

Adult Basic Education (ABE)

Level III Mathematics

Mathematics 3102A

Measurement and Probability/Data/Linear Relationships

Study Guide

Resource: *Math at Work 12*. McGraw-Hill Ryerson. 2012. ISBN 13:978-125901238-9.

Level III General College Profile Mathematics (General)

Mathematics 1102A: Consumerism and Travel/Measuring Length/Measuring Area

Mathematics 1102B: Getting Paid/Angles

Mathematics 1102C: Pythagorean Relationship/Trigonometry

Mathematics 2102A: Surface Area/Drawing and Design/Volume and Capacity

Mathematics 2102B: Interpreting Graphs/Banking and Budgeting

Mathematics 2102C: Slope/Right Triangles and Trigonometry

Mathematics 3102A: Measurement and Probability/Data/Linear Relationships

Mathematics 3102B: Real-Life Decisions/Properties of Figures

Mathematics 3102C: Transformations/Trigonometry



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General Information

Introduction

Mathematics 3102A when completed with **Mathematics 3102B and C** is equivalent to the Newfoundland and Labrador senior high school **Mathematics 3202 (Applied)** course. Students must have successfully passed **Mathematics 2102B** in order to do this course.

Resources

The student resource for this course is: *Math at Work 12. McGraw-Hill Ryerson. 2012. ISBN 13:978-125901238-9.*

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 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.	Notes This column provides additional information that will help you complete the required work.
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Recommended Evaluation

Written Notes (Including all the Required Work)	10%
Assignments	30%
Tests/Quizzes	60%
Total	100%

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

Unit 1: Measurement and Probability

Required Work	Required Notes
1. Read pages 2-3 and then complete Get Ready, pages 4-5.	
2. Read pages 6- 8, and then complete 1-9, pages 9-10.	Define accuracy and precision.
3. Read pages 11-12, and then complete 1-7, pages 13-14.	Define tolerance.
4. Read page 15, and then complete 1-8, pages 16-17.	
5. Complete 1-10, pages 18-19.	Define probability.
6. Read pages 20-23, and then complete 1-7, pages 24-25.	Define odds and tree diagram.
7. Read page 26, and then complete 1-7, pages 27-28.	
8. Complete 1-8, pages 28-29.	Define theoretical and experimental probability.
9. Read pages 30-32, and then complete 1 -10, pages 33-34.	
10. Read page 35, and then complete 1-9, pages 36-39.	
11. Complete 1-7, pages 39-41.	
12. Read page 44, and then complete 1-10, pages 46-48.	

Unit 1: Measurement and Probability

Required Work	Required Notes
<p>13. Read page 49, and then complete 1-7, pages 50-52.</p> <p>14. Complete 1-6, pages 52-53.</p> <p>15. Complete Skill Check, pages 54-55.</p> <p>16. Assignment #1: Complete Test Yourself, pages 56-57.</p> <p>17. Test #1: Your instructor will give you Test #1.</p>	<p>This assignment will be graded and is part of the course evaluation.</p>

Unit 2: Data

Required Work	Required Notes
1. Read pages 60-61 and then complete Get Ready, pages 62-63.	
2. Read pages 64-67, and then complete 1-6, pages 68-69.	Define median, mode, data set, mean, central tendency and stem-and-leaf plot.
3. Read page 70, and then complete 1-5, pages 71-72.	
4. Read pages 73-75, and then complete 1-5, pages 76-77.	Define weighted mean.
5. Complete 1-7, pages 77-79.	
6. Read pages 80-84, and then complete 1-6, pages 85-86.	Define range and trimmed mean.
7. Read pages 87-89, and then complete 1-7, pages 90-91.	Define percentile and percentile rank.
8. Complete 1-7, pages 92-93.	
9. Read pages 96-97, and then complete 1-6, pages 98-99.	Define scatter plot, trend, independent variable and dependent variable.
10. Complete 1-6, pages 100-101.	
11. Complete Skill Check, pages 102-103.	
12. Assignment #2: Complete 1-8, pages 104-105.	This assignment will be graded and is part of the course evaluation.
13. Test #2: Your instructor will give you Test #2.	

Unit 3: Linear Relationships

Required Work	Required Notes
1. Read pages 108-109 and then complete Get Ready, pages 110-111.	
2. Read pages 112-116, and then complete 1-5, pages 117-119.	Define line of best fit.
3. Read pages 120-122, and then complete 1-6, pages 123-124.	Define linear trend, linear relationship and non-linear relationship.
4. Complete 1-7, pages 125-126.	Define direct variation, initial value and rate of change.
5. Read pages 127-130, and then complete 1-7, pages 131-132.	
6. Read pages 133-134, and then complete 1-6, pages 135-136.	
7. Read pages 137-138, and then complete 1-9, pages 139-140.	
8. Complete 1-8, pages 141-142.	Define partial variation.
9. Read pages 143-146, and then complete 1-7, pages 147-148.	
10. Read pages 149-151, and then complete 1-6, pages 152-153.	
11. Read pages 154-155, and then complete 1-8, pages 156-157.	
12. Complete 1-8, pages 158-159.	

Unit 3: Linear Relationships

Required Work	Required Notes
<p>13. Complete Skill Check, pages 160-161.</p> <p>14. Assignment #3: Complete Test Yourself, pages 162-163.</p> <p>15. Test #3: Your instructor will give you Test #3.</p> <p>16. Final Exam: Your instructor will give you the Final Exam on the entire course.</p>	<p>This assignment will be graded and is part of the course evaluation.</p>