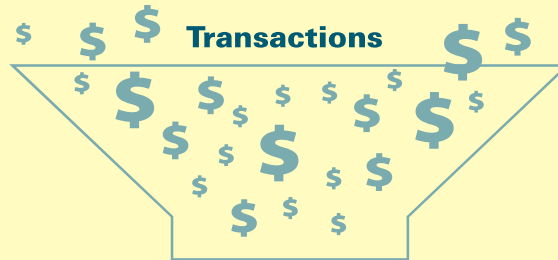


3 The Adjusting Process

Chapter 1



ACCOUNTING SYSTEM

Accounting Equation

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

Chapter 2

Account

Debits	Credits
--------	---------

RULES OF DEBIT AND CREDIT

Balance Sheet Accounts

ASSETS Asset Accounts		=	LIABILITIES Liability Accounts		+	STOCKHOLDERS' EQUITY			
Debit for increases (+)	Credit for decreases (-)		Debit for decreases (-)	Credit for increases (+)		Common Stock		+ Retained Earnings	
Debit for decreases (-)	Credit for increases (+)		Debit for increases (+)	Credit for decreases (-)		Debit for decreases (-)	Credit for increases (+)	Debit for decreases (-)	Credit for increases (+)
<u>Balance</u>			<u>Balance</u>			<u>Balance</u>		<u>Balance</u>	<u>Balance</u>

Dividends		Income Statement Accounts	
Debit for increases (+)	Credit for decreases (-)	Revenue Accounts	
Debit for increases (+)	Credit for decreases (-)	Debit for decreases (-)	Credit for increases (+)
<u>Balance</u>		<u>Balance</u>	<u>Balance</u>

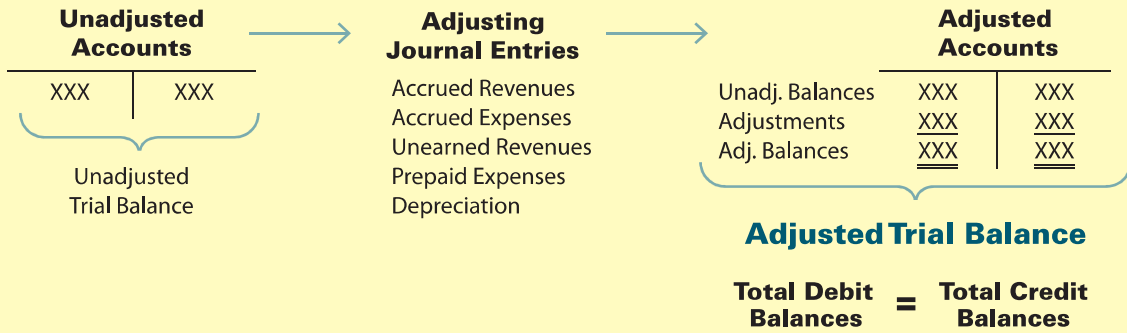
Expense Accounts	
Debit for increases (+)	Credit for decreases (-)
<u>Balance</u>	

UNADJUSTED TRIAL BALANCE

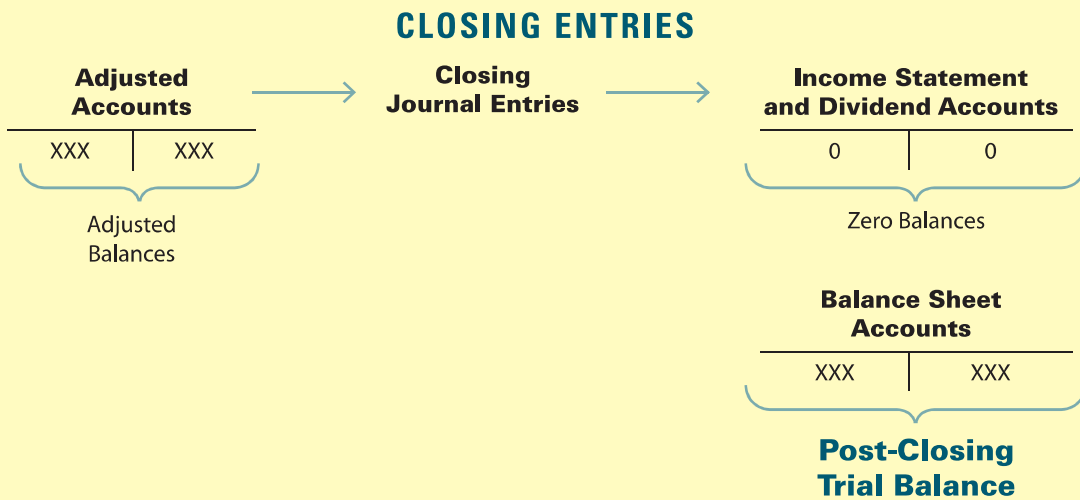
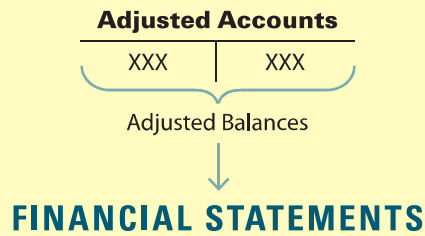
$$\text{Total Debit Balances} = \text{Total Credit Balances}$$

Chapter 3

ADJUSTING ENTRIES



Chapter 4



Pandora Media, Inc.

Do you use an Internet-based music service such as **Pandora Media, Inc. (P)**? Using playlist-generating algorithms, Pandora predicts a listener's music preferences based on his or her initial music selections. Pandora selects music it thinks the listener will enjoy, including music of new artists that match the listener's preferences. Recently, Pandora developed similar comedy-generating algorithms that match a listener's preferences for comedy with more than 1,000 comedians.

Most of Pandora's services are offered free to listeners with only 12.5% of its revenues generated from subscription services. So, where do most of Pandora's revenues come from?

Pandora generates more than 85% of its revenues from selling advertising banners that surround the video displays on its tuner. By analyzing its listener interactions, Pandora identifies

listener age, gender, zip code, and content preferences. These attributes can then be matched with advertiser needs and desires.

When should Pandora record revenue from its advertisers and subscribers? Advertising revenue should be recorded when the ads are displayed. Subscriber revenue should be recorded when the service has been delivered to the listener. As a result, companies like Pandora must update their accounting records for such items as unearned advertising and subscription revenue before preparing financial statements.

This chapter describes and illustrates the process by which companies update their accounting records before preparing financial statements. This discussion includes the adjustments to update revenue and expense accounts at the end of the accounting period.

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Link to Pandora	Pages 111, 112, 115, 117, 119, 120, 123
Make a Decision	Page 153

What's Covered

The Adjusting Process

Nature of Adjusting Process

- Accrual v. Cash Basis (Obj. 1)
- Revenue and Expense Recognition (Obj. 1)
- Accruals (Obj. 1)
- Deferrals (Obj. 1)

Adjusting Entries for Accruals

- Accrued Revenues (Obj. 2)
- Accrued Expenses (Obj. 2)

Adjusting Entries for Deferrals

- Unearned Revenues (Obj. 3)
- Prepaid Expenses (Obj. 3)

Adjusting Entries for Depreciation

- Fixed Assets (Obj. 4)
- Accumulated Depreciation (Obj. 4)
- Book Value (Obj. 4)

Concluding the Adjusting Process

- Summary (Obj. 5)
- Adjusted Trial Balance (Obj. 6)

Learning Objectives

Obj. 1 Describe the nature of the adjusting process.

Obj. 2 Prepare adjusting entries for accruals.

Obj. 3 Prepare adjusting entries for deferrals.

Obj. 4 Prepare adjusting entries for depreciation.

Obj. 5 Summarize the adjusting process.

Obj. 6 Prepare an adjusted trial balance.

Analysis for Decision Making

Obj. 7 Describe and illustrate the use of vertical analysis in evaluating a company's performance and financial condition.

Nature of the Adjusting Process

In Chapter 2, the November and December transactions for **NetSolutions** were recorded using the double-entry accounting system. After the transactions were recorded, an **unadjusted** trial balance was prepared on December 31 verifying that the total debit balances equal the total credit balances. Before financial statements can be prepared, however, some accounts in the unadjusted trial balance must be adjusted. These adjustments are necessary because the transactions for NetSolutions were recorded using the accrual basis of accounting.

Objective 1

Describe the nature of the adjusting process.

Accrual and Cash Basis of Accounting

Under the **accrual basis of accounting**, revenues are reported on the income statement in the period in which a service has been performed or a product has been delivered. Cash may or may not be received from customers during this period. For example, a cleaning company will record revenue after it cleans an office building, even if it is not paid for several weeks. The accrual basis of accounting also requires expenses to be recorded when they are incurred, not necessarily when cash is paid.

Pandora uses the accrual basis of accounting in preparing its financial statements.

[Link to Pandora](#)

Although generally accepted accounting principles (GAAP) require the accrual basis of accounting, most individuals and some businesses use the cash basis of accounting. Under the **cash basis of accounting**, revenues and expenses are reported on the income statement in the period in which cash is received or paid. For example, fees are recorded when cash is received from clients; likewise, 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).

Small service businesses may use the cash basis because they have few receivables and payables. For example, attorneys, physicians, and real estate agents may use the cash basis.

For them, the cash basis provides financial statements similar to those of the accrual basis. For most large businesses, however, the cash basis will not provide accurate financial statements for user needs. For this reason, the accrual basis is required by GAAP and is used in this text.

Revenue and Expense Recognition

To be useful for decision making, financial statements must be provided on a periodic basis. As a result, the economic life of a business is divided into time periods such as a month, quarter of a year, or full year. Under accrual accounting, the net income of a period is reported using revenue and expense recognition principles.

Under the **revenue recognition principle**, revenues are recorded when earned, which is when the services have been performed or products have been delivered to customers.¹ Revenue is normally measured as the assets received, such as cash or accounts receivable.²

Link to Pandora

Subscription revenues from **Pandora's** customers are recorded equally over the subscription periods. For example, a yearly subscription would be recorded equally over 12 months.

Under the **expense recognition principle**, the expenses incurred in generating revenue must be reported in the same period as the related revenue. This is also called the **matching principle**. By matching revenues and expenses, net income or loss for the period is properly reported on the income statement. Adjusting entries are required to properly match revenues and expenses.

Link to Pandora

Pandora computes royalty expense paid to an artist for a song that is streamed to listeners based upon the number of times it is played/streamed.

The Adjusting Process

At the end of an accounting period, an unadjusted trial balance is prepared to verify that the total debit balances equal the total credit balances. Many of these account balances are reported in the financial statements without change. For example, the balances of the cash and land accounts are normally the amounts reported on the balance sheet.

Some accounts on the unadjusted trial balance, however, require adjustments for the following reasons:

- Some expenses are not recorded daily. For example, the daily use of supplies would require many entries with small amounts. Also, the amount of supplies on hand on a day-to-day basis is normally not needed.
- Some revenues and expenses are incurred as time passes rather than as separate transactions. For example, rent received in advance (unearned rent) expires and becomes revenue with the passage of time. Likewise, prepaid insurance expires and becomes an expense with the passage of time.
- Some revenues and expenses may be unrecorded at the end of the accounting period. For example, a company may have provided services to customers that it has not billed or recorded at the end of the accounting period. Likewise, a company may not pay its employees until the next accounting period even though the employees have earned their wages in the current period.

The analysis and updating of accounts at the end of the period before the financial statements are prepared is called the **adjusting process**. The journal entries that bring the accounts up to

¹ As will be illustrated later in this chapter, revenues may also be measured as a decrease in a liability such as unearned revenue.

² As will be illustrated later in this chapter, revenues may also be measured as a decrease in a liability such as unearned revenue.

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.

Types of Accounts Requiring Adjustment

The two general classifications of accounts requiring adjustment are as follows:

- Accruals
- Deferrals

Accruals An **accrual** occurs when revenue has been earned or an expense has been incurred but has not been recorded. If the accrual is for revenue, the adjusting entry debits an asset (Accounts Receivable) and credits a revenue account. If the accrual is for an expense, the adjusting entry debits an expense account and credits a related liability account such as Accounts Payable or Wages Payable. Exhibit 1 summarizes the accounting for accruals.

ACCRUED REVENUE											
Initial Recording		End-of-Period Adjustment									
Transaction	Journal Entry	Adjustment Data	Adjusting Entry*								
Revenue has been earned.	No journal entry has been made.	Revenue earned.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Accounts Receivable</td> <td style="width: 5%; border: none;">XXX</td> <td style="width: 40%; border: none;"></td> <td style="width: 5%; border: none;"></td> </tr> <tr> <td style="border: none;">Revenue</td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;">XXX</td> </tr> </table>	Accounts Receivable	XXX			Revenue			XXX
Accounts Receivable	XXX										
Revenue			XXX								
ACCRUED EXPENSE											
Initial Recording		End-of-Period Adjustment									
Transaction	Journal Entry	Adjustment Data	Adjusting Entry*								
Expense has been incurred.	No journal entry has been made.	Expense incurred.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Expense</td> <td style="width: 5%; border: none;">XXX</td> <td style="width: 40%; border: none;"></td> <td style="width: 5%; border: none;"></td> </tr> <tr> <td style="border: none;">Accounts Payable</td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;">XXX</td> </tr> </table>	Expense	XXX			Accounts Payable			XXX
Expense	XXX										
Accounts Payable			XXX								

Exhibit 1
Accruals

* An adjusting entry will always involve a revenue or an expense account and an asset or a liability account.

Deferrals A **deferral** occurs when cash related to a future revenue or expense has been initially recorded as a liability or an asset. If the cash received is related to future revenue, it is initially recorded as a liability called **unearned revenue**. The adjusting entry in the period when the revenue is earned debits an unearned revenue account and credits a revenue account. If the cash paid is related to a future expense, it is initially recorded as an asset called **prepaid expense**. The adjusting entry in the period when the expense is incurred debits an expense account and credits a prepaid expense (asset) account. Exhibit 2 summarizes the accounting for deferrals.

UNEARNED REVENUE																			
Initial Recording		End-of-Period Adjustment																	
Transaction	Journal Entry	Adjustment Data	Adjusting Entry*																
Cash has been received for revenue that will be earned in a future period.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Cash</td> <td style="width: 5%; border: none;">XXX</td> <td style="width: 45%; border: none;"></td> <td style="width: 5%; border: none;"></td> </tr> <tr> <td style="border: none;">Unearned Revenue</td> <td style="border: none;">XXX</td> <td style="border: none;"></td> <td style="border: none;"></td> </tr> </table>	Cash	XXX			Unearned Revenue	XXX			Revenue has been earned.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Unearned Revenue</td> <td style="width: 5%; border: none;">XXX</td> <td style="width: 40%; border: none;"></td> <td style="width: 5%; border: none;"></td> </tr> <tr> <td style="border: none;">Revenue</td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;">XXX</td> </tr> </table>	Unearned Revenue	XXX			Revenue			XXX
Cash	XXX																		
Unearned Revenue	XXX																		
Unearned Revenue	XXX																		
Revenue			XXX																
PREPAID EXPENSE																			
Initial Recording		End-of-Period Adjustment																	
Transaction	Journal Entry	Adjustment Data	Adjusting Entry*																
Cash has been paid for a future expense.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Prepaid Expense</td> <td style="width: 5%; border: none;">XXX</td> <td style="width: 45%; border: none;"></td> <td style="width: 5%; border: none;"></td> </tr> <tr> <td style="border: none;">Cash</td> <td style="border: none;">XXX</td> <td style="border: none;"></td> <td style="border: none;"></td> </tr> </table>	Prepaid Expense	XXX			Cash	XXX			Prepaid expense has been used to generate revenue.	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Expense</td> <td style="width: 5%; border: none;">XXX</td> <td style="width: 40%; border: none;"></td> <td style="width: 5%; border: none;"></td> </tr> <tr> <td style="border: none;">Prepaid Expense</td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;">XXX</td> </tr> </table>	Expense	XXX			Prepaid Expense			XXX
Prepaid Expense	XXX																		
Cash	XXX																		
Expense	XXX																		
Prepaid Expense			XXX																

Exhibit 2
Deferrals

* An adjusting entry will always involve a revenue or an expense account and an asset or a liability account.

Objective 2

Prepare adjusting entries for accruals.

Adjusting Entries for Accruals

To illustrate adjusting entries, the December 31, 20Y3, unadjusted trial balance of NetSolutions, shown in Exhibit 3, is used.

Exhibit 3

Unadjusted Trial Balance for NetSolutions

NetSolutions Unadjusted Trial Balance December 31, 20Y3			
	Account No.	Debit Balances	Credit Balances
Cash	11	2,065	
Accounts Receivable	12	2,220	
Supplies	14	2,000	
Prepaid Insurance	15	2,400	
Land	17	20,000	
Office Equipment	18	1,800	
Accounts Payable	21		900
Unearned Rent	23		360
Common Stock	31		25,000
Dividends	33	4,000	
Fees Earned	41		16,340
Wages Expense	51	4,275	
Supplies Expense	52	800	
Rent Expense	53	1,600	
Utilities Expense	54	985	
Miscellaneous Expense	59	455	
		42,600	42,600

An expanded chart of accounts for NetSolutions is shown in Exhibit 4. The additional accounts used in this chapter are highlighted. The rules of debit and credit shown in Exhibit 3 of Chapter 2 are used to record the adjusting entries.

Exhibit 4

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 Supplies Expense
18 Office Equipment	53 Rent Expense
19 Accumulated Depreciation—Office Equipment	54 Utilities Expense
2. Liabilities	55 Insurance Expense
21 Accounts Payable	56 Depreciation Expense
22 Wages Payable	59 Miscellaneous Expense
23 Unearned Rent	
3. Stockholders' Equity	
31 Common Stock	
32 Retained Earnings	
33 Dividends	

Accrued Revenues

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

To illustrate, assume that **NetSolutions** signed an agreement with Dankner Co. on December 15. The agreement provides that NetSolutions will answer computer questions and render assistance to Dankner Co.'s employees. The services 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. The revenue of \$500 (25 hours × \$20) will be billed on January 15. However, NetSolutions earned the revenue in December.

The claim against the customer for payment of the \$500 is an account receivable (*an asset*). Thus, the accounts receivable account is increased (debited) by \$500, and the fees earned account is increased (credited) by \$500. The adjusting journal entry and T accounts are as follows:

Dec. 31	Accounts Receivable	12	500	
	Fees Earned	41		500
	Accrued fees (25 hrs. × \$20).			

Adjusting Journal Entry

Assets		=	Liabilities	+	Stockholders' Equity (Revenue)	
Accounts Receivable 12					Fees Earned 41	
Bal.	2,220				Bal.	16,340
Dec. 31	500				Dec. 31	500
Adj. Bal.	2,720				Adj. Bal.	16,840

Accounting Equation Impact

The adjusting entry is highlighted in the T accounts to separate it from other transactions. After the adjusting entry is posted, Accounts Receivable has a balance of \$2,720 and Fees Earned has a balance of \$16,840.

If the adjustment for the accrued revenue (\$500) is not recorded, Fees Earned and the net income will be understated by \$500 on the income statement. On the balance sheet, assets (Accounts Receivable) and stockholders' equity (Retained Earnings) will be understated by \$500. The effects of omitting this adjusting entry are as follows:

	Amount of Misstatement
Income Statement	
Revenues understated by	\$ (500)
Expenses correctly stated	XXX
Net income understated by	<u>\$ (500)</u>
Balance Sheet	
Assets understated by	<u>\$ (500)</u>
Liabilities correctly stated	\$ XXX
Stockholders' equity understated by	<u>(500)</u>
Total liabilities and stockholders' equity understated by	<u>\$ (500)</u>

Pandora's accrued revenues from advertising are recorded in its accounts receivable at the end of the year.

[Link to Pandora](#)

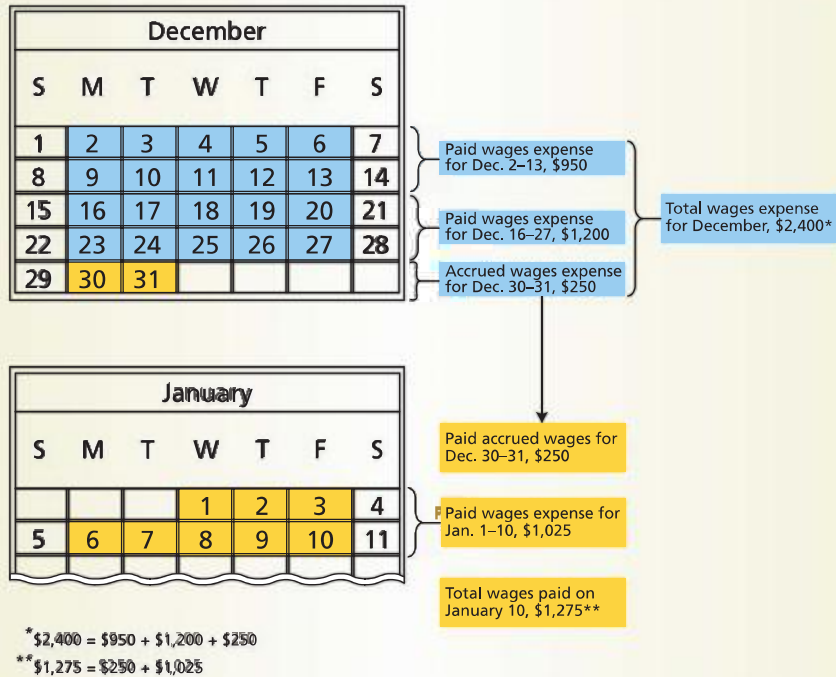
Accrued Expenses

Some types of services used in earning revenues are paid for *after* the service has been performed. For example, wages expense is used hour by hour but is paid only daily, weekly, biweekly, or monthly. At the end of the accounting period, the amount of such *accrued* but unpaid items is an expense and a liability.

For example, if the last day of the employees' pay period is not the last day of the accounting period, an accrued expense (wages expense) and the related liability (wages payable) must be recorded by an adjusting entry. This adjusting entry is necessary so that expenses are properly matched to the period in which they were incurred in earning revenue.

To illustrate, **NetSolutions** pays its employees biweekly. During December, NetSolutions paid wages of \$950 on December 13 and \$1,200 on December 27. These payments covered pay periods ending on those days as shown in Exhibit 5.

Exhibit 5
Accrued Wages



As of December 31, NetSolutions owes \$250 of wages to employees for Monday and Tuesday, December 30 and 31. Thus, the wages expense account is increased (debited) by \$250, and the wages payable account is increased (credited) by \$250. The adjusting journal entry and T accounts are as follows:

Adjusting Journal Entry

Dec. 31	Wages Expense	51	250	
	Wages Payable	22		250
	Accrued wages.			

Accounting Equation Impact

Assets	=	Liabilities	+	Stockholders' Equity (Expense)
		Wages Payable		Wages Expense
		22		51
		Dec. 31 250	←	Bal. 4,275
				Dec. 31 250
				Adj. Bal. 4,525

After the adjusting entry is posted, the debit balance of the wages expense account is \$4,525. This balance of \$4,525 is the wages expense for two months, November and December. The credit balance of \$250 in Wages Payable is the liability for wages owed on December 31.

As shown in Exhibit 5, NetSolutions paid wages of \$1,275 on January 10. This payment includes the \$250 of accrued wages recorded on December 31. Thus, on January 10, the wages payable account is decreased (debited) by \$250. Also, the wages expense account is increased (debited) by \$1,025 (\$1,275 - \$250), which is the wages expense for January 1-10. Finally, the cash account is decreased (credited) by \$1,275. The journal entry for the payment of wages on January 10 follows:³

Jan. 10	Wages Expense	51	1,025	
	Wages Payable	22	250	
	Cash	11		1,275

³To simplify the subsequent recording of the following period's transactions, some accountants use what is known as reversing entries for certain types of adjustments. Reversing entries are discussed and illustrated in an appendix to Chapter 4.

If the adjustment for wages (\$250) is not recorded, Wages Expense will be understated by \$250, and the net income will be overstated by \$250 on the income statement. On the balance sheet, liabilities (Wages Payable) will be understated by \$250, and stockholders' equity (Retained Earnings) will be overstated by \$250. The effects of omitting this adjusting entry are as follows:

	Amount of Misstatement
Income Statement	
Revenues correctly stated	\$ XXX
Expenses understated by	(250)
Net income overstated by	<u>\$ 250</u>
Balance Sheet	
Assets correctly stated	<u>\$ XXX</u>
Liabilities understated by	\$ (250)
Stockholders' equity overstated by	250
Total liabilities and stockholders' equity correctly stated	<u>\$ XXX</u>

In a recent balance sheet, **Pandora** reported accrued royalties payable of \$94 million, which it pays to owners of the music it plays.

[Link to Pandora](#)

Check Up Corner 3-1 Adjusting Entries for Accruals

The following data were accumulated for preparing the adjusting entries for the Atlanta Rhythm Company:

- At the end of the year, \$13,680 of fees have been earned, but have not been billed to clients.
- Wages of \$12,500 are paid on Friday for a five-day workweek. The accounting period ends on Thursday, December 31.

Journalize the adjusting entries necessary on December 31, the end of the accounting period.

Solution:

An accrual occurs when revenue has been earned or an expense has been incurred, but has not been recorded.

Adjusting entries are made at the end of the accounting period.

If the accrual is for revenue, the adjusting entry debits an asset.

$\$12,500 \div 5 \text{ work days} = \$2,500 \text{ wages per day}$
 Monday through Thursday = 4 work days
 $\$2,500 \times 4 \text{ days} = \$10,000 \text{ accrued wages on Dec. 31}$

Date	Description	Debit	Credit
Dec. 31	Accounts Receivable	13,680	
	Fees Earned		13,680
31	Wages Expense	10,000	
	Wages Payable		10,000

If the accrual is for an expense, the adjusting entry credits a liability.

Check Up Corner

Objective 3

Prepare adjusting entries for deferrals.

Adjusting Entries for Deferrals

The unadjusted trial balance for **NetSolutions** in Exhibit 3 indicates Unearned Rent of \$360. In addition, Exhibit 3 indicates that NetSolutions has prepaid assets consisting of Supplies of \$2,000 and Prepaid Insurance of \$2,400. Each of these deferrals requires an adjusting entry.

Unearned Revenues

The December 31 unadjusted trial balance of **NetSolutions** indicates a balance in the unearned rent account of \$360. This balance represents the receipt of three months' rent on December 1 for December, January, and February. At the end of December, one month's rent has been earned. Thus, the unearned rent account is decreased (debited) by \$120, and the rent revenue account is increased (credited) by \$120. The \$120 represents the rental revenue for one month ($\$360 \div 3$). The adjusting journal entry and T accounts are as follows:

Adjusting Journal Entry

Dec. 31	Unearned Rent	23	120	
	Rent Revenue	42		120
	Rent earned ($\$360 \div 3$ months).			

Accounting Equation Impact

Assets		=	Liabilities		+	Stockholders' Equity (Revenue)	
			Unearned Rent	23		Rent Revenue	42
Dec. 31	120		Bal.	360		Dec. 31	120
			Adj. Bal.	240			

After the adjusting entry is posted, the unearned rent account has a credit balance of \$240. This balance is a liability that will become revenue in a future period. Rent Revenue has a balance of \$120, which is revenue of the current period.⁴

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, liabilities (Unearned Rent) will be overstated by \$120, and stockholders' equity (Retained Earnings) will be understated by \$120. The effects of omitting this adjusting entry are as follows:

	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
Stockholders' equity understated by	(120)
Total liabilities and stockholders' equity correctly stated	XXX

⁴ An alternative treatment of recording revenues received in advance of their being earned is discussed in an appendix that can be downloaded from the book's companion website (www.cengagebrain.com).

Why It Matters

Earning Revenues from Season Tickets

Madison Square Garden Company (MSG) owns the New York Knicks basketball team and the New York Rangers hockey team. The company sells

season tickets prior to the season. The amounts received for season tickets are recognized as unearned revenue, a current liability. MSG recognizes revenue and reduces unearned revenue as the games are played through the season.

Link to Pandora

In a recent balance sheet, **Pandora** reported prepaid expenses and other current assets of \$33 million.

Prepaid Insurance The debit balance of \$2,400 in **NetSolutions'** prepaid insurance account represents a December 1 prepayment of insurance for 12 months. At the end of December, the insurance expense account is increased (debited), and the prepaid insurance account is decreased (credited) by \$200, the insurance for one month. The adjusting journal entry and T accounts for Prepaid Insurance and Insurance Expense are as follows:

Adjusting Journal Entry

Dec. 31	Insurance Expense	55	200	
	Prepaid Insurance	15		200
	Insurance expired (\$2,400 ÷ 12).			

Accounting Equation Impact

Assets		=	Liabilities	+	Stockholders' Equity (Expense)
	Prepaid Insurance 15				Insurance Expense 55
Bal.	2,400	Dec. 31	200	Dec. 31	200
Adj. Bal.	2,200				

After the adjusting entry is recorded and posted, the prepaid insurance account has a debit balance of \$2,200. This balance is an asset that will become an expense in future periods. The insurance expense account has a debit balance of \$200, which is an expense of the current period.

If the preceding adjustments for supplies (\$1,240) and insurance (\$200) 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 \$1,440 (\$1,240 + \$200), and net income will be overstated by \$1,440. On the balance sheet, Supplies and Prepaid Insurance will be overstated by a total of \$1,440. Because net income increases retained earnings, stockholders' equity will also be overstated by \$1,440 on the balance sheet. The effects of omitting these adjusting entries on the income statement and balance sheet are as follows:

	Amount of Misstatement
Income Statement	
Revenues correctly stated	\$ XXX
Expenses understated by	(1,440)
Net income overstated by	<u>\$1,440</u>
Balance Sheet	
Assets overstated by	<u>\$1,440</u>
Liabilities correctly stated	\$ XXX
Stockholders' equity overstated by	<u>1,440</u>
Total liabilities and stockholders' equity overstated by	<u>\$1,440</u>

Free Issue

Office supplies are often available to employees on a "free issue" basis. This means that employees do not have to "sign" for the release of office supplies but

merely obtain the necessary supplies from a local storage area as needed. Just because supplies are easily available, however, doesn't mean they can be taken for personal use. There are many instances where employees have been terminated for taking supplies home for personal use.

Payments for prepaid expenses are sometimes made at the beginning of the period in which they will be *entirely used or consumed*. To illustrate, the following December 1 transaction of NetSolutions is used:

Dec. 1 NetSolutions paid rent of \$800 for the month.

On December 1, the rent payment of \$800 represents Prepaid Rent. However, the Prepaid Rent expires daily, and at the end of December there will be no asset left. In such cases, the payment of \$800 is recorded as Rent Expense rather than as Prepaid Rent. In this way, no adjusting entry is needed at the end of the period.⁵

Check Up Corner 3-2 Adjusting Entries for Deferrals

Selected unadjusted account balances for Atlanta Rhythm Company on December 31 are as follows:

	Debit Balances	Credit Balances
Supplies	\$ 2,700	
Prepaid Insurance	12,000	
Unearned Fees		\$44,900

The following adjustment data were accumulated on December 31:

- Supplies on hand at December 31, \$1,100.
- Insurance premiums expired during the year, \$10,000.
- Unearned fees on December 31, \$15,600.

Journalize the adjusting entries necessary on December 31.

Solution:

A deferral occurs when cash has been received for a future revenue, or cash has been paid for a future expense.

Adjusting entries are made at the end of the accounting period.

If the deferral is for an expense, the adjusting entry credits an asset.

Date	Description	Debit	Credit
Dec. 31	Supplies Expense	1,600	
	Supplies		1,600
31	Insurance Expense	10,000	
	Prepaid Insurance		10,000
31	Unearned Fees	29,300	
	Fees Earned		29,300

\$2,700 unadjusted supplies balance
– \$1,100 supplies on hand at year-end.

If the deferral is for a revenue, the adjusting entry debits a liability.

\$44,900 unadjusted unearned fees balance
– \$15,600 unearned fees at year-end.

Check Up Corner

⁵ An alternative treatment of recording the cost of supplies, rent, and other prepayments of expenses is discussed in an appendix that can be downloaded from the book's companion website (www.cengagebrain.com).

Objective 4

Prepare adjusting entries for depreciation.

Adjusting Entries for Depreciation

Fixed assets, or **plant assets**, are physical resources that are owned and used by a business and are permanent or have a long life. Examples of fixed assets include land, buildings, and equipment. In a sense, fixed assets are a type of *long-term* prepaid expense. However, because of their unique nature and long life, they are discussed separately from other prepaid expenses.

Fixed assets, such as office equipment, are used to generate revenue 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 and, thus, are said to **depreciate**. As a fixed asset depreciates, a portion of its cost should be recorded as an expense. This periodic expense is called **depreciation expense**.

The adjusting entry to record depreciation expense is similar to the adjusting entry for supplies used. The depreciation expense account is increased (debited) for the amount of depreciation. However, the fixed asset account is not decreased (credited). This is because both the original cost of a fixed asset and the depreciation recorded since its purchase are reported on the balance sheet. Instead, an account entitled **Accumulated Depreciation** is increased (credited).

Accumulated depreciation accounts are called **contra accounts**, or **contra asset accounts**. This is because accumulated depreciation accounts are deducted from their related fixed asset accounts on the balance sheet. The normal balance of a contra account is opposite to the account from which it is deducted. Because the normal balance of a fixed asset account is a debit, the normal balance of an accumulated depreciation account is a credit.

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

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

The December 31, 20Y3, unadjusted trial balance of **NetSolutions** (Exhibit 3) indicates that NetSolutions owns two fixed assets: land and office equipment. Land does not depreciate; however, an adjusting entry is recorded for the depreciation of the office equipment for December. Assume that the office equipment depreciates \$50 during December. The depreciation expense account is increased (debited) by \$50, and the accumulated depreciation—office equipment account is increased (credited) by \$50.⁶ The adjusting journal entry and T accounts are as follows:

Adjusting Journal Entry

Dec. 31	Depreciation Expense	56	50	
	Accumulated Depreciation—Office Equip.	19		50
	Depreciation on office equipment.			

Accounting Equation Impact

Assets		=	Liabilities	+	Stockholders' Equity (Expense)
Office Equipment	18				Depreciation Expense 56
Bal.	1,800				Dec. 31 50
Accumulated Depr.—Office Equip.	19				
	Dec. 31 50				

⁶ Methods of computing depreciation expense are described and illustrated in Chapter 9.

After the adjusting journal entry is recorded and posted, the office equipment account still has a debit balance of \$1,800. This is the original cost of the office equipment that was purchased on December 4. The accumulated depreciation—office equipment account has a credit balance of \$50. The difference between these two balances is the cost of the office equipment that has not yet been depreciated. This amount, called the **book value of the asset** (or **net book value**), is computed as follows:

$$\begin{aligned} \text{Book Value of Asset} &= \text{Cost of Asset} - \text{Accumulated Depreciation of Asset} \\ \text{Book Value of Office Equipment} &= \text{Cost of Office Equipment} - \text{Accumulated Depr. of Office Equipment} \\ &= \$1,800 - \$50 \\ &= \$1,750 \end{aligned}$$

The office equipment and its related accumulated depreciation are reported on the December 31, 20Y3, balance sheet as follows:

Office equipment	\$1,800	
Accumulated depreciation	<u>(50)</u>	\$1,750

In a recent balance sheet, **Pandora** reported property, plant, and equipment of \$213 million, accumulated depreciation of \$89 million, and a net book value of \$124 million.

[Link to Pandora](#)

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 measure changes in market values, which vary from year to year. Thus, on December 31, 20Y3, the market value of NetSolutions' office equipment could be more or less than \$1,750.

If the 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, assets (the book value of Office Equipment) and stockholders' equity (Retained Earnings) will be overstated by \$50. The effects of omitting the adjustment for depreciation are as follows:

	Amount of Misstatement
Income Statement	
Revenues correctly stated	\$ XX
Expenses understated by	(50)
Net income overstated by	<u>\$ 50</u>
Balance Sheet	
Assets overstated by	<u>\$ 50</u>
Liabilities correctly stated	\$ XX
Stockholders' equity overstated by	<u>50</u>
Total liabilities and stockholders' equity overstated by	<u>\$ 50</u>

Check Up Corner 3-3 Depreciation

Selected account balances for Atlanta Rhythm Company on December 31 are as follows:

	Debit Balances	Credit Balances
Equipment	\$40,000	
Accumulated Depreciation—Equipment		\$12,000

Depreciation on equipment during the year is \$4,000.

- Journalize the adjusting entry necessary for depreciation on December 31.
- Compute the book value of the equipment that will be reported on the balance sheet.

Solution:

- Adjusting entries are made at the end of the accounting period.

The debit to Depreciation Expense reflects the portion of the asset's cost that is allocated to expense during the period.

The credit to Accumulated Depreciation—Equipment increases its account balance, which is reported on the balance sheet as a contra account to Equipment.

Date	Description	Debit	Credit
Dec. 31	Depreciation Expense Accum. Depr.—Equipment	4,000	4,000

- $$\begin{aligned} \text{Book Value of Equipment} &= \text{Cost of Equipment} - \text{Accumulated Depreciation of Equipment} \\ &= \$40,000 - \$12,000 - \$4,000 \\ &= \$40,000 - \$16,000 \\ &= \$24,000 \end{aligned}$$

Check Up Corner

Objective 5

Summarize the adjusting process.

Summary of Adjusting Process

A summary of the basic types of adjusting entries is shown in Exhibit 6. The adjusting entries for **NetSolutions** are shown in Exhibit 7. The adjusting entries are dated as of the last day of the period. However, because collecting the adjustment data requires time, the entries are usually recorded at a later date. An explanation is normally included with each adjusting entry.

Why It Matters

Microsoft's Deferred Revenues

Microsoft Corporation (MSFT) develops, manufactures, licenses, and supports a wide range of computer software products, including Windows® operating systems, Word®, Excel®, and the Xbox® gaming system. When Microsoft sells its products, it incurs an obligation to support its software with technical support and periodic updates. As a result, not all the revenue is earned on the date of sale; some of the revenue on the date of sale is unearned. The portion of revenue

related to support services, such as updates and technical support, is earned as time passes and support is provided to customers. Thus, each year Microsoft makes adjusting entries transferring some of its unearned revenue to revenue. The following excerpts were taken from recent financial statements of Microsoft:

	Year 2	Year 1
Unearned revenue (in millions)	\$33,909	\$25,318

The Year 2 balance is equal to 40% of Year 2 revenues, indicating the significant impact of unearned revenue to Microsoft's operating results. During Year 3, Microsoft expects to recognize \$27,468 of revenue from the \$33,909 of unearned revenue. At the same time, Microsoft will record additional unearned revenue from Year 3 sales.

Exhibit 6 Summary of Adjustments

ACCRUED REVENUES							
Examples	Reason for Adjustment	Adjusting Entry		Examples from NetSolutions		Financial Statement Impact if Adjusting Entry Is Omitted	
Services performed but not billed, interest to be received	Services have been provided to the customer, but have not been billed or recorded. Interest has been earned, but has not been received or recorded.	Asset Revenue	Dr. Cr.	Accounts Receivable Fees Earned	500 500	Income Statement: Revenues Expenses Net income Balance Sheet: Assets Liabilities Stockholders' equity (Retained earnings)	Understated No effect Understated Understated No effect Understated
ACCRUED EXPENSES							
Wages or salaries incurred but not paid, interest incurred but not paid	Expenses have been incurred, but have not been paid or recorded.	Expense Liability	Dr. Cr.	Wages Expense Wages Payable	250 250	Income Statement: Revenues Expenses Net income Balance Sheet: Assets Liabilities Stockholders' equity (Retained earnings)	No effect Understated Overstated No effect Understated Overstated
UNEARNED REVENUES							
Unearned rent, magazine subscriptions received in advance, fees received in advance of services	Cash received before the services have been provided is recorded as a liability. Some services have been provided to the customer before the end of the accounting period.	Liability Revenue	Dr. Cr.	Unearned Rent Rent Revenue	120 120	Income Statement: Revenues Expenses Net income Balance Sheet: Assets Liabilities Stockholders' equity (Retained earnings)	Understated No effect Understated No effect Overstated Understated
PREPAID EXPENSES							
Supplies, prepaid insurance	Prepaid expenses (assets) have been used or consumed in the business operations.	Expense Asset	Dr. Cr.	Supplies Expense Supplies Insurance Expense Prepaid Insurance	1,240 1,240 200 200	Income Statement: Revenues Expenses Net income Balance Sheet: Assets Liabilities Stockholders' equity (Retained earnings)	No effect Understated Overstated Overstated No effect Overstated
DEPRECIATION							
Depreciation of equipment and buildings	Fixed assets depreciate as they are used or consumed in the business operations.	Expense Contra Asset	Dr. Cr.	Depreciation Expense Accum. Depreciation— Office Equipment	50 50	Income Statement: Revenues Expenses Net income Balance Sheet: Assets Liabilities Stockholders' equity (Retained earnings)	No effect Understated Overstated Overstated No effect Overstated

Exhibit 7
Adjusting Entries—
NetSolutions

		Journal			Page 5
Date		Description	Post. Ref.	Debit	Credit
Adjusting Entries					
^{20Y3} Dec. 31		Accounts Receivable	12	500	
		Fees Earned	41		500
		Accrued fees (25 hrs. × \$20).			
31		Wages Expense	51	250	
		Wages Payable	22		250
		Accrued wages.			
31		Unearned Rent	23	120	
		Rent Revenue	42		120
		Rent earned (\$360 ÷ 3 months).			
31		Supplies Expense	52	1,240	
		Supplies	14		1,240
		Supplies used (\$2,000 – \$760).			
31		Insurance Expense	55	200	
		Prepaid Insurance	15		200
		Insurance expired (\$2,400 ÷ 12 months).			
31		Depreciation Expense	56	50	
		Accum. Depreciation—Office Equipment	19		50
		Depreciation on office equipment.			

NetSolutions' adjusting entries are posted to the ledger shown in Exhibit 8. The adjustments are highlighted in Exhibit 8 to distinguish them from other transactions.

Exhibit 8 Ledger with Adjusting Entries—NetSolutions

Account Cash			Account No. 11			
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
^{20Y3} 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	Credit
^{20Y3} 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	Credit
^{20Y3} Nov. 10		1	1,350		1,350	
30		1		800	550	
Dec. 23		3	1,450		2,000	
31	Adjusting	5		1,240	760	

Exhibit 8 Ledger with Adjusting Entries—NetSolutions (Continued)

Account Prepaid Insurance						Account No. 15	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Dec. 1		2	2,400		2,400		
31	Adjusting	5		200	2,200		

Account Unearned Rent						Account No. 23	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Dec. 1		2		360		360	
31	Adjusting	5	120				240

Account Land						Account No. 17	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Nov. 5		1	20,000		20,000		

Account Common Stock						Account No. 31	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Nov. 1		1		25,000		25,000	

Account Office Equipment						Account No. 18	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Dec. 4		2	1,800		1,800		

Account Dividends						Account No. 33	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Nov. 30		2	2,000			2,000	
Dec. 31		4	2,000				4,000

Account Accum. Depr.—Office Equip.						Account No. 19	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Dec. 31	Adjusting	5		50		50	

Account Fees Earned						Account No. 41	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
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 Accounts Payable						Account No. 21	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
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 Rent Revenue						Account No. 42	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Dec. 31	Adjusting	5		120			120

Account Wages Payable						Account No. 22	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
Dec. 31	Adjusting	5		250		250	

Account Wages Expense						Account No. 51	
Date	Item	Post. Ref.	Debit	Credit	Balance		
					Debit	Credit	
20Y3							
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

(Continued)

Exhibit 8 Ledger with Adjusting Entries—NetSolutions (Concluded)

Account <i>Supplies Expense</i>					Account No. 52	
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
20Y3						
Nov.30		1	800		800	
Dec.31	Adjusting	5	1,240		2,040	

Account <i>Insurance Expense</i>					Account No. 55	
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
20Y3						
Dec.31	Adjusting	5	200		200	

Account <i>Rent Expense</i>					Account No. 53	
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
20Y3						
Nov.30		1	800		800	
Dec. 1		2	800		1,600	

Account <i>Depreciation Expense</i>					Account No. 56	
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
20Y3						
Dec. 31	Adjusting	5	50		50	

Account <i>Utilities Expense</i>					Account No. 54	
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
20Y3						
Nov.30		1	450		450	
Dec.31		3	310		760	
31		4	225		985	

Account <i>Miscellaneous Expense</i>					Account No. 59	
Date	Item	Post. Ref.	Debit	Credit	Balance	
					Debit	Credit
20Y3						
Nov.30		1	275		275	
Dec. 6		2	180		455	

Objective 6
Prepare an adjusted trial balance.

Adjusted Trial Balance

After the adjusting entries are posted, an **adjusted trial balance** is prepared. The adjusted trial balance verifies the equality of the total debit and credit balances before the financial statements are prepared. If the adjusted trial balance does not balance, an error has occurred. However, as discussed in Chapter 2, errors may occur even though the adjusted trial balance totals agree. For example, if an adjusting entry were omitted, the adjusted trial balance totals would still agree.

Exhibit 9 shows the adjusted trial balance for **NetSolutions** as of December 31, 20Y3. Chapter 4 discusses how financial statements, including a classified balance sheet, are prepared from an adjusted trial balance.

Pathways Challenge



This is Accounting!

Economic Activity

Delta Air Lines (DAL) offers air transportation service to 323 destinations in 57 countries and serves more than 180 million passengers each year. In an effort to retain and increase passenger loyalty, Delta encourages its passengers to join its SkyMiles (frequent flyer) program. Passengers earn mileage credits for award travel as well as earn “elite” status that includes early boarding and free checked baggage. SkyMiles credits never expire.

Assume that during December 20Y6 you flew on Delta Air Lines using a ticket you purchased for \$1,000 that earned 2,000 mileage credits that you plan to use in 20Y7.

Critical Thinking/Judgment

- Should Delta record \$1,000 as revenue for 20Y6?
- How should Delta account for the 2,000 mileage credits?
- Can you think of an adjusting entry related to the 2,000 mileage credits for the year ending December 31, 20Y6, that Delta might have to record?

Suggested answer at end of chapter.

Exhibit 9
Adjusted Trial Balance

NetSolutions
Adjusted Trial Balance
December 31, 20Y3

	Account No.	Debit Balances	Credit Balances
Cash	11	2,065	
Accounts Receivable.....	12	2,720	
Supplies	14	760	
Prepaid Insurance	15	2,200	
Land	17	20,000	
Office Equipment	18	1,800	
Accumulated Depreciation—Office Equipment.....	19		50
Accounts Payable	21		900
Wages Payable	22		250
Unearned Rent.....	23		240
Common Stock	31		25,000
Dividends	33	4,000	
Fees Earned.....	41		16,840
Rent Revenue.....	42		120
Wages Expense	51	4,525	
Supplies Expense.....	52	2,040	
Rent Expense	53	1,600	
Utilities Expense	54	985	
Insurance Expense	55	200	
Depreciation Expense	56	50	
Miscellaneous Expense	59	455	
		<u>43,400</u>	<u>43,400</u>

Analysis for Decision Making

Vertical Analysis

Comparing each item on a financial statement with a total amount from the same statement is useful in analyzing relationships within the 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 stockholders' equity item is stated as a percent of total liabilities and stockholders' equity. In vertical analysis of an income statement, each item is stated as a percent of revenues or fees earned.

Vertical analysis is also useful for analyzing changes in financial statements over time. To illustrate, a vertical analysis of two years of income statements for J. Holmes, Attorney-at-Law, follows:

Objective 7

Describe and illustrate the use of vertical analysis in evaluating a company's performance and financial condition.

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

	20Y7		20Y6	
	Amount	Percent*	Amount	Percent*
Fees earned	\$ 187,500	100.0%	\$ 150,000	100.0%
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 expenses.....	\$ (92,500)	(49.3)%	\$ (70,800)	(47.2)%
Net income.....	\$ 95,000	50.7%	\$ 79,200	52.8%

*Rounded to one decimal place

The preceding vertical analysis indicates both favorable and unfavorable changes affecting the income statement of J. Holmes, Attorney-at-Law. The increase in wages expense of 2% (32.0% – 30.0%) is an unfavorable change, as is the increase in utilities expense of 0.7% (6.7% – 6.0%). A favorable change 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 constant. The net result of these changes is 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. Such averages are published by trade associations and financial information services. Any major differences between industry averages should be investigated.

Make a Decision

Vertical Analysis

**Analyze Amazon.com (MAD 3-1)
(Continuing company analysis)**

Analyze Pandora Media (MAD 3-2)

Analyze World Wrestling Entertainment (MAD 3-3)

Analyze Chipotle Mexican Grill (MAD 3-4)

Analyze Nike (MAD 3-5)

Analyze and compare AT&T and Verizon Communications (MAD 3-6)

Make a Decision

Let's Review

Chapter Summary

1. The accrual basis of accounting requires that revenues are reported in the period in which they are earned and expenses are matched with the revenues they generate. The updating of accounts at the end of the accounting period is called the adjusting process. Each adjusting entry affects an income statement and balance sheet account. The two general classifications for accounts requiring adjustment are accruals and deferrals. Accruals include accrued revenues and accrued expenses. Deferrals include unearned revenues and prepaid expenses.
2. Adjusting entries for accruals include accrued revenues and expenses. The adjusting entry for an accrued revenue debits Accounts Receivable and credits a revenue account such as Fees Earned. The adjusting entry for an accrued expense debits an expense account such as Wages Expense and credits a liability account such as Wages Payable.
3. Adjusting entries for deferrals include unearned revenues and prepaid expenses. The adjusting entry for an unearned revenue debits an unearned revenue account such as Unearned Rent and credits a revenue account such as Rent Revenue. The adjusting entry for an accrued expense debits an expense account such as Wages Expense and credits a liability account such as Wages Payable.
4. The adjusting entry for depreciation of a fixed asset debits Depreciation Expense and credits a contra asset account, Accumulated Depreciation. The book value of a fixed asset equals its cost less its accumulated depreciation. Land is a fixed asset that does not depreciate.

5. A summary of adjustments, including the type of adjustment, reason for the adjustment, the adjusting entry, and the effect of omitting an adjustment on the financial statements, is shown in Exhibit 6.
6. After all of the adjusting entries have been posted, the equality of the total debit balances and the total credit balances is verified by an adjusted trial balance.
7. Vertical analysis compares each item on a financial statement with a total amount from the same

statement. It is useful in analyzing relationships within the financial statement. In vertical analysis of a balance sheet, each asset item is stated as a percent of the total assets. Each liability and stockholders' equity item is stated as a percent of total liabilities and stockholders' equity. In vertical analysis of an income statement, each item is stated as a percent of total revenues or fees earned.

Key Terms

accrual (113)	cash basis of accounting (111)	fixed assets (or plant assets) (122)
accrual basis of accounting (111)	contra accounts (or contra asset accounts) (122)	matching principle (112)
Accumulated Depreciation (122)	deferral (113)	prepaid expense (113)
adjusted trial balance (128)	depreciate (122)	revenue recognition principle (112)
adjusting entries (113)	depreciation (122)	unearned revenue (113)
adjusting process (112)	depreciation expense (122)	vertical analysis (129)
book value of the asset (or net book value) (123)	expense recognition principle (112)	

Practice

Multiple-Choice Questions

1. Which of the following items represents a deferral?
 - a. Prepaid insurance
 - b. Wages payable
 - c. Fees earned
 - d. Accumulated depreciation
2. 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 would be:
 - 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.
3. 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.
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 adjusting entry for accrued wages of \$7,500 was omitted, the adjusted trial balance totals would be:
- | | |
|--|--|
| a. unequal, the debit total would exceed the credit total by \$7,500. | c. unequal, the credit total would exceed the credit total by \$7,500. |
| b. unequal, the debit total would exceed the credit total by \$15,000. | d. equal, assuming no other errors or omissions. |

Answers provided after Problem. Need more practice? Find additional multiple-choice questions, exercises, and problems in CengageNOWv2.

Exercises

1. Accounts requiring adjustment

Obj. 1, 2, 3

Indicate with a Yes or No whether or not each of the following accounts normally requires an adjusting entry:

- | | | |
|-----------------------------|---------------------|------------------|
| a. Accumulated Depreciation | c. Land | e. Supplies |
| b. Dividends | d. Salaries Payable | f. Unearned Rent |

2. Type of adjustment

Obj. 1, 2, 3

Classify the following items as (1) accrued revenue, (2) accrued expenses, (3) unearned revenue, or (4) prepaid expense:

- | | |
|--|---|
| a. Cash received for services not yet rendered | c. Rent revenue earned but not received |
| b. Insurance paid for the next year | d. Salaries owed but not yet paid |

3. Adjustment for accrued revenues

Obj. 2

At the end of the current year, \$23,570 of fees have been earned but have not been billed to clients. Journalize the adjusting entry to record the accrued fees.

4. Adjustment for accrued expense

Obj. 2

We-Sell Realty Co. pays weekly salaries of \$11,800 on Friday for a five-day workweek ending on that day. Journalize the necessary adjusting entry at the end of the accounting period, assuming that the period ends on Wednesday.

5. Adjustment for unearned revenue

Obj. 3

The balance in the unearned fees account, before adjustment at the end of the year, is \$272,500. Journalize the adjusting entry required, assuming the amount of unearned fees at the end of the year is \$189,750.

6. Adjustment for prepaid expense

Obj. 3

The supplies account had a beginning balance of \$3,375 and was debited for \$6,450 for supplies purchased during the year. Journalize the adjusting entry required at the end of the year, assuming the amount of supplies on hand is \$2,980.

7. Adjustment for depreciation

Obj. 4

The estimated amount of depreciation on equipment for the current year is \$6,880. Journalize the adjusting entry to record the depreciation.

8. Effect of omitting adjustments**Obj. 5**

For the year ending August 31, Mammalia Medical Co. mistakenly omitted adjusting entries for (1) depreciation of \$5,800, (2) fees earned that were not billed of \$44,500, and (3) accrued wages of \$7,300. Indicate the combined effect of the errors on (a) revenues, (b) expenses, and (c) net income for the year ended August 31.

9. Effect of errors on adjusted trial balance**Obj. 6**

For each of the following errors, considered individually, indicate whether the error would cause the adjusted trial balance totals to be unequal. If the error would cause the adjusted trial balance totals to be unequal, indicate whether the debit or credit total is higher and by how much.

- The adjustment of \$9,800 for accrued fees earned was journalized as a debit to Accounts Receivable for \$9,800 and a credit to Fees Earned for \$8,900.
- The adjustment of depreciation of \$3,600 was omitted from the end-of-period adjusting entries.

10. Vertical analysis**Obj. 7**

Two income statements for Hemlock Company follow:

Hemlock Company		
Income Statements		
For the Years Ended December 31		
	20Y5	20Y4
Fees earned	\$ 725,000	\$ 615,000
Expenses	<u>(432,875)</u>	<u>(356,700)</u>
Net income	<u>\$ 290,000</u>	<u>\$ 258,300</u>

- Prepare a vertical analysis of Hemlock Company's income statements.
- Does the vertical analysis indicate a favorable or an unfavorable change?

Answers provided after Problem. Need more practice? Find additional multiple-choice questions, exercises, and problems in CengageNOWv2.

Problem

Three years ago, T. Roderick organized Harbor Realty. At July 31, 20Y2, the end of the current year, the unadjusted trial balance of Harbor Realty follows:

Harbor Realty		
Unadjusted Trial Balance		
July 31, 20Y2		
	Debit	Credit
	Balances	Balances
Cash	3,425	
Accounts Receivable	7,000	
Supplies	1,270	
Prepaid Insurance	620	
Office Equipment	51,650	
Accumulated Depreciation—Office Equipment		9,700
Accounts Payable		925
Wages Payable		0
Unearned Fees		1,250
Common Stock		5,000
Retained Earnings		24,000
Dividends	5,200	
Fees Earned		59,125
Wages Expense	22,415	
Depreciation Expense	0	
Rent Expense	4,200	
Utilities Expense	2,715	
Supplies Expense	0	
Insurance Expense	0	
Miscellaneous Expense	1,505	
	<u>100,000</u>	<u>100,000</u>

The data needed to determine year-end adjustments follow:

- Supplies on hand at July 31, 20Y2, \$380.
- Insurance premiums expired during the year, \$315.
- Depreciation of equipment during the year, \$4,950.
- Wages accrued but not paid at July 31, 20Y2, \$440.
- Accrued fees earned but not recorded at July 31, 20Y2, \$1,000.
- Unearned fees on July 31, 20Y2, \$750.

Instructions

1. Prepare the necessary adjusting journal entries on July 31. Include journal entry explanations.
2. Determine the balance of the accounts affected by the adjusting entries, and prepare an adjusted trial balance.

Need more practice? Find additional multiple-choice questions, exercises, and problems in CengageNOWv2.

Answers

Multiple-Choice Questions

- 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 item to a fixed asset.
- 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).
- 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.
- 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.
- d** Assuming no other errors or omissions, the adjusted trial balance totals would be equal even though the adjusting entry for accrued wages was omitted. This illustrates that equal debit and credit totals on a trial balance don't necessarily mean that errors don't exist in the accounts.

Exercises

- | | | |
|--------|--------|--------|
| a. Yes | c. No | e. Yes |
| b. No | d. Yes | f. Yes |
- | | |
|---------------------|--------------------|
| a. Unearned revenue | c. Accrued revenue |
| b. Prepaid expense | d. Accrued expense |

3.

Dec. 31	Accounts Receivable	23,570	
	Fees Earned		23,570
	Accrued fees.		

4.

Dec. 31	Salaries Expense	7,080	
	Salaries Payable		7,080
	Accrued salaries $[(\$11,800 \div 5 \text{ days}) \times 3 \text{ days}]$.		

5.

Dec. 31	Unearned Fees	82,750	
	Fees Earned		82,750
	Fees earned $(\$272,500 - \$189,750)$.		

6.

Dec. 31	Supplies Expense	6,845	
	Supplies		6,845
	Supplies used $(\$3,375 + \$6,450 - \$2,980)$.		

- 7.
- | | | | |
|---------|------------------------------------|-------|-------|
| Dec. 31 | Depreciation Expense | 6,880 | |
| | Accumulated Depreciation—Equipment | | 6,880 |
| | Depreciation on equipment. | | |
8. a. Revenues were understated by \$44,500.
 b. Expenses were understated by \$13,100 (\$5,800 + \$7,300).
 c. Net income was understated by \$31,400 (\$44,500 – \$13,100).
9. a. The totals are unequal. The debit total is higher by \$900 (\$9,800 – \$8,900).
 b. The totals are equal because the adjusting entry was omitted.

10. a.

**Hemlock Company
Income Statements
For the Years Ended December 31**

	20Y5		20Y4	
	Amount	Percent	Amount	Percent
Fees earned	\$ 725,000	100%	\$ 615,000	100%
Expenses	(435,000)	(60)%	(356,700)	(58)%
Net income	<u>\$ 290,000</u>	<u>40%</u>	<u>\$ 258,300</u>	<u>42%</u>

- b. An unfavorable trend of increasing operating expenses and decreasing operating income is indicated.

Need more help? Watch step-by-step videos of how to compute answers to these Exercises in CengageNOWv2.

Problem

1.

Journal					
	Date	Description	Post. Ref.	Debit	Credit
	<small>20Y2</small> July 31	Supplies Expense		890	
		Supplies			890
		Supplies used (\$1,270 – \$380).			
	31	Insurance Expense		315	
		Prepaid Insurance			315
		Insurance expired.			
	31	Depreciation Expense		4,950	
		Accumulated Depreciation—Office Equipment			4,950
		Depreciation expense.			
	31	Wages Expense		440	
		Wages Payable			440
		Accrued wages.			
	31	Accounts Receivable		1,000	
		Fees Earned			1,000
		Accrued fees.			
	31	Unearned Fees		500	
		Fees Earned			500
		Fees earned (\$1,250 – \$750).			

2.

Harbor Realty
Adjusted Trial Balance
 July 31, 20Y2

	Debit Balances	Credit Balances
Cash	3,425	
Accounts Receivable	8,000	
Supplies	380	
Prepaid Insurance	305	
Office Equipment	51,650	
Accumulated Depreciation—Office Equipment		14,650
Accounts Payable		925
Wages Payable		440
Unearned Fees		750
Common Stock		5,000
Retained Earnings		24,000
Dividends	5,200	
Fees Earned		60,625
Wages Expense	22,855	
Depreciation Expense	4,950	
Rent Expense	4,200	
Utilities Expense	2,715	
Supplies Expense	890	
Insurance Expense	315	
Miscellaneous Expense	1,505	
	<u>106,390</u>	<u>106,390</u>