

## MATH ON THE JOB

Carla Thibodeau grew up in northern New Brunswick, where she attended Miramichi Valley High School. After graduating, she did her Bachelor of Arts at the University of New Brunswick, studied basic accounting at New Brunswick Community College, and then pursued leadership development training through an institution in Pittsburgh, Pennsylvania.

Carla is now back in the Miramichi, where she works as the senior member services representative at the Beaubear Credit Union. She is responsible for the cash supply at the branch, servicing of the ATM, control of money orders, coaching other member services representatives, and daily customer service.

A customer wants to buy \$500.00 USD in traveller's cheques and pay for them from her chequing account. At the time of purchase, the exchange rate is \$1.0526 CAD for \$1.00 USD. There is a 1% commission on the Canadian dollar value of the traveller's cheques. Carla must also charge a \$1.00 fee for the transaction. How much money should Carla withdraw from the customer's account?



Among her other duties, Carla Thibodeau uses math to project how much money her Beaubear Credit Union branch needs from day to day.

## SOLUTION

Carla will need to convert \$500.00 USD into Canadian dollars (CAD). At the time of purchase the exchange rate is \$1.0526 CAD for \$1.00 USD.

Calculate the cost of \$500.00 in USD traveller's cheques by converting \$500.00 USD to Canadian dollars.

\$500.00 USD = 500 × \$1.0526 CAD

\$500.00 USD = \$526.30 CAD

The converted cost of \$500.00 USD is \$526.30 CAD.

Calculate the 1% commission.

\$526.30 CAD × 0.01 = \$5.26 CAD

Add the commission of \$5.26 and the bank fee of \$1.00 to calculate the total cost for the traveller's cheques.

526.30 + 5.26 + 1.00 = 532.56

Carla must withdraw \$532.56 from the customer's account to pay for the traveller's cheques.



• **Savings** accounts earn interest (very small rate) while **chequing** accounts do not earn interest (but allow you the ability to write cheques).

• Banks charge service charges/fees for transactions within your account.

**transaction:** any activity such as a cash withdrawal, deposit, money transfer, pre-authorized payment, or bill payment

**NOTE:** Most banks have different plans where a flat rate is paid monthly and a certain amount of transactions are allowed (special rates for seniors/students).









banking done using the internet, telephone, banking machine or smartphone app; does not require the services of a teller



## FULL-service banking



banking that is done with the help of a Teller What do we know about these terms?

- monthly fees
- rebates
- fee waived given minimum balance
- withdrawal
- deposit
- overdraft

## **DISCUSS THE IDEAS**

## CHOOSING YOUR BANK ACCOUNT

Banks charge different transaction rates on different types of accounts. If you pay bills online and frequently use banking machines, you will likely want a different type of account than someone who makes regular deposits and prefers to do their transactions with a bank teller.

Working in a small group, brainstorm answers to the following questions.

- 1. What are some typical transactions that students are likely to make?
- 2. Have you ever written a cheque? When might you need to write a cheque?
- 3. Why might you want to have a full-service account? Why might you want a savings account?
- 4. Many banks offer an account selector on their website. What information would you need to consider about your financial needs so that you could make an informed choice when selecting a bank account?

#### SOLUTIONS

- Answers will vary. Some typical transactions include: making purchases from stores, depositing paycheques and gifts, withdrawing cash, paying cell phone or internet bill.
- You might need to write a cheque if you need to pay someone and you do not have cash, or if you want to pay a bill by mail. People often use cheques to pay rent.
- You might want a full-service account if you do not like technology; if you need to purchase foreign currency or traveller's cheques often; or if you have a business.

You might want a savings account if you are saving up for something and you want to spend the savings on day-to-day items

4. In order to choose an appropriate bank account, you must know approximately what your average minimum balance will be each month and how many transactions of each type you would normally do each month, such as number of cheques, withdrawals, and regular deposits. Also, you should consider whether you need to buy foreign currency or traveller's cheques on a regular basis.

## ACTIVITY 3.1 Comparing Banking Services

In this activity, you will work with a partner to research and compare banking services.



Employees at your local bank can help you choose the bank account that best meets your needs.

#### SOLUTIONS

- a) Student answers will vary. Answers could include the following: savings account, chequing account, RESPs, RRSPs, mortgages, credit cards, bill payments, wire transfers, cheque cashing, investment accounts, tax-free savings accounts, as well as many other services.
  - b) Transactions that can be made using the internet or telephone banking include: paying bills; arranging direct deposit of paycheques; transferring money; setting up automatic bill payments; and checking account activity and account balances.
  - c) Transactions that must be done in person include: purchasing traveller's cheques and foreign exchange transactions.

- 1. Use the internet to research banking services at a local bank or credit union.
  - a) What are five types of accounts and other services offered by the financial institution?
  - b) List the types of transactions that can be made using internet or telephone banking.
  - c) What types of transactions must be done in person?
- 2. Describe three advantages and three disadvantages of online banking.
- Create a mind map that illustrates the types of transactions possible for each service: bank teller, ATM, online banking, telephone banking.
  - 2. Advantages of online banking include: it is quick and convenient; you can set up automatic payments for bills on due dates; you can view your current account balance; it allows faster bill payments; service available 24/7; you can access your account from any location with internet access; you can identify fraudulent activity much more quickly than waiting for paper bank statements.

Disadvantages of online banking include: technical difficulties—system may unexpectedly go down or be unavailable during maintenance; can be difficult for those who are not technically savvv: concerns about security, including identity theft; not all financial institutions offer online all the services you need; no live personal help if something goes wrong; usernames, passwords, and security questions may be difficult for some people to remember.



## 3.1 - Choosing an Account.notebook

Example 1

## January 07, 2015



Laura is studying textiles and fashion design at Nova Scotia College of Art and Design in Halifax. She has \$6500.00 in savings to cover her living expenses during her first 3 months of study. Laura wants to open a new bank account. Her monthly living expenses are \$2000.00. She estimates that she will need to write about 2 cheques, pay 4 bills online, and use her bank card for about 10 transactions each month.

The Bank of Atlantic Canada offers four types of accounts. Which account would be the least expensive choice for Laura?

	Value Account	Self-service Account	Full-service Account	Bonus Savings Account
Monthly fee	\$3.90	\$10.90 Students and Youth (under 18) save 50% on the monthly fee	\$24.50	No fee
Fee waived on minimum monthly balance	\$1000.00	\$1500.00	\$2000.00	
Transactions covered by monthly fee: • cheques • withdrawals • bill payments • debit purchases • transfers to other Bank of Atlantic Canada accounts	10 self-service	25 self-service	40 self-service or teller-assisted No annual fee for a credit card	2 debit transactions
Charge for additional transactions not covered by monthly fee	Self-service \$0.50 each Teller-assisted \$1.00 each	Self-service \$0.50 each Teller-assisted \$1.00 each	Self-service \$0.25 each	Self-service or teller assisted \$1.25 each
Non—Bank of Atlantic Canada ATM withdrawals	\$1.50 each	\$1.50 each		
Interest				Daily interest that grows with your balance

## Transaction Types

Self-service: Any transaction that does not require a bank teller. This includes withdrawals, deposits, cheques, money transfers, direct payment purchases, and transactions made at an ATM, by telephone, or online.

Teller-assisted: Includes all transactions that require a teller, such as in-branch withdrawals, transfers, in-branch bill payments, and traveller's cheque and foreign currency purchases.

### SOLUTION

Laura sets up a table to help her decide which account best meets her needs for the least amount of fees. Because the Bonus Savings account only allows 2 free transactions, it is not the best choice for Laura.

	Value Account	Self-service Account	Full-service Account
Month 1	raido / locount		
Approximate minimum	monthly balance: \$6500	00 - \$2000.00 = \$4500.00	
Monthly Fee	\$0	\$0	\$0
Transaction Charges	6 × \$0.50 = \$3.00	\$0	\$0
Month 2	-lat		-90
Approximate minimum	monthly balance: \$4500	00 - \$2000.00 = \$2500.00	
Monthly Fee	\$0	\$0	\$0
Transaction Charges	6 × \$0.50 = \$3.00	\$0	\$0
Month 3	- Mi	50)	
Approximate minimum	monthly balance: \$2500	00 \$2000.00 = \$500.00	
Monthly Fee	\$3.90	\$10.90 × 0.5 = \$5.45	\$24.50
Transaction Charges	6 × \$0.50 = \$3.00	\$0	\$0
Total for 3 Months	\$12.90	\$5.45	\$24.50

Laura expects to have no monthly fees for the first 2 months because her account balance will be higher than the required minimum amounts. After that, Laura would get a 50% reduction in her monthly fee for the Self-service Account because she is a student. So she only needs to pay \$5.45 in the third month. For Laura, the Self-service Account is the least expensive choice.



In many cases, the fee for using an ATM may be included in your account package. However, your bank may charge a fee if you withdraw cash at an ATM operated by another financial institution. There could also be a service charge from the other financial institution. This means you will pay a fee to your own bank, plus a service charge to the other bank.

Working in a small group, answer the following questions.

- 1. Why is it best to use your bank card at a branch of your own bank?
- 2. Research and describe three advantages and disadvantages of bank card purchases.
- 3. Examine the receipt printed by a Bank of Atlantic Canada ATM after a transaction.
  - a) What important information is provided by an ATM receipt?
  - b) Why do you think the card number was printed this way?
  - c) Why is it a good idea to keep your ATM receipts?

## SOLUTIONS

- 1. It is best to use your bank card at a branch of your own bank because you will not be charged a fee from another bank.
- 2. Advantages: you don't have to carry cash; your bank account is debited right away, so there are no future bills to pay; with care, bank cards are secure.

Disadvantages: there are sometimes fees for bank card transactions; it is easy to get carried away in your spending; sometimes merchants or other institutions do not accept bank cards; if you don't protect your personal information, your bank card can be subject to fraud.

- a) The ATM receipt shows that \$60.00 was withdrawn. It also shows the amount of money left in the account, and the date of the withdrawl.
  - b) The complete bank card number is not shown so that other people cannot get your personal information if you lose the receipt.
  - c) It is a good idea to keep your ATM receipts as a record of your transactions and to avoid someone using the information to commit fraud.

## Tips for protecting your personal information...

- report lost/stolen cards IMMEDIATELY.
- DO NOT keep your social insurance number (SIN) in your wallet.
- NEVER give your personal information to someone you don't know.
- check your credit card/bank statements when you get them
- memorize and cover up your pin number.
- choose a pin/password wisely (no family names/birthdates/phone #)

## Your time to investigate...



- Bank / Name of the account (your age group)
- Cost (\$) Fee
- How many transactions per month
- Interest rate
- Additional charges
- Withdraw from other banks
- Incentive programs??













# HOMEWORK...

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3.1 Build Your Skills Detailed Solutions.pdf

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