Chapter 3

The Adjusting Process

Study Guide Solutions

Fill-in-the-Blank Equations

1. Book value
2. Depreciation expense for the current year
3. Supplies expense
4. Expense

Exercises

1. Determine if each of the following descriptions relates to an accrual or a cash basis of accounting.
   - **a.** Cash
   - **b.** Accrual
   - **c.** Accrual
2. Determine whether each of the following is a characteristic of an accrual or a cash basis of accounting.
   - **a.** Accrual
   - **b.** Cash
   - **c.** Cash
3. Do the following independent situations relate to an accrual or a cash basis of accounting?
   - **a.** Accrual
   - **b.** Cash
   - **c.** Accrual

   Strategy: *Think of the cash basis of accounting as like putting money into a bank account. The income is shown when the money is put into the account, and the expenses are shown when the money comes out of the account. The accrual basis of accounting is similar to the interest on the account. It is shown on the bank statement when earned.*

4. Determine whether each of the following accounts would need to be adjusted at the end of the period.

a. Yes

b. Yes

c. No

5. Determine whether each of the following accounts will require adjusting entries.

a. No

b. Yes

c. Yes

6. Does each of the following accounts need year-end adjusting entries?

a. Yes

b. No

c. No

Strategy: *The accounts that require adjustments include any accrued revenue, accrued expenses, unearned revenue, and prepaid expenses. Depreciation expense also must be adjusted at the end of the year.*

7. Determine whether each of the following describes an accrued revenue, an accrued expense, an unearned revenue, or a prepaid expense.

a. Accrued expense

b. Unearned revenue

c. Prepaid expense

8. Do the following situations describe an accrued revenue, an accrued expense, an unearned revenue, or a prepaid expense?

a. Accrued revenue

b. Unearned revenue

c. Prepaid expense

9. Is each of the following an accrued revenue, an accrued expense, an unearned revenue, or a prepaid expense?

a. Accrued expense

b. Accrued revenue

c. Prepaid expense

Strategy: *First, determine if the item will be revenue or an expense to the company. Second, determine if it will create an asset or a liability to the company. Accrued revenues and prepaid expenses are assets, while accrued expenses and unearned revenue are liabilities.*

10. Accrued Revenue A law firm allows its clients to pay on the tenth of every month for services rendered rather than for each visit. Since the last billing cycle, the law firm provided 200 hours of services at $80 per hour.

a. $16,000; 200 hours since last cycle × $80/hour

b.

Accounts Receivable	16,000	
Fees Earned		16,000

11. Accrued Revenue An electrical company provides services for a new building at a rate of $50 per hour. Once completed, the owner of the building will pay for the total amount of hours worked. By the end of the year, the electrical company has worked 150 hours at the building and expects to finish the project after working an additional 50 hours in the next period.

a. $7,500; 150 hours × $50/hour

Although the electrical company expects to spend 200 hours in total for the project, it can only record the amount of accrued revenue to date. The additional 50 hours will be recorded in the next period.

b.

Accounts Receivable	3,000	
Fees Earned		3,000

12. Accrued Revenue By the end of the year, a CPA firm has provided a client with 30 hours of service to prepare a tax return. The client agrees to pay for hours performed monthly on the fifteenth of the following month. The CPA firm bills clients $35 per hour.

a. $1,050; 30 hours × $35/hour

b.

Accounts Receivable	1,050	
Fees Earned		1,050

13. Accrued Expense A business's lawyer charges $60 per hour to meet with the board of directors. The business pays for the expense on the fifth of every month. By the end of the year, the board members and lawyer had met 51 hours since the last pay period.

a. $3,060; 51 hours since last pay period × $60/hour

b.

Legal Expense	3,060	
Legal Fees Payable		3,060

14. Accrued Expense A company pays its employees every other Friday, with daily wages of $340, including weekends. The previous payday occurred on Friday, June 24.

a. $2,040; $340/day × 6 days

b.

Wages Expense	2,040	
Wages Payable		2,040

15. Accrued Expense A company pays its telephone bill on the fifteenth of each month at a daily rate of $15.

a. $240; $15/day × 16 days

b.

Telephone Expense	240	
Telephone Utilities Payable		240

Strategy: *T accounts and timelines can be helpful when determining the amount of the adjustment. A timeline can show the time period the adjustment should reflect and a visual of the amount for each month/day during the period. Journal entries will always have a balance sheet account and an income statement account. Remembering the normal balance of the accounts can help determine if an amount is a debit or credit.*

16. Unearned Revenue A new gym begins business in November, offering a special for its membership plan of one year for $240. During November, 12 people sign up for the plan starting December 1; during December, 20 people sign up for the plan starting December 15.

a. A T account will be helpful because multiple signups and time periods were involved. The company will record the unearned revenue for the November and December signups when the memberships are sold. At the end of the year, the company will need to make adjustments for the revenue earned in December. For the November signups, the gym can show one month of revenue earned. For the December signups, the gym should only show half a month of revenue earned since the memberships started December 15.

Unearned Membership Revenue

	2,880
	4,800
240	
200	
	7,240

Membership Revenue

	440
	440

b.

Unearned Membership Revenue	440	
Membership Revenue		440

17. Unearned Revenue A rental company owns a building from which it leases out multiple offices. During the year, it received the following advance rental payments for one-year leases from separate tenants: $24,000 in June, $36,000 in August, and $12,000 in October. The leases started the first of the month *following* the payment. Assume that these are the only advance rental payments received and that no adjusting entries were made during the year.

a. A T account will be best to show the separate advance payments and rent earned by December 31.

Unearned Rent Revenue	
	24,000
	36,000
	12,000
12,000	
12,000	
2,000	
	46,000

Rent Revenue	
	12,000
	12,000
	2,000
	26,000

b.

Unearned Rent Revenue	26,000	
Rent Revenue		26,000

18. Unearned Revenue A magazine company sells a one-year subscription for $42 that will begin the month after the payment is received. During November, the company sells 200 subscriptions. The company did not sell any other subscriptions in the period.

a. $1,400; $42 ÷ 12 months = $3.50 per month per subscription; $3.50 × 2 months × 200 subscriptions

Unearned Subscription Revenue	
	8,400
1,400	
	7,000

Subscription Revenue	
	1,400
	1,400

b.

Unearned Subscription Revenue	1,400	
Subscription Revenue		1,400

19. Prepaid Expense On June 1, Company A signed a rental agreement for a new building and paid $24,000 in advance for the year of rent beginning the same day.

a. $14,000; $24,000 ÷ 12 months = $2,000 rent expense per month; $2,000 × 7 months (June–December)

b.

Rent Expense	14,000	
Prepaid Rent		14,000

20. Prepaid Expense At the beginning of the quarter, a company had $2,670 of supplies on hand. During the period, the company purchased $500 worth of supplies. At the end of the year, on December 31, the supplies on hand are $1,220.

a. Use a T account to see how much of the supplies were used. To show the correct Supplies Expense, the purchase should also be shown in the account. Adding $2,670 and $500 shows the unadjusted balance ($3,170). To find the adjustment needed, subtract the ending balance ($1,220) from the unadjusted balance of $3,170 to find the Supplies Expense of $1,950.

Supplies	
2,670	
500	?
1,220	

b.

Supplies Expense	1,950	
Supplies		1,950

21. Prepaid Expense On December 15, Company B paid $18,000 for a six-month insurance policy starting on that day.

a. Insurance Expense: $1,500; $18,000 ÷ 6 months = $3,000 insurance expense per month; $3,000 × ½ month

Prepaid Insurance: Use a T account to find the balance at the end of the year.

Prepaid Insurance

18,000	
	1,500
16,500	

b.

Insurance Expense	1,500	
Prepaid Insurance		1,500

Strategy: *T accounts and timelines can be helpful when determining the amount of the adjustment. A timeline can show the time period the adjustment should reflect and a visual of the amount for each month/day during the period. Journal entries will always have a balance sheet account and an income statement account. Remembering the normal balance of the accounts can help determine if an amount is a debit or credit.*

22. Determine whether each of the following assets will be depreciated.

a. Yes

b. No

c. No

23. Determine whether each of the following assets will have a contra asset for Accumulated Depreciation.

a. Yes

b. Yes

c. No

24. Determine whether each of the following assets will require an adjusting entry for depreciation.

a. No

b. Yes

c. Yes

Strategy: *Fixed assets are not current assets. They are also used to produce the operating income of the company. Land is never depreciated.*

25. A piece of machinery that was purchased on July 1 has an original cost of $10,000. The company takes an annual depreciation of $1,500 a year.

a.

Depreciation Expense	1,500	
Accumulated Depreciation—Machinery		1,500

b. $8,500; $10,000 – $1,500

c. $5,500; $10,000 – $4,500 ($1,500/year × 3 years)

The net book value is found by subtracting accumulated depreciation from the cost of the machinery. The accumulated depreciation account includes the total of the depreciation expenses recorded since the asset was purchased.

Machinery	
10,000	
10,000	

Accumulated Depreciation	
	1,500
	1,500
	1,500
	4,500

Depreciation Expense	
1,500	
1,500	
1,500	
4,500	

d.

Machinery	$10,000
Accumulated depreciation	(4,500)
Machinery, net	$ 5,500

26. A company purchased a building for $200,000 on January 1 of Year 1. At the beginning of the third year, the company has accumulated depreciation of $25,000 for the building, with an annual depreciation expense of $12,500.

a.

Depreciation Expense	12,500	
Accumulated Depreciation—Building		12,500

b. Beginning: $175,000; $200,000 – $25,000

Ending: $162,500; $200,000 – $37,500 ($25,000 + $12,500)

c.

Building	$200,000
Accumulated depreciation	(37,500)
Building, net	$162,500

27. After three years, a company has accumulated depreciation of $9,000 on a piece of equipment. The company paid $21,000 for the equipment and records a depreciation expense of $3,000 per year.

a.

Depreciation Expense	3,000	
Accumulated Depreciation—Equipment		3,000

b. Beginning: $12,000; $21,000 – $9,000

Ending: $9,000; $21,000 – $12,000 ($9,000 + $3,000)

c.

Equipment	$ 21,000
Accumulated depreciation	(12,000)
Equipment, net	$ 9,000

Strategy: *First, determine the cost of the fixed asset. Next, find the amount of depreciation that should be shown for the time period. Dates are important to determine if the depreciation should be shown for a whole year or a few months of the year. The net book value will be the cost minus accumulated depreciation. The accumulated depreciation account is the total amount of depreciation expenses recorded to date for the asset.*

28. If a company does not record each of the following adjusting entries, determine the impact on the financial statements (overstated or understated assets, liabilities, stockholders' equity, revenues, expenses, net income).

- **a.** Assets overstated, stockholders' equity overstated, expenses understated, net income overstated
- **b.** Liabilities overstated, stockholders' equity understated, revenues understated, net income understated
- **c.** Liabilities understated, stockholders' equity overstated, expenses understated, net income overstated

29. If a company does not record each of the following adjusting entries, determine the impact on the financial statements (overstated or understated assets, liabilities, stockholders' equity, revenues, expenses, net income).

- **a.** Assets understated, stockholders' equity understated, revenues understated, net income understated
- **b.** Assets overstated, stockholders' equity overstated, expenses understated, net income overstated
- **c.** Liabilities overstated, stockholders' equity understated, revenues understated, net income understated

30. If a company does not record each of the following adjusting entries, determine the impact on the financial statements (overstated or understated assets, liabilities, stockholders' equity, revenues, expenses, net income).

- **a.** Liabilities understated, stockholders' equity overstated, expenses understated, net income overstated
- **b.** Assets overstated, stockholders' equity overstated, expenses understated, net income overstated
- **c.** Assets understated, stockholders' equity understated, revenues understated, net income understated

Strategy: *The type of account that requires adjusting has a direct relationship with the balance sheet. For example, the prepaid expense account is an asset. If the account is overstated, the assets will be overstated. The corresponding account that should have been debited/credited in the adjusting entry determines the effect on the income statement. For example, expenses are debited when adjusting the prepaid expense account. If the entry is not made, expenses will be understated. Overstatement of expenses or understatement of revenues will cause net income to be understated, while the understatement of expenses and overstatement of revenues cause net income to be overstated. Since net income flows through to retained earnings, if net income is overstated, stockholders' equity will also be overstated.*

31. Will the following independent errors cause the debit or credit totals on the adjusted trial balance to be unequal? If so, by how much?

a. The totals will be equal, although not at the right amount.

b. The totals will be unequal. The credits will be higher by $4,050.

c. The totals will be equal, although the entries were not made to the correct accounts.

32. By how much will the debit or credit totals be higher on the adjusted trial balance due to the following independent errors?

a. The credits will be higher by $100.

b. The debits will be higher by $405.

c. The debits will be higher by $90.

33. Determine by how much, if at all, the adjusted trial balance will be incorrect due to the following independent errors.

a. The totals will be equal, although the entries were not made to the correct accounts.

b. The debits will be higher by $100.

c. The debits will be higher by $270.

Strategy: *All journal entries should have equal debits and credits. If the journal entries do not have debits that add to the same amount of the credits, the unadjusted trial balance will not have equal debits and credits.*

34. Identify any favorable and unfavorable trends in the following income statements by preparing a vertical analysis. (Round percentages to two decimal places.)

Becker Corporation

Income Statements

For the Years Ended December 31

	Year 2		Year 1	
Revenues	$394,000	100.00%	$212,500	100.00%
Operating expenses:				
Wages expense	$ 79,000	20.05%	$ 65,000	30.59%
Rent expense	19,000	4.82%	18,000	8.47%
Utilities expense	21,000	5.33%	14,200	6.68%
Interest expense	7,500	1.90%	7,800	3.67%
Total operating expenses	$126,500	32.11%	$105,000	49.41%
Net income	$267,500	67.89%	$107,500	50.59%

The income statements show an increase in revenues. Net income as a percentage of the revenues also increased, showing a favorable trend. The expenses of the company are not increasing as rapidly as the revenues, indicating a favorable trend for the overall operating expenses and each operating expense, since each decreased as a percentage of revenues.

35. Identify any favorable and unfavorable trends in the following income statements by preparing a vertical analysis. (Round percentages to two decimal places.)

Red Corporation

Income Statements

For the Years Ended December 31

	Year 2		Year 1	
Revenues	$530,000	100.00%	$525,000	100.00%
Operating expenses:				
Wages expense	$ 90,500	17.08%	$ 88,000	16.76%
Rent expense	35,500	6.70%	35,000	6.67%
Utilities expense	7,750	1.46%	7,750	1.48%
Insurance expense	15,000	2.83%	12,000	2.29%
Total operating expenses	$148,750	28.07%	$142,750	27.19%
Net income	$381,250	71.93%	$382,250	72.81%

Although the revenues increased, the net income decreased due to increases in the operating expenses. The wages expense, rent expense, and insurance expense accounts demonstrate unfavorable trends. Although the utilities expense account remains constant, its percentage of revenues demonstrates a favorable trend. Total operating expenses increased as a percentage of revenues, which is an unfavorable trend.

36. Identify any unfavorable and favorable trends in the following income statements by preparing a vertical analysis. (Round percentages to two decimal places.)

Apple Tree Corporation

Income Statements

For the Years Ended December 31

	Year 2		Year 1	
Revenues:				
Sales revenue	$675,000	78.95%	$650,000	73.86%
Rent revenue	180,000	21.05%	230,000	26.14%
Total revenues	$855,000	100.00%	$880,000	100.00%
Operating expenses:				
Wages expense	$ 90,500	10.58%	$100,000	11.36%
Rent expense	48,000	5.61%	38,000	4.32%
Utilities expense	9,000	1.05%	8,700	0.99%
Advertising expense	13,200	1.54%	14,000	1.59%
Insurance expense	15,000	1.75%	15,000	1.70%
Total operating expenses	$175,700	20.55%	$175,700	19.97%
Net income	$679,300	79.45%	$704,300	80.03%

For Year 2, the sales revenue increased as a percentage of total revenues, while the rent revenue decreased as a percentage of total revenues. Wages Expense and Advertising Expense show favorable trends. Rent Expense, Utilities Expense, and Insurance Expense all have unfavorable trends. Although Insurance Expense remains constant, because the total revenues decreased, it will cause the ratio to be a higher percentage of revenue.

Strategy: *First, take each line item as percentage of total revenues. Next, look for changes in this year and the previous year. If there are any, determine if each change is favorable or unfavorable. If favorable, it means the company is operating more efficiently. Unfavorable trends suggest that a company is not operating as efficiently as it could.*