Chapter 3

Accrual Accounting & Income

Ethics Check

(5-10 min.) EC 3-1

a. **Integrity**

b. **Integrity**

c. **Objectivity and independence**

d. **Due Care**

Short Exercises

(10 min.) S 3-1

	Millions
Sales revenue	$ 950
Cost of goods sold	(260)
All other expenses	(275)
Net income	$ 415

Beginning cash	$ 75
Collections	876
Payments for: inventory	(410)
everything else	(250)
Ending cash	$ 291

(10 min.) S 3-2

Statement	Reports *(Amounts in millions)*	
1. Income statement	Interest expense	$ 1.1
2. Balance sheet	Notes payable ($4.0 + $1.9 − $1.7)	$4.2
	Interest payable	0.2

(10 min.) S 3-3

At the end of each accounting period, the business reports its performance through the preparation of financial statements. In order to be useful to the various users of financial statements they must be up-to-date. Accounts such as Cash, Equipment, Accounts Payable, Common Stock and Dividends are up-to date and require no adjustment at the end of the accounting period. Accounts such as Accounts Receivable, Supplies, Salary Expense and Salary Payable may not be up to date as of the last day of the accounting period. Why? Because certain transactions that took place during the month may not have been recorded.

The accrued salaries, which are owed to the employees but have not been paid, are an expense related to the current period but also represent a liability or debt that is owed by the business. The business must make an adjusting entry to record the accrued salary owed as both an increase in Salary Expense and an increase in Salary Payable. If the business does not make this adjustment, the expenses will be understated, net income will be overstated, and liabilities will be understated.

Student responses may vary.

(10 min.) S 3-4

The large auto manufacturer should record sales revenue when the revenue is earned by delivering automobiles to Budget or Hertz. The large auto manufacturer should *not* record any revenue prior to delivery of the vehicles, because the large auto manufacturer hasn't earned the revenue yet. The *revenue principle* governs this decision.

When the large auto manufacturer records the revenue from the sale, at that time — not before or after — the large auto manufacturer should also record cost of goods sold, the expense. The *expense recognition principle* tells when to record expenses.

(10 min.) S 3-5

a. The Expense Recognition Principle

b. The Revenue Principle

c. The Time-Period Concept

d. The Expense Recognition Principle

e. The Revenue Principle

(10 min.) S 3-6

(Amounts in millions)

Income statement:	**2018**
Salary expense ($40.8 + $2.3)	**$43.1**

Balance sheet:	**2018**
Salary payable	**$ 2.3**

a.

March 31	Rent Expense ($7,200 × 1/6)	1,200	
	Prepaid Rent		1,200
	To record rent expense.		

Prepaid Rent

March 1	7,200	March 31	1,200
Bal.	6,000		

Rent Expense

March 31	1,200		
Bal.	1,200		

b.

March 31	Supplies Expense (1050 − $400)	650	
	Supplies		650
	To record supplies expense.		

Supplies

March 1	1,050	March 31	650
Bal.	400		

Supplies Expense

March 31	650		
Bal.	650		

(10 min.) S 3-8

Req. 1

(a)	Jan. 1	Equipment	50,000	
		Cash		50,000
		Purchased equipment.		
(b)	Dec. 31	Depreciation Expense − Equipment	12,500	
		Accumulated Depreciation − Equipment		12,500
		Record depreciation expense.		

Req. 2

Equipment

Jan. 1	50,000	
Bal.	50,000	

Accumulated Depreciation − Equipment

	Dec. 31	12,500
	Bal.	12,500

Depreciation Expense − Equipment

Dec. 31	12,500	
Bal.	12,500	

Req. 3

Equipment	$50,000
Less: Accumulated depreciation	(12,500)
Book value	$37,500

Req. 1

Oct. 31	Interest Expense	825	
	Interest Payable		825
	To accrue interest expense for October.		
Nov. 30	Interest Expense	825	
	Interest Payable		825
	To accrue interest expense for November.		
Dec. 31	Interest Expense	825	
	Interest Payable		825
	To accrue interest expense for December.		

Req. 2

Interest Payable

	Oct.	31	825
	Nov.	30	825
	Dec.	31	825
	Bal.		2,475

Req. 3

Jan. 2	Interest Payable	2,475	
	Cash		2,475
	To pay interest.		

(10 min.) S 3-10

Req. 1

Oct. 31	Interest Receivable	825	
	Interest Revenue...		825
	To accrue interest revenue for October.		
Nov. 30	Interest Receivable	825	
	Interest Revenue...		825
	To accrue interest revenue for November.		
Dec. 31	Interest Receivable	825	
	Interest Revenue...		825
	To accrue interest revenue for December.		

Req. 2

Interest Receivable

Oct. 31	825	
Nov. 30	825	
Dec. 31	825	
Bal.	2,475	

Req. 3

Jan. 2	Cash..	2,475	
	Interest Receivable		2,475
	To collect interest.		

(5-10 min.) S 3-11

Unearned revenues are liabilities because *The New York Times* has received cash from subscribers in advance of providing them with newspapers and online access. Receiving the cash in advance creates an obligation (a liability) for *The New York Times*. As *The New York Times* delivers newspapers and online content to subscribers, *The New York Times* earns the revenue, and the dollar amount of the unearned revenue then goes into the revenue account.

a.	**Cash**	**85,000**	
	Unearned Subscription Revenue		**85,000**
	Received cash for revenue in advance.		
b.	**Unearned Subscription Revenue**	**40,000**	
	Subscription Revenue		**40,000**
	To record the earning of subscription revenue that was collected in advance.		

(5-10 min.) S 3-12

a.	**Prepaid Rent**	**26,800**	
	Cash		**26,800**
	To record annual payment for rent.		
b.	**Rent Expense**	**11,167**	
	Prepaid Rent		**11,167**
	To record rent expense for the 5 months August 1 through December 31 ($26,800 × 5 / 12).		

Prepaid Rent balance at December 31: $15,633 ($26,800 − $11,167)

(10 min.) S 3-13

a.	Accounts Receivable..................................	22,000	
	Service Revenue		22,000
	Cash..	9,000	
	Accounts Receivable		9,000
b.	Cash..	4,500	
	Unearned Service Revenue		4,500
	Unearned Service Revenue........................	3,000	
	Service Revenue....................................		3,000

(15-30 min.) S 3-14

Robin Sporting Goods Company
Income Statement
For the Year Ended July 31, 2018

	Thousands
Net revenues	$191,000
Cost of goods sold	136,800
All other expenses	29,000
Net income	$ 25,200

Robin Sporting Goods Company
Statement of Retained Earnings
For the Year Ended July 31, 2018

	Thousands
Retained earnings, July 31, 2017	$31,500
Add: Net income	25,200
Retained earnings, July 31, 2018	$56,700

Robin Sporting Goods Company
Balance Sheet
July 31, 2018

	Thousands
ASSETS	
Current:	
Cash	$ 50,000
Accounts receivable	34,000
Inventories	36,000
Other current assets	5,000
Total current assets	125,000
Property and equipment, net	19,400
Other assets	30,000
Total assets	$174,400
LIABILITIES	
Total current liabilities	$ 80,000
Long-term liabilities	11,700
Total liabilities	91,700
STOCKHOLDERS' EQUITY	
Common stock	26,000
Retained earnings	56,700
Total stockholders' equity	82,700
Total liabilities and stockholders' equity	$174,400

(5-10 min.) S 3-15

CLOSING ENTRIES

			Thousands	
July 31	Net Revenues..		191,000	
		Retained Earnings........................		191,000
31	Retained Earnings		165,800	
		Cost of Goods Sold.......................		136,800
		All Other Expenses		29,000

Retained Earnings

July 31, 2018 Expenses	165,800	July 31, 2017 Bal.	31,500
		July 31, 2018 Revenues	191,000
		July 31, 2018 Bal.	56,700

Retained Earnings' ending balance agrees with the amount reported on the statement of retained earnings and the balance sheet (in S 3-14).

(5 min.) S 3-16

(Dollars in thousands)

Req. 1

Net working capital	**=**	**Total current assets**	**−**	**Total current liabilities**
$45,000	**=**	**$125,000**	**−**	**$80,000**

Req. 2

$$\textbf{Current ratio} = \frac{\textbf{Total current assets}}{\textbf{Total current liabilities}} = \frac{\$125{,}000}{\$80{,}000} = 1.56$$

Req. 3

$$\textbf{Debt ratio} = \frac{\textbf{Total liabilities}}{\textbf{Total assets}} = \frac{\$91{,}700}{\$174{,}400} = 0.53$$

Net working capital of $45,000 means current assets exceed current liabilities—a positive sign. The current ratio and debt ratio values are strong.

(10 min.) S 3-17

Req. 1

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Closing Entries		
Dec.	31	Sales Revenue	513,000	
		Other Revenue	37,000	
		Retained Earnings		550,000
	31	Retained Earnings	441,000	
		Cost of Goods Sold		256,000
		Other Expenses		185,000
	31	Retained Earnings	12,000	
		Dividends		12,000

Req. 2

Net income was $109,000 ($550,000 − $441,000).

Req. 3

Beginning retained earnings	$457,000
Plus net income	109,000
Minus dividends	– 12,000
= Ending retained earnings	$554,000

(5-10 min.) E 3-18A

		Millions
a.	**Revenue ....**	**$820**

The *revenue principle* says to record revenue when it has been *earned*, regardless of when cash is collected. Therefore, report the amount of revenue earned, regardless of when the company collects cash.

b.	**Total expense...**	**$520**

The *expense recognition principle* governs accounting for expenses.

c.	**Revenue ($820 − $20) ....**	**$800**
	Total expense...	**$610**

The accrual basis measures revenues as earned and expenses as incurred, while the cash basis measures revenues collected in cash and expenses paid in cash.

d. **The *income statement* reports revenues and expenses.**
The *statement of cash flows* reports cash receipts and cash payments.

(15-20 min.) E 3-19A

Req. 1

Adjusting Entries

DATE	ACCOUNT TITLES	DEBIT	CREDIT
	a. Insurance Expense	2,100	
	Prepaid Insurance ($500 + $2,000 − $400)		2,100
	b. Interest Receivable	2,500	
	Interest Revenue		2,500
	c. Unearned Service Revenue ($1,700 − $300)	1,400	
	Service Revenue		1,400
	d. Depreciation Expense—Building	5,600	
	Accumulated Depreciation—Building		5,600
	e. Salary Expense ($19,000 × 2/5)	7,600	
	Salary Payable		7,600
	f. Income Tax Expense ($21,000 × .35)	7,350	
	Income Tax Payable…		7,350

Req. 2

Net income understated by omission of:		
Interest revenue	$ 2,500	
Service revenue	1,400	
Total understatement		$ (3,900)
Net income overstated by omission of:		
Insurance expense	$ 2,100	
Depreciation expense	5,600	
Salary expense	7,600	
Income tax expense	7,350	
Total overstatement		22,650
Overall effect — net income overstated by		$18,750

(10-15 min.) E 3-20A

Missing amounts in *italics*.

	1	2	3	4
Beginning Supplies	**$2,100**	**$ 1,100**	**$ 700**	**$ 500**
Add: Purchases of supplies during the year	***1,400***	**400**	***1,400***	**500**
Total amount to account for	**3,500**	***1,500***	***2,100***	**1,000**
Less: Ending Supplies	**(1,100)**	**(800)**	**(600)**	***(200)***
Supplies Expense	**$2,400**	**$ *700***	**$1,500**	**$800**

Journal entries:

Situation 1:	**Supplies**	**1,400**	
	Cash or Accounts Payable		**1,400**
Situation 2:	**Supplies Expense**	**700**	
	Supplies		**700**

(10-20 min.) E 3-21A

Adjusting Entries

DATE	ACCOUNT TITLES	DEBIT	CREDIT
a.	Interest Expense	3,100	
	Interest Payable		3,100
b.	Interest Receivable	4,400	
	Interest Revenue		4,400
c.	Unearned Rent Revenue ($14,200 / 2 × 6 / 12)	3,550	
	Rent Revenue		3,550
d.	Salary Expense ($5,700 × 4)	22,800	
	Salary Payable		22,800
e.	Supplies Expense	1,900	
	Supplies ($3,100 − $1,200)		1,900
f.	Depreciation Expense−Equipment ($140,000 / 5)	28,000	
	Accumulated Depreciation−Equipment		28,000

Book value = $112,000 ($140,000 − $28,000)

(10-15 min.) E 3-22A

Prepaid Rent at December 31:

a.	Unadjusted amount	$36,000
b.	Adjusted amount ($36,000 − $12,000)	24,000

Rent Expense at December 31:

c.	Unadjusted amount	$ - 0 -
d.	Adjusted amount ($36,000 / 3)	12,000

Req. 1

Pearl Industries, Inc.
Income Statement
Year Ended December 31, 2018

		Thousands
Revenues:		
Sales revenue		$43,200
Expenses:		
Cost of goods sold	$25,100	
Selling, administrative, and general expenses	10,500	
Total expenses		35,600
Income before tax		7,600
Income tax expense		2,900
Net income		$ 4,700

Pearl Industries, Inc.
Statement of Retained Earnings
Year Ended December 31, 2018

	Thousands
Retained earnings, December 31, 2017	$ 5,700
Add: Net income	4,700
Subtotal	10,400
Less: Dividends declared	(1,600)
Retained earnings, December 31, 2018	$ 8,800

Pearl Industries, Inc.
Balance Sheet
December 31, 2018

Thousands

ASSETS			LIABILITIES	
Cash		$ 4,400	Accounts payable	$ 7,900
Accounts receivable		1,600	Income tax payable	400
Inventories		2,700	Other liabilities	2,700
Prepaid expenses		1,800	Total liabilities	11,000
Prop., plant, equip.	$16,500		STOCKHOLDERS' EQUITY	
Less: Accum. Deprec.	(2,400)	14,100	Common stock	14,500
Other assets		9,700	Retained earnings	8,800
			Total stockholders' equity	23,300
Total assets		$34,300	Total liabilities and stockholders' equity	$34,300

(10-20 min.) E 3-24A

One mechanism for solving this exercise is to prepare the relevant T-accounts, insert the given information, and solve for the unknown amounts, shown in *italics*.

Amounts in millions

Receivables

Beg. bal.	210		
Sales revenue	*20,620*	Collections	20,400
End. bal.	430		

Prepaid Insurance

Beg. bal.	400		
Payment	470	*Insurance expense*	*540*
End. bal.	330		

Accrued Liabilities Payable

		Beg. bal.	640
Payments	4,000	*Other operating expenses*	*4,070*
		End. bal.	710

(10-20 min.) E 3-25A

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Closing Entries		
Dec.	31	Service Revenue	32,200	
		Other Revenue	1,000	
		Retained Earnings		33,200
	31	Retained Earnings	26,000	
		Cost of Services Sold		14,800
		Selling, General, and Administrative Expenses		6,200
		Depreciation Expense		4,100
		Income Tax Expense		900
	31	Retained Earnings	500	
		Dividends		500

Net income for 2018 was $7,200 ($33,200 − $26,000).

Retained Earnings

		Dec. 31, 2017	2,000
Expenses	26,000		
Dividends	500	Revenues	33,200
		Dec. 31, 2018	8,700

(15-25 min.) E 3-26A

Req. 1

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Adjusting Entries		
Dec.	31	Unearned Service Revenue	5,000	
		Service Revenue ($18,300 − $13,300)		5,000
	31	Salary Expense ($4,800 − $4,200)	600	
		Salary Payable		600
	31	Rent Expense ($2,100 − $1,700)	400	
		Prepaid Rent		400
	31	Depreciation Expense−Equipment ($900 − $0)	900	
		Accumulated Depreciation−Equipment		900
	31	Income Tax Expense ($1,800 − $0)	1,800	
		Income Tax Payable		1,800
		Closing Entries		
	31	Service Revenue	18,300	
		Retained Earnings		18,300
	31	Retained Earnings	9,600	
		Salary Expense		4,800
		Rent Expense		2,100
		Depreciation Expense−Equipment		900
		Income Tax Expense		1,800
	31	Retained Earnings	1,000	
		Dividends		1,000

Req. 1

Crawford Production Company
Balance Sheet
December 31, Current Year

ASSETS		
Current assets:		
Cash		$15,000
Prepaid rent ($1,000 − $400)		600
Total current assets		15,600
Plant assets:		
Equipment	$42,000	
Less accumulated depreciation ($6,700 + $900)	(7,600)	34,400
Total assets		$50,000
LIABILITIES		
Current liabilities:		
Accounts payable		$ 4,000
Salary payable ($4,800 − $4,200)		600
Unearned service revenue ($8,600 − $5,000)		3,600
Income tax payable		1,800
Total current liabilities		10,000
Note payable, long-term		11,000
Total liabilities		21,000
STOCKHOLDERS' EQUITY		
Common stock		8,300
Retained earnings ($13,000 + $18,300 − $4,800 − $2,100 − $900 − $1,800 − $1,000)		20,700
Total stockholders' equity		29,000
Total liabilities and stockholders' equity		$50,000

Req. 2

						Current Year	Prior Year
Net working capital	**=**	**Total current assets − current liabilities**	**=**	**$15,600 − $10,000**	**=**	**$5,600**	**$5,000**
Current ratio	**=**	**Total current assets / Total current liabilities**	**=**	**$15,600 / $10,000**	**=**	**1.56**	**1.54**

Both net working capital and the current ratio have increased slightly, indicating that the ability to pay current liabilities with current assets has improved a little.

Debt ratio	**=**	**Total liabilities / Total assets**	**=**	**$21,000 / $50,000**	**=**	**0.42**	**0.59**

A decrease in the debt ratio indicates an improvement in the ratio.

In summary, the overall ability to pay total liabilities improved.

(30 min.) E 3-28A

(amounts in millions)

a. **Current ratio** $= \dfrac{\$20}{\$10 + \$5} = 1.33$ **Debt ratio** $= \dfrac{\$40 + \$5}{\$70 + \$5} = 0.60$

The purchase of equipment on account *hurts* both ratios.

b. **Current ratio** $= \dfrac{\$20 - \$5}{\$10} = 1.50$ **Debt ratio** $= \dfrac{\$40 - \$5}{\$70 - \$5} = 0.54$

The payment of long-term debt *hurts* the current ratio and *improves* the debt ratio.

c. **Current ratio** $= \dfrac{\$20 + \$4}{\$10 + \$4} = 1.71$ **Debt ratio** $= \dfrac{\$40 + \$4}{\$70 + \$4} = 0.59$

Collecting cash in advance *hurts* both ratios.

d. **Current ratio** $= \dfrac{\$20}{\$10 + \$3} = 1.54$ **Debt ratio** $= \dfrac{\$40 + \$3}{\$70} = 0.61$

Accruing an expense *hurts* both ratios.

e. **Current ratio** $= \dfrac{\$20 + \$7}{\$10} = 2.70$ **Debt ratio** $= \dfrac{\$40}{\$70 + \$7} = .52$

A cash sale *improves* both ratios.

(5-10 min.) E 3-29B

		Millions
a.	**Revenue ....**	**$740**

The *revenue principle* says to record revenue when it has been *earned*, regardless of when cash is collected. Therefore, report the amount of revenue earned, regardless of when the company collects cash.

b.	**Total expense ....**	**$560**

The *expense recognition principle* governs accounting for expenses.

c.	**Revenue ($740 − $26) ....**	**$714**
	Total expense	**$610**

The accrual basis measures revenues as earned and expenses as incurred, while the cash basis measures revenues collected in cash and expenses paid in cash.

d. **The *income statement* reports revenues and expenses.**
The *statement of cash flows* reports cash receipts and cash payments.

(15-20 min.) E 3-30B

Req. 1

Adjusting Entries

DATE	ACCOUNT TITLES	DEBIT	CREDIT
a.	Insurance Expense	1,900	
	Prepaid Insurance ($400 + $2,100 − $600)		1,900
b.	Interest Receivable	2,400	
	Interest Revenue		2,400
c.	Unearned Service Revenue ($1,700 − $400)	1,300	
	Service Revenue		1,300
d.	Depreciation Expense—Building	5,300	
	Accumulated Depreciation—Building		5,300
e.	Salary Expense ($21,000 × 2/5)	8,400	
	Salary Payable		8,400
f.	Income Tax Expense ($30,000 × .35)	10,500	
	Income Tax Payable		10,500

Req. 2

Net income understated by omission of:		
Interest revenue	$ 2,400	
Service revenue	1,300	
Total understatement		$ (3,700)
Net income overstated by omission of:		
Insurance expense	$ 1,900	
Depreciation expense	5,300	
Salary expense	8,400	
Income tax expense	10,500	
Total overstatement		26,100
Overall effect — net income overstated by		$22,400

(10-15 min.) E 3-31B

Missing amounts in *italics*.

	1	2	3	4
Beginning Supplies	**$1,500**	**$ 700**	**$ 700**	**$ 1,000**
Add: Purchases of supplies during the year	***1,400***	**400**	***1,300***	**800**
Total amount to account for	**2,900**	***1,100***	***2,000***	**1,800**
Less: Ending Supplies	**(990)**	**(900)**	**(700)**	***(200)***
Supplies Expense	**$1,910**	**$ *200***	**$1,300**	**$ 1,600**

Journal entries:

Situation 1:	**Supplies ....**	**1,400**	
	Cash or Accounts Payable		**1,400**
Situation 2:	**Supplies Expense..........................**	**200**	
	Supplies		**200**

(10-20 min.) E 3-32B

Adjusting Entries

DATE	ACCOUNT TITLES	DEBIT	CREDIT
	a. Interest Expense	3,800	
	Interest Payable		3,800
	b. Interest Receivable	4,300	
	Interest Revenue		4,300
	c. Unearned Rent Revenue ($12,600 /2 × 6/12)	3,150	
	Rent Revenue		3,150
	d. Salary Expense ($6,500 × 4)	26,000	
	Salary Payable		26,000
	e. Supplies Expense	2,100	
	Supplies ($3,300 − $1,200)		2,100
	f. Depreciation Expense−Equipment ($60,000 / 5)	12,000	
	Accumulated Depreciation−Equipment		12,000

Book value = $48,000 ($60,000 − $12,000)

(10-15 min.) E 3-33B

Prepaid Rent at December 31:

a.	Unadjusted amount	$31,500
b.	Adjusted amount ($31,500 − $10,500)	21,000

Rent Expense at December 31:

c.	Unadjusted amount	$ - 0 -
d.	Adjusted amount ($31,500 / 3)	10,500

(20-30 min.) E 3-34B

Req. 1

Sabrina, Inc.
Income Statement
Year Ended December 31, 2018

		Thousands
Revenues:		
Sales revenue		$42,500
Expenses:		
Cost of goods sold	$25,600	
Selling, administrative, and general expenses	10,600	
Total expenses		36,200
Income before tax		6,300
Income tax expense		2,500
Net income		$ 3,800

Sabrina, Inc.
Statement of Retained Earnings
Year Ended December 31, 2018

	Thousands
Retained earnings, December 31, 2017	$ 5,900
Add: Net income	3,800
Subtotal	9,700
Less: Dividends declared	(1,200)
Retained earnings, December 31, 2018	$ 8,500

Sabrina, Inc.
Balance Sheet
December 31, 2018
Thousands

ASSETS			LIABILITIES	
Cash		$ 4,300	Accounts payable	$ 7,700
Accounts receivable		1,300	Income tax payable	600
Inventories		2,400	Other liabilities	2,200
Prepaid expenses		1,800	Total liabilities	10,500
Prop., plant, equip.	$16,700		STOCKHOLDERS' EQUITY	
Less: Accum. deprec	(2,300)	14,400	Common stock	14,600
Other assets		9,400	Retained earnings	8,500
			Total stockholders' equity	23,100
Total assets		$33,600	Total liabilities and stockholders' equity	$33,600

(10-20 min.) E 3-35B

One mechanism for solving this exercise is to prepare the relevant T-accounts, insert the given information, and solve for the unknown amounts, shown in *italics*.

Amounts in millions

Receivables

Beg. bal.	**260**		
Sales revenue	***21,030***	**Collections**	**20,800**
End. bal.	**490**		

Prepaid Insurance

Beg. bal.	**450**		
Payment	**480**	***Insurance expense***	***600***
End. bal.	**330**		

Accrued Liabilities Payable

		Beg. bal.	**640**
Payments	**4,800**	***Other operating expenses***	***4,890***
		End. bal.	**730**

(10-20 min.) E 3-36B

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Closing Entries		
Dec.	31	Service Revenue	31,700	
		Other Revenue	100	
		Retained Earnings		31,800
	31	Retained Earnings	26,200	
		Cost of Services Sold		14,400
		Selling, General, and Administrative Expenses		6,400
		Depreciation Expense		4,600
		Income Tax Expense		800
	31	Retained Earnings	500	
		Dividends		500

Net income for 2018 was $5,600 ($31,800 − $26,200).

Retained Earnings

		Dec. 31, 2017	2,500
Expenses	26,200		
Dividends	500	Revenues	31,800
		Dec. 31, 2018	7,600

(15-25 min.) E 3-37B

Req. 1

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Adjusting Entries		
Dec.	31	Unearned Service Revenue	7,400	
		Service Revenue ($20,900 − $13,500)		7,400
	31	Salary Expense ($5,000 − $4,700)	300	
		Salary Payable		300
	31	Rent Expense ($1,800 − $1,100)	700	
		Prepaid Rent		700
	31	Depreciation Expense−Equipment ($950 − $0)	950	
		Accumulated Depreciation−Equipment		950
	31	Income Tax Expense ($1,400 − $0)	1,400	
		Income Tax Payable		1,400
		Closing Entries		
	31	Service Revenue	20,900	
		Retained Earnings		20,900
	31	Retained Earnings	9,150	
		Salary Expense		5,000
		Rent Expense		1,800
		Depreciation Expense−Equipment		950
		Income Tax Expense		1,400
	31	Retained Earnings	1,500	
		Dividends		1,500

Req. 1

Lauer Production Company
Balance Sheet
December 31, Current Year

ASSETS

Current assets:		
Cash		$18,000
Prepaid rent ($1,000 − $700)		300
Total current assets		18,300
Plant assets:		
Equipment	$45,000	
Less accumulated depreciation ($6,100 + $950)	(7,050)	37,950
Total assets		$56,250

LIABILITIES

Current liabilities:	
Accounts payable	$ 4,300
Salary payable ($5,000 − $4,700)	300
Unearned service revenue ($8,900 − $7,400)	1,500
Income tax payable	1,400
Total current liabilities	7,500
Note payable, long-term	15,000
Total liabilities	22,500
STOCKHOLDERS' EQUITY	
Common stock	8,100
Retained earnings ($15,400 + $11,750* − $1,500)	25,650
Total stockholders' equity	33,750
Total liabilities and stockholders' equity	$56,250

* Net income = $11,750 ($20,900 − $5,000 − $1,800 − $950 − $1,400)

Req. 2

						Current Year	Prior Year
Net working capital	=	Total current assets − current liabilities	=	$18,300 − $7,500	=	$10,800	$10,600
Current ratio	=	$\frac{\text{Total current assets}}{\text{Total current liabilities}}$	=	$\frac{\$18,300}{\$7,500}$	=	2.44	2.40

Both net working capital and the current ratio have increased slightly, indicating that the ability to pay current liabilities with current assets has improved a little.

Debt ratio	=	$\frac{\text{Total liabilities}}{\text{Total assets}}$	=	$\frac{\$22,500}{\$56,250}$	=	0.40	0.50

A decrease in the debt ratio indicates an improvement in the ratio.

In summary, the overall ability to pay total liabilities has improved slightly.

(30 min.) E 3-39B

a. Current ratio $= \dfrac{\$20}{\$10 + \$4} = 1.43$ **Debt ratio** $= \dfrac{\$30 + \$4}{\$60 + \$4} = 0.53$

The purchase of equipment on account *hurts* both ratios.

b. Current ratio $= \dfrac{\$20 - \$7}{\$10} = 1.30$ **Debt ratio** $= \dfrac{\$30 - \$7}{\$60 - \$7} = 0.43$

The payment of long-term debt *hurts* the current ratio and *improves* the debt ratio.

c. Current ratio $= \dfrac{\$20 + \$5}{\$10 + \$5} = 1.67$ **Debt ratio** $= \dfrac{\$30 + \$5}{\$60 + \$5} = 0.54$

Collecting cash in advance *hurts* both ratios.

d. Current ratio $= \dfrac{\$20}{\$10 + \$6} = 1.25$ **Debt ratio** $= \dfrac{\$30 + \$6}{\$60} = 0.60$

Accruing an expense *hurts* both ratios.

e. Current ratio $= \dfrac{\$20 + \$8}{\$10} = 2.8$ **Debt ratio** $= \dfrac{\$30}{\$60 + \$8} = 0.44$

A cash sale *improves* both ratios.

Serial Exercise

(3 hours) E 3-40

Reqs. 2, 5, and 7

Cash

May	2	12,000	May	2	500
	9	600		3	1,800
	21	2,400		12	750
	28	3,100		26	900
				31	1,200
Bal.		12,950			

Accounts Receivable

May	18	3,100	May	28	3,100
Bal.		0			
Adj. (a)		2,000			
Bal.		2,000			

Supplies

May	5	900	Adj. (c)	600
Bal.		300		

Equipment

May	3	1,800	
Bal.		1,800	

Accumulated Depreciation – Equipment

	Adj.(d1)	30
	Bal.	30

Furniture

May	4	6,000	
Bal.		6,000	

Accumulated Depreciation – Furniture

	Adj.(d2)	100
	Bal.	100

Accounts Payable

May	26	900	May	4	6,000
				5	900
			Bal.		6,000

Reqs. 2, 5, and 7

Salary Payable

		Adj. (e)	900
		Bal.	900

Unearned Service Revenue

Adj. (b)	800	May 21	2,400
		Bal.	1,600

Common Stock

		May 2	12,000
		Bal.	12,000

Retained Earnings

Clo.	2,880	Clo.	6,500
Clo.	1,200		
		Bal.	2,420

Dividends

May 31	1,200	Clo.	1,200

Service Revenue

		May 9	600
		18	3,100
		Bal.	3,700
		Adj. (a)	2,000
		Adj. (b)	800
Clo.	6,500	Bal.	6,500

Rent Expense

May 2	500	Clo.	500

Utilities Expense

May 12	750	Clo.	750

Salary Expense

Adj. (e)	900	Clo.	900

Depreciation Expense – Equipment

Adj.(d1)	30	Clo.	30

Depreciation Expense – Furniture

Adj.(d2)	100	Clo.	100

Supplies Expense

Adj. (c)	600	Clo.	600

Req. 1

May 2 through 18 entries are repeated from Solution to E 2-37.

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
May	2	Cash	12,000	
		Common Stock		12,000
	2	Rent Expense	500	
		Cash		500
	3	Equipment	1,800	
		Cash		1,800
	4	Furniture	6,000	
		Accounts Payable		6,000
	5	Supplies	900	
		Accounts Payable		900
	9	Cash	600	
		Service Revenue		600
	12	Utilities Expense	750	
		Cash		750
	18	Accounts Receivable	3,100	
		Service Revenue		3,100
	21	Cash	2,400	
		Unearned Service Revenue		2,400
	22	No entry; no transaction yet		
	26	Accounts Payable	900	
		Cash		900
	28	Cash	3,100	
		Accounts Receivable		3,100
	31	Dividends	1,200	
		Cash		1,200

Reqs. 3 and 4

Olivia Matthews, Certified Public Accountant, P.C.
Trial Balance Worksheet
May 31, 2018

ACCOUNT TITLE	TRIAL BALANCE DEBIT	TRIAL BALANCE CREDIT	ADJUSTMENTS DEBIT	ADJUSTMENTS CREDIT	ADJUSTED TRIAL BALANCE DEBIT	ADJUSTED TRIAL BALANCE CREDIT
Cash	12,950				12,950	
Accounts receivable	0		(a) 2,000		2,000	
Supplies	900			(c) 600	300	
Equipment	1,800				1,800	
Accumulated depr. – equip.		—		(d1) 30		30
Furniture	6,000				6,000	
Accumulated depr. – furn.		—		(d2) 100		100
Accounts payable		6,000				6,000
Salary payable		—		(e) 900		900
Unearned service revenue		2,400	(b) 800			1,600
Common stock		12,000				12,000
Retained earnings		—				—
Dividends	1,200				1,200	
Service revenue		3,700		(a)2,000 (b) 800		6,500
Rent expense	500				500	
Utilities expense	750				750	
Salary expense			(e) 900		900	
Depreciation expense – equip.			(d1) 30		30	
Depreciation expense – furn.			(d2) 100		100	
Supplies expense			(c) 600		600	
	24,100	24,100	4,430	4,430	27,130	27,130

Req. 5

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Adjusting Entries		
(a) May	**31**	**Accounts Receivable**	**2,000**	
		Service Revenue		**2,000**
(b)	**31**	**Unearned Service Revenue**	**800**	
		Service Revenue		**800**
(c)	**31**	**Supplies Expense ($900 − $300)**	**600**	
		Supplies		**600**
(d1)	**31**	**Depreciation Expense – Equipment**	**30**	
		Accumulated Depreciation – Equip.		**30**
(d2)	**31**	**Depreciation Expense – Furniture**	**100**	
		Accumulated Depreciation – Furn.		**100**
(e)	**31**	**Salary Expense**	**900**	
		Salary Payable		**900**

Req. 6

Olivia Matthews, Certified Public Accountant, P.C.
Income Statement
Month Ended May 31, 2018

Revenues:		
Service revenue		$6,500
Expenses:		
Salary expense	$900	
Utilities expense	750	
Supplies expense	600	
Rent expense	500	
Depreciation expense – furniture	100	
Depreciation expense – equipment	30	
Total expenses		2,880
Net income		$3,620

Olivia Matthews, Certified Public Accountant, P.C.
Statement of Retained Earnings
Month Ended May 31, 2018

Retained earnings, May 1, 2018	$ 0
Add: Net income	3,620
Subtotal	3,620
Less: Dividends declared	(1,200)
Retained earnings, May 31, 2018	$ 2,420

Req. 6

Olivia Matthews, Certified Public Accountant, P.C.
Balance Sheet
May 31, 2018

ASSETS			LIABILITIES	
Current assets:			Current liabilities:	
Cash		$12,950	Accounts payable	$ 6,000
Accounts receivable		2,000	Salary payable	900
Supplies		300	Unearned service	
Total current assets		15,250	revenue	1,600
Plant assets:			Total current liabilities	8,500
Equipment	$1,800			
Less: accum.			STOCKHOLDERS' EQUITY	
depr.	(30)	1,770	Common stock	12,000
			Retained earnings	2,420
Furniture	$6,000		Total stockholders' equity	14,420
Less: accum.				
depr.	(100)	5,900	Total liabilities and	
Total assets		$22,920	stockholders' equity	$22,920

Req. 7

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Closing Entries		
May	31	Service Revenue	6,500	
		Retained Earnings		6,500
	31	Retained Earnings	2,880	
		Salary Expense		900
		Utilities Expense		750
		Supplies Expense		600
		Rent Expense		500
		Depreciation Expense – Furniture		100
		Depreciation Expense – Equipment		30
	31	Retained Earnings	1,200	
		Dividends		1,200

Req. 8

$$\text{Net working capital} = \text{Total current assets} - \text{current liabilities} = \$15{,}250 - \$8{,}500 = \$6{,}750$$

$$\text{Current ratio} = \frac{\text{Total current assets}}{\text{Total current liabilities}} = \frac{\$15{,}250}{\$8{,}500} = 1.79$$

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} = \frac{\$8{,}500}{\$22{,}920} = 0.37$$

The company has an excess of current assets over its current liabilities. The current and debt ratios indicate an excellent financial position. The business has $1.79 in current assets for every $1.00 of current liabilities. The debt ratio of 37% is not too high, which suggests that, overall, the business should be able to pay its debts.

Quiz

Q3-41	**b**	
Q3-42	**b**	
Q3-43	**d**	
Q3-44	**c**	
Q3-45	**a**	
Q3-46	**c**	
Q3-47	**a**	
Q3-48	**a**	
Q3-49	**a**	**($2,700 × 9/12 = $2,025)**
Q3-50	**a**	**($5,500 + $19,000 − $16,000 = revenue of $8,500)**
Q3-51	**c**	
Q3-52	**d**	
Q3-53	**d**	
Q3-54	**a**	
Q3-55	**a**	**Current ratio = $31,200 / $26,000 = 1.200**

$$\text{Debt ratio} = \frac{\$26{,}000 + \$110{,}000}{\$31{,}200 + \$185{,}000} = .629$$

Q3-56 $5,550 ($5,500 − $510 − $90 + $850 − $200)

Q3-57 a

Salary Payable

		Beg. bal.	**26,000**
Payment	***141,000***	**Salary exp.**	**125,000**
		End. bal.	**10,000**

Problems

(20-30 min.) P 3-58A

Req. 1

Berkley Consulting
Amount of Revenue (Expense) for July

Date			Cash Basis	Accrual Basis
July	1	Expense	$(3,900)	$ 0
	4	Expense	(3,000)	0
	5	Revenue	1,800	1,800
	8	Expense	(300)	(300)
	11	Revenue	0	3,100
	19		0	0
	24	Revenue	3,100	0
	26	Expense	(1,600)	0
	29	Expense	(1,100)	(1,100)
	31	Expense	0	$3,900 ÷ 3 = (1,300)
	31	Revenue	0	400
	31	Expense	0	(408)
Req. 2		Income (loss) before tax	$ (5,000)	$2,192

Req. 3

The accrual-basis measure of net income is preferable because it accounts for revenues and expenses when they occur, not when they are received or paid in cash. For example, on July 11, the company earned $3,100 of revenue and increased its wealth as a result. The accrual basis records this revenue, but the cash basis ignores it. On July 24, the business collected the receivable that was created by the revenue earned on account at July 11. The accrual basis records no revenue on July 24 because the company's increase in wealth occurred back on July 11. The cash basis waits until cash is received, on July 24, to record the revenue. This is too late.

(10-20 min.) P 3-59A

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
Dec.	31	a. Insurance Expense	5,200*	
		Prepaid Insurance		5,200
		To record insurance expense.		
	31	b. Salary Expense ($6,100 × 3/5)	3,660	
		Salary Payable		3,660
		To accrue salary expense.		
	31	c. Interest Receivable	700	
		Interest Revenue		700
		To accrue interest revenue.		
	31	d. Supplies Expense	7,000**	
		Supplies		7,000
		To record supplies expense.		
	31	e. Unearned Service Revenue ($10,500 × 60%)	6,300	
		Service Revenue		6,300
		To record revenue collected in advance that is now earned.		
	31	f. Depreciation Expense – Office Furniture	3,800	
		Depreciation Expense – Equipment	5,400	
		Accumulated Depreciation – Office Furniture		3,800
		Accumulated Depreciation – Equipment		5,400
		To record depreciation expense.		

* $2,900 + $4,000 – $1,700 = $5,200

** $3,000 + $6,200 – $2,200 = $7,000

(45-60 min.) P 3-60A

Req. 1

Princess, Inc.
Trial Balance Worksheet
December 31, 2020

ACCOUNT TITLE	TRIAL BALANCE DEBIT	TRIAL BALANCE CREDIT	ADJUSTMENTS DEBIT	ADJUSTMENTS CREDIT	ADJUSTED TRIAL BALANCE DEBIT	ADJUSTED TRIAL BALANCE CREDIT
Cash	9,400				9,400	
Accounts receivable	2,200		(a) 2,980		5,180	
Prepaid rent	1,200			(b) 400*	800	
Supplies	2,600			(c) 2,160	440	
Furniture	48,000				48,000	
Accumulated depreciation		3,900		(d) 800**		4,700
Accounts payable		3,800				3,800
Salary payable				(e) 9,000***		9,000
Common stock		6,000				6,000
Retained earnings		32,210				32,210
Dividends	3,800				3,800	
Service revenue		25,100		(a) 2,980		28,080
Salary expense	3,300		(e) 9,000***		12,300	
Rent expense			(b) 400*		400	
Utilities expense	510				510	
Depreciation expense			(d) 800**		800	
Supplies expense			(c) 2,160		2,160	
	71,010	71,010	15,340	15,340	83,790	83,790

* $1,200 ÷ 3 = $400
** $48,000 ÷ 5 = $9,600 ÷ 12 = $800
*** $15,000 × 3/5 = $9,000

Req. 2

Princess, Inc.
Income Statement
Month Ended December 31, 2020

Revenues:		
Service revenue		$28,080
Expenses:		
Salary expense	$12,300	
Supplies expense	2,160	
Depreciation expense – Furniture	800	
Utilities expense	510	
Rent expense	400	
Total expenses		16,170
Net income		$11,910

Princess, Inc.
Statement of Retained Earnings
Month Ended December 31, 2020

Retained earnings, December 1, 2020	$32,210
Add: Net income	11,910
Subtotal	44,120
Less: Dividends declared	(3,800)
Retained earnings, December 31, 2020	$40,320

Req. 2 (continued)

Princess, Inc.
Balance Sheet
December 31, 2020

ASSETS			LIABILITIES	
Current assets:			Current liabilities:	
Cash		$ 9,400	Accounts payable	$ 3,800
Accounts receivable		5,180	Salary payable	9,000
Prepaid rent		800	Total current liabilities	12,800
Supplies		440		
Total current assets		15,820		
Furniture	$48,000		STOCKHOLDERS' EQUITY	
Less: Accum.			Common stock	6,000
deprec.	(4,700)	43,300	Retained earnings	40,320
			Total stockholders' equity	46,320
			Total liabilities and	
Total assets		$59,120	stockholders' equity	$59,120

(10-20 min.) P 3-61A

Req. 1

Journal

DATE		ACCOUNT TITLES AND EXPLANATION	DEBIT	CREDIT
June	30	Accounts Receivable ($6,880 − $6,100)	780	
		Rental Revenue		780
		To accrue rental revenue.		
	30	Interest Receivable ($600 − $0)	600	
		Interest Revenue ($1,650 − $1,050)		600
		To accrue interest revenue.		
	30	Supplies Expense ($1,300 − $0)	1,300	
		Supplies ($1,500 − $200)		1,300
		To record supplies expense.		
	30	Insurance Expense ($1,300 − $0)	1,300	
		Prepaid Insurance ($3,100 − $1,800)		1,300
		To record insurance expense.		
	30	Depreciation Expense−Building ($1,400 − $0)	1,400	
		Accumulated Depreciation−Building ($9,200 − $7,800)		1,400
		To record depreciation expense.		
	30	Wage Expense ($2,570 − $1,700)	870	
		Wages Payable ($870 − $0)		870
		To accrue wage expense.		
	30	Unearned Rental Revenue ($1,900 − $1,400)	500	
		Rental Revenue ($20,630 − $19,350 − $780)		500
		To record revenue that was collected in advance that is now earned.		

Req. 2

Total assets	**=**	**\$81,080**	**(\$8,400 + \$6,880 + \$600 + \$4,400 + \$200 + \$1,800 + \$68,000 − \$9,200)**
Total liabilities	**=**	**\$9,270**	**(\$7,000 + \$870 + \$1,400)**
Net income	**=**	**\$14,610**	**(\$20,630 + \$1,650 − \$1,400 − \$1,300 − \$700 − \$2,570 − \$400 − \$1,300)**
Total equity	**=**	**\$71,810**	**(\$81,080 − \$9,270) *or* (\$16,000 + \$44,500 + \$14,610 − \$3,300)**

(20-30 min.) P 3-62A

Req. 1

Sunray Corporation
Income Statement
Year Ended March 31, 2018

Revenues:		
Service revenue		**$105,000**
Expenses:		
Salary expense	**$40,400**	
Rent expense	**10,100**	
Insurance expense	**4,300**	
Interest expense	**2,700**	
Supplies expense	**2,400**	
Depreciation expense, equipment	**1,500**	**61,400**
Income before tax		**43,600**
Income tax expense		**7,100**
Net income		**$ 36,500**

Sunray Corporation
Statement of Retained Earnings
Year Ended March 31, 2018

Retained earnings, March 31, 2017	**$ 2,000**
Add: Net income	**36,500**
Subtotal	**38,500**
Less: Dividends declared	**(12,000)**
Retained earnings, March 31, 2018	**$26,500**

Req. 1 (continued)

Sunray Corporation
Balance Sheet
March 31, 2018

ASSETS			LIABILITIES	
Cash		$ 13,000	Accounts payable	$ 9,000
Accounts receivable		19,300	Interest payable	500
Supplies		2,900	Unearned service revenue	1,100
Prepaid rent		1,600	Income tax payable	2,100
			Note payable	18,600
Equipment	$37,200		Total liabilities	31,300
Less: Accum.				
deprec.	(4,200)	33,000	**STOCKHOLDERS' EQUITY**	
			Common stock	12,000
			Retained earnings	26,500
			Total stockholders' equity	38,500
			Total liabilities and	
Total assets		$69,800	stockholders' equity	$69,800

Req. 2

$$\text{Debt ratio: } \frac{\$31,300}{\$69,800} = 0.45$$

Sunray is in compliance with its debt agreement, which requires the company to maintain a debt ratio no higher than 0.50.

(20 min.) P 3-63A

Req. 1

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Closing Entries		
Jan.	31	Service Revenue....................................	96,000	
		Retained Earnings		96,000
	31	Retained Earnings..................................	44,100	
		Advertising Expense.........................		10,800
		Depreciation Expense−Equipment ...		2,100
		Interest Expense		400
		Salary Expense		26,300
		Supplies Expense		4,500
	31	Retained Earnings..................................	15,000	
		Dividends..		15,000

Req. 2

Retained Earnings

Jan. 31, 2018 Expenses	44,100	Jan. 31, 2017 Bal.	13,600
Jan. 31, 2018 Dividends	15,000	Jan. 31, 2018 Revenues	96,000
		Jan. 31, 2018 Bal.	50,500

Net income = $51,900 ($96,000 − $44,100)

Req. 3

Retained Earnings increased during the year because net income of $51,900 exceeded dividends of $15,000.

Req. 1

Valley Services, Inc.
Balance Sheet
January 31, 2018

ASSETS		
Current assets:		
Cash		$ 26,000
Accounts receivable		5,000
Prepaid expenses		6,600
Supplies		2,400
Total current assets		40,000
Plant assets:		
Equipment	$43,000	
Less: Accumulated depreciation	(7,000)	36,000
Other assets, long-term		14,400
Total assets		$90,400
LIABILITIES		
Current liabilities:		
Current portion of note payable		$ 1,000
Accounts payable		14,000
Salary payable		2,300
Unearned service revenue		2,700
Total current liabilities		20,000
Note payable, long-term		15,400
Total liabilities		35,400
STOCKHOLDERS' EQUITY		
Common stock		4,500
Retained earnings		50,500*
Total stockholders' equity		55,000
Total liabilities and stockholders' equity		$90,400

*See next page

Req. 1 (continued)

***Retained earnings = $90,400 − $35,400 − $4,500 = $50,500**

OR

***Retained earnings, January 31, 2017 ....**	**$13,600**
Add: Net income ($96,000 − $10,800 − $2,100 − $400 − $26,300 − $4,500)	**51,900**
Subtotal	**65,500**
Less: Dividends declared	**(15,000)**
Retained earnings, January 31, 2018...............................	**$50,500**

Req. 2

						2018	2017
Net working capital	=	**Total current assets – current liabilities**		**$40,000− $20,000**	=	**$20,000**	**$19,500**
Current ratio	=	$\frac{\text{Total current assets}}{\text{Total current liabilities}}$	=	$\frac{\$40,000}{\$20,000}$	=	**2.00**	**1.80**

The increase in both working capital and the current ratio indicate that the ability to pay current liabilities with current assets improved during 2018.

						2018	2017
Debt ratio	=	$\frac{\text{Total liabilities}}{\text{Total assets}}$	=	$\frac{\$35,400}{\$90,400}$	=	**0.39**	**0.15**

The overall debt position deteriorated during 2018. However, Valley Service's overall debt position is strong because a debt ratio of .39 is not troublesome.

Req. 1

(All amounts in millions)

$$\text{Current ratio} = \frac{\text{Total current assets}}{\text{Total current liabilities}} = \frac{\$15.2}{\$9.4} = 1.62$$

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} = \frac{\overbrace{\$9.4 + \$5.9}^{\$15.3}}{\$31.1} = 0.49$$

Req. 2

	Current Ratio		Debt Ratio	
a.	$\frac{\$15.2 + \$2.6}{\$9.4}$	= 1.89	$\frac{\$15.3}{\$31.1 + \$2.6}$	= 0.45
b.	$\frac{\$15.2 + \$5.0}{\$9.4}$	= 2.15	$\frac{\$15.3 + \$5.0}{\$31.1 + \$5.0}$	= 0.56
c.	$\frac{\$15.2 - (\$9.4 \times 1/2)}{(\$9.4 \times 1/2)}$	= 2.23	$\frac{\$15.3 - (\$9.4 \times 1/2)}{\$31.1 - (\$9.4 \times 1/2)}$	= 0.40
d.	$\frac{\$15.2 - \$1}{\$9.4}$	= 1.51	$\frac{\$15.3}{\$31.1 - \$1}$	= 0.51
e.	$\frac{\$15.2}{\$9.4 + \$0.7}$	= 1.50	$\frac{\$15.3 + \$0.7}{\$31.1}$	= 0.51
f.	$\frac{\$15.2 - \$1.7}{\$9.4}$	= 1.44	$\frac{\$15.3 + \$2.7}{\$31.1 + \$4.4 - \$1.7}$	= 0.53
g.	$\frac{\$15.2}{\$9.4}$	= 1.62	$\frac{\$15.3}{\$31.1 - \$0.9}$	= 0.51

Req. 3

a. Revenues usually increase the current ratio.

b. Revenues usually decrease the debt ratio.

c. Expenses usually decrease the current ratio.

***Note*: Depreciation is an exception to this rule.**

d. Expenses usually increase the debt ratio.

e. If a company's current ratio is greater than 1.0, as it is for Bellwood, paying off a current liability will always increase the current ratio.

f. Borrowing money on long-term debt will always increase both the current ratio and the debt ratio.

(20-30 min.) P 3-66B

Req. 1

Westchester Consulting
Amount of Revenue (Expense) for May

Date		Cash Basis		Accrual Basis	
May	1	Expense	$ (2,250)	Expense	$ 0
	4	Expense	(4,000)	Expense	0
	5	Revenue	1,000	Revenue	1,000
	8	Expense	(300)	Expense	(300)
	11	Revenue	0	Revenue	3,500
	19	Expense	0	Expense	0
	24	Revenue	3,500	Revenue	0
	26	Expense	(2,000)	Expense	0
	29	Expense	(1,000)	Expense	(1,000)
	31	Expense	0	Expense ($2,250 / 3)	(750)
	31	Revenue	0	Revenue	1,000
	31	Expense	0	Expense	(108)
Req. 2		Income (loss) before tax	$(5,050)	Income before tax	$3,342

Req. 3

The accrual-basis measure of net income is preferable because it accounts for revenues and expenses when they occur, not when they are received or paid in cash. For example, on May 11, the company earned $3,500 of revenue and increased its wealth as a result. The accrual basis records this revenue, but the cash basis ignores it. On May 24, the business collected the receivable that was created by the revenue earned on account at May 11. The accrual basis records no revenue on May 24 because the company's increase in wealth occurred back on May 11. The cash basis waits until cash is received, on May 24, to record the revenue. This is too late.

(10-20 min.) P 3-67B

Journal

DATE			ACCOUNT TITLES AND EXPLANATION	DEBIT	CREDIT
Dec.	31	a.	Insurance Expense	5,200*	
			Prepaid Insurance		5,200
			To record insurance expense		
	31	b.	Salary Expense ($5,900 × 1/5)	1,180	
			Salary Payable…		1,180
			To accrue salary expense.		
	31	c.	Interest Receivable	400	
			Interest Revenue		400
			To accrue interest revenue.		
	31	d.	Supplies Expense	7,000**	
			Supplies		7,000
			To record supplies expense.		
	31	e.	Unearned Service Revenue ($10,600 × 70%)	7,420	
			Service Revenue		7,420
			To record unearned service revenue that has been earned.		
	31	f.	Depreciation Expense – Office Furniture	3,400	
			Depreciation Expense – Equipment	6,100	
			Accumulated Depreciation – Office Furniture		3,400
			Accumulated Depreciation – Equipment		6,100
			To record depreciation expense.		

* $2,100 + $3,300 – $200 = $5,200

** $2,700 + $6,400 – $2,100 = $7,000

(45-60 min.) P 3-68B

Req. 1

Royal, Inc.
Trial Balance Worksheet
December 31, 2020

	TRIAL BALANCE		ADJUSTMENTS		ADJUSTED TRIAL BALANCE	
ACCOUNT TITLE	**DEBIT**	**CREDIT**	**DEBIT**	**CREDIT**	**DEBIT**	**CREDIT**
Cash	9,400				9,400	
Accounts receivable	1,900		(a) 3,850		5,750	
Prepaid rent	3,300			(b) 1,100*	2,200	
Supplies	2,600			(c) 2,120	480	
Furniture	72,000				72,000	
Accumulated depreciation		3,100		(d) 1,200**		4,300
Accounts payable		3,400				3,400
Salary payable				(e) 8,400***		8,400
Common stock		12,000				12,000
Retained earnings		58,620				58,620
Dividends	4,200				4,200	
Service revenue		19,300		(a) 3,850		23,150
Salary expense	2,500		(e) 8,400***		10,900	
Rent expense			(b) 1,100*		1,100	
Utilities expense	520				520	
Depreciation expense			(d) 1,200**		1,200	
Supplies expense			(c) 2,120		2,120	
	96,420	96,420	16,670	16,670	109,870	109,870

* $3,300 ÷ 3 = $1,100
** $72,000 ÷ 5 = $14,400 ÷ 12 = $1,200
*** $14,000 × 3/5 = $8,400

Req. 2 (continued)

Royal, Inc.
Income Statement
Month Ended December 31, 2020

Revenues:		
Service revenue		$23,150
Expenses:		
Salary expense	$10,900	
Supplies expense	2,120	
Depreciation expense--furniture	1,200	
Rent expense	1,100	
Utilities expense	520	
Total expenses		15,840
Net income		$ 7,310

Royal, Inc.
Statement of Retained Earnings
Month Ended December 31, 2020

Retained earnings, December 1, 2020	$58,620
Add: Net income	7,310
Subtotal	65,930
Less: Dividends declared	(4,200)
Retained earnings, December 31, 2020	$61,730

Req. 2 (continued)

Royal, Inc.
Balance Sheet
December 31, 2020

ASSETS			LIABILITIES	
Current assets:			Current liabilities:	
Cash		$ 9,400	Accounts payable	$ 3,400
Accounts receivable		5,750	Salary payable	8,400
Prepaid rent		2,200	Total current liabilities	11,800
Supplies		480		
Total current assets		17,830		
Furniture	$72,000		STOCKHOLDERS' EQUITY	
Less: Accum.			Common stock	12,000
deprec.	(4,300)	67,700	Retained earnings	61,730
			Total stockholders' equity	73,730
			Total liabilities and	
Total assets		$85,530	stockholders' equity	$85,530

(10-20 min.) P 3-69B

Req. 1

Journal

DATE		ACCOUNT TITLES AND EXPLANATION	DEBIT	CREDIT
June	30	Accounts Receivable ($6,850 – $6,100)	750	
		Rental Revenue		750
		To accrue rental revenue.		
	30	Interest Receivable ($1,000 − $0)	1,000	
		Interest Revenue ($2,100 − $1,100)		1,000
		To accrue interest revenue.		
	30	Supplies Expense ($1,600 − $0)	1,600	
		Supplies ($1,800 − $200)		1,600
		To record supplies expense.		
	30	Insurance Expense ($1,000 − $0)	1,000	
		Prepaid Insurance ($3,000 − $2,000)		1,000
		To record insurance expense.		
	30	Depreciation Expense−Building ($1,400 − $0)	1,400	
		Accumulated Depreciation−Building ($8,700 − $7,300)		1,400
		To record depreciation expense.		
	30	Wage Expense ($1,980 − $1,200)	780	
		Wages Payable ($780 − $0)		780
		To accrue salary expense.		
	30	Unearned Rental Revenue ($1,600 − $1,300)	300	
		Rental Revenue*		300
		To record unearned rental revenue that has been earned.		

* ($21,650 − $20,600 − $750)

Req. 2

Total assets	**=**	**$81,150**	**($8,400 + $6,850 + $1,000 + $4,800 + $200 + $2,000 + $66,600 – $8,700)**
Total liabilities	**=**	**$9,080**	**($7,000 + $780 + $1,300)**
Net income	**=**	**$17,470**	**($21,650 + $2,100 − $1,400 − $1,600 – $100 – $1,980 − $200 − $1,000)**
Total equity	**=**	**$72,070**	**($81,150 − $9,080) *or* ($16,000 + $41,600 + $17,470 − $3,000)**

(20-30 min.) P 3-70B

Req. 1

Nelson Corporation
Income Statement
Year Ended July 31, 2018

Revenues:		
Service revenue		$106,600
Expenses:		
Salary expense	$40,200	
Rent expense	11,100	
Insurance expense	3,500	
Interest expense	3,000	
Supplies expense	2,000	
Depreciation expense, equipment	1,200	61,000
Income before tax		45,600
Income tax expense		7,200
Net income		$38,400

Nelson Corporation
Statement of Retained Earnings
Year Ended July 31, 2018

Retained earnings, July 31, 2017	$ 4,000
Add: Net income	38,400
Subtotal	42,400
Less: Dividends declared	(12,000)
Retained earnings, July 31, 2018	$30,400

Req. 1 (continued)

Nelson Corporation
Balance Sheet
July 31, 2018

ASSETS			LIABILITIES	
Cash		$17,000	Accounts payable	$ 9,000
Accounts receivable		19,200	Unearned service	
Supplies		2,100	revenue	700
Prepaid rent		1,600	Interest payable	800
			Income tax payable	2,200
Equipment	$36,800		Note payable	18,600
Less: Accum.			Total liabilities	31,300
deprec.	(5,000)	31,800		
			STOCKHOLDERS' EQUITY	
			Common stock	10,000
			Retained earnings	30,400
			Total stockholders' equity	40,400
			Total liabilities and	
Total assets		$71,700	stockholders' equity	$71,700

Req. 2

$$\text{Debt ratio: } \frac{\$31,300}{\$71,700} = 0.44$$

Nelson Corporation's debt ratio of 0.44 is in compliance with the lenders' debt restriction.

Req. 1

Journal

DATE		ACCOUNT TITLES	DEBIT	CREDIT
		Closing Entries		
Jan.	31	Service Revenue	95,500	
		Retained Earnings		95,500
	31	Retained Earnings	46,300	
		Salary Expense		27,800
		Supplies Expense		5,000
		Advertising Expense		11,200
		Depreciation Expense – Equipment		2,100
		Interest Expense		200
	31	Retained Earnings	13,000	
		Dividends		13,000

Req. 2

Retained Earnings

Jan. 31, 2018 Expenses	46,300	Jan. 31, 2017 Bal.	13,700
Jan. 31, 2018 Dividends	13,000	Jan. 31, 2018 Revenues	95,500
		Jan. 31, 2018 Bal.	49,900

Net income = $49,200 ($95,500 – $46,300)

Req. 3

Retained Earnings increased during the year because net income of $49,200 exceeded dividends of $13,000.

Req. 1

Meadowbrook Service, Inc.
Balance Sheet
January 31, 2018

ASSETS		
Current assets:		
Cash		$22,000
Accounts receivable		1,000
Prepaid expenses		5,000
Supplies		6,400
Total current assets		34,400
Plant assets:		
Equipment	$43,000	
Less: accumulated depreciation	(7,100)	35,900
Other assets, long-term		13,900
Total assets		$84,200
LIABILITIES		
Current liabilities:		
Accounts payable		$10,000
Current portion of note payable		2,200
Salary payable		2,000
Unearned service revenue		3,000
Total current liabilities		17,200
Note payable, long-term		15,600
Total liabilities		32,800
STOCKHOLDERS' EQUITY		
Common stock		1,500
Retained earnings …		49,900*
Total stockholders' equity…		51,400
Total liabilities and stockholders' equity		$84,200

*See next page

Req. 1 (continued)

***Retained earnings = $84,200 − $32,800 − $1,500 = $49,900**

OR

***Retained earnings, January 31, 2017**	**$ 13,700**
Add: Net income ($95,500 − $27,800 − $5,000 − $11,200 − $2,100 − $200)	**49,200**
Subtotal	**62,900**
Less: Dividends declared	**(13,000)**
Retained earnings, January 31, 2018	**$49,900**

Req. 2

					2018	2017
Net working capital	=	**Total current assets − current liabilities**		**$34,400 – $17,200 =**	**$17,200**	**$16,700**
Current ratio	=	$\frac{\text{Total current assets}}{\text{Total current liabilities}}$	=	$\frac{\$34,400}{\$17,200}$ =	**2.00**	**1.75**

The increase in both working capital and the current ratio indicate that the ability to pay current liabilities with current assets improved during 2018.

					2018	2017
Debt ratio	=	$\frac{\text{Total liabilities}}{\text{Total assets}}$	=	$\frac{\$32,800}{\$84,200}$ =	**0.39**	**0.25**

Meadowbrook Service's overall debt position deteriorated from 2017 to 2018; however, the company's overall debt position is strong because a debt ratio of .39 is not troublesome.

(45-60 min.) P 3-73B

Req. 1

(All amounts in millions)

$$\text{Current ratio} = \frac{\text{Total current assets}}{\text{Total current liabilities}} = \frac{\$15.9}{\$9.6} = 1.66$$

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} = \frac{\overbrace{\$9.6 + \$5.5}^{\$15.1}}{\$32.1} = 0.47$$

Req. 2

	Current Ratio		Debt Ratio	
a.	$\frac{\$15.9 + \$2.8}{\$9.6}$	= 1.95	$\frac{\$15.1}{\$32.1 + \$2.8}$	= 0.43
b.	$\frac{\$15.9 + \$7.0}{\$9.6}$	= 2.39	$\frac{\$15.1 + \$7.0}{\$32.1 + \$7.0}$	= 0.57
c.	$\frac{\$15.9 - (\$9.6 \times 1/2)}{(\$9.6 \times 1/2)}$	= 2.31	$\frac{\$15.1 - (\$9.6 \times 1/2)}{\$32.1 - (\$9.6 \times 1/2)}$	= 0.38
d.	$\frac{\$15.9 - \$.6}{\$9.6}$	= 1.59	$\frac{\$15.1}{\$32.1 - \$.6}$	= 0.48
e.	$\frac{\$15.9}{\$9.6 + \$0.8}$	= 1.53	$\frac{\$15.1 + \$0.8}{\$32.1}$	= 0.50
f.	$\frac{\$15.9 - \$1.9}{\$9.6}$	= 1.46	$\frac{\$15.1 + \$2.7}{\$32.1 + \$4.6 - \$1.9}$	= 0.51
g.	$\frac{\$15.9}{\$9.6}$	= 1.66	$\frac{\$15.1}{\$32.1 - \$0.4}$	= 0.48

Req. 3

a. Revenues usually <u>increase</u> the current ratio.

b. Revenues usually <u>decrease</u> the debt ratio.

c. Expenses usually <u>decrease</u> the current ratio.

***Note*: Depreciation is an exception to this rule.**

d. Expenses usually <u>increase</u> the debt ratio.

e. If a company's current ratio is greater than 1.0, as for McClain, paying off a current liability will always <u>increase</u> the current ratio.

f. Borrowing money on long-term debt will always <u>increase</u> both the current ratio and the debt ratio.

Challenge Exercises and Problem

(20-25 min.) E 3-74

(Dollar amounts in thousands)

December 31, 2018

Current assets = \$10,400 (\$1,400 + \$5,200 + \$2,400 + \$1,400)

Current liabilities = \$5,700 (\$2,400 + \$1,300 + \$2,000)

Net working capital = \$4,700 (\$10,400 – \$5,700)

$$\text{Current ratio} = \frac{\$10{,}400}{\$5{,}700} = 1.82$$

January 31, 2019

Current assets = \$10,300 (\$700[1] + \$6,800[2] + \$2,400[3] + \$400[4])

Current liabilities = \$4,900 (\$1,300[5] + \$1,300[6] + \$2,300[7])

Net working capital = \$5,400 (\$10,300 – \$4,900)

$$\text{Current ratio} = \frac{\$10{,}300}{\$4{,}900} = 2.10$$

Computations of January 31, 2019 balances:

[1]Cash = \$1,400 − \$7,400 + \$7,800 − \$1,100 = \$700

[2]Receivables = \$5,200 + \$9,400 − \$7,800 = \$6,800

[3]No change in the Inventory balance.

[4]Prepaid expenses = \$1,400 − \$1,000 = \$400

[5]Accounts payable = \$2,400 − \$1,100 = \$1,300

[6]No change in the Unearned Revenue balance.

[7]Accrued expenses payable = \$2,000 + \$300 = \$2,300

Conclusion: **Saginaw's net working capital and current ratio improved during January 2019. The company's current ratio is very strong.**

(60 min.) E 3-75

a. **Net income:**

Service revenue:		
($158,000 + $1,620 + $31,600)		$191,220
Expenses:		
Salary ($36,000 + $3,000)	$ 39,000	
Depreciation – building	2,700	
Supplies	3,500	
Insurance	1,500	
Advertising	7,100	
Utilities	2,200	
		56,000
Net income		$135,220

b. **Total assets:**

Cash		$ 7,200
Accounts receivable ($7,700 + $31,600)		39,300
Supplies ($4,600 − $3,500)		1,100
Prepaid insurance ($3,400 − $1,500)		1,900
Building	$105,000	
Less: Accum. Depr. ($16,200 + $2,700)	(18,900)	86,100
Land		57,000
Total assets		$192,600

c. **Total liabilities:**

Accounts payable		$ 6,600
Salary payable		3,000
Unearned service revenue ($5,400 − $1,620)		3,780
Total liabilities		$ 13,380

d. **Total stockholders' equity:**

Common stock		$ 10,000
Retained earnings, beginning	$ 46,000	
Add: Net income	135,220	
Subtotal	181,220	
Less: Dividends declared	(12,000)	169,220
Total stockholders' equity		$179,220

e. **Total assets = Total liabilities + Total stockholders' equity**
$192,600 = $13,380 + $179,220

(20 min.) P 3-76

Crystal Detailing Co.
Balance Sheet
January 31, 2019

ASSETS			LIABILITIES	
Cash (a)		$ 25,900	Accounts payable (g)	$ 1,000
Accounts receivable (c)		600	Advertising payable (h)	200
Supplies (d)		700	Salary payable (i)	400
Total current assets		27,200	Unearned gift certificate revenue* (b)	1,400
Equipment (e)	$38,500		Total liabilities	3,000
Less: Accum. deprec.(f)	(14,000)	24,500		
			STOCKHOLDERS' EQUITY	
			Common stock (j)	22,000
			Retained earnings (k)	26,700
			Total stockholders' equity	48,700
Total assets		$51,700	Total liabilities and stockholders' equity	$51,700

*Unearned Service Revenue and Unearned Gift Certificate Revenue are both Unearned Revenue accounts

Supporting computations

(a) Cash

Bal. 12/31/2018	800		
Cash collections from customers	37,700	8,000	Salaries paid
		800	Dividends paid
Issuance of common stock	8,000	3,500	Purchase of equipment
		6,100	Payments of accounts payable
		2,200	Advertising paid
		1,500	
Bal. 1/31/2019	25,900		

(b) Unearned Gift Certificate Revenue

		1,100	Bal. 12/31/2018
Gift certificate revenue earned	1,200	1,500	Sale of gift certificates
		1,400	Bal. 1/31/2019 (given)

(c) Accounts Receivable

Bal. 12/31/2018	1,800		
Revenue on account	35,000	36,200	Collections from customers*
Bal. 1/31/2019	600		

*** Excludes the $1,500 for gift certificates which was received in advance, not on account**

(d) Supplies

Bal. 12/31/2018	1,300		
Purchase of supplies	3,100	3,700	Supplies expense
Bal. 1/31/2019	700		

(e) Equipment = $38,500 ($35,000 + $3,500)

(f) Accumulated depreciation = $14,000 ($7,000 + $7,000)

(g) Accounts Payable

		4,000	Bal. 12/31/2018
Payments on account	6,100	3,100	Purchase of supplies
		1,000	Bal. 1/31/2019

(h) $2,400 Advertising expense – $2,200 advertising paid

(i) Salary Payable

		1,400	Bal. 12/31/2018
Salaries paid	8,000	7,000	Salary expense
		400	Bal. 1/31/2019

(j) Common Stock = $22,000 ($14,000 + $8,000)

(k) Retained Earnings

		11,400	Bal. 12/31/2018
Dividends	800	16,100	Net income
		26,700	Bal. 1/31/2019

(25 min.) C3-77

Req. 1

Jan. 3	**a. Supplies Expenses**	**64,298**	
	Prepaid Expenses		**64,298**
	($13,378 + $63,500 – $12,580)		
	b. Rent Expense	**36,864**	
	Prepaid Rent		**36,864**
	($5,236 + $47,700 – $16,072)		
	c. Gift Cards (Liability)	**409,010**	
	Gift Card Revenue		**409,010**
	($153,629 + $379,000 – $123,619)		
	d. Salaries and Wages Expense	**39,401**	
	Salaries and Wages Payable		**39,401**
	($31,570 – $31,570 + $39,401)		

Req. 2

If these adjusting journal entries had not been made for 2016, Cheesecake Factory's operating income would be impacted. Supplies Expense would be lower, Rent Expense would be lower, and Salaries Expense would be lower all resulting in ($64,298 + $36,864 + $39,401) $140,563 higher operating income than the reported amount. Gift Card Revenue would be lower if the adjusting entry was not made, causing operating income to be understated by $409,010.

Net impact on Operating Income =

Expenses understated	**$140,563**
Revenues understated	**409,010**
Operating income understated by	**$268,447**

Decision Cases

(25 min.) C3-78

Req. 1 Unadjusted trial balance:

	Debit	Credit
Cash……………………………………..	$ 8,000	
Accounts receivable………………….	4,200	
Supplies………………………………..	800	
Prepaid rent……………………………	1,200	
Land……………………………………..	43,000	
Accounts payable……………………..		$12,000
Salary payable…………………………		–0–
Unearned service revenue…………..		700
Note payable, due in 3 years………..		23,400
Common stock………………………..		5,000
Retained earnings…………………….		9,300
Service revenue……………………….		9,100
Salary expense………………………..	3,400	
Rent expense…………………………..	–0–	
Advertising expense………………….	900	
Supplies expense……………………..	–0–	
Totals……………………………………	$61,500	$59,500

Out of balance $2,000

Req. 2 Adjusted trial balance:

	Debit	Credit
Cash…………………………………………..	$ 8,000	
Accounts receivable…………………………..	4,200	
Supplies ($800 – $400)..……………………….	400	
Prepaid rent ($1,200 × 11/12)…………………	1,100	
Land ……………………………………………..	43,000	
Accounts payable……………………………...		$12,000
Salary payable………………………………….		1,000
Unearned service revenue ($700 – $500)…..		200
Note payable, due in 3 years………………...		25,400
Common stock…………………………………		5,000
Retained earnings……………………………..		9,300
Service revenue ($9,100 + $500)…………….		9,600
Salary expense ($3,400 + $1,000)……………	4,400	
Rent expense ($1,200 × 1/12)………………..	100	
Advertising expense…………………………..	900	
Supplies expense……………………………...	400	
Total……………………………………………	$62,500	$62,500

Req. 3

$$\text{Current ratio} = \frac{\$8{,}000 + \$4{,}200 + \$400 + \$1{,}100}{\$12{,}000 + \$1{,}000 + \$200}$$

$$= \frac{\$13{,}700}{\$13{,}200} = 1.04$$

We might have trouble sleeping at night with a current ratio of 1.04. To be safe, the current ratio should be around 1.50 or higher.

Req. 1

Tree City Cafe, Inc.
Income Statement
Month Ended October 31, 2018

Sales revenue		$32,000
Cost of goods sold	$12,000	
Wages expense	5,000	
Rent expense	4,000	
Insurance expense	1,000	
Depreciation expense, fixtures	1,000	23,000
Net income		$ 9,000

Tree City Cafe, Inc.
Statement of Retained Earnings
Month Ended October 31, 2018

Retained earnings, October 1, 2018	$ 0
Add: Net income	9,000
Less: Dividends declared	(3,000)
Retained earnings, October 31, 2018	$6,000

Tree City Cafe, Inc.
Balance Sheet
October 31, 2018

ASSETS			LIABILITIES		
Cash		$ 8,000	Accounts payable		$ 7,000
Food inventory		5,000	Unearned revenue		3,000
Prepaid insurance		1,000			10,000
Dishes, silver		4,000			
Fixtures	$24,000		**OWNERS' EQUITY**		
Less: Accum.			Common stock	$25,000	
deprec.	(1,000)	23,000	Retained earnings	6,000	31,000
Total assets		$41,000	Total liabilities and equity		$41,000

***Recommendation*:** **Do not expand the business. It is not meeting Pulito's goals for net income or for total assets.**

(30-40 min.) C3-80

Req. 1 (your highest price)

Advertising revenue ($22,000 + $4,000)		**$26,000**
Expenses:		
Salary	**$4,000**	
Utilities	**900**	
Other (unrecorded)	**1,100**	
Salary of your manager	**5,000**	**11,000**
Your expected monthly net income		**$15,000**
Multiplier to compute price		**X 16**
Your highest price		**$240,000**

Req. 2 (Gardner's asking price)

Gardner Advertising, Inc.
Calculation of Asking Price Based on Stockholders' Equity
On June 30, 2018

Beginning retained earnings		**$ 93,000**
Add: Net income		
Revenue ($22,000 + $4,000)	**$26,000**	
Less: Expenses		
($4,000 + $900 + $1,100)	**(6,000)**	**20,000**
Subtotal		**113,000**
Less: Dividends declared		**(9,000)**
Ending retained earnings		**$104,000**
Calculation of asking price:		
Ending retained earnings, above		**$104,000**
Add: Common stock		**50,000**
Total Stockholders' equity, June 30, 2018		**$154,000**
Multiplier to compute price		**X 2**
Gardner's asking price		**$308,000**

Req. 3

You may start by offering Gardner approximately $225,000 for the business. Her asking price is $308,000 so you are starting out quite far apart. If Gardner appears especially eager to sell out, you may be able to buy the firm for closer to your highest price of $240,000. However, if she is not so eager to sell and if you want the business badly enough, you may have to pay somewhere between $240,000 and $308,000. It might pay to hire an expert to value the business's assets. You may find that Gardner's price is inflated based on the value of its assets. You can always raise your offer, but you cannot decrease it, so start the negotiating process with an offer around $225,000.

Ethical Issues

C3-81

1. **The journal entry to record the revenue is:**

Dec.	**Accounts Receivable………...**	**XXX**	
	Sales Revenue……………..		**XXX**

The debit to Accounts Receivable will increase total current assets and, as a result, increase (improve) the current ratio. The debit to Accounts Receivable will increase total assets and, as a result, decrease (improve) the debt ratio.

2. **a. – c. The issue is whether it is ethical to record the revenue in the current year. The contract has been signed, but the implication is that the company will not have done everything it needs to do in order to earn the revenue in the current year. The stakeholders are the company, the bank, the stockholders, and the company's other creditors. From an economic standpoint, the entry would obviously improve the company's short term financial position. However, the advantage would probably be short-lived. When the bank finds out about this entry, they will likely protest, and demand immediate payment, so the longer-term economic impact will likely be negative. From a "legal" standpoint, to record this transaction in December violates GAAP by violating the *revenue principle*. In this case Blue Vista Energy has not made the sale (has not delivered the gas) to the customer and, therefore, has not earned the revenue prior to December 31 of the current year. From an ethical standpoint, recording this revenue violates the bank's rights for proper disclosure**

of the company's income and assets. Revenue should be recorded no earlier than when it is earned. Blue Vista expects to earn the revenue in January of next year. Blue Vista clearly cannot record this revenue until it is earned. To do so is not in their best economic, legal (GAAP) or ethical best interests.

3. The authors would suggest either of two actions. Blue Vista can either:

a. Report the current ratio of 1.47 and the debt ratio of .51 because these are the true values. Then tell the bank of the signed contract for additional work and the hope for a better set of ratio values next year. In some cases, banks will agree to sign a *waiver* of the terms of loan covenants, meaning that, although the company is in violation, the bank will not move to enforce the covenant. They may give Blue Vista a "grace period" to cure the violation in the covenant.

b. Pay off some current liabilities before year end. This will improve both the current ratio and the debt ratio. This may enable Blue Vista to bring its ratio values into compliance with the bank's requirements.

1. **These transactions overstate the reported income of the company by $31,000 ($15,000 + $14,000 + $2,000).**

2. **It appears that Summit wants to improve the company's reported income in order to borrow on favorable terms. Her action is *unethical and probably illegal as well* because she is deliberately overstating the company's reported income.**

   Summit appears to be letting the potential short term economic advantage of these deliberate misstatements take precedence. She needs to remember that these misstatements violate GAAP, and that, depending on what use is made of the financial statements, could subject the company to civil or criminal legal proceedings. If this happens, the short term economic gains ($31,000) would not even come close to the long-term economic costs associated with the legal actions, not to mention the negative publicity. The business will need a bank loan, and perhaps the money would be used to pay bills, expand the business, and so on. However, based on Summit's lack of integrity, the money may be destined for her own use. Regardless of its use, the money is obtained under false pretenses and cannot be headed for a good outcome.

   The bank is harmed by Summit's and Loftus' actions. Lending money to Summit under false pretenses may lead the bank to charge an unrealistically low interest rate that robs the bank's owners of interest revenue. In the extreme, the public is robbed if taxpayers wind up financing the bailout of a failed institution.

3. **Personal advice will vary from student to student. The purpose of asking this question is to challenge students to take the high road of ethical conduct by having nothing to do with Summit's scheme. The authors would advise Loftus, the accountant, to take these actions, in order:**
   a. **Refuse to take any part in Summit's scheme, explaining that the result is overstatement of reported income. This is both illegal and unethical, and will ultimately have a negative economic impact on the company, as well. Accountants are bound to standards of ethical conduct that these actions violate. They can go to prison when caught falsifying financial statements.**
   b. **To remain ethical, the accountant must be willing to lose his/her job. It is better to protect one's reputation even if that causes a short-term hardship.**

Student answers may vary.

Focus on Financials: Apple Inc.

(15-20 min.)

Req. 1

Accrued expenses are expenses that have been incurred but that have not yet been paid as of the balance sheet date. The accrual basis of accounting and the expense recognition principle require that all expenses be recognized (recorded) during the period in which they are incurred in order to earn revenue, regardless of when they are paid.

Req. 2 (amounts in millions)

Accrued expenses were $22,027 and $25,181 for 2016 and 2015 respectively. Accrued expenses are a liability account. Since Apple has not paid an expense that it has incurred, it owes that amount to an external party creating a liability.

Req. 3 (amounts in millions)

Net working capital:

		2016			2015		
Current assets – Current liabilities	=	**$106,869 − $79,006**	=	**$27,863**	**$89,378 − $80,610**	=	**$8,768**

Current ratio:

		2016		2015	
Total current assets / Total current liabilities	=	**$106,869 / $79,006**	**= 1.35**	**$89,378 / $80,610**	**= 1.11**

Debt ratio:

		2016			2015		
$\dfrac{\text{Total liabilities}}{\text{Total assets}}$	=	$\dfrac{\$193,437}{\$321,686}$	=	0.60	$\dfrac{\$170,990}{\$290,345}$	=	0.59

The current ratio and net working capital increased or improved, and the debt ratio slightly worsened during 2016. This reveals more liquidity and slightly higher debt. Also, the size of the firm overall has increased (indicated by total assets), as well as its working capital increase which makes sense because it should increase to support Apple now that it is a larger firm.

The trend in the liquidity measures examined is improving. The current ratio of 1.35 indicates financial strength. Many successful companies operate with this type of current ratio. The debt ratio did not change much. The debt ratio also indicates financial strength because the norm for the debt ratio for most companies is 0.60 to 0.70.

Focus on Analysis: Under Armour, Inc.

(15-20 min.)

Req. 1

Revenues are recognized at the time that a transfer of title and risk of loss occurs. Additionally, Under Armour recognizes revenue from licensees in the form of initial fees, continuing fees, renewal fees, and rental income. License and other revenues are recognized based upon shipment of the licensed products sold by licensees. Under Armour imposes sales tax on the company's revenue on a net basis and do not affect net revenue. Additionally, Under Armour reduces gross revenue by returns, allowances, markdowns, and deductions. These are estimated on a historical basis and contractual obligations.

Req. 2

Under Armour's receivables are primarily from its sales and licensees. The cash and royalties from the sales and licensees are generally due within 30 days of the sale. Thus, the receivables are included in revenues when the sales occur and become an account receivable. The beginning balance of Accounts Receivable, $434 million, represents revenue earned in fiscal 2015 but not received (collected in cash) until fiscal 2016. The ending balance of Accounts Receivable, $623 million, represents revenue earned in fiscal 2016 but not received (collected) until fiscal 2017. The balance will most likely not be 100% collectible because events may occur that might cause some to not be collected. Under Armour has allowed for $11.3 million and $5.9 million possible uncollectible accounts in 2016 and 2015 respectively.

Req. 3 (in millions)

"Prepaid expenses and other current assets" include expenses that Under Armour has paid for, but has not yet used. Some examples of this could include supplies, insurance, advertising, or rent:

Journal

DATE	ACCOUNT TITLES AND EXPLANATION	DEBIT	CREDIT
	Supplies..	23	
	Cash..		23
Or:			
	Prepaid Insurance	23	
	Cash..		23
Or:			
	Prepaid Rent...	23	
	Cash..		23

Req. 4

Since depreciation expense increased Accumulated Depreciation by $104 million, a decrease of $40 million ($293 million + $144 million − $397 million) must have occurred as well. This decrease is most likely from the sale of property, plant, and equipment when accumulated depreciation on the property disposed of was removed from the books.

Accumulated Depreciation

		293 million	Dec. 31, 2015
Depreciation on assets sold	40 million	144 million	Depreciation Expense
		397 million	Dec. 31, 2016

Req. 5

The primary categories of items in Accrued Expenses are Accrued Compensation and Benefits, and Accrued Marketing Expenses. Accrued Expenses represent an accrued liability account. When the company incurs compensation and benefits expense, the Accrued Compensation and Benefits Payable account is credited. When the company pays the compensation and benefits, this amount is debited to Accrued Compensation and Benefits Payable.

The expense relating to the accrued compensation and benefits was recorded in the year the expense was incurred—when the employees performed the work. Accordingly, the $61 million accrued compensation and benefits represents work performed during fiscal 2016 but not paid until fiscal 2017 or later. The expense relating to the accrued marketing expense was recorded in the year the expense was incurred—when the sponsors wore Under Armour's brand. As a result, marketing expenses of $25 million occurred during fiscal 2016 but will not be paid until fiscal 2017 or later.

From 2015 to 2016, Under Armour's Accrued Expenses increased from $193 million to $209 million. (This information is from the balance sheets.) This change would decrease the company's overall net income. This means Under Armour will have to spend more in 2017 or later to satisfy a larger amount of debt.

Group Project

(45 min.)

Req. 1 (after Req. 6)

Req. 2

Whitmer Electronics, Inc.
Income Statement
Three Months Ended December 31, 2018

Service revenue ($33,000 + $3,000)		$36,000
Expenses:		
Payroll tax expense	$ 575	
Rent expense ($3,000 × 1/2)	1,500	
Utilities expense	825	
Supplies expense	8,500	
Salary expense ($3,500 + $5,000 + $500)	9,000	
Fuel and maintenance expense	1,200	
Insurance expense	700	
Advertising expense	700	
Depreciation expense – truck ($6,000/5 × 3/12)	300	
Depreciation expense – tools ($1,200/3 × 3/12)	100	
Income tax expense	1,680	
Total expenses		25,080
Net income		$10,920

Req. 3

Whitmer Electronics, Inc.
Statement of Retained Earnings
Three Months Ended December 31, 2018

Retained earnings, October 1, 2018..................	**$ 0**
Add: Net income...	**10,920**
Retained earnings, December 31, 2018	**$10,920**

Req. 4

Whitmer Electronics, Inc.
Balance Sheet
December 31, 2018

ASSETS			LIABILITIES	
Current assets:			Current liabilities:	
Cash		$10,800	Salary payable	$ 500
Accounts receivable		3,000	Advertising payable	100
Prepaid rent		1,500	Income tax payable	1,680
Phone deposit		100	Total current liabilities	2,280
Supplies		1,000		
Total current assets		16,400		
			STOCKHOLDERS' EQUITY	
Long-term assets:			Common stock	10,000
Tools	$1,200		Retained earnings	10,920
Less: accum. deprec.	(100)	1,100		
Truck	$6,000			
Less: accum. deprec.	(300)	5,700	Total stockholders' equity	20,920
Total long-term assets		6,700	Total liabilities and stockholders' equity	$23,200
Total assets		$23,200		

Req. 5

Whitmer Electronics, Inc.
Statement of Cash Flows
Three Months Ended December 31, 2018

Cash flows from operating activities:		
Collections from customers…………………		**$ 33,000**
Payments:		
For suppliers*...	**$16,400**	
To employees...	**8,500**	**24,900**
Net cash provided by operating activities		**8,100**
Cash flows from investing activities:		
Purchase of truck	**$(6,000)**	
Purchase of tools....................................	**(1,200)**	
Prepaid for phone	**(100)**	
Net cash used for investing activities		**(7,300)**
Cash flows from financing activities:		
Issuance of common stock......................	**10,000**	
Net cash provided by financing activities..........		**10,000**
Net increase in cash ......…………………………...		**$10,800**
Cash balance, beginning... ………………………..		**-0-**
Cash balance, ending ... ……………………………		**$10,800**

*** Payments to suppliers include supplies ($9,500), rent ($3,000), fuel and maintenance ($1,200), insurance ($700), utilities ($825), advertising ($600), and payroll taxes ($575).**

Req. 6

Current ratio $16,400/2,280 = 7.19

Net working capital = $16,400 – $2,280 = $14,120

Debt ratio = $2,280/$23,200 = 0.098

With a current ratio of 7.19, the company has a high amount of liquidity. With a debt ratio of 0.098, the company has very low debt ratio. They can easily take on more debt.

If the 5 year loan for $15,000 is granted, the ratios would change as follows:

Current ratio ($16,400 + $15,000)/$2,280 = 13.77

Net working capital = $16,400 + $15,000 – $2,280 = $29,120

Debt ratio = ($2,280 + $15,000)/($23,200 + $15,000) = 0.452

The current ratio and the debt ratio increase with the new loan. The current ratio improves with the inflow of cash from the loan. The debt ratio increases with the new loan, but it is not terribly high. As loan officer of the bank, I think the loan should be granted. The company has excellent liquidity and very little debt, so they should be able to handle interest and principal payments on the new loan. Even with the loan, the company's debt ratio is 0.452 which is not considered very high or risky.

Req. 1

ASSETS							LIABILITIES			+ STOCKHOLDERS' EQUITY		
Cash	Acct. Rec.	Phone Deposit	Supplies	Prepaid Rent	Truck	Tools	Salary Pay.	Advert. Pay.	Income Taxes Pay.	Common Stock	Retained Earnings	Stockholders' Equity Transaction
10,000										10,000		Issued stock
(6,000)					6,000							
(1,200)						1,200						
(3,000)				3,000								
(100)		100										
33,000											33,000	Service Rev.
	3,000										3,000	Service Rev.
(5,000)											(5,000)	Salary Exp.
(3,500)											(3,500)	Salary Exp.
							500				(500)	Salary Exp.
(575)											(575)	Payroll Tax Exp.
(9,500)			9,500									
			(8,500)								(8,500)	Supplies Exp.
(1,200)											(1,200)	Fuel & Maint. Exp.
(700)											(700)	Insurance Exp.
(825)											(825)	Utilities Exp.
(600)								100			(700)	Advert. Exp.
				(1,500)							(1,500)	Rent Exp.
									1,680		(1,680)	Income Tax Exp.
					(300)						(300)	Depr. Exp.–Truck
						(100)					(100)	Depr. Exp.–Tools
10,800	3,000	100	1,000	1,500	5,700	1,100	500	100	1,680	10,000	10,920	Totals

