Adult Basic Education

Level II Mathematics

Mathematics 2014
Percents

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

Newfoundland Labrador

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To the Student

Who should do Mathematics 2014: Percents?

You should do this course if you need extra practice converting percents to fractions and decimals, and doing calculations involving percents. If you completed ABE Level I, this is recommended as your fourth ABE Level II Mathematics course.

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 2014 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:

Required Work	**Suggested Resources/Notes**
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: Decimals, Fractions and Percents

Required Work	Suggested Resources/Notes
1. Read Lesson 1 on page 103 of the text, and then complete numbers 1-14 (all items). 2. Read Lesson 2 on page 104 of the text, and then complete numbers 1-9 (all items). 3. Read Lesson 3 on page 105 of the text, and then complete numbers 1-5 (all items). 4. Read Lesson 4 on page 106 of the text, and then complete numbers 1-8 (all items).	• Think: What are some real-life examples of percents less than 100% and greater than 100%? • Make sure you move the decimal point two places to the right when changing a percent to a decimal. • Make sure you write your percent as a fraction with 100 as the denominator. • You can also use a number line to help compare numbers. Ask your instructor if you are unsure about using a number line to compare numbers.

Unit 1: Decimals, Fractions and Percents

Required Work	Suggested Resources/Notes
5. Read Lesson 5 on page 107 of the text, and then complete numbers 1-12 (all items). 6. Continue with Lesson 5 on page 108 of the text, and then complete numbers 1-12 (all items). 7. Read Lesson 6 on page 109 of the text, and then complete numbers 1-10 (all items). 8. Read Lesson 7 on page 110 of the text, and then complete numbers 1-8 (all items).	• Think: Why do you think some fractions change to a mixed numeral percent? • Think: How can you tell when a percent will convert to a mixed numeral rather than a fraction? • Make sure you put all fractions in simplest form (lowest terms). • Remember: When changing a decimal to a percent, the decimal point always moves two places to the right. • Think: Why does the short-cut method at the top of the page 109 work? • Make sure you insert zeros as needed when changing percents to decimals.

Unit 1: Decimals, Fractions and Percents

Required Work	Suggested Resources/Notes
9. Read Lesson 8 on page 111 of the text, and then complete numbers 1-11 (all items). 10. Assignment #1: Complete all items and word problems on pages 112-114 of the text. This assignment will be graded and is part of the official evaluation for the course. 11. Unit 1 Review: Complete all items on the *Chapter 5 Practice Test* on page 115 of the text. 12. Unit 1 Test: Write the test for **Unit 1 Decimals, Fractions and Percents**. This test will be very similar to the review above.	• Think: Identify the five percents in the lesson that have the greatest value and the five percents that have the least value. • 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 Unit 1 Test if you fully understand the material contained in the review.

Unit 2: Percent Calculations

Required Work	Suggested Resources/Notes
1. Read Lesson 1 on page 117 of the text, and then complete the following: a) Numbers 1-9 (all items) b) Solve each word problem on page 118 of the text. 2. Read Lesson 2 on page 119 of the text, and then complete the following: a) Numbers 1-10 (all items) b) Solve each word problem on page 120 of the text.	• Think: Which percents are easier to change to fractions and which ones are easier to change to decimals? Why? • Make sure to change percents to a fraction or decimal first, and then multiply second. • Ask your instructor for help if you do not fully understand each word problem. • It may be helpful to draw a diagram for each word problem before doing calculations. • An equal sign (=) can be substituted for the word “is” and a multiplication sign (X) for the word “of”.

Unit 2: Percent Calculations

Required Work	Suggested Resources/Notes
3. Read Lesson 3 on page 121 of the text, and then complete the following: a) Numbers 1-10 (all items). b) Solve each word problem on page 122 of the text. 4. Complete all items and word problems in Lesson 4 on pages 123-124 of the text. 5. Assignment #2: Complete all items and word problems on pages 125-126 of the text. This assignment will be graded and is part of the official evaluation for the course. 6. Unit 2 Review: Complete all items on the *Chapter 6 Practice Test* on page 127 of the text. 7. Unit 2 Test: Write the test for **Unit 2 Percent Calculations**. This test will be similar to the review above. You have completed two assignments and two unit tests in **Mathematics 2014: Percents**. Your instructor will advise you if you need to complete a final exam for this course.	• Think: How do you find a number when a percent of it is known? • Think: How do you find a percent of a number? • 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 #2. • Only write Unit 2 Test if you fully understand the material contained in the review.