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Pre-Calculus 12

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Contents

A Tour of Your Textbook

Unit Opener

Each unit begins with a two-page spread. The first page of the **Unit Opener** introduces what you will learn in the unit. The **Unit Project** is introduced on the second page. Each Unit Project helps you connect the math in the unit to real life using experiences that may interest you.

Project Corner boxes throughout the chapters help you gather information for your project. Some **Project Corner** boxes include questions to help you to begin thinking about and discussing your project.

The **Unit Projects** in Units 1, 3, and 4 provide an opportunity for you to choose a single **Project Wrap-Up** at the end of the unit.

The **Unit Project** in Unit 2 is designed for you to complete in pieces, chapter by chapter, throughout the unit. At the end of the unit, a **Project Wrap-Up** allows you to consolidate your work in a meaningful presentation.

Chapter Opener

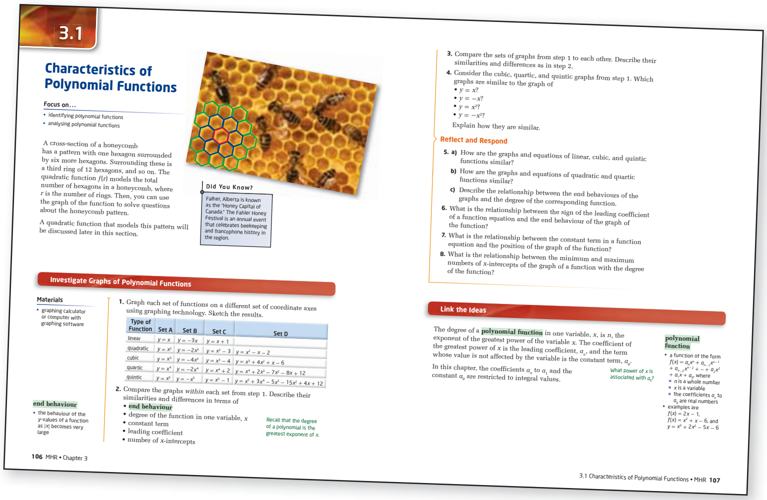
Each chapter begins with a two-page spread that introduces you to what you will learn in the chapter.

The opener includes information about a career that uses the skills covered in the chapter. A Web Link allows you to learn more about this career and how it involves the mathematics you are learning.

Visuals on the chapter opener spread show other ways the skills and concepts from the chapter are used in daily life.

Three-Part Lesson

Each numbered section is organized in a three-part lesson: Investigate, Link the Ideas, and Check Your Understanding.

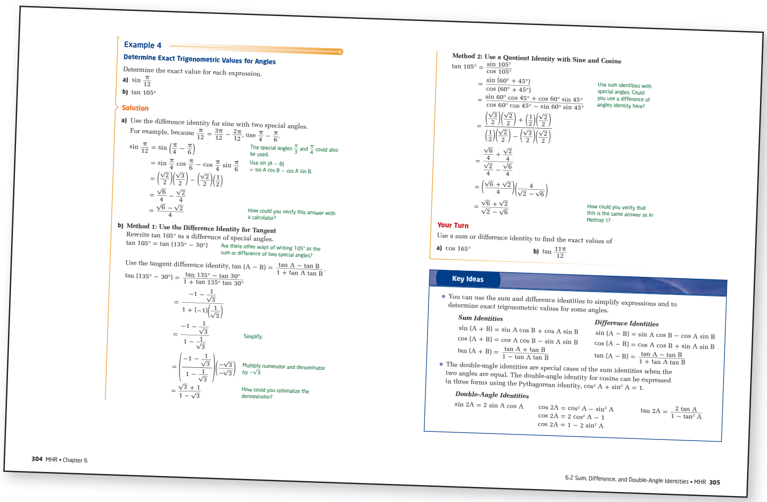


Investigate

- The **Investigate** consists of short steps often accompanied by illustrations. It is designed to help you build your own understanding of the new concept.
- The **Reflect and Respond** questions help you to analyse and communicate what you are learning and draw conclusions.

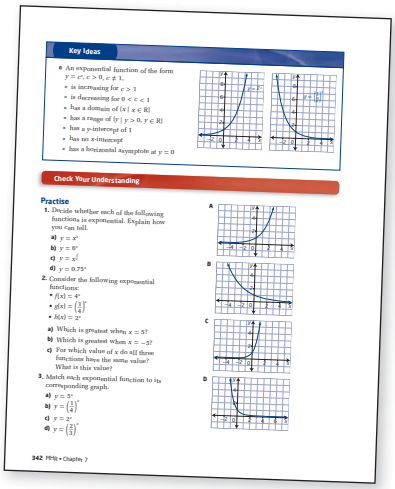
Link the Ideas

- The explanations in this section help you connect the concepts explored in the **Investigate** to the **Examples**.
- The **Examples** and worked **Solutions** show how to use the concepts. The Examples include several tools to help you understand the work.
  - Words in green font help you think through the steps.
  - Different methods of solving the same problem are sometimes shown. One method may make more sense to you than the others. Or, you may develop another method that means more to you.



- Each Example is followed by a **Your Turn**. The Your Turn allows you to explore your understanding of the skills covered in the Example.
- After all the Examples are presented, the **Key Ideas** summarize the main new concepts.

Check Your Understanding



- **Practise:** These questions allow you to check your understanding of the concepts. You can often do the first few questions by checking the Link the Ideas notes or by following one of the worked Examples.
- **Apply:** These questions ask you to apply what you have learned to solve problems. You can choose your own methods of solving a variety of problem types.
- **Extend:** These questions may be more challenging. Many connect to other concepts or lessons. They also allow you to choose your own methods of solving a variety of problem types.
- **Create Connections:** These questions focus your thinking on the Key Ideas and also encourage communication. Many of these questions also connect to other subject areas or other topics within mathematics.
- **Mini-Labs**: These questions provide hands-on activities that encourage you to further explore the concept you are learning.

Other Features

Key Terms are listed on the Chapter Opener pages. You may already know the meaning of some of them. If not, watch for these terms the first time they are used in the chapter. The meaning is given in the margin. Many definitions include visuals that help clarify the term.

Key Terms
logarithmic function
logarithm
common logarithm
logarithmic equation

Some **Did You Know?** boxes provide additional information about the meaning of words that are not Key Terms. Other boxes contain interesting facts related to the math you are learning.

Did You Know?

The SI unit used to measure radioactivity is the becquerel (Bq), which is one particle emitted per second from a radioactive source. Commonly used multiples are kilobecquerel (kBq), for 10^3 Bq, and megabecquerel (MBq), for 10^6 Bq.

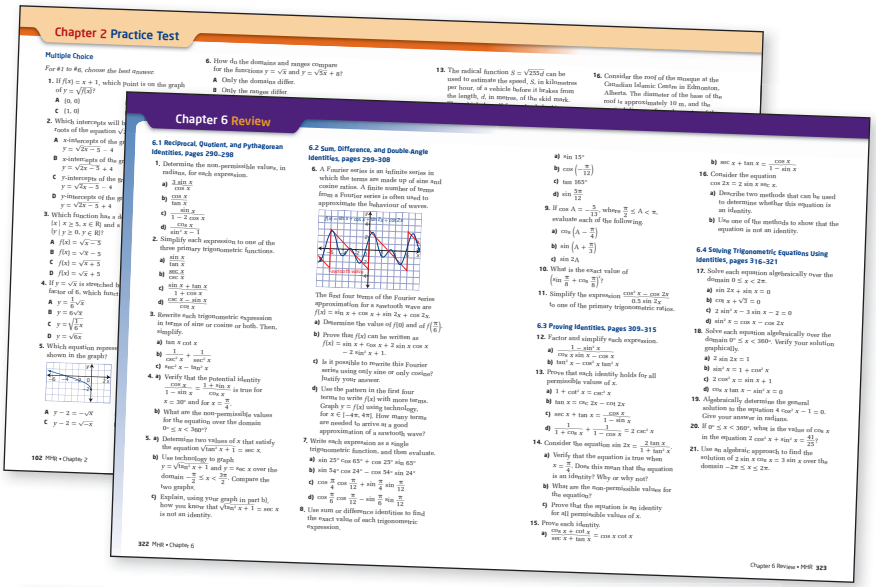
Opportunities are provided to use a variety of **Technology** tools. You can use technology to explore patterns and relationships, test predictions, and solve problems. A technology approach is usually provided as only one of a variety of approaches and tools to be used to help you develop your understanding.

Web Links provide Internet information related to some topics. Log on to www.mcgrawhill.ca/school/learningcentres and you will be able to link to recommended Web sites.

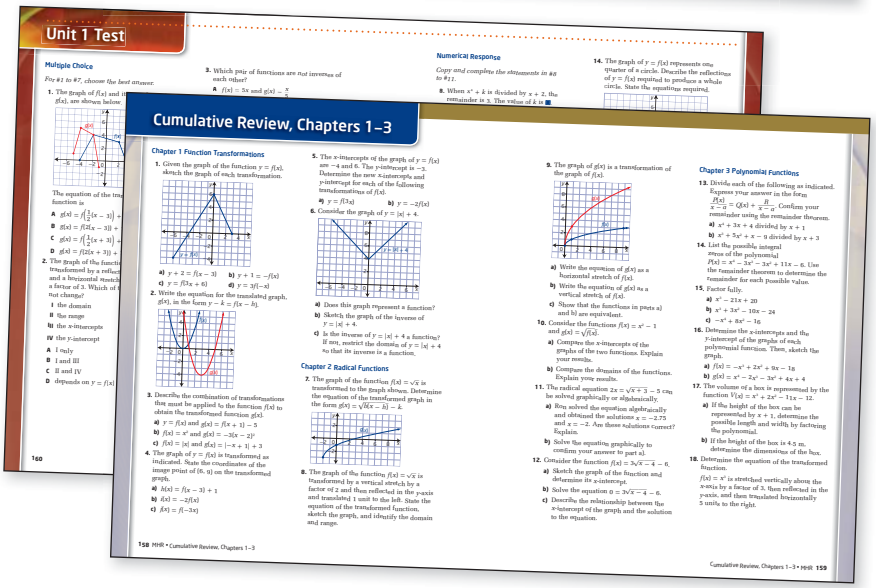
Web Link

To learn more about a career in radiology, go to www.mcgrawhill.ca/school/learningcentres and follow the links.

A **Chapter Review** and a **Practice Test** appear at the end of each chapter. The review is organized by section number so you can look back if you need help with a question. The test includes multiple choice, short answer, and extended response questions.



A **Cumulative Review** and a **Unit Test** appear at the end of each unit. The review is organized by chapter. The test includes multiple choice, numerical response, and written response questions.



Answers are provided for the Practise, Apply, Extend, Create Connections, Chapter Review, Practice Test, Cumulative Review, and Unit Test questions. Sample answers are provided for questions that have a variety of possible answers or that involve communication. If you need help with a question like this, read the sample and then try to give an alternative response.

Refer to the illustrated **Glossary** at the back of the student resource if you need to check the exact meaning of mathematical terms.

If you want to find a particular math topic in *Pre-Calculus 12*, look it up in the **Index**, which is at the back of the student resource. The index provides page references that may help you review that topic.