Adult Basic Education (ABE)

Level III Mathematics

Mathematics 1101A

Measurement/Trigonometry/Factors and Products

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

Newfoundland Labrador

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General Information

Introduction

Mathematics 1101A when completed with **Mathematics 1101B 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.

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Unit 1: Measurement

Required Work	Notes
1. Read pages 4-10, and then complete 1-22, pages 11-12.	What are some examples of SI and Imperial units?
2. Read pages 16-21, and then complete 1-18, pages 22-23.	Understand all the formulae in this unit.
3. Read pages 26-33, and the complete 1-21, pages 34-35.	Show all calculations and include the units in all steps.
4. Read pages 36-41, and then complete 1-22, pages 41-44.	
5. Read pages 45-50, and then complete 1-24, pages 50-52.	
6. Read pages 55-58, and then complete 1-13, pages 59-61.	
7. Complete the Review, pages 64-66.	
8. **Assignment #1**: Complete the Practice Test, page 67.	This assignment will be graded and is part of the course evaluation.
9. **Test #1**: Your instructor will give you Test #1.	

Unit 2: Trigonometry

Required Work	Notes
1. Read pages 70-74, and then complete 1-23, pages 74-77. 2. Read pages 78-81, and then complete 1-16, pages 81-83. 3. Read pages 89-94, and the complete 1-18, pages 94-96. 4. Read pages 97-100, and then complete 1-14, pages 101-102. 5. Read pages 105-110, and then complete 1-16, pages 110-112. 6. Read pages 113-117, and then complete 1-21, pages 118-121. 7. Complete the Review, pages 124-126. 8. **Assignment #2**: Complete the Practice Test, page 127. 9. **Test #2**: Your instructor will give you Test #2.	TOA: tan = opposite / adjacent Always draw and label a diagram to help understand the problem. SOH: sin = opposite / adjacent CAH: cos = adjacent / hypotenuse **Remember: SOH CAH TOA** Solving a triangle means finding the measures of all the angles and sides. This assignment will be graded and is part of the course evaluation. Show all calculations and include the units in all steps.

Unit 3: Factors and Products

Required Work	Notes
1. Read pages 134-139, and then complete 1-22, pages 139-141.	
2. Read pages 142-146, and then complete 1-18, pages 146-147.	Your instructor will provide you with algebra tiles.
3. Read pages 150-154, and the complete 1-22, pages 154-156.	Factoring and expanding are inverse processes.
4. Read pages 159-165, and then complete 1-23, pages 165-167.	Show all calculations.
5. Read pages 168-176, and then complete 1-23, pages 176-178.	Note the general forms for a perfect square trinomial and difference of squares.
6. Read pages 182-185, and then complete 1-22, pages 185-187.	This assignment will be graded and is part of the course evaluation.
7. Read pages 188-193, and then complete 1-21, pages 194-195.	
8. Complete the Review, pages 198-200.	Your instructor may decide to substitute Test #3 with the Final Exam on the entire course.
9. **Assignment #3**: Complete the Practice Test, page 201.	
10. **Test #3**: Your instructor will give you Test #3.	
11. **Final Exam**: Your instructor will give you the Final Exam on the entire course.	