliminate the effects of seasonal fluctuations in the company's business. This analysis shows that Holiday Greeting Cards' level of economic activity in the fourth quarter of 2007 has *declined* relative to that of 2006. Thus, the company's profitability appears to be declining rather than growing.

15 Minutes, Easy

CASE 14.2
THIRD TEXAS BANK

		Texas Steak Ranch	The Stockyards
a.	Current assets …………………………………………..	$75,000	$24,000
	Current liabilities ……………………………………..	$30,000	$30,000
	Current ratio:		
	($75,000 ÷ $30,000) ………………………………..	2.5 to 1	
	($24,000 ÷ $30,000) ………………………………..		.8 to 1
	Working capital:		
	($75,000 - $30,000) ………………………………..	$45,000	
	($24,000 - $30,000) …………………………………		($6,000)

b. Based solely upon the *financial* data presented here, neither restaurant appears to be a good risk for a $250,000 loan. Although Texas Steak Ranch has a strong current ratio now, the addition of a $250,000 current liability would reduce it to about .27 to 1. The $45,000 in working capital pales in significance when compared with the need to repay a $250,000 loan in one year. The numbers for The Stockyards show even weaker financial position.

Considering the *form of business organization,* however, The Stockyards appears to be the better credit risk. The reason is that this business is organized as a sole proprietorship. A loan to this business is actually a loan to its owner, Dan Scott, as he is *personally liable* for the debts of the business. Scott, a billionaire, is a far better candidate for a $250,000 loan than is either of these two business entities.

Texas Steak Ranch, on the other hand, is organized as a corporation. Therefore, the owner (Scott) is *not* personally responsible for the debts of the business. In seeking payment, creditors may look only to the assets of the corporate entity.

An interesting question arises as to why Scott doesn't put more of his own money into these businesses. In the case of Texas Steak Ranch, it may simply be that he recognizes the risks inherent in the restaurant business and doesn't want to have his own money at risk. Indeed, this is probably the reason that the business was organized as a corporation in the first place.

***Note to instructor:* It is a common practice for wealthy individuals to organize businesses as corporations for the specific purpose of limiting the owner's personal liability.**

c. Texas Steak Ranch would become as good a credit risk as The Stockyards if Scott would personally guarantee the loan to the corporation.

***Note to instructor:* It is also common practice for banks making loans to small businesses organized as corporations to insist that one or more stockholders personally guarantee the loan.**

25 Minutes, Strong

CASE 14.3
NASHVILLE DO-IT-YOURSELF

a. (1) *Increase.* Paying current liabilities reduces current assets and current liabilities by the same dollar amount. As the current ratio exceeds 1 to 1, however, reducing both current assets and current liabilities by an equal amount will *increase* the ratio.

***Note to instructor:* This concept can be illustrated by assuming that *all* of the current liabilities were paid. In this case, some current assets would remain, current liabilities would be reduced to zero, and the current ratio would be infinite.**

(2) *Decrease.* Purchasing inventory on account increases current assets and current liabilities by the same amount. This tends to force the current ratio closer to 1 to 1 which, for Nashville Do-It-Yourself Centers, would be a decline. In essence, purchasing inventory on account has the *opposite* effect of paying current liabilities, discussed in part *(1)*.

(3) *Decrease.* Offering customers a cash discount to speed up the collection of accounts receivable would replace accounts receivable with a somewhat smaller amount of cash. Cash on hand would increase. However, as both cash and accounts receivable are current assets, total current assets and the current ratio would decrease.

b. One means of improving the current ratio is to increase current assets *without* increasing current liabilities. This could be done by selling noncurrent assets, by borrowing cash on a long-term basis, or by the owners investing cash in the business. The increase in the current ratio would be magnified if the proceeds from these transactions were used to reduce current liabilities.

A second legitimate strategy is to seize any opportunities to sell existing current assets at prices higher than their carrying value in the accounting records. Selling inventory at a price above cost, for example, replaces the inventory (valued at cost) with either cash or accounts receivable in the amount of the sales price. Therefore, a year-end "clearance sale" may help improve the current ratio.

In part *a (2)* we stated that purchasing inventory on account would reduce the current ratio. The reverse strategy, not making normal purchases to replace sold merchandise, increases the current ratio, because current assets and current liabilities both fall beneath normal levels.

Also, delaying until after year-end any routine transactions that reduce current assets, such as purchases of equipment or expenditures for repairs or maintenance, will improve the current ratio.

No time estimate, Strong

CASE 14.4
EVALUATING CORPORATE GOVERNANCE QUALITY
ETHICS, FRAUD & CORPORATE GOVERNANCE

Although there are many possible "solutions" to this case, depending on the companies that students choose for analysis, students should talk about most of these factors in evaluating the quality of a company's board of directors.

Board composition — The board of directors should be comprised of a majority of independent directors (i.e., an independent director is a director with no ties to the company or its management other than his or her service as a director). In fact, the NYSE and Nasdaq now require that listed companies have boards with a majority of independent directors.

Nominating committee — Companies should have a separate committee of the board to handle the process of nominating individuals to join the board of directors. The nominating committee should be comprised of independent directors. The NYSE now requires its listed companies to maintain a nominating committee comprised of independent directors. Nasdaq requires either an independent nominating committee, or that the independent members of the board of directors handle the nominating process.

Compensation committee — Companies should have a separate committee of the board to handle the process of determining compensation of senior company officers. The compensation committee should be comprised of independent directors. The NYSE requires its listed companies to maintain a compensation committee comprised of independent directors. Nasdaq requires either an independent compensation committee, or that the independent members of the board of directors handle the process of setting the compensation of senior company officers.

Board structure — Shareholder activists prefer boards where directors stand for reelection each year, as compared to boards where the directors serve staggered terms. A typical staggered term results in 1/3 of the directors standing for elections each year. Staggered board terms make it more difficult for a company to be acquired by another company, and may increase the likelihood that a poorly performing board and management team will be able to remain in power.

Board size — Smaller boards are generally viewed as more effective than larger boards. A board size of between eight and 12 is often viewed as optimal.

Board Expertise — It is typically advantageous if board members have experience serving on the boards of other public companies. However, serving on too many boards concurrently may prevent a director from spending enough time on the affairs of each company. A rule of thumb is that an individual should not concurrently sit on the boards of more than three public companies, particularly if the director works full-time for another company.

CASE 14.4
EVALUATING CORPORATE GOVERNANCE QUALITY (concluded)

Chairman/CEO Separation — Shareholder activities prefer that the same individual who serves as CEO also doesn't serve as chairman of the board of directors (COB). However, in the U.S., the same individual who serves as CEO also typically serves as COB. As an alternative, a number of companies appoint a lead director. A lead director leads and is essentially the spokesperson for the independent members of the board.

Response to Shareholder Proposals — Shareholders are able to put forth proposals for vote at the annual meeting of shareholders. These shareholders are typically published in the company's proxy statement. Examples of common shareholder proposals include: (1) separating the positions of CEO and COB, (2) requiring shareholders' approval before new stock option plans are implemented, and (3) requesting that the company charge to expense the value of stock options granted to employees. In most cases, a shareholder proposal that passes (receives more than 50 percent of the vote cast) is purely a recommendation to the company's management—that is , it is non-binding. A company that consistently ignores shareholder proposals that receive substantial shareholder support would be viewed as having weaker governance than a company that implements shareholder proposals that receive substantial support.

Board Attendance — A board cannot be effective if it never meets or if directors fail to attend the meetings that are held. An effective board should normally meet at least six times per year, and some boards meet more frequently than six times per year. And all directors should have attended no less than 75 percent of all meetings held during the year. The proxy discloses the number of board meetings held and director attendance.

20 Minutes, Easy

CASE 14.5
BUSINESS WEEK CASE

a. Tools of analysis include:

(1) Dollar and Percentage Changes — the difference between the amount for a comparison year and the amount for a base year expressed in either dollars or percentages. The percentage change is the dollar change divided by the base year dollars.

(2) Trend Percentages — the changes in financial statement items from a base year to following years.

(3) Component Percentages — the relative size of each component included in the total.

(4) Ratios — the mathematical expression of the relationship of one item to another. Ratios can be stated as percentages or as a fraction.

(5) Standards of Comparison — a base against which to judge whether performance is favorable or unfavorable. Examples of standards include past performance of the company or the performance of other companies in the same industry.

b. To assess Amazon.com, Tice could use trend percentages and component percentages. For example, Tice concludes that rising sales do not convert to rising profits. A combination of dollar and percentage changes and trend analysis would make this clear. Trends would show that sales are rising but that profits were not following suit. Also, trend analysis combined with component percentages analysis would provide evidence that sales were slowing in the core businesses and increasing in the consumer electronics business.

No time estimate, Strong

CASE 14.6
EVALUATING LIQUIDITY AND PROFITABILITY
INTERNET

a. Student responses will vary, but they should indicate an understanding that companies have unique operating characteristics, and understanding those before diving into financial analysis will allow one to better understand the financial information. For example, a merchandising company has significant inventory issues that a service company does not have. Some companies rely heavily on plant and equipment-type assets while others do not. Some companies have significant international activities while others operate primarily in a single country. These and other operating characteristics are important to understand as one begins to do serious financial analysis.

b. Because students can choose both the company and the ratios they compute, no set answer can be given for this question. The following are probably the ratios in the categories of liquidity and profitability that are most likely to be selected by students:

Liquidity
- Current ratio
- Quick ratio
- Inventory turnover
- Receivables turnover

Profitability
- Gross profit rate
- Net income as a percentage of net sales
- Basic earnings per share
- Return on assets
- Return on equity

c. Again, student responses will likely vary, but reasons for the popularity of the Internet for receiving financial information include the following:

- Timeliness and ease and frequency with which information can be updated.
- Availability of extensive amounts of information from a single source.
- Technology-based access and ease of storing and printing information.
- Ease of transferring information and applying it to analytical techniques.