## LEARNING GOAL 4

## Analyze Accounts and Prepare Adjusting Entries

## In Learning Goal 4, you will find:

How to Know Which Adjustment to DoOverview of the Process.43
Prepaid Expenses (Deferred Expenses) ..... 44
Unearned Revenues (Deferred Revenues) ..... 46
Depreciation ..... 47
Accrued Revenues. ..... 48
Accrued Expenses ..... 49
The Simple System ..... 50
The Standard Forms of Adjusting Journal Entries ..... 51
Other Special Entries: Reversals and Corrections
Reversing Entries ..... 51
Correcting Entries ..... 52
How to Know Which Adjustment to Do

## Overview of the Process

How to Use the<br>Book for This Topic

Learning to analyze accounts and prepare adjusting entries usually requires extra time and effort. However, doing this will clarify your understanding, improve your confidence, and show you examples of the procedures that businesses regularly need to do to.

Learning Goal 4 discusses each of the 5 types of adjusting entries. If you feel that you want more explanation or more practice for any type of adjustment, use the Appendix to Learning Goal 4. The appendix is divided into five parts, one part for each type of adjustment. Each part offers detailed discussion and practice.

## Prepaid Expenses (Deferred Expenses)

## Definition

## Example 1: Office Supplies

A prepaid expense is an advance payment for goods or services that is recorded as an asset. When the goods or services are used up-usually within a year-an expense is recorded. The expense is said to have been "deferred."

Office Supplies is an asset account that consists of items such as paper, envelopes, pens, and various computer-related supplies. Office Supplies items are recorded as assets when purchased. Although supplies could be recorded as expenses daily when used, it is easier to wait until the end of an accounting period to record the entire amount used as a single adjustment.

The December 31 trial balance of Oakville Computer Repair Services shows the Office Supplies asset account with a balance of $\$ 1,200$. A physical count of the office supply items indicates an actual balance of supplies in the amount of $\$ 750$. Although it would be possible to record an expense each time the asset is used, it is easier to record the whole amount of expense for the entire period at one time, at the end of the period. Therefore, the amount of the adjustment to record the supplies used up is:

| Trial balance amount | $\$ 1,200$ |
| :--- | ---: |
| Actual amount | $\underline{750}$ |
| Used up (adjustment) | $\$ \mathbf{4 5 0}$ |

Supplies will have to be reduced (credited) and Supplies Expense will have to be increased (debited).

The adjusting journal entry is:

| Dec. 31 | Supplies Expense <br> Supplies | 450 | 450 |
| :---: | :---: | :---: | :---: |

T accounts would show:

|  | Supplies |  | Supplies Expense |
| :---: | :---: | :---: | :---: |
| Bal. | 1,200 |  |  |
| Dec. 31 Adjustment |  | 450 | 450 |
| Adjusted Balance | 750 |  | 450 |

## Example 2: Prepaid Insurance

Notice That . . .

Most businesses purchase various kinds of insurance that pay a business for losses such as fire, theft, or business liability lawsuits. Payments for insurance (called premiums) are usually made in advance. For example, on November 1, Oakville Computer Repair Services paid $\$ 1,500$ for a one-year fire insurance policy. As of December 31 year-end, the trial balance shows a $\$ 1,500$ balance in the Prepaid Insurance asset account.

As of December 31, an adjustment is required because two months' of the insurance have been used up. Insurance expense must be increased (debited) and Prepaid Insurance decreased (credited). The amount of the adjustment is $\$ 1,500 / 12=\$ 125$ per month $\times 2=\$ 250$. The adjusting journal entry is:

| Dec. 31 | Insurance Expense <br> Prepaid Insurance | 250 | 250 |
| :--- | :---: | :--- | :--- |

T accounts would show:


- No cash is involved with the adjustments. Cash was paid earlier when the supplies were purchased and when the insurance was purchased.
- Without the adjustments, assets would be overstated on December 31 and expenses would be understated. Understating expenses also overstates net income, which overstates stockholders' equity.

If you would like more detailed explanation and help with adjustments for prepaid expenses, go to Part I of the appendix for this learning goal.

## Unearned Revenues (Deferred Revenues)

## Definition

## Example

An unearned revenue is an advance payment from a customer for future product or services. It is recorded as a liability when the payment is received. The unearned revenue becomes revenue later as goods or services are provided.

Many companies receive advance payments from customers. Advance receipts for items such as rent, insurance, magazine subscriptions, travel, and professional services are common. On October 10, Oakville Computer Repair Services received a $\$ 5,000$ advance payment from a customer. This was properly recorded as a debit to Cash and a credit to Unearned Revenue. As of December 31 year-end, analysis indicates that the revenue earned for services provided to the customer is $\$ 3,000$. At that time, the trial balance still shows $\$ 5,000$ of Unearned Revenue.

Although it would be possible to reduce the liability as the revenue is earned, the company finds it easier to record all the revenue in a single adjustment at the end of the period. This entry reduces (debits) unearned revenue liability and increases (credits) revenue. The adjusting journal entry is:

Dec. $31 \quad$ Unearned Revenue 3,000
Service Revenue
3,000
T accounts would show:

|  | Unearned Revenue |  |  | Service Revenue |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Balance <br> Dec. 31 Adjustment <br> Adjusted Balance | 3,000 |  |  | 3,000 |  |
|  |  | 2,000 |  | 3,000 |  |

- No cash is involved with the adjustment. Cash was received on October 10 when the customer made the advance payment.
- Without the adjustment, liabilities will be overstated by $\$ 3,000$, and revenue will be understated by $\$ 3,000$. Understating the revenue will understate net income, which will understate stockholders' equity.

If you would like more detailed explanation and help with adjustments for unearned revenues, go to part II of the appendix for this learning goal.

## Depreciation

## Definition

## Estimated Useful Life

## Overview

Depreciation is the process of allocating the cost of a plant and equipment asset into expense, during the asset's estimated useful life.

Plant and equipment assets provide many years of service. To calculate depreciation, the years of service life must be estimated at the time an asset is acquired because the number cannot be known exactly. The details of depreciation calculations are discussed in the appendix, Part III, page 139.

Most businesses own long-term productive assets such as buildings, land, vehicles, furniture, and equipment. Except for land, all of these assets eventually lose their usefulness because they wear out or become obsolete. The matching principle requires that as these assets provide benefits, a portion of their cost should be reported as an expense each accounting period. This is similar to adjusting a prepaid expense that has been used up, except that depreciation is an estimated amount and is for plant and equipment assets, that last many years.

Oakville Computer Repair Services purchased $\$ 10,000$ of equipment at the start of the year. Based on the equipment's cost and an estimated useful life of 10 years, the adjusting entry for the year's depreciation expense is:

| Dec. 31 | Depreciation Expense $(\$ 10,000 / 10)$ <br> Accumulated Depreciation | 1,000 |  |
| :---: | :---: | :---: | :---: |
|  |  | 1,000 |  |

T accounts would show:


Accumulated Depreciation-Equipment is a contra-asset account. A contraasset account is an account that acts as an offset to the balance of a related asset account. Contra-asset accounts have credit balances. On the balance sheet, a contra-asset balance is subtracted from the balance of its related asset. In the example above, the difference between the asset cost of $\$ 10,000$ and the accumulated depreciation of $\$ 1,000$ is $\$ 9,000$ and is called book value. Book value is the undepreciated cost of an asset.

## Notice That . . .

## More Help

- The amount of the depreciation is an estimate based on useful life.
- No cash is involved in the adjustment.
- Without the adjustment, assets are overstated by $\$ 1,000$ and expenses are understated by $\$ 1,000$, which overstates net income and stockholders' equity.

If you would like more detailed explanation and help with adjustments for depreciation, go to Part III of the appendix for this learning goal.

## Accrued Revenues

## Definition

## Example

An accrued revenue is a revenue that has been earned but no cash has been received. An accrued revenue adjustment is required if an accrued revenue would remain unrecorded at the end of an accounting period. It always requires a debit to a receivable and credit to revenue.

Austin Advertising Agency performed $\$ 900$ of advertising services for a client on November 5; however, no cash was received and the bookkeeper forgot to record the accrued revenue. The company has monthly accounting periods. At November 30 month-end, this adjustment is needed:

| Nov. 30 | Accounts Receivable <br> Service Revenue | 900 |
| :---: | :---: | :---: |
|  |  | 900 |

T accounts would show:

|  | Accounts Receivable |  |  | Service Revenue |  |
| :--- | ---: | ---: | :--- | ---: | :---: |
| Balance | 4,500 |  |  |  |  |
| Nov. 30 Adjustment | 900 |  |  |  |  |
| Adjusted Balance | 5,400 |  |  | 31,000 |  |
|  |  |  | 31,900 |  |  |

- No cash is involved with the adjustment. Cash is received later when the customer pays the receivable.
- Without the adjustment, assets will be understated by $\$ 900$. Revenue also will be understated by $\$ 900$, understating net income and stockholders' equity.

If you would like more detailed explanation and help with adjustments for accrued revenues, go to part IV of the appendix for this learning goal.

## Definition

## Example

An accrued expense is an expense that has been incurred but no cash has been paid. An accrued expense adjustment is required if an accrued expense would remain unrecorded at the end of an accounting period. It always requires a debit to an expense and a credit to a payable.

Omaha Co. received an $\$ 850$ utility bill for December services that will not be paid until January. The accounting period ends on December 31.

| Dec. 31 | 850 |  |
| ---: | ---: | ---: | ---: |
|  | Utilities Expense | 850 |

Austin Advertising Agency has monthly accounting periods and a five-day workweek. Wages were last paid on Friday, May 25. Wages are paid every two weeks and the next payday will be Friday, June 8 . Wages are $\$ 4,000$ per week ( $\$ 800$ per day).

| May | F | S | S | M | T | W | T |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\ldots \ldots \ldots \ldots$ | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| June |  |  |  |  |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Unless an accrued expense adjustment is made, the last four days of May wages expense will remain unrecorded on the May financial statements. The following adjusting entry is needed:

| May $31 \quad$ Wages Expense $(4 \times \$ 800)$ | 3,200 |  |
| :---: | :---: | :---: |
| Wages Payable | 3,200 |  |

T accounts would show:

|  | Wages Expense |  |  | Wages Payable |  |
| :--- | ---: | ---: | :--- | ---: | :---: |
| Balance | 15,200 |  |  |  |  |
| May 31 Adjustment | 3,200 |  |  |  |  |
|  | 18,400 |  |  | $-0-$ |  |
| Adjusted Balance |  |  | 3,200 |  |  |

- No cash is involved with the adjustments. Cash is paid later.
- Without the adjustment, liabilities will be understated. Expenses also will be understated, overstating net income and stockholders' equity.

More Help

If you would like more detailed explanation and help with adjustments for accrued expenses, go to part V of the appendix.

## The Simple System

## The Basic Idea

How to Know If an Adjustment Is Needed


Whenever an event has created a revenue or an expense that has not been recorded by the end of the period, an adjustment will be needed.

The table below shows you a simple system for deciding if you need to do an adjustment and, if so, what kind. The most important part of the system is to be alert for situations when any revenue or expense has not been recorded.

| IF . . . | Look For . . | THEN the adjustment <br> is for $\ldots$ |
| :--- | :--- | :--- |
| revenue was <br> earned, but <br> there is no <br> indication that <br> the revenue <br> was recorded | a cash advance <br> was previously <br> received from <br> the customer, | unearned (deferred) <br> revenue |
|  | no cash <br> has been asset) <br> received | accrued revenue |

## The Standard Forms of Adjusting Journal Entries

## The Standard Form of Each Adjusting Entry

After you have identified a particular type of transaction that needs to be adjusted, you need to know the form of adjusting entry. The table below shows the standard form of each type of adjusting entry.

| Adjustment for $\ldots$ |  | The form of the adjusting <br> entry is $\ldots$ |
| :--- | :--- | :--- |
| Prepaid Expense | Dr. <br> Cr. | Expense $\uparrow$ <br> Prepaid Expense $\downarrow$ |
| Unearned Revenue | Dr. <br> Cr. | Unearned Revenue $\downarrow$ <br> Revenue $\uparrow$ |
| Depreciation | Dr. | Depreciation Expense $\uparrow$ <br> Accumulated Depreciation $\uparrow$ <br> Cr. |
| Accrued Expense | Dr. <br> Cr. | Expense $\uparrow$ <br> Payable $\uparrow$ |
| Accrued Revenue | Dr. <br> Cr. | Receivable $\uparrow$ <br> Revenue $\uparrow$ |

Note: These standard forms assume that prepaid and unearned items were entered in balance sheet accounts, which is what you have studied. Alternative methods are also available. You can study these in the disk at the back of the book.

## Other Special Entries: Reversals and Corrections

## Reversing Entries

## Overview

## See Disk at the Back of This Book

Reversing entries, particularly for accruals, are a frequently-used technique in practice. Reversing entries are a time-saving device that are recorded on the first day of a new accounting period after adjusting entries are completed and the books have been closed for the prior period.

The disk at the back of this book contains extensive explanation, examples, and illustrations of reversing entries for both accrual and deferral balances.

## Correcting Entries

## Overview

Corrections are not always needed, but are not unusual. Two types of correction situations can occur. First, corrections may be required at any time during the current accounting period, whenever an error is detected. In this circumstance all that is required is an entry that corrects the error in the account balances. In the second circumstance, the error is discovered after the books have been closed. In this case, a different type of correction will be required in the following accounting period.

Note: Do not confuse correcting entries with adjusting entries, which are a normal part of the accounting cycle, and occur at the end of an accounting period. Correcting entries can affect any account balances and be needed at any time.

## See Disk at the Back of This Book

The disk at the back of this book contains extensive explanation, examples, and illustrations of correcting entries.

## QUICK REVIEW

There are five types of adjustments categories:

- Prepaid expense
- Unearned revenue
- Depreciation
- Accrued expense
- Accrued revenue

The table on page 51 will help you remember how to record the adjusting entries, however, you should first understand why each adjustment is needed and what would happen it the adjustment was not made.

- Review the table on page 50: "How to Know if an Adjustment Is Needed."
- If you need more explanation and practice, use the appendix to this learning goal.


## VOCABULARY

Accrued Expense: An expense that has been incurred but no cash has been paid (page 49)
Accrued Revenue: A revenue that has been earned but no cash has been received (page 48)

Book Value: Cost of an asset minus accumulated depreciation of the asset (page 47)
Contra-asset: An account that acts as an offset to the balance of an asset account (page 47)

Depreciation: The process of allocating the cost of a plant and equipment asset into expense during the asset's estimated useful life (page 47)

Prepaid Expense: An advance payment for goods or services that is recorded as an asset (page 44)

Unearned Revenue: An advance payment from a customer for future revenue that is recorded as a liability when the payment is received (page 46)

## PRACTICE Learning Goal 4

Learning goal 4 is about identifying what type of adjustment is required and knowing how to make that adjustment. Answer the questions and problems below to practice what you have just read.

## Multiple Choice

## Select the best answer.

1. The purpose of adjusting entries is to:
a. make sure all cash receipts and payments have been recorded.
b. make sure the revenue recognition and matching principles are fully applied.
c. make the necessary daily corrections in accounts that frequently change.
d. record expenses in the correct period.
2. In July, Delhi Company received $\$ 500$ cash for revenues accrued in June. The company also recorded $\$ 500$ of unearned revenue that had been earned in July. The effect of these two transactions on July revenue is:
a. decrease $\$ 500$.
b. They offset each other.
c. increase $\$ 500$.
d. increase $\$ 1,000$.
3. Which of the following could not be an example of an accrual?
a. wages unpaid and owed to employees
b. advance payment of a one-year insurance policy
c. interest owing on a loan
d. fees earned but not yet billed to client
4. Which of the following could not involve a deferral (prepayment) transaction?
a. paying the balance owed in Wages Payable
b. receipt of an advance payment from a customer
c. using up supplies
d. deferred interest revenue
5. Adjusting entries for accrued expenses affect what kinds of accounts?
a. revenues and expenses
b. assets and liabilities
c. revenues and assets
d. expenses and liabilities
6. Adjusting entries for accrued revenues affect what kinds of accounts?
a. revenues and expenses
b. assets and liabilities
c. revenues and assets
d. expenses and liabilities
7. Adjusting entries for prepaid expenses affect what kinds of accounts?
a. revenues and expenses
b. assets and expenses
c. assets and liabilities
d. revenues and liabilities
8. Adjusting entries for unearned revenues affect what kinds of accounts?
a. revenues and expenses
b. assets and expenses
c. assets and liabilities
d. revenues and liabilities
9. Failure to make an adjustment to record unearned revenue that had been earned would result in what errors on the financial statements?
a. assets understated and revenues understated
b. liabilities overstated and revenues understated
c. liabilities understated and revenues understated
d. assets overstated and revenues overstated
10. Failure to make an adjustment to record accrued revenue that had been earned would result in what errors on the financial statements?
a. assets understated and revenues understated
b. liabilities overstated and revenues understated
c. liabilities understated and revenues understated
d. assets overstated and revenues overstated
11. Failure to make an adjustment to record prepaid advertising expense that had been used would result in what errors on the financial statements?
a. assets understated and expenses overstated
b. liabilities overstated and expenses understated
c. liabilities understated and expenses understated
d. assets overstated and expenses understated
12. Failure to make an adjustment to record accrued advertising expense would result in what errors on the financial statements?
a. assets understated and expenses overstated
b. liabilities overstated and expenses understated
c. liabilities understated and expenses understated
d. assets overstated and expenses understated
13. Failure to make an adjustment to record depreciation would result in what errors?
a. assets understated and expenses overstated
b. liabilities overstated and expenses understated
c. liabilities understated and expenses understated
d. assets overstated and expenses understated
14. Before year-end adjustments on December 31, the total revenues on the trial balance are $\$ 55,000$ and the total expenses are $\$ 47,000$. If the following adjustments are needed, what is the correct net income (or loss) for the year ended December 31?

- Accrued insurance expense at December 31: \$4,700
- Prepaid insurance consumed: $\$ 2,000$
- Unrecorded and unpaid rent expense at December 31: \$3,500
a. Net loss: $(\$ 2,200)$
b. Net income: $\$ 4,800$
c. Net income: $\$ 2,500$
d. Net loss: $(\$ 10,200)$


## PRACTICE

15. Which sequence of events correctly describes a prepaid expense?
a. pay cash, consume the service, make the adjustment
b. consume the service, make the adjustment, pay cash
c. make the adjustment, consume the service, pay cash
d. pay cash, make the adjustment, consume the service
16. Which sequence of events correctly describes an accrued expense?
a. pay cash, consume the service, make the adjustment
b. consume the service, make the adjustment, pay cash
c. make the adjustment, consume the service, pay cash
d. pay cash, make the adjustment, consume the service
17. Which sequence of events correctly describes unearned revenue?
a. receive cash, earn revenue, make the adjustment
b. earn revenue, make the adjustment, receive cash
c. make the adjustment, earn revenue, receive cash
d. receive cash, make the adjustment, earn revenue
18. Which sequence of events correctly describes accrued revenue?
a. receive cash, earn revenue, make the adjustment
b. earn revenue, make the adjustment, receive cash
c. make the adjustment, earn revenue, receive cash
d. receive cash, make the adjustment, earn revenue
19. On August 1, Chen Company paid $\$ 3,000$ in advance for six months of advertising service.

What adjustment should the company make on August 31?
a. debit Advertising Expense and credit Cash for $\$ 3,000$
b. debit Prepaid Advertising and credit Cash for $\$ 500$
c. debit Advertising Expense and credit Prepaid Advertising for $\$ 500$
d. debit Advertising Expense and credit Prepaid Advertising for $\$ 3000$
20. Blakeslee Corporation completed a carpet installation job for $\$ 5,500$. At year end, the bill has not yet been sent to the customer. What adjustment should be made?
a. debit Accounts Receivable and credit Unearned Revenue \$5,500
b. debit Accounts Receivable and credit Installation Revenue $\$ 5,500$
c. debit Cash and credit Unearned Revenue $\$ 5,500$
d. debit Unearned Revenue and credit Installation Revenue $\$ 5,500$
21. On January 3, Aviles Enterprises purchased a new computer system. It was estimated that the Depreciation Expense for the year would be $\$ 3,000$. On December 31:
a. debit Depreciation Expense and credit Accumulated Depreciation \$3,000
b. debit Computer Equipment and credit Cash $\$ 3,000$
c. debit Depreciation Expense and credit Cash \$3,000
d. debit Depreciation Expense and Computer Equipment \$3,000
22. Cash basis accounting will require adjusting entries to be done:
a. the same as accrual basis accounting.
b. at the option of the accountant.
c. only if cash has been paid or received.
d. never.
23. An adjusting entry could include all of the following except:
a. debit to Accounts Receivable.
b. credit to Accounts Payable.
c. debit to Unearned Revenue.
d. debit to Cash.
24. On January 27, 2018, Rivas Enterprises collected $\$ 35,000$ from a customer for which it had accrued a $\$ 27,000$ account receivable on December 31, 2017. Rivas Enterprises had no other accounts receivable. The revenue from this customer was:
a. $\$ 27,000$ in 2017 and $\$ 35,000$ in 2018.
b. $\$ 27,000$ in 2017 and $\$ 0$ in 2018.
c. $\$ 27,000$ in 2017 and $\$ 8,000$ in 2018.
d. $\$ 0$ in 2017 and $\$ 35,000$ in 2018.

## PRACTICE

## Discussion Questions and Brief Exercises

## Answer the following questions:

1. The types of adjusting entries we have discussed are recorded in order to apply two important GAAP principles. What are these two principles and what do they require?
2. Why are adjusting entries recorded at the end of an accounting period?
3. If revenue was earned, but there is no indication that it was recorded and a cash advance was previously recorded from a customer, what type of adjusting entry will be needed? What kind of account will be debited and what kind of account will be credited?
4. If expense was incurred, but there is no indication that the expense was recorded and a shortterm noncash asset was used up, what type of adjusting entry will be needed? What kind of account will be debited and what kind of account will be credited?
5. If expense was incurred, but there is no indication the expense was recorded and a plant and equipment asset was being used, what type of adjusting entry will be needed? What kind of account will be debited and what kind of account will be credited?
6. If revenue was earned, but there is no indication that it was recorded and no cash (or other asset) has been received, what type of adjusting entry will be needed? What kind of account will be debited and what kind of account will be credited?
7. If expense was incurred, but there is no indication the expense was recorded and no cash (or other asset) has been paid or used, what type of adjusting entry will be needed? What kind of account will be debited and what kind of account will be credited?
8. What is the purpose of the two accounts "Depreciation Expense" and "Accumulated Depreciation"? What are their normal balances? Where do they appear on financial statements?
9. At the end of June, the Wages Expense account has a balance of $\$ 29,000$, and the unrecorded Wages Payable is $\$ 3,500$. What amount of Wages Expense should be recorded on the monthly income statement for June?
10. Our company hired a consultant in May. In June, our company paid $\$ 15,000$ cash to the consultant for full cost of the completed job, and we recorded $\$ 5,000$ of this as a June expense. What was the adjusting entry that we recorded on May 31?
11. What was the May 31 adjusting entry recorded by the consulting company in \#10 above?
12. On a trial balance, total debits equal total credits. Does this mean that adjusting entries will be not be necessary? Explain your answer.
13. On January 25 , a company paid $\$ 3,800$ for repairs expense. $\$ 1,000$ of this amount had been accrued on December 31. What is the entry to record the payment in January?
14. A company accrued $\$ 500$ of revenue and $\$ 300$ of expense at the end of the current year. What would the effect have been if these accruals had not been made?
15. Joe thinks that adjusting entries only affect the income statement. Mary believes that adjusting entries affect both the income statement and the balance sheet. Is one of them correct?
16. Dennison Company owes $\$ 20,000$ on a note payable. On the first day of each month, the company makes a payment to repay the amount owed plus interest. Should Dennison Company make an adjustment on December 31, year end? Explain.
17. Depreciation is the process of recording the loss of value of a plant and equipment asset. Do you agree? Explain.
18. For each of the separate items below, part of an adjusting entry is shown. What is the other part of the entry? In some cases, there may be more than one possibility.
a. debit Depreciation Expense
b. credit Office Supplies
c. credit Service Revenue
d. debit Rent Expense
e. debit Accounts Receivable

## PRACTICE

## Reinforcement Problems

Learning Goal 4 is about adjusting entries. Use these questions and problems to practice what you have studied.

LG 4-1. Recognizing what kind of adjustment is needed. You cannot correctly do an adjustment unless you can first recognize what kind of adjustment is needed. In this exercise, we do not care at all about actually calculating the adjustment. What is important here is training yourself to recognize the situation when an adjustment is needed.

Instructions: Use a separate sheet of paper to complete the table. For each independent situation, if an adjustment is needed, identify what kind of item requires an adjustment, as either:

- prepaid expense ■ unearned revenue ■ accrued expense ■ accrued revenue
- depreciation

Then show what accounts would be debited and credited. The first item is an example. Some situations might not require adjustments. Do not assume a revenue or expense was recorded unless explicitly stated.

| Situation | Adjusting for what? | Adjusting accounts at end of period |
| :---: | :---: | :---: |
| a. On May 1, Holyoke Company paid $\$ 12,000$ for a three-year insurance policy. Holyoke Company has a June 30 year end. | prepaid expense | Dr. Insurance Expense Cr. Prepaid Insurance |
| b. In November, Middlesex Company earned one-fourth of the amount that had been advanced by a customer in September. | (Reminder: Use a separate sheet of paper to complete the table.) |  |
| c. An inventory count shows $\$ 520$ of office supplies on hand at year end. The beginning balance was $\$ 1,000$. |  |  |
| d. Cape Cod Enterprises performed $\$ 7,000$ of services for customers during December that remained unrecognized at year end. |  |  |
| e. Burdett Enterprises shows $\$ 15,000$ of Office Equipment and $\$ 105,000$ of Automotive Equipment on the balance sheet. |  |  |
| f. This year, Massasoit Company paid for 18 months of magazine subscriptions, and at year end seven months' worth is still in force. |  |  |
| g. Kinyon Company records show utility expenses unrecorded and unpaid of $\$ 350$. |  |  |
| h. Campbell Corporation paid a utility bill that was owing in the amount of \$240. |  |  |
| i. In June, Springfield Company completed negotiations, signed a contract and received $\$ 25,000$ in advance. By year end, the company had performed $\$ 5,500$ of services on the contract. |  |  |
| j. North Shore Inc. has a six-day workweek and pays employees weekly, each Saturday. June 30, year end, is on a Tuesday. |  |  |
| k. Bristol Enterprises signed a contract to perform $\$ 30,000$ of future services. |  |  |

PRACTICE

## LG 4-1, continued

| Situation | Adjusting for what? | Adjusting accounts at end of period |
| :---: | :---: | :---: |
| 1. The Supplies account of Northern Essex Enterprises shows a beginning balance of $\$ 700$ and purchases of $\$ 1,200$. The ending inventory shows $\$ 150$ still unused. | (Reminder: Use a separate sheet of paper to complete the table.) |  |
| m . Three Rivers Corporation received a $\$ 50,000$ advance from a customer for 2,500 switching devices, all at the same fixed price. By year end, 520 of the switches had been shipped. |  |  |
| n. In April, Manchester Company made an $\$ 8,500$ deposit with a security services company. At year end on September 30, there were $\$ 7,200$ of charges against the deposit. |  |  |
| o. The trial balance of Hartford and Hartford Partnership shows a note payable of $\$ 10,000$. Principle and interest are not payable until next year. |  |  |
| p. The trial balance of Mitchell Company shows Unearned Fees of $\$ 11,000$. Fees still unearned at the end of the period are $\$ 2,200$. |  |  |
| q. In April, Naugatuck Services, Inc. received an advance from a client for 10 months' services at a monthly fee of $\$ 1,000$. The date of the trial balance is December 31 . |  |  |
| r. At year end, a tenant of the Bridgeport Company owes two months of unpaid rent, which has not been recorded. |  |  |
| s. In September, Housatonic Company prepaid for 500 hours of computer maintenance services. At December 31, year end, 390 hours would be used in the following year. |  |  |
| t. Northaven Company has $\$ 1,500$ of advertising expense incurred but unpaid at year end. |  |  |
| u. Waterbury Company has $\$ 440$ of earned but uncollected service revenue at year end. |  |  |
| v. The trial balance of Boston Company shows a balance of $\$ 1,800$ in Prepaid Insurance. |  |  |
| w. The Norwich Company makes semiannual insurance payments. At year end, the Prepaid Insurance account shows debits of: beginning bal. of $\$ 900$, and March 1 and Sept. 1, $\$ 1,800$ each. |  |  |
| x. A corporation calculates at year end that it owes $\$ 100,000$ of income tax. |  |  |

## PRACTICE

LG 4-2. Identifying the journal entry. To do an adjustment, it is necessary to know the correct form of the journal entry and to understand what the entry is doing. One of the best ways to practice this is to look at adjusting entries that have already been prepared. Then, interpret what kind of entries they are and what they are doing.

Instructions: Use a separate sheet of paper to complete the table. The table below shows a series of unrelated journal entry items. If an item is an adjusting entry, identify what kind of adjustment it is. Also explain what the entry is recording.

The five adjusting entries are:

- prepaid expense - unearned revenue ■ accrued expense
- accrued revenue - depreciation

Use the first item as an example. (All prepayments are recorded in balance sheet accounts.)


PRACTICE
LG 4-2, continued

| Journal Entry Item |  | What kind of <br> adjustment is it? | What is the <br> adjustment recording? |
| :---: | :---: | :---: | :---: | :---: |
| j. Supplies Expense <br> Supplies | Dr. | Cr. | (Reminder: Use a separate sheet of paper to complete |
| the table.) |  |  |  |

LG 4-3. Review: analyzing accounts. It is not unusual to be asked to calculate some part of an account other than the ending balance. Use these exercises to practice analyzing an account.
a. The Supplies account had a beginning balance of $\$ 150$. During the period $\$ 3,530$ of supplies was purchased. The supplies on hand at the end of the period were $\$ 420$. What is the adjusting journal entry to record the amount of supplies used?
b. On a separate sheet of paper, complete the table.

| Item | Prepaid <br> Insurance | Prepaid <br> Rent | Prepaid <br> Travel | Prepaid <br> Subscriptions |
| :--- | :---: | :---: | :---: | :---: |
| Beginning balance | $\$ 1,000$ |  | $\$ 5,000$ | $\$ 300$ |
| Payments/purchases made | $\$ 5,050$ | $\$ 850$ | $\$ 3,000$ |  |
| Expense for the period |  | $\$ 4,100$ | $\$ 3,250$ | $\$ 750$ |
| Ending balance | $\$ 700$ | $\$ 500$ |  | $\$ 100$ |

c. The beginning balance of Prepaid Insurance was $\$ 9,500$, and the ending balance was $\$ 8,450$. During the period, $\$ 12,200$ was paid for additional insurance. What was the insurance expense for the period?
d. During the period, the balance of Unearned Revenue increased by $\$ 26,000$ to $\$ 41,900$. Also, $\$ 84,100$ of Unearned Revenue was recorded as earned. What was the amount of cash advance payments received during the period?

LG 4-4. Each of the following independent events occurred during the quarter ended June 30 for Joseph City, Inc., which prepares quarterly financial statements.

Instructions: record the necessary June 30 adjustments.
a. On April 1, the balance in the supplies account was $\$ 4,950$. $\$ 2,800$ of supplies were purchased during the quarter. A physical count of supplies inventory as of June 30 indicated a balance of \$1,710.
b. $\$ 10,300$ wages expense is paid weekly on each Friday for a 5-day workweek. June 30 quarter-end was a Wednesday.
c. Advance payments from Page Company during the quarter were $\$ 25,000$ and were credited to unearned revenue. The company estimates that $70 \%$ of the services have been provided to the client. The balance of unearned revenue at the beginning of the quarter was $\$ 2,750$. The work for these services was completed during the quarter.
d. Annual depreciation for office equipment is $\$ 9,000$ and for automotive equipment is $\$ 11,400$.
e. On June 30, $\$ 3,100$ was billed to a client but remains unrecorded.
f. On July 7, a bill for $\$ 800$ of advertising expense was received for June advertising.
g. The unadjusted Prepaid Insurance account is presented below:

|  | Prepaid Insurance |  |
| ---: | ---: | :---: |
| Bal. March 31 | 1,875 |  |
| April 2 | 9,000 |  |
| Bal. June 30 | 10,875 |  |

Insurance is paid in advance for eight months. The March 31 balance is the remaining amount of an October payment.

LG 4-5. Instructions: Record the appropriate period-end adjusting journal entry for each of the following independent situations.
a. Baton Rouge, Inc. records $\$ 35,000$ of weekly payroll for a 5-day workweek that ends on Saturday. The current accounting period ended on a Wednesday, September 30.
b. Wichita Falls Company received a $\$ 3,800$ bill for computer repair services on January 3 for prior month services. The company has a December 31 year-end.
c. Ogden Company started business on May 1 of the current year and needs to record depreciation expense on equipment at December 31, year-end. The depreciation expense is based on a 12 -year equipment life. The cost of the equipment is $\$ 128,000$, with no residual value.
d. Detroit Company received an advance payment of $\$ 18,000$ on June 1 for 500 pounds of landscaping material. At July 31 year-end, 300 pounds had been delivered.
e. The prepaid insurance account balance at September 30 year-end shows a balance of $\$ 18,000$. The only policy still in force at year-end is from a one-year prepayment made on June 1 in the amount of $\$ 12,000$.
f. Brooklyn Enterprises signed a $\$ 500,000$ 3-year consulting contract on December 1 of the current year. The current accounting period ends on December 31.
g. Lorain Enterprises completed work on a $\$ 45,000$ project on January 14 of the current year, which ends on January 31 . Cash of $\$ 45,000$ was received on January 27 and has not yet been recorded. The company had properly billed the customer for $\$ 20,000$ of the work on the prior December 31.

LG 4-6. Prepare adjusting entries.

## Allegheny Tennis School, Inc. Trial Balance December 31, 2017

## Account <br> Dr. <br> Cr.


Accounts Receivable ....................................... 2,730
Prepaid Insurance ......................................... 4,000
Office Supplies ........................................... . . 1,750
Tennis Supplies ........................................... . . 2,000
Notes Receivable . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14,500
Equipment............................................ . 50,500
Unearned School Revenue . . . . . ...............................................
Taxes Payable ................................................ 2,700
CommonStock...................................... $\quad 1,000$
Retained Earnings ..................................... . 4, 4 4,595
Tennis School Revenue . ..........................................................206,925
Wages Expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 49,000
Rent Expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 22,000
Advertising Expense.................................... 3,500
Utilities Expense........................................... 1,500
Insurance Expense ....................................... . . 500
Income Tax Expense . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad$ 2,000
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad \underline{\underline{\$ 217,020 ~}}$

## Additional information:

The company prepares annual financial statements with a December 31 year end.
a. The prepaid insurance is one year's insurance paid on March 1.
b. Office supplies unused at year end are $\$ 225$.
c. Tennis supplies were purchased on January 2 and were used up at the rate of $5 \%$ per month.
d. Equipment was purchased on July 1,2017, and is estimated to have an eight-year life and \$7,300 residual value.
e. The school pays wages of $\$ 1,000$ per five-day week ending on Saturday. December 31 is a Thursday.
f. The company has earned but not yet received $\$ 500$ of interest on a loan.
g. The school received an $\$ 1,800$ payment for three months of classes on November 1.

Instructions: Prepare adjusting journal entries. For journal paper, use the template in the disk at the back of the book, or at worthyjames.com (student info.).

## PRACTICE

LG 4-7. Prepare adjusting entries.

| Rainforest Research Technology Company, Inc. Trial Balance June 30, 2017 |  |  |
| :---: | :---: | :---: |
| Account | Dr. | Cr. |
| Cash | \$258,815 |  |
| Accounts Receivable | 7,300 |  |
| Supplies | 500 |  |
| Prepaid Insurance . | 2,400 |  |
| Office Equipment | 30,000 |  |
| Accounts Payable. |  | 1,920 |
| Notes Payable . |  | 15,000 |
| Interest Payable |  | 750 |
| Unearned Revenue. |  | 15,000 |
| Common Stock. |  | 10,000 |
| Retained Earnings . |  | 89,930 |
| Dividends... | 23,000 |  |
| Consulting Fees Revenue |  | 276,700 |
| Research Revenue |  | 49,400 |
| Rent Expense. . | 25,200 |  |
| Utilities Expense | 2,750 |  |
| Supplies Expense . | 1,475 |  |
| Interest Expense. . | 2,010 |  |
| Wages Expense . | 103,250 |  |
| Income Tax Expense . | 2,000 |  |
| Total. | \$458,700 | $\underline{\underline{\$ 458,700}}$ |

## Additional information:

The Rainforest Research Technology Company prepares annual financial statements with a June 30 fiscal year end.
a. Unbilled at year end is $\$ 4,500$ of consulting services to Megawatt Industries, Inc.
b. A physical inventory count determined that $\$ 650$ of supplies is still on hand.
c. The company received its June telephone bill in early July. The amount was $\$ 900$.
d. Prepaid Insurance still in force on June 30 is $\$ 500$.
e. On May 1, the company received a payment from the Brazilian government for $\$ 15,000$ for one year of research.
f. Depreciation on the office equipment is $\$ 5,000$.

## Instructions:

1. Prepare adjusting entries. For journal paper, use the template in the disk at the back of the book.
2. For each adjusting entry, identify the analysis elements of classification, valuation, and timing.

## LG 4-8. Prepare adjusting entries.

| Midway Charter Service Company, Inc. Unadjusted Trial Balance June 30, 2017 |  |  |
| :---: | :---: | :---: |
| Account | Dr. | Cr. |
| Cash | \$51,650 |  |
| Prepaid Insurance | 4,900 |  |
| Office Supplies.. | 1,150 |  |
| Aircraft Supplies . | 37,950 |  |
| Aircraft. | 480,000 |  |
| Accumulated Depreciation-Equipment |  | \$45,000 |
| Unearned Charter Revenue . . . . . |  | 47,700 |
| Notes Payable. |  | 241,000 |
| Common Stock |  | 25,000 |
| Retained Earnings . |  | 51,000 |
| Charter Service Revenue. |  | 221,000 |
| Wages Expense | 29,000 |  |
| Equipment Rent Expense. . | 21,500 |  |
| Insurance Expense . | 500 |  |
| Utility Expense | 2,050 |  |
| Income Tax Expense. | 2,000 |  |
| Total... | \$630,700 | \$630,700 |

## Additional information:

Midway Charter Service Company has a year end of June 30. The company provides sightseeing helicopter and aircraft tours around the scenic Midway Island area. The charter company requires all tours and charter service to be booked and paid for in advance.
a. In April, a whale-watching group paid $\$ 25,000$ for 200 hours of flight time. This was recorded as Unearned Charter Revenue. So far, 42 hours of flight time have been provided. The rest of the balance in the Unearned Charter Revenue is from other receipts during the year, and is $40 \%$ still unearned.
b. The aircraft was purchased during the prior fiscal year and is estimated to have a useful life of 10 years.

## LG 4-8, continued

c. The company has a six-day workweek ending on Saturday. The two employees each earn $\$ 1,260$ per week and are paid on the Monday following the end of the workweek. This year, June 30 falls on a Tuesday.
d. The prepaid insurance consisted of two policies:

- Policy R173: $\$ 1,800$, term 9 months, paid on May 2.
- Policy JRX22: $\$ 3,100$, term 20 months, paid on January 30.
e. The company also leases (rents) other aircraft as the need may arise. In early July, the company received a bill in the amount of $\$ 4,400$ for aircraft rental charges in June.
f. On June 30 an inventory showed $\$ 500$ of office supplies unused and $\$ 19,900$ of aircraft supplies unused. All of the supplies had been purchased in July, 2016.


## Instructions:

1. Prepare the adjusting entries. For journal paper, use the template in the disk at the back of the book.
2. What is the correct net income of the company after the adjustments are prepared?
3. Assuming there were no payables or receivables at the beginning of the year, what would the net income have been if the company had used cash basis accounting? (See Learning Goal 2.)

## LG 4-9. Calculate adjustment amounts. Refer to Problem LG 4-1.

a. For each separate situation, calculate the amount of the adjustment if there is sufficient information and if an adjustment is required.
b. If there is not sufficient information to calculate an adjustment or if an adjustment is not required, indicate what information you would need and how you would use it to determine the amount of the adjustment, or why an adjustment is not required.

## Instructor-Assigned Problems

If you are using this book in a class, these review problems may be assigned by your instructor for homework, group assignments, class work, or other activities. Only your instructor has the solutions.

IA 4-1. Each of the following independent events occurred during the year ended December 31 for Portland Enterprises. Instructions: Record the necessary adjusting journal entries at year-end.
a. Depreciation expense for the year is $\$ 19,200$.
b. On December 28, a bill for $\$ 11,600$ was sent to a customer, but is still unrecorded.
c. The company received $\$ 20,000$ of advance payments during the year from Vancouver Company for a consulting project. Approximately $35 \%$ of the work was completed but is unrecorded.
d. The company incurs $\$ 20,000$ of wages expense for a 5 -day week ending on Fridays. This year December 31 year-end was a Thursday.
e. The January 1 balance of Prepaid Insurance is $\$ 3,000$. Each payment of $\$ 4,500$ is for the following three months. Payments were made on March 1, June 1, September 1, and December 1. No adjustment was made to Prepaid Insurance during the year.
f. The company received a $\$ 700$ utilities bill on January 2 for the month of December.

IA 4-2. Prepare adjusting entries. The trial balance of Dubuque Internet Consulting Company after its first month of operations:

## Dubuque Internet Consulting Company, Inc. <br> Trial Balance

November 30, 2017

## Account Dr. <br> Cr .

Cash .
\$4,500
Accounts Receivable . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9,350

Prepaid Travel.............................................. 5,000
Office Equipment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 38,000
Unearned Revenue ......................................................................

Retained Earnings......................................... 32,070
Consulting Revenue ...................................... 12,800
Wages Expense ..................................................... 11,100
Utilities Expense............................................. 470

Income Tax Expense.................................... $\quad$ 1,000
Total
\$73,320

## Other information:

a. At the end of the month, the company completed $\$ 1,100$ of consulting services; however, as of November 30, a bill had not been sent to the client.
b. A November invoice in the amount of $\$ 950$ from an Internet service provider was received on December 4.
c. The Prepaid Travel account consists of ten airline tickets at the same price, of which six have been used.
d. The amount of supplies not yet used is $\$ 330$.
e. As of November 30, $\$ 7,200$ of the Unearned Revenue account was not yet earned.
f. The office equipment was purchased on November 1. It is estimated to have a five-year life with no residual value.
g. Wages are $\$ 3,500$ and paid weekly, Monday through Friday. November 30 is a Wednesday.

Instructions: Prepare the November 30, month-end adjusting entries. For journal paper, use the template in the disk at the back of the book.

## PRACTICE Learning Goal 4, continued

IA 4-3. Prepare adjusting entries. The trial balance of Mayaguez Enterprises at September 30, the end of the fiscal year:


## Other information:

a. The balance in the Prepaid Insurance account is the cost of a 12-month fire insurance policy purchased on February 1 of the current fiscal year.
b. The amount of supplies still on hand is $\$ 250$.
c. $\$ 2,500$ of the balance recorded in Unearned Revenue has been earned.
d. Interest expense accrued for September is $\$ 750$.
e. At the end of September, the company completed $\$ 900$ of services, but the amount is still unbilled.
f. Current employee wages are $\$ 4,200$ per week, Monday through Friday. September 30 is a Thursday.
g. Monthly depreciation for office equipment is $\$ 200$.

Instructions: Prepare the September 30 year-end adjusting entries. All adjustments are made at year end. For journal paper, use the template in the disk at the back of the book.

## PRACTICE <br> Learning Goal 4, continued

IA4-4. Each of the following independent events occurred during the year ended December 31 for Clearwater, Inc. Instructions: Record the necessary adjusting journal entries at period-end.
a. On December 30, $\$ 7,500$ was billed to a client but is unrecorded.
b. Office equipment of $\$ 47,000$ is being depreciated over a 10 -year useful life, with no residual value. $\$ 12,000$ of new testing equipment was purchased on November 2. The equipment has an estimated 5 -year useful life with $\$ 500$ residual value.
c. The company incurs $\$ 24,300$ of weekly wage expense for a six-day week, Monday through Saturday. Wages are paid on the following Monday. December 31 year-end was a Thursday.
d. The unadjusted balance of Prepaid Rent at year-end is $\$ 34,000$. Each prepayment of $\$ 18,000$ is made at nine-month intervals. The last payment was made on September 1.
e. Analysis of completed jobs shows that the Unearned Revenue account should increase by $\$ 12,800$ for the year. The company received $\$ 21,000$ of advance payments during the year. Reduction to the account is made only at year-end as an adjustment.
f. On January 8, the company received a $\$ 350$ telephone bill for December.
g. The beginning balance of the Supplies account is $\$ 4,600$, which increased by $\$ 700$ during the year. A count of supplies on December 31 shows a balance of $\$ 2,950$.

Ethics-analyze cases. Go to the Carnegie Mellon Tepper School of Business, Arthur Andersen Case Studies in Business (at web.tepper.cmu.edu/ethics/aa/arthurandersen.htm).

Select at least three mini-cases that interest you. Do not look at the teaching notes yet. (Use bookmark/favorites to save the location in an Accounting References folder.)
a. Read each case, then write down the name of the case. If you are using Volume 1 in this set, apply the ethics discussion and guidelines in Learning Goal 10 to analyze the case. If you are not using Volume 1, do the following: 1) Identify the facts and the parties involved. 2) Determine if there a moral issue of a possibly wrongful act.
b. Make a decision or take a position. Write a paragraph to explain how you reached your decision or position.
c. Compare your answer to the teaching notes. Do you agree with the notes? Would you change them or add more?

## Your Questions?

It is very important to be aware of what you need to understand better. What do you need to understand better about this learning goal? On a separate piece of paper, write the questions that you want to discuss with your classmates, instructor, or supervisor. Try to be very specific about what is bothering you, such as explanations that you do not fully understand.

## APPENDIX PART I

## Appendix Part I to Learning Goal 4

In Part I, you will find:
A Closer Look at Prepaid Expenses
Identify Prepaid Expenses ..... 72
How a Prepayment Becomes an Expense ..... 73
How to Adjust Prepaid Expenses
The Two Objectives ..... 76
Objective I: Prepare the Adjusting Journal Entry
Step 1: Identify the Key Information Type ..... 78
Step 2: Select the Proper Method to Calculate Cost Used Up ..... 84

- Using Information Type 1: The Asset Cost Remaining ..... 86
- Using Information Type 2: The Asset Cost Used Up ..... 90
- Using Information Type 3: The Cost Per Unit of the Asset ..... 93
- Using Combinations of Information Types ..... 96
Step 3: Prepare the Adjusting Journal Entry ..... 99
Objective II: Determine the New Balances of the Accounts Affected
Three Easy Steps ..... 101


## A Closer Look at Prepaid Expenses

## Identify Prepaid Expenses

## Overview

There are five basic adjustment types. This part is about:

| Prepaid <br> Expense | Unearned <br> Revenue | Depreciation | Accrued <br> Revenue | Accrued <br> Expense |
| :---: | :---: | :---: | :---: | :---: |

## Definition

## Synonym

## Why a Prepaid <br> Expense Is an Asset

A prepaid expense is an advance payment for a future expense that is recorded as an asset at time of payment. (Debit prepaid expense, credit cash.) When the asset is used up later-usually within a year-an expense is recorded.

A prepaid expense is also called a deferred expense.

Do not be fooled because the word "expense" is in the term "prepaid expense." A prepaid expense is always an asset. A prepaid expense is an asset because it will provide future benefits when some amount of the asset is later used up. All prepaid expenses are used up because of either:

- the passage of time, or
- physical consumption, or
- services received.

Only when the asset is used up does an expense need to be recorded.

The table below shows you examples of common prepaid expense items.

## Examples

| Cash is paid now | and an asset is <br> recorded that is <br> called $\ldots$ | which is later used <br> up because of $\ldots$ | so an expense <br> adjustment will be <br> needed, called $\ldots$ |
| :--- | :--- | :--- | :--- |
| purchase one year <br> of fire insurance, | Prepaid Insurance, | the passage of time, | Insurance Expense. |
| purchase office <br> supplies, | Office Supplies, | physical use- <br> consuming the <br> supplies, | Supplies Expense. |
| prepay 50 hours of <br> computer training, | Prepaid Employee <br> Training, | services received- <br> the training, | Training Expense. |

