The Matching Concept and the Adjusting Process

3

objectives

After studying this chapter, you should be able to:

1 Explain how the matching concept relates to the accrual basis of accounting.

2 Explain why adjustments are necessary and list the characteristics of adjusting entries.

3 Journalize entries for accounts requiring adjustment.

4 Summarize the adjustment process and prepare an adjusted trial balance.

5 Use vertical analysis to compare financial statement items with each other and with industry averages.

Setting the Stage

Assume that you rented an apartment last month and signed a nine-month lease. When you signed the lease agreement, you were required to pay the final month's rent of $500. This amount is not returnable to you.

You are now applying for a student loan at a local bank. The loan application requires a listing of all your assets. Should you list the $500 deposit as an asset?

The answer to this question is "yes." The deposit is an asset to you until you receive the use of the apartment in the ninth month.

A business faces similar accounting problems at the end of a period. A business must determine what assets, liabilities, and owner's equity should be reported on its balance sheet. It must also determine what revenues and expenses should be reported on its income statement.

As we illustrated in previous chapters, transactions are normally recorded as they take place. Periodically, financial statements are prepared, summarizing the effects of the transactions on the financial position and operations of the business.

At any one point in time, however, the accounting records may not reflect all transactions. For example, most businesses do not record the daily use of supplies. Likewise, revenue may have been earned from providing services to customers, yet the customers have not been billed by the time the accounting period ends. Thus, at the end of the period, the revenue and receivable accounts must be updated.

In this chapter, we describe and illustrate this updating process. We will focus on accounts that normally require updating and the journal entries that update them.

The Matching Concept

objective 1

Explain how the matching concept relates to the accrual basis of accounting.

When accountants prepare financial statements, they assume that the economic life of the business can be divided into time periods. Using this **accounting period concept**, accountants must determine in which period the revenues and expenses of the business should be reported. To determine the appropriate period, accountants will use either (1) the cash basis of accounting or (2) the accrual basis of accounting.

Under the **cash basis**, revenues and expenses are reported in the income statement in the period in which cash is received or paid. For example, fees are recorded when cash is received from clients, and wages are recorded when cash is paid to employees. The net income (or net loss) is the difference between the cash receipts (revenues) and the cash payments (expenses).

Under the **accrual basis**, revenues are reported in the income statement in the period in which they are earned. For example, revenue is reported when the services are provided to customers. Cash may or may not be received from customers during this period. The concept that supports this reporting of revenues is called the **revenue recognition concept**.

Under the accrual basis, expenses are reported in the same period as the revenues to which they relate. For example, employee wages are reported as an expense in the

American Airlines uses the accrual basis of accounting. Revenues are recognized when passengers take flights, not when the passenger makes the reservation or pays for the ticket.

A bank loan officer requires an individual, who normally keeps records on a cash basis, to list assets (automobiles, homes, investments, etc.) on an application for a loan or a line of credit. In addition, the application often asks for an estimate of the individual's liabilities, such as outstanding credit card amounts and automobile loan balances. In a sense, the loan application converts the individual's cash-basis accounting system to an estimated accrual basis. The loan officer uses this information to assess the individual's ability to repay the loan.

The matching concept supports reporting revenues and related expenses in the same period.

period in which the employees provided services to customers, and not necessarily when the wages are paid.

The accounting concept that supports reporting revenues and related expenses in the same period is called the **matching concept**, or **matching principle**. Under this concept, an income statement will report the resulting income or loss for the period.

Generally accepted accounting principles require the use of the accrual basis. However, small service businesses may use the cash basis because they have few receivables and payables. For example, attorneys, physicians, and real estate agents often use the cash basis. For them, the cash basis will yield financial statements similar to those prepared under the accrual basis.

For most large businesses, the cash basis will not provide accurate financial statements for user needs. For this reason, we will emphasize the accrual basis in the remainder of this text. The accrual basis and its related matching concept require an analysis and updating of some accounts when financial statements are prepared. In the following paragraphs, we will describe and illustrate this process, called the **adjusting process**.

Nature of the Adjusting Process

objective 2

Explain why adjustments are necessary and list the characteristics of adjusting entries.

At the end of an accounting period, many of the balances of accounts in the ledger can be reported, without change, in the financial statements. For example, the balance of the cash account is normally the amount reported on the balance sheet.

Some accounts in the ledger, however, require updating. For example, the balances listed for prepaid expenses are normally overstated because the use of these assets is not recorded on a day-to-day basis. The balance of the supplies account usually represents the cost of supplies at the beginning of the period plus the cost of supplies acquired during the period. To record the daily use of supplies would require many entries with small amounts. In addition, the total amount of supplies is small relative to other assets, and managers usually do not require day-to-day information about supplies.

All adjusting entries affect at least one income statement account and one balance sheet account.

The journal entries that bring the accounts up to date at the end of the accounting period are called **adjusting entries**. All adjusting entries affect at least one income statement account and one balance sheet account. Thus, an adjusting entry will *always* involve a revenue or an expense account *and* an asset or a liability account.

Is there an easy way to know when an adjusting entry is needed? Yes, four basic items require adjusting entries. The first two items are **deferrals**. Deferrals are created by recording a transaction in a way that *delays* or *defers* the recognition of an expense or a revenue, as described below.

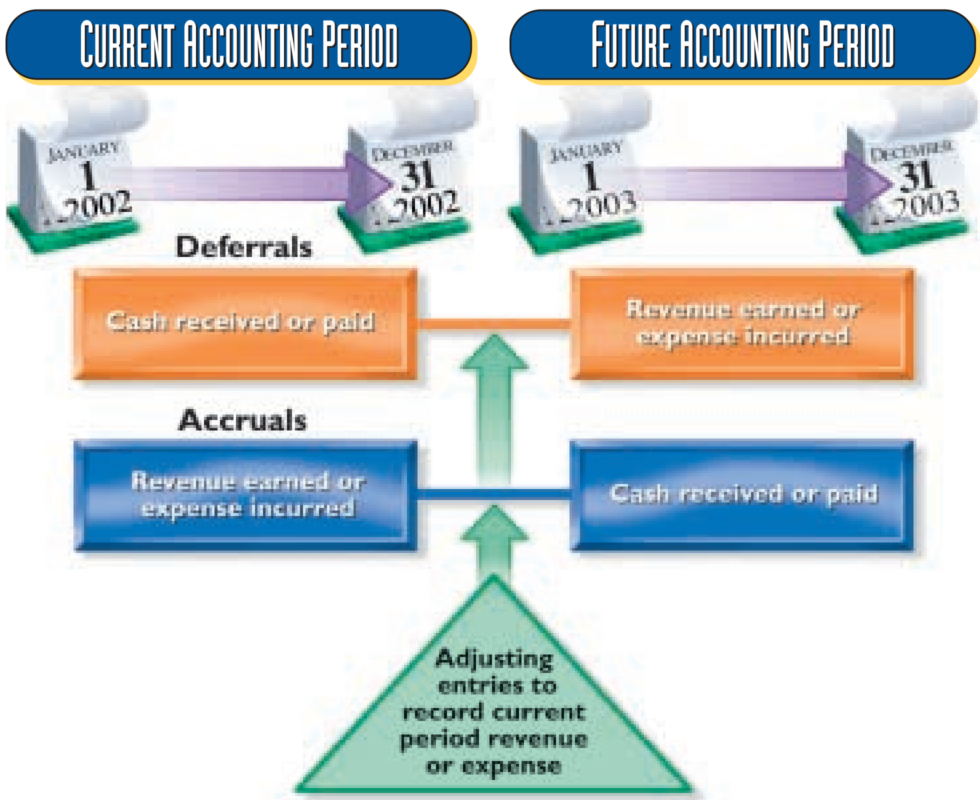
- **Deferred expenses**, or **prepaid expenses**, are items that have been initially recorded as assets but are expected to become expenses over time or through the normal operations of the business. Supplies and prepaid insurance are two examples of prepaid expenses that may require adjustment at the end of an accounting period. Other examples include prepaid advertising and prepaid interest.
- **Deferred revenues**, or **unearned revenues**, are items that have been initially recorded as liabilities but are expected to become revenues over time or through the normal operations of the business. An example of deferred revenue is unearned rent. Other examples include tuition received in advance by a school, an annual retainer fee received by an attorney, premiums received in advance by an insurance company, and magazine subscriptions received in advance by a publisher.

The second two items that require adjusting entries are accruals. **Accruals** are created by an unrecorded expense that has been incurred or an unrecorded revenue that has been earned, as described below.

- **Accrued expenses**, or **accrued liabilities**, are expenses that have been incurred *but have not been recorded* in the accounts. An example of an accrued expense is accrued wages owed to employees at the end of a period. Other examples include accrued interest on notes payable and accrued taxes.
- **Accrued revenues**, or **accrued assets**, are revenues that have been earned *but have not been recorded* in the accounts. An example of an accrued revenue is fees for services that an attorney has provided but hasn't billed to the client at the end of the period. Other examples include unbilled commissions by a travel agent, accrued interest on notes receivable, and accrued rent on property rented to others.

How do you tell the difference between deferrals and accruals? Determine when cash is received or paid, as shown in Exhibit 1. If cash is received (for revenue) or paid (for expense) in the *current* period, but the revenue or expense relates to a future period, the revenue or expense is a deferred item. If cash will not be received or paid until a *future* period, but the revenue or expense relates to the current period, the revenue or expense is an accrued item.

Exhibit 1 Deferrals and Accruals



Recording Adjusting Entries

objective 3

Journalize entries for accounts requiring adjustment.

The examples of adjusting entries in the following paragraphs are based on the ledger of NetSolutions as reported in the December 31, 2002 trial balance in Exhibit 2. To simplify the examples, T accounts are used. The adjusting entries are shown in color in the accounts to separate them from other transactions.

Exhibit 2 Unadjusted Trial Balance for NetSolutions

NET SOLUTIONS

NetSolutions
Trial Balance
December 31, 2002

Cash	2,065.00	
Accounts Receivable	2,220.00	
Supplies	2,000.00	
Prepaid Insurance	2,400.00	
Land	20,000.00	
Office Equipment	1,800.00	
Accounts Payable		900.00
Unearned Rent		360.00
Chris Clark, Capital		25,000.00
Chris Clark, Drawing	4,000.00	
Fees Earned		16,340.00
Wages Expense	4,275.00	
Rent Expense	1,600.00	
Utilities Expense	985.00	
Supplies Expense	800.00	
Miscellaneous Expense	455.00	
	42,600.00	42,600.00

An expanded chart of accounts for NetSolutions is shown in Exhibit 3. The additional accounts that will be used in this chapter are shown in color.

Exhibit 3 Expanded Chart of Accounts for NetSolutions

Balance Sheet Accounts		Income Statement Accounts	
	1. Assets		4. Revenue
11	Cash	41	Fees Earned
12	Accounts Receivable	42	Rent Revenue
14	Supplies		5. Expenses
15	Prepaid Insurance	51	Wages Expense
17	Land	52	Rent Expense
18	Office Equipment	53	Depreciation Expense
19	Accumulated Depreciation	54	Utilities Expense
	2. Liabilities	55	Supplies Expense
21	Accounts Payable	56	Insurance Expense
22	Wages Payable	59	Miscellaneous Expense
23	Unearned Rent		
	3. Owner's Equity		
31	Chris Clark, Capital		
32	Chris Clark, Drawing		

Deferred Expenses (Prepaid Expenses)

The concept of adjusting the accounting records was introduced in Chapters 1 and 2 in the illustration for NetSolutions. In that illustration, supplies were purchased on November 10 (transaction c). The supplies used during November were recorded on November 30 (transaction g).

The balance in NetSolutions' **supplies** account on December 31 is $2,000. Some of these supplies (computer diskettes, paper, envelopes, etc.) were used during December, and some are still on hand (not used). If either amount is known, the other can be determined. It is normally easier to determine the cost of the supplies on hand at the end of the month than it is to keep a daily record of those used. Assuming that on December 31 the amount of supplies on hand is $760, the amount to be transferred from the asset account to the expense account is $1,240, computed as follows:

Supplies available during December (balance of account)	$2,000
Supplies on hand, December 31	760
Supplies used (amount of adjustment)	$1,240

As we discussed in Chapter 2, increases in expense accounts are recorded as debits and decreases in asset accounts are recorded as credits. Hence, at the end of December, the supplies expense account should be debited for $1,240, and the supplies account should be credited for $1,240 to record the supplies used during December. The adjusting journal entry and T accounts for Supplies and Supplies Expense are as follows:

2	2002 Dec.	31	Supplies Expense	55	1 2 4 0 00		2
3			Supplies	14		1 2 4 0 00	3

Supplies

Bal.	2,000	Dec. 31	1,240
760			

Supplies Expense

Bal.	800		
Dec. 31	1,240		
	2,040		

The balance of a prepaid (deferred) expense is an asset that will become an expense in a future period.

After the adjustment has been recorded and posted, the supplies account has a debit balance of $760. This balance represents an asset that will become an expense in a future period.

The debit balance of $2,400 in NetSolutions' **prepaid insurance** account represents a December 1 prepayment of insurance for 24 months. At the end of December, the insurance expense account should be increased (debited), and the prepaid insurance account should be decreased (credited) by $100, the insurance for one month. The adjusting journal entry and T accounts for Prepaid Insurance and Insurance Expense are as follows:

5		31	Insurance Expense	56	1 0 0 00		5
6			Prepaid Insurance	15		1 0 0 00	6

Prepaid Insurance

Bal.	2,400	Dec. 31	100
2,300			

Insurance Expense

Dec. 31	100		

Point of Interest

The tuition you pay at the beginning of each term is an example of a deferred expense to you, as a student.

After the adjustment has been recorded and posted, the prepaid insurance account has a debit balance of $2,300. This balance represents an asset that will become an expense in future periods. The insurance expense account has a debit balance of $100, which is an expense of the current period.

What is the effect of omitting adjusting entries? If the preceding adjustments for supplies ($1,240) and insurance ($100) are not recorded, the financial statements prepared as of December 31 will be misstated. On the income statement, Supplies Expense and Insurance Expense will be understated by a total of $1,340, and net income will be overstated by $1,340. On the balance sheet, Supplies and Prepaid Insurance will be overstated by a total of $1,340. Since net income increases owner's equity, Chris Clark, Capital will also be overstated by $1,340 on the balance sheet. The effects of omitting these adjusting entries on the income statement and balance sheet are shown below.

		Amount of Misstatement	
Income Statement			
Revenues correctly stated		$XXX	
Expenses understated by		(1,340)	
Net income overstated by	(1)	$1,340	
Balance Sheet			
Assets overstated by		$1,340	(2)
Liabilities correctly stated		$XXX	
Owner's equity overstated by		1,340	
Total liabilities and owner's equity overstated by		$1,340	

Q&A

Supplies of $1,250 were on hand at the beginning of the period, supplies of $3,800 were purchased during the period, and supplies of $1,000 were on hand at the end of the period. What is the supplies expense for the period?

$4,050 ($1,250 + $3,800 − $1,000)

Arrow (1) indicates the effect of the understated expenses on assets. Arrow (2) indicates the effect of the overstated net income on owner's equity.

Prepayments of expenses are sometimes made at the beginning of the period in which they will be *entirely consumed*. On December 1, for example, NetSolutions paid rent of $800 for the month. On December 1, the rent payment represents the asset prepaid rent. The prepaid rent expires daily, and at the end of December, the entire amount has become an expense (rent expense). In cases such as this, the initial payment is recorded as an expense rather than as an asset. Thus, if the payment is recorded as a debit to Rent Expense, no adjusting entry is needed at the end of the period.[1]

Deferred Revenue (Unearned Revenue)

According to NetSolutions' trial balance on December 31, the balance in the **unearned rent** account is $360. This balance represents the receipt of three months' rent on December 1 for December, January, and February. At the end of December, the unearned rent account should be decreased (debited) by $120, and the rent revenue account should be increased (credited) by $120. The $120 represents the rental revenue for one month ($360/3). The adjusting journal entry and T accounts are shown below.

8		31	Unearned Rent	23	120 00		8
9			Rent Revenue	42		120 00	9

[1] This alternative treatment of recording the cost of supplies, rent, and other prepayments of expenses is discussed in Appendix C.

Sears, Roebuck and Co. sells extended warranty contracts with terms between 12 and 36 months. The receipts from sales of these contracts are reported as unearned revenue (deferred revenue) on Sears' balance sheet. Revenue is recorded as the contracts expire.

If NetSolutions' adjustment for unearned rent had incorrectly been made for $180 instead of $120, what would have been the effect on the financial statements?

Revenues would have been overstated by $60; net income would have been overstated by $60; liabilities would have been understated by $60; and owner's equity would have been overstated by $60.

Unearned Rent			
Dec. 31	120	Bal.	360
		240	

Rent Revenue			
		Dec. 31	120

After the adjustment has been recorded and posted, the unearned rent account, which is a liability, has a credit balance of $240. This amount represents a deferral that will become revenue in a future period. The rent revenue account has a balance of $120, which is revenue of the current period.[2]

If the preceding adjustment of unearned rent and rent revenue is not recorded, the financial statements prepared on December 31 will be misstated. On the income statement, Rent Revenue and the net income will be understated by $120. On the balance sheet, Unearned Rent will be overstated by $120, and Chris Clark, Capital will be understated by $120. The effects of omitting this adjusting entry are shown below.

	Amount of Misstatement
Income Statement	
Revenues understated by	$ (120)
Expenses correctly stated	XXX
Net income understated by	$ (120)
Balance Sheet	
Assets correctly stated	$ XXX
Liabilities overstated by	$ 120
Owner's equity understated by	(120)
Total liabilities and owner's equity correctly stated	$ XXX

[2] An alternative treatment of recording revenues received in advance of their being earned is discussed in Appendix C.

BUSINESS ON STAGE

Technology and Business

The business environment is a dynamic one in which there is constant change, with challenges and opportunities. The current technology revolution affects all businesses.

Computer and telecommunication technologies affect the production, storage, and use of information by businesses. Many businesses have developed web sites for use in marketing products and services, and for communicating with stakeholders. New software applications range from accounting software that provides updated accounting information to business simulation software capable of gauging the impact of alternative business decisions on operations.

The technological revolution challenges businesses to adapt quickly to software and hardware improvements. Such improvements offer opportunities for businesses to develop new products, reach more customers, develop new channels of product distribution, lower operating costs, improve product quality, obtain immediate customer feedback, and react quickly to market changes. Businesses unable to adapt quickly to the technological revolution may find themselves at a competitive disadvantage.

Technology also provides you with new and exciting opportunities. To the extent that you develop your computer and technological skills and talents, you will improve your chances of finding a job and advancing rapidly in your career.

Callaway Golf Company, a manufacturer of such innovative golf clubs as the "Big Bertha" driver, reports accrued warranty expense on its balance sheet.

Accrued Expenses (Accrued Liabilities)

Some types of services, such as insurance, are normally paid for *before* they are used. These prepayments are deferrals. Other types of services are paid for *after* the service has been performed. For example, wages expense accumulates or *accrues* hour by hour and day by day, but payment may be made only weekly, biweekly, or monthly. The amount of such an accrued but unpaid item at the end of the accounting period is both an expense and a liability. In the case of wages expense, if the last day of a pay period is not the last day of the accounting period, the accrued wages expense and the related liability must be recorded in the accounts by an adjusting entry. This adjusting entry is necessary so that expenses are properly matched to the period in which they were incurred.

At the end of December, accrued wages for NetSolutions were $250. This amount is an additional expense of December and is debited to the **wages expense** account. It is also a liability as of December 31 and is credited to Wages Payable. The adjusting journal entry and T accounts are shown below.

11	31	Wages Expense	51	2 5 0 00		11
12		Wages Payable	22		2 5 0 00	12

Wages Expense			Wages Payable	
Bal.	4,275		Dec. 31	250
Dec. 31	250			
	4,525			

After the adjustment has been recorded and posted, the debit balance of the wages expense account is $4,525, which is the wages expense for the two months, November and December. The credit balance of $250 in Wages Payable is the amount of the liability for wages owed as of December 31.

The accrual of the wages expense for NetSolutions is summarized in Exhibit 4. Note that NetSolutions paid wages of $950 on December 13 and $1,200 on December 27. These payments covered the biweekly pay periods that ended on those days. The wages of $250 incurred for Monday and Tuesday, December 30 and 31, are accrued at December 31. The wages paid on January 10 totaled $1,275, which included the $250 accrued wages of December 31.

What would be the effect on the financial statements if the adjustment for wages ($250) is not recorded? On the income statement, Wages Expense will be understated by $250, and the net income will be overstated by $250. On the balance sheet, Wages Payable will be understated by $250, and Chris Clark, Capital will be overstated by $250. The effects of omitting this adjusting entry are shown below.

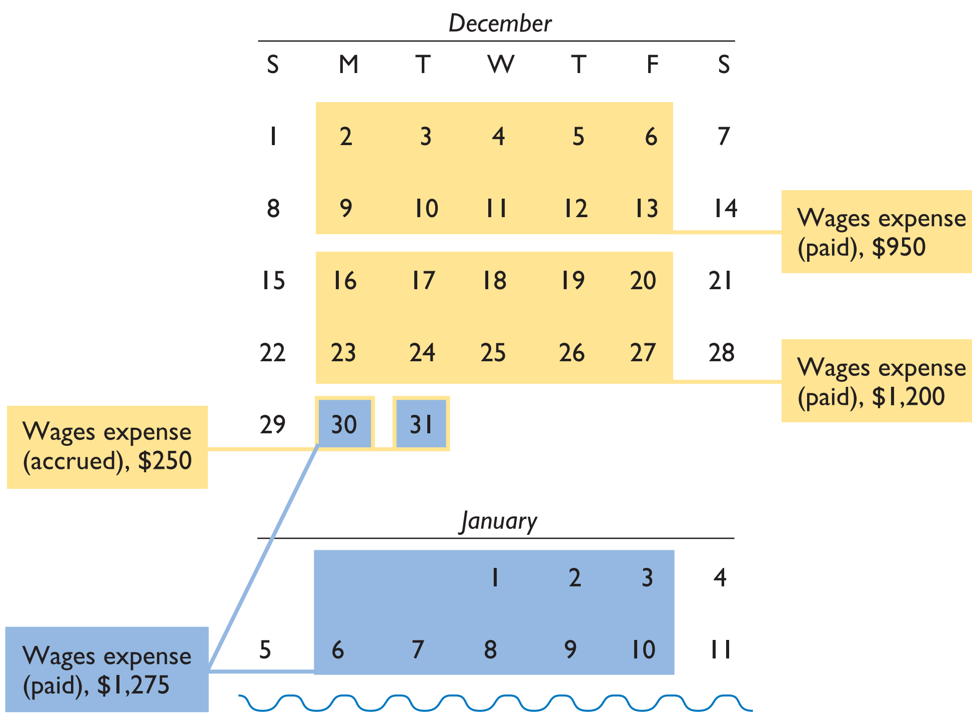
	Amount of Misstatement
Income Statement	
Revenues correctly stated	$ XXX
Expenses understated by	(250)
Net income overstated by	$ 250
Balance Sheet	
Assets correctly stated	$ XXX
Liabilities understated by	$ (250)
Owner's equity overstated by	250
Total liabilities and owner's equity correctly stated	$ XXX

Assume that weekly wages of $1,500 are paid on Fridays. If wages are incurred evenly throughout the week, what is the accrued wages payable if the accounting period ends on a Tuesday?

$600 ($1,500/5 × 2 days)

Exhibit 4 Accrued Wages

1. Wages are paid on the second and fourth Fridays for the two-week periods ending on those Fridays. The payments were $950 on December 13 and $1,200 on December 27.
2. The wages accrued for Monday and Tuesday, December 30 and 31, are $250.
3. Wages paid on Friday, January 10, total $1,275.



Tandy Corporation and Subsidiaries is engaged in consumer electronics retailing and owns **Radio Shack** and **Incredible Universe**. Tandy accrues revenue (accrued receivables) for finance charges, late charges, and returned check fees related to its credit operations.

Accrued Revenues (Accrued Assets)

During an accounting period, some revenues are recorded only when cash is received. Thus, at the end of an accounting period, there may be items of revenue that have been earned *but have not been recorded*. In such cases, the amount of the revenue should be recorded by debiting an asset account and crediting a revenue account.

To illustrate, assume that NetSolutions signed an agreement with Dankner Co. on December 15. The agreement provides that NetSolutions will be on call to answer computer questions and render assistance to Dankner Co.'s employees. The services provided will be billed to Dankner Co. on the fifteenth of each month at a rate of $20 per hour. As of December 31, NetSolutions had provided 25 hours of assistance to Dankner Co. Although the revenue of $500 (25 hours × $20) will be billed and collected in January, NetSolutions earned the revenue in December. The adjusting journal entry and T accounts to record the claim against the customer (an account receivable) and the **fees earned** in December are shown below.

	31	Accounts Receivable	12	500 00	
		Fees Earned	41		500 00

Accounts Receivable			Fees Earned	
Bal.	2,220		Bal.	16,340
Dec. 31	500		Dec. 31	500
	2,720			*16,840*

If the adjustment for the accrued asset ($500) is not recorded, Fees Earned and the net income will be understated by $500 on the income statement. On the balance sheet, Accounts Receivable and Chris Clark, Capital will be understated by $500. The effects of omitting this adjusting entry are shown below.

	Amount of Misstatement
Income Statement	
Revenues understated by	$ (500)
Expenses correctly stated	XXX
Net income understated by	$ (500)
Balance Sheet	
Assets understated by	$ (500)
Liabilities correctly stated	$ XXX
Owner's equity understated by	(500)
Total liabilities and owner's equity understated by	$ (500)

Fixed Assets

Physical resources that are owned and used by a business and are permanent or have a long life are called **fixed assets**, or **plant assets**. In a sense, fixed assets are a type of long-term deferred expense. However, because of their nature and long life, they are discussed separately from other deferred expenses, such as supplies and prepaid insurance.

NetSolutions' fixed assets include office equipment that is used much like supplies are used to generate revenue. Unlike supplies, however, there is no visible reduction in the quantity of the equipment. Instead, as time passes, the equipment loses its ability to provide useful services. This decrease in usefulness is called **depreciation**.

All fixed assets, except land, lose their usefulness. Decreases in the usefulness of assets that are used in generating revenue are recorded as expenses. However, such decreases for fixed assets are difficult to measure. For this reason, a portion of the cost of a fixed asset is recorded as an expense each year of its useful life. This periodic expense is called **depreciation expense**. Methods of computing depreciation expense are discussed and illustrated in a later chapter.

The adjusting entry to record depreciation is similar to the adjusting entry for supplies used. The account debited is a depreciation expense account. However, the asset account Office Equipment is not credited because both the original cost of a fixed asset and the amount of depreciation recorded since its purchase are normally reported on the balance sheet. The account credited is an **accumulated depreciation** account. Accumulated depreciation accounts are called **contra accounts**, or **contra asset accounts** because they are deducted from the related asset accounts on the balance sheet.

Lowe's Companies, Inc. and Subsidiaries reported land, buildings, and store equipment at a cost of over $2.3 billion and accumulated depreciation of over $460 million.

Normal titles for fixed asset accounts and their related contra asset accounts are as follows:

Fixed Asset	Contra Asset
Land	None—Land is not depreciated.
Buildings	Accumulated Depreciation—Buildings
Store Equipment	Accumulated Depreciation—Store Equipment
Office Equipment	Accumulated Depreciation—Office Equipment

The adjusting entry to record depreciation for December for NetSolutions is illustrated in the following journal entry and T accounts. The estimated amount of depreciation for the month is assumed to be $50.

17	31	Depreciation Expense	53	5000		17
18		Accumulated Depreciation—				18
19		Office Equipment	19		5000	19

Office Equipment

Bal.	1,800		

Accumulated Depreciation

		Dec. 31	50

Depreciation Expense

Dec. 31	50		

If equipment cost $5,000 and the related accumulated depreciation is $3,000, what is the book value?

$2,000 ($5,000 − $3,000)

The $50 increase in the accumulated depreciation account is subtracted from the $1,800 cost recorded in the related fixed asset account. The difference between the two balances is the $1,750 cost that has not yet been depreciated. This amount ($1,750) is called the **book value of the asset** (or **net value**), which may be presented on the balance sheet in the following manner:

Office equipment	$1,800	
Less accumulated depreciation	50	$1,750

You should note that the market value of a fixed asset usually differs from its book value. This is because depreciation is an *allocation* method, not a *valuation* method. That is, depreciation allocates the cost of a fixed asset to expense over its estimated life. Depreciation does not attempt to measure changes in market values, which may vary significantly from year to year.

If the previous adjustment for depreciation ($50) is not recorded, Depreciation Expense on the income statement will be understated by $50, and the net income will be overstated by $50. On the balance sheet, the book value of Office Equipment and Chris Clark, Capital will be overstated by $50. The effects of omitting the adjustment for depreciation are shown below.

	Amount of Misstatement
Income Statement	
Revenues correctly stated	$XX
Expenses understated by	(50)
Net income overstated by	$ 50
Balance Sheet	
Assets overstated by	$ 50
Liabilities correctly stated	$XX
Owner's equity overstated by	50
Total liabilities and owner's equity overstated by	$ 50

Summary of Adjustment Process

objective 4

Summarize the adjustment process and prepare an adjusted trial balance.

We have described and illustrated the basic types of adjusting entries in the preceding section. A summary of these basic adjustments, including the type of adjustment, the adjusting entry, and the effect of omitting an adjustment on the financial statements, is shown in Exhibit 5.

Exhibit 5 Summary of Basic Adjustments

Type of Adjustment	Adjusting Entry	Effect of Omitting Adjusting Entry on the Balance Sheet and Income Statement
Deferred expense	Dr. Expense	Expenses Understated and Net Income Overstated
	Cr. Asset	Assets Overstated and Owner's Equity Overstated
Deferred revenue	Dr. Liability	Liabilities Overstated and Owner's Equity Understated
	Cr. Revenue	Revenues Understated and Net Income Understated
Accrued expense	Dr. Expense	Expenses Understated and Net Income Overstated
	Cr. Liability	Liabilities Understated and Owner's Equity Overstated
Accrued revenue	Dr. Asset	Assets Understated and Owner's Equity Understated
	Cr. Revenue	Revenues Understated and Net Income Understated
Fixed assets	Dr. Expense	Expenses Understated and Net Income Overstated
	Cr. Contra Asset	Assets Overstated and Owner's Equity Overstated

Which of the accounts—Fees Earned, Miscellaneous Expense, Cash, Wages Expense, Supplies, Accounts Receivable, Drawing, Equipment, Accumulated Depreciation—would normally require an adjusting entry?

Fees Earned; Wages Expense; Supplies; Accounts Receivable; Accumulated Depreciation.

The adjusting entries for NetSolutions that we illustrated in this chapter are shown in Exhibit 6. The adjusting entries are dated as of the last day of the period. However, because some time may be needed for collecting the adjustment information, the entries are usually recorded at a later date. Each entry may be supported by an explanation, but a caption above the first adjusting entry is acceptable.

These adjusting entries have been posted to the ledger for NetSolutions, and are shown in color in Exhibit 7. You should note that in the posting process the Post. Ref. column of the journal indicates the account number to which the entry was posted. The corresponding Post. Ref. column of the account indicates the journal page from which the entry was posted.

Exhibit 6 Adjusting Entries —NetSolutions

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Date		Description	Post. Ref.	Debit	Credit
		Adjusting Entries			
2002 Dec.	31	Supplies Expense	55	1,240 00	
		Supplies	14		1,240 00
	31	Insurance Expense	56	100 00	
		Prepaid Insurance	15		100 00
	31	Unearned Rent	23	120 00	
		Rent Revenue	42		120 00
	31	Wages Expense	51	250 00	
		Wages Payable	22		250 00
	31	Accounts Receivable	12	500 00	
		Fees Earned	41		500 00
	31	Depreciation Expense	53	50 00	
		Accumulated Depreciation—			
		Office Equipment	19		50 00

Exhibit 7 Ledger with Adjusting Entries—NetSolutions

ACCOUNT *Cash* **ACCOUNT NO.** *11*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 1		1	25,000		25,000	
5		1		20,000	5,000	
18		1	7,500		12,500	
30		1		3,650	8,850	
30		1		950	7,900	
30		2		2,000	5,900	
Dec. 1		2		2,400	3,500	
1		2		800	2,700	
1		2	360		3,060	
6		2		180	2,880	
11		2		400	2,480	
13		3		950	1,530	
16		3	3,100		4,630	
20		3		900	3,730	
21		3	650		4,380	
23		3		1,450	2,930	
27		3		1,200	1,730	
31		3		310	1,420	
31		4		225	1,195	
31		4	2,870		4,065	
31		4		2,000	2,065	

ACCOUNT *Accounts Receivable* **ACCOUNT NO.** *12*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 16		3	1,750		1,750	
21		3		650	1,100	
31		4	1,120		2,220	
31	**Adjusting**	**5**	**500**		**2,720**	

ACCOUNT *Supplies* **ACCOUNT NO.** *14*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 10		1	1,350		1,350	
30		1		800	550	
Dec. 23		3	1,450		2,000	
31	**Adjusting**	**5**		**1,240**	**760**	

ACCOUNT *Prepaid Insurance* **ACCOUNT NO.** *15*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 1		2	2,400		2,400	
31	**Adjusting**	**5**		**100**	**2,300**	

ACCOUNT *Land* **ACCOUNT NO.** *17*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 5		1	20,000		20,000	

ACCOUNT *Office Equipment* **ACCOUNT NO.** *18*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 4		2	1,800		1,800	

ACCOUNT *Accumulated Depreciation* **ACCOUNT NO.** *19*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 31	**Adjusting**	**5**		**50**		**50**

ACCOUNT *Accounts Payable* **ACCOUNT NO.** *21*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 10		1		1,350		1,350
30		1	950			400
Dec. 4		2		1,800		2,200
11		2	400			1,800
20		3	900			900

ACCOUNT *Wages Payable* **ACCOUNT NO.** *22*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 31	**Adjusting**	**5**		**250**		**250**

ACCOUNT *Unearned Rent* **ACCOUNT NO.** *23*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 1		2		360		360
31	**Adjusting**	**5**	**120**			**240**

ACCOUNT *Chris Clark, Capital* **ACCOUNT NO.** *31*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 1		1		25,000		25,000

Exhibit 7 *(concluded)*

ACCOUNT *Chris Clark, Drawing* **ACCOUNT NO.** *32*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 30		2	2,000		2,000	
Dec. 31		4	2,000		4,000	

ACCOUNT *Fees Earned* **ACCOUNT NO.** *41*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 18		1		7,500		7,500
Dec. 16		3		3,100		10,600
16		3		1,750		12,350
31		4		2,870		15,220
31		4		1,120		16,340
31	Adjusting	5		500		16,840

ACCOUNT *Rent Revenue* **ACCOUNT NO.** *42*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 31	Adjusting	5		120		120

ACCOUNT *Wages Expense* **ACCOUNT NO.** *51*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 30		1	2,125		2,125	
Dec. 13		3	950		3,075	
27		3	1,200		4,275	
31	Adjusting	5	250		4,525	

ACCOUNT *Rent Expense* **ACCOUNT NO.** *52*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 30		1	800		800	
Dec. 1		2	800		1,600	

ACCOUNT *Depreciation Expense* **ACCOUNT NO.** *53*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 31	Adjusting	5	50		50	

ACCOUNT *Utilities Expense* **ACCOUNT NO.** *54*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 30		1	450		450	
Dec. 31		3	310		760	
31		4	225		985	

ACCOUNT *Supplies Expense* **ACCOUNT NO.** *55*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 30		1	800		800	
Dec. 31	Adjusting	5	1,240		2,040	

ACCOUNT *Insurance Expense* **ACCOUNT NO.** *56*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Dec. 31	Adjusting	5	100		100	

ACCOUNT *Miscellaneous Expense* **ACCOUNT NO.** *59*

Date	Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
2002 Nov. 30		1	275		275	
Dec. 6		2	180		455	

Point of Interest

One way for an accountant to check whether all adjustments have been made is to compare the current period's adjustments with those of the prior period.

After all the adjusting entries have been posted, another trial balance, called the **adjusted trial balance**, is prepared. The purpose of the adjusted trial balance is to verify the equality of the total debit balances and total credit balances before we prepare the financial statements. If the adjusted trial balance does not balance, an error has occurred. However, as we discussed in Chapter 2, errors may have occurred even though the adjusted trial balance totals agree. For example, the adjusted trial balance totals would agree if an adjusting entry has been omitted.

To highlight the effect of the adjustments on the accounts, Exhibit 8 shows the unadjusted trial balance, the accounts affected by the adjustments, and the adjusted

Exhibit 8 Trial Balances

NetSolutions Unadjusted Trial Balance December 31, 2002			Effect of Adjusting Entry	NetSolutions Adjusted Trial Balance December 31, 2002		
Cash	2,065			Cash	2,065	
Accounts Receivable	2,220		+ 500	Accounts Receivable	**2,720**	
Supplies	2,000		−1,240	Supplies	**760**	
Prepaid Insurance	2,400		− 100	Prepaid Insurance	**2,300**	
Land	20,000			Land	20,000	
Office Equipment	1,800			Office Equipment	1,800	
Accumulated Depreciation			+ 50	Accumulated Depreciation		**50**
Accounts Payable		900		Accounts Payable		900
Wages Payable			+ 250	Wages Payable		**250**
Unearned Rent		360	− 120	Unearned Rent		**240**
Chris Clark, Capital		25,000		Chris Clark, Capital		25,000
Chris Clark, Drawing	4,000			Chris Clark, Drawing	4,000	
Fees Earned		16,340	+ 500	Fees Earned		**16,840**
Rent Revenue			+ 120	Rent Revenue		**120**
Wages Expense	4,275		+ 250	Wages Expense	**4,525**	
Rent Expense	1,600			Rent Expense	1,600	
Depreciation Expense			+ 50	Depreciation Expense	**50**	
Utilities Expense	985			Utilities Expense	985	
Supplies Expense	800		+1,240	Supplies Expense	**2,040**	
Insurance Expense			+ 100	Insurance Expense	**100**	
Miscellaneous Expense	455			Miscellaneous Expense	455	
	42,600	42,600			43,400	43,400

trial balance. In Chapter 4, we discuss how financial statements, including a classified balance sheet, can be prepared from an adjusted trial balance. We also discuss the use of a work sheet as an aid to summarize the data for preparing adjusting entries and financial statements.

FINANCIAL ANALYSIS AND INTERPRETATION

objective 5

Use vertical analysis to compare financial statement items with each other and with industry averages.

Comparing each item in a current statement with a total amount within that same statement can be useful in highlighting significant relationships within a financial statement. **Vertical analysis** is the term used to describe such comparisons.

In vertical analysis of a balance sheet, each asset item is stated as a percent of the total assets. Each liability and owner's equity item is stated as a percent of the total liabilities and owner's equity. In vertical analysis of an income statement, each item is stated as a percent of revenues or fees earned.

Vertical analysis may also be prepared for several periods to highlight changes in relationships over time. Vertical analysis of two years of income statements for J. Holmes, Attorney-at-Law, is shown in Exhibit 9.

Exhibit 9 indicates both favorable and unfavorable trends affecting the income statement of J. Holmes, Attorney-at-Law. The increase in wages expense of 2% (32% − 30%) is an unfavorable trend, as is the increase in utilities expense of 0.7% (6.7% − 6.0%). A favorable trend is the decrease in supplies expense of 0.6% (2.0% − 1.4%). Rent expense and miscellaneous expense as a percent of fees earned were

Exhibit 9 Vertical Analysis of Income Statements

J. Holmes, Attorney-at-Law
Income Statements
For the Years Ended December 31, 2002 and 2003

	2003		2002	
	Amount	**Percent**	**Amount**	**Percent**
Fees earned	$187,500	100.0%	$150,000	100.0%
Operating expenses:				
Wages expense	$60,000	32.0%	$45,000	30.0%
Rent expense	15,000	8.0%	12,000	8.0%
Utilities expense	12,500	6.7%	9,000	6.0%
Supplies expense	2,700	1.4%	3,000	2.0%
Miscellaneous expense	2,300	1.2%	1,800	1.2%
Total operating expenses	$92,500	49.3%	$70,800	47.2%
Net income	$95,000	50.7%	$79,200	52.8%

constant. The net result of these trends was that net income decreased as a percent of fees earned from 52.8% to 50.7%.

The analysis of the various percentages shown for J. Holmes, Attorney-at-Law, can be enhanced by comparisons with industry averages published by trade associations and financial information services. Any major differences between industry averages should be investigated.

ENCORE

"Intel Inside"

Intel Corporation develops and produces microprocessors for personal computers. Intel's earnings have grown from a $195 million loss in 1986 to over $7 billion of operating income in 1999. Intel's success has been driven by its ability to design, develop, and produce newer and faster microprocessors. This ability has been a result of a strong research and development effort in which spending has increased at an annual rate of 21% over the past ten years. Intel's current microprocessor is so tiny that it would take 500 of them placed end to end to be as large as a human hair!

Intel's microprocessors have become well-known, beginning with the 8086 processor and continuing with the 286, 386, and 486 processors. Rather than name its next generation of microprocessor the 586, Intel named its new chip the "Pentium" and registered it as a trademark. This prevented Intel's competitors from selling their products as "Pentiums," which they had been able to do with the numbers 386 and 486. In addition, Intel began a promotional campaign to identify its microprocessor as unique. Intel did this by entering into a cooperative program with computer manufacturers and distributors to label personal computers with the slogan "Intel Inside" or "Pentium Inside."

Intel has been highly successful. However, technology companies such as Intel are subject to significant risks that their products will become outdated as technology changes. This is why Intel has invested so heavily in research and development over the years. In addition, Intel has the potential risk for faulty product designs or production of faulty processors due to poor quality control. For example, Intel discovered an error related to the divide function in the floating point unit of one of its Pentium microprocessors. This error required an adjusting entry for replacement processors and inventory write-downs, which cost Intel approximately $475 million. More recently, Intel has had to recall its Pentium III chip. ■

KEY POINTS

1 Explain how the matching concept relates to the accrual basis of accounting.

The accrual basis of accounting requires the use of an adjusting process at the end of the accounting period to match revenues and expenses properly. Revenues are reported in the period in which they are earned, and expenses are matched with the revenues they generate.

2 Explain why adjustments are necessary and list the characteristics of adjusting entries.

At the end of an accounting period, some of the amounts listed on the trial balance are not necessarily current balances. For example, amounts listed for prepaid expenses are normally overstated because the use of these assets has not been recorded on a daily basis. A delay in recognizing an expense already paid or a revenue already received is called a deferral.

Some revenues and expenses related to a period may not be recorded at the end of the period, since these items are normally recorded only when cash has been received or paid. A revenue or expense that has not been paid or recorded is called an accrual.

The entries required at the end of an accounting period to bring accounts up to date and to ensure the proper matching of revenues and expenses are called adjusting entries. Adjusting entries require a debit or a credit to a revenue or an expense account and an offsetting debit or credit to an asset or a liability account.

Adjusting entries affect amounts reported in the income statement and the balance sheet. Thus, if an adjusting entry is not recorded, these financial statements will be incorrect (misstated).

3 Journalize entries for accounts requiring adjustment.

Adjusting entries illustrated in this chapter include deferred (prepaid) expenses, deferred (unearned) revenues, accrued expenses (accrued liabilities), and accrued revenues (accrued assets). In addition, the adjusting entry necessary to record depreciation on fixed assets was illustrated.

4 Summarize the adjustment process and prepare an adjusted trial balance.

A summary of adjustments, including the type of adjustment, the adjusting entry, and the effect of omitting an adjustment on the financial statements, is shown in Exhibit 5. After all the adjusting entries have been posted, the equality of the total debit balances and total credit balances is verified by an adjusted trial balance.

5 Use vertical analysis to compare financial statement items with each other and with industry averages.

Comparing each item in a current statement with a total amount within the same statement is called vertical analysis. In vertical analysis of a balance sheet, each asset item is stated as a percent of the total assets. Each liability and owner's equity item is stated as a percent of the total liabilities and owner's equity. In vertical analysis of an income statement, each item is stated as a percent of revenues or fees earned.

ILLUSTRATIVE PROBLEM

Three years ago, T. Roderick organized Harbor Realty. At July 31, 2003, the end of the current year, the unadjusted trial balance of Harbor Realty appears as shown at the top of the following page. The data needed to determine year-end adjustments are as follows:

a. Supplies on hand at July 31, 2003, $380.
b. Insurance premiums expired during the year, $315.
c. Depreciation of equipment during the year, $4,950.
d. Wages accrued but not paid at July 31, 2003, $440.
e. Accrued fees earned but not recorded at July 31, 2003, $1,000.
f. Unearned fees on July 31, 2003, $750.

Harbor Realty
Trial Balance
July 31, 2003

Cash	3,425.00	
Accounts Receivable	7,000.00	
Supplies	1,270.00	
Prepaid Insurance	620.00	
Office Equipment	51,650.00	
Accumulated Depreciation		9,700.00
Accounts Payable		925.00
Wages Payable		0.00
Unearned Fees		1,250.00
T. Roderick, Capital		29,000.00
T. Roderick, Drawing	5,200.00	
Fees Earned		59,125.00
Wages Expense	22,415.00	
Depreciation Expense	0.00	
Rent Expense	4,200.00	
Utilities Expense	2,715.00	
Supplies Expense	0.00	
Insurance Expense	0.00	
Miscellaneous Expense	1,505.00	
	100,000.00	100,000.00

Instructions

1. Prepare the necessary adjusting journal entries.
2. Determine the balance of the accounts affected by the adjusting entries and prepare an adjusted trial balance.

Solution

1.

JOURNAL

	Date		Description	Post. Ref.	Debit	Credit	
1	2003 July	31	Supplies Expense		890.00		1
2			Supplies			890.00	2
3							3
4		31	Insurance Expense		315.00		4
5			Prepaid Insurance			315.00	5
6							6
7		31	Depreciation Expense		4,950.00		7
8			Accumulated Depreciation			4,950.00	8
9							9
10		31	Wages Expense		440.00		10
11			Wages Payable			440.00	11
12							12
13		31	Accounts Receivable		1,000.00		13
14			Fees Earned			1,000.00	14
15							15
16		31	Unearned Fees		500.00		16
17			Fees Earned			500.00	17

2.

Harbor Realty
Adjusted Trial Balance
July 31, 2003

Cash	3,425.00	
Accounts Receivable	8,000.00	
Supplies	380.00	
Prepaid Insurance	305.00	
Office Equipment	51,650.00	
Accumulated Depreciation		14,650.00
Accounts Payable		925.00
Wages Payable		440.00
Unearned Fees		750.00
T. Roderick, Capital		29,000.00
T. Roderick, Drawing	5,200.00	
Fees Earned		60,625.00
Wages Expense	22,855.00	
Depreciation Expense	4,950.00	
Rent Expense	4,200.00	
Utilities Expense	2,715.00	
Supplies Expense	890.00	
Insurance Expense	315.00	
Miscellaneous Expense	1,505.00	
	106,390.00	106,390.00

SELF-EXAMINATION QUESTIONS

Answers at End of Chapter

Matching

Match each of the following statements with its proper term. Some terms may not be used.

A. **accounting period concept**
B. **accrual basis**
C. **accrued expenses**
D. **accrued revenues**
E. **accumulated depreciation**
F. **adjusted trial balance**
G. **adjusting entries**
H. **adjusting process**
I. **book value of the asset**
J. **cash basis**
K. **closing entries**
L. **contra account**
M. **deferred expenses**
N. **deferred revenues**
O. **depreciation**

___ 1. The accounting concept that assumes that the economic life of the business can be divided into time periods.

___ 2. Under this basis of accounting, revenues and expenses are reported in the income statement in the period in which cash is received or paid.

___ 3. Under this basis of accounting, revenues are reported in the income statement in the period in which they are earned.

___ 4. The accounting concept that supports reporting revenues when the services are provided to customers.

___ 5. The accounting concept that supports reporting revenues and the related expenses in the same period.

___ 6. An analysis and updating of the accounts when financial statements are prepared.

___ 7. The journal entries that bring the accounts up to date at the end of the accounting period.

___ 8. Items that have been initially recorded as assets but are expected to become expenses over time or through the normal operations of the business.

___ 9. Items that have been initially recorded as liabilities but are expected to become revenues over time or through the normal operations of the business.

___ 10. Expenses that have been incurred *but not recorded* in the accounts.

___ 11. Revenues that have been earned *but not recorded* in the accounts.

P. **depreciation expense**
Q. **final trial balance**
R. **fixed assets**
S. **horizontal analysis**
T. **matching concept**
U. **objectivity concept**
V. **post-closing trial balance**
W. **revenue recognition concept**
X. **vertical analysis**

___ 12. Physical resources that are owned and used by a business and are permanent or have a long life.

___ 13. The decrease in the ability of a fixed asset to provide useful services.

___ 14. The portion of the cost of a fixed asset that is recorded as an expense each year of its useful life.

___ 15. The asset account credited when recording the depreciation of a fixed asset.

___ 16. The difference between the cost of a fixed asset and its accumulated depreciation.

___ 17. The trial balance prepared after all the adjusting entries have been posted.

___ 18. An analysis that compares each item in a current statement with a total amount within the same statement.

___ 19. An account offset against another account.

Multiple Choice

1. Which of the following items represents a deferral?
   A. Prepaid insurance
   B. Wages payable
   C. Fees earned
   D. Accumulated depreciation

2. If the supplies account, before adjustment on May 31, indicated a balance of $2,250, and supplies on hand at May 31 totaled $950, the adjusting entry would be:
   A. debit Supplies, $950; credit Supplies Expense, $950.
   B. debit Supplies, $1,300; credit Supplies Expense, $1,300.
   C. debit Supplies Expense, $950; credit Supplies, $950.
   D. debit Supplies Expense, $1,300; credit Supplies, $1,300.

3. The balance in the unearned rent account for Jones Co. as of December 31 is $1,200. If Jones Co. failed to record the adjusting entry for $600 of rent earned during December, the effect on the balance sheet and income statement for December is:
   A. assets understated $600; net income overstated $600.
   B. liabilities understated $600; net income understated $600.
   C. liabilities overstated $600; net income understated $600.
   D. liabilities overstated $600; net income overstated $600.

4. If the estimated amount of depreciation on equipment for a period is $2,000, the adjusting entry to record depreciation would be:
   A. debit Depreciation Expense, $2,000; credit Equipment, $2,000.
   B. debit Equipment, $2,000; credit Depreciation Expense, $2,000.
   C. debit Depreciation Expense, $2,000; credit Accumulated Depreciation, $2,000.
   D. debit Accumulated Depreciation, $2,000; credit Depreciation Expense, $2,000.

5. If the equipment account has a balance of $22,500 and its accumulated depreciation account has a balance of $14,000, the book value of the equipment is:
   A. $36,500.
   B. $22,500.
   C. $14,000.
   D. $8,500.

CLASS DISCUSSION QUESTIONS

1. How are revenues and expenses reported on the income statement under (a) the cash basis of accounting and (b) the accrual basis of accounting?
2. Fees for services provided are billed to a customer during 2002. The customer remits the amount owed in 2003. During which year would the revenues be reported on the income statement under (a) the cash basis? (b) the accrual basis?
3. Employees performed services in 2002, but the wages were not paid until 2003. During which year would the wages expense be reported on the income statement under (a) the cash basis? (b) the accrual basis?
4. Is the matching concept related to (a) the cash basis of accounting or (b) the accrual basis of accounting?
5. Is the balance listed for cash on the trial balance, before the accounts have been adjusted, the amount that should normally be reported on the balance sheet? Explain.
6. Is the balance listed for supplies on the trial balance, before the accounts have been adjusted, the amount that should normally be reported on the balance sheet? Explain.

7. Why are adjusting entries needed at the end of an accounting period?
8. Are adjusting entries in the journal dated as of the last day of the fiscal period or as of the day the entries are actually made? Explain.
9. What is the difference between *adjusting entries* and *correcting entries*?
10. Identify the five different categories of adjusting entries frequently required at the end of an accounting period.
11. If the effect of the credit portion of an adjusting entry is to increase the balance of a liability account, which of the following statements describes the effect of the debit portion of the entry?
    a. Increases the balance of a revenue account.
    b. Increases the balance of an expense account.
    c. Increases the balance of an asset account.
12. Does every adjusting entry have an effect on determining the amount of net income for a period? Explain.
13. What is the nature of the balance in the prepaid insurance account at the end of the accounting period (a) before adjustment? (b) after adjustment?
14. On November 1 of the current year, a business paid the November rent on the building that it occupies. (a) Do the rights acquired at November 1 represent an asset or an expense? (b) What is the justification for debiting Rent Expense at the time of payment?
15. In accounting for depreciation on equipment, what is the name of the contra asset account?
16. (a) Explain the purpose of the two accounts: Depreciation Expense and Accumulated Depreciation. (b) What is the normal balance of each account? (c) Is it customary for the balances of the two accounts to be equal in amount? (d) In what financial statements, if any, will each account appear?

EXERCISES

Exercise 3–1
Classify accruals and deferrals
Objectives 2, 3

Classify the following items as (a) deferred expense (prepaid expense), (b) deferred revenue (unearned revenue), (c) accrued expense (accrued liability), or (d) accrued revenue (accrued asset).

1. Fees earned but not yet received.
2. Taxes owed but payable in the following period.
3. Salary owed but not yet paid.
4. Supplies on hand.
5. Fees received but not yet earned.
6. Utilities owed but not yet paid.
7. A two-year premium paid on a fire insurance policy.
8. Subscriptions received in advance by a magazine publisher.

Exercise 3–2
Classify adjusting entries
Objectives 2, 3

The following accounts were taken from the unadjusted trial balance of O'Neil Co., a congressional lobbying firm. Indicate whether or not each account would normally require an adjusting entry. If the account normally requires an adjusting entry, use the following notation to indicate the type of adjustment:

AE—Accrued Expense
AR—Accrued Revenue
DR—Deferred Revenue
DE—Deferred Expense

To illustrate, the answers for the first two accounts are shown below.

Account	Answer
Tip Perkey, Drawing	Does not normally require adjustment.
Accounts Receivable	Normally requires adjustment (AR).
Accumulated Depreciation	
Cash	
Interest Payable	
Interest Receivable	
Land	
Office Equipment	
Prepaid Insurance	
Supplies Expense	
Unearned Fees	
Wages Expense	

Exercise 3–3
Adjusting entry for supplies
Objective 3

The balance in the supplies account, before adjustment at the end of the year, is $1,475. Journalize the adjusting entry required if the amount of supplies on hand at the end of the year is $241.

Exercise 3–4
Determine supplies purchased
Objective 3

The supplies and supplies expense accounts at December 31, after adjusting entries have been posted at the end of the first year of operations, are shown in the following T accounts:

Supplies			Supplies Expense		
Bal.	418		Bal.	1,943	

Determine the amount of supplies purchased during the year.

Exercise 3–5
Effect of omitting adjusting entry
Objective 3

At December 31, the end of the first month of operations, the usual adjusting entry transferring supplies used to an expense account is omitted. Which items will be incorrectly stated, because of the error, on (a) the income statement for December and (b) the balance sheet as of December 31? Also indicate whether the items in error will be overstated or understated.

Exercise 3–6
Adjusting entries for prepaid insurance
Objective 3

The balance in the prepaid insurance account, before adjustment at the end of the year, is $4,280. Journalize the adjusting entry required under each of the following *alternatives* for determining the amount of the adjustment: (a) the amount of insurance expired during the year is $1,020; (b) the amount of unexpired insurance applicable to future periods is $3,260.

Exercise 3–7
Adjusting entries for prepaid insurance
Objective 3

The prepaid insurance account had a balance of $3,600 at the beginning of the year. The account was debited for $1,200 for premiums on policies purchased during the year. Journalize the adjusting entry required at the end of the year for each of the following situations: (a) the amount of unexpired insurance applicable to future periods is $3,450; (b) the amount of insurance expired during the year is $1,875.

Exercise 3–8
Adjusting entries for unearned fees
Objective 3

✓ Amount of entry: $3,950

The balance in the unearned fees account, before adjustment at the end of the year, is $6,750. Journalize the adjusting entry required if the amount of unearned fees at the end of the year is $2,800.

Exercise 3–9
Effect of omitting adjusting entry
Objective 3

At the end of March, the first month of the business year, the usual adjusting entry transferring rent earned to a revenue account from the unearned rent account was omitted. Indicate which items will be incorrectly stated, because of the error, on (a) the income statement for March and (b) the balance sheet as of March 31. Also indicate whether the items in error will be overstated or understated.

Exercise 3–10
Adjusting entries for accrued salaries
Objective 3

✓ a. Amount of entry: $5,500

Taylor Fork Realty Co. pays weekly salaries of $13,750 on Friday for a five-day week ending on that day. Journalize the necessary adjusting entry at the end of the accounting period, assuming that the period ends (a) on Tuesday, (b) on Wednesday.

Exercise 3–11
Determine wages paid
Objective 3

The wages payable and wages expense accounts at December 31, after adjusting entries have been posted at the end of the first year of operations, are shown in the following T accounts:

Wages Payable

	Bal.	1,960

Wages Expense

Bal.	87,430	

Determine the amount of wages paid during the year.

Exercise 3–12
Effect of omitting adjusting entry
Objective 3

Accrued salaries of $3,100 owed to employees for December 30 and 31 are not considered in preparing the financial statements for the year ended December 31. Indicate which items will be erroneously stated, because of the error, on (a) the income statement for the year and (b) the balance sheet as of December 31. Also indicate whether the items in error will be overstated or understated.

Exercise 3–13
Effect of omitting adjusting entry
Objective 3

Assume that the error in Exercise 3–12 was not corrected and that the $3,100 of accrued salaries was included in the first salary payment in January. Indicate which items will be erroneously stated, because of failure to correct the initial error, on (a) the income statement for the month of January and (b) the balance sheet as of January 31.

Exercise 3–14
Adjusting entries for prepaid and accrued taxes
Objective 3

✓ b. $10,975

Millennium Financial Services was organized on April 1 of the current year. On April 2, Millennium prepaid $1,020 to the city for taxes (license fees) for the *next* 12 months and debited the prepaid taxes account. Millennium is also required to pay in January an annual tax (on property) for the *previous* calendar year. The estimated amount of the property tax for the current year (April 1 to December 31) is $10,210. (a) Journalize the two adjusting entries required to bring the accounts affected by the two taxes up to date as of December 31, the end of the current year. (b) What is the amount of tax expense for the current year?

Exercise 3–15
Effects of errors on financial statements
Objective 3

For a recent period, **Circuit City Stores** reported accrued expenses and other current liabilities of $204,561,000. For the same period, Circuit City reported earnings of $528,758,000 before income taxes. If accrued expenses and other current liabilities had not been recorded, what would have been the earnings (loss) before income taxes?

Exercise 3–16
Effects of errors on financial statements

Objective 3

✓ b. 85.7%

The balance sheet for **The Quaker Oats Company** as of December 31, 1999, includes the following accrued expenses as liabilities:

Accrued payroll, benefits and bonus	$139,100,000
Accrued advertising and merchandising	138,700,000
Other accrued liabilities	252,300,000

The income before taxes for The Quaker Oats Company for the year ended December 31, 1999, was $618,300,000. (a) If the accruals had not been recorded at December 31, 1999, by how much would income before taxes have been misstated for the fiscal year ended December 31, 1999? (b) What is the percentage of the misstatement in (a) to the reported income of $618,300,000?

Exercise 3–17
Effects of errors on financial statements

Objective 3

✓ 1. a. Revenue understated, $10,390

The accountant for Maxim Medical Co., a medical services consulting firm, mistakenly omitted adjusting entries for (a) unearned revenue ($10,390) and (b) accrued wages ($2,440). Indicate the effect of each error, considered individually, on the income statement for the current year ended December 31. Also indicate the effect of each error on the December 31 balance sheet. Set up a table similar to the following, and record your answers by inserting the dollar amount in the appropriate spaces. Insert a zero if the error does not affect the item.

	Error (a)		Error (b)	
	Over-stated	**Under-stated**	**Over-stated**	**Under-stated**
1. Revenue for the year would be	$	$	$	$
2. Expenses for the year would be	$	$	$	$
3. Net income for the year would be	$	$	$	$
4. Assets at December 31 would be	$	$	$	$
5. Liabilities at December 31 would be	$	$	$	$
6. Owner's equity at December 31 would be	$	$	$	$

Exercise 3–18
Effects of errors on financial statements

Objective 3

If the net income for the current year had been $437,720 in Exercise 3–17, what would be the correct net income if the proper adjusting entries had been made?

Exercise 3–19
Adjusting entry for accrued fees

Objective 3

At the end of the current year, $7,260 of fees have been earned but have not been billed to clients.

a. Journalize the adjusting entry to record the accrued fees.
b. If the cash basis rather than the accrual basis had been used, would an adjusting entry have been necessary? Explain.

Exercise 3–20
Adjusting entries for unearned and accrued fees

Objective 3

The balance in the unearned fees account, before adjustment at the end of the year, is $48,000. Of these fees, $16,000 have been earned. In addition, $7,500 of fees have been earned but have not been billed. Journalize the adjusting entries (a) to adjust the unearned fees account and (b) to record the accrued fees.

Exercise 3–21
Effect on financial statements of omitting adjusting entry

Objective 3

The adjusting entry for accrued fees was omitted at December 31, the end of the current year. Indicate which items will be in error, because of the omission, on (a) the income statement for the current year and (b) the balance sheet as of December 31. Also indicate whether the items in error will be overstated or understated.

Exercise 3–22
Adjustment for depreciation
Objective 3

The estimated amount of depreciation on equipment for the current year is $3,000. Journalize the adjusting entry to record the depreciation.

Exercise 3–23
Determine fixed asset's book value
Objective 3

The balance in the equipment account is $518,500, and the balance in the accumulated depreciation—equipment account is $120,750.

a. What is the book value of the equipment?
b. Does the balance in the accumulated depreciation account mean that the equipment's loss of value is $120,750? Explain.

Exercise 3–24
Book value of fixed assets
Objective 3

Microsoft Corporation reported *Property, Plant, and Equipment* of $3,321 million and *Accumulated Depreciation* of $1,418 million at June 30, 2000.

a. What was the book value of the fixed assets at June 30, 2000?
b. Would the book value of Microsoft Corporation's fixed assets normally approximate their fair market values?

Exercise 3–25
Adjusting entries for depreciation; effect of error
Objective 3

On December 31, a business estimates depreciation on equipment used during the first year of operations to be $8,500. (a) Journalize the adjusting entry required as of December 31. (b) If the adjusting entry in (a) were omitted, which items would be erroneously stated on (1) the income statement for the year and (2) the balance sheet as of December 31?

Exercise 3–26
Adjusting entries from trial balances
Objectives 3, 4

The unadjusted and adjusted trial balances for Medico Services Co. on December 31, 2003, are shown below.

Medico Services Co.
Trial Balance
December 31, 2003

	Unadjusted		Adjusted	
Cash	8		8	
Accounts Receivable	19		21	
Supplies	6		2	
Prepaid Insurance	10		6	
Land	13		13	
Equipment	20		20	
Accumulated Depr.—Equip.		4		5
Accounts Payable		13		13
Wages Payable		0		1
Brian Stuart, Capital		46		46
Brian Stuart, Drawing	4		4	
Fees Earned		37		39
Wages Expense	12		13	
Rent Expense	4		4	
Insurance Expense	0		4	
Utilities Expense	2		2	
Depreciation Expense	0		1	
Supplies Expense	0		4	
Miscellaneous Expense	2		2	
Totals	100	100	104	104

Journalize the five entries that adjusted the accounts at December 31, 2003. None of the accounts were affected by more than one adjusting entry.

Exercise 3–27
Adjusting entries from trial balances
Objectives 3, 4

✓ Corrected trial balance totals, $171,520

The accountant for St. Elmo Laundry prepared the following unadjusted and adjusted trial balances. Assume that all balances in the unadjusted trial balance and the amounts of the adjustments are correct. How many errors can you find in the accountant's adjusting entries?

St. Elmo Laundry
Trial Balance
October 31, 2003

	Unadjusted		Adjusted	
Cash	3,790		3,790	
Accounts Receivable	8,000		12,500	
Laundry Supplies	3,750		5,660	
Prepaid Insurance*	2,825		1,325	
Laundry Equipment	85,600		80,880	
Accumulated Depreciation		55,700		55,700
Accounts Payable		4,950		4,950
Wages Payable				850
Nicole Chun, Capital		23,900		23,900
Nicole Chun, Drawing	8,000		8,000	
Laundry Revenue		76,900		76,900
Wages Expense	24,500		24,500	
Rent Expense	15,575		15,575	
Utilities Expense	8,500		8,500	
Depreciation Expense			4,720	
Laundry Supplies Expense			1,910	
Insurance Expense			500	
Miscellaneous Expense	910		910	
	161,450	161,450	168,770	162,300

*$1,500 of insurance expired during the year.

Exercise 3–28
Vertical analysis of income statement
Objective 5

The financial statements for **Cisco Systems, Inc.** are presented in Appendix G at the end of the text.

a. Determine for Cisco Systems:
   1. The amount of the change and percent of change in net income for the year ended July 29, 2000.
   2. The percentage relationship between net income and net sales (net income divided by net sales) for the years ended July 29, 2000 and July 31, 1999.
b. What conclusions can you draw from your analysis?

PROBLEMS SERIES A

Problem 3–1A
Adjusting entries
Objective 3

On December 31, the end of the current year, the following data were accumulated to assist the accountant in preparing the adjusting entries for Epoch Realty:

a. The supplies account balance on December 31 is $1,750. The supplies on hand on December 31 are $245.
b. The unearned rent account balance on December 31 is $6,750, representing the receipt of an advance payment on December 1 of three months' rent from tenants.
c. Wages accrued but not paid at December 31 are $1,800.
d. Fees accrued but unbilled at December 31 are $10,600.
e. Depreciation of office equipment for the year is $3,100.

Instructions

1. Journalize the adjusting entries required at December 31.
2. Briefly explain the difference between adjusting entries and entries that would be made to correct errors.

Problem 3–2A

Adjusting entries

Objective 3

Selected account balances before adjustment for Gibraltar Realty at December 31, the end of the current year, are as follows:

	Debits	Credits		Debits	Credits
Accounts Receivable	$ 9,250		Unearned Fees		$ 7,000
Supplies	2,750		Fees Earned		97,950
Prepaid Rent	30,000		Wages Expense	$39,400	
Equipment	52,500		Rent Expense	—	
Accumulated Depreciation		$8,900	Depreciation Expense	—	
Wages Payable		—	Supplies Expense	—	

Data needed for year-end adjustments are as follows:

a. Unbilled fees at December 31, $3,150.
b. Supplies on hand at December 31, $555.
c. Rent expired during year, $18,000.
d. Depreciation of equipment during year, $1,575.
e. Unearned fees at December 31, $2,700.
f. Wages accrued but not paid at December 31, $875.

Instructions

Journalize the six adjusting entries required at December 31, based upon the data presented.

Problem 3–3A

Adjusting entries

Objective 3

GENERAL LEDGER

Jupiter Company, an electronics repair store, prepared the following trial balance at the end of its first year of operations:

Jupiter Company
Trial Balance
November 30, 2003

Cash	1,150	
Accounts Receivable	7,500	
Supplies	1,800	
Equipment	37,900	
Accounts Payable		1,750
Unearned Fees		2,000
Melanie Cochran, Capital		26,000
Melanie Cochran, Drawing	1,500	
Fees Earned		45,250
Wages Expense	10,500	
Rent Expense	8,000	
Utilities Expense	5,750	
Miscellaneous Expense	900	
	75,000	75,000

For preparing the adjusting entries, the following data were assembled:

a. Fees earned but unbilled on November 30 were $1,100.
b. Supplies on hand on November 30 were $380.
c. Depreciation of equipment was estimated to be $2,200 for the year.
d. The balance in unearned fees represented the November 1 receipt in advance for services to be provided. Only $800 of the services was provided between November 1 and November 30.
e. Unpaid wages accrued on November 30 were $400.

Instructions

Journalize the adjusting entries necessary on November 30.

Problem 3–4A

Adjusting entries

Objectives 3, 4

SPREADSHEET

GENERAL LEDGER

Oriole Company specializes in the repair of music equipment and is owned and operated by Kaye Santora. On April 30, 2003, the end of the current year, the accountant for Oriole Company prepared the following trial balances:

Oriole Company
Trial Balance
April 30, 2003

	Unadjusted		Adjusted	
Cash	7,825		7,825	
Accounts Receivable	30,500		30,500	
Supplies	3,950		800	
Prepaid Insurance	3,750		1,500	
Equipment	92,150		92,150	
Accumulated Depreciation—Equipment		33,480		42,500
Automobiles	36,500		36,500	
Accumulated Depreciation—Automobiles		18,250		22,900
Accounts Payable		8,310		9,390
Salaries Payable		—		1,800
Unearned Service Fees		5,000		3,000
Kaye Santora, Capital		69,470		69,470
Kaye Santora, Drawing	5,000		5,000	
Service Fees Earned		244,600		246,600
Salary Expense	172,300		174,100	
Rent Expense	18,000		18,000	
Supplies Expense	—		3,150	
Depreciation Expense—Equipment	—		9,020	
Depreciation Expense—Automobiles	—		4,650	
Utilities Expense	4,700		5,780	
Taxes Expense	2,725		2,725	
Insurance Expense	—		2,250	
Miscellaneous Expense	1,710		1,710	
	379,110	379,110	395,660	395,660

Instructions

Journalize the seven entries that adjusted the accounts at April 30. None of the accounts were affected by more than one adjusting entry.

Problem 3–5A

Adjusting entries and adjusted trial balances

Objectives 3, 4

SPREADSHEET

GENERAL LEDGER

✓ 2. Total of Debit Column: $538,320

Guantanamo Company is a small editorial services company owned and operated by Ronaldo Manuel. On December 31, 2003, the end of the current year, Guantanamo Company's accounting clerk prepared the trial balance shown at the top of the next page.

The data needed to determine year-end adjustments are as follows:

a. Unexpired insurance at December 31, $1,900.
b. Supplies on hand at December 31, $475.
c. Depreciation of building for the year, $1,620.
d. Depreciation of equipment for the year, $5,500.
e. Rent unearned at December 31, $1,500.
f. Accrued salaries and wages at December 31, $2,050.
g. Fees earned but unbilled on December 31, $4,150.

Instructions

1. Journalize the adjusting entries. Add additional accounts as needed.
2. Determine the balances of the accounts affected by the adjusting entries and prepare an adjusted trial balance.

Guantanamo Company
Trial Balance
December 31, 2003

Cash	5,700	
Accounts Receivable	21,900	
Prepaid Insurance	4,500	
Supplies	1,720	
Land	75,000	
Building	141,500	
Accumulated Depreciation—Building		91,700
Equipment	90,100	
Accumulated Depreciation—Equipment		65,300
Accounts Payable		8,100
Unearned Rent		7,500
Ronaldo Manuel, Capital		134,000
Ronaldo Manuel, Drawing	10,000	
Fees Earned		218,400
Salaries and Wages Expense	110,580	
Utilities Expense	28,250	
Advertising Expense	20,200	
Repairs Expense	11,500	
Miscellaneous Expense	4,050	
	525,000	525,000

Problem 3–6A
Adjusting entries and errors
Objective 3

✓ Corrected Net Income: $135,300

At the end of April, the first month of operations, the following selected data were taken from the financial statements of Jay Harriman, an attorney:

Net income for April	$129,575
Total assets at April 30	275,600
Total liabilities at April 30	18,575
Total owner's equity at April 30	257,025

In preparing the financial statements, adjustments for the following data were overlooked:

a. Supplies used during April, $1,125.
b. Unbilled fees earned at April 30, $10,200.
c. Depreciation of equipment for April, $2,500.
d. Accrued wages at April 30, $850.

Instructions

1. Journalize the entries to record the omitted adjustments.
2. Determine the correct amount of net income for April and the total assets, liabilities, and owner's equity at April 30. In addition to indicating the corrected amounts, indicate the effect of each omitted adjustment by setting up and completing a columnar table similar to the following. Adjustment (a) is presented as an example.

	Net Income	Total Assets	Total Liabilities	Total Owner's Equity
Reported amounts	$129,575	$275,600	$18,575	$257,025
Corrections:				
Adjustment (a)	−1,125	−1,125	0	−1,125
Adjustment (b)				
Adjustment (c)				
Adjustment (d)				
Corrected amounts				

PROBLEMS SERIES B

Problem 3–1B
Adjusting entries

Objective 3

On December 31, the end of the current year, the following data were accumulated to assist the accountant in preparing the adjusting entries for Bravo Realty:

a. Fees accrued but unbilled at December 31 are $6,300.
b. The supplies account balance on December 31 is $2,100. The supplies on hand at December 31 are $310.
c. Wages accrued but not paid at December 31 are $1,500.
d. The unearned rent account balance at December 31 is $5,200, representing the receipt of an advance payment on December 1 of four months' rent from tenants.
e. Depreciation of office equipment for the year is $3,500.

Instructions
1. Journalize the adjusting entries required at December 31.
2. Briefly explain the difference between adjusting entries and entries that would be made to correct errors.

Problem 3–2B
Adjusting entries

Objective 3

Selected account balances before adjustment for Lambada Realty at July 31, the end of the current year, are as follows:

	Debits	Credits		Debits	Credits
Accounts Receivable	$10,250		Unearned Fees		$ 6,500
Supplies	1,970		Fees Earned		100,850
Prepaid Rent	18,000		Wages Expense	$39,750	
Equipment	70,500		Rent Expense	—	
Accumulated Depreciation		$26,900	Depreciation Expense	—	
Wages Payable		—	Supplies Expense	—	

Data needed for year-end adjustments are as follows:

a. Supplies on hand at July 31, $600.
b. Depreciation of equipment during year, $2,000.
c. Rent expired during year, $12,000.
d. Wages accrued but not paid at July 31, $1,060.
e. Unearned fees at July 31, $3,000.
f. Unbilled fees at July 31, $7,180.

Instructions
Journalize the six adjusting entries required at July 31, based upon the data presented.

Problem 3–3B
Adjusting entries

Objective 3

GENERAL LEDGER

Brown Trout Co., an outfitter store for fishing treks, prepared the following trial balance at the end of its first year of operations:

Brown Trout Co.
Trial Balance
June 30, 2003

Cash	1,150	
Accounts Receivable	8,500	
Supplies	1,300	
Equipment	19,900	
Accounts Payable		750
Unearned Fees		2,000
Courtney Yarber, Capital		27,000
Courtney Yarber, Drawing	1,000	
Fees Earned		36,750
Wages Expense	20,150	
Rent Expense	9,850	
Utilities Expense	3,750	
Miscellaneous Expense	900	
	66,500	66,500

For preparing the adjusting entries, the following data were assembled:

a. Supplies on hand on June 30 were $280.
b. Fees earned but unbilled on June 30 were $2,750.
c. Depreciation of equipment was estimated to be $1,500 for the year.
d. Unpaid wages accrued on June 30 were $450.
e. The balance in unearned fees represented the June 1 receipt in advance for services to be provided. Only $900 of the services were provided between June 1 and June 30.

Instructions

Journalize the adjusting entries necessary on June 30.

Problem 3–4B

Adjusting entries

Objectives 3, 4

SPREADSHEET

GENERAL LEDGER

Tinker Company specializes in the maintenance and repair of signs, such as billboards. On October 31, 2003, the accountant for Tinker Company prepared the following trial balances:

Tinker Company
Trial Balance
October 31, 2003

	Unadjusted		Adjusted	
Cash	6,750		6,750	
Accounts Receivable	18,400		18,400	
Supplies	5,880		1,030	
Prepaid Insurance	2,700		1,100	
Land	47,500		47,500	
Buildings	107,480		107,480	
Accumulated Depreciation—Buildings		79,600		85,100
Trucks	72,000		72,000	
Accumulated Depreciation—Trucks		22,800		31,900
Accounts Payable		8,920		9,595
Salaries Payable		—		960
Unearned Service Fees		7,500		3,500
Jordan Holbrook, Capital		93,890		93,890
Jordan Holbrook, Drawing	5,000		5,000	
Service Fees Earned		152,680		156,680
Salary Expense	81,200		82,160	
Depreciation Expense—Trucks	—		9,100	
Rent Expense	9,600		9,600	
Supplies Expense	—		4,850	
Utilities Expense	6,200		6,875	
Depreciation Expense—Buildings	—		5,500	
Taxes Expense	1,720		1,720	
Insurance Expense	—		1,600	
Miscellaneous Expense	960		960	
	365,390	365,390	381,625	381,625

Instructions

Journalize the seven entries that adjusted the accounts at October 31. None of the accounts were affected by more than one adjusting entry.

Problem 3–5B

Adjusting entries and adjusted trial balances

Objectives 3, 4

Humvee Service Co., which specializes in appliance repair services, is owned and operated by Jon Grabowski. Humvee Service Co.'s accounting clerk prepared the following trial balance at December 31, 2003:

SPREADSHEET

GENERAL LEDGER

✓ 2. Total of Debit Column: $535,620

Humvee Service Co.
Trial Balance
December 31, 2003

Cash	5,200	
Accounts Receivable	16,200	
Prepaid Insurance	4,000	
Supplies	2,450	
Land	100,000	
Building	141,500	
Accumulated Depreciation—Building		95,700
Equipment	90,100	
Accumulated Depreciation—Equipment		65,300
Accounts Payable		7,500
Unearned Rent		6,000
Jon Grabowski, Capital		127,100
Jon Grabowski, Drawing	5,000	
Fees Earned		218,400
Salaries and Wages Expense	90,800	
Utilities Expense	28,200	
Advertising Expense	19,000	
Repairs Expense	13,500	
Miscellaneous Expense	4,050	
	520,000	520,000

The data needed to determine year-end adjustments are as follows:

a. Depreciation of building for the year, $2,100.
b. Depreciation of equipment for the year, $4,000.
c. Accrued salaries and wages at December 31, $3,170.
d. Unexpired insurance at December 31, $1,900.
e. Fees earned but unbilled on December 31, $6,350.
f. Supplies on hand at December 31, $675.
g. Rent unearned at December 31, $3,500.

Instructions

1. Journalize the adjusting entries. Add additional accounts as needed.
2. Determine the balances of the accounts affected by the adjusting entries and prepare an adjusted trial balance.

Problem 3–6B

Adjusting entries and errors

Objective 3

✓ Corrected Net Income: $422,345

At the end of August, the first month of operations, the following selected data were taken from the financial statements of Toreka Bowen, an attorney:

Net income for August	$417,950
Total assets at August 31	771,500
Total liabilities at August 31	210,350
Total owner's equity at August 31	561,150

In preparing the financial statements, adjustments for the following data were overlooked:

a. Unbilled fees earned at August 31, $13,800.
b. Depreciation of equipment for August, $5,000.
c. Accrued wages at August 31, $1,300.
d. Supplies used during August, $3,105.

Instructions

1. Journalize the entries to record the omitted adjustments.

(continued)

2. Determine the correct amount of net income for August and the total assets, liabilities, and owner's equity at August 31. In addition to indicating the corrected amounts, indicate the effect of each omitted adjustment by setting up and completing a columnar table similar to the following. Adjustment (a) is presented as an example.

	Net Income	Total Assets	Total Liabilities	Total Owner's Equity
Reported amounts	$417,950	$771,500	$210,350	$561,150
Corrections:				
Adjustment (a)	+13,800	+13,800	0	+13,800
Adjustment (b)				
Adjustment (c)				
Adjustment (d)				
Corrected amounts				

CONTINUING PROBLEM

DANCIN MUSIC

GENERAL LEDGER

✓ 3. Total of Debit Column: $16,595

The trial balance that you prepared for Dancin Music at the end of Chapter 2 should appear as follows:

Dancin Music
Trial Balance
December 31, 2002

Cash	3,665	
Accounts Receivable	880	
Supplies	460	
Prepaid Insurance	1,680	
Office Equipment	2,500	
Accounts Payable		2,875
Unearned Revenue		2,400
Lynn Kwan, Capital		5,000
Lynn Kwan, Drawing	1,125	
Fees Earned		5,605
Wages Expense	1,400	
Office Rent Expense	1,300	
Equipment Rent Expense	575	
Utilities Expense	430	
Music Expense	890	
Advertising Expense	650	
Supplies Expense	90	
Miscellaneous Expense	235	
	15,880	15,880

The data needed to determine adjustments for the two-month period ending December 31, 2002, are as follows:

a. During December, Dancin Music provided guest disc jockeys for KPRG for a total of 110 hours. For information on the amount of the accrued revenue to be billed to KPRG, see the contract described in the December 3, 2002 transaction at the end of Chapter 2.
b. Supplies on hand at December 31, $85.
c. The balance of the prepaid insurance account relates to the December 1, 2002 transaction at the end of Chapter 2.
d. Depreciation of the office equipment is $50.

e. The balance of the unearned revenue account relates to the contract between Dancin Music and KPRG, described in the December 3, 2002 transaction at the end of Chapter 2.
f. Accrued wages as of December 31, 2002, were $65.

Instructions

1. Prepare adjusting journal entries. You will need the following additional accounts:

   18 Accumulated Depreciation—Office Equipment
   22 Wages Payable
   57 Insurance Expense
   58 Depreciation Expense

2. Post the adjusting entries, inserting balances in the accounts affected.
3. Prepare an adjusted trial balance.

SPECIAL ACTIVITIES

Activity 3–1
Nadu Real Estate Co.
Ethics and professional conduct in business

Stacey Nairn opened Nadu Real Estate Co. on January 1, 2002. At the end of the first year, the business needed additional capital. On behalf of Nadu Real Estate, Stacey applied to American City Bank for a loan of $75,000. Based on Nadu Real Estate's financial statements, which had been prepared on a cash basis, the American City Bank loan officer rejected the loan as too risky.

After receiving the rejection notice, Stacey instructed her accountant to prepare the financial statements on an accrual basis. These statements included $31,500 in accounts receivable and $11,200 in accounts payable. Stacey then instructed her accountant to record an additional $18,000 of accounts receivable for commissions on property for which a contract had been signed on December 27, 2002, but which would not be formally "closed" and the title transferred until January 20, 2003.

Stacey then applied for a $75,000 loan from First National Bank, using the revised financial statements. On this application, Stacey indicated that she had not previously been rejected for credit.

Discuss the ethical and professional conduct of Stacey Nairn in applying for the loan from First National Bank.

Activity 3–2
Ford Motor Co.
Accrued expense

On December 30, 2003, you buy a Ford Expedition. It comes with a three-year, 36,000-mile warranty. On January 21, 2004, you return the Expedition to the dealership for some basic repairs covered under the warranty. The cost of the repairs to the dealership is $610. In what year, 2003 or 2004, should Ford Motor Co. recognize the cost of the warranty repairs as an expense?

Activity 3–3
United Airlines
Accrued revenue

The following is an excerpt from a conversation between Dawn Abrams and Kala Wiggins just before they boarded a flight to Paris on United Airlines. They are going to Paris to attend their company's annual sales conference.

Dawn: Kala, aren't you taking an introductory accounting course at State College?
Kala: Yes, I decided it's about time I learned something about accounting. You know, our annual bonuses are based upon the sales figures that come from the accounting department.
Dawn: I guess I never really thought about it.
Kala: You should think about it! Last year, I placed a $200,000 order on December 26. But when I got my bonus, the $200,000 sale wasn't included. They said it hadn't been shipped until January 6, so it would have to count in next year's bonus.
Dawn: A real bummer!

Kala: Right! I was counting on that bonus including the $200,000 sale.
Dawn: Did you complain?
Kala: Yes, but it didn't do any good. Ed, the head accountant, said something about matching revenues and expenses. Also, something about not recording revenues until the sale is final. I figure I'd take the accounting course and find out whether he's just jerking me around.
Dawn: I never really thought about it. When do you think United Airlines will record its revenues from this flight?
Kala: Mmm . . . I guess it could record the revenue when it sells the ticket . . . or . . . when the boarding passes are taken at the door . . . or . . . when we get off the plane . . . or when our company pays for the tickets . . . or . . . I don't know. I'll ask my accounting instructor.

Discuss when United Airlines should recognize the revenue from ticket sales to properly match revenues and expenses.

Activity 3–4
Eminent Television Repair
Adjustments and financial statements

Several years ago, your father opened Eminent Television Repair. He made a small initial investment and added money from his personal bank account as needed. He withdrew money for living expenses at irregular intervals. As the business grew, he hired an assistant. He is now considering adding more employees, purchasing additional service trucks, and purchasing the building he now rents. To secure funds for the expansion, your father submitted a loan application to the bank and included the most recent financial statements (shown below) prepared from accounts maintained by a part-time bookkeeper.

Eminent Television Repair
Income Statement
For the Year Ended December 31, 2003

Service revenue		$51,750
Less: Rent paid	$18,000	
Wages paid	12,300	
Supplies paid	5,100	
Utilities paid	4,175	
Insurance paid	2,400	
Miscellaneous payments	2,150	44,125
Net income		$ 7,625

Eminent Television Repair
Balance Sheet
December 31, 2003

Assets	
Cash	$ 8,600
Amounts due from customers	3,100
Truck	30,000
Total assets	$41,700
Equities	
Owner's capital	$41,700

After reviewing the financial statements, the loan officer at the bank asked your father if he used the accrual basis of accounting for revenues and expenses. Your father responded that he did and that is why he included an account for "Amounts Due from Customers." The loan officer then asked whether or not the accounts were adjusted prior to the preparation of the statements. Your father answered that they had not been adjusted.

a. Why do you think the loan officer suspected that the accounts had not been adjusted prior to the preparation of the statements?
b. Indicate possible accounts that might need to be adjusted before an accurate set of financial statements could be prepared.

Activity 3–5
Into the Real World
Codes of ethics

Obtain a copy of your college or university's student code of conduct. In groups of three or four, answer the following questions.

1. Compare this code of conduct with the accountant's Codes of Professional Conduct in Appendix B at the end of this text. What are the similarities and differences between the two codes of conduct?
2. One of your classmates asks you for permission to copy your homework, which your instructor will be collecting and grading for part of your overall term grade. Although your instructor has not stated whether one student may or may not copy another student's homework, is it ethical for you to allow your classmate to copy your homework? Is it ethical for your classmate to copy your homework?

ANSWERS TO SELF-EXAMINATION QUESTIONS

Matching

1. A	5. T	9. N	13. O	17. F
2. J	6. H	10. C	14. P	18. X
3. B	7. G	11. D	15. E	19. L
4. W	8. M	12. R	16. I	

Multiple Choice

1. **A** A deferral is the delay in recording an expense already paid, such as prepaid insurance (answer A). Wages payable (answer B) is considered an accrued expense or accrued liability. Fees earned (answer C) is a revenue item. Accumulated depreciation (answer D) is a contra account to a fixed asset.
2. **D** The balance in the supplies account, before adjustment, represents the amount of supplies available. From this amount ($2,250) is subtracted the amount of supplies on hand ($950) to determine the supplies used ($1,300). Since increases in expense accounts are recorded by debits and decreases in asset accounts are recorded by credits, answer D is the correct entry.
3. **C** The failure to record the adjusting entry debiting unearned rent, $600, and crediting rent revenue, $600, would have the effect of overstating liabilities by $600 and understating net income by $600 (answer C).
4. **C** Since increases in expense accounts (such as depreciation expense) are recorded by debits and it is customary to record the decreases in usefulness of fixed assets as credits to accumulated depreciation accounts, answer C is the correct entry.
5. **D** The book value of a fixed asset is the difference between the balance in the asset account and the balance in the related accumulated depreciation account, or $22,500 − $14,000, as indicated by answer D ($8,500).