

Adult Basic Education (ABE)

Level III Mathematics

Mathematics 1101B

Roots and Powers/Relations and Functions

Study Guide

Resource: *Foundations and Pre-calculus Mathematics 10.* Pearson. 2010. ISBN-13-978-0-321-62684-4.

Level III Degree and Technical/Business-Related College Profiles Mathematics Courses (Academic)

Mathematics 1101A: Measurement/Trigonometry/Factors and Products

Mathematics 1101B: Roots and Powers/Relations and Functions

Mathematics 1101C: Linear Functions/Systems of Linear Equations

Mathematics 2101A: Reasoning/Angles and Triangles/Trigonometry

Mathematics 2101B: Radicals/Statistics/Quadratic Functions

Mathematics 2101C: Quadratic Equations/Proportional Reasoning

Mathematics 3101A: Set Theory/Counting Methods/Probability

Mathematics 3101B: Rational Expressions and Equations/Polynomial Functions/Exponential Functions

Mathematics 3101C: Logarithmic Functions/Sinusoidal Functions/Borrowing Money



Contents

General Information	1
Introduction	1
Resources.....	1
Study Guide.....	1
Unit 1: Roots and Powers.....	3
Unit 2: Relations and Functions	4

General Information

Introduction

Mathematics 1101B when completed with **Mathematics 1101A and C** is equivalent to the Newfoundland and Labrador senior high school **Mathematics 1201 (Academic)** course.

Resources

The student resource for this course is: *Foundations and Pre-calculus Mathematics 10. Pearson. 2010. ISBN-13-978-0-321-62684-4*. Your instructor may also supplement with other resources at his/her discretion.

Study Guide

This Study Guide is intended to make it possible for you to work independently in ABE. You may be able to work on your own for certain periods of time. All students doing this course in Newfoundland and Labrador use this Study Guide. Please ensure your instructor is aware of your progress in this Study Guide. Ask your instructor for assistance whenever you feel you need help.

The Study Guide is organized in two columns:

Required Work	Notes
This column provides a list of all the work required to be completed for the course. Your instructor may supplement with additional items or make small changes to the required work as deemed appropriate.	This column provides additional information that will help you complete the required work.

Recommended Evaluation

Written Notes (Including all the Required Work)	10%
Assignments	20%
Tests	20%
Final Exam (entire course)	50%
Total	100%

Instructors have the discretion to make minor changes to this evaluation scheme.

Unit 1: Roots and Powers

Required Work	Notes
1. Read pages 207-210, and then complete 1-24, pages 211-212.	Note the set of Real Numbers, page 209.
2. Read pages 213-217, and then complete 1-25, pages 217-219.	Note the Multiplication Property of Radicals, page 214.
3. Read pages 222-226, and the complete 1-22, pages 227-228.	Note Powers with Rational Expressions, page 225.
4. Read pages 229-232, and then complete 1-21, pages 233-234.	Note Powers with Negative Exponents, page 231.
5. Read pages 237-241, and then complete 1-24, pages 241-243.	
6. Complete the Review, pages 246-247.	
7. Assignment #1: Complete the Practice Test, page 249.	This assignment will be graded and is part of the course evaluation.
8. Test #1: Your instructor will give you Test #1.	

Unit 2: Relations and Functions

Required Work	Notes
1. Read pages 256-261, and then complete 1-14, pages 261-263.	
2. Read pages 264-270, and then complete 1-23, pages 270-273.	Understand domain, range and function.
3. Read pages 276-280, and the complete 1-18, pages 281-283.	
4. Read pages 287-293, and then complete 1-24, pages 293-297.	Understand the Vertical Line Test.
5. Read pages 300-307, and then complete 1-22, pages 307-310.	
6. Read pages 311-318, and then complete 1-20, pages 319-323.	Understand how to find x, y intercepts.
7. Complete the Review, pages 326-328.	Read Skills Summary.
8. Assignment #2: Complete the Practice Test, page 329.	This assignment will be graded and is part of the course evaluation.
9. Test #2: Your instructor will give you Test #2.	
10. Final Exam: Your instructor will give you the Final exam on the entire course.	Your instructor may decide to substitute Test #2 with the Final Exam on the entire course.