

Chapter 1

Accounting in Business

QUESTIONS

1. The purpose of accounting is to provide decision makers with relevant and reliable information to help them make better decisions. Examples include information for people making investments, loans, and business plans.
2. Technology reduces the time, effort, and cost of recordkeeping. There is still a demand for people who can design accounting systems, supervise their operation, analyze complex transactions, and interpret reports. Demand also exists for people who can effectively use computers to prepare and analyze accounting reports. Technology will never substitute for qualified people with abilities to prepare, use, analyze, and interpret accounting information.
3. External users and their uses of accounting information include: (a) lenders, to measure the risk and return of loans; (b) shareholders, to assess whether to buy, sell, or hold their shares; (c) directors, to oversee the organization; (d) employees and labor unions, to judge the fairness of wages and assess future employment opportunities; and (e) regulators, to determine whether the organization is complying with regulations. Other users are voters, legislators, government officials, contributors to nonprofits, suppliers, and customers.
4. Business owners and managers use accounting information to help answer questions such as: What resources does an organization own? What debts are owed? How much income is earned? Are expenses reasonable for the level of sales? Are customers' accounts being promptly collected?
5. Service businesses include: Standard and Poor's, Dun & Bradstreet, Merrill Lynch, Southwest Airlines, CitiCorp, Humana, Charles Schwab, and Prudential. Businesses offering products include Nike, Reebok, Gap, Apple, Ford Motor Co., Philip Morris, Coca-Cola, Best Buy, and WalMart.
6. The internal role of accounting is to serve the organization's internal operating functions. It does this by providing useful information for internal users in completing their tasks more effectively and efficiently. By providing this information, accounting helps the organization reach its overall goals.
7. Accounting professionals offer many services including auditing, management advice, tax planning, business valuation, and money management.
8. Marketing managers are likely interested in information such as sales volume, advertising costs, promotion costs, salaries of sales personnel, and sales commissions.

9. Accounting is described as a service activity because it serves decision makers by providing information to help them make better business decisions.
10. Some accounting-related professions include consultant, financial analyst, underwriter, financial planner, appraiser, FBI investigator, market researcher, and system designer.
11. Ethics rules require that auditors avoid auditing clients in which they have a direct investment, or if the auditor's fee is dependent on the figures in the client's reports. This will help prevent others from doubting the quality of the auditor's report.
12. In addition to preparing tax returns, tax accountants help companies and individuals plan future transactions to minimize the amount of tax to be paid. They are also actively involved in estate planning and in helping set up organizations. Some tax accountants work for regulatory agencies such as the IRS or the various state departments of revenue. These tax accountants help to enforce tax laws.
13. The objectivity concept means that financial statement information is supported by independent, unbiased evidence other than someone's opinion or imagination.
14. This treatment is justified by both the cost principle and the going-concern assumption.
15. The revenue recognition principle provides guidance for managers and auditors so they know when to recognize revenue. If revenue is recognized too early, the business looks more profitable than it is. On the other hand, if revenue is recognized too late the business looks less profitable than it is. This principle demands that revenue be recognized when it is both earned (when service or product is provided) and can be measured reliably. The amount of revenue should equal the value of the assets received or expected to be received from the business's operating activities covering a specific time period.
16. Business organizations can be organized as a sole proprietorship, partnership, corporation, or LLC. These forms have implications for legal entity and liability, business life, taxation, and number of owners as follows.

	<i>Proprietorship</i>	<i>Partnership</i>	<i>Corporation</i>	<i>LLC</i>
Business entity	yes	yes	yes	yes
Legal entity	no	no	yes	yes
Limited liability	no	no	yes	yes
Unlimited life	no	no	yes	yes
Business Taxed	no	no	yes	no
One owner allowed	yes	no	yes	yes

17. (a) Assets are resources owned or controlled by a company that are expected to yield future benefits. (b) Liabilities are creditors' claims on assets that reflect obligations to provide assets, products, or services to others. (c) Equity is the owner's claim on assets and is equal to assets minus liabilities. (d) Net assets refer to equity.
18. Equity is increased by investments (stock issuances) from the owner and by net income (which is the excess of revenues over expenses). It is decreased by dividends and by a net loss (which is the excess of expenses over revenues).

19. Accounting principles consist of (a) *general* and (b) *specific* principles. General principles are the basic assumptions, concepts, and guidelines for preparing financial statements. They stem from long-used accounting practices. Specific principles are detailed rules used in reporting on business transactions and events. They usually arise from the rulings of authoritative and regulatory groups such as the Financial Accounting Standards Board or the Securities and Exchange Commission.
20. Revenue (or sales) is the amount received from selling products and services.
21. Net income (also called income, profit, or earnings) equals revenues minus expenses (if revenues exceed expenses). Net income increases equity. If expenses exceed revenues, the company has a net loss. Net loss decreases equity.
22. The four basic financial statements are: income statement, statement of retained earnings, balance sheet, and statement of cash flows.
23. An income statement reports a company's revenues and expenses along with the resulting net income or loss over a period of time.
24. Rent expense, utilities expense, administrative expenses, advertising and promotion expenses, maintenance expense, and salaries and wages expenses are some examples of business expenses.
25. The statement of retained earnings explains the changes in retained earnings from net income or loss, and from any owner contributions (stock issuances) and dividends over a period of time.
26. The balance sheet describes a company's financial position (types and amounts of assets, liabilities, and equity) at a point in time.
27. The statement of cash flows reports on the cash inflows and outflows from a company's operating, investing, and financing activities.
28. Return on assets, also called return on investment, is a profitability measure that is useful in evaluating management, analyzing and forecasting profits, and planning activities. It is computed as net income divided by the average total assets. For example, if we have an average annual balance of \$100 in a bank account and it earns interest of \$5 for the year, then our return on assets is $\$5 / \100 or 5%. The return on assets is a popular measure for analysis because it allows us to compare companies of different sizes and in different industries.
- 29^A. Return refers to income, and risk is the uncertainty about the return we expect to make. The lower the risk of an investment, the lower the expected return. For example, savings accounts pay a low return because of the low risk of a bank not returning the principal with interest. Higher risk implies higher, but riskier, expected returns.
- 30^B. Organizations carry out three major activities: financing, investing, and operating. Financing provides the means used to pay for resources. Investing refers to the acquisition and disposing of resources necessary to carry out the organization's plans. Operating activities are the actual carrying out of these plans. (*Planning is the glue that connects these activities, including the organization's ideas, goals, and strategies.*)

- 31^B. An organization's financing activities (liabilities and equity) pay for investing activities (assets). An organization cannot have more or less assets than its liabilities and equity combined and, similarly, it cannot have more or less liabilities and equity than its total assets. This means: $\text{assets} = \text{liabilities} + \text{equity}$. This relation is called the accounting equation (also called the *balance sheet equation*), and it applies to organizations at all times.
32. The dollar amounts in Google's financial statements are rounded to the nearest million (\$1,000,000). Google's consolidated statement of income (or income statement) covers the calendar-year ended December 31, 2017. Google also reports comparative income statements for the previous two years.
33. The independent auditor for Apple is Ernst & Young, LLP. The auditor expressly states that "our responsibility is to express an opinion on these financial statements based on our audits." The auditor also states that "these financial statements are the responsibility of the Company's management."

QUICK STUDIES

Quick Study 1-1 (10 minutes)

1. f Technology
2. c Recording
3. h Recordkeeping (bookkeeping)

Quick Study 1-2 (10 minutes)

- | | |
|--------------------|--------------------|
| a. E External user | g. E External user |
| b. E External user | h. E External user |
| c. E External user | i. I Internal user |
| d. E External user | j. E External user |
| e. I Internal user | k. E External user |
| f. E External user | l. E External user |

Quick Study 1-3 (10 minutes)

1. A. Opportunity
2. B. Pressure
3. C. Rationalization
4. A. Opportunity
5. B. Pressure
6. C. Rationalization

Quick Study 1-4 (5 minutes)

1. a. principle
2. b. assumption
3. b. assumption
4. a. principle

Quick Study 1-5 (10 minutes)

	Attribute Present	Proprietorship	Partnership	Corporation	LLC
1. Business taxed		no	no	yes	no
2. Limited liability		no	no	yes	yes
3. Legal entity		no	no	yes	yes

Quick Study 1-6 (10 minutes)

1. D. Revenue recognition principle
2. B. Measurement (cost) principle
3. C. Business entity assumption

Quick Study 1-7 (5 minutes)

Assets	=	Liabilities	+	Equity
\$700,000		(a) <u>\$280,000</u>		\$420,000
\$500,000		(b) <u>\$250,000</u>		(b) <u>\$250,000</u>

Quick Study 1-8 (10 minutes)

1.

Assets	=	Liabilities	+	Equity
\$75,000		(a) <u>\$35,000</u>		\$40,000
(b) <u>\$95,000</u>		\$25,000		\$70,000
\$85,000		\$20,000		(c) <u>\$65,000</u>

2.

Assets	=	Liabilities	+ Common Stock	- Dividends	+ Revenues	- Expenses
\$40,000		\$16,000	\$20,000	\$ 0	(a) <u>\$12,000</u>	\$ 8,000
\$80,000		\$32,000	\$44,000	(b) <u>\$2,000</u>	\$24,000	\$18,000

Quick Study 1-9 (10 minutes)

a. The accounts and their dollar amounts (in \$ millions) for Google are:

(1) Assets	=	<u><u>\$197,295</u></u>
(2) Liabilities	=	<u><u>\$44,793</u></u>
(3) Equity	=	<u><u>\$152,502</u></u>

b. Using Google's amounts from (a) we verify that (in \$ millions):

Assets	=	Liabilities	+	Equity
197,295	=	<u>44,793</u>	+	152,502

Quick Study 1-10 (15 minutes)

Assets				=	Liabilities				+	Equity				
Cash		+	Accounts Recble.	=	Accounts Payable		+	Common Stock	-	Dividends	+	Revenues	-	Expenses
(a)	\$5,500			=								\$5,500 Consulting		
(b)		+	\$4,000	=							+	4,000 Commission		
Bal.	5,500	+	4,000	=							+	9,500		
(c)	-1,400			=									-	\$1,400 Wages
Bal.	4,100	+	4,000	=							+	9,500	-	1,400
(d)	+1,000	+	- 1,000	=									-	
Bal.	5,100	+	3,000	=							+	9,500	-	1,400
(e)	-700	+		=									-	700 Cleaning
Bal.	\$4,400	+	\$3,000	=							+	\$9,500	-	\$2,100

Quick Study 1-11 (15 minutes)

	Assets					=	Liabilities	+	Equity				
	Cash	+ Supplies	+ Equip.	+ Land	=	Accts. Pay.	+ Common Stock	- Dividends	+ Rev.	- Exp.			
(a)	\$15,000				=		\$15,000						
(b)	-500	+ \$500			=								
Bal.	14,500	+ 500			=		+ 15,000						
(c)			+ \$10,000		=		10,000						
Bal.	14,500	+ 500	+ 10,000		=		+ 25,000						
(d)		+ 200			=	+\$200							
Bal.	14,500	+ 700	+ 10,000		=	200	+ 25,000						
(e)	-9,000			+ \$9,000	=								
Bal.	\$5,500	+ \$700	+ \$10,000	+ \$9,000	=	\$200	+ \$25,000						

Quick Study 1-12 (10 minutes)

[Code: *Income statement (I), Balance sheet (B), or Statement of cash flows (CF).*]

- | | |
|-------------------------------|-------------------------------|
| a. B Balance sheet | e. B Balance sheet |
| b. CF Statement of cash flows | f. CF Statement of cash flows |
| c. B Balance sheet | g. I Income statement |
| d. I Income statement | h. B Balance sheet |

Quick Study 1-13 (5 minutes)

- | | | |
|----------------|----------------|----------------|
| 1. EX expenses | 4. D dividends | 7. EX expenses |
| 2. R revenues | 5. EX expenses | 8. R revenues |
| 3. EX expenses | 6. R revenues | |

Quick Study 1-14 (5 minutes)

- | | | |
|--------------|------------------|-------------|
| 1. A assets | 3. A assets | 5. A assets |
| 2. EQ equity | 4. L liabilities | 6. A assets |

Quick Study 1-15 (15 minutes)

HAWKIN Income Statement For Month Ended December 31		
Revenues		
Services revenue.....		\$16,000
Expenses		
Wages expense.....	\$8,000	
Rent expense.....	1,500	
Utilities expense.....	700	
Total expenses.....		<u>10,200</u>
Net income.....		<u>\$ 5,800</u>

Quick Study 1-16 (10 minutes)

$$\text{Return on assets} = \frac{\text{Net income}}{\text{Average total assets}} = \frac{\$8 \text{ billion}}{\$42 \text{ billion}} = \underline{\underline{19.0\%}}$$

Interpretation: Its return of 19.0% exceeds the 11% of its competitors. Home Depot's performance can be judged as above average.

Quick Study 1-17 (10 minutes)

- a. The accounts and their dollar amounts (in KRW millions) for Samsung are:

(1) Assets	=	<u>301,752,090</u>
(2) Liabilities	=	<u>87,260,662</u>
(3) Equity	=	<u>214,491,428</u>

- b. Using Samsung's amounts from (a) we verify (in KRW millions):

Assets	=	Liabilities	+	Equity
301,752,090	=	87,260,662	+	214,491,428

EXERCISES

Exercise 1-1 (10 minutes)

- | | |
|------------------------|---|
| <u>C Communicating</u> | 1. Analyzing and interpreting reports. |
| <u>C Communicating</u> | 2. Presenting financial information. |
| <u>R Recording</u> | 3. Keeping a log of service costs. |
| <u>R Recording</u> | 4. Measuring the costs of a product. |
| <u>C Communicating</u> | 5. Preparing financial statements. |
| <u>I Identifying</u> | 6. Acquiring knowledge of revenue transactions. |
| <u>I Identifying</u> | 7. Observing transactions and events. |
| <u>R Recording</u> | 8. Registering cash sales of products sold. |

Exercise 1-2 (20 minutes)

Part A.

- | | |
|--------------------|--------------------|
| 1. I Internal user | 5. I Internal user |
| 2. E External user | 6. E External user |
| 3. I Internal user | 7. I Internal user |
| 4. E External user | |

Part B.

- | | |
|--------------------|--------------------|
| 1. I Internal user | 5. I Internal user |
| 2. I Internal user | 6. E External user |
| 3. E External user | 7. I Internal user |
| 4. E External user | 8. I Internal user |

Exercise 1-3 (10 minutes)

- | | |
|----------------------------|---------------------------|
| 1. B Managerial accounting | 5. C Tax accounting |
| 2. A Financial accounting | 6. C Tax accounting |
| 3. B Managerial accounting | 7. A Financial accounting |
| 4. B Managerial accounting | 8. A Financial accounting |

Exercise 1-4 (10 minutes)

1. A Audit
2. G Net income
3. D FASB
4. F Public accountants
5. C Ethics

Exercise 1-5 (20 minutes)

1. G Dodd-Frank Act
2. F Audit
3. E Sarbanes-Oxley Act
4. D Internal controls
5. C Prevention
6. B Fraud triangle
7. A Ethics

Exercise 1-6 (10 minutes)

- | | |
|-----------------------------|------------------------------------|
| a. (C) Corporation | e. (C) Corporation |
| b. (P) Partnership | f. (SP) Sole proprietorship |
| c. (SP) Sole proprietorship | g. (C) Corporation |
| d. (SP) Sole proprietorship | h. (LLC) Limited liability company |

Exercise 1-7 (10 minutes)

Code	Description	Principle/Assumption
<u>H</u>	1. A company reports details behind financial statements that would impact users' decisions.	Full disclosure principle
<u>G</u>	2. Financial statements reflect the assumption that the business continues operating.	Going-concern assumption
<u>F</u>	3. A company records the expenses incurred to generate the revenues reported.	Expense recognition (matching) principle
<u>A</u>	4. Concepts, assumptions, and guidelines for preparing financial statements.	General accounting principle
<u>C</u>	5. Each business is accounted for separately from its owner or owners.	Business entity assumption
<u>D</u>	6. Revenue is recorded when products and services are delivered.	Revenue recognition principle
<u>E</u>	7. Detailed rules used in reporting events and transactions.	Specific accounting principle
<u>B</u>	8. Information is based on actual costs incurred in transactions.	Measurement (cost) principle

Exercise 1-8 (10 minutes)

Assets	=	Liabilities	+	Equity
(a) <u>\$ 65,000</u>	=	\$ 20,000	+	\$45,000
\$100,000	=	\$ 34,000	+	(b) <u>\$66,000</u>
\$154,000	=	(c) <u>\$114,000</u>	+	\$40,000

Exercise 1-9 (20 minutes)

- a. Using the accounting equation at the *beginning* of the year:**

Assets	=	Liabilities	+	Equity
\$300,000	=	?	+	\$100,000

Thus, *beginning* liabilities = \$200,000

Using the accounting equation at the *end* of the year:

Assets	=	Liabilities	+	Equity
\$300,000 + \$80,000	=	\$200,000 + \$50,000	+	?
\$380,000	=	\$250,000	+	?

Thus, *ending* equity = \$130,000

Alternative approach to solving part (b):

$\Delta \text{Assets}(\$80,000) = \Delta \text{Liabilities}(\$50,000) + \Delta \text{Equity}(?)$

where “ Δ ” refers to “change in.”

Thus: *Ending* Equity = \$100,000 + \$30,000 = \$130,000

- b. Using the accounting equation:**

Assets	=	Liabilities	+	Equity
\$123,000	=	\$47,000	+	?

Thus, equity = \$76,000

- c. Using the accounting equation at the *end* of the year:**

Assets	=	Liabilities	+	Equity
\$190,000	=	\$70,000 - \$5,000	+	?
\$190,000	=	\$65,000	+	\$125,000

Using the accounting equation at the *beginning* of the year:

Assets	=	Liabilities	+	Equity
\$190,000 - \$60,000	=	\$70,000	+	?
\$130,000	=	\$70,000	+	?

Thus: *Beginning* Equity = \$60,000

Exercise 1-10 (20 minutes)

1. d The owner invested \$40,000 cash in the business in exchange for its common stock.
2. e The company purchased office supplies for \$3,000 by paying \$2,000 cash and putting \$1,000 on credit.
3. a The company purchased office furniture for \$8,000 cash.
4. f The company billed a customer \$6,000 for services provided.
5. h The company provided services for \$1,000 cash.

Exercise 1-11 (20 minutes)

1. f The company purchased land for \$4,000 cash.
2. a The company purchased \$1,000 of office supplies on credit.
3. g The company billed a client \$1,900 for services provided.
4. h The company paid \$1,000 cash toward an account payable.
5. b The company collected \$1,900 cash from an account receivable.

Exercise 1-12 (15 minutes)

- a. 3 Decreases an asset and decreases a liability.
- b. 2 Increases an asset and increases a liability.
- c. 5 Increases an asset and increases equity.
- d. 1 Decreases an asset and decreases equity.
- e. 4 Increases an asset and decreases an asset.
- f. 5 Increases an asset and increases equity.

Exercise 1-13 (30 minutes)

	Assets			= Liabilities		+ Equity			
	Cash	+ Accounts Receivable	+ Equip-ment	=	Accounts Payable	+ Common Stock	- Divi-dends	+ Revenues	- Expenses
a.	+\$60,000		+ \$15,000	=		+ \$75,000			
b.	<u>- 1,500</u>								- \$1,500
Bal.	58,500	+	+ 15,000	=		+ 75,000			- 1,500
c.			+ <u>10,000</u>		<u>+\$10,000</u>				
Bal.	58,500	+	+ 25,000	=	10,000	+ 75,000			- 1,500
d.	<u>+ 2,500</u>							+ \$2,500	
Bal.	61,000	+	+ 25,000	=	10,000	+ 75,000		+ 2,500	- 1,500
e.		+ <u>\$8,000</u>						+ <u>8,000</u>	
Bal.	61,000	+ 8,000	+ 25,000	=	10,000	+ 75,000		+ 10,500	- 1,500
f.	<u>- 6,000</u>		+ <u>6,000</u>						
Bal.	55,000	+ 8,000	+ 31,000	=	10,000	+ 75,000		+ 10,500	- 1,500
g.	<u>- 3,000</u>								- <u>3,000</u>
Bal.	52,000	+ 8,000	+ 31,000	=	10,000	+ 75,000		+ 10,500	- 4,500
h.	<u>+ 5,000</u>	- <u>5,000</u>							
Bal.	57,000	+ 3,000	+ 31,000	=	10,000	+ 75,000		+ 10,500	- 4,500
i.	<u>- 10,000</u>				<u>- 10,000</u>				
Bal.	47,000	+ 3,000	+ 31,000	=	0	+ 75,000		+ 10,500	- 4,500
j.	<u>- 1,000</u>						- \$1,000		
Bal.	<u>\$46,000</u>	+ <u>\$3,000</u>	+ <u>\$31,000</u>	=	<u>\$ 0</u>	+ <u>\$75,000</u>	- <u>\$1,000</u>	+ <u>\$10,500</u>	- <u>\$4,500</u>

Exercise 1-14 (10 minutes)

$$\begin{aligned}
 \text{Return on assets} &= \text{Net income} / \text{Average total assets} \\
 &= \$40,000 / [(\$200,000 + \$300,000)/2] \\
 &= \underline{\underline{16.0\%}}
 \end{aligned}$$

Interpretation: Swiss Group's return on assets of 16% is markedly above the 11% return of its competitors. Accordingly, its performance is assessed as superior to its competitors.

Exercise 1-15 (15 minutes)

ERNST CONSULTING Income Statement For Month Ended October 31		
Revenues		
Consulting revenue.....		\$14,000
Expenses		
Salaries expense.....	\$7,000	
Rent expense.....	3,550	
Telephone expense.....	760	
Miscellaneous expenses.....	<u>580</u>	
Total expenses.....		<u>11,890</u>
Net income.....		<u>\$ 2,110</u>

Exercise 1-16 (15 minutes)

ERNST CONSULTING Statement of Retained Earnings For Month Ended October 31		
Retained earnings, October 1.....	\$	0
Add: Net income (from Exercise 1-15).....		<u>2,110</u>
		2,110
Less: Dividends.....		<u>2,000</u>
Retained earnings, October 31.....	\$	<u>110</u>

Exercise 1-17 (15 minutes)

ERNST CONSULTING			
Balance Sheet			
October 31			
Assets		Liabilities	
Cash.....	\$11,360	Accounts payable.....	\$ 8,500
Accounts receivable....	14,000	Equity	
Office supplies.....	3,250	Common stock.....	84,000
Office equipment.....	18,000	Retained earnings*	110
Land.....	<u>46,000</u>	Total equity.....	<u>84,110</u>
Total assets.....	<u>\$92,610</u>	Total liabilities and equity....	<u>\$92,610</u>

* For computation of this amount see Exercise 1-16.

Exercise 1-18 (15 minutes)

ERNST CONSULTING	
Statement of Cash Flows	
For Month Ended October 31	
Cash flows from operating activities	
Cash received from customers.....	\$ 0
Cash paid to employees ^a	(1,750)
Cash paid for rent.....	(3,550)
Cash paid for telephone expenses.....	(760)
Cash paid for miscellaneous expenses.....	<u>(580)</u>
Net cash used by operating activities.....	(6,640)
Cash flows from investing activities	
Cash paid for office equipment.....	<u>(18,000)</u>
Net cash used by investing activities.....	(18,000)
Cash flows from financing activities	
Cash investments from shareholders.....	38,000
Cash dividends to shareholders.....	<u>(2,000)</u>
Net cash provided by financing activities.....	<u>36,000</u>
Net increase in cash.....	\$11,360
Cash balance, October 1.....	<u>0</u>
Cash balance, October 31.....	<u>\$11,360</u>

^a \$7,000 Salaries Expense - \$5,250 still owed = \$1,750 paid to employees.

Exercise 1-19 (10 minutes)

- | | |
|--|--|
| <u>I</u> 1. Cash purchase of equipment | <u>O</u> 5. Cash paid on account payable |
| <u>F</u> 2. Cash paid for dividends | <u>O</u> 6. Cash received from clients |
| <u>O</u> 3. Cash paid for advertising | <u>O</u> 7. Cash paid for rent |
| <u>O</u> 4. Cash paid for wages | <u>F</u> 8. Cash investment from shareholder |

Exercise 1-20 (20 minutes)

Ford Motor Company
Income Statement
For Year Ended December 31

(\$ millions)

Revenues		\$151,800
Expenses		
Cost of sales.....	\$126,584	
Selling and administrative costs.....	12,196	
Other expenses.....	<u>8,413</u>	
Total expenses.....		<u>147,193</u>
Net income.....		<u>\$ 4,607</u>

Exercise 1-21^B (10 minutes)

- | | |
|---------------------|---|
| a. Financing | An owner contributes cash to the business in exchange for its common stock. |
| b. Financing | An organization borrows money from a bank. |
| c. Operating | An organization advertises a new product. |
| d. Investing | An organization sells some of its land. |
| e. Investing | An organization purchases equipment. |

Exercise 1-22 (15 minutes)

BMW GROUP Income Statement For Year Ended December 31		
(Euros in millions)		
Revenues		€ 75,350
Expenses		
Cost of sales.....	€60,946	
Selling and administrative costs.....	6,139	
Other expenses.....	<u>4,988</u>	
Total expenses.....		<u>72,073</u>
Net income.....		<u>€ 3,277</u>

Exercise 1-23 (15 minutes)

- a. Using the accounting equation on January 1:

Assets	=	Liabilities	+	Equity
?	=	\$60,000	+	\$40,000

Thus, *beginning* assets = \$100,000

Using the accounting equation on January 3:

Assets	=	Liabilities	+	Equity
?	=	\$60,000 + \$6,000	+	\$40,000
?	=	\$66,000	+	\$40,000

Thus, *January 3* assets = \$106,000

Alternatively, we begin with \$100,000 in assets, then add \$10,000 in solar panels, then subtract \$4,000 in cash→resulting in \$106,000 in ending assets.

Exercise 1-23 (concluded)**b. Using the accounting equation on March 1:**

Assets	=	Liabilities	+	Equity
\$100,000	=	\$30,000	+	?

Thus, *beginning* equity = \$70,000

Using the accounting equation on March 5:

Assets	=	Liabilities	+	Equity
\$100,000 - \$15,000	=	\$30,000	+	?
\$85,000	=	\$30,000	+	?

Thus, *March 5* equity = \$55,000

c. Using the accounting equation on August 1:

Assets	=	Liabilities	+	Equity
\$30,000	=	\$10,000	+	?

Thus, *beginning* equity = \$20,000

Using the accounting equation on August 5:

Assets	=	Liabilities	+	Equity
\$30,000 + \$10,000	=	\$10,000	+	?
\$40,000	=	\$10,000	+	?

Thus, *August 5* equity = \$30,000

PROBLEM SET A

Problem 1-1A (25 minutes)

Transaction	a.				b.		
	Balance Sheet		Income Statement		Statement of Cash Flows		
	Total Assets	Total Liab.	Total Equity	Net Income	Operating Activities	Investing Activities	Financing Activities
1 Owner invests \$900 cash in business in exchange for stock	+900		+900				+900
2 Receives \$700 cash for services provided	+700		+700	+700	+700		
3 Pays \$500 cash for employee wages	-500		-500	-500	-500		
4 Buys \$100 of equipment on credit	+100	+100					
5 Purchases \$200 supplies on credit	+200	+200					
6 Buys equipment for \$300 cash	+300 -300					-300	
7 Pays \$200 on accounts payable	-200	-200			-200		
8 Provides \$400 services on credit	+400		+400	+400			
9 Pays \$50 cash in dividends	-50		-50				-50
10 Collects \$400 cash on account receivable	+400 -400				+400		

Problem 1-2A (40 minutes)**Part 1****Company A****(a) Equity on December 31, 2018:**

Assets.....	\$55,000
Liabilities.....	<u>(24,500)</u>
Equity.....	<u>\$30,500</u>

(b) Equity on December 31, 2019:

Equity, December 31, 2018.....	\$30,500
Plus stock issuances.....	6,000
Plus net income.....	8,500
Less cash dividends.....	<u>(3,500)</u>
Equity, December 31, 2019.....	<u>\$41,500</u>

(c) Liabilities on December 31, 2019:

Assets.....	\$58,000
Equity.....	<u>(41,500)</u>
Liabilities.....	<u>\$16,500</u>

Part 2**Company B****(a) and (b)**

Equity:	<u>12/31/2018</u>	<u>12/31/2019</u>
Assets.....	\$34,000	\$40,000
Liabilities.....	<u>(21,500)</u>	<u>(26,500)</u>
Equity.....	<u>\$12,500</u>	<u>\$13,500</u>

(c) Net income for 2019:

Equity, December 31, 2018.....	\$12,500
Plus stock issuances.....	1,400
Plus net income.....	?
Less cash dividends.....	<u>(2,000)</u>
Equity, December 31, 2019.....	<u>\$13,500</u>
Therefore, net income must have been	<u>\$ 1,600</u>

Problem 1-2A (Continued)**Part 3****Company C**

First, compute the beginning balance of equity:

	<u>Dec. 31, 2018</u>
Assets.....	\$24,000
Liabilities.....	(9,000)
Equity.....	<u>\$15,000</u>

Next, find the ending balance of equity by completing this table:

Equity, December 31, 2018.....	\$15,000
Plus stock issuances.....	9,750
Plus net income.....	8,000
Less cash dividends.....	<u>(5,875)</u>
Equity, December 31, 2019.....	<u>\$26,875</u>

Finally, find the ending amount of assets by adding the ending balance of equity to the ending balance of liabilities:

	<u>Dec. 31, 2019</u>
Liabilities.....	\$29,000
Equity.....	<u>26,875</u>
Assets.....	<u>\$55,875</u>

Part 4**Company D**

First, compute the beginning and ending equity balances:

	<u>12/31/2018</u>	<u>12/31/2019</u>
Assets.....	\$60,000	\$85,000
Liabilities.....	<u>(40,000)</u>	<u>(24,000)</u>
Equity.....	<u>\$20,000</u>	<u>\$61,000</u>

Then, find the amount of stock issuances during 2019:

Equity, December 31, 2018.....	\$20,000
Plus stock issuances.....	?
Plus net income.....	14,000
Less cash dividends.....	<u>0</u>
Equity, December 31, 2019.....	<u>\$61,000</u>

Thus, stock issuances must have been..... \$27,000

Problem 1-2A (Concluded)**Part 5****Company E**

First, compute the balance of equity as of December 31, 2019:

Assets.....	\$113,000
Liabilities.....	<u>(70,000)</u>
Equity.....	<u>\$ 43,000</u>

Next, find the beginning balance of equity as follows:

Equity, December 31, 2018.....	\$?
Plus stock issuances.....	6,500
Plus net income.....	20,000
Less cash dividends.....	<u>(11,000)</u>
Equity, December 31, 2019.....	<u>\$43,000</u>

Thus, the beginning balance of equity is: \$27,500

Finally, find the beginning amount of liabilities by subtracting the beginning balance of equity from the beginning balance of assets:

	<u>Dec. 31, 2018</u>
Assets.....	\$119,000
Equity.....	<u>(27,500)</u>
Liabilities.....	<u>\$ 91,500</u>

Problem 1-3A (20 minutes)

Armani Company
Income Statement
For Year Ended December 31, 2019

Revenues		
Consulting revenue.....	\$33,000	
Rental revenue.....	<u>22,000</u>	
Total revenues.....		\$55,000
Expenses		
Salaries expense.....	20,000	
Rent expense.....	12,000	
Selling and administrative expenses. .	<u>8,000</u>	
Total expenses.....		<u>40,000</u>
Net income.....		<u>\$15,000</u>

Problem 1-4A (20 minutes)

Armani Company Statement of Retained Earnings For Year Ended December 31, 2019	
Retained earnings, December 31, 2018.....	\$ 3,000
Add: Net income (from Problem 1-3A).....	<u>15,000</u>
	18,000
Less: Dividends.....	<u>13,000</u>
Retained earnings, December 31, 2019.....	<u>\$ 5,000</u>

Problem 1-5A (20 minutes)

Armani Company Balance Sheet December 31, 2019			
Assets		Liabilities	
Cash.....	\$10,000	Accounts payable.....	<u>\$11,000</u>
Accounts receivable....	9,000	Total liabilities.....	11,000
Supplies.....	7,000	Equity	
Equipment.....	4,000	Common stock.....	14,000
		Retained earnings*.....	<u>5,000</u>
		Total equity.....	<u>19,000</u>
Total assets.....	<u>\$30,000</u>	Total liabilities and equity....	<u>\$30,000</u>

* For computation of this amount see Problem 1-4A.

Problem 1-6A (15 minutes)

Kia Company Statement of Cash Flows For Year Ended December 31, 2019	
Cash from operating activities	\$ 6,000
Cash used by investing activities.....	(2,000)
Cash used by financing activities.....	<u>(2,800)</u>
Net increase in cash.....	\$ 1,200
Cash, December 31, 2018.....	<u>2,300</u>
Cash, December 31, 2019.....	<u>\$ 3,500</u>

Problem 1-7A (60 minutes) *Part 1*

Assets = Liabilities + Equity															
Date	Cash	+	Accounts Receivable	+	Office Equipment	=	Accounts Payable	+	Common Stock	-	Dividends	+	Revenues	-	Expenses
May 1	+\$40,000					=		+	\$40,000						
1	- 2,200					=								- \$2,200	Rent
3				+	\$1,890	=	+	\$1,890							
5	- 750					=								- 750	Cleaning
8	+ 5,400					=						+	\$5,400		
12		+	\$2,500			=						+	2,500		
15	- 750					=								- 750	Salary
20	+ 2,500	-	2,500			=									
22		+	3,200			=						+	3,200		
25	+ 3,200	-	3,200			=									
26	- 1,890					=	-	1,890							
27				+	80	=	+	80							
28	- 750					=								- 750	Salary
30	- 300					=								- 300	Telephone
30	- 280					=								- 280	Utilities
31	- 1,400					=				-	\$1,400				
	\$42,780	+	\$ 0	+	\$1,970	=	\$ 80	+	\$40,000	-	\$1,400	+	\$11,100	-	\$5,030

Problem 1-7A (Continued)
Part 2

The Gram Co. Income Statement For Month Ended May 31		
Revenues		
Consulting services revenue		\$11,100
Expenses		
Rent expense.....	\$2,200	
Salaries expense.....	1,500	
Cleaning expense.....	750	
Telephone expense.....	300	
Utilities expense.....	<u>280</u>	
Total expenses.....		<u>5,030</u>
Net income.....		<u>\$ 6,070</u>

The Gram Co. Statement of Retained Earnings For Month Ended May 31	
Retained earnings, May 1.....	\$ 0
Add: Net income.....	<u>6,070</u>
	6,070
Less: Dividends.....	<u>1,400</u>
Retained earnings, May 31.....	<u>\$ 4,670</u>

The Gram Co. Balance Sheet May 31			
Assets		Liabilities	
Cash.....	\$42,780	Accounts payable.....	\$ 80
Office equipment.....	1,970	Equity	
		Common stock.....	40,000
		Retained earnings.....	<u>4,670</u>
		Total equity.....	<u>44,670</u>
Total assets.....	<u>\$44,750</u>	Total liabilities and equity.....	<u>\$44,750</u>

Problem 1-7A (Concluded)**Part 3**

The Gram Co. Statement of Cash Flows For Month Ended May 31		
Cash flows from operating activities		
Cash received from customers	\$11,100	
Cash paid for rent	(2,200)	
Cash paid for cleaning	(750)	
Cash paid for telephone	(300)	
Cash paid for utilities	(280)	
Cash paid to employees	<u>(1,500)</u>	
Net cash provided by operating activities		\$ 6,070
Cash flows from investing activities		
Cash paid for equipment	<u>(1,890)</u>	
Net cash used by investing activities		(1,890)
Cash flows from financing activities		
Cash investment from shareholder	40,000	
Cash dividend to shareholder	<u>(1,400)</u>	
Net cash provided by financing activities		<u>38,600</u>
Net increase in cash		\$42,780
Cash balance, May 1		<u>0</u>
Cash balance, May 31		<u><u>\$42,780</u></u>

Problem 1-8A (60 minutes) Part 1

Assets					=	Liabilities	+ Equity			
Cash	+ Accounts Receivable	+ Office Supplies	+ Office Equipment	+ Office Suite	=	Accounts Payable	+ Common Stock	- Dividends	+ Revenues	- Expenses
a. +\$70,000			+ \$10,000				+ \$80,000			
b. - 40,000				+ \$40,000						
Bal. 30,000			+ 10,000	+ 40,000	=		+ 80,000			
c. - 15,000			+ 15,000							
Bal. 15,000			+ 25,000	+ 40,000	=		+ 80,000			
d.		+ \$1,200	+ 1,700			+ \$2,900				
Bal. 15,000		+ 1,200	+ 26,700	+ 40,000	=	2,900	+ 80,000			
e. - 500										- \$ 500
Bal. 14,500		+ 1,200	+ 26,700	+ 40,000	=	2,900	+ 80,000			- 500
f.	+ \$2,800								+ \$2,800	
Bal. 14,500	+ 2,800	+ 1,200	+ 26,700	+ 40,000	=	2,900	+ 80,000		+ 2,800	- 500
g. + 4,000									+ 4,000	
Bal. 18,500	+ 2,800	+ 1,200	+ 26,700	+ 40,000	=	2,900	+ 80,000		+ 6,800	- 500
h. - 3,275								- \$3,275		
Bal. 15,225	+ 2,800	+ 1,200	+ 26,700	+ 40,000	=	2,900	+ 80,000	- 3,275	+ 6,800	- 500
i. + 1,800	- 1,800									
Bal. 17,025	+ 1,000	+ 1,200	+ 26,700	+ 40,000	=	2,900	+ 80,000	- 3,275	+ 6,800	- 500
j. - 700						- 700				
Bal. 16,325	+ 1,000	+ 1,200	+ 26,700	+ 40,000	=	2,200	+ 80,000	- 3,275	+ 6,800	- 500
k. - 1,800										- 1,800
Bal. \$14,525	+ \$1,000	+ \$1,200	+ \$26,700	+ \$40,000	=	\$2,200	+ \$80,000	- \$3,275	+ \$6,800	- \$2,300

Problem 1-8A (Concluded)

Part 2

Biz Consulting's net income = \$6,800 - \$2,300 = \$4,500

Problem 1-9A (60 minutes) *Part 1*

Date	Assets					=	Liabilities	+	Equity											
	Cash	+	Accounts Receivable	+	Office Supplies	+	Office Equipment	+	Electrical Equipment	=	Accounts Payable	+	Common Stock	-	Dividends	+	Revenues	-	Expenses	
Dec. 1	+\$65,000					=		+	\$65,000											
2	- 1,000																		-	\$1,000
Bal.	64,000					=			65,000									-	1,000	
3	- 4,800									+	\$13,000		+	\$8,200						
Bal.	59,200									+	13,000	=	8,200	+	65,000				-	1,000
5	- 800															+	\$ 800			
Bal.	58,400															+	800			
6	+ 1,200																			
Bal.	59,600																			
8																				
Bal.	59,600																			
15																				
Bal.	59,600																			
18																				
Bal.	59,600																			
20	- 2,530																			
Bal.	57,070																			
24																				
Bal.	57,070																			
28	+ 5,000																			
Bal.	62,070																			
29	- 1,400																			
Bal.	60,670																			
30	- 540																			
Bal.	60,130																			
31	- 950																			
Bal.	\$59,180																			

Problem 1-9A (Continued)
Part 2

Sony Electric Income Statement For Month Ended December 31		
Revenues		
Electrical fees earned.....		\$7,100
Expenses		
Rent expense.....	\$1,000	
Salaries expense.....	1,400	
Utilities expense	<u>540</u>	
Total expenses.....		<u>2,940</u>
Net income.....		<u>\$4,160</u>

Sony Electric Statement of Retained Earnings For Month Ended December 31		
Retained earnings, December 1.....	\$	0
Add: Net income.....		<u>4,160</u>
		4,160
Less: Dividends.....		<u>950</u>
Retained earnings, December 31.....		<u>\$ 3,210</u>

Sony Electric Balance Sheet December 31			
Assets		Liabilities	
Cash.....	\$59,180	Accounts payable.....	\$ 8,550
Accounts receivable.....	900	Equity	
Office supplies.....	1,150	Common stock.....	65,000
Office equipment.....	2,530	Retained earnings.....	<u>3,210</u>
Electrical equipment.....	<u>13,000</u>	Total equity.....	<u>68,210</u>
Total assets.....	<u>\$76,760</u>	Total liabilities and equity.....	<u>\$76,760</u>

Problem 1-9A (Concluded)**Part 3**

Sony Electric Statement of Cash Flows For Month Ended December 31		
Cash flows from operating activities		
Cash received from customers ¹	\$ 6,200	
Cash paid for rent	(1,000)	
Cash paid for supplies	(800)	
Cash paid for utilities	(540)	
Cash paid to employees	<u>(1,400)</u>	
Net cash provided by operating activities		\$ 2,460
Cash flows from investing activities		
Cash paid for office equipment	(2,530)	
Cash paid for electrical equipment	<u>(4,800)</u>	
Net cash used by investing activities		(7,330)
Cash flows from financing activities		
Cash investment from shareholder	65,000	
Cash dividend to shareholder	<u>(950)</u>	
Net cash provided by financing activities		<u>64,050</u>
Net increase in cash		\$59,180
Cash balance, Dec. 1		<u>0</u>
Cash balance, Dec. 31		<u><u>\$59,180</u></u>

¹\$1,200 + \$5,000 = \$6,200

Part 4

If the December 1 investment had been \$49,000 cash instead of \$65,000 and the \$16,000 difference was borrowed by the company from a bank, then:

- (a) Total assets would remain the same.
- (b) Total liabilities would be \$16,000 greater.
- (c) Total equity would be \$16,000 lower (due to less owner investment).

Problem 1-10A (15 minutes)

1. Return on assets is net income divided by the average total assets.
Kyzer's return: $\$65,000 / \$250,000 = 0.26$ or 26%.
2. Return on assets seems satisfactory for the risk involved in the manufacturing, marketing, and selling of cellular telephones. Moreover, Kyzer's 26% return is more than twice as high as that of its competitors' 12% return.
3. We know that revenues less expenses equal net income. Taking the revenues and net income numbers for Kyzer we obtain:
 $\$475,000 - \text{Expenses} = \$65,000 \rightarrow \text{Expenses must equal } \underline{\$410,000}$.
4. We know from the accounting equation that total financing (liabilities plus equity) must equal the total for assets (investing). Since average total assets are \$250,000, we know the average total of liabilities plus equity (financing) must equal \$250,000.

Problem 1-11A (20 minutes)

1. Return on assets equals net income divided by average total assets.
 - a. Coca-Cola return: $\$8,634 / \$76,448 = 0.113$ or 11.3%.
 - b. PepsiCo return: $\$6,462 / \$70,518 = 0.092$ or 9.2%.
2. Strictly on the amount of sales to consumers, Coca-Cola's sales of \$46,542 are less than PepsiCo's \$66,504.
3. Success in returning net income from the average amount invested is revealed by the return on assets. Part 1 showed that Coca-Cola's 11.3% return is better than PepsiCo's 9.2% return.
4. The reported figures suggest that Coca-Cola yields a marginally higher return on assets than PepsiCo. Based on this information alone, we would be better advised to invest in Coca-Cola than PepsiCo.

Nevertheless, and because the returns are not dramatically different, we would look for additional information in financial statements and other sources for further guidance. For example, if Coca-Cola could dispose of some assets without curtailing its sales level, it would look even more attractive; or, PepsiCo could do likewise, and close the gap. We would also look for consumer trends, market expansion, competition, product development, and promotion plans.

Problem 1-12A^A (5 minutes)

- a. **3** Lowest-risk corporate bond.
- b. **2** Medium-risk corporate bond.
- c. **1** Company stock in a startup.
- d. **4** U.S. government Treasury bond.

Problem 1-13A^B (15 minutes)

- | | |
|---|--|
| 1. F Shareholders investing in business. | 5. I Purchasing equipment. |
| 2. I Purchasing a building. | 6. O Selling and distributing products. |
| 3. I Purchasing land. | 7. O Paying for advertising. |
| 4. F Borrowing cash from a bank. | 8. O Paying employee wages. |

Problem 1-14A^B (15 minutes)

An organization pursues three major business activities: financing, investing, and operating.

- (1) *Financing* is the means used to pay for resources.
- (2) *Investing* refers to the buying and selling of resources (assets) necessary to carry out the organization's plans.
- (3) *Operating* activities are the carrying out of an organization's plans.

If financial statements are to be informative about an organization's activities, then they will need to report on these three major activities. Also note that planning is the glue that links and coordinates these three major activities—it includes the ideas, goals, and strategies of an organization.

PROBLEM SET B

Problem 1-1B (25 minutes)

	a.				b.		
	Balance Sheet			Income Statement	Statement of Cash Flows		
Transaction	Total Assets	Total Liab.	Total Equity	Net Income	Operating Activities	Investing Activities	Financing Activities
1 Owner invests \$800 cash in business in exchange for stock	+800		+800				+800
2 Purchases \$100 supplies on credit	+100	+100					
3 Buys equipment for \$400 cash	+400 -400					-400	
4 Provide services for \$900 cash	+900		+900	+900	+900		
5 Pays \$400 cash for rent incurred	-400		-400	-400	-400		
6 Buys \$200 of equipment on credit	+200	+200					
7 Pays \$300 cash for wages incurred	-300		-300	-300	-300		
8 Pays \$50 cash in dividends	-50		-50				-50
9 Provide \$600 services on credit	+600		+600	+600			
10 Collects \$600 cash on accounts receivable	+600 -600				+600		

Problem 1-2B (40 minutes)**Part 1****Company V****(a) and (b)**

Calculation of equity:	<u>12/31/2018</u>	<u>12/31/2019</u>
Assets	\$54,000	\$59,000
Liabilities	<u>(25,000)</u>	<u>(36,000)</u>
Equity	<u>\$29,000</u>	<u>\$23,000</u>

(c) Calculation of net income for 2019:

Equity, December 31, 2018.....	\$29,000
Plus stock issuances.....	5,000
Plus net income.....	?
Less cash dividends.....	<u>(5,500)</u>
Equity, December 31, 2019.....	<u>\$23,000</u>
Therefore, the net loss must have been	<u>\$(5,500).</u>

Part 2**Company W****(a) Calculation of equity at December 31, 2018:**

Assets.....	\$80,000
Liabilities.....	<u>(60,000)</u>
Equity.....	<u>\$20,000</u>

(b) Calculation of equity at December 31, 2019:

Equity, December 31, 2018.....	\$20,000
Plus stock issuances.....	20,000
Plus net income.....	40,000
Less cash dividends.....	<u>(2,000)</u>
Equity, December 31, 2019.....	<u>\$78,000</u>

(c) Calculation of the amount of liabilities at December 31, 2019:

Assets.....	\$100,000
Equity.....	<u>(78,000)</u>
Liabilities.....	<u>\$ 22,000</u>

Problem 1-2B (Continued)**Part 3****Company X**

First, compute the beginning and ending equity balances:

	<u>12/31/2018</u>	<u>12/31/2019</u>
Assets	\$141,500	\$186,500
Liabilities	(68,500)	(65,800)
Equity	<u>\$ 73,000</u>	<u>\$120,700</u>

Then, find the amount of stock issuances during 2019 as follows:

Equity, December 31, 2018.....	\$ 73,000
Plus stock issuances.....	?
Plus net income.....	18,500
Less cash dividends.....	<u>0</u>
Equity, December 31, 2019.....	<u>\$120,700</u>

Thus, the stock issuances must have been.... \$ 29,200

Part 4**Company Y**

First, compute the beginning balance of equity:

	<u>Dec. 31, 2018</u>
Assets.....	\$92,500
Liabilities.....	<u>51,500</u>
Equity.....	<u>\$41,000</u>

Next, find the ending balance of equity as follows:

Equity, December 31, 2018.....	\$41,000
Plus stock issuances.....	48,100
Plus net income.....	24,000
Less cash dividends.....	<u>(20,000)</u>
Equity, December 31, 2019.....	<u>\$93,100</u>

Finally, find the ending amount of assets by adding the ending balance of equity to the ending balance of liabilities:

	<u>Dec. 31, 2019</u>
Liabilities.....	\$ 42,000
Equity.....	<u>93,100</u>
Assets.....	<u>\$135,100</u>

Problem 1-2B (Concluded)**Part 5****Company Z**

First, compute the balance of equity as of December 31, 2019:

Assets.....	\$170,000
Liabilities.....	<u>(42,000)</u>
Equity.....	<u>\$128,000</u>

Next, find the beginning balance of equity as follows:

Equity, December 31, 2018.....	\$?
Plus stock issuances.....	60,000
Plus net income.....	32,000
Less cash dividends.....	<u>(8,000)</u>
Equity, December 31, 2019.....	<u>\$128,000</u>

Thus, the beginning balance of equity is \$44,000.

Finally, find the beginning amount of liabilities by subtracting the beginning balance of equity from the beginning balance of assets:

	<u>Dec. 31, 2018</u>
Assets.....	\$144,000
Equity.....	<u>(44,000)</u>
Liabilities.....	<u>\$100,000</u>

Problem 1-3B (20 minutes)

Audi Company
Income Statement
For Year Ended December 31, 2019

Revenues		
Consulting revenue.....	\$6,600	
Rental revenue.....	<u>4,400</u>	
Total revenues.....		\$11,000
Expenses		
Salaries expense.....	4,000	
Rent expense.....	2,400	
Selling and administrative expenses. .	<u>1,600</u>	
Total expenses.....		<u>8,000</u>
Net income.....		<u>\$ 3,000</u>

Problem 1-4B (20 minutes)

Audi Company Statement of Retained Earnings For Year Ended December 31, 2019	
Retained earnings, December 31, 2018.....	\$ 900
Add: Net income (from Problem 1-3B).....	<u>3,000</u>
	3,900
Less: Dividends.....	<u>2,600</u>
Retained earnings, December 31, 2019.....	<u>\$1,300</u>

Problem 1-5B (20 minutes)

Audi Company Balance Sheet December 31, 2019			
Assets		Liabilities	
Cash.....	\$2,000	Accounts payable.....	<u>\$3,600</u>
Accounts receivable....	1,800	Total liabilities.....	3,600
Supplies.....	1,200	Equity	
Equipment.....	1,000	Common stock.....	1,100
		Retained earnings*.....	<u>1,300</u>
		Total equity.....	<u>2,400</u>
Total assets.....	<u>\$6,000</u>	Total liabilities and equity....	<u>\$6,000</u>

* For computation of this amount see Problem 1-4B.

Problem 1-6B (15 minutes)

Banji Company Statement of Cash Flows For Year Ended December 31, 2019	
Cash used by operating activities	\$(3,000)
Cash from investing activities.....	1,600
Cash from financing activities.....	<u>1,800</u>
Net increase in cash.....	\$ 400
Cash, December 31, 2018.....	<u>1,300</u>
Cash, December 31, 2019.....	<u>\$ 1,700</u>

Problem 1-7B (60 minutes) *Part 1*

		Assets			=	Liabilities	+	Equity				
Date	Cash	+	Accounts Receivable	+ Equipment	=	Accounts Payable	+	Common Stock	- Dividends	+ Revenues	- Expenses	
June 1	+\$130,000				=		+	\$130,000				
2	- 6,000				=						- \$6,000	Rent
4				+ \$2,400	=	+ \$2,400						
6	- 1,150				=						- 1,150	Advertising
8	+ 850				=					+ \$ 850		
14		+	\$7,500		=					+ 7,500		
16	- 800				=						- 800	Salary
20	+ 7,500	-	7,500		=							
21		+	7,900		=					+ 7,900		
24		+	675		=					+ 675		
25	+ 7,900	-	7,900		=							
26	- 2,400				=	- 2,400						
28	- 800				=						- 800	Salary
29	- 4,000				=				- \$4,000			
30	- 150				=						- 150	Telephone
30	- 890				=						- 890	Utilities
	\$130,060	+	\$ 675	+ \$2,400	=	\$ 0	+	\$130,000	- \$4,000	+ \$16,925	- \$9,790	

Problem 1-7B (Continued)
Part 2

Niko's Maintenance Co. Income Statement For Month Ended June 30		
Revenues		
Maintenance services revenue.....		\$16,925
Expenses		
Rent expense.....	\$6,000	
Salaries expense.....	1,600	
Advertising expense.....	1,150	
Utilities expense.....	890	
Telephone expense.....	<u>150</u>	
Total expenses.....		<u>9,790</u>
Net income.....		<u>\$ 7,135</u>

Niko's Maintenance Co. Statement of Retained Earnings For Month Ended June 30		
Retained earnings, June 1.....	\$	0
Add: Net income.....		<u>7,135</u>
		7,135
Less: Dividends.....		<u>4,000</u>
Retained earnings, June 30.....	\$	<u>3,135</u>

Niko's Maintenance Co. Balance Sheet June 30			
Assets		Liabilities	
Cash	\$130,060	Accounts payable	\$ 0
Accounts receivable	675	Equity	
Equipment	2,400	Common stock	130,000
		Retained earnings	<u>3,135</u>
		Total equity	<u>133,135</u>
Total assets	<u>\$133,135</u>	Total liabilities and equity	<u>\$133,135</u>

Problem 1-7B (Concluded)**Part 3**

Niko's Maintenance Co. Statement of Cash Flows For Month Ended June 30		
Cash flows from operating activities		
Cash received from customers ¹	\$ 16,250	
Cash paid for rent	(6,000)	
Cash paid for advertising	(1,150)	
Cash paid for telephone	(150)	
Cash paid for utilities	(890)	
Cash paid to employees	<u>(1,600)</u>	
Net cash provided by operating activities		\$ 6,460
Cash flows from investing activities		
Cash paid for equipment	<u>(2,400)</u>	
Net cash used by investing activities		(2,400)
Cash flows from financing activities		
Cash investments from shareholder	130,000	
Cash dividends to shareholder	<u>(4,000)</u>	
Net cash provided by financing activities		<u>126,000</u>
Net increase in cash		\$130,060
Cash balance, June 1		<u>0</u>
Cash balance, June 30		<u><u>\$130,060</u></u>

¹\$850 + \$7,500 + \$7,900 = \$16,250

Problem 1-8B (60 minutes) Part 1

Assets						=	Liabilities	+	Equity		
Cash	+ Accounts Receivable	+ Office Supplies	+ Office Equipment	+ Office Suite		=	Accounts Payable	+	Common Stock	- Dividends	+ Revenues - Expenses
a. + \$90,000			+ \$10,000					+	\$100,000		
b. - 50,000				+ \$50,000							
Bal. 40,000			+ 10,000	+ 50,000	=			+	100,000		
c. - 25,000			+ 25,000								
Bal. 15,000			+ 35,000	+ 50,000	=			+	100,000		
d.		+ \$1,200	+ 1,700				+ \$2,900				
Bal. 15,000		1,200	+ 36,700	+ 50,000	=		2,900	+	100,000		
e. - 750											- \$ 750
Bal. 14,250		+ 1,200	+ 36,700	+ 50,000	=		2,900	+	100,000		- 750
f.	+ \$2,800									+ \$2,800	
Bal. 14,250	+ 2,800	+ 1,200	+ 36,700	+ 50,000	=		2,900	+	100,000	+ 2,800	- 750
g. + 4,000										+ 4,000	
Bal. 18,250	+ 2,800	+ 1,200	+ 36,700	+ 50,000	=		2,900	+	100,000	+ 6,800	- 750
h. - 11,500										- \$11,500	
Bal. 6,750	+ 2,800	+ 1,200	+ 36,700	+ 50,000	=		2,900	+	100,000	- 11,500	+ 6,800 - 750
i. + 1,800	- 1,800										
Bal. 8,550	+ 1,000	+ 1,200	+ 36,700	+ 50,000	=		2,900	+	100,000	- 11,500	+ 6,800 - 750
j. - 700							- 700				
Bal. 7,850	+ 1,000	+ 1,200	+ 36,700	+ 50,000	=		2,200	+	100,000	- 11,500	+ 6,800 - 750
k. - 2,500											- 2,500
Bal. \$ 5,350	+ \$1,000	+ \$1,200	+ \$36,700	+ \$50,000	=		\$2,200	+	\$100,000	- \$11,500	+ \$6,800 - \$3,250

Problem 1-8B (Concluded)

Part 2

The company's net income = \$6,800 - \$3,250 = \$3,550

Problem 1-9B (60 minutes) *Part 1*

		Assets					=	Liabilities	+	Equity		
Date		Cash	+ Accounts Receivable	+ Office Supplies	+ Office Equipment	+ Roofing Equipment	=	Accounts Payable	+ Common Stock	- Dividends	+ Revenues	- Expenses
July	1	+ \$80,000					=		+ \$80,000			
	2	- 700										- \$700
Bal.		79,300					=		80,000			- 700
	3	- 1,000				+ \$5,000		+ \$4,000				
Bal.		78,300				+ 5,000	=	4,000	+ 80,000			- 700
	6	- 600		+ \$ 600								
Bal.		77,700		+ 600		+ 5,000	=	4,000	+ 80,000			- 700
	8	+ 7,600									+ \$7,600	
Bal.		85,300		+ 600		+ 5,000	=	4,000	+ 80,000		+ 7,600	- 700
	10				+ \$2,300			+ 2,300				
Bal.		85,300		+ 600	+ 2,300	+ 5,000	=	6,300	+ 80,000		+ 7,600	- 700
	15		+ \$8,200								+ 8,200	
Bal.		85,300	+ 8,200	+ 600	+ 2,300	+ 5,000	=	6,300	+ 80,000		+ 15,800	- 700
	17			+ 3,100				+ 3,100				
Bal.		85,300	+ 8,200	+ 3,700	+ 2,300	+ 5,000	=	9,400	+ 80,000		+ 15,800	- 700
	23	- 2,300						- 2,300				
Bal.		83,000	+ 8,200	+ 3,700	+ 2,300	+ 5,000	=	7,100	+ 80,000		+ 15,800	- 700
	25		+ 5,000								+ 5,000	
Bal.		83,000	+ 13,200	+ 3,700	+ 2,300	+ 5,000	=	7,100	+ 80,000		+ 20,800	- 700
	28	+ 8,200	- 8,200									
Bal.		91,200	+ 5,000	+ 3,700	+ 2,300	+ 5,000	=	7,100	+ 80,000		+ 20,800	- 700
	30	- 1,560										- 1,560
Bal.		89,640	+ 5,000	+ 3,700	+ 2,300	+ 5,000	=	7,100	+ 80,000		+ 20,800	- 2,260
	31	- 295										- 295
Bal.		89,345	+ 5,000	+ 3,700	+ 2,300	+ 5,000	=	7,100	+ 80,000		+ 20,800	- 2,555
	31	- 1,800								- \$1,800		
Bal.		<u>\$87,545</u>	<u>+ \$ 5,000</u>	<u>+ \$3,700</u>	<u>+ \$2,300</u>	<u>+ \$5,000</u>	=	<u>\$7,100</u>	<u>+ \$80,000</u>	<u>- \$1,800</u>	<u>+ \$20,800</u>	<u>- \$2,555</u>

Problem 1-9B (Continued)
Part 2

Rivera Roofing Company Income Statement For Month Ended July 31		
Revenues		
Roofing fees earned		\$20,800
Expenses		
Rent expense.....	\$ 700	
Salaries expense.....	1,560	
Utilities expense	<u>295</u>	
Total expenses.....		<u>2,555</u>
Net income.....		<u>\$18,245</u>

Rivera Roofing Company Statement of Retained Earnings For Month Ended July 31		
Retained earnings, July 1.....	\$	0
Add: Net income.....		<u>18,245</u>
		18,245
Less: Dividends.....		<u>1,800</u>
Retained earnings, July 31.....		<u>\$16,445</u>

Rivera Roofing Company Balance Sheet July 31			
Assets		Liabilities	
Cash.....	\$ 87,545	Accounts payable.....	\$ 7,100
Accounts receivable.....	5,000	Equity	
Office supplies.....	3,700	Common stock.....	80,000
Office equipment.....	2,300	Retained earnings.....	<u>16,445</u>
Roofing equipment.....	<u>5,000</u>	Total equity.....	<u>96,445</u>
Total assets.....	<u>\$103,545</u>	Total liabilities & equity.....	<u>\$103,545</u>

Problem 1-9B (Concluded)
Part 3

Rivera Roofing Company Statement of Cash Flows For Month Ended July 31		
Cash flows from operating activities		
Cash received from customers ¹	\$15,800	
Cash paid for rent	(700)	
Cash paid for supplies	(600)	
Cash paid for utilities	(295)	
Cash paid to employees	<u>(1,560)</u>	
Net cash provided by operating activities		\$12,645
Cash flows from investing activities		
Cash paid for roofing equipment	(1,000)	
Cash paid for office equipment	<u>(2,300)</u>	
Net cash used by investing activities		(3,300)
Cash flows from financing activities		
Cash investments from shareholder	80,000	
Cash dividends to shareholder	<u>(1,800)</u>	
Net cash provided by financing activities		<u>78,200</u>
Net increase in cash		\$87,545
Cash balance, July 1		<u>0</u>
Cash balance, July 31		<u><u>\$87,545</u></u>

¹\$7,600 + \$8,200 = \$15,800

Part 4

If the \$5,000 purchase on July 3 had been acquired through an additional owner investment of cash, then:

- (a) Total assets would be greater by \$1,000.
- (b) Total liabilities would be \$4,000 less.
- (c) Total equity would be \$5,000 greater.

Problem 1-10B (15 minutes)

1. Return on assets is net income divided by average total assets (the average amount invested). For Ski-Doo Company this return is computed as:

$$\text{\$201,000} / \text{\$3,000,000} = 0.067 \text{ or } \underline{\underline{6.7\%}}.$$

2. Return on assets does not seem satisfactory for the risk involved in the manufacturing, marketing, and selling of snowmobile equipment. Ski-Doo Company's 6.7% return is less than the 9.5% return earned by its competitors.
3. We know that revenues less expenses equal net income. Taking the revenues and net income numbers for Ski-Doo Company we obtain:
 $\text{\$1,400,000} - \text{Expenses} = \text{\$201,000} \rightarrow \text{Expenses must equal } \underline{\underline{\text{\$1,199,000}}}.$
4. We know from the accounting equation that the total of liabilities plus equity (financing) must equal the total for assets (investing). Since average total assets are $\text{\$3,000,000}$, we know the average total of liabilities plus equity (financing) must equal $\underline{\underline{\text{\$3,000,000}}}.$

Problem 1-11B (15 minutes)

1. Return on assets equals net income divided by average total assets.
 - a. AT&T return: $\$4,184 / \$269,868 = 0.016$ or 1.6%
 - b. Verizon return: $\$10,198 / \$225,233 = 0.045$ or 4.5%
2. On strictly the amount of sales to consumers, AT&T's sales of \$126,723 are greater than Verizon's sales of \$110,875.
3. Success in returning net income from the amount invested is revealed by the return on assets ratio. Part 1 showed that AT&T has a much lower return on assets of 1.6% versus Verizon with a 4.5% return on assets.
4. The reported figures suggest Verizon is more successful in generating income based on assets. Based on this information alone, we would be better advised to invest in Verizon than AT&T.

Nevertheless, we would look for additional information in financial statements and other sources for further guidance. For example, if AT&T could reduce its expenses, or reduce its assets without reducing income, it could potentially be a more appealing investment given its greater market share; or, Verizon could do the same and make it appear more appealing as an investment. We would also look for consumer trends, market expansion, competition, and product development and promotion plans.

Problem 1-12B^A (5 minutes)

- a. **2** Low-risk corporate bond.
- b. **1** Stock of a successful company.
- c. **4** Money stored in a fireproof vault.
- d. **3** U.S. Treasury bond.

Problem 1-13B^B (15 minutes)

- | | |
|--|---|
| 1. O Providing client services. | 5. O Supervising workers. |
| 2. F Obtaining a bank loan. | 6. F Shareholders investing in business. |
| 3. I Purchasing machinery. | 7. O Renting office space. |
| 4. O Research for its products. | 8. O Paying utilities expenses. |

Problem 1-14B^B (15 minutes)

I. Financing Activities

- A. Owner financing—owner invests in the company**
- B. Non-owner (creditor) financing—borrowing money from a bank**

II. Investing Activities

- A. Buying resources (assets)**
- B. Selling resources (assets)**

III. Operating Activities

- A. Use of assets to carry out plans**
- B. Management of internal functions—R&D, marketing, and so forth**

Note: Planning activities are the ideas, goals, and tactics for implementing financing, investing, and operating activities.

Serial Problem — SP 1 (30 minutes)

Business Solutions

		Assets					=	Liabilities	+	Equity																				
		Cash	+	Accounts Receivable	+	Computer Supplies	+	Computer System	+	Office Equipment	=	Accounts Payable	+	Common Stock	-	Dividends	+	Revenues	-	Expenses										
Oct.	1	+\$45,000						\$20,000		+	\$8,000			+	\$73,000															
	3					+	\$1,420					+ \$1,420																		
Bal.		45,000				+	1,420		+	20,000		+	8,000		=	1,420		+	73,000											
	6			+	\$4,800														+	\$ 4,800										
Bal.		45,000		+	4,800		+	1,420		+	20,000		+	8,000		=	1,420		+	73,000		+	4,800							
	8	- 1,420											- 1,420																	
Bal.		43,580		+	4,800		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	4,800							
	12			+	1,400														+	1,400										
Bal.		43,580		+	6,200		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	6,200							
	15	+ 4,800		-	4,800																									
Bal.		48,380		+	1,400		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	6,200							
	17	- 805																			-	\$ 805								
Bal.		47,575		+	1,400		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	6,200		-	805				
	20	- 1,728																				-	1,728							
Bal.		45,847		+	1,400		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	6,200		-	2,533				
	22	+ 1,400		-	1,400																									
Bal.		47,247		+	0		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	6,200		-	2,533				
	28			+	5,208															+	5,208									
Bal.		47,247		+	5,208		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	11,408		-	2,533				
	31	- 875																				-	875							
Bal.		46,372		+	5,208		+	1,420		+	20,000		+	8,000		=	0		+	73,000		+	11,408		-	3,408				
	31	- 3,600																		-	\$3,600									
Bal.		\$42,772		+	\$5,208		+	\$1,420		+	\$20,000		+	\$8,000		=	\$ 0		+	\$73,000		-	\$3,600		+	\$11,408		-	\$3,408	

Company Analysis — AA 1-1

1. \$375,319 (\$ millions)

Explanation: An organization's total assets always equal total liabilities plus total equity. Therefore, Apple's liabilities plus equity equal Apple's total assets.

2. 13.9%

Explanation: Return on assets is net income divided by the average total assets invested. For Apple this return is (\$ millions):
 $\$48,351 / [(\$375,319 + 321,686)/2] = 0.139$ or 13.9%.

3. \$180,883 (\$ millions)

Explanation: We know that net income equals total revenues less total expenses. For Apple, we are told net income is \$48,351 and revenues are \$229,234. Thus, Apple's total expenses are computed as: $\$229,234 - \text{Expenses} = \$48,351$. Total expenses must equal \$180,883 (\$ millions).

4. Better

Explanation: Apple's return on assets of 13.9% is good given that it exceeds its competitors' return on assets of 10% for this period.

Comparative Analysis — AA 1-2

(\$ millions)	Apple	Google
1. Total Assets = Liabilities + Equity	<u>\$375,319</u>	<u>\$197,295</u>
2. Return on assets	<u>\$48,351</u> $[(\$375,319 + \$321,686)/2]$ <u>13.9%</u>	<u>\$12,662</u> $[(\$197,295 + \$167,497)/2]$ <u>6.9%</u>
3. Revenues-Expenses = Net income	\$229,234 – Expenses = \$48,351	\$110,855 – Expenses = \$12,662
→ Expenses =	Expenses = <u>\$180,883</u>	Expenses = <u>\$98,193</u>

4. (a) Better

Explanation: Apple's 13.9% return is good given the moderate risk Apple confronts and vis-à-vis the 10% return of its competitors.

(b) Worse

Explanation: Google's 6.9% return is slightly worse than competitors' 10% return.

5. Apple

Explanation: Apple's return on assets is superior to Google's return on assets. Therefore, based only on return on assets, you would invest in Apple.

Global Analysis — AA 1-3 (20 minutes)

1. (a) 15.0%

Explanation: Return on assets is net income divided by the average total assets invested. For Samsung this return is (~~₩~~ millions): ~~₩~~42,186,747 / ~~₩~~281,963,207 = 0.15 or 15.0%.

(b) 9.0%

Explanation: Return on assets is net income divided by the average total assets invested. For Samsung this return is (~~₩~~ millions): ~~₩~~22,726,092 / ~~₩~~252,176,923 = 0.09 or 9.0%.

2. Favorable

Explanation: Samsung's return on assets improved in the current year versus the prior year.

3. (a) Better

Explanation: Samsung's return on assets of 15.0% is better than Apple's return on assets of 13.9%. Apple's return on assets is computed: \$48,351 / \$348,503 = 0.139 or 13.9%.

(b) Better

Explanation: Samsung's return on assets of 15.0% is better than Google's return on assets of 6.9%. Google's return on assets is computed: \$12,662 / \$182,396 = 0.069 or 6.9%.

Ethics Challenge — BTN 1-1

1. There are several parties affected. They include the users of financial statements such as shareholders, lenders, investors, analysts, suppliers, directors, unions, regulators, and others. They also include the accounting firm, which can be sued if deemed a party to misleading statements.
2. A major factor in the value of an auditor's report is the auditor's independence. If an auditor accepted a fee that increases when the client's reported profit increases, the auditor is (or at least is perceived to be) interested in higher profits for the client. This compromises the auditor's independence.
3. Thorne should not accept this fee arrangement. To avoid compromising the auditor's independence, Thorne should reject it. (Further, the AICPA Code of Professional Conduct forbids auditors from accepting contingent fees that depend on amounts reported in a client's financial statements. This AICPA Code has been codified into law in most states and, therefore, this action would also be an illegal act for a CPA.)
4. Ethical considerations guiding this decision include the potential harm to affected parties by allowing such a fee arrangement to exist. The unacceptable nature of such a fee arrangement guards the profession against unethical actions that could undermine its real and perceived value to society.

Communicating in Practice — BTN 1-2

1. Deciding whether Apple is a good loan risk can be difficult because the planned expansion is risky if customer demand does not meet expectations. As a loan officer in this situation you would want information on the company's (1) projections of expected cash receipts and cash payments (best provided on a monthly basis); (2) assessment of the market, the company's plans, and a strategy to achieve success; (3) cash contributions that the owners will make to the business; and (4) a listing of tangible assets (including their price and useful life) necessary to carry out the company's plans.
2. How the company is organized is important to a loan officer. If it is a standard partnership (which it was, and not a LLC), the personal assets of the owners are available to repay the loan. In this case, a loan officer will want information about the owners' financial condition. If it is a corporation, the amounts invested in the business by each shareholder are especially important. The loan officer can also require owners or shareholders to personally guarantee the loan for additional protection for the bank. Careful execution of these steps should minimize the bank's risk of taking on a bad loan.

Taking It to the Net — BTN 1-3

1.

\$ thousands	2017	2016	2015	2014	2013
Revenues	\$38,296	\$40,457	\$41,508	\$39,185	\$36,315
Net income	3,450	4,426	3,938	4,392	1,478

Its revenues grew from 2013 through 2015, and then slightly regressed in 2016 and again in 2017. Management must work to pursue policies that grow revenues.

2. RMCF has been profitable each of the last 5 years as exhibited by its positive net income. With the exception of 2015 and 2017, net income has slightly increased over the 5-year period. Management must work to increase and sustain higher profitability levels for long-run success.

Teamwork in Action — BTN 1-4

Suggestions for forming support/learning teams are in the Instructor's Resource Manual (IRM). The IRM provides the master of a Student Data Form that can be duplicated and used to gather information as a basis for forming these teams. The IRM also includes other administrative materials helpful in creating an active learning environment for studying accounting.

[Note: Instructors often have students use the copy function in e-mail to keep them advised of meeting times and other important team activities. This also encourages students to use and explore additional features of e-mail.]

Entrepreneurial Decision — BTN 1-5

1. (a) AccountApp's total amount of liabilities and equity consists of the bank loan and the owner investments. Specifically:

Total assets	=	Bank Loan	+	Owner investment
	=	Liabilities	+	Equity
\$750,000	=	\$500,000	+	\$250,000

- (b) AccountApp's total amount of assets equals its total amount of liabilities plus equity, which is \$750,000.

2. Return on assets = $\$80,250 / \$750,000 = 0.107 = \underline{10.7\%}$

AccountApp's 10.7% return slightly exceeds its competitors' average return of 10%. Assuming the company can continue to earn 10.7% or more, the owners should consider further investment in the new company.

Hitting the Road — BTN 1-6

Check each student's report for the following content:

1. (a) Identification of the form of business organization for the business interviewed.
(b) Identification of the main business activities for the business interviewed.
2. Identification of the reasons why the owner(s) chose this particular form of business organization.
3. Identification of advantages or disadvantages of the form of business organization chosen.

Note: Many instructors have students complete this assignment in teams.