

ALBERTA DISTANCE LEARNING CENTRE
Mathematics 10C
MAT1791
Workbook 4.3

**Student's Questions
and Comments**

FOR STUDENT USE ONLY

Student Name:

FOR ADLC USE ONLY

Assigned to

Marked by

Date received

Summary

	Marks Earned	Total Possible Marks	Percent
4.3 Practice – III	I have ____ /8 and ____ %.		
Lesson 4.3 Assignment		20	

Teacher's Comments:

Teacher's Signature

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4601 - 63 Avenue
Barrhead, Alberta Canada T7N 1P4

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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>I have...</i>	<i>I have...</i>
4	<ul style="list-style-type: none"> used efficient and effective strategies to solve the problem(s) 	<ul style="list-style-type: none"> provided detailed explanations and followed directions appropriately to complete all questions
3	<ul style="list-style-type: none"> used effective strategies to solve the problem(s) 	<ul style="list-style-type: none"> provided clear explanations and followed directions adequately to complete most questions
2	<ul style="list-style-type: none"> used effective strategies inconsistently to solve the problem(s) 	<ul style="list-style-type: none"> provided incomplete explanations and followed some directions to complete a few questions
1	<ul style="list-style-type: none"> used ineffective strategies to solve the problem(s) 	<ul style="list-style-type: none"> 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 4.3: The Irrational Number System

Complete the *Practice* below. When you have completed all the questions for *Lesson 4.3 Practice – III* 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 – III

1. What is the difference between Rational, Irrational, and Real Numbers?

2. Using benchmarks, what is the approximate value of $\sqrt[3]{2185}$?

3. Classify each of the following numbers according to the subsets to which they belong.

a. $-\sqrt[3]{-343}$

b. $-\sqrt{81}$

c. $-\frac{\sqrt[3]{64}}{3}$

4. Arrange the following numbers from greatest to least.
 $-\sqrt[3]{-8}$, $\sqrt[3]{-8}$, $\sqrt[3]{-27}$, $-\sqrt[3]{1}$, $\sqrt[3]{27}$

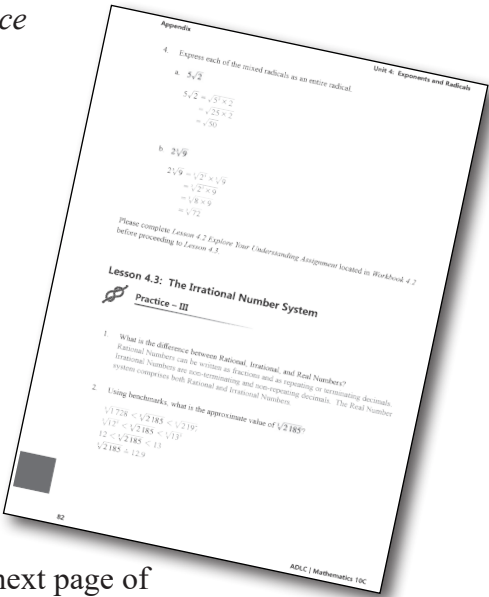
Mark your work for *Lesson 4.3 Practice – III* using the solutions provided in the *Appendix*. Then, apply the rubric found at the beginning of the *Workbook*.

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

My self-assessed mark on *Lesson 4.3 Practice – III* 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			

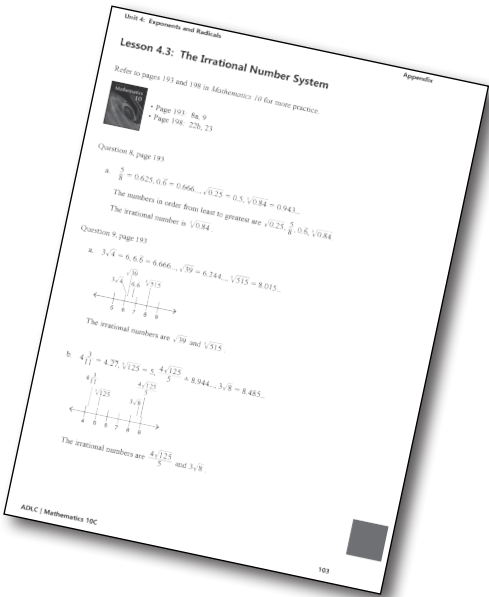


You may proceed to *Explore Your Understanding Assignment* on the next page of this *Workbook*.

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 192, #8a and 9
- Page 198, #22b and 23

Check your work in *Enhance Your Understanding*.



Lesson 4.3: The Irrational Number System



Explore Your Understanding Assignment

- ③ 1. Visually organize the Real Number system and its subsets in a manner other than the Venn diagram shown in the *Lesson*.
- ④ 2. Danny, a grade 10 math student, completed the following chart. Review Danny’s work. If there are errors, explain, and correct them.

	Natural	Whole	Integers	Rational	Irrational	Real
$-3\frac{3}{4}$	✓		✓	✓		✓
$\sqrt{11}$				✓	✓	
125	✓	✓	✓	✓		✓
$4^3\sqrt{125}$	✓	✓	✓	✓		✓
$7.\overline{17}...$					✓	✓

3. Order the following radicals from least to greatest without using a calculator. Show your reasoning.

③ a. $2\sqrt{12}$, $5\sqrt{10}$, $4\sqrt{2}$, $3\sqrt{3}$

④ b. $2^3\sqrt{15}$, $5^3\sqrt{9}$, $4^3\sqrt{5}$, $3^3\sqrt{14}$

4. Using benchmarks, what is the approximate value of

③ a. $\sqrt{42}$

③ b. $\sqrt[3]{50}$

/20