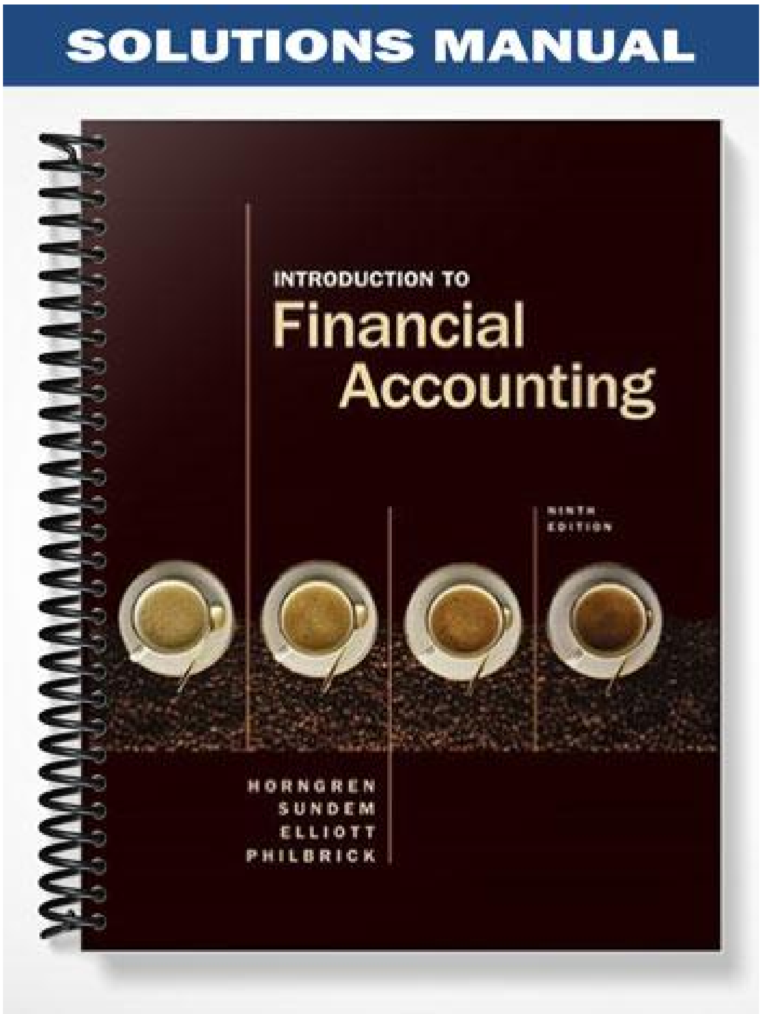

SOLUTIONS MANUAL

INTRODUCTION TO
Financial Accounting

NINTH EDITION

HORNGREN
SUNDEM
ELLIOTT
PHILBRICK

CHAPTER 2

2-1 The operating cycle depends on the nature of the company. It is the time it takes the company to use cash to acquire goods and services, to sell those goods and services to customers, and to collect cash from the sales.

2-2 A fiscal year is the year used for financial reporting. It may be the same as a calendar year, but often it is not. Many companies elect to begin and end a fiscal year at the low point in their annual business activity.

2-3 The cash basis fails to match accomplishments with efforts. In particular, the cash basis fails to match revenues and expenses properly. Inventory may be bought and paid for in one period, sold in the second with the collection from customers in a third period. Accrual accounting matches revenue and cost of goods sold in the second period, although the cash outlay was in the first and the collection was in the third.

2-4 Expenses are reductions in stockholders' equity; thus they may be accurately described as negative stockholders' equity accounts.

2-5 The two tests of revenue recognition are earning and realization.

2-6 Revenue recognition is delayed when a company sells a magazine subscription because revenue is not recognized until it is earned by delivery of the magazines. Revenue recognition is also delayed if collection of the account receivable is not reasonably certain, which may happen with speculative land sales.

<u>2-7</u> In theory, all expenses are goods and services that were first purchased as assets and that have now been utilized (used up) in the conduct of operations.

<u>2-8</u> Managers acquire assets (goods and services) that are then either used instantaneously or at a later time. When the assets are used, they become expenses.

<u>2-9</u> The balance sheet is a financial picture of a company at one point in time, like a snapshot. In contrast, an income statement shows activity over a period of time. It shows the series of **events that take a company from one "snapshot" (balance** sheet) to another, just as a moving picture shows movement from one position to the next.

<u>2-10</u> Synonyms for the income statement are statement of earnings, statement of operations, and profit and loss (P&L) statement. A major reason to learn accounting is to be able to read real financial statements. Such statements contain a variety of terms that may differ from the one first leaned in an introductory accounting course. To be able to read and interpret the financial statements, users need to understand the terminology used, including synonyms used for the major accounting terms.

<u>2-11</u> Managers are often optimistic and feel that things are bound to get better, so they do not like to report bad news. In addition, they may have bonuses or possible future promotions that depend on the financial reports, so they want the reports to be as good as possible. Finally, financial reports are often the **"scorecard" for business success, and competitive managers** want to report a high score.

2-12 Cash dividends are not necessary in the conduct of revenue-producing operations. Therefore, they are not expenses but are distributions of assets to owners. These distributions are made possible because of profitable operations, but are not part of the profitable operations.

2-13 Retained earnings is a stockholders' equity account (a residual claim against assets) not an asset account.

2-14 The statement of retained earnings is often only one column in a **more comprehensive statement of stockholders' equity.** Although authorities require companies to show the changes in only the retained earnings account, most companies have **elected to also include the changes in other stockholders' equity** accounts.

2-15 No. An accounting entity can be a part of an organization, such as a division or department. It can also be an entire economy, such as national income accounting for the U. S. or another country.

2-16 Materiality means that items that are not large enough to **influence users' decisions can be omitted from the financial** statements. Thus, you do not find pencils or paper clips listed **among a company's assets. Cost**-benefit means, for example, that if the cost of measuring an item is greater than the value from knowing it, it can be omitted. Thus, the cost of operating a **division may not include any of the company president's salary,** e**ven though the president spends time overseeing the division's** activities. It would simply be too expensive for the president to account for each minute spent on each different activity he undertakes.

<u>2-17</u> Reliable data require convincing evidence that can be verified by independent auditors. Accountants must make sure that data reported in the financial statements can be measured with enough accuracy to be useful to users of the statements.

<u>2-18</u> No. There is one financial ratio, earnings per share (EPS), that is presented on the income statement.

<u>2-19</u> A high P-E ratio means that investors expect future earnings to exceed current earnings. This is likely to be true for fast growing companies.

<u>2-20</u> Two dividend ratios are:
Dividend-yield ratio – The amount of dividends paid per dollar invested in a stock at the current market price.
Dividend-payout ratio – The percentage of a company's earnings that is paid out in dividends.

<u>2-21</u> No. A high payout ratio may be a bad sign. Companies with a high dividend-payout ratio tend to be slow-growing companies. They return a larger percentage of their income to shareholders because they do not have profitable investments for which to use the money.

<u>2-22</u> It is better to produce <u>relevant</u> approximations to "truth" than precisely <u>verifiable</u> measurements of useless data.

<u>2-23</u> No. Timing is important because users of financial statements want to judge performance over a particular period of time and want an accurate assessment of status at a particular point in time. Measures of periodic performance and status are not possible if expenses are not recorded in the same time period in which their related revenues appear.

<u>2-24</u> The fundamental approach that should be taken by the FASB is to concentrate on how measurements and disclosures can improve the communication of economic phenomena. Accounting should not be used to achieve political or social agendas.

<u>2-25</u> Some types of costs are collecting, processing, and auditing incurred by the preparer. The preparer may also face disclosure costs in terms of a loss of competitive advantage. Once information is produced, analysts and users may need to be educated to understand it.

<u>2-26</u> A year is a long time to wait for new information about a **company's performance.** Preparing full financial statements is time consuming and costly. Quarterly financial disclosures are less complete than annual ones, but they represent a balanced answer to how often and how complete information should be. Within companies many financial items are reported daily, weekly, or monthly depending on the needs of management. In different countries the tradition and the identity of investors have lead to different customs. The United States relies on public ownership of companies and needs a system to keep large numbers of investors adequately informed. In countries where more of the ownership is closely held and more of the liabilities are bank financed, there is less need for frequent public disclosure.

<u>2-27</u> The real choice is not between the cash basis and the accrual basis. We can have either one, but they provide very different information. The accrual-basis income statement is a better measure of overall performance over an accounting period. The cash-basis income statement provides better information about the risks of running out of cash. In the end, our choice between the two would depend on the question we are trying to answer.

<u>2-28</u> The stock price should drop by the amount of the dividend per share. Just before the dividend the stock is worth whatever it will be worth after the dividend plus the amount of the dividend. The chapter does not address details of exactly when rights to a dividend are created, when they accompany the sale of a share, or when they are retained by the seller. These issues are **covered in the owners' equity chapter (Chapter 10).**

<u>2-29</u> Many would say that it does not matter because the security markets are efficient and the P-E ratios reflect the expected growth rates of future earnings for each firm. High-growth firms have high P-E ratios and low-growth firms have lower ones. Others would sort into two groups. Each group believes the market tends to systematically misvalue firms, but they disagree **on the nature of the market's "error." Value investors** believe that the market undervalues good low-growth, low P-E firms and therefore buys them. Growth investors believe that the market undervalues good high-growth, high P-E firms and therefore buys them. Empirically, we can find periods of time when value investors have had better results from their investments than growth investors and vice versa. The bottom line is that investing based on P-E ratios alone is never a good idea, although they are an important descriptor of what the market perceptions of a company are at a moment in time.

2-30 (10 min.)

Balance Sheet

2. Unexpired costs – asset
3. Accumulated deficit
5. Prepaid expenses – asset
6. Accounts receivable - asset
12. Retained earnings
14. Statement of financial condition
16. Statement of financial position

Income Statement

1. Expenses – expense
4. Net earnings
7. Statement of earnings
8. Used up costs – expense
9. Net profits
10. Net income
11. Revenues
13. Sales
15. Statement of income
17. Operating statement
18. Cost of goods sold – expense

2-31 (5-10 min.)

The dealer is confused. As used by accountants, revenue is a gross amount earned from sales to customers. For example, sales and revenues are synonyms. Revenue is not "the bottom line" in accountants' minds. "The bottom line" is net income, that is, revenue minus all expenses.

Of course, many people use "bottom line" in a nontechnical sense to mean the important or significant result, the result that really matters. For example, "the bottom line is not how much you earn but how much you keep."

2-32 (15-20 min.)

The theme of this solution is that retained earnings is not a pot of cash awaiting distribution to stockholders.

1.	Cash	$1,000	Paid-in capital	$1,000

2.	Cash	$ 200	Paid-in capital	$1,000
	Inventory	800		
	Total	$1,000		

Note in both Requirements 1 and 2 that the ownership equity is fundamentally a claim against the total assets (in the aggregate). For example, none of the shareholders have a specific claim on cash, and none have a specific claim on inventory. Instead, they all have an undivided claim against (or interest in) all of the assets.

3.	Cash	$1,150	Paid-in capital	$1,000
			Retained earnings	150
			Total	$1,150

Retained earnings is part of stockholders' equity. Even though Cash and Retained earnings have increased by identical amounts compared to number 1, the retained earnings is fundamentally a general claim against total assets (just as paid-in capital is a general claim). Retained earnings is the net rise in ownership claim attributable to profitable operations. However, the assets themselves should not be confused with the claims against the assets.

2-32 (continued)

4.	Cash	$ 50	Paid-in capital	$1,000
	($1,150 – $300 – $800)		Retained earnings	150
	Inventory	300		
	Equipment	800		
	Total	$1,150	Total	$1,150

The same explanation applies here as in Requirement 3. However, Transaction 4 should clarify the lack of a specific link between retained earnings (and paid-in capital) and any particular assets. The ownership claims are general, not specific.

5.	Cash	$ 50	Account payable	$ 500
	Inventory		Paid-in capital	1,000
	($300 + $500)	800	Retained earnings	150
	Equipment	800		
	Total	$1,650	Total	$1,650

The meaning of retained earnings was explained above. Purchases on "open account" usually create a general liability; that is, the trade creditors usually hold only general claims against the total assets, not specific claims against particular assets (such as mortgages on buildings). In sum, both the creditors and the owners hold general claims against the assets. Of course, if the corporation is liquidated (all assets converted to cash to be distributed to claimants), the creditors' general claims must be satisfied before the owners get one dollar. Thus, the stockholders are said to have a residual claim or residual interest.

2-33 (15-25 min.)

See Exhibit 2-33 on the following page.

2-34 (15-20 min.)

1. **First calculate stockholders’ equity from the asset and liability** amounts given.

	Assets	–	Liabilities	=	Stockholders' equity
Dec. 31:	$124,000	–	$55,000	=	$69,000
Jan. 1:	110,000	–	50,000	=	60,000
Change:	$ 14,000	–	$ 5,000	=	$ 9,000

Note that the $14,000 asset increase, less the $5,000 liability increase yields the increase in stockholders equity of $9,000.

2. **We can use knowledge of what changes stockholders’ equity to “deduce” the amount of net income. Net income increases** stockholders' equity and dividends decrease stockholders' equity.

Beginning stockholde**rs’ equity + net income –** dividends = ending stockholders' equity

$60,000 + net income – $5,000 = $69,000
net income = $69,000 + $5,000 – $60,000
= $14,000

3. Sales – Cost of goods sold – Operating expenses = Net income
$354,000 – Cost of goods sold – $ 14,000 = $200,000
– Cost of goods sold = $ 14,000 + $200,000 – $354,000
Cost of goods sold = $140,000

EXHIBIT 2–33 (Amounts are in thousands of dollars.)

TREMAIN COMPANY

	Assets					=	Liabilities +	Stockholders' Equity
	Cash +	Prepaid Rent +	Supplies +	Unexpired Advertising +	Unexpired Training	=		+ Retained Earnings
a1.	–12	+12				=		
a2.		– 2				=		– 2 (increase rent expense)
b1.	– 3		+3			=		
b2.			–3			=		– 3 (increase supplies expense)
c1.	– 4			+4		=		
c2.				–4		=		– 4 (increase advertising expense)
d1.	– 9				+9	=		
d2.					–9	=		– 9 (increase training expense)

The steps shown capture the essence of what is happening. The problem is not explicit that all of the supplies are used during the month, so some students may omit b2. Similarly, some students may argue that c2 and d2 are not clear from the problem, the advertisement and training might occur more than one month hence. The problem invites such discussion. You may wish to extend this example to reflect the more expedient procedure many accountants would use to record items which are immediately used up as expenses. For example, c and d might appear as:

c. – 4 = – 4 (increase advertising expense)
d. – 9 = – 9 (increase training expense)

2-35 (15 min.)

The cash balance on June 30 was $61,000, as shown in the balance sheet equation transactions in Exhibit 2-35. The cash balance is the only beginning or ending balance that is available from the data.

2-36 (10-15 min.)

1. The name of the statement is antiquated. It should be titled income statement (or statement of earnings, statement of operations, or operating statement).

2. The line with the date should not be for an instant of time but for an indicated span of time; a year, a quarter, or a month ending on December 31, 20X3.

3. Increases in market values of land and buildings are not usually recognized in historical cost accounting.

4. Dividends are not expenses and are not deducted before net profit is computed.

5. The appropriate deduction is the cost of goods sold, not the cost of the cars purchased.

6. The bottom line should be titled net income or net earnings.

7. Although it is not the major point of the problem, the income statement has apparently omitted some expenses; for example, neither rent nor depreciation is shown. As a minimum, one or the other would ordinarily be included.

EXHIBIT 2-35

Greenville Company
Analysis of Transaction for June
(In Thousands of Dollars)

	Assets				=	Liabilities and Stockholders' Equity			
Transactions	Cash	+ Accounts Receivable	+ Merchandise Inventory	+ Equipment	=	Accounts Payable	+ Paid–in Capital	Retained Earnings	
Balance, 6/1/X4	+15	?	?	?	=	?	?	?	
a.	+80	-80			=				
b.	-45				=	-45			
c.			+18		=	+18			
d1.	+23	+30			=			+53	(increase sales revenue)
d2.			-24		=			-24	(increase cost of goods sold expense)
e.				−1	=			−1	(increase depreciation expense)
f.	−12				=			−12	(dividends)
Balance, 12/31/X4	+61								

2-37 (5-10 min.) Amounts are in millions.

1.

Revenues	$3,486.1
Expenses	3,374.4
Net income	$ 111.7

Beginning retained earnings	$257.7
+ Net income	111.7
- Dividends	?
Ending retained earnings	$369.4

2. Dividends = $369.4 – $257.7 – $111.7 = $0

2-38 (20-30 min.) Amounts are in thousands of dollars.

The basic relations used in these problems are:

Revenues – Expenses = Net income
Assets = Liabilities + Stockholders' equity
Beginning retained earnings + Net income – Dividends = Ending retained earnings
Beginning paid-in-capital + additional investment = Ending paid-in-capital.

1. E = 145 – 125 = 20
D = 30 + 20 = 50
C = 15 because there were no additional investments by stockholders
A = 80 – 15 – 30 = 35; or 80 – (15 + 30) = 35
B = 95 – 15 – 50 = 30; or 95 – (15 + 50) = 30

2-38 (continued)

2. K = 20 + 200 = 220
   J = 60 + 20 – 5 = 75
   H = 10 + 40 = 50
   F = 60 + 10 + 90 = 160
   G = 280 – 75 – 50 = 155

3. P = 280 – 240 = 40
   Q = 120 + 40 - 130 = 30
   N = 85 – 35 = 50
   L = 105 + 50 + 120 = 275
   M = 95 + 85 + 130 = 310

2-39 (10-15 min.)

This is straightforward. Computations are in millions of dollars:

A = 28,754 - 6,794 = 21,960

B = 9,524 + 2,218 = 11,742

C = 2,558 - 2,218 - 441 = (101)

D = 5,254+ 22,004 = 27,258

2-40 (10-15 min.)

1. Income statement or operating statement is used instead of statement of income and expenses.
2. The end of the fiscal year is typically identified.
3. The terms income or profit are used rather than surplus (and net income rather than net surplus).
4. The term loss is used instead of deficit.
5. A profit-seeking organization would not receive a subsidy.

2-41 (10-15 min.)

This problem demonstrates how financial statements provide information for investor decisions. These ratios are compared with other companies in the industry and with the company's ratios through the years.

1. $\text{EPS} = \frac{\text{£}548{,}000{,}000}{2{,}003{,}000{,}000} = \text{£}0.274$

2. $\text{P} - \text{E} = \frac{\text{£}3.294}{\text{£}0.274} = 12.02$

3. $\text{Dividend Yield} = \frac{\text{£}230/2{,}003}{\text{£}3.294} = 3.5\%$

4. $\text{Dividend payout} = \frac{\text{£}230/2{,}003}{\text{£}0.274} = 42\%$

2-42 (10-15 min.)

1. $1,132,000,000 ÷ $1.07 = 1,057,943,925 average shares

2. $1.07 x 2.62 = $2.80; this is much larger than the $1.07 EPS.

3. (a) $2.80 ÷ $66 = 4.2% dividend yield
   (b) $66 ÷ $1.07 = 61.7 P-E ratio

2-43 (20-30 min.)

1 and 2. See Exhibit 2-43 on the following page.

3.

RAMANATHAN CORPORATION
Income Statement
For the Month Ended June 30, 20X2

Accrual Basis		Cash Basis	
Sales	$115,000	Revenue (cash collected from customers[*])	$ 45,000
Deduct: Cost of goods sold	60,000	Expenses (cash disbursed for merchandise)	80,000
Net income	$ 55,000	Net cash used by operating activities	$(35,000)

[*] The entire revenue is cash sales. If any cash had been collected from credit customers during June, it would be added here.

The accrual basis provides a better measure of the economic accomplishments and efforts of the entity. The cash basis is inferior because it fails to recognize revenue as earned (the sales on credit), and it often recognizes expenses before they really occur (for example, inventory acquired but not sold). Note that the June 28 acquisition of inventory on open account is irrelevant under both the accrual and cash basis.

EXHIBIT 2–43

RAMANATHAN CORPORATION
Analysis of Transactions for June, 20X2
(In Thousands of Dollars)

	Assets				Liabilities and Stockholders' Equity		
Description of Transactions	Cash	+ Accounts Receivable	+ Inven– tories	=	Accounts Payable	+ Paid–in Capital	+ Retained Earnings
1. Original investment	+100			=		+100	
2. Acquisition of inventory	– 80		+80	=			
3a. Sales for cash and credit	+ 45	+70		=			+115 (increase sales revenue)
b. Cost of inventory sold			–60	=			– 60 (increase cost of goods sold expense)
4. Acquisition of inventory			+26	=	+26		
	+ 65	+70	+46	=	+26	+100	+ 55
		181				181	

RAMANATHAN CORPORATION
Balance Sheet
June 30, 20X2

Assets		Liabilities and Stockholders' Equity		
		Liabilities:		
Cash	$ 65,000	Accounts payable		$ 26,000
Accounts receivable	70,000	Stockholders' equity:		
Merchandise inventory	46,000	Paid–in capital	$100,000	
		Retained earnings	55,000	155,000
Total	$181,000	Total		$181,000

2-44 (10 - 15 min.)

1. Criteria i and ii in the footnote relate to the earning of the revenue, and criteria iii and iv relate to its realization. With products licensed to OEMs, there is some question about when the revenue is earned. Microsoft used to regard it as earned when the OEMs shipped it to customers, but a change in licensing makes it possible to regard it as earned when Microsoft ships it to the OEMs. Those revenues that are recognized when payments are received must be ones for which it is not likely enough that the cash will actually be received to satisfy the realization criterion until the cash is in hand.

2. The licensing agreement must have been changed to make the OEMs more responsible for the items after Microsoft ships them. Microsoft has decided not to wait until the OEM delivers the items to customers to regard the revenue as earned; instead, it is deemed **earned at the time Microsoft ships it. This will accelerate Microsoft's** recognition of revenues.

3. An item is not material if its omission (or change) will not likely **change the decisions of users of Microsoft's financial statements.** This probably means that the amount of accelerated revenue due to the change is so small that it is insignificant compared to total revenues.

2-45 (40-50 min.)

1. See Exhibit 2-45 on the following page.

Transactions 8 to 11 illustrate the culmination of the asset acquisition-asset expiration sequence: that is, most assets are "stored" as "unexpired" or "prepaid" costs that are expected to benefit future operations (inventory, prepaid rent, prepaid insurance and equipment). As these assets are "used up" or "expire", they become expenses or "expired costs".

2.

ORTIZ COMPANY
Income Statement
For the Month Ended July 31, 20X2

Sales		$200,000
Deduct expenses:		
Cost of goods sold	$160,000	
Rent	5,000	
Depreciation	2,000	
Insurance	1,000	
Total expenses		168,000
Net income		$ 32,000

EXHIBIT 2–45

ORTIZ COMPANY

Analysis of Transactions for July, 20X2

(In Thousands of Dollars)

	Assets						=	Liabilities and Stockholder's Equity			
Trans–action	Cash	+ Accounts Receiv-able	+ Mer–chandise Inventory	+ Pre-Paid Rent	+ Prepaid Insur-ance	+ Equip-ment	=	Note Payable	+ Accounts Payable	+ Paid–in Capital	+ Retained earnings
1.	+250						=			+250	
2.	– 60			+60			=				
3.	– 40					+100	=	+60			
4.	– 24				+24		=				
5.	– 35		+35				=				
6.			+190				=		+190		
7.	+30	+170					=				+200 (increase sales revenue)
8.			–160				=				–160 (increase cost of goods)
9.				– 5			=				– 5 (increase rent expense)
10.						– 2	=				– 2 (increase depreciation expense)
11.					– 1		=				– 1 (increase insurance expense)
12.	+35	– 35					=				
13.	–80						=		– 80		
Balances 7/31/X2	+76	+135	+65	+55	+23	+98	=	+60	+110	+250	+32
			452						452		

2-45 (continued)

3.

ORTIZ COMPANY
Balance Sheet
July 31, 20X2

Assets		Liabilities and Stockholders' Equity	
		Liabilities:	
Cash	$ 76,000	Note payable	$ 60,000
Accounts receivable	135,000	Accounts payable	110,000
Merchandise inventory	65,000	Total liabilities	170,000
Prepaid rent	55,000	Stockholders' equity:	
Prepaid insurance	23,000	Paid-in capital	250,000
Equipment	98,000	Retained earnings	32,000
Total	$452,000	**Total stockholders'** equity	282,000
		Total	$452,000

2-46 (35-40 min.)

1. See Exhibit 2-46 on the following page.

2. DICHEV COMPANY
Balance Sheet
April 30, 20X2

Assets		Liabilities and Stockholders' Equity	
		Liabilities:	
Cash	$ 57,000	Note payable	$ 24,000
Accounts receivable	47,000	Accounts payable	5,000
Merchandise inventory	43,000	Total liabilities	29,000
Prepaid rent	4,000	Stockholders' equity:	
Equipment and fixtures	35,000	Paid-in capital	$150,000
		Retained earnings	7,000
		Total stk. equity	$157,000
Total	$186,000	Total	$186,000

EXHIBIT 2–46

1.

DICHEV COMPANY
Analysis of Transactions for April 20X2
(In Thousands of Dollars)

	Assets						Liabilities + Stockholders' Equity			
Description	Cash	+ Accounts Receivable	+ Merchandise Inventory	+ Prepaid Rent	+ Equipment & Fixtures	=	Note Pay–able	+ Accounts Payable	+ Paid-in Capital	+ Retained Earnings
1. Incorporation	+150					=			+150	
2. Purchased merchandise	–45		+45			=				
3. Purchased merchandise			+35			=		+35		
4a. Sales	+25	+65				=				+ 90 (sales revenue)
b. Cost of inventory sold			–37			=				– 37 (cost of goods sold expense)
5. Collections	+18	–18				=				
6. Disbursements to trade creditors	–30					=		–30		
7. Purchased equipt.	–12				+36	=	+24			
8. Prepaid rent	– 6			+6		=				
9. Rent expense	– 9*					=				– 9*(rent expense)
10. Wages, etc.	–34					=				–34 (wages expense)
11. Depreciation					– 1	=				– 1 (deprec. expense)
12. Rent expense				–2		=				– 2 (rent expense)
Balances, April 30 20X2	+57	+47	+43	+4	+35	=	+24	+ 5	+150	+ 7
			186					186		

*10% x $90,000 = $9,000.

2-46 (continued)

DICHEV COMPANY
Income Statement
For the Month Ended April 30, 20X2

Sales (revenue)		$90,000
Deduct expenses:		
Cost of goods sold	$37,000	
Wages, salaries and commissions	34,000	
Rent ($2,000 + $9,000)	11,000	
Depreciation	1,000	
Total expenses		83,000
Net Income		$ 7,000

3. Most businesses tend to have net losses during their infant **months, so Dichev's ability** to show a net income for April is impressive. Indeed, the rate of return on beginning investment is $7,000 ÷ $150,000 = 4.67% per month, or 56% per year. **Dichev also has high stockholders' equity compared to its** liabilities, quite high cash balance, and flexibility because most assets are either in cash or will be turned into cash relatively quickly. Many other points can be raised, including the problem of maintaining an "optimum" cash balance so that creditors can be paid neither too quickly nor too slowly. See the next solution also.

2-47 (5-10 min.)

Cash Inflows:		
Cash sales		$ 25,000
Cash collected from credit customers		18,000
Cash disbursements*:		43,000
Disbursements for merchandise	$(75,000)**	
Disbursements for rent, wages, and sales commissions	(49,000)***	
Total cash disbursements		124,000
Net cash outflow for operations		$(81,000)

*Some students will also include the $12,000 cash paid to purchase equipment as a cash outflow. This is consistent with a strict cash-basis of accounting.

**$45,000 + $30,000

***$6,000 + $9,000 + $34,000

The accrual basis provides a more accurate measure of economic performance. If the two revenue recognition criteria are met (earning and realization), the $90,000 measure of revenue on the accrual basis is preferred to the $43,000 measure of cash receipts for measuring economic performance, and the $83,000 measure of costs is preferred to the $124,000 measure of cash disbursements. The $7,000 net income is a more accurate measure of total accomplishments for April than is the $81,000 net cash used for operating activities.

2-48 (20-35 min.)

This alternative to 2-50 does not include dividends, but 2-50 does.

1. See Exhibit 2-48 on the following page.

2.

H. J. HEINZ COMPANY
Statement of Earnings
For the Month Ended May 31, 2003
(In Millions)

Sales		$11
Deduct expenses:		
Cost of goods sold	$3	
Selling and administrative expenses	1	
Rent and insurance	1	
Depreciation	1	6
Net earnings		$ 5

H. J. HEINZ COMPANY
Balance Sheet
May 31, 2003
(In Millions)

Assets		Liabilities and Stockholders' Equity		
Cash	$ 795	Liabilities:		
Accounts receivable	1,168	Accounts payable	$ 942	
Inventories	1,156	Other liabilities	7,088	8,030
Other assets	4,158	Stockholders' equity		1,204
Property, plant and equip.	1,957	Total		$9,234
Total	$9,234			

EXHIBIT 2–48

H. J. HEINZ COMPANY
Analysis of Transactions for May
(In Millions of Dollars)

	Assets									=	**Liabilities + Shareholders' Equity**				
Tans-actions	Cash	+	Accounts Receiv-able	+	Inven-tories	+	Other Assets	+	Property, Plant, Equip-ment	=	Accounts Payable	+	Other Liabil-ities	+	**Shareholder's Equity**
Bal. 4/30	+802		+1,165		+1,153		+4,147		+1,958	=	+938		+7,088		+1,199
1a.	+ 3	+	+ 8							=					+ 11 (increase rev.)
1b.					- 3					=					- 3 (increase exp.)
2.					+ 6					=	+ 6				
3.	+ 5	–	- 5							=					
4.	- 12						+ 12			=					
5.	- 2									=	–2				
6.	- 1									=					- 1 (increase exp.)
7.							+ 1			=					- 1 (increase exp.)
8.									- 1	=					- 1 (increase exp.)
Bal. 5/31	+795	+	1,168		+1,156		+4,158		+1,957	=	+942		+7,088		+1,204
					9,234								9,234		

2-49 (5-10 min.) Amounts are in millions.

Cash Inflows:		
Cash sales		$ 3
Collections from credit customers		5
		8
Cash disbursements:		
Payments on account payable	$ (2)	
Disbursements to prepay rent and insurance	(12)	
Disbursements for selling and administrative expenses	(1)	
Total cash disbursements		(15)
Net cash outflow		$ (7)

The accrual basis provides a more accurate measure of economic performance. If the two revenue recognition criteria are met (earning and realization), the $11 million measure of revenue on the accrual basis is preferred to the $8 million measure of cash receipts for measuring economic performance, and the $6 million measure of costs is preferred to the $15 million measure of cash disbursements. The $5 million net income is a more accurate measure of total accomplishments for May than is the $7 million net cash outflow.

2-50 (25-40 min.)

1. See Exhibit 2-50 on the following page.

2.

WM. WRIGLEY JR. COMPANY
Statement of Earnings
For the Month of January, 2003
(In Millions)

Sales		$75
Deduct expenses:		
Cost of goods sold	$45	
Selling expenses	29	
Depreciation	3	
Total expenses		77
Net Loss		$ (2)

EXHIBIT 2–50

WM. WRIGLEY JR. COMPANY
Analysis of Transactions for January
(In Millions of Dollars)

	Assets					=	Liabilities and Stockholders' Equity			
Description	Cash	+ Receivables	+ Inventories	+ Property, Plant, & Equip.	+ Other Assets	=	Accts. Pay.	+ Dividends Pay.	+ Other Liabilities	+ Owners' Equity
Balance, January 1	+279	+313	+321	+ 836	+ 359	=	+98	+46	+441	+1,523
1a. Sales	+ 35	+ 40				=				+ 75 (sales revenue)
1b. Cost of inventory sold			−45			=				−45 (cost of goods sold expense)
2. Collections	+ 42	−42				=				
3. Depreciation				−3		=				−3 (depreciation expense)
4. Selling and administrative expense	−24					=				−24 (sell & adm. exp.)
5. Selling and administrative expense					-5	=				−5 (sell & adm. exp.)
6. Reduce liability	− 46					=		−46		
Balances, January 31	+286	+311	+276	+833	+354	=	+98	+ 0	+441	+1,521
			2,060					2,060		

2-50 (continued)

WM. WRIGLEY JR. COMPANY
Balance Sheet
January 31, 2003
(In Millions)

Assets		Liabilities and Stockholders' Equity	
Cash	$ 286	Accounts payable	$ 98
Receivables	311	Dividends payable	0
Inventories	276	Other liabilities	441
		Stockholders' equity	1,521
Property, plant and equipment	833		
Other assets	354		
Total	$2,060	Total	$2,060

2-51 (35-45 min.)

1.

VITALY CORPORATION
Income Statement
For the Year Ended December 31, 20X2

Sales		$281,000
Deduct expenses:		
Cost of good sold	$157,000	
Salaries	86,000	
Rent	18,000[a]	
Advertising	9,300	
Utilities	5,000	
Depreciation	5,000	
Insurance	1,000[b]	
Office supplies	1,200	282,500
Net Loss		$ (1,500)

[a] $19,500 – $1,500 = $18,000; $1,500 is prepaid rent.

[b] $ 1,800 – $ 800 = $ 1,000; $800 is unexpired insurance.

2.

VITALY CORPORATION
Statement of Retained earnings
For the Year Ended December 31, 20X2

Retained earnings, January 1, 20X2	$18,000
Net loss for 20X2	(1,500)
Remainder	$16,500
Cash dividends declared	4,000
Retained earnings, December 31, 20X2	$12,500

2-51 (continued)

3.

VITALY CORPORATION
Balance Sheet
December 31, 20X2

Assets		Liabilities and Stockholders' Equity	
Cash	$14,800	Liabilities:	
Accounts receivable	27,400	Accounts payable	$ 14,000
Notes receivable	2,500	Notes payable	7,000
Merchandise inventory	61,000	Dividends payable	4,000[e]
		Total liabilities	$ 25,000
Prepaid rent	1,500	Stockholders' equity:	
Office supplies inventory	800[d]	Paid-in capital	$100,000
Unexpired insurance	800	Retained earnings	12,500
Trucks	28,700[c]	Total stockholders' equity	$112,500
Total	$137,500	Total	$137,500

[c] $33,700 – $5,000 = $28,700

[d] $2,000 – $1,200 = $800

[e] $4,000 dividend declared

Note that the $4,200 net income reported by the office manager is incorrect. There is a net loss of $1,500, as shown above. Reconciliation: $4,200 + $1,500 = $5,700 difference, accounted for by changed expense items as follows: $1,000 (b) – $1,500 (a) + $5,000 (c) + $1,200 (d) = $5,700.

2-52 (50-75 min.)

1. See Exhibit 2-52 on the following page.

2.

FUNCO SUPPLIES COMPANY
Balance Sheet
December 31, 20X8

Assets		Liabilities and Stockholders' Equity	
Cash	$ 436,000	Liabilities:	
Accounts receivable	650,000	Accounts payable	$ 900,000
Merchandise inventory	610,000	Stockholders' equity:	
Prepaid rent	56,000	Paid-in capital	300,000
Equipment	80,000	Retained earnings	632,000
		Total stockholders' equity	932,000
Total	$1,832,000	Total	$1,832,000

EXHIBIT 2–52

FUNCO SUPPLIES COMPANY

Analysis of Transaction for 20X8

(In Thousands of Dollars)

	Assets					=	Liabilities and Stockholders' Equity			
Transactions	Cash	+ Accounts Receivable	+ Merchandise Inventory	+ Prepaid Rent	+ Equipment	=	Accounts Payable	+ Paid–in Capital	Retained Earnings	
Balance, 12/31/X7	+ 340	+ 400	+ 860	+40	+100	=	+ 800	+300	+ 640	
a.			+1,000			=	+1,000			
b.	+ 200	+1,500				=			+1,700	(increase sales revenue)
c.			–1,250			=			–1,250	(increase cost of goods sold expense)
d1.				–40		=			– 40	(increase rent expense)
d2.	– 84			+84		=				
d3.*				–28		=			– 28	(increase rent expense)
e.					–20	=			– 20	(increase depreciation expense)
f.	+1,250	–1,250				=				
g.	– 200					=			– 200	(increase wages expense)
h.	– 70					=			– 70	(increase misc. expense)
i.	– 900					=	– 900			
j.	– 100					=			– 100	(dividends)**
Balance, 12/31/X8	+ 436	+ 650	+610	+56	+80	=	+ 900	+300	+ 632	
			1,832					1,832		

---

* All rent effects for the entire year are shown in three steps as part of the analysis of Transaction d. There are alternative ways of handling this transaction, but the ultimate effects on the accounts would be identical. For instance, Transaction d3 might be shown as a final separate entry after Transaction i or j. The new lease is at a rate of $84 ÷ 12 = $7 per month and four months elapse in 20X8.

** Note that the amount of cash dividends is usually tied to the amount of net income, but not necessarily. The amount and timing of dividends is a separate decision by the board of directors.

2-52 (continued)

FUNCO SUPPLIES COMPANY
Income Statement
For the Year Ended December 31, 20X8

Sales		$1,700,000
Deduct expenses:		
Cost of goods sold	$1,250,000	
Rent	68,000*	
Depreciation	20,000	
Wages	200,000	
Miscellaneous	70,000	
Total expenses		1,608,000
Net income		$ 92,000

*$40,000 for first 8 months plus $28,000 for next 4 months = $68,000. Note that the beginning balance of prepaid rent of $40,000 related to the first 8 months of the year, and therefore, implies a monthly rate of $5,000 and annual rent of $60,000. The payment in 20X8 of $84,000 represents an increase in the rental.

FUNCO SUPPLIES COMPANY
Statement of Retained earnings
For the Year Ended December 31, 20X8

Retained earnings, December 31, 20X7	$640,000
Net income for the year 20X8	92,000
Total	$732,000
Cash dividends declared	100,000
Retained earnings, December 31, 20X8	$632,000

2-52 (continued)

FUNCO SUPPLIES COMPANY
Statement of Income and Retained earnings
For the Year Ended December 31, 20X8

Sales		$1,700,000
Deduct expenses:		
Cost of goods sold	$1,250,000	
Rent	68,000*	
Depreciation	20,000	
Wages	200,000	
Miscellaneous	70,000	
Total expenses		1,608,000
Net income		$ 92,000
Retained earnings, Dec. 31, 20X7		640,000
Total		$ 732,000
Cash dividends declared		100,000
Retained earnings, Dec. 31, 20X8		$ 632,000

3. Only the balance sheet would be affected. Cash would be $100,000 higher and a $100,000 liability – Dividends Payable – would be created. Both accounts would be decreased by $100,000 when the dividend disbursement is made on January 31.

   We usually point out that a stockholder is simultaneously a creditor and an owner the minute the board of directors declares a dividend. Of course, the entity is never liable for a dividend until such a declaration occurs.

2-53 (10-15 min.)

This is straightforward. All computations are in millions of dollars:

A = 4,051 – (339 + 975) = 2,737
B = 5,975 – 5,885 = 90
C = 975 + 90 – 51 = 1,014
D = 4,096 –1,014 – 358 = 2,724

2-54 (15-25 min.)

		Assets			=	Liab. + SE
	Entity	Cash	Receivables*	Trucks		Payables*
1.	Fidelity	–120,000	+ 120,000		=	
	Walker	+120,000			=	+120,000
2.	Fidelity	+ 10,000	– 10,000		=	
	Walker	– 10,000			=	– 10,000
3.	Time	+ 90			=	+ 90
	Paperman	– 90	+ 90		=	
4.	Postal Serv. (millions)	– 10		+10	=	
	GSA (millions)	+ 10		–10	=	
5.	US Treas.	+100,000			=	+100,000
	Lockheed	–100,000	+100,000		=	
6.	Safeway	+ 11			=	+11
	Simon	– 11	+ 11		=	
7.	Sears	+100	– 100		=	
	Debreu	–100			=	–100
8.	American Express	+1,000			=	+1,000
	Sharpe	–1,000	+1,000**		=	
9.	Bank	+600			=	+600
	Kennedy	–600			=	
		+600***				
10.	United	+400			=	+400
	Peecher	–400	+400		=	

2-54 (continued)

* We are using catch-all titles called "Receivables" and "Payables" here. Obviously, each entity might use highly specific descriptions of the type of receivable or payables. For example, Safeway's use of "cash deposits" implies amounts payable. Similarly, United's collection of cash for tickets in advance and Time's collection of a subscription collected in advance are basically payables that must be extinguished either by cash refunds or by supplying the flight services and magazines.

** Sharpe may prefer to show the travelers checks as a separate asset. Many people would think of travelers checks as cash or a "cash equivalent."

*** Kennedy (and nearly everyone) would ordinarily label a cash deposit in a bank as Cash or Cash in Bank. Strictly speaking, Cash in Bank is really a form of receivable from a bank; however, it is almost never labeled as such.

2-55 (20-25 min.)

The following statements follow the format used by McDonald's. Obviously, various alternative formats are possible:

1. (a)

MCDONALD'S CORPORATION
Consolidated Statement of Income
For the Year Ended December 31, 2002
(In Millions of Dollars)

Revenues	$15,406
Deduct expenses:	
Food and paper expense	3,917
Payroll and employee benefits	3,078
Selling, general, and administrative expenses	1,713
Occupancy and other operating expenses	3,745
Franchise expenses	840
Interest and other non-operating expenses	549
Total expenses	13,842
Income before provision for income taxes*	1,564
Provision for income taxes*	670
Net income	$ 894

* This is the nomenclature used by McDonald's.

2-55 (continued)

(b)

McDONALD'S CORPORATION
Statement of Retained Earnings
For the Year Ended December 31, 2002
(In Millions of Dollars)

Retained earnings, December 31, 2001	$18,608
Net income for the year	894
Cash dividends	(298)
Retained earnings, December 31, 2002	$19,204

2. The cash dividend is small compared to the amounts for net income and retained earnings. It is 33% of the net income. This conservative dividend policy may reflect management's intention to finance growth mainly from internal sources.

2-56 (15-25 min.)

The following approximates Dell's statements. Student may use other acceptable formats.

1.

DELL
Statement of Income
For the Year Ended February 1, 2003
(In Millions)

Total revenues	$35,404
Costs and expenses:	
Cost of revenues *	29,055
Other expenses	3,322
Income before income taxes	3,027
Provision for income taxes	905
Net earnings	$ 2,122

*Also called cost of goods sold

2.

DELL
Statement of Retained Earnings
For the Year Ended February 1, 2003
(In Millions)

Retained earnings, February 1, 2002	$ 1,364
Net earnings	2,122
Dividends declared	0
Retained earnings, February 1, 2003	$3,486

2-57 (10 min.)

Because Balkan Airlines is committed to selling its assets and using the proceeds to pay off creditors, the appropriate valuation of its assets is the market price Balkan expects to receive for them. Because they will no longer continue to be used in the way anticipated when they were purchased, the original purchase price less accumulated depreciation is no longer relevant.

An operating airline would continue to use the book value, original cost less accumulated depreciation, for its assets. In contrast, an airline in liquidation should use the current market value for its assets.

2-58 (20-35 min.)

The solutions are underlined in the following table:

1.

	Per-share Data			Ratios and Percentages		
Company	Price	Earnings	Div- idends	P-E	Div. Yield	Div. Payout
Federal Express	$63.89	$2.79	$.20	22.9	.3%	7%
UPS	$54.50	$2.13	$.76	25.6	1.4%	36%
Deutche Post	**€15.00**	**€1.42**	**€ .37**	10.6	2.5%	26%

Computations follow:

1. FedEx:

Price = $2.79 x 22.9 = $63.89 per share
Dividends = $2.79 x .07 = $.20 per share
Dividend yield: = $.40 ÷ $63.89 = 0.3%

2-58 (continued)

2. UPS:

Earnings = $54.50 ÷ 25.6 = $2.13 per share
Dividend = $54.50 x .014 = $.76 per share
Dividend payout = $.76 ÷ $2.13 = 36%

3. Deutche Post:

Dividends = **.26 x €1.42 = €** 0.37 per share
P-E = **€15.00 ÷ €1.42 = 10.6**
Dividend yield = **€0.37 ÷ €15.00 = 2.5%**

Highest dividend yield is Deutche Post.
Highest dividend payout is UPS.
Lowest P-E is Deutche Post.

2. This information is not sufficient to answer these questions. How rapidly are prices and earnings growing? Value investors **who look for "under-priced" stocks might be attracted to Deutche Post's low P**-E. Others might like the low dividend payout for FedEx in the belief that it means FedEx is reinvesting all of its earnings profitably. The case for UPS would rest on its high P-E as a proxy for perceived growth.

2-59

The solutions are underlined:

1.

Per-share Data				Ratios and Percentages		
Company	Price	Earnings	Div-idends	P-E	Div. Yield	Div. Payout
Shell	**€41.95**	**€2.87**	**€1.72**	14.6	4.1%	60%
Exxon Mobil	$39.30	$2.23	$0.90	17.6	2.3%	40%
Chevron Texaco	$89.59	$3.10	$2.64	28.9	2.9%	85%

Computations follow:

1. Shell:

P-E = **€41.95 ÷ € 2.87 = 14.6**
Dividend yield = **€ 1.72 ÷ €41.95 = 4.1%**
Dividend Payout = **€ 1.72 ÷ € 2.87 = 60%**

2. ExxonMobil:

Earnings = $39.30 ÷ 17.6 = $2.23
Dividends = $39.30 x .023 = $0.90
Dividend payout: = $0.90 ÷ $2.23= 40%

3. ChevronTexaco:

Price = 28.9 x $3.10 = $89.59
Dividend = .85 x $3.10 = $2.64
Dividend yield = $2.64 ÷ $89.59 = 2.9%

Highest dividend yield is Shell.
Highest dividend payout is ChevronTexaco.
Lowest P-E is Shell.

2-59 (continued)

This information is not sufficient to answer questions about investments. How rapidly are prices and earnings growing? **Value investors who look for "under-priced" stocks might be** attracted to **Shell's low P**-E. Others might like the low dividend payout for ExxonMobil in the belief that it means ExxonMobil is reinvesting more of its earnings profitably. The case for ChevronTexaco would rest on its high P-E as a proxy for perceived growth.

2-60 (10 min.)

The revenue recognition practices of KSR were much too aggressive. Generally Accepted Accounting Principles (GAAP) require the risks and benefits of ownership to pass to the buyer and the collection of cash to be reasonably certain before revenue is recorded. Often these conditions are satisfied at the time of shipment of the product. However, for KSR this was not the case. When a sale is contingent on the winning of a grant, or depends on the future delivery of upgrades, revenue should not be recorded. Similarly, if the sale depends on the actions of a third party who has no obligation to the purchaser, there is too much uncertainty to record the revenue.

KSR had very good reason to believe that the shipment of computers was not sufficient for the recognition of revenues. By aggressively recording the revenue, KSR violated ethical standards that require adherence to GAAP and full and accurate disclosures of financial information. The drop of the stock price of KSR after complete disclosure was made provided evidence that the original information was misleading to investors.

KSR may also have violated the law. A series of shareholder suits were filed in late 1993 alleging that KSR executives either knew or should have known that the company's revenue recognition policies were inappropriate. In November of 1993 the company's auditor withdrew its report on KSR's 1992 financial statements.

Beyond the problems of revenue recognition, there were charges of insider trading by top executives. President and CEO Henry Burkhardt III confirmed Wall Street analysts' forecast of high earnings and two weeks later sold $1 million of his KSR stock. In November of 1993 Mr. Burkhardt and other responsible executives were fired.

2-61 (60 min. or more)

This exercise has three main purposes:

1. Learn how to find financial information about companies.
2. Compute ratios.
3. Determine reasons for ratios to vary across companies.

We believe the third purpose is especially important. Finding information and computing ratios is mechanical, but finding reasons for variations in ratios across companies requires much thought and reasoning. Doing this in teams is extremely helpful; ideas can build on one another, and students can see how other students think through the issue. It also allows students with more experience and knowledge of business practices to share this knowledge with those with less experience.

If time permits, we suggest discussing the second requirement in class. Groups will find it informative to learn the conclusions reached by other groups.

2-62 (15-30 min.)

Each solution will be unique and will change each year. The purpose of this problem is to focus on the income statement, and statement of retained earnings.

2–63 (10-15 min.) (in thousands except per share amounts)

1. Net revenues = $4,075,522; net earnings = $268,346.

2. Increase in retained earnings = $1,069,683 - $801,337 = $268,346.

   This is the same as the net earnings. Thus, Starbucks must not have paid any dividends in fiscal 2003. This is also evident fro **examination of the Statements of Shareholders' Equity.**

3. Earnings per share = $268,346 ÷ 390,753 = $0.69 per share

   This amount is shown at the bottom of Starbucks' income statement. Also shown is diluted earnings per share, which is beyond the scope of our discussion at this point.

   Price-Earnings ratio = $29 ÷ $0.69 = 42

4. The Starbucks P-E ratio is nearly triple the average P-E in the **market. Thus, investors must think that Starbucks' income will** grow quite quickly in the future.

2-64 (30-40 min.)

NOTE TO INSTRUCTOR. This solution is based on the web site as it was in late 2004. Be sure to examine the current web site before assigning this problem, as the information there may have changed.

1. Outback recognizes revenues from normal sales when it performs the services. For franchises, it recognizes revenues when it has performed all its material obligations under terms of the franchise contract.

2. Outback recognizes a liability for unearned revenues when it sells gift certificates. It is a liability on the balance sheet because it is an obligation to provide future services for which it will receive no more cash.

3. Outback recognizes revenues from restaurant sales, the largest source of revenues, and lumps together all other sales. In the **Management's Discussion and Analysis, revenue is segregated by: (1)** Domestic Outback Steakhouses, (2) International Outback Steakhouses, (3) Carrabbas Italian Grills, and (4) other restaurants, which include Fleming Prime Steakhouse, Roys, Lee Roy Selmans, Bonefish Grills, and Cheeseburger in Paradise.

4. **Outback's cost of sales** equals food and beverage costs. Labor and other restaurant operating costs are listed separately.

5. Like all large companies, Outback uses the accrual method. **This is perhaps most clear from the use of the terms "accrued expenses" and "unearned income"** among the liabilities on the **balance sheet. It is also evident from the use of "revenues" rather than cash receipts and "expenses" rather than cash outlays.**

6. Outback is clearly a profit-seeking organization. This is evident from the income statement, where it shows not only net income but also earnings per common share. On the balance sheet, it is evident **from the stockholders' equity section. It is also clear from the** presence of income tax expenses.