Practice Assessment

Practice provides practice and allows you to self-reflect on your conceptual understanding of the *Lesson* skills. You will mark your work for *Practice* 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 2: Solutions* in the *Module*.

Practice is worth 8 marks; your mark can help you gauge your understanding of *Lesson* material.

After you have assessed your work, reflect on your understanding of the concepts addressed in the *Practice* exercises in the table provided.

Lesson 3.3: Radical Equations

Complete the *Practice* below. When you have completed all the questions for *Lesson 3.3 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. Solve the following radical equations. Be sure to indicate the restrictions on the variable, and verify the solution(s).

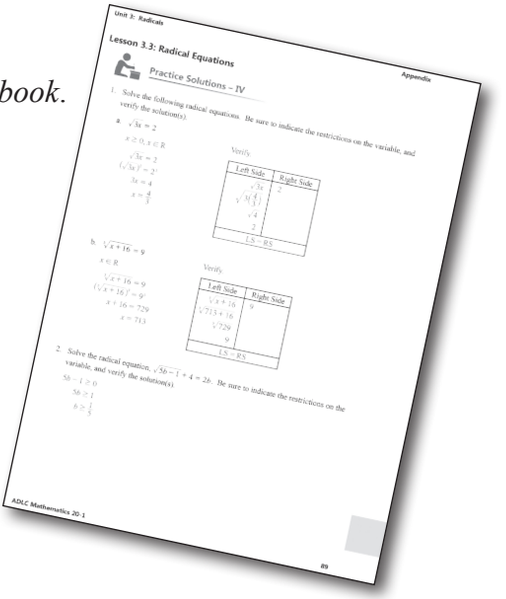
   a. $\sqrt{3x} = 2$

   b. $\sqrt[3]{x+16} = 9$

2. Solve the radical equation $\sqrt{5b-1}+4=2b$. Be sure to indicate the restrictions on the variable, and verify the solution(s).

3. Solve the radical equation $\sqrt{2x-3}+2=\sqrt{6x-5}$, $x \geq \frac{3}{2}$. Show all work, and verify the solution(s).

Mark your work for *Lesson 3.3 Practice – IV* using the solutions provided in *Appendix 2: Solutions*. Then, apply the rubric found at the beginning of the *Workbook*.


Unit 3: Radicals

Lesson 3.3: Radical Equations

Appendix

Practice Solutions – IV

1. Solve the following radical equations. Be sure to indicate the restrictions on the variable, and verify the solution(s).

a. $\sqrt{3x} = 2$

$x \geq 0, x \in R$

$(\sqrt{3x})^2 = 2^2$

$3x = 4$

$x = \frac{4}{3}$

Verify:

Left Side	Right Side
$\sqrt{3x}$	
$\sqrt{3(\frac{4}{3})}$	
$\sqrt{4}$	
2	

LS = RS

b. $\sqrt{x+16} = 9$

$x \in R$

$(\sqrt{x+16})^2 = 9^2$

$x + 16 = 729$

$x = 713$

Verify:

Left Side	Right Side
$\sqrt{x+16}$	
$\sqrt{713+16}$	9
$\sqrt{729}$	
9	

LS = RS

2. Solve the radical equation, $\sqrt{5b-1} + 4 = 2b$. Be sure to indicate the restrictions on the variable, and verify the solution(s).

$5b - 1 \geq 0$

$5b \geq 1$

$b \geq \frac{1}{5}$

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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.	Similar questions from ***Pre-Calculus 11***
1				p. 300 #3, 7ab
2				p. 300 #4ab, 6ab, 8cd
3				p. 301 #9ac, 10bd

Please return to *Lesson 3.3* to continue your work in *Unit 3: Radicals*.