

Chapter 3 Analyzing Changes in Financial Position

ANSWERS TO SECTION 3.1 REVIEW QUESTIONS (text p. 50)

Business Transactions

1. *A business transaction is a financial event that causes a change in financial position.*
2. *An example of a transaction: a new office desk is purchased and paid for in cash.*
3. *An example of an event that is not a transaction: the owner examines some new computer equipment being demonstrated by a salesperson.*
4. *A source document is the original record of a transaction that provides the accounting department with the information it needs related to the transaction.*
5. *Examples of source documents: hydro bills, telephone bills, cheque copies, store receipts, cash register tapes, credit card slips.*
6. *Source documents are filed for future reference.*
7. *The objectivity principle states that accounting will be recorded on the basis of objective evidence. This means that transactions will be recorded on fact, not on personal opinion or feelings. For example, the best objective evidence for the cost of telephone use is the bill from the telephone company.*

ANSWERS TO SECTION 3.1 EXERCISES (text p. 50)

Exercise 1, p. 50

- | | | |
|--|--|--|
| A. <i>Yes, it is a transaction.</i> | D. <i>Yes, it is a transaction.</i> | G. <i>Yes, it is a transaction.</i> |
| B. <i>Yes, it is a transaction.</i> | E. <i>Yes, it is a transaction.</i> | H. <i>No, this is not a transaction.</i> |
| C. <i>No, this is not a transaction.</i> | F. <i>No, this is not a transaction.</i> | |

Exercise 2, p. 51

- | | | |
|--|--|--|
| A. <i>Yes, it is a transaction.</i> | D. <i>Yes, it is a transaction.</i> | G. <i>Yes, it is a transaction.</i> |
| B. <i>No, this is not a transaction.</i> | E. <i>No, this is not a transaction.</i> | H. <i>No, this is not a transaction.</i> |
| C. <i>No, this is not a transaction.</i> | F. <i>Yes, it is a transaction.</i> | |

Exercise 3, p. 51

- A. *Campbell & Associates issued the bill.*
- B. *Smokey Valley Ski Club received the bill.*
- C. *The bill was issued July 22, 20—.*
- D. *Campbell and Associates audited the records of Smokey Valley Ski Club and also prepared financial statements for them.*
- E. *Yes, because it originates from a source independent of the business.*

ANSWERS TO SECTION 3.1 EXERCISES (cont.)

Exercise 4, p. 52

- A. *The Davey Company issued the bill.*
- B. *Smokey Valley Ski Club received the bill.*
- C. *The bill was issued December 5, 20—.*
- D. *The goods were delivered December 5, 20—, by CPX.*
- E. *The bill is due for payment 30 days from December 5, 20—, which would be the following January 4.*
- F. *The source document was issued as evidence of the transaction to be used in the accounting records of both the purchaser and the vendor.*
- G. *No, this was not a cash sale transaction.*
- H. *The bill comes from an independent source.*

Exercise 5, p. 53

- A. *The memorandum is not good objective evidence because it does not come from an independent source.*
- B. *The best objective evidence would be the bill from the supplier.*

ANSWERS TO SECTION 3.2 REVIEW QUESTIONS (text p. 59)

Equation Analysis Sheet

1. *The equation analysis sheet is used for analyzing transactions in this chapter.*
2. *All of the assets, liabilities, and the equity are shown in columns and are in a balanced state.*
3. *After a transaction, recalculate the total assets, the total liabilities, and the equity. If the new equity figure is greater than the previous equity figure, the capital had increased.*
4. *After each transaction is recorded on the equation analysis sheet, new column totals can be calculated and these totals balanced according to the fundamental accounting equation. If the totals balance, it can be assumed that the transaction was a balanced one.*
5. *A transaction does not always change both sides of the balance sheet. For example, a transaction might increase one asset and decrease another by the same amount. In this case, the liability side of the balance sheet would be totally unchanged. The balance sheet still balances after the sample transaction.*

ANSWERS TO SECTION 3.2 EXERCISES (text p. 59)

Exercise 1, p. 59

	Assets					Liabilities		Owner's Equity
	Cash	Accounts Receivable	Supplies	Office Furniture	Truck	Accounts Payable		S. Kostiuk, Capital
		D. Murray				Ace Supply	Pine Motors	
Opening balances	1 000	50						1 050
<i>Transaction 1</i>			+75			+75		
<i>New balances</i>	1000	50	75			75		1 050
<i>Transaction 2</i>	-450			+450				
<i>New balances</i>	550	50	75	450		75		1 050
<i>Transaction 3</i>	+50	-50						
<i>New balances</i>	600		75	450		75		1 050
<i>Transaction 4</i>	+100							+100
<i>New balances</i>	700		75	450		75		1 150
<i>Transaction 5</i>	-500				+6 500		+6 000	
<i>New balances</i>	200		75	450	6 500	75	6 000	1 150
<i>Transaction 6</i>	-75					-75		
<i>New balances</i>	125		75	450	6 500		6 000	1 150
<i>Transaction 7</i>	-100							-100
<i>New balances</i>	25		75	450	6 500		6 000	1 050

$$\underbrace{\hspace{15em}}_{7\ 050} = \underbrace{\hspace{10em}}_{6\ 000} + \underbrace{\hspace{5em}}_{1\ 050}$$

Name _____ Date _____

ANSWERS TO SECTION 3.2 EXERCISES (cont.)

Exercise 2, p. 60

A., B.

	Assets						Liability	Owner's Equity
	Cash	Accounts Receivable			Supplies	Office Furniture	Accounts Payable	J. Morse, Capital
		P. Adams	J. Singh	N. Swartz				
Opening balances	216	375	150	200	4 175	21 967	1 562	25 521
Transaction 1	+100			-100				
New balances	316	375	150	100	4 175	21 967	1 562	25 521
Transaction 2	-200						-200	
New balances	116	375	150	100	4 175	21 967	1 362	25 521
Transaction 3	-95				+95			
New balances	21	375	150	100	4 270	21 967	1 362	25 521
Transaction 4	+4 700							+4 700
New balances	4 721	375	150	100	4 270	21 967	1 362	30 221
Transaction 5	-950					+950		
New balances	3 771	375	150	100	4 270	22 917	1 362	30 221

$$\underbrace{\hspace{15em}}_{31\ 583} = \underbrace{\hspace{5em}}_{1\ 362} + \underbrace{\hspace{5em}}_{30\ 221}$$

C. _____

Triangle Real Estate

Balance Sheet

October 1, 20—

Assets		Liabilities	
Cash	\$ 3 7 7 1 -	A/P—Acme Supply	\$ 1 3 6 2 -
A/R—P. Adams	3 7 5 -		
A/R—J. Singh	1 5 0 -		
A/R—N. Swartz	1 0 0 -	Owner's Equity	
Supplies	4 2 7 0 -	J. Morse, Capital	30 2 2 1 -
Office Furniture	22 9 1 7 -		
Total Assets	\$31 5 8 3 -	Total Liabilities and Equity	\$31 5 8 3 -

ANSWERS TO SECTION 3.2 EXERCISES (cont.)

Exercise 3, p. 61

A., B.

	Assets						Liabilities		Owner's Equity	
	Cash	Accounts Receivable		Equipment	Delivery Truck	Land	Building	Bank Loan	Mortgage Payable	W. Dalli, Capital
		N. Chang	P. O'Neil							
Opening balances	1 395	100	527	8 316	19 750	40 000	80 000	5 000	52 700	92 388
Transaction 1	-500									-500
New balances	895	100	527	8 316	19 750	40 000	80 000	5 000	52 700	91 888
Transaction 2	+527		-527							
New balances	1 422	100		8 316	19 750	40 000	80 000	5 000	52 700	91 888
Transaction 3	+90									+90
New balances	1 512	100		8 316	19 750	40 000	80 000	5 000	52 700	91 978
Transaction 4	-410			+410						
New balances	1 102	100		8 726	19 750	40 000	80 000	5 000	52 700	91 978
Transaction 5	-900								-900	
New balances	202	100		8 726	19 750	40 000	80 000	5 000	51 800	91 978

$$\underbrace{148\ 778}_{\text{Assets}} = \underbrace{56\ 800}_{\text{Liabilities}} + \underbrace{91\ 978}_{\text{Owner's Equity}}$$

C.

Alliance Appliance Service

 Balance Sheet

 October 21, 20—

Assets						Liabilities							
Cash	\$	2	0	2	-	Bank Loan	\$	5	0	0	0	-	
A/R—N. Chang			1	0	0	-	Mortgage Payable		51	8	0	0	-
Equipment		8	7	2	6	-	Total Liabilities	\$	56	8	0	0	-
Delivery Truck		19	7	5	0	-							
Land		40	0	0	0	-	Owner's Equity						
Building		80	0	0	0	-	W. Dalli, Capital		91	9	7	8	-
Total Assets	\$	148	7	7	8	-	Total Liabilities and Equity	\$	148	7	7	8	-

ANSWERS TO SECTION 3.3. REVIEW QUESTIONS (text p. 62)

Summary of Steps in Analyzing a Transaction

1. The first step is to record the changes in any of the assets, liabilities, or both. The second step is to determine if the equity has changed. The third step is to make sure that at least two of the individual items have changed. The fourth step is to make sure that the equation is still in balance.

ANSWERS TO SECTION 3.3. REVIEW QUESTIONS (con't.)

2. *In addition to memory, good accountants rely on common sense, clear thinking, and a thorough understanding of accounting theory.*
3. *Accounting records must be prepared accurately because the information produced from them is used to make important business decisions.*
4. *A good clue as to whether capital had changed is whether the business is better off or worse off as a result of the transaction.*
5. *Capital increases by \$10 000.*

ANSWERS TO SECTION 3.3. EXERCISES (text p. 62)

Exercise 1, p. 62

	STEP ONE				STEP TWO			
	ASSETS		LIABILITIES		EQUITY			
	Item	\$ Change	Item	\$ Change	Increase	Decrease	No Change	\$Change
1. Bought \$350 of supplies with cash.	Supplies	+350						
	Cash	-350				✓		
2. Paid telephone bill, \$45 cash.	Cash	-45				✓		-45
3. Paid \$500 to reduce the bank loan.	Cash	-500						
			Bank Loan	-500			✓	
4. Sold services for \$1000 cash.	Cash	+1 000						
					✓			+1 000
5. An accounts receivable customer pays us \$600.	Cash	+600						
	A/R	-600					✓	
6. Paid wages, \$800.	Cash	-800						
						✓		-800
7. Sold services for \$2000 on credit.	A/R	+2 000						
					✓			+2 000
8. Paid an accounts payable vendor \$750.	Cash	-750						
			A/P	-750			✓	
9. Bought \$4500 of equipment on credit.	Equipment	+4 500						
			A/P	+4 500			✓	
10. Furniture valued at \$400 was destroyed.	Furniture	-400						
						✓		-400
		A =		L	+		OE	

ANSWERS TO SECTION 3.3 EXERCISES (cont.)

Exercise 2, p. 63

- A. \$2 200
- B. \$1 000
- C. \$1 200
Distance between 10 and 22 on chart.
- D. Will be the same.
- E. Will be the same
- F. Capital will remain the same. The distance between the total assets mark and the total liabilities mark remains the same.

Exercise 3, p. 64

- A. \$1 900
- B. \$700
- C. \$1 200
Distance between 7 and 19 on chart.
- D. Will be smaller by \$300; i.e., \$1 600.
- E. Will be the same.
- F. Capital will change to \$900. The distance between the total assets mark (now 16) and the total liabilities mark (still 7) is smaller than it was before.

ANSWERS TO SECTION 3.4 REVIEW QUESTIONS (text p. 67)

Using a Computer: A Spreadsheet for Transaction Analysis

- 1. The cell pointer.
- 2. A cell containing a cell reference will reproduce the data of another cell.
- 3. For Microsoft spreadsheets, =D22 should be typed.
- 4. In addition to requiring prefix symbols, cells that contain cell references will be updated instantly when a change in data occurs — just like formulas and functions.
- 5. Mathematical power refers to the spreadsheet's ability to update all linked cells in response to a change in data. (Note: Linked cells are cells connected by formulas, functions, or cell references.)
- 6. Negative numbers are entered by first pressing the hyphen key or the minus sign on the numeric keypad.
- 7. The formula takes total assets and subtracts the sum of liabilities plus equity.
Therefore, \$25 000 - (\$8 000 + \$17 000) = 0.
- 8. Accuracy, speed, and numerical power.

ANSWERS TO SECTION 3.4 EXERCISES (text p. 68)

Exercise 1, p. 68

Continue working with the ANNA spreadsheet model that you started on page 64.

	A	B	C	D	E	F	G	H
1	ANTONELLI'S ACCOUNTING SERVICES							
2	<i>ASSETS</i>			<i>LIABILITIES</i>		<i>OWNER'S EQUITY</i>		
3	A/R			A/P		A. Antonelli, Capital		
4	Cash	Jones Bros.	Equipment	Star Supply	Bank Loan	Zero Proof		
5	Balances:	\$455	\$50	\$150	\$ 125		\$ 530	
6	T1	3000				3000		0
7	T2	(2500)		2500				0
8	T3	50	(50)					0
9	T4			225	225			0
10	T5		500				500	0
11	T6			(80)	(80)			0
12	T7	(300)					(300)	0
13	T8	(600)				(600)		0
14	T9	200	500				700	0
15	New Balances:	\$ 305	\$1 000	\$2 795	\$ 270	\$2 400	\$1 430	0
16	Summary:							
17	A =	\$4 100		A =	\$4 100			
18	L =	\$2 670		L + OE =	\$4 100			
19	OE =	\$1 430						

Extending Your Computer Skills (text p. 72)

Exercise 1, p. 68

Cell Display Continue working with the ANNA file you completed in exercise 1 above.

	I	J	K	L	M
25	ANTONELLI'S ACCOUNTING SERVICES				
26	Balance Sheet				
27	—Date—				
28					
29	<i>ASSETS</i>			<i>LIABILITIES</i>	
30	Cash	=B15		A/P Star Supply	=E15
31	A/R—Jones Bros.	=C15		Bank Loan	=F15
32	Equipment	=D15		Total Liabilities	=M30+M31
33					
34				<i>OWNER'S EQUITY</i>	
35				A. Antonelli, Capital	=G15
36	Total Assets	=SUM(J30:J35)		Total Liabilities and Equity	=M32+M35

(Note: Some cell references will vary, depending on where students decide to create the balance sheet.)

ANSWERS TO SECTION 3.4 EXERCISES (cont.)

Exercise 1 (cont.)

Balance Sheet

◇	I	J	K	L	M
25	ANTONELLI'S ACCOUNTING SERVICES				
26	Balance Sheet				
27	—Date—				
28					
29	ASSETS		LIABILITIES		
30	Cash	\$305	A/P Star Supply		\$297
31	A/R—Jones Bros.	1,000	Bank Loan		2,400
32	Equipment	2,822	Total Liabilities		<u>\$2,697</u>
33					
34					
35			OWNER'S EQUITY		
35			A. Antonelli, Capital		1,430
36	Total Assets	<u>\$4,127</u>	Total Liabilities and Equity		<u>\$4,127</u>

Exercise 2, p. 69

The answers for this exercise will be identical to the amounts for Chapter Review Exercise 7 on page 72 of the text.

Communicate It (text p. 69)

In their answers, students should point out the following:

- *Spreadsheets perform calculations more quickly and accurately.*
- *Errors in the accounting equation are revealed instantly. Time will not be lost in locating transaction errors that throw the equation out of balance.*
- *Balance sheets can be prepared automatically; therefore, the financial condition of the business can be assessed more readily.*
- *A computer system and spreadsheet program cost more, but this expense is not prohibitive, especially if using the system saves time.*
- *Spreadsheet entries can be erased easily, so the system is less secure. (This disadvantage is overcome by accounting programs, which are introduced later in the text.)*

ANSWERS TO CHAPTER 3 REVIEW EXERCISES (text p. 70)

Exercise 1, p. 70 Using Your Knowledge

1. *F. Vanweers paid a debt of \$250.*
2. *On credit, \$150 worth of supplies were purchased from Norpaints.*
3. *B. Provost, the owner, invested \$300 cash into the business.*
4. *The business performed a service for C. Sully, who has 30 days to make payment.*
5. *The debt to B.M. Co. was paid in full.*

ANSWERS TO CHAPTER 3 REVIEW EXERCISES (cont.)

Exercise 2, p. 71

1. *The business performed a service for L. Swan for \$1 800, of which \$500 was paid in cash and \$1 300 is still owing.*
2. *The auto was sold to High Finance for \$6 500, paying off the debt of \$5 000 and leaving B. Lee with \$1 500 cash and a \$500 loss on the sale of the auto.*
3. *A \$20 000 auto was bought with \$1 000 cash and a \$19 000 bank loan.*
4. *The owner withdrew \$150 for personal use.*
5. *Supplies worth \$50 have been destroyed.*

Exercise 3, p. 71

Year	Assets	Liabilities	Equity
20-0	\$ 85 000	Step 1 \$25 000	\$60 000
20-1	\$115 000	Step 2 \$60 000	Step 3 \$55 000

Make the calculations in the order shown: Step 1, Step 2, then Step 3.

Exercise 4, p. 71

Four transactions that could cause a decrease in owner's equity are:

- *the loss on the sale of an asset;*
- *the owner withdrawing money from the business for personal use;*
- *the destruction of an asset;*
- *an expense incurred by the business.*

Exercise 5, p. 71

Two transactions that could cause an increase in owner's equity are:

- *the sale of the business services;*
- *the owner investing money in the business.*

Exercise 6, p. 71

- A. *This is a cheque.*
- B. *Smokey Valley Ski Club issued this cheque.*
- C. *Mid-West Ski Lifts and Equipment received this cheque.*
- D. *This source document is paying for the ski equipment or the chair lifts bought from Mid-West Ski Lifts and Equipment.*
- E. *Both B and C are possible. Since most businesses purchase assets like this on credit and pay for them later, B is more likely. (Note: If students maintain the cheque was for repair and maintenance, then D is also possible.)*

ANSWERS TO CHAPTER 3 REVIEW EXERCISES (cont.)

Exercise 7, p. 72 Challenge Exercise

A., B.

	Assets					Liabilities				Owner's Equity	
	Cash	Accounts Receivable		Supplies	Truck	Equipment	Accounts Payable			Loan Payable	C. Savick, Capital
		Kwan	Pederson				Cleanall	Hipp	NRC		
Opening bal.	2 750	420	75	880	15 050	12 947	124	475		8 560	22 963
Transaction 1	-800									-800	
Transaction 2				+400				+400			
Transaction 3	+200	-200									
Transaction 4	-300					+2 125			+1 825		
Transaction 5	+100					-550					-450
Transaction 6	+575		-75								+500
Transaction 7	+14 500				-15 050						-550
Transaction 8	-7 760									-7 760	
Transaction 9	-8 000				+23 000					+15 000	
Transaction 10	-875							-875			
Transaction 11				-50							-50
	390	220		1 230	23 000	14 522	124		1 825	15 000	22 413

$$\underbrace{39\ 362}_{\text{Assets}} = \underbrace{16\ 949}_{\text{Liabilities}} + \underbrace{22\ 413}_{\text{Owner's Equity}}$$

C.

Merrymen Window Washing

Balance Sheet

December 1, 20—

Assets						Liabilities					
Cash	\$	3	9	0	-	A/P—Cleanall Co.	\$	1	2	4	-
A/R—T. Kwan		2	2	0	-	A/P—NRC Co.		1	8	2	5
Supplies		1	2	3	0	Loan Payable—Simplex Finance		15	0	0	0
Truck		23	0	0	0	Total Liabilities		\$16	9	4	9
Equipment		14	5	2	2						
						Owner's Equity					
						C. Savick, Capital		22	4	1	3
Total Assets	\$	39	3	6	2	Total Liabilities and Equity	\$	39	3	6	2

ANSWERS TO CHAPTER 3 REVIEW EXERCISES (cont.)

Questions for Further Thought, p. 73

1. *An account payable is an amount owed to a company for the provision of goods or services, whereas a loan payable is an amount of money borrowed from, and therefore owed to, a financial institution. Usually, a loan payable is larger than an account payable, bears interest, and is repaid in installments.*
2. *The fundamental accounting equation is $A = L + OE$. If the balance sheet is out of balance, the equation does not hold true. Thus, it is impossible for the balance sheet to be balance and correct at the same time.*
3. *When recording a transaction on the balance sheet, it is possible for the recorder to make changes that are "in balance" but not correct. For example, suppose that new equipment is purchased and cash paid. When recording the changes, the recorder increases the item Supplies instead of the item Equipment. The equation will still be in balance because the asset total is correct, but clearly the totals for Supplies and Equipment will both be wrong.*
4. *The fundamental accounting equation would not be balanced if only one item changed in a business transaction.*
5. *The equation analysis sheet is superior to the balance sheet for recording accounting changes because it allows room for changes. There is no room to do that on the balance sheet.*
6. *A purchase requisition would not originate in the accounting office.*
7. *No changes would be recorded yet. The claim is not settled and the amount not known.*
8. *No changes will be made at this time since you do not actually owe the \$10 000.*

CASE STUDIES (text p. 74)

Case 1 An Objective Balance Sheet?, p. 74

1. *Ted has violated the objectivity principle by listing his assets on the balance sheet at values that are not supported by objective evidence.*
2. *He should list the lawn mowers at their purchase price of \$20 each. The truck is more difficult to assign a value to because it was a gift. It should be listed at fair market value (see answer 3 below).*
3. *A fair market value for the truck could be determined by obtaining a written appraisal from an auto dealer.*

CASE STUDIES (cont.)

Case 1 (cont.)

- Any overstatement in the value of assets will result in an equivalent overstatement of the capital account.

Case 2 *Checking Out a New Customer*, p. 74

- The company is heavily in debt.
- Ms. Field does not have much of her own money invested in New Age Manufacturing. She owes a huge sum. There are dangers in dealing with this company. She may be coming to you because she has little or no cash, cannot pay her creditors, and they have ceased supplying her. Also, if you sell to her on credit and cannot collect, this would be bad for your business and must be avoided.
- At this time, more information is necessary before doing business with New Age Manufacturing.

Challenge Case 3 *The Balance Sheet Shuffle*, p. 75

- The revised amounts are: Total Assets \$50 000
Total Liabilities \$40 000

Assets			Liabilities		Equity
Cash	Truck	Other Assets	Accounts Payable	Other Liabilities	Capital
4 000	8 000	40 000	12 000	30 000	10 000
1. + 8 000	-8 000				
2. +10 000				+10 000	
3. -12 000			-12 000		
10 000	0	40 000	0	40 000	10 000

- Brandon's capital will remain unchanged at \$10 000.
- Brandon's chances of obtaining a bank loan will not change much. His chances may actually be reduced, since the sale of the truck has left him with less collateral to offer the bank as security for a loan.
- Brandon's business is healthier as a result of the transactions.
He has more cash available to keep the business operating.
He has reduced his expenses by selling an unnecessary truck.
Liabilities have been reduced.

Career **LARRY LANCEFIELD, CA, IFA, CFE/FORENSIC ACCOUNTANT**

ANSWERS TO DISCUSSION QUESTIONS (text p. 76)

1. *A Chartered Accountant (CA) designation is important because of the high demand for accuracy and for clear understanding of transactions.*
2. *A natural aptitude for detective work and an understanding of legal issues and procedures are important, as well as the ability to carry out an investigation despite tension or pressure.*
3. *Forensic accounting began in the early 1970s, when police forces found that they needed accountants to help supply proof in complex fraud cases.*
4. *Accountants are uniquely qualified to follow a complex trail of financial transactions that an individual may be using to cover up a crime involving money. Correct analysis of these transactions is crucial to supplying evidence. The objectivity principle states that accounting will be recorded on the basis of objective evidence. In many cases of financial wrongdoing, this principle will have been violated.*
5. *Source documents would be necessary as evidence of transactions in a court case.*