ALBERTA DISTANCE LEARNING CENTRE
Mathematics 10C
MAT1791
Workbook 6.4

Student's Questions and Comments

FOR STUDENT USE ONLY
Student Name: _____

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Assigned to _____   **Marked by** _____   **Date received** _____

Summary

	Marks Earned	Total Possible Marks	Percent
6.4 Practice – IV	**I have _____ /8 and _____ %.**		
Lesson 6.4 Assignment		19	

Teacher's Comments:

_____

Teacher's Signature

REVISED February 2019

CANADIAN CATALOGUING IN PUBLICATION DATA

MAT1791
Mathematics 10C
ISBN: 978-1-927090-75-6
Workbook 6.4

4601 - 63 Avenue
Barrhead, Alberta Canada T7N 1P4

Printed in Canada

Alberta Distance Learning Centre website:

http://www.adlc.ca

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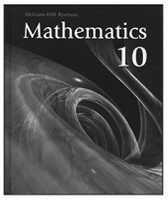

Mathematics 10

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Practice Assessment

The *Practice* section provides exercise questions and allows you to self-reflect on your conceptual understanding of the *Lesson* skills. You will mark your *Practice* work in each *Workbook* according to the following rubric.

Category	Strategy and Procedures	Response to Questions
	I have…	*I have…*
4	• used efficient and effective strategies to solve the problem(s)	• provided detailed explanations and followed directions appropriately to complete all questions
3	• used effective strategies to solve the problem(s)	• provided clear explanations and followed directions adequately to complete most questions
2	• used effective strategies inconsistently to solve the problem(s)	• provided incomplete explanations and followed some directions to complete a few questions
1	• used ineffective strategies to solve the problem(s)	• provided incomplete explanations and have not followed directions to complete some questions

Complete *Practice* exercises using your best work, showing all relevant steps needed to arrive at your solution. Refer to the *Module* to review lesson instructions. Contact your teacher for assistance or clarification as needed, or to investigate the topic further.

Check and correct your work using the solutions provided in *Appendix* in the *Module*.

Practice is worth 8 marks.

After you have assessed your work, reflect on your understanding of the concepts in the table provided at the end of each *Practice* section.

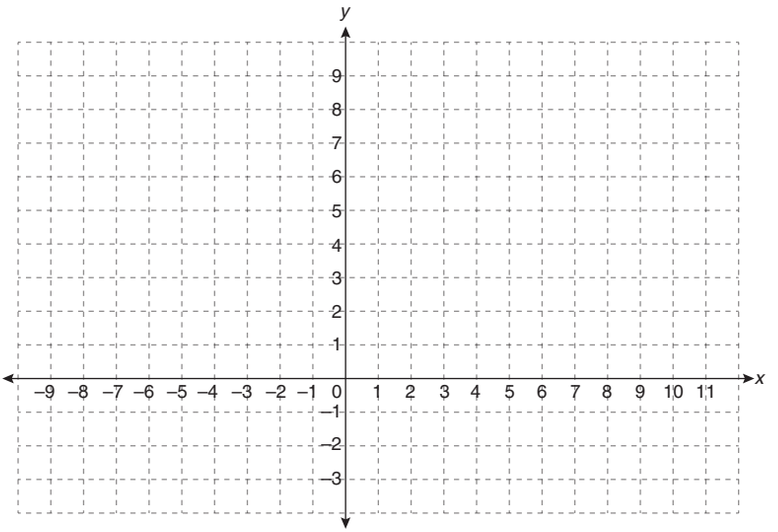
Lesson 6.4: Linear Functions

Complete the *Practice* below. When you have completed all the questions for *Lesson 6.4 Practice – IV* with your best work, mark your work by first comparing your answers to the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.

Practice – IV

1. Sketch the graph of $y = -\frac{1}{2}x + 3$.

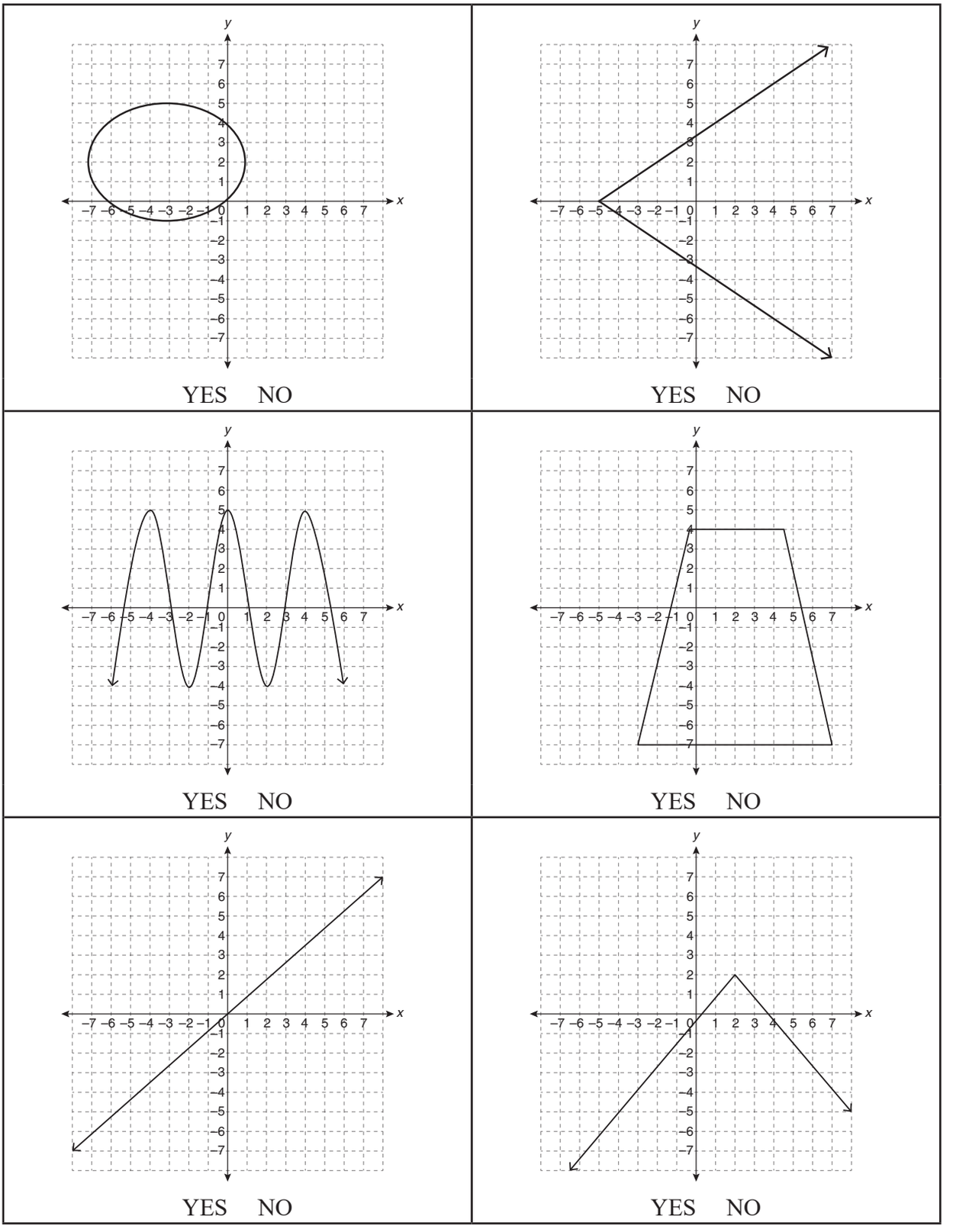
x	y



2. Which set of ordered pairs does **not** represent a function? Explain.

   a. $\{(3,6),(4,9),(5,12),(3,0)\}$
   b. $\{(5,-6),(6,8),(8,10),(9,-10)\}$
   c. $\{(-3,-5),(-4,-8),(-5,-9),(-6,0)\}$
   d. $\{(7,0),(4,-1),(-6,1),(-3,0)\}$

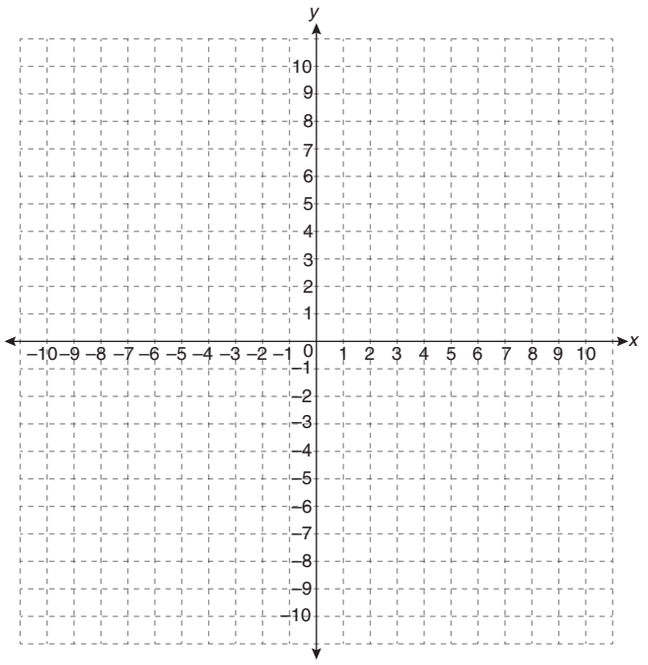
3. Circle YES if the graph of the relation represents a function or NO if it does not represent a function.



4. Given $g(x) = 5x - 10$,

   a. make a table of values for the domain $\{-1, 0, 1, 2, 3\}$.

   b. graph the function $g(x) = 5x - 10$.



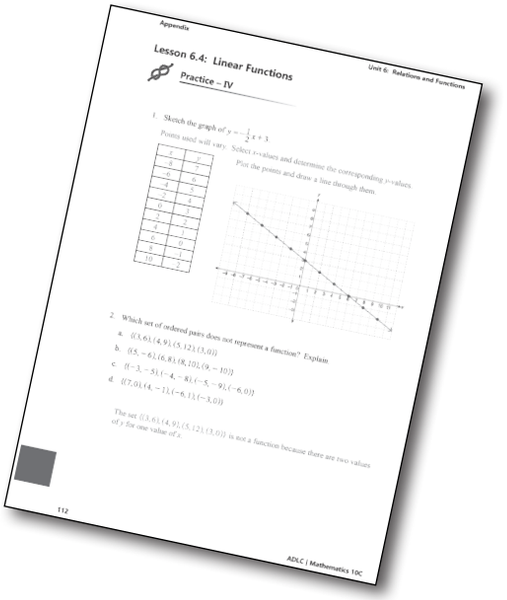
Mark your work for *Lesson 6.4 Practice – IV* using the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.

Transfer your self-assessed mark to the front cover of the *Workbook*.

My self-assessed mark on *Lesson 6.4 Practice – IV* is _____.

Reflect on your understanding of the concepts addressed in the *Practice* exercises in the table provided.

Question Number	Got it!	Almost there…	Need to retry or ask for help.
1			
2			
3			
4			


Appendix

Lesson 6.4: Linear Functions

Unit 6: Relations and Functions

Practice – IV

1. Sketch the graph of $y = -\frac{1}{2}x + 3$.

Points used will vary. Select x-values and determine the corresponding y-values.

Plot the points and draw a line through them.

2. Which set of ordered pairs does not represent a function? Explain.

a. $\{(3,6),(4,9),(5,12),(3,0)\}$

b. $\{(5,-6),(6,8),(8,12),(9,-10)\}$

c. $\{(-3,-5),(-4,-8),(-5,-9),(-6,0)\}$

d. $\{(7,0),(4,-1),(-6,1),(-3,0)\}$

The set $\{(3,6),(4,9),(5,12),(3,0)\}$ is not a function because there are two values of y for one value of x.

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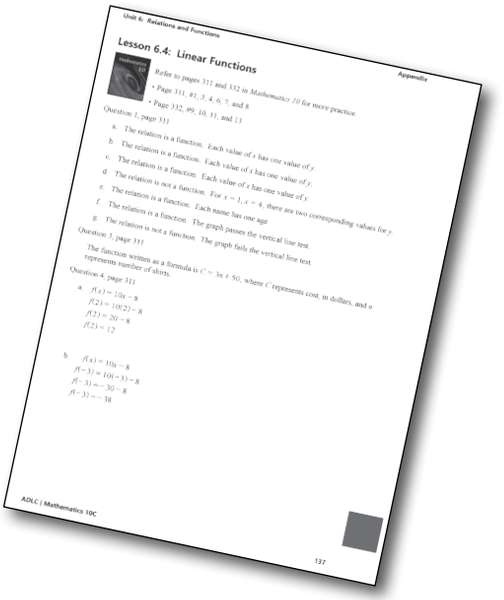
You may proceed to *Explore Your Understanding Assignment* on the next page of this *Workbook*.

Note: Before you complete *Explore Your Understanding*, you may review your skills and get more practice by completing the following problems in *Mathematics 10*.

- Page 311, #1, 3, 4, 6, 7, and 8
- Page 332, #9, 10, 11, and 13


Unit 6: Relations and Functions

Lesson 6.4: Linear Functions

Appendix

Refer to pages 311 and 332 in *Mathematics 10* for more practice.

- Page 311, #1, 3, 4, 6, 7, and 8
- Page 332, #9, 10, 11, and 13

Question 1, page 311

a. The relation is a function. Each value of x has one value of y.

b. The relation is a function. Each value of x has one value of y.

c. The relation is a function. Each value of x has one value of y.

d. The relation is not a function. Each value of x has one value of y.

e. The relation is a function. For $x = 1, x = 4$, there are two corresponding values for y.

f. The relation is a function. Each name has one age.

g. The relation is not a function. The graph passes the vertical line test.

Question 3, page 311

The function written as a formula is $C = 3n + 50$, where C represents cost, in dollars, and n represents number of shirts.

Question 4, page 311

a. $f(x) = 10x - 8$
$f(2) = 10(2) - 8$
$f(2) = 20 - 8$
$f(2) = 12$

b. $f(x) = 10x - 8$
$f(-3) = 10(-3) - 8$
$f(-3) = -30 - 8$
$f(-3) = -38$

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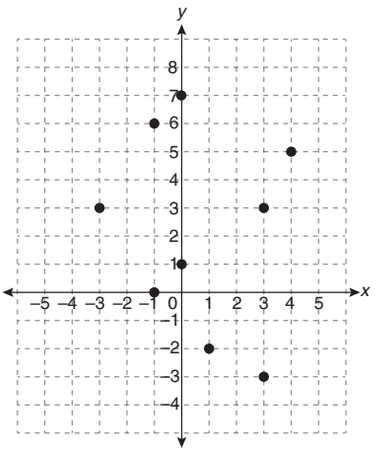
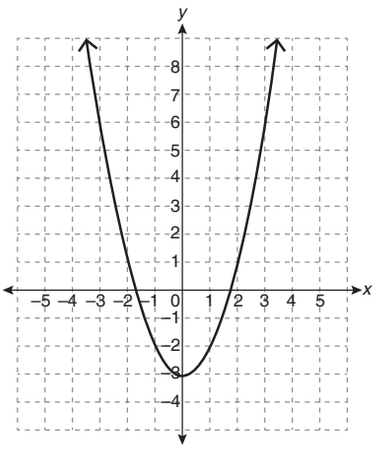
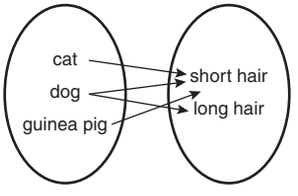
Check your work in *Enhance Your Understanding*.

Lesson 6.4: Linear Functions

Explore Your Understanding Assignment

(4) 1. Determine whether the relations below represent functions. Explain how you know.

Relation	How you know:
$\{(-2,3),(-5,10),(-7,16),(-9,22)\}$	
	
	
	

2. If $f(x) = 4x - 11$, determine

(2) a. $f\left(\frac{1}{4}\right)$

(2) b. $f(-3)$

(2) c. x if $f(x) = 53$

3. A list of numbers is given.

   $-9, 1, 0, -7, 5, 1$

   Using any combination of the numbers,

(1) a. generate a set of ordered pairs that represents a function.

   {(_____,_____), (_____,_____), (_____,_____)}

(1) b. generate a set of ordered pairs that does not represent a function.

   {(_____,_____), (_____,_____), (_____,_____)}

4. The equation $C = 10n + 45$ represents the total cost, C dollars, for a sports banquet, when n people attend.

(2) a. Describe the function in words and then express the function using function notation.

   _____

   _____

   _____

(3) b. Determine $C(250)$ and explain what the result represents.

(2) c. If the total cost of the banquet is $C(n) = 4\,295$, find n, the number of people attending the banquet.

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