

## SOLUTIONS

## Learning Goal 4

## Multiple Choice

1. b
2. c \$500 cash received comes from a revenue recorded in a prior period—June.
3. b Because cash is paid for a future expense.
4. a Because this is a payment for a previously accrued expense. (b involves unearned revenue; c involves supplies which are really an expense that is prepaid; d involves unearned revenue)
5. d
6. c
7. b
8. d
9. b If you have difficulty, try a simple example using the accounting equation: Assume assets are \$10, liabilities are \$3, and owner's equity is \$7. Now assume the amount of the adjustment is \$1.  
Before adjustment: A \$10 = L \$3 + SE \$7  
Then, the adjustment: A \$10 = L \$2 ↓ + SE \$8 ( ↑ revenue)  
You can see that if you failed to make the adjustment, liabilities would be higher at \$3, and owner's equity would be lower at \$7 because of less revenue. You can use this method for the next four questions as well.
10. a
11. d
12. c
13. d
14. a Unadjusted net income is \$8,000. Then subtract: \$4,700 insurance expense + \$2,000 insurance expense + \$3,500 rent expense.
15. a
16. b
17. a
18. b
19. c
20. b
21. a
22. d Adjusting entries are never done in cash basis accounting because adjusting entries only recognize noncash revenues and noncash expenses. Cash basis accounting, therefore, would never record adjustments.
23. d
24. c

## Discussion Questions and Brief Exercises

1. The two important principles are the revenue recognition principle and the matching principle. The revenue recognition principle requires that revenues be recorded in the period in which they were earned. The matching principle requires that expenses be matched against (meaning “subtracted from”) the revenues they helped to create. The matching is done by direct tracing or by identifying the period(s) in which benefits were received from the expense item. Adjusting entries record revenue and expense items that had not yet been recorded into the correct accounting periods.
2. Adjusting entries are recorded at the end of period after all transactions are completed for the period. Therefore, any event during the period that creates the need for an adjusting entry can be identified. In this way, as discussed in #1 above, all the revenues and expenses are recorded into the correct periods.

## SOLUTIONS

## Learning Goal 4, continued

3. An unearned revenue adjustment will be needed. Unearned revenue is debited, and a revenue is credited.
4. A prepaid expense adjustment will be needed. An expense is debited, and short-term asset is credited.
5. A depreciation expense adjustment will be needed. Depreciation expense is debited, and accumulated depreciation is credited.
6. An accrued revenue adjustment will be needed. A receivable is debited, and a revenue is credited.
7. An accrued expense adjustment will be needed. An expense is debited, and a liability is credited.
8. The purpose of a Depreciation Expense account is to record the estimated amount of plant and equipment cost that has been used up and has become an expense. Depreciation Expense has a normal debit balance. It appears on the income statement as an operating expense.

The purpose of an Accumulated Depreciation account is to record the cumulative amount of depreciation that has been calculated for a plant and equipment asset. Accumulated depreciation is a contra-asset account, which means that it acts as an offset to the balance in a plant and equipment asset account. An accumulated depreciation account has a normal credit balance. The amount of accumulated depreciation appears on the balance sheet as a subtraction from its related plant and equipment asset. An example of a common balance sheet format is:

Equipment	\$100,000
Less: Accumulated depreciation	22,000
	78,000

9. The total wages expense is  $\$29,000 + \$3,500 = \$32,500$ . To show a wages payable liability of \$3,500, wages expense of the same amount is also recorded.
10. Consulting Expense      10,000  
    Accounts Payable      10,000
11. Accounts Receivable      10,000  
    Consulting Revenue      10,000
12. The equality of the totals on a trial balance only means that debits equal credits; in other words, the accounting equation is in balance. Although this is important, it does not mean that all the individual account balances are correct. Adjusting entries may still be needed to correctly record revenues and expenses.
13. Accounts Payable      1,000  
    Repairs Expense      2,800  
    Cash      3,800
14. Net income would be understated by \$200 in the current period and overstated by \$200 in the next period when cash is received for the revenue and paid for the expense.
15. Adjusting entries involve revenues and expenses. Revenues and expenses always affect both the income statement and the balance sheet. Mary is correct.
16. Yes. One month of interest expense is owing and unpaid since the last payment on December 1. A December 31 entry that debits Interest Expense and credits Interest Payable is required.
17. This is incorrect. For accounting and financial purposes the word “depreciation” does not refer to loss of value. It means the process of allocating the cost of a plant and equipment asset into expense, as the asset provides benefits during its estimated useful life. This is unrelated to whatever the asset might sell for.
18. a. credit Accumulated Depreciation  
    b. debit Office Supplies Expense  
    c. debit Accounts Receivable or debit Unearned Revenue  
    d. credit Rent Payable or credit Prepaid Rent  
    e. credit a revenue

**SOLUTIONS****Learning Goal 4, continued****Reinforcement Problems****LG 4-1.**

<b>Situation</b>	<b>Adjusting for what?</b>	<b>Adjusting accounts at end of period</b>
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.	unearned revenue	Dr. Unearned Revenue Cr. Revenue
c. An inventory count shows \$520 of office supplies on hand at year end. The beginning balance was \$1,000.	prepaid expense	Dr. Supplies Expense Cr. Supplies
d. Cape Cod Enterprises performed \$7,000 of services for customers during December that remained unrecognized at year end.	accrued revenue	Dr. Accounts Receivable Cr. Revenue
e. Burdett Enterprises shows \$15,000 of Office Equipment and \$105,000 of Automotive Equipment on the balance sheet.	depreciation expense	Dr. Depreciation Expense Cr. Accumulated Depreciation
f. This year, Massasoit Company paid for 18 months of magazine subscriptions, and at year end seven months' worth is still in force.	prepaid expense	Dr. Subscription Expense Cr. Prepaid Subscriptions
g. Kinyon Company records show utility expenses unrecorded and unpaid of \$350.	accrued expense	Dr. Utility Expense Cr. Accounts Payable
h. Campbell Corporation paid a utility bill that was owing in the amount of \$240.	Not an adjusting entry. This is a payment of a previously accrued expense.	
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.	unearned revenue	Dr. Unearned Revenue Cr. Revenue
j. North Shore Inc. has a six-day workweek and pays employees weekly, each Saturday. June 30, year end, is on a Tuesday.	accrued expense	Dr. Wages Expense Cr. Wages Payable
k. Bristol Enterprises signed a contract to perform \$30,000 of future services.	No entry required. Just signing a contract does not affect the accounting equation.	
l. 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.	prepaid expense	Dr. Supplies Expense Cr. Supplies
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.	unearned revenue	Dr. Unearned Revenue Cr. Revenue

## SOLUTIONS

## Learning Goal 4, continued

## LG 4-1, continued

Situation	Adjusting for what?	Adjusting accounts at end of period
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.	prepaid expense	Dr. Security Expense Cr. Prepaid Security Service
o. The trial balance of Hartford and Hartford Partnership shows a note payable of \$10,000. Principle and interest is not payable until next year.	accrued expense	Dr. Interest Expense Cr. Interest Payable
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.	unearned revenue	Dr. Unearned Revenue Cr. Revenue
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.	unearned revenue	Dr. Unearned Revenue Cr. Revenue
r. At year end, a tenant of the Bridgeport Company owes two months of unpaid rent, which has not been recorded.	accrued revenue	Dr. Accounts Receivable Cr. Revenue
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.	prepaid expense	Dr. Maintenance Expense Cr. Prepaid Maintenance
t. Northaven Company has \$1,500 of advertising expense incurred but unpaid at year end.	accrued expense	Dr. Advertising Expense Cr. Accounts Payable
u. Waterbury Company has \$440 of earned but uncollected service revenue at year end.	accrued revenue	Dr. Accounts Receivable Cr. Revenue
v. The trial balance of Boston Company shows a balance of \$1,800 in Prepaid Insurance.	prepaid expense	Dr. Insurance Expense Cr. 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.	prepaid expense	Dr. Insurance Expense Cr. Prepaid Insurance
x. A corporation calculates at year end that it owes \$100,000 of income tax.	accrued expense	Dr. Income Tax Expense Cr. Income Tax Payable

**SOLUTIONS****Learning Goal 4, continued****LG 4-2.**

Journal Entry Item			What kind of adjustment is it?	What is the adjustment recording?
a. Utilities Expense	Dr. 820	Cr.  820	accrued expense	a utilities expense that is unpaid
b. Accounts Receivable	Dr. 1,100	Cr.  1,100	accrued revenue	revenue that is earned but not yet paid by the customer
c. Unearned Revenue	Dr. 200	Cr.  200	unearned revenue	revenue for which cash was received in advance and recorded as a liability
d. Depreciation Expense	Dr. 2,500	Cr.  2,500	depreciation expense	the using up of plant and equipment assets
e. Cash	Dr. 1,100	Cr.  1,100	Not an adjustment (Clue: adjusting entries never involve the cash account.) This is a receipt of cash for a <i>previously accrued</i> revenue.	
f. Rent Expense	Dr. 500	Cr.  500	prepaid expense	rent expense that was paid in advance and recorded as an asset
g. Rent Expense	Dr. 500	Cr.  500	accrued expense	rent expense that is unpaid
h. Accounts Receivable	Dr. 950	Cr.  950	accrued revenue	revenue that is earned but not yet paid by the customer
i. Unearned Revenue	Dr. 950	Cr.  950	unearned revenue	revenue for which cash was received in advance and recorded as a liability
j. Supplies Expense	Dr. 200	Cr.  200	prepaid expense	supplies expense that was paid in advance and recorded as an asset (supplies)
k. Supplies	Dr. 200	Cr.  200	Not an adjusting entry. No unrecorded revenue or expense. This entry is a purchase of supplies on account.	
l. Advertising Expense	Dr. 3,000	Cr.  3,000	accrued expense	advertising expense that is unpaid
m. Wages Expense	Dr. 10,000	Cr.  10,000	accrued expense	wages expense that is unpaid

SOLUTIONS

Learning Goal 4, continued

LG 4-2, continued

Journal Entry Item			What kind of adjustment is it?	What is the adjustment recording?
n. Insurance Expense	Dr. 700	Cr.	prepaid expense	insurance expense that was paid in advance and recorded as an asset (prepare insurance.)
Prepaid Insurance		700		
o. Unearned Sales Revenue	Dr. 2,000	Cr.	unearned revenue	revenue for which cash was received in advance and recorded as a liability
Sales Revenue		2,000		

LG 4-3.

- a. \$3,260. The formula that calculates the balance of any account is:  
**Beginning Balance + Increases – Decreases = Ending Balance**  
The supplies used are decreases in the Supplies account.  
So in this case:  $150 + 3,530 - x = 420$ . So,  $x = 3,260$ .

You could also visualize the Supplies account to help you solve the problem:

Supplies		
Bal.	150	x
	3,530	
Bal.	<u>420</u>	

- b. Other asset accounts analysis:

Item	Prepaid Insurance	Prepaid Rent	Prepaid Travel	Prepaid Subscriptions
Beginning balance	\$1,000	\$3,750	\$5,000	\$300
Payments/purchases made	\$5,050	\$ 850	\$3,000	\$550
Expense for the period	\$5,350	\$4,100	\$3,250	\$750
Ending balance	\$ 700	\$ 500	\$4,750	\$100

- c. \$13,250      d. \$110,100

**SOLUTIONS****Learning Goal 4, continued****LG 4-4.**

June 30	Supplies Expense	6,040	
a.	Supplies		6,040
	$(\$4,950 + \$2,800 - \$1,710 = \$6,040)$		
June 30	Wages Expense	6,180	
b.	Wages Payable		6,180
	$(\$10,300 \times 3/5 = \$6,180)$		
June 30	Unearned Revenue	20,250	
c.	Services Revenue		20,250
	$[\$2,750 + (\$25,000 \times .7)] = \$20,250$		
June 30	Depreciation Expense	5,100	
d.	Accumulated Depreciation – Office Equipment		2,250
	Accumulated Depreciation – Auto. Equipment		2,850
	$(\$9,000/4 = \$2,250; \$11,400/4 = \$2,850)$		
June 30	Accounts Receivable	3,100	
e.	Service Revenue		3,100
June 30	Advertising Expense	800	
f.	Accounts Payable		800
June 30	Insurance Expense	5,250	
g.	Prepaid Insurance		5,250
	$\$1,875 + (\$9,000 \times 3/8) = \$5,250$		

**SOLUTIONS****Learning Goal 4, continued****LG 4-5.**

Sept. 30			
a.	Wages Expense	14,000	
	Wages Payable		14,000
	( $\$35,000 \times 2/5 = \$14,000$ )		
Dec. 31	Repairs Expense	3,800	
b.	Accounts Payable		3,800
Dec. 31	Depreciation Expense	7,111	
c.	Accumulated Depreciation – Equipment		7,111
	( $\$128,000 - 0$ )/12 = \$10,666.67. $\$10,666.67 \times 8/12 = \$7,111.11$		
	Depreciation is for a partial year beginning May 1.		
July 31	Unearned Revenue	10,800	
d.	Materials Revenue		10,800
	( $\$18,000 / 500 = \$36/\text{lb.}$ $\$36 \times 300 = \$10,800$ )		
Sept. 30	Insurance Expense	10,000	
e.	Prepaid Insurance		10,000
	$[\$18,000 - (\$12,000 \times 8/12)] = \$10,000$		
	8 months remain on the policy still in force.		
f.	No accounting transaction		
Jan. 31	Cash	45,000	
g.	Accounts Receivable		20,000
	Revenue		25,000



**SOLUTIONS****Learning Goal 4, continued****LG 4-6.**

Date	Account Titles and Explanation	Post. Ref.	Debit	Credit
Dec.	(a)			
31	Insurance Expense		3,333	
	Prepaid Insurance			3,333
	To record 10 months of insurance expense			
	(b)			
31	Office Supplies Expense		1,525	
	Office Supplies			1,525
	To record office supplies used			
	(c)			
31	Tennis Supplies Expense		1,200	
	Tennis Supplies			1,200
	To record tennis supplies used			
	(d)			
31	Depreciation Expense—Equipment		2,700	
	Accumulated Depreciation—Equipment			2,700
	To record one-half year of depreciation			
	(e)			
31	Wages Expense		600	
	Wages Payable			600
	To record three days of accrued wages at \$200 per day			
	(f)			
31	Interest Receivable		500	
	Interest Earned			500
	To record interest earned but not yet received or recorded			
	(g)			
31	Unearned Revenue		1,200	
	Tennis School Revenue			1,200
	To record two months of revenue earned			

## SOLUTIONS

## Learning Goal 4, continued

## LG 4-7.

Date	Account Titles and Explanation	Post. Ref.	Debit	Credit
June	(a)			
30	Accounts Receivable		4,500	
	Consulting Fees Revenue			4,500
	To accrue revenue from Megawatt Industries			
	(b)			
30	Supplies		150	
	Supplies Expense			150
	To adjust overstated liability expense			
	(c)			
30	Utilities Expense		900	
	Accounts Payable			900
	To accrue utilities expense			
	(d)			
30	Insurance Expense		1,900	
	Prepaid Insurance			1,900
	To record usage of prepaid item			
	(e)			
30	Unearned Revenue		2,500	
	Research Revenue			2,500
	To record two months of revenue earned			
	(f)			
30	Depreciation Expense		5,000	
	Accumulated Depreciation			5,000
	To record current year depreciation			

*Note on adjustment B:* This is an unusual adjustment because *too much* supplies expense was recorded. The expense was overstated by \$150 because the actual supplies on hand were \$650, not \$500. The asset must be adjusted *up*, so this is the opposite of the usual entry.

**SOLUTIONS****Learning Goal 4, continued****LG 4-7, continued**

2. Classification, valuation, and timing elements of each adjusting entry:

Item	Classification	Valuation	Timing
a	Accounts Receivable and Consulting Revenue both increase.	The amount to record is \$4,500.	The revenue was earned in the current year ending June 30, so it must be recorded in this period instead of recording it when the cash is received next period.
b	Supplies increases and Supplies Expense decreases.	The expense is overstated by \$150.	The correct amount of supplies expense must be matched against the current year's revenue for the year that ends on June 30.
c	Accounts Payable and Utilities Expense both increase.	The amount of service consumed was \$900.	The correct amount of utilities expense must be matched against the current year's revenue instead of being recorded when the expense is paid next period.
d	Prepaid Insurance decreases and Insurance Expense increases.	The amount of the asset consumed was \$1,900. \$500 remains to be consumed next year.	The correct insurance expense must be matched against the revenues in each of the periods that receive a benefit. These are the current year ending June 30 and the next period beginning July 1.
e	Unearned Revenue decreases and Research Revenue increases.	The amount of the liability earned was \$2,500. \$12,500 remains to be earned next year.	Some revenue was earned in the current year ending June 30. The revenue must be recorded as earned, instead of recording all the revenue when the cash was received.
f	Accumulated Depreciation and Depreciation Expense both increase.	Based on a straight-line depreciation calculation, \$5,000 of the asset cost is estimated to be used up.	The depreciation expense must be matched against the revenues in each of the years that receive a benefit during the estimated useful life of the asset.

**SOLUTIONS****Learning Goal 4, continued****LG 4-8.**

Date	Account Titles and Explanation	Post. Ref.	Debit	Credit
June	(a)			
30	Unearned Charter Revenue		18,870	
	Charter Service Revenue			18,870
	To record revenue earned (\$5,250 + \$13,620)			
	(b)			
30	Depreciation Expense—Aircraft		48,000	
	Accumulated Depreciation—Aircraft			48,000
	To record one year of depreciation			
	(c)			
30	Wages Expense		840	
	Wages Payable			840
	To accrue two days unpaid wages at \$420 per day			
	(d)			
30	Insurance Expense		1,175	
	Prepaid Insurance			1,175
	To record prepaid insurance expired			
	(R173 \$400 + JRX22 \$775)			
	(e)			
30	Equipment Rental Expense		4,400	
	Accounts Payable			4,400
	To record accrued rental charges			
	(f)			
30	Office Supplies Expense		650	
	Aircraft Supplies Expense		18,050	
	Office Supplies			650
	Aircraft Supplies			18,050
	To record use of supplies			

**SOLUTIONS****Learning Goal 4, continued****LG 4-8, continued**

2. Net income before adjustments:

Total revenue		\$221,000
Total expense		<u>(55,050)</u>
Net income before adjustments		<u>\$165,965</u>
Revenue adjustment		18,870
Expense adjustments:		
Depreciation	\$48,000	
Wages	840	
Insurance	1,175	
Rental	4,400	
Office supplies	650	
Aircraft supplies	18,050	
Total expense adjustments		<u>(73,115)</u>
Net income after adjustments		<u><u>\$111,720</u></u>

3. Cash basis would not have any prepaid items, unearned items, or revenue and expense receivables or payables. There would be no adjusting entries. In effect, cash basis is simply 'money in and money out,' with the exception of long-term assets such as equipment (called a "modified cash basis".)

Net income before adjustments:

Total revenue		\$221,000
Total expense		<u>(55,050)</u>
Net income before adjustments		<u>\$165,965</u>
The following would have been recorded as expenses:		
Prepaid insurance	\$4,900	
Office supplies	1,150	
Aircraft supplies	<u>37,950</u>	
The following would have been recorded as revenue:		(44,000)
Unearned charter revenue:		<u>47,700</u>
Cash basis income		<u><u>\$169,665</u></u>

## SOLUTIONS

## Learning Goal 4, continued

## LG 4-9.

- a.  $\$12,000 \times 2/36 = \$667$
- b. The amount of the customer advance is missing. This should be dividend by 4.
- c. The amount of purchases is missing. Assuming that all uses are recorded with a single adjustment at ear end, the calculation would be:  $\$1,000 + \text{purchases} - \$520 = \text{amount used}$ .
- d. No calculation is required. The amount needed for the adjustment is given.
- e. The years of estimated useful life for each asset is missing. Details of depreciation calculation methods are in Learning Goal 19.
- f. The amount paid is missing. The calculation for adjustment would be:  $\$ \text{paid} \times 11/18 = \text{amount used}$ . (Or,  $\$ \text{paid}/18 \times 11$ )
- g. No calculation is required. The amount needed for the adjustment is given.
- h. This does not involve an adjusting entry. It is the payment of a liability. Adjusting entries will always involve either a revenue or expense.
- i. No calculation is required. The amount needed for the adjustment (\$5,500) is given.
- j. The amount of the weekly wages is missing. The calculation for adjustment would be:  
 $\$ \text{weekly wages} \times 2/6 = 2 \text{ days of wages expense}$ .
- k. This event does not require an adjusting entry. A contract has been signed, but no services have been performed yet, so no revenue has been earned.
- l. Assuming that supplies expense for the period is recorded with a single adjustment:  
 $\$700 + \$1,200 - \$150 = \$1,750$ .
- m.  $\$50,000/2,500 = \$20 \text{ per switch}$ .  $\$20 \times 520 = \$10,400$ .
- n. No calculation is required. The amount for security services expense (\$7,200) is given.
- o. The amount of any interest expense incurred but not yet paid is missing. This should be accrued.
- p.  $\$11,000 - \$2,200 = \$8,800$ .
- q.  $\$10,000 \times 9/10 = \$9,000$ . (counting April)
- r. The monthly rent amount is missing. The calculation for adjustment would be:  $\$ \text{monthly} \times 2$
- s. The amount of the prepayment is missing. The current expense calculation would be:  
 $(\$ \text{paid}/500) \times 110$
- t. No calculation is required. The amount of the expense is given.
- u. No calculation is required. The amount of the revenue is given.
- v. The amount of the prepayment and the periods prepaid are missing. The calculation for adjustment would be:  $\$ \text{prepaid}/\text{periods prepaid} \times \text{periods used in current accounting period}$ .
- w.  $\$900 + \$1,800 + (\$1,800 \times 4/6) = \$3,900$ .
- x. No calculation is required. The amount of the tax expense is given.

**SOLUTIONS****Appendix Solutions****Multiple Choice Appendix I and II**

1. b To record the supplies used up.
2. d To record the amount of revenue earned as time passes.
3. d
4. d Debit an expense, credit Prepaid Expense.
5. c Because the asset Prepaid Expense should have been reduced. Also, Insurance Expense should have been increased, so expenses are too low, which overstates net income.
6. a Because the liability Unearned Revenue should have been reduced. Also, revenue should have been increased, so revenue is too low, which understates net income.
7. d
8. c

**Multiple Choice Appendix III**

1. d All the names are used. In this book, we use “plant and equipment” most often.
2. b *Note:* Some textbooks do not use separate Depreciation Expense accounts. That is, all the depreciation expense is recorded in only one expense account called “Depreciation Expense.”
3. a
4. d No such account! There is Depreciation Expense and there is Accumulated Depreciation. Be precise here.
5. c Total assets are decreased because the credit balance in Accumulated Depreciation increases. Net income is decreased because Depreciation Expense increases total expenses.
6. d Total assets would be overstated because accumulated depreciation would be too small. Net income would be overstated because total expenses would be understated—not enough depreciation expense.
7. c
8. a  $(17,500 - 3,500) + 100,000 = 114,000$
9. b The credit balance of the Accumulated Depreciation account offsets the debit balance in the asset account. This is called a *contra-asset* account.
10. c The most difficult situation in which to apply the matching principle is when some item must be allocated between two or more accounting periods and the item does not have an exactly predictable usage. This forces accountants to estimate the usage. The only item here that requires an estimate of usage (useful life) is item (c). Item (d) is the easiest because the transaction only affects one period.
11. b
12. c  $(\$27,000/5) \times 9/12$  (the asset was owned for nine months in the fiscal year) = \$4,050.  
*Note:* What the asset normally sells for is irrelevant. Only actual cost is used for depreciation.

**Multiple Choice Appendix IV and V**

1. c Choice “a” is a deferral—cash has been paid before the expense. There is no expense with “b”—an asset is purchased.
2. d    3. a    4. c
5. b Accounts receivable are understated. Revenue is also understated, which understates net income.
6. a Accounts payable (or similar payables) are understated. Expense is also understated, which overstates net income.
7. c    8. a    9. d (\$3,300)

SOLUTIONS

Learning Goal 4 Appendices I-V Solutions

Reinforcement Problems

LG A 4-1.

Information Example	The key information type is . . .	To determine the cost used up, you need to . . .												
1. On April 1, Madison Company prepaid \$1,750 for five service repair calls. On June 30, the trial balance shows a balance of \$1,750 in the Prepaid Repairs account, after three repair jobs have been done.	the cost per unit of the asset (five service jobs)	calculate the cost per unit of the asset (in units of jobs)												
2. The balance of the Spare Parts Supplies account on the trial balance is \$14,550. A physical count shows \$1,500 of the supplies remaining at year end.	the asset cost remaining	subtract the asset cost remaining from the unadjusted balance of the Prepaid Expense account												
3. On October 1, Fox Valley Company purchased a 12-month fire insurance policy for \$9,000. The year-end trial balance on January 31 shows \$9,000 of Prepaid Fire Insurance. The trial balance also shows \$2,500 of Insurance Expense, which does not include the cost of any fire insurance.	the cost per unit of the asset (12 months)	calculate the cost per unit of the asset (units of time)												
4. Wisconsin Grand Hotel provides each guest with a complimentary bar of soap. The unadjusted trial balance shows \$17,500 of soap supplies at year end. At year end, a physical count shows \$3,500 of soap supplies actually remaining. (Soap Expense is recorded only at year end.)	the asset cost remaining	subtract the asset cost remaining from the unadjusted balance of the Prepaid Expense account												
5. Blue Mountain Corporation has a December 31 year end. On December 31, year end, an analysis of the unadjusted balance of the Prepaid Insurance shows:  <table><tr><td><i>Policy Type</i></td><td><i>Date Purchased</i></td><td><i>Amount</i></td></tr><tr><td>Fire</td><td>July 10</td><td>\$5,000</td></tr><tr><td>Liability</td><td>May 1</td><td>\$2,100</td></tr><tr><td>Flood</td><td>Oct. 20</td><td>\$7,500</td></tr></table> The insurance agent verifies that \$900 worth of the fire policy is still in force, as well as \$1,000 of the liability policy and \$2,750 of the flood policy.	<i>Policy Type</i>	<i>Date Purchased</i>	<i>Amount</i>	Fire	July 10	\$5,000	Liability	May 1	\$2,100	Flood	Oct. 20	\$7,500	the asset cost actually remaining	subtract the asset cost remaining from the unadjusted balance of the Prepaid Expense account
<i>Policy Type</i>	<i>Date Purchased</i>	<i>Amount</i>												
Fire	July 10	\$5,000												
Liability	May 1	\$2,100												
Flood	Oct. 20	\$7,500												
6. On June 30, year end, the trial balance of Milwaukee Company showed an ending balance of \$2,110 in the Prepaid Rent account. This represents the rent for May and June. \$10,550 of rent expense is showing in the final trial balance.	the asset cost used up	interpret the statement to determine the portion that is used up												



**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****Reinforcement Problems, continued****LG A 4-1, continued**

Information Example	The key information type is . . .	To determine the cost used up, you need to . . .								
<p>7. On December 31, year end, the Prepaid Insurance account of Moraine Park Company shows:</p> <table><tr><th colspan="2">Prepaid Insurance</th></tr><tr><td>Beg. Bal. Jan. 1</td><td>2,500</td></tr><tr><td>Oct. 1</td><td>9,000</td></tr></table> <p>The beginning balance is the unexpired part of a one-year policy purchased in the prior year. The October amount is for a three-year policy.</p>	Prepaid Insurance		Beg. Bal. Jan. 1	2,500	Oct. 1	9,000	<p><i>Combination:</i> cost used up and cost per unit</p> <ul style="list-style-type: none"><li>■ One-year policy was bought last year, so it will be completely used up in this year.</li><li>■ Three months of the Oct. 1 payment have been used up.</li></ul>	<ul style="list-style-type: none"><li>■ 100% of the first policy</li><li>■ Calculate the expense per month.</li></ul> <p><i>Note:</i> You could also see this as a “portion” of 3/12.</p>		
Prepaid Insurance										
Beg. Bal. Jan. 1	2,500									
Oct. 1	9,000									
<p>8. At the beginning of the year, the Prepaid Rent account had a balance of \$1,300, and during the year \$10,700 of additional prepayments were made. The amount of Prepaid Rent in force at year end is \$3,000.</p>	<p>The asset cost remaining</p>	<p>Subtract the asset cost remaining from the unadjusted balance of the Prepaid Expense account.</p>								
<p>9. At year end, the Prepaid Rent account balance shows as \$12,000. 75% of this balance expired during the year. The remaining 25% will be used next year.</p>	<p>The asset cost used up</p>	<p>Determine portion (75%) used up.</p>								
<p>10. The June 30 trial balance of Waukesha Company shows prepaid interest of \$5,000 for money borrowed on June 1. Interest expense is incurred at \$1,500 per month. No interest expense has been recorded.</p>	<p>The cost per unit of the asset (units of time)</p>	<p>Use the cost per unit of the asset. (\$1,500 per month is already calculated for you.)</p>								
<p>11. Springfield Company, which has a December 31 year end, shows the following in the Prepaid Advertising account:</p> <table><tr><th colspan="2">Prepaid Advertising</th></tr><tr><td>Jan. 1</td><td>2,000</td></tr><tr><td>May 1</td><td>4,500</td></tr><tr><td>Nov. 1</td><td>4,500</td></tr></table> <p>The advertising is purchased and consumed semiannually.</p>	Prepaid Advertising		Jan. 1	2,000	May 1	4,500	Nov. 1	4,500	<p><i>Combination:</i> cost used up and cost per unit</p> <ul style="list-style-type: none"><li>■ Six-month prepayments from Jan. 1 and May 1 are fully used up by December 31.</li><li>■ Cost per unit (month) of Nov. 1 prepayment</li></ul>	<p>By interpreting the “purchased semiannually” information, the amounts used up are:</p> <ul style="list-style-type: none"><li>■ All of the beginning balance</li><li>■ All of the May 1 purchase</li><li>■ Two months of the Nov. 1 purchase</li></ul> <p><i>Note:</i> You could also see this as a “portion” of 2/12.</p>
Prepaid Advertising										
Jan. 1	2,000									
May 1	4,500									
Nov. 1	4,500									

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****Reinforcement Problems, continued****LG A 4-2. Do the adjustment and verify new account balances:**

1.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Cost per month:</b> $\$1,750/5 = \$350/\text{per service call}$  <b>Amount used up:</b> $\$350 \times 3 \text{ mo.} = \$1,050$	June 30    Repairs Expense    1,050 Prepaid Repairs            1,050  A ↓    =    L    +    SE ↓ Prepaid                      Repairs Repairs                      Expense -1,050                      +1,050

Determine the New Balances of the Accounts Affected			
Prepaid Repairs		Repairs Expense	
1,750		-0-	
	1,050	1,050	
<u>700</u>		<u>1,050</u>	

2.

Calculate the Amount of the Adjustment	Make the Journal Entry
Spare parts cost on trial balance:    \$14,550 Actual spare parts on hand cost: <u>\$1,500</u> Spare parts used up:                    \$13,050	Parts Expense            13,050 Spare Parts                    13,050  A ↓    =    L    +    SE ↓ Spare                      Parts Parts                      Expense -13,050                    +13,050

Determine the New Balances of the Accounts Affected			
Spare Parts		Parts Expense	
14,550		-0-	
	13,050	13,050	
<u>1,500</u>		<u>13,050</u>	

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****Reinforcement Problems, continued****LG A 4-2, continued**

3.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Cost per month:</b> $\$9,000/12 \text{ month} = \$750/\text{mo.}$  <b>Amount used up:</b> $\$750 \times 4 \text{ mo.} = \$3,000$ (Oct., Nov., Dec., and Jan. = 4 months in the current accounting period until January 31, date of the trial balance.)	January 31    Insurance Expense      3,000 Prepaid Insurance      3,000  A ↓    =    L    +    SE ↓ Prepaid                      Insurance Insurance                      Expense -3,000                              +3,000

Determine the New Balances of the Accounts Affected			
Prepaid Insurance		Insurance Expense	
9,000		2,500	
	3,000	3,000	
<u>6,000</u>		<u>5,500</u>	

*Note:* \$2,500 of insurance expense has come from other transactions. Other policies must have been used up.

4.

Calculate the Amount of the Adjustment	Make the Journal Entry
Unadjusted balance at year end:                      \$17,500 Actual soap on hand at year end: <u>\$3,500</u> Soap cost used up:    \$14,000	Soap Expense                      14,000 Soap Supplies                      14,000  A ↓    =    L    +    SE ↓ Soap                                      Soap Supplies                                      Expense -14,000                                      +14,000

Determine the New Balances of the Accounts Affected			
Soap Supplies		Soap Expense	
17,500		-0-	
	14,000	14,000	
<u>3,500</u>		<u>14,000</u>	

## SOLUTIONS

## Learning Goal 4 Appendices I-V Solutions

Reinforcement Problems, *continued*LG A 4-2, *continued*

5.

Calculate the Amount of the Adjustment	Make the Journal Entry
Prepaid insurance cost on trial balance: \$14,600 Actual prepaid insurance remaining: <u>\$ 4,650</u> Prepaid insurance used up: \$ 9,950	Insurance Expense      9,950 Prepaid Insurance      9,950
	A ↓    =    L    +    SE ↓ Prepaid      Insurance Insurance      Expense -9,950                    +9,950

Determine the New Balances of the Accounts Affected			
Prepaid Insurance		Insurance Expense	
14,600		-0-	
	9,950	9,950	
<u>4,650</u>		<u>9,950</u>	

6.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Cost used up:</b> You are told that the \$2,110 is for the months of May and June. So the Prepaid Rent had been fully used up as of June 30. The full \$2,110 is the amount of the adjustment.	Rent Expense      2,110 Prepaid Rent      2,110
	A ↓    =    L    +    SE ↓ Prepaid      Rent Rent      Expense -2,110                    +2,110

Determine the New Balances of the Accounts Affected			
Prepaid Rent		Rent Expense	
2,110		10,550	
	2,110	2,110	
<u>-0-</u>		<u>12,660</u>	

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****Reinforcement Problems, continued****LG A 4-2, continued**

7.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>January 1 balance:</b> All of this amount is used up in the current year (purchased in the prior year, so less than 1 year is left): \$2,500  <b>October 1 purchase:</b> <i>Amount per month:</i> $\$9,000/36 = \$250 \text{ per month} \times 3$ <u>\$750</u> <b>Total Prepaid Insurance used up:</b> <u>\$3,250</u>	<div> Insurance Expense      3,250  Prepaid Insurance              3,250 </div> <div> A ↓      =      L      +      SE ↓  Prepaid Insurance      Insurance Expense  -3,250                      +3,250 </div>

Determine the New Balances of the Accounts Affected			
Prepaid Insurance		Insurance Expense	
11,500		-0-	
	3,250	3,250	
<u>8,250</u>		<u>3,250</u>	

8.

Calculate the Amount of the Adjustment	Make the Journal Entry
Unadjusted balance at year end: $(1,300 + 10,700 - 0) = \$12,000$ Prepaid Rent in force at year end: <u>\$ 3,000</u> Prepaid Rent used up: \$ 9,000	<div> Rent Expense      9,000  Prepaid Rent              9,000 </div> <div> A ↓      =      L      +      SE ↓  Prepaid Rent      Rent Expense  -9,000                      +9,000 </div>

Determine the New Balances of the Accounts Affected			
Prepaid Rent		Rent Expense	
12,000		-0-	
	9,000	9,000	
<u>3,000</u>		<u>9,000</u>	

## SOLUTIONS

## Learning Goal 4 Appendices I-V Solutions

Reinforcement Problems, *continued*LG A 4-2, *continued*

9.

Calculate the Amount of the Adjustment	Make the Journal Entry
<p>You can calculate that \$9,000 is the cost of Prepaid Rent that has been consumed. This is the amount of the adjustment.</p> $\$12,000 \times .75 = \$9,000$	<div> <div>Rent Expense 9,000</div> <div>Prepaid Rent 9,000</div> </div>
	<div> <div>A ↓ = L + SE ↓</div> <div>Prepaid Rent Rent Expense</div> <div>-9,000 +9,000</div> </div>

Determine the New Balances of the Accounts Affected			
Prepaid Rent		Rent Expense	
12,000		-0-	
	9,000	9,000	
<u>3,000</u>		<u>9,000</u>	

10.

Calculate the Amount of the Adjustment	Make the Journal Entry
<p><b>Cost per month:</b> \$1,500 per month is already calculated for you</p> <p><b>Amount used up:</b> \$1,500 × 1 mo. = \$1,500 total expense (June 1–June 30 is 1 month in the current accounting period that ends on June 30.)</p>	<div> <div>June 30 Interest Expense 1,500</div> <div>Prepaid Interest 1,500</div> </div>
	<div> <div>A ↓ = L + SE ↓</div> <div>Prepaid Interest Interest Expense</div> <div>-1,500 +1,500</div> </div>

Determine the New Balances of the Accounts Affected			
Prepaid Interest		Interest Expense	
5,000		-0-	
	1,500	1,500	
<u>3,500</u>		<u>1,500</u>	

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****Reinforcement Problems, continued****LG A 4-2, continued**

11.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>January 1 balance</b> Because we know that a contract lasts 6 months, we know that any balance purchased in the prior year expires in the current year. (Also, we do not know the original cost of the prior year purchase, so we cannot calculate its cost per unit, that is, per month.)  <i>Amount used up</i> from prior year purchase:      \$2,000  <b>May 1 purchase</b> <i>Amount used up is:</i> Full 6 months is used up:                              \$4,500  <b>November 1 purchase</b> <i>Amount per month:</i> $\$4,500/6 = \$750/\text{month} \times 2 =$ <u>\$1,500</u> Total Prepaid Advertising used up: <u><u>\$8,000</u></u>	Dec. 31      Advertising Expense      8,000 Prepaid Advertising              8,000  A ↓      =      L      +      SE ↓ Prepaid    Advertising Advertising    Expense -8,000    +8,000

  

Determine the New Balances of the Accounts Affected			
Prepaid Advertising		Advertising Expense	
11,000		-0-	
	8,000	8,000	
<u>3,000</u>		<u>8,000</u>	

## SOLUTIONS

## Learning Goal 4 Appendices I-V Solutions

## Reinforcement Problems

## LG A 4-3.

Information Example	The key information type is . . .	and to determine the total revenue earned to decrease the liability . . .
1. On April 1, Adirondack Rental Company received \$1,750 for five months of equipment rental. The June 30 trial balance shows a balance of \$1,750 in the Unearned Rent Revenue account.	the unearned revenue per unit,	<ul style="list-style-type: none"> <li>■ calculate the unearned revenue per unit (per month)</li> <li>■ multiply by the number of units provided</li> </ul>
2. The trial balance of Manhattan Company shows the balance in the Unearned Sales account as \$4,040. A review of sales invoices shows that 75% of these orders was shipped.	the unearned revenue that was earned,	<ul style="list-style-type: none"> <li>■ use percent given to determine the portion earned</li> </ul>
3. On October 1, Erie Insurance, Inc. received a \$9,000 payment for a 12-month insurance policy. The year-end trial balance on January 31 shows \$9,000 of Unearned Revenue.	the unearned revenue per unit,	<ul style="list-style-type: none"> <li>■ calculate the unearned revenue per unit (per month)</li> <li>■ multiply by the number of units provided</li> </ul>
4. The ledger of La Guardia Enterprises showed \$25,000 of Unearned Service Revenue as a beginning balance. This is a balance from the prior year for six months of services. During this year, La Guardia received \$52,000 of advance payments and earned \$40,000 of them.	the unearned revenue that was earned,	<ul style="list-style-type: none"> <li>■ \$25,000 beginning balance fully earned in the current period</li> <li>■ \$40,000 earned from current receipts</li> </ul>
5. The Nassau Company sells computer service contracts. Each \$1,500 contract is good for 10 service repairs calls. All contracts sold are recorded as Unearned Revenue. During the quarter ended September 30, Nassau Company made 710 service calls.	the unearned revenue per unit,	<ul style="list-style-type: none"> <li>■ calculate the unearned revenue per unit (per service call)</li> <li>■ multiply by the number of units provided</li> </ul>
6. Suffolk Printing Partnership received a \$10,000 advance payment on February 1 to print 5,000 calendars. By December 31, year end, 3,500 calendars were supplied to customers who made the prepayment.	the unearned revenue per unit,	<ul style="list-style-type: none"> <li>■ calculate the unearned revenue per unit (per calendar)</li> <li>■ multiply by the number of units provided</li> </ul>
7. Queensborough Corporation's Unearned Revenue account showed an \$8,000 balance at year end. \$7,000 of the amount is for the last seven months' rent. The remainder is a deposit for the last month's rent of a rental agreement that expires next year.	the unearned revenue that was earned,	<ul style="list-style-type: none"> <li>■ \$7,000 is the amount earned during the last seven months of the current period</li> </ul>



**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****LG A 4-3, continued**

Information Example	The key information type is . . .	and to determine the total revenue earned to decrease the liability . . .
<p>8. On September 1, Kingsborough Banking Company made a loan that required the customer to prepay six months' interest in the amount of \$9,000. On December 31, year end, the Kingsborough ledger showed:</p> <div><div>Deferred Interest Revenue</div><div><div></div><div>9,000</div></div></div> <div><div>Interest Revenue</div><div><div></div><div>200,000</div></div></div>	the unearned revenue per unit (per month),	<ul style="list-style-type: none"><li>■ calculate the unearned revenue per month</li><li>■ multiply by the number of months earned</li></ul>
<p>9. On March 22, Suny Consulting Company received a \$14,000 advance payment from a client. By June 30, year end, \$1,500 of the advance was still not earned.</p>	the unearned revenue actually remaining,	subtract the amount remaining from the unadjusted trial balance amount
<p>10. On March 22, Suny Consulting Company received a \$14,000 advance payment from a client. By June 30, year end, \$12,500 of the advance had been earned.</p>	the unearned revenue that was earned,	use the dollar amount given
<p>11. At year end, Hudson Valley Test Labs, Inc. has a Deferred Revenue account that shows a beginning balance of \$50,000 from a prior year's five-month service contract. During the current year, the company received an advance payment of \$200,000 to test 1,000 units. This was also recorded in Deferred Revenue. The company tested 212 units.</p>	<p><i>Combination:</i></p> <ul style="list-style-type: none"><li>■ the unearned revenue that was earned,</li><li>■ the unearned revenue per unit,</li></ul>	<ul style="list-style-type: none"><li>■ the beginning balance was fully earned.</li><li>■ calculate the unearned revenue per unit (per test) and multiply by the number of units</li></ul>

SOLUTIONS

Learning Goal 4 Appendices I-V Solutions

LG A 4-4.

1.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Unearned revenue per month:</b> \$1,750/5 mo. = \$350/mo.	June 30      Unearned Revenue    1,050 Rent Revenue                      1,050
<b>Amount earned:</b> \$350 × 3 mo. = \$1,050 (April, May, and June = 3 months in the current accounting period until June 30, the date of the trial balance)	A      =      L ↓      +      SE ↑ Unearned                      Rent Revenue                      Revenue −1,050                      +1,050

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Rent Revenue	
	1,750		−0−
1,050			1,050
	<u>700</u>		<u>1,050</u>

2.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Amount earned:</b> \$4,040 × .75 = \$3,030	Unearned Revenue    3,030 Sales Revenue                      3,030
	A      =      L ↓      +      SE ↑ Unearned                      Sales Revenue                      Revenue −3,030                      +3,030

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Sales Revenue	
	4,040		−0−
3,030			3,030
	<u>1,010</u>		<u>3,030</u>

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****LG A 4-4, continued**

3.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Unearned revenue per month:</b> $\$9,000/12 \text{ mo.} = \$750/\text{mo.}$	Jan. 31      Unearned Revenue    3,000 Insurance Revenue            3,000
<b>Amount earned:</b> $\$750 \times 4 \text{ mo.} = \$3,000$ (Oct., Nov., Dec., and Jan. = 4 months in the current accounting period until Jan. 31, the date of the trial balance)	A      =      L ↓      +      SE ↑ Unearned      Insurance Revenue      Revenue -3,000      +3,000

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Insurance Revenue	
	9,000		-0-
3,000			3,000
	<u>6,000</u>		<u>3,000</u>

4.

Calculate the Amount of the Adjustment	Make the Journal Entry
Beginning account balance:      \$25,000 (fully earned because we know 6 months from last year does not extend beyond the current year)	Unearned Revenue      65,000 Service Revenue            65,000
Earned during the year: <u>40,000</u>	A      =      L ↓      +      SE ↑ Unearned      Service Revenue      Revenue -65,000      +65,000
Total: <u>\$65,000</u>	

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Service Revenue	
	77,000		-0-
65,000			65,000
	<u>12,000</u>		<u>65,000</u>

SOLUTIONS

Learning Goal 4 Appendices I-V Solutions

LG A 4-4, continued

5.

Calculate the Amount of the Adjustment		Make the Journal Entry	
<b>Unearned revenue per service call:</b> \$1,500/10 calls = \$150 per call  <b>Amount earned:</b> \$150 × 710 calls = \$106,500		Sept. 30	Unearned Revenue 106,500 Service Revenue 106,500
		A =	L ↓ + SE ↑ Unearned Revenue −106,500 Service Revenue +106,500

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Service Revenue	
	no information		−0− (?)
Cannot determine final balances. There is no information about the unadjusted balances of either account.			

6.

Calculate the Amount of the Adjustment		Make the Journal Entry	
<b>Unearned revenue per calendar:</b> \$10,000/5,000 calendars = \$2 per calendar  <b>Amount earned:</b> \$2 × 3,500 = \$7,000		Dec. 31	Unearned Sales Revenue 7,000 Sales Revenue 7,000
		A =	L ↓ + SE ↑ Unearned Sales Revenue −7,000 Sales Revenue +7,000

Determine the New Balances of the Accounts Affected			
Unearned Sales Revenue		Sales Revenue	
	10,000		−0−
7,000			7,000
	<u>3,000</u>		<u>7,000</u>

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****LG A 4-4, continued**

7.

Calculate the Amount of the Adjustment	Make the Journal Entry
\$7,000 is the dollar amount given as the revenue earned in the current period.	Aug. 31      Unearned Rent      7,000 Rent Revenue              7,000
	A      =      L ↓      +      SE ↑ Unearned      Rent Rent      Revenue -7,000      +7,000

Determine the New Balances of the Accounts Affected			
Unearned Rent		Rent Revenue	
	8,000		-0-
7,000			7,000
	<u>1,000</u>		<u>7,000</u>

8.

Calculate the Amount of the Adjustment	Make the Journal Entry
<b>Interest earned per month:</b> $\$9,000/6 = \$1,500$ per month $\$1,500 \times 4 = \$6,000$ revenue earned	Dec. 31      Unearned Interest      6,000 Interest Earned              6,000
	A      =      L ↓      +      SE ↑ Unearned      Interest Interest      Earned -6,000      +6,000

Determine the New Balances of the Accounts Affected			
Unearned Interest		Interest Earned	
	9,000		200,000
6,000			6,000
	<u>3,000</u>		<u>206,000</u>

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****LG A 4-4, continued**

9.

Calculate the Amount of the Adjustment	Make the Journal Entry
Unadjusted liability account balance: \$14,000 Less: actual remaining balance: <u>1,500</u> Amount earned during the year: \$12,500	June 30    Unearned Revenue    12,500 Consulting Revenue    12,500  A    =    L ↓    +    SE ↑ Unearned    Consulting Revenue    Revenue -12,500    +12,500

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Consulting Revenue	
	14,000		-0-
12,500			12,500
	<u>1,500</u>		<u>12,500</u>

10.

Calculate the Amount of the Adjustment	Make the Journal Entry
The revenue that has been earned is given to you: \$12,500	June 30    Unearned Revenue    12,500 Consulting Revenue    12,500  A    =    L ↓    +    SE ↑ Unearned    Consulting Revenue    Revenue -12,500    +12,500

Determine the New Balances of the Accounts Affected			
Unearned Revenue		Consulting Revenue	
	14,000		-0-
12,500			12,500
	<u>1,500</u>		<u>12,500</u>

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****LG A 4-4, continued**

11.

Calculate the Amount of the Adjustment		Make the Journal Entry	
<b>Unearned Revenue earned:</b>	\$50,000	Dec. 31	Deferred Revenue 92,400 Testing Revenue 92,400
<b>Unearned Revenue per test:</b> \$200,000/1,000 units = \$200 per unit			
\$200 per unit × 212 units =	<u>\$42,400</u>		
Total earned	\$92,400		
		A =	L ↓ + SE ↑ Deferred Revenue Testing Revenue -92,400 +92,400

Determine the New Balances of the Accounts Affected			
Deferred Revenue		Testing Revenue	
	250,000		-0-
92,400			92,400
	<u>157,600</u>		<u>92,400</u>

**Reinforcement Problems**

**LG A 4-5.** Accumulated depreciation is a contra asset account and has a normal credit balance. It appears with the asset accounts on the balance sheet. Depreciation expense is an expense account and has a normal debit balance. It appears with the expenses on the income statement.

**LG A 4-6.** By using the Accumulated Depreciation account, credit entries in the asset account are only for reductions or disposals of the asset. Secondly, the use of an Accumulated Depreciation account allows us to quickly and easily see the total accumulated depreciation that has been recorded for each plant and equipment asset (or group).

**LG A 4-7.** Depreciation Expense—Office Equipment 1,500  
Accumulated Depreciation—Office Equipment 1,500

SOLUTIONS

Learning Goal 4 Appendices I-V Solutions

LG A 4-8.

Date	Account Titles and Explanation	Post. Ref.	Debit	Credit
Dec.	(a)			
31	Depreciation Expense—Computer		2,450	
	Accumulated Depreciation—Computer			2,450
	To record one year of depreciation expense: 12,250/5			
	(b)			
Dec.	Depreciation Expense—Drilling Equipment			
31	Accumulated Depreciation—Drilling Equipment		2,550	
	To record nine months of depreciation expense:			2,550
	Calculated as $(35,000 - 1,000/10) \times (9/12)$			
June	(c)			
30	Depreciation Expense—Truck		5,400	
	Accumulated Depreciation—Truck			5,400
	To record six months of depreciation expense:			
	$(54,000/5) \times (6/12)$			

**LG A 4-9.** \$480,000. Use the formula for 10-year straight-line depreciation  
[cost ( $x$ ) – residual value (0)]/useful life (10):  $[(x - 0)/10] \times 3/12 = 12,000$ .  
 $1/10 x = 48,000$   
 $x = 480,000$

The \$12,000 in the accumulated depreciation account is the current period depreciation expense (for three months) because this is the first year the asset is owned.



**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****Reinforcement Problems****LG A 4-10.**

Item	Accrued . . .		Not an accrual
	Revenue	Expense	
a. Dutchess Company owes employee wages in the amount of \$15,000 that are not recorded.		✓	
b. Finger Lakes Tourist Company has fees earned but unbilled of \$7,500.	✓		
c. Niagra Company received the December telephone bill in early January.		✓	
d. On June 30, fiscal year end for Corning, Inc. \$10,000 of wages expense accrued since the last payday.		✓	
e. Briarcliffe Company collected \$4,500 from accounts receivable.	There is no revenue here—just collecting cash owed by customers.		✓
f. Services provided but unbilled are \$9,800.	✓		
g. Utica Partnership has \$3,000 of rent still due from tenants at year end.	✓		
h. Westchester Company earned \$2,500 of a customer advance that had been credited to unearned revenue.	This revenue has already been prepaid by the customer—a deferral.		✓
i. On December 31, year end, Jefferson Company records show \$1,500 of interest on money borrowed unpaid and not due until January 15.		✓	
j. On March 3, Rockaway Operations Co. signed a contract to provide \$12,000 of consulting services.	Signing a contract does not immediately affect the accounting equation.		✓
k. Accounts Receivable      700 Fees Earned                      700	✓		
l. Unearned Rent              700 Fees Earned                      700	We are reducing the Unearned Revenue, so the customer must have already paid us.		✓

SOLUTIONS

Learning Goal 4 Appendices I-V Solutions

LG A 4-10, continued

Item	Accrued . . .		Not an accrual
	Revenue	Expense	
m. Rent Expense           8,000 Rent Payable               8,000		✓	
n. Rent Expense           8,000 Prepaid Rent               8,000	We are reducing the Prepaid Rent, so the item was already prepaid.		✓
o. The trial balance shows a balance of \$2,500 in the Prepaid Rent account.			✓
p. The trial balance shows a balance of \$4,000 in the Unearned Service Revenue account.			✓

LG A 4-11.

Date	Account Titles and Explanation	Post. Ref.	Debit	Credit
Sept. 30	Wages Expense		5,000	
	Wages Payable			5,000
	To accrue wages			
30	Accounts Receivable		4,400	
	Fees Earned			4,400
	To accrue fees earned			
30	Interest Expense		2,500	
	Interest Payable			2,500
	To accrue interest expense			
30	Accounts Receivable		800	
	Service Revenue			800
	To accrue service revenue			
30	Accounts Receivable		2,000	
	Consulting Revenue			2,000
	To accrue unbilled consulting revenue: $3,000 \times 2/3 = 2,000$			

**SOLUTIONS****Learning Goal 4 Appendices I-V Solutions****LG A 4-11, continued**

Date	Account Titles and Explanation	Post. Ref.	Debit	Credit
30	Rent Expense		4,000	
	Rent Payable			4,000
	To accrue rent owing but unpaid			
30	Wages Expense		3,600	
	Wages Payable			3,600
	To accrue four days of wages to Sept. 30 at \$900 per day			

*Note on last item:* First, you calculate the rate per day:  $\$4,500/5 = \$900$  per day. Second, you count backwards from Oct. 4 to find what day of the week September 30 was on! If October 4 is a Monday, then September 30 must have been a Thursday. Therefore, at the end of business on September 30, there must have been four days of accrued wages: Monday, Tuesday, Wednesday, and Thursday:  $4 \times \$900/\text{day} = \$3,600$ .

**LG A 4-12.**

Date	Account	Post. Ref.	Debit	Credit
December	(a)			
31	Accounts Receivable		7,600	
	Financial Service Revenue			7,600
	(b)			
31	Internet Service Expense		4,500	
	Accounts Payable			4,500
	(c)			
31	Wages Expense		12,600	
	Wages Payable			12,600
	(d)			
31	Computer Lease Expense		1,250	
	Accounts Payable			1,250
	(e)			
31	Interest Receivable		180	
	Interest Revenue			180

## SOLUTIONS

## Learning Goal 4 Appendices I-V Solutions

LG A 4-12, *continued*

Date	Account	Post. Ref.	Debit	Credit
	(f)			
31	Franchise Expense		34,200	
	Prepaid Franchise Expense			12,000
	Accounts Payable			22,200
January	(g)			
9	Wages Payable		12,600	
	Wages Expense		16,800	
	Cash			29,400
	(h)			
11	Cash		38,000	
	Accounts Receivable			7,600
	Financial Service Revenue			30,400

- $\$38,000 \times .2 = \$7,600$
- Accrue the amount given.
- $\$2,100 \times 6 = \$12,600$  (6 days expense as of December 31).
- $\$1,550 \times 25/31 = \$1,250$  (or  $\$1,550/31 \times 25 = \$1,250$ ).
- One month of (December) interest has accrued, payable on January 1.
- $\$136,800 \times .25 = \$34,200$  of expense, of which \$12,000 has been prepaid. The balance is still payable. The prepayment is used up and becomes an expense. The rest of the franchise expense is an accrued expense.
- Total cash to pay is  $\$2,100 \times 14 = \$29,400$ . Eight days of this expense for January is  $\$2,100 \times 8 = \$16,800$ .
- The total revenue is \$38,000 for the job, of which \$7,600 was earned and accrued last year.