DOUGLAS COLLEGE

Learning Centre

MATH STUDY SKILLS

This handout suggests strategies you can use to improve your learning and grades in Math courses. It includes strategies for using your Math textbook, taking notes in class and doing homework.

Using Math Textbooks

Math textbooks differ from most other literature in three main ways.

- Math texts present information in a very condensed form.
- Math textbooks use a very accurate technical language.
- Math texts attempt to teach skills as well as to convey information.

As a result, math texts must be approached differently than other texts.

Below are several techniques for using your math textbook effectively:

- ***Preview*** the text before the class. This helps you get ready to listen to the teacher's explanations.
  - *Skim* for **broad ideas** to familiarize yourself with the vocabulary.
  - *Watch* for **italics, colour, boxes**, and other methods that the author uses to catch your attention.
  - Use the **index** when you want to find the meaning of a word that you don't understand.

- Always ***take notes*** as you read. Reading math textbooks requires that you have pencil and paper (and maybe a calculator) to simplify the information by noting down only the key information, definitions, and formulas that you need to memorize. Try to make these notes your own by using your own words, or examples from your own life.

- Spend extra time **reading** and **understanding** diagrams and example problems to have a good idea of the type of problems that you will solve and the basic idea of the approach to solving them

- Most math texts have **chapter tests** at the end of each chapter.

  - Since practice is so important, you should **try** one or more problems from each section and make a note of their differences.
  - **Write** down the steps to solve each problem so you can follow the same steps when you work with similar problems.

Taking Notes in Class

How many notes to take depends on the instructor. Some of the instructors provide detailed notes so that you do not need to write your own notes. However, you still need to underline, highlight and make margin notes to identify the important things to remember.

Note Taking Tips for Math:

- Write down the "title" and the date of the lesson so that your notes can be organized and make sense when you study them later.
- Write down the math problem and each step in the solution.
- Try to make your notes brief so that you can listen to the instructor
- Write down a "question mark" next to anything you miss or don't understand. **Ask** your instructor or your tutor the parts where you have written your "question marks".

Doing the Homework

Since practice is so important to learn math, homework is the first place to apply what you have learned.

The following are useful techniques to help you to do your homework:

- When you get home, before you start your homework, review your notes; next to each step in the example problem write down "in your own words" exactly what that step means.

- Before starting the assignment, read the instruction carefully and circle **key words**. You will not benefit from the practice if you do not follow the instruction.

- Use your book as a reference, while working through the problems (use the index, chapter objectives, highlighted / bold words, and diagrams).

Note: Try to **understand** and not just copy the steps illustrated by the example problems in the textbook.

- Work **neatly** and **accurately** and show the complete steps to solve each question so that you are used to doing your work this way for tests. In addition, you may lose important points for sloppy or incomplete work.

- Remember, doing all homework problems, not just some of them, will help you to understand and deal with different types problems.