Chapter 15: Preparing Adjusting Entries and a Trial Balance: Chapter Overview

Preparing Adjusting Entries and a Trial Balance: Chapter Objectives

Learning Objectives

After studying Chapter 15, in addition to defining key terms, you will be able to:
LO1 Prepare an unadjusted trial balance.
LO2 Adjust supplies and prepaid insurance.
LO3 Adjust merchandise inventory.
LO4 Adjust interest receivable.
LO5 Calculate depreciation expense using the straight-line method.
LO6 Adjust accumulated depreciation.
LO7 Post adjusting entries.
LO8 Adjust federal income tax payable.
LO9 Prepare an adjusted trial balance.

Preparing Adjusting Entries and a Trial Balance: Accounting in the Real World: Gap Inc.

Gap operates five brands: Gap, Banana Republic, Old Navy, Piperlime, and Athleta. Gap's retail website, www.gap.com , is focused on the consumer. Most people who visit Gap online are buying apparel, shoes, and accessories. Its Web pages display colorful pictures of garments and special promotions. Gap maintains a second website, www.gapinc.com , that focuses on the company's operations. Click on the “Investors” tab of that website and you will get a completely different perspective of the company. That tab links investors to a wealth of information about the company and its financial performance.

Like most retailers, Gap is constantly opening new stores and closing stores to maximize its profitability. The number of stores in any month has a significant impact on total sales. The number of days in a month impacts the days the company can generate sales. Thus, analyzing the month-to-month changes in total sales is not an accurate measure of a company's performance.

To provide investors with better information, retailers announce their sales using a ratio known as comparable store sales. This ratio is also referred to as same store sales. Gap investors can download an Excel file containing ten years of monthly changes in comparable store sales.

Comparable store sales is calculated by dividing the current month's total sales by the number of stores. Only sales for stores open at least one year are included in the calculation. The change in comparable store sales is calculated by dividing the current month's comparable store sales by the same monthly amount for the previous year. Established companies consider small positive percentage increases to be a sign of success. New retailers often experience double-digit changes in the early years of their existence.

Comparable store sales is just one of many interesting facts available on the Investors page. Gap's “Real Estate” section provides store designs for developers. The “Stock Information” link reports current and historical stock market information. Investors can look up Gap's stock price for any day since 1990. The

“Governance” section reports facts concerning the management of the company, such as the number of individuals on the company's board of directors.

Critical Thinking

1. In March of the current year, PRG Fashions' 368 stores generated total sales of $126 million. In the previous year, those stores earned total sales of $123 million. Describe the company's financial performance based on comparable store sales.
2. What other factors could cause month-to-month comparable stores sales (e.g., August to July) to be an unreliable measure of financial performance?

Preparing Adjusting Entries and a Trial Balance: Key Terms

- unadjusted trial balance
- beginning inventory
- ending inventory
- accrued revenue
- accrued interest income
- current assets
- plant assets
- depreciation
- depreciation expense
- salvage value
- useful life
- straight-line method of depreciation
- accumulated depreciation
- book value of a plant asset
- adjusted trial balance
- tax bracket

1. marginal tax rate

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Lesson 15-1: Planning Adjusting Entries

Lesson 15-1: Planning Adjusting Entries

2. LO1 Prepare an unadjusted trial balance.
3. LO2 Adjust supplies and prepaid insurance.

Adjusting Account Balances

Management decisions about future business operations are often based on financial information. This information shows whether the business is making a profit or incurring a loss. Profit or loss information helps a business plan for future changes. Financial information is also needed to prepare required tax reports.

Businesses may choose any 12-month period, or fiscal year, for reporting their financial performance. In choosing its fiscal year, a business will take into account the way its business activity flows throughout the calendar year. ThreeGreen uses a fiscal year that begins on January 1 and ends on December 31. Therefore, ThreeGreen summarizes its financial information on December 31 of each year.

Some general ledger accounts need to be brought up to date before financial statements are prepared. Adjusting entries are used to bring a general ledger account up to date. In Chapter 6, Delgado Web Services entered adjusting entries for supplies and prepaid insurance.

ThreeGreen also makes adjusting entries to supplies and prepaid insurance. However, ThreeGreen adjusts these accounts as well: (1) Merchandise Inventory, (2) Accumulated Depreciation, (3) Interest Receivable, and (4) Federal Income Tax Payable. The adjusting entry for Merchandise Inventory is unique to a merchandising

business. The other adjusting entries could also be made by a service business. The adjusting entry for Federal Income Tax Payable is unique to corporations. This adjusting entry is not made for a proprietorship because taxes are paid by the owner, not the business.

Preparing an Unadjusted Trial Balance LO1

1 Write account titles

2 Enter account balances

ThreeGreen Products, Inc.
Unadjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Cash	54 1 9 4 34	
Petty Cash	2 5 0 00	
Accounts Receivable	20 3 8 1 81	
Allowance for Uncollectible Accounts		1 2 5 15
Merchandise Inventory	108 4 8 6 44	
Supplies—Office	4 5 4 8 17	
Supplies—Store	5 0 4 9 61	
Prepaid Insurance	11 0 0 0 00	
Notes Receivable	6 2 0 0 00	
Interest Receivable		
Salary Expense	184 2 3 4 95	
Supplies Expense—Office		
Supplies Expense—Store		
Uncollectible Accounts Expense		
Utilities Expense	4 9 6 5 42	
Federal Income Tax Expense	20 0 0 0 00	
Interest Income		4 6 4 00
Totals	818 9 1 0 27	818 9 1 0 27

3 Total, prove, and rule column totals

The first step in preparing adjusting entries is to prepare a trial balance. A trial balance prepared before adjusting entries are posted is called an unadjusted trial balance . A trial balance provides a proof that the debits and credits in the general ledger are equal. A trial balance also provides a complete list of accounts that may need to be brought up to date.

In Part 1, Delgado Web Services used a work sheet to plan its adjustments. The work sheet contained a trial balance and columns to enter adjustments. Rather than using a work sheet, ThreeGreen uses an unadjusted trial balance and records adjustments directly to a general journal.

Preparing an Unadjusted Trial Balance

1. Write the title of each general ledger account in the Account Title column. Write the accounts in the same order they appear in the general ledger. All accounts are listed regardless of whether or not there is a balance. Listing all accounts reduces the possibility of overlooking an account that needs to be brought up to date.
2. Write the balance of each account in the appropriate Debit or Credit column. The amounts are taken from the general ledger accounts.
3. Total, prove, and rule the Debit and Credit columns.

Recording Adjusting Entries for Supplies LO2

ThreeGreen Products, Inc.
Unadjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Merchandise Inventory	108 4 8 6 44	
Supplies—Office	4 5 4 8 17	
Supplies—Store	5 0 4 9 61	
Prepaid Insurance	11 0 0 0 00	

1 Debit Supplies Expense—Office

3 Debit Supplies Expense—Store

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	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
6		31	*Supplies Expense—Office*			3 9 3 8 17		6
7			*Supplies—Office*				3 9 3 8 17	7
8		31	*Supplies Expense—Store*			4 5 8 4 61		8
9			*Supplies—Store*				4 5 8 4 61	9

2 Credit Supplies—Office

4 Credit Supplies—Store

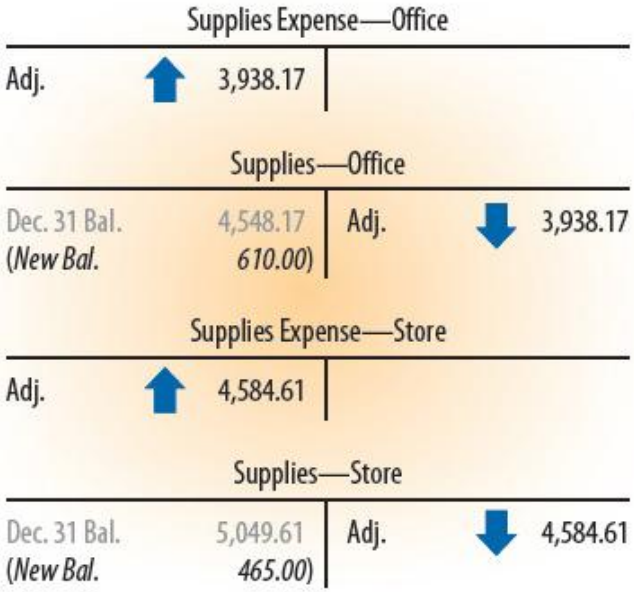
The balance of Supplies—Office in the unadjusted trial balance is $4,548.17. The amount is the cost of office supplies on hand at the beginning of the year plus the office supplies purchased during the year. The account balance needs to be adjusted to reflect the office supplies on hand on December 31. The office supplies on hand are counted and determined to be $610.00. The difference is the value of office supplies used during the year, which is an expense.

The balance of Supplies—Store in the unadjusted trial balance is $5,049.61. The amount is the cost of store supplies on hand at the beginning of the year plus the store supplies purchased during the year. The account balance needs to be adjusted to reflect the store supplies on hand on December 31. The store supplies on hand are counted and determined to be $465.00. The difference is the value of store supplies used during the year, which is an expense.

Four questions are asked to analyze the adjustments for supplies.

1. What are the balances of the accounts being adjusted?
   - Supplies—Office, $4,548.17
   - Supplies—Store, $5,049.61
2. What should the balances be for these accounts?
   - Supplies—Office, $610.00
   - Supplies—Store, $465.00

3. What must be done to correct the account balances?
    Decrease Supplies—Office, $3,938.17 ($4,548.17 – $610.00)
    Decrease Supplies—Store, $4,584.61 ($5,049.61 – $465.00)
4. What adjusting entries are made?
    Debit Supplies Expense—Office, $3,938.17
    Credit Supplies—Office, $3,938.17
    Debit Supplies Expense—Store, $4,584.61
    Credit Supplies—Store, $4,584.61



The adjusting entries for supplies are shown in the T accounts. The December 31 balances are the amounts reported in the unadjusted trial balance. The new balances are the amount of supplies on hand on December 31.

Journalizing the Adjusting Entries for Supplies

1. Record a debit, $3,938.17, to Supplies Expense—Office in the general journal.
2. Record a credit, $3,938.17, to Supplies—Office in the general journal.
3. Record a debit, $4,584.61, to Supplies Expense—Store in the general journal.
4. Record a credit, $4,584.61, to Supplies—Store in the general journal.

Many types of transactions are journalized in a general journal. These transactions can affect both the general ledger and subsidiary accounts. For example, the purchase of supplies on account affects two general ledger accounts and the vendor's accounts payable account. These transactions should be posted often to ensure management makes decisions using up-to-date information.

Adjusting entries are different from typical journal entries. The process of planning adjusting entries does not require the same need for management to have up-to-date information. It takes time for a business to obtain all the information necessary to plan adjusting entries. Determining the value of ending inventory can take several days. Therefore, adjusting entries only need to be posted after all adjusting entries are journalized.

Whether you prefer to think of adjusting an asset account, such as Supplies, or an expense account, such as Supplies Expense, the adjusting journal entry is identical.

Recording an Adjusting Entry for Prepaid Insurance

ThreeGreen Products, Inc.
Unadjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Supplies—Store	5 0 4 9 61	
Prepaid Insurance	11 0 0 0 00	
Notes Receivable	6 2 0 0 00	

1 Debit Insurance Expense

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	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
10		31	*Insurance Expense*			8 2 0 0 00		10
11			*Prepaid Insurance*				8 2 0 0 00	11

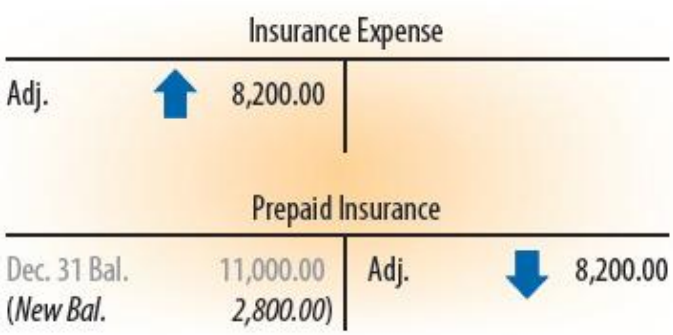
2 Credit Prepaid Insurance

Insurance premiums are debited to Prepaid Insurance when paid. The January 1 balance in the account was $2,600.00. During the year, ThreeGreen paid $8,400.00 of insurance premiums. Thus, the balance in the unadjusted trial balance is $11,000.00.

ThreeGreen determined that the value of prepaid insurance on December 31 is $2,800.00. Therefore, the amount of insurance used during the year is $8,200.00 ($11,000.00 – $2,800.00). This difference is the expense for insurance premiums during the year. Prepaid Insurance is credited and Insurance Expense is debited at the end of the fiscal period for the value of premiums used.

Four questions are asked to analyze the adjustment for prepaid insurance.

1. What is the balance of the account being adjusted?
   Prepaid Insurance, $11,000.00
2. What should the balance be for this account?
   Prepaid Insurance, $2,800.00
3. What must be done to correct the account balance?
   Decrease $8,200.00 ($11,000.00 – $2,800.00)
4. What adjustment is made?
   Debit Insurance Expense, $8,200.00
   Credit Prepaid Insurance, $8,200.00



The adjusting entry for Prepaid Insurance is shown in the T accounts. The December 31 balance is the amount reported in the unadjusted trial balance. The new balance is the amount of insurance premiums to be used in the next fiscal period.

Journalizing the Adjusting Entry for Prepaid Insurance

1. Record a debit, $8,200.00, to Insurance Expense in the general journal.
2. Record a credit, $8,200.00, to Prepaid Insurance in the general journal.

End of Lesson Review

- LO1 Prepare an unadjusted trial balance.
- LO2 Adjust supplies and prepaid insurance.

Term Review

- unadjusted trial balance

Audit Your Understanding

1. What adjusting entry is unique to a corporation?
2. What four questions are used to analyze the adjustment of an account?
3. Which accounts are used for the adjustment to office supplies?
4. Which accounts are used for the adjustment to prepaid insurance?

Work Together 15-1

Journalizing the adjusting entries for supplies and prepaid insurance

Page 15 of a general journal and a partially completed unadjusted trial balance are given in the Working Papers. Selected general ledger accounts for Southside Electric are provided on pages 429–431 of the Working Papers. Prepare the adjusting entries for supplies and prepaid insurance. Your instructor will guide you through the following examples. Save your work to complete Work Together 15-2.

1. Enter the following accounts on the unadjusted trial balance. Obtain the account balances from the general ledger accounts.
   Allowance for Uncollectible Accounts
   Supplies—Store
   Accumulated Depreciation—Office Equipment
   Insurance Expense

2. Total, prove, and rule the unadjusted trial balance.
3. Journalize the adjusting entries for supplies and prepaid insurance. The adjusting entry for the allowance for uncollectible accounts has been recorded on the general journal. The December 31 value of supplies and prepaid insurance are determined to be:

Office supplies	$ 548.00
Store supplies	640.00
Prepaid insurance	1,600.00

On Your Own 15-1

Journalizing the adjusting entries for supplies and prepaid insurance

Page 18 of a general journal and a partially completed unadjusted trial balance are given in the Working Papers. Selected general ledger accounts for Idaho Adventures are provided on pages 439–441 of the Working Papers. Prepare the adjusting entries for supplies and prepaid insurance. Work these problems independently. Save your work to complete to complete On Your Own 15-2.

1. Enter the following accounts on the unadjusted trial balance. Obtain the account balances from the general ledger accounts.
   Allowance for Uncollectible Accounts
   Supplies—Office
   Accumulated Depreciation—Store Equipment
   Interest Income

2. Total, prove, and rule the unadjusted trial balance.
3. Journalize the adjusting entries for supplies and prepaid insurance. The adjusting entry for the allowance for uncollectible accounts has been recorded on the general journal. The December 31 value of supplies and prepaid insurance are determined to be:

Office supplies	$ 684.00
Store supplies	775.00
Prepaid insurance	2,400.00

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Ethics in Action: To Tell or Not to Tell, That is the Question

Ethics in Action: To Tell or Not to Tell, That is the Question

Kelly Franklin was waiting to board a ski lift when she saw Leslie Best climbing into a limousine. Kelly and Leslie both work as clerks in the production office for DLT Industries. “No way can she afford to be driven around in a limo,” thought Kelly. “Her husband has been out of work for years.” Kelly also recalled that the company has been experiencing inventory losses. An internal investigation failed to identify any reason for the shortages. “Has Leslie been stealing inventory?” she wondered.

DLT requires employees to file a report if they believe someone has violated the law or a company policy. But feeling that she has little more than her suspicions, Kelly elects not to make a report to the company's ethics hotline.

Instructions

Go to www.generalmills.com , find “Responsibility” and select “Ethics and integrity,” then “Code of conduct.” Determine whether Kelly acted ethically by deciding not to report her suspicions. Use A Champion's Code of Conduct from General Mills as a guide. If Kelly came to you for advice, what would you tell her?

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Financial Literacy: Debt Collection—Know Your Rights

Financial Literacy: Debt Collection—Know Your Rights

Consumers sometimes become financially overextended. A sudden illness or loss of a job may leave a person unable to pay for the goods or services they've purchased. As a result, banks and businesses find that they have uncollectible accounts.

When consumers don't pay their debts, creditors often hire debt collectors to recover the money. Debt collectors, however, are limited by law in the methods they may use to collect a debt. They may not attempt to collect the debt from anyone other than the signer(s) of the note. For example, they may not go after a parent of the debtor unless the parent cosigned the note.

Consumers should be aware of the protections offered by the Fair Debt Collections Practices Act (FDCPA), which is enforced by the Federal Trade Commission. The FDCPA prohibits debt collectors from contacting debtors before 8 A.M. and after 9 P.M. unless given permission. Debt collectors may not call debtors at work without a request that they do so. They may not contact anyone else regarding a debtor's account except to obtain contact information. Most importantly, harassing behaviors, threats, obscenities, and profane language are prohibited.

Activities

1. Assume you are a debtor receiving calls from a debt collector. What would be a reasonable way to try to work through the problem and avoid damaging your credit score any further?
2. Assume you cosigned on a student loan for a friend. You are now receiving calls from a debt collector because your friend is unable to pay. Is the debt collector wrong in contacting you in his effort to collect your friend's debt? Explain.

Source: www.ftc.gov/bcp/edu/pubs/consumer/credit/cre18.shtm .

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Lesson 15-2: Adjusting Merchandise Inventory and Interest Receivable

Lesson 15-2: Adjusting Merchandise Inventory and Interest Receivable

- LO3 Adjust merchandise inventory.
- LO4 Adjust interest receivable.

Recording an Adjusting Entry for Merchandise Inventory LO3

ThreeGreen Products, Inc.
Unadjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Allowance for Uncollectible Accounts		1,255.15
Merchandise Inventory	108,486.44	
Supplies—Office	4,548.17	

1 Debit Income Summary

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	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
4		31	*Income Summary*			5,648.44		4
5			*Merchandise Inventory*				5,648.44	5

2 Credit Merchandise Inventory

ThreeGreen uses the periodic inventory method. During a fiscal period, all purchases of merchandise are recorded in Purchases. No changes in the amount of inventory resulting from purchases and sales are recorded in Merchandise Inventory. As a result, the balance of Merchandise Inventory on December 31, $108,486.44, has not changed from its January 1 balance.

The amount of inventory on hand at the beginning of a fiscal period is called beginning inventory . During the period, merchandise is purchased and merchandise is sold. To determine how much merchandise remains in inventory at the end of the period, a physical inventory is conducted. The actual count of merchandise at the end of a fiscal period is called ending inventory . A physical inventory is always conducted at the end of the fiscal year. Some businesses conduct physical inventories more frequently. The balance of the Merchandise Inventory account at the end of the fiscal year must equal the actual ending inventory balance.

ThreeGreen's year-end physical inventory revealed that the merchandise on hand was purchased at a cost of $102,838.00. Therefore, Merchandise Inventory must be adjusted to equal the current cost of merchandise on hand.

Most accounts needing adjustment at the end of a fiscal period have a related expense account. Expense accounts are temporary accounts. For example, when Prepaid Insurance is adjusted, Insurance Expense is the related expense account. Merchandise Inventory, however, does not have a related expense account.

Therefore, Income Summary, also a temporary account, is used to adjust Merchandise Inventory at the end of the fiscal year.

Four questions are asked to analyze the adjustment for merchandise inventory.

1. What is the balance of the account being adjusted?
   Merchandise Inventory, $108,486.44
2. What should the balance be for this account?

Merchandise Inventory, $102,838.00

3. What must be done to correct the account balance?

   Decrease $5,648.44

3. What adjustment is made?

   Debit Income Summary, $5,648.44

   Credit Merchandise Inventory, $5,648.44

The adjusting entry for merchandise inventory is shown in the T accounts. The December 31 balance is the amount reported in the unadjusted trial balance. The beginning debit balance of Merchandise Inventory, $108,486.44, minus the adjustment credit amount, $5,648.44, equals the ending debit balance, $102,838.00. Income Summary is a unique account in that it does not have a normal balance. Thus, the debit to Income Summary is not marked in the T account as increasing or decreasing the account.

In this example, ThreeGreen's ending inventory was lower than its beginning inventory. If the amount of merchandise on hand were greater than the January 1 balance of Merchandise Inventory, opposite entries would be made—debit Merchandise Inventory and credit Income Summary. Thus, if ThreeGreen's December 31 actual count had been $112,700.00, the adjusting entry would increase Merchandise Inventory by $4,213.56.

Journalizing the Adjusting Entry for Merchandise Inventory

1. Record a debit, $5,648.44, to Income Summary in the general journal.
2. Record a credit, $5,648.44, to Merchandise Inventory in the general journal.

When an account that requires adjusting does not have a related expense account, the temporary account Income Summary is used.

Accounting for Accrued Revenue LO4

Generally accepted accounting principles (GAAP) require that revenue be recorded in the accounting period in which the revenue is earned. [CONCEPT: Realization of Revenue] For a sale on account, revenue is earned on the day the goods are delivered to the customer. The sale increases the revenue account, Sales, and increases an asset account, Accounts Receivable.

Unlike sales on account, some revenues are earned over time. For example, a $10,000.00, 9% note receivable earns $2.50 of interest income every day the note is outstanding ($10,000.00 × 0.09 × 1/360). Making a journal entry for each day's interest income and the related receivable is impractical. However, the amount of interest earned must be recorded when financial statements are prepared.

Revenue earned in one fiscal period but not received until a later fiscal period is called accrued revenue . A company must identify the period of time for which accrued revenue should be recorded. The number of days

is used to calculate the amount of the adjusting entry. The adjusting entry for accrued revenue increases a revenue account (a credit) and increases a receivable account (a debit). The income statement will then report all revenue earned for the period even though some of the revenue has not yet been received.

The balance sheet will report all the assets, including the related receivable. [CONCEPT: Adequate Disclosure]

Journalizing the Adjusting Entry for Interest Receivable

ThreeGreen Products, Inc.
Unadjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Prepaid Insurance	11 0 0 0 00	
Notes Receivable	6 2 0 0 00	
Interest Receivable		
Office Equipment	24 8 9 5 18	

1 Debit Interest Receivable

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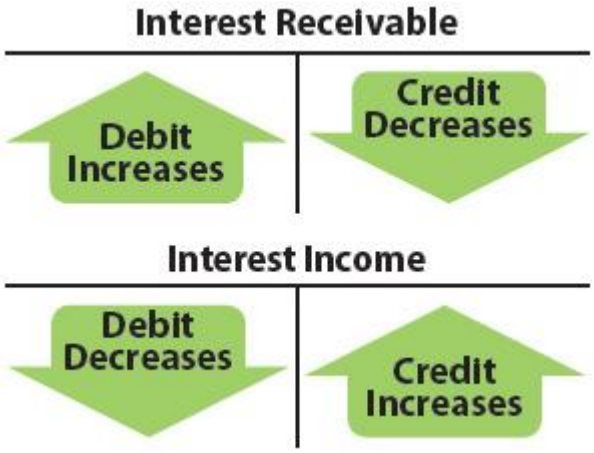
	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
12		31	Interest Receivable			9 3 00		12
13			Interest Income				9 3 00	13

2 Credit Interest Income



At the end of each fiscal period, ThreeGreen examines the notes receivable on hand. The amount of interest income earned but not yet collected is calculated. The interest owed to the business is an asset and is recorded in Interest Receivable. The interest earned must be recorded as revenue on the income statement. Interest earned but not yet received is called accrued interest income . Interest earned on notes receivable is recorded in Interest Income.

On December 31, ThreeGreen has one note receivable on hand, a 90-day, 9%, $6,200.00 note dated November 1. The time period from November 1 to December 31 is 60 days. Therefore, the interest earned on the note is calculated for 60/360 of a year.

Principal	×	Interest Rate	×	Time as Fraction of a Year	=	Accrued Interest Income
$6,200.00	×	9%	×	60/360	=	$93.00

1. What is the balance of the account being adjusted?
Interest Receivable, zero
2. What should the balance be for this account?
Interest Receivable, $93.00
3. What must be done to correct the account balance?
Increase $93.00
4. What adjustment is made?
Debit Interest Receivable, $93.00
Credit Interest Income, $93.00

The adjusting entry is shown in the T accounts. The December 31 balance in Interest Income, $464.00, is the interest earned on notes that matured during the fiscal year. Interest Receivable is debited for $93.00 to record the accrued interest income. The interest earned is credited to Interest Income. Interest income is reported on the income statement.

End of Lesson Review

- LO3 Adjust merchandise inventory.
- LO4 Adjust interest receivable.

Terms Review

- beginning inventory
- ending inventory
- accrued revenue
- accrued interest income

Audit Your Understanding

1. How is the amount of merchandise inventory on hand at the end of the fiscal year determined?
2. What adjusting entry is recorded when the ending merchandise inventory is greater than the beginning value?
3. How often is revenue earned on an outstanding note receivable?
4. What types of accounts are increased by recording an adjusting entry for accrued revenue?

<u>Work Together 15-2</u>

Journalizing the adjusting entries for merchandise inventory and interest receivable

Use the general journal and unadjusted trial balance from Work Together 15-1. Your instructor will guide you through the following example. Save your work to complete Work Together 15-3.

From a physical count of merchandise inventory, the December 31 balance is determined to be $96,471.25. Journalize the adjusting entry for merchandise inventory.

A single note receivable is outstanding on December 31. The 90-day, 8% note was signed on November 22. Journalize the adjusting entry for interest receivable.

<u>On Your Own 15-2</u>

Journalizing the adjusting entries for merchandise inventory and interest receivable

Use the general journal and unadjusted trial balance from On Your Own 15-1. Your instructor will guide you through the following example. Save your work to complete On Your Own 15-3.

From a physical count of merchandise inventory, the December 31 balance is determined to be $158,420.00. Journalize the adjusting entry for merchandise inventory.

A single note receivable is outstanding on December 31. The 120-day, 9% note was signed on October 18. Journalize the adjusting entry for interest receivable.

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Lesson 15-3: Adjusting Accumulated Depreciation

Lesson 15-3: Adjusting Accumulated Depreciation

- LO5 Calculate depreciation expense using the straight-line method.
- LO6 Adjust accumulated depreciation.

Categories of Assets

Most businesses use several broad categories of assets in their operations. Cash and other assets expected to be exchanged for cash or consumed within a year are called current assets . Physical assets that will be used for a number of years in the operation of a business are called plant assets . Some of ThreeGreen's plant assets are computers, cash registers, and sales display cases.

Businesses may have three major types of plant assets—equipment, buildings, and land. ThreeGreen records its equipment in two different equipment accounts—Office Equipment and Store Equipment. ThreeGreen rents the building and the land where the business is located. Therefore, the company does not need plant asset accounts for buildings and land.

Depreciating Plant Assets

A business buys plant assets to use in earning revenue. For example, ThreeGreen bought a new lighted display case to draw attention to its products. The display case will be useful for only a limited period of time. After several years, most display cases become worn from use and no longer offer an attractive display. A loss in the usefulness of a plant asset as a result of wear or obsolescence is called depreciation .

To match revenue with the expenses used to earn the revenue, the cost of a plant asset must be expensed over the asset's useful life. A portion of a plant asset's cost is transferred to an expense account in each fiscal period that the asset is used to earn revenue. [CONCEPT: Matching Expenses with Revenue] The portion of a plant asset's cost that is transferred to an expense account in each fiscal period during that asset's useful life is called depreciation expense .

Three factors are considered in calculating the annual amount of depreciation expense for a plant asset.

- **Original Cost**
  The original cost of a plant asset includes all costs paid to make the asset usable to a business. These costs include the price of the asset plus delivery and any necessary installation costs.
- **Salvage Value**
  A business removes a plant asset from use when the asset is no longer usable. The asset may be sold to another business or sold for scrap. An estimate of the amount that will be received for an asset at the time

of its disposal is called its salvage value . Salvage value may also be referred to as residual value or scrap value. Since salvage value cannot be known when the asset is bought, it must be estimated. The amount an owner expects to receive when a plant asset is removed from use is its estimated salvage value.

- **Useful Life**

The period of time over which an asset contributes to the earnings of a business is called its useful life . When a plant asset is bought, the exact length of useful life cannot be known. Therefore, the number of years of useful life must be estimated. The total amount of depreciation expense is distributed over the estimated useful life of a plant asset.

Two factors affect the useful life of a plant asset: (1) physical depreciation and (2) functional depreciation. Physical depreciation is caused by wear and deterioration from aging and weathering. Functional depreciation occurs when a plant asset becomes inadequate or obsolete. An asset is inadequate when it can no longer perform at an acceptable level of efficiency. A new asset of the same design and capability might replace it. An asset is obsolete when a more modern asset, perhaps using new technology, can operate more efficiently or produce better service.

Calculating Depreciation Expense and Book Value LO5

Straight-Line Depreciation

Recording an equal amount of depreciation expense for a plant asset in each year of its useful life is called the straight-line method of depreciation .

On January 2, 20X1, ThreeGreen bought a lighted display case for $2,500.00. The display case has an estimated salvage value of $500.00 and an estimated useful life of five years. Using the straight-line method of depreciation, the annual depreciation expense is $400.00. The depreciation expense is the same for each year in which the asset is used.

Original Cost	–	Estimated Salvage Value	=	Estimated Total Depreciation Expense
$2,500.00	–	$500.00	=	$2,000.00

Estimated Total Depreciation Expense	÷	Years of Estimated Useful Life	=	Annual Depreciation Expense
$2,000.00	÷	5	=	$400.00

Accumulated Depreciation

The total amount of depreciation expense that has been recorded since the purchase of a plant asset is called accumulated depreciation . The amount accumulates each year of the plant asset's useful life. The depreciation expense for the current year is added to the prior year's accumulated depreciation to update accumulated depreciation.

20X2 Accumulated Depreciation	+	20X3 Depreciation Expense	=	20X3 Accumulated Depreciation
$800.00	+	$400.00	=	$1,200.00

Book Value

The original cost of a plant asset minus accumulated depreciation is called the book value of a plant asset . The book value is calculated by subtracting the accumulated depreciation from the original cost of the asset.

Original Cost	–	20X3 Accumulated Depreciation	=	Ending 20X3 Book Value
$2,500.00	–	$1,200.00	=	$1,300.00

Procedures for recording the accumulated depreciation and book value of individual assets are presented in Chapter 19.

Journalizing the Adjusting Entry for Accumulated Depreciation LO6

ThreeGreen Products, Inc.
Unadjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Office Equipment	24 8 9 5 18	
Accumulated Depreciation—Office Equipment		6 1 8 9 00
Store Equipment	59 1 4 8 11	
Accumulated Depreciation—Store Equipment		8 4 9 5 00

GENERAL JOURNAL PAGE 15

	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
14		31	*Depreciation Expense—Office Equip.*			7 4 8 5 00		14
15			*Accumulated Depreciation—Office Equip.*				7 4 8 5 00	15
16		31	*Depreciation Expense—Store Equip.*			9 8 3 0 00		16
17			*Accum. Depreciation—Store Equip.*				9 8 3 0 00	17

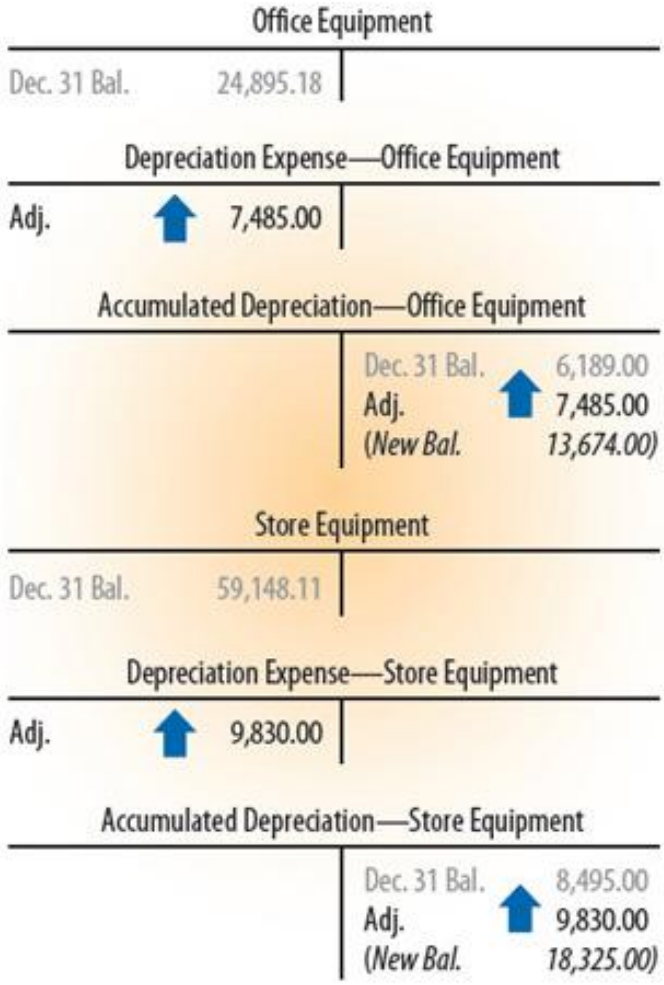
1 Debit Depreciation Expense—Office Equipment and credit Accumulated Depreciation—Office Equipment

2 Debit Depreciation Expense—Store Equipment and credit Accumulated Depreciation—Store Equipment

At the end of the fiscal year, ThreeGreen needs to bring the balance of each accumulated depreciation account up to date. To do that, it calculates the depreciation expense for each plant asset. Then, the depreciation amounts for each class of plant assets, such as office equipment, are totaled. After making the calculations, ThreeGreen determined that the total depreciation expense for its office equipment is $7,485.00.

The balance of Accumulated Depreciation—Office Equipment on December 31 is $6,189.00. Thus, the balance of that account needs to be increased by $7,485.00, the amount of the current year's depreciation. The new balance of Accumulated Depreciation—Office Equipment is $13,674.00 ($6,189.00 + $7,485.00).

It is important to retain original cost information for plant assets. If depreciation expense for office equipment were credited directly to the asset account, Office Equipment, that account would no longer show the total amount of the cost of office equipment. The account would be reduced by the amount of the depreciation. Instead, depreciation is recorded to the contra account, Accumulated Depreciation—Office Equipment.
Each plant asset account, except for Land, has a contra account. Land is not depreciated because it rarely loses its value or usefulness. Therefore, Land does not have a contra account.



Four questions are asked to analyze the adjustments for accumulated depreciation.

1. What is the balance of the account being adjusted?

Accumulated Depreciation—Office Equipment, $6,189.00

2. What should the balance be for this account?

Accumulated Depreciation—Office Equipment, $13,674.00

3. What must be done to correct the account balance?

Increase $7,485.00

4. What adjustment is made?

Debit Depreciation Expense—Office Equipment, $7,485.00
Credit Accumulated Depreciation—Office Equipment, $7,485.00

A similar analysis is performed to identify the adjusting journal entry for Accumulated Depreciation—Store Equipment. The adjusting entries for both plant assets are shown in the T accounts.

At any time, the book value of plant assets can be

calculated by subtracting accumulated depreciation from its related plant asset account. The book value of office equipment is $11,221.18 ($24,895.18 – $13,674.00).

Journalizing the Adjusting Entries for Accumulated Depreciation

1. Record a debit, $7,485.00, to Depreciation Expense—Office Equipment and a credit to Accumulated Depreciation—Office Equipment.
2. Record a debit, $9,830.00, to Depreciation Expense—Store Equipment and a credit to Accumulated Depreciation—Store Equipment.

End of Lesson Review

- LO5 Calculate depreciation expense using the straight-line method.
- LO6 Adjust accumulated depreciation.

Terms Review

- current assets
- plant assets
- depreciation
- depreciation expense
- salvage value
- useful life
- straight-line method of depreciation
- accumulated depreciation
- book value of a plant asset

Audit Your Understanding

1. What are two categories of assets?
2. What three factors are used to calculate a plant asset's annual depreciation expense?
3. What plant asset account does not have a contra account for accumulated depreciation?
4. How does an adjusting entry for accumulated depreciation affect the related plant asset account?

<u>Work Together 15-3</u>

Journalizing the adjusting entries for accumulated depreciation

Use the general journal and unadjusted trial balance from Work Together 15-2 and the schedule provided in the Working Papers. Your instructor will guide you through the following example. Save your work to complete Work Together 15-4.

1. Calculate depreciation expense for a color printer costing $950.00. The printer has an estimated salvage value of $150.00 and a useful life of five years.
2. Calculate the book value of the color printer at the end of its second year of service.
3. On December 31, Southside Electric determined its total depreciation expense. Total depreciation expense is $2,150.00 for office equipment and $7,440.00 for store equipment. Journalize the adjusting entries for accumulated depreciation.

<u>On Your Own 15-3</u>

Journalizing the adjusting entries for accumulated depreciation

Use the general journal and unadjusted trial balance from On Your Own 15-2 and the schedule provided in the Working Papers. Work this problem independently. Save your work to complete On Your Own 15-4.

1. Calculate depreciation expense for a security system costing $3,750.00. The system has an estimated salvage value of $500.00 and a useful life of eight years.

2. Calculate the book value of the security system at the end of its second year of service.
3. On December 31, Idaho Adventures determined its total depreciation expense. Total depreciation is $4,890.00 for office equipment and $6,950.00 for store equipment. Journalize the adjusting entries for accumulated depreciation.

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Why Accounting?: Project Manager: Implementing a New Software Program

Why Accounting?: Project Manager: Implementing a New Software Program

Imagine you are in charge of implementing a new software program for use throughout a company. You have several responsibilities to perform:

1. Make sure the computers can run the new software.
2. Load the software on all the company's computers.
3. Check to make sure the program runs correctly.
4. Conduct initial and follow-up training for all employees on how to use the program.
5. Plan the timelines for all of these tasks.

You must make sure that all of these tasks are completed on schedule. You also have a budget for the project that must be followed. As the project manager, you must work closely with other departments to plan the budget and the project schedule. You must consider the costs of time, money, and other resources the project will require.

The information technology (IT) department of a company faces a challenge. Although it provides a very important service to the company, it does not generate revenue for the company. Because of this, every cost must be carefully measured and understood so that it can be justified when presenting a proposed project budget for approval.

Critical Thinking

You are a project manager proposing a budget to implement a new word processing program throughout the company. The company management wants to cut the training portion of the budget in half. What arguments might you present to encourage management to keep the full training budget?
The IT department is also in charge of computer security. In most companies, each employee has access only to certain parts of the computer system. Why?

Chapter 15 Preparing Adjusting Entries and a Trial Balance: Lesson 15-4: Calculating Federal Income Tax

Lesson 15-4: Calculating Federal Income Tax

- LO7 Post adjusting entries.
- LO8 Adjust federal income tax payable.
- LO9 Prepare an adjusted trial balance.

Adjusting Entries LO7

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	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
1			*Adjusting Entries*					1
2	Dec.	31	*Uncollectible Accounts Expense*			2 3 8 4 10		2
3			*Allowance for Uncollectible Accounts*				2 3 8 4 10	3
4		31	*Income Summary*			5 6 4 8 44		4
5			*Merchandise Inventory*				5 6 4 8 44	5
6		31	*Supplies Expense—Office*			3 9 3 8 17		6
7			*Supplies—Office*				3 9 3 8 17	7
8		31	*Supplies Expense—Store*			4 5 8 4 61		8
9			*Supplies—Store*				4 5 8 4 61	9
10		31	*Insurance Expense*			8 2 0 0 00		10
11			*Prepaid Insurance*				8 2 0 0 00	11
12		31	*Interest Receivable*			9 3 00		12
13			*Interest Income*				9 3 00	13
14		31	*Depreciation Expense—Office Equip.*			7 4 8 5 00		14
15			*Accum. Depreciation—Office Equip.*				7 4 8 5 00	15
16		31	*Depreciation Expense—Store Equip.*			9 8 3 0 00		16
17			*Accum. Depreciation—Store Equip.*				9 8 3 0 00	17
18								18

The unadjusted trial balance acts as a check list to ensure that the business brings every account up to date. The accountant can start by examining each asset account to determine if the account needs adjustment. This process continues through the liability and owners' equity accounts.

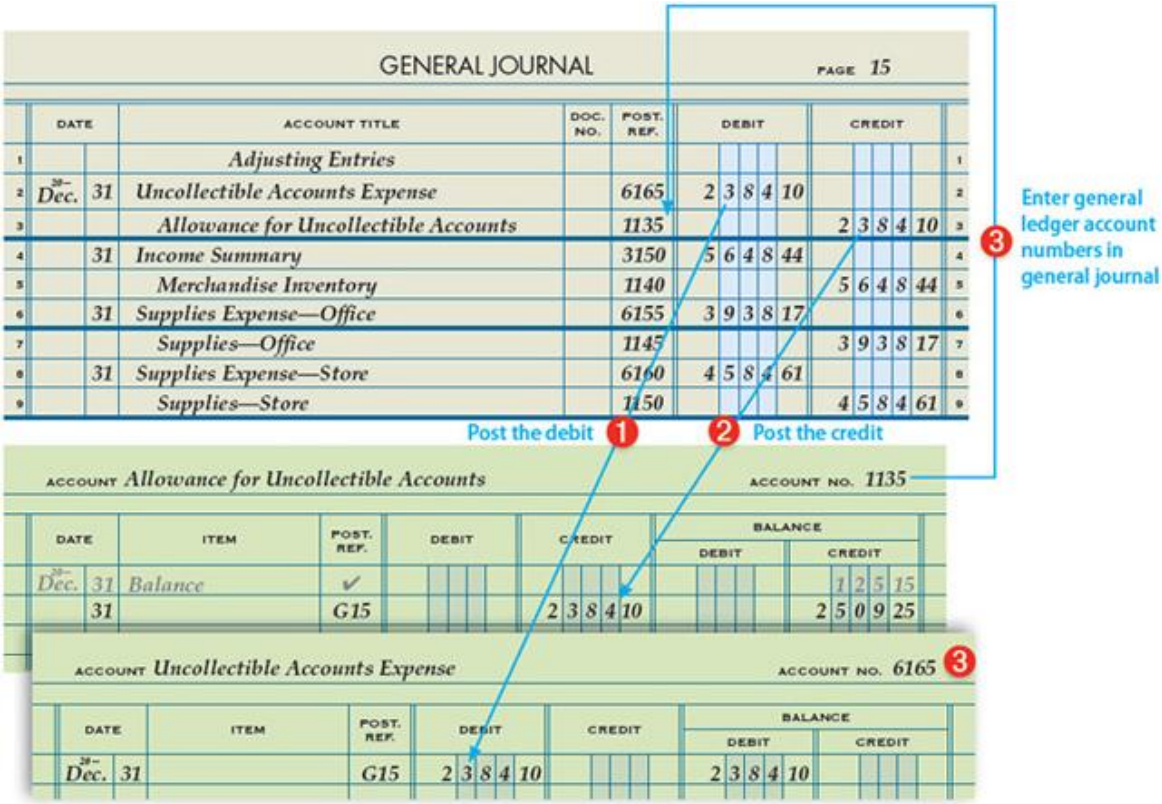
Adjusting entries are made in the order that the accounts appear on the trial balance. Allowance for Uncollectible Accounts is the first account that needs to be adjusted. Merchandise Inventory is adjusted next, then Supplies—Office, and so forth. The process does not end once every asset, liability, and owners' equity account is examined. ThreeGreen's accountant would also review the revenue and expense accounts. This process ensures that every account on the trial balance is up to date.

An accountant can perform this process in reverse order by first examining revenue and expense accounts. Then, the asset, liability, and owners' equity accounts would be reviewed. The adjusting entries would be the same but would be journalized in a different order.

Two accounts are not adjusted at this time: Federal Income Tax Payable and Federal Income Tax Expense. These accounts will be adjusted after all other adjusting entries are posted and the net income before federal income tax is determined.

The adjusting entries are posted to the general ledger to bring the account balances up to date.

Posting Adjusting Entries



Posting Adjusting Entries

1. Post the debit portion of the adjusting entry to the general ledger account.
2. Post the credit portion of the adjusting journal entry to the general ledger account.
3. Write the account numbers of the accounts in the Post. Ref. column of the general journal.

Calculating Income before Federal Income Taxes LO8

ThreeGreen Products, Inc.
Adjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Cash	54 1 9 4 34	
Petty Cash	2 5 0 00	
Accounts Receivable	20 3 8 1 81	
Income Summary	5 6 4 8 44	
Sales		632 3 7 1 75
Sales Discount	1 6 4 8 19	
Sales Returns and Allowances	3 9 4 1 57	
Purchases	254 8 5 1 26	
Purchases Discount		9 2 2 14
Purchases Returns and Allowances		1 4 9 5 01
Advertising Expense	4 6 8 0 00	
Credit Card Fee Expense	6 8 4 2 20	
Depreciation Expense—Office Equipment	7 4 8 5 00	
Depreciation Expense—Store Equipment	9 8 3 0 00	
Insurance Expense	8 2 0 0 00	
Miscellaneous Expense	3 4 9 5 04	
Payroll Taxes Expense	16 6 9 7 98	
Rent Expense	8 4 0 0 00	
Salary Expense	184 2 3 4 95	
Supplies Expense—Office	3 9 3 8 17	
Supplies Expense—Store	4 5 8 4 61	
Uncollectible Accounts Expense	2 3 8 4 10	
Utilities Expense	4 9 6 5 42	
Federal Income Tax Expense		
Interest Income		5 5 7 00

1 Enter account titles

2 Enter account balances except Federal Income Tax Expense

3 Total income statement credit accounts

4 Total income statement debit accounts

Total of income statement credit accounts	$ 635,345.90	3
Less total of income statement debit accounts excluding federal income tax	−531,826.93	4
Equals net income before federal income tax	$ 103,518.97	5

5 Subtract debit total from credit total

After the adjusting entries are posted, an updated trial balance can be prepared. A trial balance prepared after adjusting entries are posted is called an adjusted trial balance . The adjusted trial balance is prepared in two steps. First, all account balances, except for Federal Income Tax Expense, are entered on the trial balance. This information is used to plan the adjustment for federal income tax expense. Then, after the adjustment is posted, the account balances for Federal Income Tax Expense and Federal Income Tax Payable are entered.

Calculating Net Income before Federal Income Tax

1. Enter the account titles of all general ledger accounts.
2. Enter the account balances of all accounts except Federal Income Tax Expense.
3. Calculate the total account balances of income statement credit accounts. Include the account balance of Income Summary if the account has a credit balance.
4. Calculate the total account balances of income statement debit accounts, excluding the balance of Federal Income Tax Expense. Include the account balance of Income Summary if the account has a debit balance.
5. Subtract the total of debits from the total of credits to calculate net income before federal income taxes.

Calculating Federal Income Tax

Corporations anticipating annual federal income taxes of $500.00 or more are required to pay estimated taxes each quarter. Estimated income tax is paid in quarterly installments in April, June, September, and December. The actual federal income tax owed is calculated at the end of a fiscal year. A corporation must file an annual tax return reporting the actual income tax owed. Any additional tax owed that was not paid in quarterly installments must be paid when the final return is filed.

Early in the current year, ThreeGreen estimated it would owe $20,000.00 in federal income taxes for the year. Thus, ThreeGreen paid quarterly installments of $5,000.00. Each tax payment is recorded as a debit to Federal Income Tax Expense and a credit to Cash. Now that the actual amount of net income before income taxes is known, the actual amount of federal income tax is calculated.

Tax Rate Schedule

If taxable income (line 30, Form 1120, or line 26, Form 1120-A) is:			
Over—	But not over—	Tax is:	Of the amount over—
$0	50,000	15%	-0-
50,000	75,000	$7,500 + 25%	$50,000
75,000	100,000	13,750 + 34%	75,000
100,000	335,000	22,250 + 39%	100,000
335,000	10,000,000	113,900 + 34%	335,000
10,000,000	15,000,000	3,400,000 + 35%	10,000,000
15,000,000	18,333,333	5,150,000 + 38%	15,000,000
18,333,333	—	35%	-0-

The amount of federal income tax a corporation must pay is calculated using a tax rate table issued by the Internal Revenue Service. Tax rates for corporations can be changed by an act of Congress. The tax rates in effect when this text was written are used to calculate federal income taxes.

Different tax rates are applied to different levels of net income. Each tax rate and taxable income amount on one line of a tax table is called a tax bracket . The tax rate associated with a tax bracket is called a marginal tax rate .

The first step in calculating federal income tax is to find the correct tax bracket. ThreeGreen's net income before federal income tax is $103,518.97. That places ThreeGreen in the Over 100,000 But not over 335,000 tax bracket (highlighted in the tax table). ThreeGreen's income tax will be $22,250.00, plus 39% of income above $100,000.00.

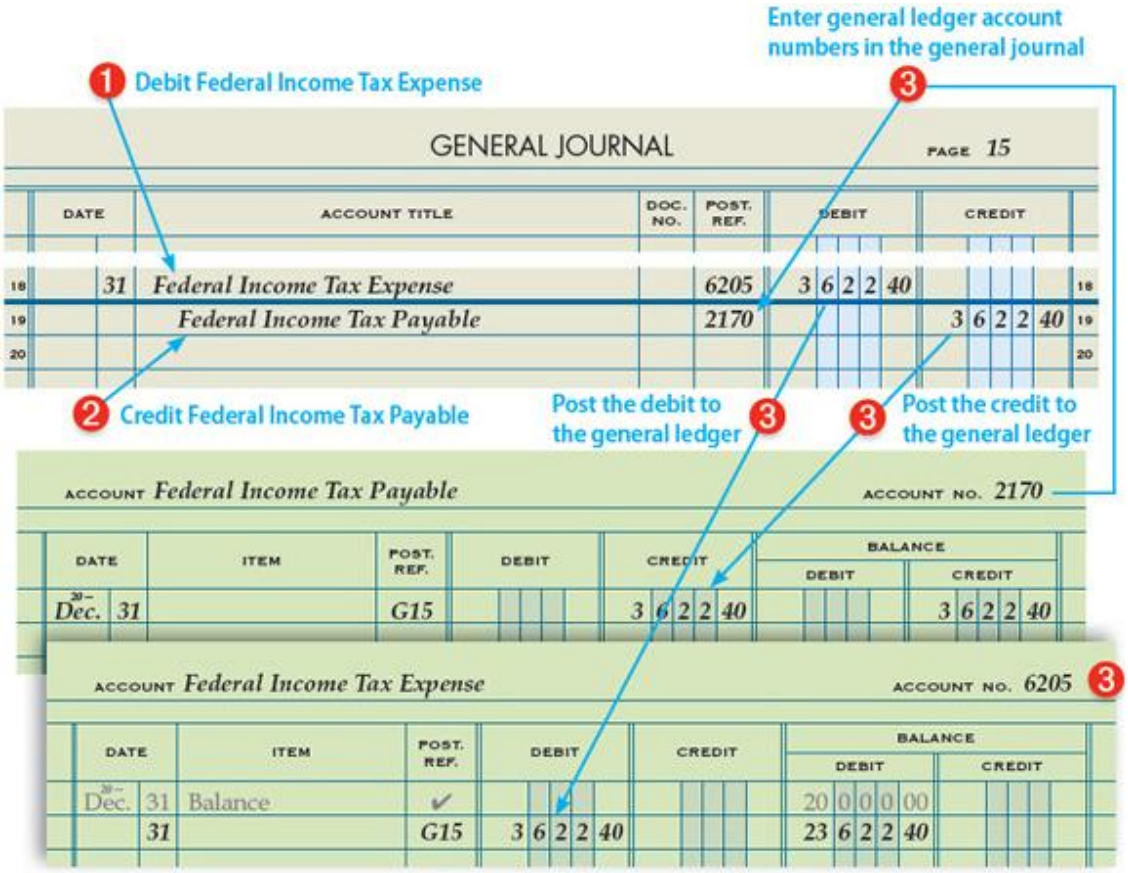
Net Income before Federal Income Taxes	–	Of the Amount Over	=	Net Income Subject to Marginal Tax Rate	×	Marginal Tax Rate	=	Marginal Income Tax
$103,518.97	–	$100,000.00	=	$3,518.97	×	39%	=	$1,372.40

The second step is to calculate the amount of net income subject to the marginal tax rate. This amount, $3,518.97, is multiplied by the marginal tax rate, 39%, to calculate the marginal income tax, $1,372.40.

The minimum amount of tax owed by a business in the 100,000 to 335,000 tax bracket is $22,250.00. This amount is provided in the third column of the tax table. The bracket minimum income tax, $22,250.00, is added to the marginal income tax, $1,372.40, to calculate the total income tax owed for the fiscal year, $23,622.40.

Bracket Minimum Income Tax	+	Marginal Income Tax	=	Federal Income Tax
$22,250.00	+	$1,372.40	=	$23,622.40

Journalizing the Adjusting Entry for Federal Income Tax Payable



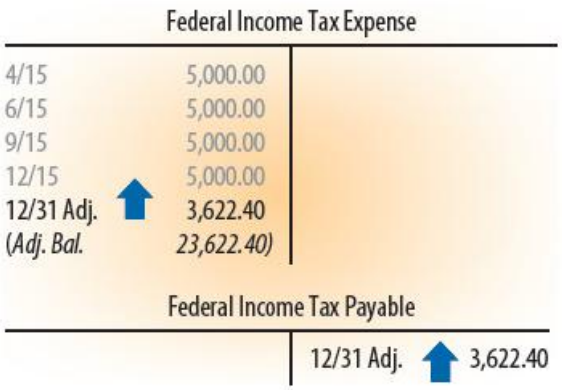
ThreeGreen made four quarterly tax payments of $5,000.00. The total payments of $20,000.00 are less than the income tax owed of $23,622.40. ThreeGreen must adjust the balance of Federal Income Tax Payable to recognize the additional $3,622.40 of taxes owed. ThreeGreen will pay this amount when it files its tax return with the Internal Revenue Service.

Four questions are asked to analyze the adjustment for federal income tax payable.

1. What is the balance of the account being adjusted?
   Federal Income Tax Payable, zero
2. What should the balance be for this account?
   Federal Income Tax Payable, $3,622.40

3. What must be done to correct the account balance?
   Increase $3,622.40
4. What adjustment is made?
   Debit Federal Income Tax Expense, $3,622.40
   Credit Federal Income Tax Payable, $3 622.40

The adjusting entry is shown in the T accounts. The new balance of Federal Income Tax Expense, $23,622.40, is the total amount of taxes owed to the federal government. The adjusted balance of Federal



Income Tax Payable, $3,622.40, is the remaining amount of taxes to be paid.

Journalizing the Adjusting Entry for Federal Income Tax Payable

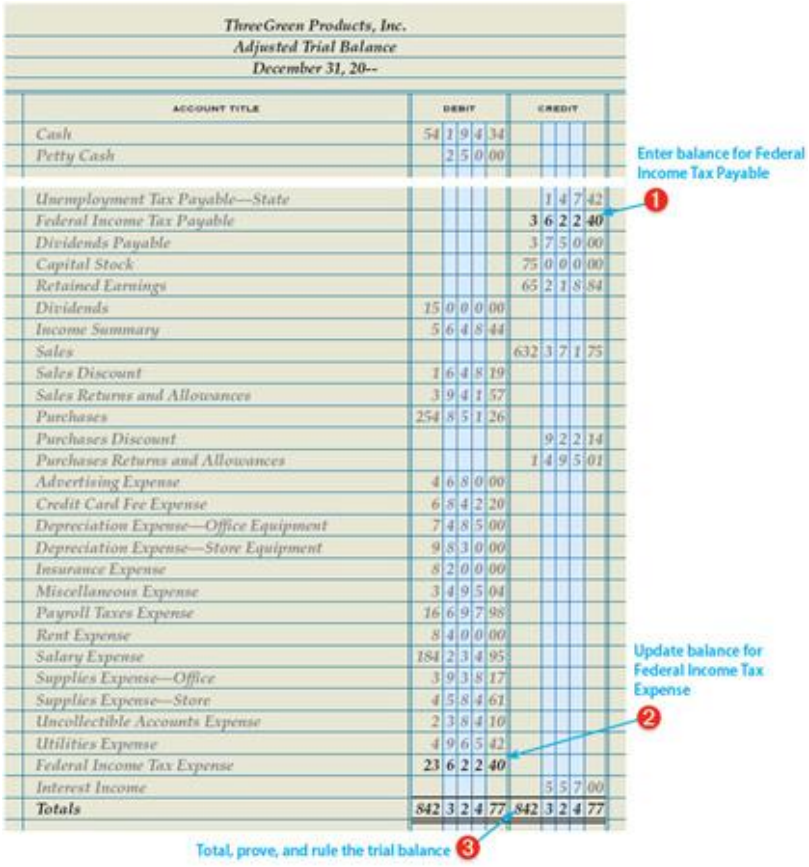
1. Record a debit, $3,622.40, to Federal Income Tax Expense in the general journal.
2. Record a credit, $3,622.40, to Federal Income Tax Payable in the general journal.
3. Post the adjusting entry to the general ledger.

Completing an Adjusted Trial Balance LO9

The adjusted trial balance can be completed after the federal income tax expense adjustment is posted. The account balances for Federal Income Tax Payable and Federal Income Tax Expense are entered in the adjusted trial balance.

Completing an Adjusted Trial Balance

1. Enter the adjusted balance of Federal Income Tax Payable, $3,622.40.
2. Replace the unadjusted balance of Federal Income Tax Expense, $20,000.00, with the adjusted balance, $23,622.40.
3. Total, prove, and rule the adjusted trial balance.



ThreeGreen Products, Inc.
Adjusted Trial Balance
December 31, 20--

ACCOUNT TITLE	DEBIT	CREDIT
Cash	54 1 9 4 34	
Petty Cash	2 5 0 00	
Unemployment Tax Payable—State		1 4 7 42
Federal Income Tax Payable		**3 6 2 2 40**
Dividends Payable		3 7 5 0 00
Capital Stock		75 0 0 0 00
Retained Earnings		65 2 1 8 84
Dividends	15 0 0 0 00	
Income Summary	5 6 4 8 44	
Sales		632 3 7 1 75
Sales Discount	1 6 4 8 19	
Sales Returns and Allowances	3 9 4 1 57	
Purchases	254 8 5 1 26	
Purchases Discount		9 2 2 14
Purchases Returns and Allowances		1 4 9 5 01
Advertising Expense	4 6 8 0 00	
Credit Card Fee Expense	6 8 4 2 20	
Depreciation Expense—Office Equipment	7 4 8 5 00	
Depreciation Expense—Store Equipment	9 8 3 0 00	
Insurance Expense	8 2 0 0 00	
Miscellaneous Expense	3 4 9 5 04	
Payroll Taxes Expense	16 6 9 7 98	
Rent Expense	8 4 0 0 00	
Salary Expense	184 2 3 4 95	
Supplies Expense—Office	3 9 3 8 17	
Supplies Expense—Store	4 5 8 4 61	
Uncollectible Accounts Expense	2 3 8 4 10	
Utilities Expense	4 9 6 5 42	
Federal Income Tax Expense	**23 6 2 2 40**	
Interest Income		5 5 7 00
Totals	***842 3 2 4 77***	***842 3 2 4 77***

Enter balance for Federal Income Tax Payable 1

Update balance for Federal Income Tax Expense 2

Total, prove, and rule the trial balance 3

End of Lesson Review

- LO7 Post adjusting entries.

- LO8 Adjust federal income tax payable.
- LO9 Prepare an adjusted trial balance.

Terms Review

- adjusted trial balance
- tax bracket
- marginal tax rate

Audit Your Understanding

1. How does the trial balance serve as a check list for preparing adjusting entries?
2. In what order can the adjusting entries be journalized?
3. Which accounts are totaled to determine net income before federal income taxes?
4. What is the bracket minimum tax and marginal tax rate of the 25% tax bracket?

Work Together 15-4

Preparing the adjusting entry for federal income tax and an adjusted trial balance

Use the general journal and general ledger accounts from Work Together 15-3. An incomplete adjusted trial balance is given in the Working Papers. Your instructor will guide you through the following example.

1. Post the adjusting entries in the general ledger.
2. Record all account balances, except for Federal Income Tax Expense, on an adjusted trial balance.
3. Using the tax table shown in this chapter, calculate the federal income tax owed for the fiscal year.
4. Journalize and post the adjusting entry for federal income tax payable.
5. Complete the adjusted trial balance.
6. Total, prove, and rule the adjusted trial balance.

On Your Own 15-4

Preparing the adjusting entry for federal income tax and an adjusted trial balance

Use the general journal and general ledger accounts from On Your Own 15-3. An incomplete adjusted trial balance is given in the Working Papers. Work this problem independently.

1. Post the adjusting entries in the general ledger.
2. Record all account balances, except for Federal Income Tax Expense, on an adjusted trial balance.
3. Using the tax table shown in this chapter, calculate the federal income tax owed for the fiscal year.
4. Journalize and post the adjusting entry for federal income tax payable.
5. Complete the adjusted trial balance.
6. Total, prove, and rule the adjusted trial balance.

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Think Like an Accountant: Calculating Quarterly Income Tax Payments

Think Like an Accountant: Calculating Quarterly Income Tax Payments

Marcus Bass was shocked when he met his tax accountant to sign his annual federal tax return. Not only did his company owe an extra $23,000.00 in taxes, but he also had to pay $2,000.00 in penalties. “I paid my quarterly tax estimates on time. Why do I owe a penalty?” he asked.

“The government expects you to pay reasonable estimates each quarter,” explained Latisha Hilton, his tax accountant. “You made quarterly tax payments on time, but your employees assumed the company would owe only $70,000.00 in federal income taxes. The good news is your net income was much higher than you expected. The bad news is you failed to increase the quarterly tax payments. The penalty is for underpaying the estimates.”

Marcus asked Latisha if she would help his employees calculate the amount of the quarterly tax payments. “Let me propose another plan,” she said. “I'll create a spreadsheet to help your employees do this on their own.

Open the Spreadsheet TLA_CH15

Complete the work sheet to create a schedule for calculating quarterly tax payments. The company paid $26,000.00 for its first quarterly tax payment. The company currently expects to earn a net income before federal income tax of $320,000.00 this year.

1. Calculate the estimated tax payment for the second quarter.
2. The company's sales continue to increase. At the end of the third quarter, the company now expects an annual net income before federal income tax of $350,000.00. Calculate the estimated tax payment for the third quarter.

Chapter 15: Preparing Adjusting Entries and a Trial Balance: Careers in Accounting

Careers in Accounting

Kalika Patel

CHIEF FINANCIAL OFFICER

Kalika Patel is vice president and chief financial officer (CFO) of her company. The CFO is the top financial position in an organization. Generally, only large companies employ CFOs. Where no CFO position exists, the controller is likely the chief accounting officer. As a member of the executive management team, Kalika helps run the entire company. She takes the lead in formulating decisions that relate to finance and accounting. Kalika reports directly to the chief executive officer (CEO).

As CFO, Kalika is ultimately responsible for her company's financial statements. However, she leaves their preparation to her accounting department. She devotes her efforts, instead, to the things executives are concerned about: planning, directing, and controlling the business. Her specific duties would include:

1. Reviewing reports submitted to the Securities and Exchange Commission (SEC)
2. Overseeing company investments
3. Managing cash flow
4. Negotiating the acquisition of capital assets, including other companies
5. Planning for taxes
6. Negotiating contracts
7. Arranging capital financing
8.

Many CFOs also supervise investor relations and invest pension plan funds. As CFO, Kalika interprets operating results for both the company management and the board of directors.

Salary Range: Approximately $160,000, although this varies greatly with the size of the company and can be as high as several hundred thousand dollars.

Qualifications: A CFO must be able to relate to the needs of senior executives in order to ensure that financial reports support their needs. This requires strong interpersonal and problem-solving skills as well as creativity. The CFO must be able to use sound judgment to make good decisions. He/she must possess integrity and dependability. Most companies require ten or more years of accounting experience in progressively responsible roles. A four-year college degree is required with a master's degree, and/or a Certified Public Accountant (CPA) certification is highly desirable.

Occupational Outlook: The growth for chief financial officer positions is expected to remain the same (–2% to +2%) for the period from 2008 to 2018.

Activity

Use the Internet to access the home page of a corporation that interests you. Find the name of the chief financial officer for that company. Search for additional information about that person's education and past work experience.

Chapter 15: Preparing Adjusting Entries and a Trial Balance: End of Chapter Review

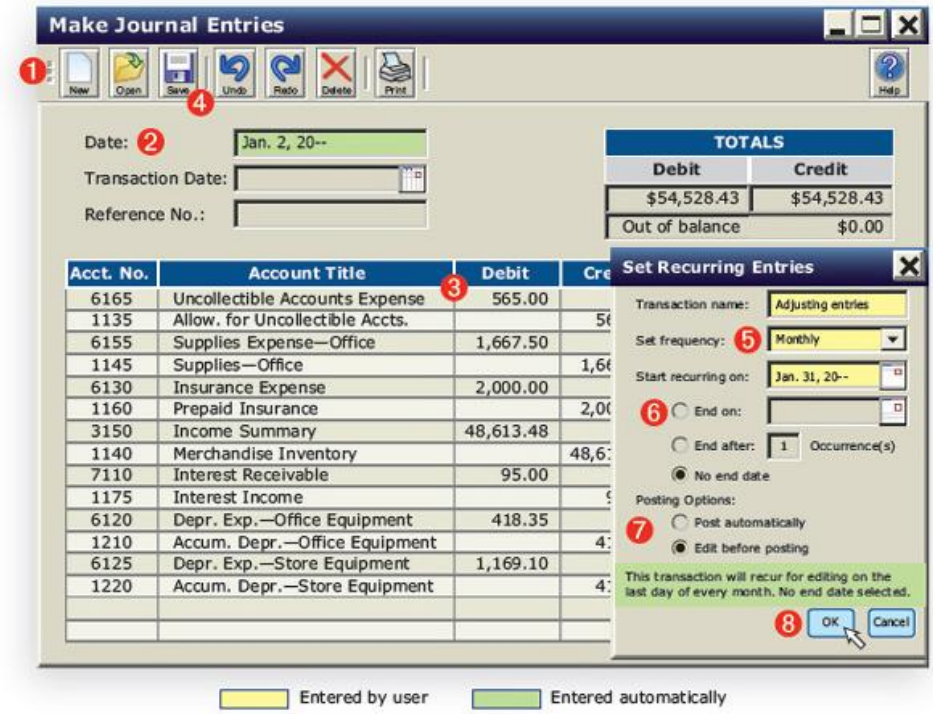
End of Chapter Review

Preparing Adjusting Entries and a Trial Balance: A Look at Accounting Software

Setting Up Recurring Entries

In computerized accounting systems, transactions that are set up for automated entry are called recurring entries. These are sometimes referred to as recurring transactions. Any transaction that is repeated frequently can be set up as a recurring entry. One example is fulfillment of a standing purchase order, where a fixed selection of merchandise is shipped to the same customer every month. Likewise, recurring entries can be used to enter purchases of merchandise that occur every month.

In this chapter, ThreeGreen made adjusting entries at the end of its fiscal year. Businesses using computerized accounting systems can easily prepare monthly financial statements. These businesses, however, must prepare and post monthly adjusting entries. Since these are the same, or nearly the same, every month, using a recurring entry saves time and ensures that all adjustments are recorded every month.



1. Clicking New on the menu bar opens a pick list. The user selects Create Recurring Entry.
2. The system sets the current date. It cannot be changed. Note that no transaction date is selected.
3. Recurring entries can be set up individually or in a single transaction as shown in the window. In this case, the user has entered all adjusting entries as a single transaction.
4. When the transaction is complete, the user clicks Save. The system opens the Set Recurring Entries dialog box.
5. The user enters a name for the transaction and selects the frequency from the pick list. Choices would be Weekly, Monthly, Quarterly, and None.
6. The date of the first occurrence is entered. If the recurring entry is expected to be in effect for only a limited number of periods, such as rent on a short-term lease, either an “End on” date or a specific number of periods could be entered. The recurring entry for adjustments would not have an end date.
7. In this window, the user has selected the option of editing the entry before posting. The amount of each adjusting entry may be different from month to month. The user might elect to have other recurring entries posted automatically. Whenever a recurring entry is posted automatically, the system displays a message confirming the entry.

Note: The user also has the option of setting up an entry as a template. Templates are useful for entries that recur frequently but irregularly. To make an entry a template, the user would select None in the Set frequency field, leave the start date blank, and not set any options.

8. The system displays a summary of the options selected, and the user clicks OK to record the recurring entry. On January 31, and at the end of every month to follow, the system will alert the user that the entry is ready for editing. It will be retrieved from memory with the transaction date and reference number assigned by the system. The user will enter the correct adjustments and click Save to post the entry.

Preparing Adjusting Entries and a Trial Balance: Chapter Summary

At the end of a fiscal year, some general ledger accounts must be brought up to date before financial statements are prepared. The first step in recording adjusting entries is to prepare an unadjusted trial balance. Four questions must be answered to analyze an adjustment.

1. What are the balances of the accounts being adjusted?
2. What should the balances be for these accounts?
3. What must be done to correct the account balances?
4. What adjusting entries are made?

Most asset and liability accounts have a related revenue or expense account. For example, the adjusting entry for prepaid insurance includes a debit to Insurance Expense. Merchandise Inventory does not have a related income statement account. Therefore, the adjusting entry for merchandise inventory includes an entry to the temporary account, Income Summary.

Accrued revenue is recorded when revenue has been earned but not collected. Interest income is one example of accrued revenue. The adjusting entry consists of a debit to Interest Receivable and a credit to Interest Income.

Current assets include cash and other assets expected to be consumed within a year. Plant assets include physical assets that will be used for many years. Over time, plant assets depreciate. That is, their usefulness and value are reduced due to wear or obsolescence. Depreciation expense recognizes a portion of each plant asset's cost every fiscal year. The amount of depreciation expense recorded each year is based on the asset's original cost, useful life, and salvage value. The adjusting entry includes a credit to Accumulated Depreciation, a contra account to the related plant asset account, and a debit to Depreciation Expense.

An adjusted trial balance is prepared after adjusting entries are posted. Total debits and credits of all income statement accounts, excluding Federal Income Tax Expense, are computed. The excess of the credit total over the debit total equals the net income before federal income taxes. The federal income tax owed is based on the minimum tax and marginal tax rate of the appropriate tax bracket. After the adjusting entry for federal income tax is posted, the federal income tax adjustment is entered in the adjusted trial balance.
Preparing Adjusting Entries and a Trial Balance: Explore Accounting

Accounting Systems Design

The role filled by accountants in preparing financial statements and filing tax returns for businesses is well understood. In addition, many accountants fill another important role. They design the accounting systems used to prepare the various financial reports needed for successful business operations.

An accounting system should be designed to meet the needs of the business it serves. Several factors to consider are:

1. Size of the company
2. Number of business locations
3. Geographic area of operations (local, statewide, national, or international)
4. Number of employees
5. Type of organization (service, merchandising, or manufacturing)
6.

Also to be considered are the intended uses of the information:

1. Required financial reports (income statement, balance sheet, and cash flow statement)

2. Income tax reporting
3. Management decision making
4. Management controls
5. Product pricing

An accounting system is built around a chart of accounts, which provides the organizational structure for the data that will be collected and the information that will be reported.

A small business owned and operated by one person may not need detailed information. However, as a business grows in size and complexity, more detailed information is required. Large international businesses need very complex accounting systems with thousands of accounts. As businesses grow, accountants constantly look for ways to provide better information. Thus, accountants play a key role in business.

Instructions
Sunshine Gifts has decided to start manufacturing its own unique ceramic products. The company has ordered a set of custom molds, materials, and equipment. Two new employees have been hired to do the manufacturing. What additional accounts will need to be added to the company's chart of accounts to enable it to manage its new business activities?

Preparing Adjusting Entries and a Trial Balance: Apply Your Understanding: Application Problem

INSTRUCTIONS: Download problem instructions for Excel, QuickBooks, and Peachtree from the textbook companion website at www.C21accounting.com .

15-1 Application Problem: Preparing Adjusting Entries for Supplies and Prepaid Insurance LO1, 2

Page 20 of a general journal and a partially completed unadjusted trial balance are given in the Working Papers. Selected general ledger accounts for New England Arts are provided on pages 449–451 of the Working Papers. Prepare the adjusting entries for supplies and prepaid insurance. Save your work to complete Problem 15-2.

Instructions:
1. Enter the following accounts on the unadjusted trial balance. Obtain the account balances from the general ledger accounts.
   Merchandise Inventory
   Accumulated Depreciation—Office Equipment
   Depreciation Expense—Office Equipment
   Uncollectible Accounts Expense
2. Total, prove, and rule the unadjusted trial balance.
3. Journalize the adjusting entries for supplies and prepaid insurance. The adjusting entry for the allowance for uncollectible accounts has been recorded in the general journal. The December 31 value of supplies and prepaid insurance are determined to be:

Office supplies	$ 950.00
Store supplies	1,550.00
Prepaid insurance	2,000.00

15-2 Application Problem: Journalizing the Adjusting Entries for Merchandise Inventory and Interest

Receivable LO3, 4

Use the general journal and unadjusted trial balance from Problem 15-1. Save your work to complete Problem 15-3.

Instructions:

1. From a physical count of merchandise inventory, the December 31 balance is determined to be $83,205.00. Journalize the adjusting entry for merchandise inventory.
2. A single note receivable is outstanding on December 31. The 120-day, 9% note was signed on November 28. Journalize the adjusting entry for interest receivable.

<u>15-3 Application Problem:</u> Journalizing the Adjusting Entries for Accumulated Depreciation LO5, 6

Use the general journal and unadjusted trial balance from Problem 15-2. Save your work to complete Problem 15-4.

Instructions:

1. Calculate depreciation expense for a display case costing $4,700.00; estimated salvage value, $500.00, useful life, three years.
2. Calculate the book value of the display case at the end of its second year of service.
3. On December 31, New England Arts determined the total depreciation expense: office equipment, $4,150.00; store equipment, $6,440.00. Journalize the adjusting entries for accumulated depreciation.

<u>15-4 Application Problem:</u> Preparing the Adjusting Entry for Federal Income Tax and an Adjusted Trial Balance LO7, 8, 9

Use the general journal and general ledger accounts used in Problem 15-3. An incomplete adjusted trial balance is given in the Working Papers.

Instructions:

1. Post the adjusting entries to the general ledger.
2. Record all account balances, except for Federal Income Tax Expense, on an adjusted trial balance.
3. Using the tax table shown on page 458 of this chapter, calculate the federal income tax owed for the fiscal year.
4. Journalize and post the adjusting entry for federal income tax payable.
5. Complete the adjusted trial balance.
6. Total, prove, and rule the adjusted trial balance.

1. Journalize and post adjusting entries to the general journal.
2. Make the selections to print the income statement and the balance sheet.
3. Make the selections to print the general journal and the adjusted trial balance.

1. Journalize and post adjusting entries to the journal.
2. Make the selections to print the balance sheet and the profit and loss statement.
3. Make the selections to print the journal and the adjusted trial balance.

1. Use the required formulas to calculate the totals of the Trial Balance columns.
2. Key the adjusting entries in the Adjustments columns.
3. Create the appropriate formulas to extend amounts to the Adjusted Trial Balance columns.

Preparing Adjusting Entries and a Trial Balance: Apply Your Understanding: Mastery Problem

15-M Mastery Problem: Journalizing Adjusting Entries and Preparing an Adjusted Trial Balance LO2, 3, 4, 6, 7, 8, 9

Page 16 of a general journal, a partially completed adjusted trial balance, and selected general ledger accounts for Winterland Rentals are given in the Working Papers.

Instructions:

1. Use the following information collected on December 31 to prepare the adjusting entries.

a. Estimate of uncollectible accounts receivable	$ 1,200.00
b. Merchandise inventory	55,830.00
c. Office supplies inventory	1,090.00
d. Store supplies inventory	870.00
e. Value of prepaid insurance	3,000.00
f. Note receivable, 90-day, 6% note, dated November 21	
g. Estimate of office equipment depreciation	3,600.00
h. Estimate of store equipment depreciation	12,950.00

2. Post the adjusting entries in the general ledger.
3. Record all account balances, except for Federal Income Tax Expense, on an adjusted trial balance.
4. Using the tax table shown in this chapter, calculate the federal income tax owed for the fiscal year.
5. Journalize and post the adjusting entry for federal income tax payable.
6. Complete the adjusted trial balance.
7. Total, prove, and rule the adjusted trial balance.

1. Journalize and post adjusting entries to the general journal.
2. Make the selections to print the income statement and the balance sheet.
3. Make the selections to print the general journal and the adjusted trial balance.

1. Journalize and post adjusting entries to the journal.
2. Make the selections to print the balance sheet and the profit and loss statement.
3. Make the selections to print the journal and the adjusted trial balance.

1. Use the required formulas to calculate the totals of the Trial Balance columns.
2. Key the adjusting entries in the Adjustments columns.

3. Create the appropriate formulas to extend amounts to the Adjusted Trial Balance columns.

1. Go to www.cengage.com/login
2. Click on AA Online to access.
3. Go to the online assignment and follow the instructions.

Preparing Adjusting Entries and a Trial Balance: Apply Your Understanding: Challenge Problem

15-C Challenge Problem: Journalizing Adjusting Entries LO2, 8

Use page 16 of the general journal given in the Working Papers to journalize the following adjusting entries for Renovation Central.

Instructions:

1. A large account previously written off in a prior year was unexpectedly collected in the current year. As a result, the current credit balance of Allowance for Uncollectible Accounts is $17,460.00. The December 31 estimate of uncollectible accounts is only $15,450.00.
2. While counting the merchandise inventory on December 31, the company discovered $3,500.00 of store supplies that had been incorrectly recorded as purchases. The unadjusted balance of Supplies—Store is $4,500.00. With the addition of the newly discovered supplies, the actual value of store supplies on December 31 is $4,800.00.
3. The company has fallen short of its expected net income for the current year. As a result, the actual amount of federal income tax owed is $12,980.00. The company had made quarterly federal income tax payments of $4,000.00.

Preparing Adjusting Entries and a Trial Balance: 21st Century Skills

Don't Lose a Chunk!

Theme: Financial, Economic, Business, and Entrepreneurial Literacy

Skills: Creativity and Innovation, Critical Thinking and Problem Solving, Communication and Collaboration, ICT Literacy

There are many items that lose their value over time. One you can probably relate to easily is an automobile. While owning a car can be expensive, with costs for fuel, maintenance, repair, insurance, and interest on the loan, the largest cost is depreciation. Did you realize that as soon as you drive your new car off the dealer's lot, it is worth less money than you just paid for it?

Some vehicles depreciate faster than others. There are factors that should be considered when buying a new car in order to minimize your monetary loss. Look for one with wide appeal, not one that only satisfies your own preferences. To maximize resale value, follow these guidelines:

- Color: Stay away from trendy, flashy colors. Cars with common, neutral exterior colors such as black, white, or silver are more likely to be popular in the long run.
- Supply and Demand: Buy a car that's a little harder to find, and you won't have as much competition at resale time.

- Safety: Everyone appreciates safety features such as tire pressure warnings, pedestrian friendly bumpers, and rollover air bags.
- Comfort: Options such as automatic climate control, auxiliary jack for MP3s, and navigation systems enhance the value of a vehicle.
- Reliability: Some brands and models have track records for experiencing few maintenance problems, which could reduce the overall cost of owning a vehicle.
- Fuel Efficiency: Some cars get better gas mileage. This not only helps with resale but also with overall vehicle costs.
-

Once you own the vehicle, there are factors you should consider to reduce depreciation. Maintenance records showing regularly scheduled services, low mileage, and cleanliness can help you get the highest price at resale.

Application

1. Shop for a car. Using the Internet, research the retail price for a new car—make and model of your choice. Be sure to indicate the options that you choose for the vehicle such as power seats, CD changer, etc.
1. Go to Kelley Blue Book at www.kbb.com . Research the value of the same make and model that is three years old with 36,000 miles, and five years old with 60,000 miles. Then, make the same comparison changing the mileage to 60,000 for the three-year-old model and 100,000 for the five-year-old model. Explain your findings.
2. Using the above instructions, research three other vehicles. Create a table or spreadsheet to display your findings.
3. Assume that you are a car salesman and your sales commission is based on selling the cars that will depreciate the fastest. Create an advertisement (written or video) highlighting the features of this car. Be sure to include factors in your advertisement that will increase depreciation. (Example: Color—bright lemon yellow.)
4. Preparing Adjusting Entries and a Trial Balance: Auditing for Errors
5. The following information was used to prepare the adjusting entries shown in the general journal:
    a. Uncollectible accounts are estimated to be $4,345.00. The balance of the allowance account before adjustment was a $652.00 debit.
    b. Merchandise inventory on hand, $194,831.25, is $5,518.00 less than the amount of inventory from the prior year.
    c. Office supplies inventory used during the year, $3,210.00.
    d. A single note receivable is outstanding on December 31. The 90-day, 8% note was signed on November 27.
    e. Office equipment has a seven-year useful life and a $3,500 salvage value.
    f. After the adjusting entries were posted, the corporation's net income before federal income taxes was $342,500.00. The company has made four quarterly income tax deposits of $25,000.00.

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	DATE		ACCOUNT TITLE	DOC. NO.	POST. REF.	DEBIT	CREDIT	
1			*Adjusting Entries*					1
2	Dec.	31	*Uncollectible Accounts Expense*			3 6 9 3 00		2
3			*Allowance for Uncollectible Accounts*				3 6 9 3 00	3
4		31	*Merchandise Inventory*			5 5 1 8 00		4
5			*Income Summary*				5 5 1 8 00	5
6		31	*Supplies Expense—Office*			3 2 1 0 00		6
7			*Supplies—Office*				3 2 1 0 00	7
8		31	*Interest Receivable*			2 1 0 00		8
9			*Interest Income*				2 1 0 00	9
10		31	*Depreciation Expense—Office Equip.*			5 7 3 0 00		10
11			*Accum. Depreciation—Office Equip.*				5 7 3 0 00	11
12		31	*Federal Income Tax Expense*			16 4 5 0 00		12
13			*Federal Income Tax Payable*				16 4 5 0 00	13

Selected accounts from the adjusted trial balance are shown.

ACCOUNT TITLE	DEBIT	CREDIT
Accounts Receivable	49 8 4 2 25	
Allowance for Uncollectible Accounts		3 0 4 1 00
Merchandise Inventory	205 8 6 7 25	
Supplies—Office	5 8 7 00	
Notes Receivable	10 5 0 0 00	
Interest Receivable		2 1 0 00
Office Equipment	40 1 1 0 00	
Accumulated Depreciation—Office Equipment		12 4 8 0 00
Federal Income Tax Payable		16 4 5 0 00
Income Summary		5 5 1 8 00

Review and Answer

Audit the adjusting entries to determine if the balances in the adjusted trial balance are correct. Prepare a list that describes any errors you discover and how they should be corrected.

Preparing Adjusting Entries and a Trial Balance: Analyzing Nike's Financial Statements
Accounting terms are not always used consistently. Gross profit and gross margin are both used to describe the amount of revenue remaining after the cost of merchandise has been deducted. Nike's gross margin has gone up over the past three fiscal periods, a favorable trend. But sales have gone up as well. That makes it difficult to tell how well Nike has controlled its cost of merchandise sold.

The ratio of gross margin to revenue may be referred to as gross margin, gross margin percent, or gross profit rate. This ratio provides management and investors with a better measure of how well the company has controlled its merchandise costs.

Instructions

1. Use Nike's Selected Financial Data on page B-3 in Appendix B to identify the gross margin percent for 2007–2011. Round gross margin percents to one decimal place.
2. Is the trend in the gross profit rate favorable or unfavorable?
3. Show how amounts on Nike's Consolidated Statements of Income, on page B-5, were used to calculate the gross profit rate for 2011.