

Applications

There have been three great inventions since the beginning of time: fire, the wheel, and central banking.

—Will Rogers, actor and columnist

TEACH

Exercises 2 and 3

Notice that Exercises 2 and 3 are related. In Exercise 2, students are asked to find a numerical balance. In Exercise 3, students mimic the process used in Exercise 2 but with variables. This balance will be represented as a variable expression. When reviewing these two exercises, make a connection between them.

Exercises 5 and 6

Get students into the habit of sorting checking account transactions by credits and debits. This will help organize the given information in both exercises.

ANSWERS

1. Will Rogers indicates that banking is as essential to your daily life as fire and the wheel.

1. How might the quote apply to what has been outlined in this section? *See margin.*
2. Jackie deposited a \$865.98 paycheck, a \$623 stock dividend check, a \$60 rebate check, and \$130 cash into her checking account. Her original account balance was \$278.91. Assuming the checks clear, how much will be in her account after the deposits are made? **\$1,957.89**
3. Rich has t dollars in his checking account. On June 3, he deposited w , h , and v dollars and cashed a check that he wrote to himself for k dollars. Write an algebraic expression that represents the amount of money in his account after the transactions. **$t + w + h + v - k$**
4. John cashed a check for \$630. The teller gave him three \$50 bills, eighteen \$20 bills, and t \$10 bills. Determine the value of t . **$t = 12$**
5. Gary and Ann have a joint checking account. Their balance at the beginning of October was \$9,145.87. During the month they made deposits totalling \$2,783.71, wrote checks totalling \$4,871.90, paid a maintenance fee of \$12, and earned \$11.15 in interest on the account. What was the balance at the end of the month? **\$7,056.83**
6. Anna has an online checking account at Garden City Bank. Her balance at the beginning of February was \$5,195.65. During the month, she made deposits totalling \$6,873.22, wrote checks totalling c dollars, was charged a maintenance fee of \$15, and earned \$6.05 in interest. Her balance at the end of the month was \$4,200.00. What is the value of c ? **$c = \$7,859.92$**
7. Queens Meadow Bank charges a monthly maintenance fee of \$13 and a check-writing fee of \$0.07 per check or EFT. Last year, Mark made 289 payments from his account at Queens Meadow. What was the total of all fees he paid on that account last year? **\$176.23**
8. Joby had \$421.56 in her checking account when she deposited g \$20 bills and k quarters. Write an expression that represents the amount of money in her account after the deposit. **$421.56 + 20g + 0.25k$**
9. Neka cashed a check for \$245. The teller gave him two \$50 bills, six \$20 bills and f \$5 bills. Determine the value of f . **5**
10. Olivia cashed a check for \$113. The teller gave her four \$20 bills, x \$10 bills, and three \$1 bills. Find the value of x . **3**
11. Hector had y dollars in his savings account. He made a deposit of \$20 bills and 1 dollar coins. He had four times as many \$1 coins as he had \$20 bills and the total of his \$20 bills was \$60. Write an expression for the balance in Hector's account after the deposit. **$y + 72$**

12. On September 1, Chris Eugene made the following band equipment purchases at Leslie's Music Store. Calculate her total bill. Complete a check for the correct amount. Print a copy of the check from www.cengage.com/financial_alg2e. See additional answers.

DESCRIPTION	CATALOG NUMBER	LIST PRICE	QUANTITY	TOTAL
Speaker Cabinets	RS101	\$400.00	2	
Speaker Cabinets	RG306	\$611.00	2	
Horns	BG42	\$190.00	2	
Audio Console	LS101	\$1,079.00	1	
Power Amplifier	NG107	\$416.00	5	
Microphones	RKG-1972	\$141.92	8	
Microphone Stands	1957-210	\$32.50	8	
TOTAL				
13% DISCOUNT				
SALE PRICE				
8% SALES TAX				
TOTAL COST				

13. Create a check register for the transactions listed. There is a \$2.25 fee for each ATM use. Print a copy of the check register from www.cengage.com/financial_alg2e. See additional answers.
- Your balance on 10/29 is \$237.47
 - You write check 115 on 10/29 for \$18.00 to Fox High School.
 - You deposit a paycheck for \$162.75 on 10/30.
 - You deposit a \$25 check for your birthday on 11/4.
 - On 11/5, you go to a sporting event and run out of money. You use the ATM in the lobby to get \$10 for snacks.
 - Your credit card bill is due on 11/10, so on 11/7 you write check 116 to Credit USA for \$51.16.
 - Your sister repays you \$20 on 11/10. You deposit it.
 - You withdraw \$20 from the ATM to buy flowers on 11/12.
 - You deposit your paycheck for \$165.65 on 11/16.
 - You deposit a late birthday check for \$35 on 11/17.
14. Ridgewood Savings Bank charges a \$27 per check overdraft protection fee. On July 8, Nancy had \$1,400 in her account. Over the next 4 days, the following checks arrived for payment at her bank: July 9, \$1,380.15; July 10, \$670 and \$95.67; July 11, \$130; and July 12, \$87.60. How much will she pay in overdraft protection fees? How much will she owe the bank after July 12? **\$108; \$1,071.42**
15. 123 Savings and Loan charges a monthly fee of \$8 on checking accounts and an overdraft protection fee of \$33. Neela's check register showed she had a balance of \$456 when she wrote a check for \$312. Three days later she realized her check register had an error and she actually only had \$256. So she transferred \$250 into her checking account. The next day, her monthly account statement was sent to her. What was the balance on her statement? **\$153**

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Exercise 12

When reviewing this exercise, ask students if it would have made a difference if the 13% discount line and the 8% sales tax line had been switched on the equipment bill. Although it makes no difference in the total cost, that will be counterintuitive to many students. Show them that the switch will result in the same answer.

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Exercise 13

Once again, it is important that students have a command of a credit (a deposit) and a debit (a withdrawal). You might want to have students identify each before assigning this problem.

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Exercise 16

Review the ramifications of a voided check. Students need to realize that the destroyed check must be accounted for in the register so that when the user returns to balance the account, he or she will have a record of that check. In part (f) of the problem, students will need to know that once the check is canceled, the very next check in the numerical sequence is recorded in the register and is used.

16. Create a check register for the transactions listed. Download a blank check register from www.cengage.com/financial_alg2e.
 - a. Your balance on 12/15 is \$2,546.50. [See additional answers.](#)
 - b. On 12/16, you write check 2345 for \$54 to Kings Park High School Student Activities.
 - c. On 12/17, you deposit your paycheck in the amount of \$324.20.
 - d. Your grandparents send you a holiday check for \$100, which you deposit into your account on 12/20.
 - e. On 12/22 you write three checks: 2346 to Best Buy in the amount of \$326.89, 2347 to Macy's in the amount of \$231.88, and 2348 to Target in the amount of \$123.51.
 - f. On 12/24, you go to the Apple Store. As you are writing the check for \$301.67, you make a mistake and must void that check. You pay with the next available check in your checkbook.
 - g. On 12/26, you return a holiday gift. The store gives you \$98. You deposit that into your checking account.
 - h. On 12/28, you write an e-check to Allstate Insurance Company in the amount of \$876.00 to pay your car insurance.
 - i. On 12/29, you withdraw \$200 from an ATM. There is a \$1.50 charge for using the ATM.
17. Download a copy of the check register shown below from www.cengage.com/financial_alg2e. Complete items a through z. [See margin.](#)

ANSWERS

17. a. 623
- b. 629
- c. 630
- d. 71.10
- e. -500.00
- f. 1,292.80
- g. -51.12
- h. 1,241.68
- i. -25.00
- j. 1,216.68
- k. +650.00
- l. 1,866.68
- m. -200.00
- n. 1,666.68
- p. -90.00
- q. 1,576.68
- r. -49.00
- s. 1,527.68
- t. -65.00
- u. -1,462.68
- v. -300.00
- w. 1,162.68
- x. +400.00
- y. 1,562.68
- z. 1,191.02

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		
							1,863	90
		TO Telephone Co.					- 71	10
		FOR Dec. Bill					1,792	80
621	10/3		d.					
		TO Banner Realty					e.	
622	10/7	FOR Rent	500 00				f.	
		TO Electric Co.					g.	
a.	10/8	FOR Dec. Bill	51 12				h.	
		TO Cathy Santoro					i.	
624	10/10	FOR Piano Lesson	25 00				j.	
		TO Deposit				650 00	k.	
	10/15	FOR					l.	
		TO Don's Day Camp					m.	
625	10/16	FOR Kid's Summer Camp	200 00				n.	
		TO Ed's Sporting Goods					p.	
626	10/18	FOR Winter Coat	90 00				q.	
		TO Maple Place Garage					r.	
627	10/21	FOR antifreeze & hose	49 00				s.	
		TO Dr. Moe Goldstein					t.	
628	10/22	FOR Check-up	65 00				u.	
		TO Hicksville H.M.O.					v.	
b.	11/4	FOR yearly premium	300 00				w.	
		TO Deposit				400 00	x.	
	11/5	FOR					y.	
		TO State Insurance Co.					- 371	66
c.	11/9	FOR Auto Insurance	371 66				z.	