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 5.3: Rational Equations

Complete the *Practice* below. When you have completed all the questions for *Lesson 5.3 Practice – IV* with your best work, mark your work by first comparing your answers to the solutions provided in *Appendix 2: Solutions*. Then, apply the rubric found at the beginning of the *Workbook*.

Practice – IV

1. Solve the rational equations. Verify the solution(s).

   a. $\frac{3x+7}{4x-1} = \frac{27}{5}$

b. $\frac{8}{t} + \frac{t}{4} = 3$

c. $\frac{3}{x-2}+\frac{2}{x+2}=\frac{17}{5}$

2. Solve the rational equations. Verify the solution(s).

   a. $\dfrac{3}{x-2} - \dfrac{4}{x-3} = \dfrac{-6}{x^2-5x+6}$

b. $\dfrac{3c^2 - c - 2}{c^2 - 1} = \dfrac{4c - 1}{c - 1} + \dfrac{c - 3}{c + 1}$

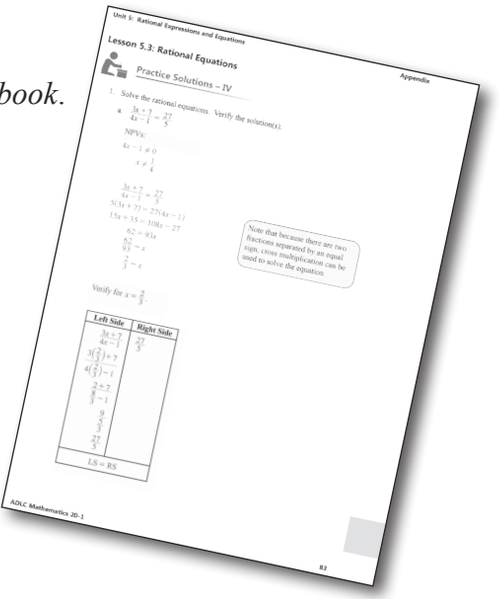
3. Solve the rational equation $\frac{w}{w+3} - 3 = \frac{-6}{w^2 - 9}$. Round the answer to the nearest hundredth, and verify the solution(s).

4. Misty solved the rational equation $\frac{4c+17}{c^2+c-6}=\frac{5}{c-2}$. She says the answer is $c=2$. Explain why Misty is right or wrong.

Mark your work for *Lesson 5.3 Practice – IV* using the solutions provided in *Appendix 2: Solutions*. 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 5.3 Practice – IV* is _____.


Unit 5: Rational Expressions and Equations

Lesson 5.3: Rational Equations

Appendix

Practice Solutions – IV

1. Solve the rational equations. Verify the solution(s).

a. $\frac{3x+7}{4x-1} = \frac{27}{5}$

NPVs:

$4x - 1 \neq 0$

$x \neq \frac{1}{4}$

$\frac{3x+7}{4x-1} = \frac{27}{5}$

$5(3x+7) = 27(4x-1)$

$15x + 35 = 108x - 27$

$62 = 93x$

$\frac{62}{93} = x$

$\frac{2}{3} = x$

Note that because there are two fractions separated by an equal sign, cross multiplication can be used to solve the equation.

Verify for $x = \frac{2}{3}$:

Left Side	Right Side
$\frac{3x+7}{4x-1}$	$\frac{27}{5}$
$\frac{3(\frac{2}{3})+7}{4(\frac{2}{3})-1}$	
$\frac{2+7}{\frac{8}{3}-1}$	
$\frac{9}{\frac{5}{3}}$	
$\frac{27}{5}$	

LS = RS

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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. 348 #2
2				p. 348 #3
3				p. 348 #6
4				p. 348 #4

Please return to *Lesson 5.3* to continue your work in *Unit 5: Rational Expressions and Equations*.