# ALBERTA DISTANCE LEARNING CENTRE
# Mathematics 10C
## MAT1791
## Workbook 4.2

**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 |
|---|---|---|---|
| 4.2 Practice – II | **I have _____ /8 and _____ %.** | | |
| Lesson 4.2 Assignment | | 15 | |

**Teacher's Comments:**

_____

**Teacher's Signature**

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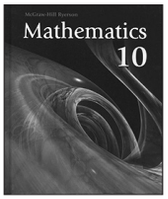


*Mathematics 10*


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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 4.2: Mixed and Entire Radicals

Complete the *Practice* below. When you have completed all the questions for *Lesson 4.2 Practice – II* 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 – II

1. Without the use of a calculator, evaluate $\sqrt{250\,000}$.

2. Evaluate the following.

   a. $-\sqrt[3]{27}$

   b. $\sqrt[3]{\frac{125}{512}}$

3. Simplify.

   a. $\sqrt{72}$

   b. $\sqrt[3]{24}$

4. Express each of the mixed radicals as an entire radical.

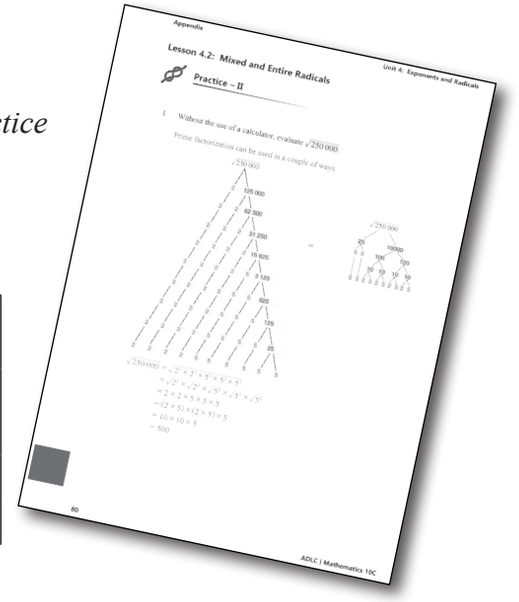
   a. $5\sqrt{2}$

   b. $2\sqrt[3]{9}$

Mark your work for *Lesson 4.2 Practice – II* 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 4.2 Practice – II* is _____.


Appendix

Lesson 4.2: Mixed and Entire Radicals

Unit 4: Exponents and Radicals

Practice – II

1. Without the use of a calculator, evaluate $\sqrt{250\,000}$.

Prime factorization can be used in a couple of ways.

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

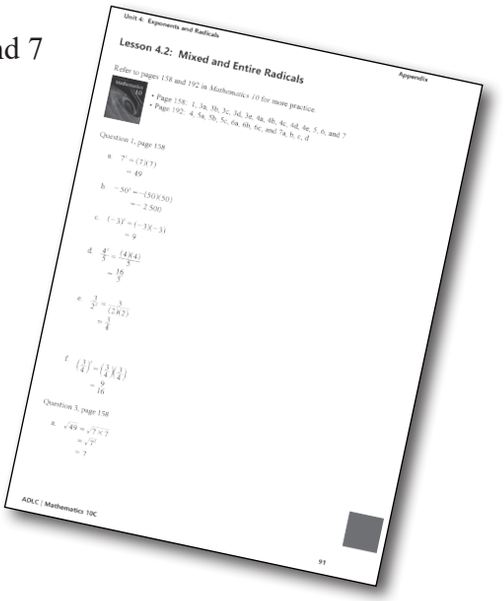
| Question Number | Got it! | Almost there… | Need to retry or ask for help. |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

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 158, #1, 3a, 3b, 3c, 3d, 3e, 4a, 4b, 4c, 4d, 4e, 5, 6, and 7
- Page 192, #4, 5a, 5b, 5c, 6a, 6b, 6c, 7a, 7b, and 7c

Check your work in *Enhance Your Understanding*.


Unit 4: Exponents and Radicals

Lesson 4.2: Mixed and Entire Radicals

Appendix

Refer to pages 158 and 192 in *Mathematics 10* for more practice.

- Page 158: 1, 3a, 3b, 3c, 3d, 3e, 4a, 4b, 4c, 4d, 4e, 5, 6, and 7
- Page 192: 4, 5a, 5b, 5c, 6a, 6b, 6c, and 7a, b, c, d

Question 1, page 158

Question 3, page 158

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# Lesson 4.2: Mixed and Entire Radicals

## Explore Your Understanding Assignment

(1) 1. a. Which of the following numbers is both a perfect square and a perfect cube?

i. 12 544 ii. 531 441 iii. 456 235

(2) b. Show that the number of your choice is a perfect square and a perfect cube.

(4) 2. Without using a calculator, determine whether 1 728 is a perfect square, a perfect cube, or neither.

(2) 3. Express $4 \cdot \sqrt[3]{\frac{2}{3}}$ as an entire radical.

(3) 4. Without a calculator, simplify $\sqrt[3]{1024}$.

(3) 5. A cube has a volume of 216 $in^3$. Determine the area of one face of the cube.

**/15**