

# Applications

*My problem lies in reconciling my gross habits with my net income.*

—Errol Flynn, actor

1. How might the quote apply to this section?

2. Rona filled out this information on her monthly statement. Find Rona's revised statement balance. Does her account reconcile?

\$864.52; yes

Checking Account Summary	
Ending Balance	\$ 725.71
Deposits	+ \$ 610.00
Checks Outstanding	- \$ 471.19
Revised Statement Balance	
Check Register Balance	\$ 864.52

3. Ken filled out this information on the back of his bank statement. Find Ken's revised statement balance. Does his account reconcile?

\$181.95; no

Checking Account Summary	
Ending Balance	\$ 197.10
Deposits	+ \$ 600.00
Checks Outstanding	- \$ 615.15
Revised Statement Balance	
Check Register Balance	\$ 210.10

4. Hannah wants to write a general formula and a comparison statement that she can use each month when she reconciles her checking account. Use the Checking Account Summary at the right to write a formula and a statement for Hannah.  $B + D - C = S$ ; if  $S = R$ , the account is reconciled.

Checking Account Summary	
Ending Balance	<i>B</i>
Deposits	<i>D</i>
Checks Outstanding	<i>C</i>
Revised Statement Balance	<i>S</i>
Check Register Balance	<i>R</i>

5. Jill has not been able to maintain the \$1,000 minimum balance required to avoid fees on her checking account. She wants to switch to a different account with a fee of \$0.20 per check and a \$12.50 monthly maintenance fee. Jill wants to estimate the fees for her new account. To the right is a summary of the checks she has written from May to August.

Month	Number of Checks on Statement
May	14
June	19
July	23
August	24

- What is the mean number of checks Jill wrote per month during the last 4 months? 20
- Based on the mean, estimate how much Jill expects to pay in per-check fees each month after she switches to the new account. \$4.00
- Estimate the total monthly fees Jill will pay each month for the new checking account. \$16.50

## TEACH

### Exercises 2 and 3

These similar exercises test the students' understanding of the components needed if a check register is to balance. As an extension to these exercises, you might want to make up similar ones in which students have to find different amounts (ending balance, deposits, checks outstanding) when given all of the other values in a balanced check register.

### Exercise 5

Ask students whether using the median number of checks might change this problem.

## ANSWERS

- Errol Flynn used the word "reconcile" in the same way that it is used in a financial context. With a checking account, the problem lies in reconciling or balancing the check register amount with the revised statement amount. Flynn's problem was in balancing his personal gross (monetary) habits, such as making expensive purchases with the money he actually had coming in.



## TEACH

### Exercise 6

Students need to first locate or determine the amounts in question. They then should follow the reconciling process as outlined in Example 1 in the lesson.

6. Use Tina Weaver's monthly statement and check register to reconcile her account.
  - a. What is the ending balance on the statement? **\$1,434.19**
  - b. What is the total of the outstanding deposits? **\$700.00**
  - c. What is the total of the outstanding withdrawals? **\$89.00**
  - d. What is the revised statement balance? **\$2,045.19**
  - e. What is the balance of the check register? **\$2,045.19**
  - f. Does the account reconcile? **Yes**

Tina Weaver 41 Slider Lane Greenwich, CT 06830			ACCOUNT NUMBER: 76666600A STATEMENT PERIOD: 3/01 - 3/31		
				STARTING BALANCE →	<b>\$ 871.50</b>
DATE	DESCRIPTION	CHECK NUMBER	TRANSACTION AMOUNT	BALANCE	
3/3	W/D	395	\$ 79.00	\$ 792.50	
3/4	DEPOSIT		\$ 600.00	\$ 1,392.50	
3/10	W/D	396	\$ 51.10	\$ 1,341.40	
3/14	W/D	393	\$ 12.00	\$ 1,329.40	
3/19	W/D	394	\$ 133.81	\$ 1,195.59	
3/24	DEPOSIT		\$ 250.00	\$ 1,445.59	
3/30	W/D	398	\$ 11.40	\$ 1,434.19	
				ENDING BALANCE →	<b>\$1,434.19</b>

NUMBER OR CODE	DATE	TRANSACTION DESCRIPTION	PAYMENT AMOUNT	✓	FEE	DEPOSIT AMOUNT	\$ BALANCE
392	2/20	Conn Telephone Co.	\$ 76 80	✓			871.50
393	2/21	Rod's Bike Shop	12 00				859.50
394	3/1	Window's Restaurant	133 81				725.69
395	3/2	Centsible Bank	79 00				646.69
	3/4	Deposit				600 00	1,246.69
396	3/4	Spear's Department Store	51 10				1,195.59
397	3/15	Mary Lewis	50 00				1,145.59
398	3/21	Sea Cliff Records	11 40				1,134.19
	3/23	Deposit				250 00	1,384.19
399	4/2	Ciangiola Motors	39 00				1,345.19
	4/2	Deposit				700 00	2,045.19

## ANSWERS

7. Let  $x$  = the number of checks Donna writes each month;  
let  $F$  = fee charged;  
 $F = 9.75 + 0.15x$ .
8. No; adding \$75 will correct that he subtracted \$75 when he should not have. He will also need to add another \$75 for the original deposit.
7. Donna has a checking account that charges \$0.15 for each check written and a monthly service charge of \$9.75. Write a formula that Donna can use each month to find the fees she will be charged. Identify any variable you use in the formula. **See margin.**
8. Mason discovered that when he recorded a deposit of \$75 two weeks ago, he mistakenly subtracted it from the running total in his check register. He decided that he would write a new entry after his most recent entry and add \$75. Will this correct his mistake? Explain. **See margin.**

9. When Payne removed his bank statement from the envelope, it got caught on a staple and a corner was ripped from the page. Now he cannot read his ending balance. Explain the computations he can do to find his ending balance. See margin.

## TEACH

### Exercise 10

Although it is customary to mark off each transaction that is listed on the statement with a check mark, do not let students write in the text. Tell students to put a piece of blank paper over the Balance Forward column in the register and make their marks on that paper. That way, they will be able to easily account for the deposits and withdrawals that are outstanding.

Payne Johnston  
1234 Main Street  
Miami, FL 33299

ACCOUNT NUMBER: 99887766D  
STATEMENT PERIOD: 1/1 - 1/31

STARTING BALANCE → \$754.33

DATE	DESCRIPTION	CHECK NUMBER	TRANSACTION AMOUNT	BALANCE
1/08	W/D	5502	121.28	\$ 633.05
1/11	W/D	5501	140.00	\$ 493.05
1/15	DEPOSIT		998.15	\$ 1,491.20
1/24	W/D	5504	107.78	\$ 1,383.42
1/27	W/D	5503	12.00	\$ 1,371.42
1/30	W/D	5506	58.70	\$ 1,312.72

ENDING BALANCE →

10. Use Allison Shannon's bank statement and check register to reconcile her account. See margin.

## ANSWERS

9. On the statement, you can still see that the balance on

$\frac{1}{27}$  was \$1,371.42, and the check written on  $\frac{1}{30}$  was for \$58.70. Subtract to find the ending balance.  $1,371.42 - \$58.70 = 1,312.72$

10. Outstanding deposit: \$150; outstanding checks: \$132;  $1,827.63 - 150 + 132 = 1,809.63$ , which reconciles with the statement balance.

Allison Shannon  
3 Honey Drive  
Dallas, TX 75372

ACCOUNT NUMBER: 76574709A  
STATEMENT PERIOD: 12/01 - 12/31

STARTING BALANCE → \$1,685.91

DATE	DESCRIPTION	CHECK NUMBER	TRANSACTION AMOUNT	BALANCE
12/08	W/D	1502	147.28	\$ 1,538.63
12/10	W/D	1501	130.00	\$ 1,408.63
12/15	DEPOSIT		749.00	\$ 2,157.63
12/23	W/D	1504	250.00	\$ 1,907.63
12/27	W/D	1503	72.00	\$ 1,835.63
12/29	W/D	1506	26.00	\$ 1,809.63

ENDING BALANCE → \$1,809.63

PLEASE BE SURE TO DEDUCT CHANGES THAT AFFECT YOUR ACCOUNT			SUBTRACTIONS		ADDITIONS	BALANCE FORWARD
ITEM NO. FOR TRANSACTION CODE	DATE	DESCRIPTION OF TRANSACTION	AMOUNT OF PAYMENT OR WITHDRAWAL	✓ OTHER	AMOUNT OF DEPOSIT OR INTEREST	
						1,685 91
1500	11/20	TO Girl Scouts	32 00			- 32 00
		FOR Cookies				1,653 91
1501	11/30	TO Bank of Seaford	130 00	✓		- 130 00
		FOR Loan Payment				1,523 91
1502	12/2	TO Lacy's Department Store	147 28	✓		- 147 28
		FOR Radio				1,376 63
1503	12/11	TO Charge Tix	72 00	✓		- 72 00
		FOR Concert Tickets				1304 63
	12/15	TO Deposit		✓	749 00	+ 749 00
		FOR				2,053 63
1504	12/16	TO FLASHCARD	250 00	✓		- 250 00
		FOR Monthly payment				1,803 63
1505	12/17	TO Red Cross	100 00			- 100 00
		FOR Donation				1,703 63
1506	12/18	TO Daily Newspaper	26 00	✓		- 26 00
		FOR Subscription				1,677 63
	1/5	TO Deposit			150 00	+ 150 00
		FOR				1,827 63



**TEACH**

**Exercise 11**

Review the spreadsheet commands with students before assigning this problem.

11. Fill in the missing balances in Raymond Marshall's check register. Use the spreadsheet from [www.cengage.com/financial\\_alg2e](http://www.cengage.com/financial_alg2e) to determine if Raymond's checking account reconciles with his statement. See additional answers.

Raymond Marshall 34 2630 Street Oaks, NY 11004			ACCOUNT NUMBER: 6732281 STATEMENT PERIOD: 1/01 - 1/30	
STARTING BALANCE				→ \$ 653.30
DATE	DESCRIPTION	CHECK NUMBER	TRANSACTION AMOUNT	BALANCE
1/12	W/D	1776	28.00	\$ 625.30
1/13	W/D	1778	56.73	\$ 568.57
1/13	W/D	1777	120.00	\$ 448.57
1/14	DEPOSIT		1,000.00	\$1,448.57
1/17	W/D	1774	70.00	\$1,378.57
ENDING BALANCE				→ \$1,378.57

PLEASE BE SURE TO DEDUCT CHANGES THAT AFFECT YOUR ACCOUNT			SUBTRACTIONS		ADDITIONS		BALANCE FORWARD	
ITEM NO. FOR TRANSACTION CODE	DATE	DESCRIPTION OF TRANSACTION	AMOUNT OF PAYMENT OR WITHDRAWAL	✓	OTHER	AMOUNT OF DEPOSIT OR INTEREST		
							728	30
1773	12/28	TO Galaxy Theater FOR Tickets	75 00	✓			- 75	00
1774	12/30	TO American Electric Company FOR Electric Bill	70 00				- 70	00
1775	12/30	TO Hillsdale Water Co. FOR Water Bill	38 50				- 38	50
1776	1/2	TO Barbara's Restaurant FOR Dinner	28 00				- 28	00
1777	1/3	TO Platter Records FOR Compact Disc	120 00				- 120	00
1778	1/9	TO Al Gas Co. FOR Gas Bill	56 73				- 56	73
1779	1/12	TO Al and Jean Adams FOR Wedding Gift	100 00				- 100	00
1780	1/12	TO Greene College FOR Fees	85 00				- 85	00
	1/14	TO Deposit FOR				1,000 00	+ 1,000	00
1780	1/25	TO Rob Gerver FOR Typing Fee	80 00				- 80	00
	2/1	TO Deposit FOR Salary				950 00	+ 950	00

12. When comparing his check register to his bank statement, Donté found that he had failed to record deposits of \$55.65, \$103.50, and \$25.00. What is the total of these amounts and how will he use this information to reconcile his account? **\$184.15; He should add the deposits to his check register.**
13. Alisha has a February starting balance of \$678.98 in her checking account. During the month, she made deposits that totalled  $d$  dollars and wrote checks that totalled  $c$  dollars. Let  $E$  = her ending balance on February 28. Write an inequality using  $E$  and the starting balance to show the relationship of her starting and ending balances for each condition. **a.  $E > 678.98$ ; b.  $E < 678.98$**
- a. If  $d > c$   
b. If  $d < c$