

Chapter 5 Planning Chart

Section Suggested Timing	Teacher's Resource Blackline Masters	Assessment Tools	Materials and Technology Tools
5 Owning a Home (TR page 150) (15–30 min)	Master 4 Hundreds Grids	Diagnostic Assessment (TR page 152)	
5.1 Home Search (TR page 153) (75–150 min)	BLM 5–1 Types of Housing		<ul style="list-style-type: none"> calculator Internet access and/or real estate publications interactive whiteboard (optional)
Tech Tip: Using the TVM Solver to Calculate Mortgage Payments (TR page 158) (30–45 min)	Master 5 TVM Solver Template Tech 5 Using the TVM Solver to Calculate Mortgage Payments Tech 6 Using TI-Nspire™ to Calculate Mortgage Payments BLM 5–2 Practice Using the TVM Solver to Calculate Mortgage Payments	Ongoing Assessment (TR page 159)	<ul style="list-style-type: none"> TVM solver
5.2 Buying a Home (TR page 160) (150–225 min)	BLM 5–3 Kara's Mortgage Payment Schedule BLM 5–4 Amortization Period and Interest Rate	Ongoing Assessment (TR page 164)	<ul style="list-style-type: none"> calculator TVM solver or online mortgage calculator interactive whiteboard (optional) Internet access (optional)
5.3 The Cost of Owning a Home (TR page 166) (75–150 min)		Ongoing Assessment (TR page 169)	<ul style="list-style-type: none"> calculator Internet access
Chapter 5 Review (TR page 170) (75 min)	Master 2 Chapter Summary BLM 5–5 Chapter 5 Word Puzzle		<ul style="list-style-type: none"> calculator TVM solver or online mortgage calculator
Chapter 5 Practice Test (TR page 172) (60–75 min)	Master 2 Chapter Summary	BLM 5–6 Chapter 5 Test	<ul style="list-style-type: none"> calculator TVM solver or online mortgage calculator
Task: Buying Your Dream Home (TR page 174) (150–225 min)	Tech 3 Using a Spreadsheet in Corel Quattro® Pro 12 Tech 5 Using the TVM Solver to Calculate Mortgage Payments Tech 6 Using TI-Nspire™ to Calculate Mortgage Payments BLM 5–7 Chapter 5 Task BLM 5–9 Chapter 5 BLM Answers	BLM 5–8 Chapter 5 Task Rubric	<ul style="list-style-type: none"> calculator Internet access and/or real estate publications computer and spreadsheet software

CHAPTER 5

Owning a Home (page 165)

SUGGESTED TIMING

15–30 min

BLACKLINE MASTER

Master 4 Hundreds Grids

Overall Expectation

B.1 – gather, interpret, and compare information about owning or renting accommodation and about the associated costs

Contributing Expectations

A.1 – collect, organize, represent, and make inferences from data using a variety of tools and strategies, and describe related applications

B.2 – interpret, design, and adjust budgets for individuals and families described in case studies

C.3 – identify and describe situations that involve proportional relationships and the possible consequences of errors in proportional reasoning, and solve problems involving proportional reasoning, arising in applications from work and everyday life

What’s the Math?

The chapter opener is designed to start students thinking about why they might own a home in the future. You might start by brainstorming the advantages of home ownership.

Students may mention that homes are a good investment. Have students share what they know about home values. Ask:

- Do home values always go up? Explain.
- What factors affect the value of a home?

Comparing home values involves subtraction and working with percents to determine increases in value and future value.

Throughout the chapter, students work through the process of buying and owning a home. Students research the cost of housing in their own community and in other communities. They use a TVM solver to calculate mortgage payments for given situations. Students explore costs associated with owning accommodations and factors to consider in determining affordability.

In advance, gather real estate publications and/or familiarize yourself with real estate Web sites, such as MLS listings. Invite students to bring in real estate publications.

Activity Planning Notes

Give students time to study the cartoon and answer the questions before sharing their answers in an open class discussion. Invite students who are familiar with or who live in owned accommodations to share what they know.

For question 3b), some students may struggle with the calculations. Ask: By how many times did the value increase? Have students estimate the answer.

- Round 47 to 50.
- Round 280 to 275 or 300.
- Compare 50 to 300 (or 5 to 30).

Students should determine that the house increased in value by about 6 times. Some students may have difficulty converting this to a percent. Discuss that, if something has doubled in value, we say that it has increased in value by 100%. So increasing in value by about six times would be an increase of about 600%. You may wish to use **Master 4 Hundreds Grids** to help students visualize this. One full grid is 100%. If the price increased by 6 times, that would be equivalent to six full grids.

Using this estimate for question 4, students should estimate that the house worth \$215 000 today would be worth about \$1.2 million in 20 years, if the growth rate stays the same.

You might discuss the assumption that the growth rate stays the same over time. Students may mention that depending on factors such as the economy, the house could be worth significantly more or less than \$1.2 million over time.

You might compare the increase in house prices in the cartoon with the increase in average incomes over 20 years. As a class, walk through the comparison using data from Statistics Canada to compare total income (in constant dollars) for families (2 people or more) over time. For instance, the data in the related Technology Link indicates that the average total income for families was \$72 800 in 1988 compared to \$86 300 in 2007 (or choose the latest year for which statistics are available). Have students read and interpret the data. Ask:

- What was the average total income for families (2 people or more) in 1988? in 2008?
- By approximately how much has the average total income increased over 20 years?
- By what percent has the average total income increased?

Similarly, assuming that the two houses in the cartoon are fairly comparable, ask:

- How much did the parents' house cost 20 years ago? How much did the young couple's house cost?
- By approximately how much have house prices increased?
- By what percent have house prices increased?
- How does the increase in average total income compare to the increase in house prices?
- What conclusion might you draw from this comparison?

Speed Bump

- Some students may struggle with the calculations for questions 3b) and 4.

R_x Use the opportunity to re-teach the concepts and the process for solving.

Accommodations

- Use **Master 4 Hundreds Grids** to help students visualize 100%, 200%, etc., up to 600%. When discussing the answer to question 3b), you may wish to have them shade in 596% on this master.

Technology Link



For information about average total income from Statistics Canada, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

Literacy Link

Provide students with opportunities to talk and listen as they discuss the cartoon and the related questions. Invite students to share related personal experiences.

Note students' knowledge of terminology related to real estate and home ownership. Encourage students to note any unfamiliar terms. Post these terms and their meanings on a word wall.

Diagnostic Assessment

The discussion with the class should give you a sense of students' general understanding of real estate, mortgages, and home ownership. Many students may not have a thorough understanding of these topics. Some things to consider include the following:

- How comfortable are students with the topic of real estate and home ownership?
- Do they share related personal experiences?
- Are their comments reasonable?
- What is the level of their ability to estimate or calculate percents?

Use your assessment of students' awareness of these concepts to help you estimate the timing of the lessons that will follow and the amount of assistance students will need. If students seem to have little experience, you may wish to walk them through many of the activities as a class.

Answers (page 165)

1. No. Her parents bought their house for \$47 000.

2. \$280 000

3. a) \$233 000

b) 496%

4. about \$1 281 400

5.1 Home Search (page 166)

SUGGESTED TIMING

75–150 min

MATERIALS

- calculator
- Internet access and/or real estate publications
- interactive whiteboard (optional)

BLACKLINE MASTER

BLM 5–1 Types of Housing

Specific Expectations

A.1.3 – collect categorical data from primary sources, through experimentation involving observation or measurement, or from secondary sources, and organize and store the data using a variety of tools

B.1.3 – gather and compare, through investigation, information about purchase prices of different types of owned accommodation in the local community

Cumulative Review

1. State an event with a probability of 0.
2. How many metres are in one kilometre?
3. Explain the difference between the variables PV and FV in a TVM solver.
4. What is 10% of \$100 000?

Answers to Cumulative Review

1. Answers will vary. Example: Suppose you roll a regular die. There is 0 probability of rolling a 9.
2. 1000
3. PV is Present Value, which is the value of something today. FV is Future Value, which is the value of something at some time in the future.
4. \$10 000

What's the Math?

Students brainstorm types of housing available in their community and research listings for properties in their community and other communities. Students research terms used in real estate and interpret the abbreviations in real estate advertisements. Students select a home that they would like to buy that they will use later in the chapter. The Tech Tip that immediately follows this chapter gives students the opportunity to use the TVM solver to calculate mortgage payments.

Throughout these questions, students practise using vocabulary related to real estate.

Warm Up Notes

The Warm Up gives students an opportunity to practise basic mathematics skills. The Warm Up for each section reviews skills that students need to use during that section or that they need to recall from the current chapter. Allow students about 5 to 10 minutes to answer the questions and 10 to 15 minutes to discuss the answers.

Accommodations

- Students who have difficulty with the Warm Up questions may benefit from additional reinforcement.

When discussing the answers, emphasize the mathematical processes at work as well as obtaining the correct answers. Encourage students to share their personal strategies. Wherever appropriate, have students consider multiple representations and multiple strategies for working through questions.

In question 1, some students may not realize that “K” is an abbreviation for “thousand.” Encourage them to use this abbreviation in questions 2 and 6.

For question 4b), students might multiply $10 \times 12 = 120$ or double the answer to part a). Discuss different strategies for getting the answer to #4c).

For question 5, have students estimate and then calculate the net income for a four-pay month and a five-pay month.

For question 6, students might use mental math to determine 10% of \$100 000 and then divide the value by 2.

This exercise will also provide you with a sense of how comfortable students are working with the specific mathematics skills, and provides an opportunity for diagnostic and ongoing assessment of basic skills.

Answers to Warm Up (page 166)

1. \$189 000

2. a) \$180 000
b) \$180K

3. a) 52
b) 104
c) 260

4. a) 60

b) 120
c) 240

5. \$2880 or \$3600

6. \$5000

Accommodations

- Some students may benefit from working in pairs or small groups.
- Students can work together to collect the data for question 5.
- Allow students to research only 2 communities for question 5.
- Make an Ontario map available for students who may not know the location of different towns and cities.

Activity Planning Notes

In advance, check out any Web sites that you intend students to access. If computer availability is an issue, have students use real estate publications that you have collected in advance.

As a class, discuss the theme of buying a home.

For question 1, discuss the types of housing (e.g., single family homes, townhouses, condominiums) available locally. You may wish to use **BLM 5–1 Types of Housing** to help you record the students’ brainstorm for this question. Consider displaying a picture of each type of housing. Ask what type of house seems typical in your students’ neighbourhood.

Use the following questions to prompt discussion before or after students complete question 2.

- How does the neighbourhood affect the price of a home?

- What features do people look for in a neighbourhood when buying a home?
- What factors other than the condition of the property might affect the price of a home?

For question 3, discuss the meaning of the term *real estate*. Ensure that students understand that real estate refers to land and the buildings on the land. After taking up the answers, consider having students share their abbreviations, create a class poster, and display it on a classroom wall for reference.

For question 4, you might have several examples of real estate advertisements from local publications available for reference.

For questions 3 and 5, students need access to real estate Web sites or real estate publications to research abbreviations used in real estate advertisements and listings for housing. Refer to the related Technology Link for MLS listings. Walk through how to navigate on the MLS site before having students do so. For a general search, input information for province, city, and price range. Students can decide whether or not to specify preferences for the remaining parameters on the Web site.

There are a number of ways to approach question 5. Students might explore their own community and nearby communities. Or, they might explore different types of communities. For example, students living in a small town might research what is available in the same price range in a city, such as Toronto. Or, students living in a large urban centre might research what is available for the same price range in a smaller urban centre or rural community.

You might discuss what features to look for in listings. For example, students could note the type of housing, number of bedrooms, number of bathrooms, and size of home.

Take time to discuss students' findings. Students should be able to generalize the differences between the homes available in the lower and higher price ranges. As price increases, the homes are more likely to be single-family dwellings with more bedrooms, more bathrooms, and greater square footage. More expensive homes also tend to be in better repair and have better cared-for lots.

If students are using the Internet for question 5, consider using an interactive whiteboard and walking through a property search. Show how to set the parameters for province, city, price range, and type of housing. Students may wish to set more restrictive parameters, such as number of storeys, number of bedrooms, and number of bathrooms, and then use the same parameters for each price range.

Conclude the section by having students complete the Check Your Understanding. Before they select their home, have students consider the criteria for their home based on their current needs. They might refer to the checklist for choosing a place to live that they completed in Chapter 3 on page 87.

Speed Bump

- For question 3, many students may be overwhelmed by all of the abbreviations related to real estate.

R Encourage students to create a list of abbreviations and their meanings. For example:

Term	Meaning
A/C	air conditioning
B/I	built-in
Bsmt	basement
Excl	excluded
Lvl	level
Mbr	master bedroom

Technology Link



For information about real estate abbreviations, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

For the Multiple Listing Service, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

Literacy Link

In the Warm Up, students may be interested to know that the use of “K” as a short form for “thousand” comes from the Système International (metric system), where “kilogram” is the term for 1000 grams.

Real estate has its own vocabulary. For question 1, have students collect a picture of each type of housing, label it, and record their own definition. You might post the pictures, the definitions, and their meanings on a word wall. The following chart provides a start.

Term	Meaning
detached house	<ul style="list-style-type: none">• a single house that stands alone
semi-detached house	<ul style="list-style-type: none">• a house that shares one wall with another house• includes townhouses and duplexes
condominium	<ul style="list-style-type: none">• one unit in a housing complex• can be either one-storey or multi-storey• short form is “condo”• owners share the ownership of the complex, owning everything inside the walls of their unit• owners pay a monthly fee to maintain the areas they share

For question 3, explain that *storey* is spelled with an “e” in Canada. Explain the difference between, for example, a 4-bedroom house and a 3+1-bedroom house. The “+1” means that a bedroom was added. It is often located in the basement.

Scanning is an important literacy skill. For question 5, work with students who are having difficulty scanning real estate ads. Encourage them to select one price category and then highlight several homes that meet the price criteria. Have them scan the features of each listing, choose one listing, and record its main features.

Answers to Activity Questions (pages 166–169)

- Answers will vary. Encourage students to discuss types of housing available in the community or surrounding communities. Possible responses include townhouses, condominiums, single-family homes, duplexes, and trailers.
- Answers will vary. Example:
 - neighbourhoods close to family and friends and services such as shopping malls and public transit
 - neighbourhoods out of my price range or those with no public transit
- Answers are in italics. Answers may vary for the final three abbreviations.

Abbreviation	Meaning
C/A	<i>central air conditioning</i>
Cvac	<i>central vacuum</i>
Sqft	<i>square feet</i>
4BR	<i>4 bedrooms</i>
3+1BR	<i>3 bedrooms plus 1 more in the basement or on the main floor</i>
4-pc bath	<i>bathroom with toilet, sink, shower, and bathtub</i>
W/I	<i>walk-in closet</i>
B/I d/w	<i>built-in dishwasher</i>

- Answers will vary. Example:
 - Great north end neighbourhood
 - 2+2BR
 - lot 10 260 Sqft
 - paved driveway
 - \$229K
 - $1\frac{1}{2}$ storey
 - 2 bath (2 pc and 4 pc)
 - C/A
 - new roof

5. Answers will vary. An example is provided in italics.

Price	Oshawa	Bowmanville	Courtice
Less than \$100K	<i>co-op home, 2 BR, 1 bath (3 pc), 1500 Sqft</i>	<i>condo, 2 BR, 1 bath (4 pc), 780 Sqft unit</i>	<i>single-family home, 3 BR, 1 bath (3 pc), 1000 Sqft</i>
\$100K to \$200K	<i>condo, 2 BR, 1 bath (4 pc), 900 Sqft unit</i>	<i>townhouse, 2 BR, 2 bath (2 pc and 3 pc), 1000 Sqft</i>	<i>townhouse, 2 BR, 1 bath (4 pc), 1000 Sqft</i>
\$200K to \$300K	<i>townhouse, 3 BR, 2 bath (2 pc and 4 pc), 1500 Sqft</i>	<i>single-family home, 3 BR, 2 bath (2 pc and 4 pc), 1800 Sqft</i>	<i>townhouse, 3 BR, 3 bath (2, 3, and 4 pc), 1600 Sqft</i>
\$300K to \$500K	<i>single-family home, 4 BR, 3 bath (2, 3, and 4 pc), 2000 Sqft</i>	<i>single-family home, 4 BR, 2 bath (4 pc and 4 pc), 3000 Sqft</i>	<i>single-family home, 4+1BR, 3 bath (2, 3 and 4 pc), 2000 Sqft</i>
Over \$500K	<i>single-family home, 5 BR, 5 bath, 3000 Sqft</i>	<i>single-family home, 5 BR, 3 bath, 3500 Sqft</i>	<i>single-family home, 4 BR, 4 bath, 3500 Sqft</i>

Answer to Check Your Understanding (page 169)

- Answers will vary. Students should include a copy of the listing for the home.
Example: 3 BR, 3 bath (2, 3, and 4 pc) for \$210K

Challenge!



- Students can research the cost of housing, such as an apartment building, that can be purchased and rented out to others. This connects with what students learn in Chapter 3.
- As an alternative to question 4, students can use the Internet or real estate publications and compare the costs of different types of housing within the same community or compare the costs of one type of housing (e.g., bungalows) in different neighbourhoods.

Tech Tip: Using the TVM Solver to Calculate Mortgage Payments (page 166)

SUGGESTED TIMING

30–45 min

MATERIALS

- TVM solver

BLACKLINE MASTERS

Master 5 TVM Solver Template
Tech 5 Using the TVM Solver to Calculate Mortgage Payments
Tech 6 Using TI-Nspire™ to Calculate Mortgage Payments
BLM 5–2 Practice Using the TVM Solver to Calculate Mortgage Payments

Specific Expectations

- B.1.4** – gather, interpret, and compare information about the different types of ongoing living expenses associated with renting and owning accommodation and related costs
- B.2.5** – identify and describe factors to be considered in determining the affordability of accommodation in the local community

What’s the Math?

Students work through a Tech Tip that involves using the TVM solver to calculate mortgage payments.

Accommodations

- Some students may benefit from working in pairs or in a group of three.

Speed Bump

- For N, students may input 25 (the number of years) rather than 300 (the number of months).
- R_x** Have students highlight that N represents the number of payments.
- Some students may not be comfortable using the TVM solver to calculate mortgage payments.
- R_x** You may wish to provide these students with **Tech 5 Using the TVM Solver to Calculate Mortgage Payments**. Clarify the meaning of each variable. Working with these students may be the best means of teaching how to use the technology. Alternatively, a student who can use a TVM solver with mastery can act as the coach for the novice user.

Activity Planning Notes

Other than ensuring that $C/Y = 2$, students completed this Tech Tip in grade 11 within the context of buying a vehicle and repaying a loan. They should demonstrate some facility in using a TVM solver. Many students will be able to work through the Tech Tip independently. Others will benefit from individual support or from working with a stronger student.

Use the context provided in part a) to clarify the meaning of the following terms:

- down payment (the part of the home price that is not borrowed),
- mortgage (a loan used to buy property),
- 5-year fixed rate (the payments will stay the same for 5 years), and
- amortization period (Kara has 25 years to pay off the loan).

The definitions for these terms are provided in the glossary and on pages 172 and 173.

Use the blanks in the Example to check that students understand how to read what is on the TVM solver screen and how the size of a down payment on a house price affects the amount of the mortgage. Also make sure that they understand how to set the variables in this application.

For question 1, check students’ understanding that the following variables remain set as follows:

- $PMT = 0$,
- $FV = 0$,

- $P/Y = 12$, and
- $C/Y = 2$.

Only the variables for N , $I\%$, and PV change.

Literacy Link

The TVM solver has its own vocabulary. Encourage students to refer to the glossary and their own definitions of the variables.

Reading and interpreting calculator displays is an important skill. Work with students who are having difficulty translating the screen display into dollars and cents.

Accommodations

- Students who have difficulty with the practice questions may benefit from additional reinforcement such as that on **BLM 5–2 Practice Using the TVM Solver to Calculate Mortgage Payments**.
- Some students may benefit from using other software to make these calculations. Consider providing them with **Tech 6 Using TI-Nspire™ to Calculate Mortgage Payments**.
- If you wish to provide additional practice using the TVM solver, you may wish to have students use the forms on **Master 5 TVM Solver Template** to record how they set the variables and what answer they received.

Ongoing Assessment

- Use question 1 to assess students' ability to program the calculator properly.

Answers to Tech Tip: Using the TVM Solver to Calculate Mortgage Payments (pages 170–171)

- a) $12\,750; 255\,000 - 12\,750 = 242\,250; 242\,250$
- b) $N = 300; I\% = 4.69$; Present Value, $PV = 242\,250$; Future Value; number of payments; $PMT = 1366.49$
1. a) $N: 240; I\%: 4.89; PV: 140\,000; PMT: -911.68; FV: 0; P/Y: 12; C/Y: 2$
- b) $N: 300; I\%: 4.25; PV: 368\,000; PMT: -1985.95; FV: 0; P/Y: 12; C/Y: 2$
- c) $N: 300; I\%: 5.49; PV: 195\,500; PMT: -1192.18; FV: 0; P/Y: 12; C/Y: 2$

5.2 Buying a Home (page 172)

SUGGESTED TIMING

150–225 min

MATERIALS

- calculator
- TVM solver or online mortgage calculator
- interactive whiteboard (optional)
- Internet access (optional)

BLACKLINE MASTERS

- BLM 5–3 Kara’s Mortgage Payment Schedule
- BLM 5–4 Amortization Period and Interest Rate

Specific Expectations

- A.1.1** – read and interpret graphs obtained from various sources
- B.1.3** – gather and compare, through investigation, information about purchase prices of different types of owned accommodation in the local community
- B.1.4** – gather, interpret, and compare information about the different types of ongoing living expenses associated with renting and owning accommodation
- B.2.3** – read and interpret prepared individual or family budgets, identify and describe the key components of a budget, and describe how budgets can reflect personal values
- B.2.5** – identify and describe factors to be considered in determining the affordability of accommodation in the local community
- B.2.6** – make adjustments to a budget to accommodate changes in circumstances, with technology

Cumulative Review

1. Calculate the gross income for Simon, who works 30 hours at \$14.50 per hour.
2. Calculate the approximate net income for Simon if his take home pay is about 75% of his gross income.
3. What is the probability of flipping “tails, tails” with 2 coins?
4. What does the abbreviation C/A mean in a real estate advertisement?

Answers to Cumulative Review

1. \$435
2. \$326.25

3. $\frac{1}{4}$ (0.25 or 25%)
4. central air conditioning

What’s the Math?

Students reinforce their understanding of terms related to mortgages. They calculate the down payment necessary to buy a home. Students make percent calculations related to saving and budgeting for buying a home. Students calculate the total amount paid for a home and compare the total interest paid and the original mortgage amount.

Throughout these questions, encourage students to use vocabulary such as *mortgage*, *amortization period*, *fixed rate mortgage*, *variable rate mortgage*, and *down payment* correctly.

Warm Up Notes

When discussing the answers with students, stress the mathematical processes at work as well as obtaining the correct answers. Emphasize using mental mathematics, thinking strategies, and patterning. Encourage students to share their strategies.

Students should be familiar with all of these questions. All but one of the questions involve calculations. Have students assess how their mental math skills are improving.

Answers to Warm Up (page 172)

- | | |
|---|---|
| 1. \$20 000 | 6. a) 52 |
| 2. \$10 000 | b) 12 |
| 3. Example: Bungalows do not have an upper floor.
They have a main floor and a basement. | c) 26 |
| 4. about \$10 000 | 7. a) \$1200 |
| 5. a) 24 | b) \$2400 |
| b) 36 | 8. Answers will vary. Example: $18 + 25 = 43$ |
| c) 60 | |

Accommodations

- Students who have difficulty with the Warm Up questions may benefit from additional reinforcement.

Activity Planning Notes

As a class, read and discuss the bullets on pages 172 and 173 that lead in to question 1. You may decide to work through questions 1 to 3 as a class.

For questions 1 and 2, it may be useful to provide some examples of mortgage rates and payments and use the data to prompt a class discussion about the advantages and disadvantages of fixed rate and variable rate mortgages.

Students might prefer using an online mortgage calculator for answering question 1d). Using an interactive whiteboard, you might show students several online calculators. Almost every bank has an online mortgage calculator. (See the Technology Link.) Since all Canadian mortgages have interest compounded semi-annually, make sure that students use an online calculator from a Canadian source.

If students plan to use an online mortgage calculator, model how to use the calculator. For example, for a \$100 000 mortgage, input the amount, customize the mortgage term and rate, input the amortization period and payment schedule, and then click on Calculate.

For question 3, ask students why they think a down payment is necessary to obtain a mortgage. You might explain that you can buy a home for as little as a 5% down payment if you buy mortgage loan insurance. Mortgage loan insurance

Accommodations

- Read and explain the instructions aloud to the class, if necessary.
- Break the section down into chunks. Assign only a question or two at a time. Stop and take up material in chunks to ensure that students grasp the concepts before moving on.
- Make highlighters available. Encourage students to highlight the key bits of information.

Technology Link



For a glossary of terms related to mortgages, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

For an online mortgage calculator, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

Speed Bump

- Many of the questions are multi-step and require using an answer from a preceding part of the question.

R_x Ensure that students are clear about the meaning of each question. Guide students by walking through each step of the process. Take up the questions part by part and show how each part links logically to the next one.

Technology Link



For information about the affordability rules published by the Canada Mortgage and Housing Corporation, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

Technology Link



For information about mortgage interest rates, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

Speed Bump

- Some Web sites use the terms *closed term* and *open term*.

R_x Explain that *closed term* refers to a fixed rate mortgage and *open term* refers to a variable rate mortgage.

protects the lender. If the borrower fails to pay on the mortgage, the insurer pays back the lender. The borrower pays for the insurance in a lump sum or it can be added to the monthly mortgage payments. Many Canadian institutions require this insurance if the down payment is less than 20%.

Discuss the financial and non-financial factors related to owning a home. Students may mention having to be responsible for payments, repairs, and maintenance.

Question 4 requires students to make calculations. Depending on the skill level of your students, you may decide to work through question 4 as a class. You might then assign questions 5 and 6 for students to work through independently. If so, take up these questions before moving on.

Read and discuss the bullets about affordability for questions 7 and 8 as a class. You may need to work through the answers to the questions as a class as well.

The mathematics required for questions 9 and 10 should be more familiar to students. Note that this set of calculations is similar to those students did in grade 11 with respect to buying a car. Reinforce that borrowing money for a home is similar to borrowing money for a car, in the sense that the lender owns the property until it is paid for, and has the legal right to seize the property if the buyer defaults on the payments.

For question 9, you might use **BLM 5–3 Kara’s Mortgage Payment Schedule** to help students discuss the cost of a mortgage. Have students read and interpret the graph that is a visual representation of the interest portion of a mortgage. This activity will lead in to questions 10 and 11.

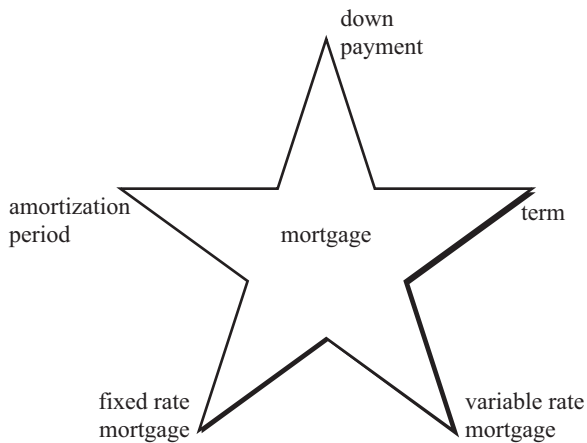
For question 10, depending on students’ comfort level, you might walk students through part a), before assigning parts b) and c). The questions assume that the interest rate stays the same throughout the amortization period. You might ask students how likely it is that this would be the case.

The answer to question 11 may surprise some students. Discuss why the amount of interest paid is so high. See the second bullet in the Challenge! at the end of this section for additional things you may wish to discuss with students about the amortization period.

Conclude the section by having students complete the Check Your Understanding. Note that students need to know the current 5-year fixed mortgage rate. You might research the rate ahead of time. Refer to the related Technology Link.

Literacy Link

Mortgages have their own vocabulary. Encourage students to use the glossary in the student resource and write their own definitions of key terms to reinforce their understanding. You might have students create a starburst poster, similar to the one shown on the next page, and use it to record mortgage terms and their definitions. Post the starburst in the classroom.



Answers to Activity Questions (pages 173–177)

- Answers will vary. Example:
 - fixed rate: You know how much you pay each month.
 - variable rate: You can take advantage of very low rates sometimes.
- The interest rate may increase.
 - Answers may vary. Examples:
 - Research the interest rates over time. Compare these rates to the fixed rate.
 - Find out what experts are predicting about the interest rate.
 - Consider your other expenses and whether you can afford larger mortgage payments if the interest rate goes up.
- Answers will vary. Look for two advantages and two disadvantages. Example:

Advantages of Buying	Disadvantages of Buying
<ol style="list-style-type: none"> You will own the home once the mortgage is paid. You can remodel as you like. 	<ol style="list-style-type: none"> Your living costs may increase. You are responsible for the maintenance and repair of the home.

- \$9750
 - \$185 250
- \$10 500
 - \$4500
 - about 24 months
- \$6075
 - \$1624
 - about 25 months
 - about 17 months

- \$1016
 - Yes. Their monthly housing costs are \$975, or about 31% of their gross monthly income.
- \$1270
 - No. Their monthly debt repayment is \$1350, or about 42.5% of their gross monthly income.
 - Pay off the car or the credit card before buying a home.
- \$1366.49
 - 300
 - $\$1366.49 \times 300 = \$409\,947$
 - \$422 697
 - Look for two options. Example:
 - Kara could pay extra money on her mortgage if the lender allows her to do so.
 - Kara could raise a larger down payment.
 - If Kara pays extra money on the mortgage, she will pay the mortgage off sooner and therefore save on interest. If she raises a larger down payment, she will have a smaller mortgage to repay. This will cost her less interest.

10. Answers are in italics.

Fixed Rate Mortgage Amount	Monthly Payment	Number of Payments	Total Amount Repaid	Total Interest Paid
a) \$140 000	<i>\$911.68</i>	240	<i>\$218 803.20</i>	<i>\$78 803.20</i>
b) \$368 000	<i>\$1985.95</i>	300	<i>\$595 785.00</i>	<i>\$227 785.00</i>
c) \$195 000	<i>\$1189.13</i>	300	<i>\$356 739.00</i>	<i>\$161 739.00</i>

11. Answers may vary. Example: The total interest paid to borrow \$140 000 represents about 56% of that amount. The total interest paid to borrow \$368 000 represents about 62% of that amount. The total interest paid to borrow \$195 000 represents about 83% of that amount.

Answers to Check Your Understanding (page 177)

1. Answers will vary depending on the home that students selected. Example: \$210 000
- a) \$10 500
 - b) \$199 500

- c) Rate will vary. Example: 3.99%
- d) N: 300; I%: 3.99; PV: 199 500; PMT: -1048.33; FV: 0; P/Y: 12; C/Y: 2
- e) \$324 999 (including the down payment)

Ongoing Assessment

- The Check Your Understanding can be used as an opportunity to assess students' ability to make the calculations necessary for this section. Also look for reasonableness of answers.



Challenge!

- Students can work in a small group and brainstorm what can go wrong in buying a home (sewer or flood damage, mould damage, faulty construction). Encourage students to share their personal experiences about what may have gone wrong around their own homes or apartments. Ask them how some of these problems might be avoided. They may mention hiring a home inspector and reading the inspection report carefully before making a decision to purchase a home.
- Students can research some of the other costs involved in the purchase of a home. These include:
 - Mortgage loan insurance: This insurance premium is a percent of the mortgage and is based on the size of the down payment.
 - Appraisal fee: An appraisal is an estimate of the value of the home. The cost is usually between \$250 and \$350.
 - Home inspection fee: A home inspection is a report on the condition of the home and generally costs about \$500.
 - Land transfer tax: This tax is a percent of the home purchase price.
 - Prepaid property taxes: These taxes are based on the value of the home and are paid to the municipality. The buyer repays the seller for any prepaid property taxes.
 - Property insurance: The insurance covers the cost of replacing the home and its contents.
 - Legal fees: These fees cost a minimum of \$500.
 - Moving expenses
- Students can decide what kind of housing is most appropriate for different situations. Have students refer to the checklist in Chapter 3 on page 87 to help them list criteria for the following situations:
 - a single person working full time
 - a family of five with two vehicles
 - a mom and two children who use public transportationHave students make a recommendation for each type of buyer.
- Have students consider the impact of the amortization period and the interest rate on the total cost of a mortgage. Provide them with **BLM 5–4 Amortization Period and Interest Rate** and then discuss the answers as a class. For question 1 on this Blackline Master, students should realize that the longer the amortization period, the more interest paid. On a fairly large

mortgage, a significant amount of money can be saved if the mortgage can be reduced to a minimum number of years. Ask:

- What do you need to consider when you are deciding on the amortization period? (Consider your monthly budget and decide how much you can realistically set aside for mortgage payments, including interest. Then, use this information to decide on the amortization period.)
- What do you need to consider when shopping for the best interest rate?
- Have students use the tool described in the related Technology Link to input different loan amounts and determine the impact of the amortization period on the monthly payment and the total cost of the loan.



Technology Link

For a tool that illustrates the impact of the amortization period on the total cost of a mortgage, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

5.3 The Cost of Owning a Home

(page 178)

SUGGESTED TIMING

75–150 min

MATERIALS

- calculator
- Internet access

Specific Expectations

- A.1.8** – gather, interpret, and describe information about applications of data management in the workplace and in everyday life
- B.1.1** – identify the financial implications and the non-financial implications associated with living independently
- B.1.4** – gather, interpret, and compare information about the different types of ongoing living expenses associated with renting and owning accommodation and related costs
- B.2.2** – categorize personal non-discretionary expenses as fixed (e.g., rent, cable, car insurance) or variable (e.g., groceries, clothing, vehicle maintenance)
- B.2.3** – read and interpret prepared individual or family budgets, identify and describe the key components of a budget, and describe how budgets can reflect personal values
- C.3.3** – identify and describe real-world applications of proportional reasoning, distinguish between a situation involving a proportional relationship and a situation involving a non-proportional relationship in a personal and/or workplace context, and explain their reasoning
- C.3.5** – solve problems involving proportional reasoning in everyday life

Cumulative Review

1. What form contains an employee's annual earnings and deductions?
2. How many pays a year does an employee who is paid semi-monthly receive?
3. State one fixed expense and one variable expense associated with renting an apartment.
4. Estimate and calculate the annual cost of having a monthly car insurance payment of \$92.

Answers to Cumulative Review

1. T4
2. 24
3. Answers will vary. Example: fixed expense: rent; variable expense: groceries
4. about \$1000, \$1104

What's the Math?

Students continue to learn about the costs associated with owning a home. The math involved is similar to the math done earlier in the course. The concepts of budgeting, averaging, and making regular payments are reintroduced. Students research the cost of replacing household items that have worn out or been damaged.

Warm Up Notes

When discussing the answers with students, stress the mathematical processes at work as well as obtaining the correct answers. Emphasize using mental

mathematics and thinking strategies as opposed to simply determining the answers using a calculator. Encourage students to share their strategies.

Students should be able to do these questions quite quickly. Have students explain the reasoning for their answers. For example, the key word in question 3 is *usually*. The obvious answer is 26. Other answers could be 24 or 25 if students consider vacation time.

For question 6, some students may need to recall that the average is the sum of the values divided by the number of values.

Answers to Warm Up (page 178)

1. \$12 000

2. *Bi-monthly* means every two months. *Semi-monthly* means two times per month.

3. 26

4. 4

5. 2

6. 130

Activity Planning Notes

You may wish to start collecting advertisements and flyers for the appliances for question 5 as you begin the section.

As a class, read and discuss the bullets about regular and unexpected expenses. For question 1, have students brainstorm costs involved in home ownership before sharing their answers in a class discussion.

Question 2 requires students to talk to a homeowner and generate a list of home expenses. You might assign this activity ahead of time so that students come to class ready to discuss their findings. Alternatively, you may wish to provide your own information, collected from various colleagues, neighbours, or relatives, or made-up information that you believe may be similar to that for some students' homes. Home expenses include painting, roofing, replacing doors and windows, maintaining a pool, renovating a bathroom or a kitchen, and landscaping.

Depending on the comfort level of your students, they may complete the remainder of this section independently. As students work, you might circulate and work with students who continue to struggle with the calculations.

Once students have completed question 3, consider discussing what choices Gail will have to make about her lifestyle. For example, what do they estimate she would pay for food in one month? Can she afford a vehicle? If she owns a vehicle, what may she have to do without? (Example: proper food, vacations)

After students have completed question 4, have them consider how much Franca and Derek would have to earn (gross income) in order to afford to live in the

Accommodations

- Students who have difficulty with the Warm Up questions may benefit from additional reinforcement.

Accommodations

- It may be necessary to provide answers to question 2 if it is not possible for students to speak directly to a homeowner. Alternatively, invite a homeowner to talk with students at school.

Speed Bump

- For question 3, students may divide by 4 instead of 3 to determine the average monthly bill.

R_x Prompt students to realize that the water bill is sent quarterly but that each quarter is three months.

place they have. You may wish to do the necessary calculations as a class. Ask students:

- How much of their gross monthly income should Franca and Derek spend on housing? (about 32%) (Have students refer to page 175.)
- If Franca and Derek follow this advice, estimate how much they need to earn each month in order to afford this place. (Their monthly household expenses are about \$2000 per month, therefore, they need to earn about \$6000.)

For question 5, you might have students use flyers to research some items. However, students may prefer to use the Internet to research the items. The Technology Links provided on the McGraw-Hill Ryerson Online Learning Centre have been vetted to make sure that they do not include personal ads. If students use other Web sites, you may wish to check that they confine themselves to the section with appliance advertising. Many online advertising sites also include personal ads.

As a class, discuss strategies that a homeowner could use to deal with unexpected expenses. Refer students to the chapter on budgeting. One strategy is to keep a separate bank account for home repairs. Each pay, the homeowner would deposit a set amount such as \$50 into the account. This would help pay for an unexpected expense such as replacing a furnace.

Conclude the section by having students complete the Check Your Understanding.

Literacy Link

Reinforce the correct use of terminology introduced throughout the chapter. Have students explain the differences between *bi-weekly*, *semi-monthly*, *bi-monthly*, and *semi-annually*.

Encourage students to use the glossary in the student resource and write their own definitions of key terms to reinforce their understanding.

Answers to Activity Questions (pages 179–181)

1. Answers will vary. Possible responses include heat, electricity, water, property tax, Internet, cable, and phone.

2. Answers will vary. Example:

Home Expenses	Annual Cost
Home insurance	\$800
Property taxes	\$2385
Home maintenance	\$1000
Water	\$667
Natural gas	\$1596
Hydro	\$800
Cable	\$496
Internet	\$435
Security system	\$180
Phone	\$312

3. a) \$943
 b) \$135
 c) \$822

4. a) and b) Answers are in italics.

	A	B	C	D	E	F	G	H	I
1		Mortgage	Property Tax	Security	Natural Gas	Electricity	Water	Cable/Internet/Phone	Total Monthly Expense
2	January	1163.57		41.50	234.69			104.99	<i>1544.75</i>
3	February	1163.57	912.32	41.50	264.09	240.00		104.99	<i>2726.47</i>
4	March	1163.57		41.50	222.83		301.46	104.99	<i>1834.35</i>
5	April	1163.57		41.50	217.06	278.89		104.99	<i>1806.01</i>
6	May	1163.57	912.32	41.50	187.37			104.99	<i>2409.75</i>
7	June	1163.57		41.50	187.37	168.09	316.08	104.99	<i>1981.60</i>
8	July	1163.57		41.50	187.37			146.99	<i>1539.43</i>
9	August	1163.57	912.32	41.50		238.36		146.99	<i>2502.74</i>
10	September	1163.57		41.50	390.20		312.42	146.99	<i>2054.68</i>
11	October	1163.57		41.50	164.21	189.12		146.99	<i>1705.39</i>
12	November	1163.57	912.32	41.50	164.21			146.99	<i>2428.59</i>
13	December	1163.57		41.50	164.21	202.39	277.09	146.99	<i>1995.75</i>
14	Total Annual Cost Per Expense	<i>13 962.84</i>	<i>3649.28</i>	<i>498.00</i>	<i>2383.61</i>	<i>1316.85</i>	<i>1207.05</i>	<i>1511.88</i>	<i>24 529.51</i>

- c) February
 d) \$109.74
 e) \$2044.13

5. Answers will vary. Example:

- a) \$101.68
 b) \$1129.89
 c) \$678
 d) \$904
 e) \$225
 f) \$2260.95
 g) toilet: \$452.35
 h) air conditioner: \$2100

Answers to Check Your Understanding (page 181)

1. Answers will vary.

- a) Example: property taxes, repairs and maintenance
 b) Example: repair or replace appliances, maintain the house and property
 c) Example: renovate according to the homeowner's taste and budget; no limits on use of utilities

Challenge!



- For question 4, students can set up the spreadsheet and program the appropriate cells. Then, students can create a spreadsheet for the information given in question 3.
- Students can compare the costs of renting versus owning a home.

Ongoing Assessment

- Check students' ability to participate in discussions and make calculations correctly in the Warm Up and activity.

Chapter 5 Review (page 182)

SUGGESTED TIMING

75 min

MATERIALS

- calculator
- TVM solver or online mortgage calculator

BLACKLINE MASTERS

Master 2 Chapter Summary
BLM 5–5 Chapter 5 Word Puzzle

Accommodations

- Students may benefit from making a chapter summary page that summarizes some of the key ideas/skills from the chapter. **Master 2 Chapter Summary** provides an outline for this work.
- When students have difficulty on a particular review question, use the Review Guide to identify the section they need to review.
- You may wish to provide students with additional reinforcement of the questions in this section before moving on to the Practice Test.
- Some students can skip the Practice Test and move directly to the Chapter Task.

Using the Chapter Review

Have students read through the review before they attempt any of the review questions. Encourage them to highlight key words and key information.

Students should be able to work through the review at their own pace. Suggest to students that they follow the strategy outlined below when completing the chapter review.

1. First, complete any questions that you can do unassisted.
2. Next, do the questions that you understand but may need to refer back to notes or similar questions earlier in the chapter to complete.
3. Ask a classmate for help.
4. Ask the teacher for help.

Some students may need to do the review in chunks. For example, have students do questions 1 and 2, and then take them up. Then, have them do question 3, followed by questions 4 and 5. This process will eliminate the problem of students rushing through and completing many questions incorrectly.

For question 3, you might ask students to determine what percent the amount in part d) represents of the original purchase price of the home.

Re-teach concepts and/or procedures as necessary.

To provide additional reinforcement of the glossary words for this chapter, have students complete **BLM 5–5 Chapter 5 Word Puzzle**.

Review Guide

Question	Section(s)	Refer To
1	5.1	Warm Up (page 166, #2)
2	5.1	Comparing Homes for Sale (pages 167–168, #3–4)
3	5.1	Tech Tip: Using the TVM Solver to Calculate Mortgage Payments (pages 170–171)
	5.2	How Much Can You Afford? (page 176, #10)
4	5.3	What Does It Cost to Own a Home? (page 180, #4)
5	5.3	What Does It Cost to Own a Home? (page 179, #2)

Answers to Chapter 5 Review (pages 182–183)

1. \$600 000

2. four bedrooms and one bedroom in the basement

3. a) N: 300; I%: 5.32; PV: 349 900; PMT: –2099.24;
FV: 0; P/Y: 12; C/Y: 2

b) \$629 772

c) \$279 872

d) \$879 772

4. Answers are in italics.

b) November

c) \$236.61

d) \$992.35

5. Answers will vary. Look for three expenses.

Example:

a) home insurance

b) mortgage payments

c) security system

	A	B	C	D	E	F	G
1		Property Tax	Natural Gas	Electricity	Water	Cable/ Internet/Phone	Total Monthly Expense
2	January		272.89	340.22		146.99	760.10
3	February	1050.00	303.28			146.99	1500.27
4	March		274.09	301.46	189.12	146.99	911.66
5	April		232.13			146.99	379.12
6	May	1050.00	197.30	338.36		146.99	1732.65
7	June		187.37			146.99	334.36
8	July		177.37	368.79	264.21	146.99	957.36
9	August	1050.00	164.21			146.99	1361.20
10	September		217.06	312.42		146.99	676.47
11	October		244.49			132.47	376.96
12	November	1050.00	290.25	416.68	277.09	132.47	2166.49
13	December		278.89	340.22		132.47	751.58
14	Total Annual Cost	<i>4200.00</i>	<i>2839.33</i>	<i>2418.15</i>	<i>730.42</i>	<i>1720.32</i>	<i>11 908.22</i>

Chapter 5 Practice Test (page 184)

SUGGESTED TIMING

60–75 min

MATERIALS

- calculator
- TVM solver or online mortgage calculator

BLACKLINE MASTERS

Master 2 Chapter Summary
BLM 5–6 Chapter 5 Test

Accommodations

- If they have not done so earlier, students may benefit from making a chapter summary page that summarizes the key ideas/skills from the chapter. Use **Master 2 Chapter Summary**.
- Encourage students to highlight key words and key information contained in each question.
- When students have difficulty on a particular review question, use the Study Guide to identify the section they need to review. You may wish to provide them with additional reinforcement of the questions in this section before moving on to the Chapter Task.

Summative Assessment

- Have students complete **BLM 5–6 Chapter 5 Test**. Alternatively, students could be assessed using the Chapter 5 Task.

Using the Chapter Practice Test

As in the chapter review, encourage students to read through the practice test before they attempt any of the questions. Students should be able to work through the test at their own pace. You may wish to suggest that students follow the same strategy as for the chapter review. Remind them that a test is a time to show what they know. That’s why it’s important to do the questions they feel confident of first.

Re-teach concepts and/or procedures as necessary.

Study Guide

Question	Section(s)	Refer To
1	5.1	Comparing Homes for Sale (pages 167–168, #3–4)
2	5.1	Comparing Homes for Sale (pages 168–169, #5)
3	5.1 5.2	Tech Tip: Using the TVM Solver to Calculate Mortgage Payments (pages 170–171) How Much Can You Afford? (page 176, #9–10)
4	5.2	First Time Home Buyer (pages 173–174, #4–6)
5	5.3	What Does It Cost to Own a Home? (page 179, #2)
6	5.3	What Does It Cost to Own a Home? (page 179, #3)
7	5.2	First Time Home Buyer (page 173, #3)

Answers to Chapter 5 Practice Test (pages 184–185)

1. **a)** Sqft: square feet; C/A: central air conditioning;
Condo: condominium; Kit: kitchen
b) A 4BR house has 4 bedrooms. A 3+1BR house has 3 bedrooms plus 1 more in the basement.
2. Answers will vary. Example:
 - a)** townhouses, co-op homes, condominiums
 - b)** townhouses, single-family homes
 - c)** large single-family homes
3. **a)** semi-annually, 2
b) \$1479.64
c) 300
d) $\$1479.64 \times 300 = \$443\,892$
e) \$177 892
4. **a)** \$15 700
b) \$298 300
5. Answers will vary. Possible answers include the following:
 - a)** condo fees: fixed
 - b)** mortgage payments: fixed
 - c)** utilities: variable
 - d)** cable/Internet: variable
 - e)** property tax: fixed
6. **a)** \$1961
b) \$230
c) \$2191
7. Answers may vary. Look for one advantage and one disadvantage. Example:
Advantage: may cost less than renting accommodations
Disadvantage: responsible for maintenance and repair

Task: Buying Your Dream Home

(page 186)

SUGGESTED TIMING

150–225 min

MATERIALS

- calculator
- Internet access and/or real estate publications
- computer and spreadsheet software

BLACKLINE MASTERS

Tech 3 Using a Spreadsheet in Corel Quattro® Pro 12
Tech 5 Using the TVM Solver to Calculate Mortgage Payments
Tech 6 Using TI-Nspire™ to Calculate Mortgage Payments
BLM 5–7 Chapter 5 Task
BLM 5–8 Chapter 5 Task Rubric
BLM 5–9 Chapter 5 BLM Answers

Specific Expectations

- A.1.3** – collect categorical data from primary sources, through experimentation involving observation or measurement, or from secondary sources, and organize and store the data using a variety of tools
- A.1.8** – gather, interpret, and describe information about applications of data management in the workplace and in everyday life
- B.1.1** – identify the financial implications and the non-financial implications associated with living independently
- B.1.3** – gather and compare, through investigation, information about purchase prices of different types of owned accommodation in the local community
- B.1.4** – gather, interpret, and compare information about the different types of ongoing living expenses associated with renting and owning accommodation and related costs
- B.2.2** – categorize personal non-discretionary expenses as fixed (e.g., rent, cable, car insurance) or variable (e.g., groceries, clothing, vehicle maintenance)
- B.2.3** – read and interpret prepared individual or family budgets, identify and describe the key components of a budget, and describe how budgets can reflect personal values
- B.2.4** – design, with technology and without technology, explain, and justify a monthly budget suitable for an individual or family described in a given case study that provides the specifics of the situation
- B.2.5** – identify and describe factors to be considered in determining the affordability of accommodation in the local community
- B.2.6** – make adjustments to a budget to accommodate changes in circumstances, with technology
- C.3.5** – solve problems involving proportional reasoning in everyday life

Activity Planning Notes

The Task page in the student resource provides opening content for a longer Task that is scaffolded on **BLM 5–7 Chapter 5 Task**.

Students need computer access to complete this Task.

Read aloud and discuss page 186 of the student resource. Discuss all questions to ensure that students understand the Task they will receive on the related Blackline Master. Reinforce that students are to make an electronic submission.

It may be beneficial to work as a class through question 1 using hypothetical data before having students research and input their own data.

If students do their search online, have them save a copy of the Web page that describes their dream home.

Hand out **BLM 5–7 Chapter 5 Task**. Take some time to read and discuss the full Task with students. For question 3, clarify the meaning of closed term and open term mortgages as these terms are often used on Web sites instead of fixed rate and variable rate mortgages. Have students save a copy of the Web page showing the fixed rate mortgage they chose. Encourage students to provide reasoning and to show their calculations for their answers. Remind them to refer back to notes or earlier sections for help if they forget how to do something.



Technology Link

For the Multiple Listing Service, go to www.mcgrawhill.ca/books/workplace12 and follow the links. For information about mortgage rates, go to www.mcgrawhill.ca/books/workplace12 and follow the links. Click on different financial institutions for details about each mortgage. For an online mortgage calculator, go to www.mcgrawhill.ca/books/workplace12 and follow the links.

Accommodations

- You may wish to refer students to the Tech Tip on page 64 for Microsoft® Excel or to **Tech 3 Using a Spreadsheet in Corel Quattro® Pro 12**.
- Some students may find it easier to use an online mortgage calculator rather than a TVM solver. Others may benefit from using **Tech 5 Using the TVM Solver to Calculate Mortgage Payments** or **Tech 6 Using TI-Nspire™ to Calculate Mortgage Payments**.
- Some students may need assistance to generate a list of typical expenses along with the corresponding estimated costs.

Summative Assessment

Use **BLM 5–8 Chapter 5 Task Rubric** to assist you in assessing students' work on this Task.

Answers to Task: Buying Your Dream Home (page 186)

1. a)–c) Answers will vary depending on students' choices. Make sure students include a copy of the ad that describes their home.

