Adult Basic Education (ABE)

Level III Mathematics

Mathematics 3101A

Set Theory/Counting Methods/Probability

Study Guide

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

Contents

General Information

Introduction

Mathematics 3101A when completed with **Mathematics 3101B and C** is equivalent to the Newfoundland and Labrador senior high school **Mathematics 3201 (Academic**) course. Students must have successfully completed Mathematics 2101C with a minimum of 60% in each course.

Resources

The student resource for this course is*: Principles of Mathematics 12. Nelson. 2012.* 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: Set Theory

Required Work	Notes
1. Read pages 6-14, and then complete 1-19, pages 14-18. 2. Read pages 19-20, and them complete 1-5, pages 20-21. 3. Read pages 22-31, and then complete 1-18, pages 32-35. 4. Complete Mid- Chapter review, pages 36-38. 5. Read pages 39-50, and then complete 1-14, pages 51-54. 6. Complete Chapter Self-Test, page 56. 7. **Assignment #1**: Complete Chapter Review, pages 57-58. 8. **Test #1**: Your instructor will give you Test #1.	This assignment will be graded and is part of the course evaluation.

Unit 2: Counting Methods

Required Work	Notes
1. Read pages 66-72, and then complete 1-17, pages 73-75.	
2. Read pages 76-81, and then complete 1-16, pages 81-83.	
3. Read pages 84-92, and then complete 1-19, pages 93-95.	
4. Complete Mid-Chapter Review, pages 96-97.	
5. Read pages 98-104, and then complete 1-18, pages 104-107.	
6. Read pages 109-110, and then complete 1-4, page 110.	
7. Read pages 111-117, and then complete 1-19, pages 118-120.	
8. Read pages 121-125, and then complete 1-17, pages 126-127.	
9. Complete Chapter Self-Test, page 129.	
10. **Assignment #2**: Complete Chapter Review, pages 130-132.	This assignment will be graded and is part of the course evaluation.
11. **Test #2**: Your instructor will give you Test #2.	

Unit 3: Probability

Required Work	Notes
1. Read pages 140-141, and then complete 1-4, page 141.	
2. Read pages 142-147, and then complete 1-19, pages 148-150.	
3. Read pages 151-159, and then complete 1-18, pages 159-161.	
4. Complete Mid-Chapter Review, pages 163-165.	
5. Read pages 166-175, and then complete 1-18, pages 176-180.	
6. Read pages 182-188, and then complete 1-21, pages 188-191.	
7. Read pages 192-197, and then complete 1-16, pages 198-200.	
8. Complete Chapter Self-Test, page 202.	
9. **Assignment #3**: Complete Chapter Review, pages 203-206.	This assignment will be graded and is part of the course evaluation.

Unit 3: Probability

Required Work	Notes
10. **Test #3**: Your instructor will give you Test #3.	Your instructor may decide to substitute Test #3 with the Final Exam on the entire course.
11. **Final Exam:** Your instructor will give you the Final Exam on the entire course.	