9.1 Savings Alternatives

Link to Prerequisite Skills

In this section, students apply skills related to decimals, percents, and exponents to solve problems involving compound interest. Students should complete all the Prerequisite Skills questions before proceeding with this section.

Warm-Up

1. Write each percent as a decimal.

   a) 6.5%   **c)** 0.78%

   b) 15.1%   **d)** 1.09%

2. Find each quotient.

   a) $\dfrac{0.068}{4}$ **c)** $\dfrac{0.009}{2}$

   b) $\dfrac{0.42}{12}$ **d)** $\dfrac{0.048}{4}$

Warm-Up Answers

1. a) 0.065   **b)** 0.151   **c)** 0.0078   **d)** 0.0109

2. a) 0.017   **b)** 0.035   **c)** 0.0045   **d)** 0.012

Teaching Suggestions

Warm-Up

• Write the Warm-Up questions on the board or on an overhead. Have students complete the questions independently. Then, discuss the solutions as a class.

Section Opener

• Read the opening paragraph aloud. Discuss with students the advantages of setting financial goals early.

Investigate

• You may wish to have students work with a partner to complete the Investigate.
• Ask pairs of students to share their results with the class.

Investigate Answers (page 462)

Answers may vary. Sample answers:

1.

Financial Institution	Name of Savings Account	Interest Rate the Account Pays	Interest Earned in One Month on $1000
Royal Bank	High Interest eSavings™	3.25%	$2.67
Bank of Montreal	Premium Rate Savings	2.60%	$2.14
TD Canada Trust	Companion Savings	0.50%	$0.41

2.

Financial Institution	Name of Savings Account	Fees for Routine Transactions	Fees for Making 10 Regular Transactions During One Month
Royal Bank	High Interest eSavings™	– one free transaction per month; $1.00 for each additional transaction	$9.00
Bank of Montreal	Premium Rate Savings	– 10 transactions per month for $4.00 account fee; $1.25 for each additional debit – $0.60 for each additional transaction	$4.00
TD Canada Trust	Companion Savings	– two free transactions per month; $1.25 for each additional transaction	$10.00

3. I prefer the Premium Rate Savings account with Practical Plan from the Bank of Montreal (BMO). While the Royal Bank savings account earns slightly more interest, the transaction fees for 10 transactions in a month are more than double the fees for BMO.

Examples
- Work through the Examples as a class. Alternatively, have students complete the Examples independently or in small groups before reviewing them as a class.
- For Example 1, encourage students to work through both the compound interest formula and the TVM Solver methods shown.
- For Example 1, Method 2, you may wish to have students set their graphing calculators to display answers to two decimal places. Press [MODE] [∨] [>] [>] [>] to highlight 2. Press [ENTER].

Key Concepts
- Point out to students that when you deposit money in a bank account, you are essentially loaning the bank your money. The interest paid on the account is "payment" for the loan.
- Engage students in a discussion about service charges at banks and other financial institutions.

Discuss the Concepts
- Sometimes the services charges exceed the interest earned. This is especially true for people who use ABMs at other financial institutions where there is often more than one service charge levied per transaction.

Discuss the Concepts Suggested Answers (page 462)

D1. Many bank accounts pay a very low rate of interest. Unless the balance in an account is high and/or very few transactions are made, the services charges may be greater than the interest payments. For example, in the Investigate, $1000 in the Premium Rate Savings Account with the Practical Plan earns $2.14 in interest. The monthly service charge on this account is $4.00. The net loss for a given month is $1.86.

D2. One way to minimize service charges is to reduce the number of transactions. For example, you can make one cash withdrawal each week or month and pay cash for goods and services. Also, you can research different bank accounts and choose an account with a fee structure that matches your transaction pattern.

Practise (A)
- Encourage students to refer to the Examples before asking for assistance.
- Answers to **questions 1 and 2** should be the same. In some cases, the answers may be slightly different because of rounding.
- It may be necessary to review the number of days in each month.

Apply (B)
- **Questions 7 to 9** lend themselves to a discussion about banking and decision-making, and how customers are ultimately responsible for making decisions that are in their best interests.
- **Question 10** links to the Chapter Problem. Remind students to keep the solution to this question handy as the methods they used may help them with the Chapter Problem Wrap-Up.

Extend (C)
- Assign the Extend question to students who are not being challenged by the questions in Apply.

Literacy Connections
- Encourage students to make a personal dictionary of financial terms as they work through this chapter.

Mathematical Process Expectations

Process Expectation	Questions
Problem Solving	3, 4, 6, 10
Reasoning and Proving	5–9
Reflecting	5–9
Selecting Tools and Computational Strategies	1–4, 6–10
Connecting	5–8
Representing	9
Communicating	5–9

Ongoing Assessment
- While students are working, circulate and see how well each works. This may be an opportunity to continue observing and recording individual students' learning skills.

Extra Practice
- Use **BLM 9-3 Section 9.1 Savings Alternatives** for extra practice or remediation.