

Adult Basic Education  
**Level II Mathematics**

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**Mathematics 2016**  
**Measurement**

**Study Guide**

**Suggested Resource:** *Prism Math Blue Student Workbook (Canadian Edition). McGraw-Hill Ryerson. 2005. ISBN 13: 978-0-07-096033-6 (10:0-07-096033-X).*

**Level II Mathematics Courses**

Mathematics 2011: Whole Numbers

Mathematics 2012: Fractions

Mathematics 2013: Decimals

Mathematics 2014: Percents

Mathematics 2015: Interest

**Mathematics 2016: Measurement**

Mathematics 2017: Geometry

Mathematics 2018: Statistics and Probability

Mathematics 2019: Algebra Readiness I

Mathematics 2020: Algebra Readiness II



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## To the Student

### *Who should do Mathematics 2016: Measurement?*

You should do this course if you need extra practice converting Metric units related to length, capacity and mass.

You do not have to complete all the Level II Mathematics courses to move into ABE Level III. The decision to do all or some of the Level II Mathematics courses will be made based on your instructor's assessment. The following will be taken into consideration in this assessment: your previous education, your CAAT (or another standardized test) result, your work experience, your future employment/post-secondary goals, your progress in Level II courses, or any other factor impacting your future success in Level III. For example, if you wish to pursue the Degree and Technical Profile (Academic) in Level III, you will likely have to complete all Level II Mathematics courses. If you intend to pursue the General College Profile (General) in Level III, you may only have to complete a selection of Level II Mathematics courses.

### *What is the Mathematics 2016 Study Guide?*

The Study Guide describes all the work that is required for the completion of this course. It also contains references and notes to help you.

### *How should I Use the Study Guide?*

Before beginning to do the work in this Study Guide, you will need to talk to your instructor about the course and the resources you will need. You should work through the Study Guide page by page, consulting with your instructor as you go.

### *How is the Study Guide organized?*

The Study Guide is organized in two columns, as follows:

<b>Required Work</b>	<b>Suggested Resources/Notes</b>
This column provides a numbered list of all the work you are required to do for the course.	This column gives important information on the resources being used and some notes to help you complete the required work.

## To the Student

### **Important Notes**

This Study Guide is intended to make it possible for you to work independently in Adult Basic Education. If you use the Study Guide correctly, you may be able to work on your own for certain periods of time. You should always make sure that your instructor is aware of what you are doing. Feel free to ask your instructor for help and guidance at all times.

You should complete all the **Required Work** in this study guide without a calculator. A calculator can be used to check your answers, but it should not be used to simply complete the **Required Work** faster.

## Unit 1: Metric Measurement

<b>Required Work</b>	<b>Suggested Resources/Notes</b>
<p>1. Read Lesson 1 on page 139 of the text, and then complete numbers 1-8 (all items).</p> <p>2. Read Lesson 2 on page 140 of the text, and then complete numbers 1-8 (all items).</p>	<ul style="list-style-type: none"><li>• Think: What is a short-cut for multiplying decimals by powers of 10?</li><li>• Make sure you know the conversion chart at the top of page 139.</li><li>• Think: What are some real-world examples of things measured in mm, cm, m, and km?</li><li>• Ask your instructor for help if you do not fully understand each word problem.</li><li>• It may be helpful to draw a diagram for each word problem before doing calculations.</li><li>• Make sure you fully understand the table at the top of page 140.</li></ul>

## Unit 1: Metric Measurement

<b>Required Work</b>	<b>Suggested Resources/Notes</b>
<p>3. Read Lesson 3 on page 141 of the text, and then complete numbers 1-10 (all items).</p> <p>4. Read Lesson 4 on page 142 of the text, and then complete numbers 1-7 (all items).</p>	<ul style="list-style-type: none"><li>• Recall the short-cut for multiplying by powers of 10 (move the decimal point to the right by the same number of zeros).</li><li>• Make sure you fully understand the table at the top of page 141.</li><li>• Think: What are some real-world examples of things measured in mL and L?</li><li>• Think: What are some real-world examples of things measured in mg, g, and kg?</li></ul>

## Unit 1: Metric Measurement

### Required Work

5. Read Lesson 5 on page 143 of the text, and then complete numbers 1-7 (all items).

6. Continue with Lesson 5 on page 144 of the text by completing numbers 1-8.

7. Assignment #1: Complete the *Chapter 8 Practice Test* on page 145 of the text. This assignment will be graded and is part of the official evaluation for the course. This assignment will also be the review for the final exam.

8. Final Exam: Write the final exam for **Mathematics 2016: Measurement**.

### Suggested Resources/Notes

- Think: How do you convert from a metric tonne to a kilogram?
- You should show all your calculations on the assignment. You may use a calculator to check your answers. Ask your instructor if you need any help with the assignment.
- Your instructor may require you to complete additional work if you do not get a satisfactory grade on Assignment #1.
- Only write the Final Exam if you fully understand the material contained in the review.
- Lessons 1-5 on pages 147-154 of the text contain more practice on measurement.