ALBERTA DISTANCE LEARNING CENTRE
Mathematics 10C
MAT1791
Unit 8 Final Review Workbook

Student's Questions and Comments

FOR STUDENT USE ONLY

(if label is missing or incorrect)
Student ID:

_____

Please use the pre-printed label for this course and Workbook

Name

Address

City/Town **Province** **Postal Code**

Apply Workbook Label Here

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Assigned to

_____

Marked by

_____

Date received

_____

Summary

	Marks Earned	Total Possible Marks	Percent
Unit 8 Final Review Assignment		25	

Teacher's Comments:

_____

Teacher's Signature

REVISED February 2019

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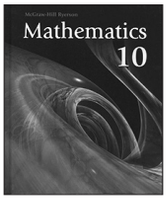

Mathematics 10

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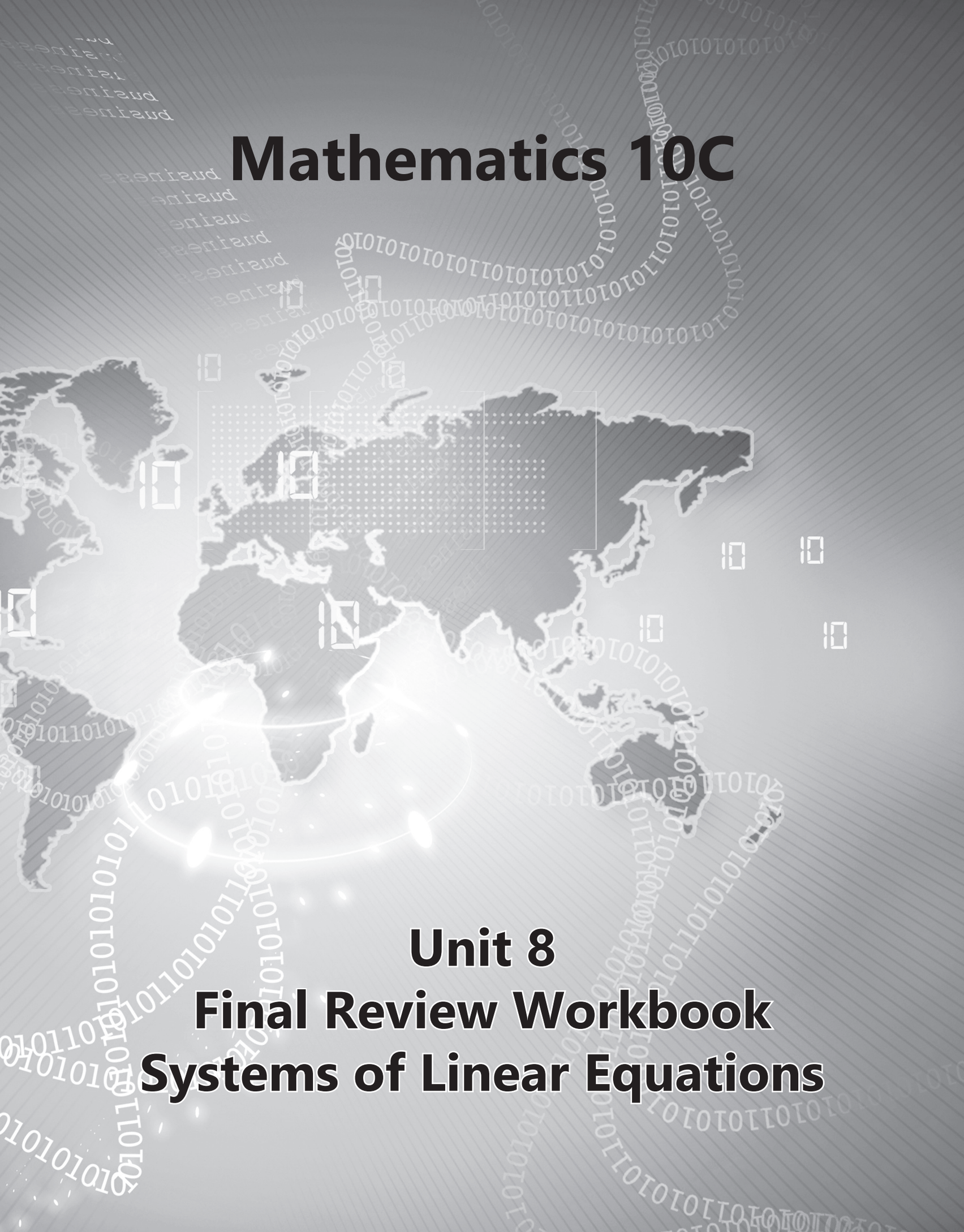

Mathematics 10C

Unit 8
Final Review Workbook
Systems of Linear Equations

Unit 8: Systems of Linear Equations Final Review Assignment

Final Review Assignment

(3) 1. Solve the following system graphically using technology. Verify the solution.

$y = 36x - 75$
$y = -49x - 66$

(3) 2. Solve the following system. Verify the solution.

$y = 4x - 11$
$x = 2y - 13$

(3) 3. Solve the following system. Verify the solution.

$$\frac{1}{2}m + \frac{3}{4}n = 13$$
$$\frac{5}{6}m - \frac{2}{9}n = 4$$

(2) 4. State a favourite strategy for solving a linear system of equations. Provide step-by-step instructions for the chosen strategy such that another Math 10C student could easily follow.

(2) 5. Describe the advantages of verifying solutions to systems of equations graphically and algebraically.

6. A system of linear equations can have zero, one, or an infinite number of solutions.

(2) a. Describe a rule that can be used to determine the number of solutions a system of linear equations will have.

b. Use the base example of two people walking to describe a system of two linear equations that has

(1) i. 0 solutions

(1) ii. 1 solution

(1) iii. an infinite number of solutions

(1) 7. Describe a problem that could be solved using the following system.

$3A + 4B = 84$
$2A + 5B = 91$

(3) 8. Ari has been paying attention to the number of calories she burns while exercising. One day she spent three hours hiking and four hours canoeing, and she calculated that she burned 2 338 calories. The next day, she hiked for seven hours and canoed for one hour, and she calculated that she burned 3 322 calories. How many calories per hour does Ari burn doing each exercise?

(3) 9. A factory is currently running at 85% of its original capacity, and management is considering upgrading the equipment. The upgrade will take 6 months, during which time the factory will not run at all. Once complete, the factory's output will increase to 120% of the original capacity. After how long would the upgraded factory's production match the current 85% production? In other words, how long will it take for the factory to make up for the loss of 6 months? (Hint: The problem can be solved using a system of equations, but any method is acceptable as long as it is justified. If you get stuck, try letting the factory's original output be 100 units per month.)

/25

Unit 8: Systems of Linear Equations

Unit Checkpoint

Use the *Check Point* to check and reflect before completing the *Test Your Understanding Quiz* for *Unit 8: Systems of Linear Equations*.

I understand how to:

***Unit 8* Concepts**	Place a checkmark in the appropriate column		
	Yes	**No**	**Maybe**
Determine the solution to a system of linear equations graphically, without technology			
Determine the solution to a system of linear equations graphically, with technology			
Explain the meaning of the point of intersection on the graph of a system of linear equation			
Solve a system of linear equations by substitution, and verify the solution			
Solve a system of linear equations by elimination, and verify the solution			
Explain why a system of equations may have no solution, one solution, or an infinite number of solutions			
Describe a strategy for solving a system of linear equations			
Model a situation using a system of linear equations			
Relate a system of linear equations to the context of a problem			
Solve a problem that involves a system of linear equations			

If you have any concerns from the *Check Point*, please refer to *Enhance Your Understanding* in the *Module* for designated practice questions and their solutions to help you improve your skills.

Contact your teacher for assistance and clarification as needed.

You have completed the *Lessons* and *Workbooks* for *Unit 8: Systems of Linear Equations and Graphs*. Please review all work in *Unit 8 Final Review Workbook* to ensure it is your best work. Submit *Unit 8 Final Review Workbook* for marking at this time and continue your training with the *Unit 9: Course Review*.

Complete the *Test Your Understanding Quiz* when you have reviewed the feedback provided by your marker for *Workbooks 8.1, 8.2, 8.3, 8.4, Unit 8 Final Review* and *Course Evaluation Questions*.

Course Evaluation Questions

Please answer the following questions to help us improve the course. Please consider all aspects of the course in your responses, such as examples, practice exercises, videos, applets, assignments, quizzes, exams, the eight units, and the course review. The more detail you can provide, the more helpful your responses will be.

1. Why did you take Math 10C?

2. What did you like about the course?

3. What didn't you like about the course?

4. In what part of the course did you learn the most?

5. What part(s) of the course did you find easiest to learn? The hardest to learn?

6. If you could make a change to the course, what would it be?

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